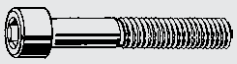
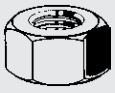


1 Parafusos sextavado exterior



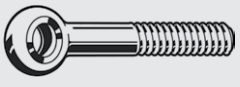
2 Produtos sextavados interiores



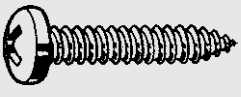
3 Porcas/porcas de rebitar / insertos



4 Varão roscado / pernos



5 Produtos olhal / gancho

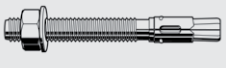


6 Parafusos

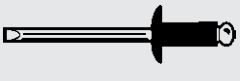
I Indice



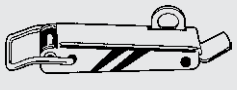
7 Anilha



8 Ancoragem



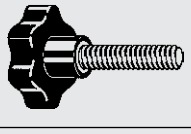
9 Rebites / cavilhas



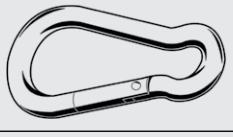
10 Parafusos de segurança / Sistemas de fixação



11 Sortidos



12 Sistemas de engenharia / peças para máquinas



13 Marítimo produtos

T Tecnologia de fixação

Parafusos sextavado exterior 1


Página 1-2
ISO 4014
Métrico


Página 1-18
DIN 601/555
(1987)
Com porca sextavada métrica


Página 1-19
ISO 4017
Métrico


Página 1-35
DIN ≈933
Com fenda métrico


Página 1-36
ISO 8765
Métrico passo fino


Página 1-39
ISO 8676
Métrico passo fino


Página 1-41
ASME
≈B18.2.1
UNC

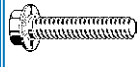

Página 1-52
ASME
≈B18.2.1
UNF


Página 1-58
DIN ≈931
(1954)
BSW


Página 1-59
BS ≈1083
(1965)
BSF


Página 1-60
DIN ≈933
(1954)
BSW


Página 1-61
BS ≈1083
(1965)
BSF


Página 1-61
RIPP auto bloqueantes métrico


Página 1-63
Auto bloqueantes métrico


Página 1-65
DIN 6921
Métrico


Página 1-66
DIN ≈6921
Rosca total Métrico


Página 1-67
DIN ≈6921
Métrico


Página 1-69
DIN 6921
Métrico passo fino


Página 1-70
DIN 609
Com rosca comprida métrico

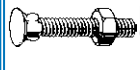

Página 1-71
DIN 603
Sem porca sextavada métrico


Página 1-73
DIN ≈603
Sem porca, métrico totalmente roscado

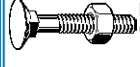

Página 1-74
DIN 603/555
(1987)
Com porca sextavada métrico

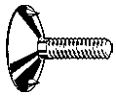

Página 1-76
ASME
B18.5.2.3M
Parafuso cabeça UNC


Página 1-79
DIN ≈608
Com arreigada quadrada curto métrico


Página 1-79
DIN - / 555
(1987)
SEHA Métrico


Página 1-80
DIN 604/555
(1987)
Com porca sextavada métrico


Página 1-81
DIN 605/555
(1987)
Com arreigada quadrada e porca sextavada métrico


Página 1-81
DIN 15237
Parafuso de elevação Métrico


Página 1-82
DIN 15237
Para parafusos de elevação

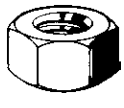

Página 1-83
DIN 479
Com ponta métrico


Página 1-84
com cabeça quadrada baixa UNC


Página 1-85
DIN 561
Com cabeça reduzida e ponta Métrico

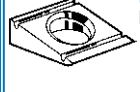

Página 1-86
Parafuso Trackshoe UNF


Página 1-88
EN 14399-4
PEINER HV


Página 1-90
EN 14399-4
PEINER HV

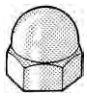

Página 1-91
EN 14399-6
PEINER HV


Página 1-92
DIN 6917
PEINER para secções em I HV


Página 1-92
DIN 6918
PEINER para secções em U HV

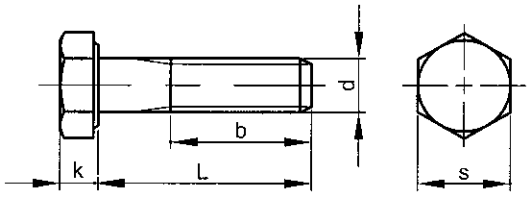

Página 1-93
EN 15048
Conjunto de montagem estrutural, marca CE


Página 1-95
EN 15048
Conjunto de montagem estrutural, marca CE

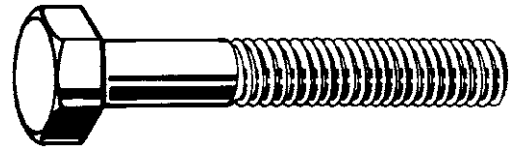

Página 1-97
Plástico

1

Parafuso cabeça sextavada



ISO	**4014**
DIN	931
NEN	1555
ASME	B18.2.3.1M
NF	E25-112



Dados técnicos

d	b (min.): L≤125mm	b (min.): 125mm<L≤200mm	b (min.): L>200mm	k	P	s
M4	14	-	-	2.8	0.7	7
M5	16	22	-	3.5	0.8	8
M6	18	24	-	4	1	10
M7	20	26	-	4.8	1	11
M8	22	28	-	5.3	1.25	13
M10 (DIN)	26	32	45	6.4	1.5	17
M10	26	-	-	6.4	1.5	16
M12 (DIN)	30	36	49	7.5	1.75	19
M12	30	36	-	7.5	1.75	18
M14 (DIN)	34	40	53	8.8	2	22
M14	34	40	-	8.8	2	21
M16	38	44	57	10	2	24
M18	42	48	61	11.5	2.5	27
M20	46	52	65	12.5	2.5	30
M22 (DIN)	50	56	69	14	2.5	32
M22	50	56	69	14	2.5	34
M24	54	60	73	15	3	36
M27	60	66	79	17	3	41
M30	66	72	85	18.7	3.5	46
M33	72	78	91	21	3.5	50
M36	78	84	97	22.5	4	55
M39	84	90	103	25	4	60
M42	90	96	109	26	4.5	65
M45	96	102	115	28	4.5	70
M48	102	108	121	30	5	75
M52	-	116	119	33	5	80
M56	-	124	137	35	5.5	85
M60	-	132	145	38	5.5	90
M64	-	140	153	40	6	95

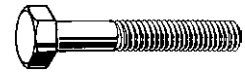
- Dimensão ‘b’ é um valor de referência, consiste no comprimento mínimo da parte roscada.

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.		Cor	Código	Página
M	Sextavado	Aço	8.8				01000	1-3
M	Sextavado	Aço	8.8	Zn			01200	1-5
M	Sextavado	Aço	8.8	Passiv. amar.			01220	1-6
M	Sextavado	Aço	8.8	FLZNNC-NC6			01226	1-7
M	Sextavado	Aço	8.8	Galv. Q.	ISO métrico		01400	1-8
M	Sextavado	Aço	8.8	Galv. Q.	oversized		01420	1-9
M	Sextavado	Aço	10.9				04100	1-10
M	Sextavado	Aço	10.9	FLZNNC-NC6			04105	1-11
M	Sextavado	Aço	12.9				04108	1-11
M	Sextavado	Aço	5.6		equipamentos sob pressão		08750	1-12
M	Sextavado	INOX A2	70				51000	1-12
M	Sextavado	INOX A4	70				55000	1-14
M	Sextavado	INOX A4	80				53510	1-16
M	Sextavado	Aço 25CrMo4+QT	KG				23010	1-17
M	Sextavado	Plástico PA	PA 6.6			Branco	56090	1-18

01000 Parafuso cabeça sextavada A01A

Rosca Métrica
Material Aço
Classe 8.8



RoHS

d x L	✉	Ref. do artigo
M4X25	500	01000.040.025
M4X30	500	01000.040.030
M4X40	500	01000.040.040
M5X30	200	01000.050.030
M5X35	200	01000.050.035
M5X40	200	01000.050.040
M5X45	200	01000.050.045
M5X50	200	01000.050.050
M5X55	200	01000.050.055
M5X60	200	01000.050.060
M5X70	200	01000.050.070
M6X30	200	01000.060.030
M6X35	200	01000.060.035
M6X40	200	01000.060.040
M6X45	200	01000.060.045
M6X50	200	01000.060.050
M6X55	200	01000.060.055
M6X60	200	01000.060.060
M6X65	200	01000.060.065
M6X70	200	01000.060.070
M6X75	200	01000.060.075
M6X80	200	01000.060.080
M6X90	200	01000.060.090
M7X30	200	01000.070.030
M7X35	200	01000.070.035
M7X40	200	01000.070.040
M7X50	200	01000.070.050
M7X60	200	01000.070.060
M8X35	200	01000.080.035
M8X40	200	01000.080.040
M8X45	200	01000.080.045
M8X50	200	01000.080.050
M8X55	200	01000.080.055
M8X60	200	01000.080.060
M8X65	200	01000.080.065
M8X70	200	01000.080.070
M8X75	200	01000.080.075
M8X80	200	01000.080.080
M8X85	100	01000.080.085
M8X90	100	01000.080.090
M8X100	100	01000.080.100
M8X110	100	01000.080.110
M8X120	100	01000.080.120
M8X130	100	01000.080.130
M8X140	50	01000.080.140
M8X150	50	01000.080.150
M10X35/S=17	100	01000.100.035
M10X40/S=17	100	01000.100.040
M10X45/S=17	100	01000.100.045
M10X50/S=17	100	01000.100.050
M10X55/S=17	100	01000.100.055
M10X60/S=17	100	01000.100.060
M10X65/S=17	100	01000.100.065
M10X70/S=17	100	01000.100.070
M10X75/S=17	100	01000.100.075
M10X80/S=17	100	01000.100.080
M10X85/S=17	100	01000.100.085
M10X90/S=17	100	01000.100.090
M10X100/S=17	100	01000.100.100
M10X110/S=17	50	01000.100.110
M10X120/S=17	50	01000.100.120
M10X130/S=17	50	01000.100.130
M10X140/S=17	50	01000.100.140
M10X150/S=17	50	01000.100.150
M10X160/S=17	50	01000.100.160
M10X170/S=17	50	01000.100.170
M10X180/S=17	50	01000.100.180
M10X200/S=17	50	01000.100.200
M12X40/S=19	100	01000.120.040
M12X45/S=19	100	01000.120.045
M12X50/S=19	100	01000.120.050
M12X55/S=19	100	01000.120.055
M12X60/S=19	100	01000.120.060
M12X65/S=19	50	01000.120.065
M12X70/S=19	50	01000.120.070
M12X75/S=19	50	01000.120.075
M12X80/S=19	50	01000.120.080
M12X85/S=19	50	01000.120.085
M12X90/S=19	50	01000.120.090
M12X100/S=19	50	01000.120.100
M12X110/S=19	50	01000.120.110
M12X120/S=19	50	01000.120.120
M12X130/S=19	50	01000.120.130
M12X140/S=19	50	01000.120.140
M12X150/S=19	50	01000.120.150
M12X160/S=19	25	01000.120.160
M12X170/S=19	25	01000.120.170
M12X180/S=19	25	01000.120.180
M12X190/S=19	25	01000.120.190
M12X200/S=19	25	01000.120.200
M12X220/S=19	25	01000.120.220
M12X240/S=19	25	01000.120.240
M12X260/S=19	25	01000.120.260
M12X280/S=19	25	01000.120.280
M14X50/S=22	50	01000.140.050
M14X55/S=22	50	01000.140.055
M14X60/S=22	50	01000.140.060
M14X65/S=22	50	01000.140.065
M14X70/S=22	50	01000.140.070
M14X75/S=22	50	01000.140.075
M14X80/S=22	50	01000.140.080
M14X90/S=22	50	01000.140.090
M14X100/S=22	50	01000.140.100
M14X110/S=22	50	01000.140.110
M14X120/S=22	50	01000.140.120
M14X130/S=22	25	01000.140.130
M14X140/S=22	25	01000.140.140
M14X150/S=22	25	01000.140.150
M14X160/S=22	25	01000.140.160
M14X180/S=22	25	01000.140.180
M14X200/S=22	25	01000.140.200
M16X50	100	01000.160.050
M16X55	50	01000.160.055
M16X60	50	01000.160.060
M16X65	25	01000.160.065
M16X70	25	01000.160.070
M16X75	25	01000.160.075
M16X80	25	01000.160.080
M16X85	25	01000.160.085
M16X90	25	01000.160.090
M16X100	25	01000.160.100
M16X110	25	01000.160.110
M16X120	25	01000.160.120
M16X130	25	01000.160.130
M16X140	25	01000.160.140
M16X150	25	01000.160.150
M16X160	25	01000.160.160
M16X170	25	01000.160.170
M16X180	25	01000.160.180
M16X190	25	01000.160.190
M16X200	25	01000.160.200
M16X210	25	01000.160.210
M16X220	25	01000.160.220
M16X230	25	01000.160.230
M16X240	10	01000.160.240
M16X260	10	01000.160.260
M16X270	10	01000.160.270
M16X280	10	01000.160.280
M16X300	10	01000.160.300
M16X320	10	01000.160.320
M16X340	10	01000.160.340
M16X360	10	01000.160.360
M16X380	10	01000.160.380
M16X400	10	01000.160.400
M18X55	25	01000.180.055
M18X60	25	01000.180.060
M18X65	25	01000.180.065
M18X70	25	01000.180.070
M18X75	25	01000.180.075
M18X80	25	01000.180.080
M18X85	25	01000.180.085
M18X90	25	01000.180.090
M18X100	25	01000.180.100
M18X110	25	01000.180.110
M18X120	25	01000.180.120
M18X130	25	01000.180.130
M18X140	25	01000.180.140
M18X150	25	01000.180.150
M18X160	25	01000.180.160
M18X170	25	01000.180.170
M18X180	10	01000.180.180
M18X200	10	01000.180.200
M18X220	10	01000.180.220
M18X240	10	01000.180.240
M18X260	10	01000.180.260
M18X280	10	01000.180.280
M18X300	10	01000.180.300
M18X320	10	01000.180.320
M20X60	50	01000.200.060
M20X65	25	01000.200.065
M20X70	25	01000.200.070
M20X75	25	01000.200.075
M20X80	25	01000.200.080
M20X85	25	01000.200.085
M20X90	25	01000.200.090
M20X100	25	01000.200.100
M20X110	25	01000.200.110
M20X120	25	01000.200.120
M20X130	25	01000.200.130
M20X140	25	01000.200.140
M20X150	25	01000.200.150
M20X160	10	01000.200.160
M20X170	10	01000.200.170
M20X180	10	01000.200.180
M20X190	10	01000.200.190
M20X200	10	01000.200.200
M20X220	10	01000.200.220
M20X230	10	01000.200.230
M20X240	10	01000.200.240
M20X250	10	01000.200.250
M20X260	10	01000.200.260
M20X280	10	01000.200.280
M20X300	10	01000.200.300
M20X320	5	01000.200.320
M20X340	5	01000.200.340
M20X360	5	01000.200.360
M20X380	5	01000.200.380
M20X400	5	01000.200.400
M22X70/S=32	25	01000.220.070
M22X75/S=32	25	01000.220.075
M22X80/S=32	25	01000.220.080
M22X90/S=32	25	01000.220.090
M22X100/S=32	10	01000.220.100
M22X110/S=32	10	01000.220.110
M22X120/S=32	10	01000.220.120
M22X130/S=32	10	01000.220.130
M22X140/S=32	10	01000.220.140
M22X150/S=32	10	01000.220.150
M22X160/S=32	10	01000.220.160
M22X170/S=32	10	01000.220.170
M22X180/S=32	10	01000.220.180
M22X190/S=32	10	01000.220.190
M22X200/S=32	5	01000.220.200
M22X220/S=32	5	01000.220.220

01000 Parafuso cabeça sextavada ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M22X240/S=32	5	01000.220.240	M30X400	2	01000.300.400	M42X200	1	01000.420.200
M22X260/S=32	5	01000.220.260	M30X420	2	01000.300.420	M42X220	1	01000.420.220
M22X280/S=32	5	01000.220.280	M30X440	2	01000.300.440	M42X240	1	01000.420.240
M22X300/S=32	5	01000.220.300	M30X480	2	01000.300.480	M42X260	1	01000.420.260
						M42X280	1	01000.420.280
M24X70	25	01000.240.070	M33X100	5	01000.330.100	M42X300	1	01000.420.300
M24X75	25	01000.240.075	M33X110	5	01000.330.110	M42X320	1	01000.420.320
M24X80	25	01000.240.080	M33X120	5	01000.330.120	M42X340	1	01000.420.340
M24X85	25	01000.240.085	M33X130	5	01000.330.130	M42X360	1	01000.420.360
M24X90	10	01000.240.090	M33X140	5	01000.330.140	M42X400	1	01000.420.400
M24X100	10	01000.240.100	M33X150	5	01000.330.150	M42X420	1	01000.420.420
M24X110	10	01000.240.110	M33X160	5	01000.330.160	M42X460	1	01000.420.460
M24X120	10	01000.240.120	M33X170	2	01000.330.170	M42X480	1	01000.420.480
M24X130	10	01000.240.130	M33X180	2	01000.330.180	M42X500	1	01000.420.500
M24X140	10	01000.240.140	M33X190	2	01000.330.190			
M24X150	10	01000.240.150	M33X200	2	01000.330.200	M45X120	1	01000.450.120
M24X160	10	01000.240.160	M33X220	2	01000.330.220	M45X140	1	01000.450.140
M24X170	10	01000.240.170	M33X240	2	01000.330.240	M45X160	1	01000.450.160
M24X180	10	01000.240.180	M33X250	2	01000.330.250	M45X180	1	01000.450.180
M24X190	10	01000.240.190	M33X260	2	01000.330.260	M45X200	1	01000.450.200
M24X200	10	01000.240.200	M33X280	2	01000.330.280	M45X220	1	01000.450.220
M24X210	10	01000.240.210	M33X300	2	01000.330.300	M45X240	1	01000.450.240
M24X220	10	01000.240.220	M33X320	2	01000.330.320	M45X280	1	01000.450.280
M24X240	10	01000.240.240	M33X340	2	01000.330.340	M45X300	1	01000.450.300
M24X250	10	01000.240.250	M33X360	2	01000.330.360	M45X320	1	01000.450.320
M24X260	10	01000.240.260				M45X360	1	01000.450.360
M24X280	10	01000.240.280	M36X100	5	01000.360.100			
M24X300	10	01000.240.300	M36X110	5	01000.360.110	M48X140	1	01000.480.140
M24X320	5	01000.240.320	M36X120	5	01000.360.120	M48X150	1	01000.480.150
M24X340	5	01000.240.340	M36X130	5	01000.360.130	M48X160	1	01000.480.160
M24X360	5	01000.240.360	M36X140	5	01000.360.140	M48X170	1	01000.480.170
M24X380	5	01000.240.380	M36X150	5	01000.360.150	M48X180	1	01000.480.180
M24X400	5	01000.240.400	M36X160	5	01000.360.160	M48X200	1	01000.480.200
M24X420	5	01000.240.420	M36X170	2	01000.360.170	M48X220	1	01000.480.220
M24X440	5	01000.240.440	M36X180	2	01000.360.180	M48X240	1	01000.480.240
M24X450	5	01000.240.450	M36X190	2	01000.360.190	M48X260	1	01000.480.260
			M36X200	2	01000.360.200	M48X280	1	01000.480.280
M27X80	10	01000.270.080	M36X220	2	01000.360.220	M48X300	1	01000.480.300
M27X90	10	01000.270.090	M36X240	2	01000.360.240	M48X320	1	01000.480.320
M27X100	10	01000.270.100	M36X250	2	01000.360.250	M48X360	1	01000.480.360
M27X110	10	01000.270.110	M36X260	2	01000.360.260	M48X400	1	01000.480.400
M27X120	10	01000.270.120	M36X270	2	01000.360.270	M48X500	1	01000.480.500
M27X130	10	01000.270.130	M36X280	2	01000.360.280			
M27X140	10	01000.270.140	M36X300	2	01000.360.300	M52X160	1	01000.520.160
M27X150	10	01000.270.150	M36X320	1	01000.360.320	M52X180	1	01000.520.180
M27X160	10	01000.270.160	M36X340	1	01000.360.340	M52X200	1	01000.520.200
M27X170	5	01000.270.170	M36X360	1	01000.360.360	M52X240	1	01000.520.240
M27X180	5	01000.270.180	M36X380	1	01000.360.380	M52X280	1	01000.520.280
M27X190	5	01000.270.190	M36X400	1	01000.360.400	M52X320	1	01000.520.320
M27X200	5	01000.270.200	M36X420	1	01000.360.420	M52X360	1	01000.520.360
M27X220	5	01000.270.220	M36X440	1	01000.360.440	M52X400	1	01000.520.400
M27X240	5	01000.270.240	M36X460	1	01000.360.460	M52X500	1	01000.520.500
M27X260	5	01000.270.260	M36X480	1	01000.360.480			
M27X280	5	01000.270.280	M36X500	1	01000.360.500	M56X160	1	01000.560.160
M27X300	5	01000.270.300				M56X180	1	01000.560.180
M27X320	5	01000.270.320	M39X110	1	01000.390.110	M56X200	1	01000.560.200
M27X340	5	01000.270.340	M39X120	1	01000.390.120	M56X240	1	01000.560.240
M27X360	5	01000.270.360	M39X130	1	01000.390.130	M56X260	1	01000.560.260
M27X380	5	01000.270.380	M39X140	1	01000.390.140	M56X280	1	01000.560.280
M27X400	5	01000.270.400	M39X150	1	01000.390.150	M56X320	1	01000.560.320
			M39X160	1	01000.390.160	M56X360	1	01000.560.360
M30X90	10	01000.300.090	M39X170	1	01000.390.170	M56X400	1	01000.560.400
M30X100	10	01000.300.100	M39X180	1	01000.390.180	M56X440	1	01000.560.440
M30X110	10	01000.300.110	M39X190	1	01000.390.190			
M30X120	10	01000.300.120	M39X200	1	01000.390.200	M60X160	1	01000.600.160
M30X130	10	01000.300.130	M39X220	1	01000.390.220	M60X180	1	01000.600.180
M30X140	10	01000.300.140	M39X240	1	01000.390.240	M60X200	1	01000.600.200
M30X150	10	01000.300.150	M39X260	1	01000.390.260	M60X240	1	01000.600.240
M30X160	10	01000.300.160	M39X280	1	01000.390.280	M60X280	1	01000.600.280
M30X170	5	01000.300.170	M39X300	1	01000.390.300	M60X320	1	01000.600.320
M30X180	5	01000.300.180	M39X320	1	01000.390.320	M60X360	1	01000.600.360
M30X190	5	01000.300.190	M39X340	1	01000.390.340			
M30X200	5	01000.300.200	M39X360	1	01000.390.360	M64X180	1	01000.640.180
M30X220	5	01000.300.220	M39X400	1	01000.390.400	M64X200	1	01000.640.200
M30X240	5	01000.300.240				M64X240	1	01000.640.240
M30X260	5	01000.300.260	M42X120	1	01000.420.120	M64X280	1	01000.640.280
M30X280	5	01000.300.280	M42X130	1	01000.420.130	M64X320	1	01000.640.320
M30X300	5	01000.300.300	M42X140	1	01000.420.140	M64X360	1	01000.640.360
M30X320	2	01000.300.320	M42X150	1	01000.420.150	M64X400	1	01000.640.400
M30X340	2	01000.300.340	M42X160	1	01000.420.160			
M30X360	2	01000.300.360	M42X180	1	01000.420.180			

01200 Parafuso cabeça sextavada A05A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Zincado



d x L	✉	Ref. do artigo
M4X25	500	01200.040.025
M4X30	500	01200.040.030
M4X35	500	01200.040.035
M4X40	500	01200.040.040
M4X50	500	01200.040.050
M5X30	200	01200.050.030
M5X35	200	01200.050.035
M5X40	200	01200.050.040
M5X45	200	01200.050.045
M5X50	200	01200.050.050
M5X55	200	01200.050.055
M5X60	200	01200.050.060
M5X65	200	01200.050.065
M5X70	200	01200.050.070
M5X80	200	01200.050.080
M6X30	200	01200.060.030
M6X35	200	01200.060.035
M6X40	200	01200.060.040
M6X45	200	01200.060.045
M6X50	200	01200.060.050
M6X55	200	01200.060.055
M6X60	200	01200.060.060
M6X65	200	01200.060.065
M6X70	200	01200.060.070
M6X75	200	01200.060.075
M6X80	200	01200.060.080
M6X90	100	01200.060.090
M6X100	100	01200.060.100
M6X110	100	01200.060.110
M6X120	100	01200.060.120
M6X130	100	01200.060.130
M6X140	100	01200.060.140
M7X30	200	01200.070.030
M7X35	200	01200.070.035
M7X40	200	01200.070.040
M7X45	200	01200.070.045
M7X50	200	01200.070.050
M7X60	200	01200.070.060
M7X70	200	01200.070.070
M7X80	200	01200.070.080
M8X35	200	01200.080.035
M8X40	200	01200.080.040
M8X45	200	01200.080.045
M8X50	200	01200.080.050
M8X55	200	01200.080.055
M8X60	200	01200.080.060
M8X65	200	01200.080.065
M8X70	200	01200.080.070
M8X75	200	01200.080.075
M8X80	200	01200.080.080
M8X85	200	01200.080.085
M8X90	100	01200.080.090
M8X95	100	01200.080.095
M8X100	100	01200.080.100
M8X105	100	01200.080.105
M8X110	100	01200.080.110
M8X120	100	01200.080.120
M8X130	100	01200.080.130
M8X140	50	01200.080.140
M8X150	50	01200.080.150
M8X160	50	01200.080.160
M8X180	50	01200.080.180
M8X200	50	01200.080.200
M10X40/S=17	100	01200.100.040
M10X40/S=16	100	01200.100.041
M10X45/S=17	100	01200.100.045
M10X45/S=16	100	01200.100.046
M10X50/S=17	100	01200.100.050
M10X50/S=16	100	01200.100.051
M10X55/S=17	100	01200.100.055

d x L	✉	Ref. do artigo
M10X55/S=16	100	01200.100.056
M10X60/S=17	100	01200.100.060
M10X60/S=16	100	01200.100.061
M10X65/S=17	100	01200.100.065
M10X65/S=16	100	01200.100.066
M10X70/S=17	100	01200.100.070
M10X70/S=16	100	01200.100.071
M10X75/S=17	100	01200.100.075
M10X75/S=16	100	01200.100.076
M10X80/S=17	100	01200.100.080
M10X80/S=16	100	01200.100.081
M10X85/S=17	100	01200.100.085
M10X85/S=16	100	01200.100.086
M10X90/S=17	100	01200.100.090
M10X90/S=16	100	01200.100.091
M10X95/S=17	100	01200.100.095
M10X100/S=17	100	01200.100.100
M10X100/S=16	100	01200.100.101
M10X110/S=17	50	01200.100.110
M10X110/S=16	50	01200.100.111
M10X120/S=17	50	01200.100.120
M10X120/S=16	50	01200.100.121
M10X130/S=17	50	01200.100.130
M10X140/S=17	50	01200.100.140
M10X150/S=17	50	01200.100.150
M10X155/S=17	50	01200.100.155
M10X160/S=17	50	01200.100.160
M10X170/S=17	50	01200.100.170
M10X180/S=17	50	01200.100.180
M10X190/S=17	50	01200.100.190
M10X200/S=17	50	01200.100.200
M10X210/S=17	25	01200.100.210
M10X220/S=17	25	01200.100.220
M10X240/S=17	25	01200.100.240
M12X40/S=19	100	01200.120.040
M12X45/S=19	100	01200.120.045
M12X45/S=18	100	01200.120.046
M12X50/S=19	100	01200.120.050
M12X50/S=18	100	01200.120.051
M12X55/S=19	100	01200.120.055
M12X55/S=18	100	01200.120.056
M12X60/S=19	100	01200.120.060
M12X60/S=18	100	01200.120.061
M12X65/S=19	50	01200.120.065
M12X65/S=18	50	01200.120.066
M12X70/S=19	50	01200.120.070
M12X70/S=18	50	01200.120.071
M12X75/S=19	50	01200.120.075
M12X75/S=18	50	01200.120.076
M12X80/S=19	50	01200.120.080
M12X80/S=18	50	01200.120.081
M12X85/S=19	50	01200.120.085
M12X90/S=19	50	01200.120.090
M12X90/S=18	50	01200.120.091
M12X100/S=19	50	01200.120.100
M12X100/S=18	50	01200.120.101
M12X110/S=19	50	01200.120.110
M12X110/S=18	50	01200.120.111
M12X120/S=19	50	01200.120.120
M12X120/S=18	50	01200.120.121
M12X130/S=19	50	01200.120.130
M12X140/S=19	50	01200.120.140
M12X150/S=19	50	01200.120.150
M12X160/S=19	25	01200.120.160
M12X170/S=19	25	01200.120.170
M12X180/S=19	25	01200.120.180
M12X190/S=19	25	01200.120.190
M12X200/S=19	25	01200.120.200
M12X220/S=19	25	01200.120.220
M12X240/S=19	25	01200.120.240
M12X260/S=19	25	01200.120.260
M12X280/S=19	25	01200.120.280
M12X300/S=19	25	01200.120.300

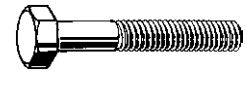
d x L	✉	Ref. do artigo
M14X50/S=22	50	01200.140.050
M14X50/S=21	50	01200.140.051
M14X55/S=22	50	01200.140.055
M14X55/S=21	50	01200.140.056
M14X60/S=22	50	01200.140.060
M14X60/S=21	50	01200.140.061
M14X65/S=22	50	01200.140.065
M14X70/S=22	50	01200.140.070
M14X75/S=22	50	01200.140.075
M14X80/S=22	50	01200.140.080
M14X80/S=21	50	01200.140.081
M14X85/S=22	50	01200.140.085
M14X90/S=22	50	01200.140.090
M14X100/S=22	50	01200.140.100
M14X100/S=21	50	01200.140.101
M14X110/S=22	50	01200.140.110
M14X110/S=21	50	01200.140.111
M14X120/S=22	50	01200.140.120
M14X130/S=22	25	01200.140.130
M14X140/S=22	25	01200.140.140
M14X150/S=22	25	01200.140.150
M14X160/S=22	25	01200.140.160
M14X180/S=22	25	01200.140.180
M14X200/S=22	25	01200.140.200
M14X220/S=22	25	01200.140.220
M14X240/S=22	25	01200.140.240
M14X260/S=22	25	01200.140.260
M16X50	50	01200.160.050
M16X55	50	01200.160.055
M16X60	50	01200.160.060
M16X65	25	01200.160.065
M16X70	25	01200.160.070
M16X75	25	01200.160.075
M16X80	25	01200.160.080
M16X85	25	01200.160.085
M16X90	25	01200.160.090
M16X95	50	01200.160.095
M16X100	25	01200.160.100
M16X110	25	01200.160.110
M16X120	25	01200.160.120
M16X130	25	01200.160.130
M16X140	25	01200.160.140
M16X150	25	01200.160.150
M16X160	25	01200.160.160
M16X170	25	01200.160.170
M16X180	25	01200.160.180
M16X190	25	01200.160.190
M16X200	25	01200.160.200
M16X210	25	01200.160.210
M16X220	25	01200.160.220
M16X230	25	01200.160.230
M16X240	10	01200.160.240
M16X250	10	01200.160.250
M16X260	10	01200.160.260
M16X280	10	01200.160.280
M16X300	10	01200.160.300
M16X320	10	01200.160.320
M16X340	10	01200.160.340
M16X360	10	01200.160.360
M16X380	10	01200.160.380
M16X400	10	01200.160.400
M18X60	25	01200.180.060
M18X65	25	01200.180.065
M18X70	25	01200.180.070
M18X75	25	01200.180.075
M18X80	25	01200.180.080
M18X90	25	01200.180.090
M18X100	25	01200.180.100
M18X110	25	01200.180.110
M18X120	25	01200.180.120
M18X130	25	01200.180.130
M18X140	25	01200.180.140
M18X150	25	01200.180.150

01200 Parafuso cabeça sextavada ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M18X160	25	01200.180.160	M24X90	10	01200.240.090	M30X130	10	01200.300.130
M18X180	10	01200.180.180	M24X100	10	01200.240.100	M30X140	10	01200.300.140
M18X200	10	01200.180.200	M24X110	10	01200.240.110	M30X150	10	01200.300.150
			M24X120	10	01200.240.120	M30X160	10	01200.300.160
M20X60	25	01200.200.060	M24X130	10	01200.240.130	M30X170	5	01200.300.170
M20X65	25	01200.200.065	M24X140	10	01200.240.140	M30X180	5	01200.300.180
M20X70	25	01200.200.070	M24X150	10	01200.240.150	M30X200	5	01200.300.200
M20X75	25	01200.200.075	M24X160	10	01200.240.160	M30X220	5	01200.300.220
M20X80	25	01200.200.080	M24X170	10	01200.240.170	M30X240	5	01200.300.240
M20X85	25	01200.200.085	M24X180	10	01200.240.180	M30X260	5	01200.300.260
M20X90	25	01200.200.090	M24X190	10	01200.240.190	M30X280	5	01200.300.280
M20X100	25	01200.200.100	M24X200	10	01200.240.200	M30X300	5	01200.300.300
M20X110	25	01200.200.110	M24X210	10	01200.240.210	M30X320	2	01200.300.320
M20X120	25	01200.200.120	M24X220	10	01200.240.220	M30X340	2	01200.300.340
M20X130	25	01200.200.130	M24X230	10	01200.240.230	M30X360	2	01200.300.360
M20X140	25	01200.200.140	M24X240	10	01200.240.240	M30X400	2	01200.300.400
M20X150	25	01200.200.150	M24X260	10	01200.240.260			
M20X160	10	01200.200.160	M24X280	10	01200.240.280	M33X100	5	01200.330.100
M20X170	10	01200.200.170	M24X300	10	01200.240.300	M33X110	5	01200.330.110
M20X180	10	01200.200.180	M24X320	5	01200.240.320	M33X120	5	01200.330.120
M20X190	10	01200.200.190	M24X340	5	01200.240.340	M33X130	5	01200.330.130
M20X200	10	01200.200.200	M24X360	5	01200.240.360	M33X140	5	01200.330.140
M20X220	10	01200.200.220	M24X380	5	01200.240.380	M33X150	5	01200.330.150
M20X240	10	01200.200.240	M24X400	5	01200.240.400	M33X160	5	01200.330.160
M20X260	10	01200.200.260				M33X180	2	01200.330.180
M20X280	10	01200.200.280	M27X80	10	01200.270.080	M33X200	2	01200.330.200
M20X300	10	01200.200.300	M27X90	10	01200.270.090	M33X280	1	01200.330.280
M20X320	5	01200.200.320	M27X100	10	01200.270.100			
			M27X110	10	01200.270.110	M36X100	5	01200.360.100
M22X70/S=32	25	01200.220.070	M27X120	10	01200.270.120	M36X110	5	01200.360.110
M22X75/S=32	25	01200.220.075	M27X130	10	01200.270.130	M36X120	5	01200.360.120
M22X80/S=32	25	01200.220.080	M27X140	10	01200.270.140	M36X130	5	01200.360.130
M22X90/S=32	25	01200.220.090	M27X150	10	01200.270.150	M36X140	5	01200.360.140
M22X100/S=32	10	01200.220.100	M27X160	10	01200.270.160	M36X150	5	01200.360.150
M22X110/S=32	10	01200.220.110	M27X180	5	01200.270.180	M36X160	5	01200.360.160
M22X120/S=32	10	01200.220.120	M27X190	5	01200.270.190	M36X170	5	01200.360.170
M22X130/S=32	10	01200.220.130	M27X200	5	01200.270.200	M36X180	2	01200.360.180
M22X140/S=32	10	01200.220.140	M27X220	5	01200.270.220	M36X200	2	01200.360.200
M22X150/S=32	10	01200.220.150	M27X240	5	01200.270.240	M36X220	2	01200.360.220
M22X160/S=32	10	01200.220.160	M27X260	5	01200.270.260	M36X240	2	01200.360.240
M22X180/S=32	10	01200.220.180	M27X280	5	01200.270.280	M36X260	2	01200.360.260
M22X200/S=32	5	01200.220.200	M27X300	5	01200.270.300	M36X280	2	01200.360.280
						M36X300	2	01200.360.300
M24X70	25	01200.240.070	M30X90	10	01200.300.090			
M24X75	25	01200.240.075	M30X100	10	01200.300.100	M39X160	1	01200.390.160
M24X80	25	01200.240.080	M30X110	10	01200.300.110			
M24X85	10	01200.240.085	M30X120	10	01200.300.120			

01220 Parafuso cabeça sextavada A06A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Passivado a amarelo



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X25	500	01220.040.025	M6X80	200	01220.060.080	M8X150	100	01220.080.150
M4X30	500	01220.040.030	M6X90	100	01220.060.090	M8X160	50	01220.080.160
M4X40	500	01220.040.040	M6X100	100	01220.060.100	M8X180	50	01220.080.180
M4X50	500	01220.040.050	M6X110	100	01220.060.110			
			M6X120	100	01220.060.120	M10X40/S=17	100	01220.100.040
M5X30	200	01220.050.030	M6X130	100	01220.060.130	M10X45/S=17	100	01220.100.045
M5X35	200	01220.050.035				M10X50/S=17	100	01220.100.050
M5X40	200	01220.050.040	M8X35	200	01220.080.035	M10X55/S=17	100	01220.100.055
M5X45	200	01220.050.045	M8X40	200	01220.080.040	M10X60/S=17	100	01220.100.060
M5X50	200	01220.050.050	M8X45	200	01220.080.045	M10X65/S=17	100	01220.100.065
M5X55	200	01220.050.055	M8X50	200	01220.080.050	M10X70/S=17	100	01220.100.070
M5X60	200	01220.050.060	M8X55	200	01220.080.055	M10X75/S=17	100	01220.100.075
M5X70	200	01220.050.070	M8X60	200	01220.080.060	M10X80/S=17	100	01220.100.080
M5X80	200	01220.050.080	M8X65	200	01220.080.065	M10X85/S=17	100	01220.100.085
			M8X70	200	01220.080.070	M10X90/S=17	100	01220.100.090
M6X30	200	01220.060.030	M8X75	200	01220.080.075	M10X100/S=17	100	01220.100.100
M6X35	200	01220.060.035	M8X80	200	01220.080.080	M10X110/S=17	50	01220.100.110
M6X40	200	01220.060.040	M8X90	100	01220.080.090	M10X120/S=17	50	01220.100.120
M6X45	200	01220.060.045	M8X100	100	01220.080.100	M10X130/S=17	50	01220.100.130
M6X50	200	01220.060.050	M8X110	100	01220.080.110	M10X140/S=17	50	01220.100.140
M6X55	200	01220.060.055	M8X120	100	01220.080.120	M10X150/S=17	50	01220.100.150
M6X60	200	01220.060.060	M8X130	100	01220.080.130	M10X160/S=17	50	01220.100.160
M6X70	200	01220.060.070	M8X140	100	01220.080.140	M10X170/S=17	50	01220.100.170

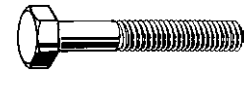
01220 Parafuso cabeça sextavada ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X180/S=17	50	01220.100.180	M16X60	50	01220.160.060	M24X80	25	01220.240.080
M10X200/S=17	50	01220.100.200	M16X65	25	01220.160.065	M24X90	10	01220.240.090
M10X220/S=17	50	01220.100.220	M16X70	25	01220.160.070	M24X100	10	01220.240.100
			M16X75	25	01220.160.075	M24X110	10	01220.240.110
M12X45/S=19	100	01220.120.045	M16X80	25	01220.160.080	M24X120	10	01220.240.120
M12X50/S=19	100	01220.120.050	M16X90	25	01220.160.090	M24X130	10	01220.240.130
M12X55/S=19	100	01220.120.055	M16X100	25	01220.160.100	M24X140	10	01220.240.140
M12X60/S=19	100	01220.120.060	M16X110	25	01220.160.110	M24X150	10	01220.240.150
M12X65/S=19	50	01220.120.065	M16X120	25	01220.160.120	M24X160	10	01220.240.160
M12X70/S=19	50	01220.120.070	M16X130	25	01220.160.130	M24X180	10	01220.240.180
M12X75/S=19	50	01220.120.075	M16X140	25	01220.160.140	M24X200	10	01220.240.200
M12X80/S=19	50	01220.120.080	M16X150	25	01220.160.150	M24X220	10	01220.240.220
M12X90/S=19	50	01220.120.090	M16X160	25	01220.160.160	M24X240	10	01220.240.240
M12X100/S=19	50	01220.120.100	M16X180	25	01220.160.180	M24X260	10	01220.240.260
M12X110/S=19	50	01220.120.110	M16X200	25	01220.160.200	M24X280	10	01220.240.280
M12X120/S=19	50	01220.120.120	M16X220	25	01220.160.220	M24X300	10	01220.240.300
M12X130/S=19	50	01220.120.130	M16X240	25	01220.160.240			
M12X140/S=19	50	01220.120.140				M27X100	10	01220.270.100
M12X150/S=19	50	01220.120.150	M20X65	25	01220.200.065	M27X110	10	01220.270.110
M12X160/S=19	50	01220.120.160	M20X70	25	01220.200.070	M27X120	10	01220.270.120
M12X180/S=19	50	01220.120.180	M20X75	25	01220.200.075	M27X140	10	01220.270.140
M12X200/S=19	50	01220.120.200	M20X80	25	01220.200.080	M27X160	10	01220.270.160
M12X220/S=19	50	01220.120.220	M20X90	25	01220.200.090	M27X180	5	01220.270.180
M12X240/S=19	50	01220.120.240	M20X100	25	01220.200.100	M27X200	5	01220.270.200
			M20X110	25	01220.200.110			
M14X50/S=22	50	01220.140.050	M20X120	25	01220.200.120	M30X100	10	01220.300.100
M14X55/S=22	50	01220.140.055	M20X130	25	01220.200.130	M30X120	10	01220.300.120
M14X60/S=22	50	01220.140.060	M20X140	25	01220.200.140	M30X130	10	01220.300.130
M14X70/S=22	50	01220.140.070	M20X150	25	01220.200.150	M30X140	10	01220.300.140
M14X80/S=22	50	01220.140.080	M20X160	10	01220.200.160	M30X160	10	01220.300.160
M14X90/S=22	50	01220.140.090	M20X180	10	01220.200.180	M30X180	5	01220.300.180
M14X100/S=22	50	01220.140.100	M20X190	10	01220.200.190	M30X200	5	01220.300.200
M14X110/S=22	50	01220.140.110	M20X200	10	01220.200.200			
M14X120/S=22	50	01220.140.120	M20X220	10	01220.200.220	M33X100	10	01220.330.100
M14X130/S=22	25	01220.140.130	M20X240	10	01220.200.240	M33X120	5	01220.330.120
M14X140/S=22	25	01220.140.140	M20X260	10	01220.200.260	M33X140	5	01220.330.140
M14X150/S=22	25	01220.140.150	M20X280	10	01220.200.280	M33X160	5	01220.330.160
M14X160/S=22	25	01220.140.160	M20X300	10	01220.200.300	M33X180	5	01220.330.180
M14X180/S=22	25	01220.140.180				M33X200	5	01220.330.200
M14X200/S=22	25	01220.140.200	M22X120/S=32	25	01220.220.120			
			M22X130/S=32	25	01220.220.130	M36X120	5	01220.360.120
M16X55	50	01220.160.055				M36X180	5	01220.360.180

01226 Parafuso cabeça sextavada A96A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Camada de zinco isento Cr^{6+}- ISO 10683 flZnnc

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X30	200	01226.060.030	M12X45/S=19	100	01226.120.045	M16X160	25	01226.160.160
M6X35	200	01226.060.035	M12X50/S=19	100	01226.120.050	M16X180	25	01226.160.180
M6X40	200	01226.060.040	M12X55/S=19	100	01226.120.055			
M6X45	200	01226.060.045	M12X60/S=19	100	01226.120.060	M18X60	25	01226.180.060
M6X50	200	01226.060.050	M12X65/S=19	50	01226.120.065	M18X80	25	01226.180.080
M6X60	200	01226.060.060	M12X70/S=19	50	01226.120.070	M18X90	25	01226.180.090
			M12X80/S=19	50	01226.120.080			
M8X35	200	01226.080.035	M12X90/S=19	50	01226.120.090	M20X65	25	01226.200.065
M8X40	200	01226.080.040	M12X100/S=19	50	01226.120.100	M20X70	25	01226.200.070
M8X45	200	01226.080.045	M12X110/S=19	50	01226.120.110	M20X75	25	01226.200.075
M8X50	200	01226.080.050	M12X120/S=19	50	01226.120.120	M20X80	25	01226.200.080
M8X55	200	01226.080.055	M12X140/S=19	50	01226.120.140	M20X85	25	01226.200.085
M8X60	200	01226.080.060	M12X150/S=19	50	01226.120.150	M20X90	25	01226.200.090
M8X70	200	01226.080.070	M12X170/S=19	25	01226.120.170	M20X100	25	01226.200.100
M8X80	200	01226.080.080				M20X110	25	01226.200.110
M8X90	100	01226.080.090	M16X55	50	01226.160.055	M20X120	25	01226.200.120
M8X110	100	01226.080.110	M16X60	50	01226.160.060	M20X130	25	01226.200.130
			M16X65	25	01226.160.065	M20X140	25	01226.200.140
M10X40/S=17	100	01226.100.040	M16X70	25	01226.160.070	M20X150	25	01226.200.150
M10X45/S=17	100	01226.100.045	M16X75	25	01226.160.075	M20X160	10	01226.200.160
M10X50/S=17	100	01226.100.050	M16X80	25	01226.160.080	M20X180	10	01226.200.180
M10X60/S=17	100	01226.100.060	M16X90	25	01226.160.090	M20X200	10	01226.200.200
M10X70/S=17	100	01226.100.070	M16X100	25	01226.160.100			
M10X80/S=17	100	01226.100.080	M16X110	25	01226.160.110	M24X70	25	01226.240.070
M10X90/S=17	100	01226.100.090	M16X120	25	01226.160.120	M24X80	25	01226.240.080
M10X100/S=17	100	01226.100.100	M16X130	25	01226.160.130	M24X90	10	01226.240.090
M10X120/S=17	50	01226.100.120	M16X140	25	01226.160.140	M24X100	10	01226.240.100
			M16X150	25	01226.160.150	M24X110	10	01226.240.110

01226 Parafuso cabeça sextavada ←

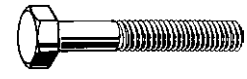
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M24X130	10	01226.240.130	M24X160	10	01226.240.160	M24X200	10	01226.240.200
M24X140	10	01226.240.140	M24X180	10	01226.240.180			

- Com o tratamento de superficie Zinc Flake ISO 10683, o risco de disfunção hidrogénica é eliminado.

01400 Parafuso cabeça sextavada A08A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Galvanizado a quente

RoHS

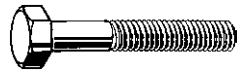


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M8X35	100	01400.080.035	M16X75	25	01400.160.075	M24X80	25	01400.240.080
M8X40	100	01400.080.040	M16X80	25	01400.160.080	M24X90	10	01400.240.090
M8X45	100	01400.080.045	M16X90	25	01400.160.090	M24X100	10	01400.240.100
M8X50	100	01400.080.050	M16X100	25	01400.160.100	M24X110	10	01400.240.110
M8X55	100	01400.080.055	M16X110	25	01400.160.110	M24X120	10	01400.240.120
M8X60	100	01400.080.060	M16X120	25	01400.160.120	M24X130	10	01400.240.130
M8X65	100	01400.080.065	M16X130	25	01400.160.130	M24X140	10	01400.240.140
M8X70	100	01400.080.070	M16X140	25	01400.160.140	M24X150	10	01400.240.150
M8X75	100	01400.080.075	M16X150	25	01400.160.150	M24X160	10	01400.240.160
M8X80	100	01400.080.080	M16X160	25	01400.160.160	M24X180	10	01400.240.180
M8X90	100	01400.080.090	M16X180	25	01400.160.180	M24X200	10	01400.240.200
M8X100	50	01400.080.100	M16X200	25	01400.160.200	M24X220	10	01400.240.220
			M16X220	25	01400.160.220	M24X240	10	01400.240.240
M10X40/S=17	100	01400.100.040	M16X240	25	01400.160.240	M24X260	10	01400.240.260
M10X45/S=17	100	01400.100.045	M16X260	25	01400.160.260	M24X280	10	01400.240.280
M10X50/S=17	50	01400.100.050				M24X300	10	01400.240.300
M10X55/S=17	50	01400.100.055	M18X60	25	01400.180.060	M24X320	5	01400.240.320
M10X60/S=17	50	01400.100.060	M18X70	25	01400.180.070	M24X340	5	01400.240.340
M10X65/S=17	50	01400.100.065	M18X80	25	01400.180.080	M24X360	5	01400.240.360
M10X70/S=17	50	01400.100.070	M18X90	25	01400.180.090			
M10X75/S=17	50	01400.100.075	M18X100	25	01400.180.100	M27X80	10	01400.270.080
M10X80/S=17	50	01400.100.080	M18X110	25	01400.180.110	M27X90	10	01400.270.090
M10X90/S=17	50	01400.100.090	M18X120	25	01400.180.120	M27X100	10	01400.270.100
M10X100/S=17	50	01400.100.100	M18X130	25	01400.180.130	M27X110	10	01400.270.110
M10X110/S=17	50	01400.100.110	M18X140	25	01400.180.140	M27X120	10	01400.270.120
M10X110/S=16	50	01400.100.111	M18X150	25	01400.180.150	M27X130	10	01400.270.130
M10X120/S=17	50	01400.100.120				M27X140	10	01400.270.140
M10X120/S=16	50	01400.100.121	M20X65	25	01400.200.065	M27X150	10	01400.270.150
M10X130/S=16	50	01400.100.131	M20X70	25	01400.200.070	M27X160	10	01400.270.160
M10X140/S=16	50	01400.100.141	M20X75	25	01400.200.075			
M10X150/S=16	50	01400.100.151	M20X80	25	01400.200.080	M30X90	10	01400.300.090
M10X160/S=16	50	01400.100.161	M20X90	25	01400.200.090	M30X100	10	01400.300.100
M10X180/S=16	50	01400.100.181	M20X100	25	01400.200.100	M30X110	10	01400.300.110
M10X200/S=16	50	01400.100.201	M20X110	25	01400.200.110	M30X120	10	01400.300.120
			M20X120	25	01400.200.120	M30X130	10	01400.300.130
M12X45/S=19	50	01400.120.045	M20X130	25	01400.200.130	M30X140	10	01400.300.140
M12X50/S=19	50	01400.120.050	M20X140	25	01400.200.140	M30X150	10	01400.300.150
M12X55/S=19	25	01400.120.055	M20X150	25	01400.200.150	M30X160	10	01400.300.160
M12X60/S=19	25	01400.120.060	M20X160	10	01400.200.160	M30X180	10	01400.300.180
M12X65/S=19	25	01400.120.065	M20X180	10	01400.200.180	M30X200	10	01400.300.200
M12X70/S=19	25	01400.120.070	M20X200	10	01400.200.200	M30X220	5	01400.300.220
M12X75/S=19	25	01400.120.075	M20X220	10	01400.200.220	M30X240	5	01400.300.240
M12X80/S=19	25	01400.120.080	M20X240	10	01400.200.240	M30X260	5	01400.300.260
M12X90/S=19	25	01400.120.090	M20X260	10	01400.200.260			
M12X100/S=19	25	01400.120.100	M20X280	10	01400.200.280	M33X100	5	01400.330.100
M12X110/S=19	25	01400.120.110	M20X300	10	01400.200.300	M33X120	5	01400.330.120
M12X120/S=19	25	01400.120.120				M33X140	5	01400.330.140
M12X130/S=19	25	01400.120.130	M22X70/S=34	25	01400.220.071	M33X160	5	01400.330.160
M12X140/S=19	25	01400.120.140	M22X75/S=34	25	01400.220.076			
M12X150/S=19	25	01400.120.150	M22X80/S=34	25	01400.220.081	M36X110	5	01400.360.110
M12X160/S=19	25	01400.120.160	M22X90/S=34	25	01400.220.091	M36X120	5	01400.360.120
M12X180/S=19	25	01400.120.180	M22X100/S=34	10	01400.220.101	M36X140	5	01400.360.140
M12X200/S=19	25	01400.120.200	M22X110/S=34	10	01400.220.111	M36X160	2	01400.360.160
			M22X120/S=34	10	01400.220.121	M36X180	2	01400.360.180
M16X55	25	01400.160.055	M22X140/S=34	10	01400.220.141	M36X200	2	01400.360.200
M16X60	25	01400.160.060	M22X150/S=34	10	01400.220.151	M36X220	2	01400.360.220
M16X65	25	01400.160.065				M36X240	2	01400.360.240
M16X70	25	01400.160.070	M24X75	25	01400.240.075			

- Para parafusos galvanizados a quente com rosca ISO-METRIC, a rosca é produzida abaixo do normal, para permitir que depois do tratamento de superficie, as tolerâncias correspondam ao nivel h.
- A vantagem deste tipo de produção é que os parafusos podem ser utilizados em qualquer furo roscado sem qualquer problema de fixação.
- As porcas correspondentes, com rosca ISO-METRIC são de acordo com a tolerância classe 6H, depois da galvanização para que possam ser roscadas nos parafusos.

01420 Parafuso cabeça sextavada rosca Oversized A08A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Galvanizado a quente



d x L	✉	Ref. do artigo
M10X40/S=17	100	01420.100.040
M10X50/S=17	50	01420.100.050
M10X55/S=17	50	01420.100.055
M10X60/S=17	50	01420.100.060
M10X80/S=17	50	01420.100.080
M10X100/S=17	50	01420.100.100
M10X130/S=17	50	01420.100.130
M12X45/S=19	100	01420.120.045
M12X50/S=19	100	01420.120.050
M12X55/S=19	100	01420.120.055
M12X60/S=19	100	01420.120.060
M12X65/S=19	100	01420.120.065
M12X70/S=19	100	01420.120.070
M12X75/S=19	50	01420.120.075
M12X80/S=19	50	01420.120.080
M12X90/S=19	50	01420.120.090
M12X100/S=19	50	01420.120.100
M12X110/S=19	50	01420.120.110
M12X120/S=19	50	01420.120.120
M12X130/S=19	50	01420.120.130
M12X140/S=19	50	01420.120.140
M12X150/S=19	50	01420.120.150
M12X160/S=19	25	01420.120.160
M12X180/S=19	25	01420.120.180
M12X200/S=19	25	01420.120.200
M12X240/S=19	25	01420.120.240
M12X260/S=19	25	01420.120.260
M14X50/S=22	50	01420.140.050
M14X60/S=22	50	01420.140.060
M14X70/S=22	50	01420.140.070
M14X80/S=22	25	01420.140.080
M14X90/S=22	25	01420.140.090
M14X100/S=22	25	01420.140.100
M14X120/S=22	25	01420.140.120
M14X140/S=22	25	01420.140.140
M16X55	50	01420.160.055
M16X60	50	01420.160.060
M16X65	50	01420.160.065
M16X70	50	01420.160.070
M16X75	25	01420.160.075
M16X80	25	01420.160.080
M16X90	25	01420.160.090
M16X100	25	01420.160.100
M16X110	25	01420.160.110
M16X120	25	01420.160.120
M16X130	25	01420.160.130
M16X140	25	01420.160.140
M16X150	25	01420.160.150
M16X160	25	01420.160.160
M16X180	25	01420.160.180
M16X200	25	01420.160.200
M16X220	25	01420.160.220
M16X240	25	01420.160.240
M16X260	10	01420.160.260
M16X300	10	01420.160.300
M18X60	50	01420.180.060
M18X70	50	01420.180.070
M18X80	25	01420.180.080
M18X90	25	01420.180.090
M18X100	25	01420.180.100
M18X120	25	01420.180.120
M18X140	25	01420.180.140
M20X65	25	01420.200.065
M20X70	25	01420.200.070
M20X75	25	01420.200.075
M20X80	25	01420.200.080
M20X85	25	01420.200.085
M20X90	25	01420.200.090
M20X95	25	01420.200.095
M20X100	25	01420.200.100
M20X110	25	01420.200.110
M20X120	25	01420.200.120
M20X130	25	01420.200.130
M20X140	25	01420.200.140
M20X150	25	01420.200.150
M20X160	10	01420.200.160
M20X180	10	01420.200.180
M20X200	10	01420.200.200
M20X220	10	01420.200.220
M20X240	10	01420.200.240
M20X260	10	01420.200.260
M20X280	10	01420.200.280
M20X300	10	01420.200.300
M20X320	5	01420.200.320
M20X360	5	01420.200.360
M22X70/S=32	25	01420.220.070
M22X75/S=32	25	01420.220.075
M22X80/S=32	25	01420.220.080
M22X90/S=32	10	01420.220.090
M22X100/S=32	10	01420.220.100
M22X120/S=32	10	01420.220.120
M22X140/S=32	10	01420.220.140
M22X160/S=32	10	01420.220.160
M22X180/S=32	10	01420.220.180
M22X190/S=32	10	01420.220.190
M22X200/S=32	10	01420.220.200
M24X70	25	01420.240.070
M24X75	25	01420.240.075
M24X80	25	01420.240.080
M24X85	10	01420.240.085
M24X90	10	01420.240.090
M24X95	10	01420.240.095
M24X100	10	01420.240.100
M24X110	10	01420.240.110
M24X120	10	01420.240.120
M24X130	10	01420.240.130
M24X140	10	01420.240.140
M24X150	10	01420.240.150
M24X160	10	01420.240.160
M24X180	10	01420.240.180
M24X200	10	01420.240.200
M24X220	10	01420.240.220
M24X240	10	01420.240.240
M24X260	5	01420.240.260
M24X280	5	01420.240.280
M24X300	5	01420.240.300
M27X80	10	01420.270.080
M27X85	10	01420.270.085
M27X90	10	01420.270.090
M27X100	10	01420.270.100
M27X110	10	01420.270.110
M27X120	10	01420.270.120
M27X130	10	01420.270.130
M27X140	10	01420.270.140
M27X150	10	01420.270.150
M27X160	10	01420.270.160
M27X180	10	01420.270.180
M27X200	10	01420.270.200
M30X90	10	01420.300.090
M30X100	10	01420.300.100
M30X110	10	01420.300.110
M30X120	10	01420.300.120
M30X130	10	01420.300.130
M30X140	10	01420.300.140
M30X150	5	01420.300.150
M30X160	10	01420.300.160
M30X180	5	01420.300.180
M30X200	5	01420.300.200
M30X220	5	01420.300.220
M33X110	5	01420.330.110
M33X120	5	01420.330.120
M33X140	5	01420.330.140
M36X100	5	01420.360.100
M36X110	5	01420.360.110
M36X120	5	01420.360.120
M36X130	5	01420.360.130
M36X140	5	01420.360.140
M36X150	5	01420.360.150
M36X160	5	01420.360.160
M36X180	5	01420.360.180
M36X200	5	01420.360.200
M36X220	1	01420.360.220
M36X320	1	01420.360.320
M39X180	1	01420.390.180
M39X200	1	01420.390.200
M42X140	1	01420.420.140
M42X150	1	01420.420.150
M42X160	1	01420.420.160
M45X200	1	01420.450.200
M48X120	1	01420.480.120
M52X200	1	01420.520.200
M64X280	1	01420.640.280

- Para parafusos galvanizados a quente com rosca acima do normal (OVERSIZED) o tratamento de superficie é aplicado na rosca normal, assim depois da galvanização estes parafusos já não são ISO-metric, mas maiores, conhecidos por OVERSIZED.
- Não são utilizados na rosca habitual e não podem ser utilizados em furos com roscas normais.
- As correspondentes porcas OVERSIZED têm furo oversize de acordo com ISO 965-5, depois da galvanização podem perfeitamente ser utilizadas nestes parafusos.

04100 Parafuso cabeça sextavada C01A

Rosca Métrica
Material Aço
Classe 10.9

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X30	200	04100.060.030	M14X130/S=22	50	04100.140.130	M24X110	10	04100.240.110
M6X35	200	04100.060.035	M14X140/S=22	50	04100.140.140	M24X120	10	04100.240.120
M6X40	200	04100.060.040	M14X150/S=22	25	04100.140.150	M24X130	10	04100.240.130
M6X45	200	04100.060.045	M14X160/S=22	25	04100.140.160	M24X140	10	04100.240.140
M6X50	200	04100.060.050				M24X150	10	04100.240.150
M6X55	200	04100.060.055	M16X50	50	04100.160.050	M24X160	10	04100.240.160
M6X60	200	04100.060.060	M16X55	50	04100.160.055	M24X170	10	04100.240.170
M6X70	200	04100.060.070	M16X60	50	04100.160.060	M24X180	10	04100.240.180
M6X80	200	04100.060.080	M16X65	25	04100.160.065	M24X200	10	04100.240.200
			M16X70	25	04100.160.070	M24X220	10	04100.240.220
M8X30	200	04100.080.030	M16X75	25	04100.160.075	M24X240	10	04100.240.240
M8X35	200	04100.080.035	M16X80	25	04100.160.080	M24X260	10	04100.240.260
M8X40	200	04100.080.040	M16X90	25	04100.160.090	M24X280	10	04100.240.280
M8X45	200	04100.080.045	M16X95	25	04100.160.095			
M8X50	200	04100.080.050	M16X100	25	04100.160.100	M27X80	10	04100.270.080
M8X60	200	04100.080.060	M16X110	25	04100.160.110	M27X90	10	04100.270.090
M8X70	200	04100.080.070	M16X120	25	04100.160.120	M27X100	10	04100.270.100
M8X80	200	04100.080.080	M16X130	25	04100.160.130	M27X110	10	04100.270.110
M8X90	100	04100.080.090	M16X140	25	04100.160.140	M27X120	10	04100.270.120
M8X100	100	04100.080.100	M16X150	25	04100.160.150	M27X130	10	04100.270.130
M8X110	100	04100.080.110	M16X160	25	04100.160.160	M27X140	10	04100.270.140
M8X120	100	04100.080.120	M16X170	25	04100.160.170	M27X150	10	04100.270.150
			M16X180	25	04100.160.180	M27X160	10	04100.270.160
M10X40/S=17	100	04100.100.040	M16X190	25	04100.160.190	M27X170	5	04100.270.170
M10X45/S=17	100	04100.100.045	M16X200	25	04100.160.200	M27X180	5	04100.270.180
M10X50/S=17	100	04100.100.050	M16X220	25	04100.160.220	M27X190	5	04100.270.190
M10X55/S=17	100	04100.100.055	M16X240	10	04100.160.240	M27X200	5	04100.270.200
M10X60/S=17	100	04100.100.060	M16X250	10	04100.160.250			
M10X65/S=17	100	04100.100.065				M30X90	10	04100.300.090
M10X70/S=17	100	04100.100.070	M18X60	25	04100.180.060	M30X100	10	04100.300.100
M10X75/S=17	100	04100.100.075	M18X65	25	04100.180.065	M30X110	10	04100.300.110
M10X80/S=17	100	04100.100.080	M18X70	25	04100.180.070	M30X120	10	04100.300.120
M10X90/S=17	100	04100.100.090	M18X80	25	04100.180.080	M30X130	10	04100.300.130
M10X100/S=17	100	04100.100.100	M18X85	100	04100.180.085	M30X140	10	04100.300.140
M10X110/S=17	50	04100.100.110	M18X90	25	04100.180.090	M30X150	10	04100.300.150
M10X120/S=17	50	04100.100.120	M18X100	25	04100.180.100	M30X160	10	04100.300.160
M10X130/S=17	50	04100.100.130	M18X110	25	04100.180.110	M30X170	5	04100.300.170
M10X140/S=17	50	04100.100.140	M18X120	25	04100.180.120	M30X180	5	04100.300.180
M10X150/S=17	50	04100.100.150				M30X200	5	04100.300.200
M10X160/S=17	50	04100.100.160	M20X65	25	04100.200.065	M30X220	5	04100.300.220
M10X180/S=17	50	04100.100.180	M20X70	25	04100.200.070	M30X240	5	04100.300.240
			M20X75	25	04100.200.075	M30X260	5	04100.300.260
M12X45/S=19	100	04100.120.045	M20X80	25	04100.200.080	M30X280	5	04100.300.280
M12X50/S=19	100	04100.120.050	M20X85	25	04100.200.085	M30X300	5	04100.300.300
M12X55/S=19	100	04100.120.055	M20X90	25	04100.200.090			
M12X60/S=19	100	04100.120.060	M20X95	25	04100.200.095	M33X100	5	04100.330.100
M12X65/S=19	50	04100.120.065	M20X100	25	04100.200.100	M33X110	5	04100.330.110
M12X70/S=19	50	04100.120.070	M20X110	25	04100.200.110	M33X120	5	04100.330.120
M12X75/S=19	100	04100.120.075	M20X120	25	04100.200.120	M33X130	5	04100.330.130
M12X80/S=19	50	04100.120.080	M20X130	25	04100.200.130	M33X140	5	04100.330.140
M12X85/S=19	50	04100.120.085	M20X140	25	04100.200.140	M33X150	5	04100.330.150
M12X90/S=19	50	04100.120.090	M20X150	25	04100.200.150	M33X160	5	04100.330.160
M12X100/S=19	50	04100.120.100	M20X160	10	04100.200.160	M33X180	2	04100.330.180
M12X110/S=19	50	04100.120.110	M20X170	10	04100.200.170	M33X200	2	04100.330.200
M12X120/S=19	50	04100.120.120	M20X180	10	04100.200.180	M33X240	2	04100.330.240
M12X130/S=19	25	04100.120.130	M20X190	10	04100.200.190			
M12X140/S=19	25	04100.120.140	M20X200	10	04100.200.200	M36X100	5	04100.360.100
M12X150/S=19	25	04100.120.150	M20X220	10	04100.200.220	M36X110	5	04100.360.110
M12X160/S=19	25	04100.120.160	M20X230	10	04100.200.230	M36X120	5	04100.360.120
M12X180/S=19	25	04100.120.180	M20X240	10	04100.200.240	M36X130	5	04100.360.130
M12X200/S=19	25	04100.120.200	M20X260	10	04100.200.260	M36X140	5	04100.360.140
M12X220/S=19	25	04100.120.220				M36X150	5	04100.360.150
			M22X70/S=32	10	04100.220.070	M36X160	5	04100.360.160
M14X45/S=22	50	04100.140.045	M22X75/S=32	10	04100.220.075	M36X180	2	04100.360.180
M14X50/S=22	50	04100.140.050	M22X80/S=32	10	04100.220.080	M36X200	2	04100.360.200
M14X55/S=22	50	04100.140.055	M22X90/S=32	10	04100.220.090	M36X220	2	04100.360.220
M14X60/S=22	50	04100.140.060	M22X100/S=32	10	04100.220.100	M36X240	2	04100.360.240
M14X65/S=22	50	04100.140.065	M22X110/S=32	10	04100.220.110	M36X260	2	04100.360.260
M14X70/S=22	50	04100.140.070	M22X120/S=32	10	04100.220.120	M36X300	2	04100.360.300
M14X75/S=22	50	04100.140.075	M22X130/S=32	10	04100.220.130			
M14X80/S=22	50	04100.140.080				M39X120	1	04100.390.120
M14X85/S=22	50	04100.140.085	M24X75	25	04100.240.075	M39X140	1	04100.390.140
M14X90/S=22	50	04100.140.090	M24X80	25	04100.240.080	M39X150	5	04100.390.150
M14X100/S=22	50	04100.140.100	M24X90	10	04100.240.090	M39X160	1	04100.390.160
M14X120/S=22	50	04100.140.120	M24X100	10	04100.240.100	M39X180	1	04100.390.180

04100 Parafuso cabeça sextavada ←

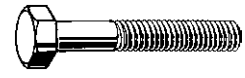
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M39X190	1	04100.390.190	M42X200	1	04100.420.200	M45X200	1	04100.450.200
M39X200	1	04100.390.200	M42X220	1	04100.420.220	M45X220	1	04100.450.220
			M42X240	1	04100.420.240	M45X240	1	04100.450.240
M42X160	1	04100.420.160						
M42X180	1	04100.420.180	M45X160	1	04100.450.160			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

04105 Parafuso cabeça sextavada C95A

Rosca Métrica
Material Aço
Classe 10.9
Tratamento sup. Camada de zinco isento Cr^{6+}- ISO 10683 flZnnc

RoHS



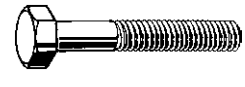
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X30	200	04105.060.030	M10X120	50	04105.100.120	M16X120	25	04105.160.120
M6X35	200	04105.060.035				M16X130	25	04105.160.130
M6X40	200	04105.060.040	M12X45	100	04105.120.045	M16X140	25	04105.160.140
M6X50	200	04105.060.050	M12X50	100	04105.120.050	M16X150	10	04105.160.150
M6X60	200	04105.060.060	M12X60	100	04105.120.060	M16X160	10	04105.160.160
M6X70	200	04105.060.070	M12X70	50	04105.120.070			
M6X80	200	04105.060.080	M12X80	50	04105.120.080	M20X70	25	04105.200.070
			M12X90	50	04105.120.090	M20X80	25	04105.200.080
M8X35	200	04105.080.035	M12X100	50	04105.120.100	M20X90	25	04105.200.090
M8X40	200	04105.080.040	M12X120	50	04105.120.120	M20X100	25	04105.200.100
M8X45	200	04105.080.045				M20X120	25	04105.200.120
M8X50	200	04105.080.050	M14X50	50	04105.140.050	M20X140	25	04105.200.140
M8X60	200	04105.080.060	M14X60	50	04105.140.060	M20X160	10	04105.200.160
M8X70	200	04105.080.070	M14X80	50	04105.140.080	M20X200	10	04105.200.200
			M14X90	50	04105.140.090			
M10X40	100	04105.100.040	M14X100	50	04105.140.100	M24X80	25	04105.240.080
M10X45	100	04105.100.045				M24X90	10	04105.240.090
M10X50	100	04105.100.050	M16X55	50	04105.160.055	M24X100	10	04105.240.100
M10X60	100	04105.100.060	M16X60	50	04105.160.060	M24X120	10	04105.240.120
M10X70	100	04105.100.070	M16X65	25	04105.160.065	M24X140	10	04105.240.140
M10X80	100	04105.100.080	M16X70	25	04105.160.070	M24X160	10	04105.240.160
M10X90	100	04105.100.090	M16X80	25	04105.160.080	M24X180	10	04105.240.180
M10X100	100	04105.100.100	M16X90	25	04105.160.090	M24X200	10	04105.240.200
M10X110	50	04105.100.110	M16X100	25	04105.160.100			

- Com o tratamento de superficie Zinc Flake ISO 10683, o risco de disfunção hidrogénica é eliminado.

04108 Parafuso cabeça sextavada C01A

Rosca Métrica
Material Aço
Classe 12.9

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X30	200	04108.060.030	M12X60/S=19	100	04108.120.060	M16X120	25	04108.160.120
M6X40	200	04108.060.040	M12X70/S=19	50	04108.120.070	M16X130	25	04108.160.130
M6X50	200	04108.060.050	M12X80/S=19	50	04108.120.080	M16X140	25	04108.160.140
M6X60	200	04108.060.060	M12X90/S=19	50	04108.120.090	M16X160	25	04108.160.160
			M12X100/S=19	50	04108.120.100			
M8X40	200	04108.080.040	M12X110/S=19	50	04108.120.110	M20X70	25	04108.200.070
M8X50	200	04108.080.050	M12X120/S=19	50	04108.120.120	M20X80	25	04108.200.080
M8X60	200	04108.080.060				M20X90	25	04108.200.090
M8X80	200	04108.080.080	M14X50/S=22	50	04108.140.050	M20X100	25	04108.200.100
M8X100	100	04108.080.100	M14X60/S=22	50	04108.140.060	M20X110	25	04108.200.110
			M14X70/S=22	50	04108.140.070	M20X140	25	04108.200.140
M10X40/S=17	100	04108.100.040	M14X80/S=22	50	04108.140.080	M20X160	10	04108.200.160
M10X45/S=17	100	04108.100.045	M14X90/S=22	50	04108.140.090			
M10X50/S=17	100	04108.100.050	M14X100/S=22	50	04108.140.100	M24X80	25	04108.240.080
M10X60/S=17	100	04108.100.060	M14X120/S=22	50	04108.140.120	M24X90	10	04108.240.090
M10X70/S=17	100	04108.100.070				M24X100	10	04108.240.100
M10X80/S=17	100	04108.100.080	M16X60	50	04108.160.060			
M10X100/S=17	100	04108.100.100	M16X70	25	04108.160.070	M30X90	10	04108.300.090
M10X120/S=17	50	04108.100.120	M16X80	25	04108.160.080	M30X100	10	04108.300.100
			M16X90	25	04108.160.090	M30X110	10	04108.300.110
M12X45/S=19	100	04108.120.045	M16X100	25	04108.160.100	M30X120	10	04108.300.120
M12X50/S=19	100	04108.120.050	M16X110	25	04108.160.110			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

08750 Parafuso cabeça sextavada para equipamentos sob pressão — E11A

Rosca Métrica
Material Aço
Classe 5.6

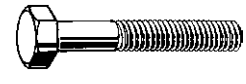


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M12X50/S=18	100	08750.120.051	M16X160	25	08750.160.160	M24X110	10	08750.240.110
M12X55/S=18	100	08750.120.056	M16X180	25	08750.160.180	M24X120	10	08750.240.120
M12X60/S=18	100	08750.120.061				M24X150	10	08750.240.150
M12X65/S=18	50	08750.120.066	M20X75	25	08750.200.075	M24X160	10	08750.240.160
M12X70/S=18	50	08750.120.071	M20X80	25	08750.200.080	M24X180	10	08750.240.180
M12X80/S=18	50	08750.120.081	M20X90	25	08750.200.090	M24X200	10	08750.240.200
			M20X100	25	08750.200.100	M24X220	10	08750.240.220
M16X60	50	08750.160.060	M20X110	25	08750.200.110			
M16X65	25	08750.160.065	M20X120	25	08750.200.120	M27X90	10	08750.270.090
M16X70	25	08750.160.070	M20X130	25	08750.200.130	M27X100	10	08750.270.100
M16X75	25	08750.160.075	M20X140	25	08750.200.140	M27X110	10	08750.270.110
M16X80	25	08750.160.080	M20X150	25	08750.200.150	M27X120	10	08750.270.120
M16X90	25	08750.160.090	M20X160	10	08750.200.160	M27X130	10	08750.270.130
M16X100	25	08750.160.100	M20X180	10	08750.200.180	M27X240	5	08750.270.240
M16X110	25	08750.160.110						
M16X120	25	08750.160.120	M24X90	10	08750.240.090	M30X120	10	08750.300.120
M16X140	25	08750.160.140	M24X100	10	08750.240.100			

- Caracteristicas especiais dos parafusos cabeça sextavada para equipamentos de pressão:
- São especificos para equipamentos de pressão, aparelhos a vapor, juntas e equipamentos de temperaturas de –10°C até +300°C, pressões max. 40 bar e tamanhos até e inclusive M30.
- Cumpre os requisitos de AD-Merkblatt W7, TRD 106 de TÜV (Technischer Überwachungsverein) e DIN 267-13.
- De acordo com TÜV-Merkblatt Werkstoffe 1253, o fabricante foi certificado para fornecimento de parafusos sem certificado 3.1, a marca e a designação da classe são suficientes.
- Esta certificação também é aceite pela ”Lloyd’s Register Energy”.

51000 Parafuso cabeça sextavada — Q01A

Rosca Métrica
Material Aço inoxidável A2
Classe 70



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X25	200	51000.050.025	M6X180	50	51000.060.180	M10X45/S=17	100	51000.100.045
M5X30	100	51000.050.030	M6X190*	100	51000.060.190	M10X50/S=17	100	51000.100.050
M5X35	100	51000.050.035	M6X200*	100	51000.060.200	M10X55/S=17	100	51000.100.055
M5X40	100	51000.050.040				M10X60/S=17	100	51000.100.060
M5X45	100	51000.050.045	M8X30	200	51000.080.030	M10X65/S=17	50	51000.100.065
M5X50	100	51000.050.050	M8X35	100	51000.080.035	M10X70/S=17	50	51000.100.070
M5X55	100	51000.050.055	M8X40	100	51000.080.040	M10X75/S=17	50	51000.100.075
M5X60	100	51000.050.060	M8X45	100	51000.080.045	M10X80/S=17	50	51000.100.080
M5X65*	200	51000.050.065	M8X50	100	51000.080.050	M10X85/S=17	50	51000.100.085
M5X70	100	51000.050.070	M8X55	100	51000.080.055	M10X90/S=17	50	51000.100.090
M5X75*	100	51000.050.075	M8X60	100	51000.080.060	M10X95/S=17	50	51000.100.095
M5X80*	100	51000.050.080	M8X65	100	51000.080.065	M10X100/S=17	50	51000.100.100
M5X85*	100	51000.050.085	M8X70	100	51000.080.070	M10X110/S=17	50	51000.100.110
M5X90*	100	51000.050.090	M8X75	100	51000.080.075	M10X120/S=17	25	51000.100.120
M5X95*	100	51000.050.095	M8X80	100	51000.080.080	M10X130/S=17	25	51000.100.130
M5X100*	100	51000.050.100	M8X85*	50	51000.080.085	M10X140/S=17	25	51000.100.140
			M8X90	100	51000.080.090	M10X150/S=17	25	51000.100.150
M6X25	200	51000.060.025	M8X95*	50	51000.080.095	M10X160/S=17	25	51000.100.160
M6X30	200	51000.060.030	M8X100	100	51000.080.100	M10X170/S=17	25	51000.100.170
M6X35	100	51000.060.035	M8X110	50	51000.080.110	M10X180/S=17	25	51000.100.180
M6X40	100	51000.060.040	M8X120	50	51000.080.120	M10X190/S=17	25	51000.100.190
M6X45	100	51000.060.045	M8X130	50	51000.080.130	M10X200/S=17	10	51000.100.200
M6X50	100	51000.060.050	M8X140	50	51000.080.140	M10X210/S=17*	10	51000.100.210
M6X55	100	51000.060.055	M8X150	50	51000.080.150	M10X220/S=17*	10	51000.100.220
M6X60	100	51000.060.060	M8X160	25	51000.080.160	M10X230/S=17*	10	51000.100.230
M6X65	100	51000.060.065	M8X170	25	51000.080.170	M10X240/S=17*	10	51000.100.240
M6X70	100	51000.060.070	M8X180	25	51000.080.180	M10X250/S=17*	10	51000.100.250
M6X75	100	51000.060.075	M8X190	25	51000.080.190	M10X260*	10	51000.100.260
M6X80	100	51000.060.080	M8X200	10	51000.080.200	M10X270/S=17*	10	51000.100.270
M6X85*	100	51000.060.085	M8X210*	25	51000.080.210	M10X280/S=17*	10	51000.100.280
M6X90	100	51000.060.090	M8X220	25	51000.080.220	M10X290/S=17*	10	51000.100.290
M6X95	100	51000.060.095	M8X230*	25	51000.080.230	M10X300*	10	51000.100.300
M6X100	100	51000.060.100	M8X240*	25	51000.080.240	M10X320/S=17*	10	51000.100.320
M6X110	50	51000.060.110	M8X250*	25	51000.080.250	M10X340*	10	51000.100.340
M6X120	50	51000.060.120	M8X260*	25	51000.080.260	M10X360/S=17*	10	51000.100.360
M6X130	50	51000.060.130	M8X270*	25	51000.080.270	M10X380*	10	51000.100.380
M6X140	50	51000.060.140	M8X280*	25	51000.080.280	M10X400*	10	51000.100.400
M6X150	50	51000.060.150				M10X420*	10	51000.100.420
M6X160*	100	51000.060.160	M10X35/S=17	100	51000.100.035	M10X440*	10	51000.100.440
M6X170*	100	51000.060.170	M10X40/S=17	100	51000.100.040	M10X480*	10	51000.100.480

51000 Parafuso cabeça sextavada ←

d x L	✉	Ref. do artigo
M12X40/S=19	50	51000.120.040
M12X45/S=19	50	51000.120.045
M12X50/S=19	50	51000.120.050
M12X55/S=19	50	51000.120.055
M12X60/S=19	50	51000.120.060
M12X65/S=19	50	51000.120.065
M12X70/S=19	50	51000.120.070
M12X75/S=19	50	51000.120.075
M12X80/S=19	50	51000.120.080
M12X85/S=19	25	51000.120.085
M12X90/S=19	50	51000.120.090
M12X95/S=19*	25	51000.120.095
M12X100/S=19	50	51000.120.100
M12X110/S=19	25	51000.120.110
M12X120/S=19	25	51000.120.120
M12X130/S=19	25	51000.120.130
M12X140/S=19	25	51000.120.140
M12X150/S=19	25	51000.120.150
M12X160/S=19	25	51000.120.160
M12X170/S=19	25	51000.120.170
M12X180/S=19	25	51000.120.180
M12X190/S=19	25	51000.120.190
M12X200/S=19	10	51000.120.200
M12X210/S=19*	10	51000.120.210
M12X220/S=19*	10	51000.120.220
M12X230/S=19*	10	51000.120.230
M12X240/S=19*	10	51000.120.240
M12X250/S=19*	10	51000.120.250
M12X260/S=19*	10	51000.120.260
M12X270/S=19*	10	51000.120.270
M12X280/S=19*	10	51000.120.280
M12X290/S=19*	10	51000.120.290
M12X300/S=19*	10	51000.120.300
M12X320/S=19*	10	51000.120.320
M12X340/S=19*	10	51000.120.340
M12X360/S=19*	10	51000.120.360
M12X380/S=19*	10	51000.120.380
M12X400/S=19*	10	51000.120.400
M12X420/S=19*	10	51000.120.420
M12X440/S=19*	10	51000.120.440
M12X460/S=19*	10	51000.120.460
M12X480/S=19*	10	51000.120.480
M12X500/S=19*	10	51000.120.500
M14X50/S=22	50	51000.140.050
M14X55/S=22	50	51000.140.055
M14X60/S=22	50	51000.140.060
M14X65/S=22*	50	51000.140.065
M14X70/S=22	50	51000.140.070
M14X75/S=22*	25	51000.140.075
M14X80/S=22	10	51000.140.080
M14X85/S=22*	25	51000.140.085
M14X90/S=22	10	51000.140.090
M14X95/S=22*	25	51000.140.095
M14X100/S=22	10	51000.140.100
M14X110/S=22*	25	51000.140.110
M14X120/S=22	10	51000.140.120
M14X130/S=22	10	51000.140.130
M14X140/S=22	10	51000.140.140
M14X150/S=22	10	51000.140.150
M14X160/S=22	10	51000.140.160
M14X170/S=22*	10	51000.140.170
M14X180/S=22	10	51000.140.180
M14X190/S=22*	10	51000.140.190
M14X200/S=22	10	51000.140.200
M16X45	25	51000.160.045
M16X50	50	51000.160.050
M16X55	50	51000.160.055
M16X60	25	51000.160.060
M16X65	25	51000.160.065
M16X70	25	51000.160.070
M16X75	25	51000.160.075
M16X80	25	51000.160.080
M16X85	25	51000.160.085
M16X90	25	51000.160.090
M16X95*	25	51000.160.095
M16X100	25	51000.160.100
M16X110	25	51000.160.110
M16X120	10	51000.160.120
M16X130	10	51000.160.130
M16X140	10	51000.160.140
M16X150	10	51000.160.150
M16X160	10	51000.160.160
M16X170	10	51000.160.170
M16X180	5	51000.160.180
M16X190	5	51000.160.190
M16X200	5	51000.160.200
M16X210	5	51000.160.210
M16X220	5	51000.160.220
M16X230	5	51000.160.230
M16X240	5	51000.160.240
M16X250	5	51000.160.250
M16X260	5	51000.160.260
M16X270*	10	51000.160.270
M16X280	5	51000.160.280
M16X290*	10	51000.160.290
M16X300*	10	51000.160.300
M16X320*	10	51000.160.320
M16X340*	10	51000.160.340
M16X360*	10	51000.160.360
M16X370	10	51000.160.370
M16X380*	10	51000.160.380
M16X400*	10	51000.160.400
M16X420*	10	51000.160.420
M16X440*	10	51000.160.440
M16X540*	10	51000.160.450
M16X460*	10	51000.160.460
M16X480*	10	51000.160.480
M16X500*	10	51000.160.500
M16X520*	10	51000.160.520
M16X560*	10	51000.160.560
M16X580*	10	51000.160.580
M18X60	25	51000.180.060
M18X65	25	51000.180.065
M18X70	25	51000.180.070
M18X75*	25	51000.180.075
M18X80	10	51000.180.080
M18X85*	25	51000.180.085
M18X90	10	51000.180.090
M18X95*	25	51000.180.095
M18X100	10	51000.180.100
M18X110	10	51000.180.110
M18X120	10	51000.180.120
M18X130	10	51000.180.130
M18X140	10	51000.180.140
M18X150	10	51000.180.150
M18X160*	25	51000.180.160
M18X170*	25	51000.180.170
M18X180*	25	51000.180.180
M18X190*	25	51000.180.190
M18X200	5	51000.180.200
M20X55*	25	51000.200.055
M20X60	25	51000.200.060
M20X65	25	51000.200.065
M20X70	25	51000.200.070
M20X75	10	51000.200.075
M20X80	25	51000.200.080
M20X85	25	51000.200.085
M20X90	25	51000.200.090
M20X95*	25	51000.200.095
M20X100	25	51000.200.100
M20X105*	25	51000.200.105
M20X110	25	51000.200.110
M20X120	10	51000.200.120
M20X130	10	51000.200.130
M20X140	10	51000.200.140
M20X150	10	51000.200.150
M20X160	10	51000.200.160
M20X170	10	51000.200.170
M20X180	10	51000.200.180
M20X190	10	51000.200.190
M20X200	5	51000.200.200
M20X210*	10	51000.200.210
M20X220	5	51000.200.220
M20X230	5	51000.200.230
M20X240	5	51000.200.240
M20X250*	10	51000.200.250
M20X260	5	51000.200.260
M20X270*	10	51000.200.270
M20X280*	10	51000.200.280
M20X290*	10	51000.200.290
M20X300*	5	51000.200.300
M20X320*	5	51000.200.320
M20X340*	5	51000.200.340
M20X360*	5	51000.200.360
M20X380*	5	51000.200.380
M20X400*	5	51000.200.400
M20X420*	5	51000.200.420
M20X440*	5	51000.200.440
M20X460*	5	51000.200.460
M20X480*	5	51000.200.480
M20X500*	5	51000.200.500
M20X520*	5	51000.200.520
M20X540*	5	51000.200.540
M20X560*	5	51000.200.560
M20X580*	5	51000.200.580
M20X600*	5	51000.200.600
M22X70/S=32	10	51000.220.070
M22X75/S=32*	25	51000.220.075
M22X80/S=32	10	51000.220.080
M22X85/S=32*	25	51000.220.085
M22X90/S=32	10	51000.220.090
M22X95/S=32*	25	51000.220.095
M22X100/S=32	10	51000.220.100
M22X110/S=32	5	51000.220.110
M22X120/S=32	5	51000.220.120
M22X130/S=32*	20	51000.220.130
M22X140/S=32	5	51000.220.140
M22X150/S=32	5	51000.220.150
M22X160/S=32*	10	51000.220.160
M22X170/S=32*	10	51000.220.170
M22X180/S=32	5	51000.220.180
M22X190/S=32*	10	51000.220.190
M22X200/S=32*	10	51000.220.200
M24X65*	10	51000.240.065
M24X70	10	51000.240.070
M24X75	10	51000.240.075
M24X80	5	51000.240.080
M24X85*	10	51000.240.085
M24X90	5	51000.240.090
M24X95*	10	51000.240.095
M24X100	5	51000.240.100
M24X110	5	51000.240.110
M24X120	5	51000.240.120
M24X130	5	51000.240.130
M24X140	5	51000.240.140
M24X150	5	51000.240.150
M24X160	5	51000.240.160
M24X170*	10	51000.240.170
M24X180	5	51000.240.180
M24X190*	10	51000.240.190
M24X200	5	51000.240.200
M24X210*	5	51000.240.210
M24X220	5	51000.240.220
M24X230*	5	51000.240.230
M24X240	5	51000.240.240
M24X250*	5	51000.240.250
M24X260	5	51000.240.260
M24X270*	5	51000.240.270
M24X280*	5	51000.240.280
M24X290*	5	51000.240.290
M24X300*	5	51000.240.300
M24X320*	5	51000.240.320
M24X340*	5	51000.240.340
M24X360*	5	51000.240.360
M24X380*	5	51000.240.380
M24X400*	5	51000.240.400
M24X420*	5	51000.240.420
M24X440*	5	51000.240.440
M24X460*	5	51000.240.460
M24X480*	5	51000.240.480
M24X500*	5	51000.240.500
M24X520*	5	51000.240.520
M24X540*	5	51000.240.540
M24X560*	5	51000.240.560
M27X70*	10	51000.270.070
M27X75*	10	51000.270.075
M27X80*	10	51000.270.080
M27X85*	10	51000.270.085

51000 Parafuso cabeça sextavada ←

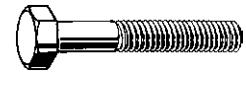
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M27X90	3	51000.270.090	M30X230*	5	51000.300.230	M36X230*	5	51000.360.230
M27X95*	10	51000.270.096	M30X240	1	51000.300.240	M36X240	1	51000.360.240
M27X100	3	51000.270.100	M30X250*	5	51000.300.250	M36X250*	5	51000.360.250
M27X110	3	51000.270.110	M30X260	1	51000.300.260	M36X260	1	51000.360.260
M27X120	3	51000.270.120	M30X270*	5	51000.300.270	M36X270*	5	51000.360.270
M27X130	3	51000.270.130	M30X280*	5	51000.300.280	M36X280*	5	51000.360.280
M27X140	3	51000.270.140	M30X290*	5	51000.300.290	M36X300*	5	51000.360.300
M27X150	3	51000.270.150	M30X300*	5	51000.300.300			
M27X160	3	51000.270.160				M39X120*	10	51000.390.120
M27X170*	5	51000.270.170	M33X90	1	51000.330.090	M39X130*	10	51000.390.130
M27X180	3	51000.270.180	M33X100	1	51000.330.100	M39X140*	10	51000.390.140
M27X190*	5	51000.270.190	M33X110	1	51000.330.110	M39X150*	5	51000.390.150
M27X200	3	51000.270.200	M33X120	1	51000.330.120	M39X160*	5	51000.390.160
M27X210*	5	51000.270.210	M33X130	1	51000.330.130	M39X170*	5	51000.390.170
M27X220	3	51000.270.220	M33X140	1	51000.330.140	M39X180*	5	51000.390.180
M27X230*	5	51000.270.230	M33X150	1	51000.330.150	M39X190*	5	51000.390.190
M27X240	3	51000.270.240	M33X160	1	51000.330.160	M39X200*	5	51000.390.200
M27X250	3	51000.270.250	M33X170	1	51000.330.170			
M27X260*	5	51000.270.260	M33X180	1	51000.330.180	M42X120*	5	51000.420.120
M27X270*	5	51000.270.270	M33X190	1	51000.330.190	M42X130*	5	51000.420.130
M27X280*	5	51000.270.280	M33X200	1	51000.330.200	M42X140*	5	51000.420.140
M27X290*	5	51000.270.290	M33X210*	5	51000.330.210	M42X150*	5	51000.420.150
M27X300*	5	51000.270.300	M33X220	1	51000.330.220	M42X160*	5	51000.420.160
			M33X230*	5	51000.330.230	M42X170*	5	51000.420.170
M30X80	1	51000.300.080	M33X240	1	51000.330.240	M42X180*	5	51000.420.180
M30X85*	10	51000.300.085	M33X260*	5	51000.330.260	M42X200*	5	51000.420.200
M30X90	1	51000.300.090	M33X300*	5	51000.330.300			
M30X95*	10	51000.300.095				M45X140*	5	51000.450.140
M30X100	1	51000.300.100	M36X100	1	51000.360.100	M45X150*	5	51000.450.150
M30X110	1	51000.300.110	M36X110	1	51000.360.110	M45X160*	5	51000.450.160
M30X120	1	51000.300.120	M36X120	1	51000.360.120	M45X170*	5	51000.450.170
M30X130	1	51000.300.130	M36X130	1	51000.360.130	M45X180*	5	51000.450.180
M30X140	1	51000.300.140	M36X140	1	51000.360.140			
M30X150	1	51000.300.150	M36X150	1	51000.360.150	M48X150*	5	51000.480.150
M30X160	1	51000.300.160	M36X160	1	51000.360.160	M48X200*	5	51000.480.200
M30X170	1	51000.300.170	M36X170	1	51000.360.170			
M30X180	1	51000.300.180	M36X180	1	51000.360.180	M52X160*	5	51000.520.160
M30X190	1	51000.300.190	M36X190	1	51000.360.190	M52X180*	5	51000.520.180
M30X200	1	51000.300.200	M36X200	1	51000.360.200	M52X200*	5	51000.520.200
M30X210*	5	51000.300.210	M36X210*	5	51000.360.210			
M30X220	1	51000.300.220	M36X220	1	51000.360.220			

- Diâmetros > M24 são no mínimo classe 50.
- Comprimentos > 8xd são no mínimo classe 50.

55000 Parafuso cabeça sextavada Q41A

Rosca Métrica
Material Aço inoxidável A4
Classe 70

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X25*	200	55000.050.025	M6X80	100	55000.060.080	M8X85	50	55000.080.085
M5X30	100	55000.050.030	M6X85*	100	55000.060.085	M8X90	100	55000.080.090
M5X35	100	55000.050.035	M6X90	100	55000.060.090	M8X95*	50	55000.080.095
M5X40	100	55000.050.040	M6X95*	100	55000.060.095	M8X100	100	55000.080.100
M5X45	100	55000.050.045	M6X100	100	55000.060.100	M8X110	50	55000.080.110
M5X50	100	55000.050.050	M6X110	50	55000.060.110	M8X120	50	55000.080.120
M5X55	100	55000.050.055	M6X120	50	55000.060.120	M8X130	50	55000.080.130
M5X60*	200	55000.050.060	M6X130	50	55000.060.130	M8X140	50	55000.080.140
M5X65*	200	55000.050.065	M6X140	50	55000.060.140	M8X150	50	55000.080.150
M5X70*	100	55000.050.070	M6X150	50	55000.060.150	M8X160	25	55000.080.160
M5X75*	100	55000.050.075	M6X160	50	55000.060.160	M8X170	25	55000.080.170
M5X80*	100	55000.050.080	M6X170	50	55000.060.170	M8X180	25	55000.080.180
M5X90*	100	55000.050.090	M6X180	50	55000.060.180	M8X190	25	55000.080.190
M5X100*	100	55000.050.100	M6X200*	100	55000.060.200	M8X200	10	55000.080.200
						M8X210*	25	55000.080.210
M6X25*	200	55000.060.025	M8X30	100	55000.080.030	M8X220	10	55000.080.220
M6X30	200	55000.060.030	M8X35	100	55000.080.035	M8X230*	25	55000.080.230
M6X35	100	55000.060.035	M8X40	100	55000.080.040	M8X240*	25	55000.080.240
M6X40	100	55000.060.040	M8X45	100	55000.080.045	M8X260*	25	55000.080.260
M6X45	100	55000.060.045	M8X50	100	55000.080.050	M8X270*	25	55000.080.270
M6X50	100	55000.060.050	M8X55	100	55000.080.055	M8X300*	25	55000.080.300
M6X55	100	55000.060.055	M8X60	100	55000.080.060			
M6X60	100	55000.060.060	M8X65	100	55000.080.065	M10X35/S=17	100	55000.100.035
M6X65	100	55000.060.065	M8X70	100	55000.080.070	M10X40/S=17	100	55000.100.040
M6X70	100	55000.060.070	M8X75	100	55000.080.075	M10X45/S=17	100	55000.100.045
M6X75	100	55000.060.075	M8X80	100	55000.080.080	M10X50/S=17	100	55000.100.050

55000 Parafuso cabeça sextavada ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X55/S=17	100	55000.100.055	M14X95/S=22*	25	55000.140.095	M20X85	25	55000.200.085
M10X60/S=17	100	55000.100.060	M14X100/S=22	10	55000.140.100	M20X90	25	55000.200.090
M10X65/S=17	50	55000.100.065	M14X110/S=22	10	55000.140.110	M20X95*	25	55000.200.095
M10X70/S=17	50	55000.100.070	M14X120/S=22	10	55000.140.120	M20X100	25	55000.200.100
M10X75/S=17	50	55000.100.075	M14X130/S=22*	25	55000.140.130	M20X110	25	55000.200.110
M10X80/S=17	50	55000.100.080	M14X140/S=22	10	55000.140.140	M20X120	10	55000.200.120
M10X85/S=17	50	55000.100.085	M14X150/S=22	10	55000.140.150	M20X130	10	55000.200.130
M10X90/S=17	50	55000.100.090	M14X160/S=22	10	55000.140.160	M20X140	10	55000.200.140
M10X95/S=17	50	55000.100.095	M14X170/S=22*	10	55000.140.170	M20X150	10	55000.200.150
M10X100/S=17	50	55000.100.100	M14X180/S=22	10	55000.140.180	M20X160	10	55000.200.160
M10X110/S=17	50	55000.100.110	M14X190/S=22*	10	55000.140.190	M20X170*	10	55000.200.170
M10X120/S=17	25	55000.100.120	M14X200/S=22	10	55000.140.200	M20X180	10	55000.200.180
M10X130/S=17	25	55000.100.130				M20X190*	10	55000.200.190
M10X140/S=17	25	55000.100.140	M16X45*	25	55000.160.045	M20X200	5	55000.200.200
M10X150/S=17	25	55000.100.150	M16X50*	25	55000.160.050	M20X210*	10	55000.200.210
M10X160/S=17	25	55000.100.160	M16X55	50	55000.160.055	M20X220	5	55000.200.220
M10X170/S=17	25	55000.100.170	M16X60	25	55000.160.060	M20X230*	10	55000.200.230
M10X180/S=17	25	55000.100.180	M16X65	25	55000.160.065	M20X240	5	55000.200.240
M10X190/S=17	25	55000.100.190	M16X70	25	55000.160.070	M20X250*	10	55000.200.250
M10X200/S=17	10	55000.100.200	M16X75	25	55000.160.075	M20X260	5	55000.200.260
M10X210/S=17*	10	55000.100.210	M16X80	25	55000.160.080	M20X270*	10	55000.200.270
M10X220/S=17	10	55000.100.220	M16X85	25	55000.160.085	M20X280	5	55000.200.280
M10X230/S=17*	10	55000.100.230	M16X90	25	55000.160.090	M20X290*	10	55000.200.290
M10X240/S=17*	10	55000.100.240	M16X95*	25	55000.160.095	M20X300	5	55000.200.300
M10X250/S=17*	10	55000.100.250	M16X100	25	55000.160.100	M20X320*	5	55000.200.320
M10X260/S=17*	10	55000.100.260	M16X110	25	55000.160.110	M20X340*	5	55000.200.340
M10X270/S=17*	10	55000.100.270	M16X120	10	55000.160.120	M20X360*	5	55000.200.360
M10X280/S=17*	10	55000.100.280	M16X130	10	55000.160.130	M20X380*	5	55000.200.380
M10X290/S=17*	10	55000.100.290	M16X140	10	55000.160.140	M20X400*	5	55000.200.400
M10X300/S=17*	10	55000.100.300	M16X150	10	55000.160.150	M20X420*	5	55000.200.420
M10X360/S=17*	10	55000.100.360	M16X160	10	55000.160.160	M20X440*	5	55000.200.440
M10X400/S=17*	10	55000.100.400	M16X170	10	55000.160.170	M20X460*	5	55000.200.460
			M16X180	5	55000.160.180	M20X500*	5	55000.200.500
M12X40/S=19	50	55000.120.040	M16X190	10	55000.160.190			
M12X45/S=19	50	55000.120.045	M16X200	5	55000.160.200	M22X70/S=32*	25	55000.220.070
M12X50/S=19	50	55000.120.050	M16X210*	10	55000.160.210	M22X75/S=32*	25	55000.220.075
M12X55/S=19	50	55000.120.055	M16X220	5	55000.160.220	M22X80/S=32	10	55000.220.080
M12X60/S=19	50	55000.120.060	M16X230*	10	55000.160.230	M22X85/S=32*	25	55000.220.085
M12X65/S=19	50	55000.120.065	M16X240	5	55000.160.240	M22X90/S=32	10	55000.220.090
M12X70/S=19	50	55000.120.070	M16X250*	10	55000.160.250	M22X95/S=32*	25	55000.220.095
M12X75/S=19	50	55000.120.075	M16X260	5	55000.160.260	M22X100/S=32	10	55000.220.100
M12X80/S=19	50	55000.120.080	M16X270*	10	55000.160.270	M22X110/S=32*	20	55000.220.110
M12X85/S=19	25	55000.120.085	M16X280	5	55000.160.280	M22X120/S=32	5	55000.220.120
M12X90/S=19	50	55000.120.090	M16X290*	10	55000.160.290	M22X130/S=32	5	55000.220.130
M12X95/S=19	25	55000.120.095	M16X300	5	55000.160.300	M22X140/S=32	5	55000.220.140
M12X100/S=19	50	55000.120.100	M16X320*	10	55000.160.320	M22X150/S=32	5	55000.220.150
M12X110/S=19	25	55000.120.110	M16X340*	10	55000.160.340	M22X160/S=32*	10	55000.220.160
M12X120/S=19	25	55000.120.120	M16X360*	10	55000.160.360	M22X170/S=32*	10	55000.220.170
M12X130/S=19	25	55000.120.130	M16X380*	10	55000.160.380	M22X180/S=32*	10	55000.220.180
M12X140/S=19	25	55000.120.140	M16X400*	10	55000.160.400	M22X200/S=32*	10	55000.220.200
M12X150/S=19	25	55000.120.150	M16X420*	10	55000.160.420			
M12X160/S=19	25	55000.120.160	M16X440*	10	55000.160.440	M24X65*	10	55000.240.065
M12X170/S=19	25	55000.120.170	M16X460*	10	55000.160.460	M24X70	10	55000.240.070
M12X180/S=19	25	55000.120.180	M16X480*	10	55000.160.480	M24X75*	10	55000.240.075
M12X190/S=19	25	55000.120.190	M16X500*	10	55000.160.500	M24X80	5	55000.240.080
M12X200/S=19	10	55000.120.200				M24X85*	10	55000.240.085
M12X210/S=19	10	55000.120.210	M18X60*	25	55000.180.060	M24X90	5	55000.240.090
M12X220/S=19	10	55000.120.220	M18X65	25	55000.180.065	M24X95*	10	55000.240.095
M12X230/S=19*	10	55000.120.230	M18X70	25	55000.180.070	M24X100	5	55000.240.100
M12X240/S=19	10	55000.120.240	M18X75*	25	55000.180.075	M24X110	5	55000.240.110
M12X250/S=19*	10	55000.120.250	M18X80	10	55000.180.080	M24X120	5	55000.240.120
M12X260/S=19*	10	55000.120.260	M18X85*	25	55000.180.085	M24X130	5	55000.240.130
M12X270/S=19*	10	55000.120.270	M18X90	10	55000.180.090	M24X140	5	55000.240.140
M12X280/S=19*	10	55000.120.280	M18X95*	25	55000.180.095	M24X150	5	55000.240.150
M12X290/S=19*	10	55000.120.290	M18X100	10	55000.180.100	M24X160	5	55000.240.160
M12X300/S=19*	10	55000.120.300	M18X110	10	55000.180.110	M24X170*	10	55000.240.170
M12X320/S=19*	10	55000.120.320	M18X120	10	55000.180.120	M24X180	5	55000.240.180
M12X340/S=19*	10	55000.120.340	M18X130*	25	55000.180.130	M24X190*	10	55000.240.190
M12X360/S=19*	10	55000.120.360	M18X140*	25	55000.180.140	M24X200	5	55000.240.200
M12X380/S=19*	10	55000.120.380	M18X150	10	55000.180.150	M24X210*	5	55000.240.210
M12X400/S=19*	10	55000.120.400	M18X160*	25	55000.180.160	M24X220	5	55000.240.220
			M18X170*	25	55000.180.170	M24X230	5	55000.240.230
M14X45/S=22*	50	55000.140.045	M18X180*	25	55000.180.180	M24X240	5	55000.240.240
M14X50/S=22*	50	55000.140.050	M18X190*	25	55000.180.190	M24X250*	5	55000.240.250
M14X55/S=22*	50	55000.140.055	M18X200*	25	55000.180.200	M24X260	5	55000.240.260
M14X60/S=22	50	55000.140.060				M24X270	5	55000.240.270
M14X65/S=22*	50	55000.140.065	M20X55*	25	55000.200.055	M24X280*	5	55000.240.280
M14X70/S=22	50	55000.140.070	M20X60	25	55000.200.060	M24X290*	5	55000.240.290
M14X75/S=22*	25	55000.140.075	M20X65	25	55000.200.065	M24X300*	5	55000.240.300
M14X80/S=22	10	55000.140.080	M20X70	25	55000.200.070	M24X320*	5	55000.240.320
M14X85/S=22*	25	55000.140.085	M20X75	25	55000.200.075	M24X340*	5	55000.240.340
M14X90/S=22	10	55000.140.090	M20X80	25	55000.200.080	M24X360*	5	55000.240.360

55000 Parafuso cabeça sextavada ←

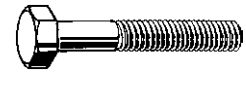
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M24X380*	5	55000.240.380	M30X130	1	55000.300.130	M36X110	1	55000.360.110
M24X400*	5	55000.240.400	M30X140	1	55000.300.140	M36X120	1	55000.360.120
M24X440*	5	55000.240.440	M30X150	1	55000.300.150	M36X130	1	55000.360.130
M24X480*	5	55000.240.480	M30X160	1	55000.300.160	M36X140	1	55000.360.140
M24X500*	5	55000.240.500	M30X170*	5	55000.300.170	M36X150	1	55000.360.150
			M30X180	1	55000.300.180	M36X160	1	55000.360.160
M27X70*	10	55000.270.070	M30X190*	5	55000.300.190	M36X170	1	55000.360.170
M27X75*	10	55000.270.075	M30X200	1	55000.300.200	M36X180	1	55000.360.180
M27X80	3	55000.270.080	M30X210	1	55000.300.210	M36X190	1	55000.360.190
M27X85*	10	55000.270.085	M30X220	1	55000.300.220	M36X200	1	55000.360.200
M27X90	3	55000.270.090	M30X230*	5	55000.300.230	M36X210*	5	55000.360.210
M27X95*	10	55000.270.095	M30X240	1	55000.300.240	M36X220	1	55000.360.220
M27X100	3	55000.270.100	M30X250	1	55000.300.250	M36X230*	5	55000.360.230
M27X110	3	55000.270.110	M30X260*	5	55000.300.260	M36X240	1	55000.360.240
M27X120	3	55000.270.120	M30X270*	5	55000.300.270	M36X250*	5	55000.360.250
M27X130	3	55000.270.130	M30X280*	5	55000.300.280	M36X260*	5	55000.360.260
M27X140	3	55000.270.140	M30X290*	5	55000.300.290	M36X300*	5	55000.360.300
M27X150	3	55000.270.150	M30X300*	5	55000.300.300			
M27X160	3	55000.270.160				M39X120*	10	55000.390.120
M27X170*	5	55000.270.170	M33X90	1	55000.330.090	M39X130*	10	55000.390.130
M27X180	3	55000.270.180	M33X100	1	55000.330.100	M39X140*	10	55000.390.140
M27X190*	5	55000.270.190	M33X110	1	55000.330.110	M39X150*	5	55000.390.150
M27X200	3	55000.270.200	M33X120	1	55000.330.120	M39X160*	5	55000.390.160
M27X210*	5	55000.270.210	M33X130	1	55000.330.130	M39X170*	5	55000.390.170
M27X220	3	55000.270.220	M33X140	1	55000.330.140	M39X180*	5	55000.390.180
M27X230*	5	55000.270.230	M33X150	1	55000.330.150	M39X200*	5	55000.390.200
M27X240	3	55000.270.240	M33X160	1	55000.330.160			
M27X250*	5	55000.270.250	M33X170	1	55000.330.170	M42X120*	5	55000.420.120
M27X260*	5	55000.270.260	M33X180	1	55000.330.180	M42X130*	5	55000.420.130
M27X270*	5	55000.270.270	M33X190	1	55000.330.190	M42X140*	5	55000.420.140
M27X280*	5	55000.270.280	M33X200	1	55000.330.200	M42X150*	5	55000.420.150
M27X290*	5	55000.270.290	M33X210*	5	55000.330.210	M42X160*	5	55000.420.160
M27X300*	5	55000.270.300	M33X220	1	55000.330.220	M42X190*	5	55000.420.190
			M33X230*	5	55000.330.230	M42X200*	5	55000.420.200
M30X80*	10	55000.300.080	M33X240	1	55000.330.240			
M30X85*	10	55000.300.085	M33X250*	5	55000.330.250	M45X140*	5	55000.450.140
M30X90	1	55000.300.090	M33X260	1	55000.330.260	M45X180*	5	55000.450.180
M30X95*	10	55000.300.095	M33X290*	5	55000.330.290			
M30X100	1	55000.300.100	M33X300*	5	55000.330.300	M48X150*	5	55000.480.150
M30X110	1	55000.300.110				M48X180*	5	55000.480.180
M30X120	1	55000.300.120	M36X100	1	55000.360.100	M48X200*	5	55000.480.200

- Diâmetros > M24 são no mínimo classe 50.
- Comprimentos > 8xd são no mínimo classe 50.

53510 Parafuso cabeça sextavada R11A

Rosca Métrica
Material Aço inoxidável A4
Classe 80

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X25	200	53510.050.025	M6X80	100	53510.060.080	M8X80	50	53510.080.080
M5X30*	200	53510.050.030	M6X85*	100	53510.060.085	M8X85*	50	53510.080.085
M5X35*	200	53510.050.035	M6X90*	100	53510.060.090	M8X90*	50	53510.080.090
M5X40*	200	53510.050.040	M6X95*	100	53510.060.095	M8X95*	50	53510.080.095
M5X45*	200	53510.050.045	M6X100	100	53510.060.100	M8X100	50	53510.080.100
M5X50*	200	53510.050.050	M6X110*	100	53510.060.110	M8X110*	50	53510.080.110
M5X55*	200	53510.050.055	M6X120*	100	53510.060.120	M8X120*	50	53510.080.120
M5X60*	200	53510.050.060	M6X130*	100	53510.060.130	M8X130*	50	53510.080.130
M5X65*	200	53510.050.065	M6X140*	100	53510.060.140	M8X140*	50	53510.080.140
M5X70*	100	53510.050.070	M6X150*	100	53510.060.150	M8X150*	50	53510.080.150
M5X75*	100	53510.050.075	M6X160*	100	53510.060.160	M8X160*	25	53510.080.160
M5X80*	100	53510.050.080	M6X170*	100	53510.060.170	M8X170*	25	53510.080.170
M5X90*	100	53510.050.090	M6X180*	100	53510.060.180	M8X180*	25	53510.080.180
M5X100*	100	53510.050.100	M6X190*	100	53510.060.190	M8X190*	25	53510.080.190
			M6X200*	100	53510.060.200	M8X200*	25	53510.080.200
M6X25*	200	53510.060.025				M8X220*	25	53510.080.220
M6X30	100	53510.060.030	M8X30*	100	53510.080.030			
M6X35	100	53510.060.035	M8X35*	100	53510.080.035	M10X35/S=17*	100	53510.100.035
M6X40	100	53510.060.040	M8X40	50	53510.080.040	M10X40/S=17	50	53510.100.040
M6X45*	100	53510.060.045	M8X45	50	53510.080.045	M10X45/S=17	50	53510.100.045
M6X50	100	53510.060.050	M8X50	50	53510.080.050	M10X50/S=17	50	53510.100.050
M6X55*	100	53510.060.055	M8X55*	100	53510.080.055	M10X55/S=17*	50	53510.100.055
M6X60	100	53510.060.060	M8X60	50	53510.080.060	M10X60/S=17	50	53510.100.060
M6X65	100	53510.060.065	M8X65*	100	53510.080.065	M10X65/S=17*	50	53510.100.065
M6X70	100	53510.060.070	M8X70	50	53510.080.070	M10X70/S=17	50	53510.100.070
M6X75*	100	53510.060.075	M8X75*	50	53510.080.075	M10X75/S=17*	50	53510.100.075

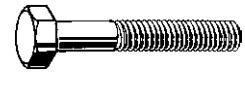
53510 Parafuso cabeça sextavada ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X80/S=17	50	53510.100.080	M14X50/S=22*	50	53510.140.050	M20X80	10	53510.200.080
M10X85/S=17*	50	53510.100.085	M14X55/S=22*	50	53510.140.055	M20X85*	25	53510.200.085
M10X90/S=17	50	53510.100.090	M14X60/S=22*	50	53510.140.060	M20X90	10	53510.200.090
M10X95/S=17*	50	53510.100.095	M14X65/S=22*	50	53510.140.065	M20X95*	25	53510.200.095
M10X100/S=17	50	53510.100.100	M14X70/S=22*	50	53510.140.070	M20X100	10	53510.200.100
M10X110/S=17*	50	53510.100.110	M14X75/S=22*	25	53510.140.075	M20X110*	25	53510.200.110
M10X120/S=17*	50	53510.100.120	M14X80/S=22*	25	53510.140.080	M20X120	10	53510.200.120
M10X130/S=17*	50	53510.100.130	M14X90/S=22*	25	53510.140.090	M20X130*	25	53510.200.130
M10X140/S=17*	50	53510.100.140	M14X95/S=22*	25	53510.140.095	M20X140*	25	53510.200.140
M10X150/S=17*	50	53510.100.150	M14X100/S=22*	25	53510.140.100	M20X150	10	53510.200.150
M10X160/S=17*	25	53510.100.160	M14X110/S=22*	25	53510.140.110	M20X160*	10	53510.200.160
M10X170/S=17*	25	53510.100.170	M14X120/S=22*	25	53510.140.120	M20X170*	10	53510.200.170
M10X180/S=17*	25	53510.100.180	M14X130/S=22*	25	53510.140.130	M20X180*	10	53510.200.180
M10X190/S=17*	25	53510.100.190	M14X140/S=22*	25	53510.140.140	M20X190*	10	53510.200.190
M10X200/S=17*	25	53510.100.200	M14X160/S=22*	10	53510.140.160	M20X200*	10	53510.200.200
M10X210/S=17*	10	53510.100.210	M14X180/S=22*	10	53510.140.180	M20X210*	10	53510.200.210
M10X220/S=17*	10	53510.100.220				M20X220*	10	53510.200.220
M10X230/S=17*	10	53510.100.230	M16X50	25	53510.160.050	M20X230*	10	53510.200.230
M10X240/S=17*	10	53510.100.240	M16X55	25	53510.160.055	M20X240*	10	53510.200.240
M10X250/S=17*	10	53510.100.250	M16X60	25	53510.160.060	M20X250*	10	53510.200.250
			M16X65	25	53510.160.065			
M12X40/S=19	50	53510.120.040	M16X70	25	53510.160.070	M24X70*	10	53510.240.070
M12X45/S=19	25	53510.120.045	M16X75	25	53510.160.075	M24X75*	10	53510.240.075
M12X50/S=19	25	53510.120.050	M16X80	25	53510.160.080	M24X80	10	53510.240.080
M12X55/S=19	25	53510.120.055	M16X85*	25	53510.160.085	M24X85*	10	53510.240.085
M12X60/S=19	25	53510.120.060	M16X90	25	53510.160.090	M24X90	10	53510.240.090
M12X65/S=19	25	53510.120.065	M16X95*	25	53510.160.095	M24X95*	10	53510.240.095
M12X70/S=19	25	53510.120.070	M16X100	25	53510.160.100	M24X100	10	53510.240.100
M12X75/S=19	25	53510.120.075	M16X110	25	53510.160.110	M24X110*	10	53510.240.110
M12X80/S=19	25	53510.120.080	M16X120	25	53510.160.120	M24X120	10	53510.240.120
M12X85/S=19*	25	53510.120.085	M16X130*	25	53510.160.130	M24X130*	10	53510.240.130
M12X90/S=19	25	53510.120.090	M16X140	25	53510.160.140	M24X140*	10	53510.240.140
M12X95/S=19*	25	53510.120.095	M16X150	25	53510.160.150	M24X150	10	53510.240.150
M12X100/S=19	25	53510.120.100	M16X160*	10	53510.160.160	M24X160*	10	53510.240.160
M12X110/S=19*	25	53510.120.110	M16X170*	10	53510.160.170	M24X170*	10	53510.240.170
M12X120/S=19	25	53510.120.120	M16X180*	10	53510.160.180	M24X180*	10	53510.240.180
M12X130/S=19*	25	53510.120.130	M16X190*	10	53510.160.190	M24X190*	10	53510.240.190
M12X140/S=19*	25	53510.120.140	M16X200*	10	53510.160.200	M24X200*	10	53510.240.200
M12X150/S=19*	25	53510.120.150	M16X210*	10	53510.160.210	M24X220*	5	53510.240.220
M12X160/S=19*	10	53510.120.160	M16X220*	10	53510.160.220	M24X230*	5	53510.240.230
M12X170/S=19*	10	53510.120.170	M16X230*	10	53510.160.230	M24X240*	5	53510.240.240
M12X180/S=19*	10	53510.120.180	M16X240*	10	53510.160.240	M24X250*	5	53510.240.250
M12X190/S=19*	10	53510.120.190	M16X250*	10	53510.160.250	M24X260*	5	53510.240.260
M12X200/S=19*	10	53510.120.200	M16X260*	10	53510.160.260	M24X280*	5	53510.240.280
M12X210/S=19*	10	53510.120.210				M24X300*	5	53510.240.300
M12X220/S=19*	10	53510.120.220	M20X55*	25	53510.200.055			
M12X230/S=19*	10	53510.120.230	M20X60*	25	53510.200.060	M27X130*	10	53510.270.130
M12X240/S=19*	10	53510.120.240	M20X65*	25	53510.200.065			
M12X250/S=19*	10	53510.120.250	M20X70	10	53510.200.070	M30X90*	10	53510.300.090
			M20X75*	25	53510.200.075			

23010 Parafuso cabeça sextavada G90A

Rosca Métrica
Material Aço 25CrMo4+QT
Classe KG

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M20X100	10	23010.200.100	M24X120	10	23010.240.120	M30X150	5	23010.300.150
M20X120	10	23010.200.120	M24X140	10	23010.240.140			

Caracteristicas especiais dos parafusos cabeça sextavada:
- Aço 25CrMo4+QT referência: 1.7218.
- Para utilização em altas temperaturas até 400°C.
- Comprimentos de rosca não são acc. com ISO 4014.
- Propriedades mecânicas acc. com EN 10269.
- A marcação da cabeça é feita com sinal KG, acc. com DIN 267-13.

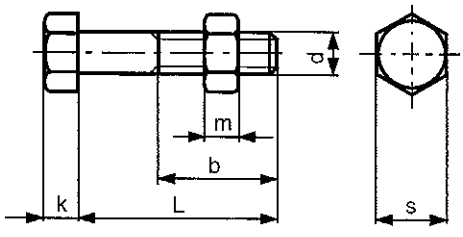
56090	Parafuso rosca parcial cabeça sextavada plástico	W02A

Rosca	Métrica	**DIN**	**≈931**
Material	Plástico Poliamida (nylon)	ISO	≈4014
Classe	PA 6.6	NEN	≈1555
Cor	Branco	ASME	≈B18.2.3.1M
		NF	≈E25-112

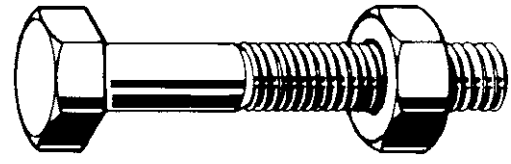


d x L/b	✉	Ref. do artigo	d x L/b	✉	Ref. do artigo	d x L/b	✉	Ref. do artigo
M8X70	50	56090.080.070	M12X40/30	25	56090.120.040	M12X60/50	25	56090.120.060
M10X60/50	25	56090.100.060	M12X50/50	25	56090.120.050	M12X80/30	25	56090.120.080

Parafuso cabeça sextavada com porca sextavada



DIN	**601/555 (1987)**
ISO	4016/-
NEN	102/697
NF	E25-115-1/E25-402



Dados técnicos

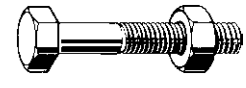
d	b (min.): L≤125mm	b (min.): 125mm<L≤200mm	b (min.): L>200mm	k	m	P	s
M6	18	24	37	4	5	1	10
M8	22	28	41	5.3	6.5	1.25	13
M10	26	32	45	6.4	8	1.5	17
M12	30	36	49	7.5	10	1.75	19
M14	34	40	53	8.8	11	2	22
M16	38	44	57	10	13	2	24
M20	46	52	65	12.5	16	2.5	30
M24	54	60	73	15	19	3	36

- As porcas sextavadas correspondentes têm uma classe de aço ≥ l4l.

08200	Parafuso cabeça sextavada com porca sextavada	E03A

Rosca	Métrica
Material	Aço
Classe	≥4.6
Tratamento sup.	Zincado

RoHS

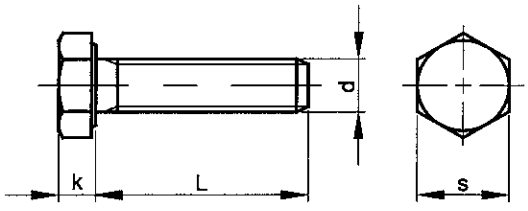


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X16	500	08200.060.016	M10X70	100	08200.100.070	M16X70	25	08200.160.070
M6X20	500	08200.060.020	M10X90	100	08200.100.090	M16X80	25	08200.160.080
M6X25	500	08200.060.025	M10X100	100	08200.100.100	M16X90	25	08200.160.090
M6X30	500	08200.060.030	M10X110	50	08200.100.110	M16X100	25	08200.160.100
M6X40	200	08200.060.040	M10X120	50	08200.100.120	M16X110	25	08200.160.110
M6X50	200	08200.060.050	M10X140	50	08200.100.140	M16X120	25	08200.160.120
M6X60	200	08200.060.060				M16X130	25	08200.160.130
M6X70	200	08200.060.070	M12X25	100	08200.120.025	M16X140	25	08200.160.140
M6X80	200	08200.060.080	M12X30	100	08200.120.030	M16X160	25	08200.160.160
M6X100	100	08200.060.100	M12X35	100	08200.120.035	M16X180	25	08200.160.180
			M12X40	100	08200.120.040	M16X200	25	08200.160.200
M8X16	200	08200.080.016	M12X45	100	08200.120.045			
M8X20	200	08200.080.020	M12X50	100	08200.120.050	M20X40	25	08200.200.040
M8X25	200	08200.080.025	M12X55	100	08200.120.055	M20X50	25	08200.200.050
M8X30	200	08200.080.030	M12X60	100	08200.120.060	M20X60	25	08200.200.060
M8X40	200	08200.080.040	M12X70	50	08200.120.070	M20X65	25	08200.200.065
M8X45	200	08200.080.045	M12X80	50	08200.120.080	M20X70	25	08200.200.070
M8X50	200	08200.080.050	M12X100	50	08200.120.100	M20X75	25	08200.200.075
M8X55	200	08200.080.055	M12X110	50	08200.120.110	M20X80	25	08200.200.080
M8X60	200	08200.080.060	M12X130	50	08200.120.130	M20X90	25	08200.200.090
M8X70	200	08200.080.070	M12X150	50	08200.120.150	M20X100	25	08200.200.100
M8X80	200	08200.080.080	M12X180	25	08200.120.180	M20X110	25	08200.200.110
M8X90	100	08200.080.090	M12X260	25	08200.120.260	M20X120	25	08200.200.120
M8X100	100	08200.080.100				M20X130	25	08200.200.130
			M16X35	50	08200.160.035	M20X140	25	08200.200.140
M10X25	200	08200.100.025	M16X40	50	08200.160.040	M20X150	10	08200.200.150
M10X30	200	08200.100.030	M16X45	50	08200.160.045	M20X160	10	08200.200.160
M10X35	100	08200.100.035	M16X50	50	08200.160.050	M20X180	10	08200.200.180
M10X40	100	08200.100.040	M16X55	50	08200.160.055	M20X200	10	08200.200.200
M10X45	100	08200.100.045	M16X60	50	08200.160.060	M20X220	10	08200.200.220
M10X50	100	08200.100.050	M16X65	25	08200.160.065	M20X240	10	08200.200.240

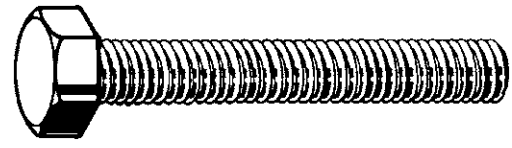
08200	Parafuso cabeça sextavada com porca sextavada	←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
			M24X80	25	08200.240.080	M24X100	10	08200.240.100
M24X70	25	08200.240.070	M24X90	10	08200.240.090	M24X110	10	08200.240.110

Parafuso cabeça sextavada



ISO	**4017**
DIN	933
NEN	1568
ASME	B18.2.3.1M
NF	E25-114



Dados técnicos

d	k	P	s
M2	1.4	0.4	4
M2.5	1.7	0.45	5
M3	2	0.5	5.5
M4	2.8	0.7	7
M5	3.5	0.8	8
M6	4	1	10
M7	4.8	1	11
M8	5.3	1.25	13
M10 (DIN)	6.4	1.5	17
M10	6.4	1.5	16
M12 (DIN)	7.5	1.75	19
M12	7.5	1.75	18
M14 (DIN)	8.8	2	22
M14	8.8	2	21
M16	10	2	24
M18	11.5	2.5	27
M20	12.5	2.5	30
M22 (DIN)	14	2.5	32
M22	14	2.5	34
M24	15	3	36
M27	17	3	41
M30	18.7	3.5	46
M33	21	3.5	50
M36	22.5	4	55
M39	25	4	60
M42	26	4.5	65
M45	28	4.5	70
M48	30	5	75
M52	33	5	80
M64	40	6	95

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.		Cor	Código	Página
M	Sextavado	Aço	8.8				01010	1-20
M	Sextavado	Aço	8.8	Zn			01210	1-21
M	Sextavado	Aço	8.8	Passiv. amar.			01230	1-23
M	Sextavado	Aço	8.8	FLZNNC-NC6			01236	1-24
M	Sextavado	Aço	8.8	Galv. Q.	ISO métrico		01410	1-24
M	Sextavado	Aço	8.8	Galv. Q.	oversized		01430	1-25
M	Sextavado	Aço	10.9				04110	1-26
M	Sextavado	Aço	10.9	FLZNNC-NC6			04116	1-26
M	Sextavado	Aço	12.9				04118	1-27
M	Sextavado	Aço	5.6		equipamentos sob pressão		08760	1-27
M	Sextavado	INOX A2	70				51010	1-27
M	Sextavado	INOX A4	70				55010	1-29
M	Sextavado	INOX A4	80				53520	1-31
M	Sextavado	INOX A5	70				53521	1-32
M	Sextavado	Al P40					45010	1-33
M	Sextavado	Al P60					45210	1-33
M	Sextavado	Kuprodur Cu5	60				45810	1-33
M	Sextavado	Latão Cu2/Cu3					46010	1-33

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Cor	Código	Página
M	Sextavado	Latão Cu2/Cu3		Niq.		46060	1-34
M	Sextavado	Ti ASTM	Gr.2			45910	1-34
M	Sextavado	Plástico PA	PA 6.6		Branco	56100	1-34

01010 Parafuso cabeça sextavada — A01A

Rosca Métrica
Material Aço
Classe 8.8



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X8	500	01010.040.008	M8X55	200	01010.080.055	M14X45/S=22	50	01010.140.045
M4X10	500	01010.040.010	M8X60	200	01010.080.060	M14X50/S=22	50	01010.140.050
M4X12	500	01010.040.012	M8X65	200	01010.080.065	M14X55/S=22	50	01010.140.055
M4X16	500	01010.040.016	M8X70	200	01010.080.070	M14X60/S=22	50	01010.140.060
M4X20	500	01010.040.020	M8X75	200	01010.080.075	M14X65/S=22	50	01010.140.065
M4X25	500	01010.040.025	M8X80	200	01010.080.080	M14X70/S=22	50	01010.140.070
M4X30	500	01010.040.030	M8X90	100	01010.080.090	M14X75/S=22	50	01010.140.075
M4X35	500	01010.040.035	M8X100	100	01010.080.100	M14X80/S=22	50	01010.140.080
M4X40	500	01010.040.040	M8X110	100	01010.080.110	M14X90/S=22	50	01010.140.090
M4X50	500	01010.040.050	M8X120	100	01010.080.120	M14X100/S=22	50	01010.140.100
						M14X120/S=22	50	01010.140.120
M5X8	200	01010.050.008	M10X12/S=17	200	01010.100.012			
M5X10	200	01010.050.010	M10X16/S=17	200	01010.100.016	M16X20	50	01010.160.020
M5X12	200	01010.050.012	M10X20/S=17	200	01010.100.020	M16X25	50	01010.160.025
M5X16	200	01010.050.016	M10X22/S=17	200	01010.100.022	M16X30	50	01010.160.030
M5X18	200	01010.050.018	M10X25/S=17	200	01010.100.025	M16X35	50	01010.160.035
M5X20	200	01010.050.020	M10X28/S=17	200	01010.100.028	M16X40	50	01010.160.040
M5X25	200	01010.050.025	M10X30/S=17	200	01010.100.030	M16X45	50	01010.160.045
M5X30	200	01010.050.030	M10X35/S=17	100	01010.100.035	M16X50	50	01010.160.050
M5X35	200	01010.050.035	M10X40/S=17	100	01010.100.040	M16X55	50	01010.160.055
M5X40	200	01010.050.040	M10X45/S=17	100	01010.100.045	M16X60	50	01010.160.060
M5X50	200	01010.050.050	M10X50/S=17	100	01010.100.050	M16X65	25	01010.160.065
M5X60	200	01010.050.060	M10X55/S=17	100	01010.100.055	M16X70	25	01010.160.070
			M10X60/S=17	100	01010.100.060	M16X75	25	01010.160.075
M6X8	200	01010.060.008	M10X65/S=17	100	01010.100.065	M16X80	25	01010.160.080
M6X10	200	01010.060.010	M10X70/S=17	100	01010.100.070	M16X90	25	01010.160.090
M6X12	200	01010.060.012	M10X75/S=17	100	01010.100.075	M16X100	25	01010.160.100
M6X14	200	01010.060.014	M10X80/S=17	100	01010.100.080	M16X110	25	01010.160.110
M6X16	200	01010.060.016	M10X90/S=17	100	01010.100.090	M16X120	25	01010.160.120
M6X18	200	01010.060.018	M10X100/S=17	100	01010.100.100	M16X130	25	01010.160.130
M6X20	200	01010.060.020	M10X110/S=17	50	01010.100.110	M16X140	25	01010.160.140
M6X22	200	01010.060.022	M10X120/S=17	50	01010.100.120	M16X150	25	01010.160.150
M6X25	200	01010.060.025	M10X130/S=17	50	01010.100.130	M16X160	25	01010.160.160
M6X30	200	01010.060.030	M10X140/S=17	50	01010.100.140	M16X180	25	01010.160.180
M6X35	200	01010.060.035	M10X150/S=17	50	01010.100.150	M16X200	25	01010.160.200
M6X40	200	01010.060.040						
M6X45	200	01010.060.045	M12X16/S=19	100	01010.120.016	M18X30	50	01010.180.030
M6X50	200	01010.060.050	M12X20/S=19	100	01010.120.020	M18X35	50	01010.180.035
M6X55	200	01010.060.055	M12X25/S=19	100	01010.120.025	M18X40	50	01010.180.040
M6X60	200	01010.060.060	M12X28/S=19	100	01010.120.028	M18X45	50	01010.180.045
M6X70	200	01010.060.070	M12X30/S=19	100	01010.120.030	M18X50	50	01010.180.050
M6X80	200	01010.060.080	M12X35/S=19	100	01010.120.035	M18X55	25	01010.180.055
			M12X40/S=19	100	01010.120.040	M18X60	25	01010.180.060
M7X12	200	01010.070.012	M12X45/S=19	100	01010.120.045	M18X70	25	01010.180.070
M7X16	200	01010.070.016	M12X50/S=19	100	01010.120.050	M18X80	25	01010.180.080
M7X20	200	01010.070.020	M12X55/S=19	100	01010.120.055	M18X90	25	01010.180.090
M7X25	200	01010.070.025	M12X60/S=19	100	01010.120.060	M18X100	25	01010.180.100
M7X30	200	01010.070.030	M12X65/S=19	50	01010.120.065	M18X110	25	01010.180.110
M7X35	200	01010.070.035	M12X70/S=19	50	01010.120.070	M18X120	25	01010.180.120
M7X40	200	01010.070.040	M12X75/S=19	50	01010.120.075			
M7X45	200	01010.070.045	M12X80/S=19	50	01010.120.080	M20X30	25	01010.200.030
M7X50	200	01010.070.050	M12X90/S=19	50	01010.120.090	M20X35	25	01010.200.035
			M12X100/S=19	50	01010.120.100	M20X40	25	01010.200.040
M8X10	200	01010.080.010	M12X110/S=19	50	01010.120.110	M20X45	25	01010.200.045
M8X12	200	01010.080.012	M12X120/S=19	50	01010.120.120	M20X50	25	01010.200.050
M8X14	200	01010.080.014	M12X130/S=19	50	01010.120.130	M20X55	25	01010.200.055
M8X16	200	01010.080.016	M12X140/S=19	50	01010.120.140	M20X60	25	01010.200.060
M8X18	200	01010.080.018	M12X150/S=19	50	01010.120.150	M20X65	25	01010.200.065
M8X20	200	01010.080.020	M12X160/S=19	50	01010.120.160	M20X70	25	01010.200.070
M8X22	200	01010.080.022	M12X180/S=19	50	01010.120.180	M20X75	25	01010.200.075
M8X25	200	01010.080.025				M20X80	25	01010.200.080
M8X30	200	01010.080.030	M14X20/S=22	100	01010.140.020	M20X90	25	01010.200.090
M8X35	200	01010.080.035	M14X25/S=22	100	01010.140.025	M20X100	25	01010.200.100
M8X40	200	01010.080.040	M14X30/S=22	100	01010.140.030	M20X110	25	01010.200.110
M8X45	200	01010.080.045	M14X35/S=22	100	01010.140.035	M20X120	25	01010.200.120
M8X50	200	01010.080.050	M14X40/S=22	100	01010.140.040	M20X130	25	01010.200.130

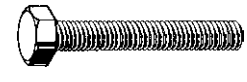
01010 Parafuso cabeça sextavada ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M20X140	25	01010.200.140	M24X200	10	01010.240.200			
M20X150	10	01010.200.150				M36X50	5	01010.360.050
M20X160	10	01010.200.160	M27X50	10	01010.270.050	M36X60	5	01010.360.060
M20X180	10	01010.200.180	M27X60	10	01010.270.060	M36X70	5	01010.360.070
M20X200	10	01010.200.200	M27X70	10	01010.270.070	M36X80	5	01010.360.080
			M27X75	10	01010.270.075	M36X90	5	01010.360.090
M22X40/S=32	25	01010.220.040	M27X80	10	01010.270.080	M36X100	5	01010.360.100
M22X50/S=32	25	01010.220.050	M27X90	10	01010.270.090	M36X110	5	01010.360.110
M22X55/S=32	25	01010.220.055	M27X100	10	01010.270.100	M36X130	5	01010.360.130
M22X60/S=32	25	01010.220.060	M27X110	10	01010.270.110	M36X140	5	01010.360.140
M22X65/S=32	25	01010.220.065	M27X120	10	01010.270.120	M36X160	5	01010.360.160
M22X70/S=32	25	01010.220.070				M36X180	5	01010.360.180
M22X80/S=32	25	01010.220.080	M30X40	10	01010.300.040			
M22X90/S=32	25	01010.220.090	M30X50	10	01010.300.050	M39X80	1	01010.390.080
M22X100/S=32	10	01010.220.100	M30X60	10	01010.300.060	M39X90	1	01010.390.090
M22X120/S=32	25	01010.220.120	M30X65	10	01010.300.065	M39X100	1	01010.390.100
M22X150/S=32	10	01010.220.150	M30X70	10	01010.300.070	M39X150	1	01010.390.150
			M30X75	10	01010.300.075			
M24X40	25	01010.240.040	M30X80	10	01010.300.080	M42X80	1	01010.420.080
M24X45	25	01010.240.045	M30X90	10	01010.300.090	M42X90	1	01010.420.090
M24X50	25	01010.240.050	M30X100	10	01010.300.100	M42X100	1	01010.420.100
M24X55	25	01010.240.055	M30X110	10	01010.300.110	M42X120	1	01010.420.120
M24X60	25	01010.240.060	M30X120	10	01010.300.120			
M24X65	25	01010.240.065	M30X130	10	01010.300.130	M45X90	1	01010.450.090
M24X70	25	01010.240.070	M30X140	5	01010.300.140	M45X100	1	01010.450.100
M24X75	25	01010.240.075	M30X160	5	01010.300.160			
M24X80	25	01010.240.080	M30X180	5	01010.300.180	M48X100	1	01010.480.100
M24X90	10	01010.240.090	M30X200	5	01010.300.200	M48X110	1	01010.480.110
M24X100	10	01010.240.100				M48X120	1	01010.480.120
M24X110	10	01010.240.110	M33X60	5	01010.330.060	M48X180	5	01010.480.180
M24X120	10	01010.240.120	M33X70	5	01010.330.070			
M24X130	10	01010.240.130	M33X80	5	01010.330.080	M52X100	1	01010.520.100
M24X140	10	01010.240.140	M33X90	5	01010.330.090	M52X120	1	01010.520.120
M24X150	10	01010.240.150	M33X100	5	01010.330.100			
M24X160	10	01010.240.160	M33X140	5	01010.330.140	M64X160	1	01010.640.160

01210 Parafuso cabeça sextavada A05A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Zincado

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6	500	01210.030.006	M5X40	200	01210.050.040	M7X25	200	01210.070.025
M3X8	500	01210.030.008	M5X45	200	01210.050.045	M7X30	200	01210.070.030
M3X10	500	01210.030.010	M5X50	200	01210.050.050	M7X35	200	01210.070.035
M3X12	500	01210.030.012	M5X55	200	01210.050.055	M7X40	200	01210.070.040
M3X16	500	01210.030.016	M5X60	200	01210.050.060	M7X45	200	01210.070.045
M3X20	500	01210.030.020	M5X70	200	01210.050.070	M7X50	200	01210.070.050
M3X25	500	01210.030.025				M7X60	200	01210.070.060
M3X30	500	01210.030.030	M6X8	200	01210.060.008	M7X70	200	01210.070.070
M3X40	500	01210.030.040	M6X10	200	01210.060.010			
			M6X12	200	01210.060.012	M8X10	200	01210.080.010
M4X6	500	01210.040.006	M6X14	200	01210.060.014	M8X12	200	01210.080.012
M4X8	500	01210.040.008	M6X16	200	01210.060.016	M8X14	200	01210.080.014
M4X10	500	01210.040.010	M6X18	200	01210.060.018	M8X16	200	01210.080.016
M4X12	500	01210.040.012	M6X20	200	01210.060.020	M8X18	200	01210.080.018
M4X16	500	01210.040.016	M6X22	200	01210.060.022	M8X20	200	01210.080.020
M4X20	500	01210.040.020	M6X25	200	01210.060.025	M8X22	200	01210.080.022
M4X25	500	01210.040.025	M6X30	200	01210.060.030	M8X25	200	01210.080.025
M4X30	500	01210.040.030	M6X35	200	01210.060.035	M8X30	200	01210.080.030
M4X35	500	01210.040.035	M6X40	200	01210.060.040	M8X35	200	01210.080.035
M4X40	500	01210.040.040	M6X45	200	01210.060.045	M8X40	200	01210.080.040
M4X45	500	01210.040.045	M6X50	200	01210.060.050	M8X45	200	01210.080.045
M4X50	500	01210.040.050	M6X55	200	01210.060.055	M8X50	200	01210.080.050
M4X60	200	01210.040.060	M6X60	200	01210.060.060	M8X55	200	01210.080.055
			M6X65	200	01210.060.065	M8X60	200	01210.080.060
M5X6	200	01210.050.006	M6X70	200	01210.060.070	M8X65	200	01210.080.065
M5X8	200	01210.050.008	M6X75	200	01210.060.075	M8X70	200	01210.080.070
M5X10	200	01210.050.010	M6X80	200	01210.060.080	M8X75	200	01210.080.075
M5X12	200	01210.050.012	M6X90	100	01210.060.090	M8X80	200	01210.080.080
M5X16	200	01210.050.016	M6X100	100	01210.060.100	M8X90	100	01210.080.090
M5X18	200	01210.050.018	M6X120	100	01210.060.120	M8X100	100	01210.080.100
M5X20	200	01210.050.020				M8X110	100	01210.080.110
M5X22	200	01210.050.022	M7X10	200	01210.070.010	M8X120	100	01210.080.120
M5X25	200	01210.050.025	M7X12	200	01210.070.012	M8X130	100	01210.080.130
M5X30	200	01210.050.030	M7X16	200	01210.070.016	M8X140	100	01210.080.140
M5X35	200	01210.050.035	M7X20	200	01210.070.020	M8X150	50	01210.080.150

01210 Parafuso cabeça sextavada ←

d x L	✉	Ref. do artigo
M10X10/S=17	200	01210.100.010
M10X12/S=17	200	01210.100.012
M10X14/S=17	200	01210.100.014
M10X16/S=17	200	01210.100.016
M10X16/S=16	200	01210.100.017
M10X20/S=17	200	01210.100.020
M10X20/S=16	200	01210.100.021
M10X22/S=17	200	01210.100.022
M10X25/S=17	200	01210.100.025
M10X25/S=16	200	01210.100.026
M10X30/S=17	200	01210.100.030
M10X30/S=16	200	01210.100.031
M10X35/S=17	100	01210.100.035
M10X35/S=16	100	01210.100.036
M10X40/S=17	100	01210.100.040
M10X40/S=16	100	01210.100.041
M10X45/S=17	100	01210.100.045
M10X45/S=16	100	01210.100.046
M10X50/S=17	100	01210.100.050
M10X50/S=16	100	01210.100.051
M10X55/S=17	100	01210.100.055
M10X60/S=17	100	01210.100.060
M10X60/S=16	100	01210.100.061
M10X65/S=17	100	01210.100.065
M10X65/S=16	100	01210.100.066
M10X70/S=17	100	01210.100.070
M10X75/S=17	100	01210.100.075
M10X80/S=17	100	01210.100.080
M10X90/S=17	100	01210.100.090
M10X100/S=17	100	01210.100.100
M10X110/S=17	50	01210.100.110
M10X120/S=17	50	01210.100.120
M10X130/S=17	50	01210.100.130
M10X140/S=17	50	01210.100.140
M10X150/S=17	50	01210.100.150
M10X170/S=17	50	01210.100.170
M12X12/S=19	100	01210.120.012
M12X16/S=19	100	01210.120.016
M12X20/S=19	100	01210.120.020
M12X20/S=18	100	01210.120.021
M12X22/S=19	100	01210.120.022
M12X25/S=19	100	01210.120.025
M12X25/S=18	100	01210.120.026
M12X30/S=19	100	01210.120.030
M12X30/S=18	100	01210.120.031
M12X35/S=19	100	01210.120.035
M12X35/S=18	100	01210.120.036
M12X40/S=19	100	01210.120.040
M12X40/S=18	100	01210.120.041
M12X45/S=19	100	01210.120.045
M12X45/S=18	100	01210.120.046
M12X50/S=19	100	01210.120.050
M12X50/S=18	100	01210.120.051
M12X55/S=19	100	01210.120.055
M12X60/S=19	100	01210.120.060
M12X60/S=18	100	01210.120.061
M12X65/S=19	50	01210.120.065
M12X70/S=19	50	01210.120.070
M12X70/S=18	50	01210.120.071
M12X75/S=19	50	01210.120.075
M12X80/S=19	50	01210.120.080
M12X80/S=18	50	01210.120.081
M12X85/S=19	50	01210.120.085
M12X90/S=19	50	01210.120.090
M12X100/S=19	50	01210.120.100
M12X110/S=19	50	01210.120.110
M12X120/S=19	50	01210.120.120
M12X130/S=19	50	01210.120.130
M12X140/S=19	50	01210.120.140
M12X150/S=19	50	01210.120.150
M12X160/S=19	25	01210.120.160
M12X180/S=19	25	01210.120.180
M14X20/S=22	100	01210.140.020
M14X20/S=21	100	01210.140.021
M14X25/S=22	100	01210.140.025
M14X25/S=21	100	01210.140.026
M14X30/S=22	100	01210.140.030
M14X35/S=22	100	01210.140.035
M14X35/S=21	100	01210.140.036
M14X40/S=22	100	01210.140.040
M14X40/S=21	100	01210.140.041
M14X45/S=22	50	01210.140.045
M14X45/S=21	50	01210.140.046
M14X50/S=22	50	01210.140.050
M14X50/S=21	50	01210.140.051
M14X55/S=22	50	01210.140.055
M14X60/S=22	50	01210.140.060
M14X60/S=21	50	01210.140.061
M14X65/S=22	50	01210.140.065
M14X70/S=22	50	01210.140.070
M14X75/S=22	50	01210.140.075
M14X80/S=22	50	01210.140.080
M14X90/S=22	50	01210.140.090
M14X100/S=22	50	01210.140.100
M14X110/S=22	50	01210.140.110
M14X120/S=22	50	01210.140.120
M16X20	50	01210.160.020
M16X25	50	01210.160.025
M16X30	50	01210.160.030
M16X35	50	01210.160.035
M16X40	50	01210.160.040
M16X45	50	01210.160.045
M16X50	50	01210.160.050
M16X55	50	01210.160.055
M16X60	50	01210.160.060
M16X65	25	01210.160.065
M16X70	25	01210.160.070
M16X75	25	01210.160.075
M16X80	25	01210.160.080
M16X90	25	01210.160.090
M16X100	25	01210.160.100
M16X110	25	01210.160.110
M16X120	25	01210.160.120
M16X130	25	01210.160.130
M16X140	25	01210.160.140
M16X150	25	01210.160.150
M16X160	25	01210.160.160
M16X180	25	01210.160.180
M16X200	25	01210.160.200
M18X30	50	01210.180.030
M18X35	50	01210.180.035
M18X40	50	01210.180.040
M18X45	50	01210.180.045
M18X50	50	01210.180.050
M18X55	25	01210.180.055
M18X60	25	01210.180.060
M18X70	25	01210.180.070
M18X80	25	01210.180.080
M18X90	25	01210.180.090
M18X100	25	01210.180.100
M20X30	25	01210.200.030
M20X35	25	01210.200.035
M20X40	25	01210.200.040
M20X45	25	01210.200.045
M20X50	25	01210.200.050
M20X55	25	01210.200.055
M20X60	25	01210.200.060
M20X65	25	01210.200.065
M20X70	25	01210.200.070
M20X75	25	01210.200.075
M20X80	25	01210.200.080
M20X90	25	01210.200.090
M20X100	25	01210.200.100
M20X110	25	01210.200.110
M20X120	25	01210.200.120
M20X130	25	01210.200.130
M20X140	25	01210.200.140
M20X150	10	01210.200.150
M20X160	10	01210.200.160
M20X180	10	01210.200.180
M20X200	10	01210.200.200
M22X40/S=32	25	01210.220.040
M22X50/S=32	25	01210.220.050
M22X55/S=32	25	01210.220.055
M22X60/S=32	25	01210.220.060
M22X65/S=32	25	01210.220.065
M22X70/S=32	25	01210.220.070
M22X80/S=32	25	01210.220.080
M22X90/S=32	25	01210.220.090
M22X100/S=32	10	01210.220.100
M24X30	25	01210.240.030
M24X35	25	01210.240.035
M24X40	25	01210.240.040
M24X45	25	01210.240.045
M24X50	25	01210.240.050
M24X55	25	01210.240.055
M24X60	25	01210.240.060
M24X65	25	01210.240.065
M24X70	25	01210.240.070
M24X75	25	01210.240.075
M24X80	25	01210.240.080
M24X90	10	01210.240.090
M24X100	10	01210.240.100
M24X110	10	01210.240.110
M24X120	10	01210.240.120
M24X130	10	01210.240.130
M24X140	10	01210.240.140
M24X150	10	01210.240.150
M24X160	10	01210.240.160
M24X180	10	01210.240.180
M24X200	10	01210.240.200
M27X50	10	01210.270.050
M27X60	10	01210.270.060
M27X70	10	01210.270.070
M27X80	10	01210.270.080
M27X90	10	01210.270.090
M27X100	10	01210.270.100
M27X120	10	01210.270.120
M27X140	10	01210.270.140
M27X160	10	01210.270.160
M30X40	10	01210.300.040
M30X50	10	01210.300.050
M30X60	10	01210.300.060
M30X65	10	01210.300.065
M30X70	10	01210.300.070
M30X75	10	01210.300.075
M30X80	10	01210.300.080
M30X90	10	01210.300.090
M30X100	10	01210.300.100
M30X110	10	01210.300.110
M30X120	10	01210.300.120
M30X140	10	01210.300.140
M30X150	10	01210.300.150
M30X160	10	01210.300.160
M30X200	10	01210.300.200
M33X60	5	01210.330.060
M33X70	5	01210.330.070
M33X80	5	01210.330.080
M33X90	5	01210.330.090
M33X100	5	01210.330.100
M36X50	5	01210.360.050
M36X70	5	01210.360.070
M36X80	5	01210.360.080
M36X90	5	01210.360.090
M36X100	5	01210.360.100
M36X110	5	01210.360.110
M36X120	5	01210.360.120
M36X140	5	01210.360.140
M36X160	5	01210.360.160

01230 Parafuso cabeça sextavada A06A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Passivado a amarelo



d x L	✉	Ref. do artigo
M3X8	500	01230.030.008
M3X10	500	01230.030.010
M3X12	500	01230.030.012
M3X16	500	01230.030.016
M3X20	500	01230.030.020
M3X25	500	01230.030.025
M3X30	500	01230.030.030
M4X6	500	01230.040.006
M4X8	500	01230.040.008
M4X10	500	01230.040.010
M4X12	500	01230.040.012
M4X16	500	01230.040.016
M4X20	500	01230.040.020
M4X25	500	01230.040.025
M4X30	500	01230.040.030
M4X35	200	01230.040.035
M4X40	200	01230.040.040
M4X50	200	01230.040.050
M4X60	200	01230.040.060
M5X8	500	01230.050.008
M5X10	500	01230.050.010
M5X12	500	01230.050.012
M5X16	500	01230.050.016
M5X20	500	01230.050.020
M5X22	500	01230.050.022
M5X25	500	01230.050.025
M5X30	500	01230.050.030
M5X35	200	01230.050.035
M5X40	200	01230.050.040
M5X45	200	01230.050.045
M5X50	200	01230.050.050
M5X60	200	01230.050.060
M6X8	500	01230.060.008
M6X10	500	01230.060.010
M6X12	500	01230.060.012
M6X14	500	01230.060.014
M6X16	500	01230.060.016
M6X20	500	01230.060.020
M6X25	500	01230.060.025
M6X30	500	01230.060.030
M6X35	200	01230.060.035
M6X40	200	01230.060.040
M6X45	200	01230.060.045
M6X50	200	01230.060.050
M6X60	200	01230.060.060
M6X70	200	01230.060.070
M6X80	200	01230.060.080
M6X100	200	01230.060.100
M7X10	200	01230.070.010
M7X12	200	01230.070.012
M7X16	200	01230.070.016
M7X20	200	01230.070.020
M7X25	200	01230.070.025
M7X30	200	01230.070.030
M7X35	200	01230.070.035
M7X40	200	01230.070.040
M7X45	200	01230.070.045
M7X50	200	01230.070.050
M8X10	200	01230.080.010
M8X12	200	01230.080.012
M8X16	200	01230.080.016
M8X20	200	01230.080.020
M8X25	200	01230.080.025
M8X30	200	01230.080.030
M8X35	200	01230.080.035
M8X40	200	01230.080.040
M8X45	200	01230.080.045
M8X50	200	01230.080.050
M8X55	200	01230.080.055
M8X60	200	01230.080.060
M8X70	200	01230.080.070
M8X75	200	01230.080.075
M8X80	200	01230.080.080
M8X90	100	01230.080.090
M8X100	100	01230.080.100
M8X110	100	01230.080.110
M8X120	100	01230.080.120
M10X12/S=17	200	01230.100.012
M10X16/S=17	200	01230.100.016
M10X20/S=17	200	01230.100.020
M10X25/S=17	200	01230.100.025
M10X30/S=17	200	01230.100.030
M10X35/S=17	100	01230.100.035
M10X40/S=17	100	01230.100.040
M10X45/S=17	100	01230.100.045
M10X50/S=17	100	01230.100.050
M10X55/S=17	100	01230.100.055
M10X60/S=17	100	01230.100.060
M10X65/S=17	100	01230.100.065
M10X70/S=17	100	01230.100.070
M10X75/S=17	100	01230.100.075
M10X80/S=17	100	01230.100.080
M10X90/S=17	100	01230.100.090
M10X100/S=17	100	01230.100.100
M10X110/S=17	50	01230.100.110
M10X120/S=17	50	01230.100.120
M10X130/S=17	50	01230.100.130
M10X140/S=17	50	01230.100.140
M10X150/S=17	50	01230.100.150
M12X16/S=19	100	01230.120.016
M12X20/S=19	100	01230.120.020
M12X25/S=19	100	01230.120.025
M12X30/S=19	100	01230.120.030
M12X35/S=19	100	01230.120.035
M12X40/S=19	100	01230.120.040
M12X45/S=19	100	01230.120.045
M12X50/S=19	100	01230.120.050
M12X55/S=19	100	01230.120.055
M12X60/S=19	100	01230.120.060
M12X65/S=19	100	01230.120.065
M12X70/S=19	50	01230.120.070
M12X75/S=19	50	01230.120.075
M12X80/S=19	50	01230.120.080
M12X90/S=19	50	01230.120.090
M12X100/S=19	50	01230.120.100
M12X110/S=19	50	01230.120.110
M12X120/S=19	50	01230.120.120
M12X130/S=19	50	01230.120.130
M12X140/S=19	50	01230.120.140
M12X150/S=19	50	01230.120.150
M14X20/S=22	100	01230.140.020
M14X25/S=22	100	01230.140.025
M14X30/S=22	100	01230.140.030
M14X35/S=22	100	01230.140.035
M14X40/S=22	100	01230.140.040
M14X45/S=22	50	01230.140.045
M14X50/S=22	50	01230.140.050
M14X60/S=22	50	01230.140.060
M14X70/S=22	50	01230.140.070
M14X75/S=22	50	01230.140.075
M14X80/S=22	50	01230.140.080
M14X90/S=22	50	01230.140.090
M14X100/S=22	50	01230.140.100
M16X20	50	01230.160.020
M16X25	50	01230.160.025
M16X30	50	01230.160.030
M16X35	50	01230.160.035
M16X40	50	01230.160.040
M16X45	50	01230.160.045
M16X50	50	01230.160.050
M16X55	50	01230.160.055
M16X60	50	01230.160.060
M16X65	50	01230.160.065
M16X70	25	01230.160.070
M16X80	25	01230.160.080
M16X90	25	01230.160.090
M16X100	25	01230.160.100
M16X110	25	01230.160.110
M16X120	25	01230.160.120
M16X130	25	01230.160.130
M16X140	25	01230.160.140
M16X150	25	01230.160.150
M16X160	25	01230.160.160
M16X180	25	01230.160.180
M16X200	25	01230.160.200
M18X40	50	01230.180.040
M18X45	50	01230.180.045
M18X50	50	01230.180.050
M20X30	25	01230.200.030
M20X35	25	01230.200.035
M20X40	25	01230.200.040
M20X45	25	01230.200.045
M20X50	25	01230.200.050
M20X55	25	01230.200.055
M20X60	25	01230.200.060
M20X65	25	01230.200.065
M20X70	25	01230.200.070
M20X80	25	01230.200.080
M20X90	25	01230.200.090
M20X100	25	01230.200.100
M20X110	25	01230.200.110
M20X120	25	01230.200.120
M20X140	25	01230.200.140
M20X150	25	01230.200.150
M20X160	10	01230.200.160
M20X180	10	01230.200.180
M20X200	10	01230.200.200
M24X40	25	01230.240.040
M24X45	25	01230.240.045
M24X50	25	01230.240.050
M24X55	25	01230.240.055
M24X60	25	01230.240.060
M24X70	25	01230.240.070
M24X80	25	01230.240.080
M24X90	25	01230.240.090
M24X100	10	01230.240.100
M24X120	10	01230.240.120
M24X130	10	01230.240.130
M24X140	10	01230.240.140
M24X150	10	01230.240.150
M24X160	10	01230.240.160
M24X180	10	01230.240.180
M24X200	10	01230.240.200
M27X50	10	01230.270.050
M27X60	10	01230.270.060
M27X70	10	01230.270.070
M27X80	10	01230.270.080
M27X90	10	01230.270.090
M27X100	10	01230.270.100
M27X120	10	01230.270.120
M30X60	10	01230.300.060
M33X80	5	01230.330.080
M33X90	5	01230.330.090
M33X100	5	01230.330.100
M36X80	5	01230.360.080
M36X90	5	01230.360.090
M36X100	5	01230.360.100

01236 Parafuso cabeça sextavada A96A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Camada de zinco isento Cr^{6+}- ISO 10683 flZnnc

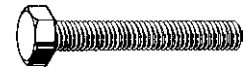


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X10	500	01236.040.010	M8X40	200	01236.080.040	M14X65/S=22	50	01236.140.065
M4X12	500	01236.040.012	M8X45	200	01236.080.045	M14X70/S=22	50	01236.140.070
M4X16	500	01236.040.016	M8X50	200	01236.080.050			
M4X20	500	01236.040.020	M8X60	200	01236.080.060	M16X20	50	01236.160.020
M4X25	500	01236.040.025	M8X70	200	01236.080.070	M16X25	50	01236.160.025
M4X30	500	01236.040.030	M8X80	200	01236.080.080	M16X30	50	01236.160.030
						M16X35	50	01236.160.035
M5X10	500	01236.050.010	M10X16/S=17	200	01236.100.016	M16X40	50	01236.160.040
M5X12	500	01236.050.012	M10X20/S=17	200	01236.100.020	M16X45	50	01236.160.045
M5X16	500	01236.050.016	M10X25/S=17	200	01236.100.025	M16X50	50	01236.160.050
M5X20	500	01236.050.020	M10X30/S=17	200	01236.100.030	M16X60	50	01236.160.060
M5X25	500	01236.050.025	M10X35/S=17	100	01236.100.035	M16X65	25	01236.160.065
M5X30	500	01236.050.030	M10X40/S=17	100	01236.100.040	M16X70	25	01236.160.070
M5X35	200	01236.050.035	M10X45/S=17	100	01236.100.045	M16X80	25	01236.160.080
M5X40	200	01236.050.040	M10X50/S=17	100	01236.100.050	M16X100	25	01236.160.100
M5X45	200	01236.050.045	M10X55/S=17	100	01236.100.055	M16X110	25	01236.160.110
M5X50	200	01236.050.050	M10X60/S=17	100	01236.100.060			
			M10X70/S=17	100	01236.100.070	M18X45	25	01236.180.045
M6X10	500	01236.060.010	M10X80/S=17	100	01236.100.080	M18X50	50	01236.180.050
M6X12	500	01236.060.012	M10X90/S=17	100	01236.100.090	M18X55	25	01236.180.055
M6X16	500	01236.060.016				M18X60	25	01236.180.060
M6X20	500	01236.060.020	M12X20/S=19	100	01236.120.020	M18X65	25	01236.180.065
M6X25	500	01236.060.025	M12X25/S=19	100	01236.120.025			
M6X30	500	01236.060.030	M12X30/S=19	100	01236.120.030	M20X40	25	01236.200.040
M6X35	200	01236.060.035	M12X35/S=19	100	01236.120.035	M20X45	25	01236.200.045
M6X40	200	01236.060.040	M12X40/S=19	100	01236.120.040	M20X50	25	01236.200.050
M6X50	200	01236.060.050	M12X45/S=19	100	01236.120.045	M20X55	25	01236.200.055
M6X60	200	01236.060.060	M12X50/S=19	100	01236.120.050	M20X60	25	01236.200.060
M6X70	200	01236.060.070	M12X60/S=19	100	01236.120.060	M20X65	25	01236.200.065
			M12X70/S=19	50	01236.120.070	M20X70	25	01236.200.070
M8X10	200	01236.080.010	M12X80/S=19	50	01236.120.080	M20X80	25	01236.200.080
M8X12	200	01236.080.012				M20X90	25	01236.200.090
M8X16	200	01236.080.016	M14X30/S=22	100	01236.140.030			
M8X20	200	01236.080.020	M14X35/S=22	100	01236.140.035	M24X50	25	01236.240.050
M8X25	200	01236.080.025	M14X40/S=22	100	01236.140.040	M24X60	25	01236.240.060
M8X30	200	01236.080.030	M14X45/S=22	50	01236.140.045	M24X70	25	01236.240.070
M8X35	200	01236.080.035	M14X60/S=22	50	01236.140.060	M24X80	25	01236.240.080

- Com o tratamento de superficie Zinc Flake ISO 10683, o risco de disfunção hidrogénica é eliminado.

01410 Parafuso cabeça sextavada rosca metrica A08A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Galvanizado a quente



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X16	100	01410.060.016	M10X45/S=17	100	01410.100.045	M16X35	50	01410.160.035
M6X20	100	01410.060.020	M10X50/S=17	100	01410.100.050	M16X40	50	01410.160.040
M6X25	100	01410.060.025	M10X60/S=17	100	01410.100.060	M16X45	50	01410.160.045
M6X30	500	01410.060.030	M10X70/S=17	100	01410.100.070	M16X50	50	01410.160.050
M6X40	200	01410.060.040	M10X80/S=17	100	01410.100.080	M16X55	50	01410.160.055
			M10X100/S=17	100	01410.100.100	M16X60	50	01410.160.060
M8X12	100	01410.080.012				M16X65	50	01410.160.065
M8X16	100	01410.080.016	M12X20/S=19	100	01410.120.020	M16X70	50	01410.160.070
M8X20	100	01410.080.020	M12X25/S=19	100	01410.120.025	M16X80	50	01410.160.080
M8X25	100	01410.080.025	M12X30/S=19	100	01410.120.030	M16X90	25	01410.160.090
M8X30	100	01410.080.030	M12X35/S=19	100	01410.120.035	M16X100	25	01410.160.100
M8X35	100	01410.080.035	M12X40/S=19	100	01410.120.040	M16X110	25	01410.160.110
M8X40	100	01410.080.040	M12X45/S=19	100	01410.120.045	M16X120	25	01410.160.120
M8X45	100	01410.080.045	M12X50/S=19	100	01410.120.050			
M8X50	100	01410.080.050	M12X55/S=19	100	01410.120.055	M18X40	25	01410.180.040
M8X60	100	01410.080.060	M12X60/S=19	100	01410.120.060	M18X45	25	01410.180.045
M8X80	100	01410.080.080	M12X70/S=19	50	01410.120.070	M18X50	25	01410.180.050
			M12X80/S=19	50	01410.120.080	M18X55	25	01410.180.055
M10X16/S=17	100	01410.100.016	M12X90/S=19	50	01410.120.090			
M10X20/S=17	100	01410.100.020	M12X100/S=19	50	01410.120.100	M20X30	25	01410.200.030
M10X25/S=17	100	01410.100.025	M12X120/S=19	50	01410.120.120	M20X35	25	01410.200.035
M10X30/S=17	100	01410.100.030				M20X40	25	01410.200.040
M10X35/S=17	100	01410.100.035	M16X25	50	01410.160.025	M20X45	25	01410.200.045
M10X40/S=17	100	01410.100.040	M16X30	50	01410.160.030	M20X50	25	01410.200.050

01410 Parafuso cabeça sextavada rosca metrica ←

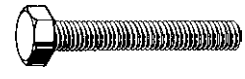
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M20X55	25	01410.200.055	M24X60	25	01410.240.060	M30X60	10	01410.300.060
M20X60	25	01410.200.060	M24X65	25	01410.240.065	M30X70	10	01410.300.070
M20X65	25	01410.200.065	M24X70	25	01410.240.070	M30X80	10	01410.300.080
M20X70	25	01410.200.070	M24X80	25	01410.240.080	M30X90	10	01410.300.090
M20X80	25	01410.200.080	M24X90	10	01410.240.090	M30X100	10	01410.300.100
M20X90	25	01410.200.090	M24X100	10	01410.240.100	M30X120	10	01410.300.120
M20X100	25	01410.200.100	M24X110	10	01410.240.110			
M20X120	25	01410.200.120	M24X180	5	01410.240.180	M33X80	5	01410.330.080
						M33X90	5	01410.330.090
M22X50/S=34	25	01410.220.051	M27X50	10	01410.270.050	M33X100	5	01410.330.100
M22X60/S=34	25	01410.220.061	M27X60	10	01410.270.060			
M22X65/S=34	25	01410.220.066	M27X65	10	01410.270.065	M36X80	5	01410.360.080
			M27X70	10	01410.270.070	M36X90	5	01410.360.090
M24X40	25	01410.240.040	M27X80	10	01410.270.080	M36X100	5	01410.360.100
M24X45	25	01410.240.045	M27X90	10	01410.270.090	M36X130	5	01410.360.130
M24X50	25	01410.240.050	M27X100	10	01410.270.100			
M24X55	25	01410.240.055						

- Para parafusos galvanizados a quente com rosca ISO-METRIC, a rosca é produzida abaixo do normal, para permitir que depois do tratamento de superficie, as tolerâncias correspondam ao nivel h.
- A vantagem deste tipo de produção é que os parafusos podem ser utilizados em qualquer furo roscado sem qualquer problema de fixação.
- As porcas correspondentes, com rosca ISO-METRIC são roscadas de acordo com a tolerância classe 6H depois da galvanização para que possam ser roscados nos parafusos.

01430 Parafuso cabeça sextavada rosca Oversized A08A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Galvanizado a quente

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M8X25	200	01430.080.025	M16X45	50	01430.160.045			
			M16X50	50	01430.160.050	M22X50/S=32	25	01430.220.050
M10X20/S=17	100	01430.100.020	M16X55	50	01430.160.055	M22X60/S=32	25	01430.220.060
M10X25/S=17	100	01430.100.025	M16X60	50	01430.160.060	M22X70/S=32	25	01430.220.070
M10X30/S=17	100	01430.100.030	M16X65	25	01430.160.065	M22X80/S=32	25	01430.220.080
M10X35/S=17	100	01430.100.035	M16X70	25	01430.160.070			
M10X40/S=17	100	01430.100.040	M16X80	25	01430.160.080	M24X40	25	01430.240.040
M10X50/S=17	100	01430.100.050	M16X90	25	01430.160.090	M24X50	25	01430.240.050
M10X60/S=17	100	01430.100.060	M16X100	25	01430.160.100	M24X55	25	01430.240.055
			M16X110	25	01430.160.110	M24X60	25	01430.240.060
M12X20/S=19	100	01430.120.020	M16X120	25	01430.160.120	M24X65	25	01430.240.065
M12X25/S=19	100	01430.120.025				M24X70	25	01430.240.070
M12X30/S=19	100	01430.120.030	M18X30	50	01430.180.030	M24X75	25	01430.240.075
M12X35/S=19	100	01430.120.035	M18X40	50	01430.180.040	M24X80	25	01430.240.080
M12X40/S=19	100	01430.120.040	M18X50	25	01430.180.050	M24X90	10	01430.240.090
M12X45/S=19	100	01430.120.045	M18X60	25	01430.180.060	M24X100	10	01430.240.100
M12X50/S=19	100	01430.120.050	M18X70	25	01430.180.070			
M12X55/S=19	100	01430.120.055	M18X80	25	01430.180.080	M27X60	10	01430.270.060
M12X60/S=19	100	01430.120.060	M18X100	25	01430.180.100	M27X65	10	01430.270.065
M12X70/S=19	50	01430.120.070				M27X70	10	01430.270.070
M12X80/S=19	50	01430.120.080	M20X35	25	01430.200.035	M27X75	10	01430.270.075
M12X100/S=19	50	01430.120.100	M20X40	25	01430.200.040	M27X80	10	01430.270.080
M12X120/S=19	50	01430.120.120	M20X45	25	01430.200.045			
			M20X50	25	01430.200.050	M30X60	10	01430.300.060
M14X30/S=22	100	01430.140.030	M20X55	25	01430.200.055	M30X70	10	01430.300.070
M14X35/S=22	100	01430.140.035	M20X60	25	01430.200.060	M30X80	10	01430.300.080
M14X40/S=22	100	01430.140.040	M20X65	25	01430.200.065	M30X90	10	01430.300.090
M14X50/S=22	50	01430.140.050	M20X70	25	01430.200.070	M30X100	10	01430.300.100
M14X60/S=22	50	01430.140.060	M20X75	25	01430.200.075	M30X110	10	01430.300.110
			M20X80	25	01430.200.080	M30X120	10	01430.300.120
M16X25	50	01430.160.025	M20X90	25	01430.200.090			
M16X30	50	01430.160.030	M20X100	25	01430.200.100	M36X80	5	01430.360.080
M16X35	50	01430.160.035	M20X110	25	01430.200.110	M36X90	5	01430.360.090
M16X40	50	01430.160.040	M20X130	25	01430.200.130			

- Para parafusos galvanizados a quente com rosca acima do normal (OVERSIZED) o tratamento de superficie é aplicado na rosca normal, assim depois da galvanização estes parafusos já não são ISO-metric, mas maiores: assim são chamados de OVERSIZED.
- Não são utilizados na rosca habitual e não podem ser utilizados em furos com roscas normais.
- As correspondentes porcas OVERSIZED têm furo oversize de acordo com ISO 965-5, depois da galvanização podem perfeitamente ser utilizadas nestes parafusos.

04110 Parafuso cabeça sextavada — C01A

Rosca Métrica
Material Aço
Classe 10.9



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X10	200	04110.060.010	M12X40/S=19	100	04110.120.040	M20X30	25	04110.200.030
M6X12	200	04110.060.012	M12X45/S=19	100	04110.120.045	M20X35	25	04110.200.035
M6X16	200	04110.060.016	M12X50/S=19	100	04110.120.050	M20X40	25	04110.200.040
M6X20	200	04110.060.020	M12X55/S=19	100	04110.120.055	M20X45	25	04110.200.045
M6X25	200	04110.060.025	M12X60/S=19	100	04110.120.060	M20X50	25	04110.200.050
M6X30	200	04110.060.030	M12X70/S=19	100	04110.120.070	M20X55	25	04110.200.055
M6X35	200	04110.060.035	M12X75/S=19	100	04110.120.075	M20X60	25	04110.200.060
M6X40	200	04110.060.040	M12X80/S=19	100	04110.120.080	M20X70	25	04110.200.070
M6X45	200	04110.060.045	M12X90/S=19	50	04110.120.090	M20X80	25	04110.200.080
M6X50	200	04110.060.050	M12X100/S=19	50	04110.120.100	M20X90	25	04110.200.090
M6X60	200	04110.060.060	M12X120/S=19	50	04110.120.120	M20X100	25	04110.200.100
M6X70	200	04110.060.070				M20X120	25	04110.200.120
			M14X30/S=22	100	04110.140.030			
M8X10	200	04110.080.010	M14X35/S=22	100	04110.140.035	M22X50/S=32	25	04110.220.050
M8X12	200	04110.080.012	M14X40/S=22	100	04110.140.040	M22X60/S=32	25	04110.220.060
M8X16	200	04110.080.016	M14X45/S=22	50	04110.140.045	M22X70/S=32	25	04110.220.070
M8X20	200	04110.080.020	M14X50/S=22	50	04110.140.050	M22X80/S=32	25	04110.220.080
M8X25	200	04110.080.025	M14X55/S=22	50	04110.140.055			
M8X30	200	04110.080.030	M14X60/S=22	50	04110.140.060	M24X40	25	04110.240.040
M8X35	200	04110.080.035	M14X70/S=22	50	04110.140.070	M24X45	25	04110.240.045
M8X40	200	04110.080.040	M14X80/S=22	50	04110.140.080	M24X50	25	04110.240.050
M8X50	200	04110.080.050	M14X90/S=22	50	04110.140.090	M24X55	25	04110.240.055
M8X60	200	04110.080.060	M14X100/S=22	50	04110.140.100	M24X60	25	04110.240.060
M8X70	200	04110.080.070				M24X65	25	04110.240.065
M8X80	200	04110.080.080	M16X25	50	04110.160.025	M24X70	25	04110.240.070
M8X110	200	04110.080.110	M16X30	50	04110.160.030	M24X80	25	04110.240.080
			M16X35	50	04110.160.035	M24X90	10	04110.240.090
M10X16/S=17	200	04110.100.016	M16X40	50	04110.160.040	M24X100	10	04110.240.100
M10X20/S=17	200	04110.100.020	M16X45	50	04110.160.045	M24X120	10	04110.240.120
M10X25/S=17	200	04110.100.025	M16X50	50	04110.160.050			
M10X30/S=17	200	04110.100.030	M16X55	50	04110.160.055	M27X60	10	04110.270.060
M10X35/S=17	100	04110.100.035	M16X60	25	04110.160.060	M27X70	10	04110.270.070
M10X40/S=17	100	04110.100.040	M16X65	25	04110.160.065	M27X80	10	04110.270.080
M10X45/S=17	100	04110.100.045	M16X70	25	04110.160.070			
M10X50/S=17	100	04110.100.050	M16X80	25	04110.160.080	M30X60	10	04110.300.060
M10X55/S=17	100	04110.100.055	M16X90	25	04110.160.090	M30X70	10	04110.300.070
M10X60/S=17	100	04110.100.060	M16X100	25	04110.160.100	M30X80	10	04110.300.080
M10X70/S=17	100	04110.100.070	M16X120	25	04110.160.120	M30X90	10	04110.300.090
M10X80/S=17	100	04110.100.080	M16X140	100	04110.160.140	M30X100	10	04110.300.100
M10X90/S=17	100	04110.100.090				M30X110	10	04110.300.110
M10X100/S=17	100	04110.100.100	M18X30	50	04110.180.030			
			M18X35	50	04110.180.035	M36X70	5	04110.360.070
M12X16/S=19	100	04110.120.016	M18X40	50	04110.180.040	M36X80	5	04110.360.080
M12X20/S=19	100	04110.120.020	M18X45	50	04110.180.045	M36X90	5	04110.360.090
M12X25/S=19	100	04110.120.025	M18X50	50	04110.180.050	M36X100	5	04110.360.100
M12X30/S=19	100	04110.120.030				M36X110	5	04110.360.110
M12X35/S=19	100	04110.120.035						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

04116 Parafuso cabeça sextavada — C02C

Rosca Métrica
Material Aço
Classe 10.9
Tratamento sup. Camada de zinco isento Cr^{6+}- ISO 10683 flZnnc



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X10	200	04116.060.010	M10X25/S=17	200	04116.100.025	M14X40/S=22	100	04116.140.040
M6X12	200	04116.060.012	M10X30/S=17	200	04116.100.030	M14X45/S=22	50	04116.140.045
M6X16	200	04116.060.016	M10X35/S=17	100	04116.100.035	M14X50/S=22	50	04116.140.050
M6X20	200	04116.060.020	M10X60/S=17	100	04116.100.060			
M6X25	200	04116.060.025				M16X30	50	04116.160.030
M6X30	200	04116.060.030	M12X20/S=19	100	04116.120.020	M16X35	50	04116.160.035
			M12X25/S=19	100	04116.120.025	M16X40	50	04116.160.040
M8X16	200	04116.080.016	M12X30/S=19	100	04116.120.030	M16X45	50	04116.160.045
M8X20	200	04116.080.020	M12X35/S=19	100	04116.120.035	M16X50	50	04116.160.050
M8X25	200	04116.080.025	M12X40/S=19	100	04116.120.040	M16X60	25	04116.160.060
M8X30	200	04116.080.030	M12X45/S=19	100	04116.120.045			
			M12X50/S=19	100	04116.120.050	M20X40	25	04116.200.040
M10X16/S=17	200	04116.100.016	M12X60/S=19	100	04116.120.060	M20X45	25	04116.200.045
M10X20/S=17	200	04116.100.020				M20X50	25	04116.200.050

04116 Parafuso cabeça sextavada ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M20X60	25	04116.200.060				M24X60	25	04116.240.060
M20X70	25	04116.200.070	M24X50	25	04116.240.050	M24X70	25	04116.240.070

- Com o tratamento de superficie Zinc Flake ISO 10683, o risco de disfunção hidrogénica é eliminado.

04118 Parafuso cabeça sextavada C01A

Rosca Métrica
Material Aço
Classe 12.9

RoHS



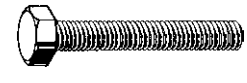
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M8X20	200	04118.080.020				M20X90	25	04118.200.090
M8X25	200	04118.080.025	M16X30	50	04118.160.030	M20X100	25	04118.200.100
M8X30	200	04118.080.030	M16X35	50	04118.160.035			
			M16X40	50	04118.160.040	M24X50	25	04118.240.050
M10X20/S=17	200	04118.100.020	M16X45	50	04118.160.045	M24X60	25	04118.240.060
M10X25/S=17	200	04118.100.025	M16X50	50	04118.160.050	M24X70	25	04118.240.070
M10X30/S=17	200	04118.100.030	M16X60	50	04118.160.060	M24X80	25	04118.240.080
M10X35/S=17	100	04118.100.035	M16X70	25	04118.160.070	M24X90	10	04118.240.090
M10X40/S=17	100	04118.100.040	M16X80	25	04118.160.080	M24X100	10	04118.240.100
M12X25/S=19	100	04118.120.025	M20X40	25	04118.200.040	M30X60	10	04118.300.060
M12X30/S=19	100	04118.120.030	M20X50	25	04118.200.050	M30X70	10	04118.300.070
M12X35/S=19	100	04118.120.035	M20X60	25	04118.200.060	M30X80	10	04118.300.080
M12X40/S=19	100	04118.120.040	M20X70	25	04118.200.070	M30X90	10	04118.300.090
M12X45/S=19	100	04118.120.045	M20X80	25	04118.200.080	M30X100	10	04118.300.100

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

08760 Parafuso cabeça sextavada para equipamentos sob pressão E11A

Rosca Métrica
Material Aço
Classe 5.6

RoHS



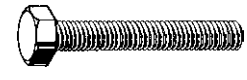
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X25/S=16	200	08760.100.026	M16X35	50	08760.160.035	M20X65	25	08760.200.065
			M16X45	50	08760.160.045	M20X70	25	08760.200.070
M12X25/S=18	100	08760.120.026	M16X50	50	08760.160.050			
M12X30/S=18	100	08760.120.031	M16X55	50	08760.160.055	M24X55	25	08760.240.055
M12X35/S=18	100	08760.120.036	M16X60	50	08760.160.060	M24X70	25	08760.240.070
M12X40/S=18	100	08760.120.041				M24X80	25	08760.240.080
M12X45/S=18	100	08760.120.046	M20X50	25	08760.200.050			
			M20X60	25	08760.200.060	M27X65	10	08760.270.065

- Caracteristicas especiais dos parafusos cabeça sextavada para equipamentos de pressão:
- São especificos para equipamentos de pressão, aparelhos a vapor, juntas e equipamentos de temperaturas de –10°C até +300°C, pressões max. 40 bar e tamanhos até e, inclusive, M30.
- Cumpre os requisitos de AD-Merkblatt W7, TRD 106 de TÜV (Technischer Überwachungsverein) e DIN 267-13.
- De acordo com TÜV-Merkblatt Werkstoffe 1253, o fabricante foi certificado para fornecimento de parafusos sem certificado 3.1, a marca e a designação da classe são suficientes.
- Esta certificação também é aceite ”Lloyd’s Register Energy”.

51010 Parafuso cabeça sextavada Q01A

Rosca Métrica
Material Aço inoxidável A2
Classe 70

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X3*	1000	51010.020.003	M2,5X4*	1000	51010.025.004	M3X4*	1000	51010.030.004
M2X4*	1000	51010.020.004	M2,5X5*	1000	51010.025.005	M3X5*	1000	51010.030.005
M2X5*	1000	51010.020.005	M2,5X6*	1000	51010.025.006	M3X6	200	51010.030.006
M2X6*	1000	51010.020.006	M2,5X8*	1000	51010.025.008	M3X8	200	51010.030.008
M2X8*	1000	51010.020.008	M2,5X10*	1000	51010.025.010	M3X10	200	51010.030.010
M2X10*	1000	51010.020.010	M2,5X12*	1000	51010.025.012	M3X12	200	51010.030.012
M2X12*	1000	51010.020.012	M2,5X14*	1000	51010.025.014	M3X14	1000	51010.030.014
M2X14*	1000	51010.020.014	M2,5X16*	1000	51010.025.016	M3X16	200	51010.030.016
M2X16*	1000	51010.020.016	M2,5X18*	1000	51010.025.018	M3X18*	1000	51010.030.018
M2X20*	1000	51010.020.020	M2,5X20*	1000	51010.025.020	M3X20	200	51010.030.020
						M3X22*	1000	51010.030.022

51010 Parafuso cabeça sextavada ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X25	200	51010.030.025	M6X110	100	51010.060.110	M12X35/S=19	100	51010.120.035
M3X30	200	51010.030.030	M6X120*	50	51010.060.120	M12X40/S=19	50	51010.120.040
M3X35*	500	51010.030.035	M6X130*	50	51010.060.130	M12X45/S=19	50	51010.120.045
M3X40	200	51010.030.040	M6X140*	50	51010.060.140	M12X50/S=19	50	51010.120.050
M3X45*	500	51010.030.045	M6X150	50	51010.060.150	M12X55/S=19	50	51010.120.055
M3X50	200	51010.030.050				M12X60/S=19	50	51010.120.060
			M8X8*	500	51010.080.008	M12X65/S=19	50	51010.120.065
M4X4*	1000	51010.040.004	M8X10	200	51010.080.010	M12X70/S=19	50	51010.120.070
M4X5*	1000	51010.040.005	M8X12	200	51010.080.012	M12X75/S=19	25	51010.120.075
M4X6	200	51010.040.006	M8X14	200	51010.080.014	M12X80/S=19	50	51010.120.080
M4X8	200	51010.040.008	M8X16	200	51010.080.016	M12X85/S=19	25	51010.120.085
M4X10	200	51010.040.010	M8X18	200	51010.080.018	M12X90/S=19	25	51010.120.090
M4X12	200	51010.040.012	M8X20	200	51010.080.020	M12X95/S=19*	25	51010.120.095
M4X14	1000	51010.040.014	M8X22	200	51010.080.022	M12X100/S=19	25	51010.120.100
M4X16	200	51010.040.016	M8X25	200	51010.080.025	M12X110/S=19	25	51010.120.110
M4X18*	1000	51010.040.018	M8X30	200	51010.080.030	M12X120/S=19	25	51010.120.120
M4X20	200	51010.040.020	M8X35	200	51010.080.035	M12X130/S=19	25	51010.120.130
M4X22*	500	51010.040.022	M8X40	100	51010.080.040	M12X140/S=19	25	51010.120.140
M4X25	200	51010.040.025	M8X45	100	51010.080.045	M12X150/S=19	10	51010.120.150
M4X30	200	51010.040.030	M8X50	100	51010.080.050	M12X160/S=19	10	51010.120.160
M4X35	200	51010.040.035	M8X55	100	51010.080.055	M12X170/S=19*	10	51010.120.170
M4X40	200	51010.040.040	M8X60	100	51010.080.060	M12X180/S=19	10	51010.120.180
M4X45	200	51010.040.045	M8X65	100	51010.080.065	M12X190/S=19*	10	51010.120.190
M4X50	200	51010.040.050	M8X70	50	51010.080.070	M12X200/S=19	10	51010.120.200
M4X55*	200	51010.040.055	M8X75	50	51010.080.075	M12X250/S=19	10	51010.120.250
M4X60	200	51010.040.060	M8X80	50	51010.080.080			
M4X65*	100	51010.040.065	M8X85	50	51010.080.085	M14X20/S=22*	50	51010.140.020
M4X70*	100	51010.040.070	M8X90	50	51010.080.090	M14X25/S=22	50	51010.140.025
M4X75*	100	51010.040.075	M8X95	50	51010.080.095	M14X30/S=22	50	51010.140.030
M4X80*	100	51010.040.080	M8X100	50	51010.080.100	M14X35/S=22	50	51010.140.035
			M8X110	25	51010.080.110	M14X40/S=22	50	51010.140.040
M5X5*	500	51010.050.005	M8X120	25	51010.080.120	M14X45/S=22	50	51010.140.045
M5X6	200	51010.050.006	M8X130*	50	51010.080.130	M14X50/S=22	50	51010.140.050
M5X8	200	51010.050.008	M8X140	50	51010.080.140	M14X55/S=22	50	51010.140.055
M5X10	200	51010.050.010	M8X150	50	51010.080.150	M14X60/S=22	50	51010.140.060
M5X12	200	51010.050.012	M8X160*	25	51010.080.160	M14X65/S=22	50	51010.140.065
M5X14	500	51010.050.014	M8X170*	25	51010.080.170	M14X70/S=22	50	51010.140.070
M5X16	200	51010.050.016	M8X180*	25	51010.080.180	M14X75/S=22*	50	51010.140.075
M5X18	200	51010.050.018	M8X190*	25	51010.080.190	M14X80/S=22	25	51010.140.080
M5X20	200	51010.050.020	M8X200*	25	51010.080.200	M14X85/S=22*	50	51010.140.085
M5X22*	500	51010.050.022				M14X90/S=22	50	51010.140.090
M5X25	200	51010.050.025	M10X10/S=17	100	51010.100.010	M14X100/S=22	10	51010.140.100
M5X30	200	51010.050.030	M10X12/S=17	100	51010.100.012	M14X110/S=22*	25	51010.140.110
M5X35	200	51010.050.035	M10X14/S=17	100	51010.100.014	M14X120/S=22*	25	51010.140.120
M5X40	200	51010.050.040	M10X16/S=17	100	51010.100.016	M14X130/S=22*	25	51010.140.130
M5X45	200	51010.050.045	M10X18/S=17*	100	51010.100.018	M14X140/S=22*	25	51010.140.140
M5X50	200	51010.050.050	M10X20/S=17	100	51010.100.020	M14X150/S=22*	25	51010.140.150
M5X55	200	51010.050.055	M10X22/S=17*	100	51010.100.022			
M5X60	200	51010.050.060	M10X25/S=17	100	51010.100.025	M16X16*	25	51010.160.016
M5X65*	200	51010.050.065	M10X30/S=17	100	51010.100.030	M16X20	25	51010.160.020
M5X70	200	51010.050.070	M10X35/S=17	100	51010.100.035	M16X25	50	51010.160.025
M5X75*	100	51010.050.075	M10X40/S=17	100	51010.100.040	M16X30	50	51010.160.030
M5X80	100	51010.050.080	M10X45/S=17	100	51010.100.045	M16X35	50	51010.160.035
M5X85*	100	51010.050.085	M10X50/S=17	100	51010.100.050	M16X40	50	51010.160.040
M5X90*	100	51010.050.090	M10X55/S=17	50	51010.100.055	M16X45	50	51010.160.045
M5X100*	100	51010.050.100	M10X60/S=17	50	51010.100.060	M16X50	50	51010.160.050
			M10X65/S=17	50	51010.100.065	M16X55	25	51010.160.055
M6X6	500	51010.060.006	M10X70/S=17	50	51010.100.070	M16X60	25	51010.160.060
M6X8	200	51010.060.008	M10X75/S=17	50	51010.100.075	M16X65	25	51010.160.065
M6X10	200	51010.060.010	M10X80/S=17	50	51010.100.080	M16X70	25	51010.160.070
M6X12	200	51010.060.012	M10X85/S=17	50	51010.100.085	M16X75	25	51010.160.075
M6X14	200	51010.060.014	M10X90/S=17	25	51010.100.090	M16X80	25	51010.160.080
M6X16	200	51010.060.016	M10X95/S=17*	50	51010.100.095	M16X85	25	51010.160.085
M6X18	200	51010.060.018	M10X100/S=17	25	51010.100.100	M16X90	10	51010.160.090
M6X20	200	51010.060.020	M10X110/S=17	25	51010.100.110	M16X95*	25	51010.160.095
M6X22	200	51010.060.022	M10X120/S=17	25	51010.100.120	M16X100	10	51010.160.100
M6X25	200	51010.060.025	M10X130/S=17	25	51010.100.130	M16X110	10	51010.160.110
M6X30	200	51010.060.030	M10X135/S=17*	50	51010.100.135	M16X120	10	51010.160.120
M6X35	200	51010.060.035	M10X140/S=17	25	51010.100.140	M16X130	25	51010.160.130
M6X40	200	51010.060.040	M10X150/S=17	10	51010.100.150	M16X140	25	51010.160.140
M6X45	100	51010.060.045	M10X160/S=17	10	51010.100.160	M16X150	25	51010.160.150
M6X50	100	51010.060.050	M10X170/S=17	25	51010.100.170	M16X160	25	51010.160.160
M6X55	100	51010.060.055	M10X180/S=17	25	51010.100.180	M16X170*	25	51010.160.170
M6X60	100	51010.060.060	M10X190/S=17*	25	51010.100.190	M16X180*	10	51010.160.180
M6X65	100	51010.060.065	M10X200/S=17*	25	51010.100.200	M16X190*	10	51010.160.190
M6X70	100	51010.060.070				M16X200	10	51010.160.200
M6X75	100	51010.060.075	M12X16/S=19	100	51010.120.016			
M6X80	100	51010.060.080	M12X18/S=19*	50	51010.120.018	M18X30	25	51010.180.030
M6X85*	100	51010.060.085	M12X20/S=19	100	51010.120.020	M18X35	25	51010.180.035
M6X90	100	51010.060.090	M12X22/S=19*	50	51010.120.022	M18X40	25	51010.180.040
M6X95	100	51010.060.095	M12X25/S=19	100	51010.120.025	M18X45	25	51010.180.045
M6X100	100	51010.060.100	M12X30/S=19	100	51010.120.030	M18X50	25	51010.180.050

51010 Parafuso cabeça sextavada ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M18X55	25	51010.180.055	M22X80/S=32	10	51010.220.080	M27X180*	5	51010.270.180
M18X60	25	51010.180.060	M22X85/S=32*	25	51010.220.085	M27X190*	5	51010.270.190
M18X65*	25	51010.180.065	M22X90/S=32	10	51010.220.090	M27X200*	5	51010.270.200
M18X70	25	51010.180.070	M22X95/S=32*	25	51010.220.095			
M18X75*	25	51010.180.075	M22X100/S=32	5	51010.220.100	M30X60	1	51010.300.060
M18X80	25	51010.180.080	M22X110/S=32*	20	51010.220.110	M30X65*	10	51010.300.065
M18X85*	25	51010.180.085	M22X120/S=32*	20	51010.220.120	M30X70	1	51010.300.070
M18X90	25	51010.180.090	M22X130/S=32*	20	51010.220.130	M30X75*	10	51010.300.075
M18X95*	25	51010.180.095	M22X140/S=32*	20	51010.220.140	M30X80	1	51010.300.080
M18X100	25	51010.180.100	M22X150/S=32*	10	51010.220.150	M30X85*	10	51010.300.085
M18X110*	25	51010.180.110				M30X90	1	51010.300.090
M18X120*	25	51010.180.120	M24X40	10	51010.240.040	M30X95*	10	51010.300.095
M18X130*	25	51010.180.130	M24X45*	10	51010.240.045	M30X100	1	51010.300.100
M18X140*	25	51010.180.140	M24X50	5	51010.240.050	M30X110	1	51010.300.110
M18X150*	25	51010.180.150	M24X55	5	51010.240.055	M30X120	1	51010.300.120
			M24X60	5	51010.240.060	M30X130*	10	51010.300.130
M20X25	25	51010.200.025	M24X65	5	51010.240.065	M30X140*	10	51010.300.140
M20X30	25	51010.200.030	M24X70	5	51010.240.070	M30X150*	10	51010.300.150
M20X35	25	51010.200.035	M24X75*	10	51010.240.075	M30X160*	5	51010.300.160
M20X40	25	51010.200.040	M24X80	5	51010.240.080	M30X170*	5	51010.300.170
M20X45	25	51010.200.045	M24X85	10	51010.240.085	M30X180*	5	51010.300.180
M20X50	25	51010.200.050	M24X90	5	51010.240.090	M30X190*	5	51010.300.190
M20X55	25	51010.200.055	M24X95*	10	51010.240.095	M30X200*	5	51010.300.200
M20X60	25	51010.200.060	M24X100	5	51010.240.100			
M20X65	25	51010.200.065	M24X110	5	51010.240.110	M33X70*	10	51010.330.070
M20X70	25	51010.200.070	M24X120	5	51010.240.120	M33X80	1	51010.330.080
M20X75	10	51010.200.075	M24X130	5	51010.240.130	M33X85*	10	51010.330.085
M20X80	10	51010.200.080	M24X140	5	51010.240.140	M33X90	1	51010.330.090
M20X85*	25	51010.200.085	M24X150	5	51010.240.150	M33X95*	10	51010.330.095
M20X90	10	51010.200.090	M24X160*	10	51010.240.160	M33X100	1	51010.330.100
M20X95*	25	51010.200.095	M24X170*	10	51010.240.170	M33X110	1	51010.330.110
M20X100	10	51010.200.100	M24X180*	5	51010.240.180	M33X120	1	51010.330.120
M20X110	5	51010.200.110	M24X190*	5	51010.240.190	M33X130*	5	51010.330.130
M20X120	5	51010.200.120	M24X200*	5	51010.240.200	M33X140*	5	51010.330.140
M20X130	5	51010.200.130				M33X150*	5	51010.330.150
M20X140	5	51010.200.140	M27X50	3	51010.270.050	M33X160*	5	51010.330.160
M20X150	5	51010.200.150	M27X55*	10	51010.270.055	M33X170*	5	51010.330.170
M20X160	5	51010.200.160	M27X60	3	51010.270.060	M33X180*	5	51010.330.180
M20X170*	25	51010.200.170	M27X65*	10	51010.270.065			
M20X180	20	51010.200.180	M27X70	3	51010.270.070	M36X80	1	51010.360.080
M20X190*	20	51010.200.190	M27X75*	10	51010.270.075	M36X85*	5	51010.360.085
M20X200*	20	51010.200.200	M27X80	3	51010.270.080	M36X90	1	51010.360.090
M20X250*	20	51010.200.250	M27X85*	10	51010.270.085	M36X95*	5	51010.360.095
			M27X90	3	51010.270.090	M36X100	1	51010.360.100
M22X30/S=32	25	51010.220.030	M27X95*	10	51010.270.095	M36X110	1	51010.360.110
M22X40/S=32*	25	51010.220.040	M27X100	3	51010.270.100	M36X120	1	51010.360.120
M22X45/S=32*	25	51010.220.045	M27X110	3	51010.270.110	M36X130	1	51010.360.130
M22X50/S=32	10	51010.220.050	M27X120	3	51010.270.120	M36X140	1	51010.360.140
M22X55/S=32*	25	51010.220.055	M27X130*	10	51010.270.130	M36X150	1	51010.360.150
M22X60/S=32	10	51010.220.060	M27X140*	10	51010.270.140	M36X160*	5	51010.360.160
M22X65/S=32*	25	51010.220.065	M27X150*	10	51010.270.150	M36X170*	5	51010.360.170
M22X70/S=32	10	51010.220.070	M27X160*	5	51010.270.160	M36X180*	5	51010.360.180
M22X75/S=32*	25	51010.220.075	M27X170*	5	51010.270.170	M36X200*	5	51010.360.200

- Diâmetros > M24 são no mínimo classe 50.
- Comprimentos > 8xd são no mínimo classe 50.

55010 Parafuso cabeça sextavada Q41A

Rosca Métrica
Material Aço inoxidável A4
Classe 70

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X4*	1000	55010.020.004	M2,5X10*	1000	55010.025.010	M3X18*	1000	55010.030.018
M2X5*	1000	55010.020.005	M2,5X12*	1000	55010.025.012	M3X20	200	55010.030.020
M2X6*	1000	55010.020.006	M2,5X14*	1000	55010.025.014	M3X22*	1000	55010.030.022
M2X8*	1000	55010.020.008	M2,5X16*	1000	55010.025.016	M3X25	200	55010.030.025
M2X10*	1000	55010.020.010	M2,5X20*	1000	55010.025.020	M3X30	200	55010.030.030
M2X12*	1000	55010.020.012				M3X35	500	55010.030.035
M2X14*	1000	55010.020.014	M3X4*	1000	55010.030.004	M3X40*	500	55010.030.040
M2X16*	1000	55010.020.016	M3X5*	1000	55010.030.005	M3X50*	200	55010.030.050
M2X20*	1000	55010.020.020	M3X6*	1000	55010.030.006			
			M3X8	200	55010.030.008	M4X6	1000	55010.040.006
M2,5X4*	1000	55010.025.004	M3X10	200	55010.030.010	M4X8	200	55010.040.008
M2,5X5*	1000	55010.025.005	M3X12	200	55010.030.012	M4X10	200	55010.040.010
M2,5X6*	1000	55010.025.006	M3X14*	1000	55010.030.014	M4X12	200	55010.040.012
M2,5X8*	1000	55010.025.008	M3X16	200	55010.030.016	M4X14	1000	55010.040.014

55010 Parafuso cabeça sextavada ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X16	200	55010.040.016	M8X25	200	55010.080.025	M12X120/S=19	25	55010.120.120
M4X18	1000	55010.040.018	M8X30	200	55010.080.030	M12X130/S=19*	25	55010.120.130
M4X20	200	55010.040.020	M8X35	200	55010.080.035	M12X140/S=19	25	55010.120.140
M4X22*	500	55010.040.022	M8X40	100	55010.080.040	M12X150/S=19	10	55010.120.150
M4X25	200	55010.040.025	M8X45	100	55010.080.045	M12X160/S=19	10	55010.120.160
M4X30	200	55010.040.030	M8X50	100	55010.080.050	M12X170/S=19*	10	55010.120.170
M4X35	200	55010.040.035	M8X55	100	55010.080.055	M12X180/S=19	10	55010.120.180
M4X40	200	55010.040.040	M8X60	100	55010.080.060	M12X190/S=19*	10	55010.120.190
M4X45	200	55010.040.045	M8X65	100	55010.080.065	M12X200/S=19	10	55010.120.200
M4X50	200	55010.040.050	M8X70	50	55010.080.070	M12X250/S=19*	10	55010.120.250
M4X55*	200	55010.040.055	M8X75	50	55010.080.075			
M4X60	100	55010.040.060	M8X80	50	55010.080.080	M14X20/S=22*	50	55010.140.020
M4X70*	100	55010.040.070	M8X85*	50	55010.080.085	M14X25/S=22	50	55010.140.025
M4X75*	100	55010.040.075	M8X90	50	55010.080.090	M14X30/S=22	50	55010.140.030
M4X80*	100	55010.040.080	M8X95*	50	55010.080.095	M14X35/S=22	50	55010.140.035
			M8X100	50	55010.080.100	M14X40/S=22	50	55010.140.040
M5X5*	500	55010.050.005	M8X110	25	55010.080.110	M14X45/S=22	50	55010.140.045
M5X6*	500	55010.050.006	M8X120	25	55010.080.120	M14X50/S=22	50	55010.140.050
M5X8	200	55010.050.008	M8X130*	50	55010.080.130	M14X55/S=22*	50	55010.140.055
M5X10	200	55010.050.010	M8X140	25	55010.080.140	M14X60/S=22	50	55010.140.060
M5X12	200	55010.050.012	M8X150*	50	55010.080.150	M14X65/S=22	50	55010.140.065
M5X14	500	55010.050.014	M8X160	25	55010.080.160	M14X70/S=22	50	55010.140.070
M5X16	200	55010.050.016	M8X170*	25	55010.080.170	M14X75/S=22*	50	55010.140.075
M5X18	200	55010.050.018	M8X180	25	55010.080.180	M14X80/S=22	25	55010.140.080
M5X20	200	55010.050.020	M8X190*	25	55010.080.190	M14X85/S=22*	50	55010.140.085
M5X22	500	55010.050.022	M8X200*	25	55010.080.200	M14X90/S=22	25	55010.140.090
M5X25	200	55010.050.025				M14X100/S=22	10	55010.140.100
M5X30	200	55010.050.030	M10X10/S=17	100	55010.100.010	M14X110/S=22*	25	55010.140.110
M5X35	200	55010.050.035	M10X12/S=17	100	55010.100.012	M14X120/S=22	10	55010.140.120
M5X40	200	55010.050.040	M10X14/S=17*	100	55010.100.014	M14X130/S=22*	25	55010.140.130
M5X45	200	55010.050.045	M10X16/S=17	100	55010.100.016	M14X140/S=22	10	55010.140.140
M5X50	200	55010.050.050	M10X18/S=17	100	55010.100.018	M14X150/S=22*	25	55010.140.150
M5X55	200	55010.050.055	M10X20/S=17	100	55010.100.020			
M5X60	200	55010.050.060	M10X22/S=17	100	55010.100.022	M16X20	25	55010.160.020
M5X65*	200	55010.050.065	M10X25/S=17	100	55010.100.025	M16X25	50	55010.160.025
M5X70	100	55010.050.070	M10X30/S=17	100	55010.100.030	M16X30	50	55010.160.030
M5X75*	100	55010.050.075	M10X35/S=17	100	55010.100.035	M16X35	50	55010.160.035
M5X80*	100	55010.050.080	M10X40/S=17	100	55010.100.040	M16X40	50	55010.160.040
M5X85*	100	55010.050.085	M10X45/S=17	100	55010.100.045	M16X45	50	55010.160.045
M5X90*	100	55010.050.090	M10X50/S=17	100	55010.100.050	M16X50	25	55010.160.050
M5X95*	100	55010.050.095	M10X55/S=17	50	55010.100.055	M16X55	25	55010.160.055
M5X100*	100	55010.050.100	M10X60/S=17	50	55010.100.060	M16X60	25	55010.160.060
			M10X65/S=17	50	55010.100.065	M16X65	25	55010.160.065
M6X6*	500	55010.060.006	M10X70/S=17	50	55010.100.070	M16X70	25	55010.160.070
M6X8	200	55010.060.008	M10X75/S=17	50	55010.100.075	M16X75	25	55010.160.075
M6X10	200	55010.060.010	M10X80/S=17	50	55010.100.080	M16X80	25	55010.160.080
M6X12	200	55010.060.012	M10X85/S=17*	50	55010.100.085	M16X85	25	55010.160.085
M6X14	200	55010.060.014	M10X90/S=17	25	55010.100.090	M16X90	10	55010.160.090
M6X16	200	55010.060.016	M10X95/S=17*	50	55010.100.095	M16X95*	25	55010.160.095
M6X18	200	55010.060.018	M10X100/S=17	25	55010.100.100	M16X100	10	55010.160.100
M6X20	200	55010.060.020	M10X110/S=17	25	55010.100.110	M16X110	10	55010.160.110
M6X22	200	55010.060.022	M10X120/S=17	25	55010.100.120	M16X120	10	55010.160.120
M6X25	200	55010.060.025	M10X130/S=17*	50	55010.100.130	M16X130	10	55010.160.130
M6X30	200	55010.060.030	M10X135/S=17*	50	55010.100.135	M16X140	10	55010.160.140
M6X35	200	55010.060.035	M10X140/S=17	25	55010.100.140	M16X150	10	55010.160.150
M6X40	200	55010.060.040	M10X150/S=17	25	55010.100.150	M16X160	10	55010.160.160
M6X45	100	55010.060.045	M10X160/S=17	10	55010.100.160	M16X170*	25	55010.160.170
M6X50	100	55010.060.050	M10X170/S=17*	25	55010.100.170	M16X180	10	55010.160.180
M6X55	100	55010.060.055	M10X180/S=17	10	55010.100.180	M16X190*	10	55010.160.190
M6X60	100	55010.060.060	M10X190/S=17*	25	55010.100.190	M16X200	10	55010.160.200
M6X65	100	55010.060.065	M10X200/S=17	10	55010.100.200			
M6X70	100	55010.060.070				M18X30*	25	55010.180.030
M6X75	100	55010.060.075	M12X16/S=19	100	55010.120.016	M18X35	25	55010.180.035
M6X80	100	55010.060.080	M12X18/S=19*	50	55010.120.018	M18X40	25	55010.180.040
M6X85*	100	55010.060.085	M12X20/S=19	100	55010.120.020	M18X45	25	55010.180.045
M6X90	100	55010.060.090	M12X25/S=19	100	55010.120.025	M18X50	25	55010.180.050
M6X95*	100	55010.060.095	M12X30/S=19	100	55010.120.030	M18X55*	25	55010.180.055
M6X100	100	55010.060.100	M12X35/S=19	100	55010.120.035	M18X60	25	55010.180.060
M6X110*	50	55010.060.110	M12X40/S=19	50	55010.120.040	M18X65*	25	55010.180.065
M6X120	50	55010.060.120	M12X45/S=19	50	55010.120.045	M18X70	25	55010.180.070
M6X130*	50	55010.060.130	M12X50/S=19	50	55010.120.050	M18X75*	25	55010.180.075
M6X140*	50	55010.060.140	M12X55/S=19	50	55010.120.055	M18X80	25	55010.180.080
M6X150*	50	55010.060.150	M12X60/S=19	50	55010.120.060	M18X85*	25	55010.180.085
			M12X65/S=19	50	55010.120.065	M18X90	25	55010.180.090
M8X8*	500	55010.080.008	M12X70/S=19	50	55010.120.070	M18X100	25	55010.180.100
M8X10	200	55010.080.010	M12X75/S=19	25	55010.120.075	M18X110*	25	55010.180.110
M8X12	200	55010.080.012	M12X80/S=19	50	55010.120.080	M18X120*	25	55010.180.120
M8X14*	200	55010.080.014	M12X85/S=19*	25	55010.120.085	M18X130*	25	55010.180.130
M8X16	200	55010.080.016	M12X90/S=19	25	55010.120.090	M18X140*	25	55010.180.140
M8X18	200	55010.080.018	M12X95/S=19*	25	55010.120.095	M18X150*	25	55010.180.150
M8X20	200	55010.080.020	M12X100/S=19	25	55010.120.100			
M8X22	200	55010.080.022	M12X110/S=19	25	55010.120.110	M20X25*	25	55010.200.025

55010 Parafuso cabeça sextavada ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M20X30	25	55010.200.030				M30X65*	10	55010.300.065
M20X35	25	55010.200.035	M24X40	10	55010.240.040	M30X70	1	55010.300.070
M20X40	25	55010.200.040	M24X45*	10	55010.240.045	M30X75*	10	55010.300.075
M20X45	25	55010.200.045	M24X50	5	55010.240.050	M30X80	1	55010.300.080
M20X50	25	55010.200.050	M24X55	5	55010.240.055	M30X85*	10	55010.300.085
M20X55	25	55010.200.055	M24X60	5	55010.240.060	M30X90	1	55010.300.090
M20X60	25	55010.200.060	M24X65	5	55010.240.065	M30X100	1	55010.300.100
M20X65	25	55010.200.065	M24X70	5	55010.240.070	M30X110	1	55010.300.110
M20X70	25	55010.200.070	M24X75*	10	55010.240.075	M30X120	1	55010.300.120
M20X75	10	55010.200.075	M24X80	5	55010.240.080	M30X130*	10	55010.300.130
M20X80	10	55010.200.080	M24X85*	10	55010.240.085	M30X140*	10	55010.300.140
M20X85	10	55010.200.085	M24X90	5	55010.240.090	M30X150	1	55010.300.150
M20X90	10	55010.200.090	M24X95*	10	55010.240.095	M30X160*	5	55010.300.160
M20X95*	25	55010.200.095	M24X100	5	55010.240.100	M30X170*	5	55010.300.170
M20X100	10	55010.200.100	M24X110	5	55010.240.110	M30X180*	5	55010.300.180
M20X110	5	55010.200.110	M24X120	5	55010.240.120	M30X190*	5	55010.300.190
M20X120	5	55010.200.120	M24X130	5	55010.240.130	M30X200*	5	55010.300.200
M20X125*	25	55010.200.125	M24X140	5	55010.240.140			
M20X130	5	55010.200.130	M24X150	5	55010.240.150	M33X70	1	55010.330.070
M20X140	5	55010.200.140	M24X160	3	55010.240.160	M33X75*	10	55010.330.075
M20X150	5	55010.200.150	M24X170*	10	55010.240.170	M33X80	1	55010.330.080
M20X160	5	55010.200.160	M24X180	3	55010.240.180	M33X85*	10	55010.330.085
M20X170*	25	55010.200.170	M24X190*	5	55010.240.190	M33X90	1	55010.330.090
M20X180	5	55010.200.180	M24X200	3	55010.240.200	M33X100	1	55010.330.100
M20X190*	20	55010.200.190				M33X110	1	55010.330.110
M20X200	5	55010.200.200	M27X50	3	55010.270.050	M33X120	1	55010.330.120
M20X250*	20	55010.200.250	M27X55*	10	55010.270.055	M33X130*	5	55010.330.130
			M27X60	3	55010.270.060	M33X140*	5	55010.330.140
M22X30/S=32*	25	55010.220.030	M27X65*	10	55010.270.065	M33X150*	5	55010.330.150
M22X35/S=32*	25	55010.220.035	M27X70	3	55010.270.070	M33X160*	5	55010.330.160
M22X40/S=32*	25	55010.220.040	M27X75*	10	55010.270.075	M33X180*	5	55010.330.180
M22X45/S=32*	25	55010.220.045	M27X80	3	55010.270.080	M33X190*	5	55010.330.190
M22X50/S=32	10	55010.220.050	M27X85*	10	55010.270.085			
M22X55/S=32*	25	55010.220.055	M27X90	3	55010.270.090	M36X80	1	55010.360.080
M22X60/S=32	10	55010.220.060	M27X95*	10	55010.270.095	M36X90	1	55010.360.090
M22X65/S=32*	25	55010.220.065	M27X100	3	55010.270.100	M36X100	1	55010.360.100
M22X70/S=32	10	55010.220.070	M27X110*	10	55010.270.110	M36X110	1	55010.360.110
M22X75/S=32*	25	55010.220.075	M27X120	3	55010.270.120	M36X120	1	55010.360.120
M22X80/S=32	10	55010.220.080	M27X130*	10	55010.270.130	M36X130*	5	55010.360.130
M22X85/S=32*	25	55010.220.085	M27X140*	10	55010.270.140	M36X140*	5	55010.360.140
M22X90/S=32*	25	55010.220.090	M27X150*	10	55010.270.150	M36X150*	5	55010.360.150
M22X100/S=32*	25	55010.220.100	M27X160*	5	55010.270.160	M36X160*	5	55010.360.160
M22X110/S=32*	20	55010.220.110	M27X170*	5	55010.270.170	M36X180*	5	55010.360.180
M22X120/S=32*	20	55010.220.120	M27X180*	5	55010.270.180	M36X190*	5	55010.360.190
M22X130/S=32*	20	55010.220.130	M27X190*	5	55010.270.190	M36X200*	5	55010.360.200
M22X140/S=32*	20	55010.220.140						
M22X150/S=32*	10	55010.220.150	M30X60	1	55010.300.060			

- Diâmetros > M24 são no mínimo classe 50.
- Comprimentos > 8xd são no mínimo classe 50.

53520 Parafuso cabeça sextavada R11A

Rosca Métrica
Material Aço inoxidável A4
Classe 80

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X8	100	53520.040.008	M5X16	100	53520.050.016	M6X12	100	53520.060.012
M4X10	100	53520.040.010	M5X18*	500	53520.050.018	M6X14*	200	53520.060.014
M4X12	100	53520.040.012	M5X20	100	53520.050.020	M6X16	100	53520.060.016
M4X14*	1000	53520.040.014	M5X22*	500	53520.050.022	M6X18*	200	53520.060.018
M4X16	100	53520.040.016	M5X25	100	53520.050.025	M6X20	100	53520.060.020
M4X18*	1000	53520.040.018	M5X30	100	53520.050.030	M6X22*	200	53520.060.022
M4X20	100	53520.040.020	M5X35*	200	53520.050.035	M6X25	100	53520.060.025
M4X22*	500	53520.040.022	M5X40	100	53520.050.040	M6X30	100	53520.060.030
M4X25	100	53520.040.025	M5X45*	200	53520.050.045	M6X35*	200	53520.060.035
M4X35*	200	53520.040.035	M5X50*	200	53520.050.050	M6X40	100	53520.060.040
M4X40*	200	53520.040.040	M5X55*	200	53520.050.055	M6X45*	100	53520.060.045
M4X45*	200	53520.040.045	M5X60*	200	53520.050.060	M6X50	100	53520.060.050
M4X50*	200	53520.040.050	M5X70*	100	53520.050.070	M6X55*	100	53520.060.055
M4X60*	100	53520.040.060	M5X80*	100	53520.050.080	M6X60*	100	53520.060.060
M4X70*	100	53520.040.070	M5X85*	100	53520.050.085	M6X65*	100	53520.060.065
			M5X90*	100	53520.050.090	M6X70*	100	53520.060.070
M5X8*	500	53520.050.008	M5X100*	100	53520.050.100	M6X75*	100	53520.060.075
M5X10	100	53520.050.010				M6X80*	100	53520.060.080
M5X12	100	53520.050.012	M6X8*	500	53520.060.008	M6X85*	100	53520.060.085
M5X14*	500	53520.050.014	M6X10	100	53520.060.010	M6X90*	100	53520.060.090

53520 Parafuso cabeça sextavada ←

d x L	✉	Ref. do artigo
M6X100*	100	53520.060.100
M6X110*	100	53520.060.110
M6X120*	50	53520.060.120
M6X150*	50	53520.060.150
M8X10*	500	53520.080.010
M8X12	50	53520.080.012
M8X14*	200	53520.080.014
M8X16	50	53520.080.016
M8X18*	200	53520.080.018
M8X20	50	53520.080.020
M8X22*	200	53520.080.022
M8X25	50	53520.080.025
M8X30	50	53520.080.030
M8X35	50	53520.080.035
M8X40	50	53520.080.040
M8X45*	100	53520.080.045
M8X50	50	53520.080.050
M8X55*	100	53520.080.055
M8X60*	100	53520.080.060
M8X65*	100	53520.080.065
M8X70*	50	53520.080.070
M8X75*	50	53520.080.075
M8X80*	50	53520.080.080
M8X85*	50	53520.080.085
M8X90*	50	53520.080.090
M8X95*	50	53520.080.095
M8X100*	50	53520.080.100
M8X110*	50	53520.080.110
M8X120*	50	53520.080.120
M8X130*	50	53520.080.130
M8X140*	50	53520.080.140
M8X150*	50	53520.080.150
M8X160*	50	53520.080.160
M8X170*	50	53520.080.170
M10X12/S=17*	100	53520.100.012
M10X16/S=17	50	53520.100.016
M10X20/S=17	50	53520.100.020
M10X25/S=17	50	53520.100.025
M10X30/S=17	50	53520.100.030
M10X35/S=17	50	53520.100.035
M10X40/S=17	50	53520.100.040
M10X45/S=17	100	53520.100.045
M10X50/S=17	50	53520.100.050
M10X55/S=17*	50	53520.100.055
M10X60/S=17*	50	53520.100.060
M10X65/S=17*	50	53520.100.065
M10X70/S=17*	100	53520.100.070
M10X75/S=17*	50	53520.100.075
M10X80/S=17*	50	53520.100.080
M10X85/S=17*	50	53520.100.085
M10X90/S=17*	50	53520.100.090
M10X100/S=17*	50	53520.100.100
M10X110/S=17*	50	53520.100.110
M10X120/S=17*	50	53520.100.120
M10X130/S=17*	50	53520.100.130
M10X140/S=17*	50	53520.100.140
M10X150/S=17*	50	53520.100.150
M10X160/S=17*	25	53520.100.160
M10X180/S=17*	25	53520.100.180
M10X200/S=17*	25	53520.100.200

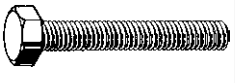
d x L	✉	Ref. do artigo
M12X16/S=19*	50	53520.120.016
M12X20/S=19	25	53520.120.020
M12X25/S=19	25	53520.120.025
M12X30/S=19	25	53520.120.030
M12X35/S=19	25	53520.120.035
M12X40/S=19	25	53520.120.040
M12X45/S=19	100	53520.120.045
M12X50/S=19	25	53520.120.050
M12X55/S=19	25	53520.120.055
M12X60/S=19	25	53520.120.060
M12X65/S=19	25	53520.120.065
M12X70/S=19	25	53520.120.070
M12X75/S=19*	25	53520.120.075
M12X80/S=19*	25	53520.120.080
M12X85/S=19*	25	53520.120.085
M12X90/S=19*	25	53520.120.090
M12X95/S=19*	25	53520.120.095
M12X100/S=19*	25	53520.120.100
M12X110/S=19*	25	53520.120.110
M12X120/S=19*	25	53520.120.120
M12X130/S=19*	25	53520.120.130
M12X140/S=19*	25	53520.120.140
M12X150/S=19*	25	53520.120.150
M12X160/S=19*	10	53520.120.160
M12X170/S=19*	10	53520.120.170
M12X180/S=19*	10	53520.120.180
M12X190/S=19*	10	53520.120.190
M12X200/S=19*	10	53520.120.200
M14X20/S=22*	50	53520.140.020
M14X25/S=22*	50	53520.140.025
M14X30/S=22*	50	53520.140.030
M14X35/S=22*	50	53520.140.035
M14X40/S=22*	50	53520.140.040
M14X45/S=22*	50	53520.140.045
M14X50/S=22	50	53520.140.050
M14X55/S=22*	50	53520.140.055
M14X60/S=22*	50	53520.140.060
M14X65/S=22*	50	53520.140.065
M14X70/S=22*	50	53520.140.070
M14X75/S=22*	50	53520.140.075
M14X80/S=22*	50	53520.140.080
M14X90/S=22*	50	53520.140.090
M14X100/S=22*	50	53520.140.100
M14X110/S=22*	25	53520.140.110
M14X120/S=22*	25	53520.140.120
M14X130/S=22*	25	53520.140.130
M14X150/S=22*	25	53520.140.150
M16X20*	25	53520.160.020
M16X25*	25	53520.160.025
M16X30	25	53520.160.030
M16X35	25	53520.160.035
M16X40	25	53520.160.040
M16X45	25	53520.160.045
M16X50	25	53520.160.050
M16X55	25	53520.160.055
M16X60	25	53520.160.060
M16X65	25	53520.160.065
M16X70	25	53520.160.070
M16X75*	25	53520.160.075
M16X80*	25	53520.160.080
M16X85*	25	53520.160.085

d x L	✉	Ref. do artigo
M16X90*	25	53520.160.090
M16X95*	25	53520.160.095
M16X100*	25	53520.160.100
M16X110	25	53520.160.110
M16X120*	25	53520.160.120
M16X130*	25	53520.160.130
M16X140*	25	53520.160.140
M16X150*	25	53520.160.150
M16X160*	25	53520.160.160
M16X170*	25	53520.160.170
M16X180*	10	53520.160.180
M16X190*	10	53520.160.190
M16X200*	10	53520.160.200
M20X30*	25	53520.200.030
M20X35*	25	53520.200.035
M20X40	10	53520.200.040
M20X45*	25	53520.200.045
M20X50	10	53520.200.050
M20X55	10	53520.200.055
M20X60	10	53520.200.060
M20X65*	25	53520.200.065
M20X70*	25	53520.200.070
M20X75*	25	53520.200.075
M20X80	25	53520.200.080
M20X85*	25	53520.200.085
M20X90	25	53520.200.090
M20X95*	25	53520.200.095
M20X100*	25	53520.200.100
M20X110*	25	53520.200.110
M20X120*	25	53520.200.120
M20X130*	25	53520.200.130
M20X140*	25	53520.200.140
M20X150*	25	53520.200.150
M20X160*	25	53520.200.160
M20X170*	25	53520.200.170
M20X180*	20	53520.200.180
M20X200*	20	53520.200.200
M24X40*	10	53520.240.040
M24X45*	10	53520.240.045
M24X50	10	53520.240.050
M24X55*	10	53520.240.055
M24X60	10	53520.240.060
M24X65*	10	53520.240.065
M24X70	10	53520.240.070
M24X75*	10	53520.240.075
M24X80	10	53520.240.080
M24X85*	10	53520.240.085
M24X90*	10	53520.240.090
M24X95*	10	53520.240.095
M24X100*	10	53520.240.100
M24X110*	10	53520.240.110
M24X120*	10	53520.240.120
M24X130*	10	53520.240.130
M24X140*	10	53520.240.140
M24X150*	10	53520.240.150
M24X160*	10	53520.240.160
M24X180*	5	53520.240.180
M24X190*	5	53520.240.190
M24X200*	5	53520.240.200

53521 Parafuso cabeça sextavada Q41A

Rosca Métrica
Material Aço inoxidável A5
Classe 70

RoHS



d x L	✉	Ref. do artigo
M8X20*	200	53521.080.020
M8X25*	100	53521.080.025
M8X30*	100	53521.080.030
M8X40*	100	53521.080.040

d x L	✉	Ref. do artigo
M8X50*	100	53521.080.050
M10X20*	100	53521.100.020
M10X25*	100	53521.100.025

d x L	✉	Ref. do artigo
M10X30*	100	53521.100.030
M10X40*	100	53521.100.040
M10X50*	50	53521.100.050

45010 Parafuso cabeça sextavada W01A

Rosca Métrica
Material Alumínio P40



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X10	100	45010.060.010				M8X60	100	45010.080.060
M6X16	100	45010.060.016	M8X16	100	45010.080.016	M8X70	100	45010.080.070
M6X25	100	45010.060.025	M8X25	100	45010.080.025			
M6X30	100	45010.060.030	M8X30	100	45010.080.030	M10X30/S=17	100	45010.100.030
M6X40	100	45010.060.040	M8X35	100	45010.080.035	M10X40/S=17	100	45010.100.040
M6X50	100	45010.060.050	M8X50	100	45010.080.050	M10X50/S=17	100	45010.100.050

45210 Parafuso cabeça sextavada W01A

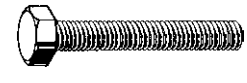
Rosca Métrica
Material Alumínio P60



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X16	200	45210.050.016	M8X20	100	45210.080.020			
M5X25	200	45210.050.025	M8X25	100	45210.080.025	M12X40/S=19	50	45210.120.040
M5X30	200	45210.050.030	M8X30	100	45210.080.030	M12X50/S=19	50	45210.120.050
M5X40	200	45210.050.040	M8X40	100	45210.080.040	M12X60/S=19	50	45210.120.060
						M12X70/S=19	25	45210.120.070
M6X25	200	45210.060.025	M10X20/S=17	100	45210.100.020	M12X80/S=19	25	45210.120.080
M6X30	200	45210.060.030	M10X30/S=17	100	45210.100.030			
M6X40	200	45210.060.040	M10X35/S=17	100	45210.100.035	M16X30	25	45210.160.030
			M10X70/S=17	50	45210.100.070	M16X35	25	45210.160.035
M8X15	100	45210.080.015						

45810 Parafuso cabeça sextavada M11A

Rosca Métrica
Material Kuprodur Cu5
Classe 60



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X16	100	45810.060.016	M8X40	100	45810.080.040	M12X30/S=19	25	45810.120.030
M6X20	100	45810.060.020				M12X35/S=19	25	45810.120.035
M6X25	100	45810.060.025	M10X20/S=17	50	45810.100.020	M12X40/S=19	25	45810.120.040
M6X30	100	45810.060.030	M10X25/S=17	50	45810.100.025	M12X50/S=19	25	45810.120.050
			M10X30/S=17	50	45810.100.030	M12X60/S=19	25	45810.120.060
M8X20	100	45810.080.020	M10X35/S=17	50	45810.100.035			
M8X25	100	45810.080.025	M10X40/S=17	50	45810.100.040	M16X35	10	45810.160.035
M8X30	100	45810.080.030	M10X45/S=17	50	45810.100.045	M16X40	10	45810.160.040
M8X35	100	45810.080.035				M16X50	10	45810.160.050

46010 Parafuso cabeça sextavada M01A

Rosca Métrica
Material Latão Cu2/Cu3



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X10	200	46010.040.010	M5X40	200	46010.050.040	M8X20	100	46010.080.020
M4X12	200	46010.040.012				M8X25	100	46010.080.025
M4X16	200	46010.040.016	M6X10	200	46010.060.010	M8X30	100	46010.080.030
M4X20	200	46010.040.020	M6X12	200	46010.060.012	M8X35	100	46010.080.035
M4X25	200	46010.040.025	M6X16	200	46010.060.016	M8X40	100	46010.080.040
M4X30	200	46010.040.030	M6X20	200	46010.060.020	M8X45	100	46010.080.045
M4X50	200	46010.040.050	M6X25	200	46010.060.025	M8X50	100	46010.080.050
			M6X30	200	46010.060.030	M8X60	100	46010.080.060
M5X10	200	46010.050.010	M6X40	200	46010.060.040	M8X70	100	46010.080.070
M5X12	200	46010.050.012	M6X45	200	46010.060.045			
M5X16	200	46010.050.016	M6X50	200	46010.060.050	M10X16/S=17	100	46010.100.016
M5X20	200	46010.050.020	M6X60	100	46010.060.060	M10X20/S=17	50	46010.100.020
M5X25	200	46010.050.025				M10X25/S=17	50	46010.100.025
M5X30	200	46010.050.030	M8X16	100	46010.080.016	M10X30/S=17	50	46010.100.030

46010 Parafuso cabeça sextavada

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X35/S=17	50	46010.100.035	M12X30/S=19	50	46010.120.030			
M10X40/S=17	50	46010.100.040	M12X35/S=19	50	46010.120.035	M16X30	25	46010.160.030
M10X45/S=17	50	46010.100.045	M12X40/S=19	25	46010.120.040	M16X40	25	46010.160.040
M10X50/S=17	50	46010.100.050	M12X50/S=19	25	46010.120.050	M16X50	10	46010.160.050
M10X60/S=17	50	46010.100.060	M12X60/S=19	25	46010.120.060	M16X60	10	46010.160.060
M10X70/S=17	50	46010.100.070	M12X70/S=19	25	46010.120.070	M16X70	10	46010.160.070
			M12X80/S=19	25	46010.120.080	M16X80	10	46010.160.080
M12X20/S=19	50	46010.120.020	M12X90/S=19	25	46010.120.090	M16X90	10	46010.160.090
M12X25/S=19	50	46010.120.025	M12X100/S=19	25	46010.120.100	M16X100	10	46010.160.100

46060 Parafuso cabeça sextavada M01A

Rosca Métrica
Material Latão Cu2/Cu3
Tratamento sup. Niquelado

RoHS



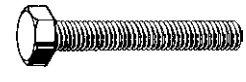
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X8	200	46060.040.008	M5X50	200	46060.050.050	M8X40	100	46060.080.040
M4X10	200	46060.040.010				M8X45	100	46060.080.045
M4X12	200	46060.040.012	M6X10	200	46060.060.010	M8X50	100	46060.080.050
M4X16	200	46060.040.016	M6X12	200	46060.060.012	M8X60	100	46060.080.060
M4X20	200	46060.040.020	M6X16	200	46060.060.016	M8X70	100	46060.080.070
M4X25	200	46060.040.025	M6X20	200	46060.060.020			
M4X30	200	46060.040.030	M6X25	200	46060.060.025	M10X16/S=17	50	46060.100.016
M4X35	200	46060.040.035	M6X30	200	46060.060.030	M10X20/S=17	50	46060.100.020
M4X40	200	46060.040.040	M6X35	200	46060.060.035	M10X25/S=17	50	46060.100.025
			M6X40	200	46060.060.040	M10X30/S=17	50	46060.100.030
M5X8	200	46060.050.008	M6X50	200	46060.060.050	M10X35/S=17	50	46060.100.035
M5X10	200	46060.050.010	M6X60	100	46060.060.060	M10X40/S=17	50	46060.100.040
M5X12	200	46060.050.012				M10X45/S=17	50	46060.100.045
M5X16	200	46060.050.016	M8X12	100	46060.080.012	M10X50/S=17	50	46060.100.050
M5X20	200	46060.050.020	M8X16	100	46060.080.016	M10X60/S=17	50	46060.100.060
M5X25	200	46060.050.025	M8X20	100	46060.080.020	M10X70/S=17	25	46060.100.070
M5X30	200	46060.050.030	M8X25	100	46060.080.025			
M5X40	200	46060.050.040	M8X30	100	46060.080.030	M12X40/S=19	25	46060.120.040
M5X45	200	46060.050.045	M8X35	100	46060.080.035			

45910 Parafuso cabeça sextavada W01A

Rosca Métrica
Material Titânio ASTM
Classe Gr.2

ISO ≈4017
DIN ≈933
NEN ≈1568
NF ≈E25-114

RoHS



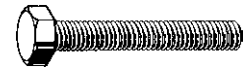
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X20	10	45910.060.020	M8X30	10	45910.080.030	M10X20/S=17	10	45910.100.020
M6X30	10	45910.060.030	M8X40	10	45910.080.040	M10X30/S=17	10	45910.100.030
M6X40	10	45910.060.040	M8X50	10	45910.080.050	M10X40/S=17	5	45910.100.040
						M10X50/S=17	5	45910.100.050
M8X20	10	45910.080.020						

- Titânio ASTM Grau 2 (nr. de material 3.7035) com uma elevada percentagem de titânio puro, assegura a estabilidade do produto e é indicado em ambientes extremamente corrosivos, onde outros materiais, como por exemplo aço inox, falham.
- Titânio grau 2 é, também, indicado para outras aplicações ligeiras.

56100 Parafuso rosca total cabeça sextavada plástico W02A

Rosca Métrica
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco

ISO ≈4017
DIN ≈933
NEN ≈1568
ASME ≈B18.2.3.1M
NF ≈E25-114

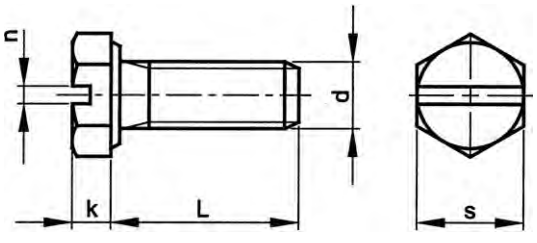


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X10	200	56100.030.010	M4X30	200	56100.040.030			
M3X16	200	56100.030.016				M6X10	50	56100.060.010
M3X20	200	56100.030.020	M5X10	100	56100.050.010	M6X12	50	56100.060.012
M3X25	200	56100.030.025	M5X12	100	56100.050.012	M6X16	50	56100.060.016
			M5X16	100	56100.050.016	M6X20	50	56100.060.020
M4X10	200	56100.040.010	M5X20	100	56100.050.020	M6X25	50	56100.060.025
M4X12	200	56100.040.012	M5X25	100	56100.050.025	M6X30	50	56100.060.030
M4X16	200	56100.040.016	M5X30	100	56100.050.030	M6X40	50	56100.060.040
M4X20	200	56100.040.020	M5X50	100	56100.050.050	M6X50	50	56100.060.050

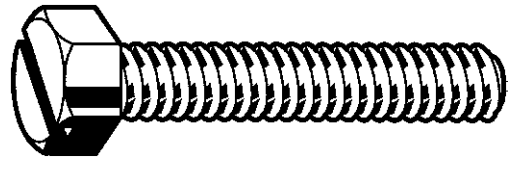
56100	Parafuso rosca total cabeça sextavada plástico	←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
			M10X20/S=17	25	56100.100.020	M12X50/S=19	25	56100.120.050
M8X16	50	56100.080.016	M10X25/S=17	25	56100.100.025	M12X60/S=19	25	56100.120.060
M8X20	50	56100.080.020	M10X30/S=17	25	56100.100.030	M12X80/S=19	25	56100.120.080
M8X25	50	56100.080.025	M10X40/S=17	25	56100.100.040			
M8X30	50	56100.080.030	M10X50/S=17	25	56100.100.050	M16X30	25	56100.160.030
M8X35	50	56100.080.035	M10X60/S=17	25	56100.100.060	M16X40	25	56100.160.040
M8X40	50	56100.080.040				M16X50	25	56100.160.050
M8X50	50	56100.080.050	M12X20/S=19	25	56100.120.020	M16X60	25	56100.160.060
M8X60	50	56100.080.060	M12X30/S=19	25	56100.120.030			
M8X70	50	56100.080.070	M12X35/S=19	25	56100.120.035	M20X35	1	56100.200.035
			M12X40/S=19	25	56100.120.040			

Parafuso cabeça sextavada fenda



DIN	**≈933**
ISO	≈4017
NEN	≈1568
ASME	≈B18.2.3.1M
NF	≈E25-137



Dados técnicos

d	k	n	P	s
M3	2	0.8	0.5	5.5
M4	2.8	1	0.7	7
M5	3.5	1.2	0.8	8
M6	4	1.6	1	10
M8	5.3	2	1.25	13
M10	6.4	2.5	1.5	17

- Fenda de acordo com DIN 962 SZ.

Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
M	Sextavado	INOX A2	70	51012	1-35
M	Sextavado	INOX A4	70	55012	1-36

51012	Parafuso cabeça sextavada fenda	Q01A

Rosca Métrica
Material Aço inoxidável A2
Classe 70

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X8*	1000	51012.030.008	M5X12*	500	51012.050.012	M6X20	200	51012.060.020
			M5X16	200	51012.050.016	M6X25	200	51012.060.025
M4X6*	500	51012.040.006	M5X18*	500	51012.050.018	M6X30	200	51012.060.030
M4X8	200	51012.040.008	M5X20	200	51012.050.020	M6X35	200	51012.060.035
M4X10	200	51012.040.010	M5X25	200	51012.050.025	M6X40	200	51012.060.040
M4X12	200	51012.040.012	M5X30	200	51012.050.030	M6X50*	200	51012.060.050
M4X16*	500	51012.040.016	M5X35*	500	51012.050.035			
M4X20	500	51012.040.020	M5X40*	500	51012.050.040	M8X16*	200	51012.080.016
M4X25*	500	51012.040.025				M8X20*	200	51012.080.020
M4X30*	500	51012.040.030	M6X10*	500	51012.060.010	M8X25*	100	51012.080.025
M4X60*	500	51012.040.060	M6X12	200	51012.060.012	M8X30*	100	51012.080.030
			M6X14*	500	51012.060.014	M8X40*	100	51012.080.040
M5X8*	500	51012.050.008	M6X16	200	51012.060.016			
M5X10*	500	51012.050.010	M6X18*	200	51012.060.018	M10X50*	200	51012.100.050

55012 Parafuso cabeça sextavada fenda — Q41A

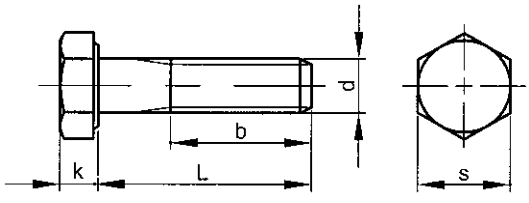
Rosca Métrica
Material Aço inoxidável A4
Classe 70

RoHS

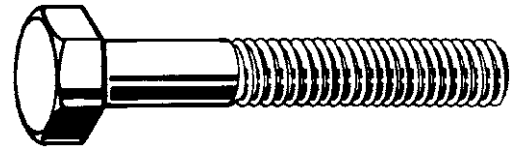


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X10*	500	55012.050.010	M6X12*	500	55012.060.012	M6X30*	200	55012.060.030
M5X12*	500	55012.050.012	M6X14*	500	55012.060.014	M6X40*	200	55012.060.040
M5X16*	500	55012.050.016	M6X16*	200	55012.060.016			
M5X20*	500	55012.050.020	M6X18*	200	55012.060.018	M8X20*	200	55012.080.020
M5X25*	500	55012.050.025	M6X20*	200	55012.060.020	M8X25*	100	55012.080.025
M5X30*	500	55012.050.030	M6X22*	200	55012.060.022	M8X30*	100	55012.080.030
			M6X25*	200	55012.060.025			

Parafuso cabeça sextavada MF



ISO	**8765**
DIN	960
NEN	1555
NF	E25-152



Dados técnicos

d	b (min.): L≤125mm	b (min.): 125mm<L≤200mm	b (min.): L>200mm	k	s
M8	22	28	41	5.3	13
M10 (DIN)	26	32	45	6.4	17
M12 (DIN)	30	36	49	7.5	19
M14 (DIN)	34	40	53	8.8	22
M16	38	44	57	10	24
M18	42	48	61	11.5	27
M20	46	52	65	12.5	30
M24	54	60	73	15	36
M27	60	66	79	17	41
M30	66	72	85	18.7	46

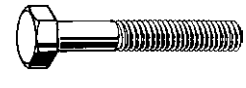
Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
MF	Sextavado	Aço	8.8		01060	1-36
MEF	Sextavado	Aço	8.8		01061	1-37
MF	Sextavado	Aço	8.8	Passiv. amar.	01240	1-37
MEF	Sextavado	Aço	8.8	Passiv. amar.	01241	1-37
MF	Sextavado	Aço	10.9		04160	1-38
MEF	Sextavado	Aço	10.9		04161	1-38

01060 Parafuso cabeça sextavada MF — A09A

Rosca Métrica fina
Material Aço
Classe 8.8

RoHS



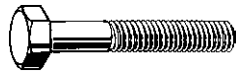
d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo
M8X1,00X35	200	01060.080.035	M10X1,25X80/S=17	100	01060.100.080	M12X1,50X100/S=19	50	01060.120.100
M8X1,00X40	200	01060.080.040	M10X1,25X90/S=17	100	01060.100.090	M12X1,50X120/S=19	100	01060.120.120
M8X1,00X50	200	01060.080.050	M10X1,25X100/S=17	100	01060.100.100			
M8X1,00X60	200	01060.080.060	M10X1,25X120/S=17	100	01060.100.120	M14X1,50X50/S=22	50	01060.140.050
M8X1,00X70	200	01060.080.070				M14X1,50X55/S=22	50	01060.140.055
M8X1,00X80	200	01060.080.080	M12X1,50X45/S=19	100	01060.120.045	M14X1,50X60/S=22	50	01060.140.060
M8X1,00X90	100	01060.080.090	M12X1,50X50/S=19	100	01060.120.050	M14X1,50X65/S=22	50	01060.140.065
			M12X1,50X55/S=19	100	01060.120.055	M14X1,50X70/S=22	50	01060.140.070
M10X1,25X35/S=17	100	01060.100.035	M12X1,50X60/S=19	100	01060.120.060	M14X1,50X75/S=22	50	01060.140.075
M10X1,25X40/S=17	100	01060.100.040	M12X1,50X65/S=19	50	01060.120.065	M14X1,50X80/S=22	50	01060.140.080
M10X1,25X50/S=17	100	01060.100.050	M12X1,50X70/S=19	50	01060.120.070	M14X1,50X90/S=22	50	01060.140.090
M10X1,25X60/S=17	100	01060.100.060	M12X1,50X75/S=19	50	01060.120.075	M14X1,50X100/S=22	50	01060.140.100
M10X1,25X70/S=17	100	01060.100.070	M12X1,50X80/S=19	50	01060.120.080			
M10X1,25X75/S=17	100	01060.100.075	M12X1,50X90/S=19	50	01060.120.090	M16X1,50X55	50	01060.160.055

01060 Parafuso cabeça sextavada MF

d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo
M16X1,50X60	50	01060.160.060	M16X1,50X90	25	01060.160.090	M16X1,50X140	25	01060.160.140
M16X1,50X65	25	01060.160.065	M16X1,50X100	25	01060.160.100	M16X1,50X150	25	01060.160.150
M16X1,50X70	25	01060.160.070	M16X1,50X110	25	01060.160.110			
M16X1,50X75	25	01060.160.075	M16X1,50X120	25	01060.160.120	M24X2,00X100	5	01060.240.100
M16X1,50X80	25	01060.160.080	M16X1,50X130	25	01060.160.130			

01061 Parafuso cabeça sextavada MEF A09A

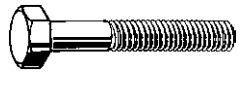
Rosca Métrica extra fina
Material Aço
Classe 8.8



d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo
M10X1,00X40/S=17	100	01061.100.040	M12X1,25X80/S=19	50	01061.120.080	M18X1,50X160	10	01061.180.160
M10X1,00X45/S=17	100	01061.100.045	M12X1,25X90/S=19	50	01061.120.090	M18X1,50X170	10	01061.180.170
M10X1,00X50/S=17	100	01061.100.050	M12X1,25X100/S=19	50	01061.120.100	M18X1,50X180	10	01061.180.180
M10X1,00X60/S=17	100	01061.100.060	M12X1,25X110/S=19	100	01061.120.110	M18X1,50X190	10	01061.180.190
M10X1,00X70/S=17	100	01061.100.070	M12X1,25X140/S=19	100	01061.120.140	M18X1,50X200	10	01061.180.200
M10X1,00X80/S=17	100	01061.100.080						
M10X1,00X90/S=17	100	01061.100.090	M18X1,50X70	25	01061.180.070	M20X1,50X70	25	01061.200.070
M10X1,00X100/S=17	100	01061.100.100	M18X1,50X80	25	01061.180.080	M20X1,50X80	25	01061.200.080
			M18X1,50X90	25	01061.180.090	M20X1,50X90	25	01061.200.090
M12X1,25X45/S=19	100	01061.120.045	M18X1,50X100	25	01061.180.100	M20X1,50X100	25	01061.200.100
M12X1,25X50/S=19	100	01061.120.050	M18X1,50X120	25	01061.180.120	M20X1,50X120	25	01061.200.120
M12X1,25X55/S=19	100	01061.120.055	M18X1,50X130	25	01061.180.130	M20X1,50X130	25	01061.200.130
M12X1,25X60/S=19	100	01061.120.060	M18X1,50X140	25	01061.180.140	M20X1,50X140	25	01061.200.140
M12X1,25X70/S=19	50	01061.120.070	M18X1,50X150	25	01061.180.150	M20X1,50X150	25	01061.200.150

01240 Parafuso cabeça sextavada MF A09A

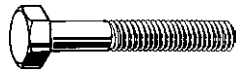
Rosca Métrica fina
Material Aço
Classe 8.8
Tratamento sup. Passivado a amarelo



d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo
M8X1,00X35	200	01240.080.035	M12X1,50X50/S=19	100	01240.120.050	M14X1,50X110/S=22	50	01240.140.110
M8X1,00X40	200	01240.080.040	M12X1,50X55/S=19	100	01240.120.055	M14X1,50X120/S=22	50	01240.140.120
M8X1,00X50	200	01240.080.050	M12X1,50X60/S=19	100	01240.120.060	M14X1,50X140/S=22	50	01240.140.140
M8X1,00X60	200	01240.080.060	M12X1,50X65/S=19	50	01240.120.065			
M8X1,00X70	200	01240.080.070	M12X1,50X70/S=19	50	01240.120.070	M16X1,50X55	50	01240.160.055
M8X1,00X80	200	01240.080.080	M12X1,50X80/S=19	50	01240.120.080	M16X1,50X60	50	01240.160.060
M8X1,00X90	100	01240.080.090	M12X1,50X90/S=19	50	01240.120.090	M16X1,50X65	25	01240.160.065
			M12X1,50X100/S=19	50	01240.120.100	M16X1,50X70	25	01240.160.070
M10X1,25X40/S=17	100	01240.100.040				M16X1,50X75	25	01240.160.075
M10X1,25X50/S=17	100	01240.100.050	M14X1,50X50/S=22	50	01240.140.050	M16X1,50X80	25	01240.160.080
M10X1,25X60/S=17	100	01240.100.060	M14X1,50X55/S=22	50	01240.140.055	M16X1,50X90	25	01240.160.090
M10X1,25X70/S=17	100	01240.100.070	M14X1,50X60/S=22	50	01240.140.060	M16X1,50X100	25	01240.160.100
M10X1,25X80/S=17	100	01240.100.080	M14X1,50X65/S=22	50	01240.140.065	M16X1,50X110	25	01240.160.110
M10X1,25X90/S=17	100	01240.100.090	M14X1,50X70/S=22	50	01240.140.070	M16X1,50X120	25	01240.160.120
M10X1,25X100/S=17	100	01240.100.100	M14X1,50X75/S=22	50	01240.140.075	M16X1,50X130	25	01240.160.130
M10X1,25X110/S=17	100	01240.100.110	M14X1,50X80/S=22	50	01240.140.080	M16X1,50X140	25	01240.160.140
			M14X1,50X90/S=22	50	01240.140.090	M16X1,50X150	25	01240.160.150
M12X1,50X45/S=19	100	01240.120.045	M14X1,50X100/S=22	50	01240.140.100			

01241 Parafuso cabeça sextavada MEF A09A

Rosca Métrica extra fina
Material Aço
Classe 8.8
Tratamento sup. Passivado a amarelo



d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo
M10X1,00X40/S=17	100	01241.100.040	M12X1,25X45/S=19	100	01241.120.045	M18X1,50X60	25	01241.180.060
M10X1,00X45/S=17	100	01241.100.045	M12X1,25X50/S=19	100	01241.120.050	M18X1,50X70	25	01241.180.070
M10X1,00X50/S=17	100	01241.100.050	M12X1,25X60/S=19	100	01241.120.060	M18X1,50X80	25	01241.180.080
M10X1,00X60/S=17	100	01241.100.060	M12X1,25X70/S=19	50	01241.120.070	M18X1,50X90	25	01241.180.090
M10X1,00X70/S=17	100	01241.100.070	M12X1,25X80/S=19	50	01241.120.080	M18X1,50X100	25	01241.180.100
M10X1,00X80/S=17	100	01241.100.080	M12X1,25X90/S=19	50	01241.120.090	M18X1,50X110	25	01241.180.110
M10X1,00X90/S=17	100	01241.100.090	M12X1,25X100/S=19	50	01241.120.100	M18X1,50X120	25	01241.180.120
M10X1,00X100/S=17	100	01241.100.100	M12X1,25X110/S=19	50	01241.120.110			
						M20X1,50X70	25	01241.200.070

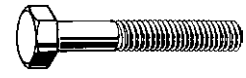
01241 Parafuso cabeça sextavada MEF ←

d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo
M20X1,50X80	25	01241.200.080	M20X1,50X110	25	01241.200.110	M20X1,50X150	25	01241.200.150
M20X1,50X90	25	01241.200.090	M20X1,50X120	25	01241.200.120			
M20X1,50X100	25	01241.200.100	M20X1,50X140	25	01241.200.140			

04160 Parafuso cabeça sextavada MF C02A

Rosca Métrica fina
Material Aço
Classe 10.9

RoHS



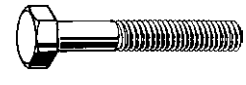
d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo
M8X1,00X35	200	04160.080.035	M12X1,50X120/S=19	25	04160.120.120	M16X1,50X120	25	04160.160.120
M8X1,00X40	200	04160.080.040				M16X1,50X130	20	04160.160.130
M8X1,00X50	200	04160.080.050	M14X1,50X50/S=22	50	04160.140.050	M16X1,50X140	20	04160.160.140
M8X1,00X60	200	04160.080.060	M14X1,50X60/S=22	50	04160.140.060	M16X1,50X150	20	04160.160.150
M8X1,00X70	100	04160.080.070	M14X1,50X65/S=22	50	04160.140.065	M16X1,50X160	20	04160.160.160
M8X1,00X80	100	04160.080.080	M14X1,50X70/S=22	50	04160.140.070			
M8X1,00X90	100	04160.080.090	M14X1,50X80/S=22	25	04160.140.080	M24X2,00X80	15	04160.240.080
			M14X1,50X90/S=22	25	04160.140.090	M24X2,00X90	15	04160.240.090
M10X1,25X45/S=17	100	04160.100.045	M14X1,50X100/S=22	25	04160.140.100	M24X2,00X100	10	04160.240.100
M10X1,25X50/S=17	100	04160.100.050	M14X1,50X110/S=22	25	04160.140.110	M24X2,00X110	10	04160.240.110
M10X1,25X60/S=17	100	04160.100.060	M14X1,50X120/S=22	25	04160.140.120	M24X2,00X120	10	04160.240.120
M10X1,25X70/S=17	100	04160.100.070				M24X2,00X130	10	04160.240.130
M10X1,25X80/S=17	100	04160.100.080	M16X1,50X50	25	04160.160.050	M24X2,00X140	10	04160.240.140
M10X1,25X90/S=17	100	04160.100.090	M16X1,50X55	25	04160.160.055	M24X2,00X150	10	04160.240.150
M10X1,25X100/S=17	100	04160.100.100	M16X1,50X60	25	04160.160.060	M24X2,00X160	10	04160.240.160
			M16X1,50X65	25	04160.160.065	M24X2,00X180	10	04160.240.180
M12X1,50X50/S=19	50	04160.120.050	M16X1,50X70	25	04160.160.070	M24X2,00X200	10	04160.240.200
M12X1,50X60/S=19	50	04160.120.060	M16X1,50X80	25	04160.160.080			
M12X1,50X70/S=19	50	04160.120.070	M16X1,50X90	25	04160.160.090	M27X2,00X190	10	04160.270.190
M12X1,50X80/S=19	50	04160.120.080	M16X1,50X100	25	04160.160.100			
M12X1,50X90/S=19	50	04160.120.090	M16X1,50X110	25	04160.160.110	M30X2,00X140	5	04160.300.140
M12X1,50X100/S=19	50	04160.120.100						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

04161 Parafuso cabeça sextavada MEF C02A

Rosca Métrica extra fina
Material Aço
Classe 10.9

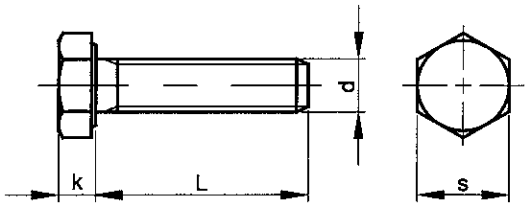
RoHS



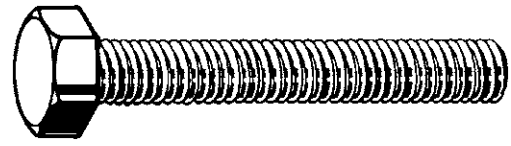
d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo
M10X1,00X50/S=17	100	04161.100.050	M18X1,50X80	25	04161.180.080	M20X1,50X70	25	04161.200.070
M10X1,00X60/S=17	100	04161.100.060	M18X1,50X90	25	04161.180.090	M20X1,50X80	25	04161.200.080
M10X1,00X70/S=17	100	04161.100.070	M18X1,50X100	25	04161.180.100	M20X1,50X90	25	04161.200.090
M10X1,00X80/S=17	100	04161.100.080	M18X1,50X110	15	04161.180.110	M20X1,50X100	25	04161.200.100
M10X1,00X90/S=17	50	04161.100.090	M18X1,50X120	15	04161.180.120	M20X1,50X110	10	04161.200.110
M10X1,00X100/S=17	50	04161.100.100	M18X1,50X130	15	04161.180.130	M20X1,50X120	10	04161.200.120
			M18X1,50X140	10	04161.180.140	M20X1,50X130	10	04161.200.130
M18X1,50X60	25	04161.180.060	M18X1,50X150	10	04161.180.150	M20X1,50X140	10	04161.200.140
M18X1,50X70	25	04161.180.070	M18X1,50X160	10	04161.180.160	M20X1,50X150	10	04161.200.150
M18X1,50X75	25	04161.180.075				M20X1,50X160	10	04161.200.160

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Parafuso cabeça sextavada MF



ISO	**8676**
DIN	961
NEN	1568
NF	E25-151



Dados técnicos

d	k	s
M8	5.3	13
M10 (DIN)	6.4	17
M12 (DIN)	7.5	19
M14 (DIN)	8.8	22
M16	10	24

d	k	s
M18	11.5	27
M20	12.5	30
M22 (DIN)	14	32
M24	15	36

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
MF	Sextavado	Aço	8.8		01070	1-39
MEF	Sextavado	Aço	8.8		01071	1-39
MF	Sextavado	Aço	8.8	Passiv. amar.	01250	1-40
MEF	Sextavado	Aço	8.8	Passiv. amar.	01251	1-40
MF	Sextavado	Aço	10.9		04170	1-40
MEF	Sextavado	Aço	10.9		04171	1-41

01070 Parafuso cabeça sextavada MF — A09A

Rosca Métrica fina
Material Aço
Classe 8.8



d x P x L	✉	Ref. do artigo
M8X1,00X16	200	01070.080.016
M8X1,00X20	200	01070.080.020
M8X1,00X25	200	01070.080.025
M8X1,00X30	200	01070.080.030
M8X1,00X35	200	01070.080.035
M8X1,00X40	200	01070.080.040
M10X1,25X20/S=17	200	01070.100.020
M10X1,25X25/S=17	200	01070.100.025
M10X1,25X30/S=17	200	01070.100.030
M10X1,25X35/S=17	100	01070.100.035
M10X1,25X40/S=17	100	01070.100.040
M10X1,25X45/S=17	100	01070.100.045
M10X1,25X50/S=17	100	01070.100.050
M10X1,25X60/S=17	100	01070.100.060

d x P x L	✉	Ref. do artigo
M12X1,50X20/S=19	100	01070.120.020
M12X1,50X25/S=19	100	01070.120.025
M12X1,50X30/S=19	100	01070.120.030
M12X1,50X35/S=19	100	01070.120.035
M12X1,50X40/S=19	100	01070.120.040
M12X1,50X45/S=19	100	01070.120.045
M12X1,50X50/S=19	100	01070.120.050
M12X1,50X60/S=19	100	01070.120.060
M14X1,50X20/S=22	100	01070.140.020
M14X1,50X25/S=22	100	01070.140.025
M14X1,50X30/S=22	100	01070.140.030
M14X1,50X35/S=22	100	01070.140.035
M14X1,50X40/S=22	100	01070.140.040

d x P x L	✉	Ref. do artigo
M14X1,50X45/S=22	50	01070.140.045
M14X1,50X50/S=22	50	01070.140.050
M14X1,50X60/S=22	50	01070.140.060
M16X1,50X20	50	01070.160.020
M16X1,50X25	50	01070.160.025
M16X1,50X30	50	01070.160.030
M16X1,50X35	50	01070.160.035
M16X1,50X40	50	01070.160.040
M16X1,50X45	50	01070.160.045
M16X1,50X50	50	01070.160.050
M16X1,50X60	50	01070.160.060
M16X1,50X70	25	01070.160.070
M16X1,50X80	25	01070.160.080
M16X1,50X120	25	01070.160.120

01071 Parafuso cabeça sextavada MEF — A09A

Rosca Métrica extra fina
Material Aço
Classe 8.8



d x P x L	✉	Ref. do artigo
M10X1,00X20/S=17	200	01071.100.020
M10X1,00X25/S=17	200	01071.100.025
M10X1,00X30/S=17	200	01071.100.030
M10X1,00X35/S=17	100	01071.100.035
M10X1,00X40/S=17	100	01071.100.040
M12X1,25X25/S=19	100	01071.120.025
M12X1,25X30/S=19	100	01071.120.030
M12X1,25X35/S=19	100	01071.120.035

d x P x L	✉	Ref. do artigo
M12X1,25X40/S=19	100	01071.120.040
M12X1,25X50/S=19	100	01071.120.050
M18X1,50X35	50	01071.180.035
M18X1,50X40	50	01071.180.040
M18X1,50X45	50	01071.180.045
M18X1,50X50	50	01071.180.050
M18X1,50X60	25	01071.180.060
M18X1,50X70	25	01071.180.070

d x P x L	✉	Ref. do artigo
M18X1,50X80	25	01071.180.080
M20X1,50X40	25	01071.200.040
M20X1,50X45	25	01071.200.045
M20X1,50X50	25	01071.200.050
M20X1,50X60	25	01071.200.060
M20X1,50X70	25	01071.200.070
M20X1,50X80	25	01071.200.080

01250 Parafuso cabeça sextavada MF — A09A

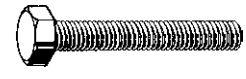
Rosca Métrica fina
Material Aço
Classe 8.8
Tratamento sup. Passivado a amarelo



d x P x L	✉	Ref. do artigo
M8X1,00X20	200	01250.080.020
M8X1,00X25	200	01250.080.025
M8X1,00X30	200	01250.080.030
M8X1,00X35	200	01250.080.035
M8X1,00X40	200	01250.080.040
M10X1,25X20/S=17	200	01250.100.020
M10X1,25X25/S=17	200	01250.100.025
M10X1,25X30/S=17	200	01250.100.030
M10X1,25X35/S=17	100	01250.100.035
M10X1,25X40/S=17	100	01250.100.040
M10X1,25X45/S=17	100	01250.100.045
M10X1,25X50/S=17	100	01250.100.050
M12X1,50X20/S=19	100	01250.120.020
M12X1,50X25/S=19	100	01250.120.025
M12X1,50X30/S=19	100	01250.120.030
M12X1,50X35/S=19	100	01250.120.035
M12X1,50X40/S=19	100	01250.120.040
M12X1,50X45/S=19	100	01250.120.045
M12X1,50X50/S=19	100	01250.120.050
M12X1,50X60/S=19	100	01250.120.060
M14X1,50X20/S=22	100	01250.140.020
M14X1,50X25/S=22	100	01250.140.025
M14X1,50X30/S=22	100	01250.140.030
M14X1,50X35/S=22	100	01250.140.035
M14X1,50X40/S=22	100	01250.140.040
M14X1,50X45/S=22	50	01250.140.045
M14X1,50X50/S=22	50	01250.140.050
M14X1,50X60/S=22	50	01250.140.060
M16X1,50X20	50	01250.160.020
M16X1,50X25	50	01250.160.025
M16X1,50X30	50	01250.160.030
M16X1,50X35	50	01250.160.035
M16X1,50X40	50	01250.160.040
M16X1,50X45	50	01250.160.045
M16X1,50X50	50	01250.160.050
M16X1,50X60	50	01250.160.060
M16X1,50X70	25	01250.160.070

01251 Parafuso cabeça sextavada MEF — A09A

Rosca Métrica extra fina
Material Aço
Classe 8.8
Tratamento sup. Passivado a amarelo

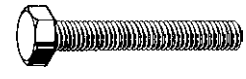


d x P x L	✉	Ref. do artigo
M10X1,00X20/S=17	200	01251.100.020
M10X1,00X25/S=17	200	01251.100.025
M10X1,00X30/S=17	200	01251.100.030
M10X1,00X35/S=17	100	01251.100.035
M10X1,00X40/S=17	100	01251.100.040
M12X1,25X25/S=19	100	01251.120.025
M12X1,25X30/S=19	100	01251.120.030
M12X1,25X35/S=19	100	01251.120.035
M12X1,25X40/S=19	100	01251.120.040
M12X1,25X45/S=19	100	01251.120.045
M12X1,25X50/S=19	100	01251.120.050
M18X1,50X35	50	01251.180.035
M18X1,50X40	50	01251.180.040
M18X1,50X45	50	01251.180.045
M18X1,50X50	50	01251.180.050
M18X1,50X60	25	01251.180.060
M18X1,50X70	25	01251.180.070
M18X1,50X80	25	01251.180.080
M20X1,50X40	25	01251.200.040
M20X1,50X50	25	01251.200.050
M20X1,50X60	25	01251.200.060
M20X1,50X70	25	01251.200.070
M20X1,50X80	25	01251.200.080

04170 Parafuso cabeça sextavada MF — C02A

Rosca Métrica fina
Material Aço
Classe 10.9

RoHS



d x P x L	✉	Ref. do artigo
M8X1,00X20	200	04170.080.020
M8X1,00X25	200	04170.080.025
M8X1,00X30	200	04170.080.030
M8X1,00X35	200	04170.080.035
M8X1,00X40	200	04170.080.040
M10X1,25X20/S=17	200	04170.100.020
M10X1,25X25/S=17	200	04170.100.025
M10X1,25X30/S=17	100	04170.100.030
M10X1,25X35/S=17	100	04170.100.035
M10X1,25X40/S=17	100	04170.100.040
M12X1,50X20/S=19	100	04170.120.020
M12X1,50X25/S=19	100	04170.120.025
M12X1,50X30/S=19	100	04170.120.030
M12X1,50X35/S=19	100	04170.120.035
M12X1,50X40/S=19	100	04170.120.040
M14X1,50X25/S=22	50	04170.140.025
M14X1,50X30/S=22	50	04170.140.030
M14X1,50X35/S=22	50	04170.140.035
M14X1,50X40/S=22	50	04170.140.040
M14X1,50X45/S=22	50	04170.140.045
M14X1,50X50/S=22	50	04170.140.050
M14X1,50X60/S=22	50	04170.140.060
M16X1,50X30	50	04170.160.030
M16X1,50X35	50	04170.160.035
M16X1,50X40	50	04170.160.040
M16X1,50X45	50	04170.160.045
M16X1,50X50	25	04170.160.050
M16X1,50X55	25	04170.160.055
M16X1,50X60	25	04170.160.060
M24X2,00X45	25	04170.240.045
M24X2,00X50	25	04170.240.050
M24X2,00X60	25	04170.240.060
M24X2,00X70	25	04170.240.070

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

04171 **Parafuso cabeça sextavada MEF** **C02A**

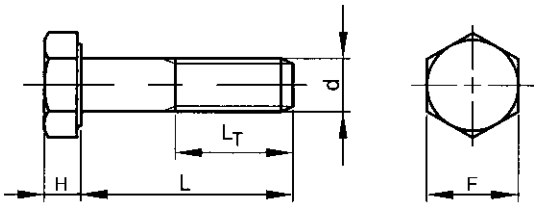
Rosca Métrica extra fina
Material Aço
Classe 10.9



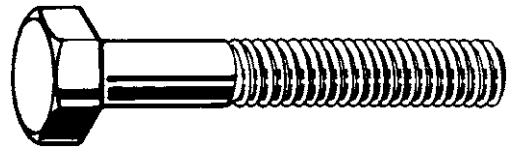
d x P x L		Ref. do artigo	d x P x L		Ref. do artigo	d x P x L		Ref. do artigo
M10X1,00X20/S=17	100	04171.100.020	M12X1,25X30/S=19	50	04171.120.030	M18X1,50X60	25	04171.180.060
M10X1,00X25/S=17	100	04171.100.025	M12X1,25X35/S=19	50	04171.120.035			
M10X1,00X30/S=17	100	04171.100.030	M12X1,25X40/S=19	50	04171.120.040	M20X1,50X40	25	04171.200.040
M10X1,00X35/S=17	100	04171.100.035				M20X1,50X45	25	04171.200.045
M10X1,00X40/S=17	100	04171.100.040	M18X1,50X40	25	04171.180.040	M20X1,50X50	25	04171.200.050
			M18X1,50X50	25	04171.180.050	M20X1,50X60	25	04171.200.060
M12X1,25X25/S=19	50	04171.120.025						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Parafuso cabeça sextavada UNC



ASME ≈B18.2.1
BS ≈1768



Dados técnicos

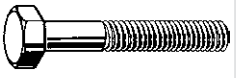
d	L_T (min.): L≤6 Inch	L_T (min.): L>6 Inch	F	Fios por polegada	H
1/4	0.75	1	7/16	20	5/32
5/16	0.875	1.125	1/2	18	13/64
3/8	1	1.25	9/16	16	15/64
7/16	1.125	1.375	5/8	14	9/32
1/2	1.25	1.5	3/4	13	5/16
9/16	1.375	1.625	13/16	12	23/64
5/8	1.5	1.75	15/16	11	25/64
3/4	1.75	2	1.1/8	10	15/32
7/8	2	2.25	1.5/16	9	35/64
1 Inch	2.25	2.5	1.1/2	8	39/64
1.1/8	2.5	2.75	1.11/16	7	11/16
1.1/4	2.75	3	1.7/8	7	25/32
1.1/2	3.25	3.5	2.1/4	6	15/16

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
UNC	Sextavado	Aço	Grade 2		U08200	1-41
UNC	Sextavado	Aço	Grade 2	Zn	U08210	1-42
UNC	Sextavado	Aço	Grade 5		U01000	1-43
UNC	Sextavado	Aço	Grade 5	Zn	U01200	1-44
UNC	Sextavado	Aço	Grade 8		U04104	1-46
UNC	Sextavado	Aço	Grade 8	Passiv. amar.	U04100	1-47
UNC	Sextavado	INOX A2 (AISI304/18-8)	F593		U51000	1-49
UNC	Sextavado	INOX A4 (AISI316/18-10)	F593		U55000	1-50

U08200 **Parafuso cabeça sextavada UNC** **X01A**

Rosca Unified National Coarse
Material Aço
Classe Grade 2



d x L		Ref. do artigo	d x L		Ref. do artigo	d x L		Ref. do artigo
1/2-13X3/4 ft *	25	U08200.050.0075	1/2-13X2.1/4 *	10	U08200.050.0225	1/2-13X3.3/4 *	10	U08200.050.0375
1/2-13X1 Inch ft *	25	U08200.050.0100	1/2-13X2.1/2 *	10	U08200.050.0250	1/2-13X4 Inch *	5	U08200.050.0400
1/2-13X1.1/4 ft *	25	U08200.050.0125	1/2-13X2.3/4 *	10	U08200.050.0275	1/2-13X4.1/2 *	5	U08200.050.0450
1/2-13X1.1/2 *	25	U08200.050.0150	1/2-13X3 Inch *	10	U08200.050.0300	1/2-13X5 Inch *	5	U08200.050.0500
1/2-13X1.3/4 *	25	U08200.050.0175	1/2-13X3.1/4 *	10	U08200.050.0325	1/2-13X5.1/2 *	5	U08200.050.0550
1/2-13X2 Inch *	10	U08200.050.0200	1/2-13X3.1/2 *	10	U08200.050.0350	1/2-13X6 Inch *	5	U08200.050.0600

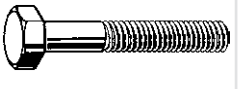
U08200 Parafuso cabeça sextavada UNC

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/2-13X7 Inch *	5	U08200.050.0700	3/4-10X6 Inch *	5	U08200.075.0600	5/16-18X4 Inch *	25	U08200.031.0400
						5/16-18X4.1/2 *	25	U08200.031.0450
1/4-20X1/2 ft *	100	U08200.025.0050	3/8-16X1/2 ft *	50	U08200.037.0050	5/16-18X5 Inch *	25	U08200.031.0500
1/4-20X5/8 ft *	100	U08200.025.0062	3/8-16X5/8 ft *	50	U08200.037.0062	5/16-18X5.1/2 *	25	U08200.031.0550
1/4-20X3/4 ft *	100	U08200.025.0075	3/8-16X3/4 ft *	50	U08200.037.0075	5/16-18X6 Inch *	25	U08200.031.0600
1/4-20X7/8 *	100	U08200.025.0087	3/8-16X7/8 ft *	50	U08200.037.0087			
1/4-20X1 Inch *	100	U08200.025.0100	3/8-16X1 Inch ft *	50	U08200.037.0100	5/8-11X1 Inch ft *	10	U08200.062.0100
1/4-20X1.1/4 *	100	U08200.025.0125	3/8-16X1.1/4 *	50	U08200.037.0125	5/8-11X1.1/4 ft *	10	U08200.062.0125
1/4-20X1.1/2 *	100	U08200.025.0150	3/8-16X1.1/2 *	50	U08200.037.0150	5/8-11X1.1/2 ft *	10	U08200.062.0150
1/4-20X1.3/4 *	100	U08200.025.0175	3/8-16X1.3/4 *	50	U08200.037.0175	5/8-11X1.3/4 *	10	U08200.062.0175
1/4-20X2 Inch *	50	U08200.025.0200	3/8-16X2 Inch *	25	U08200.037.0200	5/8-11X2 Inch *	5	U08200.062.0200
1/4-20X2.1/4 *	50	U08200.025.0225	3/8-16X2.1/4 *	25	U08200.037.0225	5/8-11X2.1/4 *	5	U08200.062.0225
1/4-20X2.1/2 *	50	U08200.025.0250	3/8-16X2.1/2 *	25	U08200.037.0250	5/8-11X2.1/2 *	5	U08200.062.0250
1/4-20X2.3/4 *	50	U08200.025.0275	3/8-16X2.3/4 *	25	U08200.037.0275	5/8-11X2.3/4 *	5	U08200.062.0275
1/4-20X3 Inch *	50	U08200.025.0300	3/8-16X3 Inch *	25	U08200.037.0300	5/8-11X3 Inch *	5	U08200.062.0300
1/4-20X3.1/4 *	50	U08200.025.0325	3/8-16X3.1/4 *	25	U08200.037.0325	5/8-11X3.1/4 *	5	U08200.062.0325
1/4-20X3.1/2 *	50	U08200.025.0350	3/8-16X3.1/2 *	25	U08200.037.0350	5/8-11X3.1/2 *	5	U08200.062.0350
1/4-20X3.3/4 *	50	U08200.025.0375	3/8-16X3.3/4 *	25	U08200.037.0375	5/8-11X3.3/4 *	5	U08200.062.0375
1/4-20X4 Inch *	25	U08200.025.0400	3/8-16X4 Inch *	10	U08200.037.0400	5/8-11X4 Inch *	5	U08200.062.0400
1/4-20X4.1/2 *	25	U08200.025.0450	3/8-16X4.1/2 *	10	U08200.037.0450	5/8-11X4.1/2 *	5	U08200.062.0450
1/4-20X5 Inch *	25	U08200.025.0500	3/8-16X5 Inch *	10	U08200.037.0500	5/8-11X5 Inch *	5	U08200.062.0500
1/4-20X5.1/2 *	25	U08200.025.0550	3/8-16X5.1/2 *	10	U08200.037.0550	5/8-11X5.1/2 *	5	U08200.062.0550
1/4-20X6 Inch *	25	U08200.025.0600	3/8-16X6 Inch *	10	U08200.037.0600	5/8-11X6 Inch *	5	U08200.062.0600
3/4-10X1 Inch ft *	10	U08200.075.0100	5/16-18X1/2 ft *	100	U08200.031.0050	7/16-14X1 Inch ft *	25	U08200.043.0100
3/4-10X1.1/4 ft *	10	U08200.075.0125	5/16-18X5/8 ft *	100	U08200.031.0062	7/16-14X1.1/4 *	25	U08200.043.0125
3/4-10X1.1/2 ft *	10	U08200.075.0150	5/16-18X3/4 ft *	100	U08200.031.0075	7/16-14X1.1/2 *	25	U08200.043.0150
3/4-10X1.3/4 ft *	10	U08200.075.0175	5/16-18X7/8 ft *	100	U08200.031.0087	7/16-14X1.3/4 *	25	U08200.043.0175
3/4-10X2 Inch *	5	U08200.075.0200	5/16-18X1 Inch *	100	U08200.031.0100	7/16-14X2 Inch *	25	U08200.043.0200
3/4-10X2.1/4 *	5	U08200.075.0225	5/16-18X1.1/4 *	100	U08200.031.0125	7/16-14X2.1/4 *	10	U08200.043.0225
3/4-10X2.1/2 *	5	U08200.075.0250	5/16-18X1.1/2 *	100	U08200.031.0150	7/16-14X2.1/2 *	10	U08200.043.0250
3/4-10X2.3/4 *	5	U08200.075.0275	5/16-18X1.3/4 *	50	U08200.031.0175	7/16-14X2.3/4 *	10	U08200.043.0275
3/4-10X3 Inch *	5	U08200.075.0300	5/16-18X2 Inch *	50	U08200.031.0200	7/16-14X3 Inch *	10	U08200.043.0300
3/4-10X3.1/4 *	5	U08200.075.0325	5/16-18X2.1/4 *	50	U08200.031.0225	7/16-14X3.1/2 *	10	U08200.043.0350
3/4-10X3.1/2 *	5	U08200.075.0350	5/16-18X2.1/2 *	50	U08200.031.0250	7/16-14X4 Inch *	10	U08200.043.0400
3/4-10X3.3/4 *	5	U08200.075.0375	5/16-18X2.3/4 *	50	U08200.031.0275	7/16-14X4.1/2 *	10	U08200.043.0450
3/4-10X4 Inch *	5	U08200.075.0400	5/16-18X3 Inch *	50	U08200.031.0300	7/16-14X5 Inch *	10	U08200.043.0500
3/4-10X4.1/2 *	5	U08200.075.0450	5/16-18X3.1/4 *	50	U08200.031.0325	7/16-14X5.1/2 *	10	U08200.043.0550
3/4-10X5 Inch *	5	U08200.075.0500	5/16-18X3.1/2 *	50	U08200.031.0350	7/16-14X6 Inch *	5	U08200.043.0600
3/4-10X5.1/2 *	5	U08200.075.0550	5/16-18X3.3/4 *	25	U08200.031.0375			

- ft = rosca total métrico

U08210 Parafuso cabeça sextavada UNC X01A

Rosca Unified National Coarse
Material Aço
Classe Grade 2
Tratamento sup. Zincado



RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4-20X1/2 ft*	100	U08210.025.0050	5/16-18X1.3/4*	50	U08210.031.0175	3/8-16X3.1/2*	25	U08210.037.0350
1/4-20X5/8 ft*	100	U08210.025.0062	5/16-18X2 Inch*	50	U08210.031.0200	3/8-16X3.3/4*	25	U08210.037.0375
1/4-20X3/4 ft*	100	U08210.025.0075	5/16-18X2.1/4*	50	U08210.031.0225	3/8-16X4 Inch*	10	U08210.037.0400
1/4-20X7/8*	100	U08210.025.0087	5/16-18X2.1/2*	50	U08210.031.0250	3/8-16X4.1/2*	10	U08210.037.0450
1/4-20X1 Inch*	100	U08210.025.0100	5/16-18X2.3/4*	50	U08210.031.0275	3/8-16X5 Inch*	10	U08210.037.0500
1/4-20X1.1/4*	100	U08210.025.0125	5/16-18X3 Inch*	50	U08210.031.0300	3/8-16X5.1/2*	10	U08210.037.0550
1/4-20X1.1/2*	100	U08210.025.0150	5/16-18X3.1/4*	50	U08210.031.0325	3/8-16X6 Inch*	10	U08210.037.0600
1/4-20X1.3/4*	100	U08210.025.0175	5/16-18X3.1/2*	50	U08210.031.0350			
1/4-20X2 Inch*	50	U08210.025.0200	5/16-18X3.3/4*	25	U08210.031.0375	7/16-14X3/4 ft*	25	U08210.043.0075
1/4-20X2.1/4*	50	U08210.025.0225	5/16-18X4 Inch*	25	U08210.031.0400	7/16-14X1 Inch ft*	25	U08210.043.0100
1/4-20X2.1/2*	50	U08210.025.0250	5/16-18X4.1/2*	25	U08210.031.0450	7/16-14X1.1/4*	25	U08210.043.0125
1/4-20X2.3/4*	50	U08210.025.0275	5/16-18X5 Inch*	25	U08210.031.0500	7/16-14X1.1/2*	25	U08210.043.0150
1/4-20X3 Inch*	50	U08210.025.0300	5/16-18X5.1/2*	25	U08210.031.0550	7/16-14X1.3/4*	25	U08210.043.0175
1/4-20X3.1/4*	50	U08210.025.0325	5/16-18X6 Inch*	25	U08210.031.0600	7/16-14X2 Inch*	25	U08210.043.0200
1/4-20X3.1/2*	50	U08210.025.0350				7/16-14X2.1/4*	10	U08210.043.0225
1/4-20X3.3/4*	50	U08210.025.0375	3/8-16X1/2 ft*	50	U08210.037.0050	7/16-14X2.1/2*	10	U08210.043.0250
1/4-20X4 Inch*	25	U08210.025.0400	3/8-16X5/8 ft*	50	U08210.037.0062	7/16-14X2.3/4*	10	U08210.043.0275
1/4-20X4.1/2*	25	U08210.025.0450	3/8-16X3/4 ft*	50	U08210.037.0075	7/16-14X3 Inch*	10	U08210.043.0300
1/4-20X5 Inch*	25	U08210.025.0500	3/8-16X7/8 ft*	50	U08210.037.0087	7/16-14X3.1/2*	10	U08210.043.0350
1/4-20X5.1/2*	25	U08210.025.0550	3/8-16X1 Inch ft*	50	U08210.037.0100	7/16-14X4 Inch*	10	U08210.043.0400
1/4-20X6 Inch*	25	U08210.025.0600	3/8-16X1.1/4*	50	U08210.037.0125	7/16-14X4.1/2*	10	U08210.043.0450
			3/8-16X1.1/2*	50	U08210.037.0150	7/16-14X5 Inch*	10	U08210.043.0500
5/16-18X1/2 ft*	100	U08210.031.0050	3/8-16X1.3/4*	50	U08210.037.0175	7/16-14X5.1/2*	10	U08210.043.0550
5/16-18X5/8 ft*	100	U08210.031.0062	3/8-16X2 Inch*	25	U08210.037.0200	7/16-14X6 Inch*	5	U08210.043.0600
5/16-18X3/4 ft*	100	U08210.031.0075	3/8-16X2.1/4*	25	U08210.037.0225			
5/16-18X7/8 ft*	100	U08210.031.0087	3/8-16X2.1/2*	25	U08210.037.0250	1/2-13X3/4 ft*	25	U08210.050.0075
5/16-18X1 Inch*	100	U08210.031.0100	3/8-16X2.3/4*	25	U08210.037.0275	1/2-13X1 Inch ft*	25	U08210.050.0100
5/16-18X1.1/4*	100	U08210.031.0125	3/8-16X3 Inch*	25	U08210.037.0300	1/2-13X1.1/4 ft*	25	U08210.050.0125
5/16-18X1.1/2*	100	U08210.031.0150	3/8-16X3.1/4*	25	U08210.037.0325	1/2-13X1.1/2*	25	U08210.050.0150

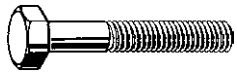
U08210 Parafuso cabeça sextavada UNC

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/2-13X1.3/4*	25	U08210.050.0175	5/8-11X1.1/2 ft*	10	U08210.062.0150	3/4-10X1.1/4 ft*	10	U08210.075.0125
1/2-13X2 Inch*	10	U08210.050.0200	5/8-11X1.3/4*	10	U08210.062.0175	3/4-10X1.1/2 ft*	10	U08210.075.0150
1/2-13X2.1/4*	10	U08210.050.0225	5/8-11X2 Inch*	5	U08210.062.0200	3/4-10X1.3/4 ft*	10	U08210.075.0175
1/2-13X2.1/2*	10	U08210.050.0250	5/8-11X2.1/4*	5	U08210.062.0225	3/4-10X2 Inch*	5	U08210.075.0200
1/2-13X2.3/4*	10	U08210.050.0275	5/8-11X2.1/2*	5	U08210.062.0250	3/4-10X2.1/4*	5	U08210.075.0225
1/2-13X3 Inch*	10	U08210.050.0300	5/8-11X2.3/4*	5	U08210.062.0275	3/4-10X2.1/2*	5	U08210.075.0250
1/2-13X3.1/4*	10	U08210.050.0325	5/8-11X3 Inch*	5	U08210.062.0300	3/4-10X2.3/4*	5	U08210.075.0275
1/2-13X3.1/2*	10	U08210.050.0350	5/8-11X3.1/4*	5	U08210.062.0325	3/4-10X3 Inch*	5	U08210.075.0300
1/2-13X3.3/4*	10	U08210.050.0375	5/8-11X3.1/2*	5	U08210.062.0350	3/4-10X3.1/4*	5	U08210.075.0325
1/2-13X4 Inch*	5	U08210.050.0400	5/8-11X3.3/4*	5	U08210.062.0375	3/4-10X3.1/2*	5	U08210.075.0350
1/2-13X4.1/2*	5	U08210.050.0450	5/8-11X4 Inch*	5	U08210.062.0400	3/4-10X3.3/4*	5	U08210.075.0375
1/2-13X5 Inch*	5	U08210.050.0500	5/8-11X4.1/2*	5	U08210.062.0450	3/4-10X4 Inch*	5	U08210.075.0400
1/2-13X5.1/2*	5	U08210.050.0550	5/8-11X5 Inch*	5	U08210.062.0500	3/4-10X4.1/2*	5	U08210.075.0450
1/2-13X6 Inch*	5	U08210.050.0600	5/8-11X5.1/2*	5	U08210.062.0550	3/4-10X5 Inch*	5	U08210.075.0500
			5/8-11X6 Inch*	5	U08210.062.0600	3/4-10X5.1/2*	5	U08210.075.0550
5/8-11X1 Inch ft*	10	U08210.062.0100				3/4-10X6 Inch*	5	U08210.075.0600
5/8-11X1.1/4 ft*	10	U08210.062.0125	3/4-10X1 Inch ft*	10	U08210.075.0100			

- ft = rosca total métrico

U01000 Parafuso cabeça sextavada UNC X01A

Rosca Unified National Coarse
Material Aço
Classe Grade 5



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4-20X1/2 ft*	100	U01000.025.0050	3/8-16X1/2 ft*	50	U01000.037.0050	7/16-14X7 Inch*	5	U01000.043.0700
1/4-20X5/8 ft*	100	U01000.025.0062	3/8-16X5/8 ft*	50	U01000.037.0062	7/16-14X8 Inch*	5	U01000.043.0800
1/4-20X3/4 ft*	100	U01000.025.0075	3/8-16X3/4 ft*	50	U01000.037.0075	7/16-14X9 Inch*	5	U01000.043.0900
1/4-20X7/8*	100	U01000.025.0087	3/8-16X7/8 ft*	50	U01000.037.0087	7/16-14X10 Inch*	5	U01000.043.1000
1/4-20X1 Inch*	100	U01000.025.0100	3/8-16X1 Inch ft*	50	U01000.037.0100	7/16-14X12 Inch*	5	U01000.043.1200
1/4-20X1.1/4*	100	U01000.025.0125	3/8-16X1.1/4*	50	U01000.037.0125			
1/4-20X1.3/8*	100	U01000.025.0137	3/8-16X1.1/2*	50	U01000.037.0150	1/2-13X3/4 ft*	25	U01000.050.0075
1/4-20X1.1/2*	100	U01000.025.0150	3/8-16X1.3/4*	50	U01000.037.0175	1/2-13X7/8 ft*	25	U01000.050.0087
1/4-20X1.5/8*	100	U01000.025.0162	3/8-16X2 Inch*	25	U01000.037.0200	1/2-13X1 Inch ft*	25	U01000.050.0100
1/4-20X1.3/4*	100	U01000.025.0175	3/8-16X2.1/4*	25	U01000.037.0225	1/2-13X1.1/4 ft*	25	U01000.050.0125
1/4-20X2 Inch*	50	U01000.025.0200	3/8-16X2.1/2*	25	U01000.037.0250	1/2-13X1.1/2*	25	U01000.050.0150
1/4-20X2.1/4*	50	U01000.025.0225	3/8-16X2.3/4*	25	U01000.037.0275	1/2-13X1.3/4*	25	U01000.050.0175
1/4-20X2.1/2*	50	U01000.025.0250	3/8-16X3 Inch*	25	U01000.037.0300	1/2-13X2 Inch*	10	U01000.050.0200
1/4-20X2.3/4*	50	U01000.025.0275	3/8-16X3.1/4*	25	U01000.037.0325	1/2-13X2.1/4*	10	U01000.050.0225
1/4-20X3 Inch*	50	U01000.025.0300	3/8-16X3.1/2*	25	U01000.037.0350	1/2-13X2.1/2*	10	U01000.050.0250
1/4-20X3.1/4*	50	U01000.025.0325	3/8-16X3.3/4*	25	U01000.037.0375	1/2-13X2.3/4*	10	U01000.050.0275
1/4-20X3.1/2*	50	U01000.025.0350	3/8-16X4 Inch*	10	U01000.037.0400	1/2-13X3 Inch*	10	U01000.050.0300
1/4-20X3.3/4*	50	U01000.025.0375	3/8-16X4.1/4*	10	U01000.037.0425	1/2-13X3.1/4*	10	U01000.050.0325
1/4-20X4 Inch*	25	U01000.025.0400	3/8-16X4.1/2*	10	U01000.037.0450	1/2-13X3.1/2*	10	U01000.050.0350
1/4-20X4.1/4*	25	U01000.025.0425	3/8-16X4.3/4*	10	U01000.037.0475	1/2-13X3.3/4*	10	U01000.050.0375
1/4-20X4.1/2*	25	U01000.025.0450	3/8-16X5 Inch*	10	U01000.037.0500	1/2-13X4 Inch*	5	U01000.050.0400
1/4-20X5 Inch*	25	U01000.025.0500	3/8-16X5.1/2*	10	U01000.037.0550	1/2-13X4.1/4*	5	U01000.050.0425
1/4-20X5.1/2*	25	U01000.025.0550	3/8-16X5.3/4*	10	U01000.037.0575	1/2-13X4.1/2*	5	U01000.050.0450
1/4-20X6 Inch*	25	U01000.025.0600	3/8-16X6 Inch*	10	U01000.037.0600	1/2-13X4.3/4*	5	U01000.050.0475
			3/8-16X6.1/2*	10	U01000.037.0650	1/2-13X5 Inch*	5	U01000.050.0500
5/16-18X1/2 ft*	100	U01000.031.0050	3/8-16X7 Inch*	10	U01000.037.0700	1/2-13X5.1/4*	5	U01000.050.0525
5/16-18X5/8 ft*	100	U01000.031.0062	3/8-16X8 Inch*	5	U01000.037.0800	1/2-13X5.1/2*	5	U01000.050.0550
5/16-18X3/4 ft*	100	U01000.031.0075	3/8-16X8.1/2*	5	U01000.037.0850	1/2-13X6 Inch*	5	U01000.050.0600
5/16-18X7/8 ft*	100	U01000.031.0087	3/8-16X9 Inch*	5	U01000.037.0900	1/2-13X6.1/2*	5	U01000.050.0650
5/16-18X1 Inch*	100	U01000.031.0100	3/8-16X10 Inch*	5	U01000.037.1000	1/2-13X7 Inch*	5	U01000.050.0700
5/16-18X1.1/4*	100	U01000.031.0125	3/8-16X12 Inch*	5	U01000.037.1200	1/2-13X7.1/2*	5	U01000.050.0750
5/16-18X1.3/8*	100	U01000.031.0137				1/2-13X8 Inch*	5	U01000.050.0800
5/16-18X1.1/2*	100	U01000.031.0150	7/16-14X3/4 ft*	25	U01000.043.0075	1/2-13X8.1/2*	5	U01000.050.0850
5/16-18X1.5/8*	100	U01000.031.0162	7/16-14X7/8 ft*	25	U01000.043.0087	1/2-13X9 Inch*	5	U01000.050.0900
5/16-18X1.3/4*	50	U01000.031.0175	7/16-14X1 Inch ft*	25	U01000.043.0100	1/2-13X9.1/2*	5	U01000.050.0950
5/16-18X2 Inch*	50	U01000.031.0200	7/16-14X1.1/4*	25	U01000.043.0125	1/2-13X10 Inch*	5	U01000.050.1000
5/16-18X2.1/4*	50	U01000.031.0225	7/16-14X1.1/2*	25	U01000.043.0150	1/2-13X11 Inch*	5	U01000.050.1100
5/16-18X2.1/2*	50	U01000.031.0250	7/16-14X1.3/4*	25	U01000.043.0175	1/2-13X12 Inch*	5	U01000.050.1200
5/16-18X2.3/4*	50	U01000.031.0275	7/16-14X2 Inch*	25	U01000.043.0200			
5/16-18X3 Inch*	50	U01000.031.0300	7/16-14X2.1/4*	10	U01000.043.0225	9/16-12X1 Inch ft*	25	U01000.056.0100
5/16-18X3.1/4*	50	U01000.031.0325	7/16-14X2.1/2*	10	U01000.043.0250	9/16-12X1.1/4 ft*	25	U01000.056.0125
5/16-18X3.1/2*	50	U01000.031.0350	7/16-14X2.3/4*	10	U01000.043.0275	9/16-12X1.1/2*	25	U01000.056.0150
5/16-18X3.3/4*	25	U01000.031.0375	7/16-14X3 Inch*	10	U01000.043.0300	9/16-12X1.3/4*	10	U01000.056.0175
5/16-18X4 Inch*	25	U01000.031.0400	7/16-14X3.1/4*	10	U01000.043.0325	9/16-12X2 Inch*	10	U01000.056.0200
5/16-18X4.1/4*	25	U01000.031.0425	7/16-14X3.1/2*	10	U01000.043.0350	9/16-12X2.1/4*	10	U01000.056.0225
5/16-18X4.1/2*	25	U01000.031.0450	7/16-14X3.3/4*	10	U01000.043.0375	9/16-12X2.1/2*	10	U01000.056.0250
5/16-18X5 Inch*	25	U01000.031.0500	7/16-14X4 Inch*	10	U01000.043.0400	9/16-12X2.3/4*	10	U01000.056.0275
5/16-18X5.1/2*	25	U01000.031.0550	7/16-14X4.1/2*	10	U01000.043.0450	9/16-12X3 Inch*	10	U01000.056.0300
5/16-18X6 Inch*	25	U01000.031.0600	7/16-14X5 Inch*	10	U01000.043.0500	9/16-12X3.1/4*	10	U01000.056.0325
5/16-18X7 Inch*	10	U01000.031.0700	7/16-14X5.1/2*	10	U01000.043.0550	9/16-12X3.1/2*	10	U01000.056.0350
5/16-18X8 Inch*	5	U01000.031.0800	7/16-14X6 Inch*	5	U01000.043.0600	9/16-12X3.3/4*	10	U01000.056.0375
			7/16-14X6.1/2*	5	U01000.043.0650	9/16-12X4 Inch*	5	U01000.056.0400

U01000 Parafuso cabeça sextavada UNC ←

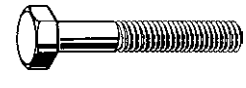
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
9/16-12X4.1/2*	5	U01000.056.0450	3/4-10X5.1/2*	5	U01000.075.0550	1.-8X8 Inch*	1	U01000.100.0800
9/16-12X5 Inch*	5	U01000.056.0500	3/4-10X6 Inch*	5	U01000.075.0600	1.-8X8.1/2*	1	U01000.100.0850
9/16-12X5.1/2*	5	U01000.056.0550	3/4-10X6.1/2*	1	U01000.075.0650	1.-8X9 Inch*	1	U01000.100.0900
9/16-12X6 Inch*	5	U01000.056.0600	3/4-10X7 Inch*	1	U01000.075.0700	1.-8X9.1/2*	1	U01000.100.0950
			3/4-10X7.1/2*	1	U01000.075.0750	1.-8X10 Inch*	1	U01000.100.1000
5/8-11X1 Inch ft*	10	U01000.062.0100	3/4-10X8 Inch*	1	U01000.075.0800	1.-8X12 Inch*	1	U01000.100.1200
5/8-11X1.1/4 ft*	10	U01000.062.0125	3/4-10X8.1/2*	1	U01000.075.0850			
5/8-11X1.1/2 ft*	10	U01000.062.0150	3/4-10X9 Inch*	1	U01000.075.0900	1.1/8-7X2. ft*	1	U01000.112.0200
5/8-11X1.3/4*	10	U01000.062.0175	3/4-10X9.1/2*	1	U01000.075.0950	1.1/8-7X2.1/2 ft*	1	U01000.112.0250
5/8-11X2 Inch*	5	U01000.062.0200	3/4-10X10 Inch*	1	U01000.075.1000	1.1/8-7X3 Inch*	1	U01000.112.0300
5/8-11X2.1/4*	5	U01000.062.0225	3/4-10X11 Inch*	1	U01000.075.1100	1.1/8-7X3.1/2*	1	U01000.112.0350
5/8-11X2.1/2*	5	U01000.062.0250	3/4-10X12 Inch*	1	U01000.075.1200	1.1/8-7X4 Inch*	1	U01000.112.0400
5/8-11X2.3/4*	5	U01000.062.0275	3/4-10X14 Inch*	1	U01000.075.1400	1.1/8-7X4.1/2*	1	U01000.112.0450
5/8-11X3 Inch*	5	U01000.062.0300				1.1/8-7X5 Inch*	1	U01000.112.0500
5/8-11X3.1/4*	5	U01000.062.0325	7/8-9X1.1/2 ft*	5	U01000.087.0150	1.1/8-7X5.1/2*	1	U01000.112.0550
5/8-11X3.1/2*	5	U01000.062.0350	7/8-9X1.3/4 ft*	5	U01000.087.0175	1.1/8-7X6 Inch*	1	U01000.112.0600
5/8-11X3.3/4*	5	U01000.062.0375	7/8-9X2 Inch ft*	5	U01000.087.0200	1.1/8-7X6.1/2*	1	U01000.112.0650
5/8-11X4 Inch*	5	U01000.062.0400	7/8-9X2.1/4*	5	U01000.087.0225	1.1/8-7X7 Inch*	1	U01000.112.0700
5/8-11X4.1/4*	5	U01000.062.0425	7/8-9X2.1/2*	5	U01000.087.0250	1.1/8-7X7.1/2*	1	U01000.112.0750
5/8-11X4.1/2*	5	U01000.062.0450	7/8-9X2.3/4*	5	U01000.087.0275	1.1/8-7X8 Inch*	1	U01000.112.0800
5/8-11X4.3/4*	5	U01000.062.0475	7/8-9X3 Inch*	5	U01000.087.0300	1.1/8-7X8.1/2*	1	U01000.112.0850
5/8-11X5 Inch*	5	U01000.062.0500	7/8-9X3.1/4*	5	U01000.087.0325	1.1/8-7X9 Inch*	1	U01000.112.0900
5/8-11X5.1/2*	5	U01000.062.0550	7/8-9X3.1/2*	5	U01000.087.0350	1.1/8-7X10 Inch*	1	U01000.112.1000
5/8-11X6 Inch*	5	U01000.062.0600	7/8-9X3.3/4*	5	U01000.087.0375			
5/8-11X6.1/2*	5	U01000.062.0650	7/8-9X4 Inch*	5	U01000.087.0400	1.1/4-7X2 Inch ft*	1	U01000.125.0200
5/8-11X7 Inch*	5	U01000.062.0700	7/8-9X4.1/4*	5	U01000.087.0425	1.1/4-7X2.1/2 ft*	1	U01000.125.0250
5/8-11X7.1/2*	5	U01000.062.0750	7/8-9X4.1/2*	5	U01000.087.0450	1.1/4-7X3 Inch*	1	U01000.125.0300
5/8-11X8 Inch*	5	U01000.062.0800	7/8-9X5 Inch*	5	U01000.087.0500	1.1/4-7X3.1/2*	1	U01000.125.0350
5/8-11X8.1/2*	5	U01000.062.0850	7/8-9X5.1/2*	5	U01000.087.0550	1.1/4-7X4 Inch*	1	U01000.125.0400
5/8-11X9 Inch*	5	U01000.062.0900	7/8-9X6 Inch*	1	U01000.087.0600	1.1/4-7X4.1/2*	1	U01000.125.0450
5/8-11X9.1/2*	5	U01000.062.0950	7/8-9X6.1/2*	1	U01000.087.0650	1.1/4-7X5 Inch*	1	U01000.125.0500
5/8-11X10 Inch*	5	U01000.062.1000	7/8-9X7 Inch*	1	U01000.087.0700	1.1/4-7X5.1/2*	1	U01000.125.0550
5/8-11X11 Inch*	5	U01000.062.1100	7/8-9X8 Inch*	1	U01000.087.0800	1.1/4-7X6 Inch*	1	U01000.125.0600
5/8-11X12 Inch*	5	U01000.062.1200	7/8-9X8.1/2*	1	U01000.087.0850	1.1/4-7X6.1/2*	1	U01000.125.0650
5/8-11X13 Inch*	1	U01000.062.1300	7/8-9X9 Inch*	1	U01000.087.0900	1.1/4-7X7 Inch*	1	U01000.125.0700
5/8-11X14 Inch*	1	U01000.062.1400	7/8-9X9.1/2*	1	U01000.087.0950	1.1/4-7X7.1/2*	1	U01000.125.0750
5/8-11X15 Inch*	1	U01000.062.1500	7/8-9X10 Inch*	1	U01000.087.1000	1.1/4-7X8 Inch*	1	U01000.125.0800
						1.1/4-7X8.1/2*	1	U01000.125.0850
3/4-10X1 Inch ft*	10	U01000.075.0100	1.-8X1.1/2 ft*	5	U01000.100.0150	1.1/4-7X9 Inch*	1	U01000.125.0900
3/4-10X1.1/4 ft*	10	U01000.075.0125	1.-8X1.3/4 ft*	5	U01000.100.0175	1.1/4-7X10 Inch*	1	U01000.125.1000
3/4-10X1.1/2 ft*	10	U01000.075.0150	1.-8X2 Inch ft*	5	U01000.100.0200			
3/4-10X1.3/4 ft*	10	U01000.075.0175	1.-8X2.1/4 ft*	5	U01000.100.0225	1.1/2-6X3 Inch ft*	1	U01000.150.0300
3/4-10X2 Inch*	5	U01000.075.0200	1.-8X2.1/2*	5	U01000.100.0250	1.1/2-6X3.1/2*	1	U01000.150.0350
3/4-10X2.1/4*	5	U01000.075.0225	1.-8X2.3/4*	5	U01000.100.0275	1.1/2-6X4 Inch*	1	U01000.150.0400
3/4-10X2.1/2*	5	U01000.075.0250	1.-8X3 Inch*	5	U01000.100.0300	1.1/2-6X4.1/2*	1	U01000.150.0450
3/4-10X2.3/4*	5	U01000.075.0275	1.-8X3.1/4*	5	U01000.100.0325	1.1/2-6X5 Inch*	1	U01000.150.0500
3/4-10X3 Inch*	5	U01000.075.0300	1.-8X3.1/2*	5	U01000.100.0350	1.1/2-6X5.1/2*	1	U01000.150.0550
3/4-10X3.1/4*	5	U01000.075.0325	1.-8X3.3/4*	5	U01000.100.0375	1.1/2-6X6 Inch*	1	U01000.150.0600
3/4-10X3.1/2*	5	U01000.075.0350	1.-8X4 Inch*	5	U01000.100.0400	1.1/2-6X6.1/2*	1	U01000.150.0650
3/4-10X3.3/4*	5	U01000.075.0375	1.-8X4.1/2*	5	U01000.100.0450	1.1/2-6X7 Inch*	1	U01000.150.0700
3/4-10X4 Inch*	5	U01000.075.0400	1.-8X5 Inch*	5	U01000.100.0500	1.1/2-6X7.1/2*	1	U01000.150.0750
3/4-10X4.1/4*	5	U01000.075.0425	1.-8X5.1/2*	5	U01000.100.0550	1.1/2-6X8 Inch*	1	U01000.150.0800
3/4-10X4.1/2*	5	U01000.075.0450	1.-8X6 Inch*	1	U01000.100.0600	1.1/2-6X8.1/2*	1	U01000.150.0850
3/4-10X4.3/4*	5	U01000.075.0475	1.-8X6.1/2*	1	U01000.100.0650	1.1/2-6X9 Inch*	1	U01000.150.0900
3/4-10X5 Inch*	5	U01000.075.0500	1.-8X7 Inch*	1	U01000.100.0700	1.1/2-6X10 Inch*	1	U01000.150.1000
3/4-10X5.1/4*	5	U01000.075.0525	1.-8X7.1/2*	1	U01000.100.0750			

- ft = rosca total métrico

U01200 Parafuso cabeça sextavada UNC X01A

Rosca Unified National Coarse
Material Aço
Classe Grade 5
Tratamento sup. Zincado

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4-20X1/2 ft*	100	U01200.025.0050	1/4-20X2.3/4*	50	U01200.025.0275	1/4-20X8 Inch*	5	U01200.025.0800
1/4-20X5/8 ft*	100	U01200.025.0062	1/4-20X3 Inch*	50	U01200.025.0300			
1/4-20X3/4 ft*	100	U01200.025.0075	1/4-20X3.1/4*	50	U01200.025.0325	5/16-18X1/2 ft*	100	U01200.031.0050
1/4-20X7/8*	100	U01200.025.0087	1/4-20X3.1/2*	50	U01200.025.0350	5/16-18X5/8 ft*	100	U01200.031.0062
1/4-20X1 Inch*	100	U01200.025.0100	1/4-20X3.3/4*	50	U01200.025.0375	5/16-18X3/4 ft*	100	U01200.031.0075
1/4-20X1.1/4*	100	U01200.025.0125	1/4-20X4 Inch*	25	U01200.025.0400	5/16-18X7/8 ft*	100	U01200.031.0087
1/4-20X1.3/8*	100	U01200.025.0137	1/4-20X4.1/4*	25	U01200.025.0425	5/16-18X1 Inch*	100	U01200.031.0100
1/4-20X1.1/2*	100	U01200.025.0150	1/4-20X4.1/2*	25	U01200.025.0450	5/16-18X1.1/4*	100	U01200.031.0125
1/4-20X1.5/8*	100	U01200.025.0162	1/4-20X5 Inch*	25	U01200.025.0500	5/16-18X1.3/8*	100	U01200.031.0137
1/4-20X1.3/4*	100	U01200.025.0175	1/4-20X5.1/2*	25	U01200.025.0550	5/16-18X1.1/2*	100	U01200.031.0150
1/4-20X2 Inch*	50	U01200.025.0200	1/4-20X6 Inch*	25	U01200.025.0600	5/16-18X1.5/8*	100	U01200.031.0162
1/4-20X2.1/4*	50	U01200.025.0225	1/4-20X6.1/2*	10	U01200.025.0650	5/16-18X1.3/4*	50	U01200.031.0175
1/4-20X2.1/2*	50	U01200.025.0250	1/4-20X7 Inch*	10	U01200.025.0700	5/16-18X2 Inch*	50	U01200.031.0200

U01200 Parafuso cabeça sextavada UNC

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
5/16-18X2.1/4*	50	U01200.031.0225	1/2-13X2.1/4*	10	U01200.050.0225	3/4-10X3 Inch*	5	U01200.075.0300
5/16-18X2.1/2*	50	U01200.031.0250	1/2-13X2.1/2*	10	U01200.050.0250	3/4-10X3.1/4*	5	U01200.075.0325
5/16-18X2.3/4*	50	U01200.031.0275	1/2-13X2.3/4*	10	U01200.050.0275	3/4-10X3.1/2*	5	U01200.075.0350
5/16-18X3 Inch*	50	U01200.031.0300	1/2-13X3 Inch*	10	U01200.050.0300	3/4-10X3.3/4*	5	U01200.075.0375
5/16-18X3.1/2*	50	U01200.031.0350	1/2-13X3.1/4*	10	U01200.050.0325	3/4-10X4 Inch*	5	U01200.075.0400
5/16-18X3.3/4*	25	U01200.031.0375	1/2-13X3.1/2*	10	U01200.050.0350	3/4-10X4.1/4*	5	U01200.075.0425
5/16-18X4 Inch*	25	U01200.031.0400	1/2-13X3.3/4*	10	U01200.050.0375	3/4-10X4.1/2*	5	U01200.075.0450
5/16-18X4.1/4*	25	U01200.031.0425	1/2-13X4 Inch*	5	U01200.050.0400	3/4-10X4.3/4*	5	U01200.075.0475
5/16-18X4.1/2*	25	U01200.031.0450	1/2-13X4.1/4*	5	U01200.050.0425	3/4-10X5 Inch*	5	U01200.075.0500
5/16-18X5 Inch*	25	U01200.031.0500	1/2-13X4.1/2*	5	U01200.050.0450	3/4-10X5.1/4*	5	U01200.075.0525
5/16-18X5.1/2*	25	U01200.031.0550	1/2-13X4.3/4*	5	U01200.050.0475	3/4-10X5.1/2*	5	U01200.075.0550
5/16-18X6 Inch*	25	U01200.031.0600	1/2-13X5 Inch*	5	U01200.050.0500	3/4-10X6 Inch*	5	U01200.075.0600
5/16-18X7 Inch*	10	U01200.031.0700	1/2-13X5.1/4*	5	U01200.050.0525	3/4-10X6.1/2*	1	U01200.075.0650
5/16-18X8 Inch*	5	U01200.031.0800	1/2-13X5.1/2*	5	U01200.050.0550	3/4-10X7 Inch*	1	U01200.075.0700
			1/2-13X6 Inch*	5	U01200.050.0600	3/4-10X7.1/2*	1	U01200.075.0750
3/8-16X1/2 ft*	50	U01200.037.0050	1/2-13X6.1/2*	5	U01200.050.0650	3/4-10X8 Inch*	1	U01200.075.0800
3/8-16X5/8 ft*	50	U01200.037.0062	1/2-13X7 Inch*	5	U01200.050.0700	3/4-10X8.1/2*	1	U01200.075.0850
3/8-16X3/4 ft*	50	U01200.037.0075	1/2-13X7.1/2*	5	U01200.050.0750	3/4-10X9 Inch*	1	U01200.075.0900
3/8-16X7/8 ft*	50	U01200.037.0087	1/2-13X8 Inch*	5	U01200.050.0800	3/4-10X9.1/2*	1	U01200.075.0950
3/8-16X1 Inch ft*	50	U01200.037.0100	1/2-13X8.1/2*	5	U01200.050.0850	3/4-10X10 Inch*	1	U01200.075.1000
3/8-16X1.1/4*	50	U01200.037.0125	1/2-13X9 Inch*	5	U01200.050.0900	3/4-10X11 Inch*	1	U01200.075.1100
3/8-16X1.1/2*	50	U01200.037.0150	1/2-13X10 Inch*	5	U01200.050.1000	3/4-10X12 Inch*	1	U01200.075.1200
3/8-16X1.3/4*	50	U01200.037.0175	1/2-13X11 Inch*	5	U01200.050.1100	3/4-10X14 Inch*	1	U01200.075.1400
3/8-16X2 Inch*	25	U01200.037.0200	1/2-13X12 Inch*	5	U01200.050.1200			
3/8-16X2.1/4*	25	U01200.037.0225				7/8-9X1.1/2 ft*	5	U01200.087.0150
3/8-16X2.1/2*	25	U01200.037.0250	9/16-12X1 Inch ft*	25	U01200.056.0100	7/8-9X1.3/4 ft*	5	U01200.087.0175
3/8-16X2.3/4*	25	U01200.037.0275	9/16-12X1.1/4 ft*	25	U01200.056.0125	7/8-9X2 Inch ft*	5	U01200.087.0200
3/8-16X3 Inch*	25	U01200.037.0300	9/16-12X1.1/2*	25	U01200.056.0150	7/8-9X2.1/4*	5	U01200.087.0225
3/8-16X3.1/4*	25	U01200.037.0325	9/16-12X1.3/4*	10	U01200.056.0175	7/8-9X2.1/2*	5	U01200.087.0250
3/8-16X3.1/2*	25	U01200.037.0350	9/16-12X2 Inch*	10	U01200.056.0200	7/8-9X2.3/4*	5	U01200.087.0275
3/8-16X3.3/4*	25	U01200.037.0375	9/16-12X2.1/4*	10	U01200.056.0225	7/8-9X3 Inch*	5	U01200.087.0300
3/8-16X4 Inch*	10	U01200.037.0400	9/16-12X2.1/2*	10	U01200.056.0250	7/8-9X3.1/4*	5	U01200.087.0325
3/8-16X4.1/4*	10	U01200.037.0425	9/16-12X2.3/4*	10	U01200.056.0275	7/8-9X3.1/2*	5	U01200.087.0350
3/8-16X4.1/2*	10	U01200.037.0450	9/16-12X3 Inch*	10	U01200.056.0300	7/8-9X3.3/4*	5	U01200.087.0375
3/8-16X4.3/4*	10	U01200.037.0475	9/16-12X3.1/4*	10	U01200.056.0325	7/8-9X4 Inch*	5	U01200.087.0400
3/8-16X5 Inch*	10	U01200.037.0500	9/16-12X3.1/2*	10	U01200.056.0350	7/8-9X4.1/4*	5	U01200.087.0425
3/8-16X5.1/2*	10	U01200.037.0550	9/16-12X3.3/4*	10	U01200.056.0375	7/8-9X4.1/2*	5	U01200.087.0450
3/8-16X5.3/4*	10	U01200.037.0575	9/16-12X4 Inch*	5	U01200.056.0400	7/8-9X5 Inch*	5	U01200.087.0500
3/8-16X6 Inch*	10	U01200.037.0600	9/16-12X4.1/2*	5	U01200.056.0450	7/8-9X5.1/2*	5	U01200.087.0550
3/8-16X6.1/2*	10	U01200.037.0650	9/16-12X5 Inch*	5	U01200.056.0500	7/8-9X6 Inch*	1	U01200.087.0600
3/8-16X7 Inch*	10	U01200.037.0700	9/16-12X5.1/2*	5	U01200.056.0550	7/8-9X6.1/2*	1	U01200.087.0650
3/8-16X7.1/2*	5	U01200.037.0750	9/16-12X6 Inch*	5	U01200.056.0600	7/8-9X7 Inch*	1	U01200.087.0700
3/8-16X8 Inch*	5	U01200.037.0800				7/8-9X7.1/2*	1	U01200.087.0750
3/8-16X8.1/2*	5	U01200.037.0850	5/8-11X1 Inch ft*	10	U01200.062.0100	7/8-9X8 Inch*	1	U01200.087.0800
3/8-16X9 Inch*	5	U01200.037.0900	5/8-11X1.1/4 ft*	10	U01200.062.0125	7/8-9X8.1/2*	1	U01200.087.0850
3/8-16X10 Inch*	5	U01200.037.1000	5/8-11X1.1/2 ft*	10	U01200.062.0150	7/8-9X9 Inch*	1	U01200.087.0900
3/8-16X12 Inch*	5	U01200.037.1200	5/8-11X1.3/4*	10	U01200.062.0175	7/8-9X9.1/2*	1	U01200.087.0950
			5/8-11X2 Inch*	5	U01200.062.0200	7/8-9X10 Inch*	1	U01200.087.1000
7/16-14X3/4 ft*	25	U01200.043.0075	5/8-11X2.1/4*	5	U01200.062.0225			
7/16-14X7/8 ft*	25	U01200.043.0087	5/8-11X2.1/2*	5	U01200.062.0250	1.-8X1.1/2 ft*	5	U01200.100.0150
7/16-14X1 Inch ft*	25	U01200.043.0100	5/8-11X2.3/4*	5	U01200.062.0275	1.-8X1.3/4 ft*	5	U01200.100.0175
7/16-14X1.1/4*	25	U01200.043.0125	5/8-11X3 Inch*	5	U01200.062.0300	1.-8X2 Inch ft*	5	U01200.100.0200
7/16-14X1.3/8*	25	U01200.043.0137	5/8-11X3.1/4*	5	U01200.062.0325	1.-8X2.1/4 ft*	5	U01200.100.0225
7/16-14X1.1/2*	25	U01200.043.0150	5/8-11X3.1/2*	5	U01200.062.0350	1.-8X2.1/2*	5	U01200.100.0250
7/16-14X1.3/4*	25	U01200.043.0175	5/8-11X3.3/4*	5	U01200.062.0375	1.-8X2.3/4*	5	U01200.100.0275
7/16-14X2 Inch*	25	U01200.043.0200	5/8-11X4 Inch*	5	U01200.062.0400	1.-8X3 Inch*	5	U01200.100.0300
7/16-14X2.1/4*	10	U01200.043.0225	5/8-11X4.1/4*	5	U01200.062.0425	1.-8X3.1/4*	5	U01200.100.0325
7/16-14X2.1/2*	10	U01200.043.0250	5/8-11X4.1/2*	5	U01200.062.0450	1.-8X3.1/2*	5	U01200.100.0350
7/16-14X2.3/4*	10	U01200.043.0275	5/8-11X4.3/4*	5	U01200.062.0475	1.-8X3.3/4*	5	U01200.100.0375
7/16-14X3 Inch*	10	U01200.043.0300	5/8-11X5 Inch*	5	U01200.062.0500	1.-8X4 Inch*	5	U01200.100.0400
7/16-14X3.1/4*	10	U01200.043.0325	5/8-11X5.1/2*	5	U01200.062.0550	1.-8X4.1/4*	5	U01200.100.0425
7/16-14X3.1/2*	10	U01200.043.0350	5/8-11X6 Inch*	5	U01200.062.0600	1.-8X4.1/2*	5	U01200.100.0450
7/16-14X3.3/4*	10	U01200.043.0375	5/8-11X6.1/2*	5	U01200.062.0650	1.-8X5 Inch*	5	U01200.100.0500
7/16-14X4 Inch*	10	U01200.043.0400	5/8-11X7 Inch*	5	U01200.062.0700	1.-8X5.1/2*	5	U01200.100.0550
7/16-14X4.1/2*	10	U01200.043.0450	5/8-11X7.1/2*	5	U01200.062.0750	1.-8X6 Inch*	1	U01200.100.0600
7/16-14X5 Inch*	10	U01200.043.0500	5/8-11X8 Inch*	5	U01200.062.0800	1.-8X6.1/2*	1	U01200.100.0650
7/16-14X5.1/2*	10	U01200.043.0550	5/8-11X8.1/2*	5	U01200.062.0850	1.-8X7 Inch*	1	U01200.100.0700
7/16-14X6 Inch*	5	U01200.043.0600	5/8-11X9 Inch*	5	U01200.062.0900	1.-8X7.1/2*	1	U01200.100.0750
7/16-14X6.1/2*	5	U01200.043.0650	5/8-11X9.1/2*	5	U01200.062.0950	1.-8X8 Inch*	1	U01200.100.0800
7/16-14X7 Inch*	5	U01200.043.0700	5/8-11X10 Inch*	5	U01200.062.1000	1.-8X8.1/2*	1	U01200.100.0850
7/16-14X8 Inch*	5	U01200.043.0800	5/8-11X11 Inch*	5	U01200.062.1100	1.-8X9 Inch*	1	U01200.100.0900
7/16-14X9 Inch*	5	U01200.043.0900	5/8-11X12 Inch*	5	U01200.062.1200	1.-8X9.1/2*	1	U01200.100.0950
7/16-14X10 Inch*	5	U01200.043.1000	5/8-11X14 Inch*	1	U01200.062.1400	1.-8X10 Inch*	1	U01200.100.1000
7/16-14X12 Inch*	5	U01200.043.1200						
			3/4-10X1 Inch ft*	10	U01200.075.0100	1.1/8-7X2.1/2 ft*	1	U01200.112.0250
1/2-13X3/4 ft*	25	U01200.050.0075	3/4-10X1.1/4 ft*	10	U01200.075.0125	1.1/8-7X3 Inch*	1	U01200.112.0300
1/2-13X7/8 ft*	25	U01200.050.0087	3/4-10X1.1/2 ft*	10	U01200.075.0150	1.1/8-7X3.1/2*	1	U01200.112.0350
1/2-13X1 Inch ft*	25	U01200.050.0100	3/4-10X1.3/4 ft*	10	U01200.075.0175	1.1/8-7X4 Inch*	1	U01200.112.0400
1/2-13X1.1/4 ft*	25	U01200.050.0125	3/4-10X2 Inch*	5	U01200.075.0200	1.1/8-7X4.1/2*	1	U01200.112.0450
1/2-13X1.1/2*	25	U01200.050.0150	3/4-10X2.1/4*	5	U01200.075.0225	1.1/8-7X5 Inch*	1	U01200.112.0500
1/2-13X1.3/4*	25	U01200.050.0175	3/4-10X2.1/2*	5	U01200.075.0250	1.1/8-7X5.1/2*	1	U01200.112.0550
1/2-13X2 Inch*	10	U01200.050.0200	3/4-10X2.3/4*	5	U01200.075.0275	1.1/8-7X6 Inch*	1	U01200.112.0600

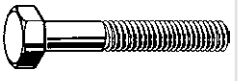
U01200 Parafuso cabeça sextavada UNC ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1.1/8-7X6.1/2*	1	U01200.112.0650	1.1/4-7X4.1/2*	1	U01200.125.0450			
1.1/8-7X7 Inch*	1	U01200.112.0700	1.1/4-7X5 Inch*	1	U01200.125.0500	1.1/2-6X3 Inch ft*	1	U01200.150.0300
1.1/8-7X7.1/2*	1	U01200.112.0750	1.1/4-7X5.1/2*	1	U01200.125.0550	1.1/2-6X3.1/2*	1	U01200.150.0350
1.1/8-7X8 Inch*	1	U01200.112.0800	1.1/4-7X6 Inch*	1	U01200.125.0600	1.1/2-6X4 Inch*	1	U01200.150.0400
1.1/8-7X8.1/2*	1	U01200.112.0850	1.1/4-7X6.1/2*	1	U01200.125.0650	1.1/2-6X4.1/2*	1	U01200.150.0450
1.1/8-7X9 Inch*	1	U01200.112.0900	1.1/4-7X7 Inch*	1	U01200.125.0700	1.1/2-6X5 Inch*	1	U01200.150.0500
1.1/8-7X10 Inch*	1	U01200.112.1000	1.1/4-7X7.1/2*	1	U01200.125.0750	1.1/2-6X5.1/2*	1	U01200.150.0550
			1.1/4-7X8 Inch*	1	U01200.125.0800	1.1/2-6X6 Inch*	1	U01200.150.0600
1.1/4-7X2 Inch ft*	1	U01200.125.0200	1.1/4-7X8.1/2*	1	U01200.125.0850	1.1/2-6X6.1/2*	1	U01200.150.0650
1.1/4-7X2.1/2 ft*	1	U01200.125.0250	1.1/4-7X9 Inch*	1	U01200.125.0900	1.1/2-6X7 Inch*	1	U01200.150.0700
1.1/4-7X3 Inch*	1	U01200.125.0300	1.1/4-7X10 Inch*	1	U01200.125.1000	1.1/2-6X7.1/2*	1	U01200.150.0750
1.1/4-7X3.1/2*	1	U01200.125.0350	1.1/4-7X12 Inch*	1	U01200.125.1200	1.1/2-6X8 Inch*	1	U01200.150.0800
1.1/4-7X4 Inch*	1	U01200.125.0400	1.1/4-7X14 Inch*	1	U01200.125.1400	1.1/2-6X10 Inch*	1	U01200.150.1000

- ft = rosca total métrico

U04104 Parafuso cabeça sextavada UNC X01A

Rosca Unified National Coarse
Material Aço
Classe Grade 8



RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4-20X1/2 ft*	100	U04104.025.0050	3/8-16X1 Inch ft*	50	U04104.037.0100	1/2-13X3/4 ft*	25	U04104.050.0075
1/4-20X5/8 ft*	100	U04104.025.0062	3/8-16X1.1/4*	50	U04104.037.0125	1/2-13X1 Inch ft*	25	U04104.050.0100
1/4-20X3/4 ft*	100	U04104.025.0075	3/8-16X1.1/2*	50	U04104.037.0150	1/2-13X1.1/4 ft*	25	U04104.050.0125
1/4-20X7/8*	100	U04104.025.0087	3/8-16X1.3/4*	50	U04104.037.0175	1/2-13X1.1/2*	25	U04104.050.0150
1/4-20X1 Inch*	100	U04104.025.0100	3/8-16X2 Inch*	25	U04104.037.0200	1/2-13X1.3/4*	25	U04104.050.0175
1/4-20X1.1/4*	100	U04104.025.0125	3/8-16X2.1/4*	25	U04104.037.0225	1/2-13X2 Inch*	10	U04104.050.0200
1/4-20X1.3/8*	100	U04104.025.0137	3/8-16X2.1/2*	25	U04104.037.0250	1/2-13X2.1/4*	10	U04104.050.0225
1/4-20X1.1/2*	100	U04104.025.0150	3/8-16X2.3/4*	25	U04104.037.0275	1/2-13X2.1/2*	10	U04104.050.0250
1/4-20X1.5/8*	100	U04104.025.0162	3/8-16X3 Inch*	25	U04104.037.0300	1/2-13X2.3/4*	10	U04104.050.0275
1/4-20X1.3/4*	100	U04104.025.0175	3/8-16X3.1/4*	25	U04104.037.0325	1/2-13X3 Inch*	10	U04104.050.0300
1/4-20X2 Inch*	50	U04104.025.0200	3/8-16X3.1/2*	25	U04104.037.0350	1/2-13X3.1/4*	10	U04104.050.0325
1/4-20X2.1/4*	50	U04104.025.0225	3/8-16X3.3/4*	25	U04104.037.0375	1/2-13X3.1/2*	10	U04104.050.0350
1/4-20X2.1/2*	50	U04104.025.0250	3/8-16X4 Inch*	10	U04104.037.0400	1/2-13X3.3/4*	10	U04104.050.0375
1/4-20X2.3/4*	50	U04104.025.0275	3/8-16X4.1/4*	10	U04104.037.0425	1/2-13X4 Inch*	5	U04104.050.0400
1/4-20X3 Inch*	50	U04104.025.0300	3/8-16X4.1/2*	10	U04104.037.0450	1/2-13X4.1/4*	5	U04104.050.0425
1/4-20X3.1/4*	50	U04104.025.0325	3/8-16X4.3/4*	10	U04104.037.0475	1/2-13X4.1/2*	5	U04104.050.0450
1/4-20X3.1/2*	50	U04104.025.0350	3/8-16X5 Inch*	10	U04104.037.0500	1/2-13X4.3/4*	5	U04104.050.0475
1/4-20X3.3/4*	50	U04104.025.0375	3/8-16X5.1/2*	10	U04104.037.0550	1/2-13X5 Inch*	5	U04104.050.0500
1/4-20X4 Inch*	25	U04104.025.0400	3/8-16X5.3/4*	10	U04104.037.0575	1/2-13X5.1/4*	5	U04104.050.0525
1/4-20X4.1/4*	25	U04104.025.0425	3/8-16X6 Inch*	10	U04104.037.0600	1/2-13X5.1/2*	5	U04104.050.0550
1/4-20X4.1/2*	25	U04104.025.0450	3/8-16X6.1/2*	10	U04104.037.0650	1/2-13X6 Inch*	5	U04104.050.0600
1/4-20X5 Inch*	25	U04104.025.0500	3/8-16X7 Inch*	10	U04104.037.0700	1/2-13X6.1/2*	5	U04104.050.0650
1/4-20X5.1/2*	25	U04104.025.0550	3/8-16X7.1/2*	5	U04104.037.0750	1/2-13X7 Inch*	5	U04104.050.0700
1/4-20X6 Inch*	25	U04104.025.0600	3/8-16X8 Inch*	5	U04104.037.0800	1/2-13X7.1/2*	5	U04104.050.0750
			3/8-16X8.1/2*	5	U04104.037.0850	1/2-13X8 Inch*	5	U04104.050.0800
5/16-18X1/2 ft*	100	U04104.031.0050	3/8-16X9 Inch*	5	U04104.037.0900	1/2-13X8.1/2*	5	U04104.050.0850
5/16-18X5/8 ft*	100	U04104.031.0062	3/8-16X10 Inch*	5	U04104.037.1000	1/2-13X9 Inch*	5	U04104.050.0900
5/16-18X3/4 ft*	100	U04104.031.0075	3/8-16X12 Inch*	5	U04104.037.1200	1/2-13X10 Inch*	5	U04104.050.1000
5/16-18X7/8 ft*	100	U04104.031.0087				1/2-13X11 Inch*	5	U04104.050.1100
5/16-18X1 Inch*	100	U04104.031.0100	7/16-14X3/4 ft*	25	U04104.043.0075	1/2-13X12 Inch*	5	U04104.050.1200
5/16-18X1.1/4*	100	U04104.031.0125	7/16-14X7/8 ft*	25	U04104.043.0087			
5/16-18X1.3/8*	100	U04104.031.0137	7/16-14X1 Inch ft*	25	U04104.043.0100	9/16-12X1 Inch ft*	25	U04104.056.0100
5/16-18X1.1/2*	100	U04104.031.0150	7/16-14X1.1/4*	25	U04104.043.0125	9/16-12X1.1/4 ft*	25	U04104.056.0125
5/16-18X1.5/8*	100	U04104.031.0162	7/16-14X1.3/8*	25	U04104.043.0137	9/16-12X1.1/2*	25	U04104.056.0150
5/16-18X1.3/4*	50	U04104.031.0175	7/16-14X1.1/2*	25	U04104.043.0150	9/16-12X1.3/4*	10	U04104.056.0175
5/16-18X2 Inch*	50	U04104.031.0200	7/16-14X1.3/4*	25	U04104.043.0175	9/16-12X2 Inch*	10	U04104.056.0200
5/16-18X2.1/4*	50	U04104.031.0225	7/16-14X2 Inch*	25	U04104.043.0200	9/16-12X2.1/4*	10	U04104.056.0225
5/16-18X2.1/2*	50	U04104.031.0250	7/16-14X2.1/4*	10	U04104.043.0225	9/16-12X2.1/2*	10	U04104.056.0250
5/16-18X2.3/4*	50	U04104.031.0275	7/16-14X2.1/2*	10	U04104.043.0250	9/16-12X2.3/4*	10	U04104.056.0275
5/16-18X3 Inch*	50	U04104.031.0300	7/16-14X2.3/4*	10	U04104.043.0275	9/16-12X3 Inch*	10	U04104.056.0300
5/16-18X3.1/4*	50	U04104.031.0325	7/16-14X3 Inch*	10	U04104.043.0300	9/16-12X3.1/4*	10	U04104.056.0325
5/16-18X3.1/2*	50	U04104.031.0350	7/16-14X3.1/4*	10	U04104.043.0325	9/16-12X3.1/2*	10	U04104.056.0350
5/16-18X3.3/4*	25	U04104.031.0375	7/16-14X3.1/2*	10	U04104.043.0350	9/16-12X3.3/4*	10	U04104.056.0375
5/16-18X4 Inch*	25	U04104.031.0400	7/16-14X3.3/4*	10	U04104.043.0375	9/16-12X4 Inch*	5	U04104.056.0400
5/16-18X4.1/4*	25	U04104.031.0425	7/16-14X4 Inch*	10	U04104.043.0400	9/16-12X4.1/2*	5	U04104.056.0450
5/16-18X4.1/2*	25	U04104.031.0450	7/16-14X4.1/2*	10	U04104.043.0450	9/16-12X5 Inch*	5	U04104.056.0500
5/16-18X5 Inch*	25	U04104.031.0500	7/16-14X5 Inch*	10	U04104.043.0500	9/16-12X5.1/2*	5	U04104.056.0550
5/16-18X5.1/2*	25	U04104.031.0550	7/16-14X5.1/2*	10	U04104.043.0550	9/16-12X6 Inch*	5	U04104.056.0600
5/16-18X6 Inch*	25	U04104.031.0600	7/16-14X6 Inch*	5	U04104.043.0600			
5/16-18X7 Inch*	10	U04104.031.0700	7/16-14X6.1/2*	5	U04104.043.0650	5/8-11X1 Inch ft*	10	U04104.062.0100
5/16-18X8 Inch*	5	U04104.031.0800	7/16-14X7 Inch*	5	U04104.043.0700	5/8-11X1.1/4 ft*	10	U04104.062.0125
			7/16-14X8 Inch*	5	U04104.043.0800	5/8-11X1.1/2 ft*	10	U04104.062.0150
3/8-16X1/2 ft*	50	U04104.037.0050	7/16-14X9 Inch*	5	U04104.043.0900	5/8-11X1.3/4*	10	U04104.062.0175
3/8-16X5/8 ft*	50	U04104.037.0062	7/16-14X10 Inch*	5	U04104.043.1000	5/8-11X2 Inch*	5	U04104.062.0200
3/8-16X3/4 ft*	50	U04104.037.0075	7/16-14X12 Inch*	5	U04104.043.1200	5/8-11X2.1/4*	5	U04104.062.0225
3/8-16X7/8 ft*	50	U04104.037.0087				5/8-11X2.1/2*	5	U04104.062.0250

U04104 Parafuso cabeça sextavada UNC

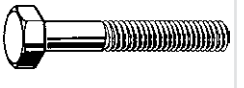
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
5/8-11X2.3/4*	5	U04104.062.0275	3/4-10X12 Inch*	1	U04104.075.1200	1.-8X12 Inch*	1	U04104.100.1200
5/8-11X3 Inch*	5	U04104.062.0300	3/4-10X13 Inch*	1	U04104.075.1300			
5/8-11X3.1/4*	5	U04104.062.0325	3/4-10X14 Inch*	1	U04104.075.1400	1.1/8-7X2.1/2 ft*	1	U04104.112.0250
5/8-11X3.1/2*	5	U04104.062.0350				1.1/8-7X3 Inch*	1	U04104.112.0300
5/8-11X3.3/4*	5	U04104.062.0375	7/8-9X1.1/2 ft*	5	U04104.087.0150	1.1/8-7X3.1/2*	1	U04104.112.0350
5/8-11X4 Inch*	5	U04104.062.0400	7/8-9X1.3/4 ft*	5	U04104.087.0175	1.1/8-7X4 Inch*	1	U04104.112.0400
5/8-11X4.1/4*	5	U04104.062.0425	7/8-9X2 Inch ft*	5	U04104.087.0200	1.1/8-7X4.1/2*	1	U04104.112.0450
5/8-11X4.1/2*	5	U04104.062.0450	7/8-9X2.1/4*	5	U04104.087.0225	1.1/8-7X5 Inch*	1	U04104.112.0500
5/8-11X4.3/4*	5	U04104.062.0475	7/8-9X2.1/2*	5	U04104.087.0250	1.1/8-7X5.1/2*	1	U04104.112.0550
5/8-11X5 Inch*	5	U04104.062.0500	7/8-9X2.3/4*	5	U04104.087.0275	1.1/8-7X6 Inch*	1	U04104.112.0600
5/8-11X5.1/2*	5	U04104.062.0550	7/8-9X3 Inch*	5	U04104.087.0300	1.1/8-7X6.1/2*	1	U04104.112.0650
5/8-11X6 Inch*	5	U04104.062.0600	7/8-9X3.1/4*	5	U04104.087.0325	1.1/8-7X7 Inch*	1	U04104.112.0700
5/8-11X6.1/2*	5	U04104.062.0650	7/8-9X3.1/2*	5	U04104.087.0350	1.1/8-7X7.1/2*	1	U04104.112.0750
5/8-11X7 Inch*	5	U04104.062.0700	7/8-9X3.3/4*	5	U04104.087.0375	1.1/8-7X8 Inch*	1	U04104.112.0800
5/8-11X7.1/2*	5	U04104.062.0750	7/8-9X4 Inch*	5	U04104.087.0400	1.1/8-7X8.1/2*	1	U04104.112.0850
5/8-11X8 Inch*	5	U04104.062.0800	7/8-9X4.1/4*	5	U04104.087.0425	1.1/8-7X9 Inch*	1	U04104.112.0900
5/8-11X8.1/2*	5	U04104.062.0850	7/8-9X4.1/2*	5	U04104.087.0450	1.1/8-7X10 Inch*	1	U04104.112.1000
5/8-11X9 Inch*	5	U04104.062.0900	7/8-9X5 Inch*	5	U04104.087.0500			
5/8-11X9.1/2*	5	U04104.062.0950	7/8-9X5.1/2*	5	U04104.087.0550	1.1/4-7X2 Inch ft*	1	U04104.125.0200
5/8-11X10 Inch*	5	U04104.062.1000	7/8-9X6 Inch*	1	U04104.087.0600	1.1/4-7X2.1/2 ft*	1	U04104.125.0250
5/8-11X11 Inch*	5	U04104.062.1100	7/8-9X6.1/2*	1	U04104.087.0650	1.1/4-7X3 Inch*	1	U04104.125.0300
5/8-11X12 Inch*	5	U04104.062.1200	7/8-9X7 Inch*	1	U04104.087.0700	1.1/4-7X3.1/2*	1	U04104.125.0350
5/8-11X14 Inch*	1	U04104.062.1400	7/8-9X7.1/2*	1	U04104.087.0750	1.1/4-7X4 Inch*	1	U04104.125.0400
			7/8-9X8 Inch*	1	U04104.087.0800	1.1/4-7X4.1/2*	1	U04104.125.0450
3/4-10X1 Inch ft*	10	U04104.075.0100	7/8-9X8.1/2*	1	U04104.087.0850	1.1/4-7X5 Inch*	1	U04104.125.0500
3/4-10X1.1/4 ft*	10	U04104.075.0125	7/8-9X9 Inch*	1	U04104.087.0900	1.1/4-7X5.1/2*	1	U04104.125.0550
3/4-10X1.1/2 ft*	10	U04104.075.0150	7/8-9X9.1/2*	1	U04104.087.0950	1.1/4-7X6 Inch*	1	U04104.125.0600
3/4-10X1.3/4 ft*	10	U04104.075.0175	7/8-9X10 Inch*	1	U04104.087.1000	1.1/4-7X6.1/2*	1	U04104.125.0650
3/4-10X2 Inch*	5	U04104.075.0200				1.1/4-7X7 Inch*	1	U04104.125.0700
3/4-10X2.1/4*	5	U04104.075.0225	1.-8X1.1/2 ft*	5	U04104.100.0150	1.1/4-7X7.1/2*	1	U04104.125.0750
3/4-10X2.1/2*	5	U04104.075.0250	1.-8X1.3/4 ft*	5	U04104.100.0175	1.1/4-7X8 Inch*	1	U04104.125.0800
3/4-10X2.3/4*	5	U04104.075.0275	1.-8X2 Inch ft*	5	U04104.100.0200	1.1/4-7X8.1/2*	1	U04104.125.0850
3/4-10X3 Inch*	5	U04104.075.0300	1.-8X2.1/4 ft*	5	U04104.100.0225	1.1/4-7X9 Inch*	1	U04104.125.0900
3/4-10X3.1/4*	5	U04104.075.0325	1.-8X2.1/2*	5	U04104.100.0250	1.1/4-7X10 Inch*	1	U04104.125.1000
3/4-10X3.1/2*	5	U04104.075.0350	1.-8X2.3/4*	5	U04104.100.0275	1.1/4-7X12 Inch*	1	U04104.125.1200
3/4-10X3.3/4*	5	U04104.075.0375	1.-8X3 Inch*	5	U04104.100.0300	1.1/4-7X14 Inch*	1	U04104.125.1400
3/4-10X4 Inch*	5	U04104.075.0400	1.-8X3.1/4*	5	U04104.100.0325			
3/4-10X4.1/4*	5	U04104.075.0425	1.-8X3.1/2*	5	U04104.100.0350	1.1/2-6X3 Inch ft*	1	U04104.150.0300
3/4-10X4.1/2*	5	U04104.075.0450	1.-8X3.3/4*	5	U04104.100.0375	1.1/2-6X3.1/2*	1	U04104.150.0350
3/4-10X4.3/4*	5	U04104.075.0475	1.-8X4 Inch*	5	U04104.100.0400	1.1/2-6X4 Inch*	1	U04104.150.0400
3/4-10X5 Inch*	5	U04104.075.0500	1.-8X4.1/4*	5	U04104.100.0425	1.1/2-6X4.1/2*	1	U04104.150.0450
3/4-10X5.1/4*	5	U04104.075.0525	1.-8X4.1/2*	5	U04104.100.0450	1.1/2-6X5 Inch*	1	U04104.150.0500
3/4-10X5.1/2*	5	U04104.075.0550	1.-8X5 Inch*	5	U04104.100.0500	1.1/2-6X5.1/2*	1	U04104.150.0550
3/4-10X6 Inch*	5	U04104.075.0600	1.-8X5.1/2*	5	U04104.100.0550	1.1/2-6X6 Inch*	1	U04104.150.0600
3/4-10X6.1/2*	1	U04104.075.0650	1.-8X6 Inch*	1	U04104.100.0600	1.1/2-6X6.1/2*	1	U04104.150.0650
3/4-10X7 Inch*	1	U04104.075.0700	1.-8X6.1/2*	1	U04104.100.0650	1.1/2-6X7 Inch*	1	U04104.150.0700
3/4-10X7.1/2*	1	U04104.075.0750	1.-8X7 Inch*	1	U04104.100.0700	1.1/2-6X7.1/2*	1	U04104.150.0750
3/4-10X8 Inch*	1	U04104.075.0800	1.-8X7.1/2*	1	U04104.100.0750	1.1/2-6X8 Inch*	1	U04104.150.0800
3/4-10X8.1/2*	1	U04104.075.0850	1.-8X8 Inch*	1	U04104.100.0800	1.1/2-6X8.1/2*	1	U04104.150.0850
3/4-10X9 Inch*	1	U04104.075.0900	1.-8X8.1/2*	1	U04104.100.0850	1.1/2-6X9 Inch*	1	U04104.150.0900
3/4-10X9.1/2*	1	U04104.075.0950	1.-8X9 Inch*	1	U04104.100.0900	1.1/2-6X10 Inch*	1	U04104.150.1000
3/4-10X10 Inch*	1	U04104.075.1000	1.-8X9.1/2*	1	U04104.100.0950			
3/4-10X11 Inch*	1	U04104.075.1100	1.-8X10 Inch*	1	U04104.100.1000			

- ft = rosca total métrico

U04100 Parafuso cabeça sextavada UNC

X01A

Rosca Unified National Coarse
Material Aço
Classe Grade 8
Tratamento sup. Passivado a amarelo



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4-20X1/2 ft*	100	U04100.025.0050	1/4-20X3.1/2*	50	U04100.025.0350	5/16-18X1 Inch*	100	U04100.031.0100
1/4-20X5/8 ft*	100	U04100.025.0062	1/4-20X3.3/4*	50	U04100.025.0375	5/16-18X1.1/4*	100	U04100.031.0125
1/4-20X3/4 ft*	100	U04100.025.0075	1/4-20X4 Inch*	25	U04100.025.0400	5/16-18X1.3/8*	100	U04100.031.0137
1/4-20X7/8*	100	U04100.025.0087	1/4-20X4.1/4*	25	U04100.025.0425	5/16-18X1.1/2*	100	U04100.031.0150
1/4-20X1 Inch*	100	U04100.025.0100	1/4-20X4.1/2*	25	U04100.025.0450	5/16-18X1.5/8*	100	U04100.031.0162
1/4-20X1.1/4*	100	U04100.025.0125	1/4-20X5 Inch*	25	U04100.025.0500	5/16-18X1.3/4*	50	U04100.031.0175
1/4-20X1.3/8*	100	U04100.025.0137	1/4-20X5.1/2*	25	U04100.025.0550	5/16-18X2 Inch*	50	U04100.031.0200
1/4-20X1.1/2*	100	U04100.025.0150	1/4-20X6 Inch*	25	U04100.025.0600	5/16-18X2.1/4*	50	U04100.031.0225
1/4-20X1.5/8*	100	U04100.025.0162	1/4-20X6.1/2*	10	U04100.025.0650	5/16-18X2.3/8*	50	U04100.031.0237
1/4-20X1.3/4*	100	U04100.025.0175	1/4-20X7 Inch*	10	U04100.025.0700	5/16-18X2.1/2*	50	U04100.031.0250
1/4-20X2 Inch*	50	U04100.025.0200	1/4-20X8 Inch*	5	U04100.025.0800	5/16-18X2.3/4*	50	U04100.031.0275
1/4-20X2.1/4*	50	U04100.025.0225				5/16-18X3 Inch*	50	U04100.031.0300
1/4-20X2.1/2*	50	U04100.025.0250	5/16-18X1/2 ft*	100	U04100.031.0050	5/16-18X3.1/4*	50	U04100.031.0325
1/4-20X2.3/4*	50	U04100.025.0275	5/16-18X5/8 ft*	100	U04100.031.0062	5/16-18X3.1/2*	50	U04100.031.0350
1/4-20X3 Inch*	50	U04100.025.0300	5/16-18X3/4 ft*	100	U04100.031.0075	5/16-18X3.3/4*	25	U04100.031.0375
1/4-20X3.1/4*	50	U04100.025.0325	5/16-18X7/8 ft*	100	U04100.031.0087	5/16-18X4 Inch*	25	U04100.031.0400

U04100 Parafuso cabeça sextavada UNC ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
5/16-18X4.1/4*	25	U04100.031.0425	1/2-13X4 Inch*	5	U04100.050.0400	3/4-10X4 Inch*	5	U04100.075.0400
5/16-18X4.1/2*	25	U04100.031.0450	1/2-13X4.1/4*	5	U04100.050.0425	3/4-10X4.1/4*	5	U04100.075.0425
5/16-18X5 Inch*	25	U04100.031.0500	1/2-13X4.1/2*	5	U04100.050.0450	3/4-10X4.1/2*	5	U04100.075.0450
5/16-18X5.1/2*	25	U04100.031.0550	1/2-13X4.3/4*	5	U04100.050.0475	3/4-10X4.3/4*	5	U04100.075.0475
5/16-18X6 Inch*	25	U04100.031.0600	1/2-13X5 Inch*	5	U04100.050.0500	3/4-10X5 Inch*	5	U04100.075.0500
5/16-18X6.1/2*	10	U04100.031.0650	1/2-13X5.1/4*	5	U04100.050.0525	3/4-10X5.1/4*	5	U04100.075.0525
5/16-18X7 Inch*	10	U04100.031.0700	1/2-13X5.1/2*	5	U04100.050.0550	3/4-10X5.1/2*	5	U04100.075.0550
5/16-18X8 Inch*	5	U04100.031.0800	1/2-13X5.3/4*	5	U04100.050.0575	3/4-10X6 Inch*	5	U04100.075.0600
			1/2-13X6 Inch*	5	U04100.050.0600	3/4-10X6.1/2*	1	U04100.075.0650
3/8-16X1/2 ft*	50	U04100.037.0050	1/2-13X6.1/2*	5	U04100.050.0650	3/4-10X7 Inch*	1	U04100.075.0700
3/8-16X5/8 ft*	50	U04100.037.0062	1/2-13X7 Inch*	5	U04100.050.0700	3/4-10X7.1/2*	1	U04100.075.0750
3/8-16X3/4 ft*	50	U04100.037.0075	1/2-13X7.1/2*	5	U04100.050.0750	3/4-10X8 Inch*	1	U04100.075.0800
3/8-16X7/8 ft*	50	U04100.037.0087	1/2-13X8 Inch*	5	U04100.050.0800	3/4-10X8.1/2*	1	U04100.075.0850
3/8-16X1 Inch ft*	50	U04100.037.0100	1/2-13X8.1/2*	5	U04100.050.0850	3/4-10X9 Inch*	1	U04100.075.0900
3/8-16X1.1/4*	50	U04100.037.0125	1/2-13X9 Inch*	5	U04100.050.0900	3/4-10X9.1/2*	1	U04100.075.0950
3/8-16X1.1/2*	50	U04100.037.0150	1/2-13X9.1/2*	5	U04100.050.0950	3/4-10X10 Inch*	1	U04100.075.1000
3/8-16X1.3/4*	50	U04100.037.0175	1/2-13X10 Inch*	5	U04100.050.1000	3/4-10X11 Inch*	1	U04100.075.1100
3/8-16X2 Inch*	25	U04100.037.0200	1/2-13X11 Inch*	5	U04100.050.1100	3/4-10X12 Inch*	1	U04100.075.1200
3/8-16X2.1/4*	25	U04100.037.0225	1/2-13X12 Inch*	5	U04100.050.1200	3/4-10X13 Inch*	1	U04100.075.1300
3/8-16X2.1/2*	25	U04100.037.0250	1/2-13X14 Inch*	1	U04100.050.1400	3/4-10X14 Inch*	1	U04100.075.1400
3/8-16X2.3/4*	25	U04100.037.0275						
3/8-16X3 Inch*	25	U04100.037.0300	9/16-12X1 Inch ft*	25	U04100.056.0100	7/8-9X1.1/2 ft*	5	U04100.087.0150
3/8-16X3.1/4*	25	U04100.037.0325	9/16-12X1.1/4 ft*	25	U04100.056.0125	7/8-9X1.3/4 ft*	5	U04100.087.0175
3/8-16X3.1/2*	25	U04100.037.0350	9/16-12X1.1/2*	25	U04100.056.0150	7/8-9X2 Inch ft*	5	U04100.087.0200
3/8-16X3.3/4*	25	U04100.037.0375	9/16-12X1.3/4*	10	U04100.056.0175	7/8-9X2.1/4*	5	U04100.087.0225
3/8-16X4 Inch*	10	U04100.037.0400	9/16-12X2 Inch*	10	U04100.056.0200	7/8-9X2.1/2*	5	U04100.087.0250
3/8-16X4.1/4*	10	U04100.037.0425	9/16-12X2.1/4*	10	U04100.056.0225	7/8-9X2.3/4*	5	U04100.087.0275
3/8-16X4.1/2*	10	U04100.037.0450	9/16-12X2.1/2*	10	U04100.056.0250	7/8-9X3 Inch*	5	U04100.087.0300
3/8-16X4.3/4*	10	U04100.037.0475	9/16-12X2.3/4*	10	U04100.056.0275	7/8-9X3.1/4*	5	U04100.087.0325
3/8-16X5 Inch*	10	U04100.037.0500	9/16-12X3 Inch*	10	U04100.056.0300	7/8-9X3.1/2*	5	U04100.087.0350
3/8-16X5.1/2*	10	U04100.037.0550	9/16-12X3.1/4*	10	U04100.056.0325	7/8-9X3.3/4*	5	U04100.087.0375
3/8-16X5.3/4*	10	U04100.037.0575	9/16-12X3.1/2*	10	U04100.056.0350	7/8-9X4 Inch*	5	U04100.087.0400
3/8-16X6 Inch*	10	U04100.037.0600	9/16-12X3.3/4*	10	U04100.056.0375	7/8-9X4.1/4*	5	U04100.087.0425
3/8-16X6.1/2*	10	U04100.037.0650	9/16-12X4 Inch*	5	U04100.056.0400	7/8-9X4.1/2*	5	U04100.087.0450
3/8-16X7 Inch*	10	U04100.037.0700	9/16-12X4.1/2*	5	U04100.056.0450	7/8-9X5 Inch*	5	U04100.087.0500
3/8-16X7.1/2*	5	U04100.037.0750	9/16-12X5 Inch*	5	U04100.056.0500	7/8-9X5.1/2*	5	U04100.087.0550
3/8-16X8 Inch*	5	U04100.037.0800	9/16-12X5.1/2*	5	U04100.056.0550	7/8-9X6 Inch*	1	U04100.087.0600
3/8-16X8.1/2*	5	U04100.037.0850	9/16-12X6 Inch*	5	U04100.056.0600	7/8-9X6.1/2*	1	U04100.087.0650
3/8-16X9 Inch*	5	U04100.037.0900				7/8-9X7 Inch*	1	U04100.087.0700
3/8-16X10 Inch*	5	U04100.037.1000	5/8-11X1 Inch ft*	10	U04100.062.0100	7/8-9X7.1/2*	1	U04100.087.0750
3/8-16X12 Inch*	5	U04100.037.1200	5/8-11X1.1/4 ft*	10	U04100.062.0125	7/8-9X8 Inch*	1	U04100.087.0800
			5/8-11X1.1/2 ft*	10	U04100.062.0150	7/8-9X8.1/2*	1	U04100.087.0850
7/16-14X3/4 ft*	25	U04100.043.0075	5/8-11X1.3/4*	10	U04100.062.0175	7/8-9X9 Inch*	1	U04100.087.0900
7/16-14X7/8 ft*	25	U04100.043.0087	5/8-11X2 Inch*	5	U04100.062.0200	7/8-9X9.1/2*	1	U04100.087.0950
7/16-14X1 Inch ft*	25	U04100.043.0100	5/8-11X2.1/4*	5	U04100.062.0225	7/8-9X10 Inch*	1	U04100.087.1000
7/16-14X1.1/4*	25	U04100.043.0125	5/8-11X2.1/2*	5	U04100.062.0250	7/8-9X11 Inch*	1	U04100.087.1100
7/16-14X1.3/8*	25	U04100.043.0137	5/8-11X2.3/4*	5	U04100.062.0275			
7/16-14X1.1/2*	25	U04100.043.0150	5/8-11X3 Inch*	5	U04100.062.0300	1.-8X1.1/2 ft*	5	U04100.100.0150
7/16-14X1.3/4*	25	U04100.043.0175	5/8-11X3.1/4*	5	U04100.062.0325	1.-8X1.3/4 ft*	5	U04100.100.0175
7/16-14X2 Inch*	25	U04100.043.0200	5/8-11X3.1/2*	5	U04100.062.0350	1.-8X2 Inch ft*	5	U04100.100.0200
7/16-14X2.1/4*	10	U04100.043.0225	5/8-11X3.3/4*	5	U04100.062.0375	1.-8X2.1/4 ft*	5	U04100.100.0225
7/16-14X2.1/2*	10	U04100.043.0250	5/8-11X4 Inch*	5	U04100.062.0400	1.-8X2.1/2*	5	U04100.100.0250
7/16-14X2.3/4*	10	U04100.043.0275	5/8-11X4.1/4*	5	U04100.062.0425	1.-8X2.3/4*	5	U04100.100.0275
7/16-14X3 Inch*	10	U04100.043.0300	5/8-11X4.1/2*	5	U04100.062.0450	1.-8X3 Inch*	5	U04100.100.0300
7/16-14X3.1/4*	10	U04100.043.0325	5/8-11X4.3/4*	5	U04100.062.0475	1.-8X3.1/4*	5	U04100.100.0325
7/16-14X3.1/2*	10	U04100.043.0350	5/8-11X5 Inch*	5	U04100.062.0500	1.-8X3.1/2*	5	U04100.100.0350
7/16-14X3.3/4*	10	U04100.043.0375	5/8-11X5.1/2*	5	U04100.062.0550	1.-8X3.3/4*	5	U04100.100.0375
7/16-14X4 Inch*	10	U04100.043.0400	5/8-11X6 Inch*	5	U04100.062.0600	1.-8X4 Inch*	5	U04100.100.0400
7/16-14X4.1/2*	10	U04100.043.0450	5/8-11X6.1/2*	5	U04100.062.0650	1.-8X4.1/4*	5	U04100.100.0425
7/16-14X5 Inch*	10	U04100.043.0500	5/8-11X7 Inch*	5	U04100.062.0700	1.-8X4.1/2*	5	U04100.100.0450
7/16-14X5.1/2*	10	U04100.043.0550	5/8-11X7.1/2*	5	U04100.062.0750	1.-8X5 Inch*	5	U04100.100.0500
7/16-14X6 Inch*	5	U04100.043.0600	5/8-11X8 Inch*	5	U04100.062.0800	1.-8X5.1/2*	5	U04100.100.0550
7/16-14X6.1/2*	5	U04100.043.0650	5/8-11X8.1/2*	5	U04100.062.0850	1.-8X6 Inch*	1	U04100.100.0600
7/16-14X7 Inch*	5	U04100.043.0700	5/8-11X9 Inch*	5	U04100.062.0900	1.-8X6.1/2*	1	U04100.100.0650
7/16-14X8 Inch*	5	U04100.043.0800	5/8-11X9.1/2*	5	U04100.062.0950	1.-8X7 Inch*	1	U04100.100.0700
7/16-14X9 Inch*	5	U04100.043.0900	5/8-11X10 Inch*	5	U04100.062.1000	1.-8X7.1/2*	1	U04100.100.0750
7/16-14X10 Inch*	5	U04100.043.1000	5/8-11X11 Inch*	5	U04100.062.1100	1.-8X8 Inch*	1	U04100.100.0800
7/16-14X12 Inch*	5	U04100.043.1200	5/8-11X12 Inch*	5	U04100.062.1200	1.-8X8.1/2*	1	U04100.100.0850
			5/8-11X14 Inch*	1	U04100.062.1400	1.-8X9 Inch*	1	U04100.100.0900
1/2-13X3/4 ft*	25	U04100.050.0075				1.-8X9.1/2*	1	U04100.100.0950
1/2-13X1 Inch ft*	25	U04100.050.0100	3/4-10X1 Inch ft*	10	U04100.075.0100	1.-8X10 Inch*	1	U04100.100.1000
1/2-13X1.1/4 ft*	25	U04100.050.0125	3/4-10X1.1/4 ft*	10	U04100.075.0125	1.-8X12 Inch*	1	U04100.100.1200
1/2-13X1.1/2*	25	U04100.050.0150	3/4-10X1.1/2 ft*	10	U04100.075.0150			
1/2-13X1.3/4*	25	U04100.050.0175	3/4-10X1.3/4 ft*	10	U04100.075.0175	1.1/8-7X2.1/2 ft*	1	U04100.112.0250
1/2-13X2 Inch*	10	U04100.050.0200	3/4-10X2 Inch*	5	U04100.075.0200	1.1/8-7X3 Inch*	1	U04100.112.0300
1/2-13X2.1/4*	10	U04100.050.0225	3/4-10X2.1/4*	5	U04100.075.0225	1.1/8-7X3.1/2*	1	U04100.112.0350
1/2-13X2.1/2*	10	U04100.050.0250	3/4-10X2.1/2*	5	U04100.075.0250	1.1/8-7X4 Inch*	1	U04100.112.0400
1/2-13X2.3/4*	10	U04100.050.0275	3/4-10X2.3/4*	5	U04100.075.0275	1.1/8-7X4.1/2*	1	U04100.112.0450
1/2-13X3 Inch*	10	U04100.050.0300	3/4-10X3 Inch*	5	U04100.075.0300	1.1/8-7X5 Inch*	1	U04100.112.0500
1/2-13X3.1/4*	10	U04100.050.0325	3/4-10X3.1/4*	5	U04100.075.0325	1.1/8-7X5.1/2*	1	U04100.112.0550
1/2-13X3.1/2*	10	U04100.050.0350	3/4-10X3.1/2*	5	U04100.075.0350	1.1/8-7X6 Inch*	1	U04100.112.0600
1/2-13X3.3/4*	10	U04100.050.0375	3/4-10X3.3/4*	5	U04100.075.0375	1.1/8-7X6.1/2*	1	U04100.112.0650

U04100 Parafuso cabeça sextavada UNC

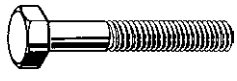
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1.1/8-7X7 Inch*	1	U04100.112.0700	1.1/4-7X5.1/2*	1	U04100.125.0550	1.1/2-6X3.1/2*	1	U04100.150.0350
1.1/8-7X7.1/2*	1	U04100.112.0750	1.1/4-7X6 Inch*	1	U04100.125.0600	1.1/2-6X4 Inch*	1	U04100.150.0400
1.1/8-7X8 Inch*	1	U04100.112.0800	1.1/4-7X6.1/2*	1	U04100.125.0650	1.1/2-6X4.1/2*	1	U04100.150.0450
1.1/8-7X8.1/2*	1	U04100.112.0850	1.1/4-7X7 Inch*	1	U04100.125.0700	1.1/2-6X5 Inch*	1	U04100.150.0500
1.1/8-7X9 Inch*	1	U04100.112.0900	1.1/4-7X7.1/2*	1	U04100.125.0750	1.1/2-6X5.1/2*	1	U04100.150.0550
1.1/8-7X10 Inch*	1	U04100.112.1000	1.1/4-7X8 Inch*	1	U04100.125.0800	1.1/2-6X6 Inch*	1	U04100.150.0600
			1.1/4-7X8.1/2*	1	U04100.125.0850	1.1/2-6X6.1/2*	1	U04100.150.0650
1.1/4-7X2.1/2 ft*	1	U04100.125.0250	1.1/4-7X9 Inch*	1	U04100.125.0900	1.1/2-6X7 Inch*	1	U04100.150.0700
1.1/4-7X3 Inch*	1	U04100.125.0300	1.1/4-7X10 Inch*	1	U04100.125.1000	1.1/2-6X7.1/2*	1	U04100.150.0750
1.1/4-7X3.1/2*	1	U04100.125.0350	1.1/4-7X12 Inch*	1	U04100.125.1200	1.1/2-6X8 Inch*	1	U04100.150.0800
1.1/4-7X4 Inch*	1	U04100.125.0400	1.1/4-7X14 Inch*	1	U04100.125.1400	1.1/2-6X8.1/2*	1	U04100.150.0850
1.1/4-7X4.1/2*	1	U04100.125.0450				1.1/2-6X9 Inch*	1	U04100.150.0900
1.1/4-7X5 Inch*	1	U04100.125.0500	1.1/2-6X3 Inch ft*	1	U04100.150.0300	1.1/2-6X10 Inch*	1	U04100.150.1000

- ft = rosca total métrico

U51000 Parafuso cabeça sextavada UNC X15A

Rosca Unified National Coarse
Material Aço inoxidável A2 (AISI 304/18-8)
Classe F593

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4-20X1/2 ft*	100	U51000.025.0050	3/8-16X3/4 ft*	50	U51000.037.0075	1/2-13X1.1/2*	10	U51000.050.0150
1/4-20X5/8 ft*	100	U51000.025.0062	3/8-16X7/8 ft*	50	U51000.037.0087	1/2-13X1.3/4*	10	U51000.050.0175
1/4-20X3/4 ft*	100	U51000.025.0075	3/8-16X1 Inch ft*	50	U51000.037.0100	1/2-13X2 Inch*	10	U51000.050.0200
1/4-20X7/8*	100	U51000.025.0087	3/8-16X1.1/8	25	U51000.037.0112	1/2-13X2.1/4*	10	U51000.050.0225
1/4-20X1 Inch*	100	U51000.025.0100	3/8-16X1.1/4*	50	U51000.037.0125	1/2-13X2.1/2*	10	U51000.050.0250
1/4-20X1.1/8	25	U51000.025.0112	3/8-16X1.3/8	25	U51000.037.0137	1/2-13X2.3/4*	10	U51000.050.0275
1/4-20X1.1/4*	100	U51000.025.0125	3/8-16X1.1/2*	25	U51000.037.0150	1/2-13X3 Inch*	5	U51000.050.0300
1/4-20X1.3/8*	100	U51000.025.0137	3/8-16X1.3/4*	25	U51000.037.0175	1/2-13X3.1/4*	5	U51000.050.0325
1/4-20X1.1/2*	100	U51000.025.0150	3/8-16X2 Inch*	25	U51000.037.0200	1/2-13X3.1/2*	5	U51000.050.0350
1/4-20X1.3/4*	100	U51000.025.0175	3/8-16X2.1/4*	25	U51000.037.0225	1/2-13X3.3/4*	5	U51000.050.0375
1/4-20X1.7/8	25	U51000.025.0187	3/8-16X2.1/2*	25	U51000.037.0250	1/2-13X4 Inch*	5	U51000.050.0400
1/4-20X2 Inch*	50	U51000.025.0200	3/8-16X2.3/4*	25	U51000.037.0275	1/2-13X4.1/4*	5	U51000.050.0425
1/4-20X2.1/4*	50	U51000.025.0225	3/8-16X3 Inch*	10	U51000.037.0300	1/2-13X4.1/2*	5	U51000.050.0450
1/4-20X2.1/2*	50	U51000.025.0250	3/8-16X3.1/4*	10	U51000.037.0325	1/2-13X4.3/4*	5	U51000.050.0475
1/4-20X2.3/4*	50	U51000.025.0275	3/8-16X3.1/2*	10	U51000.037.0350	1/2-13X5 Inch*	5	U51000.050.0500
1/4-20X3 Inch*	25	U51000.025.0300	3/8-16X3.3/4*	10	U51000.037.0375	1/2-13X5.1/2*	5	U51000.050.0550
1/4-20X3.1/4*	25	U51000.025.0325	3/8-16X4 Inch*	10	U51000.037.0400	1/2-13X6 Inch*	5	U51000.050.0600
1/4-20X3.1/2*	25	U51000.025.0350	3/8-16X4.1/4*	10	U51000.037.0425	1/2-13X6.1/2*	5	U51000.050.0650
1/4-20X3.3/4*	25	U51000.025.0375	3/8-16X4.1/2*	10	U51000.037.0450	1/2-13X7 Inch*	5	U51000.050.0700
1/4-20X4 Inch*	25	U51000.025.0400	3/8-16X4.3/4*	10	U51000.037.0475	1/2-13X7.1/2*	5	U51000.050.0750
1/4-20X4.1/4*	25	U51000.025.0425	3/8-16X5 Inch*	10	U51000.037.0500	1/2-13X8 Inch*	5	U51000.050.0800
1/4-20X4.1/2*	25	U51000.025.0450	3/8-16X5.1/2*	10	U51000.037.0550	1/2-13X8.1/2*	1	U51000.050.0850
1/4-20X5 Inch*	25	U51000.025.0500	3/8-16X5.3/4*	10	U51000.037.0575	1/2-13X9 Inch*	1	U51000.050.0900
1/4-20X5.1/2*	10	U51000.025.0550	3/8-16X6 Inch*	10	U51000.037.0600	1/2-13X10 Inch*	1	U51000.050.1000
1/4-20X6 Inch*	10	U51000.025.0600	3/8-16X6.1/2*	5	U51000.037.0650	1/2-13X11 Inch*	1	U51000.050.1100
1/4-20X6.1/2*	5	U51000.025.0650	3/8-16X7 Inch*	5	U51000.037.0700	1/2-13X12 Inch*	1	U51000.050.1200
1/4-20X7 Inch*	5	U51000.025.0700	3/8-16X7.1/2*	5	U51000.037.0750			
1/4-20X8 Inch*	5	U51000.025.0800	3/8-16X8 Inch*	5	U51000.037.0800	9/16-12X1.1/2*	10	U51000.056.0150
			3/8-16X9 Inch	1	U51000.037.0900	9/16-12X1.3/4*	10	U51000.056.0175
5/16-18X1/2 ft*	100	U51000.031.0050	3/8-16X10 Inch	1	U51000.037.1000	9/16-12X2 Inch*	5	U51000.056.0200
5/16-18X5/8 ft*	100	U51000.031.0062				9/16-12X2.1/4*	5	U51000.056.0225
5/16-18X3/4 ft*	100	U51000.031.0075	7/16-14X3/4 ft*	25	U51000.043.0075	9/16-12X2.1/2*	5	U51000.056.0250
5/16-18X7/8 ft*	50	U51000.031.0087	7/16-14X7/8 ft*	25	U51000.043.0087	9/16-12X2.3/4*	5	U51000.056.0275
5/16-18X1 Inch*	50	U51000.031.0100	7/16-14X1 Inch ft*	25	U51000.043.0100	9/16-12X3 Inch*	5	U51000.056.0300
5/16-18X1.1/8	25	U51000.031.0112	7/16-14X1.1/4*	25	U51000.043.0125	9/16-12X3.1/4*	5	U51000.056.0325
5/16-18X1.1/4*	50	U51000.031.0125	7/16-14X1.1/2*	25	U51000.043.0150	9/16-12X3.1/2*	5	U51000.056.0350
5/16-18X1.3/8*	50	U51000.031.0137	7/16-14X1.3/4*	10	U51000.043.0175	9/16-12X3.3/4*	5	U51000.056.0375
5/16-18X1.1/2*	50	U51000.031.0150	7/16-14X2 Inch*	10	U51000.043.0200	9/16-12X4 Inch*	5	U51000.056.0400
5/16-18X1.3/4*	50	U51000.031.0175	7/16-14X2.1/4*	10	U51000.043.0225	9/16-12X4.1/2*	5	U51000.056.0450
5/16-18X2 Inch*	50	U51000.031.0200	7/16-14X2.1/2*	10	U51000.043.0250	9/16-12X5 Inch*	5	U51000.056.0500
5/16-18X2.1/4*	25	U51000.031.0225	7/16-14X2.3/4*	10	U51000.043.0275	9/16-12X5.1/2*	5	U51000.056.0550
5/16-18X2.1/2*	25	U51000.031.0250	7/16-14X3 Inch*	10	U51000.043.0300	9/16-12X6 Inch*	5	U51000.056.0600
5/16-18X2.3/4*	25	U51000.031.0275	7/16-14X3.1/2*	5	U51000.043.0350			
5/16-18X3 Inch*	25	U51000.031.0300	7/16-14X4 Inch*	5	U51000.043.0400	5/8-11X1 Inch ft*	10	U51000.062.0100
5/16-18X3.1/4*	25	U51000.031.0325	7/16-14X4.1/2*	5	U51000.043.0450	5/8-11X1.1/4 ft*	10	U51000.062.0125
5/16-18X3.1/2*	25	U51000.031.0350	7/16-14X5 Inch*	5	U51000.043.0500	5/8-11X1.1/2 ft*	10	U51000.062.0150
5/16-18X3.3/4*	25	U51000.031.0375	7/16-14X6 Inch*	5	U51000.043.0600	5/8-11X1.3/4*	10	U51000.062.0175
5/16-18X4 Inch*	10	U51000.031.0400	7/16-14X7 Inch*	5	U51000.043.0700	5/8-11X2 Inch*	5	U51000.062.0200
5/16-18X4.1/2*	10	U51000.031.0450	7/16-14X8 Inch*	5	U51000.043.0800	5/8-11X2.1/4*	5	U51000.062.0225
5/16-18X5 Inch*	10	U51000.031.0500				5/8-11X2.1/2*	5	U51000.062.0250
5/16-18X5.1/2*	10	U51000.031.0550	1/2-13X1/2 ft	25	U51000.050.0050	5/8-11X2.3/4*	5	U51000.062.0275
5/16-18X6 Inch*	10	U51000.031.0600	1/2-13X5/8 ft	1	U51000.050.0062	5/8-11X3 Inch*	5	U51000.062.0300
5/16-18X7 Inch*	5	U51000.031.0700	1/2-13X3/4 ft*	10	U51000.050.0075	5/8-11X3.1/4*	5	U51000.062.0325
			1/2-13X7/8 ft*	10	U51000.050.0087	5/8-11X3.1/2*	5	U51000.062.0350
3/8-16X1/2 ft*	50	U51000.037.0050	1/2-13X1 Inch ft*	10	U51000.050.0100	5/8-11X3.3/4*	5	U51000.062.0375
3/8-16X5/8 ft*	50	U51000.037.0062	1/2-13X1.1/4 ft*	10	U51000.050.0125	5/8-11X4 Inch*	5	U51000.062.0400

U51000 Parafuso cabeça sextavada UNC

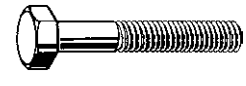
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
5/8-11X4.1/4*	5	U51000.062.0425	3/4-10X5.1/2*	5	U51000.075.0550	1.-8X2.1/2*	5	U51000.100.0250
5/8-11X4.1/2*	5	U51000.062.0450	3/4-10X6 Inch*	5	U51000.075.0600	1.-8X2.3/4*	5	U51000.100.0275
5/8-11X4.3/4*	5	U51000.062.0475	3/4-10X6.1/2*	5	U51000.075.0650	1.-8X3 Inch*	5	U51000.100.0300
5/8-11X5 Inch*	5	U51000.062.0500	3/4-10X7 Inch*	5	U51000.075.0700	1.-8X3.1/4*	5	U51000.100.0325
5/8-11X5.1/4	5	U51000.062.0525	3/4-10X7.1/2*	5	U51000.075.0750	1.-8X3.1/2*	5	U51000.100.0350
5/8-11X5.1/2*	5	U51000.062.0550	3/4-10X8 Inch*	5	U51000.075.0800	1.-8X4 Inch*	5	U51000.100.0400
5/8-11X6 Inch*	5	U51000.062.0600	3/4-10X9 Inch	1	U51000.075.0900	1.-8X4.1/4*	5	U51000.100.0425
5/8-11X6.1/2*	5	U51000.062.0650	3/4-10X10 Inch	1	U51000.075.1000	1.-8X4.1/2*	5	U51000.100.0450
5/8-11X7 Inch*	5	U51000.062.0700				1.-8X5 Inch*	5	U51000.100.0500
5/8-11X7.1/2*	5	U51000.062.0750	7/8-9X1.1/2 ft*	5	U51000.087.0150	1.-8X5.1/2*	5	U51000.100.0550
5/8-11X8 Inch*	5	U51000.062.0800	7/8-9X1.3/4 ft*	5	U51000.087.0175	1.-8X6 Inch*	5	U51000.100.0600
5/8-11X8.1/2*	1	U51000.062.0850	7/8-9X2 Inch ft*	5	U51000.087.0200	1.-8X6.1/2*	1	U51000.100.0650
5/8-11X9 Inch*	1	U51000.062.0900	7/8-9X2.1/4*	5	U51000.087.0225	1.-8X7 Inch*	1	U51000.100.0700
5/8-11X9.1/2*	1	U51000.062.0950	7/8-9X2.1/2*	5	U51000.087.0250	1.-8X8 Inch*	1	U51000.100.0800
5/8-11X10 Inch*	1	U51000.062.1000	7/8-9X2.3/4*	5	U51000.087.0275	1.-8X9 Inch*	1	U51000.100.0900
5/8-11X11 Inch*	1	U51000.062.1100	7/8-9X3 Inch*	5	U51000.087.0300	1.-8X10 Inch*	1	U51000.100.1000
5/8-11X12 Inch*	1	U51000.062.1200	7/8-9X3.1/4*	5	U51000.087.0325			
			7/8-9X3.1/2*	5	U51000.087.0350	1.1/8-7X2.1/2 ft*	1	U51000.112.0250
3/4-10X1 Inch ft*	5	U51000.075.0100	7/8-9X3.3/4*	5	U51000.087.0375	1.1/8-7X3 Inch*	1	U51000.112.0300
3/4-10X1.1/4 ft*	5	U51000.075.0125	7/8-9X4 Inch*	5	U51000.087.0400	1.1/8-7X3.1/2*	1	U51000.112.0350
3/4-10X1.1/2 ft*	5	U51000.075.0150	7/8-9X4.1/4*	5	U51000.087.0425	1.1/8-7X4 Inch*	1	U51000.112.0400
3/4-10X1.3/4 ft*	5	U51000.075.0175	7/8-9X4.1/2*	5	U51000.087.0450	1.1/8-7X5 Inch*	1	U51000.112.0500
3/4-10X2 Inch*	5	U51000.075.0200	7/8-9X4.3/4	1	U51000.087.0475	1.1/8-7X6 Inch*	1	U51000.112.0600
3/4-10X2.1/4*	5	U51000.075.0225	7/8-9X5 Inch*	5	U51000.087.0500	1.1/8-7X7 Inch*	1	U51000.112.0700
3/4-10X2.1/2*	5	U51000.075.0250	7/8-9X5.1/2*	5	U51000.087.0550	1.1/8-7X8 Inch*	1	U51000.112.0800
3/4-10X2.3/4*	5	U51000.075.0275	7/8-9X6 Inch*	5	U51000.087.0600			
3/4-10X3 Inch*	5	U51000.075.0300	7/8-9X6.1/2*	5	U51000.087.0650	1.1/4-7X2.1/2 ft*	1	U51000.125.0250
3/4-10X3.1/4*	5	U51000.075.0325	7/8-9X7 Inch*	5	U51000.087.0700	1.1/4-7X3 Inch*	1	U51000.125.0300
3/4-10X3.1/2*	5	U51000.075.0350	7/8-9X7.1/2*	1	U51000.087.0750	1.1/4-7X4 Inch*	1	U51000.125.0400
3/4-10X3.3/4*	5	U51000.075.0375	7/8-9X8 Inch*	1	U51000.087.0800	1.1/4-7X5 Inch*	1	U51000.125.0500
3/4-10X4 Inch*	5	U51000.075.0400	7/8-9X9 Inch*	1	U51000.087.0900	1.1/4-7X6 Inch*	1	U51000.125.0600
3/4-10X4.1/4*	5	U51000.075.0425	7/8-9X10 Inch*	1	U51000.087.1000	1.1/4-7X7 Inch*	1	U51000.125.0700
3/4-10X4.1/2*	5	U51000.075.0450				1.1/4-7X8 Inch*	1	U51000.125.0800
3/4-10X4.3/4*	5	U51000.075.0475	1.-8X2 Inch ft*	5	U51000.100.0200	1.1/4-7X9 Inch*	1	U51000.125.0900
3/4-10X5 Inch*	5	U51000.075.0500	1.-8X2.1/4 ft*	5	U51000.100.0225			

- ft = rosca total métrico

U55000 Parafuso cabeça sextavada UNC X15A

Rosca Unified National Coarse
Material Aço inoxidável A4 (AISI 316/18-10)
Classe F593

RoHS



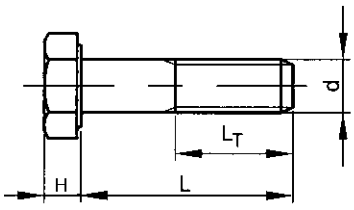
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4-20X1/2 ft*	100	U55000.025.0050	5/16-18X2.1/4*	25	U55000.031.0225	3/8-16X6.1/2*	5	U55000.037.0650
1/4-20X5/8 ft*	100	U55000.025.0062	5/16-18X2.1/2*	25	U55000.031.0250	3/8-16X7 Inch*	5	U55000.037.0700
1/4-20X3/4 ft*	100	U55000.025.0075	5/16-18X2.3/4*	25	U55000.031.0275	3/8-16X7.1/2*	5	U55000.037.0750
1/4-20X7/8*	100	U55000.025.0087	5/16-18X3 Inch*	25	U55000.031.0300	3/8-16X8 Inch*	5	U55000.037.0800
1/4-20X1 Inch*	100	U55000.025.0100	5/16-18X3.1/2*	25	U55000.031.0350			
1/4-20X1.1/4*	100	U55000.025.0125	5/16-18X4 Inch*	10	U55000.031.0400	7/16-14X1 Inch ft*	25	U55000.043.0100
1/4-20X1.3/8*	100	U55000.025.0137	5/16-18X5 Inch*	10	U55000.031.0500	7/16-14X1.1/4*	25	U55000.043.0125
1/4-20X1.1/2*	100	U55000.025.0150	5/16-18X6 Inch*	10	U55000.031.0600	7/16-14X1.1/2*	25	U55000.043.0150
1/4-20X1.3/4*	100	U55000.025.0175				7/16-14X2 Inch*	10	U55000.043.0200
1/4-20X1.7/8	10	U55000.025.0187	3/8-16X1/2 ft*	50	U55000.037.0050	7/16-14X2.1/2*	10	U55000.043.0250
1/4-20X2 Inch*	50	U55000.025.0200	3/8-16X5/8 ft*	50	U55000.037.0062	7/16-14X3 Inch*	10	U55000.043.0300
1/4-20X2.1/4*	50	U55000.025.0225	3/8-16X3/4 ft*	50	U55000.037.0075	7/16-14X3.1/2*	5	U55000.043.0350
1/4-20X2.1/2*	50	U55000.025.0250	3/8-16X7/8 ft*	50	U55000.037.0087	7/16-14X4 Inch*	5	U55000.043.0400
1/4-20X2.3/4*	50	U55000.025.0275	3/8-16X1 Inch ft*	50	U55000.037.0100			
1/4-20X3 Inch*	25	U55000.025.0300	3/8-16X1.1/8	10	U55000.037.0112	1/2-13X3/4 ft*	10	U55000.050.0075
1/4-20X3.1/4*	25	U55000.025.0325	3/8-16X1.1/4*	50	U55000.037.0125	1/2-13X7/8 ft*	10	U55000.050.0087
1/4-20X3.1/2*	25	U55000.025.0350	3/8-16X1.1/2*	25	U55000.037.0150	1/2-13X1 Inch ft*	10	U55000.050.0100
1/4-20X3.3/4*	25	U55000.025.0375	3/8-16X1.3/4*	25	U55000.037.0175	1/2-13X1.1/4 ft*	10	U55000.050.0125
1/4-20X4 Inch*	25	U55000.025.0400	3/8-16X2 Inch*	25	U55000.037.0200	1/2-13X1.1/2*	10	U55000.050.0150
1/4-20X4.1/4*	25	U55000.025.0425	3/8-16X2.1/4*	25	U55000.037.0225	1/2-13X1.3/4*	10	U55000.050.0175
1/4-20X4.1/2*	25	U55000.025.0450	3/8-16X2.1/2*	25	U55000.037.0250	1/2-13X2 Inch*	10	U55000.050.0200
1/4-20X5 Inch*	25	U55000.025.0500	3/8-16X2.3/4*	25	U55000.037.0275	1/2-13X2.1/4*	10	U55000.050.0225
1/4-20X5.1/2*	10	U55000.025.0550	3/8-16X3 Inch*	10	U55000.037.0300	1/2-13X2.1/2*	10	U55000.050.0250
1/4-20X6 Inch*	10	U55000.025.0600	3/8-16X3.1/4*	10	U55000.037.0325	1/2-13X2.3/4*	10	U55000.050.0275
			3/8-16X3.1/2*	10	U55000.037.0350	1/2-13X3 Inch*	5	U55000.050.0300
5/16-18X1/2 ft*	100	U55000.031.0050	3/8-16X3.3/4*	10	U55000.037.0375	1/2-13X3.1/4*	5	U55000.050.0325
5/16-18X5/8 ft*	100	U55000.031.0062	3/8-16X4 Inch*	10	U55000.037.0400	1/2-13X3.1/2*	5	U55000.050.0350
5/16-18X3/4 ft*	100	U55000.031.0075	3/8-16X4.1/4*	10	U55000.037.0425	1/2-13X3.3/4*	5	U55000.050.0375
5/16-18X7/8 ft*	50	U55000.031.0087	3/8-16X4.1/2*	10	U55000.037.0450	1/2-13X4 Inch*	5	U55000.050.0400
5/16-18X1 Inch*	50	U55000.031.0100	3/8-16X4.3/4*	10	U55000.037.0475	1/2-13X4.1/4*	5	U55000.050.0425
5/16-18X1.1/4*	50	U55000.031.0125	3/8-16X5 Inch*	10	U55000.037.0500	1/2-13X4.1/2*	5	U55000.050.0450
5/16-18X1.1/2*	50	U55000.031.0150	3/8-16X5.1/2*	10	U55000.037.0550	1/2-13X4.3/4*	5	U55000.050.0475
5/16-18X1.3/4*	50	U55000.031.0175	3/8-16X5.3/4*	10	U55000.037.0575	1/2-13X5 Inch*	5	U55000.050.0500
5/16-18X2 Inch*	50	U55000.031.0200	3/8-16X6 Inch*	10	U55000.037.0600	1/2-13X5.1/2*	5	U55000.050.0550

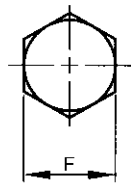
U55000 Parafuso cabeça sextavada UNC ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/2-13X6 Inch*	5	U55000.050.0600	3/4-10X1.1/4 ft*	5	U55000.075.0125	7/8-9X9 Inch*	1	U55000.087.0900
1/2-13X6.1/2*	5	U55000.050.0650	3/4-10X1.1/2 ft*	5	U55000.075.0150	7/8-9X10 Inch*	1	U55000.087.1000
1/2-13X7 Inch*	5	U55000.050.0700	3/4-10X1.3/4 ft*	5	U55000.075.0175			
1/2-13X7.1/2*	5	U55000.050.0750	3/4-10X2 Inch*	5	U55000.075.0200	1.-8X2 Inch ft*	5	U55000.100.0200
1/2-13X8 Inch*	5	U55000.050.0800	3/4-10X2.1/4*	5	U55000.075.0225	1.-8X2.1/4 ft*	5	U55000.100.0225
1/2-13X8.1/2*	1	U55000.050.0850	3/4-10X2.1/2*	5	U55000.075.0250	1.-8X2.1/2*	5	U55000.100.0250
1/2-13X9 Inch*	1	U55000.050.0900	3/4-10X2.3/4*	5	U55000.075.0275	1.-8X2.3/4*	5	U55000.100.0275
1/2-13X10 Inch*	1	U55000.050.1000	3/4-10X3 Inch*	5	U55000.075.0300	1.-8X3 Inch*	5	U55000.100.0300
1/2-13X11 Inch*	1	U55000.050.1100	3/4-10X3.1/4*	5	U55000.075.0325	1.-8X3.1/4*	5	U55000.100.0325
1/2-13X12 Inch*	1	U55000.050.1200	3/4-10X3.1/2*	5	U55000.075.0350	1.-8X3.1/2*	5	U55000.100.0350
			3/4-10X3.3/4*	5	U55000.075.0375	1.-8X3.3/4*	5	U55000.100.0375
5/8-11X1 Inch ft*	10	U55000.062.0100	3/4-10X4 Inch*	5	U55000.075.0400	1.-8X4 Inch*	5	U55000.100.0400
5/8-11X1.1/4 ft*	10	U55000.062.0125	3/4-10X4.1/4*	5	U55000.075.0425	1.-8X4.1/4*	5	U55000.100.0425
5/8-11X1.1/2 ft*	10	U55000.062.0150	3/4-10X4.1/2*	5	U55000.075.0450	1.-8X4.1/2*	5	U55000.100.0450
5/8-11X1.3/4*	10	U55000.062.0175	3/4-10X4.3/4*	5	U55000.075.0475	1.-8X5 Inch*	5	U55000.100.0500
5/8-11X2 Inch*	5	U55000.062.0200	3/4-10X5 Inch*	5	U55000.075.0500	1.-8X5.1/2*	5	U55000.100.0550
5/8-11X2.1/4*	5	U55000.062.0225	3/4-10X5.1/2*	5	U55000.075.0550	1.-8X6 Inch*	5	U55000.100.0600
5/8-11X2.1/2*	5	U55000.062.0250	3/4-10X6 Inch*	5	U55000.075.0600	1.-8X6.1/2*	1	U55000.100.0650
5/8-11X2.3/4*	5	U55000.062.0275	3/4-10X6.1/2*	5	U55000.075.0650	1.-8X7 Inch*	1	U55000.100.0700
5/8-11X3 Inch*	5	U55000.062.0300	3/4-10X7 Inch*	5	U55000.075.0700	1.-8X7.1/2*	1	U55000.100.0750
5/8-11X3.1/4*	5	U55000.062.0325	3/4-10X7.1/2*	5	U55000.075.0750	1.-8X8 Inch*	1	U55000.100.0800
5/8-11X3.1/2*	5	U55000.062.0350	3/4-10X8 Inch*	5	U55000.075.0800	1.-8X9 Inch*	1	U55000.100.0900
5/8-11X3.3/4*	5	U55000.062.0375				1.-8X10 Inch*	1	U55000.100.1000
5/8-11X4 Inch*	5	U55000.062.0400	7/8-9X1.1/2 ft*	5	U55000.087.0150			
5/8-11X4.1/4*	5	U55000.062.0425	7/8-9X1.3/4 ft*	5	U55000.087.0175	1.1/8-7X2.1/2 ft*	1	U55000.112.0250
5/8-11X4.1/2*	5	U55000.062.0450	7/8-9X2 Inch ft*	5	U55000.087.0200	1.1/8-7X3 Inch*	1	U55000.112.0300
5/8-11X4.3/4*	5	U55000.062.0475	7/8-9X2.1/4*	5	U55000.087.0225	1.1/8-7X3.1/2*	1	U55000.112.0350
5/8-11X5 Inch*	5	U55000.062.0500	7/8-9X2.1/2*	5	U55000.087.0250	1.1/8-7X4 Inch*	1	U55000.112.0400
5/8-11X51/4	5	U55000.062.0525	7/8-9X2.3/4*	5	U55000.087.0275	1.1/8-7X5 Inch*	1	U55000.112.0500
5/8-11X5.1/2*	5	U55000.062.0550	7/8-9X3 Inch*	5	U55000.087.0300	1.1/8-7X6 Inch*	1	U55000.112.0600
5/8-11X6 Inch*	5	U55000.062.0600	7/8-9X3.1/4*	5	U55000.087.0325	1.1/8-7X7 Inch*	1	U55000.112.0700
5/8-11X6.1/2*	5	U55000.062.0650	7/8-9X3.1/2*	5	U55000.087.0350	1.1/8-7X8 Inch*	1	U55000.112.0800
5/8-11X7 Inch*	5	U55000.062.0700	7/8-9X3.3/4*	5	U55000.087.0375			
5/8-11X7.1/2*	5	U55000.062.0750	7/8-9X4 Inch*	5	U55000.087.0400	1.1/4-7X2.1/2 ft*	1	U55000.125.0250
5/8-11X8 Inch*	5	U55000.062.0800	7/8-9X4.1/4*	5	U55000.087.0425	1.1/4-7X3 Inch*	1	U55000.125.0300
5/8-11X8.1/2*	1	U55000.062.0850	7/8-9X4.1/2*	5	U55000.087.0450	1.1/4-7X4 Inch*	1	U55000.125.0400
5/8-11X9 Inch*	1	U55000.062.0900	7/8-9X5 Inch*	5	U55000.087.0500	1.1/4-7X5 Inch*	1	U55000.125.0500
5/8-11X9.1/2*	1	U55000.062.0950	7/8-9X5.1/2*	5	U55000.087.0550	1.1/4-7X6 Inch*	1	U55000.125.0600
5/8-11X10 Inch*	1	U55000.062.1000	7/8-9X6 Inch*	5	U55000.087.0600	1.1/4-7X7 Inch*	1	U55000.125.0700
5/8-11X11 Inch*	1	U55000.062.1100	7/8-9X6.1/2*	5	U55000.087.0650	1.1/4-7X8 Inch*	1	U55000.125.0800
5/8-11X12 Inch*	1	U55000.062.1200	7/8-9X7 Inch*	5	U55000.087.0700	1.1/4-7X9 Inch*	1	U55000.125.0900
			7/8-9X7.1/2*	1	U55000.087.0750			
3/4-10X1 Inch ft	5	U55000.075.0100	7/8-9X8 Inch*	1	U55000.087.0800			

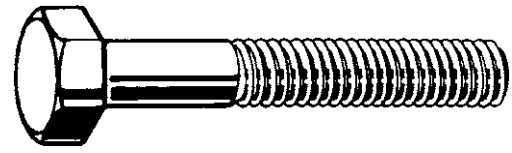
- ft = rosca total métrico

Parafuso cabeça sextavada UNF





ASME ≈B18.2.1
BS ≈1768



Dados técnicos

d	L_T (min.): L≤6 Inch	L_T (min.): L>6 Inch	F	Fios por polegada	H
1/4	0.75	1	7/16	28	5/32
5/16	0.875	1.125	1/2	24	13/64
3/8	1	1.25	9/16	24	15/64
7/16	1.125	1.375	5/8	20	9/32
1/2	1.25	1.50	3/4	20	5/16
9/16	1.375	1.625	13/16	18	23/64
5/8	1.5	1.75	15/16	18	25/64
3/4	1.75	2	1.1/8	16	15/32
7/8	2	2.25	1.5/16	14	35/64
1 Inch	2.25	2.5	1.1/2	12	39/64
1.1/8	2.5	2.75	1.11/16	12	11/16
1.1/4	2.75	3	1.7/8	12	25/32
1.1/2	3.25	3.5	2.1/4	12	15/46

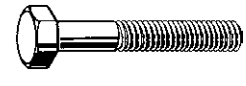
Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
UNF	Sextavado	Aço	Grade 5		U01060	1-52
UNF	Sextavado	Aço	Grade 5	Zn	U01062	1-53
UNF	Sextavado	Aço	Grade 8		U04160	1-54
UNF	Sextavado	Aço	Grade 8	Passiv. amar.	U04360	1-56
UNF	Sextavado	INOX A2 (AISI304/18-8)	F593		U51007	1-57

U01060 **Parafuso cabeça sextavada UNF** **X01A**

Rosca Unified National Fine
Material Aço
Classe Grade 5

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4-28X1/2 ft*	100	U01060.025.0050	5/16-24X1.1/4*	100	U01060.031.0125	3/8-24X3 Inch*	25	U01060.037.0300
1/4-28X5/8 ft*	100	U01060.025.0062	5/16-24X1.1/2*	100	U01060.031.0150	3/8-24X3.1/4*	25	U01060.037.0325
1/4-28X3/4 ft*	100	U01060.025.0075	5/16-24X1.3/4*	50	U01060.031.0175	3/8-24X3.1/2*	25	U01060.037.0350
1/4-28X7/8*	100	U01060.025.0087	5/16-24X2 Inch*	50	U01060.031.0200	3/8-24X3.3/4*	25	U01060.037.0375
1/4-28X1 Inch*	100	U01060.025.0100	5/16-24X2.1/4*	50	U01060.031.0225	3/8-24X4 Inch*	10	U01060.037.0400
1/4-28X1.1/4*	100	U01060.025.0125	5/16-24X2.1/2*	50	U01060.031.0250	3/8-24X4.1/4*	10	U01060.037.0425
1/4-28X1.3/8*	100	U01060.025.0137	5/16-24X2.3/4*	50	U01060.031.0275	3/8-24X4.1/2*	10	U01060.037.0450
1/4-28X1.1/2*	100	U01060.025.0150	5/16-24X3 Inch*	50	U01060.031.0300	3/8-24X4.3/4*	10	U01060.037.0475
1/4-28X1.3/4*	100	U01060.025.0175	5/16-24X3.1/4*	50	U01060.031.0325	3/8-24X5 Inch*	10	U01060.037.0500
1/4-28X2 Inch*	50	U01060.025.0200	5/16-24X3.1/2*	50	U01060.031.0350	3/8-24X5.1/4*	10	U01060.037.0525
1/4-28X2.1/4*	50	U01060.025.0225	5/16-24X3.3/4*	25	U01060.031.0375	3/8-24X5.1/2*	10	U01060.037.0550
1/4-28X2.1/2*	50	U01060.025.0250	5/16-24X4 Inch*	25	U01060.031.0400	3/8-24X5.3/4*	10	U01060.037.0575
1/4-28X2.3/4*	50	U01060.025.0275	5/16-24X4.1/2*	25	U01060.031.0450	3/8-24X6 Inch*	10	U01060.037.0600
1/4-28X3 Inch*	50	U01060.025.0300	5/16-24X5 Inch*	25	U01060.031.0500	3/8-24X6.1/2*	10	U01060.037.0650
1/4-28X3.1/4*	50	U01060.025.0325	5/16-24X5.1/2*	25	U01060.031.0550	3/8-24X8 Inch*	5	U01060.037.0800
1/4-28X3.1/2*	50	U01060.025.0350	5/16-24X6 Inch*	25	U01060.031.0600	3/8-24X10 Inch*	5	U01060.037.1000
1/4-28X3.3/4*	50	U01060.025.0375	5/16-24X7 Inch*	10	U01060.031.0700			
1/4-28X4 Inch*	25	U01060.025.0400				7/16-20X3/4 ft*	25	U01060.043.0075
1/4-28X4.1/2*	25	U01060.025.0450	3/8-24X1/2 ft*	50	U01060.037.0050	7/16-20X7/8 ft*	25	U01060.043.0087
1/4-28X5 Inch*	25	U01060.025.0500	3/8-24X5/8 ft*	50	U01060.037.0062	7/16-20X1 Inch ft*	25	U01060.043.0100
1/4-28X5.1/2*	25	U01060.025.0550	3/8-24X3/4 ft*	50	U01060.037.0075	7/16-20X1.1/4*	25	U01060.043.0125
1/4-28X6 Inch*	25	U01060.025.0600	3/8-24X7/8 ft*	50	U01060.037.0087	7/16-20X1.1/2*	25	U01060.043.0150
1/4-28X7 Inch*	10	U01060.025.0700	3/8-24X1 Inch ft*	50	U01060.037.0100	7/16-20X1.3/4*	25	U01060.043.0175
1/4-28X8 Inch*	5	U01060.025.0800	3/8-24X1.1/4*	50	U01060.037.0125	7/16-20X2 Inch*	25	U01060.043.0200
			3/8-24X1.1/2*	50	U01060.037.0150	7/16-20X2.1/4*	10	U01060.043.0225
5/16-24X1/2 ft*	100	U01060.031.0050	3/8-24X1.3/4*	50	U01060.037.0175	7/16-20X2.1/2*	10	U01060.043.0250
5/16-24X5/8 ft*	100	U01060.031.0062	3/8-24X2 Inch*	25	U01060.037.0200	7/16-20X2.3/4*	10	U01060.043.0275
5/16-24X3/4 ft*	100	U01060.031.0075	3/8-24X2.1/4*	25	U01060.037.0225	7/16-20X3 Inch*	10	U01060.043.0300
5/16-24X7/8 ft*	100	U01060.031.0087	3/8-24X2.1/2*	25	U01060.037.0250	7/16-20X3.1/4*	10	U01060.043.0325
5/16-24X1 Inch*	100	U01060.031.0100	3/8-24X2.3/4*	25	U01060.037.0275	7/16-20X3.1/2*	10	U01060.043.0350

U01060 Parafuso cabeça sextavada UNF ←

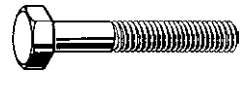
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
7/16-20X3.3/4*	10	U01060.043.0375	5/8-18X1.1/4 ft*	10	U01060.062.0125	7/8-14X2.3/4*	5	U01060.087.0275
7/16-20X4 Inch*	10	U01060.043.0400	5/8-18X1.1/2 ft*	10	U01060.062.0150	7/8-14X3 Inch*	5	U01060.087.0300
7/16-20X4.1/2*	10	U01060.043.0450	5/8-18X1.3/4*	10	U01060.062.0175	7/8-14X3.1/4*	5	U01060.087.0325
7/16-20X5 Inch*	10	U01060.043.0500	5/8-18X2 Inch*	5	U01060.062.0200	7/8-14X3.1/2*	5	U01060.087.0350
7/16-20X5.1/2*	10	U01060.043.0550	5/8-18X2.1/4*	5	U01060.062.0225	7/8-14X3.3/4*	5	U01060.087.0375
7/16-20X6 Inch*	5	U01060.043.0600	5/8-18X2.1/2*	5	U01060.062.0250	7/8-14X4 Inch*	5	U01060.087.0400
7/16-20X6.1/2*	5	U01060.043.0650	5/8-18X2.3/4*	5	U01060.062.0275	7/8-14X4.1/2*	5	U01060.087.0450
7/16-20X8 Inch*	5	U01060.043.0800	5/8-18X3 Inch*	5	U01060.062.0300	7/8-14X5 Inch*	5	U01060.087.0500
			5/8-18X3.1/4*	5	U01060.062.0325	7/8-14X5.1/2*	5	U01060.087.0550
1/2-20X3/4 ft*	25	U01060.050.0075	5/8-18X3.1/2*	5	U01060.062.0350	7/8-14X6 Inch*	1	U01060.087.0600
1/2-20X7/8 ft*	25	U01060.050.0087	5/8-18X3.3/4*	5	U01060.062.0375	7/8-14X6.1/2*	1	U01060.087.0650
1/2-20X1 Inch ft*	25	U01060.050.0100	5/8-18X4 Inch*	5	U01060.062.0400	7/8-14X7 Inch*	1	U01060.087.0700
1/2-20X1.1/4 ft*	25	U01060.050.0125	5/8-18X4.1/4*	5	U01060.062.0425	7/8-14X7.1/2*	1	U01060.087.0750
1/2-20X1.1/2*	25	U01060.050.0150	5/8-18X4.1/2*	5	U01060.062.0450			
1/2-20X1.3/4*	25	U01060.050.0175	5/8-18X4.3/4*	5	U01060.062.0475	1.-14X1.1/2*	5	U01060.101.0150
1/2-20X2 Inch*	10	U01060.050.0200	5/8-18X5 Inch*	5	U01060.062.0500	1.-14X1.3/4*	5	U01060.101.0175
1/2-20X2.1/4*	10	U01060.050.0225	5/8-18X5.1/2*	5	U01060.062.0550	1.-14X2 Inch*	5	U01060.101.0200
1/2-20X2.1/2*	10	U01060.050.0250	5/8-18X6 Inch*	5	U01060.062.0600	1.-14X2.1/4*	5	U01060.101.0225
1/2-20X2.3/4*	10	U01060.050.0275	5/8-18X6.1/2*	5	U01060.062.0650	1.-14X2.1/2*	5	U01060.101.0250
1/2-20X3 Inch*	10	U01060.050.0300	5/8-18X7 Inch*	5	U01060.062.0700	1.-14X2.3/4*	5	U01060.101.0275
1/2-20X3.1/4*	10	U01060.050.0325	5/8-18X7.1/2*	5	U01060.062.0750	1.-14X3 Inch*	5	U01060.101.0300
1/2-20X3.1/2*	10	U01060.050.0350	5/8-18X8 Inch*	5	U01060.062.0800	1.-14X3.1/4*	5	U01060.101.0325
1/2-20X3.3/4*	10	U01060.050.0375	5/8-18X9 Inch*	5	U01060.062.0900	1.-14X3.1/2*	5	U01060.101.0350
1/2-20X4 Inch*	5	U01060.050.0400	5/8-18X10 Inch*	5	U01060.062.1000	1.-14X3.3/4*	5	U01060.101.0375
1/2-20X4.1/4*	5	U01060.050.0425	5/8-18X12 Inch*	5	U01060.062.1200	1.-14X4 Inch*	5	U01060.101.0400
1/2-20X4.1/2*	5	U01060.050.0450				1.-14X4.1/2*	5	U01060.101.0450
1/2-20X4.3/4*	5	U01060.050.0475	3/4-16X1 Inch ft*	10	U01060.075.0100	1.-14X5 Inch*	5	U01060.101.0500
1/2-20X5 Inch*	5	U01060.050.0500	3/4-16X1.1/4 ft*	10	U01060.075.0125	1.-14X5.1/2*	5	U01060.101.0550
1/2-20X5.1/2*	5	U01060.050.0550	3/4-16X1.1/2 ft*	10	U01060.075.0150	1.-14X6 Inch*	1	U01060.101.0600
1/2-20X6 Inch*	5	U01060.050.0600	3/4-16X1.3/4 ft*	10	U01060.075.0175	1.-14X7 Inch*	1	U01060.101.0700
1/2-20X6.1/2*	5	U01060.050.0650	3/4-16X2 Inch*	5	U01060.075.0200	1.-14X8 Inch*	1	U01060.101.0800
1/2-20X7 Inch*	5	U01060.050.0700	3/4-16X2.1/4*	5	U01060.075.0225			
1/2-20X7.1/2*	5	U01060.050.0750	3/4-16X2.1/2*	5	U01060.075.0250	1.1/8-12X3.1/2*	1	U01060.112.0350
1/2-20X8 Inch*	5	U01060.050.0800	3/4-16X2.3/4*	5	U01060.075.0275	1.1/8-12X4.1/2*	1	U01060.112.0450
1/2-20X10 Inch*	5	U01060.050.1000	3/4-16X3 Inch*	5	U01060.075.0300	1.1/8-12X7 Inch*	1	U01060.112.0700
1/2-20X12 Inch*	5	U01060.050.1200	3/4-16X3.1/4*	5	U01060.075.0325	1.1/8-12X8 Inch*	1	U01060.112.0800
			3/4-16X3.1/2*	5	U01060.075.0350			
9/16-18X1 Inch ft*	25	U01060.056.0100	3/4-16X3.3/4*	5	U01060.075.0375	1.1/4-12X2 Inch ft*	1	U01060.125.0200
9/16-18X1.1/4 ft*	25	U01060.056.0125	3/4-16X4 Inch*	5	U01060.075.0400	1.1/4-12X3 Inch*	1	U01060.125.0300
9/16-18X1.1/2*	25	U01060.056.0150	3/4-16X4.1/4*	5	U01060.075.0425	1.1/4-12X3.1/2*	1	U01060.125.0350
9/16-18X1.3/4*	10	U01060.056.0175	3/4-16X4.1/2*	5	U01060.075.0450	1.1/4-12X4 Inch*	1	U01060.125.0400
9/16-18X2 Inch*	10	U01060.056.0200	3/4-16X4.3/4*	5	U01060.075.0475	1.1/4-12X4.1/2*	1	U01060.125.0450
9/16-18X2.1/4*	10	U01060.056.0225	3/4-16X5 Inch*	5	U01060.075.0500	1.1/4-12X5 Inch*	1	U01060.125.0500
9/16-18X2.1/2*	10	U01060.056.0250	3/4-16X5.1/2*	5	U01060.075.0550	1.1/4-12X5.1/2*	1	U01060.125.0550
9/16-18X2.3/4*	10	U01060.056.0275	3/4-16X6 Inch*	5	U01060.075.0600	1.1/4-12X6 Inch*	1	U01060.125.0600
9/16-18X3 Inch*	10	U01060.056.0300	3/4-16X6.1/2*	1	U01060.075.0650	1.1/4-12X7 Inch*	1	U01060.125.0700
9/16-18X3.1/4*	10	U01060.056.0325	3/4-16X7 Inch*	5	U01060.075.0700	1.1/4-12X8 Inch*	1	U01060.125.0800
9/16-18X3.1/2*	10	U01060.056.0350	3/4-16X8 Inch*	1	U01060.075.0800	1.1/4-12X9 Inch*	1	U01060.125.0900
9/16-18X3.3/4*	10	U01060.056.0375	3/4-16X9 Inch*	5	U01060.075.0900			
9/16-18X4 Inch*	5	U01060.056.0400	3/4-16X10 Inch*	1	U01060.075.1000	1.1/2-12X3 Inch ft*	1	U01060.150.0300
9/16-18X4.1/2*	5	U01060.056.0450				1.1/2-12X4 Inch*	1	U01060.150.0400
9/16-18X5 Inch*	5	U01060.056.0500	7/8-14X1.1/2 ft*	5	U01060.087.0150	1.1/2-12X5 Inch*	1	U01060.150.0500
9/16-18X5.1/2*	5	U01060.056.0550	7/8-14X1.3/4 ft*	5	U01060.087.0175	1.1/2-12X6 Inch*	1	U01060.150.0600
9/16-18X6 Inch*	5	U01060.056.0600	7/8-14X2 Inch ft*	5	U01060.087.0200	1.1/2-12X7 Inch*	1	U01060.150.0700
			7/8-14X2.1/4*	5	U01060.087.0225	1.1/2-12X10 Inch*	1	U01060.150.1000
5/8-18X1 Inch ft*	10	U01060.062.0100	7/8-14X2.1/2*	5	U01060.087.0250			

- ft = rosca total métrico

U01062 Parafuso cabeça sextavada UNF X01A

Rosca Unified National Fine
Material Aço
Classe Grade 5
Tratamento sup. Zincado

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4-28X1/2 ft*	100	U01062.025.0050	1/4-28X3 Inch*	50	U01062.025.0300	5/16-24X3/4 ft*	100	U01062.031.0075
1/4-28X5/8 ft*	100	U01062.025.0062	1/4-28X3.1/4*	50	U01062.025.0325	5/16-24X1 Inch*	100	U01062.031.0100
1/4-28X3/4 ft*	100	U01062.025.0075	1/4-28X3.1/2*	50	U01062.025.0350	5/16-24X1.1/4*	100	U01062.031.0125
1/4-28X7/8*	100	U01062.025.0087	1/4-28X3.3/4*	50	U01062.025.0375	5/16-24X1.1/2*	100	U01062.031.0150
1/4-28X1 Inch*	100	U01062.025.0100	1/4-28X4 Inch*	25	U01062.025.0400	5/16-24X1.3/4*	50	U01062.031.0175
1/4-28X1.1/4*	100	U01062.025.0125	1/4-28X4.1/2*	25	U01062.025.0450	5/16-24X2 Inch*	50	U01062.031.0200
1/4-28X1.3/8*	100	U01062.025.0137	1/4-28X5 Inch*	25	U01062.025.0500	5/16-24X2.1/4*	50	U01062.031.0225
1/4-28X1.1/2*	100	U01062.025.0150	1/4-28X5.1/2*	25	U01062.025.0550	5/16-24X2.1/2*	50	U01062.031.0250
1/4-28X1.3/4*	100	U01062.025.0175	1/4-28X6 Inch*	25	U01062.025.0600	5/16-24X2.3/4*	50	U01062.031.0275
1/4-28X2 Inch*	50	U01062.025.0200	1/4-28X7 Inch*	10	U01062.025.0700	5/16-24X3 Inch*	50	U01062.031.0300
1/4-28X2.1/4*	50	U01062.025.0225				5/16-24X3.1/2*	50	U01062.031.0350
1/4-28X2.1/2*	50	U01062.025.0250	5/16-24X1/2 ft*	100	U01062.031.0050	5/16-24X4 Inch*	25	U01062.031.0400
1/4-28X2.3/4*	50	U01062.025.0275	5/16-24X5/8 ft*	100	U01062.031.0062	5/16-24X4.1/2*	25	U01062.031.0450

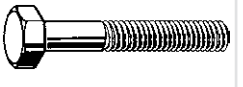
U01062 Parafuso cabeça sextavada UNF

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
5/16-24X5 Inch*	25	U01062.031.0500	1/2-20X3/4 ft*	25	U01062.050.0075	5/8-18X4.3/4*	5	U01062.062.0475
5/16-24X5.1/2*	25	U01062.031.0550	1/2-20X1 Inch ft*	25	U01062.050.0100	5/8-18X5 Inch*	5	U01062.062.0500
5/16-24X6 Inch*	25	U01062.031.0600	1/2-20X1.1/4 ft*	25	U01062.050.0125	5/8-18X5.1/2*	5	U01062.062.0550
			1/2-20X1.1/2*	25	U01062.050.0150	5/8-18X6 Inch*	5	U01062.062.0600
3/8-24X1/2 ft*	50	U01062.037.0050	1/2-20X2 Inch*	10	U01062.050.0200	5/8-18X7 Inch*	5	U01062.062.0700
3/8-24X5/8 ft*	50	U01062.037.0062	1/2-20X2.1/4*	10	U01062.050.0225	5/8-18X8 Inch*	5	U01062.062.0800
3/8-24X3/4 ft*	50	U01062.037.0075	1/2-20X2.1/2*	10	U01062.050.0250	5/8-18X8.1/2*	5	U01062.062.0850
3/8-24X7/8 ft*	50	U01062.037.0087	1/2-20X2.3/4*	10	U01062.050.0275	5/8-18X9 Inch*	5	U01062.062.0900
3/8-24X1 Inch ft*	50	U01062.037.0100	1/2-20X3 Inch*	10	U01062.050.0300	5/8-18X10 Inch*	5	U01062.062.1000
3/8-24X1.1/4*	50	U01062.037.0125	1/2-20X3.1/2*	10	U01062.050.0350			
3/8-24X1.1/2*	50	U01062.037.0150	1/2-20X4 Inch*	5	U01062.050.0400	3/4-16X1 Inch ft*	10	U01062.075.0100
3/8-24X1.3/4*	50	U01062.037.0175	1/2-20X4.1/4*	5	U01062.050.0425	3/4-16X1.1/2 ft*	10	U01062.075.0150
3/8-24X2 Inch*	25	U01062.037.0200	1/2-20X4.1/2*	5	U01062.050.0450	3/4-16X2 Inch*	5	U01062.075.0200
3/8-24X2.1/4*	25	U01062.037.0225	1/2-20X4.3/4*	5	U01062.050.0475	3/4-16X2.1/4*	5	U01062.075.0225
3/8-24X2.1/2*	25	U01062.037.0250	1/2-20X5 Inch*	5	U01062.050.0500	3/4-16X2.1/2*	5	U01062.075.0250
3/8-24X2.3/4*	25	U01062.037.0275	1/2-20X5.1/2*	5	U01062.050.0550	3/4-16X2.3/4*	5	U01062.075.0275
3/8-24X3 Inch*	25	U01062.037.0300	1/2-20X6 Inch*	5	U01062.050.0600	3/4-16X3 Inch*	5	U01062.075.0300
3/8-24X3.1/2*	25	U01062.037.0350	1/2-20X7 Inch*	5	U01062.050.0700	3/4-16X3.1/2*	5	U01062.075.0350
3/8-24X4 Inch*	10	U01062.037.0400	1/2-20X8 Inch*	5	U01062.050.0800	3/4-16X4 Inch*	5	U01062.075.0400
3/8-24X4.1/4*	10	U01062.037.0425	1/2-20X10 Inch*	5	U01062.050.1000	3/4-16X4.1/4*	5	U01062.075.0425
3/8-24X4.1/2*	10	U01062.037.0450	1/2-20X12 Inch*	5	U01062.050.1200	3/4-16X4.1/2*	5	U01062.075.0450
3/8-24X4.3/4*	10	U01062.037.0475				3/4-16X4.3/4*	5	U01062.075.0475
3/8-24X5 Inch*	10	U01062.037.0500	9/16-18X1 Inch ft*	25	U01062.056.0100	3/4-16X5 Inch*	5	U01062.075.0500
3/8-24X5.1/4*	10	U01062.037.0525	9/16-18X1.1/2*	25	U01062.056.0150	3/4-16X5.1/2*	5	U01062.075.0550
3/8-24X5.1/2*	10	U01062.037.0550	9/16-18X1.3/4*	10	U01062.056.0175	3/4-16X6 Inch*	5	U01062.075.0600
3/8-24X5.3/4*	10	U01062.037.0575	9/16-18X2 Inch*	10	U01062.056.0200	3/4-16X6.1/2*	1	U01062.075.0650
3/8-24X6 Inch*	10	U01062.037.0600	9/16-18X2.1/2*	10	U01062.056.0250	3/4-16X8 Inch*	1	U01062.075.0800
3/8-24X6.1/2*	10	U01062.037.0650	9/16-18X3 Inch*	10	U01062.056.0300			
3/8-24X8 Inch*	5	U01062.037.0800	9/16-18X3.1/2*	10	U01062.056.0350	7/8-14X2 Inch ft*	5	U01062.087.0200
3/8-24X10 Inch*	5	U01062.037.1000	9/16-18X4 Inch*	5	U01062.056.0400	7/8-14X2.1/2*	5	U01062.087.0250
			9/16-18X4.1/2*	5	U01062.056.0450	7/8-14X3 Inch*	5	U01062.087.0300
7/16-20X3/4 ft*	25	U01062.043.0075	9/16-18X5 Inch*	5	U01062.056.0500	7/8-14X3.1/2*	5	U01062.087.0350
7/16-20X1 Inch ft*	25	U01062.043.0100	9/16-18X6 Inch*	5	U01062.056.0600	7/8-14X4 Inch*	5	U01062.087.0400
7/16-20X1.1/4*	25	U01062.043.0125				7/8-14X5 Inch*	5	U01062.087.0500
7/16-20X1.1/2*	25	U01062.043.0150	5/8-18X1 Inch ft*	10	U01062.062.0100	7/8-14X5.1/2*	5	U01062.087.0550
7/16-20X1.3/4*	25	U01062.043.0175	5/8-18X1.1/2 ft*	10	U01062.062.0150	7/8-14X6 Inch*	1	U01062.087.0600
7/16-20X2 Inch*	25	U01062.043.0200	5/8-18X1.3/4*	10	U01062.062.0175	7/8-14X7 Inch*	1	U01062.087.0700
7/16-20X2.1/4*	10	U01062.043.0225	5/8-18X2 Inch*	5	U01062.062.0200	7/8-14X8 Inch*	1	U01062.087.0800
7/16-20X2.1/2*	10	U01062.043.0250	5/8-18X2.1/4*	5	U01062.062.0225			
7/16-20X3 Inch*	10	U01062.043.0300	5/8-18X2.1/2*	5	U01062.062.0250	1.-14X2 Inch ft*	5	U01062.101.0200
7/16-20X3.1/2*	10	U01062.043.0350	5/8-18X2.3/4*	5	U01062.062.0275	1.-14X3.1/2*	5	U01062.101.0350
7/16-20X4 Inch*	10	U01062.043.0400	5/8-18X3 Inch*	5	U01062.062.0300	1.-14X4 Inch*	5	U01062.101.0400
7/16-20X4.1/2*	10	U01062.043.0450	5/8-18X3.1/4*	5	U01062.062.0325	1.-14X5 Inch*	5	U01062.101.0500
7/16-20X5 Inch*	10	U01062.043.0500	5/8-18X3.1/2*	5	U01062.062.0350	1.-14X6 Inch*	1	U01062.101.0600
7/16-20X5.1/2*	10	U01062.043.0550	5/8-18X4 Inch*	5	U01062.062.0400	1.-14X8 Inch*	1	U01062.101.0800
7/16-20X6 Inch*	5	U01062.043.0600	5/8-18X4.1/4*	5	U01062.062.0425			
			5/8-18X4.1/2*	5	U01062.062.0450			

- ft = rosca total métrico

U04160 Parafuso cabeça sextavada UNF X01A

Rosca Unified National Fine
Material Aço
Classe Grade 8



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4-28X1/2 ft*	100	U04160.025.0050	1/4-28X7 Inch*	10	U04160.025.0700	5/16-24X6 Inch*	25	U04160.031.0600
1/4-28X5/8 ft*	100	U04160.025.0062				5/16-24X7 Inch*	10	U04160.031.0700
1/4-28X3/4 ft*	100	U04160.025.0075	5/16-24X1/2 ft*	100	U04160.031.0050			
1/4-28X7/8*	100	U04160.025.0087	5/16-24X5/8 ft*	100	U04160.031.0062	3/8-24X1/2 ft*	50	U04160.037.0050
1/4-28X1 Inch*	100	U04160.025.0100	5/16-24X3/4 ft*	100	U04160.031.0075	3/8-24X5/8 ft*	50	U04160.037.0062
1/4-28X1.1/4*	100	U04160.025.0125	5/16-24X7/8 ft*	100	U04160.031.0087	3/8-24X3/4 ft*	50	U04160.037.0075
1/4-28X1.3/8*	100	U04160.025.0137	5/16-24X1 Inch*	100	U04160.031.0100	3/8-24X7/8 ft*	50	U04160.037.0087
1/4-28X1.1/2*	100	U04160.025.0150	5/16-24X1.1/4*	100	U04160.031.0125	3/8-24X1 Inch ft*	50	U04160.037.0100
1/4-28X1.3/4*	100	U04160.025.0175	5/16-24X1.1/2*	100	U04160.031.0150	3/8-24X1.1/4*	50	U04160.037.0125
1/4-28X2 Inch*	50	U04160.025.0200	5/16-24X1.3/4*	50	U04160.031.0175	3/8-24X1.1/2*	50	U04160.037.0150
1/4-28X2.1/4*	50	U04160.025.0225	5/16-24X2 Inch*	50	U04160.031.0200	3/8-24X1.3/4*	50	U04160.037.0175
1/4-28X2.1/2*	50	U04160.025.0250	5/16-24X2.1/4*	50	U04160.031.0225	3/8-24X2 Inch*	25	U04160.037.0200
1/4-28X2.3/4*	50	U04160.025.0275	5/16-24X2.1/2*	50	U04160.031.0250	3/8-24X2.1/4*	25	U04160.037.0225
1/4-28X3 Inch*	50	U04160.025.0300	5/16-24X2.3/4*	50	U04160.031.0275	3/8-24X2.1/2*	25	U04160.037.0250
1/4-28X3.1/4*	50	U04160.025.0325	5/16-24X3 Inch*	50	U04160.031.0300	3/8-24X2.3/4*	25	U04160.037.0275
1/4-28X3.1/2*	50	U04160.025.0350	5/16-24X3.1/4*	50	U04160.031.0325	3/8-24X3 Inch*	25	U04160.037.0300
1/4-28X3.3/4*	50	U04160.025.0375	5/16-24X3.1/2*	50	U04160.031.0350	3/8-24X3.1/4*	25	U04160.037.0325
1/4-28X4 Inch*	25	U04160.025.0400	5/16-24X3.3/4*	25	U04160.031.0375	3/8-24X3.1/2*	25	U04160.037.0350
1/4-28X4.1/2*	25	U04160.025.0450	5/16-24X4 Inch*	25	U04160.031.0400	3/8-24X3.3/4*	25	U04160.037.0375
1/4-28X5 Inch*	25	U04160.025.0500	5/16-24X4.1/2*	25	U04160.031.0450	3/8-24X4 Inch*	10	U04160.037.0400
1/4-28X5.1/2*	25	U04160.025.0550	5/16-24X5 Inch*	25	U04160.031.0500	3/8-24X4.1/4*	10	U04160.037.0425
1/4-28X6 Inch*	25	U04160.025.0600	5/16-24X5.1/2*	25	U04160.031.0550	3/8-24X4.1/2*	10	U04160.037.0450

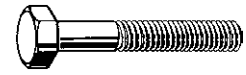
U04160 Parafuso cabeça sextavada UNF ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3/8-24X4.3/4*	10	U04160.037.0475	9/16-18X5.1/2*	5	U04160.056.0550	7/8-14X4 Inch*	5	U04160.087.0400
3/8-24X5 Inch*	10	U04160.037.0500	9/16-18X6 Inch*	5	U04160.056.0600	7/8-14X4.1/2*	5	U04160.087.0450
3/8-24X5.1/4*	10	U04160.037.0525				7/8-14X5 Inch*	5	U04160.087.0500
3/8-24X5.1/2*	10	U04160.037.0550	5/8-18X1 Inch ft*	10	U04160.062.0100	7/8-14X5.1/2*	5	U04160.087.0550
3/8-24X5.3/4*	10	U04160.037.0575	5/8-18X1.1/4 ft*	10	U04160.062.0125	7/8-14X6 Inch*	1	U04160.087.0600
3/8-24X6 Inch*	10	U04160.037.0600	5/8-18X1.1/2 ft*	10	U04160.062.0150	7/8-14X6.1/2*	1	U04160.087.0650
3/8-24X6.1/2*	10	U04160.037.0650	5/8-18X1.3/4*	10	U04160.062.0175	7/8-14X7 Inch*	1	U04160.087.0700
3/8-24X8 Inch*	5	U04160.037.0800	5/8-18X2 Inch*	5	U04160.062.0200	7/8-14X7.1/2*	1	U04160.087.0750
3/8-24X10 Inch*	5	U04160.037.1000	5/8-18X2.1/4*	5	U04160.062.0225	7/8-14X8 Inch*	1	U04160.087.0800
			5/8-18X2.1/2*	5	U04160.062.0250	7/8-14X8.1/2*	1	U04160.087.0850
7/16-20X3/4 ft*	25	U04160.043.0075	5/8-18X2.3/4*	5	U04160.062.0275	7/8-14X9 Inch*	1	U04160.087.0900
7/16-20X1 Inch ft*	25	U04160.043.0100	5/8-18X3 Inch*	5	U04160.062.0300	7/8-14X10 Inch*	1	U04160.087.1000
7/16-20X1.1/4*	25	U04160.043.0125	5/8-18X3.1/4*	5	U04160.062.0325			
7/16-20X1.1/2*	25	U04160.043.0150	5/8-18X3.1/2*	5	U04160.062.0350	1.-14X1.1/2 ft*	5	U04160.101.0150
7/16-20X1.3/4*	25	U04160.043.0175	5/8-18X3.3/4*	5	U04160.062.0375	1.-14X1.3/4 ft*	5	U04160.101.0175
7/16-20X2 Inch*	25	U04160.043.0200	5/8-18X4 Inch*	5	U04160.062.0400	1.-14X2 Inch ft*	5	U04160.101.0200
7/16-20X2.1/4*	10	U04160.043.0225	5/8-18X4.1/4*	5	U04160.062.0425	1.-14X2.1/4 ft*	5	U04160.101.0225
7/16-20X2.1/2*	10	U04160.043.0250	5/8-18X4.1/2*	5	U04160.062.0450	1.-14X2.1/2*	5	U04160.101.0250
7/16-20X2.3/4*	10	U04160.043.0275	5/8-18X4.3/4*	5	U04160.062.0475	1.-14X2.3/4*	5	U04160.101.0275
7/16-20X3 Inch*	10	U04160.043.0300	5/8-18X5 Inch*	5	U04160.062.0500	1.-14X3 Inch*	5	U04160.101.0300
7/16-20X3.1/4*	10	U04160.043.0325	5/8-18X5.1/2*	5	U04160.062.0550	1.-14X3.1/4*	5	U04160.101.0325
7/16-20X3.1/2*	10	U04160.043.0350	5/8-18X6 Inch*	5	U04160.062.0600	1.-14X3.1/2*	5	U04160.101.0350
7/16-20X3.3/4*	10	U04160.043.0375	5/8-18X6.1/2*	5	U04160.062.0650	1.-14X3.3/4*	5	U04160.101.0375
7/16-20X4 Inch*	10	U04160.043.0400	5/8-18X7 Inch*	5	U04160.062.0700	1.-14X4 Inch*	5	U04160.101.0400
7/16-20X4.1/2*	10	U04160.043.0450	5/8-18X7.1/2*	5	U04160.062.0750	1.-14X4.1/2*	5	U04160.101.0450
7/16-20X5 Inch*	10	U04160.043.0500	5/8-18X8 Inch*	5	U04160.062.0800	1.-14X5 Inch*	5	U04160.101.0500
7/16-20X5.1/2*	10	U04160.043.0550	5/8-18X8.1/2*	5	U04160.062.0850	1.-14X5.1/2*	5	U04160.101.0550
7/16-20X6 Inch*	5	U04160.043.0600	5/8-18X9 Inch*	5	U04160.062.0900	1.-14X6 Inch*	1	U04160.101.0600
			5/8-18X9.1/2*	5	U04160.062.0950	1.-14X6.1/2*	1	U04160.101.0650
1/2-20X3/4 ft*	25	U04160.050.0075	5/8-18X10 Inch*	5	U04160.062.1000	1.-14X7 Inch*	1	U04160.101.0700
1/2-20X1 Inch ft*	25	U04160.050.0100	5/8-18X11 Inch*	5	U04160.062.1100	1.-14X7.1/2*	1	U04160.101.0750
1/2-20X1.1/4 ft*	25	U04160.050.0125	5/8-18X12 Inch*	5	U04160.062.1200	1.-14X8 Inch*	1	U04160.101.0800
1/2-20X1.1/2*	25	U04160.050.0150				1.-14X8.1/2*	1	U04160.101.0850
1/2-20X1.3/4*	25	U04160.050.0175	3/4-16X1 Inch ft*	10	U04160.075.0100	1.-14X9 Inch*	1	U04160.101.0900
1/2-20X2 Inch*	10	U04160.050.0200	3/4-16X1.1/4 ft*	10	U04160.075.0125	1.-14X9.1/2*	1	U04160.101.0950
1/2-20X2.1/4*	10	U04160.050.0225	3/4-16X1.1/2 ft*	10	U04160.075.0150	1.-14X10 Inch*	1	U04160.101.1000
1/2-20X2.1/2*	10	U04160.050.0250	3/4-16X1.3/4 ft*	10	U04160.075.0175			
1/2-20X2.3/4*	10	U04160.050.0275	3/4-16X2 Inch*	5	U04160.075.0200	1.1/8-12X2.1/2 ft*	1	U04160.112.0250
1/2-20X3 Inch*	10	U04160.050.0300	3/4-16X2.1/4*	5	U04160.075.0225	1.1/8-12X3 Inch*	1	U04160.112.0300
1/2-20X3.1/4*	10	U04160.050.0325	3/4-16X2.1/2*	5	U04160.075.0250	1.1/8-12X3.1/2*	1	U04160.112.0350
1/2-20X3.1/2*	10	U04160.050.0350	3/4-16X2.3/4*	5	U04160.075.0275	1.1/8-12X4 Inch*	1	U04160.112.0400
1/2-20X3.3/4*	10	U04160.050.0375	3/4-16X3 Inch*	5	U04160.075.0300	1.1/8-12X4.1/2*	1	U04160.112.0450
1/2-20X4 Inch*	5	U04160.050.0400	3/4-16X3.1/4*	5	U04160.075.0325	1.1/8-12X5 Inch*	1	U04160.112.0500
1/2-20X4.1/4*	5	U04160.050.0425	3/4-16X3.1/2*	5	U04160.075.0350	1.1/8-12X5.1/2*	1	U04160.112.0550
1/2-20X4.1/2*	5	U04160.050.0450	3/4-16X3.3/4*	5	U04160.075.0375	1.1/8-12X6 Inch*	1	U04160.112.0600
1/2-20X4.3/4*	5	U04160.050.0475	3/4-16X4 Inch*	5	U04160.075.0400	1.1/8-12X7 Inch*	1	U04160.112.0700
1/2-20X5 Inch*	5	U04160.050.0500	3/4-16X4.1/4*	5	U04160.075.0425	1.1/8-12X8 Inch*	1	U04160.112.0800
1/2-20X5.1/2*	5	U04160.050.0550	3/4-16X4.1/2*	5	U04160.075.0450	1.1/8-12X10 Inch*	1	U04160.112.1000
1/2-20X6 Inch*	5	U04160.050.0600	3/4-16X4.3/4*	5	U04160.075.0475			
1/2-20X6.1/2*	5	U04160.050.0650	3/4-16X5 Inch*	5	U04160.075.0500	1.1/4-12X2 Inch ft*	1	U04160.125.0200
1/2-20X7 Inch*	5	U04160.050.0700	3/4-16X5.1/2*	5	U04160.075.0550	1.1/4-12X3 Inch*	1	U04160.125.0300
1/2-20X7.1/2*	5	U04160.050.0750	3/4-16X6 Inch*	5	U04160.075.0600	1.1/4-12X3.1/2*	1	U04160.125.0350
1/2-20X8 Inch*	5	U04160.050.0800	3/4-16X6.1/2*	1	U04160.075.0650	1.1/4-12X4 Inch*	1	U04160.125.0400
1/2-20X8.1/2*	5	U04160.050.0850	3/4-16X7 Inch*	1	U04160.075.0700	1.1/4-12X4.1/2*	1	U04160.125.0450
1/2-20X10 Inch*	5	U04160.050.1000	3/4-16X7.1/2*	1	U04160.075.0750	1.1/4-12X5 Inch*	1	U04160.125.0500
1/2-20X12 Inch*	5	U04160.050.1200	3/4-16X8 Inch*	1	U04160.075.0800	1.1/4-12X5.1/2*	1	U04160.125.0550
			3/4-16X8.1/2*	1	U04160.075.0850	1.1/4-12X6 Inch*	1	U04160.125.0600
9/16-18X1 Inch ft*	25	U04160.056.0100	3/4-16X9 Inch*	1	U04160.075.0900	1.1/4-12X7 Inch*	1	U04160.125.0700
9/16-18X1.1/4 ft*	25	U04160.056.0125	3/4-16X9.1/2*	1	U04160.075.0950	1.1/4-12X7.1/2*	1	U04160.125.0750
9/16-18X1.1/2*	25	U04160.056.0150	3/4-16X10 Inch*	1	U04160.075.1000	1.1/4-12X8 Inch*	1	U04160.125.0800
9/16-18X1.3/4*	10	U04160.056.0175	3/4-16X11 Inch*	1	U04160.075.1100	1.1/4-12X9 Inch*	1	U04160.125.0900
9/16-18X2 Inch*	10	U04160.056.0200	3/4-16X12 Inch*	1	U04160.075.1200	1.1/4-12X10 Inch*	1	U04160.125.1000
9/16-18X2.1/4*	10	U04160.056.0225						
9/16-18X2.1/2*	10	U04160.056.0250	7/8-14X1.1/2 ft*	5	U04160.087.0150	1.1/2-12X3 Inch ft*	1	U04160.150.0300
9/16-18X2.3/4*	10	U04160.056.0275	7/8-14X2 Inch ft*	5	U04160.087.0200	1.1/2-12X3.1/2*	1	U04160.150.0350
9/16-18X3 Inch*	10	U04160.056.0300	7/8-14X2.1/4*	5	U04160.087.0225	1.1/2-12X4 Inch*	1	U04160.150.0400
9/16-18X3.1/4*	10	U04160.056.0325	7/8-14X2.1/2*	5	U04160.087.0250	1.1/2-12X4.1/2*	1	U04160.150.0450
9/16-18X3.1/2*	10	U04160.056.0350	7/8-14X2.3/4*	5	U04160.087.0275	1.1/2-12X5 Inch*	1	U04160.150.0500
9/16-18X4 Inch*	5	U04160.056.0400	7/8-14X3 Inch*	5	U04160.087.0300	1.1/2-12X6 Inch*	1	U04160.150.0600
9/16-18X4.1/2*	5	U04160.056.0450	7/8-14X3.1/4*	5	U04160.087.0325	1.1/2-12X7 Inch*	1	U04160.150.0700
9/16-18X5 Inch*	5	U04160.056.0500	7/8-14X3.1/2*	5	U04160.087.0350	1.1/2-12X10 Inch*	1	U04160.150.1000

- ft = rosca total métrico

U04360 Parafuso cabeça sextavada UNF — X01A

Rosca Unified National Fine
Material Aço
Classe Grade 8
Tratamento sup. Passivado a amarelo



d x L	✉	Ref. do artigo
1/4-28X1/2 ft*	100	U04360.025.0050
1/4-28X5/8 ft*	100	U04360.025.0062
1/4-28X3/4 ft*	100	U04360.025.0075
1/4-28X7/8*	100	U04360.025.0087
1/4-28X1 Inch*	100	U04360.025.0100
1/4-28X1.1/4*	100	U04360.025.0125
1/4-28X1.3/8*	100	U04360.025.0137
1/4-28X1.1/2*	100	U04360.025.0150
1/4-28X1.3/4*	100	U04360.025.0175
1/4-28X2 Inch*	50	U04360.025.0200
1/4-28X2.1/4*	50	U04360.025.0225
1/4-28X2.1/2*	50	U04360.025.0250
1/4-28X2.3/4*	50	U04360.025.0275
1/4-28X3 Inch*	50	U04360.025.0300
1/4-28X3.1/4*	50	U04360.025.0325
1/4-28X3.1/2*	50	U04360.025.0350
1/4-28X3.3/4*	50	U04360.025.0375
1/4-28X4 Inch*	25	U04360.025.0400
1/4-28X4.1/2*	25	U04360.025.0450
1/4-28X5 Inch*	25	U04360.025.0500
1/4-28X5.1/2*	25	U04360.025.0550
1/4-28X6 Inch*	25	U04360.025.0600
1/4-28X7 Inch*	10	U04360.025.0700
1/4-28X8 Inch*	5	U04360.025.0800
5/16-24X1/2 ft*	100	U04360.031.0050
5/16-24X5/8 ft*	100	U04360.031.0062
5/16-24X3/4 ft*	100	U04360.031.0075
5/16-24X7/8 ft*	100	U04360.031.0087
5/16-24X1 Inch*	100	U04360.031.0100
5/16-24X1.1/4*	100	U04360.031.0125
5/16-24X1.1/2*	100	U04360.031.0150
5/16-24X1.3/4*	50	U04360.031.0175
5/16-24X2 Inch*	50	U04360.031.0200
5/16-24X2.1/4*	50	U04360.031.0225
5/16-24X2.1/2*	50	U04360.031.0250
5/16-24X2.3/4*	50	U04360.031.0275
5/16-24X3 Inch*	50	U04360.031.0300
5/16-24X3.1/4*	50	U04360.031.0325
5/16-24X3.1/2*	50	U04360.031.0350
5/16-24X3.3/4*	25	U04360.031.0375
5/16-24X4 Inch*	25	U04360.031.0400
5/16-24X4.1/2*	25	U04360.031.0450
5/16-24X5 Inch*	25	U04360.031.0500
5/16-24X5.1/2*	25	U04360.031.0550
5/16-24X6 Inch*	25	U04360.031.0600
5/16-24X7 Inch*	10	U04360.031.0700
3/8-24X1/2 ft*	50	U04360.037.0050
3/8-24X5/8 ft*	50	U04360.037.0062
3/8-24X3/4 ft*	50	U04360.037.0075
3/8-24X7/8 ft*	50	U04360.037.0087
3/8-24X1 Inch ft*	50	U04360.037.0100
3/8-24X1.1/4*	50	U04360.037.0125
3/8-24X1.1/2*	50	U04360.037.0150
3/8-24X1.3/4*	50	U04360.037.0175
3/8-24X2 Inch*	25	U04360.037.0200
3/8-24X2.1/4*	25	U04360.037.0225
3/8-24X2.1/2*	25	U04360.037.0250
3/8-24X2.3/4*	25	U04360.037.0275
3/8-24X3 Inch*	25	U04360.037.0300
3/8-24X3.1/4*	25	U04360.037.0325
3/8-24X3.1/2*	25	U04360.037.0350
3/8-24X3.3/4*	25	U04360.037.0375
3/8-24X4 Inch*	10	U04360.037.0400
3/8-24X4.1/4*	10	U04360.037.0425
3/8-24X4.1/2*	10	U04360.037.0450
3/8-24X4.3/4*	10	U04360.037.0475
3/8-24X5 Inch*	10	U04360.037.0500
3/8-24X5.1/4*	10	U04360.037.0525
3/8-24X5.1/2*	10	U04360.037.0550
3/8-24X5.3/4*	10	U04360.037.0575
3/8-24X6 Inch*	10	U04360.037.0600
3/8-24X6.1/2*	10	U04360.037.0650
3/8-24X7 Inch*	10	U04360.037.0700
3/8-24X8 Inch*	5	U04360.037.0800
3/8-24X10 Inch*	5	U04360.037.1000
7/16-20X3/4 ft*	25	U04360.043.0075
7/16-20X7/8 ft*	25	U04360.043.0087
7/16-20X1 Inch ft*	25	U04360.043.0100
7/16-20X1.1/4*	25	U04360.043.0125
7/16-20X1.1/2*	25	U04360.043.0150
7/16-20X1.3/4*	25	U04360.043.0175
7/16-20X2 Inch*	25	U04360.043.0200
7/16-20X2.1/4*	10	U04360.043.0225
7/16-20X2.1/2*	10	U04360.043.0250
7/16-20X2.3/4*	10	U04360.043.0275
7/16-20X3 Inch*	10	U04360.043.0300
7/16-20X3.1/4*	10	U04360.043.0325
7/16-20X3.1/2*	10	U04360.043.0350
7/16-20X3.3/4*	10	U04360.043.0375
7/16-20X4 Inch*	10	U04360.043.0400
7/16-20X4.1/2*	10	U04360.043.0450
7/16-20X5 Inch*	10	U04360.043.0500
7/16-20X5.1/2*	10	U04360.043.0550
7/16-20X6 Inch*	5	U04360.043.0600
1/2-20X3/4 ft*	25	U04360.050.0075
1/2-20X1 Inch ft*	25	U04360.050.0100
1/2-20X1.1/4 ft*	25	U04360.050.0125
1/2-20X1.1/2*	25	U04360.050.0150
1/2-20X1.3/4*	25	U04360.050.0175
1/2-20X2 Inch*	10	U04360.050.0200
1/2-20X2.1/4*	10	U04360.050.0225
1/2-20X2.1/2*	10	U04360.050.0250
1/2-20X2.3/4*	10	U04360.050.0275
1/2-20X3 Inch*	10	U04360.050.0300
1/2-20X3.1/4*	10	U04360.050.0325
1/2-20X3.1/2*	10	U04360.050.0350
1/2-20X3.3/4*	10	U04360.050.0375
1/2-20X4 Inch*	5	U04360.050.0400
1/2-20X4.1/4*	5	U04360.050.0425
1/2-20X4.1/2*	5	U04360.050.0450
1/2-20X4.3/4*	5	U04360.050.0475
1/2-20X5 Inch*	5	U04360.050.0500
1/2-20X5.1/2*	5	U04360.050.0550
1/2-20X6 Inch*	5	U04360.050.0600
1/2-20X6.1/2*	5	U04360.050.0650
1/2-20X7 Inch*	5	U04360.050.0700
1/2-20X7.1/2*	5	U04360.050.0750
1/2-20X8 Inch*	5	U04360.050.0800
1/2-20X8.1/2*	5	U04360.050.0850
1/2-20X9 Inch*	5	U04360.050.0900
1/2-20X10 Inch*	5	U04360.050.1000
1/2-20X11 Inch*	5	U04360.050.1100
1/2-20X12 Inch*	5	U04360.050.1200
9/16-18X1 Inch ft*	25	U04360.056.0100
9/16-18X1.1/4 ft*	25	U04360.056.0125
9/16-18X1.1/2*	25	U04360.056.0150
9/16-18X1.3/4*	10	U04360.056.0175
9/16-18X2 Inch*	10	U04360.056.0200
9/16-18X2.1/4*	10	U04360.056.0225
9/16-18X2.1/2*	10	U04360.056.0250
9/16-18X2.3/4*	10	U04360.056.0275
9/16-18X3 Inch*	10	U04360.056.0300
9/16-18X3.1/4*	10	U04360.056.0325
9/16-18X3.1/2*	10	U04360.056.0350
9/16-18X3.3/4*	10	U04360.056.0375
9/16-18X4 Inch*	5	U04360.056.0400
9/16-18X4.1/2*	5	U04360.056.0450
9/16-18X5 Inch*	5	U04360.056.0500
9/16-18X5.1/2*	5	U04360.056.0550
9/16-18X6 Inch*	5	U04360.056.0600
5/8-18X1 Inch ft*	10	U04360.062.0100
5/8-18X1.1/4 ft*	10	U04360.062.0125
5/8-18X1.1/2 ft*	10	U04360.062.0150
5/8-18X1.3/4*	10	U04360.062.0175
5/8-18X2 Inch*	5	U04360.062.0200
5/8-18X2.1/4*	5	U04360.062.0225
5/8-18X2.1/2*	5	U04360.062.0250
5/8-18X2.3/4*	5	U04360.062.0275
5/8-18X3 Inch*	5	U04360.062.0300
5/8-18X3.1/4*	5	U04360.062.0325
5/8-18X3.1/2*	5	U04360.062.0350
5/8-18X3.3/4*	5	U04360.062.0375
5/8-18X4 Inch*	5	U04360.062.0400
5/8-18X4.1/4*	5	U04360.062.0425
5/8-18X4.1/2*	5	U04360.062.0450
5/8-18X4.3/4*	5	U04360.062.0475
5/8-18X5 Inch*	5	U04360.062.0500
5/8-18X5.1/2*	5	U04360.062.0550
5/8-18X6 Inch*	5	U04360.062.0600
5/8-18X6.1/2*	5	U04360.062.0650
5/8-18X7 Inch*	5	U04360.062.0700
5/8-18X7.1/2*	5	U04360.062.0750
5/8-18X8 Inch*	5	U04360.062.0800
5/8-18X8.1/2*	5	U04360.062.0850
5/8-18X9 Inch*	5	U04360.062.0900
5/8-18X9.1/2*	5	U04360.062.0950
5/8-18X10 Inch*	5	U04360.062.1000
5/8-18X11 Inch*	5	U04360.062.1100
5/8-18X12 Inch*	5	U04360.062.1200
3/4-16X1 Inch ft*	10	U04360.075.0100
3/4-16X1.1/4 ft*	10	U04360.075.0125
3/4-16X1.1/2 ft*	10	U04360.075.0150
3/4-16X1.3/4 ft*	10	U04360.075.0175
3/4-16X2 Inch*	5	U04360.075.0200
3/4-16X2.1/4*	5	U04360.075.0225
3/4-16X2.1/2*	5	U04360.075.0250
3/4-16X2.3/4*	5	U04360.075.0275
3/4-16X3 Inch*	5	U04360.075.0300
3/4-16X3.1/4*	5	U04360.075.0325
3/4-16X3.1/2*	5	U04360.075.0350
3/4-16X3.3/4*	5	U04360.075.0375
3/4-16X4 Inch*	5	U04360.075.0400
3/4-16X4.1/4*	5	U04360.075.0425
3/4-16X4.1/2*	5	U04360.075.0450
3/4-16X4.3/4*	5	U04360.075.0475
3/4-16X5 Inch*	5	U04360.075.0500
3/4-16X5.1/2*	5	U04360.075.0550
3/4-16X6 Inch*	5	U04360.075.0600
3/4-16X6.1/2*	1	U04360.075.0650
3/4-16X7 Inch*	1	U04360.075.0700
3/4-16X7.1/2*	1	U04360.075.0750
3/4-16X8 Inch*	1	U04360.075.0800
3/4-16X8.1/2*	5	U04360.075.0850
3/4-16X9 Inch*	1	U04360.075.0900
3/4-16X9.1/2*	5	U04360.075.0950
3/4-16X10 Inch*	1	U04360.075.1000
3/4-16X11 Inch*	5	U04360.075.1100
3/4-16X12 Inch*	5	U04360.075.1200
7/8-14X1.1/2 ft*	5	U04360.087.0150
7/8-14X2 Inch ft*	5	U04360.087.0200
7/8-14X2.1/4*	5	U04360.087.0225
7/8-14X2.1/2*	5	U04360.087.0250
7/8-14X2.3/4*	5	U04360.087.0275
7/8-14X3 Inch*	5	U04360.087.0300
7/8-14X3.1/4*	5	U04360.087.0325
7/8-14X3.1/2*	5	U04360.087.0350
7/8-14X3.3/4*	5	U04360.087.0375
7/8-14X4 Inch*	5	U04360.087.0400
7/8-14X4.1/2*	5	U04360.087.0450
7/8-14X5 Inch*	5	U04360.087.0500
7/8-14X5.1/2*	5	U04360.087.0550
7/8-14X6 Inch*	1	U04360.087.0600
7/8-14X6.1/2*	1	U04360.087.0650
7/8-14X7 Inch*	1	U04360.087.0700
7/8-14X7.1/2*	1	U04360.087.0750
7/8-14X8 Inch*	1	U04360.087.0800
7/8-14X8.1/2*	1	U04360.087.0850

U04360 Parafuso cabeça sextavada UNF

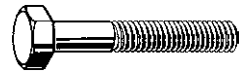
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
7/8-14X9 Inch*	1	U04360.087.0900	1.-14X8.1/2*	1	U04360.101.0850	1.1/4-12X3 Inch*	1	U04360.125.0300
7/8-14X10 Inch*	1	U04360.087.1000	1.-14X9 Inch*	1	U04360.101.0900	1.1/4-12X3.1/2*	1	U04360.125.0350
			1.-14X9.1/2*	1	U04360.101.0950	1.1/4-12X4 Inch*	1	U04360.125.0400
1.-14X1.1/2 ft*	5	U04360.101.0150	1.-14X10 Inch*	1	U04360.101.1000	1.1/4-12X4.1/2*	1	U04360.125.0450
1.-14X1.3/4 ft*	5	U04360.101.0175				1.1/4-12X5 Inch*	1	U04360.125.0500
1.-14X2 Inch ft*	5	U04360.101.0200	1.1/8-12X2.1/2 ft*	5	U04360.112.0250	1.1/4-12X5.1/2*	1	U04360.125.0550
1.-14X2.1/4 ft*	5	U04360.101.0225	1.1/8-12X3 Inch*	1	U04360.112.0300	1.1/4-12X6 Inch*	1	U04360.125.0600
1.-14X2.1/2*	5	U04360.101.0250	1.1/8-12X3.1/2*	1	U04360.112.0350	1.1/4-12X6.1/2*	1	U04360.125.0650
1.-14X2.3/4*	5	U04360.101.0275	1.1/8-12X4 Inch*	1	U04360.112.0400	1.1/4-12X7 Inch*	1	U04360.125.0700
1.-14X3 Inch*	5	U04360.101.0300	1.1/8-12X4.1/2*	1	U04360.112.0450	1.1/4-12X7.1/2*	1	U04360.125.0750
1.-14X3.1/4*	5	U04360.101.0325	1.1/8-12X5 Inch*	1	U04360.112.0500	1.1/4-12X8 Inch*	1	U04360.125.0800
1.-14X3.1/2*	5	U04360.101.0350	1.1/8-12X5.1/2*	1	U04360.112.0550	1.1/4-12X9 Inch*	1	U04360.125.0900
1.-14X3.3/4*	5	U04360.101.0375	1.1/8-12X6 Inch*	1	U04360.112.0600	1.1/4-12X10 Inch*	1	U04360.125.1000
1.-14X4 Inch*	5	U04360.101.0400	1.1/8-12X6.1/2*	1	U04360.112.0650			
1.-14X4.1/2*	5	U04360.101.0450	1.1/8-12X7 Inch*	1	U04360.112.0700	1.1/2-12X3 Inch ft*	1	U04360.150.0300
1.-14X5 Inch*	5	U04360.101.0500	1.1/8-12X7.1/2*	1	U04360.112.0750	1.1/2-12X4.1/2*	1	U04360.150.0450
1.-14X5.1/2*	5	U04360.101.0550	1.1/8-12X8 Inch*	1	U04360.112.0800	1.1/2-12X5 Inch*	1	U04360.150.0500
1.-14X6 Inch*	1	U04360.101.0600	1.1/8-12X9 Inch*	1	U04360.112.0900	1.1/2-12X6 Inch*	1	U04360.150.0600
1.-14X6.1/2*	1	U04360.101.0650	1.1/8-12X10 Inch*	1	U04360.112.1000	1.1/2-12X7 Inch*	1	U04360.150.0700
1.-14X7 Inch*	1	U04360.101.0700				1.1/2-12X10 Inch*	1	U04360.150.1000
1.-14X7.1/2*	1	U04360.101.0750	1.1/4-12X2 Inch ft*	1	U04360.125.0200			
1.-14X8 Inch*	1	U04360.101.0800	1.1/4-12X2.1/2 ft*	1	U04360.125.0250			

- ft = rosca total métrico

U51007 Parafuso cabeça sextavada UNF X15A

Rosca Unified National Fine
Material Aço inoxidável A2 (AISI 304/18-8)
Classe F593

RoHS

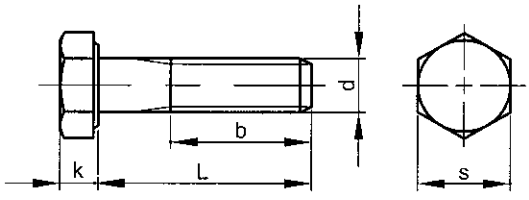


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4-28X1/2 ft*	100	U51007.025.0050	3/8-24X2.3/4*	25	U51007.037.0275	9/16-18X2.1/2*	5	U51007.056.0250
1/4-28X5/8 ft*	100	U51007.025.0062	3/8-24X3 Inch*	10	U51007.037.0300	9/16-18X3 Inch*	5	U51007.056.0300
1/4-28X3/4 ft*	100	U51007.025.0075	3/8-24X3.1/2*	10	U51007.037.0350	9/16-18X3.1/2*	5	U51007.056.0350
1/4-28X7/8*	100	U51007.025.0087	3/8-24X4 Inch*	10	U51007.037.0400	9/16-18X4 Inch*	5	U51007.056.0400
1/4-28X1 Inch*	100	U51007.025.0100	3/8-24X4.1/2*	10	U51007.037.0450	9/16-18X4.1/2*	5	U51007.056.0450
1/4-28X1.1/4*	100	U51007.025.0125	3/8-24X5 Inch*	10	U51007.037.0500	9/16-18X5 Inch*	5	U51007.056.0500
1/4-28X1.3/8*	100	U51007.025.0137				9/16-18X5.1/2*	5	U51007.056.0550
1/4-28X1.1/2*	100	U51007.025.0150	7/16-20X1 Inch ft*	25	U51007.043.0100	9/16-18X6 Inch*	5	U51007.056.0600
1/4-28X1.3/4*	100	U51007.025.0175	7/16-20X1.1/4*	25	U51007.043.0125			
1/4-28X2 Inch*	50	U51007.025.0200	7/16-20X1.1/2*	25	U51007.043.0150	5/8-18X1 Inch ft*	10	U51007.062.0100
1/4-28X2.1/4*	50	U51007.025.0225	7/16-20X1.3/4*	10	U51007.043.0175	5/8-18X1.1/4 ft*	10	U51007.062.0125
1/4-28X2.1/2*	50	U51007.025.0250	7/16-20X2 Inch*	10	U51007.043.0200	5/8-18X1.1/2 ft*	10	U51007.062.0150
1/4-28X2.3/4*	50	U51007.025.0275	7/16-20X2.1/4*	10	U51007.043.0225	5/8-18X1.3/4*	10	U51007.062.0175
1/4-28X3 Inch*	50	U51007.025.0300	7/16-20X2.1/2*	10	U51007.043.0250	5/8-18X2 Inch*	5	U51007.062.0200
1/4-28X3.1/2*	25	U51007.025.0350	7/16-20X2.3/4*	10	U51007.043.0275	5/8-18X2.1/4*	5	U51007.062.0225
1/4-28X4 Inch*	25	U51007.025.0400	7/16-20X3 Inch*	10	U51007.043.0300	5/8-18X2.1/2*	5	U51007.062.0250
			7/16-20X3.1/2*	5	U51007.043.0350	5/8-18X3 Inch*	5	U51007.062.0300
5/16-24X1/2 ft*	50	U51007.031.0050	7/16-20X4 Inch*	5	U51007.043.0400	5/8-18X3.1/2*	5	U51007.062.0350
5/16-24X5/8 ft*	50	U51007.031.0062	7/16-20X4.1/2*	5	U51007.043.0450	5/8-18X4 Inch*	5	U51007.062.0400
5/16-24X3/4 ft*	50	U51007.031.0075	7/16-20X5 Inch*	5	U51007.043.0500	5/8-18X4.1/2*	5	U51007.062.0450
5/16-24X7/8 ft*	50	U51007.031.0087				5/8-18X5 Inch*	5	U51007.062.0500
5/16-24X1 Inch*	50	U51007.031.0100	1/2-20X3/4 ft*	10	U51007.050.0075	5/8-18X5.1/2*	5	U51007.062.0550
5/16-24X1.1/4*	50	U51007.031.0125	1/2-20X1 Inch ft*	10	U51007.050.0100	5/8-18X6 Inch*	5	U51007.062.0600
5/16-24X1.1/2*	50	U51007.031.0150	1/2-20X1.1/4 ft*	10	U51007.050.0125	5/8-18X6.1/2*	5	U51007.062.0650
5/16-24X1.3/4*	50	U51007.031.0175	1/2-20X1.1/2*	10	U51007.050.0150	5/8-18X7 Inch*	5	U51007.062.0700
5/16-24X2 Inch*	50	U51007.031.0200	1/2-20X2 Inch*	10	U51007.050.0200	5/8-18X8 Inch*	5	U51007.062.0800
5/16-24X2.1/4*	25	U51007.031.0225	1/2-20X2.1/4*	10	U51007.050.0225	5/8-18X9 Inch*	1	U51007.062.0900
5/16-24X2.1/2*	25	U51007.031.0250	1/2-20X2.1/2*	10	U51007.050.0250			
5/16-24X3 Inch*	25	U51007.031.0300	1/2-20X3 Inch*	5	U51007.050.0300	3/4-16X1 Inch ft*	5	U51007.075.0100
5/16-24X3.1/2*	25	U51007.031.0350	1/2-20X3.1/4*	5	U51007.050.0325	3/4-16X1.1/4 ft*	5	U51007.075.0125
5/16-24X4 Inch*	10	U51007.031.0400	1/2-20X3.1/2*	5	U51007.050.0350	3/4-16X1.1/2 ft*	5	U51007.075.0150
			1/2-20X4 Inch*	5	U51007.050.0400	3/4-16X1.3/4 ft*	5	U51007.075.0175
3/8-24X1/2 ft*	50	U51007.037.0050	1/2-20X4.1/2*	5	U51007.050.0450	3/4-16X2 Inch*	5	U51007.075.0200
3/8-24X5/8 ft*	50	U51007.037.0062	1/2-20X5 Inch*	5	U51007.050.0500	3/4-16X2.1/4*	5	U51007.075.0225
3/8-24X3/4 ft*	50	U51007.037.0075	1/2-20X5.1/2*	5	U51007.050.0550	3/4-16X2.1/2*	5	U51007.075.0250
3/8-24X7/8 ft*	50	U51007.037.0087	1/2-20X6 Inch*	5	U51007.050.0600	3/4-16X3 Inch*	5	U51007.075.0300
3/8-24X1 Inch ft*	50	U51007.037.0100				3/4-16X3.1/2*	5	U51007.075.0350
3/8-24X1.1/4*	50	U51007.037.0125	9/16-18X1 Inch ft*	10	U51007.056.0100	3/4-16X4 Inch*	5	U51007.075.0400
3/8-24X1.1/2*	25	U51007.037.0150	9/16-18X1.1/4 ft*	10	U51007.056.0125	3/4-16X4.1/2*	5	U51007.075.0450
3/8-24X1.3/4*	25	U51007.037.0175	9/16-18X1.1/2*	10	U51007.056.0150	3/4-16X5 Inch*	5	U51007.075.0500
3/8-24X2 Inch*	25	U51007.037.0200	9/16-18X1.3/4*	10	U51007.056.0175	3/4-16X5.1/2*	5	U51007.075.0550
3/8-24X2.1/4*	25	U51007.037.0225	9/16-18X2 Inch*	5	U51007.056.0200	3/4-16X6 Inch*	5	U51007.075.0600
3/8-24X2.1/2*	25	U51007.037.0250						

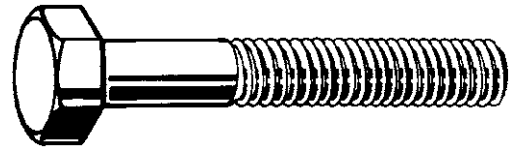
- ft = rosca total métrico

1

Parafuso cabeça sextavada BSW



DIN **≈931 (1954)**
NEN ≈2336 (1961)



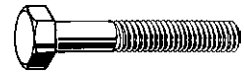
Dados técnicos

d	Fios por polegada	k	s
1/2	12	9	22
5/8	11	11	27
3/4	10	13	32
7/8	9	16	36
1 Inch	8	18	41

- A rosca whitworth (BSW/BSF) não é internacionalmente recomendada. É aconselhável utilizar rosca métrica (M/MF) ou UNC/UNF.
- Dependendo da disponibilidade de stock as medidas podem ter variações ligeiras.

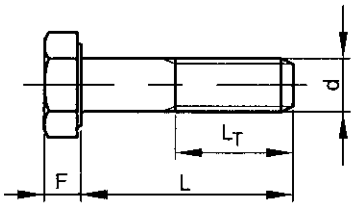
03400 **Parafuso cabeça sextavada BSW** **X03A**

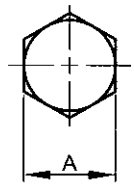
Rosca British Standard Whitworth
Material Aço
Classe 8.8



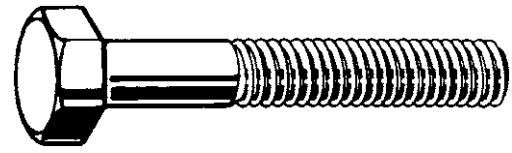
d x L/b	✉	Ref. do artigo	d x L/b	✉	Ref. do artigo	d x L/b	✉	Ref. do artigo
1/2X35/25	50	03400.127.035	5/8X50/28	25	03400.158.050			
1/2X50/25	50	03400.127.050	5/8X60/28	25	03400.158.060	7/8X60/38	10	03400.222.060
1/2X60/25	50	03400.127.060				7/8X70/38	10	03400.222.070
1/2X70/25	50	03400.127.070	3/4X50/32	10	03400.191.050			
1/2X75/30	50	03400.127.075	3/4X60/32	10	03400.191.060	1 InchX70/40	10	03400.254.070
1/2X80/30	50	03400.127.080	3/4X70/32	10	03400.191.070	1 InchX80/40	10	03400.254.080
1/2X100/30	50	03400.127.100	3/4X80/32	10	03400.191.080	1 InchX100/55	10	03400.254.100
			3/4X100/40	10	03400.191.100			

Parafuso cabeça sextavada BSF





BS **≈1083 (1965)**



Dados técnicos

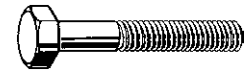
d	A	F	Fios por polegada	L_T (min.)
1/4	0.445	4.6	26	13
5/16	0.525	5.5	22	16
3/8	0.6	6.6	20	19
7/16	0.71	7.7	18	22
1/2	0.82	8.7	16	25.5
5/8	1.01	10.6	14	32
3/4	1.2	12.7	12	38

- A rosca whitworth (BSW/BSF) não é internacionalmente recomendada. É aconselhável utilizar rosca métrica (M/MF) ou UNC/UNF.
- Grade R minimo de acordo com ≈ BS 1083 (1965) corresponde á classe de aço 6.8 de acordo com DIN ISO 898-1. A marcação na cabeça é feita com o simbolo da propriedade classe R.

03000 **Parafuso cabeça sextavada BSF** **X90A**

Rosca British Standard Fine
Material Aço
Classe ≥Grade R

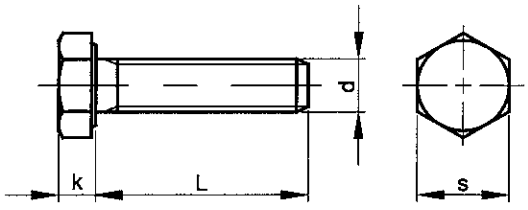
RoHS



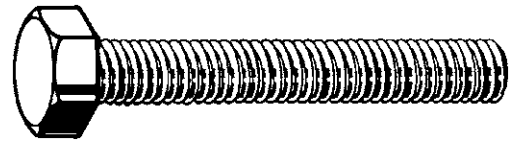
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4X1 Inch	200	03000.063.025				1/2X1.3/4	50	03000.127.044
1/4X2 Inch	100	03000.063.050	3/8X1.1/4	100	03000.096.031	1/2X2 Inch	50	03000.127.050
1/4X2.1/2	100	03000.063.063	3/8X1.1/2	100	03000.096.038	1/2X2.1/2	50	03000.127.063
1/4X3 Inch	100	03000.063.076	3/8X1.3/4	100	03000.096.044	1/2X3 Inch	50	03000.127.076
			3/8X2 Inch	100	03000.096.050			
5/16X1.1/2	200	03000.079.038	3/8X3 Inch	100	03000.096.076	5/8X2 Inch	25	03000.158.050
5/16X1.3/4	100	03000.079.044						
5/16X2 Inch	100	03000.079.050	7/16X1.1/2	100	03000.111.038	3/4X2 Inch	25	03000.191.050
5/16X2.1/4	100	03000.079.057				3/4X2.1/2	25	03000.191.063
5/16X3 Inch	100	03000.079.076	1/2X1.1/2	50	03000.127.038	3/4X3 Inch	25	03000.191.076

1

Parafuso cabeça sextavada BSW



DIN **≈933 (1954)**
NEN ≈2337 (1961)



Dados técnicos

d	Fios por polegada	k	s	d	Fios por polegada	k	s
1/4	20	5	11	1/2	12	9	22
5/16	18	6	14	5/8	11	11	27
3/8	16	7	17	3/4	10	13	32

- A rosca whitworth (BSW/BSF) não é internacionalmente recomendada. É aconselhável utilizar rosca métrica (M/MF) ou UNC/UNF.
- Dependendo da disponibilidade de stock as medidas podem ter variações ligeiras.

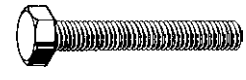
Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
BSW	Sextavado	Aço	8.8	03410	1-60
BSW	Sextavado	Latão Cu2		46210	1-60

03410 Parafuso cabeça sextavada BSW — X03A

Rosca British Standard Whitworth
Material Aço
Classe 8.8

RoHS

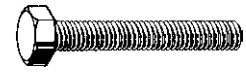


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4X10MM	100	03410.063.010	3/8X15MM	100	03410.096.015	1/2X40MM	50	03410.127.040
1/4X15MM	100	03410.063.015	3/8X20MM	100	03410.096.020	1/2X50MM	50	03410.127.050
1/4X20MM	100	03410.063.020	3/8X25MM	100	03410.096.025	1/2X55MM	50	03410.127.055
1/4X25MM	100	03410.063.025	3/8X30MM	100	03410.096.030	1/2X60MM	50	03410.127.060
1/4X30MM	100	03410.063.030	3/8X35MM	100	03410.096.035	1/2X70MM	50	03410.127.070
1/4X40MM	100	03410.063.040	3/8X40MM	100	03410.096.040			
1/4X50MM	100	03410.063.050	3/8X50MM	100	03410.096.050	5/8X30MM	50	03410.158.030
			3/8X60MM	100	03410.096.060	5/8X40MM	25	03410.158.040
5/16X20MM	100	03410.079.020	3/8X70MM	100	03410.096.070	5/8X50MM	25	03410.158.050
5/16X25MM	100	03410.079.025				5/8X60MM	25	03410.158.060
5/16X30MM	100	03410.079.030	1/2X20MM	100	03410.127.020			
5/16X40MM	100	03410.079.040	1/2X25MM	100	03410.127.025	3/4X50MM	10	03410.191.050
5/16X50MM	100	03410.079.050	1/2X30MM	100	03410.127.030	3/4X60MM	10	03410.191.060
5/16X60MM	100	03410.079.060	1/2X35MM	100	03410.127.035	3/4X70MM	10	03410.191.070

46210 Parafuso cabeça sextavada BSW — X08A

Rosca British Standard Whitworth
Material Latão Cu2

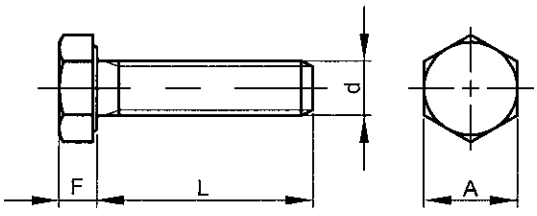
RoHS

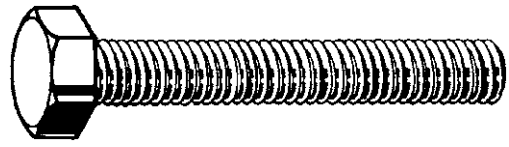


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4X10MM	100	46210.063.010	5/16X20MM	100	46210.079.020	3/8X50MM	25	46210.096.050
1/4X12MM	100	46210.063.012	5/16X25MM	100	46210.079.025			
1/4X15MM	100	46210.063.015	5/16X30MM	50	46210.079.030	1/2X25MM	25	46210.127.025
1/4X20MM	100	46210.063.020	5/16X40MM	50	46210.079.040	1/2X30MM	25	46210.127.030
1/4X25MM	100	46210.063.025	5/16X50MM	50	46210.079.050	1/2X40MM	25	46210.127.040
1/4X30MM	100	46210.063.030				1/2X50MM	25	46210.127.050
1/4X40MM	50	46210.063.040	3/8X20MM	50	46210.096.020			
1/4X50MM	50	46210.063.050	3/8X25MM	50	46210.096.025	5/8X16MM	25	46210.158.016
			3/8X30MM	25	46210.096.030	5/8X40MM	10	46210.158.040
5/16X16MM	100	46210.079.016	3/8X40MM	25	46210.096.040	5/8X50MM	10	46210.158.050

Parafuso cabeça sextavada BSF

BS ≈1083 (1965)





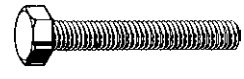
Dados técnicos

d	A	F	Fios por polegada	d	A	F	Fios por polegada
1/4	0.445	4.6	26	3/8	0.6	6.6	20
5/16	0.525	5.5	22	1/2	0.82	8.7	16

- A rosca whitworth (BSW/BSF) não é internacionalmente recomendada. É aconselhável utilizar rosca métrica (M/MF) ou UNC/UNF.
- Grade R minimo de acordo com ≈ BS 1083 (1965) corresponde á classe de aço 6.8 de acordo com DIN ISO 898-1. A marcação na cabeça é feita com o simbolo da propriedade classe R.

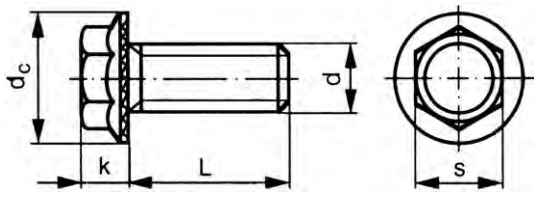
03010 Parafuso cabeça sextavada BSF **X90A**

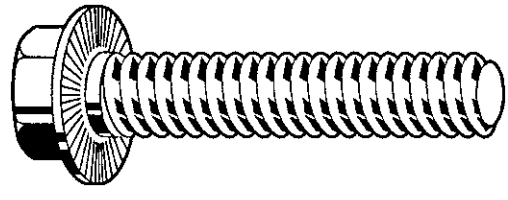
Rosca British Standard Fine
Material Aço
Classe ≥Grade R



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4X5/8	200	03010.063.015	5/16X3/4	200	03010.079.019	3/8X5/8	100	03010.096.015
1/4X3/4	200	03010.063.019	5/16X1 Inch	200	03010.079.025	3/8X3/4	100	03010.096.019
1/4X1 Inch	200	03010.063.025	5/16X1.1/4	200	03010.079.031	3/8X1 Inch	100	03010.096.025
1/4X1.1/4	200	03010.063.031	5/16X1.1/2	200	03010.079.038			
1/4X1.1/2	200	03010.063.038				1/2X1 Inch	100	03010.127.025
			3/8X1/2	100	03010.096.012	1/2X1.1/4	50	03010.127.031
5/16X5/8	200	03010.079.015						

Parafuso auto bloqueante com flange





Dados técnicos

d	d_c	k	P	s
M5	11.2	4.3	0.8	8
M6	14.2	5.5	1	10
M8	18.2	7	1.25	13
M10	21	8.5	1.5	15
M12	24	10	1.75	17
M16	31	14	2	22

Caracteristicas do parafuso auto bloqueante com flange RIPP:
- As flanges serrilhadas eliminam possiveis danos nas superficies durante a montagem,previnem o desaperto e reduzem a relaxação.
- As flanges evitam a criação de forças debaixo da cabeça do parafuso fazendo a distribuição das forças, resultando numa maior distribuição de pressão superficial.
- Furos largos (oversized) e/ou furos maquinados podem ser cobertos pela flange
- Anilha e/ou elemento bloqueador não é necessário

CARGA DE MONTAGEM F_M em kN e TORQUE DE APERTO M_A em Nm

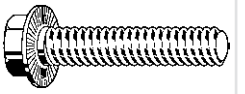
Classe	Material	M5		M6		M8		M10		M12		M16	
		F_M	M_A	F_M	M_A	F_M	M_A	F_M	M_A	F_M	M_A	F_M	M_A
100	Aço (Rm < 800 N/mm²)	9	11	12,6	19	23,2	42	37	85	54	130	102	330
	Aço (Rm ≥ 800 N/mm²)	9	10	12,6	18	23,2	37	37	80	54	120	102	310
	Ferro Maleável	9	9	12,6	16	23,2	35	37	75	54	115	102	300

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado	Aço	100		04400	1-62
M	Sextavado	Aço	100	Zn	04410	1-62
M	Sextavado	Aço	100	FLZNNC-NC6	04405	1-62

04400 RIPP Parafuso sextavados com flange — A92A

Rosca Métrica
Material Aço
Classe 100

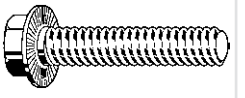


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X10	500	04400.050.010	M8X25	200	04400.080.025	M12X35	100	04400.120.035
M5X12	500	04400.050.012	M8X30	200	04400.080.030	M12X40	100	04400.120.040
M5X16	500	04400.050.016	M8X35	200	04400.080.035	M12X45	100	04400.120.045
M5X20	500	04400.050.020	M8X40	200	04400.080.040	M12X50	100	04400.120.050
M6X10	500	04400.060.010	M10X16	200	04400.100.016	M16X25	50	04400.160.025
M6X12	500	04400.060.012	M10X20	200	04400.100.020	M16X30	50	04400.160.030
M6X16	500	04400.060.016	M10X25	200	04400.100.025	M16X35	50	04400.160.035
M6X20	500	04400.060.020	M10X30	200	04400.100.030	M16X40	50	04400.160.040
M6X25	500	04400.060.025	M10X35	100	04400.100.035	M16X45	50	04400.160.045
M6X30	500	04400.060.030	M10X40	100	04400.100.040	M16X50	50	04400.160.050
						M16X55	50	04400.160.055
M8X12	200	04400.080.012	M12X20	100	04400.120.020	M16X60	50	04400.160.060
M8X16	200	04400.080.016	M12X25	100	04400.120.025	M16X70	25	04400.160.070
M8X20	200	04400.080.020	M12X30	100	04400.120.030			

- Parafusos auto bloqueantes com flange RIPP são de acordo com classe 100 com uma resistência á tracção minima de 1040 N/mm^2, são endurecidos e não podem ser classificados com a habitual classe 10.9.
- AVISO: a electro zincagem destes produtos pode causar disfunção hidrogénica.

04410 RIPP Parafuso sextavados com flange — A92A

Rosca Métrica
Material Aço
Classe 100
Tratamento sup. Zincado

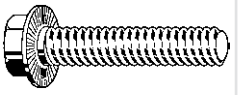


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X10	500	04410.050.010	M8X25	200	04410.080.025	M12X25	100	04410.120.025
M5X12	500	04410.050.012	M8X30	200	04410.080.030	M12X30	100	04410.120.030
M5X16	500	04410.050.016	M8X35	200	04410.080.035	M12X35	100	04410.120.035
			M8X40	200	04410.080.040	M12X40	100	04410.120.040
M6X10	500	04410.060.010				M12X45	100	04410.120.045
M6X12	500	04410.060.012	M10X16	200	04410.100.016	M12X50	100	04410.120.050
M6X14	500	04410.060.014	M10X20	200	04410.100.020			
M6X16	500	04410.060.016	M10X22	200	04410.100.022	M16X30	50	04410.160.030
M6X20	500	04410.060.020	M10X25	200	04410.100.025	M16X35	50	04410.160.035
M6X25	500	04410.060.025	M10X30	200	04410.100.030	M16X40	50	04410.160.040
			M10X35	100	04410.100.035	M16X45	50	04410.160.045
M8X12	200	04410.080.012	M10X40	100	04410.100.040	M16X50	50	04410.160.050
M8X14	200	04410.080.014				M16X60	50	04410.160.060
M8X16	200	04410.080.016	M12X20	100	04410.120.020	M16X70	25	04410.160.070
M8X20	200	04410.080.020						

- Parafusos auto bloqueantes com flange RIPP são de acordo com classe 100 com uma resistência á tracção minima de 1040 N/mm^2, são endurecidos e não podem ser classificados com a habitual classe t 10.9.
- AVISO: a electro zincagem destes produtos pode causar disfunção hidrogénica.

04405 RIPP Parafuso sextavados com flange — A95A

Rosca Métrica
Material Aço
Classe 100
Tratamento sup. Camada de zinco isento Cr^{6+}- ISO 10683 flZnnc



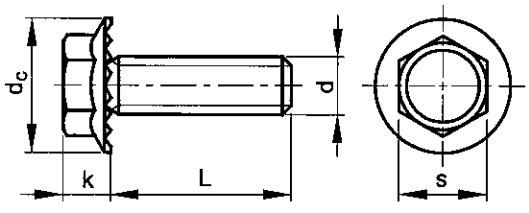
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X10	200	04405.050.010	M6X10	200	04405.060.010			
M5X12	200	04405.050.012	M6X12	200	04405.060.012	M8X16	200	04405.080.016
M5X16	200	04405.050.016	M6X16	200	04405.060.016	M8X20	200	04405.080.020
M5X20	200	04405.050.020	M6X20	200	04405.060.020	M8X25	200	04405.080.025
			M6X25	200	04405.060.025	M8X30	200	04405.080.030

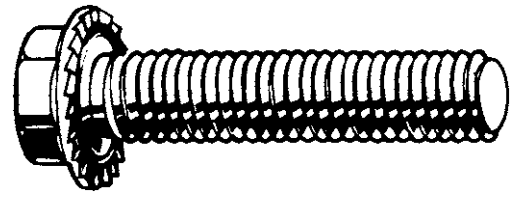
04405	RIPP Parafuso sextavados com flange	←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M8X35	200	04405.080.035				M16X35	50	04405.160.035
			M12X30	100	04405.120.030	M16X40	50	04405.160.040
M10X20	200	04405.100.020	M12X35	100	04405.120.035	M16X45	50	04405.160.045
M10X25	200	04405.100.025	M12X40	100	04405.120.040	M16X50	50	04405.160.050
M10X30	200	04405.100.030	M12X50	100	04405.120.050	M16X60	50	04405.160.060
M10X35	100	04405.100.035				M16X70	50	04405.160.070
M10X40	100	04405.100.040	M16X30	50	04405.160.030			

- Com o tratamento de superficie Zinc Flake ISO 10683, o risco de disfunção hidrogénica é eliminado.

Parafuso auto bloqueante com flange





Dados técnicos

d	d_c	k	P	s
M5	11.2	4.3	0.8	8
M6	14.2	5.5	1	10
M8	18.2	7	1.25	13
M10	21	7.9	1.5	15
M12	24	8.7	1.75	17
M16	31	11.2	2	22

Caracteristicas de porcas auto bloqueantes:
- A resiliência juntamente com os dentes da flange da porca proporcionam uma excelente propriedade auto bloqueante
- Dentro da flange existe uma optimização da pré-carga na aplicação
- Anilha e/ou elemento bloqueador não é necessário e até nem é aconselhado

CARGA DE MONTAGEM F_M em KN e TORQUE DE APERTO M_A em Nm

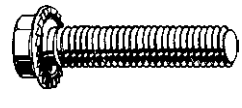
Classe	Material	M5		M6		M8		M10		M12		M16	
		F_M	M_A	F_M	M_A	F_M	M_A	F_M	M_A	F_M	M_A	F_M	M_A
90	Aço	6,35	9	9	16	16,5	34	26,2	58	--	--	--	--
	Ferro Maleável	6,35	7	9	13	16,5	28	26,2	49	--	--	--	--
100	Aço	--	--	--	--	--	--	--	--	54	120	102	280
	Ferro Maleável	--	--	--	--	--	--	--	--	54	105	102	260

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado	Aço	90/100		01050	1-63
M	Sextavado	Aço	90/100	Zn	01049	1-64
M	Sextavado	Aço	90/100	FLZNNC-NC6	01055	1-64

01050	Parafuso auto bloqueante com flange	A92A

Rosca Métrica
Material Aço
Classe 90/100



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X10	500	01050.050.010				M10X25	200	01050.100.025
M5X12	500	01050.050.012	M8X12	200	01050.080.012	M10X30	200	01050.100.030
M5X16	500	01050.050.016	M8X16	200	01050.080.016	M10X35	100	01050.100.035
M5X20	500	01050.050.020	M8X20	200	01050.080.020	M10X40	100	01050.100.040
			M8X25	200	01050.080.025			
M6X10	500	01050.060.010	M8X30	200	01050.080.030	M12X20	100	01050.120.020
M6X12	500	01050.060.012	M8X35	200	01050.080.035	M12X25	100	01050.120.025
M6X16	500	01050.060.016	M8X40	200	01050.080.040	M12X30	100	01050.120.030
M6X20	500	01050.060.020				M12X35	100	01050.120.035
M6X25	500	01050.060.025	M10X16	200	01050.100.016	M12X40	100	01050.120.040
M6X30	500	01050.060.030	M10X20	200	01050.100.020	M12X45	100	01050.120.045

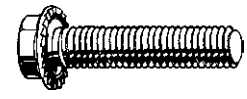
01050 Parafuso auto bloqueante com flange ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M12X50	100	01050.120.050	M16X35	50	01050.160.035	M16X55	50	01050.160.055
			M16X40	50	01050.160.040	M16X60	50	01050.160.060
M16X25	50	01050.160.025	M16X45	50	01050.160.045	M16X70	25	01050.160.070
M16X30	50	01050.160.030	M16X50	50	01050.160.050			

01049 Parafuso auto bloqueante com flange A92A

Rosca Métrica
Material Aço
Classe 90/100
Tratamento sup. Zincado

RoHS

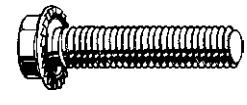


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X8	500	01049.050.008	M6X30	500	01049.060.030	M10X25	200	01049.100.025
M5X10	500	01049.050.010				M10X30	200	01049.100.030
M5X12	500	01049.050.012	M8X12	200	01049.080.012			
M5X14	500	01049.050.014	M8X14	200	01049.080.014	M12X20	100	01049.120.020
M5X16	500	01049.050.016	M8X16	200	01049.080.016	M12X25	100	01049.120.025
M5X20	500	01049.050.020	M8X18	200	01049.080.018	M12X30	100	01049.120.030
			M8X22	200	01049.080.022	M12X35	100	01049.120.035
M6X10	500	01049.060.010	M8X25	200	01049.080.025	M12X40	100	01049.120.040
M6X12	500	01049.060.012	M8X30	200	01049.080.030			
M6X14	500	01049.060.014	M8X35	200	01049.080.035	M16X25	50	01049.160.025
M6X16	500	01049.060.016				M16X35	50	01049.160.035
M6X20	500	01049.060.020	M10X18	200	01049.100.018	M16X40	50	01049.160.040
M6X25	500	01049.060.025	M10X20	200	01049.100.020	M16X50	50	01049.160.050

01055 Parafuso auto bloqueante com flange A94A

Rosca Métrica
Material Aço
Classe 90/100
Tratamento sup. Camada de zinco isento Cr^{6+}- ISO 10683 flZnnc

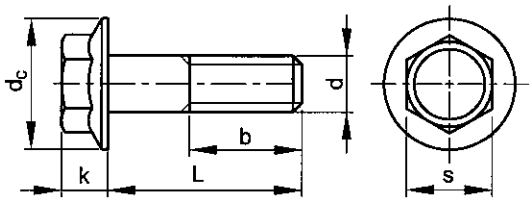
RoHS



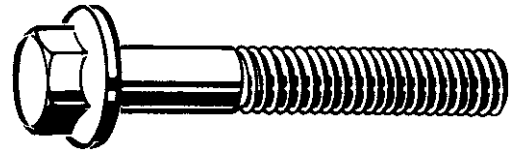
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X10	500	01055.060.010	M8X20	200	01055.080.020			
M6X12	500	01055.060.012	M8X25	200	01055.080.025	M12X30	100	01055.120.030
M6X16	500	01055.060.016	M8X30	200	01055.080.030	M12X40	100	01055.120.040
M6X20	500	01055.060.020				M12X50	100	01055.120.050
M6X25	500	01055.060.025	M10X25	200	01055.100.025			
			M10X30	200	01055.100.030	M16X40	50	01055.160.040
M8X12	200	01055.080.012	M10X40	200	01055.100.040	M16X50	50	01055.160.050
M8X16	200	01055.080.016						

- Com o tratamento de superficie Zinc Flake ISO 10683, o risco de disfunção hidrogénica é eliminado.

Parafuso sextavado com flange



DIN	**6921**
ISO	≈4162
EN	≈1665
ASME	≈B18.2.3.4M



Dados técnicos

d	b (min.)	d_c (max.)	k (max.)	P	s
M6	18	14.2	6.6	1	10
M8	22	18	8.1	1.25	13
M10	26	22.3	9.2	1.5	15
M12	30	26.6	11.5	1.75	16
M14	34	30.5	12.8	2	18
M16	38	35	14.4	2	21
M20	46	43	17.1	2.5	27

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado	Aço	8.8	Passiv. amar.	01256	1-65
M	Sextavado	Aço	10.9		04132	1-66

01256 **Parafuso sextavado com flange** **A94A**

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Passivado a amarelo



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X12	200	01256.060.012	M10X25	200	01256.100.025	M14X35	100	01256.140.035
M6X16	200	01256.060.016	M10X30	200	01256.100.030	M14X40	100	01256.140.040
M6X20	200	01256.060.020	M10X35	200	01256.100.035	M14X45	50	01256.140.045
M6X25	200	01256.060.025	M10X40	100	01256.100.040	M14X50	50	01256.140.050
M6X30	200	01256.060.030	M10X45	100	01256.100.045	M14X60	50	01256.140.060
M6X40	200	01256.060.040	M10X50	100	01256.100.050	M14X80	50	01256.140.080
M6X45	200	01256.060.045	M10X60	100	01256.100.060			
M6X50	200	01256.060.050	M10X70	100	01256.100.070	M16X35	50	01256.160.035
			M10X80	100	01256.100.080	M16X40	50	01256.160.040
M8X12	200	01256.080.012	M10X100	100	01256.100.100	M16X45	50	01256.160.045
M8X16	200	01256.080.016				M16X50	50	01256.160.050
M8X20	200	01256.080.020	M12X25	100	01256.120.025	M16X60	50	01256.160.060
M8X25	200	01256.080.025	M12X30	100	01256.120.030	M16X70	25	01256.160.070
M8X30	200	01256.080.030	M12X35	100	01256.120.035	M16X80	25	01256.160.080
M8X35	200	01256.080.035	M12X40	100	01256.120.040	M16X100	25	01256.160.100
M8X40	200	01256.080.040	M12X45	100	01256.120.045			
M8X45	200	01256.080.045	M12X50	100	01256.120.050	M20X50	25	01256.200.050
M8X50	200	01256.080.050	M12X60	100	01256.120.060	M20X60	25	01256.200.060
M8X60	200	01256.080.060	M12X70	50	01256.120.070	M20X70	25	01256.200.070
M8X70	200	01256.080.070	M12X80	50	01256.120.080	M20X80	10	01256.200.080
M8X80	100	01256.080.080	M12X90	50	01256.120.090	M20X90	10	01256.200.090
M8X100	100	01256.080.100	M12X100	50	01256.120.100	M20X100	10	01256.200.100
			M12X120	50	01256.120.120	M20X120	10	01256.200.120
M10X20	200	01256.100.020						

- Caracteristicas especificas dos parafusos cabeça sextavada com flange:
- A flange permite que as forças se distribuam por uma area mais larga, resultando, consequentemente, numa superficie de pressão menor.
- Furos largos (oversized) podem ser cobertos pela flange.
- Não é necessária anilha.

04132 Parafuso sextavado com flange — A92A

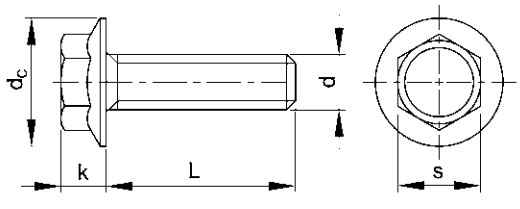
Rosca Métrica
Material Aço
Classe 10.9



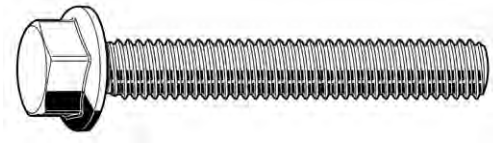
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X20	200	04132.060.020	M10X40	100	04132.100.040	M12X90	50	04132.120.090
M6X25	200	04132.060.025	M10X50	100	04132.100.050			
M6X30	200	04132.060.030	M10X60	100	04132.100.060	M14X35	50	04132.140.035
M6X40	200	04132.060.040	M10X70	100	04132.100.070	M14X40	50	04132.140.040
M6X50	200	04132.060.050				M14X45	50	04132.140.045
			M12X25	100	04132.120.025	M14X50	50	04132.140.050
M8X20	200	04132.080.020	M12X30	100	04132.120.030			
M8X25	200	04132.080.025	M12X35	100	04132.120.035	M16X35	50	04132.160.035
M8X30	200	04132.080.030	M12X40	100	04132.120.040	M16X40	50	04132.160.040
M8X40	200	04132.080.040	M12X45	100	04132.120.045	M16X45	50	04132.160.045
M8X50	200	04132.080.050	M12X50	100	04132.120.050	M16X50	50	04132.160.050
			M12X60	100	04132.120.060	M16X60	50	04132.160.060
M10X20	200	04132.100.020	M12X70	50	04132.120.070	M16X70	25	04132.160.070
M10X25	200	04132.100.025	M12X80	50	04132.120.080	M16X80	25	04132.160.080
M10X30	200	04132.100.030						

- Caracteristicas especiais dos parafusos cabeça sextavada com flange: a flange permite que as forças se espalhem por uma area maior, resultado numa area de pressão inferior.
- Furos largos (oversized) podem ser cobertos com a flange.
- Não é necessária anilha.
- Aviso: a electro zincagem destes produtos pode causar disfunção hidrogenica.

Parafuso sextavado com flange, rosca total métrico



DIN **≈6921**
ISO ≈4126
EN ≈1665
ASME ≈B18.2.3.4M



Dados técnicos

d	b (min.)	d_c (max.)	k (max.)	P	s
M5	16	11.8	5.4	0.8	8
M6	18	14.2	6.6	1	10
M8	22	18	8.1	1.25	13
M10	26	22.3	9.2	1.5	15
M12	30	26.6	11.5	1.75	16

Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
M	Sextavado	INOX A2	70	51018	1-66
M	Sextavado	INOX A4	70	55018	1-67

51018 Parafuso sextavado com flange, rosca total métrico — Q01A

Rosca Métrica
Material Aço inoxidável A2
Classe 70



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X8*	200	51018.050.008				M6X55*	200	51018.060.055
M5X10	200	51018.050.010	M6X10*	200	51018.060.010	M6X60*	200	51018.060.060
M5X12*	200	51018.050.012	M6X12*	200	51018.060.012			
M5X16*	200	51018.050.016	M6X16	200	51018.060.016	M8X12*	200	51018.080.012
M5X20*	200	51018.050.020	M6X20	200	51018.060.020	M8X16	200	51018.080.016
M5X25*	200	51018.050.025	M6X25*	200	51018.060.025	M8X20*	200	51018.080.020
M5X30*	200	51018.050.030	M6X30*	200	51018.060.030	M8X25	200	51018.080.025
M5X35*	200	51018.050.035	M6X35*	200	51018.060.035	M8X30*	200	51018.080.030
M5X40*	200	51018.050.040	M6X40*	200	51018.060.040	M8X35*	200	51018.080.035
M5X45*	200	51018.050.045	M6X45*	200	51018.060.045	M8X40*	200	51018.080.040
M5X50*	200	51018.050.050	M6X50*	200	51018.060.050	M8X45*	200	51018.080.045

51018	Parafuso sextavado com flange, rosca total métrico	←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M8X50*	200	51018.080.050	M10X20*	100	51018.100.020	M10X60*	100	51018.100.060
M8X55*	200	51018.080.055	M10X25*	100	51018.100.025	M10X65*	100	51018.100.065
M8X60*	200	51018.080.060	M10X30*	100	51018.100.030	M10X70*	100	51018.100.070
M8X65*	200	51018.080.065	M10X35*	100	51018.100.035	M10X80*	100	51018.100.080
M8X70*	200	51018.080.070	M10X40*	100	51018.100.040			
M8X80*	200	51018.080.080	M10X45*	100	51018.100.045	M12X60*	50	51018.120.060
			M10X50*	100	51018.100.050			
M10X16*	100	51018.100.016	M10X55*	100	51018.100.055			

55018	Parafuso sextavado com flange, rosca total métrico	Q41A

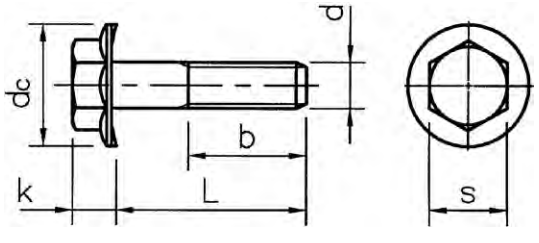
Rosca Métrica
Material Aço inoxidável A4
Classe 70

RoHS

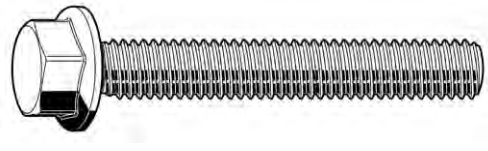


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X8*	200	55018.050.008	M6X30*	200	55018.060.030	M8X55*	200	55018.080.055
M5X10*	200	55018.050.010	M6X35*	200	55018.060.035	M8X60*	200	55018.080.060
M5X12*	200	55018.050.012	M6X40*	200	55018.060.040			
M5X16*	200	55018.050.016	M6X45*	200	55018.060.045	M10X16*	100	55018.100.016
M5X20*	200	55018.050.020	M6X50*	200	55018.060.050	M10X20*	100	55018.100.020
M5X25*	200	55018.050.025	M6X55*	200	55018.060.055	M10X25*	100	55018.100.025
M5X30*	200	55018.050.030	M6X60*	200	55018.060.060	M10X30*	100	55018.100.030
M5X35*	200	55018.050.035				M10X35*	100	55018.100.035
M5X40*	200	55018.050.040	M8X12*	200	55018.080.012	M10X40*	100	55018.100.040
M5X45*	200	55018.050.045	M8X16*	200	55018.080.016	M10X45*	100	55018.100.045
M5X50*	200	55018.050.050	M8X20*	200	55018.080.020	M10X50*	100	55018.100.050
			M8X25*	200	55018.080.025	M10X55*	100	55018.100.055
M6X10*	200	55018.060.010	M8X30*	200	55018.080.030	M10X60*	100	55018.100.060
M6X12*	200	55018.060.012	M8X35*	200	55018.080.035	M10X65*	100	55018.100.065
M6X16*	200	55018.060.016	M8X40*	200	55018.080.040	M10X70*	100	55018.100.070
M6X20*	200	55018.060.020	M8X45*	200	55018.080.045	M10X80*	100	55018.100.080
M6X25*	200	55018.060.025	M8X50*	200	55018.080.050			

Parafuso sextavado com flange, rosca total métrico



DIN	**≈6921**
ISO	≈4162
EN	≈1665
ASME	≈B18.2.3.4M



Dados técnicos

d	b (min.)	d_c (max.)	k (max.)	P	s
M5	16	11.8	5.4	0.8	8
M6	18	14.2	6.6	1	10
M8	22	18	8.1	1.25	13
M10	26	22.3	9.2	1.5	15
M12	30	26.6	11.5	1.75	16

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado	Aço	8.8	Zn	01258	1-68
M	Sextavado	INOX A2	70		51014	1-68

01258 Parafuso sextavado com flange — A94A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X12	200	01258.060.012	M8X25	200	01258.080.025	M10X40	100	01258.100.040
M6X16	200	01258.060.016	M8X30	200	01258.080.030			
M6X20	200	01258.060.020				M12X20	100	01258.120.020
M6X25	200	01258.060.025	M10X20	200	01258.100.020	M12X25	100	01258.120.025
M6X30	200	01258.060.030	M10X25	200	01258.100.025	M12X30	100	01258.120.030
			M10X30	200	01258.100.030	M12X35	100	01258.120.035
M8X16	200	01258.080.016	M10X35	100	01258.100.035	M12X40	100	01258.120.040
M8X20	200	01258.080.020						

- Caracteristicas especificas dos parafusos cabeça sextavada com flange:
- A flange permite que as forças se distribuam por uma area mais larga, resultando, consequentemente, numa superficie de pressão menor.
- Furos largos (oversized) podem ser cobertos pela flange.
- Não é necessária anilha.
- A flange com serrilha tem propriedades autobloqueantes excelentes.

51014 Parafuso sextavado com flange, rosca total métrico — Q01A

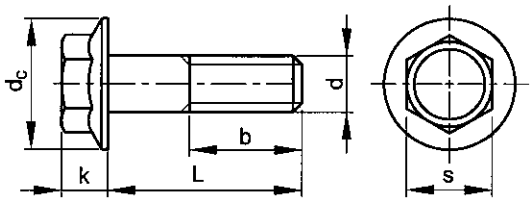
Rosca Métrica
Material Aço inoxidável A2
Classe 70



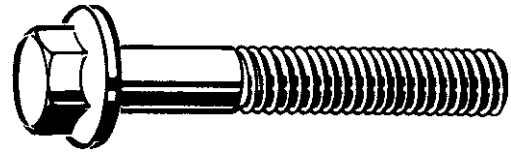
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X8*	200	51014.050.008	M6X35*	200	51014.060.035	M8X55*	200	51014.080.055
M5X10*	200	51014.050.010	M6X40*	200	51014.060.040	M8X60*	200	51014.080.060
M5X12*	200	51014.050.012	M6X45*	200	51014.060.045			
M5X16*	200	51014.050.016	M6X50*	200	51014.060.050	M10X16*	100	51014.100.016
M5X20*	200	51014.050.020	M6X55*	200	51014.060.055	M10X20*	100	51014.100.020
M5X25*	200	51014.050.025	M6X60*	200	51014.060.060	M10X25*	100	51014.100.025
M5X30*	200	51014.050.030				M10X30*	100	51014.100.030
M5X40*	200	51014.050.040	M8X12*	200	51014.080.012	M10X35*	100	51014.100.035
M5X50*	200	51014.050.050	M8X16*	200	51014.080.016	M10X40*	100	51014.100.040
			M8X20*	200	51014.080.020	M10X45*	100	51014.100.045
M6X10*	200	51014.060.010	M8X25*	200	51014.080.025	M10X50*	100	51014.100.050
M6X12*	200	51014.060.012	M8X30*	200	51014.080.030	M10X60*	100	51014.100.060
M6X16*	200	51014.060.016	M8X35*	200	51014.080.035	M10X65*	100	51014.100.065
M6X20*	200	51014.060.020	M8X40*	200	51014.080.040			
M6X25*	200	51014.060.025	M8X45*	200	51014.080.045	M12X90*	50	51014.120.090
M6X30*	200	51014.060.030	M8X50*	200	51014.080.050			

- Caracteristicas especificas dos parafusos cabeça sextavada com flange:
- A flange permite que as forças se distribuam por uma area mais larga, resultando, consequentemente, numa superficie de pressão menor.
- Furos largos (oversized) podem ser cobertos pela flange.
- Não é necessária anilha.
- A flange com serrilha tem propriedades autobloqueantes excelentes.

Parafuso sextavado com flange



DIN	**6921**
ISO	≈4162
EN	≈1665
ASME	≈B18.2.3.4M



Dados técnicos

d	b (min.)	d_c (max.)	k (max.)	s
M8	22	18	8.1	13
M10	26	22.3	9.2	15
M12	30	26.6	11.5	16
M14	34	30.5	12.8	18
M16	38	35	14.4	21

- Caracteristicas especiais dos parafusos sextavados com flange:
- A flange permite que as forças sejam repartidas por uma area mais larga, o que dimuniu a pressão á superficie.
- A flange permite que os furos mais largos (oversized) sejam cobertos.
- Não é necessário anilha.

04135 **Parafuso sextavado com flange** **A92A**

Rosca Métrica fina
Material Aço
Classe 10.9

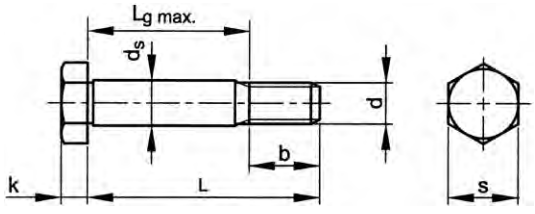


d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo
M8X1,00X25	200	04135.080.025				M14X1,50X50	50	04135.140.050
M8X1,00X30	200	04135.080.030	M12X1,50X25	100	04135.120.025	M14X1,50X60	50	04135.140.060
			M12X1,50X30	100	04135.120.030			
M10X1,25X20	200	04135.100.020	M12X1,50X40	100	04135.120.040	M16X1,50X35	50	04135.160.035
M10X1,25X30	200	04135.100.030	M12X1,50X45	100	04135.120.045	M16X1,50X40	50	04135.160.040
M10X1,25X40	100	04135.100.040	M12X1,50X50	100	04135.120.050	M16X1,50X45	50	04135.160.045
M10X1,25X50	100	04135.100.050				M16X1,50X50	50	04135.160.050
M10X1,25X60	100	04135.100.060	M14X1,50X35	50	04135.140.035	M16X1,50X60	50	04135.160.060
M10X1,25X70	100	04135.100.070	M14X1,50X40	50	04135.140.040			

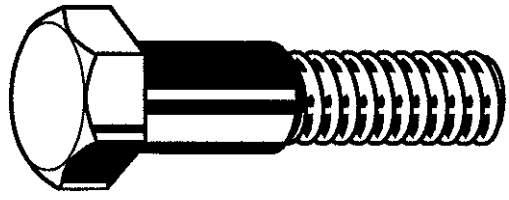
- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

1

Parafuso sextavado de ajuste com rosca comprida



DIN **609**

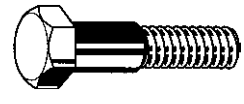


Dados técnicos

d	b:L≤50mm	b:50mm<L≤150mm	d_s (k6)	k	P	s	Tolerância de furo ø
M10	17.5	19.5	11	6.4	1.5	16	H7
M12	20.5	22.5	13	7.5	1.75	18	H7
M16	25	27	17	10	2	24	H7
M18	27.5	29.5	19	11.5	2.5	27	H7
M20	28.5	30.5	21	12.5	2.5	30	H7
M24	-	36.5	25	15	3	36	H7
M30	-	43	32	19	3.5	46	H7
M36	-	49	38	22	4	55	H7

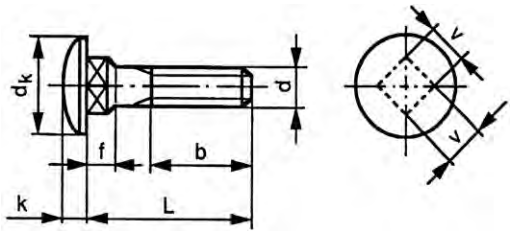
01040 **Parafuso sextavado de ajuste com rosca comprida** **A90A**

Rosca Métrica
Material Aço
Classe 8.8

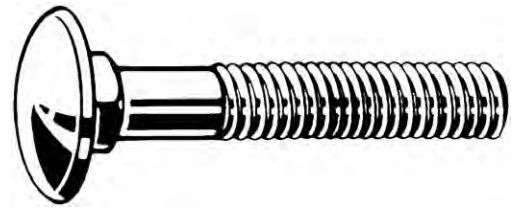


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X30	25	01040.100.030	M16X45	10	01040.160.045	M20X90	5	01040.200.090
M10X35	25	01040.100.035	M16X50	10	01040.160.050	M20X100	5	01040.200.100
M10X40	25	01040.100.040	M16X55	10	01040.160.055	M20X120	5	01040.200.120
M10X45	25	01040.100.045	M16X60	10	01040.160.060			
M10X50	25	01040.100.050	M16X70	10	01040.160.070	M24X55	3	01040.240.055
M10X55	25	01040.100.055	M16X80	10	01040.160.080	M24X60	3	01040.240.060
M10X60	25	01040.100.060	M16X90	10	01040.160.090	M24X70	3	01040.240.070
			M16X100	10	01040.160.100	M24X80	3	01040.240.080
M12X30	25	01040.120.030	M16X105	10	01040.160.105	M24X90	3	01040.240.090
M12X35	25	01040.120.035				M24X100	3	01040.240.100
M12X40	25	01040.120.040	M18X70	10	01040.180.070	M24X120	3	01040.240.120
M12X45	25	01040.120.045						
M12X50	25	01040.120.050	M20X45	5	01040.200.045	M30X100	1	01040.300.100
M12X55	25	01040.120.055	M20X50	5	01040.200.050	M30X120	1	01040.300.120
M12X60	25	01040.120.060	M20X55	5	01040.200.055			
M12X70	25	01040.120.070	M20X60	5	01040.200.060	M36X140	1	01040.360.140
			M20X70	5	01040.200.070	M36X150	1	01040.360.150
M16X40	10	01040.160.040	M20X80	5	01040.200.080			

Parafuso cabeça oval arreigada quadrada



DIN	**603**
ISO	8677
NEN	303
ASME	B18.5.2.3M
BS	4933



Dados técnicos

d	b (min.): L≤125mm	b (min.): 125mm<L≤200mm	b (min.): L>200mm	d_k (max.)	f (max.)	k (max.)	P	v (max.)
M5	16	22	-	13.55	4.1	3.3	0.8	5.48
M6	18	24	-	16.55	4.6	3.88	1	6.48
M8	22	28	41	20.65	5.6	4.88	1.25	8.58
M10	26	32	45	24.65	6.6	5.38	1.5	10.58
M12	30	36	49	30.65	8.75	6.95	1.75	12.7
M16	38	44	57	38.80	12.9	8.95	2	16.7

- Dimensão 'b' é um valor de referência, consiste no comprimento mínimo da parte roscada.

Grupos de produtos

Rosca	Material	Classe	Tratamento sup.	Código	Página
M	Aço	8.8		08310	1-71
M	Aço	8.8	Zn	08320	1-71
M	INOX A2			51500	1-72
M	INOX A4			55500	1-72

08310 Parafuso cabeça oval arreigada quadrada — A90A

Rosca Métrica
Material Aço
Classe 8.8



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X16	200	08310.060.016	M8X60	100	08310.080.060			
M6X20	200	08310.060.020	M8X70	100	08310.080.070	M12X25	100	08310.120.025
M6X25	200	08310.060.025	M8X80	100	08310.080.080	M12X30	100	08310.120.030
M6X30	200	08310.060.030				M12X35	100	08310.120.035
M6X35	200	08310.060.035	M10X20	100	08310.100.020	M12X40	50	08310.120.040
M6X40	200	08310.060.040	M10X25	100	08310.100.025	M12X45	50	08310.120.045
M6X45	200	08310.060.045	M10X30	100	08310.100.030	M12X50	50	08310.120.050
M6X50	200	08310.060.050	M10X35	100	08310.100.035	M12X55	50	08310.120.055
			M10X40	100	08310.100.040	M12X60	50	08310.120.060
M8X16	200	08310.080.016	M10X45	100	08310.100.045	M12X65	50	08310.120.065
M8X20	200	08310.080.020	M10X50	100	08310.100.050	M12X70	50	08310.120.070
M8X25	200	08310.080.025	M10X55	100	08310.100.055	M12X80	50	08310.120.080
M8X30	200	08310.080.030	M10X60	100	08310.100.060	M12X90	50	08310.120.090
M8X35	200	08310.080.035	M10X70	100	08310.100.070	M12X100	50	08310.120.100
M8X40	200	08310.080.040	M10X80	50	08310.100.080			
M8X45	200	08310.080.045	M10X90	50	08310.100.090	M16X90	25	08310.160.090
M8X50	200	08310.080.050	M10X100	50	08310.100.100	M16X120	25	08310.160.120
M8X55	100	08310.080.055						

08320 Parafuso cabeça oval arreigada quadrada — A90A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X16	200	08320.060.016	M8X25	200	08320.080.025			
M6X20	200	08320.060.020	M8X30	200	08320.080.030	M10X20	100	08320.100.020
M6X30	200	08320.060.030	M8X35	200	08320.080.035	M10X25	100	08320.100.025
M6X40	200	08320.060.040	M8X40	200	08320.080.040	M10X30	100	08320.100.030
M6X50	200	08320.060.050	M8X45	200	08320.080.045	M10X35	100	08320.100.035
			M8X50	200	08320.080.050	M10X40	100	08320.100.040
M8X16	200	08320.080.016	M8X55	100	08320.080.055	M10X50	100	08320.100.050
M8X20	200	08320.080.020	M8X60	100	08320.080.060	M10X60	100	08320.100.060

08320 Parafuso cabeça oval arreigada quadrada ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X70	100	08320.100.070	M12X30	100	08320.120.030	M12X60	50	08320.120.060
M10X80	50	08320.100.080	M12X35	100	08320.120.035	M12X70	50	08320.120.070
M10X90	50	08320.100.090	M12X40	50	08320.120.040	M12X80	50	08320.120.080
M10X100	50	08320.100.100	M12X45	50	08320.120.045	M12X90	50	08320.120.090
			M12X50	50	08320.120.050	M12X100	50	08320.120.100

51500 Parafuso cabeça oval arreigada quadrada R03A

Rosca Métrica
Material Aço inoxidável A2

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X12*	500	51500.050.012	M8X100	25	51500.080.100	M12X55*	50	51500.120.055
M5X16	50	51500.050.016	M8X110	25	51500.080.110	M12X60	10	51500.120.060
M5X18*	200	51500.050.018	M8X120	50	51500.080.120	M12X70	10	51500.120.070
M5X20	50	51500.050.020	M8X130	25	51500.080.130	M12X80	10	51500.120.080
M5X25	50	51500.050.025	M8X140	25	51500.080.140	M12X90	10	51500.120.090
M5X30	50	51500.050.030	M8X150	25	51500.080.150	M12X100	10	51500.120.100
M5X35	50	51500.050.035	M8X160*	50	51500.080.160	M12X110	10	51500.120.110
M5X40	50	51500.050.040	M8X170*	50	51500.080.170	M12X120	10	51500.120.120
M5X45	50	51500.050.045	M8X180*	50	51500.080.180	M12X130	10	51500.120.130
M5X50	50	51500.050.050	M8X190*	50	51500.080.190	M12X140	10	51500.120.140
M5X60	50	51500.050.060	M8X200*	50	51500.080.200	M12X160*	50	51500.120.160
						M12X180*	50	51500.120.180
M6X16	50	51500.060.016	M10X16*	100	51500.100.016	M12X200*	50	51500.120.200
M6X20	50	51500.060.020	M10X20	25	51500.100.020	M12X220*	50	51500.120.220
M6X25	50	51500.060.025	M10X25	25	51500.100.025	M12X240*	50	51500.120.240
M6X30	50	51500.060.030	M10X30	25	51500.100.030	M12X260*	50	51500.120.260
M6X35	50	51500.060.035	M10X35	25	51500.100.035	M12X280*	50	51500.120.280
M6X40	50	51500.060.040	M10X40	25	51500.100.040	M12X300*	50	51500.120.300
M6X45	50	51500.060.045	M10X45	25	51500.100.045			
M6X50	50	51500.060.050	M10X50	25	51500.100.050	M16X30*	25	51500.160.030
M6X55	50	51500.060.055	M10X55	25	51500.100.055	M16X35*	25	51500.160.035
M6X60	50	51500.060.060	M10X60	10	51500.100.060	M16X40*	25	51500.160.040
M6X70	50	51500.060.070	M10X70	10	51500.100.070	M16X45	10	51500.160.045
M6X80	50	51500.060.080	M10X80	10	51500.100.080	M16X50*	25	51500.160.050
M6X90	50	51500.060.090	M10X90	10	51500.100.090	M16X55*	25	51500.160.055
M6X100	50	51500.060.100	M10X100	10	51500.100.100	M16X60	10	51500.160.060
M6X110	50	51500.060.110	M10X110	10	51500.100.110	M16X65	10	51500.160.065
M6X120	50	51500.060.120	M10X120	10	51500.100.120	M16X70*	25	51500.160.070
			M10X130	10	51500.100.130	M16X75*	25	51500.160.075
M8X12*	100	51500.080.012	M10X140	10	51500.100.140	M16X80*	25	51500.160.080
M8X16	50	51500.080.016	M10X150	10	51500.100.150	M16X90*	25	51500.160.090
M8X18*	100	51500.080.018	M10X160	50	51500.100.160	M16X100*	25	51500.160.100
M8X20	50	51500.080.020	M10X180	50	51500.100.180	M16X110*	25	51500.160.110
M8X25	50	51500.080.025	M10X200*	50	51500.100.200	M16X120*	25	51500.160.120
M8X30	50	51500.080.030	M10X220*	50	51500.100.220	M16X130*	25	51500.160.130
M8X35	50	51500.080.035	M10X240*	50	51500.100.240	M16X140*	25	51500.160.140
M8X40	25	51500.080.040	M10X260*	50	51500.100.260	M16X150*	25	51500.160.150
M8X45	25	51500.080.045	M10X280*	50	51500.100.280	M16X160*	25	51500.160.160
M8X50	25	51500.080.050	M10X300*	50	51500.100.300	M16X180*	25	51500.160.180
M8X55	25	51500.080.055				M16X200*	25	51500.160.200
M8X60	25	51500.080.060	M12X25	10	51500.120.025	M16X220*	25	51500.160.220
M8X65	100	51500.080.065	M12X30	10	51500.120.030	M16X240*	25	51500.160.240
M8X70	25	51500.080.070	M12X35	10	51500.120.035	M16X260*	25	51500.160.260
M8X75*	50	51500.080.075	M12X40	10	51500.120.040	M16X280*	25	51500.160.280
M8X80	25	51500.080.080	M12X50	10	51500.120.050	M16X300*	25	51500.160.300
M8X90	25	51500.080.090						

55500 Parafuso cabeça oval arreigada quadrada R43A

Rosca Métrica
Material Aço inoxidável A4

RoHS

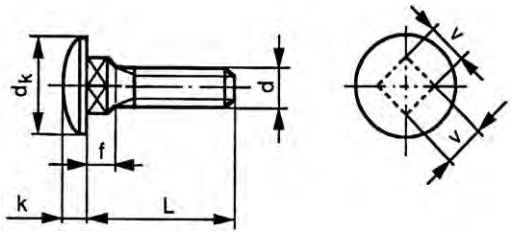


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X16	50	55500.050.016	M5X60	50	55500.050.060	M6X30	50	55500.060.030
M5X20	50	55500.050.020	M5X70	50	55500.050.070	M6X35	50	55500.060.035
M5X25*	200	55500.050.025				M6X40	50	55500.060.040
M5X30	50	55500.050.030	M6X12*	200	55500.060.012	M6X45	50	55500.060.045
M5X35	50	55500.050.035	M6X16	50	55500.060.016	M6X50	50	55500.060.050
M5X40	50	55500.050.040	M6X20	50	55500.060.020	M6X60	50	55500.060.060
M5X50	50	55500.050.050	M6X25	50	55500.060.025	M6X65	50	55500.060.065

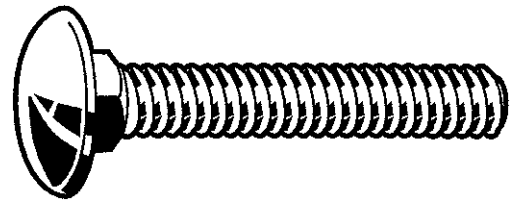
55500 **Parafuso cabeça oval arreigada quadrada** ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X70	50	55500.060.070	M10X20	25	55500.100.020	M12X100	10	55500.120.100
M6X80	50	55500.060.080	M10X30	25	55500.100.030	M12X110	10	55500.120.110
M6X90	50	55500.060.090	M10X40	25	55500.100.040	M12X120	10	55500.120.120
M6X100	50	55500.060.100	M10X50	25	55500.100.050	M12X130	10	55500.120.130
M6X110	25	55500.060.110	M10X60	10	55500.100.060	M12X140	10	55500.120.140
M6X120	25	55500.060.120	M10X70	10	55500.100.070	M12X150	10	55500.120.150
			M10X80	10	55500.100.080	M12X160*	50	55500.120.160
M8X10*	50	55500.080.010	M10X100	10	55500.100.100	M12X180*	50	55500.120.180
M8X16	50	55500.080.016	M10X110	10	55500.100.110			
M8X20	50	55500.080.020	M10X120	10	55500.100.120	M16X40	10	55500.160.040
M8X25	50	55500.080.025	M10X130	10	55500.100.130	M16X50	10	55500.160.050
M8X30	50	55500.080.030	M10X140	10	55500.100.140	M16X55*	25	55500.160.055
M8X35	50	55500.080.035	M10X150	10	55500.100.150	M16X60	10	55500.160.060
M8X40	25	55500.080.040	M10X160*	50	55500.100.160	M16X65*	25	55500.160.065
M8X50	25	55500.080.050	M10X200*	50	55500.100.200	M16X70	10	55500.160.070
M8X60	25	55500.080.060				M16X75*	25	55500.160.075
M8X70	25	55500.080.070	M12X25*	50	55500.120.025	M16X80	5	55500.160.080
M8X80	25	55500.080.080	M12X30	10	55500.120.030	M16X90	5	55500.160.090
M8X90	25	55500.080.090	M12X35	10	55500.120.035	M16X100	5	55500.160.100
M8X100	25	55500.080.100	M12X40	10	55500.120.040	M16X110*	25	55500.160.110
M8X110	10	55500.080.110	M12X45	10	55500.120.045	M16X120	5	55500.160.120
M8X120	10	55500.080.120	M12X50	10	55500.120.050	M16X130	5	55500.160.130
M8X130	10	55500.080.130	M12X60	10	55500.120.060	M16X140	5	55500.160.140
M8X140	10	55500.080.140	M12X70	10	55500.120.070	M16X150	5	55500.160.150
M8X150	10	55500.080.150	M12X80	10	55500.120.080			
			M12X90	10	55500.120.090			

Parafuso cabeça oval arreigada quadrada, totalmente roscado



DIN ≈603
ISO ≈8677



Dados técnicos

d	b (min.): L≤125mm	b (min.): 125mm<L≤200mm	b (min.): L>200mm	d_k (max.)	f (max.)	k (max.)	P	v (max.)
M5	16	22	-	13.55	4.1	3.3	0.8	5.48
M6	18	24	-	16.55	4.6	3.88	1	6.48
M8	22	28	41	20.65	5.6	4.88	1.25	8.58
M10	26	32	45	24.65	6.6	5.38	1.5	10.58
M12	30	36	49	30.65	8.75	6.95	1.75	12.7

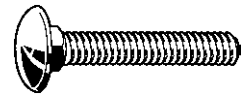
Grupos de produtos

Rosca	Material	Código	Página
M	INOX A2	51501	1-73
M	INOX A4	55501	1-74

51501 **Parafuso cabeça oval arreigada quadrada, totalmente roscado** **R09A**

Rosca Métrica
Material Aço inoxidável A2

RoHS



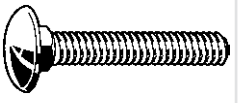
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X35*	200	51501.050.035	M6X25*	200	51501.060.025	M8X75*	50	51501.080.075
M5X45*	200	51501.050.045	M6X55*	100	51501.060.055	M8X90*	50	51501.080.090
M5X55*	200	51501.050.055	M6X65*	100	51501.060.065	M8X120*	50	51501.080.120
M5X65*	200	51501.050.065	M6X75*	100	51501.060.075	M8X130*	50	51501.080.130
M5X70*	200	51501.050.070	M6X110*	100	51501.060.110	M8X140*	50	51501.080.140
M5X75*	200	51501.050.075	M6X120*	100	51501.060.120	M8X150*	50	51501.080.150
M5X80*	200	51501.050.080	M6X130*	100	51501.060.130			
M5X90*	200	51501.050.090	M6X140*	100	51501.060.140	M10X35*	100	51501.100.035
M5X100*	200	51501.050.100	M6X150*	100	51501.060.150	M10X40*	100	51501.100.040
M5X110*	200	51501.050.110				M10X45*	100	51501.100.045
M5X120*	200	51501.050.120	M8X55*	100	51501.080.055	M10X50*	50	51501.100.050
			M8X65*	100	51501.080.065	M10X55*	50	51501.100.055
M6X12*	200	51501.060.012						

51501	Parafuso cabeça oval arreigada quadrada, totalmente roscado	R09A

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X60*	50	51501.100.060	M10X140*	50	51501.100.140	M12X75*	50	51501.120.075
M10X65*	50	51501.100.065	M10X150*	50	51501.100.150	M12X80*	50	51501.120.080
M10X70*	50	51501.100.070				M12X90*	50	51501.120.090
M10X75*	50	51501.100.075	M12X35*	50	51501.120.035	M12X100*	50	51501.120.100
M10X80*	50	51501.100.080	M12X45*	50	51501.120.045	M12X110*	50	51501.120.110
M10X100*	50	51501.100.100	M12X55*	50	51501.120.055	M12X120*	50	51501.120.120
M10X110*	50	51501.100.110	M12X60*	50	51501.120.060	M12X130*	50	51501.120.130
M10X120*	50	51501.100.120	M12X65*	50	51501.120.065	M12X140*	50	51501.120.140
M10X130*	50	51501.100.130	M12X70*	50	51501.120.070	M12X150*	50	51501.120.150

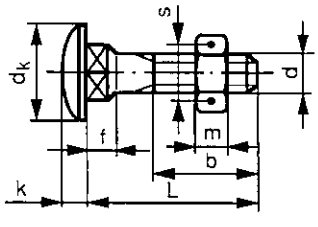
55501	Parafuso cabeça oval arreigada quadrada, totalmente roscado	R49A

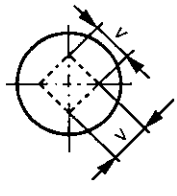
Rosca Métrica
Material Aço inoxidável A4



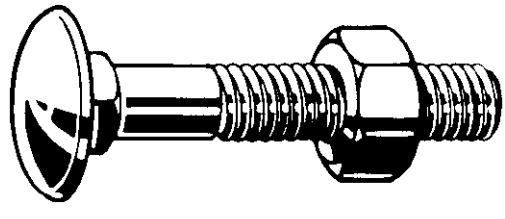
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X45*	200	55501.050.045	M8X55*	100	55501.080.055	M10X65*	50	55501.100.065
M5X80*	200	55501.050.080	M8X65*	100	55501.080.065	M10X75*	50	55501.100.075
			M8X75*	50	55501.080.075	M10X90*	50	55501.100.090
M6X55*	100	55501.060.055						
M6X65*	100	55501.060.065	M10X16*	100	55501.100.016	M12X35*	50	55501.120.035
M6X75*	100	55501.060.075	M10X25*	100	55501.100.025	M12X45*	50	55501.120.045
M6X140*	100	55501.060.140	M10X35*	100	55501.100.035	M12X65*	50	55501.120.065
			M10X45*	100	55501.100.045	M12X75*	50	55501.120.075
M8X45*	100	55501.080.045	M10X55*	50	55501.100.055			

Parafuso cabeça oval arreigada quadrada com porca sextavada





DIN	**603/555 (1987)**
ISO	8677/-
NEN	303/697
ASME	B18.5.2.3M/-
NF	- / E25-402
BS	4933/-



Dados técnicos

d	b (min.): L≤125mm	b (min.): 125mm<L≤200mm	b (min.): L>200mm	d_k (max.)	f (max.)	k (max.)	m	P	s	v (max.)
M5	16	22	-	13.55	4.1	3.3	4	0.8	8	5.48
M6	18	24	-	16.55	4.6	3.88	5	1	10	6.48
M8	22	28	41	20.65	5.6	4.88	6.5	1.25	13	8.58
M10	26	32	45	24.65	6.6	5.38	8	1.5	17	10.58
M12	30	36	49	30.65	8.75	6.95	10	1.75	19	12.7
M16	38	44	57	38.8	12.9	8.95	13	2	24	16.7

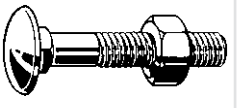
- Dimensão 'b' é um valor de referência, consiste no comprimento mínimo da parte roscada.

Grupos de produtos

Rosca	Material	Classe	Tratamento sup.	Código	Página
M	Aço	≥4.6	Zn	08250	1-74
M	Aço	≥4.6	Galv. Q.	08420	1-75

08250	Parafuso cabeça oval arreigada quadrada com porca sextavada	E05A

Rosca Métrica
Material Aço
Classe ≥4.6
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X16	500	08250.050.016	M5X40	200	08250.050.040	M5X70	200	08250.050.070
M5X20	500	08250.050.020	M5X45	200	08250.050.045	M5X80	200	08250.050.080
M5X25	500	08250.050.025	M5X50	200	08250.050.050			
M5X30	500	08250.050.030	M5X60	200	08250.050.060	M6X16	200	08250.060.016
M5X35	200	08250.050.035	M5X65	200	08250.050.065	M6X20	200	08250.060.020

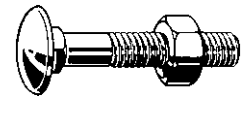
08250 Parafuso cabeça oval arreigada quadrada com porca sextavada ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X25	200	08250.060.025	M10X20	200	08250.100.020	M12X130	50	08250.120.130
M6X30	200	08250.060.030	M10X25	200	08250.100.025	M12X140	50	08250.120.140
M6X35	200	08250.060.035	M10X30	200	08250.100.030	M12X150	50	08250.120.150
M6X40	200	08250.060.040	M10X35	100	08250.100.035	M12X160	25	08250.120.160
M6X45	200	08250.060.045	M10X40	100	08250.100.040	M12X170	25	08250.120.170
M6X50	200	08250.060.050	M10X45	100	08250.100.045	M12X180	25	08250.120.180
M6X55	200	08250.060.055	M10X50	100	08250.100.050	M12X190	25	08250.120.190
M6X60	200	08250.060.060	M10X55	100	08250.100.055	M12X200	25	08250.120.200
M6X65	200	08250.060.065	M10X60	100	08250.100.060	M12X220	25	08250.120.220
M6X70	200	08250.060.070	M10X65	100	08250.100.065	M12X240	25	08250.120.240
M6X75	200	08250.060.075	M10X70	100	08250.100.070	M12X250	25	08250.120.250
M6X80	200	08250.060.080	M10X75	100	08250.100.075	M12X260	25	08250.120.260
M6X90	100	08250.060.090	M10X80	100	08250.100.080	M12X280	25	08250.120.280
M6X100	100	08250.060.100	M10X90	100	08250.100.090	M12X300	25	08250.120.300
M6X110	100	08250.060.110	M10X100	100	08250.100.100	M12X320	10	08250.120.320
M6X120	100	08250.060.120	M10X110	50	08250.100.110	M12X340	10	08250.120.340
M6X130	100	08250.060.130	M10X120	50	08250.100.120	M12X360	10	08250.120.360
M6X140	100	08250.060.140	M10X130	50	08250.100.130	M12X380	10	08250.120.380
M6X150	100	08250.060.150	M10X140	50	08250.100.140	M12X400	10	08250.120.400
			M10X150	50	08250.100.150			
M8X16	200	08250.080.016	M10X160	50	08250.100.160	M16X50	50	08250.160.050
M8X20	200	08250.080.020	M10X170	50	08250.100.170	M16X60	50	08250.160.060
M8X25	200	08250.080.025	M10X180	50	08250.100.180	M16X70	25	08250.160.070
M8X30	200	08250.080.030	M10X190	50	08250.100.190	M16X80	25	08250.160.080
M8X35	200	08250.080.035	M10X200	50	08250.100.200	M16X90	25	08250.160.090
M8X40	200	08250.080.040	M10X220	25	08250.100.220	M16X100	25	08250.160.100
M8X45	200	08250.080.045	M10X240	25	08250.100.240	M16X110	25	08250.160.110
M8X50	200	08250.080.050	M10X260	25	08250.100.260	M16X120	25	08250.160.120
M8X55	200	08250.080.055	M10X280	25	08250.100.280	M16X130	25	08250.160.130
M8X60	200	08250.080.060	M10X300	25	08250.100.300	M16X140	25	08250.160.140
M8X65	200	08250.080.065				M16X160	25	08250.160.160
M8X70	200	08250.080.070	M12X30	100	08250.120.030	M16X170	25	08250.160.170
M8X75	200	08250.080.075	M12X35	100	08250.120.035	M16X180	25	08250.160.180
M8X80	200	08250.080.080	M12X40	100	08250.120.040	M16X200	10	08250.160.200
M8X90	100	08250.080.090	M12X45	100	08250.120.045	M16X220	10	08250.160.220
M8X100	100	08250.080.100	M12X50	100	08250.120.050	M16X240	10	08250.160.240
M8X110	100	08250.080.110	M12X55	100	08250.120.055	M16X260	10	08250.160.260
M8X120	100	08250.080.120	M12X60	100	08250.120.060	M16X280	10	08250.160.280
M8X130	100	08250.080.130	M12X65	50	08250.120.065	M16X300	10	08250.160.300
M8X140	50	08250.080.140	M12X70	50	08250.120.070	M16X320	10	08250.160.320
M8X150	50	08250.080.150	M12X75	50	08250.120.075	M16X340	10	08250.160.340
M8X160	50	08250.080.160	M12X80	50	08250.120.080	M16X360	10	08250.160.360
M8X170	50	08250.080.170	M12X90	50	08250.120.090	M16X380	10	08250.160.380
M8X180	50	08250.080.180	M12X100	50	08250.120.100	M16X400	10	08250.160.400
M8X200	50	08250.080.200	M12X110	50	08250.120.110			
			M12X120	50	08250.120.120			

08420 Parafuso cabeça oval arreigada quadrada com porca sextavada rosca oversized A08A

Rosca Métrica
Material Aço
Classe ≥4.6
Tratamento sup. Galvanizado a quente

RoHS

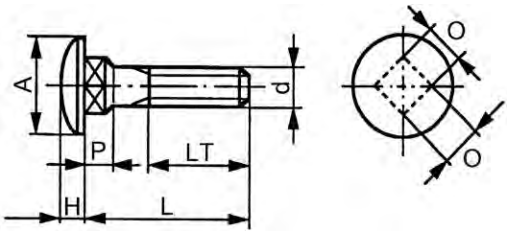


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M8X50	200	08420.080.050	M10X160	50	08420.100.160	M12X220	25	08420.120.220
M8X60	200	08420.080.060	M10X170	50	08420.100.170	M12X240	25	08420.120.240
M8X70	200	08420.080.070	M10X180	50	08420.100.180	M12X260	25	08420.120.260
M8X80	100	08420.080.080	M10X200	50	08420.100.200	M12X280	25	08420.120.280
M8X90	100	08420.080.090	M10X220	25	08420.100.220	M12X300	25	08420.120.300
M8X100	100	08420.080.100	M10X240	25	08420.100.240	M12X320	10	08420.120.320
M8X110	100	08420.080.110	M10X280	25	08420.100.280	M12X340	10	08420.120.340
M8X120	100	08420.080.120	M10X300	25	08420.100.300	M12X360	10	08420.120.360
M8X130	100	08420.080.130				M12X400	10	08420.120.400
M8X140	50	08420.080.140	M12X60	50	08420.120.060			
M8X160	50	08420.080.160	M12X70	50	08420.120.070	M16X90	25	08420.160.090
M8X180	50	08420.080.180	M12X80	50	08420.120.080	M16X100	25	08420.160.100
			M12X90	50	08420.120.090	M16X120	25	08420.160.120
M10X50	100	08420.100.050	M12X100	50	08420.120.100	M16X130	25	08420.160.130
M10X60	100	08420.100.060	M12X110	50	08420.120.110	M16X140	25	08420.160.140
M10X70	100	08420.100.070	M12X120	50	08420.120.120	M16X150	25	08420.160.150
M10X80	100	08420.100.080	M12X130	50	08420.120.130	M16X160	25	08420.160.160
M10X90	100	08420.100.090	M12X140	50	08420.120.140	M16X180	25	08420.160.180
M10X100	100	08420.100.100	M12X150	50	08420.120.150	M16X200	10	08420.160.200
M10X110	50	08420.100.110	M12X160	25	08420.120.160	M16X220	10	08420.160.220
M10X120	50	08420.100.120	M12X170	25	08420.120.170	M16X240	10	08420.160.240
M10X130	50	08420.100.130	M12X180	25	08420.120.180	M16X260	10	08420.160.260
M10X140	50	08420.100.140	M12X200	25	08420.120.200	M16X280	10	08420.160.280
M10X150	50	08420.100.150						

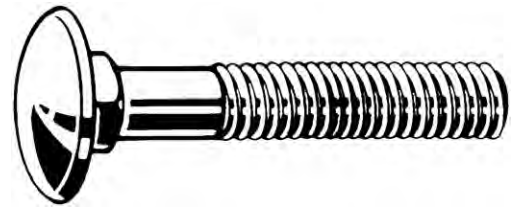
08420 **Parafuso cabeça oval arreigada quadrada com porca sextavada rosca oversized** ←

- Para parafusos galvanizados a quente com rosca OVERSIZED a camada de zinco é aplicada na rosca normal, depois de galvanizados estes parafusos já não são ISO-metric, são maiores: chamados de OVERSIZED (mais largos).
- As porcas correspondentes OVERSIZED são furo oversize de acordo com ISO 965-5, depois de galvanizadas podem facilmente ser roscados nestes parafusos.

Parafuso cabeça oval arreigada quadrada UNC



ASME **B18.5.2.3M**
B18.5.2.3



Dados técnicos

d	A (max.)	H (max.)	L_T (min.): L≤6 Inch	L_T (min.): L>6 Inch	O (max.)	P (max.)	Fios por polegada
1/4	0.594	0.145	0.750	1.000	0.260	0.156	20
5/16	0.719	0.176	0.875	1.125	0.324	0.187	18
3/8	0.844	0.208	1.000	1.250	0.388	0.219	16
7/16	0.969	0.239	1.125	1.375	0.452	0.250	14
1/2	1.094	0.270	1.250	1.500	0.515	0.281	13
5/8	1.344	0.344	1.500	1.750	0.642	0.344	11
3/4	1.594	0.406	1.750	2.000	0.768	0.406	10

Grupos de produtos

Rosca	Material	Classe	Tratamento sup.	Código	Página
UNC	Aço	Grade 2		U08300	1-76
UNC	Aço	Grade 2	Zn	U08305	1-77
UNC	Aço	Grade 2	Galv. Q.	U08307	1-77
UNC	Aço	Grade 5	Zn	U08320	1-77
UNC	INOX A2 (AISI304/18-8)			U51500	1-78

U08300 **Parafuso cabeça oval arreigada quadrada UNC** **X09A**

Rosca Unified National Coarse
Material Aço
Classe Grade 2

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4-20X1/2*	100	U08300.025.0050	5/16-18X6 Inch*	50	U08300.031.0600	1/2-13X2.1/2*	25	U08300.050.0250
1/4-20X3/4*	100	U08300.025.0075				1/2-13X3 Inch*	25	U08300.050.0300
1/4-20X1 Inch*	100	U08300.025.0100	3/8-16X1 Inch*	100	U08300.037.0100	1/2-13X3.1/2*	25	U08300.050.0350
1/4-20X1.1/4*	100	U08300.025.0125	3/8-16X1.1/2*	100	U08300.037.0150	1/2-13X4 Inch*	10	U08300.050.0400
1/4-20X1.1/2*	100	U08300.025.0150	3/8-16X2 Inch*	50	U08300.037.0200	1/2-13X5 Inch*	10	U08300.050.0500
1/4-20X2 Inch*	100	U08300.025.0200	3/8-16X2.1/2*	50	U08300.037.0250	1/2-13X6 Inch*	10	U08300.050.0600
1/4-20X2.1/2*	100	U08300.025.0250	3/8-16X3 Inch*	25	U08300.037.0300			
1/4-20X3 Inch*	50	U08300.025.0300	3/8-16X3.1/2*	25	U08300.037.0350	5/8-11X2 Inch*	10	U08300.062.0200
1/4-20X3.1/2*	50	U08300.025.0350	3/8-16X4 Inch*	25	U08300.037.0400	5/8-11X2.1/4*	10	U08300.062.0225
1/4-20X4 Inch*	50	U08300.025.0400	3/8-16X4.1/2*	10	U08300.037.0450	5/8-11X2.1/2*	10	U08300.062.0250
1/4-20X4.1/2*	50	U08300.025.0450	3/8-16X5 Inch*	10	U08300.037.0500	5/8-11X3 Inch*	10	U08300.062.0300
1/4-20X5 Inch*	50	U08300.025.0500	3/8-16X6 Inch*	10	U08300.037.0600	5/8-11X3.1/2*	10	U08300.062.0350
			3/8-16X6.1/2*	10	U08300.037.0650	5/8-11X4 Inch*	10	U08300.062.0400
5/16-18X1 Inch*	100	U08300.031.0100	3/8-16X7 Inch*	10	U08300.037.0700	5/8-11X5 Inch*	10	U08300.062.0500
5/16-18X1.1/4*	100	U08300.031.0125				5/8-11X6 Inch*	10	U08300.062.0600
5/16-18X1.1/2*	100	U08300.031.0150	7/16-14X1.1/4*	50	U08300.043.0125			
5/16-18X2 Inch*	100	U08300.031.0200	7/16-14X1.1/2*	50	U08300.043.0150	3/4-10X2 Inch*	10	U08300.075.0200
5/16-18X2.1/2*	100	U08300.031.0250	7/16-14X2 Inch*	50	U08300.043.0200	3/4-10X3 Inch*	10	U08300.075.0300
5/16-18X3 Inch*	50	U08300.031.0300	7/16-14X2.1/2*	25	U08300.043.0250	3/4-10X4 Inch*	10	U08300.075.0400
5/16-18X3.1/2*	50	U08300.031.0350				3/4-10X5 Inch*	10	U08300.075.0500
5/16-18X4 Inch*	50	U08300.031.0400	1/2-13X1.1/4*	50	U08300.050.0125	3/4-10X6 Inch*	10	U08300.075.0600
5/16-18X4.1/2*	50	U08300.031.0450	1/2-13X1.1/2*	50	U08300.050.0150	3/4-10X7 Inch*	5	U08300.075.0700
5/16-18X5 Inch*	50	U08300.031.0500	1/2-13X1.3/4*	25	U08300.050.0175	3/4-10X8 Inch*	5	U08300.075.0800
5/16-18X5.1/2*	50	U08300.031.0550	1/2-13X2 Inch*	25	U08300.050.0200			

U08305 Parafuso cabeça oval arreigada quadrada UNC — X09A

Rosca Unified National Coarse
Material Aço
Classe Grade 2
Tratamento sup. Zincado

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4-20X1/2*	100	U08305.025.0050	5/16-18X5.1/2*	50	U08305.031.0550	1/2-13X1.3/4*	25	U08305.050.0175
1/4-20X5/8*	100	U08305.025.0062	5/16-18X6 Inch*	50	U08305.031.0600	1/2-13X2 Inch*	25	U08305.050.0200
1/4-20X3/4*	100	U08305.025.0075				1/2-13X2.1/4*	25	U08305.050.0225
1/4-20X1 Inch*	100	U08305.025.0100	3/8-16X3/4*	100	U08305.037.0075	1/2-13X2.1/2*	25	U08305.050.0250
1/4-20X1.1/4*	100	U08305.025.0125	3/8-16X1 Inch*	100	U08305.037.0100	1/2-13X2.3/4*	25	U08305.050.0275
1/4-20X1.1/2*	100	U08305.025.0150	3/8-16X1.1/4*	100	U08305.037.0125	1/2-13X3 Inch*	25	U08305.050.0300
1/4-20X1.3/4*	100	U08305.025.0175	3/8-16X1.1/2*	100	U08305.037.0150	1/2-13X3.1/2*	25	U08305.050.0350
1/4-20X2 Inch*	100	U08305.025.0200	3/8-16X1.3/4*	100	U08305.037.0175	1/2-13X4 Inch*	10	U08305.050.0400
1/4-20X2.1/4*	100	U08305.025.0225	3/8-16X2 Inch*	50	U08305.037.0200	1/2-13X5 Inch*	10	U08305.050.0500
1/4-20X2.1/2*	100	U08305.025.0250	3/8-16X2.1/4*	50	U08305.037.0225	1/2-13X6 Inch*	10	U08305.050.0600
1/4-20X2.3/4*	100	U08305.025.0275	3/8-16X2.1/2*	50	U08305.037.0250	1/2-13X8 Inch*	10	U08305.050.0800
1/4-20X3 Inch*	50	U08305.025.0300	3/8-16X2.3/4*	50	U08305.037.0275	1/2-13X9 Inch*	10	U08305.050.0900
1/4-20X3.1/2*	50	U08305.025.0350	3/8-16X3 Inch*	25	U08305.037.0300	1/2-13X10 Inch*	10	U08305.050.1000
1/4-20X4 Inch*	50	U08305.025.0400	3/8-16X3.1/2*	25	U08305.037.0350			
1/4-20X4.1/2*	50	U08305.025.0450	3/8-16X4 Inch*	25	U08305.037.0400	5/8-11X1.1/2*	10	U08305.062.0150
1/4-20X5 Inch*	50	U08305.025.0500	3/8-16X4.1/2*	10	U08305.037.0450	5/8-11X2 Inch*	10	U08305.062.0200
			3/8-16X5 Inch*	10	U08305.037.0500	5/8-11X2.1/2*	10	U08305.062.0250
5/16-18X3/4*	100	U08305.031.0075	3/8-16X5.1/2*	10	U08305.037.0550	5/8-11X3 Inch*	10	U08305.062.0300
5/16-18X1 Inch*	100	U08305.031.0100	3/8-16X6 Inch*	10	U08305.037.0600	5/8-11X3.1/2*	10	U08305.062.0350
5/16-18X1.1/4*	100	U08305.031.0125	3/8-16X7 Inch*	10	U08305.037.0700	5/8-11X4 Inch*	10	U08305.062.0400
5/16-18X1.1/2*	100	U08305.031.0150	3/8-16X8 Inch*	10	U08305.037.0800	5/8-11X4.1/2*	10	U08305.062.0450
5/16-18X1.3/4*	100	U08305.031.0175				5/8-11X5 Inch*	10	U08305.062.0500
5/16-18X2 Inch*	100	U08305.031.0200	7/16-14X1 Inch*	50	U08305.043.0100	5/8-11X6 Inch*	10	U08305.062.0600
5/16-18X2.1/4*	100	U08305.031.0225	7/16-14X2 Inch*	50	U08305.043.0200			
5/16-18X2.1/2*	100	U08305.031.0250	7/16-14X3 Inch*	25	U08305.043.0300	3/4-10X2 Inch*	10	U08305.075.0200
5/16-18X2.3/4*	50	U08305.031.0275	7/16-14X4 Inch*	10	U08305.043.0400	3/4-10X3 Inch*	10	U08305.075.0300
5/16-18X3 Inch*	50	U08305.031.0300	7/16-14X4.1/2*	10	U08305.043.0450	3/4-10X4 Inch*	10	U08305.075.0400
5/16-18X3.1/2*	50	U08305.031.0350				3/4-10X5 Inch*	10	U08305.075.0500
5/16-18X4 Inch*	50	U08305.031.0400	1/2-13X1 Inch*	50	U08305.050.0100	3/4-10X6 Inch*	10	U08305.075.0600
5/16-18X4.1/2*	50	U08305.031.0450	1/2-13X1.1/4*	50	U08305.050.0125	3/4-10X7 Inch*	5	U08305.075.0700
5/16-18X5 Inch*	50	U08305.031.0500	1/2-13X1.1/2*	50	U08305.050.0150	3/4-10X8 Inch*	5	U08305.075.0800

U08307 Parafuso cabeça oval arreigada quadrada UNC — X09A

Rosca Unified National Coarse
Material Aço
Classe Grade 2
Tratamento sup. Galvanizado a quente

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4-20X1 Inch*	100	U08307.025.0100	5/16-18X3 Inch*	50	U08307.031.0300			
1/4-20X1.1/4*	100	U08307.025.0125	5/16-18X3.1/2*	50	U08307.031.0350	1/2-13X1.1/2*	50	U08307.050.0150
1/4-20X1.1/2*	100	U08307.025.0150	5/16-18X4 Inch*	50	U08307.031.0400	1/2-13X2 Inch*	25	U08307.050.0200
1/4-20X2 Inch*	100	U08307.025.0200	5/16-18X5 Inch*	50	U08307.031.0500	1/2-13X2.1/2*	25	U08307.050.0250
1/4-20X2.1/2*	100	U08307.025.0250				1/2-13X3 Inch*	25	U08307.050.0300
1/4-20X3 Inch*	50	U08307.025.0300	3/8-16X1 Inch*	100	U08307.037.0100	1/2-13X3.1/2*	25	U08307.050.0350
1/4-20X3.1/2*	50	U08307.025.0350	3/8-16X1.1/4*	100	U08307.037.0125	1/2-13X4 Inch*	10	U08307.050.0400
1/4-20X4 Inch*	50	U08307.025.0400	3/8-16X1.1/2*	100	U08307.037.0150	1/2-13X5 Inch*	10	U08307.050.0500
1/4-20X5 Inch*	50	U08307.025.0500	3/8-16X2 Inch*	50	U08307.037.0200	1/2-13X6 Inch*	10	U08307.050.0600
			3/8-16X2.1/2*	50	U08307.037.0250			
5/16-18X1 Inch*	100	U08307.031.0100	3/8-16X3 Inch*	25	U08307.037.0300	5/8-11X2 Inch*	10	U08307.062.0200
5/16-18X1.1/4*	100	U08307.031.0125	3/8-16X3.1/2*	25	U08307.037.0350	5/8-11X2.1/2*	10	U08307.062.0250
5/16-18X1.1/2*	100	U08307.031.0150	3/8-16X4 Inch*	25	U08307.037.0400	5/8-11X3 Inch*	10	U08307.062.0300
5/16-18X2 Inch*	100	U08307.031.0200	3/8-16X5 Inch*	10	U08307.037.0500	5/8-11X4 Inch*	10	U08307.062.0400
5/16-18X2.1/2*	100	U08307.031.0250	3/8-16X6 Inch*	10	U08307.037.0600	5/8-11X5 Inch*	10	U08307.062.0500

U08320 Parafuso cabeça oval arreigada quadrada UNC — X09A

Rosca Unified National Coarse
Material Aço
Classe Grade 5
Tratamento sup. Zincado

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4-20X3/4*	100	U08320.025.0075	1/4-20X2.1/2*	100	U08320.025.0250			
1/4-20X1 Inch*	100	U08320.025.0100	1/4-20X3 Inch*	50	U08320.025.0300	5/16-18X3/4*	100	U08320.031.0075
1/4-20X1.1/4*	100	U08320.025.0125	1/4-20X3.1/2*	50	U08320.025.0350	5/16-18X1 Inch*	100	U08320.031.0100
1/4-20X1.1/2*	100	U08320.025.0150	1/4-20X4 Inch*	50	U08320.025.0400	5/16-18X1.1/4*	100	U08320.031.0125
1/4-20X2 Inch*	100	U08320.025.0200	1/4-20X5 Inch*	50	U08320.025.0500	5/16-18X1.1/2*	100	U08320.031.0150

U08320 Parafuso cabeça oval arreigada quadrada UNC ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
5/16-18X2 Inch*	100	U08320.031.0200	3/8-16X3.1/2*	25	U08320.037.0350	1/2-13X6 Inch*	10	U08320.050.0600
5/16-18X2.1/2*	50	U08320.031.0250	3/8-16X4 Inch*	25	U08320.037.0400			
5/16-18X3 Inch*	50	U08320.031.0300	3/8-16X5 Inch*	10	U08320.037.0500	5/8-11X2 Inch*	10	U08320.062.0200
5/16-18X4 Inch*	50	U08320.031.0400	3/8-16X6 Inch*	10	U08320.037.0600	5/8-11X2.1/2*	10	U08320.062.0250
5/16-18X5 Inch*	50	U08320.031.0500				5/8-11X3 Inch*	10	U08320.062.0300
			1/2-13X1 Inch*	50	U08320.050.0100	5/8-11X3.1/2*	10	U08320.062.0350
3/8-16X3/4*	100	U08320.037.0075	1/2-13X1.1/4*	50	U08320.050.0125	5/8-11X4 Inch*	10	U08320.062.0400
3/8-16X1 Inch*	100	U08320.037.0100	1/2-13X1.1/2*	50	U08320.050.0150	5/8-11X5 Inch*	10	U08320.062.0500
3/8-16X1.1/4*	100	U08320.037.0125	1/2-13X1.3/4*	25	U08320.050.0175	5/8-11X6 Inch*	10	U08320.062.0600
3/8-16X1.1/2*	100	U08320.037.0150	1/2-13X2 Inch*	25	U08320.050.0200			
3/8-16X1.3/4*	100	U08320.037.0175	1/2-13X2.1/2*	25	U08320.050.0250	3/4-10X2 Inch*	10	U08320.075.0200
3/8-16X2 Inch*	50	U08320.037.0200	1/2-13X3 Inch*	25	U08320.050.0300	3/4-10X3 Inch*	10	U08320.075.0300
3/8-16X2.1/4*	50	U08320.037.0225	1/2-13X3.1/2*	10	U08320.050.0350	3/4-10X4 Inch*	10	U08320.075.0400
3/8-16X2.1/2*	50	U08320.037.0250	1/2-13X4 Inch*	10	U08320.050.0400	3/4-10X5 Inch*	10	U08320.075.0500
3/8-16X3 Inch*	25	U08320.037.0300	1/2-13X5 Inch*	10	U08320.050.0500			

U51500 Parafuso cabeça oval arreigada quadrada UNC X15A

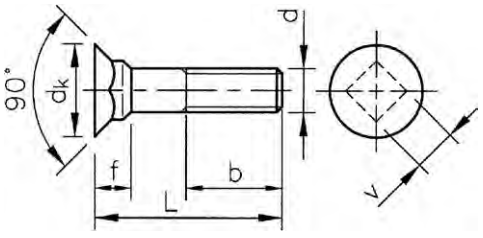
Rosca Unified National Coarse
Material Aço inoxidável A2 (AISI 304/18-8)

RoHS

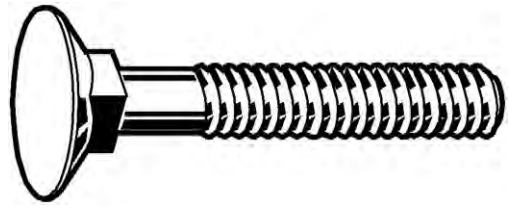


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4-20X1/2*	100	U51500.025.0050	5/16-18X1 Inch*	100	U51500.031.0100	3/8-16X3.1/2*	25	U51500.037.0350
1/4-20X5/8*	100	U51500.025.0062	5/16-18X1.1/4*	100	U51500.031.0125	3/8-16X4 Inch*	25	U51500.037.0400
1/4-20X3/4*	100	U51500.025.0075	5/16-18X1.1/2*	100	U51500.031.0150	3/8-16X4.1/2*	10	U51500.037.0450
1/4-20X1 Inch*	100	U51500.025.0100	5/16-18X1.3/4*	100	U51500.031.0175	3/8-16X5 Inch*	10	U51500.037.0500
1/4-20X1.1/4*	100	U51500.025.0125	5/16-18X2 Inch*	100	U51500.031.0200	3/8-16X6 Inch*	10	U51500.037.0600
1/4-20X1.1/2*	100	U51500.025.0150	5/16-18X2.1/4*	100	U51500.031.0225			
1/4-20X1.3/4*	100	U51500.025.0175	5/16-18X2.1/2*	50	U51500.031.0250	1/2-13X1.1/4*	50	U51500.050.0125
1/4-20X2 Inch*	100	U51500.025.0200	5/16-18X3 Inch*	50	U51500.031.0300	1/2-13X1.1/2*	50	U51500.050.0150
1/4-20X2.1/4*	100	U51500.025.0225	5/16-18X3.1/2*	50	U51500.031.0350	1/2-13X1.3/4*	25	U51500.050.0175
1/4-20X2.1/2*	100	U51500.025.0250	5/16-18X4 Inch*	50	U51500.031.0400	1/2-13X2 Inch*	25	U51500.050.0200
1/4-20X2.3/4*	100	U51500.025.0275				1/2-13X2.1/2*	25	U51500.050.0250
1/4-20X3 Inch*	50	U51500.025.0300	3/8-16X1 Inch*	100	U51500.037.0100	1/2-13X3 Inch*	25	U51500.050.0300
1/4-20X3.1/2*	50	U51500.025.0350	3/8-16X1.1/4*	100	U51500.037.0125	1/2-13X3.1/2*	10	U51500.050.0350
1/4-20X4 Inch*	50	U51500.025.0400	3/8-16X1.1/2*	100	U51500.037.0150	1/2-13X4 Inch*	10	U51500.050.0400
1/4-20X5 Inch*	50	U51500.025.0500	3/8-16X2 Inch*	50	U51500.037.0200	1/2-13X5 Inch*	10	U51500.050.0500
			3/8-16X2.1/2*	50	U51500.037.0250	1/2-13X6 Inch*	10	U51500.050.0600
5/16-18X3/4*	100	U51500.031.0075	3/8-16X3 Inch*	25	U51500.037.0300			

Parafuso cabeça de embeber arreigada quadrada pequena



DIN ≈608
BS ≈4933



Dados técnicos

d	b (min.)	d_k (max.)	f (max.)	P	v (max.)
M10	26	19.65	8.45	1.5	10.58
M12	30	24.65	11.05	1.75	12.7

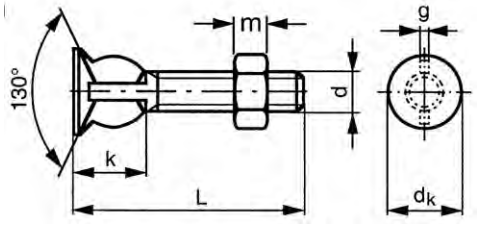
01036 **Parafuso cabeça de embeber arreigada quadrada pequena** **A90A**

Rosca Métrica
Material Aço
Classe 8.8

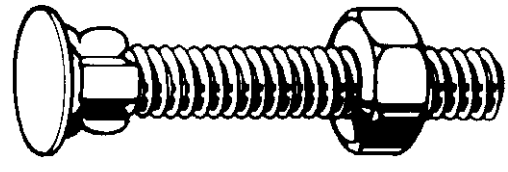


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X25	100	01036.100.025	M10X50	50	01036.100.050	M12X35	50	01036.120.035
M10X30	100	01036.100.030	M10X60	50	01036.100.060	M12X40	50	01036.120.040
M10X35	100	01036.100.035				M12X50	50	01036.120.050
M10X40	100	01036.100.040	M12X30	50	01036.120.030			

Parafuso cabeça de embeber com abas e porca sextavada



DIN **- / 555 (1987)**
NEN - / 697
NF - / E25-402



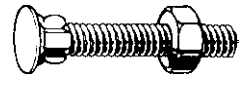
Dados técnicos

d	d_k	g	k	m	P	s
M6	11.5	1	8	5	1	10
M8	15	1.2	11.5	6.5	1.25	13

- As porcas sextavadas correspondentes têm uma classe de aço ≥ l4l.

08260 **SEHA Parafuso cabeça de embeber com abas e porca sextavada** **E90A**

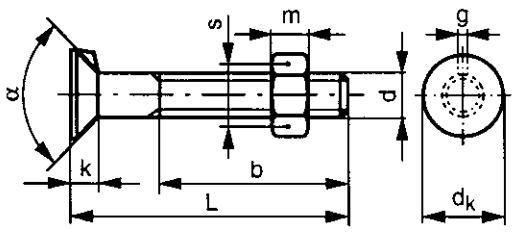
Rosca Métrica
Material Aço
Classe ≥4.6
Tratamento sup. Zincado



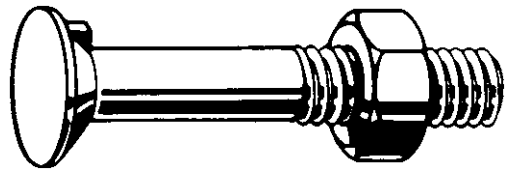
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X20	200	08260.060.020	M6X35	200	08260.060.035			
M6X25	200	08260.060.025	M6X40	200	08260.060.040	M8X40	100	08260.080.040
M6X30	200	08260.060.030	M6X50	200	08260.060.050	M8X50	100	08260.080.050

1

Parafuso cabeça de embeber com pino fixação e porca sextavada



DIN	**604/555 (1987)**
NEN	2355/697
NF	- / E25-402
BS	4933/-



Dados técnicos

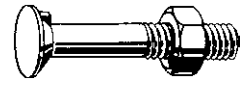
d	b (min.): L≤125mm	b (min.): 125mm<L≤200mm	b (min.): L>200mm	d_k (max.)	g (max.)	k	m	P	s	α (min.)
M10	26	32	45	19.65	3.2	5.5	8	1.5	17	90º
M12	30	36	49	24.65	3.6	7	10	1.75	19	90º
M16	38	44	57	32.8	4.2	9	13	2	24	90º
M20	46	52	65	32.8	5.4	11.5	16	2.5	30	60º
M24	54	60	73	38.8	6.6	13	19	3	36	60º

- As porcas sextavadas correspondentes têm uma classe de aço ≥ l4l.

08070 **Parafuso cabeça de embeber com pino fixação e porca sextavada** **E01B**

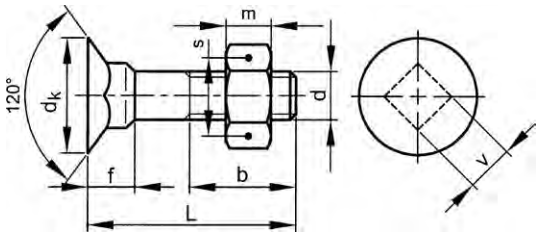
Rosca	Métrica
Material	Aço
Classe	≥4.6

RoHS

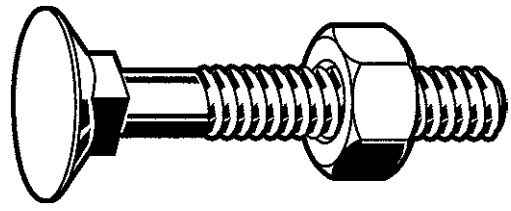


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X25	100	08070.100.025	M12X50	100	08070.120.050	M16X140	25	08070.160.140
M10X30	100	08070.100.030	M12X60	50	08070.120.060			
M10X35	100	08070.100.035	M12X70	50	08070.120.070	M20X50	25	08070.200.050
M10X40	100	08070.100.040	M12X80	50	08070.120.080	M20X60	25	08070.200.060
M10X45	100	08070.100.045	M12X90	50	08070.120.090	M20X70	25	08070.200.070
M10X50	100	08070.100.050				M20X80	25	08070.200.080
M10X55	100	08070.100.055	M16X35	25	08070.160.035	M20X90	25	08070.200.090
M10X60	100	08070.100.060	M16X40	25	08070.160.040	M20X100	25	08070.200.100
M10X70	100	08070.100.070	M16X45	25	08070.160.045	M20X120	25	08070.200.120
M10X80	50	08070.100.080	M16X50	25	08070.160.050	M20X130	25	08070.200.130
M10X90	50	08070.100.090	M16X55	25	08070.160.055			
			M16X60	25	08070.160.060	M24X60	25	08070.240.060
M12X30	100	08070.120.030	M16X70	25	08070.160.070	M24X80	25	08070.240.080
M12X35	100	08070.120.035	M16X80	25	08070.160.080	M24X90	25	08070.240.090
M12X40	100	08070.120.040	M16X90	25	08070.160.090	M24X100	25	08070.240.100
M12X45	100	08070.120.045	M16X100	25	08070.160.100	M24X110	25	08070.240.110

Parafuso cabeça de embeber arreigada quadrada pequena e porca sextavada



DIN **605/555 (1987)**
NF - / E25-402
BS 4933/-



Dados técnicos

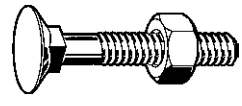
d	b (min.)	d_k (max.)	f (max.)	m	P	s	v (max.)
M6	18	16.55	7.45	5	1	10	6.48
M8	22	20.65	9.45	6.5	1.25	13	8.58
M10	26	24.65	11.55	8	1.5	17	10.58

- As porcas sextavadas correspondentes têm uma classe de aço ≥ l4l.

08206 **Parafuso cabeça de embeber arreigada quadrada pequena e porca sextavada** **E03B**

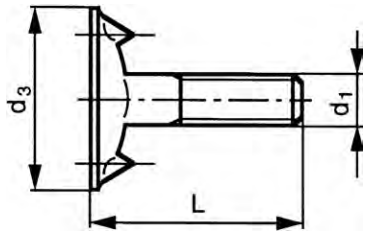
Rosca Métrica
Material Aço
Classe 4.6
Tratamento sup. Zincado

RoHS

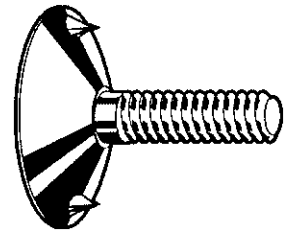


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X30	200	08206.060.030	M8X30	200	08206.080.030			
M6X35	200	08206.060.035	M8X35	200	08206.080.035	M10X40	100	08206.100.040
M6X40	200	08206.060.040	M8X40	200	08206.080.040	M10X50	100	08206.100.050
M6X50	200	08206.060.050	M8X50	200	08206.080.050	M10X60	100	08206.100.060
			M8X60	200	08206.080.060			

Parafuso de elevação



DIN **15237**



Dados técnicos

d_1	d_3	P
M8	28	1.25
M10	35	1.5

- Aplicável para a fixação de correias.
- Os ressaltos por caixo da cabeça do parafuso fixam o parafuso, enquanto a anilha por baixo da cinta reforça a ligação.

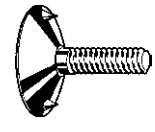
Grupos de produtos

Rosca	Material	Código	Página
M	INOX A2	51505	1-81
M	INOX A4	55505	1-82

51505 **Parafuso de elevação** **R03A**

Rosca Métrica
Material Aço inoxidável A2

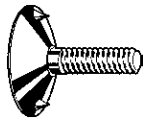
RoHS



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M8X25	10	51505.080.025				M10X40	5	51505.100.040
M8X30	10	51505.080.030	M10X30	5	51505.100.030	M10X50	5	51505.100.050
M8X35	10	51505.080.035	M10X35	5	51505.100.035			

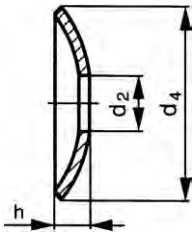
55505	Parafuso de elevação	R43A

Rosca Métrica
Material Aço inoxidável A4

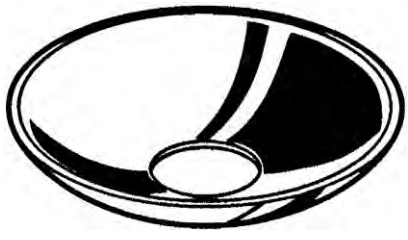


d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M8X25	10	55505.080.025				M10X50	5	55505.100.050

Anilha para parafuso de elevação



DIN 15237



Dados técnicos

Para diâm.nom.	d_2	d_4	h ≈
M8	9.5	32	5.7
M10	11.5	40	7

- As anilhas são indicadas para utilizar com parafusos de elevador.
- Aplicáveis na fixação de cintas de transporte aos rolos.

Grupos de produtos

Material	Código	Página
INOX A2	51506	1-82
INOX A4	55506	1-82

51506	Anilha para parafuso de elevação	R09A

Material Aço inoxidável A2



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M8	10	51506.080.001	M10	5	51506.100.001

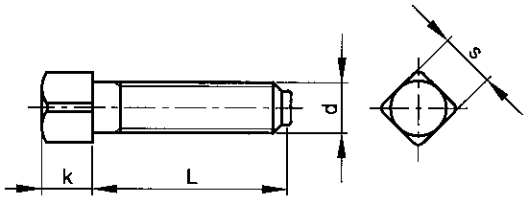
55506	Anilha para parafuso de elevação	R49A

Material Aço inoxidável A4

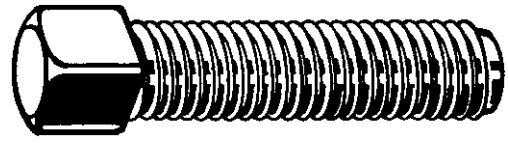


Para diâm. nom.	✉	Ref. do artigo
M8	10	55506.080.001

Parafuso cabeça quadrada com guia curta



DIN **479**
NF E25-134



Dados técnicos

d	k	P	s
M6	6	1	6
M8	8	1.25	8
M10	10	1.5	10
M12	12	1.75	13

d	k	P	s
M16	16	2	17
M20	20	2.5	22
M24	22	3	24

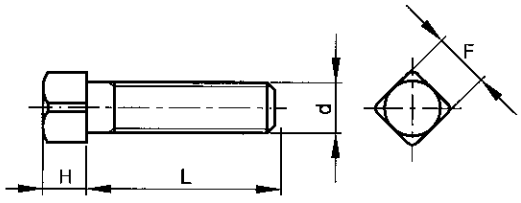
01030 **Parafuso cabeça quadrada com guia curta** **A90A**

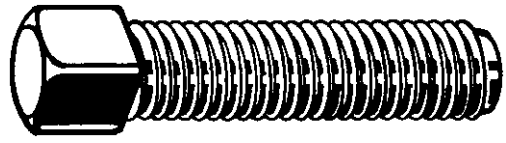
Rosca Métrica
Material Aço
Classe 8.8



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X16	200	01030.060.016	M10X40	100	01030.100.040	M16X50	50	01030.160.050
M6X20	200	01030.060.020	M10X45	100	01030.100.045	M16X60	50	01030.160.060
M6X25	200	01030.060.025	M10X50	100	01030.100.050	M16X70	50	01030.160.070
M6X30	200	01030.060.030	M10X60	100	01030.100.060	M16X80	25	01030.160.080
M6X35	200	01030.060.035	M10X70	100	01030.100.070	M16X90	25	01030.160.090
M6X40	200	01030.060.040	M10X80	50	01030.100.080	M16X100	25	01030.160.100
M6X50	200	01030.060.050	M10X100	50	01030.100.100	M16X120	25	01030.160.120
M8X16	200	01030.080.016	M12X20	200	01030.120.020	M20X50	25	01030.200.050
M8X20	200	01030.080.020	M12X25	100	01030.120.025	M20X60	25	01030.200.060
M8X25	200	01030.080.025	M12X30	100	01030.120.030	M20X70	25	01030.200.070
M8X30	200	01030.080.030	M12X35	100	01030.120.035	M20X80	25	01030.200.080
M8X35	200	01030.080.035	M12X40	100	01030.120.040	M20X90	25	01030.200.090
M8X40	200	01030.080.040	M12X50	50	01030.120.050	M20X100	25	01030.200.100
M8X50	200	01030.080.050	M12X60	50	01030.120.060	M20X120	25	01030.200.120
M8X60	100	01030.080.060	M12X70	50	01030.120.070			
			M12X80	50	01030.120.080	M24X70	25	01030.240.070
M10X16	200	01030.100.016	M12X90	50	01030.120.090	M24X80	25	01030.240.080
M10X20	200	01030.100.020	M12X100	50	01030.120.100	M24X90	10	01030.240.090
M10X25	200	01030.100.025				M24X100	10	01030.240.100
M10X30	200	01030.100.030	M16X40	50	01030.160.040	M24X120	10	01030.240.120
M10X35	200	01030.100.035	M16X45	50	01030.160.045	M24X140	50	01030.240.140

Parafuso cabeça quadrada UNC





Dados técnicos

d	F (max.)	Fios por polegada	H (max.)
1/4	0.250	20	0.196
5/16	0.312	18	0.245
3/8	0.375	16	0.293
7/16	0.438	14	0.341
1/2	0.500	13	0.389
5/8	0.625	11	0.485
3/4	0.750	10	0.582
7/8	0.875	9	0.678
1 Inch	1.000	8	0.774

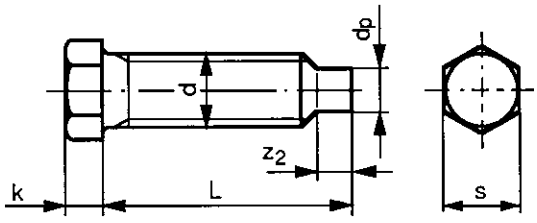
U01080 **Parafuso cabeça quadrada UNC** **X09A**

Rosca Unified National Coarse
Material Aço

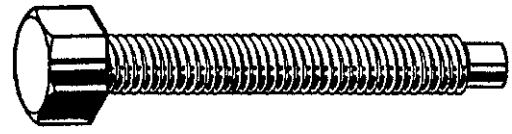


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4-20X3/8*	100	U01080.025.0037	3/8-16X2.1/2*	25	U01080.037.0250	5/8-11X2.1/2*	10	U01080.062.0250
1/4-20X1/2*	100	U01080.025.0050	3/8-16X3 Inch*	10	U01080.037.0300	5/8-11X3 Inch*	5	U01080.062.0300
1/4-20X5/8*	100	U01080.025.0062	3/8-16X3.1/2*	10	U01080.037.0350	5/8-11X3.1/2*	5	U01080.062.0350
1/4-20X3/4*	100	U01080.025.0075	3/8-16X4 Inch*	10	U01080.037.0400	5/8-11X4 Inch*	5	U01080.062.0400
1/4-20X7/8*	100	U01080.025.0087				5/8-11X5 Inch*	5	U01080.062.0500
1/4-20X1 Inch*	100	U01080.025.0100	7/16-14X3/4*	50	U01080.043.0075	5/8-11X6 Inch*	5	U01080.062.0600
1/4-20X1.1/4*	100	U01080.025.0125	7/16-14X1 Inch*	50	U01080.043.0100			
1/4-20X1.1/2*	100	U01080.025.0150	7/16-14X1.1/4*	25	U01080.043.0125	3/4-10X1 Inch*	5	U01080.075.0100
1/4-20X1.3/4*	100	U01080.025.0175	7/16-14X1.1/2*	25	U01080.043.0150	3/4-10X1.1/4*	5	U01080.075.0125
1/4-20X2 Inch*	100	U01080.025.0200	7/16-14X2 Inch*	25	U01080.043.0200	3/4-10X1.1/2*	5	U01080.075.0150
1/4-20X2.1/2*	50	U01080.025.0250				3/4-10X2 Inch*	5	U01080.075.0200
			1/2-13X3/4*	25	U01080.050.0075	3/4-10X2.1/2*	5	U01080.075.0250
5/16-18X1/2*	100	U01080.031.0050	1/2-13X7/8*	25	U01080.050.0087	3/4-10X3 Inch*	5	U01080.075.0300
5/16-18X5/8*	100	U01080.031.0062	1/2-13X1 Inch*	25	U01080.050.0100	3/4-10X3.1/2*	5	U01080.075.0350
5/16-18X3/4*	100	U01080.031.0075	1/2-13X1.1/4*	25	U01080.050.0125	3/4-10X4 Inch*	5	U01080.075.0400
5/16-18X1 Inch*	100	U01080.031.0100	1/2-13X1.1/2*	25	U01080.050.0150	3/4-10X5 Inch*	5	U01080.075.0500
5/16-18X1.1/4*	100	U01080.031.0125	1/2-13X1.3/4*	25	U01080.050.0175	3/4-10X6 Inch*	5	U01080.075.0600
5/16-18X1.1/2*	100	U01080.031.0150	1/2-13X2 Inch*	10	U01080.050.0200			
5/16-18X1.3/4*	100	U01080.031.0175	1/2-13X2.1/2*	10	U01080.050.0250	7/8-9X2 Inch*	5	U01080.087.0200
5/16-18X2 Inch*	100	U01080.031.0200	1/2-13X3 Inch*	10	U01080.050.0300	7/8-9X3 Inch*	5	U01080.087.0300
5/16-18X2.1/2*	50	U01080.031.0250	1/2-13X3.1/2*	10	U01080.050.0350	7/8-9X4 Inch*	5	U01080.087.0400
			1/2-13X4 Inch*	10	U01080.050.0400	7/8-9X5 Inch*	5	U01080.087.0500
3/8-16X1/2*	100	U01080.037.0050	1/2-13X5 Inch*	5	U01080.050.0500	7/8-9X6 Inch*	5	U01080.087.0600
3/8-16X5/8*	100	U01080.037.0062	1/2-13X6 Inch*	5	U01080.050.0600			
3/8-16X3/4*	100	U01080.037.0075				1.-8X2.1/2*	1	U01080.100.0250
3/8-16X1 Inch*	100	U01080.037.0100	5/8-11X1 Inch*	10	U01080.062.0100	1.-8X3 Inch*	1	U01080.100.0300
3/8-16X1.1/4*	100	U01080.037.0125	5/8-11X1.1/4*	10	U01080.062.0125	1.-8X4 Inch*	1	U01080.100.0400
3/8-16X1.1/2*	50	U01080.037.0150	5/8-11X1.1/2*	10	U01080.062.0150	1.-8X5 Inch*	1	U01080.100.0500
3/8-16X1.3/4*	50	U01080.037.0175	5/8-11X1.3/4*	10	U01080.062.0175	1.-8X6 Inch*	1	U01080.100.0600
3/8-16X2 Inch*	25	U01080.037.0200	5/8-11X2 Inch*	10	U01080.062.0200			

Parafuso cabeça sextavada com pivot



DIN **561**
NF E25-133



Dados técnicos

d	d_p (max.)	k	P	s	z_2 (min.)
M6	4	5	1	8	3
M8	5.5	6	1.25	10	4
M10	7	7	1.5	13	5
M12	8.5	9	1.75	16	6
M16	12	11	2	18	8

01098 **Parafuso cabeça sextavada com pivot** **A90A**

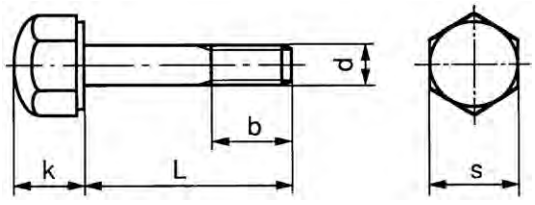
Rosca Métrica
Material Aço
Classe 8.8

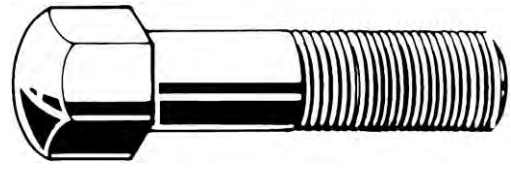


RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X12	200	01098.060.012				M12X30	100	01098.120.030
M6X16	200	01098.060.016	M10X20	200	01098.100.020	M12X35	100	01098.120.035
M6X20	200	01098.060.020	M10X25	200	01098.100.025	M12X40	100	01098.120.040
			M10X30	200	01098.100.030	M12X50	100	01098.120.050
M8X16	200	01098.080.016	M10X35	100	01098.100.035	M12X60	100	01098.120.060
M8X20	200	01098.080.020	M10X40	100	01098.100.040			
M8X25	200	01098.080.025	M10X50	100	01098.100.050	M16X50	50	01098.160.050
M8X30	200	01098.080.030	M10X60	100	01098.100.060	M16X60	50	01098.160.060
M8X35	200	01098.080.035				M16X70	25	01098.160.070
M8X40	200	01098.080.040	M12X25	100	01098.120.025	M16X80	25	01098.160.080
M8X50	100	01098.080.050						

Parafuso Trackshoe tipo caterpillar





Dados técnicos

d	Fios por polegada	k	s	d	Fios por polegada	k	s
7/16	20	11	16	5/8	18	16	24
1/2	20	13	19	3/4	16	19	28
9/16	18	14	22	1 Inch-14G	14	24	38.1

- Para porcas Trackshoe correspondentes secção 3.

06000 **Parafuso Trackshoe tipo caterpillar** **Y90A**

Rosca Unified National Fine
Material Aço
Classe 170



d x L x b	✉	Ref. do artigo	d x L x b	✉	Ref. do artigo	d x L x b	✉	Ref. do artigo
7/16X1.1/2X22MM	50	06000.111.038	9/16X1.15/16X28MM	50	06000.142.049	3/4X2.3/8X30MM	10	06000.191.060
						3/4X2.1/2X30MM	10	06000.191.063
1/2X1.1/2X19MM	50	06000.127.038	5/8X2 InchX28MM	25	06000.158.050	3/4X2.3/4X38MM	10	06000.191.069
1/2X2 InchX24MM	50	06000.127.050	5/8X2.1/4X27MM	25	06000.158.057			
						1-14GX3 InchX35MM	10	06000.256.076
9/16X1.5/8X26MM	50	06000.142.041	3/4X2.1/4X29MM	10	06000.191.057			

- 170 = tensão de ruptura minima 170.000 psi = 1200 N/mm^2.

PEINER Parafusos estruturais alta resistência

Geral
Desde setembro 2007, que os produtores de parafusos, porcas e anilhas de alta resistência, devem produzir estes produtos de acordo com a norma europeia **EN 14399**. Os produtos produzidos de acordo com as antigas normas DIN 6914, 6915 e 6916 (antigos stocks 'DIN') podem ainda ser utilizados e fornecidos, mas não podem ser combinados com as várias fixações (ver 'montagem') com produtos de acordo com a nova norma!
As normas revistas não conduzem a alterações dimensionais importantes (com exceção do comprimento da rosca "b", que tem agora o valor máximo da antiga norma, começando em M24 e acima). Além disto, a marcação CE na embalagem é obrigatória, e os produtos requerem instruções de montagem mais rígidas e rastreabilidade. Os valores de impacto, foram também alterados de $K_{V,min}$=20J para $K_{V,min}$=27J a -20°C. Os parafusos, porcas e anilhas estruturais de alta resistência PEINER 10.9 HV neste catalogo, estão de acordo com as novas normas.

Produto	Antes	Nova	Marcação
HV parafusos	DIN 6914 →	EN 14399-4	10.9 HV
HV porcas	DIN 6915 →	EN 14399-4	10 HV
HV anilhas	DIN 6916 →	EN 14399-6	H

Qualidade
A PEINER é um fornecedor com certificação CE de parafusos classe 10.9 HV, porcas classe 10 HV e anilhas (dureza 300-370 HV), nas medidas M12-M36 de acordo com a EN 14399-4 resp. EN 14399-6. Estes produtos estão disponíveis em galvanizado a quente e sem tratamento de superfície. Os parafusos cumprem todos os requisitos, na prevenção da disfunção hidrogénica.

Montagem
A norma indica que o parafuso, porca e anilha devem ser do mesmo fabricante. A norma EN14399-2 descreve o método de teste que o parafuso/porca/anilha devem cumprir. Devido ás instruções de montagem mais rígidas e á classificação em coeficientes de fricção, o fabricante deve assegurar que a força de pré carga pode ser conseguida de uma forma fidedigna e que a sobrecarga é evitada, com referência aos métodos de montagem da norma EN 1090-2

As combinações em galvanizado a quente, coeficiente de fricção K1, são aplicados os apertos e pré cargas determinados na norma DIN 18800-7 (2002-09) Tabela 6, colunas 3 e 7, resp. EN 1993-1-8. Para produtos galvanizados a quente do mesmo fornecedor, os diversos elementos independentes (em conformidade com as normas DIN e EN) podem ser combinados. Porque os valores de aperto permanecem os mesmos!

Para combinações não galvanizadas a quente, de acordo com a nova norma EN, é aplicada a mesma força de aperto que ás combinações galvanizadas a quente, a norma DIN 18800-7 (2002-09) Tabela 6, coluna 4 e 8, prescrevem os apertos. Combinações de produtos DIN e EN não são permitidas.

Os parafusos estruturais de alta resistência de acordo com a nova norma EN são fornecidos com coeficiente de fricção K1. O factor k descreve a relação entre o torque de aperto (M) e a força de pré carga para o respectivo diâmetro.
É expressado através da seguinte fórmula: M = k x Fv x d (M [Nm], Fv [kN], d [mm])
Os produtos de pré carga PEINER (EN14399-4 e 6) devem estar de acordo com **K1 onde 0.1≤ k ≤0.16**, independentemente do tratamento de superfície.

A embalagem do produto menciona a montagem e o coeficiente de fricção. O tratamento de superfície utilizado pelo fabricante assegura que estas condições são alcançadas ! Lubrificação adicional ou influências desengordurantes influenciam o valor k e não são permitidas. Em relação ao comprimento de aperto da combinação parafuso-porca-anilha, na nova norma a espessura da anilha está incluída.

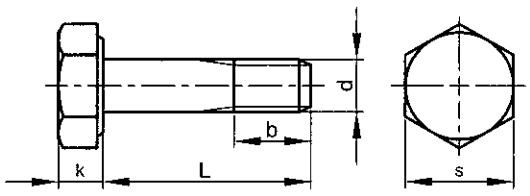
Certificados
Os parafusos estruturais de alta resistência PEINER estão, sob pedido, disponíveis com certificado 3.1 de acordo com a norma EN 10204.



1

Parafuso cabeça sextavada estrutural de alta resistência

EN 14399-4





Dados técnicos

d	b	k	P	s
M12	23	8	1.75	22
M16	28	10	2	27
M20	33	13	2.5	32
M22	34	14	2.5	36
M24	39	15	3	41
M27	41	17	3	46
M30	44	19	3.5	50
M36	52	23	4	60
M39	68	25	4	65
M42	74	26	4.5	70
M45	76	28	4.5	75
M48	82	30	5	80
M56	90	35	5.5	90
M64	100	40	6	100

- Os parafusos PEINER HV e as respetivas porcas e anilhas HV, diâmetros M12 a M36, são de acordo com as normas EN 14399-4 e EN 14399-6. Diâmetros M39 a M72 estão definidos na diretiva DASt 021.
- Parafusos PEINER HV quando associados a porcas HV e anilhas HV, devem ser usados como um conjunto de um único fabricante.

04210 **PEINER Parafuso cabeça sextavada estrutural de alta resistência** **C05A**

Rosca Métrica
Material Aço
Classe 10.9
Tratamento sup. Galvanizado a quente

CE



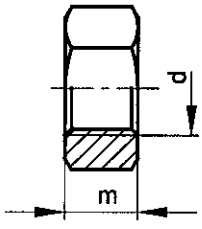
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M12X30	100	04210.120.030	M16X150	25	04210.160.150	M20X230	15	04210.200.230
M12X35	100	04210.120.035	M16X160	25	04210.160.160	M20X240	15	04210.200.240
M12X40	100	04210.120.040	M16X170	25	04210.160.170	M20X250	15	04210.200.250
M12X45	100	04210.120.045	M16X180	25	04210.160.180	M20X260	15	04210.200.260
M12X50	100	04210.120.050	M16X190	25	04210.160.190			
M12X55	100	04210.120.055	M16X200	25	04210.160.200	M22X50	25	04210.220.050
M12X60	50	04210.120.060	M16X210	25	04210.160.210	M22X55	25	04210.220.055
M12X65	50	04210.120.065	M16X220	25	04210.160.220	M22X60	25	04210.220.060
M12X70	50	04210.120.070				M22X65	25	04210.220.065
M12X75	50	04210.120.075	M20X40	25	04210.200.040	M22X70	25	04210.220.070
M12X80	50	04210.120.080	M20X45	25	04210.200.045	M22X75	25	04210.220.075
M12X85	50	04210.120.085	M20X50	25	04210.200.050	M22X80	25	04210.220.080
M12X90	50	04210.120.090	M20X55	25	04210.200.055	M22X85	25	04210.220.085
M12X95	50	04210.120.095	M20X60	25	04210.200.060	M22X90	25	04210.220.090
M12X100	50	04210.120.100	M20X65	25	04210.200.065	M22X95	25	04210.220.095
M12X110	50	04210.120.110	M20X70	25	04210.200.070	M22X100	25	04210.220.100
M12X120	50	04210.120.120	M20X75	25	04210.200.075	M22X110	25	04210.220.110
			M20X80	25	04210.200.080	M22X120	25	04210.220.120
M16X35	50	04210.160.035	M20X85	25	04210.200.085	M22X130	25	04210.220.130
M16X40	50	04210.160.040	M20X90	25	04210.200.090	M22X140	20	04210.220.140
M16X45	50	04210.160.045	M20X95	25	04210.200.095	M22X150	15	04210.220.150
M16X50	50	04210.160.050	M20X100	25	04210.200.100	M22X160	15	04210.220.160
M16X55	50	04210.160.055	M20X105	25	04210.200.105	M22X170	15	04210.220.170
M16X60	50	04210.160.060	M20X110	25	04210.200.110	M22X180	15	04210.220.180
M16X65	50	04210.160.065	M20X115	25	04210.200.115	M22X190	15	04210.220.190
M16X70	50	04210.160.070	M20X120	25	04210.200.120	M22X200	15	04210.220.200
M16X75	50	04210.160.075	M20X125	25	04210.200.125			
M16X80	25	04210.160.080	M20X130	25	04210.200.130	M24X50	25	04210.240.050
M16X85	25	04210.160.085	M20X140	25	04210.200.140	M24X55	25	04210.240.055
M16X90	25	04210.160.090	M20X150	25	04210.200.150	M24X60	25	04210.240.060
M16X95	25	04210.160.095	M20X160	20	04210.200.160	M24X65	25	04210.240.065
M16X100	25	04210.160.100	M20X170	20	04210.200.170	M24X70	25	04210.240.070
M16X110	25	04210.160.110	M20X180	15	04210.200.180	M24X75	25	04210.240.075
M16X115	25	04210.160.115	M20X190	15	04210.200.190	M24X80	25	04210.240.080
M16X120	25	04210.160.120	M20X200	15	04210.200.200	M24X85	25	04210.240.085
M16X130	25	04210.160.130	M20X210	15	04210.200.210	M24X90	25	04210.240.090
M16X140	25	04210.160.140	M20X220	15	04210.200.220	M24X95	25	04210.240.095

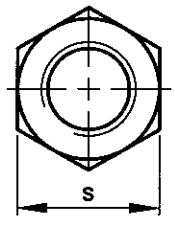
04210 PEINER Parafuso cabeça sextavada estrutural de alta resistência ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M24X100	25	04210.240.100	M27X260	10	04210.270.260	M30X500	1	04210.300.500
M24X105	25	04210.240.105						
M24X110	25	04210.240.110	M30X70	10	04210.300.070	M36X80	5	04210.360.080
M24X115	25	04210.240.115	M30X75	10	04210.300.075	M36X85	5	04210.360.085
M24X120	20	04210.240.120	M30X80	10	04210.300.080	M36X90	5	04210.360.090
M24X125	20	04210.240.125	M30X85	10	04210.300.085	M36X95	5	04210.360.095
M24X130	20	04210.240.130	M30X90	10	04210.300.090	M36X100	5	04210.360.100
M24X135	20	04210.240.135	M30X95	10	04210.300.095	M36X110	5	04210.360.110
M24X140	20	04210.240.140	M30X100	10	04210.300.100	M36X115	5	04210.360.115
M24X150	15	04210.240.150	M30X110	10	04210.300.110	M36X120	5	04210.360.120
M24X160	15	04210.240.160	M30X115	10	04210.300.115	M36X130	5	04210.360.130
M24X170	10	04210.240.170	M30X120	10	04210.300.120	M36X140	5	04210.360.140
M24X180	10	04210.240.180	M30X130	10	04210.300.130	M36X150	5	04210.360.150
M24X190	10	04210.240.190	M30X140	10	04210.300.140	M36X160	5	04210.360.160
M24X200	10	04210.240.200	M30X150	10	04210.300.150	M36X170	5	04210.360.170
M24X210	10	04210.240.210	M30X160	10	04210.300.160	M36X180	5	04210.360.180
M24X220	10	04210.240.220	M30X165	10	04210.300.165	M36X190	5	04210.360.190
M24X230	10	04210.240.230	M30X170	10	04210.300.170	M36X200	5	04210.360.200
M24X240	10	04210.240.240	M30X180	5	04210.300.180	M36X210	5	04210.360.210
M24X250	10	04210.240.250	M30X190	5	04210.300.190	M36X220	5	04210.360.220
M24X260	10	04210.240.260	M30X200	5	04210.300.200	M36X230	5	04210.360.230
			M30X210	5	04210.300.210	M36X240	5	04210.360.240
M27X60	10	04210.270.060	M30X220	5	04210.300.220	M36X250	5	04210.360.250
M27X65	10	04210.270.065	M30X230	5	04210.300.230	M36X260	5	04210.360.260
M27X70	10	04210.270.070	M30X240	5	04210.300.240	M36X270	1	04210.360.270
M27X75	10	04210.270.075	M30X250	5	04210.300.250	M36X280	1	04210.360.280
M27X80	10	04210.270.080	M30X260	5	04210.300.260	M36X290	1	04210.360.290
M27X85	10	04210.270.085	M30X270	1	04210.300.270	M36X300	1	04210.360.300
M27X90	10	04210.270.090	M30X280	1	04210.300.280	M36X310	1	04210.360.310
M27X95	10	04210.270.095	M30X290	1	04210.300.290	M36X320	1	04210.360.320
M27X100	10	04210.270.100	M30X300	1	04210.300.300	M36X330	1	04210.360.330
M27X105	10	04210.270.105	M30X310	1	04210.300.310	M36X340	1	04210.360.340
M27X110	10	04210.270.110	M30X320	1	04210.300.320	M36X350	1	04210.360.350
M27X115	10	04210.270.115	M30X330	1	04210.300.330	M36X360	1	04210.360.360
M27X120	10	04210.270.120	M30X340	1	04210.300.340	M36X370	1	04210.360.370
M27X125	10	04210.270.125	M30X350	1	04210.300.350	M36X380	1	04210.360.380
M27X130	10	04210.270.130	M30X360	1	04210.300.360	M36X390	1	04210.360.390
M27X140	10	04210.270.140	M30X370	1	04210.300.370	M36X400	1	04210.360.400
M27X150	10	04210.270.150	M30X380	1	04210.300.380	M36X410	1	04210.360.410
M27X160	10	04210.270.160	M30X390	1	04210.300.390	M36X420	1	04210.360.420
M27X165	10	04210.270.165	M30X400	1	04210.300.400	M36X430	1	04210.360.430
M27X170	10	04210.270.170	M30X410	1	04210.300.410	M36X440	1	04210.360.440
M27X180	10	04210.270.180	M30X420	1	04210.300.420	M36X450	1	04210.360.450
M27X190	10	04210.270.190	M30X430	1	04210.300.430	M36X460	1	04210.360.460
M27X200	10	04210.270.200	M30X440	1	04210.300.440	M36X470	1	04210.360.470
M27X210	10	04210.270.210	M30X450	1	04210.300.450	M36X480	1	04210.360.480
M27X220	10	04210.270.220	M30X460	1	04210.300.460	M36X490	1	04210.360.490
M27X230	10	04210.270.230	M30X470	1	04210.300.470	M36X500	1	04210.360.500
M27X240	10	04210.270.240	M30X480	1	04210.300.480			
M27X250	10	04210.270.250	M30X490	1	04210.300.490			

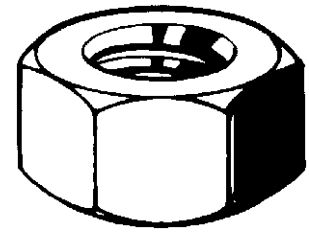
1

Porca sextavada estrutural de alta resistência





EN **14399-4**



Dados técnicos

d	m	P	s	d	m	P	s
M12	10	1.75	22	M36	29	4	60
M16	13	2	27	M39	31	4	65
M20	16	2.5	32	M42	34	4.5	70
M22	18	2.5	36	M45	36	4.5	75
M24	20	3	41	M48	38	5	80
M27	22	3	46	M56	45	5.5	90
M30	24	3.5	50	M64	51	6	100

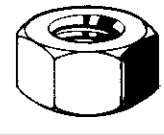
Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado	Aço	10		04025	1-90
M	Sextavado	Aço	10	Galv. Q.	04225	1-90

04025 **PEINER** **Porca sextavada estrutural de alta resistência** **C05A**

Rosca Métrica
Material Aço
Classe 10

CE

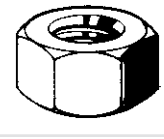


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M12	200	04025.120.001	M22	50	04025.220.001	M30	50	04025.300.001
M16	100	04025.160.001	M24	50	04025.240.001	M36	25	04025.360.001
M20	100	04025.200.001	M27	50	04025.270.001			

04225 **Porca sextavada estrutural de alta resistência** **C05A**

Rosca Métrica
Material Aço
Classe 10
Tratamento sup. Galvanizado a quente

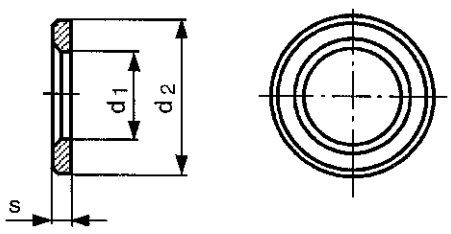
CE



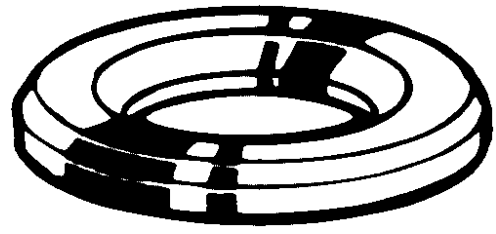
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M12	200	04225.120.001	M27	50	04225.270.001	M45	1	04225.450.001
M16	100	04225.160.001	M30	50	04225.300.001	M48	1	04225.480.001
M20	100	04225.200.001	M36	25	04225.360.001	M56	1	04225.560.001
M22	50	04225.220.001	M39	1	04225.390.001	M64	1	04225.640.001
M24	50	04225.240.001	M42	1	04225.420.001			

- As porcas estruturais de alta resistência galvanizadas a quente de acordo com EN 14399-4 são fornecidas lubrificadas.

Anilha estrutural de alta resistência



EN 14399-6



Dados técnicos

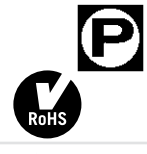
Para diâm.nom.	d_1	d_2	s	Para diâm.nom.	d_1	d_2	s
M12	13	24	3	M36	37	66	6
M16	17	30	4	M39	41	72	6
M20	21	37	4	M42	44	78	8
M22	23	39	4	M45	47	85	8
M24	25	44	4	M48	50	92	8
M27	28	50	5	M56	58	105	10
M30	31	56	5	M64	66	115	10

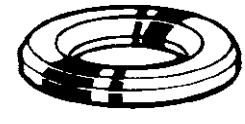
Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço 300-370 HV10		04035	1-91
Aço 300-370 HV10	Galv. Q.	04237	1-91

04035 PEINER Anilha estrutural de alta resistência C05A

Material Aço 300-370 HV10

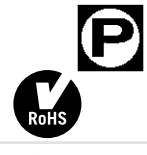




Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M12	400	04035.120.001	M22	200	04035.220.001	M30	100	04035.300.001
M16	200	04035.160.001	M24	200	04035.240.001	M36	50	04035.360.001
M20	200	04035.200.001	M27	100	04035.270.001			

04237 PEINER Anilha estrutural de alta resistência C05A

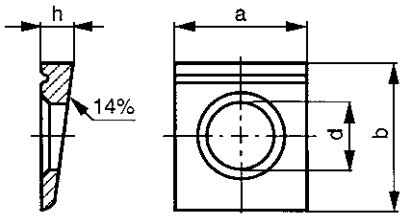
Material Aço 300-370 HV10
Tratamento sup. Galvanizado a quente



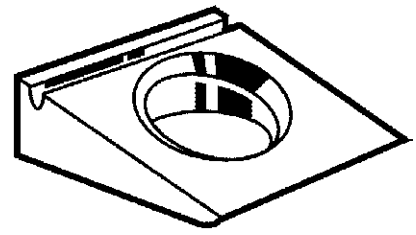


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M12	400	04237.120.001	M27	100	04237.270.001	M45	1	04237.450.001
M16	200	04237.160.001	M30	100	04237.300.001	M48	1	04237.480.001
M20	200	04237.200.001	M36	50	04237.360.001	M56	1	04237.560.001
M22	200	04237.220.001	M39	1	04237.390.001	M64	1	04237.640.001
M24	200	04237.240.001	M42	1	04237.420.001			

Anilha quadrada 14% para seções em I



DIN **6917**
NEN 5515



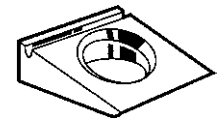
Dados técnicos

Para diâm.nom.	a	b	d	h
M12	26	30	13	6.2
M16	32	36	17	7.5
M20	40	44	21	9.2
M22	44	50	23	10
M24	56	56	25	10.8
M27	56	56	28	10.8
M30	62	62	31	11.7
M36	68	68	37	12.5

04240 **PEINER Anilha quadrada 14% para viga I** **C05A**

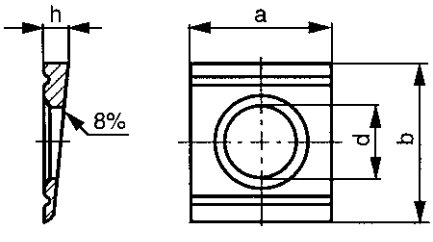
Material Aço 295-350 HV10
Tratamento sup. Galvanizado a quente



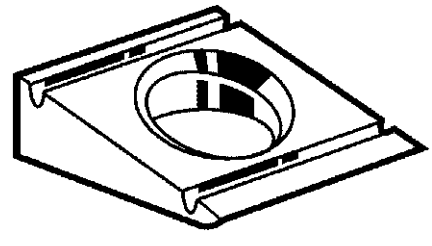


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M12	200	04240.120.001	M22	50	04240.220.001	M30	50	04240.300.001
M16	100	04240.160.001	M24	50	04240.240.001	M36	50	04240.360.001
M20	100	04240.200.001	M27	50	04240.270.001			

Anilha quadrada 8% para seções em U



DIN **6918**
NEN 5514

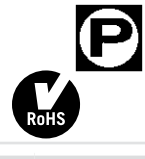


Dados técnicos

Para diâm.nom.	a	b	d	h
M12	26	30	13	4.9
M16	32	36	17	5.9
M20	40	44	21	7
M22	44	50	23	8
M24	56	56	25	8.5
M27	56	56	28	8.5
M30	62	62	31	9
M36	68	68	37	9.4

04250 **PEINER Anilha quadrada 8% paraviga U** **C05A**

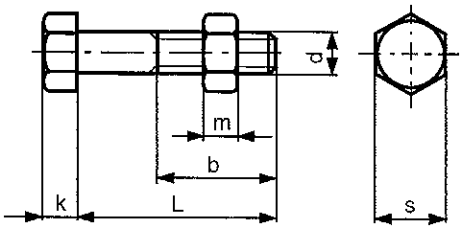
Material Aço 295-350 HV10
Tratamento sup. Galvanizado a quente



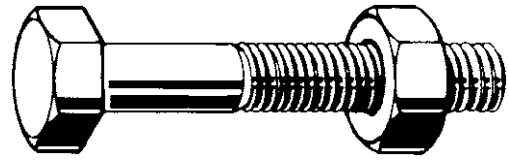


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M12	200	04250.120.001	M22	50	04250.220.001	M30	50	04250.300.001
M16	100	04250.160.001	M24	50	04250.240.001	M36	50	04250.360.001
M20	100	04250.200.001	M27	50	04250.270.001			

Conjunto para fixação estrutural



EN **15048**
ISO 4014/4032



Dados técnicos

d	b (min.): L≤125mm	b (min.): 125mm<L≤200mm	b (min.): L>200mm	k	m (max.)	P	s
M10	26	32	45	6.4	8.4	1.5	16
M12	30	36	49	7.5	10.8	1.75	18
M16	38	44	57	10	14.8	2	24
M20	46	52	65	12.5	18	2.5	30
M24	54	60	73	15	21.5	3	36
M27	60	66	79	17	23.8	3	41
M30	66	72	85	18.7	25.6	3.5	46
M33	72	78	91	21	28.7	3.5	50
M36	78	84	97	22.5	31	4	55

- Só embalagens completas.

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.		Código	Página
M	Sextavado	Aço	8.8	Zn		01222	1-93
M	Sextavado	Aço	8.8	Galv. Q.	ISO métrico	01405	1-94

01222 **Conjunto para fixação estrutural** **A96A**

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Zincado

CE

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M12X50/S=18	100	01222.120.050	M16X120	25	01222.160.120	M20X280	10	01222.200.280
M12X55/S=18	100	01222.120.055	M16X130	25	01222.160.130	M20X300	10	01222.200.300
M12X60/S=18	100	01222.120.060	M16X140	25	01222.160.140	M20X320	10	01222.200.320
M12X70/S=18	75	01222.120.070	M16X150	25	01222.160.150	M20X340	10	01222.200.340
M12X75/S=18	50	01222.120.075	M16X160	25	01222.160.160	M20X360	10	01222.200.360
M12X80/S=18	50	01222.120.080	M16X170	25	01222.160.170			
M12X85/S=18	50	01222.120.085	M16X180	25	01222.160.180	M24X80	25	01222.240.080
M12X90/S=18	50	01222.120.090	M16X190	25	01222.160.190	M24X85	10	01222.240.085
M12X100/S=18	50	01222.120.100	M16X200	25	01222.160.200	M24X90	10	01222.240.090
M12X110/S=18	50	01222.120.110	M16X220	25	01222.160.220	M24X100	10	01222.240.100
M12X120/S=18	50	01222.120.120	M16X240	10	01222.160.240	M24X110	10	01222.240.110
M12X130/S=18	50	01222.120.130	M16X250	10	01222.160.250	M24X120	10	01222.240.120
M12X140/S=18	50	01222.120.140	M16X260	10	01222.160.260	M24X130	10	01222.240.130
M12X150/S=18	50	01222.120.150	M16X280	10	01222.160.280	M24X140	10	01222.240.140
M12X160/S=18	25	01222.120.160	M16X300	10	01222.160.300	M24X150	25	01222.240.150
M12X170/S=18	25	01222.120.170				M24X160	10	01222.240.160
M12X180/S=18	25	01222.120.180	M20X65	25	01222.200.065	M24X170	10	01222.240.170
M12X190/S=18	25	01222.120.190	M20X70	25	01222.200.070	M24X180	10	01222.240.180
M12X200/S=18	25	01222.120.200	M20X75	25	01222.200.075	M24X200	10	01222.240.200
M12X220/S=18	25	01222.120.220	M20X80	25	01222.200.080	M24X220	10	01222.240.220
M12X240/S=18	25	01222.120.240	M20X85	25	01222.200.085	M24X240	10	01222.240.240
M12X250/S=18	25	01222.120.250	M20X90	20	01222.200.090	M24X260	10	01222.240.260
M12X260/S=18	25	01222.120.260	M20X100	20	01222.200.100	M24X280	10	01222.240.280
M12X280/S=18	25	01222.120.280	M20X110	20	01222.200.110	M24X300	10	01222.240.300
M12X300/S=18	25	01222.120.300	M20X120	20	01222.200.120	M24X320	5	01222.240.320
			M20X130	20	01222.200.130	M24X340	5	01222.240.340
M16X55	50	01222.160.055	M20X140	10	01222.200.140	M24X360	5	01222.240.360
M16X60	50	01222.160.060	M20X150	10	01222.200.150			
M16X65	25	01222.160.065	M20X160	10	01222.200.160	M27X80	5	01222.270.080
M16X70	25	01222.160.070	M20X170	10	01222.200.170	M27X90	10	01222.270.090
M16X75	25	01222.160.075	M20X180	10	01222.200.180	M27X100	10	01222.270.100
M16X80	25	01222.160.080	M20X190	10	01222.200.190	M27X110	10	01222.270.110
M16X85	25	01222.160.085	M20X200	10	01222.200.200	M27X120	10	01222.270.120
M16X90	25	01222.160.090	M20X220	10	01222.200.220	M27X130	10	01222.270.130
M16X95	25	01222.160.095	M20X240	10	01222.200.240	M27X140	10	01222.270.140
M16X100	25	01222.160.100	M20X250	10	01222.200.250	M27X150	10	01222.270.150
M16X110	25	01222.160.110	M20X260	10	01222.200.260	M27X160	10	01222.270.160

01222 Conjunto para fixação estrutural ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M27X180	5	01222.270.180	M30X240	5	01222.300.240	M36X120	5	01222.360.120
M27X200	5	01222.270.200	M30X260	5	01222.300.260	M36X130	5	01222.360.130
			M30X280	5	01222.300.280	M36X140	5	01222.360.140
M30X90	10	01222.300.090	M30X300	5	01222.300.300	M36X150	5	01222.360.150
M30X100	10	01222.300.100				M36X160	5	01222.360.160
M30X110	10	01222.300.110	M33X100	5	01222.330.100	M36X180	2	01222.360.180
M30X120	10	01222.300.120	M33X110	5	01222.330.110	M36X200	2	01222.360.200
M30X130	10	01222.300.130	M33X120	5	01222.330.120	M36X220	2	01222.360.220
M30X140	10	01222.300.140	M33X130	5	01222.330.130	M36X240	2	01222.360.240
M30X150	10	01222.300.150	M33X140	5	01222.330.140	M36X260	2	01222.360.260
M30X160	10	01222.300.160	M33X150	5	01222.330.150	M36X280	2	01222.360.280
M30X170	5	01222.300.170	M33X160	5	01222.330.160	M36X300	2	01222.360.300
M30X180	5	01222.300.180	M33X180	2	01222.330.180	M36X320	2	01222.360.320
M30X200	5	01222.300.200						
M30X220	5	01222.300.220	M36X110	5	01222.360.110			

- As construções europeias devem cumprir o Regulamento (CPR) 305/2011 para os produtos de construção, a fim de garantir a segurança de pessoas e objetos.
- Na maioria dos casos, isto significa a aplicação de produtos de acordo com as normas europeias harmonizadas (heN-normas).
- Para fixações em pré carga, significa que devem ser utilizados parafusos de acordo com a EN 15048-1.
- Em comparação com os parafusos ISO 4014/4017 (anteriormente DIN 931/933) e porcas ISO 4032 (DIN 934), parafusos e porcas de acordo com EN 150548 têm uma marcação suplementar .
- 'SB' (Structural Bolting) no material e marcação CE nas caixas.
- O fabricante tem que ter certificação CE para a produção de parafusos de acordo com a EN 15048.
- Parafusos e porcas são embalados juntos numa caixa selada.

01405 Conjunto para fixação estrutural A96A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Galvanizado a quente

CE

RoHS

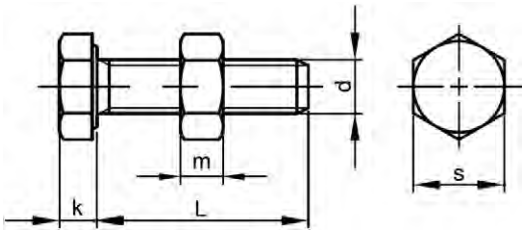


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X45/S=16	100	01405.100.045	M16X160	25	01405.160.160	M24X170	10	01405.240.170
M10X50/S=16	100	01405.100.050	M16X170	25	01405.160.170	M24X180	10	01405.240.180
M10X55/S=16	100	01405.100.055	M16X180	25	01405.160.180	M24X200	10	01405.240.200
M10X60/S=16	100	01405.100.060	M16X200	25	01405.160.200	M24X220	10	01405.240.220
M10X65/S=16	100	01405.100.065	M16X220	25	01405.160.220	M24X240	10	01405.240.240
M10X70/S=16	100	01405.100.070	M16X240	10	01405.160.240	M24X260	10	01405.240.260
M10X75/S=16	100	01405.100.075	M16X260	10	01405.160.260	M24X280	10	01405.240.280
M10X80/S=16	100	01405.100.080	M16X280	25	01405.160.280	M24X300	10	01405.240.300
M10X90/S=16	100	01405.100.090	M16X300	25	01405.160.300			
M10X100/S=16	100	01405.100.100				M27X80	10	01405.270.080
M10X110/S=16	50	01405.100.110	M20X65	25	01405.200.065	M27X90	10	01405.270.090
M10X120/S=16	50	01405.100.120	M20X70	25	01405.200.070	M27X100	10	01405.270.100
M10X130/S=16	50	01405.100.130	M20X75	25	01405.200.075	M27X110	10	01405.270.110
M10X140/S=16	50	01405.100.140	M20X80	25	01405.200.080	M27X120	10	01405.270.120
M10X160/S=16	50	01405.100.160	M20X85	25	01405.200.085	M27X130	10	01405.270.130
M10X180/S=16	50	01405.100.180	M20X90	25	01405.200.090	M27X140	10	01405.270.140
			M20X100	25	01405.200.100	M27X150	10	01405.270.150
M12X50/S=18	100	01405.120.050	M20X110	25	01405.200.110	M27X160	10	01405.270.160
M12X55/S=18	100	01405.120.055	M20X120	25	01405.200.120	M27X180	5	01405.270.180
M12X60/S=18	100	01405.120.060	M20X130	25	01405.200.130	M27X200	5	01405.270.200
M12X65/S=18	50	01405.120.065	M20X140	25	01405.200.140	M27X220	5	01405.270.220
M12X70/S=18	50	01405.120.070	M20X150	25	01405.200.150	M27X230	5	01405.270.230
M12X75/S=18	50	01405.120.075	M20X160	10	01405.200.160	M27X240	5	01405.270.240
M12X80/S=18	50	01405.120.080	M20X170	10	01405.200.170	M27X260	5	01405.270.260
M12X90/S=18	50	01405.120.090	M20X180	10	01405.200.180	M27X280	5	01405.270.280
M12X100/S=18	50	01405.120.100	M20X190	10	01405.200.190	M27X300	5	01405.270.300
M12X110/S=18	50	01405.120.110	M20X200	10	01405.200.200			
M12X120/S=18	50	01405.120.120	M20X220	10	01405.200.220	M30X90	10	01405.300.090
M12X130/S=18	50	01405.120.130	M20X240	10	01405.200.240	M30X100	10	01405.300.100
M12X140/S=18	50	01405.120.140	M20X260	10	01405.200.260	M30X110	10	01405.300.110
M12X150/S=18	50	01405.120.150	M20X280	10	01405.200.280	M30X120	10	01405.300.120
M12X160/S=18	50	01405.120.160	M20X300	10	01405.200.300	M30X130	10	01405.300.130
M12X180/S=18	50	01405.120.180				M30X140	10	01405.300.140
			M24X70	25	01405.240.070	M30X150	10	01405.300.150
M16X55	50	01405.160.055	M24X75	25	01405.240.075	M30X160	10	01405.300.160
M16X60	50	01405.160.060	M24X80	25	01405.240.080	M30X180	5	01405.300.180
M16X65	25	01405.160.065	M24X85	10	01405.240.085			
M16X70	25	01405.160.070	M24X90	10	01405.240.090	M36X110	5	01405.360.110
M16X75	25	01405.160.075	M24X95	10	01405.240.095	M36X120	5	01405.360.120
M16X80	25	01405.160.080	M24X100	10	01405.240.100	M36X130	5	01405.360.130
M16X90	25	01405.160.090	M24X110	10	01405.240.110	M36X140	5	01405.360.140
M16X100	25	01405.160.100	M24X120	10	01405.240.120	M36X150	5	01405.360.150
M16X110	25	01405.160.110	M24X130	10	01405.240.130	M36X160	5	01405.360.160
M16X120	25	01405.160.120	M24X140	10	01405.240.140	M36X180	5	01405.360.180
M16X130	25	01405.160.130	M24X150	10	01405.240.150	M36X200	5	01405.360.200
M16X140	25	01405.160.140	M24X160	10	01405.240.160	M36X220	5	01405.360.220
M16X150	25	01405.160.150						

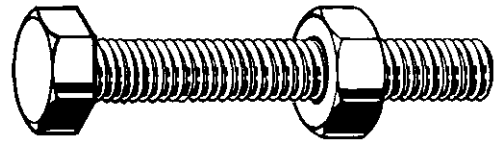
01405 Conjunto para fixação estrutural ←

- As construções europeias devem cumprir o Regulamento (CPR) 305/2011 para os produtos de construção, a fim de garantir a segurança de pessoas e objetos.
- Na maioria dos casos, isto significa a aplicação de produtos de acordo com as normas europeias harmonizadas (heN-normas).
- Para fixações em pré carga, significa que devem ser utilizados parafusos de acordo com a EN 15048-1.
- Em comparação com os parafusos ISO 4014/4017 (anteriormente DIN 931/933) e porcas ISO 4032 (DIN 934), parafusos e porcas de acordo com EN 150548 têm uma marcação suplementar .
- 'SB' (Structural Bolting) no material e marcação CE nas caixas.
- O fabricante tem que ter certificação CE para a produção de parafusos de acordo com a EN 15048.
- Parafusos e porcas são embalados juntos numa caixa selada. "

Conjunto para fixação estrutural



EN **15048**
ISO 4017/4032



Dados técnicos

d	k	m (max.)	P	s
M10	6.4	8.4	1.5	16
M12	7.5	10.8	1.75	18
M16	10	14.8	2	24
M20	12.5	18	2.5	30
M24	15	21.5	3	36
M27	17	23.8	3	41
M30	18.7	25.6	3.5	46
M36	22.5	31	4	55

- Só embalagens completas.

Grupos de produtos

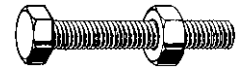
Rosca	Encaixe	Material	Classe	Tratamento sup.		Código	Página
M	Sextavado	Aço	8.8	Zn		01232	1-95
M	Sextavado	Aço	8.8	Galv. Q.	ISO métrico	01415	1-96

01232 Conjunto para fixação estrutural **A96A**

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Zincado

CE

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M12X20/S=18	100	01232.120.020	M16X70	25	01232.160.070	M24X70	25	01232.240.070
M12X25/S=18	100	01232.120.025	M16X80	25	01232.160.080	M24X75	25	01232.240.075
M12X30/S=18	100	01232.120.030	M16X90	25	01232.160.090	M24X80	25	01232.240.080
M12X35/S=18	100	01232.120.035	M16X100	25	01232.160.100	M24X90	10	01232.240.090
M12X40/S=18	100	01232.120.040				M24X100	10	01232.240.100
M12X45/S=18	100	01232.120.045	M20X30	25	01232.200.030			
M12X50/S=18	100	01232.120.050	M20X35	25	01232.200.035	M27X50	10	01232.270.050
M12X55/S=18	100	01232.120.055	M20X40	25	01232.200.040	M27X60	10	01232.270.060
M12X60/S=18	100	01232.120.060	M20X45	25	01232.200.045	M27X70	10	01232.270.070
M12X65/S=18	50	01232.120.065	M20X50	25	01232.200.050	M27X80	10	01232.270.080
M12X70/S=18	50	01232.120.070	M20X55	25	01232.200.055			
M12X80/S=18	50	01232.120.080	M20X60	25	01232.200.060	M30X50	10	01232.300.050
M12X100/S=18	50	01232.120.100	M20X65	25	01232.200.065	M30X60	10	01232.300.060
			M20X70	25	01232.200.070	M30X70	10	01232.300.070
M16X20	50	01232.160.020	M20X80	25	01232.200.080	M30X80	10	01232.300.080
M16X25	50	01232.160.025	M20X90	25	01232.200.090	M30X90	10	01232.300.090
M16X30	50	01232.160.030	M20X100	25	01232.200.100	M30X100	10	01232.300.100
M16X35	50	01232.160.035						
M16X40	50	01232.160.040	M24X40	25	01232.240.040	M36X70	5	01232.360.070
M16X45	50	01232.160.045	M24X45	25	01232.240.045	M36X80	5	01232.360.080
M16X50	50	01232.160.050	M24X50	25	01232.240.050	M36X90	5	01232.360.090
M16X55	50	01232.160.055	M24X55	25	01232.240.055	M36X100	5	01232.360.100
M16X60	50	01232.160.060	M24X60	25	01232.240.060			
M16X65	25	01232.160.065	M24X65	25	01232.240.065			

01232 Conjunto para fixação estrutural ←

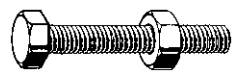
- As construções europeias devem cumprir o Regulamento (CPR) 305/2011 para os produtos de construção, a fim de garantir a segurança de pessoas e objetos.
- Na maioria dos casos, isto significa a aplicação de produtos de acordo com as normas europeias harmonizadas (heN-normas).
- Para fixações em pré carga, significa que devem ser utilizados parafusos de acordo com a EN 15048-1.
- Em comparação com os parafusos ISO 4014/4017 (anteriormente DIN 931/933) e porcas ISO 4032 (DIN 934), parafusos e porcas de acordo com EN 150548 têm uma marcação suplementar .
- 'SB' (Structural Bolting) no material e marcação CE nas caixas.
- O fabricante tem que ter certificação CE para a produção de parafusos de acordo com a EN 15048.
- Parafusos e porcas são embalados juntos numa caixa selada.

01415 Conjunto para fixação estrutural A96A

Rosca	Métrica
Material	Aço
Classe	8.8
Tratamento sup.	Galvanizado a quente

CE

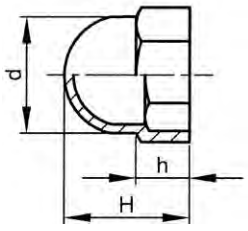
RoHS

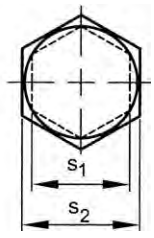


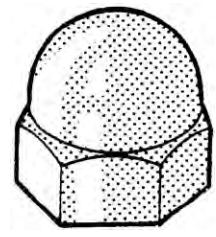
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X16/S=16	200	01415.100.016	M16X25	50	01415.160.025	M24X50	25	01415.240.050
M10X20/S=16	200	01415.100.020	M16X30	50	01415.160.030	M24X55	25	01415.240.055
M10X25/S=16	200	01415.100.025	M16X35	50	01415.160.035	M24X60	25	01415.240.060
M10X30/S=16	200	01415.100.030	M16X40	50	01415.160.040	M24X65	25	01415.240.065
M10X35/S=16	100	01415.100.035	M16X45	50	01415.160.045	M24X70	25	01415.240.070
M10X40/S=16	100	01415.100.040	M16X50	50	01415.160.050	M24X75	25	01415.240.075
M10X45/S=16	100	01415.100.045	M16X55	50	01415.160.055	M24X80	25	01415.240.080
M10X50/S=16	100	01415.100.050	M16X60	50	01415.160.060	M24X90	10	01415.240.090
M10X55/S=16	100	01415.100.055	M16X65	25	01415.160.065	M24X100	10	01415.240.100
M10X60/S=16	100	01415.100.060	M16X70	25	01415.160.070	M24X110	10	01415.240.110
M10X65/S=16	100	01415.100.065	M16X75	25	01415.160.075	M24X120	10	01415.240.120
M10X70/S=16	100	01415.100.070	M16X80	25	01415.160.080			
M10X75/S=16	100	01415.100.075	M16X90	25	01415.160.090	M27X50	10	01415.270.050
M10X80/S=16	100	01415.100.080	M16X100	25	01415.160.100	M27X60	10	01415.270.060
M10X90/S=16	100	01415.100.090	M16X110	25	01415.160.110	M27X65	10	01415.270.065
M10X100/S=16	100	01415.100.100	M16X120	25	01415.160.120	M27X70	10	01415.270.070
						M27X75	10	01415.270.075
M12X20/S=18	100	01415.120.020	M20X30	25	01415.200.030	M27X80	10	01415.270.080
M12X25/S=18	100	01415.120.025	M20X35	25	01415.200.035	M27X90	10	01415.270.090
M12X30/S=18	100	01415.120.030	M20X40	25	01415.200.040	M27X100	10	01415.270.100
M12X35/S=18	100	01415.120.035	M20X45	25	01415.200.045	M27X110	10	01415.270.110
M12X40/S=18	100	01415.120.040	M20X50	25	01415.200.050	M27X120	10	01415.270.120
M12X45/S=18	100	01415.120.045	M20X55	25	01415.200.055			
M12X50/S=18	100	01415.120.050	M20X60	25	01415.200.060	M30X60	10	01415.300.060
M12X55/S=18	100	01415.120.055	M20X65	25	01415.200.065	M30X65	10	01415.300.065
M12X60/S=18	100	01415.120.060	M20X70	25	01415.200.070	M30X70	10	01415.300.070
M12X65/S=18	50	01415.120.065	M20X75	25	01415.200.075	M30X80	10	01415.300.080
M12X70/S=18	50	01415.120.070	M20X80	25	01415.200.080	M30X90	10	01415.300.090
M12X75/S=18	50	01415.120.075	M20X90	25	01415.200.090	M30X100	10	01415.300.100
M12X80/S=18	50	01415.120.080	M20X100	25	01415.200.100			
M12X90 /S=18	50	01415.120.090	M20X110	25	01415.200.110	M36X80	5	01415.360.080
M12X100/S=18	50	01415.120.100	M20X120	25	01415.200.120	M36X90	5	01415.360.090
M12X110/S=18	50	01415.120.110				M36X100	5	01415.360.100
M12X120/S=18	50	01415.120.120	M24X40	25	01415.240.040			
			M24X45	25	01415.240.045			

- As construções europeias devem cumprir o Regulamento (CPR) 305/2011 para os produtos de construção, a fim de garantir a segurança de pessoas e objetos.
- Na maioria dos casos, isto significa a aplicação de produtos de acordo com as normas europeias harmonizadas (heN-normas).
- Para fixações em pré carga, significa que devem ser utilizados parafusos de acordo com a EN 15048-1.
- Em comparação com os parafusos ISO 4014/4017 (anteriormente DIN 931/933) e porcas ISO 4032 (DIN 934), parafusos e porcas de acordo com EN 150548 têm uma marcação suplementar .
- 'SB' (Structural Bolting) no material e marcação CE nas caixas.
- O fabricante tem que ter certificação CE para a produção de parafusos de acordo com a EN 15048.
- Parafusos e porcas são embalados juntos numa caixa selada.

Tampa de proteção sextavada



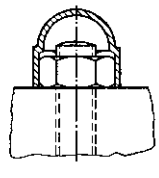




Dados técnicos

Para uso com	d	h	H	s	s_1	s_2
M4	7.6	4.8	8.1	7	6.8	8.6
M5	9.5	6.9	10.8	8	7.8	9.8
M6	11	6.9	13.3	10	9.8	11.6
M7	12	7.4	14.2	11	10.8	12.5
M8	14.3	8	15.3	13	12.8	15
M10	18	10.3	20.5	17	16.7	18.8
M12	20.2	11.5	22	19	18.7	20.8
M14	23.5	13	24.5	22	21.7	24.3
M16	26	15.1	28	24	23.7	26.5
M20	32	18	34	30	29.8	33
M22	34	19	37	32	31.8	35
M24	38	20	41	36	35.8	39.5
M27	43	22	47	41	40.8	44.5
M30	48	24	52	46	45.8	49.5
M33	53	36	57.5	50	49	54
M36	57	38	62.2	55	54.5	58.7

Exemplo de aplicação

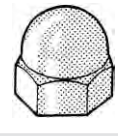


Grupos de produtos

Material	Cor	Código	Página
Plástico PE	Branco	56660	1-97
Plástico PE	Preto	56661	1-98
Plástico PE	Cinza	56662	1-98

56660 **Tampa de proteção sextavada** **W02G**

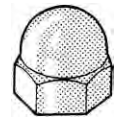
Material Plástico Polietileno
Cor Branco



Para uso com / s	✉	Ref. do artigo	Para uso com / s	✉	Ref. do artigo	Para uso com / s	✉	Ref. do artigo
M4/s=7	100	56660.040.001	M12/s=19	50	56660.120.001	M27/s=41	10	56660.270.001
M5/s=8	100	56660.050.001	M14/s=22	50	56660.140.001	M30/s=46	10	56660.300.001
M6/s=10	100	56660.060.001	M16/s=24	50	56660.160.001	M33/s=50	10	56660.330.001
M7/s=11	100	56660.070.001	M20/s=30	25	56660.200.001	M36/s=55	10	56660.360.001
M8/s=13	100	56660.080.001	M22/s=32	25	56660.220.001			
M10/s=17	50	56660.100.001	M24/s=36	25	56660.240.001			

56661 Tampa de proteção sextavada — W02G

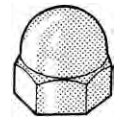
Material Plástico Polietileno
Cor Preto



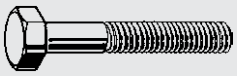
Para uso com / s	✉	Ref. do artigo	Para uso com / s	✉	Ref. do artigo	Para uso com / s	✉	Ref. do artigo
M4/s=7	100	56661.040.001	M10/s=17	50	56661.100.001	M20/s=30	25	56661.200.001
M5/s=8	100	56661.050.001	M12/s=19	50	56661.120.001	M22/s=32	25	56661.220.001
M6/s=10	100	56661.060.001	M14/s=22	50	56661.140.001	M24/s=36	25	56661.240.001
M7/s=11	100	56661.070.001	M16/s=24	50	56661.160.001	M27/s=41	10	56661.270.001
M8/s=13	100	56661.080.001						

56662 Tampa de proteção sextavada — W03G

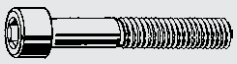
Material Plástico Polietileno
Cor Cinza



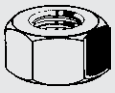
Para uso com / s	✉	Ref. do artigo	Para uso com / s	✉	Ref. do artigo	Para uso com / s	✉	Ref. do artigo
M4/s=7	100	56662.040.001	M8/s=13	100	56662.080.001	M16/s=24	50	56662.160.001
M5/s=8	100	56662.050.001	M10/s=17	50	56662.100.001	M20/s=30	25	56662.200.001
M6/s=10	100	56662.060.001	M12/s=19	50	56662.120.001	M24/s=36	25	56662.240.001
M7/s=11	100	56662.070.001	M14/s=22	50	56662.140.001			



1 Parafusos sextavado exterior



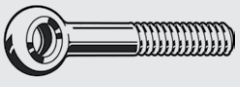
2 Produtos sextavados interiores



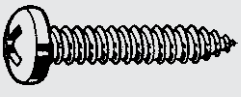
3 Porcas/porcas de rebitar / insertos



4 Varão roscado / pernos



5 Produtos olhal / gancho

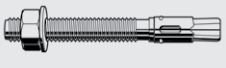


6 Parafusos

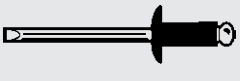
I Indice



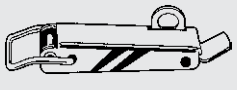
7 Anilha



8 Ancoragem



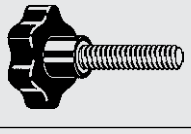
9 Rebites / cavilhas



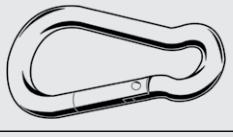
10 Parafusos de segurança / Sistemas de fixação



11 Sortidos



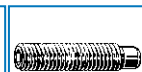
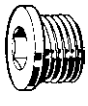
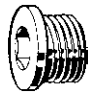
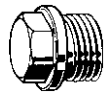
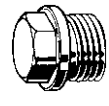
12 Sistemas de engenharia / peças para máquinas



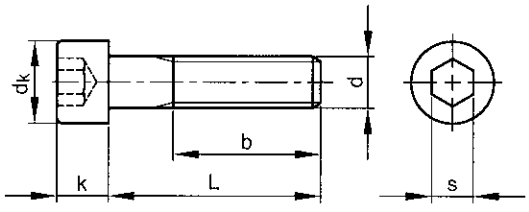
13 Marítimo produtos

T Tecnologia de fixação

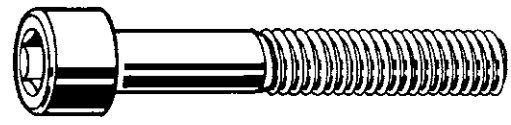
Produtos sextavados interiores 2

 Página 2-2 DIN 912 **Métrico**	 Página 2-16 ISO 14579 **Hexalobular Métrico**	 Página 2-17 DIN ≈912 **Totalmente roscado Métrico**	 Página 2-20 DIN 912 **Métrico fino**	 Página 2-21 ASME ≈B18.3 (1960) **1960 Series UNC**
 Página 2-22 ASME ≈B18.3 (1936) **1936 Series UNC**	 Página 2-28 ASME ≈B18.3 (1936) **1936 Series UNF**	 Página 2-32 BS ≈2470 **BSW**	 Página 2-32 DIN 7984 **Cabeça baixa cilindrica Métrico**	 Página 2-36 DIN 6912 **Cabeça baixa cilindrica com piloto Métrico**
 Página 2-39 ISO 10642 **Métrico**	 Página 2-44 ISO ≈10642 **Hexalobular Métrico**	 Página 2-45 ASME ≈B18.3 **UNC**	 Página 2-48 ASME ≈B18.3 **UNF**	 Página 2-50 BS ≈2470 **BSW**
 Página 2-51 ISO 7380-1 **Métrico**	 Página 2-54 ISO ≈7380-1 **Hexalobular Métrico**	 Página 2-56 **UNC**	 Página 2-58 **UNF**	 Página 2-59 ISO 7380-2 **Com flange**
 Página 2-62 ISO ≈7380-2 **Hexalobular Métrico**	 Página 2-63 **Auto frenante Métrico**	 Página 2-64 ISO ≈7379 **Parafuso de apoio f9 Métrico**	 Página 2-66 ASME B18.3 **UNC**	 Página 2-68 ISO ≈7379 **Tolerância h8 Métrico**
 Página 2-69 DIN 916 **Ponta cortada Métrico**	 Página 2-72 DIN ≈916 **Ponta cortada Métrico fino**	 Página 2-73 ASME ≈B18.3 **Ponta cortada UNC**	 Página 2-75 ASME ≈B18.3 **Hexalobular métrico**	 Página 2-76 DIN ≈916 **Ponta cortada serrilhada métrico**
 Página 2-77 ASME ≈B18.3 **Ponta cortada serrilhada UNC**	 Página 2-78 ASME ≈B18.3 **Ponta cortada serrilhada UNF**	 Página 2-78 DIN 913 **Ponta plana Métrico**	 Página 2-81 DIN ≈913 **Ponta plana Métrico fino**	 Página 2-82 ASME ≈B18.3 **Ponta plana UNC**
 Página 2-83 DIN 914 **Ponta em cone Métrico**	 Página 2-85 ASME ≈B18.3 **Ponta em cone UNC**	 Página 2-86 DIN 915 **Com ponta Métrico**	 Página 2-88 ASME ≈B18.3 **Com ponta UNC**	 Página 2-89 **Com ponta nylon Métrico**
 Página 2-90 BS ≈2470 **Ponta cortada BSW**	 Página 2-90 ASME ≈B18.3 **Ponta oval UNC**	 Página 2-91 **Plástico**	 Página 2-92 DIN 906 **Métrico fino**	 Página 2-93 DIN 906 **Não métrico**
 Página 2-94 DIN 908 **Com colar métrico fino**	 Página 2-95 DIN 908 **Com colar Não Métrico**	 Página 2-96 DIN 910 **Com colar métrico fino**	 Página 2-97 DIN 910 **Com colar Não Métrico**	

Parafuso cabeça cilindrica sextavado interior



DIN	**912**
ISO	4762
NEN	1241
ASME	B18.3.1M
NF	E25-125
BS	4168-1



Dados técnicos

d	b	d_k (max.)	k (max.)	P	Rosca total C ≤	s
M1.6	15	3	1.6	0.35	16	1.5
M2	16	3.8	2	0.4	20	1.5
M2.5	17	4.5	2.5	0.45	25	2
M3	18	5.5	3	0.5	20	2.5
M4	20	7	4	0.7	25	3
M5	22	8.5	5	0.8	25	4
M6	24	10	6	1	30	5
M8	28	13	8	1.25	35	6
M10	32	16	10	1.5	40	8
M12	36	18	12	1.75	50	10
M14	40	21	14	2	55	12
M16	44	24	16	2	60	14
M18	48	27	18	2.5	65	14
M20	52	30	20	2.5	75	17
M22	56	33	22	2.5	70	17
M24	60	36	24	3	85	19
M27	66	40	27	3	90	19
M30	72	45	30	3.5	100	22
M33	78	50	33	3.5	100	24
M36	84	54	36	4	110	27
M39 (≠DIN)	90	58	39	4	120	27
M42	96	63	42	4.5	130	32
M48	108	72	48	5	150	36

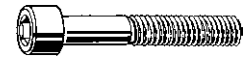
Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado interior	Aço	8.8		07060	2-2
M	Sextavado interior	Aço	8.8	Zn	07160	2-4
M	Sextavado interior	Aço	8.8	Passiv. amar.	07170	2-5
M	Sextavado interior	Aço	8.8	FLZNNC-NC6	07065	2-6
M	Sextavado interior	Aço	10.9		07015	2-6
M	Sextavado interior	Aço	12.9		07000	2-7
M	Sextavado interior	Aço	12.9	FLZNNC-NC6	07025	2-9
M	Sextavado interior	INOX A2	70		51050	2-10
M	Sextavado interior	INOX A4	70		55050	2-12
M	Sextavado interior	INOX A4	80		53570	2-14
M	Sextavado interior	Al P60			45205	2-15

07060 **Parafuso cabeça cilindrica sextavado interior** **D02A**

Rosca	Métrica
Material	Aço
Classe	8.8

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X4	200	07060.030.004				M4X40	200	07060.040.040
M3X5	200	07060.030.005	M4X6	200	07060.040.006	M4X45	200	07060.040.045
M3X6	200	07060.030.006	M4X8	200	07060.040.008	M4X50	200	07060.040.050
M3X8	200	07060.030.008	M4X10	200	07060.040.010	M4X60	200	07060.040.060
M3X10	200	07060.030.010	M4X12	200	07060.040.012	M4X65	200	07060.040.065
M3X12	200	07060.030.012	M4X16	200	07060.040.016	M4X70	200	07060.040.070
M3X16	200	07060.030.016	M4X18	200	07060.040.018			
M3X20	200	07060.030.020	M4X20	200	07060.040.020	M5X6	200	07060.050.006
M3X25	200	07060.030.025	M4X25	200	07060.040.025	M5X8	200	07060.050.008
M3X30	500	07060.030.030	M4X30	200	07060.040.030	M5X10	200	07060.050.010
M3X40	200	07060.030.040	M4X35	200	07060.040.035	M5X12	200	07060.050.012

07060 **Parafuso cabeça cilindrica sextavado interior** ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X14	200	07060.050.014	M10X22	200	07060.100.022	M16X30	50	07060.160.030
M5X16	200	07060.050.016	M10X25	200	07060.100.025	M16X35	50	07060.160.035
M5X18	200	07060.050.018	M10X30	200	07060.100.030	M16X40	50	07060.160.040
M5X20	200	07060.050.020	M10X35	100	07060.100.035	M16X45	50	07060.160.045
M5X25	200	07060.050.025	M10X40	100	07060.100.040	M16X50	50	07060.160.050
M5X30	200	07060.050.030	M10X45	100	07060.100.045	M16X55	50	07060.160.055
M5X35	200	07060.050.035	M10X50	100	07060.100.050	M16X60	50	07060.160.060
M5X40	200	07060.050.040	M10X55	100	07060.100.055	M16X65	50	07060.160.065
M5X45	200	07060.050.045	M10X60	100	07060.100.060	M16X70	25	07060.160.070
M5X50	200	07060.050.050	M10X65	100	07060.100.065	M16X75	25	07060.160.075
M5X55	200	07060.050.055	M10X70	100	07060.100.070	M16X80	25	07060.160.080
M5X60	200	07060.050.060	M10X75	100	07060.100.075	M16X85	25	07060.160.085
M5X70	200	07060.050.070	M10X80	100	07060.100.080	M16X90	25	07060.160.090
M5X75	200	07060.050.075	M10X90	100	07060.100.090	M16X100	25	07060.160.100
M5X80	200	07060.050.080	M10X100	50	07060.100.100	M16X110	25	07060.160.110
M5X90	200	07060.050.090	M10X110	50	07060.100.110	M16X120	25	07060.160.120
M5X100	200	07060.050.100	M10X120	50	07060.100.120	M16X130	25	07060.160.130
M5X110	100	07060.050.110	M10X130	50	07060.100.130	M16X140	25	07060.160.140
M5X120	100	07060.050.120	M10X140	50	07060.100.140	M16X150	25	07060.160.150
M5X140	100	07060.050.140	M10X150	25	07060.100.150	M16X160	25	07060.160.160
			M10X160	25	07060.100.160	M16X180	10	07060.160.180
M6X8	200	07060.060.008	M10X170	25	07060.100.170	M16X200	10	07060.160.200
M6X10	200	07060.060.010	M10X180	25	07060.100.180	M16X220	10	07060.160.220
M6X12	200	07060.060.012	M10X200	25	07060.100.200	M16X240	10	07060.160.240
M6X14	200	07060.060.014	M10X220	25	07060.100.220	M16X260	10	07060.160.260
M6X16	200	07060.060.016				M16X300	10	07060.160.300
M6X18	200	07060.060.018	M12X16	100	07060.120.016			
M6X20	200	07060.060.020	M12X20	100	07060.120.020	M18X35	25	07060.180.035
M6X22	200	07060.060.022	M12X25	100	07060.120.025	M18X40	25	07060.180.040
M6X25	200	07060.060.025	M12X30	100	07060.120.030	M18X45	25	07060.180.045
M6X30	200	07060.060.030	M12X35	100	07060.120.035	M18X50	25	07060.180.050
M6X35	200	07060.060.035	M12X40	100	07060.120.040	M18X55	25	07060.180.055
M6X40	200	07060.060.040	M12X45	100	07060.120.045	M18X60	25	07060.180.060
M6X45	200	07060.060.045	M12X50	100	07060.120.050	M18X70	25	07060.180.070
M6X50	200	07060.060.050	M12X55	100	07060.120.055	M18X80	25	07060.180.080
M6X55	200	07060.060.055	M12X60	100	07060.120.060	M18X90	25	07060.180.090
M6X60	200	07060.060.060	M12X65	50	07060.120.065	M18X100	25	07060.180.100
M6X65	200	07060.060.065	M12X70	50	07060.120.070	M18X110	10	07060.180.110
M6X70	200	07060.060.070	M12X75	50	07060.120.075	M18X120	10	07060.180.120
M6X75	200	07060.060.075	M12X80	50	07060.120.080	M18X140	10	07060.180.140
M6X80	200	07060.060.080	M12X90	50	07060.120.090	M18X160	10	07060.180.160
M6X90	100	07060.060.090	M12X100	50	07060.120.100	M18X180	10	07060.180.180
M6X100	100	07060.060.100	M12X110	50	07060.120.110	M18X200	10	07060.180.200
M6X110	100	07060.060.110	M12X120	25	07060.120.120			
M6X120	100	07060.060.120	M12X130	25	07060.120.130	M20X30	50	07060.200.030
M6X130	100	07060.060.130	M12X140	25	07060.120.140	M20X35	25	07060.200.035
M6X140	100	07060.060.140	M12X150	25	07060.120.150	M20X40	25	07060.200.040
M6X150	100	07060.060.150	M12X160	25	07060.120.160	M20X45	25	07060.200.045
M6X160	100	07060.060.160	M12X180	25	07060.120.180	M20X50	25	07060.200.050
M6X180	100	07060.060.180	M12X200	25	07060.120.200	M20X55	25	07060.200.055
			M12X220	25	07060.120.220	M20X60	25	07060.200.060
M8X10	200	07060.080.010	M12X240	25	07060.120.240	M20X65	25	07060.200.065
M8X12	200	07060.080.012	M12X260	25	07060.120.260	M20X70	25	07060.200.070
M8X16	200	07060.080.016	M12X280	25	07060.120.280	M20X75	25	07060.200.075
M8X18	200	07060.080.018	M12X300	25	07060.120.300	M20X80	25	07060.200.080
M8X20	200	07060.080.020				M20X90	25	07060.200.090
M8X22	200	07060.080.022	M14X20	100	07060.140.020	M20X100	25	07060.200.100
M8X25	200	07060.080.025	M14X25	100	07060.140.025	M20X110	25	07060.200.110
M8X30	200	07060.080.030	M14X30	100	07060.140.030	M20X120	25	07060.200.120
M8X35	200	07060.080.035	M14X35	100	07060.140.035	M20X130	25	07060.200.130
M8X40	200	07060.080.040	M14X40	100	07060.140.040	M20X140	25	07060.200.140
M8X45	200	07060.080.045	M14X45	50	07060.140.045	M20X150	25	07060.200.150
M8X50	200	07060.080.050	M14X50	50	07060.140.050	M20X160	10	07060.200.160
M8X55	200	07060.080.055	M14X55	50	07060.140.055	M20X180	10	07060.200.180
M8X60	200	07060.080.060	M14X60	50	07060.140.060	M20X190	10	07060.200.190
M8X70	200	07060.080.070	M14X70	50	07060.140.070	M20X200	10	07060.200.200
M8X75	200	07060.080.075	M14X75	50	07060.140.075	M20X220	10	07060.200.220
M8X80	200	07060.080.080	M14X80	50	07060.140.080	M20X240	10	07060.200.240
M8X90	100	07060.080.090	M14X90	50	07060.140.090	M20X250	10	07060.200.250
M8X100	100	07060.080.100	M14X100	50	07060.140.100	M20X260	10	07060.200.260
M8X110	100	07060.080.110	M14X110	50	07060.140.110	M20X270	10	07060.200.270
M8X120	100	07060.080.120	M14X120	25	07060.140.120	M20X280	10	07060.200.280
M8X130	50	07060.080.130	M14X130	25	07060.140.130	M20X300	10	07060.200.300
M8X140	50	07060.080.140	M14X140	25	07060.140.140	M20X310	10	07060.200.310
M8X150	50	07060.080.150	M14X150	25	07060.140.150			
M8X160	50	07060.080.160	M14X160	25	07060.140.160	M22X50	10	07060.220.050
M8X180	50	07060.080.180	M14X180	25	07060.140.180	M22X60	10	07060.220.060
M8X200	50	07060.080.200	M14X190	25	07060.140.190	M22X70	10	07060.220.070
			M14X200	25	07060.140.200	M22X80	10	07060.220.080
M10X12	200	07060.100.012				M22X90	10	07060.220.090
M10X16	200	07060.100.016	M16X20	100	07060.160.020	M22X100	10	07060.220.100
M10X20	200	07060.100.020	M16X25	100	07060.160.025	M22X110	10	07060.220.110

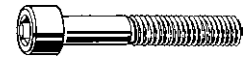
07060 Parafuso cabeça cilindrica sextavado interior

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M22X120	10	07060.220.120				M33X70	2	07060.330.070
M22X130	10	07060.220.130	M27X60	10	07060.270.060	M33X80	2	07060.330.080
M22X140	10	07060.220.140	M27X70	10	07060.270.070	M33X90	2	07060.330.090
M22X150	10	07060.220.150	M27X80	10	07060.270.080	M33X100	2	07060.330.100
M22X160	10	07060.220.160	M27X90	10	07060.270.090	M33X120	2	07060.330.120
M22X180	5	07060.220.180	M27X100	10	07060.270.100	M33X130	2	07060.330.130
M22X200	5	07060.220.200	M27X120	10	07060.270.120	M33X140	2	07060.330.140
			M27X130	10	07060.270.130	M33X160	2	07060.330.160
M24X40	10	07060.240.040	M27X140	10	07060.270.140	M33X180	2	07060.330.180
M24X45	10	07060.240.045	M27X160	10	07060.270.160	M33X200	2	07060.330.200
M24X50	10	07060.240.050	M27X180	10	07060.270.180			
M24X55	10	07060.240.055	M27X200	10	07060.270.200	M36X60	1	07060.360.060
M24X60	10	07060.240.060				M36X80	1	07060.360.080
M24X65	10	07060.240.065	M30X60	5	07060.300.060	M36X100	1	07060.360.100
M24X70	10	07060.240.070	M30X70	5	07060.300.070	M36X110	1	07060.360.110
M24X75	5	07060.240.075	M30X80	5	07060.300.080	M36X120	1	07060.360.120
M24X80	10	07060.240.080	M30X90	2	07060.300.090	M36X140	1	07060.360.140
M24X90	10	07060.240.090	M30X100	2	07060.300.100	M36X160	1	07060.360.160
M24X100	10	07060.240.100	M30X110	2	07060.300.110	M36X180	1	07060.360.180
M24X110	10	07060.240.110	M30X120	2	07060.300.120	M36X200	1	07060.360.200
M24X120	5	07060.240.120	M30X130	2	07060.300.130	M36X220	1	07060.360.220
M24X130	5	07060.240.130	M30X140	2	07060.300.140	M36X240	1	07060.360.240
M24X140	5	07060.240.140	M30X150	2	07060.300.150	M36X260	1	07060.360.260
M24X150	5	07060.240.150	M30X160	2	07060.300.160	M36X280	1	07060.360.280
M24X160	5	07060.240.160	M30X170	2	07060.300.170	M36X300	1	07060.360.300
M24X180	5	07060.240.180	M30X180	2	07060.300.180			
M24X190	5	07060.240.190	M30X190	2	07060.300.190	M42X100	1	07060.420.100
M24X200	5	07060.240.200	M30X200	2	07060.300.200	M42X120	1	07060.420.120
M24X220	5	07060.240.220	M30X220	2	07060.300.220	M42X140	1	07060.420.140
M24X240	5	07060.240.240	M30X240	2	07060.300.240	M42X160	1	07060.420.160
M24X260	5	07060.240.260	M30X260	2	07060.300.260	M42X180	1	07060.420.180
M24X280	5	07060.240.280	M30X280	2	07060.300.280	M42X200	1	07060.420.200
M24X300	5	07060.240.300	M30X300	2	07060.300.300	M42X240	1	07060.420.240
M24X320	5	07060.240.320				M42X280	1	07060.420.280

07160 Parafuso cabeça cilindrica sextavado interior D02A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Zincado

RoHS



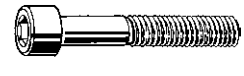
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X5	200	07160.030.005	M5X25	200	07160.050.025	M6X110	100	07160.060.110
M3X6	200	07160.030.006	M5X30	200	07160.050.030	M6X120	100	07160.060.120
M3X8	200	07160.030.008	M5X35	200	07160.050.035			
M3X10	200	07160.030.010	M5X40	200	07160.050.040	M8X10	200	07160.080.010
M3X12	200	07160.030.012	M5X45	200	07160.050.045	M8X12	200	07160.080.012
M3X16	200	07160.030.016	M5X50	200	07160.050.050	M8X14	200	07160.080.014
M3X18	200	07160.030.018	M5X55	200	07160.050.055	M8X16	200	07160.080.016
M3X20	200	07160.030.020	M5X60	200	07160.050.060	M8X18	200	07160.080.018
M3X25	200	07160.030.025	M5X70	200	07160.050.070	M8X20	200	07160.080.020
M3X30	200	07160.030.030	M5X80	200	07160.050.080	M8X22	200	07160.080.022
M3X35	200	07160.030.035	M5X90	200	07160.050.090	M8X25	200	07160.080.025
M3X40	200	07160.030.040	M5X100	200	07160.050.100	M8X30	200	07160.080.030
			M5X120	100	07160.050.120	M8X35	200	07160.080.035
M4X6	200	07160.040.006				M8X40	200	07160.080.040
M4X8	200	07160.040.008	M6X6	100	07160.060.006	M8X45	200	07160.080.045
M4X10	200	07160.040.010	M6X8	200	07160.060.008	M8X50	200	07160.080.050
M4X12	200	07160.040.012	M6X10	200	07160.060.010	M8X55	200	07160.080.055
M4X16	200	07160.040.016	M6X12	200	07160.060.012	M8X60	200	07160.080.060
M4X18	200	07160.040.018	M6X16	200	07160.060.016	M8X65	200	07160.080.065
M4X20	200	07160.040.020	M6X18	200	07160.060.018	M8X70	200	07160.080.070
M4X25	200	07160.040.025	M6X20	200	07160.060.020	M8X75	200	07160.080.075
M4X30	200	07160.040.030	M6X22	200	07160.060.022	M8X80	200	07160.080.080
M4X35	200	07160.040.035	M6X25	200	07160.060.025	M8X85	100	07160.080.085
M4X40	200	07160.040.040	M6X30	200	07160.060.030	M8X90	100	07160.080.090
M4X45	200	07160.040.045	M6X35	200	07160.060.035	M8X100	100	07160.080.100
M4X50	200	07160.040.050	M6X40	200	07160.060.040	M8X110	100	07160.080.110
M4X60	200	07160.040.060	M6X45	200	07160.060.045	M8X120	100	07160.080.120
M4X70	200	07160.040.070	M6X50	200	07160.060.050	M8X130	50	07160.080.130
			M6X55	200	07160.060.055	M8X140	50	07160.080.140
M5X6	200	07160.050.006	M6X60	200	07160.060.060	M8X160	50	07160.080.160
M5X8	200	07160.050.008	M6X65	200	07160.060.065			
M5X10	200	07160.050.010	M6X70	200	07160.060.070	M10X12	200	07160.100.012
M5X12	200	07160.050.012	M6X75	200	07160.060.075	M10X16	200	07160.100.016
M5X16	200	07160.050.016	M6X80	200	07160.060.080	M10X20	200	07160.100.020
M5X18	200	07160.050.018	M6X90	100	07160.060.090	M10X25	200	07160.100.025
M5X20	200	07160.050.020	M6X100	100	07160.060.100	M10X30	200	07160.100.030

07160 Parafuso cabeça cilindrica sextavado interior ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X35	100	07160.100.035	M14X55	50	07160.140.055	M20X90	25	07160.200.090
M10X40	100	07160.100.040	M14X60	50	07160.140.060	M20X100	25	07160.200.100
M10X45	100	07160.100.045	M14X65	50	07160.140.065	M20X110	25	07160.200.110
M10X50	100	07160.100.050	M14X70	50	07160.140.070	M20X120	25	07160.200.120
M10X55	100	07160.100.055	M14X80	50	07160.140.080	M20X130	25	07160.200.130
M10X60	100	07160.100.060	M14X90	50	07160.140.090	M20X140	25	07160.200.140
M10X65	100	07160.100.065	M14X100	50	07160.140.100	M20X160	10	07160.200.160
M10X70	100	07160.100.070	M14X110	50	07160.140.110	M20X180	10	07160.200.180
M10X75	100	07160.100.075	M14X120	25	07160.140.120	M20X200	10	07160.200.200
M10X80	100	07160.100.080	M14X180	25	07160.140.180			
M10X85	100	07160.100.085				M22X50	10	07160.220.050
M10X90	100	07160.100.090	M16X20	50	07160.160.020	M22X60	10	07160.220.060
M10X100	50	07160.100.100	M16X25	50	07160.160.025	M22X70	10	07160.220.070
M10X110	50	07160.100.110	M16X30	50	07160.160.030	M22X80	10	07160.220.080
M10X120	50	07160.100.120	M16X35	50	07160.160.035	M22X100	10	07160.220.100
M10X130	50	07160.100.130	M16X40	50	07160.160.040			
M10X140	50	07160.100.140	M16X45	50	07160.160.045	M24X40	10	07160.240.040
M10X160	25	07160.100.160	M16X50	50	07160.160.050	M24X50	10	07160.240.050
M10X180	25	07160.100.180	M16X55	50	07160.160.055	M24X60	10	07160.240.060
			M16X60	50	07160.160.060	M24X65	10	07160.240.065
M12X16	100	07160.120.016	M16X65	50	07160.160.065	M24X70	10	07160.240.070
M12X20	100	07160.120.020	M16X70	25	07160.160.070	M24X75	10	07160.240.075
M12X25	100	07160.120.025	M16X80	25	07160.160.080	M24X80	10	07160.240.080
M12X30	100	07160.120.030	M16X90	25	07160.160.090	M24X90	10	07160.240.090
M12X35	100	07160.120.035	M16X100	25	07160.160.100	M24X100	10	07160.240.100
M12X40	100	07160.120.040	M16X110	25	07160.160.110	M24X110	10	07160.240.110
M12X45	100	07160.120.045	M16X120	25	07160.160.120	M24X120	5	07160.240.120
M12X50	100	07160.120.050	M16X130	25	07160.160.130	M24X140	5	07160.240.140
M12X55	100	07160.120.055	M16X140	25	07160.160.140	M24X160	5	07160.240.160
M12X60	100	07160.120.060	M16X150	50	07160.160.150	M24X180	5	07160.240.180
M12X65	50	07160.120.065	M16X160	25	07160.160.160	M24X200	5	07160.240.200
M12X70	50	07160.120.070	M16X180	10	07160.160.180			
M12X75	50	07160.120.075	M16X200	10	07160.160.200	M27X60	10	07160.270.060
M12X80	50	07160.120.080				M27X80	10	07160.270.080
M12X85	50	07160.120.085	M18X40	25	07160.180.040	M27X100	10	07160.270.100
M12X90	50	07160.120.090	M18X50	25	07160.180.050			
M12X100	50	07160.120.100	M18X60	25	07160.180.060	M30X80	5	07160.300.080
M12X110	50	07160.120.110	M18X80	25	07160.180.080	M30X100	2	07160.300.100
M12X120	25	07160.120.120	M18X100	25	07160.180.100	M30X120	2	07160.300.120
M12X130	25	07160.120.130	M18X120	10	07160.180.120	M30X140	2	07160.300.140
M12X140	25	07160.120.140				M30X160	2	07160.300.160
M12X150	25	07160.120.150	M20X30	25	07160.200.030	M30X180	2	07160.300.180
M12X160	25	07160.120.160	M20X40	25	07160.200.040	M30X200	1	07160.300.200
M12X180	25	07160.120.180	M20X45	25	07160.200.045			
			M20X50	25	07160.200.050	M36X100	1	07160.360.100
M14X30	100	07160.140.030	M20X55	25	07160.200.055	M36X120	1	07160.360.120
M14X35	100	07160.140.035	M20X60	25	07160.200.060	M36X160	1	07160.360.160
M14X40	100	07160.140.040	M20X65	25	07160.200.065	M36X200	1	07160.360.200
M14X45	50	07160.140.045	M20X70	25	07160.200.070	M36X240	1	07160.360.240
M14X50	50	07160.140.050	M20X80	25	07160.200.080			

07170 Parafuso cabeça cilindrica sextavado interior D02A

Rosca	Métrica
Material	Aço
Classe	8.8
Tratamento sup.	Passivado a amarelo



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X6	200	07170.040.006	M5X50	200	07170.050.050	M8X35	200	07170.080.035
M4X8	200	07170.040.008				M8X40	200	07170.080.040
M4X10	200	07170.040.010	M6X10	200	07170.060.010	M8X45	200	07170.080.045
M4X12	200	07170.040.012	M6X12	200	07170.060.012	M8X50	200	07170.080.050
M4X16	200	07170.040.016	M6X16	200	07170.060.016	M8X55	200	07170.080.055
M4X20	200	07170.040.020	M6X20	200	07170.060.020	M8X60	200	07170.080.060
M4X25	200	07170.040.025	M6X25	200	07170.060.025	M8X70	200	07170.080.070
M4X30	200	07170.040.030	M6X30	200	07170.060.030	M8X80	200	07170.080.080
M4X35	200	07170.040.035	M6X35	200	07170.060.035	M8X90	50	07170.080.090
M4X40	200	07170.040.040	M6X40	200	07170.060.040	M8X100	200	07170.080.100
			M6X45	200	07170.060.045			
M5X10	200	07170.050.010	M6X50	200	07170.060.050	M10X16	200	07170.100.016
M5X12	200	07170.050.012	M6X60	200	07170.060.060	M10X20	200	07170.100.020
M5X16	200	07170.050.016	M6X70	200	07170.060.070	M10X25	200	07170.100.025
M5X20	200	07170.050.020	M6X80	200	07170.060.080	M10X30	200	07170.100.030
M5X25	200	07170.050.025				M10X35	100	07170.100.035
M5X30	200	07170.050.030	M8X16	200	07170.080.016	M10X40	100	07170.100.040
M5X35	200	07170.050.035	M8X20	200	07170.080.020	M10X45	100	07170.100.045
M5X40	200	07170.050.040	M8X25	200	07170.080.025	M10X50	100	07170.100.050
M5X45	200	07170.050.045	M8X30	200	07170.080.030	M10X60	100	07170.100.060

2

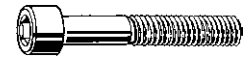
07170 Parafuso cabeça cilindrica sextavado interior ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X70	100	07170.100.070	M12X25	100	07170.120.025	M12X60	100	07170.120.060
M10X80	100	07170.100.080	M12X30	100	07170.120.030	M12X70	50	07170.120.070
M10X100	50	07170.100.100	M12X35	100	07170.120.035	M12X80	50	07170.120.080
			M12X40	100	07170.120.040	M12X100	50	07170.120.100
M12X20	100	07170.120.020	M12X50	100	07170.120.050	M12X120	25	07170.120.120

07065 Parafuso cabeça cilindrica sextavado interior A96A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Camada de zinco isento Cr^{6+}- ISO 10683 flZnnc

RoHS



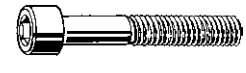
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X10	200	07065.030.010	M6X20	200	07065.060.020	M10X35	100	07065.100.035
M3X12	200	07065.030.012	M6X25	200	07065.060.025	M10X40	100	07065.100.040
M3X16	200	07065.030.016	M6X30	200	07065.060.030	M10X45	100	07065.100.045
M3X20	200	07065.030.020	M6X35	200	07065.060.035	M10X50	100	07065.100.050
			M6X40	200	07065.060.040	M10X55	100	07065.100.055
M4X8	200	07065.040.008	M6X45	200	07065.060.045	M10X60	100	07065.100.060
M4X10	200	07065.040.010	M6X50	200	07065.060.050	M10X70	100	07065.100.070
M4X12	200	07065.040.012	M6X55	200	07065.060.055	M10X80	100	07065.100.080
M4X16	200	07065.040.016	M6X60	200	07065.060.060	M10X90	100	07065.100.090
M4X20	200	07065.040.020	M6X65	200	07065.060.065			
M4X25	200	07065.040.025	M6X70	200	07065.060.070	M12X20	100	07065.120.020
M4X30	200	07065.040.030	M6X80	200	07065.060.080	M12X25	100	07065.120.025
M4X40	200	07065.040.040	M6X90	100	07065.060.090	M12X30	100	07065.120.030
M4X50	200	07065.040.050				M12X35	100	07065.120.035
			M8X10	200	07065.080.010	M12X40	100	07065.120.040
M5X10	200	07065.050.010	M8X12	200	07065.080.012	M12X45	100	07065.120.045
M5X12	200	07065.050.012	M8X16	200	07065.080.016	M12X50	100	07065.120.050
M5X16	200	07065.050.016	M8X20	200	07065.080.020	M12X55	100	07065.120.055
M5X20	200	07065.050.020	M8X25	200	07065.080.025	M12X60	100	07065.120.060
M5X25	200	07065.050.025	M8X30	200	07065.080.030	M12X65	50	07065.120.065
M5X30	200	07065.050.030	M8X35	200	07065.080.035	M12X70	50	07065.120.070
M5X40	200	07065.050.040	M8X40	200	07065.080.040	M12X80	50	07065.120.080
M5X45	200	07065.050.045	M8X45	200	07065.080.045	M12X90	50	07065.120.090
M5X50	200	07065.050.050	M8X50	200	07065.080.050	M12X100	50	07065.120.100
M5X55	200	07065.050.055	M8X60	200	07065.080.060			
M5X60	200	07065.050.060	M8X70	200	07065.080.070	M16X40	50	07065.160.040
M5X70	200	07065.050.070	M8X80	200	07065.080.080	M16X50	50	07065.160.050
M5X80	200	07065.050.080	M8X90	100	07065.080.090	M16X60	50	07065.160.060
M5X90	200	07065.050.090				M16X70	25	07065.160.070
			M10X20	200	07065.100.020	M16X80	25	07065.160.080
M6X10	200	07065.060.010	M10X25	200	07065.100.025	M16X90	25	07065.160.090
M6X12	200	07065.060.012	M10X30	200	07065.100.030	M16X100	25	07065.160.100
M6X16	200	07065.060.016						

- Com o tratamento de superficie Zinc Flake ISO 10683, o risco de disfunção hidrogénica é eliminado.

07015 Parafuso cabeça cilindrica sextavado interior D03A

Rosca Métrica
Material Aço
Classe 10.9

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X10	500	07015.050.010	M6X35	200	07015.060.035	M8X60	200	07015.080.060
M5X12	500	07015.050.012	M6X40	200	07015.060.040	M8X70	200	07015.080.070
M5X16	500	07015.050.016	M6X45	200	07015.060.045	M8X80	100	07015.080.080
M5X20	500	07015.050.020	M6X50	200	07015.060.050	M8X90	100	07015.080.090
M5X25	500	07015.050.025	M6X60	200	07015.060.060	M8X100	100	07015.080.100
M5X30	500	07015.050.030	M6X70	200	07015.060.070			
M5X35	200	07015.050.035	M6X80	100	07015.060.080	M10X20	200	07015.100.020
M5X40	200	07015.050.040	M6X90	100	07015.060.090	M10X25	200	07015.100.025
M5X45	200	07015.050.045	M6X140	50	07015.060.140	M10X30	200	07015.100.030
M5X50	200	07015.050.050				M10X35	100	07015.100.035
M5X60	200	07015.050.060	M8X16	200	07015.080.016	M10X40	100	07015.100.040
			M8X20	200	07015.080.020	M10X45	100	07015.100.045
M6X10	500	07015.060.010	M8X25	200	07015.080.025	M10X50	100	07015.100.050
M6X12	500	07015.060.012	M8X30	200	07015.080.030	M10X60	100	07015.100.060
M6X16	500	07015.060.016	M8X35	200	07015.080.035	M10X65	100	07015.100.065
M6X20	500	07015.060.020	M8X40	200	07015.080.040	M10X70	100	07015.100.070
M6X25	500	07015.060.025	M8X45	200	07015.080.045	M10X80	100	07015.100.080
M6X30	500	07015.060.030	M8X50	200	07015.080.050	M10X85	100	07015.100.085

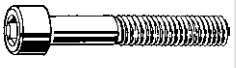
07015 Parafuso cabeça cilindrica sextavado interior ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X90	50	07015.100.090				M20X100	25	07015.200.100
M10X100	50	07015.100.100	M16X30	50	07015.160.030	M20X120	25	07015.200.120
M10X120	50	07015.100.120	M16X40	50	07015.160.040	M20X130	25	07015.200.130
M10X130	50	07015.100.130	M16X50	50	07015.160.050	M20X140	25	07015.200.140
			M16X60	50	07015.160.060	M20X190	10	07015.200.190
M12X25	100	07015.120.025	M16X70	25	07015.160.070	M20X230	5	07015.200.230
M12X30	100	07015.120.030	M16X80	25	07015.160.080			
M12X35	100	07015.120.035	M16X90	25	07015.160.090	M24X50	10	07015.240.050
M12X40	100	07015.120.040	M16X100	25	07015.160.100	M24X60	10	07015.240.060
M12X50	100	07015.120.050	M16X120	25	07015.160.120	M24X70	10	07015.240.070
M12X55	100	07015.120.055	M16X130	25	07015.160.130	M24X80	10	07015.240.080
M12X60	100	07015.120.060	M16X160	25	07015.160.160	M24X90	10	07015.240.090
M12X65	50	07015.120.065				M24X100	10	07015.240.100
M12X70	50	07015.120.070	M20X40	25	07015.200.040	M24X120	5	07015.240.120
M12X80	50	07015.120.080	M20X50	25	07015.200.050			
M12X90	50	07015.120.090	M20X60	25	07015.200.060	M27X90	10	07015.270.090
M12X100	50	07015.120.100	M20X70	25	07015.200.070	M27X130	5	07015.270.130
M12X110	50	07015.120.110	M20X80	25	07015.200.080			
M12X120	50	07015.120.120	M20X90	25	07015.200.090			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

07000 Parafuso cabeça cilindrica sextavado interior D01A

Rosca Métrica
Material Aço
Classe 12.9



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M1,6X3	100	07000.016.003	M4X10	200	07000.040.010	M5X110	200	07000.050.110
M1,6X4	100	07000.016.004	M4X12	200	07000.040.012	M5X115	100	07000.050.115
M1,6X5	100	07000.016.005	M4X14	200	07000.040.014	M5X120	100	07000.050.120
M1,6X6	100	07000.016.006	M4X16	200	07000.040.016	M5X125	100	07000.050.125
			M4X18	200	07000.040.018	M5X130	50	07000.050.130
M2X3	100	07000.020.003	M4X20	200	07000.040.020	M5X135	200	07000.050.135
M2X4	100	07000.020.004	M4X22	200	07000.040.022	M5X140	25	07000.050.140
M2X5	100	07000.020.005	M4X25	200	07000.040.025	M5X150	25	07000.050.150
M2X6	100	07000.020.006	M4X30	200	07000.040.030	M5X160	25	07000.050.160
M2X8	100	07000.020.008	M4X35	200	07000.040.035	M5X170	25	07000.050.170
M2X10	100	07000.020.010	M4X40	200	07000.040.040	M5X180	25	07000.050.180
M2X12	100	07000.020.012	M4X45	200	07000.040.045	M5X190	25	07000.050.190
M2X14	100	07000.020.014	M4X50	200	07000.040.050	M5X200	25	07000.050.200
M2X16	100	07000.020.016	M4X55	200	07000.040.055			
M2X20	100	07000.020.020	M4X60	200	07000.040.060	M6X6	500	07000.060.006
			M4X65	200	07000.040.065	M6X8	200	07000.060.008
M2,5X3	100	07000.025.003	M4X70	200	07000.040.070	M6X10	200	07000.060.010
M2,5X4	100	07000.025.004	M4X75	200	07000.040.075	M6X12	200	07000.060.012
M2,5X5	100	07000.025.005	M4X80	200	07000.040.080	M6X14	200	07000.060.014
M2,5X6	100	07000.025.006	M4X90	200	07000.040.090	M6X16	200	07000.060.016
M2,5X8	100	07000.025.008	M4X100	100	07000.040.100	M6X18	200	07000.060.018
M2,5X10	100	07000.025.010	M4X110	100	07000.040.110	M6X20	200	07000.060.020
M2,5X12	100	07000.025.012	M4X120	100	07000.040.120	M6X22	200	07000.060.022
M2,5X14	100	07000.025.014				M6X25	200	07000.060.025
M2,5X16	100	07000.025.016	M5X6	200	07000.050.006	M6X30	200	07000.060.030
M2,5X20	100	07000.025.020	M5X8	200	07000.050.008	M6X35	200	07000.060.035
M2,5X25	100	07000.025.025	M5X10	200	07000.050.010	M6X40	200	07000.060.040
			M5X12	200	07000.050.012	M6X45	200	07000.060.045
M3X4	200	07000.030.004	M5X14	200	07000.050.014	M6X50	200	07000.060.050
M3X6	200	07000.030.006	M5X16	200	07000.050.016	M6X55	200	07000.060.055
M3X8	200	07000.030.008	M5X18	200	07000.050.018	M6X60	200	07000.060.060
M3X10	200	07000.030.010	M5X20	200	07000.050.020	M6X65	200	07000.060.065
M3X12	200	07000.030.012	M5X22	200	07000.050.022	M6X70	200	07000.060.070
M3X14	200	07000.030.014	M5X25	200	07000.050.025	M6X75	200	07000.060.075
M3X16	200	07000.030.016	M5X30	200	07000.050.030	M6X80	200	07000.060.080
M3X18	200	07000.030.018	M5X35	200	07000.050.035	M6X85	100	07000.060.085
M3X20	200	07000.030.020	M5X40	200	07000.050.040	M6X90	100	07000.060.090
M3X22	200	07000.030.022	M5X45	200	07000.050.045	M6X95	100	07000.060.095
M3X25	200	07000.030.025	M5X50	200	07000.050.050	M6X100	100	07000.060.100
M3X30	200	07000.030.030	M5X55	200	07000.050.055	M6X110	50	07000.060.110
M3X35	200	07000.030.035	M5X60	200	07000.050.060	M6X115	50	07000.060.115
M3X40	200	07000.030.040	M5X65	200	07000.050.065	M6X120	50	07000.060.120
M3X45	200	07000.030.045	M5X70	200	07000.050.070	M6X125	50	07000.060.125
M3X50	200	07000.030.050	M5X75	200	07000.050.075	M6X130	50	07000.060.130
M3X60	200	07000.030.060	M5X80	200	07000.050.080	M6X135	50	07000.060.135
			M5X85	200	07000.050.085	M6X140	25	07000.060.140
M4X5	200	07000.040.005	M5X90	200	07000.050.090	M6X150	25	07000.060.150
M4X6	200	07000.040.006	M5X95	200	07000.050.095	M6X160	25	07000.060.160
M4X8	200	07000.040.008	M5X100	200	07000.050.100	M6X165	25	07000.060.165

07000 Parafuso cabeça cilindrica sextavado interior ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X170	25	07000.060.170	M12X50	100	07000.120.050	M16X260	5	07000.160.260
M6X180	25	07000.060.180	M12X55	100	07000.120.055	M16X270	5	07000.160.270
M6X190	25	07000.060.190	M12X60	100	07000.120.060	M16X280	5	07000.160.280
M6X200	25	07000.060.200	M12X65	50	07000.120.065	M16X300	5	07000.160.300
			M12X70	50	07000.120.070	M16X320	5	07000.160.320
M8X10	200	07000.080.010	M12X75	50	07000.120.075			
M8X12	200	07000.080.012	M12X80	50	07000.120.080	M18X35	50	07000.180.035
M8X14	200	07000.080.014	M12X85	50	07000.120.085	M18X40	50	07000.180.040
M8X16	200	07000.080.016	M12X90	50	07000.120.090	M18X45	50	07000.180.045
M8X18	200	07000.080.018	M12X100	50	07000.120.100	M18X50	50	07000.180.050
M8X20	200	07000.080.020	M12X110	50	07000.120.110	M18X60	25	07000.180.060
M8X22	200	07000.080.022	M12X120	50	07000.120.120	M18X70	25	07000.180.070
M8X25	200	07000.080.025	M12X130	25	07000.120.130	M18X80	25	07000.180.080
M8X30	200	07000.080.030	M12X140	25	07000.120.140	M18X90	25	07000.180.090
M8X35	200	07000.080.035	M12X150	25	07000.120.150	M18X100	25	07000.180.100
M8X40	200	07000.080.040	M12X160	25	07000.120.160	M18X110	25	07000.180.110
M8X45	200	07000.080.045	M12X170	25	07000.120.170	M18X120	25	07000.180.120
M8X50	200	07000.080.050	M12X180	10	07000.120.180	M18X140	25	07000.180.140
M8X55	200	07000.080.055	M12X200	10	07000.120.200	M18X160	10	07000.180.160
M8X60	200	07000.080.060	M12X210	10	07000.120.210	M18X180	10	07000.180.180
M8X65	200	07000.080.065	M12X220	10	07000.120.220	M18X190	10	07000.180.190
M8X70	200	07000.080.070	M12X230	10	07000.120.230	M18X200	10	07000.180.200
M8X75	200	07000.080.075	M12X240	10	07000.120.240	M18X220	10	07000.180.220
M8X80	200	07000.080.080	M12X260	10	07000.120.260			
M8X85	100	07000.080.085	M12X280	10	07000.120.280	M20X30	25	07000.200.030
M8X90	100	07000.080.090	M12X300	10	07000.120.300	M20X35	25	07000.200.035
M8X100	100	07000.080.100				M20X40	25	07000.200.040
M8X110	50	07000.080.110	M14X20	100	07000.140.020	M20X45	25	07000.200.045
M8X120	50	07000.080.120	M14X25	100	07000.140.025	M20X50	25	07000.200.050
M8X130	50	07000.080.130	M14X30	100	07000.140.030	M20X55	25	07000.200.055
M8X140	50	07000.080.140	M14X35	100	07000.140.035	M20X60	25	07000.200.060
M8X150	50	07000.080.150	M14X40	100	07000.140.040	M20X65	25	07000.200.065
M8X160	50	07000.080.160	M14X45	50	07000.140.045	M20X70	25	07000.200.070
M8X170	50	07000.080.170	M14X50	50	07000.140.050	M20X75	25	07000.200.075
M8X180	50	07000.080.180	M14X55	50	07000.140.055	M20X80	25	07000.200.080
M8X200	50	07000.080.200	M14X60	50	07000.140.060	M20X90	25	07000.200.090
			M14X65	50	07000.140.065	M20X100	25	07000.200.100
M10X12	200	07000.100.012	M14X70	50	07000.140.070	M20X110	25	07000.200.110
M10X16	200	07000.100.016	M14X75	50	07000.140.075	M20X120	25	07000.200.120
M10X20	200	07000.100.020	M14X80	50	07000.140.080	M20X130	25	07000.200.130
M10X25	200	07000.100.025	M14X90	50	07000.140.090	M20X140	25	07000.200.140
M10X30	200	07000.100.030	M14X100	50	07000.140.100	M20X150	10	07000.200.150
M10X35	100	07000.100.035	M14X110	25	07000.140.110	M20X160	10	07000.200.160
M10X40	100	07000.100.040	M14X120	25	07000.140.120	M20X170	10	07000.200.170
M10X45	100	07000.100.045	M14X130	25	07000.140.130	M20X180	10	07000.200.180
M10X50	100	07000.100.050	M14X140	25	07000.140.140	M20X190	10	07000.200.190
M10X55	100	07000.100.055	M14X150	25	07000.140.150	M20X200	10	07000.200.200
M10X60	100	07000.100.060	M14X160	25	07000.140.160	M20X210	10	07000.200.210
M10X65	100	07000.100.065	M14X180	10	07000.140.180	M20X220	5	07000.200.220
M10X70	100	07000.100.070	M14X200	10	07000.140.200	M20X240	5	07000.200.240
M10X75	100	07000.100.075				M20X250	5	07000.200.250
M10X80	100	07000.100.080	M16X20	50	07000.160.020	M20X260	5	07000.200.260
M10X85	100	07000.100.085	M16X25	50	07000.160.025	M20X280	5	07000.200.280
M10X90	100	07000.100.090	M16X30	50	07000.160.030	M20X300	5	07000.200.300
M10X100	50	07000.100.100	M16X35	50	07000.160.035	M20X320	5	07000.200.320
M10X110	50	07000.100.110	M16X40	50	07000.160.040	M20X340	5	07000.200.340
M10X120	50	07000.100.120	M16X45	50	07000.160.045	M20X360	5	07000.200.360
M10X130	50	07000.100.130	M16X50	50	07000.160.050	M20X380	5	07000.200.380
M10X140	25	07000.100.140	M16X55	50	07000.160.055	M20X400	5	07000.200.400
M10X150	25	07000.100.150	M16X60	50	07000.160.060			
M10X160	25	07000.100.160	M16X65	25	07000.160.065	M22X40	10	07000.220.040
M10X170	25	07000.100.170	M16X70	25	07000.160.070	M22X50	10	07000.220.050
M10X180	25	07000.100.180	M16X75	25	07000.160.075	M22X60	10	07000.220.060
M10X190	25	07000.100.190	M16X80	25	07000.160.080	M22X70	10	07000.220.070
M10X200	25	07000.100.200	M16X85	25	07000.160.085	M22X80	10	07000.220.080
M10X210	25	07000.100.210	M16X90	25	07000.160.090	M22X90	10	07000.220.090
M10X220	25	07000.100.220	M16X100	25	07000.160.100	M22X100	10	07000.220.100
M10X230	25	07000.100.230	M16X110	25	07000.160.110	M22X110	10	07000.220.110
M10X240	10	07000.100.240	M16X120	25	07000.160.120	M22X120	10	07000.220.120
M10X250	10	07000.100.250	M16X130	25	07000.160.130	M22X140	10	07000.220.140
M10X260	10	07000.100.260	M16X140	25	07000.160.140	M22X150	10	07000.220.150
M10X270	10	07000.100.270	M16X150	10	07000.160.150	M22X160	10	07000.220.160
M10X280	10	07000.100.280	M16X160	10	07000.160.160	M22X180	10	07000.220.180
M10X300	10	07000.100.300	M16X170	10	07000.160.170	M22X200	10	07000.220.200
			M16X180	10	07000.160.180	M22X210	5	07000.220.210
M12X16	100	07000.120.016	M16X190	25	07000.160.190	M22X240	5	07000.220.240
M12X20	100	07000.120.020	M16X200	10	07000.160.200	M22X260	5	07000.220.260
M12X25	100	07000.120.025	M16X210	10	07000.160.210	M22X300	5	07000.220.300
M12X30	100	07000.120.030	M16X220	10	07000.160.220			
M12X35	100	07000.120.035	M16X230	5	07000.160.230	M24X40	10	07000.240.040
M12X40	100	07000.120.040	M16X240	5	07000.160.240	M24X45	10	07000.240.045
M12X45	100	07000.120.045	M16X250	5	07000.160.250	M24X50	10	07000.240.050

07000 Parafuso cabeça cilindrica sextavado interior ←

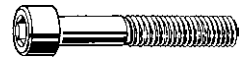
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M24X55	10	07000.240.055	M27X190	2	07000.270.190	M36X90	1	07000.360.090
M24X60	10	07000.240.060	M27X200	2	07000.270.200	M36X100	1	07000.360.100
M24X65	10	07000.240.065	M27X220	2	07000.270.220	M36X120	1	07000.360.120
M24X70	10	07000.240.070	M27X240	2	07000.270.240	M36X140	1	07000.360.140
M24X75	10	07000.240.075	M27X260	2	07000.270.260	M36X160	1	07000.360.160
M24X80	10	07000.240.080	M27X300	2	07000.270.300	M36X180	1	07000.360.180
M24X85	10	07000.240.085				M36X200	1	07000.360.200
M24X90	10	07000.240.090	M30X60	2	07000.300.060	M36X220	1	07000.360.220
M24X100	10	07000.240.100	M30X70	2	07000.300.070	M36X240	1	07000.360.240
M24X110	10	07000.240.110	M30X80	2	07000.300.080	M36X260	1	07000.360.260
M24X120	5	07000.240.120	M30X90	2	07000.300.090	M36X280	1	07000.360.280
M24X130	5	07000.240.130	M30X100	2	07000.300.100	M36X300	1	07000.360.300
M24X140	5	07000.240.140	M30X110	2	07000.300.110	M36X400	1	07000.360.400
M24X150	5	07000.240.150	M30X120	2	07000.300.120	M36X420	1	07000.360.420
M24X160	5	07000.240.160	M30X130	2	07000.300.130			
M24X170	5	07000.240.170	M30X140	2	07000.300.140	M39X80	1	07000.390.080
M24X180	5	07000.240.180	M30X150	2	07000.300.150	M39X90	1	07000.390.090
M24X200	5	07000.240.200	M30X160	2	07000.300.160	M39X100	1	07000.390.100
M24X210	2	07000.240.210	M30X170	2	07000.300.170	M39X120	1	07000.390.120
M24X220	2	07000.240.220	M30X180	2	07000.300.180	M39X140	1	07000.390.140
M24X240	2	07000.240.240	M30X200	2	07000.300.200	M39X160	1	07000.390.160
M24X250	2	07000.240.250	M30X210	2	07000.300.210	M39X180	1	07000.390.180
M24X260	2	07000.240.260	M30X220	2	07000.300.220	M39X200	1	07000.390.200
M24X280	2	07000.240.280	M30X240	2	07000.300.240			
M24X300	2	07000.240.300	M30X250	2	07000.300.250	M42X90	1	07000.420.090
M24X320	2	07000.240.320	M30X260	2	07000.300.260	M42X100	1	07000.420.100
M24X340	2	07000.240.340	M30X280	2	07000.300.280	M42X120	1	07000.420.120
M24X360	2	07000.240.360	M30X300	2	07000.300.300	M42X140	1	07000.420.140
M24X380	2	07000.240.380	M30X400	1	07000.300.400	M42X160	1	07000.420.160
M24X400	2	07000.240.400				M42X180	1	07000.420.180
			M33X70	2	07000.330.070	M42X200	1	07000.420.200
M27X50	2	07000.270.050	M33X80	2	07000.330.080	M42X240	1	07000.420.240
M27X60	2	07000.270.060	M33X90	2	07000.330.090	M42X260	1	07000.420.260
M27X70	2	07000.270.070	M33X100	2	07000.330.100	M42X300	1	07000.420.300
M27X75	2	07000.270.075	M33X120	2	07000.330.120			
M27X80	2	07000.270.080	M33X130	2	07000.330.130	M48X120	1	07000.480.120
M27X90	2	07000.270.090	M33X140	2	07000.330.140	M48X140	1	07000.480.140
M27X100	2	07000.270.100	M33X160	2	07000.330.160	M48X150	1	07000.480.150
M27X120	2	07000.270.120	M33X180	2	07000.330.180	M48X160	1	07000.480.160
M27X130	2	07000.270.130	M33X200	2	07000.330.200	M48X180	1	07000.480.180
M27X140	2	07000.270.140	M33X260	1	07000.330.260	M48X200	1	07000.480.200
M27X150	2	07000.270.150	M33X280	1	07000.330.280	M48X260	1	07000.480.260
M27X160	2	07000.270.160				M48X300	1	07000.480.300
M27X170	2	07000.270.170	M36X60	1	07000.360.060			
M27X180	2	07000.270.180	M36X80	1	07000.360.080			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

07025 Parafuso cabeça cilindrica sextavado interior D95A

Rosca Métrica
Material Aço
Classe 12.9
Tratamento sup. Camada de zinco isento Cr^{6+}- ISO 10683 flZnnc

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6	200	07025.030.006	M5X10	200	07025.050.010	M6X45	200	07025.060.045
M3X8	200	07025.030.008	M5X12	200	07025.050.012	M6X50	200	07025.060.050
M3X10	200	07025.030.010	M5X16	200	07025.050.016	M6X55	200	07025.060.055
M3X12	200	07025.030.012	M5X20	200	07025.050.020	M6X60	200	07025.060.060
M3X16	200	07025.030.016	M5X25	200	07025.050.025	M6X65	200	07025.060.065
M3X20	200	07025.030.020	M5X30	200	07025.050.030	M6X70	200	07025.060.070
M3X25	200	07025.030.025	M5X35	200	07025.050.035	M6X75	200	07025.060.075
M3X30	200	07025.030.030	M5X40	200	07025.050.040	M6X80	200	07025.060.080
M3X35	200	07025.030.035	M5X45	200	07025.050.045	M6X100	100	07025.060.100
			M5X50	200	07025.050.050	M6X130	50	07025.060.130
M4X6	200	07025.040.006	M5X60	200	07025.050.060	M6X140	25	07025.060.140
M4X8	200	07025.040.008	M5X70	200	07025.050.070			
M4X10	200	07025.040.010	M5X100	200	07025.050.100	M8X10	200	07025.080.010
M4X12	200	07025.040.012				M8X12	200	07025.080.012
M4X16	200	07025.040.016	M6X10	200	07025.060.010	M8X16	200	07025.080.016
M4X20	200	07025.040.020	M6X12	200	07025.060.012	M8X20	200	07025.080.020
M4X25	200	07025.040.025	M6X16	200	07025.060.016	M8X25	200	07025.080.025
M4X30	200	07025.040.030	M6X18	200	07025.060.018	M8X30	200	07025.080.030
M4X45	200	07025.040.045	M6X20	200	07025.060.020	M8X35	200	07025.080.035
M4X50	200	07025.040.050	M6X25	200	07025.060.025	M8X40	200	07025.080.040
			M6X30	200	07025.060.030	M8X45	200	07025.080.045
M5X6	200	07025.050.006	M6X35	200	07025.060.035	M8X50	200	07025.080.050
M5X8	200	07025.050.008	M6X40	200	07025.060.040	M8X55	200	07025.080.055

07025 Parafuso cabeça cilindrica sextavado interior ←

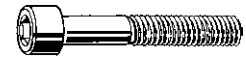
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M8X60	200	07025.080.060	M12X25	100	07025.120.025	M16X50	50	07025.160.050
M8X70	200	07025.080.070	M12X30	100	07025.120.030	M16X55	50	07025.160.055
M8X80	200	07025.080.080	M12X35	100	07025.120.035	M16X60	50	07025.160.060
M8X90	100	07025.080.090	M12X40	100	07025.120.040	M16X70	25	07025.160.070
M8X100	100	07025.080.100	M12X45	100	07025.120.045	M16X75	25	07025.160.075
M8X110	50	07025.080.110	M12X50	100	07025.120.050	M16X80	25	07025.160.080
M8X140	50	07025.080.140	M12X55	100	07025.120.055	M16X90	25	07025.160.090
			M12X60	100	07025.120.060	M16X100	25	07025.160.100
M10X12	200	07025.100.012	M12X70	50	07025.120.070	M16X110	25	07025.160.110
M10X16	200	07025.100.016	M12X80	50	07025.120.080	M16X120	25	07025.160.120
M10X20	200	07025.100.020	M12X90	50	07025.120.090			
M10X25	200	07025.100.025	M12X100	50	07025.120.100	M20X40	25	07025.200.040
M10X30	200	07025.100.030	M12X120	50	07025.120.120	M20X50	25	07025.200.050
M10X35	100	07025.100.035	M12X140	25	07025.120.140	M20X60	25	07025.200.060
M10X40	200	07025.100.040				M20X70	25	07025.200.070
M10X45	100	07025.100.045	M14X30	100	07025.140.030	M20X80	25	07025.200.080
M10X50	100	07025.100.050	M14X40	100	07025.140.040	M20X90	25	07025.200.090
M10X55	100	07025.100.055	M14X50	50	07025.140.050	M20X100	25	07025.200.100
M10X60	100	07025.100.060	M14X60	50	07025.140.060	M20X120	25	07025.200.120
M10X65	100	07025.100.065	M14X70	50	07025.140.070			
M10X70	100	07025.100.070	M14X80	50	07025.140.080	M24X40	10	07025.240.040
M10X80	100	07025.100.080	M14X90	50	07025.140.090	M24X50	10	07025.240.050
M10X90	100	07025.100.090	M14X100	50	07025.140.100	M24X60	10	07025.240.060
M10X100	100	07025.100.100				M24X70	10	07025.240.070
M10X120	50	07025.100.120	M16X25	50	07025.160.025	M24X80	10	07025.240.080
M10X150	25	07025.100.150	M16X30	50	07025.160.030	M24X90	10	07025.240.090
M10X160	25	07025.100.160	M16X35	50	07025.160.035	M24X100	10	07025.240.100
			M16X40	50	07025.160.040	M24X120	5	07025.240.120
M12X20	100	07025.120.020	M16X45	50	07025.160.045	M24X140	5	07025.240.140

- Com o tratamento de superficie Zinc Flake ISO 10683, o risco de disfunção hidrogénica é eliminado.

51050 Parafuso cabeça cilindrica sextavado interior Q05A

Rosca Métrica
Material Aço inoxidável A2
Classe 70

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M1,6X3*	500	51050.016.003	M2,5X30*	500	51050.025.030	M4X30	200	51050.040.030
M1,6X4*	500	51050.016.004	M2,5X35*	500	51050.025.035	M4X35	200	51050.040.035
M1,6X5*	500	51050.016.005	M2,5X40*	500	51050.025.040	M4X40	200	51050.040.040
M1,6X6*	500	51050.016.006				M4X45	200	51050.040.045
M1,6X8*	500	51050.016.008	M3X3*	1000	51050.030.003	M4X50	200	51050.040.050
M1,6X10*	500	51050.016.010	M3X4	1000	51050.030.004	M4X55	100	51050.040.055
M1,6X12*	500	51050.016.012	M3X5	200	51050.030.005	M4X60	200	51050.040.060
M1,6X14*	500	51050.016.014	M3X6	200	51050.030.006	M4X65*	100	51050.040.065
M1,6X16*	500	51050.016.016	M3X8	200	51050.030.008	M4X70*	100	51050.040.070
M1,6X18*	500	51050.016.018	M3X10	200	51050.030.010	M4X75*	100	51050.040.075
M1,6X20*	500	51050.016.020	M3X12	200	51050.030.012	M4X80	100	51050.040.080
			M3X14*	1000	51050.030.014	M4X90	100	51050.040.090
M2X3*	500	51050.020.003	M3X16	200	51050.030.016	M4X100*	100	51050.040.100
M2X4	100	51050.020.004	M3X18	200	51050.030.018			
M2X5	100	51050.020.005	M3X20	200	51050.030.020	M5X5*	500	51050.050.005
M2X6	100	51050.020.006	M3X22*	1000	51050.030.022	M5X6	200	51050.050.006
M2X8	100	51050.020.008	M3X25	200	51050.030.025	M5X8	200	51050.050.008
M2X10	100	51050.020.010	M3X30	200	51050.030.030	M5X10	200	51050.050.010
M2X12	100	51050.020.012	M3X35	200	51050.030.035	M5X12	200	51050.050.012
M2X14*	500	51050.020.014	M3X40	200	51050.030.040	M5X14*	500	51050.050.014
M2X16	100	51050.020.016	M3X45	200	51050.030.045	M5X16	200	51050.050.016
M2X18*	500	51050.020.018	M3X50*	200	51050.030.050	M5X18*	500	51050.050.018
M2X22*	500	51050.020.022	M3X55*	200	51050.030.055	M5X20	200	51050.050.020
M2X25*	500	51050.020.025	M3X60	200	51050.030.060	M5X22*	500	51050.050.022
M2X30*	500	51050.020.030	M3X65*	200	51050.030.065	M5X25	200	51050.050.025
			M3X70*	200	51050.030.070	M5X30	200	51050.050.030
M2,5X3	500	51050.025.003				M5X35	200	51050.050.035
M2,5X4	500	51050.025.004	M4X4*	1000	51050.040.004	M5X40	200	51050.050.040
M2,5X5	100	51050.025.005	M4X5*	1000	51050.040.005	M5X45	200	51050.050.045
M2,5X6	100	51050.025.006	M4X6	200	51050.040.006	M5X50	200	51050.050.050
M2,5X8	100	51050.025.008	M4X8	200	51050.040.008	M5X55	100	51050.050.055
M2,5X10	100	51050.025.010	M4X10	200	51050.040.010	M5X60	200	51050.050.060
M2,5X12	100	51050.025.012	M4X12	200	51050.040.012	M5X65	100	51050.050.065
M2,5X14*	500	51050.025.014	M4X14*	1000	51050.040.014	M5X70	200	51050.050.070
M2,5X16	100	51050.025.016	M4X16	200	51050.040.016	M5X75*	100	51050.050.075
M2,5X18*	500	51050.025.018	M4X18*	1000	51050.040.018	M5X80	200	51050.050.080
M2,5X20	100	51050.025.020	M4X20	200	51050.040.020	M5X85*	100	51050.050.085
M2,5X22*	500	51050.025.022	M4X22*	500	51050.040.022	M5X90	200	51050.050.090
M2,5X25*	500	51050.025.025	M4X25	200	51050.040.025	M5X95*	100	51050.050.095

51050 **Parafuso cabeça cilindrica sextavado interior** ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X100	200	51050.050.100	M8X260*	25	51050.080.260	M12X300*	25	51050.120.300
M5X110*	100	51050.050.110	M8X270*	25	51050.080.270			
M5X120	100	51050.050.120	M8X280*	25	51050.080.280	M14X20	25	51050.140.020
M5X130*	100	51050.050.130	M8X290*	25	51050.080.290	M14X25*	100	51050.140.025
M5X140*	100	51050.050.140	M8X300*	25	51050.080.300	M14X30	25	51050.140.030
						M14X35*	50	51050.140.035
M6X6*	500	51050.060.006	M10X12	200	51050.100.012	M14X40	25	51050.140.040
M6X8	200	51050.060.008	M10X14*	100	51050.100.014	M14X45*	50	51050.140.045
M6X10	200	51050.060.010	M10X16	100	51050.100.016	M14X50	25	51050.140.050
M6X12	200	51050.060.012	M10X18*	100	51050.100.018	M14X55*	50	51050.140.055
M6X14	200	51050.060.014	M10X20	100	51050.100.020	M14X60	25	51050.140.060
M6X16	200	51050.060.016	M10X22*	100	51050.100.022	M14X65*	50	51050.140.065
M6X18	200	51050.060.018	M10X25	100	51050.100.025	M14X70*	50	51050.140.070
M6X20	200	51050.060.020	M10X30	100	51050.100.030	M14X75*	50	51050.140.075
M6X22	200	51050.060.022	M10X35	100	51050.100.035	M14X80	25	51050.140.080
M6X25	200	51050.060.025	M10X40	100	51050.100.040	M14X85*	50	51050.140.085
M6X30	200	51050.060.030	M10X45	100	51050.100.045	M14X90*	50	51050.140.090
M6X35	200	51050.060.035	M10X50	100	51050.100.050	M14X95*	50	51050.140.095
M6X40	200	51050.060.040	M10X55	100	51050.100.055	M14X100*	50	51050.140.100
M6X45	200	51050.060.045	M10X60	100	51050.100.060	M14X110*	25	51050.140.110
M6X50	200	51050.060.050	M10X65*	50	51050.100.065	M14X120*	25	51050.140.120
M6X55	200	51050.060.055	M10X70	100	51050.100.070	M14X130*	25	51050.140.130
M6X60	200	51050.060.060	M10X75	50	51050.100.075	M14X140*	25	51050.140.140
M6X65	200	51050.060.065	M10X80	100	51050.100.080	M14X150*	25	51050.140.150
M6X70	200	51050.060.070	M10X85*	50	51050.100.085	M14X160*	25	51050.140.160
M6X75*	100	51050.060.075	M10X90	100	51050.100.090	M14X170*	25	51050.140.170
M6X80	200	51050.060.080	M10X95*	50	51050.100.095	M14X180*	25	51050.140.180
M6X85*	100	51050.060.085	M10X100	100	51050.100.100	M14X200*	25	51050.140.200
M6X90	200	51050.060.090	M10X110	50	51050.100.110			
M6X95*	100	51050.060.095	M10X120	50	51050.100.120	M16X20*	25	51050.160.020
M6X100	200	51050.060.100	M10X130	50	51050.100.130	M16X25	25	51050.160.025
M6X110	100	51050.060.110	M10X140	50	51050.100.140	M16X30	25	51050.160.030
M6X120*	100	51050.060.120	M10X150	50	51050.100.150	M16X35	25	51050.160.035
M6X130*	100	51050.060.130	M10X160	25	51050.100.160	M16X40	25	51050.160.040
M6X140	100	51050.060.140	M10X170*	25	51050.100.170	M16X45	25	51050.160.045
M6X150	100	51050.060.150	M10X180*	25	51050.100.180	M16X50	25	51050.160.050
M6X160*	100	51050.060.160	M10X190*	25	51050.100.190	M16X55	25	51050.160.055
M6X170*	100	51050.060.170	M10X200*	25	51050.100.200	M16X60	25	51050.160.060
M6X180*	100	51050.060.180	M10X210*	25	51050.100.210	M16X65*	25	51050.160.065
M6X190*	100	51050.060.190	M10X220*	25	51050.100.220	M16X70	25	51050.160.070
M6X200*	100	51050.060.200	M10X230*	25	51050.100.230	M16X75*	25	51050.160.075
M6X220*	100	51050.060.220	M10X240*	25	51050.100.240	M16X80	25	51050.160.080
			M10X250*	25	51050.100.250	M16X85*	25	51050.160.085
M8X8*	500	51050.080.008	M10X260*	25	51050.100.260	M16X90	10	51050.160.090
M8X10	200	51050.080.010	M10X280*	25	51050.100.280	M16X95*	25	51050.160.095
M8X12	200	51050.080.012	M10X300*	25	51050.100.300	M16X100	10	51050.160.100
M8X14*	200	51050.080.014				M16X110	10	51050.160.110
M8X16	200	51050.080.016	M12X16	50	51050.120.016	M16X120	10	51050.160.120
M8X18*	200	51050.080.018	M12X20	100	51050.120.020	M16X130	10	51050.160.130
M8X20	200	51050.080.020	M12X22*	50	51050.120.022	M16X140	10	51050.160.140
M8X22	200	51050.080.022	M12X25	100	51050.120.025	M16X150	10	51050.160.150
M8X25	200	51050.080.025	M12X30	100	51050.120.030	M16X160*	25	51050.160.160
M8X30	200	51050.080.030	M12X35	100	51050.120.035	M16X170*	25	51050.160.170
M8X35	200	51050.080.035	M12X40	100	51050.120.040	M16X180*	25	51050.160.180
M8X40	200	51050.080.040	M12X45	100	51050.120.045	M16X190*	25	51050.160.190
M8X45	200	51050.080.045	M12X50	100	51050.120.050	M16X200*	25	51050.160.200
M8X50	200	51050.080.050	M12X55	100	51050.120.055			
M8X55	200	51050.080.055	M12X60	100	51050.120.060	M18X30*	25	51050.180.030
M8X60	200	51050.080.060	M12X65*	50	51050.120.065	M18X35*	25	51050.180.035
M8X65	100	51050.080.065	M12X70	100	51050.120.070	M18X40*	25	51050.180.040
M8X70	200	51050.080.070	M12X75	25	51050.120.075	M18X45*	25	51050.180.045
M8X75*	100	51050.080.075	M12X80	100	51050.120.080	M18X50*	25	51050.180.050
M8X80	200	51050.080.080	M12X85	25	51050.120.085	M18X55*	25	51050.180.055
M8X85*	100	51050.080.085	M12X90	100	51050.120.090	M18X60*	25	51050.180.060
M8X90	200	51050.080.090	M12X95*	25	51050.120.095	M18X65*	25	51050.180.065
M8X95*	100	51050.080.095	M12X100	100	51050.120.100	M18X70*	25	51050.180.070
M8X100	200	51050.080.100	M12X110	50	51050.120.110	M18X75*	25	51050.180.075
M8X110	100	51050.080.110	M12X120	50	51050.120.120	M18X80*	25	51050.180.080
M8X120	100	51050.080.120	M12X130	25	51050.120.130	M18X85*	25	51050.180.085
M8X130	50	51050.080.130	M12X140*	25	51050.120.140	M18X90*	25	51050.180.090
M8X140	50	51050.080.140	M12X150	25	51050.120.150	M18X100*	25	51050.180.100
M8X150	50	51050.080.150	M12X160	50	51050.120.160	M18X110*	25	51050.180.110
M8X160	50	51050.080.160	M12X170*	25	51050.120.170	M18X120*	25	51050.180.120
M8X170*	25	51050.080.170	M12X180*	25	51050.120.180	M18X130*	25	51050.180.130
M8X180*	25	51050.080.180	M12X190*	25	51050.120.190	M18X140*	25	51050.180.140
M8X190*	25	51050.080.190	M12X200*	25	51050.120.200	M18X150*	25	51050.180.150
M8X200*	25	51050.080.200	M12X210*	25	51050.120.210			
M8X210*	25	51050.080.210	M12X220*	25	51050.120.220	M20X30*	25	51050.200.030
M8X220*	25	51050.080.220	M12X230*	25	51050.120.230	M20X35*	25	51050.200.035
M8X230*	25	51050.080.230	M12X240*	25	51050.120.240	M20X40	25	51050.200.040
M8X240*	25	51050.080.240	M12X260*	25	51050.120.260	M20X45	25	51050.200.045
M8X250*	25	51050.080.250	M12X270*	25	51050.120.270	M20X50	25	51050.200.050

51050 Parafuso cabeça cilindrica sextavado interior

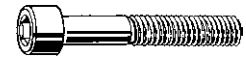
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M20X55	25	51050.200.055	M22X80*	25	51050.220.080	M24X260*	10	51050.240.260
M20X60	25	51050.200.060	M22X100*	25	51050.220.100			
M20X65*	25	51050.200.065	M22X110*	25	51050.220.110	M27X60*	10	51050.270.060
M20X70	25	51050.200.070	M22X130*	25	51050.220.130	M27X70*	10	51050.270.070
M20X75*	25	51050.200.075	M22X140*	25	51050.220.140	M27X80*	10	51050.270.080
M20X80	10	51050.200.080				M27X90*	10	51050.270.090
M20X85*	25	51050.200.085	M24X40*	10	51050.240.040	M27X100*	10	51050.270.100
M20X90	10	51050.200.090	M24X45	10	51050.240.045	M27X110*	10	51050.270.110
M20X100	10	51050.200.100	M24X50	10	51050.240.050	M27X120*	10	51050.270.120
M20X110	10	51050.200.110	M24X55*	10	51050.240.055	M27X130*	10	51050.270.130
M20X120	10	51050.200.120	M24X60	10	51050.240.060	M27X150*	10	51050.270.150
M20X130*	25	51050.200.130	M24X65*	10	51050.240.065			
M20X140	10	51050.200.140	M24X70	10	51050.240.070	M30X50*	10	51050.300.050
M20X150	10	51050.200.150	M24X75*	10	51050.240.075	M30X60*	10	51050.300.060
M20X160*	25	51050.200.160	M24X80	10	51050.240.080	M30X65*	10	51050.300.065
M20X170*	25	51050.200.170	M24X85*	10	51050.240.085	M30X70*	10	51050.300.070
M20X180*	25	51050.200.180	M24X90	10	51050.240.090	M30X75*	10	51050.300.075
M20X190*	25	51050.200.190	M24X95*	10	51050.240.095	M30X80*	10	51050.300.080
M20X200*	25	51050.200.200	M24X100	10	51050.240.100	M30X90*	10	51050.300.090
M20X210*	25	51050.200.210	M24X110	10	51050.240.110	M30X100*	10	51050.300.100
M20X220*	25	51050.200.220	M24X120	10	51050.240.120	M30X110*	10	51050.300.110
M20X240*	25	51050.200.240	M24X130*	10	51050.240.130	M30X120*	10	51050.300.120
M20X260*	25	51050.200.260	M24X140	10	51050.240.140	M30X130*	10	51050.300.130
			M24X150	10	51050.240.150	M30X140*	10	51050.300.140
M22X40*	25	51050.220.040	M24X160*	10	51050.240.160	M30X160*	10	51050.300.160
M22X50*	25	51050.220.050	M24X170*	10	51050.240.170	M30X170*	10	51050.300.170
M22X55*	25	51050.220.055	M24X180*	10	51050.240.180	M30X180*	10	51050.300.180
M22X60*	25	51050.220.060	M24X200*	10	51050.240.200	M30X200*	10	51050.300.200
M22X65*	25	51050.220.065	M24X210*	10	51050.240.210	M30X300*	10	51050.300.300
M22X70*	25	51050.220.070	M24X220*	10	51050.240.220			
M22X75*	25	51050.220.075	M24X250*	10	51050.240.250			

- Diâmetros > M24 são no mínimo classe 50.
- Comprimentos > 8xd são no mínimo classe 50.

55050 Parafuso cabeça cilindrica sextavado interior Q45A

Rosca Métrica
Material Aço inoxidável A4
Classe 70

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M1,6X3*	500	55050.016.003	M2,5X20	100	55050.025.020	M4X14*	1000	55050.040.014
M1,6X4	100	55050.016.004	M2,5X22*	500	55050.025.022	M4X16	200	55050.040.016
M1,6X5	100	55050.016.005	M2,5X25*	500	55050.025.025	M4X18*	1000	55050.040.018
M1,6X6	100	55050.016.006	M2,5X30*	500	55050.025.030	M4X20	200	55050.040.020
M1,6X8*	500	55050.016.008	M2,5X35*	500	55050.025.035	M4X22*	500	55050.040.022
M1,6X10*	500	55050.016.010	M2,5X40*	500	55050.025.040	M4X25	200	55050.040.025
M1,6X12*	500	55050.016.012				M4X30	200	55050.040.030
M1,6X14*	500	55050.016.014	M3X3*	1000	55050.030.003	M4X35	200	55050.040.035
M1,6X16*	500	55050.016.016	M3X4*	1000	55050.030.004	M4X40	200	55050.040.040
M1,6X18*	500	55050.016.018	M3X5*	1000	55050.030.005	M4X45	200	55050.040.045
M1,6X20*	500	55050.016.020	M3X6	200	55050.030.006	M4X50	200	55050.040.050
			M3X8	200	55050.030.008	M4X55*	200	55050.040.055
M2X3*	500	55050.020.003	M3X10	200	55050.030.010	M4X60*	100	55050.040.060
M2X4*	500	55050.020.004	M3X12	200	55050.030.012	M4X65*	100	55050.040.065
M2X5	100	55050.020.005	M3X14*	1000	55050.030.014	M4X70	100	55050.040.070
M2X6	100	55050.020.006	M3X16	200	55050.030.016	M4X75*	100	55050.040.075
M2X8	100	55050.020.008	M3X18*	1000	55050.030.018	M4X80*	100	55050.040.080
M2X10	100	55050.020.010	M3X20	200	55050.030.020	M4X90*	100	55050.040.090
M2X12	100	55050.020.012	M3X22*	1000	55050.030.022	M4X100*	100	55050.040.100
M2X14*	500	55050.020.014	M3X25	200	55050.030.025			
M2X16	100	55050.020.016	M3X30	200	55050.030.030	M5X5*	500	55050.050.005
M2X18*	500	55050.020.018	M3X35	200	55050.030.035	M5X6	500	55050.050.006
M2X20	100	55050.020.020	M3X40	200	55050.030.040	M5X8	200	55050.050.008
M2X25*	500	55050.020.025	M3X45*	500	55050.030.045	M5X10	200	55050.050.010
M2X30*	500	55050.020.030	M3X50	200	55050.030.050	M5X12	200	55050.050.012
			M3X55*	200	55050.030.055	M5X14	500	55050.050.014
M2,5X3*	500	55050.025.003	M3X60*	200	55050.030.060	M5X16	200	55050.050.016
M2,5X4*	500	55050.025.004	M3X65*	200	55050.030.065	M5X18*	500	55050.050.018
M2,5X5	100	55050.025.005	M3X70*	200	55050.030.070	M5X20	200	55050.050.020
M2,5X6	100	55050.025.006				M5X22*	500	55050.050.022
M2,5X8	100	55050.025.008	M4X4*	1000	55050.040.004	M5X25	200	55050.050.025
M2,5X10	100	55050.025.010	M4X5*	1000	55050.040.005	M5X30	200	55050.050.030
M2,5X12	100	55050.025.012	M4X6	200	55050.040.006	M5X35	200	55050.050.035
M2,5X14*	500	55050.025.014	M4X8	200	55050.040.008	M5X40	200	55050.050.040
M2,5X16	100	55050.025.016	M4X10	200	55050.040.010	M5X45	200	55050.050.045
M2,5X18*	500	55050.025.018	M4X12	200	55050.040.012	M5X50	200	55050.050.050

55050 **Parafuso cabeça cilindrica sextavado interior** ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X55	200	55050.050.055	M8X180*	25	55050.080.180	M12X210*	25	55050.120.210
M5X60	200	55050.050.060	M8X190*	25	55050.080.190	M12X220*	25	55050.120.220
M5X65*	100	55050.050.065	M8X200*	25	55050.080.200	M12X230*	25	55050.120.230
M5X70	200	55050.050.070	M8X210*	25	55050.080.210	M12X240*	25	55050.120.240
M5X75*	100	55050.050.075	M8X220*	25	55050.080.220	M12X250*	25	55050.120.250
M5X80	200	55050.050.080	M8X230*	25	55050.080.230	M12X260*	25	55050.120.260
M5X85*	100	55050.050.085	M8X240*	25	55050.080.240	M12X270*	25	55050.120.270
M5X90*	100	55050.050.090	M8X250*	25	55050.080.250	M12X280*	25	55050.120.280
M5X95*	100	55050.050.095	M8X260*	25	55050.080.260	M12X300*	25	55050.120.300
M5X100*	100	55050.050.100	M8X270*	25	55050.080.270			
M5X110*	100	55050.050.110	M8X280*	25	55050.080.280	M14X25	25	55050.140.025
M5X120*	100	55050.050.120	M8X290*	25	55050.080.290	M14X30	25	55050.140.030
M5X130*	100	55050.050.130	M8X300*	25	55050.080.300	M14X35*	50	55050.140.035
M5X140*	100	55050.050.140				M14X40	25	55050.140.040
			M10X12	100	55050.100.012	M14X45	50	55050.140.045
M6X6	500	55050.060.006	M10X14*	100	55050.100.014	M14X50	25	55050.140.050
M6X8	200	55050.060.008	M10X16	100	55050.100.016	M14X55*	50	55050.140.055
M6X10	200	55050.060.010	M10X18*	100	55050.100.018	M14X60	25	55050.140.060
M6X12	200	55050.060.012	M10X20	100	55050.100.020	M14X65*	50	55050.140.065
M6X14	200	55050.060.014	M10X22*	100	55050.100.022	M14X70*	50	55050.140.070
M6X16	200	55050.060.016	M10X25	100	55050.100.025	M14X75*	50	55050.140.075
M6X18*	200	55050.060.018	M10X30	100	55050.100.030	M14X80	25	55050.140.080
M6X20	200	55050.060.020	M10X35	100	55050.100.035	M14X85*	50	55050.140.085
M6X22*	200	55050.060.022	M10X40	100	55050.100.040	M14X90	10	55050.140.090
M6X25	200	55050.060.025	M10X45	100	55050.100.045	M14X95*	50	55050.140.095
M6X30	200	55050.060.030	M10X50	100	55050.100.050	M14X100	10	55050.140.100
M6X35	200	55050.060.035	M10X55	100	55050.100.055	M14X110	10	55050.140.110
M6X40	200	55050.060.040	M10X60	100	55050.100.060	M14X120	10	55050.140.120
M6X45	200	55050.060.045	M10X65	50	55050.100.065	M14X130*	25	55050.140.130
M6X50	200	55050.060.050	M10X70	100	55050.100.070	M14X140*	25	55050.140.140
M6X55	200	55050.060.055	M10X75*	50	55050.100.075	M14X150*	25	55050.140.150
M6X60	200	55050.060.060	M10X80	100	55050.100.080			
M6X65	100	55050.060.065	M10X85*	50	55050.100.085	M16X20	25	55050.160.020
M6X70	200	55050.060.070	M10X90	100	55050.100.090	M16X25	25	55050.160.025
M6X75*	100	55050.060.075	M10X95*	50	55050.100.095	M16X30	25	55050.160.030
M6X80	200	55050.060.080	M10X100	100	55050.100.100	M16X35	25	55050.160.035
M6X85*	100	55050.060.085	M10X110	50	55050.100.110	M16X40	25	55050.160.040
M6X90	200	55050.060.090	M10X120	50	55050.100.120	M16X45	25	55050.160.045
M6X95*	100	55050.060.095	M10X130	50	55050.100.130	M16X50	25	55050.160.050
M6X100	200	55050.060.100	M10X140	50	55050.100.140	M16X55	25	55050.160.055
M6X110	100	55050.060.110	M10X150	50	55050.100.150	M16X60	25	55050.160.060
M6X120	100	55050.060.120	M10X160*	50	55050.100.160	M16X65*	25	55050.160.065
M6X130	100	55050.060.130	M10X170*	25	55050.100.170	M16X70	25	55050.160.070
M6X140	100	55050.060.140	M10X180*	25	55050.100.180	M16X75*	25	55050.160.075
M6X150	100	55050.060.150	M10X190*	25	55050.100.190	M16X80	25	55050.160.080
M6X160*	100	55050.060.160	M10X200*	25	55050.100.200	M16X85*	25	55050.160.085
M6X170*	100	55050.060.170	M10X210*	25	55050.100.210	M16X90	10	55050.160.090
M6X180*	100	55050.060.180	M10X220*	25	55050.100.220	M16X95*	25	55050.160.095
M6X190*	100	55050.060.190	M10X230*	25	55050.100.230	M16X100	10	55050.160.100
M6X200*	100	55050.060.200	M10X240*	25	55050.100.240	M16X110	10	55050.160.110
			M10X250*	25	55050.100.250	M16X120	10	55050.160.120
M8X8*	500	55050.080.008	M10X280*	25	55050.100.280	M16X130	10	55050.160.130
M8X10	500	55050.080.010				M16X140	10	55050.160.140
M8X12	200	55050.080.012	M12X16*	50	55050.120.016	M16X150	10	55050.160.150
M8X14*	200	55050.080.014	M12X20	100	55050.120.020	M16X160*	25	55050.160.160
M8X16	200	55050.080.016	M12X22*	50	55050.120.022	M16X170*	25	55050.160.170
M8X18*	200	55050.080.018	M12X25	100	55050.120.025	M16X180*	25	55050.160.180
M8X20	200	55050.080.020	M12X30	100	55050.120.030	M16X190*	25	55050.160.190
M8X22*	200	55050.080.022	M12X35	100	55050.120.035	M16X200*	25	55050.160.200
M8X25	200	55050.080.025	M12X40	100	55050.120.040			
M8X30	200	55050.080.030	M12X45	100	55050.120.045	M18X30*	25	55050.180.030
M8X35	200	55050.080.035	M12X50	100	55050.120.050	M18X35*	25	55050.180.035
M8X40	200	55050.080.040	M12X55	100	55050.120.055	M18X40*	25	55050.180.040
M8X45	200	55050.080.045	M12X60	100	55050.120.060	M18X45*	25	55050.180.045
M8X50	200	55050.080.050	M12X65	100	55050.120.065	M18X50*	25	55050.180.050
M8X55	200	55050.080.055	M12X70	100	55050.120.070	M18X55*	25	55050.180.055
M8X60	200	55050.080.060	M12X75	25	55050.120.075	M18X60*	25	55050.180.060
M8X65	100	55050.080.065	M12X80	100	55050.120.080	M18X65*	25	55050.180.065
M8X70	200	55050.080.070	M12X85*	25	55050.120.085	M18X70*	25	55050.180.070
M8X75*	100	55050.080.075	M12X90	100	55050.120.090	M18X75*	25	55050.180.075
M8X80	200	55050.080.080	M12X95*	25	55050.120.095	M18X80*	25	55050.180.080
M8X85*	100	55050.080.085	M12X100	100	55050.120.100	M18X90*	25	55050.180.090
M8X90	200	55050.080.090	M12X110	50	55050.120.110	M18X100*	25	55050.180.100
M8X95*	100	55050.080.095	M12X120	50	55050.120.120	M18X110*	25	55050.180.110
M8X100	200	55050.080.100	M12X130	25	55050.120.130	M18X120*	25	55050.180.120
M8X110	100	55050.080.110	M12X140	25	55050.120.140	M18X140*	25	55050.180.140
M8X120	100	55050.080.120	M12X150	25	55050.120.150	M18X150*	25	55050.180.150
M8X130	50	55050.080.130	M12X160*	25	55050.120.160			
M8X140	50	55050.080.140	M12X170*	25	55050.120.170	M20X30*	25	55050.200.030
M8X150	50	55050.080.150	M12X180*	25	55050.120.180	M20X35*	25	55050.200.035
M8X160*	50	55050.080.160	M12X190*	25	55050.120.190	M20X40	25	55050.200.040
M8X170*	25	55050.080.170	M12X200*	25	55050.120.200	M20X45	25	55050.200.045

55050 Parafuso cabeça cilindrica sextavado interior ←

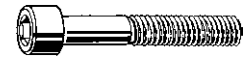
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M20X50	25	55050.200.050	M22X110*	25	55050.220.110	M27X60	5	55050.270.060
M20X55	25	55050.200.055	M22X120*	25	55050.220.120	M27X70	5	55050.270.070
M20X60	25	55050.200.060	M22X130*	25	55050.220.130	M27X75*	10	55050.270.075
M20X65*	25	55050.200.065	M22X140*	25	55050.220.140	M27X80	5	55050.270.080
M20X70	25	55050.200.070	M22X150*	10	55050.220.150	M27X90	5	55050.270.090
M20X75*	25	55050.200.075				M27X100	5	55050.270.100
M20X80	10	55050.200.080	M24X40*	10	55050.240.040	M27X120*	10	55050.270.120
M20X85*	25	55050.200.085	M24X45*	10	55050.240.045	M27X130	5	55050.270.130
M20X90	10	55050.200.090	M24X50	10	55050.240.050	M27X140	5	55050.270.140
M20X95*	25	55050.200.095	M24X55*	10	55050.240.055	M27X150	5	55050.270.150
M20X100	10	55050.200.100	M24X60	10	55050.240.060	M27X160*	10	55050.270.160
M20X110	10	55050.200.110	M24X65*	10	55050.240.065			
M20X120	10	55050.200.120	M24X70	10	55050.240.070	M30X50	2	55050.300.050
M20X130	10	55050.200.130	M24X75*	10	55050.240.075	M30X55*	10	55050.300.055
M20X140	10	55050.200.140	M24X80	10	55050.240.080	M30X60	2	55050.300.060
M20X150	10	55050.200.150	M24X90	10	55050.240.090	M30X65*	10	55050.300.065
M20X160*	25	55050.200.160	M24X100	10	55050.240.100	M30X70	2	55050.300.070
M20X170*	25	55050.200.170	M24X110	10	55050.240.110	M30X80	2	55050.300.080
M20X180*	25	55050.200.180	M24X120	10	55050.240.120	M30X85*	10	55050.300.085
M20X190*	25	55050.200.190	M24X130*	10	55050.240.130	M30X90	2	55050.300.090
M20X200*	25	55050.200.200	M24X140	10	55050.240.140	M30X95*	10	55050.300.095
M20X210*	25	55050.200.210	M24X150	10	55050.240.150	M30X100	2	55050.300.100
			M24X160*	10	55050.240.160	M30X110	2	55050.300.110
M22X40*	25	55050.220.040	M24X170*	10	55050.240.170	M30X120*	10	55050.300.120
M22X50*	25	55050.220.050	M24X180*	10	55050.240.180	M30X130	2	55050.300.130
M22X55*	25	55050.220.055	M24X190*	10	55050.240.190	M30X140	2	55050.300.140
M22X60*	25	55050.220.060	M24X200*	10	55050.240.200	M30X150	2	55050.300.150
M22X65*	25	55050.220.065	M24X210*	10	55050.240.210	M30X160*	10	55050.300.160
M22X70*	25	55050.220.070	M24X220*	10	55050.240.220	M30X180*	10	55050.300.180
M22X75*	25	55050.220.075	M24X240*	10	55050.240.240	M30X200*	10	55050.300.200
M22X80*	25	55050.220.080						
M22X90*	25	55050.220.090	M27X50	5	55050.270.050			

- Diâmetros > M24 são no mínimo classe 50.
- Comprimentos > 8xd são no mínimo classe 50.

53570 Parafuso cabeça cilindrica sextavado interior R11A

Rosca Métrica
Material Aço inoxidável A4
Classe 80

RoHS



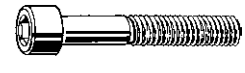
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X5*	1000	53570.040.005	M5X60*	100	53570.050.060	M8X12*	500	53570.080.012
M4X6*	1000	53570.040.006	M5X65*	100	53570.050.065	M8X14*	200	53570.080.014
M4X8	100	53570.040.008	M5X70*	100	53570.050.070	M8X16	50	53570.080.016
M4X10	100	53570.040.010	M5X75*	100	53570.050.075	M8X18*	200	53570.080.018
M4X12	100	53570.040.012	M5X80*	100	53570.050.080	M8X20	50	53570.080.020
M4X14*	1000	53570.040.014				M8X22*	200	53570.080.022
M4X16	100	53570.040.016	M6X8*	500	53570.060.008	M8X25	50	53570.080.025
M4X18*	1000	53570.040.018	M6X10*	500	53570.060.010	M8X30	50	53570.080.030
M4X20	100	53570.040.020	M6X12	100	53570.060.012	M8X35	100	53570.080.035
M4X22*	500	53570.040.022	M6X14	100	53570.060.014	M8X40	50	53570.080.040
M4X25	100	53570.040.025	M6X16	100	53570.060.016	M8X45*	100	53570.080.045
M4X30	100	53570.040.030	M6X18*	200	53570.060.018	M8X50	50	53570.080.050
M4X35*	200	53570.040.035	M6X20	100	53570.060.020	M8X55*	100	53570.080.055
M4X40	100	53570.040.040	M6X22*	200	53570.060.022	M8X60	50	53570.080.060
M4X45*	200	53570.040.045	M6X25	100	53570.060.025	M8X65*	100	53570.080.065
M4X50*	200	53570.040.050	M6X30	100	53570.060.030	M8X70	100	53570.080.070
M4X55*	200	53570.040.055	M6X35	100	53570.060.035	M8X75*	100	53570.080.075
M4X60*	100	53570.040.060	M6X40	100	53570.060.040	M8X80*	100	53570.080.080
			M6X45*	100	53570.060.045	M8X90*	100	53570.080.090
M5X6*	500	53570.050.006	M6X50	100	53570.060.050	M8X100*	50	53570.080.100
M5X8*	500	53570.050.008	M6X55*	100	53570.060.055	M8X110*	50	53570.080.110
M5X10	100	53570.050.010	M6X60	100	53570.060.060	M8X120*	50	53570.080.120
M5X12	100	53570.050.012	M6X65*	100	53570.060.065	M8X130*	50	53570.080.130
M5X14*	500	53570.050.014	M6X70*	100	53570.060.070	M8X140*	50	53570.080.140
M5X16	100	53570.050.016	M6X75*	100	53570.060.075	M8X150*	50	53570.080.150
M5X18*	500	53570.050.018	M6X80*	100	53570.060.080	M8X160*	50	53570.080.160
M5X20	100	53570.050.020	M6X90*	100	53570.060.090			
M5X22*	500	53570.050.022	M6X100*	100	53570.060.100	M10X16	50	53570.100.016
M5X25	100	53570.050.025	M6X110*	100	53570.060.110	M10X18*	100	53570.100.018
M5X30	100	53570.050.030	M6X120*	100	53570.060.120	M10X20	50	53570.100.020
M5X35	100	53570.050.035	M6X130*	100	53570.060.130	M10X22*	100	53570.100.022
M5X40	100	53570.050.040	M6X140*	100	53570.060.140	M10X25	50	53570.100.025
M5X45*	200	53570.050.045	M6X150*	100	53570.060.150	M10X30	50	53570.100.030
M5X50*	200	53570.050.050				M10X35	50	53570.100.035
M5X55*	200	53570.050.055	M8X10*	500	53570.080.010	M10X40	50	53570.100.040

53570 Parafuso cabeça cilindrica sextavado interior ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X45	100	53570.100.045	M14X30*	50	53570.140.030	M16X150*	25	53570.160.150
M10X50	50	53570.100.050	M14X35*	50	53570.140.035			
M10X55*	50	53570.100.055	M14X40*	50	53570.140.040	M20X30*	25	53570.200.030
M10X60	50	53570.100.060	M14X45*	50	53570.140.045	M20X35*	25	53570.200.035
M10X65*	50	53570.100.065	M14X50*	50	53570.140.050	M20X40*	25	53570.200.040
M10X70	50	53570.100.070	M14X55*	50	53570.140.055	M20X45*	25	53570.200.045
M10X75*	50	53570.100.075	M14X60*	50	53570.140.060	M20X50	10	53570.200.050
M10X80*	50	53570.100.080	M14X65*	50	53570.140.065	M20X55*	25	53570.200.055
M10X90*	50	53570.100.090	M14X70*	50	53570.140.070	M20X60	10	53570.200.060
M10X100*	50	53570.100.100	M14X75*	50	53570.140.075	M20X65*	25	53570.200.065
M10X110*	50	53570.100.110	M14X80*	50	53570.140.080	M20X70	10	53570.200.070
M10X120*	50	53570.100.120	M14X90*	50	53570.140.090	M20X75*	25	53570.200.075
M10X130*	50	53570.100.130	M14X100*	50	53570.140.100	M20X80*	25	53570.200.080
M10X140*	50	53570.100.140	M14X110*	25	53570.140.110	M20X90*	25	53570.200.090
M10X150*	50	53570.100.150	M14X120*	25	53570.140.120	M20X100	10	53570.200.100
			M14X130*	25	53570.140.130	M20X110*	25	53570.200.110
M12X20*	50	53570.120.020	M14X140*	25	53570.140.140	M20X120*	25	53570.200.120
M12X25	25	53570.120.025	M14X150*	25	53570.140.150	M20X130*	25	53570.200.130
M12X30	25	53570.120.030				M20X140*	25	53570.200.140
M12X35	25	53570.120.035	M16X25*	25	53570.160.025	M20X150*	25	53570.200.150
M12X40	25	53570.120.040	M16X30	25	53570.160.030			
M12X45	100	53570.120.045	M16X35*	25	53570.160.035	M24X40*	10	53570.240.040
M12X50	25	53570.120.050	M16X40	25	53570.160.040	M24X45*	10	53570.240.045
M12X55*	50	53570.120.055	M16X45	25	53570.160.045	M24X50*	10	53570.240.050
M12X60	25	53570.120.060	M16X50	25	53570.160.050	M24X55*	10	53570.240.055
M12X65*	50	53570.120.065	M16X55*	25	53570.160.055	M24X60*	10	53570.240.060
M12X70	100	53570.120.070	M16X60	25	53570.160.060	M24X65*	10	53570.240.065
M12X75*	25	53570.120.075	M16X65*	25	53570.160.065	M24X70*	10	53570.240.070
M12X80*	25	53570.120.080	M16X70	100	53570.160.070	M24X75*	10	53570.240.075
M12X90	25	53570.120.090	M16X75*	25	53570.160.075	M24X80*	10	53570.240.080
M12X100*	25	53570.120.100	M16X80	25	53570.160.080	M24X90*	10	53570.240.090
M12X110*	25	53570.120.110	M16X90	25	53570.160.090	M24X100*	10	53570.240.100
M12X120*	25	53570.120.120	M16X100*	25	53570.160.100	M24X110*	10	53570.240.110
M12X130*	25	53570.120.130	M16X110*	25	53570.160.110	M24X120*	10	53570.240.120
M12X140*	25	53570.120.140	M16X120*	25	53570.160.120	M24X130*	10	53570.240.130
M12X150*	25	53570.120.150	M16X130*	25	53570.160.130	M24X140*	10	53570.240.140
			M16X140*	25	53570.160.140	M24X150*	10	53570.240.150

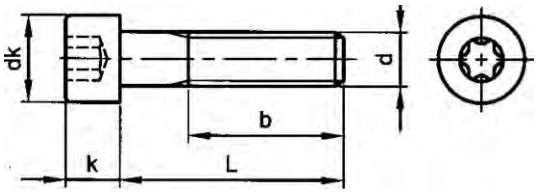
45205 Parafuso cabeça cilindrica sextavado interior W010

Rosca	Métrica	**DIN**	**≈912**
Material	Alumínio P60	ISO	≈4762
		NEN	≈1241
		ASME	≈B18.3.1M
		NF	≈E25-125
		BS	≈4168-1

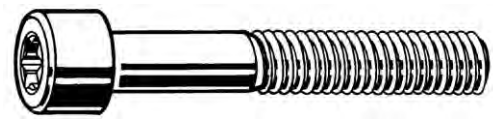


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X10	200	45205.040.010	M5X40	200	45205.050.040	M8X15	200	45205.080.015
M4X12	200	45205.040.012				M8X20	200	45205.080.020
M4X16	200	45205.040.016	M6X10	200	45205.060.010	M8X25	200	45205.080.025
M4X20	200	45205.040.020	M6X12	200	45205.060.012	M8X30	200	45205.080.030
M4X25	200	45205.040.025	M6X16	200	45205.060.016	M8X40	200	45205.080.040
M4X30	200	45205.040.030	M6X20	200	45205.060.020	M8X50	200	45205.080.050
			M6X25	200	45205.060.025			
M5X10	200	45205.050.010	M6X30	200	45205.060.030	M10X25	200	45205.100.025
M5X12	200	45205.050.012	M6X40	200	45205.060.040	M10X30	200	45205.100.030
M5X16	200	45205.050.016	M6X50	200	45205.060.050	M10X40	100	45205.100.040
M5X20	200	45205.050.020	M6X60	200	45205.060.060	M10X50	100	45205.100.050
M5X25	200	45205.050.025	M6X70	200	45205.060.070	M10X60	100	45205.100.060
M5X30	200	45205.050.030						

Parafuso cabeça cilindrica hexalobular



ISO 14579



Dados técnicos

d	b	Chave caixa	d_k (max.)	k (max.)	P
M2	16	T6	3.8	2	0.4
M2.5	17	T8	4.5	2.5	0.45
M3	18	T10	5.5	3	0.5
M4	20	T20	7	4	0.7
M5	22	T25	8.5	5	0.8
M6	24	T30	10	6	1
M8	28	T45	13	8	1.25

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Hexalobular	Aço	8.8	Zn	07165	2-16
M	Hexalobular	INOX A2	50		51052	2-16

07165 Parafuso cabeça cilindrica hexalobular D02A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Zincado

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X25	500	07165.050.025	M6X35	200	07165.060.035	M8X16	200	07165.080.016
			M6X40	200	07165.060.040	M8X40	100	07165.080.040
M6X12	200	07165.060.012	M6X50	200	07165.060.050	M8X50	100	07165.080.050
M6X30	200	07165.060.030						

51052 Parafuso cabeça cilindrica hexalobular Q05A

Rosca Métrica
Material Aço inoxidável A2
Classe 50

RoHS

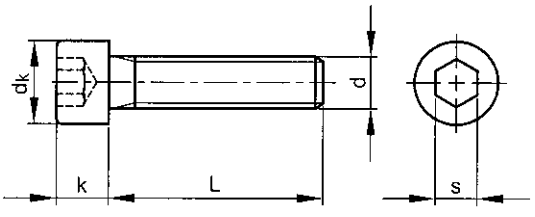


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X3*	500	51052.020.003	M3X5*	1000	51052.030.005	M4X35*	200	51052.040.035
M2X4*	500	51052.020.004	M3X6*	1000	51052.030.006	M4X40*	200	51052.040.040
M2X5*	500	51052.020.005	M3X8*	1000	51052.030.008	M4X45*	200	51052.040.045
M2X6*	500	51052.020.006	M3X10*	1000	51052.030.010	M4X50*	200	51052.040.050
M2X8*	500	51052.020.008	M3X12*	1000	51052.030.012	M4X60*	100	51052.040.060
M2X10*	500	51052.020.010	M3X14*	1000	51052.030.014			
M2X12*	500	51052.020.012	M3X16*	1000	51052.030.016	M5X6*	500	51052.050.006
M2X14*	500	51052.020.014	M3X18*	1000	51052.030.018	M5X8*	500	51052.050.008
M2X16*	500	51052.020.016	M3X20*	1000	51052.030.020	M5X10*	500	51052.050.010
M2X18*	500	51052.020.018	M3X22*	1000	51052.030.022	M5X12*	500	51052.050.012
M2X20*	500	51052.020.020	M3X25*	1000	51052.030.025	M5X14*	500	51052.050.014
			M3X30*	1000	51052.030.030	M5X16*	500	51052.050.016
M2,5X3*	500	51052.025.003				M5X18*	500	51052.050.018
M2,5X4*	500	51052.025.004	M4X5*	1000	51052.040.005	M5X20*	500	51052.050.020
M2,5X5*	500	51052.025.005	M4X6*	1000	51052.040.006	M5X22*	500	51052.050.022
M2,5X6*	500	51052.025.006	M4X8*	1000	51052.040.008	M5X25*	200	51052.050.025
M2,5X8*	500	51052.025.008	M4X10*	1000	51052.040.010	M5X30*	200	51052.050.030
M2,5X10*	500	51052.025.010	M4X12*	1000	51052.040.012	M5X35*	200	51052.050.035
M2,5X12*	500	51052.025.013	M4X14*	1000	51052.040.014	M5X40*	200	51052.050.040
M2,5X14*	500	51052.025.014	M4X16*	1000	51052.040.016	M5X45*	200	51052.050.045
M2,5X16*	500	51052.025.016	M4X18*	1000	51052.040.018	M5X50*	200	51052.050.050
M2,5X18*	500	51052.025.018	M4X20*	500	51052.040.020	M5X60*	100	51052.050.060
M2,5X20*	500	51052.025.020	M4X22*	500	51052.040.022			
			M4X25*	500	51052.040.025	M6X6*	500	51052.060.006
M3X4*	1000	51052.030.004	M4X30*	500	51052.040.030	M6X8*	500	51052.060.008

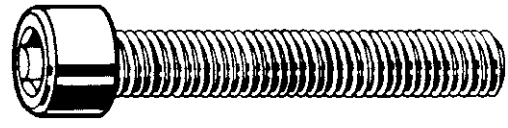
51052	Parafuso cabeça cilindrica hexalobular	←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X10*	500	51052.060.010	M6X35*	200	51052.060.035	M8X22*	200	51052.080.022
M6X12*	500	51052.060.012	M6X40*	200	51052.060.040	M8X25*	100	51052.080.025
M6X14*	200	51052.060.014	M6X45*	100	51052.060.045	M8X30*	100	51052.080.030
M6X16*	200	51052.060.016	M6X50*	100	51052.060.050	M8X35*	100	51052.080.035
M6X18*	200	51052.060.018	M6X60*	100	51052.060.060	M8X40*	100	51052.080.040
M6X20*	200	51052.060.020				M8X45*	100	51052.080.045
M6X22*	200	51052.060.022	M8X16*	200	51052.080.016	M8X50*	100	51052.080.050
M6X25*	200	51052.060.025	M8X18*	200	51052.080.018	M8X60*	100	51052.080.060
M6X30*	200	51052.060.030	M8X20*	200	51052.080.020			

Parafuso cabeça cilindrica sextavado interior totalmente roscado



DIN	**≈912**
ISO	≈4762
NEN	≈1241
ASME	≈B18.3.1M
NF	≈E25-125
BS	≈4168-1



Dados técnicos

d	d_k (max.)	k (max.)	P	s
M3	5.5	3	0.5	2.5
M4	7	4	0.7	3
M5	8.5	5	0.8	4
M6	10	6	1	5
M8	13	8	1.25	6
M10	16	10	1.5	8
M12	18	12	1.75	10
M14	21	14	2	12
M16	24	16	2	14
M20	30	20	2.5	17

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.		Cor	Código	Página
M	Sextavado interior	Aço	8.8				07070	2-17
M	Sextavado interior	Aço	8.8	Zn			07071	2-18
M	Sextavado interior	Aço	12.9				07010	2-18
M	Sextavado interior	INOX A2	70				51020	2-18
M	Sextavado interior	INOX A4	70				55020	2-19
M	Sextavado interior	INOX A2	70		serrated		51051	2-19
M	Sextavado interior	Plástico PA	PA 6.6			Branco	56120	2-19

07070	Parafuso cabeça cilindrica sextavado interior totalmente roscado	D03A

Rosca	Métrica
Material	Aço
Classe	8.8



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X25	200	07070.030.025	M6X45	200	07070.060.045	M10X80	50	07070.100.080
			M6X50	200	07070.060.050	M10X100	50	07070.100.100
M4X30	200	07070.040.030	M6X60	200	07070.060.060			
M4X40	200	07070.040.040	M6X80	200	07070.060.080	M12X60	50	07070.120.060
M4X50	200	07070.040.050	M6X90	100	07070.060.090	M12X70	50	07070.120.070
M4X60	200	07070.040.060	M6X100	100	07070.060.100	M12X80	50	07070.120.080
						M12X100	50	07070.120.100
M5X30	200	07070.050.030	M8X40	100	07070.080.040	M12X120	50	07070.120.120
M5X35	200	07070.050.035	M8X50	100	07070.080.050			
M5X40	200	07070.050.040	M8X60	100	07070.080.060	M14X60	50	07070.140.060
M5X45	200	07070.050.045	M8X70	100	07070.080.070	M14X80	50	07070.140.080
M5X50	200	07070.050.050	M8X80	100	07070.080.080			
M5X60	200	07070.050.060	M8X100	100	07070.080.100	M16X80	25	07070.160.080
M5X80	200	07070.050.080				M16X100	25	07070.160.100
			M10X50	50	07070.100.050			
M6X35	200	07070.060.035	M10X60	50	07070.100.060	M20X80	25	07070.200.080
M6X40	200	07070.060.040	M10X70	50	07070.100.070			

2

07071 Parafuso cabeça cilindrica sextavado interior totalmente roscado — D03A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X25	200	07071.030.025	M6X35	200	07071.060.035	M10X80	50	07071.100.080
M3X30	200	07071.030.030	M6X40	200	07071.060.040	M10X100	50	07071.100.100
M3X40	200	07071.030.040	M6X45	200	07071.060.045			
			M6X50	200	07071.060.050	M12X60	50	07071.120.060
M4X30	200	07071.040.030	M6X60	200	07071.060.060	M12X70	50	07071.120.070
M4X40	200	07071.040.040	M6X70	200	07071.060.070	M12X80	50	07071.120.080
M4X50	200	07071.040.050	M6X80	200	07071.060.080	M12X100	50	07071.120.100
M4X60	200	07071.040.060						
			M8X40	100	07071.080.040	M16X70	50	07071.160.070
M5X30	200	07071.050.030	M8X50	100	07071.080.050	M16X80	25	07071.160.080
M5X35	200	07071.050.035	M8X60	100	07071.080.060	M16X90	25	07071.160.090
M5X40	200	07071.050.040	M8X70	100	07071.080.070	M16X100	25	07071.160.100
M5X45	200	07071.050.045	M8X80	100	07071.080.080			
M5X50	200	07071.050.050	M8X100	100	07071.080.100	M20X80	25	07071.200.080
M5X60	200	07071.050.060				M20X90	25	07071.200.090
M5X70	200	07071.050.070	M10X50	50	07071.100.050	M20X100	25	07071.200.100
M5X80	200	07071.050.080	M10X60	50	07071.100.060			
			M10X70	50	07071.100.070			

07010 Parafuso cabeça cilindrica sextavado interior totalmente roscado — D03A

Rosca Métrica
Material Aço
Classe 12.9



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X25	200	07010.030.025				M8X80	100	07010.080.080
			M6X35	200	07010.060.035			
M4X30	200	07010.040.030	M6X40	200	07010.060.040	M10X50	50	07010.100.050
M4X40	200	07010.040.040	M6X50	200	07010.060.050	M10X60	50	07010.100.060
M4X50	200	07010.040.050	M6X60	100	07010.060.060	M10X70	50	07010.100.070
						M10X80	50	07010.100.080
M5X30	200	07010.050.030	M8X40	100	07010.080.040			
M5X35	200	07010.050.035	M8X50	100	07010.080.050	M12X60	50	07010.120.060
M5X40	200	07010.050.040	M8X60	100	07010.080.060	M12X80	50	07010.120.080
M5X50	200	07010.050.050						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

51020 Parafuso cabeça cilindrica sextavado interior totalmente roscado — Q05A

Rosca Métrica
Material Aço inoxidável A2
Classe 70



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X30*	200	51020.050.030	M6X90*	100	51020.060.090	M10X50*	50	51020.100.050
M5X35*	200	51020.050.035	M6X100*	100	51020.060.100	M10X55*	50	51020.100.055
M5X40*	200	51020.050.040				M10X60*	50	51020.100.060
M5X45*	200	51020.050.045	M8X40*	100	51020.080.040	M10X70*	50	51020.100.070
M5X50*	200	51020.050.050	M8X45*	100	51020.080.045	M10X80*	50	51020.100.080
			M8X50*	100	51020.080.050	M10X90*	50	51020.100.090
M6X35*	200	51020.060.035	M8X55*	100	51020.080.055	M10X100*	50	51020.100.100
M6X40*	200	51020.060.040	M8X60*	100	51020.080.060			
M6X45*	100	51020.060.045	M8X70*	100	51020.080.070	M12X55*	100	51020.120.055
M6X50*	100	51020.060.050	M8X80*	100	51020.080.080	M12X60*	50	51020.120.060
M6X55*	100	51020.060.055	M8X90*	100	51020.080.090	M12X70*	50	51020.120.070
M6X60*	100	51020.060.060	M8X100*	50	51020.080.100	M12X80*	25	51020.120.080
M6X70*	100	51020.060.070				M12X90*	25	51020.120.090
M6X80*	100	51020.060.080	M10X45*	100	51020.100.045			

55020 Parafuso cabeça cilindrica sextavado interior totalmente roscado — Q45A

Rosca Métrica
Material Aço inoxidável A4
Classe 70



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X30*	200	55020.050.030	M6X80*	100	55020.060.080	M10X50*	50	55020.100.050
M5X35*	200	55020.050.035	M6X90*	100	55020.060.090	M10X55*	50	55020.100.055
M5X40*	200	55020.050.040				M10X60*	50	55020.100.060
M5X45*	200	55020.050.045	M8X40*	100	55020.080.040	M10X70*	50	55020.100.070
M5X50*	200	55020.050.050	M8X45*	100	55020.080.045	M10X80*	50	55020.100.080
M5X100*	100	55020.050.100	M8X50*	100	55020.080.050	M10X90*	50	55020.100.090
			M8X55*	100	55020.080.055	M10X100*	50	55020.100.100
M6X35*	200	55020.060.035	M8X60*	100	55020.080.060			
M6X40*	200	55020.060.040	M8X70*	100	55020.080.070	M12X55*	50	55020.120.055
M6X45*	100	55020.060.045	M8X80*	100	55020.080.080	M12X60*	50	55020.120.060
M6X50*	100	55020.060.050	M8X90*	100	55020.080.090	M12X70*	50	55020.120.070
M6X55*	100	55020.060.055	M8X100*	50	55020.080.100	M12X80*	25	55020.120.080
M6X60*	100	55020.060.060				M12X90*	25	55020.120.090
M6X70*	100	55020.060.070	M10X45*	100	55020.100.045	M12X100*	25	55020.120.100

51051 Parafuso cabeça cilindrica sextavado interior — Q05A

Rosca Métrica
Material Aço inoxidável A2
Classe 70



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M8X12*	500	51051.080.012	M8X28*	200	51051.080.028	M8X50*	200	51051.080.050
M8X14*	200	51051.080.014	M8X30*	200	51051.080.030	M8X55*	100	51051.080.055
M8X16*	200	51051.080.016	M8X32*	200	51051.080.032	M8X60*	100	51051.080.060
M8X20*	200	51051.080.020	M8X35*	200	51051.080.035			
M8X22*	200	51051.080.022	M8X40*	200	51051.080.040	M10X20*	100	51051.100.020
M8X25*	200	51051.080.025	M8X45*	200	51051.080.045			

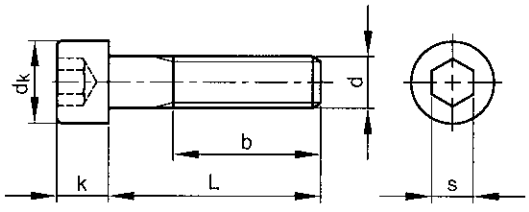
56120 Parafuso sextavado interior plástico rosca total — W02A

Rosca Métrica
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco

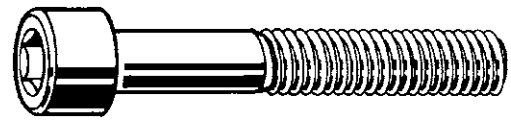


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X10	50	56120.060.010	M8X20	50	56120.080.020	M10X30	25	56120.100.030
M6X16	50	56120.060.016	M8X25	50	56120.080.025	M10X40	25	56120.100.040
M6X20	50	56120.060.020	M8X30	50	56120.080.030	M10X50	25	56120.100.050
M6X25	50	56120.060.025	M8X40	50	56120.080.040	M10X60	25	56120.100.060
M6X30	50	56120.060.030	M8X50	50	56120.080.050			
M6X40	50	56120.060.040	M8X60	50	56120.080.060	M12X30	25	56120.120.030
M6X50	50	56120.060.050				M12X40	25	56120.120.040
			M10X20	25	56120.100.020	M12X50	25	56120.120.050
M8X16	50	56120.080.016	M10X25	25	56120.100.025	M12X60	25	56120.120.060

Parafusos cabeça cilindrica sextavado interior MF



DIN	**912**
ISO	4762
NEN	1241
ASME	B18.3.1M
NF	E25-125
BS	4168-1



Dados técnicos

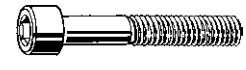
d	b	d_k (max.)	k (max.)	Rosca total C ≤	s
M8	28	13	8	35	6
M10	32	16	10	40	8
M12	36	18	12	50	10
M14	40	21	14	55	12
M16	44	24	16	60	14
M18	48	27	18	65	14

Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
MF	Sextavado interior	Aço	12.9	07040	2-20
MEF	Sextavado interior	Aço	12.9	07041	2-20

07040 Parafusos cabeça cilindrica sextavado interior MF D93A

Rosca Métrica fina
Material Aço
Classe 12.9

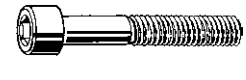


d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo
M8X1,00X16	100	07040.080.016	M10X1,25X60	25	07040.100.060	M12X1,50X100	10	07040.120.100
M8X1,00X20	100	07040.080.020	M10X1,25X70	25	07040.100.070			
M8X1,00X25	100	07040.080.025	M10X1,25X80	25	07040.100.080	M14X1,50X30	10	07040.140.030
M8X1,00X30	100	07040.080.030	M10X1,25X90	25	07040.100.090	M14X1,50X40	10	07040.140.040
M8X1,00X35	100	07040.080.035	M10X1,25X100	25	07040.100.100	M14X1,50X50	10	07040.140.050
M8X1,00X40	100	07040.080.040				M14X1,50X60	50	07040.140.060
M8X1,00X45	50	07040.080.045	M12X1,50X25	50	07040.120.025	M14X1,50X80	10	07040.140.080
M8X1,00X50	50	07040.080.050	M12X1,50X30	50	07040.120.030			
			M12X1,50X35	50	07040.120.035	M16X1,50X40	10	07040.160.040
M10X1,25X20	100	07040.100.020	M12X1,50X40	25	07040.120.040	M16X1,50X50	10	07040.160.050
M10X1,25X25	50	07040.100.025	M12X1,50X45	25	07040.120.045	M16X1,50X55	10	07040.160.055
M10X1,25X30	50	07040.100.030	M12X1,50X50	25	07040.120.050	M16X1,50X60	10	07040.160.060
M10X1,25X35	50	07040.100.035	M12X1,50X55	25	07040.120.055	M16X1,50X70	10	07040.160.070
M10X1,25X40	50	07040.100.040	M12X1,50X60	10	07040.120.060	M16X1,50X80	5	07040.160.080
M10X1,25X45	50	07040.100.045	M12X1,50X70	10	07040.120.070	M16X1,50X90	5	07040.160.090
M10X1,25X50	50	07040.100.050	M12X1,50X80	10	07040.120.080	M16X1,50X100	5	07040.160.100
M10X1,25X55	50	07040.100.055	M12X1,50X90	10	07040.120.090			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

07041 Parafusos cabeça cilindrica sextavado interior MF D93A

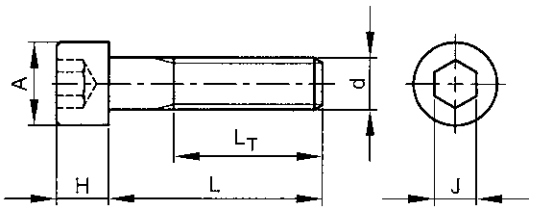
Rosca Métrica extra fina
Material Aço
Classe 12.9



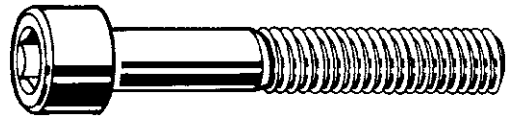
d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo
M10X1,00X30	50	07041.100.030	M10X1,00X100	25	07041.100.100	M12X1,25X60	25	07041.120.060
M10X1,00X35	50	07041.100.035				M12X1,25X70	10	07041.120.070
M10X1,00X40	50	07041.100.040	M12X1,25X25	50	07041.120.025	M12X1,25X80	10	07041.120.080
M10X1,00X45	50	07041.100.045	M12X1,25X30	50	07041.120.030	M12X1,25X100	10	07041.120.100
M10X1,00X50	50	07041.100.050	M12X1,25X40	25	07041.120.040			
M10X1,00X60	25	07041.100.060	M12X1,25X45	25	07041.120.045	M18X1,50X70	5	07041.180.070
M10X1,00X70	25	07041.100.070	M12X1,25X50	25	07041.120.050	M18X1,50X80	5	07041.180.080
M10X1,00X90	25	07041.100.090						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Parafuso cabeça cilindrica sextavado interior serie UNC 1960



ASME ≈B18.3 (1960)
BS ≈2470



Dados técnicos

d	A	Fios por polegada	H	J	L_T (min.)
No.2	0.14	56	0.086	5/64	0.625
No.4	0.183	40	0.112	3/32	0.750
No.6	0.226	32	0.138	7/64	0.750
No.8	0.27	32	0.164	9/64	0.875
1/4	3/8	20	1/4	3/16	1.000
5/16	15/32	18	5/16	1/4	1.125
3/8	9/16	16	3/8	5/16	1.250
1/2	3/4	13	1/2	3/8	1.500
5/8	15/16	11	5/8	1/2	1.750
3/4	1.1/8	10	3/4	5/8	2.000

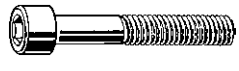
- As propriedades mecânicas correspondem em muito ás propriedades da classe 12.9 de acc. com DIN ISO 898-1. As outras propriedades estão de acc. com ASTM A574.
- A marcação destes parafusos não é obrigatória.
- ATENÇÃO: como a norma do produto especifica uma tolerância de 3A para roscas até 1 polegada, zincagem pode originar problemas de fiting.

Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
UNC	Sextavado interior	Aço	12.9	07212	2-21
UNC	Sextavado interior	INOX A2		51056	2-21

07212 Parafuso cabeça cilindrica sextavado interior serie UNC 1960 X05A

Rosca Unified National Coarse
Material Aço
Classe 12.9



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.2X3/16	100	07212.021.004	NO.4X5/8	100	07212.028.015	NO.6X1 Inch	100	07212.035.025
NO.2X1/4	100	07212.021.006	NO.4X3/4	100	07212.028.019			
NO.2X3/8	100	07212.021.009				NO.8X1/4	100	07212.041.006
NO.2X1/2	100	07212.021.012	NO.6X1/4	100	07212.035.006	NO.8X3/8	100	07212.041.009
NO.2X5/8	100	07212.021.015	NO.6X5/16	100	07212.035.007	NO.8X1/2	100	07212.041.012
			NO.6X3/8	100	07212.035.009	NO.8X5/8	100	07212.041.015
NO.4X1/4	100	07212.028.006	NO.6X1/2	100	07212.035.012	NO.8X3/4	100	07212.041.019
NO.4X5/16	100	07212.028.007	NO.6X5/8	100	07212.035.015	NO.8X1 Inch	100	07212.041.025
NO.4X3/8	100	07212.028.009	NO.6X3/4	100	07212.035.019	NO.8X1.1/4	100	07212.041.031
NO.4X1/2	100	07212.028.012	NO.6X7/8	100	07212.035.022	NO.8X1.1/2	100	07212.041.038

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

51056 Parafuso cabeça cilindrica sextavado interior serie UNC 1960 X61A

Rosca Unified National Coarse
Material Aço inoxidável A2



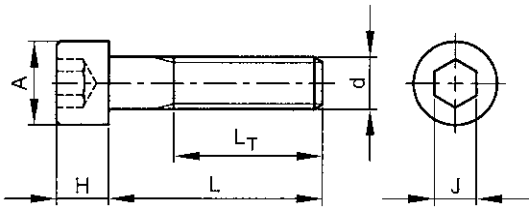
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4X1/4	100	51056.063.006	1/4X2 Inch	100	51056.063.050	3/8X2 Inch	50	51056.096.050
1/4X3/8	100	51056.063.009	1/4X2.1/4	100	51056.063.057	3/8X2.1/2	50	51056.096.063
1/4X1/2	100	51056.063.012	1/4X2.1/2	100	51056.063.063	3/8X2.3/4	100	51056.096.069
1/4X5/8	100	51056.063.015				3/8X3.1/2	50	51056.096.088
1/4X7/8	100	51056.063.022	3/8X5/8	25	51056.096.015	3/8X4.1/2	50	51056.096.114
1/4X1 Inch	100	51056.063.025	3/8X1 Inch	50	51056.096.025			
1/4X1.1/4	100	51056.063.031	3/8X1.1/4	50	51056.096.031	1/2X3/4	25	51056.127.019
1/4X1.1/2	100	51056.063.038	3/8X1.1/2	50	51056.096.038	1/2X1 Inch	25	51056.127.025
1/4X1.3/4	100	51056.063.044	3/8X1.3/4	50	51056.096.044	1/2X1.1/4	25	51056.127.031

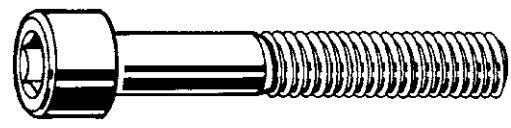
51056	Parafuso cabeça cilindrica sextavado interior serie UNC 1960	←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/2X1.1/2	25	51056.127.038	1/2X2 Inch	25	51056.127.050	1/2X4 Inch	25	51056.127.101
1/2X1.3/4	25	51056.127.044	1/2X3 Inch	25	51056.127.076			

Parafuso cabeça cilindrica sextavado interior serie UNC 1936

ASME ≈B18.3 (1936)





Dados técnicos

d	A	Fios por polegada	H	J	L_T (min.)
No.1	0.118	64	0.073	1/16	0.62
No.2	0.140	56	0.086	5/64	0.62
No.3	0.161	48	0.099	5/64	0.62
No.4	0.183	40	0.112	3/32	0.75
No.5	0.205	40	0.125	3/32	0.75
No.6	0.226	32	0.138	7/64	0.75
No.8	0.270	32	0.164	9/64	0.88
No.10	0.312	24	0.19	5/32	0.88
1/4	0.375	20	0.25	3/16	1
5/16	0.469	18	0.312	1/4	1.12
3/8	0.562	16	0.375	5/16	1.25
7/16	0.656	14	0.438	3/8	1.38
1/2	0.750	13	0.5	3/8	1.5
9/16	0.844	12	0.562	3/8	1.5
5/8	0.938	11	0.625	1/2	1.75
3/4	1.125	10	0.75	5/8	2
7/8	1.312	9	0.875	3/4	2.25
1 Inch	1.5	8	1	3/4	2.5
1.1/8	1.688	7	1.125	7/8	2.81
1.1/4	1.875	7	1.25	7/8	3.12
1.3/8	2.062	6	1.375	1	3.44
1.1/2	2.25	6	1.5	1	3.75
1.3/4	2.625	5	1.75	1 1/4	4.38
2 Inch	3	4.5	2	1 1/2	5

- As propriedades mecânicas correspondem em muito ás propriedades da classe 12.9 de acc. com DIN ISO 898-1. As outras propriedades estão de acc. com ASTM A574.
- A marcação destes parafusos não é obrigatória.
- ATENÇÃO: como a norma do produto especifica uma tolerância de 3A para roscas até 1 polegada, zincagem pode originar problemas de fiting.

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
UNC	Sextavado interior	Aço	Grade 8		U07000	2-22
UNC	Sextavado interior	Aço	Grade 8	Zn	U07001	2-25
UNC	Sextavado interior	Aço	12.9	Zn Mec.	07260	2-25
UNC	Sextavado interior	INOX A2 (AISI304/18-8)	F837B		U51050	2-26
UNC	Sextavado interior	INOX A4 (AISI316/18-10)	F837E		U55050	2-27

U07000	Parafuso cabeça cilindrica sextavado interior serie UNC 1936	X05A

Rosca Unified National Coarse
Material Aço
Classe Grade 8



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.1-64X3/16 ft*	100	U07000.007.0018	NO.1-64X3/4*	100	U07000.007.0075	NO.2-56X5/16 ft*	100	U07000.008.0031
NO.1-64X1/4 ft*	100	U07000.007.0025	NO.1-64X1 Inch*	100	U07000.007.0100	NO.2-56X3/8 ft*	100	U07000.008.0037
NO.1-64X5/16 ft*	100	U07000.007.0031				NO.2-56X7/16 ft*	100	U07000.008.0043
NO.1-64X3/8 ft*	100	U07000.007.0037	NO.2-56X1/8 ft*	100	U07000.008.0012	NO.2-56X1/2 ft*	100	U07000.008.0050
NO.1-64X1/2 ft*	100	U07000.007.0050	NO.2-56X3/16 ft*	100	U07000.008.0018	NO.2-56X5/8 ft*	100	U07000.008.0062
NO.1-64X5/8 ft*	100	U07000.007.0062	NO.2-56X1/4 ft*	100	U07000.008.0025	NO.2-56X3/4*	100	U07000.008.0075

U07000 Parafuso cabeça cilindrica sextavado interior serie UNC 1936 ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.2-56X7/8*	100	U07000.008.0087	NO.8-32X2 Inch*	100	U07000.016.0200			
NO.2-56X1 Inch*	100	U07000.008.0100	NO.8-32X2.1/4*	100	U07000.016.0225	3/8-16X1/2 ft*	50	U07000.037.0050
			NO.8-32X2.1/2*	100	U07000.016.0250	3/8-16X5/8 ft*	50	U07000.037.0062
NO.3-48X1/8 ft*	100	U07000.009.0012	NO.8-32X2.3/4*	100	U07000.016.0275	3/8-16X3/4 ft*	50	U07000.037.0075
NO.3-48X3/16 ft*	100	U07000.009.0018	NO.8-32X3 Inch*	100	U07000.016.0300	3/8-16X7/8 ft*	50	U07000.037.0087
NO.3-48X1/4 ft*	100	U07000.009.0025				3/8-16X1 Inch ft*	50	U07000.037.0100
NO.3-48X5/16 ft*	100	U07000.009.0031	NO.10-24X3/16 ft*	100	U07000.019.0018	3/8-16X1.1/8 ft*	50	U07000.037.0112
NO.3-48X3/8 ft*	100	U07000.009.0037	NO.10-24X1/4 ft*	100	U07000.019.0025	3/8-16X1.1/4 ft*	50	U07000.037.0125
NO.3-48X1/2 ft*	100	U07000.009.0050	NO.10-24X5/16 ft*	100	U07000.019.0031	3/8-16X1.3/8*	50	U07000.037.0137
NO.3-48X5/8 ft*	100	U07000.009.0062	NO.10-24X3/8 ft*	100	U07000.019.0037	3/8-16X1.1/2*	25	U07000.037.0150
NO.3-48X3/4*	100	U07000.009.0075	NO.10-24X7/16 ft*	100	U07000.019.0043	3/8-16X1.3/4*	25	U07000.037.0175
NO.3-48X7/8*	100	U07000.009.0087	NO.10-24X1/2 ft*	100	U07000.019.0050	3/8-16X2 Inch*	25	U07000.037.0200
NO.3-48X1 Inch*	100	U07000.009.0100	NO.10-24X5/8 ft*	100	U07000.019.0062	3/8-16X2.1/4*	25	U07000.037.0225
			NO.10-24X3/4 ft*	100	U07000.019.0075	3/8-16X2.1/2*	25	U07000.037.0250
NO.4-40X1/8 ft*	100	U07000.011.0012	NO.10-24X7/8 ft*	100	U07000.019.0087	3/8-16X2.3/4*	25	U07000.037.0275
NO.4-40X3/16 ft*	100	U07000.011.0018	NO.10-24X1 Inch*	100	U07000.019.0100	3/8-16X3 Inch*	10	U07000.037.0300
NO.4-40X1/4 ft*	100	U07000.011.0025	NO.10-24X1.1/8*	100	U07000.019.0112	3/8-16X3.1/4*	10	U07000.037.0325
NO.4-40X5/16 ft*	100	U07000.011.0031	NO.10-24X1.1/4*	100	U07000.019.0125	3/8-16X3.1/2*	10	U07000.037.0350
NO.4-40X3/8 ft*	100	U07000.011.0037	NO.10-24X1.3/8*	100	U07000.019.0137	3/8-16X3.3/4*	10	U07000.037.0375
NO.4-40X7/16 ft*	100	U07000.011.0043	NO.10-24X1.1/2*	100	U07000.019.0150	3/8-16X4 Inch*	10	U07000.037.0400
NO.4-40X1/2 ft*	100	U07000.011.0050	NO.10-24X1.3/4*	100	U07000.019.0175	3/8-16X4.1/4*	10	U07000.037.0425
NO.4-40X5/8 ft*	100	U07000.011.0062	NO.10-24X2 Inch*	100	U07000.019.0200	3/8-16X4.1/2*	10	U07000.037.0450
NO.4-40X3/4 ft*	100	U07000.011.0075	NO.10-24X2.1/4*	100	U07000.019.0225	3/8-16X4.3/4*	10	U07000.037.0475
NO.4-40X7/8*	100	U07000.011.0087	NO.10-24X2.1/2*	100	U07000.019.0250	3/8-16X5 Inch*	10	U07000.037.0500
NO.4-40X1 Inch*	100	U07000.011.0100	NO.10-24X2.3/4*	100	U07000.019.0275	3/8-16X5.1/2*	10	U07000.037.0550
NO.4-40X1.1/8*	100	U07000.011.0112	NO.10-24X3 Inch*	100	U07000.019.0300	3/8-16X6 Inch*	10	U07000.037.0600
NO.4-40X1.1/4*	100	U07000.011.0125	NO.10-24X3.1/4*	100	U07000.019.0325	3/8-16X6.1/2*	5	U07000.037.0650
NO.4-40X1.3/8*	100	U07000.011.0137	NO.10-24X3.1/2*	100	U07000.019.0350	3/8-16X7 Inch*	5	U07000.037.0700
NO.4-40X1.1/2*	100	U07000.011.0150	NO.10-24X3.3/4*	100	U07000.019.0375	3/8-16X7.1/2*	5	U07000.037.0750
NO.4-40X1.3/4*	100	U07000.011.0175	NO.10-24X4 Inch*	100	U07000.019.0400			
NO.4-40X2 Inch*	100	U07000.011.0200				7/16-14X1/2 ft*	25	U07000.043.0050
			1/4-20X5/16 ft*	100	U07000.025.0031	7/16-14X5/8 ft*	25	U07000.043.0062
NO.5-40X1/8 ft*	100	U07000.012.0012	1/4-20X3/8 ft*	100	U07000.025.0037	7/16-14X3/4 ft*	25	U07000.043.0075
NO.5-40X3/16 ft*	100	U07000.012.0018	1/4-20X7/16 ft*	100	U07000.025.0043	7/16-14X7/8 ft*	25	U07000.043.0087
NO.5-40X1/4 ft*	100	U07000.012.0025	1/4-20X1/2 ft*	100	U07000.025.0050	7/16-14X1 Inch ft*	25	U07000.043.0100
NO.5-40X5/16 ft*	100	U07000.012.0031	1/4-20X5/8 ft*	100	U07000.025.0062	7/16-14X1.1/4 ft*	25	U07000.043.0125
NO.5-40X3/8 ft*	100	U07000.012.0037	1/4-20X3/4 ft*	100	U07000.025.0075	7/16-14X1.1/2*	25	U07000.043.0150
NO.5-40X7/16 ft*	100	U07000.012.0043	1/4-20X7/8 ft*	100	U07000.025.0087	7/16-14X1.3/4*	10	U07000.043.0175
NO.5-40X1/2 ft*	100	U07000.012.0050	1/4-20X1 Inch ft*	100	U07000.025.0100	7/16-14X2 Inch*	10	U07000.043.0200
NO.5-40X5/8 ft*	100	U07000.012.0062	1/4-20X1.1/8*	100	U07000.025.0112	7/16-14X2.1/4*	10	U07000.043.0225
NO.5-40X3/4 ft*	100	U07000.012.0075	1/4-20X1.1/4*	100	U07000.025.0125	7/16-14X2.1/2*	10	U07000.043.0250
NO.5-40X7/8*	100	U07000.012.0087	1/4-20X1.3/8*	100	U07000.025.0137	7/16-14X2.3/4*	10	U07000.043.0275
NO.5-40X1 Inch*	100	U07000.012.0100	1/4-20X1.1/2*	100	U07000.025.0150	7/16-14X3 Inch*	10	U07000.043.0300
NO.5-40X1.1/4*	100	U07000.012.0125	1/4-20X1.3/4*	100	U07000.025.0175	7/16-14X3.1/4*	5	U07000.043.0325
NO.5-40X1.1/2*	100	U07000.012.0150	1/4-20X2 Inch*	50	U07000.025.0200	7/16-14X3.1/2*	5	U07000.043.0350
NO.5-40X2 Inch*	100	U07000.012.0200	1/4-20X2.1/4*	50	U07000.025.0225	7/16-14X4 Inch*	5	U07000.043.0400
			1/4-20X2.1/2*	50	U07000.025.0250	7/16-14X4.1/2*	5	U07000.043.0450
NO.6-32X3/16 ft*	100	U07000.013.0018	1/4-20X2.3/4*	50	U07000.025.0275	7/16-14X5 Inch*	5	U07000.043.0500
NO.6-32X1/4 ft*	100	U07000.013.0025	1/4-20X3 Inch*	25	U07000.025.0300	7/16-14X5.1/2*	5	U07000.043.0550
NO.6-32X5/16 ft*	100	U07000.013.0031	1/4-20X3.1/4*	25	U07000.025.0325	7/16-14X6 Inch*	5	U07000.043.0600
NO.6-32X3/8 ft*	100	U07000.013.0037	1/4-20X3.1/2*	25	U07000.025.0350			
NO.6-32X7/16 ft*	100	U07000.013.0043	1/4-20X3.3/4*	25	U07000.025.0375	1/2-13X1/2 ft*	10	U07000.050.0050
NO.6-32X1/2 ft*	100	U07000.013.0050	1/4-20X4 Inch*	25	U07000.025.0400	1/2-13X5/8 ft*	10	U07000.050.0062
NO.6-32X5/8 ft*	100	U07000.013.0062	1/4-20X4.1/4*	25	U07000.025.0425	1/2-13X3/4 ft*	10	U07000.050.0075
NO.6-32X3/4 ft*	100	U07000.013.0075	1/4-20X4.1/2*	25	U07000.025.0450	1/2-13X7/8 ft*	10	U07000.050.0087
NO.6-32X7/8*	100	U07000.013.0087	1/4-20X4.3/4*	25	U07000.025.0475	1/2-13X1 Inch ft*	10	U07000.050.0100
NO.6-32X1 Inch*	100	U07000.013.0100	1/4-20X5 Inch*	25	U07000.025.0500	1/2-13X1.1/8 ft*	10	U07000.050.0112
NO.6-32X1.1/8*	100	U07000.013.0112				1/2-13X1.1/4 ft*	10	U07000.050.0125
NO.6-32X1.1/4*	100	U07000.013.0125	5/16-18X3/8 ft*	100	U07000.031.0037	1/2-13X1.3/8 ft*	10	U07000.050.0137
NO.6-32X1.3/8*	100	U07000.013.0137	5/16-18X1/2 ft*	100	U07000.031.0050	1/2-13X1.1/2 ft*	10	U07000.050.0150
NO.6-32X1.1/2*	100	U07000.013.0150	5/16-18X5/8 ft*	100	U07000.031.0062	1/2-13X1.3/4*	10	U07000.050.0175
NO.6-32X1.3/4*	100	U07000.013.0175	5/16-18X3/4 ft*	100	U07000.031.0075	1/2-13X2 Inch*	10	U07000.050.0200
NO.6-32X2 Inch*	100	U07000.013.0200	5/16-18X7/8 ft*	100	U07000.031.0087	1/2-13X2.1/4*	10	U07000.050.0225
NO.6-32X2.1/4*	100	U07000.013.0225	5/16-18X1 Inch ft*	50	U07000.031.0100	1/2-13X2.1/2*	10	U07000.050.0250
NO.6-32X2.1/2*	100	U07000.013.0250	5/16-18X1.1/8 ft*	50	U07000.031.0112	1/2-13X2.3/4*	10	U07000.050.0275
NO.6-32X2.3/4*	100	U07000.013.0275	5/16-18X1.1/4*	50	U07000.031.0125	1/2-13X3 Inch*	5	U07000.050.0300
			5/16-18X1.3/8*	50	U07000.031.0137	1/2-13X3.1/4*	5	U07000.050.0325
NO.8-32X3/16 ft*	100	U07000.016.0018	5/16-18X1.1/2*	50	U07000.031.0150	1/2-13X3.1/2*	5	U07000.050.0350
NO.8-32X1/4 ft*	100	U07000.016.0025	5/16-18X1.3/4*	50	U07000.031.0175	1/2-13X3.3/4*	5	U07000.050.0375
NO.8-32X5/16 ft*	100	U07000.016.0031	5/16-18X2 Inch*	50	U07000.031.0200	1/2-13X4 Inch*	5	U07000.050.0400
NO.8-32X3/8 ft*	100	U07000.016.0037	5/16-18X2.1/4*	25	U07000.031.0225	1/2-13X4.1/4*	5	U07000.050.0425
NO.8-32X7/16 ft*	100	U07000.016.0043	5/16-18X2.1/2*	25	U07000.031.0250	1/2-13X4.1/2*	5	U07000.050.0450
NO.8-32X1/2 ft*	100	U07000.016.0050	5/16-18X2.3/4*	25	U07000.031.0275	1/2-13X4.3/4*	5	U07000.050.0475
NO.8-32X5/8 ft*	100	U07000.016.0062	5/16-18X3 Inch*	25	U07000.031.0300	1/2-13X5 Inch*	5	U07000.050.0500
NO.8-32X3/4 ft*	100	U07000.016.0075	5/16-18X3.1/4*	25	U07000.031.0325	1/2-13X5.1/4*	5	U07000.050.0525
NO.8-32X7/8 ft*	100	U07000.016.0087	5/16-18X3.1/2*	25	U07000.031.0350	1/2-13X5.1/2*	5	U07000.050.0550
NO.8-32X1 Inch*	100	U07000.016.0100	5/16-18X3.3/4*	25	U07000.031.0375	1/2-13X5.3/4*	5	U07000.050.0575
NO.8-32X1.1/8*	100	U07000.016.0112	5/16-18X4 Inch*	10	U07000.031.0400	1/2-13X6 Inch*	5	U07000.050.0600
NO.8-32X1.1/4*	100	U07000.016.0125	5/16-18X4.1/2*	10	U07000.031.0450	1/2-13X6.1/2*	5	U07000.050.0650
NO.8-32X1.3/8*	100	U07000.016.0137	5/16-18X5 Inch*	10	U07000.031.0500	1/2-13X7 Inch*	5	U07000.050.0700
NO.8-32X1.1/2*	100	U07000.016.0150	5/16-18X5.1/2*	10	U07000.031.0550	1/2-13X7.1/2*	5	U07000.050.0750
NO.8-32X1.3/4*	100	U07000.016.0175	5/16-18X6 Inch*	10	U07000.031.0600	1/2-13X8 Inch*	5	U07000.050.0800

2

U07000 Parafuso cabeça cilindrica sextavado interior serie UNC 1936 ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/2-13X8.1/2*	1	U07000.050.0850	3/4-10X10 Inch*	1	U07000.075.1000	1.1/8-7X13 Inch*	1	U07000.112.1300
1/2-13X9 Inch*	1	U07000.050.0900	3/4-10X11 Inch*	1	U07000.075.1100	1.1/8-7X14 Inch*	1	U07000.112.1400
1/2-13X9.1/2*	1	U07000.050.0950	3/4-10X12 Inch*	1	U07000.075.1200	1.1/8-7X15 Inch*	1	U07000.112.1500
			3/4-10X13 Inch*	1	U07000.075.1300	1.1/8-7X16 Inch*	1	U07000.112.1600
9/16-12X1 Inch ft*	10	U07000.056.0100	3/4-10X14 Inch*	1	U07000.075.1400			
9/16-12X1.1/4 ft*	10	U07000.056.0125				1.1/4-7X2 Inch ft*	1	U07000.125.0200
9/16-12X1.1/2 ft*	10	U07000.056.0150	7/8-9X1.1/4 ft*	5	U07000.087.0125	1.1/4-7X2.1/4 ft*	1	U07000.125.0225
9/16-12X1.3/4*	10	U07000.056.0175	7/8-9X1.1/2 ft*	5	U07000.087.0150	1.1/4-7X2.1/2 ft*	1	U07000.125.0250
9/16-12X2 Inch*	5	U07000.056.0200	7/8-9X1.3/4 ft*	5	U07000.087.0175	1.1/4-7X2.3/4 ft*	1	U07000.125.0275
9/16-12X2.1/4*	5	U07000.056.0225	7/8-9X2 Inch ft*	5	U07000.087.0200	1.1/4-7X3 Inch ft*	1	U07000.125.0300
9/16-12X2.1/2*	5	U07000.056.0250	7/8-9X2.1/4 ft*	5	U07000.087.0225	1.1/4-7X3.1/2*	1	U07000.125.0350
9/16-12X2.3/4*	5	U07000.056.0275	7/8-9X2.1/2*	5	U07000.087.0250	1.1/4-7X3.3/4*	1	U07000.125.0375
9/16-12X3 Inch*	5	U07000.056.0300	7/8-9X2.3/4*	5	U07000.087.0275	1.1/4-7X4 Inch*	1	U07000.125.0400
9/16-12X3.1/2*	5	U07000.056.0350	7/8-9X3 Inch*	5	U07000.087.0300	1.1/4-7X4.1/2*	1	U07000.125.0450
9/16-12X4 Inch*	5	U07000.056.0400	7/8-9X3.1/4*	5	U07000.087.0325	1.1/4-7X5 Inch*	1	U07000.125.0500
9/16-12X4.1/2*	5	U07000.056.0450	7/8-9X3.1/2*	5	U07000.087.0350	1.1/4-7X5.1/2*	1	U07000.125.0550
9/16-12X5 Inch*	5	U07000.056.0500	7/8-9X4 Inch*	5	U07000.087.0400	1.1/4-7X6 Inch*	1	U07000.125.0600
9/16-12X5.1/2*	5	U07000.056.0550	7/8-9X4.1/2*	5	U07000.087.0450	1.1/4-7X6.1/2*	1	U07000.125.0650
9/16-12X6 Inch*	5	U07000.056.0600	7/8-9X4.3/4*	5	U07000.087.0475	1.1/4-7X7 Inch*	1	U07000.125.0700
9/16-12X6.1/2*	5	U07000.056.0650	7/8-9X5 Inch*	5	U07000.087.0500	1.1/4-7X8 Inch*	1	U07000.125.0800
9/16-12X7 Inch*	5	U07000.056.0700	7/8-9X5.1/2*	5	U07000.087.0550	1.1/4-7X9 Inch*	1	U07000.125.0900
9/16-12X7.1/2*	5	U07000.056.0750	7/8-9X6 Inch*	1	U07000.087.0600	1.1/4-7X10 Inch*	1	U07000.125.1000
9/16-12X8 Inch*	5	U07000.056.0800	7/8-9X6.1/2*	1	U07000.087.0650	1.1/4-7X11 Inch*	1	U07000.125.1100
			7/8-9X7 Inch*	1	U07000.087.0700	1.1/4-7X12 Inch*	1	U07000.125.1200
5/8-11X5/8 ft*	10	U07000.062.0062	7/8-9X7.1/2*	1	U07000.087.0750	1.1/4-7X13 Inch*	1	U07000.125.1300
5/8-11X3/4 ft*	10	U07000.062.0075	7/8-9X8 Inch*	1	U07000.087.0800	1.1/4-7X14 Inch*	1	U07000.125.1400
5/8-11X7/8 ft*	10	U07000.062.0087	7/8-9X9 Inch*	1	U07000.087.0900	1.1/4-7X15 Inch*	1	U07000.125.1500
5/8-11X1 Inch ft*	10	U07000.062.0100	7/8-9X10 Inch*	1	U07000.087.1000	1.1/4-7X16 Inch*	1	U07000.125.1600
5/8-11X1.1/4 ft*	10	U07000.062.0125	7/8-9X11 Inch*	1	U07000.087.1100	1.1/4-7X18 Inch*	1	U07000.125.1800
5/8-11X1.3/8 ft*	10	U07000.062.0137	7/8-9X12 Inch*	1	U07000.087.1200	1.1/4-7X20 Inch*	1	U07000.125.2000
5/8-11X1.1/2 ft*	10	U07000.062.0150	7/8-9X14 Inch*	1	U07000.087.1400			
5/8-11X1.3/4 ft*	10	U07000.062.0175	7/8-9X16 Inch*	1	U07000.087.1600	1.3/8-6X3 Inch ft*	1	U07000.137.0300
5/8-11X2 Inch*	5	U07000.062.0200	7/8-9X18 Inch*	1	U07000.087.1800	1.3/8-6X3.1/2*	1	U07000.137.0350
5/8-11X2.1/4*	5	U07000.062.0225				1.3/8-6X4 Inch*	1	U07000.137.0400
5/8-11X2.1/2*	5	U07000.062.0250	1.-8X1.1/2 ft*	5	U07000.100.0150	1.3/8-6X4.1/2*	1	U07000.137.0450
5/8-11X2.3/4*	5	U07000.062.0275	1.-8X1.3/4 ft*	5	U07000.100.0175	1.3/8-6X5 Inch*	1	U07000.137.0500
5/8-11X3 Inch*	5	U07000.062.0300	1.-8X2 Inch ft*	5	U07000.100.0200	1.3/8-6X5.1/2*	1	U07000.137.0550
5/8-11X3.1/4*	5	U07000.062.0325	1.-8X2.1/4 ft*	5	U07000.100.0225	1.3/8-6X6 Inch*	1	U07000.137.0600
5/8-11X3.1/2*	5	U07000.062.0350	1.-8X2.1/2 ft*	5	U07000.100.0250	1.3/8-6X7 Inch*	1	U07000.137.0700
5/8-11X3.3/4*	5	U07000.062.0375	1.-8X2.3/4*	5	U07000.100.0275	1.3/8-6X8 Inch*	1	U07000.137.0800
5/8-11X4 Inch*	5	U07000.062.0400	1.-8X3 Inch*	5	U07000.100.0300	1.3/8-6X10 Inch*	1	U07000.137.1000
5/8-11X4.1/4*	5	U07000.062.0425	1.-8X3.1/4*	5	U07000.100.0325	1.3/8-6X11 Inch*	1	U07000.137.1100
5/8-11X4.1/2*	5	U07000.062.0450	1.-8X3.1/2*	5	U07000.100.0350	1.3/8-6X12 Inch*	1	U07000.137.1200
5/8-11X5 Inch*	5	U07000.062.0500	1.-8X3.3/4*	5	U07000.100.0375	1.3/8-6X14 Inch*	1	U07000.137.1400
5/8-11X5.1/2*	5	U07000.062.0550	1.-8X4 Inch*	5	U07000.100.0400	1.3/8-6X16 Inch*	1	U07000.137.1600
5/8-11X6 Inch*	5	U07000.062.0600	1.-8X4.1/4*	5	U07000.100.0425	1.3/8-6X18 Inch*	1	U07000.137.1800
5/8-11X6.1/2*	5	U07000.062.0650	1.-8X4.1/2*	5	U07000.100.0450	1.3/8-6X20 Inch*	1	U07000.137.2000
5/8-11X7 Inch*	5	U07000.062.0700	1.-8X4.3/4*	5	U07000.100.0475			
5/8-11X7.1/2*	5	U07000.062.0750	1.-8X5 Inch*	5	U07000.100.0500	1.1/2-6X2.1/2 ft*	1	U07000.150.0250
5/8-11X8 Inch*	5	U07000.062.0800	1.-8X5.1/2*	5	U07000.100.0550	1.1/2-6X2.3/4 ft*	1	U07000.150.0275
5/8-11X8.1/2*	1	U07000.062.0850	1.-8X6 Inch*	1	U07000.100.0600	1.1/2-6X3 Inch ft*	1	U07000.150.0300
5/8-11X9 Inch*	1	U07000.062.0900	1.-8X6.1/2*	1	U07000.100.0650	1.1/2-6X3.1/2 ft*	1	U07000.150.0350
5/8-11X9.1/2*	1	U07000.062.0950	1.-8X7 Inch*	1	U07000.100.0700	1.1/2-6X4 Inch*	1	U07000.150.0400
5/8-11X10 Inch*	1	U07000.062.1000	1.-8X7.1/2*	1	U07000.100.0750	1.1/2-6X4.1/2*	1	U07000.150.0450
5/8-11X11 Inch*	1	U07000.062.1100	1.-8X8 Inch*	1	U07000.100.0800	1.1/2-6X5 Inch*	1	U07000.150.0500
			1.-8X8.1/2*	1	U07000.100.0850	1.1/2-6X5.1/2*	1	U07000.150.0550
3/4-10X1 Inch ft*	5	U07000.075.0100	1.-8X9 Inch*	1	U07000.100.0900	1.1/2-6X6 Inch*	1	U07000.150.0600
3/4-10X1.1/4 ft*	5	U07000.075.0125	1.-8X9.1/2*	1	U07000.100.0950	1.1/2-6X6.1/2*	1	U07000.150.0650
3/4-10X1.1/2 ft*	5	U07000.075.0150	1.-8X10 Inch*	1	U07000.100.1000	1.1/2-6X7 Inch*	1	U07000.150.0700
3/4-10X1.3/4 ft*	5	U07000.075.0175	1.-8X11 Inch*	1	U07000.100.1100	1.1/2-6X8 Inch*	1	U07000.150.0800
3/4-10X2 Inch ft*	5	U07000.075.0200	1.-8X12 Inch*	1	U07000.100.1200	1.1/2-6X9 Inch*	1	U07000.150.0900
3/4-10X2.1/4*	5	U07000.075.0225	1.-8X13 Inch*	1	U07000.100.1300	1.1/2-6X10 Inch*	1	U07000.150.1000
3/4-10X2.1/2*	5	U07000.075.0250	1.-8X14 Inch*	1	U07000.100.1400	1.1/2-6X11 Inch*	1	U07000.150.1100
3/4-10X2.3/4*	5	U07000.075.0275	1.-8X16 Inch*	1	U07000.100.1600	1.1/2-6X12 Inch*	1	U07000.150.1200
3/4-10X3 Inch*	5	U07000.075.0300	1.-8X18 Inch*	1	U07000.100.1800	1.1/2-6X13 Inch*	1	U07000.150.1300
3/4-10X3.1/4*	5	U07000.075.0325	1.-8X20 Inch*	1	U07000.100.2000	1.1/2-6X14 Inch*	1	U07000.150.1400
3/4-10X3.1/2*	5	U07000.075.0350				1.1/2-6X15 Inch*	1	U07000.150.1500
3/4-10X3.3/4*	5	U07000.075.0375	1.1/8-7X2 Inch ft*	1	U07000.112.0200	1.1/2-6X16 Inch*	1	U07000.150.1600
3/4-10X4 Inch*	5	U07000.075.0400	1.1/8-7X2.1/2 ft*	1	U07000.112.0250	1.1/2-6X18 Inch*	1	U07000.150.1800
3/4-10X4.1/4*	5	U07000.075.0425	1.1/8-7X3 Inch*	1	U07000.112.0300	1.1/2-6X20 Inch*	1	U07000.150.2000
3/4-10X4.1/2*	5	U07000.075.0450	1.1/8-7X3.1/2*	1	U07000.112.0350			
3/4-10X4.3/4*	5	U07000.075.0475	1.1/8-7X4 Inch*	1	U07000.112.0400	1.3/4-5X3 Inch ft*	1	U07000.175.0300
3/4-10X5 Inch*	5	U07000.075.0500	1.1/8-7X4.1/2*	1	U07000.112.0450	1.3/4-5X3.1/2 ft*	1	U07000.175.0350
3/4-10X5.1/2*	5	U07000.075.0550	1.1/8-7X5 Inch*	1	U07000.112.0500	1.3/4-5X4 Inch ft*	1	U07000.175.0400
3/4-10X6 Inch*	5	U07000.075.0600	1.1/8-7X5.1/2*	1	U07000.112.0550	1.3/4-5X4.1/2*	1	U07000.175.0450
3/4-10X6.1/2*	1	U07000.075.0650	1.1/8-7X6 Inch*	1	U07000.112.0600	1.3/4-5X5 Inch*	1	U07000.175.0500
3/4-10X7 Inch*	1	U07000.075.0700	1.1/8-7X7 Inch*	1	U07000.112.0700	1.3/4-5X5.1/2*	1	U07000.175.0550
3/4-10X7.1/2*	1	U07000.075.0750	1.1/8-7X8 Inch*	1	U07000.112.0800	1.3/4-5X6 Inch*	1	U07000.175.0600
3/4-10X8 Inch*	1	U07000.075.0800	1.1/8-7X9 Inch*	1	U07000.112.0900	1.3/4-5X7 Inch*	1	U07000.175.0700
3/4-10X8.1/2*	1	U07000.075.0850	1.1/8-7X10 Inch*	1	U07000.112.1000	1.3/4-5X8 Inch*	1	U07000.175.0800
3/4-10X9 Inch*	1	U07000.075.0900	1.1/8-7X11 Inch*	1	U07000.112.1100	1.3/4-5X9 Inch*	1	U07000.175.0900
3/4-10X9.1/2*	1	U07000.075.0950	1.1/8-7X12 Inch*	1	U07000.112.1200	1.3/4-5X10 Inch*	1	U07000.175.1000

U07000 Parafuso cabeça cilindrica sextavado interior serie UNC 1936

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1.3/4-5X12 Inch*	1	U07000.175.1200	2.-4,5X4.1/2 ft*	1	U07000.200.0450	2.-4,5X12 Inch*	1	U07000.200.1200
1.3/4-5X14 Inch*	1	U07000.175.1400	2.-4,5X5 Inch ft*	1	U07000.200.0500	2.-4,5X14 Inch*	1	U07000.200.1400
1.3/4-5X15 Inch*	1	U07000.175.1500	2.-4,5X5.1/2*	1	U07000.200.0550	2.-4,5X15 Inch*	1	U07000.200.1500
1.3/4-5X16 Inch*	1	U07000.175.1600	2.-4,5X6 Inch*	1	U07000.200.0600	2.-4,5X16 Inch*	1	U07000.200.1600
1.3/4-5X18 Inch*	1	U07000.175.1800	2.-4,5X7 Inch*	1	U07000.200.0700	2.-4,5X18 Inch*	1	U07000.200.1800
1.3/4-5X20 Inch*	1	U07000.175.2000	2.-4,5X8 Inch*	1	U07000.200.0800	2.-4,5X20 Inch*	1	U07000.200.2000
			2.-4,5X9 Inch*	1	U07000.200.0900			
2.-4,5X4 Inch ft*	1	U07000.200.0400	2.-4,5X10 Inch*	1	U07000.200.1000			

- ft = rosca total métrico

U07001 Parafuso cabeça cilindrica sextavado interior serie UNC 1936 X05A

Rosca Unified National Coarse
Material Aço
Classe Grade 8
Tratamento sup. Zincado

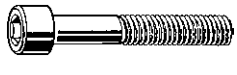


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.2-56X1/4 ft*	100	U07001.008.0025	NO.10-24X1.1/4*	100	U07001.019.0125	3/8-16X2.3/4*	25	U07001.037.0275
NO.2-56X3/8 ft*	100	U07001.008.0037	NO.10-24X1.1/2*	100	U07001.019.0150	3/8-16X3 Inch*	10	U07001.037.0300
			NO.10-24X1.3/4*	100	U07001.019.0175	3/8-16X3.1/2*	10	U07001.037.0350
NO.3-48X1/4 ft*	100	U07001.009.0025	NO.10-24X2 Inch*	100	U07001.019.0200	3/8-16X4 Inch*	10	U07001.037.0400
NO.3-48X3/8 ft*	100	U07001.009.0037						
NO.3-48X5/8 ft*	100	U07001.009.0062	1/4-20X3/8 ft*	100	U07001.025.0037	1/2-13X3/4 ft*	10	U07001.050.0075
			1/4-20X1/2 ft*	100	U07001.025.0050	1/2-13X1 Inch ft*	10	U07001.050.0100
NO.4-40X3/16 ft*	100	U07001.011.0018	1/4-20X5/8 ft*	100	U07001.025.0062	1/2-13X1.1/4 ft*	10	U07001.050.0125
NO.4-40X1/4 ft*	100	U07001.011.0025	1/4-20X3/4 ft*	100	U07001.025.0075	1/2-13X1.1/2 ft*	10	U07001.050.0150
NO.4-40X3/8 ft*	100	U07001.011.0037	1/4-20X7/8 ft*	100	U07001.025.0087	1/2-13X1.3/4*	10	U07001.050.0175
NO.4-40X1/2 ft*	100	U07001.011.0050	1/4-20X1 Inch ft*	100	U07001.025.0100	1/2-13X2 Inch*	10	U07001.050.0200
NO.4-40X5/8 ft*	100	U07001.011.0062	1/4-20X1.1/4*	100	U07001.025.0125	1/2-13X2.1/4*	10	U07001.050.0225
NO.4-40X3/4 ft*	100	U07001.011.0075	1/4-20X1.1/2*	100	U07001.025.0150	1/2-13X2.1/2*	10	U07001.050.0250
NO.4-40X1 Inch*	100	U07001.011.0100	1/4-20X1.3/4*	100	U07001.025.0175	1/2-13X2.3/4*	10	U07001.050.0275
			1/4-20X2 Inch*	50	U07001.025.0200	1/2-13X3 Inch*	5	U07001.050.0300
NO.5-40X1/4 ft*	100	U07001.012.0025	1/4-20X2.1/4*	50	U07001.025.0225	1/2-13X3.1/2*	5	U07001.050.0350
NO.5-40X3/8 ft*	100	U07001.012.0037	1/4-20X2.1/2*	50	U07001.025.0250	1/2-13X4 Inch*	5	U07001.050.0400
NO.5-40X1/2 ft*	100	U07001.012.0050	1/4-20X3 Inch*	25	U07001.025.0300			
NO.5-40X5/8 ft*	100	U07001.012.0062				5/8-11X1.1/4 ft*	10	U07001.062.0125
NO.5-40X3/4 ft*	100	U07001.012.0075	5/16-18X1/2 ft*	100	U07001.031.0050	5/8-11X1.1/2 ft*	10	U07001.062.0150
			5/16-18X5/8 ft*	100	U07001.031.0062	5/8-11X1.3/4 ft*	10	U07001.062.0175
NO.6-32X1/4 ft*	100	U07001.013.0025	5/16-18X3/4 ft*	100	U07001.031.0075	5/8-11X2 Inch*	5	U07001.062.0200
NO.6-32X3/8 ft*	100	U07001.013.0037	5/16-18X7/8 ft*	100	U07001.031.0087	5/8-11X2.1/4*	5	U07001.062.0225
NO.6-32X1/2 ft*	100	U07001.013.0050	5/16-18X1 Inch ft*	50	U07001.031.0100	5/8-11X2.1/2*	5	U07001.062.0250
NO.6-32X5/8 ft*	100	U07001.013.0062	5/16-18X1.1/4*	50	U07001.031.0125	5/8-11X2.3/4*	5	U07001.062.0275
NO.6-32X3/4 ft*	100	U07001.013.0075	5/16-18X1.1/2*	50	U07001.031.0150	5/8-11X3 Inch*	5	U07001.062.0300
NO.6-32X1 Inch*	100	U07001.013.0100	5/16-18X1.3/4*	50	U07001.031.0175	5/8-11X3.1/2*	5	U07001.062.0350
			5/16-18X2 Inch*	50	U07001.031.0200	5/8-11X4 Inch*	5	U07001.062.0400
NO.8-32X1/4 ft*	100	U07001.016.0025	5/16-18X2.1/4*	25	U07001.031.0225			
NO.8-32X3/8 ft*	100	U07001.016.0037	5/16-18X2.1/2*	25	U07001.031.0250	3/4-10X1.1/4 ft*	5	U07001.075.0125
NO.8-32X1/2 ft*	100	U07001.016.0050	5/16-18X3 Inch*	25	U07001.031.0300	3/4-10X1.1/2 ft*	5	U07001.075.0150
NO.8-32X5/8 ft*	100	U07001.016.0062	5/16-18X3.1/2*	25	U07001.031.0350	3/4-10X1.3/4 ft*	5	U07001.075.0175
NO.8-32X3/4 ft*	100	U07001.016.0075	5/16-18X4 Inch*	10	U07001.031.0400	3/4-10X2 Inch ft*	5	U07001.075.0200
NO.8-32X7/8 ft*	100	U07001.016.0087				3/4-10X2.1/4*	5	U07001.075.0225
NO.8-32X1 Inch*	100	U07001.016.0100	3/8-16X1/2 ft*	50	U07001.037.0050	3/4-10X2.1/2*	5	U07001.075.0250
NO.8-32X1.1/4*	100	U07001.016.0125	3/8-16X3/4 ft*	50	U07001.037.0075	3/4-10X2.3/4*	5	U07001.075.0275
NO.8-32X1.1/2*	100	U07001.016.0150	3/8-16X7/8 ft*	50	U07001.037.0087	3/4-10X3 Inch*	5	U07001.075.0300
			3/8-16X1 Inch ft*	50	U07001.037.0100	3/4-10X3.1/2*	5	U07001.075.0350
NO.10-24X3/8 ft*	100	U07001.019.0037	3/8-16X1.1/4 ft*	50	U07001.037.0125	3/4-10X4 Inch*	5	U07001.075.0400
NO.10-24X1/2 ft*	100	U07001.019.0050	3/8-16X1.1/2*	25	U07001.037.0150	3/4-10X5 Inch*	5	U07001.075.0500
NO.10-24X5/8 ft*	100	U07001.019.0062	3/8-16X1.3/4*	25	U07001.037.0175	3/4-10X6.1/2*	5	U07001.075.0650
NO.10-24X3/4 ft*	100	U07001.019.0075	3/8-16X2 Inch*	25	U07001.037.0200	3/4-10X7 Inch*	5	U07001.075.0700
NO.10-24X7/8 ft*	100	U07001.019.0087	3/8-16X2.1/4*	25	U07001.037.0225	3/4-10X8 Inch*	5	U07001.075.0800
NO.10-24X1 Inch*	100	U07001.019.0100	3/8-16X2.1/2*	25	U07001.037.0250			

- ft = rosca total métrico

07260 Parafuso cabeça cilindrica sextavado interior serie UNC 1936 X05A

Rosca Unified National Coarse
Material Aço
Classe 12.9
Tratamento sup. Zincagem mecânica



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4X3/8 ft	100	07260.063.009						
1/4X5/8 ft	100	07260.063.015	5/16X1/2 ft	100	07260.079.012	3/8X7/8 ft	100	07260.096.022
1/4X1.1/4	100	07260.063.031	5/16X1 Inch ft	100	07260.079.025	3/8X1.1/4 ft	100	07260.096.031

07260 Parafuso cabeça cilindrica sextavado interior serie UNC 1936 ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3/8X1.1/2	100	07260.096.038	1/2X5/8 ft	50	07260.127.015			
3/8X1.3/4	50	07260.096.044	1/2X3/4 ft	50	07260.127.019	5/8X2.1/4	25	07260.158.057
			1/2X1 Inch ft	50	07260.127.025			
1/2X1/2 ft	50	07260.127.012	1/2X1.1/4 ft	50	07260.127.031			

2

- ft = rosca total métrico

U51050 Parafuso cabeça cilindrica sextavado interior serie UNC 1936 X15A

Rosca Unified National Coarse
Material Aço inoxidável A2 (AISI 304/18-8)
Classe F837B



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.1-64X1/8 ft*	100	U51050.007.0012	NO.6-32X3/16 ft*	100	U51050.013.0018	1/4-20X1/2 ft*	100	U51050.025.0050
NO.1-64X3/16 ft*	100	U51050.007.0018	NO.6-32X1/4 ft*	100	U51050.013.0025	1/4-20X5/8 ft*	100	U51050.025.0062
NO.1-64X1/4 ft*	100	U51050.007.0025	NO.6-32X5/16 ft*	100	U51050.013.0031	1/4-20X3/4 ft*	100	U51050.025.0075
NO.1-64X5/16 ft*	100	U51050.007.0031	NO.6-32X3/8 ft*	100	U51050.013.0037	1/4-20X7/8 ft*	100	U51050.025.0087
NO.1-64X3/8 ft*	100	U51050.007.0037	NO.6-32X7/16 ft*	100	U51050.013.0043	1/4-20X1 Inch ft*	100	U51050.025.0100
NO.1-64X1/2 ft*	100	U51050.007.0050	NO.6-32X1/2 ft*	100	U51050.013.0050	1/4-20X1.1/8*	100	U51050.025.0112
NO.1-64X5/8 ft*	100	U51050.007.0062	NO.6-32X5/8 ft*	100	U51050.013.0062	1/4-20X1.1/4*	100	U51050.025.0125
NO.1-64X3/4*	100	U51050.007.0075	NO.6-32X3/4 ft*	100	U51050.013.0075	1/4-20X1.3/8*	100	U51050.025.0137
NO.1-64X1 Inch*	100	U51050.007.0100	NO.6-32X7/8*	100	U51050.013.0087	1/4-20X1.1/2*	100	U51050.025.0150
			NO.6-32X1 Inch*	100	U51050.013.0100	1/4-20X1.3/4*	100	U51050.025.0175
NO.2-56X1/8 ft*	100	U51050.008.0012	NO.6-32X1.1/8*	100	U51050.013.0112	1/4-20X2 Inch*	50	U51050.025.0200
NO.2-56X3/16 ft*	100	U51050.008.0018	NO.6-32X1.1/4*	100	U51050.013.0125	1/4-20X2.1/4*	50	U51050.025.0225
NO.2-56X1/4 ft*	100	U51050.008.0025	NO.6-32X1.1/2*	100	U51050.013.0150	1/4-20X2.1/2*	50	U51050.025.0250
NO.2-56X5/16 ft*	100	U51050.008.0031	NO.6-32X1.3/4*	100	U51050.013.0175	1/4-20X2.3/4*	50	U51050.025.0275
NO.2-56X3/8 ft*	100	U51050.008.0037	NO.6-32X2 Inch*	100	U51050.013.0200	1/4-20X3 Inch*	25	U51050.025.0300
NO.2-56X7/16 ft*	100	U51050.008.0043	NO.6-32X2.1/4*	100	U51050.013.0225	1/4-20X3.1/4*	25	U51050.025.0325
NO.2-56X1/2 ft*	100	U51050.008.0050	NO.6-32X2.1/2*	100	U51050.013.0250	1/4-20X3.1/2*	25	U51050.025.0350
NO.2-56X5/8 ft*	100	U51050.008.0062				1/4-20X3.3/4*	25	U51050.025.0375
NO.2-56X3/4*	100	U51050.008.0075	NO.8-32X3/16 ft*	100	U51050.016.0018	1/4-20X4 Inch*	25	U51050.025.0400
NO.2-56X7/8*	100	U51050.008.0087	NO.8-32X1/4 ft*	100	U51050.016.0025	1/4-20X4.1/2*	25	U51050.025.0450
NO.2-56X1 Inch*	100	U51050.008.0100	NO.8-32X5/16 ft*	100	U51050.016.0031	1/4-20X5 Inch*	25	U51050.025.0500
NO.2-56X1.1/4*	100	U51050.008.0125	NO.8-32X3/8 ft*	100	U51050.016.0037			
NO.2-56X1.1/2*	100	U51050.008.0150	NO.8-32X7/16 ft*	100	U51050.016.0043	5/16-18X3/8 ft*	100	U51050.031.0037
			NO.8-32X1/2 ft*	100	U51050.016.0050	5/16-18X7/16 ft*	100	U51050.031.0043
NO.3-48X1/8 ft*	100	U51050.009.0012	NO.8-32X5/8 ft*	100	U51050.016.0062	5/16-18X1/2 ft*	100	U51050.031.0050
NO.3-48X3/16 ft*	100	U51050.009.0018	NO.8-32X3/4 ft*	100	U51050.016.0075	5/16-18X5/8 ft*	100	U51050.031.0062
NO.3-48X1/4 ft*	100	U51050.009.0025	NO.8-32X7/8 ft*	100	U51050.016.0087	5/16-18X3/4 ft*	100	U51050.031.0075
NO.3-48X5/16 ft*	100	U51050.009.0031	NO.8-32X1 Inch*	100	U51050.016.0100	5/16-18X7/8 ft*	100	U51050.031.0087
NO.3-48X3/8 ft*	100	U51050.009.0037	NO.8-32X1.1/8*	100	U51050.016.0112	5/16-18X1 Inch ft*	50	U51050.031.0100
NO.3-48X1/2 ft*	100	U51050.009.0050	NO.8-32X1.1/4*	100	U51050.016.0125	5/16-18X1.1/8 ft*	50	U51050.031.0112
NO.3-48X5/8 ft*	100	U51050.009.0062	NO.8-32X1.3/8*	100	U51050.016.0137	5/16-18X1.1/4*	50	U51050.031.0125
NO.3-48X3/4*	100	U51050.009.0075	NO.8-32X1.1/2*	100	U51050.016.0150	5/16-18X1.1/2*	50	U51050.031.0150
NO.3-48X7/8*	100	U51050.009.0087	NO.8-32X1.3/4*	100	U51050.016.0175	5/16-18X1.3/4*	50	U51050.031.0175
NO.3-48X1 Inch*	100	U51050.009.0100	NO.8-32X2 Inch*	100	U51050.016.0200	5/16-18X2 Inch*	50	U51050.031.0200
			NO.8-32X2.1/4*	100	U51050.016.0225	5/16-18X2.1/4*	25	U51050.031.0225
NO.4-40X1/8 ft*	100	U51050.011.0012	NO.8-32X2.1/2*	100	U51050.016.0250	5/16-18X2.1/2*	25	U51050.031.0250
NO.4-40X3/16 ft*	100	U51050.011.0018	NO.8-32X2.3/4*	100	U51050.016.0275	5/16-18X2.3/4*	25	U51050.031.0275
NO.4-40X1/4 ft*	100	U51050.011.0025	NO.8-32X3 Inch*	100	U51050.016.0300	5/16-18X3 Inch*	25	U51050.031.0300
NO.4-40X5/16 ft*	100	U51050.011.0031				5/16-18X3.1/4*	25	U51050.031.0325
NO.4-40X3/8 ft*	100	U51050.011.0037	NO.10-24X3/16 ft*	100	U51050.019.0018	5/16-18X3.1/2*	25	U51050.031.0350
NO.4-40X7/16 ft*	100	U51050.011.0043	NO.10-24X1/4 ft*	100	U51050.019.0025	5/16-18X3.3/4*	25	U51050.031.0375
NO.4-40X1/2 ft*	100	U51050.011.0050	NO.10-24X5/16 ft*	100	U51050.019.0031	5/16-18X4 Inch*	10	U51050.031.0400
NO.4-40X5/8 ft*	100	U51050.011.0062	NO.10-24X3/8 ft*	100	U51050.019.0037	5/16-18X4.1/2*	10	U51050.031.0450
NO.4-40X3/4 ft*	100	U51050.011.0075	NO.10-24X7/16 ft*	100	U51050.019.0043	5/16-18X5 Inch*	10	U51050.031.0500
NO.4-40X7/8*	100	U51050.011.0087	NO.10-24X1/2 ft*	100	U51050.019.0050	5/16-18X5.1/2*	10	U51050.031.0550
NO.4-40X1 Inch*	100	U51050.011.0100	NO.10-24X5/8 ft*	100	U51050.019.0062	5/16-18X6 Inch*	10	U51050.031.0600
NO.4-40X1.1/8*	100	U51050.011.0112	NO.10-24X3/4 ft*	100	U51050.019.0075			
NO.4-40X1.1/4*	100	U51050.011.0125	NO.10-24X7/8 ft*	100	U51050.019.0087	3/8-16X1/2 ft*	50	U51050.037.0050
NO.4-40X1.3/8*	100	U51050.011.0137	NO.10-24X1 Inch*	100	U51050.019.0100	3/8-16X5/8 ft*	50	U51050.037.0062
NO.4-40X1.1/2*	100	U51050.011.0150	NO.10-24X1.1/8*	100	U51050.019.0112	3/8-16X3/4 ft*	50	U51050.037.0075
NO.4-40X1.3/4*	100	U51050.011.0175	NO.10-24X1.1/4*	100	U51050.019.0125	3/8-16X7/8 ft*	50	U51050.037.0087
NO.4-40X2 Inch*	100	U51050.011.0200	NO.10-24X1.3/8*	100	U51050.019.0137	3/8-16X1 Inch ft*	50	U51050.037.0100
			NO.10-24X1.1/2*	100	U51050.019.0150	3/8-16X1.1/8 ft*	50	U51050.037.0112
NO.5-40X1/8 ft*	100	U51050.012.0012	NO.10-24X1.3/4*	100	U51050.019.0175	3/8-16X1.1/4 ft*	50	U51050.037.0125
NO.5-40X3/16 ft*	100	U51050.012.0018	NO.10-24X2 Inch*	100	U51050.019.0200	3/8-16X1.3/8*	50	U51050.037.0137
NO.5-40X1/4 ft*	100	U51050.012.0025	NO.10-24X2.1/4*	100	U51050.019.0225	3/8-16X1.1/2*	25	U51050.037.0150
NO.5-40X5/16 ft*	100	U51050.012.0031	NO.10-24X2.1/2*	100	U51050.019.0250	3/8-16X1.3/4*	25	U51050.037.0175
NO.5-40X3/8 ft*	100	U51050.012.0037	NO.10-24X2.3/4*	100	U51050.019.0275	3/8-16X2 Inch*	25	U51050.037.0200
NO.5-40X1/2 ft*	100	U51050.012.0050	NO.10-24X3 Inch*	100	U51050.019.0300	3/8-16X2.1/4*	25	U51050.037.0225
NO.5-40X5/8 ft*	100	U51050.012.0062	NO.10-24X3.1/2*	100	U51050.019.0350	3/8-16X2.1/2*	25	U51050.037.0250
NO.5-40X3/4 ft*	100	U51050.012.0075	NO.10-24X4 Inch*	100	U51050.019.0400	3/8-16X2.3/4*	25	U51050.037.0275
NO.5-40X7/8*	100	U51050.012.0087				3/8-16X3 Inch*	10	U51050.037.0300
NO.5-40X1 Inch*	100	U51050.012.0100	1/4-20X5/16 ft*	100	U51050.025.0031	3/8-16X3.1/4*	10	U51050.037.0325
NO.5-40X1.1/4*	100	U51050.012.0125	1/4-20X3/8 ft*	100	U51050.025.0037	3/8-16X3.1/2*	10	U51050.037.0350
			1/4-20X7/16 ft*	100	U51050.025.0043	3/8-16X3.3/4*	10	U51050.037.0375

U51050 Parafuso cabeça cilindrica sextavado interior serie UNC 1936 ←

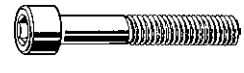
d x L	⊠	Ref. do artigo	d x L	⊠	Ref. do artigo	d x L	⊠	Ref. do artigo
3/8-16X4 Inch*	10	U51050.037.0400	1/2-13X5.1/2*	5	U51050.050.0550	3/4-10X3 Inch*	5	U51050.075.0300
3/8-16X4.1/2*	10	U51050.037.0450	1/2-13X6 Inch*	5	U51050.050.0600	3/4-10X3.1/2*	5	U51050.075.0350
3/8-16X5 Inch*	10	U51050.037.0500	1/2-13X6.1/2*	5	U51050.050.0650	3/4-10X4 Inch*	5	U51050.075.0400
3/8-16X5.1/2*	10	U51050.037.0550	1/2-13X7 Inch*	5	U51050.050.0700	3/4-10X4.1/2*	5	U51050.075.0450
3/8-16X6 Inch*	10	U51050.037.0600	1/2-13X7.1/2*	5	U51050.050.0750	3/4-10X5 Inch*	5	U51050.075.0500
3/8-16X6.1/2*	5	U51050.037.0650	1/2-13X8 Inch*	5	U51050.050.0800	3/4-10X6 Inch*	5	U51050.075.0600
3/8-16X7 Inch*	5	U51050.037.0700				3/4-10X6.1/2*	5	U51050.075.0650
			9/16-12X1 Inch ft*	10	U51050.056.0100	3/4-10X7 Inch*	5	U51050.075.0700
7/16-14X3/4 ft*	25	U51050.043.0075	9/16-12X1.1/2 ft*	10	U51050.056.0150	3/4-10X8 Inch*	5	U51050.075.0800
7/16-14X1 Inch ft*	25	U51050.043.0100	9/16-12X2.1/2*	5	U51050.056.0250			
7/16-14X1.1/4 ft*	25	U51050.043.0125	9/16-12X3 Inch*	5	U51050.056.0300	7/8-9X2 Inch ft*	5	U51050.087.0200
7/16-14X1.1/2*	25	U51050.043.0150				7/8-9X2.1/4 ft*	5	U51050.087.0225
7/16-14X1.3/4*	10	U51050.043.0175	5/8-11X1 Inch ft*	10	U51050.062.0100	7/8-9X2.1/2*	5	U51050.087.0250
7/16-14X2 Inch*	10	U51050.043.0200	5/8-11X1.1/4 ft*	10	U51050.062.0125	7/8-9X2.3/4*	5	U51050.087.0275
7/16-14X2.1/4*	10	U51050.043.0225	5/8-11X1.1/2 ft*	10	U51050.062.0150	7/8-9X3 Inch*	5	U51050.087.0300
7/16-14X2.1/2*	10	U51050.043.0250	5/8-11X1.3/4 ft*	10	U51050.062.0175	7/8-9X3.1/2*	5	U51050.087.0350
7/16-14X3 Inch*	10	U51050.043.0300	5/8-11X2 Inch*	5	U51050.062.0200	7/8-9X4 Inch*	5	U51050.087.0400
7/16-14X3.1/2*	5	U51050.043.0350	5/8-11X2.1/4*	5	U51050.062.0225	7/8-9X4.1/2*	5	U51050.087.0450
7/16-14X4 Inch*	5	U51050.043.0400	5/8-11X2.1/2*	5	U51050.062.0250	7/8-9X5 Inch*	5	U51050.087.0500
			5/8-11X2.3/4*	5	U51050.062.0275	7/8-9X6 Inch*	5	U51050.087.0600
1/2-13X1/2 ft*	10	U51050.050.0050	5/8-11X3 Inch*	5	U51050.062.0300	7/8-9X6.1/2*	5	U51050.087.0650
1/2-13X5/8 ft*	10	U51050.050.0062	5/8-11X3.1/2*	5	U51050.062.0350	7/8-9X7 Inch*	5	U51050.087.0700
1/2-13X3/4 ft*	10	U51050.050.0075	5/8-11X4 Inch*	5	U51050.062.0400	7/8-9X8 Inch*	1	U51050.087.0800
1/2-13X7/8 ft*	10	U51050.050.0087	5/8-11X4.1/2*	5	U51050.062.0450			
1/2-13X1 Inch ft*	10	U51050.050.0100	5/8-11X5 Inch*	5	U51050.062.0500	1.-8X2 Inch ft*	5	U51050.100.0200
1/2-13X1.1/4 ft*	10	U51050.050.0125	5/8-11X5.1/2*	5	U51050.062.0550	1.-8X2.1/4 ft*	5	U51050.100.0225
1/2-13X1.1/2 ft*	10	U51050.050.0150	5/8-11X6 Inch*	5	U51050.062.0600	1.-8X2.1/2 ft*	5	U51050.100.0250
1/2-13X1.3/4*	10	U51050.050.0175	5/8-11X7 Inch*	5	U51050.062.0700	1.-8X2.3/4*	5	U51050.100.0275
1/2-13X2 Inch*	10	U51050.050.0200	5/8-11X8 Inch*	5	U51050.062.0800	1.-8X3 Inch*	5	U51050.100.0300
1/2-13X2.1/4*	10	U51050.050.0225				1.-8X3.1/2*	5	U51050.100.0350
1/2-13X2.1/2*	10	U51050.050.0250	3/4-10X1 Inch ft*	5	U51050.075.0100	1.-8X4 Inch*	5	U51050.100.0400
1/2-13X2.3/4*	10	U51050.050.0275	3/4-10X1.1/4 ft*	5	U51050.075.0125	1.-8X4.1/2*	5	U51050.100.0450
1/2-13X3 Inch*	5	U51050.050.0300	3/4-10X1.1/2 ft*	5	U51050.075.0150	1.-8X5 Inch*	5	U51050.100.0500
1/2-13X3.1/4*	5	U51050.050.0325	3/4-10X1.3/4 ft*	5	U51050.075.0175	1.-8X6 Inch*	5	U51050.100.0600
1/2-13X3.1/2*	5	U51050.050.0350	3/4-10X2 Inch ft*	5	U51050.075.0200	1.-8X6.1/2*	1	U51050.100.0650
1/2-13X4 Inch*	5	U51050.050.0400	3/4-10X2.1/4*	5	U51050.075.0225	1.-8X7 Inch*	1	U51050.100.0700
1/2-13X4.1/2*	5	U51050.050.0450	3/4-10X2.1/2*	5	U51050.075.0250	1.-8X8 Inch*	1	U51050.100.0800
1/2-13X5 Inch*	5	U51050.050.0500	3/4-10X2.3/4*	5	U51050.075.0275			

- ft = rosca total métrico

U55050 Parafuso cabeça cilindrica sextavado interior serie UNC 1936 X15A

Rosca Unified National Coarse
Material Aço inoxidável A4 (AISI 316/18-10)
Classe F837E

RoHS



d x L	⊠	Ref. do artigo	d x L	⊠	Ref. do artigo	d x L	⊠	Ref. do artigo
NO.2-56X1/4 ft*	100	U55050.008.0025	NO.8-32X1/4 ft*	100	U55050.016.0025	1/4-20X2.1/4*	50	U55050.025.0225
NO.2-56X3/8 ft*	100	U55050.008.0037	NO.8-32X3/8 ft*	100	U55050.016.0037	1/4-20X2.1/2*	50	U55050.025.0250
			NO.8-32X1/2 ft*	100	U55050.016.0050	1/4-20X3 Inch*	25	U55050.025.0300
NO.3-48X1/4 ft*	100	U55050.009.0025	NO.8-32X5/8 ft*	100	U55050.016.0062			
NO.3-48X5/8 ft*	100	U55050.009.0062	NO.8-32X3/4 ft*	100	U55050.016.0075	5/16-18X1/2 ft*	100	U55050.031.0050
			NO.8-32X7/8 ft*	100	U55050.016.0087	5/16-18X5/8 ft*	100	U55050.031.0062
NO.4-40X3/16 ft*	100	U55050.011.0018	NO.8-32X1 Inch*	100	U55050.016.0100	5/16-18X3/4 ft*	100	U55050.031.0075
NO.4-40X1/4 ft*	100	U55050.011.0025	NO.8-32X1.1/4*	100	U55050.016.0125	5/16-18X7/8 ft*	100	U55050.031.0087
NO.4-40X5/16 ft*	100	U55050.011.0031	NO.8-32X1.1/2*	100	U55050.016.0150	5/16-18X1 Inch ft*	50	U55050.031.0100
NO.4-40X3/8 ft*	100	U55050.011.0037				5/16-18X1.1/4*	50	U55050.031.0125
NO.4-40X1/2 ft*	100	U55050.011.0050	NO.10-24X3/8 ft*	100	U55050.019.0037	5/16-18X1.1/2*	50	U55050.031.0150
NO.4-40X5/8 ft*	100	U55050.011.0062	NO.10-24X1/2 ft*	100	U55050.019.0050	5/16-18X1.3/4*	50	U55050.031.0175
NO.4-40X3/4 ft*	100	U55050.011.0075	NO.10-24X5/8 ft*	100	U55050.019.0062	5/16-18X2 Inch*	50	U55050.031.0200
NO.4-40X1 Inch*	100	U55050.011.0100	NO.10-24X3/4 ft*	100	U55050.019.0075	5/16-18X2.1/4*	25	U55050.031.0225
			NO.10-24X7/8 ft*	100	U55050.019.0087	5/16-18X2.1/2*	25	U55050.031.0250
NO.5-40X1/4 ft*	100	U55050.012.0025	NO.10-24X1 Inch*	100	U55050.019.0100	5/16-18X3 Inch*	25	U55050.031.0300
NO.5-40X3/8 ft*	100	U55050.012.0037	NO.10-24X1.1/4*	100	U55050.019.0125	5/16-18X3.1/2*	25	U55050.031.0350
NO.5-40X1/2 ft*	100	U55050.012.0050	NO.10-24X1.1/2*	100	U55050.019.0150	5/16-18X4 Inch*	10	U55050.031.0400
NO.5-40X5/8 ft*	100	U55050.012.0062	NO.10-24X1.3/4*	100	U55050.019.0175			
NO.5-40X3/4 ft*	100	U55050.012.0075	NO.10-24X2 Inch*	100	U55050.019.0200	3/8-16X1/2 ft*	50	U55050.037.0050
						3/8-16X5/8 ft*	50	U55050.037.0062
NO.6-32X1/4 ft*	100	U55050.013.0025	1/4-20X3/8 ft*	100	U55050.025.0037	3/8-16X3/4 ft*	50	U55050.037.0075
NO.6-32X5/16 ft*	100	U55050.013.0031	1/4-20X1/2 ft*	100	U55050.025.0050	3/8-16X1 Inch ft*	50	U55050.037.0100
NO.6-32X3/8 ft*	100	U55050.013.0037	1/4-20X5/8 ft*	100	U55050.025.0062	3/8-16X1.1/4 ft*	50	U55050.037.0125
NO.6-32X1/2 ft*	100	U55050.013.0050	1/4-20X3/4 ft*	100	U55050.025.0075	3/8-16X1.1/2*	25	U55050.037.0150
NO.6-32X5/8 ft*	100	U55050.013.0062	1/4-20X7/8 ft*	100	U55050.025.0087	3/8-16X1.3/4*	25	U55050.037.0175
NO.6-32X3/4 ft*	100	U55050.013.0075	1/4-20X1 Inch ft*	100	U55050.025.0100	3/8-16X2 Inch*	25	U55050.037.0200
NO.6-32X1 Inch*	100	U55050.013.0100	1/4-20X1.1/4*	100	U55050.025.0125	3/8-16X2.1/2*	25	U55050.037.0250
NO.6-32X1.1/4*	100	U55050.013.0125	1/4-20X1.1/2*	100	U55050.025.0150	3/8-16X3 Inch*	10	U55050.037.0300
NO.6-32X1.1/2*	100	U55050.013.0150	1/4-20X1.3/4*	100	U55050.025.0175			
			1/4-20X2 Inch*	50	U55050.025.0200	7/16-14X1.1/2*	25	U55050.043.0150

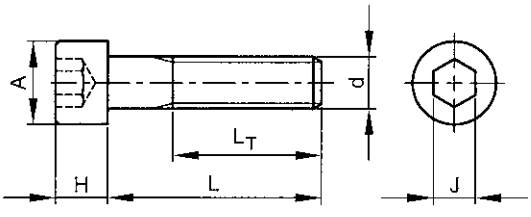
U55050 Parafuso cabeça cilindrica sextavado interior serie UNC 1936 ←

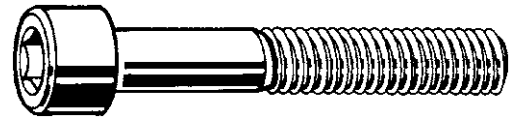
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
7/16-14X2 Inch*	10	U55050.043.0200	1/2-13X3.1/2*	5	U55050.050.0350	5/8-11X3.1/2*	5	U55050.062.0350
			1/2-13X4 Inch*	5	U55050.050.0400	5/8-11X4 Inch*	5	U55050.062.0400
1/2-13X3/4 ft*	10	U55050.050.0075						
1/2-13X1 Inch ft*	10	U55050.050.0100	5/8-11X1 Inch ft*	10	U55050.062.0100	3/4-10X1.1/4 ft*	5	U55050.075.0125
1/2-13X1.1/4 ft*	10	U55050.050.0125	5/8-11X1.1/4 ft*	10	U55050.062.0125	3/4-10X1.1/2 ft*	5	U55050.075.0150
1/2-13X1.1/2 ft*	10	U55050.050.0150	5/8-11X1.1/2 ft*	10	U55050.062.0150	3/4-10X1.3/4 ft*	5	U55050.075.0175
1/2-13X1.3/4*	10	U55050.050.0175	5/8-11X1.3/4 ft*	10	U55050.062.0175	3/4-10X2 Inch ft*	5	U55050.075.0200
1/2-13X2 Inch*	10	U55050.050.0200	5/8-11X2 Inch*	5	U55050.062.0200	3/4-10X2.1/2*	5	U55050.075.0250
1/2-13X2.1/4*	10	U55050.050.0225	5/8-11X2.1/4*	5	U55050.062.0225	3/4-10X3 Inch*	5	U55050.075.0300
1/2-13X2.1/2*	10	U55050.050.0250	5/8-11X2.1/2*	5	U55050.062.0250	3/4-10X4 Inch*	5	U55050.075.0400
1/2-13X3 Inch*	5	U55050.050.0300	5/8-11X3 Inch*	5	U55050.062.0300			

- ft = rosca total métrico

Parafuso cabeça cilindrica sextavado interior serie UNF 1936

ASME ≈B18.3 (1936)





Dados técnicos

d	A	Fios por polegada	H	J	L_T (min.)
No.0	0.096	80	0.06	0.05	0.5
No.1	0.118	72	0.073	1/16	0.62
No.2	0.140	64	0.086	5/64	0.62
No.3	0.161	56	0.099	5/64	0.62
No.4	0.183	48	0.112	3/32	0.75
No.5	0.205	44	0.125	3/32	0.75
No.6	0.026	40	0.138	7/64	0.75
No.8	0.270	36	0.164	9/64	0.88
No.10	0.312	32	0.19	5/32	0.88
1/4	0.375	28	0.25	3/16	1
5/16	0.469	24	0.312	1/4	1.12
3/8	0.562	24	0.375	5/16	1.25
7/16	0.656	20	0.438	3/8	1.38
1/2	0.750	20	0.5	3/8	1.5
9/16	0.844	18	0.562	3/8	1.5
5/8	0.938	18	0.625	1/2	1.75
3/4	1.125	16	0.75	5/8	2
7/8	1.312	14	0.875	3/4	2.25
1.1/8	1.688	12	1.125	7/8	2.81
1.1/4	1.875	12	1.25	7/8	3.12
1.3/8	2.062	12	1.375	1	3.44
1.1/2	2.25	12	1.5	1	3.75

- As propriedades mecânicas são equivalentes ás classes de aço 12.9 de acordo com DIN ISO 898-1. As outras propriedades de acordo com ASTM A574. A marcação destes parafusos não é obrigatória.
- ATENÇÃO: a norma especifica uma tolerância de rosca 3A para medidas acima de 1 polegada, a zincagem pode causar problemas de fitting.

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
UNF	Sextavado interior	Aço	Grade 8		U07040	2-29
UNF	Sextavado interior	Aço	12.9	Zn Mec.	07250	2-30
UNF	Sextavado interior	INOX A2 (AISI304/18-8)	F837B		U51041	2-30
UNF	Sextavado interior	INOX A4 (AISI316/18-10)	F837E		U55041	2-31

U07040 Parafuso cabeça cilindrica sextavado interior serie UNF 1936 X05A

Rosca Unified National Fine
Material Aço
Classe Grade 8



RoHS

d x L	✉	Ref. do artigo
NO.0-80X1/16 ft*	100	U07040.006.0006
NO.0-80X1/8 ft*	100	U07040.006.0012
NO.0-80X3/16 ft*	100	U07040.006.0018
NO.0-80X1/4 ft*	100	U07040.006.0025
NO.0-80X5/16 ft*	100	U07040.006.0031
NO.0-80X3/8 ft*	100	U07040.006.0037
NO.0-80X1/2 ft*	100	U07040.006.0050
NO.0-80X5/8*	100	U07040.006.0062
NO.0-80X3/4*	100	U07040.006.0075
NO.0-80X1 Inch*	100	U07040.006.0100
NO.1-72X1/8 ft*	100	U07040.007.0012
NO.1-72X3/16 ft*	100	U07040.007.0018
NO.1-72X1/4 ft*	100	U07040.007.0025
NO.1-72X3/8 ft*	100	U07040.007.0037
NO.1-72X1/2 ft*	100	U07040.007.0050
NO.1-72X5/8 ft*	100	U07040.007.0062
NO.1-72X3/4*	100	U07040.007.0075
NO.1-72X1 Inch*	100	U07040.007.0100
NO.2-64X1/8 ft*	100	U07040.008.0012
NO.2-64X3/16 ft*	100	U07040.008.0018
NO.2-64X1/4 ft*	100	U07040.008.0025
NO.2-64X3/8 ft*	100	U07040.008.0037
NO.2-64X1/2 ft*	100	U07040.008.0050
NO.2-64X5/8 ft*	100	U07040.008.0062
NO.2-64X3/4*	100	U07040.008.0075
NO.2-64X1 Inch*	100	U07040.008.0100
NO.3-56X1/8 ft*	100	U07040.009.0012
NO.3-56X3/16 ft*	100	U07040.009.0018
NO.3-56X1/4 ft*	100	U07040.009.0025
NO.3-56X5/16 ft*	100	U07040.009.0031
NO.3-56X3/8 ft*	100	U07040.009.0037
NO.3-56X1/2 ft*	100	U07040.009.0050
NO.3-56X5/8 ft*	100	U07040.009.0062
NO.3-56X3/4*	100	U07040.009.0075
NO.3-56X1 Inch*	100	U07040.009.0100
NO.4-48X1/8 ft*	100	U07040.011.0012
NO.4-48X3/16 ft*	100	U07040.011.0018
NO.4-48X1/4 ft*	100	U07040.011.0025
NO.4-48X5/16 ft*	100	U07040.011.0031
NO.4-48X3/8 ft*	100	U07040.011.0037
NO.4-48X7/16 ft*	100	U07040.011.0043
NO.4-48X1/2 ft*	100	U07040.011.0050
NO.4-48X5/8 ft*	100	U07040.011.0062
NO.4-48X3/4 ft*	100	U07040.011.0075
NO.4-48X7/8*	100	U07040.011.0087
NO.4-48X1 Inch*	100	U07040.011.0100
NO.5-44X1/4 ft*	100	U07040.012.0025
NO.5-44X3/8 ft*	100	U07040.012.0037
NO.5-44X1/2 ft*	100	U07040.012.0050
NO.5-44X5/8 ft*	100	U07040.012.0062
NO.5-44X3/4 ft*	100	U07040.012.0075
NO.6-40X3/16 ft*	100	U07040.013.0018
NO.6-40X1/4 ft*	100	U07040.013.0025
NO.6-40X5/16 ft*	100	U07040.013.0031
NO.6-40X3/8 ft*	100	U07040.013.0037
NO.6-40X7/16 ft*	100	U07040.013.0043
NO.6-40X1/2 ft*	100	U07040.013.0050
NO.6-40X5/8 ft*	100	U07040.013.0062
NO.6-40X3/4 ft*	100	U07040.013.0075
NO.6-40X7/8*	100	U07040.013.0087
NO.6-40X1 Inch*	100	U07040.013.0100
NO.8-36X1/4 ft*	100	U07040.016.0025
NO.8-36X3/8 ft*	100	U07040.016.0037
NO.8-36X1/2 ft*	100	U07040.016.0050
NO.8-36X5/8 ft*	100	U07040.016.0062
NO.8-36X3/4 ft*	100	U07040.016.0075
NO.8-36X7/8 ft*	100	U07040.016.0087
NO.8-36X1 Inch*	100	U07040.016.0100
NO.8-36X1.1/4*	100	U07040.016.0125
NO.8-36X1.1/2*	100	U07040.016.0150
NO.10-32X3/16 ft*	100	U07040.019.0018
NO.10-32X1/4 ft*	100	U07040.019.0025
NO.10-32X5/16 ft*	100	U07040.019.0031
NO.10-32X3/8 ft*	100	U07040.019.0037
NO.10-32X7/16 ft*	100	U07040.019.0043
NO.10-32X1/2 ft*	100	U07040.019.0050
NO.10-32X5/8 ft*	100	U07040.019.0062
NO.10-32X3/4 ft*	100	U07040.019.0075
NO.10-32X7/8 ft*	100	U07040.019.0087
NO.10-32X1 Inch*	100	U07040.019.0100
NO.10-32X1.1/8*	100	U07040.019.0112
NO.10-32X1.1/4*	100	U07040.019.0125
NO.10-32X1.3/8*	100	U07040.019.0137
NO.10-32X1.1/2*	100	U07040.019.0150
NO.10-32X1.3/4*	100	U07040.019.0175
NO.10-32X2 Inch*	100	U07040.019.0200
NO.10-32X2.1/4*	100	U07040.019.0225
NO.10-32X2.1/2*	100	U07040.019.0250
NO.10-32X2.3/4*	100	U07040.019.0275
NO.10-32X3 Inch*	100	U07040.019.0300
NO.10-32X3.1/4*	100	U07040.019.0325
NO.10-32X3.1/2*	100	U07040.019.0350
NO.10-32X4 Inch*	100	U07040.019.0400
1/4-28X3/8 ft*	100	U07040.025.0037
1/4-28X7/16 ft*	100	U07040.025.0043
1/4-28X1/2 ft*	100	U07040.025.0050
1/4-28X5/8 ft*	100	U07040.025.0062
1/4-28X3/4 ft*	100	U07040.025.0075
1/4-28X7/8 ft*	100	U07040.025.0087
1/4-28X1 Inch ft*	100	U07040.025.0100
1/4-28X1.1/8*	100	U07040.025.0112
1/4-28X1.1/4*	100	U07040.025.0125
1/4-28X1.3/8*	100	U07040.025.0137
1/4-28X1.1/2*	100	U07040.025.0150
1/4-28X1.3/4*	100	U07040.025.0175
1/4-28X2 Inch*	50	U07040.025.0200
1/4-28X2.1/4*	50	U07040.025.0225
1/4-28X2.1/2*	50	U07040.025.0250
1/4-28X2.3/4*	50	U07040.025.0275
1/4-28X3 Inch*	25	U07040.025.0300
1/4-28X3.1/4*	25	U07040.025.0325
1/4-28X3.1/2*	25	U07040.025.0350
1/4-28X4 Inch*	25	U07040.025.0400
1/4-28X4.1/2*	25	U07040.025.0450
1/4-28X5 Inch*	25	U07040.025.0500
5/16-24X3/8 ft*	100	U07040.031.0037
5/16-24X1/2 ft*	100	U07040.031.0050
5/16-24X5/8 ft*	100	U07040.031.0062
5/16-24X3/4 ft*	100	U07040.031.0075
5/16-24X7/8 ft*	100	U07040.031.0087
5/16-24X1 Inch ft*	50	U07040.031.0100
5/16-24X1.1/4*	50	U07040.031.0125
5/16-24X1.1/2*	50	U07040.031.0150
5/16-24X1.3/4*	50	U07040.031.0175
5/16-24X2 Inch*	50	U07040.031.0200
5/16-24X2.1/4*	25	U07040.031.0225
5/16-24X2.1/2*	25	U07040.031.0250
5/16-24X2.3/4*	25	U07040.031.0275
5/16-24X3 Inch*	25	U07040.031.0300
5/16-24X3.1/4*	25	U07040.031.0325
5/16-24X3.1/2*	25	U07040.031.0350
5/16-24X4 Inch*	10	U07040.031.0400
5/16-24X4.1/2*	10	U07040.031.0450
5/16-24X5 Inch*	10	U07040.031.0500
5/16-24X5.1/2*	10	U07040.031.0550
5/16-24X6 Inch*	10	U07040.031.0600
3/8-24X1/2 ft*	50	U07040.037.0050
3/8-24X5/8 ft*	50	U07040.037.0062
3/8-24X3/4 ft*	50	U07040.037.0075
3/8-24X7/8 ft*	50	U07040.037.0087
3/8-24X1 Inch ft*	50	U07040.037.0100
3/8-24X1.1/8 ft*	50	U07040.037.0112
3/8-24X1.1/4 ft*	50	U07040.037.0125
3/8-24X1.3/8*	50	U07040.037.0137
3/8-24X1.1/2*	25	U07040.037.0150
3/8-24X1.3/4*	25	U07040.037.0175
3/8-24X2 Inch*	25	U07040.037.0200
3/8-24X2.1/4*	25	U07040.037.0225
3/8-24X2.1/2*	25	U07040.037.0250
3/8-24X2.3/4*	25	U07040.037.0275
3/8-24X3 Inch*	10	U07040.037.0300
3/8-24X3.1/4*	10	U07040.037.0325
3/8-24X3.1/2*	10	U07040.037.0350
3/8-24X3.3/4*	10	U07040.037.0375
3/8-24X4 Inch*	10	U07040.037.0400
3/8-24X4.1/2*	10	U07040.037.0450
3/8-24X5 Inch*	10	U07040.037.0500
3/8-24X5.1/2*	10	U07040.037.0550
3/8-24X6 Inch*	10	U07040.037.0600
7/16-20X1/2 ft*	25	U07040.043.0050
7/16-20X5/8 ft*	25	U07040.043.0062
7/16-20X3/4 ft*	25	U07040.043.0075
7/16-20X7/8 ft*	25	U07040.043.0087
7/16-20X1 Inch ft*	25	U07040.043.0100
7/16-20X1.1/4 ft*	25	U07040.043.0125
7/16-20X1.1/2*	25	U07040.043.0150
7/16-20X1.3/4*	10	U07040.043.0175
7/16-20X2 Inch*	10	U07040.043.0200
7/16-20X2.1/4*	10	U07040.043.0225
7/16-20X2.1/2*	10	U07040.043.0250
7/16-20X3 Inch*	10	U07040.043.0300
7/16-20X3.1/2*	5	U07040.043.0350
7/16-20X4 Inch*	5	U07040.043.0400
7/16-20X5 Inch*	5	U07040.043.0500
7/16-20X6 Inch*	5	U07040.043.0600
1/2-20X1/2 ft*	10	U07040.050.0050
1/2-20X5/8 ft*	10	U07040.050.0062
1/2-20X3/4 ft*	10	U07040.050.0075
1/2-20X7/8 ft*	10	U07040.050.0087
1/2-20X1 Inch ft*	10	U07040.050.0100
1/2-20X1.1/8 ft*	10	U07040.050.0112
1/2-20X1.1/4 ft*	10	U07040.050.0125
1/2-20X1.3/8 ft*	10	U07040.050.0137
1/2-20X1.1/2 ft*	10	U07040.050.0150
1/2-20X1.3/4*	10	U07040.050.0175
1/2-20X2 Inch*	10	U07040.050.0200
1/2-20X2.1/4*	10	U07040.050.0225
1/2-20X2.1/2*	10	U07040.050.0250
1/2-20X2.3/4*	10	U07040.050.0275
1/2-20X3 Inch*	5	U07040.050.0300
1/2-20X3.1/4*	5	U07040.050.0325
1/2-20X3.1/2*	5	U07040.050.0350
1/2-20X3.3/4*	5	U07040.050.0375
1/2-20X4 Inch*	5	U07040.050.0400
1/2-20X4.1/2*	5	U07040.050.0450
1/2-20X5 Inch*	5	U07040.050.0500
1/2-20X5.1/2*	5	U07040.050.0550
1/2-20X6 Inch*	5	U07040.050.0600
1/2-20X7 Inch*	5	U07040.050.0700
1/2-20X8 Inch*	5	U07040.050.0800
9/16-18X1 Inch ft*	10	U07040.056.0100
9/16-18X1.1/4 ft*	10	U07040.056.0125
9/16-18X1.1/2 ft*	10	U07040.056.0150
9/16-18X1.3/4*	10	U07040.056.0175
9/16-18X2 Inch*	5	U07040.056.0200
9/16-18X2.1/4*	5	U07040.056.0225
9/16-18X2.1/2*	5	U07040.056.0250
9/16-18X3 Inch*	5	U07040.056.0300
9/16-18X4 Inch*	5	U07040.056.0400
9/16-18X4.1/2*	5	U07040.056.0450
9/16-18X5 Inch*	5	U07040.056.0500

2

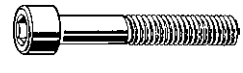
U07040 Parafuso cabeça cilindrica sextavado interior serie UNF 1936

d x L		Ref. do artigo	d x L		Ref. do artigo	d x L		Ref. do artigo
9/16-18X5.1/2*	5	U07040.056.0550	3/4-16X6.1/2*	1	U07040.075.0650	1.1/4-12X2 Inch ft*	1	U07040.125.0200
9/16-18X6 Inch*	5	U07040.056.0600	3/4-16X7 Inch*	1	U07040.075.0700	1.1/4-12X2.1/2 ft*	1	U07040.125.0250
			3/4-16X8 Inch*	1	U07040.075.0800	1.1/4-12X3 Inch ft*	1	U07040.125.0300
5/8-18X1 Inch ft*	10	U07040.062.0100				1.1/4-12X3.1/2*	1	U07040.125.0350
5/8-18X1.1/4 ft*	10	U07040.062.0125	7/8-14X2 Inch ft*	5	U07040.087.0200	1.1/4-12X4 Inch*	1	U07040.125.0400
5/8-18X1.1/2 ft*	10	U07040.062.0150	7/8-14X2.1/4 ft*	5	U07040.087.0225	1.1/4-12X4.1/2*	1	U07040.125.0450
5/8-18X1.3/4 ft*	10	U07040.062.0175	7/8-14X2.1/2*	5	U07040.087.0250	1.1/4-12X5 Inch*	1	U07040.125.0500
5/8-18X2 Inch*	5	U07040.062.0200	7/8-14X2.3/4*	5	U07040.087.0275	1.1/4-12X5.1/2*	1	U07040.125.0550
5/8-18X2.1/4*	5	U07040.062.0225	7/8-14X3 Inch*	5	U07040.087.0300	1.1/4-12X6 Inch*	1	U07040.125.0600
5/8-18X2.1/2*	5	U07040.062.0250	7/8-14X3.1/4*	5	U07040.087.0325	1.1/4-12X7 Inch*	1	U07040.125.0700
5/8-18X2.3/4*	5	U07040.062.0275	7/8-14X3.1/2*	5	U07040.087.0350	1.1/4-12X8 Inch*	1	U07040.125.0800
5/8-18X3 Inch*	5	U07040.062.0300	7/8-14X4 Inch*	5	U07040.087.0400	1.1/4-12X9 Inch*	1	U07040.125.0900
5/8-18X3.1/4*	5	U07040.062.0325	7/8-14X4.1/2*	5	U07040.087.0450	1.1/4-12X10 Inch*	1	U07040.125.1000
5/8-18X3.1/2*	5	U07040.062.0350	7/8-14X5 Inch*	5	U07040.087.0500	1.1/4-12X12 Inch*	1	U07040.125.1200
5/8-18X4 Inch*	5	U07040.062.0400	7/8-14X6 Inch*	1	U07040.087.0600			
5/8-18X4.1/2*	5	U07040.062.0450	7/8-14X7 Inch*	1	U07040.087.0700	1.3/8-12X3 Inch ft*	1	U07040.137.0300
5/8-18X5 Inch*	5	U07040.062.0500	7/8-14X8 Inch*	1	U07040.087.0800	1.3/8-12X3.1/2*	1	U07040.137.0350
5/8-18X5.1/2*	5	U07040.062.0550				1.3/8-12X4 Inch*	1	U07040.137.0400
5/8-18X6 Inch*	5	U07040.062.0600	1.-14X2 Inch*	5	U07040.101.0200	1.3/8-12X4.1/2*	1	U07040.137.0450
5/8-18X6.1/2*	5	U07040.062.0650	1.-14X2.1/4*	5	U07040.101.0225	1.3/8-12X5 Inch*	1	U07040.137.0500
5/8-18X7 Inch*	5	U07040.062.0700	1.-14X2.1/2*	5	U07040.101.0250	1.3/8-12X5.1/2*	1	U07040.137.0550
5/8-18X8 Inch*	5	U07040.062.0800	1.-14X3 Inch*	5	U07040.101.0300	1.3/8-12X6 Inch*	1	U07040.137.0600
			1.-14X3.1/2*	5	U07040.101.0350	1.3/8-12X7 Inch*	1	U07040.137.0700
3/4-16X1.1/4 ft*	5	U07040.075.0125	1.-14X4 Inch*	5	U07040.101.0400	1.3/8-12X8 Inch*	1	U07040.137.0800
3/4-16X1.1/2 ft*	5	U07040.075.0150	1.-14X4.1/2*	5	U07040.101.0450	1.3/8-12X10 Inch*	1	U07040.137.1000
3/4-16X1.3/4 ft*	5	U07040.075.0175	1.-14X5 Inch*	5	U07040.101.0500			
3/4-16X2 Inch ft*	5	U07040.075.0200	1.-14X6 Inch*	1	U07040.101.0600	1.1/2-12X3 Inch ft*	1	U07040.150.0300
3/4-16X2.1/4*	5	U07040.075.0225	1.-14X7 Inch*	1	U07040.101.0700	1.1/2-12X3.1/2 ft*	1	U07040.150.0350
3/4-16X2.1/2*	5	U07040.075.0250				1.1/2-12X4 Inch*	1	U07040.150.0400
3/4-16X2.3/4*	5	U07040.075.0275	1.1/8-12X3 Inch*	1	U07040.112.0300	1.1/2-12X4.1/2*	1	U07040.150.0450
3/4-16X3 Inch*	5	U07040.075.0300	1.1/8-12X3.1/2*	1	U07040.112.0350	1.1/2-12X5 Inch*	1	U07040.150.0500
3/4-16X3.1/4*	5	U07040.075.0325	1.1/8-12X4 Inch*	1	U07040.112.0400	1.1/2-12X5.1/2*	1	U07040.150.0550
3/4-16X3.1/2*	5	U07040.075.0350	1.1/8-12X4.1/2*	1	U07040.112.0450	1.1/2-12X6 Inch*	1	U07040.150.0600
3/4-16X4 Inch*	5	U07040.075.0400	1.1/8-12X5 Inch*	1	U07040.112.0500	1.1/2-12X7 Inch*	1	U07040.150.0700
3/4-16X4.1/2*	5	U07040.075.0450	1.1/8-12X6 Inch*	1	U07040.112.0600	1.1/2-12X8 Inch*	1	U07040.150.0800
3/4-16X5 Inch*	5	U07040.075.0500	1.1/8-12X7 Inch*	1	U07040.112.0700	1.1/2-12X10 Inch*	1	U07040.150.1000
3/4-16X5.1/2*	5	U07040.075.0550	1.1/8-12X8 Inch*	1	U07040.112.0800	1.1/2-12X12 Inch*	1	U07040.150.1200
3/4-16X6 Inch*	5	U07040.075.0600						

- ft = rosca total métrico

07250 Parafuso cabeça cilindrica sextavado interior serie UNF 1936 X05A

Rosca Unified National Fine
Material Aço
Classe 12.9
Tratamento sup. Zincagem mecânica

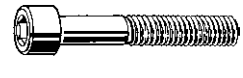


d x L		Ref. do artigo	d x L		Ref. do artigo	d x L		Ref. do artigo
5/16-24X7/8 ft	100	07250.079.022	3/8-24X1.1/2	100	07250.096.038	1/2-20X1.3/4	50	07250.127.044
5/16-24X1 Inch ft	100	07250.079.025						
			1/2-20X5/8 ft	50	07250.127.015	5/8-18X1.1/2 ft	25	07250.158.038
3/8-24X1 Inch ft	100	07250.096.025	1/2-20X1.1/2 ft	50	07250.127.038			

- ft = rosca total métrico

U51041 Parafuso cabeça cilindrica sextavado interior serie UNF 1936 X15A

Rosca Unified National Fine
Material Aço inoxidável A2 (AISI 304/18-8)
Classe F837B



d x L		Ref. do artigo	d x L		Ref. do artigo	d x L		Ref. do artigo
NO.0-80X1/8 ft*	100	U51041.006.0012	NO.1-72X5/16 ft*	100	U51041.007.0031	NO.2-64X3/4*	100	U51041.008.0075
NO.0-80X3/16 ft*	100	U51041.006.0018	NO.1-72X3/8 ft*	100	U51041.007.0037	NO.2-64X1 Inch*	100	U51041.008.0100
NO.0-80X1/4 ft*	100	U51041.006.0025	NO.1-72X1/2 ft*	100	U51041.007.0050			
NO.0-80X5/16 ft*	100	U51041.006.0031	NO.1-72X5/8 ft*	100	U51041.007.0062	NO.3-56X3/16 ft*	100	U51041.009.0018
NO.0-80X3/8 ft*	100	U51041.006.0037	NO.1-72X3/4*	100	U51041.007.0075	NO.3-56X1/4 ft*	100	U51041.009.0025
NO.0-80X1/2 ft*	100	U51041.006.0050	NO.1-72X1 Inch*	100	U51041.007.0100	NO.3-56X5/16 ft*	100	U51041.009.0031
NO.0-80X5/8*	100	U51041.006.0062				NO.3-56X3/8 ft*	100	U51041.009.0037
NO.0-80X3/4*	100	U51041.006.0075	NO.2-64X3/16 ft*	100	U51041.008.0018	NO.3-56X1/2 ft*	100	U51041.009.0050
NO.0-80X1 Inch*	100	U51041.006.0100	NO.2-64X1/4 ft*	100	U51041.008.0025	NO.3-56X5/8 ft*	100	U51041.009.0062
			NO.2-64X5/16 ft*	100	U51041.008.0031	NO.3-56X3/4*	100	U51041.009.0075
NO.1-72X1/8 ft*	100	U51041.007.0012	NO.2-64X3/8 ft*	100	U51041.008.0037	NO.3-56X1 Inch*	100	U51041.009.0100
NO.1-72X3/16 ft*	100	U51041.007.0018	NO.2-64X1/2 ft*	100	U51041.008.0050			
NO.1-72X1/4 ft*	100	U51041.007.0025	NO.2-64X5/8 ft*	100	U51041.008.0062	NO.4-48X3/16 ft*	100	U51041.011.0018

U51041 Parafuso cabeça cilindrica sextavado interior serie UNF 1936 ←

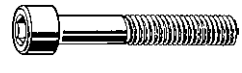
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.4-48X1/4 ft*	100	U51041.011.0025	NO.10-32X1.1/8*	100	U51041.019.0112	5/16-24X3.1/2*	25	U51041.031.0350
NO.4-48X5/16 ft*	100	U51041.011.0031	NO.10-32X1.1/4*	100	U51041.019.0125	5/16-24X4 Inch*	10	U51041.031.0400
NO.4-48X3/8 ft*	100	U51041.011.0037	NO.10-32X1.3/8*	100	U51041.019.0137			
NO.4-48X1/2 ft*	100	U51041.011.0050	NO.10-32X1.1/2*	100	U51041.019.0150	3/8-24X1/2 ft*	50	U51041.037.0050
NO.4-48X5/8 ft*	100	U51041.011.0062	NO.10-32X1.3/4*	100	U51041.019.0175	3/8-24X5/8 ft*	50	U51041.037.0062
NO.4-48X3/4 ft*	100	U51041.011.0075	NO.10-32X2 Inch*	100	U51041.019.0200	3/8-24X3/4 ft*	50	U51041.037.0075
NO.4-48X1 Inch*	100	U51041.011.0100	NO.10-32X2.1/4*	100	U51041.019.0225	3/8-24X7/8 ft*	50	U51041.037.0087
			NO.10-32X2.1/2*	100	U51041.019.0250	3/8-24X1 Inch ft*	50	U51041.037.0100
NO.5-44X3/16 ft*	100	U51041.012.0018	NO.10-32X2.3/4*	100	U51041.019.0275	3/8-24X1.1/4 ft*	50	U51041.037.0125
NO.5-44X1/4 ft*	100	U51041.012.0025	NO.10-32X3 Inch*	100	U51041.019.0300	3/8-24X1.1/2*	25	U51041.037.0150
NO.5-44X5/16 ft*	100	U51041.012.0031	NO.10-32X3.1/4*	100	U51041.019.0325	3/8-24X1.3/4*	25	U51041.037.0175
NO.5-44X3/8 ft*	100	U51041.012.0037	NO.10-32X3.1/2*	100	U51041.019.0350	3/8-24X2 Inch*	25	U51041.037.0200
NO.5-44X1/2 ft*	100	U51041.012.0050	NO.10-32X4 Inch*	100	U51041.019.0400	3/8-24X2.1/4*	25	U51041.037.0225
NO.5-44X5/8 ft*	100	U51041.012.0062				3/8-24X2.1/2*	25	U51041.037.0250
NO.5-44X3/4 ft*	100	U51041.012.0075	1/4-28X3/8 ft*	100	U51041.025.0037	3/8-24X2.3/4*	25	U51041.037.0275
NO.5-44X1 Inch*	100	U51041.012.0100	1/4-28X7/16 ft*	100	U51041.025.0043	3/8-24X3 Inch*	10	U51041.037.0300
			1/4-28X1/2 ft*	100	U51041.025.0050	3/8-24X3.1/2*	10	U51041.037.0350
NO.6-40X3/16 ft*	100	U51041.013.0018	1/4-28X5/8 ft*	100	U51041.025.0062	3/8-24X4 Inch*	10	U51041.037.0400
NO.6-40X1/4 ft*	100	U51041.013.0025	1/4-28X3/4 ft*	100	U51041.025.0075	3/8-24X4.1/2*	10	U51041.037.0450
NO.6-40X5/16 ft*	100	U51041.013.0031	1/4-28X7/8 ft*	100	U51041.025.0087	3/8-24X5 Inch*	10	U51041.037.0500
NO.6-40X3/8 ft*	100	U51041.013.0037	1/4-28X1 Inch ft*	100	U51041.025.0100	3/8-24X6 Inch*	10	U51041.037.0600
NO.6-40X1/2 ft*	100	U51041.013.0050	1/4-28X1.1/8*	100	U51041.025.0112			
NO.6-40X5/8 ft*	100	U51041.013.0062	1/4-28X1.1/4*	100	U51041.025.0125	7/16-20X1 Inch ft*	25	U51041.043.0100
NO.6-40X3/4 ft*	100	U51041.013.0075	1/4-28X1.1/2*	100	U51041.025.0150	7/16-20X1.1/4 ft*	25	U51041.043.0125
NO.6-40X1 Inch*	100	U51041.013.0100	1/4-28X1.3/4*	100	U51041.025.0175	7/16-20X1.1/2*	25	U51041.043.0150
NO.6-40X1.1/4*	100	U51041.013.0125	1/4-28X2 Inch*	50	U51041.025.0200	7/16-20X2 Inch*	10	U51041.043.0200
			1/4-28X2.1/4*	50	U51041.025.0225			
NO.8-36X1/4 ft*	100	U51041.016.0025	1/4-28X2.1/2*	50	U51041.025.0250	1/2-20X3/4 ft*	10	U51041.050.0075
NO.8-36X3/8 ft*	100	U51041.016.0037	1/4-28X3 Inch*	25	U51041.025.0300	1/2-20X1 Inch ft*	10	U51041.050.0100
NO.8-36X1/2 ft*	100	U51041.016.0050	1/4-28X3.1/2*	25	U51041.025.0350	1/2-20X1.1/4 ft*	10	U51041.050.0125
NO.8-36X5/8 ft*	100	U51041.016.0062	1/4-28X4 Inch*	25	U51041.025.0400	1/2-20X1.1/2 ft*	10	U51041.050.0150
NO.8-36X3/4 ft*	100	U51041.016.0075				1/2-20X1.3/4*	10	U51041.050.0175
NO.8-36X7/8 ft*	100	U51041.016.0087	5/16-24X3/8 ft*	100	U51041.031.0037	1/2-20X2 Inch*	10	U51041.050.0200
NO.8-36X1 Inch*	100	U51041.016.0100	5/16-24X1/2 ft*	100	U51041.031.0050	1/2-20X2.1/4*	10	U51041.050.0225
NO.8-36X1.1/4*	100	U51041.016.0125	5/16-24X5/8 ft*	100	U51041.031.0062	1/2-20X2.1/2*	10	U51041.050.0250
			5/16-24X3/4 ft*	100	U51041.031.0075	1/2-20X3 Inch*	5	U51041.050.0300
NO.10-32X3/16 ft*	100	U51041.019.0018	5/16-24X7/8 ft*	100	U51041.031.0087	1/2-20X3.1/2*	5	U51041.050.0350
NO.10-32X1/4 ft*	100	U51041.019.0025	5/16-24X1 Inch ft*	50	U51041.031.0100	1/2-20X4 Inch*	5	U51041.050.0400
NO.10-32X5/16 ft*	100	U51041.019.0031	5/16-24X1.1/4*	50	U51041.031.0125	1/2-20X4.1/2*	5	U51041.050.0450
NO.10-32X3/8 ft*	100	U51041.019.0037	5/16-24X1.1/2*	50	U51041.031.0150	1/2-20X5 Inch*	5	U51041.050.0500
NO.10-32X7/16 ft*	100	U51041.019.0043	5/16-24X1.3/4*	50	U51041.031.0175	1/2-20X6 Inch*	5	U51041.050.0600
NO.10-32X1/2 ft*	100	U51041.019.0050	5/16-24X2 Inch*	50	U51041.031.0200			
NO.10-32X5/8 ft*	100	U51041.019.0062	5/16-24X2.1/4*	25	U51041.031.0225	5/8-18X1.1/2 ft*	10	U51041.062.0150
NO.10-32X3/4 ft*	100	U51041.019.0075	5/16-24X2.1/2*	25	U51041.031.0250	5/8-18X1.3/4 ft*	10	U51041.062.0175
NO.10-32X7/8 ft*	100	U51041.019.0087	5/16-24X2.3/4*	25	U51041.031.0275	5/8-18X2 Inch*	5	U51041.062.0200
NO.10-32X1 Inch*	100	U51041.019.0100	5/16-24X3 Inch*	25	U51041.031.0300			

- ft = rosca total métrico

U55041 Parafuso cabeça cilindrica sextavado interior serie UNF 1936 X15A

Rosca Unified National Fine
Material Aço inoxidável A4 (AISI 316/18-10)
Classe F837E

RoHS

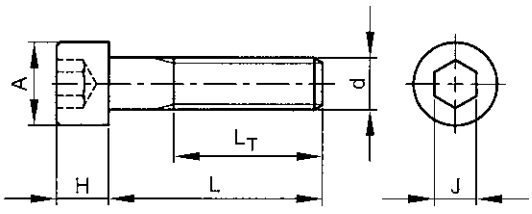


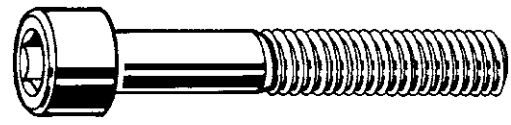
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.10-32X1/4 ft*	100	U55041.019.0025	NO.10-32X1.1/4*	100	U55041.019.0125			
NO.10-32X3/8 ft*	100	U55041.019.0037	NO.10-32X1.1/2*	100	U55041.019.0150	5/16-24X3/4 ft*	100	U55041.031.0075
NO.10-32X1/2 ft*	100	U55041.019.0050	NO.10-32X2 Inch*	100	U55041.019.0200	5/16-24X1 Inch ft*	50	U55041.031.0100
NO.10-32X5/8 ft*	100	U55041.019.0062						
NO.10-32X3/4 ft*	100	U55041.019.0075	1/4-28X1/2 ft*	100	U55041.025.0050	3/8-24X3/4 ft*	50	U55041.037.0075
NO.10-32X7/8 ft*	100	U55041.019.0087	1/4-28X3/4 ft*	100	U55041.025.0075	3/8-24X1 Inch ft*	50	U55041.037.0100
NO.10-32X1 Inch*	100	U55041.019.0100	1/4-28X1 Inch ft*	100	U55041.025.0100			

- ft = rosca total métrico

Parafuso cabeça cilindrica sextavado interior BSW

BS **≈2470**





Dados técnicos

d	A	Fios por polegada	H	J	L_T (min.)
1/2	19	12	12.7	3/8	38

- A rosca whitworth (BSW/BSF) não é internacionalmente recomendada. É aconselhado o uso de rosca métrica(M/MF) ou roscas unificadas (UNC/UNF). Dependendo da disponibilidade as dimensões podem variar.
- Dependendo da disponibilidade pode ser fornecido classe 10.9.
- A marcação destes parafusos não é obrigatória.

07200 **Parafuso cabeça cilindrica sextavado interior BSW** **X08A**

Rosca British Standard Whitworth
Material Aço
Classe 12.9

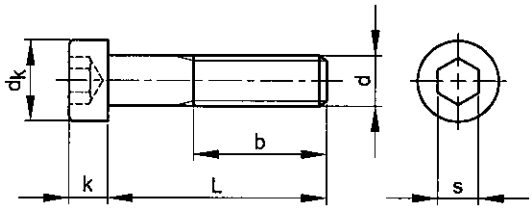


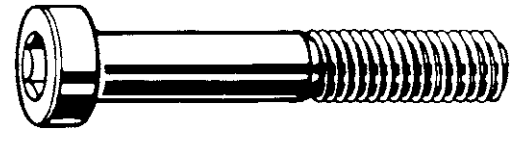
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/2X3/4	50	07200.127.020	1/2X2 Inch	50	07200.127.050	1/2X3.1/4	25	07200.127.080
1/2X1 Inch	50	07200.127.025	1/2X2.1/4	25	07200.127.060	1/2X3.1/2	25	07200.127.090
1/2X1.1/4	50	07200.127.030	1/2X2.1/2	25	07200.127.065	1/2X4 Inch	25	07200.127.100
1/2X1.1/2	50	07200.127.040	1/2X2.3/4	25	07200.127.070	1/2X4.1/2	25	07200.127.110
1/2X1.3/4	50	07200.127.045	1/2X3 Inch	25	07200.127.075			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Parafuso cabeça cilindrica baixa sextavado interior

DIN **7984**
NEN 1601





Dados técnicos

d	b (min.)	d_k	k	P	Rosca total C ≤	s
M3	12	5.5	2	0.5	18	2
M4	14	7	2.8	0.7	20	2.5
M5	16	8.5	3.5	0.8	25	3
M6	18	10	4	1	25	4
M8	22	13	5	1.25	30	5
M10	26	16	6	1.5	35	7
M12	30	18	7	1.75	45	8
M16	38	24	9	2	55	12
M20	46	30	11	2.5	60	14
M24	54	36	13	3	80	17

- Devido á desfavorável geometria da cabeça, estes parafusos têm uma capacidade de carga reduzida.
- Quando os parafusos de aço (por ex. 8.8 / 10.9 / 12.9) têm uma capacidade de carga reduzida, a marcação '0' precede a marcação da classe aço, por exemplo 8.8 → 08.8 e 10.9 → 010.9 e 12.9 → 012.9.
- Nos parafusos de aço inox, fica a marcação do aço e remove-se a classe da propriedade 70 (por ex. A2-70 → A2).
- As antigas e as novas indicações podem coexistir durante um determinado periodo de tempo.

Grupos de produtos

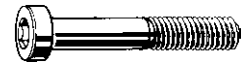
Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado interior	Aço	08.8		07080	2-33
M	Sextavado interior	Aço	08.8	Zn	07090	2-33
M	Sextavado interior	Aço	010.9		07105	2-34

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado interior	INOX A2			51040	2-34
M	Sextavado interior	INOX A4			55040	2-35

07080 Parafuso cabeça cilindrica baixa sextavado interior — D03A

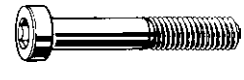
Rosca Métrica
Material Aço
Classe 08.8



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X6	200	07080.040.006				M12X60	100	07080.120.060
M4X8	200	07080.040.008	M8X12	200	07080.080.012	M12X70	50	07080.120.070
M4X10	200	07080.040.010	M8X16	200	07080.080.016	M12X80	50	07080.120.080
M4X12	200	07080.040.012	M8X18	200	07080.080.018	M12X100	50	07080.120.100
M4X16	200	07080.040.016	M8X20	200	07080.080.020			
M4X20	200	07080.040.020	M8X22	200	07080.080.022	M16X25	50	07080.160.025
M4X25	200	07080.040.025	M8X25	200	07080.080.025	M16X30	50	07080.160.030
M4X30	200	07080.040.030	M8X30	200	07080.080.030	M16X35	50	07080.160.035
			M8X35	200	07080.080.035	M16X40	50	07080.160.040
M5X8	200	07080.050.008	M8X40	200	07080.080.040	M16X45	50	07080.160.045
M5X10	200	07080.050.010	M8X45	200	07080.080.045	M16X50	50	07080.160.050
M5X12	200	07080.050.012	M8X50	200	07080.080.050	M16X55	50	07080.160.055
M5X16	200	07080.050.016	M8X60	200	07080.080.060	M16X60	50	07080.160.060
M5X18	200	07080.050.018	M8X70	200	07080.080.070	M16X70	25	07080.160.070
M5X20	200	07080.050.020				M16X80	25	07080.160.080
M5X22	200	07080.050.022	M10X16	200	07080.100.016	M16X90	25	07080.160.090
M5X25	200	07080.050.025	M10X20	200	07080.100.020	M16X100	25	07080.160.100
M5X30	200	07080.050.030	M10X22	200	07080.100.022	M16X120	50	07080.160.120
M5X35	200	07080.050.035	M10X25	200	07080.100.025			
M5X40	200	07080.050.040	M10X30	200	07080.100.030	M20X30	25	07080.200.030
M5X50	200	07080.050.050	M10X35	100	07080.100.035	M20X35	25	07080.200.035
			M10X40	100	07080.100.040	M20X40	25	07080.200.040
M6X8	200	07080.060.008	M10X45	100	07080.100.045	M20X50	25	07080.200.050
M6X10	200	07080.060.010	M10X50	100	07080.100.050	M20X60	25	07080.200.060
M6X12	200	07080.060.012	M10X60	100	07080.100.060	M20X70	25	07080.200.070
M6X16	200	07080.060.016	M10X70	100	07080.100.070	M20X80	25	07080.200.080
M6X18	200	07080.060.018	M10X80	100	07080.100.080	M20X90	25	07080.200.090
M6X20	200	07080.060.020						
M6X22	200	07080.060.022	M12X20	100	07080.120.020	M24X40	25	07080.240.040
M6X25	200	07080.060.025	M12X25	100	07080.120.025	M24X45	25	07080.240.045
M6X30	200	07080.060.030	M12X30	100	07080.120.030	M24X50	25	07080.240.050
M6X35	200	07080.060.035	M12X35	100	07080.120.035	M24X60	25	07080.240.060
M6X40	200	07080.060.040	M12X40	100	07080.120.040	M24X80	25	07080.240.080
M6X45	200	07080.060.045	M12X45	100	07080.120.045	M24X90	25	07080.240.090
M6X50	200	07080.060.050	M12X50	100	07080.120.050	M24X100	25	07080.240.100
M6X60	200	07080.060.060						

07090 Parafuso cabeça cilindrica baixa sextavado interior — D03A

Rosca Métrica
Material Aço
Classe 08.8
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X6	200	07090.040.006	M6X30	200	07090.060.030	M10X25	200	07090.100.025
M4X8	200	07090.040.008	M6X35	200	07090.060.035	M10X30	200	07090.100.030
M4X10	200	07090.040.010	M6X40	200	07090.060.040	M10X35	100	07090.100.035
M4X12	200	07090.040.012	M6X45	200	07090.060.045	M10X40	100	07090.100.040
M4X16	200	07090.040.016	M6X50	200	07090.060.050	M10X50	100	07090.100.050
M4X20	200	07090.040.020				M10X60	100	07090.100.060
			M8X10	200	07090.080.010			
M5X8	200	07090.050.008	M8X12	200	07090.080.012	M12X20	100	07090.120.020
M5X10	200	07090.050.010	M8X16	200	07090.080.016	M12X25	100	07090.120.025
M5X12	200	07090.050.012	M8X20	200	07090.080.020	M12X30	100	07090.120.030
M5X16	200	07090.050.016	M8X25	200	07090.080.025	M12X35	100	07090.120.035
M5X20	200	07090.050.020	M8X30	200	07090.080.030	M12X40	100	07090.120.040
M5X25	200	07090.050.025	M8X35	200	07090.080.035	M12X45	100	07090.120.045
M5X30	200	07090.050.030	M8X40	200	07090.080.040	M12X50	100	07090.120.050
			M8X45	200	07090.080.045	M12X60	100	07090.120.060
M6X10	200	07090.060.010	M8X50	200	07090.080.050	M12X80	50	07090.120.080
M6X12	200	07090.060.012	M8X60	200	07090.080.060			
M6X16	200	07090.060.016				M16X25	50	07090.160.025
M6X20	200	07090.060.020	M10X16	200	07090.100.016	M16X30	50	07090.160.030
M6X25	200	07090.060.025	M10X20	200	07090.100.020	M16X35	50	07090.160.035

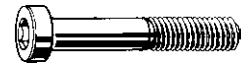
2

07090 Parafuso cabeça cilindrica baixa sextavado interior D03A

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M16X40	50	07090.160.040	M16X80	25	07090.160.080	M20X60	25	07090.200.060
M16X50	50	07090.160.050				M20X70	25	07090.200.070
M16X60	50	07090.160.060	M20X40	25	07090.200.040	M20X80	25	07090.200.080
M16X70	25	07090.160.070	M20X50	25	07090.200.050			

07105 Parafuso cabeça cilindrica baixa sextavado interior D03A

Rosca Métrica
Material Aço
Classe 010.9

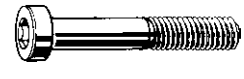


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X8	200	07105.040.008	M8X12	200	07105.080.012	M12X45	100	07105.120.045
M4X10	200	07105.040.010	M8X16	200	07105.080.016	M12X50	50	07105.120.050
M4X12	200	07105.040.012	M8X20	200	07105.080.020	M12X60	50	07105.120.060
M4X16	200	07105.040.016	M8X25	200	07105.080.025			
M4X20	200	07105.040.020	M8X30	200	07105.080.030	M16X30	25	07105.160.030
			M8X35	200	07105.080.035	M16X40	25	07105.160.040
M5X10	200	07105.050.010	M8X40	200	07105.080.040	M16X45	25	07105.160.045
M5X12	200	07105.050.012	M8X50	200	07105.080.050	M16X50	25	07105.160.050
M5X16	200	07105.050.016				M16X60	25	07105.160.060
M5X20	200	07105.050.020	M10X16	200	07105.100.016	M16X70	25	07105.160.070
M5X25	200	07105.050.025	M10X20	200	07105.100.020	M16X80	25	07105.160.080
			M10X25	200	07105.100.025			
M6X10	200	07105.060.010	M10X30	200	07105.100.030	M20X30	25	07105.200.030
M6X12	200	07105.060.012	M10X35	100	07105.100.035	M20X40	25	07105.200.040
M6X16	200	07105.060.016	M10X40	100	07105.100.040	M20X50	25	07105.200.050
M6X20	200	07105.060.020	M10X50	100	07105.100.050	M20X60	25	07105.200.060
M6X25	200	07105.060.025				M20X70	25	07105.200.070
M6X30	200	07105.060.030	M12X20	100	07105.120.020	M20X80	25	07105.200.080
M6X35	200	07105.060.035	M12X25	100	07105.120.025	M20X90	25	07105.200.090
M6X40	200	07105.060.040	M12X30	100	07105.120.030	M20X100	25	07105.200.100
			M12X35	100	07105.120.035	M20X110	25	07105.200.110
M8X10	200	07105.080.010	M12X40	100	07105.120.040			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

51040 Parafuso cabeça cilindrica baixa sextavado interior Q05A

Rosca Métrica
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X3*	1000	51040.030.003	M4X25*	500	51040.040.025			
M3X4*	1000	51040.030.004	M4X30	200	51040.040.030	M6X6*	500	51040.060.006
M3X5*	1000	51040.030.005	M4X35*	200	51040.040.035	M6X8	500	51040.060.008
M3X6*	1000	51040.030.006	M4X40*	200	51040.040.040	M6X10	200	51040.060.010
M3X8	1000	51040.030.008	M4X45*	200	51040.040.045	M6X12	200	51040.060.012
M3X10	1000	51040.030.010	M4X50*	200	51040.040.050	M6X14*	200	51040.060.014
M3X12	1000	51040.030.012	M4X55*	200	51040.040.055	M6X16	200	51040.060.016
M3X14*	1000	51040.030.014	M4X60*	100	51040.040.060	M6X18*	200	51040.060.018
M3X16*	1000	51040.030.016				M6X20	200	51040.060.020
M3X18*	1000	51040.030.018	M5X5*	500	51040.050.005	M6X22*	200	51040.060.022
M3X20*	1000	51040.030.020	M5X6*	500	51040.050.006	M6X25	100	51040.060.025
M3X22*	1000	51040.030.022	M5X8	200	51040.050.008	M6X30	100	51040.060.030
M3X25*	1000	51040.030.025	M5X10	200	51040.050.010	M6X35	100	51040.060.035
M3X30*	1000	51040.030.030	M5X12	200	51040.050.012	M6X40	100	51040.060.040
M3X35*	500	51040.030.035	M5X14	500	51040.050.014	M6X45	100	51040.060.045
M3X40*	500	51040.030.040	M5X16	200	51040.050.016	M6X50	100	51040.060.050
M3X45*	500	51040.030.045	M5X18*	500	51040.050.018	M6X55*	100	51040.060.055
M3X50*	200	51040.030.050	M5X20	200	51040.050.020	M6X60*	100	51040.060.060
			M5X22*	500	51040.050.022	M6X65*	100	51040.060.065
M4X4*	1000	51040.040.004	M5X25	200	51040.050.025	M6X70*	100	51040.060.070
M4X5*	1000	51040.040.005	M5X30	200	51040.050.030	M6X75*	100	51040.060.075
M4X6	200	51040.040.006	M5X35*	200	51040.050.035	M6X80*	100	51040.060.080
M4X8	200	51040.040.008	M5X40*	200	51040.050.040	M6X90*	100	51040.060.090
M4X10	200	51040.040.010	M5X45	200	51040.050.045	M6X100*	100	51040.060.100
M4X12	200	51040.040.012	M5X50	100	51040.050.050	M6X120*	100	51040.060.120
M4X14*	1000	51040.040.014	M5X60*	100	51040.050.060			
M4X16	200	51040.040.016	M5X65*	100	51040.050.065	M8X8*	500	51040.080.008
M4X18*	1000	51040.040.018	M5X70*	100	51040.050.070	M8X10*	500	51040.080.010
M4X20	200	51040.040.020	M5X75*	100	51040.050.075	M8X12	100	51040.080.012
M4X22*	500	51040.040.022	M5X80*	100	51040.050.080	M8X14*	200	51040.080.014

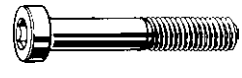
51040 Parafuso cabeça cilindrica baixa sextavado interior Q05A

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M8X16	100	51040.080.016	M10X40	50	51040.100.040	M12X120*	25	51040.120.120
M8X18*	200	51040.080.018	M10X45	50	51040.100.045			
M8X20	100	51040.080.020	M10X50	50	51040.100.050	M16X25*	25	51040.160.025
M8X22*	200	51040.080.022	M10X55*	50	51040.100.055	M16X30	10	51040.160.030
M8X25	100	51040.080.025	M10X60	25	51040.100.060	M16X35	10	51040.160.035
M8X30	100	51040.080.030	M10X65*	50	51040.100.065	M16X40*	25	51040.160.040
M8X35	100	51040.080.035	M10X70	25	51040.100.070	M16X45	10	51040.160.045
M8X40	100	51040.080.040	M10X80*	50	51040.100.080	M16X50	10	51040.160.050
M8X45	50	51040.080.045	M10X90*	50	51040.100.090	M16X55*	25	51040.160.055
M8X50	50	51040.080.050	M10X100*	50	51040.100.100	M16X60	10	51040.160.060
M8X55*	100	51040.080.055				M16X65*	25	51040.160.065
M8X60	50	51040.080.060	M12X16*	50	51040.120.016	M16X70*	25	51040.160.070
M8X65*	100	51040.080.065	M12X20	50	51040.120.020	M16X80	5	51040.160.080
M8X70*	100	51040.080.070	M12X22*	50	51040.120.022	M16X90*	25	51040.160.090
M8X75*	100	51040.080.075	M12X25	50	51040.120.025	M16X100	5	51040.160.100
M8X80*	100	51040.080.080	M12X30	50	51040.120.030	M16X150*	25	51040.160.150
M8X90*	100	51040.080.090	M12X35	50	51040.120.035			
M8X100*	50	51040.080.100	M12X40	25	51040.120.040	M20X30*	25	51040.200.030
M8X110*	50	51040.080.110	M12X45	25	51040.120.045	M20X35*	25	51040.200.035
M8X120*	50	51040.080.120	M12X50	25	51040.120.050	M20X40*	25	51040.200.040
			M12X55*	50	51040.120.055	M20X45*	25	51040.200.045
M10X16	100	51040.100.016	M12X60	25	51040.120.060	M20X50*	25	51040.200.050
M10X18*	100	51040.100.018	M12X65*	50	51040.120.065	M20X60	5	51040.200.060
M10X20	100	51040.100.020	M12X70	25	51040.120.070	M20X70*	25	51040.200.070
M10X22*	100	51040.100.022	M12X75*	25	51040.120.075	M20X80*	25	51040.200.080
M10X25	50	51040.100.025	M12X80	25	51040.120.080	M20X90*	25	51040.200.090
M10X30	50	51040.100.030	M12X90*	25	51040.120.090	M20X100*	25	51040.200.100
M10X35	50	51040.100.035	M12X100	25	51040.120.100	M20X110*	25	51040.200.110

55040 Parafuso cabeça cilindrica baixa sextavado interior Q45A

Rosca Métrica
Material Aço inoxidável A4

RoHS

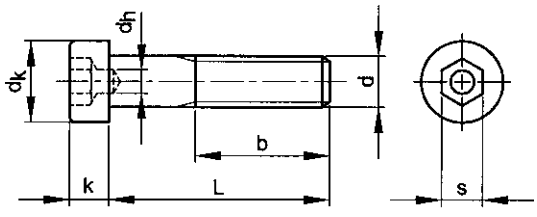


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X4*	1000	55040.030.004	M5X30*	200	55040.050.030	M8X40*	100	55040.080.040
M3X5*	1000	55040.030.005	M5X35*	200	55040.050.035	M8X45*	100	55040.080.045
M3X6*	1000	55040.030.006	M5X40*	200	55040.050.040	M8X50*	100	55040.080.050
M3X8*	1000	55040.030.008	M5X45*	200	55040.050.045	M8X55*	100	55040.080.055
M3X10*	1000	55040.030.010	M5X50*	200	55040.050.050	M8X60*	100	55040.080.060
M3X12*	1000	55040.030.012	M5X60*	100	55040.050.060	M8X65*	100	55040.080.065
M3X14*	1000	55040.030.014	M5X65*	100	55040.050.065	M8X70*	100	55040.080.070
M3X16*	1000	55040.030.016	M5X75*	100	55040.050.075	M8X80*	100	55040.080.080
M3X18*	1000	55040.030.018	M5X80*	100	55040.050.080	M8X90*	100	55040.080.090
M3X20*	1000	55040.030.020				M8X100*	50	55040.080.100
M3X22*	1000	55040.030.022	M6X8*	500	55040.060.008			
M3X25*	1000	55040.030.025	M6X10	500	55040.060.010	M10X16*	100	55040.100.016
M3X30*	1000	55040.030.030	M6X12*	500	55040.060.012	M10X18*	100	55040.100.018
M3X35*	500	55040.030.035	M6X14*	200	55040.060.014	M10X20*	100	55040.100.020
			M6X16*	200	55040.060.016	M10X22*	100	55040.100.022
M4X4*	1000	55040.040.004	M6X18*	200	55040.060.018	M10X25*	100	55040.100.025
M4X5*	1000	55040.040.005	M6X20*	200	55040.060.020	M10X30*	100	55040.100.030
M4X6*	1000	55040.040.006	M6X22*	200	55040.060.022	M10X35*	100	55040.100.035
M4X8*	1000	55040.040.008	M6X25*	200	55040.060.025	M10X40*	100	55040.100.040
M4X10*	1000	55040.040.010	M6X30*	200	55040.060.030	M10X45*	100	55040.100.045
M4X12*	1000	55040.040.012	M6X35*	200	55040.060.035	M10X50*	50	55040.100.050
M4X14*	1000	55040.040.014	M6X40*	200	55040.060.040	M10X55*	50	55040.100.055
M4X16*	1000	55040.040.016	M6X45*	100	55040.060.045	M10X60*	50	55040.100.060
M4X18*	1000	55040.040.018	M6X50*	100	55040.060.050	M10X65*	50	55040.100.065
M4X20*	500	55040.040.020	M6X55*	100	55040.060.055	M10X70*	50	55040.100.070
M4X22*	500	55040.040.022	M6X60*	100	55040.060.060	M10X75*	50	55040.100.075
M4X25*	500	55040.040.025	M6X65*	100	55040.060.065	M10X80*	50	55040.100.080
M4X30*	500	55040.040.030	M6X70*	100	55040.060.070	M10X100*	50	55040.100.100
M4X35*	200	55040.040.035	M6X80*	100	55040.060.080	M10X110*	50	55040.100.110
M4X40*	200	55040.040.040	M6X90*	100	55040.060.090			
M4X50*	200	55040.040.050	M6X100*	100	55040.060.100	M12X16*	50	55040.120.016
M4X60*	100	55040.040.060				M12X18*	50	55040.120.018
			M8X8*	500	55040.080.008	M12X20*	50	55040.120.020
M5X6*	500	55040.050.006	M8X10*	500	55040.080.010	M12X25*	50	55040.120.025
M5X8*	500	55040.050.008	M8X12*	500	55040.080.012	M12X30*	50	55040.120.030
M5X10*	500	55040.050.010	M8X14*	200	55040.080.014	M12X35*	50	55040.120.035
M5X12	500	55040.050.012	M8X16*	200	55040.080.016	M12X40*	50	55040.120.040
M5X14*	500	55040.050.014	M8X18*	200	55040.080.018	M12X45*	50	55040.120.045
M5X16*	500	55040.050.016	M8X22*	200	55040.080.022	M12X50*	50	55040.120.050
M5X18*	500	55040.050.018	M8X25*	100	55040.080.025	M12X55*	50	55040.120.055
M5X20*	500	55040.050.020	M8X30*	100	55040.080.030	M12X60*	50	55040.120.060
M5X25*	200	55040.050.025	M8X35*	100	55040.080.035	M12X65*	50	55040.120.065

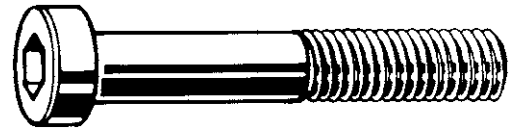
55040	Parafuso cabeça cilindrica baixa sextavado interior	Q45A

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M12X70*	50	55040.120.070	M16X45*	25	55040.160.045	M20X40*	25	55040.200.040
M12X80*	25	55040.120.080	M16X50*	25	55040.160.050	M20X45*	25	55040.200.045
M12X90*	25	55040.120.090	M16X55*	25	55040.160.055	M20X50*	25	55040.200.050
M12X100*	25	55040.120.100	M16X60*	25	55040.160.060	M20X55*	25	55040.200.055
M12X110*	25	55040.120.110	M16X65*	25	55040.160.065	M20X60*	25	55040.200.060
			M16X70*	25	55040.160.070	M20X65*	25	55040.200.065
M16X25*	25	55040.160.025	M16X80*	25	55040.160.080	M20X70*	25	55040.200.070
M16X30*	25	55040.160.030				M20X80*	25	55040.200.080
M16X35*	25	55040.160.035	M20X30*	25	55040.200.030	M20X90*	25	55040.200.090
M16X40*	25	55040.160.040	M20X35*	25	55040.200.035	M20X120*	25	55040.200.120

Parafuso cabeça cilindrica baixa sextavado interior com piloto



DIN 6912



Dados técnicos

d	b (min.): L≤125mm	b (min.): 125mm<L≤200mm	b (min.): L>200mm	d_h	d_k	k	P	Rosca total C ≤	s
M3 (≠DIN)	12	-	-	-	5.5	2	0.5	18	2
M4	14	-	-	2	7	2.8	0.7	16	3
M5	16	-	-	2.5	8.5	3.5	0.8	20	4
M6	18	-	-	3	10	4	1	25	5
M8	22	-	-	4	13	5	1.25	30	6
M10	26	32	-	5	16	6.5	1.5	35	8
M12	30	36	-	6	18	7.5	1.75	45	10
M16	38	44	57	8	24	10	2	50	14
M20	46	52	65	10	30	12	2.5	60	17
M24	54	60	73	12	36	14	3	80	19

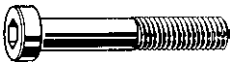
- Devido á desfavorável geometria da cabeça, estes parafusos têm uma capacidade de carga reduzida.
- Quando os parafusos de aço (por ex. 8.8 / 10.9 / 12.9) têm uma capacidade de carga reduzida, a marcação '0' precede a marcação da classe aço, por exemplo 8.8 → 08.8 e 10.9 → 010.9 e 12.9 → 012.9.
- Nos parafusos de aço inox, fica a marcação do aço e remove-se a classe da propriedade 70 (por ex. A2-70 → A2).
- As antigas e as novas indicações podem coexistir durante um determinado periodo de tempo.

Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
M	Sextavado interior	Aço	08.8	07030	2-36
M	Sextavado interior	INOX A2		51042	2-37
M	Sextavado interior	INOX A4		55042	2-38

07030	Parafuso cabeça cilindrica baixa sextavado interior com piloto	D03A

Rosca Métrica
Material Aço
Classe 08.8



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X8	200	07030.040.008	M6X12	200	07030.060.012	M8X40	200	07030.080.040
M4X10	200	07030.040.010	M6X16	200	07030.060.016	M8X45	200	07030.080.045
M4X12	200	07030.040.012	M6X20	200	07030.060.020	M8X50	200	07030.080.050
M4X16	200	07030.040.016	M6X25	200	07030.060.025	M8X60	200	07030.080.060
M4X20	200	07030.040.020	M6X30	200	07030.060.030			
M4X25	200	07030.040.025	M6X35	200	07030.060.035	M10X20	200	07030.100.020
			M6X40	200	07030.060.040	M10X22	200	07030.100.022
M5X10	200	07030.050.010	M6X45	200	07030.060.045	M10X25	200	07030.100.025
M5X12	200	07030.050.012	M6X50	200	07030.060.050	M10X30	200	07030.100.030
M5X16	200	07030.050.016	M6X60	200	07030.060.060	M10X35	100	07030.100.035
M5X20	200	07030.050.020				M10X40	100	07030.100.040
M5X25	200	07030.050.025	M8X12	200	07030.080.012	M10X50	100	07030.100.050
M5X30	200	07030.050.030	M8X16	200	07030.080.016	M10X60	100	07030.100.060
M5X35	200	07030.050.035	M8X20	200	07030.080.020	M10X70	100	07030.100.070
M5X40	200	07030.050.040	M8X25	200	07030.080.025	M10X80	100	07030.100.080
			M8X30	200	07030.080.030	M10X100	100	07030.100.100
M6X10	200	07030.060.010	M8X35	200	07030.080.035			

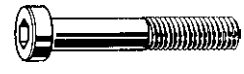
07030 Parafuso cabeça cilindrica baixa sextavado interior com piloto ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M12X20	100	07030.120.020	M16X40	50	07030.160.040	M20X70	25	07030.200.070
M12X25	100	07030.120.025	M16X45	50	07030.160.045	M20X80	25	07030.200.080
M12X30	100	07030.120.030	M16X50	50	07030.160.050	M20X90	25	07030.200.090
M12X35	100	07030.120.035	M16X60	50	07030.160.060	M20X100	25	07030.200.100
M12X40	100	07030.120.040	M16X70	50	07030.160.070	M20X120	25	07030.200.120
M12X45	100	07030.120.045	M16X80	50	07030.160.080	M20X140	25	07030.200.140
M12X50	100	07030.120.050	M16X90	25	07030.160.090			
M12X60	100	07030.120.060	M16X100	25	07030.160.100	M24X50	10	07030.240.050
M12X80	50	07030.120.080	M16X120	25	07030.160.120	M24X60	10	07030.240.060
M12X90	50	07030.120.090				M24X70	10	07030.240.070
M12X100	50	07030.120.100	M20X40	25	07030.200.040	M24X80	10	07030.240.080
			M20X45	25	07030.200.045	M24X90	10	07030.240.090
M16X30	50	07030.160.030	M20X50	25	07030.200.050	M24X100	10	07030.240.100
M16X35	50	07030.160.035	M20X60	25	07030.200.060	M24X120	10	07030.240.120

51042 Parafuso cabeça cilindrica baixa sextavado interior com piloto Q05A

Rosca Métrica
Material Aço inoxidável A2

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X5*	1000	51042.030.005	M6X20	100	51042.060.020	M10X80	10	51042.100.080
M3X6*	1000	51042.030.006	M6X22*	200	51042.060.022	M10X90	10	51042.100.090
M3X8*	1000	51042.030.008	M6X25	50	51042.060.025	M10X100	10	51042.100.100
M3X10*	1000	51042.030.010	M6X30	50	51042.060.030	M10X110*	50	51042.100.110
M3X12*	1000	51042.030.012	M6X35	50	51042.060.035	M10X120*	50	51042.100.120
M3X16*	1000	51042.030.016	M6X40	50	51042.060.040			
M3X20*	1000	51042.030.020	M6X45	50	51042.060.045	M12X16	25	51042.120.016
M3X25*	1000	51042.030.025	M6X50	50	51042.060.050	M12X20	25	51042.120.020
M3X30*	1000	51042.030.030	M6X55	50	51042.060.055	M12X25	25	51042.120.025
			M6X60	25	51042.060.060	M12X30	25	51042.120.030
M4X5*	1000	51042.040.005	M6X65*	100	51042.060.065	M12X35	25	51042.120.035
M4X6*	1000	51042.040.006	M6X70	25	51042.060.070	M12X40	10	51042.120.040
M4X8	100	51042.040.008	M6X75*	100	51042.060.075	M12X45	10	51042.120.045
M4X10	100	51042.040.010	M6X80	25	51042.060.080	M12X50	10	51042.120.050
M4X12	100	51042.040.012	M6X90*	100	51042.060.090	M12X55	10	51042.120.055
M4X14*	1000	51042.040.014	M6X100*	100	51042.060.100	M12X60	10	51042.120.060
M4X16	100	51042.040.016	M6X120*	100	51042.060.120	M12X65*	50	51042.120.065
M4X18*	1000	51042.040.018				M12X70	5	51042.120.070
M4X20	100	51042.040.020	M8X10	50	51042.080.010	M12X75*	25	51042.120.075
M4X22*	500	51042.040.022	M8X12	50	51042.080.012	M12X80	5	51042.120.080
M4X25	100	51042.040.025	M8X14*	200	51042.080.014	M12X90	5	51042.120.090
M4X30	100	51042.040.030	M8X16	50	51042.080.016	M12X100	5	51042.120.100
M4X35	100	51042.040.035	M8X18*	200	51042.080.018	M12X120*	25	51042.120.120
M4X40	100	51042.040.040	M8X20	50	51042.080.020			
M4X45*	200	51042.040.045	M8X22*	200	51042.080.022	M16X25	10	51042.160.025
M4X50*	200	51042.040.050	M8X25	50	51042.080.025	M16X30	10	51042.160.030
M4X55*	200	51042.040.055	M8X30	50	51042.080.030	M16X35	5	51042.160.035
M4X60*	100	51042.040.060	M8X35	50	51042.080.035	M16X40	5	51042.160.040
			M8X40	50	51042.080.040	M16X45	5	51042.160.045
M5X6*	500	51042.050.006	M8X45*	100	51042.080.045	M16X50	5	51042.160.050
M5X8	100	51042.050.008	M8X50	25	51042.080.050	M16X55	5	51042.160.055
M5X10	100	51042.050.010	M8X55	25	51042.080.055	M16X60	5	51042.160.060
M5X12	100	51042.050.012	M8X60	25	51042.080.060	M16X65*	25	51042.160.065
M5X14*	500	51042.050.014	M8X65*	100	51042.080.065	M16X70	5	51042.160.070
M5X16	100	51042.050.016	M8X70	10	51042.080.070	M16X75*	25	51042.160.075
M5X18*	500	51042.050.018	M8X75*	100	51042.080.075	M16X80	3	51042.160.080
M5X20	100	51042.050.020	M8X80	10	51042.080.080	M16X90	3	51042.160.090
M5X22*	500	51042.050.022	M8X85*	100	51042.080.085	M16X100	3	51042.160.100
M5X25	100	51042.050.025	M8X90*	100	51042.080.090	M16X110*	25	51042.160.110
M5X30	100	51042.050.030	M8X100	10	51042.080.100	M16X120*	25	51042.160.120
M5X35	50	51042.050.035	M8X120*	50	51042.080.120			
M5X40	50	51042.050.040				M20X30*	25	51042.200.030
M5X45	50	51042.050.045	M10X16	50	51042.100.016	M20X35	3	51042.200.035
M5X50	50	51042.050.050	M10X18*	100	51042.100.018	M20X40	3	51042.200.040
M5X55*	200	51042.050.055	M10X20	50	51042.100.020	M20X45	3	51042.200.045
M5X60*	100	51042.050.060	M10X25	25	51042.100.025	M20X50*	25	51042.200.050
M5X65*	100	51042.050.065	M10X30	25	51042.100.030	M20X55*	25	51042.200.055
M5X70*	100	51042.050.070	M10X35	25	51042.100.035	M20X60	3	51042.200.060
M5X80*	100	51042.050.080	M10X40	25	51042.100.040	M20X70	3	51042.200.070
			M10X45*	100	51042.100.045	M20X80	3	51042.200.080
M6X8	100	51042.060.008	M10X50	25	51042.100.050	M20X90	3	51042.200.090
M6X10	100	51042.060.010	M10X55	25	51042.100.055	M20X100	3	51042.200.100
M6X12	100	51042.060.012	M10X60	10	51042.100.060	M20X120*	25	51042.200.120
M6X14*	200	51042.060.014	M10X65*	50	51042.100.065			
M6X16	100	51042.060.016	M10X70	10	51042.100.070	M24X55	3	51042.240.055
M6X18*	200	51042.060.018	M10X75*	50	51042.100.075	M24X60	3	51042.240.060

51042 Parafuso cabeça cilindrica baixa sextavado interior com piloto ←

d x L	✉	Ref. do artigo
M24X70	3	51042.240.070

55042 Parafuso cabeça cilindrica baixa sextavado interior com piloto Q45A

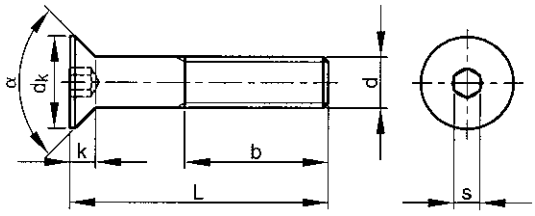
Rosca Métrica
Material Aço inoxidável A4



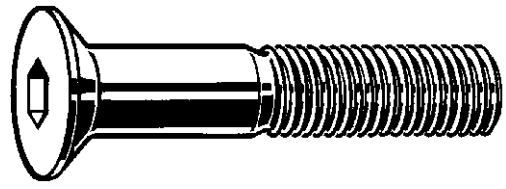
RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X5*	1000	55042.030.005	M6X25	50	55042.060.025	M10X80*	50	55042.100.080
M3X6*	1000	55042.030.006	M6X30	50	55042.060.030	M10X90*	50	55042.100.090
M3X8*	1000	55042.030.008	M6X35	50	55042.060.035	M10X100*	50	55042.100.100
M3X10*	1000	55042.030.010	M6X40	50	55042.060.040	M10X120*	50	55042.100.120
M3X12*	1000	55042.030.012	M6X45*	100	55042.060.045			
			M6X50	50	55042.060.050	M12X16*	50	55042.120.016
M4X5*	1000	55042.040.005	M6X55*	100	55042.060.055	M12X20	25	55042.120.020
M4X6*	1000	55042.040.006	M6X60*	100	55042.060.060	M12X25	25	55042.120.025
M4X8*	1000	55042.040.008	M6X70*	100	55042.060.070	M12X30	25	55042.120.030
M4X10	100	55042.040.010	M6X75*	100	55042.060.075	M12X35	25	55042.120.035
M4X12	100	55042.040.012	M6X80*	100	55042.060.080	M12X40	10	55042.120.040
M4X14*	1000	55042.040.014	M6X90*	100	55042.060.090	M12X45*	50	55042.120.045
M4X16	100	55042.040.016	M6X120*	100	55042.060.120	M12X50	10	55042.120.050
M4X20	100	55042.040.020				M12X55*	50	55042.120.055
M4X22*	500	55042.040.022	M8X10*	500	55042.080.010	M12X60	10	55042.120.060
M4X25	100	55042.040.025	M8X12*	500	55042.080.012	M12X70*	50	55042.120.070
M4X30	100	55042.040.030	M8X14*	200	55042.080.014	M12X75*	25	55042.120.075
M4X35*	200	55042.040.035	M8X16	50	55042.080.016	M12X80*	25	55042.120.080
M4X40*	200	55042.040.040	M8X18*	200	55042.080.018	M12X90*	25	55042.120.090
M4X45*	200	55042.040.045	M8X20	50	55042.080.020	M12X100*	25	55042.120.100
M4X50*	200	55042.040.050	M8X22*	200	55042.080.022			
			M8X25	50	55042.080.025	M16X25*	25	55042.160.025
M5X6*	500	55042.050.006	M8X30	50	55042.080.030	M16X30	10	55042.160.030
M5X8*	500	55042.050.008	M8X35	50	55042.080.035	M16X35	5	55042.160.035
M5X10	100	55042.050.010	M8X40	50	55042.080.040	M16X40*	25	55042.160.040
M5X12	100	55042.050.012	M8X45*	100	55042.080.045	M16X45	5	55042.160.045
M5X14*	500	55042.050.014	M8X50	25	55042.080.050	M16X50	5	55042.160.050
M5X16	100	55042.050.016	M8X55*	100	55042.080.055	M16X55*	25	55042.160.055
M5X18*	500	55042.050.018	M8X60	25	55042.080.060	M16X60*	25	55042.160.060
M5X20	100	55042.050.020	M8X65*	100	55042.080.065	M16X70	5	55042.160.070
M5X22*	500	55042.050.022	M8X70*	100	55042.080.070	M16X80	3	55042.160.080
M5X25	100	55042.050.025	M8X75*	100	55042.080.075	M16X90	5	55042.160.090
M5X30	100	55042.050.030	M8X80*	100	55042.080.080	M16X100*	25	55042.160.100
M5X35	50	55042.050.035	M8X90*	100	55042.080.090	M16X110*	25	55042.160.110
M5X40	50	55042.050.040	M8X100*	50	55042.080.100	M16X130*	25	55042.160.130
M5X45*	200	55042.050.045	M8X110*	50	55042.080.110			
M5X50*	200	55042.050.050	M8X120*	50	55042.080.120	M20X35*	25	55042.200.035
M5X55*	200	55042.050.055				M20X40	3	55042.200.040
M5X60*	100	55042.050.060	M10X16*	100	55042.100.016	M20X45*	25	55042.200.045
M5X65*	100	55042.050.065	M10X20	50	55042.100.020	M20X50	3	55042.200.050
M5X70*	100	55042.050.070	M10X25	25	55042.100.025	M20X55*	25	55042.200.055
			M10X30	25	55042.100.030	M20X60	3	55042.200.060
M6X8*	500	55042.060.008	M10X35	50	55042.100.035	M20X65*	25	55042.200.065
M6X10*	500	55042.060.010	M10X40	25	55042.100.040	M20X70	3	55042.200.070
M6X12	100	55042.060.012	M10X45*	100	55042.100.045	M20X80	3	55042.200.080
M6X14*	200	55042.060.014	M10X50	25	55042.100.050	M20X90	3	55042.200.090
M6X16	100	55042.060.016	M10X55*	50	55042.100.055	M20X100	3	55042.200.100
M6X18*	200	55042.060.018	M10X60	10	55042.100.060	M20X120*	25	55042.200.120
M6X20	100	55042.060.020	M10X70*	50	55042.100.070	M20X150*	25	55042.200.150
M6X22*	200	55042.060.022	M10X75*	50	55042.100.075			

Parafuso cabeça de embeber sextavado interior



ISO	**10642**
DIN	7991
NEN	2359
BS	4168-8



Dados técnicos

d	b	d_k	k (max.)	P	Rosca total C ≤	s	α
M3	18	6.72	1.86	0.5	25	2	90°
M4	20	8.96	2.48	0.7	25	2.5	90°
M5	22	11.2	3.2	0.8	30	3	90°
M6	24	13.44	3.72	1	35	4	90°
M8	28	17.92	4.96	1.25	45	5	90°
M10	32	22.4	6.2	1.5	50	6	90°
M12	36	26.88	7.4	1.75	60	8	90°
M14	40	30.8	8.4	2	65	10	90°
M16	44	33.6	8.8	2	70	10	90°
M18 (DIN)	42	33	8	2.5	60	12	90°
M20	52	40.32	10.16	2.5	90	12	90°
M24 (DIN)	54	39	14	3	90	14	60°

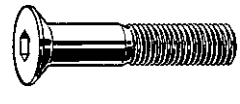
- Todas as dimensões são valores indicativos e pode haver desvios dependendo do fabricante.
- Devido à desfavorável geometria da cabeça,estes parafusos têm uma capacidade de carga reduzida.
- Quando são classes de aço (8.8 / 10.9 / 12.9) com reduzida capacidade de carga têm de ser marcados, a marcação desta classe é precedida do dígito “0”. Então 8.8 → 08.8 e 10.9 → 010.9 e 12.9 → 012.9.
- No aço inox está apenas marcada a classe do inox e não as suas propriedades mecânicas (A2-70 → A2).
- Estas duas formas de marcação podem ocorrer durante a fase de transição.

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado interior	Aço	08.8	Zn	07470	2-39
M	Sextavado interior	Aço	010.9		07400	2-40
M	Sextavado interior	Aço	010.9	FLZNNC-NC6	07407	2-41
M	Sextavado interior	INOX A2			51060	2-41
M	Sextavado interior	INOX A4			55060	2-42
M	Sextavado interior	Al P40			45008	2-43
M	Sextavado interior	Al P60			45208	2-44

07470 **Parafuso cabeça de embeber sextavado interior** **D02A**

Rosca	Métrica
Material	Aço
Classe	08.8
Tratamento sup.	Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6	200	07470.030.006				M6X35	200	07470.060.035
M3X8	200	07470.030.008	M5X8	200	07470.050.008	M6X40	200	07470.060.040
M3X10	200	07470.030.010	M5X10	200	07470.050.010	M6X45	200	07470.060.045
M3X12	200	07470.030.012	M5X12	200	07470.050.012	M6X50	200	07470.060.050
M3X16	200	07470.030.016	M5X16	200	07470.050.016	M6X60	200	07470.060.060
M3X20	200	07470.030.020	M5X20	200	07470.050.020	M6X70	200	07470.060.070
M3X25	200	07470.030.025	M5X25	200	07470.050.025	M6X80	200	07470.060.080
M3X30	200	07470.030.030	M5X30	200	07470.050.030			
M3X40	200	07470.030.040	M5X35	200	07470.050.035	M8X10	200	07470.080.010
M3X50	200	07470.030.050	M5X40	200	07470.050.040	M8X12	200	07470.080.012
			M5X45	200	07470.050.045	M8X16	200	07470.080.016
M4X6	200	07470.040.006	M5X50	200	07470.050.050	M8X20	200	07470.080.020
M4X8	200	07470.040.008	M5X60	200	07470.050.060	M8X25	200	07470.080.025
M4X10	200	07470.040.010	M5X70	200	07470.050.070	M8X30	200	07470.080.030
M4X12	200	07470.040.012				M8X35	200	07470.080.035
M4X16	200	07470.040.016	M6X8	200	07470.060.008	M8X40	200	07470.080.040
M4X20	200	07470.040.020	M6X10	200	07470.060.010	M8X45	200	07470.080.045
M4X25	200	07470.040.025	M6X12	200	07470.060.012	M8X50	200	07470.080.050
M4X30	200	07470.040.030	M6X16	200	07470.060.016	M8X55	200	07470.080.055
M4X35	200	07470.040.035	M6X18	200	07470.060.018	M8X60	200	07470.080.060
M4X40	200	07470.040.040	M6X20	200	07470.060.020	M8X65	200	07470.080.065
M4X50	200	07470.040.050	M6X25	200	07470.060.025	M8X70	200	07470.080.070
M4X60	200	07470.040.060	M6X30	200	07470.060.030	M8X80	200	07470.080.080

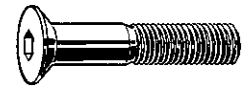
07470 Parafuso cabeça de embeber sextavado interior ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M8X90	200	07470.080.090	M12X25	100	07470.120.025	M16X60	50	07470.160.060
M8X100	200	07470.080.100	M12X30	100	07470.120.030	M16X70	25	07470.160.070
			M12X35	100	07470.120.035	M16X80	25	07470.160.080
M10X16	200	07470.100.016	M12X40	100	07470.120.040	M16X100	25	07470.160.100
M10X20	200	07470.100.020	M12X45	100	07470.120.045	M16X120	25	07470.160.120
M10X25	200	07470.100.025	M12X50	100	07470.120.050	M16X140	25	07470.160.140
M10X30	200	07470.100.030	M12X55	100	07470.120.055			
M10X35	100	07470.100.035	M12X60	100	07470.120.060	M20X40	25	07470.200.040
M10X40	100	07470.100.040	M12X70	50	07470.120.070	M20X45	25	07470.200.045
M10X45	100	07470.100.045	M12X80	50	07470.120.080	M20X50	25	07470.200.050
M10X50	100	07470.100.050	M12X90	50	07470.120.090	M20X60	25	07470.200.060
M10X55	100	07470.100.055	M12X100	50	07470.120.100	M20X70	25	07470.200.070
M10X60	100	07470.100.060	M12X120	50	07470.120.120	M20X80	25	07470.200.080
M10X70	100	07470.100.070				M20X90	25	07470.200.090
M10X80	100	07470.100.080	M16X30	50	07470.160.030	M20X100	25	07470.200.100
M10X90	100	07470.100.090	M16X35	50	07470.160.035			
M10X100	50	07470.100.100	M16X40	50	07470.160.040	M24X50	25	07470.240.050
M10X120	50	07470.100.120	M16X45	50	07470.160.045	M24X60	10	07470.240.060
			M16X50	50	07470.160.050	M24X70	10	07470.240.070
M12X20	100	07470.120.020	M16X55	50	07470.160.055	M24X80	10	07470.240.080

07400 Parafuso cabeça de embeber sextavado interior D01A

Rosca Métrica
Material Aço
Classe 010.9

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X5	200	07400.030.005	M6X25	200	07400.060.025	M12X25	100	07400.120.025
M3X6	200	07400.030.006	M6X30	200	07400.060.030	M12X30	100	07400.120.030
M3X8	200	07400.030.008	M6X35	200	07400.060.035	M12X35	100	07400.120.035
M3X10	200	07400.030.010	M6X40	200	07400.060.040	M12X40	100	07400.120.040
M3X12	200	07400.030.012	M6X45	200	07400.060.045	M12X45	100	07400.120.045
M3X16	200	07400.030.016	M6X50	200	07400.060.050	M12X50	100	07400.120.050
M3X20	200	07400.030.020	M6X55	200	07400.060.055	M12X55	100	07400.120.055
M3X25	200	07400.030.025	M6X60	200	07400.060.060	M12X60	100	07400.120.060
M3X30	200	07400.030.030	M6X70	200	07400.060.070	M12X70	100	07400.120.070
M3X40	200	07400.030.040	M6X80	200	07400.060.080	M12X80	100	07400.120.080
M3X50	200	07400.030.050	M6X90	200	07400.060.090	M12X90	50	07400.120.090
			M6X100	200	07400.060.100	M12X100	50	07400.120.100
M4X6	200	07400.040.006				M12X110	50	07400.120.110
M4X8	200	07400.040.008	M8X10	200	07400.080.010	M12X120	50	07400.120.120
M4X10	200	07400.040.010	M8X12	200	07400.080.012	M12X130	50	07400.120.130
M4X12	200	07400.040.012	M8X16	200	07400.080.016	M12X140	50	07400.120.140
M4X14	200	07400.040.014	M8X20	200	07400.080.020	M12X160	50	07400.120.160
M4X16	200	07400.040.016	M8X22	200	07400.080.022	M12X180	50	07400.120.180
M4X20	200	07400.040.020	M8X25	200	07400.080.025			
M4X25	200	07400.040.025	M8X30	200	07400.080.030	M14X25	25	07400.140.025
M4X30	200	07400.040.030	M8X35	200	07400.080.035	M14X30	25	07400.140.030
M4X35	200	07400.040.035	M8X40	200	07400.080.040	M14X35	25	07400.140.035
M4X40	200	07400.040.040	M8X45	200	07400.080.045	M14X40	25	07400.140.040
M4X50	200	07400.040.050	M8X50	200	07400.080.050	M14X45	50	07400.140.045
M4X60	200	07400.040.060	M8X55	200	07400.080.055	M14X50	25	07400.140.050
M4X70	200	07400.040.070	M8X60	100	07400.080.060	M14X60	25	07400.140.060
			M8X70	100	07400.080.070	M14X70	25	07400.140.070
M5X8	200	07400.050.008	M8X80	100	07400.080.080	M14X80	25	07400.140.080
M5X10	200	07400.050.010	M8X90	100	07400.080.090	M14X90	25	07400.140.090
M5X12	200	07400.050.012	M8X100	100	07400.080.100	M14X100	25	07400.140.100
M5X16	200	07400.050.016						
M5X18	200	07400.050.018	M10X16	200	07400.100.016	M16X20	50	07400.160.020
M5X20	200	07400.050.020	M10X20	200	07400.100.020	M16X25	50	07400.160.025
M5X22	200	07400.050.022	M10X25	200	07400.100.025	M16X30	50	07400.160.030
M5X25	200	07400.050.025	M10X30	200	07400.100.030	M16X35	50	07400.160.035
M5X30	200	07400.050.030	M10X35	100	07400.100.035	M16X40	50	07400.160.040
M5X35	200	07400.050.035	M10X40	100	07400.100.040	M16X45	50	07400.160.045
M5X40	200	07400.050.040	M10X45	100	07400.100.045	M16X50	50	07400.160.050
M5X45	200	07400.050.045	M10X50	100	07400.100.050	M16X55	50	07400.160.055
M5X50	200	07400.050.050	M10X55	100	07400.100.055	M16X60	50	07400.160.060
M5X60	200	07400.050.060	M10X60	100	07400.100.060	M16X70	25	07400.160.070
M5X70	200	07400.050.070	M10X65	100	07400.100.065	M16X80	25	07400.160.080
			M10X70	100	07400.100.070	M16X90	25	07400.160.090
M6X8	200	07400.060.008	M10X75	100	07400.100.075	M16X100	25	07400.160.100
M6X10	200	07400.060.010	M10X80	100	07400.100.080	M16X110	25	07400.160.110
M6X12	200	07400.060.012	M10X90	100	07400.100.090	M16X120	25	07400.160.120
M6X14	200	07400.060.014	M10X100	50	07400.100.100	M16X130	25	07400.160.130
M6X16	200	07400.060.016	M10X120	50	07400.100.120	M16X140	25	07400.160.140
M6X18	200	07400.060.018				M16X160	25	07400.160.160
M6X20	200	07400.060.020	M12X20	100	07400.120.020			

07400 Parafuso cabeça de embeber sextavado interior ←

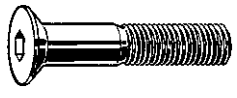
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M18X50	25	07400.180.050	M20X70	10	07400.200.070	M24X60	10	07400.240.060
M18X60	25	07400.180.060	M20X80	10	07400.200.080	M24X70	10	07400.240.070
M18X70	25	07400.180.070	M20X90	10	07400.200.090	M24X80	10	07400.240.080
M18X80	25	07400.180.080	M20X100	10	07400.200.100	M24X90	10	07400.240.090
M18X90	25	07400.180.090	M20X110	10	07400.200.110	M24X100	10	07400.240.100
M18X100	25	07400.180.100	M20X120	10	07400.200.120	M24X110	10	07400.240.110
			M20X140	10	07400.200.140	M24X120	10	07400.240.120
M20X30	10	07400.200.030	M20X150	10	07400.200.150	M24X140	10	07400.240.140
M20X35	10	07400.200.035	M20X160	10	07400.200.160	M24X160	10	07400.240.160
M20X40	10	07400.200.040	M20X180	10	07400.200.180	M24X180	10	07400.240.180
M20X50	10	07400.200.050	M20X200	10	07400.200.200	M24X200	10	07400.240.200
M20X55	25	07400.200.055						
M20X60	10	07400.200.060	M24X50	10	07400.240.050			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

07407 Parafuso cabeça de embeber sextavado interior D01A

Rosca Métrica
Material Aço
Classe 010.9
Tratamento sup. Camada de zinco isento Cr^{6+}- ISO 10683 flZnnc

RoHS



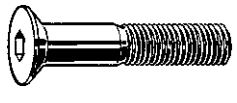
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X16	200	07407.060.016	M10X20	200	07407.100.020	M12X70	100	07407.120.070
M6X20	200	07407.060.020	M10X25	200	07407.100.025	M12X80	100	07407.120.080
M6X25	200	07407.060.025	M10X30	200	07407.100.030			
M6X30	200	07407.060.030	M10X35	200	07407.100.035	M16X25	50	07407.160.025
M6X40	200	07407.060.040	M10X40	200	07407.100.040	M16X30	50	07407.160.030
			M10X50	100	07407.100.050	M16X40	50	07407.160.040
M8X16	200	07407.080.016	M10X60	100	07407.100.060	M16X50	50	07407.160.050
M8X20	200	07407.080.020				M16X60	50	07407.160.060
M8X25	200	07407.080.025	M12X30	100	07407.120.030			
M8X30	200	07407.080.030	M12X40	100	07407.120.040	M20X50	10	07407.200.050
M8X35	200	07407.080.035	M12X50	100	07407.120.050	M20X60	10	07407.200.060
M8X40	200	07407.080.040	M12X60	100	07407.120.060	M20X70	10	07407.200.070

- Com o tratamento de superficie Zinc Flake ISO 10683, o risco de disfunção hidrogénica é eliminado.

51060 Parafuso cabeça de embeber sextavado interior Q05A

Rosca Métrica
Material Aço inoxidável A2

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X4*	1000	51060.030.004	M4X25	200	51060.040.025	M5X75*	100	51060.050.075
M3X5*	1000	51060.030.005	M4X30	200	51060.040.030	M5X80*	100	51060.050.080
M3X6	200	51060.030.006	M4X35	200	51060.040.035			
M3X8	200	51060.030.008	M4X40	200	51060.040.040	M6X8	200	51060.060.008
M3X10	200	51060.030.010	M4X45	200	51060.040.045	M6X10	200	51060.060.010
M3X12	200	51060.030.012	M4X50	200	51060.040.050	M6X12	200	51060.060.012
M3X14	200	51060.030.014	M4X55*	200	51060.040.055	M6X14	200	51060.060.014
M3X16	200	51060.030.016	M4X60*	100	51060.040.060	M6X16	200	51060.060.016
M3X18	200	51060.030.018				M6X18	200	51060.060.018
M3X20	200	51060.030.020	M5X6	500	51060.050.006	M6X20	200	51060.060.020
M3X22*	1000	51060.030.022	M5X8	200	51060.050.008	M6X22*	200	51060.060.022
M3X25	200	51060.030.025	M5X10	200	51060.050.010	M6X25	200	51060.060.025
M3X30*	1000	51060.030.030	M5X12	200	51060.050.012	M6X30	200	51060.060.030
M3X35*	500	51060.030.035	M5X14	200	51060.050.014	M6X35	200	51060.060.035
M3X40	200	51060.030.040	M5X16	200	51060.050.016	M6X40	200	51060.060.040
M3X45*	500	51060.030.045	M5X18	200	51060.050.018	M6X45	100	51060.060.045
M3X50	200	51060.030.050	M5X20	200	51060.050.020	M6X50	100	51060.060.050
			M5X22*	500	51060.050.022	M6X55	100	51060.060.055
M4X5*	1000	51060.040.005	M5X25	200	51060.050.025	M6X60	100	51060.060.060
M4X6	200	51060.040.006	M5X30	200	51060.050.030	M6X65	100	51060.060.065
M4X8	200	51060.040.008	M5X35	200	51060.050.035	M6X70	100	51060.060.070
M4X10	200	51060.040.010	M5X40	200	51060.050.040	M6X75*	100	51060.060.075
M4X12	200	51060.040.012	M5X45	200	51060.050.045	M6X80	100	51060.060.080
M4X14	200	51060.040.014	M5X50	100	51060.050.050	M6X90	100	51060.060.090
M4X16	200	51060.040.016	M5X55	200	51060.050.055	M6X100	100	51060.060.100
M4X18	200	51060.040.018	M5X60	100	51060.050.060	M6X110*	100	51060.060.110
M4X20	200	51060.040.020	M5X65*	100	51060.050.065	M6X120*	100	51060.060.120
M4X22*	500	51060.040.022	M5X70	100	51060.050.070	M6X130*	100	51060.060.130

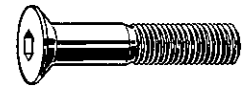
51060 Parafuso cabeça de embeber sextavado interior

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X140*	100	51060.060.140	M10X70	50	51060.100.070	M16X60	25	51060.160.060
M6X150*	100	51060.060.150	M10X75*	50	51060.100.075	M16X65*	25	51060.160.065
			M10X80	50	51060.100.080	M16X70	25	51060.160.070
M8X10	200	51060.080.010	M10X90	50	51060.100.090	M16X75*	25	51060.160.075
M8X12	200	51060.080.012	M10X100	50	51060.100.100	M16X80	25	51060.160.080
M8X14*	200	51060.080.014	M10X110*	50	51060.100.110	M16X90	25	51060.160.090
M8X16	200	51060.080.016	M10X120	50	51060.100.120	M16X100	10	51060.160.100
M8X18	200	51060.080.018	M10X130*	50	51060.100.130	M16X110	10	51060.160.110
M8X20	200	51060.080.020	M10X140*	50	51060.100.140	M16X120	10	51060.160.120
M8X22*	200	51060.080.022	M10X150*	50	51060.100.150	M16X130	10	51060.160.130
M8X25	100	51060.080.025	M10X160*	50	51060.100.160	M16X140*	25	51060.160.140
M8X30	100	51060.080.030	M10X170*	25	51060.100.170	M16X150*	25	51060.160.150
M8X35	100	51060.080.035	M10X180*	25	51060.100.180			
M8X40	100	51060.080.040	M10X190*	25	51060.100.190	M20X30*	25	51060.200.030
M8X45	100	51060.080.045	M10X200*	25	51060.100.200	M20X35*	25	51060.200.035
M8X50	100	51060.080.050				M20X40	25	51060.200.040
M8X55	100	51060.080.055	M12X16	50	51060.120.016	M20X45*	25	51060.200.045
M8X60	100	51060.080.060	M12X18*	50	51060.120.018	M20X50	10	51060.200.050
M8X65	100	51060.080.065	M12X20	50	51060.120.020	M20X55	10	51060.200.055
M8X70	50	51060.080.070	M12X25	50	51060.120.025	M20X60	5	51060.200.060
M8X75*	100	51060.080.075	M12X30	50	51060.120.030	M20X65*	25	51060.200.065
M8X80	50	51060.080.080	M12X35	50	51060.120.035	M20X70	10	51060.200.070
M8X90	50	51060.080.090	M12X40	50	51060.120.040	M20X75*	25	51060.200.075
M8X100	50	51060.080.100	M12X45	50	51060.120.045	M20X80	10	51060.200.080
M8X110	50	51060.080.110	M12X50	50	51060.120.050	M20X90	10	51060.200.090
M8X120	50	51060.080.120	M12X55	50	51060.120.055	M20X100	10	51060.200.100
M8X130*	50	51060.080.130	M12X60	50	51060.120.060	M20X110*	25	51060.200.110
M8X140*	50	51060.080.140	M12X65*	50	51060.120.065	M20X120*	25	51060.200.120
M8X150*	50	51060.080.150	M12X70	25	51060.120.070	M20X130*	25	51060.200.130
M8X160*	50	51060.080.160	M12X75*	25	51060.120.075	M20X140*	25	51060.200.140
M8X170*	25	51060.080.170	M12X80	25	51060.120.080	M20X150*	25	51060.200.150
M8X180*	25	51060.080.180	M12X90	25	51060.120.090			
M8X190*	25	51060.080.190	M12X100	25	51060.120.100	M24X40*	10	51060.240.040
M8X200*	25	51060.080.200	M12X110*	25	51060.120.110	M24X45*	10	51060.240.045
			M12X120*	25	51060.120.120	M24X50	10	51060.240.050
M10X12*	100	51060.100.012	M12X130*	25	51060.120.130	M24X55*	10	51060.240.055
M10X14*	100	51060.100.014	M12X140*	25	51060.120.140	M24X60	10	51060.240.060
M10X16	100	51060.100.016	M12X150*	25	51060.120.150	M24X65*	10	51060.240.065
M10X18	100	51060.100.018	M12X160*	25	51060.120.160	M24X70	10	51060.240.070
M10X20	100	51060.100.020	M12X170*	25	51060.120.170	M24X75*	10	51060.240.075
M10X22*	100	51060.100.022	M12X180*	25	51060.120.180	M24X80	10	51060.240.080
M10X25	100	51060.100.025	M12X200*	25	51060.120.200	M24X90	10	51060.240.090
M10X30	100	51060.100.030				M24X100	10	51060.240.100
M10X35	100	51060.100.035	M16X25	25	51060.160.025	M24X110	10	51060.240.110
M10X40	100	51060.100.040	M16X30	25	51060.160.030	M24X120	10	51060.240.120
M10X45	100	51060.100.045	M16X35	25	51060.160.035	M24X130	10	51060.240.130
M10X50	100	51060.100.050	M16X40	25	51060.160.040	M24X140	10	51060.240.140
M10X55	100	51060.100.055	M16X45	25	51060.160.045	M24X150	10	51060.240.150
M10X60	50	51060.100.060	M16X50	25	51060.160.050			
M10X65*	50	51060.100.065	M16X55*	25	51060.160.055			

55060 Parafuso cabeça de embeber sextavado interior Q45A

Rosca Métrica
Material Aço inoxidável A4

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X4*	1000	55060.030.004	M4X8	200	55060.040.008	M5X12	200	55060.050.012
M3X5*	1000	55060.030.005	M4X10	200	55060.040.010	M5X14	200	55060.050.014
M3X6	200	55060.030.006	M4X12	200	55060.040.012	M5X16	200	55060.050.016
M3X8	200	55060.030.008	M4X14	200	55060.040.014	M5X18	200	55060.050.018
M3X10	200	55060.030.010	M4X16	200	55060.040.016	M5X20	200	55060.050.020
M3X12	200	55060.030.012	M4X18	200	55060.040.018	M5X22*	500	55060.050.022
M3X14	200	55060.030.014	M4X20	200	55060.040.020	M5X25	200	55060.050.025
M3X16	200	55060.030.016	M4X22*	500	55060.040.022	M5X30	200	55060.050.030
M3X18	200	55060.030.018	M4X25	200	55060.040.025	M5X35	200	55060.050.035
M3X20	200	55060.030.020	M4X30	200	55060.040.030	M5X40	200	55060.050.040
M3X22*	1000	55060.030.022	M4X35	200	55060.040.035	M5X45	200	55060.050.045
M3X25	200	55060.030.025	M4X40	200	55060.040.040	M5X50	200	55060.050.050
M3X30*	1000	55060.030.030	M4X45*	200	55060.040.045	M5X55*	200	55060.050.055
M3X35*	500	55060.030.035	M4X50	200	55060.040.050	M5X60	100	55060.050.060
M3X40*	500	55060.030.040	M4X55*	200	55060.040.055	M5X65*	100	55060.050.065
M3X45*	500	55060.030.045	M4X60*	100	55060.040.060	M5X70*	100	55060.050.070
M3X50*	200	55060.030.050				M5X75*	100	55060.050.075
			M5X6*	500	55060.050.006	M5X80*	100	55060.050.080
M4X5*	1000	55060.040.005	M5X8	200	55060.050.008			
M4X6	200	55060.040.006	M5X10	200	55060.050.010	M6X8	200	55060.060.008

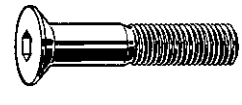
55060 Parafuso cabeça de embeber sextavado interior ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X10	200	55060.060.010				M12X190*	25	55060.120.190
M6X12	200	55060.060.012	M10X12*	100	55060.100.012	M12X200	10	55060.120.200
M6X14	200	55060.060.014	M10X14*	100	55060.100.014			
M6X16	200	55060.060.016	M10X16	100	55060.100.016	M16X25	25	55060.160.025
M6X18	200	55060.060.018	M10X18	100	55060.100.018	M16X30	25	55060.160.030
M6X20	200	55060.060.020	M10X20	100	55060.100.020	M16X35	25	55060.160.035
M6X22*	200	55060.060.022	M10X22*	100	55060.100.022	M16X40	25	55060.160.040
M6X25	200	55060.060.025	M10X25	100	55060.100.025	M16X45	25	55060.160.045
M6X30	200	55060.060.030	M10X30	100	55060.100.030	M16X50	25	55060.160.050
M6X35	200	55060.060.035	M10X35	100	55060.100.035	M16X55*	25	55060.160.055
M6X40	200	55060.060.040	M10X40	100	55060.100.040	M16X60	25	55060.160.060
M6X45	100	55060.060.045	M10X45	100	55060.100.045	M16X65*	25	55060.160.065
M6X50	100	55060.060.050	M10X50	100	55060.100.050	M16X70	25	55060.160.070
M6X55	100	55060.060.055	M10X55	100	55060.100.055	M16X75*	25	55060.160.075
M6X60	100	55060.060.060	M10X60	50	55060.100.060	M16X80	25	55060.160.080
M6X65*	100	55060.060.065	M10X65*	50	55060.100.065	M16X90	25	55060.160.090
M6X70	100	55060.060.070	M10X70	50	55060.100.070	M16X100	10	55060.160.100
M6X75*	100	55060.060.075	M10X75*	50	55060.100.075	M16X110*	25	55060.160.110
M6X80	100	55060.060.080	M10X80	50	55060.100.080	M16X120*	25	55060.160.120
M6X90*	100	55060.060.090	M10X90	50	55060.100.090	M16X130*	25	55060.160.130
M6X100*	100	55060.060.100	M10X100	50	55060.100.100	M16X140*	25	55060.160.140
M6X110*	100	55060.060.110	M10X110*	50	55060.100.110	M16X150*	25	55060.160.150
M6X120*	100	55060.060.120	M10X120	50	55060.100.120			
M6X130*	100	55060.060.130	M10X130*	50	55060.100.130	M20X30*	25	55060.200.030
M6X140*	100	55060.060.140	M10X140*	50	55060.100.140	M20X35*	25	55060.200.035
M6X150*	100	55060.060.150	M10X150*	50	55060.100.150	M20X40	10	55060.200.040
			M10X160*	50	55060.100.160	M20X45	10	55060.200.045
M8X10	200	55060.080.010	M10X170*	25	55060.100.170	M20X50	10	55060.200.050
M8X12	200	55060.080.012	M10X180*	25	55060.100.180	M20X55	10	55060.200.055
M8X14*	200	55060.080.014	M10X190*	25	55060.100.190	M20X60	10	55060.200.060
M8X16	200	55060.080.016	M10X200*	25	55060.100.200	M20X65*	25	55060.200.065
M8X18	200	55060.080.018				M20X70	10	55060.200.070
M8X20	200	55060.080.020	M12X16*	50	55060.120.016	M20X75*	25	55060.200.075
M8X22*	200	55060.080.022	M12X20	50	55060.120.020	M20X80*	25	55060.200.080
M8X25	100	55060.080.025	M12X22*	50	55060.120.022	M20X90	10	55060.200.090
M8X30	100	55060.080.030	M12X25	50	55060.120.025	M20X100	10	55060.200.100
M8X35	100	55060.080.035	M12X30	50	55060.120.030	M20X110*	25	55060.200.110
M8X40	100	55060.080.040	M12X35	50	55060.120.035	M20X120*	25	55060.200.120
M8X45	100	55060.080.045	M12X40	50	55060.120.040	M20X130*	25	55060.200.130
M8X50	100	55060.080.050	M12X45	50	55060.120.045	M20X140*	25	55060.200.140
M8X55	100	55060.080.055	M12X50	50	55060.120.050	M20X150*	25	55060.200.150
M8X60	100	55060.080.060	M12X55	50	55060.120.055			
M8X65*	100	55060.080.065	M12X60	50	55060.120.060	M24X40*	10	55060.240.040
M8X70	50	55060.080.070	M12X65*	50	55060.120.065	M24X45*	10	55060.240.045
M8X75*	100	55060.080.075	M12X70	25	55060.120.070	M24X50*	10	55060.240.050
M8X80	50	55060.080.080	M12X75*	25	55060.120.075	M24X55*	10	55060.240.055
M8X90	50	55060.080.090	M12X80	25	55060.120.080	M24X60*	10	55060.240.060
M8X100	50	55060.080.100	M12X90	25	55060.120.090	M24X65*	10	55060.240.065
M8X110*	50	55060.080.110	M12X100	25	55060.120.100	M24X70*	10	55060.240.070
M8X120*	50	55060.080.120	M12X110*	25	55060.120.110	M24X75*	10	55060.240.075
M8X130*	50	55060.080.130	M12X120	25	55060.120.120	M24X80*	10	55060.240.080
M8X140*	50	55060.080.140	M12X130*	25	55060.120.130	M24X90*	10	55060.240.090
M8X150*	50	55060.080.150	M12X140*	25	55060.120.140	M24X100*	10	55060.240.100
M8X160*	50	55060.080.160	M12X150*	25	55060.120.150	M24X110*	10	55060.240.110
M8X170*	25	55060.080.170	M12X160*	25	55060.120.160	M24X120*	10	55060.240.120
M8X180*	25	55060.080.180	M12X170*	25	55060.120.170	M24X130*	10	55060.240.130
M8X200*	25	55060.080.200	M12X180*	25	55060.120.180	M24X150*	10	55060.240.150

45008 Parafuso cabeça de embeber sextavado interior W010

Rosca Métrica
Material Alumínio P40

ISO ≈10642
DIN ≈7991
NEN ≈2359
BS ≈4168-8

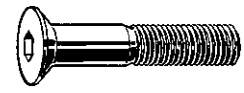


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X8	200	45008.030.008	M3X16	200	45008.030.016	M4X10	200	45008.040.010
M3X12	200	45008.030.012				M4X16	200	45008.040.016

45208 **Parafuso cabeça de embeber sextavado interior** **W010**

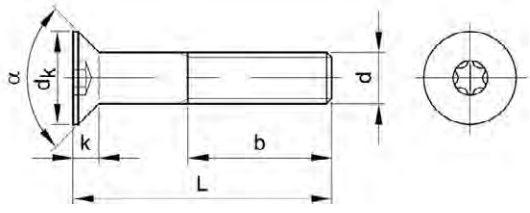
Rosca Métrica
Material Alumínio P60

ISO **≈10642**
DIN ≈7991
NEN ≈2359
BS ≈4168-8

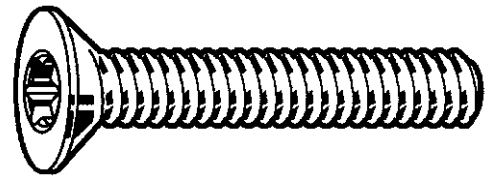


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X20	200	45208.050.020	M6X10	200	45208.060.010			
			M6X25	200	45208.060.025	M8X20	200	45208.080.020

Parafuso cabeça de embeber hexalobular



ISO **≈10642**
DIN ≈7991
NF ≈E25-107



Dados técnicos

d	b (min.)	Chave caixa	d_k	k (max.)	P	α
M4	14	T20	8	2.3	0.7	90°
M5	16	T25	10	2.8	0.8	90°
M6	18	T30	12	3.3	1	90°
M8	22	T40	16	4.4	1.25	90°

- Devido á desfavorável geometria da cabeça, estes parafusos têm uma capacidade de carga reduzida.
- Quando os parafusos de aço (por ex. 8.8 / 10.9 / 12.9) têm uma capacidade de carga reduzida, a marcação '0' precede a marcação da classe aço, por exemplo 8.8 → 08.8 e 10.9 → 010.9 e 12.9 → 012.9.
- Nos parafusos de aço inox, fica a marcação do aço e remove-se a classe da propriedade 70 (por ex. A2-70 → A2).
- As antigas e as novas indicações podem coexistir durante um determinado periodo de tempo.

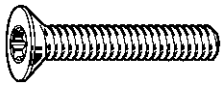
Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Hexalobular	Aço	08.8	Zn	07450	2-44
M	Hexalobular	INOX A2			51047	2-44
M	Hexalobular	INOX A4			55047	2-45

07450 **Parafuso cabeça de embeber hexalobular** **D02A**

Rosca Métrica
Material Aço
Classe 08.8
Tratamento sup. Zincado

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X10	200	07450.040.010	M5X30	200	07450.050.030	M6X40	200	07450.060.040
M4X12	200	07450.040.012	M5X35	100	07450.050.035			
M4X16	200	07450.040.016	M5X40	100	07450.050.040	M8X16	200	07450.080.016
M4X20	200	07450.040.020				M8X20	200	07450.080.020
M4X25	200	07450.040.025	M6X10	200	07450.060.010	M8X25	200	07450.080.025
			M6X12	200	07450.060.012	M8X30	200	07450.080.030
M5X10	200	07450.050.010	M6X16	200	07450.060.016	M8X35	100	07450.080.035
M5X12	200	07450.050.012	M6X20	200	07450.060.020	M8X40	100	07450.080.040
M5X16	200	07450.050.016	M6X25	200	07450.060.025	M8X45	100	07450.080.045
M5X20	200	07450.050.020	M6X30	200	07450.060.030	M8X50	100	07450.080.050
M5X25	200	07450.050.025	M6X35	200	07450.060.035			

51047 **Parafuso cabeça de embeber hexalobular** **Q05A**

Rosca Métrica
Material Aço inoxidável A2

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X10*	500	51047.040.010	M5X12	500	51047.050.012	M6X14*	200	51047.060.014
M4X12	500	51047.040.012	M5X16*	500	51047.050.016	M6X16*	200	51047.060.016
M4X16*	500	51047.040.016	M5X20	500	51047.050.020	M6X20*	200	51047.060.020
M4X20*	500	51047.040.020	M5X25*	500	51047.050.025	M6X25*	200	51047.060.025
						M6X30*	200	51047.060.030
M5X10*	500	51047.050.010	M6X12	200	51047.060.012			

55047 **Parafuso cabeça de embeber hexalobular** **Q45A**

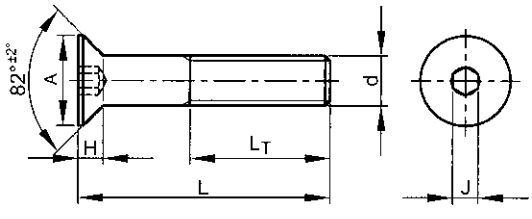
Rosca Métrica
Material Aço inoxidável A4

RoHS

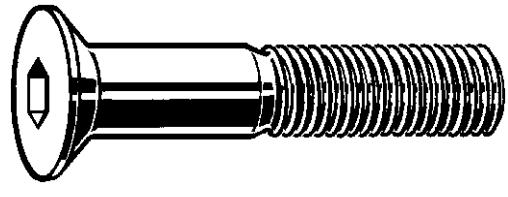


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X10*	500	55047.040.010	M5X12*	500	55047.050.012	M6X16*	200	55047.060.016
M4X12*	500	55047.040.012	M5X16*	500	55047.050.016	M6X20*	200	55047.060.020
M4X16*	500	55047.040.016	M5X20*	500	55047.050.020	M6X25*	200	55047.060.025
M4X20*	500	55047.040.020	M5X25*	500	55047.050.025	M6X30*	200	55047.060.030
M5X10*	500	55047.050.010	M6X12*	200	55047.060.012			

Parafuso cabeça de embeber sextavado interior UNC



ASME **≈B18.3**
BS ≈2470



Dados técnicos

d	A	Fios por polegada	H	J	L_T (min.)
No.2	0.197	56	0.064	0.050	0.62
No.3	0.226	48	0.073	1/16	0.62
No.4	0.255	40	0.083	1/16	0.75
No.5	0.281	40	0.09	5/64	0.75
No.6	0.307	32	0.097	5/64	0.75
No.8	0.359	32	0.112	3/32	0.88
No.10	0.411	24	0.127	1/8	0.88
1/4	0.531	20	0.161	5/32	1
5/16	0.656	18	0.198	3/16	1.12
3/8	0.781	16	0.234	7/32	1.25
7/16	0.844	14	0.234	1/4	1.38
1/2	0.938	13	0.251	5/16	1.5
5/8	1.188	11	0.324	3/8	1.75
3/4	1.438	10	0.396	1/2	2
7/8	1.688	9	0.468	9/16	2.25
1 Inch	1.938	8	0.54	5/8	2.5
1.1/4	2.438	7	0.683	7/8	3.12

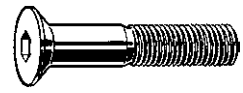
- Devido á desfavorável geometria da cabeça, estes parafusos têm uma capacidade de carga reduzida.
- ATENÇÃO: como a norma do produto especifica uma tolerância de 3A para roscas até 1 polegada, zincagem pode originar problemas de fiting.

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
UNC	Sextavado interior	Aço	Grade 5		U07410	2-46
UNC	Sextavado interior	Aço	Grade 5	Zn	U07415	2-47
UNC	Sextavado interior	INOX A2 (AISI304/18-8)	F837		U51060	2-47

U07410 Parafuso cabeça de embeber sextavado interior UNC X05A

Rosca Unified National Coarse
Material Aço
Classe Grade 5



RoHS

2

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.2-56X1/8 ft*	100	U07410.008.0012	NO.10-24X5/16 ft*	100	U07410.019.0031	7/16-14X1 Inch ft*	25	U07410.043.0100
NO.2-56X3/16 ft*	100	U07410.008.0018	NO.10-24X3/8 ft*	100	U07410.019.0037	7/16-14X1.1/4 ft*	25	U07410.043.0125
NO.2-56X1/4 ft*	100	U07410.008.0025	NO.10-24X7/16 ft*	100	U07410.019.0043	7/16-14X1.1/2*	25	U07410.043.0150
NO.2-56X5/16 ft*	100	U07410.008.0031	NO.10-24X1/2 ft*	100	U07410.019.0050	7/16-14X1.3/4*	10	U07410.043.0175
NO.2-56X3/8 ft*	100	U07410.008.0037	NO.10-24X5/8 ft*	100	U07410.019.0062	7/16-14X2 Inch*	10	U07410.043.0200
NO.2-56X1/2 ft*	100	U07410.008.0050	NO.10-24X3/4 ft*	100	U07410.019.0075	7/16-14X2.1/4*	10	U07410.043.0225
NO.2-56X5/8 ft*	100	U07410.008.0062	NO.10-24X7/8 ft*	100	U07410.019.0087	7/16-14X2.1/2*	10	U07410.043.0250
NO.2-56X3/4*	100	U07410.008.0075	NO.10-24X1 Inch*	100	U07410.019.0100	7/16-14X3 Inch*	10	U07410.043.0300
NO.2-56X7/8*	100	U07410.008.0087	NO.10-24X1.1/4*	100	U07410.019.0125	7/16-14X3.1/2*	5	U07410.043.0350
NO.2-56X1 Inch*	100	U07410.008.0100	NO.10-24X1.1/2*	100	U07410.019.0150	7/16-14X4 Inch*	5	U07410.043.0400
			NO.10-24X1.3/4*	100	U07410.019.0175			
NO.3-48X3/16 ft*	100	U07410.009.0018	NO.10-24X2 Inch*	100	U07410.019.0200	1/2-13X3/4 ft*	10	U07410.050.0075
NO.3-48X1/4 ft*	100	U07410.009.0025	NO.10-24X2.1/4*	100	U07410.019.0225	1/2-13X7/8 ft*	10	U07410.050.0087
NO.3-48X5/16 ft*	100	U07410.009.0031	NO.10-24X2.1/2*	100	U07410.019.0250	1/2-13X1 Inch ft*	10	U07410.050.0100
NO.3-48X3/8 ft*	100	U07410.009.0037	NO.10-24X3 Inch*	100	U07410.019.0300	1/2-13X1.1/4 ft*	10	U07410.050.0125
NO.3-48X1/2 ft*	100	U07410.009.0050				1/2-13X1.3/8 ft*	10	U07410.050.0137
NO.3-48X5/8 ft*	100	U07410.009.0062	1/4-20X3/8 ft*	100	U07410.025.0037	1/2-13X1.1/2 ft*	10	U07410.050.0150
NO.3-48X3/4*	100	U07410.009.0075	1/4-20X1/2 ft*	100	U07410.025.0050	1/2-13X1.3/4*	10	U07410.050.0175
NO.3-48X1 Inch*	100	U07410.009.0100	1/4-20X5/8 ft*	100	U07410.025.0062	1/2-13X2 Inch*	10	U07410.050.0200
			1/4-20X3/4 ft*	100	U07410.025.0075	1/2-13X2.1/4*	10	U07410.050.0225
NO.4-40X3/16 ft*	100	U07410.011.0018	1/4-20X7/8 ft*	100	U07410.025.0087	1/2-13X2.1/2*	10	U07410.050.0250
NO.4-40X1/4 ft*	100	U07410.011.0025	1/4-20X1 Inch ft*	100	U07410.025.0100	1/2-13X2.3/4*	10	U07410.050.0275
NO.4-40X5/16 ft*	100	U07410.011.0031	1/4-20X1.1/8*	100	U07410.025.0112	1/2-13X3 Inch*	5	U07410.050.0300
NO.4-40X3/8 ft*	100	U07410.011.0037	1/4-20X1.1/4*	100	U07410.025.0125	1/2-13X3.1/4*	5	U07410.050.0325
NO.4-40X7/16 ft*	100	U07410.011.0043	1/4-20X1.1/2*	100	U07410.025.0150	1/2-13X3.1/2*	5	U07410.050.0350
NO.4-40X1/2 ft*	100	U07410.011.0050	1/4-20X1.3/4*	100	U07410.025.0175	1/2-13X4 Inch*	5	U07410.050.0400
NO.4-40X5/8 ft*	100	U07410.011.0062	1/4-20X2 Inch*	50	U07410.025.0200	1/2-13X4.1/2*	5	U07410.050.0450
NO.4-40X3/4 ft*	100	U07410.011.0075	1/4-20X2.1/4*	50	U07410.025.0225	1/2-13X5 Inch*	5	U07410.050.0500
NO.4-40X7/8*	100	U07410.011.0087	1/4-20X2.1/2*	50	U07410.025.0250	1/2-13X5.1/2*	5	U07410.050.0550
NO.4-40X1 Inch*	100	U07410.011.0100	1/4-20X2.3/4*	50	U07410.025.0275	1/2-13X6 Inch*	5	U07410.050.0600
NO.4-40X1.1/4*	100	U07410.011.0125	1/4-20X3 Inch*	25	U07410.025.0300	1/2-13X7 Inch*	5	U07410.050.0700
			1/4-20X3.1/2*	25	U07410.025.0350	1/2-13X8 Inch*	5	U07410.050.0800
NO.5-40X1/4 ft*	100	U07410.012.0025	1/4-20X4 Inch*	25	U07410.025.0400			
NO.5-40X3/8 ft*	100	U07410.012.0037				5/8-11X1 Inch ft*	10	U07410.062.0100
NO.5-40X1/2 ft*	100	U07410.012.0050	5/16-18X3/8 ft*	100	U07410.031.0037	5/8-11X1.1/4 ft*	10	U07410.062.0125
NO.5-40X5/8 ft*	100	U07410.012.0062	5/16-18X1/2 ft*	100	U07410.031.0050	5/8-11X1.1/2 ft*	10	U07410.062.0150
NO.5-40X3/4 ft*	100	U07410.012.0075	5/16-18X5/8 ft*	100	U07410.031.0062	5/8-11X1.3/4 ft*	10	U07410.062.0175
NO.5-40X1 Inch*	100	U07410.012.0100	5/16-18X3/4 ft*	100	U07410.031.0075	5/8-11X2 Inch*	5	U07410.062.0200
NO.5-40X1.1/4*	100	U07410.012.0125	5/16-18X7/8 ft*	100	U07410.031.0087	5/8-11X2.1/4*	5	U07410.062.0225
NO.5-40X1.1/2*	100	U07410.012.0150	5/16-18X1 Inch ft*	50	U07410.031.0100	5/8-11X2.1/2*	5	U07410.062.0250
			5/16-18X1.1/8 ft*	50	U07410.031.0112	5/8-11X2.3/4*	5	U07410.062.0275
NO.6-32X3/16 ft*	100	U07410.013.0018	5/16-18X1.1/4*	50	U07410.031.0125	5/8-11X3 Inch*	5	U07410.062.0300
NO.6-32X1/4 ft*	100	U07410.013.0025	5/16-18X1.1/2*	50	U07410.031.0150	5/8-11X3.1/2*	5	U07410.062.0350
NO.6-32X5/16 ft*	100	U07410.013.0031	5/16-18X1.3/4*	50	U07410.031.0175	5/8-11X4 Inch*	5	U07410.062.0400
NO.6-32X3/8 ft*	100	U07410.013.0037	5/16-18X2 Inch*	50	U07410.031.0200	5/8-11X4.1/2*	5	U07410.062.0450
NO.6-32X7/16 ft*	100	U07410.013.0043	5/16-18X2.1/4*	25	U07410.031.0225	5/8-11X5 Inch*	5	U07410.062.0500
NO.6-32X1/2 ft*	100	U07410.013.0050	5/16-18X2.1/2*	25	U07410.031.0250	5/8-11X5.1/2*	5	U07410.062.0550
NO.6-32X5/8 ft*	100	U07410.013.0062	5/16-18X2.3/4*	25	U07410.031.0275	5/8-11X6 Inch*	5	U07410.062.0600
NO.6-32X3/4 ft*	100	U07410.013.0075	5/16-18X3 Inch*	25	U07410.031.0300	5/8-11X6.1/2*	5	U07410.062.0650
NO.6-32X7/8*	100	U07410.013.0087	5/16-18X3.1/2*	25	U07410.031.0350	5/8-11X7 Inch*	5	U07410.062.0700
NO.6-32X1 Inch*	100	U07410.013.0100	5/16-18X4 Inch*	10	U07410.031.0400	5/8-11X8 Inch*	5	U07410.062.0800
NO.6-32X1.1/4*	100	U07410.013.0125						
NO.6-32X1.1/2*	100	U07410.013.0150	3/8-16X1/2 ft*	50	U07410.037.0050	3/4-10X1 Inch ft*	5	U07410.075.0100
NO.6-32X1.3/4*	100	U07410.013.0175	3/8-16X5/8 ft*	50	U07410.037.0062	3/4-10X1.1/4 ft*	5	U07410.075.0125
NO.6-32X2 Inch*	100	U07410.013.0200	3/8-16X3/4 ft*	50	U07410.037.0075	3/4-10X1.1/2 ft*	5	U07410.075.0150
NO.6-32X2.1/4*	100	U07410.013.0225	3/8-16X7/8 ft*	50	U07410.037.0087	3/4-10X1.3/4 ft*	5	U07410.075.0175
NO.6-32X2.1/2*	100	U07410.013.0250	3/8-16X1 Inch ft*	50	U07410.037.0100	3/4-10X2 Inch ft*	5	U07410.075.0200
			3/8-16X1.1/4 ft*	50	U07410.037.0125	3/4-10X2.1/4*	5	U07410.075.0225
NO.8-32X1/4 ft*	100	U07410.016.0025	3/8-16X1.3/8*	50	U07410.037.0137	3/4-10X2.1/2*	5	U07410.075.0250
NO.8-32X5/16 ft*	100	U07410.016.0031	3/8-16X1.1/2*	25	U07410.037.0150	3/4-10X2.3/4*	5	U07410.075.0275
NO.8-32X3/8 ft*	100	U07410.016.0037	3/8-16X1.3/4*	25	U07410.037.0175	3/4-10X3 Inch*	5	U07410.075.0300
NO.8-32X7/16 ft*	100	U07410.016.0043	3/8-16X2 Inch*	25	U07410.037.0200	3/4-10X3.1/4*	5	U07410.075.0325
NO.8-32X1/2 ft*	100	U07410.016.0050	3/8-16X2.1/4*	25	U07410.037.0225	3/4-10X3.1/2*	5	U07410.075.0350
NO.8-32X5/8 ft*	100	U07410.016.0062	3/8-16X2.1/2*	25	U07410.037.0250	3/4-10X4 Inch*	5	U07410.075.0400
NO.8-32X3/4 ft*	100	U07410.016.0075	3/8-16X2.3/4*	25	U07410.037.0275	3/4-10X4.1/2*	5	U07410.075.0450
NO.8-32X7/8 ft*	100	U07410.016.0087	3/8-16X3 Inch*	10	U07410.037.0300	3/4-10X5 Inch*	5	U07410.075.0500
NO.8-32X1 Inch*	100	U07410.016.0100	3/8-16X3.1/2*	10	U07410.037.0350	3/4-10X6 Inch*	5	U07410.075.0600
NO.8-32X1.1/4*	100	U07410.016.0125	3/8-16X4 Inch*	10	U07410.037.0400	3/4-10X6.1/2*	1	U07410.075.0650
NO.8-32X1.1/2*	100	U07410.016.0150	3/8-16X4.1/2*	10	U07410.037.0450	3/4-10X7 Inch*	1	U07410.075.0700
NO.8-32X1.3/4*	100	U07410.016.0175	3/8-16X5 Inch*	10	U07410.037.0500	3/4-10X8 Inch*	1	U07410.075.0800
NO.8-32X2 Inch*	100	U07410.016.0200	3/8-16X5.1/2*	10	U07410.037.0550			
NO.8-32X2.1/4*	100	U07410.016.0225	3/8-16X6 Inch*	10	U07410.037.0600	7/8-9X2 Inch ft*	5	U07410.087.0200
NO.8-32X2.1/2*	100	U07410.016.0250				7/8-9X2.1/2*	5	U07410.087.0250
			7/16-14X3/4 ft*	25	U07410.043.0075	7/8-9X3 Inch*	5	U07410.087.0300
NO.10-24X1/4 ft*	100	U07410.019.0025	7/16-14X7/8 ft*	25	U07410.043.0087	7/8-9X3.1/2*	5	U07410.087.0350

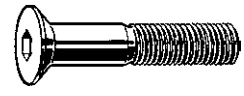
U07410 Parafuso cabeça de embeber sextavado interior UNC

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
7/8-9X4 Inch*	5	U07410.087.0400	1.-8X2.1/2 ft*	5	U07410.100.0250	1.-8X8 Inch*	1	U07410.100.0800
7/8-9X4.1/2*	5	U07410.087.0450	1.-8X2.3/4*	5	U07410.100.0275			
7/8-9X5 Inch*	5	U07410.087.0500	1.-8X3 Inch*	5	U07410.100.0300	1.1/4-7X3 Inch ft*	1	U07410.125.0300
7/8-9X6 Inch*	1	U07410.087.0600	1.-8X3.1/2*	5	U07410.100.0350	1.1/4-7X3.1/2*	1	U07410.125.0350
7/8-9X6.1/2*	1	U07410.087.0650	1.-8X4 Inch*	5	U07410.100.0400	1.1/4-7X4 Inch*	1	U07410.125.0400
7/8-9X7 Inch*	1	U07410.087.0700	1.-8X4.1/2*	5	U07410.100.0450	1.1/4-7X5 Inch*	1	U07410.125.0500
7/8-9X8 Inch*	1	U07410.087.0800	1.-8X5 Inch*	5	U07410.100.0500	1.1/4-7X6 Inch*	1	U07410.125.0600
			1.-8X6 Inch*	1	U07410.100.0600	1.1/4-7X7 Inch*	1	U07410.125.0700
1.-8X2 Inch ft*	5	U07410.100.0200	1.-8X6.1/2*	1	U07410.100.0650	1.1/4-7X8 Inch*	1	U07410.125.0800
1.-8X2.1/4 ft*	5	U07410.100.0225	1.-8X7 Inch*	1	U07410.100.0700			

- ft = rosca total métrico

U07415 Parafuso cabeça de embeber sextavado interior UNC X05A

Rosca Unified National Coarse
Material Aço
Classe Grade 5
Tratamento sup. Zincado

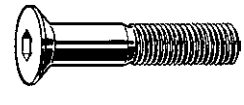


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.4-40X1/4 ft*	100	U07415.011.0025	NO.10-24X5/8 ft*	100	U07415.019.0062	5/16-18X1.1/2*	50	U07415.031.0150
NO.4-40X3/8 ft*	100	U07415.011.0037	NO.10-24X3/4 ft*	100	U07415.019.0075	5/16-18X1.3/4*	50	U07415.031.0175
NO.4-40X1/2 ft*	100	U07415.011.0050	NO.10-24X1 Inch*	100	U07415.019.0100	5/16-18X2 Inch*	50	U07415.031.0200
NO.4-40X5/8 ft*	100	U07415.011.0062	NO.10-24X1.1/4*	100	U07415.019.0125	5/16-18X2.1/2*	25	U07415.031.0250
NO.4-40X3/4 ft*	100	U07415.011.0075	NO.10-24X1.1/2*	100	U07415.019.0150			
NO.4-40X1 Inch*	100	U07415.011.0100				3/8-16X1/2 ft*	50	U07415.037.0050
			1/4-20X3/8 ft*	100	U07415.025.0037	3/8-16X3/4 ft*	50	U07415.037.0075
NO.6-32X1/4 ft*	100	U07415.013.0025	1/4-20X1/2 ft*	100	U07415.025.0050	3/8-16X1 Inch ft*	50	U07415.037.0100
NO.6-32X3/8 ft*	100	U07415.013.0037	1/4-20X5/8 ft*	100	U07415.025.0062	3/8-16X1.1/4 ft*	50	U07415.037.0125
NO.6-32X1/2 ft*	100	U07415.013.0050	1/4-20X3/4 ft*	100	U07415.025.0075	3/8-16X1.1/2*	25	U07415.037.0150
NO.6-32X5/8 ft*	100	U07415.013.0062	1/4-20X1 Inch ft*	100	U07415.025.0100	3/8-16X1.3/4*	25	U07415.037.0175
NO.6-32X3/4 ft*	100	U07415.013.0075	1/4-20X1.1/4*	100	U07415.025.0125	3/8-16X2 Inch*	25	U07415.037.0200
			1/4-20X1.1/2*	100	U07415.025.0150			
NO.8-32X3/8 ft*	100	U07415.016.0037	1/4-20X1.3/4*	100	U07415.025.0175	1/2-13X3/4 ft*	10	U07415.050.0075
NO.8-32X1/2 ft*	100	U07415.016.0050	1/4-20X2 Inch*	50	U07415.025.0200	1/2-13X1 Inch ft*	10	U07415.050.0100
NO.8-32X5/8 ft*	100	U07415.016.0062				1/2-13X1.1/4 ft*	10	U07415.050.0125
NO.8-32X3/4 ft*	100	U07415.016.0075	5/16-18X1/2 ft*	100	U07415.031.0050	1/2-13X1.1/2 ft*	10	U07415.050.0150
NO.8-32X1 Inch*	100	U07415.016.0100	5/16-18X5/8 ft*	100	U07415.031.0062	1/2-13X1.3/4*	10	U07415.050.0175
			5/16-18X3/4 ft*	100	U07415.031.0075	1/2-13X2 Inch*	10	U07415.050.0200
NO.10-24X3/8 ft*	100	U07415.019.0037	5/16-18X1 Inch ft*	50	U07415.031.0100	1/2-13X2.1/2*	10	U07415.050.0250
NO.10-24X1/2 ft*	100	U07415.019.0050	5/16-18X1.1/4*	50	U07415.031.0125	1/2-13X3 Inch*	5	U07415.050.0300

- ft = rosca total métrico

U51060 Parafuso cabeça de embeber sextavado interior UNC X15A

Rosca Unified National Coarse
Material Aço inoxidável A2 (AISI 304/18-8)
Classe F837



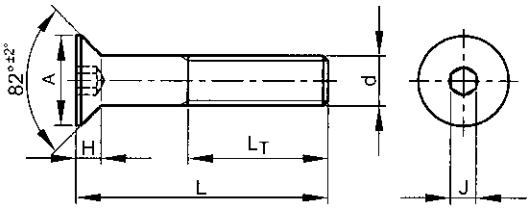
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.2-56X1/8 ft*	100	U51060.008.0012	NO.4-40X1/2 ft*	100	U51060.011.0050			
NO.2-56X3/16 ft*	100	U51060.008.0018	NO.4-40X5/8 ft*	100	U51060.011.0062	NO.8-32X1/4 ft*	100	U51060.016.0025
NO.2-56X1/4 ft*	100	U51060.008.0025	NO.4-40X3/4 ft*	100	U51060.011.0075	NO.8-32X5/16 ft*	100	U51060.016.0031
NO.2-56X5/16 ft*	100	U51060.008.0031	NO.4-40X1 Inch*	100	U51060.011.0100	NO.8-32X3/8 ft*	100	U51060.016.0037
NO.2-56X3/8 ft*	100	U51060.008.0037				NO.8-32X7/16 ft*	100	U51060.016.0043
NO.2-56X1/2 ft*	100	U51060.008.0050	NO.5-40X1/4 ft*	100	U51060.012.0025	NO.8-32X1/2 ft*	100	U51060.016.0050
NO.2-56X5/8 ft*	100	U51060.008.0062	NO.5-40X5/16 ft*	100	U51060.012.0031	NO.8-32X5/8 ft*	100	U51060.016.0062
NO.2-56X3/4*	100	U51060.008.0075	NO.5-40X3/8 ft*	100	U51060.012.0037	NO.8-32X3/4 ft*	100	U51060.016.0075
NO.2-56X7/8*	100	U51060.008.0087	NO.5-40X1/2 ft*	100	U51060.012.0050	NO.8-32X7/8 ft*	100	U51060.016.0087
NO.2-56X1 Inch*	100	U51060.008.0100	NO.5-40X5/8 ft*	100	U51060.012.0062	NO.8-32X1 Inch*	100	U51060.016.0100
			NO.5-40X3/4 ft*	100	U51060.012.0075	NO.8-32X1.1/4*	100	U51060.016.0125
NO.3-48X3/16 ft*	100	U51060.009.0018	NO.5-40X1 Inch*	100	U51060.012.0100	NO.8-32X1.1/2*	100	U51060.016.0150
NO.3-48X1/4 ft*	100	U51060.009.0025				NO.8-32X1.3/4*	100	U51060.016.0175
NO.3-48X5/16 ft*	100	U51060.009.0031	NO.6-32X1/4 ft*	100	U51060.013.0025			
NO.3-48X3/8 ft*	100	U51060.009.0037	NO.6-32X5/16 ft*	100	U51060.013.0031	NO.10-24X5/16 ft*	100	U51060.019.0031
NO.3-48X1/2 ft*	100	U51060.009.0050	NO.6-32X3/8 ft*	100	U51060.013.0037	NO.10-24X3/8 ft*	100	U51060.019.0037
NO.3-48X5/8 ft*	100	U51060.009.0062	NO.6-32X7/16 ft*	100	U51060.013.0043	NO.10-24X7/16 ft*	100	U51060.019.0043
NO.3-48X3/4*	100	U51060.009.0075	NO.6-32X1/2 ft*	100	U51060.013.0050	NO.10-24X1/2 ft*	100	U51060.019.0050
NO.3-48X1 Inch*	100	U51060.009.0100	NO.6-32X5/8 ft*	100	U51060.013.0062	NO.10-24X5/8 ft*	100	U51060.019.0062
			NO.6-32X3/4 ft*	100	U51060.013.0075	NO.10-24X3/4 ft*	100	U51060.019.0075
NO.4-40X3/16 ft*	100	U51060.011.0018	NO.6-32X7/8*	100	U51060.013.0087	NO.10-24X7/8 ft*	100	U51060.019.0087
NO.4-40X1/4 ft*	100	U51060.011.0025	NO.6-32X1 Inch*	100	U51060.013.0100	NO.10-24X1 Inch*	100	U51060.019.0100
NO.4-40X5/16 ft*	100	U51060.011.0031	NO.6-32X1.1/4*	100	U51060.013.0125	NO.10-24X1.1/4*	100	U51060.019.0125
NO.4-40X3/8 ft*	100	U51060.011.0037	NO.6-32X1.1/2*	100	U51060.013.0150	NO.10-24X1.1/2*	100	U51060.019.0150
NO.4-40X7/16 ft*	100	U51060.011.0043						

U51060 Parafuso cabeça de embeber sextavado interior UNC ←

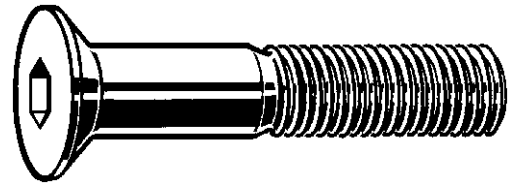
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.10-24X1.3/4*	100	U51060.019.0175	5/16-18X2.1/4*	25	U51060.031.0225	1/2-13X2.1/2*	10	U51060.050.0250
NO.10-24X2 Inch*	100	U51060.019.0200	5/16-18X2.1/2*	25	U51060.031.0250	1/2-13X3 Inch*	5	U51060.050.0300
			5/16-18X3 Inch*	25	U51060.031.0300	1/2-13X3.1/2*	5	U51060.050.0350
1/4-20X3/8 ft*	100	U51060.025.0037				1/2-13X4 Inch*	5	U51060.050.0400
1/4-20X1/2 ft*	100	U51060.025.0050	3/8-16X1/2 ft*	50	U51060.037.0050			
1/4-20X5/8 ft*	100	U51060.025.0062	3/8-16X5/8 ft*	50	U51060.037.0062	5/8-11X1 Inch ft*	10	U51060.062.0100
1/4-20X3/4 ft*	100	U51060.025.0075	3/8-16X3/4 ft*	50	U51060.037.0075	5/8-11X1.1/4 ft*	10	U51060.062.0125
1/4-20X7/8 ft*	100	U51060.025.0087	3/8-16X7/8 ft*	50	U51060.037.0087	5/8-11X1.1/2 ft*	10	U51060.062.0150
1/4-20X1 Inch ft*	100	U51060.025.0100	3/8-16X1 Inch ft*	50	U51060.037.0100	5/8-11X1.3/4 ft*	10	U51060.062.0175
1/4-20X1.1/4*	100	U51060.025.0125	3/8-16X1.1/4 ft*	50	U51060.037.0125	5/8-11X2 Inch*	5	U51060.062.0200
1/4-20X1.1/2*	100	U51060.025.0150	3/8-16X1.1/2*	25	U51060.037.0150	5/8-11X2.1/4*	5	U51060.062.0225
1/4-20X1.3/4*	100	U51060.025.0175	3/8-16X1.3/4*	25	U51060.037.0175	5/8-11X2.1/2*	5	U51060.062.0250
1/4-20X2 Inch*	50	U51060.025.0200	3/8-16X2 Inch*	25	U51060.037.0200	5/8-11X3 Inch*	5	U51060.062.0300
1/4-20X2.1/2*	50	U51060.025.0250	3/8-16X2.1/4*	25	U51060.037.0225	5/8-11X3.1/2*	5	U51060.062.0350
			3/8-16X2.1/2*	25	U51060.037.0250	5/8-11X4 Inch*	5	U51060.062.0400
5/16-18X3/8 ft*	100	U51060.031.0037	3/8-16X3 Inch*	10	U51060.037.0300			
5/16-18X1/2 ft*	100	U51060.031.0050				3/4-10X1.1/4 ft*	5	U51060.075.0125
5/16-18X5/8 ft*	100	U51060.031.0062	1/2-13X3/4 ft*	10	U51060.050.0075	3/4-10X1.1/2 ft*	5	U51060.075.0150
5/16-18X3/4 ft*	100	U51060.031.0075	1/2-13X7/8 ft*	10	U51060.050.0087	3/4-10X1.3/4 ft*	5	U51060.075.0175
5/16-18X7/8 ft*	100	U51060.031.0087	1/2-13X1 Inch ft*	10	U51060.050.0100	3/4-10X2 Inch ft*	5	U51060.075.0200
5/16-18X1 Inch ft*	50	U51060.031.0100	1/2-13X1.1/4 ft*	10	U51060.050.0125	3/4-10X2.1/2*	5	U51060.075.0250
5/16-18X1.1/4*	50	U51060.031.0125	1/2-13X1.1/2 ft*	10	U51060.050.0150	3/4-10X3 Inch*	5	U51060.075.0300
5/16-18X1.1/2*	50	U51060.031.0150	1/2-13X1.3/4*	10	U51060.050.0175	3/4-10X3.1/2*	5	U51060.075.0350
5/16-18X1.3/4*	50	U51060.031.0175	1/2-13X2 Inch*	10	U51060.050.0200	3/4-10X4 Inch*	5	U51060.075.0400
5/16-18X2 Inch*	50	U51060.031.0200	1/2-13X2.1/4*	10	U51060.050.0225			

- ft = rosca total métrico

Parafuso cabeça de embeber sextavado interior UNF



ASME ≈B18.3
BS ≈2470



Dados técnicos

d	A	Fios por polegada	H	J	L_T (min.)
No.0	0.138	80	0.044	0.035	0.5
No.1	0.168	72	0.054	0.050	0.62
No.4	0.255	48	0.083	1/16	0.75
No.6	0.307	40	0.097	5/64	0.75
No.8	0.359	36	0.112	3/32	0.88
No.10	0.411	32	0.127	1/8	0.88
1/4	0.531	28	0.161	5/32	1
5/16	0.656	24	0.198	3/16	1.12
3/8	0.781	24	0.234	7/32	1.25
7/16	0.844	20	0.234	1/4	1.38
1/2	0.938	20	0.251	5/16	1.5
5/8	1.188	18	0.324	3/8	1.75
3/4	1.438	16	0.396	1/2	2

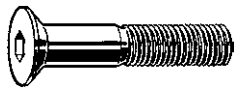
- Devido á desfavorável geometria da cabeça, estes parafusos têm uma capacidade de carga reduzida.
- ATENÇÃO: como a norma do produto especifica tolerância da rosca 3A para tamanho até 1 polegada, zincagem pode causar problemas de fiting.

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
UNF	Sextavado interior	Aço	Grade 5		U07566	2-49
UNF	Sextavado interior	Aço	Grade 5	Zn Mec.	07560	2-49
UNF	Sextavado interior	INOX A2 (AISI304/18-8)	F837		U51566	2-50

U07566 Parafuso cabeça de embeber sextavado interior UNF — X05A

Rosca Unified National Fine
Material Aço
Classe Grade 5

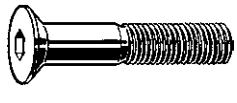


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.0-80X1/8 ft*	100	U07566.006.0012	NO.10-32X1.1/8*	100	U07566.019.0112	3/8-24X2.1/2*	25	U07566.037.0250
NO.0-80X3/16 ft*	100	U07566.006.0018	NO.10-32X1.1/4*	100	U07566.019.0125	3/8-24X2.3/4*	25	U07566.037.0275
NO.0-80X1/4 ft*	100	U07566.006.0025	NO.10-32X1.1/2*	100	U07566.019.0150	3/8-24X3 Inch*	10	U07566.037.0300
NO.0-80X5/16 ft*	100	U07566.006.0031	NO.10-32X1.3/4*	100	U07566.019.0175	3/8-24X3.1/4*	10	U07566.037.0325
NO.0-80X3/8 ft*	100	U07566.006.0037	NO.10-32X2 Inch*	100	U07566.019.0200	3/8-24X3.1/2*	10	U07566.037.0350
NO.0-80X1/2 ft*	100	U07566.006.0050	NO.10-32X2.1/4*	100	U07566.019.0225			
NO.0-80X5/8*	100	U07566.006.0062	NO.10-32X2.1/2*	100	U07566.019.0250	7/16-20X3/4 ft*	25	U07566.043.0075
NO.0-80X3/4*	100	U07566.006.0075	NO.10-32X3 Inch*	100	U07566.019.0300	7/16-20X1 Inch ft*	25	U07566.043.0100
NO.0-80X1 Inch*	100	U07566.006.0100				7/16-20X1.1/4 ft*	25	U07566.043.0125
			1/4-28X3/8 ft*	100	U07566.025.0037	7/16-20X1.1/2*	25	U07566.043.0150
NO.1-72X1/8 ft*	100	U07566.007.0012	1/4-28X1/2 ft*	100	U07566.025.0050	7/16-20X1.3/4*	10	U07566.043.0175
NO.1-72X3/16 ft*	100	U07566.007.0018	1/4-28X5/8 ft*	100	U07566.025.0062	7/16-20X2 Inch*	10	U07566.043.0200
NO.1-72X1/4 ft*	100	U07566.007.0025	1/4-28X3/4 ft*	100	U07566.025.0075	7/16-20X2.1/2*	10	U07566.043.0250
NO.1-72X5/16 ft*	100	U07566.007.0031	1/4-28X7/8 ft*	100	U07566.025.0087	7/16-20X3 Inch*	10	U07566.043.0300
NO.1-72X3/8 ft*	100	U07566.007.0037	1/4-28X1 Inch ft*	100	U07566.025.0100			
NO.1-72X1/2 ft*	100	U07566.007.0050	1/4-28X1.1/4*	100	U07566.025.0125	1/2-20X3/4 ft*	10	U07566.050.0075
NO.1-72X5/8 ft*	100	U07566.007.0062	1/4-28X1.1/2*	100	U07566.025.0150	1/2-20X1 Inch ft*	10	U07566.050.0100
NO.1-72X3/4*	100	U07566.007.0075	1/4-28X1.3/4*	100	U07566.025.0175	1/2-20X1.1/4 ft*	10	U07566.050.0125
NO.1-72X1 Inch*	100	U07566.007.0100	1/4-28X2 Inch*	50	U07566.025.0200	1/2-20X1.1/2 ft*	10	U07566.050.0150
			1/4-28X2.1/4*	50	U07566.025.0225	1/2-20X1.3/4*	10	U07566.050.0175
NO.4-48X1/4 ft*	100	U07566.011.0025	1/4-28X2.1/2*	50	U07566.025.0250	1/2-20X2 Inch*	10	U07566.050.0200
NO.4-48X3/8 ft*	100	U07566.011.0037	1/4-28X3 Inch*	25	U07566.025.0300	1/2-20X2.1/4*	10	U07566.050.0225
NO.4-48X1/2 ft*	100	U07566.011.0050	1/4-28X3.1/2*	25	U07566.025.0350	1/2-20X2.1/2*	10	U07566.050.0250
NO.4-48X5/8 ft*	100	U07566.011.0062				1/2-20X3 Inch*	5	U07566.050.0300
NO.4-48X3/4 ft*	100	U07566.011.0075	5/16-24X3/8 ft*	100	U07566.031.0037	1/2-20X3.1/2*	5	U07566.050.0350
NO.4-48X1 Inch*	100	U07566.011.0100	5/16-24X1/2 ft*	100	U07566.031.0050	1/2-20X4 Inch*	5	U07566.050.0400
			5/16-24X5/8 ft*	100	U07566.031.0062			
NO.6-40X1/4 ft*	100	U07566.013.0025	5/16-24X3/4 ft*	100	U07566.031.0075	5/8-18X1 Inch ft*	10	U07566.062.0100
NO.6-40X3/8 ft*	100	U07566.013.0037	5/16-24X7/8 ft*	100	U07566.031.0087	5/8-18X1.1/4 ft*	10	U07566.062.0125
NO.6-40X1/2 ft*	100	U07566.013.0050	5/16-24X1 Inch ft*	50	U07566.031.0100	5/8-18X1.1/2 ft*	10	U07566.062.0150
NO.6-40X5/8 ft*	100	U07566.013.0062	5/16-24X1.1/4*	50	U07566.031.0125	5/8-18X1.3/4 ft*	10	U07566.062.0175
NO.6-40X3/4 ft*	100	U07566.013.0075	5/16-24X1.1/2*	50	U07566.031.0150	5/8-18X2 Inch*	5	U07566.062.0200
NO.6-40X1 Inch*	100	U07566.013.0100	5/16-24X1.3/4*	50	U07566.031.0175	5/8-18X2.1/4*	5	U07566.062.0225
			5/16-24X2 Inch*	50	U07566.031.0200	5/8-18X2.1/2*	5	U07566.062.0250
NO.8-36X3/8 ft*	100	U07566.016.0037	5/16-24X2.1/4*	25	U07566.031.0225	5/8-18X3 Inch*	5	U07566.062.0300
NO.8-36X1/2 ft*	100	U07566.016.0050	5/16-24X2.1/2*	25	U07566.031.0250	5/8-18X3.1/2*	5	U07566.062.0350
NO.8-36X5/8 ft*	100	U07566.016.0062	5/16-24X3 Inch*	25	U07566.031.0300	5/8-18X4 Inch*	5	U07566.062.0400
NO.8-36X3/4 ft*	100	U07566.016.0075	5/16-24X3.1/2*	25	U07566.031.0350			
NO.8-36X1 Inch*	100	U07566.016.0100				3/4-16X1.1/4 ft*	5	U07566.075.0125
			3/8-24X1/2 ft*	50	U07566.037.0050	3/4-16X1.1/2 ft*	5	U07566.075.0150
NO.10-32X1/4 ft*	100	U07566.019.0025	3/8-24X5/8 ft*	50	U07566.037.0062	3/4-16X1.3/4 ft*	5	U07566.075.0175
NO.10-32X5/16 ft*	100	U07566.019.0031	3/8-24X3/4 ft*	50	U07566.037.0075	3/4-16X2 Inch ft*	5	U07566.075.0200
NO.10-32X3/8 ft*	100	U07566.019.0037	3/8-24X7/8 ft*	50	U07566.037.0087	3/4-16X2.1/4*	5	U07566.075.0225
NO.10-32X7/16 ft*	100	U07566.019.0043	3/8-24X1 Inch ft*	50	U07566.037.0100	3/4-16X2.1/2*	5	U07566.075.0250
NO.10-32X1/2 ft*	100	U07566.019.0050	3/8-24X1.1/4 ft*	50	U07566.037.0125	3/4-16X3 Inch*	5	U07566.075.0300
NO.10-32X5/8 ft*	100	U07566.019.0062	3/8-24X1.1/2*	25	U07566.037.0150	3/4-16X3.1/2*	5	U07566.075.0350
NO.10-32X3/4 ft*	100	U07566.019.0075	3/8-24X1.3/4*	25	U07566.037.0175	3/4-16X4 Inch*	5	U07566.075.0400
NO.10-32X7/8 ft*	100	U07566.019.0087	3/8-24X2 Inch*	25	U07566.037.0200			
NO.10-32X1 Inch*	100	U07566.019.0100	3/8-24X2.1/4*	25	U07566.037.0225			

- ft = rosca total métrico

07560 Parafuso cabeça de embeber sextavado interior UNF — X05A

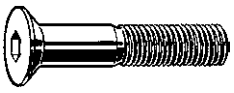
Rosca Unified National Fine
Material Aço
Classe Grade 5
Tratamento sup. Zincagem mecânica



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4X3/4	100	07560.063.019	3/8X1 Inch	100	07560.096.025	5/8X2 Inch	25	07560.158.050
5/16X1 Inch	100	07560.079.025	1/2X1.1/4	50	07560.127.031			

U51566	Parafuso cabeça de embeber sextavado interior UNF	X15A

Rosca Unified National Fine
Material Aço inoxidável A2 (AISI 304/18-8)
Classe F837

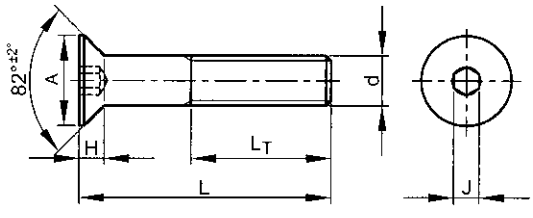


2

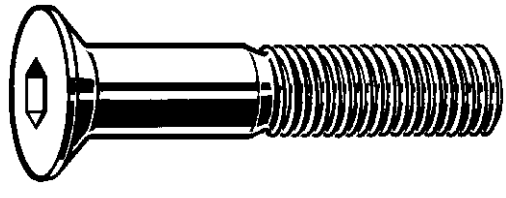
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.0-80X1/8 ft*	100	U51566.006.0012	NO.6-40X1 Inch*	100	U51566.013.0100	NO.10-32X2.1/4*	100	U51566.019.0225
NO.0-80X3/16 ft*	100	U51566.006.0018						
NO.0-80X1/4 ft*	100	U51566.006.0025	NO.10-32X5/16 ft*	100	U51566.019.0031	1/4-28X3/8 ft*	100	U51566.025.0037
NO.0-80X5/16 ft*	100	U51566.006.0031	NO.10-32X3/8 ft*	100	U51566.019.0037	1/4-28X1/2 ft*	100	U51566.025.0050
NO.0-80X3/8 ft*	100	U51566.006.0037	NO.10-32X7/16 ft*	100	U51566.019.0043	1/4-28X5/8 ft*	100	U51566.025.0062
NO.0-80X1/2 ft*	100	U51566.006.0050	NO.10-32X1/2 ft*	100	U51566.019.0050	1/4-28X3/4 ft*	100	U51566.025.0075
			NO.10-32X5/8 ft*	100	U51566.019.0062	1/4-28X7/8 ft*	100	U51566.025.0087
NO.1-72X1/8 ft*	100	U51566.007.0012	NO.10-32X3/4 ft*	100	U51566.019.0075	1/4-28X1 Inch ft*	100	U51566.025.0100
NO.1-72X3/16 ft*	100	U51566.007.0018	NO.10-32X7/8 ft*	100	U51566.019.0087	1/4-28X1.1/4*	100	U51566.025.0125
NO.1-72X1/4 ft*	100	U51566.007.0025	NO.10-32X1 Inch*	100	U51566.019.0100	1/4-28X1.1/2*	100	U51566.025.0150
NO.1-72X5/16 ft*	100	U51566.007.0031	NO.10-32X1.1/4*	100	U51566.019.0125	1/4-28X1.3/4*	100	U51566.025.0175
NO.1-72X3/8 ft*	100	U51566.007.0037	NO.10-32X1.1/2*	100	U51566.019.0150	1/4-28X2 Inch*	50	U51566.025.0200
NO.1-72X1/2 ft*	100	U51566.007.0050	NO.10-32X1.3/4*	100	U51566.019.0175			
			NO.10-32X2 Inch*	100	U51566.019.0200	5/16-24X3/8 ft*	100	U51566.031.0037
NO.6-40X3/8 ft*	100	U51566.013.0037						

- ft = rosca total métrico

Parafuso cabeça de embeber sextavado interior BSW



BS **≈2470**



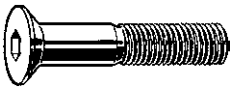
Dados técnicos

d	A	Fios por polegada	H	J	L_T (min.)
1/2	23.8	12	6.4	5/16	38

- A rosca whitworth (BSW/BSF) não é internacionalmente recomendada. É aconselhado o uso de rosca métrica(M/MF) ou roscas unificadas (UNC/UNF). Dependendo da disponibilidade as dimensões podem variar.
- Dependendo da disponibilidade pode ser fornecido classe 012.9.
- Devido á desfavorável geometria da cabeça, estes parafusos têm uma capacidade de carga reduzida.
- As antigas e as novas indicações podem coexistir durante um determinado periodo de tempo.

07600	Parafuso cabeça de embeber sextavado interior BSW	X08A

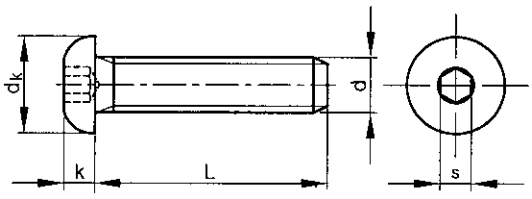
Rosca British Standard Whitworth
Material Aço
Classe 010.9



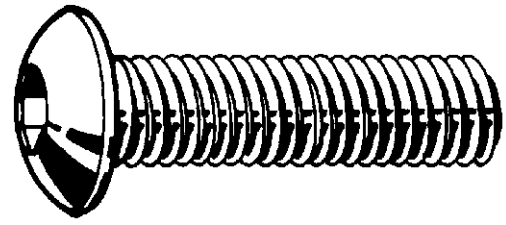
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/2X25MM	50	07600.127.025	1/2X30MM	50	07600.127.031	1/2X38MM	50	07600.127.038

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Parafuso cabeça redonda sextavado interior



ISO	**7380-1**
ASME	≈B18.3.4M
NF	≈E25-126
BS	≈4168-6



Dados técnicos

d	d_k (max.)	k (max.)	P	Rosca total C ≤	s
M3	5.7	1.65	0.5	12	2
M4	7.6	2.2	0.7	16	2.5
M5	9.5	2.75	0.8	30	3
M6	10.5	3.3	1	30	4
M8	14	4.4	1.25	40	5
M10	17.5	5.5	1.5	40	6
M12	21	6.6	1.75	50	8
M16	28	8.8	2	45	10

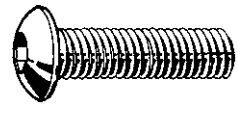
- Devido á desfavorável geometria da cabeça, estes parafusos têm uma capacidade de carga reduzida.
- Quando os parafusos de aço (por ex. 8.8 / 10.9 / 12.9) têm uma capacidade de carga reduzida, a marcação '0' precede a marcação da classe aço, por exemplo 8.8 → 08.8 e 10.9 → 010.9 e 12.9 → 012.9.
- Nos parafusos de aço inox, fica a marcação do aço e remove-se a classe da propriedade 70 (por ex. A2-70 → A2).
- As antigas e as novas indicações podem coexistir durante um determinado periodo de tempo.

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado interior	Aço	010.9		07150	2-51
M	Sextavado interior	Aço	010.9	Zn	07151	2-52
M	Sextavado interior	INOX A2	70		51030	2-52
M	Sextavado interior	INOX A4	70		55030	2-53

07150 **Parafuso cabeça redonda sextavado interior** **D04A**

Rosca Métrica
Material Aço
Classe 010.9



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6	200	07150.030.006	M5X60	200	07150.050.060	M8X55	200	07150.080.055
M3X8	200	07150.030.008	M5X70	200	07150.050.070	M8X60	200	07150.080.060
M3X10	200	07150.030.010				M8X70	200	07150.080.070
M3X12	200	07150.030.012	M6X6	200	07150.060.006	M8X80	200	07150.080.080
M3X16	200	07150.030.016	M6X8	200	07150.060.008	M8X90	100	07150.080.090
M3X20	200	07150.030.020	M6X10	200	07150.060.010	M8X100	100	07150.080.100
M3X25	200	07150.030.025	M6X12	200	07150.060.012			
M3X30	200	07150.030.030	M6X14	200	07150.060.014	M10X12	200	07150.100.012
			M6X16	200	07150.060.016	M10X16	200	07150.100.016
M4X6	200	07150.040.006	M6X20	200	07150.060.020	M10X20	200	07150.100.020
M4X8	200	07150.040.008	M6X25	200	07150.060.025	M10X25	200	07150.100.025
M4X10	200	07150.040.010	M6X30	200	07150.060.030	M10X30	200	07150.100.030
M4X12	200	07150.040.012	M6X35	200	07150.060.035	M10X35	100	07150.100.035
M4X16	200	07150.040.016	M6X40	200	07150.060.040	M10X40	100	07150.100.040
M4X20	200	07150.040.020	M6X45	200	07150.060.045	M10X45	100	07150.100.045
M4X25	200	07150.040.025	M6X50	200	07150.060.050	M10X50	100	07150.100.050
M4X30	200	07150.040.030	M6X55	200	07150.060.055	M10X55	100	07150.100.055
M4X35	200	07150.040.035	M6X60	200	07150.060.060	M10X60	100	07150.100.060
M4X40	200	07150.040.040	M6X70	200	07150.060.070	M10X70	100	07150.100.070
M4X50	200	07150.040.050				M10X80	100	07150.100.080
			M8X8	200	07150.080.008	M10X90	100	07150.100.090
M5X6	200	07150.050.006	M8X10	200	07150.080.010	M10X100	100	07150.100.100
M5X8	200	07150.050.008	M8X12	200	07150.080.012			
M5X10	200	07150.050.010	M8X14	200	07150.080.014	M12X20	100	07150.120.020
M5X12	200	07150.050.012	M8X16	200	07150.080.016	M12X25	100	07150.120.025
M5X16	200	07150.050.016	M8X18	200	07150.080.018	M12X30	100	07150.120.030
M5X20	200	07150.050.020	M8X20	200	07150.080.020	M12X35	100	07150.120.035
M5X25	200	07150.050.025	M8X25	200	07150.080.025	M12X40	100	07150.120.040
M5X30	200	07150.050.030	M8X30	200	07150.080.030	M12X45	100	07150.120.045
M5X35	200	07150.050.035	M8X35	200	07150.080.035	M12X50	100	07150.120.050
M5X40	200	07150.050.040	M8X40	200	07150.080.040	M12X55	100	07150.120.055
M5X45	200	07150.050.045	M8X45	200	07150.080.045	M12X60	100	07150.120.060
M5X50	200	07150.050.050	M8X50	200	07150.080.050	M12X70	100	07150.120.070

07150 Parafuso cabeça redonda sextavado interior ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M12X80	50	07150.120.080				M16X60	50	07150.160.060
M12X90	50	07150.120.090	M16X30	50	07150.160.030	M16X70	50	07150.160.070
M12X100	50	07150.120.100	M16X35	50	07150.160.035	M16X80	25	07150.160.080
M12X110	50	07150.120.110	M16X40	50	07150.160.040			
M12X120	50	07150.120.120	M16X45	50	07150.160.045			

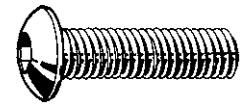
2

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

07151 Parafuso cabeça redonda sextavado interior D04A

Rosca Métrica
Material Aço
Classe 010.9
Tratamento sup. Zincado

RoHS



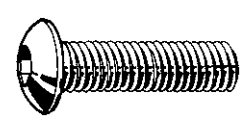
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X5	200	07151.030.005	M5X70	200	07151.050.070	M8X100	100	07151.080.100
M3X6	200	07151.030.006						
M3X8	200	07151.030.008	M6X6	200	07151.060.006	M10X12	200	07151.100.012
M3X10	200	07151.030.010	M6X8	200	07151.060.008	M10X16	200	07151.100.016
M3X12	200	07151.030.012	M6X10	200	07151.060.010	M10X20	200	07151.100.020
M3X16	200	07151.030.016	M6X12	200	07151.060.012	M10X25	200	07151.100.025
M3X20	200	07151.030.020	M6X16	200	07151.060.016	M10X30	200	07151.100.030
M3X25	200	07151.030.025	M6X20	200	07151.060.020	M10X35	100	07151.100.035
M3X30	200	07151.030.030	M6X25	200	07151.060.025	M10X40	100	07151.100.040
			M6X30	200	07151.060.030	M10X45	100	07151.100.045
M4X6	200	07151.040.006	M6X35	200	07151.060.035	M10X50	100	07151.100.050
M4X8	200	07151.040.008	M6X40	200	07151.060.040	M10X55	100	07151.100.055
M4X10	200	07151.040.010	M6X45	200	07151.060.045	M10X60	100	07151.100.060
M4X12	200	07151.040.012	M6X50	200	07151.060.050	M10X70	100	07151.100.070
M4X16	200	07151.040.016	M6X55	200	07151.060.055	M10X80	100	07151.100.080
M4X20	200	07151.040.020	M6X60	200	07151.060.060	M10X90	100	07151.100.090
M4X25	200	07151.040.025	M6X70	200	07151.060.070	M10X100	100	07151.100.100
M4X30	200	07151.040.030						
M4X35	200	07151.040.035	M8X8	200	07151.080.008	M12X16	100	07151.120.016
M4X40	200	07151.040.040	M8X10	200	07151.080.010	M12X20	100	07151.120.020
M4X50	200	07151.040.050	M8X12	200	07151.080.012	M12X25	100	07151.120.025
			M8X14	200	07151.080.014	M12X30	100	07151.120.030
M5X6	200	07151.050.006	M8X16	200	07151.080.016	M12X35	100	07151.120.035
M5X8	200	07151.050.008	M8X20	200	07151.080.020	M12X40	100	07151.120.040
M5X10	200	07151.050.010	M8X25	200	07151.080.025	M12X45	100	07151.120.045
M5X12	200	07151.050.012	M8X30	200	07151.080.030	M12X50	100	07151.120.050
M5X16	200	07151.050.016	M8X35	200	07151.080.035	M12X55	100	07151.120.055
M5X20	200	07151.050.020	M8X40	200	07151.080.040	M12X60	100	07151.120.060
M5X25	200	07151.050.025	M8X45	200	07151.080.045	M12X70	100	07151.120.070
M5X30	200	07151.050.030	M8X50	200	07151.080.050	M12X80	50	07151.120.080
M5X35	200	07151.050.035	M8X55	200	07151.080.055	M12X90	50	07151.120.090
M5X40	200	07151.050.040	M8X60	200	07151.080.060	M12X100	50	07151.120.100
M5X45	200	07151.050.045	M8X70	200	07151.080.070	M12X110	50	07151.120.110
M5X50	200	07151.050.050	M8X80	100	07151.080.080	M12X120	50	07151.120.120
M5X60	200	07151.050.060	M8X90	100	07151.080.090			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

51030 Parafuso cabeça redonda sextavado interior Q05A

Rosca Métrica
Material Aço inoxidável A2
Classe 70

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X3*	1000	51030.030.003	M3X35*	500	51030.030.035	M4X20	50	51030.040.020
M3X4	1000	51030.030.004	M3X40*	500	51030.030.040	M4X22*	500	51030.040.022
M3X5	50	51030.030.005	M3X45*	500	51030.030.045	M4X25	50	51030.040.025
M3X6	50	51030.030.006	M3X50*	200	51030.030.050	M4X30	50	51030.040.030
M3X8	50	51030.030.008				M4X35	50	51030.040.035
M3X10	50	51030.030.010	M4X4*	1000	51030.040.004	M4X40	200	51030.040.040
M3X12	50	51030.030.012	M4X5*	1000	51030.040.005	M4X45*	200	51030.040.045
M3X14*	1000	51030.030.014	M4X6	50	51030.040.006	M4X50*	200	51030.040.050
M3X16	50	51030.030.016	M4X8	50	51030.040.008	M4X55*	200	51030.040.055
M3X18*	1000	51030.030.018	M4X10	50	51030.040.010	M4X60*	100	51030.040.060
M3X20	50	51030.030.020	M4X12	50	51030.040.012			
M3X22*	1000	51030.030.022	M4X14*	1000	51030.040.014	M5X5*	500	51030.050.005
M3X25	50	51030.030.025	M4X16	50	51030.040.016	M5X6	50	51030.050.006
M3X30*	1000	51030.030.030	M4X18*	1000	51030.040.018	M5X8	50	51030.050.008

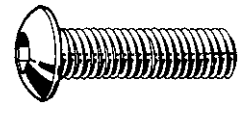
51030 Parafuso cabeça redonda sextavado interior

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X10	50	51030.050.010	M6X70	100	51030.060.070	M10X25	25	51030.100.025
M5X12	50	51030.050.012	M6X75*	100	51030.060.075	M10X30	25	51030.100.030
M5X14*	500	51030.050.014	M6X80	100	51030.060.080	M10X35	25	51030.100.035
M5X16	50	51030.050.016	M6X90*	100	51030.060.090	M10X40	25	51030.100.040
M5X18*	500	51030.050.018	M6X100*	100	51030.060.100	M10X45	10	51030.100.045
M5X20	50	51030.050.020	M6X120*	100	51030.060.120	M10X50	10	51030.100.050
M5X22*	500	51030.050.022				M10X55	10	51030.100.055
M5X25	25	51030.050.025	M8X8	25	51030.080.008	M10X60	10	51030.100.060
M5X30	25	51030.050.030	M8X10	25	51030.080.010	M10X65*	50	51030.100.065
M5X35	25	51030.050.035	M8X12	25	51030.080.012	M10X70	50	51030.100.070
M5X40	25	51030.050.040	M8X14*	200	51030.080.014	M10X75*	50	51030.100.075
M5X45	25	51030.050.045	M8X16	25	51030.080.016	M10X80	50	51030.100.080
M5X50	25	51030.050.050	M8X18*	200	51030.080.018	M10X90*	50	51030.100.090
M5X55*	200	51030.050.055	M8X20	25	51030.080.020	M10X100*	50	51030.100.100
M5X60*	100	51030.050.060	M8X22*	200	51030.080.022	M10X110*	50	51030.100.110
M5X65*	100	51030.050.065	M8X25	25	51030.080.025	M10X120*	50	51030.100.120
M5X70*	100	51030.050.070	M8X30	25	51030.080.030			
M5X75*	100	51030.050.075	M8X35	25	51030.080.035	M12X16*	50	51030.120.016
M5X80*	100	51030.050.080	M8X40	25	51030.080.040	M12X18*	50	51030.120.018
			M8X45	25	51030.080.045	M12X20	10	51030.120.020
M6X6	25	51030.060.006	M8X50	25	51030.080.050	M12X22*	50	51030.120.022
M6X8	25	51030.060.008	M8X55	25	51030.080.055	M12X25	10	51030.120.025
M6X10	25	51030.060.010	M8X60	25	51030.080.060	M12X30	10	51030.120.030
M6X12	25	51030.060.012	M8X65*	100	51030.080.065	M12X35	10	51030.120.035
M6X14	200	51030.060.014	M8X70*	100	51030.080.070	M12X40	10	51030.120.040
M6X16	25	51030.060.016	M8X75*	100	51030.080.075	M12X45	10	51030.120.045
M6X18*	200	51030.060.018	M8X80	100	51030.080.080	M12X50	10	51030.120.050
M6X20	25	51030.060.020	M8X90*	100	51030.080.090	M12X55	10	51030.120.055
M6X22*	200	51030.060.022	M8X100*	50	51030.080.100	M12X60	10	51030.120.060
M6X25	25	51030.060.025	M8X110*	50	51030.080.110	M12X65*	50	51030.120.065
M6X30	25	51030.060.030	M8X120*	50	51030.080.120	M12X70	10	51030.120.070
M6X35	25	51030.060.035				M12X75*	25	51030.120.075
M6X40	25	51030.060.040	M10X12	25	51030.100.012	M12X80*	25	51030.120.080
M6X45	25	51030.060.045	M10X14*	100	51030.100.014	M12X90*	25	51030.120.090
M6X50	25	51030.060.050	M10X16	25	51030.100.016	M12X100*	25	51030.120.100
M6X55	25	51030.060.055	M10X18*	100	51030.100.018	M12X110*	25	51030.120.110
M6X60	25	51030.060.060	M10X20	25	51030.100.020	M12X120*	25	51030.120.120
M6X65*	100	51030.060.065	M10X22*	100	51030.100.022			

55030 Parafuso cabeça redonda sextavado interior Q45A

Rosca Métrica
Material Aço inoxidável A4
Classe 70

RoHS

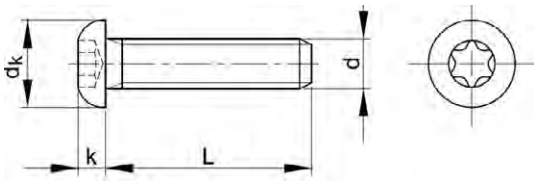


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X4*	1000	55030.030.004	M4X40*	200	55030.040.040	M6X14*	200	55030.060.014
M3X5*	1000	55030.030.005	M4X45*	200	55030.040.045	M6X16	25	55030.060.016
M3X6	50	55030.030.006	M4X50*	200	55030.040.050	M6X18*	200	55030.060.018
M3X8	50	55030.030.008	M4X55*	200	55030.040.055	M6X20	25	55030.060.020
M3X10	50	55030.030.010	M4X60*	100	55030.040.060	M6X22*	200	55030.060.022
M3X12	50	55030.030.012				M6X25	25	55030.060.025
M3X14*	1000	55030.030.014	M5X5*	500	55030.050.005	M6X30	25	55030.060.030
M3X16	50	55030.030.016	M5X6*	500	55030.050.006	M6X35	25	55030.060.035
M3X18*	1000	55030.030.018	M5X8	50	55030.050.008	M6X40	25	55030.060.040
M3X20	50	55030.030.020	M5X10	50	55030.050.010	M6X45	25	55030.060.045
M3X22*	1000	55030.030.022	M5X12	50	55030.050.012	M6X50	25	55030.060.050
M3X25	50	55030.030.025	M5X14*	500	55030.050.014	M6X55	25	55030.060.055
M3X30*	1000	55030.030.030	M5X16	50	55030.050.016	M6X60	25	55030.060.060
M3X35*	500	55030.030.035	M5X18*	500	55030.050.018	M6X65*	100	55030.060.065
M3X40*	500	55030.030.040	M5X20	50	55030.050.020	M6X70*	100	55030.060.070
M3X45*	500	55030.030.045	M5X22*	500	55030.050.022	M6X75*	100	55030.060.075
M3X50*	200	55030.030.050	M5X25	25	55030.050.025	M6X80*	100	55030.060.080
			M5X30	25	55030.050.030	M6X90*	100	55030.060.090
M4X4*	1000	55030.040.004	M5X35	25	55030.050.035	M6X100*	100	55030.060.100
M4X5*	1000	55030.040.005	M5X40	25	55030.050.040	M6X120*	100	55030.060.120
M4X6	50	55030.040.006	M5X45	25	55030.050.045			
M4X8	50	55030.040.008	M5X50	25	55030.050.050	M8X8*	500	55030.080.008
M4X10	50	55030.040.010	M5X55*	200	55030.050.055	M8X10	25	55030.080.010
M4X12	50	55030.040.012	M5X60*	100	55030.050.060	M8X12	25	55030.080.012
M4X14*	1000	55030.040.014	M5X65*	100	55030.050.065	M8X14*	200	55030.080.014
M4X16	50	55030.040.016	M5X70*	100	55030.050.070	M8X16	25	55030.080.016
M4X18*	1000	55030.040.018	M5X80*	100	55030.050.080	M8X18*	200	55030.080.018
M4X20	50	55030.040.020				M8X20	25	55030.080.020
M4X22*	500	55030.040.022	M6X6*	500	55030.060.006	M8X22*	200	55030.080.022
M4X25	50	55030.040.025	M6X8	25	55030.060.008	M8X25	25	55030.080.025
M4X30	50	55030.040.030	M6X10	25	55030.060.010	M8X30	25	55030.080.030
M4X35*	200	55030.040.035	M6X12	25	55030.060.012	M8X35	25	55030.080.035

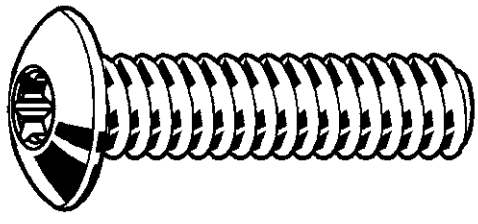
55030 **Parafuso cabeça redonda sextavado interior** ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M8X40	25	55030.080.040	M10X20	25	55030.100.020			
M8X45	25	55030.080.045	M10X22*	100	55030.100.022	M12X16*	50	55030.120.016
M8X50	25	55030.080.050	M10X25	25	55030.100.025	M12X20*	50	55030.120.020
M8X55	25	55030.080.055	M10X30	25	55030.100.030	M12X25*	50	55030.120.025
M8X60	25	55030.080.060	M10X35	25	55030.100.035	M12X30*	50	55030.120.030
M8X65*	100	55030.080.065	M10X40	25	55030.100.040	M12X35*	50	55030.120.035
M8X70*	100	55030.080.070	M10X45	10	55030.100.045	M12X40*	50	55030.120.040
M8X75*	100	55030.080.075	M10X50	10	55030.100.050	M12X45*	50	55030.120.045
M8X80*	100	55030.080.080	M10X55	10	55030.100.055	M12X50*	50	55030.120.050
M8X90*	100	55030.080.090	M10X60	10	55030.100.060	M12X55*	50	55030.120.055
M8X100*	50	55030.080.100	M10X65*	50	55030.100.065	M12X60*	50	55030.120.060
M8X110*	50	55030.080.110	M10X70*	50	55030.100.070	M12X65*	50	55030.120.065
M8X120*	50	55030.080.120	M10X75*	50	55030.100.075	M12X70*	50	55030.120.070
			M10X80*	50	55030.100.080	M12X80*	25	55030.120.080
M10X12*	100	55030.100.012	M10X90*	50	55030.100.090	M12X90*	25	55030.120.090
M10X14*	100	55030.100.014	M10X100*	50	55030.100.100	M12X100*	25	55030.120.100
M10X16	25	55030.100.016	M10X110*	50	55030.100.110	M12X110*	25	55030.120.110
M10X18*	100	55030.100.018	M10X120*	50	55030.100.120	M12X120*	25	55030.120.120

Parafuso cabeça redonda hexalobular



ISO **≈7380-1**
ASME ≈B18.3.4M
NF ≈E25-126
BS ≈4168-6



Dados técnicos

d	Chave caixa	d_k (max.)	k (max.)	P
M3	T10	5.7	1.65	0.5
M4	T20	7.6	2.2	0.7
M5	T25	9.5	2.75	0.8
M6	T30	10.5	3.3	1
M8	T40	14	4.4	1.25
M10	T50	17.5	5.5	1.50

- Devido á desfavorável geometria da cabeça, estes parafusos têm uma capacidade de carga reduzida.
- Quando os parafusos de aço (por ex. 8.8 / 10.9 / 12.9) têm uma capacidade de carga reduzida, a marcação '0' precede a marcação da classe aço, por exemplo 8.8 → 08.8 e 10.9 → 010.9 e 12.9 → 012.9.
- Nos parafusos de aço inox, fica a marcação do aço e remove-se a classe da propriedade 70 (por ex. A2-70 → A2).
- As antigas e as novas indicações podem coexistir durante um determinado periodo de tempo.

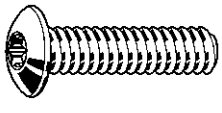
Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Hexalobular	Aço	010.9	Zn	07290	2-54
M	Hexalobular	INOX A2			51029	2-55
M	Hexalobular	INOX A4			55032	2-55

07290 **Parafuso cabeça redonda hexalobular** **D04A**

Rosca Métrica
Material Aço
Classe 010.9
Tratamento sup. Zincado

RoHS

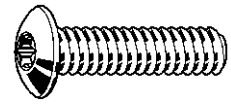


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X10	200	07290.040.010	M5X20	200	07290.050.020			
M4X12	200	07290.040.012	M5X25	200	07290.050.025	M8X12	200	07290.080.012
M4X16	200	07290.040.016				M8X16	200	07290.080.016
M4X20	200	07290.040.020	M6X10	200	07290.060.010	M8X20	200	07290.080.020
			M6X12	200	07290.060.012	M8X25	200	07290.080.025
M5X10	200	07290.050.010	M6X16	200	07290.060.016	M8X30	200	07290.080.030
M5X12	200	07290.050.012	M6X20	200	07290.060.020	M8X35	200	07290.080.035
M5X16	200	07290.050.016	M6X25	200	07290.060.025	M8X40	200	07290.080.040

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

51029 Parafuso cabeça redonda hexalobular — Q45A

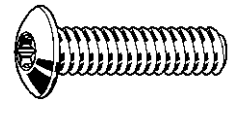
Rosca Métrica
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X3*	1000	51029.030.003	M5X10*	500	51029.050.010			
M3X4*	1000	51029.030.004	M5X12*	500	51029.050.012	M8X10*	200	51029.080.010
M3X5*	500	51029.030.005	M5X14*	500	51029.050.014	M8X12*	200	51029.080.012
M3X6*	500	51029.030.006	M5X16*	500	51029.050.016	M8X14*	200	51029.080.014
M3X8*	500	51029.030.008	M5X18*	500	51029.050.018	M8X16	200	51029.080.016
M3X10*	1000	51029.030.010	M5X20*	500	51029.050.020	M8X18*	200	51029.080.018
M3X12*	1000	51029.030.012	M5X22*	500	51029.050.022	M8X20*	200	51029.080.020
M3X14*	1000	51029.030.014	M5X25*	500	51029.050.025	M8X22*	200	51029.080.022
M3X16*	1000	51029.030.016	M5X30*	500	51029.050.030	M8X25*	200	51029.080.025
M3X18*	1000	51029.030.018	M5X35*	500	51029.050.035	M8X30*	200	51029.080.030
M3X20	1000	51029.030.020	M5X40*	500	51029.050.040	M8X35*	200	51029.080.035
M3X22*	1000	51029.030.022	M5X45*	200	51029.050.045	M8X40*	200	51029.080.040
M3X25*	1000	51029.030.025	M5X50*	200	51029.050.050	M8X45*	200	51029.080.045
M3X30*	1000	51029.030.030	M5X60*	100	51029.050.060	M8X50*	200	51029.080.050
M3X35*	500	51029.030.035				M8X55*	200	51029.080.055
M3X40*	500	51029.030.040	M6X6*	500	51029.060.006	M8X60*	200	51029.080.060
			M6X8*	500	51029.060.008	M8X70*	100	51029.080.070
M4X4*	1000	51029.040.004	M6X10*	500	51029.060.010	M8X80*	100	51029.080.080
M4X5*	1000	51029.040.005	M6X12*	500	51029.060.012	M8X88*	500	51029.080.088
M4X6	500	51029.040.006	M6X14*	500	51029.060.014	M8X100*	50	51029.080.100
M4X8	1000	51029.040.008	M6X16*	500	51029.060.016	M8X120*	50	51029.080.120
M4X10*	1000	51029.040.010	M6X18*	200	51029.060.018			
M4X12*	1000	51029.040.012	M6X20*	500	51029.060.020	M10X12*	100	51029.100.012
M4X16*	1000	51029.040.016	M6X22*	200	51029.060.022	M10X20*	100	51029.100.020
M4X18*	1000	51029.040.018	M6X25*	200	51029.060.025	M10X25*	100	51029.100.025
M4X20*	500	51029.040.020	M6X30*	200	51029.060.030	M10X30*	100	51029.100.030
M4X25*	500	51029.040.025	M6X35*	200	51029.060.035	M10X35*	100	51029.100.035
M4X30*	500	51029.040.030	M6X40*	200	51029.060.040	M10X40*	100	51029.100.040
M4X35*	200	51029.040.035	M6X45*	100	51029.060.045	M10X45*	100	51029.100.045
M4X40*	200	51029.040.040	M6X50*	100	51029.060.050	M10X50*	50	51029.100.050
			M6X55*	100	51029.060.055	M10X60*	50	51029.100.060
M5X5*	500	51029.050.005	M6X60*	100	51029.060.060	M10X70*	50	51029.100.070
M5X6*	500	51029.050.006	M6X70*	100	51029.060.070	M10X80*	50	51029.100.080
M5X8	500	51029.050.008	M6X80*	100	51029.060.080	M10X100*	50	51029.100.100

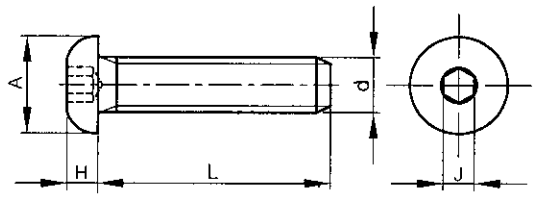
55032 Parafuso cabeça redonda hexalobular — Q45A

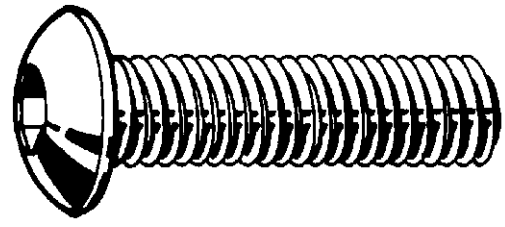
Rosca Métrica
Material Aço inoxidável A4



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X4*	1000	55032.030.004	M4X8*	1000	55032.040.008	M5X8*	500	55032.050.008
M3X6*	1000	55032.030.006	M4X20*	500	55032.040.020			
M3X8*	1000	55032.030.008				M6X10*	500	55032.060.010
			M5X6*	500	55032.050.006	M6X30*	200	55032.060.030
M4X6*	1000	55032.040.006						

Parafuso cabeça oval UNC





Dados técnicos

d	A	Fios por polegada	H	J
No.1	0.139	64	0.039	0.050
No.2	0.164	56	0.046	0.050
No.3	0.188	48	0.052	1/16
No.4	0.213	40	0.059	1/16
No.5	0.238	40	0.066	5/64
No.6	0.262	32	0.073	5/64
No.8	0.312	32	0.087	3/32
No.10	0.361	24	0.101	1/8
1/4	0.437	20	0.132	5/32
5/16	0.547	18	0.166	3/16
3/8	0.656	16	0.199	7/32
1/2	0.875	13	0.265	5/16
5/8	1.000	11	0.331	3/8

- Devido á desfavorável geometria da cabeça, estes parafusos têm uma capacidade de carga reduzida.

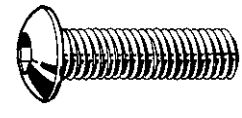
Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
UNC	Sextavado interior	Aço	Grade 5		U07150	2-56
UNC	Sextavado interior	Aço	Grade 5	Zn	U07151	2-57
UNC	Sextavado interior	INOX A2 (AISI304/18-8)	F879		U51030	2-57

U07150 **Parafuso cabeça oval UNC** **X05A**

Rosca Unified National Coarse
Material Aço
Classe Grade 5

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.1-64X3/8*	100	U07150.007.0037	NO.4-40X7/8*	100	U07150.011.0087	NO.8-32X1.1/2*	100	U07150.016.0150
NO.1-64X1/2*	100	U07150.007.0050	NO.4-40X1 Inch*	100	U07150.011.0100	NO.8-32X2 Inch*	100	U07150.016.0200
NO.1-64X3/4*	100	U07150.007.0075						
			NO.5-40X1/4*	100	U07150.012.0025	NO.10-24X1/4*	100	U07150.019.0025
NO.2-56X1/8*	100	U07150.008.0012	NO.5-40X3/8*	100	U07150.012.0037	NO.10-24X3/8*	100	U07150.019.0037
NO.2-56X3/16*	100	U07150.008.0018	NO.5-40X1/2*	100	U07150.012.0050	NO.10-24X1/2*	100	U07150.019.0050
NO.2-56X1/4*	100	U07150.008.0025	NO.5-40X3/4*	100	U07150.012.0075	NO.10-24X5/8*	100	U07150.019.0062
NO.2-56X5/16*	100	U07150.008.0031	NO.5-40X1 Inch*	100	U07150.012.0100	NO.10-24X3/4*	100	U07150.019.0075
NO.2-56X3/8*	100	U07150.008.0037				NO.10-24X7/8*	100	U07150.019.0087
NO.2-56X1/2*	100	U07150.008.0050	NO.6-32X3/16*	100	U07150.013.0018	NO.10-24X1 Inch*	100	U07150.019.0100
NO.2-56X5/8*	100	U07150.008.0062	NO.6-32X1/4*	100	U07150.013.0025	NO.10-24X1.1/4*	100	U07150.019.0125
NO.2-56X3/4*	100	U07150.008.0075	NO.6-32X5/16*	100	U07150.013.0031	NO.10-24X1.1/2*	100	U07150.019.0150
NO.2-56X1 Inch*	100	U07150.008.0100	NO.6-32X3/8*	100	U07150.013.0037	NO.10-24X2 Inch*	100	U07150.019.0200
			NO.6-32X1/2*	100	U07150.013.0050			
NO.3-48X3/16*	100	U07150.009.0018	NO.6-32X5/8*	100	U07150.013.0062	1/4-20X3/8*	100	U07150.025.0037
NO.3-48X1/4*	100	U07150.009.0025	NO.6-32X3/4*	100	U07150.013.0075	1/4-20X1/2*	100	U07150.025.0050
NO.3-48X5/16*	100	U07150.009.0031	NO.6-32X7/8*	100	U07150.013.0087	1/4-20X5/8*	100	U07150.025.0062
NO.3-48X3/8*	100	U07150.009.0037	NO.6-32X1 Inch*	100	U07150.013.0100	1/4-20X3/4*	100	U07150.025.0075
NO.3-48X1/2*	100	U07150.009.0050	NO.6-32X1.1/4*	100	U07150.013.0125	1/4-20X1 Inch*	100	U07150.025.0100
NO.3-48X5/8*	100	U07150.009.0062	NO.6-32X1.1/2*	100	U07150.013.0150	1/4-20X1.1/2*	100	U07150.025.0150
NO.3-48X3/4*	100	U07150.009.0075	NO.6-32X2 Inch*	100	U07150.013.0200	1/4-20X2 Inch*	50	U07150.025.0200
NO.3-48X1 Inch*	100	U07150.009.0100				1/4-20X2.1/2*	50	U07150.025.0250
			NO.8-32X3/16*	100	U07150.016.0018	1/4-20X3 Inch*	25	U07150.025.0300
NO.4-40X1/8*	100	U07150.011.0012	NO.8-32X1/4*	100	U07150.016.0025	1/4-20X3.1/2*	25	U07150.025.0350
NO.4-40X3/16*	100	U07150.011.0018	NO.8-32X5/16*	100	U07150.016.0031			
NO.4-40X1/4*	100	U07150.011.0025	NO.8-32X3/8*	100	U07150.016.0037	5/16-18X3/8*	100	U07150.031.0037
NO.4-40X5/16*	100	U07150.011.0031	NO.8-32X1/2*	100	U07150.016.0050	5/16-18X1/2*	100	U07150.031.0050
NO.4-40X3/8*	100	U07150.011.0037	NO.8-32X5/8*	100	U07150.016.0062	5/16-18X5/8*	100	U07150.031.0062
NO.4-40X7/16*	100	U07150.011.0043	NO.8-32X3/4*	100	U07150.016.0075	5/16-18X3/4*	100	U07150.031.0075
NO.4-40X1/2*	100	U07150.011.0050	NO.8-32X1 Inch*	100	U07150.016.0100	5/16-18X7/8*	100	U07150.031.0087
NO.4-40X5/8*	100	U07150.011.0062	NO.8-32X1.1/4*	100	U07150.016.0125	5/16-18X1 Inch*	50	U07150.031.0100
NO.4-40X3/4*	100	U07150.011.0075						

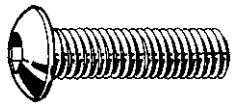
U07150 Parafuso cabeça oval UNC

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
5/16-18X1.1/4*	50	U07150.031.0125	3/8-16X1.3/4*	25	U07150.037.0175	1/2-13X2 Inch*	10	U07150.050.0200
5/16-18X1.1/2*	50	U07150.031.0150	3/8-16X2 Inch*	25	U07150.037.0200	1/2-13X2.1/2*	10	U07150.050.0250
5/16-18X2 Inch*	50	U07150.031.0200	3/8-16X2.1/4*	25	U07150.037.0225	1/2-13X3 Inch*	5	U07150.050.0300
			3/8-16X2.1/2*	25	U07150.037.0250			
3/8-16X1/2*	50	U07150.037.0050	3/8-16X2.3/4*	25	U07150.037.0275	5/8-11X1 Inch*	10	U07150.062.0100
3/8-16X5/8*	50	U07150.037.0062				5/8-11X1.1/2*	10	U07150.062.0150
3/8-16X3/4*	50	U07150.037.0075	1/2-13X3/4*	10	U07150.050.0075	5/8-11X2 Inch*	5	U07150.062.0200
3/8-16X7/8*	50	U07150.037.0087	1/2-13X1 Inch*	10	U07150.050.0100	5/8-11X2.1/2*	5	U07150.062.0250
3/8-16X1 Inch*	50	U07150.037.0100	1/2-13X1.1/4*	10	U07150.050.0125	5/8-11X3 Inch*	5	U07150.062.0300
3/8-16X1.1/4*	50	U07150.037.0125	1/2-13X1.1/2*	10	U07150.050.0150			
3/8-16X1.1/2*	25	U07150.037.0150	1/2-13X1.3/4*	10	U07150.050.0175			

U07151 Parafuso cabeça oval UNC

X05A

Rosca Unified National Coarse
Material Aço
Classe Grade 5
Tratamento sup. Zincado

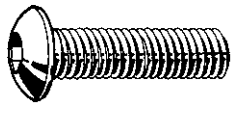


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.4-40X1/4*	100	U07151.011.0025	NO.10-24X5/8*	100	U07151.019.0062	5/16-18X1.1/2*	50	U07151.031.0150
NO.4-40X3/8*	100	U07151.011.0037	NO.10-24X3/4*	100	U07151.019.0075			
NO.4-40X1/2*	100	U07151.011.0050	NO.10-24X7/8*	100	U07151.019.0087	3/8-16X1/2*	50	U07151.037.0050
			NO.10-24X1 Inch*	100	U07151.019.0100	3/8-16X3/4*	50	U07151.037.0075
NO.6-32X1/4*	100	U07151.013.0025				3/8-16X1 Inch*	50	U07151.037.0100
NO.6-32X3/8*	100	U07151.013.0037	1/4-20X3/8*	100	U07151.025.0037	3/8-16X1.1/4*	50	U07151.037.0125
NO.6-32X1/2*	100	U07151.013.0050	1/4-20X1/2*	100	U07151.025.0050	3/8-16X1.1/2*	25	U07151.037.0150
NO.6-32X5/8*	100	U07151.013.0062	1/4-20X5/8*	100	U07151.025.0062			
			1/4-20X3/4*	100	U07151.025.0075	1/2-13X1 Inch*	10	U07151.050.0100
NO.8-32X1/4*	100	U07151.016.0025	1/4-20X7/8*	100	U07151.025.0087	1/2-13X1.1/4*	10	U07151.050.0125
NO.8-32X3/8*	100	U07151.016.0037	1/4-20X1 Inch*	100	U07151.025.0100	1/2-13X1.1/2*	10	U07151.050.0150
NO.8-32X1/2*	100	U07151.016.0050	1/4-20X1.1/2*	100	U07151.025.0150	1/2-13X2 Inch*	10	U07151.050.0200
NO.8-32X5/8*	100	U07151.016.0062						
NO.8-32X3/4*	100	U07151.016.0075	5/16-18X3/8*	100	U07151.031.0037	5/8-11X1 Inch*	10	U07151.062.0100
NO.8-32X1 Inch*	100	U07151.016.0100	5/16-18X1/2*	100	U07151.031.0050	5/8-11X1.1/2*	10	U07151.062.0150
			5/16-18X3/4*	100	U07151.031.0075	5/8-11X2 Inch*	5	U07151.062.0200
NO.10-24X3/8*	100	U07151.019.0037	5/16-18X1 Inch*	50	U07151.031.0100			
NO.10-24X1/2*	100	U07151.019.0050	5/16-18X1.1/4*	50	U07151.031.0125			

U51030 Parafuso cabeça oval UNC

X15A

Rosca Unified National Coarse
Material Aço inoxidável A2 (AISI 304/18-8)
Classe F879

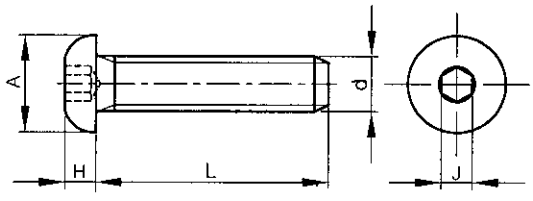


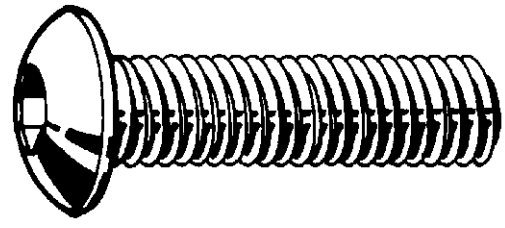
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.1-64X3/8*	100	U51030.007.0037	NO.4-40X5/8*	100	U51030.011.0062	NO.8-32X3/8*	100	U51030.016.0037
NO.1-64X1/2*	100	U51030.007.0050	NO.4-40X3/4*	100	U51030.011.0075	NO.8-32X7/16*	100	U51030.016.0043
NO.1-64X3/4*	100	U51030.007.0075	NO.4-40X7/8*	100	U51030.011.0087	NO.8-32X1/2*	100	U51030.016.0050
			NO.4-40X1 Inch*	100	U51030.011.0100	NO.8-32X5/8*	100	U51030.016.0062
NO.2-56X1/8*	100	U51030.008.0012				NO.8-32X3/4*	100	U51030.016.0075
NO.2-56X3/16*	100	U51030.008.0018	NO.5-40X1/4*	100	U51030.012.0025	NO.8-32X7/8*	100	U51030.016.0087
NO.2-56X1/4*	100	U51030.008.0025	NO.5-40X5/16*	100	U51030.012.0031	NO.8-32X1 Inch*	100	U51030.016.0100
NO.2-56X5/16*	100	U51030.008.0031	NO.5-40X3/8*	100	U51030.012.0037	NO.8-32X1.1/4*	100	U51030.016.0125
NO.2-56X3/8*	100	U51030.008.0037	NO.5-40X1/2*	100	U51030.012.0050	NO.8-32X1.1/2*	100	U51030.016.0150
NO.2-56X1/2*	100	U51030.008.0050	NO.5-40X5/8*	100	U51030.012.0062			
NO.2-56X5/8*	100	U51030.008.0062	NO.5-40X3/4*	100	U51030.012.0075	NO.10-24X1/4*	100	U51030.019.0025
NO.2-56X3/4*	100	U51030.008.0075	NO.5-40X1 Inch*	100	U51030.012.0100	NO.10-24X5/16*	100	U51030.019.0031
NO.2-56X1 Inch*	100	U51030.008.0100				NO.10-24X3/8*	100	U51030.019.0037
			NO.6-32X3/16*	100	U51030.013.0018	NO.10-24X1/2*	100	U51030.019.0050
NO.3-48X3/16*	100	U51030.009.0018	NO.6-32X1/4*	100	U51030.013.0025	NO.10-24X5/8*	100	U51030.019.0062
NO.3-48X1/4*	100	U51030.009.0025	NO.6-32X5/16*	100	U51030.013.0031	NO.10-24X3/4*	100	U51030.019.0075
NO.3-48X5/16*	100	U51030.009.0031	NO.6-32X3/8*	100	U51030.013.0037	NO.10-24X7/8*	100	U51030.019.0087
NO.3-48X3/8*	100	U51030.009.0037	NO.6-32X7/16*	100	U51030.013.0043	NO.10-24X1 Inch*	100	U51030.019.0100
NO.3-48X1/2*	100	U51030.009.0050	NO.6-32X1/2*	100	U51030.013.0050	NO.10-24X1.1/8*	100	U51030.019.0112
NO.3-48X3/4*	100	U51030.009.0075	NO.6-32X5/8*	100	U51030.013.0062	NO.10-24X1.1/4*	100	U51030.019.0125
NO.3-48X1 Inch*	100	U51030.009.0100	NO.6-32X3/4*	100	U51030.013.0075	NO.10-24X1.1/2*	100	U51030.019.0150
			NO.6-32X7/8*	100	U51030.013.0087	NO.10-24X1.3/4*	100	U51030.019.0175
NO.4-40X1/8*	100	U51030.011.0012	NO.6-32X1 Inch*	100	U51030.013.0100	NO.10-24X2 Inch*	100	U51030.019.0200
NO.4-40X3/16*	100	U51030.011.0018	NO.6-32X1.1/4*	100	U51030.013.0125			
NO.4-40X1/4*	100	U51030.011.0025	NO.6-32X1.1/2*	100	U51030.013.0150	1/4-20X5/16*	100	U51030.025.0031
NO.4-40X5/16*	100	U51030.011.0031				1/4-20X3/8*	100	U51030.025.0037
NO.4-40X3/8*	100	U51030.011.0037	NO.8-32X3/16*	100	U51030.016.0018	1/4-20X1/2*	100	U51030.025.0050
NO.4-40X7/16*	100	U51030.011.0043	NO.8-32X1/4*	100	U51030.016.0025	1/4-20X5/8*	100	U51030.025.0062
NO.4-40X1/2*	100	U51030.011.0050	NO.8-32X5/16*	100	U51030.016.0031	1/4-20X3/4*	100	U51030.025.0075

U51030 **Parafuso cabeça oval UNC** ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4-20X7/8*	100	U51030.025.0087	5/16-18X1 Inch*	50	U51030.031.0100	3/8-16X2 Inch*	25	U51030.037.0200
1/4-20X1 Inch*	100	U51030.025.0100	5/16-18X1.1/4*	50	U51030.031.0125	3/8-16X2.1/2*	25	U51030.037.0250
1/4-20X1.1/4*	100	U51030.025.0125	5/16-18X1.1/2*	50	U51030.031.0150	3/8-16X3 Inch*	10	U51030.037.0300
1/4-20X1.1/2*	100	U51030.025.0150	5/16-18X1.3/4*	50	U51030.031.0175			
1/4-20X1.3/4*	100	U51030.025.0175	5/16-18X2 Inch*	50	U51030.031.0200	1/2-13X1 Inch*	10	U51030.050.0100
1/4-20X2 Inch*	50	U51030.025.0200				1/2-13X1.1/4*	10	U51030.050.0125
			3/8-16X1/2*	50	U51030.037.0050	1/2-13X1.1/2*	10	U51030.050.0150
5/16-18X3/8*	100	U51030.031.0037	3/8-16X3/4*	50	U51030.037.0075	1/2-13X1.3/4*	10	U51030.050.0175
5/16-18X1/2*	100	U51030.031.0050	3/8-16X1 Inch*	50	U51030.037.0100	1/2-13X2 Inch*	10	U51030.050.0200
5/16-18X5/8*	100	U51030.031.0062	3/8-16X1.1/4*	50	U51030.037.0125	1/2-13X2.1/2*	10	U51030.050.0250
5/16-18X3/4*	100	U51030.031.0075	3/8-16X1.1/2*	25	U51030.037.0150	1/2-13X3 Inch*	5	U51030.050.0300
5/16-18X7/8*	100	U51030.031.0087	3/8-16X1.3/4*	25	U51030.037.0175			

Parafuso cabeça oval UNF





Dados técnicos

d	A	Fios por polegada	H	J
No.0	0.114	80	0.032	0.035
No.1	0.139	72	0.039	0.050
No.10	0.361	32	0.101	1/8
1/4	0.437	28	0.132	5/32
5/16	0.547	24	0.166	3/16
3/8	0.656	24	0.199	7/32

- Devido á desfavorável geometria da cabeça, estes parafusos têm uma capacidade de carga reduzida.

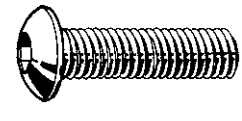
Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
UNF	Sextavado interior	Aço	Grade 5	U07230	2-58
UNF	Sextavado interior	INOX A2 (AISI304/18-8)	F879	U51130	2-59

U07230 **Parafuso cabeça oval UNF** **X05A**

Rosca Unified National Fine
Material Aço
Classe Grade 5

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.0-80X1/8*	100	U07230.006.0012	NO.10-32X1/4*	100	U07230.019.0025	1/4-28X5/8*	100	U07230.025.0062
NO.0-80X3/16*	100	U07230.006.0018	NO.10-32X5/16*	100	U07230.019.0031	1/4-28X3/4*	100	U07230.025.0075
NO.0-80X1/4*	100	U07230.006.0025	NO.10-32X3/8*	100	U07230.019.0037	1/4-28X1 Inch*	100	U07230.025.0100
NO.0-80X5/16*	100	U07230.006.0031	NO.10-32X1/2*	100	U07230.019.0050	1/4-28X1.1/2*	100	U07230.025.0150
NO.0-80X3/8*	100	U07230.006.0037	NO.10-32X5/8*	100	U07230.019.0062	1/4-28X2 Inch*	50	U07230.025.0200
NO.0-80X1/2*	100	U07230.006.0050	NO.10-32X3/4*	100	U07230.019.0075			
			NO.10-32X7/8*	100	U07230.019.0087	5/16-24X3/8*	100	U07230.031.0037
NO.1-72X3/16*	100	U07230.007.0018	NO.10-32X1 Inch*	100	U07230.019.0100	5/16-24X1/2*	100	U07230.031.0050
NO.1-72X1/4*	100	U07230.007.0025	NO.10-32X1.1/4*	100	U07230.019.0125	5/16-24X5/8*	100	U07230.031.0062
NO.1-72X5/16*	100	U07230.007.0031	NO.10-32X1.1/2*	100	U07230.019.0150	5/16-24X3/4*	100	U07230.031.0075
NO.1-72X3/8*	100	U07230.007.0037	NO.10-32X1.3/4*	100	U07230.019.0175	5/16-24X1 Inch*	50	U07230.031.0100
NO.1-72X1/2*	100	U07230.007.0050	NO.10-32X2 Inch*	100	U07230.019.0200			
NO.1-72X5/8*	100	U07230.007.0062				3/8-24X1/2*	50	U07230.037.0050
NO.1-72X3/4*	100	U07230.007.0075	1/4-28X3/8*	100	U07230.025.0037	3/8-24X3/4*	50	U07230.037.0075
			1/4-28X1/2*	100	U07230.025.0050	3/8-24X1 Inch*	50	U07230.037.0100

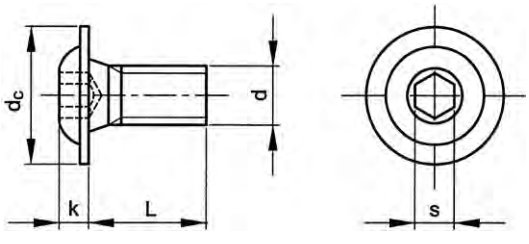
U51130 **Parafuso cabeça oval UNF** **X15A**

Rosca Unified National Fine
Material Aço inoxidável A2 (AISI 304/18-8)
Classe F879

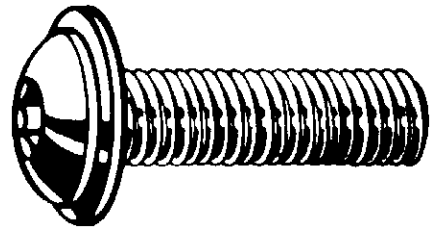


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.0-80X1/8	100	U51130.006.0012	NO.1-72X1/2*	100	U51130.007.0050	NO.10-32X1 Inch*	100	U51130.019.0100
NO.0-80X3/16*	100	U51130.006.0018	NO.1-72X5/8*	100	U51130.007.0062	NO.10-32X1.1/4*	100	U51130.019.0125
NO.0-80X1/4*	100	U51130.006.0025	NO.1-72X3/4*	100	U51130.007.0075	NO.10-32X1.1/2*	100	U51130.019.0150
NO.0-80X5/16*	100	U51130.006.0031				NO.10-32X1.3/4*	100	U51130.019.0175
NO.0-80X3/8*	100	U51130.006.0037	NO.10-32X1/4*	100	U51130.019.0025	NO.10-32X2 Inch*	100	U51130.019.0200
NO.0-80X1/2*	100	U51130.006.0050	NO.10-32X5/16*	100	U51130.019.0031			
			NO.10-32X3/8*	100	U51130.019.0037	1/4-28X2 Inch*	50	U51130.025.0200
NO.1-72X1/8*	100	U51130.007.0012	NO.10-32X7/16*	100	U51130.019.0043			
NO.1-72X3/16*	100	U51130.007.0018	NO.10-32X1/2*	100	U51130.019.0050	5/16-24X3/8*	100	U51130.031.0037
NO.1-72X1/4*	100	U51130.007.0025	NO.10-32X5/8*	100	U51130.019.0062	5/16-24X1/2*	100	U51130.031.0050
NO.1-72X5/16*	100	U51130.007.0031	NO.10-32X3/4*	100	U51130.019.0075	5/16-24X1 Inch*	50	U51130.031.0100
NO.1-72X3/8*	100	U51130.007.0037	NO.10-32X7/8*	100	U51130.019.0087	5/16-24X1.1/2*	50	U51130.031.0150

Parafuso cabeça redonda sextavado interior com flange



ISO 7380-2



Dados técnicos

d	d_c (max.)	k (max.)	P	Rosca total C ≤	s
M3	6.9	1.65	0.5	12	2
M4	9.4	2.2	0.7	16	2.5
M5	11.8	2.75	0.8	30	3
M6	13.6	3.3	1	30	4
M8	17.8	4.4	1.25	40	5
M10	21.9	5.5	1.5	40	6
M12	26.0	6.6	1.75	50	8

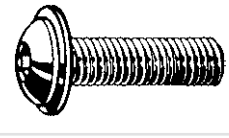
- Devido á desfavorável geometria da cabeça, estes parafusos têm uma capacidade de carga reduzida.
- Quando os parafusos de aço (por ex. 8.8 / 10.9 / 12.9) têm uma capacidade de carga reduzida, a marcação '0' precede a marcação da classe aço, por exemplo 8.8 → 08.8 e 10.9 → 010.9 e 12.9 → 012.9.
- Nos parafusos de aço inox, fica a marcação do aço e remove-se a classe da propriedade 70 (por ex. A2-70 → A2).
- As antigas e as novas indicações podem coexistir durante um determinado periodo de tempo.

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado interior	Aço	010.9	Zn	07141	2-59
M	Sextavado interior	INOX A2			51028	2-60
M	Sextavado interior	INOX A4			55025	2-61

07141 **Parafuso cabeça redonda sextavado interior com flange** **D04A**

Rosca Métrica
Material Aço
Classe 010.9
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6	200	07141.030.006	M4X10	200	07141.040.010	M5X10	200	07141.050.010
M3X8	200	07141.030.008	M4X12	200	07141.040.012	M5X12	200	07141.050.012
M3X10	200	07141.030.010	M4X16	200	07141.040.016	M5X16	200	07141.050.016
M3X12	200	07141.030.012	M4X20	200	07141.040.020	M5X20	200	07141.050.020
M3X16	200	07141.030.016	M4X25	200	07141.040.025	M5X25	200	07141.050.025
M3X20	200	07141.030.020	M4X30	200	07141.040.030	M5X30	200	07141.050.030
M3X25	200	07141.030.025	M4X40	200	07141.040.040	M5X40	200	07141.050.040
M3X30	200	07141.030.030	M4X45	200	07141.040.045	M5X45	200	07141.050.045
						M5X50	200	07141.050.050
M4X6	200	07141.040.006	M5X6	200	07141.050.006			
M4X8	200	07141.040.008	M5X8	200	07141.050.008	M6X8	200	07141.060.008

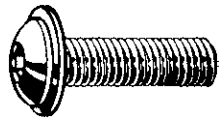
07141 Parafuso cabeça redonda sextavado interior com flange

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X10	200	07141.060.010	M8X25	200	07141.080.025	M10X50	100	07141.100.050
M6X12	200	07141.060.012	M8X30	200	07141.080.030	M10X60	100	07141.100.060
M6X16	200	07141.060.016	M8X35	200	07141.080.035			
M6X20	200	07141.060.020	M8X40	200	07141.080.040	M12X20	100	07141.120.020
M6X25	200	07141.060.025	M8X45	200	07141.080.045	M12X25	100	07141.120.025
M6X30	200	07141.060.030	M8X50	200	07141.080.050	M12X30	100	07141.120.030
M6X35	200	07141.060.035	M8X60	200	07141.080.060	M12X35	100	07141.120.035
M6X40	200	07141.060.040				M12X40	100	07141.120.040
M6X50	200	07141.060.050	M10X16	200	07141.100.016	M12X45	100	07141.120.045
M6X60	200	07141.060.060	M10X20	200	07141.100.020	M12X50	100	07141.120.050
			M10X25	200	07141.100.025	M12X60	100	07141.120.060
M8X10	200	07141.080.010	M10X30	200	07141.100.030	M12X70	100	07141.120.070
M8X12	200	07141.080.012	M10X35	100	07141.100.035	M12X80	50	07141.120.080
M8X16	200	07141.080.016	M10X40	100	07141.100.040			
M8X20	200	07141.080.020	M10X45	100	07141.100.045			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

51028 Parafuso cabeça redonda sextavado interior com flange R09A

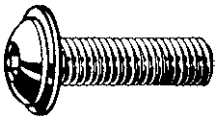
Rosca Métrica
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X3*	1000	51028.030.003	M5X40	200	51028.050.040	M8X70*	100	51028.080.070
M3X4*	1000	51028.030.004	M5X45*	200	51028.050.045	M8X75*	100	51028.080.075
M3X5*	1000	51028.030.005	M5X50*	200	51028.050.050	M8X80*	100	51028.080.080
M3X6	50	51028.030.006	M5X55*	200	51028.050.055	M8X90*	100	51028.080.090
M3X8	50	51028.030.008	M5X60*	100	51028.050.060	M8X100*	50	51028.080.100
M3X10	50	51028.030.010	M5X65*	100	51028.050.065	M8X110*	50	51028.080.110
M3X12	50	51028.030.012	M5X70*	100	51028.050.070	M8X120*	50	51028.080.120
M3X14*	1000	51028.030.014	M5X75*	100	51028.050.075			
M3X16	50	51028.030.016	M5X80*	100	51028.050.080	M10X12*	100	51028.100.012
M3X18*	1000	51028.030.018				M10X14*	100	51028.100.014
M3X20	50	51028.030.020	M6X6*	500	51028.060.006	M10X16	25	51028.100.016
M3X22*	1000	51028.030.022	M6X8	25	51028.060.008	M10X18*	100	51028.100.018
M3X25*	1000	51028.030.025	M6X10	25	51028.060.010	M10X20	25	51028.100.020
M3X30*	1000	51028.030.030	M6X12	25	51028.060.012	M10X22*	100	51028.100.022
M3X35*	500	51028.030.035	M6X14*	200	51028.060.014	M10X25	25	51028.100.025
M3X40*	500	51028.030.040	M6X16	25	51028.060.016	M10X30	10	51028.100.030
M3X45*	500	51028.030.045	M6X18*	200	51028.060.018	M10X35	10	51028.100.035
M3X50*	200	51028.030.050	M6X20	25	51028.060.020	M10X40	10	51028.100.040
			M6X22	200	51028.060.022	M10X45*	100	51028.100.045
M4X4*	1000	51028.040.004	M6X25	25	51028.060.025	M10X50*	50	51028.100.050
M4X5*	1000	51028.040.005	M6X30	25	51028.060.030	M10X55*	50	51028.100.055
M4X6	50	51028.040.006	M6X35	25	51028.060.035	M10X60*	50	51028.100.060
M4X8	50	51028.040.008	M6X40	25	51028.060.040	M10X65*	50	51028.100.065
M4X10	50	51028.040.010	M6X45	100	51028.060.045	M10X70*	50	51028.100.070
M4X12	50	51028.040.012	M6X50	100	51028.060.050	M10X75*	50	51028.100.075
M4X14*	1000	51028.040.014	M6X55*	100	51028.060.055	M10X80*	50	51028.100.080
M4X16	50	51028.040.016	M6X60	100	51028.060.060	M10X90*	50	51028.100.090
M4X18*	1000	51028.040.018	M6X65*	100	51028.060.065	M10X100*	50	51028.100.100
M4X20	50	51028.040.020	M6X70*	100	51028.060.070	M10X110*	50	51028.100.110
M4X22*	500	51028.040.022	M6X75*	100	51028.060.075	M10X120*	50	51028.100.120
M4X25	50	51028.040.025	M6X80*	100	51028.060.080			
M4X30	50	51028.040.030	M6X90*	100	51028.060.090	M12X16*	50	51028.120.016
M4X35*	200	51028.040.035	M6X100*	100	51028.060.100	M12X18*	50	51028.120.018
M4X40*	200	51028.040.040	M6X120*	100	51028.060.120	M12X20*	50	51028.120.020
M4X45*	200	51028.040.045				M12X25*	50	51028.120.025
M4X50*	200	51028.040.050	M8X8*	500	51028.080.008	M12X30*	50	51028.120.030
M4X55*	200	51028.040.055	M8X10	25	51028.080.010	M12X35*	50	51028.120.035
M4X60*	100	51028.040.060	M8X12	25	51028.080.012	M12X40*	50	51028.120.040
			M8X14*	200	51028.080.014	M12X45*	50	51028.120.045
M5X5	500	51028.050.005	M8X16	25	51028.080.016	M12X50*	50	51028.120.050
M5X6*	500	51028.050.006	M8X18*	200	51028.080.018	M12X55*	50	51028.120.055
M5X8	50	51028.050.008	M8X20	25	51028.080.020	M12X60*	50	51028.120.060
M5X10	50	51028.050.010	M8X22*	200	51028.080.022	M12X65*	50	51028.120.065
M5X12	50	51028.050.012	M8X25	25	51028.080.025	M12X70*	50	51028.120.070
M5X14*	500	51028.050.014	M8X30	25	51028.080.030	M12X75*	25	51028.120.075
M5X16	50	51028.050.016	M8X35	25	51028.080.035	M12X80*	25	51028.120.080
M5X18*	500	51028.050.018	M8X40	25	51028.080.040	M12X90*	25	51028.120.090
M5X20	50	51028.050.020	M8X45	100	51028.080.045	M12X100*	25	51028.120.100
M5X22*	500	51028.050.022	M8X50	100	51028.080.050	M12X110*	25	51028.120.110
M5X25	25	51028.050.025	M8X55*	100	51028.080.055	M12X120*	25	51028.120.120
M5X30	25	51028.050.030	M8X60*	100	51028.080.060			
M5X35	200	51028.050.035	M8X65*	100	51028.080.065			

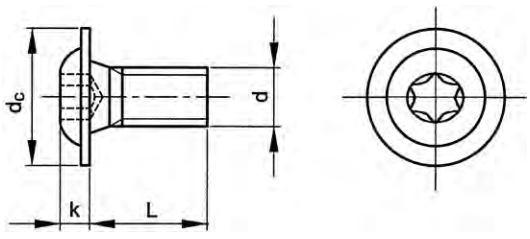
55025	Parafuso cabeça redonda sextavado interior com flange	R49A

Rosca Métrica
Material Aço inoxidável A4

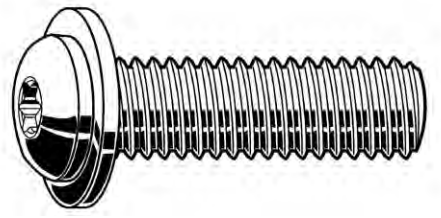


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X3*	1000	55025.030.003	M5X12*	500	55025.050.012	M8X10*	500	55025.080.010
M3X4*	1000	55025.030.004	M5X14*	500	55025.050.014	M8X12*	500	55025.080.012
M3X5*	1000	55025.030.005	M5X16*	500	55025.050.016	M8X14*	200	55025.080.014
M3X6*	1000	55025.030.006	M5X18*	500	55025.050.018	M8X16*	200	55025.080.016
M3X8*	1000	55025.030.008	M5X20*	500	55025.050.020	M8X18*	200	55025.080.018
M3X10*	1000	55025.030.010	M5X22*	500	55025.050.022	M8X20*	200	55025.080.020
M3X12*	1000	55025.030.012	M5X25*	200	55025.050.025	M8X22*	200	55025.080.022
M3X14*	1000	55025.030.014	M5X30*	200	55025.050.030	M8X25*	100	55025.080.025
M3X16*	1000	55025.030.016	M5X35*	200	55025.050.035	M8X30*	100	55025.080.030
M3X18*	1000	55025.030.018	M5X40*	200	55025.050.040	M8X35*	100	55025.080.035
M3X20*	1000	55025.030.020	M5X45*	200	55025.050.045	M8X40*	100	55025.080.040
M3X22*	1000	55025.030.022	M5X50*	200	55025.050.050	M8X45*	100	55025.080.045
M3X25*	1000	55025.030.025	M5X60*	100	55025.050.060	M8X50*	100	55025.080.050
M3X30*	1000	55025.030.030				M8X55*	100	55025.080.055
			M6X6*	500	55025.060.006	M8X60*	100	55025.080.060
M4X4*	1000	55025.040.004	M6X8*	500	55025.060.008	M8X65*	100	55025.080.065
M4X5*	1000	55025.040.005	M6X10*	500	55025.060.010	M8X70*	100	55025.080.070
M4X6*	1000	55025.040.006	M6X12*	200	55025.060.012	M8X75*	100	55025.080.075
M4X8*	1000	55025.040.008	M6X14*	200	55025.060.014	M8X80*	100	55025.080.080
M4X10*	1000	55025.040.010	M6X16*	200	55025.060.016	M8X90*	100	55025.080.090
M4X12*	1000	55025.040.012	M6X18*	200	55025.060.018	M8X100*	50	55025.080.100
M4X14*	1000	55025.040.014	M6X20*	200	55025.060.020			
M4X16*	1000	55025.040.016	M6X22*	200	55025.060.022	M10X12*	100	55025.100.012
M4X18*	1000	55025.040.018	M6X25*	200	55025.060.025	M10X16*	100	55025.100.016
M4X20*	500	55025.040.020	M6X30*	200	55025.060.030	M10X20*	100	55025.100.020
M4X22*	500	55025.040.022	M6X35*	200	55025.060.035	M10X25*	100	55025.100.025
M4X25*	500	55025.040.025	M6X40*	200	55025.060.040	M10X30*	100	55025.100.030
M4X30*	500	55025.040.030	M6X45*	100	55025.060.045	M10X35*	100	55025.100.035
M4X35*	200	55025.040.035	M6X50*	100	55025.060.050	M10X40*	100	55025.100.040
M4X40*	200	55025.040.040	M6X55*	100	55025.060.055	M10X45*	100	55025.100.045
M4X45*	200	55025.040.045	M6X60*	100	55025.060.060	M10X50*	50	55025.100.050
M4X50*	200	55025.040.050	M6X65*	100	55025.060.065	M10X55*	50	55025.100.055
			M6X70*	100	55025.060.070	M10X60*	50	55025.100.060
M5X5*	500	55025.050.005	M6X75*	100	55025.060.075	M10X80*	50	55025.100.080
M5X6*	500	55025.050.006				M10X90*	50	55025.100.090
M5X8*	500	55025.050.008	M8X8*	500	55025.080.008	M10X100*	50	55025.100.100
M5X10*	500	55025.050.010						

Parafuso cabeça redonda com flange hexalobular



ISO ≈7380-2



Dados técnicos

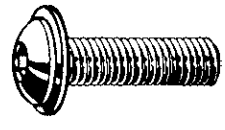
d	Chave caixa	d_c (max.)	k (max.)	P
M3	T10	6.9	1.65	0.5
M4	T20	9.4	2.2	0.7
M5	T25	11.8	2.75	0.8
M6	T30	13.6	3.3	1
M8	T40	17.8	4.4	1.25
M10	T50	21.9	5.5	1.50

- Devido á desfavorável geometria da cabeça, estes parafusos têm uma capacidade de carga reduzida.
- Nos parafusos de aço inox, fica a marcação do aço e remove-se a classe da propriedade 70 (por ex. A2-70 → A2).

51041 **Parafuso cabeça redonda com flange hexalobular** **Q05A**

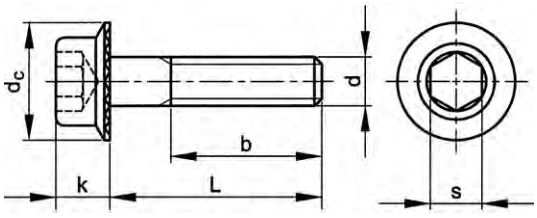
Rosca Métrica
Material Aço inoxidável A2

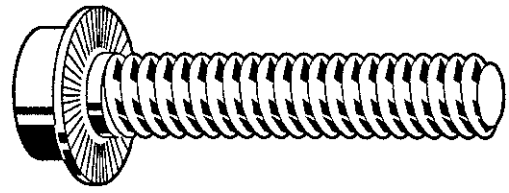
RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X4*	1000	51041.030.004	M5X6*	500	51041.050.006	M6X40*	200	51041.060.040
M3X5*	1000	51041.030.005	M5X8*	500	51041.050.008	M6X45*	100	51041.060.045
M3X6*	1000	51041.030.006	M5X10	500	51041.050.010	M6X50*	100	51041.060.050
M3X8*	1000	51041.030.008	M5X12	500	51041.050.012	M6X55*	100	51041.060.055
M3X10*	1000	51041.030.010	M5X14*	500	51041.050.014	M6X60*	100	51041.060.060
M3X12*	1000	51041.030.012	M5X16*	500	51041.050.016			
M3X14*	1000	51041.030.014	M5X18*	500	51041.050.018	M8X8*	500	51041.080.008
M3X16*	1000	51041.030.016	M5X20*	500	51041.050.020	M8X10*	200	51041.080.010
M3X18*	1000	51041.030.018	M5X22*	500	51041.050.022	M8X12*	200	51041.080.012
M3X20*	1000	51041.030.020	M5X25*	500	51041.050.025	M8X16*	200	51041.080.016
M3X22*	1000	51041.030.022	M5X30*	200	51041.050.030	M8X20*	200	51041.080.020
M3X25*	1000	51041.030.025	M5X35*	200	51041.050.035	M8X25*	100	51041.080.025
			M5X40*	200	51041.050.040	M8X30*	100	51041.080.030
M4X4*	1000	51041.040.004	M5X45*	200	51041.050.045	M8X35*	100	51041.080.035
M4X5*	1000	51041.040.005	M5X50*	200	51041.050.050	M8X40*	100	51041.080.040
M4X6*	1000	51041.040.006	M5X60*	100	51041.050.060	M8X45*	100	51041.080.045
M4X8*	1000	51041.040.008				M8X50*	100	51041.080.050
M4X10*	1000	51041.040.010	M6X6*	500	51041.060.006	M8X55*	100	51041.080.055
M4X12*	1000	51041.040.012	M6X8*	500	51041.060.008	M8X60*	100	51041.080.060
M4X14*	1000	51041.040.014	M6X10*	500	51041.060.010	M8X70*	100	51041.080.070
M4X16*	1000	51041.040.016	M6X12*	500	51041.060.012	M8X80*	100	51041.080.080
M4X20*	500	51041.040.020	M6X14*	500	51041.060.014			
M4X22*	500	51041.040.022	M6X16*	200	51041.060.016	M10X16*	100	51041.100.016
M4X25*	500	51041.040.025	M6X18*	200	51041.060.018	M10X20*	100	51041.100.020
M4X30*	500	51041.040.030	M6X20*	200	51041.060.020	M10X25*	100	51041.100.025
M4X35*	200	51041.040.035	M6X22*	200	51041.060.022	M10X30*	100	51041.100.030
M4X40*	200	51041.040.040	M6X25*	200	51041.060.025	M10X35*	100	51041.100.035
			M6X30*	200	51041.060.030	M10X60*	50	51041.100.060
M5X5*	500	51041.050.005	M6X35*	200	51041.060.035			

Parafuso sextavado com flange





Dados técnicos

d	b	d_c (max.)	k (max.)	P	Rosca total C ≤	s
M5	22	11	5	0.8	-	4
M6	24	13.5	6	1	25	5
M8	28	17	8	1.25	30	6
M10	32	19.5	10	1.5	35	8
M12	36	22.5	12	1.75	35	10

- Os parafusos RIPP com flange têm propriedades de classe de aço 100, com uma resistência á tracção minima de 1040 N/mm^2.
- São endurecidos á superficie, não podendo por isso ter a classificação habitual de classe 10.9.

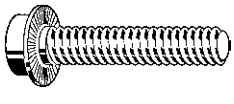
Caracteristicas do parafuso auto bloqueante com flange RIPP:
- As flanges serrilhadas eliminam possiveis danos nas superficies durante a montagem, previnem o desaperto e reduzem a relaxação
- As flanges evitam a criação de forças debaixo da cabeça do parafuso fazendo a distribuição das forças, resultando numa maior distribuição de pressão superficial.
- Furos largos (oversized) e/ou furos maquinados podem ser cobertos pela flange
- Anilha e/ou elemento bloqueador não é necessário

CARGA DE MONTAGEM F_M EM kN e TORQUE DE APERTO M_A in Nm

Classe	Material	M5		M6		M8		M10		M12	
		F_M	M_A	F_M	M_A	F_M	M_A	F_M	M_A	F_M	M_A
100	Aço (Rm < 800 N/mm^2)	9	13	12,6	24	23,2	45	37	90	54	150
	Aço (Rm ≥ 800 N/mm^2)	9	11	12,6	20	23,2	42	37	85	54	140
	Ferro Maleável	9	10	12,6	19	23,2	39	37	80	54	120

07095 **RIPP Parafuso sextavado com flange** **D93A**

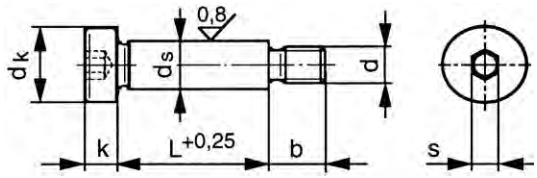
Rosca Métrica
Material Aço
Classe 100



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X10	500	07095.050.010				M10X35	100	07095.100.035
M5X12	500	07095.050.012	M8X12	200	07095.080.012	M10X40	100	07095.100.040
M5X16	500	07095.050.016	M8X16	200	07095.080.016			
M5X20	500	07095.050.020	M8X20	200	07095.080.020	M12X20	100	07095.120.020
			M8X25	200	07095.080.025	M12X25	100	07095.120.025
M6X10	500	07095.060.010	M8X30	200	07095.080.030	M12X30	100	07095.120.030
M6X12	500	07095.060.012	M8X40	200	07095.080.040	M12X35	100	07095.120.035
M6X16	500	07095.060.016				M12X40	100	07095.120.040
M6X20	500	07095.060.020	M10X20	200	07095.100.020	M12X45	100	07095.120.045
M6X25	500	07095.060.025	M10X25	200	07095.100.025	M12X50	100	07095.120.050
M6X30	500	07095.060.030	M10X30	200	07095.100.030			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Parafuso de apoio sextavado interior f9



ISO ≈7379
ASME ≈B18.3.3M
BS ≈4168-7

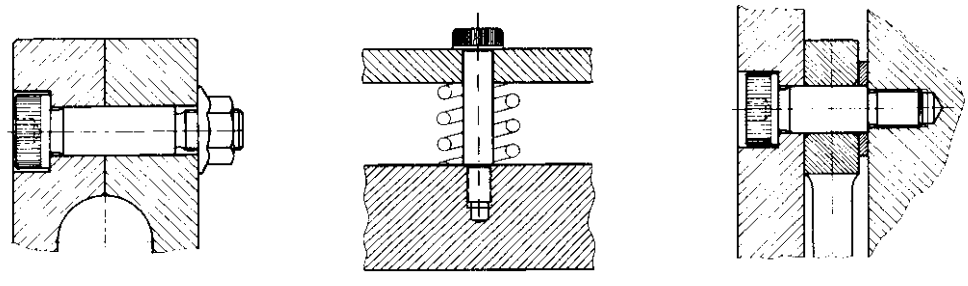


Dados técnicos

d	Tolerância de furo f9 (mín.)	Tolerância de furo f9 (máx.)	b	d_k (max.)	d_s (nom.)	k (max.)	P	s
M5	5.960	5.990	9.5	10.22	6	4.5	0.8	3
M6	7.951	7.987	11	13.27	8	5.5	1	4
M8	9.951	9.987	13	16.27	10	7	1.25	5
M10	11.941	11.984	16	18.27	12	9	1.5	6
M12	15.941	15.984	18	24.33	16	11	1.75	8
M16	19.928	19.980	22	30.33	20	14	2	10
M20	23.928	23.980	27	36.39	24	16	2.5	12

- Devido á desfavorável geometria da cabeça, estes parafusos têm uma capacidade de carga reduzida.
- Quando os parafusos de aço (por ex. 8.8 / 10.9 / 12.9) têm uma capacidade de carga reduzida, a marcação '0' precede a marcação da classe aço, por exemplo 8.8 → 08.8 e 10.9 → 010.9 e 12.9 → 012.9.
- Nos parafusos de aço inox, fica a marcação do aço e remove-se a classe da propriedade 70 (por ex. A2-70 → A2).
- As antigas e as novas indicações podem coexistir durante um determinado periodo de tempo.

Exemplo de aplicação



Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
M	Sextavado interior	Aço	012.9	07111	2-64
M	Sextavado interior	INOX A2		51044	2-65

07111 **Parafuso de apoio sextavado interior f9** **D93A**

Rosca Métrica
Material Aço
Classe 012.9



(d) d_s x L	✉	Ref. do artigo	(d) d_s x L	✉	Ref. do artigo	(d) d_s x L	✉	Ref. do artigo
M5 6X6	50	07111.050.006	M6 8X45	50	07111.060.045			
M5 6X8	50	07111.050.008	M6 8X50	50	07111.060.050	M10 12X12	25	07111.100.012
M5 6X10	50	07111.050.010	M6 8X60	50	07111.060.060	M10 12X16	25	07111.100.016
M5 6X12	50	07111.050.012	M6 8X70	50	07111.060.070	M10 12X20	25	07111.100.020
M5 6X16	50	07111.050.016				M10 12X25	25	07111.100.025
M5 6X20	50	07111.050.020	M8 10X10	50	07111.080.010	M10 12X30	25	07111.100.030
M5 6X25	50	07111.050.025	M8 10X12	50	07111.080.012	M10 12X35	25	07111.100.035
M5 6X30	50	07111.050.030	M8 10X16	50	07111.080.016	M10 12X40	25	07111.100.040
M5 6X35	50	07111.050.035	M8 10X20	50	07111.080.020	M10 12X45	25	07111.100.045
M5 6X40	50	07111.050.040	M8 10X25	50	07111.080.025	M10 12X50	25	07111.100.050
M5 6X45	50	07111.050.045	M8 10X30	50	07111.080.030	M10 12X55	25	07111.100.055
M5 6X50	50	07111.050.050	M8 10X35	50	07111.080.035	M10 12X60	25	07111.100.060
			M8 10X40	50	07111.080.040	M10 12X70	25	07111.100.070
M6 8X8	50	07111.060.008	M8 10X45	50	07111.080.045	M10 12X80	25	07111.100.080
M6 8X10	50	07111.060.010	M8 10X50	50	07111.080.050	M10 12X90	25	07111.100.090
M6 8X12	50	07111.060.012	M8 10X55	50	07111.080.055	M10 12X100	25	07111.100.100
M6 8X16	50	07111.060.016	M8 10X60	50	07111.080.060	M10 12X120	25	07111.100.120
M6 8X20	50	07111.060.020	M8 10X70	50	07111.080.070			
M6 8X25	50	07111.060.025	M8 10X80	50	07111.080.080	M12 16X20	25	07111.120.020
M6 8X30	50	07111.060.030	M8 10X90	50	07111.080.090	M12 16X25	25	07111.120.025
M6 8X35	50	07111.060.035	M8 10X100	25	07111.080.100	M12 16X30	25	07111.120.030
M6 8X40	50	07111.060.040	M8 10X120	25	07111.080.120	M12 16X35	25	07111.120.035

07111 Parafuso de apoio sextavado interior f9 ←

(d) d_s x L	✉	Ref. do artigo	(d) d_s x L	✉	Ref. do artigo	(d) d_s x L	✉	Ref. do artigo
M12 16X40	25	07111.120.040	M16 20X30	10	07111.160.030	M16 20X120	10	07111.160.120
M12 16X45	25	07111.120.045	M16 20X35	10	07111.160.035			
M12 16X50	25	07111.120.050	M16 20X40	10	07111.160.040	M20 24X50	5	07111.200.050
M12 16X55	25	07111.120.055	M16 20X45	10	07111.160.045	M20 24X55	5	07111.200.055
M12 16X60	25	07111.120.060	M16 20X50	10	07111.160.050	M20 24X60	5	07111.200.060
M12 16X70	25	07111.120.070	M16 20X55	10	07111.160.055	M20 24X70	5	07111.200.070
M12 16X80	25	07111.120.080	M16 20X60	10	07111.160.060	M20 24X80	5	07111.200.080
M12 16X90	25	07111.120.090	M16 20X70	10	07111.160.070	M20 24X90	5	07111.200.090
M12 16X100	25	07111.120.100	M16 20X80	10	07111.160.080	M20 24X100	5	07111.200.100
M12 16X120	25	07111.120.120	M16 20X90	10	07111.160.090	M20 24X120	5	07111.200.120
			M16 20X100	10	07111.160.100			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

51044 Parafuso de apoio sextavado interior f9 Q05A

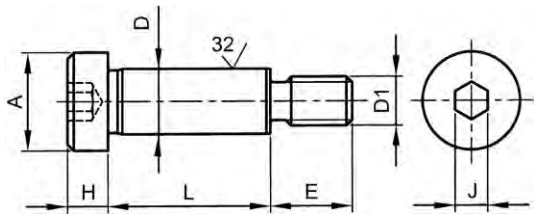
Rosca Métrica
Material Aço inoxidável A2

RoHS



(d) d_s x L	✉	Ref. do artigo	(d) d_s x L	✉	Ref. do artigo	(d) d_s x L	✉	Ref. do artigo
(M5)6X10	10	51044.050.010	(M8)10X20	10	51044.080.020	(M10)12X80	5	51044.100.080
(M5)6X12	10	51044.050.012	(M8)10X25	10	51044.080.025	(M10)12X100	5	51044.100.100
(M5)6X16	10	51044.050.016	(M8)10X30	10	51044.080.030			
(M5)6X20	10	51044.050.020	(M8)10X40	10	51044.080.040	(M12)16X30	5	51044.120.030
(M5)6X25	10	51044.050.025	(M8)10X50	10	51044.080.050	(M12)16X40	5	51044.120.040
(M5)6X30	10	51044.050.030	(M8)10X60	10	51044.080.060	(M12)16X50	5	51044.120.050
(M5)6X40	10	51044.050.040	(M8)10X70	10	51044.080.070	(M12)16X60	5	51044.120.060
			(M8)10X80	10	51044.080.080	(M12)16X70	5	51044.120.070
(M6)8X12	10	51044.060.012				(M12)16X80	5	51044.120.080
(M6)8X16	10	51044.060.016	(M10)12X16	5	51044.100.016	(M12)16X100	5	51044.120.100
(M6)8X20	10	51044.060.020	(M10)12X20	5	51044.100.020			
(M6)8X25	10	51044.060.025	(M10)12X25	5	51044.100.025	(M16)20X40	3	51044.160.040
(M6)8X30	10	51044.060.030	(M10)12X30	5	51044.100.030	(M16)20X50	3	51044.160.050
(M6)8X40	10	51044.060.040	(M10)12X40	5	51044.100.040	(M16)20X60	3	51044.160.060
(M6)8X50	10	51044.060.050	(M10)12X50	5	51044.100.050	(M16)20X70	3	51044.160.070
			(M10)12X60	5	51044.100.060	(M16)20X80	3	51044.160.080
(M8)10X16	10	51044.080.016	(M10)12X70	5	51044.100.070			

Parafuso de apoio sextavado interior UNC



ASME **B18.3**
BS 2470

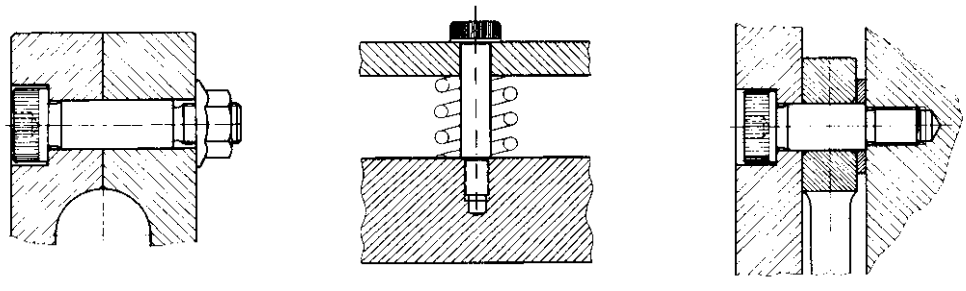


Dados técnicos

D	A (max.)	E	Fios por polegada	H (max.)	J
1/4	0.375	0.375	24	0.188	1/8
5/16	0.438	0.438	20	0.219	5/32
3/8	0.562	0.500	18	0.250	3/16
1/2	0.750	0.625	16	0.312	1/4
5/8	0.875	0.750	13	0.375	5/16
3/4	1.000	0.875	11	0.500	3/8
1 Inch	1.312	1.000	10	0.625	1/2

- Devido á desfavorável geometria da cabeça, estes parafusos têm uma capacidade de carga reduzida.
- Quando os parafusos de aço (por ex. 8.8 / 10.9 / 12.9) têm uma capacidade de carga reduzida, a marcação '0' precede a marcação da classe aço, por exemplo 8.8 → 08.8 e 10.9 → 010.9 e 12.9 → 012.9.
- Nos parafusos de aço inox, fica a marcação do aço e remove-se a classe da propriedade 70 (por ex. A2-70 → A2).
- As antigas e as novas indicações podem coexistir durante um determinado periodo de tempo.

Exemplo de aplicação



Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
UNC	Sextavado interior	Aço	Grade 5	U07111	2-66
UNC	Sextavado interior	Aço	012.9	07116	2-67
UNC	Sextavado interior	INOX A2 (AISI304/18-8)		U51044	2-67

U07111 **Parafuso de apoio sextavado interior UNC** **X05A**

Rosca Unified National Coarse
Material Aço
Classe Grade 5



(D_1) Dx L	✉	Ref. do artigo	(D_1) Dx L	✉	Ref. do artigo	(D_1) Dx L	✉	Ref. do artigo
(10-24)1/4X1/4*	25	U07111.025.0025	(1/4-20)5/16X7/8*	10	U07111.031.0087	(5/16-18)3/8X2 Inch*	10	U07111.037.0200
(10-24)1/4X3/8*	25	U07111.025.0037	(1/4-20)5/16X1 Inch*	10	U07111.031.0100	(5/16-18)3/8X2 1/4*	5	U07111.037.0225
(10-24)1/4X1/2*	25	U07111.025.0050	(1/4-20)5/16X1.1/4*	10	U07111.031.0125	(5/16-18)3/8X2 1/2*	5	U07111.037.0250
(10-24)1/4X5/8*	25	U07111.025.0062	(1/4-20)5/16X1.1/2*	5	U07111.031.0150	(5/16-18)3/8X2 3/4*	5	U07111.037.0275
(10-24)1/4X3/4*	25	U07111.025.0075	(1/4-20)5/16X1.3/4*	5	U07111.031.0175	(5/16-18)3/8X3 Inch*	5	U07111.037.0300
(10-24)1/4X7/8*	10	U07111.025.0087	(1/4-20)5/16X2 Inch*	5	U07111.031.0200	(5/16-18)3/8X3 1/4*	5	U07111.037.0325
(10-24)1/4X1 Inch*	10	U07111.025.0100	(1/4-20)5/16X2 1/4*	5	U07111.031.0225	(5/16-18)3/8X3 1/2*	5	U07111.037.0350
(10-24)1/4X1.1/4*	10	U07111.025.0125	(1/4-20)5/16X2 1/2*	5	U07111.031.0250	(5/16-18)3/8X3 3/4*	5	U07111.037.0375
(10-24)1/4X1.1/2*	10	U07111.025.0150	(1/4-20)5/16X3 Inch*	5	U07111.031.0300	(5/16-18)3/8X4 Inch*	5	U07111.037.0400
(10-24)1/4X1.3/4*	10	U07111.025.0175				(5/16-18)3/8X4 1/2*	5	U07111.037.0450
(10-24)1/4X2 Inch*	10	U07111.025.0200	(5/16-18)3/8X1/4*	10	U07111.037.0025	(5/16-18)3/8X5 Inch*	5	U07111.037.0500
(10-24)1/4X2 1/4*	10	U07111.025.0225	(5/16-18)3/8X3/8*	10	U07111.037.0037	(5/16-18)3/8X6 Inch*	5	U07111.037.0600
(10-24)1/4X2 1/2*	10	U07111.025.0250	(5/16-18)3/8X1/2*	10	U07111.037.0050			
(10-24)1/4X3 Inch*	10	U07111.025.0300	(5/16-18)3/8X5/8*	10	U07111.037.0062	(3/8-16)1/2X3/8*	5	U07111.050.0037
			(5/16-18)3/8X3/4*	10	U07111.037.0075	(3/8-16)1/2X1/2*	5	U07111.050.0050
(1/4-20)5/16X1/4*	10	U07111.031.0025	(5/16-18)3/8X7/8*	10	U07111.037.0087	(3/8-16)1/2X5/8*	5	U07111.050.0062
(1/4-20)5/16X3/8*	10	U07111.031.0037	(5/16-18)3/8X1 Inch*	10	U07111.037.0100	(3/8-16)1/2X3/4*	5	U07111.050.0075
(1/4-20)5/16X1/2*	10	U07111.031.0050	(5/16-18)3/8X1.1/4*	10	U07111.037.0125	(3/8-16)1/2X7/8*	5	U07111.050.0087
(1/4-20)5/16X5/8*	10	U07111.031.0062	(5/16-18)3/8X1.1/2*	10	U07111.037.0150	(3/8-16)1/2X1 Inch*	5	U07111.050.0100
(1/4-20)5/16X3/4*	10	U07111.031.0075	(5/16-18)3/8X1.3/4*	10	U07111.037.0175	(3/8-16)1/2X1.1/4*	5	U07111.050.0125

Encontre os seus produtos (ferramentas, quimicos, segurança) em www.fabory.com

U07111 Parafuso de apoio sextavado interior UNC

(D_1) Dx L	✉	Ref. do artigo	(D_1) Dx L	✉	Ref. do artigo	(D_1) Dx L	✉	Ref. do artigo
(3/8-16)1/2X1.1/2*	5	U07111.050.0150	(1/2-13)5/8X2 3/4*	1	U07111.062.0275	(5/8-11)3/4X3 1/4*	1	U07111.075.0325
(3/8-16)1/2X1.3/4*	5	U07111.050.0175	(1/2-13)5/8X3 Inch*	1	U07111.062.0300	(5/8-11)3/4X3 1/2*	1	U07111.075.0350
(3/8-16)1/2X2 Inch*	5	U07111.050.0200	(1/2-13)5/8X3 1/4*	1	U07111.062.0325	(5/8-11)3/4X3 3/4*	1	U07111.075.0375
(3/8-16)1/2X2 1/4*	5	U07111.050.0225	(1/2-13)5/8X3 1/2*	1	U07111.062.0350	(5/8-11)3/4X4 Inch*	1	U07111.075.0400
(3/8-16)1/2X2 1/2*	5	U07111.050.0250	(1/2-13)5/8X3 3/4*	1	U07111.062.0375	(5/8-11)3/4X4 1/4*	1	U07111.075.0425
(3/8-16)1/2X2 3/4*	5	U07111.050.0275	(1/2-13)5/8X4 Inch*	1	U07111.062.0400	(5/8-11)3/4X4 1/2*	1	U07111.075.0450
(3/8-16)1/2X3 Inch*	5	U07111.050.0300	(1/2-13)5/8X4 1/4*	1	U07111.062.0425	(5/8-11)3/4X4 3/4*	1	U07111.075.0475
(3/8-16)1/2X3 1/4*	5	U07111.050.0325	(1/2-13)5/8X4 1/2*	1	U07111.062.0450	(5/8-11)3/4X5 Inch*	1	U07111.075.0500
(3/8-16)1/2X3 1/2*	5	U07111.050.0350	(1/2-13)5/8X4 3/4*	1	U07111.062.0475	(5/8-11)3/4X5 1/2*	1	U07111.075.0550
(3/8-16)1/2X3 3/4*	5	U07111.050.0375	(1/2-13)5/8X5 Inch*	1	U07111.062.0500	(5/8-11)3/4X6 Inch*	1	U07111.075.0600
(3/8-16)1/2X4 Inch*	5	U07111.050.0400	(1/2-13)5/8X5 1/2*	1	U07111.062.0550	(5/8-11)3/4X7 Inch*	1	U07111.075.0700
(3/8-16)1/2X4 1/4*	5	U07111.050.0425	(1/2-13)5/8X6 Inch*	1	U07111.062.0600	(5/8-11)3/4X8 Inch*	1	U07111.075.0800
(3/8-16)1/2X4 1/2*	5	U07111.050.0450						
(3/8-16)1/2X4 3/4*	5	U07111.050.0475	(5/8-11)3/4X1/2*	1	U07111.075.0050	(3/4-10)1X1 Inch*	1	U07111.100.0100
(3/8-16)1/2X5 Inch*	5	U07111.050.0500	(5/8-11)3/4X3/4*	1	U07111.075.0075	(3/4-10)1X1.1/2*	1	U07111.100.0150
(3/8-16)1/2X5 1/2*	1	U07111.050.0550	(5/8-11)3/4X1 Inch*	1	U07111.075.0100	(3/4-10)1X1.3/4*	1	U07111.100.0175
(3/8-16)1/2X6 Inch*	1	U07111.050.0600	(5/8-11)3/4X1.1/4*	1	U07111.075.0125	(3/4-10)1X2 Inch*	1	U07111.100.0200
			(5/8-11)3/4X1.1/2*	1	U07111.075.0150	(3/4-10)1X2 1/2*	1	U07111.100.0250
(1/2-13)5/8X1.1/4*	5	U07111.062.0125	(5/8-11)3/4X1.3/4*	1	U07111.075.0175	(3/4-10)1X3 Inch*	1	U07111.100.0300
(1/2-13)5/8X1.1/2*	1	U07111.062.0150	(5/8-11)3/4X2 Inch*	1	U07111.075.0200	(3/4-10)1X3 1/2*	1	U07111.100.0350
(1/2-13)5/8X1.3/4*	1	U07111.062.0175	(5/8-11)3/4X2 1/4*	1	U07111.075.0225	(3/4-10)1X4 Inch*	1	U07111.100.0400
(1/2-13)5/8X2 Inch*	1	U07111.062.0200	(5/8-11)3/4X2 1/2*	1	U07111.075.0250	(3/4-10)1X5 Inch*	1	U07111.100.0500
(1/2-13)5/8X2 1/4*	1	U07111.062.0225	(5/8-11)3/4X2 3/4*	1	U07111.075.0275	(3/4-10)1X6 Inch*	1	U07111.100.0600
(1/2-13)5/8X2 1/2*	1	U07111.062.0250	(5/8-11)3/4X3 Inch*	1	U07111.075.0300			

07116 Parafuso de apoio sextavado interior UNC X05A

Rosca Unified National Coarse
Material Aço
Classe 012.9



(D_1) Dx L	✉	Ref. do artigo	(D_1) Dx L	✉	Ref. do artigo	(D_1) Dx L	✉	Ref. do artigo
(NO.10)1/4X3/4	25	07116.048.019	(5/16)3/8X1 Inch	10	07116.079.025	(3/8)1/2X4 Inch	5	07116.096.101
(NO.10)1/4X1 Inch	25	07116.048.025	(5/16)3/8X1.1/4	10	07116.079.031			
(NO.10)1/4X1.1/4	25	07116.048.031	(5/16)3/8X1.1/2	10	07116.079.038	(1/2)5/8X1.1/4	5	07116.127.031
(NO.10)1/4X1.1/2	10	07116.048.038	(5/16)3/8X1.3/4	10	07116.079.044	(1/2)5/8X1.1/2	5	07116.127.038
(NO.10)1/4X2 Inch	10	07116.048.050	(5/16)3/8X2 Inch	10	07116.079.050	(1/2)5/8X2 Inch	5	07116.127.050
			(5/16)3/8X2.1/2	10	07116.079.063	(1/2)5/8X2.1/2	5	07116.127.063
(1/4)5/16X1 Inch	25	07116.063.025	(5/16)3/8X3 Inch	10	07116.079.076	(1/2)5/8X3 Inch	5	07116.127.076
(1/4)5/16X1.1/4	25	07116.063.031				(1/2)5/8X3.1/2	3	07116.127.088
(1/4)5/16X1.1/2	25	07116.063.038	(3/8)1/2X1 Inch	10	07116.096.025	(1/2)5/8X4 Inch	3	07116.127.101
(1/4)5/16X1.3/4	10	07116.063.044	(3/8)1/2X1.1/4	10	07116.096.031			
(1/4)5/16X2 Inch	10	07116.063.050	(3/8)1/2X1.1/2	10	07116.096.038	(5/8)3/4X2 Inch	3	07116.158.050
(1/4)5/16X2.1/4	10	07116.063.057	(3/8)1/2X2 Inch	10	07116.096.050	(5/8)3/4X2.1/2	3	07116.158.063
(1/4)5/16X2.1/2	10	07116.063.063	(3/8)1/2X2.1/2	5	07116.096.063	(5/8)3/4X3 Inch	3	07116.158.076
			(3/8)1/2X3 Inch	5	07116.096.076	(5/8)3/4X3.1/2	3	07116.158.088
(5/16)3/8X3/4	10	07116.079.019	(3/8)1/2X3.1/2	5	07116.096.088	(5/8)3/4X4 Inch	3	07116.158.101

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

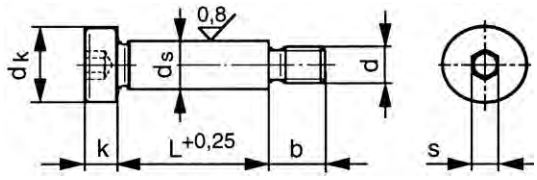
U51044 Parafuso de apoio sextavado interior UNC X15A

Rosca Unified National Coarse
Material Aço inoxidável A2 (AISI 304/18-8)



(D_1) Dx L	✉	Ref. do artigo	(D_1) Dx L	✉	Ref. do artigo	(D_1) Dx L	✉	Ref. do artigo
(10-24)1/4X1/4*	5	U51044.025.0025	(1/4-20)5/16X1/2*	5	U51044.031.0050	(5/16-18)3/8X3/4*	5	U51044.037.0075
(10-24)1/4X5/16*	5	U51044.025.0031	(1/4-20)5/16X5/8*	5	U51044.031.0062	(5/16-18)3/8X1 Inch*	2	U51044.037.0100
(10-24)1/4X3/8*	5	U51044.025.0037	(1/4-20)5/16X3/4*	5	U51044.031.0075	(5/16-18)3/8X1.1/4*	2	U51044.037.0125
(10-24)1/4X1/2*	5	U51044.025.0050	(1/4-20)5/16X1 Inch*	5	U51044.031.0100	(5/16-18)3/8X1.1/2*	2	U51044.037.0150
(10-24)1/4X5/8*	5	U51044.025.0062	(1/4-20)5/16X1.1/4*	5	U51044.031.0125			
(10-24)1/4X3/4*	5	U51044.025.0075	(1/4-20)5/16X1.1/2*	5	U51044.031.0150	(3/8-16)1/2X3/8*	5	U51044.050.0037
(10-24)1/4X1 Inch*	5	U51044.025.0100				(3/8-16)1/2X1/2*	5	U51044.050.0050
(10-24)1/4X1.1/4*	5	U51044.025.0125	(5/16-18)3/8X1/4*	5	U51044.037.0025	(3/8-16)1/2X5/8*	5	U51044.050.0062
(10-24)1/4X1.1/2*	2	U51044.025.0150	(5/16-18)3/8X5/16*	5	U51044.037.0031	(3/8-16)1/2X3/4*	5	U51044.050.0075
			(5/16-18)3/8X3/8*	5	U51044.037.0037	(3/8-16)1/2X1 Inch*	5	U51044.050.0100
(1/4-20)5/16X1/4*	5	U51044.031.0025	(5/16-18)3/8X1/2*	5	U51044.037.0050	(3/8-16)1/2X1.1/4*	5	U51044.050.0125
(1/4-20)5/16X5/16*	5	U51044.031.0031	(5/16-18)3/8X5/8*	5	U51044.037.0062	(3/8-16)1/2X1.1/2*	2	U51044.050.0150
(1/4-20)5/16X3/8*	5	U51044.031.0037						

Parafuso de apoio sextavado interior h8



ISO ≈7379
ASME ≈B18.3.3M
BS ≈4168-7

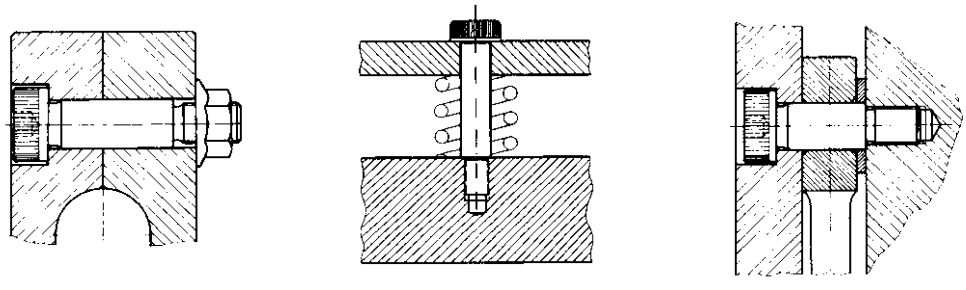


Dados técnicos

d	Tolerância de furo h8 (mín.)	Tolerância de furo h8 (máx.)	b	d_k (max.)	d_s (nom.)	k (max.)	P	s
M5	5.982	6.000	9.5	10.22	6	4.5	0.8	3
M6	7.978	8.000	11	13.27	8	5.5	1	4
M8	9.978	10.000	13	16.27	10	7	1.25	5
M10	11.973	12.000	16	18.27	12	9	1.5	6
M12	15.973	16.000	18	24.33	16	11	1.75	8

- Devido á desfavorável geometria da cabeça, estes parafusos têm uma capacidade de carga reduzida.
- Quando os parafusos de aço (por ex. 8.8 / 10.9 / 12.9) têm uma capacidade de carga reduzida, a marcação '0' precede a marcação da classe aço, por exemplo 8.8 → 08.8 e 10.9 → 010.9 e 12.9 → 012.9.
- Nos parafusos de aço inox, fica a marcação do aço e remove-se a classe da propriedade 70 (por ex. A2-70 → A2).
- As antigas e as novas indicações podem coexistir durante um determinado periodo de tempo.

Exemplo de aplicação



07117 **Parafuso de apoio sextavado interior h8** **D93A**

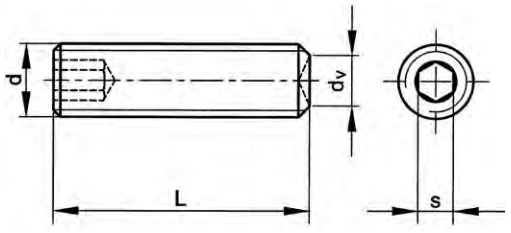
Rosca Métrica
Material Aço
Classe 012.9



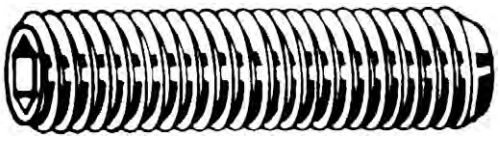
(d) d_s x L	✉	Ref. do artigo	(d) d_s x L	✉	Ref. do artigo	(d) d_s x L	✉	Ref. do artigo
M5 6X10	50	07117.050.010				M10 12X60	25	07117.100.060
M5 6X12	50	07117.050.012	M8 10X16	50	07117.080.016	M10 12X70	25	07117.100.070
M5 6X16	50	07117.050.016	M8 10X20	50	07117.080.020	M10 12X80	25	07117.100.080
M5 6X20	50	07117.050.020	M8 10X25	50	07117.080.025	M10 12X90	25	07117.100.090
M5 6X25	50	07117.050.025	M8 10X30	50	07117.080.030	M10 12X100	25	07117.100.100
M5 6X30	50	07117.050.030	M8 10X40	50	07117.080.040			
M5 6X40	50	07117.050.040	M8 10X50	50	07117.080.050	M12 16X30	25	07117.120.030
			M8 10X60	50	07117.080.060	M12 16X40	25	07117.120.040
M6 8X10	50	07117.060.010	M8 10X70	50	07117.080.070	M12 16X50	25	07117.120.050
M6 8X12	50	07117.060.012				M12 16X60	25	07117.120.060
M6 8X16	50	07117.060.016	M10 12X16	25	07117.100.016	M12 16X70	25	07117.120.070
M6 8X20	50	07117.060.020	M10 12X20	25	07117.100.020	M12 16X80	25	07117.120.080
M6 8X25	50	07117.060.025	M10 12X25	25	07117.100.025	M12 16X90	25	07117.120.090
M6 8X30	50	07117.060.030	M10 12X30	25	07117.100.030	M12 16X100	25	07117.120.100
M6 8X40	50	07117.060.040	M10 12X40	25	07117.100.040	M12 16X120	25	07117.120.120
M6 8X50	50	07117.060.050	M10 12X50	25	07117.100.050			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Perno sextavado interior com ponta côncava



DIN	**916**
ISO	4029
NEN	2343
ASME	B18.3.6M
NF	E27-183
BS	4168-5



Dados técnicos

d	d_v	P	s	d	d_v	P	s
M1.6	0.8	0.35	0.7	**M8**	5	1.25	4
M2	1	0.4	0.9	**M10**	6	1.5	5
M2.5	1.2	0.45	1.3	**M12**	8	1.75	6
M3	1.4	0.5	1.5	**M14**	9	2	6
M4	2	0.7	2	**M16**	10	2	8
M5	2.5	0.8	2.5	**M20**	14	2.5	10
M6	3	1	3	**M24**	16	3	12

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado interior	Aço	45H		07840	2-69
M	Sextavado interior	Aço	45H	Zn	07850	2-70
M	Sextavado interior	Aço	45H	Passiv. amar.	07930	2-70
M	Sextavado interior	INOX A2			51260	2-71
M	Sextavado interior	INOX A4			55260	2-71

07840 **Perno sextavado interior e ponta côncava** **D05A**

Rosca Métrica
Material Aço
Classe 45H



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X2	200	07840.020.002	M5X8	200	07840.050.008	M8X60	100	07840.080.060
M2X3	200	07840.020.003	M5X10	200	07840.050.010	M8X70	100	07840.080.070
M2X4	200	07840.020.004	M5X12	200	07840.050.012	M8X80	100	07840.080.080
M2X6	200	07840.020.006	M5X16	200	07840.050.016			
M2X8	200	07840.020.008	M5X20	200	07840.050.020	M10X8	200	07840.100.008
M2X10	200	07840.020.010	M5X25	200	07840.050.025	M10X10	200	07840.100.010
M2X12	200	07840.020.012	M5X30	200	07840.050.030	M10X12	200	07840.100.012
			M5X35	200	07840.050.035	M10X16	200	07840.100.016
M3X3	200	07840.030.003	M5X40	200	07840.050.040	M10X20	200	07840.100.020
M3X4	200	07840.030.004	M5X50	200	07840.050.050	M10X25	100	07840.100.025
M3X5	200	07840.030.005				M10X30	100	07840.100.030
M3X6	200	07840.030.006	M6X6	200	07840.060.006	M10X35	100	07840.100.035
M3X8	200	07840.030.008	M6X8	200	07840.060.008	M10X40	100	07840.100.040
M3X10	200	07840.030.010	M6X10	200	07840.060.010	M10X45	100	07840.100.045
M3X12	200	07840.030.012	M6X12	200	07840.060.012	M10X50	100	07840.100.050
M3X16	200	07840.030.016	M6X16	200	07840.060.016	M10X60	100	07840.100.060
M3X20	200	07840.030.020	M6X20	200	07840.060.020	M10X70	100	07840.100.070
M3X25	200	07840.030.025	M6X25	200	07840.060.025	M10X80	100	07840.100.080
M3X30	200	07840.030.030	M6X30	200	07840.060.030			
			M6X35	200	07840.060.035	M12X10	100	07840.120.010
M4X4	200	07840.040.004	M6X40	200	07840.060.040	M12X12	100	07840.120.012
M4X5	200	07840.040.005	M6X45	200	07840.060.045	M12X16	100	07840.120.016
M4X6	200	07840.040.006	M6X50	200	07840.060.050	M12X20	100	07840.120.020
M4X8	200	07840.040.008	M6X60	200	07840.060.060	M12X25	100	07840.120.025
M4X10	200	07840.040.010	M6X70	200	07840.060.070	M12X30	100	07840.120.030
M4X12	200	07840.040.012				M12X35	100	07840.120.035
M4X16	200	07840.040.016	M8X8	200	07840.080.008	M12X40	100	07840.120.040
M4X20	200	07840.040.020	M8X10	200	07840.080.010	M12X45	100	07840.120.045
M4X25	200	07840.040.025	M8X12	200	07840.080.012	M12X50	100	07840.120.050
M4X30	200	07840.040.030	M8X16	200	07840.080.016	M12X55	100	07840.120.055
M4X35	200	07840.040.035	M8X20	200	07840.080.020	M12X60	100	07840.120.060
M4X40	200	07840.040.040	M8X25	200	07840.080.025	M12X70	100	07840.120.070
M4X50	100	07840.040.050	M8X30	200	07840.080.030	M12X80	100	07840.120.080
			M8X35	100	07840.080.035	M12X90	100	07840.120.090
M5X4	200	07840.050.004	M8X40	100	07840.080.040	M12X100	50	07840.120.100
M5X5	200	07840.050.005	M8X45	100	07840.080.045	M12X110	50	07840.120.110
M5X6	200	07840.050.006	M8X50	100	07840.080.050			

07840 Perno sextavado interior e ponta côncava ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M14X16	100	07840.140.016	M16X40	50	07840.160.040	M20X65	10	07840.200.065
M14X20	100	07840.140.020	M16X45	50	07840.160.045	M20X70	10	07840.200.070
M14X25	100	07840.140.025	M16X50	50	07840.160.050	M20X80	10	07840.200.080
M14X30	50	07840.140.030	M16X60	25	07840.160.060	M20X100	10	07840.200.100
M14X35	50	07840.140.035	M16X70	25	07840.160.070	M20X120	10	07840.200.120
M14X40	50	07840.140.040	M16X80	25	07840.160.080			
M14X50	50	07840.140.050	M16X100	25	07840.160.100	M24X25	25	07840.240.025
M14X60	50	07840.140.060	M16X130	25	07840.160.130	M24X40	10	07840.240.040
M14X110	50	07840.140.110				M24X50	10	07840.240.050
			M20X20	25	07840.200.020	M24X60	10	07840.240.060
M16X16	50	07840.160.016	M20X25	10	07840.200.025	M24X70	10	07840.240.070
M16X20	50	07840.160.020	M20X30	10	07840.200.030	M24X90	10	07840.240.090
M16X25	50	07840.160.025	M20X40	10	07840.200.040	M24X100	10	07840.240.100
M16X30	50	07840.160.030	M20X50	10	07840.200.050			
M16X35	50	07840.160.035	M20X60	10	07840.200.060			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

07850 Perno sextavado interior e ponta côncava D05A

Rosca Métrica
Material Aço
Classe 45H
Tratamento sup. Zincado

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X4	200	07850.030.004	M6X8	200	07850.060.008	M10X16	200	07850.100.016
M3X5	200	07850.030.005	M6X10	200	07850.060.010	M10X20	200	07850.100.020
M3X6	200	07850.030.006	M6X12	200	07850.060.012	M10X25	100	07850.100.025
M3X8	200	07850.030.008	M6X16	200	07850.060.016	M10X30	100	07850.100.030
M3X10	200	07850.030.010	M6X20	200	07850.060.020	M10X35	100	07850.100.035
M3X12	200	07850.030.012	M6X25	200	07850.060.025	M10X40	100	07850.100.040
M3X16	200	07850.030.016	M6X30	200	07850.060.030	M10X50	100	07850.100.050
			M6X35	200	07850.060.035	M10X60	100	07850.100.060
M4X4	200	07850.040.004	M6X40	200	07850.060.040			
M4X5	200	07850.040.005				M12X10	100	07850.120.010
M4X6	200	07850.040.006	M8X6	200	07850.080.006	M12X12	100	07850.120.012
M4X8	200	07850.040.008	M8X8	200	07850.080.008	M12X16	100	07850.120.016
M4X10	200	07850.040.010	M8X10	200	07850.080.010	M12X20	100	07850.120.020
M4X12	200	07850.040.012	M8X12	200	07850.080.012	M12X25	100	07850.120.025
M4X16	200	07850.040.016	M8X16	200	07850.080.016	M12X30	100	07850.120.030
M4X20	200	07850.040.020	M8X20	200	07850.080.020	M12X35	100	07850.120.035
			M8X25	200	07850.080.025	M12X40	100	07850.120.040
M5X6	200	07850.050.006	M8X30	200	07850.080.030	M12X50	100	07850.120.050
M5X8	200	07850.050.008	M8X35	100	07850.080.035	M12X60	100	07850.120.060
M5X10	200	07850.050.010	M8X40	100	07850.080.040			
M5X12	200	07850.050.012	M8X50	100	07850.080.050	M16X20	50	07850.160.020
M5X16	200	07850.050.016	M8X70	100	07850.080.070	M16X25	50	07850.160.025
M5X20	200	07850.050.020				M16X30	50	07850.160.030
M5X25	200	07850.050.025	M10X8	200	07850.100.008	M16X40	50	07850.160.040
M5X30	200	07850.050.030	M10X10	200	07850.100.010	M16X50	50	07850.160.050
			M10X12	200	07850.100.012	M16X60	25	07850.160.060
M6X6	200	07850.060.006						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

07930 Perno sextavado interior e ponta côncava D05A

Rosca Métrica
Material Aço
Classe 45H
Tratamento sup. Passivado a amarelo



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X16	200	07930.050.016	M6X40	200	07930.060.040			
M5X20	200	07930.050.020				M10X25	100	07930.100.025
			M8X25	200	07930.080.025	M10X30	100	07930.100.030
M6X16	200	07930.060.016	M8X30	200	07930.080.030	M10X40	100	07930.100.040
M6X20	200	07930.060.020	M8X40	100	07930.080.040	M10X50	100	07930.100.050
M6X25	200	07930.060.025	M8X50	100	07930.080.050	M10X60	100	07930.100.060
M6X30	200	07930.060.030						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

51260 Perno sextavado interior e ponta côncava R03A

Rosca Métrica
Material Aço inoxidável A2



RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M1,6X3	25	51260.016.003	M5X4*	500	51260.050.004	M10X10	100	51260.100.010
M1,6X4	25	51260.016.004	M5X5	200	51260.050.005	M10X12	100	51260.100.012
M1,6X5	25	51260.016.005	M5X6	200	51260.050.006	M10X16	100	51260.100.016
M1,6X6	25	51260.016.006	M5X8	200	51260.050.008	M10X20	100	51260.100.020
			M5X10	200	51260.050.010	M10X25	100	51260.100.025
M2X3	50	51260.020.003	M5X12	200	51260.050.012	M10X30	100	51260.100.030
M2X4	50	51260.020.004	M5X14*	500	51260.050.014	M10X35	100	51260.100.035
M2X5	50	51260.020.005	M5X16	200	51260.050.016	M10X40	100	51260.100.040
M2X6	50	51260.020.006	M5X20	200	51260.050.020	M10X45*	100	51260.100.045
M2X8	50	51260.020.008	M5X25	200	51260.050.025	M10X50	100	51260.100.050
M2X10*	500	51260.020.010	M5X30	200	51260.050.030	M10X60	100	51260.100.060
M2X12*	500	51260.020.012	M5X35*	200	51260.050.035			
			M5X40*	200	51260.050.040	M12X10*	100	51260.120.010
M2,5X3*	500	51260.025.003				M12X12	100	51260.120.012
M2,5X4	50	51260.025.004	M6X5	200	51260.060.005	M12X16	100	51260.120.016
M2,5X5	50	51260.025.005	M6X6	200	51260.060.006	M12X20	100	51260.120.020
M2,5X6	50	51260.025.006	M6X8	200	51260.060.008	M12X25	100	51260.120.025
M2,5X8	50	51260.025.008	M6X10	200	51260.060.010	M12X30	100	51260.120.030
M2,5X10*	500	51260.025.010	M6X12	200	51260.060.012	M12X35	100	51260.120.035
M2,5X12*	500	51260.025.012	M6X14*	200	51260.060.014	M12X40	100	51260.120.040
			M6X16	200	51260.060.016	M12X45*	100	51260.120.045
M3X3	200	51260.030.003	M6X20	200	51260.060.020	M12X50	100	51260.120.050
M3X4	200	51260.030.004	M6X25	200	51260.060.025	M12X55*	100	51260.120.055
M3X5	200	51260.030.005	M6X30	200	51260.060.030	M12X60*	100	51260.120.060
M3X6	200	51260.030.006	M6X35	200	51260.060.035	M12X70*	50	51260.120.070
M3X8	200	51260.030.008	M6X40	200	51260.060.040			
M3X10	200	51260.030.010	M6X45*	200	51260.060.045	M16X16	50	51260.160.016
M3X12	200	51260.030.012	M6X50	200	51260.060.050	M16X20	100	51260.160.020
M3X16	200	51260.030.016	M6X60	200	51260.060.060	M16X25	50	51260.160.025
M3X20	200	51260.030.020				M16X30	50	51260.160.030
M3X25*	500	51260.030.025	M8X6	200	51260.080.006	M16X35*	50	51260.160.035
M3X30	200	51260.030.030	M8X8	200	51260.080.008	M16X40*	50	51260.160.040
			M8X10	200	51260.080.010	M16X45*	50	51260.160.045
M4X3	500	51260.040.003	M8X12	200	51260.080.012	M16X50*	50	51260.160.050
M4X4	200	51260.040.004	M8X16	200	51260.080.016	M16X60*	50	51260.160.060
M4X5	200	51260.040.005	M8X20	200	51260.080.020	M16X70*	50	51260.160.070
M4X6	200	51260.040.006	M8X25	200	51260.080.025	M16X80*	25	51260.160.080
M4X8	200	51260.040.008	M8X30	100	51260.080.030			
M4X10	200	51260.040.010	M8X35	100	51260.080.035	M20X20*	50	51260.200.020
M4X12	200	51260.040.012	M8X40	100	51260.080.040	M20X25*	50	51260.200.025
M4X16	200	51260.040.016	M8X45	200	51260.080.045	M20X30*	50	51260.200.030
M4X20	200	51260.040.020	M8X50	100	51260.080.050	M20X35*	50	51260.200.035
M4X25	200	51260.040.025	M8X60	100	51260.080.060	M20X40*	50	51260.200.040
M4X30	200	51260.040.030	M8X70	200	51260.080.070	M20X60*	50	51260.200.060
M4X35*	200	51260.040.035	M8X80*	200	51260.080.080	M20X70*	25	51260.200.070
						M20X80*	25	51260.200.080

55260 Perno sextavado interior e ponta côncava R43A

Rosca Métrica
Material Aço inoxidável A4



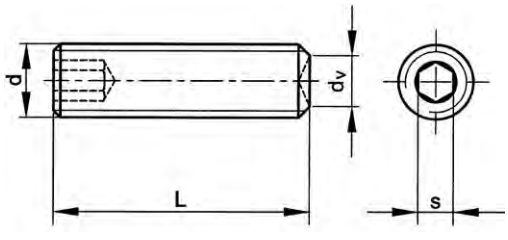
RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X3	50	55260.020.003				M5X16	200	55260.050.016
M2X4	50	55260.020.004	M4X4	200	55260.040.004	M5X20	200	55260.050.020
M2X6	50	55260.020.006	M4X5	200	55260.040.005	M5X25	200	55260.050.025
			M4X6	200	55260.040.006	M5X30	200	55260.050.030
M2,5X4	50	55260.025.004	M4X8	200	55260.040.008	M5X35*	200	55260.050.035
M2,5X6	50	55260.025.006	M4X10	200	55260.040.010	M5X40	200	55260.050.040
			M4X12	200	55260.040.012			
M3X3	200	55260.030.003	M4X16	200	55260.040.016	M6X6	200	55260.060.006
M3X4	200	55260.030.004	M4X20	200	55260.040.020	M6X8	200	55260.060.008
M3X5	200	55260.030.005	M4X25	200	55260.040.025	M6X10	200	55260.060.010
M3X6	200	55260.030.006	M4X30*	200	55260.040.030	M6X12	200	55260.060.012
M3X8	200	55260.030.008				M6X14*	200	55260.060.014
M3X10	200	55260.030.010	M5X5	200	55260.050.005	M6X16	200	55260.060.016
M3X12	200	55260.030.012	M5X6	200	55260.050.006	M6X20	200	55260.060.020
M3X16	200	55260.030.016	M5X8	200	55260.050.008	M6X25	200	55260.060.025
M3X20	200	55260.030.020	M5X10	200	55260.050.010	M6X30	200	55260.060.030
M3X30*	200	55260.030.030	M5X12	200	55260.050.012	M6X35*	200	55260.060.035

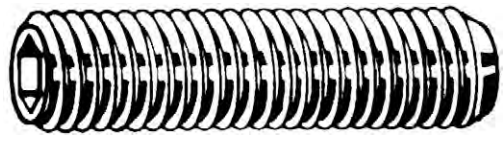
55260 **Perno sextavado interior e ponta côncava** ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X40	200	55260.060.040	M10X16	100	55260.100.016	M12X50	100	55260.120.050
M6X45*	200	55260.060.045	M10X20	100	55260.100.020			
M6X50	200	55260.060.050	M10X25	100	55260.100.025	M16X16	50	55260.160.016
M6X60*	200	55260.060.060	M10X30	100	55260.100.030	M16X20	50	55260.160.020
			M10X35*	100	55260.100.035	M16X25*	50	55260.160.025
M8X8	200	55260.080.008	M10X40	100	55260.100.040	M16X30*	50	55260.160.030
M8X10	200	55260.080.010	M10X45*	100	55260.100.045	M16X35*	50	55260.160.035
M8X12	200	55260.080.012	M10X50	100	55260.100.050	M16X40*	50	55260.160.040
M8X16	200	55260.080.016	M10X60*	100	55260.100.060	M16X45*	50	55260.160.045
M8X20	200	55260.080.020				M16X50*	50	55260.160.050
M8X25	200	55260.080.025	M12X10	100	55260.120.010	M16X60*	50	55260.160.060
M8X30	100	55260.080.030	M12X12	100	55260.120.012	M16X70*	50	55260.160.070
M8X35	100	55260.080.035	M12X16	100	55260.120.016	M16X90	50	55260.160.090
M8X40	100	55260.080.040	M12X20	100	55260.120.020			
M8X45*	200	55260.080.045	M12X25	100	55260.120.025	M20X20*	50	55260.200.020
M8X50	100	55260.080.050	M12X30	100	55260.120.030	M20X25*	50	55260.200.025
			M12X35*	100	55260.120.035	M20X30*	50	55260.200.030
M10X10	100	55260.100.010	M12X40	100	55260.120.040	M20X50	50	55260.200.050
M10X12	100	55260.100.012	M12X45*	100	55260.120.045	M20X70*	25	55260.200.070

Perno sextavado interior com ponta cortada MF



DIN	**≈916**
ISO	≈4029
NEN	≈2343
ASME	≈B18.3.6M
NF	≈E27-183
BS	≈4168-5



Dados técnicos

d	d_v	s	d	d_v	s
M8	5	4	**M12**	8	6
M10	6	5	**M16**	10	8

07852 **Perno sextavado interior com ponta cortada MF** **D93A**

Rosca	Métrica fina
Material	Aço
Classe	45H

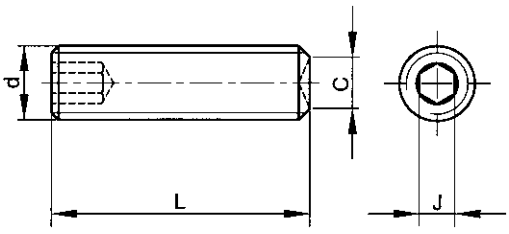
RoHS



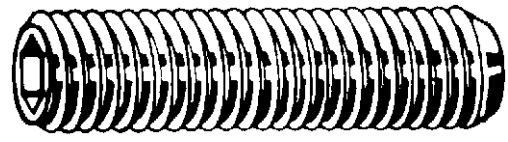
d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo
M8X1,00X10	100	07852.080.010	M10X1,25X16	50	07852.100.016	M12X1,50X25	50	07852.120.025
M8X1,00X12	100	07852.080.012	M10X1,25X20	50	07852.100.020	M12X1,50X30	50	07852.120.030
M8X1,00X16	100	07852.080.016	M10X1,25X25	50	07852.100.025	M12X1,50X40	50	07852.120.040
M8X1,00X20	100	07852.080.020	M10X1,25X30	50	07852.100.030	M12X1,50X50	50	07852.120.050
M8X1,00X25	50	07852.080.025	M10X1,25X40	50	07852.100.040			
M8X1,00X30	50	07852.080.030	M10X1,25X50	50	07852.100.050	M16X1,50X20	25	07852.160.020
M8X1,00X40	50	07852.080.040				M16X1,50X25	25	07852.160.025
M8X1,00X50	50	07852.080.050	M12X1,50X10	50	07852.120.010	M16X1,50X30	25	07852.160.030
			M12X1,50X12	50	07852.120.012	M16X1,50X40	25	07852.160.040
M10X1,25X10	50	07852.100.010	M12X1,50X16	50	07852.120.016	M16X1,50X50	25	07852.160.050
M10X1,25X12	50	07852.100.012	M12X1,50X20	50	07852.120.020			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Perno sextavado interior com ponta côncava UNC



ASME ≈B18.3
BS ≈2470



Dados técnicos

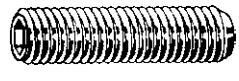
d	C (max.)	Fios por polegada	J	d	C (max.)	Fios por polegada	J
No.2	0.047	56	0.035	**5/16**	0.172	18	5/32
No.3	0.054	48	0.050	**3/8**	0.212	16	3/16
No.4	0.061	40	0.050	**7/16**	0.252	14	7/32
No.5	0.067	40	1/16	**1/2**	0.291	13	1/4
No.6	0.074	32	1/16	**5/8**	0.371	11	5/16
No.8	0.087	32	5/64	**3/4**	0.450	10	3/8
No.10	0.102	24	3/32	**7/8**	0.530	9	1/2
1/4	0.132	20	1/8	**1 Inch**	0.609	8	9/16

Grupos de produtos

Rosca	Encaixe	Material	Código	Página
UNC	Sextavado interior	Aço	U07840	2-73
UNC	Sextavado interior	INOX A2 (AISI304/18-8)	U51260	2-74

U07840 **Perno sextavado interior com ponta côncava UNC** **X05A**

Rosca Unified National Coarse
Material Aço



RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.2-56X1/16*	100	U07840.008.0006	NO.6-32X5/16*	100	U07840.013.0031	1/4-20X1/2*	100	U07840.025.0050
NO.2-56X3/32*	100	U07840.008.0009	NO.6-32X3/8*	100	U07840.013.0037	1/4-20X5/8*	100	U07840.025.0062
NO.2-56X1/8*	100	U07840.008.0012	NO.6-32X1/2*	100	U07840.013.0050	1/4-20X3/4*	100	U07840.025.0075
NO.2-56X3/16*	100	U07840.008.0018	NO.6-32X5/8*	100	U07840.013.0062	1/4-20X7/8*	100	U07840.025.0087
NO.2-56X1/4*	100	U07840.008.0025	NO.6-32X3/4*	100	U07840.013.0075	1/4-20X1 Inch*	100	U07840.025.0100
			NO.6-32X7/8*	100	U07840.013.0087	1/4-20X1.1/8*	100	U07840.025.0112
NO.3-48X3/32*	100	U07840.009.0009	NO.6-32X1 Inch*	100	U07840.013.0100	1/4-20X1.1/4*	100	U07840.025.0125
NO.3-48X1/8*	100	U07840.009.0012				1/4-20X1.1/2*	100	U07840.025.0150
NO.3-48X3/16*	100	U07840.009.0018	NO.8-32X1/8*	100	U07840.016.0012	1/4-20X1.3/4*	100	U07840.025.0175
NO.3-48X1/4*	100	U07840.009.0025	NO.8-32X3/16*	100	U07840.016.0018	1/4-20X2 Inch*	100	U07840.025.0200
NO.3-48X5/16*	100	U07840.009.0031	NO.8-32X1/4*	100	U07840.016.0025	1/4-20X2.1/4*	100	U07840.025.0225
NO.3-48X1/2*	100	U07840.009.0050	NO.8-32X5/16*	100	U07840.016.0031	1/4-20X2.1/2*	50	U07840.025.0250
NO.3-48X5/8*	100	U07840.009.0062	NO.8-32X3/8*	100	U07840.016.0037	1/4-20X3 Inch*	50	U07840.025.0300
NO.3-48X3/4*	100	U07840.009.0075	NO.8-32X7/16*	100	U07840.016.0043			
			NO.8-32X1/2*	100	U07840.016.0050	5/16-18X3/16*	100	U07840.031.0018
NO.4-40X3/32*	100	U07840.011.0009	NO.8-32X5/8*	100	U07840.016.0062	5/16-18X1/4*	100	U07840.031.0025
NO.4-40X1/8*	100	U07840.011.0012	NO.8-32X3/4*	100	U07840.016.0075	5/16-18X5/16*	100	U07840.031.0031
NO.4-40X3/16*	100	U07840.011.0018	NO.8-32X7/8*	100	U07840.016.0087	5/16-18X3/8*	100	U07840.031.0037
NO.4-40X1/4*	100	U07840.011.0025	NO.8-32X1 Inch*	100	U07840.016.0100	5/16-18X7/16*	100	U07840.031.0043
NO.4-40X5/16*	100	U07840.011.0031	NO.8-32X1.1/4*	100	U07840.016.0125	5/16-18X1/2*	100	U07840.031.0050
NO.4-40X3/8*	100	U07840.011.0037	NO.8-32X1.1/2*	100	U07840.016.0150	5/16-18X5/8*	100	U07840.031.0062
NO.4-40X1/2*	100	U07840.011.0050				5/16-18X3/4*	100	U07840.031.0075
NO.4-40X5/8*	100	U07840.011.0062	NO.10-24X1/8*	100	U07840.019.0012	5/16-18X7/8*	100	U07840.031.0087
NO.4-40X3/4*	100	U07840.011.0075	NO.10-24X3/16*	100	U07840.019.0018	5/16-18X1 Inch*	100	U07840.031.0100
NO.4-40X1 Inch*	100	U07840.011.0100	NO.10-24X1/4*	100	U07840.019.0025	5/16-18X1.1/4*	100	U07840.031.0125
			NO.10-24X5/16*	100	U07840.019.0031	5/16-18X1.1/2*	100	U07840.031.0150
NO.5-40X1/8*	100	U07840.012.0012	NO.10-24X3/8*	100	U07840.019.0037	5/16-18X1.3/4*	100	U07840.031.0175
NO.5-40X3/16*	100	U07840.012.0018	NO.10-24X1/2*	100	U07840.019.0050	5/16-18X2 Inch*	100	U07840.031.0200
NO.5-40X1/4*	100	U07840.012.0025	NO.10-24X5/8*	100	U07840.019.0062	5/16-18X2.1/4*	100	U07840.031.0225
NO.5-40X5/16*	100	U07840.012.0031	NO.10-24X3/4*	100	U07840.019.0075	5/16-18X2.1/2*	50	U07840.031.0250
NO.5-40X3/8*	100	U07840.012.0037	NO.10-24X7/8*	100	U07840.019.0087	5/16-18X2.3/4*	50	U07840.031.0275
NO.5-40X7/16*	100	U07840.012.0043	NO.10-24X1 Inch*	100	U07840.019.0100			
NO.5-40X1/2*	100	U07840.012.0050	NO.10-24X1.1/4*	100	U07840.019.0125	3/8-16X1/4*	100	U07840.037.0025
NO.5-40X5/8*	100	U07840.012.0062	NO.10-24X1.1/2*	100	U07840.019.0150	3/8-16X5/16*	100	U07840.037.0031
NO.5-40X3/4*	100	U07840.012.0075	NO.10-24X2 Inch*	50	U07840.019.0200	3/8-16X3/8*	100	U07840.037.0037
NO.5-40X1 Inch*	100	U07840.012.0100				3/8-16X7/16*	100	U07840.037.0043
			1/4-20X3/16*	100	U07840.025.0018	3/8-16X1/2*	100	U07840.037.0050
NO.6-32X1/8*	100	U07840.013.0012	1/4-20X1/4*	100	U07840.025.0025	3/8-16X5/8*	100	U07840.037.0062
NO.6-32X3/16*	100	U07840.013.0018	1/4-20X5/16*	100	U07840.025.0031	3/8-16X3/4*	100	U07840.037.0075
NO.6-32X1/4*	100	U07840.013.0025	1/4-20X3/8*	100	U07840.025.0037	3/8-16X7/8*	100	U07840.037.0087

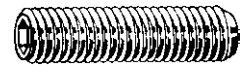
U07840 Perno sextavado interior com ponta côncava UNC ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3/8-16X1 Inch*	100	U07840.037.0100	1/2-13X3/4*	25	U07840.050.0075	3/4-10X5/8*	5	U07840.075.0062
3/8-16X1.1/4*	100	U07840.037.0125	1/2-13X7/8*	25	U07840.050.0087	3/4-10X3/4*	5	U07840.075.0075
3/8-16X1.1/2*	50	U07840.037.0150	1/2-13X1 Inch*	25	U07840.050.0100	3/4-10X7/8*	5	U07840.075.0087
3/8-16X1.3/4*	50	U07840.037.0175	1/2-13X1.1/4*	25	U07840.050.0125	3/4-10X1 Inch*	5	U07840.075.0100
3/8-16X2 Inch*	25	U07840.037.0200	1/2-13X1.1/2*	25	U07840.050.0150	3/4-10X1.1/4*	5	U07840.075.0125
3/8-16X2.1/4*	25	U07840.037.0225	1/2-13X1.3/4*	25	U07840.050.0175	3/4-10X1.1/2*	5	U07840.075.0150
3/8-16X2.1/2*	25	U07840.037.0250	1/2-13X2 Inch*	10	U07840.050.0200	3/4-10X1.3/4*	5	U07840.075.0175
3/8-16X2.3/4*	10	U07840.037.0275	1/2-13X2.1/4*	10	U07840.050.0225	3/4-10X2 Inch*	5	U07840.075.0200
3/8-16X3 Inch*	10	U07840.037.0300	1/2-13X2.1/2*	10	U07840.050.0250	3/4-10X2.1/2*	5	U07840.075.0250
			1/2-13X2.3/4*	10	U07840.050.0275	3/4-10X3 Inch*	5	U07840.075.0300
7/16-14X3/8*	50	U07840.043.0037	1/2-13X3 Inch*	10	U07840.050.0300	3/4-10X3.1/2*	5	U07840.075.0350
7/16-14X7/16*	50	U07840.043.0043	1/2-13X3.1/2*	10	U07840.050.0350	3/4-10X4 Inch*	5	U07840.075.0400
7/16-14X1/2*	50	U07840.043.0050	1/2-13X4 Inch*	10	U07840.050.0400			
7/16-14X5/8*	50	U07840.043.0062				7/8-9X7/8*	5	U07840.087.0087
7/16-14X3/4*	50	U07840.043.0075	5/8-11X1/2*	10	U07840.062.0050	7/8-9X1 Inch*	5	U07840.087.0100
7/16-14X7/8*	50	U07840.043.0087	5/8-11X5/8*	10	U07840.062.0062	7/8-9X1.1/4*	5	U07840.087.0125
7/16-14X1 Inch*	50	U07840.043.0100	5/8-11X3/4*	10	U07840.062.0075	7/8-9X1.1/2*	5	U07840.087.0150
7/16-14X1.1/4*	25	U07840.043.0125	5/8-11X1 Inch*	10	U07840.062.0100	7/8-9X2 Inch*	5	U07840.087.0200
7/16-14X1.1/2*	25	U07840.043.0150	5/8-11X1.1/4*	10	U07840.062.0125	7/8-9X2.1/2*	1	U07840.087.0250
7/16-14X1.3/4*	25	U07840.043.0175	5/8-11X1.1/2*	10	U07840.062.0150	7/8-9X3 Inch*	1	U07840.087.0300
7/16-14X2 Inch*	10	U07840.043.0200	5/8-11X1.3/4*	10	U07840.062.0175	7/8-9X4 Inch*	1	U07840.087.0400
7/16-14X2.1/4*	10	U07840.043.0225	5/8-11X2 Inch*	10	U07840.062.0200			
			5/8-11X2.1/4*	10	U07840.062.0225	1.-8X1 Inch*	1	U07840.100.0100
1/2-13X3/8*	50	U07840.050.0037	5/8-11X2.1/2*	10	U07840.062.0250	1.-8X1.1/2*	1	U07840.100.0150
1/2-13X7/16*	50	U07840.050.0043	5/8-11X3 Inch*	5	U07840.062.0300	1.-8X2 Inch*	1	U07840.100.0200
1/2-13X1/2*	50	U07840.050.0050	5/8-11X4 Inch*	5	U07840.062.0400	1.-8X2.1/2*	1	U07840.100.0250
1/2-13X5/8*	50	U07840.050.0062				1.-8X3 Inch*	1	U07840.100.0300

U51260 Perno sextavado interior com ponta côncava UNC X15A

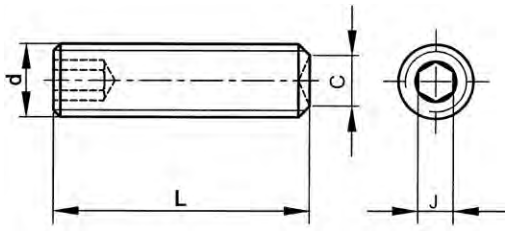
Rosca Unified National Coarse
Material Aço inoxidável A2 (AISI 304/18-8)

RoHS

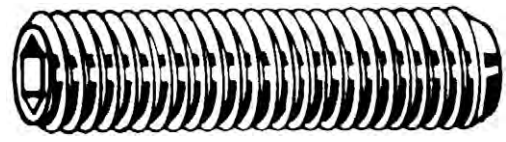


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.2-56X1/16	100	U51260.008.0006	NO.8-32X1/4*	100	U51260.016.0025	1/4-20X1 Inch*	50	U51260.025.0100
NO.2-56X3/32*	100	U51260.008.0009	NO.8-32X5/16*	100	U51260.016.0031			
NO.2-56X1/8*	100	U51260.008.0012	NO.8-32X3/8*	100	U51260.016.0037	5/16-18X1/4*	100	U51260.031.0025
NO.2-56X3/16*	100	U51260.008.0018	NO.8-32X7/16*	100	U51260.016.0043	5/16-18X5/16*	100	U51260.031.0031
NO.2-56X1/4*	100	U51260.008.0025	NO.8-32X1/2*	100	U51260.016.0050	5/16-18X3/8*	100	U51260.031.0037
						5/16-18X1/2*	100	U51260.031.0050
NO.3-48X3/32*	100	U51260.009.0009	NO.10-24X3/16*	100	U51260.019.0018	5/16-18X5/8*	100	U51260.031.0062
NO.3-48X1/8*	100	U51260.009.0012	NO.10-24X1/4*	100	U51260.019.0025	5/16-18X3/4*	50	U51260.031.0075
NO.3-48X3/16*	100	U51260.009.0018	NO.10-24X5/16*	100	U51260.019.0031	5/16-18X1 Inch*	50	U51260.031.0100
			NO.10-24X3/8*	100	U51260.019.0037			
NO.4-40X1/8*	100	U51260.011.0012	NO.10-24X1/2*	100	U51260.019.0050	3/8-16X5/16*	50	U51260.037.0031
NO.4-40X3/16*	100	U51260.011.0018	NO.10-24X5/8*	100	U51260.019.0062	3/8-16X3/8*	50	U51260.037.0037
NO.4-40X1/4*	100	U51260.011.0025	NO.10-24X3/4*	100	U51260.019.0075	3/8-16X1/2*	50	U51260.037.0050
						3/8-16X5/8*	50	U51260.037.0062
NO.6-32X1/8*	100	U51260.013.0012	1/4-20X3/16*	100	U51260.025.0018	3/8-16X3/4*	50	U51260.037.0075
NO.6-32X3/16*	100	U51260.013.0018	1/4-20X1/4*	100	U51260.025.0025	3/8-16X1 Inch*	50	U51260.037.0100
NO.6-32X1/4*	100	U51260.013.0025	1/4-20X5/16*	100	U51260.025.0031			
NO.6-32X5/16*	100	U51260.013.0031	1/4-20X3/8*	100	U51260.025.0037	1/2-13X1/2*	50	U51260.050.0050
NO.6-32X3/8*	100	U51260.013.0037	1/4-20X1/2*	100	U51260.025.0050	1/2-13X5/8*	25	U51260.050.0062
			1/4-20X5/8*	100	U51260.025.0062	1/2-13X3/4*	25	U51260.050.0075
NO.8-32X1/8*	100	U51260.016.0012	1/4-20X3/4*	100	U51260.025.0075	1/2-13X1 Inch*	25	U51260.050.0100
NO.8-32X3/16*	100	U51260.016.0018						

Perno sextavado interior UNF



ASME ≈B18.3



Dados técnicos

d	C (max.)	Fios por polegada	J
No.4	0.061	48	0.05
No.5	0.067	44	1/16
No.6	0.074	40	1/16
No.8	0.087	36	5/64
No.10	0.102	32	3/32
1/4	0.132	28	1/8
5/16	0.172	24	5/32
3/8	0.212	24	3/16
7/16	0.252	20	7/32
1/2	0.291	20	1/4
5/8	0.371	18	5/16
3/4	0.450	16	3/8

Grupos de produtos

Rosca	Encaixe	Material	Código	Página
UNF	Sextavado interior	Aço	U07852	2-75
UNF	Sextavado interior	INOX A2 (AISI304/18-8)	U51261	2-76

U07852 Perno sextavado interior UNF **X05A**

Rosca Unified National Fine
Material Aço



RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.4-48X1/8*	100	U07852.011.0012	NO.10-32X1.3/4*	100	U07852.019.0175	3/8-24X3/4*	100	U07852.037.0075
NO.4-48X3/16*	100	U07852.011.0018	NO.10-32X2 Inch*	50	U07852.019.0200	3/8-24X1 Inch*	100	U07852.037.0100
NO.4-48X1/4*	100	U07852.011.0025				3/8-24X1.1/4*	100	U07852.037.0125
NO.4-48X1/2*	100	U07852.011.0050	1/4-28X3/16*	100	U07852.025.0018	3/8-24X1.1/2*	50	U07852.037.0150
			1/4-28X1/4*	100	U07852.025.0025	3/8-24X1.3/4*	50	U07852.037.0175
NO.5-44X1/8*	100	U07852.012.0012	1/4-28X5/16*	100	U07852.025.0031	3/8-24X2 Inch*	25	U07852.037.0200
NO.5-44X3/16*	100	U07852.012.0018	1/4-28X3/8*	100	U07852.025.0037	3/8-24X2.1/2*	25	U07852.037.0250
NO.5-44X1/4*	100	U07852.012.0025	1/4-28X1/2*	100	U07852.025.0050			
			1/4-28X5/8*	100	U07852.025.0062	7/16-20X3/8*	50	U07852.043.0037
NO.6-40X1/8*	100	U07852.013.0012	1/4-28X3/4*	100	U07852.025.0075	7/16-20X7/16*	50	U07852.043.0043
NO.6-40X3/16*	100	U07852.013.0018	1/4-28X1 Inch*	100	U07852.025.0100	7/16-20X1/2*	50	U07852.043.0050
NO.6-40X1/4*	100	U07852.013.0025	1/4-28X1.1/4*	100	U07852.025.0125	7/16-20X5/8*	50	U07852.043.0062
NO.6-40X5/16*	100	U07852.013.0031	1/4-28X1.1/2*	100	U07852.025.0150	7/16-20X3/4*	50	U07852.043.0075
NO.6-40X3/8*	100	U07852.013.0037	1/4-28X1.3/4*	100	U07852.025.0175	7/16-20X7/8*	50	U07852.043.0087
NO.6-40X1/2*	100	U07852.013.0050	1/4-28X2 Inch*	100	U07852.025.0200	7/16-20X1 Inch*	50	U07852.043.0100
			1/4-28X2.1/2*	50	U07852.025.0250	7/16-20X1.1/4*	25	U07852.043.0125
NO.8-36X1/8*	100	U07852.016.0012				7/16-20X1.1/2*	25	U07852.043.0150
NO.8-36X3/16*	100	U07852.016.0018	5/16-24X1/4*	100	U07852.031.0025	7/16-20X1.3/4*	25	U07852.043.0175
NO.8-36X1/4*	100	U07852.016.0025	5/16-24X5/16*	100	U07852.031.0031	7/16-20X2 Inch*	10	U07852.043.0200
NO.8-36X5/16*	100	U07852.016.0031	5/16-24X3/8*	100	U07852.031.0037			
NO.8-36X3/8*	100	U07852.016.0037	5/16-24X1/2*	100	U07852.031.0050	1/2-20X3/8*	25	U07852.050.0037
NO.8-36X1/2*	100	U07852.016.0050	5/16-24X5/8*	100	U07852.031.0062	1/2-20X1/2*	50	U07852.050.0050
			5/16-24X3/4*	100	U07852.031.0075	1/2-20X5/8*	50	U07852.050.0062
NO.10-32X1/8*	100	U07852.019.0012	5/16-24X1 Inch*	100	U07852.031.0100	1/2-20X3/4*	25	U07852.050.0075
NO.10-32X3/16*	100	U07852.019.0018	5/16-24X1.1/4*	100	U07852.031.0125	1/2-20X1 Inch*	25	U07852.050.0100
NO.10-32X1/4*	100	U07852.019.0025	5/16-24X1.1/2*	100	U07852.031.0150	1/2-20X1.1/4*	25	U07852.050.0125
NO.10-32X5/16*	100	U07852.019.0031	5/16-24X1.3/4*	100	U07852.031.0175	1/2-20X1.1/2*	10	U07852.050.0150
NO.10-32X3/8*	100	U07852.019.0037	5/16-24X2 Inch*	100	U07852.031.0200	1/2-20X1.3/4*	25	U07852.050.0175
NO.10-32X1/2*	100	U07852.019.0050	5/16-24X2.1/2*	50	U07852.031.0250	1/2-20X2 Inch*	10	U07852.050.0200
NO.10-32X5/8*	100	U07852.019.0062				1/2-20X2.1/2*	10	U07852.050.0250
NO.10-32X3/4*	100	U07852.019.0075	3/8-24X1/4*	100	U07852.037.0025	1/2-20X3 Inch*	10	U07852.050.0300
NO.10-32X7/8*	100	U07852.019.0087	3/8-24X5/16*	100	U07852.037.0031			
NO.10-32X1 Inch*	100	U07852.019.0100	3/8-24X3/8*	100	U07852.037.0037	5/8-18X1/2*	10	U07852.062.0050
NO.10-32X1.1/4*	100	U07852.019.0125	3/8-24X1/2*	100	U07852.037.0050	5/8-18X5/8*	10	U07852.062.0062
NO.10-32X1.1/2*	100	U07852.019.0150	3/8-24X5/8*	100	U07852.037.0062	5/8-18X3/4*	10	U07852.062.0075

2

U07852	Perno sextavado interior UNF	←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
5/8-18X1 Inch*	10	U07852.062.0100				3/4-16X1.3/4*	5	U07852.075.0175
5/8-18X1.1/2*	10	U07852.062.0150	3/4-16X3/4*	5	U07852.075.0075	3/4-16X2 Inch*	5	U07852.075.0200
5/8-18X2 Inch*	10	U07852.062.0200	3/4-16X1 Inch*	5	U07852.075.0100	3/4-16X2.1/2*	5	U07852.075.0250
5/8-18X2.1/2*	10	U07852.062.0250	3/4-16X1.1/2*	5	U07852.075.0150	3/4-16X3 Inch*	5	U07852.075.0300

U51261	Perno sextavado interior UNF	X15A

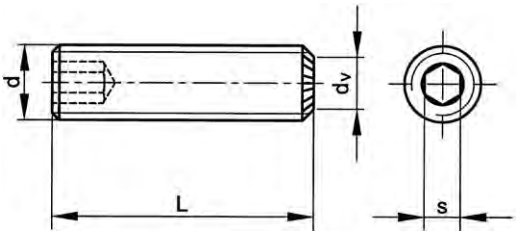
Rosca Unified National Fine
Material Aço inoxidável A2 (AISI 304/18-8)



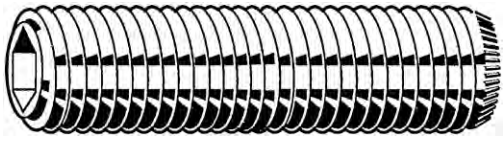
RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.10-32X3/16*	100	U51261.019.0018	NO.10-32X3/8*	100	U51261.019.0037	NO.10-32X5/8*	100	U51261.019.0062
NO.10-32X1/4*	100	U51261.019.0025	NO.10-32X1/2*	100	U51261.019.0050	NO.10-32X3/4*	100	U51261.019.0075
NO.10-32X5/16*	100	U51261.019.0031						

Perno sextavado interior com ponta concava



DIN	**≈916**
ISO	≈4029
NEN	≈2343
ASME	≈B18.3.6M
NF	≈E27-183
BS	≈4168-5



Dados técnicos

d	d_v	P	s
M3	1.4	0.5	1.5
M4	2	0.7	2
M5	2.5	0.8	2.5

d	d_v	P	s
M6	3	1	3
M8	5	1.25	4

07890	Perno sextavado interior com ponta concava	D05A

Rosca Métrica
Material Aço
Classe 45H



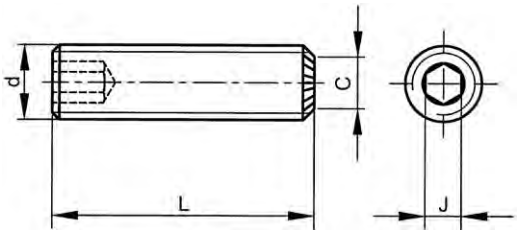
RoHS

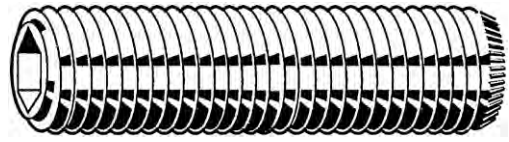
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X4	200	07890.030.004				M6X12	200	07890.060.012
M3X5	200	07890.030.005	M5X5	200	07890.050.005	M6X16	200	07890.060.016
M3X6	200	07890.030.006	M5X6	200	07890.050.006	M6X20	200	07890.060.020
M3X8	200	07890.030.008	M5X8	200	07890.050.008	M6X25	200	07890.060.025
M3X10	200	07890.030.010	M5X10	200	07890.050.010			
			M5X12	200	07890.050.012	M8X8	200	07890.080.008
M4X5	200	07890.040.005	M5X16	200	07890.050.016	M8X10	200	07890.080.010
M4X6	200	07890.040.006	M5X20	200	07890.050.020	M8X12	200	07890.080.012
M4X8	200	07890.040.008				M8X16	200	07890.080.016
M4X10	200	07890.040.010	M6X6	200	07890.060.006	M8X20	200	07890.080.020
M4X12	200	07890.040.012	M6X8	200	07890.060.008	M8X25	200	07890.080.025
M4X16	200	07890.040.016	M6X10	200	07890.060.010	M8X30	200	07890.080.030

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Perno sextavado interior com ponta serrilhada UNC

ASME ≈B18.3





Dados técnicos

d	C (max.)	Fios por polegada	J
No.4	0.054	40	0.05
No.6	0.074	32	1/16
No.8	0.087	32	5/64
No.10	0.102	24	3/32
1/4	0.132	20	1/8
5/16	0.172	18	5/32
3/8	0.212	16	3/16
1/2	0.291	13	1/4

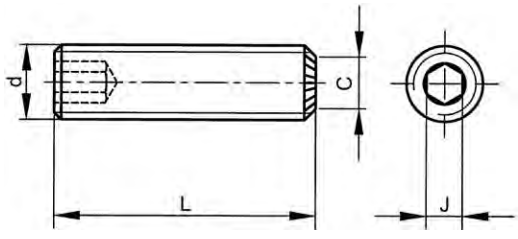
U07890 Perno sextavado interior com ponta serrilhada UNC **X05A**

Rosca Unified National Coarse
Material Aço

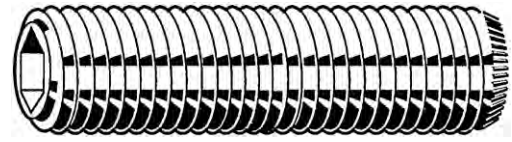


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.4-40X1/8*	100	U07890.011.0012	NO.10-24X1/4*	100	U07890.019.0025	5/16-18X5/16*	100	U07890.031.0031
			NO.10-24X5/16*	100	U07890.019.0031	5/16-18X3/8*	100	U07890.031.0037
NO.6-32X1/8*	100	U07890.013.0012	NO.10-24X3/8*	100	U07890.019.0037	5/16-18X1/2*	100	U07890.031.0050
NO.6-32X3/16*	100	U07890.013.0018	NO.10-24X1/2*	100	U07890.019.0050	5/16-18X5/8*	100	U07890.031.0062
NO.6-32X1/4*	100	U07890.013.0025	NO.10-24X3/4*	100	U07890.019.0075	5/16-18X3/4*	100	U07890.031.0075
NO.6-32X5/16*	100	U07890.013.0031	NO.10-24X1 Inch*	100	U07890.019.0100	5/16-18X1 Inch*	100	U07890.031.0100
NO.6-32X3/8*	100	U07890.013.0037						
NO.6-32X1/2*	100	U07890.013.0050	1/4-20X3/16*	100	U07890.025.0018	3/8-16X3/8*	100	U07890.037.0037
			1/4-20X1/4*	100	U07890.025.0025	3/8-16X1/2*	100	U07890.037.0050
NO.8-32X1/8*	100	U07890.016.0012	1/4-20X5/16*	100	U07890.025.0031	3/8-16X5/8*	100	U07890.037.0062
NO.8-32X3/16*	100	U07890.016.0018	1/4-20X3/8*	100	U07890.025.0037	3/8-16X3/4*	100	U07890.037.0075
NO.8-32X1/4*	100	U07890.016.0025	1/4-20X1/2*	100	U07890.025.0050	3/8-16X1 Inch*	100	U07890.037.0100
NO.8-32X5/16*	100	U07890.016.0031	1/4-20X5/8*	100	U07890.025.0062			
NO.8-32X3/8*	100	U07890.016.0037	1/4-20X3/4*	100	U07890.025.0075	1/2-13X1/2*	50	U07890.050.0050
NO.8-32X1/2*	100	U07890.016.0050	1/4-20X1 Inch*	100	U07890.025.0100	1/2-13X5/8*	25	U07890.050.0062
NO.8-32X5/8*	100	U07890.016.0062	1/4-20X1.1/4*	100	U07890.025.0125	1/2-13X3/4*	25	U07890.050.0075
NO.8-32X3/4*	100	U07890.016.0075				1/2-13X1 Inch*	25	U07890.050.0100
			5/16-18X1/4*	100	U07890.031.0025	1/2-13X1.1/4*	25	U07890.050.0125
NO.10-24X3/16*	100	U07890.019.0018						

Perno sextavado interior com ponta serrilhada UNF



ASME ≈B18.3



Dados técnicos

d	C (max.)	Fios por polegada	J
No.10	0.102	32	3/32
1/4	0.132	28	1/8
5/16	0.172	24	5/32
3/8	0.212	24	3/16

U07891 **Perno sextavado interior com ponta serrilhada UNF** **X05A**

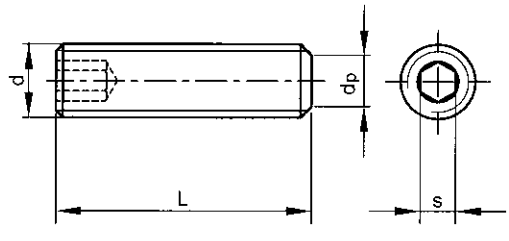
Rosca Unified National Fine
Material Aço



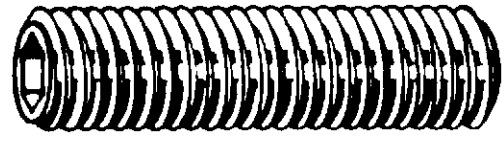
RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.10-32X3/16*	100	U07891.019.0018	1/4-28X5/16*	100	U07891.025.0031	5/16-24X5/8*	100	U07891.031.0062
NO.10-32X1/4*	100	U07891.019.0025	1/4-28X3/8*	100	U07891.025.0037	5/16-24X3/4*	100	U07891.031.0075
NO.10-32X5/16*	100	U07891.019.0031	1/4-28X1/2*	100	U07891.025.0050			
NO.10-32X3/8*	100	U07891.019.0037				3/8-24X3/8*	100	U07891.037.0037
NO.10-32X1/2*	100	U07891.019.0050	5/16-24X1/4*	100	U07891.031.0025	3/8-24X1/2*	100	U07891.037.0050
			5/16-24X5/16*	100	U07891.031.0031	3/8-24X5/8*	100	U07891.037.0062
1/4-28X3/16*	100	U07891.025.0018	5/16-24X3/8*	100	U07891.031.0037	3/8-24X3/4*	50	U07891.037.0075
1/4-28X1/4*	100	U07891.025.0025	5/16-24X1/2*	100	U07891.031.0050			

Perno sextavado interior com ponta plana



DIN	**913**
ISO	4026
NEN	2341
ASME	B18.3.6M
NF	E27-180
BS	4168-2



Dados técnicos

d	d_p (max.)	P	s	d	d_p (max.)	P	s
M1.6	0.8	0.35	0.7	M6	4	1	3
M2	1	0.4	0.9	M8	5.5	1.25	4
M2.5	1.5	0.45	1.3	M10	7	1.5	5
M3	2	0.5	1.5	M12	8.5	1.75	6
M4	2.5	0.7	2	M16	12	2	8
M5	3.5	0.8	2.5	M20	15	2.5	10

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado interior	Aço	45H		07810	2-79
M	Sextavado interior	Aço	45H	Zn	07860	2-79
M	Sextavado interior	INOX A2			51240	2-80
M	Sextavado interior	INOX A4			55240	2-80

07810 Perno sextavado interior com ponta plana — D05A

Rosca Métrica
Material Aço
Classe 45H



RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X3	200	07810.030.003	M6X8	200	07810.060.008	M10X40	100	07810.100.040
M3X4	200	07810.030.004	M6X10	200	07810.060.010	M10X50	100	07810.100.050
M3X5	200	07810.030.005	M6X12	200	07810.060.012	M10X60	100	07810.100.060
M3X6	200	07810.030.006	M6X16	200	07810.060.016	M10X70	100	07810.100.070
M3X8	200	07810.030.008	M6X20	200	07810.060.020	M10X80	100	07810.100.080
M3X10	200	07810.030.010	M6X25	200	07810.060.025	M10X100	50	07810.100.100
M3X12	200	07810.030.012	M6X30	200	07810.060.030			
M3X16	200	07810.030.016	M6X35	200	07810.060.035	M12X12	100	07810.120.012
M3X20	200	07810.030.020	M6X40	200	07810.060.040	M12X16	100	07810.120.016
			M6X45	200	07810.060.045	M12X20	100	07810.120.020
M4X4	200	07810.040.004	M6X50	200	07810.060.050	M12X25	100	07810.120.025
M4X5	200	07810.040.005				M12X30	100	07810.120.030
M4X6	200	07810.040.006	M8X6	200	07810.080.006	M12X35	100	07810.120.035
M4X8	200	07810.040.008	M8X8	200	07810.080.008	M12X40	100	07810.120.040
M4X10	200	07810.040.010	M8X10	200	07810.080.010	M12X50	100	07810.120.050
M4X12	200	07810.040.012	M8X12	200	07810.080.012	M12X60	25	07810.120.060
M4X16	200	07810.040.016	M8X16	200	07810.080.016	M12X70	100	07810.120.070
M4X20	200	07810.040.020	M8X20	200	07810.080.020			
M4X25	200	07810.040.025	M8X25	200	07810.080.025	M16X16	50	07810.160.016
M4X30	200	07810.040.030	M8X30	200	07810.080.030	M16X20	50	07810.160.020
			M8X35	100	07810.080.035	M16X25	50	07810.160.025
M5X5	200	07810.050.005	M8X40	100	07810.080.040	M16X30	50	07810.160.030
M5X6	200	07810.050.006	M8X50	100	07810.080.050	M16X35	50	07810.160.035
M5X8	200	07810.050.008	M8X60	100	07810.080.060	M16X40	50	07810.160.040
M5X10	200	07810.050.010	M8X70	100	07810.080.070	M16X50	50	07810.160.050
M5X12	200	07810.050.012	M8X80	100	07810.080.080	M16X60	25	07810.160.060
M5X16	200	07810.050.016				M16X70	100	07810.160.070
M5X20	200	07810.050.020	M10X10	25	07810.100.010	M16X80	25	07810.160.080
M5X25	200	07810.050.025	M10X12	200	07810.100.012	M16X90	25	07810.160.090
M5X30	200	07810.050.030	M10X16	200	07810.100.016	M16X100	25	07810.160.100
M5X35	100	07810.050.035	M10X20	200	07810.100.020			
M5X40	100	07810.050.040	M10X25	100	07810.100.025	M20X20	10	07810.200.020
			M10X30	100	07810.100.030	M20X25	10	07810.200.025
M6X6	200	07810.060.006						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

07860 Perno sextavado interior com ponta plana — D05A

Rosca Métrica
Material Aço
Classe 45H
Tratamento sup. Zincado



RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6	200	07860.030.006	M5X20	200	07860.050.020	M8X30	200	07860.080.030
M3X8	200	07860.030.008	M5X25	200	07860.050.025	M8X40	100	07860.080.040
M3X10	200	07860.030.010						
M3X12	200	07860.030.012	M6X6	200	07860.060.006	M10X10	200	07860.100.010
			M6X8	200	07860.060.008	M10X12	200	07860.100.012
M4X4	200	07860.040.004	M6X10	200	07860.060.010	M10X16	200	07860.100.016
M4X5	200	07860.040.005	M6X12	200	07860.060.012	M10X20	200	07860.100.020
M4X6	200	07860.040.006	M6X16	200	07860.060.016	M10X25	100	07860.100.025
M4X8	200	07860.040.008	M6X20	200	07860.060.020	M10X30	100	07860.100.030
M4X10	200	07860.040.010	M6X25	200	07860.060.025	M10X40	100	07860.100.040
M4X12	200	07860.040.012	M6X30	200	07860.060.030	M10X50	100	07860.100.050
M4X16	200	07860.040.016						
M4X20	200	07860.040.020	M8X8	200	07860.080.008	M12X12	100	07860.120.012
			M8X10	200	07860.080.010	M12X16	100	07860.120.016
M5X6	200	07860.050.006	M8X12	200	07860.080.012	M12X20	100	07860.120.020
M5X8	200	07860.050.008	M8X16	200	07860.080.016	M12X25	100	07860.120.025
M5X10	200	07860.050.010	M8X20	200	07860.080.020	M12X30	100	07860.120.030
M5X12	200	07860.050.012	M8X25	200	07860.080.025	M12X40	100	07860.120.040
M5X16	200	07860.050.016						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

51240 Perno sextavado interior com ponta plana — R03A

Rosca Métrica
Material Aço inoxidável A2



RoHS

2

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M1,6X2*	200	51240.016.002	M5X5	500	51240.050.005	M10X30	100	51240.100.030
M1,6X3	200	51240.016.003	M5X6	200	51240.050.006	M10X35*	100	51240.100.035
M1,6X6*	200	51240.016.006	M5X8	200	51240.050.008	M10X40	100	51240.100.040
			M5X10	200	51240.050.010	M10X45*	100	51240.100.045
M2X2	500	51240.020.002	M5X12	200	51240.050.012	M10X50*	100	51240.100.050
M2X3*	500	51240.020.003	M5X14*	500	51240.050.014	M10X60*	100	51240.100.060
M2X4	200	51240.020.004	M5X16	200	51240.050.016	M10X70*	100	51240.100.070
M2X5*	500	51240.020.005	M5X20	200	51240.050.020	M10X80	100	51240.100.080
M2X6*	500	51240.020.006	M5X25*	200	51240.050.025	M10X90*	100	51240.100.090
M2X8*	500	51240.020.008	M5X30*	200	51240.050.030			
M2X10*	500	51240.020.010	M5X35*	200	51240.050.035	M12X12*	100	51240.120.012
M2X12*	500	51240.020.012	M5X40*	200	51240.050.040	M12X16*	100	51240.120.016
M2X16*	500	51240.020.016				M12X20*	100	51240.120.020
			M6X5	200	51240.060.005	M12X25*	100	51240.120.025
M2,5X3*	500	51240.025.003	M6X6	200	51240.060.006	M12X30*	100	51240.120.030
M2,5X4	500	51240.025.004	M6X8	200	51240.060.008	M12X35*	100	51240.120.035
M2,5X5*	500	51240.025.005	M6X10	200	51240.060.010	M12X40*	100	51240.120.040
M2,5X6*	500	51240.025.006	M6X12	200	51240.060.012	M12X45*	100	51240.120.045
M2,5X8*	500	51240.025.008	M6X14*	200	51240.060.014	M12X50*	100	51240.120.050
M2,5X10*	500	51240.025.010	M6X16	200	51240.060.016	M12X55*	100	51240.120.055
M2,5X12*	500	51240.025.012	M6X20	200	51240.060.020	M12X60*	100	51240.120.060
M2,5X16*	500	51240.025.016	M6X25	200	51240.060.025	M12X70	50	51240.120.070
			M6X30	200	51240.060.030	M12X80*	50	51240.120.080
M3X3	200	51240.030.003	M6X35*	200	51240.060.035	M12X90*	50	51240.120.090
M3X4*	500	51240.030.004	M6X40*	200	51240.060.040			
M3X5*	500	51240.030.005	M6X45*	200	51240.060.045	M16X16*	50	51240.160.016
M3X6	200	51240.030.006	M6X50*	200	51240.060.050	M16X20*	50	51240.160.020
M3X8	200	51240.030.008	M6X60*	200	51240.060.060	M16X25*	50	51240.160.025
M3X10	200	51240.030.010	M6X70*	200	51240.060.070	M16X30*	50	51240.160.030
M3X12*	500	51240.030.012				M16X35*	50	51240.160.035
M3X14*	500	51240.030.014	M8X6	200	51240.080.006	M16X40*	50	51240.160.040
M3X16	200	51240.030.016	M8X8	200	51240.080.008	M16X45*	50	51240.160.045
M3X20*	500	51240.030.020	M8X10	200	51240.080.010	M16X50*	50	51240.160.050
M3X25*	500	51240.030.025	M8X12	200	51240.080.012	M16X60*	50	51240.160.060
M3X30*	200	51240.030.030	M8X16	200	51240.080.016	M16X70*	50	51240.160.070
M3X40*	200	51240.030.040	M8X20	200	51240.080.020	M16X80*	25	51240.160.080
			M8X25	100	51240.080.025	M16X90*	25	51240.160.090
M4X3*	500	51240.040.003	M8X30	100	51240.080.030	M16X100*	25	51240.160.100
M4X4	200	51240.040.004	M8X35*	200	51240.080.035			
M4X5	200	51240.040.005	M8X40	100	51240.080.040	M20X20*	50	51240.200.020
M4X6	200	51240.040.006	M8X45*	200	51240.080.045	M20X25*	50	51240.200.025
M4X8	200	51240.040.008	M8X50	200	51240.080.050	M20X30*	50	51240.200.030
M4X10	200	51240.040.010	M8X60*	200	51240.080.060	M20X35*	50	51240.200.035
M4X12	200	51240.040.012	M8X70*	200	51240.080.070	M20X40*	50	51240.200.040
M4X16	200	51240.040.016	M8X80*	200	51240.080.080	M20X45*	50	51240.200.045
M4X20	200	51240.040.020				M20X50*	50	51240.200.050
M4X25*	500	51240.040.025	M10X10	100	51240.100.010	M20X60*	50	51240.200.060
M4X30	200	51240.040.030	M10X12	100	51240.100.012	M20X70*	25	51240.200.070
M4X40*	200	51240.040.040	M10X16	100	51240.100.016	M20X80*	25	51240.200.080
			M10X20	100	51240.100.020	M20X90*	25	51240.200.090
M5X4	500	51240.050.004	M10X25	100	51240.100.025	M20X100*	25	51240.200.100

55240 Perno sextavado interior com ponta plana — R43A

Rosca Métrica
Material Aço inoxidável A4



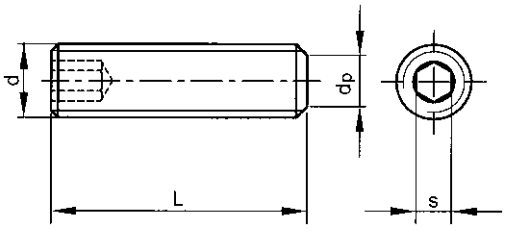
RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X4*	500	55240.030.004	M4X8	200	55240.040.008	M5X12	200	55240.050.012
M3X5	500	55240.030.005	M4X10	200	55240.040.010	M5X16	200	55240.050.016
M3X6	200	55240.030.006	M4X12	200	55240.040.012	M5X20	200	55240.050.020
M3X8	200	55240.030.008	M4X16	200	55240.040.016	M5X25	200	55240.050.025
M3X10	200	55240.030.010	M4X20	200	55240.040.020	M5X30	200	55240.050.030
M3X12	200	55240.030.012	M4X25	200	55240.040.025	M5X35*	200	55240.050.035
M3X16	200	55240.030.016	M4X30*	200	55240.040.030	M5X40*	200	55240.050.040
M3X20	200	55240.030.020						
			M5X5	500	55240.050.005	M6X6	200	55240.060.006
M4X4	200	55240.040.004	M5X6	200	55240.050.006	M6X8	200	55240.060.008
M4X5	200	55240.040.005	M5X8	200	55240.050.008	M6X10	200	55240.060.010
M4X6	200	55240.040.006	M5X10	200	55240.050.010	M6X12	200	55240.060.012

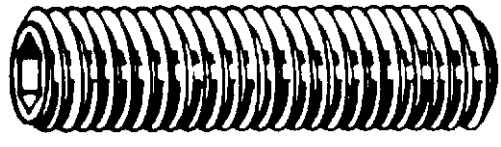
55240	Perno sextavado interior com ponta plana	←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X14*	200	55240.060.014	M8X50*	200	55240.080.050	M12X40	100	55240.120.040
M6X16	200	55240.060.016	M8X60*	200	55240.080.060	M12X45*	100	55240.120.045
M6X20	200	55240.060.020				M12X50*	100	55240.120.050
M6X25	200	55240.060.025	M10X10*	200	55240.100.010	M12X60*	100	55240.120.060
M6X30	200	55240.060.030	M10X12	100	55240.100.012	M12X70*	50	55240.120.070
M6X35*	200	55240.060.035	M10X16	100	55240.100.016			
M6X40*	200	55240.060.040	M10X20	100	55240.100.020	M16X16*	50	55240.160.016
M6X45*	200	55240.060.045	M10X25	100	55240.100.025	M16X20*	50	55240.160.020
M6X50*	200	55240.060.050	M10X30	100	55240.100.030	M16X25*	50	55240.160.025
M6X60*	200	55240.060.060	M10X35*	100	55240.100.035	M16X30*	50	55240.160.030
			M10X40	100	55240.100.040	M16X35*	50	55240.160.035
M8X8	200	55240.080.008	M10X45*	100	55240.100.045	M16X40*	50	55240.160.040
M8X10	200	55240.080.010	M10X50	100	55240.100.050	M16X45*	50	55240.160.045
M8X12	200	55240.080.012	M10X60*	100	55240.100.060	M16X50*	50	55240.160.050
M8X16	200	55240.080.016				M16X60	50	55240.160.060
M8X20	200	55240.080.020	M12X12*	100	55240.120.012			
M8X25	100	55240.080.025	M12X16	100	55240.120.016	M20X25*	50	55240.200.025
M8X30	100	55240.080.030	M12X20	100	55240.120.020	M20X30*	50	55240.200.030
M8X35*	200	55240.080.035	M12X25	100	55240.120.025	M20X40*	50	55240.200.040
M8X40	100	55240.080.040	M12X30	100	55240.120.030	M20X50*	50	55240.200.050
M8X45*	200	55240.080.045	M12X35*	100	55240.120.035	M20X60*	50	55240.200.060

Perno sextavado interior sem ponta



DIN	**≈913**
ISO	≈4026
NEN	≈2341
ASME	≈B18.3.6M
NF	≈E27-180
BS	≈4168-2



Dados técnicos

d	d_p (max.)	s
M8	5.5	4
M10	7	5

d	d_p (max.)	s
M12	8.5	6
M16	12	8

07812	Perno sextavado interior sem ponta	D93A

Rosca Métrica fina
Material Aço
Classe 45H

RoHS

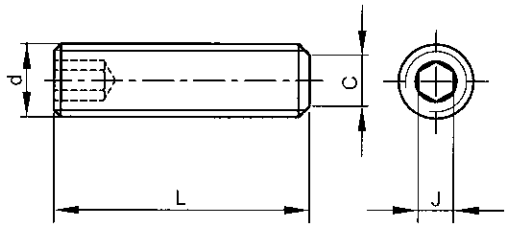


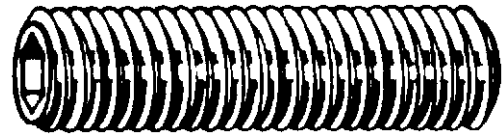
d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo	d x P x L	✉	Ref. do artigo
M8X1,00X10	200	07812.080.010	M10X1,25X16	100	07812.100.016	M12X1,50X25	100	07812.120.025
M8X1,00X12	200	07812.080.012	M10X1,25X20	100	07812.100.020	M12X1,50X30	100	07812.120.030
M8X1,00X16	200	07812.080.016	M10X1,25X25	100	07812.100.025	M12X1,50X40	100	07812.120.040
M8X1,00X20	200	07812.080.020	M10X1,25X30	100	07812.100.030	M12X1,50X50	100	07812.120.050
M8X1,00X25	100	07812.080.025	M10X1,25X40	100	07812.100.040			
M8X1,00X30	100	07812.080.030	M10X1,25X50	100	07812.100.050	M16X1,50X20	50	07812.160.020
M8X1,00X40	100	07812.080.040				M16X1,50X25	50	07812.160.025
M8X1,00X50	100	07812.080.050	M12X1,50X10	100	07812.120.010	M16X1,50X30	50	07812.160.030
			M12X1,50X12	100	07812.120.012	M16X1,50X40	50	07812.160.040
M10X1,25X10	100	07812.100.010	M12X1,50X16	100	07812.120.016	M16X1,50X50	50	07812.160.050
M10X1,25X12	100	07812.100.012	M12X1,50X20	100	07812.120.020			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Perno sextavado interior ponta plana UNC

ASME ≈B18.3





Dados técnicos

d	C (max.)	Fios por polegada	J
No.4	0.061	40	0.05
No.5	0.067	40	1/16
No.6	0.074	32	1/16
No.8	0.087	32	5/64
No.10	0.102	24	3/32
1/4	0.132	20	1/8
5/16	0.172	18	5/32
3/8	0.212	16	3/16
7/16	0.252	14	7/32
1/2	0.291	13	1/4
5/8	0.371	11	5/16

U07810 **Perno sextavado interior ponta plana UNC** **X05A**

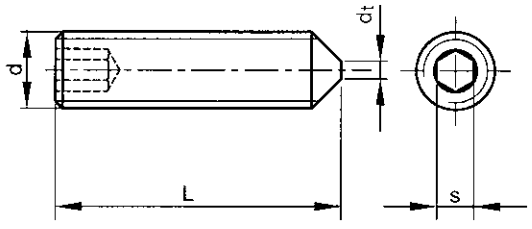
Rosca Unified National Coarse
Material Aço



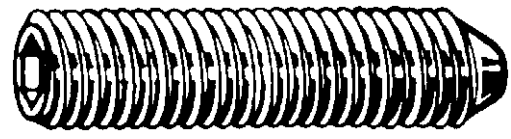
RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.4-40X1/8*	100	U07810.011.0012	NO.10-24X3/4*	100	U07810.019.0075	3/8-16X1 Inch*	100	U07810.037.0100
NO.4-40X3/16*	100	U07810.011.0018	NO.10-24X1 Inch*	100	U07810.019.0100	3/8-16X1.1/4*	100	U07810.037.0125
NO.4-40X1/4*	100	U07810.011.0025	NO.10-24X1.1/4*	100	U07810.019.0125	3/8-16X1.1/2*	50	U07810.037.0150
NO.4-40X3/8*	100	U07810.011.0037	NO.10-24X1.1/2*	100	U07810.019.0150	3/8-16X1.3/4*	50	U07810.037.0175
						3/8-16X2 Inch*	25	U07810.037.0200
NO.5-40X1/8*	100	U07810.012.0012	1/4-20X3/16*	100	U07810.025.0018	3/8-16X2.1/2*	25	U07810.037.0250
NO.5-40X3/16*	100	U07810.012.0018	1/4-20X5/16*	100	U07810.025.0031			
NO.5-40X1/4*	100	U07810.012.0025	1/4-20X3/8*	100	U07810.025.0037	7/16-14X3/8*	50	U07810.043.0037
NO.5-40X3/8*	100	U07810.012.0037	1/4-20X1/2*	100	U07810.025.0050	7/16-14X5/8*	50	U07810.043.0062
NO.5-40X1/2*	100	U07810.012.0050	1/4-20X5/8*	100	U07810.025.0062	7/16-14X3/4*	50	U07810.043.0075
			1/4-20X3/4*	100	U07810.025.0075	7/16-14X1 Inch*	50	U07810.043.0100
NO.6-32X1/8*	100	U07810.013.0012	1/4-20X1 Inch*	100	U07810.025.0100			
NO.6-32X3/16*	100	U07810.013.0018	1/4-20X1.1/4*	100	U07810.025.0125	1/2-13X3/8*	50	U07810.050.0037
NO.6-32X1/4*	100	U07810.013.0025	1/4-20X1.1/2*	100	U07810.025.0150	1/2-13X1/2*	50	U07810.050.0050
NO.6-32X5/16*	100	U07810.013.0031	1/4-20X1.3/4*	100	U07810.025.0175	1/2-13X5/8*	50	U07810.050.0062
NO.6-32X3/8*	100	U07810.013.0037	1/4-20X2 Inch*	100	U07810.025.0200	1/2-13X3/4*	25	U07810.050.0075
NO.6-32X1/2*	100	U07810.013.0050				1/2-13X1 Inch*	25	U07810.050.0100
NO.6-32X5/8*	100	U07810.013.0062	5/16-18X3/16*	100	U07810.031.0018	1/2-13X1.1/4*	25	U07810.050.0125
NO.6-32X3/4*	100	U07810.013.0075	5/16-18X1/4*	100	U07810.031.0025	1/2-13X1.1/2*	25	U07810.050.0150
NO.6-32X1 Inch*	100	U07810.013.0100	5/16-18X5/16*	100	U07810.031.0031	1/2-13X1.3/4*	25	U07810.050.0175
			5/16-18X3/8*	100	U07810.031.0037	1/2-13X2 Inch*	10	U07810.050.0200
NO.8-32X1/8*	50	U07810.016.0012	5/16-18X1/2*	100	U07810.031.0050	1/2-13X2.1/2*	10	U07810.050.0250
NO.8-32X3/16*	100	U07810.016.0018	5/16-18X5/8*	100	U07810.031.0062	1/2-13X3 Inch*	10	U07810.050.0300
NO.8-32X1/4*	100	U07810.016.0025	5/16-18X3/4*	100	U07810.031.0075	1/2-13X4 Inch*	10	U07810.050.0400
NO.8-32X5/16*	100	U07810.016.0031	5/16-18X1 Inch*	100	U07810.031.0100			
NO.8-32X3/8*	100	U07810.016.0037	5/16-18X1.1/4*	100	U07810.031.0125	5/8-11X1/2*	10	U07810.062.0050
NO.8-32X1/2*	100	U07810.016.0050	5/16-18X1.1/2*	100	U07810.031.0150	5/8-11X5/8*	10	U07810.062.0062
NO.8-32X5/8*	100	U07810.016.0062	5/16-18X1.3/4*	100	U07810.031.0175	5/8-11X3/4*	10	U07810.062.0075
NO.8-32X3/4*	100	U07810.016.0075	5/16-18X2 Inch*	100	U07810.031.0200	5/8-11X7/8*	10	U07810.062.0087
NO.8-32X1 Inch*	100	U07810.016.0100				5/8-11X1 Inch*	10	U07810.062.0100
			3/8-16X1/4*	100	U07810.037.0025	5/8-11X1.1/4*	10	U07810.062.0125
NO.10-24X3/16*	100	U07810.019.0018	3/8-16X5/16*	100	U07810.037.0031	5/8-11X1.1/2*	10	U07810.062.0150
NO.10-24X1/4*	100	U07810.019.0025	3/8-16X3/8*	100	U07810.037.0037	5/8-11X1.3/4*	10	U07810.062.0175
NO.10-24X5/16*	100	U07810.019.0031	3/8-16X1/2*	100	U07810.037.0050	5/8-11X2 Inch*	10	U07810.062.0200
NO.10-24X3/8*	100	U07810.019.0037	3/8-16X5/8*	100	U07810.037.0062	5/8-11X2.1/2*	10	U07810.062.0250
NO.10-24X1/2*	100	U07810.019.0050	3/8-16X3/4*	100	U07810.037.0075	5/8-11X3.1/2*	5	U07810.062.0350
NO.10-24X5/8*	100	U07810.019.0062						

Perno sextavado interior com ponta cone



DIN	**914**
ISO	4027
NEN	2342
ASME	B18.3.6M
NF	E27-181
BS	4168-3



Dados técnicos

d	d_t (max.)	P	s
M2	-	0.4	0.9
M2.5	-	0.45	1.3
M3	-	0.5	1.5
M4	-	0.7	2
M5	-	0.8	2.5
M6	1.5	1	3

d	d_t (max.)	P	s
M8	2	1.25	4
M10	2.5	1.5	5
M12	3	1.75	6
M16	4	2	8
M20	5	2.5	10

Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
M	Sextavado interior	Aço	45H	07800	2-83
M	Sextavado interior	INOX A2		51250	2-84
M	Sextavado interior	INOX A4		55250	2-84

07800 **Perno sextavado interior com ponta cone** **D05A**

Rosca Métrica
Material Aço
Classe 45H



RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X3	200	07800.030.003	M5X20	200	07800.050.020			
M3X4	200	07800.030.004	M5X25	200	07800.050.025	M10X10	200	07800.100.010
M3X5	200	07800.030.005	M5X30	200	07800.050.030	M10X12	200	07800.100.012
M3X6	200	07800.030.006				M10X16	200	07800.100.016
M3X8	200	07800.030.008	M6X6	200	07800.060.006	M10X20	200	07800.100.020
M3X10	200	07800.030.010	M6X8	200	07800.060.008	M10X25	100	07800.100.025
M3X12	200	07800.030.012	M6X10	200	07800.060.010	M10X30	100	07800.100.030
M3X16	200	07800.030.016	M6X12	200	07800.060.012	M10X40	100	07800.100.040
M3X20	200	07800.030.020	M6X16	200	07800.060.016	M10X50	100	07800.100.050
			M6X20	200	07800.060.020			
M4X4	200	07800.040.004	M6X25	200	07800.060.025	M12X16	100	07800.120.016
M4X5	200	07800.040.005	M6X30	200	07800.060.030	M12X20	100	07800.120.020
M4X6	200	07800.040.006	M6X35	200	07800.060.035	M12X25	100	07800.120.025
M4X8	200	07800.040.008				M12X30	100	07800.120.030
M4X10	200	07800.040.010	M8X8	200	07800.080.008	M12X40	100	07800.120.040
M4X12	200	07800.040.012	M8X10	200	07800.080.010	M12X50	100	07800.120.050
M4X16	200	07800.040.016	M8X12	200	07800.080.012			
M4X20	200	07800.040.020	M8X16	200	07800.080.016	M16X16	50	07800.160.016
M4X25	200	07800.040.025	M8X20	200	07800.080.020	M16X20	50	07800.160.020
			M8X25	200	07800.080.025	M16X25	50	07800.160.025
M5X5	200	07800.050.005	M8X30	200	07800.080.030	M16X30	50	07800.160.030
M5X6	200	07800.050.006	M8X35	100	07800.080.035	M16X35	50	07800.160.035
M5X8	200	07800.050.008	M8X40	100	07800.080.040	M16X40	50	07800.160.040
M5X10	200	07800.050.010	M8X50	100	07800.080.050	M16X50	50	07800.160.050
M5X12	200	07800.050.012	M8X60	100	07800.080.060	M16X60	25	07800.160.060
M5X16	200	07800.050.016						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

51250 Perno sextavado interior com ponta cone — R03A

Rosca Métrica
Material Aço inoxidável A2



RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X3*	500	51250.020.003	M5X8	200	51250.050.008	M8X50*	200	51250.080.050
M2X4*	500	51250.020.004	M5X10	200	51250.050.010	M8X60*	200	51250.080.060
M2X5*	500	51250.020.005	M5X12	200	51250.050.012			
M2X6*	500	51250.020.006	M5X14*	500	51250.050.014	M10X10*	200	51250.100.010
M2X8*	500	51250.020.008	M5X16	200	51250.050.016	M10X12	100	51250.100.012
M2X10*	500	51250.020.010	M5X18*	500	51250.050.018	M10X16	100	51250.100.016
M2X12*	500	51250.020.012	M5X20	200	51250.050.020	M10X20	100	51250.100.020
			M5X25	200	51250.050.025	M10X25	100	51250.100.025
M2,5X3*	500	51250.025.003	M5X30*	200	51250.050.030	M10X30*	100	51250.100.030
M2,5X4	200	51250.025.004	M5X35*	200	51250.050.035	M10X35*	100	51250.100.035
M2,5X5*	500	51250.025.005	M5X40*	200	51250.050.040	M10X40*	100	51250.100.040
M2,5X6*	500	51250.025.006	M5X45*	200	51250.050.045	M10X45*	100	51250.100.045
M2,5X8*	500	51250.025.008	M5X50	200	51250.050.050	M10X50*	100	51250.100.050
M2,5X10*	500	51250.025.010				M10X60*	100	51250.100.060
M2,5X12*	500	51250.025.012	M6X5*	200	51250.060.005			
			M6X6	200	51250.060.006	M12X12*	100	51250.120.012
M3X3*	500	51250.030.003	M6X8	200	51250.060.008	M12X16*	100	51250.120.016
M3X4	500	51250.030.004	M6X10	200	51250.060.010	M12X20*	100	51250.120.020
M3X5*	500	51250.030.005	M6X12	200	51250.060.012	M12X25*	100	51250.120.025
M3X6*	500	51250.030.006	M6X14*	200	51250.060.014	M12X30*	100	51250.120.030
M3X8*	500	51250.030.008	M6X16	200	51250.060.016	M12X35	100	51250.120.035
M3X10*	500	51250.030.010	M6X20	200	51250.060.020	M12X40*	100	51250.120.040
M3X12*	500	51250.030.012	M6X22*	200	51250.060.022	M12X45*	100	51250.120.045
M3X16*	500	51250.030.016	M6X25	200	51250.060.025	M12X50*	100	51250.120.050
M3X20*	500	51250.030.020	M6X30*	200	51250.060.030	M12X55	100	51250.120.055
M3X25*	500	51250.030.025	M6X35*	200	51250.060.035	M12X60*	100	51250.120.060
M3X30*	200	51250.030.030	M6X40*	200	51250.060.040	M12X70*	50	51250.120.070
			M6X45*	200	51250.060.045			
M4X4	500	51250.040.004	M6X50*	200	51250.060.050	M16X16*	50	51250.160.016
M4X5	500	51250.040.005	M6X60*	200	51250.060.060	M16X20*	50	51250.160.020
M4X6	200	51250.040.006				M16X25*	50	51250.160.025
M4X8	200	51250.040.008	M8X6*	200	51250.080.006	M16X30*	50	51250.160.030
M4X10	200	51250.040.010	M8X8	200	51250.080.008	M16X40*	50	51250.160.040
M4X12	200	51250.040.012	M8X10	200	51250.080.010	M16X45*	50	51250.160.045
M4X14	200	51250.040.014	M8X12	200	51250.080.012	M16X50*	50	51250.160.050
M4X16	200	51250.040.016	M8X16	200	51250.080.016	M16X60*	50	51250.160.060
M4X20	200	51250.040.020	M8X20	200	51250.080.020	M16X70*	50	51250.160.070
M4X25*	500	51250.040.025	M8X25	100	51250.080.025			
M4X30*	200	51250.040.030	M8X30	200	51250.080.030	M20X20*	50	51250.200.020
			M8X35*	200	51250.080.035	M20X30*	50	51250.200.030
M5X5*	500	51250.050.005	M8X40*	200	51250.080.040	M20X40*	50	51250.200.040
M5X6	200	51250.050.006	M8X45*	200	51250.080.045	M20X50*	50	51250.200.050

55250 Perno sextavado interior com ponta cone — R43A

Rosca Métrica
Material Aço inoxidável A4



RoHS

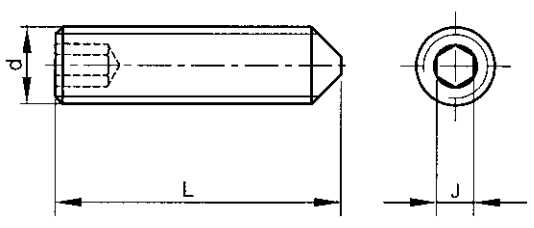
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X4*	500	55250.030.004	M5X12	200	55250.050.012			
M3X5*	500	55250.030.005	M5X14*	500	55250.050.014	M8X8	200	55250.080.008
M3X6*	500	55250.030.006	M5X16	200	55250.050.016	M8X10	200	55250.080.010
M3X8*	500	55250.030.008	M5X20	200	55250.050.020	M8X12	200	55250.080.012
M3X10*	500	55250.030.010	M5X25*	200	55250.050.025	M8X16	200	55250.080.016
M3X12*	500	55250.030.012	M5X30*	200	55250.050.030	M8X20	200	55250.080.020
			M5X35*	200	55250.050.035	M8X25	100	55250.080.025
M4X4*	500	55250.040.004	M5X40*	200	55250.050.040	M8X30	100	55250.080.030
M4X5*	500	55250.040.005				M8X35*	200	55250.080.035
M4X6	200	55250.040.006	M6X6	200	55250.060.006	M8X40	100	55250.080.040
M4X8	200	55250.040.008	M6X8	200	55250.060.008	M8X45*	200	55250.080.045
M4X10	200	55250.040.010	M6X10	200	55250.060.010	M8X50*	200	55250.080.050
M4X12	200	55250.040.012	M6X12	200	55250.060.012			
M4X16	200	55250.040.016	M6X14*	200	55250.060.014	M10X10*	200	55250.100.010
M4X20	200	55250.040.020	M6X16	200	55250.060.016	M10X12	100	55250.100.012
M4X30*	200	55250.040.030	M6X20	200	55250.060.020	M10X16	100	55250.100.016
			M6X25	200	55250.060.025	M10X20	100	55250.100.020
M5X5*	500	55250.050.005	M6X30	200	55250.060.030	M10X25	100	55250.100.025
M5X6	200	55250.050.006	M6X35*	200	55250.060.035	M10X30	100	55250.100.030
M5X8	200	55250.050.008	M6X40*	200	55250.060.040	M10X35*	100	55250.100.035
M5X10	200	55250.050.010	M6X45*	200	55250.060.045	M10X40	100	55250.100.040

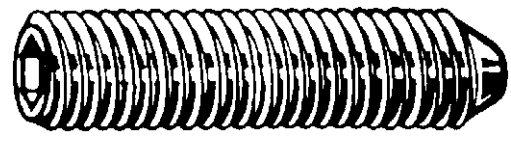
55250	Perno sextavado interior com ponta cone	←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X50*	100	55250.100.050	M12X25*	100	55250.120.025			
			M12X30*	100	55250.120.030	M16X25*	50	55250.160.025
M12X12*	100	55250.120.012	M12X40*	100	55250.120.040	M16X30*	50	55250.160.030
M12X16*	100	55250.120.016	M12X45*	100	55250.120.045	M16X40*	50	55250.160.040
M12X20*	100	55250.120.020	M12X50*	100	55250.120.050			

Perno sextavado interior com ponta UNC

ASME ≈B18.3



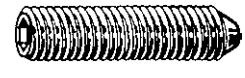


Dados técnicos

d	Fios por polegada	J
No.4	40	0.05
No.5	40	1/16
No.6	32	1/16
No.8	32	5/64
No.10	24	3/32
1/4	20	1/8
5/16	18	5/32
3/8	16	3/16
1/2	13	1/4

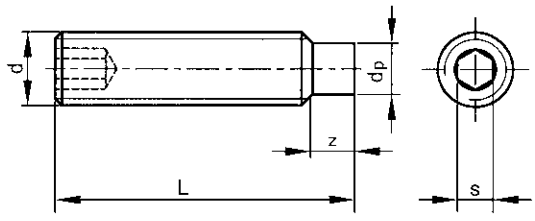
U07800	Perno sextavado interior com ponta UNC	X05A

Rosca Unified National Coarse
Material Aço

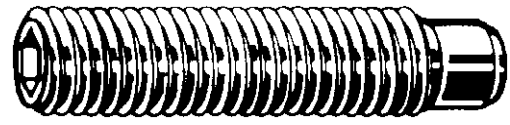


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.4-40X1/8*	100	U07800.011.0012	NO.10-24X3/8*	100	U07800.019.0037	5/16-18X5/8*	100	U07800.031.0062
			NO.10-24X1/2*	100	U07800.019.0050	5/16-18X3/4*	100	U07800.031.0075
NO.5-40X1/4*	100	U07800.012.0025				5/16-18X1 Inch*	100	U07800.031.0100
			1/4-20X1/4*	100	U07800.025.0025			
NO.6-32X1/8*	100	U07800.013.0012	1/4-20X5/16*	100	U07800.025.0031	3/8-16X3/8*	100	U07800.037.0037
NO.6-32X3/16*	100	U07800.013.0018	1/4-20X3/8*	100	U07800.025.0037	3/8-16X1/2*	100	U07800.037.0050
NO.6-32X1/4*	100	U07800.013.0025	1/4-20X1/2*	50	U07800.025.0050	3/8-16X3/4*	100	U07800.037.0075
			1/4-20X5/8*	100	U07800.025.0062	3/8-16X1 Inch*	100	U07800.037.0100
NO.8-32X3/16*	100	U07800.016.0018	1/4-20X3/4*	50	U07800.025.0075			
NO.8-32X1/4*	100	U07800.016.0025	1/4-20X1 Inch*	100	U07800.025.0100	1/2-13X1/2*	50	U07800.050.0050
NO.8-32X3/8*	100	U07800.016.0037				1/2-13X3/4*	25	U07800.050.0075
			5/16-18X5/16*	50	U07800.031.0031	1/2-13X1 Inch*	25	U07800.050.0100
NO.10-24X1/4*	100	U07800.019.0025	5/16-18X3/8*	100	U07800.031.0037			
NO.10-24X5/16*	100	U07800.019.0031	5/16-18X1/2*	100	U07800.031.0050			

Perno sextavado interior com guia



DIN	**915**
ISO	4028
NEN	2344
ASME	B18.3.6M
NF	E27-182
BS	4168-4



Dados técnicos

d	z curto L ≤	z curto (mín.)	z curto (máx.)	z longo L ≥	z longo (mín.)	z longo (máx.)	d_p (max.)	P	s
M2	3	0.5	0.75	4	1	1.25	1	0.4	0.9
M2.5	4	0.63	0.88	5	1.25	1.5	1.5	0.45	1.3
M3	5	0.75	1	6	1.5	1.75	2	0.5	1.5
M4	6	1	1.25	8	2	2.25	2.5	0.7	2
M5	6	1.25	1.5	8	2.5	2.75	3.5	0.8	2.5
M6	8	1.5	1.75	10	3	3.25	4	1	3
M8	10	2	2.25	12	4	4.3	5.5	1.25	4
M10	12	2.5	2.75	16	5	5.3	7	1.5	5
M12	16	3	3.25	20	6	6.3	8.5	1.75	6
M16	20	4	4.3	25	8	8.36	12	2	8
M20	25	5	5.3	30	10	10.36	15	2.5	10

Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
M	Sextavado interior	Aço	45H	07820	2-86
M	Sextavado interior	INOX A2		51230	2-87
M	Sextavado interior	INOX A4		55230	2-87

07820 **Perno sextavado interior com guia** **D05A**

Rosca Métrica
Material Aço
Classe 45H



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X3	200	07820.030.003	M6X8	200	07820.060.008	M10X45	100	07820.100.045
M3X4	200	07820.030.004	M6X10	200	07820.060.010	M10X50	100	07820.100.050
M3X5	200	07820.030.005	M6X12	200	07820.060.012	M10X60	50	07820.100.060
M3X6	200	07820.030.006	M6X16	200	07820.060.016			
M3X8	200	07820.030.008	M6X20	200	07820.060.020	M12X12	100	07820.120.012
M3X10	200	07820.030.010	M6X25	200	07820.060.025	M12X16	100	07820.120.016
M3X12	200	07820.030.012	M6X30	200	07820.060.030	M12X20	100	07820.120.020
M3X16	200	07820.030.016	M6X40	200	07820.060.040	M12X25	100	07820.120.025
M3X20	200	07820.030.020	M6X50	200	07820.060.050	M12X30	100	07820.120.030
						M12X35	100	07820.120.035
M4X6	200	07820.040.006	M8X8	200	07820.080.008	M12X40	100	07820.120.040
M4X8	200	07820.040.008	M8X10	200	07820.080.010	M12X45	100	07820.120.045
M4X10	200	07820.040.010	M8X12	200	07820.080.012	M12X50	100	07820.120.050
M4X12	200	07820.040.012	M8X16	200	07820.080.016	M12X60	50	07820.120.060
M4X16	200	07820.040.016	M8X20	200	07820.080.020			
M4X20	200	07820.040.020	M8X25	200	07820.080.025	M16X16	50	07820.160.016
M4X25	200	07820.040.025	M8X30	200	07820.080.030	M16X20	50	07820.160.020
M4X30	200	07820.040.030	M8X35	100	07820.080.035	M16X25	50	07820.160.025
			M8X40	100	07820.080.040	M16X30	50	07820.160.030
M5X6	200	07820.050.006	M8X45	100	07820.080.045	M16X35	50	07820.160.035
M5X8	200	07820.050.008	M8X50	100	07820.080.050	M16X40	50	07820.160.040
M5X10	200	07820.050.010	M8X80	100	07820.080.080	M16X50	50	07820.160.050
M5X12	200	07820.050.012				M16X60	25	07820.160.060
M5X16	200	07820.050.016	M10X12	200	07820.100.012			
M5X20	200	07820.050.020	M10X16	200	07820.100.016	M20X30	25	07820.200.030
M5X25	200	07820.050.025	M10X20	200	07820.100.020	M20X40	25	07820.200.040
M5X30	200	07820.050.030	M10X25	100	07820.100.025	M20X50	10	07820.200.050
M5X40	200	07820.050.040	M10X30	100	07820.100.030	M20X60	25	07820.200.060
			M10X35	100	07820.100.035	M20X70	25	07820.200.070
M6X6	200	07820.060.006	M10X40	100	07820.100.040	M20X140	25	07820.200.140

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

51230 Perno sextavado interior com guia — R03A

Rosca Métrica
Material Aço inoxidável A2



d x L	✉	Ref. do artigo
M2X3	500	51230.020.003
M2X4*	500	51230.020.004
M2X5*	500	51230.020.005
M2X6*	500	51230.020.006
M2X8*	500	51230.020.008
M2X12*	500	51230.020.012
M2,5X3*	500	51230.025.003
M2,5X4*	500	51230.025.004
M2,5X5*	500	51230.025.005
M2,5X6*	500	51230.025.006
M2,5X8*	500	51230.025.008
M2,5X10*	500	51230.025.010
M2,5X12*	500	51230.025.012
M3X3*	500	51230.030.003
M3X4*	500	51230.030.004
M3X5*	500	51230.030.005
M3X6*	500	51230.030.006
M3X8*	500	51230.030.008
M3X10*	500	51230.030.010
M3X12*	500	51230.030.012
M3X16*	500	51230.030.016
M3X20*	500	51230.030.020
M3X25*	500	51230.030.025
M4X4*	500	51230.040.004
M4X5*	500	51230.040.005
M4X6	200	51230.040.006
M4X8	200	51230.040.008
M4X10	200	51230.040.010
M4X12*	500	51230.040.012
M4X16	500	51230.040.016
M4X20*	500	51230.040.020
M4X25*	500	51230.040.025
M4X30*	200	51230.040.030
M5X5*	500	51230.050.005
M5X6	200	51230.050.006
M5X8	200	51230.050.008
M5X10	200	51230.050.010
M5X12	200	51230.050.012
M5X16	200	51230.050.016
M5X18*	500	51230.050.018
M5X20	200	51230.050.020
M5X25*	200	51230.050.025
M5X30*	200	51230.050.030
M5X35*	200	51230.050.035
M5X40*	200	51230.050.040
M6X6	200	51230.060.006
M6X8	200	51230.060.008
M6X10	200	51230.060.010
M6X12	200	51230.060.012
M6X16	200	51230.060.016
M6X20	200	51230.060.020
M6X25	200	51230.060.025
M6X30	200	51230.060.030
M6X35*	200	51230.060.035
M6X40*	200	51230.060.040
M6X45*	200	51230.060.045
M6X50*	200	51230.060.050
M6X60*	200	51230.060.060
M8X8*	200	51230.080.008
M8X10	200	51230.080.010
M8X12	200	51230.080.012
M8X16	200	51230.080.016
M8X20	200	51230.080.020
M8X25	100	51230.080.025
M8X30	100	51230.080.030
M8X35*	200	51230.080.035
M8X40	100	51230.080.040
M8X45*	200	51230.080.045
M8X50*	200	51230.080.050
M8X60*	200	51230.080.060
M10X10*	200	51230.100.010
M10X12	100	51230.100.012
M10X16	100	51230.100.016
M10X20	100	51230.100.020
M10X25	100	51230.100.025
M10X30	100	51230.100.030
M10X35*	200	51230.100.035
M10X40	100	51230.100.040
M10X45*	200	51230.100.045
M10X50*	200	51230.100.050
M10X60*	200	51230.100.060
M12X12*	100	51230.120.012
M12X16*	100	51230.120.016
M12X20*	100	51230.120.020
M12X25*	100	51230.120.025
M12X30*	100	51230.120.030
M12X35*	100	51230.120.035
M12X40*	100	51230.120.040
M12X45*	100	51230.120.045
M12X50*	100	51230.120.050
M12X55*	100	51230.120.055
M12X60*	100	51230.120.060
M16X20*	50	51230.160.020
M16X25	50	51230.160.025
M16X30*	50	51230.160.030
M16X40*	50	51230.160.040
M16X50*	50	51230.160.050

55230 Perno sextavado interior com guia — R43A

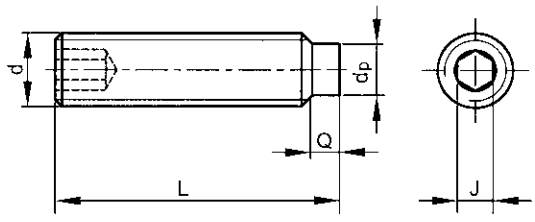
Rosca Métrica
Material Aço inoxidável A4

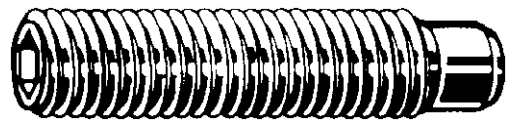


d x L	✉	Ref. do artigo
M3X4*	500	55230.030.004
M3X5*	500	55230.030.005
M3X6*	500	55230.030.006
M3X8*	500	55230.030.008
M4X4*	500	55230.040.004
M4X6*	500	55230.040.006
M4X8*	500	55230.040.008
M4X10	500	55230.040.010
M4X12*	500	55230.040.012
M4X16*	500	55230.040.016
M4X25*	500	55230.040.025
M5X6*	500	55230.050.006
M5X8	500	55230.050.008
M5X10*	500	55230.050.010
M5X12*	500	55230.050.012
M5X14*	500	55230.050.014
M5X16*	500	55230.050.016
M5X20*	500	55230.050.020
M5X25*	200	55230.050.025
M6X6*	200	55230.060.006
M6X8*	200	55230.060.008
M6X10*	200	55230.060.010
M6X12*	200	55230.060.012
M6X16*	200	55230.060.016
M6X20*	200	55230.060.020
M6X25*	200	55230.060.025
M6X30*	200	55230.060.030
M8X8*	200	55230.080.008
M8X10*	200	55230.080.010
M8X12*	200	55230.080.012
M8X16*	200	55230.080.016
M8X20	200	55230.080.020
M8X25*	200	55230.080.025
M8X30*	200	55230.080.030
M10X10*	200	55230.100.010
M10X12*	200	55230.100.012
M10X16*	200	55230.100.016
M10X20*	200	55230.100.020
M10X25*	100	55230.100.025
M10X30*	100	55230.100.030
M10X40*	100	55230.100.040
M12X20*	100	55230.120.020
M12X25*	100	55230.120.025
M12X30*	100	55230.120.030
M12X40*	100	55230.120.040
M12X45*	100	55230.120.045
M16X40*	50	55230.160.040

Perno sextavado interior com ponta UNC

ASME ≈B18.3





Dados técnicos

d	d_p (max.)	Fios por polegada	J	Q (max.)
No.8	0.109	32	5/64	0.043
No.10	0.127	24	3/32	0.049
1/4	0.156	20	1/8	0.067
5/16	0.203	18	5/32	0.082
3/8	0.250	16	3/16	0.099
1/2	0.344	13	1/4	0.13
5/8	0.469	11	5/16	0.164

U07820 **Com ponta UNC** **X05A**

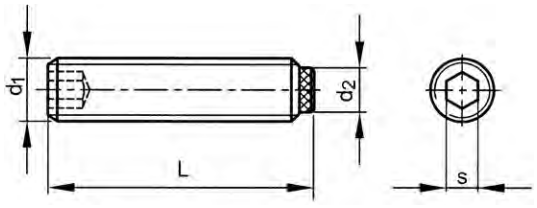
Rosca Unified National Coarse
Material Aço

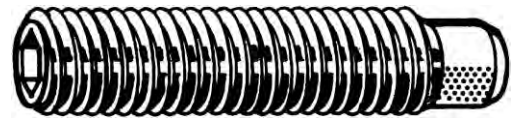


RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.8-32X3/16*	100	U07820.016.0018	1/4-20X5/16*	100	U07820.025.0031	3/8-16X5/8*	100	U07820.037.0062
NO.8-32X1/4*	100	U07820.016.0025	1/4-20X3/8*	100	U07820.025.0037	3/8-16X3/4*	100	U07820.037.0075
NO.8-32X5/16*	100	U07820.016.0031	1/4-20X1/2*	100	U07820.025.0050	3/8-16X1 Inch*	100	U07820.037.0100
NO.8-32X3/8*	100	U07820.016.0037	1/4-20X5/8*	100	U07820.025.0062	3/8-16X1.1/4*	100	U07820.037.0125
NO.8-32X1/2*	100	U07820.016.0050	1/4-20X3/4*	100	U07820.025.0075			
			1/4-20X1 Inch*	100	U07820.025.0100	1/2-13X1/2*	50	U07820.050.0050
NO.10-24X3/16*	100	U07820.019.0018				1/2-13X5/8*	50	U07820.050.0062
NO.10-24X1/4*	100	U07820.019.0025	5/16-18X5/16*	100	U07820.031.0031	1/2-13X3/4*	25	U07820.050.0075
NO.10-24X5/16*	100	U07820.019.0031	5/16-18X3/8*	100	U07820.031.0037	1/2-13X1 Inch*	25	U07820.050.0100
NO.10-24X3/8*	100	U07820.019.0037	5/16-18X1/2*	100	U07820.031.0050	1/2-13X1.1/4*	25	U07820.050.0125
NO.10-24X1/2*	100	U07820.019.0050						
			3/8-16X3/8*	100	U07820.037.0037	5/8-11X1 Inch*	10	U07820.062.0100
1/4-20X1/4*	100	U07820.025.0025	3/8-16X1/2*	100	U07820.037.0050	5/8-11X1.1/4*	10	U07820.062.0125

Perno sextavado interior com guia nylon





Dados técnicos

d_1	d_2	P	s
M4	2.5	0.7	2
M5	3	0.8	2.5
M6	4	1	3

d_1	d_2	P	s
M8	5.5	1.25	4
M10	7	1.5	5

- Estes parafusos sextavado interior com ponta de nylon são indicados para pressão, sem danificar ex. varão roscado, pernos e parafusos com tratamento de superficie.

56949 **Perno sextavado interior com guia nylon** **W03A**

Rosca Métrica
Material Aço
Classe 5.8

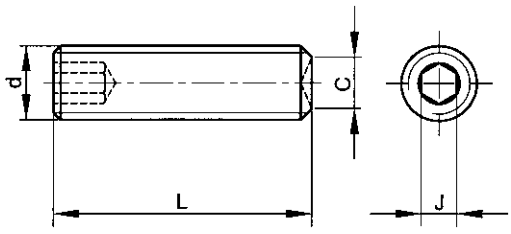


d_1 x L	✉	Ref. do artigo
M4X6,5	25	56949.040.006
M4X7	25	56949.040.007
M4X8	25	56949.040.008
M4X9	25	56949.040.009
M4X10,5	25	56949.040.010
M4X11	25	56949.040.011
M5X8,5	25	56949.050.008
M5X9	25	56949.050.009
M5X10	25	56949.050.010

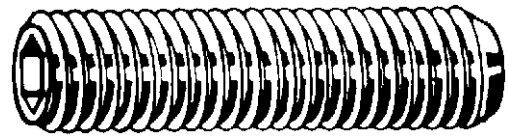
d_1 x L	✉	Ref. do artigo
M5X11	25	56949.050.011
M5X12,5	25	56949.050.012
M5X16	25	56949.050.016
M5X17	25	56949.050.017
M6X10	25	56949.060.010
M6X11,3	25	56949.060.011
M6X26,3	10	56949.060.026

d_1 x L	✉	Ref. do artigo
M8X10	10	56949.080.010
M8X12	10	56949.080.012
M8X13,6	10	56949.080.013
M8X20	10	56949.080.020
M10X16	10	56949.100.016
M10X18	10	56949.100.018
M10X26,9	10	56949.100.026
M10X27	10	56949.100.027

Perno sextavado interior com ponta côncava BSW



BS ≈2470
ASME ≈B18.3



Dados técnicos

d	C	Fios por polegada	J
1/2	7.3	12	1/4

07940 **Perno sextavado interior com ponta côncava BSW** **X08A**

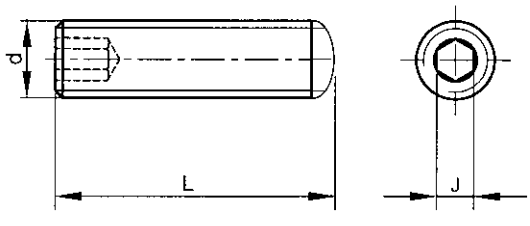
Rosca British Standard Whitworth
Material Aço
Classe 45H



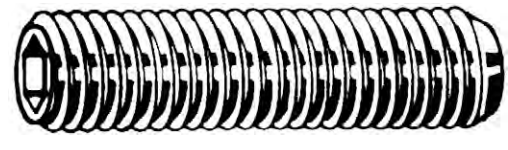
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/2X1/2	100	07940.127.012	1/2X3/4	100	07940.127.020	1/2X1.1/2	50	07940.127.040
1/2X5/8	100	07940.127.016	1/2X1 Inch	50	07940.127.025			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Perno sextavado interior com ponta oval UNC



ASME ≈B18.3



Dados técnicos

d	Fios por polegada	J
No.6	32	1/16
No.8	32	5/64
No.10	24	3/32
1/4	20	1/8
5/16	18	5/32
3/8	16	3/16
1/2	13	1/4

U07845 **Perno sextavado interior com ponta oval UNC** **X05A**

Rosca Unified National Coarse
Material Aço

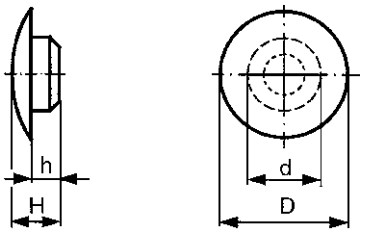


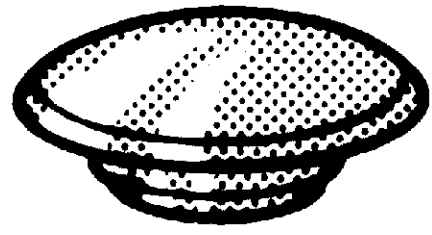
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.6-32X1/4*	100	U07845.013.0025				5/16-18X1/2*	100	U07845.031.0050
NO.6-32X5/16*	100	U07845.013.0031	1/4-20X1/4*	100	U07845.025.0025	5/16-18X5/8*	100	U07845.031.0062
NO.6-32X3/8*	100	U07845.013.0037	1/4-20X5/16*	100	U07845.025.0031	5/16-18X3/4*	100	U07845.031.0075
			1/4-20X3/8*	100	U07845.025.0037	5/16-18X1 Inch*	100	U07845.031.0100
NO.8-32X3/16*	100	U07845.016.0018	1/4-20X1/2*	100	U07845.025.0050			
NO.8-32X1/4*	100	U07845.016.0025	1/4-20X5/8*	100	U07845.025.0062	3/8-16X3/8*	100	U07845.037.0037
NO.8-32X1/2*	100	U07845.016.0050	1/4-20X3/4*	100	U07845.025.0075	3/8-16X1/2*	100	U07845.037.0050
			1/4-20X1 Inch*	100	U07845.025.0100	3/8-16X5/8*	100	U07845.037.0062
NO.10-24X3/16*	100	U07845.019.0018				3/8-16X3/4*	100	U07845.037.0075
NO.10-24X1/4*	100	U07845.019.0025	5/16-18X1/4*	100	U07845.031.0025	3/8-16X1 Inch*	100	U07845.037.0100
NO.10-24X3/8*	100	U07845.019.0037	5/16-18X5/16*	100	U07845.031.0031			
NO.10-24X1/2*	100	U07845.019.0050	5/16-18X3/8*	100	U07845.031.0037	1/2-13X1/2*	50	U07845.050.0050

U07845	Perno sextavado interior com ponta oval UNC	←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/2-13X5/8*	50	U07845.050.0062	1/2-13X3/4*	25	U07845.050.0075	1/2-13X1 Inch*	25	U07845.050.0100

Tampa para parafusos cabeça sextavada interior





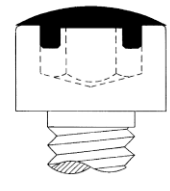
Dados técnicos

Para uso com	d	D	h	H	s
M5	4.3	9.1	1.5	2.8	4
M6	5.4	10.1	1.8	3.2	5
M8	6.3	13.1	2.4	3.8	6
M10	8.2	16	2.8	4.3	8
M12	10.5	18.2	3.4	5.5	10
M14	12.5	22.1	3.5	6.3	12
M16	14.5	23.8	3.8	7.5	14
M20	17.6	30.1	4.4	7.4	17

Exemplos de aplicação

Caracteristicas especiais de tampas para parafuso sextavado interior:
- Previne corrosão e acumulação de detritos no sextavado
- Boa aparência
- Fácil de utilizar e reutilizável
- Resistente à temperatura de –60°C a +120°C
- Cor cinzento A RAL 7042
- **ATENÇÃO**: a cabeça do parafuso sextavado interior pode ser **parcialmente** coberta por estas tampas





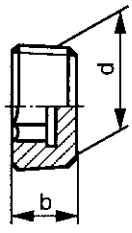
07760	Tampa para parafusos cabeça sextavada interior	D91A

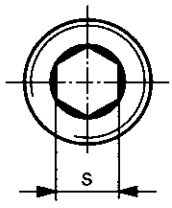
Material	Plástico Polietileno
Cor	Cinza



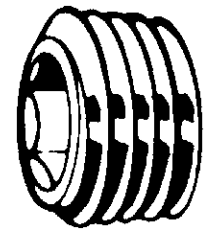
Para uso com / s	✉	Ref. do artigo	Para uso com / s	✉	Ref. do artigo	Para uso com / s	✉	Ref. do artigo
M5/s=4	100	07760.050.001	M10/s=8	100	07760.100.001	M16/s=14	100	07760.160.001
M6/s=5	100	07760.060.001	M12/s=10	100	07760.120.001	M20/s=17	50	07760.200.001
M8/s=6	100	07760.080.001	M14/s=12	100	07760.140.001			

Bujão sextavado interior com rosca exterior MF





DIN 906



Dados técnicos

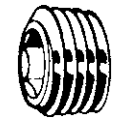
d	b (js16)	s (D12)	d	b (js16)	s (D12)
M8	8	4	M22	10	10
M10	8	5	M24	12	12
M12	10	6	M26	12	12
M14	10	7	M27	12	12
M16	10	8	M30	12	17
M18	10	8	M36	15	19
M20	10	10	M42	18	22

Grupos de produtos

Rosca	Encaixe	Material	Código	Página
MF	Sextavado interior	Aço	07660	2-92
MF	Sextavado interior	INOX A2	51961	2-92
MF	Sextavado interior	INOX A4	55961	2-92

07660 Bujão sextavado interior com rosca exterior MF — D90A

Rosca Métrica fina
Material Aço

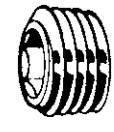


RoHS

d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M8X1,00	50	07660.080.100	M18X1,50	25	07660.180.150	M26X1,50	25	07660.260.150
M10X1,00	50	07660.100.100	M20X1,50	25	07660.200.150	M30X1,50	10	07660.300.150
M12X1,50	50	07660.120.150	M22X1,50	25	07660.220.150	M36X1,50	10	07660.360.150
M14X1,50	50	07660.140.150	M24X1,50	25	07660.240.150	M42X1,50	10	07660.420.150
M16X1,50	50	07660.160.150						

51961 Bujão sextavado interior com rosca exterior MF — R09A

Rosca Métrica fina
Material Aço inoxidável A2

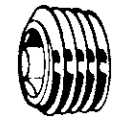


RoHS

d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M8X1,00*	50	51961.080.100	M18X1,50*	50	51961.180.150	M24X1,50*	10	51961.260.150
M10X1,00*	50	51961.100.100	M20X1,50*	25	51961.200.150	M27X2,00*	10	51961.270.200
M12X1,50*	50	51961.120.150	M22X1,50*	25	51961.220.150	M30X1,50*	10	51961.300.150
M14X1,50*	50	51961.140.150	M24X1,50*	25	51961.240.150	M30X2,00*	10	51961.300.200
M16X1,50*	50	51961.160.150						

55961 Bujão sextavado interior com rosca exterior MF — R49A

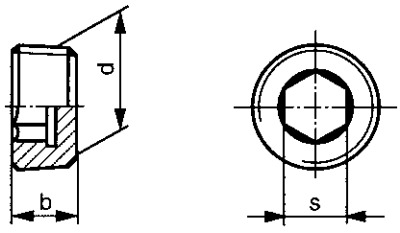
Rosca Métrica fina
Material Aço inoxidável A4



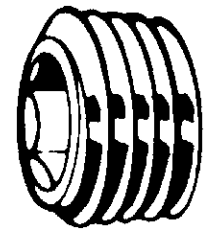
RoHS

d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M8X1,00*	50	55961.080.100	M16X1,50*	50	55961.160.150	M22X1,50*	25	55961.220.150
M10X1,00*	50	55961.100.100	M18X1,50*	50	55961.180.150	M24X1,50*	25	55961.240.150
M12X1,50*	50	55961.120.150	M20X1,50*	25	55961.200.150	M30X1,50*	10	55961.300.150
M14X1,50*	50	55961.140.150						

Bujão sextavado interior com rosca exterior



DIN 906



Dados técnicos

d	b (js16)	Fios por polegada	s (D12)
R1/8	8	28	5
R1/4	10	19	7
R3/8	10	19	8
R1/2	10	14	10
R3/4	12	14	12

d	b (js16)	Fios por polegada	s (D12)
R1 Inch	12	11	17
R1.1/4	18	11	22
R1.1/2	20	11	24
R2 Inch	22	11	30

Grupos de produtos

Rosca	Encaixe	Material	Código	Página
R	Sextavado interior	Aço	07650	2-93
R	Sextavado interior	INOX A2	51962	2-93
R	Sextavado interior	INOX A4	55962	2-93

07650 Bujão sextavado interior com rosca exterior D90A

Rosca GAS
Material Aço



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
R1/8	100	07650.031.001	R1/2	50	07650.127.001	R1.1/4	10	07650.317.001
R1/4	50	07650.063.001	R3/4	25	07650.191.001	R1.1/2	10	07650.381.001
R3/8	50	07650.096.001	R1 Inch	25	07650.254.001	R2 Inch	10	07650.508.001

51962 Bujão sextavado interior com rosca exterior R09A

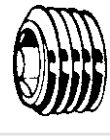
Rosca GAS
Material Aço inoxidável A2



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
R1/8*	50	51962.031.001	R1/2*	25	51962.127.001	R1 Inch*	10	51962.254.001
R1/4*	50	51962.063.001	R3/4*	25	51962.191.001	R1.1/4*	5	51962.317.001
R3/8*	50	51962.096.001						

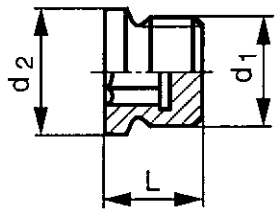
55962 Bujão sextavado interior com rosca exterior R49A

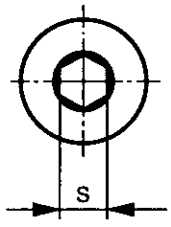
Rosca GAS
Material Aço inoxidável A4



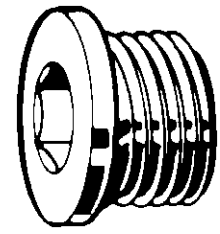
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
R1/8*	50	55962.031.001	R1/2*	25	55962.127.001	R1.1/4*	5	55962.317.001
R1/4*	50	55962.063.001	R3/4*	25	55962.191.001	R1.1/2*	5	55962.381.001
R3/8*	50	55962.096.001	R1 Inch*	10	55962.254.001			

Bujão sextavado interior MF





DIN 908



Dados técnicos

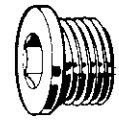
d_1	d_2 (h14)	L ≈	s (D12)	d_1	d_2 (h14)	L ≈	s (D12)
M8 (≠DIN)	12	10	4	M30	36	20	17
M10	14	11	5	M33	39	21	17
M12	17	15	6	M36	42	21	19
M14	19	15	6	M38	44	21	19
M16	21	15	8	M42	49	21	22
M18	23	16	8	M45	52	21	22
M20	25	18	10	M48	55	21	24
M22	27	18	10	M52	60	21	24
M24	29	18	12	M56	64	25	32
M26	31	20	12	M60	68	25	32
M27	32	20	12	M64	72	25	32

Grupos de produtos

Rosca	Encaixe	Material	Código	Página
MF	Sextavado interior	Aço	07640	2-94
MF	Sextavado interior	INOX A4	55963	2-94

07640 Bujão sextavado interior MF D90A

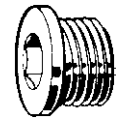
Rosca Métrica fina
Material Aço



d_1 x P	✉	Ref. do artigo	d_1 x P	✉	Ref. do artigo	d_1 x P	✉	Ref. do artigo
M8X1,00	50	07640.080.100	M26X1,50	25	07640.260.150	M45X1,50	10	07640.450.150
M10X1,00	50	07640.100.100	M27X2,00	25	07640.270.200	M45X2,00	10	07640.450.200
M12X1,50	50	07640.120.150	M30X1,50	10	07640.300.150	M48X1,50	10	07640.480.150
M14X1,50	50	07640.140.150	M33X2,00	10	07640.330.200	M48X2,00	10	07640.480.200
M16X1,50	50	07640.160.150	M36X1,50	10	07640.360.150	M52X1,50	5	07640.520.150
M18X1,50	25	07640.180.150	M36X2,00	10	07640.360.200	M52X2,00	5	07640.520.200
M20X1,50	25	07640.200.150	M38X1,50	10	07640.380.150	M56X2,00	5	07640.560.200
M22X1,50	25	07640.220.150	M42X1,50	10	07640.420.150	M60X2,00	3	07640.600.200
M24X1,50	25	07640.240.150	M42X2,00	10	07640.420.200	M64X2,00	3	07640.640.200

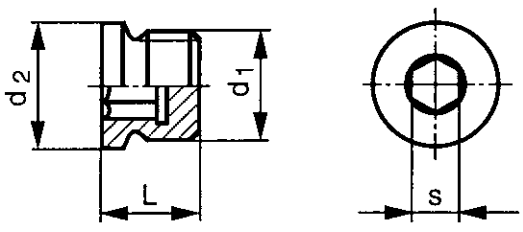
55963 Bujão sextavado interior MF R49A

Rosca Métrica fina
Material Aço inoxidável A4

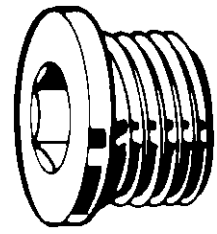


d_1 x P	✉	Ref. do artigo	d_1 x P	✉	Ref. do artigo	d_1 x P	✉	Ref. do artigo
M10X1,00	50	55963.100.100	M18X1,50*	50	55963.180.150	M26X1,50*	10	55963.260.150
M12X1,50*	50	55963.120.150	M20X1,50*	25	55963.200.150	M27X2,00*	10	55963.270.200
M14X1,50*	50	55963.140.150	M22X1,50*	25	55963.220.150	M30X1,50*	10	55963.300.150
M16X1,50*	50	55963.160.150	M24X1,50*	25	55963.240.150	M30X2,00*	10	55963.300.200

Bujão sextavado interior



DIN 908



Dados técnicos

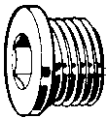
d_1	d_2 (h14)	Fios por polegada	L ≈	s (D12)
G1/8A	14	28	11	5
G1/4A	18	19	15	6
G3/8A	22	19	15	8
G1/2A	26	14	18	10
G3/4A	32	14	20	12
G1 Inch.A	39	11	21	17
G1.1/4A	49	11	21	22
G1.1/2A	55	11	21	24
G1.3/4A	62	11	25	32
G2 Inch.A	68	11	25	32

Grupos de produtos

Rosca	Encaixe	Material	Código	Página
G	Sextavado interior	Aço	07620	2-95
G	Sextavado interior	INOX A2	51964	2-95
G	Sextavado interior	INOX A4	55964	2-95

07620 Bujão sextavado interior D90A

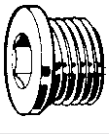
Rosca GAS
Material Aço



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
G1/8A	50	07620.031.001	G1/2A	50	07620.127.001	G1.1/4A	10	07620.317.001
G1/4A	50	07620.063.001	G3/4A	25	07620.191.001	G1.1/2A	10	07620.381.001
G3/8A	50	07620.096.001	G1 Inch.A	25	07620.254.001			

51964 Bujão sextavado interior R09A

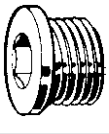
Rosca GAS
Material Aço inoxidável A2



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
G1/8A*	50	51964.031.001	G1/2A*	25	51964.127.001	G1.1/4A*	5	51964.317.001
G1/4A*	50	51964.063.001	G3/4A*	25	51964.191.001	G1.1/2A*	5	51964.381.001
G3/8A*	50	51964.096.001	G1 Inch.A*	10	51964.254.001	G2 Inch.A*	5	51964.508.001

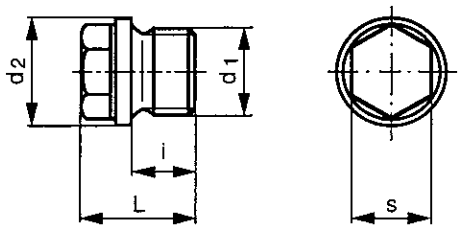
55964 Bujão sextavado interior R49A

Rosca GAS
Material Aço inoxidável A4

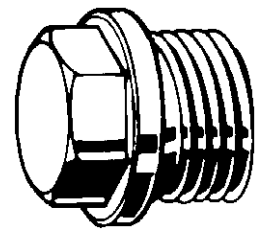


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
G1/8A*	50	55964.031.001	G3/4A*	25	55964.191.001	G1.1/2A*	5	55964.381.001
G1/4A*	50	55964.063.001	G1 Inch.A*	10	55964.254.001	G1.3/4A*	5	55964.444.001
G3/8A	50	55964.096.001	G1.1/4A*	5	55964.317.001	G2 Inch.A*	5	55964.508.001
G1/2A*	25	55964.127.001						

Bujão sextavado MF



DIN 910



Dados técnicos

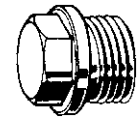
d_1	d_2 (h14)	i	L ≈	s	d_1	d_2 (h14)	i	L ≈	s
M8 (≠DIN)	14	8	17	10	M22	27	14	26	19
M10	14	8	17	10	M24	29	14	27	22
M12	17	12	21	13	M26	31	16	30	24
M14	19	12	21	13	M27	32	16	30	24
M16	21	12	21	17	M30	36	16	30	24
M18	23	12	24	17	M36	42	16	32	27
M20	25	14	26	19	M42	49	16	33	30

Grupos de produtos

Rosca	Encaixe	Material	Código	Página
MF	Sextavado	Aço	07680	2-96
MF	Sextavado	INOX A2	51965	2-96
MF	Sextavado	INOX A4	55965	2-96

07680 Bujão sextavado MF — D90A

Rosca Métrica fina
Material Aço

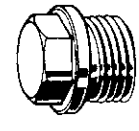


RoHS

d_1 x P	✉	Ref. do artigo	d_1 x P	✉	Ref. do artigo	d_1 x P	✉	Ref. do artigo
M8X1,00	50	07680.080.100	M18X1,50	25	07680.180.150	M26X1,50	25	07680.260.150
M10X1,00	50	07680.100.100	M20X1,50	25	07680.200.150	M30X1,50	10	07680.300.150
M12X1,50	50	07680.120.150	M22X1,50	25	07680.220.150	M36X1,50	10	07680.360.150
M14X1,50	50	07680.140.150	M24X1,50	25	07680.240.150	M42X1,50	10	07680.420.150
M16X1,50	50	07680.160.150						

51965 Bujão sextavado MF — R09A

Rosca Métrica fina
Material Aço inoxidável A2

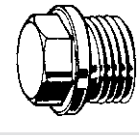


RoHS

d_1 x P	✉	Ref. do artigo	d_1 x P	✉	Ref. do artigo	d_1 x P	✉	Ref. do artigo
M10X1,00*	50	51965.100.100	M18X1,50*	50	51965.180.150	M26X1,50*	10	51965.260.150
M12X1,50*	50	51965.120.150	M20X1,50*	25	51965.200.150	M27X2,00*	10	51965.270.200
M14X1,50*	50	51965.140.150	M22X1,50*	25	51965.220.150	M30X1,50*	10	51965.300.150
M16X1,50*	50	51965.160.150	M24X1,50*	25	51965.240.150			

55965 Bujão sextavado MF — R49A

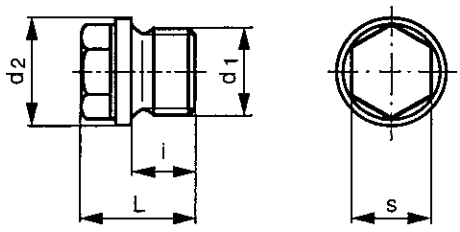
Rosca Métrica fina
Material Aço inoxidável A4



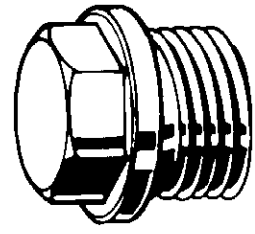
RoHS

d_1 x P	✉	Ref. do artigo	d_1 x P	✉	Ref. do artigo	d_1 x P	✉	Ref. do artigo
M10X1,00	25	55965.100.100	M18X1,50	10	55965.180.150	M26X1,50*	10	55965.260.150
M12X1,50	25	55965.120.150	M20X1,50	10	55965.200.150	M27X2,00*	10	55965.270.200
M14X1,50	25	55965.140.150	M22X1,50	10	55965.220.150	M30X1,50*	10	55965.300.150
M16X1,50	25	55965.160.150	M24X1,50	10	55965.240.150	M30X2,00*	5	55965.300.200

Bujão sextavado cónico



DIN 910



Dados técnicos

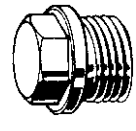
d_1	d_2 (h14)	Fios por polegada	i	L ≈	s
G1/8A	14	28	8	17	10
G1/4A	18	19	12	21	13
G3/8A	22	19	12	21	17
G3/8Ax8	22	19	8	17	17
G1/2A	26	14	14	26	19
G5/8A (≠DIN)	28	14	14	26	19
G3/4A	32	14	16	30	24
G3/4Ax12	32	14	12	26	24
G1 Inch.A	39	11	16	32	27
G1.1/8A	44	11	16	32	27
G1.1/4A	49	11	16	33	30
G1.1/2A	55	11	16	33	30
G1.3/4A	62	11	20	40	36
G2 Inch.A	68	11	20	40	36
G2.1/2A (≠DIN)	85	11	20	40	36

Grupos de produtos

Rosca	Encaixe	Material	Código	Página
G	Sextavado	Aço	07670	2-97
G	Sextavado	INOX A2	51966	2-97
G	Sextavado	INOX A4	55966	2-98
G	Sextavado	Latão	47220	2-98

07670 Bujão sextavado cónico D90A

Rosca GAS
Material Aço

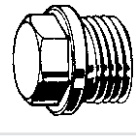


RoHS

d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
G1/8A	50	07670.031.001	G1/2A	50	07670.127.001	G1.1/4A	10	07670.317.001
G1/4A	50	07670.063.001	G3/4A	25	07670.191.001	G1.1/2A	10	07670.381.001
G3/8A	50	07670.096.001	G3/4AX12	25	07670.191.012	G2 Inch.A	10	07670.508.001
G3/8AX8	50	07670.096.008	G1 Inch.A	25	07670.254.001	G2.1/2A (≠DIN)	10	07670.635.001

51966 Bujão sextavado cónico R09A

Rosca GAS
Material Aço inoxidável A2



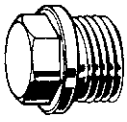
RoHS

d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
G1/8A*	50	51966.031.001	G1/2A*	25	51966.127.001	G1.1/4A*	5	51966.317.001
G1/4A*	50	51966.063.001	G3/4A*	25	51966.191.001	G1.1/2A*	5	51966.381.001
G3/8A*	50	51966.096.001	G1 Inch.A*	10	51966.254.001	G2 Inch.A*	5	51966.508.001

2

55966 Bujão sextavado cónico — R49A

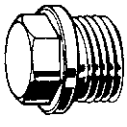
Rosca GAS
Material Aço inoxidável A4



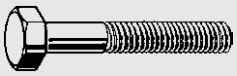
d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
G1/8A	50	55966.031.001	G5/8A*	25	55966.158.001	G1.1/4A	5	55966.317.001
G1/4A	25	55966.063.001	G3/4A	10	55966.191.001	G1.1/2A*	5	55966.381.001
G3/8A	25	55966.096.001	G1 Inch.A	10	55966.254.001	G1.3/4A*	5	55966.444.001
G1/2A	25	55966.127.001	G1.1/8A*	5	55966.285.001	G2 Inch.A*	5	55966.508.001

47220 Bujão sextavado cónico — M01A

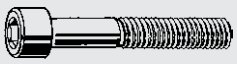
Rosca GAS
Material Latão



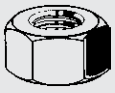
d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
G1/4A	100	47220.063.001	G1/2A	50	47220.127.001	G1 Inch.A	10	47220.254.001
G3/8A	50	47220.096.001	G3/4A	25	47220.191.001			



1 Parafusos sextavado exterior



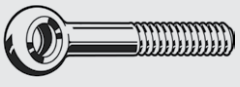
2 Produtos sextavados interiores



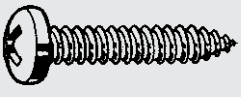
3 Porcas/porcas de rebitar / insertos



4 Varão roscado / pernos



5 Produtos olhal / gancho

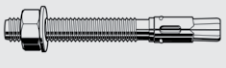


6 Parafusos

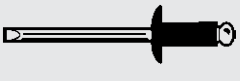
I Indice



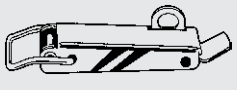
7 Anilha



8 Ancoragem



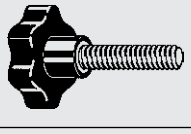
9 Rebites / cavilhas



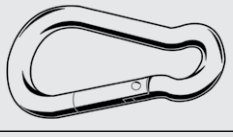
10 Parafusos de segurança / Sistemas de fixação



11 Sortidos



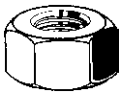
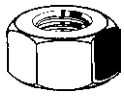
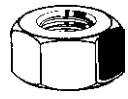
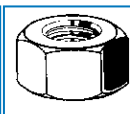
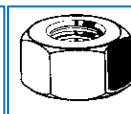
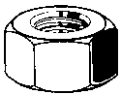
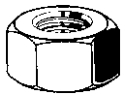
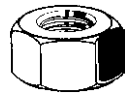
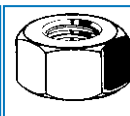
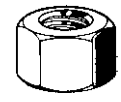
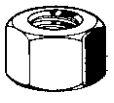
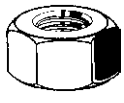
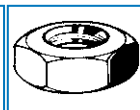
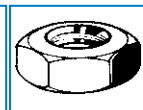
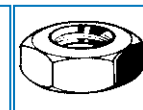
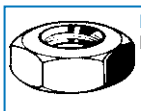
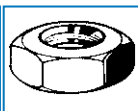
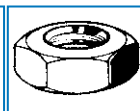
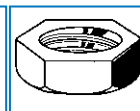
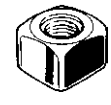
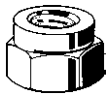
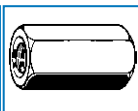
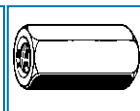
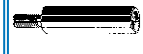
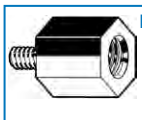
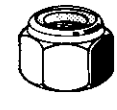
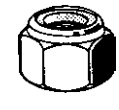
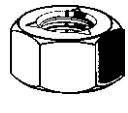
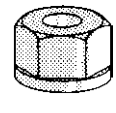
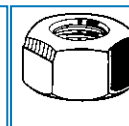
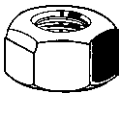
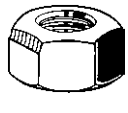
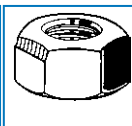
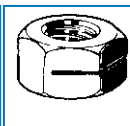
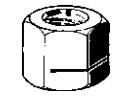
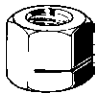
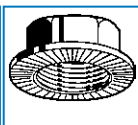
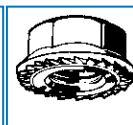
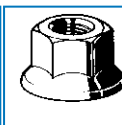
12 Sistemas de engenharia / peças para máquinas



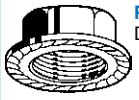
13 Marítimo produtos

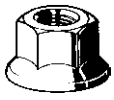
T Tecnologia de fixação

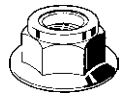
Porcas/porcas de rebitar / insertos 3

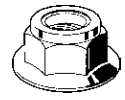
 Página 3-5 DIN 934 (1987) **DIN Métrico**	 Página 3-14 DIN 934 (1987) **Métrico fino**	 Página 3-17 ISO 4032 **ISO Métrico**	 Página 3-20 ASME ≈B18.2.2 **UNC**	 Página 3-22 ASME ≈B18.2.2 **Para parafuso de máquina UNC**
 Página 3-23 ASME ≈B18.2.2 **UNF**	 Página 3-25 ASME ≈B18.2.2 **Para parafuso de máquina UNF**	 Página 3-26 DIN ≈934 (1954) **BSW**	 Página 3-27 BS ≈1083 (1965) **BSF**	 Página 3-28 DIN ≈934 (1987) **1xd Métrico**
 Página 3-29 DIN ≈934 (1954) **1xd BSW**	 Página 3-30 DIN 555 (1987) **≥|4| Métrico**	 Página 3-31 DIN 439 B (1987) **Métrico**	 Página 3-34 DIN 439 B (1987) **Métrico fino**	 Página 3-37 DIN 936 **Métrico**
 Página 3-38 DIN 936 **Métrico fino**	 Página 3-38 ISO 4035 **Métrico**	 Página 3-39 ASME ≈B18.2.2 **UNC**	 Página 3-39 DIN 431 A **Rosca de tubos**	 Página 3-40 **Porca Trackshoe UNF**
 Página 3-41 **Porca de exaustão**	 Página 3-42 DIN 6334 **3xd Métrico**	 Página 3-44 **High Metric**	 Página 3-45 **Com rosca interna e externa**	 Página 3-46 **Com 2x rosca interior**
 Página 3-46 **Redutor**	 Página 3-47 DIN 985 (1987) **Métrico**	 Página 3-51 DIN 985 (1987) **Métrico fino**	 Página 3-52 DIN 982 **Alto Métrico**	 Página 3-54 ASME B18.16.6 **NE UNC**
 Página 3-56 ASME B18.16.6 **NTE UNC**	 Página 3-57 ASME B18.16.6 **NTE UNF**	 Página 3-58 ASME B18.16.6 **NU UNC**	 Página 3-59 ASME B18.16.6 **NTU UNC**	 Página 3-60 ASME B18.16.6 **NE UNF**
 Página 3-62 **BSW**	 Página 3-62 **BSF**	 Página 3-63 **Aço inox Métrico**	 Página 3-64 **Plástico, Métrico**	 Página 3-64 DIN 980V(1987) **Métrico**
 Página 3-66 DIN 980V(1987) **Métrico fino**	 Página 3-67 IFI 100/107 **Toplock UNC**	 Página 3-68 IFI 100/107 **Toplock UNF**	 Página 3-70 **Tipo H100-ESN Métrico**	 Página 3-71 **Tipo H130-ESN Métrico**
 Página 3-72 **Tipo USN Métrico**	 Página 3-72 **RIPP Métrico**	 Página 3-73 **SECURIT Métrico**	 Página 3-74 **Porca auto bloqueante**	 Página 3-75 DIN 6923 (1983) **Com flange Métrico**

Porcas/porcas de rebitar / insertos 3

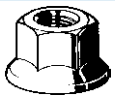

Página 3-77
DIN ≈6923
Com flange Métrico


Página 3-79
IFI 100/107
Com flange UNC


Página 3-80
DIN 6926
Com inserto plástico Métrico


Página 3-81
DIN ≈6926
Com flange serrilhada


Página 3-82
NORD-LOCK


Página 3-82
Com anilha cónica


Página 3-83
COMBY Métrico


Página 3-83
DIN 7967
PAL Métrico

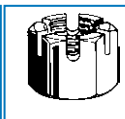

Página 3-85
DIN 935-1
Métrico

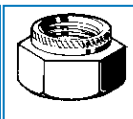

Página 3-87
DIN 935
Métrico fino

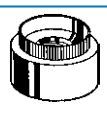

Página 3-88
DIN 979
Baixa Métrica


Página 3-89
DIN 937
Baixa Métrica

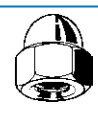

Página 3-90
DIN 979
Baixo Métrico fino


Página 3-91
BS ≈1768
UNF

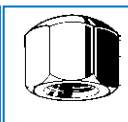

Página 3-93
KALEI Métrico


Página 3-95
Cilindrico Métrico


Página 3-96
DIN 1587 (1987)
Métrico


Página 3-98
BSW


Página 3-99
Soldada Métrica


Página 3-100
DIN 917
Baixo Métrico


Página 3-101
DIN 986
Com inserto plástico Métrico


Página 3-102
ASME ≈B18.17
Modelo americano Métrico

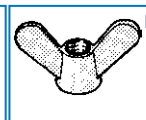

Página 3-103
DIN 315
Orelhas redondas Métrico

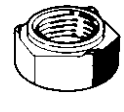

Página 3-105
DIN ≈313 (1956)
BSW

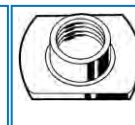

Página 3-106
DIN 80701
Porca de haste


Página 3-106
DIN 80704
Porca de argola quadrada

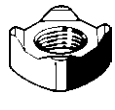

Página 3-107
Com colar Métrico, plástico

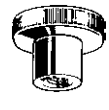

Página 3-107
Métrico, plástico


Página 3-108
DIN 929
Sextavado Métrico

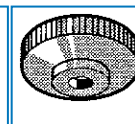

Página 3-109
Com flange Métrico

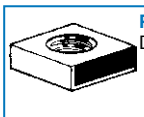

Página 3-110
Porca soldar por pontos Métrico

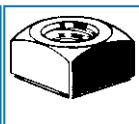

Página 3-111
DIN 928
Quadrado Métrico


Página 3-112
DIN 466
Métrico alta


Página 3-113
DIN 467
Métrico, baixo


Página 3-114
Métrico, plastico


Página 3-115
DIN 562
Baixo Métrico

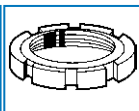

Página 3-116
DIN 557
Métrico


Página 3-117
Métrico

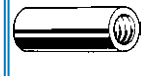

Página 3-118
Tipo SMG

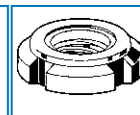

Página 3-119
Speednut


Página 3-120
Porca de cravar


Página 3-121
DIN 1804 W
para ganchos Métrico


Página 3-122
DIN 546
Com fenda Métrico

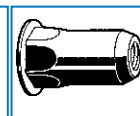

Página 3-123
Cilindrico Métrico


Página 3-124
Tipo GUK Métrico fino


Página 3-125
Com fenda Métrico

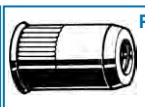
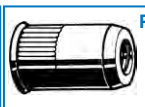
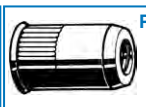
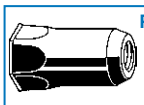
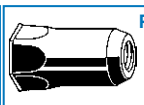
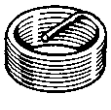
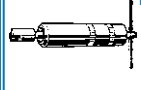
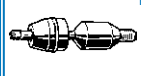
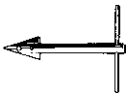
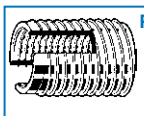
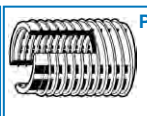

Página 3-127
Porcas de rebitar de cilindricas


Página 3-128
Porcas de rebitar cilindricas aço inox


Página 3-129
Sextavada cilindrica aço inox


Página 3-130
Porcas de rebitar embeber abertas aço zinc

Porcas/porcas de rebitar / insertos 3

 Página 3-131 Porcas de rebitar embeber aço inox	 Página 3-132 Porcas de rebitar embeber aluminio	 Página 3-133 Porcas de rebitar reduzidas embeber	 Página 3-133 Embeber reduzida aço inox	 Página 3-134 Embeber reduzida Aluminio
 Página 3-134 Porcas de rebitar reduzidas embeber aço	 Página 3-135 Porcas de rebitar reduzidas embeber	 Página 3-135 Porcas de rebitar cilindricas aço zinc	 Página 3-136 Porcas de rebitar cilindricas aluminio	 Página 3-137 Porcas de rebitar embeber aço zinc
 Página 3-138 Parafuso rebitar cilindrica aço zinc	 Página 3-139 Máquina de rebitar	 Página 3-140 Conjunto para rebitar	 Página 3-142 AMECOIL Macho máquina métrico	 Página 3-143 AMECOIL Macho máquina métrico fino
 Página 3-143 AMECOIL Macho de máquina métrico fino	 Página 3-144 AMECOIL Macho máquina UNC	 Página 3-144 AMECOIL Macho máquina UNF	 Página 3-145 DIN 8140-1A AMECOIL Métrico	 Página 3-146 DIN 8140-1A AMECOIL Métrico fino
 Página 3-146 DIN 8140-1A AMECOIL Métrico extra fino	 Página 3-147 AMECOIL UNC	 Página 3-148 AMECOIL UNF	 Página 3-148 AMECOIL Métrico	 Página 3-149 AMECOIL Métrico fino
 Página 3-149 AMECOIL Métrico extra fino	 Página 3-150 AMECOIL UNC	 Página 3-151 AMECOIL UNF	 Página 3-151 AMECOIL BSW	 Página 3-152 AMECOIL sortido
 Página 3-153 AMECOIL Ferramenta para inserto métrico/não métrico	 Página 3-154 AMECOIL Ferramenta métrica completa	 Página 3-155 AMECOIL Ferramenta métrica	 Página 3-157 AMECOIL Adatpador	Página 3-158 AMECOIL Punção
 Página 3-158 AMECOIL Extractor	 Página 3-159 V-COIL Métrico Rapid	 Página 3-159 V-COIL Métrico	 Página 3-160 V-COIL Não métrico	 Página 3-161 V-COIL para motor
 Página 3-162 V-COIL Sortido Métrico	 Página 3-163 V-COIL Sortido Métrico Rapid	 Página 3-163 V-COIL Sortido Não Métrico	 Página 3-165 Ferramenta V-COIL	 Página 3-168 Ferramenta V-COIL Rapid
 Página 3-171 Tipo 302	 Página 3-172 Tipo 307-308	 Página 3-173 Tipo 302 2	 Página 3-174 Tipo 308 2	 Página 3-175 Tipo 610

3

Página 3-176



Tipo 620

Página 3-177



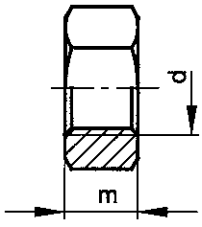
Tipo 620

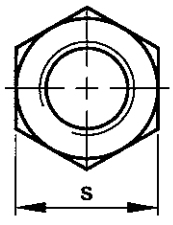
Página 3-177



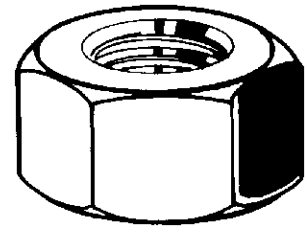
Tipo 6102

Porca sextavada





DIN **934 (1987)**
NEN 1560
NF E25-401



Dados técnicos

d	m	P	s	d	m	P	s
M1	0.8	0.25	2.5	M20	16	2.5	30
M1.2	1	0.25	3	M22	18	2.5	32
M1.4	1.2	0.3	3	M24	19	3	36
M1.6	1.3	0.35	3.2	M27	22	3	41
M1.7 (≠DIN)	1.4	0.35	3.5	M30	24	3.5	46
M2	1.6	0.4	4	M33	26	3.5	50
M2.3 (≠DIN)	1.8	0.4	4.5	M36	29	4	55
M2.5	2	0.45	5	M39	31	4	60
M2.6 (≠DIN)	2	0.45	5	M42	34	4.5	65
M3	2.4	0.5	5.5	M45	36	4.5	70
M3.5	2.8	0.6	6	M48	38	5	75
M4	3.2	0.7	7	M52	42	5	80
M5	4	0.8	8	M56	45	5.5	85
M6	5	1	10	M60	48	5.5	90
M7	5.5	1	11	M64	51	6	95
M8	6.5	1.25	13	M68	54	6	100
M10 (≠DIN)	8	1.5	15	M72X6	58	6	105
M10	8	1.5	17	M76X6	61	6	110
M12	10	1.75	19	M80X6	64	6	115
M14	11	2	22	M90X6	72	6	130
M16	13	2	24	M100X6	80	6	145
M18	15	2.5	27	M110X6	88	6	155

Grupos de produtos

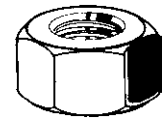
Rosca	Encaixe	Material	Classe	Tratamento sup.		Cor	Código	Página
M	Sextavado	Aço	|8|				01100	3-6
M	Sextavado	Aço	|8|		Embalagem grande		01110	3-6
M	Sextavado	Aço	|8|		rosca esquerda		11040	3-6
M	Sextavado	Aço	|8|	ZNTHP-NC6			01325	3-6
M	Sextavado	Aço	|8|	Zn			01300	3-7
M	Sextavado	Aço	|8|	Zn	Embalagem grande		01310	3-7
M	Sextavado	Aço	|8|	Zn	rosca esquerda		11042	3-7
M	Sextavado	Aço	|8|	Passiv. amar.			01320	3-7
M	Sextavado	Aço	|8|	Passiv. preto			01326	3-7
M	Sextavado	Aço	|8|	FLZNNC-NC6			01336	3-8
M	Sextavado	Aço	|8|	Galv. Q.	ISO métrico		01500	3-8
M	Sextavado	Aço	|8|	Galv. Q.	oversized		01560	3-8
M	Sextavado	Aço	|10|				04120	3-8
M	Sextavado	Aço	|10|	Zn			04121	3-9
M	Sextavado	Aço	|10|	Passiv. amar.			04122	3-9
M	Sextavado	Aço	|10|	Galv. Q.	oversized		04119	3-9
M	Sextavado	Aço	|10|	FLZNNC-NC6			04125	3-9
M	Sextavado	Aço	|12|				04190	3-9
M	Sextavado	Aço de corte	|6|	Zn	torneado		11300	3-10
M	Sextavado	INOX A2	70				51080	3-10
M	Sextavado	INOX A2	70		Embalagem grande		51100	3-10
M	Sextavado	INOX A2	70	COMBIFLON			51082	3-10
M	Sextavado	INOX A2	70	METALFORM			51089	3-11
M	Sextavado	INOX A2	70		rosca esquerda		51162	3-11
M	Sextavado	INOX A2	80				53080	3-11
M	Sextavado	INOX A4	70				55080	3-11
M	Sextavado	INOX A4	70		Embalagem grande		55100	3-12
M	Sextavado	INOX A4	80				53580	3-12
M	Sextavado	INOX A4	80		rosca esquerda		53162	3-12
M	Sextavado	INOX A5	70				55089	3-12
M	Sextavado	Al P40					45080	3-12
M	Sextavado	Al P60		Anod. amar.			45280	3-13

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Cor	Código	Página
M	Sextavado	Kuprodur Cu5	60			45850	3-13
M	Sextavado	Ti	Gr.2			45920	3-13
M	Sextavado	Latão Cu2/Cu3				47000	3-13
M	Sextavado	Latão Cu2/Cu3		Niq.		47050	3-13
M	Sextavado	Plástico PA	PA 6.6		Branco	56200	3-14

01100 Porca sextavada — A01B

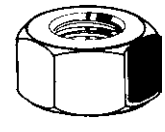
Rosca Métrica
Material Aço
Classe |8|



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M2,5	250	01100.025.001	M20	50	01100.200.001	M52	1	01100.520.001
M3	250	01100.030.001	M22	25	01100.220.001	M56	1	01100.560.001
M4	250	01100.040.001	M24	25	01100.240.001	M60	1	01100.600.001
M5	250	01100.050.001	M27	10	01100.270.001	M64	1	01100.640.001
M6	250	01100.060.001	M30	10	01100.300.001	M68	1	01100.680.001
M7	250	01100.070.001	M33	5	01100.330.001	M72X6,00	1	01100.720.001
M8	250	01100.080.001	M36	5	01100.360.001	M76X6,00	1	01100.760.001
M10	250	01100.100.001	M39	5	01100.390.001	M80X6,00	1	01100.800.001
M12	100	01100.120.001	M42	5	01100.420.001	M90X6,00	1	01100.900.001
M14	100	01100.140.001	M45	4	01100.450.001	M100X6,00	1	01100.982.001
M16	100	01100.160.001	M48	4	01100.480.001	M110X6,00	1	01100.984.001
M18	50	01100.180.001						

01110 Porca sextavada — A01B

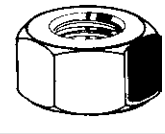
Rosca Métrica
Material Aço
Classe |8|



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	2500	01110.030.001	M10	1000	01110.100.001	M20	150	01110.200.001
M4	2500	01110.040.001	M12	700	01110.120.001	M24	50	01110.240.001
M5	2500	01110.050.001	M14	400	01110.140.001	M27	50	01110.270.001
M6	2000	01110.060.001	M16	300	01110.160.001	M30	50	01110.300.001
M8	2000	01110.080.001	M18	200	01110.180.001	M68	5	01110.680.001

11040 Porca sextavada rosca esquerda — F01A

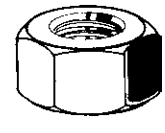
Rosca Métrica
Material Aço
Classe |8|



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	250	11040.040.001	M14	50	11040.140.001	M30	5	11040.300.001
M5	250	11040.050.001	M16	50	11040.160.001	M33	2	11040.330.001
M6	250	11040.060.001	M18	25	11040.180.001	M36	2	11040.360.001
M8	100	11040.080.001	M20	25	11040.200.001	M39	2	11040.390.001
M10	100	11040.100.001	M22	10	11040.220.001	M42	2	11040.420.001
M10 s=15	100	11040.100.150	M24	10	11040.240.001	M48	2	11040.480.001
M12	50	11040.120.001	M27	5	11040.270.001			

01325 Porca sextavada — A95A

Rosca Métrica
Material Aço
Classe |8|
Tratamento sup. Passivação espessa Cr^{3+}

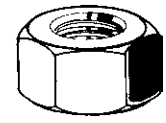


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	250	01325.040.001	M8	250	01325.080.001	M12	100	01325.120.001
M5	250	01325.050.001	M10	250	01325.100.001	M16	100	01325.160.001
M6	250	01325.060.001						

01300 Porca sextavada — A05B

Rosca Métrica
Material Aço
Classe |8|
Tratamento sup. Zincado

RoHS

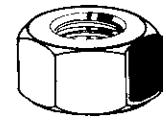


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M2	1000	01300.020.001	M14	100	01300.140.001	M36	5	01300.360.001
M2,5	1000	01300.025.001	M16	100	01300.160.001	M39	5	01300.390.001
M3	250	01300.030.001	M18	50	01300.180.001	M42	5	01300.420.001
M4	250	01300.040.001	M20	50	01300.200.001	M45	4	01300.450.001
M5	250	01300.050.001	M22	25	01300.220.001	M48	4	01300.480.001
M6	250	01300.060.001	M24	25	01300.240.001	M52	1	01300.520.001
M7	250	01300.070.001	M27	10	01300.270.001	M56	1	01300.560.001
M8	250	01300.080.001	M30	10	01300.300.001	M60	1	01300.600.001
M10	250	01300.100.001	M33	5	01300.330.001	M64	1	01300.640.001
M12	100	01300.120.001						

01310 Porca sextavada — A05B

Rosca Métrica
Material Aço
Classe |8|
Tratamento sup. Zincado

RoHS

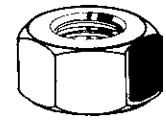


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	2500	01310.030.001	M10	1000	01310.100.001	M20	150	01310.200.001
M4	2500	01310.040.001	M12	700	01310.120.001	M24	50	01310.240.001
M5	2500	01310.050.001	M14	400	01310.140.001	M27	50	01310.270.001
M6	2000	01310.060.001	M16	300	01310.160.001	M30	50	01310.300.001
M8	2000	01310.080.001	M18	200	01310.180.001			

11042 Porca sextavada rosca esquerda — F01A

Rosca Métrica
Material Aço
Classe |8|
Tratamento sup. Zincado

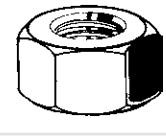
RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	250	11042.040.001	M8	100	11042.080.001	M16	50	11042.160.001
M5	250	11042.050.001	M10	100	11042.100.001	M24	25	11042.240.001
M6	250	11042.060.001	M12	50	11042.120.001			

01320 Porca sextavada — A06A

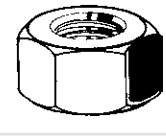
Rosca Métrica
Material Aço
Classe |8|
Tratamento sup. Passivado a amarelo



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	250	01320.030.001	M12	100	01320.120.001	M27	10	01320.270.001
M4	250	01320.040.001	M14	100	01320.140.001	M30	10	01320.300.001
M5	250	01320.050.001	M16	100	01320.160.001	M33	5	01320.330.001
M6	250	01320.060.001	M18	50	01320.180.001	M36	5	01320.360.001
M7	250	01320.070.001	M20	50	01320.200.001	M39	5	01320.390.001
M8	250	01320.080.001	M22	25	01320.220.001	M42	5	01320.420.001
M10	250	01320.100.001	M24	25	01320.240.001			

01326 Porca sextavada — A06A

Rosca Métrica
Material Aço
Classe |8|
Tratamento sup. Passivado a preto



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	250	01326.030.001	M5	250	01326.050.001	M8	250	01326.080.001
M4	250	01326.040.001	M6	250	01326.060.001	M10	250	01326.100.001

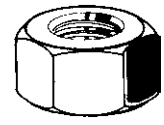
3

01326 Porca sextavada

d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M12	100	01326.120.001	M16	100	01326.160.001	M24	25	01326.240.001
M14	100	01326.140.001	M20	50	01326.200.001			

01336 Porca sextavada A96A

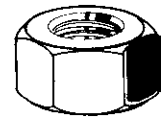
Rosca Métrica
Material Aço
Classe |8|
Tratamento sup. Camada de zinco isento Cr^{6+}- ISO 10683 flZnnc



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	250	01336.040.001	M12	700	01336.120.001	M22	125	01336.220.001
M5	250	01336.050.001	M14	400	01336.140.001	M24	50	01336.240.001
M6	2000	01336.060.001	M16	300	01336.160.001	M27	50	01336.270.001
M8	2000	01336.080.001	M18	200	01336.180.001	M30	50	01336.300.001
M10	1000	01336.100.001	M20	150	01336.200.001	M36	25	01336.360.001

01500 Porca sextavada rosca metrica A08A

Rosca Métrica
Material Aço
Classe |8|
Tratamento sup. Galvanizado a quente

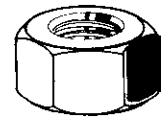


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	100	01500.060.001	M18	50	01500.180.001	M33	5	01500.330.001
M8	100	01500.080.001	M20	50	01500.200.001	M36	5	01500.360.001
M10	100	01500.100.001	M22	50	01500.220.001	M39	3	01500.390.001
M12	100	01500.120.001	M24	50	01500.240.001	M42	3	01500.420.001
M14	100	01500.140.001	M27	10	01500.270.001	M45	4	01500.450.001
M16	50	01500.160.001	M30	10	01500.300.001	M48	4	01500.480.001

- Estas porcas sextavadas podem ser utilizadas com a maioria dos parafusos galvanizados a quente, com rosca ISO-METRIC e com os varões galvanizados a quente com rosca ISO-METRIC.
- As porcas são roscadas depois da galvanização e cumprem com as tolerâncias 6H.
- A não galvanização da rosca não tem qualquer influência negativa na resistência contra á corrosão.

01560 Porca sextavada rosca oversized A08A

Rosca Métrica
Material Aço
Classe |8|
Tratamento sup. Galvanizado a quente

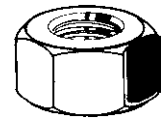


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M8	250	01560.080.001	M22	25	01560.220.001	M42	5	01560.420.001
M10	250	01560.100.001	M24	25	01560.240.001	M45	4	01560.450.001
M12	100	01560.120.001	M27	25	01560.270.001	M48	4	01560.480.001
M14	100	01560.140.001	M30	10	01560.300.001	M52	1	01560.520.001
M16	100	01560.160.001	M33	5	01560.330.001	M56	1	01560.560.001
M18	50	01560.180.001	M36	5	01560.360.001	M60	1	01560.600.001
M20	50	01560.200.001	M39	5	01560.390.001	M64	1	01560.640.001

- Estas porcas sextavadas são utilizadas, entre outros, com parafusos cabeça sextavada rosca OVERSIZED e varões galvanizados a quente OVERSIZED.
- Depois de aplicado o tratamento de superfície, as porcas são oversize de acordo com o ISO 965-5, resultando na fixação perfeita para roscas oversize galvanizadas a quente.
- A não galvanização da rosca não tem qualquer influência negativa na resistência contra á corrosão.

04120 Porca sextavada C01C

Rosca Métrica
Material Aço
Classe |10|



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	250	04120.050.001	M16	100	04120.160.001	M30	25	04120.300.001
M6	250	04120.060.001	M18	50	04120.180.001	M33	5	04120.330.001
M8	250	04120.080.001	M20	50	04120.200.001	M36	5	04120.360.001
M10	250	04120.100.001	M22	25	04120.220.001	M39	5	04120.390.001
M12	100	04120.120.001	M24	25	04120.240.001	M42	5	04120.420.001
M14	100	04120.140.001	M27	25	04120.270.001	M48	5	04120.480.001

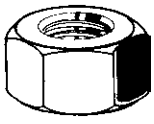
04120 Porca sextavada ←

d	✉	Ref. do artigo
M56	5	04120.560.001

04121 Porca sextavada C01C

Rosca Métrica
Material Aço
Classe |10|
Tratamento sup. Zincado

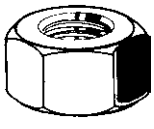
RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	250	04121.030.001	M10	250	04121.100.001	M20	50	04121.200.001
M4	250	04121.040.001	M12	100	04121.120.001	M24	25	04121.240.001
M5	250	04121.050.001	M14	100	04121.140.001	M30	25	04121.300.001
M6	250	04121.060.001	M16	100	04121.160.001	M36	10	04121.360.001
M8	250	04121.080.001						

04122 Porca sextavada C03A

Rosca Métrica
Material Aço
Classe |10|
Tratamento sup. Passivado a amarelo

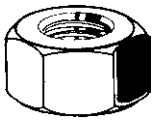


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	250	04122.060.001	M12	100	04122.120.001	M18	50	04122.180.001
M8	250	04122.080.001	M14	100	04122.140.001	M20	20	04122.200.001
M10	250	04122.100.001	M16	100	04122.160.001	M24	25	04122.240.001

04119 Porca sextavada oversized C01A

Rosca Métrica
Material Aço
Classe |10|
Tratamento sup. Galvanizado a quente

RoHS



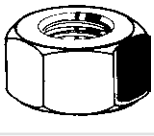
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M10	500	04119.100.001	M20	100	04119.200.001	M30	25	04119.300.001
M12	100	04119.120.001	M24	50	04119.240.001	M36	15	04119.360.001
M16	100	04119.160.001	M27	25	04119.270.001			

- Estas porcas sextavadas são utilizadas, entre outros, com parafusos cabeça sextavada rosca OVERSIZED e varões galvanizados a quente OVERSIZED.
- Depois de aplicado o tratamento de superfície, as porcas são oversize de acordo com o ISO 965-5, resultando na fixação perfeita para roscas oversize galvanizadas a quente.
- A não galvanização da rosca não tem qualquer influência negativa na resistência contra á corrosão.

04125 Porca sextavada C02A

Rosca Métrica
Material Aço
Classe |10|
Tratamento sup. Camada de zinco isento Cr^{6+}- ISO 10683 flZnnc

RoHS

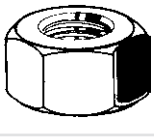


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	250	04125.040.001	M10	250	04125.100.001	M20	50	04125.200.001
M5	250	04125.050.001	M12	100	04125.120.001	M24	25	04125.240.001
M6	250	04125.060.001	M14	100	04125.140.001	M30	25	04125.300.001
M8	250	04125.080.001	M16	100	04125.160.001			

04190 Porca sextavada C01C

Rosca Métrica
Material Aço
Classe |12|

RoHS



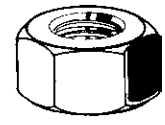
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	250	04190.060.001	M10	250	04190.100.001	M14	100	04190.140.001
M8	250	04190.080.001	M12	100	04190.120.001	M16	100	04190.160.001

04190 Porca sextavada ←

d	✉	Ref. do artigo	d	✉	Ref. do artigo
M20	50	04190.200.001	M30	25	04190.300.001
M24	25	04190.240.001	M36	10	04190.360.001

11300 Porca sextavada torneada F01A

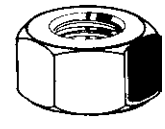
Rosca Métrica
Material Aço de corte
Classe |6|
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M1,6	500	11300.016.001	M2,3	500	11300.023.001	M2,6	500	11300.026.001
M2	500	11300.020.001	M2,5	500	11300.025.001	M3,5	250	11300.035.001

51080 Porca sextavada Q01A

Rosca Métrica
Material Aço inoxidável A2
Classe 70

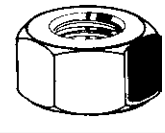


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M1	200	51080.010.001	M7	200	51080.070.001	M27	10	51080.270.001
M1,2	200	51080.012.001	M8	200	51080.080.001	M30	5	51080.300.001
M1,4	200	51080.014.001	M10	200	51080.100.001	M33	5	51080.330.001
M1,6	200	51080.016.001	M12	200	51080.120.001	M36	5	51080.360.001
M2	500	51080.020.001	M14	100	51080.140.001	M39	5	51080.390.001
M2,5	500	51080.025.001	M16	100	51080.160.001	M42	5	51080.420.001
M3	500	51080.030.001	M18	50	51080.180.001	M45	5	51080.450.001
M4	500	51080.040.001	M20	50	51080.200.001	M48	5	51080.480.001
M5	500	51080.050.001	M22	20	51080.220.001	M52*	5	51080.520.001
M6	500	51080.060.001	M24	20	51080.240.001			

- Diâmetros > M24 são no mínimo classe 50.

51100 Porca sextavada Q01A

Rosca Métrica
Material Aço inoxidável A2
Classe 70

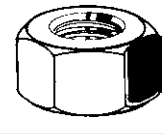


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M1,7*	1000	51100.017.001	M5	2500	51100.050.001	M20	150	51100.200.001
M2,3*	1000	51100.023.001	M6	2000	51100.060.001	M24	50	51100.240.001
M2,6*	1000	51100.026.001	M8	2000	51100.080.001	M27	25	51100.270.001
M3	2500	51100.030.001	M10	1000	51100.100.001	M30	10	51100.300.001
M3,5*	1000	51100.035.001	M12	700	51100.120.001			
M4	2500	51100.040.001	M16	300	51100.160.001			

- Diâmetros > M24 são no mínimo classe 50.

51082 Porca sextavada R09A

Rosca Métrica
Material Aço inoxidável A2
Classe 70
Tratamento sup. COMBIFLON



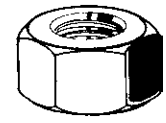
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	250	51082.060.001	M10	100	51082.100.001	M16	50	51082.160.001
M8	100	51082.080.001	M12	100	51082.120.001	M20	25	51082.200.001

- Caracteristicas especiais de Combiflon:
- É um revestimento em filme, cor prata, com efeito reduzido na gripagem.
- O Combiflon elimina os picos de atrito e reduz o seu valor médio.
- Para uma fixação parafuso/porca só um dos produtos (por exemplo a porca) é que necessita do tratamento com Combiflon.
- Reduz a corrosão galvânica.

51089 Porca sextavada — Q01A

Rosca Métrica
Material Aço inoxidável A2
Classe 70
Tratamento sup. METALFORM

RoHS



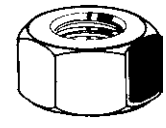
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	250	51089.040.001	M8	100	51089.080.001	M16	50	51089.160.001
M5	250	51089.050.001	M10	100	51089.100.001	M20	25	51089.200.001
M6	250	51089.060.001	M12	100	51089.120.001	M24	10	51089.240.001

- Caracteristicas especiais do METALFORM:
- É um lubrificante seco e invisivel, que praticamente elimina a possibilidade de gripagem dos parafusos em aço inox.
- O coeficiente de atrito é também reduzido para um valor constante.
- Numa combinação parafuso/porca é suficiente que, apenas a porca seja lubrificada com METALFORM para prevenir a gripagem.
- Pode ser facilmente removida, depois da montagem com um solvente, não há objecção na utilização desta aplicação na indústria alimentar.

51162 Porca sextavada rosca esquerda — R09A

Rosca Métrica
Material Aço inoxidável A2
Classe 70

RoHS



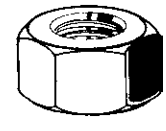
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	100	51162.040.001	M12	25	51162.120.001	M22	5	51162.220.001
M5	100	51162.050.001	M14	25	51162.140.001	M24	5	51162.240.001
M6	100	51162.060.001	M16	10	51162.160.001	M27*	10	51162.270.001
M8	50	51162.080.001	M18	10	51162.180.001	M30	3	51162.300.001
M10	50	51162.100.001	M20	10	51162.200.001			

- Diâmetros > M24 são no mínimo classe 50.

53080 Porca sextavada — R11A

Rosca Métrica
Material Aço inoxidável A2
Classe 80

RoHS

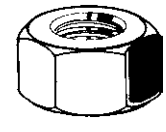


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4*	500	53080.040.001	M8*	100	53080.080.001	M16*	50	53080.160.001
M5*	500	53080.050.001	M10*	100	53080.100.001	M20*	50	53080.200.001
M6*	200	53080.060.001	M12*	100	53080.120.001			

55080 Porca sextavada — Q41A

Rosca Métrica
Material Aço inoxidável A4
Classe 70

RoHS



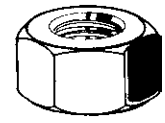
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M1,2*	200	55080.012.001	M6	500	55080.060.001	M24	20	55080.240.001
M1,4*	200	55080.014.001	M7	200	55080.070.001	M27	10	55080.270.001
M1,6	200	55080.016.001	M8	200	55080.080.001	M30	5	55080.300.001
M2	500	55080.020.001	M10	200	55080.100.001	M33	5	55080.330.001
M2,5	500	55080.025.001	M12	200	55080.120.001	M36	5	55080.360.001
M2,6*	1000	55080.026.001	M14	100	55080.140.001	M39	5	55080.390.001
M3	500	55080.030.001	M16	100	55080.160.001	M42	5	55080.420.001
M3,5*	1000	55080.035.001	M18	50	55080.180.001	M45	5	55080.450.001
M4	500	55080.040.001	M20	50	55080.200.001	M48	5	55080.480.001
M5	500	55080.050.001	M22	20	55080.220.001	M52*	5	55080.520.001

- Diâmetros > M24 são no mínimo classe 50.

3

55100 Porca sextavada — Q41A

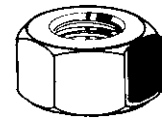
Rosca Métrica
Material Aço inoxidável A4
Classe 70



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	2500	55100.030.001	M6	2000	55100.060.001	M12	700	55100.120.001
M4	2500	55100.040.001	M8	2000	55100.080.001	M16	300	55100.160.001
M5	2500	55100.050.001	M10	1000	55100.100.001			

53580 Porca sextavada — R11A

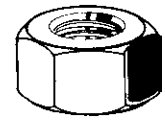
Rosca Métrica
Material Aço inoxidável A4
Classe 80



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	100	53580.060.001	M12	25	53580.120.001	M20	10	53580.200.001
M8	50	53580.080.001	M16	25	53580.160.001	M24	10	53580.240.001
M10	50	53580.100.001						

53162 Porca sextavada rosca esquerda — R11A

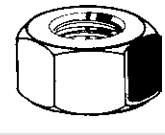
Rosca Métrica
Material Aço inoxidável A4
Classe 80



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5*	100	53162.050.001	M14*	50	53162.140.001	M22*	25	53162.220.001
M6*	100	53162.060.001	M16*	25	53162.160.001	M24*	25	53162.240.001
M8*	100	53162.080.001	M18*	25	53162.180.001	M27*	10	53162.270.001
M10*	100	53162.100.001	M20*	25	53162.200.001	M30*	10	53162.300.001
M12*	50	53162.120.001						

55089 Porca sextavada — Q45A

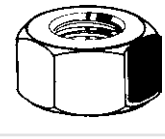
Rosca Métrica
Material Aço inoxidável A5
Classe 70



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5*	500	55089.050.001	M10*	200	55089.100.001	M20*	50	55089.200.001
M6*	500	55089.060.001	M12*	100	55089.120.001	M24*	50	55089.240.001
M8*	200	55089.080.001	M16*	100	55089.160.001			

45080 Porca sextavada — W01A

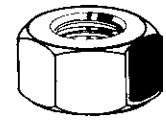
Rosca Métrica
Material Alumínio P40



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	250	45080.030.001	M6	250	45080.060.001	M10	100	45080.100.001
M4	250	45080.040.001	M8	100	45080.080.001	M12	100	45080.120.001
M5	250	45080.050.001						

45280 Porca sextavada — W01A

Rosca Métrica
Material Alumínio P60
Tratamento sup. Anodizado a amarelo



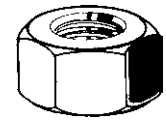
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	250	45280.060.001	M12	100	45280.120.001	M20	25	45280.200.001
M8	100	45280.080.001	M16	50	45280.160.001	M24	10	45280.240.001
M10	100	45280.100.001						

3

45850 Porca sextavada — M11A

Rosca Métrica
Material Kuprodur Cu5
Classe 60

RoHS



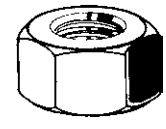
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	100	45850.060.001	M10	50	45850.100.001	M16	10	45850.160.001
M8	50	45850.080.001	M12	25	45850.120.001			

45920 Porca sextavada — W01A

Rosca Métrica
Material Titânio
Classe Gr.2

DIN **≈934 (1987)**
NEN ≈1560
NF ≈E25-401

RoHS



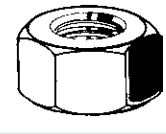
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	25	45920.060.001	M8	25	45920.080.001	M10	10	45920.100.001

- Titânio Grau 2 (nr. de material 3.7035) com uma elevada percentagem de titânio puro, assegura a estabilidade do produto e é indicado em ambientes extremamente corrosivos, onde outros materiais, como por exemplo aço inox, falham.
- Titânio grau 2 é, também, indicado para outras aplicações ligeiras.

47000 Porca sextavada — M01A

Rosca Métrica
Material Latão Cu2/Cu3

RoHS

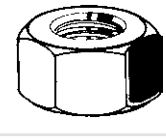


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M2	250	47000.020.001	M7	250	47000.070.001	M18	10	47000.180.001
M2,5	250	47000.025.001	M8	250	47000.080.001	M20	10	47000.200.001
M3	250	47000.030.001	M10	100	47000.100.001	M22	10	47000.220.001
M4	250	47000.040.001	M12	50	47000.120.001	M24	10	47000.240.001
M5	250	47000.050.001	M14	50	47000.140.001	M27	10	47000.270.001
M6	250	47000.060.001	M16	25	47000.160.001	M30	5	47000.300.001

47050 Porca sextavada — M01A

Rosca Métrica
Material Latão Cu2/Cu3
Tratamento sup. Niquelado

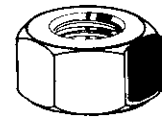
RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M1,4	500	47050.014.001	M3,5	250	47050.035.001	M8	250	47050.080.001
M1,6	500	47050.016.001	M4	250	47050.040.001	M10	100	47050.100.001
M2	250	47050.020.001	M5	250	47050.050.001	M12	50	47050.120.001
M2,5	250	47050.025.001	M6	250	47050.060.001	M16	25	47050.160.001
M3	250	47050.030.001						

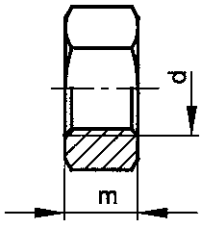
56200	Porca sextavada plástico	W02A

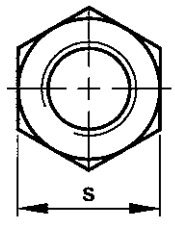
Rosca	Métrica	**DIN**	**≈934 (1987)**
Material	Plástico Poliamida (nylon)	NEN	≈1560
Classe	PA 6.6	NF	≈E25-401
Cor	Branco		



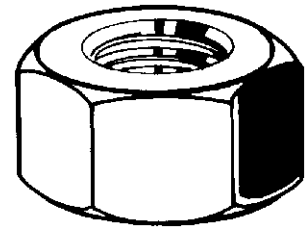
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	200	56200.030.001	M8	50	56200.080.001	M14	25	56200.140.001
M4	200	56200.040.001	M10	50	56200.100.001	M16	25	56200.160.001
M5	200	56200.050.001	M12	25	56200.120.001	M20	10	56200.200.001
M6	100	56200.060.001						

Porca sextavada MF





DIN	**934 (1987)**
NEN	1560
NF	E25-401



Dados técnicos

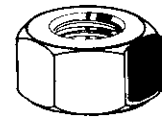
d	m	s	d	m	s
M4 (≠DIN)	3.2	7	M33 (≠DIN)	26	50
M6 (≠DIN)	5	10	M33	26	50
M8	6.5	13	M36 (≠DIN)	29	55
M10	8	17	M36	29	55
M12 (≠DIN)	10	19	M38 (≠DIN)	31	60
M12	10	19	M39 (≠DIN)	31	60
M14	11	22	M39	31	60
M16	13	24	M40 (≠DIN)	31	60
M18 (≠DIN)	15	27	M42 (≠DIN)	34	65
M18	15	27	M42	34	65
M20	16	30	M45 (≠DIN)	36	70
M22 (≠DIN)	18	32	M45	36	70
M22	18	32	M48 (≠DIN)	38	75
M24 (≠DIN)	19	36	M48	38	75
M24	19	36	M52 (≠DIN)	42	80
M26 (≠DIN)	22	41	M52	42	80
M27 (≠DIN)	22	41	M56 (≠DIN)	45	85
M27	22	41	M56	45	85
M28 (≠DIN)	22	41	M60 (≠DIN)	48	90
M30 (≠DIN)	24	46	M60	48	90
M30	24	46	M64	51	95
M32 (≠DIN)	26	50	M68	54	100

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.		Código	Página
MF	Sextavado	Aço	|8|			01120	3-15
MF	Sextavado	Aço	|8|		rosca esquerda	01130	3-15
MF	Sextavado	Aço	|8|	Zn		01330	3-15
MF	Sextavado	Aço	|8|	Passiv. amar.		01340	3-15
MF	Sextavado	Aço	|10|			04180	3-16
MF	Sextavado	Aço de corte	|6|		rosca esquerda	11007	3-16
MF	Sextavado	INOX A2	70			51160	3-16
MF	Sextavado	INOX A4	70			55160	3-16

01120 Porca sextavada MF — A09A

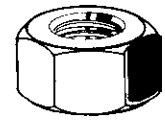
Rosca Métrica fina
Material Aço
Classe |8|



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M4X0,75 (≠DIN)	250	01120.040.075	M22X2,00	25	01120.220.200	M39X3,00	5	01120.390.300
M6X0,75 (≠DIN)	250	01120.060.075	M24X1,50 (≠DIN)	25	01120.240.150	M40X1,50 (≠DIN)	2	01120.400.150
M8X1,00	250	01120.080.100	M24X2,00	25	01120.240.200	M40X2,00 (≠DIN)	2	01120.400.200
M10X1,00	250	01120.100.100	M26X1,50 (≠DIN)	10	01120.260.150	M42X1,50 (≠DIN)	5	01120.420.150
M10X1,25	250	01120.100.125	M27X1,50 (≠DIN)	25	01120.270.150	M42X3,00	5	01120.420.300
M12X1,00 (≠DIN)	100	01120.120.100	M27X2,00	25	01120.270.200	M45X1,50 (≠DIN)	4	01120.450.150
M12X1,25	100	01120.120.125	M28X2,00 (≠DIN)	10	01120.280.200	M45X3,00	4	01120.450.300
M12X1,50	100	01120.120.150	M30X1,00 (≠DIN)	10	01120.300.100	M48X1,50 (≠DIN)	4	01120.480.150
M14X1,50	100	01120.140.150	M30X1,50 (≠DIN)	25	01120.300.150	M48X2,00 (≠DIN)	2	01120.480.200
M16X1,00	50	01120.160.100	M30X2,00	25	01120.300.200	M48X3,00	4	01120.480.300
M16X1,50	100	01120.160.150	M32X2,00 (≠DIN)	5	01120.320.200	M52X1,50 (≠DIN)	1	01120.520.150
M18X1,00 (≠DIN)	25	01120.180.100	M33X1,50 (≠DIN)	10	01120.330.150	M52X3,00	1	01120.520.300
M18X1,50	50	01120.180.150	M33X2,00	10	01120.330.200	M56X2,00 (≠DIN)	1	01120.560.200
M18X2,00	50	01120.180.200	M36X1,50 (≠DIN)	10	01120.360.150	M56X4,00	1	01120.560.400
M20X1,50	50	01120.200.150	M36X2,00 (≠DIN)	10	01120.360.200	M60X2,00 (≠DIN)	1	01120.600.200
M20X2,00	50	01120.200.200	M36X3,00	10	01120.360.300	M60X4,00	1	01120.600.400
M22X1,00 (≠DIN)	10	01120.220.100	M38X1,50 (≠DIN)	2	01120.380.150	M64X4,00	1	01120.640.400
M22X1,50	25	01120.220.150	M39X1,50 (≠DIN)	5	01120.390.150	M68X4,00	1	01120.680.400

01130 Porca sextavada MF rosca esquerda — A09A

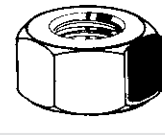
Rosca Métrica fina
Material Aço
Classe |8|



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M12X1,25	50	01130.120.125	M24X1,50 (≠DIN)	10	01130.240.150	M36X1,50 (≠DIN)	2	01130.360.150
M12X1,50	50	01130.120.150	M24X2,00	10	01130.240.200	M36X2,00 (≠DIN)	2	01130.360.200
M14X1,50	50	01130.140.150	M27X1,50 (≠DIN)	10	01130.270.150	M42X1,50 (≠DIN)	1	01130.420.150
M16X1,50	25	01130.160.150	M27X2,00	10	01130.270.200	M45X3,00	1	01130.450.300
M18X1,50	10	01130.180.150	M30X1,50 (≠DIN)	10	01130.300.150	M48X1,50 (≠DIN)	1	01130.480.150
M20X2,00	10	01130.200.200	M30X2,00	10	01130.300.200	M48X3,00	1	01130.480.300
M22X2,00	10	01130.220.200	M33X2,00	5	01130.330.200			

01330 Porca sextavada MF — A09A

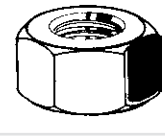
Rosca Métrica fina
Material Aço
Classe |8|
Tratamento sup. Zincado



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M8X1,00	250	01330.080.100	M12X1,25	100	01330.120.125	M18X1,50	50	01330.180.150
M10X1,00	250	01330.100.100	M12X1,50	100	01330.120.150	M20X1,50	50	01330.200.150
M10X1,25	250	01330.100.125	M14X1,50	100	01330.140.150	M24X1,50	50	01330.240.150
M12X1,00	100	01330.120.100	M16X1,50	100	01330.160.150	M39X3,00	1	01330.390.300

01340 Porca sextavada MF — A09A

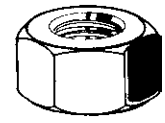
Rosca Métrica fina
Material Aço
Classe |8|
Tratamento sup. Passivado a amarelo



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M6X0,75 (≠DIN)	250	01340.060.075	M18X1,50	50	01340.180.150	M27X1,50 (≠DIN)	25	01340.270.150
M8X1,00	250	01340.080.100	M18X2,00	50	01340.180.200	M27X2,00	25	01340.270.200
M10X1,00	250	01340.100.100	M20X1,50	50	01340.200.150	M30X1,50 (≠DIN)	25	01340.300.150
M10X1,25	250	01340.100.125	M20X2,00	50	01340.200.200	M30X2,00	25	01340.300.200
M12X1,00 (≠DIN)	100	01340.120.100	M22X1,50	25	01340.220.150	M33X1,50 (≠DIN)	10	01340.330.150
M12X1,25 (≠DIN)	100	01340.120.125	M22X2,00	25	01340.220.200	M33X2,00	10	01340.330.200
M12X1,50 (≠DIN)	100	01340.120.150	M24X1,50 (≠DIN)	25	01340.240.150	M36X1,50 (≠DIN)	10	01340.360.150
M14X1,50	100	01340.140.150	M24X2,00	25	01340.240.200	M36X3,00	10	01340.360.300
M16X1,50	100	01340.160.150						

04180 Porca sextavada MF — C02A

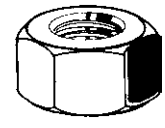
Rosca Métrica fina
Material Aço
Classe |10|



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M8X1,00	250	04180.080.100	M14X1,50	100	04180.140.150	M22X1,50	50	04180.220.150
M10X1,00	250	04180.100.100	M16X1,50	100	04180.160.150	M24X2,00	50	04180.240.200
M10X1,25	250	04180.100.125	M18X1,50	50	04180.180.150	M27X2,00	10	04180.270.200
M12X1,25	100	04180.120.125	M20X1,50	50	04180.200.150	M30X2,00	5	04180.300.200
M12X1,50	100	04180.120.150						

11007 Porca sextavada MF torneada rosca esquerda — F01B

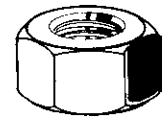
Rosca Métrica fina
Material Aço de corte
Classe |6|



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M10X1,00	250	11007.100.100	M20X2,00	50	11007.200.200	M33X2,00	5	11007.330.200
M12X1,25	100	11007.120.125	M24X1,50 (≠DIN)	25	11007.240.150	M36X1,50 (≠DIN)	5	11007.360.150
M12X1,50	100	11007.120.150	M24X2,00	25	11007.240.200	M45X3,00	4	11007.450.300
M14X1,50	100	11007.140.150	M27X2,00	25	11007.270.200	M48X1,50 (≠DIN)	4	11007.480.150
M16X1,50	100	11007.160.150	M30X1,50 (≠DIN)	25	11007.300.150			
M18X1,50	50	11007.180.150	M30X2,00	25	11007.300.200			

51160 Porca sextavada MF — R09A

Rosca Métrica fina
Material Aço inoxidável A2
Classe 70

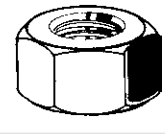


d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M8X1,00	100	51160.080.100	M16X1,50	50	51160.160.150	M27X1,50*	25	51160.270.150
M10X1,00	100	51160.100.100	M18X1,50	25	51160.180.150	M27X2,00*	25	51160.270.200
M10X1,25	100	51160.100.125	M20X1,50	25	51160.200.150	M30X1,50*	25	51160.300.150
M12X1,00	50	51160.120.100	M20X2,00*	50	51160.200.200	M30X2,00*	25	51160.300.200
M12X1,25	100	51160.120.125	M22X1,50	10	51160.220.150	M36X1,50*	10	51160.360.150
M12X1,50	100	51160.120.150	M24X1,50 (≠DIN)	10	51160.240.150	M36X3,00*	10	51160.360.300
M14X1,50	50	51160.140.150	M24X2,00	10	51160.240.200			

- Diâmetros > M24 são no mínimo classe 50.

55160 Porca sextavada MF — R49A

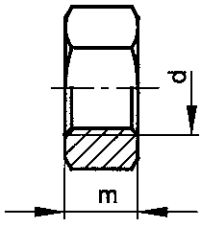
Rosca Métrica fina
Material Aço inoxidável A4
Classe 70

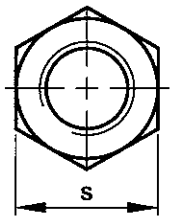


d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M8X1,00	100	55160.080.100	M16X1,50	50	55160.160.150	M27X1,50*	25	55160.270.150
M10X1,00	100	55160.100.100	M18X1,50	25	55160.180.150	M27X2,00*	25	55160.270.200
M10X1,25	100	55160.100.125	M20X1,50	25	55160.200.150	M30X1,50 (≠DIN)*	25	55160.300.150
M12X1,25	100	55160.120.125	M22X1,50	10	55160.220.150	M30X2,00*	25	55160.300.200
M12X1,50	100	55160.120.150	M24X1,50 (≠DIN)	10	55160.240.150			
M14X1,50	50	55160.140.150	M24X2,00	10	55160.240.200			

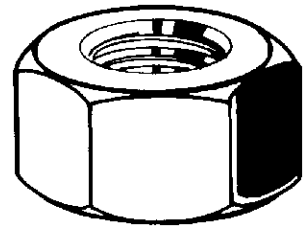
- Diâmetros > M24 são no mínimo classe 50.

Porca sextavada ISO





ISO **4032**



Dados técnicos

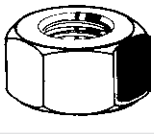
d	m (max.)	P	s	d	m (max.)	P	s
M2	1.6	0.4	4	M16	14.8	2	24
M2.5	2	0.45	5	M18	15.8	2.5	27
M3	2.4	0.5	5.5	M20	18	2.5	30
M4	3.2	0.7	7	M22	19.4	2.5	34
M5	4.7	0.8	8	M24	21.5	3	36
M6	5.2	1	10	M27	23.8	3	41
M8	6.8	1.25	13	M30	25.6	3.5	46
M10	8.4	1.5	16	M33	28.7	3.5	50
M12	10.8	1.75	18	M36	31	4	55
M14	12.8	2	21	M39	34	4	60

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.		Código	Página
M	Sextavado	Aço	8			01104	3-17
M	Sextavado	Aço	8	Zn		01301	3-17
M	Sextavado	Aço	8	Passiv. amar.		01321	3-18
M	Sextavado	Aço	8	FLZNNC-NC6		01337	3-18
M	Sextavado	Aço	8	Galv. Q.	ISO métrico	01510	3-18
M	Sextavado	Aço	10			04124	3-18
M	Sextavado	Aço	10	Zn		04127	3-19
M	Sextavado	Aço	10	FLZNNC-NC6		04130	3-19
M	Sextavado	Aço	5-2		equipamentos sobre pressão	08781	3-19
M	Sextavado	INOX A2	70			51081	3-19
M	Sextavado	INOX A2	80			53581	3-19
M	Sextavado	INOX A4	70			55081	3-20

01104 Porca sextavada ISO — A01B

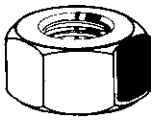
Rosca Métrica
Material Aço
Classe 8



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	250	01104.030.001	M12	100	01104.120.001	M30	10	01104.300.001
M4	250	01104.040.001	M14	100	01104.140.001	M33	5	01104.330.001
M5	250	01104.050.001	M16	100	01104.160.001	M36	5	01104.360.001
M6	250	01104.060.001	M20	50	01104.200.001	M39	5	01104.390.001
M8	250	01104.080.001	M24	25	01104.240.001			
M10	250	01104.100.001	M27	10	01104.270.001			

01301 Porca sextavada ISO — A05B

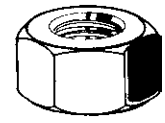
Rosca Métrica
Material Aço
Classe 8
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M2	1000	01301.020.001	M10	250	01301.100.001	M24	25	01301.240.001
M2,5	1000	01301.025.001	M12	100	01301.120.001	M27	10	01301.270.001
M3	250	01301.030.001	M14	100	01301.140.001	M30	10	01301.300.001
M4	250	01301.040.001	M16	100	01301.160.001	M33	5	01301.330.001
M5	250	01301.050.001	M18	50	01301.180.001	M36	5	01301.360.001
M6	250	01301.060.001	M20	50	01301.200.001	M 39	5	01301.390.001
M8	250	01301.080.001	M22	25	01301.220.001			

01321 Porca sextavada ISO — A06A

Rosca Métrica
Material Aço
Classe 8
Tratamento sup. Passivado a amarelo

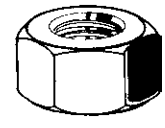


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	250	01321.030.001	M12	100	01321.120.001	M27	10	01321.270.001
M4	250	01321.040.001	M14	100	01321.140.001	M30	10	01321.300.001
M5	250	01321.050.001	M16	100	01321.160.001	M33	5	01321.330.001
M6	250	01321.060.001	M18	50	01321.180.001	M36	5	01321.360.001
M8	250	01321.080.001	M20	50	01321.200.001			
M10	250	01321.100.001	M24	25	01321.240.001			

01337 Porca sextavada ISO — A96A

Rosca Métrica
Material Aço
Classe 8
Tratamento sup. Camada de zinco isento Cr^{6+}- ISO 10683 flZnnc

RoHS

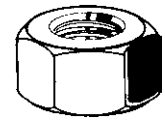


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	250	01337.030.001	M12	100	01337.120.001	M30	10	01337.300.001
M4	250	01337.040.001	M14	100	01337.140.001	M33	5	01337.330.001
M5	250	01337.050.001	M16	100	01337.160.001	M36	5	01337.360.001
M6	250	01337.060.001	M20	50	01337.200.001	M39	5	01337.390.001
M8	250	01337.080.001	M24	25	01337.240.001			
M10	250	01337.100.001	M27	10	01337.270.001			

01510 Porca sextavada rosca metrica — A05B

Rosca Métrica
Material Aço
Classe 8
Tratamento sup. Galvanizado a quente

RoHS



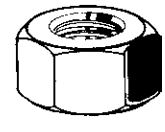
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	250	01510.060.001	M16	100	01510.160.001	M27	10	01510.270.001
M8	250	01510.080.001	M18	50	01510.180.001	M30	10	01510.300.001
M10	250	01510.100.001	M20	50	01510.200.001	M33	5	01510.330.001
M12	100	01510.120.001	M22	25	01510.220.001	M36	5	01510.360.001
M14	100	01510.140.001	M24	25	01510.240.001			

- Estas porcas sextavadas podem ser utilizadas com a maioria dos parafusos galvanizados a quente, com rosca ISO-METRIC e com os varões galvanizados a quente com rosca ISO-METRIC.
- As porcas são roscadas depois da galvanização e cumprem com as tolerâncias 6H.
- A não galvanização da rosca não tem qualquer influência negativa na resistência contra á corrosão.

04124 Porca sextavada ISO — A05B

Rosca Métrica
Material Aço
Classe 10

RoHS

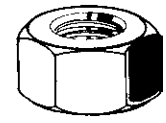


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	250	04124.050.001	M16	100	04124.160.001	M30	10	04124.300.001
M6	250	04124.060.001	M18	50	04124.180.001	M33	5	04124.330.001
M8	250	04124.080.001	M20	50	04124.200.001	M36	5	04124.360.001
M10	250	04124.100.001	M22	50	04124.220.001	M39	5	04124.390.001
M12	100	04124.120.001	M24	25	04124.240.001			
M14	100	04124.140.001	M27	10	04124.270.001			

04127 Porca sextavada ISO — A05B

Rosca Métrica
Material Aço
Classe 10
Tratamento sup. Zincado

RoHS

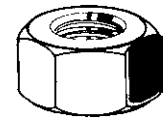


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	250	04127.030.001	M12	100	04127.120.001	M24	25	04127.240.001
M4	250	04127.040.001	M14	100	04127.140.001	M27	10	04127.270.001
M5	250	04127.050.001	M16	100	04127.160.001	M30	10	04127.300.001
M6	250	04127.060.001	M18	50	04127.180.001	M33	5	04127.330.001
M8	250	04127.080.001	M20	50	04127.200.001	M36	5	04127.360.001
M10	250	04127.100.001	M22	50	04127.220.001	M39	5	04127.390.001

04130 Porca sextavada ISO — C02A

Rosca Métrica
Material Aço
Classe 10
Tratamento sup. Camada de zinco isento Cr^{6+}- ISO 10683 flZnnc

RoHS

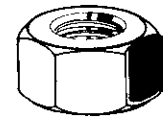


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	250	04130.050.001	M16	100	04130.160.001	M30	10	04130.300.001
M6	250	04130.060.001	M18	100	04130.180.001	M33	5	04130.330.001
M8	250	04130.080.001	M20	100	04130.200.001	M36	5	04130.360.001
M10	250	04130.100.001	M22	50	04130.220.001	M39	5	04130.390.001
M12	250	04130.120.001	M24	25	04130.240.001			
M14	250	04130.140.001	M27	10	04130.270.001			

08781 Porca sextavada para equipamentos sob pressão — E11A

Rosca Métrica
Material Aço
Classe 5-2

RoHS



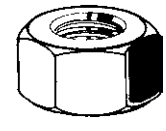
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M8	250	08781.080.001	M20	100	08781.200.001	M30	25	08781.300.001
M10	250	08781.100.001	M24	50	08781.240.001	M33	5	08781.330.001
M12	100	08781.120.001	M27	50	08781.270.001	M36	5	08781.360.001
M16	100	08781.160.001						

- Caracteristicas especiais dos parafusos cabeça sextavada para equipamentos de pressão:
- São especificos para equipamentos de pressão, aparelhos a vapor, juntas e equipamentos de temperaturas de –10°C até +300°C, pressões max. 40 bar.
- Cumpre os requisitos de AD-Merkblatt W7, TRD 106 de TÜV (Technischer Überwachungsverein) e DIN 267-13.
- De acordo com TÜV-Merkblatt Werkstoffe 1253, o fabricante foi certificado para fornecimento de parafusos sem certificado 3.1, a marca e a designação da classe são suficientes.
- Esta certificação também é aceite pela ”Lloyd’s Register Energy”.

51081 Porca sextavada ISO — R09A

Rosca Métrica
Material Aço inoxidável A2
Classe 70

RoHS

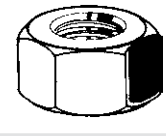


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5*	1000	51081.050.001	M12*	200	51081.120.001	M18*	50	51081.180.001
M6	1000	51081.060.001	M14*	100	51081.140.001	M20	50	51081.200.001
M8	500	51081.080.001	M16*	100	51081.160.001	M22*	25	51081.220.001
M10	200	51081.100.001						

53581 Porca sextavada ISO — R11A

Rosca Métrica
Material Aço inoxidável A2
Classe 80

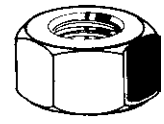
RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6*	1000	53581.060.001	M12*	200	53581.120.001	M20*	50	53581.200.001
M8*	500	53581.080.001	M16*	100	53581.160.001	M24*	25	53581.240.001
M10*	200	53581.100.001						

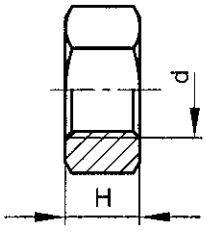
55081 **Porca sextavada ISO** **R49A**

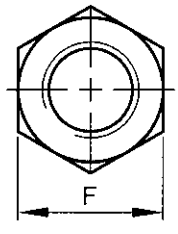
Rosca Métrica
Material Aço inoxidável A4
Classe 70



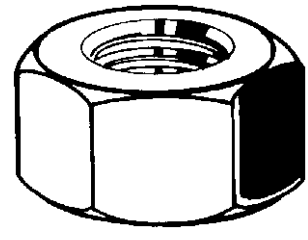
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6*	1000	55081.060.001	M12*	200	55081.120.001	M20*	50	55081.200.001
M8*	500	55081.080.001	M14*	100	55081.140.001	M24*	25	55081.240.001
M10*	200	55081.100.001	M16	100	55081.160.001			

Porca sextavada UNC





ASME ≈B18.2.2
BS ≈1768



Dados técnicos

d	F	Fios por polegada	H
1/4	7/16	20	7/32
5/16	1/2	18	17/64
3/8	9/16	16	21/64
7/16	11/16	14	3/8
1/2	3/4	13	7/16
9/16	7/8	12	31/64
5/8	15/16	11	35/64

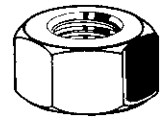
d	F	Fios por polegada	H
3/4	1.1/8	10	41/64
7/8	1.5/16	9	3/4
1 Inch	1.1/2	8	55/64
1.1/8	1.11/16	7	31/32
1.1/4	1.7/8	7	1 1/16
1.1/2	2.1/4	6	1 9/32

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
UNC	Sextavado	Aço	Grade 2		U08100	3-20
UNC	Sextavado	Aço	Grade 2	Zn	U08110	3-21
UNC	Sextavado	Aço	Grade 5		U01100	3-21
UNC	Sextavado	Aço	Grade 5	Zn	U01300	3-21
UNC	Sextavado	Aço	Grade 8		U04120	3-21
UNC	Sextavado	Aço	Grade 8	Passiv. amar.	U04122	3-21
UNC	Sextavado	INOX A2 (AISI304/18-8)	F594		U51080	3-22
UNC	Sextavado	INOX A4 (AISI316/18-10)	F594		U55080	3-22

U08100 **Porca sextavada UNC** **X01A**

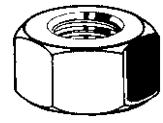
Rosca Unified National Coarse
Material Aço
Classe Grade 2



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-20*	100	U08100.025.0001	9/16-12*	25	U08100.056.0001	1.-8*	5	U08100.100.0001
5/16-18*	100	U08100.031.0001	5/8-11*	25	U08100.062.0001	1.1/8-7*	5	U08100.112.0001
3/8-16*	100	U08100.037.0001	3/4-10*	20	U08100.075.0001	1.1/4-7*	5	U08100.125.0001
7/16-14*	50	U08100.043.0001	7/8-9*	10	U08100.087.0001	1.1/2-6*	5	U08100.150.0001
1/2-13*	50	U08100.050.0001						

U08110 Porca sextavada UNC — X01A

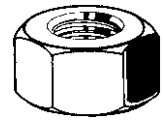
Rosca Unified National Coarse
Material Aço
Classe Grade 2
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-20*	100	U08110.025.0001	9/16-12*	25	U08110.056.0001	1.-8*	5	U08110.100.0001
5/16-18*	100	U08110.031.0001	5/8-11*	25	U08110.062.0001	1.1/8-7*	5	U08110.112.0001
3/8-16*	100	U08110.037.0001	3/4-10*	20	U08110.075.0001	1.1/4-7*	5	U08110.125.0001
7/16-14*	50	U08110.043.0001	7/8-9*	10	U08110.087.0001	1.1/2-6*	5	U08110.150.0001
1/2-13*	50	U08110.050.0001						

U01100 Porca sextavada UNC — X01A

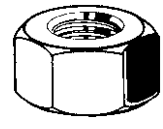
Rosca Unified National Coarse
Material Aço
Classe Grade 5



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-20*	100	U01100.025.0001	9/16-12*	25	U01100.056.0001	1.-8*	5	U01100.100.0001
5/16-18*	100	U01100.031.0001	5/8-11*	25	U01100.062.0001	1.1/8-7*	5	U01100.112.0001
3/8-16*	100	U01100.037.0001	3/4-10*	20	U01100.075.0001	1.1/4-7*	5	U01100.125.0001
7/16-14*	50	U01100.043.0001	7/8-9*	10	U01100.087.0001	1.1/2-6*	5	U01100.150.0001
1/2-13*	50	U01100.050.0001						

U01300 Porca sextavada UNC — X01A

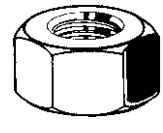
Rosca Unified National Coarse
Material Aço
Classe Grade 5
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-20*	100	U01300.025.0001	9/16-12*	25	U01300.056.0001	1.-8*	5	U01300.100.0001
5/16-18*	100	U01300.031.0001	5/8-11*	25	U01300.062.0001	1.1/8-7*	5	U01300.112.0001
3/8-16*	100	U01300.037.0001	3/4-10*	20	U01300.075.0001	1.1/4-7*	5	U01300.125.0001
7/16-14*	50	U01300.043.0001	7/8-9*	10	U01300.087.0001	1.1/2-6*	5	U01300.150.0001
1/2-13*	50	U01300.050.0001						

U04120 Porca sextavada UNC — X01A

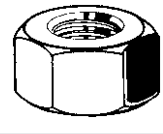
Rosca Unified National Coarse
Material Aço
Classe Grade 8



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-20*	100	U04120.025.0001	9/16-12*	25	U04120.056.0001	1.-8*	5	U04120.100.0001
5/16-18*	100	U04120.031.0001	5/8-11*	25	U04120.062.0001	1.1/8-7*	5	U04120.112.0001
3/8-16*	100	U04120.037.0001	3/4-10*	20	U04120.075.0001	1.1/4-7*	5	U04120.125.0001
7/16-14*	50	U04120.043.0001	7/8-9*	10	U04120.087.0001	1.1/2-6*	5	U04120.150.0001
1/2-13*	50	U04120.050.0001						

U04122 Porca sextavada UNC — X01A

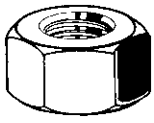
Rosca Unified National Coarse
Material Aço
Classe Grade 8
Tratamento sup. Passivado a amarelo



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-20*	100	U04122.025.0001	9/16-12*	25	U04122.056.0001	1.-8*	5	U04122.100.0001
5/16-18*	100	U04122.031.0001	5/8-11*	25	U04122.062.0001	1.1/8-7*	5	U04122.112.0001
3/8-16*	100	U04122.037.0001	3/4-10*	20	U04122.075.0001	1.1/4-7*	5	U04122.125.0001
7/16-14*	50	U04122.043.0001	7/8-9*	10	U04122.087.0001	1.1/2-6*	5	U04122.150.0001
1/2-13*	50	U04122.050.0001						

U51080 Porca sextavada UNC — X15A

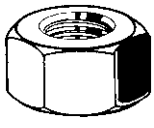
Rosca Unified National Coarse
Material Aço inoxidável A2 (AISI 304/18-8)
Classe F594



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-20*	50	U51080.025.0001	9/16-12*	25	U51080.056.0001	1.-8*	5	U51080.100.0001
5/16-18*	50	U51080.031.0001	5/8-11*	25	U51080.062.0001	1.1/8-7*	5	U51080.112.0001
3/8-16*	50	U51080.037.0001	3/4-10*	20	U51080.075.0001	1.1/4-7*	5	U51080.125.0001
7/16-14*	25	U51080.043.0001	7/8-9*	5	U51080.087.0001	1.1/2-6*	5	U51080.150.0001
1/2-13*	25	U51080.050.0001						

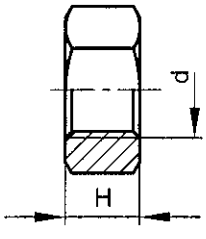
U55080 Porca sextavada UNC — X15A

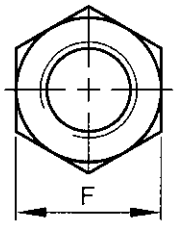
Rosca Unified National Coarse
Material Aço inoxidável A4 (AISI 316/18-10)
Classe F594



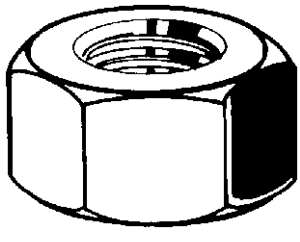
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-20*	50	U55080.025.0001	9/16-12*	25	U55080.056.0001	1.-8*	5	U55080.100.0001
5/16-18*	50	U55080.031.0001	5/8-11*	25	U55080.062.0001	1.1/8-7*	5	U55080.112.0001
3/8-16*	50	U55080.037.0001	3/4-10*	20	U55080.075.0001	1.1/4-7*	5	U55080.125.0001
7/16-14*	25	U55080.043.0001	7/8-9*	5	U55080.087.0001	1.1/2-6*	5	U55080.150.0001
1/2-13*	25	U55080.050.0001						

Porca sextavada UNC





ASME ≈B18.2.2

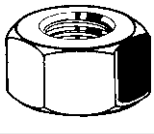


Dados técnicos

d	F	Fios por polegada	H	d	F	Fios por polegada	H
No.6	5/16	32	2.9	No.10	3/8	24	3.3
No.8	11/32	32	3.3	No.12	7/16	24	4.1

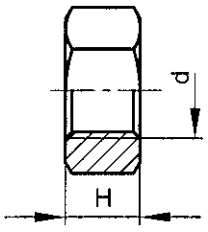
11740 Porca sextavada UNC — X09A

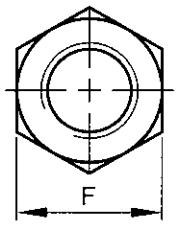
Rosca Unified National Coarse
Material Aço de corte
Classe 6
Tratamento sup. Zincado



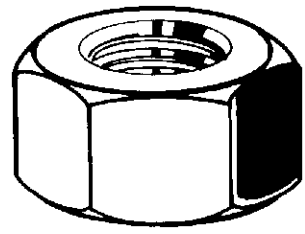
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
NO.6 = 3,51MM	250	11740.035.001	NO.10 = 4,83MM	250	11740.048.001	NO.12 = 5,49MM	250	11740.054.001
NO.8 = 4,17MM	250	11740.041.001						

Porca sextavada UNF





ASME ≈B18.2.2
BS ≈1768



Dados técnicos

d	F	Fios por polegada	H
1/4	7/16	28	7/32
5/16	1/2	24	17/64
3/8	9/16	24	21/64
7/16	11/16	20	3/8
1/2	3/4	20	7/16
9/16	7/8	18	31/64
5/8	15/16	18	35/64

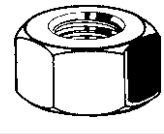
d	F	Fios por polegada	H
3/4	1.1/8	16	41/64
7/8	1.5/16	14	3/4
1 Inch-14G	1.1/2	14	55/64
1.1/8	1.11/16	12	31/32
1.1/4	1.7/8	12	1 1/16
1.1/2	2.1/4	12	1 9/32

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
UNF	Sextavado	Aço	Grade 2		U08160	3-23
UNF	Sextavado	Aço	Grade 2	Zn	U08161	3-23
UNF	Sextavado	Aço	Grade 5		U01120	3-24
UNF	Sextavado	Aço	Grade 5	Zn	U01330	3-24
UNF	Sextavado	Aço	Grade 8		U04180	3-24
UNF	Sextavado	Aço	Grade 8	Zn	U04162	3-24
UNF	Sextavado	Aço	Grade 8	Passiv. amar.	U04181	3-24
UNF	Sextavado	INOX A2 (AISI304/18-8)	F594		U51160	3-25

U08160 Porca sextavada UNF — X01A

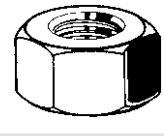
Rosca Unified National Fine
Material Aço
Classe Grade 2



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-28*	100	U08160.025.0002	9/16-18*	25	U08160.056.0002	1.-14*	5	U08160.100.0003
5/16-24*	100	U08160.031.0002	5/8-18*	25	U08160.062.0002	1.1/8-12*	5	U08160.112.0002
3/8-24*	100	U08160.037.0002	3/4-16*	20	U08160.075.0002	1.1/4-12*	5	U08160.125.0002
7/16-20*	50	U08160.043.0002	7/8-14*	10	U08160.087.0002	1.1/2-12*	5	U08160.150.0002
1/2-20*	50	U08160.050.0002						

U08161 Porca sextavada UNF — X01A

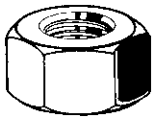
Rosca Unified National Fine
Material Aço
Classe Grade 2
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-28*	100	U08161.025.0002	9/16-18*	25	U08161.056.0002	1.-14*	5	U08161.100.0003
5/16-24*	100	U08161.031.0002	5/8-18*	25	U08161.062.0002	1.1/8-12*	5	U08161.112.0002
3/8-24*	100	U08161.037.0002	3/4-16*	20	U08161.075.0002	1.1/4-12*	5	U08161.125.0002
7/16-20*	50	U08161.043.0002	7/8-14*	10	U08161.087.0002	1.1/2-12*	5	U08161.150.0002
1/2-20*	50	U08161.050.0002						

U01120 Porca sextavada UNF — X01A

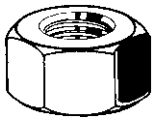
Rosca Unified National Fine
Material Aço
Classe Grade 5



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-28*	100	U01120.025.0002	9/16-18*	25	U01120.056.0002	1.-14*	5	U01120.100.0003
5/16-24*	100	U01120.031.0002	5/8-18*	25	U01120.062.0002	1.1/8-12*	5	U01120.112.0002
3/8-24*	100	U01120.037.0002	3/4-16*	20	U01120.075.0002	1.1/4-12*	5	U01120.125.0002
7/16-20*	50	U01120.043.0002	7/8-14*	10	U01120.087.0002	1.1/2-12*	5	U01120.150.0002
1/2-20*	50	U01120.050.0002						

U01330 Porca sextavada UNF — X01A

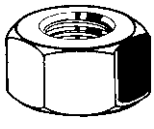
Rosca Unified National Fine
Material Aço
Classe Grade 5
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-28*	100	U01330.025.0002	9/16-18*	25	U01330.056.0002	1.-14*	5	U01330.100.0003
5/16-24*	100	U01330.031.0002	5/8-18*	25	U01330.062.0002	1.1/8-12*	5	U01330.112.0002
3/8-24*	100	U01330.037.0002	3/4-16*	20	U01330.075.0002	1.1/4-12*	5	U01330.125.0002
7/16-20*	50	U01330.043.0002	7/8-14*	10	U01330.087.0002	1.1/2-12*	5	U01330.150.0002
1/2-20*	50	U01330.050.0002						

U04180 Porca sextavada UNF — X01A

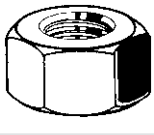
Rosca Unified National Fine
Material Aço
Classe Grade 8



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-28*	100	U04180.025.0002	9/16-18*	25	U04180.056.0002	1.-14*	5	U04180.100.0003
5/16-24*	100	U04180.031.0002	5/8-18*	25	U04180.062.0002	1.1/8-12*	5	U04180.112.0002
3/8-24*	100	U04180.037.0002	3/4-16*	20	U04180.075.0002	1.1/4-12*	5	U04180.125.0002
7/16-20*	50	U04180.043.0002	7/8-14*	10	U04180.087.0002	1.1/2-12*	5	U04180.150.0002
1/2-20*	50	U04180.050.0002						

U04162 Porca sextavada UNF — X01A

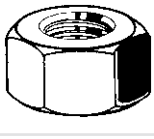
Rosca Unified National Fine
Material Aço
Classe Grade 8
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-28*	100	U04162.025.0002	9/16-18*	25	U04162.056.0002	1.-14*	5	U04162.101.0002
5/16-24*	100	U04162.031.0002	5/8-18*	25	U04162.062.0002	1.1/8-12*	5	U04162.112.0002
3/8-24*	100	U04162.037.0002	3/4-16*	20	U04162.075.0002	1.1/4-12*	5	U04162.125.0002
7/16-20*	50	U04162.043.0002	7/8-14*	10	U04162.087.0002	1.1/2-12*	5	U04162.150.0002
1/2-20*	50	U04162.050.0002						

U04181 Porca sextavada UNF — X01A

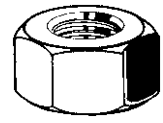
Rosca Unified National Fine
Material Aço
Classe Grade 8
Tratamento sup. Passivado a amarelo



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-28*	100	U04181.025.0002	9/16-18*	25	U04181.056.0002	1.-14*	5	U04181.100.0003
5/16-24*	100	U04181.031.0002	5/8-18*	25	U04181.062.0002	1.1/8-12*	5	U04181.112.0002
3/8-24*	100	U04181.037.0002	3/4-16*	20	U04181.075.0002	1.1/4-12*	5	U04181.125.0002
7/16-20*	50	U04181.043.0002	7/8-14*	10	U04181.087.0002	1.1/2-12*	5	U04181.150.0002
1/2-20*	50	U04181.050.0002						

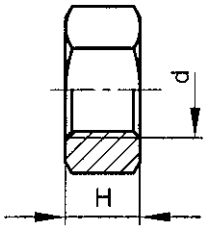
U51160 **Porca sextavada UNF** **X15A**

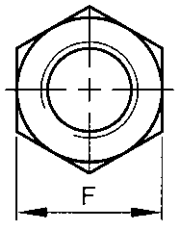
Rosca Unified National Fine
Material Aço inoxidável A2 (AISI 304/18-8)
Classe F594



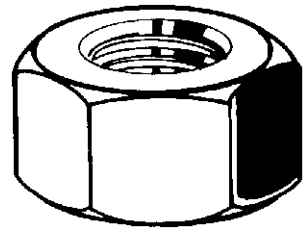
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-28	50	U51160.025.0002	9/16-18*	25	U51160.056.0002	1.-14*	5	U51160.101.0002
5/16-24*	50	U51160.031.0002	5/8-18*	25	U51160.062.0002	1.1/8-12*	5	U51160.112.0002
3/8-24*	50	U51160.037.0002	3/4-16*	20	U51160.075.0002	1.1/4-12*	5	U51160.125.0002
7/16-20*	25	U51160.043.0002	7/8-14*	5	U51160.087.0002	1.1/2-12*	5	U51160.150.0002
1/2-20*	25	U51160.050.0002						

Porca sextavada torneada UNF





ASME **≈B18.2.2**



Dados técnicos

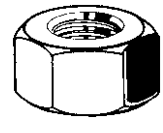
d	F	Fios por polegada	H (mm)	d	F	Fios por polegada	H (mm)
No.4	1/4	48	2.5	No.8	11/32	36	3.3
No.5	5/16	44	2.9	No.10	3/8	32	3.3
No.6	5/16	40	2.9				

Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.	Código	Página
UNF	Sextavado	Aço de corte	Zn	11750	3-25
UNF	Sextavado	Latão Cu3		47170	3-25

11750 **Porca sextavada torneada UNF** **X09A**

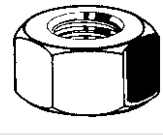
Rosca Unified National Fine
Material Aço de corte
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
NO.4 = 2,85MM	250	11750.028.001	NO.8 = 4,17MM	250	11750.041.001	NO.10 = 4,83MM	250	11750.048.001
NO.5 = 3,18MM	250	11750.031.001						

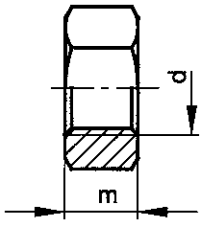
47170 **Porca sextavada torneada UNF** **X09A**

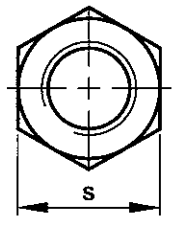
Rosca Unified National Fine
Material Latão Cu3



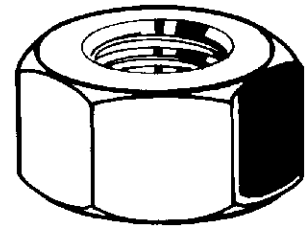
d	✉	Ref. do artigo	d	✉	Ref. do artigo
NO.6-40 = 3,52MM	250	47170.035.001	NO.10-32 = 4,83MM	100	47170.048.001

Porca sextavada BSW





DIN **≈934 (1954)**
NEN ≈2338 (1960)



3

Dados técnicos

d	Fios por polegada	m	s	d	Fios por polegada	m	s
1/8	40	2.4	5.5	3/4	10	16	32
5/32	32	3.2	7	7/8	9	18	36
3/16	24	4.8	10	1 Inch	8	20	41
1/4	20	5.5	11	1.1/8	7	22	46
5/16	18	6.5	14	1.1/4	7	25	50
5/16 (≠DIN)	18	6.5	13	1.3/8	6	28	55
3/8	16	8	17	1.1/2	6	30	60
7/16	14	9.5	19	1.5/8	5	32	65
1/2	12	11	22	1.3/4	5	35	70
9/16	12	11	22	2 Inch	4.5	40	80
5/8	11	13	27	2.1/4	4	45	85

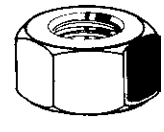
- Rosca Whitworth (BSW/BSF) não é recomendada internacionalmente.
- É aconselhado o uso de rosca métrica(M/MF) ou rosca unificada (UNC/UNF).
- Dependente da disponibilidade pode haver desvio das dimensões.

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
BSW	Sextavado	Aço	8		03460	3-26
BSW	Sextavado	Aço	8	Zn	03600	3-26
BSW	Sextavado	Aço de corte	6		11200	3-27
BSW	Sextavado	Latão Cu3			47100	3-27

03460 **Porca sextavada BSW** **X03A**

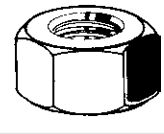
Rosca British Standard Whitworth
Material Aço
Classe 8



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
3/16	250	03460.047.001	7/16	100	03460.111.001	3/4	50	03460.191.001
1/4	250	03460.063.001	1/2	100	03460.127.001	7/8	25	03460.222.001
5/16	250	03460.079.001	5/8	100	03460.158.001	1 Inch	25	03460.254.001
3/8	250	03460.096.001						

03600 **Porca sextavada BSW** **X03A**

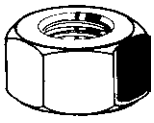
Rosca British Standard Whitworth
Material Aço
Classe 8
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
3/16	250	03600.047.001	3/8	250	03600.096.001	3/4	50	03600.191.001
1/4	250	03600.063.001	1/2	100	03600.127.001	7/8	25	03600.222.001
5/16	250	03600.079.001	5/8	100	03600.158.001	1 Inch	25	03600.254.001

11200 **Porca sextavada BSW** **X08A**

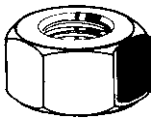
Rosca British Standard Whitworth
Material Aço de corte
Classe 6



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/8	250	11200.031.001	1/2	100	11200.127.001	1.1/4	10	11200.317.001
5/32	250	11200.039.001	9/16	100	11200.142.001	1.3/8	10	11200.349.001
3/16	250	11200.047.001	5/8	50	11200.158.001	1.1/2	5	11200.381.001
1/4	250	11200.063.001	3/4	25	11200.191.001	1.5/8	5	11200.412.001
5/16 (≠DIN)	250	11200.079.001	7/8	25	11200.222.001	1.3/4	4	11200.444.001
3/8	100	11200.096.001	1 Inch	25	11200.254.001	2 Inch	1	11200.508.001
7/16	100	11200.111.001	1.1/8	25	11200.285.001	2.1/4	1	11200.571.001

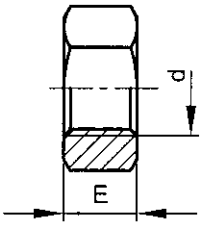
47100 **Porca sextavada BSW** **X08A**

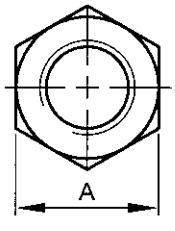
Rosca British Standard Whitworth
Material Latão Cu3



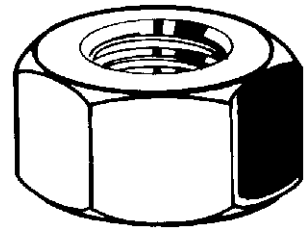
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/8	250	47100.031.001	5/16	250	47100.079.001	3/4	10	47100.191.001
5/32	250	47100.039.001	3/8	100	47100.096.001	7/8	10	47100.222.001
3/16	250	47100.047.001	1/2	50	47100.127.001	1 Inch	5	47100.254.001
1/4	250	47100.063.001	5/8	25	47100.158.001			

Porca sextavada BSF





BS **≈1083 (1965)**



Dados técnicos

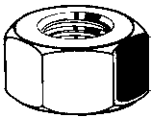
d	A	E	Fios por polegada
1/4	0.445	5.1	26
5/16	0.525	6.4	22
3/8	0.6	7.9	20
7/16	0.71	9.5	18
1/2	0.82	11.1	16

d	A	E	Fios por polegada
5/8	1.01	14.3	14
3/4	1.2	17.5	12
7/8	1.3	19	11
1 Inch	1.48	22.2	10

- Rosca Whitworth (BSW/BSF) não é recomendada internacionalmente.
- É aconselhado o uso de rosca métrica(M/MF) ou rosca unificada (UNC/UNF).

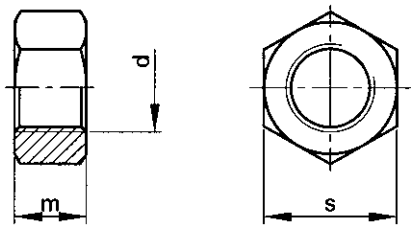
03060 **Porca sextavada BSF** **X90A**

Rosca British Standard Fine
Material Aço
Classe ≥6

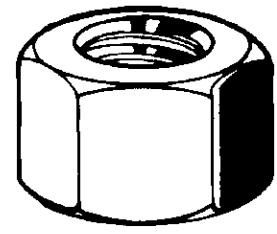


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4	100	03060.063.001	7/16	100	03060.111.001	3/4	50	03060.191.001
5/16	100	03060.079.001	1/2	100	03060.127.001	7/8	25	03060.222.001
3/8	100	03060.096.001	5/8	50	03060.158.001	1 Inch	25	03060.254.001

Porca sextavada 1 x d



DIN **≈934 (1987)**
NEN ≈1560
NF ≈E25-401



Dados técnicos

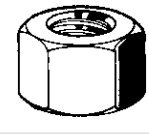
d	m	P	s	d	m	P	s
M3	3	0.5	5.5	M27	27	3	41
M4	4	0.7	7	M30	30	3.5	46
M5	5	0.8	8	M33	33	3.5	50
M6	6	1	10	M36	36	4	55
M8	8	1.25	13	M39	39	4	60
M10	10	1.5	17	M42	42	4.5	65
M12	12	1.75	19	M45	45	4.5	70
M14	14	2	22	M48	48	5	75
M16	16	2	24	M52	52	5	80
M18	18	2.5	27	M56	56	5.5	85
M20	20	2.5	30	M60	60	5.5	90
M22	22	2.5	32	M64	64	6	95
M24	24	3	36	M72	72	6	105

Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
M	Sextavado	Aço	≥|6|	11080	3-28
M	Sextavado	INOX A2		51109	3-28
M	Sextavado	INOX A4		55109	3-29

11080 Porca sextavada 1 x d — F01A

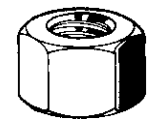
Rosca Métrica
Material Aço
Classe ≥|6|



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	250	11080.040.001	M20	25	11080.200.001	M45	4	11080.450.001
M5	250	11080.050.001	M22	25	11080.220.001	M48	4	11080.480.001
M6	250	11080.060.001	M24	25	11080.240.001	M52	1	11080.520.001
M8	100	11080.080.001	M27	10	11080.270.001	M56	1	11080.560.001
M10	100	11080.100.001	M30	10	11080.300.001	M60	1	11080.600.001
M12	100	11080.120.001	M33	10	11080.330.001	M64	1	11080.640.001
M14	100	11080.140.001	M36	5	11080.360.001	M72	1	11080.720.001
M16	50	11080.160.001	M39	5	11080.390.001			
M18	25	11080.180.001	M42	5	11080.420.001			

51109 Porca sextavada 1 x d — R09A

Rosca Métrica
Material Aço inoxidável A2

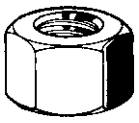


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3*	1000	51109.030.001	M5*	1000	51109.050.001	M8*	200	51109.080.001

55109	Porca sextavada 1 x d	R09A

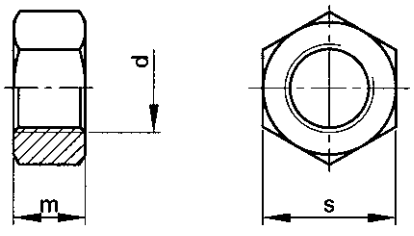
Rosca Métrica
Material Aço inoxidável A4

RoHS

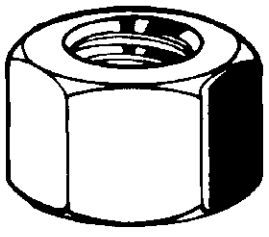


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3*	1000	55109.030.001	M6*	1000	55109.060.001	M12*	100	55109.120.001
M4*	1000	55109.040.001	M8*	1000	55109.080.001	M16*	50	55109.160.001
M5*	1000	55109.050.001	M10*	100	55109.100.001			

Porca sextavada BSW 1 x d



DIN **≈934 (1954)**
NEN ≈2338 (1960)



Dados técnicos

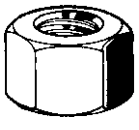
d	Fios por polegada	m	s
5/16	18	7.9	13
3/8	16	9.5	17
1/2	12	12.7	22
5/8	11	15.9	27
3/4	10	19.1	32

d	Fios por polegada	m	s
1 Inch	8	25.4	41
1.1/4	7	31.8	50
1.1/2	6	38.1	60
1.5/8	5	41.3	65

11280	Porca sextavada BSW 1 x d	X08A

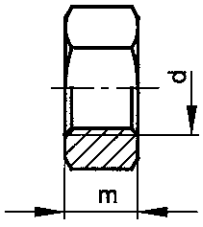
Rosca British Standard Whitworth
Material Aço de corte
Classe 6

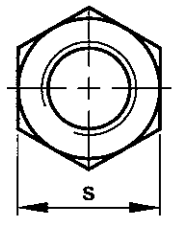
RoHS



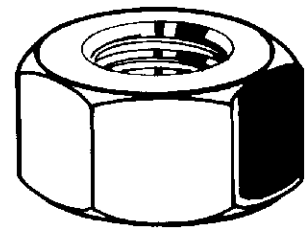
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
5/16	100	11280.079.001	5/8	50	11280.158.001	1.1/4	10	11280.317.001
3/8	100	11280.096.001	3/4	25	11280.191.001	1.1/2	5	11280.381.001
1/2	50	11280.127.001	1 Inch	10	11280.254.001	1.5/8	5	11280.412.001

Porca sextavada DIN 555





DIN	**555 (1987)**
NEN	697
NF	E25-402



3

Dados técnicos

d	m	P	s
M6	4	0.8	10
M10	8	1.5	17
M12	10	1.75	19
M16	13	2	24
M18 (≠DIN)	15	2.5	27
M20	16	2.5	30
M22	18	2.5	32
M24	19	3	36
M27	22	3	41
M30	24	3.5	46

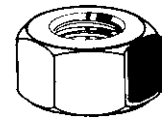
d	m	P	s
M33	26	3.5	50
M36	29	4	55
M39	31	4	60
M42	34	4.5	65
M45	36	4.5	70
M48	38	5	75
M52	42	5	80
M56	45	5.5	85
M64	51	6	95

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado	Aço	≥|4|		08100	3-30
M	Sextavado	Aço	≥|4|	Zn	08110	3-30

08100 Porca sextavada DIN 555 E01A

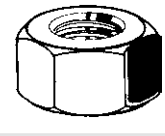
Rosca Métrica
Material Aço
Classe ≥|4|



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	500	08100.060.001	M24	50	08100.240.001	M42	5	08100.420.001
M10	500	08100.100.001	M27	25	08100.270.001	M45	4	08100.450.001
M12	500	08100.120.001	M30	25	08100.300.001	M48	4	08100.480.001
M16	200	08100.160.001	M33	10	08100.330.001	M52	4	08100.520.001
M18 (≠DIN)	100	08100.180.001	M36	10	08100.360.001	M56	1	08100.560.001
M20	100	08100.200.001	M39	5	08100.390.001	M64	1	08100.640.001
M22	50	08100.220.001						

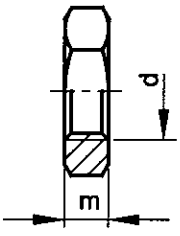
08110 Porca sextavada DIN 555 E03A

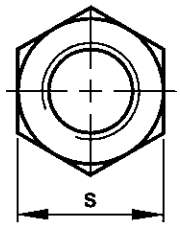
Rosca Métrica
Material Aço
Classe ≥|4|
Tratamento sup. Zincado



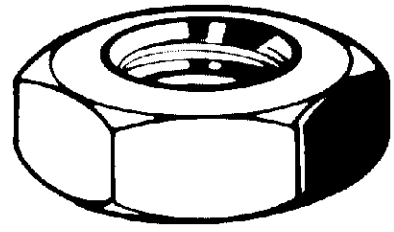
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M12	500	08110.120.001	M27	25	08110.270.001	M42	5	08110.420.001
M16	200	08110.160.001	M30	25	08110.300.001	M45	4	08110.450.001
M20	100	08110.200.001	M33	10	08110.330.001	M48	4	08110.480.001
M24	50	08110.240.001	M36	10	08110.360.001			

Porca sextavada baixa





DIN	**439 (1987)**
NEN	2334 B
ASME	B18.2.4.5M
NF	E25-405-1



Dados técnicos

d	m	P	s
M1.6	1	0.35	3.2
M2	1.2	0.4	4
M2.5	1.6	0.45	5
M3	1.8	0.5	5.5
M4	2.2	0.7	7
M5	2.7	0.8	8
M6	3.2	1	10
M8	4	1.25	13
M10	5	1.5	17
M12	6	1.75	19
M14	7	2	22
M16	8	2	24
M18	9	2.5	27
M20	10	2.5	30

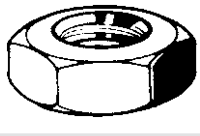
d	m	P	s
M22	11	2.5	32
M24	10	3	36
M27	13.5	3	41
M30	15	3.5	46
M33	16.5	3.5	50
M36	18	4	55
M39	19.5	4	60
M42	21	4.5	65
M45	22.5	4.5	70
M48	24	5	75
M52	26	5	80
M56 (≠DIN)	28	5.5	85
M60 (≠DIN)	30	5.5	90

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.		Código	Página
M	Sextavado	Aço	04			11060	3-31
M	Sextavado	Aço	04	Zn		11360	3-31
M	Sextavado	Aço	04	Zn	rosca esquerda	11382	3-32
M	Sextavado	Aço	04	Passiv. amar.		11350	3-32
M	Sextavado	Aço	04	Galv. Q.	oversized	01580	3-32
M	Sextavado	Aço	04	Galv. Q.	ISO métrico	01586	3-32
M	Sextavado	INOX A2	35			51090	3-33
M	Sextavado	INOX A2	35		rosca esquerda	51093	3-33
M	Sextavado	INOX A4	35			55090	3-33
M	Sextavado	Latão Cu2				47030	3-33

11060 Porca sextavada baixa — F01A

Rosca Métrica
Material Aço
Classe 04



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	250	11060.030.001	M16	50	11060.160.001	M36	5	11060.360.001
M4	250	11060.040.001	M18	25	11060.180.001	M39	5	11060.390.001
M5	250	11060.050.001	M20	25	11060.200.001	M42	5	11060.420.001
M6	250	11060.060.001	M22	25	11060.220.001	M45	4	11060.450.001
M8	100	11060.080.001	M24	25	11060.240.001	M48	4	11060.480.001
M10	100	11060.100.001	M27	10	11060.270.001	M52	1	11060.520.001
M12	100	11060.120.001	M30	10	11060.300.001	M56	1	11060.560.001
M14	100	11060.140.001	M33	10	11060.330.001	M60	1	11060.600.001

11360 Porca sextavada baixa — F01A

Rosca Métrica
Material Aço
Classe 04
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M2	250	11360.020.001	M4	250	11360.040.001	M8	100	11360.080.001
M2,5	250	11360.025.001	M5	250	11360.050.001	M10	100	11360.100.001
M3	250	11360.030.001	M6	250	11360.060.001	M12	100	11360.120.001

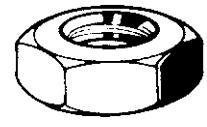
11360 Porca sextavada baixa ←

d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M14	100	11360.140.001	M24	25	11360.240.001	M39	5	11360.390.001
M16	50	11360.160.001	M27	10	11360.270.001	M42	5	11360.420.001
M18	25	11360.180.001	M30	10	11360.300.001	M45	4	11360.450.001
M20	25	11360.200.001	M33	10	11360.330.001	M48	4	11360.480.001
M22	25	11360.220.001	M36	5	11360.360.001			

11382 Porca sextavada baixa rosca esquerda F01A

Rosca Métrica
Material Aço
Classe 04
Tratamento sup. Zincado

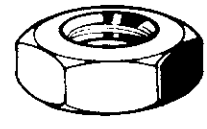
RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	250	11382.050.001	M12	100	11382.120.001	M24	25	11382.240.001
M6	250	11382.060.001	M16	50	11382.160.001	M27	10	11382.270.001
M8	100	11382.080.001	M20	25	11382.200.001	M30	10	11382.300.001
M10	100	11382.100.001						

11350 Porca sextavada baixa F01A

Rosca Métrica
Material Aço
Classe 04
Tratamento sup. Passivado a amarelo

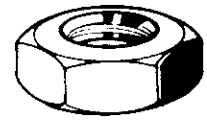


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	250	11350.030.001	M10	100	11350.100.001	M20	25	11350.200.001
M4	250	11350.040.001	M12	100	11350.120.001	M22	25	11350.220.001
M5	250	11350.050.001	M14	100	11350.140.001	M24	25	11350.240.001
M6	250	11350.060.001	M16	50	11350.160.001	M27	10	11350.270.001
M8	100	11350.080.001	M18	25	11350.180.001	M30	10	11350.300.001

01580 Porca sextavada baixa rosca oversized A08A

Rosca Métrica
Material Aço
Classe 04
Tratamento sup. Galvanizado a quente

RoHS



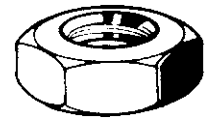
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M12	100	01580.120.001	M20	50	01580.200.001	M24	25	01580.240.001
M14	100	01580.140.001	M22	25	01580.220.001	M30	25	01580.300.001
M16	100	01580.160.001						

- Estas porcas sextavadas são utilizadas, entre outros, com parafusos cabeça sextavada rosca OVERSIZED e varões galvanizados a quente OVERSIZED.
- As porcas são roscadas depois da galvanização e não cumprem com as tolerâncias ISO-metric.
- A não galvanização da rosca não tem qualquer influência negativa na resistência contra á corrosão.

01586 Porca sextavada baixa rosca metrica A08A

Rosca Métrica
Material Aço
Classe 04
Tratamento sup. Galvanizado a quente

RoHS

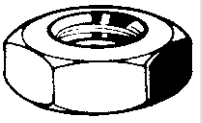


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M12	100	01586.120.001	M16	50	01586.160.001	M24	25	01586.240.001
M14	100	01586.140.001	M20	25	01586.200.001	M30	25	01586.300.001

- Estas porcas sextavads podem ser utilizadas com a maioria dos parafusos galvanizados a quente rosca ISO-METRIC e varões rosca ISO-METRIC.
- As porcas correspondentes, com rosca ISO-METRIC são roscadas de acordo com a tolerância classe 6H.
- A não galvanização da rosca não tem qualquer influência negativa na resistência contra á corrosão.

51090 Porca sextavada baixa — R09A

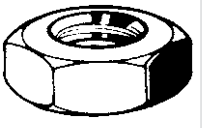
Rosca Métrica
Material Aço inoxidável A2
Classe 35



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M1,6	250	51090.016.001	M10	100	51090.100.001	M27	5	51090.270.001
M2	250	51090.020.001	M12	50	51090.120.001	M30	3	51090.300.001
M2,5	250	51090.025.001	M14	50	51090.140.001	M33*	10	51090.330.001
M3	250	51090.030.001	M16	50	51090.160.001	M36	10	51090.360.001
M4	250	51090.040.001	M18	25	51090.180.001	M39*	10	51090.390.001
M5	250	51090.050.001	M20	25	51090.200.001	M42*	10	51090.420.001
M6	250	51090.060.001	M22	10	51090.220.001	M48*	10	51090.480.001
M8	100	51090.080.001	M24	10	51090.240.001			

51093 Porca sextavada baixa rosca esquerda — R09A

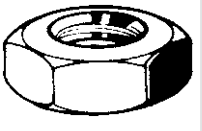
Rosca Métrica
Material Aço inoxidável A2
Classe 35



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	200	51093.050.001	M10	100	51093.100.001	M20	25	51093.200.001
M6	200	51093.060.001	M12	50	51093.120.001	M24	25	51093.240.001
M8	100	51093.080.001	M16	50	51093.160.001			

55090 Porca sextavada baixa — R49A

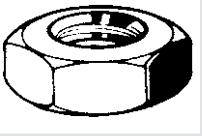
Rosca Métrica
Material Aço inoxidável A4
Classe 35



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M2	250	55090.020.001	M12	50	55090.120.001	M30	3	55090.300.001
M2,5	250	55090.025.001	M14	50	55090.140.001	M33*	10	55090.330.001
M3	250	55090.030.001	M16	50	55090.160.001	M36*	10	55090.360.001
M4	250	55090.040.001	M18	25	55090.180.001	M39*	10	55090.390.001
M5	250	55090.050.001	M20	25	55090.200.001	M42*	10	55090.420.001
M6	250	55090.060.001	M22	10	55090.220.001	M45*	10	55090.450.001
M8	100	55090.080.001	M24	10	55090.240.001	M48*	10	55090.480.001
M10	100	55090.100.001	M27	5	55090.270.001			

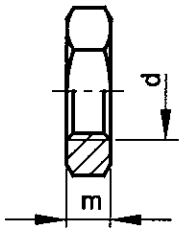
47030 Porca sextavada baixa — M01C

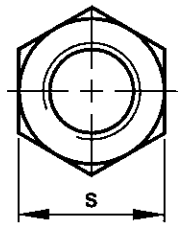
Rosca Métrica
Material Latão Cu2



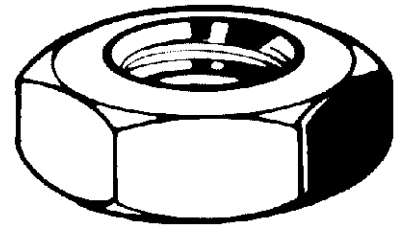
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	250	47030.030.001	M8	100	47030.080.001	M16	50	47030.160.001
M4	250	47030.040.001	M10	100	47030.100.001	M20	50	47030.200.001
M5	250	47030.050.001	M12	100	47030.120.001	M24	25	47030.240.001
M6	250	47030.060.001						

Porca sextavada baixa MF





DIN	**439 (1987)**
NEN	2334 B
ASME	B18.2.4.5M
NF	E25-453



3

Dados técnicos

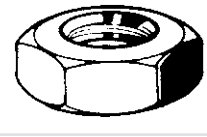
d	m	s	d	m	s
M8	4	13	M33	16.5	50
M10	5	17	M35 (≠DIN)	17.5	55
M12	6	19	M36	18	55
M14	7	22	M38 (≠DIN)	19	60
M16	8	24	M39	19.5	60
M18	9	27	M40 (≠DIN)	20	60
M20	10	30	M42	21	65
M22	11	32	M45	22.5	70
M24	12	36	M48	24	75
M27	13.5	41	M52	26	80
M28 (≠DIN)	14	41	M56 (≠DIN)	28	85
M30	15	46	M64 (≠DIN)	32	95
M32 (≠DIN)	16	50			

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.		Código	Página
MF	Sextavado	Aço	04			11070	3-34
MF	Sextavado	Aço	04		rosca esquerda	11074	3-35
MF	Sextavado	Aço	04	Zn		11380	3-35
MF	Sextavado	Aço	04	Zn	rosca esquerda	11075	3-35
MF	Sextavado	INOX A2	35			51092	3-35
MF	Sextavado	INOX A2	35		rosca esquerda	51166	3-36
MF	Sextavado	INOX A4	35			55092	3-36
MF	Sextavado	INOX A4	35		left hand	55166	3-36

11070 **Porca sextavada baixa MF** **F01B**

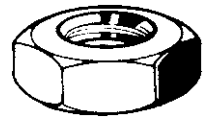
Rosca Métrica fina
Material Aço
Classe 04



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M8X1,00	100	11070.080.100	M22X1,50	25	11070.220.150	M39X3,00	3	11070.390.300
M10X1,00	100	11070.100.100	M22X2,00	25	11070.220.200	M40X1,50 (≠DIN)	3	11070.400.150
M10X1,25	100	11070.100.125	M24X1,50	25	11070.240.150	M40X2,00 (≠DIN)	3	11070.400.200
M12X0,75 (≠DIN)	100	11070.120.075	M24X2,00 (≠DIN)	25	11070.240.200	M42X1,50	3	11070.420.150
M12X1,00 (≠DIN)	100	11070.120.100	M27X1,50	10	11070.270.150	M45X1,50	1	11070.450.150
M12X1,25	100	11070.120.125	M27X2,00	10	11070.270.200	M45X2,00	1	11070.450.200
M12X1,50	100	11070.120.150	M30X1,50	10	11070.300.150	M45X3,00	1	11070.450.300
M14X1,00 (≠DIN)	100	11070.140.100	M30X2,00	10	11070.300.200	M48X1,50	1	11070.480.150
M14X1,25 (≠DIN)	100	11070.140.125	M32X1,50	10	11070.320.150	M48X2,00	1	11070.480.200
M14X1,50	100	11070.140.150	M32X2,00	5	11070.320.200	M48X3,00	1	11070.480.300
M16X1,00 (≠DIN)	50	11070.160.100	M33X1,50	5	11070.330.150	M52X1,50	1	11070.520.150
M16X1,50	50	11070.160.150	M33X2,00	5	11070.330.200	M52X2,00	1	11070.520.200
M18X1,00 (≠DIN)	25	11070.180.100	M35X1,50 (≠DIN)	3	11070.350.150	M52X3,00	1	11070.520.300
M18X2,00	25	11070.180.200	M36X1,50	3	11070.360.150	M56X2,00 (≠DIN)	1	11070.560.200
M20X1,00 (≠DIN)	25	11070.200.100	M36X3,00	3	11070.360.300	M56X4,00 (≠DIN)	1	11070.560.400
M20X1,50	25	11070.200.150	M38X1,50 (≠DIN)	3	11070.380.150	M64X1,50 (≠DIN)	1	11070.640.150
M20X2,00	25	11070.200.200	M39X1,50	3	11070.390.150	M64X2,00 (≠DIN)	1	11070.640.200
M22X1,00 (≠DIN)	25	11070.220.100	M39X2,00	3	11070.390.200	M64X4,00 (≠DIN)	1	11070.640.400

11074 Porca sextavada baixa rosca esquerda MF — F01B

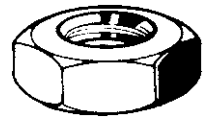
Rosca Métrica fina
Material Aço
Classe 04



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M10X1,00	50	11074.100.100	M22X1,50	10	11074.220.150	M36X3,00	3	11074.360.300
M12X1,00 (≠DIN)	50	11074.120.100	M22X2,00	10	11074.220.200	M38X1,50 (≠DIN)	3	11074.380.150
M12X1,50	50	11074.120.150	M27X1,50	5	11074.270.150	M42X1,50	3	11074.420.150
M14X1,50	50	11074.140.150	M27X2,00	5	11074.270.200	M42X3,00	3	11074.420.300
M16X1,00 (≠DIN)	50	11074.160.100	M28X1,50 (≠DIN)	5	11074.280.150	M45X3,00	1	11074.450.300
M16X1,50	25	11074.160.150	M30X2,00	5	11074.300.200	M48X1,50	1	11074.480.150
M18X1,50	10	11074.180.150	M33X1,50	5	11074.330.150	M48X3,00	1	11074.480.300
M20X1,50	10	11074.200.150	M36X1,50	3	11074.360.150			
M20X2,00	10	11074.200.200	M36X2,00	3	11074.360.200			

11380 Porca sextavada baixa MF — F01B

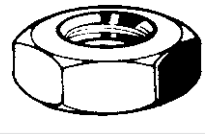
Rosca Métrica fina
Material Aço
Classe 04
Tratamento sup. Zincado



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M8X1,00	100	11380.080.100	M14X1,50	100	11380.140.150	M24X1,50	25	11380.240.150
M10X1,00	100	11380.100.100	M16X1,00 (≠DIN)	50	11380.160.100	M24X2,00	25	11380.240.200
M10X1,25	100	11380.100.125	M16X1,50	50	11380.160.150	M27X1,50	10	11380.270.150
M12X1,00 (≠DIN)	100	11380.120.100	M18X1,00 (≠DIN)	25	11380.180.100	M27X2,00	10	11380.270.200
M12X1,25	100	11380.120.125	M18X1,50	25	11380.180.150	M30X1,50	10	11380.300.150
M12X1,50	100	11380.120.150	M20X1,00 (≠DIN)	25	11380.200.100	M30X2,00	10	11380.300.200
M14X1,00 (≠DIN)	100	11380.140.100	M20X1,50	25	11380.200.150	M36X1,50	3	11380.360.150
M14X1,25 (≠DIN)	100	11380.140.125	M22X1,50	25	11380.220.150	M36X3,00	3	11380.360.300

11075 Porca sextavada baixa rosca esquerda MF — F01B

Rosca Métrica fina
Material Aço
Classe 04
Tratamento sup. Zincado



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M12X1,00 (≠DIN)	50	11075.120.100	M16X1,50	25	11075.160.150	M24X2,00	10	11075.240.200
M12X1,50	50	11075.120.150	M18X1,50	10	11075.180.150	M27X2,00	5	11075.270.200
M14X1,50	50	11075.140.150	M20X1,50	10	11075.200.150	M30X2,00	5	11075.300.200
M16X1,00 (≠DIN)	50	11075.160.100						

51092 Porca sextavada baixa MF — R09A

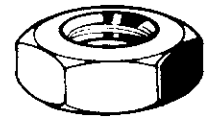
Rosca Métrica fina
Material Aço inoxidável A2
Classe 35



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M8X0,75*	200	51092.080.075	M14X1,50	50	51092.140.150	M24X1,50	10	51092.240.150
M8X1,00	100	51092.080.100	M16X1,50	50	51092.160.150	M24X2,00	10	51092.240.200
M10X1,00	100	51092.100.100	M18X1,50	25	51092.180.150	M27X1,50	3	51092.270.150
M10X1,25	100	51092.100.125	M20X1,50	25	51092.200.150	M30X1,50	3	51092.300.150
M12X1,00	100	51092.120.100	M20X2,00*	50	51092.200.200	M30X2,00	3	51092.300.200
M12X1,25	100	51092.120.125	M22X1,50	10	51092.220.150	M33X2,00*	10	51092.330.200
M12X1,50	100	51092.120.150	M22X2,00*	25	51092.220.200			

51166 Porca sextavada baixa rosca esquerda MF — R09A

Rosca Métrica fina
Material Aço inoxidável A2
Classe 35

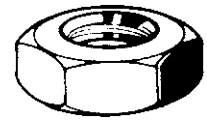


d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M16X1,50	50	51166.160.150	M27X2,00	3	51166.270.200	M30X2,00	3	51166.300.200
M20X1,50	25	51166.200.150						

3

55092 Porca sextavada baixa MF — R49A

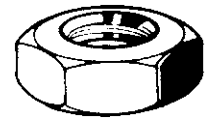
Rosca Métrica fina
Material Aço inoxidável A4
Classe 35



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M8X1,00	100	55092.080.100	M16X1,50	50	55092.160.150	M24X2,00	10	55092.240.200
M10X1,00	100	55092.100.100	M18X1,50	25	55092.180.150	M27X1,50*	25	55092.270.150
M10X1,25	100	55092.100.125	M20X1,50	25	55092.200.150	M27X2,00*	25	55092.270.200
M12X1,00*	100	55092.120.100	M22X1,50	10	55092.220.150	M30X1,50	10	55092.300.150
M12X1,25	100	55092.120.125	M22X2,00*	25	55092.220.200	M30X2,00*	10	55092.300.200
M12X1,50	100	55092.120.150	M24X1,50	10	55092.240.150	M33X2,00*	10	55092.330.200
M14X1,50	50	55092.140.150						

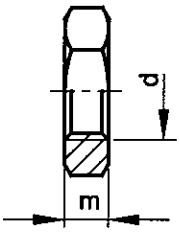
55166 Porca de ligação rosca esquerda MF — R49A

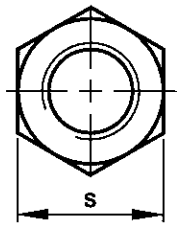
Rosca Métrica fina
Material Aço inoxidável A4
Classe 35



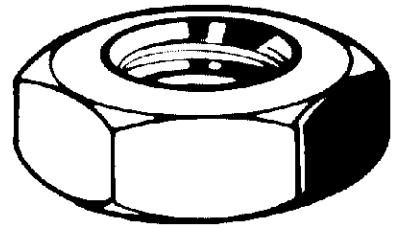
d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M16X1,50*	50	55166.160.150	M20X1,50*	50	55166.200.150

Porca sextavada baixa





DIN 936



Dados técnicos

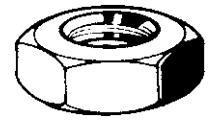
d	m	P	s
M8	5	1.25	13
M10	6	1.5	17
M12	7	1.75	19
M14	8	2	22
M16	8	2	24
M18	9	2.5	27
M20	9	2.5	30
M22	10	2.5	32
M24	10	3	36
M27	12	3	41
M30	12	3.5	46
M33	14	3.5	50
M36	14	4	55
M39	16	4	60

Grupos de produtos

Rosca	Encaixe	Material	Código	Página
M	Sextavado	INOX A2	51221	3-37
M	Sextavado	INOX A4	55221	3-37

51221 Porca sextavada baixa R09A

Rosca Métrica
Material Aço inoxidável A2

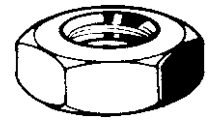


RoHS

d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M8*	500	51221.080.001	M18*	50	51221.180.001	M30*	25	51221.300.001
M10*	200	51221.100.001	M20*	50	51221.200.001	M33*	10	51221.330.001
M12*	200	51221.120.001	M22*	50	51221.220.001	M36*	10	51221.360.001
M14*	100	51221.140.001	M24*	25	51221.240.001	M39*	10	51221.390.001
M16*	100	51221.160.001	M27*	25	51221.270.001			

55221 Porca sextavada baixa R49A

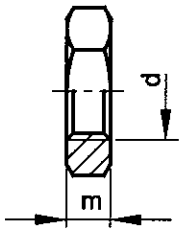
Rosca Métrica
Material Aço inoxidável A4

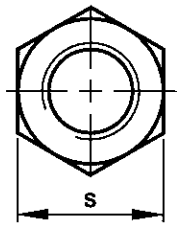


RoHS

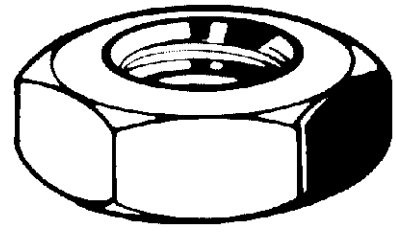
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M10*	200	55221.100.001	M16*	100	55221.160.001	M24*	25	55221.240.001
M12*	200	55221.120.001	M20*	50	55221.200.001	M27*	25	55221.270.001
M14*	100	55221.140.001						

Porca sextavada baixa DIN 936 MF





DIN **936**



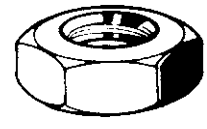
3

Dados técnicos

d	m	P	s
M10	6	17	1
M12	7	19	1
M20	9	30	1.5
M24	10	36	2

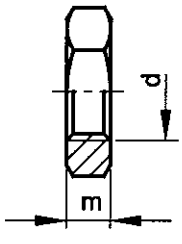
51222 **Porca sextavada baixa DIN 936 MF** **R09A**

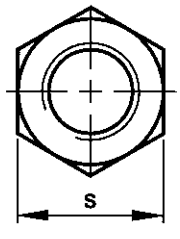
Rosca Métrica fina
Material Aço inoxidável A2
Classe 35



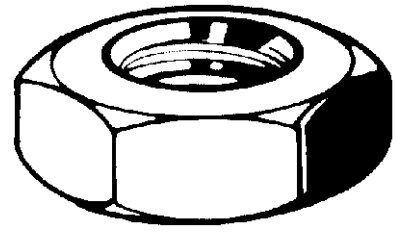
d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M10X1,00*	100	51222.100.100	M20X1,50*	100	51222.200.150	M24X2,00*	50	51222.240.200
M12X1,00*	100	51222.120.100						

Porca sextavada ISO 4035





ISO **4035**

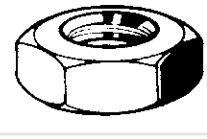


Dados técnicos

d	m (max.)	P	s
M12	6	1.75	18
M16	8	2	24
M20	10	2.5	30
M24	12	3	36
M27	14	3	41
M30	15	3.5	46
M36	18	4	55

01587 **Porca sextavada ISO 4035** **A08A**

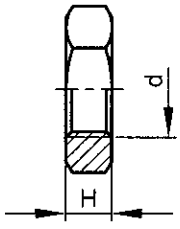
Rosca Métrica
Material Aço
Tratamento sup. Galvanizado a quente

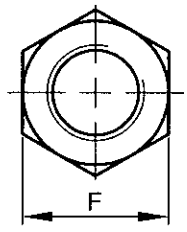


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M12	100	01587.120.001	M24	50	01587.240.001	M30	25	01587.300.001
M16	100	01587.160.001	M27	50	01587.270.001	M36	10	01587.360.001
M20	100	01587.200.001						

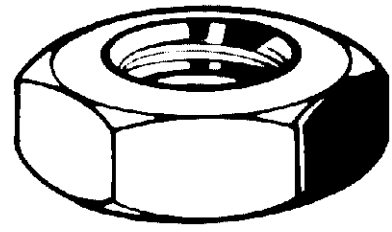
- Estas porcas sextavads podem ser utilizadas com a maioria dos parafusos galvanizados a quente rosca ISO-METRIC e varões rosca ISO-METRIC.
- As porcas correspondentes, com rosca ISO-METRIC são roscadas de acordo com a tolerância classe 6H.
- A não galvanização da rosca não tem qualquer influência negativa na resistência contra á corrosão.

Porca sextavada baixa UNC





ASME ≈B18.2.2



Dados técnicos

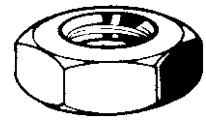
d	F	Fios por polegada	H (mm)
1/4	7/16	20	4
5/16	1/2	18	4.8
3/8	9/16	16	5.6
7/16	11/16	14	6.4
1/2	3/4	13	7.9
5/8	15/16	11	9.5

d	F	Fios por polegada	H (mm)
3/4	1.1/8	10	10.7
7/8	1.5/16	9	12.3
1 Inch	1.1/2	8	13.9
1.1/8	1.11/16	7	18.3
1.1/4	1.7/8	7	18.3
1.1/2	2.1/4	6	21.4

11840 **Porca sextavada baixa UNC** **X09A**

Rosca Unified National Coarse
Material Aço de corte
Classe 04
Tratamento sup. Zincado

RoHS

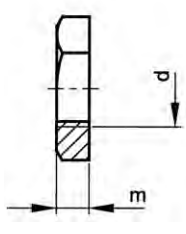


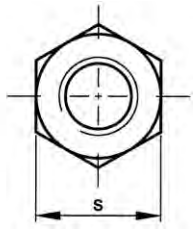
d	✉	Ref. do artigo
1/4	250	11840.063.001
5/16	250	11840.079.001
3/8	250	11840.096.001
7/16	100	11840.111.001

d	✉	Ref. do artigo
1/2	100	11840.127.001
5/8	100	11840.158.001
3/4	50	11840.191.001
7/8	25	11840.222.001

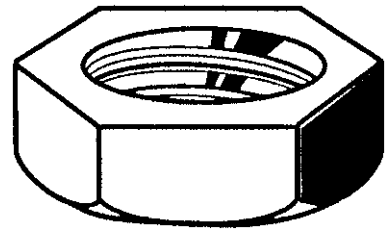
d	✉	Ref. do artigo
1 Inch	25	11840.254.001
1.1/8	10	11840.285.001
1.1/4	10	11840.317.001
1.1/2	5	11840.381.001

Porca para tubos rosca paralela





DIN **431 A**



Dados técnicos

d	Fios por polegada	m (max.)	s
G 1/8	28	6.48	18
G 1/4	19	6.48	21
G 3/8	19	7.58	27
G 1/2	14	8.58	34
G 5/8	14	8.58	34
G 3/4	14	9.58	36

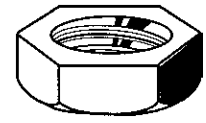
d	Fios por polegada	m (max.)	s
G 7/8	14	9.58	41
G 1 Inch	11	10.58	46
G 1.1/4	11	11.7	55
G 1.1/2	11	12.7	60
G 2 Inch	11	13.7	75

Grupos de produtos

Rosca	Encaixe	Material	Código	Página
G	Sextavado	INOX A2	51200	3-40
G	Sextavado	INOX A4	55200	3-40

51200	Porca para tubos rosca paralela	R09A

Rosca GAS
Material Aço inoxidável A2

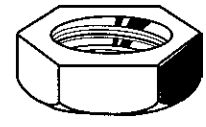


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
G1/8*	100	51200.031.001	G5/8*	25	51200.158.001	G1.1/4*	5	51200.317.001
G1/4*	100	51200.063.001	G3/4*	25	51200.191.001	G1.1/2*	5	51200.381.001
G3/8*	50	51200.096.001	G7/8*	10	51200.222.001	G2 Inch*	5	51200.508.001
G1/2*	50	51200.127.001	G1 Inch*	10	51200.254.001			

3

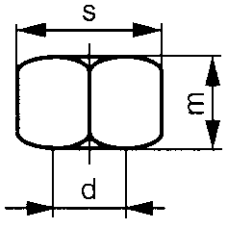
55200	Porca para tubos rosca paralela	R49A

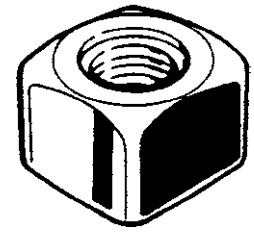
Rosca GAS
Material Aço inoxidável A4



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
G1/8	50	55200.031.001	G1/2	25	55200.127.001	G1.1/4	1	55200.317.001
G1/4	50	55200.063.001	G5/8	25	55200.158.001	G1.1/2	1	55200.381.001
G5/16*	10	55200.079.001	G3/4	10	55200.191.001	G2 Inch	1	55200.508.001
G3/8	50	55200.096.001	G1 Inch	4	55200.254.001			

Porca Trackshoe





Dados técnicos

d x m	Fios por polegada	s (mm)	d x m	Fios por polegada	s (mm)
7/16x16	20	19	3/4x19	16	28
1/2x18	20	19	3/4x21	16	28
9/16x19	18	22	7/8x23	14	33.3
5/8x18	18	24	1 Inchx25.2	14	38.1
5/8x19	18	25	1 Inchx33	14	38.1

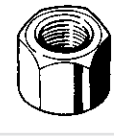
- A porca trackshoe de 1 polegaga é classe 6.
- Para os correspondentes parafusos Trackshoe consulte a seção 1.

Grupos de produtos

Rosca	Encaixe	Material	Classe		Código	Página
UNF	Sextavado	Aço de corte		alta	06060	3-40
UNF	Sextavado	Aço	12	baixa	06070	3-41
UNF	Cabeça quadrada	Aço	12	quadrada	06080	3-41

06060	Porca Trackshoe tipo alto	Y90A

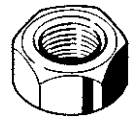
Rosca Unified National Fine
Material Aço de corte



d x m	✉	Ref. do artigo
1 Inchx33	25	06060.256.001

06070 Porca Trackshoe sextavada — Y90A

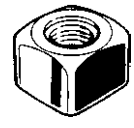
Rosca Unified National Fine
Material Aço
Classe 12



d x m	✉	Ref. do artigo	d x m	✉	Ref. do artigo	d x m	✉	Ref. do artigo
5/8x18	50	06070.158.001	7/8x23	25	06070.222.001	1 Inchx25,2	25	06070.256.001
3/4x21	50	06070.191.001						

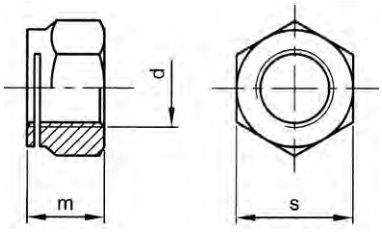
06080 Porca Trackshoe quadrada — Y90A

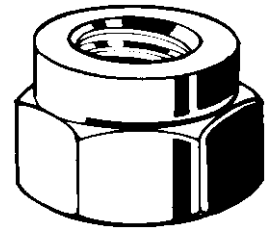
Rosca Unified National Fine
Material Aço
Classe 12



d x m	✉	Ref. do artigo	d x m	✉	Ref. do artigo	d x m	✉	Ref. do artigo
7/16x16	100	06080.111.001	5/8x19	50	06080.158.001	7/8x23	25	06080.222.001
1/2x18	100	06080.127.001	3/4x19	50	06080.191.001	1 Inchx25,2	25	06080.256.001
9/16x19	50	06080.142.001						

Porca de exaustão



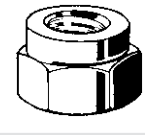


Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.		Código	Página
M	Sextavado	Aço	Cobr.	auto bloqueante	72130	3-41
MF	Sextavado	Aço	Cobr.	auto bloqueante	72131	3-41
UNC	Sextavado	Latão			72122	3-42
UNF	Sextavado	Latão			72123	3-42

72130 THERMAG Porca de exaustão — Y92F

Rosca Métrica
Material Aço
Tratamento sup. Cobreado

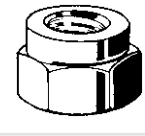


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M8 s=12	100	72130.080.120	M10 s=14	100	72130.100.140	M12 s=17	50	72130.120.170
M8 s=13	100	72130.080.130	M10 s=17	100	72130.100.170			

- Resistência á temperatura de –70°C a +400°C.

72131 THERMAG Porca de exaustão — Y92F

Rosca Métrica fina
Material Aço
Tratamento sup. Cobreado

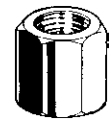


d x P	✉	Ref. do artigo
M10X1,25 s=14	100	72131.100.125

- Resistência á temperatura de –70°C a +400°C.

72122	Porca de exaustão	Y92F

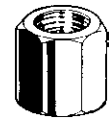
Rosca Unified National Coarse
Material Latão



d	✉	Ref. do artigo	d	✉	Ref. do artigo
5/16	50	72122.079.001	3/8	25	72122.096.001

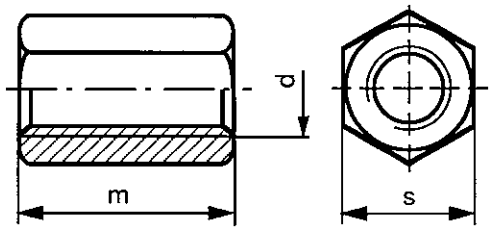
72123	Porca de exaustão	Y92F

Rosca Unified National Fine
Material Latão

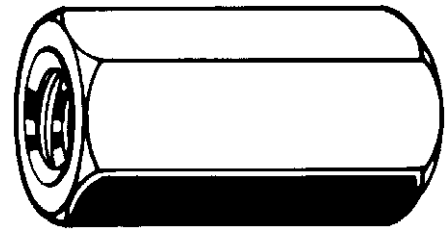


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
5/16	50	72123.079.001	3/8	25	72123.096.001	1/2	10	72123.127.001

Porca ligação sextavada, altura 3xd



DIN **6334**



Dados técnicos

d	m	P	s	d	m	P	s
M5	15	0.8	8	M20	60	2.5	30
M6	18	1	10	M22	66	2.5	32
M8	24	1.25	13	M24	72	3	36
M10	30	1.5	17	M27	81	3	41
M12	36	1.75	19	M30	90	3.5	46
M14	42	2	22	M36	108	4	55
M16	48	2	24	M42	126	4.5	65
M18	54	2.5	27	M48	144	5	75

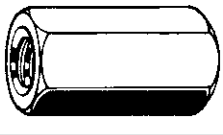
- Estas porcas de ligação são usadas entre outras para ligações de de varões roscados.

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.		Código	Página
M	Sextavado	Aço de corte		Zn		11400	3-42
M	Sextavado	Aço		Galv. Q.	ISO metric	11417	3-43
M	Sextavado	Aço		Galv. Q.	oversized	11411	3-43
M	Sextavado	Aço	|10|	Zn		11418	3-43
M	Sextavado	INOX A1				51106	3-43
M	Sextavado	INOX A4				55106	3-43
M	Sextavado	Latão				47195	3-44

11400	Porca ligação sextavada, altura 3xd	F01C

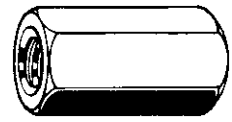
Rosca Métrica
Material Aço de corte
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	100	11400.050.001	M12	50	11400.120.001	M24	10	11400.240.001
M6	100	11400.060.001	M14	25	11400.140.001	M27	10	11400.270.001
M8	100	11400.080.001	M16	25	11400.160.001	M30	10	11400.300.001
M10	50	11400.100.001	M20	25	11400.200.001			

11417 Porca de ligação — F01A

Rosca Métrica
Material Aço
Tratamento sup. Galvanizado a quente



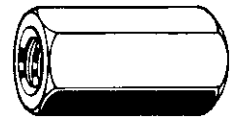
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M16	25	11417.160.001	M24	10	11417.240.001	M42	5	11417.420.001
M20	25	11417.200.001	M30	10	11417.300.001			

- Estas porcas sextavads podem ser utilizadas com a maioria dos parafusos galvanizados a quente rosca ISO-METRIC e varões rosca ISO-METRIC.
- As porcas correspondentes, com rosca ISO-METRIC são roscadas de acordo com a tolerância classe 6H.
- A não galvanização da rosca não tem qualquer influência negativa na resistência contra á corrosão.

3

11411 Porca de ligação oversized — F01A

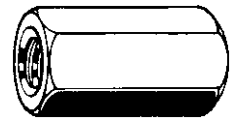
Rosca Métrica
Material Aço
Tratamento sup. Galvanizado a quente



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M10	100	11411.100.001	M16	25	11411.160.001	M24	10	11411.240.001
M12	100	11411.120.001	M20	25	11411.200.001	M30	10	11411.300.001

11418 Porca ligação sextavada, altura 3xd — F01C

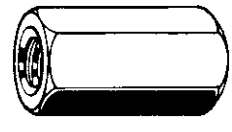
Rosca Métrica
Material Aço
Classe |10|
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	50	11418.060.001	M16	25	11418.160.001	M30	5	11418.300.001
M8	50	11418.080.001	M18	10	11418.180.001	M36	3	11418.360.001
M10	50	11418.100.001	M20	10	11418.200.001	M42	3	11418.420.001
M12	25	11418.120.001	M22	10	11418.220.001	M48	3	11418.480.001
M14	25	11418.140.001	M24	5	11418.240.001			

51106 Porca ligação sextavada, altura 3xd — R09A

Rosca Métrica
Material Aço inoxidável A1

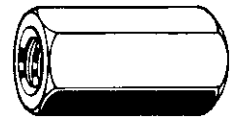


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	50	51106.050.001	M12	25	51106.120.001	M20	10	51106.200.001
M6	50	51106.060.001	M14*	50	51106.140.001	M24	5	51106.240.001
M8	50	51106.080.001	M16	10	51106.160.001	M30*	10	51106.300.001
M10	25	51106.100.001						

- Dependendo da disponibilidade de stock pode ser fornecido em A1 ou A2.

55106 Porca ligação sextavada, altura 3xd — R49A

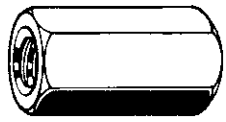
Rosca Métrica
Material Aço inoxidável A4



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	50	55106.050.001	M12	25	55106.120.001	M20	10	55106.200.001
M6	50	55106.060.001	M14*	50	55106.140.001	M24	5	55106.240.001
M8	50	55106.080.001	M16	10	55106.160.001	M30*	10	55106.300.001
M10	25	55106.100.001						

47195 **Porca ligação sextavada, altura 3xd** **M11C**

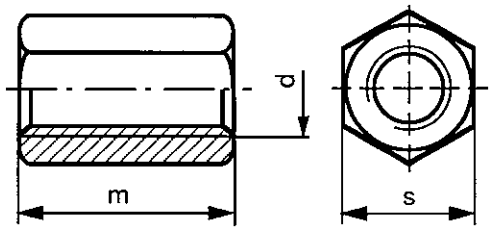
Rosca Métrica
Material Latão

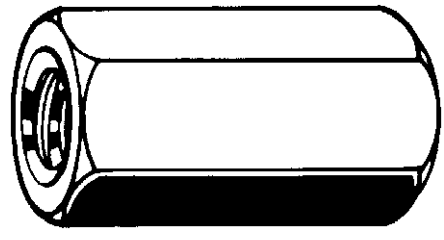


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	100	47195.050.001	M10	50	47195.100.001	M20	25	47195.200.001
M6	100	47195.060.001	M12	50	47195.120.001	M24	10	47195.240.001
M8	100	47195.080.001	M16	25	47195.160.001			

3

Porca de ligação alta





Dados técnicos

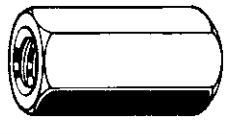
d	P	s
M6	1	10
M8	1.25	13
M10	1.5	17
M12	1.75	19
M16	2	24
M20	2.5	30
M24	3	36
M30	3.5	46

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado	Aço de corte		Zn	11408	3-44
M	Sextavado	INOX A2	50		51101	3-44
M	Sextavado	INOX A4	50		55101	3-45

11408 **Porca de ligação alta** **F01C**

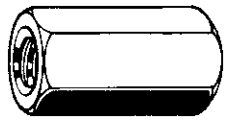
Rosca Métrica
Material Aço de corte
Tratamento sup. Zincado



d x m	✉	Ref. do artigo	d x m	✉	Ref. do artigo	d x m	✉	Ref. do artigo
M6X30	100	11408.060.030	M10X40	100	11408.100.040	M12X40	50	11408.120.040
M8X30	100	11408.080.030						

51101 **Porca de ligação alta** **R09A**

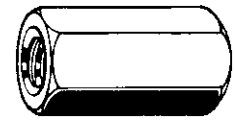
Rosca Métrica
Material Aço inoxidável A2
Classe 50



d x m	✉	Ref. do artigo	d x m	✉	Ref. do artigo	d x m	✉	Ref. do artigo
M6X25*	100	51101.060.025	M10X40*	100	51101.100.040	M16X50*	25	51101.160.050
M6X30*	100	51101.060.030	M12X30*	50	51101.120.030	M20X50*	25	51101.200.050
M8X25*	100	51101.080.025	M12X40*	50	51101.120.040	M24X50*	25	51101.240.050
M8X30*	100	51101.080.030	M16X40*	25	51101.160.040	M30X60*	10	51101.300.060
M10X25*	100	51101.100.025						

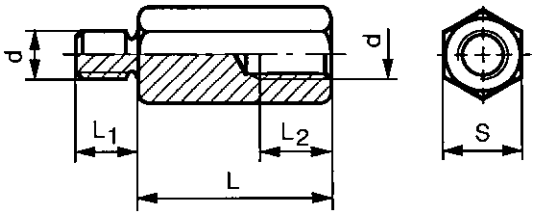
55101 **Porca de ligação alta** **R49A**

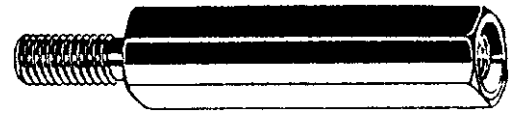
Rosca Métrica
Material Aço inoxidável A4
Classe 50



d x m	✉	Ref. do artigo	d x m	✉	Ref. do artigo	d x m	✉	Ref. do artigo
M6X25*	100	55101.060.025	M12X30*	50	55101.120.030	M24X50*	25	55101.240.050
M8X30*	100	55101.080.030	M16X40*	25	55101.160.040	M30X60*	10	55101.300.060
M10X30*	100	55101.100.030	M20X50*	25	55101.200.050			

Espaçador com rosca interna e externa tipo H1202





Dados técnicos

d	L_1	P	s	d	L_1	P	s
M2.5	5.6	0.45	4	M4	8	0.7	7
M3	6	0.5	5.5	M5	10	0.8	8

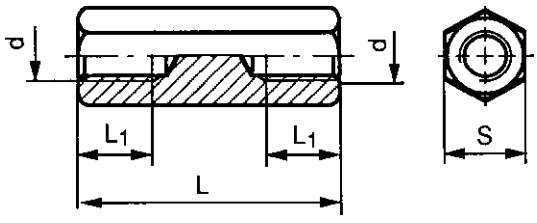
11398 **Espaçador com rosca interna e externa tipo H1202** **F01C**

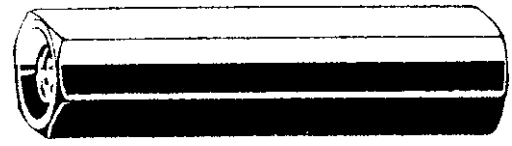
Rosca Métrica
Material Aço de corte
Classe |6|
Tratamento sup. Zincado



d x L x L_2	✉	Ref. do artigo	d x L x L_2	✉	Ref. do artigo	d x L x L_2	✉	Ref. do artigo
M2,5X10X3	100	11398.025.010	M3X25X7	100	11398.030.025	M4X35X9	100	11398.040.035
M2,5X15X7	100	11398.025.015	M3X30X7	100	11398.030.030	M4X40X9	100	11398.040.040
M2,5X20X7	100	11398.025.020	M3X35X7	100	11398.030.035	M4X50X9	100	11398.040.050
M2,5X25X7	100	11398.025.025	M3X40X7	100	11398.030.040	M5X10X6	100	11398.050.010
M3X5X3	100	11398.030.005	M3X45X7	100	11398.030.045	M5X15X11	100	11398.050.015
M3X8X5	100	11398.030.008	M3X50X7	100	11398.030.050	M5X20X11	100	11398.050.020
M3X10X7	100	11398.030.010	M4X5X3	100	11398.040.005	M5X25X11	100	11398.050.025
M3X12X7	100	11398.030.012	M4X10X6	100	11398.040.010	M5X30X11	100	11398.050.030
M3X13,5X7	100	11398.030.013	M4X15X9	100	11398.040.015	M5X35X11	100	11398.050.035
M3X15X7	100	11398.030.015	M4X20X9	100	11398.040.020	M5X40X11	100	11398.050.040
M3X18X7	100	11398.030.018	M4X25X9	100	11398.040.025	M5X50X11	100	11398.050.050
M3X20X7	100	11398.030.020	M4X30X9	100	11398.040.030			

Espaçador com 2x rosca interna tipo H1200





3

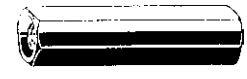
Dados técnicos

d	P	s	d	P	s
M2.5	0.45	4	M4	0.7	7
M3	0.5	5.5	M5	0.8	8

11396 **Espaçador com 2x rosca interna tipo H1200** **F01C**

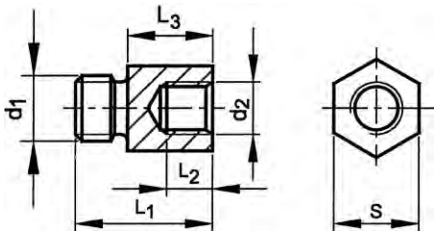
Rosca Métrica
Material Aço de corte
Classe |6|
Tratamento sup. Zincado

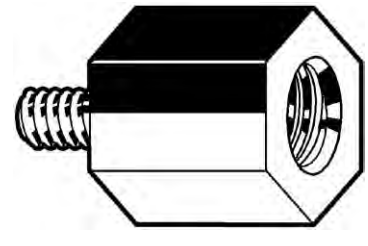
RoHS



d x L x L_1	✉	Ref. do artigo	d x L x L_1	✉	Ref. do artigo	d x L x L_1	✉	Ref. do artigo
M2,5X15X7	100	11396.025.015	M3X35X7	100	11396.030.035	M4X40X9	100	11396.040.040
M2,5X20X7	100	11396.025.020	M3X40X7	100	11396.030.040	M4X50X9	100	11396.040.050
M2,5X25X7	100	11396.025.025	M3X45X7	100	11396.030.045	M5X15X15	100	11396.050.015
M3X5X5	100	11396.030.005	M3X50X7	100	11396.030.050	M5X20X9	100	11396.050.020
M3X8,5X8,5	100	11396.030.008	M4X10X10	100	11396.040.010	M5X25X9	100	11396.050.025
M3X10X10	100	11396.030.010	M4X15X15	100	11396.040.015	M5X30X9	100	11396.050.030
M3X12X12	100	11396.030.012	M4X20X9	100	11396.040.020	M5X35X9	100	11396.050.035
M3X15X7	100	11396.030.015	M4X25X9	100	11396.040.025	M5X40X9	100	11396.050.040
M3X20X7	100	11396.030.020	M4X30X9	100	11396.040.030	M5X45X9	100	11396.050.045
M3X25X7	100	11396.030.025	M4X35X9	100	11396.040.035	M5X50X9	100	11396.050.050
M3X30X7	100	11396.030.030						

Redutor



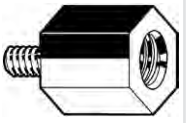


Dados técnicos

d_2 / d_1	L_1	L_2	L_3	P/P	s
M6/M8	20	7	12	1/1.25	13
M6/M10	21	7	13	1/1.25	13
M8/M6	19	7	12	1.25/1	13
M8/M10	21	7	13	1.25/1.5	13
M8/M12	23	7	13	1.25/1.75	13
M10/M6	22	9	15	1.5/1	13
M10/M8	23	9	15	1.5/1.25	13
M10/M12	23	8	13	1.5/1.75	13
M10/M16	32	9	18	1.5/2	19
M12/M8	23	8	15	1.75/1.25	17
M12/M10	25	8	15	1.75/1.5	17
M16/M10	32	13	22	2/1.5	24
M16/M12	32	13	22	2/1.75	24

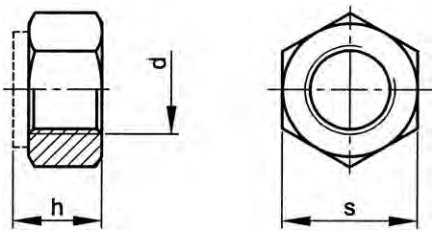
11393 **Redutor** **F01C**

Rosca Métrica
Material Aço de corte
Tratamento sup. Zincado

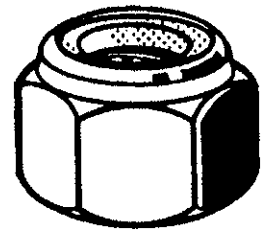


d_2/d_1 x s	✉	Ref. do artigo	d_2/d_1 x s	✉	Ref. do artigo	d_2/d_1 x s	✉	Ref. do artigo
M6XM8/s=13	25	11393.060.080	M10XM6/s=13	25	11393.100.060	M12XM8/s=17	10	11393.120.080
M6XM10/s=13	25	11393.060.100	M10XM8/s=13	25	11393.100.080	M12XM10/s=17	10	11393.120.100
M8XM6/s=13	25	11393.080.060	M10XM12/s=13	25	11393.100.120	M16XM10/s=24	5	11393.160.100
M8XM10/s=13	25	11393.080.100	M10XM16/s=17	10	11393.100.160	M16XM12/s=24	5	11393.160.120
M8XM12/s=13	25	11393.080.120						

Porca auto bloqueante sextavada com inserto não metálico



DIN **985 (1987)**
ISO 7040
NF E25-412



Dados técnicos

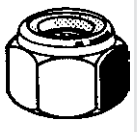
d	h	P	s	d	h	P	s
M2.5 (≠DIN)	3.5	0.45	5	M24	24	3	36
M3	4	0.5	5.5	M27	27	3	41
M4	5	0.7	7	M30	30	3.5	46
M5	5	0.8	8	M33	33	3.5	50
M6	6	1	10	M36	36	4	55
M7	7.5	1	11	M39	39	4	60
M8	8	1.25	13	M42	42	4.5	65
M10	10	1.5	17	M45	45	4.5	70
M12	12	1.75	19	M48	48	5	75
M14	14	2	22	M52 (≠DIN)	52	5	80
M16	16	2	24	M56 (≠DIN)	56	5.5	85
M18	18.5	2.5	27	M60 (≠DIN)	60	5.5	90
M20	20	2.5	30	M64 (≠DIN)	64	6	95
M22	22	2.5	32				

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.		Código	Página
M	Sextavado	Aço	≥|5|	Zn		12300	3-47
M	Sextavado	Aço	≥|5|	Zn	Embalagem grande	12310	3-48
M	Sextavado	Aço	≥|5|	Passiv. amar.		12302	3-48
M	Sextavado	Aço	|6|	FLZNNC-NC6		12307	3-48
M	Sextavado	Aço	|8|	Zn		12348	3-48
M	Sextavado	Aço	|8|	Passiv. amar.		12350	3-49
M	Sextavado	Aço	|10|	Zn		12410	3-49
M	Sextavado	Aço	|10|	Passiv. amar.		12450	3-49
M	Sextavado	INOX A2				51730	3-49
M	Sextavado	INOX A2		METALFORM		51729	3-49
M	Sextavado	INOX A2		METALFORM	Embalagem grande	51728	3-50
M	Sextavado	INOX A4				55730	3-50
M	Sextavado	Al Dural				45110	3-50

12300 **Porca auto bloqueante sextavada com inserto não metálico** **F06A**

Rosca Métrica
Material Aço
Classe ≥|5|
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M2,5	250	12300.025.001	M5	250	12300.050.001	M8	250	12300.080.001
M3	250	12300.030.001	M6	250	12300.060.001	M10	200	12300.100.001
M4	250	12300.040.001	M7	250	12300.070.001	M12	100	12300.120.001

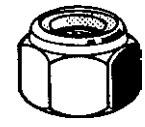
12300 Porca auto bloqueante sextavada com inserto não metálico ←

d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M14	100	12300.140.001	M27	10	12300.270.001	M45	4	12300.450.001
M16	50	12300.160.001	M30	10	12300.300.001	M48	4	12300.480.001
M18	50	12300.180.001	M33	5	12300.330.001	M52	1	12300.520.001
M20	25	12300.200.001	M36	5	12300.360.001	M56	1	12300.560.001
M22	25	12300.220.001	M39	5	12300.390.001	M60	1	12300.600.001
M24	25	12300.240.001	M42	5	12300.420.001	M64	1	12300.640.001

12310 Porca auto bloqueante sextavada com inserto não metálico F06A

Rosca Métrica
Material Aço
Classe ≥|5|
Tratamento sup. Zincado

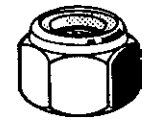
RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	2500	12310.030.001	M6	2500	12310.060.001	M12	500	12310.120.001
M4	2500	12310.040.001	M8	2000	12310.080.001	M16	250	12310.160.001
M5	2500	12310.050.001	M10	750	12310.100.001			

12302 Porca auto bloqueante sextavada com inserto não metálico F05A

Rosca Métrica
Material Aço
Classe ≥|5|
Tratamento sup. Passivado a amarelo

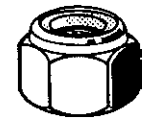


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	250	12302.030.001	M8	250	12302.080.001	M18	50	12302.180.001
M4	250	12302.040.001	M10	100	12302.100.001	M20	25	12302.200.001
M5	250	12302.050.001	M12	100	12302.120.001	M22	25	12302.220.001
M6	250	12302.060.001	M14	100	12302.140.001	M24	25	12302.240.001
M7	200	12302.070.001	M16	50	12302.160.001			

12307 Porca auto bloqueante sextavada com inserto não metálico A96A

Rosca Métrica
Material Aço
Classe |6|
Tratamento sup. Camada de zinco isento Cr^{6+}- ISO 10683 flZnnc

RoHS

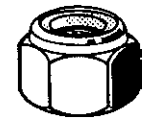


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	250	12307.060.001	M14	100	12307.140.001	M22	25	12307.220.001
M8	250	12307.080.001	M16	50	12307.160.001	M24	25	12307.240.001
M10	200	12307.100.001	M18	50	12307.180.001	M27	10	12307.270.001
M12	100	12307.120.001	M20	25	12307.200.001	M30	10	12307.300.001

12348 Porca auto bloqueante sextavada com inserto não metálico F05A

Rosca Métrica
Material Aço
Classe |8|
Tratamento sup. Zincado

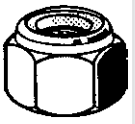
RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	250	12348.040.001	M14	100	12348.140.001	M27	10	12348.270.001
M5	250	12348.050.001	M16	50	12348.160.001	M30	10	12348.300.001
M6	250	12348.060.001	M18	50	12348.180.001	M33	5	12348.330.001
M8	250	12348.080.001	M20	25	12348.200.001	M36	5	12348.360.001
M10	200	12348.100.001	M22	25	12348.220.001			
M12	100	12348.120.001	M24	25	12348.240.001			

12350 Porca auto bloqueante sextavada com inserto não metálico — F05A

Rosca Métrica
Material Aço
Classe |8|
Tratamento sup. Passivado a amarelo

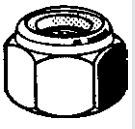


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	250	12350.060.001	M14	100	12350.140.001	M24	25	12350.240.001
M8	250	12350.080.001	M16	50	12350.160.001	M27	10	12350.270.001
M10	200	12350.100.001	M20	25	12350.200.001	M30	10	12350.300.001
M12	100	12350.120.001						

12410 Porca auto bloqueante sextavada com inserto não metálico — F05A

Rosca Métrica
Material Aço
Classe |10|
Tratamento sup. Zincado

RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	250	12410.050.001	M14	100	12410.140.001	M22	25	12410.220.001
M6	250	12410.060.001	M16	50	12410.160.001	M24	25	12410.240.001
M8	250	12410.080.001	M18	50	12410.180.001	M27	10	12410.270.001
M10	200	12410.100.001	M20	25	12410.200.001	M30	10	12410.300.001
M12	100	12410.120.001						

12450 Porca auto bloqueante sextavada com inserto não metálico — F05A

Rosca Métrica
Material Aço
Classe |10|
Tratamento sup. Passivado a amarelo



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	250	12450.060.001	M14	100	12450.140.001	M24	25	12450.240.001
M8	250	12450.080.001	M16	50	12450.160.001	M27	10	12450.270.001
M10	200	12450.100.001	M20	25	12450.200.001	M30	10	12450.300.001
M12	100	12450.120.001						

51730 Porca auto bloqueante sextavada com inserto não metálico — R09A

Rosca Métrica
Material Aço inoxidável A2

RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M2,5	200	51730.025.001	M10	100	51730.100.001	M22	25	51730.220.001
M3	200	51730.030.001	M12	50	51730.120.001	M24	10	51730.240.001
M4	200	51730.040.001	M14	50	51730.140.001	M27	5	51730.270.001
M5	200	51730.050.001	M16	20	51730.160.001	M30	5	51730.300.001
M6	200	51730.060.001	M18	50	51730.180.001	M36	5	51730.360.001
M8	100	51730.080.001	M20	20	51730.200.001			

- Nas porcas sextavadas autobloqueantes aço inox com inserto plástico, pode ocorrer o fenómeno de gripagem.
- É recomendada a utilização de porcas sextavadas autobloqueantes em aço inox com inserto plástico METALFORM (51729 e51728) ou a utilização de lubrificante e antigripante Molykote P-37 (90710.000.500) ou Loctite 8009 (90008.009.454).

51729 Porca auto bloqueante com inserto não metálico, Metalform — R09A

Rosca Métrica
Material Aço inoxidável A2
Tratamento sup. METALFORM

RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	100	51729.040.001	M8	50	51729.080.001	M16	10	51729.160.001
M5	100	51729.050.001	M10	50	51729.100.001	M20	10	51729.200.001
M6	100	51729.060.001	M12	25	51729.120.001			

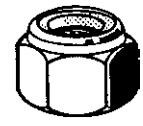
51729 Porca auto bloqueante com inserto não metálico, Metalform ←

- Caracteristicas especiais do METALFORM:
- É um lubrificante seco e invisivel, que praticamente elimina a possibilidade de gripagem dos parafusos em aço inox.
- O coeficiente de atrito é também reduzido para um valor constante.
- Numa combinação parafuso/porca é suficiente que, apenas a porca seja lubrificada com METALFORM para prevenir a gripagem.
- Pode ser facilmente removida, depois da montagem com um solvente, não há objecção na utilização desta aplicação na indústria alimentar.

51728 Porca auto bloqueante com inserto não metálico, Metalform R09A

Rosca Métrica
Material Aço inoxidável A2
Tratamento sup. METALFORM

RoHS



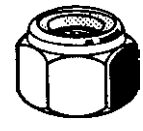
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	1000	51728.060.001	M8	500	51728.080.001	M10	500	51728.100.001

- Caracteristicas especiais do METALFORM:
- É um lubrificante seco e invisivel, que praticamente elimina a possibilidade de gripagem dos parafusos em aço inox.
- O coeficiente de atrito é também reduzido para um valor constante.
- Numa combinação parafuso/porca é suficiente que, apenas a porca seja lubrificada com METALFORM para prevenir a gripagem.
- Pode ser facilmente removida, depois da montagem com um solvente, não há objecção na utilização desta aplicação na indústria alimentar.

55730 Porca auto bloqueante sextavada com inserto não metálico R49A

Rosca Métrica
Material Aço inoxidável A4

RoHS



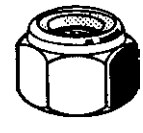
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M2,5*	500	55730.025.001	M10	100	55730.100.001	M22*	25	55730.220.001
M3	200	55730.030.001	M12	50	55730.120.001	M24	10	55730.240.001
M4	200	55730.040.001	M14	50	55730.140.001	M27	5	55730.270.001
M5	200	55730.050.001	M16	20	55730.160.001	M30	5	55730.300.001
M6	200	55730.060.001	M18	50	55730.180.001	M33	5	55730.330.001
M8	100	55730.080.001	M20	20	55730.200.001			

- Nas porcas sextavadas autobloqueantes aço inox com inserto plástico, pode ocorrer o fenómeno de gripagem.
- É recomendada a utilização de porcas sextavadas autobloqueantes em aço inox com inserto plástico METALFORM (51729 e51728) ou a utilização de lubrificante e antigripante Molykote P-37 (90710.000.500) ou Loctite 8009 (90008.009.454).

45110 Porca auto bloqueante sextavada com inserto não metálico W010

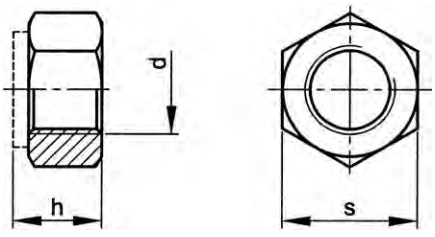
Rosca Métrica
Material Alumínio Dural

DIN **≈985 (1987)**
ISO ≈7040
NF ≈E25-412

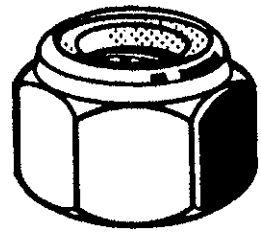


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	200	45110.030.001	M6	200	45110.060.001	M12	50	45110.120.001
M4	200	45110.040.001	M8	100	45110.080.001	M16	20	45110.160.001
M5	200	45110.050.001	M10	100	45110.100.001			

Porca sextavada auto bloqueante com inserto não metálico MF



DIN **985 (1987)**
ISO 10512
NF E25-412



Dados técnicos

d	h	s
M8	8	13
M10	10	17
M12	12	19
M14	14	22
M16	16	24
M18	18.5	27
M20	20	30
M22	22	32
M24	24	36

d	h	s
M27	27	41
M30	30	46
M33	33	50
M36	36	55
M39	39	60
M42	42	65
M45	45	70
M48	48	75

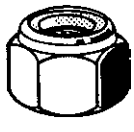
Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
MF	Sextavado	Aço	≥|5|	Zn	12320	3-51
MF	Sextavado	Aço	|8|	Passiv. amar.	12352	3-51
MF	Sextavado	Aço	|10|	Passiv. amar.	12422	3-52
MF	Sextavado	INOX A2		Gleitmo	51739	3-52
MF	Sextavado	INOX A4		Gleitmo	55739	3-52

12320 Porca sextavada auto bloqueante com inserto não metálico MF — F05A

Rosca Métrica fina
Material Aço
Classe ≥|5|
Tratamento sup. Zincado

RoHS



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M8X1,00	250	12320.080.100	M20X2,00	25	12320.200.200	M33X2,00	5	12320.330.200
M10X1,00	200	12320.100.100	M22X1,50	25	12320.220.150	M36X1,50 (≠DIN)	5	12320.360.150
M10X1,25	200	12320.100.125	M24X1,50 (≠DIN)	25	12320.240.150	M36X3,00	5	12320.360.300
M12X1,00 (≠DIN)	100	12320.120.100	M24X2,00	25	12320.240.200	M39X3,00	5	12320.390.300
M12X1,25	100	12320.120.125	M27X1,50 (≠DIN)	10	12320.270.150	M42X1,50 (≠DIN)	5	12320.420.150
M12X1,50	100	12320.120.150	M27X2,00	10	12320.270.200	M42X3,00	5	12320.420.300
M14X1,50	100	12320.140.150	M30X1,50 (≠DIN)	10	12320.300.150	M45X3,00	4	12320.450.300
M16X1,50	50	12320.160.150	M30X2,00	10	12320.300.200	M48X1,50 (≠DIN)	4	12320.480.150
M18X1,50	50	12320.180.150	M33X1,50 (≠DIN)	5	12320.330.150	M48X3,00	4	12320.480.300
M20X1,50	25	12320.200.150						

12352 Porca sextavada auto bloqueante com inserto não metálico MF — F05A

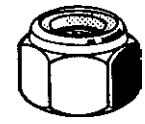
Rosca Métrica fina
Material Aço
Classe |8|
Tratamento sup. Passivado a amarelo



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M10X1,00	200	12352.100.100	M12X1,50	100	12352.120.150	M20X1,50	25	12352.200.150
M10X1,25	200	12352.100.125	M14X1,50	100	12352.140.150	M24X2,00	25	12352.240.200
M12X1,25	100	12352.120.125	M16X1,50	50	12352.160.150			

12422 Porca sextavada auto bloqueante com inserto não metálico MF — F05A

Rosca Métrica fina
Material Aço
Classe |10|
Tratamento sup. Passivado a amarelo

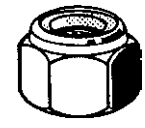


d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M8X1,00	250	12422.080.100	M14X1,50	100	12422.140.150	M20X1,50	25	12422.200.150
M10X1,00	200	12422.100.100	M16X1,50	50	12422.160.150	M24X1,50	25	12422.240.150
M12X1,50	100	12422.120.150	M18X1,50	50	12422.180.150			

51739 Porca sextavada auto bloqueante com inserto não metálico MF — R09A

Rosca Métrica fina
Material Aço inoxidável A2
Tratamento sup. Gleitmo

RoHS

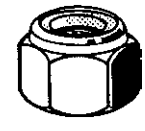


d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M12X1,50*	200	51739.120.150	M14X1,50*	100	51739.140.150	M16X1,50*	100	51739.160.150

55739 Porca sextavada auto bloqueante com inserto não metálico MF — R49A

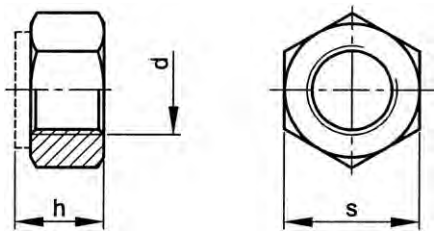
Rosca Métrica fina
Material Aço inoxidável A4
Tratamento sup. Gleitmo

RoHS

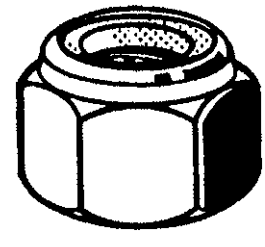


d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M10X1,00*	200	55739.100.100	M14X1,50*	100	55739.140.150

Porca auto bloqueante sextavada com inserto não metálico tipo pesado



DIN **982**
ISO ≈7040
NF ≈E25-409



Dados técnicos

d	h	P	s	d	h	P	s
M4	4.7	0.7	7	M14	16	2	22
M5	6.3	0.8	8	M16	18	2	24
M6	8	1	10	M18	20	2.5	27
M8	9.5	1.25	13	M20	22	2.5	30
M10	11.5	1.5	17	M22	25	2.5	32
M12	14	1.75	19	M24	28	3	36

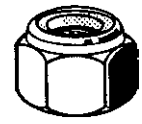
Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado	Aço	8	Zn	12600	3-53
M	Sextavado	Aço	10	Passiv. amar.	12662	3-53
M	Sextavado	INOX A2			51718	3-53
M	Sextavado	INOX A4			55718	3-53

12600 Porca auto bloqueante sextavada com inserto não metálico tipo pesado — F05A

Rosca Métrica
Material Aço
Classe 8
Tratamento sup. Zincado

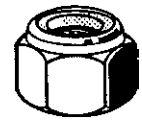
RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	250	12600.050.001	M12	100	12600.120.001	M20	25	12600.200.001
M6	250	12600.060.001	M14	100	12600.140.001	M22	25	12600.220.001
M8	250	12600.080.001	M16	50	12600.160.001	M24	25	12600.240.001
M10	200	12600.100.001	M18	50	12600.180.001			

12662 Porca auto bloqueante sextavada com inserto não metálico tipo pesado — F05A

Rosca Métrica
Material Aço
Classe 10
Tratamento sup. Passivado a amarelo

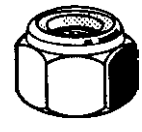


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	250	12662.060.001	M12	100	12662.120.001	M20	25	12662.200.001
M8	250	12662.080.001	M14	100	12662.140.001	M24	25	12662.240.001
M10	200	12662.100.001	M16	50	12662.160.001			

51718 Porca auto bloqueante sextavada com inserto não metálico tipo pesado — R09A

Rosca Métrica **DIN** ≈982
Material Aço inoxidável A2

RoHS

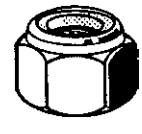


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	200	51718.040.001	M10	100	51718.100.001	M16*	50	51718.160.001
M5*	200	51718.050.001	M12	50	51718.120.001	M20*	25	51718.200.001
M6	200	51718.060.001	M14*	50	51718.140.001	M24*	10	51718.240.001
M8	200	51718.080.001						

55718 Porca auto bloqueante sextavada com inserto não metálico tipo pesado — R49A

Rosca Métrica **DIN** ≈982
Material Aço inoxidável A4

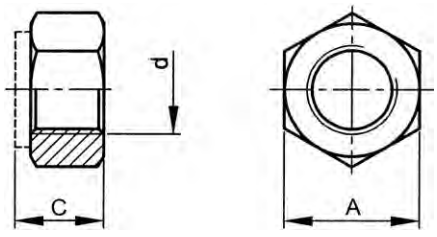
RoHS



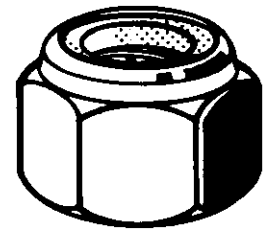
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	200	55718.050.001	M10	50	55718.100.001	M16	10	55718.160.001
M6	100	55718.060.001	M12	25	55718.120.001	M20	10	55718.200.001
M8	50	55718.080.001	M14	25	55718.140.001	M24	5	55718.240.001

- Nas porcas sextavadas autobloqueantes aço inox com inserto plástico, pode ocorrer o fenómeno de gripagem.
- É recomendada a utilização de porcas sextavadas autobloqueantes em aço inox com inserto plástico METALFORM (51729 e51728) ou a utilização de lubrificante e antigripante Molykote P-37 (90710.000.500) ou Loctite 8009 (90008.009.454).

Porca auto bloqueante sextavada com inserto não metálico tipo ASME B18.16.6, NE UNC



ASME B18.16.6



3

Dados técnicos

d	A	C	Fios por polegada	d	A	C	Fios por polegada
No.2	0.251	0.153	56	7/16	0.627	0.468	14
No.3	0.251	0.153	48	1/2	0.752	0.609	13
No.4	0.251	0.153	40	9/16	0.877	0.656	12
No.5	0.251	0.153	40	5/8	0.940	0.765	11
No.6	0.313	0.188	32	3/4	1.064	0.890	10
No.8	0.345	0.239	32	7/8	1.252	0.999	9
No.10	0.376	0.249	24	1 Inch	1.440	1.078	8
1/4	0.439	0.328	20	1.1/8	1.627	1.203	7
5/16	0.502	0.359	18	1.1/4	1.815	1.422	7
3/8	0.564	0.468	16	1.1/2	2.197	1.640	6

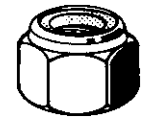
Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
UNC	Sextavado	Aço	Grade 2	Zn	U12300	3-54
UNC	Sextavado	Aço	Grade 5	Zn	U12348	3-54
UNC	Sextavado	Aço	Grade 8		U12411	3-55
UNC	Sextavado	Aço	Grade 8	Passiv. amar.	U12450	3-55
UNC	Sextavado	INOX A2 (AISI304/18-8)			U51738	3-55
UNC	Sextavado	INOX A4 (AISI316/18-10)			U55730	3-55

U12300 Porca auto bloqueante com inserto de nylon NE — X09A

Rosca Unified National Coarse
Material Aço
Classe Grade 2
Tratamento sup. Zincado

RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
NO.2-56*	100	U12300.008.0001	1/4-20*	100	U12300.025.0001	3/4-10*	10	U12300.075.0001
NO.3-48*	100	U12300.009.0001	5/16-18*	100	U12300.031.0001	7/8-9*	5	U12300.087.0001
NO.4-40*	100	U12300.011.0001	3/8-16*	50	U12300.037.0001	1.-8*	5	U12300.100.0001
NO.5-40*	100	U12300.012.0001	7/16-14*	25	U12300.043.0001	1.1/8-7*	5	U12300.112.0001
NO.6-32*	100	U12300.013.0001	1/2-13*	25	U12300.050.0001	1.1/4-7*	5	U12300.125.0001
NO.8-32*	100	U12300.016.0001	9/16-12*	25	U12300.056.0001	1.1/2-6*	5	U12300.150.0001
NO.10-24*	100	U12300.019.0001	5/8-11*	10	U12300.062.0001			

U12348 Porca auto bloqueante com inserto de nylon NE — X01A

Rosca Unified National Coarse
Material Aço
Classe Grade 5
Tratamento sup. Zincado

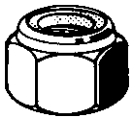
RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-20*	100	U12348.025.0001	1/2-13*	25	U12348.050.0001	3/4-10*	10	U12348.075.0001
5/16-18*	100	U12348.031.0001	9/16-12*	25	U12348.056.0001	7/8-9*	5	U12348.087.0001
3/8-16*	50	U12348.037.0001	5/8-11*	10	U12348.062.0001	1.-8*	5	U12348.100.0001
7/16-14*	25	U12348.043.0001						

U12411 Porca auto bloqueante com inserto de nylon -NE X01A

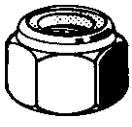
Rosca Unified National Coarse
Material Aço
Classe Grade 8



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-20*	100	U12411.025.0001	9/16-12*	25	U12411.056.0001	1.-8*	5	U12411.100.0001
5/16-18*	100	U12411.031.0001	5/8-11*	10	U12411.062.0001	1.1/8-7*	5	U12411.112.0001
3/8-16*	50	U12411.037.0001	3/4-10*	10	U12411.075.0001	1.1/4-7*	5	U12411.125.0001
7/16-14*	25	U12411.043.0001	7/8-9*	5	U12411.087.0001	1.1/2-6*	5	U12411.150.0001
1/2-13*	25	U12411.050.0001						

U12450 Porca auto bloqueante com inserto de nylon NE X01A

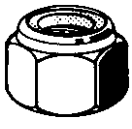
Rosca Unified National Coarse
Material Aço
Classe Grade 8
Tratamento sup. Passivado a amarelo



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-20*	100	U12450.025.0001	9/16-12*	25	U12450.056.0001	1.-8*	5	U12450.100.0001
5/16-18*	100	U12450.031.0001	5/8-11*	10	U12450.062.0001	1.1/8-7*	5	U12450.112.0001
3/8-16*	50	U12450.037.0001	3/4-10*	10	U12450.075.0001	1.1/4-7*	5	U12450.125.0001
7/16-14*	25	U12450.043.0001	7/8-9*	5	U12450.087.0001	1.1/2-6*	5	U12450.150.0001
1/2-13*	25	U12450.050.0001						

U51738 Porca auto bloqueante com inserto de nylon -NE X15A

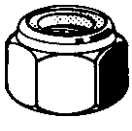
Rosca Unified National Coarse
Material Aço inoxidável A2 (AISI 304/18-8)



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
NO.2-56*	50	U51738.008.0001	1/4-20*	50	U51738.025.0001	3/4-10*	5	U51738.075.0001
NO.3-48*	50	U51738.009.0001	5/16-18*	50	U51738.031.0001	7/8-9*	5	U51738.087.0001
NO.4-40*	50	U51738.011.0001	3/8-16*	50	U51738.037.0001	1.-8*	5	U51738.100.0001
NO.5-40*	50	U51738.012.0001	7/16-14*	25	U51738.043.0001	1.1/8-7*	2	U51738.112.0001
NO.6-32*	50	U51738.013.0001	1/2-13*	10	U51738.050.0001	1.1/4-7*	2	U51738.125.0001
NO.8-32*	50	U51738.016.0001	9/16-12*	10	U51738.056.0001	1.1/2-6*	2	U51738.150.0001
NO.10-24*	50	U51738.019.0001	5/8-11*	10	U51738.062.0001			

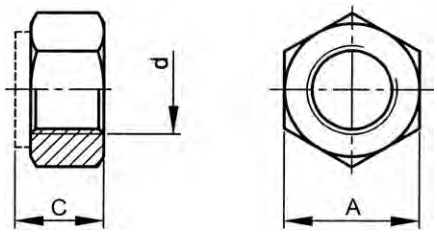
U55730 Porca auto bloqueante com inserto de nylon -NE X15A

Rosca Unified National Coarse
Material Aço inoxidável A4 (AISI 316/18-10)

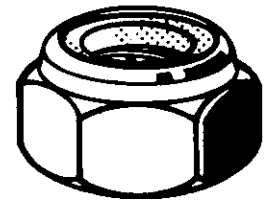


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
NO.4-40*	50	U55730.011.0001	5/16-18*	50	U55730.031.0001	5/8-11*	10	U55730.062.0001
NO.6-32*	50	U55730.013.0001	3/8-16*	50	U55730.037.0001	3/4-10*	5	U55730.075.0001
NO.8-32*	50	U55730.016.0001	7/16-14*	25	U55730.043.0001	7/8-9*	5	U55730.087.0001
NO.10-24*	50	U55730.019.0001	1/2-13*	10	U55730.050.0001	1.-8*	5	U55730.100.0001
1/4-20*	50	U55730.025.0001	9/16-12*	10	U55730.056.0001			

Porca auto bloqueante com inserto não metálico, ASME B18.16.6, NTE UNC



ASME B18.16.6



3

Dados técnicos

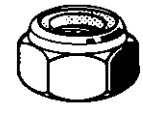
d	A	C	Fios por polegada
No.4	0.251	0.124	40
No.5	0.251	0.124	40
No.6	0.313	0.140	32
No.8	0.345	0.187	32
No.10	0.376	0.187	24
1/4	0.439	0.218	20
5/16	0.502	0.265	18
3/8	0.564	0.281	16
7/16	0.627	0.328	14
1/2	0.752	0.328	13
9/16	0.877	0.374	12
5/8	0.940	0.406	11
3/4	1.064	0.421	10
7/8	1.252	0.484	9
1 Inch	1.44	0.578	8

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
UNC	Sextavado	Aço	Grade 2	Zn	U12423	3-56
UNC	Sextavado	INOX A2 (AISI304/18-8)			U51730	3-56

U12423 Porca auto bloqueante com inserto nylon -NTE — X01A

Rosca Unified National Coarse
Material Aço
Classe Grade 2
Tratamento sup. Zincado

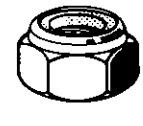


RoHS

d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
NO.4-40*	100	U12423.011.0001	1/4-20*	100	U12423.025.0001	9/16-12*	25	U12423.056.0001
NO.5-40*	100	U12423.012.0001	5/16-18*	100	U12423.031.0001	5/8-11*	10	U12423.062.0001
NO.6-32*	100	U12423.013.0001	3/8-16*	50	U12423.037.0001	3/4-10*	10	U12423.075.0001
NO.8-32*	100	U12423.016.0001	7/16-14*	25	U12423.043.0001	7/8-9*	5	U12423.087.0001
NO.10-24*	100	U12423.019.0001	1/2-13*	25	U12423.050.0001	1.-8*	5	U12423.100.0001

U51730 Porca auto bloqueante com inserto nylon -NTE — X15A

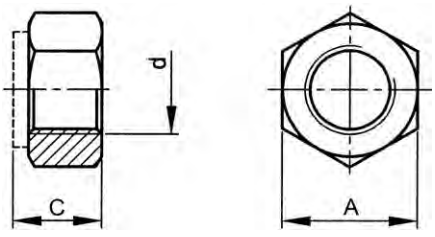
Rosca Unified National Coarse
Material Aço inoxidável A2 (AISI 304/18-8)



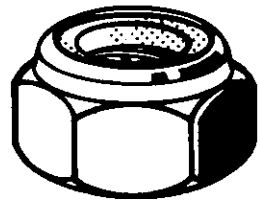
RoHS

d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
NO.4-40*	50	U51730.011.0001	1/4-20*	50	U51730.025.0001	5/8-11*	10	U51730.062.0001
NO.5-40*	50	U51730.012.0001	5/16-18*	50	U51730.031.0001	3/4-10*	5	U51730.075.0001
NO.6-32*	50	U51730.013.0001	3/8-16*	50	U51730.037.0001	7/8-9*	5	U51730.087.0001
NO.8-32*	50	U51730.016.0001	7/16-14*	25	U51730.043.0001	1.-8*	5	U51730.100.0001
NO.10-24*	50	U51730.019.0001	1/2-13*	10	U51730.050.0001			

Porca auto bloqueante com inserto não metálico, ASME B18.16.6, NTE UNF



ASME B18.16.6



Dados técnicos

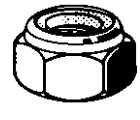
d	A	C	Fios por polegada
No.10	0.187	0.376	32
1/4	0.218	0.439	28
5/16	0.265	0.502	24
3/8	0.281	0.564	24
7/16	0.328	0.627	20
1/2	0.328	0.752	20
9/16	0.374	0.877	18
5/8	0.406	0.94	18
3/4	0.421	1.064	16
7/8	0.484	1.252	14
1 Inch	0.578	1.440	14
1.1/8	0.672	1.627	12
1.1/4	0.765	1.815	12
1.1/2	0.828	2.197	12

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
UNF	Sextavado	Aço	Grade 2	Zn	U12380	3-57
UNF	Sextavado	Aço	Grade 8	Zn	U12381	3-57
UNF	Sextavado	INOX A2 (AISI304/18-8)			U51422	3-58

U12380 Porca auto bloqueante com inserto nylon -NTE — X01A

Rosca Unified National Fine
Material Aço
Classe Grade 2
Tratamento sup. Zincado

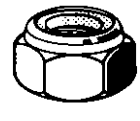


RoHS

d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
NO.10-32*	100	U12380.019.0002	1/2-20*	25	U12380.050.0002	1.-14*	5	U12380.101.0002
1/4-28*	100	U12380.025.0002	9/16-18*	25	U12380.056.0002	1.1/8-12*	5	U12380.112.0002
5/16-24*	100	U12380.031.0002	5/8-18*	10	U12380.062.0002	1.1/4-12*	5	U12380.125.0002
3/8-24*	50	U12380.037.0002	3/4-16*	10	U12380.075.0002	1.1/2-12*	5	U12380.150.0002
7/16-20*	25	U12380.043.0002	7/8-14*	5	U12380.087.0002			

U12381 Porca auto bloqueante com inserto nylon -NTE — X01A

Rosca Unified National Fine
Material Aço
Classe Grade 8
Tratamento sup. Zincado



RoHS

d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-28*	100	U12381.025.0002	3/4-16*	10	U12381.075.0002	1.1/8-12*	5	U12381.112.0002
5/16-24*	100	U12381.031.0002	7/8-14*	5	U12381.087.0002	1.1/4-12*	5	U12381.125.0002
1/2-20*	25	U12381.050.0002	1.-14*	5	U12381.101.0002	1.1/2-12*	5	U12381.150.0002
5/8-18*	10	U12381.062.0002						

U51422	Porca auto bloqueante com inserto nylon -NTE	X15A

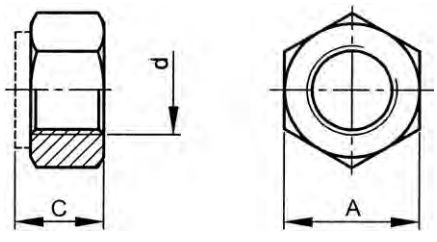
Rosca Unified National Fine
Material Aço inoxidável A2 (AISI 304/18-8)



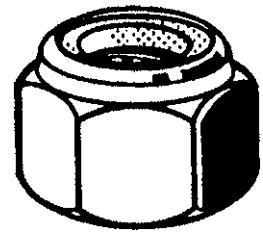
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
NO.10-32*	50	U51422.019.0002	7/16-20*	25	U51422.043.0002	3/4-16*	5	U51422.075.0002
1/4-28*	50	U51422.025.0002	1/2-20*	10	U51422.050.0002	7/8-14*	5	U51422.087.0002
5/16-24*	50	U51422.031.0002	5/8-18*	10	U51422.062.0002	1.-14*	5	U51422.101.0002
3/8-24*	50	U51422.037.0002						

3

Porca auto bloqueante heavy com inserto de nylon ASME B18.16.6, NU UNC



ASME B18.16.6



Dados técnicos

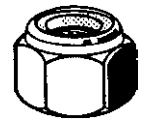
d	A	C	Fios por polegada
1/4	0.506	0.39	20
5/16	0.566	0.453	18
3/8	0.691	0.562	16
7/16	0.754	0.609	14
1/2	0.879	0.718	13
9/16	0.942	0.812	12
5/8	1.067	0.874	11
3/4	1.255	1.015	10
7/8	1.444	1.14	9
1 Inch	1.632	1.312	8
1.1/8	1.82	1.469	7
1.1/4	2.008	1.672	7
1.1/2	2.384	1.953	6

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
UNC	Sextavado	Aço	Grade 2	Zn	U12601	3-58
UNC	Sextavado	INOX A2 (AISI304/18-8)			U51718	3-59

U12601	Porca auto bloqueante com inserto de nylon -NU	X01A

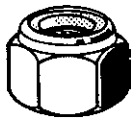
Rosca Unified National Coarse
Material Aço
Classe Grade 2
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-20*	100	U12601.025.0001	9/16-12*	25	U12601.056.0001	1.-8*	5	U12601.100.0001
5/16-18*	100	U12601.031.0001	5/8-11*	10	U12601.062.0001	1.1/8-7*	5	U12601.112.0001
3/8-16*	50	U12601.037.0001	3/4-10*	10	U12601.075.0001	1.1/4-7*	5	U12601.125.0001
7/16-14*	25	U12601.043.0001	7/8-9*	5	U12601.087.0001	1.1/2-6*	5	U12601.150.0001
1/2-13*	25	U12601.050.0001						

U51718 **Porca auto bloqueante com inserto de nylon -NU** **X15A**

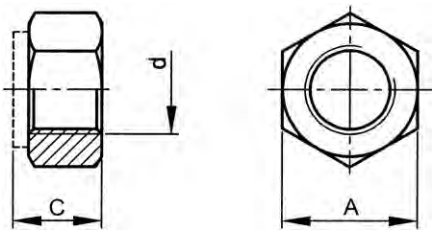
Rosca Unified National Coarse
Material Aço inoxidável A2 (AISI 304/18-8)



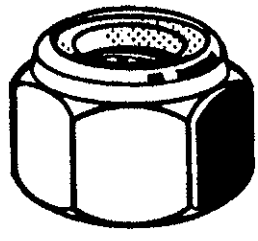
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-20*	50	U51718.025.0001	5/8-11*	10	U51718.062.0001	1.1/8-7*	5	U51718.112.0001
5/16-18*	50	U51718.031.0001	3/4-10*	5	U51718.075.0001	1.1/4-7*	5	U51718.125.0001
3/8-16*	50	U51718.037.0001	7/8-9*	5	U51718.087.0001	1.1/2-6*	2	U51718.150.0001
1/2-13*	10	U51718.050.0001	1.-8*	5	U51718.100.0001			

3

Porca auto bloqueante heavy com inserto de nylon ASME B18.16.6, NTU UNC



ASME **B18.16.6**



Dados técnicos

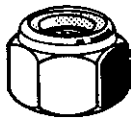
d	A	C	Fios por polegada
1/4	0.502	0.296	20
5/16	0.564	0.328	18
3/8	0.690	0.421	16
7/16	0.752	0.453	14
1/2	0.877	0.546	13
9/16	0.940	0.578	12
5/8	1.064	0.624	11
3/4	1.252	0.718	10
7/8	1.440	0.796	9
1 Inch	1.627	0.922	8
1.1/8	1.814	1.000	7
1.1/4	2.008	1.14	7
1.1/2	2.384	1.344	6

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
UNC	Sextavado	Aço	Grade 2	Zn	U12705	3-59
UNC	Sextavado	INOX A2 (AISI304/18-8)			U51705	3-60

U12705 **Porca auto bloqueante com inserto de nylon -NTU** **X01A**

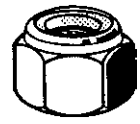
Rosca Unified National Coarse
Material Aço
Classe Grade 2
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-20*	100	U12705.025.0001	9/16-12*	25	U12705.056.0001	1.-8*	5	U12705.100.0001
5/16-18*	100	U12705.031.0001	5/8-11*	10	U12705.062.0001	1.1/8-7*	5	U12705.112.0001
3/8-16*	50	U12705.037.0001	3/4-10*	10	U12705.075.0001	1.1/4-7*	5	U12705.125.0001
7/16-14*	25	U12705.043.0001	7/8-9*	5	U12705.087.0001	1.1/2-6*	5	U12705.150.0001
1/2-13*	25	U12705.050.0001						

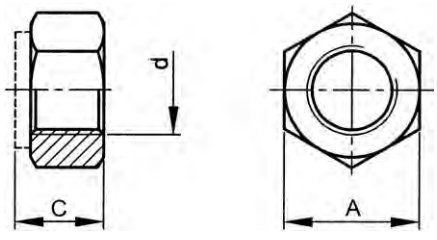
U51705	Porca auto bloqueante com inserto de nylon -NTU	X15A

Rosca Unified National Coarse
Material Aço inoxidável A2 (AISI 304/18-8)

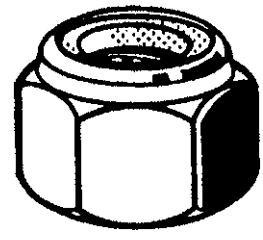


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-20*	50	U51705.025.0001	7/16-14*	25	U51705.043.0001	3/4-10*	5	U51705.075.0001
5/16-18*	50	U51705.031.0001	1/2-13*	10	U51705.050.0001	7/8-9*	5	U51705.087.0001
3/8-16*	50	U51705.037.0001	5/8-11*	10	U51705.062.0001	1.-8*	5	U51705.100.0001

Porca sextavada auto bloqueante com inserto não metálico ASME B18.16.6, NE UNF



ASME B18.16.6



Dados técnicos

d	A	C	Fios por polegada
No.10	0.376	0.249	32
1/4	0.439	0.328	28
5/16	0.502	0.359	24
3/8	0.564	0.468	24
7/16	0.627	0.468	20
1/2	0.752	0.609	20
9/16	0.877	0.656	18
5/8	0.940	0.765	18

d	A	C	Fios por polegada
3/4	1.064	0.890	16
7/8	1.252	0.999	14
1 Inch-12G	1.440	1.078	12
1 Inch-14G	1.440	1.078	14
1.1/8	1.627	1.203	12
1.1/4	1.815	1.422	12
1.1/2	2.197	1.640	12

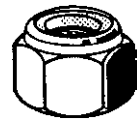
- Dependendo da disponibilidade de stock estas medidas podem ser diferentes.
- Se quando fizer a encomenda não for referido UNF 1- 12 polegadas, será fornecido com 14 fios por polegada (UNS).

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
UNF	Sextavado	Aço	Grade 2	Zn	U12320	3-60
UNF	Sextavado	Aço	Grade 5	Zn	U12353	3-61
UNF	Sextavado	Aço	Grade 8		U12421	3-61
UNF	Sextavado	Aço	Grade 8	Passiv. amar.	U12422	3-61
UNF	Sextavado	INOX A2 (AISI304/18-8)			U51411	3-61
UNF	Sextavado	INOX A4 (AISI316/18-10)			U55411	3-61

U12320	Porca auto bloqueante com inserto de nylon -NE	X09A

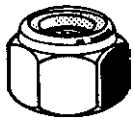
Rosca Unified National Fine
Material Aço
Classe Grade 2
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
NO.10-32*	100	U12320.019.0002	1/2-20*	25	U12320.050.0002	1.-14*	5	U12320.101.0002
1/4-28*	100	U12320.025.0002	9/16-18*	25	U12320.056.0002	1.1/8-12*	5	U12320.112.0002
5/16-24*	100	U12320.031.0002	5/8-18*	10	U12320.062.0002	1.1/4-12*	5	U12320.125.0002
3/8-24*	50	U12320.037.0002	3/4-16*	10	U12320.075.0002	1.1/2-12*	5	U12320.150.0002
7/16-20*	25	U12320.043.0002	7/8-14*	5	U12320.087.0002			

U12353 Porca auto bloqueante com inserto de nylon -NE — X01A

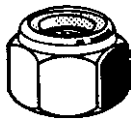
Rosca Unified National Fine
Material Aço
Classe Grade 5
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-28*	100	U12353.025.0002	7/16-20*	25	U12353.043.0002	5/8-18*	10	U12353.062.0002
5/16-24*	100	U12353.031.0002	1/2-20*	25	U12353.050.0002	3/4-16*	10	U12353.075.0002
3/8-24*	50	U12353.037.0002						

U12421 Porca auto bloqueante com inserto de nylon -NE — X01A

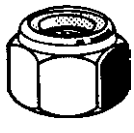
Rosca Unified National Fine
Material Aço
Classe Grade 8



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-28*	100	U12421.025.0002	9/16-18*	25	U12421.056.0002	1.-14*	5	U12421.101.0002
5/16-24*	100	U12421.031.0002	5/8-18*	10	U12421.062.0002	1.1/8-12*	5	U12421.112.0002
3/8-24*	50	U12421.037.0002	3/4-16*	10	U12421.075.0002	1.1/4-12*	5	U12421.125.0002
7/16-20*	25	U12421.043.0002	7/8-14*	5	U12421.087.0002	1.1/2-12*	5	U12421.150.0002
1/2-20*	25	U12421.050.0002						

U12422 Porca auto bloqueante com inserto de nylon -NE — X01A

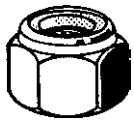
Rosca Unified National Fine
Material Aço
Classe Grade 8
Tratamento sup. Passivado a amarelo



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-28*	100	U12422.025.0002	9/16-18*	25	U12422.056.0002	1.-14*	5	U12422.101.0002
5/16-24*	100	U12422.031.0002	5/8-18*	10	U12422.062.0002	1.1/8-12*	5	U12422.112.0002
3/8-24*	50	U12422.037.0002	3/4-16*	10	U12422.075.0002	1.1/4-12*	5	U12422.125.0002
7/16-20*	25	U12422.043.0002	7/8-14*	5	U12422.087.0002	1.1/2-12*	5	U12422.150.0002
1/2-20*	25	U12422.050.0002						

U51411 Porca auto bloqueante com inserto de nylon -NE — X15A

Rosca Unified National Fine
Material Aço inoxidável A2 (AISI 304/18-8)



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
NO.10-32*	50	U51411.019.0002	7/16-20*	25	U51411.043.0002	3/4-16*	5	U51411.075.0002
1/4-28*	50	U51411.025.0002	1/2-20*	10	U51411.050.0002	7/8-14*	5	U51411.087.0002
5/16-24*	50	U51411.031.0002	9/16-18*	10	U51411.056.0002	1.-14*	5	U51411.101.0002
3/8-24*	50	U51411.037.0002	5/8-18*	10	U51411.062.0002			

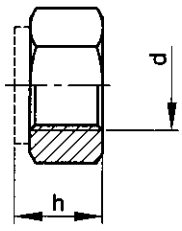
U55411 Porca auto bloqueante com inserto de nylon -NE — X15A

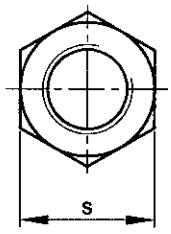
Rosca Unified National Fine
Material Aço inoxidável A4 (AISI 316/18-10)

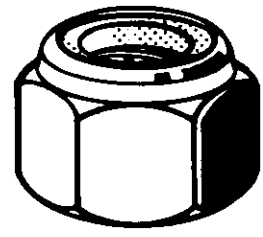


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
NO.10-32*	50	U55411.019.0002	7/16-20*	25	U55411.043.0002	3/4-16*	5	U55411.075.0002
1/4-28*	50	U55411.025.0002	1/2-20*	10	U55411.050.0002	7/8-14*	5	U55411.087.0002
5/16-24*	50	U55411.031.0002	9/16-18*	10	U55411.056.0002	1.-14*	5	U55411.101.0002
3/8-24*	50	U55411.037.0002	5/8-18*	10	U55411.062.0002			

Porca auto bloqueante sextavada com inserto não metálico tipo BSW







3

Dados técnicos

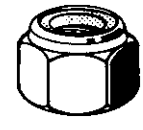
d	Fios por polegada	h	s	d	Fios por polegada	h	s
1/4	20	8.3	7/16	5/8	11	19.4	15/16
5/16	18	9.1	1/2	3/4	10	22.6	1.1/8
3/8	16	11.9	9/16	7/8	9	25.3	1.5/16
1/2	12	15.5	3/4	1 Inch	8	27.6	1.1/2

- Estas porcas sextavadas auto-bloqueantes não são standarizadas.
- Dependendo da disponibilidade de stock, podem existir desvios nas dimensões.
- Rosca Whitworth (BSW/BSF) não é recomendada internacionalmente.
- É aconselhado o uso de rosca métrica(M/MF) ou rosca unificada (UNC/UNF).

12340 **Porca auto bloqueante sextavada com inserto não metálico tipo BSW** **X08A**

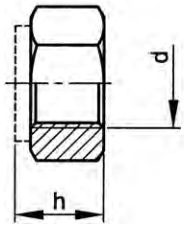
Rosca British Standard Whitworth
Material Aço
Classe 6
Tratamento sup. Zincado

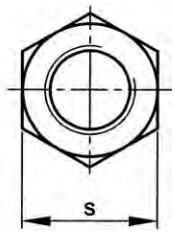
RoHS

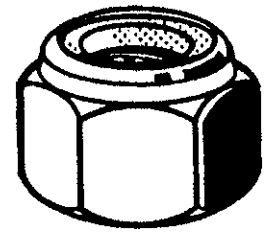


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4	100	12340.063.001	1/2	50	12340.127.001	7/8	10	12340.222.001
5/16	100	12340.079.001	5/8	25	12340.158.001	1 Inch	10	12340.254.001
3/8	100	12340.096.001	3/4	25	12340.191.001			

Porca sextavada auto bloqueante com inserto não metálico BSF







Dados técnicos

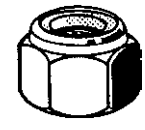
d	Fios por polegada	h	s	d	Fios por polegada	h	s
1/4	26	8.3	7/16	1/2	16	15.5	3/4
5/16	22	9.1	1/2	9/16	16	16.7	7/8
3/8	20	11.9	9/16	5/8	14	19.4	15/16
7/16	18	11.9	11/16	3/4	12	22.6	1.1/8

- Estas porcas sextavadas auto bloqueantes não são normalizadas. Dependendo da disponibilidade de stock estas medidas podem ser diferentes.
- Rosca whitworth (BSW/BSF) não é internacionalmente recomendada. É aconselhável a utilização de roscas métricas (M/MF) ou roscas UNC/UNF.

12400 **Porca sextavada auto bloqueante com inserto não metálico BSF** **X90A**

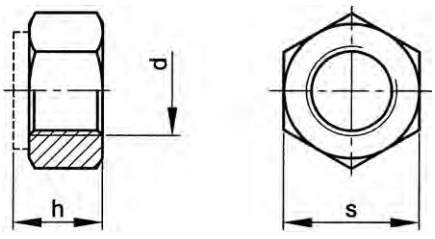
Rosca British Standard Fine
Material Aço
Classe 6
Tratamento sup. Zincado

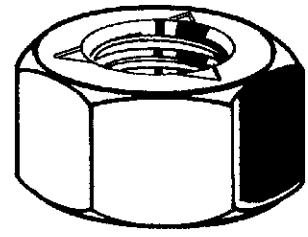
RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4	100	12400.063.001	7/16	100	12400.111.001	5/8	25	12400.158.001
5/16	100	12400.079.001	1/2	50	12400.127.001	3/4	25	12400.191.001
3/8	100	12400.096.001	9/16	50	12400.142.001			

Porca auto bloqueante sextavada aço inox





Dados técnicos

d	h	P	s	d	h	P	s
M3	2.4	0.5	5.5	M12	10	1.75	19
M4	3.2	0.7	7	M14	11	2	22
M5	4	0.8	8	M16	13	2	24
M6	5	1	10	M20	16	2.5	30
M7	5.5	1	11	M24	19	3	36
M8	6.5	1.25	13	M18	15	2.5	27
M10	8	1.5	17	M22	18	2.5	32

- A montagem é conseguida por deformação radial da rosca.

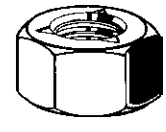
Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
M	Sextavado	INOX A2	70	51720	3-63
M	Sextavado	INOX A4	80	55720	3-63

51720 Porca auto bloqueante sextavada aço inox — R09A

Rosca Métrica
Material Aço inoxidável A2
Classe 70

RoHS

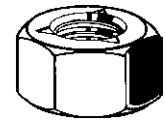


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	100	51720.030.001	M8	50	51720.080.001	M18*	50	51720.180.001
M4	100	51720.040.001	M10	50	51720.100.001	M20	10	51720.200.001
M5	100	51720.050.001	M12	25	51720.120.001	M22*	25	51720.220.001
M6	100	51720.060.001	M14	25	51720.140.001	M24	5	51720.240.001
M7*	200	51720.070.001	M16	10	51720.160.001			

55720 Porca auto bloqueante sextavada aço inox — R49A

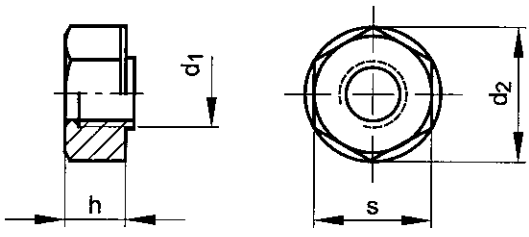
Rosca Métrica
Material Aço inoxidável A4
Classe 80

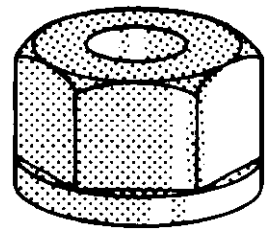
RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3*	200	55720.030.001	M8*	200	55720.080.001	M16*	50	55720.160.001
M4*	200	55720.040.001	M10*	100	55720.100.001	M20*	50	55720.200.001
M5*	200	55720.050.001	M12*	100	55720.120.001	M24*	10	55720.240.001
M6*	200	55720.060.001	M14*	50	55720.140.001			

Porca sextavada auto bloqueante plástico





3

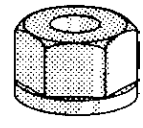
Dados técnicos

d_1	d_2	h	P	s
M4	9.3	6.4	0.7	7
M5	10.5	7.3	0.8	9

d_1	d_2	h	P	s
M6	11.4	8	1	10
M8	16.2	10.3	1.25	14

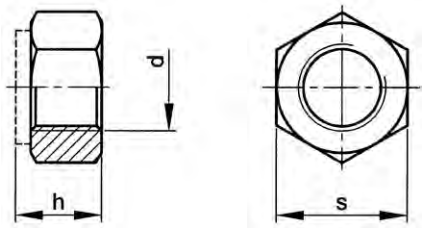
56220 **Porca autobloqueante, plástico** **W02A**

Rosca Métrica
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco

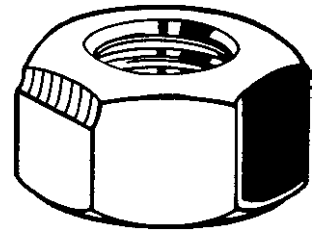


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M4	100	56220.040.001	M6	100	56220.060.001	M8	50	56220.080.001
M5	100	56220.050.001						

Porca auto bloqueante sextavada metálica



DIN **980V(1987)**
ISO 7042
NEN 2452
NF E25-410
BS 4929-1



Dados técnicos

d	h (max.)	P	s
M5	5.1	0.8	8
M6	6	1	10
M8	8	1.25	13
M10	10	1.5	17
M12	12	1.75	19
M14	14	2	22
M16	16	2	24

d	h (max.)	P	s
M18	18	2.5	27
M20	20	2.5	30
M22	22	2.5	32
M24	24	3	36
M27	27	3	41
M30	30	3.5	46
M36	36	4	55

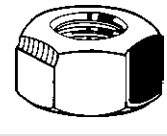
Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado	Aço	8	Zn	12858	3-64
M	Sextavado	Aço	8	Passiv. amar.	12880	3-65
M	Sextavado	Aço	10	Zn	12910	3-65

12858 **STOVER Porca bloqueante metálica** **F01J**

Rosca Métrica
Material Aço
Classe 8
Tratamento sup. Zincado

RoHS



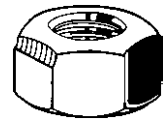
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	250	12858.050.001	M14	100	12858.140.001	M24	25	12858.240.001
M6	250	12858.060.001	M16	50	12858.160.001	M27	25	12858.270.001
M8	250	12858.080.001	M18	25	12858.180.001	M30	25	12858.300.001
M10	200	12858.100.001	M20	25	12858.200.001	M36	10	12858.360.001
M12	100	12858.120.001	M22	25	12858.220.001			

12858 STOVER Porca bloqueante metálica ←

Caracteristicas especiais das porcas auto bloqueantes tipo STOVER:
- Totalmente metálicas, aço classe 8, em conformidade com a norma DIN 980V.
- A fixação é conseguida através da deformação local radial de parte da porca. Inicialmente a porca rosca livremente até á area onde se dá inicio á fixação, após a qual a força aumenta gradualmente até ao máximo.
- Esta acção de fixação progressiva distribui a zona de pressão por uma area maior, prevenindo a deformação da rosca.
- Resistente a choques, vibrações e cargas dinâmicas.
- Reutilizável.

12880 STOVER Porca bloqueante metálica F01J

Rosca Métrica
Material Aço
Classe 8
Tratamento sup. Passivado a amarelo



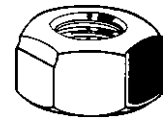
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	4000	12880.060.001	M10	750	12880.100.001	M14	250	12880.140.001
M8	2000	12880.080.001	M12	500	12880.120.001	M16	100	12880.160.001

Caracteristicas especiais das porcas auto bloqueantes tipo STOVER:
- Totalmente metálicas, aço classe 8, em conformidade com a norma DIN 980V.
- A fixação é conseguida através da deformação local radial de parte da porca. Inicialmente a porca rosca livremente até á area onde se dá inicio á fixação, após a qual a força aumenta gradualmente até ao máximo.
- Esta acção de fixação progressiva distribui a zona de pressão por uma area maior, prevenindo a deformação da rosca.
- Resistente a choques, vibrações e cargas dinâmicas.
- Reutilizável.

12910 Porca auto bloqueante sextavada metálica F01J

Rosca Métrica
Material Aço
Classe 10
Tratamento sup. Zincado

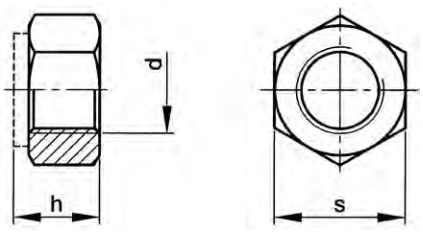
RoHS



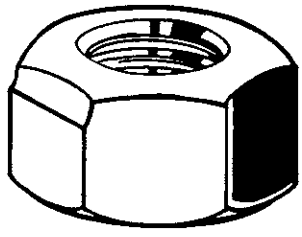
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	250	12910.060.001	M14	100	12910.140.001	M22	50	12910.220.001
M8	250	12910.080.001	M16	50	12910.160.001	M24	50	12910.240.001
M10	200	12910.100.001	M18	50	12910.180.001	M30	25	12910.300.001
M12	100	12910.120.001	M20	50	12910.200.001			

Caracteristicas especiais das porcas auto bloqueantes tipo STOVER:
- Totalmente metálicas, aço classe |8|, em conformidade com a norma DIN 980V.
- A fixação é conseguida através da deformação local radial de parte da porca. Inicialmente a porca rosca livremente até á area onde se dá inicio á fixação, após a qual a força aumenta gradualmente até ao máximo. Esta acção de fixação progressiva distribui a zona de pressão por uma area maior, prevenindo a deformação da rosca.
- Resistente a choques, vibrações e cargas dinâmicas.
- Re utilizável.

Porca sextavada auto bloqueante metálica MF



DIN	**980V(1987)**
ISO	10513
NEN	2452
NF	E25-410



3

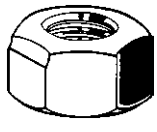
Dados técnicos

d	h (max.)	s	d	h (max.)	s
M8	8	13	**M16**	16	24
M10	10	17	**M18**	18	27
M12	12	19	**M20**	20	30
M14	14	22	**M24**	24	36

12912 **Porca sextavada auto bloqueante metálica MF** **F01J**

Rosca	Métrica fina
Material	Aço
Classe	|8|
Tratamento sup.	Zincado

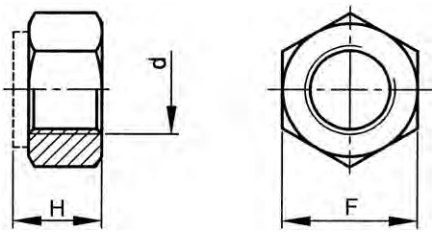
RoHS



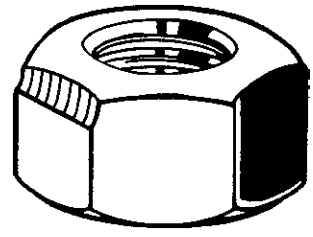
d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M8X1,00	250	12912.080.100	M12X1,50	200	12912.120.150	M20X1,50	50	12912.200.150
M10X1,00	250	12912.100.100	M14X1,50	200	12912.140.150	M24X1,50	50	12912.240.150
M10X1,25	250	12912.100.125	M16X1,50	100	12912.160.150	M24X2,00	50	12912.240.200
M12X1,25	200	12912.120.125	M18X1,50	100	12912.180.150			

- Caracteristicas especiais das porcas sextavadas auto bloqueantes:
- Totalmente metálicas, aço classe l8l de acc. com DIN 980 V.
- A fixação é conseguida através da deformação local radial de parte da porca. Inicialmente a porca rosca livremente até á area onde se dá inicio á fixação, após a qual a força aumenta gradualmente até ao máximo. Esta acção de fixação progressiva distribui a zona de pressão por uma area maior, prevenindo a deformação da rosca.
- Resistente a choques, vibrações e cargas dinâmicas.
- Reutilizável.

Porca auto bloqueante totalmente metálica Toplock IFI-100/107



IFI **100/107**



Dados técnicos

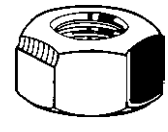
d	F	Fios por polegada	H
No.8	11/32	32	0.171
1/4	7/16	20	0.288
5/16	1/2	18	0.336
3/8	9/16	16	0.415
7/16	11/16	14	0.463
1/2	3/4	13	0.573
9/16	7/8	12	0.621
5/8	15/16	11	0.731
3/4	1.1/8	10	0.827
7/8	1.5/16	9	0.922
1 Inch	1.1/2	8	1.018
1.1/8	1.11/16	7	1.176
1.1/4	1.7/8	7	1.272
1.1/2	2.1/4	6	1.526

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
UNC	Sextavado	Aço	Grade 8	Zn	U12910	3-67
UNC	Sextavado	Aço	Grade 8	Passiv. amar.	U12920	3-67
UNC	Sextavado	INOX A2 (AISI304/18-8)			U51915	3-68
UNC	Sextavado	INOX A4 (AISI316/18-10)			U55915	3-68

U12910 Porca auto bloqueante metálica Toplock (IFI-100/107) X01A

Rosca Unified National Coarse
Material Aço
Classe Grade 8
Tratamento sup. Zincado

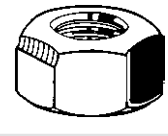


RoHS

d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-20*	100	U12910.025.0001	9/16-12*	25	U12910.056.0001	1.-8*	5	U12910.100.0001
5/16-18*	100	U12910.031.0001	5/8-11*	10	U12910.062.0001	1.1/8-7*	5	U12910.112.0001
3/8-16*	50	U12910.037.0001	3/4-10*	10	U12910.075.0001	1.1/4-7*	5	U12910.125.0001
7/16-14*	25	U12910.043.0001	7/8-9*	5	U12910.087.0001	1.1/2-6*	5	U12910.150.0001
1/2-13*	25	U12910.050.0001						

U12920 Porca auto bloqueante metálica Toplock (IFI-100/107) X01A

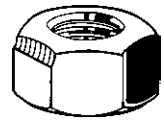
Rosca Unified National Coarse
Material Aço
Classe Grade 8
Tratamento sup. Passivado a amarelo



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-20*	100	U12920.025.0001	1/2-13*	25	U12920.050.0001	1.-8*	5	U12920.100.0001
5/16-18*	100	U12920.031.0001	5/8-11*	10	U12920.062.0001	1.1/8-7*	5	U12920.112.0001
3/8-16*	50	U12920.037.0001	3/4-10*	10	U12920.075.0001	1.1/4-7*	5	U12920.125.0001
7/16-14*	25	U12920.043.0001	7/8-9*	5	U12920.087.0001	1.1/2-6*	5	U12920.150.0001

U51915	Porca auto bloqueante metálica Toplock (IFI-100/107)	X15A

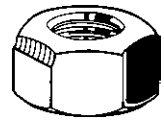
Rosca Unified National Coarse
Material Aço inoxidável A2 (AISI 304/18-8)



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
NO.8-32	50	U51915.016.0001	7/16-14*	25	U51915.043.0001	3/4-10*	5	U51915.075.0001
1/4-20*	50	U51915.025.0001	1/2-13*	10	U51915.050.0001	7/8-9*	5	U51915.087.0001
5/16-18*	50	U51915.031.0001	9/16-12*	10	U51915.056.0001	1.-8*	5	U51915.100.0001
3/8-16*	50	U51915.037.0001	5/8-11*	10	U51915.062.0001			

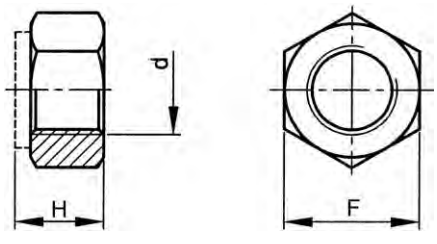
U55915	Porca auto bloqueante metálica Toplock (IFI-100/107)	X15A

Rosca Unified National Coarse
Material Aço inoxidável A4 (AISI 316/18-10)

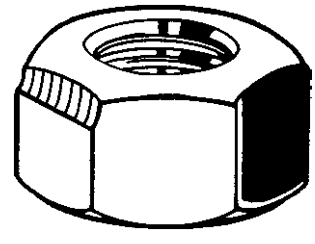


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-20*	50	U55915.025.0001	1/2-13*	10	U55915.050.0001	3/4-10*	5	U55915.075.0001
5/16-18*	50	U55915.031.0001	9/16-12*	10	U55915.056.0001	7/8-9*	5	U55915.087.0001
3/8-16*	50	U55915.037.0001	5/8-11*	10	U55915.062.0001	1.-8*	5	U55915.100.0001
7/16-14*	25	U55915.043.0001						

Porca auto bloqueante totalmente metálica IFI-100/107 Toplock UNF



IFI **100/107**



Dados técnicos

d	F	Fios por polegada	H
No.10	3/8	32	0.241
1/4	7/16	28	0.288
5/16	1/2	24	0.336
3/8	9/16	24	0.415
7/16	11/16	20	0.463
1/2	3/4	20	0.573
9/16	7/8	18	0.621
5/8	15/16	18	0.731
3/4	1.1/8	16	0.827
7/8	1.5/16	14	0.922
1 Inch	1.1/2	14	1.018
1.1/8	1.11/16	12	1.176
1.1/4	1.7/8	12	1.272
1.1/2	2.1/4	12	1.526

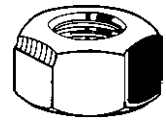
Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
UNF	Sextavado	Aço	Grade 8	Zn	U12950	3-69
UNF	Sextavado	Aço	Grade 8	Passiv. amar.	U12960	3-69
UNF	Sextavado	INOX A2 (AISI304/18-8)			U51960	3-69

U12950 Porca auto bloqueante metálica Toplock GR.8 Zinc (IFI-100/107) X01A

Rosca Unified National Fine
Material Aço
Classe Grade 8
Tratamento sup. Zincado

RoHS

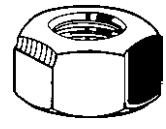


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-28*	100	U12950.025.0002	9/16-18*	25	U12950.056.0002	1.-14*	5	U12950.101.0002
5/16-24*	100	U12950.031.0002	5/8-18*	10	U12950.062.0002	1.1/8-12*	5	U12950.112.0002
3/8-24*	50	U12950.037.0002	3/4-16*	10	U12950.075.0002	1.1/4-12*	5	U12950.125.0002
7/16-20*	25	U12950.043.0002	7/8-14*	5	U12950.087.0002	1.1/2-12*	5	U12950.150.0002
1/2-20*	25	U12950.050.0002						

3

U12960 Porca auto bloqueante metálica Toplock (IFI-100/107) X01A

Rosca Unified National Fine
Material Aço
Classe Grade 8
Tratamento sup. Passivado a amarelo

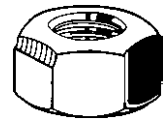


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-28*	100	U12960.025.0002	1/2-20*	25	U12960.050.0002	3/4-16*	10	U12960.075.0002
5/16-24*	100	U12960.031.0002	9/16-18*	25	U12960.056.0002	7/8-14*	5	U12960.087.0002
3/8-24*	50	U12960.037.0002	5/8-18*	10	U12960.062.0002	1.-14*	5	U12960.101.0002

U51960 Porca auto bloqueante metálica Toplock (IFI-100/107) X15A

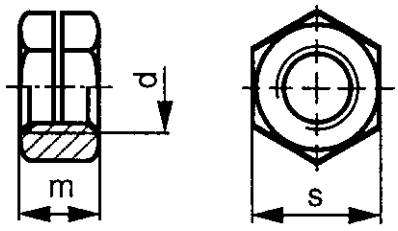
Rosca Unified National Fine
Material Aço inoxidável A2 (AISI 304/18-8)

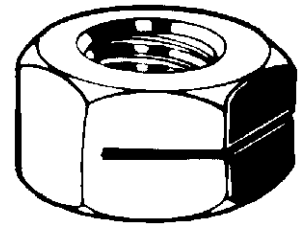
RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
NO.10-32*	50	U51960.019.0002	3/8-24*	50	U51960.037.0002	5/8-18*	10	U51960.062.0002
1/4-28*	50	U51960.025.0002	7/16-20*	25	U51960.043.0002	3/4-16*	5	U51960.075.0002
5/16-24*	50	U51960.031.0002	1/2-20*	10	U51960.050.0002			

Porca bloqueante tipo H100-ESN





Dados técnicos

d	m	P	s	d	m	P	s
M4	4	0.7	7	M14	14	2	21
M5	5	0.8	8	M16	16	2	24
M6	6	1	10	M18	18	2.5	27
M7	7	1	11	M20	20	2.5	30
M8	8	1.25	13	M22	22	2.5	34
M10	10	1.5	16	M24	24	3	36
M12	12	1.75	18	M27	27	3	41

- As porcas sextavadas com freio SNEP, devem ser utilizadas em combinação com os parafusos de classe aço ≤ 6.8.

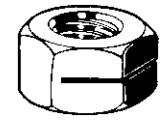
Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.	Código	Página
M	Sextavado	Aço	Zn	13100	3-70
M	Sextavado	INOX A1/A2		51710	3-70
M	Sextavado	Al P60	Anod.	45300	3-71

13100 SNEP Porca bloqueante metálica H100-ESN F01E

Rosca Métrica
Material Aço
Tratamento sup. Zincado

SNEP RoHS



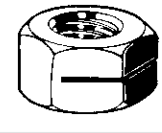
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	250	13100.040.001	M10	200	13100.100.001	M20	25	13100.200.001
M5	250	13100.050.001	M12	100	13100.120.001	M22	25	13100.220.001
M6	250	13100.060.001	M14	100	13100.140.001	M24	25	13100.240.001
M7	250	13100.070.001	M16	50	13100.160.001	M27	10	13100.270.001
M8	250	13100.080.001	M18	50	13100.180.001			

Caracteristicas especiais das porcas auto bloqueantes tipo SNEP:
- Totalmente metálica.
- A fixação é obtida por uma deformação axial, elástica da parte livre que entra em contacto com a outra parte. A porca rosca livremente no parafuso e quando em contacto com os elementos a fixar, o bloqueio das roscas é atingido por reacção elástica do material independente do momento de aperto.
- Zincado com uma espessura minima de approx. 7 µm.
- Resistente a choques, vibrações, e cargas dinâmicas.
- Reutilizável.
- Resistente a temperaturas de –100°C a + 260°C.

51710 SNEP Porca autobloqueante A1, tipo H100-ESN R09A

Rosca Métrica
Material Aço inoxidável A1/A2

SNEP RoHS

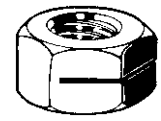


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	100	51710.040.001	M8	50	51710.080.001	M12	25	51710.120.001
M5	100	51710.050.001	M10	50	51710.100.001	M16	10	51710.160.001
M6	100	51710.060.001						

Caracteristicas especiais das porcas sextavadas autobloqueantes SNEP:
- Totalmente em aço inox.
- O bloqueio é obtido através de deformação axial, elástica. A porca rosca livremente no parafuso, até que em contacto com os diferentes elementos a fixar, a reacção da parte livre, independentemente do momento de aperto, provoca uma deformação que bloqueia a rosca do parafuso.
- Resistente a choques, vibrações e cargas dinâmicas.
- Reutilizável.
- Resistente a temperaturas de –100°C a + 260°C.
- As porcas sextavadas auto bloqueantes são fornecidas com um lubrificante que previne a gripagem.
- Dependendo da disponibilidade pode ser fornecido em A1 ou A2.

45300 **SNEP Porca autobloqueantes** **W01A**

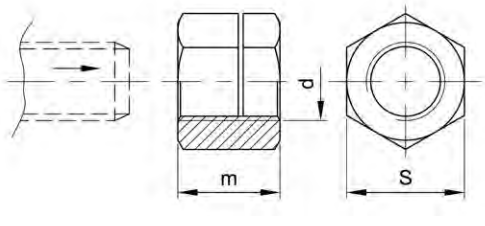
Rosca	Métrica
Material	Alumínio P60
Tratamento sup.	Anodizado

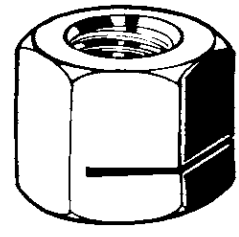


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M8	200	45300.080.001	M12	100	45300.120.001	M16	50	45300.160.001
M10	100	45300.100.001						

- Anodizado sem cor.

Porca sextavada auto bloqueante metálica H130-ESN



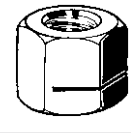


Dados técnicos

d	m	P	s	d	m	P	s
M4	5.2	0.7	7	**M12**	15.6	1.75	18
M5	6.5	0.8	8	**M14**	18.2	2	21
M6	7.8	1	10	**M16**	20.8	2	24
M7	9.1	1	11	**M18**	23.4	2.5	27
M8	10.4	1.25	13	**M20**	26	2.5	30
M10	13	1.5	16	**M24**	31.2	3	36

13200 **SNEP Porca bloqueante metálica H130** **F01E**

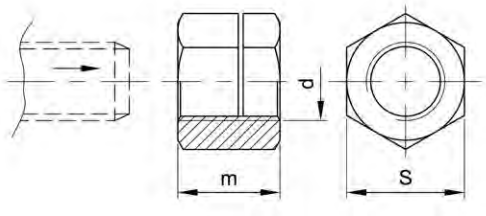
Rosca	Métrica
Material	Aço
Tratamento sup.	Zincado

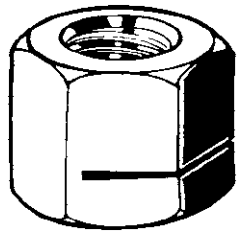


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	250	13200.040.001	M8	250	13200.080.001	M16	50	13200.160.001
M5	250	13200.050.001	M10	200	13200.100.001	M18	50	13200.180.001
M6	250	13200.060.001	M12	100	13200.120.001	M20	25	13200.200.001
M7	250	13200.070.001	M14	100	13200.140.001	M24	25	13200.240.001

- As porcas sextavadas com freio SNEP, devem ser utilizadas em combinação com os parafusos de classe aço ≤ 8.8.

Porca sextavada auto bloqueante metálica tipo USN





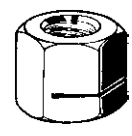
3

Dados técnicos

d	m	P	s	d	m	P	s
M30	30	3.5	46	M39	39	4	60
M33	33	3.5	50	M42	42	4.5	65
M36	36	4	55	M45	45	4.5	70

13190 **SNEP Porca bloqueante metálica USN** **F01E**

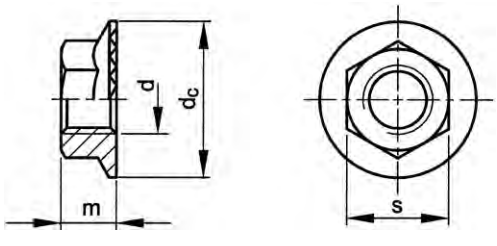
Rosca Métrica
Material Aço
Tratamento sup. Zincado

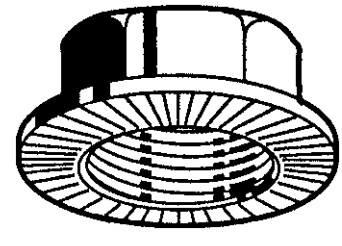


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M30	10	13190.300.001	M36	5	13190.360.001	M42	5	13190.420.001
M33	10	13190.330.001	M39	5	13190.390.001	M45	4	13190.450.001

- Estas porcas sextavadas auto bloqueantes SNEP podem ser utilizadas em combinação com para fusos classe de aço ≤ 6.8.
- Porcas sextavadas auto bloqueantes SNEP tipo USN estão disponiveis, sob pedido, até e incluindo M80.

Porca sextavada auto bloqueante com flange





Dados técnicos

d	d_c	m	P	s	d	d_c	m	P	s
M5	11.2	4.3	0.8	8	M10	21	8.5	1.5	15
M6	14.2	5.5	1	10	M12	24	10	1.75	17
M8	18.2	7	1.25	13	M16	31	14	2	22

Caracteristicas das porcas RIPP auto bloqueantes com flange:
- As flanges serrilhadas eliminam possiveis danos nas superficies durante a montagem,previnem o desaperto e reduzem a relaxação.
- As flanges evitam a criação de forças debaixo da cabeça do parafuso fazendo a distribuição das forças, resultando numa maior distribuição de pressão superficial.
- Furos largos (oversized) e/ou furos maquinados podem ser cobertos pela flange
- Anilha e/ou elemento bloqueador não é necessário

CARGA DE MONTAGEM F_M em Kn e TORQUE DE APERTO M_A em Nm

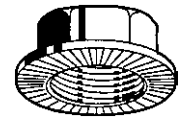
Classe	Material	M5		M6		M8		M10		M12		M16	
		F_M	M_A	F_M	M_A	F_M	M_A	F_M	M_A	F_M	M_A	F_M	M_A
10	Aço (Rm < 800 N/mm²)	9	11	12,6	19	23,2	42	37	85	54	130	102	330
	Aço (Rm ≥ 800 N/mm²)	9	10	12,6	18	23,2	37	37	80	54	120	102	310
	Ferro Maleável	9	9	12,6	16	23,2	35	37	75	54	115	102	300

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado	Aço	10		12470	3-73
M	Sextavado	Aço	10	Zn	12471	3-73
M	Sextavado	Aço	10	FLZNNC-NC6	12474	3-73

12470 **RIPP Porca auto-bloqueante** **F92A**

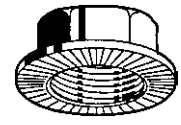
Rosca Métrica
Material Aço
Classe 10



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	500	12470.050.001	M8	200	12470.080.001	M12	200	12470.120.001
M6	500	12470.060.001	M10	200	12470.100.001	M16	100	12470.160.001

12471 **RIPP Porca auto bloqueante** **F92A**

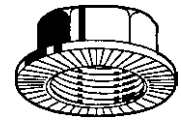
Rosca Métrica
Material Aço
Classe 10
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	500	12471.050.001	M8	200	12471.080.001	M12	200	12471.120.001
M6	500	12471.060.001	M10	200	12471.100.001	M16	100	12471.160.001

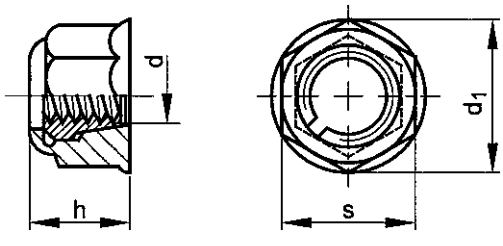
12474 **RIPP Porca auto-bloqueante** **F92A**

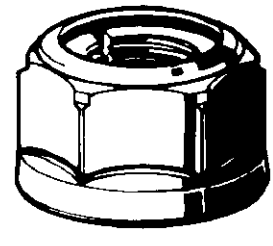
Rosca Métrica
Material Aço
Classe 10
Tratamento sup. Camada de zinco isento Cr^{6+}- ISO 10683 flZnnc



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	250	12474.050.001	M8	200	12474.080.001	M12	200	12474.120.001
M6	250	12474.060.001	M10	200	12474.100.001	M16	100	12474.160.001

Porca auto bloqueante metálica

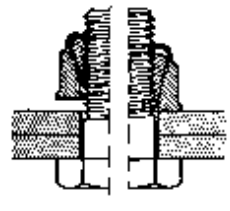




Dados técnicos

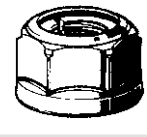
d	d_1	h	P	s	d	d_1	h	P	s
M6	12	7.5	1	10	M10	20.4	12.5	1.5	17
M8	16.8	10	1.25	14	M12	25	15	1.75	21

Caracteristicas especiais de porca auto bloqueante SECURIT.
- É uma porca de metal com duas partes, consistindo em um cone interno no qual a rosca é usada e aplicada até exceder a altura total, e um cone externo (sendo hexagonal com uma flange) ligado às duas partes. Durante o aperto o cone interno é apertado na totalidade da circunferência da rosca com uma força progressiva.
- Reutilizável
- Resistente à temperatura até +350°C.



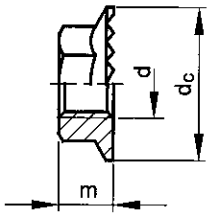
13000 **Porca sextavada bloqueante metálica** **F93A**

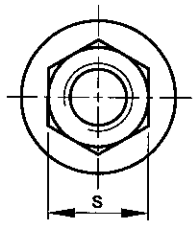
Rosca Métrica
Material Aço
Classe 6
Tratamento sup. Passivado a amarelo

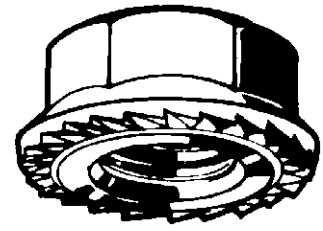


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	50	13000.060.001	M10	25	13000.100.001	M12	10	13000.120.001
M8	25	13000.080.001						

Porca auto bloqueante







3

Dados técnicos

d	d_c	m	P	s	d	d_c	m	P	s
M5	11.2	4.3	0.8	8	M10	21	7.9	1.5	15
M6	14.25	5.5	1	10	M12	24	8.7	1.75	17
M8	18.25	7	1.25	13	M16	31	11.2	2	22

- Classe 8 deve ser usada com classes class 8.8 e classe 90 e classe 10 com classe 10.9 e 100.
- Documentação técnica disponivel sob pedido.

Caracteristicas das porcas auto bloqueantes:
- A resiliência juntamente com os dentes da flange da porca proporcionam uma excelente propriedade auto bloqueante
- Dentro da flange existe uma optimização da pré-carga na aplicação
- Anilha e/ou elemento bloqueador não é necessário e até nem é aconselhado

CARGA DE MONTAGEM F_M em kN e TORQUE DE APERTO M_A em Nm

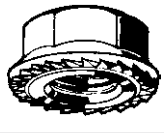
Classe	Material	M5		M6		M8		M10		M12		M16	
		F_M	M_A	F_M	M_A	F_M	M_A	F_M	M_A	F_M	M_A	F_M	M_A
8	Aço	6,35	9	9	16	16,5	34	26,2	58	--	--	--	--
	Ferro Maleável	6,35	7	9	13	16,5	28	26,2	49	--	--	--	--
10	Aço	--	--	--	--	--	--	--	--	54	120	102	280
	Ferro Maleável	--	--	--	--	--	--	--	--	54	105	102	260

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado	Aço	8/10		01150	3-74
M	Sextavado	Aço	8/10	Zn	01149	3-74
M	Sextavado	Aço	8/10	FLZNNC-NC6	01155	3-75

01150 Porca auto bloqueante F92A

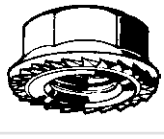
Rosca Métrica
Material Aço
Classe 8/10



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5 - CL.8	500	01150.050.001	M8 - CL.8	200	01150.080.001	M12 - CL.10	200	01150.120.001
M6 - CL.8	500	01150.060.001	M10 - CL.10	200	01150.100.001	M16 - CL.10	100	01150.160.001

01149 Porca auto bloqueante F92A

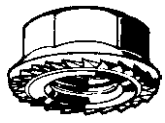
Rosca Métrica
Material Aço
Classe 8/10
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6 - CL.8	500	01149.060.001	M10 - CL.8	200	01149.100.001	M16 - CL.10	100	01149.160.001
M8 - CL.8	200	01149.080.001	M12 - CL.10	200	01149.120.001			

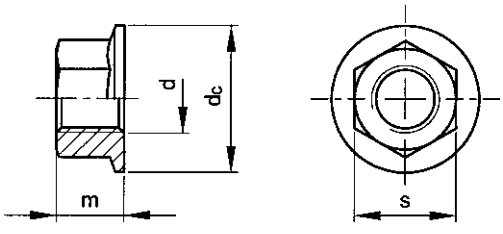
01155	Porca auto bloqueante	F92A

Rosca Métrica
Material Aço
Classe 8/10
Tratamento sup. Camada de zinco isento Cr^{6+}- ISO 10683 flZnnc

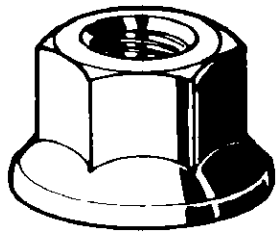


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	500	01155.060.001	M10	200	01155.100.001	M16	100	01155.160.001
M8	200	01155.080.001	M12	200	01155.120.001			

Porca sextavada com flange



DIN **6923 (1983)**
ISO 4161
NF E25-406



Dados técnicos

d	d_c (max.)	m (max.)	P	s
M4 (≠DIN)	9.8	4.5	0.7	7
M5	11.8	5	0.8	8
M6	14.2	6	1	10
M8	17.9	8	1.25	13
M10	21.8	10	1.5	15
M12	26	12	1.75	18
M14	29.9	14	2	21
M16	34.5	16	2	24
M20	42.8	20	2.5	30
M24 (≠DIN)	51	24	3	36

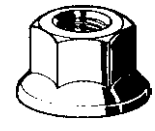
- Porcas sextavadas com flange:
- A flange permite uma destribuição de forças por uma área maior, consequentemente resultando numa menor força superficial.
- Furos maiores (oversized) e/ou furos podem ser cobertos pela flange.
- A anilha não é necessária.

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado	Aço	8	Zn	11590	3-75
M	Sextavado	Aço	8	Passiv. amar.	11595	3-76
M	Sextavado	Aço	10	Zn	11598	3-76
M	Sextavado	INOX A2	70		51108	3-76
M	Sextavado	INOX A4	70		55108	3-76

11590	Porca sextavada com flange	F01X

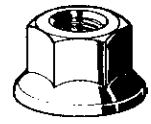
Rosca Métrica
Material Aço
Classe 8
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	250	11590.040.001	M10	100	11590.100.001	M16	50	11590.160.001
M5	250	11590.050.001	M12	100	11590.120.001	M20	50	11590.200.001
M6	250	11590.060.001	M14	50	11590.140.001	M24	25	11590.240.001
M8	250	11590.080.001						

11595 Porca sextavada com flange — F01X

Rosca Métrica
Material Aço
Classe 8
Tratamento sup. Passivado a amarelo

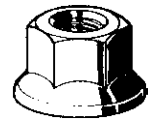


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	250	11595.050.001	M10	100	11595.100.001	M14	50	11595.140.001
M6	250	11595.060.001	M12	100	11595.120.001	M16	50	11595.160.001
M8	250	11595.080.001						

11598 Porca sextavada com flange — F01X

Rosca Métrica
Material Aço
Classe 10
Tratamento sup. Zincado

RoHS

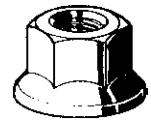


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	250	11598.050.001	M10	100	11598.100.001	M16	50	11598.160.001
M6	250	11598.060.001	M12	100	11598.120.001	M20	50	11598.200.001
M8	250	11598.080.001	M14	50	11598.140.001	M24	25	11598.240.001

51108 Porca sextavada com flange — R09A

Rosca Métrica
Material Aço inoxidável A2
Classe 70

RoHS

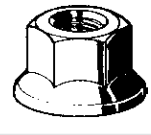


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	100	51108.040.001	M6	250	51108.060.001	M10	100	51108.100.001
M5	250	51108.050.001	M8	250	51108.080.001	M12	100	51108.120.001

55108 Porca sextavada com flange — R49A

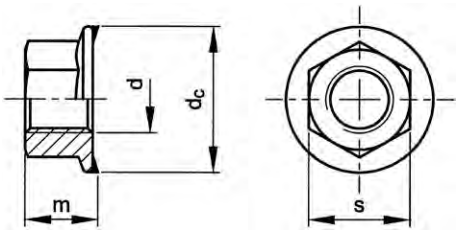
Rosca Métrica
Material Aço inoxidável A4
Classe 70

RoHS

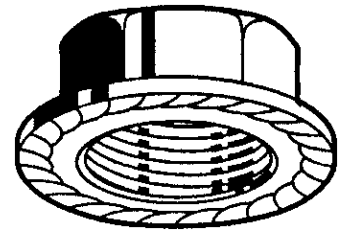


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4*	500	55108.040.001	M6*	200	55108.060.001	M8*	100	55108.080.001
M5*	500	55108.050.001						

Porca sextavada com flange



DIN **≈6923**
ISO ≈4161
NF ≈E25-406



Dados técnicos

d	d_c (max.)	m (max.)	P	s
M3	7.8	3.8	0.5	6
M4 (≠DIN)	9.6	4.5	0.7	7
M5	11.8	5	0.8	8
M6	14.2	6	1	10
M8	17.9	8	1.25	13
M10	21.8	10	1.5	15
M12	26	12	1.75	18
M14	29.9	14	2	21
M16	34.5	16	2	24

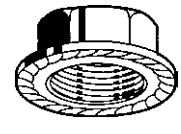
- Caracteristicas especificas de porcas sextavadas com flange dentadas:
- A flange permite que as forças sejam dispersas por uma superficie maior, o que diminui a pressão superficial.
- A flange também permite, que os furos largos (oversized) de grandes dimensões sejam cobertos pela flange.
- Não é necessária anilha.
- A flange dentada oferece excelentes propriedades de fixação.

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado	Aço	8		11609	3-77
M	Sextavado	Aço	8	Zn	11610	3-77
M	Sextavado	Aço	8	Passiv. amar.	11611	3-78
M	Sextavado	INOX A2			51119	3-78
M	Sextavado	INOX A4			55119	3-78

11609 Porca sextavada com flange — F01X

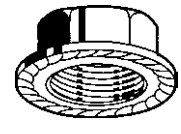
Rosca Métrica
Material Aço
Classe 8



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	250	11609.050.001	M8	250	11609.080.001	M12	100	11609.120.001
M6	250	11609.060.001	M10	100	11609.100.001	M16	50	11609.160.001

11610 Porca sextavada com flange — F01X

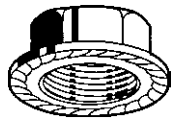
Rosca Métrica
Material Aço
Classe 8
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	250	11610.040.001	M8	250	11610.080.001	M14	50	11610.140.001
M5	250	11610.050.001	M10	100	11610.100.001	M16	50	11610.160.001
M6	250	11610.060.001	M12	100	11610.120.001			

11611 Porca sextavada com flange — F01X

Rosca Métrica
Material Aço
Classe 8
Tratamento sup. Passivado a amarelo



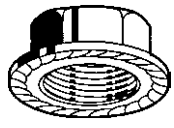
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	250	11611.040.001	M8	250	11611.080.001	M14	50	11611.140.001
M5	250	11611.050.001	M10	100	11611.100.001	M16	50	11611.160.001
M6	250	11611.060.001	M12	100	11611.120.001			

3

51119 Porca sextavada com flange — R09A

Rosca Métrica
Material Aço inoxidável A2

RoHS

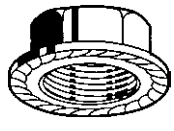


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	500	51119.030.001	M6	200	51119.060.001	M12*	100	51119.120.001
M4	500	51119.040.001	M8	100	51119.080.001	M16*	50	51119.160.001
M5	500	51119.050.001	M10	100	51119.100.001			

55119 Porca sextavada com flange — R49A

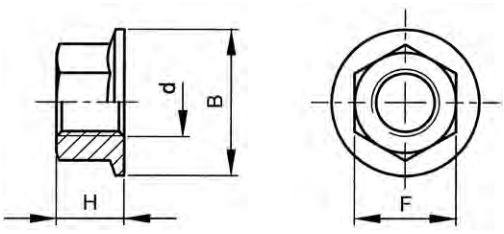
Rosca Métrica
Material Aço inoxidável A4

RoHS

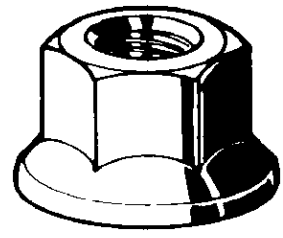


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3*	500	55119.030.001	M6*	200	55119.060.001	M12*	100	55119.120.001
M4*	500	55119.040.001	M8*	100	55119.080.001	M16*	50	55119.160.001
M5*	500	55119.050.001	M10*	100	55119.100.001			

Porca sextavada com flange



IFI **100/107**



Dados técnicos

d	B	F	Fios por polegada	H
No.8	0.375	11/32	32	0.191
No.10	0.475	3/8	24	0.241
1/4	0.560	7/16	20	0.300
5/16	0.680	1/2	18	0.365
3/8	0.810	9/16	16	0.425
7/16	0.930	11/16	14	0.495
1/2	1.07	3/4	13	0.555
5/8	1.330	15/16	11	0.690
3/4	1.585	1.1/8	10	0.825
7/8	1.750	1.5/16	9	0.790
1 Inch	2.06	1.1/2	8	0.900

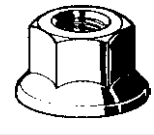
Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
UNC	Sextavado	Aço	Grade 2	Zn	U12100	3-79
UNC	Sextavado	Aço	Grade 8	Zn	U12120	3-79

U12100 Porca auto bloqueante metálica com flange (IFI-100/107) X01A

Rosca Unified National Coarse
Material Aço
Classe Grade 2
Tratamento sup. Zincado

RoHS

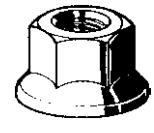


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
NO.8-32*	100	U12100.016.0001	3/8-16*	50	U12100.037.0001	3/4-10*	10	U12100.075.0001
NO.10-24*	100	U12100.019.0001	7/16-14*	25	U12100.043.0001	7/8-9*	5	U12100.087.0001
1/4-20*	100	U12100.025.0001	1/2-13*	25	U12100.050.0001	1.-8*	5	U12100.100.0001
5/16-18*	100	U12100.031.0001	5/8-11*	10	U12100.062.0001			

U12120 Porca auto bloqueante metálica com flange (IFI-100/107) X01A

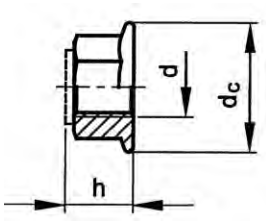
Rosca Unified National Coarse
Material Aço
Classe Grade 8
Tratamento sup. Zincado

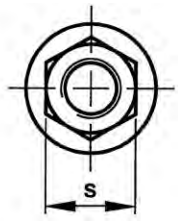
RoHS



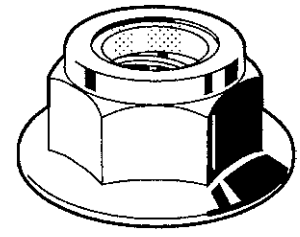
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-20*	100	U12120.025.0001	7/16-14*	25	U12120.043.0001	3/4-10*	10	U12120.075.0001
5/16-18*	100	U12120.031.0001	1/2-13*	25	U12120.050.0001	7/8-9*	5	U12120.087.0001
3/8-16*	50	U12120.037.0001	5/8-11*	10	U12120.062.0001	1.-8*	5	U12120.100.0001

Porca auto bloqueante com flange e inserto não metálico





DIN **6926**
ISO 7043



Dados técnicos

d	d_c (max.)	h (max.)	P	s
M4	10	4.65	0.7	7
M5	11.8	7.1	0.8	8
M6	14.2	9.1	1	10
M8	17.9	11.1	1.25	13
M10	21.8	13.5	1.5	15
M12	26	16.1	1.75	18
M16	34.5	20.3	2	24

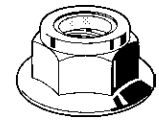
Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado	Aço	8	Zn	12460	3-80
M	Sextavado	INOX A2	70		51738	3-80
M	Sextavado	INOX A4	70		55738	3-80

12460 Porca auto bloqueante com flange e inserto não metálico F01X

Rosca Métrica
Material Aço
Classe 8
Tratamento sup. Zincado

RoHS

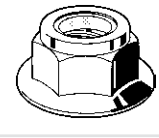


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	250	12460.050.001	M8	250	12460.080.001	M12	100	12460.120.001
M6	250	12460.060.001	M10	200	12460.100.001	M16	50	12460.160.001

51738 Porca auto bloqueante com flange e inserto não metálico R09A

Rosca Métrica
Material Aço inoxidável A2
Classe 70

RoHS

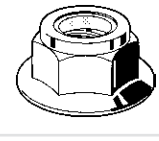


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4*	500	51738.040.001	M6*	500	51738.060.001	M10*	100	51738.100.001
M5*	500	51738.050.001	M8*	100	51738.080.001	M12*	100	51738.120.001

55738 Porca auto bloqueante com flange e inserto não metálico R49A

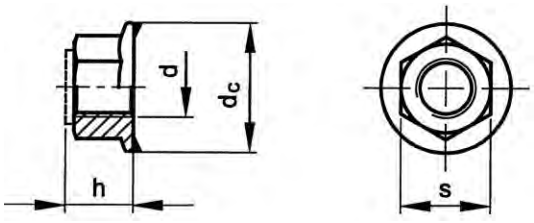
Rosca Métrica
Material Aço inoxidável A4
Classe 70

RoHS

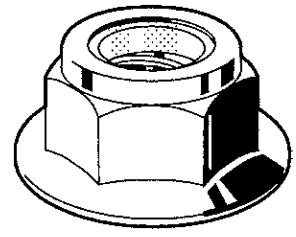


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4*	500	55738.040.001	M6*	500	55738.060.001	M10*	100	55738.100.001
M5*	500	55738.050.001	M8*	100	55738.080.001			

Porca sextavada com flange



DIN ≈6926



Dados técnicos

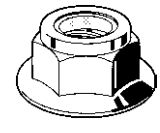
d	d_c (max.)	h (max.)	P	s
M4	10	4.65	0.7	7
M5	11.8	7.1	0.8	8
M6	14.2	9.1	1	10
M8	17.9	11.1	1.25	13
M10	21.8	13.5	1.5	15
M12	26	16.1	1.75	18

Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
M	Sextavado	INOX A2	50	51734	3-81
M	Sextavado	INOX A4	50	55734	3-81

51734 Porca sextavada torneada com inserto não metálico — R09A

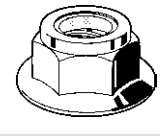
Rosca Métrica
Material Aço inoxidável A2
Classe 50



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4*	500	51734.040.001	M6*	500	51734.060.001	M10*	100	51734.100.001
M5*	500	51734.050.001	M8*	100	51734.080.001	M12*	100	51734.120.001

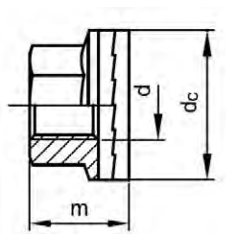
55734 Porca sextavada auto bloqueante com flange serrilhada e inserto não metálico — R49A

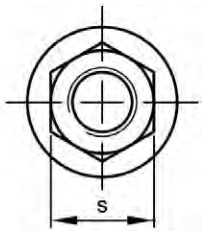
Rosca Métrica
Material Aço inoxidável A4
Classe 50

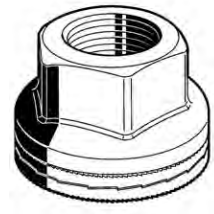


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4*	500	55734.040.001	M6*	100	55734.060.001	M10*	100	55734.100.001
M5*	500	55734.050.001	M8*	100	55734.080.001	M12*	100	55734.120.001

Porca sextavada







3

Dados técnicos

d x P	Binário de aperto em Nm	d_c	m	Pré-carga de montagem em kN	s
M22x1.5	600-650	46	27	≈ 200	32

12479 **Porca sextavada com anilha NORD-LOCK** **NL2A**

Rosca	Métrica extra fina
Material	Aço
Classe	10
Tratamento sup.	Delta Protekt®

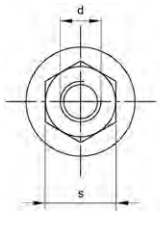
NORD-LOCK Bolt securing system

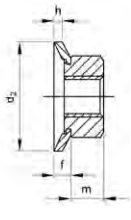
RoHS

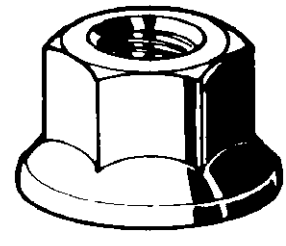


d x P	✉	Ref. do artigo
M22X1,5	20	12479.220.150

Porcas com anilha cónica







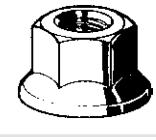
Dados técnicos

d_2	d_2	f	h	m	P	s
M3	8	1	0.5	2.4	0.5	5.5
M4	10	1	0.6	3.2	0.7	5.5
M5	12	1.35	1.25	4	0.8	8
M6	18	1.7	1.5	5	1	10
M8	18	2.2	1.5	6.5	1.25	13
M10	22	1.6	1.7	8	1.5	17

51112 **Porcas COMBY com anilha cónica** **R09A**

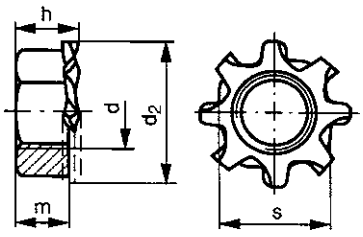
Rosca	Métrica
Material	Aço inoxidável A2

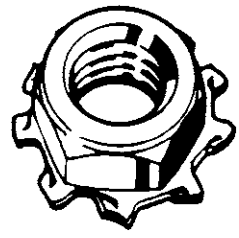
RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3*	1000	51112.030.008	M5*	500	51112.050.015	M8*	100	51112.080.018
M4*	1000	51112.040.010	M6*	500	51112.060.018	M10*	200	51112.100.022

Porca sextavada dentada





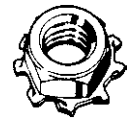
Dados técnicos

d	d_2	h	m	P	s
M3	6.6	3.1	2.4	0.5	5.5
M4	8	4	3.2	0.7	7
M5	9.2	5.1	4	0.8	8
M6	11.4	6.1	5	1	10
M8	14.9	7.9	6.5	1.25	13

11490 **COMBY Porcas auto bloqueantes com anilha dentada** **F01X**

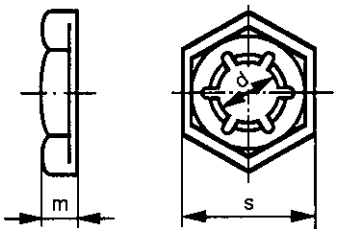
Rosca Métrica
Material Aço
Tratamento sup. Zincado

RoHS

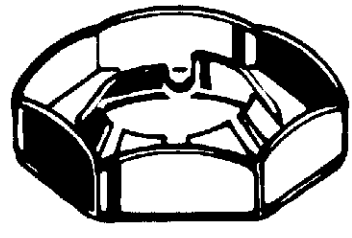


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	250	11490.030.001	M5	250	11490.050.001	M8	200	11490.080.001
M4	250	11490.040.001	M6	250	11490.060.001			

Porca auto bloqueante



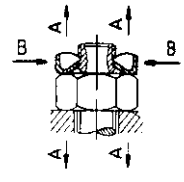
DIN **7967**
NF E27-460



Dados técnicos

d	m	P	s	d	m	P	s
M4	2.5	0.7	7	M18	5.5	2.5	27
M5	2.5	0.8	8	M20	6	2.5	30
M6	3	1	10	M22	6	2.5	32
M8	3.5	1.25	13	M24	7	3	36
M10	4	1.5	17	M27	7	3	41
M12	4.5	1.75	19	M30	8	3.5	46
M14	5	2	22	M36	9	4	55
M16	5	2	24	M42	11	4.5	65

Caracteristicas especiais de porca auto bloquante PAL:
- Tem de ser aplicadas manualmente até ao aperto, depois apertadas com um quarto de volta com uma chave. Para além da força de aperto A, uma força radial simultânea B será desenvolvida causando o bloqueamento
- Utilizada como porca de bloqueio em cima de uma porca sextavada
- Desmontagem através de desaperto firme da porca sextavada

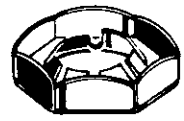


Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.	Código	Página
M	Sextavado	Aço mola	Zn	12530	3-84
M	Sextavado	Aço mola	Galv. Q.	12531	3-84
M	Sextavado	INOX A2		51735	3-84
M	Sextavado	INOX A4		55735	3-84

12530 PAL Porca autobloqueante — F01X

Rosca Métrica
Material Aço mola
Tratamento sup. Zincado

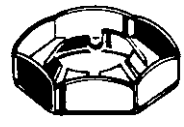


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	200	12530.050.001	M14	100	12530.140.001	M24	100	12530.240.001
M6	200	12530.060.001	M16	100	12530.160.001	M27	100	12530.270.001
M8	100	12530.080.001	M18	100	12530.180.001	M30	100	12530.300.001
M10	100	12530.100.001	M20	100	12530.200.001	M36	100	12530.360.001
M12	100	12530.120.001	M22	100	12530.220.001	M42	50	12530.420.001

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

12531 Porca Auto bloqueante — F01A

Rosca Métrica
Material Aço mola
Tratamento sup. Galvanizado a quente

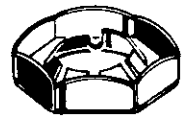


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M10	100	12531.100.001	M20	100	12531.200.001	M30	100	12531.300.001
M12	100	12531.120.001	M24	50	12531.240.001	M36	25	12531.360.001
M16	100	12531.160.001	M27	100	12531.270.001			

51735 PAL Porca auto bloqueante — R09A

Rosca Métrica
Material Aço inoxidável A2

DIN ≈7967
NF ≈E27-460

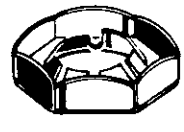


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4*	500	51735.040.001	M8	100	51735.080.001	M16	50	51735.160.001
M5*	500	51735.050.001	M10	100	51735.100.001	M20	50	51735.200.001
M6	200	51735.060.001	M12	50	51735.120.001	M24	50	51735.240.001

55735 Porca Auto bloqueante — R49A

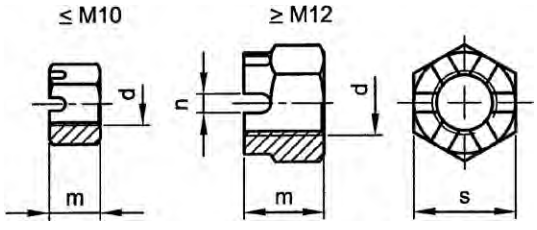
Rosca Métrica
Material Aço inoxidável A4

DIN ≈7967
NF ≈E27-460

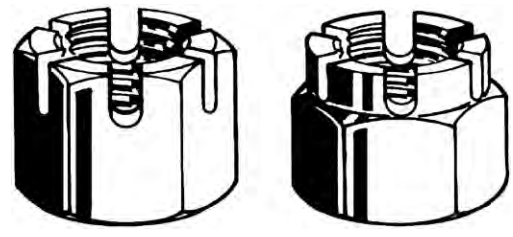


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4*	500	55735.040.001	M10*	100	55735.100.001	M20*	100	55735.200.001
M5*	500	55735.050.001	M12*	100	55735.120.001	M24*	50	55735.240.001
M6	100	55735.060.001	M16*	100	55735.160.001	M27*	50	55735.270.001
M8	100	55735.080.001						

Porca castelo



DIN **935-1**
NEN 729



Dados técnicos

d	Chaveta elástica DIN 94	m	n	Número de fendas	P	s
M5	1.2x12	6	1.4	6	0.8	8
M6	1.6x14	7.5	2	6	1	10
M8	2x16	9.5	2.5	6	1.25	13
M10	2.5x20	12	2.8	6	1.5	17 (16)
M12	3.2x22	15	3.5	6	1.75	19 (18)
M14	3.2x25	16	3.5	6	2	22 (21)
M16	4x28	19	4.5	6	2	24
M18	4x32	21	4.5	6	2.5	27
M20	4x36	22	4.5	6	2.5	30
M22	5x36	26	5.5	6	2.5	32 (34)
M24	5x40	27	5.5	6	3	36
M27	5x45	30	5.5	6	3	41
M30	6.3x50	33	7	6	3.5	46
M33	6.3x56	35	7	6	3.5	50
M36	6.3x63	38	7	6	4	55
M39	6.3x71	40	7	6	4	60
M42	8x71	46	9	8	4.5	65
M45	8x80	48	9	8	4.5	70
M48	8x80	50	9	8	5	75
M52	8x90	54	9	8	5	80
M56	8x100	57	9	8	5.5	85
M60	10x100	63	11	8	5.5	90
M64	10x100	66	11	8	6	95

- Valores indicativos para chavetas de acordo com o to DIN 94 (ISO 1234).
- Dependendo da disponibilidade, podem existir desvios nas dimensões.

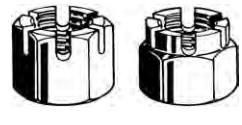
Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado	Aço	4		12000	3-85
M	Sextavado	Aço	4	Zn	12010	3-86
M	Sextavado	INOX A2			51220	3-86
M	Sextavado	INOX A4			55220	3-86

12000 **Porca castelo** **F01D**

Rosca Métrica
Material Aço
Classe 4

RoHS

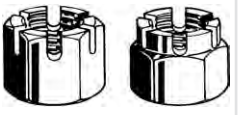


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	100	12000.050.001	M20	25	12000.200.001	M42	4	12000.420.001
M6	100	12000.060.001	M22	25	12000.220.001	M45	3	12000.450.001
M8	100	12000.080.001	M24	25	12000.240.001	M48	3	12000.480.001
M10	100	12000.100.001	M27	10	12000.270.001	M52	1	12000.520.001
M12	100	12000.120.001	M30	10	12000.300.001	M56	1	12000.560.001
M14	50	12000.140.001	M33	10	12000.330.001	M60	1	12000.600.001
M16	50	12000.160.001	M36	5	12000.360.001	M64	1	12000.640.001
M18	50	12000.180.001	M39	4	12000.390.001			

- Até e incluindo M12 as porcas são de classe 5, acima M12 classe 4.
- As porcas até e incluindo M39 têm 6 ameias, medidas superiores têm 8.

12010 Porca castelo — F01D

Rosca Métrica
Material Aço
Classe 4
Tratamento sup. Zincado

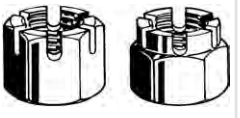


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	100	12010.060.001	M16	50	12010.160.001	M27	10	12010.270.001
M8	100	12010.080.001	M20	25	12010.200.001	M30	10	12010.300.001
M10	100	12010.100.001	M22	25	12010.220.001	M33	10	12010.330.001
M12	100	12010.120.001	M24	25	12010.240.001	M36	5	12010.360.001
M14	50	12010.140.001						

- Até e incluindo M12 as porcas são de classe 5, acima M12 classe 4.
- As porcas até e incluindo M39 têm 6 ameias, medidas superiores têm 8.

51220 Porca castelo — R09A

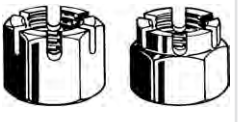
Rosca Métrica
Material Aço inoxidável A2



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	50	51220.050.001	M14	25	51220.140.001	M22*	25	51220.220.001
M6	50	51220.060.001	M16	10	51220.160.001	M24	5	51220.240.001
M8	50	51220.080.001	M18	10	51220.180.001	M27	3	51220.270.001
M10	50	51220.100.001	M20	5	51220.200.001	M30	1	51220.300.001
M12	25	51220.120.001						

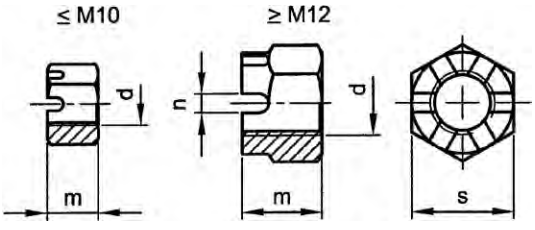
55220 Porca castelo — R49A

Rosca Métrica
Material Aço inoxidável A4

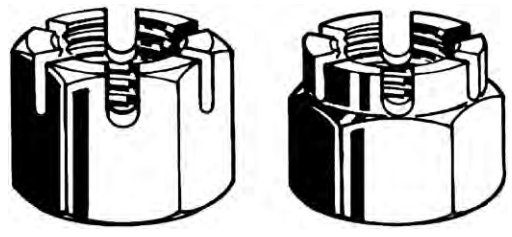


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	50	55220.050.001	M12	25	55220.120.001	M20	5	55220.200.001
M6	50	55220.060.001	M14	25	55220.140.001	M24	5	55220.240.001
M8	50	55220.080.001	M16	10	55220.160.001	M27	3	55220.270.001
M10	50	55220.100.001	M18	10	55220.180.001	M30	1	55220.300.001

Porca castelo MF



DIN **935**
NEN 729



Dados técnicos

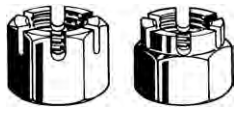
d	Chaveta elástica DIN 94	m	n	Número de fendas	s
M8	2x16	9.5	2.5	6	13
M10	2.5x20	12	2.8	6	17 (16)
M12	3.2x22	15	3.5	6	19 (18)
M14	3.2x25	16	3.5	6	22 (21)
M16	4x28	19	4.5	6	24
M18	4x32	21	4.5	6	27
M20	4x36	22	4.5	6	30
M22	5x36	26	5.5	6	32 (34)
M24	5x40	27	5.5	6	36
M27	5x45	30	5.5	6	41
M30	6.3x50	33	7	6	46
M36	6.3x63	38	7	6	55
M42	8x71	46	9	8	65

- Valores guias para chavetas de meia-cana de acc. com DIN 94 (ISO 1234).
- Dependente da disponibilidade pode haver desvio das dimensões.

12020 **Porca castelo MF** **F01D**

Rosca Métrica fina
Material Aço
Classe 4

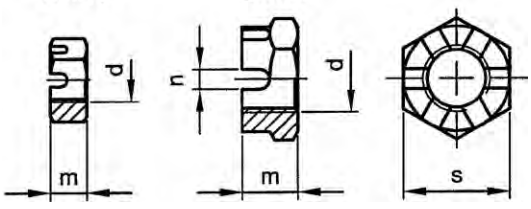
RoHS

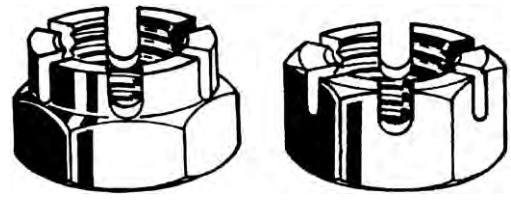


d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M8X1,00	100	12020.080.100	M18X1,50	50	12020.180.150	M30X1,50 (≠DIN)	10	12020.300.150
M10X1,00	100	12020.100.100	M20X1,50	25	12020.200.150	M30X2,00	10	12020.300.200
M12X1,50	100	12020.120.150	M22X1,50	25	12020.220.150	M36X1,50 (≠DIN)	5	12020.360.150
M14X1,50	50	12020.140.150	M24X1,50 (≠DIN)	25	12020.240.150	M42X1,50 (≠DIN)	5	12020.420.150
M16X1,50	50	12020.160.150	M27X1,50 (≠DIN)	10	12020.270.150			

Porca castelo baixa

≤ M10 ≥ M12 **DIN 979**





3

Dados técnicos

d	Chaveta elástica DIN 94	m	n	P	s
M6	1.6x14	5	2	1	10
M8	2x16	6.5	2.5	1.25	13
M10	2.5x20	9	2.8	1.5	17
M12	3.2x22	10	3.5	1.75	19 (18)
M14	3.2x25	11	3.5	2	22 (21)
M16	4x28	13	4.5	2	24
M18	4x32	15	4.5	2.5	27
M20	4x36	16	4.5	2.5	30
M22	5x36	18	5.5	2.5	32 (34)
M24	5x40	19	5.5	3	36
M27	5x45	22	5.5	3	41
M30	6.3x50	24	7	3.5	46

- Valores indicativos para chavetas de acordo com o to DIN 94 (ISO 1234).
- Dependendo da disponibilidade, podem existir desvios nas dimensões.

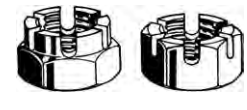
Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
M	Sextavado	Aço	04	12060	3-88
M	Sextavado	INOX A2	35	51224	3-88

12060 Porca castelo baixa F01D

Rosca Métrica
Material Aço
Classe 04

RoHS

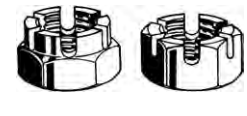


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M8	100	12060.080.001	M16	50	12060.160.001	M24	25	12060.240.001
M10	100	12060.100.001	M18	50	12060.180.001	M27	10	12060.270.001
M12	100	12060.120.001	M20	25	12060.200.001	M30	10	12060.300.001
M14	50	12060.140.001	M22	25	12060.220.001			

51224 Porca castelo baixa R05A

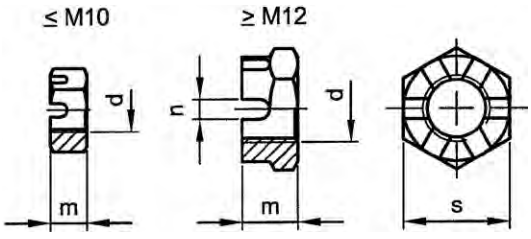
Rosca Métrica
Material Aço inoxidável A2
Classe 35

RoHS

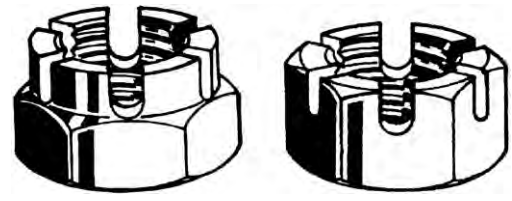


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M8*	50	51224.080.001	M12*	50	51224.120.001	M16*	25	51224.160.001
M10*	50	51224.100.001						

Porca de castelo baixa



DIN 937



Dados técnicos

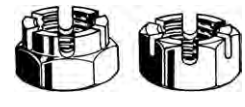
d	Chaveta elástica DIN 94	m	n	P	s
M6	1.6x14	6	2	1	10
M8	2x16	8	2.5	1.25	13
M10	2.5x20	8	2.8	1.5	17 (16)
M12	3.2x22	10	3.5	1.75	19
M16	4x28	12	4.5	2	24
M18	4x32	13	4.5	2.5	27
M20	4x36	13	4.5	2.5	30

Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
M	Sextavado	INOX A2	35	51225	3-89
M	Sextavado	INOX A4	35	55225	3-89

51225 Porca de castelo baixa — R05A

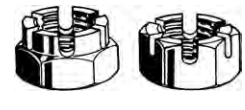
Rosca Métrica
Material Aço inoxidável A2
Classe 35



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M10*	50	51225.100.001	M16*	50	51225.160.001	M20*	25	51225.200.001

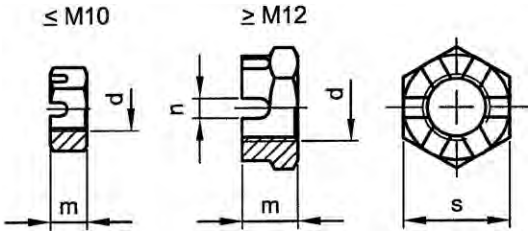
55225 Porca de castelo baixa — R45A

Rosca Métrica
Material Aço inoxidável A4
Classe 35

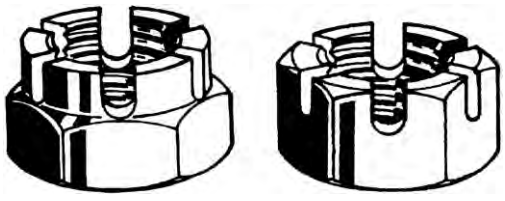


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6*	100	55225.060.001	M10*	50	55225.100.001	M16*	50	55225.160.001
M8*	100	55225.080.001	M12*	50	55225.120.001	M18*	25	55225.180.001

Porca castelo baixa



DIN **979**



3

Dados técnicos

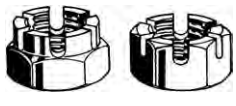
d	Chaveta elástica DIN 94	m	n	s
M8	2X16	6.5	2.5	13
M10	2.5X20	8	2.8	17 (16)
M12	3.2X22	10	3.5	19 (18)
M14	3.2X25	11	3.5	22 (21)
M16	4X28	13	4.5	24
M18	4X32	15	4.5	27
M20	4X36	16	4.5	30
M22	5x36	18	5.5	32 (34)
M24	5x40	19	5.5	36
M27	5x45	22	5.6	41
M30	6.3x50	24	7	46
M39	6.3x71	31	7	60

- Valores guias para chavetas de meia-cana de acc. com DIN 94 (ISO 1234).
- Dependente da disponibilidade pode haver desvio das dimensões.

12080 **Porca castelo baixa** **F01D**

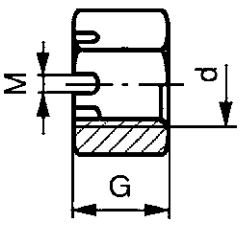
Rosca Métrica fina
Material Aço
Classe ≥04

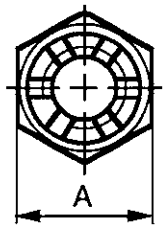
RoHS



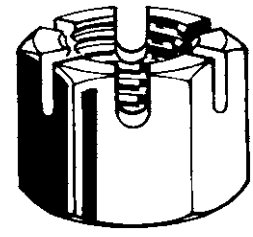
d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M8X1,00	100	12080.080.100	M18X1,50	50	12080.180.150	M27X1,50 (≠DIN)	10	12080.270.150
M10X1,00	100	12080.100.100	M20X1,50	25	12080.200.150	M30X1,50 (≠DIN)	10	12080.300.150
M12X1,50	100	12080.120.150	M22X1,50	25	12080.220.150	M30X2,00	10	12080.300.200
M14X1,50	50	12080.140.150	M24X1,50 (≠DIN)	25	12080.240.150	M39X1,50 (≠DIN)	5	12080.390.150
M16X1,50	50	12080.160.150						

Porca castelo UNF





BS **≈1768**



Dados técnicos

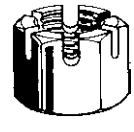
d	A	Fios por polegada	G	M
1/4	7/16	28	5.7	2
3/8	9/16	24	8	3.2
7/16	11/16	20	9.7	3.2
1/2	3/4	20	11.2	4
5/8	15/16	18	14	4.8
3/4	1.1/8	16	16.5	4.8
7/8	1.5/16	14	19.3	4.8
1 Inch-12G	1.1/2	12	22.2	6.4
1 Inch-14G	1.1/2	14	22.2	6.4
1.1/4	1.7/8	12	27.6	8
1.1/2	2.1/4	12	33.3	9.5

- Dependendo da disponibilidade, podem existir desvios nas dimensões.
- Se, quando encomenda, não mencionar UNF 1 polegada-12, será fornecido com 14 fios de rosca por poplegada.

12161 **Porca castelo UNF** **X09A**

Rosca Unified National Fine
Material Aço
Classe 6

RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4	100	12161.063.001	5/8	25	12161.158.001	1-14G	10	12161.256.001
3/8	100	12161.096.001	3/4	25	12161.191.001	1.1/4	10	12161.317.001
7/16	50	12161.111.001	7/8	25	12161.222.001	1.1/2	5	12161.381.001
1/2	50	12161.127.001	1-12G	10	12161.255.001			

KALEI Porcas de pressão

Geral
Com porcas de pressão KALEI, placas de aço a partir de 1mm podem ser fornecidas com rosca total. Esta é uma solução ideal para a indústria de metal e/ou plástico.

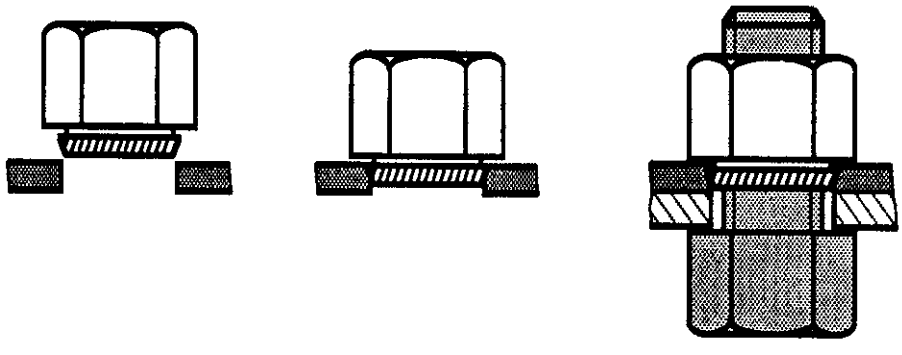
Principio
O colar especial das porcas é fixado firmemente no material, a porca fica segura em relação a forças axiais e, também, de rotações no sentido dos ponteiros do relógio.

Montagem
A porca KALEI deve ser centrada, no furo pré feito, (tolerância furo d2 = H11). Inserção mecânica ou por pancada através do qual o colar serrilhado é colocado na parede do furo (utilizando uma ferramenta de inserção que simplifica a montagem). Os parafusos são aplicados na porca pelo lado do colar. Durante o aperto o colar ficará mais ancorado ao material.

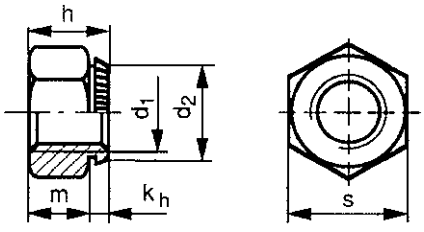
Tipo
Em aço zincado e aço inox com alturas de colar (kh) desde 0,9 mm até e inclusive 3,9 mm.
As porcas especiais KALEI com colar mais alto para aplicação em materiais mais leves, plásticos, etc, e, também, não métricas estão disponíveis sob pedido.

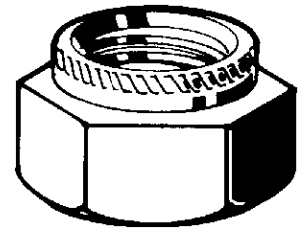
Propriedades
– método ideal para permitir elemento roscado em placas de pequena espessura
– montagem simples e rápida sem necessidade de soldar ou rebitar
– instalação segura através de um colar serrilhado e reforçado
– aplicável em aço, alumínio e plástico
– disponível para diferentes espessuras de material

Sequência de montagem



Porca de pressão





Dados técnicos

d_1	d_2	Espessura do material (mín.)	Furo ø (H11)	h	k_h	m	P	s
M3	4.5	1	4.5	3	0.9	2.1	0.5	5.5
M3 (Kh1.4)	4.5	1.5	4.5	3	1.4	1.6	0.5	5.5
M3 (Kh1.8)	4.5	2	4.5	3	1.8	1.2	0.5	5.5
M4	5.5	1	5.5	3.2	0.9	2.3	0.7	7
M4 (Kh1.4)	5.5	1.5	5.5	3.2	1.4	1.8	0.7	7
M4 (Kh1.8)	55	2	5.5	4.5	1.8	2.7	0.7	7
M5	6.5	1	6.5	4	0.9	3.1	0.8	8
M5 (Kh1.4)	6.5	1.5	6.5	4	1.4	2.6	0.8	8
M5 (Kh1.8)	6.5	2	6.5	5	1.8	3.2	0.8	8
M6	8	1	8	5	0.9	4.1	1	10
M6 (Kh1.4)	8	1.5	8	5	1.4	3.6	1	10
M6 (Kh1.8)	8	2	8	5	1.8	3.2	1	10
M8	10	2	10	6.5	1.8	4.7	1.25	13
M10	12.5	2	12.5	8	1.8	6.2	1.5	15
M12	14.5	3	14.5	10	2.8	7.2	1.75	17
M16	18.5	3	18.5	13	2.4	10.6	2	22
M20	23	4	23	16	3.9	12.1	2.5	27

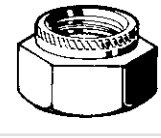
Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.		Código	Página
M	Sextavado	Aço	6	Zn		15000	3-93
M	Sextavado	INOX A1				15060	3-93
M	Sextavado	Aço	6	Zn	Kh=1,4	15010	3-94
M	Sextavado	INOX A1			Kh=1,4	15070	3-94
M	Sextavado	Aço	6	Zn	Kh=1,8	15020	3-94
M	Sextavado	INOX A1			Kh=1,8	15080	3-94

15000 KALEI Porca de pressão — F01E

Rosca Métrica
Material Aço
Classe 6
Tratamento sup. Zincado

kalei® PRESS NUT
RoHS

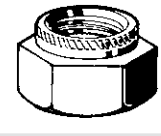


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M3	250	15000.030.001	M6	250	15000.060.001	M12	100	15000.120.001
M4	250	15000.040.001	M8	250	15000.080.001	M16	50	15000.160.001
M5	250	15000.050.001	M10	100	15000.100.001	M20	25	15000.200.001

15060 KALEI Porca de pressão — F01E

Rosca Métrica
Material Aço inoxidável A1

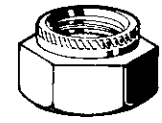
kalei® PRESS NUT
RoHS



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M3	100	15060.030.001	M6	100	15060.060.001	M12	50	15060.120.001
M4	100	15060.040.001	M8	50	15060.080.001	M16	25	15060.160.001
M5	100	15060.050.001	M10	50	15060.100.001			

15010 KALEI Porca pressão-colar altura Kh = 1,4 F01E

Rosca Métrica
Material Aço
Classe 6
Tratamento sup. Zincado

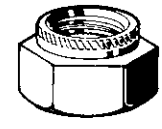


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M3	250	15010.030.001	M5	250	15010.050.001	M6	250	15010.060.001
M4	250	15010.040.001						

3

15070 KALEI Porca pressão-colar altura Kh = 1,4 F01E

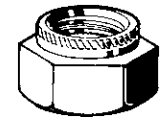
Rosca Métrica
Material Aço inoxidável A1



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M3	100	15070.030.001	M5	100	15070.050.001	M6	100	15070.060.001
M4	100	15070.040.001						

15020 KALEI Porca pressão-colar altura Kh = 1,8 F01E

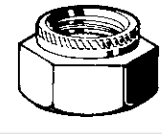
Rosca Métrica
Material Aço
Classe 6
Tratamento sup. Zincado



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M3	250	15020.030.001	M5	250	15020.050.001	M6	250	15020.060.001
M4	250	15020.040.001						

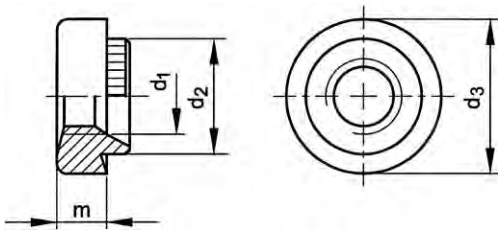
15080 KALEI Porca pressão-colar altura Kh = 1,8 F01E

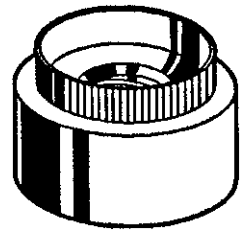
Rosca Métrica
Material Aço inoxidável A1



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M3	100	15080.030.001	M5	100	15080.050.001	M6	100	15080.060.001
M4	100	15080.040.001						

Porca cilindrica





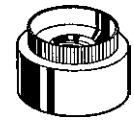
Dados técnicos

d_1	d_2	d_3	Furo ø	m	P
M3	5.8	7.9	5.9	3.2	0.5
M4	6.9	9.5	6.95	3.8	0.7
M5	8.3	11.1	8.35	4.4	0.8
M6	9.6	12.7	9.65	5.7	1
M8	13	15.9	13.1	6.4	1.25
M10	15.4	19.1	15.5	7.6	1.5

12480 **Porca cilindrica** **F01X**

Rosca Métrica
Material Aço
Tratamento sup. Zincado

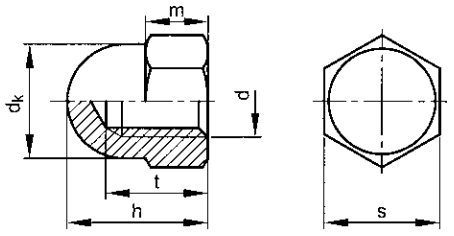
RoHS



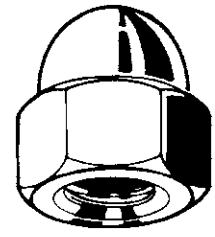
d_1 - p	✉	Ref. do artigo	d_1 - p	✉	Ref. do artigo	d_1 - p	✉	Ref. do artigo
M3-1,0MM	250	12480.030.010	M4-3,0MM	250	12480.040.030	M6-2,5MM	250	12480.060.025
M3-1,5MM	250	12480.030.015	M5-1,0MM	250	12480.050.010	M6-3,0MM	250	12480.060.030
M3-1,8MM	250	12480.030.018	M5-1,5MM	250	12480.050.015	M6-4,0MM	250	12480.060.040
M3-2,5MM	250	12480.030.025	M5-2,0MM	250	12480.050.020	M8-1,5MM	250	12480.080.015
M4-1,0MM	250	12480.040.010	M5-2,5MM	250	12480.050.025	M8-2,0MM	250	12480.080.020
M4-1,5MM	250	12480.040.015	M5-3,0MM	250	12480.050.030	M8-2,5MM	250	12480.080.025
M4-2,0MM	250	12480.040.020	M6-1,5MM	250	12480.060.015	M8-3,0MM	250	12480.080.030
M4-2,5MM	250	12480.040.025	M6-2,0MM	250	12480.060.020	M10-3,0MM	100	12480.100.030

- p = espessura material = gama de aperto

Porca de mama sextavada tipo alto



DIN **1587 (1987)**
NEN 1618



Dados técnicos

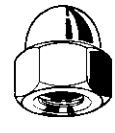
d	d_k (max.)	h	m (max.)	P	s	t
M3 (≠DIN)	5	6.5	2.5	0.5	5.5	4.5
M4	6.5	8	3.2	0.7	7	5.5
M5	7.5	10	4	0.8	8	7.5
M6	9.5	12	5	1	10	8
M7 (≠DIN)	9.5	12	5	1	10	8
M8	12.5	15	6.5	1.25	13	11
M10	16	18	8	1.5	17	13
M12	18	22	10	1.75	19	16
M14	21	25	11	2	22	18
M16	23	28	13	2	24	21
M18	26	32	15	2.5	27	25
M20	28	34	16	2.5	30	26
M22	31	39	18	2.5	32	29
M24	34	42	19	3	36	31
M27 (≠DIN)	40	47	20	3	41	35
M30 (≠DIN)	42	52	24	3.5	46	38

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.		Cor	Código	Página
M	Sextavado	Aço	|6|				16500	3-96
M	Sextavado	Aço	|6|	Zn			16510	3-96
M	Sextavado	Aço	|6|	Passiv. preto			16516	3-97
M	Sextavado	INOX A1	50				51400	3-97
M	Sextavado	INOX A4	50				55400	3-97
M	Sextavado	INOX A4	50		torneado		55402	3-97
M	Sextavado	Latão Cu3					47340	3-97
M	Sextavado	Latão Cu3		Niq.			47360	3-98
M	Sextavado	Plástico PA	PA 6.6			Branco	56250	3-98

16500 Porca de mama sextavada tipo alto — F01H

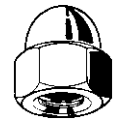
Rosca Métrica
Material Aço
Classe |6|



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	250	16500.060.001	M16	50	16500.160.001	M24	10	16500.240.001
M8	250	16500.080.001	M18	50	16500.180.001	M27	10	16500.270.001
M10	200	16500.100.001	M20	25	16500.200.001	M30	10	16500.300.001
M12	100	16500.120.001						

16510 Porca de mama sextavada tipo alto — F01H

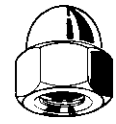
Rosca Métrica
Material Aço
Classe |6|
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	250	16510.030.001	M10	200	16510.100.001	M18	25	16510.180.001
M4	250	16510.040.001	M12	100	16510.120.001	M20	25	16510.200.001
M5	250	16510.050.001	M14	50	16510.140.001	M22	10	16510.220.001
M6	250	16510.060.001	M16	50	16510.160.001	M24	10	16510.240.001
M8	250	16510.080.001						

16516 Porca de mama sextavada tipo alto — F01H

Rosca Métrica
Material Aço
Classe |6|
Tratamento sup. Passivado a preto

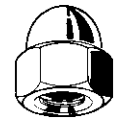


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	250	16516.050.001	M6	250	16516.060.001	M8	250	16516.080.001

51400 Porca de mama sextavada tipo alto — R09A

Rosca Métrica
Material Aço inoxidável A1
Classe 50

RoHS



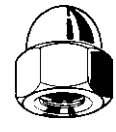
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	100	51400.030.001	M10	50	51400.100.001	M22	5	51400.220.001
M4	100	51400.040.001	M12	25	51400.120.001	M24	5	51400.240.001
M5	100	51400.050.001	M14	10	51400.140.001	M27	3	51400.270.001
M6	100	51400.060.001	M16	10	51400.160.001	M30	1	51400.300.001
M7*	200	51400.070.001	M18	10	51400.180.001			
M8	50	51400.080.001	M20	5	51400.200.001			

- Dependendo da disponibilidade de stock pode ser fornecido em A1 ou A2.

55400 Porca de mama sextavada tipo alto — R49A

Rosca Métrica
Material Aço inoxidável A4
Classe 50

RoHS

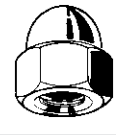


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	100	55400.030.001	M10	50	55400.100.001	M20	5	55400.200.001
M4	100	55400.040.001	M12	25	55400.120.001	M22	5	55400.220.001
M5	100	55400.050.001	M14	10	55400.140.001	M24	5	55400.240.001
M6	100	55400.060.001	M16	10	55400.160.001	M27	3	55400.270.001
M8	50	55400.080.001	M18	10	55400.180.001	M30	1	55400.300.001

55402 Porca de mama sextavada tipo alto — R49A

Rosca Métrica
Material Aço inoxidável A4
Classe 50

RoHS

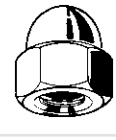


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5*	100	55402.050.001	M18*	25	55402.180.001	M24*	10	55402.240.001
M6*	100	55402.060.001						

47340 Porca de mama sextavada tipo alto — M11C

Rosca Métrica
Material Latão Cu3

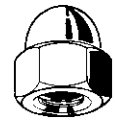
RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	500	47340.030.001	M8	100	47340.080.001	M16	10	47340.160.001
M4	200	47340.040.001	M10	50	47340.100.001	M20	10	47340.200.001
M5	200	47340.050.001	M12	25	47340.120.001	M24	5	47340.240.001
M6	200	47340.060.001	M14	25	47340.140.001			

47360 **Porca de mama sextavada tipo alto** **M11C**

Rosca Métrica
Material Latão Cu3
Tratamento sup. Niquelado



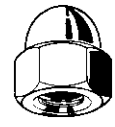
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	500	47360.030.001	M6	200	47360.060.001	M12	25	47360.120.001
M4	200	47360.040.001	M8	100	47360.080.001	M16	10	47360.160.001
M5	200	47360.050.001	M10	50	47360.100.001	M20	10	47360.200.001

3

56250 **Porca de mama sextavada plástico** **W02A**

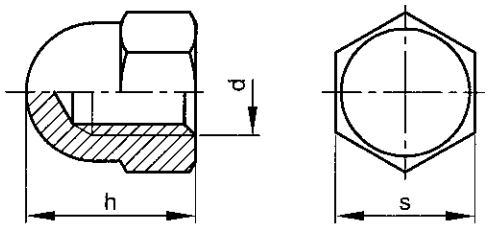
Rosca Métrica
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco

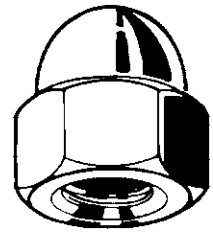
DIN **≈1587 (1987)**
NEN ≈1618
NF ≈E27-453



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	100	56250.030.001	M5	100	56250.050.001	M8	50	56250.080.001
M4	100	56250.040.001	M6	100	56250.060.001	M10	50	56250.100.001

Porca de mama sextavada BSW





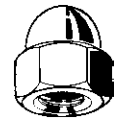
Dados técnicos

d	Fios por polegada	h	s	d	Fios por polegada	h	s
1/4	20	12	11	5/8	11	32	27
5/16	18	15	13	3/4	10	39	32
1/2	12	25	22	7/8	9	42	36

- Roscas (BSW/BSF) não são recomendadas internacionalmente.
- É aconselhado o uso de rosca métrica(M/MF) ou roscas unificadas (UNC/UNF).

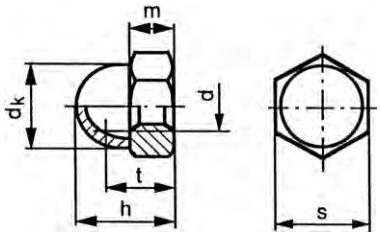
16540 **Porca de mama sextavada BSW** **X08A**

Rosca British Standard Whitworth
Material Aço
Classe 6



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4	200	16540.063.001	1/2	25	16540.127.001	3/4	10	16540.191.001
5/16	100	16540.079.001	5/8	10	16540.158.001	7/8	10	16540.222.001

Porca de mama sextavada soldada ≈ DIN 1587





Dados técnicos

d	d_k (max.)	h	m (max.)	P	s	t
M3	5	6.5	2.5	0.5	5.5	3
M4	6.5	6.5	3.2	0.7	7	4
M5	7.5	10	4	0.8	8	8
M6	9.5	12	5	1	10	10
M8	12.5	15	6.5	1.25	13	13
M10	16	18	8	1.5	16	15
M12	18	22	10	1.75	18	19
M16	23	28	13	2	24	26
M20	28	34	16	2.5	30	31

16300 **Porca de mama sextavada tipo alto com tampa soldada** **F01H**

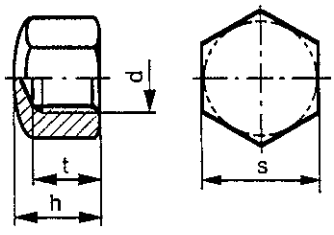
Rosca Métrica
Material Aço
Classe |6|
Tratamento sup. Cromado

RoHS

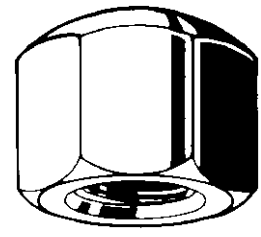


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	250	16300.030.001	M6	200	16300.060.001	M12	50	16300.120.001
M4	200	16300.040.001	M8	200	16300.080.001	M16	25	16300.160.001
M5	200	16300.050.001	M10	100	16300.100.001	M20	10	16300.200.001

Porca de mama sextavada tipo baixo



DIN **917**
ISO 1617



Dados técnicos

d	h	P	s	t (min.)
M3 (≠DIN)	4.5	0.5	5.5	3.5
M4	5.5	0.7	7	4.16
M5	7	0.8	8	4.96
M6	9	1	10	6.71
M8	12	1.25	13	9.21
M10	14	1.5	16	10.65
M12	16	1.75	18	13.15
M14	18	2	21	14.65
M16	20	2	24	16.65
M18	22	2.5	27	18.58
M20	25	2.5	30	20.58
M22	28	2.5	34	21.58
M24	30	3	36	23.58
M27	32	3	41	25.58
M30	34	3.5	46	27.58

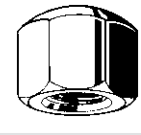
Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado	Aço	|6|	Zn	16410	3-100
M	Sextavado	INOX A1	50		51380	3-100
M	Sextavado	INOX A4	50		55380	3-101
M	Sextavado	Latão Cu3			47300	3-101

16410 Porca de mama sextavada tipo baixo F01H

Rosca Métrica
Material Aço
Classe |6|
Tratamento sup. Zincado

RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	250	16410.040.001	M8	250	16410.080.001	M16	50	16410.160.001
M5	250	16410.050.001	M10	200	16410.100.001	M20	25	16410.200.001
M6	250	16410.060.001	M12	100	16410.120.001	M24	10	16410.240.001

51380 Porca de mama sextavada tipo baixo R09A

Rosca Métrica
Material Aço inoxidável A1
Classe 50

RoHS

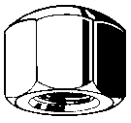


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	200	51380.030.001	M10	50	51380.100.001	M20	5	51380.200.001
M4	100	51380.040.001	M12	25	51380.120.001	M22*	25	51380.220.001
M5	100	51380.050.001	M14*	50	51380.140.001	M24*	10	51380.240.001
M6	100	51380.060.001	M16	10	51380.160.001	M27*	10	51380.270.001
M8	50	51380.080.001	M18*	50	51380.180.001	M30*	10	51380.300.001

- Dependendo da disponibilidade de stock pode ser fornecido em A1 ou A2.

55380 **Porca de mama sextavada tipo baixo** **R49A**

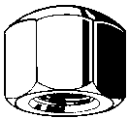
Rosca Métrica
Material Aço inoxidável A4
Classe 50



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	100	55380.040.001	M10	50	55380.100.001	M20	5	55380.200.001
M5	100	55380.050.001	M12	25	55380.120.001	M24	5	55380.240.001
M6	100	55380.060.001	M14*	50	55380.140.001	M27	1	55380.270.001
M8	50	55380.080.001	M16	10	55380.160.001	M30*	10	55380.300.001

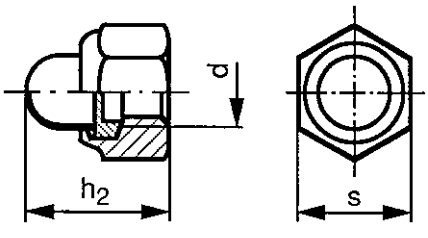
47300 **Porca de mama sextavada tipo baixo** **M11C**

Rosca Métrica
Material Latão Cu3

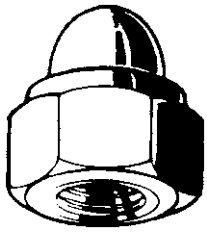


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	200	47300.030.001	M8	100	47300.080.001	M14	25	47300.140.001
M4	200	47300.040.001	M10	50	47300.100.001	M16	10	47300.160.001
M5	200	47300.050.001	M12	25	47300.120.001	M20	10	47300.200.001
M6	200	47300.060.001						

Porca de mama auto bloqueantes com inserto não metálico



DIN **986**



Dados técnicos

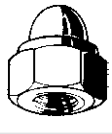
d	h_2	P	s	d	h_2	P	s
M4	9.6	0.7	7	**M10**	18.1	1.5	16
M5	10.5	0.8	8	**M12**	22.5	1.75	18
M6	12	1	10	**M16**	27.5	2	24
M8	14	1.25	13	**M20**	35	2.5	30

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Sextavado	Aço	≥|6|	Zn	16450	3-101
M	Sextavado	INOX A2			51405	3-102

16450 **Porca de mama auto bloqueantes com inserto não metálico** **F01H**

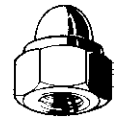
Rosca Métrica
Material Aço
Classe ≥|6|
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	250	16450.040.001	M8	200	16450.080.001	M16	50	16450.160.001
M5	200	16450.050.001	M10	200	16450.100.001	M20	25	16450.200.001
M6	200	16450.060.001	M12	100	16450.120.001			

51405	Porca de mama auto bloqueantes com inserto não metálico	R09A

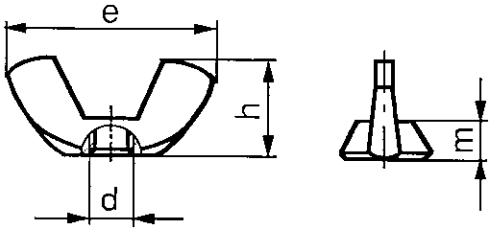
Rosca Métrica
Material Aço inoxidável A2



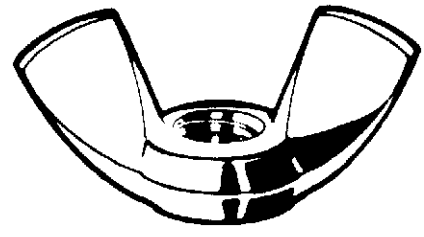
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	100	51405.040.001	M8	50	51405.080.001	M12	25	51405.120.001
M5	100	51405.050.001	M10	50	51405.100.001	M16*	50	51405.160.001
M6	100	51405.060.001						

3

Porca de orelhas modelo americano



ASME ≈B18.17



Dados técnicos

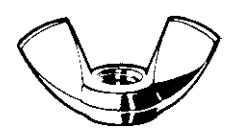
d	e ≈	h ≈	m ≈	P
M3	18.5	8.8	3	0.5
M4	18.5	8.8	3	0.7
M5	22	10.5	4	0.8
M6	26.8	12.9	4.9	1
M8	30.3	14.8	5.4	1.25
M10	35.3	17.3	6.3	1.5
M12	47.5	22.5	7.9	1.75
M14	65	30.8	10.6	2
M16	65	30.8	10.6	2
M20	66.5	31.2	12.2	2.5

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Orelhas	Aço	04	Zn	16250	3-102
M	Orelhas	INOX A2			51810	3-102
M	Orelhas	INOX A4			55810	3-103

16250	Porca de orelhas modelo americano	F01X

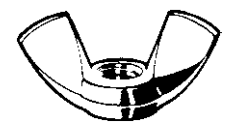
Rosca Métrica
Material Aço
Classe 04
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	250	16250.030.001	M6	250	16250.060.001	M12	50	16250.120.001
M4	250	16250.040.001	M8	100	16250.080.001	M16	25	16250.160.001
M5	250	16250.050.001	M10	100	16250.100.001	M20	10	16250.200.001

51810	Porca de orelhas modelo americano	R09A

Rosca Métrica
Material Aço inoxidável A2



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	100	51810.030.001	M8	50	51810.080.001	M14	5	51810.140.001
M4	100	51810.040.001	M10	25	51810.100.001	M16	5	51810.160.001
M5	100	51810.050.001	M12	10	51810.120.001	M20	3	51810.200.001
M6	50	51810.060.001						

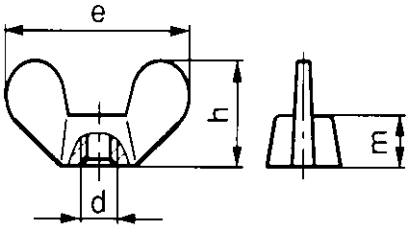
55810 **Porca de orelhas modelo americano** **R49A**

Rosca Métrica
Material Aço inoxidável A4

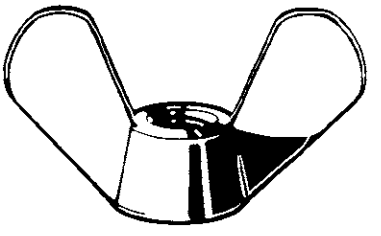


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	100	55810.030.001	M6	50	55810.060.001	M12	10	55810.120.001
M4	100	55810.040.001	M8	50	55810.080.001	M14*	50	55810.140.001
M5	100	55810.050.001	M10	25	55810.100.001	M16	5	55810.160.001

Porca de orelhas



DIN 315
NEN 1625



Dados técnicos

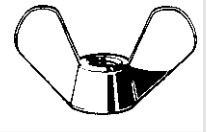
d	e (max.)	h (max.)	m (min.)	P
M3 (≠DIN)	17.6	8.6	2.9	0.5
M4	20	10.5	3.2	0.7
M5	26	13	4	0.8
M6	33	17	5	1
M8	39	20	6.5	1.25
M10	51	25	8	1.5
M12	65	33.5	10	1.75
M14 (≠DIN)	65	33.5	11.2	2
M16	73	37.5	13	2
M20	90	46.5	16	2.5
M24	110	56.5	20	3

Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.	Código	Página
M	Orelhas	Ferro fundido		16260	3-103
M	Orelhas	Ferro fundido	Zn	16270	3-103
M	Orelhas	INOX A2		51800	3-104
M	Orelhas	INOX A4		55800	3-104
M	Orelhas	Latão		47550	3-104
M	Orelhas	Latão	Niq.	47560	3-104

16260 **Porca de orelhas** **F01X**

Rosca Métrica
Material Ferro fundido



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	200	16260.060.001	M10	100	16260.100.001	M12	50	16260.120.001
M8	100	16260.080.001						

16270 **Porca de orelhas** **F01X**

Rosca Métrica
Material Ferro fundido
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	250	16270.040.001	M8	100	16270.080.001	M12	50	16270.120.001
M5	250	16270.050.001	M10	100	16270.100.001	M14	50	16270.140.001
M6	200	16270.060.001						

16270 Porca de orelhas

d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M16	20	16270.160.001	M20	10	16270.200.001	M24	5	16270.240.001

51800 Porca de orelhas — Q01A

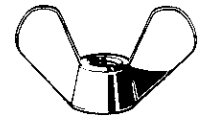
Rosca Métrica
Material Aço inoxidável A2



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4*	50	51800.040.001	M8	25	51800.080.001	M14*	10	51800.140.001
M5*	50	51800.050.001	M10	25	51800.100.001	M16*	10	51800.160.001
M6	50	51800.060.001	M12	25	51800.120.001			

55800 Porca de orelhas — Q41A

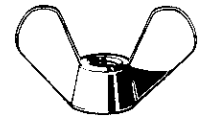
Rosca Métrica
Material Aço inoxidável A4



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4*	50	55800.040.001	M8*	50	55800.080.001	M14*	10	55800.140.001
M5*	50	55800.050.001	M10*	50	55800.100.001	M16*	10	55800.160.001
M6*	50	55800.060.001	M12*	25	55800.120.001			

47550 Porca de orelhas — M11D

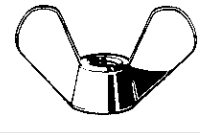
Rosca Métrica
Material Latão



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	250	47550.030.001	M8	100	47550.080.001	M16	20	47550.160.001
M4	250	47550.040.001	M10	100	47550.100.001	M20	10	47550.200.001
M5	250	47550.050.001	M12	50	47550.120.001	M24	5	47550.240.001
M6	200	47550.060.001	M14	50	47550.140.001			

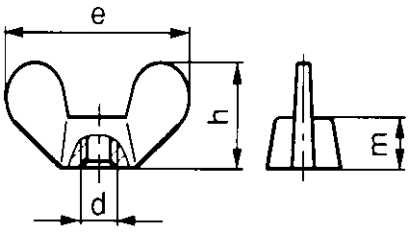
47560 Porca de orelhas — M11D

Rosca Métrica
Material Latão
Tratamento sup. Niquelado

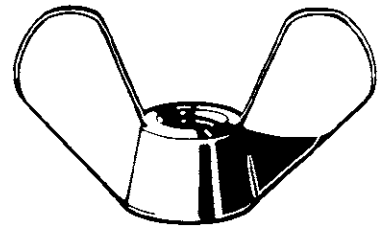


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	250	47560.040.001	M8	100	47560.080.001	M12	50	47560.120.001
M5	250	47560.050.001	M10	100	47560.100.001	M16	20	47560.160.001
M6	200	47560.060.001						

Porca de orelhas BSW



DIN **≈313 (1956)**
NEN ≈2324 (1960)



Dados técnicos

d	e	Fios por polegada	h	m
1/8 (≠DIN)	17.6	40	8.6	2.9
5/32 (≠DIN)	20	32	10.5	3.2
3/16 (≠DIN)	26	24	13	4
1/4	33	20	17	5
5/16	39	18	20	6.5
3/8	51	16	25	8
1/2	65	12	33.5	10
5/8	73	11	37.5	13

- A rosca whitworth (BSW/BSF) não é internacionalmente recomendada. É aconselhado o uso de rosca métrica(M/MF) ou roscas unificadas (UNC/UNF).
- Dependendo da disponibilidade as dimensões podem variar.
- As porcas de orelhas 1/8 são modelo americano.

Grupos de produtos

Rosca	Encaixe	Material	Código	Página
BSW	Orelhas	Ferro fundido	16280	3-105
BSW	Orelhas	Latão Cu2	47570	3-105

16280 Porca de orelhas BSW — X08A

Rosca British Standard Whitworth
Material Ferro fundido



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/8	250	16280.031.001	1/4	200	16280.063.001	1/2	50	16280.127.001
5/32	250	16280.039.001	5/16	100	16280.079.001	5/8	20	16280.158.001
3/16	250	16280.047.001	3/8	100	16280.096.001			

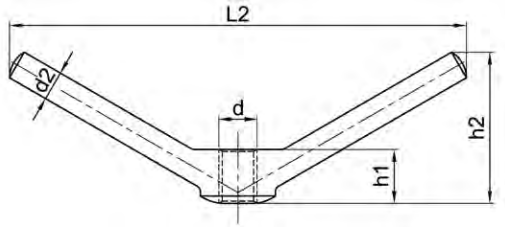
47570 Porca de orelhas BSW — X08A

Rosca British Standard Whitworth
Material Latão Cu2

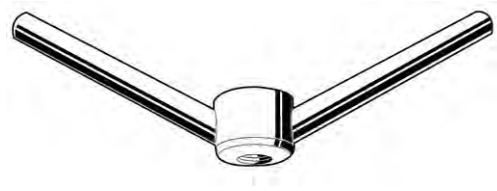


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
5/32	250	47570.039.001	1/4	200	47570.063.001	3/8	100	47570.096.001
3/16	250	47570.047.001	5/16	100	47570.079.001			

Porca de haste



DIN **80701**



3

Dados técnicos

d (h11)	d_2	h_1	h_2	L_2	P
M16	16	25	75	240	2
M20	16	25	75	240	2.5
M24	16	25	75	240	3

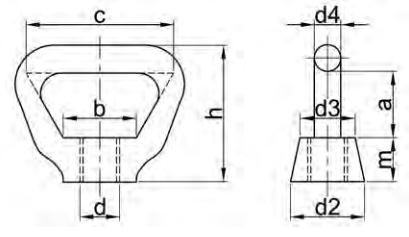
55792 **Porca de haste** **R49A**

Rosca Métrica
Material Aço inoxidável A4
Classe 50



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M16*	5	55792.160.001	M20*	5	55792.200.001	M24*	5	55792.240.001

Porca de argola quadrada



DIN **80704**



Dados técnicos

a	a	b	c	d_2	d_3	d_4	h	m	P
M6	15	14	25	14	11.5	5	28	8	1.00
M8	20	18	32	18	15	6.5	36	10	1.25
M10	25	23	42	23	19	8	50	10	1.50
M12	27	27	48	24	20	10	52	15	1.75
M16	29	32	56	30	24	12	59	18	2.00
M20	32	36	64	36	28	13	66	21	2.50
M24	36	45	75	45	36	14	75	25	3.00

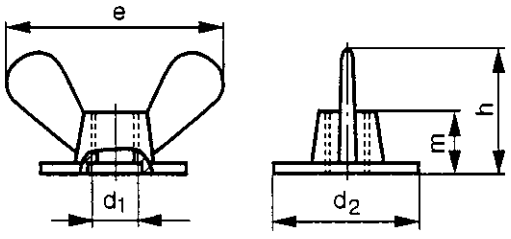
55793 **Porca de argola quadrada** **R49A**

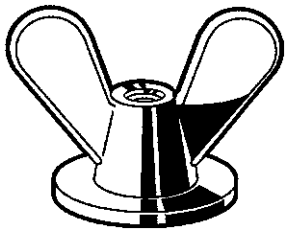
Rosca Métrica
Material Aço inoxidável A4
Classe 50



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6*	10	55793.060.001	M12*	5	55793.120.001	M20*	5	55793.200.001
M8*	10	55793.080.001	M16*	5	55793.160.001	M24*	5	55793.240.001
M10*	10	55793.100.001						

Porca de orelhas com colar





Dados técnicos

d_1	d_2	e	h	m	P
M5	24	35	24	14	0.8
M6	24	35	24	14	1
M8	24	35	24	14	1.25

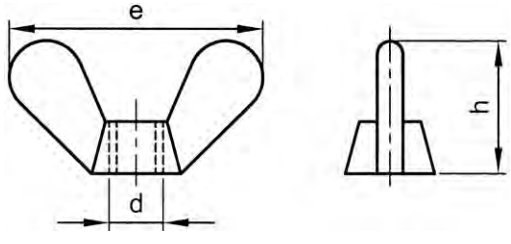
56290 **Porca de orelhas com colar, plástico** **W02A**

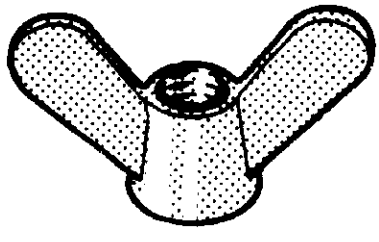
Rosca Métrica
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M5	100	56290.050.001	M6	50	56290.060.001	M8	50	56290.080.001

Porca de orelhas plástico



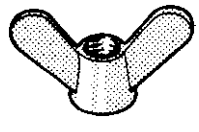


Dados técnicos

d	e	h	m	P
M4	35	22	6	0.7
M5	35	22	6	0.8
M6	35	22	6	1
M8	35	22	14	1.25
M10	41	25	17	1.5

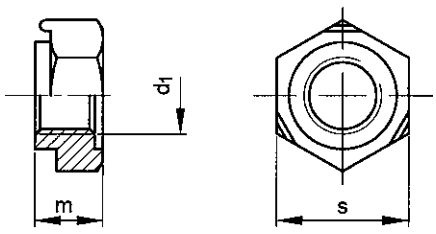
56280 **Porca de orelhas, plástico** **W02A**

Rosca Métrica
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco

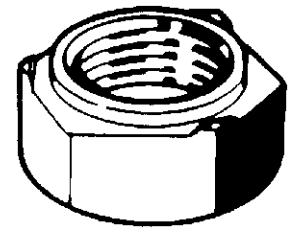


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	100	56280.040.001	M6	50	56280.060.001	M10	25	56280.100.001
M5	100	56280.050.001	M8	50	56280.080.001			

Porca sextavada de soldar



DIN 929



3

Dados técnicos

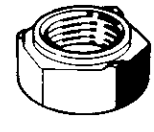
d_1	Furo ø (H11)	m (h14)	P	s (h13)
M3	4.5	3	0.5	7.5
M4	6	3.5	0.7	9
M5	7	4	0.8	10
M6	8	5	1	11
M8	10.5	6.5	1.25	14
M10	12.5	8	1.5	17
M12	14.8	10	1.75	19
M14	16.8	11	2	22
M16	18.8	13	2	24

Grupos de produtos

Rosca	Encaixe	Material	Código	Página
M	Sextavado	Aço Max. 0,25%C	14020	3-108
M	Sextavado	INOX A2	51180	3-108
M	Sextavado	INOX A4	55180	3-108

14020 Porca sextavada de soldar F01F

Rosca Métrica
Material Aço Max. 0,25%C

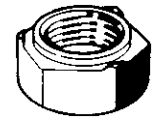


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M3	1000	14020.030.001	M6	1000	14020.060.001	M12	100	14020.120.001
M4	1000	14020.040.001	M8	1000	14020.080.001	M14	100	14020.140.001
M5	1000	14020.050.001	M10	500	14020.100.001	M16	100	14020.160.001

- Estas porcas podem ser utilizadas com parafusos aço classe < 8.8.

51180 Porca sextavada de soldar R09A

Rosca Métrica
Material Aço inoxidável A2



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M3	100	51180.030.001	M6	100	51180.060.001	M12	25	51180.120.001
M4	100	51180.040.001	M8	50	51180.080.001	M16	25	51180.160.001
M5	100	51180.050.001	M10	50	51180.100.001			

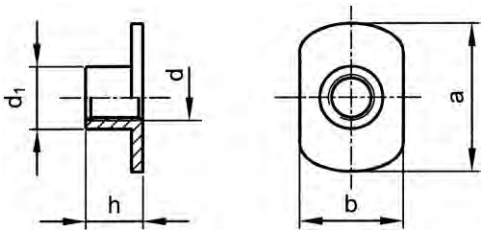
55180 Porca sextavada de soldar R49A

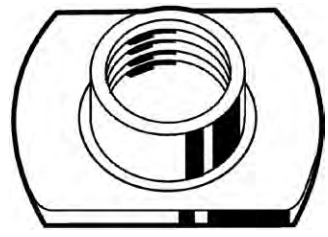
Rosca Métrica
Material Aço inoxidável A4



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M3	100	55180.030.001	M6	100	55180.060.001	M12	25	55180.120.001
M4	100	55180.040.001	M8	50	55180.080.001	M16	25	55180.160.001
M5	100	55180.050.001	M10	50	55180.100.001			

Porca soldar com flange





Dados técnicos

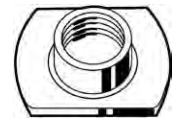
d x a	a	b	d_1	h	P
M3X17	17	9	4.6	5	0.5
M4X17	17	9	5	6	0.7
M5X19	19	11	6.4	7.5	0.8
M6X19	19	14	7.7	8.5	1
M6X22	22	14	7.7	8.5	1
M8X22	22	18	10.1	10	1.25
M8X26	26	18	10.1	10	1.25
M10X26	26	18	11.9	10.5	1.5

Grupos de produtos

Rosca	Material	Código	Página
M	Aço	14230	3-109
M	INOX A2	51182	3-109

14230 **Porca soldar com flange** **F01F**

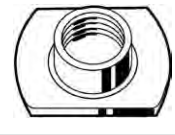
Rosca Métrica
Material Aço



d x a	✉	Ref. do artigo	d x a	✉	Ref. do artigo	d x a	✉	Ref. do artigo
M4X17	1000	14230.040.001	M6X22	1000	14230.060.001	M10X26	500	14230.100.001
M5X19	1000	14230.050.001	M8X26	1000	14230.080.001			

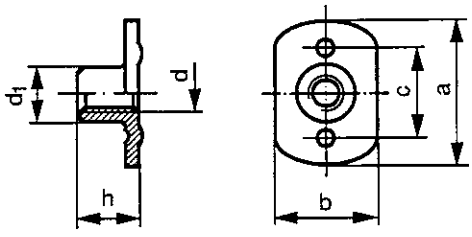
51182 **Porca soldar com flange** **R09A**

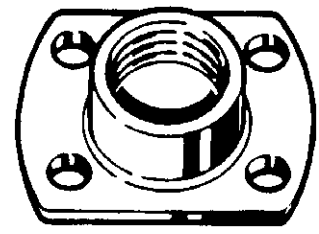
Rosca Métrica
Material Aço inoxidável A2



d x a	✉	Ref. do artigo	d x a	✉	Ref. do artigo	d x a	✉	Ref. do artigo
M3X17*	100	51182.030.017	M6X19*	100	51182.060.019	M8X26*	100	51182.080.026
M4X17*	100	51182.040.017	M6X22*	100	51182.060.022	M10X26*	100	51182.100.026
M5X19*	100	51182.050.019	M8X22*	100	51182.080.022			

Porca de soldar





3

Dados técnicos

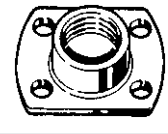
d x d_1	a	b	c	h	Número de pontos de soldadura	P
M4X4.9	17	9	12	6	2	0.7
M4X5	17	9	12	6	2	0.7
M5X6.1	19	11	13	7.5	2	0.8
M5X6.4	19	11	14	7.5	2	0.8
M6X7.5	22	14	14	8.5	4	1
M6X7.7	22	14	16	8.5	2	1
M8X9.7	26	18	16	11	4	1.25
M8X10.1	26	18	16	10	4	1.25
M10X11.5	26	18	16	10.5	4	1.5
M10X11.9	26	18	16	10.5	4	1.5

Grupos de produtos

Rosca	Material	Tratamento sup.	Código	Página
M	Aço		14200	3-110
M	Aço	Zn	14210	3-110
M	INOX A2		51183	3-110

14200 Porca de soldar — F01F

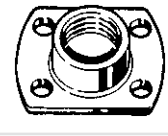
Rosca Métrica
Material Aço



d x d_1	✉	Ref. do artigo	d x d_1	✉	Ref. do artigo	d x d_1	✉	Ref. do artigo
M4X5	1000	14200.040.001	M6X7,7	1000	14200.060.001	M10X11,9	500	14200.100.001
M5X6,4	1000	14200.050.001	M8X10,1	1000	14200.080.001			

14210 Porca de soldar — F01F

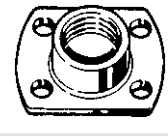
Rosca Métrica
Material Aço
Tratamento sup. Zincado



d x d_1	✉	Ref. do artigo	d x d_1	✉	Ref. do artigo	d x d_1	✉	Ref. do artigo
M5x6,4	1000	14210.050.001	M8x10,1	1000	14210.080.001	M10x11,9	500	14210.100.001
M6x7,7	1000	14210.060.001						

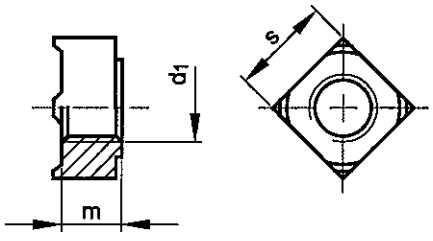
51183 Porca de soldar — R09A

Rosca Métrica
Material Aço inoxidável A2

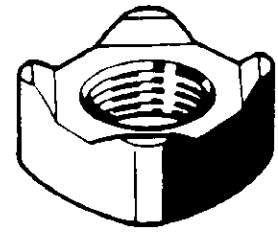


d x d_1	✉	Ref. do artigo	d x d_1	✉	Ref. do artigo	d x d_1	✉	Ref. do artigo
M4x4,9	250	51183.040.001	M6x7,5	250	51183.060.001	M10x11,5	100	51183.100.001
M5x6,1	250	51183.050.001	M8x9,7	250	51183.080.001			

Porca quadrada de soldar



DIN 928



Dados técnicos

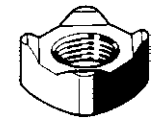
d_1	Furo ø (H11)	m (h14)	P	s (h14)
M4	6	3.5	0.7	7
M5	7	4.2	0.8	9
M5 (≠DIN)	7	4.2	0.8	8
M6	8	5	1	10
M8	10.5	6.5	1.25	14
M10	12.5	8	1.5	17
M12	14.8	9.5	1.75	19
M14	16.8	11.4	2	22

Grupos de produtos

Rosca	Encaixe	Material	Código	Página
M	Quadrada	Aço Max. 0,25%C	14000	3-111
M	Quadrada	INOX A2	51178	3-111
M	Quadrada	INOX A4	55178	3-111

14000 Porca quadrada de soldar F01F

Rosca Métrica
Material Aço Max. 0,25%C

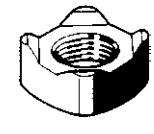


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M4	1000	14000.040.001	M8	1000	14000.080.001	M12	100	14000.120.001
M5	1000	14000.050.001	M10	500	14000.100.001	M14	100	14000.140.001
M6	1000	14000.060.001						

- Estas porcas podem ser utilizadas com parafusos aço classe < 8.8.

51178 Porca quadrada de soldar R09A

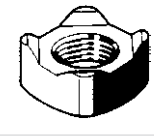
Rosca Métrica
Material Aço inoxidável A2



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M5	100	51178.050.001	M6	100	51178.060.001	M8	50	51178.080.001

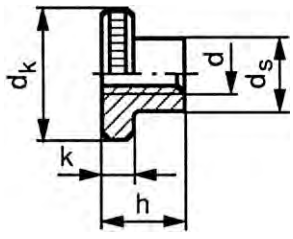
55178 Porca quadrada de soldar R49A

Rosca Métrica
Material Aço inoxidável A4

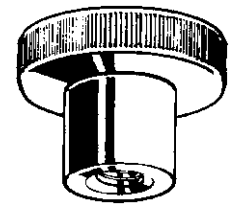


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5*	200	55178.050.001	M6*	200	55178.060.001	M8*	200	55178.080.001

Porca dentada alta



DIN **466**



3

Dados técnicos

d	d_k	d_s	h	k	P
M2	9	4.5	5.3	2	0.4
M3	12	6	7.5	2.5	0.5
M4	16	8	9.5	3.5	0.7
M5	20	10	11.5	4	0.8
M6	24	12	15	5	1
M8	30	16	18	6	1.25
M10	36	20	23	8	1.5

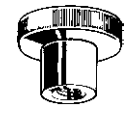
Grupos de produtos

Rosca	Material	Classe	Tratamento sup.	Código	Página
M	Aço	|5|	Zn	16680	3-112
M	INOX A1	50		51830	3-112
M	Latão Cu3			47500	3-112

16680 Porca dentada alta — F01X

Rosca Métrica
Material Aço
Classe |5|
Tratamento sup. Zincado

RoHS

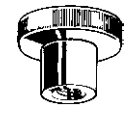


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	100	16680.030.001	M5	50	16680.050.001	M8	25	16680.080.001
M4	50	16680.040.001	M6	25	16680.060.001	M10	10	16680.100.001

51830 Porca dentada alta — R09A

Rosca Métrica
Material Aço inoxidável A1
Classe 50

RoHS

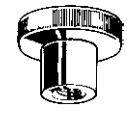


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M2*	100	51830.020.001	M5	25	51830.050.001	M8	10	51830.080.001
M3	50	51830.030.001	M6	10	51830.060.001	M10	5	51830.100.001
M4	25	51830.040.001						

47500 Porca dentada alta — M11D

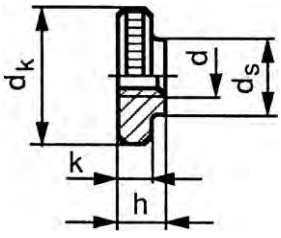
Rosca Métrica
Material Latão Cu3

RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	100	47500.030.001	M5	50	47500.050.001	M8	25	47500.080.001
M4	50	47500.040.001	M6	25	47500.060.001	M10	10	47500.100.001

Porca dentada baixa



DIN 467



Dados técnicos

d	d_k	d_s	h	k	P
M3	12	6	3	2.5	0.5
M4	16	8	4	3.5	0.7
M5	20	10	5	4	0.8
M6	24	12	6	5	1
M8	30	16	8	6	1.25
M10	36	20	10	8	1.5

Grupos de produtos

Rosca	Material	Classe	Tratamento sup.	Código	Página
M	Aço	|5|	Zn	16690	3-113
M	INOX A1	50		51840	3-113
M	Latão Cu3			47510	3-113
M	Latão Cu3		Niq.	47511	3-114

16690 Porca dentada baixa F01X

Rosca Métrica
Material Aço
Classe |5|
Tratamento sup. Zincado



RoHS

d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	100	16690.030.001	M5	50	16690.050.001	M8	25	16690.080.001
M4	50	16690.040.001	M6	25	16690.060.001	M10	10	16690.100.001

51840 Porca dentada baixa R09A

Rosca Métrica
Material Aço inoxidável A1
Classe 50



RoHS

d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	50	51840.030.001	M5	25	51840.050.001	M8	10	51840.080.001
M4	25	51840.040.001	M6	10	51840.060.001	M10	5	51840.100.001

47510 Porca dentada baixa M11D

Rosca Métrica
Material Latão Cu3



RoHS

d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	100	47510.030.001	M5	50	47510.050.001	M8	25	47510.080.001
M4	100	47510.040.001	M6	50	47510.060.001	M10	25	47510.100.001

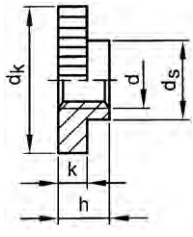
47511	Porca dentada baixa	M01D

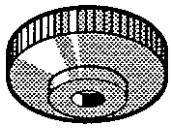
Rosca Métrica
Material Latão Cu3
Tratamento sup. Niquelado

d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	100	47511.030.001	M5	50	47511.050.001	M8	25	47511.080.001
M4	100	47511.040.001	M6	50	47511.060.001	M10	25	47511.100.001

3

Porca dentada





Dados técnicos

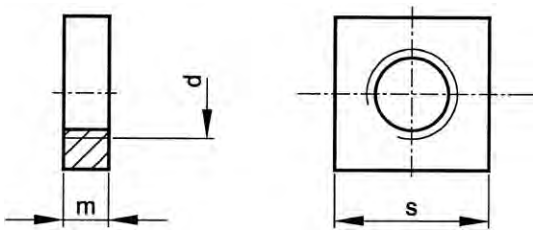
d	d_k	d_s	h	k	P
M4	16	10	6	4.6	0.7
M5	16	10	6	4.6	0.8
M6	16	10	6	4.6	1

56240	Porca dentada plástico	W02A

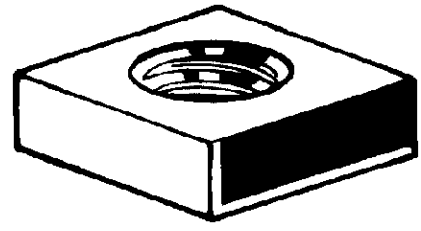
Rosca Métrica
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco

d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	100	56240.040.001	M5	100	56240.050.001	M6	50	56240.060.001

Porca quadrada baixa



DIN 562



Dados técnicos

d	m	P	s
M2	1.2	0.4	4
M2.5	1.6	0.45	5
M3	1.8	0.5	5.5
M4	2.2	0.7	7
M5	2.7	0.8	8
M6	3.2	1	10
M8	4	1.25	13
M10	5	1.5	16

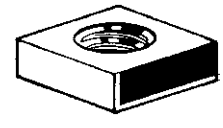
Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.		Código	Página
M	Quadrada	Aço	04	Zn		24769	3-115
M	Quadrada	Aço	04	Zn	Embalagem grande	24770	3-115
M	Quadrada	INOX A2				51095	3-115
M	Quadrada	INOX A4				55095	3-116

24769 Porca quadrada baixa F01X

Rosca Métrica
Material Aço
Classe 04
Tratamento sup. Zincado

RoHS

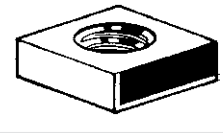


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	250	24769.030.001	M5	250	24769.050.001	M8	250	24769.080.001
M4	250	24769.040.001	M6	250	24769.060.001	M10	250	24769.100.001

24770 Porca quadrada baixa F01X

Rosca Métrica
Material Aço
Classe 04
Tratamento sup. Zincado

RoHS

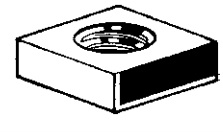


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	2500	24770.030.001	M5	2500	24770.050.001	M8	1000	24770.080.001
M4	2500	24770.040.001	M6	2500	24770.060.001	M10	500	24770.100.001

51095 Porca quadrada baixa R09A

Rosca Métrica
Material Aço inoxidável A2

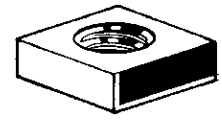
RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M2*	500	51095.020.001	M4	250	51095.040.001	M8	250	51095.080.001
M2,5*	500	51095.025.001	M5	250	51095.050.001	M10*	100	51095.100.001
M3	250	51095.030.001	M6	250	51095.060.001			

55095	Porca quadrada baixa	R49A

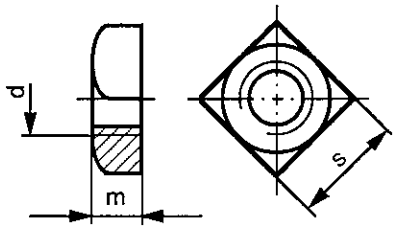
Rosca Métrica
Material Aço inoxidável A4



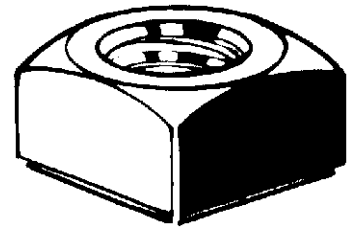
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	250	55095.030.001	M5	250	55095.050.001	M8	250	55095.080.001
M4	250	55095.040.001	M6	250	55095.060.001	M10*	100	55095.100.001

3

Porca quadrada



DIN **557**
NF E25-404



Dados técnicos

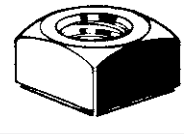
d	m (h15)	P	s
M4 (≠DIN)	3.2	0.7	7
M5	4	0.8	8
M6	5	1	10
M8	6.5	1.25	13
M10	8	1.5	17
M12	10	1.75	19

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Quadrada	Aço	≥5		11120	3-116
M	Quadrada	Aço	≥5	Zn	11140	3-116
M	Quadrada	INOX A2			51088	3-117
M	Quadrada	INOX A4			55088	3-117

11120	Porca quadrada	F01A

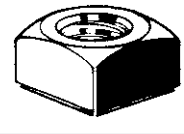
Rosca Métrica
Material Aço
Classe ≥5



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	250	11120.040.001	M6	250	11120.060.001	M10	250	11120.100.001
M5	250	11120.050.001	M8	250	11120.080.001	M12	100	11120.120.001

11140	Porca quadrada	F01A

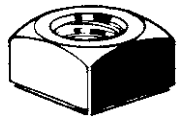
Rosca Métrica
Material Aço
Classe ≥5
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	250	11140.040.001	M6	250	11140.060.001	M10	250	11140.100.001
M5	250	11140.050.001	M8	250	11140.080.001	M12	100	11140.120.001

51088	Porca quadrada	R09A

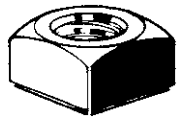
Rosca Métrica
Material Aço inoxidável A2



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	200	51088.050.001	M8*	200	51088.080.001	M12*	100	51088.120.001
M6*	200	51088.060.001	M10*	100	51088.100.001	M16*	100	51088.160.001

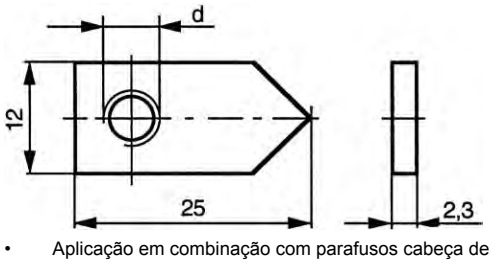
55088	Porca quadrada	R49A

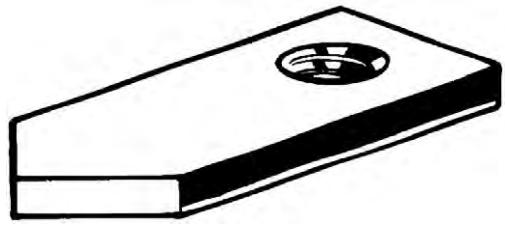
Rosca Métrica
Material Aço inoxidável A4



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	200	55088.050.001	M8	100	55088.080.001	M12*	100	55088.120.001
M6	200	55088.060.001	M10	100	55088.100.001	M16*	100	55088.160.001

Porca de encaixe





- Aplicação em combinação com parafusos cabeça de queijo com cruz em caixas e armários.

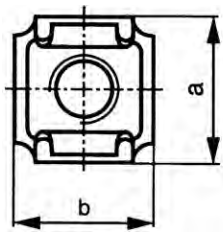
24700	Porca de encaixe	F01X

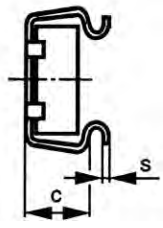
Rosca Métrica
Material Aço
Tratamento sup. Zincado

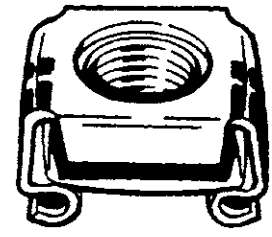


d x P	✉	Ref. do artigo
M6X1	1000	24700.060.001

Porca de gaiola tipo SMG



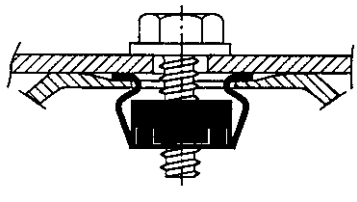


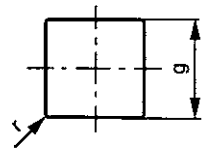


Dados técnicos

Tipo	a	b	c	Espessura do material	g (tol. - 0,2mm)	Para parafuso	r	s
M4-A	13.5	13.2	6	0.7-1.6	9.5	M4	0.5	0.5
M4-B	13.5	13.2	6	1.7-2.7	9.5	M4	0.5	0.5
M5-A	13.5	13.2	6	0.7-1.6	9.5	M5	0.5	0.5
M5-B	13.5	13.2	6	1.7-2.7	9.5	M5	0.5	0.5
M6-A	13.5	13.2	6	0.7-1.6	9.5	M6	0.5	0.5
M6-B	13.5	13.2	6	1.7-2.7	9.5	M6	0.5	0.5
M6-C	13.5	13.2	4.5	1.7-2.7	9.5	M6	0.5	0.5
M8-A	16.6	16	7.8	1.0-1.7	12.3	M8	0.5	0.6
M8-B	16.6	16	7.8	1.8-3.2	12.3	M8	0.5	0.6
M8-C	16.6	16	5.5	1.8-3.2	12.3	M8	0.5	0.6
M10-A	16.6	16	7.8	1.0-1.7	12.3	M10	0.5	0.6
M10-B	16.6	16	7.8	1.8-3.2	12.3	M10	0.5	0.6
M10-C	16.6	16	5.5	1.8-3.2	12.3	M10	0.5	0.6

Dados montagem



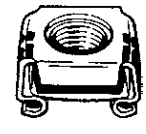


Grupos de produtos

Rosca	Material	Tratamento sup.	Código	Página
M	Aço mola	Zn	72350	3-118
M	INOX A2		51128	3-118

72350 Porca de gaiola tipo SMG **Y93A**

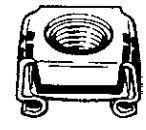
Rosca Métrica
Material Aço mola
Tratamento sup. Zincado



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
M4 TYPE A	25	72350.040.001	M6 TYPE A	25	72350.060.001	M8 TYPE B	25	72350.080.002
M4 TYPE B	25	72350.040.002	M6 TYPE B	25	72350.060.002	M10 TYPE A	25	72350.100.001
M5 TYPE A	25	72350.050.001	M8 TYPE A	25	72350.080.001	M10 TYPE B	25	72350.100.002
M5 TYPE B	25	72350.050.002						

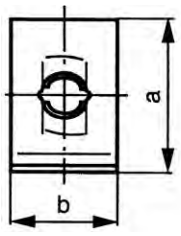
51128 Porca de gaiola tipo SMG **R05A**

Rosca Métrica
Material Aço inoxidável A2

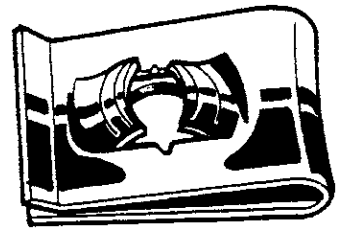


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6 TYPE C*	500	51128.060.001	M8 TYPE C*	100	51128.080.001	M10 TYPE C*	100	51128.100.001

Porca rápida tipo SNU





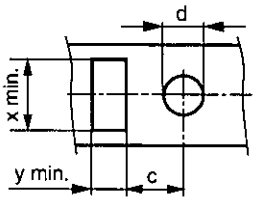


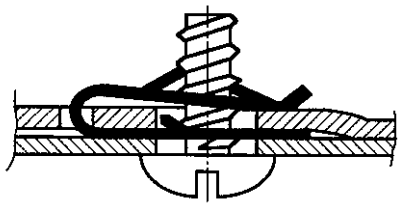
Dados técnicos

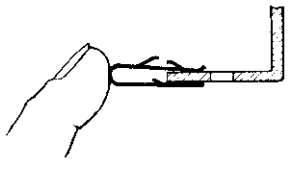
Tipo	a	b	c	Espessura do material	Para parafuso	s	x (min.)	y (min.)
SNU 1812	11.1	7.9	4.8	0.7-1.2	ST2.9	0.5	8.3	5.5
SNU 1219	16.4	11	6.7	0.7-1.6	ST3.5	0.6	11.4	6.1
SNU 0536	16.5	11	6.7	0.7-1.6	ST4.2	0.6	11.4	7.6
SNU 1561	24.6	11.1	15	0.7-1.6	ST4.2	0.6	11.4	10.7
SNU 0537	19.8	12.7	7.9	0.9-2.0	ST4.8	0.7	12.9	9.4
SNU 1747	12.2	16	5.5	0.9-1.6	ST4.8	0.7	-	-
SNU 0538	26.2	15.1	11.1	0.9-2.6	ST5.5	0.8	15.4	9.9
SNU 5113	27.3	14.3	13.1	0.8-1.8	ST6.3	0.9	14.7	10
SNU-M5	20.4	15	-	-	M5	0.6	-	-
SNU-M6	23.6	16	-	-	M6	0.8	-	-
SNU-M8	27.5	18	-	-	M8	1	-	-

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Dados montagem







Grupos de produtos

Rosca	Material	Tratamento sup.	Código	Página
M	Aço mola	Zn	72340	3-119
ST	Aço mola	Passiv. amar.	72293	3-119

72340 Porca rápida tipo SNU — Y93A

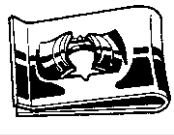
Rosca Métrica
Material Aço mola
Tratamento sup. Zincado



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
M5	50	72340.050.001	M6	50	72340.060.001	M8	50	72340.080.001

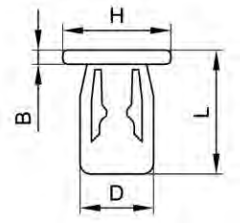
72293 Porca rápida tipo SNU — Y93A

Rosca Autorroscante
Material Aço mola
Tratamento sup. Passivado a amarelo



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
2,9MM = No.1812	100	72293.029.001	4,2MM = No.1561	50	72293.042.002	5,5MM = No.0538	50	72293.055.001
3,5MM = No.1219	100	72293.035.001	4,8MM = No.0537	50	72293.048.001	6,3MM = No.5113	50	72293.063.001
4,2MM = No.0536	50	72293.042.001	4,8MM = No.1747	50	72293.048.002			

Porca de cravar





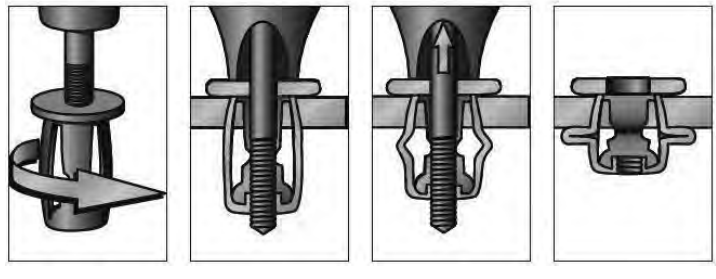
3

Dados técnicos

Tipo	4SJN	6SJN	8SJN
B	1.9	1.9	1.9
Binário de aperto em Nm	1.3	2.2	3.4
D	7.8	9.7	11.1
Espessura do material (máx.)	4.8	4.8	4.8
Espessura do material (mín.)	0.4	0.4	0.4
Furo ø ≈	8.25	9.95	11.25
H	11.9	13.5	15.9
L	16.6	18.2	18.6
Para diâm. nom.	M4	M5	M6
Resistência á tracção em kN	1.4	2.8	4.7

- Dados de montagem: valores válidos para espessura de aço de 1,5 mm.

Sequência de montagem



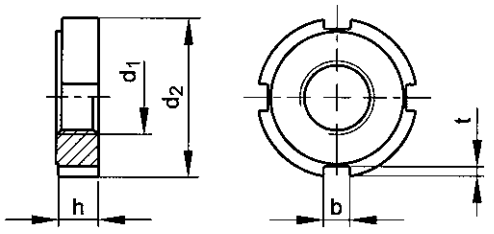
65411 Porca de cravar **N61B**

Rosca Métrica
Material Aço
Tratamento sup. Zincado

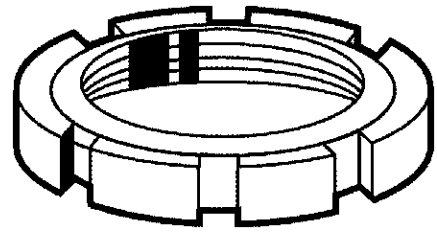


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
4SJN	100	65411.040.015	6SJN	100	65411.050.017	8SJN	100	65411.060.018

Porca cilindrica dentada



DIN 1804 W



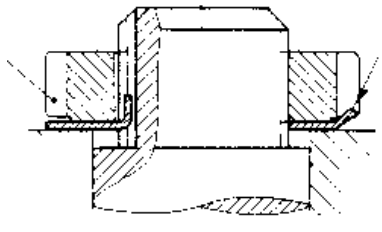
Dados técnicos

d_1	b	d_2 (h11)	h (h14)	Número de fendas	t
M10	5	25	6	4	2
M12	5	28	6	4	2
M14	5	30	7	4	2
M16	5	32	7	4	2
M18	6	34	8	4	2.5
M20	6	36	8	4	2.5
M22	6	40	9	4	2.5
M24	6	42	9	4	2.5
M26	7	45	10	4	3
M28	7	50	10	4	3
M30	7	50	10	4	3
M32	7	52	11	4	3
M35	7	55	11	4	3
M38	8	58	11	4	3.5
M40	8	62	12	4	3.5
M42	8	62	12	4	3.5
M45	8	68	12	6	3.5
M48	8	75	13	6	3.5
M50	8	75	13	6	3.5
M55	10	80	13	6	4
M58	10	90	13	6	4
M60	10	90	13	6	4
M62	10	95	14	6	4
M65	10	95	14	6	4
M68	10	100	14	6	4
M70	10	100	14	6	4
M72	10	110	14	6	4
M75	10	110	14	6	4
M80	10	115	16	6	4
M85	10	120	16	6	4
M90	10	130	16	6	4
M95	12	135	16	6	5
M100	12	145	16	6	5

- As porcas redondas com fenda para ganchos são aplicadas com anilhas com patilha ac. com DIN 462 e são de fácil montagem com chave ac. com DIN 1810.

Exemplo de aplicação / dados montagem

Porca de faces dentadas de acc.com DIN 1804 W

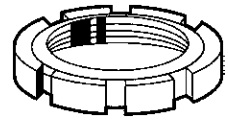


Anilha interna de acc. Com DIN 462

11572 **Porca cilindrica dentada** **F01X**

Rosca Métrica fina
Material Aço
Classe |5|

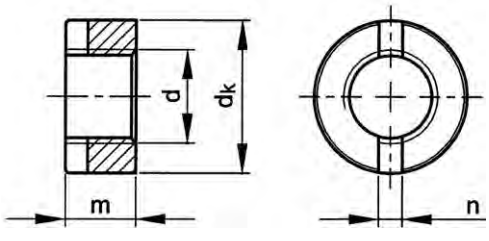
RoHS



d_1 x P	✉	Ref. do artigo	d_1 x P	✉	Ref. do artigo	d_1 x P	✉	Ref. do artigo
M10X1,00	25	11572.100.100	M32X1,50	5	11572.320.150	M62X1,50	1	11572.620.150
M12X1,50	25	11572.120.150	M35X1,50	5	11572.350.150	M65X1,50	1	11572.650.150
M14X1,50	10	11572.140.150	M38X1,50	5	11572.380.150	M68X1,50	1	11572.680.150
M16X1,50	10	11572.160.150	M40X1,50	5	11572.400.150	M70X1,50	1	11572.700.150
M18X1,50	10	11572.180.150	M42X1,50	5	11572.420.150	M72X1,50	1	11572.720.150
M20X1,50	10	11572.200.150	M45X1,50	5	11572.450.150	M75X1,50	1	11572.750.150
M22X1,50	10	11572.220.150	M48X1,50	5	11572.480.150	M80X2,00	1	11572.800.200
M24X1,50	5	11572.240.150	M50X1,50	5	11572.500.150	M85X2,00	1	11572.850.200
M26X1,50	5	11572.260.150	M55X1,50	5	11572.550.150	M90X2,00	1	11572.900.200
M28X1,50	5	11572.280.150	M58X1,50	5	11572.580.150	M95X2,00	1	11572.950.200
M30X1,50	5	11572.300.150	M60X1,50	1	11572.600.150	M100X2,00	1	11572.982.200

3

Porca cilindrica com fenda



DIN **546**



Dados técnicos

d	d_k	m	n	P
M2	4.5	2	1	0.4
M2.5	5.5	2.2	1.2	0.45
M3	6	2.5	1.2	0.5
M4	8	3.5	1.4	0.7
M5	9	4.2	2	0.8
M6	11	5	2.5	1
M8	14	6.5	3	1.25
M10	18	8	3.5	1.5

- As porcas redondas, são frequentemente utilizadas em electrónico e indústrias mecânicas finas, são fáceis de montar com chave de ac. com DIN 3115. Fabory product group: P0044.

Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.	Código	Página
M	Fenda	Aço de corte	Zn	11772	3-122
M	Fenda	INOX A1		51098	3-123
M	Fenda	INOX A4		55098	3-123

11772 **Porca cilindrica com fenda** **F01X**

Rosca Métrica
Material Aço de corte
Tratamento sup. Zincado

RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M2	100	11772.020.001	M5	100	11772.050.001	M8	50	11772.080.001
M3	100	11772.030.001	M6	100	11772.060.001	M10	50	11772.100.001
M4	100	11772.040.001						

51098 **Porca cilindrica com fenda** **R09A**

Rosca Métrica
Material Aço inoxidável A1



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M2*	200	51098.020.001	M4*	200	51098.040.001	M8*	100	51098.080.001
M2,5*	200	51098.025.001	M5*	200	51098.050.001	M10*	50	51098.100.001
M3*	200	51098.030.001	M6*	100	51098.060.001			

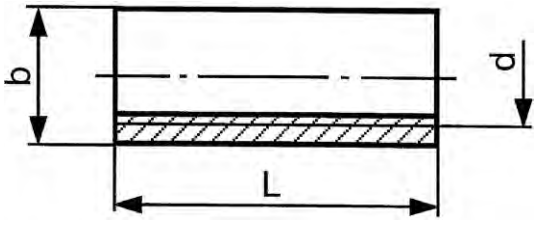
55098 **Porca cilindrica com fenda** **R49A**

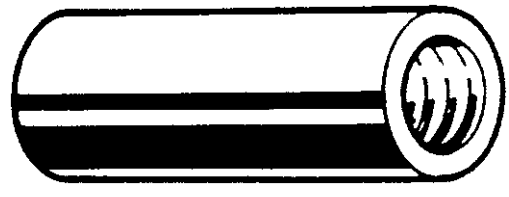
Rosca Métrica
Material Aço inoxidável A4



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4*	200	55098.040.001	M6*	100	55098.060.001	M8*	100	55098.080.001
M5*	200	55098.050.001						

Porca cilindrica de ligação





Dados técnicos

d	b	P
M5	8	0.8
M6	10	1
M8	11	1.25
M10	13	1.5

d	b	P
M12	15	1.75
M16	25	2
M20	28	2.5

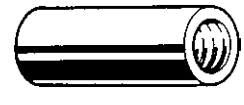
- Estas porcas de ligação são utilizadas em varões roscados.

Grupos de produtos

Rosca	Material	Classe	Tratamento sup.	Código	Página
M	Aço de corte		Zn	11401	3-123
M	INOX A2	50		51113	3-124
M	INOX A4	50		55113	3-124

11401 **Porca cilindrica de ligação** **F01C**

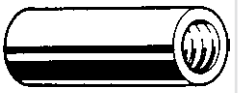
Rosca Métrica
Material Aço de corte
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X20	100	11401.050.020	M8X30	100	11401.080.030	M10X40	100	11401.100.040
M6X20	100	11401.060.020	M8X40	100	11401.080.040	M12X20	50	11401.120.020
M6X30	100	11401.060.030	M10X20	100	11401.100.020	M12X30	50	11401.120.030
M8X20	100	11401.080.020	M10X30	100	11401.100.030	M12X40	50	11401.120.040

51113 Porca cilindrica de ligação — R09A

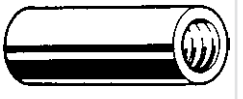
Rosca Métrica
Material Aço inoxidável A2
Classe 50



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X20*	100	51113.060.020	M8X40*	100	51113.080.040	M12X30*	50	51113.120.030
M6X25*	100	51113.060.025	M8X50*	100	51113.080.050	M12X40*	50	51113.120.040
M6X30*	100	51113.060.030	M10X20*	100	51113.100.020	M12X50*	50	51113.120.050
M8X20*	100	51113.080.020	M10X25*	100	51113.100.025	M16X40*	25	51113.160.040
M8X25*	100	51113.080.025	M10X30*	100	51113.100.030	M16X50*	25	51113.160.050
M8X30*	100	51113.080.030	M10X40*	100	51113.100.040	M20X50*	25	51113.200.050
M8X35*	100	51113.080.035						

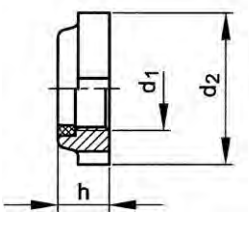
55113 Porca cilindrica de ligação — R49A

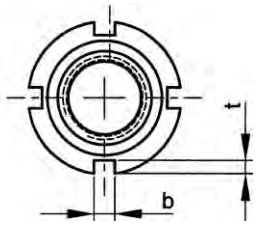
Rosca Métrica
Material Aço inoxidável A4
Classe 50

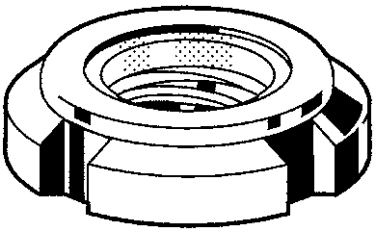


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X25*	100	55113.060.025	M10X30*	100	55113.100.030	M16X40*	25	55113.160.040
M8X30*	100	55113.080.030	M12X30*	50	55113.120.030	M20X50*	25	55113.200.050

Porca auto bloqueante redonda com fendas e inserto não metálico tipo GUK





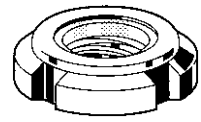


Dados técnicos

d_1	b	d_2	h	Número de fendas	t
M10	3	18	7.4	4	2
M12	3	22	7.4	4	2
M15	4	25	8.4	4	2
M17	4	28	8.4	4	2
M20	4	32	9.4	4	2.5
M25	5	38	10.3	4	2.5
M30	5	44	10.9	4	3
M35	5	50	11.1	4	3
M40	6	56	12.1	4	3
M45	6	62	12.1	4	3.5
M50	6	68	12.7	4	3.5
M55	7	75	13.2	6	3.5
M60	7	80	13.2	6	3.5
M65	7	85	14.3	6	3.5
M70	8	92	14.3	6	4
M75	8	98	15.3	6	4
M80	10	105	16.3	8	4
M85	10	110	17.3	8	4
M90	10	120	17.5	8	5
M95	10	125	18.5	8	5
M100	10	130	19.5	8	5

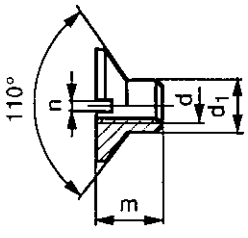
11790 **Porca auto bloqueante redonda com fendas e inserto não metálico tipo GUK** **F01X**

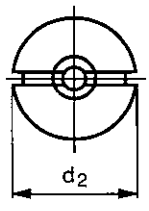
Rosca Métrica fina
Material Aço
Tratamento sup. Passivado a amarelo

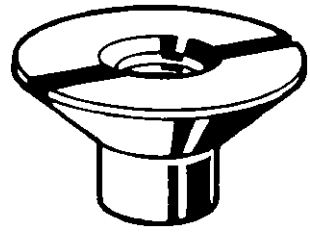


d_1 x P	✉	Ref. do artigo	d_1 x P	✉	Ref. do artigo	d_1 x P	✉	Ref. do artigo
M10X0,75	10	11790.100.075	M35X1,50	5	11790.350.150	M70X2,00	1	11790.700.200
M12X1,00	10	11790.120.100	M40X1,50	5	11790.400.150	M75X2,00	1	11790.750.200
M15X1,00	10	11790.150.100	M45X1,50	2	11790.450.150	M80X2,00	1	11790.800.200
M17X1,00	10	11790.170.100	M50X1,50	2	11790.500.150	M85X2,00	1	11790.850.200
M20X1,00	10	11790.200.100	M55X2,00	1	11790.550.200	M90X2,00	1	11790.900.200
M25X1,50	5	11790.250.150	M60X2,00	1	11790.600.200	M95X2,00	1	11790.950.200
M30X1,50	5	11790.300.150	M65X2,00	1	11790.650.200	M100X2,00	1	11790.982.200

Porca (110º) com fenda







Dados técnicos

d	d_1	d_2	m	n	P
M3	4	10	6	1	0.5
M4	5	12	6	1	0.7
M5	6	14	7	2	0.8
M6	7	16	8	2	1
M8	9	20	10	2	1.25
M10	12	24	12	2.5	1.5

- Porcas de embeber com fenda são usadas entre outras aplicações, em ligações de madeira, onde a porca tem de ser embebida.

11560 **Porca (110º) com fenda** **F01X**

Rosca Métrica
Material Aço de corte
Tratamento sup. Zincado

RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	250	11560.030.010	M5	250	11560.050.014	M8	250	11560.080.020
M4	250	11560.040.012	M6	250	11560.060.016	M10	250	11560.100.024

Fabory porcas e parafusos de rebitar

A gama Fabory de material de rebitar tem cerca de 14 series de material diferentes. Diversas medidas, materiais, tipos de cabeça ou corpo.



Medidas: M3 a M12
Material: alumínio, aço, Inox (A2 e A4)
Tipo de cabeça: Cilíndrica, embeber, embeber reduzida
Tipo de corpo: redondo, hexagonal, ponta aberta e fechada.

Os diâmetros das porcas de rebitar foram adaptadas para a utilização com diâmetros de furos standard. O perno de rebitar permite uma ligação roscada e está disponível em 4 diferentes diâmetros com 4 comprimentos cada, utilizando uma classe de aço 8.8

Vantagens

- Pode ser utilizado em material com pouca espessura, facilmente.
- O tempo utilizado é muito mais reduzido, do que soldar ou fazer rosca
- As porcas de rebitar tem as mesmas propriedades que uma união roscada em material sólido, porque tem uma flange forte que permanece após deformação.
- Pode ser aplicada, quando temos acesso apenas de um dos lados.
- O material não sofre dano.
- Não deforma nem provoca a descoloração do material.

Fabory ferramentas manuais para rebites e porcas de rebitar.

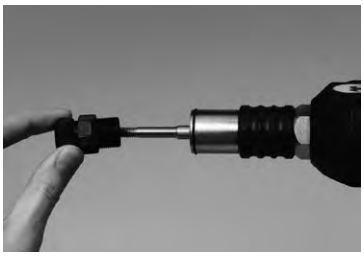
A gama de ferramentas manuais Fabory, para rebites e porcas de rebitar, oferece uma das gamas mais alargadas e mais inovadora de ferramentas profissionais do mercado. Todas as ferramentas manuais Fabory de insertos estão equipadas com um sistema patenteado de quick release, um sistema de mandris permite, mudar de mandril com as suas próprias mãos sem necessidade de chaves.Todas as ferramentas são fornecidas em conjunto com, set de mandris/ adaptadores.

As ferramentas para porcas e parafusos de rebitar são distintas em várias áreas

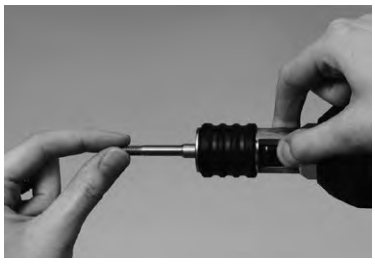
- Escolha variada
- Qualidade elevada
- Preços competitivos
- Continua inovação e desenvolvimento de produto
- Fornecimento completo de ferramentas, com kit de conversão e dispositivos de regulação
- Sistema Quick-release

Sistema de mandril quick-release

1. Solte a peça nariz e a contra porca
2. Mova a proteção para a frente
3. Segure na peça de segurança e desaparafuse o mandril/adaptador

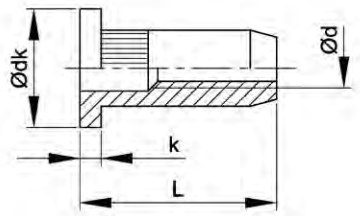


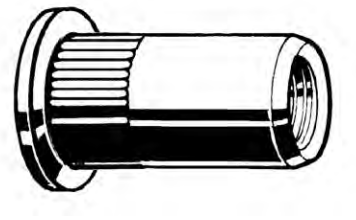




A Fabory também tem ferramentas para porcas de rebitar hidráulicas e pneumáticas. Vá a www.fabory.com para mais informações.

Porca de rebitar cabeça cilindrica serrilhada aberta





Dados técnicos

Tipo	Furo ø	Gama de aperto	k	l [+0,5/-0]	ø d	ø d [+0/-0,2]	ø d_k
3 OCH 25	5.0	0.5-2.5	≤ 0.9	10.5	M3	4.9	7.0
3 OCH 35	5.0	2.5-3.5	≤ 0.9	11.5	M3	4.9	7.0
3 OCH 40	5.0	2.5-4.0	≤ 0.9	11.5	M3	4.9	7.0
4 OCH 30	6.0	0.5-3.0	≤ 1.1	11.0	M4	5.9	9.0
4 OCH 45	6.0	3.0-5.0	≤ 1.1	14.0	M4	5.9	9.0
4 OCH 55	6.0	3.0-5.5	≤ 1.1	14.0	M4	5.9	9.0
5 OCH 30	7.0	0.5-3.0	≤ 1.1	13.0	M5	6.9	10.0
5 OCH 55	7.0	3.0-5.5	≤ 1.1	16.0	M5	6.9	10.0
5 OCH 80	7.0	5.5-8.0	≤ 1.1	19.0	M5	6.9	10.0
6 OCH 30	9.0	0.5-3.0	≤ 1.6	16.0	M6	8.9	12.0
6 OCH 55	9.0	3.0-5.5	≤ 1.6	18.5	M6	8.9	12.0
6 OCH 80	9.0	5.5-8.0	≤ 1.6	21.0	M6	8.9	12.0
8 OCH 30	11.0	0.5-3.0	≤ 1.6	17.5	M8	10.9	15.0
8 OCH 55	11.0	3.0-5.5	≤ 1.6	20.0	M8	10.9	15.0
8 OCH 80	11.0	5.5-9.0	≤ 1.6	22.5	M8	10.9	15.0
8 OCH 105	11.0	8.0-10.5	≤ 1.6	25.0	M8	10.9	15.0
10 OCH 30	12.0	0.5-3.0	≤ 2.1	19.0	M10	11.9	16.0
10 OCH 60	12.0	3.0-6.0	≤ 2.1	24.0	M10	11.9	16.0
10 OCH 90	12.0	6.0-9.0	≤ 2.1	27.0	M10	11.9	16.0
10 OCH 120	12.0	9.0-12.0	≤ 2.1	30.0	M10	11.9	16.0
12 OCH 40	16.0	1.0-4.0	≤ 2.1	25.0	M12	15.9	22.0
12 OCH 70	16.0	4.0-7.0	≤ 2.1	28.0	M12	15.9	22.0
12 OCH 100	16.0	7.0-10.0	≤ 2.1	31.0	M12	15.9	22.0

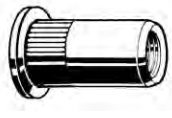
Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço	Zn	69135	3-127
INOX A4		69526	3-128
Al		69315	3-128

69135 **Porca de rebitar cabeça cilindrica serrilhada aberta** **F07A**

Material Aço
Tratamento sup. Zincado

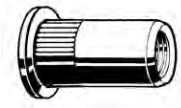
RoHS



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
3 OCH 25	250	69135.030.025	6 OCH 30	250	69135.060.030	10 OCH 30	250	69135.100.030
3 OCH 40	250	69135.030.040	6 OCH 55	250	69135.060.055	10 OCH 60	250	69135.100.060
4 OCH 30	250	69135.040.030	6 OCH 80	250	69135.060.080	10 OCH 90	100	69135.100.090
4 OCH 55	250	69135.040.055	8 OCH 30	250	69135.080.030	10 OCH 120	100	69135.100.120
5 OCH 30	250	69135.050.030	8 OCH 55	250	69135.080.055	12 OCH 40	100	69135.120.040
5 OCH 55	250	69135.050.055	8 OCH 80	250	69135.080.080	12 OCH 70	100	69135.120.070
5 OCH 80	250	69135.050.080	8 OCH 105	250	69135.080.105	12 OCH 100	100	69135.120.100

69526	Porca de rebitar cabeça cilindrica serrilhada aberta	F07A

Material Aço inoxidável A4

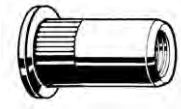


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
5OCH30	250	69526.050.030	6OCH30	250	69526.060.030	8OCH30	250	69526.080.030

3

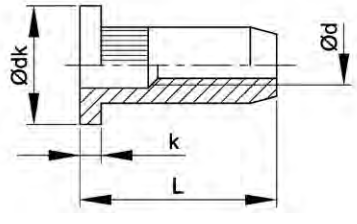
69315	Porca de rebitar cabeça cilindrica serrilhada aberta	F07A

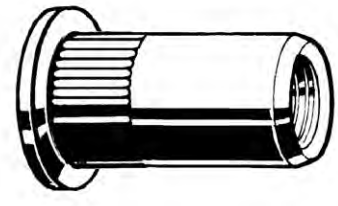
Material Alumínio



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
3 OCH 25	250	69315.030.025	6 OCH 30	250	69315.060.030	10 OCH 30	250	69315.100.030
3 OCH 35	250	69315.030.035	6 OCH 55	250	69315.060.055	10 OCH 60	250	69315.100.060
4 OCH 30	250	69315.040.030	6 OCH 80	250	69315.060.080	10 OCH 90	100	69315.100.090
4 OCH 45	250	69315.040.045	8 OCH 30	250	69315.080.030	10 OCH 120	100	69315.100.120
5 OCH 30	250	69315.050.030	8 OCH 55	250	69315.080.055	12 OCH 40	100	69315.120.040
5 OCH 55	250	69315.050.055	8 OCH 80	250	69315.080.080	12 OCH 70	100	69315.120.070
5 OCH 80	250	69315.050.080	8 OCH 105	250	69315.080.105	12 OCH 100	100	69315.120.100

Porca de rebitar cabeça cilindrica serrilhada aberta



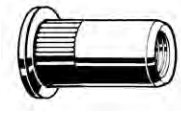


Dados técnicos

Tipo	Furo ø	Gama de aperto	k	l [+0,5/-0]	ø d	ø d [+0/-0,2]	ø d_k
4 OCH 30	6.0	0.5-3.0	≤ 1.1	11.0	M4	5.9	9.0
4 OCH 45	6.0	3.0-4.5	≤ 1.1	14.0	M4	5.9	9.0
5 OCH 30	7.0	0.5-3.0	≤ 1.1	13.0	M5	6.9	10.0
5 OCH 55	7.0	3.0-5.5	≤ 1.1	16.0	M5	6.9	10.0
5 OCH 80	7.0	5.5-8.0	≤ 1.1	19.0	M5	6.9	10.0
6 OCH 30	9.0	0.5-3.0	≤ 1.6	16.0	M6	8.9	12.0
6 OCH 55	9.0	3.0-5.5	≤ 1.6	18.5	M6	8.9	12.0
8 OCH 30	11.0	0.5-3.0	≤ 1.6	17.5	M8	10.9	15.0
8 OCH 55	11.0	3.0-5.5	≤ 1.6	20.0	M8	10.9	15.0
10 OCH 30	13.0	0.5-3.0	≤ 2.1	19.0	M10	12.9	16.0
10 OCH 60	13.0	3.0-6.0	≤ 2.1	24.0	M10	12.9	16.0

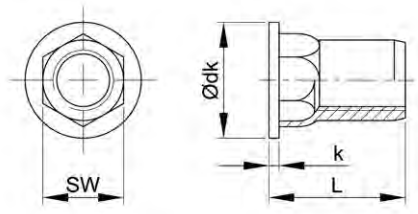
69025	Porca de rebitar cabeça cilindrica serrilhada aberta	F07A

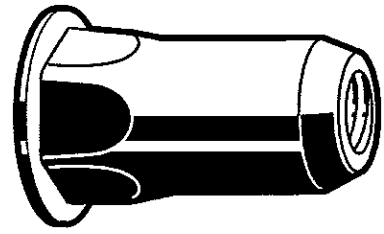
Material Aço inoxidável A2



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
4 OCH 30	250	69025.040.030	5 OCH 80	250	69025.050.080	8 OCH 55	250	69025.080.055
4 OCH 45	250	69025.040.045	6 OCH 30	250	69025.060.030	10 OCH 30	250	69025.100.030
5 OCH 30	250	69025.050.030	6 OCH 55	250	69025.060.055	10 OCH 60	250	69025.100.060
5 OCH 55	250	69025.050.055	8 OCH 30	250	69025.080.030			

Porca de rebitar cilindrica com sextavado aberta





Dados técnicos

Tipo	dk ø	Furo hexagonal	Gama de aperto	k	l [+0,5/-0]	ø d
4 OCH 30	9	6	0.5-3.0	1.1	11	M4
5 OCH 30	10	7	0.5-3.0	1.1	13	M5
6 OCH 30	12	9	0.5-3.0	1.6	16	M6
8 OCH 30	15	11	0.5-3.0	1.6	17.5	M8
10 OCH 30	16	12	0.5-3.0	2.1	19	M10

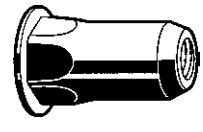
Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço	Zn	69400	3-129
INOX A2		69407	3-129

69400 Porca de rebitar cilindrica com sextavado aberta F07A

Material Aço
Tratamento sup. Zincado

RoHS

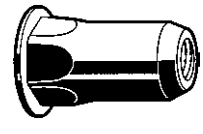


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
4OCH30	250	69400.040.030	6OCH30	250	69400.060.030	10OCH30	250	69400.100.030
5OCH30	250	69400.050.030	8OCH30	250	69400.080.030			

69407 Porca de rebitar cilindrica com sextavado aberta F07A

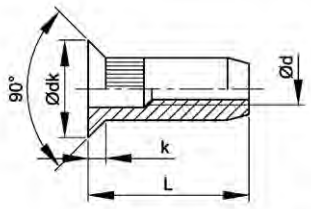
Material Aço inoxidável A2

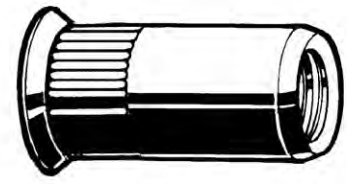
RoHS



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
4OCH30	250	69407.040.030	6OCH30	250	69407.060.030	10OCH30	250	69407.100.030
5OCH30	250	69407.050.030	8OCH30	250	69407.080.030			

Porca de rebitar cabeça embeber aberta serrilhada





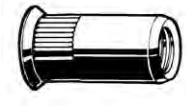
3

Dados técnicos

Tipo	Furo ø	Gama de aperto	k	l [+0,5/-0]	ø d	ø d [+0/-0,2]	ø d_k
3 OCSH 35	5.0	1.5-3.5	≤ 1.5	11.5	M3	4.9	7.5
3 OCSH 50	5.0	3.5-5.0	≤ 1.5	12.5	M3	4.9	7.5
4 OCSH 40	6.0	1.5-4.0	≤ 1.5	12.5	M4	5.9	8.5
4 OCSH 65	6.0	4.0-6.5	≤ 1.5	15.0	M4	5.9	8.5
5 OCSH 40	7.0	1.5-4.0	≤ 1.5	13.5	M5	6.9	9.5
5 OCSH 65	7.0	4.0-6.5	≤ 1.5	16.0	M5	6.9	9.5
5 OCSH 90	7.0	6.5-9.0	≤ 1.5	18.5	M5	6.9	9.5
6 OCSH 40	9.0	1.4-4.0	≤ 1.5	15.5	M6	8.9	11.5
6 OCSH 65	9.0	4.0-6.5	≤ 1.5	18.0	M6	8.9	11.5
6 OCSH 90	9.0	6.5-9.0	≤ 1.5	20.5	M6	8.9	11.5
8 OCSH 40	11.0	1.5-4.0	≤ 1.5	18.5	M8	10.9	13.5
8 OCSH 65	11.0	4.0-6.5	≤ 1.5	21.0	M8	10.9	13.5
8 OCSH 90	11.0	6.5-9.0	≤ 1.5	23.5	M8	10.9	13.5
10 OCSH 45	12.0	2.0-4.5	≤ 1.7	21.0	M10	11.9	14.5
10 OCSH 75	12.0	4.5-7.5	≤ 1.7	24.0	M10	11.9	14.5
10 OCSH 105	12.0	7.5-10.5	≤ 1.7	27.0	M10	11.9	14.5
12 OCSH 45	16.0	2.0-4.5	≤ 1.9	24.5	M12	15.9	19.0
12 OCSH 75	16.0	4.5-7.5	≤ 1.9	27.5	M12	15.9	19.0
12 OCSH 105	16.0	7.5-10.5	≤ 1.9	31.0	M12	15.9	19.0

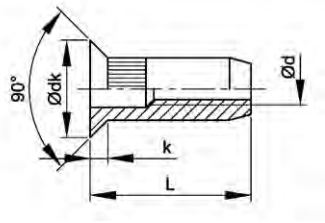
69155 **Porca de rebitar cabeça embeber aberta serrilhada** **F07A**

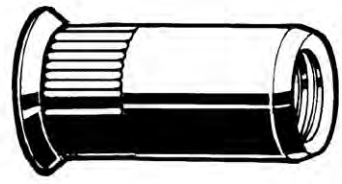
Material Aço
Tratamento sup. Zincado



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
3 OCSH 35	250	69155.030.035	6 OCSH 40	250	69155.060.040	10 OCSH 45	250	69155.100.045
3 OCSH 50	250	69155.030.050	6 OCSH 65	250	69155.060.065	10 OCSH 75	250	69155.100.075
4 OCSH 40	250	69155.040.040	6 OCSH 90	250	69155.060.090	10 OCSH 105	100	69155.100.105
4 OCSH 65	250	69155.040.065	8 OCSH 40	250	69155.080.040	12 OCSH 45	100	69155.120.045
5 OCSH 40	250	69155.050.040	8 OCSH 65	250	69155.080.065	12 OCSH 75	100	69155.120.075
5 OCSH 65	250	69155.050.065	8 OCSH 90	250	69155.080.090	12 OCSH 105	100	69155.120.105
5 OCSH 90	250	69155.050.090						

Porca de rebitar cabeça embeber aberta serrilhada





Dados técnicos

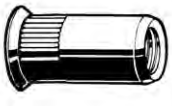
Tipo	Furo ø	Gama de aperto	k	l [+0,5/-0]	ø d	ø d [+0/-0,2]	ø d_k
4 OCSH 40	6.0	1.5-4.0	≤ 1.5	12.5	M4	5.9	8.5
5 OCSH 40	7.0	1.5-4.0	≤ 1.5	13.5	M5	6.9	9.5
6 OCSH 40	9.0	1.5-4.0	≤ 1.5	15.5	M6	8.9	11.5
8 OCSH 40	11.0	1.5-4.0	≤ 1.5	18.5	M8	10.9	13.5
10 OCSH 45	13.0	2.0-4.5	≤ 1.8	21.0	M10	12.9	15.5

Grupos de produtos

Material	Código	Página
INOX A2	69045	3-131
INOX A4	69525	3-131

69045 **Porca de rebitar cabeça embeber aberta serrilhada aço inox** **F07A**

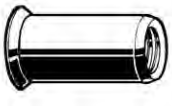
Material Aço inoxidável A2



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
4 OCSH 40	250	69045.040.040	6 OCSH 40	250	69045.060.040	10 OCSH 45	250	69045.100.045
5 OCSH 40	250	69045.050.040	8 OCSH 40	250	69045.080.040			

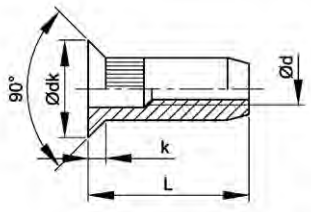
69525 **Porca de rebitar cabeça embeber aberta serrilhada aço inox** **F07A**

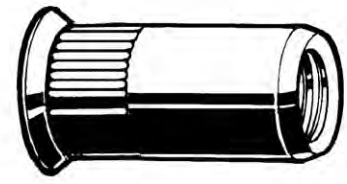
Material Aço inoxidável A4



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
5OCSH40	250	69525.050.040	6OCSH40	250	69525.060.040	8OCSH40	250	69525.080.040

Porca de rebitar cabeça embeber aberta serrilhada





3

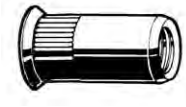
Dados técnicos

Tipo	Furo ø	Gama de aperto	k	l [+0,5/-0]	ø d	ø d [+0/-0,2]	ø d_k
3 OCSH 35	5.0	1.5-3.5	≤ 1.5	11.5	M3	4.9	7.5
3 OCSH 45	5.0	3.5-4.5	≤ 1.5	12.5	M3	4.9	7.5
4 OCSH 40	6.0	1.5-4.0	≤ 1.5	12.5	M4	5.9	8.5
4 OCSH 55	6.0	4.0-5.5	≤ 1.5	15.0	M4	5.9	8.5
5 OCSH 40	7.0	1.5-4.0	≤ 1.5	13.5	M5	6.9	9.5
5 OCSH 65	7.0	4.0-6.5	≤ 1.5	16.0	M5	6.9	9.5
5 OCSH 90	7.0	6.5-9.0	≤ 1.5	18.5	M5	6.9	9.5
6 OCSH 40	9.0	1.5-4.0	≤ 1.5	15.5	M6	8.9	11.5
6 OCSH 65	9.0	4.0-6.5	≤ 1.5	18.0	M6	8.9	11.5
6 OCSH 90	9.0	6.5-9.0	≤ 1.5	20.5	M6	8.9	11.5
8 OCSH 40	11.0	1.5-4.0	≤ 1.5	18.5	M8	10.9	13.5
8 OCSH 65	11.0	4.0-6.5	≤ 1.5	21.0	M8	10.9	13.5
8 OCSH 90	11.0	6.5-9.0	≤ 1.5	23.5	M8	10.9	13.5
10 OCSH 45	12.0	2.0-4.5	≤ 1.7	21.0	M10	11.9	14.5
10 OCSH 75	12.0	4.5-7.5	≤ 1.7	24.0	M10	11.9	14.5
10 OCSH 105	12.0	7.5-10.5	≤ 1.7	27.0	M10	11.9	14.5
12 OCSH 45	16.0	2.0-4.5	≤ 1.9	24.5	M12	15.9	19.0
12 OCSH 75	16.0	4.5-7.5	≤ 1.9	27.5	M12	15.9	19.0
12 OCSH 105	16.0	7.5-10.5	≤ 1.9	31.0	M12	15.9	19.0

69335 **Porca de rebitar cabeça embeber aberta serrilhada** **F07A**

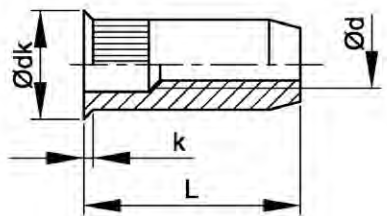
Material Alumínio

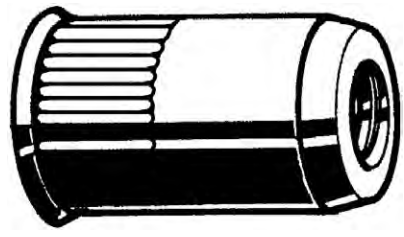
RoHS



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
3 OCSH 35	250	69335.030.035	6 OCSH 40	250	69335.060.040	10 OCSH 45	250	69335.100.045
3 OCSH 45	250	69335.030.045	6 OCSH 65	250	69335.060.065	10 OCSH 75	250	69335.100.075
4 OCSH 40	250	69335.040.040	6 OCSH 90	250	69335.060.090	10 OCSH 105	100	69335.100.105
4 OCSH 55	250	69335.040.055	8 OCSH 40	250	69335.080.040	12 OCSH 45	100	69335.120.045
5 OCSH 40	250	69335.050.040	8 OCSH 65	250	69335.080.065	12 OCSH 75	100	69335.120.075
5 OCSH 65	250	69335.050.065	8 OCSH 90	250	69335.080.090	12 OCSH 105	100	69335.120.105
5 OCSH 90	250	69335.050.090						

Porca de rebitar cabeça embeber reduzida serrilhada



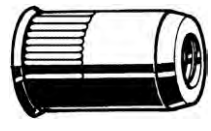


Dados técnicos

Tipo	Furo ø	Gama de aperto	k	l [+0,5/-0]	ø d	ø d [+0/-0,2]	ø d_k
3 ORCSH 25	5.0	0.5-2.5	≤ 0.7	9.5	M3	4.9	6.0
4 ORCSH 30	6.0	0.5-3.0	≤ 0.7	10.0	M4	5.9	7.0
5 ORCSH 30	7.0	0.5-3.0	≤ 0.7	11.5	M5	6.9	8.0
6 ORCSH 30	9.0	0.5-3.0	≤ 0.7	14.0	M6	8.9	10.0
8 ORCSH 30	11.0	0.5-3.0	≤ 0.7	15.0	M8	10.9	12.0
10 ORCSH 35	12.0	0.8-3.5	≤ 0.9	19.5	M10	11.9	13.5

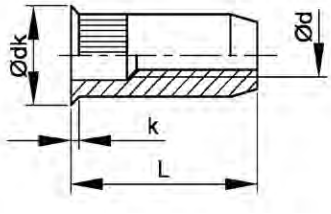
69435 **Porca de rebitar cabeça embeber reduzida serrilhada** **F07A**

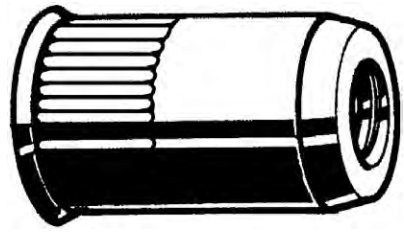
Material Aço
Tratamento sup. Zincado



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
3 ORCSH 25	250	69435.030.025	5 ORCSH 30	250	69435.050.030	8 ORCSH 30	250	69435.080.030
4 ORCSH 30	250	69435.040.030	6 ORCSH 30	250	69435.060.030	10 ORCSH 35	250	69435.100.035

Porca de rebitar de embeber cabeça reduzida aberta serrilhada



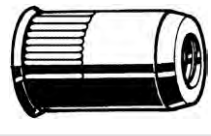


Dados técnicos

Tipo	dk ø	Furo ø	Gama de aperto	k	l [+0,5/-0]	ø d	ø d [+0/-0,2]
4 ORCSH 30	7	6	0.5-3.0	0.9	10	M4	5.9
5 ORCSH 30	8	7	0.5-3.0	0.9	11.5	M5	6.9
6 ORCSH 30	10	9	0.5-3.0	0.9	14	M6	8.9
8 ORCSH 30	12	11	0.5-3.0	0.9	15.5	M8	10.9
10 ORCSH 35	14.5	13	0.8-3.5	1.1	19.5	M10	12.9

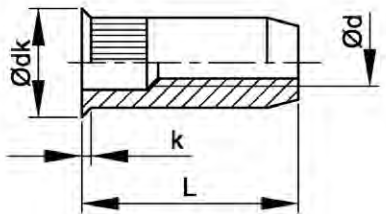
69035 **Porca de rebitar de embeber cabeça reduzida aberta serrilhada** **F07A**

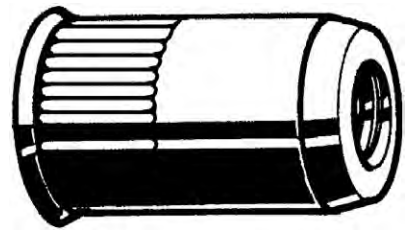
Material Aço inoxidável A2



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
4ORCSH30	250	69035.040.030	6ORCSH30	250	69035.060.030	10ORCSH35	250	69035.100.035
5ORCSH30	250	69035.050.030	8ORCSH30	250	69035.080.030			

Porca de rebitar de embeber cabeça reduzida aberta serrilhada





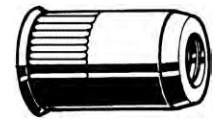
3

Dados técnicos

Tipo	dk ø	Furo ø	Gama de aperto	k	l [+0,5/-0]	ø d
3 ORCSH 25	6	5	0.5-2.5	0.7	9.5	M3
4 ORCSH 30	7	6	0.5-3.0	0.7	10	M4
5 ORCSH 30	8	7	0.5-3.0	0.7	11.5	M5
6 ORCSH 30	10	9	0.5-3.0	0.7	14	M6
8 ORCSH 30	12	11	0.5-3.0	0.7	15.5	M8

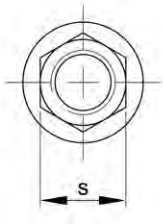
69445 **Porca de rebitar de embeber cabeça reduzida aberta serrilhada** **F07A**

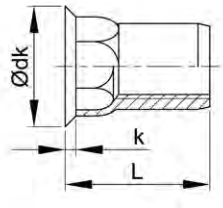
Material Alumínio



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
3ORCSH25	250	69445.030.025	5ORCSH30	250	69445.050.030	8ORCSH30	250	69445.080.030
4ORCSH30	250	69445.040.030	6ORCSH30	250	69445.060.030			

Porca de rebitar cabeça embeber reduzida sextavada





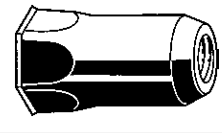


Dados técnicos

Tipo	Diâmetro de chave (s)	Furo hexagonal	Gama de aperto	k	l [+0,5/-0]	ø d	ø d_k
3 ORCSH 25	5.0	5.1	0.5-2.5	≤ 0.8	10.5	M3	6.5
4 ORCSH 30	6.0	6.1	0.5-3.0	≤ 0.8	12.5	M4	7.0
5 ORCSH 30	7.0	7.1	0.5-3.0	≤ 0.8	14.0	M5	8.0
6 ORCSH 30	9.0	9.1	0.5-3.0	≤ 0.8	16.0	M6	10.0
8 ORCSH 30	11.0	11.1	0.5-3.0	≤ 0.8	17.0	M8	12.0
10 ORCSH 35	13.0	13.1	0.8-3.5	≤ 0.8	20.5	M10	14.5

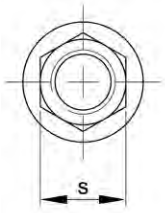
69450 **Porca de rebitar cabeça embeber reduzida sextavada** **F07A**

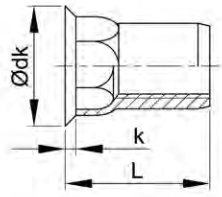
Material Aço
Tratamento sup. Zincado



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
3 ORCSH 25	250	69450.030.025	5 ORCSH 30	250	69450.050.030	8 ORCSH 30	250	69450.080.030
4 ORCSH 30	250	69450.040.030	6 ORCSH 30	250	69450.060.030	10 ORCSH 35	250	69450.100.035

Porca de rebitar cabeça embeber reduzida sextavada







Dados técnicos

Tipo	Diâmetro de chave (s)	Furo hexagonal	Gama de aperto	k	l [+0,5/-0]	ø d	ø d_k
4 ORCSH 30	6.0	6.1	0.5-3.0	≤ 0.9	12.5	M4	7.0
5 ORCSH 30	7.0	7.1	0.5-3.0	≤ 0.9	14.0	M5	8.0
6 ORCSH 30	9.0	9.1	0.5-3.0	≤ 0.9	16.0	M6	10.0
8 ORCSH 30	11.0	11.1	0.5-3.0	≤ 0.9	17.0	M8	12.0
10 ORCSH 35	13.0	13.1	0.8-6.5	≤1.1	20.5	M10	14.5

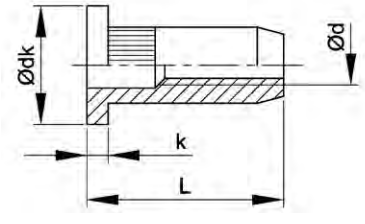
69440 **Porca de rebitar cabeça embeber reduzida sextavada** **F07A**

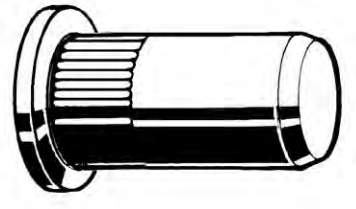
Material Aço inoxidável A2



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
4 ORCSH 30	250	69440.040.030	6 ORCSH30	250	69440.060.030	10 ORCSH 35	250	69440.100.035
5 ORCSH 30	250	69440.050.030	8 ORCSH 30	250	69440.080.030			

Porca de rebitar estanque cabeça cilindrica serrilhada



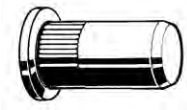


Dados técnicos

Tipo	Furo ø	Gama de aperto	k	l [+0,5/-0]	ø d	ø d_k
3 CCH 25	5.0	0.5-2.5	≤ 0.9	15.0	M3	7.0
3 CCH 40	5.0	2.0-4.0	≤ 0.9	16.0	M3	7.0
4 CCH 30	6.0	0.5-3.0	≤ 1.1	16.0	M4	9.0
4 CCH 55	6.0	3.0-5.5	≤ 1.1	19.0	M4	9.0
5 CCH 30	7.0	0.5-3.0	≤ 1.1	18.5	M5	10.0
5 CCH 55	7.0	3.0-5.5	≤ 1.1	21.5	m5	10.0
5 CCH 80	7.0	5.5-8.0	≤ 1.1	24.5	M5	10.0
6 CCH 30	9.0	0.5-3.0	≤ 1.6	21.5	M6	12.0
6 CCH 55	9.0	3.0-5.5	≤ 1.6	24.0	M6	12.0
6 CCH 80	9.0	5.5-8.0	≤ 1.6	26.5	M6	12.0
8 CCH 30	11.0	0.5-3.0	≤ 1.6	26.0	M8	15.0
8 CCH 55	11.0	3.0-5.5	≤ 1.6	28.5	M8	15.0
8 CCH 80	11.0	5.5-8.0	≤ 1.6	31.0	M8	15.0
8 CCH 105	11.0	8.0-10.5	≤ 1.6	33.5	M8	15.0
10 CCH 30	12.0	0.5-3.0	≤ 2.1	28.0	M10	16.0
10 CCH 60	12.0	3.0-6.0	≤ 2.1	33.0	M10	16.0
10 CCH 90	12.0	6.0-9.0	≤2.1	36.0	M10	16.0
10 CCH 120	12.0	9.0-12.0	≤ 2.1	39.0	M10	16.0

69190	Porca de rebitar estanque cabeça cilindrica serrilhada	F07A

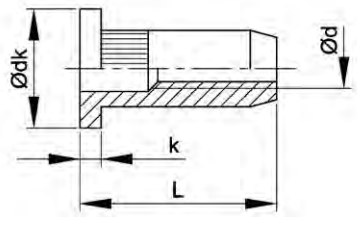
Material Aço
Tratamento sup. Zincado

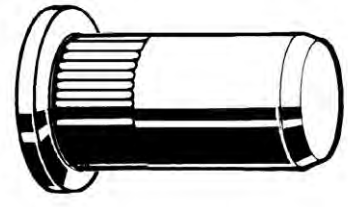


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
3 CCH 25	250	69190.030.025	5 CCH 80	250	69190.050.080	8 CCH 80	250	69190.080.080
3 CCH 40	250	69190.030.040	6 CCH 30	250	69190.060.030	8 CCH 105	250	69190.080.105
4 CCH 30	250	69190.040.030	6 CCH 55	250	69190.060.055	10 CCH 30	250	69190.100.030
4 CCH 55	250	69190.040.055	6 CCH 80	250	69190.060.080	10 CCH 60	250	69190.100.060
5 CCH 30	250	69190.050.030	8 CCH 30	250	69190.080.030	10 CCH 90	100	69190.100.090
5 CCH 55	250	69190.050.055	8 CCH 55	250	69190.080.055	10 CCH 120	100	69190.100.120

3

Porca de rebitar estanque cabeça cilindrica serrilhada



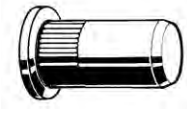


Dados técnicos

Tipo	Furo ø	Gama de aperto	k	l [+0,5/-0]	ø d	ø d_k
3 CCH 25	5.0	0.5-2.5	≤ 0.9	15.0	M3	7.0
3 CCH 35	5.0	2.5-3.5	≤ 0.9	16.0	M3	7.0
4 CCH 30	6.0	0.5-3.0	≤ 1.1	16.0	M4	9.0
4 CCH 45	6.0	3.0-4.5	≤ 1.1	19.0	M4	9.0
5 CCH 30	7.0	0.5-3.0	≤ 1.1	18.5	M5	10.0
5 CCH 55	7.0	3.0-5.5	≤ 1.1	21.5	M5	10.0
5 CCH 80	7.0	5.5-8.0	≤ 1.1	24.5	M5	10.0
6 CCH 30	9.0	0.5-3.0	≤ 1.6	21.5	M6	12.0
6 CCH 55	9.0	3.0-5.5	≤ 1.6	24.0	M6	12.0
6 CCH 80	9.0	5.5-8.0	≤ 1.6	26.5	M6	12.0
8 CCH 30	11.0	0.5-3.0	≤ 1.6	26.0	M8	15.0
8 CCH 55	11.0	3.0-5.5	≤ 1.6	28.5	M8	15.0
8 CCH 80	11.0	5.5-8.0	≤ 1.6	31.0	M8	15.0
8 CCH 105	11.0	8.0-10.5	≤ 1.6	33.5	M8	15.0
10 CCH 30	12.0	0.5-3.0	≤ 2.1	28.0	M10	16.0
10 CCH 60	12.0	3.0-6.0	≤ 2.1	33.0	M10	16.0
10 CCH 90	12.0	6.0-9.0	≤ 2.1	36.0	M10	16.0
10 CCH 120	12.0	9.0-10.5	≤ 2.1	39.0	M10	16.0

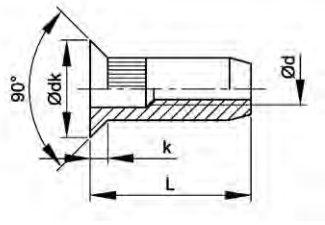
69355	Porca de rebitar estanque cabeça cilindrica serrilhada	F07A

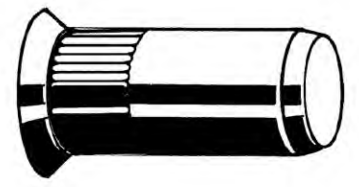
Material Alumínio



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
3 CCH 25	250	69355.030.025	5 CCH 80	250	69355.050.080	8 CCH 80	250	69355.080.080
3 CCH 35	250	69355.030.035	6 CCH 30	250	69355.060.030	8 CCH 105	250	69355.080.105
4 CCH 30	250	69355.040.030	6 CCH 55	250	69355.060.055	10 CCH 30	250	69355.100.030
4 CCH 45	250	69355.040.045	6 CCH 80	250	69355.060.080	10 CCH 60	250	69355.100.060
5 CCH 30	250	69355.050.030	8 CCH 30	250	69355.080.030	10 CCH 90	100	69355.100.090
5 CCH 55	250	69355.050.055	8 CCH 55	250	69355.080.055	10 CCH 120	100	69355.100.120

Porca de rebitar estanque cabeça embeber serrilhada





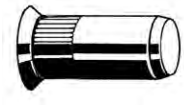
Dados técnicos

Tipo	Furo ø	Gama de aperto	k	l [+0,5/-0]	ø d	ø d_k
3 CCSH 35	5.0	1.5-3.5	≤ 1.5	16.0	M3	7.5
3 CCSH 50	5.0	3.5-5.0	≤ 1.5	17.0	M3	7.5
4 CCSH 40	6.0	1.5-4.0	≤ 1.5	17.5	M4	8.5
4 CCSH 65	6.0	4.0-6.5	≤ 1.5	20.0	M4	8.5
5 CCSH 40	7.0	1.5-4.0	≤ 1.5	20.0	M5	9.5
5 CCSH 65	7.0	4.0-6.5	≤ 1.5	22.5	M5	9.5
5 CCSH 90	7.0	6.5-9.0	≤ 1.5	25.0	M5	9.5
6 CCSH 40	8.0	1.5-4.0	≤ 1.5	23.0	M6	11.5
6 CCSH 65	8.0	4.0-6.5	≤ 1.5	25.5	M6	11.5
6 CCSH 90	8.0	6.5-9.0	≤ 1.5	28.0	M6	11.5
8 CCSH 40	11.0	1.5-4.0	≤ 1.5	27.0	M8	13.5
8 CCSH 65	11.0	4.0-6.5	≤ 1.5	29.5	M8	13.5
8 CCSH 90	11.0	6.5-9.0	≤ 1.5	32.0	M8	13.5
10 CCSH 45	12.0	2.0-4.5	≤ 1.7	30.0	M10	14.5
10 CCSH 75	12.0	4.5-7.5	≤ 1.7	33.0	M10	14.5
10 CCSH 105	12.0	7.5-10.5	≤ 1.7	36.0	M10	14.5
12 CCSH 45	16.0	2.0-4.5	≤ 1.9	34.5	M12	19.0
12 CCSH 75	16.0	4.5-7.5	≤ 1.9	37.5	M12	19.0
12 CCSH 110	16.0	7.5-11.0	≤ 1.9	41.0	M12	19.0

69195 **Porca de rebitar estanque cabeça embeber serrilhada** **F07A**

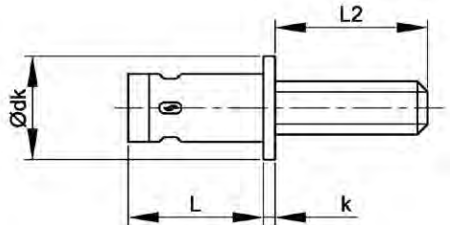
Material Aço
Tratamento sup. Zincado

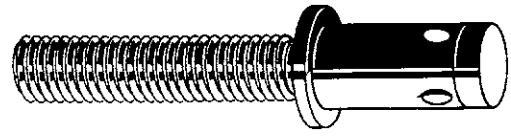
RoHS



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
3 CCSH 35	250	69195.030.035	6 CCSH 40	250	69195.060.040	10 CCSH 45	250	69195.100.045
3 CCSH 50	250	69195.030.050	6 CCSH 65	250	69195.060.065	10 CCSH 75	250	69195.100.075
4 CCSH 40	250	69195.040.040	6 CCSH 90	250	69195.060.090	10 CCSH 105	100	69195.100.105
4 CCSH 65	250	69195.040.065	8 CCSH 40	250	69195.080.040	12 CCSH 45	100	69195.120.045
5 CCSH 40	250	69195.050.040	8 CCSH 65	250	69195.080.065	12 CCSH 75	100	69195.120.075
5 CCSH 65	250	69195.050.065	8 CCSH 90	250	69195.080.090	12 CCSH 110	100	69195.120.110
5 CCSH 90	250	69195.050.090						

Parafuso cabeça cilindrica





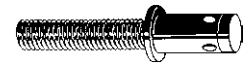
Dados técnicos

Tipo	Furo ø	Gama de aperto	k	l [+1/-0,5]	L_1	L_2	ø d_k
M4X2010	5.5	0.5-2.0	0.5	8.0	3.5	10	8.0
M4X2015	5.5	0.5-2.0	0.5	8.0	3.5	15	8.0
M4X3010	5.5	2.0-3.0	0.5	8.0	4.0	10	8.0
M4X3015	5.5	2.0-3.0	0.5	8.0	4.0	15	8.0
M5X2010	6.6	0.5-2.0	0.8	9.0	4.5	10	9.0
M5X2015	6.6	0.5-2.0	0.8	9.0	4.5	15	9.0
M5X3510	6.6	2.0-3.5	0.8	10.5	4.5	10	9.0
M5X3515	6.6	2.0-3.5	0.8	10.5	4.5	15	9.0
M6X2510	7.8	0.5-2.5	1.0	10.0	5.0	10	10.0
M6X2515	7.8	0.5-2.5	1.0	10.0	5.0	15	10.0
M6X4010	7.8	2.5-4.0	1.0	11.5	5.5	10	10.0
M6X4015	7.8	2.5-4.0	1.0	11.5	5.0	15	10.0
M8X3020	9.9	1.0-3.0	1.5	12.5	7.0	20	12.0
M8x3515	9.9	1.0-3.0	1.5	12.5	7.0	20	12.0
M8X5015	9.9	3.0-5.0	1.5	15.0	7.0	15	12.0
M8X5020	9.9	3.0-5.0	1.5	15.0	7.0	20	12.0

69975 **Parafuso cabeça cilindrica** **F09A**

Material Aço
Tratamento sup. Zincado

RoHS



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
M4X2010	250	69975.042.010	M5X3510	250	69975.053.510	M8X3020	250	69975.083.020
M4X2015	250	69975.042.015	M5X3515	250	69975.053.515	M8X3015	250	69975.083.515
M4X3010	250	69975.043.010	M6X2510	250	69975.062.510	M8X5015	250	69975.085.015
M4X3015	250	69975.043.015	M6X2515	250	69975.062.515	M8X5020	250	69975.085.020
M5X2010	250	69975.052.010	M6X4010	250	69975.064.010			
M5X2015	250	69975.052.015	M6X4015	250	69975.064.015			

FABORY ferramentas manuais para porcas de rebitar



		M3			M4			M5			M6			M8			M10			M12		
		Al	St	St.st.	Al	St	St.st.	Al	St	St.st.	Al	St	St.st.	Al	St	St.st.	Al	St	St.st.	Al	St	St.st.
F 360																						
F 510																						
F 511																						
F 612																						
FEZ 12																						

opção adicional

capacidade recomendada

69685 **FABORY ferramentas manuais para porcas de rebitar** **T90A**



Tipo	✉	Ref. do artigo		
FEZ 12	1	69685.012.001	• Ferramenta exclusiva com transmissão de energia integrada, que permite a instalação de porcas de rebitar de maiores dimensões com menos esforço. • Equipado com um sistema de instalação e um sistema de mandril quick system. • Capacidade:M5 - M12. • Peso: 2,5 kg. • Dimensões: 555 mm. • Corpo: aluminio. • Alavanca: aço. • Equipamento: kit de adaptação para porcas de rebitar M5 - M12.	
F 360	1	69685.360.001	• Ferramenta manual profissional para instalação de rebites e porcas de rebitar. • Equipado com um sistema de ajuste e um sistema de mandril quick system. • Capacidade: M3 - M6. • Peso: 0,8 kg. • Dimensões: 280 mm. • Corpo: aluminio. • Alavanca: aço. • Equipamento: kit de adaptação de porcas de rebitar M3 - M6. • Equipamento: kit de adaptação de parafusos de rebitar M4 - M6.	
F 510	1	69685.510.001	• Poderosa ferramenta de instalação para parafusos e porcas de rebitar, equipado com um sistema de ajuste que assegura que cada parafuso ou porca sejam rebitados com força igual e um sistema de mandril quick release. • Capacidade: M5 - M10. • Peso: 2,2 kg. • Dimensões: 555 mm. • Corpo: plástico ABS com partes de aço. • Alavanca: aço. • Equipamento: kit de adaptação de porcas M5 - M10. • Equipamento: kit de adaptação de parafusos rebitar M5 - M8.	

69685	FABORY ferramentas manuais para porcas de rebitar	←

Tipo	✉	Ref. do artigo		
F 511	1	69685.511.001	• Poderosa ferramenta para instalação de parafusos e porcas de rebitar, equipado com um sistema de ajuste que assegura que cada parafuso ou porca sejam rebitados com força igual e um sistema de mandril quick release. • O sistema de quick-release permite uma instalação rápida. • Capacidade: M5 - M10. • Peso: 2,4 kg.Dimensões: 555 mm. • Corpo: ABS com partes de plástico e aço. • Equipamento: kit adaptação de porcas de rebitar M5 - M10. • Equipamento: kit de adaptação de parafusos de rebitar M5 - M8.	
F 612	1	69685.612.001	• Ferramenta de rebitar poderosa e compacta, com chave de roquete integrada. • Indicado para colocar porcas de rebitar de maiores dimensões em areas mais reduzidas. • Equipado com um mecanismo de instalação e um sistema de mandril quick release. • Capacidade: M6 - M12. • Peso: 1,1 kg. • Dimensões: 210 mm. • Corpo: Aço. • Alavanca: aço. • Equipamento: kit de adaptação de porcas de rebitar M6 - M12. • Equipamento: adaptação de kit de rebites M5 - M8.	

3

Conjunto para rebitar



69670	Conjunto para rebitar	F90A



Tipo	✉	Ref. do artigo		
F360	1	69670.360.001	• Conjuntos em caixas de aluminio. • F360 Ferramenta robusta para rebites e porcas de rebitar com 6 (x30 peças) aluminio tamanhos M4, M5 e M6 (cabeça cilindrica e de embeber).	

AMECOIL Insertos

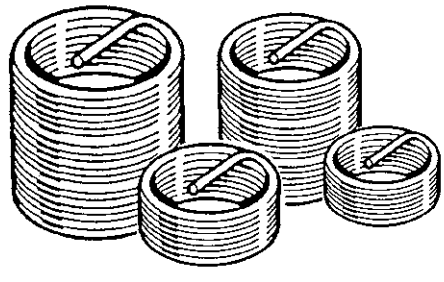
Aplicação
Os insertos de fio AMECOIL, são, não só económicos na recuperação de roscas, mas também indicados para obter roscas em materiais metálicos e não metálicos. Podem ser utilizados em temperaturas de -40°C a +400°C.

Material
Os insertos de fio AMECOIL são produzidos em fio aço inox A2 com secção em forma de diamante, e enrolados numa bobine como uma mola.

Roscas
A rosca interna do AMECOIL é de acordo com a tolerância 6H. Para detalhes referentes à rosca externa no material ver DIN 8140-2.

Montagem
Para montagem de insertos AMECOIL ver também A sequência de montagem:
- fazer o furo (não escareado)
- fazer a rosca com o macho especial AMECOIL, as medidas desta rosca são superiores ás de um macho standard!
- colocar o inserto AMECOIL com a ferramenta de Instalação manual, cerca de 1/4 a 1/2 de passo abaixo da superfície.
- Para partir a patilha de aplicação do AMECOIL em medidas até ø 18 mm após montagem, usar o punção. Para medidas superiores a M18 e 5/8 UNC/ UNF deve ser usado um alicate de pontas.
- montagem concluída
- é possível a desmontagem através de um extractor especial.





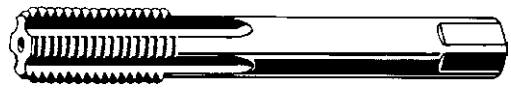
Valores guia para determinação do comprimento nominal L①

Força de tensão material R_m em N/mm²		Propriedade classe/força de tensão em N/mm² ②			
acima	de e incluindo	5.8/400	8.8/640	10.9/900	12.9/1080
-	150	2 d	2,5 d	2,5 d	2,5 d
150	200	1,5 d	2 d	2 d	2,5 d
200	250	1,5 d	1,5 d	2 d	2,5 d
250	300	1 d	1,5 d	1,5 d	2 d
300	400	1 d	1 d	1,5 d	1,5 d



① Corresponde ás cargas de DIN ISO 898-2.
② d = tamanho nominal do inserto de fio.

Macho para máquina oversized para insertos M



3

- ATENÇÃO: os tamanhos das roscas dos machos especiais AMECOIL, são maiores que as dos machos standard!
- Documentação técnica disponivel sob pedido.

Grupos de produtos

Material		Código	Página
Aço HSS	for blind holes	71310	3-142
Aço HSS	para furos cegos	71410	3-142

71310 AMECOIL Macho para maquina **S91A**

Material Aço HSS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	1	71310.030.001	M8	1	71310.080.001	M18	1	71310.180.001
M4	1	71310.040.001	M10	1	71310.100.001	M20	1	71310.200.001
M5	1	71310.050.001	M12	1	71310.120.001	M22	1	71310.220.001
M6	1	71310.060.001	M14	1	71310.140.001	M24	1	71310.240.001
M7	1	71310.070.001	M16	1	71310.160.001	M27	1	71310.270.001

71410 AMECOIL Macho para maquina oversize **S91A**

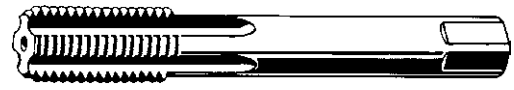
Material Aço HSS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	1	71410.060.001	M10	1	71410.100.001	M16	1	71410.160.001
M8	1	71410.080.001	M12	1	71410.120.001			

- Recomendado para furos cegos.
- Machos máquina até e incluindo M8 com ponta acima de M8 com ponta cortada.

Macho para máquina para inserto MF



- ATENÇÃO: os tamanhos das roscas dos machos especiais AMECOIL, são maiores que as dos machos standard!
- Documentação técnica disponivel sob pedido.

71320 AMECOIL Macho para maquina MF **S91A**

Material Aço HSS



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M8X1,00	1	71320.080.100	M12X1,50	1	71320.120.150	M18X1,50	1	71320.180.150
M10X1,00	1	71320.100.100	M14X1,25	1	71320.140.125	M20X1,50	1	71320.200.150
M10X1,25	1	71320.100.125	M14X1,50	1	71320.140.150	M22X1,50	1	71320.220.150
M12X1,00	1	71320.120.100	M16X1,50	1	71320.160.150	M24X1,50	1	71320.240.150
M12X1,25	1	71320.120.125						

Macho escalonado para motor



- ATENÇÃO: os tamanhos das roscas dos machos especiais AMECOIL, são maiores que as dos machos standard!
- Documentação técnica disponivel sob pedido.

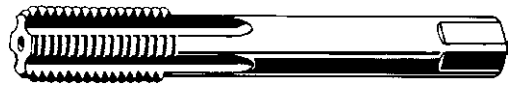
71930 AMECOIL Macho escalonado para motor **S91A**

Material Aço HSS



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M12X1,25	1	71930.120.125	M14X1,25	1	71930.140.125

Macho para máquina para inserto UNC



3

- ATENÇÃO: os tamanhos das roscas dos machos especiais AMECOIL, são maiores que as dos machos standard!
- Documentação técnica disponivel sob pedido.

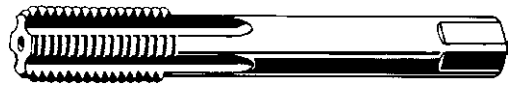
71340 **AMECOIL Macho para maquina** **S91A**

Material Aço HSS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4	1	71340.063.001	1/2	1	71340.127.001	3/4	1	71340.191.001
5/16	1	71340.079.001	9/16	1	71340.142.001	7/8	1	71340.222.001
3/8	1	71340.096.001	5/8	1	71340.158.001	1 Inch	1	71340.254.001
7/16	1	71340.111.001						

Macho para máquina para inserto UNF



- ATENÇÃO: os tamanhos das roscas dos machos especiais AMECOIL, são maiores que as dos machos standard!
- Documentação técnica disponivel sob pedido.

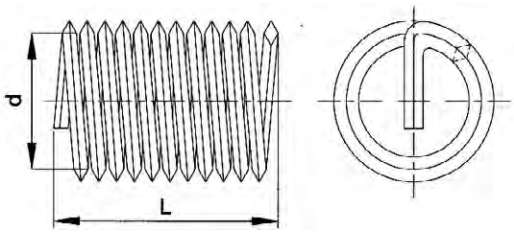
71330 **AMECOIL Macho para maquina** **S91A**

Material Aço HSS

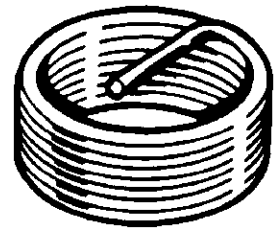


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4	1	71330.063.001	1/2	1	71330.127.001	3/4	1	71330.191.001
5/16	1	71330.079.001	9/16	1	71330.142.001	7/8	1	71330.222.001
3/8	1	71330.096.001	5/8	1	71330.158.001	1 Inch	1	71330.255.001
7/16	1	71330.111.001						

Inserto de fio aço



DIN 8140-1A



Dados técnicos

d (nom.)	Furo ø	P
M3	3.2	0.5
M4	4.2	0.7
M5	5.2	0.8
M6	6.3	1
M7	7.3	1
M8	8.4	1.25
M10	10.5	1.5
M12	12.5	1.75

d (nom.)	Furo ø	P
M14	14.5	2
M16	16.5	2
M18	18.75	2.5
M20	20.75	2.5
M22	22.75	2.5
M24	24.75	3
M27	27.75	3

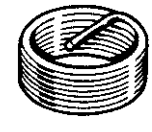
- L - P = comprimento da rosca depois de montado.
- Documentação técnica disponivel sob pedido.

Grupos de produtos

Rosca	Material		Cor	Código	Página
M	INOX A2			71110	3-145
M	INOX A2	tipo auto bloqueante	Vermelho	71210	3-145

71110 AMECOIL Inserto roscado S07A

Rosca Métrica
Material Aço inoxidável A2

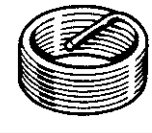


d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
M3X4,5	50	71110.030.004	M7X10,5	50	71110.070.010	M14X28	25	71110.140.028
M4X4	50	71110.040.004	M8X8	50	71110.080.008	M16X16	25	71110.160.016
M4X6	50	71110.040.006	M8X12	50	71110.080.012	M16X24	25	71110.160.024
M4X8	50	71110.040.008	M8X16	50	71110.080.016	M16X32	25	71110.160.032
M5X5	50	71110.050.005	M10X10	25	71110.100.010	M18X27	10	71110.180.027
M5X7,5	50	71110.050.007	M10X15	25	71110.100.015	M20X30	10	71110.200.030
M5X10	50	71110.050.010	M10X20	25	71110.100.020	M20X40	10	71110.200.040
M6X6	50	71110.060.006	M12X12	25	71110.120.012	M22X33	10	71110.220.033
M6X9	50	71110.060.009	M12X18	25	71110.120.018	M24X36	10	71110.240.036
M6X12	50	71110.060.012	M12X24	25	71110.120.024	M27X40,5	10	71110.270.040
M6X18	50	71110.060.018	M14X21	25	71110.140.021			

71210 AMECOIL Inserto roscado auto bloqueante S07A

Rosca Métrica
Material Aço inoxidável A2
Cor Vermelho

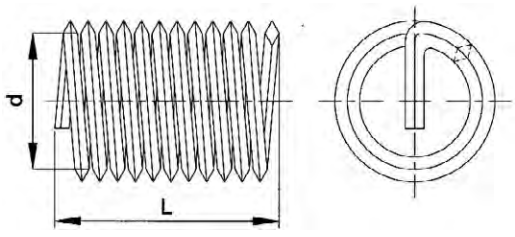
DIN 8140-1B



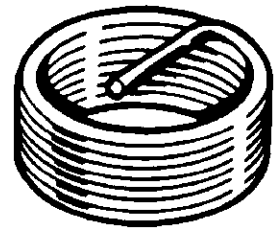
d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
M6X9	50	71210.060.009	M10X15	25	71210.100.015	M16X24	25	71210.160.024
M8X12	50	71210.080.012	M12X18	25	71210.120.018			

- Insertos tipo auto bloqueante, atingem o seu ponto de bloqueio, entre parafuso e AMECOIL, por deformação poligonal de uma ou mais espirais do inserto.
- Estes são de cor vermelha para melhor identificação.

Inserto de fio aço MF



DIN 8140-1A



3

Dados técnicos

d (nom.) x P	Furo ø	d (nom.) x P	Furo ø
M8x1	8.3	M14x1.5	14.5
M10x1.25	10.4	M16x1.5	16.5
M12x1.5	12.5		

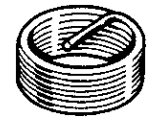
- L - P = comprimento da rosca depois de montado.
- Documentação técnica disponivel sob pedido.

71120 AMECOIL Inserto roscado **S07A**

Rosca Métrica fina
Material Aço inoxidável A2

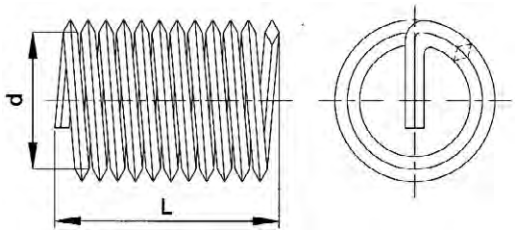
AMECA

RoHS

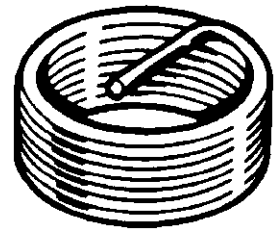


d (nom.) x P x L	✉	Ref. do artigo	d (nom.) x P x L	✉	Ref. do artigo	d (nom.) x P x L	✉	Ref. do artigo
M8X1,00X12	50	71120.080.012	M10X1,25X20	25	71120.100.020	M14X1,50X21	25	71120.140.021
M10X1,25X10	25	71120.100.010	M12X1,50X18	25	71120.120.018	M16X1,50X16	25	71120.160.016
M10X1,25X15	25	71120.100.015	M14X1,50X14	25	71120.140.014	M16X1,50X24	25	71120.160.024

Inserto de fio aço MEF



DIN 8140-1A



Dados técnicos

d (nom.) x P	Furo ø	d (nom.) x P	Furo ø
M10x1	10.25	M18x1.5	18.5
M12x1	12.4	M20x1.5	20.5
M12x1.25	12.4	M22x1.5	22.5
M14x1.25	14.4	M24x1.5	24.5

- L - P = comprimento da rosca depois de montado.
- Documentação técnica disponivel sob pedido.

Grupos de produtos

Rosca	Material		Código	Página
MEF	INOX A2		71121	3-147
MEF	INOX A2	para velas	71920	3-147

71121 AMECOIL Inserto de fio — S07A

Rosca Métrica extra fina
Material Aço inoxidável A2



d (nom.) x P x L	✉	Ref. do artigo	d (nom.) x P x L	✉	Ref. do artigo	d (nom.) x P x L	✉	Ref. do artigo
M10X1,00X15	25	71121.100.015	M18X1,50X12	10	71121.180.012	M20X1,50X30	10	71121.200.030
M12X1,25X18	25	71121.120.018	M18X1,50X18	10	71121.180.018	M22X1,50X22	10	71121.220.022
M12X1,00X18	25	71121.121.018	M18X1,50X27	10	71121.180.027	M24X1,50X24	10	71121.240.024
M14X1,25X14	25	71121.140.014	M20X1,50X20	10	71121.200.020			

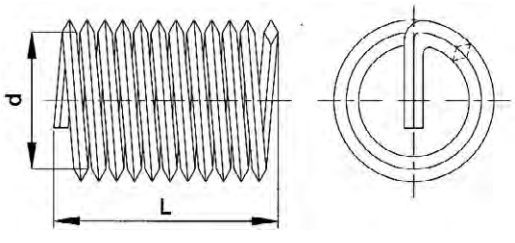
71920 AMECOIL Inserto de fio MEF — S07A

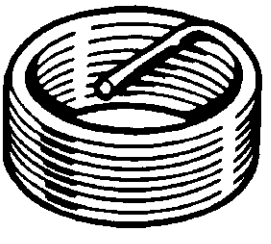
Rosca Métrica extra fina
Material Aço inoxidável A2



d (nom.) x P x L	✉	Ref. do artigo	d (nom.) x P x L	✉	Ref. do artigo	d (nom.) x P x L	✉	Ref. do artigo
M12X1,25X10,5	25	71920.120.010	M14X1,25X10,5	25	71920.140.010	M14X1,25X18	25	71920.140.018
M14X1,25X7,5	25	71920.140.007						

Inserto de fio aço UNC





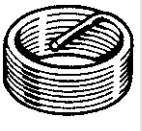
Dados técnicos

d (nom.)	Fios por polegada	Furo ø	d (nom.)	Fios por polegada	Furo ø
1/4	20	6.7	9/16	12	14.9
5/16	18	8.4	5/8	11	16.5
3/8	16	10	3/4	10	19.8
7/16	14	11.6	7/8	9	23
1/2	13	13.2	1 Inch	8	26.4

- L - P = comprimento da rosca depois de montado.
- Documentação técnica disponivel sob pedido.

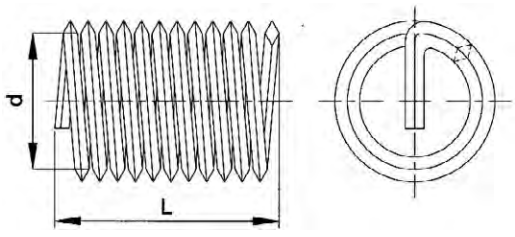
71140 AMECOIL Inserto de fio — S07A

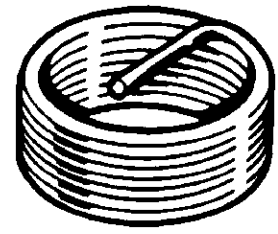
Rosca Unified National Coarse
Material Aço inoxidável A2



d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
1/4X9,5	50	71140.063.009	1/2X19,1	25	71140.127.019	3/4X28,6	10	71140.191.028
5/16X11,9	50	71140.079.011	9/16X21,4	25	71140.142.021	7/8X33,3	10	71140.222.033
3/8X14,3	25	71140.096.014	5/8X23,8	25	71140.158.023	1 Inch X38,1	10	71140.254.038
7/16X16,7	25	71140.111.016						

Inserto de fio aço UNF





3

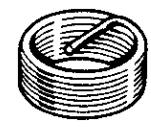
Dados técnicos

d (nom.)	Fios por polegada	Furo ø	d (nom.)	Fios por polegada	Furo ø
1/4	28	6.7	9/16	18	14.7
5/16	24	8.3	5/8	18	16.3
3/8	24	9.9	3/4	16	19.5
7/16	20	11.5	7/8	14	22.7
1/2	20	13.1	1 Inch	12	26

- L - P = comprimento da rosca depois de montado.
- Documentação técnica disponivel sob pedido.

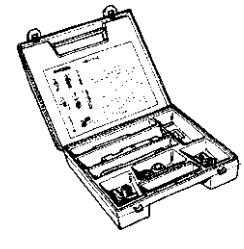
71130 AMECOIL Inserto de fio **S07A**

Rosca Unified National Fine
Material Aço inoxidável A2



d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
1/4X9,5	50	71130.063.009	1/2X19,1	25	71130.127.019	3/4X19,1	10	71130.191.019
5/16X11,9	50	71130.079.011	9/16X14,3	25	71130.142.014	7/8X22,2	10	71130.222.022
3/8X14,3	25	71130.096.014	5/8X15,9	25	71130.158.015	1.IN.-12GX25,4	10	71130.255.025
7/16X16,7	25	71130.111.016						

Conjunto de Inserto de fio aço M



71010 AMECOIL Kit **S90A**

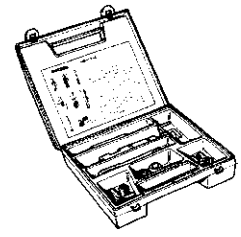
Material Aço inoxidável A2



d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
M3X4,5 (25PC)	1	71010.030.004	M8X12 (25PC)	1	71010.080.012	M18X27 (10PC)	1	71010.180.027
M4X6 (25PC)	1	71010.040.006	M10X15 (25PC)	1	71010.100.015	M20X30 (10PC)	1	71010.200.030
M5X7,5 (25PC)	1	71010.050.007	M12X18 (15PC)	1	71010.120.018	M22X33 (10PC)	1	71010.220.033
M6X9 (25PC)	1	71010.060.009	M14X21 (15PC)	1	71010.140.021	M24X36 (10PC)	1	71010.240.036
M7X10,5 (25PC)	1	71010.070.010	M16X24 (15PC)	1	71010.160.024			

- Conteúdo:
- Ferramenta completa
- Macho máquina (≥ M18 com macho extra)
- Punção de quebra
- Insertos Aço inox A2 acc. com DIN 8140 (quantidades entre parêntesis).

Conjunto de Inserto de fio aço MF



71020 **AMECOIL Kit MF** **S90A**

Material Aço inoxidável A2



d (nom.) x P x L	✉	Ref. do artigo	d (nom.) x P x L	✉	Ref. do artigo	d (nom.) x P x L	✉	Ref. do artigo
M8X1,00X12 (25PC)	1	71020.080.012	M12X1,50X18 (15PC)	1	71020.120.018	M16X1,50X16 (15PC)	1	71020.160.016
M10X1,25X15 (25PC)	1	71020.100.015	M14X1,50X14 (15PC)	1	71020.140.014			

- Conteúdo:
- Ferramenta completa
- Macho máquina (≥ M18 com macho extra)
- Punção de quebra
- Insertos aço inox A2 acc. com DIN 8140 (quantidades entre parêntesis).

Conjunto de Inserto de fio aço MEF



Grupos de produtos

Material	Código	Página
INOX A2	71021	3-149
INOX A2	71910	3-150

71021 **AMECOIL Kit MEF** **S90A**

Material Aço inoxidável A2



d (nom.) x P x L	✉	Ref. do artigo	d (nom.) x P x L	✉	Ref. do artigo	d (nom.) x P x L	✉	Ref. do artigo
M10X1,00X15 (25PC)	1	71021.100.015	M18X1,50X18 (10PC)	1	71021.180.018	M22X1,50X22 (10PC)	1	71021.220.022
M12X1,25X18 (15PC)	1	71021.120.018	M20X1,50X20 (10PC)	1	71021.200.020	M24X1,50X24 (10PC)	1	71021.240.024
M14X1,25X14 (15PC)	1	71021.140.014						

- Conjuntos em caixa de plástico com inseros e acessórios de utilização mais frequente.
- Conteúdo:
- Ferramenta completa.
- Macho de máquina.
- Espigão de quebra
- Insertos aço inox acc. com DIN 8140-1A (quantidades entre parêntesis).

71910	AMECOIL Kit	S90A
Material	Aço inoxidável A2	



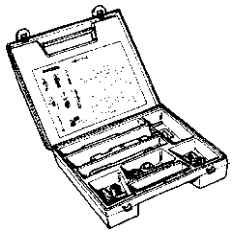
d (nom.) x P	✉	Ref. do artigo	
M12X1,25	1	71910.120.125	Conteúdo: • Ferramenta manual com bocal • Portador para comprimentos adaptados para M12 x 1,25 x 10,5 / M12 x 1,25 x 18 • Macho escalonado • 10 Insertos de fio aço inox M12 x 1,25 x 10,5 / M12 x 1,25 x 18 acc. com DIN 8140-1A
M14X1,25	1	71910.140.125	Conteúdo: • Ferramenta manual com bocal. • Suporte adaptado para comprimentos de M14 x 1,25 x 7,5 / M14 x 1,25 x 10,5 / M14 x 1,25 x 18. • Macho escalonado • 10 Insertos de fio de aço inox A2 M14 x 1,25 x 7,5 acc. com DIN 8140-1A • 20 Insertos de fio de aço inox A2 M14 x 1,25 x 10,5 acc. com DIN 8140-1A • 10 Insertos de fio de aço inox A2 M14 x 1,25 x 18 acc. com DIN 8140-1A





- As caixas dos conjuntos são de plástico, contêm insertos e acessórios recomendados para uso geral.

Conjunto de Inserto de fio aço UNC



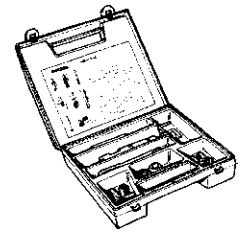
71040	AMECOIL Conjunto UNC	S90A
Material	Aço inoxidável A2	



d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
1/4X9,5 (25PC)	1	71040.063.009	1/2X19,1 (25PC)	1	71040.127.019	3/4X28,6 (10PC)	1	71040.191.028
5/16X11,9 (25PC)	1	71040.079.011	9/16X21,4 (15PC)	1	71040.142.021	7/8X33,3 (10PC)	1	71040.222.033
3/8X14,3 (25PC)	1	71040.096.014	5/8X23,8 (15PC)	1	71040.158.023	1.IN.X38,1 (10PC)	1	71040.254.038
7/16X16,7 (25PC)	1	71040.111.016						

- Conteúdo:
- Ferramenta completa
- Macho máquina (≥ 5/8 UNC com macho extra)
- Espigão de quebra
- Inserto aço inox A2 (quantidades entre parêntesis).

Conjunto de Inserto de fio aço UNC



71030 **AMECOIL Conjunto UNF** **S90A**

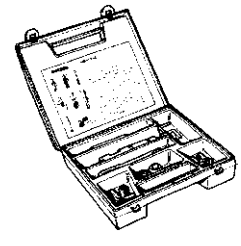
Material Aço inoxidável A2



d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
1/4X9,5 (25PC)	1	71030.063.009	1/2X19,1 (25PC)	1	71030.127.019	3/4X19,1 (10PC)	1	71030.191.019
5/16X11,9 (25PC)	1	71030.079.011	9/16X14,3 (15PC)	1	71030.142.014	7/8X22,2 (10PC)	1	71030.222.022
3/8X14,3 (25PC)	1	71030.096.014	5/8X15,9 (15PC)	1	71030.158.015	1.IN.-12GX25,4 (10PC)	1	71030.255.025
7/16X16,7 (25PC)	1	71030.111.016						

- Conteúdo:
- Ferramenta completa
- Macho máquina
- Espigão de quebra
- Inserto aço inox A2 (quantidades entre parêntesis).

Conjunto de Inserto de fio aço BSW



- Roscas whitworth (BSW/BSF) não estão recomendadas internacionalmente.
- São aconselhadas medidas métricas (M/MF) ou roscas UNC/UNF.

71050 **AMECOIL Conjunto BSW** **S90A**

Material Aço inoxidável A2



d (nom.) x L	✉	Ref. do artigo
1/2X19,1 (25PC)	1	71050.127.019

- Conteúdo:
- Ferramenta completa
- Macho máquina
- Espigão de quebra
- Inserto aço inox A2 (quantidades entre parêntesis).

Conjunto de reparação de insertos fio de aço



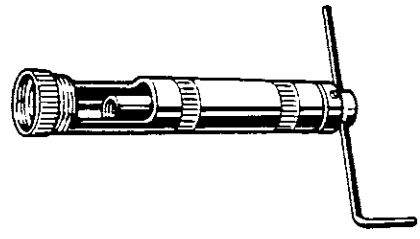
71090 **AMECOIL Conjunto métrico/não-métrico** **S90A**

Material Aço inoxidável A2



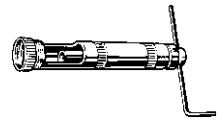
Nr.	✉	Ref. do artigo		
NO.1-MM	1	71090.100.010	• Conjunto de reparação no. 1 com/para insertos de fio métricos. • Conteúdo: • Ferramenta manual no. 3. • Bocal e mandril para M6 / M8 / M10 e M12. • Espigão de quebrar para cada dimensão. • Macho de máquina para cada dimensão. • 15 Insertos de fio aço inox A2 M6 x 9 / M8 x 12 / M10 x 15 / M12 x 18 acc. com DIN 8140. • ATENÇÃO: bocais e mandris M6 e M8 são especificamente para ferramenta manual no. 3 ajustáveis e só podem ser substituidos por bocais e mandris do grupo de artigo 71711. • Para bocais e mandris M10 / M12, ver grupo de artigo 71710.	
NO.2-MM	1	71090.100.020	• Conjunto de reparação no. 2 com/para insertos de fio métricos. • Conteúdo: • Ferramenta manual no. 4. • Bocal e mandril para M6 / M8 / M10 / M12 / M14 x 1,25. • Espigão de quebrar para cada dimensão. • Macho de máquina para cada dimensão (para M14 x 1,25 macho escalonado). • 15 Insertos de fio em aço inox A2 M6 x 9 / M8 x 12 / M10 x 15 / M12 x 18 / M14 x 1,25 x 14 acc. com DIN 8140. • ATENÇÃO: bocais e mandris M6 / M8 / M10 / M12 / M14 x 1,25 são especificamente para ferramenta manual no. 4 ajustável e só podem ser substituidos por bocais e mandris dos grupos de artigo 71712 e 71722	
NO.1C-NC	1	71090.400.010	• Conjunto de reparação no. 1C com/para insertos de fio UNC. • Conteúdo: • Ferramenta manual no. 3. • Bocal e mandril para UNC 1/4 / 5/16 / 3/8 / 7/16 / 1/2. • Espigão de quebra para cada dimensão. • Macho de máquina para cada dimensão. • 15 Insertos de fio aço inox A2 UNC 1/4 x 9,5 / 5/16 x 11,9 / 3/8 x 14,3 / 7/16 x 16,7 / 1/2 x 19,1. • ATENÇÃO: bocais e mandris 1/4 UNC e 5/16 UNC são especificos para ferramenta manual no. 3 ajustáveis e só podem ser substituidas por bocais e mandris do grupo de artigo 71741. • Para bocais e mandris UNC 3/8 / 7/16 / 1/2, ver grupo de artigos 71740.	
NO.1D-NF	1	71090.500.010	• Conjunto de reparação no. 1D com/para insertos de fio UNF. • Conteúdo: • Ferramenta manual no. 3. • Bocal e mandril para 1/4 / 5/16 / 3/8 / 7/16 / 1/2 UNF. • Espigão de quebrar para cada tamanho. • Macho de máquina para cada tamanho. • 15 Insertos de fio em aço inox A2 UNF 1/4 x 9,5 / 5/16 x 11,9 / 3/8 x 14,3 / 7/16 x 16,7 / 1/2 x 19,1. • ATENÇÃO: OS BOCAIS E MANDRIS 1/4 UNF e 5/16 UNF são especificos para a ferramenta no. 3 ajustáveis, que só podem ser substituidos pelos bocais e mandris do grupo de artigo 71731. • Para bocais e mandris UNF3/8 / 7/16 / 1/2 , ver grupo de artigos 71730.	

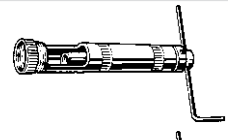
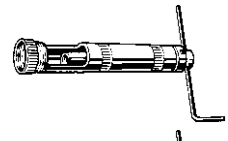
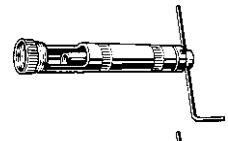
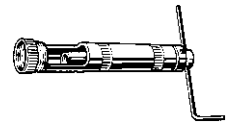
Ferramenta de montagem multidimensional



71510 **AMECOIL Ferramenta de montagem metrico/não-métrico** **S91A**

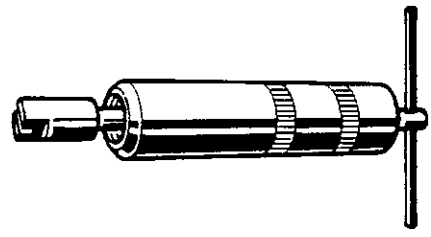
AMECA



Nr.	✉	Ref. do artigo		
NO.1	1	71510.000.001	• Indicado para inserto de fio: • M4 / M5	
NO.2	1	71510.000.002	• Indicado para inserto de fio: • M6 / M7 / M8 / M8x1 / 1/4 UNC / 5/16 UNC / 1/4 UNF / 5/16 UNF	
NO.3	1	71510.000.003	• Indicado para inserto de fio: • M10 / M12 / M10x1 / M10x1,25 / M12x1 / M12x1,25 / M12x1,5 / 3/8 UNC / 7/16 UNC / 1/2 UNC / 3/8 UNF / 7/16 UNF / 1/2 UNF	
NO.4	1	71510.000.004	• Indicado para inserto de fio: • M14 / M16 / M14x1,25 / M14x1,5 / M16x1,5 / 9/16 UNC / 5/8 UNC / 9/16 UNF / 5/8 UNF / 1/2 BSW	

- Para fixação de insertos.
- Não inclui bocal e mandril, estes têm que ser encomendados separadamente.
- Corpo em aluminio e partes metálicas.

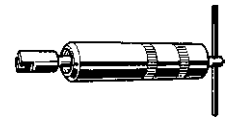
Ferramenta de montagem completa



Grupos de produtos

Código	Página
71610	3-154
71620	3-154
71940	3-154
71640	3-155

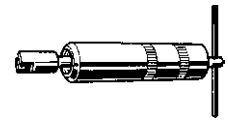
71610 AMECOIL Ferramenta de montagem M — S91A



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M18	1	71610.180.001	M22	1	71610.220.001	M27	1	71610.270.001
M20	1	71610.200.001	M24	1	71610.240.001			

- Ferramenta completa.
- Para fixação de insertos de fio.
- Alumunio com partes metálicas.

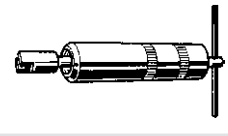
71620 AMECOIL Ferramenta de montagem MF — S91A



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M18X1,50	1	71620.180.150	M22X1,50	1	71620.220.150	M24X1,50	1	71620.240.150
M20X1,50	1	71620.200.150						

- Ferramenta completa.
- Para fixação de insertos de fio extra métrico fino.
- Alumunio com partes metálicas.

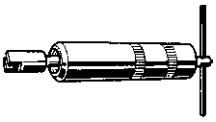
71940 AMECOIL Ferramenta de montagem — S91A



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M12X1,25	1	71940.120.125	M14X1,25	1	71940.140.125

- Para ferramenta manual com bico.
- Indicado para montagem de insertos.
- Não inclui adaptador de comprimento, deve ser encomendado separadamente, por diâmetro e por comprimento E (d nom. x L).
- Corpo aluminio com partes metálicas.

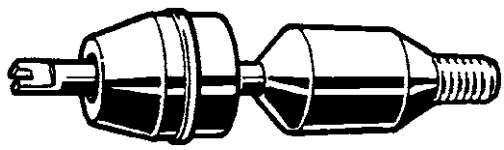
71640 **AMECOIL Ferramenta de montagem UNC** **S91A**



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
3/4	1	71640.191.001	7/8	1	71640.222.001	1 Inch	1	71640.254.001

- Ferramenta completa.
- Para fixação de insertos de fio UNC.
- Alumunio com partes metálicas.

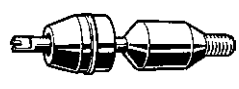
Bocal e mandril para montagem manual

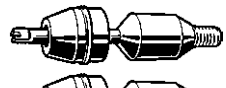
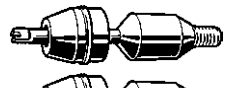
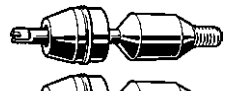
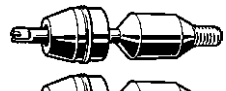
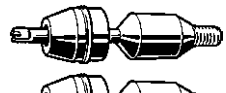
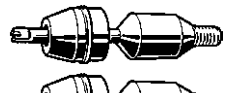
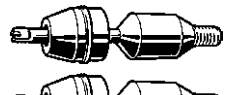


Grupos de produtos

Código	Página
71710	3-155
71711	3-156
71720	3-156
71740	3-156
71730	3-157

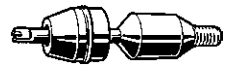
71710 **AMECOIL Mandril M** **S91A**



d	✉	Ref. do artigo		
M3	1	71710.030.001	• Bocal e mandril para ferramenta manual no. 1 • Indicado para inserto de fio: M3	
M4	1	71710.040.001	• Bocal e mandril para ferramenta manual no. 1 • Indicado para inserto de fio:M4	
M5	1	71710.050.001	• Bocal e mandril para ferramenta manual no. 1 • Indicado para inserto de fio:M5	
M6	1	71710.060.001	• Bocal e mandril para ferramenta manual no. 2 • Indicado para inserto de fio:M6.	
M7	1	71710.070.001	• Bocal e mandril para ferramenta manual no. 2 • Indicado para inserto de fio:M7	
M8	1	71710.080.001	• Bocal e mandril para ferramenta manual no. 2 • Indicado para inserto de fio:M8	
M10	1	71710.100.001	• Bocal e mandril para ferramenta manual no. 3 • Indicado para inserto de fio: M10	
M12	1	71710.120.001	• Bocal e mandril para ferramenta manual no. 4 • Indicado para inserto de fio: M12	
M14	1	71710.140.001	• Bocal e mandril para ferramenta manual no. 4 • Indicado para inserto de fio: M14	
M16	1	71710.160.001	• Bocal e mandril para ferramenta manual no. 4 • Indicado para inserto de fio: M16	

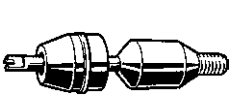
71711 AMECOIL Mandril M — S91A

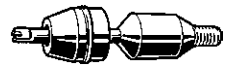


d	✉	Ref. do artigo		
M6-ASS1	1	71711.060.001	• Bocal e mandril para ferramenta manual no. 3 (kit de reparação no. 1) • Indicado para inserto de fio: M6	
M8-ASS1	1	71711.080.001	• Bocal e mandril para ferramenta manual no. 3 (kit de reparação no. 1) • Indicado para inserto de fio: M8	

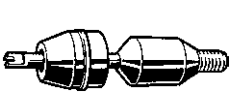
3

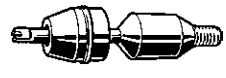
71720 AMECOIL Mandril MF — S91A



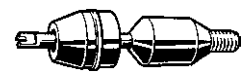
d x P	✉	Ref. do artigo		
M8X1,00	1	71720.080.100	• Bocal e mandril para ferramenta manual no. 2 • Indicado para inserto de fio: M8x1	
M10X1,00	1	71720.100.100	• Bocal e mandril para ferramenta manual no. 3 • Indicado para inserto de fio: M10x1	
M10X1,25	1	71720.100.125	• Bocal e mandril para ferramenta manual no. 3 • Indicado para inserto de fio: M10x1,25	
M12X1,00	1	71720.120.100	• Bocal e mandril para ferramenta manual no. 3 • Indicado para inserto de fio: M12x1	
M12X1,25	1	71720.120.125	• Bocal e mandril para ferramenta manual no. 3 • Indicado para inserto de fio: M12x1,25	
M12X1,50	1	71720.120.150	• Bocal e mandril para ferramenta manual no. 3 • Indicado para inserto de fio: M12x1,5	
M14X1,25	1	71720.140.125	• Bocal e mandril para ferramenta manual no. 4 • Indicado para inserto de fio: M14x1,25	
M14X1,50	1	71720.140.150	• Bocal e mandril para ferramenta manual no. 4 • Indicado para inserto de fio: M14x1,5	
M16X1,50	1	71720.160.150	• Bocal e mandril para ferramenta manual no. 4 • Indicado para inserto de fio: M16x1,5	

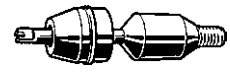
71740 AMECOIL Mandril UNC — S91A



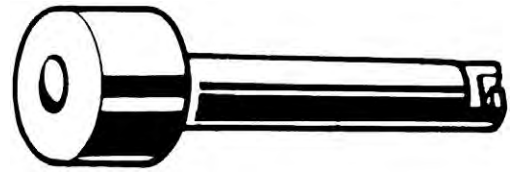
d	✉	Ref. do artigo		
1/4	1	71740.063.001	• Bocal e mandril para ferramenta manual no. 2 • Indicado para inserto de fio: 1/4 UNC	
5/16	1	71740.079.001	• Bocal e mandril para ferramenta manual no. 2 • Indicado para inserto de fio: 5/16 UNC	
3/8	1	71740.096.001	• Bocal e mandril para ferramenta manual no. 3 • Indicado para inserto de fio: 3/8 UNC	
7/16	1	71740.111.001	• Bocal e mandril para ferramenta manual no. 3 • Indicado para inserto de fio: 7/16 UNC	
1/2	1	71740.127.001	• Bocal e mandril para ferramenta manual no. 3 • Indicado para inserto de fio: 1/2 UNC	
9/16	1	71740.142.001	• Bocal e mandril para ferramenta manual no. 4 • Indicado para inserto de fio: 9/16 UNC	

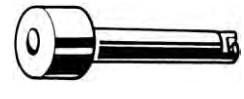
71740	AMECOIL Mandril UNC			←
d	**✉**	**Ref. do artigo**		
5/8	1	71740.158.001	• Bocal e mandril para ferramenta manual no. 4 • Indicado para inserto de fio: 5/8 UNC	

71730	AMECOIL Mandril UNF			S91A
				 

d	**✉**	**Ref. do artigo**		
1/4	1	71730.063.001	• Bocal e mandril para ferramenta manual no. 2 • Indicado para inserto de fio: 1/4 UNF	
5/16	1	71730.079.001	• Bocal e mandril para ferramenta manual no. 2 • Indicado para inserto de fio: 5/16 UNF	
3/8	1	71730.096.001	• Bocal e mandril para ferramenta manual no. 3 • Indicado para inserto de fio: 3/8 UNF	
7/16	1	71730.111.001	• Bocal e mandril para ferramenta manual no. 3 • Indicado para inserto de fio: 7/16 UNF	
1/2	1	71730.127.001	• Bocal e mandril para ferramenta manual no. 3 • Indicado para inserto de fio: 1/2 UNF	
9/16	1	71730.142.001	• Bocal e mandril para ferramenta manual no. 4 • Indicado para inserto de fio: 9/16 UNF	
5/8	1	71730.158.001	• Bocal e mandril para ferramenta manual no. 4 • Indicado para inserto de fio: 5/8 UNF	

Adatpador



71950	AMECOIL Adaptador	S91A
		 

d x P x L	**✉**	**Ref. do artigo**	**d x P x L**	**✉**	**Ref. do artigo**	**d x P x L**	**✉**	**Ref. do artigo**
M12X1,25X10,5	1	71950.120.010	M14X1,25X7,5	1	71950.140.007	M14X1,25X18	1	71950.140.018
M12X1,25X18	1	71950.120.018	M14X1,25X10,5	1	71950.140.010			

• Para ferramenta manual com bico.

Punção



3

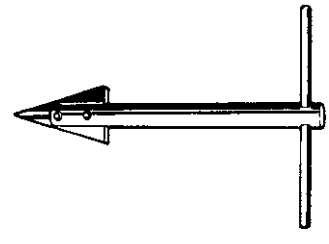
71810 AMECOIL Punção **S91A**



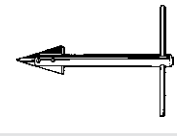
Para utilizar com nr.	✉	Ref. do artigo	Para utilizar com nr.	✉	Ref. do artigo	Para utilizar com nr.	✉	Ref. do artigo
M3	1	71810.030.001	M7	1	71810.070.001	M14 - 9/16	1	71810.140.001
M4	1	71810.040.001	M8 - 5/16	1	71810.080.001	M16 - 5/8	1	71810.160.001
M5	1	71810.050.001	M10 - 3/8 - 7/16	1	71810.100.001	M18	1	71810.180.001
M6 - 1/4	1	71810.060.001	M12 - 1/2	1	71810.120.001			

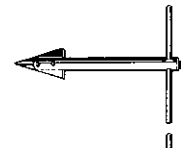
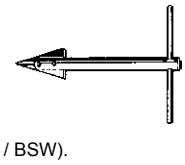
- Destinados a quebrar a patilha depois da instalação do inserto.
- ATENÇÃO: para diâmetros superiores a M18 resp. 5/8 UNC/UNF de ser utilizado um alicate de pontas.

Extractor



71860 AMECOIL Extractor **S91A**



Nr.	✉	Ref. do artigo		
NO.1	1	71860.000.001	• Indicado para insertos de fio: • M3 / M4 / M5 / M6 / M7 / M8 / 1/4 / 5/16	
NO.2	1	71860.000.002	• Indicado para insertos de fio: • M5 / M6 / M7 / M8 / M10 / M12 / 1/4 / 5/16 / 3/8 / 7/16	
NO.3	1	71860.000.003	• Indicado para insertos de fio: • M10 / M12 / M14 / M16 / M18 / M20 / M22 / M24 / 3/8 / 7/16 / 1/2 / 9/16 / 5/8	

- Deve ser utilizados quando um inserto não foi correctamente instalado e necessita ser extraído (métrico / métrico fino / UNC / UNF / BSW).
- ATENÇÃO: se a rosca do parafuso não ficou danificada, pode ser introduzido um novo inserto.

Conjunto de reparação de roscas métrico Rapid



71788 **V-COIL Conjunto de reparação de roscas métrico Rapid** **V01A**

Material Aço inoxidável A2

V-COIL THREAD INSERT SYSTEM



d (nom.) x P x L	✉	Ref. do artigo	d (nom.) x P x L	✉	Ref. do artigo	d (nom.) x P x L	✉	Ref. do artigo
M2,5X0,45X3,75	1	71788.025.045	M5X0,8X7,5	1	71788.050.080	M10X1,5X15	1	71788.100.150
M3X0,5X4,5	1	71788.030.050	M6X1,0X9	1	71788.060.100	M12X1,75X18	1	71788.120.175
M4X0,7X6	1	71788.040.070	M8X1,25X12	1	71788.080.125			

- Conteúdo:
- Ferramenta de inserção
- Ferramenta de quebrar
- Macho de máquina
- Broca
- Suporte de ponteira
- Insertos de fio aço inox A2 de acordo com DIN 8140: M2,5 - M10, 10 peças / M12, 6 peças.

Conjunto de reparação de roscas métrico



71760 **V-COIL Conjunto de reparação de roscas métrico** **V01A**

Material Aço inoxidável A2

V-COIL THREAD INSERT SYSTEM



d (nom.) x P x L	✉	Ref. do artigo	d (nom.) x P x L	✉	Ref. do artigo	d (nom.) x P x L	✉	Ref. do artigo
M2X0,4X3	1	71760.020.040	M10X1,5X15	1	71760.100.150	M18X1,5X24	1	71760.180.150
M2,5X0,45X3,75	1	71760.025.040	M11X1,5X16,5	1	71760.110.150	M18X2,0X24	1	71760.180.200
M3X0,5X4,5	1	71760.030.050	M12X1,0X18	1	71760.120.100	M18X2,5X24	1	71760.180.250
M3,5X0,6X5,25	1	71760.035.060	M12X1,25X18	1	71760.120.125	M20X1,5X30	1	71760.200.150
M4X0,7X6	1	71760.040.070	M12X1,5X18	1	71760.120.150	M20X2,0X30	1	71760.200.200
M5X0,8X7,5	1	71760.050.080	M12X1,75X18	1	71760.120.175	M20X2,5X30	1	71760.200.250
M6X1,0X9	1	71760.060.100	M14X1,0X21	1	71760.140.100	M22X1,5X33	1	71760.220.150
M7X1,0X10,5	1	71760.070.100	M14X1,25X21	1	71760.140.125	M22X2,0X33	1	71760.220.200
M8X1,0X12	1	71760.080.100	M14X1,5X21	1	71760.140.150	M22X2,5X33	1	71760.220.250
M8X1,25X12	1	71760.080.125	M14X2,0X21	1	71760.140.200	M24X1,5X36	1	71760.240.150
M9X1,25X13,5	1	71760.090.125	M16X1,5X24	1	71760.160.150	M24X2,0X36	1	71760.240.200
M10X1,0X15	1	71760.100.100	M16X2,0X24	1	71760.160.200	M24X3,0X36	1	71760.240.300
M10X1,25X15	1	71760.100.125						

- Conteúdo:
- Ferramenta de inserção
- Ferramenta de quebrar (até e incluindo M12); para diâmetros > M12 utilize alicates de pontas.
- Macho de máquina
- Broca (até e incluindo M12); para diâmetros > M12 fazer encomenda separada.
- Insertos de fio aço inox A2 de acordo com DIN 8140: M2-M8, 20 peças/M9-M10, 15 peças/ M11 - M16, 10 peças / M18 - M24, 5 peças.

Conjunto de reparação de roscas não métrico



Grupos de produtos

Material	Código	Página
INOX A2	71766	3-160
INOX A2	71768	3-160
INOX A2	71770	3-160
INOX A2	71772	3-161

71766 V-COIL Conjunto de reparação de roscas UNC — V01A

Material Aço inoxidável A2



d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
NO.2X3,28	1	71766.021.001	NO.12X8,23	1	71766.054.001	9/16X21,4	1	71766.142.001
NO.4X4,27	1	71766.028.001	1/4X9,5	1	71766.063.001	5/8X23,8	1	71766.158.001
NO.5X4,76	1	71766.031.001	5/16X11,9	1	71766.079.001	3/4X28,6	1	71766.191.001
NO.6X5,26	1	71766.035.001	3/8X14,3	1	71766.096.001	7/8X33,3	1	71766.222.001
NO.8X6,25	1	71766.041.001	7/16X16,7	1	71766.111.001	1 Inch X38,1	1	71766.254.001
NO.10X7,24	1	71766.048.001	1/2X19,1	1	71766.127.001			

- Conteúdo:
- Ferramenta de inserção
- Ferramenta de quebrar (até e incluindo 1/2x19,1); para > 1/2x19,1 utilize alicates de pontas.
- Macho de máquina
- Broca (até e incluindo 1/2x19,1); para diâmetros > 1/2x19,1 fazer encomenda separada.
- Insertos de fio aço inox A2 de acordo com DIN 8140: No.2 - 5/16, 20 peças / 3/8 - 15 peças / 7/16 - 5/8, 10 peças / 3/4 - 7/8, 5 peças / 1.IN., 4 peças.

71768 V-COIL Conjunto de reparação de roscas UNF — V01A

Material Aço inoxidável A2



d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
NO.4X4,27	1	71768.028.001	5/16X11,9	1	71768.079.001	5/8X23,8	1	71768.158.001
NO.6X5,26	1	71768.035.001	3/8X14,3	1	71768.096.001	3/4X28,6	1	71768.191.001
NO.8X6,25	1	71768.041.001	7/16X16,7	1	71768.111.001	7/8X33,3	1	71768.222.001
NO.10X7,24	1	71768.048.001	1/2X19.1	1	71768.127.001	1 Inch X38,1	1	71768.254.001
1/4X9,5	1	71768.063.001	9/16X21,4	1	71768.142.001			

- Conteúdo:
- Ferramenta de inserção
- Ferramenta de quebrar (até e incluindo 1/2x19,1); para > 1/2x20 utilize alicates de pontas.
- Macho de máquina
- Broca (até e incluindo 1/2x19,1); para diâmetros > 1/2x19,1 fazer encomenda separada.
- Insertos de fio aço inox A2 de acordo com DIN 8140: No.4 - 5/16, 20 peças / 3/8 - 15 peças / 7/16 - 5/8, 10 peças / 3/4 - 7/8, 5 peças / 1.IN.

71770 V-COIL Conjunto de reparação de roscas BSW — V01A

Material Aço inoxidável A2



d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
1/8X4,75	1	71770.031.001	3/8X14,3	1	71770.096.001	5/8X23,8	1	71770.158.001
3/16X7,14	1	71770.047.001	7/16X16,7	1	71770.111.001	3/4X28,6	1	71770.191.001
1/4X9,5	1	71770.063.001	1/2X19,1	1	71770.127.001	7/8X33,3	1	71770.222.001
5/16X11,9	1	71770.079.001	9/16X21,4	1	71770.142.001	1 Inch X38,1	1	71770.254.001

71770 **V-COIL Conjunto de reparação de roscas BSW** ←

- Conteúdo:
- Ferramenta de inserção
- Ferramenta de quebrar (até e incluindo 1/2x19,1); para > 1/2x20 utilize alicates de pontas.
- Macho de máquina
- Broca (até e incluindo 1/2x19,1); para diâmetros > 1/2x19,1 fazer encomenda separada.
- Insertos de fio aço inox A2 de acordo com DIN 8140: 1/8 - 5/16, 20 peças / 3/8 - 15 peças / 7/16 - 5/8, 10 peças / 3/4 - 7/8, 5 peças / 1.IN., 4 peças.

71772 **V-COIL Conjunto de reparação de roscas BSF** **V01A**

Material Aço inoxidável A2



d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
3/16X7,14	1	71772.047.001	7/16X16,7	1	71772.111.001	3/4X28,6	1	71772.191.001
1/4X9,5	1	71772.063.001	1/2X19,1	1	71772.127.001	7/8X33,3	1	71772.222.001
5/16X11,9	1	71772.079.001	9/16X21,4	1	71772.142.001	1.INX38,1	1	71772.254.001
3/8X14,3	1	71772.096.001	5/8X23,8	1	71772.158.001			

- Conteúdo:
- Ferramenta de inserção
- Ferramenta de quebrar (até e incluindo 1/2x19,1); para > 1/2x20 utilize alicates de pontas.
- Macho de máquina
- Broca (até e incluindo 1/2x19,1); para diâmetros > 1/2x19,1 fazer encomenda separada.
- Insertos de fio aço inox A2 de acordo com DIN 8140: 3/16 - 5/16, 20 peças / 3/8 - 15 peças / 7/16 - 5/8, 10 peças / 3/4 - 7/8, 5 peças / 1.IN., 4 peças.

Conjunto de reparação de roscas para vela de motor



71764 **V-COIL Conjunto de reparação de roscas para vela de motor** **V01A**

Material Aço inoxidável A2



d (nom.) x P x L	✉	Ref. do artigo	d (nom.) x P x L	✉	Ref. do artigo	d (nom.) x P x L	✉	Ref. do artigo
M6X1,0X9	1	71764.060.100	M10X1,25X15	1	71764.100.125	M14X1,25X21	1	71764.140.125
M8X1,25X12	1	71764.080.125	M10X1,5X15	1	71764.100.150	M18X1,5X24	1	71764.180.150
M10X1,0X15	1	71764.100.100	M12X1,25X18	1	71764.120.125			

- Conteúdo:
- Ferramenta de inserção
- Macho de máquina
- Insertos de fio aço inox A2 de acordo com DIN 8140: M6 - M12, 10 peças (L=1,5d) / M14, 3x5 peças (L=8,4mm/12,4mm/16,4mm) / M18, 5 peças (L=1,5d).

Sortido Métrico



71762 **V-COIL Sortido métrico** **V01A**

Material Aço inoxidável A2



Dimensão.	✉	Ref. do artigo		
M5-M12	1	71762.000.001	Sortido com insertos de fio métricos Conteúdo: • Ferramenta de inserção para cada diâmetro • Ferramenta de quebrar para cada diâmetro • Macho de máquina para cada diâmetro • Broca para cada diâmetro • M5-M6-M8-M10; cada diâmetro 25 insertos de fio em aço inox A2 de ac. com DIN 8140. • M12; 10 insertos de fio aço inox A2 de acordo com DIN 8140.	
M6-M14X1,25	1	71762.000.002	Sortido com insertos de fio métricos Conteúdo: • Ferramenta de inserção para cada diâmetro • Ferramenta de quebrar para cada diâmetro excepto M14 (utilizar alicates de pontas). • Macho de máquina para cada diâmetro • Broca para cada diâmetro excepto para M14 (encomendar separada-mente). • M6-M8-M10; cada diâmetro 25 insertos de fio em aço inox A2 de ac. com DIN 8140. • M12-M14; cada diâmetro 10 insertos de fio em aço inox A2 de ac. com DIN 8140.	
M6-M14X1,25/PT	1	71762.000.003	Sortido com insertos de fio métricos para velas de carros Conteúdo: • Ferramenta de inserção para cada diâmetro • Ferramenta de quebrar para cada diâmetro excepto M14 (utilizar alicates de pontas). • Macho de máquina para cada diâmetro • Broca para cada diâmetro excepto para M14 (encomendar separada-mente). • M6-M8-M10; cada diâmetro 25 insertos de fio em aço inox A2 de ac. com DIN 8140. • M12-M14; cada diâmetro 10 insertos de fio em aço inox A2 de ac. com DIN 8140.	
M6-M10	1	71762.000.004	Sortido com insertos de fio métricos Conteúdo: • Ferramenta de inserção para cada diâmetro • Ferramenta de quebrar para cada diâmetro • Macho de máquina para cada diâmetro • Broca para cada diâmetro • M6-M8-M10; cada diâmetro 25 insertos de fio em aço inox A2 de ac. com DIN 8140.	

Sortido Métrico Rapid



71790	“ERROR:#N/A”	V01A

Material Aço inoxidável A2



Dimensão.	✉	Ref. do artigo	
M5-M12	1	71790.000.001	Sortido de insertos de fio Rapid. Conteúdo: • Ferramenta de inserção para cada diâmetro • Ferramenta de quebrar para cada diâmetro • Macho de máquina para cada diâmetro • Broca para cada diâmetro • Suporte de ponteiras • M5-M6-M8-M10-M12; para cada diâmetro 10 insertos de fio aço inox A2 de acordo com DIN 8140.
M6-M10	1	71790.000.002	Sortido de insertos de fio Rapid. Conteúdo: • Ferramenta de inserção para cada diâmetro • Ferramenta de quebrar para cada diâmetro • Macho de máquina para cada diâmetro • Broca para cada diâmetro • Suporte de ponteiras • M5-M6-M8-M10; para cada diâmetro 10 insertos de fio aço inox A2 de acordo com DIN 8140.





Sortido Não Métrico



Grupos de produtos

Material	Código	Página
INOX A2	71774	3-163
INOX A2	71776	3-164
INOX A2	71778	3-164
INOX A2	71780	3-164

71774	V-COIL Sortido UNC	V01A

Material Aço inoxidável A2



Dimensão.	✉	Ref. do artigo	
1/4-1/2	1	71774.000.001	Sortido com insertos de fio UNC. Conteúdo: • Ferramenta de inserção para cada diâmetro • Ferramenta de quebrar para cada diâmetro • Macho de máquina para cada diâmetro • Broca para cada diâmetro • Insertos de fio em aço inox A2 de acordo com DIN 8140: 1/4-5/16-3/8 - 25 peças / 7/16-1/2 - 10 peças.



71776	V-COIL Sortido UNF	V01A
Material	Aço inoxidável A2	



Dimensão.	✉	Ref. do artigo	
1/4-1/2	1	71776.000.001	Sortido com insertos de fio UNF. Conteúdo: • Ferramenta de inserção para cada diâmetro • Ferramenta de quebrar para cada diâmetro • Macho de máquina para cada diâmetro • Broca para cada diâmetro • Insertos de fio em aço inox A2 de acordo com DIN 8140: 1/4-5/16-3/8 - 25 peças / 7/16-1/2 - 10 peças.



71778	V-COIL Sortido BSW	V01A
Material	Aço inoxidável A2	



Dimensão.	✉	Ref. do artigo	
1/4-1/2	1	71778.000.001	Sortido com insertos de fio BSW. Conteúdo: • Ferramenta de inserção para cada diâmetro • Ferramenta de quebrar para cada diâmetro • Macho de máquina para cada diâmetro • Broca para cada diâmetro • Insertos de fio em aço inox A2 de acordo com DIN 8140: 1/4-5/16-3/8 - 25 peças / 7/16-1/2 - 10 peças.



71780	V-COIL Sortido BSF	V01A
Material	Aço inoxidável A2	



Dimensão.	✉	Ref. do artigo	
1/4-1/2	1	71780.000.001	Sortido com insertos de fio BSF. Conteúdo: • Ferramenta de inserção para cada diâmetro • Ferramenta de quebrar para cada diâmetro • Macho de máquina para cada diâmetro • Broca para cada diâmetro • Insertos de fio em aço inox A2 de acordo com DIN 8140: 1/4-5/16-3/8 - 25 peças / 7/16-1/2 - 10 peças.



Ferramenta para insertos de fio V-COIL



Grupos de produtos

Material	Código	Página
Aço	71782	3-165
Aço	71784	3-166
Aço	71786	3-167

71782 **V-COIL Ferramenta de quebrar** **V01A**

Material Aço



Nr.	✉	Ref. do artigo		
NO.2	1	71782.020.001	•	Indicado para insertos de fio: • M2 / M2,2 / UNC No.2
NO.3	1	71782.030.001	•	Indicado para insertos de fio: • M2,5
NO.4	1	71782.040.001	•	Indicado para insertos de fio: • M3 / UNC-UNF No.4
NO.5	1	71782.050.001	•	Indicado para insertos de fio: • M3,5 / UNC-UNF No.6
NO.6	1	71782.060.001	•	Indicado para insertos de fio: • M4 / UNC-UNF No.8 / UNC No.10 / BSF 3/16
NO.8	1	71782.080.001	•	Indicado para insertos de fio: • M5 / UNF No.10 / UNC No.12 / BSW 3/16
NO.9	1	71782.090.001	•	Indicado para insertos de fio: • M6 / UNC-UNF-BSW-BSF 1/4
NO.11	1	71782.110.001	•	Indicado para insertos de fio: • M7 / M8 / UNC-UNF-BSW-BSF 5/16
NO.12	1	71782.120.001	•	Indicado para insertos de fio: • M9 / UNC-BSW-BSF 3/8
NO.13	1	71782.130.001	•	Indicado para insertos de fio: • M10 / UNF 3/8
NO.14	1	71782.140.001	•	Indicado para insertos de fio: • M11 / UNC-UNF-BSW-BSF 7/16
NO.15	1	71782.150.001	•	Indicado para insertos de fio: • M12 / UNC-UNF-BSW-BSF 1/2



71784	V-COIL Ferramenta inserção	V01A
Material	Aço	



3

Nr.	✉	Ref. do artigo		
NO.2	1	71784.020.001	• Indicado para insertos de fio: • M2 / M2,2 / UNC No.2	
NO.3	1	71784.030.001	• Indicado para insertos de fio: • M2,5	
NO.4	1	71784.040.001	• Indicado para insertos de fio: • M3 / UNC-UNF No.4 / UNC No.5 / BSW 1/8	
NO.5	1	71784.050.001	• Indicado para insertos de fio: • M3,5 / UNC-UNF No.6	
NO.6	1	71784.060.001	• Indicado para insertos de fio: • M4 / UNC-UNF No.8	
NO.7	1	71784.070.001	• Indicado para insertos de fio: • BSW 3/16 / UNC No.10	
NO.8	1	71784.080.001	• Indicado para insertos de fio: • M5 / UNF No.10 / UNC No.12 / BSW 3/16	
NO.9	1	71784.090.001	• Indicado para insertos de fio: • M6 / UNC-UNF-BSW-BSF 1/4	
NO.10	1	71784.100.001	• Indicado para insertos de fio: • M7 / UNC-BSW 5/16	
NO.11	1	71784.110.001	• Indicado para insertos de fio: • M8 / UNF-BSF 5/16	
NO.12	1	71784.120.001	• Indicado para insertos de fio: • M9 / UNC-BSW 3/8	
NO.13	1	71784.130.001	• Indicado para insertos de fio: • M10 / UNF-BSF 3/8	
NO.14	1	71784.140.001	• Indicado para insertos de fio: • M11 / UNC-UNF-BSW-BSF 7/16	

71784	V-COIL Ferramenta inserção	←

Nr.	✉	Ref. do artigo		
NO.15	1	71784.150.001	• Indicado para insertos de fio: • M12 / UNC-UNF-BSW-BSF 1/2	
NO.16	1	71784.160.001	• Indicado para insertos de fio: • M14 / UNC-UNF-BSW-BSF 9/16	
NO.17	1	71784.170.001	• Indicado para insertos de fio: • M14	
NO.18	1	71784.180.001	• Indicado para insertos de fio: • M16 / UNC-UNF-BSW-BSF 5/8	
NO.20	1	71784.200.001	• Indicado para insertos de fio: • M18 / UNC-BSW-BSF 3/4	
NO.21	1	71784.210.001	• Indicado para insertos de fio: • M11 / UNC-UNF-BSW-BSF 7/16	
NO.22	1	71784.220.001	• Indicado para insertos de fio: • M22 / UNC-UNF-BSW-BSF 7/8	
NO.23	1	71784.230.001	• Indicado para insertos de fio: • M24 / UNC-UNF-BSW-BSF 1.IN.	

71786	V-COIL Ferramenta de extracção	V01A
Material	Aço	

Nr.	✉	Ref. do artigo		
NO.2	1	71786.020.001	• Indicado para insertos de fio: • M3 - M10 / 3/16 - 3/8	
NO.3	1	71786.030.001	• Indicado para insertos de fio: • M11 - M24 / 3/8 - 1.IN.	

Ferramenta para insertos de fio V-COIL Rapid



3

Grupos de produtos

Material	Código	Página
Aço	71792	3-168
Aço	71794	3-168
Aço	71796	3-168
Aço	71798	3-169

71792 V-COIL Broca Rapid — V01A

Material Aço



d = Para diâm. nom.	✉	Ref. do artigo	d = Para diâm. nom.	✉	Ref. do artigo	d = Para diâm. nom.	✉	Ref. do artigo
2,6MM	1	71792.000.026	5,2MM	1	71792.000.052	10,4MM	1	71792.000.104
3,2MM	1	71792.000.032	6,3MM	1	71792.000.063	12,4MM	1	71792.000.124
4,2MM	1	71792.000.042	8,3MM	1	71792.000.083			

71794 V-COIL Macho máquina Rapid — V01A

Material Aço



d (nom.) x P	✉	Ref. do artigo	d (nom.) x P	✉	Ref. do artigo	d (nom.) x P	✉	Ref. do artigo
M2,5X0,45	1	71794.025.045	M5X0,8	1	71794.050.080	M10X1,5	1	71794.100.150
M3X0,5	1	71794.030.050	M6X1,0	1	71794.060.100	M12X1,75	1	71794.120.175
M4X0,7	1	71794.040.070	M8X1,25	1	71794.080.125			

71796 V-COIL Ferramenta de quebrar Rapid — V01A

Material Aço



Nr.	✉	Ref. do artigo		
NO.3	1	71796.030.001	• Indicado para insertos de fio: • M2,5	
NO.4	1	71796.040.001	• Indicado para insertos de fio: • M3	
NO.6	1	71796.060.001	• Indicado para insertos de fio: • M4	
NO.8	1	71796.080.001	• Indicado para insertos de fio: • M5	

71796 V-COIL Ferramenta de quebrar Rapid ←

Nr.	✉	Ref. do artigo		
NO.9	1	71796.090.001	• Indicado para insertos de fio: • M6	
NO.11	1	71796.110.001	• Indicado para insertos de fio: • M8	
NO.13	1	71796.130.001	• Indicado para insertos de fio: • M10	
NO.15	1	71796.150.001	• Indicado para insertos de fio: • M12	

71798 V-COIL Ferramenta de extracção Rapid V01A

Material Aço





d = Para diâm. nom.	✉	Ref. do artigo	d = Para diâm. nom.	✉	Ref. do artigo	d = Para diâm. nom.	✉	Ref. do artigo
M2,5	1	71798.025.001	M5	1	71798.050.001	M10	1	71798.100.001
M3	1	71798.030.001	M6	1	71798.060.001	M12	1	71798.120.001
M4	1	71798.040.001	M8	1	71798.080.001			

3

Fabory insertos

Geral
O principio dos insertos Fabory é bastante simples. São utilizados não só em materiais suaves como alumínio, cobre, latão ou plástico, mas também em metal com forças de tensão até 420 N/mm² .Podem ser aplicados facilmente em roscas métricas. Roscas gastas e danificadas podem ser rapidamente reparadas, com os insertos Fabory.

Função
Os insertos Fabory utilizam uma rosca externa para se introduziram no elemento de trabalho, e a rosca métrica interna oferece uma fixação excepcional com elevados valores de tensão.

Fixação
Para fixar os insertos Fabory existem 3 ferramentas disponíveis:
- Ferramenta manual tipo 610
- Ferramenta manual e de máquina tipo 620
- Ferramenta manual e de máquina tipo 6102
- Exclusivo Fabory insertos com sextavado interior, tipo 302 2 e 308 2

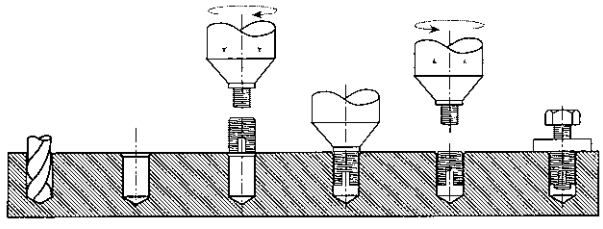
Para aplicação em materiais com elevados valores de tensão, recomendamos:
- utilização de lubrificante adequado e/ou
- fazer rosca com macho manual no. 1 (marcado com um anel)

Tipos de inserto
- **Tipo 302,** com 2 ranhuras e:
  - o em aço, para materiais macios, com forças de tensão até 300 N/mm²
  - o em aço inox, para materiais com forças de tensão até 320 N/mm²
- **Tipo 307,** com três furos, para materiais duros, com forças de tensão de 360 até 420 N/mm²
- **Tipo e 308,** semelhante ao tipo 307, em versão mais longa
- **Tipo 302 2,** com 2 ranhuras, com sextavado interior, para materiais suaves com forças de tensão até 300 N/mm²
- **Tipo 308 2,** com três furos , sextavado interior, versão longa, para materiais duros com forças de tensão de 360 até 420 N/mm²

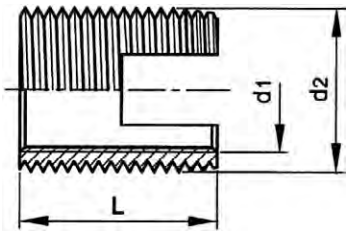
Diâmetro do furo		Guia para tipo 302				Guia para tipos 307 e 308			
Material a aplicar	Metal leve com força de tensão Rm (N/mm2)	R_m < 250							
		R_m < 300				R_m < 300			
			R_m < 350				R_m < 350		
	Latão, bronze,não ferroso metal			R_m > 350				R_m > 350	
	Ferro forjado HB = Dureza Brinell	HB < 150				HB < 150			
			HB < 200				HB < 200		
				HB > 200				HB > 200	
Rosca interior do inserto	M3		4,6	4,7	4,8	4,6	4,7		4,8
	M4	5,9	6,0	6,1	6,2	6,0	6,1		6,2
	M5	7,2	7.3	7,5	7,6	7,4	7,5	7,6	7,7
	M6	8,8	9,0	9,2	9,4	9,3	9,4	9,5	9,6
	M8	10,8	11,0	11,2	11,4	11,1	11,2	11,3	11,5
	M10	12,8	13,0	13,2	13,4	13,1	13,2	13,3	13,5
	M12	14,8	15,0	15,2	15,4	15,0	15,1	15,2	15,4
	M14	16,8	17,0	17,2	17,4	17,0	17,1	17,2	17,4
	M16	18,8	19,0	19,2	19,4	19,0	19,1	19,2	19,4
	M20	24,8	25,0	25,2	25,4				
	M24	28,8	29,0	29,2	29,4				
	M27	32,8	33,0	33,2	33,4				
	M30	34,8	35,0	35,2	35,4				
Após fixação final Roscar approx.		60 %	50 %	40 %	30 %	80 %	70 %	60 %	50 %

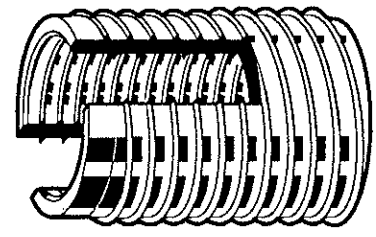
Recomendado para furos sem problemas de fitting.
Para outros diâmetros é recomendada a utilização de lubrificante ou pré rosca.

Sequência de montagem:
1) Diâmetro de furo (ver quadro acima)
2) Furo escareado (recomendado)
3) Inserção da ferramenta no inserto
4) Colocação do inserto aproximadamente 0.1a 0.2 mm abaixo da superfície da peça
5) Remoção da ferramenta
6) Fixação do componente



Inserto auto cortante tipo 302





Dados técnicos

d_1 x L	d_2	P (d_1)	P (d_2)	Profundidade do furo (mín.)
M3x6	5	0.5	0.5	8
M4x8	6.5	0.7	0.75	10
M5x10	8	0.8	1	13
M6x10	10	1	1.5	13
M6x12	10	1	1.5	15
M6x14	10	1	1.5	17
M8x12	12	1.25	1.5	15
M8x15	12	1.25	1.5	18
M10x15	14	1.5	1.5	18
M10x18	14	1.5	1.5	22
M12x22	16	1.75	1.5	26
M14x24	18	2	1.5	28
M16x22	20	2	1.5	27
M20x27	26	2.5	1.5	32
M24x30	30	3	1.5	36
M27x30	34	3.5	1.5	36
M30x40	36	3.5	1.5	46

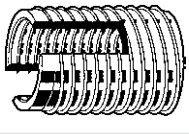
- Profundidade de furo (min.) = profundidade de furo minima para furos cegos.

Grupos de produtos

Rosca	Material	Tratamento sup.	Código	Página
M	Aço Cementado	Passiv. amar.	71550	3-171
M	INOX A1		71566	3-171
M	INOX C4		71560	3-172

71550 Inserto auto cortante tipo 302 S93A

Rosca Métrica
Material Aço Cementado
Tratamento sup. Passivado a amarelo



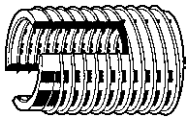
d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M3X6	50	71550.030.001	M8X15	50	71550.080.001	M16X22	25	71550.160.001
M4X8	50	71550.040.001	M8X12	50	71550.080.012	M20X27	10	71550.200.001
M5X10	50	71550.050.001	M10X18	25	71550.100.001	M24X30	10	71550.240.001
M6X14	50	71550.060.001	M10X15	25	71550.100.015	M27X30	5	71550.270.001
M6X10	50	71550.060.010	M12X22	25	71550.120.001	M30X40	5	71550.300.001
M6X12	50	71550.060.012	M14X24	25	71550.140.001			

- Para utilização em materiais com resistência á tracção até 300 N/mm².
- Ligas metálicas leves, ferro forjado, latão, bronze, metais não ferrosos, plásticos e madeira dura.

71566 Inserto auto cortante tipo 302 S93A

Rosca Métrica
Material Aço inoxidável A1

RoHS

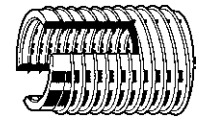


d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M3X6	25	71566.030.001	M6X14	25	71566.060.001	M12X22	10	71566.120.001
M4X8	25	71566.040.001	M8X15	25	71566.080.001	M16X22	10	71566.160.001
M5X10	25	71566.050.001	M10X18	10	71566.100.001			

- Para utilização em materiais com resistência á tracção até 320 N/mm².

71560	Inserto auto cortante tipo 302	S93A

Rosca Métrica
Material Aço inoxidável C4

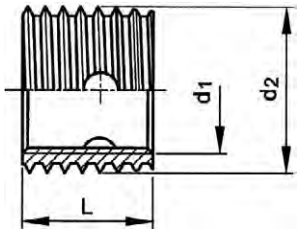


d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M3X6	25	71560.030.001	M6X14	25	71560.060.001	M12X22	10	71560.120.001
M4X8	25	71560.040.001	M8X15	25	71560.080.001	M16X22	10	71560.160.001
M5X10	25	71560.050.001	M10X18	10	71560.100.001			

3

- Para utilização em materiais com resistência á tracção até 320 N/mm^2.

Inserto auto cortante tipo 307/308





Dados técnicos

d_1 x L	d_2	P (d_1)	P (d_2)	Profundidade do furo (mín.)
M3x4	5	0.5	0.6	6
M3x6	5	0.5	0.6	8
M4x6	6.5	0.7	0.8	8
M4x8	6.5	0.7	0.8	10
M5x7	8	0.8	1	9
M5x10	8	0.8	1	13
M6x8	10	1	1.25	10
M6x12	10	1	1.25	15
M8x9	12	1.25	1.5	11
M8x14	12	1.25	1.5	17
M10x10	14	1.5	1.5	13
M10x18	14	1.5	1.5	22
M12x12	16	1.75	1.75	15
M12x22	16	1.75	1.75	26
M16x14	20	2	2	17
M16x24	20	2	2	28

- Profundidade de furo (min.) = profundidade de furo minima para furos cegos.

Grupos de produtos

Rosca	Material	Tratamento sup.		Código	Página
M	Aço	Passiv. amar.	307	71552	3-172
M	Aço	Passiv. amar.	308	71554	3-173

71552	Inserto roscado auto cortante tipo 307	S93A

Rosca Métrica
Material Aço
Tratamento sup. Passivado a amarelo

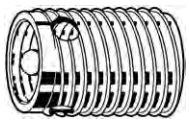


d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M3X4	50	71552.030.001	M6X8	50	71552.060.001	M12X12	25	71552.120.001
M4X6	50	71552.040.001	M8X9	50	71552.080.001	M16X14	25	71552.160.001
M5X7	50	71552.050.001	M10X10	25	71552.100.001			

- Para utilização em materiais com resistência á tracção de 360 a 420 N/mm^2.
- Aluminio e ligas de aluminio, ligas de magnésio, polímeros em duroplastic e thermoplastic.

71554 **Inserto roscado auto cortante tipo 308** **S93A**

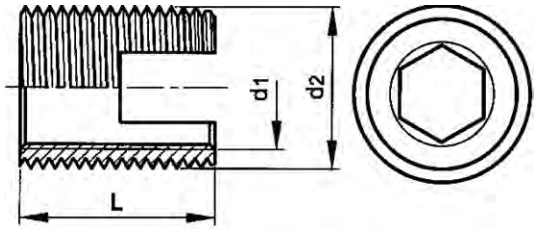
Rosca Métrica
Material Aço
Tratamento sup. Passivado a amarelo

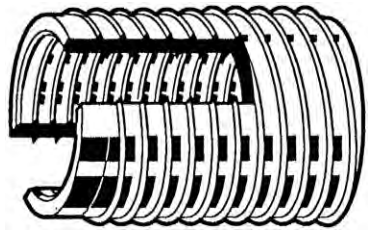


d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M3X6	50	71554.030.001	M6X12	50	71554.060.001	M12X22	25	71554.120.001
M4X8	50	71554.040.001	M8X14	50	71554.080.001	M16X24	25	71554.160.001
M5X10	50	71554.050.001	M10X18	25	71554.100.001			

- Para utilização em materiais com resistência á tracção de 360 a 420 N/mm^2.
- Aluminio e ligas de aluminio, ligas de magnésio, polímeros em duroplastic e thermoplastic.

Inserto auto cortante com sextavado tipo 302 2





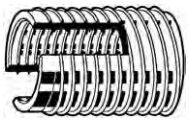
Dados técnicos

d_1 x L	d_2	Espessura	P (d_1)	P (d_2)	Profundidade do furo (mín.)	S (+0,1mm)
M4x8	6.5	8	0.7	0.75	10	3.2
M5x10	8	10	0.8	1	13	4.1
M6x14	10	14	1	1.5	17	4.9
M8x15	12	15	1.25	1.5	18	6.6
M10x18	14	18	1.5	1.5	22	8.3
M12x22	16	22	1.75	1.5	27	10.1

- Profundidade de furo (min.) = Profundidade de furo minima para furos cegos.
- Espessura = espessura min. Material.
- S = W.a.f. sextavado interior.

71551 **Inserto auto cortante com sextavado tipo 302 2** **S93A**

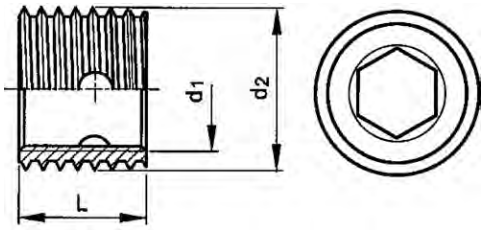
Rosca Métrica
Material Aço Cementado
Tratamento sup. Passivado a amarelo

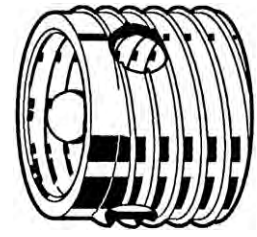


d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M4X8	50	71551.040.008	M6X14	50	71551.060.014	M10X18	25	71551.100.018
M5X10	50	71551.050.010	M8X15	50	71551.080.015	M12X22	25	71551.120.022

- Para utilização em materiais com resistência á tracção até 300 N/mm^2.
- Ligas metálicas leves, ferro forjado, latão, bronze, metais não ferrosos, plásticos e madeira dura.
- Vantagens dos insertos autocortantes FABORY com sextavado interior:
- Não têm que ser aparafusados no aparelho: poupança de tempo em cerca de 50% .
- Ferramenta simples tipo 6102: com barra tommy opcional.
- Ferramenta de inserção só necessita ser girada no sentido dos ponteiros do relógio.
- Os insertos são faceis de desenroscar.

Inserto auto cortante com sextavado tipo 308 2





3

Dados técnicos

d_1 x L	d_2	Espessura	P (d_1)	P (d_2)	Profundidade do furo (mín.)	S (+0,1mm)
M4x8	6.5	8	0.7	0.8	10	3.2
M5x10	8	10	0.8	1	13	4.1
M6x12	10	12	1	1.25	15	4.9
M8x14	12	14	1.25	1.5	17	6.6
M10x18	14	18	1.5	1.5	22	8.3
M12x22	16	22	1.75	1.75	26	10.1

- Profundidade de furo (min.) = Profundidade de furo minima para furos cegos.
- Espessura = espessura min. Material.
- S = W.a.f. sextavado interior.

71556 **Inserto auto cortante com sextavado tipo 308 2** **S93A**

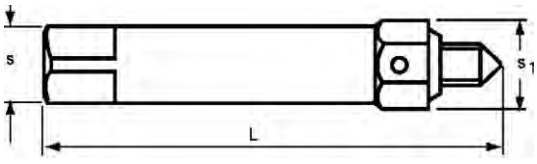
Rosca Métrica
Material Aço Cementado
Tratamento sup. Passivado a amarelo



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M4X8	50	71556.040.008	M6X12	50	71556.060.012	M10X18	25	71556.100.018
M5X10	50	71556.050.010	M8X14	50	71556.080.014	M12X22	25	71556.120.022

- Para utilização em materiais com resistência á tracção de 360 a 420 N/mm^2.
- Aluminio e ligas de aluminio, ligas de magnésio, polímeros em duroplastic e thermoplastic.
- Vantagens dos insertos auto cortantes FABORY com sextavado interior:
- Não têm que ser aparafusados no aparelho: poupança de tempo em cerca de 50%.
- Ferramenta simples tipo 6102: com barra tommy opcional.
- Ferramenta de inserção só necessita ser girada no sentido dos ponteiros do relógio.
- Os insertos são faceis de desenroscar.

Ferramenta para inserto auto cortante tipo 610





Dados técnicos

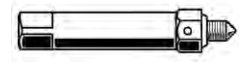
d_1	L	S	S_1
M3	55	5	7
M4	60	5	7
M5	75	8	13
M6	75	8	13

d_1	L	S	S_1
M8	75	8	13
M10	95	12.5	19
M12	95	12.5	19

- L = Comprimento total.
- S = Quadro s.
- S_1= Contra-porca s.
- Para inserção manual de insertos auto perfurantes tipo 302, 307 e 308 (com barra tommy e chave de bocas).

71595 **Ferramenta para inserto auto cortante tipo 610** **S94A**

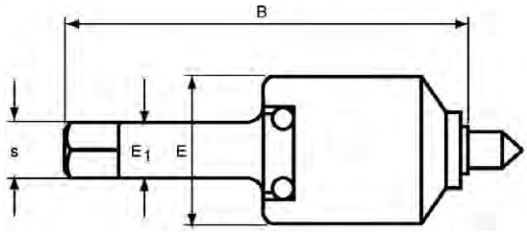
Material Aço



Diâm. nom. d_1	✉	Ref. do artigo	Diâm. nom. d_1	✉	Ref. do artigo	Diâm. nom. d_1	✉	Ref. do artigo
M3	1	71595.030.001	M6	1	71595.060.001	M10	1	71595.100.001
M4	1	71595.040.001	M8	1	71595.080.001	M12	1	71595.120.001
M5	1	71595.050.001						

- Não estão disponiveis peças suplentes para esta ferramenta manual.

Ferramenta para inserto auto cortante tipo 620





3

Dados técnicos

d_1	B	E	E_1	S
M3	78	18	8	6.3
M4	78	18	8	6.3
M5	95	24	12.5	10
M6	95	24	12.5	10
M8	95	24	12.5	10
M10	118	32	16	12.5
M12	118	32	16	12.5

d_1	B	E	E_1	S
M14	145	50	25	20
M16	145	50	25	20
M20	169	58	25	20
M24	198	70	30	25
M27	198	70	30	25
M30	198	70	30	25

- **d_1= Para dimensão d_1**
- **E = Diâmetro exterior E**
- **E_1= Diâmetro da haste E_1**
- **S = Quadro w.a.f.**
- **B = Comprimento B.**
- para inserções manuais (com barra tommy) ou por máquina de insertos com rosca auto perfurante tipo 302, 307 e 308.
- Para equipamento 620, estão disponiveis pernos roscados, grupo 71597.

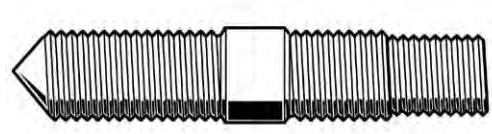
71592 **Ferramenta para inserto auto cortante tipo 620** **S94A**

Material Aço



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M3	1	71592.030.001	M10	1	71592.100.001	M20	1	71592.200.001
M4	1	71592.040.001	M12	1	71592.120.001	M24	1	71592.240.001
M5	1	71592.050.001	M14	1	71592.140.001	M27	1	71592.270.001
M6	1	71592.060.001	M16	1	71592.160.001	M30	1	71592.300.001
M8	1	71592.080.001						

Pino para ferramenta tipo 620

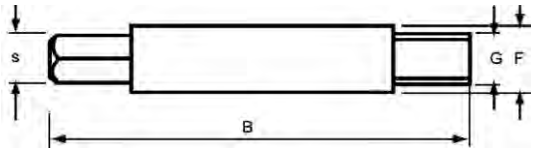


71597 **Pino para ferramenta tipo 620** **S94A**



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	1	71597.030.001	M10	1	71597.100.001	M20	1	71597.200.001
M4	1	71597.040.001	M12	1	71597.120.001	M22	1	71597.220.001
M5	1	71597.050.001	M14	1	71597.140.001	M24	1	71597.240.001
M6	1	71597.060.001	M16	1	71597.160.001	M30	1	71597.300.001
M8	1	71597.080.001						

Ferramenta para inserto auto cortante com sextavado tipo 6102





Dados técnicos

Para diâm.nom. d_1	B	F	G	s	Para diâm.nom. d_1	B	F	G	s
M4	80	6	4.9	3.2	**M8**	100	10	8	6.6
M5	90	8	6.2	4.1	**M10**	110	12	9	8.3
M6	100	10	8	4.9	**M12**	125	14	11	10.1

- **s = Perno sext s (nom.).**
- **F = Diâmetro haste F.**
- **G = Quadro G.**
- **B = Comprimento B.**

71580 **Ferramenta para inserto auto cortante com sextavado tipo 6102** **S94A**

Material Aço



Para diâm. nom. d_1	✉	Ref. do artigo	Para diâm. nom. d_1	✉	Ref. do artigo	Para diâm. nom. d_1	✉	Ref. do artigo
M4	1	71580.040.001	M6	1	71580.060.001	M10	1	71580.100.001
M5	1	71580.050.001	M8	1	71580.080.001	M12	1	71580.120.001

- Ferramenta manual 6102 para utilização exclusiva com insertos FABORY com sextavado interior tipo 302 2 e 308 2.
- Vantagens dos insertos FABORY:
- Não têm que ser aparafusados no aparelho: poupança de tempo em cerca de 50%.
- Ferramenta simples tipo 6102: com barra tommy opcional.
- Ferramenta de inserção só necessita ser girada no sentido dos ponteiros do relógio.
- Os insertos são faceis de desenroscar.

Fabory Insertos

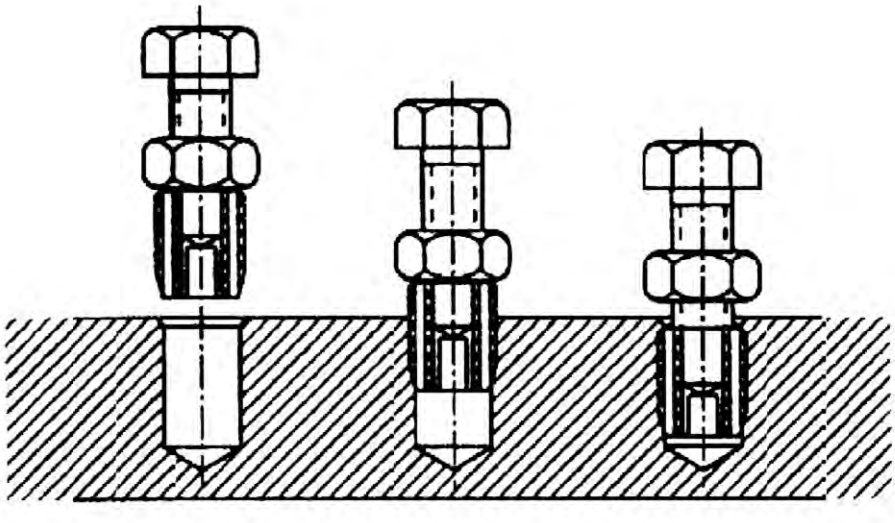
Fixação
Para a fixação dos insertos Fabory, estão disponíveis três ferramentas já mencionadas:

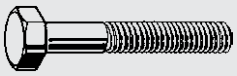
- Os insertos com sextavado interior **tipo 302 2** e **308 2** podem ser fixados com ferramenta manual/máquina **tipo 6102**
- Ferramenta manual **tipo 610**
- Ferramenta manual/máquina **tipo 620**

Ambas indicadas para insertos SEM sextavado interior: tipos 302, 307 e 308.

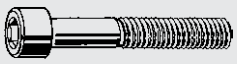
Para fixações rápidas de uma quantidade reduzida de insertos, é possível fazê-lo com porca e parafuso da medida correspondente.

Os insertos tipo 302, também estão disponíveis, em conjunto (S572). 420 produtos no total, medidas de M3 até M16, em aço, passivado a amarelo e algumas medidas em aço inox C4 (art. no. 41010.000.572).

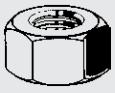




1 Parafusos sextavado exterior



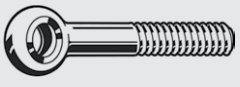
2 Produtos sextavados interiores



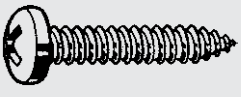
3 Porcas/porcas de rebitar / insertos



4 Varão roscado / pernos



5 Produtos olhal / gancho

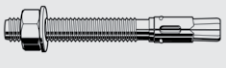


6 Parafusos

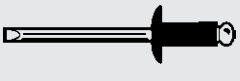
I Indice



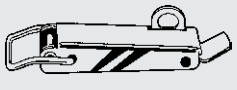
7 Anilha



8 Ancoragem



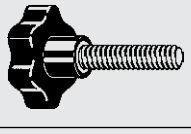
9 Rebites / cavilhas



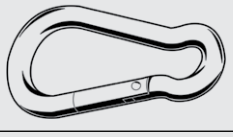
10 Parafusos de segurança / Sistemas de fixação



11 Sortidos



12 Sistemas de engenharia / peças para máquinas



13 Marítimo produtos

T Tecnologia de fixação

Varão roscado/pernos 4

Página 4-2
DIN 976-1A

Métrico

Página 4-12
DIN ≈976-1

Métrico passo fino

Página 4-14
ASME B18.31.3

UNC

Página 4-17
ASME B18.31.3

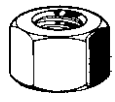
UNF

Página 4-20

BSW

Página 4-21

PERMAGLAS Métrico

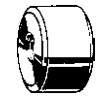
Página 4-22

PERMAGLAS Métrico

Página 4-23

PERMAGLAS

Página 4-24

Tr

Página 4-25

Tr

Página 4-26

Tr Bronze

Página 4-27
DIN 938

≈ 1xd Métrico

Página 4-29
DIN 939

≈ 1,25xd Métrico

Página 4-33
DIN ≈939 (1955)

≈ 1,25xd BSW

Página 4-34
DIN 835

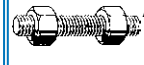
≈ 2d Métrico

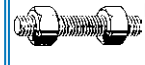
Página 4-37

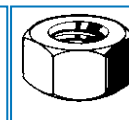
ASTM UNC

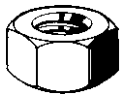
Página 4-38

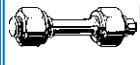
ASTM Métrico

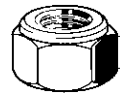
Página 4-39
ASME B16.5

UNC

Página 4-55
BS ≈4882

Métrico

Página 4-57
ASME B18.2.2

ASTM UNC

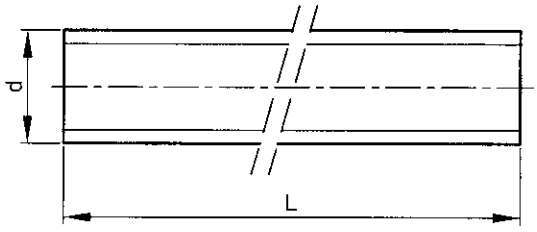
Página 4-59

ASTM métrico

Página 4-61
DIN 2510 L/NF

Métrico

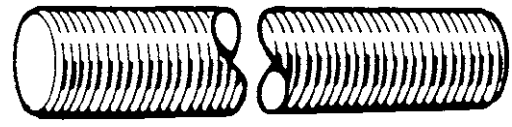
Página 4-62
DIN 2510 NF

Para pernos duplos Métrico

4

Varão roscado



DIN	**976-1A**
NEN	≈2369
NF	≈25-136



Dados técnicos

d	P	d	P
M2	0.4	M27	3
M2.5	0.45	M30	3.5
M3	0.5	M33	3.5
M4	0.7	M36	4
M5	0.8	M39	4
M6	1	M42	4.5
M7 (≠DIN)	1	M45	4.5
M8	1.25	M48	5
M10	1.5	M52	5
M12	1.75	M56	5.5
M14	2	M60	5.5
M16	2	M64	6
M18	2.5	M68	6
M20	2.5	M72	6
M22	2.5	M76 (≠DIN)	6
M24	3	M80 (≠DIN)	6

O varão roscado é pintado na ponta para facilitar o reconhecimento da classe.

Código de Cor varão roscado

Classe	Material	Cor
4.8	Zincado	cor natural
4.8	Galvanizadoa quente ISO métrico	azul claro
4.8	Galvanizado a quente Oversized métrico	laranja
5.6	Aço	castanho
5.8	Aço	azul gentian
8.8	Passivado amarelo	amarelo
8.8	Galvanizado a quente ISO métrico	cinzento
8.8	Galvanizado a quente Oversized métrico	roxo
10.9	Aço	branco
12.9	Aço	preto
ASTM-B7	Aço (UNC e& 8UN)	cor natural
ASTM-B7	Aço (métrico)	cor natural
RVS-A2	Inox A2 métrico	verde
RVS-A4	Inox A4 métrico	vermelho

Grupos de produtos

Rosca	Material	Classe	Tratamento sup.		Cor	Código	Página
M	Aço	≥4.8	Passiv. amar.			20108	4-3
M	INOX A2	70				51068	4-3
M	INOX A4	70				55068	4-4
M	Aço	≥4.8		1 metro		20200	4-4
M	Aço	≥4.8	Zn	1 metro		20300	4-5
M	Aço	≥4.8	Zn	1 metro rosca esquerda		20380	4-5
M	Aço	≥4.8	Passiv. amar.	1 metro		20302	4-5
M	Aço	≥4.8	Galv. Q.	1 metro oversized		20140	4-5
M	Aço	≥4.8	Galv. Q.	1 metro ISO		20160	4-5
M	Aço	8.8		1 metro		20220	4-6
M	Aço	8.8	Zn	1 metro		20230	4-6
M	Aço	8.8	Zn	1 metro rosca esquerda		20376	4-6
M	Aço	8.8	Passiv. amar.	1 metro		20232	4-6
M	Aço	8.8	Galv. Q.	1 metro oversized		20150	4-7
M	Aço	8.8	Galv. Q.	1 metro ISO		20170	4-7
M	Aço	10.9		1 metro		20130	4-7
M	Aço	12.9		1 metro		20132	4-7
M	INOX A2	70		1 metro		51070	4-8

Grupos de produtos

Rosca	Material	Classe	Tratamento sup.		Cor	Código	Página
M	INOX A2	70		Embalaje 1 metro/Grande		51064	4-8
M	INOX A4	70		1 metro		55070	4-8
M	INOX A2	70		1 metro rosca esq.		51074	4-8
M	INOX A4	70		1 metro rosca esquerda		55074	4-9
M	Al P40			1 metro		45070	4-9
M	Al P60			1 metro		45270	4-9
M	Ti	Gr.2		1 metro		45940	4-9
M	Latão Cu2/Cu3			1 metro		46090	4-9
M	Plástico PA	PA 6.6		1 metro	Branco	56170	4-9
M	Aço	≥4.8	Zn	2 metros		20330	4-10
M	Aço	≥4.8	Galv. Q.	2 meter oversized		20145	4-10
M	Aço	8.8	Zn	2 metros		20372	4-10
M	Aço	8.8	Galv. Q.	2 meter oversized		20155	4-10
M	INOX A2	70		2 metros		51071	4-10
M	INOX A4	70		2 metros		55071	4-11
M	Aço	≥4.8	Zn	3 metros		20410	4-11
M	Aço	≥4.8	Galv. Q.	3 meter oversized		20147	4-11
M	Aço	8.8	Zn	3 metros		20395	4-11
M	Aço	8.8	Galv. Q.	3 meter oversized		20157	4-11
M	INOX A2	70		3 metros		51072	4-12
M	INOX A4	70		3 metros		55072	4-12

20108 Varão G05A

Rosca Métrica
Material Aço
Classe ≥4.8
Tratamento sup. Passivado a amarelo



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X20	200	20108.030.020	M5X120	100	20108.050.120	M8X150	50	20108.080.150
M3X30	200	20108.030.030				M8X160	50	20108.080.160
M3X40	200	20108.030.040	M6X20	200	20108.060.020			
M3X50	200	20108.030.050	M6X30	200	20108.060.030	M10X30	100	20108.100.030
M3X60	200	20108.030.060	M6X40	200	20108.060.040	M10X40	100	20108.100.040
M3X70	200	20108.030.070	M6X50	200	20108.060.050	M10X50	100	20108.100.050
M3X80	200	20108.030.080	M6X60	200	20108.060.060	M10X60	100	20108.100.060
M3X90	200	20108.030.090	M6X70	200	20108.060.070	M10X70	100	20108.100.070
M3X100	200	20108.030.100	M6X80	100	20108.060.080	M10X80	100	20108.100.080
			M6X90	100	20108.060.090	M10X90	100	20108.100.090
M4X20	200	20108.040.020	M6X100	100	20108.060.100	M10X100	100	20108.100.100
M4X30	200	20108.040.030	M6X120	100	20108.060.120	M10X120	50	20108.100.120
M4X40	200	20108.040.040	M6X130	100	20108.060.130	M10X130	50	20108.100.130
M4X50	200	20108.040.050	M6X140	100	20108.060.140	M10X140	50	20108.100.140
M4X60	200	20108.040.060	M6X150	100	20108.060.150	M10X150	50	20108.100.150
M4X70	200	20108.040.070	M6X160	100	20108.060.160	M10X160	50	20108.100.160
M4X80	200	20108.040.080						
M4X90	100	20108.040.090	M8X30	200	20108.080.030	M12X40	100	20108.120.040
M4X100	100	20108.040.100	M8X40	200	20108.080.040	M12X50	100	20108.120.050
			M8X50	200	20108.080.050	M12X60	100	20108.120.060
M5X20	200	20108.050.020	M8X60	100	20108.080.060	M12X70	50	20108.120.070
M5X30	200	20108.050.030	M8X70	100	20108.080.070	M12X80	50	20108.120.080
M5X40	200	20108.050.040	M8X75	100	20108.080.075	M12X90	50	20108.120.090
M5X50	200	20108.050.050	M8X80	100	20108.080.080	M12X100	50	20108.120.100
M5X60	200	20108.050.060	M8X90	100	20108.080.090	M12X120	50	20108.120.120
M5X70	200	20108.050.070	M8X100	100	20108.080.100	M12X130	50	20108.120.130
M5X80	100	20108.050.080	M8X120	100	20108.080.120	M12X140	50	20108.120.140
M5X90	100	20108.050.090	M8X130	100	20108.080.130	M12X150	50	20108.120.150
M5X100	100	20108.050.100	M8X140	50	20108.080.140	M12X160	25	20108.120.160

51068 Perno R09A

Rosca Métrica
Material Aço inoxidável A2
Classe 70

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X20	100	51068.040.020	M4X60	100	51068.040.060	M5X50	100	51068.050.050
M4X30	100	51068.040.030				M5X60	100	51068.050.060
M4X40	100	51068.040.040	M5X30	100	51068.050.030	M5X70	100	51068.050.070
M4X50	100	51068.040.050	M5X40	100	51068.050.040	M5X80	50	51068.050.080

51068 Perno

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X90	50	51068.050.090	M8X70	50	51068.080.070	M10X160	25	51068.100.160
M5X100	50	51068.050.100	M8X80	50	51068.080.080			
M5X120	50	51068.050.120	M8X90	50	51068.080.090	M12X40	50	51068.120.040
			M8X100	50	51068.080.100	M12X50	50	51068.120.050
M6X30	100	51068.060.030	M8X120	50	51068.080.120	M12X60	50	51068.120.060
M6X40	100	51068.060.040	M8X130	50	51068.080.130	M12X65	25	51068.120.065
M6X50	100	51068.060.050	M8X140	25	51068.080.140	M12X70	25	51068.120.070
M6X60	100	51068.060.060	M8X150	25	51068.080.150	M12X80	25	51068.120.080
M6X70	100	51068.060.070	M8X160	25	51068.080.160	M12X90	25	51068.120.090
M6X80	50	51068.060.080	M8X200	25	51068.080.200	M12X100	25	51068.120.100
M6X90	50	51068.060.090				M12X120	25	51068.120.120
M6X100	50	51068.060.100	M10X40	50	51068.100.040	M12X130	25	51068.120.130
M6X120	50	51068.060.120	M10X50	50	51068.100.050	M12X140	25	51068.120.140
M6X130	50	51068.060.130	M10X60	50	51068.100.060	M12X150	25	51068.120.150
M6X140	50	51068.060.140	M10X70	50	51068.100.070	M12X160	10	51068.120.160
M6X150	50	51068.060.150	M10X80	50	51068.100.080			
M6X160	50	51068.060.160	M10X90	50	51068.100.090	M16X65	10	51068.160.065
			M10X100	50	51068.100.100	M16X80	10	51068.160.080
M8X30	100	51068.080.030	M10X120	25	51068.100.120			
M8X40	100	51068.080.040	M10X130	25	51068.100.130	M20X100	10	51068.200.100
M8X50	100	51068.080.050	M10X140	25	51068.100.140	M20X150	10	51068.200.150
M8X60	50	51068.080.060	M10X150	25	51068.100.150			

- Diâmetros > M24 são no mínimo classe 50.

55068 Varão roscado — R49A

Rosca Métrica
Material Aço inoxidável A4
Classe 70

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X20	100	55068.040.020	M8X50	100	55068.080.050	M10X140	25	55068.100.140
			M8X60	50	55068.080.060	M10X150	25	55068.100.150
M5X30	100	55068.050.030	M8X70	50	55068.080.070			
M5X40	100	55068.050.040	M8X80	50	55068.080.080	M12X40	50	55068.120.040
M5X50	100	55068.050.050	M8X100	50	55068.080.100	M12X50	50	55068.120.050
M5X60	100	55068.050.060	M8X120	50	55068.080.120	M12X60	50	55068.120.060
M5X80	50	55068.050.080	M8X130	50	55068.080.130	M12X70	25	55068.120.070
			M8X160	25	55068.080.160	M12X80	25	55068.120.080
M6X30	100	55068.060.030				M12X100	25	55068.120.100
M6X40	100	55068.060.040	M10X40	50	55068.100.040	M12X120	25	55068.120.120
M6X50	100	55068.060.050	M10X50	50	55068.100.050	M12X130	25	55068.120.130
M6X60	100	55068.060.060	M10X60	50	55068.100.060	M12X150	25	55068.120.150
M6X70	100	55068.060.070	M10X70	50	55068.100.070	M12X160	10	55068.120.160
M6X80	50	55068.060.080	M10X80	50	55068.100.080			
M6X100	50	55068.060.100	M10X90	50	55068.100.090	M16X50	10	55068.160.050
			M10X100	50	55068.100.100	M16X60	50	55068.160.060
M8X30	100	55068.080.030	M10X120	25	55068.100.120			
M8X40	100	55068.080.040	M10X130	25	55068.100.130	M20X340	1	55068.200.340

- Diâmetros > M24 são no mínimo classe 50.

20200 Varão roscado 1 metro — G01A

Rosca Métrica
Material Aço
Classe ≥4.8

RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M2	20	20200.020.001	M18	5	20200.180.001	M45	2	20200.450.001
M3	20	20200.030.001	M20	2	20200.200.001	M48	2	20200.480.001
M4	20	20200.040.001	M22	2	20200.220.001	M52	1	20200.520.001
M5	10	20200.050.001	M24	2	20200.240.001	M56	1	20200.560.001
M6	10	20200.060.001	M27	2	20200.270.001	M60	1	20200.600.001
M7	10	20200.070.001	M30	2	20200.300.001	M64	1	20200.640.001
M8	10	20200.080.001	M33	2	20200.330.001	M68	1	20200.680.001
M10	10	20200.100.001	M36	2	20200.360.001	M72	1	20200.720.001
M12	10	20200.120.001	M39	2	20200.390.001	M76	1	20200.760.001
M14	5	20200.140.001	M42	2	20200.420.001	M80	1	20200.800.001
M16	5	20200.160.001						

20300 Varão roscado 1 metro — G03A

Rosca Métrica
Material Aço
Classe ≥4.8
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	20	20300.030.001	M12	10	20300.120.001	M27	2	20300.270.001
M4	20	20300.040.001	M14	5	20300.140.001	M30	2	20300.300.001
M5	10	20300.050.001	M16	5	20300.160.001	M33	2	20300.330.001
M6	10	20300.060.001	M18	5	20300.180.001	M36	2	20300.360.001
M7	10	20300.070.001	M20	2	20300.200.001	M39	2	20300.390.001
M8	10	20300.080.001	M22	2	20300.220.001	M42	2	20300.420.001
M10	10	20300.100.001	M24	2	20300.240.001	M45	1	20300.450.001

20380 Varão roscado rosca esquerda 1 metro — G05A

Rosca Métrica
Material Aço
Classe ≥4.8
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	10	20380.030.001	M10	2	20380.100.001	M20	1	20380.200.001
M4	10	20380.040.001	M12	2	20380.120.001	M22	1	20380.220.001
M5	5	20380.050.001	M14	1	20380.140.001	M24	1	20380.240.001
M6	2	20380.060.001	M16	1	20380.160.001	M27	1	20380.270.001
M8	2	20380.080.001	M18	1	20380.180.001	M30	1	20380.300.001

20302 Varão roscado 1 metro — G03A

Rosca Métrica
Material Aço
Classe ≥4.8
Tratamento sup. Passivado a amarelo



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	10	20302.050.001	M10	10	20302.100.001	M20	2	20302.200.001
M6	10	20302.060.001	M12	10	20302.120.001	M24	2	20302.240.001
M8	10	20302.080.001	M16	5	20302.160.001			

20140 Varão roscado rosca oversized 1 metro — A08C

Rosca Métrica
Material Aço
Classe ≥4.8
Tratamento sup. Galvanizado a quente



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M10	5	20140.100.001	M20	3	20140.200.001	M30	2	20140.300.001
M12	5	20140.120.001	M24	3	20140.240.001	M33	2	20140.330.001
M16	5	20140.160.001	M27	2	20140.270.001	M36	2	20140.360.001

- Para varões galvanizado a quente com rosca OVERSIZED a camada de zinco é aplicada na rosca nromal, depois da galvanização os varões deixam de ser ISO-metric, são mais largos: OVERSIZED.
- Não podem ser utilizados em roscas normais.
- Nas porcas correspondentes OVERSIZED, furo oversize de acordo com ISO 965-5, depois da galvanização podem ser utilizados com estes varões.

20160 Varão roscado rosca metrica 1 metro — A08C

Rosca Métrica
Material Aço
Classe ≥4.8
Tratamento sup. Galvanizado a quente



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M10	5	20160.100.001	M20	3	20160.200.001	M30	2	20160.300.001
M12	5	20160.120.001	M24	3	20160.240.001	M36	2	20160.360.001
M16	5	20160.160.001	M27	2	20160.270.001			

20160 Varão roscado rosca metrica 1 metro

- Para varões galvanizado a quente com rosca ISO-METRIC FITTING, a rosca é produzida abaixo do normal, para que depois da galvanização cumpra as tolerâncias classe h.
- A vantagem deste fabrico é que esta rosca pode ser utilizada em qualquer furo roscado, sem problemas.
- As porcas correspondentes ISO-METRIC FITTING foram roscadas de forma a cumprirem as tolerâncias classe 6H depois da galvanização, de forma a poderem ser utilizadas com os varões.

20220 Varão roscado 1 metro — G04A

Rosca Métrica
Material Aço
Classe 8.8



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	10	20220.050.001	M20	3	20220.200.001	M42	1	20220.420.001
M6	10	20220.060.001	M22	3	20220.220.001	M45	1	20220.450.001
M8	10	20220.080.001	M24	3	20220.240.001	M48	1	20220.480.001
M10	10	20220.100.001	M27	2	20220.270.001	M52	1	20220.520.001
M12	5	20220.120.001	M30	2	20220.300.001	M56	1	20220.560.001
M14	5	20220.140.001	M33	2	20220.330.001	M60	1	20220.600.001
M16	5	20220.160.001	M36	2	20220.360.001	M64	1	20220.640.001
M18	3	20220.180.001	M39	1	20220.390.001			

20230 Varão roscado 1 metro — G04A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	10	20230.040.001	M18	3	20230.180.001	M39	1	20230.390.001
M5	10	20230.050.001	M20	3	20230.200.001	M42	1	20230.420.001
M6	10	20230.060.001	M22	3	20230.220.001	M45	1	20230.450.001
M8	10	20230.080.001	M24	3	20230.240.001	M48	1	20230.480.001
M10	10	20230.100.001	M27	2	20230.270.001	M52	1	20230.520.001
M12	5	20230.120.001	M30	2	20230.300.001	M56	1	20230.560.001
M14	5	20230.140.001	M33	2	20230.330.001	M60	1	20230.600.001
M16	5	20230.160.001	M36	2	20230.360.001	M64	1	20230.640.001

20376 Varão roscado rosca esquerda 1 metro — G05A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	2	20376.060.001	M12	2	20376.120.001	M24	1	20376.240.001
M8	2	20376.080.001	M16	1	20376.160.001	M30	1	20376.300.001
M10	2	20376.100.001	M20	1	20376.200.001			

20232 Varão roscado 1 metro — G06A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Passivado a amarelo



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	10	20232.060.001	M14	5	20232.140.001	M20	3	20232.200.001
M8	10	20232.080.001	M16	5	20232.160.001	M22	3	20232.220.001
M10	10	20232.100.001	M18	3	20232.180.001	M24	3	20232.240.001
M12	5	20232.120.001						

20150 Varão roscado rosca oversized 1 metro — A08C

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Galvanizado a quente

RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M10	5	20150.100.001	M27	2	20150.270.001	M39	1	20150.390.001
M12	5	20150.120.001	M30	2	20150.300.001	M42	1	20150.420.001
M16	5	20150.160.001	M33	2	20150.330.001	M45	1	20150.450.001
M20	3	20150.200.001	M36	2	20150.360.001	M48	1	20150.480.001
M24	3	20150.240.001						

- Para varões galvanizado a quente com rosca OVERSIZED a camada de zinco é aplicada na rosca normal, depois da galvanização os varões deixam de ser ISO-metric, são mais largos: OVERSIZED.
- Não podem ser utilizados em roscas normais.
- Nas porcas correspondentes OVERSIZED, a rosca é 0,3 mm mais larga, depois da galvanização podem ser utilizados com estes varões.

4

20170 Varão roscado rosca metrica 1 metro — A08C

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Galvanizado a quente

RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M10	5	20170.100.001	M24	3	20170.240.001	M39	1	20170.390.001
M12	5	20170.120.001	M27	2	20170.270.001	M42	1	20170.420.001
M16	5	20170.160.001	M30	2	20170.300.001	M45	1	20170.450.001
M20	3	20170.200.001	M36	2	20170.360.001			

- Para varões galvanizado a quente com rosca ISO-METRIC FITTING, a rosca é produzida abaixo do normal, para que depois da galvanização cumpra as tolerâncias classe h.
- A vantagem deste fabrico é que esta rosca pode ser utilizada em qualquer furo roscado, sem problemas.
- As porcas correspondentes ISO-METRIC FITTING foram roscadas de forma a cumprirem as tolerâncias classe 6H depois da galvanização, de forma a poderem ser utilizadas com os varões.

20130 Varão roscado 1 metro — G04A

Rosca Métrica
Material Aço
Classe 10.9

RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	5	20130.050.001	M16	3	20130.160.001	M30	2	20130.300.001
M6	5	20130.060.001	M18	3	20130.180.001	M33	2	20130.330.001
M8	5	20130.080.001	M20	3	20130.200.001	M36	2	20130.360.001
M10	5	20130.100.001	M22	3	20130.220.001	M39	2	20130.390.001
M12	5	20130.120.001	M24	3	20130.240.001	M42	1	20130.420.001
M14	5	20130.140.001	M27	2	20130.270.001	M45	1	20130.450.001

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

20132 Varão roscado 1 metro — G04A

Rosca Métrica
Material Aço
Classe 12.9

RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M8	5	20132.080.001	M16	3	20132.160.001	M27	2	20132.270.001
M10	5	20132.100.001	M20	3	20132.200.001	M30	2	20132.300.001
M12	5	20132.120.001	M24	3	20132.240.001			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

51070 Varão roscado 1 metro — Q03A

Rosca Métrica
Material Aço inoxidável A2
Classe 70



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M2*	20	51070.020.001	M12	5	51070.120.001	M30	1	51070.300.001
M2,5*	20	51070.025.001	M14	5	51070.140.001	M33	1	51070.330.001
M3	10	51070.030.001	M16	5	51070.160.001	M36	1	51070.360.001
M4	10	51070.040.001	M18	3	51070.180.001	M39*	5	51070.390.001
M5	10	51070.050.001	M20	3	51070.200.001	M42*	5	51070.420.001
M6	10	51070.060.001	M22	2	51070.220.001	M45*	5	51070.450.001
M8	10	51070.080.001	M24	2	51070.240.001	M48*	5	51070.480.001
M10	10	51070.100.001	M27	1	51070.270.001	M52*	1	51070.520.001

- Diâmetros > M24 são no mínimo classe 50.

4

51064 Varão roscado 1 metro — Q03A

Rosca Métrica
Material Aço inoxidável A2
Classe 70



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	50	51064.060.001	M10	25	51064.100.001	M16	15	51064.160.001
M8	25	51064.080.001	M12	25	51064.120.001			

- Diâmetros > M24 são no mínimo classe 50.

55070 Varão roscado 1 metro — Q43A

Rosca Métrica
Material Aço inoxidável A4
Classe 70



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M2	10	55070.020.001	M12	5	55070.120.001	M30	1	55070.300.001
M2,5	10	55070.025.001	M14	5	55070.140.001	M33	1	55070.330.001
M3	10	55070.030.001	M16	5	55070.160.001	M36	1	55070.360.001
M4	10	55070.040.001	M18	3	55070.180.001	M39*	5	55070.390.001
M5	10	55070.050.001	M20	3	55070.200.001	M42*	5	55070.420.001
M6	10	55070.060.001	M22	2	55070.220.001	M45*	5	55070.450.001
M8	10	55070.080.001	M24	2	55070.240.001	M48*	5	55070.480.001
M10	10	55070.100.001	M27	1	55070.270.001	M52*	1	55070.520.001

- Diâmetros > M24 são no mínimo classe 50.

51074 Varão roscado rosca esquerda 1 metro — R09A

Rosca Métrica
Material Aço inoxidável A2
Classe 70



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5*	100	51074.050.001	M12	2	51074.120.001	M18*	10	51074.180.001
M6	2	51074.060.001	M14*	10	51074.140.001	M20	1	51074.200.001
M8	2	51074.080.001	M16	1	51074.160.001	M24	1	51074.240.001
M10	2	51074.100.001						

- Diâmetros > M24 são no mínimo classe 50.

55074 Varão roscado rosca esquerda 1 metro — R09A

Rosca Métrica
Material Aço inoxidável A4
Classe 70



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5*	100	55074.050.001	M10*	25	55074.100.001	M16*	10	55074.160.001
M6*	100	55074.060.001	M12*	20	55074.120.001	M18*	10	55074.180.001
M8*	50	55074.080.001	M14*	10	55074.140.001	M20*	5	55074.200.001

45070 Varão roscado 1 metro — W01A

Rosca Métrica
Material Alumínio P40



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	1	45070.040.001	M6	10	45070.060.001	M10	5	45070.100.001
M5	10	45070.050.001	M8	5	45070.080.001			

45270 Varão roscado 1 metro — W01A

Rosca Métrica
Material Alumínio P60



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M8	5	45270.080.001	M10	5	45270.100.001	M12	5	45270.120.001

45940 Varão roscado 1 metro — W01A

Rosca Métrica
Material Titânio
Classe Gr.2



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	1	45940.060.001	M8	1	45940.080.001	M10	1	45940.100.001

46090 Varão roscado 1 metro — M01A

Rosca Métrica
Material Latão Cu2/Cu3



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	10	46090.030.001	M8	10	46090.080.001	M16	2	46090.160.001
M4	10	46090.040.001	M10	5	46090.100.001	M18	2	46090.180.001
M5	10	46090.050.001	M12	5	46090.120.001	M20	2	46090.200.001
M6	10	46090.060.001	M14	2	46090.140.001	M22	2	46090.220.001

56170 Varão roscado 1 metro plástico — W02A

Rosca Métrica
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	10	56170.030.001	M8	5	56170.080.001	M14	2	56170.140.001
M4	10	56170.040.001	M10	5	56170.100.001	M16	2	56170.160.001
M5	5	56170.050.001	M12	2	56170.120.001	M20	1	56170.200.001
M6	5	56170.060.001						

20330 Varão roscado 2 metros — G06A

Rosca Métrica
Material Aço
Classe ≥4.8
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	10	20330.050.001	M12	10	20330.120.001	M24	2	20330.240.001
M6	10	20330.060.001	M16	5	20330.160.001	M27	1	20330.270.001
M8	10	20330.080.001	M20	2	20330.200.001	M30	1	20330.300.001
M10	10	20330.100.001						

20145 Varão 2 metros oversized — A08A

Rosca Métrica
Material Aço
Classe ≥4.8
Tratamento sup. Galvanizado a quente



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M10	1	20145.100.001	M16	1	20145.160.001	M24	1	20145.240.001
M12	1	20145.120.001	M20	1	20145.200.001	M27	1	20145.270.001

20372 Varão roscado 2 metros — G05A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	10	20372.050.001	M12	10	20372.120.001	M22	2	20372.220.001
M6	10	20372.060.001	M14	5	20372.140.001	M24	2	20372.240.001
M8	10	20372.080.001	M16	5	20372.160.001	M30	1	20372.300.001
M10	10	20372.100.001	M20	2	20372.200.001	M36	1	20372.360.001

20155 Varão roscado 2 metros oversized — A08A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Galvanizado a quente



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M12	1	20155.120.001	M20	1	20155.200.001	M30	1	20155.300.001
M16	1	20155.160.001	M24	1	20155.240.001	M36	1	20155.360.001

- Para varões galvanizado a quente com rosca OVERSIZED a camada de zinco é aplicada na rosca normal, depois da galvanização os varões deixam de ser ISO-metric, são mais largos: OVERSIZED.
- Não podem ser utilizados em roscas normais.
- Nas porcas correspondentes OVERSIZED, a rosca é 0,3 mm mais larga, depois da galvanização podem ser utilizados com estes varões.

51071 Varão roscado 2 metros — R09A

Rosca Métrica
Material Aço inoxidável A2
Classe 70



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	5	51071.060.001	M18*	5	51071.180.001	M33*	1	51071.330.001
M8	5	51071.080.001	M20	1	51071.200.001	M36*	1	51071.360.001
M10	2	51071.100.001	M22*	1	51071.220.001	M39*	1	51071.390.001
M12	2	51071.120.001	M24	1	51071.240.001	M42*	1	51071.420.001
M14*	10	51071.140.001	M27*	1	51071.270.001	M45*	1	51071.450.001
M16	2	51071.160.001	M30*	1	51071.300.001			

- Diâmetros > M24 são no mínimo classe 50.

55071 Varão roscado 2 metros — R49A

Rosca Métrica
Material Aço inoxidável A4
Classe 70



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	5	55071.060.001	M18*	5	55071.180.001	M36*	1	55071.360.001
M8	5	55071.080.001	M20	1	55071.200.001	M39*	1	55071.390.001
M10	2	55071.100.001	M22*	1	55071.220.001	M42*	1	55071.420.001
M12	2	55071.120.001	M27*	1	55071.270.001	M45*	1	55071.450.001
M14*	10	55071.140.001	M30*	1	55071.300.001			
M16	2	55071.160.001	M33*	1	55071.330.001			

- Diâmetros > M24 são no mínimo classe 50.

20410 Varão roscado 3 metros — G05A

Rosca Métrica
Material Aço
Classe ≥4.8
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	10	20410.060.001	M12	5	20410.120.001	M24	2	20410.240.001
M8	10	20410.080.001	M16	2	20410.160.001	M30	1	20410.300.001
M10	5	20410.100.001	M20	2	20410.200.001			

20147 Varão roscado 3 metros oversized — A08A

Rosca Métrica
Material Aço
Classe ≥4.8
Tratamento sup. Galvanizado a quente



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M12	1	20147.120.001	M24	1	20147.240.001	M30	1	20147.300.001
M16	1	20147.160.001	M27	1	20147.270.001	M36	1	20147.360.001
M20	1	20147.200.001						

- Para varões galvanizado a quente com rosca OVERSIZED a camada de zinco é aplicada na rosca normal, depois da galvanização os varões deixam de ser ISO-metric, são mais largos: OVERSIZED.
- Não podem ser utilizados em roscas normais.
- Nas porcas correspondentes OVERSIZED, a rosca é 0,3 mm mais larga, depois da galvanização podem ser utilizados com estes varões.

20395 Varão roscado 3 metros — G05A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	10	20395.060.001	M12	5	20395.120.001	M24	1	20395.240.001
M8	10	20395.080.001	M16	2	20395.160.001	M30	1	20395.300.001
M10	5	20395.100.001	M20	1	20395.200.001	M36	1	20395.360.001

20157 Varão roscado 3 metros oversized — A08A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Galvanizado a quente



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M12	1	20157.120.001	M24	1	20157.240.001	M30	1	20157.300.001
M16	1	20157.160.001	M27	1	20157.270.001	M36	1	20157.360.001
M20	1	20157.200.001						

- Para varões galvanizado a quente com rosca OVERSIZED a camada de zinco é aplicada na rosca normal, depois da galvanização os varões deixam de ser ISO-metric, são mais largos: OVERSIZED.
- Não podem ser utilizados em roscas normais.
- Nas porcas correspondentes OVERSIZED, a rosca é 0,3 mm mais larga, depois da galvanização podem ser utilizados com estes varões.

51072 Varão roscado 3 metros — R09A

Rosca Métrica
Material Aço inoxidável A2
Classe 70



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	5	51072.060.001	M18*	5	51072.180.001	M33*	1	51072.330.001
M8	5	51072.080.001	M20	1	51072.200.001	M36*	1	51072.360.001
M10	2	51072.100.001	M22*	1	51072.220.001	M39*	1	51072.390.001
M12	2	51072.120.001	M24	1	51072.240.001	M42*	1	51072.420.001
M14*	10	51072.140.001	M27*	1	51072.270.001	M45*	1	51072.450.001
M16	2	51072.160.001	M30*	1	51072.300.001			

- Diâmetros > M24 são no mínimo classe 50.

4

55072 Varão roscado 3 metros — R49A

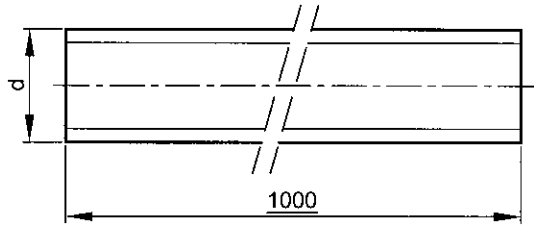
Rosca Métrica
Material Aço inoxidável A4
Classe 70



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	5	55072.060.001	M18*	5	55072.180.001	M33*	1	55072.330.001
M8	5	55072.080.001	M20	1	55072.200.001	M36*	1	55072.360.001
M10	2	55072.100.001	M24	1	55072.240.001	M39*	1	55072.390.001
M12	2	55072.120.001	M27*	1	55072.270.001	M42*	1	55072.420.001
M16	2	55072.160.001	M30	1	55072.300.001	M45*	1	55072.450.001

- Diâmetros > M24 são no mínimo classe 50.

Varão roscado MF



DIN **≈976-1**
NEN ≈2369
NF ≈25-136



O varão roscado é pintado na ponta para facilitar o reconhecimento da classe.

Código de Cor varão roscado		
Classe	**Material**	**Cor**
4.8	Zincado	cor natural
4.8	Galvanizadoa quente ISO métrico	azul claro
4.8	Galvanizado a quente Oversized métrico	laranja
5.6	Aço	castanho
5.8	Aço	azul gentian
8.8	Passivado amarelo	amarelo
8.8	Galvanizado a quente ISO métrico	cinzento
8.8	Galvanizado a quente Oversized métrico	roxo
10.9	Aço	branco
12.9	Aço	preto
ASTM-B7	Aço (UNC e& 8UN)	cor natural
ASTM-B7	Aço (métrico)	cor natural
RVS-A2	Inox A2 métrico	verde
RVS-A4	Inox A4 métrico	vermelho

Grupos de produtos

Rosca	Material	Classe	Tratamento sup.		Código	Página
MF	Aço	≥4.8	Zn	1 metro	20360	4-13
MF	Aço	8.8	Zn	1 metro	20235	4-13
MF	INOX A4	70		1 meter	55067	4-13

20360 Varão roscado 1 metro — G05A

Rosca Métrica fina
Material Aço
Classe ≥4.8
Tratamento sup. Zincado

DIN 976-1



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M8X1,00	2	20360.080.100	M16X1,50	1	20360.160.150	M27X1,50 (≠DIN)	1	20360.270.150
M10X1,00	2	20360.100.100	M18X1,50	1	20360.180.150	M27X2,00	1	20360.270.200
M10X1,25	2	20360.100.125	M20X1,50	1	20360.200.150	M30X1,50 (≠DIN)	1	20360.300.150
M12X1,25	2	20360.120.125	M22X1,50	1	20360.220.150	M30X2,00	1	20360.300.200
M12X1,50	2	20360.120.150	M24X1,50 (≠DIN)	1	20360.240.150			
M14X1,50	1	20360.140.150	M24X2,00	1	20360.240.200			

20235 Varão roscado 1 metro — G05A

Rosca Métrica fina
Material Aço
Classe 8.8
Tratamento sup. Zincado



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M8X1,00	2	20235.080.100	M16X1,50	1	20235.160.150	M27X1,50	1	20235.270.150
M10X1,00	2	20235.100.100	M18X1,50	1	20235.180.150	M27X2,00	1	20235.270.200
M10X1,25	2	20235.100.125	M20X1,50	1	20235.200.150	M30X1,50	1	20235.300.150
M12X1,25	2	20235.120.125	M22X1,50	1	20235.220.150	M30X2,00	1	20235.300.200
M12X1,50	2	20235.120.150	M24X1,50	1	20235.240.150			
M14X1,50	1	20235.140.150	M24X2,00	1	20235.240.200			

55067 Varão roscado 1 metro — R49A

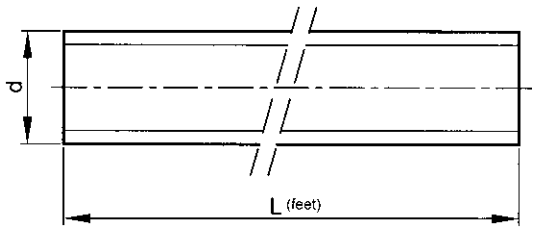
Rosca Métrica fina
Material Aço inoxidável A4
Classe 70



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M8X1,00	2	55067.080.100	M12X1,50	2	55067.120.150	M22X1,50	1	55067.220.150
M10X1,00	2	55067.100.100	M14X1,50	1	55067.140.150	M24X1,50 (≠DIN)	1	55067.240.150
M10X1,25	2	55067.100.125	M16X1,50	1	55067.160.150	M24X2,00	1	55067.240.200
M12X1,25	2	55067.120.125	M20X1,50	1	55067.200.150			

- Diâmetros > M24 são no mínimo classe 50.

Varão roscado UNC



ASME B18.31.3



Dados técnicos

d	Fios por polegada
No.2	56
No.3	48
No.4	40
No.5	40
No.6	32
No.8	32
No.10	24
1/4	20
5/16	18
3/8	16
7/16	14
1/2	13

d	Fios por polegada
9/16	12
5/8	11
3/4	10
7/8	9
1 Inch	8
1.1/8	7
1.1/4	7
1.3/8	6
1.1/2	6
1.3/4	5
2 Inch	4.5

4

Grupos de produtos

Rosca	Material	Classe	Tratamento sup.		Código	Página
UNC	Aço	Gr.2		diversos comprimentos	U20200	4-14
UNC	Aço	Gr.2	Zn	diversos comprimentos	U20300	4-15
UNC	Aço	Gr.2	Galv. Q.	diversos comprimentos	U20170	4-16
UNC	INOX A2 (AISI304/18-8)	F593		diversos comprimentos	U51070	4-16
UNC	INOX A4 (AISI316/18-10)	F593		diversos comprimentos	U55070	4-17

U20200 Varão roscado **X09A**

Rosca Unified National Coarse
Material Aço
Classe Gr.2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.2-56X2*	1	U20200.008.2400	1/4-20X1*	1	U20200.025.1200	1/2-13X10*	1	U20200.050.8888
NO.2-56X3*	1	U20200.008.3600	1/4-20X2*	1	U20200.025.2400	1/2-13X12*	1	U20200.050.9999
NO.2-56X6*	1	U20200.008.7200	1/4-20X3*	1	U20200.025.3600			
			1/4-20X6*	1	U20200.025.7200	9/16-12X1*	1	U20200.056.1200
NO.3-48X3*	1	U20200.009.3600	1/4-20X10*	1	U20200.025.8888	9/16-12X2*	1	U20200.056.2400
			1/4-20X12*	1	U20200.025.9999	9/16-12X3*	1	U20200.056.3600
NO.4-40X2*	1	U20200.011.2400				9/16-12X6*	1	U20200.056.7200
NO.4-40X3*	1	U20200.011.3600	5/16-18X1*	1	U20200.031.1200	9/16-12X10*	1	U20200.056.8888
NO.4-40X6*	1	U20200.011.7200	5/16-18X2*	1	U20200.031.2400	9/16-12X12*	1	U20200.056.9999
			5/16-18X3*	1	U20200.031.3600			
NO.5-40X2*	1	U20200.012.2400	5/16-18X6*	1	U20200.031.7200	5/8-11X1*	1	U20200.062.1200
NO.5-40X3*	1	U20200.012.3600	5/16-18X10*	1	U20200.031.8888	5/8-11X2*	1	U20200.062.2400
NO.5-40X6*	1	U20200.012.7200	5/16-18X12*	1	U20200.031.9999	5/8-11X3*	1	U20200.062.3600
						5/8-11X6*	1	U20200.062.7200
NO.6-32X1*	1	U20200.013.1200	3/8-16X1*	1	U20200.037.1200	5/8-11X10*	1	U20200.062.8888
NO.6-32X2*	1	U20200.013.2400	3/8-16X2*	1	U20200.037.2400	5/8-11X12*	1	U20200.062.9999
NO.6-32X3*	1	U20200.013.3600	3/8-16X3*	1	U20200.037.3600			
NO.6-32X6*	1	U20200.013.7200	3/8-16X6*	1	U20200.037.7200	3/4-10X1*	1	U20200.075.1200
			3/8-16X10*	1	U20200.037.8888	3/4-10X2*	1	U20200.075.2400
NO.8-32X1*	1	U20200.016.1200	3/8-16X12*	1	U20200.037.9999	3/4-10X3*	1	U20200.075.3600
NO.8-32X2*	1	U20200.016.2400				3/4-10X6*	1	U20200.075.7200
NO.8-32X3*	1	U20200.016.3600	7/16-14X1*	1	U20200.043.1200	3/4-10X10*	1	U20200.075.8888
NO.8-32X6*	1	U20200.016.7200	7/16-14X2*	1	U20200.043.2400	3/4-10X12*	1	U20200.075.9999
			7/16-14X3*	1	U20200.043.3600			
NO.10-24X1*	1	U20200.019.1200	7/16-14X6*	1	U20200.043.7200	7/8-9X1*	1	U20200.087.1200
NO.10-24X2*	1	U20200.019.2400	7/16-14X10*	1	U20200.043.8888	7/8-9X2*	1	U20200.087.2400
NO.10-24X3*	1	U20200.019.3600				7/8-9X3*	1	U20200.087.3600
NO.10-24X6*	1	U20200.019.7200	1/2-13X1*	1	U20200.050.1200	7/8-9X6*	1	U20200.087.7200
NO.10-24X10*	1	U20200.019.8888	1/2-13X2*	1	U20200.050.2400	7/8-9X10*	1	U20200.087.8888
NO.10-24X12*	1	U20200.019.9999	1/2-13X3*	1	U20200.050.3600	7/8-9X12*	1	U20200.087.9999
			1/2-13X6*	1	U20200.050.7200			

U20200 Varão roscado

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1.-8X1*	1	U20200.100.1200	1.1/4-7X3*	1	U20200.125.3600	1.1/2-6X10*	1	U20200.150.8888
1.-8X2*	1	U20200.100.2400	1.1/4-7X6*	1	U20200.125.7200	1.1/2-6X12*	1	U20200.150.9999
1.-8X3*	1	U20200.100.3600	1.1/4-7X10*	1	U20200.125.8888			
1.-8X6*	1	U20200.100.7200	1.1/4-7X12*	1	U20200.125.9999	1.3/4-5X1*	1	U20200.175.1200
1.-8X10*	1	U20200.100.8888				1.3/4-5X2*	1	U20200.175.2400
1.-8X12*	1	U20200.100.9999	1.3/8-6X1*	1	U20200.137.1200	1.3/4-5X3*	1	U20200.175.3600
			1.3/8-6X2*	1	U20200.137.2400	1.3/4-5X6*	1	U20200.175.7200
1.1/8-7X1*	1	U20200.112.1200	1.3/8-6X3*	1	U20200.137.3600	1.3/4-5X10*	1	U20200.175.8888
1.1/8-7X2*	1	U20200.112.2400	1.3/8-6X6*	1	U20200.137.7200	1.3/4-5X12*	1	U20200.175.9999
1.1/8-7X3*	1	U20200.112.3600	1.3/8-6X10*	1	U20200.137.8888			
1.1/8-7X6*	1	U20200.112.7200	1.3/8-6X12*	1	U20200.137.9999	2.-4,5X1*	1	U20200.200.1200
1.1/8-7X10*	1	U20200.112.8888				2.-4,5X2*	1	U20200.200.2400
1.1/8-7X12*	1	U20200.112.9999	1.1/2-6X1*	1	U20200.150.1200	2.-4,5X3*	1	U20200.200.3600
			1.1/2-6X2*	1	U20200.150.2400	2.-4,5X6*	1	U20200.200.7200
1.1/4-7X1*	1	U20200.125.1200	1.1/2-6X3*	1	U20200.150.3600	2.-4,5X10*	1	U20200.200.8888
1.1/4-7X2*	1	U20200.125.2400	1.1/2-6X6*	1	U20200.150.7200	2.-4,5X12*	1	U20200.200.9999

4

U20300 Varão roscado

X09A

Rosca	Unified National Coarse
Material	Aço
Classe	Gr.2
Tratamento sup.	Zincado

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.2-56X3*	1	U20300.008.3600	3/8-16X12*	1	U20300.037.9999	1.-8X6*	1	U20300.100.7200
NO.2-56X6*	1	U20300.008.7200				1.-8X10*	1	U20300.100.8888
			7/16-14X1*	1	U20300.043.1200	1.-8X12*	1	U20300.100.9999
NO.4-40X2*	1	U20300.011.2400	7/16-14X2*	1	U20300.043.2400			
NO.4-40X3*	1	U20300.011.3600	7/16-14X3*	1	U20300.043.3600	1.1/8-7X1*	1	U20300.112.1200
NO.4-40X6*	1	U20300.011.7200	7/16-14X6*	1	U20300.043.7200	1.1/8-7X2*	1	U20300.112.2400
			7/16-14X10*	1	U20300.043.8888	1.1/8-7X3*	1	U20300.112.3600
NO.5-40X2*	1	U20300.012.2400				1.1/8-7X6*	1	U20300.112.7200
NO.5-40X3*	1	U20300.012.3600	1/2-13X1*	1	U20300.050.1200	1.1/8-7X10*	1	U20300.112.8888
NO.5-40X6*	1	U20300.012.7200	1/2-13X2*	1	U20300.050.2400	1.1/8-7X12*	1	U20300.112.9999
			1/2-13X3*	1	U20300.050.3600			
NO.6-32X1*	1	U20300.013.1200	1/2-13X6*	1	U20300.050.7200	1.1/4-7X1*	1	U20300.125.1200
NO.6-32X2*	1	U20300.013.2400	1/2-13X10*	1	U20300.050.8888	1.1/4-7X2*	1	U20300.125.2400
NO.6-32X3*	1	U20300.013.3600	1/2-13X12*	1	U20300.050.9999	1.1/4-7X3*	1	U20300.125.3600
NO.6-32X6*	1	U20300.013.7200				1.1/4-7X6*	1	U20300.125.7200
			9/16-12X1*	1	U20300.056.1200	1.1/4-7X10*	1	U20300.125.8888
NO.8-32X1*	1	U20300.016.1200	9/16-12X2*	1	U20300.056.2400	1.1/4-7X12*	1	U20300.125.9999
NO.8-32X2*	1	U20300.016.2400	9/16-12X3*	1	U20300.056.3600			
NO.8-32X3*	1	U20300.016.3600	9/16-12X6*	1	U20300.056.7200	1.3/8-6X1*	1	U20300.137.1200
NO.8-32X6*	1	U20300.016.7200	9/16-12X10*	1	U20300.056.8888	1.3/8-6X2*	1	U20300.137.2400
			9/16-12X12*	1	U20300.056.9999	1.3/8-6X3*	1	U20300.137.3600
NO.10-24X1*	1	U20300.019.1200				1.3/8-6X6*	1	U20300.137.7200
NO.10-24X2*	1	U20300.019.2400	5/8-11X1*	1	U20300.062.1200	1.3/8-6X10*	1	U20300.137.8888
NO.10-24X3*	1	U20300.019.3600	5/8-11X2*	1	U20300.062.2400	1.3/8-6X12*	1	U20300.137.9999
NO.10-24X6*	1	U20300.019.7200	5/8-11X3*	1	U20300.062.3600			
NO.10-24X10*	1	U20300.019.8888	5/8-11X6*	1	U20300.062.7200	1.1/2-6X1*	1	U20300.150.1200
			5/8-11X10*	1	U20300.062.8888	1.1/2-6X2*	1	U20300.150.2400
1/4-20X1*	1	U20300.025.1200	5/8-11X12*	1	U20300.062.9999	1.1/2-6X3*	1	U20300.150.3600
1/4-20X2*	1	U20300.025.2400				1.1/2-6X6*	1	U20300.150.7200
1/4-20X3*	1	U20300.025.3600	3/4-10X1*	1	U20300.075.1200	1.1/2-6X10*	1	U20300.150.8888
1/4-20X6*	1	U20300.025.7200	3/4-10X2*	1	U20300.075.2400	1.1/2-6X12*	1	U20300.150.9999
1/4-20X10*	1	U20300.025.8888	3/4-10X3*	1	U20300.075.3600			
1/4-20X12*	1	U20300.025.9999	3/4-10X6*	1	U20300.075.7200	1.3/4-5X1*	1	U20300.175.1200
			3/4-10X10*	1	U20300.075.8888	1.3/4-5X2*	1	U20300.175.2400
5/16-18X1*	1	U20300.031.1200	3/4-10X12*	1	U20300.075.9999	1.3/4-5X3*	1	U20300.175.3600
5/16-18X2*	1	U20300.031.2400				1.3/4-5X6*	1	U20300.175.7200
5/16-18X3*	1	U20300.031.3600	7/8-9X1*	1	U20300.087.1200	1.3/4-5X10*	1	U20300.175.8888
5/16-18X6*	1	U20300.031.7200	7/8-9X2*	1	U20300.087.2400	1.3/4-5X12*	1	U20300.175.9999
5/16-18X10*	1	U20300.031.8888	7/8-9X3*	1	U20300.087.3600			
5/16-18X12*	1	U20300.031.9999	7/8-9X6*	1	U20300.087.7200	2.-4,5X1*	1	U20300.200.1200
			7/8-9X10*	1	U20300.087.8888	2.-4,5X2*	1	U20300.200.2400
3/8-16X1*	1	U20300.037.1200	7/8-9X12*	1	U20300.087.9999	2.-4,5X3*	1	U20300.200.3600
3/8-16X2*	1	U20300.037.2400				2.-4,5X6*	1	U20300.200.7200
3/8-16X3*	1	U20300.037.3600	1.-8X1*	1	U20300.100.1200	2.-4,5X10*	1	U20300.200.8888
3/8-16X6*	1	U20300.037.7200	1.-8X2*	1	U20300.100.2400	2.-4,5X12*	1	U20300.200.9999
3/8-16X10*	1	U20300.037.8888	1.-8X3*	1	U20300.100.3600			

U20170 **Varão roscado** **X09A**

Rosca	Unified National Coarse
Material	Aço
Classe	Gr.2
Tratamento sup.	Galvanizado a quente



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3/8-16X2*	1	U20170.037.2400	5/8-11X10*	1	U20170.062.8888	1.1/8-7X2*	1	U20170.112.2400
3/8-16X3*	1	U20170.037.3600	5/8-11X12*	1	U20170.062.9999	1.1/8-7X3*	1	U20170.112.3600
3/8-16X6*	1	U20170.037.7200				1.1/8-7X12*	1	U20170.112.9999
3/8-16X10*	1	U20170.037.8888	3/4-10X2*	1	U20170.075.2400			
3/8-16X12*	1	U20170.037.9999	3/4-10X3*	1	U20170.075.3600	1.1/4-7X2*	1	U20170.125.2400
			3/4-10X6*	1	U20170.075.7200	1.1/4-7X3*	1	U20170.125.3600
7/16-14X3*	1	U20170.043.3600	3/4-10X10*	1	U20170.075.8888	1.1/4-7X6*	1	U20170.125.7200
			3/4-10X12*	1	U20170.075.9999	1.1/4-7X12*	1	U20170.125.9999
1/2-13X2*	1	U20170.050.2400						
1/2-13X3*	1	U20170.050.3600	7/8-9X2*	1	U20170.087.2400	1.3/8-6X3*	1	U20170.137.3600
1/2-13X6*	1	U20170.050.7200	7/8-9X3*	1	U20170.087.3600			
1/2-13X10*	1	U20170.050.8888	7/8-9X6*	1	U20170.087.7200	1.1/2-6X2*	1	U20170.150.2400
1/2-13X12*	1	U20170.050.9999	7/8-9X12*	1	U20170.087.9999	1.1/2-6X3*	1	U20170.150.3600
						1.1/2-6X6*	1	U20170.150.7200
9/16-12X3*	1	U20170.056.3600	1.-8X2*	1	U20170.100.2400	1.1/2-6X12*	1	U20170.150.9999
			1.-8X3*	1	U20170.100.3600			
5/8-11X2*	1	U20170.062.2400	1.-8X6*	1	U20170.100.7200	1.3/4-5X3*	1	U20170.175.3600
5/8-11X3*	1	U20170.062.3600	1.-8X12*	1	U20170.100.9999			
5/8-11X6*	1	U20170.062.7200				2.-4,5X3*	1	U20170.200.3600

- Para varões galvanizado a quente com rosca OVERSIZED a camada de zinco é aplicada na rosca normal, depois da galvanização os varões deixam de ser ISO-metric, são mais largos: OVERSIZED.
- Não podem ser utilizados em roscas normais.
- Nas porcas correspondentes OVERSIZED, a rosca é 0,3 mm mais larga, depois da galvanização podem ser utilizados com estes varões.

U51070 **Varão roscado** **X15A**

Rosca	Unified National Coarse
Material	Aço inoxidável A2 (AISI 304/18-8)
Classe	F593



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.6-32X1*	1	U51070.013.1200	3/8-16X3*	1	U51070.037.3600	3/4-10X2*	1	U51070.075.2400
NO.6-32X2*	1	U51070.013.2400	3/8-16X6*	1	U51070.037.7200	3/4-10X3*	1	U51070.075.3600
NO.6-32X3*	1	U51070.013.3600	3/8-16X12*	1	U51070.037.9999	3/4-10X6*	1	U51070.075.7200
NO.6-32X6*	1	U51070.013.7200				3/4-10X12*	1	U51070.075.9999
			7/16-14X1*	1	U51070.043.1200			
NO.8-32X1*	1	U51070.016.1200	7/16-14X2*	1	U51070.043.2400	7/8-9X1*	1	U51070.087.1200
NO.8-32X2*	1	U51070.016.2400	7/16-14X3*	1	U51070.043.3600	7/8-9X2*	1	U51070.087.2400
NO.8-32X3*	1	U51070.016.3600	7/16-14X6*	1	U51070.043.7200	7/8-9X3*	1	U51070.087.3600
NO.8-32X6*	1	U51070.016.7200	7/16-14X12*	1	U51070.043.9999	7/8-9X6*	1	U51070.087.7200
						7/8-9X12*	1	U51070.087.9999
NO.10-24X1*	1	U51070.019.1200	1/2-13X1*	1	U51070.050.1200			
NO.10-24X2*	1	U51070.019.2400	1/2-13X2*	1	U51070.050.2400	1.-8X1*	1	U51070.100.1200
NO.10-24X3*	1	U51070.019.3600	1/2-13X3*	1	U51070.050.3600	1.-8X2*	1	U51070.100.2400
NO.10-24X6*	1	U51070.019.7200	1/2-13X6*	1	U51070.050.7200	1.-8X3*	1	U51070.100.3600
			1/2-13X12*	1	U51070.050.9999	1.-8X6*	1	U51070.100.7200
1/4-20X1*	1	U51070.025.1200				1.-8X12*	1	U51070.100.9999
1/4-20X2*	1	U51070.025.2400	9/16-12X1*	1	U51070.056.1200			
1/4-20X3*	1	U51070.025.3600	9/16-12X2*	1	U51070.056.2400	1.1/8-7X3*	1	U51070.112.3600
1/4-20X6*	1	U51070.025.7200	9/16-12X3*	1	U51070.056.3600			
1/4-20X12*	1	U51070.025.9999	9/16-12X6*	1	U51070.056.7200	1.1/4-7X1*	1	U51070.125.1200
			9/16-12X12*	1	U51070.056.9999	1.1/4-7X2*	1	U51070.125.2400
5/16-18X1*	1	U51070.031.1200				1.1/4-7X3*	1	U51070.125.3600
5/16-18X2*	1	U51070.031.2400	5/8-11X1*	1	U51070.062.1200	1.1/4-7X6*	1	U51070.125.7200
5/16-18X3*	1	U51070.031.3600	5/8-11X2*	1	U51070.062.2400			
5/16-18X6*	1	U51070.031.7200	5/8-11X3*	1	U51070.062.3600	1.1/2-6X1*	1	U51070.150.1200
5/16-18X12*	1	U51070.031.9999	5/8-11X6*	1	U51070.062.7200	1.1/2-6X2*	1	U51070.150.2400
			5/8-11X12*	1	U51070.062.9999	1.1/2-6X3*	1	U51070.150.3600
3/8-16X1*	1	U51070.037.1200				1.1/2-6X6*	1	U51070.150.7200
3/8-16X2*	1	U51070.037.2400	3/4-10X1*	1	U51070.075.1200			

U55070 **Varão roscado** **X15A**

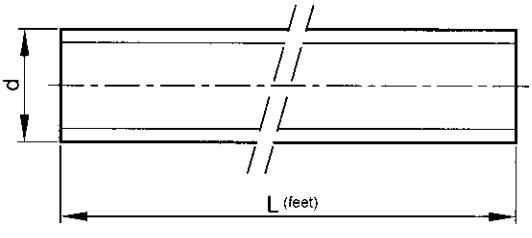
Rosca Unified National Coarse
Material Aço inoxidável A4 (AISI 316/18-10)
Classe F593



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.6-32X1*	1	U55070.013.1200	5/16-18X6*	1	U55070.031.7200	7/8-9X2*	1	U55070.087.2400
NO.6-32X2*	1	U55070.013.2400				7/8-9X3*	1	U55070.087.3600
NO.6-32X3*	1	U55070.013.3600	3/8-16X1*	1	U55070.037.1200	7/8-9X6*	1	U55070.087.7200
NO.6-32X6*	1	U55070.013.7200	3/8-16X2*	1	U55070.037.2400			
			3/8-16X3*	1	U55070.037.3600	1.-8X1*	1	U55070.100.1200
NO.8-32X1*	1	U55070.016.1200	3/8-16X6*	1	U55070.037.7200	1.-8X2*	1	U55070.100.2400
NO.8-32X2*	1	U55070.016.2400				1.-8X3*	1	U55070.100.3600
NO.8-32X3*	1	U55070.016.3600	1/2-13X1*	1	U55070.050.1200	1.-8X6*	1	U55070.100.7200
NO.8-32X6*	1	U55070.016.7200	1/2-13X2*	1	U55070.050.2400			
			1/2-13X3*	1	U55070.050.3600	1.1/8-7X1*	1	U55070.112.1200
NO.10-24X1*	1	U55070.019.1200	1/2-13X6*	1	U55070.050.7200	1.1/8-7X2*	1	U55070.112.2400
NO.10-24X2*	1	U55070.019.2400				1.1/8-7X3*	1	U55070.112.3600
NO.10-24X3*	1	U55070.019.3600	5/8-11X1*	1	U55070.062.1200	1.1/8-7X6*	1	U55070.112.7200
NO.10-24X6*	1	U55070.019.7200	5/8-11X2*	1	U55070.062.2400			
			5/8-11X3*	1	U55070.062.3600	1.1/4-7X1*	1	U55070.125.1200
1/4-20X1*	1	U55070.025.1200	5/8-11X6*	1	U55070.062.7200	1.1/4-7X2*	1	U55070.125.2400
1/4-20X2*	1	U55070.025.2400				1.1/4-7X3*	1	U55070.125.3600
1/4-20X3*	1	U55070.025.3600	3/4-10X1*	1	U55070.075.1200	1.1/4-7X6*	1	U55070.125.7200
1/4-20X6*	1	U55070.025.7200	3/4-10X2*	1	U55070.075.2400			
			3/4-10X3*	1	U55070.075.3600	1.1/2-6X1*	1	U55070.150.1200
5/16-18X1*	1	U55070.031.1200	3/4-10X6*	1	U55070.075.7200	1.1/2-6X2*	1	U55070.150.2400
5/16-18X2*	1	U55070.031.2400				1.1/2-6X3*	1	U55070.150.3600
5/16-18X3*	1	U55070.031.3600	7/8-9X1*	1	U55070.087.1200	1.1/2-6X6*	1	U55070.150.7200

4

Varão roscado UNF



ASME B18.31.3



Dados técnicos

d	Fios por polegada	d	Fios por polegada
No.10	32	**7/8**	14
1/4	28	**1 Inch-12G**	12
5/16	24	**1 Inch**	12
3/8	24	**1.1/8**	12
7/16	20	**1.1/4**	12
1/2	20	**1.3/8**	12
9/16	18	**1.1/2**	12
5/8	18	**1.3/4**	12
3/4	16	**2 Inch**	12

- Se quando pedido, não for mencionado UNF 1 -12 polegadas, será fornecido com o tipo 14 fios por polegada (UNS).

Grupos de produtos

Rosca	Material	Classe	Tratamento sup.		Código	Página
UNF	Aço	Gr.2		diversos comprimentos	U20360	4-18
UNF	Aço	Gr.2	Zn	diversos comprimentos	U20365	4-18
UNF	INOX A2 (AISI304/18-8)	F593		diversos comprimentos	U51067	4-19
UNF	INOX A4 (AISI316/18-10)	F593		diversos comprimentos	U55067	4-19

U20360 Varão roscado — X09A

Rosca Unified National Fine
Material Aço
Classe Gr.2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.10-32X1*	1	U20360.019.1200	1/2-20X12*	1	U20360.050.9999	1.1/8-12X2*	1	U20360.112.2400
NO.10-32X2*	1	U20360.019.2400				1.1/8-12X3*	1	U20360.112.3600
NO.10-32X3*	1	U20360.019.3600	9/16-18X1*	1	U20360.056.1200	1.1/8-12X6*	1	U20360.112.7200
NO.10-32X6*	1	U20360.019.7200	9/16-18X2*	1	U20360.056.2400	1.1/8-12X12*	1	U20360.112.9999
			9/16-18X3*	1	U20360.056.3600			
1/4-28X1*	1	U20360.025.1200	9/16-18X6*	1	U20360.056.7200	1.1/4-12X1*	1	U20360.125.1200
1/4-28X2*	1	U20360.025.2400	9/16-18X10*	1	U20360.056.8888	1.1/4-12X2*	1	U20360.125.2400
1/4-28X3*	1	U20360.025.3600	9/16-18X12*	1	U20360.056.9999	1.1/4-12X3*	1	U20360.125.3600
1/4-28X6*	1	U20360.025.7200				1.1/4-12X6*	1	U20360.125.7200
1/4-28X12*	1	U20360.025.9999	5/8-18X1*	1	U20360.062.1200	1.1/4-12X12*	1	U20360.125.9999
			5/8-18X2*	1	U20360.062.2400			
5/16-24X1*	1	U20360.031.1200	5/8-18X3*	1	U20360.062.3600	1.3/8-12X1*	1	U20360.137.1200
5/16-24X2*	1	U20360.031.2400	5/8-18X6*	1	U20360.062.7200	1.3/8-12X2*	1	U20360.137.2400
5/16-24X3*	1	U20360.031.3600	5/8-18X12*	1	U20360.062.9999	1.3/8-12X3*	1	U20360.137.3600
5/16-24X6*	1	U20360.031.7200				1.3/8-12X6*	1	U20360.137.7200
5/16-24X12*	1	U20360.031.9999	3/4-16X1*	1	U20360.075.1200	1.3/8-12X12*	1	U20360.137.9999
			3/4-16X2*	1	U20360.075.2400			
3/8-24X1*	1	U20360.037.1200	3/4-16X3*	1	U20360.075.3600	1.1/2-12X1*	1	U20360.150.1200
3/8-24X2*	1	U20360.037.2400	3/4-16X6*	1	U20360.075.7200	1.1/2-12X2*	1	U20360.150.2400
3/8-24X3*	1	U20360.037.3600	3/4-16X12*	1	U20360.075.9999	1.1/2-12X3*	1	U20360.150.3600
3/8-24X6*	1	U20360.037.7200				1.1/2-12X6*	1	U20360.150.7200
3/8-24X12*	1	U20360.037.9999	7/8-14X1*	1	U20360.087.1200	1.1/2-12X12*	1	U20360.150.9999
			7/8-14X2*	1	U20360.087.2400			
7/16-20X1*	1	U20360.043.1200	7/8-14X3*	1	U20360.087.3600	1.3/4-12X1*	1	U20360.175.1200
7/16-20X2*	1	U20360.043.2400	7/8-14X6*	1	U20360.087.7200	1.3/4-12X2*	1	U20360.175.2400
7/16-20X3*	1	U20360.043.3600	7/8-14X12*	1	U20360.087.9999	1.3/4-12X3*	1	U20360.175.3600
7/16-20X6*	1	U20360.043.7200				1.3/4-12X6*	1	U20360.175.7200
7/16-20X12*	1	U20360.043.9999	1.-12X1*	1	U20360.100.1200	1.3/4-12X12*	1	U20360.175.9999
			1.-12X2*	1	U20360.100.2400			
1/2-20X1*	1	U20360.050.1200	1.-12X3*	1	U20360.100.3600	2.-12X1*	1	U20360.200.1200
1/2-20X2*	1	U20360.050.2400	1.-12X12*	1	U20360.100.9999	2.-12X2*	1	U20360.200.2400
1/2-20X3*	1	U20360.050.3600				2.-12X3*	1	U20360.200.3600
1/2-20X6*	1	U20360.050.7200	1.1/8-12X1*	1	U20360.112.1200	2.-12X6*	1	U20360.200.7200

U20365 Varão roscado — X09A

Rosca Unified National Fine
Material Aço
Classe Gr.2
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.10-32X1*	1	U20365.019.1200	1/2-20X2*	1	U20365.050.2400			
NO.10-32X2*	1	U20365.019.2400	1/2-20X3*	1	U20365.050.3600	1.-12X1*	1	U20365.100.1200
NO.10-32X3*	1	U20365.019.3600	1/2-20X6*	1	U20365.050.7200	1.-12X2*	1	U20365.100.2400
NO.10-32X6*	1	U20365.019.7200	1/2-20X10*	1	U20365.050.8888	1.-12X3*	1	U20365.100.3600
			1/2-20X12*	1	U20365.050.9999	1.-12X12*	1	U20365.100.9999
1/4-28X1*	1	U20365.025.1200						
1/4-28X2*	1	U20365.025.2400	9/16-18X1*	1	U20365.056.1200	1.1/8-12X1*	1	U20365.112.1200
1/4-28X3*	1	U20365.025.3600	9/16-18X2*	1	U20365.056.2400	1.1/8-12X2*	1	U20365.112.2400
1/4-28X6*	1	U20365.025.7200	9/16-18X3*	1	U20365.056.3600	1.1/8-12X3*	1	U20365.112.3600
1/4-28X10*	1	U20365.025.8888	9/16-18X6*	1	U20365.056.7200	1.1/8-12X6*	1	U20365.112.7200
			9/16-18X10*	1	U20365.056.8888	1.1/8-12X12*	1	U20365.112.9999
5/16-24X1*	1	U20365.031.1200	9/16-18X12*	1	U20365.056.9999			
5/16-24X2*	1	U20365.031.2400				1.1/4-12X1*	1	U20365.125.1200
5/16-24X3*	1	U20365.031.3600	5/8-18X1*	1	U20365.062.1200	1.1/4-12X2*	1	U20365.125.2400
5/16-24X6*	1	U20365.031.7200	5/8-18X2*	1	U20365.062.2400	1.1/4-12X3*	1	U20365.125.3600
5/16-24X12*	1	U20365.031.9999	5/8-18X3*	1	U20365.062.3600	1.1/4-12X6*	1	U20365.125.7200
			5/8-18X6*	1	U20365.062.7200	1.1/4-12X12*	1	U20365.125.9999
3/8-24X1*	1	U20365.037.1200	5/8-18X12*	1	U20365.062.9999			
3/8-24X2*	1	U20365.037.2400				1.3/8-12X1*	1	U20365.137.1200
3/8-24X3*	1	U20365.037.3600	3/4-16X1*	1	U20365.075.1200	1.3/8-12X3*	1	U20365.137.3600
3/8-24X6*	1	U20365.037.7200	3/4-16X2*	1	U20365.075.2400	1.3/8-12X6*	1	U20365.137.7200
3/8-24X12*	1	U20365.037.9999	3/4-16X3*	1	U20365.075.3600	1.3/8-12X12*	1	U20365.137.9999
			3/4-16X6*	1	U20365.075.7200			
7/16-20X1*	1	U20365.043.1200	3/4-16X12*	1	U20365.075.9999	1.1/2-12X1*	1	U20365.150.1200
7/16-20X2*	1	U20365.043.2400				1.1/2-12X2*	1	U20365.150.2400
7/16-20X3*	1	U20365.043.3600	7/8-14X1*	1	U20365.087.1200	1.1/2-12X3*	1	U20365.150.3600
7/16-20X6*	1	U20365.043.7200	7/8-14X2*	1	U20365.087.2400	1.1/2-12X6*	1	U20365.150.7200
7/16-20X12*	1	U20365.043.9999	7/8-14X3*	1	U20365.087.3600			
			7/8-14X6*	1	U20365.087.7200	1.3/4-12X1*	1	U20365.175.1200
1/2-20X1*	1	U20365.050.1200	7/8-14X12*	1	U20365.087.9999	1.3/4-12X6*	1	U20365.175.7200

U20365 Varão roscado

d x L	✉	Ref. do artigo
1.3/4-12X12*	1	U20365.175.9999

U51067 Varão roscado X15A

Rosca Unified National Fine
Material Aço inoxidável A2 (AISI 304/18-8)
Classe F593



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.10-32X1*	1	U51067.019.1200	3/8-24X2*	1	U51067.037.2400	5/8-18X1*	1	U51067.062.1200
NO.10-32X2*	1	U51067.019.2400	3/8-24X3*	1	U51067.037.3600	5/8-18X2*	1	U51067.062.2400
NO.10-32X3*	1	U51067.019.3600	3/8-24X6*	1	U51067.037.7200	5/8-18X3*	1	U51067.062.3600
NO.10-32X6*	1	U51067.019.7200				5/8-18X6*	1	U51067.062.7200
			7/16-20X1*	1	U51067.043.1200			
1/4-28X1*	1	U51067.025.1200	7/16-20X2*	1	U51067.043.2400	3/4-16X1*	1	U51067.075.1200
1/4-28X2*	1	U51067.025.2400	7/16-20X3*	1	U51067.043.3600	3/4-16X2*	1	U51067.075.2400
1/4-28X3*	1	U51067.025.3600	7/16-20X6*	1	U51067.043.7200	3/4-16X3*	1	U51067.075.3600
1/4-28X6*	1	U51067.025.7200				3/4-16X6*	1	U51067.075.7200
			1/2-20X1*	1	U51067.050.1200			
5/16-24X1*	1	U51067.031.1200	1/2-20X2*	1	U51067.050.2400	7/8-14X1*	1	U51067.087.1200
5/16-24X2*	1	U51067.031.2400	1/2-20X3*	1	U51067.050.3600	7/8-14X2*	1	U51067.087.2400
5/16-24X3*	1	U51067.031.3600	1/2-20X6*	1	U51067.050.7200	7/8-14X3*	1	U51067.087.3600
5/16-24X6*	1	U51067.031.7200				7/8-14X6*	1	U51067.087.7200
			9/16-18X3*	1	U51067.056.3600			
3/8-24X1*	1	U51067.037.1200				1.1/8-12X3*	1	U51067.112.3600

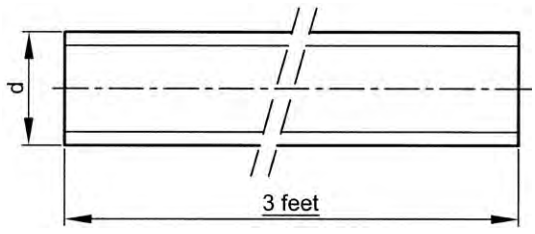
U55067 Varão roscado X15A

Rosca Unified National Fine
Material Aço inoxidável A4 (AISI 316/18-10)
Classe F593



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
NO.10-32X1*	1	U55067.019.1200						
NO.10-32X2*	1	U55067.019.2400	3/8-24X1*	1	U55067.037.1200	5/8-18X1*	1	U55067.062.1200
NO.10-32X3*	1	U55067.019.3600	3/8-24X2*	1	U55067.037.2400	5/8-18X2*	1	U55067.062.2400
NO.10-32X6*	1	U55067.019.7200	3/8-24X3*	1	U55067.037.3600	5/8-18X3*	1	U55067.062.3600
			3/8-24X6*	1	U55067.037.7200	5/8-18X6*	1	U55067.062.7200
1/4-28X1*	1	U55067.025.1200						
1/4-28X2*	1	U55067.025.2400	7/16-20X3*	1	U55067.043.3600	3/4-16X1*	1	U55067.075.1200
1/4-28X3*	1	U55067.025.3600				3/4-16X2*	1	U55067.075.2400
1/4-28X6*	1	U55067.025.7200	1/2-20X1*	1	U55067.050.1200	3/4-16X3*	1	U55067.075.3600
			1/2-20X2*	1	U55067.050.2400	3/4-16X6*	1	U55067.075.7200
5/16-24X1*	1	U55067.031.1200	1/2-20X3*	1	U55067.050.3600			
5/16-24X2*	1	U55067.031.2400	1/2-20X6*	1	U55067.050.7200	7/8-14X3*	1	U55067.087.3600
5/16-24X3*	1	U55067.031.3600						
5/16-24X6*	1	U55067.031.7200	9/16-18X3*	1	U55067.056.3600			

Varão roscado BSW





Dados técnicos

d	Fios por polegada
1/8	40
5/32	32
3/16	24
1/4	20
5/16	18
3/8	16
7/16	14
1/2	12

d	Fios por polegada
5/8	11
3/4	10
7/8	9
1 Inch	8
1.1/8	7
1.1/4	7
1.1/2	6

- A rosca whitworth (BSW) não é internacionalmente recomendada.
- É aconselhável utilizar rosca métrica (M/MF) ou UNC/UNF.

Grupos de produtos

Rosca	Material	Classe	Tratamento sup.		Código	Página
BSW	Aço	≥4.8		1 metro	20240	4-20
BSW	Aço	≥4.8	Zn	1 metro	20252	4-20
BSW	Latão Cu2/Cu3			1 metro	46290	4-20

20240 Varão roscado BSW X08A

Rosca British Standard Whitworth
Material Aço
Classe ≥4.8



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/8	20	20240.031.001	3/8	10	20240.096.001	7/8	2	20240.222.001
5/32	20	20240.039.001	7/16	10	20240.111.001	1 Inch	2	20240.254.001
3/16	10	20240.047.001	1/2	10	20240.127.001	1.1/8	2	20240.285.001
1/4	10	20240.063.001	5/8	5	20240.158.001	1.1/4	2	20240.317.001
5/16	10	20240.079.001	3/4	2	20240.191.001	1.1/2	1	20240.381.001

20252 Varão roscado BSW X08A

Rosca British Standard Whitworth
Material Aço
Classe ≥4.8
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4	10	20252.063.001	1/2	10	20252.127.001	7/8	2	20252.222.001
5/16	10	20252.079.001	5/8	5	20252.158.001	1 Inch	2	20252.254.001
3/8	10	20252.096.001	3/4	2	20252.191.001			

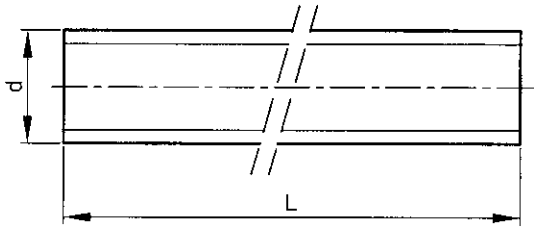
46290 Varão roscado BSW X08A

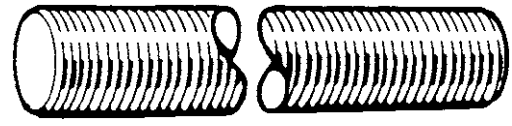
Rosca British Standard Whitworth
Material Latão Cu2/Cu3



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
5/32	10	46290.039.001	5/16	10	46290.079.001	5/8	2	46290.158.001
3/16	10	46290.047.001	3/8	5	46290.096.001	3/4	1	46290.191.001
1/4	10	46290.063.001	1/2	2	46290.127.001	7/8	1	46290.222.001

Varão roscado





Dados técnicos

d	P	d	P
M8	1.25	M16	2
M10	1.5	M20	2.5
M12	1.75	M24	3

- Caracteristicas especiais de PERMAGLAS:
- Fibra de vidro reforçada com epoxy.
- Resistência temperatura –270°C a +155°C.
- Leve (gravidade 1,8).
- Resistente á corrosão.
- Resistente a produtos e gases agressivos.
- Isolamento eléctrico e térmico.
- Anti magnético.
- Propriedades mêcanicas mais elevadas, que por exemplo o poliamida.

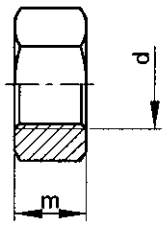
56050 **Varão roscado** **W05G**

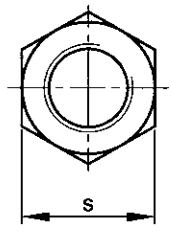
Rosca Métrica
Material Plastico reforçado com fibra de vidro Permaglas ME 771
Cor Vermelho

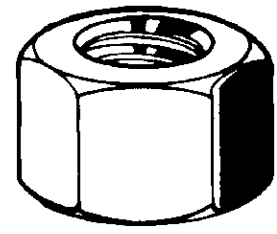


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M8X950	1	56050.080.950	M12X1900	1	56050.121.900	M20X1900	1	56050.201.900
M10X950	1	56050.100.950	M16X1900	1	56050.161.900	M24X1900	1	56050.241.900

Porca sextavada Permaglas







Dados técnicos

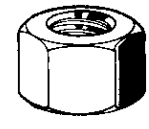
d	m	P	s	d	m	P	s
M8	8	1.25	13	M16	16	2	24
M10	10	1.5	17	M20	20	2.5	30
M12	12	1.75	19	M24	24	3	36

4

- PERMAGLAS:
- Fibra de vidro reforçada com epoxy
- Resistente à temperatura –270°C até +155°C
- Peso leve (gravidade 1,8)
- Resistente à corrosão de quimicos agressivos e gases
- Isolamento eléctrico e termal
- Não magnético
- Elevadas propriedades mecânicas, como por exemplo Poliamida

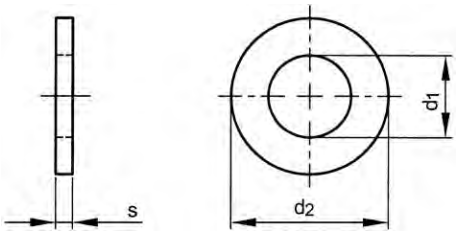
56052 **Porca sextavada Permaglas** **W05G**

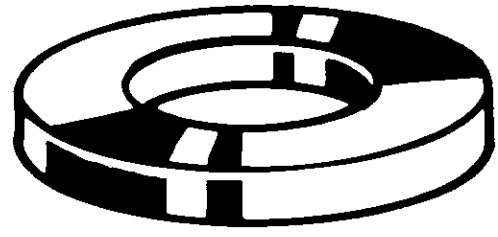
Rosca Métrica
Material Plastico reforçado com fibra de vidro Permaglas ME 730
Cor Bege



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M8	8	56052.080.001	M12	8	56052.120.001	M20	4	56052.200.001
M10	8	56052.100.001	M16	4	56052.160.001	M24	4	56052.240.001

Anilha plana sem chanfro Permaglas





Dados técnicos

d	d_1	d_2	s	d	d_1	d_2	s
M8	9	18	1.5	M16	18	32	3
M10	11	22	2	M20	22	40	3
M12	14	27	2.5	M24	27	50	4

- PERMAGLAS:
- Fibra de vidro reforçada com epoxy.
- Resistencia temperatura –270°C até +155°C.
- Peso reduzido (gravidade 1,8).
- Resistente à corrosão.
- Reistente a quimicos e gases agressivos.
- Isolante térmico e eléctrico.
- Não magnético.
- Elevadas propriedades mecânicas como por exemplo Poliamida.

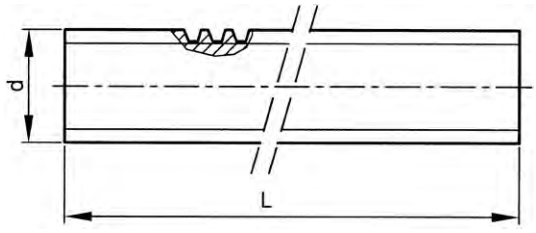
56054 **Anilha plana sem chanfro Permaglas** **W05G**

Material Plastico reforçado com fibra de vidro Permaglas ME 730
Cor Bege



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M8	8	56054.080.001	M12	8	56054.120.001	M20	4	56054.200.001
M10	8	56054.100.001	M16	4	56054.160.001	M24	4	56054.240.001

Varão roscado trapezoidal





- Rosca trapezoidal de acordo com DIN 103, retidão de acordo com DIN 7168-2, tolerância classe U.

Grupos de produtos

Rosca	Material	Classe		Código	Página
Tr	Aço	5.8	1 metro	20460	4-24
Tr	Aço	5.8	1 metro rosca esquerda	20466	4-24
Tr	INOX A2		1 metro	51076	4-24
Tr	Aço	5.8	3 metros	20464	4-24
Tr	INOX A2		3 metros	51077	4-25

4

20460 Varão roscado 1 metro — G05A

Rosca Trapezoidal
Material Aço
Classe 5.8



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
Tr10X3 (≠DIN)	5	20460.100.003	Tr22X5	2	20460.220.005	Tr36X6	1	20460.360.006
Tr12X3	5	20460.120.003	Tr24X5	2	20460.240.005	Tr40X7	1	20460.400.007
Tr14X4	3	20460.140.004	Tr26X5	1	20460.260.005	Tr44X7	1	20460.440.007
Tr16X4	3	20460.160.004	Tr28X5	1	20460.280.005	Tr50X8	1	20460.500.008
Tr18X4	2	20460.180.004	Tr30X6	1	20460.300.006	Tr60X9	1	20460.600.009
Tr20X4	2	20460.200.004	Tr32X6	1	20460.320.006			

20466 Varão roscado rosca esquerda 1 metro — G05A

Rosca Trapezoidal
Material Aço
Classe 5.8



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
Tr12X3	3	20466.120.003	Tr24X5	1	20466.240.005	Tr36X6	1	20466.360.006
Tr16X4	2	20466.160.004	Tr30X6	1	20466.300.006	Tr40X7	1	20466.400.007
Tr20X4	1	20466.200.004						

51076 Varão roscado 1 metro — R09A

Rosca Trapezoidal
Material Aço inoxidável A2



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
Tr12X3	1	51076.120.003	Tr20X4	1	51076.200.004	Tr30X6	1	51076.300.006
Tr16X4	1	51076.160.004	Tr24X5	1	51076.240.005			

20464 **Varão roscado 3 metros** **G05A**

Rosca Trapezoidal
Material Aço
Classe 5.8



d x P		Ref. do artigo	d x P		Ref. do artigo	d x P		Ref. do artigo
Tr10X3 (≠DIN)	1	20464.100.003	Tr20X4	1	20464.200.004	Tr36X6	1	20464.360.006
Tr12X3	1	20464.120.003	Tr24X5	1	20464.240.005	Tr40X7	1	20464.400.007
Tr16X4	1	20464.160.004	Tr30X6	1	20464.300.006			

51077 **Varão roscado 3 metros** **R09A**

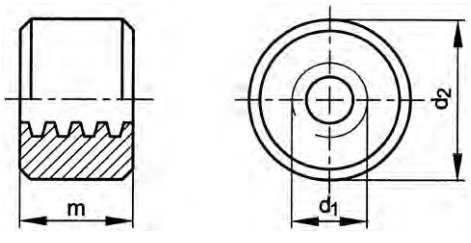
Rosca Trapezoidal
Material Aço inoxidável A2

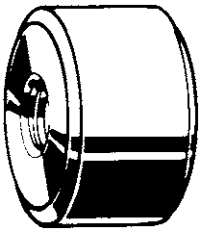


d x P		Ref. do artigo	d x P		Ref. do artigo	d x P		Ref. do artigo
Tr12X3	1	51077.120.003	Tr20X4	1	51077.200.004	Tr30X6	1	51077.300.006
Tr16X4	1	51077.160.004	Tr24X5	1	51077.240.005	Tr36X6	1	51077.360.006

4

Porca com rosca trapezoidal





Dados técnicos

d_1	d_2	m
Tr10 (≠DIN)	22	15
Tr12	26	18
Tr14	30	21
Tr16	36	24
Tr18	40	27
Tr20	45	30
Tr22	45	33
Tr24	50	36
Tr26	50	39

d_1	d_2	m
Tr28	60	42
Tr30	60	45
Tr32	60	48
Tr36	75	54
Tr40	80	60
Tr44	80	66
Tr50	90	75
Tr60	100	90

- Rosca trapezoidal de acordo com o DIN 103.

Grupos de produtos

Rosca	Material		Código	Página
Tr	Aço de corte		20470	4-25
Tr	Aço de corte	esquerda	20476	4-26
Tr	INOX A1		51170	4-26

20470 **Porca com rosca trapezoidal** **G05A**

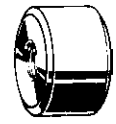
Rosca Trapezoidal
Material Aço de corte



d_1 x P		Ref. do artigo	d_1 x P		Ref. do artigo	d_1 x P		Ref. do artigo
Tr10X3 (≠DIN)	10	20470.100.003	Tr22X5	4	20470.220.005	Tr36X6	2	20470.360.006
Tr12X3	10	20470.120.003	Tr24X5	4	20470.240.005	Tr40X7	2	20470.400.007
Tr14X4	6	20470.140.004	Tr26X5	2	20470.260.005	Tr44X7	2	20470.440.007
Tr16X4	6	20470.160.004	Tr28X5	2	20470.280.005	Tr50X8	2	20470.500.008
Tr18X4	4	20470.180.004	Tr30X6	2	20470.300.006	Tr60X9	2	20470.600.009
Tr20X4	4	20470.200.004	Tr32X6	2	20470.320.006			

20476	Porca rosca trapezoidal esquerda	G05A

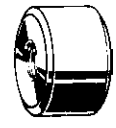
Rosca Trapezoidal
Material Aço de corte



d_1 x P	✉	Ref. do artigo	d_1 x P	✉	Ref. do artigo	d_1 x P	✉	Ref. do artigo
Tr12X3	6	20476.120.003	Tr24X5	2	20476.240.005	Tr36X6	2	20476.360.006
Tr16X4	4	20476.160.004	Tr30X6	2	20476.300.006	Tr40X7	2	20476.400.007
Tr20X4	2	20476.200.004	Tr32X6	2	20476.320.006			

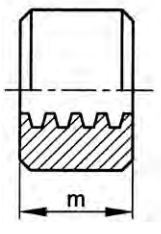
51170	Porca com rosca trapezoidal	R09A

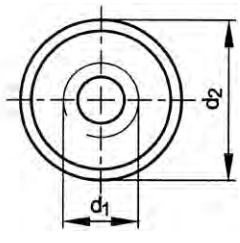
Rosca Trapezoidal
Material Aço inoxidável A1

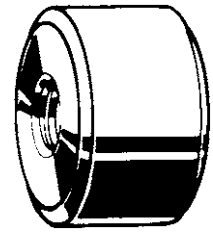


d_1 x P	✉	Ref. do artigo	d_1 x P	✉	Ref. do artigo	d_1 x P	✉	Ref. do artigo
Tr12X3	1	51170.120.003	Tr20X4	1	51170.200.004	Tr30X6	1	51170.300.006
Tr16X4	1	51170.160.004	Tr24X5	1	51170.240.005			

Porca com rosca trapezoidal







Dados técnicos

d_1	d_2	m
Tr12	26	24
Tr16	36	32
Tr20	45	40
Tr24	50	48

d_1	d_2	m
Tr30	60	60
Tr36	75	72
Tr40	80	80

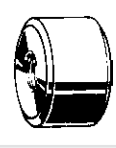
- Rosca trapezoidal de acc. com DIN 103.

Grupos de produtos

Rosca	Material		Código	Página
Tr	Bronze Cu4		20474	4-26
Tr	Bronze Cu4	rosca esquerda	20478	4-27

20474	Porca com rosca trapezoidal	G05A

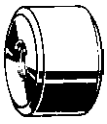
Rosca Trapezoidal
Material Bronze Cu4



d_1 x P	✉	Ref. do artigo	d_1 x P	✉	Ref. do artigo	d_1 x P	✉	Ref. do artigo
Tr12X3	6	20474.120.003	Tr24X5	2	20474.240.005	Tr36X6	1	20474.360.006
Tr16X4	4	20474.160.004	Tr30X6	1	20474.300.006	Tr40X7	1	20474.400.007
Tr20X4	2	20474.200.004						

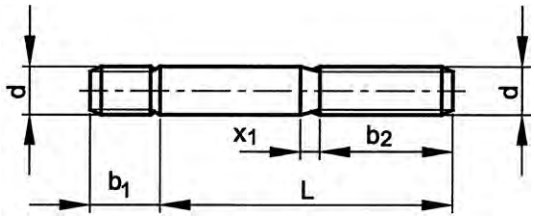
20478	Round nut Tr Left hand	G05A

Rosca Trapezoidal
Material Bronze Cu4



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
TR20X4	2	20478.200.004	TR24X5	1	20478.240.005

Perno duas roscas ≈ 1d



DIN **938**
NEN 2331
NF E25-135



4

Dados técnicos

d	b_1 ≈ 1d	b_2	b_2 =L-(x_1+3) t/m L≤	P	x_1
M5	5	16	20	0.8	2.0
M6	6	18	22	1	2.5
M8	8	22	28	1.25	3.2
M10	10	26	30	1.5	3.8
M12	12	30	35	1.75	4.3
M14	14	34	40	2	5.0
M16	16	38	45	2	5.0
M20	20	46	55	2.5	6.3
M24	24	54	65	3	7.5
M30	30	66	80	3.5	9.0

- ATENÇÃO:
- Aquando da encomenda de pernos de acordo com o DIN o diâmetro d x o comprimento efectivo L tem de ser mencionado ex. perno M10 x 70 - DIN 938, onde L = 70 mm é o comprimento de trabalho e b_1= 10 mm fixação do perno. O comprimento total é 70 + 10 = 80 mm. O comprimento roscado no lado da porca b_2= 26 mm.
- A parte roscada do perno tem de ser de tolerância Sk6, de acc. com DIN 13-51, que significa ”fixação forte”, e previne o desaperto de pernos durante a desmontagem.Pernos de acc. com DIN 938 com uma fixação de ≈ 1d tem aplicações sobretudo em aço.

Grupos de produtos

Rosca	Material	Classe	Código	Página
M	Aço	8.8	21560	4-27
M	INOX A2	70	51280	4-28
M	INOX A4	70	55280	4-28

21560	Perno duas roscas ≈ 1d	G07A

Rosca Métrica
Material Aço
Classe 8.8



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X20	200	21560.060.020	M10X30	100	21560.100.030	M12X80	50	21560.120.080
M6X25	200	21560.060.025	M10X35	100	21560.100.035	M12X90	50	21560.120.090
M6X30	200	21560.060.030	M10X40	100	21560.100.040	M12X100	50	21560.120.100
M6X40	200	21560.060.040	M10X45	100	21560.100.045			
M6X50	200	21560.060.050	M10X50	100	21560.100.050	M16X35	50	21560.160.035
			M10X55	100	21560.100.055	M16X40	50	21560.160.040
M8X20	100	21560.080.020	M10X60	100	21560.100.060	M16X45	50	21560.160.045
M8X25	100	21560.080.025	M10X70	100	21560.100.070	M16X50	50	21560.160.050
M8X30	100	21560.080.030				M16X60	50	21560.160.060
M8X35	100	21560.080.035	M12X25	100	21560.120.025	M16X70	25	21560.160.070
M8X40	100	21560.080.040	M12X30	100	21560.120.030	M16X80	25	21560.160.080
M8X50	100	21560.080.050	M12X35	100	21560.120.035	M16X90	25	21560.160.090
M8X60	100	21560.080.060	M12X40	100	21560.120.040	M16X100	25	21560.160.100
M8X70	100	21560.080.070	M12X45	100	21560.120.045			
			M12X50	50	21560.120.050	M20X40	25	21560.200.040
M10X20	100	21560.100.020	M12X60	50	21560.120.060	M20X45	25	21560.200.045
M10X25	100	21560.100.025	M12X70	50	21560.120.070	M20X50	25	21560.200.050

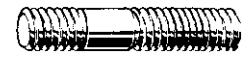
21560 Perno duas roscas ≈ 1d

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M20X55	25	21560.200.055	M20X100	10	21560.200.100	M24X70	10	21560.240.070
M20X60	25	21560.200.060	M20X120	10	21560.200.120	M24X80	10	21560.240.080
M20X70	25	21560.200.070						
M20X80	25	21560.200.080	M24X60	10	21560.240.060			

51280 Perno duas roscas ≈ 1d R09A

Rosca Métrica
Material Aço inoxidável A2
Classe 70

RoHS



4

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X16*	200	51280.050.016	M10X65*	100	51280.100.065	M16X65	10	51280.160.065
M5X20*	200	51280.050.020	M10X70	25	51280.100.070	M16X70*	50	51280.160.070
			M10X80*	100	51280.100.080	M16X75*	50	51280.160.075
M6X16*	200	51280.060.016	M10X90*	100	51280.100.090	M16X80	10	51280.160.080
M6X20	100	51280.060.020	M10X100*	100	51280.100.100	M16X85*	50	51280.160.085
M6X25	100	51280.060.025	M10X110*	100	51280.100.110	M16X90*	50	51280.160.090
M6X30	100	51280.060.030				M16X100*	50	51280.160.100
M6X35	100	51280.060.035	M12X20*	100	51280.120.020	M16X110*	50	51280.160.110
M6X40	100	51280.060.040	M12X25*	100	51280.120.025			
M6X45*	200	51280.060.045	M12X30	10	51280.120.030	M20X35*	50	51280.200.035
M6X50*	200	51280.060.050	M12X35	10	51280.120.035	M20X40	5	51280.200.040
M6X55*	200	51280.060.055	M12X40	10	51280.120.040	M20X45	5	51280.200.045
			M12X45	10	51280.120.045	M20X50	5	51280.200.050
M8X16*	200	51280.080.016	M12X50	10	51280.120.050	M20X55	5	51280.200.055
M8X20	50	51280.080.020	M12X55	10	51280.120.055	M20X60	5	51280.200.060
M8X25	50	51280.080.025	M12X60	10	51280.120.060	M20X65*	50	51280.200.065
M8X30	50	51280.080.030	M12X65*	100	51280.120.065	M20X70	5	51280.200.070
M8X35	50	51280.080.035	M12X70	10	51280.120.070	M20X75	5	51280.200.075
M8X40	50	51280.080.040	M12X75*	100	51280.120.075	M20X80	5	51280.200.080
M8X45*	200	51280.080.045	M12X80	10	51280.120.080	M20X85*	50	51280.200.085
M8X50	50	51280.080.050	M12X90*	100	51280.120.090	M20X90*	50	51280.200.090
M8X55*	200	51280.080.055	M12X100*	100	51280.120.100	M20X100*	50	51280.200.100
M8X60	50	51280.080.060	M12X110*	100	51280.120.110			
M8X70	50	51280.080.070				M24X50*	50	51280.240.050
			M14X30*	50	51280.140.030	M24X60*	50	51280.240.060
M10X16*	100	51280.100.016	M14X40*	50	51280.140.040	M24X65*	50	51280.240.065
M10X20	25	51280.100.020	M14X50*	50	51280.140.050	M24X70*	50	51280.240.070
M10X25	25	51280.100.025				M24X75*	50	51280.240.075
M10X30	25	51280.100.030	M16X30*	50	51280.160.030	M24X80*	50	51280.240.080
M10X35	25	51280.100.035	M16X35	10	51280.160.035			
M10X40	25	51280.100.040	M16X40	10	51280.160.040	M27X85*	25	51280.270.085
M10X45*	100	51280.100.045	M16X45	10	51280.160.045			
M10X50	25	51280.100.050	M16X50	10	51280.160.050	M30X80*	25	51280.300.080
M10X55	25	51280.100.055	M16X55	10	51280.160.055	M30X90*	25	51280.300.090
M10X60	25	51280.100.060	M16X60	10	51280.160.060			

- Diâmetros > M24 são no mínimo classe 50.
- Comprimentos > 8xd são no mínimo classe 50.

55280 Perno duas roscas ≈ 1d R49A

Rosca Métrica
Material Aço inoxidável A4
Classe 70

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X20*	200	55280.050.020	M8X16*	200	55280.080.016	M10X30*	100	55280.100.030
			M8X20*	200	55280.080.020	M10X35	100	55280.100.035
M6X16*	200	55280.060.016	M8X25*	200	55280.080.025	M10X40*	100	55280.100.040
M6X20*	200	55280.060.020	M8X30*	200	55280.080.030	M10X45*	100	55280.100.045
M6X25*	200	55280.060.025	M8X35*	200	55280.080.035	M10X50*	100	55280.100.050
M6X30*	200	55280.060.030	M8X40*	200	55280.080.040	M10X55*	100	55280.100.055
M6X35*	200	55280.060.035	M8X45*	200	55280.080.045	M10X60*	100	55280.100.060
M6X40*	200	55280.060.040	M8X50*	200	55280.080.050	M10X70*	100	55280.100.070
M6X50*	200	55280.060.050	M8X55*	200	55280.080.055	M10X85*	100	55280.100.085
M6X55*	200	55280.060.055	M8X60*	200	55280.080.060	M10X90*	100	55280.100.090
M6X60*	200	55280.060.060	M8X75*	200	55280.080.075			
M6X65*	200	55280.060.065	M8X90*	200	55280.080.090	M12X25*	100	55280.120.025
M6X70*	200	55280.060.070	M8X95*	200	55280.080.095	M12X30*	100	55280.120.030
M6X80*	200	55280.060.080				M12X35*	100	55280.120.035
M6X90*	200	55280.060.090	M10X20*	100	55280.100.020	M12X40	100	55280.120.040
			M10X25*	100	55280.100.025	M12X45*	100	55280.120.045

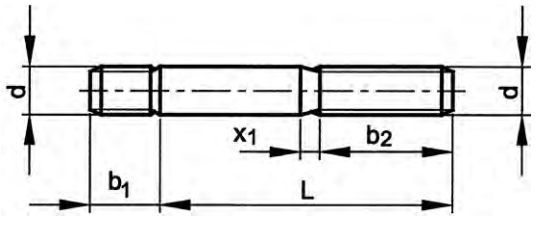
55280 **Perno duas roscas ≈ 1d** ←

d x L		Ref. do artigo	d x L		Ref. do artigo	d x L		Ref. do artigo
M12X50*	100	55280.120.050	M16X35*	50	55280.160.035			
M12X55*	100	55280.120.055	M16X40*	50	55280.160.040	M20X35*	50	55280.200.035
M12X60*	100	55280.120.060	M16X45*	50	55280.160.045	M20X40*	50	55280.200.040
M12X65*	100	55280.120.065	M16X50*	50	55280.160.050	M20X45*	50	55280.200.045
M12X70*	100	55280.120.070	M16X55*	50	55280.160.055	M20X50*	50	55280.200.050
M12X75*	100	55280.120.075	M16X60*	50	55280.160.060	M20X55*	50	55280.200.055
M12X80*	100	55280.120.080	M16X65*	50	55280.160.065	M20X60*	50	55280.200.060
M12X85*	100	55280.120.085	M16X70*	50	55280.160.070	M20X65*	50	55280.200.065
M12X90*	100	55280.120.090	M16X75*	50	55280.160.075	M20X70*	50	55280.200.070
M12X95*	100	55280.120.095	M16X80*	50	55280.160.080	M20X75*	50	55280.200.075
			M16X85*	50	55280.160.085	M20X80*	50	55280.200.080
M14X80*	50	55280.140.080	M16X90*	50	55280.160.090	M20X90*	50	55280.200.090
			M16X100*	50	55280.160.100	M20X100*	50	55280.200.100
M16X30	50	55280.160.030	M16X110*	50	55280.160.110	M20X120*	50	55280.200.120

- Diâmetros > M24 são no mínimo classe 50.
- Comprimentos > 8xd são no mínimo classe 50.

4

Perno duas roscas ≈ 1,25d



DIN **939**
NEN 2332
NF E25-135



Dados técnicos

d	b_1 ≈ 1,25d	b_2:L≤125mm	b_2:125mm<L≤200mm	b_2 =L-(x_1+3) t/m L≤	P	x_1
M6	7.5	18	24	20	1	2.5
M8	10	22	28	25	1.25	3.2
M10	12	26	32	30	1.5	3.8
M12	15	30	36	35	1.75	4.3
M14	18	34	40	40	2	5.0
M16	20	38	44	45	2	5.0
M18	22	42	48	50	2.5	6.3
M20	25	46	52	55	2.5	6.3
M22	28	50	56	60	2.5	6.3
M24	30	54	60	65	3	7.5
M27	35	60	66	70	3	7.5

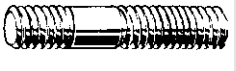
- ATENÇÃO: Aquando da encomenda de pernos de acordo com o DIN o diâmetro d x o comprimento efectivo L tem de ser mencionada ex. perno M10 x 65 - DIN 939, onde L = 65 mm é o comprimento de trabalho e b_1= 12 mm fixação do perno. O comprimento total 65 + 12 = 77 mm. O comprimento roscado no lado da porca b_2= 26 mm.
- A parte roscada do perno tem de ser de tolerância Sk6, de acc. com DIN 13-51, que significa ”fixação forte”, e previne o desaperto de pernos durante a desmontagem.
- Pernos de acc. com DIN 939 (5.6/5.8/8.8) com uma fixação de ≈ 1,25d tem aplicações sobretudo em aço forjado.

Grupos de produtos

Rosca	Material	Classe	Tratamento sup.	Código	Página
M	Aço	5.6/5.8		21500	4-29
M	Aço	5.6/5.8	Zn	21510	4-30
M	Aço	5.6/5.8	Passiv. amar.	21515	4-30
M	Aço	8.8		21520	4-31
M	INOX A2	70		51270	4-31
M	INOX A4	70		55270	4-32

21500 **Perno duas roscas ≈ 1,25d** **G07A**

Rosca Métrica
Material Aço
Classe 5.6/5.8



d x L		Ref. do artigo	d x L		Ref. do artigo	d x L		Ref. do artigo
M6X20	200	21500.060.020	M6X40	200	21500.060.040			
M6X25	200	21500.060.025	M6X45	200	21500.060.045	M8X20	100	21500.080.020
M6X30	200	21500.060.030	M6X50	200	21500.060.050	M8X25	100	21500.080.025
M6X35	200	21500.060.035	M6X55	200	21500.060.055	M8X30	100	21500.080.030

21500 Perno duas roscas ≈ 1,25d

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M8X35	100	21500.080.035	M12X70	50	21500.120.070	M20X65	25	21500.200.065
M8X40	100	21500.080.040	M12X75	50	21500.120.075	M20X70	25	21500.200.070
M8X45	100	21500.080.045	M12X80	50	21500.120.080	M20X75	25	21500.200.075
M8X50	100	21500.080.050	M12X90	50	21500.120.090	M20X80	25	21500.200.080
M8X60	100	21500.080.060	M12X100	50	21500.120.100	M20X90	10	21500.200.090
M8X65	100	21500.080.065				M20X100	10	21500.200.100
M8X70	100	21500.080.070	M14X40	50	21500.140.040	M20X110	10	21500.200.110
			M14X50	50	21500.140.050	M20X120	10	21500.200.120
M10X20	100	21500.100.020	M14X60	50	21500.140.060	M20X140	10	21500.200.140
M10X25	100	21500.100.025						
M10X30	100	21500.100.030	M16X30	50	21500.160.030	M22X50	10	21500.220.050
M10X35	100	21500.100.035	M16X35	50	21500.160.035	M22X60	10	21500.220.060
M10X40	100	21500.100.040	M16X40	50	21500.160.040	M22X70	10	21500.220.070
M10X45	100	21500.100.045	M16X45	50	21500.160.045	M22X80	10	21500.220.080
M10X50	100	21500.100.050	M16X50	50	21500.160.050	M22X90	10	21500.220.090
M10X55	100	21500.100.055	M16X55	50	21500.160.055	M22X100	10	21500.220.100
M10X60	100	21500.100.060	M16X60	50	21500.160.060	M22X110	10	21500.220.110
M10X65	100	21500.100.065	M16X65	25	21500.160.065	M22X120	10	21500.220.120
M10X70	100	21500.100.070	M16X70	25	21500.160.070	M22X140	10	21500.220.140
			M16X75	25	21500.160.075			
M12X25	100	21500.120.025	M16X80	25	21500.160.080	M24X50	10	21500.240.050
M12X30	100	21500.120.030	M16X90	25	21500.160.090	M24X60	10	21500.240.060
M12X35	100	21500.120.035	M16X100	25	21500.160.100	M24X70	10	21500.240.070
M12X40	100	21500.120.040				M24X80	10	21500.240.080
M12X45	100	21500.120.045	M20X40	25	21500.200.040	M24X90	10	21500.240.090
M12X50	50	21500.120.050	M20X45	25	21500.200.045	M24X100	10	21500.240.100
M12X55	50	21500.120.055	M20X50	25	21500.200.050	M24X110	10	21500.240.110
M12X60	50	21500.120.060	M20X55	25	21500.200.055	M24X120	10	21500.240.120
M12X65	50	21500.120.065	M20X60	25	21500.200.060	M24X140	10	21500.240.140

21510 Perno duas roscas ≈ 1,25d — G07A

Rosca Métrica
Material Aço
Classe 5.6/5.8
Tratamento sup. Zincado

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X20	200	21510.060.020	M8X50	100	21510.080.050	M12X30	100	21510.120.030
M6X25	200	21510.060.025	M8X60	100	21510.080.060	M12X35	100	21510.120.035
M6X30	200	21510.060.030				M12X40	100	21510.120.040
M6X35	200	21510.060.035	M10X20	100	21510.100.020	M12X50	50	21510.120.050
M6X40	200	21510.060.040	M10X25	100	21510.100.025	M12X60	50	21510.120.060
M6X45	200	21510.060.045	M10X30	100	21510.100.030			
M6X50	200	21510.060.050	M10X35	100	21510.100.035	M16X35	50	21510.160.035
			M10X40	100	21510.100.040	M16X40	50	21510.160.040
M8X20	100	21510.080.020	M10X50	100	21510.100.050	M16X45	50	21510.160.045
M8X25	100	21510.080.025	M10X60	100	21510.100.060	M16X50	50	21510.160.050
M8X30	100	21510.080.030				M16X55	50	21510.160.055
M8X35	100	21510.080.035	M12X25	100	21510.120.025	M16X60	50	21510.160.060
M8X40	100	21510.080.040						

21515 Perno duas roscas ≈ 1,25d — G07A

Rosca Métrica
Material Aço
Classe 5.6/5.8
Tratamento sup. Passivado a amarelo



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X20	200	21515.060.020	M8X50	100	21515.080.050	M12X30	100	21515.120.030
M6X25	200	21515.060.025	M8X60	100	21515.080.060	M12X35	100	21515.120.035
M6X30	200	21515.060.030				M12X40	100	21515.120.040
M6X35	200	21515.060.035	M10X20	100	21515.100.020	M12X50	50	21515.120.050
M6X40	200	21515.060.040	M10X25	100	21515.100.025	M12X60	50	21515.120.060
M6X45	200	21515.060.045	M10X30	100	21515.100.030			
M6X50	200	21515.060.050	M10X35	100	21515.100.035	M16X35	50	21515.160.035
			M10X40	100	21515.100.040	M16X40	50	21515.160.040
M8X20	100	21515.080.020	M10X50	100	21515.100.050	M16X45	50	21515.160.045
M8X25	100	21515.080.025	M10X60	100	21515.100.060	M16X50	50	21515.160.050
M8X30	100	21515.080.030				M16X55	50	21515.160.055
M8X35	100	21515.080.035	M12X25	100	21515.120.025	M16X60	50	21515.160.060
M8X40	100	21515.080.040						

21520 Perno duas roscas ≈ 1,25d — G07A

Rosca Métrica
Material Aço
Classe 8.8



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X20	200	21520.060.020	M12X25	100	21520.120.025	M16X100	25	21520.160.100
M6X25	200	21520.060.025	M12X30	100	21520.120.030			
M6X30	200	21520.060.030	M12X35	100	21520.120.035	M20X40	25	21520.200.040
M6X35	200	21520.060.035	M12X40	100	21520.120.040	M20X45	25	21520.200.045
M6X40	200	21520.060.040	M12X45	100	21520.120.045	M20X50	25	21520.200.050
M6X45	200	21520.060.045	M12X50	50	21520.120.050	M20X55	25	21520.200.055
M6X50	200	21520.060.050	M12X55	50	21520.120.055	M20X60	25	21520.200.060
M6X55	200	21520.060.055	M12X60	50	21520.120.060	M20X65	25	21520.200.065
			M12X65	50	21520.120.065	M20X70	25	21520.200.070
M8X20	100	21520.080.020	M12X70	50	21520.120.070	M20X75	25	21520.200.075
M8X25	100	21520.080.025	M12X75	50	21520.120.075	M20X80	25	21520.200.080
M8X30	100	21520.080.030	M12X80	50	21520.120.080	M20X90	10	21520.200.090
M8X35	100	21520.080.035	M12X90	50	21520.120.090	M20X100	10	21520.200.100
M8X40	100	21520.080.040	M12X100	50	21520.120.100	M20X110	10	21520.200.110
M8X45	100	21520.080.045				M20X120	10	21520.200.120
M8X50	100	21520.080.050	M14X30	50	21520.140.030	M20X140	10	21520.200.140
M8X60	100	21520.080.060	M14X35	50	21520.140.035			
M8X65	100	21520.080.065	M14X40	50	21520.140.040	M22X60	10	21520.220.060
M8X70	100	21520.080.070	M14X50	50	21520.140.050	M22X70	10	21520.220.070
			M14X60	50	21520.140.060	M22X80	10	21520.220.080
M10X20	100	21520.100.020						
M10X25	100	21520.100.025	M16X35	50	21520.160.035	M24X50	10	21520.240.050
M10X30	100	21520.100.030	M16X40	50	21520.160.040	M24X60	10	21520.240.060
M10X35	100	21520.100.035	M16X45	50	21520.160.045	M24X70	10	21520.240.070
M10X40	100	21520.100.040	M16X50	50	21520.160.050	M24X75	10	21520.240.075
M10X45	100	21520.100.045	M16X55	50	21520.160.055	M24X80	10	21520.240.080
M10X50	100	21520.100.050	M16X60	50	21520.160.060	M24X90	10	21520.240.090
M10X55	100	21520.100.055	M16X65	25	21520.160.065	M24X100	10	21520.240.100
M10X60	100	21520.100.060	M16X70	25	21520.160.070	M24X110	10	21520.240.110
M10X65	100	21520.100.065	M16X75	25	21520.160.075	M24X120	10	21520.240.120
M10X70	100	21520.100.070	M16X80	25	21520.160.080			
			M16X90	25	21520.160.090	M27X100	10	21520.270.100

51270 Perno duas roscas ≈ 1,25d — R09A

Rosca Métrica
Material Aço inoxidável A2
Classe 70



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X16*	200	51270.060.016				M12X80	10	51270.120.080
M6X20	100	51270.060.020	M10X20	25	51270.100.020	M12X90	10	51270.120.090
M6X25	100	51270.060.025	M10X22*	100	51270.100.022	M12X100	10	51270.120.100
M6X30	100	51270.060.030	M10X25	25	51270.100.025	M12X110*	100	51270.120.110
M6X35	100	51270.060.035	M10X30	25	51270.100.030	M12X120*	100	51270.120.120
M6X40	100	51270.060.040	M10X35	25	51270.100.035			
M6X45	100	51270.060.045	M10X40	25	51270.100.040	M14X40*	50	51270.140.040
M6X50	100	51270.060.050	M10X45	25	51270.100.045	M14X70*	50	51270.140.070
M6X55*	200	51270.060.055	M10X50	25	51270.100.050			
M6X60	100	51270.060.060	M10X55	25	51270.100.055	M16X25*	50	51270.160.025
M6X70	100	51270.060.070	M10X60	25	51270.100.060	M16X30	10	51270.160.030
M6X80	100	51270.060.080	M10X65	25	51270.100.065	M16X35	10	51270.160.035
M6X90	100	51270.060.090	M10X70	25	51270.100.070	M16X40	10	51270.160.040
M6X100	100	51270.060.100	M10X75	25	51270.100.075	M16X45	10	51270.160.045
			M10X80	25	51270.100.080	M16X50	10	51270.160.050
M8X16	200	51270.080.016	M10X90	10	51270.100.090	M16X55	10	51270.160.055
M8X20	50	51270.080.020	M10X100	10	51270.100.100	M16X60	10	51270.160.060
M8X25	50	51270.080.025	M10X120*	100	51270.100.120	M16X65	10	51270.160.065
M8X30	50	51270.080.030				M16X70	10	51270.160.070
M8X35	50	51270.080.035	M12X20	10	51270.120.020	M16X75	10	51270.160.075
M8X40	50	51270.080.040	M12X25	10	51270.120.025	M16X80	10	51270.160.080
M8X45	50	51270.080.045	M12X30	10	51270.120.030	M16X90	10	51270.160.090
M8X50	50	51270.080.050	M12X35	10	51270.120.035	M16X100	10	51270.160.100
M8X55*	200	51270.080.055	M12X40	10	51270.120.040	M16X110*	50	51270.160.110
M8X60	50	51270.080.060	M12X45	10	51270.120.045			
M8X70	50	51270.080.070	M12X50	10	51270.120.050	M20X35*	50	51270.200.035
M8X75*	200	51270.080.075	M12X55	10	51270.120.055	M20X40	5	51270.200.040
M8X80	50	51270.080.080	M12X60	10	51270.120.060	M20X45	5	51270.200.045
M8X90	25	51270.080.090	M12X65	10	51270.120.065	M20X50	5	51270.200.050
M8X100	25	51270.080.100	M12X70	10	51270.120.070	M20X55	5	51270.200.055
M8X110*	200	51270.080.110	M12X75	10	51270.120.075	M20X60	5	51270.200.060

51270 Perno duas roscas ≈ 1,25d ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M20X65	5	51270.200.065	M20X100	5	51270.200.100	M24X80*	50	51270.240.080
M20X70	5	51270.200.070	M20X110*	50	51270.200.110	M24X90	50	51270.240.090
M20X75	5	51270.200.075	M20X120	5	51270.200.120	M24X100*	50	51270.240.100
M20X80	5	51270.200.080						
M20X85*	50	51270.200.085	M24X65*	50	51270.240.065	M27X75*	25	51270.270.075
M20X90	5	51270.200.090	M24X70*	50	51270.240.070			

- Diâmetros > M24 são no mínimo classe 50.
- Comprimentos > 8xd são no mínimo classe 50.

55270 Perno duas roscas ≈ 1,25d R49A

Rosca Métrica
Material Aço inoxidável A4
Classe 70



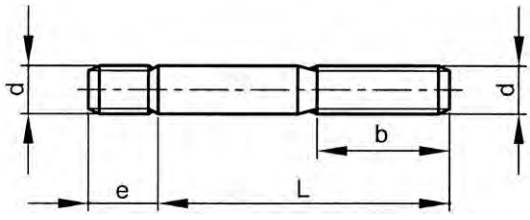
RoHS

4

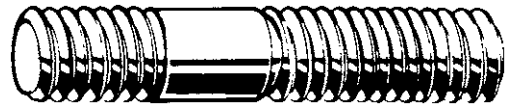
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X16*	200	55270.060.016	M10X50	25	55270.100.050	M16X55	10	55270.160.055
M6X20	100	55270.060.020	M10X55	25	55270.100.055	M16X60	10	55270.160.060
M6X25	100	55270.060.025	M10X60	25	55270.100.060	M16X65	10	55270.160.065
M6X30	100	55270.060.030	M10X65	25	55270.100.065	M16X70	10	55270.160.070
M6X35	100	55270.060.035	M10X70	25	55270.100.070	M16X75	10	55270.160.075
M6X40	100	55270.060.040	M10X75*	100	55270.100.075	M16X80	10	55270.160.080
M6X45	100	55270.060.045	M10X80	25	55270.100.080	M16X90*	50	55270.160.090
M6X50	100	55270.060.050	M10X90	10	55270.100.090	M16X100	10	55270.160.100
M6X60	100	55270.060.060	M10X100	10	55270.100.100	M16X120*	50	55270.160.120
M6X65*	200	55270.060.065						
M6X70	100	55270.060.070	M12X20	10	55270.120.020	M18X45*	50	55270.180.045
M6X80	100	55270.060.080	M12X25	10	55270.120.025			
M6X100	100	55270.060.100	M12X30	10	55270.120.030	M20X40	5	55270.200.040
			M12X35	10	55270.120.035	M20X45	5	55270.200.045
M8X16*	200	55270.080.016	M12X40	10	55270.120.040	M20X50	5	55270.200.050
M8X20	50	55270.080.020	M12X45	10	55270.120.045	M20X55	5	55270.200.055
M8X25	50	55270.080.025	M12X50	10	55270.120.050	M20X60	5	55270.200.060
M8X30	50	55270.080.030	M12X55	10	55270.120.055	M20X65	5	55270.200.065
M8X35	50	55270.080.035	M12X60*	100	55270.120.060	M20X70	5	55270.200.070
M8X40	50	55270.080.040	M12X65	10	55270.120.065	M20X75	5	55270.200.075
M8X45	50	55270.080.045	M12X70	10	55270.120.070	M20X80	5	55270.200.080
M8X50	50	55270.080.050	M12X75	10	55270.120.075	M20X85*	50	55270.200.085
M8X55*	200	55270.080.055	M12X80*	100	55270.120.080	M20X90	5	55270.200.090
M8X60	50	55270.080.060	M12X90	10	55270.120.090	M20X100	5	55270.200.100
M8X65*	200	55270.080.065	M12X100	10	55270.120.100	M20X110*	50	55270.200.110
M8X70	50	55270.080.070	M12X110*	100	55270.120.110	M20X120	5	55270.200.120
M8X80	50	55270.080.080	M12X120*	100	55270.120.120			
M8X100	25	55270.080.100				M24X50*	50	55270.240.050
			M14X35*	50	55270.140.035	M24X60	5	55270.240.060
M10X20	25	55270.100.020				M24X70	5	55270.240.070
M10X25	25	55270.100.025	M16X30	10	55270.160.030	M24X80	5	55270.240.080
M10X30	25	55270.100.030	M16X35	10	55270.160.035	M24X90	5	55270.240.090
M10X35	25	55270.100.035	M16X40	10	55270.160.040	M24X100	5	55270.240.100
M10X40	25	55270.100.040	M16X45	10	55270.160.045			
M10X45	25	55270.100.045	M16X50	10	55270.160.050			

- Diâmetros > M24 são no mínimo classe 50.
- Comprimentos > 8xd são no mínimo classe 50.

Perno duas roscas ≈ 1,25d BSW



DIN **≈939 (1955)**
NEN ≈2346 (1962)



Dados técnicos

d	b	e ≈ 1,25d	Fios por polegada	d	b	e ≈ 1,25d	Fios por polegada
5/16	18	10	18	**5/8**	28	20	11
3/8	20	12	16	**3/4**	32	25	10
1/2	25-30	16	12	**1 Inch**	40-55	35	8

4

- Rosca whitworth (BSW/BSF) não é internacionalmente recomendada.
- É recomendada a utilização de roscas métricas (M).
- ATENÇÃO: quando encomendar pernos de acordo com DIN o diâmetro d x o comprimento efectivo L deve ser mencionado. Por exemplo perno 5/16 x 25, onde L = 25 mm é o comprimento de trabalho, e= 10 mm fixação do perno.
- O comprimento total é de 25 + 10 = 35 mm.
- O comprimento de rosca da porca é b = 18 mm.
- Pernos de acordo com ≈ DIN 939 (1955) fixação do perno e ≈ 1,25 d tem aplicações sobretudo em aço forjado.
- A parte roscada do perno tem de ser de tolerância Sk6, de acc. com DIN 13 e 14, Beiblatt 14 (1944), que significa ”fixação forte”, e previne o desaperto de pernos durante a desmontagem.

21540 **Perno duas roscas ≈ 1,25d BSW** **X08A**

Rosca British Standard Whitworth
Material Aço
Classe 5.6/5.8

RoHS

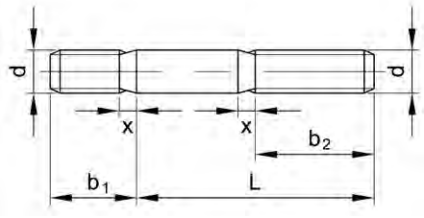


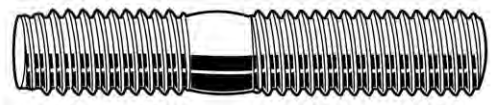
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
5/16X25MM	100	21540.079.025	1/2X35MM	50	21540.127.035	5/8X70MM	25	21540.158.070
5/16X30MM	100	21540.079.030	1/2X40MM	50	21540.127.040	5/8X80MM	25	21540.158.080
5/16X35MM	100	21540.079.035	1/2X45MM	50	21540.127.045			
			1/2X50MM	50	21540.127.050	3/4X50MM	25	21540.191.050
3/8X25MM	100	21540.096.025	1/2X60MM	50	21540.127.060	3/4X60MM	25	21540.191.060
3/8X30MM	100	21540.096.030	1/2X70MM	50	21540.127.070	3/4X70MM	25	21540.191.070
3/8X35MM	100	21540.096.035	1/2X80MM	50	21540.127.080	3/4X80MM	10	21540.191.080
3/8X40MM	100	21540.096.040						
3/8X50MM	100	21540.096.050	5/8X45MM	25	21540.158.045	1.IN.X50MM	10	21540.254.050
			5/8X50MM	25	21540.158.050	1.IN.X60MM	10	21540.254.060
1/2X30MM	50	21540.127.030	5/8X60MM	25	21540.158.060	1.IN.X100MM	10	21540.254.100

- Dependendo da disponibilidade pode ser fornecido em classe 5.8.

Perno metal ≈ 2d

DIN 835





Dados técnicos

d	b_1	b2 =L-(x+3mm) t/m L≤	b_2:125mm<L≤200mm	b_2:L≤125mm	b2:L≥200mm	P	x
M6	12	20	24	18	-	1	2.5
M8	16	25	28	22	-	1.25	3.2
M10	20	28	32	26	45	1.5	3.8
M12	24	35	36	30	49	1.75	4.3
M16	32	45	44	38	57	2	5

4

Grupos de produtos

Rosca	Material	Código	Página
M	INOX A2	51285	4-34
M	INOX A4	55285	4-34

51285 **Perno metal ≈ 2d** **R09A**

Rosca Métrica
Material Aço inoxidável A2



RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X20*	200	51285.060.020	M8X50*	200	51285.080.050			
M6X50*	200	51285.060.050	M8X65*	200	51285.080.065	M12X70*	100	51285.120.070
			M8X90*	200	51285.080.090	M12X80*	100	51285.120.080
M8X20*	200	51285.080.020						
M8X25*	200	51285.080.025	M10X30*	100	51285.100.030	M16X45*	50	51285.160.045
M8X30*	200	51285.080.030	M10X35*	100	51285.100.035	M16X60*	50	51285.160.060
M8X35*	200	51285.080.035	M10X40*	100	51285.100.040	M16X85*	50	51285.160.085
M8X40*	200	51285.080.040	M10X45*	100	51285.100.045			
M8X45*	200	51285.080.045	M10X60*	100	51285.100.060			

55285 **Perno metal ≈ 2d** **R49A**

Rosca Métrica
Material Aço inoxidável A4



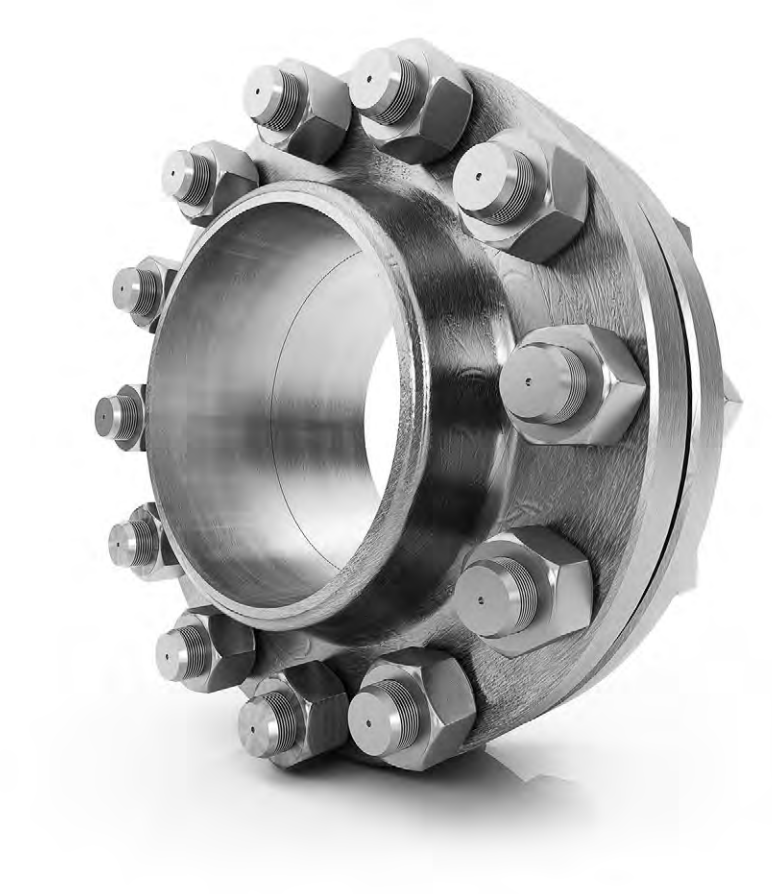
RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X35*	100	55285.100.035				M12X40*	100	55285.120.040

FABORY, PARCEIRO GLOBAL PARA PERNOS

Fabory oferece uma ampla gama de pernos em qualquer grau, diâmetro, comprimento ou rosca (imperial, bem como métrica)

- Os materiais podem variar do standard (por exemplo, aço / aço inoxidável) a altamente especializados (por exemplo, Hastelloy)
- Vários tratamentos de superfície
- Todas as normas e certificados exigidos
- Totalmente equipado para soluções á medida de pernos.
- disponível 24/7 fabricação de emergência
- Totalmente certificada, totalmente rastreável



Vá a **www.fabory.com** para conhecer as atualizações na gama de pernos

Pernos – varões roscados – porcas sextavadas

Para a indústria petroquímica

Grade

Para pernos e varões o mais comum é o Grade B7 de acordo com ASTM A19. Também podem ser fornecidos: aço ferritico Grade B16 de acordo com ASTM A193 (para temperaturas elevadas), Grade L7 de acordo com ASTM A320 (para temperaturas baixas) e aço inox austenitico Grade B8, B8M e B8T de acordo com ASTM A193 (aplicável a uma grande variedade de temperaturas). A porca sextavada correspondente é Grade 2H de acordo com ASTM A194, o Grade mais comum. Pode ser fornecido, extra stock aço ferritico Grade 4 e Grade 7 de acordo com ASTM A194 e aço inox austenitico Grade B8, B8M e B8T de acordo com ASTM A194.

O Grau 4 será retirado brevemente.
Grau 7 é um substituto aceitável do Grau 4.

Propriedades mecânicas

O ASTM A193 Grade B8, B8M en B8T de acordo com classe 1. A classe 2 pode ser fornecida sob consulta. As propriedades mecânicas mencionadas acima de ASTM A193 Grade B7 e B16, assim como, ASTM A320 Grade L7, são aplicáveis a diâmetros de 2 1/2 polegadas ou 65 mm.

Temperatura

A temperatura de operação máxima recomendada é de BS 4882: Grade B7 e L7 = 400°C / Grade B16 = 525°C / Grade B8, B8M e B8T = 575°C. A resistência mais baixa do aço A320 Grade L7 Cumpre no mínimo com 20J a –101°C (média mínima 27J).

Certificados

Pode ser solicitado com a entrega dos pernos e porcas correspondentes, um certificado 3.1 De acordo com EN 10204 (DIN 50049).

Especiais

Podem ser fornecidos sob consulta pernos com os seguintes tratamentos de superfície: zincado, galvanizado a quente, Xylan 1070 (PTFE c), camadas de zinco (Zincflake) etc. Materiais menos comuns como Duplex ASTM A453 Grade 660, Monel etc., também podem ser fornecidos sob pedido.

Pernos e varões roscados

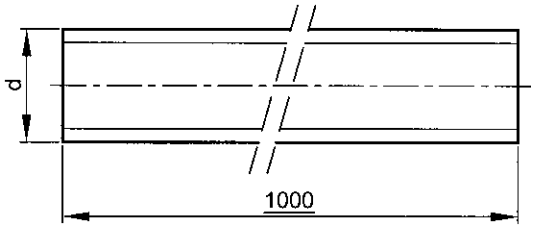
Os mais importantes elementos químicos									Materiais correspondentes			
Standard	Grade	C	Mn	Cr	Ni	Mo	V	Ti	AISI	AFNOR	DIN	BS
Aço ferritico												
ASTM A193	B7	0,37-0,49	0,65-1,10	0,75-1,20	–	0,15-0,25	–	–	4140/4142/4145	42CD4	42CrMo4	1506-621 Gr A
ASTM A193	B16	0,36-0,47	0,45-0,70	0,80-1,15	–	0,50-0,65	0,25-0,35	–	–	40CDV4-06	24CrMoV55	1506-661
ASTM A320	L7	0,38-0,48	0,75-1,00	0,80-1,10	–	0,15-0,25	–	–	4142/4145	42CD4	42CrMo4	1506-621 Gr A
Aço inox austenitico												
ASTM A193	B8	max. 0,08	max. 2,00	18,0-20,0	8,0-10,5	–	–	–	304	Z6CN18-09	X5CrNi18-09	1506-801 Gr B
ASTM A193	B8M	max. 0,08	max. 2,00	16,0-18,0	10,0-14,0	2,0-3,0	–	–	316	Z6CND17-11	X5CrNiMo18-10	1506-845
ASTM A193	B8T	max. 0,08	max. 2,00	17,0-19,0	9,0-12,0	–	–	min. 5 x C%	321	Z6CNT18-11	X10CrNiTi18-09	1506-821 Gr Ti

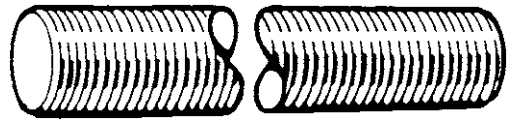
Propriedades mecânicas						
Norm	Grade	Força de tensão N/mm2	0,2% força de tensão N/mm2	Alongamento min. %	Redução de área min. %	Dureza HB
Aço ferritico						
ASTM A193	B7	860	720	16	50	max. 321
ASTM A193	B16	860	725	18	50	max. 321
ASTM A320	L7	860	725	16	50	–
Aço inox austenitico						
ASTM A193	B8	515	205	30	50	max. 223
ASTM A193	B8M	515	205	30	50	max. 223
ASTM A193	B8T	515	205	30	50	max. 223

Porcas sextavadas

Elementos mais importantes									Materiais correspondentes			
Standard	Grade	C	Mn	Cr	Ni	Mo	Ti	Dureza HB	AISI	AFNOR	DIN	BS
Aço ferritico												
ASTM A194	2H 4	min. 0,40	max.1,00	–	–	–	–	248-352	–	C45d	C45	1506-162
ASTM A194	7	0,40-0,50	0,70-0,90	–	–	0,20-0,30	–	248-352	–	–	24CrMo5	1506-240
ASTM A194	–	0,37-0,49	0,65-1,10	0,75-120	–	0,15-0,25	–	248-352	4140/4142/4145	42CD4	42CrMo4	1506-621 Gr A
Aço inox austenitico												
ASTM A194	8	max. 0,08	max. 2,00	18,0-20,0	8,0-10,5	–	–	126-300	304	Z6CN18-09	X5CrNi18-09	1506-801 Gr B
ASTM A194	8M	max. 0,08	max. 2,00	16,0-18,0	10,0-14,0	2,0-3,0	–	max. 223	316	Z6CND17-11	X5CrNiMo18-10	1506-845
ASTM A194	8T	max. 0,08	max. 2,00	17,0-19,0	9,0-12,0	–	min.5xC%	126-300	321	Z6CNT18-11	X10CrNiTi18-09	1506-821 Gr Ti

Varão roscado ASTM





Dados técnicos

d	Fios por polegada	d	Fios por polegada
1/4	20	1.1/4	8
5/16	18	1.3/8	8
3/8	16	1.1/2	8
7/16	14	1.5/8	8
1/2	13	1.3/4	8
9/16	12	1.7/8	8
5/8	11	2 Inch	8
3/4	10	2.1/4	8
7/8	9	2.1/2	8
1 Inch	8	2.3/4	8
1.1/8	8		

Grupos de produtos

Rosca	Material	Classe		Código	Página
UNC	Aço ASTM A193	Gr.B7	1 metro	22180	4-37
8 UN	Aço ASTM A193	Gr.B7	1 metro	22190	4-37

22180 **Varão roscado ASTM** **G09A**

Rosca Unified National Coarse
Material Aço ASTM A193
Classe Gr.B7



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4	1	22180.063.001	1/2	1	22180.127.001	7/8	1	22180.222.001
5/16	1	22180.079.001	5/8	1	22180.158.001	1 Inch	1	22180.254.001
3/8	1	22180.096.001	3/4	1	22180.191.001			

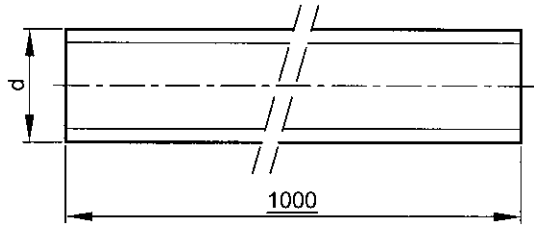
22190 **Varão roscado ASTM** **G09A**

Rosca 8 Unified National
Material Aço ASTM A193
Classe Gr.B7



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1.1/8	1	22190.285.001	1.5/8	1	22190.412.001	2.1/4	1	22190.571.001
1.1/4	1	22190.317.001	1.3/4	1	22190.444.001	2.1/2	1	22190.635.001
1.3/8	1	22190.349.001	1.7/8	1	22190.476.001	2.3/4	1	22190.698.001
1.1/2	1	22190.381.001	2 Inch	1	22190.508.001			

Varão roscado ASTM métrico





Dados técnicos

d	P	d	P
M10	1.5	M30	3.5
M12	1.75	M33	3.5
M14	2	M36	4
M16	2	M39	4
M18	2.5	M42	4.5
M20	2.5	M45	4.5
M22	2.5	M48	5
M24	3	M52	5
M27	3		

4

22100 **Varão roscado ASTM métrico** **G09A**

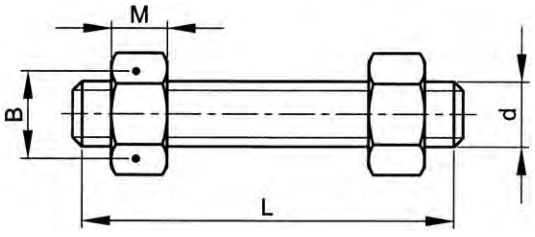
Rosca Métrica
Material Aço ASTM A193
Classe Gr.B7

RoHS

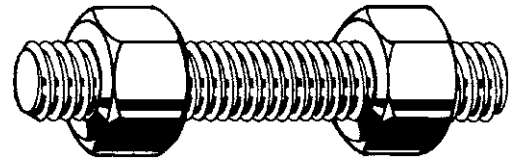


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M10	1	22100.100.001	M22	1	22100.220.001	M39	1	22100.390.001
M12	1	22100.120.001	M24	1	22100.240.001	M42	1	22100.420.001
M14	1	22100.140.001	M27	1	22100.270.001	M45	1	22100.450.001
M16	1	22100.160.001	M30	1	22100.300.001	M48	1	22100.480.001
M18	1	22100.180.001	M33	1	22100.330.001	M52	1	22100.520.001
M20	1	22100.200.001	M36	1	22100.360.001			

Perno com 2 porcas sextavadas



ASME **B16.5**
BS 4882



Dados técnicos

d	B	Fios por polegada	M	d	B	Fios por polegada	M
3/8	11/16	16	9	1.1/2	2.3/8	8	37.3
1/2	7/8	13	12.3	1.5/8	2.9/16	8	40.5
5/8	1.1/16	11	15.5	1.3/4	2.3/4	8	43.6
3/4	1.1/4	10	18.7	1.7/8	2.15/16	8	46.8
7/8	1.7/16	9	21.8	2 Inch	3.1/8	8	50.0
1 Inch	1.5/8	8	25.0	2.1/4	3.1/2	8	56.0
1.1/8	1.13/16	8	28.2	2.1/2	3.7/8	8	62.3
1.1/4	2.IN.	8	31.0	2.3/4	4.1/4	8	68.7
1.3/8	2.3/16	8	34.1	3 Inch	4.5/8	8	75.0

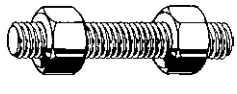
- As tolerâncias do comprimento dos pernos são de acordo com ASTM A 193 Par. 11.
- L (C) é o comprimento nominal do perno desde o primeiro ao último fio de rosca, excluindo o chanfro em cada extremidade.

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
UNC	Sextavado	Aço ASTM A193 - ASTM A194	Gr.B7 - Gr.2H		22080	4-39
UNC	Sextavado	Aço ASTM A193 - ASTM A194	Gr.B7 - Gr.2H	Zn	22082	4-41
8 UN	Sextavado	Aço ASTM A193 - ASTM A194	Gr.B7 - Gr.2H		22090	4-42
UNC	Sextavado	Aço ASTM A320 - ASTM A194	Gr.L7 - Gr.4		22320	4-45
8 UN	Sextavado	Aço ASTM A320 - ASTM A194	Gr.L7 - Gr.4		22330	4-47
UNC	Sextavado	INOX ASTM A193 - ASTM A194	Gr.B8 Cl.1 - Gr.8		22534	4-50
UNC	Sextavado	INOX ASTM A193 - ASTM A194	Gr.B8M Cl.2 - Gr.8M		22538	4-51
UNC	Sextavado	Aço ASTM A193 - ASTM A194	Gr.B16 - Gr.2H		22551	4-53
UNC	Sextavado	Aço ASTM A193 - ASTM A194	Gr.B16 - Gr.4		22554	4-53

22080 **Perno com 2 porcas sextavadas** **G09A**

Rosca Unified National Coarse
Material Aço ASTM A193 - ASTM A194
Classe Gr.B7 - Gr.2H



RoHS

d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo
3/8X25 (1)	1	22080.096.025	1/2X140 (5.1/2)	1	22080.127.139	5/8X80 (3.1/4)	1	22080.158.082
3/8X40 (1.1/2)	1	22080.096.038	1/2X145 (5.3/4)	1	22080.127.146	5/8X85 (3.3/8)	1	22080.158.085
3/8X45 (1.3/4)	1	22080.096.044	1/2X150 (6)	1	22080.127.152	5/8X90 (3.1/2)	1	22080.158.088
3/8X60 (2.3/8)	1	22080.096.060	1/2X155 (6.1/8)	1	22080.127.155	5/8X95 (3.3/4)	1	22080.158.095
3/8X95 (3.3/4)	1	22080.096.095	1/2X160 (6.1/4)	1	22080.127.158	5/8X100 (4)	1	22080.158.101
3/8X175 (6.7/8)	1	22080.096.175	1/2X165 (6.1/2)	1	22080.127.165	5/8X105 (4.1/8)	1	22080.158.105
3/8X185 (7.1/4)	1	22080.096.184	1/2X170 (6.3/4)	1	22080.127.171	5/8X110 (4.1/4)	1	22080.158.107
			1/2X175 (6.7/8)	1	22080.127.175	5/8X115 (4.1/2)	1	22080.158.114
1/2X40 (1.1/2)	1	22080.127.038	1/2X180 (7)	1	22080.127.177	5/8X120 (4.3/4)	1	22080.158.120
1/2X45 (1.3/4)	1	22080.127.044	1/2X185 (7.1/4)	1	22080.127.184	5/8X125 (5)	1	22080.158.127
1/2X50 (2)	1	22080.127.050	1/2X190 (7.1/2)	1	22080.127.190	5/8X130 (5.1/8)	1	22080.158.130
1/2X55 (2.1/4)	1	22080.127.057	1/2X195 (7.3/4)	1	22080.127.196	5/8X135 (5.1/4)	1	22080.158.133
1/2X60 (2.3/8)	1	22080.127.060	1/2X200 (8)	1	22080.127.203	5/8X140 (5.1/2)	1	22080.158.139
1/2X65 (2.1/2)	1	22080.127.063	1/2X205 (8.1/8)	1	22080.127.205	5/8X145 (5.3/4)	1	22080.158.146
1/2X70 (2.3/4)	1	22080.127.069	1/2X210 (8.1/4)	1	22080.127.209	5/8X150 (6)	1	22080.158.152
1/2X75 (3)	1	22080.127.076	1/2X225 (8.7/8)	1	22080.127.225	5/8X155 (6.1/8)	1	22080.158.155
1/2X80 (3.1/4)	1	22080.127.082	1/2X250 (9.3/4)	1	22080.127.247	5/8X160 (6.1/4)	1	22080.158.158
1/2X85 (3.3/8)	1	22080.127.085	1/2X280 (11)	1	22080.127.279	5/8X165 (6.1/2)	1	22080.158.165
1/2X90 (3.1/2)	1	22080.127.088				5/8X170 (6.3/4)	1	22080.158.171
1/2X95 (3.3/4)	1	22080.127.095	5/8X40 (1.1/2)	1	22080.158.038	5/8X175 (6.7/8)	1	22080.158.175
1/2X100 (4)	1	22080.127.101	5/8X45 (1.3/4)	1	22080.158.044	5/8X180 (7)	1	22080.158.177
1/2X105 (4.1/8)	1	22080.127.105	5/8X50 (2)	1	22080.158.050	5/8X185 (7.1/4)	1	22080.158.184
1/2X110 (4.1/4)	1	22080.127.107	5/8X55 (2.1/4)	1	22080.158.057	5/8X190 (7.1/2)	1	22080.158.190
1/2X115 (4.1/2)	1	22080.127.114	5/8X60 (2.3/8)	1	22080.158.060	5/8X195 (7.3/4)	1	22080.158.196
1/2X120 (4.3/4)	1	22080.127.120	5/8X65 (2.1/2)	1	22080.158.063	5/8X200 (8)	1	22080.158.203
1/2X125 (5)	1	22080.127.127	5/8X70 (2.3/4)	1	22080.158.069	5/8X205 (8.1/8)	1	22080.158.205
1/2X130 (5.1/8)	1	22080.127.130	5/8X75 (3)	1	22080.158.076	5/8X210 (8.1/4)	1	22080.158.209
1/2X135 (5.1/4)	1	22080.127.133						

22080 Perno com 2 porcas sextavadas ←

d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo
5/8X215 (8.1/2)	1	22080.158.215	3/4X310 (12.1/4)	1	22080.191.311	7/8X315 (12.1/2)	1	22080.222.317
5/8X220 (8.3/4)	1	22080.158.222	3/4X315 (12.1/2)	1	22080.191.317	7/8X320 (12.5/8)	1	22080.222.320
5/8X225 (8.7/8)	1	22080.158.225	3/4X320 (12.5/8)	1	22080.191.320	7/8X325 (12.3/4)	1	22080.222.323
5/8X230 (9)	1	22080.158.228	3/4X325 (12.3/4)	1	22080.191.323	7/8X330 (13)	1	22080.222.330
5/8X235 (9.1/4)	1	22080.158.234	3/4X330 (13)	1	22080.191.330	7/8X335 (13.1/4)	1	22080.222.337
5/8X240 (9.1/2)	1	22080.158.241	3/4X335 (13.1/4)	1	22080.191.337	7/8X340 (13.3/8)	1	22080.222.340
5/8X245 (9.5/8)	1	22080.158.245	3/4X340 (13.3/8)	1	22080.191.340	7/8X345 (13.1/2)	1	22080.222.342
5/8X250 (9.3/4)	1	22080.158.247	3/4X345 (13.1/2)	1	22080.191.342	7/8X350 (13.3/4)	1	22080.222.349
5/8X255 (10)	1	22080.158.254	3/4X350 (13.3/4)	1	22080.191.349	7/8X355 (14)	1	22080.222.355
5/8X260 (10.1/4)	1	22080.158.260	3/4X355 (14)	1	22080.191.355	7/8X360 (14.1/4)	1	22080.222.361
5/8X265 (10.1/2)	1	22080.158.266	3/4X360 (14.1/4)	1	22080.191.361	7/8X365 (14.3/8)	1	22080.222.365
5/8X270 (10.5/8)	1	22080.158.270	3/4X365 (14.3/8)	1	22080.191.365	7/8X370 (14.1/2)	1	22080.222.368
5/8X275 (10.3/4)	1	22080.158.273	3/4X370 (14.1/2)	1	22080.191.368	7/8X375 (14.3/4)	1	22080.222.374
5/8X280 (11)	1	22080.158.279	3/4X375 (14.3/4)	1	22080.191.374	7/8X380 (15)	1	22080.222.381
5/8X285 (11.1/4)	1	22080.158.285	3/4X380 (15)	1	22080.191.381	7/8X385 (15.1/4)	1	22080.222.387
5/8X290 (11.3/8)	1	22080.158.290	3/4X385 (15.1/4)	1	22080.191.387	7/8X390 (15.3/8)	1	22080.222.390
5/8X295 (11.1/2)	1	22080.158.292	3/4X390 (15.3/8)	1	22080.191.390	7/8X395 (15.1/2)	1	22080.222.393
5/8X300 (11.3/4)	1	22080.158.298	3/4X395 (15.1/2)	1	22080.191.393	7/8X400 (15.3/4)	1	22080.222.400
5/8X305 (12)	1	22080.158.304	3/4X400 (15.3/4)	1	22080.191.400	7/8X405 (16)	1	22080.222.406
5/8X310 (12.1/4)	1	22080.158.311	3/4X405 (16)	1	22080.191.406	7/8X410 (16.1/8)	1	22080.222.410
5/8X315 (12.1/2)	1	22080.158.317	3/4X410 (16.1/8)	1	22080.191.410	7/8X415 (16.1/4)	1	22080.222.412
5/8X320 (12.5/8)	1	22080.158.320	3/4X415 (16.1/4)	1	22080.191.412	7/8X420 (16.1/2)	1	22080.222.419
5/8X325 (12.3/4)	1	22080.158.323	3/4X420 (16.1/2)	1	22080.191.419	7/8X425 (16.3/4)	1	22080.222.425
5/8X330 (13)	1	22080.158.330	3/4X430 (17)	1	22080.191.431	7/8X430 (17)	1	22080.222.431
5/8X335 (13.1/4)	1	22080.158.336	3/4X440 (17.1/4)	1	22080.191.438	7/8X440 (17.1/4)	1	22080.222.438
5/8X340 (13.3/8)	1	22080.158.340	3/4X450 (17.3/4)	1	22080.191.450	7/8X450 (17.3/4)	1	22080.222.450
5/8X370 (14.1/2)	1	22080.158.368	3/4X455 (18)	1	22080.191.457	7/8X455 (18)	1	22080.222.457
5/8X375 (14.3/4)	1	22080.158.374	3/4X470 (18.1/2)	1	22080.191.469	7/8X470 (18.1/2)	1	22080.222.469
5/8X385 (15.1/4)	1	22080.158.387	3/4X480 (18.7/8)	1	22080.191.480	7/8X485 (19)	1	22080.222.482
			3/4X485 (19)	1	22080.191.482	7/8X495 (19.1/2)	1	22080.222.495
3/4X50 (2)	1	22080.191.050	3/4X580 (22.7/8)	1	22080.191.580	7/8X510 (20)	1	22080.222.508
3/4X55 (2.1/4)	1	22080.191.057	3/4X625 (24.5/8)	1	22080.191.625	7/8X515 (20.1/4)	1	22080.222.514
3/4X60 (2.3/8)	1	22080.191.060				7/8X525 (20.3/4)	1	22080.222.527
3/4X65 (2.1/2)	1	22080.191.063	7/8X70 (2.3/4)	1	22080.222.069			
3/4X70 (2.3/4)	1	22080.191.069	7/8X75 (3)	1	22080.222.076	1.IN.X80 (3.1/4)	1	22080.254.082
3/4X75 (3)	1	22080.191.076	7/8X85 (3.1/4)	1	22080.222.082	1.IN.X85 (3.3/8)	1	22080.254.085
3/4X80 (3.1/4)	1	22080.191.082	7/8X85 (3.3/8)	1	22080.222.085	1.IN.X90 (3.1/2)	1	22080.254.088
3/4X85 (3.3/8)	1	22080.191.085	7/8X90 (3.1/2)	1	22080.222.088	1.IN.X95 (3.3/4)	1	22080.254.095
3/4X90 (3.1/2)	1	22080.191.088	7/8X95 (3.3/4)	1	22080.222.095	1.IN.X100 (4)	1	22080.254.101
3/4X95 (3.3/4)	1	22080.191.095	7/8X100 (4)	1	22080.222.101	1.IN.X105 (4.1/8)	1	22080.254.105
3/4X100 (4)	1	22080.191.101	7/8X105 (4.1/8)	1	22080.222.105	1.IN.X110 (4.1/4)	1	22080.254.107
3/4X105 (4.1/8)	1	22080.191.105	7/8X110 (4.1/4)	1	22080.222.107	1.IN.X115 (4.1/2)	1	22080.254.114
3/4X110 (4.1/4)	1	22080.191.107	7/8X115 (4.1/2)	1	22080.222.114	1.IN.X120 (4.3/4)	1	22080.254.120
3/4X115 (4.1/2)	1	22080.191.114	7/8X120 (4.3/4)	1	22080.222.120	1.IN.X125 (5)	1	22080.254.127
3/4X120 (4.3/4)	1	22080.191.120	7/8X125 (5)	1	22080.222.127	1.IN.X130 (5.1/8)	1	22080.254.130
3/4X125 (5)	1	22080.191.127	7/8X130 (5.1/8)	1	22080.222.130	1.IN.X135 (5.1/4)	1	22080.254.133
3/4X130 (5.1/8)	1	22080.191.130	7/8X135 (5.1/4)	1	22080.222.133	1.IN.X140 (5.1/2)	1	22080.254.139
3/4X135 (5.1/4)	1	22080.191.133	7/8X140 (5.1/2)	1	22080.222.139	1.IN.X145 (5.3/4)	1	22080.254.146
3/4X140 (5.1/2)	1	22080.191.139	7/8X145 (5.3/4)	1	22080.222.146	1.IN.X150 (6)	1	22080.254.152
3/4X145 (5.3/4)	1	22080.191.146	7/8X150 (6)	1	22080.222.152	1.IN.X155 (6.1/8)	1	22080.254.155
3/4X150 (6)	1	22080.191.152	7/8X155 (6.1/8)	1	22080.222.155	1.IN.X160 (6.1/4)	1	22080.254.158
3/4X155 (6.1/8)	1	22080.191.155	7/8X160 (6.1/4)	1	22080.222.158	1.IN.X165 (6.1/2)	1	22080.254.165
3/4X160 (6.1/4)	1	22080.191.158	7/8X165 (6.1/2)	1	22080.222.165	1.IN.X170 (6.3/4)	1	22080.254.171
3/4X165 (6.1/2)	1	22080.191.165	7/8X170 (6.3/4)	1	22080.222.171	1.IN.X175 (6.7/8)	1	22080.254.175
3/4X170 (6.3/4)	1	22080.191.171	7/8X175 (6.7/8)	1	22080.222.175	1.IN.X180 (7)	1	22080.254.177
3/4X175 (6.7/8)	1	22080.191.175	7/8X180 (7)	1	22080.222.177	1.IN.X185 (7.1/4)	1	22080.254.184
3/4X180 (7)	1	22080.191.177	7/8X185 (7.1/4)	1	22080.222.184	1.IN.X190 (7.1/2)	1	22080.254.190
3/4X185 (7.1/4)	1	22080.191.184	7/8X190 (7.1/2)	1	22080.222.190	1.IN.X195 (7.3/4)	1	22080.254.196
3/4X190 (7.1/2)	1	22080.191.190	7/8X195 (7.3/4)	1	22080.222.196	1.IN.X200 (8)	1	22080.254.203
3/4X195 (7.3/4)	1	22080.191.196	7/8X200 (8)	1	22080.222.203	1.IN.X205 (8.1/8)	1	22080.254.205
3/4X200 (8)	1	22080.191.203	7/8X205 (8.1/8)	1	22080.222.205	1.IN.X210 (8.1/4)	1	22080.254.209
3/4X205 (8.1/8)	1	22080.191.205	7/8X210 (8.1/4)	1	22080.222.209	1.IN.X215 (8.1/2)	1	22080.254.215
3/4X210 (8.1/4)	1	22080.191.209	7/8X215 (8.1/2)	1	22080.222.215	1.IN.X220 (8.3/4)	1	22080.254.222
3/4X215 (8.1/2)	1	22080.191.215	7/8X220 (8.3/4)	1	22080.222.222	1.IN.X225 (8.7/8)	1	22080.254.225
3/4X220 (8.3/4)	1	22080.191.222	7/8X225 (8.7/8)	1	22080.222.225	1.IN.X230 (9)	1	22080.254.228
3/4X225 (8.7/8)	1	22080.191.225	7/8X230 (9)	1	22080.222.228	1.IN.X235 (9.1/4)	1	22080.254.234
3/4X230 (9)	1	22080.191.228	7/8X235 (9.1/4)	1	22080.222.234	1.IN.X240 (9.1/2)	1	22080.254.241
3/4X235 (9.1/4)	1	22080.191.234	7/8X240 (9.1/2)	1	22080.222.241	1.IN.X245 (9.5/8)	1	22080.254.245
3/4X240 (9.1/2)	1	22080.191.241	7/8X245 (9.5/8)	1	22080.222.245	1.IN.X250 (9.3/4)	1	22080.254.247
3/4X245 (9.5/8)	1	22080.191.245	7/8X250 (9.3/4)	1	22080.222.247	1.IN.X255 (10)	1	22080.254.254
3/4X250 (9.3/4)	1	22080.191.247	7/8X255 (10)	1	22080.222.254	1.IN.X260 (10.1/4)	1	22080.254.260
3/4X255 (10)	1	22080.191.254	7/8X260 (10.1/4)	1	22080.222.260	1.IN.X265 (10.1/2)	1	22080.254.266
3/4X260 (10.1/4)	1	22080.191.260	7/8X265 (10.1/2)	1	22080.222.266	1.IN.X270 (10.5/8)	1	22080.254.270
3/4X265 (10.1/2)	1	22080.191.266	7/8X270 (10.5/8)	1	22080.222.270	1.IN.X275 (10.3/4)	1	22080.254.273
3/4X270 (10.5/8)	1	22080.191.270	7/8X275 (10.3/4)	1	22080.222.273	1.IN.X280 (11)	1	22080.254.279
3/4X275 (10.3/4)	1	22080.191.273	7/8X280 (11)	1	22080.222.279	1.IN.X285 (11.1/4)	1	22080.254.285
3/4X280 (11)	1	22080.191.279	7/8X285 (11.1/4)	1	22080.222.285	1.IN.X290 (11.3/8)	1	22080.254.290
3/4X285 (11.1/4)	1	22080.191.285	7/8X290 (11.3/8)	1	22080.222.290	1.IN.X295 (11.1/2)	1	22080.254.292
3/4X290 (11.3/8)	1	22080.191.290	7/8X295 (11.1/2)	1	22080.222.292	1.IN.X300 (11.3/4)	1	22080.254.298
3/4X295 (11.1/2)	1	22080.191.292	7/8X300 (11.3/4)	1	22080.222.298	1.IN.X305 (12)	1	22080.254.304
3/4X300 (11.3/4)	1	22080.191.298	7/8X305 (12)	1	22080.222.304	1.IN.X310 (12.1/4)	1	22080.254.311
3/4X305 (12)	1	22080.191.304	7/8X310 (12.1/4)	1	22080.222.311	1.IN.X315 (12.1/2)	1	22080.254.317

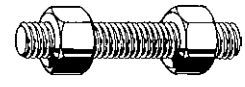
22080 Perno com 2 porcas sextavadas

d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo
1.IN.X320 (12.5/8)	1	22080.254.320	1.IN.X380 (15)	1	22080.254.381	1.IN.X445 (17.1/2)	1	22080.254.444
1.IN.X325 (12.3/4)	1	22080.254.323	1.IN.X385 (15.1/4)	1	22080.254.387	1.IN.X450 (17.3/4)	1	22080.254.450
1.IN.X330 (13)	1	22080.254.330	1.IN.X390 (15.3/8)	1	22080.254.390	1.IN.X455 (18)	1	22080.254.457
1.IN.X335 (13.1/4)	1	22080.254.337	1.IN.X395 (15.1/2)	1	22080.254.393	1.IN.X460 (18.1/8)	1	22080.254.460
1.IN.X340 (13.3/8)	1	22080.254.340	1.IN.X400 (15.3/4)	1	22080.254.400	1.IN.X470 (18.1/2)	1	22080.254.469
1.IN.X345 (13.1/2)	1	22080.254.342	1.IN.X410 (16.1/8)	1	22080.254.410	1.IN.X485 (19)	1	22080.254.482
1.IN.X350 (13.3/4)	1	22080.254.349	1.IN.X415 (16.1/4)	1	22080.254.412	1.IN.X505 (19.7/8)	1	22080.254.505
1.IN.X355 (14)	1	22080.254.355	1.IN.X420 (16.1/2)	1	22080.254.419	1.IN.X515 (20.1/4)	1	22080.254.514
1.IN.X360 (14.1/4)	1	22080.254.361	1.IN.X425 (16.3/4)	1	22080.254.425	1.IN.X520 (20.1/2)	1	22080.254.520
1.IN.X365 (14.3/8)	1	22080.254.365	1.IN.X430 (17)	1	22080.254.431	1.IN.X595 (23.1/2)	1	22080.254.596
1.IN.X370 (14.1/2)	1	22080.254.368	1.IN.X435 (17.1/8)	1	22080.254.435	1.IN.X730 (28.3/4)	1	22080.254.730
1.IN.X375 (14.3/4)	1	22080.254.374	1.IN.X440 (17.1/4)	1	22080.254.438			

22082 Perno com 2 porcas sextavadas G09A

Rosca Unified National Coarse
Material Aço ASTM A193 - ASTM A194
Classe Gr.B7 - Gr.2H
Tratamento sup. Zincado

RoHS



d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo
3/8X25 (1)	1	22082.096.025	5/8X70 (2.3/4)	1	22082.158.069			
3/8X40 (1.1/2)	1	22082.096.038	5/8X75 (3)	1	22082.158.076	3/4X50 (2)	1	22082.191.050
3/8X45 (1.3/4)	1	22082.096.044	5/8X80 (3.1/4)	1	22082.158.082	3/4X55 (2.1/4)	1	22082.191.057
3/8X60 (2.3/8)	1	22082.096.060	5/8X85 (3.3/8)	1	22082.158.085	3/4X60 (2.3/8)	1	22082.191.060
3/8X65 (2.1/2)	1	22082.096.063	5/8X90 (3.1/2)	1	22082.158.088	3/4X65 (2.1/2)	1	22082.191.063
3/8X70 (2.3/4)	1	22082.096.069	5/8X95 (3.3/4)	1	22082.158.095	3/4X70 (2.3/4)	1	22082.191.069
3/8X80 (3.1/4)	1	22082.096.082	5/8X100 (4)	1	22082.158.101	3/4X75 (3)	1	22082.191.076
3/8X95 (3.3/4)	1	22082.096.095	5/8X105 (4.1/8)	1	22082.158.105	3/4X80 (3.1/4)	1	22082.191.082
3/8X100 (4)	1	22082.096.101	5/8X110 (4.1/4)	1	22082.158.107	3/4X85 (3.3/8)	1	22082.191.085
3/8X175 (6.7/8)	1	22082.096.175	5/8X115 (4.1/2)	1	22082.158.114	3/4X90 (3.1/2)	1	22082.191.088
3/8X185 (7.1/4)	1	22082.096.184	5/8X120 (4.3/4)	1	22082.158.120	3/4X95 (3.3/4)	1	22082.191.095
			5/8X125 (5)	1	22082.158.127	3/4X100 (4)	1	22082.191.101
1/2X30 (1.1/4)	1	22082.127.031	5/8X130 (5.1/8)	1	22082.158.130	3/4X105 (4.1/8)	1	22082.191.105
1/2X40 (1.1/2)	1	22082.127.038	5/8X135 (5.1/4)	1	22082.158.133	3/4X110 (4.1/4)	1	22082.191.107
1/2X45 (1.3/4)	1	22082.127.044	5/8X140 (5.1/2)	1	22082.158.139	3/4X115 (4.1/2)	1	22082.191.114
1/2X50 (2)	1	22082.127.050	5/8X145 (5.3/4)	1	22082.158.146	3/4X120 (4.3/4)	1	22082.191.120
1/2X55 (2.1/4)	1	22082.127.057	5/8X150 (6)	1	22082.158.152	3/4X125 (5)	1	22082.191.127
1/2X60 (2.3/8)	1	22082.127.060	5/8X155 (6.1/8)	1	22082.158.155	3/4X130 (5.1/8)	1	22082.191.130
1/2X65 (2.1/2)	1	22082.127.063	5/8X160 (6.1/4)	1	22082.158.158	3/4X135 (5.1/4)	1	22082.191.133
1/2X70 (2.3/4)	1	22082.127.069	5/8X165 (6.1/2)	1	22082.158.165	3/4X140 (5.1/2)	1	22082.191.139
1/2X75 (3)	1	22082.127.076	5/8X170 (6.3/4)	1	22082.158.171	3/4X145 (5.3/4)	1	22082.191.146
1/2X80 (3.1/4)	1	22082.127.082	5/8X175 (6.7/8)	1	22082.158.175	3/4X150 (6)	1	22082.191.152
1/2X85 (3.3/8)	1	22082.127.085	5/8X180 (7)	1	22082.158.177	3/4X155 (6.1/8)	1	22082.191.155
1/2X90 (3.1/2)	1	22082.127.088	5/8X185 (7.1/4)	1	22082.158.184	3/4X160 (6.1/4)	1	22082.191.158
1/2X95 (3.3/4)	1	22082.127.095	5/8X190 (7.1/2)	1	22082.158.190	3/4X165 (6.1/2)	1	22082.191.165
1/2X100 (4)	1	22082.127.101	5/8X195 (7.3/4)	1	22082.158.196	3/4X170 (6.3/4)	1	22082.191.171
1/2X105 (4.1/8)	1	22082.127.105	5/8X200 (8)	1	22082.158.203	3/4X175 (6.7/8)	1	22082.191.175
1/2X110 (4.1/4)	1	22082.127.107	5/8X205 (8.1/8)	1	22082.158.205	3/4X180 (7)	1	22082.191.177
1/2X115 (4.1/2)	1	22082.127.114	5/8X210 (8.1/4)	1	22082.158.209	3/4X185 (7.1/4)	1	22082.191.184
1/2X120 (4.3/4)	1	22082.127.120	5/8X215 (8.1/2)	1	22082.158.215	3/4X190 (7.1/2)	1	22082.191.190
1/2X125 (5)	1	22082.127.127	5/8X220 (8.3/4)	1	22082.158.222	3/4X195 (7.3/4)	1	22082.191.196
1/2X130 (5.1/8)	1	22082.127.130	5/8X225 (8.7/8)	1	22082.158.225	3/4X200 (8)	1	22082.191.203
1/2X135 (5.1/4)	1	22082.127.133	5/8X230 (9)	1	22082.158.228	3/4X205 (8.1/8)	1	22082.191.205
1/2X140 (5.1/2)	1	22082.127.139	5/8X235 (9.1/4)	1	22082.158.234	3/4X210 (8.1/4)	1	22082.191.209
1/2X145 (5.3/4)	1	22082.127.146	5/8X240 (9.1/2)	1	22082.158.241	3/4X215 (8.1/2)	1	22082.191.215
1/2X150 (6)	1	22082.127.152	5/8X245 (9.5/8)	1	22082.158.245	3/4X220 (8.3/4)	1	22082.191.222
1/2X155 (6.1/8)	1	22082.127.155	5/8X250 (9.3/4)	1	22082.158.247	3/4X225 (8.7/8)	1	22082.191.225
1/2X160 (6.1/4)	1	22082.127.158	5/8X255 (10)	1	22082.158.254	3/4X230 (9)	1	22082.191.228
1/2X165 (6.1/2)	1	22082.127.165	5/8X260 (10.1/4)	1	22082.158.260	3/4X235 (9.1/4)	1	22082.191.234
1/2X170 (6.3/4)	1	22082.127.171	5/8X265 (10.1/2)	1	22082.158.266	3/4X240 (9.1/2)	1	22082.191.241
1/2X175 (6.7/8)	1	22082.127.175	5/8X270 (10.5/8)	1	22082.158.270	3/4X245 (9.5/8)	1	22082.191.245
1/2X180 (7)	1	22082.127.177	5/8X275 (10.3/4)	1	22082.158.273	3/4X250 (9.3/4)	1	22082.191.247
1/2X185 (7.1/4)	1	22082.127.184	5/8X280 (11)	1	22082.158.279	3/4X255 (10)	1	22082.191.254
1/2X190 (7.1/2)	1	22082.127.190	5/8X285 (11.1/4)	1	22082.158.285	3/4X260 (10.1/4)	1	22082.191.260
1/2X195 (7.3/4)	1	22082.127.196	5/8X290 (11.3/8)	1	22082.158.290	3/4X265 (10.1/2)	1	22082.191.266
1/2X200 (8)	1	22082.127.203	5/8X295 (11.1/2)	1	22082.158.292	3/4X270 (10.5/8)	1	22082.191.270
1/2X205 (8.1/8)	1	22082.127.205	5/8X300 (11.3/4)	1	22082.158.298	3/4X275 (10.3/4)	1	22082.191.273
1/2X210 (8.1/4)	1	22082.127.209	5/8X305 (12)	1	22082.158.304	3/4X280 (11)	1	22082.191.279
1/2X225 (8.7/8)	1	22082.127.225	5/8X310 (12.1/4)	1	22082.158.311	3/4X285 (11.1/4)	1	22082.191.285
1/2X250 (9.3/4)	1	22082.127.247	5/8X315 (12.1/2)	1	22082.158.317	3/4X290 (11.3/8)	1	22082.191.290
1/2X280 (11)	1	22082.127.279	5/8X320 (12.5/8)	1	22082.158.320	3/4X295 (11.1/2)	1	22082.191.292
			5/8X325 (12.3/4)	1	22082.158.323	3/4X300 (11.3/4)	1	22082.191.298
5/8X40 (1.1/2)	1	22082.158.038	5/8X330 (13)	1	22082.158.330	3/4X305 (12)	1	22082.191.304
5/8X45 (1.3/4)	1	22082.158.044	5/8X335 (13.1/4)	1	22082.158.337	3/4X310 (12.1/4)	1	22082.191.311
5/8X50 (2)	1	22082.158.050	5/8X340 (13.3/8)	1	22082.158.340	3/4X315 (12.1/2)	1	22082.191.317
5/8X55 (2.1/4)	1	22082.158.057	5/8X370 (14.1/2)	1	22082.158.368	3/4X320 (12.3/8)	1	22082.191.320
5/8X60 (2.3/8)	1	22082.158.060	5/8X375 (14.3/4)	1	22082.158.374	3/4X325 (12.3/4)	1	22082.191.323
5/8X65 (2.1/2)	1	22082.158.063	5/8X385 (15.1/4)	1	22082.158.387	3/4X330 (13)	1	22082.191.330

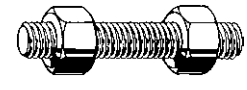
22082 Perno com 2 porcas sextavadas

d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo
3/4X335 (13.1/4)	1	22082.191.337	7/8X255 (10)	1	22082.222.254	1.IN.X180 (7)	1	22082.254.177
3/4X340 (13.3/8)	1	22082.191.340	7/8X260 (10.1/4)	1	22082.222.260	1.IN.X185 (7.1/4)	1	22082.254.184
3/4X345 (13.1/2)	1	22082.191.342	7/8X265 (10.1/2)	1	22082.222.266	1.IN.X190 (7.1/2)	1	22082.254.190
3/4X350 (13.3/4)	1	22082.191.349	7/8X270 (10.5/8)	1	22082.222.270	1.IN.X195 (7.3/4)	1	22082.254.196
3/4X355 (14)	1	22082.191.355	7/8X275 (10.3/4)	1	22082.222.273	1.IN.X200 (8)	1	22082.254.203
3/4X360 (14.1/4)	1	22082.191.361	7/8X280 (11)	1	22082.222.279	1.IN.X205 (8.1/8)	1	22082.254.205
3/4X365 (14.3/8)	1	22082.191.365	7/8X285 (11.1/4)	1	22082.222.285	1.IN.X210 (8.1/4)	1	22082.254.209
3/4X370 (14.1/2)	1	22082.191.368	7/8X290 (11.3/8)	1	22082.222.290	1.IN.X215 (8.1/2)	1	22082.254.215
3/4X375 (14.3/4)	1	22082.191.374	7/8X295 (11.1/2)	1	22082.222.292	1.IN.X220 (8.3/4)	1	22082.254.222
3/4X380 (15)	1	22082.191.381	7/8X300 (11.3/4)	1	22082.222.298	1.IN.X225 (8.7/8)	1	22082.254.225
3/4X385 (15.1/4)	1	22082.191.387	7/8X305 (12)	1	22082.222.304	1.IN.X230 (9)	1	22082.254.228
3/4X390 (15.3/8)	1	22082.191.390	7/8X310 (12.1/4)	1	22082.222.311	1.IN.X235 (9.1/4)	1	22082.254.234
3/4X395 (15.1/2)	1	22082.191.393	7/8X315 (12.1/2)	1	22082.222.317	1.IN.X240 (9.1/2)	1	22082.254.241
3/4X400 (15.3/4)	1	22082.191.400	7/8X320 (12.5/8)	1	22082.222.320	1.IN.X245 (9.5/8)	1	22082.254.245
3/4X405 (16)	1	22082.191.406	7/8X325 (12.3/4)	1	22082.222.323	1.IN.X250 (9.3/4)	1	22082.254.247
3/4X410 (16.1/8)	1	22082.191.410	7/8X330 (13)	1	22082.222.330	1.IN.X255 (10)	1	22082.254.254
3/4X415 (16.1/4)	1	22082.191.412	7/8X335 (13.1/4)	1	22082.222.337	1.IN.X260 (10.1/4)	1	22082.254.260
3/4X420 (16.1/2)	1	22082.191.419	7/8X340 (13.3/8)	1	22082.222.340	1.IN.X265 (10.1/2)	1	22082.254.266
3/4X430 (17)	1	22082.191.431	7/8X345 (13.1/2)	1	22082.222.342	1.IN.X270 (10.5/8)	1	22082.254.270
3/4X440 (17.1/4)	1	22082.191.438	7/8X350 (13.3/4)	1	22082.222.349	1.IN.X275 (10.3/4)	1	22082.254.273
3/4X450 (17.3/4)	1	22082.191.450	7/8X355 (14)	1	22082.222.355	1.IN.X280 (11)	1	22082.254.279
3/4X455 (18)	1	22082.191.457	7/8X360 (14.1/4)	1	22082.222.361	1.IN.X285 (11.1/4)	1	22082.254.285
3/4X470 (18.1/2)	1	22082.191.469	7/8X365 (14.3/8)	1	22082.222.365	1.IN.X290 (11.3/8)	1	22082.254.290
3/4X480 (18.7/8)	1	22082.191.480	7/8X370 (14.1/2)	1	22082.222.368	1.IN.X295 (11.1/2)	1	22082.254.292
3/4X485 (19)	1	22082.191.482	7/8X375 (14.3/4)	1	22082.222.375	1.IN.X300 (11.3/4)	1	22082.254.298
3/4X580 (22.7/8)	1	22082.191.580	7/8X380 (15)	1	22082.222.381	1.IN.X305 (12)	1	22082.254.304
3/4X625 (24.5/8)	1	22082.191.625	7/8X385 (15.1/4)	1	22082.222.382	1.IN.X310 (12.1/4)	1	22082.254.311
			7/8X390 (15.3/8)	1	22082.222.390	1.IN.X315 (12.1/2)	1	22082.254.317
7/8X70 (2.3/4)	1	22082.222.069	7/8X395 (15.1/2)	1	22082.222.393	1.IN.X320 (12.5/8)	1	22082.254.320
7/8X75 (3)	1	22082.222.076	7/8X400 (15.3/4)	1	22082.222.400	1.IN.X325 (12.3/4)	1	22082.254.323
7/8X80 (3.1/4)	1	22082.222.082	7/8X405 (16)	1	22082.222.406	1.IN.X330 (13)	1	22082.254.330
7/8X85 (3.3/8)	1	22082.222.085	7/8X410 (16.1/8)	1	22082.222.410	1.IN.X335 (13.1/4)	1	22082.254.337
7/8X90 (3.1/2)	1	22082.222.088	7/8X415 (16.1/4)	1	22082.222.412	1.IN.X340 (13.3/8)	1	22082.254.340
7/8X95 (3.3/4)	1	22082.222.095	7/8X420 (16.1/2)	1	22082.222.419	1.IN.X345 (13.1/2)	1	22082.254.342
7/8X100 (4)	1	22082.222.101	7/8X425 (16.3/4)	1	22082.222.425	1.IN.X350 (13.3/4)	1	22082.254.349
7/8X105 (4.1/8)	1	22082.222.105	7/8X430 (17)	1	22082.222.431	1.IN.X355 (14)	1	22082.254.355
7/8X110 (4.1/4)	1	22082.222.107	7/8X440 (17.1/4)	1	22082.222.438	1.IN.X360 (14.1/4)	1	22082.254.361
7/8X115 (4.1/2)	1	22082.222.114	7/8X450 (17.3/4)	1	22082.222.450	1.IN.X365 (14.3/8)	1	22082.254.365
7/8X120 (4.3/4)	1	22082.222.120	7/8X455 (18)	1	22082.222.457	1.IN.X370 (14.1/2)	1	22082.254.368
7/8X125 (5)	1	22082.222.127	7/8X470 (18.1/2)	1	22082.222.469	1.IN.X375 (14.3/4)	1	22082.254.374
7/8X130 (5.1/8)	1	22082.222.130	7/8X485 (19)	1	22082.222.482	1.IN.X380 (15)	1	22082.254.381
7/8X135 (5.1/4)	1	22082.222.133	7/8X495 (19.1/2)	1	22082.222.495	1.IN.X385 (15.1/4)	1	22082.254.387
7/8X140 (5.1/2)	1	22082.222.139	7/8X510 (20)	1	22082.222.508	1.IN.X390 (15.3/8)	1	22082.254.390
7/8X145 (5.3/4)	1	22082.222.146	7/8X515 (20.1/4)	1	22082.222.514	1.IN.X395 (15.1/2)	1	22082.254.393
7/8X150 (6)	1	22082.222.152	7/8X525 (20.3/4)	1	22082.222.527	1.IN.X400 (15.3/4)	1	22082.254.400
7/8X155 (6.1/8)	1	22082.222.155				1.IN.X405 (16)	1	22082.254.406
7/8X160 (6.1/4)	1	22082.222.158	1.IN.X80 (3.1/4)	1	22082.254.082	1.IN.X410 (16.1/8)	1	22082.254.410
7/8X165 (6.1/2)	1	22082.222.165	1.IN.X85 (3.3/8)	1	22082.254.085	1.IN.X415 (16.1/4)	1	22082.254.412
7/8X170 (6.3/4)	1	22082.222.171	1.IN.X90 (3.1/2)	1	22082.254.088	1.IN.X420 (16.1/2)	1	22082.254.419
7/8X175 (6.7/8)	1	22082.222.175	1.IN.X95 (3.3/4)	1	22082.254.095	1.IN.X425 (16.3/4)	1	22082.254.425
7/8X180 (7)	1	22082.222.177	1.IN.X100 (4)	1	22082.254.101	1.IN.X430 (17)	1	22082.254.431
7/8X185 (7.1/4)	1	22082.222.184	1.IN.X105 (4.1/8)	1	22082.254.105	1.IN.X435 (17.1/8)	1	22082.254.435
7/8X190 (7.1/2)	1	22082.222.190	1.IN.X110 (4.1/4)	1	22082.254.107	1.IN.X440 (17.1/4)	1	22082.254.438
7/8X195 (7.3/4)	1	22082.222.196	1.IN.X115 (4.1/2)	1	22082.254.114	1.IN.X445 (17.1/2)	1	22082.254.444
7/8X200 (8)	1	22082.222.203	1.IN.X120 (4.3/4)	1	22082.254.120	1.IN.X450 (17.3/4)	1	22082.254.450
7/8X205 (8.1/8)	1	22082.222.205	1.IN.X125 (5)	1	22082.254.127	1.IN.X455 (18)	1	22082.254.457
7/8X210 (8.1/4)	1	22082.222.209	1.IN.X130 (5.1/8)	1	22082.254.130	1.IN.X460 (18.1/8)	1	22082.254.460
7/8X215 (8.1/2)	1	22082.222.215	1.IN.X135 (5.1/4)	1	22082.254.133	1.IN.X470 (18.1/2)	1	22082.254.469
7/8X220 (8.3/4)	1	22082.222.222	1.IN.X140 (5.1/2)	1	22082.254.139	1.IN.X485 (19)	1	22082.254.482
7/8X225 (8.7/8)	1	22082.222.225	1.IN.X145 (5.3/4)	1	22082.254.146	1.IN.X505 (19.7/8)	1	22082.254.505
7/8X230 (9)	1	22082.222.228	1.IN.X150 (6)	1	22082.254.152	1.IN.X515 (20.1/4)	1	22082.254.514
7/8X235 (9.1/4)	1	22082.222.234	1.IN.X155 (6.1/8)	1	22082.254.155	1.IN.X520 (20.1/2)	1	22082.254.520
7/8X240 (9.1/2)	1	22082.222.241	1.IN.X160 (6.1/4)	1	22082.254.158	1.IN.X595 (23.1/2)	1	22082.254.596
7/8X245 (9.5/8)	1	22082.222.245	1.IN.X165 (6.1/2)	1	22082.254.165	1.IN.X730 (28.3/4)	1	22082.254.730
7/8X250 (9.3/4)	1	22082.222.247	1.IN.X175 (6.7/8)	1	22082.254.175			

22090 Perno com 2 porcas sextavadas G09A

Rosca 8 Unified National
Material Aço ASTM A193 - ASTM A194
Classe Gr.B7 - Gr.2H

RoHS



d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo
1.1/8X100 (4)	1	22090.285.101	1.1/8X125 (5)	1	22090.285.127	1.1/8X150 (6)	1	22090.285.152
1.1/8X105 (4.1/8)	1	22090.285.105	1.1/8X130 (5.1/8)	1	22090.285.130	1.1/8X155 (6.1/8)	1	22090.285.155
1.1/8X110 (4.1/4)	1	22090.285.107	1.1/8X135 (5.1/4)	1	22090.285.133	1.1/8X160 (6.1/4)	1	22090.285.158
1.1/8X115 (4.1/2)	1	22090.285.114	1.1/8X140 (5.1/2)	1	22090.285.139	1.1/8X165 (6.1/2)	1	22090.285.165
1.1/8X120 (4.3/4)	1	22090.285.120	1.1/8X145 (5.3/4)	1	22090.285.146	1.1/8X170 (6.3/4)	1	22090.285.171

22090 Perno com 2 porcas sextavadas

d x L mm (L Inch)	✉	Ref. do artigo
1.1/8X175 (6.7/8)	1	22090.285.175
1.1/8X180 (7)	1	22090.285.177
1.1/8X185 (7.1/4)	1	22090.285.184
1.1/8X190 (7.1/2)	1	22090.285.190
1.1/8X195 (7.3/4)	1	22090.285.196
1.1/8X200 (8)	1	22090.285.203
1.1/8X205 (8.1/8)	1	22090.285.205
1.1/8X210 (8.1/4)	1	22090.285.209
1.1/8X215 (8.1/2)	1	22090.285.215
1.1/8X220 (8.3/4)	1	22090.285.222
1.1/8X225 (8.7/8)	1	22090.285.225
1.1/8X230 (9)	1	22090.285.228
1.1/8X235 (9.1/4)	1	22090.285.234
1.1/8X240 (9.1/2)	1	22090.285.241
1.1/8X245 (9.5/8)	1	22090.285.245
1.1/8X250 (9.3/4)	1	22090.285.247
1.1/8X255 (10)	1	22090.285.254
1.1/8X260 (10.1/4)	1	22090.285.260
1.1/8X265 (10.1/2)	1	22090.285.266
1.1/8X270 (10.5/8)	1	22090.285.270
1.1/8X275 (10.3/4)	1	22090.285.273
1.1/8X280 (11)	1	22090.285.279
1.1/8X285 (11.1/4)	1	22090.285.285
1.1/8X290 (11.3/8)	1	22090.285.290
1.1/8X295 (11.1/2)	1	22090.285.292
1.1/8X300 (11.3/4)	1	22090.285.298
1.1/8X305 (12)	1	22090.285.304
1.1/8X310 (12.1/4)	1	22090.285.311
1.1/8X315 (12.1/2)	1	22090.285.317
1.1/8X320 (12.5/8)	1	22090.285.320
1.1/8X325 (12.3/4)	1	22090.285.323
1.1/8X325 (12.3/4)	1	22090.285.326
1.1/8X330 (13)	1	22090.285.330
1.1/8X335 (13.1/4)	1	22090.285.337
1.1/8X340 (13.3/8)	1	22090.285.340
1.1/8X345 (13.1/2)	1	22090.285.342
1.1/8X350 (13.3/4)	1	22090.285.349
1.1/8X355 (14)	1	22090.285.355
1.1/8X360 (14.1/4)	1	22090.285.361
1.1/8X365 (14.3/8)	1	22090.285.365
1.1/8X370 (14.1/2)	1	22090.285.368
1.1/8X375 (14.3/4)	1	22090.285.374
1.1/8X380 (15)	1	22090.285.381
1.1/8X385 (15.1/4)	1	22090.285.387
1.1/8X390 (15.3/8)	1	22090.285.390
1.1/8X395 (15.1/2)	1	22090.285.393
1.1/8X400 (15.3/4)	1	22090.285.400
1.1/8X405 (16)	1	22090.285.406
1.1/8X410 (16.1/8)	1	22090.285.410
1.1/8X415 (16.1/4)	1	22090.285.412
1.1/8X420 (16.1/2)	1	22090.285.419
1.1/8X425 (16.3/4)	1	22090.285.425
1.1/8X430 (17)	1	22090.285.431
1.1/8X435 (17.1/8)	1	22090.285.435
1.1/8X440 (17.1/4)	1	22090.285.438
1.1/8X445 (17.1/2)	1	22090.285.444
1.1/8X450 (17.3/4)	1	22090.285.450
1.1/8X455 (18)	1	22090.285.457
1.1/8X460 (18.1/8)	1	22090.285.460
1.1/8X465 (18.1/4)	1	22090.285.463
1.1/8X470 (18.1/2)	1	22090.285.469
1.1/8X475 (18.3/4)	1	22090.285.476
1.1/8X480 (18.7/8)	1	22090.285.480
1.1/8X485 (19)	1	22090.285.482
1.1/8X490 (19.1/4)	1	22090.285.488
1.1/8X495 (19.1/2)	1	22090.285.495
1.1/8X500 (19.3/4)	1	22090.285.501
1.1/8X505 (19.7/8)	1	22090.285.505
1.1/8X510 (20)	1	22090.285.508
1.1/8X515 (20.1/4)	1	22090.285.514
1.1/8X520 (20.1/2)	1	22090.285.520
1.1/8X525 (20.3/4)	1	22090.285.527
1.1/8X530 (20.7/8)	1	22090.285.530
1.1/8X540 (21.1/4)	1	22090.285.539
1.1/8X560 (22)	1	22090.285.558
1.1/8X570 (22.1/2)	1	22090.285.571
1.1/8X585 (23)	1	22090.285.584
1.1/8X590 (23.1/4)	1	22090.285.590
1.1/8X610 (24)	1	22090.285.609
1.1/8X620 (24.1/2)	1	22090.285.622
1.1/8X800 (31.1/2)	1	22090.285.800

d x L mm (L Inch)	✉	Ref. do artigo
1.1/4X100 (4)	1	22090.317.101
1.1/4X105 (4.1/8)	1	22090.317.105
1.1/4X110 (4.1/4)	1	22090.317.107
1.1/4X115 (4.1/2)	1	22090.317.114
1.1/4X120 (4.3/4)	1	22090.317.120
1.1/4X125 (5)	1	22090.317.127
1.1/4X130 (5.1/8)	1	22090.317.130
1.1/4X135 (5.1/4)	1	22090.317.133
1.1/4X140 (5.1/2)	1	22090.317.139
1.1/4X145 (5.3/4)	1	22090.317.146
1.1/4X150 (6)	1	22090.317.152
1.1/4X155 (6.1/8)	1	22090.317.155
1.1/4X160 (6.1/4)	1	22090.317.158
1.1/4X165 (6.1/2)	1	22090.317.165
1.1/4X170 (6.3/4)	1	22090.317.171
1.1/4X175 (6.7/8)	1	22090.317.175
1.1/4X180 (7)	1	22090.317.177
1.1/4X185 (7.1/4)	1	22090.317.184
1.1/4X190 (7.1/2)	1	22090.317.190
1.1/4X195 (7.3/4)	1	22090.317.196
1.1/4X200 (8)	1	22090.317.203
1.1/4X205 (8.1/8)	1	22090.317.205
1.1/4X210 (8.1/4)	1	22090.317.209
1.1/4X215 (8.1/2)	1	22090.317.215
1.1/4X220 (8.3/4)	1	22090.317.222
1.1/4X225 (8.7/8)	1	22090.317.225
1.1/4X230 (9)	1	22090.317.228
1.1/4X235 (9.1/4)	1	22090.317.234
1.1/4X240 (9.1/2)	1	22090.317.241
1.1/4X245 (9.5/8)	1	22090.317.245
1.1/4X250 (9.3/4)	1	22090.317.247
1.1/4X255 (10)	1	22090.317.254
1.1/4X260 (10.1/4)	1	22090.317.260
1.1/4X265 (10.1/2)	1	22090.317.266
1.1/4X270 (10.5/8)	1	22090.317.270
1.1/4X275 (10.3/4)	1	22090.317.273
1.1/4X280 (11)	1	22090.317.279
1.1/4X285 (11.1/4)	1	22090.317.285
1.1/4X290 (11.3/8)	1	22090.317.290
1.1/4X295 (11.1/2)	1	22090.317.292
1.1/4X300 (11.3/4)	1	22090.317.298
1.1/4X305 (12)	1	22090.317.304
1.1/4X310 (12.1/4)	1	22090.317.311
1.1/4X315 (12.1/2)	1	22090.317.317
1.1/4X320 (12.5/8)	1	22090.317.320
1.1/4X325 (12.3/4)	1	22090.317.323
1.1/4X330 (13)	1	22090.317.330
1.1/4X335 (13.1/4)	1	22090.317.337
1.1/4X340 (13.3/8)	1	22090.317.340
1.1/4X345 (13.1/2)	1	22090.317.342
1.1/4X350 (13.3/4)	1	22090.317.349
1.1/4X355 (14)	1	22090.317.355
1.1/4X360 (14.1/4)	1	22090.317.361
1.1/4X365 (14.3/8)	1	22090.317.365
1.1/4X370 (14.1/2)	1	22090.317.368
1.1/4X375 (14.3/4)	1	22090.317.374
1.1/4X380 (15)	1	22090.317.381
1.1/4X385 (15.1/4)	1	22090.317.387
1.1/4X390 (15.3/8)	1	22090.317.390
1.1/4X395 (15.1/2)	1	22090.317.393
1.1/4X400 (15.3/4)	1	22090.317.400
1.1/4X405 (16)	1	22090.317.406
1.1/4X410 (16.1/8)	1	22090.317.410
1.1/4X415 (16.1/4)	1	22090.317.412
1.1/4X420 (16.1/2)	1	22090.317.419
1.1/4X425 (16.3/4)	1	22090.317.425
1.1/4X430 (17)	1	22090.317.431
1.1/4X435 (17.1/8)	1	22090.317.435
1.1/4X440 (17.1/4)	1	22090.317.438
1.1/4X445 (17.1/2)	1	22090.317.444
1.1/4X450 (17.3/4)	1	22090.317.450
1.1/4X457 (18)	1	22090.317.457
1.1/4X460 (18.1/8)	1	22090.317.460
1.1/4X470 (18.1/4)	1	22090.317.463
1.1/4X470 (18.1/2)	1	22090.317.469
1.1/4X475 (18.3/4)	1	22090.317.476
1.1/4X480 (18.7/8)	1	22090.317.480
1.1/4X485 (19)	1	22090.317.482
1.1/4X490 (19.1/4)	1	22090.317.488
1.1/4X495 (19.1/2)	1	22090.317.495
1.1/4X500 (19.3/4)	1	22090.317.501
1.1/4X510 (20)	1	22090.317.508

d x L mm (L Inch)	✉	Ref. do artigo
1.1/4X520 (20.1/2)	1	22090.317.520
1.1/4X530 (20.7/8)	1	22090.317.530
1.1/4X540 (21.1/4)	1	22090.317.539
1.1/4X550 (21.5/8)	1	22090.317.550
1.1/4X560 (22)	1	22090.317.558
1.1/4X600 (23.5/8)	1	22090.317.600
1.1/4X610 (24)	1	22090.317.609
1.1/4X630 (24.3/4)	1	22090.317.628
1.1/4X650 (25.5/8)	1	22090.317.650
1.1/4X665 (26.1/4)	1	22090.317.666
1.1/4X690 (27.1/8)	1	22090.317.690
1.1/4X700 (27.1/2)	1	22090.317.698
1.3/8X150 (6)	1	22090.349.152
1.3/8X155 (6.1/8)	1	22090.349.155
1.3/8X160 (6.1/4)	1	22090.349.158
1.3/8X165 (6.1/2)	1	22090.349.165
1.3/8X170 (6.3/4)	1	22090.349.171
1.3/8X175 (6.7/8)	1	22090.349.175
1.3/8X180 (7)	1	22090.349.177
1.3/8X185 (7.1/4)	1	22090.349.184
1.3/8X190 (7.1/2)	1	22090.349.190
1.3/8X195 (7.3/4)	1	22090.349.196
1.3/8X200 (8)	1	22090.349.203
1.3/8X205 (8.1/8)	1	22090.349.205
1.3/8X210 (8.1/4)	1	22090.349.209
1.3/8X215 (8.1/2)	1	22090.349.215
1.3/8X220 (8.3/4)	1	22090.349.222
1.3/8X225 (8.7/8)	1	22090.349.225
1.3/8X230 (9)	1	22090.349.228
1.3/8X235 (9.1/4)	1	22090.349.234
1.3/8X240 (9.1/2)	1	22090.349.241
1.3/8X245 (9.5/8)	1	22090.349.245
1.3/8X250 (9.3/4)	1	22090.349.247
1.3/8X255 (10)	1	22090.349.254
1.3/8X260 (10.1/4)	1	22090.349.260
1.3/8X265 (10.1/2)	1	22090.349.266
1.3/8X270 (10.5/8)	1	22090.349.270
1.3/8X275 (10.3/4)	1	22090.349.273
1.3/8X280 (11)	1	22090.349.279
1.3/8X285 (11.1/4)	1	22090.349.285
1.3/8X290 (11.3/8)	1	22090.349.290
1.3/8X295 (11.1/2)	1	22090.349.292
1.3/8X300 (11.3/4)	1	22090.349.298
1.3/8X305 (12)	1	22090.349.304
1.3/8X310 (12.1/4)	1	22090.349.311
1.3/8X315 (12.1/2)	1	22090.349.317
1.3/8X320 (12.5/8)	1	22090.349.320
1.3/8X325 (12.3/4)	1	22090.349.323
1.3/8X330 (13)	1	22090.349.330
1.3/8X335 (13.1/4)	1	22090.349.337
1.3/8X340 (13.3/8)	1	22090.349.340
1.3/8X345 (13.1/2)	1	22090.349.342
1.3/8X350 (13.3/4)	1	22090.349.349
1.3/8X355 (14)	1	22090.349.355
1.3/8X360 (14.1/4)	1	22090.349.361
1.3/8X365 (14.3/8)	1	22090.349.365
1.3/8X370 (14.1/2)	1	22090.349.368
1.3/8X375 (14.3/4)	1	22090.349.374
1.3/8X380 (15)	1	22090.349.381
1.3/8X385 (15.1/4)	1	22090.349.387
1.3/8X390 (15.3/8)	1	22090.349.390
1.3/8X395 (15.1/2)	1	22090.349.393
1.3/8X400 (15.3/4)	1	22090.349.400
1.3/8X405 (16)	1	22090.349.406
1.3/8X410 (16.1/8)	1	22090.349.410
1.3/8X415 (16.1/4)	1	22090.349.412
1.3/8X420 (16.1/2)	1	22090.349.419
1.3/8X425 (16.3/4)	1	22090.349.425
1.3/8X430 (17)	1	22090.349.431
1.3/8X435 (17.1/8)	1	22090.349.435
1.3/8X440 (17.1/4)	1	22090.349.438
1.3/8X445 (17.1/2)	1	22090.349.444
1.3/8X450 (17.3/4)	1	22090.349.450
1.3/8X455 (18)	1	22090.349.457
1.3/8X460 (18.1/8)	1	22090.349.460
1.3/8X465 (18.1/4)	1	22090.349.463
1.3/8X470 (18.1/2)	1	22090.349.469
1.3/8X475 (18.3/4)	1	22090.349.476
1.3/8X480 (18.7/8)	1	22090.349.480
1.3/8X485 (19)	1	22090.349.482
1.3/8X490 (19.1/4)	1	22090.349.488

22090 Perno com 2 porcas sextavadas ←

d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo
1.3/8X495 (19.1/2)	1	22090.349.495	1.1/2X600 (23.5/8)	1	22090.381.600	1.3/4X340 (13.3/8)	1	22090.444.340
1.3/8X500 (19.3/4)	1	22090.349.501	1.1/2X700 (27.1/2)	1	22090.381.698	1.3/4X345 (13.1/2)	1	22090.444.342
1.3/8X520 (20.1/2)	1	22090.349.520	1.1/2X810 (32)	1	22090.381.812	1.3/4X350 (13.3/4)	1	22090.444.349
1.3/8X530 (20.7/8)	1	22090.349.530				1.3/4X355 (14)	1	22090.444.355
1.3/8X535 (21)	1	22090.349.533	1.5/8X180 (7)	1	22090.412.177	1.3/4X360 (14.1/4)	1	22090.444.361
1.3/8X545 (21.1/2)	1	22090.349.546	1.5/8X180 (7.1/2)	1	22090.412.190	1.3/4X365 (14.3/8)	1	22090.444.365
1.3/8X550 (21.3/4)	1	22090.349.552	1.5/8X255 (10)	1	22090.412.254	1.3/4X370 (14.1/2)	1	22090.444.368
1.3/8X555 (21.7/8)	1	22090.349.555	1.5/8X260 (10.1/4)	1	22090.412.260	1.3/4X375 (14.3/4)	1	22090.444.374
1.3/8X575 (22.3/4)	1	22090.349.577	1.5/8X265 (10.1/2)	1	22090.412.266	1.3/4X380 (15)	1	22090.444.381
1.3/8X610 (24)	1	22090.349.609	1.5/8X270 (10.5/8)	1	22090.412.270	1.3/4X385 (15.1/4)	1	22090.444.387
1.3/8X670 (26.3/8)	1	22090.349.670	1.5/8X275 (10.3/4)	1	22090.412.273	1.3/4X390 (15.3/8)	1	22090.444.390
1.3/8X685 (27)	1	22090.349.685	1.5/8X280 (11)	1	22090.412.279	1.3/4X395 (15.1/2)	1	22090.444.393
			1.5/8X285 (11.1/4)	1	22090.412.285	1.3/4X400 (15.3/4)	1	22090.444.400
1.1/2X140 (5.1/2)	1	22090.381.139	1.5/8X290 (11.3/8)	1	22090.412.290	1.3/4X405 (16)	1	22090.444.406
1.1/2X145 (5.3/4)	1	22090.381.146	1.5/8X295 (11.1/2)	1	22090.412.292	1.3/4X410 (16.1/8)	1	22090.444.410
1.1/2X150 (6)	1	22090.381.152	1.5/8X300 (11.3/4)	1	22090.412.298	1.3/4X415 (16.1/4)	1	22090.444.412
1.1/2X165 (6.1/2)	1	22090.381.165	1.5/8X305 (12)	1	22090.412.304	1.3/4X420 (16.1/2)	1	22090.444.419
1.1/2X170 (6.3/4)	1	22090.381.171	1.5/8X310 (12.1/4)	1	22090.412.311	1.3/4X425 (16.3/4)	1	22090.444.425
1.1/2X180 (7)	1	22090.381.177	1.5/8X315 (12.1/2)	1	22090.412.317	1.3/4X430 (17)	1	22090.444.431
1.1/2X185 (7.1/4)	1	22090.381.184	1.5/8X320 (12.5/8)	1	22090.412.320	1.3/4X435 (17.1/8)	1	22090.444.435
1.1/2X190 (7.1/2)	1	22090.381.190	1.5/8X325 (12.3/4)	1	22090.412.323	1.3/4X440 (17.1/4)	1	22090.444.438
1.1/2X195 (7.3/4)	1	22090.381.196	1.5/8X330 (13)	1	22090.412.330	1.3/4X445 (17.1/2)	1	22090.444.444
1.1/2X200 (8)	1	22090.381.203	1.5/8X335 (13.1/4)	1	22090.412.337	1.3/4X450 (17.3/4)	1	22090.444.450
1.1/2X205 (8.1/8)	1	22090.381.205	1.5/8X340 (13.3/8)	1	22090.412.340	1.3/4X455 (18)	1	22090.444.457
1.1/2X210 (8.1/4)	1	22090.381.209	1.5/8X345 (13.1/2)	1	22090.412.342	1.3/4X460 (18.1/8)	1	22090.444.460
1.1/2X215 (8.1/2)	1	22090.381.215	1.5/8X350 (13.3/4)	1	22090.412.349	1.3/4X470 (18.1/2)	1	22090.444.469
1.1/2X220 (8.3/4)	1	22090.381.222	1.5/8X355 (14)	1	22090.412.355	1.3/4X480 (18.7/8)	1	22090.444.480
1.1/2X225 (8.7/8)	1	22090.381.225	1.5/8X360 (14.1/4)	1	22090.412.361	1.3/4X485 (19)	1	22090.444.482
1.1/2X230 (9)	1	22090.381.228	1.5/8X365 (14.3/8)	1	22090.412.365	1.3/4X490 (19.1/4)	1	22090.444.488
1.1/2X235 (9.1/4)	1	22090.381.234	1.5/8X370 (14.1/2)	1	22090.412.368	1.3/4X495 (19.1/2)	1	22090.444.495
1.1/2X240 (9.1/2)	1	22090.381.241	1.5/8X375 (14.3/4)	1	22090.412.374	1.3/4X500 (19.3/4)	1	22090.444.501
1.1/2X245 (9.5/8)	1	22090.381.245	1.5/8X380 (15)	1	22090.412.381	1.3/4X520 (20.1/2)	1	22090.444.520
1.1/2X250 (9.3/4)	1	22090.381.247	1.5/8X385 (15.1/4)	1	22090.412.387	1.3/4X570 (22.1/2)	1	22090.444.571
1.1/2X255 (10)	1	22090.381.254	1.5/8X390 (15.3/8)	1	22090.412.390	1.3/4X580 (22.7/8)	1	22090.444.580
1.1/2X260 (10.1/4)	1	22090.381.260	1.5/8X395 (15.1/2)	1	22090.412.393	1.3/4X595 (23.1/2)	1	22090.444.596
1.1/2X265 (10.1/2)	1	22090.381.266	1.5/8X400 (15.3/4)	1	22090.412.400	1.3/4X600 (23.5/8)	1	22090.444.600
1.1/2X270 (10.5/8)	1	22090.381.270	1.5/8X405 (16)	1	22090.412.406	1.3/4X610 (24)	1	22090.444.609
1.1/2X275 (10.3/4)	1	22090.381.273	1.5/8X410 (16.1/8)	1	22090.412.410	1.3/4X650 (25.5/8)	1	22090.444.650
1.1/2X280 (11)	1	22090.381.279	1.5/8X415 (16.1/4)	1	22090.412.412	1.3/4X685 (27)	1	22090.444.685
1.1/2X285 (11.1/4)	1	22090.381.285	1.5/8X420 (16.1/2)	1	22090.412.419	1.3/4X710 (28)	1	22090.444.711
1.1/2X290 (11.3/8)	1	22090.381.290	1.5/8X425 (16.3/4)	1	22090.412.425			
1.1/2X295 (11.1/2)	1	22090.381.292	1.5/8X430 (17)	1	22090.412.431	1.7/8X255 (10)	1	22090.476.254
1.1/2X300 (11.3/4)	1	22090.381.298	1.5/8X435 (17.1/8)	1	22090.412.435	1.7/8X280 (11)	1	22090.476.279
1.1/2X305 (12)	1	22090.381.304	1.5/8X440 (17.1/4)	1	22090.412.438	1.7/8X305 (12)	1	22090.476.304
1.1/2X310 (12.1/4)	1	22090.381.311	1.5/8X445 (17.1/2)	1	22090.412.444	1.7/8X310 (12.1/4)	1	22090.476.311
1.1/2X315 (12.1/2)	1	22090.381.317	1.5/8X450 (17.3/4)	1	22090.412.450	1.7/8X315 (12.1/2)	1	22090.476.317
1.1/2X320 (12.5/8)	1	22090.381.320	1.5/8X495 (19.1/2)	1	22090.412.495	1.7/8X320 (12.5/8)	1	22090.476.320
1.1/2X325 (12.3/4)	1	22090.381.323	1.5/8X500 (19.3/4)	1	22090.412.501	1.7/8X325 (12.3/4)	1	22090.476.323
1.1/2X330 (13)	1	22090.381.330	1.5/8X530 (20.7/8)	1	22090.412.530	1.7/8X330 (13)	1	22090.476.330
1.1/2X335 (13.1/4)	1	22090.381.337	1.5/8X545 (21.1/2)	1	22090.412.546	1.7/8X335 (13.1/4)	1	22090.476.337
1.1/2X340 (13.3/8)	1	22090.381.340	1.5/8X685 (27)	1	22090.412.685	1.7/8X340 (13.3/8)	1	22090.476.340
1.1/2X345 (13.1/2)	1	22090.381.342				1.7/8X345 (13.1/2)	1	22090.476.342
1.1/2X350 (13.3/4)	1	22090.381.349	1.3/4X155 (6.1/8)	1	22090.444.155	1.7/8X350 (13.3/4)	1	22090.476.349
1.1/2X355 (14)	1	22090.381.355	1.3/4X180 (7)	1	22090.444.177	1.7/8X355 (14)	1	22090.476.355
1.1/2X360 (14.1/4)	1	22090.381.361	1.3/4X200 (8)	1	22090.444.203	1.7/8X360 (14.1/4)	1	22090.476.361
1.1/2X365 (14.3/8)	1	22090.381.365	1.3/4X205 (8.1/8)	1	22090.444.205	1.7/8X365 (14.3/8)	1	22090.476.365
1.1/2X370 (14.1/2)	1	22090.381.368	1.3/4X210 (8.1/4)	1	22090.444.209	1.7/8X370 (14.1/2)	1	22090.476.368
1.1/2X375 (14.3/4)	1	22090.381.374	1.3/4X215 (8.1/2)	1	22090.444.215	1.7/8X375 (14.3/4)	1	22090.476.374
1.1/2X380 (15)	1	22090.381.381	1.3/4X220 (8.3/4)	1	22090.444.222	1.7/8X380 (15)	1	22090.476.381
1.1/2X385 (15.1/4)	1	22090.381.387	1.3/4X225 (8.7/8)	1	22090.444.225	1.7/8X385 (15.1/4)	1	22090.476.387
1.1/2X390 (15.3/8)	1	22090.381.390	1.3/4X230 (9)	1	22090.444.228	1.7/8X390 (15.3/8)	1	22090.476.390
1.1/2X395 (15.1/2)	1	22090.381.393	1.3/4X235 (9.1/4)	1	22090.444.234	1.7/8X395 (15.1/2)	1	22090.476.393
1.1/2X400 (15.3/4)	1	22090.381.400	1.3/4X240 (9.1/2)	1	22090.444.241	1.7/8X400 (15.3/4)	1	22090.476.400
1.1/2X405 (16)	1	22090.381.406	1.3/4X245 (9.5/8)	1	22090.444.245	1.7/8X405 (16)	1	22090.476.406
1.1/2X410 (16.1/8)	1	22090.381.410	1.3/4X250 (9.3/4)	1	22090.444.247	1.7/8X410 (16.1/8)	1	22090.476.410
1.1/2X415 (16.1/4)	1	22090.381.412	1.3/4X255 (10)	1	22090.444.254	1.7/8X415 (16.1/4)	1	22090.476.412
1.1/2X420 (16.1/2)	1	22090.381.419	1.3/4X260 (10.1/4)	1	22090.444.260	1.7/8X420 (16.1/2)	1	22090.476.419
1.1/2X430 (17)	1	22090.381.431	1.3/4X265 (10.1/2)	1	22090.444.266	1.7/8X425 (16.3/4)	1	22090.476.425
1.1/2X440 (17.1/4)	1	22090.381.438	1.3/4X270 (10.5/8)	1	22090.444.270	1.7/8X430 (17)	1	22090.476.431
1.1/2X450 (17.3/4)	1	22090.381.450	1.3/4X275 (10.3/4)	1	22090.444.273	1.7/8X435 (17.1/8)	1	22090.476.435
1.1/2X455 (18)	1	22090.381.457	1.3/4X280 (11)	1	22090.444.279	1.7/8X440 (17.1/4)	1	22090.476.438
1.1/2X460 (18.1/8)	1	22090.381.460	1.3/4X285 (11.1/4)	1	22090.444.285	1.7/8X445 (17.1/2)	1	22090.476.444
1.1/2X480 (18.7/8)	1	22090.381.480	1.3/4X290 (11.3/8)	1	22090.444.290	1.7/8X450 (17.3/4)	1	22090.476.450
1.1/2X490 (19.1/4)	1	22090.381.488	1.3/4X295 (11.1/2)	1	22090.444.292	1.7/8X455 (18)	1	22090.476.457
1.1/2X500 (19.3/4)	1	22090.381.501	1.3/4X300 (11.3/4)	1	22090.444.298	1.7/8X460 (18.1/8)	1	22090.476.460
1.1/2X510 (20)	1	22090.381.508	1.3/4X305 (12)	1	22090.444.304	1.7/8X465 (18.1/4)	1	22090.476.463
1.1/2X525 (20.3/4)	1	22090.381.527	1.3/4X310 (12.1/4)	1	22090.444.311	1.7/8X470 (18.1/2)	1	22090.476.469
1.1/2X530 (20.7/8)	1	22090.381.530	1.3/4X315 (12.1/2)	1	22090.444.317	1.7/8X475 (18.3/4)	1	22090.476.476
1.1/2X545 (21.1/2)	1	22090.381.546	1.3/4X320 (12.5/8)	1	22090.444.320	1.7/8X480 (18.7/8)	1	22090.476.480
1.1/2X550 (21.3/4)	1	22090.381.552	1.3/4X325 (12.3/4)	1	22090.444.323	1.7/8X485 (19)	1	22090.476.482
1.1/2X560 (22)	1	22090.381.558	1.3/4X330 (13)	1	22090.444.330	1.7/8X490 (19.1/4)	1	22090.476.488
1.1/2X565 (22.1/4)	1	22090.381.565	1.3/4X335 (13.1/4)	1	22090.444.337	1.7/8X495 (19.1/2)	1	22090.476.495

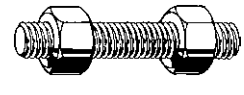
22090 Perno com 2 porcas sextavadas ←

d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo
1.7/8X500 (19.3/4)	1	22090.476.501	2.IN.X475 (18.3/4)	1	22090.508.476	2.1/2X490 (19.1/4)	1	22090.635.488
1.7/8X510 (20)	1	22090.476.508	2.IN.X480 (18.7/8)	1	22090.508.480	2.1/2X495 (19.1/2)	1	22090.635.495
1.7/8X555 (21.7/8)	1	22090.476.555	2.IN.X485 (19)	1	22090.508.482	2.1/2X510 (20)	1	22090.635.508
1.7/8X560 (22)	1	22090.476.558	2.IN.X490 (19.1/4)	1	22090.508.488	2.1/2X520 (20.1/2)	1	22090.635.520
1.7/8X565 (22.1/4)	1	22090.476.565	2.IN.X495 (19.1/2)	1	22090.508.495	2.1/2X530 (20.7/8)	1	22090.635.530
1.7/8X600 (23.5/8)	1	22090.476.600	2.IN.X500 (19.3/4)	1	22090.508.501	2.1/2X535 (21)	1	22090.635.533
1.7/8X620 (24.1/2)	1	22090.476.622	2.IN.X510 (20)	1	22090.508.508	2.1/2X545 (21.1/2)	1	22090.635.546
1.7/8X675 (26.1/2)	1	22090.476.673	2.IN.X550 (21.3/4)	1	22090.508.552	2.1/2X560 (22)	1	22090.635.558
1.7/8X685 (27)	1	22090.476.685	2.IN.X565 (22.1/4)	1	22090.508.565	2.1/2X570 (22.1/2)	1	22090.635.571
			2.IN.X600 (23.5/8)	1	22090.508.600	2.1/2X585 (23)	1	22090.635.584
2.IN.X205 (8.1/8)	1	22090.508.205	2.IN.X650 (25.5/8)	1	22090.508.650	2.1/2X590 (23.1/4)	1	22090.635.590
2.IN.X255 (10)	1	22090.508.254	2.IN.X655 (25.3/4)	1	22090.508.654	2.1/2X600 (23.5/8)	1	22090.635.600
2.IN.X305 (12)	1	22090.508.304	2.IN.X660 (26)	1	22090.508.660	2.1/2X630 (24.3/4)	1	22090.635.628
2.IN.X310 (12.1/4)	1	22090.508.311	2.IN.X670 (26.3/8)	1	22090.508.670	2.1/2X650 (25.5/8)	1	22090.635.650
2.IN.X315 (12.1/2)	1	22090.508.317	2.IN.X680 (26.3/4)	1	22090.508.679	2.1/2X730 (28.3/4)	1	22090.635.730
2.IN.X320 (12.5/8)	1	22090.508.320	2.IN.X690 (27.1/4)	1	22090.508.692	2.1/2X780 (30.3/4)	1	22090.635.781
2.IN.X325 (12.3/4)	1	22090.508.323	2.IN.X700 (27.1/2)	1	22090.508.698	2.1/2X805 (31.3/4)	1	22090.635.806
2.IN.X330 (13)	1	22090.508.330	2.IN.X740 (29.1/4)	1	22090.508.742	2.1/2X845 (33.1/4)	1	22090.635.844
2.IN.X335 (13.1/4)	1	22090.508.337	2.IN.X750 (29.1/2)	1	22090.508.749	2.1/2X890 (35)	1	22090.635.889
2.IN.X340 (13.3/8)	1	22090.508.340	2.IN.X755 (29.3/4)	1	22090.508.755	2.1/2X950 (37.3/8)	1	22090.635.950
2.IN.X345 (13.1/2)	1	22090.508.342						
2.IN.X350 (13.3/4)	1	22090.508.349	2.1/4X280 (11)	1	22090.571.279	2.3/4X450 (17.3/4)	1	22090.698.450
2.IN.X355 (14)	1	22090.508.355	2.1/4X375 (14.3/4)	1	22090.571.374	2.3/4X500 (19.3/4)	1	22090.698.501
2.IN.X360 (14.1/4)	1	22090.508.361	2.1/4X390 (15.3/8)	1	22090.571.390	2.3/4X520 (20.1/2)	1	22090.698.520
2.IN.X365 (14.3/8)	1	22090.508.365	2.1/4X405 (16)	1	22090.571.406	2.3/4X535 (21)	1	22090.698.533
2.IN.X370 (14.1/2)	1	22090.508.368	2.1/4X425 (16.3/4)	1	22090.571.425	2.3/4X600 (23.5/8)	1	22090.698.600
2.IN.X375 (14.3/4)	1	22090.508.374	2.1/4X430 (17)	1	22090.571.431	2.3/4X630 (24.3/4)	1	22090.698.628
2.IN.X380 (15)	1	22090.508.381	2.1/4X470 (18.1/2)	1	22090.571.469	2.3/4X660 (26)	1	22090.698.660
2.IN.X385 (15.1/4)	1	22090.508.387	2.1/4X485 (19)	1	22090.571.482	2.3/4X690 (27.1/4)	1	22090.698.692
2.IN.X390 (15.3/8)	1	22090.508.390	2.1/4X510 (20)	1	22090.571.508	2.3/4X710 (28)	1	22090.698.711
2.IN.X395 (15.1/2)	1	22090.508.393	2.1/4X520 (20.1/2)	1	22090.571.520	2.3/4X720 (28.3/8)	1	22090.698.720
2.IN.X400 (15.3/4)	1	22090.508.400	2.1/4X550 (21.3/4)	1	22090.571.552	2.3/4X730 (28.3/4)	1	22090.698.730
2.IN.X405 (16)	1	22090.508.406	2.1/4X585 (23)	1	22090.571.584			
2.IN.X410 (16.1/8)	1	22090.508.410	2.1/4X590 (23.1/4)	1	22090.571.590	3.IN.X355 (14)	1	22090.762.355
2.IN.X415 (16.1/4)	1	22090.508.412	2.1/4X600 (23.5/8)	1	22090.571.600	3.IN.X475 (18.3/4)	1	22090.762.476
2.IN.X420 (16.1/2)	1	22090.508.419	2.1/4X695 (27.3/8)	1	22090.571.695	3.IN.X585 (23)	1	22090.762.584
2.IN.X425 (16.3/4)	1	22090.508.425	2.1/4X700 (27.1/2)	1	22090.571.698	3.IN.X590 (23.1/4)	1	22090.762.590
2.IN.X430 (17)	1	22090.508.431	2.1/4X870 (34.1/4)	1	22090.571.869	3.IN.X650 (25.5/8)	1	22090.762.650
2.IN.X435 (17.1/8)	1	22090.508.435				3.IN.X660 (26)	1	22090.762.660
2.IN.X440 (17.1/4)	1	22090.508.438	2.1/2X380 (15)	1	22090.635.381	3.IN.X700 (27.1/2)	1	22090.762.698
2.IN.X445 (17.1/2)	1	22090.508.444	2.1/2X405 (16)	1	22090.635.406	3.IN.X710 (28)	1	22090.762.711
2.IN.X450 (17.3/4)	1	22090.508.450	2.1/2X435 (17.1/8)	1	22090.635.435	3.IN.X735 (29)	1	22090.762.736
2.IN.X455 (18)	1	22090.508.457	2.1/2X440 (17.1/4)	1	22090.635.438	3.IN.X800 (31.1/2)	1	22090.762.800
2.IN.X460 (18.1/8)	1	22090.508.460	2.1/2X445 (17.1/2)	1	22090.635.444	3.IN.X850 (33.1/2)	1	22090.762.850
2.IN.X465 (18.1/4)	1	22090.508.463	2.1/2X470 (18.1/2)	1	22090.635.469			
2.IN.X470 (18.1/2)	1	22090.508.469	2.1/2X485 (19)	1	22090.635.482			

22320 Perno com 2 porcas sextavadas G10A

Rosca Unified National Coarse
Material Aço ASTM A320 - ASTM A194
Classe Gr.L7 - Gr.4

RoHS



d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo
3/8X25 (1)	1	22320.096.025	1/2X100 (4)	1	22320.127.101			
3/8X40 (1.1/2)	1	22320.096.038	1/2X105 (4.1/8)	1	22320.127.105	5/8X40 (1.1/2)	1	22320.158.038
3/8X45 (1.3/4)	1	22320.096.044	1/2X110 (4.1/4)	1	22320.127.107	5/8X45 (1.3/4)	1	22320.158.044
3/8X60 (2.3/8)	1	22320.096.060	1/2X115 (4.1/2)	1	22320.127.114	5/8X50 (2)	1	22320.158.050
3/8X65 (2.1/2)	1	22320.096.063	1/2X120 (4.3/4)	1	22320.127.120	5/8X55 (2.1/4)	1	22320.158.057
3/8X70 (2.3/4)	1	22320.096.069	1/2X130 (5.1/8)	1	22320.127.130	5/8X60 (2.3/8)	1	22320.158.060
3/8X80 (3.1/4)	1	22320.096.082	1/2X135 (5.1/4)	1	22320.127.133	5/8X65 (2.1/2)	1	22320.158.063
3/8X95 (3.3/4)	1	22320.096.095	1/2X140 (5.1/2)	1	22320.127.139	5/8X70 (2.3/4)	1	22320.158.069
3/8X100 (4)	1	22320.096.101	1/2X150 (6)	1	22320.127.152	5/8X75 (3)	1	22320.158.076
3/8X175 (6.7/8)	1	22320.096.175	1/2X155 (6.1/8)	1	22320.127.155	5/8X80 (3.1/4)	1	22320.158.082
3/8X185 (7.1/4)	1	22320.096.184	1/2X165 (6.1/2)	1	22320.127.165	5/8X85 (3.3/8)	1	22320.158.085
			1/2X170 (6.3/4)	1	22320.127.171	5/8X90 (3.1/2)	1	22320.158.088
1/2X40 (1.1/2)	1	22320.127.038	1/2X175 (6.7/8)	1	22320.127.175	5/8X95 (3.3/4)	1	22320.158.095
1/2X45 (1.3/4)	1	22320.127.044	1/2X180 (7)	1	22320.127.177	5/8X100 (4)	1	22320.158.101
1/2X50 (2)	1	22320.127.050	1/2X190 (7.1/2)	1	22320.127.190	5/8X105 (4.1/8)	1	22320.158.105
1/2X55 (2.1/4)	1	22320.127.057	1/2X195 (7.3/4)	1	22320.127.196	5/8X110 (4.1/4)	1	22320.158.107
1/2X60 (2.3/8)	1	22320.127.060	1/2X200 (8)	1	22320.127.203	5/8X115 (4.1/2)	1	22320.158.114
1/2X65 (2.1/2)	1	22320.127.063	1/2X205 (8.1/8)	1	22320.127.205	5/8X120 (4.3/4)	1	22320.158.120
1/2X70 (2.3/4)	1	22320.127.069	1/2X210 (8.1/4)	1	22320.127.209	5/8X125 (5)	1	22320.158.127
1/2X75 (3)	1	22320.127.076	1/2X220 (8.3/4)	1	22320.127.222	5/8X130 (5.1/8)	1	22320.158.130
1/2X80 (3.1/4)	1	22320.127.082	1/2X225 (8.7/8)	1	22320.127.225	5/8X135 (5.1/4)	1	22320.158.133
1/2X85 (3.3/8)	1	22320.127.085	1/2X250 (9.3/4)	1	22320.127.247	5/8X140 (5.1/2)	1	22320.158.139
1/2X90 (3.1/2)	1	22320.127.088	1/2X280 (11)	1	22320.127.279	5/8X145 (5.3/4)	1	22320.158.146
1/2X95 (3.3/4)	1	22320.127.095	1/2X300 (11.3/4)	1	22320.127.298	5/8X150 (6)	1	22320.158.152

22320 Perno com 2 porcas sextavadas ←

d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo
5/8X155 (6.1/8)	1	22320.158.155	3/4X245 (9.5/8)	1	22320.191.245	7/8X260 (10.1/4)	1	22320.222.260
5/8X160 (6.1/4)	1	22320.158.158	3/4X250 (9.3/4)	1	22320.191.247	7/8X265 (10.1/2)	1	22320.222.266
5/8X165 (6.1/2)	1	22320.158.165	3/4X255 (10)	1	22320.191.254	7/8X270 (10.5/8)	1	22320.222.270
5/8X170 (6.3/4)	1	22320.158.171	3/4X260 (10.1/4)	1	22320.191.260	7/8X275 (10.3/4)	1	22320.222.273
5/8X175 (6.7/8)	1	22320.158.175	3/4X265 (10.1/2)	1	22320.191.266	7/8X280 (11)	1	22320.222.279
5/8X180 (7)	1	22320.158.177	3/4X270 (10.5/8)	1	22320.191.270	7/8X285 (11.1/4)	1	22320.222.285
5/8X185 (7.1/4)	1	22320.158.184	3/4X275 (10.3/4)	1	22320.191.273	7/8X290 (11.3/8)	1	22320.222.290
5/8X190 (7.1/2)	1	22320.158.190	3/4X280 (11)	1	22320.191.279	7/8X295 (11.1/2)	1	22320.222.292
5/8X195 (7.3/4)	1	22320.158.196	3/4X285 (11.1/4)	1	22320.191.285	7/8X300 (11.3/4)	1	22320.222.298
5/8X200 (8)	1	22320.158.203	3/4X290 (11.3/8)	1	22320.191.290	7/8X305 (12)	1	22320.222.304
5/8X205 (8.1/8)	1	22320.158.205	3/4X295 (11.1/2)	1	22320.191.292	7/8X310 (12.1/4)	1	22320.222.311
5/8X210 (8.1/4)	1	22320.158.209	3/4X300 (11.3/4)	1	22320.191.298	7/8X315 (12.1/2)	1	22320.222.317
5/8X215 (8.1/2)	1	22320.158.215	3/4X305 (12)	1	22320.191.304	7/8X320 (12.5/8)	1	22320.222.320
5/8X220 (8.3/4)	1	22320.158.222	3/4X310 (12.1/4)	1	22320.191.311	7/8X325 (12.3/4)	1	22320.222.323
5/8X225 (8.7/8)	1	22320.158.225	3/4X315 (12.1/2)	1	22320.191.317	7/8X330 (13)	1	22320.222.330
5/8X230 (9)	1	22320.158.228	3/4X320 (12.3/8)	1	22320.191.320	7/8X335 (13.1/4)	1	22320.222.336
5/8X240 (9.1/2)	1	22320.158.241	3/4X325 (12.3/4)	1	22320.191.323	7/8X340 (13.3/8)	1	22320.222.340
5/8X245 (9.5/8)	1	22320.158.245	3/4X330 (13)	1	22320.191.330	7/8X345 (13.1/2)	1	22320.222.342
5/8X250 (9.3/4)	1	22320.158.247	3/4X335 (13.1/4)	1	22320.191.336	7/8X350 (13.3/4)	1	22320.222.349
5/8X255 (10)	1	22320.158.254	3/4X340 (13.3/8)	1	22320.191.340	7/8X355 (14)	1	22320.222.355
5/8X260 (10.1/4)	1	22320.158.260	3/4X345 (13.1/2)	1	22320.191.342	7/8X360 (14.1/4)	1	22320.222.361
5/8X265 (10.1/2)	1	22320.158.266	3/4X350 (13.3/4)	1	22320.191.349	7/8X365 (14.3/8)	1	22320.222.365
5/8X270 (10.5/8)	1	22320.158.270	3/4X355 (14)	1	22320.191.355	7/8X370 (14.1/2)	1	22320.222.368
5/8X275 (10.3/4)	1	22320.158.273	3/4X360 (14.1/4)	1	22320.191.361	7/8X375 (14.3/4)	1	22320.222.375
5/8X280 (11)	1	22320.158.279	3/4X365 (14.3/8)	1	22320.191.365	7/8X380 (15)	1	22320.222.381
5/8X285 (11.1/4)	1	22320.158.285	3/4X370 (14.1/2)	1	22320.191.368	7/8X385 (15.1/4)	1	22320.222.382
5/8X290 (11.3/8)	1	22320.158.290	3/4X375 (14.3/4)	1	22320.191.374	7/8X390 (15.3/8)	1	22320.222.390
5/8X295 (11.1/2)	1	22320.158.292	3/4X380 (15)	1	22320.191.381	7/8X395 (15.1/2)	1	22320.222.393
5/8X300 (11.3/4)	1	22320.158.298	3/4X385 (15.1/4)	1	22320.191.387	7/8X400 (15.3/4)	1	22320.222.400
5/8X305 (12)	1	22320.158.304	3/4X390 (15.3/8)	1	22320.191.390	7/8X405 (16)	1	22320.222.406
5/8X310 (12.1/4)	1	22320.158.311	3/4X395 (15.1/2)	1	22320.191.393	7/8X410 (16.1/8)	1	22320.222.410
5/8X315 (12.1/2)	1	22320.158.317	3/4X400 (15.3/4)	1	22320.191.400	7/8X415 (16.1/4)	1	22320.222.412
5/8X320 (12.5/8)	1	22320.158.320	3/4X405 (16)	1	22320.191.406	7/8X420 (16.1/2)	1	22320.222.419
5/8X325 (12.3/4)	1	22320.158.323	3/4X410 (16.1/8)	1	22320.191.410	7/8X425 (16.3/4)	1	22320.222.425
5/8X330 (13)	1	22320.158.330	3/4X415 (16.1/4)	1	22320.191.412	7/8X430 (17)	1	22320.222.431
5/8X335 (13.1/4)	1	22320.158.336	3/4X420 (16.1/2)	1	22320.191.419	7/8X440 (17.1/4)	1	22320.222.438
5/8X340 (13.3/8)	1	22320.158.340	3/4X430 (17)	1	22320.191.431	7/8X450 (17.3/4)	1	22320.222.450
5/8X345 (13.1/2)	1	22320.158.342	3/4X440 (17.1/4)	1	22320.191.438	7/8X455 (18)	1	22320.222.457
5/8X370 (14.1/2)	1	22320.158.368	3/4X450 (17.3/4)	1	22320.191.450	7/8X470 (18.1/2)	1	22320.222.469
5/8X375 (14.3/4)	1	22320.158.374	3/4X455 (18)	1	22320.191.457	7/8X485 (19)	1	22320.222.482
5/8X385 (15.1/4)	1	22320.158.387	3/4X470 (18.1/2)	1	22320.191.469	7/8X495 (19.1/2)	1	22320.222.495
5/8X420 (16.1/2)	1	22320.158.419	3/4X480 (18.7/8)	1	22320.191.480	7/8X510 (20)	1	22320.222.508
			3/4X485 (19)	1	22320.191.482	7/8X515 (20.1/4)	1	22320.222.514
3/4X50 (2)	1	22320.191.050	3/4X580 (22.7/8)	1	22320.191.580	7/8X525 (20.3/4)	1	22320.222.527
3/4X55 (2.1/4)	1	22320.191.057	3/4X625 (24.5/8)	1	22320.191.625			
3/4X60 (2.3/8)	1	22320.191.060				1.IN.X85 (3.3/8)	1	22320.254.085
3/4X65 (2.1/2)	1	22320.191.063	7/8X70 (2.3/4)	1	22320.222.069	1.IN.X100 (4)	1	22320.254.101
3/4X70 (2.3/4)	1	22320.191.069	7/8X75 (3)	1	22320.222.076	1.IN.X105 (4.1/8)	1	22320.254.105
3/4X75 (3)	1	22320.191.076	7/8X80 (3.1/4)	1	22320.222.082	1.IN.X110 (4.1/4)	1	22320.254.107
3/4X80 (3.1/4)	1	22320.191.082	7/8X90 (3.1/2)	1	22320.222.088	1.IN.X115 (4.1/2)	1	22320.254.114
3/4X85 (3.3/8)	1	22320.191.085	7/8X100 (4)	1	22320.222.101	1.IN.X120 (4.3/4)	1	22320.254.120
3/4X90 (3.1/2)	1	22320.191.088	7/8X105 (4.1/8)	1	22320.222.105	1.IN.X125 (5)	1	22320.254.127
3/4X95 (3.3/4)	1	22320.191.095	7/8X105 (4.1/4)	1	22320.222.107	1.IN.X130 (5.1/8)	1	22320.254.130
3/4X100 (4)	1	22320.191.101	7/8X115 (4.1/2)	1	22320.222.114	1.IN.X135 (5.1/4)	1	22320.254.133
3/4X105 (4.1/8)	1	22320.191.105	7/8X120 (4.3/4)	1	22320.222.120	1.IN.X140 (5.1/2)	1	22320.254.139
3/4X110 (4.1/4)	1	22320.191.107	7/8X125 (5)	1	22320.222.127	1.IN.X145 (5.3/4)	1	22320.254.146
3/4X115 (4.1/2)	1	22320.191.114	7/8X130 (5.1/8)	1	22320.222.130	1.IN.X150 (6)	1	22320.254.152
3/4X120 (4.3/4)	1	22320.191.120	7/8X135 (5.1/4)	1	22320.222.133	1.IN.X155 (6.1/8)	1	22320.254.155
3/4X125 (5)	1	22320.191.127	7/8X140 (5.1/2)	1	22320.222.139	1.IN.X160 (6.1/4)	1	22320.254.158
3/4X130 (5.1/8)	1	22320.191.130	7/8X145 (5.3/4)	1	22320.222.146	1.IN.X165 (6.1/2)	1	22320.254.165
3/4X135 (5.1/4)	1	22320.191.133	7/8X150 (6)	1	22320.222.152	1.IN.X170 (6.3/4)	1	22320.254.171
3/4X140 (5.1/2)	1	22320.191.139	7/8X155 (6.1/8)	1	22320.222.155	1.IN.X175 (6.7/8)	1	22320.254.175
3/4X145 (5.3/4)	1	22320.191.146	7/8X160 (6.1/4)	1	22320.222.158	1.IN.X180 (7)	1	22320.254.177
3/4X150 (6)	1	22320.191.152	7/8X165 (6.1/2)	1	22320.222.165	1.IN.X185 (7.1/4)	1	22320.254.184
3/4X155 (6.1/8)	1	22320.191.155	7/8X170 (6.3/4)	1	22320.222.171	1.IN.X190 (7)	1	22320.254.190
3/4X160 (6.1/4)	1	22320.191.158	7/8X175 (6.7/8)	1	22320.222.175	1.IN.X195 (7.3/4)	1	22320.254.196
3/4X165 (6.1/2)	1	22320.191.165	7/8X180 (7)	1	22320.222.177	1.IN.X200 (8)	1	22320.254.203
3/4X170 (6.3/4)	1	22320.191.171	7/8X185 (7.1/4)	1	22320.222.184	1.IN.X205 (8.1/8)	1	22320.254.205
3/4X175 (6.7/8)	1	22320.191.175	7/8X190 (7.1/2)	1	22320.222.190	1.IN.X210 (8.1/4)	1	22320.254.209
3/4X180 (7)	1	22320.191.177	7/8X195 (7.3/4)	1	22320.222.196	1.IN.X215 (8.1/2)	1	22320.254.215
3/4X185 (7.1/4)	1	22320.191.184	7/8X200 (8)	1	22320.222.203	1.IN.X220 (8.3/4)	1	22320.254.222
3/4X190 (7.1/2)	1	22320.191.190	7/8X205 (8.1/8)	1	22320.222.205	1.IN.X225 (8.7/8)	1	22320.254.225
3/4X195 (7.3/4)	1	22320.191.196	7/8X210 (8.1/4)	1	22320.222.209	1.IN.X230 (9)	1	22320.254.228
3/4X200 (8)	1	22320.191.203	7/8X215 (8.1/2)	1	22320.222.215	1.IN.X235 (9.1/4)	1	22320.254.234
3/4X205 (8.1/8)	1	22320.191.205	7/8X220 (8.3/4)	1	22320.222.222	1.IN.X240 (9.1/2)	1	22320.254.241
3/4X210 (8.1/4)	1	22320.191.209	7/8X225 (8.7/8)	1	22320.222.225	1.IN.X245 (9.5/8)	1	22320.254.245
3/4X215 (8.1/2)	1	22320.191.215	7/8X230 (9)	1	22320.222.228	1.IN.X250 (9.3/4)	1	22320.254.247
3/4X220 (8.3/4)	1	22320.191.222	7/8X235 (9.1/4)	1	22320.222.234	1.IN.X255 (10)	1	22320.254.254
3/4X225 (8.7/8)	1	22320.191.225	7/8X240 (9.1/2)	1	22320.222.241	1.IN.X260 (10.1/4)	1	22320.254.260
3/4X230 (9)	1	22320.191.228	7/8X245 (9.5/8)	1	22320.222.245	1.IN.X265 (10.1/2)	1	22320.254.266
3/4X235 (9.1/4)	1	22320.191.234	7/8X250 (9.3/4)	1	22320.222.247	1.IN.X270 (10.5/8)	1	22320.254.270
3/4X240 (9.1/2)	1	22320.191.241	7/8X255 (10)	1	22320.222.254	1.IN.X275 (10.3/4)	1	22320.254.273

4

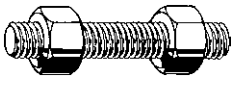
22320 Perno com 2 porcas sextavadas

d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo
1.IN.X280 (11)	1	22320.254.279	1.IN.X355 (14)	1	22320.254.355	1.IN.X430 (17)	1	22320.254.431
1.IN.X285 (11.1/4)	1	22320.254.285	1.IN.X360 (14.1/4)	1	22320.254.361	1.IN.X435 (17.1/8)	1	22320.254.435
1.IN.X290 (11.3/8)	1	22320.254.290	1.IN.X365 (14.3/8)	1	22320.254.365	1.IN.X440 (17.1/4)	1	22320.254.438
1.IN.X295 (11.1/2)	1	22320.254.292	1.IN.X370 (14.1/2)	1	22320.254.368	1.IN.X445 (17.1/2)	1	22320.254.444
1.IN.X300 (11.3/4)	1	22320.254.298	1.IN.X375 (14.3/4)	1	22320.254.374	1.IN.X450 (17.3/4)	1	22320.254.450
1.IN.X305 (12)	1	22320.254.304	1.IN.X380 (15)	1	22320.254.381	1.IN.X455 (18)	1	22320.254.457
1.IN.X310 (12.1/4)	1	22320.254.311	1.IN.X385 (15.1/4)	1	22320.254.387	1.IN.X460 (18.1/8)	1	22320.254.460
1.IN.X315 (12.1/2)	1	22320.254.317	1.IN.X390 (15.3/8)	1	22320.254.390	1.IN.X470 (18.1/2)	1	22320.254.469
1.IN.X320 (12.5/8)	1	22320.254.320	1.IN.X395 (15.1/2)	1	22320.254.393	1.IN.X485 (19)	1	22320.254.482
1.IN.X325 (12.3/4)	1	22320.254.323	1.IN.X405 (16)	1	22320.254.406	1.IN.X505 (19.7/8)	1	22320.254.505
1.IN.X330 (13)	1	22320.254.330	1.IN.X410 (16.1/8)	1	22320.254.410	1.IN.X515 (20.1/4)	1	22320.254.514
1.IN.X335 (13.1/4)	1	22320.254.336	1.IN.X415 (16.1/4)	1	22320.254.412	1.IN.X520 (20.1/2)	1	22320.254.520
1.IN.X340 (13.3/8)	1	22320.254.340	1.IN.X420 (16.1/2)	1	22320.254.419	1.IN.X595 (23.1/2)	1	22320.254.596
1.IN.X345 (13.1/2)	1	22320.254.342	1.IN.X425 (16.3/4)	1	22320.254.425			

22330 Perno com 2 porcas sextavadas G10A

Rosca 8 Unified National
Material Aço ASTM A320 - ASTM A194
Classe Gr.L7 - Gr.4

RoHS



d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo
1.1/8X100 (4)	1	22330.285.101	1.1/8X435 (17.1/8)	1	22330.285.435	1.1/4X250 (9.3/4)	1	22330.317.247
1.1/8X105 (4.1/8)	1	22330.285.105	1.1/8X440 (17.1/4)	1	22330.285.438	1.1/4X255 (10)	1	22330.317.254
1.1/8X110 (4.1/4)	1	22330.285.107	1.1/8X445 (17.1/2)	1	22330.285.444	1.1/4X260 (10.1/4)	1	22330.317.260
1.1/8X115 (4.1/2)	1	22330.285.114	1.1/8X450 (17.3/4)	1	22330.285.450	1.1/4X270 (10.5/8)	1	22330.317.270
1.1/8X120 (4.3/4)	1	22330.285.120	1.1/8X455 (18)	1	22330.285.457	1.1/4X280 (11)	1	22330.317.279
1.1/8X125 (5)	1	22330.285.127	1.1/8X460 (18.1/8)	1	22330.285.460	1.1/4X285 (11.1/4)	1	22330.317.285
1.1/8X130 (5.1/8)	1	22330.285.130	1.1/8X465 (18.1/4)	1	22330.285.463	1.1/4X290 (11.3/8)	1	22330.317.290
1.1/8X135 (5.1/4)	1	22330.285.133	1.1/8X470 (18.1/2)	1	22330.285.469	1.1/4X295 (11.1/2)	1	22330.317.292
1.1/8X140 (5.1/2)	1	22330.285.139	1.1/8X475 (18.3/4)	1	22330.285.476	1.1/4X300 (11.3/4)	1	22330.317.298
1.1/8X145 (5.3/4)	1	22330.285.146	1.1/8X480 (18.7/8)	1	22330.285.480	1.1/4X310 (12.1/4)	1	22330.317.311
1.1/8X150 (6)	1	22330.285.152	1.1/8X485 (19)	1	22330.285.482	1.1/4X315 (12.1/2)	1	22330.317.317
1.1/8X155 (6.1/8)	1	22330.285.155	1.1/8X490 (19.1/4)	1	22330.285.488	1.1/4X325 (12.3/4)	1	22330.317.323
1.1/8X160 (6.1/4)	1	22330.285.158	1.1/8X495 (19.1/2)	1	22330.285.495	1.1/4X335 (13.1/4)	1	22330.317.336
1.1/8X165 (6.1/2)	1	22330.285.165	1.1/8X500 (19.3/4)	1	22330.285.501	1.1/4X335 (13.1/4)	1	22330.317.337
1.1/8X170 (6.3/4)	1	22330.285.171	1.1/8X505 (19.7/8)	1	22330.285.505	1.1/4X340 (13.3/8)	1	22330.317.340
1.1/8X175 (6.7/8)	1	22330.285.175	1.1/8X510 (20)	1	22330.285.508	1.1/4X345 (13.1/2)	1	22330.317.342
1.1/8X180 (7)	1	22330.285.177	1.1/8X515 (20.1/4)	1	22330.285.514	1.1/4X350 (13.3/4)	1	22330.317.349
1.1/8X185 (7.1/4)	1	22330.285.184	1.1/8X520 (20.1/2)	1	22330.285.520	1.1/4X355 (14)	1	22330.317.355
1.1/8X190 (7.1/2)	1	22330.285.190	1.1/8X525 (20.3/4)	1	22330.285.527	1.1/4X360 (14.1/4)	1	22330.317.361
1.1/8X195 (7.3/4)	1	22330.285.196	1.1/8X530 (20.7/8)	1	22330.285.530	1.1/4X365 (14.3/8)	1	22330.317.365
1.1/8X200 (8)	1	22330.285.203	1.1/8X540 (21.1/4)	1	22330.285.539	1.1/4X370 (14.1/2)	1	22330.317.368
1.1/8X205 (8.1/8)	1	22330.285.205	1.1/8X550 (21.3/4)	1	22330.285.550	1.1/4X375 (14.3/4)	1	22330.317.374
1.1/8X210 (8.1/4)	1	22330.285.209	1.1/8X560 (22)	1	22330.285.558	1.1/4X380 (15)	1	22330.317.381
1.1/8X215 (8.1/2)	1	22330.285.215	1.1/8X570 (22.1/2)	1	22330.285.571	1.1/4X385 (15.1/4)	1	22330.317.387
1.1/8X220 (8.3/4)	1	22330.285.222	1.1/8X585 (23)	1	22330.285.584	1.1/4X390 (15.3/8)	1	22330.317.390
1.1/8X230 (9)	1	22330.285.228	1.1/8X590 (23.1/4)	1	22330.285.590	1.1/4X395 (15.1/2)	1	22330.317.393
1.1/8X235 (9.1/4)	1	22330.285.234	1.1/8X610 (24)	1	22330.285.609	1.1/4X400 (15.3/4)	1	22330.317.400
1.1/8X240 (9.1/2)	1	22330.285.241	1.1/8X620 (24.1/2)	1	22330.285.622	1.1/4X405 (16)	1	22330.317.406
1.1/8X245 (9.5/8)	1	22330.285.245	1.1/8X800 (31.1/2)	1	22330.285.800	1.1/4X410 (16.1/8)	1	22330.317.410
1.1/8X250 (9.3/4)	1	22330.285.247				1.1/4X415 (16.1/4)	1	22330.317.412
1.1/8X285 (11.1/4)	1	22330.285.285	1.1/4X105 (4.1/8)	1	22330.317.105	1.1/4X420 (16.1/2)	1	22330.317.419
1.1/8X300 (11.3/4)	1	22330.285.298	1.1/4X125 (5)	1	22330.317.127	1.1/4X425 (16.3/4)	1	22330.317.425
1.1/8X305 (12)	1	22330.285.304	1.1/4X130 (5.1/8)	1	22330.317.130	1.1/4X430 (17)	1	22330.317.431
1.1/8X310 (12.1/4)	1	22330.285.311	1.1/4X135 (5.1/4)	1	22330.317.133	1.1/4X435 (17.1/8)	1	22330.317.435
1.1/8X320 (12.5/8)	1	22330.285.320	1.1/4X140 (5.1/2)	1	22330.317.139	1.1/4X440 (17.1/4)	1	22330.317.438
1.1/8X325 (12.3/4)	1	22330.285.323	1.1/4X145 (5.3/4)	1	22330.317.146	1.1/4X445 (17.1/2)	1	22330.317.444
1.1/8X330 (13)	1	22330.285.330	1.1/4X150 (6)	1	22330.317.152	1.1/4X450 (17.3/4)	1	22330.317.450
1.1/8X335 (13.1/4)	1	22330.285.336	1.1/4X155 (6.1/8)	1	22330.317.155	1.1/4X450 (18)	1	22330.317.457
1.1/8X340 (13.3/8)	1	22330.285.340	1.1/4X160 (6.1/4)	1	22330.317.158	1.1/4X460 (18.1/4)	1	22330.317.460
1.1/8X350 (13.3/4)	1	22330.285.349	1.1/4X165 (6.1/2)	1	22330.317.165	1.1/4X470 (18.1/4)	1	22330.317.463
1.1/8X355 (14)	1	22330.285.355	1.1/4X170 (6.3/4)	1	22330.317.171	1.1/4X470 (18.1/2)	1	22330.317.469
1.1/8X360 (14.1/4)	1	22330.285.361	1.1/4X175 (6.7/8)	1	22330.317.175	1.1/4X475 (18.3/4)	1	22330.317.476
1.1/8X365 (14.3/8)	1	22330.285.365	1.1/4X180 (7)	1	22330.317.177	1.1/4X480 (18.7/8)	1	22330.317.480
1.1/8X370 (14.1/2)	1	22330.285.368	1.1/4X185 (7.1/4)	1	22330.317.184	1.1/4X485 (19)	1	22330.317.482
1.1/8X375 (14.3/4)	1	22330.285.374	1.1/4X190 (7.1/2)	1	22330.317.190	1.1/4X490 (19.1/4)	1	22330.317.488
1.1/8X380 (15)	1	22330.285.381	1.1/4X195 (7.3/4)	1	22330.317.196	1.1/4X495 (19.1/2)	1	22330.317.495
1.1/8X385 (15.1/4)	1	22330.285.387	1.1/4X200 (8)	1	22330.317.203	1.1/4X500 (19.3/4)	1	22330.317.501
1.1/8X390 (15.3/8)	1	22330.285.390	1.1/4X205 (8.1/8)	1	22330.317.205	1.1/4X510 (20)	1	22330.317.508
1.1/8X395 (15.1/2)	1	22330.285.393	1.1/4X210 (8.1/4)	1	22330.317.209	1.1/4X520 (20.1/2)	1	22330.317.520
1.1/8X400 (15.3/4)	1	22330.285.400	1.1/4X215 (8.1/2)	1	22330.317.215	1.1/4X530 (20.7/8)	1	22330.317.530
1.1/8X405 (16)	1	22330.285.406	1.1/4X220 (8.3/4)	1	22330.317.222	1.1/4X540 (21.1/4)	1	22330.317.539
1.1/8X410 (16.1/8)	1	22330.285.410	1.1/4X225 (8.7/8)	1	22330.317.225	1.1/4X550 (21.3/4)	1	22330.317.550
1.1/8X415 (16.1/4)	1	22330.285.412	1.1/4X230 (9)	1	22330.317.228	1.1/4X560 (22)	1	22330.317.558
1.1/8X420 (16.1/2)	1	22330.285.419	1.1/4X235 (9.1/4)	1	22330.317.234	1.1/4X600 (23.5/8)	1	22330.317.600
1.1/8X425 (16.3/4)	1	22330.285.425	1.1/4X240 (9.1/2)	1	22330.317.241	1.1/4X610 (24)	1	22330.317.609
1.1/8X430 (17)	1	22330.285.431	1.1/4X245 (9.5/8)	1	22330.317.245	1.1/4X630 (24.3/4)	1	22330.317.628

22330 Perno com 2 porcas sextavadas

d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo
1.1/4X650 (25.5/8)	1	22330.317.650	1.3/8X610 (24)	1	22330.349.609	1.5/8X275 (10.3/4)	1	22330.412.273
1.1/4X665 (26.1/4)	1	22330.317.666	1.3/8X670 (26.3/8)	1	22330.349.670	1.5/8X280 (11)	1	22330.412.279
1.1/4X690 (27.1/8)	1	22330.317.690	1.3/8X685 (27)	1	22330.349.685	1.5/8X285 (11.1/4)	1	22330.412.285
1.1/4X700 (27.1/2)	1	22330.317.698				1.5/8X290 (11.3/8)	1	22330.412.290
			1.1/2X140 (5.1/2)	1	22330.381.139	1.5/8X295 (11.1/2)	1	22330.412.292
1.3/8X150 (6)	1	22330.349.152	1.1/2X145 (5.3/4)	1	22330.381.146	1.5/8X300 (11.3/4)	1	22330.412.298
1.3/8X155 (6.1/8)	1	22330.349.155	1.1/2X150 (6)	1	22330.381.152	1.5/8X305 (12)	1	22330.412.304
1.3/8X160 (6.1/4)	1	22330.349.158	1.1/2X165 (6.1/2)	1	22330.381.165	1.5/8X310 (12.1/4)	1	22330.412.311
1.3/8X165 (6.1/2)	1	22330.349.165	1.1/2X170 (6.3/4)	1	22330.381.171	1.5/8X315 (12.1/2)	1	22330.412.317
1.3/8X170 (6.3/4)	1	22330.349.171	1.1/2X180 (7)	1	22330.381.177	1.5/8X320 (12.5/8)	1	22330.412.320
1.3/8X175 (6.7/8)	1	22330.349.175	1.1/2X185 (7.1/4)	1	22330.381.184	1.5/8X325 (12.3/4)	1	22330.412.323
1.3/8X180 (7)	1	22330.349.177	1.1/2X190 (7.1/2)	1	22330.381.190	1.5/8X330 (13)	1	22330.412.330
1.3/8X185 (7.1/4)	1	22330.349.184	1.1/2X195 (7.3/4)	1	22330.381.196	1.5/8X335 (13.1/4)	1	22330.412.336
1.3/8X195 (7.3/4)	1	22330.349.196	1.1/2X200 (8)	1	22330.381.203	1.5/8X340 (13.3/8)	1	22330.412.340
1.3/8X200 (8)	1	22330.349.203	1.1/2X205 (8.1/8)	1	22330.381.205	1.5/8X345 (13.1/2)	1	22330.412.342
1.3/8X205 (8.1/8)	1	22330.349.205	1.1/2X215 (8.1/2)	1	22330.381.215	1.5/8X350 (13.3/4)	1	22330.412.349
1.3/8X210 (8.1/4)	1	22330.349.209	1.1/2X220 (8.3/4)	1	22330.381.222	1.5/8X355 (14)	1	22330.412.355
1.3/8X215 (8.1/2)	1	22330.349.215	1.1/2X225 (8.7/8)	1	22330.381.225	1.5/8X360 (14.1/4)	1	22330.412.361
1.3/8X220 (8.3/4)	1	22330.349.222	1.1/2X230 (9)	1	22330.381.228	1.5/8X365 (14.3/8)	1	22330.412.365
1.3/8X225 (8.7/8)	1	22330.349.225	1.1/2X235 (9.1/4)	1	22330.381.234	1.5/8X370 (14.1/2)	1	22330.412.368
1.3/8X230 (9)	1	22330.349.228	1.1/2X240 (9.1/2)	1	22330.381.241	1.5/8X375 (14.3/4)	1	22330.412.374
1.3/8X235 (9.1/4)	1	22330.349.234	1.1/2X245 (9.5/8)	1	22330.381.245	1.5/8X380 (15)	1	22330.412.381
1.3/8X240 (9.1/2)	1	22330.349.241	1.1/2X250 (9.3/4)	1	22330.381.247	1.5/8X385 (15.1/4)	1	22330.412.387
1.3/8X245 (9.5/8)	1	22330.349.245	1.1/2X255 (10)	1	22330.381.254	1.5/8X390 (15.3/8)	1	22330.412.390
1.3/8X250 (9.3/4)	1	22330.349.247	1.1/2X260 (10.1/4)	1	22330.381.260	1.5/8X395 (15.1/2)	1	22330.412.393
1.3/8X255 (10)	1	22330.349.254	1.1/2X265 (10.1/2)	1	22330.381.266	1.5/8X400 (15.3/4)	1	22330.412.400
1.3/8X260 (10.1/4)	1	22330.349.260	1.1/2X270 (10.5/8)	1	22330.381.270	1.5/8X405 (16)	1	22330.412.406
1.3/8X265 (10.1/2)	1	22330.349.266	1.1/2X275 (10.3/4)	1	22330.381.273	1.5/8X410 (16.1/8)	1	22330.412.410
1.3/8X270 (10.5/8)	1	22330.349.270	1.1/2X280 (11)	1	22330.381.279	1.5/8X415 (16.1/4)	1	22330.412.412
1.3/8X275 (10.3/4)	1	22330.349.273	1.1/2X285 (11.1/4)	1	22330.381.285	1.5/8X420 (16.1/2)	1	22330.412.419
1.3/8X280 (11)	1	22330.349.279	1.1/2X290 (11.3/8)	1	22330.381.290	1.5/8X425 (16.3/4)	1	22330.412.425
1.3/8X285 (11.1/4)	1	22330.349.285	1.1/2X295 (11.1/2)	1	22330.381.292	1.5/8X430 (17)	1	22330.412.431
1.3/8X290 (11.3/8)	1	22330.349.290	1.1/2X300 (11.3/4)	1	22330.381.298	1.5/8X435 (17.1/8)	1	22330.412.435
1.3/8X295 (11.1/2)	1	22330.349.292	1.1/2X305 (12)	1	22330.381.304	1.5/8X440 (17.1/4)	1	22330.412.438
1.3/8X300 (11.3/4)	1	22330.349.298	1.1/2X310 (12.1/4)	1	22330.381.311	1.5/8X445 (17.1/2)	1	22330.412.444
1.3/8X305 (12)	1	22330.349.304	1.1/2X315 (12.1/2)	1	22330.381.317	1.5/8X450 (17.3/4)	1	22330.412.450
1.3/8X310 (12.1/4)	1	22330.349.311	1.1/2X320 (12.5/8)	1	22330.381.320	1.5/8X490 (19.1/4)	1	22330.412.488
1.3/8X315 (12.1/2)	1	22330.349.317	1.1/2X325 (12.3/4)	1	22330.381.323	1.5/8X495 (19.1/2)	1	22330.412.495
1.3/8X320 (12.5/8)	1	22330.349.320	1.1/2X330 (13)	1	22330.381.330	1.5/8X500 (19.3/4)	1	22330.412.501
1.3/8X325 (12.3/4)	1	22330.349.323	1.1/2X335 (13.1/4)	1	22330.381.336	1.5/8X530 (20.7/8)	1	22330.412.530
1.3/8X330 (13)	1	22330.349.330	1.1/2X340 (13.3/8)	1	22330.381.340	1.5/8X545 (21.1/2)	1	22330.412.546
1.3/8X335 (13.1/4)	1	22330.349.336	1.1/2X345 (13.1/2)	1	22330.381.342	1.5/8X685 (27)	1	22330.412.685
1.3/8X340 (13.3/8)	1	22330.349.340	1.1/2X350 (13.3/4)	1	22330.381.349			
1.3/8X345 (13.1/2)	1	22330.349.342	1.1/2X355 (14)	1	22330.381.355	1.3/4X155 (6.1/8)	1	22330.444.155
1.3/8X350 (13.3/4)	1	22330.349.349	1.1/2X360 (14.1/4)	1	22330.381.361	1.3/4X180 (7)	1	22330.444.177
1.3/8X355 (14)	1	22330.349.355	1.1/2X365 (14.3/8)	1	22330.381.365	1.3/4X200 (8)	1	22330.444.203
1.3/8X360 (14.1/4)	1	22330.349.361	1.1/2X370 (14.1/2)	1	22330.381.368	1.3/4X205 (8.1/8)	1	22330.444.205
1.3/8X365 (14.3/8)	1	22330.349.365	1.1/2X375 (14.3/4)	1	22330.381.374	1.3/4X210 (8.1/4)	1	22330.444.209
1.3/8X370 (14.1/2)	1	22330.349.368	1.1/2X380 (15)	1	22330.381.381	1.3/4X215 (8.1/2)	1	22330.444.215
1.3/8X375 (14.3/4)	1	22330.349.374	1.1/2X385 (15.1/4)	1	22330.381.387	1.3/4X220 (8.3/4)	1	22330.444.222
1.3/8X380 (15)	1	22330.349.381	1.1/2X390 (15.3/8)	1	22330.381.390	1.3/4X225 (8.7/8)	1	22330.444.225
1.3/8X385 (15.1/4)	1	22330.349.387	1.1/2X395 (15.1/2)	1	22330.381.393	1.3/4X230 (9)	1	22330.444.228
1.3/8X390 (15.3/8)	1	22330.349.390	1.1/2X400 (15.3/4)	1	22330.381.400	1.3/4X235 (9.1/4)	1	22330.444.234
1.3/8X395 (15.1/2)	1	22330.349.393	1.1/2X405 (16)	1	22330.381.406	1.3/4X240 (9.1/2)	1	22330.444.241
1.3/8X400 (15.3/4)	1	22330.349.400	1.1/2X410 (16.1/8)	1	22330.381.410	1.3/4X245 (9.5/8)	1	22330.444.245
1.3/8X405 (16)	1	22330.349.406	1.1/2X415 (16.1/4)	1	22330.381.412	1.3/4X250 (9.3/4)	1	22330.444.247
1.3/8X410 (16.1/8)	1	22330.349.410	1.1/2X420 (16.1/2)	1	22330.381.419	1.3/4X255 (10)	1	22330.444.254
1.3/8X415 (16.1/4)	1	22330.349.412	1.1/2X430 (17)	1	22330.381.431	1.3/4X260 (10.1/4)	1	22330.444.260
1.3/8X420 (16.1/2)	1	22330.349.419	1.1/2X440 (17.1/4)	1	22330.381.438	1.3/4X265 (10.1/2)	1	22330.444.266
1.3/8X425 (16.3/4)	1	22330.349.425	1.1/2X450 (17.3/4)	1	22330.381.450	1.3/4X270 (10.5/8)	1	22330.444.270
1.3/8X430 (17)	1	22330.349.431	1.1/2X455 (18)	1	22330.381.457	1.3/4X275 (10.3/4)	1	22330.444.273
1.3/8X435 (17.1/8)	1	22330.349.435	1.1/2X460 (18.1/8)	1	22330.381.460	1.3/4X280 (11)	1	22330.444.279
1.3/8X440 (17.1/4)	1	22330.349.438	1.1/2X480 (18.7/8)	1	22330.381.480	1.3/4X285 (11.1/4)	1	22330.444.285
1.3/8X445 (17.1/2)	1	22330.349.444	1.1/2X490 (19.1/4)	1	22330.381.488	1.3/4X290 (11.3/8)	1	22330.444.290
1.3/8X450 (17.3/4)	1	22330.349.450	1.1/2X500 (19.3/4)	1	22330.381.501	1.3/4X295 (11.1/2)	1	22330.444.292
1.3/8X455 (18)	1	22330.349.457	1.1/2X510 (20)	1	22330.381.508	1.3/4X300 (11.3/4)	1	22330.444.298
1.3/8X460 (18.1/8)	1	22330.349.460	1.1/2X525 (20.3/4)	1	22330.381.527	1.3/4X305 (12)	1	22330.444.304
1.3/8X465 (18.1/4)	1	22330.349.463	1.1/2X530 (20.7/8)	1	22330.381.530	1.3/4X310 (12.1/4)	1	22330.444.311
1.3/8X470 (18.1/2)	1	22330.349.469	1.1/2X545 (21.1/2)	1	22330.381.546	1.3/4X315 (12.1/2)	1	22330.444.317
1.3/8X475 (18.3/4)	1	22330.349.476	1.1/2X550 (21.3/4)	1	22330.381.552	1.3/4X320 (12.5/8)	1	22330.444.320
1.3/8X480 (18.7/8)	1	22330.349.480	1.1/2X560 (22)	1	22330.381.558	1.3/4X325 (12.3/4)	1	22330.444.323
1.3/8X485 (19)	1	22330.349.482	1.1/2X565 (22.1/4)	1	22330.381.565	1.3/4X330 (13)	1	22330.444.330
1.3/8X490 (19.1/4)	1	22330.349.488	1.1/2X600 (23.5/8)	1	22330.381.600	1.3/4X335 (13.1/4)	1	22330.444.336
1.3/8X495 (19.1/2)	1	22330.349.495	1.1/2X700 (27.1/2)	1	22330.381.698	1.3/4X340 (13.3/8)	1	22330.444.340
1.3/8X500 (19.3/4)	1	22330.349.501	1.1/2X810 (32)	1	22330.381.812	1.3/4X345 (13.1/2)	1	22330.444.342
1.3/8X520 (20.1/2)	1	22330.349.520				1.3/4X350 (13.3/4)	1	22330.444.349
1.3/8X530 (20.7/8)	1	22330.349.530	1.5/8X180 (7)	1	22330.412.177	1.3/4X355 (14)	1	22330.444.355
1.3/8X535 (21)	1	22330.349.533	1.5/8X190 (7.1/2)	1	22330.412.190	1.3/4X360 (14.1/4)	1	22330.444.361
1.3/8X545 (21.1/2)	1	22330.349.546	1.5/8X255 (10)	1	22330.412.254	1.3/4X365 (14.3/8)	1	22330.444.365
1.3/8X550 (21.3/4)	1	22330.349.552	1.5/8X260 (10.1/4)	1	22330.412.260	1.3/4X370 (14.1/2)	1	22330.444.368
1.3/8X555 (21.7/8)	1	22330.349.555	1.5/8X265 (10.1/2)	1	22330.412.266	1.3/4X375 (14.3/4)	1	22330.444.374
1.3/8X575 (22.3/4)	1	22330.349.577	1.5/8X270 (10.5/8)	1	22330.412.270	1.3/4X380 (15)	1	22330.444.381

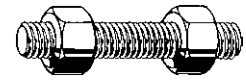
22330 Perno com 2 porcas sextavadas

d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo
1.3/4X385 (15.1/4)	1	22330.444.387	1.7/8X485 (19)	1	22330.476.482	2.IN.X755 (29.3/4)	1	22330.508.755
1.3/4X390 (15.3/8)	1	22330.444.390	1.7/8X490 (19.1/4)	1	22330.476.488			
1.3/4X395 (15.1/2)	1	22330.444.393	1.7/8X495 (19.1/2)	1	22330.476.495	2.1/4X280 (11)	1	22330.571.279
1.3/4X400 (15.3/4)	1	22330.444.400	1.7/8X500 (19.3/4)	1	22330.476.501	2.1/4X375 (14.3/4)	1	22330.571.374
1.3/4X405 (16)	1	22330.444.406	1.7/8X510 (20)	1	22330.476.508	2.1/4X390 (15.3/8)	1	22330.571.390
1.3/4X410 (16.1/8)	1	22330.444.410	1.7/8X555 (21.7/8)	1	22330.476.555	2.1/4X405 (16)	1	22330.571.406
1.3/4X415 (16.1/4)	1	22330.444.412	1.7/8X560 (22)	1	22330.476.558	2.1/4X425 (16.3/4)	1	22330.571.425
1.3/4X420 (16.1/2)	1	22330.444.419	1.7/8X565 (22.1/4)	1	22330.476.565	2.1/4X430 (17)	1	22330.571.431
1.3/4X425 (16.3/4)	1	22330.444.425	1.7/8X600 (23.5/8)	1	22330.476.600	2.1/4X470 (18.1/2)	1	22330.571.469
1.3/4X430 (17)	1	22330.444.431	1.7/8X620 (24.1/2)	1	22330.476.622	2.1/4X485 (19)	1	22330.571.482
1.3/4X435 (17.1/8)	1	22330.444.435	1.7/8X675 (26.1/2)	1	22330.476.673	2.1/4X510 (20)	1	22330.571.508
1.3/4X440 (17.1/4)	1	22330.444.438	1.7/8X685 (27)	1	22330.476.685	2.1/4X520 (20.1/2)	1	22330.571.520
1.3/4X445 (17.1/2)	1	22330.444.444				2.1/4X550 (21.3/4)	1	22330.571.552
1.3/4X450 (17.3/4)	1	22330.444.450	2.IN.X205 (8.1/8)	1	22330.508.205	2.1/4X585 (23)	1	22330.571.584
1.3/4X455 (18)	1	22330.444.457	2.IN.X255 (10)	1	22330.508.254	2.1/4X590 (23.1/4)	1	22330.571.590
1.3/4X460 (18.1/8)	1	22330.444.460	2.IN.X305 (12)	1	22330.508.304	2.1/4X600 (23.5/8)	1	22330.571.600
1.3/4X470 (18.1/2)	1	22330.444.469	2.IN.X310 (12.1/4)	1	22330.508.311	2.1/4X695 (27.3/8)	1	22330.571.695
1.3/4X480 (18.7/8)	1	22330.444.480	2.IN.X315 (12.1/2)	1	22330.508.317	2.1/4X700 (27.1/2)	1	22330.571.698
1.3/4X485 (19)	1	22330.444.482	2.IN.X320 (12.5/8)	1	22330.508.320	2.1/4X870 (34.1/4)	1	22330.571.869
1.3/4X490 (19.1/4)	1	22330.444.488	2.IN.X325 (12.3/4)	1	22330.508.323			
1.3/4X495 (19.1/2)	1	22330.444.495	2.IN.X330 (13)	1	22330.508.330	2.1/2X380 (15)	1	22330.635.381
1.3/4X500 (19.3/4)	1	22330.444.501	2.IN.X335 (13.1/4)	1	22330.508.336	2.1/2X405 (16)	1	22330.635.406
1.3/4X510 (20)	1	22330.444.508	2.IN.X340 (13.3/8)	1	22330.508.340	2.1/2X435 (17.1/8)	1	22330.635.435
1.3/4X520 (20.1/2)	1	22330.444.520	2.IN.X345 (13.1/2)	1	22330.508.342	2.1/2X440 (17.1/4)	1	22330.635.438
1.3/4X570 (22.1/2)	1	22330.444.571	2.IN.X350 (13.3/4)	1	22330.508.349	2.1/2X445 (17.1/2)	1	22330.635.444
1.3/4X580 (22.7/8)	1	22330.444.580	2.IN.X355 (14)	1	22330.508.355	2.1/2X470 (18.1/2)	1	22330.635.469
1.3/4X595 (23.1/2)	1	22330.444.596	2.IN.X360 (14.1/4)	1	22330.508.361	2.1/2X485 (19)	1	22330.635.482
1.3/4X600 (23.5/8)	1	22330.444.600	2.IN.X365 (14.3/8)	1	22330.508.365	2.1/2X490 (19.1/4)	1	22330.635.488
1.3/4X610 (24)	1	22330.444.609	2.IN.X370 (14.1/2)	1	22330.508.368	2.1/2X495 (19.1/2)	1	22330.635.495
1.3/4X625 (24.5/8)	1	22330.444.625	2.IN.X375 (14.3/4)	1	22330.508.374	2.1/2X510 (20)	1	22330.635.508
1.3/4X650 (25.5/8)	1	22330.444.650	2.IN.X380 (15)	1	22330.508.381	2.1/2X520 (20.1/2)	1	22330.635.520
1.3/4X685 (27)	1	22330.444.685	2.IN.X385 (15.1/4)	1	22330.508.387	2.1/2X530 (20.7/8)	1	22330.635.530
1.3/4X710 (28)	1	22330.444.711	2.IN.X390 (15.3/8)	1	22330.508.390	2.1/2X535 (21)	1	22330.635.533
			2.IN.X395 (15.1/2)	1	22330.508.393	2.1/2X545 (21.1/2)	1	22330.635.546
1.7/8X255 (10)	1	22330.476.254	2.IN.X400 (15.3/4)	1	22330.508.400	2.1/2X560 (22)	1	22330.635.558
1.7/8X280 (11)	1	22330.476.279	2.IN.X405 (16)	1	22330.508.406	2.1/2X570 (22.1/2)	1	22330.635.571
1.7/8X305 (12)	1	22330.476.304	2.IN.X410 (16.1/8)	1	22330.508.410	2.1/2X585 (23)	1	22330.635.584
1.7/8X310 (12.1/4)	1	22330.476.311	2.IN.X415 (16.1/4)	1	22330.508.412	2.1/2X590 (23.1/4)	1	22330.635.590
1.7/8X315 (12.1/2)	1	22330.476.317	2.IN.X420 (16.1/2)	1	22330.508.419	2.1/2X600 (23.5/8)	1	22330.635.600
1.7/8X320 (12.5/8)	1	22330.476.320	2.IN.X425 (16.3/4)	1	22330.508.425	2.1/2X630 (24.3/4)	1	22330.635.628
1.7/8X325 (12.3/4)	1	22330.476.323	2.IN.X430 (17)	1	22330.508.431	2.1/2X650 (25.5/8)	1	22330.635.650
1.7/8X330 (13)	1	22330.476.330	2.IN.X435 (17.1/8)	1	22330.508.435	2.1/2X730 (28.3/4)	1	22330.635.730
1.7/8X335 (13.1/4)	1	22330.476.336	2.IN.X440 (17.1/4)	1	22330.508.438	2.1/2X780 (30.3/4)	1	22330.635.781
1.7/8X340 (13.3/8)	1	22330.476.340	2.IN.X445 (17.1/2)	1	22330.508.444	2.1/2X805 (31.3/4)	1	22330.635.806
1.7/8X345 (13.1/2)	1	22330.476.342	2.IN.X450 (17.3/4)	1	22330.508.450	2.1/2X845 (33.1/4)	1	22330.635.844
1.7/8X350 (13.3/4)	1	22330.476.349	2.IN.X455 (18)	1	22330.508.457	2.1/2X890 (35)	1	22330.635.889
1.7/8X355 (14)	1	22330.476.355	2.IN.X460 (18.1/8)	1	22330.508.460	2.1/2X950 (37.3/8)	1	22330.635.950
1.7/8X360 (14.1/4)	1	22330.476.361	2.IN.X465 (18.1/4)	1	22330.508.463			
1.7/8X365 (14.3/8)	1	22330.476.365	2.IN.X470 (18.1/2)	1	22330.508.469	2.3/4X450 (17.3/4)	1	22330.698.450
1.7/8X370 (14.1/2)	1	22330.476.368	2.IN.X475 (18.3/4)	1	22330.508.476	2.3/4X500 (19.3/4)	1	22330.698.501
1.7/8X375 (14.3/4)	1	22330.476.374	2.IN.X480 (18.7/8)	1	22330.508.480	2.3/4X520 (20.1/2)	1	22330.698.520
1.7/8X380 (15)	1	22330.476.381	2.IN.X485 (19)	1	22330.508.482	2.3/4X535 (21)	1	22330.698.533
1.7/8X385 (15.1/4)	1	22330.476.387	2.IN.X490 (19.1/4)	1	22330.508.488	2.3/4X600 (23.5/8)	1	22330.698.600
1.7/8X390 (15.3/8)	1	22330.476.390	2.IN.X495 (19.1/2)	1	22330.508.495	2.3/4X620 (24.1/2)	1	22330.698.622
1.7/8X395 (15.1/2)	1	22330.476.393	2.IN.X500 (19.3/4)	1	22330.508.501	2.3/4X630 (24.3/4)	1	22330.698.628
1.7/8X400 (15.3/4)	1	22330.476.400	2.IN.X510 (20)	1	22330.508.508	2.3/4X660 (26)	1	22330.698.660
1.7/8X405 (16)	1	22330.476.406	2.IN.X550 (21.3/4)	1	22330.508.552	2.3/4X690 (27.1/4)	1	22330.698.692
1.7/8X410 (16.1/8)	1	22330.476.410	2.IN.X565 (22.1/4)	1	22330.508.565	2.3/4X710 (28)	1	22330.698.711
1.7/8X415 (16.1/4)	1	22330.476.412	2.IN.X570 (22.1/2)	1	22330.508.571	2.3/4X720 (28.3/8)	1	22330.698.720
1.7/8X420 (16.1/2)	1	22330.476.419	2.IN.X595 (23.1/2)	1	22330.508.596	2.3/4X730 (28.3/4)	1	22330.698.730
1.7/8X425 (16.3/4)	1	22330.476.425	2.IN.X600 (23.5/8)	1	22330.508.600			
1.7/8X430 (17)	1	22330.476.431	2.IN.X645 (25.1/2)	1	22330.508.647	3.IN.X355 (14)	1	22330.762.355
1.7/8X435 (17.1/8)	1	22330.476.435	2.IN.X650 (25.5/8)	1	22330.508.650	3.IN.X475 (18.3/4)	1	22330.762.476
1.7/8X440 (17.1/4)	1	22330.476.438	2.IN.X655 (25.3/4)	1	22330.508.654	3.IN.X585 (23)	1	22330.762.584
1.7/8X445 (17.1/2)	1	22330.476.444	2.IN.X660 (26)	1	22330.508.660	3.IN.X590 (23.1/4)	1	22330.762.590
1.7/8X450 (17.3/4)	1	22330.476.450	2.IN.X670 (26.3/8)	1	22330.508.670	3.IN.X650 (25.5/8)	1	22330.762.650
1.7/8X455 (18)	1	22330.476.457	2.IN.X680 (26.3/4)	1	22330.508.679	3.IN.X660 (26)	1	22330.762.660
1.7/8X460 (18.1/8)	1	22330.476.460	2.IN.X690 (27.1/4)	1	22330.508.692	3.IN.X700 (27.1/2)	1	22330.762.698
1.7/8X465 (18.1/4)	1	22330.476.463	2.IN.X700 (27.1/2)	1	22330.508.698	3.IN.X710 (28)	1	22330.762.711
1.7/8X470 (18.1/2)	1	22330.476.469	2.IN.X710 (28)	1	22330.508.711	3.IN.X735 (29)	1	22330.762.736
1.7/8X475 (18.3/4)	1	22330.476.476	2.IN.X740 (29.1/4)	1	22330.508.742	3.IN.X800 (31.1/2)	1	22330.762.800
1.7/8X480 (18.7/8)	1	22330.476.480	2.IN.X750 (29.1/2)	1	22330.508.749	3.IN.X850 (33.1/2)	1	22330.762.850

22534 Perno com 2 porcas sextavadas G12A

Rosca Unified National Coarse
Material Aço inoxidável ASTM A193 - ASTM A194
Classe Gr.B8 Cl.1 - Gr.8

RoHS



d x L mm (L Inch)	✉	Ref. do artigo
3/8X25 (1)	1	22534.096.025
3/8X30 (1.1/4)	1	22534.096.031
3/8X40 (1.1/2)	1	22534.096.038
3/8X45 (1.3/4)	1	22534.096.044
3/8X60 (2.3/8)	1	22534.096.060
3/8X65 (2.1/2)	1	22534.096.063
3/8X70 (2.3/4)	1	22534.096.069
3/8X80 (3.1/4)	1	22534.096.082
3/8X95 (3.3/4)	1	22534.096.095
3/8X100 (4)	1	22534.096.101
3/8X150 (6)	1	22534.096.152
3/8X175 (6.7/8)	1	22534.096.175
3/8X185 (7.1/4)	1	22534.096.184
3/8X215 (8.1/2)	1	22534.096.215
1/2X40 (1.1/2)	1	22534.127.038
1/2X45 (1.3/4)	1	22534.127.044
1/2X50 (2)	1	22534.127.050
1/2X55 (2.1/4)	1	22534.127.057
1/2X60 (2.3/8)	1	22534.127.060
1/2X65 (2.1/2)	1	22534.127.063
1/2X70 (2.3/4)	1	22534.127.069
1/2X75 (3)	1	22534.127.076
1/2X80 (3.1/4)	1	22534.127.082
1/2X85 (3.3/8)	1	22534.127.085
1/2X90 (3.1/2)	1	22534.127.088
1/2X95 (3.3/4)	1	22534.127.095
1/2X100 (4)	1	22534.127.101
1/2X105 (4.1/8)	1	22534.127.105
1/2X110 (4.1/4)	1	22534.127.107
1/2X115 (4.1/2)	1	22534.127.114
1/2X120 (4.3/4)	1	22534.127.120
1/2X125 (5)	1	22534.127.127
1/2X130 (5.1/8)	1	22534.127.130
1/2X135 (5.1/4)	1	22534.127.133
1/2X140 (5.1/2)	1	22534.127.139
1/2X145 (5.3/4)	1	22534.127.146
1/2X150 (6)	1	22534.127.152
1/2X155 (6.1/8)	1	22534.127.155
1/2X160 (6.1/4)	1	22534.127.158
1/2X165 (6.1/2)	1	22534.127.165
1/2X170 (6.3/4)	1	22534.127.171
1/2X175 (6.7/8)	1	22534.127.175
1/2X180 (7)	1	22534.127.177
1/2X185 (7.1/4)	1	22534.127.184
1/2X190 (7.1/2)	1	22534.127.190
1/2X195 (7.3/4)	1	22534.127.196
1/2X200 (8)	1	22534.127.203
1/2X205 (8.1/8)	1	22534.127.205
1/2X210 (8.1/4)	1	22534.127.209
1/2X225 (8.7/8)	1	22534.127.225
1/2X230 (9)	1	22534.127.228
1/2X250 (9.3/4)	1	22534.127.247
1/2X280 (11)	1	22534.127.279
5/8X40 (1.1/2)	1	22534.158.038
5/8X45 (1.3/4)	1	22534.158.044
5/8X50 (2)	1	22534.158.050
5/8X55 (2.1/4)	1	22534.158.057
5/8X60 (2.3/8)	1	22534.158.060
5/8X65 (2.1/2)	1	22534.158.063
5/8X70 (2.3/4)	1	22534.158.069
5/8X75 (3)	1	22534.158.076
5/8X80 (3.1/4)	1	22534.158.082
5/8X85 (3.3/8)	1	22534.158.085
5/8X90 (3.1/2)	1	22534.158.088
5/8X95 (3.3/4)	1	22534.158.095
5/8X100 (4)	1	22534.158.101
5/8X105 (4.1/8)	1	22534.158.105
5/8X110 (4.1/4)	1	22534.158.107
5/8X115 (4.1/2)	1	22534.158.114
5/8X120 (4.3/4)	1	22534.158.120
5/8X125 (5)	1	22534.158.127
5/8X130 (5.1/8)	1	22534.158.130
5/8X135 (5.1/4)	1	22534.158.133
5/8X140 (5.1/2)	1	22534.158.139
5/8X145 (5.3/4)	1	22534.158.146
5/8X150 (6)	1	22534.158.152
5/8X155 (6.1/8)	1	22534.158.155
5/8X160 (6.1/4)	1	22534.158.158
5/8X165 (6.1/2)	1	22534.158.165
5/8X170 (6.3/4)	1	22534.158.171
5/8X175 (6.7/8)	1	22534.158.175
5/8X180 (7)	1	22534.158.177
5/8X185 (7.1/4)	1	22534.158.184
5/8X190 (7.1/2)	1	22534.158.190
5/8X195 (7.3/4)	1	22534.158.196
5/8X200 (8)	1	22534.158.203
5/8X205 (8.1/8)	1	22534.158.205
5/8X210 (8.1/4)	1	22534.158.209
5/8X215 (8.1/2)	1	22534.158.215
5/8X220 (8.3/4)	1	22534.158.222
5/8X225 (8.7/8)	1	22534.158.225
5/8X230 (9)	1	22534.158.228
5/8X235 (9.1/4)	1	22534.158.234
5/8X240 (9.1/2)	1	22534.158.241
5/8X245 (9.5/8)	1	22534.158.245
5/8X250 (9.3/4)	1	22534.158.247
5/8X255 (10)	1	22534.158.254
5/8X260 (10.1/4)	1	22534.158.260
5/8X265 (10.1/2)	1	22534.158.266
5/8X270 (10.5/8)	1	22534.158.270
5/8X275 (10.3/4)	1	22534.158.273
5/8X280 (11)	1	22534.158.279
5/8X285 (11.1/4)	1	22534.158.285
5/8X290 (11.3/8)	1	22534.158.290
5/8X295 (11.1/2)	1	22534.158.292
5/8X300 (11.3/4)	1	22534.158.298
5/8X305 (12)	1	22534.158.304
5/8X310 (12.1/4)	1	22534.158.311
5/8X315 (12.1/2)	1	22534.158.317
5/8X320 (12.5/8)	1	22534.158.320
5/8X325 (12.3/4)	1	22534.158.323
5/8X330 (13)	1	22534.158.330
5/8X335 (13.1/4)	1	22534.158.336
5/8X340 (13.3/8)	1	22534.158.340
5/8X370 (14.1/2)	1	22534.158.368
5/8X375 (14.3/4)	1	22534.158.374
5/8X385 (15.1/4)	1	22534.158.387
3/4X50 (2)	1	22534.191.050
3/4X55 (2.1/4)	1	22534.191.057
3/4X60 (2.3/8)	1	22534.191.060
3/4X65 (2.1/2)	1	22534.191.063
3/4X70 (2.3/4)	1	22534.191.069
3/4X75 (3)	1	22534.191.076
3/4X80 (3.1/4)	1	22534.191.082
3/4X85 (3.3/8)	1	22534.191.085
3/4X90 (3.1/2)	1	22534.191.088
3/4X95 (3.3/4)	1	22534.191.095
3/4X100 (4)	1	22534.191.101
3/4X105 (4.1/8)	1	22534.191.105
3/4X110 (4.1/4)	1	22534.191.107
3/4X115 (4.1/2)	1	22534.191.114
3/4X120 (4.3/4)	1	22534.191.120
3/4X125 (5)	1	22534.191.127
3/4X130 (5.1/8)	1	22534.191.130
3/4X135 (5.1/4)	1	22534.191.133
3/4X140 (5.1/2)	1	22534.191.139
3/4X145 (5.3/4)	1	22534.191.146
3/4X150 (6.IN.)	1	22534.191.152
3/4X155 (6.1/8)	1	22534.191.155
3/4X160 (6.1/4)	1	22534.191.158
3/4X165 (6.1/2)	1	22534.191.165
3/4X170 (6.3/4)	1	22534.191.171
3/4X175 (6.7/8)	1	22534.191.175
3/4X180 (7)	1	22534.191.177
3/4X185 (7.1/4)	1	22534.191.184
3/4X190 (7.1/2)	1	22534.191.190
3/4X195 (7.3/4)	1	22534.191.196
3/4X200 (8)	1	22534.191.203
3/4X205 (8.1/8)	1	22534.191.205
3/4X210 (8.1/4)	1	22534.191.209
3/4X215 (8.1/2)	1	22534.191.215
3/4X220 (8.3/4)	1	22534.191.222
3/4X225 (8.7/8)	1	22534.191.225
3/4X230 (9)	1	22534.191.228
3/4X235 (9.1/4)	1	22534.191.234
3/4X240 (9.1/2)	1	22534.191.241
3/4X245 (9.5/8)	1	22534.191.245
3/4X250 (9.3/4)	1	22534.191.247
3/4X255 (10)	1	22534.191.254
3/4X260 (10.1/4)	1	22534.191.260
3/4X265 (10.1/2)	1	22534.191.266
3/4X270 (10.5/8)	1	22534.191.270
3/4X275 (10.3/4)	1	22534.191.273
3/4X280 (11)	1	22534.191.279
3/4X285 (11.1/4)	1	22534.191.285
3/4X290 (11.3/8)	1	22534.191.290
3/4X295 (11.1/2)	1	22534.191.292
3/4X300 (11.3/4)	1	22534.191.298
3/4X305 (12)	1	22534.191.304
3/4X310 (12.1/4)	1	22534.191.311
3/4X315 (12.1/2)	1	22534.191.317
3/4X320 (12.3/8)	1	22534.191.320
3/4X325 (12.3/4)	1	22534.191.323
3/4X330 (13)	1	22534.191.330
3/4X335 (13.1/4)	1	22534.191.336
3/4X340 (13.3/8)	1	22534.191.340
3/4X345 (13.1/2)	1	22534.191.342
3/4X350 (13.3/4)	1	22534.191.349
3/4X355 (14)	1	22534.191.355
3/4X360 (14.1/4)	1	22534.191.361
3/4X365 (14.3/8)	1	22534.191.365
3/4X370 (14.1/2)	1	22534.191.368
3/4X375 (14.3/4)	1	22534.191.374
3/4X380 (15)	1	22534.191.381
3/4X385 (15.1/4)	1	22534.191.387
3/4X390 (15.3/8)	1	22534.191.390
3/4X395 (15.1/2)	1	22534.191.393
3/4X400 (15.3/4)	1	22534.191.400
3/4X405 (16)	1	22534.191.406
3/4X410 (16.1/8)	1	22534.191.410
3/4X415 (16.1/4)	1	22534.191.412
3/4X420 (16.1/2)	1	22534.191.419
3/4X430 (17)	1	22534.191.431
3/4X440 (17.1/4)	1	22534.191.438
3/4X450 (17.3/4)	1	22534.191.450
3/4X455 (18)	1	22534.191.457
3/4X470 (18.1/2)	1	22534.191.469
3/4X480 (18.7/8)	1	22534.191.480
3/4X485 (19)	1	22534.191.482
3/4X580 (22.7/8)	1	22534.191.580
3/4X625 (24.5/8)	1	22534.191.625
7/8X70 (2.3/4)	1	22534.222.069
7/8X75 (3)	1	22534.222.076
7/8X80 (3.1/4)	1	22534.222.082
7/8X85 (3.3/8)	1	22534.222.085
7/8X90 (3.1/2)	1	22534.222.088
7/8X95 (3.3/4)	1	22534.222.095
7/8X100 (4)	1	22534.222.101
7/8X105 (4.1/8)	1	22534.222.105
7/8X110 (4.1/4)	1	22534.222.107
7/8X115 (4.1/2)	1	22534.222.114
7/8X120 (4.3/4)	1	22534.222.120
7/8X125 (5)	1	22534.222.127
7/8X130 (5.1/8)	1	22534.222.130
7/8X135 (5.1/4)	1	22534.222.133
7/8X140 (5.1/2)	1	22534.222.139
7/8X145 (5.3/4)	1	22534.222.146
7/8X150 (6)	1	22534.222.152
7/8X155 (6.1/8)	1	22534.222.155
7/8X160 (6.1/4)	1	22534.222.158
7/8X165 (6.1/2)	1	22534.222.165

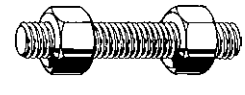
22534 Perno com 2 porcas sextavadas ←

d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo
7/8X170 (6.3/4)	1	22534.222.171	7/8X415 (16.1/4)	1	22534.222.412	1.IN.X255 (10)	1	22534.254.254
7/8X175 (6.7/8)	1	22534.222.175	7/8X420 (16.1/2)	1	22534.222.419	1.IN.X260 (10.1/4)	1	22534.254.260
7/8X180 (7)	1	22534.222.177	7/8X425 (16.3/4)	1	22534.222.425	1.IN.X265 (10.1/2)	1	22534.254.266
7/8X185 (7.1/4)	1	22534.222.184	7/8X430 (17)	1	22534.222.431	1.IN.X270 (10.5/8)	1	22534.254.270
7/8X190 (7.1/2)	1	22534.222.190	7/8X440 (17.1/4)	1	22534.222.438	1.IN.X275 (10.3/4)	1	22534.254.273
7/8X195 (7.3/4)	1	22534.222.196	7/8X450 (17.3/4)	1	22534.222.450	1.IN.X280 (11)	1	22534.254.279
7/8X200 (8)	1	22534.222.203	7/8X455 (18)	1	22534.222.457	1.IN.X285 (11.1/4)	1	22534.254.285
7/8X205 (8.1/8)	1	22534.222.205	7/8X470 (18.1/2)	1	22534.222.469	1.IN.X290 (11.3/8)	1	22534.254.290
7/8X210 (8.1/4)	1	22534.222.209	7/8X485 (19)	1	22534.222.482	1.IN.X295 (11.1/2)	1	22534.254.292
7/8X215 (8.1/2)	1	22534.222.215	7/8X495 (19.1/2)	1	22534.222.495	1.IN.X300 (11.3/4)	1	22534.254.298
7/8X220 (8.3/4)	1	22534.222.222	7/8X510 (20)	1	22534.222.508	1.IN.X305 (12)	1	22534.254.304
7/8X225 (8.7/8)	1	22534.222.225	7/8X515 (20.1/4)	1	22534.222.514	1.IN.X310 (12.1/4)	1	22534.254.311
7/8X230 (9)	1	22534.222.228	7/8X525 (20.3/4)	1	22534.222.527	1.IN.X315 (12.1/2)	1	22534.254.317
7/8X235 (9.1/4)	1	22534.222.234				1.IN.X320 (12.5/8)	1	22534.254.320
7/8X240 (9.1/2)	1	22534.222.241	1.IN.X80 (3.1/4)	1	22534.254.082	1.IN.X325 (12.3/4)	1	22534.254.323
7/8X245 (9.5/8)	1	22534.222.245	1.IN.X85 (3.3/8)	1	22534.254.085	1.IN.X330 (13)	1	22534.254.330
7/8X250 (9.3/4)	1	22534.222.247	1.IN.X90 (3.1/2)	1	22534.254.088	1.IN.X335 (13.1/4)	1	22534.254.336
7/8X255 (10)	1	22534.222.254	1.IN.X95 (3.3/4)	1	22534.254.095	1.IN.X340 (13.3/8)	1	22534.254.340
7/8X260 (10.1/4)	1	22534.222.260	1.IN.X100 (4)	1	22534.254.101	1.IN.X345 (13.1/2)	1	22534.254.342
7/8X265 (10.1/2)	1	22534.222.266	1.IN.X105 (4.1/8)	1	22534.254.105	1.IN.X350 (13.3/4)	1	22534.254.349
7/8X270 (10.5/8)	1	22534.222.270	1.IN.X110 (4.1/4)	1	22534.254.107	1.IN.X355 (14)	1	22534.254.355
7/8X275 (10.3/4)	1	22534.222.273	1.IN.X115 (4.1/2)	1	22534.254.114	1.IN.X360 (14.1/4)	1	22534.254.361
7/8X280 (11)	1	22534.222.279	1.IN.X120 (4.3/4)	1	22534.254.120	1.IN.X365 (14.3/8)	1	22534.254.365
7/8X285 (11.1/4)	1	22534.222.285	1.IN.X125 (5)	1	22534.254.127	1.IN.X370 (14.1/2)	1	22534.254.368
7/8X290 (11.3/8)	1	22534.222.290	1.IN.X130 (5.1/8)	1	22534.254.130	1.IN.X375 (14.3/4)	1	22534.254.374
7/8X295 (11.1/2)	1	22534.222.292	1.IN.X135 (5.1/4)	1	22534.254.133	1.IN.X380 (15)	1	22534.254.381
7/8X300 (11.3/4)	1	22534.222.298	1.IN.X140 (5.1/2)	1	22534.254.139	1.IN.X385 (15.1/4)	1	22534.254.387
7/8X305 (12)	1	22534.222.304	1.IN.X145 (5.3/4)	1	22534.254.146	1.IN.X390 (15.3/8)	1	22534.254.390
7/8X310 (12.1/4)	1	22534.222.311	1.IN.X150 (6)	1	22534.254.152	1.IN.X395 (15.1/2)	1	22534.254.393
7/8X315 (12.1/2)	1	22534.222.317	1.IN.X155 (6.1/8)	1	22534.254.155	1.IN.X400 (15.3/4)	1	22534.254.400
7/8X320 (12.5/8)	1	22534.222.320	1.IN.X160 (6.1/4)	1	22534.254.158	1.IN.X405 (16)	1	22534.254.406
7/8X325 (12.3/4)	1	22534.222.323	1.IN.X165 (6.1/2)	1	22534.254.165	1.IN.X410 (16.1/8)	1	22534.254.410
7/8X330 (13)	1	22534.222.330	1.IN.X170 (6.3/4)	1	22534.254.171	1.IN.X415 (16.1/4)	1	22534.254.412
7/8X335 (13.1/4)	1	22534.222.336	1.IN.X175 (6.7/8)	1	22534.254.175	1.IN.X420 (16.1/2)	1	22534.254.419
7/8X340 (13.3/8)	1	22534.222.340	1.IN.X180 (7)	1	22534.254.177	1.IN.X425 (16.3/4)	1	22534.254.425
7/8X345 (13.1/2)	1	22534.222.342	1.IN.X185 (7.1/4)	1	22534.254.184	1.IN.X430 (17)	1	22534.254.431
7/8X350 (13.3/4)	1	22534.222.349	1.IN.X190 (7.1/2)	1	22534.254.190	1.IN.X435 (17.1/8)	1	22534.254.435
7/8X355 (14)	1	22534.222.355	1.IN.X195 (7.3/4)	1	22534.254.196	1.IN.X440 (17.1/4)	1	22534.254.438
7/8X360 (14.1/4)	1	22534.222.361	1.IN.X200 (8)	1	22534.254.203	1.IN.X445 (17.1/2)	1	22534.254.444
7/8X365 (14.3/8)	1	22534.222.365	1.IN.X205 (8.1/8)	1	22534.254.205	1.IN.X450 (17.3/4)	1	22534.254.450
7/8X370 (14.1/2)	1	22534.222.368	1.IN.X210 (8.1/4)	1	22534.254.209	1.IN.X455 (18)	1	22534.254.457
7/8X375 (14.3/4)	1	22534.222.375	1.IN.X215 (8.1/2)	1	22534.254.215	1.IN.X460 (18.1/8)	1	22534.254.460
7/8X380 (15)	1	22534.222.381	1.IN.X220 (8.3/4)	1	22534.254.222	1.IN.X470 (18.1/2)	1	22534.254.469
7/8X385 (15.1/4)	1	22534.222.382	1.IN.X225 (8.7/8)	1	22534.254.225	1.IN.X485 (19)	1	22534.254.482
7/8X390 (15.3/8)	1	22534.222.390	1.IN.X230 (9)	1	22534.254.228	1.IN.X505 (19.7/8)	1	22534.254.505
7/8X395 (15.1/2)	1	22534.222.393	1.IN.X235 (9.1/4)	1	22534.254.234	1.IN.X515 (20.1/4)	1	22534.254.514
7/8X400 (15.3/4)	1	22534.222.400	1.IN.X240 (9.1/2)	1	22534.254.241	1.IN.X520 (20.1/2)	1	22534.254.520
7/8X405 (16)	1	22534.222.406	1.IN.X245 (9.5/8)	1	22534.254.245	1.IN.X595 (23.1/2)	1	22534.254.596
7/8X410 (16.1/8)	1	22534.222.410	1.IN.X250 (9.3/4)	1	22534.254.247	1.IN.X730 (28.3/4)	1	22534.254.730

22538 Perno com 2 porcas sextavadas G12A

Rosca Unified National Coarse
Material Aço inoxidável ASTM A193 - ASTM A194
Classe Gr.B8M Cl.2 - Gr.8M

RoHS



d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo
3/8X25 (1)	1	22538.096.025	1/2X70 (2.3/4)	1	22538.127.069	1/2X175 (6.7/8)	1	22538.127.175
3/8X40 (1.1/2)	1	22538.096.038	1/2X75 (3)	1	22538.127.076	1/2X180 (7)	1	22538.127.177
3/8X45 (1.3/4)	1	22538.096.044	1/2X80 (3.1/4)	1	22538.127.082	1/2X185 (7.1/4)	1	22538.127.184
3/8X55 (2.1/4)	1	22538.096.057	1/2X85 (3.3/8)	1	22538.127.085	1/2X190 (7.1/2)	1	22538.127.190
3/8X60 (2.3/8)	1	22538.096.060	1/2X90 (3.1/2)	1	22538.127.088	1/2X195 (7.3/4)	1	22538.127.196
3/8X65 (2.1/2)	1	22538.096.063	1/2X95 (3.3/4)	1	22538.127.095	1/2X200 (8)	1	22538.127.203
3/8X70 (2.3/4)	1	22538.096.069	1/2X100 (4)	1	22538.127.101	1/2X205 (8.1/8)	1	22538.127.205
3/8X75 (3)	1	22538.096.076	1/2X105 (4.1/8)	1	22538.127.105	1/2X210 (8.1/4)	1	22538.127.209
3/8X80 (3.1/4)	1	22538.096.082	1/2X110 (4.1/4)	1	22538.127.107	1/2X215 (8.1/2)	1	22538.127.215
3/8X95 (3.3/4)	1	22538.096.095	1/2X115 (4.1/2)	1	22538.127.114	1/2X220 (8.3/4)	1	22538.127.222
3/8X100 (4)	1	22538.096.101	1/2X120 (4.3/4)	1	22538.127.120	1/2X225 (8.7/8)	1	22538.127.225
3/8X175 (6.7/8)	1	22538.096.175	1/2X125 (5)	1	22538.127.127	1/2X230 (9)	1	22538.127.228
3/8X185 (7.1/4)	1	22538.096.184	1/2X130 (5.1/8)	1	22538.127.130	1/2X235 (9.1/4)	1	22538.127.234
			1/2X135 (5.1/4)	1	22538.127.133	1/2X240 (9.1/2)	1	22538.127.241
1/2X30 (1.1/4)	1	22538.127.031	1/2X140 (5.1/2)	1	22538.127.139	1/2X245 (9.5/8)	1	22538.127.245
1/2X40 (1.1/2)	1	22538.127.038	1/2X145 (5.3/4)	1	22538.127.146	1/2X250 (9.3/4)	1	22538.127.247
1/2X45 (1.3/4)	1	22538.127.044	1/2X150 (6)	1	22538.127.152	1/2X255 (10)	1	22538.127.254
1/2X50 (2)	1	22538.127.050	1/2X155 (6.1/8)	1	22538.127.155	1/2X260 (10.1/4)	1	22538.127.260
1/2X55 (2.1/4)	1	22538.127.057	1/2X160 (6.1/4)	1	22538.127.158	1/2X265 (10.1/2)	1	22538.127.266
1/2X60 (2.3/8)	1	22538.127.060	1/2X165 (6.1/2)	1	22538.127.165	1/2X270 (10.5/8)	1	22538.127.270
1/2X65 (2.1/2)	1	22538.127.063	1/2X170 (6.3/4)	1	22538.127.171	1/2X275 (10.3/4)	1	22538.127.273

22538 Perno com 2 porcas sextavadas

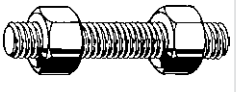
d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo
1/2X280 (11)	1	22538.127.279	5/8X320 (12.5/8)	1	22538.158.320	3/4X350 (13.3/4)	1	22538.191.349
1/2X285 (11.1/4)	1	22538.127.285	5/8X325 (12.3/4)	1	22538.158.323	3/4X355 (14)	1	22538.191.355
1/2X290 (11.3/8)	1	22538.127.290	5/8X325 (12.3/4)	1	22538.158.326	3/4X360 (14.1/4)	1	22538.191.361
1/2X295 (11.1/2)	1	22538.127.292	5/8X330 (13)	1	22538.158.330	3/4X365 (14.3/8)	1	22538.191.365
1/2X300 (11.3/4)	1	22538.127.298	5/8X335 (13.1/4)	1	22538.158.336	3/4X370 (14.1/2)	1	22538.191.368
1/2X305 (12)	1	22538.127.304	5/8X335 (13.1/4)	1	22538.158.337	3/4X375 (14.3/4)	1	22538.191.374
1/2X310 (12.1/4)	1	22538.127.311	5/8X340 (13.3/8)	1	22538.158.340	3/4X380 (15)	1	22538.191.381
1/2X315 (12.1/2)	1	22538.127.317	5/8X345 (13.1/2)	1	22538.158.342	3/4X385 (15.1/4)	1	22538.191.387
1/2X320 (12.5/8)	1	22538.127.320	5/8X350 (13.3/4)	1	22538.158.349	3/4X390 (15.3/8)	1	22538.191.390
1/2X325 (12.3/4)	1	22538.127.326	5/8X355 (14)	1	22538.158.355	3/4X395 (15.1/2)	1	22538.191.393
1/2X330 (13)	1	22538.127.330	5/8X360 (14.1/4)	1	22538.158.361	3/4X400 (15.3/4)	1	22538.191.400
1/2X335 (13.1/4)	1	22538.127.336	5/8X365 (14.3/8)	1	22538.158.365	3/4X405 (16)	1	22538.191.406
1/2X340 (13.3/8)	1	22538.127.340	5/8X370 (14.1/2)	1	22538.158.368	3/4X410 (16.1/8)	1	22538.191.410
1/2X345 (13.1/2)	1	22538.127.342	5/8X375 (14.3/4)	1	22538.158.374	3/4X415 (16.1/4)	1	22538.191.412
1/2X350 (13.3/4)	1	22538.127.349	5/8X380 (15)	1	22538.158.381	3/4X420 (16.1/2)	1	22538.191.419
1/2X355 (14)	1	22538.127.355	5/8X385 (15.1/4)	1	22538.158.387	3/4X430 (17)	1	22538.191.431
1/2X360 (14.1/4)	1	22538.127.361	5/8X390 (15.3/8)	1	22538.158.390	3/4X440 (17.1/4)	1	22538.191.438
1/2X365 (14.3/8)	1	22538.127.365	5/8X395 (15.1/2)	1	22538.158.393	3/4X450 (17.3/4)	1	22538.191.450
1/2X370 (14.1/2)	1	22538.127.368	5/8X400 (15.3/4)	1	22538.158.400	3/4X455 (18)	1	22538.191.457
1/2X375 (14.3/4)	1	22538.127.374				3/4X470 (18.1/2)	1	22538.191.469
1/2X380 (15)	1	22538.127.381	3/4X50 (2)	1	22538.191.050	3/4X480 (18.7/8)	1	22538.191.480
1/2X385 (15.1/4)	1	22538.127.387	3/4X55 (2.1/4)	1	22538.191.057	3/4X485 (19)	1	22538.191.482
1/2X390 (15.3/8)	1	22538.127.390	3/4X60 (2.3/8)	1	22538.191.060	3/4X580 (22.7/8)	1	22538.191.580
1/2X395 (15.1/2)	1	22538.127.393	3/4X65 (2.1/2)	1	22538.191.063	3/4X625 (24.5/8)	1	22538.191.625
1/2X400 (15.3/4)	1	22538.127.400	3/4X70 (2.3/4)	1	22538.191.069			
			3/4X75 (3)	1	22538.191.076	7/8X70 (2.3/4)	1	22538.222.069
5/8X40 (1.1/2)	1	22538.158.038	3/4X80 (3.1/4)	1	22538.191.082	7/8X75 (3)	1	22538.222.076
5/8X45 (1.3/4)	1	22538.158.044	3/4X85 (3.3/8)	1	22538.191.085	7/8X80 (3.1/4)	1	22538.222.082
5/8X50 (2)	1	22538.158.050	3/4X90 (3.1/2)	1	22538.191.088	7/8X85 (3.3/8)	1	22538.222.085
5/8X55 (2.1/4)	1	22538.158.057	3/4X95 (3.3/4)	1	22538.191.095	7/8X90 (3.1/2)	1	22538.222.088
5/8X60 (2.3/8)	1	22538.158.060	3/4X100 (4)	1	22538.191.101	7/8X95 (3.3/4)	1	22538.222.095
5/8X65 (2.1/2)	1	22538.158.063	3/4X105 (4.1/8)	1	22538.191.105	7/8X100 (4)	1	22538.222.101
5/8X70 (2.3/4)	1	22538.158.069	3/4X110 (4.1/4)	1	22538.191.107	7/8X105 (4.1/8)	1	22538.222.105
5/8X75 (3)	1	22538.158.076	3/4X115 (4.1/2)	1	22538.191.114	7/8X110 (4.1/4)	1	22538.222.107
5/8X80 (3.1/4)	1	22538.158.082	3/4X120 (4.3/4)	1	22538.191.120	7/8X115 (4.1/2)	1	22538.222.114
5/8X85 (3.3/8)	1	22538.158.085	3/4X125 (5)	1	22538.191.127	7/8X120 (4.3/4)	1	22538.222.120
5/8X90 (3.1/2)	1	22538.158.088	3/4X130 (5.1/8)	1	22538.191.130	7/8X125 (5)	1	22538.222.127
5/8X95 (3.3/4)	1	22538.158.095	3/4X135 (5.1/4)	1	22538.191.133	7/8X130 (5.1/8)	1	22538.222.130
5/8X100 (4)	1	22538.158.101	3/4X140 (5.1/2)	1	22538.191.139	7/8X135 (5.1/4)	1	22538.222.133
5/8X105 (4.1/8)	1	22538.158.105	3/4X145 (5.3/4)	1	22538.191.146	7/8X140 (5.1/2)	1	22538.222.139
5/8X110 (4.1/4)	1	22538.158.107	3/4X150 (6)	1	22538.191.152	7/8X145 (5.3/4)	1	22538.222.146
5/8X115 (4.1/2)	1	22538.158.114	3/4X155 (6.1/8)	1	22538.191.155	7/8X150 (6)	1	22538.222.152
5/8X120 (4.3/4)	1	22538.158.120	3/4X160 (6.1/4)	1	22538.191.158	7/8X155 (6.1/8)	1	22538.222.155
5/8X125 (5)	1	22538.158.127	3/4X165 (6.1/2)	1	22538.191.165	7/8X160 (6.1/4)	1	22538.222.158
5/8X130 (5.1/8)	1	22538.158.130	3/4X170 (6.3/4)	1	22538.191.171	7/8X165 (6.1/2)	1	22538.222.165
5/8X135 (5.1/4)	1	22538.158.133	3/4X175 (6.7/8)	1	22538.191.175	7/8X170 (6.3/4)	1	22538.222.171
5/8X140 (5.1/2)	1	22538.158.139	3/4X180 (7)	1	22538.191.177	7/8X175 (6.7/8)	1	22538.222.175
5/8X145 (5.3/4)	1	22538.158.146	3/4X185 (7.1/4)	1	22538.191.184	7/8X180 (7)	1	22538.222.177
5/8X150 (6)	1	22538.158.152	3/4X190 (7.1/2)	1	22538.191.190	7/8X185 (7.1/4)	1	22538.222.184
5/8X155 (6.1/8)	1	22538.158.155	3/4X195 (7.3/4)	1	22538.191.196	7/8X190 (7.1/2)	1	22538.222.190
5/8X160 (6.1/4)	1	22538.158.158	3/4X200 (8)	1	22538.191.203	7/8X195 (7.3/4)	1	22538.222.196
5/8X165 (6.1/2)	1	22538.158.165	3/4X205 (8.1/8)	1	22538.191.205	7/8X200 (8)	1	22538.222.203
5/8X170 (6.3/4)	1	22538.158.171	3/4X210 (8.1/4)	1	22538.191.209	7/8X205 (8.1/8)	1	22538.222.205
5/8X175 (6.7/8)	1	22538.158.175	3/4X215 (8.1/2)	1	22538.191.215	7/8X210 (8.1/4)	1	22538.222.209
5/8X180 (7)	1	22538.158.177	3/4X220 (8.3/4)	1	22538.191.222	7/8X215 (8.1/2)	1	22538.222.215
5/8X185 (7.1/4)	1	22538.158.184	3/4X225 (8.7/8)	1	22538.191.225	7/8X220 (8.3/4)	1	22538.222.222
5/8X190 (7.1/2)	1	22538.158.190	3/4X230 (9)	1	22538.191.228	7/8X225 (8.7/8)	1	22538.222.225
5/8X195 (7.3/4)	1	22538.158.196	3/4X235 (9.1/4)	1	22538.191.234	7/8X230 (9)	1	22538.222.228
5/8X200 (8)	1	22538.158.203	3/4X240 (9.1/2)	1	22538.191.241	7/8X235 (9.1/4)	1	22538.222.234
5/8X205 (8.1/8)	1	22538.158.205	3/4X245 (9.5/8)	1	22538.191.245	7/8X240 (9.1/2)	1	22538.222.241
5/8X210 (8.1/4)	1	22538.158.209	3/4X250 (9.3/4)	1	22538.191.247	7/8X245 (9.5/8)	1	22538.222.245
5/8X215 (8.1/2)	1	22538.158.215	3/4X255 (10)	1	22538.191.254	7/8X250 (9.3/4)	1	22538.222.247
5/8X220 (8.3/4)	1	22538.158.222	3/4X260 (10.1/4)	1	22538.191.260	7/8X255 (10)	1	22538.222.254
5/8X225 (8.7/8)	1	22538.158.225	3/4X265 (10.1/2)	1	22538.191.266	7/8X260 (10.1/4)	1	22538.222.260
5/8X230 (9)	1	22538.158.228	3/4X270 (10.5/8)	1	22538.191.270	7/8X265 (10.1/2)	1	22538.222.266
5/8X235 (9.1/4)	1	22538.158.234	3/4X275 (10.3/4)	1	22538.191.273	7/8X270 (10.5/8)	1	22538.222.270
5/8X240 (9.1/2)	1	22538.158.241	3/4X280 (11)	1	22538.191.279	7/8X275 (10.3/4)	1	22538.222.273
5/8X245 (9.5/8)	1	22538.158.245	3/4X285 (11.1/4)	1	22538.191.285	7/8X280 (11)	1	22538.222.279
5/8X250 (9.3/4)	1	22538.158.247	3/4X290 (11.3/8)	1	22538.191.290	7/8X285 (11.1/4)	1	22538.222.285
5/8X255 (10)	1	22538.158.254	3/4X295 (11.1/2)	1	22538.191.292	7/8X290 (11.3/8)	1	22538.222.290
5/8X260 (10.1/4)	1	22538.158.260	3/4X300 (11.3/4)	1	22538.191.298	7/8X295 (11.1/2)	1	22538.222.292
5/8X265 (10.1/2)	1	22538.158.266	3/4X305 (12)	1	22538.191.304	7/8X300 (11.3/4)	1	22538.222.298
5/8X270 (10.5/8)	1	22538.158.270	3/4X310 (12.1/4)	1	22538.191.311	7/8X305 (12)	1	22538.222.304
5/8X275 (10.3/4)	1	22538.158.273	3/4X315 (12.1/2)	1	22538.191.317	7/8X310 (12.1/4)	1	22538.222.311
5/8X280 (11)	1	22538.158.279	3/4X320 (12.3/8)	1	22538.191.320	7/8X315 (12.1/2)	1	22538.222.317
5/8X285 (11.1/4)	1	22538.158.285	3/4X325 (12.3/4)	1	22538.191.323	7/8X320 (12.5/8)	1	22538.222.320
5/8X290 (11.3/8)	1	22538.158.290	3/4X325 (12.3/4)	1	22538.191.326	7/8X325 (12.3/4)	1	22538.222.323
5/8X295 (11.1/2)	1	22538.158.292	3/4X330 (13)	1	22538.191.330	7/8X325 (12.3/4)	1	22538.222.326
5/8X300 (11.3/4)	1	22538.158.298	3/4X335 (13.1/4)	1	22538.191.336	7/8X330 (13)	1	22538.222.330
5/8X305 (12)	1	22538.158.304	3/4X335 (13.1/4)	1	22538.191.337	7/8X335 (13.1/4)	1	22538.222.336
5/8X310 (12.1/4)	1	22538.158.311	3/4X340 (13.3/8)	1	22538.191.340	7/8X335 (13.1/4)	1	22538.222.337
5/8X315 (12.1/2)	1	22538.158.317	3/4X345 (13.1/2)	1	22538.191.342	7/8X340 (13.3/8)	1	22538.222.340

22538 Perno com 2 porcas sextavadas

d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo
7/8X345 (13.1/2)	1	22538.222.342	1.IN.X115 (4.1/2)	1	22538.254.114	1.IN.X325 (12.3/4)	1	22538.254.326
7/8X350 (13.3/4)	1	22538.222.349	1.IN.X120 (4.3/4)	1	22538.254.120	1.IN.X330 (13)	1	22538.254.330
7/8X355 (14)	1	22538.222.355	1.IN.X125 (5)	1	22538.254.127	1.IN.X335 (13.1/4)	1	22538.254.336
7/8X360 (14.1/4)	1	22538.222.361	1.IN.X130 (5.1/8)	1	22538.254.130	1.IN.X335 (13.1/4)	1	22538.254.337
7/8X365 (14.3/8)	1	22538.222.365	1.IN.X135 (5.1/4)	1	22538.254.133	1.IN.X340 (13.3/8)	1	22538.254.340
7/8X370 (14.1/2)	1	22538.222.368	1.IN.X140 (5.1/2)	1	22538.254.139	1.IN.X345 (13.1/2)	1	22538.254.342
7/8X375 (14.3/4)	1	22538.222.374	1.IN.X145 (5.3/4)	1	22538.254.146	1.IN.X350 (13.3/4)	1	22538.254.349
7/8X380 (15)	1	22538.222.381	1.IN.X150 (6)	1	22538.254.152	1.IN.X355 (14)	1	22538.254.355
7/8X385 (15.1/4)	1	22538.222.387	1.IN.X155 (6.1/8)	1	22538.254.155	1.IN.X360 (14.1/4)	1	22538.254.361
7/8X390 (15.3/8)	1	22538.222.390	1.IN.X160 (6.1/4)	1	22538.254.158	1.IN.X365 (14.3/8)	1	22538.254.365
7/8X395 (15.1/2)	1	22538.222.393	1.IN.X165 (6.1/2)	1	22538.254.165	1.IN.X370 (14.1/2)	1	22538.254.368
7/8X400 (15.3/4)	1	22538.222.400	1.IN.X170 (6.3/4)	1	22538.254.171	1.IN.X375 (14.3/4)	1	22538.254.374
7/8X405 (16)	1	22538.222.406	1.IN.X175 (6.7/8)	1	22538.254.175	1.IN.X380 (15)	1	22538.254.381
7/8X410 (16.1/8)	1	22538.222.410	1.IN.X180 (7)	1	22538.254.177	1.IN.X385 (15.1/4)	1	22538.254.387
7/8X415 (16.1/4)	1	22538.222.412	1.IN.X185 (7.1/4)	1	22538.254.184	1.IN.X390 (15.3/8)	1	22538.254.390
7/8X420 (16.1/2)	1	22538.222.419	1.IN.X190 (7.1/2)	1	22538.254.190	1.IN.X395 (15.1/2)	1	22538.254.393
7/8X425 (16.3/4)	1	22538.222.425	1.IN.X195 (7.3/4)	1	22538.254.196	1.IN.X400 (15.3/4)	1	22538.254.400
7/8X430 (17)	1	22538.222.431	1.IN.X200 (8)	1	22538.254.203	1.IN.X405 (16)	1	22538.254.406
7/8X435 (17.1/8)	1	22538.222.435	1.IN.X205 (8.1/8)	1	22538.254.205	1.IN.X410 (16.1/8)	1	22538.254.410
7/8X440 (17.1/4)	1	22538.222.438	1.IN.X210 (8.1/4)	1	22538.254.209	1.IN.X415 (16.1/4)	1	22538.254.412
7/8X445 (17.1/2)	1	22538.222.444	1.IN.X215 (8.1/2)	1	22538.254.215	1.IN.X420 (16.1/2)	1	22538.254.419
7/8X450 (17.3/4)	1	22538.222.450	1.IN.X220 (8.3/4)	1	22538.254.222	1.IN.X425 (16.3/4)	1	22538.254.425
7/8X455 (18)	1	22538.222.457	1.IN.X225 (8.7/8)	1	22538.254.225	1.IN.X430 (17)	1	22538.254.431
7/8X460 (18.1/8)	1	22538.222.460	1.IN.X230 (9)	1	22538.254.228	1.IN.X435 (17.1/8)	1	22538.254.435
7/8X465 (18.1/4)	1	22538.222.463	1.IN.X235 (9.1/4)	1	22538.254.234	1.IN.X440 (17.1/4)	1	22538.254.438
7/8X470 (18.1/2)	1	22538.222.469	1.IN.X240 (9.1/2)	1	22538.254.241	1.IN.X445 (17.1/2)	1	22538.254.444
7/8X475 (18.3/4)	1	22538.222.476	1.IN.X245 (9.5/8)	1	22538.254.245	1.IN.X450 (17.3/4)	1	22538.254.450
7/8X480 (18.7/8)	1	22538.222.480	1.IN.X250 (9.3/4)	1	22538.254.247	1.IN.X455 (18)	1	22538.254.457
7/8X485 (19)	1	22538.222.482	1.IN.X255 (10)	1	22538.254.254	1.IN.X460 (18.1/8)	1	22538.254.460
7/8X490 (19.1/4)	1	22538.222.488	1.IN.X260 (10.1/4)	1	22538.254.260	1.IN.X465 (18.1/4)	1	22538.254.463
7/8X495 (19.1/2)	1	22538.222.495	1.IN.X265 (10.1/2)	1	22538.254.266	1.IN.X470 (18.1/2)	1	22538.254.469
7/8X500 (19.3/4)	1	22538.222.501	1.IN.X270 (10.5/8)	1	22538.254.270	1.IN.X475 (18.3/4)	1	22538.254.476
7/8X510 (20)	1	22538.222.508	1.IN.X275 (10.3/4)	1	22538.254.273	1.IN.X480 (18.7/8)	1	22538.254.480
7/8X515 (20.1/4)	1	22538.222.514	1.IN.X280 (11)	1	22538.254.279	1.IN.X485 (19)	1	22538.254.482
7/8X525 (20.3/4)	1	22538.222.527	1.IN.X285 (11.1/4)	1	22538.254.285	1.IN.X490 (19.1/4)	1	22538.254.488
			1.IN.X290 (11.3/8)	1	22538.254.290	1.IN.X495 (19.1/2)	1	22538.254.495
1.IN.X80 (3.1/4)	1	22538.254.082	1.IN.X295 (11.1/2)	1	22538.254.292	1.IN.X500 (19.3/4)	1	22538.254.501
1.IN.X85 (3.3/8)	1	22538.254.085	1.IN.X300 (11.3/4)	1	22538.254.298	1.IN.X505 (19.7/8)	1	22538.254.505
1.IN.X90 (3.1/2)	1	22538.254.088	1.IN.X305 (12)	1	22538.254.304	1.IN.X515 (20.1/4)	1	22538.254.514
1.IN.X95 (3.3/4)	1	22538.254.095	1.IN.X310 (12.1/4)	1	22538.254.311	1.IN.X520 (20.1/2)	1	22538.254.520
1.IN.X100 (4)	1	22538.254.101	1.IN.X315 (12.1/2)	1	22538.254.317	1.IN.X595 (23.1/2)	1	22538.254.596
1.IN.X105 (4.1/8)	1	22538.254.105	1.IN.X320 (12.5/8)	1	22538.254.320	1.IN.X730 (28.3/4)	1	22538.254.730
1.IN.X110 (4.1/4)	1	22538.254.107	1.IN.X325 (12.3/4)	1	22538.254.323			

22551 Perno com 2 porcas sextavadas — G11A

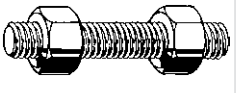
Rosca Unified National Coarse
Material Aço ASTM A193 - ASTM A194
Classe Gr.B16 - Gr.2H



d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo
1/2X65 (2.1/2)	1	22551.127.063	5/8X90 (3.1/2)	1	22551.158.088	3/4X120 (4.3/4)	1	22551.191.120
1/2X70 (2.3/4)	1	22551.127.069	5/8X95 (3.3/4)	1	22551.158.095	3/4X125 (5)	1	22551.191.127
1/2X75 (3)	1	22551.127.076	5/8X100 (4)	1	22551.158.101			
1/2X80 (3.1/4)	1	22551.127.082	5/8X110 (4.1/4)	1	22551.158.107	7/8X115 (4.1/2)	1	22551.222.114
1/2X90 (3.1/2)	1	22551.127.088	5/8X115 (4.1/2)	1	22551.158.114	7/8X120 (4.3/4)	1	22551.222.120
1/2X95 (3.3/4)	1	22551.127.095	5/8X120 (4.3/4)	1	22551.158.120	7/8X125 (5)	1	22551.222.127
1/2X100 (4)	1	22551.127.101	5/8X125 (5)	1	22551.158.127	7/8X135 (5.1/4)	1	22551.222.133
						7/8X140 (5.1/2)	1	22551.222.139
5/8X65 (2.1/2)	1	22551.158.063	3/4X95 (3.3/4)	1	22551.191.095	7/8X145 (5.3/4)	1	22551.222.146
5/8X70 (2.3/4)	1	22551.158.069	3/4X100 (4)	1	22551.191.101	7/8X150 (6)	1	22551.222.152
5/8X75 (3)	1	22551.158.076	3/4X110 (4.1/4)	1	22551.191.107			
5/8X80 (3.1/4)	1	22551.158.082	3/4X115 (4.1/2)	1	22551.191.114	1X165 (6.1/2)	1	22551.254.165

22554 Perno com 2 porcas sextavadas — G11A

Rosca Unified National Coarse
Material Aço ASTM A193 - ASTM A194
Classe Gr.B16 - Gr.4



d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo
3/8X25 (1)	1	22554.096.025	3/8X60 (2.3/8)	1	22554.096.060	3/8X80 (3.1/4)	1	22554.096.082
3/8X40 (1.1/2)	1	22554.096.038	3/8X65 (2.1/2)	1	22554.096.063	3/8X95 (3.3/4)	1	22554.096.095
3/8X45 (1.3/4)	1	22554.096.044	3/8X70 (2.3/4)	1	22554.096.069	3/8X100 (4)	1	22554.096.101

22554 Perno com 2 porcas sextavadas ←

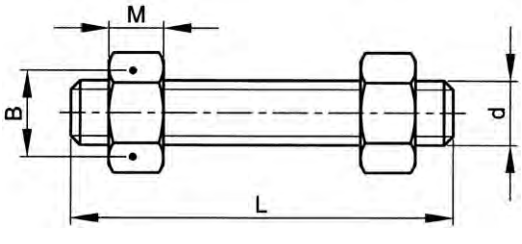
d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo
3/8X175 (6.7/8)	1	22554.096.175	5/8X240 (9.1/2)	1	22554.158.241	3/4X335 (13.1/4)	1	22554.191.336
3/8X185 (7.1/4)	1	22554.096.184	5/8X245 (9.5/8)	1	22554.158.245	3/4X340 (13.3/8)	1	22554.191.340
			5/8X250 (9.3/4)	1	22554.158.247	3/4X345 (13.1/2)	1	22554.191.342
1/2X40 (1.1/2)	1	22554.127.038	5/8X255 (10)	1	22554.158.254	3/4X350 (13.3/4)	1	22554.191.349
1/2X45 (1.3/4)	1	22554.127.044	5/8X260 (10.1/4)	1	22554.158.260	3/4X355 (14)	1	22554.191.355
1/2X50 (2)	1	22554.127.050	5/8X265 (10.1/2)	1	22554.158.266	3/4X360 (14.1/4)	1	22554.191.361
1/2X55 (2.1/4)	1	22554.127.057	5/8X270 (10.5/8)	1	22554.158.270	3/4X365 (14.3/8)	1	22554.191.365
1/2X60 (2.3/8)	1	22554.127.060	5/8X275 (10.3/4)	1	22554.158.273	3/4X370 (14.1/2)	1	22554.191.368
1/2X65 (2.1/2)	1	22554.127.063	5/8X280 (11)	1	22554.158.279	3/4X375 (14.3/4)	1	22554.191.374
1/2X70 (2.3/4)	1	22554.127.069	5/8X285 (11.1/4)	1	22554.158.285	3/4X380 (15)	1	22554.191.381
1/2X75 (3)	1	22554.127.076	5/8X290 (11.3/8)	1	22554.158.290	3/4X385 (15.1/4)	1	22554.191.387
1/2X80 (3.1/4)	1	22554.127.082	5/8X295 (11.1/2)	1	22554.158.292	3/4X390 (15.3/8)	1	22554.191.390
1/2X85 (3.3/8)	1	22554.127.085	5/8X300 (11.3/4)	1	22554.158.298	3/4X395 (15.1/2)	1	22554.191.393
1/2X90 (3.1/2)	1	22554.127.088	5/8X305 (12)	1	22554.158.304	3/4X400 (15.3/4)	1	22554.191.400
1/2X95 (3.3/4)	1	22554.127.095	5/8X310 (12.1/4)	1	22554.158.311	3/4X405 (16)	1	22554.191.406
1/2X100 (4)	1	22554.127.101	5/8X315 (12.1/2)	1	22554.158.317	3/4X410 (16.1/8)	1	22554.191.410
1/2X105 (4.1/8)	1	22554.127.105	5/8X320 (12.5/8)	1	22554.158.320	3/4X415 (16.1/4)	1	22554.191.412
1/2X110 (4.1/4)	1	22554.127.107	5/8X325 (12.3/4)	1	22554.158.323	3/4X420 (16.1/2)	1	22554.191.419
1/2X115 (4.1/2)	1	22554.127.114	5/8X330 (13)	1	22554.158.330	3/4X425 (16.3/4)	1	22554.191.425
1/2X120 (4.3/4)	1	22554.127.120	5/8X335 (13.1/4)	1	22554.158.336	3/4X430 (17)	1	22554.191.431
1/2X125 (5)	1	22554.127.127	5/8X340 (13.3/8)	1	22554.158.340	3/4X440 (17.1/4)	1	22554.191.438
1/2X130 (5.1/8)	1	22554.127.130	5/8X370 (14.1/2)	1	22554.158.368	3/4X450 (17.3/4)	1	22554.191.450
1/2X135 (5.1/4)	1	22554.127.133	5/8X375 (14.3/4)	1	22554.158.374	3/4X455 (18)	1	22554.191.457
1/2X140 (5.1/2)	1	22554.127.139	5/8X385 (15.1/4)	1	22554.158.387	3/4X470 (18.1/2)	1	22554.191.469
1/2X145 (5.3/4)	1	22554.127.146				3/4X480 (18.7/8)	1	22554.191.480
1/2X150 (6)	1	22554.127.152	3/4X50 (2)	1	22554.191.050	3/4X485 (19)	1	22554.191.482
1/2X155 (6.1/8)	1	22554.127.155	3/4X55 (2.1/4)	1	22554.191.057	3/4X580 (22.7/8)	1	22554.191.580
1/2X160 (6.1/4)	1	22554.127.158	3/4X60 (2.3/8)	1	22554.191.060	3/4X625 (24.5/8)	1	22554.191.625
1/2X165 (6.1/2)	1	22554.127.165	3/4X65 (2.1/2)	1	22554.191.063			
1/2X170 (6.3/4)	1	22554.127.171	3/4X70 (2.3/4)	1	22554.191.069	7/8X70 (2.3/4)	1	22554.222.069
1/2X175 (6.7/8)	1	22554.127.175	3/4X75 (3)	1	22554.191.076	7/8X75 (3)	1	22554.222.076
1/2X180 (7)	1	22554.127.177	3/4X80 (3.1/4)	1	22554.191.082	7/8X80 (3.1/4)	1	22554.222.082
1/2X185 (7.1/4)	1	22554.127.184	3/4X85 (3.3/8)	1	22554.191.085	7/8X85 (3.3/8)	1	22554.222.085
1/2X190 (7.1/2)	1	22554.127.190	3/4X90 (3.1/2)	1	22554.191.088	7/8X90 (3.1/2)	1	22554.222.088
1/2X195 (7.3/4)	1	22554.127.196	3/4X95 (3.3/4)	1	22554.191.095	7/8X95 (3.3/4)	1	22554.222.095
1/2X200 (8)	1	22554.127.203	3/4X100 (4)	1	22554.191.101	7/8X100 (4)	1	22554.222.101
1/2X205 (8.1/8)	1	22554.127.205	3/4X105 (4.1/8)	1	22554.191.105	7/8X105 (4.1/8)	1	22554.222.105
1/2X210 (8.1/4)	1	22554.127.209	3/4X110 (4.1/4)	1	22554.191.107	7/8X110 (4.1/4)	1	22554.222.107
1/2X225 (8.7/8)	1	22554.127.225	3/4X115 (4.1/2)	1	22554.191.114	7/8X115 (4.1/2)	1	22554.222.114
1/2X250 (9.3/4)	1	22554.127.247	3/4X120 (4.3/4)	1	22554.191.120	7/8X120 (4.3/4)	1	22554.222.120
1/2X280 (11)	1	22554.127.279	3/4X125 (5)	1	22554.191.127	7/8X125 (5)	1	22554.222.127
			3/4X130 (5.1/8)	1	22554.191.130	7/8X130 (5.1/8)	1	22554.222.130
5/8X40 (1.1/2)	1	22554.158.038	3/4X135 (5.1/4)	1	22554.191.133	7/8X135 (5.1/4)	1	22554.222.133
5/8X45 (1.3/4)	1	22554.158.044	3/4X140 (5.1/2)	1	22554.191.139	7/8X140 (5.1/2)	1	22554.222.139
5/8X50 (2)	1	22554.158.050	3/4X145 (5.3/4)	1	22554.191.146	7/8X145 (5.3/4)	1	22554.222.146
5/8X55 (2.1/4)	1	22554.158.057	3/4X150 (6)	1	22554.191.152	7/8X150 (6)	1	22554.222.152
5/8X60 (2.3/8)	1	22554.158.060	3/4X155 (6.1/8)	1	22554.191.155	7/8X155 (6.1/8)	1	22554.222.155
5/8X65 (2.1/2)	1	22554.158.063	3/4X160 (6.1/4)	1	22554.191.158	7/8X160 (6.1/4)	1	22554.222.158
5/8X70 (2.3/4)	1	22554.158.069	3/4X165 (6.1/2)	1	22554.191.165	7/8X165 (6.1/2)	1	22554.222.165
5/8X75 (3)	1	22554.158.076	3/4X170 (6.3/4)	1	22554.191.171	7/8X170 (6.3/4)	1	22554.222.171
5/8X80 (3.1/4)	1	22554.158.082	3/4X175 (6.7/8)	1	22554.191.175	7/8X175 (6.7/8)	1	22554.222.175
5/8X85 (3.3/8)	1	22554.158.085	3/4X180 (7)	1	22554.191.177	7/8X180 (7)	1	22554.222.177
5/8X90 (3.1/2)	1	22554.158.088	3/4X185 (7.1/4)	1	22554.191.184	7/8X185 (7.1/4)	1	22554.222.184
5/8X95 (3.3/4)	1	22554.158.095	3/4X190 (7.1/2)	1	22554.191.190	7/8X190 (7.1/2)	1	22554.222.190
5/8X100 (4)	1	22554.158.101	3/4X195 (7.3/4)	1	22554.191.196	7/8X195 (7.3/4)	1	22554.222.196
5/8X105 (4.1/8)	1	22554.158.105	3/4X200 (8)	1	22554.191.203	7/8X200 (8)	1	22554.222.203
5/8X110 (4.1/4)	1	22554.158.107	3/4X205 (8.1/8)	1	22554.191.205	7/8X205 (8.1/8)	1	22554.222.205
5/8X115 (4.1/2)	1	22554.158.114	3/4X210 (8.1/4)	1	22554.191.209	7/8X210 (8.1/4)	1	22554.222.209
5/8X120 (4.3/4)	1	22554.158.120	3/4X215 (8.1/2)	1	22554.191.215	7/8X215 (8.1/2)	1	22554.222.215
5/8X125 (5)	1	22554.158.127	3/4X220 (8.3/4)	1	22554.191.222	7/8X220 (8.3/4)	1	22554.222.222
5/8X130 (5.1/8)	1	22554.158.130	3/4X225 (8.7/8)	1	22554.191.225	7/8X225 (8.7/8)	1	22554.222.225
5/8X135 (5.1/4)	1	22554.158.133	3/4X230 (9)	1	22554.191.228	7/8X230 (9)	1	22554.222.228
5/8X140 (5.1/2)	1	22554.158.139	3/4X235 (9.1/4)	1	22554.191.234	7/8X235 (9.1/4)	1	22554.222.234
5/8X145 (5.3/4)	1	22554.158.146	3/4X240 (9.1/2)	1	22554.191.241	7/8X240 (9.1/2)	1	22554.222.241
5/8X150 (6)	1	22554.158.152	3/4X245 (9.5/8)	1	22554.191.245	7/8X245 (9.5/8)	1	22554.222.245
5/8X155 (6.1/8)	1	22554.158.155	3/4X250 (9.3/4)	1	22554.191.247	7/8X250 (9.3/4)	1	22554.222.247
5/8X160 (6.1/4)	1	22554.158.158	3/4X255 (10)	1	22554.191.254	7/8X255 (10)	1	22554.222.254
5/8X165 (6.1/2)	1	22554.158.165	3/4X260 (10.1/4)	1	22554.191.260	7/8X260 (10.1/4)	1	22554.222.260
5/8X170 (6.3/4)	1	22554.158.171	3/4X265 (10.1/2)	1	22554.191.266	7/8X265 (10.1/2)	1	22554.222.266
5/8X175 (6.7/8)	1	22554.158.175	3/4X270 (10.5/8)	1	22554.191.270	7/8X270 (10.5/8)	1	22554.222.270
5/8X180 (7)	1	22554.158.177	3/4X275 (10.3/4)	1	22554.191.273	7/8X275 (10.3/4)	1	22554.222.273
5/8X185 (7.1/4)	1	22554.158.184	3/4X280 (11)	1	22554.191.279	7/8X280 (11)	1	22554.222.279
5/8X190 (7.1/2)	1	22554.158.190	3/4X285 (11.1/4)	1	22554.191.285	7/8X285 (11.1/4)	1	22554.222.285
5/8X195 (7.3/4)	1	22554.158.196	3/4X290 (11.3/8)	1	22554.191.290	7/8X290 (11.3/8)	1	22554.222.290
5/8X200 (8)	1	22554.158.203	3/4X295 (11.1/2)	1	22554.191.292	7/8X295 (11.1/2)	1	22554.222.292
5/8X205 (8.1/8)	1	22554.158.205	3/4X300 (11.3/4)	1	22554.191.298	7/8X300 (11.3/4)	1	22554.222.298
5/8X210 (8.1/4)	1	22554.158.209	3/4X305 (12)	1	22554.191.304	7/8X305 (12)	1	22554.222.304
5/8X215 (8.1/2)	1	22554.158.215	3/4X310 (12.1/4)	1	22554.191.311	7/8X310 (12.1/4)	1	22554.222.311
5/8X220 (8.3/4)	1	22554.158.222	3/4X315 (12.1/2)	1	22554.191.317	7/8X315 (12.1/2)	1	22554.222.317
5/8X225 (8.7/8)	1	22554.158.225	3/4X320 (12.5/8)	1	22554.191.320	7/8X320 (12.5/8)	1	22554.222.320
5/8X230 (9)	1	22554.158.228	3/4X325 (12.3/4)	1	22554.191.323	7/8X325 (12.3/4)	1	22554.222.323
5/8X235 (9.1/4)	1	22554.158.234	3/4X330 (13)	1	22554.191.330	7/8X330 (13)	1	22554.222.330

22554 **Perno com 2 porcas sextavadas** ←

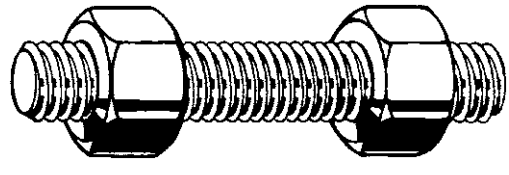
d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo	d x L mm (L Inch)	✉	Ref. do artigo
7/8X335 (13.1/4)	1	22554.222.336	1.IN.X125 (5)	1	22554.254.127	1.IN.X315 (12.1/2)	1	22554.254.317
7/8X340 (13.3/8)	1	22554.222.340	1.IN.X130 (5.1/8)	1	22554.254.130	1.IN.X320 (12.5/8)	1	22554.254.320
7/8X345 (13.1/2)	1	22554.222.342	1.IN.X135 (5.1/4)	1	22554.254.133	1.IN.X325 (12.3/4)	1	22554.254.323
7/8X350 (13.3/4)	1	22554.222.349	1.IN.X140 (5.1/2)	1	22554.254.139	1.IN.X330 (13)	1	22554.254.330
7/8X355 (14)	1	22554.222.355	1.IN.X145 (5.3/4)	1	22554.254.146	1.IN.X335 (13.1/4)	1	22554.254.336
7/8X360 (14.1/4)	1	22554.222.361	1.IN.X150 (6)	1	22554.254.152	1.IN.X340 (13.3/8)	1	22554.254.340
7/8X365 (14.3/8)	1	22554.222.365	1.IN.X155 (6.1/8)	1	22554.254.155	1.IN.X345 (13.1/2)	1	22554.254.342
7/8X370 (14.1/2)	1	22554.222.368	1.IN.X160 (6.1/4)	1	22554.254.158	1.IN.X350 (13.3/4)	1	22554.254.349
7/8X375 (14.3/4)	1	22554.222.375	1.IN.X165 (6.1/2)	1	22554.254.165	1.IN.X355 (14)	1	22554.254.355
7/8X380 (15)	1	22554.222.381	1.IN.X170 (6.3/4)	1	22554.254.171	1.IN.X360 (14.1/4)	1	22554.254.361
7/8X385 (15.1/4)	1	22554.222.382	1.IN.X175 (6.7/8)	1	22554.254.175	1.IN.X365 (14.3/8)	1	22554.254.365
7/8X390 (15.3/8)	1	22554.222.390	1.IN.X180 (7)	1	22554.254.177	1.IN.X370 (14.1/2)	1	22554.254.368
7/8X395 (15.1/2)	1	22554.222.393	1.IN.X185 (7.1/4)	1	22554.254.184	1.IN.X375 (14.3/4)	1	22554.254.374
7/8X400 (15.3/4)	1	22554.222.400	1.IN.X190 (7.1/2)	1	22554.254.190	1.IN.X380 (15)	1	22554.254.381
7/8X405 (16)	1	22554.222.406	1.IN.X195 (7.3/4)	1	22554.254.196	1.IN.X385 (15.1/4)	1	22554.254.387
7/8X410 (16.1/8)	1	22554.222.410	1.IN.X200 (8)	1	22554.254.203	1.IN.X390 (15.3/8)	1	22554.254.390
7/8X415 (16.1/4)	1	22554.222.412	1.IN.X205 (8.1/8)	1	22554.254.205	1.IN.X395 (15.1/2)	1	22554.254.393
7/8X420 (16.1/2)	1	22554.222.419	1.IN.X210 (8.1/4)	1	22554.254.209	1.IN.X400 (15.3/4)	1	22554.254.400
7/8X425 (16.3/4)	1	22554.222.425	1.IN.X215 (8.1/2)	1	22554.254.215	1.IN.X405 (16)	1	22554.254.406
7/8X430 (17)	1	22554.222.431	1.IN.X220 (8.3/4)	1	22554.254.222	1.IN.X410 (16.1/8)	1	22554.254.410
7/8X440 (17.1/4)	1	22554.222.438	1.IN.X225 (8.7/8)	1	22554.254.225	1.IN.X415 (16.1/4)	1	22554.254.412
7/8X450 (17.3/4)	1	22554.222.450	1.IN.X230 (9)	1	22554.254.228	1.IN.X420 (16.1/2)	1	22554.254.419
7/8X455 (18)	1	22554.222.457	1.IN.X235 (9.1/4)	1	22554.254.234	1.IN.X425 (16.3/4)	1	22554.254.425
7/8X470 (18.1/2)	1	22554.222.469	1.IN.X240 (9.1/2)	1	22554.254.241	1.IN.X430 (17)	1	22554.254.431
7/8X485 (19)	1	22554.222.482	1.IN.X245 (9.5/8)	1	22554.254.245	1.IN.X435 (17.1/8)	1	22554.254.435
7/8X495 (19.1/2)	1	22554.222.495	1.IN.X250 (9.3/4)	1	22554.254.247	1.IN.X440 (17.1/4)	1	22554.254.438
7/8X510 (20)	1	22554.222.508	1.IN.X255 (10)	1	22554.254.254	1.IN.X445 (17.1/2)	1	22554.254.444
7/8X515 (20.1/4)	1	22554.222.514	1.IN.X260 (10.1/4)	1	22554.254.260	1.IN.X450 (17.3/4)	1	22554.254.450
7/8X525 (20.3/4)	1	22554.222.527	1.IN.X265 (10.1/2)	1	22554.254.266	1.IN.X455 (18)	1	22554.254.457
			1.IN.X270 (10.5/8)	1	22554.254.270	1.IN.X460 (18.1/8)	1	22554.254.460
1.IN.X80 (3.1/4)	1	22554.254.082	1.IN.X275 (10.3/4)	1	22554.254.273	1.IN.X470 (18.1/2)	1	22554.254.469
1.IN.X85 (3.3/8)	1	22554.254.085	1.IN.X280 (11)	1	22554.254.279	1.IN.X485 (19)	1	22554.254.482
1.IN.X90 (3.1/2)	1	22554.254.088	1.IN.X285 (11.1/4)	1	22554.254.285	1.IN.X505 (19.7/8)	1	22554.254.505
1.IN.X95 (3.3/4)	1	22554.254.095	1.IN.X290 (11.3/8)	1	22554.254.290	1.IN.X515 (20.1/4)	1	22554.254.514
1.IN.X100 (4)	1	22554.254.101	1.IN.X295 (11.1/2)	1	22554.254.292	1.IN.X520 (20.1/2)	1	22554.254.520
1.IN.X105 (4.1/8)	1	22554.254.105	1.IN.X300 (11.3/4)	1	22554.254.298	1.IN.X595 (23.1/2)	1	22554.254.596
1.IN.X110 (4.1/4)	1	22554.254.107	1.IN.X305 (12)	1	22554.254.304	1.IN.X615 (24.1/4)	1	22554.254.615
1.IN.X115 (4.1/2)	1	22554.254.114	1.IN.X310 (12.1/4)	1	22554.254.311	1.IN.X730 (28.3/4)	1	22554.254.730

4

Perno com 2 porcas sextavadas



BS **≈4882**



Dados técnicos

d	B	M	P
M12	19	12	1.75
M14	22	14	2
M16	24	16	2
M18	27	18	2.5
M20	30	20	2.5
M22	32	22	2.5

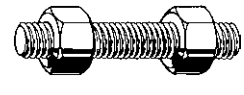
d	B	M	P
M24	36	24	3
M27	41	27	3
M30	46	30	3.5
M33	50	33	3.5
M36	55	36	4

- Altura da porca 'M' não está em conformidade com BS 4882.
- L é o comprimento nominal do perno inclui extremidades com chanfro.

22060 **Perno com 2 porcas sextavadas** **G09A**

Rosca Métrica
Material Aço ASTM A193M - ASTM A194M
Classe Gr.B7 - Gr.2H

RoHS

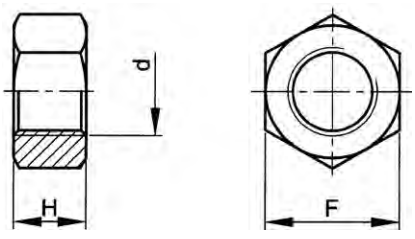


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M12X55	1	22060.120.055	M12X75	1	22060.120.075	M12X90	1	22060.120.090
M12X60	1	22060.120.060	M12X80	1	22060.120.080	M12X95	1	22060.120.095
M12X65	1	22060.120.065	M12X85	1	22060.120.085	M12X100	1	22060.120.100
M12X70	1	22060.120.070						

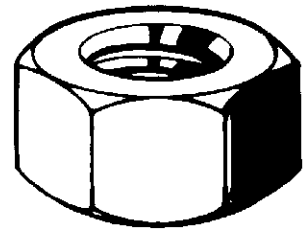
22060 Perno com 2 porcas sextavadas ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M12X120	1	22060.120.120	M20X140	1	22060.200.140	M24X365	1	22060.240.365
M12X125	1	22060.120.125	M20X145	1	22060.200.145			
M12X140	1	22060.120.140	M20X150	1	22060.200.150	M27X125	1	22060.270.125
			M20X160	1	22060.200.160	M27X130	1	22060.270.130
M14X55	1	22060.140.055	M20X165	1	22060.200.165	M27X135	1	22060.270.135
M14X65	1	22060.140.065	M20X170	1	22060.200.170	M27X140	1	22060.270.140
M14X70	1	22060.140.070	M20X180	1	22060.200.180	M27X150	1	22060.270.150
M14X75	1	22060.140.075	M20X190	1	22060.200.190	M27X165	1	22060.270.165
M14X80	1	22060.140.080	M20X195	1	22060.200.195	M27X175	1	22060.270.175
M14X85	1	22060.140.085	M20X200	1	22060.200.200	M27X190	1	22060.270.190
M14X90	1	22060.140.090	M20X210	1	22060.200.210	M27X215	1	22060.270.215
M14X100	1	22060.140.100	M20X230	1	22060.200.230	M27X230	1	22060.270.230
M14X120	1	22060.140.120	M20X240	1	22060.200.240	M27X240	1	22060.270.240
			M20X245	1	22060.200.245	M27X250	1	22060.270.250
M16X55	1	22060.160.055	M20X250	1	22060.200.250	M27X275	1	22060.270.275
M16X60	1	22060.160.060	M20X320	1	22060.200.320			
M16X65	1	22060.160.065	M20X340	1	22060.200.340	M30X135	1	22060.300.135
M16X70	1	22060.160.070	M20X400	1	22060.200.400	M30X140	1	22060.300.140
M16X75	1	22060.160.075				M30X150	1	22060.300.150
M16X80	1	22060.160.080	M22X95	1	22060.220.095	M30X155	1	22060.300.155
M16X85	1	22060.160.085	M22X100	1	22060.220.100	M30X170	1	22060.300.170
M16X90	1	22060.160.090	M22X110	1	22060.220.110	M30X175	1	22060.300.175
M16X95	1	22060.160.095	M22X120	1	22060.220.120	M30X180	1	22060.300.180
M16X100	1	22060.160.100	M22X130	1	22060.220.130	M30X185	1	22060.300.185
M16X110	1	22060.160.110	M22X140	1	22060.220.140	M30X215	1	22060.300.215
M16X120	1	22060.160.120	M22X150	1	22060.220.150	M30X220	1	22060.300.220
M16X125	1	22060.160.125	M22X160	1	22060.220.160	M30X230	1	22060.300.230
M16X130	1	22060.160.130	M22X170	1	22060.220.170	M30X240	1	22060.300.240
M16X140	1	22060.160.140	M22X190	1	22060.220.190	M30X250	1	22060.300.250
M16X150	1	22060.160.150	M22X200	1	22060.220.200	M30X500	1	22060.300.500
M16X160	1	22060.160.160	M22X210	1	22060.220.210	M30X590	1	22060.300.590
M16X165	1	22060.160.165						
M16X175	1	22060.160.175	M24X80	1	22060.240.080	M33X150	1	22060.330.150
M16X190	1	22060.160.190	M24X110	1	22060.240.110	M33X170	1	22060.330.170
M16X220	1	22060.160.220	M24X115	1	22060.240.115	M33X175	1	22060.330.175
M16X240	1	22060.160.240	M24X120	1	22060.240.120	M33X185	1	22060.330.185
M16X300	1	22060.160.300	M24X125	1	22060.240.125	M33X190	1	22060.330.190
			M24X130	1	22060.240.130	M33X200	1	22060.330.200
M18X100	1	22060.180.100	M24X140	1	22060.240.140	M33X210	1	22060.330.210
M18X120	1	22060.180.120	M24X145	1	22060.240.145	M33X220	1	22060.330.220
			M24X150	1	22060.240.150	M33X230	1	22060.330.230
M20X75	1	22060.200.075	M24X160	1	22060.240.160	M33X330	1	22060.330.330
M20X80	1	22060.200.080	M24X165	1	22060.240.165			
M20X85	1	22060.200.085	M24X170	1	22060.240.170	M36X175	1	22060.360.175
M20X90	1	22060.200.090	M24X180	1	22060.240.180	M36X190	1	22060.360.190
M20X95	1	22060.200.095	M24X185	1	22060.240.185	M36X200	1	22060.360.200
M20X100	1	22060.200.100	M24X190	1	22060.240.190	M36X210	1	22060.360.210
M20X105	1	22060.200.105	M24X200	1	22060.240.200	M36X220	1	22060.360.220
M20X110	1	22060.200.110	M24X220	1	22060.240.220	M36X230	1	22060.360.230
M20X115	1	22060.200.115	M24X230	1	22060.240.230	M36X240	1	22060.360.240
M20X120	1	22060.200.120	M24X240	1	22060.240.240	M36X250	1	22060.360.250
M20X125	1	22060.200.125	M24X250	1	22060.240.250	M36X260	1	22060.360.260
M20X130	1	22060.200.130	M24X275	1	22060.240.275			
M20X135	1	22060.200.135	M24X320	1	22060.240.320			

Porca sextavada ASTM A194



ASME **B18.2.2**
BS 1769



Dados técnicos

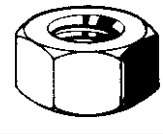
d	F	Fios por polegada	H	d	F	Fios por polegada	H
3/8	11/16	16	9	1.1/2	2.3/8	8	37.3
1/2	7/8	13	12.3	1.5/8	2.9/16	8	40.5
5/8	1.1/16	11	15.5	1.3/4	2.3/4	8	43.65
3/4	1.1/4	10	18.65	1.7/8	2.15/16	8	46.85
7/8	1.7/16	9	21.85	2 Inch	3.1/8	8	50
1 Inch	1.5/8	8	25	2.1/4	3.1/2	8	55.95
1.1/8	1.13/16	8	28.2	2.1/2	3.7/8	8	62.3
1.1/4	2 Inch	8	30.95	2.3/4	4.1/4	8	68.25
1.3/8	2.3/16	8	34.15	3 Inch	4.5/8	8	75

Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
UNC	Sextavado	Aço ASTM A194	Gr.2H	22280	4-57
8 UN	Sextavado	Aço ASTM A194	Gr.2H	22290	4-57
UNC	Sextavado	Aço ASTM A194	Gr.4	22380	4-58
8 UN	Sextavado	Aço ASTM A194	Gr.4	22390	4-58
UNC	Sextavado	Aço ASTM A194	Gr.7	22382	4-58
UNC	Sextavado	INOX ASTM A194	Gr.8	22383	4-58
8 UN	Sextavado	INOX ASTM A194	Gr.8	22393	4-58
UNC	Sextavado	INOX ASTM A194	Gr.8M	22384	4-58
UNC	Sextavado	INOX ASTM A194	Gr.8T	22386	4-59

22280 Porca sextavada ASTM A194 G09A

Rosca Unified National Coarse
Material Aço ASTM A194
Classe Gr.2H

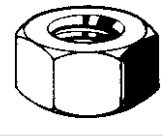


RoHS

d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/2	1	22280.127.001	3/4	1	22280.191.001	1 Inch	1	22280.254.001
5/8	1	22280.158.001	7/8	1	22280.222.001			

22290 Porca sextavada ASTM A194 G09A

Rosca 8 Unified National
Material Aço ASTM A194
Classe Gr.2H

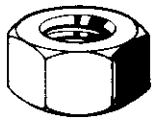


RoHS

d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1.1/8	1	22290.285.001	1.5/8	1	22290.412.001	2.1/4	1	22290.571.001
1.1/4	1	22290.317.001	1.3/4	1	22290.444.001	2.1/2	1	22290.635.001
1.3/8	1	22290.349.001	1.7/8	1	22290.476.001	2.3/4	1	22290.698.001
1.1/2	1	22290.381.001	2 Inch	1	22290.508.001	3 Inch	1	22290.762.001

22380 Porca sextavada ASTM A194 — G10A

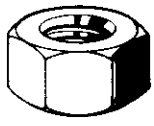
Rosca Unified National Coarse
Material Aço ASTM A194
Classe Gr.4



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
3/8	1	22380.096.001	5/8	1	22380.158.001	7/8	1	22380.222.001
1/2	1	22380.127.001	3/4	1	22380.191.001	1 Inch	1	22380.254.001

22390 Porca sextavada ASTM A194 — G10A

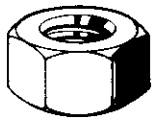
Rosca 8 Unified National
Material Aço ASTM A194
Classe Gr.4



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1.1/8	1	22390.285.001	1.1/2	1	22390.381.001	1.7/8	1	22390.476.001
1.1/4	1	22390.317.001	1.5/8	1	22390.412.001	2 Inch	1	22390.508.001
1.3/8	1	22390.349.001	1.3/4	1	22390.444.001			

22382 Porca sextavada ASTM A194 — G10A

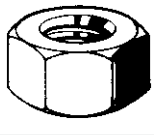
Rosca Unified National Coarse
Material Aço ASTM A194
Classe Gr.7



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/2	1	22382.127.001	3/4	1	22382.191.001	1 Inch	1	22382.254.001
5/8	1	22382.158.001	7/8	1	22382.222.001			

22383 Porca sextavada ASTM A194 — G12A

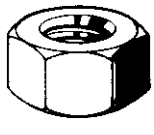
Rosca Unified National Coarse
Material Aço inoxidável ASTM A194
Classe Gr.8



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/2	1	22383.127.001	3/4	1	22383.191.001	1 Inch	1	22383.254.001
5/8	1	22383.158.001	7/8	1	22383.222.001			

22393 Porca sextavada ASTM A194 — G12A

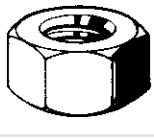
Rosca 8 Unified National
Material Aço inoxidável ASTM A194
Classe Gr.8



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1.1/8	1	22393.285.001	1.3/8	1	22393.349.001	1.1/2	1	22393.381.001
1.1/4	1	22393.317.001						

22384 Porca sextavada ASTM A194 — G12A

Rosca Unified National Coarse
Material Aço inoxidável ASTM A194
Classe Gr.8M

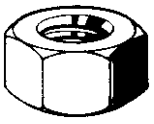


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/2	1	22384.127.001	3/4	1	22384.191.001	1 Inch	1	22384.254.001
5/8	1	22384.158.001	7/8	1	22384.222.001			

22386	Porca sextavada ASTM A194	G12A

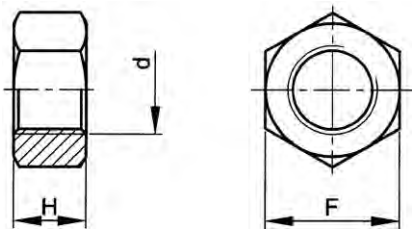
Rosca Unified National Coarse
Material Aço inoxidável ASTM A194
Classe Gr.8T

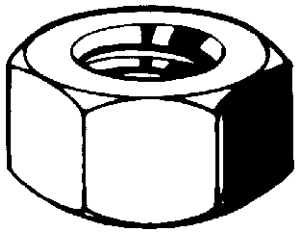
RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
3/8	1	22386.096.001	5/8	1	22386.158.001	7/8	1	22386.222.001
1/2	1	22386.127.001	3/4	1	22386.191.001	1 Inch	1	22386.254.001

Porca sextavada ASTM A194 Grade 2H





4

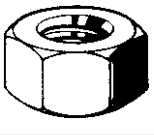
Dados técnicos

d	F	H	P	d	F	H	P
M10	17	10	1.5	M30	46	30	3.5
M12	19	12	1.75	M33	50	33	3.5
M14	22	14	2	M36	55	36	4
M16	24	16	2	M39	60	39	4
M18	27	18	2.5	M42	65	42	4.5
M20	30	20	2.5	M45	70	45	4.5
M22	32	22	2.5	M48	75	48	5
M24	36	24	3	M52	80	52	5
M27	41	27	3	M64	95	64	6

22200	Porca sextavada ASTM A194 Grade 2H	G09A

Rosca Métrica
Material Aço ASTM A194M
Classe Gr.2H

RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M10	1	22200.100.001	M22	1	22200.220.001	M39	1	22200.390.001
M12	1	22200.120.001	M24	1	22200.240.001	M42	1	22200.420.001
M14	1	22200.140.001	M27	1	22200.270.001	M45	1	22200.450.001
M16	1	22200.160.001	M30	1	22200.300.001	M48	1	22200.480.001
M18	1	22200.180.001	M33	1	22200.330.001	M52	1	22200.520.001
M20	1	22200.200.001	M36	1	22200.360.001	M64	1	22200.640.001

Pernos duas roscas

Com haste reduzida e duas porcas sextavadas

Fixações com haste reduzida são particularmente efetivas em construções com cargas dinâmicas e temperaturas flutuantes , para garantir um elevado nível de resistência à fadiga. Parafusos com haste reduzida têm um alongamento mais elevado quando comparados com outros parafusos, com a mesma pré carga.

São diversas as vantagens:

- Parafusos com haste reduzida têm uma resistência mais elevada, o efeito das temperaturas flutuantes e das cargas externas, reduzem também os momentos flectores.
- A redução da pré carga causada pela deformação dos materiais fixados e das superfícies da fixação, é reduzida.
- A fixação de uma carga de aperto especifica é mais fácil de controlar.

Para aplicações e cálculos de pernos de duas roscas em recipientes de pressão, referimos a AD 2000 – Merkblatt B7, W7 and W10, publicada pela VdTÜV em Berlin.

Intervalos de temperatura nas combinações parafuso/porca

Especificações	Valores Standard	Artigos e marcação			
		Parafusos		Porcas	
DIN 267-13/ DIN EN 10269 AD 2000 W7	+ 700° C	2.4952	SB	2.4952	SB
	+ 650° C	1.4986	S	1.4986	S
		1.4980	SD	1.4980	SD
	+ 580° C	1.4923	V	1.4923	V
	+ 540° C	1.4913	VW	1.4923	V
		1.7709	GA	1.7709	GA
	+ 500° C	1.7709	GA	1.7218	KG
		1.7711	GB	1.7709	GA
	+ 400° C	1.7218	KG	1.7218	KG
		1.7218	KG	1.1181	YK
	+ 350° C	1.1181	YK	1.1181	YK
		1.1181	YK	1.0501	Y
DIN 267-13/ISO 898-1	+ 350° C - 10° C	8.8 5.6			
DIN 267-13/ DIN EN 10269 AD2000 W10	- 60° C	1.7218	KG	1.7218	KG
	- 120° C	1.5680	KB	1.5680	KB
	- 196° C	1.6906	-	1.6906	-

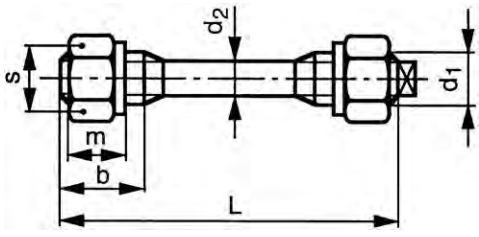


Propriedades de material de acordo com a EN10269

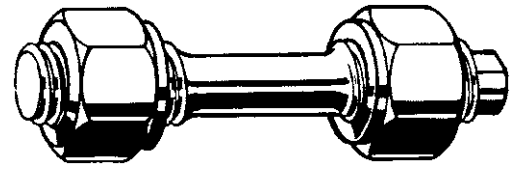
Material			Tratamento térmico (1)	Intervalo de temperatura			Diâmetro	Força	Força de tensão	Alongamento após fratura	Redução na área	Energia de impacto
Marcação do produto	Nome do material	Referência do material		Min.	Curto Max. (2)	Longo Max. (2)	mm	MPa (min) (min)	MPa	% min.	% min.	KVJ min.
YK	C35E	1.1181	+QT	-	400°C	500°C	d ≤ 60	300	500-650	22	45	55
							60 < d ≤150	300	500-650	22	45	39
KG	25CrMo4	1.7218	+QT	-60°C	500°C	550°C	d ≤ 100	440	600-750	18	60	60
							100 < d ≤150	420	600-750	18	60	45
GA	21CrMoV5-7	1.7709	+QT	-	500°C	550°C	d ≤ 160	550	700-850	16	60	63

(1) + QT = temperado e temperado
(2) Curto = Tempo de serviço curto; Longo = Tempo de serviço longo. Consulte a EN 10269 para obter informações mais detalhadas sobre resistência a temperaturas elevadas e intervalos de tempo. As propriedades do material são aplicáveis à temperatura ambiente. Para propriedades em outras temperaturas, consulte EN 10269.

Perno com haste reduzida e 2 porcas



DIN 2510 L/NF



Dados técnicos

d_1	b	d_2	m	P	s
M12	20	8.5	12	1.75	22
M16	23	12	16	2	27
M20	28	15	20	2.5	32
M24	32	18	24	3	36
M27	35	20.5	27	3	41
M30	39	23	30	3.5	46

- Para informação técnica, propriedades de material e explicações de marcação, ver página INFO.
- Rosca exterior de acordo com DIN 2510-2.

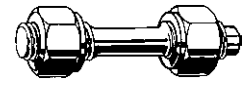
4

Grupos de produtos

Rosca	Material	Classe	Código	Página
M	Aço	KG/YK	23510	4-61
M	Aço	GA/KG	23530	4-61
M	Aço	YK/YK	23550	4-62

23510 Perno com haste reduzida e 2 porcas G90A

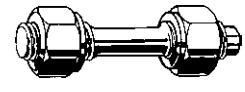
Rosca Métrica
Material Aço C35E+QT/C35E+QT
Classe KG/YK



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M12X65	10	23510.120.065	M16X95	10	23510.160.095	M24X110	5	23510.240.110
M12X75	10	23510.120.075	M16X110	10	23510.160.110	M24X115	5	23510.240.115
M12X80	10	23510.120.080				M24X120	5	23510.240.120
			M20X100	5	23510.200.100	M24X130	5	23510.240.130
M16X75	10	23510.160.075	M20X105	5	23510.200.105	M24X150	5	23510.240.150
M16X80	10	23510.160.080	M20X110	5	23510.200.110			
M16X85	10	23510.160.085				M27X140	2	23510.270.140
M16X90	10	23510.160.090						

23530 Perno com haste reduzida e 2 porcas G90A

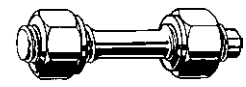
Rosca Métrica
Material Aço 21CrMoV5-7+QT/25CrMo4+QT
Classe GA/KG



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M12X65	10	23530.120.065	M20X110	5	23530.200.110	M24X150	5	23530.240.150
M12X75	10	23530.120.075	M20X120	5	23530.200.120			
			M20X140	5	23530.200.140	M27X130	2	23530.270.130
M16X75	10	23530.160.075				M27X140	2	23530.270.140
M16X85	10	23530.160.085	M24X110	5	23530.240.110			
M16X90	10	23530.160.090	M24X120	5	23530.240.120	M30X160	2	23530.300.160
M16X100	10	23530.160.100	M24X125	5	23530.240.125	M30X180	2	23530.300.180
			M24X130	5	23530.240.130			
M20X100	5	23530.200.100	M24X140	5	23530.240.140			

23550	Perno com haste reduzida e 2 porcas	G90A

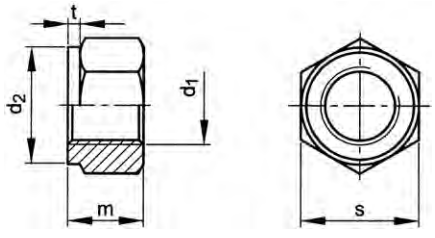
Rosca Métrica
Material Steel C35E+QT
Classe YK/YK



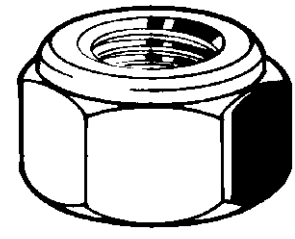
d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M12X65	10	23550.120.065	M16X100	10	23550.160.100	M24X110	5	23550.240.110
M12X70	10	23550.120.070	M16X105	10	23550.160.105	M24X115	5	23550.240.115
M12X75	10	23550.120.075				M24X125	5	23550.240.125
M12X80	10	23550.120.080	M20X95	5	23550.200.095	M24X130	5	23550.240.130
			M20X100	5	23550.200.100	M24X140	5	23550.240.140
M16X75	10	23550.160.075	M20X105	5	23550.200.105	M24X150	5	23550.240.150
M16X80	10	23550.160.080	M20X110	5	23550.200.110			
M16X85	10	23550.160.085	M20X120	5	23550.200.120	M30X140	2	23550.300.140
M16X90	10	23550.160.090						

4

Porca sextavada para perno duas roscas



DIN **2510 NF**



Dados técnicos

d_1	d_2	m	P	s	t
M12	21	12	1.75	22	2
M16	26	16	2	27	2
M20	31	20	2.5	32	2
M24	35	24	3	36	3
M27	40	27	3	41	3
M30	45	30	3.5	46	3
M33	49	33	3.5	50	3
M36	53.5	36	4	55	3

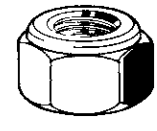
- Para informação técnica, propriedades de material e explicação de marcação, ver a página INFO. Rosca externa de acordo com DIN 2510-2.

Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
M	Sextavado	Aço	KG	23620	4-62
M	Sextavado	Aço	YK	23660	4-62

23620	Porca sextavada para perno duas roscas	G90A

Rosca Métrica
Material Steel 25CrMo4+QT
Classe KG



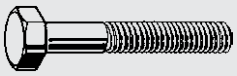
d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M12	50	23620.120.001	M24	25	23620.240.001	M33	5	23620.330.001
M16	50	23620.160.001	M27	10	23620.270.001	M36	5	23620.360.001
M20	25	23620.200.001	M30	10	23620.300.001			

23660	Porca sextavada para perno duas roscas	G90A

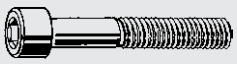
Rosca Métrica
Material Steel C35E+QT
Classe YK



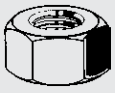
d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M12	50	23660.120.001	M20	25	23660.200.001	M27	10	23660.270.001
M16	50	23660.160.001	M24	25	23660.240.001	M30	10	23660.300.001



1 Parafusos sextavado exterior



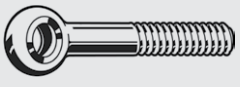
2 Produtos sextavados interiores



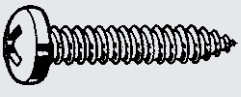
3 Porcas/porcas de rebitar / insertos



4 Varão roscado / pernos



5 Produtos olhal / gancho

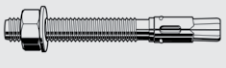


6 Parafusos

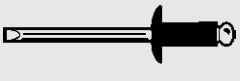
I Indice



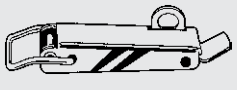
7 Anilha



8 Ancoragem



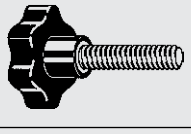
9 Rebites / cavilhas



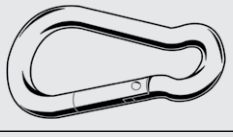
10 Parafusos de segurança / Sistemas de fixação



11 Sortidos



12 Sistemas de engenharia / peças para máquinas



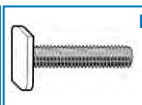
13 Marítimo produtos

T Tecnologia de fixação

Produtos olhal/gancho 5

Página 5-2 DIN 186 B

Métrico

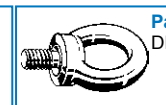
Página 5-3

Métrico

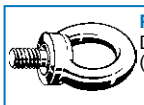
Página 5-4 DIN 444 B

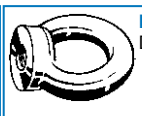
Métrico

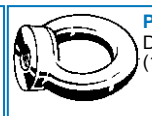
Página 5-6 DIN 444 LB

Totalmente roscado Métrico

Página 5-7 DIN 580

Métrico CE

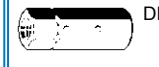
Página 5-9 DIN ≈580 (1957)

BSW

Página 5-10 DIN 582

Métrico CE

Página 5-12 DIN ≈582 (1957)

BSW

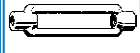
Página 5-13 DIN 1478

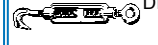
Tubular Métrico

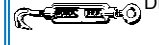
Página 5-13 DIN ≈1479

Sextavado Métrico

Página 5-14 DIN 1480

Com 2 pontos para soldar Métrico

Página 5-15 DIN 1480

Métrico

Página 5-15 DIN ≈1480

Com gancho e olhal

Página 5-16 DIN ≈1480

With hook and eye Stainless steel

Página 5-16 DIN ≈1480

Com dois olhais

Página 5-17 DIN ≈1480

Com dois olhais aço inox

Página 5-18 DIN ≈1480

Com dois ganchos

Página 5-18 DIN ≈1480

Com dois ganchos aço inox

Página 5-19 DIN ≈1480

Com 2 olhais

Página 5-19 DIN ≈82101 A

Aço

Página 5-20

Inox

Página 5-21

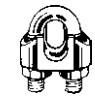
Aço

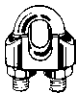
Página 5-22

Aço

Página 5-23

Inox

Página 5-24 DIN 741/555 (1987)

Aço

Página 5-25

Inox

Página 5-26

Aço/inox

Página 5-27

Aço

Página 5-28

Métrico

Página 5-29

Métrico

Página 5-29

Métrico

Página 5-30

Não métrico

Página 5-31

Modelo heavy não métrico

Página 5-32

Modelo longo não métrico

Página 5-32

Não métrico

Página 5-33

Gancho pequeno não métrico

Página 5-34

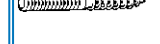
Não métrico

Página 5-35

Modelo heavy cruciforme não métrico

Página 5-35

Com ponta

Página 5-36

Parafuso de 2 roscas Aço

Página 5-37

Parafuso 2 roscas aço

Página 5-37

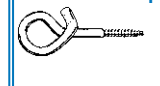
Parafuso 2 roscas com sextavado interior aço inox

Página 5-38

Parafuso de 2 roscas

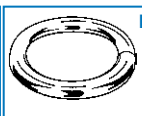
Página 5-39

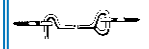
Parafuso 2 roscas com encaixe hexalobular

Página 5-40

Não métrico

Página 5-41

Métrico

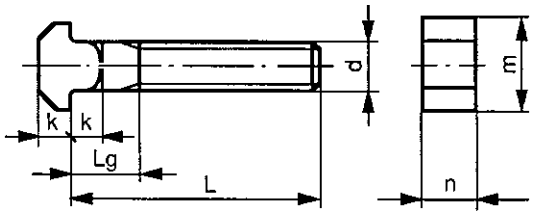
Página 5-41

Para ganchos giratórios

Página 5-42

Não métrico

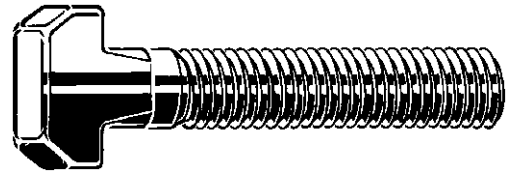
Página 5-42

Aço

Parafuso cabeça em T com arreigada quadrada



DIN **186 B**
NEN 2309



Dados técnicos

d	k	Lg (max.)	m	n	P
M8	5.5	13	18	8	1.25
M10	7	16	21	10	1.5
M12	8	19	26	12	1.75
M16	10.5	25	30	16	2
M20	13	31	36	20	2.5
M24	15	37	43	24	3
M27 (≠DIN)	18	40	48	27	3
M30	19	43	54	30	3.5

5

- Para encaixes T, ver DIN 649.

Grupos de produtos

Rosca	Material	Classe	Código	Página
M	Aço	≥3.6	16190	5-2
M	INOX A4		55782	5-2

16190 **Parafuso cabeça em T com arreigada quadrada** **F11D**

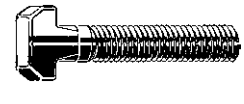
Rosca Métrica
Material Aço
Classe ≥3.6



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M8X30	25	16190.080.030	M16X40	10	16190.160.040	M20X180	5	16190.200.180
M8X40	25	16190.080.040	M16X50	10	16190.160.050	M20X200	5	16190.200.200
M8X50	25	16190.080.050	M16X60	10	16190.160.060			
M8X60	25	16190.080.060	M16X70	10	16190.160.070	M24X60	5	16190.240.060
			M16X80	10	16190.160.080	M24X70	5	16190.240.070
M10X30	25	16190.100.030	M16X90	10	16190.160.090	M24X80	5	16190.240.080
M10X40	25	16190.100.040	M16X100	10	16190.160.100	M24X90	5	16190.240.090
M10X50	25	16190.100.050	M16X110	10	16190.160.110	M24X100	5	16190.240.100
M10X60	25	16190.100.060	M16X120	10	16190.160.120	M24X110	5	16190.240.110
M10X70	25	16190.100.070	M16X140	10	16190.160.140	M24X120	5	16190.240.120
			M16X160	10	16190.160.160	M24X140	5	16190.240.140
M12X30	10	16190.120.030	M16X180	10	16190.160.180	M24X160	5	16190.240.160
M12X40	10	16190.120.040	M16X200	10	16190.160.200	M24X180	5	16190.240.180
M12X50	10	16190.120.050				M24X200	5	16190.240.200
M12X60	10	16190.120.060	M20X50	5	16190.200.050			
M12X70	10	16190.120.070	M20X60	5	16190.200.060	M30X90	3	16190.300.090
M12X80	10	16190.120.080	M20X70	5	16190.200.070	M30X100	3	16190.300.100
M12X90	10	16190.120.090	M20X80	5	16190.200.080	M30X110	3	16190.300.110
M12X100	10	16190.120.100	M20X90	5	16190.200.090	M30X120	3	16190.300.120
M12X110	10	16190.120.110	M20X100	5	16190.200.100	M30X130	3	16190.300.130
M12X120	10	16190.120.120	M20X110	5	16190.200.110	M30X140	3	16190.300.140
M12X140	10	16190.120.140	M20X120	5	16190.200.120	M30X160	3	16190.300.160
M12X160	10	16190.120.160	M20X140	5	16190.200.140	M30X200	3	16190.300.200
			M20X160	5	16190.200.160	M30X260	3	16190.300.260

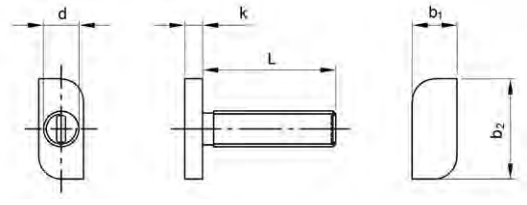
55782 **Parafuso cabeça em T com arreigada quadrada** **R49A**

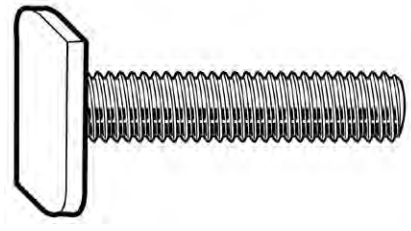
Rosca Métrica
Material Aço inoxidável A4



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M8X30	10	55782.080.030	M10X70	10	55782.100.070	M16X50	5	55782.160.050
M8X40	10	55782.080.040				M16X70	5	55782.160.070
M8X50	10	55782.080.050	M12X40	5	55782.120.040	M16X80	5	55782.160.080
M8X60	10	55782.080.060	M12X60	5	55782.120.060	M16X100	5	55782.160.100
			M12X70	5	55782.120.070			
M10X30	10	55782.100.030	M12X90	5	55782.120.090	M20X70	3	55782.200.070
M10X40	10	55782.100.040	M12X100	5	55782.120.100	M20X100	3	55782.200.100
M10X50	10	55782.100.050						

Parafuso cabeça T tipo 28/15





Dados técnicos

Tipo	b_1	b_2	k
M8	10	22.5	4
M10	10	22.5	4.5

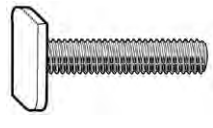
Grupos de produtos

Rosca	Material	Código	Página
M	INOX A2	51740	5-3
M	INOX A4	55740	5-3

51740 **Parafuso cabeça T tipo 28/15** **R09A**

Rosca Métrica
Material Aço inoxidável A2

RoHS

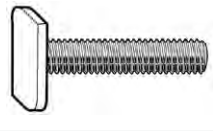


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M8X16*	100	51740.080.016	M8X53*	100	51740.080.053	M10X35*	100	51740.100.035
M8X20*	100	51740.080.020	M8X60*	100	51740.080.060	M10X40*	100	51740.100.040
M8X25*	100	51740.080.025	M8X65*	100	51740.080.065	M10X50*	100	51740.100.050
M8X30*	100	51740.080.030	M8X70*	100	51740.080.070	M10X60*	100	51740.100.060
M8X35*	100	51740.080.035	M10X20*	100	51740.100.020	M10X70*	100	51740.100.070
M8X40*	100	51740.080.040	M10X25*	100	51740.100.025	M10X80*	100	51740.100.080
M8X45*	100	51740.080.045	M10X30*	100	51740.100.030	M10X50*	100	51740.100.100
M8X50*	100	51740.080.050						

55740 **Parafuso cabeça T tipo 28/15** **R09A**

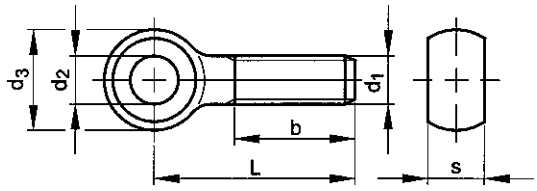
Rosca Métrica
Material Aço inoxidável A4

RoHS

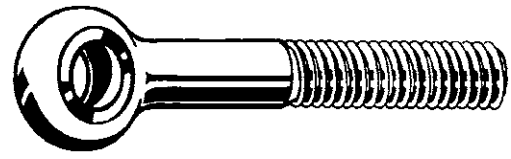


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M8X30*	100	55740.080.030	M10X25*	100	55740.100.025	M10X30*	100	55740.100.030
M10X20*	100	55740.100.020						

Parafuso de olhal



DIN **444 B**
NEN 2310 B



Dados técnicos

d_1	b (min.): L≤125mm	b (min.): 125mm<L≤200mm	b (min.): L>200mm	d_2 (H9)	d_3 (max.)	P	s (max.)
M6	18	-	-	6	14	1	7
M8	22	28	-	8	18	1.25	9
M10	26	32	-	10	20	1.5	12
M12	30	36	49	12	25	1.75	14
M16	38	44	57	16	32	2	17
M20	46	52	65	18	40	2.5	22
M24	54	60	73	22	45	3	25
M27	60	66	79	25	50	3	27
M30	66	72	85	28	55	3.5	30

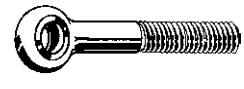
5

Grupos de produtos

Rosca	Material	Classe	Código	Página
M	Aço	4.6	16180	5-4
M	INOX A2	50	51790	5-5
M	INOX A4	50	55790	5-5

16180 **Parafuso de olhal** **F11D**

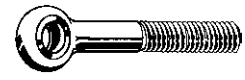
Rosca Métrica
Material Aço
Classe 4.6



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M6X30	25	16180.060.030				M20X140	5	16180.200.140
M6X40	25	16180.060.040	M12X60	10	16180.120.060	M20X150	5	16180.200.150
M6X50	25	16180.060.050	M12X70	10	16180.120.070	M20X160	5	16180.200.160
M6X60	25	16180.060.060	M12X80	10	16180.120.080	M20X180	5	16180.200.180
M6X70	25	16180.060.070	M12X90	10	16180.120.090	M20X200	5	16180.200.200
M6X80	25	16180.060.080	M12X100	10	16180.120.100	M20X260	5	16180.200.260
			M12X110	10	16180.120.110			
M8X40	25	16180.080.040	M12X120	10	16180.120.120	M24X80	5	16180.240.080
M8X45	25	16180.080.045	M12X130	10	16180.120.130	M24X100	5	16180.240.100
M8X50	25	16180.080.050	M12X140	10	16180.120.140	M24X110	5	16180.240.110
M8X60	25	16180.080.060	M12X150	10	16180.120.150	M24X120	5	16180.240.120
M8X70	25	16180.080.070				M24X130	5	16180.240.130
M8X80	25	16180.080.080	M16X60	10	16180.160.060	M24X140	5	16180.240.140
M8X90	25	16180.080.090	M16X70	10	16180.160.070	M24X150	5	16180.240.150
M8X100	25	16180.080.100	M16X80	10	16180.160.080	M24X160	5	16180.240.160
M8X110	25	16180.080.110	M16X90	10	16180.160.090	M24X180	5	16180.240.180
M8X120	25	16180.080.120	M16X100	10	16180.160.100	M24X200	5	16180.240.200
M8X130	25	16180.080.130	M16X110	10	16180.160.110	M24X220	5	16180.240.220
M8X140	25	16180.080.140	M16X120	10	16180.160.120			
			M16X130	10	16180.160.130	M27X120	5	16180.270.120
M10X40	25	16180.100.040	M16X140	10	16180.160.140	M27X140	5	16180.270.140
M10X50	25	16180.100.050	M16X150	10	16180.160.150	M27X160	5	16180.270.160
M10X60	25	16180.100.060	M16X160	10	16180.160.160	M27X180	5	16180.270.180
M10X65	25	16180.100.065	M16X180	10	16180.160.180	M27X200	5	16180.270.200
M10X70	25	16180.100.070	M16X200	10	16180.160.200			
M10X80	25	16180.100.080				M30X120	3	16180.300.120
M10X90	25	16180.100.090	M20X60	5	16180.200.060	M30X140	3	16180.300.140
M10X100	25	16180.100.100	M20X80	5	16180.200.080	M30X160	3	16180.300.160
M10X110	25	16180.100.110	M20X100	5	16180.200.100	M30X180	3	16180.300.180
M10X120	25	16180.100.120	M20X110	5	16180.200.110	M30X200	3	16180.300.200
M10X130	25	16180.100.130	M20X120	5	16180.200.120			
M10X140	25	16180.100.140	M20X130	5	16180.200.130			

51790 Parafuso de olhal — R09A

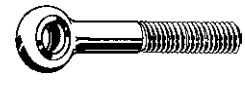
Rosca Métrica
Material Aço inoxidável A2
Classe 50



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M6X30	10	51790.060.030	M10X80	10	51790.100.080	M16X160	3	51790.160.160
M6X35	10	51790.060.035	M10X90	10	51790.100.090	M16X180	3	51790.160.180
M6X40	10	51790.060.040	M10X100	10	51790.100.100	M16X200	3	51790.160.200
M6X45	10	51790.060.045	M10X110	5	51790.100.110			
M6X50	10	51790.060.050	M10X120	5	51790.100.120	M20X70*	10	51790.200.070
M6X55	10	51790.060.055	M10X130	5	51790.100.130	M20X75	2	51790.200.075
M6X60	10	51790.060.060	M10X140	5	51790.100.140	M20X80	2	51790.200.080
M6X70	10	51790.060.070				M20X90	2	51790.200.090
M6X80	10	51790.060.080	M12X50	5	51790.120.050	M20X100	2	51790.200.100
			M12X55	5	51790.120.055	M20X110	2	51790.200.110
M8X30	10	51790.080.030	M12X60	5	51790.120.060	M20X120	2	51790.200.120
M8X35	10	51790.080.035	M12X65	5	51790.120.065	M20X130	2	51790.200.130
M8X40	10	51790.080.040	M12X70	5	51790.120.070	M20X140	2	51790.200.140
M8X45	10	51790.080.045	M12X75	5	51790.120.075	M20X150	1	51790.200.150
M8X50	10	51790.080.050	M12X80	5	51790.120.080	M20X160	1	51790.200.160
M8X55	10	51790.080.055	M12X90	5	51790.120.090	M20X180	1	51790.200.180
M8X60	10	51790.080.060	M12X100	5	51790.120.100	M20X200	1	51790.200.200
M8X65*	50	51790.080.065	M12X110	3	51790.120.110			
M8X70	10	51790.080.070	M12X120	3	51790.120.120	M24X80	3	51790.240.080
M8X75	10	51790.080.075	M12X130	3	51790.120.130	M24X90	3	51790.240.090
M8X80	10	51790.080.080	M12X140	3	51790.120.140	M24X100*	10	51790.240.100
M8X90	10	51790.080.090	M12X150	3	51790.120.150	M24X110	3	51790.240.110
M8X100	10	51790.080.100				M24X120	3	51790.240.120
M8X110	5	51790.080.110	M16X60	5	51790.160.060	M24X130	3	51790.240.130
M8X120	5	51790.080.120	M16X65	5	51790.160.065	M24X140	3	51790.240.140
M8X140	5	51790.080.140	M16X70	5	51790.160.070	M24X150	3	51790.240.150
			M16X75*	25	51790.160.075	M24X180	3	51790.240.180
M10X40	10	51790.100.040	M16X80	5	51790.160.080	M24X200	3	51790.240.200
M10X45	10	51790.100.045	M16X90	5	51790.160.090	M24X220	3	51790.240.220
M10X50	10	51790.100.050	M16X100	5	51790.160.100			
M10X55	10	51790.100.055	M16X110	5	51790.160.110	M27X120	3	51790.270.120
M10X60	10	51790.100.060	M16X120	3	51790.160.120	M27X160	3	51790.270.160
M10X65	10	51790.100.065	M16X130	3	51790.160.130	M27X180	3	51790.270.180
M10X70	10	51790.100.070	M16X140	3	51790.160.140	M27X200	3	51790.270.200
M10X75	10	51790.100.075	M16X150	3	51790.160.150			

55790 Parafuso de olhal — R49A

Rosca Métrica
Material Aço inoxidável A4
Classe 50



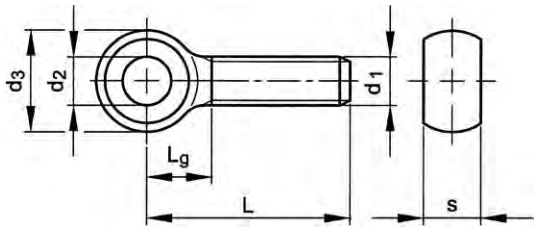
d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M6X30	10	55790.060.030	M10X70	10	55790.100.070	M16X90	5	55790.160.090
M6X35*	50	55790.060.035	M10X75*	25	55790.100.075	M16X100	5	55790.160.100
M6X40	10	55790.060.040	M10X80	10	55790.100.080	M16X110*	25	55790.160.110
M6X45*	50	55790.060.045	M10X90	10	55790.100.090	M16X120	3	55790.160.120
M6X50	10	55790.060.050	M10X100	10	55790.100.100	M16X130	3	55790.160.130
M6X55*	50	55790.060.055	M10X110*	25	55790.100.110	M16X140*	10	55790.160.140
M6X60*	50	55790.060.060	M10X120*	25	55790.100.120	M16X150*	10	55790.160.150
M8X30	10	55790.080.030	M12X50	5	55790.120.050	M20X70*	10	55790.200.070
M8X35*	50	55790.080.035	M12X55*	25	55790.120.055	M20X75*	10	55790.200.075
M8X40	10	55790.080.040	M12X60	5	55790.120.060	M20X80	2	55790.200.080
M8X45*	50	55790.080.045	M12X65*	25	55790.120.065	M20X90	2	55790.200.090
M8X50	10	55790.080.050	M12X70	5	55790.120.070	M20X100	2	55790.200.100
M8X55*	50	55790.080.055	M12X75*	25	55790.120.075	M20X110*	10	55790.200.110
M8X60	10	55790.080.060	M12X80	5	55790.120.080	M20X120	2	55790.200.120
M8X65*	50	55790.080.065	M12X90	5	55790.120.090	M20X130*	10	55790.200.130
M8X70	10	55790.080.070	M12X100	5	55790.120.100	M20X140*	10	55790.200.140
M8X75*	50	55790.080.075	M12X110*	25	55790.120.110	M20X150*	10	55790.200.150
M8X80	10	55790.080.080	M12X120	3	55790.120.120	M20X180	1	55790.200.180
M8X90	10	55790.080.090	M12X130*	25	55790.120.130			
M8X100	10	55790.080.100	M12X140*	10	55790.120.140	M24X80*	10	55790.240.080
			M12X150*	10	55790.120.150	M24X90*	10	55790.240.090
M10X40	10	55790.100.040				M24X100	3	55790.240.100
M10X45*	25	55790.100.045	M16X60*	25	55790.160.060	M24X110*	10	55790.240.110
M10X50	10	55790.100.050	M16X65*	25	55790.160.065	M24X120	3	55790.240.120
M10X55*	25	55790.100.055	M16X70	5	55790.160.070	M24X130*	10	55790.240.130
M10X60	10	55790.100.060	M16X75*	25	55790.160.075	M24X140	3	55790.240.140
M10X65*	25	55790.100.065	M16X80	5	55790.160.080	M24X150*	10	55790.240.150

5

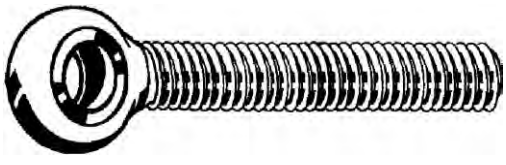
55790	Parafuso de olhal	←

d_1 x L	✉	Ref. do artigo
M24X220	10	55790.240.220

Parafuso olhal totalmente roscado



DIN **444 LB**
NEN 2310 B



Dados técnicos

d_1	d_2 (H9)	d_3 (max.)	Lg (max.)	P	s (max.)
M5	5	12	11	0.8	6
M6	6	14	14	1	7
M8	8	18	16	1.25	9
M10	10	20	18	1.5	12
M12	12	25	23	1.75	14
M16	16	32	27	2	17
M20	18	40	32	2.5	22

5

16182	Parafuso olhal totalmente roscado	F11D

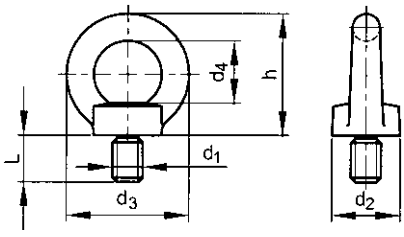
Rosca Métrica
Material Aço
Classe 4.6
Tratamento sup. Zincado

RoHS

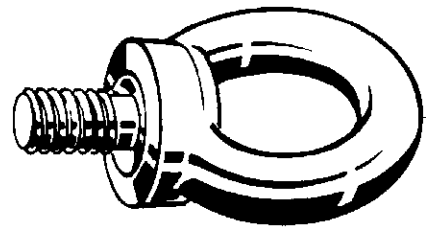


d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M5X25	50	16182.050.025	M10X75	25	16182.100.075	M16X90	10	16182.160.090
M5X35	50	16182.050.035	M10X80	25	16182.100.080	M16X100	10	16182.160.100
			M10X100	25	16182.100.100	M16X110	10	16182.160.110
M6X30	25	16182.060.030	M10X120	25	16182.100.120	M16X120	10	16182.160.120
M6X40	25	16182.060.040	M10X140	25	16182.100.140	M16X140	10	16182.160.140
M6X50	25	16182.060.050				M16X160	10	16182.160.160
			M12X60	10	16182.120.060	M16X180	10	16182.160.180
M8X40	25	16182.080.040	M12X70	10	16182.120.070	M16X200	10	16182.160.200
M8X50	25	16182.080.050	M12X80	10	16182.120.080			
M8X60	25	16182.080.060	M12X100	10	16182.120.100	M20X100	5	16182.200.100
M8X80	25	16182.080.080	M12X110	10	16182.120.110	M20X120	5	16182.200.120
			M12X120	10	16182.120.120	M20X140	5	16182.200.140
M10X40	25	16182.100.040	M12X140	10	16182.120.140	M20X150	5	16182.200.150
M10X50	25	16182.100.050				M20X160	5	16182.200.160
M10X60	25	16182.100.060	M16X70	10	16182.160.070	M20X180	5	16182.200.180
M10X70	25	16182.100.070	M16X80	10	16182.160.080	M20X200	5	16182.200.200

Parafuso de olhal com marcação CE



DIN	**580**
ISO	3266
NEN	1927
BS	4278

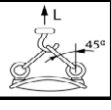


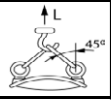
Dados técnicos

d_1	d_2	d_3	d_4	h	L	P
M6 (≠DIN)	20	36	20	36	13	1
M8	20	36	20	36	13	1.25
M10	25	45	25	45	17	1.5
M12	30	54	30	53	20.5	1.75
M14 (≠DIN)	30	54	30	53	20.5	2
M16	35	63	35	62	27	2
M18 (≠DIN)	35	63	35	62	27	2.5
M20	40	72	40	71	30	2.5
M22 (≠DIN)	40	72	40	71	30	2.5
M24	50	90	50	90	36	3
M27 (≠DIN)	50	90	50	90	36	3
M30	65	108	60	109	45	3.5
M33 (≠DIN)	65	108	60	109	45	3.5
M36	75	126	70	128	54	4
M39 (≠DIN)	75	126	70	128	54	4
M42	85	144	80	147	63	4.5
M45 (≠DIN)	85	144	80	147	63	4.5
M48	100	166	90	168	68	5
M52 (≠DIN)	110	184	100	187	78	5
M56	110	184	100	187	78	5.5
M64	120	206	110	208	90	6
M72x6	150	260	140	260	100	6

- Se os parafusos de olhal fizerem parte de equipamentos de elevação, a marcação CE é obrigatória.
- Para os parafusos de olhal que não façam parte de equipamentos de elevação, ou a elevação for feita uma só vez, a marcação CE não é necessária.

Carga Máxima L (N)

		M6	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27
1 x parafuso		900	1400	2300	3400	5000	7000	9300	12000	15000	18000	25000
2 x parafuso		600	1000	1700	2400	3500	5000	6500	8600	10500	12900	18300

		M30	M33	M36	M39	M42	M45	M48	M52	M56	M64	M72x6
1 x parafuso		32000	42000	46000	60000	63000	78000	86000	99000	115000	160000	200000
2 x parafuso		23000	30500	33000	44000	45000	55000	61000	71000	82000	110000	140000

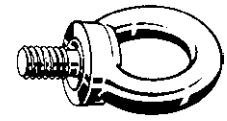
Grupos de produtos

Rosca	Material	Classe	Tratamento sup.		Código	Página
M	Aço C15E				16000	5-8
M	Aço C15E		Zn		16010	5-8
M	INOX A2			fundido	51940	5-8
M	INOX A2	50		forjado	51941	5-8
M	INOX A4			fundido	55940	5-8
M	INOX A4	50		forjado	55941	5-9

16000 Parafuso de olhal com marcação CE — F11E

Rosca Métrica
Material Aço C15E

CE RoHS

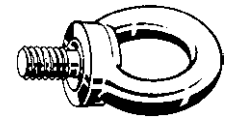


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6	25	16000.060.001	M20	10	16000.200.001	M39	1	16000.390.001
M8	25	16000.080.001	M22	5	16000.220.001	M42	1	16000.420.001
M10	25	16000.100.001	M24	5	16000.240.001	M48	1	16000.480.001
M12	25	16000.120.001	M27	5	16000.270.001	M56	1	16000.560.001
M14	10	16000.140.001	M30	1	16000.300.001	M64	1	16000.640.001
M16	10	16000.160.001	M33	1	16000.330.001			
M18	10	16000.180.001	M36	1	16000.360.001	M72X6,00	1	16000.720.001

16010 Parafuso de olhal com marcação CE — F11E

Rosca Métrica
Material Aço C15E
Tratamento sup. Zincado

CE RoHS



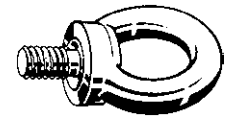
d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6	25	16010.060.001	M20	10	16010.200.001	M39	1	16010.390.001
M8	25	16010.080.001	M22	5	16010.220.001	M42	1	16010.420.001
M10	25	16010.100.001	M24	5	16010.240.001	M45	1	16010.450.001
M12	25	16010.120.001	M27	5	16010.270.001	M48	1	16010.480.001
M14	10	16010.140.001	M30	1	16010.300.001	M52	1	16010.520.001
M16	10	16010.160.001	M33	1	16010.330.001	M56	1	16010.560.001
M18	10	16010.180.001	M36	1	16010.360.001	M64	1	16010.640.001

51940 Parfuso de olhal, fundido — R09A

Rosca Métrica
Material Aço inoxidável A2

DIN ≠580

RoHS

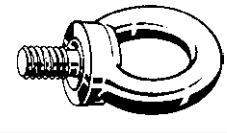


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6	10	51940.060.001	M16	5	51940.160.001	M27	3	51940.270.001
M8	10	51940.080.001	M20	5	51940.200.001	M30	1	51940.300.001
M10	10	51940.100.001	M24	3	51940.240.001	M36*	1	51940.360.001
M12	10	51940.120.001						

51941 Parfuso de olhal, forjado — R09A

Rosca Métrica
Material Aço inoxidável A2
Classe 50

CE RoHS



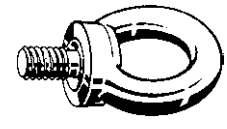
d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6*	25	51941.060.001	M16*	10	51941.160.001	M27*	5	51941.270.001
M8*	25	51941.080.001	M20*	10	51941.200.001	M30*	5	51941.300.001
M10*	25	51941.100.001	M24*	5	51941.240.001	M36*	1	51941.360.001
M12*	10	51941.120.001						

55940 Parfuso de olhal, fundido — R49A

Rosca Métrica
Material Aço inoxidável A4

DIN ≠580

RoHS

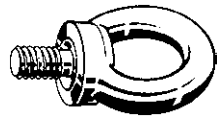


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6	10	55940.060.001	M16	5	55940.160.001	M27	3	55940.270.001
M8	10	55940.080.001	M20	5	55940.200.001	M30	1	55940.300.001
M10	10	55940.100.001	M24	3	55940.240.001	M36*	1	55940.360.001
M12	10	55940.120.001						

55941 **Parfuso de olhal, forjado** **R49A**

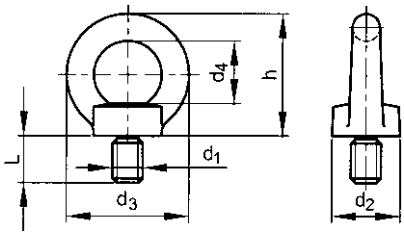
Rosca Métrica
Material Aço inoxidável A4
Classe 50

CE

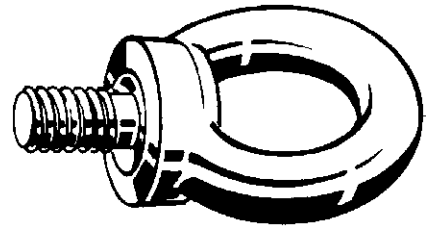


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6*	25	55941.060.001	M16*	10	55941.160.001	M27*	5	55941.270.001
M8*	25	55941.080.001	M20*	10	55941.200.001	M30*	5	55941.300.001
M10*	25	55941.100.001	M24*	5	55941.240.001	M36*	1	55941.360.001
M12*	10	55941.120.001						

Parafuso de olhal não métrico



DIN **≈580 (1957)**
NEN ≈2347 (1960)



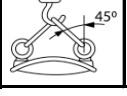
5

Dados técnicos

d_1	d_2	d_3	d_4	Fios por polegada	h	L
5/16	20	36	20	18	36	13
3/8	25	45	25	16	45	17
1/2	30	54	30	12	53	22
5/8	35	63	35	11	62	27
3/4	40	72	40	10	71	30
7/8	45	81	45	9	81	35
1 Inch	50	90	50	8	90	36
1.1/4	65	108	60	7	109	45
1.1/2	75	126	70	6	128	55
1.3/4	100	166	90	5	168	70
2 Inch	100	166	90	4.5	168	70

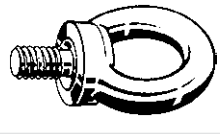
- A rosca whitworth (BSW) não é internacionalmente recomendada. É aconselhável utilizar rosca métrica (M).
- O material C15 foi normalizado e tem um impacto minimo de 80 Joule (ISO-procedimento) ou 90 Joule (DIN-procedimento).

Carga Máxima L (N)

		5/16	3/8	1/2	5/8	3/4	7/8	1.IN.	1.1/4	1.1/2	1.3/4	2.IN.
1 x parafuso		1400	2300	3400	7000	12000	18000	18000	46000	63000	86000	115000
2 x parafuso		1000	1700	2400	5000	8600	12900	12900	33000	45000	61000	82000

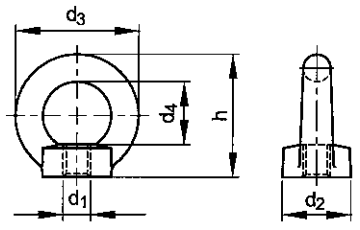
16040 **Parafuso de olhal não métrico** **X08A**

Rosca British Standard Whitworth
Material Aço C15

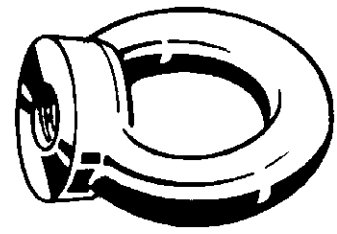


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
5/16	25	16040.079.001	3/4	10	16040.191.001	1.1/2	1	16040.381.001
3/8	25	16040.096.001	7/8	5	16040.222.001	1.3/4	1	16040.444.001
1/2	25	16040.127.001	1 Inch	5	16040.254.001	2 Inch	1	16040.508.001
5/8	10	16040.158.001	1.1/4	1	16040.317.001			

Porca de olhal com marcação CE



DIN **582**
NEN 1928

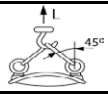


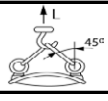
Dados técnicos

d_1	d_2	d_3	d_4	h	P
M6 (≠DIN)	20	36	20	36	1
M8	20	36	20	36	1.25
M10	25	45	25	45	1.5
M12	30	54	30	53	1.75
M14 (≠DIN)	30	54	30	53	2
M16	35	63	35	62	2
M18 (≠DIN)	35	63	35	62	2.5
M20	40	72	40	71	2.5
M22 (≠DIN)	40	72	40	71	2.5
M24	50	90	50	90	3
M27 (≠DIN)	65	108	60	109	3
M30	65	108	60	109	3.5
M33 (≠DIN)	65	108	60	109	3.5
M36	75	126	70	128	4
M39 (≠DIN)	75	126	70	128	4
M42	85	144	80	147	4.5
M48	100	166	90	168	5
M56	110	184	100	187	5.5
M64	120	206	110	208	6
M72x6	150	260	140	260	6

- Se as porcas de olhal fizerem parte de equipamento de elevação a marcação CE é obrigatória.
- As porcas de olhal só não requerem marcação CE, se não forem utilizadas em elevação.

Carga Máxima L (N)

		M6	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27
1 x porca		900	1400	2300	3400	5000	7000	9300	12000	15000	18000	25000
2 x porca		600	1000	1700	2400	3500	5000	6500	8600	10500	12900	18300

		M30	M33	M36	M39	M42	M45	M48	M52	M56	M64	M72x6
1 x porca		32000	42000	46000	60000	63000	78000	86000	99000	115000	160000	200000
2 x porca		23000	30500	33000	44000	45000	55000	61000	71000	82000	110000	140000

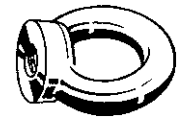
Grupos de produtos

Rosca	Material	Classe	Tratamento sup.		Código	Página
M	Aço C15E				16100	5-11
M	Aço C15E		Zn		16110	5-11
M	INOX A2	50		forjado	51950	5-11
M	INOX A2			fundido	51951	5-11
M	INOX A4	50		forjado	55950	5-11
M	INOX A4			fundido	55951	5-12

16100 Porca de olhal com marcação CE — F11E

Rosca Métrica
Material Aço C15E

CE RoHS

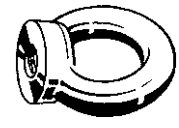


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6	25	16100.060.001	M20	10	16100.200.001	M39	1	16100.390.001
M8	25	16100.080.001	M22	5	16100.220.001	M42	1	16100.420.001
M10	25	16100.100.001	M24	5	16100.240.001	M48	1	16100.480.001
M12	25	16100.120.001	M27	5	16100.270.001	M56	1	16100.560.001
M14	10	16100.140.001	M30	1	16100.300.001	M64	1	16100.640.001
M16	10	16100.160.001	M33	1	16100.330.001			
M18	10	16100.180.001	M36	1	16100.360.001	M72X6,00	1	16100.720.001

16110 Porca de olhal com marcação CE — F11E

Rosca Métrica
Material Aço C15E
Tratamento sup. Zincado

CE RoHS

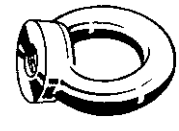


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6	25	16110.060.001	M20	10	16110.200.001	M36	1	16110.360.001
M8	25	16110.080.001	M22	5	16110.220.001	M39	1	16110.390.001
M10	25	16110.100.001	M24	5	16110.240.001	M42	1	16110.420.001
M12	25	16110.120.001	M27	5	16110.270.001	M48	1	16110.480.001
M14	10	16110.140.001	M30	1	16110.300.001	M56	1	16110.560.001
M16	10	16110.160.001	M33	1	16110.330.001	M64	1	16110.640.001
M18	10	16110.180.001						

51950 Porca de olhal, forjado — R09A

Rosca Métrica
Material Aço inoxidável A2
Classe 50

CE RoHS



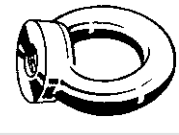
d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6	10	51950.060.001	M16	5	51950.160.001	M27*	5	51950.270.001
M8	10	51950.080.001	M20	5	51950.200.001	M30*	5	51950.300.001
M10	10	51950.100.001	M24	3	51950.240.001	M36*	1	51950.360.001
M12	10	51950.120.001						

51951 Porca de olhal, fundido — R09A

Rosca Métrica
Material Aço inoxidável A2

DIN ≠582

CE RoHS

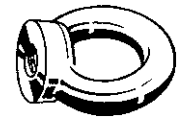


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6*	25	51951.060.001	M16*	10	51951.160.001	M27*	5	51951.270.001
M8*	25	51951.080.001	M20*	10	51951.200.001	M30*	5	51951.300.001
M10*	25	51951.100.001	M24*	5	51951.240.001	M36*	1	51951.360.001
M12*	10	51951.120.001						

55950 Porca de olhal, forjado — R49A

Rosca Métrica
Material Aço inoxidável A4
Classe 50

CE RoHS



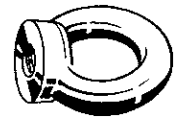
d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6*	25	55950.060.001	M12	10	55950.120.001	M24	3	55950.240.001
M8	10	55950.080.001	M16	5	55950.160.001	M27*	5	55950.270.001
M10	10	55950.100.001	M20	5	55950.200.001	M36*	1	55950.360.001

5

55951	Porca de olhal, fundido	R49A

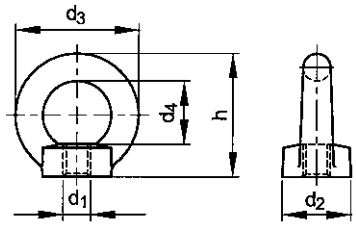
Rosca Métrica
Material Aço inoxidável A4

DIN ≠582

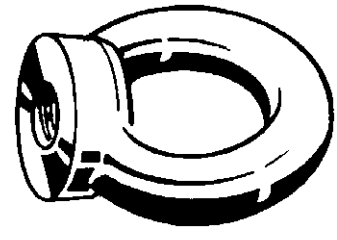


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6*	25	55951.060.001	M16*	10	55951.160.001	M27*	5	55951.270.001
M8*	25	55951.080.001	M20*	10	55951.200.001	M30*	5	55951.300.001
M10*	25	55951.100.001	M24*	5	55951.240.001	M36*	1	55951.360.001
M12*	10	55951.120.001						

Porca de olhal



DIN **≈582 (1957)**
NEN ≈2348 (1960)



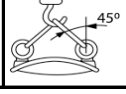
5

Dados técnicos

d_1	d_2	d_3	d_4	Fios por polegada	h
5/16	20	36	20	18	36
3/8	25	45	25	16	45
1/2	30	54	30	12	53
5/8	35	63	35	11	62
3/4	40	72	40	10	71
7/8	45	81	45	9	81
1 Inch	50	90	50	8	90
1.1/4	65	108	60	7	109
1.1/2	75	126	70	6	128
1.3/4	85	144	80	5	147
2 Inch	100	166	90	4.5	168

- Rosca (BSW) não é recomendada internacionalmente.
- É aconselhado o uso de rosca métrica (M).

Carga Máxima L (N)

		5/16	3/8	1/2	5/8	3/4	7/8	1.IN.	1.1/4	1.1/2	1.3/4	2.IN.
1 x porca		1400	2300	3400	7000	12000	18000	18000	46000	63000	86000	115000
2 x porca		1000	1700	2400	5000	8600	12900	12900	33000	45000	61000	82000

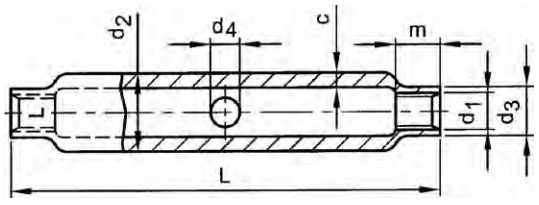
16140	Porca de olhal	X08A

Rosca British Standard Whitworth
Material Aço C15



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
5/16	25	16140.079.001	5/8	10	16140.158.001	1 Inch	5	16140.254.001
3/8	25	16140.096.001	3/4	10	16140.191.001	1.1/4	1	16140.317.001
1/2	25	16140.127.001	7/8	5	16140.222.001	1.1/2	1	16140.381.001

Esticador tubular



DIN 1478



Dados técnicos

d_1	Ajustável	c	d_2 (min.)	d_3	d_4	L	m	P
M6	90	2.9	17.2	9	6	110	7.5	1
M8	85	3.6	17.2	12	8	110	10	1.25
M10	95	4	21.3	15	8	125	12	1.5
M12	90	4	25	18	10	125	15	1.75
M16	120	4.5	30	24	10	170	20	2
M20	140	5	33.7	30	12	200	24	2.5
M24	180	5.6	42.4	33	12	255	29	3

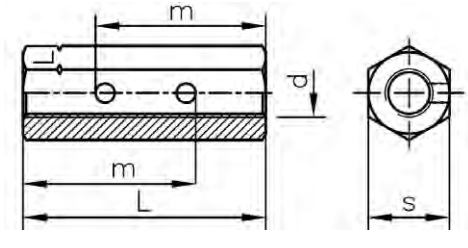
16151 Esticador tubular **F11F**

Rosca Métrica
Material Aço
Tratamento sup. Zincado

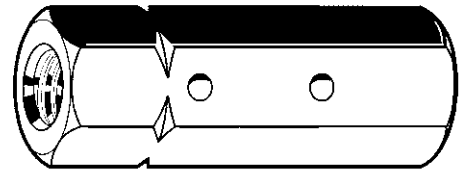


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6	10	16151.060.001	M12	5	16151.120.001	M20	2	16151.200.001
M8	10	16151.080.001	M16	5	16151.160.001	M24	2	16151.240.001
M10	5	16151.100.001						

Esticador sextavado



DIN ≈1479

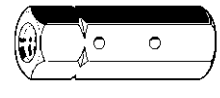


Dados técnicos

d	Ajustável	L	m	P	s
M6	15	30	22.5	1	10
M8	15	35	25	1.25	13
M10	21	45	33	1.5	16
M12	25	55	40	1.75	18
M16	35	75	55	2	24
M20	47	95	24	2.5	30
M24	57	115	29	3	36

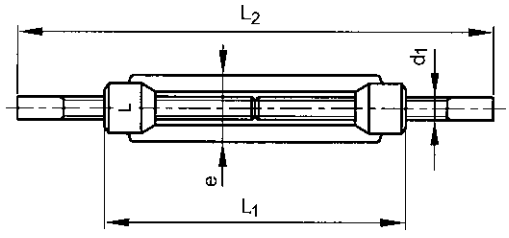
16153 Esticador sextavado **F11F**

Rosca Métrica
Material Aço Min.330N/mm²
Tratamento sup. Zincado

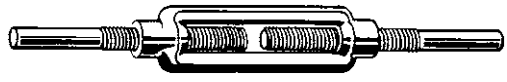


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	10	16153.060.001	M12	5	16153.120.001	M20	2	16153.200.001
M8	10	16153.080.001	M16	5	16153.160.001	M24	2	16153.240.001
M10	5	16153.100.001						

Esticador



DIN **1480**



Dados técnicos

d_1	e	L_1	L_2 (min.)	L_2 (max.)	P	Cargas máximas admissiveis em N
M6	19	110	240	338	1	2250
M8	23	110	240	338	1.25	4100
M10	30	125	300	407	1.5	6500
M12	34	125	300	407	1.75	9300
M16	42	170	400	543	2	17700
M20	52	200	440	606	2.5	27000
M24	60	255	520	736	3	39200
M30	74	255	520	736	3.5	62500
M36	86	295	600	840	4	91000
M42	104	330	700	967	4.5	125000
M48	135	355	760	1.037	5	165000
M56	135	355	820	1.097	5.5	230000

16160 **Esticador com dois pernos** **F11F**

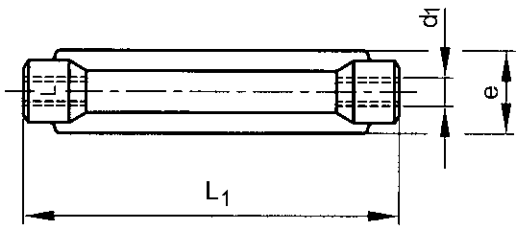
Rosca Métrica
Material Aço Min.330N/mm²

RoHS

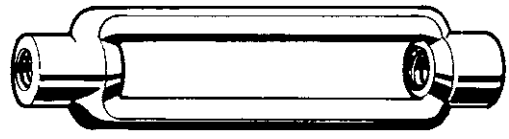


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6	10	16160.060.001	M16	5	16160.160.001	M36	1	16160.360.001
M8	10	16160.080.001	M20	2	16160.200.001	M42	1	16160.420.001
M10	5	16160.100.001	M24	2	16160.240.001	M48	1	16160.480.001
M12	5	16160.120.001	M30	2	16160.300.001	M56	1	16160.560.001

Esticador



DIN 1480



Dados técnicos

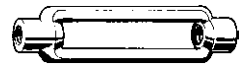
d_1	e	L_1	P	d_1	e	L_1	P
M6	19	110	1	M16	42	170	2
M8	23	110	1.25	M20	52	200	2.5
M10	30	125	1.5	M24	60	255	3
M12	34	125	1.75	M30	74	255	3.5

- Os esticadores em aço (resistência min. 330 N/mm²) são zincados ou galvanizados a quente com uma rosca ISO métrica calibrada, dependendo da disponibilidade podem existir variações. Ganchos e olhal são classe 3.6 e sempre em zincado.

16150 Esticador **F11F**

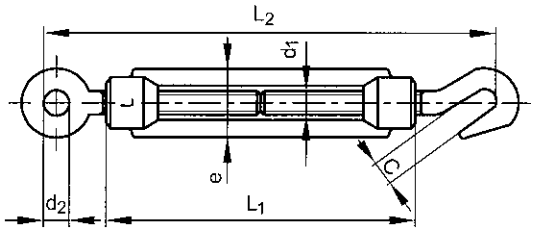
Rosca Métrica
Material Aço Min.330N/mm²
Tratamento sup. Zincado/Galvanizado a quente

RoHS

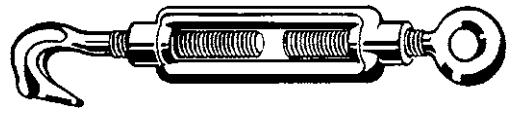


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6 ZINC	10	16150.060.001	M12 ZINC	5	16150.120.001	M24 GALV. A QUENTE	2	16150.240.001
M8 ZINC	10	16150.080.001	M16 GALV. A QUENTE	5	16150.160.001	M30 GALV. A QUENTE	2	16150.300.001
M10 ZINC	5	16150.100.001	M20 GALV. A QUENTE	2	16150.200.001			

Esticador com gancho e olhal



DIN ≈1480



Dados técnicos

d_1	c	d_2	e	L_1	L_2 (min.)	L_2 (max.)	P	Cargas máximas admissiveis em N
M6	8	10	19	110	150	234	1	750
M8	10	11	23	110	161	245	1.25	1650
M10	13	14	30	125	188	285	1.5	2350
M12	17	17	34	125	208	305	1.75	3200
M16	16.5	23	42	170	299	433	2	5300
M20	17	25	52	200	341	495	2.5	7300
M24	23	34	60	255	394	594	3	15500
M30	29	38	74	255	441	635	3.5	22400

16170 Esticador com gancho e olhal **F11F**

Rosca Métrica
Material Aço Min.330N/mm²
Tratamento sup. Zincado/Galvanizado a quente

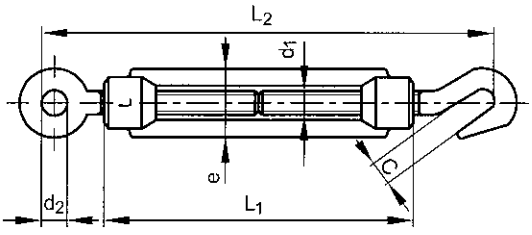
RoHS



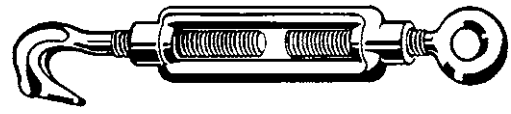
d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6 ZINC	10	16170.060.001	M12 ZINC	5	16170.120.001	M24 GALV. A QUENTE	2	16170.240.001
M8 ZINC	10	16170.080.001	M16 GALV. A QUENTE	5	16170.160.001	M30 GALV. A QUENTE	2	16170.300.001
M10 ZINC	5	16170.100.001	M20 GALV. A QUENTE	2	16170.200.001			

- Os esticadores em aço (resistência min. 330 N/mm²) são zincados ou galvanizados a quente com uma rosca ISO métrica calibrada, dependendo da disponibilidade podem existir variações. Ganchos e olhal são classe 3.6 e sempre em zincado.

Esticador gancho e olhal aço inox



DIN ≈1480



Dados técnicos

d_1	c	d_2	e	L_1	L_2 (min.)	L_2 (max.)	P	Cargas máximas admissiveis em N
M6	10	10	18	90	140	220	1	750
M8	11	14	21	120	180	280	1.25	1650
M10	12	16	25	150	230	360	1.5	2350
M12	14	18	31	200	280	460	1.75	3200
M16	16	26	40	250	370	590	2	5300
M20	18	30	49	300	420	650	2.5	7300

5

51742 **Esticador gancho e olhal aço inox** **R09A**

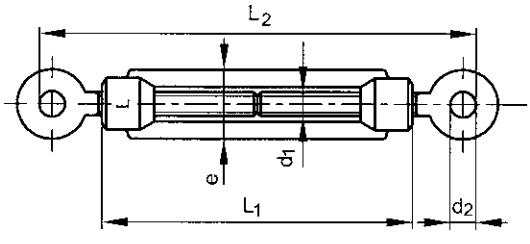
Rosca Métrica
Material Aço inoxidável A4



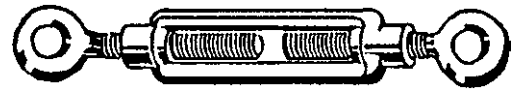
RoHS

d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6	10	51742.060.001	M10	5	51742.100.001	M16	5	51742.160.001
M8	10	51742.080.001	M12	5	51742.120.001	M20	2	51742.200.001

Esticador com dois olhais



DIN ≈1480



Dados técnicos

d_1	d_2	e	L_1	L_2 (min.)	L_2 (max.)	P	Cargas máximas admissiveis em N
M5 (≠DIN)	8	16.6	78.5	119	179	0.8	1400
M6	10	19	110	150	234	1	2250
M8	10	23	110	156	240	1.25	4100
M10	14	30	125	186	282	1.5	6500
M12	17	34	125	196	293	1.75	9300
M14 (≠DIN)	17.6	38	140	234	344	2	13200
M16	23	42	170	294	428	2	17700
M20	25	52	200	352	506	2.5	27000
M24	34	60	235	391	589	3	39200
M30	38	74	255	441	636	3.5	62500

16177 **Esticador com dois olhais** **F11F**

Rosca Métrica
Material Aço Min.330N/mm²
Tratamento sup. Zincado/Galvanizado a quente



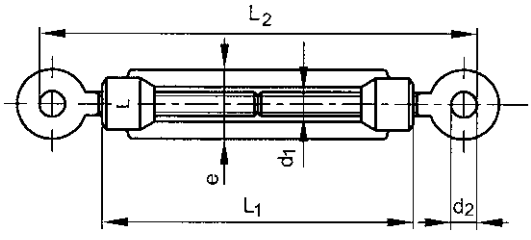
RoHS

d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M5 = 3/16 ZINC	10	16177.050.001	M12 ZINC	5	16177.120.001	M20 GALV. A QUENTE	2	16177.200.001
M6 ZINC	10	16177.060.001	M14 = 9/16 ZINC	5	16177.140.001	M24 GALV. A QUENTE	2	16177.240.001
M8 ZINC	10	16177.080.001	M16 GALV. A QUENTE	5	16177.160.001	M30 GALV. A QUENTE	2	16177.300.001
M10 ZINC	5	16177.100.001						

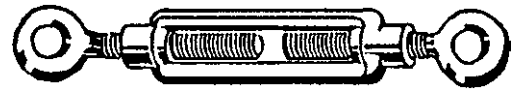
16177 **Esticador com dois olhais** ←

- Os esticadores em aço (resistência min. 330 N/mm^2) são zincados ou galvanizados a quente com uma rosca ISO métrica calibrada, dependendo da disponibilidade podem existir variações. Ganchos e olhal são classe 3.6 e sempre em zincado.

Esticador com dois olhais aço inox



DIN **≈1480**



Dados técnicos

d_1	d_2	e	L_1	L_2 (min.)	L_2 (max.)	P	Cargas máximas admissiveis em N
M6	10	18	90	140	220	1	2250
M8	14	21	120	180	280	1.25	4100
M10	16	25	150	230	360	1.5	6500
M12	18	31	200	280	460	1.75	9300
M16	26	40	250	370	590	2	17700
M20	30	49	300	420	650	2.5	27000

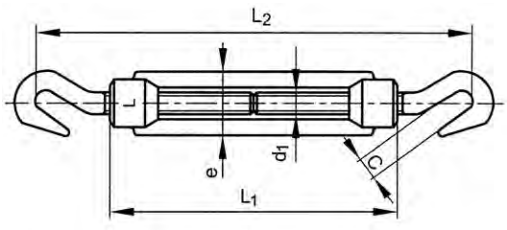
51744 **Esticador com dois olhais aço inox** **R09A**

Rosca Métrica
Material Aço inoxidável A4

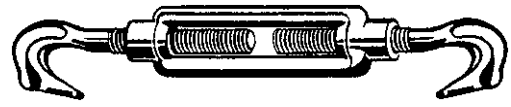


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6	10	51744.060.001	M10	5	51744.100.001	M16	5	51744.160.001
M8	10	51744.080.001	M12	5	51744.120.001	M20	2	51744.200.001

Esticador com dois ganchos



DIN ≈1480



Dados técnicos

d_1	c	e	L_1	L_2 (min.)	L_2 (max.)	P	Cargas máximas admissiveis em N
M5 (≠DIN)	7	16.5	70	107	157	0.8	500
M6	8	19	110	150	234	1	750
M8	10	23	110	166	250	1.25	1650
M10	13	30	125	189	289	1.5	2350
M12	17	34	125	220	317	1.75	3200
M16	16.5	42	170	304	438	2	5300

5

16178 **Esticador com dois ganchos** **F11F**

Rosca Métrica
Material Aço Min.330N/mm²
Tratamento sup. Zincado

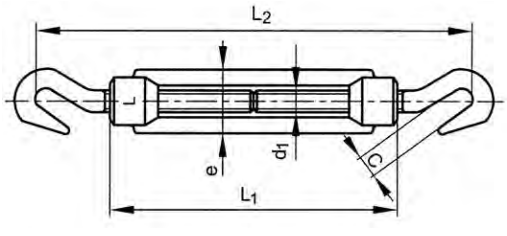


RoHS

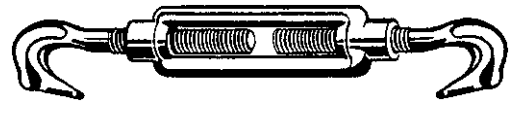
d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M5 = 3/16	10	16178.050.001	M8	10	16178.080.001	M12	5	16178.120.001
M6	10	16178.060.001	M10	5	16178.100.001	M16 = 5/8	5	16178.160.001

- Os esticadores em aço (resistência min. 330 N/mm²) são zincados ou galvanizados a quente com uma rosca ISO métrica calibrada, dependendo da disponibilidade podem existir variações. Ganchos e olhal são classe 3.6 e sempre em zincado.

Esticador com dois ganchos aço inox



DIN ≈1480



Dados técnicos

d_1	c	e	L_1	L_2 (min.)	L_2 (max.)	P	Cargas máximas admissiveis em N
M6	10	18	90	140	220	1	750
M8	11	21	120	180	280	1.25	1650
M10	12	25	150	230	360	1.5	2350
M12	14	31	200	280	460	1.75	3200
M16	16	40	250	370	590	2	5300
M20	18	49	300	420	650	2.5	7300

51743 **Esticador com dois ganchos aço inox** **R09A**

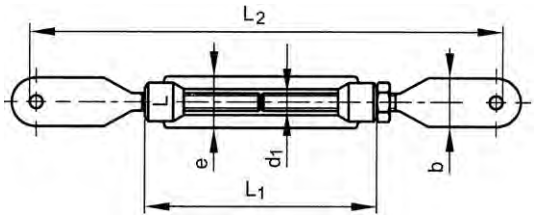
Rosca Métrica
Material Aço inoxidável A4



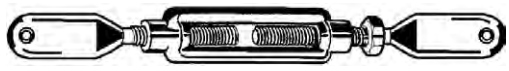
RoHS

d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6	10	51743.060.001	M10	5	51743.100.001	M16	5	51743.160.001
M8	10	51743.080.001	M12	5	51743.120.001	M20	2	51743.200.001

Esticador com olhal plano



DIN **≈1480**



Dados técnicos

d_1	b	e	L_1	L_2 (min.)	L_2 (max.)	P	Espessura do olhal	Cargas máximas admissiveis em N
M12	30	34	125	325	430	1.5	4	9300
M16	40	42	170	472	615	1.75	4	17700
M20	50	52	200	463	630	2	5	27000

16172 **Esticador com olhal plano** **F11F**

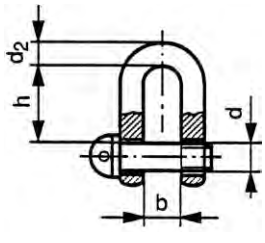
Rosca Métrica
Material Aço Min.330N/mm²
Tratamento sup. Zincado



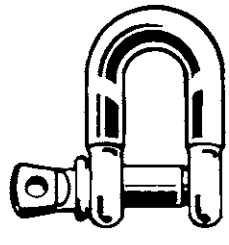
d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M12	5	16172.120.001	M16	5	16172.160.001	M20	2	16172.200.001

- Os esticadores em aço (resistência min. 330 N/mm²) são zincados ou galvanizados a quente com uma rosca ISO métrica calibrada, dependendo da disponibilidade podem existir variações. Olhal são classe 3.6 e sempre em zincado.

Manilha



DIN **≈82101 A**
NEN ≈964



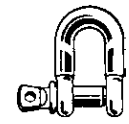
Dados técnicos

d	b	Cargas máximas admissiveis em kN	d_2	h
5	7	1	4/5	15.5
6	8	1.6	5/6	18
8	11	2.5	7/8	24
10	14	4	9/10	30
11 (≠DIN)	22	-	11	44
12	17	6.3	10/12	36
14 (≠DIN)	28	-	14	53
16	21	10	13/15	49
19 (≠DIN)	38	-	19	74
20	27	16	17/19	61
22	30	20	19/21	67
24	33	25	21/23	73
25 (≠DIN)	51	-	25	100
28 (≠DIN)	57	-	28	115
32 (≠DIN)	64	-	32	127
38 (≠DIN)	76	-	37	152

- As manilhas D (chain) são electrozincadas ou galvanizadas a quente, dependendo da disponilibilidade de stock, podem existir variações.
- Podem também existir, pequenas variações nas medidas.
- Não podem ser utilizadas para trabalhos de elevação.

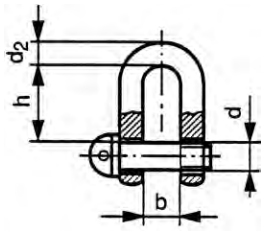
16813	Manilha	F11H

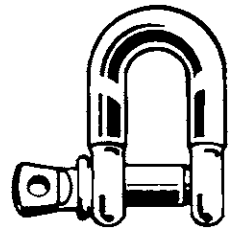
Material Aço
Tratamento sup. Zincado/Galvanizado a quente



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
5MM ZINC	25	16813.050.001	19MM GALV. A QUENTE	10	16813.190.001	25MM GALV. A QUENTE	3	16813.250.001
6MM ZINC	25	16813.060.001	20MM GALV. A QUENTE	5	16813.200.001	28MM GALV. A QUENTE	1	16813.280.001
8MM ZINC	25	16813.080.001	22MM GALV. A QUENTE	5	16813.220.001	32MM GALV. A QUENTE	1	16813.320.001
10MM ZINC	25	16813.100.001	24MM GALV. A QUENTE	5	16813.240.001	38MM GALV. A QUENTE	1	16813.380.001
11MM ZINC	25	16813.110.001						
12MM ZINC	25	16813.120.001						
14MM ZINC	25	16813.140.001						
16MM GALV. A QUENTE	10	16813.160.001						

Manilha aço inox





Dados técnicos

d	b	d_2	h	d	b	d_2	h
4	8	4	16	12	24	12	48
5	10	5	20	16	32	16	64/56
6	12	6	24	19	38	19	76
8	16	8	32	24	32	18	80
10	20	10	40				

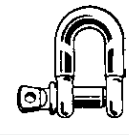
- Podem também existir, pequenas variações nas medidas.
- Não podem ser utilizadas para trabalhos de elevação.

Grupos de produtos

Material	Código	Página
INOX A2	16711	5-20
INOX A4	16713	5-20

16711	Manilha aço inox	R09A

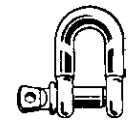
Material Aço inoxidável A2



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
5MM	10	16711.050.001	10MM	10	16711.100.001	16MM	5	16711.160.001
6MM	10	16711.060.001	12MM	10	16711.120.001	19MM	2	16711.190.001
8MM	10	16711.080.001						

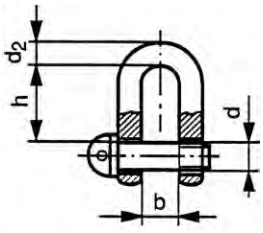
16713	Manilha aço inox	R49A

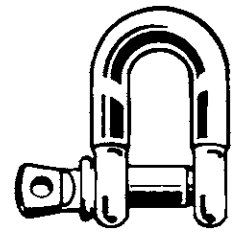
Material Aço inoxidável A4



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
4MM	10	16713.040.001	8MM	10	16713.080.001	16MM	5	16713.160.001
5MM	10	16713.050.001	10MM	10	16713.100.001	19MM	2	16713.190.001
6MM	10	16713.060.001	12MM	10	16713.120.001			

Manilha, Aço





Dados técnicos

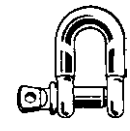
d	b	d_2	h	d	b	d_2	h
5	10	5	20	16	32	16	64
6	12	6	24	19	38	19	74
8	16	8	32	22	44	19/21	88
10	20	10	40	25	51	25	100
11	22	11	44	28	57	28	115
12	25	12	50	32	64	32	127
14	28	14	53	38	76	38	152

- As manilhas D (chain) são electrozincadas ou galvanizadas a quente, dependendo da disponilibilidade de stock, podem existir variações.
- Podem também existir, pequenas variações nas medidas.
- Não podem ser utilizadas para trabalhos de elevação.

5

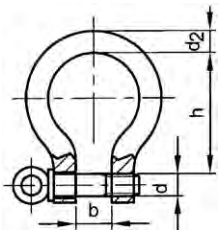
16812 Manilha, Aço **F11H**

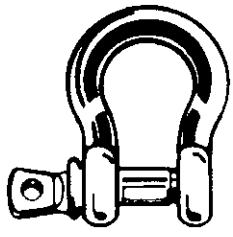
Material Aço
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
5MM	25	16812.050.001	12MM	25	16812.120.001	25MM	3	16812.250.001
6MM	25	16812.060.001	14MM	25	16812.140.001	28MM	1	16812.280.001
8MM	25	16812.080.001	16MM	10	16812.160.001	32MM	1	16812.320.001
10MM	25	16812.100.001	19MM	10	16812.190.001	38MM	1	16812.380.001
11MM	25	16812.110.001	22MM	5	16812.220.001			

Manilha circular





Dados técnicos

d	b	d_2	h	d	b	d_2	h
5	10	5	19	**16**	32	16	64
6	13	6	25	**19**	38	19	76
8	16	8	32	**22**	44	22	89
10	19	10	38	**25**	51	25	100
11	22	11	46	**28**	57	28	115
12	25	12	51	**32**	64	32	127
14	28	14	58	**38**	76	38	152

5

- As manilhas D (chain) são electrozincadas ou galvanizadas a quente, dependendo da disponilibilidade de stock, podem existir variações.
- Podem também existir, pequenas variações nas medidas.
- Não podem ser utilizadas para trabalhos de elevação.

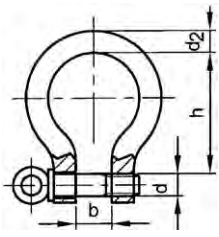
16817 **Manilha circular** **F11H**

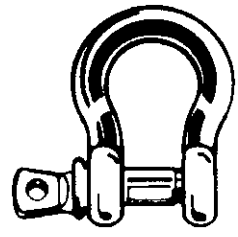
Material Aço
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
5MM	25	16817.050.001	12MM	25	16817.120.001	25MM	5	16817.250.001
6MM	25	16817.060.001	14MM	10	16817.140.001	28MM = 1.1/8	3	16817.280.001
8MM	25	16817.080.001	16MM	10	16817.160.001	32MM = 1.1/4	1	16817.320.001
10MM	25	16817.100.001	19MM	5	16817.190.001	38MM = 1.1/2	1	16817.380.001
11MM	25	16817.110.001	22MM	5	16817.220.001			

Manilha circular com pino aço inox





Dados técnicos

d	b	d_2	h
4	8	4	16
5	10	5	20
6	12	6	24
8	16	8	32

d	b	d_2	h
10	20	10	40
12	24	12	48
16	32	16	64

- As manilhas D (chain) são electrozincadas ou galvanizadas a quente, dependendo da disponilibilidade de stock, podem existir variações.
- Podem também existir, pequenas variações nas medidas.
- Não podem ser utilizadas para trabalhos de elevação.

Grupos de produtos

Material	Código	Página
INOX A2	16715	5-23
INOX A4	16717	5-23

16715 Manilha circular com pino aço inox R09A

Material Aço inoxidável A2



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
5MM	10	16715.050.001	8MM	10	16715.080.001	12MM	10	16715.120.001
6MM	10	16715.060.001	10MM	10	16715.100.001	16MM	5	16715.160.001

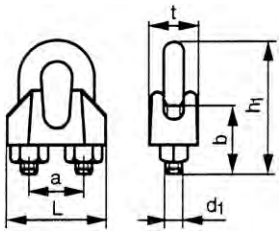
16717 Manilha circular com pino aço inox R49A

Material Aço inoxidável A4

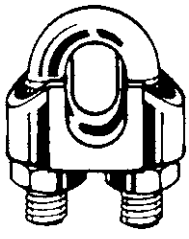


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
4MM	10	16717.040.001	8MM	10	16717.080.001	12MM	10	16717.120.001
5MM	10	16717.050.001	10MM	10	16717.100.001	16MM	5	16717.160.001
6MM	10	16717.060.001						

Serra cabos



DIN **741/555 (1987)**

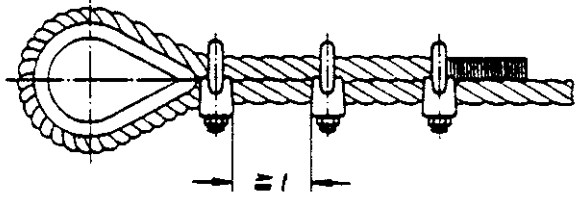


Dados técnicos

Para cabo diâm.	a	b	d_1	h_1	L	Quantidade min. de clips	t
3	9	12	M4	20	21	3	10
5	11	13	M5	24	23	3	11
6.5	13	15	M5	28	26	3	12
8	16	19	M6	34	30	5	14
10	19	22	M8	42	34	5	18
11	20	22	M8	44	36	5	19
12 (≠DIN)	24	26	M10	56	42	5	23
13	24	30	M10	55	42	5	23
14	25	30	M10	57	44	5	23
16	29	33	M12	63	50	6	26
19	32	38	M12	75	54	6	29
22	37	44	M14	85	61	7	33
25 (≠DIN)	39	48	M14	95	65	7	34
26	41	45	M14	95	65	8	35
30	48	50	M16	110	74	8	37
34	52	55	M16	120	80	8	42
40	58	60	M16	140	88	8	45

- As porcas sextavadas correspondentes têm uma classe de aço ≥ l4l.

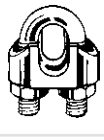
Dados montagem



Distância entre clips de fixação ≥ t que o clip , ver desenho montagem

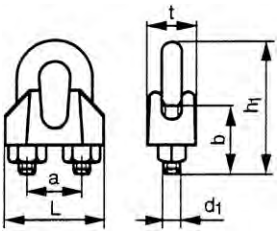
16829 **Serra cabos** **F11M**

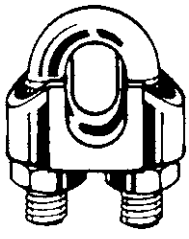
Material Aço
Tratamento sup. Zincado



Para diâmetro de cabo	✉	Ref. do artigo	Para diâmetro de cabo	✉	Ref. do artigo	Para diâmetro de cabo	✉	Ref. do artigo
3MM	100	16829.030.001	12MM = 1/2	25	16829.120.001	26MM	10	16829.260.001
5MM	100	16829.050.001	13MM	25	16829.130.001	30MM	5	16829.300.001
6,5MM	100	16829.065.001	14MM	25	16829.140.001	34MM	5	16829.340.001
8MM	100	16829.080.001	16MM	25	16829.160.001	40MM	5	16829.400.001
10MM	50	16829.100.001	19MM	10	16829.190.001			
11MM	50	16829.110.001	22MM	10	16829.220.001			

Serra cabos Inox





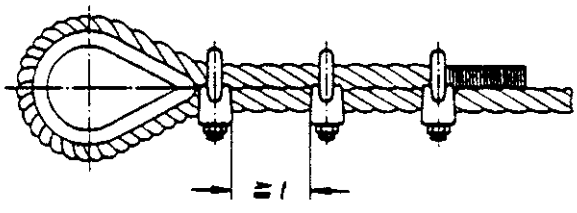
Dados técnicos

Para cabo diâm.	a	b	d_1	h_1	L	Quantidade min. de clips	t
3	9	12	M3	22	22	3	14
4	9	12	M4	22	22	3	14
5	11	15	M5	24	24	3	16
6	14	18	M6	33	30	3	18
8	16	20	M6	35	33	5	20
10	18	22	M8	43	37	5	22
12	23	30	M10	54	45	5	25
16	28	30	M10	65	53	5	30

5

- En função da disponibilidade estas dimensões podem ser ligeiramente diferentes.

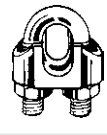
Dados montagem



Distância entre clips de fixação ≥ t que o clip , ver desenho montagem

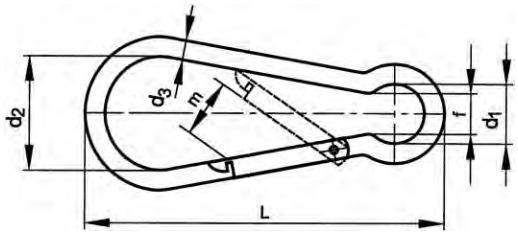
16728 **Serra cabos Inox** **R49A**

Rosca Métrica
Material Aço inoxidável A4



Para diâmetro de cabo	✉	Ref. do artigo	Para diâmetro de cabo	✉	Ref. do artigo	Para diâmetro de cabo	✉	Ref. do artigo
3MM	10	16728.030.001	6MM	5	16728.060.001	12MM	5	16728.120.001
4MM	10	16728.040.001	8MM	5	16728.080.001	16MM	5	16728.160.001
5MM	10	16728.050.001	10MM	5	16728.100.001			

Gancho





Dados técnicos

d_3 x L x f	d_1	d_2 (min.)	f	Força de rutura min kN	m
5x50x7	7	15	5	1.0	6
6x60x7	8	17	6	1.2	7
7x70x9	10	20	7	1.8	8
8x80x11	12	24	9	2.3	10
10x100x12	15	30	11	3.5	11
11x120x14	16	39	12	4.5	17

- Não pode ser utilizado em operações de elevação.

5

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço	Zn	16833	5-26
INOX A4		16733	5-26

16833 Gancho **F11N**

Material Aço
Tratamento sup. Zincado



d_3 x L	✉	Ref. do artigo	d_3 x L	✉	Ref. do artigo	d_3 x L	✉	Ref. do artigo
5X50MM	10	16833.050.050	8X80MM	10	16833.080.080	10X100MM	10	16833.100.100
6X60MM	10	16833.060.060						

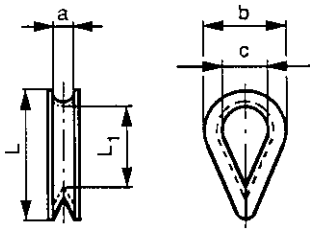
16733 Gancho **R49A**

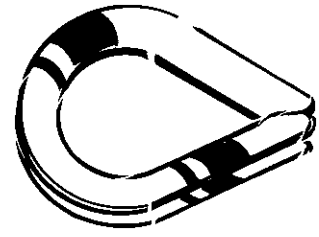
Material Aço inoxidável A4



d_3 x L	✉	Ref. do artigo	d_3 x L	✉	Ref. do artigo	d_3 x L	✉	Ref. do artigo
5X50MM	10	16733.050.050	7X70MM	10	16733.070.070	10X100MM	10	16733.100.100
6X60MM	10	16733.060.060	8X80MM	10	16733.080.080	11X120MM	10	16733.110.120

Passa cabos



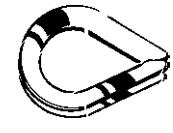


Dados técnicos

Para cabo diâm.	a	b	c	L	L_1
3	3	20	12	28	19
4	4	19	11	25	16
5	5	22	16	31	22
6	6	29	19	37	26
8	8	38	24	51	34
10	10	44	32	64	42
12	12	57	38	76	51
14	14	60	40	82	57
16	16	64	42	89	60
18	18	69	45	102	67
20	20	79	51	115	76
22	22	89	54	127	83
24	24	102	64	140	88

16831 **Passa cabos** **F11M**

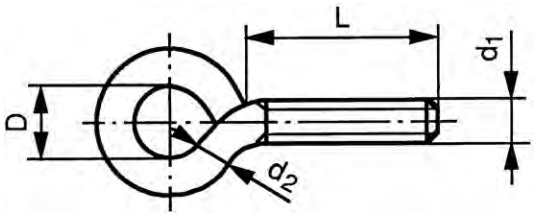
Material Aço
Tratamento sup. Zincado

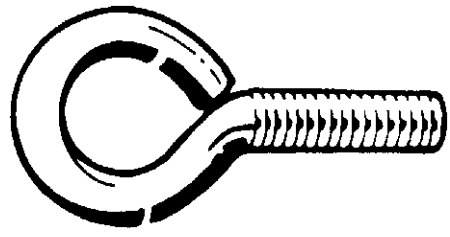


RoHS

Para diâmetro de cabo	✉	Ref. do artigo	Para diâmetro de cabo	✉	Ref. do artigo	Para diâmetro de cabo	✉	Ref. do artigo
3MM	100	16831.030.001	10MM	50	16831.100.001	18MM	10	16831.180.001
4MM	100	16831.040.001	12MM	50	16831.120.001	20MM	5	16831.200.001
5MM	100	16831.050.001	14MM	10	16831.140.001	22MM	2	16831.220.001
6MM	100	16831.060.001	16MM	10	16831.160.001	24MM	2	16831.240.001
8MM	100	16831.080.001						

Gancho fechado métrico





Dados técnicos

d_1	d_2	P	d_1	d_2	P
M3	2.6	0.5	M6	5.25	1
M4	3.45	0.7	M8	7.0	1.25
M5	4.4	0.8	M10	8.85	1.5

Grupos de produtos

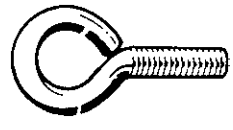
Rosca	Material	Tratamento sup.	Código	Página
M	Aço	Zn	17420	5-28
M	INOX A2		17690	5-28

5

17420 Gancho fechado métrico artigo 111G — F11B

Rosca Métrica
Material Aço
Tratamento sup. Zincado

RoHS

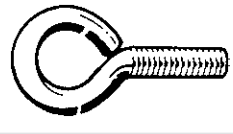


d_1 x L x D	✉	Ref. do artigo	d_1 x L x D	✉	Ref. do artigo	d_1 x L x D	✉	Ref. do artigo
M3X10X6	100	17420.031.006	M5X50X8	100	17420.055.008	M8X40X10	100	17420.084.010
M3X20X5	100	17420.032.006	M5X60X8	100	17420.056.008	M8X50X10	100	17420.085.010
M4X15X6	100	17420.041.506	M6X20X10	100	17420.062.010	M8X60X10	100	17420.086.010
M4X20X6	100	17420.042.006	M6X25X10	100	17420.062.510	M8X80X10	50	17420.088.010
M4X25X6	100	17420.042.506	M6X30X10	100	17420.063.010	M8X100X10	50	17420.089.610
M4X30X6	100	17420.043.006	M6X40X10	100	17420.064.010	M10X40X15	50	17420.104.014
M4X40X6	100	17420.044.006	M6X50X10	100	17420.065.010	M10X50X15	50	17420.105.014
M5X15X8	100	17420.051.508	M6X60X10	100	17420.066.010	M10X60X15	50	17420.106.014
M5X20X8	100	17420.052.008	M6X80X10	100	17420.068.010	M10X80X15	50	17420.108.014
M5X25X8	100	17420.052.508	M6X100X10	100	17420.069.610	M10X90X18	50	17420.109.017
M5X30X8	100	17420.053.008	M8X20X10	100	17420.082.010	M10X100X15	50	17420.109.417
M5X40X8	100	17420.054.008	M8X30X10	100	17420.083.010	M10X120X15	50	17420.109.515

17690 Gancho fechada métrico artigo 111R — F11C

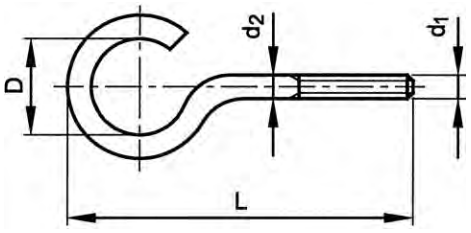
Rosca Métrica
Material Aço inoxidável A2

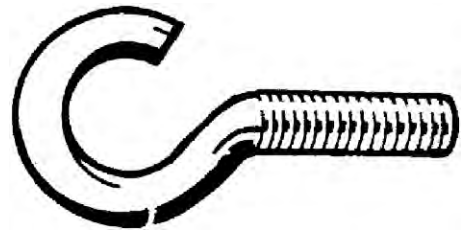
RoHS



d_1 x L x D	✉	Ref. do artigo	d_1 x L x D	✉	Ref. do artigo	d_1 x L x D	✉	Ref. do artigo
M5X15X8	100	17690.051.508	M6X30X10	100	17690.063.010	M8X60X10	100	17690.086.010
M5X30X8	100	17690.053.008	M6X40X10	100	17690.064.010	M8X80X10	50	17690.088.010
M5X50X8	100	17690.055.008	M6X60X10	100	17690.066.010	M10X70X15	50	17690.107.014
M6X20X10	100	17690.062.010						

Gancho aberto





Dados técnicos

d_1	D	d_2	P	d_1	D	d_2	P
M4	12	3.45	0.7	M6	16	5.25	1
M5	16	4.4	0.8	M8	15	7.0	1.25

17203 **Gancho aberto artigo 26** **F11A**

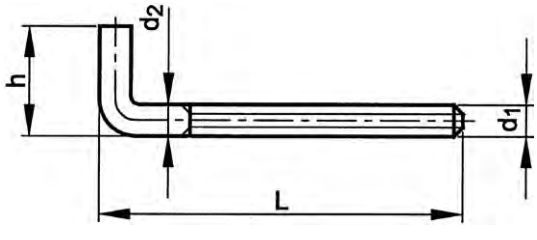
Rosca Métrica
Material Aço
Tratamento sup. Zincado

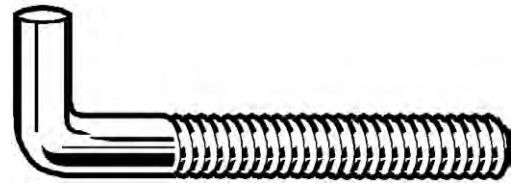
RoHS



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M4X50	100	17203.040.050	M6X60	100	17203.060.060	M8X60	100	17203.080.060
M5X50	100	17203.050.050						

Escápula quadrada métrico





Dados técnicos

d_1	d_2	h	P	d_1	d_2	h	P
M4	3.45	15	0.7	M6	5.25	20	1
M5	4.4	20	0.8	M8	7.0	25	1.25

17123 **Escápula quadrada artigo 27** **F11A**

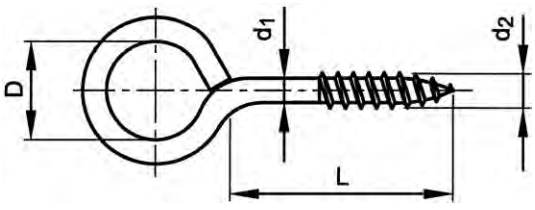
Rosca Métrica
Material Aço
Tratamento sup. Zincado

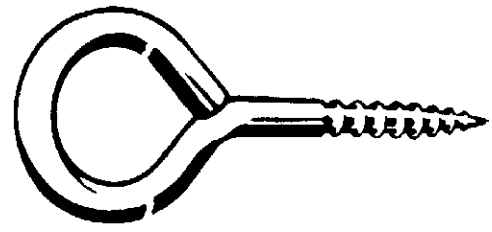
RoHS



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M4X40	100	17123.040.040	M6X60	100	17123.060.060	M8X60	100	17123.080.060
M5X50	100	17123.050.050						

Parafuso de olhal





Dados técnicos

d_1	d_2
1.9	2.4
2.2	2.8
2.5	3.2
2.65	3.4
3.0	3.8
3.3	4.1
3.45	4.3
4.0 (d2=4.9)	4.9

d_1	d_2
4.0 (d2=5.1)	5.1
4.4	5.5
4.5	5.5
4.85 (d2=5.8)	5.8
4.85 (d2=6.1)	6.1
5.25	6.5
6.0	7.6

5

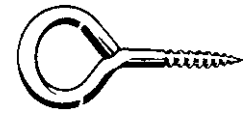
Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço	Zn	17020	5-30
INOX A2		17545	5-30
Latão		17620	5-31

17020 Gancho fechado 1G — F11B

Material Aço
Tratamento sup. Zincado

RoHS

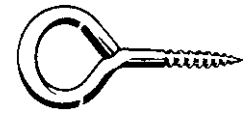


d_1 x L x D	✉	Ref. do artigo	d_1 x L x D	✉	Ref. do artigo	d_1 x L x D	✉	Ref. do artigo
1,9X6X3MM	100	17020.060.003	4,0X20X12MM (d2=5,1)	100	17020.200.012	4,4X40X16MM	100	17020.400.016
2,2X8X4MM	100	17020.080.004	3,45X25X10MM	100	17020.250.010	4,85X40X18MM (d2=6,1)	100	17020.400.018
2,2X10X4MM	100	17020.100.004	4,0X25X12MM (d2=5,1)	100	17020.250.012	5,25X40X20MM	100	17020.400.020
2,5X10X5MM	100	17020.100.005	3,0X20X8MM	100	17020.300.008	4,85X50X15MM (d2=6,1)	100	17020.500.015
2,5X10X6MM	100	17020.100.006	3,45X30X10MM	100	17020.300.010	4,85X50X18MM (d2=6,1)	100	17020.500.018
2,2X12X4MM	100	17020.120.004	4,0X30X12MM (d2=5,1)	100	17020.300.012	5,25X50X20MM	100	17020.500.020
2,65X12X6MM	100	17020.120.006	4,0X30X14MM (d2=5,1)	100	17020.300.014	6,0X50X25MM	100	17020.500.025
3,3X12X8MM	100	17020.120.008	4,4X30X16MM	100	17020.300.016	5,25X60X20MM	100	17020.600.020
2,65X16X6MM	100	17020.160.006	4,85X30X18MM (d2=6,1)	100	17020.300.018	6,0X60X25MM	100	17020.600.025
3,0X16X8MM	100	17020.160.008	4,0X40X14MM (d2=5,1)	100	17020.400.014			
3,45X16X10MM	100	17020.160.010	4,85X40X15MM (d2=6,1)	100	17020.400.015			
3,0X20X8MM	100	17020.200.008						
3,45X20X10MM	100	17020.200.010						

17545 Gancho fechado 1R — F11C

Material Aço inoxidável A2

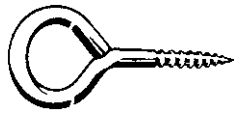
RoHS



d_1 x L x D	✉	Ref. do artigo	d_1 x L x D	✉	Ref. do artigo	d_1 x L x D	✉	Ref. do artigo
3,45X20X10MM	100	17545.200.010	4,0X30X8MM (d2=5,1)	100	17545.300.008	4,85X30X8MM (d2=5,8)	100	17545.301.008
4,0X25X12MM (d2=5,1)	100	17545.250.012	5,25X30X10MM	100	17545.300.010	4,4X40X16MM	100	17545.400.016

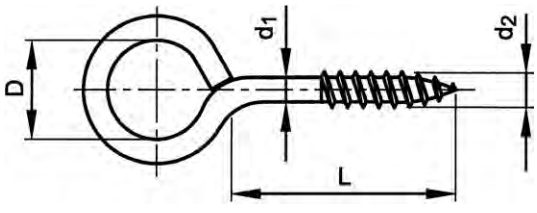
17620 **Gancho fechado 1M** **F11B**

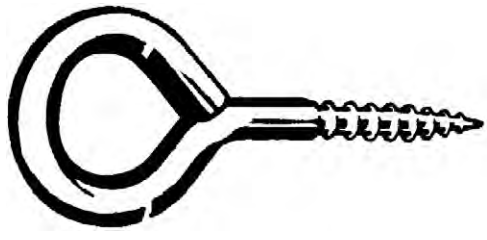
Material Latão



d_1 x L x D	✉	Ref. do artigo	d_1 x L x D	✉	Ref. do artigo	d_1 x L x D	✉	Ref. do artigo
2,65X12X6MM	100	17620.120.006	3,45X20X10MM	100	17620.200.010	4,0X30X14MM (d2=5,1)	100	17620.300.014
2,65X16X6MM	100	17620.160.006	4,0X25X12MM (d2=4,9)	100	17620.250.012	4,5X40X16MM	100	17620.400.016
3,0X20X8MM	100	17620.200.008						

Gancho fechado (pesado)





5

Dados técnicos

Nr.	D	d_1	d_2	L
8	8	4	5.1	20
10	8	4.40	5.5	25
15	10	5.25	6.7	35

Nr.	D	d_1	d_2	L
17	10	7	8.8	40
18	14	7.80	9.5	45

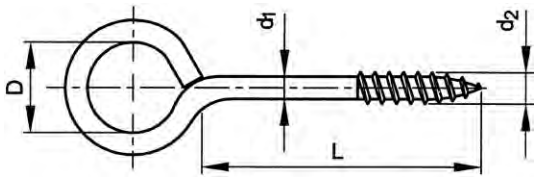
17023 **Gancho fechado (pesado) artigo 3** **F11A**

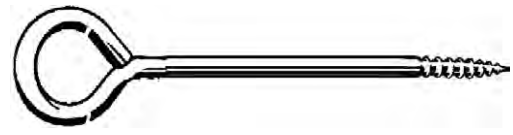
Material Aço
Tratamento sup. Zincado



Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo
No.8	100	17023.000.008	No.15	100	17023.000.015	No.18	100	17023.000.018
No.10	100	17023.000.010	No.17	100	17023.000.017			

Gancho fechado (longo)





17022 **Gancho fechado (longo) artigo 3** **F11A**

Material Aço
Tratamento sup. Zincado

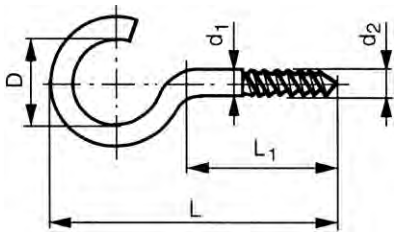
RoHS

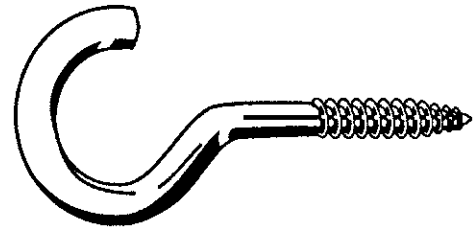


d_1 x d_2 x L x D	✉	Ref. do artigo	d_1 x d_2 x L x D	✉	Ref. do artigo	d_1 x d_2 x L x D	✉	Ref. do artigo
7,0X9,0X60X20MM	100	17022.000.060	7,0X9,0X100X20MM	100	17022.000.100	7,0X9,0X140X20MM	100	17022.000.140

5

Gancho aberto





Dados técnicos

d_1 x L_1/L	D	d_2	d_1 x L_1/L	D	d_2
2.0x10/20	7	2.6	4.4x32/60	18	5.5
2.0x11/23	7	2.6	4.4x50/80	20	5.5
2.4x12/25	9	3	4.75x32/60	18	6.1
2.4x15/30	9	3	5.0x47/85	25	6.3
3.2x20/40	12	4.1	5.25x82/120	25	6.5
3.3x13/30	9	4.1	6.0x45/80	25	7.6
3.3x20/40	12	4.1	6.0x62/100	25	7.6
3.45x30/50	14	4.3	6.0x82/120	25	7.6
4.0x27/55	18	5.1	7.0x100/140	25	9.0
4.4x25/50	16	5.5	7.0x120/160	25	9.0

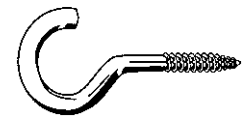
Grupos de produtos

Material	Tratamento sup.		Código	Página
Aço	Zn	11	17200	5-32
Aço	Epox Br.	11W	17199	5-33
Aço	Zn	15	17220	5-33

17200 **Gancho aberto artigo 11** **F11B**

Material Aço
Tratamento sup. Zincado

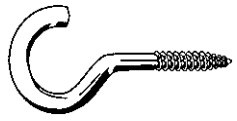
RoHS



d_1 x L_1/L	✉	Ref. do artigo	d_1 x L_1/L	✉	Ref. do artigo	d_1 x L_1/L	✉	Ref. do artigo
2,0X10/20MM	100	17200.000.020	3,45X30/50MM	100	17200.000.050	2,4X12/25MM	100	17200.025.025
2,0X11/25MM	100	17200.000.025	4,4X32/60MM	100	17200.000.060	3,3X13/30MM	100	17200.030.030
2,4X15/30MM	100	17200.000.030	4,4X50/80MM	100	17200.000.080	4,0X27/55MM	100	17200.040.055
3,3X20/40MM	100	17200.000.040	5,25X82/120MM	100	17200.000.120	5,0X47/85MM	100	17200.050.085

17199 **Gancho aberto artigo 11W** **F11B**

Material Aço
Tratamento sup. Epox Branco



d_1 x L_1/L	✉	Ref. do artigo	d_1 x L_1/L	✉	Ref. do artigo	d_1 x L_1/L	✉	Ref. do artigo
2,0X10/20MM	100	17199.000.020	2,4X15/30MM	100	17199.000.030	3,45X30/50MM	100	17199.000.050
2,0X11/23MM	100	17199.000.025	3,2X20/40MM	100	17199.000.040	4,4X32/60MM	100	17199.000.060

- Aço zincado, com epox branco tratamento de superficie (60-80 µm), para extra proteção e decoração.

17220 **Gancho aberto pequeno pesado artigo 15** **F11A**

Material Aço
Tratamento sup. Zincado

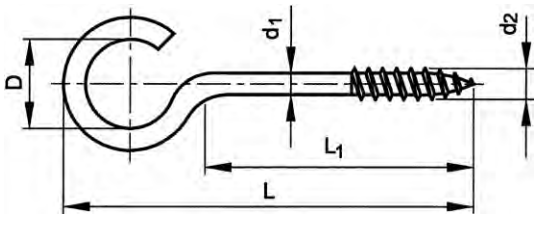
RoHS

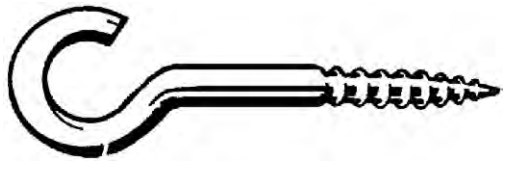


d_1 x L_1/L	✉	Ref. do artigo	d_1 x L_1/L	✉	Ref. do artigo	d_1 x L_1/L	✉	Ref. do artigo
4,4X25/50MM	100	17220.044.050	6,0X62/100MM	100	17220.060.100	7,0X100/140MM	100	17220.069.140
4,75X32/60MM	100	17220.047.060	6,0X82/120MM	100	17220.062.120	7,0X120/160MM	100	17220.069.160
6,0X45/80MM	100	17220.060.080						

5

Gancho aberto pequeno





Dados técnicos

d_1	D	d_2
3.3	8	4.1
4.0	14	5.1
4.4	16	5.6

17210 **Gancho aberto pequeno artigo 13** **F11A**

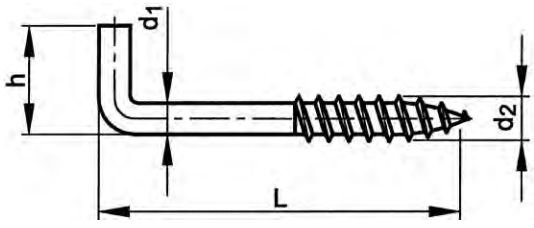
Material Aço
Tratamento sup. Zincado

RoHS



d_1 x L_1/L	✉	Ref. do artigo	d_1 x L_1/L	✉	Ref. do artigo	d_1 x L_1/L	✉	Ref. do artigo
3,3X26/40MM	100	17210.000.040	4,0X58/80MM	100	17210.000.080	4,4X95/120MM	100	17210.000.120
4,0X37/60MM	100	17210.000.060	4,4X75/100MM	100	17210.000.100			

Escápula quadrada





Dados técnicos

d_1 x L	d_2	h	d_1 x L	d_2	h
2.0x20	2.8	10	4.0x60	5.1	20
2.5x25	3.2	11	4.4x60	5.5	20
2.65x30	4	14	4.4x80	5.5	22
3.3x40	4	16	5.0x50	6.3	22
3.45x50	4.3	18	5.0x60	6.3	22
3.5x40	4.3	16	5.0x70	6.3	22
4.0x40	5.1	18	5.25x100	6.5	24
4.0x50	5.1	18			

5

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço	Zn	17120	5-34
Aço	Epox Br.	17119	5-34

17120 Escápula quadrada artigo 7 F11B

Material Aço
Tratamento sup. Zincado



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
2,2X20MM	100	17120.000.020	4,0X60MM	100	17120.000.060	4,0X50MM	100	17120.040.050
2,5X25MM	100	17120.000.025	4,4X80MM	100	17120.000.080	4,4X60MM	100	17120.045.060
2,65X30MM	100	17120.000.030	5,25X100MM	100	17120.000.100	5,0X50MM	100	17120.050.050
3,3X40MM	100	17120.000.040	3,45X40MM	100	17120.035.040	5,0X60MM	100	17120.050.060
3,45X50MM	100	17120.000.050	4,0X40MM	100	17120.040.040	5,0X70MM	100	17120.050.070

17119 Escápula quadrada artigo 7W F11B

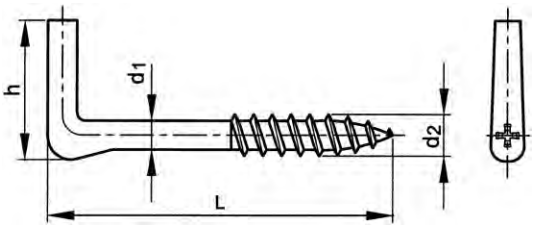
Material Aço
Tratamento sup. Epox Branco

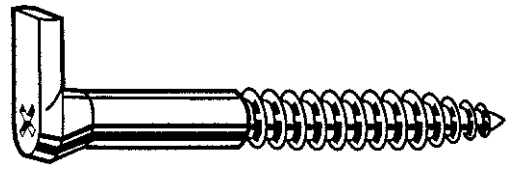


d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
2,5X25MM	100	17119.000.025	3,3X40MM	100	17119.000.040	4,0X60MM	100	17119.000.060
2,65X30MM	100	17119.000.030	3,45X50MM	100	17119.000.050			

- Aço zincado, com epox branco tratamento de superficie (60-80 µm), para extra proteção e decoração.

Escápula quadrada





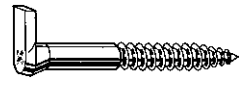
Dados técnicos

d_1	d_2	h
5.25	5.3	16
5.8	5.8	18

17140 **Escápula quadrada heavy, com encaixe phillipps artigo 9G** **F11B**

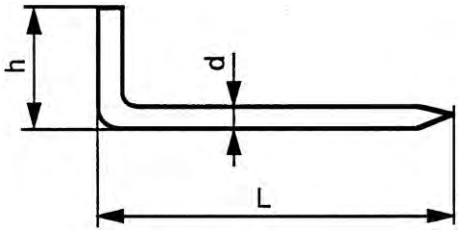
Material Aço
Tratamento sup. Zincado

RoHS



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
5,25X40MM	100	17140.052.040	5,8X65MM	100	17140.060.065	5,8X80MM	100	17140.060.080
5,25X50MM	100	17140.052.050						

Escápula quadrada com ponta





Dados técnicos

d x L	h
2.5x20	10
2.5x25	12
3.0x30	13
3.5x40	16

d x L	h
4.0x50	19
4.0x60	20
5.0x80	21

17080 **Escápula quadrada com ponta artigo 4** **F11B**

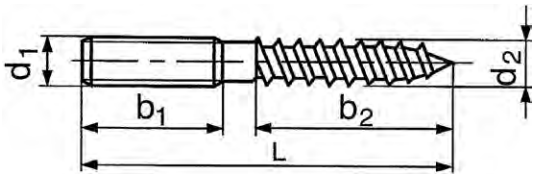
Material Aço
Tratamento sup. Zincado

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
2,5X20MM	100	17080.000.020	3,5X40MM	100	17080.000.040	4,0X60MM	100	17080.000.060
2,5X25MM	100	17080.000.025	4,0X50MM	100	17080.000.050	5,0X80MM	100	17080.000.080
3,0X30MM	100	17080.000.030						

Parafuso de 2 roscas





Dados técnicos

d_1 x L	b_1	b_2	Chave caixa	d_2	P
M4x20	10	10	-	4.2	0.7
M4x25	10	10	-	4.2	0.7
M4x30	10	15	-	4.2	0.7
M4x35	15	15	-	4.2	0.7
M4x40	17	20	-	4.2	0.7
M5x25	10	15	-	5.35	0.8
M5x40	15	20	-	5.35	0.8
M5x50	20	20	-	5.35	0.8
M6x40	17	23	T15	6	1
M6x50	20	25	T15	6	1
M6x60	20	30	T15	6	1
M6x70	30	30	T15	6	1
M6x80	20	30	T15	6	1
M6x90	30	30	T15	6	1
M6x120	30	30	T15	6	1
M6x150	30	30	T15	6	1

17320 **Parafuso de 2 roscas artigo 73** **F11B**

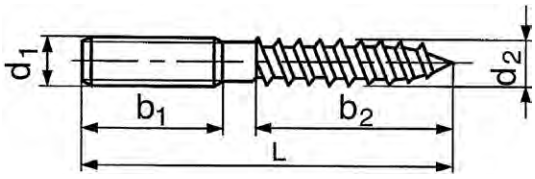
Rosca Métrica
Material Aço
Tratamento sup. Zincado



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M4X20	100	17320.040.020	M5X25	100	17320.050.025	M6X60	100	17320.060.060
M4X25	100	17320.040.025	M5X40	100	17320.050.040	M6X70	100	17320.060.070
M4X30	100	17320.040.030	M5X50	100	17320.050.050	M6X80	100	17320.060.080
M4X35	100	17320.040.035				M6X90	100	17320.060.090
M4X40	100	17320.040.040	M6X40	100	17320.060.040	M6X120	100	17320.060.120
			M6X50	100	17320.060.050	M6X150	100	17320.060.150

- Apenas o M6 tem encaixe hexalobular T15.

Parafuso 2 roscas aço inox





Dados técnicos

d_1	b_1	b_2	d_2	P
M6	50	47	6.3	1
M8	50	62	7.3	1.25
M12	205	100	10.7	1.75

51287 **Parafuso 2 roscas** **F11A**

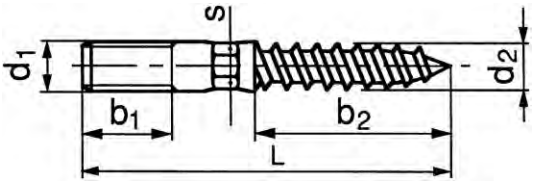
Rosca Métrica
Material Aço inoxidável A2
Classe 50



RoHS

d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
6X50MM*	100	51287.060.050	6X140MM*	100	51287.060.140	8X150MM*	100	51287.080.150
6X60MM*	100	51287.060.060	6X150MM*	100	51287.060.150	8X160MM*	100	51287.080.160
6X70MM*	100	51287.060.070	6X160MM*	100	51287.060.160	8X180MM*	50	51287.080.180
6X80MM*	100	51287.060.080	6X180MM*	100	51287.060.180	8X200MM*	50	51287.080.200
6X90MM*	100	51287.060.090				8X220MM*	50	51287.080.220
6X100MM*	100	51287.060.100	8X50MM*	100	51287.080.050			
6X120MM*	100	51287.060.120	8X60MM*	100	51287.080.060	12X80MM*	50	51287.120.080
6X130MM*	100	51287.060.130	8X70MM*	100	51287.080.070	12X300MM*	50	51287.120.300

Parafuso 2 roscas com sextavado interior aço inox





Dados técnicos

d_1 x L	b_1	b_2	d_2	P	s
M6x60	20	30	6	1	6
M8x60	20	30	7.3	1.25	6
M8x80	30	40	7.3	1.25	6
M8x90	30	40	7.3	1.25	6
M8x100	40	40	7.3	1.25	6
M8x120	50	50	7.3	1.25	6
M8x110	40	47	7.3	1.25	6
M8x130	50	47	7.3	1.25	6
M8x140	50	47	7.3	1.25	6
M8x150	50	50	7.3	1.25	6
M10x60	20	37	9.0	1.50	-
M10x80	30	40	9.0	1.50	8
M10x90	30	50	9.0	1.50	8
M10x100	30	60	9.0	1.50	8
M10x120	50	60	9.0	1.50	8
M10x140	50	60	9.0	1.50	8
M10x150	50	57	9.0	1.50	8
M10x160	80	57	9.0	1.50	8
M10x180	100	57	9.0	1.50	8
M10x200	100	57	9.0	1.50	8
M10x220	100	57	9.0	1.50	8
M10x250	100	57	9.0	1.50	8

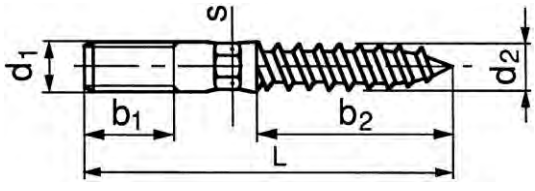
17576	Parafuso 2 roscas com sextavado interior	F11C

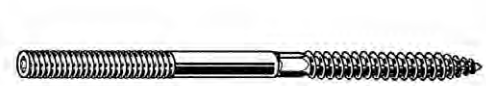
Rosca Métrica
Material Aço inoxidável A2



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M6X60	100	17576.060.060	M8X130*	100	17576.080.130	M10X140	50	17576.100.140
			M8X140*	100	17576.080.140	M10X150*	50	17576.100.150
M8X60	100	17576.080.060				M10X160*	50	17576.100.160
M8X80	100	17576.080.080	M10X60*	100	17576.100.060	M10X180*	50	17576.100.180
M8X100	50	17576.080.100	M10X80	100	17576.100.080	M10X200*	50	17576.100.200
M8X110*	100	17576.080.110	M10X100	50	17576.100.100	M10X220*	50	17576.100.220
M8X120	50	17576.080.120	M10X120	50	17576.100.120	M10X250*	50	17576.100.250

Parafuso de 2 roscas





5

Dados técnicos

d_1	b_1	b_2	d_2	P	s
M8	50	47	7.3	1.25	6
M10	50	57	9	1.5	8
M12	150	100	10.7	1.75	10

Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
M	Sextavado	INOX A2	50	51281	5-38
M	Sextavado	INOX A4	50	55282	5-38

51281	Parafuso de 2 roscas	F11A

Rosca Métrica
Material Aço inoxidável A2
Classe 50



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M12X100*	50	51281.120.100	M12X160*	50	51281.120.160	M12X250*	50	51281.120.250
M12X120*	50	51281.120.120	M12X180*	50	51281.120.180	M12X300*	50	51281.120.300
M12X140*	50	51281.120.140	M12X200*	50	51281.120.200			

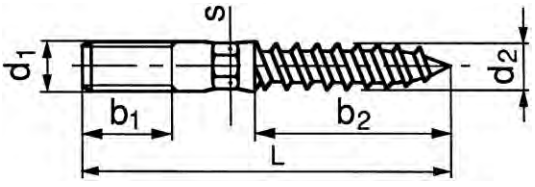
55282	Parafuso de 2 roscas	R43A

Rosca Métrica
Material Aço inoxidável A4
Classe 50



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M8X50*	100	55282.080.050	M8X120*	100	55282.080.120	M10X90*	100	55282.100.090
M8X60*	100	55282.080.060				M10X100*	100	55282.100.100
M8X80*	100	55282.080.080	M10X60*	100	55282.100.060	M10X120*	100	55282.100.120
M8X90*	100	55282.080.090	M10X80*	100	55282.100.080	M10X140*	50	55282.100.140
M8X100*	100	55282.080.100						

Parafuso 2 roscas com encaixe hexalobular





Dados técnicos

d_1 x L	b_1	b_2	Chave caixa	d_2	P	s
M8x50	15	30	T25	7.3	1.25	6
M8x60	20	30	T25	7.3	1.25	6
M8x70	25	30	T25	7.3	1.25	6
M8x80	30	40	T25	7.3	1.25	6
M8x90	30	40	T25	7.3	1.25	6
M8x100	40	40	T25	7.3	1.25	6
M8x120	50	50	T25	7.3	1.25	6
M8x140	50	50	T25	7.3	1.25	6
M8x150	50	50	T25	7.3	1.25	6
M8x160	50	50	T25	7.3	1.25	6
M10x60	20	40	T25	9	1.5	8
M10x70	30	30	T25	9	1.5	8
M10x80	30	40	T25	9	1.5	8
M10x90	30	50	T25	9	1.5	8
M10x100	30	60	T25	9	1.5	8
M10x110	40	60	T25	9	1.5	8
M10x120	50	60	T25	9	1.5	8
M10x130	50	60	T25	9	1.5	8
M10x140	50	60	T25	9	1.5	8
M12x100	30	55	T30	10.7	1.75	10
M12x120	30	55	T30	10.7	1.75	10
M12x145	40	55	T30	10.7	1.75	10
M12x165	40	55	T30	10.7	1.75	10

Grupos de produtos

Rosca	Material	Tratamento sup.		Código	Página
M	Aço	Zn	69G	17310	5-39
M	Aço	Zn	69	17315	5-39

17310 **Parafuso 2 roscas com encaixe hexalobular artigo 69G** **F11B**

Rosca Métrica
Material Aço
Tratamento sup. Zincado



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M8X50	100	17310.080.050	M8X140	100	17310.080.140	M10X90	50	17310.100.090
M8X60	100	17310.080.060	M8X150	100	17310.080.150	M10X100	50	17310.100.100
M8X70	100	17310.080.070	M8X160	100	17310.080.160	M10X110	50	17310.100.110
M8X80	100	17310.080.080				M10X120	50	17310.100.120
M8X90	100	17310.080.090	M10X60	100	17310.100.060	M10X130	50	17310.100.130
M8X100	100	17310.080.100	M10X70	100	17310.100.070	M10X140	50	17310.100.140
M8X120	100	17310.080.120	M10X80	100	17310.100.080			

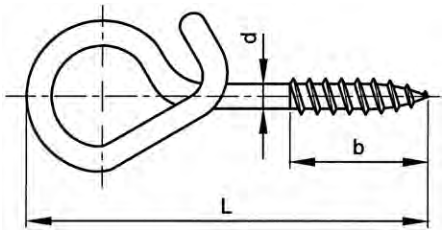
17315 **Parafuso 2 roscas com encaixe hexalobular artigo 69** **F11B**

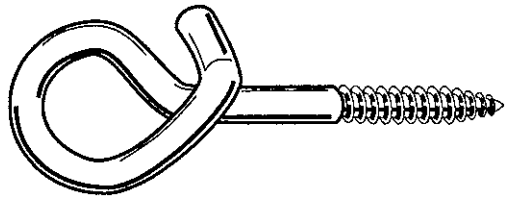
Rosca Métrica
Material Aço
Tratamento sup. Zincado



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M12X100	50	17315.120.100	M12X140	50	17315.120.145	M12X160	50	17315.120.165
M12X120	50	17315.120.120						

Gancho de segurança

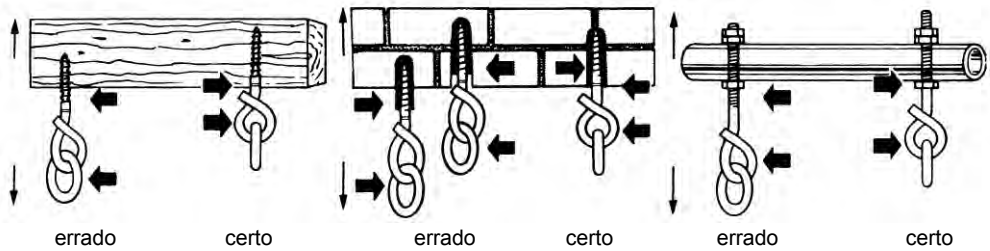




Dados técnicos

d	b	d_2
10	45	9.5
11.8	55	11.5

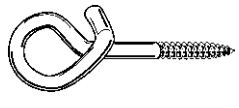
Dados montagem



- Gancho fechado duplo tem de ser aplicado de modo que a parte roscada fique completamente **invisível**
- Gancho fechado duplo deve ser montado **transversalmente** em relação ao movimento (isto evita o deslizar, reduzindo o desgaste)
- Gancho fechado duplo devem ser reapertado regularmente!
- Dados da montagem dos ganchos fechados duplos na caixa

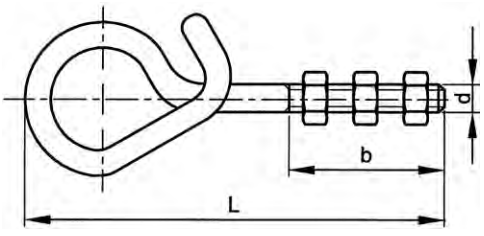
17443 **Gancho de segurança artigo 117G** **F11B**

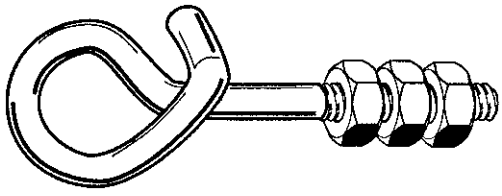
Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
10X125MM	10	17443.100.125	10X160MM	10	17443.100.160	11,8X140MM	10	17443.120.140
10X140MM	10	17443.100.140				11,8X160MM	10	17443.120.160

Gancho de segurança



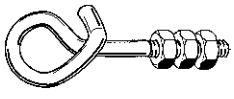


Dados técnicos

d	P
M12	1.75

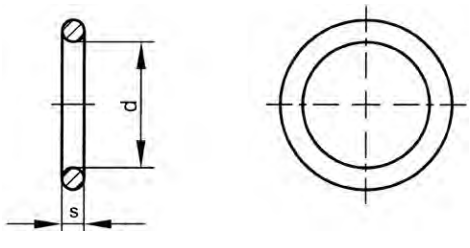
17445 **Gancho de segurança artigo 118G** **F11B**

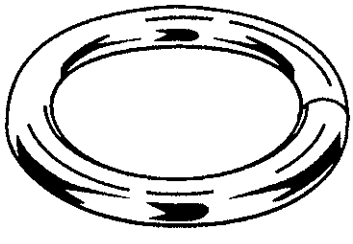
Rosca Métrica
Material Aço
Tratamento sup. Zincado



d x L/b	✉	Ref. do artigo	d x L/b	✉	Ref. do artigo	d x L/b	✉	Ref. do artigo
M12X140X65	10	17445.120.140	M12X180X80	10	17445.120.180	M12X250X160	10	17445.120.250
M12X160X80	10	17445.120.160						

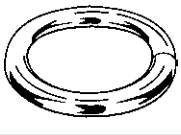
Anilha para ganchos de segurança





17447 **Anilha para ganchos de segurança artigo 119G** **F11B**

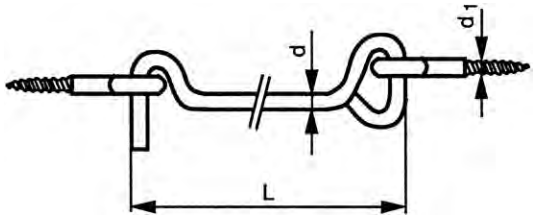
Material Aço
Tratamento sup. Zincado



s x d	✉	Ref. do artigo
9X45MM	10	17447.090.045

5

Gancho com 2 parafusos de olhal





Dados técnicos

L	d	d_1	L	d	d_1
100	4.4	4.0	200	5.25	4.75
160	5.25	4.75	250	6.0	5.25

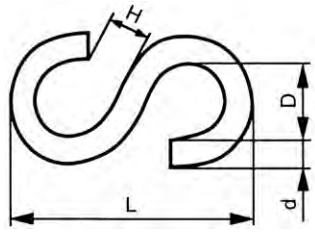
17571 **Gancho com 2 parafusos de olhal artigo 63R** **F11C**

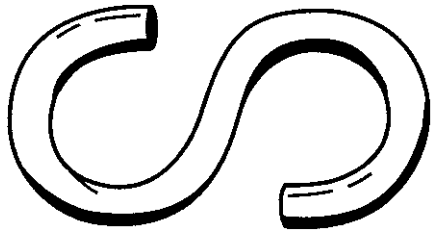
Material Aço inoxidável A2



L	✉	Ref. do artigo	L	✉	Ref. do artigo	L	✉	Ref. do artigo
100MM	50	17571.040.100	200MM	25	17571.052.200	250MM	25	17571.060.250
160MM	25	17571.052.160						

Gancho em S



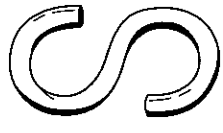


Dados técnicos

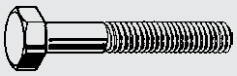
Nr.	d	D	H	Nr.	d	D	H
30	3	7	3.5	55	6	15	6
35	3.45	9	4	60	6	16	7
40	4	11	5	70	7	20	7.5
45	4	12	5	80	8.4	23	8.5
50	5	14	5.5				

17380 **Gancho em S artigo 105G** **F11B**

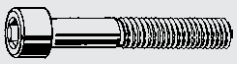
Material Aço
Tratamento sup. Zincado



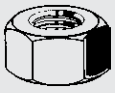
Nr.(C)	✉	Ref. do artigo	Nr.(C)	✉	Ref. do artigo	Nr.(C)	✉	Ref. do artigo
NO.30 (25MM)	100	17380.000.030	NO.45 (40MM)	100	17380.000.045	NO.60 (55MM)	100	17380.000.060
NO.35 (30MM)	100	17380.000.035	NO.50 (45MM)	100	17380.000.050	NO.70 (65MM)	50	17380.000.070
NO.40 (35MM)	100	17380.000.040	NO.55 (50MM)	100	17380.000.055	NO.80 (75MM)	50	17380.000.080



1 Parafusos sextavado exterior



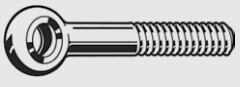
2 Produtos sextavados interiores



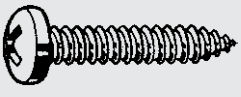
3 Porcas/porcas de rebitar / insertos



4 Varão roscado / pernos



5 Produtos olhal / gancho

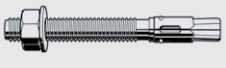


6 Parafusos

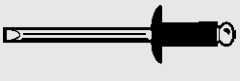
I Indice



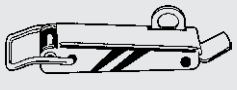
7 Anilha



8 Ancoragem



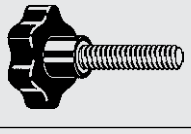
9 Rebites / cavilhas



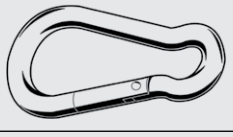
10 Parafusos de segurança / Sistemas de fixação



11 Sortidos



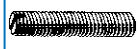
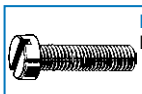
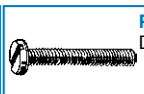
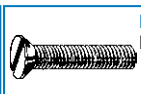
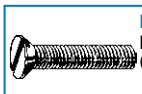
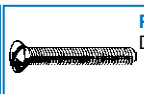
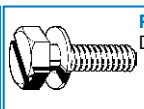
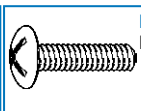
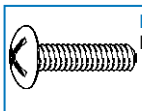
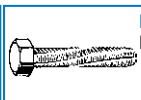
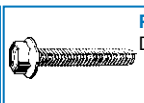
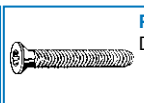
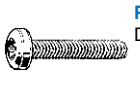
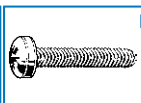
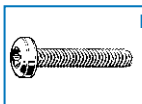
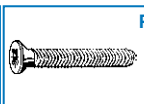
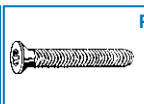
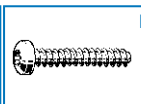
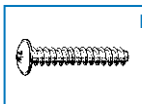
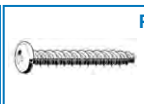
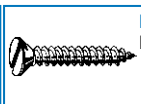
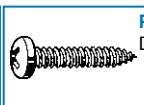
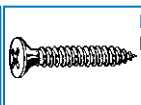
12 Sistemas de engenharia / peças para máquinas



13 Marítimo produtos

T Tecnologia de fixação

Parafusos 6

 Página 6-4 DIN 551 **Com ponta plana Métrico**	 Página 6-6 DIN 553 **Ponta em cone Métrico**	 Página 6-7 DIN 438 **Ponta cortada Métrico**	 Página 6-8 DIN 427 **Sem cabeça com ponta chanfrada**	 Página 6-9 DIN 417 **Com ponta longa Métrico**
 Página 6-10 DIN 84 **Métrico**	 Página 6-16 DIN 85 **Métrico**	 Página 6-19 DIN 920 **Cabeça reduzida fenda Métrico**	 Página 6-20 DIN 921 **Cabeça larga métrico**	 Página 6-21 DIN 963 **Métrico**
 Página 6-27 BS ≈450 (1958) **BSW**	 Página 6-28 DIN 964 **Métrico**	 Página 6-31 BS ≈450 (1958) **BSW**	 Página 6-32 NF ≈E25-129 **Métrico**	 Página 6-33 DIN 404 **Fenda Métrico**
 Página 6-34 DIN 923 **Parafuso de apoio métrico**	 Página 6-35 DIN ≈6900 **Com anilha Métrico**	 Página 6-35 DIN 7985 **Métrico**	 Página 6-41 ISO 14583 **Hexalobular Métrico**	 Página 6-43 ISO 14580 **Hexalobular Métrico**
 Página 6-44 DIN 965 **Métrico**	 Página 6-49 DIN ≈965 **Hexalobular Métrico**	 Página 6-51 DIN 966 **Métrico**	 Página 6-54 DIN ≈966 **Hexalobular Métrico**	 Página 6-55 NF ≈E25-129 **Fenda Métrico**
 Página 6-56 NF E25-129 **Fenda cruz Métrico**	 Página 6-57 DIN 7516 AE-H **Métrico**	 Página 6-58 DIN 7516 EE-H **Métrico**	 Página 6-59 DIN 7516 DE-H **Métrico**	 Página 6-60 DIN 7513 A **Métrico**
 Página 6-61 **UNC**	 Página 6-63 DIN ≈7500 **TAPTITE 2000® Métrico**	 Página 6-64 DIN ≈7500-1 **TAPTITE 2000® Métrico**	 Página 6-65 DIN ≈7500-1 **TAPTITE 2000® Métrico**	 Página 6-66 **Métrico**
 Página 6-67 **Hexalobular Métrico**	 Página 6-68 **Métrico**	 Página 6-68 **Laminadoras Hexalobular Metric**	 Página 6-70 **REMFORM®**	 Página 6-71 **REMFORM® Torx®**
 Página 6-71 **REMFORM®**	 Página 6-72 **Thermo plástico**	 Página 6-72 **Thermo plástico**	 Página 6-73 DIN 7971 **Fenda**	 Página 6-75 DIN 7972 C **Fenda**
 Página 6-76 DIN 7973 C **Fenda**	 Página 6-78 DIN 7981 **Fenda cruz**	 Página 6-84 ISO 14585 C **Hexalobular**	 Página 6-86 DIN ≈7981 C **Cabeça cilindrica encaixe quadrado**	 Página 6-87 DIN 7982 **Fenda cruz**

Parafusos 6


Página 6-91
ISO 14586 C
Hexalobular


Página 6-93
DIN ≈7982 C
Encaixe quadrado


Página 6-94
DIN 7983
Fenda cruz

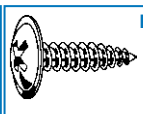

Página 6-98
DIN 7976
Sextavado


Página 6-100
DIN ≈6928 C
Sextavado com anilha


Página 6-100
Com ponta em cone e anilha

Página 6-101
Sextavado interior

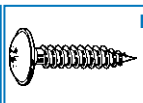

Página 6-102
ISO 14587 C
Hexalobular


Página 6-103
Fenda cruz com flange


Página 6-104
Com anilha e encaixe pozidriv


Página 6-105
Com anilha hexalobular

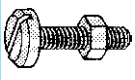

Página 6-106
Para janelas


Página 6-107
Fenda cruz

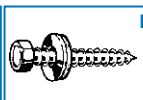
Página 6-107
Para matriculas


Página 6-108
Cabeça redonda phillips


Página 6-109
Cabeça redonda hexalobular


Página 6-109
Para matriculas


Página 6-110
Para parafusos para matriculas


Página 6-111
Com anilha


Página 6-112
Com anilha 16 mm


Página 6-113
Com anilha 19 mm

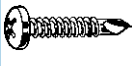

Página 6-114
Com anilha 22 mm

Página 6-115
Com ponta

Página 6-115
Com anilha


Página 6-116
Elastômero

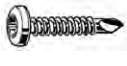

Página 6-117
Anilha de selar cinza EPDM


Página 6-119
DIN ≈7504 M-H
Cabeça cilindrica encaixe cruz


Página 6-120
DIN ≈7504 M-H
Cabeça cilindrica encaixe cruz


Página 6-122
DIN 7504 M-H
Cabeça cilindrica encaixe cruz


Página 6-126
DIN ≈7504 M
Cabeça cilindrica ttap®


Página 6-127
DIN ≈7504 M
Cabeça cilindrica ttap®


Página 6-128
DIN ≈7504 M
MAXXFAST pan head square socket


Página 6-129
DIN ≈7504 M
Cabeça cilindrica SR


Página 6-130
DIN ≈7504 M
Cabeça cilindrica com encaixe quadrado

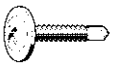

Página 6-130
DIN ≈7504 O-H
MAXXFAST Cross recessed countersunk head


Página 6-132
DIN 7504 O-H
Cruz


Página 6-134
DIN ≈7504 O
MAXXFAST countersunk head ttap®


Página 6-135
DIN ≈7504 K
Cabeça sextavada


Página 6-137
DIN 7504 K
Com flange sextavado


Página 6-139
Fenda cruciforme


Página 6-140
Cabeça redonda SR

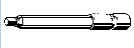

Página 6-141
Cabeça de embeber com alhetas ttap®


Página 6-142
Com abas e Torx®


Página 6-143
Com abas e Torx®


Página 6-144
Com abas Torx® UNC


Página 6-145
Com abas e fenda cruz


Página 6-146
Ferramenta


Página 6-149
MAXXFAST cabeça de embeber em cruz


Página 6-151
MAXXFAST cabeça de embeber com ttap®


Página 6-154
Fenda cruz

Parafusos 6

Página 6-158

Fenda cruzada com furo

Página 6-159

Fenda cruzada cabeça reduzida

Página 6-159

Hexalobular

Página 6-162

Hexalobular A2

Página 6-163

Rosca dupla e ponta cortante

Página 6-164

MAXXFAST cabeça de embeber com ttap®

Página 6-164

Hexalobular

Página 6-165

Cilíndrica

Página 6-165

MAXXFAST cabeça de queijo baixa

Página 6-167

MAXXFAST cabeça de queijo ttap®

Página 6-168

Cabeça de queijo baixa fenda cruz

Página 6-170

Hexalobular Aço

Página 6-171

Cabeça cilíndrica

Página 6-171

Fenda cruz

Página 6-173
DIN 571

Parafusos para madeira cabeça sextavada

Página 6-176

MAXXFAST cabeça de embeber com ttap®

Página 6-177

MAXXFAST cabeça com flange ttap®

Página 6-178

Hexalobular

Página 6-179
DIN 97

Fenda

Página 6-182
DIN 96

Fenda

Página 6-185
DIN 95

Fenda

Página 6-187
DIN 7997-Z

Fenda cruz

Página 6-188

Parafuso cabeça de embeber PZ

Página 6-189
DIN 7996

Fenda cruz

Página 6-190
DIN 7995-Z

Cruz

Página 6-191

3TG anilha PZ

Página 6-193

2TG anilha PZ

Página 6-195

3TG anilha TX

Página 6-196

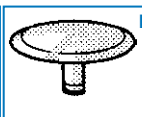
2TG anilha TX

Página 6-198

Para gesso

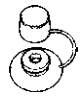
Página 6-199

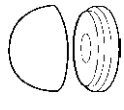
Para gesso

Página 6-200

Plástico

Página 6-201

Plástico

Página 6-201

Plástico

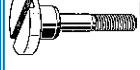
Página 6-202

Plástico

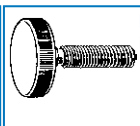
Página 6-203

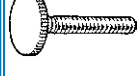
Métrico

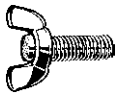
Página 6-204
DIN 464

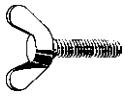
Alto Métrico

Página 6-205
DIN 464 Sz

Alto com fenda métrico

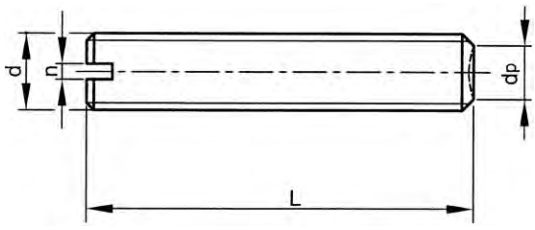
Página 6-206
DIN 653

Baixo Métrico

Página 6-207

Baixo Métrico, plastico

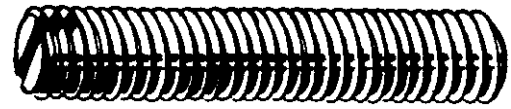
Página 6-208

Modelo americano Métrico

Página 6-209
DIN 316

Orelhas redondas Métrico

Perno com fenda sem ponta



DIN	**551**
ISO	4766
NEN	1487
NF	E25-160



Dados técnicos

d	d_p	n	P
M1.6	0.8	0.25	0.35
M2	1	0.25	0.4
M2.5	1.5	0.4	0.45
M3	2	0.4	0.5
M4	2.5	0.6	0.7
M5	3.5	0.8	0.8

d	d_p	n	P
M6	4	1	1
M8	5.5	1.2	1.25
M10	7	1.6	1.5
M12	8.5	2	1.75
M16	11.5	2.5	2

Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
M	Fenda	Aço	14H	20010	6-4
M	Fenda	INOX A1/A2		51292	6-4
M	Fenda	INOX A4		55292	6-5

6

20010 Perno com fenda sem ponta — G07A

Rosca Métrica
Material Aço
Classe 14H



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X4	500	20010.030.004	M4X25	250	20010.040.025	M6X10	500	20010.060.010
M3X5	500	20010.030.005	M4X30	250	20010.040.030	M6X12	250	20010.060.012
M3X6	500	20010.030.006	M4X35	250	20010.040.035	M6X16	250	20010.060.016
M3X8	500	20010.030.008				M6X20	250	20010.060.020
M3X10	500	20010.030.010	M5X5	500	20010.050.005	M6X25	250	20010.060.025
M3X16	500	20010.030.016	M5X6	500	20010.050.006			
M3X20	500	20010.030.020	M5X8	500	20010.050.008	M8X10	250	20010.080.010
			M5X10	500	20010.050.010	M8X20	250	20010.080.020
M4X4	500	20010.040.004	M5X12	500	20010.050.012	M8X30	100	20010.080.030
M4X5	500	20010.040.005	M5X16	250	20010.050.016			
M4X6	500	20010.040.006	M5X20	250	20010.050.020	M10X10	250	20010.100.010
M4X8	500	20010.040.008	M5X25	250	20010.050.025	M10X20	100	20010.100.020
M4X10	500	20010.040.010				M10X30	100	20010.100.030
M4X12	500	20010.040.012	M6X6	500	20010.060.006	M10X40	100	20010.100.040
M4X16	500	20010.040.016	M6X8	500	20010.060.008	M10X50	100	20010.100.050
M4X20	250	20010.040.020						

51292 Perno com fenda sem ponta — R03A

Rosca Métrica
Material Aço inoxidável A1/A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M1,6X2*	200	51292.016.002				M3X10	200	51292.030.010
M1,6X3*	200	51292.016.003	M2,5X3*	200	51292.025.003	M3X12*	200	51292.030.012
M1,6X4*	200	51292.016.004	M2,5X4*	200	51292.025.004	M3X16	200	51292.030.016
M1,6X5*	200	51292.016.005	M2,5X5*	200	51292.025.005	M3X20	200	51292.030.020
			M2,5X6*	200	51292.025.006			
M2X2*	200	51292.020.002	M2,5X8*	200	51292.025.008	M4X4	200	51292.040.004
M2X3*	200	51292.020.003	M2,5X10*	200	51292.025.010	M4X5	200	51292.040.005
M2X4*	200	51292.020.004				M4X6	200	51292.040.006
M2X5*	200	51292.020.005	M3X3*	200	51292.030.003	M4X8	200	51292.040.008
M2X6*	200	51292.020.006	M3X4*	200	51292.030.004	M4X10	200	51292.040.010
M2X8*	200	51292.020.008	M3X5*	200	51292.030.005	M4X12	200	51292.040.012
M2X10*	200	51292.020.010	M3X6	200	51292.030.006	M4X16	200	51292.040.016
M2X12*	200	51292.020.012	M3X8	200	51292.030.008	M4X18*	200	51292.040.018

51292 Perno com fenda sem ponta ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X20	200	51292.040.020	M6X12*	200	51292.060.012	M8X40*	100	51292.080.040
M4X25*	200	51292.040.025	M6X16	200	51292.060.016	M8X45*	100	51292.080.045
M4X30	200	51292.040.030	M6X20	200	51292.060.020	M8X50*	100	51292.080.050
			M6X25	200	51292.060.025	M8X60*	100	51292.080.060
M5X5*	200	51292.050.005	M6X30*	200	51292.060.030			
M5X6	200	51292.050.006	M6X35*	200	51292.060.035	M10X10	100	51292.100.010
M5X8	200	51292.050.008	M6X40*	200	51292.060.040	M10X12*	50	51292.100.012
M5X10	200	51292.050.010	M6X45*	200	51292.060.045	M10X16*	50	51292.100.016
M5X12	200	51292.050.012	M6X60*	200	51292.060.060	M10X20	100	51292.100.020
M5X16	200	51292.050.016				M10X25*	50	51292.100.025
M5X20	200	51292.050.020	M8X8*	100	51292.080.008	M10X30	100	51292.100.030
M5X25*	200	51292.050.025	M8X10	200	51292.080.010	M10X35*	50	51292.100.035
M5X30*	200	51292.050.030	M8X12*	100	51292.080.012	M10X40	100	51292.100.040
M5X40*	200	51292.050.040	M8X16*	100	51292.080.016	M10X45*	50	51292.100.045
			M8X20	200	51292.080.020	M10X50*	50	51292.100.050
M6X6*	200	51292.060.006	M8X25*	100	51292.080.025	M10X55*	50	51292.100.055
M6X8	200	51292.060.008	M8X30	100	51292.080.030	M10X60*	50	51292.100.060
M6X10	200	51292.060.010	M8X35*	100	51292.080.035			

- Dependendo da disponibilidade do A1, poderá ser fornecido em A2.

55292 Perno com fenda sem ponta R43A

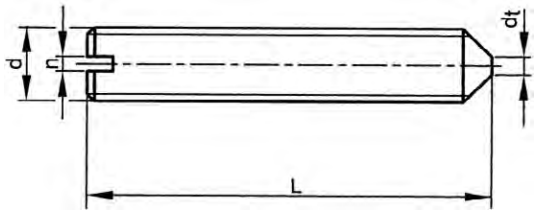
Rosca Métrica
Material Aço inoxidável A4



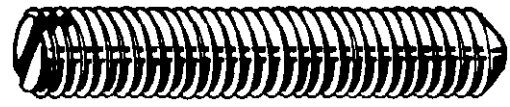
RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6*	200	55292.030.006	M6X6*	200	55292.060.006	M8X50*	100	55292.080.050
M3X10	200	55292.030.010	M6X8	200	55292.060.008	M8X60*	100	55292.080.060
			M6X10	200	55292.060.010			
M4X4*	200	55292.040.004	M6X12	200	55292.060.012	M10X10	100	55292.100.010
M4X5*	200	55292.040.005	M6X16	200	55292.060.016	M10X12*	50	55292.100.012
M4X6*	200	55292.040.006	M6X20	200	55292.060.020	M10X16*	50	55292.100.016
M4X8	200	55292.040.008	M6X25	200	55292.060.025	M10X20	100	55292.100.020
M4X10	200	55292.040.010	M6X30*	200	55292.060.030	M10X25*	50	55292.100.025
M4X12	200	55292.040.012	M6X35*	200	55292.060.035	M10X30	100	55292.100.030
			M6X40*	200	55292.060.040	M10X35*	50	55292.100.035
M5X5*	200	55292.050.005				M10X40	100	55292.100.040
M5X6	200	55292.050.006	M8X10	200	55292.080.010	M10X45*	50	55292.100.045
M5X8	200	55292.050.008	M8X12*	100	55292.080.012	M10X50*	50	55292.100.050
M5X10	200	55292.050.010	M8X16*	100	55292.080.016	M10X60*	50	55292.100.060
M5X12	200	55292.050.012	M8X20	200	55292.080.020			
M5X16	200	55292.050.016	M8X25*	100	55292.080.025	M12X20*	50	55292.120.020
M5X18*	200	55292.050.018	M8X30	100	55292.080.030	M12X25*	50	55292.120.025
M5X20	200	55292.050.020	M8X35*	100	55292.080.035	M12X30*	50	55292.120.030
M5X25*	200	55292.050.025	M8X40*	100	55292.080.040			
M5X30*	200	55292.050.030	M8X45*	100	55292.080.045	M16X35*	50	55292.160.035

Perno com fenda ponta em cone



DIN	**553**
ISO	7434
NEN	1488
NF	E25-161
BS	4219



Dados técnicos

d	d_t (max.)	n	P	d	d_t (max.)	n	P
M1.6	0.16	0.25	0.35	M5	0.5	0.8	0.8
M2	0.2	0.25	0.4	M6	1.5	1	1
M2.5	0.25	0.4	0.45	M8	2	1.2	1.25
M3	0.3	0.4	0.5	M10	2.5	1.6	1.5
M4	0.4	0.6	0.7	M12	3	2	1.75

Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
M	Fenda	Aço	14H	20030	6-6
M	Fenda	INOX A1/A2		51293	6-6
M	Fenda	INOX A4		55293	6-7

6

20030 Perno com fenda ponta em cone G07A

Rosca Métrica
Material Aço
Classe 14H



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X4	500	20030.030.004	M4X30	250	20030.040.030	M6X16	250	20030.060.016
M3X5	500	20030.030.005	M4X35	250	20030.040.035	M6X20	250	20030.060.020
M3X6	500	20030.030.006				M6X25	250	20030.060.025
M3X10	500	20030.030.010	M5X6	500	20030.050.006			
M3X12	500	20030.030.012	M5X8	500	20030.050.008	M8X10	250	20030.080.010
			M5X10	500	20030.050.010	M8X20	250	20030.080.020
M4X5	500	20030.040.005	M5X12	500	20030.050.012	M8X30	100	20030.080.030
M4X6	500	20030.040.006	M5X16	250	20030.050.016			
M4X8	500	20030.040.008	M5X20	250	20030.050.020	M10X10	250	20030.100.010
M4X10	500	20030.040.010	M5X25	250	20030.050.025	M10X16	100	20030.100.016
M4X12	500	20030.040.012				M10X20	100	20030.100.020
M4X16	500	20030.040.016	M6X8	500	20030.060.008	M10X30	100	20030.100.030
M4X20	250	20030.040.020	M6X10	500	20030.060.010	M10X40	100	20030.100.040
M4X25	250	20030.040.025	M6X12	250	20030.060.012	M10X50	100	20030.100.050

51293 Perno com fenda ponta em cone R03A

Rosca Métrica
Material Aço inoxidável A1/A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M1,6X2*	200	51293.016.002	M2,5X8*	200	51293.025.008	M4X12	200	51293.040.012
M1,6X3*	200	51293.016.003				M4X16	200	51293.040.016
M1,6X4*	200	51293.016.004	M3X3*	200	51293.030.003	M4X20*	200	51293.040.020
			M3X4	200	51293.030.004	M4X25	200	51293.040.025
M2X2*	200	51293.020.002	M3X5	200	51293.030.005	M4X30	200	51293.040.030
M2X3*	200	51293.020.003	M3X6	200	51293.030.006	M4X35	200	51293.040.035
M2X4*	200	51293.020.004	M3X8	200	51293.030.008			
M2X5*	200	51293.020.005	M3X10	200	51293.030.010	M5X5*	200	51293.050.005
M2X6*	200	51293.020.006	M3X16*	200	51293.030.016	M5X6	200	51293.050.006
M2X8*	200	51293.020.008	M3X20*	200	51293.030.020	M5X8	200	51293.050.008
M2X10*	200	51293.020.010				M5X10	200	51293.050.010
M2X12*	200	51293.020.012	M4X4*	200	51293.040.004	M5X12	200	51293.050.012
			M4X5	200	51293.040.005	M5X16	200	51293.050.016
M2,5X3*	200	51293.025.003	M4X6	200	51293.040.006	M5X20	200	51293.050.020
M2,5X5*	200	51293.025.005	M4X8	200	51293.040.008	M5X25	200	51293.050.025
M2,5X6*	200	51293.025.006	M4X10	200	51293.040.010	M5X30*	200	51293.050.030

51293 **Perno com fenda ponta em cone** ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
						M8X50*	100	51293.080.050
M6X6*	200	51293.060.006	M8X8*	100	51293.080.008			
M6X8	200	51293.060.008	M8X10	200	51293.080.010	M10X12*	50	51293.100.012
M6X10	200	51293.060.010	M8X12*	100	51293.080.012	M10X16*	50	51293.100.016
M6X12*	200	51293.060.012	M8X16*	100	51293.080.016	M10X20	100	51293.100.020
M6X16	200	51293.060.016	M8X20	200	51293.080.020	M10X25*	50	51293.100.025
M6X20*	200	51293.060.020	M8X25*	100	51293.080.025	M10X30	100	51293.100.030
M6X25	200	51293.060.025	M8X30	200	51293.080.030	M10X35*	50	51293.100.035
M6X30*	200	51293.060.030	M8X35*	100	51293.080.035	M10X50	100	51293.100.050
M6X35*	200	51293.060.035	M8X40*	100	51293.080.040			
M6X40*	200	51293.060.040	M8X45*	100	51293.080.045			

- Dependendo da disponibilidade do A1, poderá ser fornecido em A2.

55293 **Perno com fenda ponta em cone** **R43A**

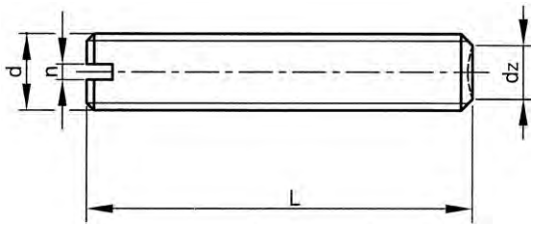
Rosca Métrica
Material Aço inoxidável A4



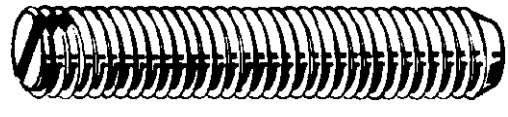
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X5	200	55293.030.005	M5X12	200	55293.050.012	M8X12*	100	55293.080.012
M3X8	200	55293.030.008	M5X16	200	55293.050.016	M8X16*	100	55293.080.016
M3X10	200	55293.030.010	M5X25	200	55293.050.025			
						M10X12*	50	55293.100.012
M4X5	200	55293.040.005	M6X6*	200	55293.060.006	M10X16*	50	55293.100.016
M4X8	200	55293.040.008	M6X10	200	55293.060.010	M10X20	100	55293.100.020
M4X10	200	55293.040.010	M6X12	200	55293.060.012	M10X30	100	55293.100.030
M4X12	200	55293.040.012	M6X16	200	55293.060.016	M10X35*	50	55293.100.035
M4X16	200	55293.040.016	M6X20	200	55293.060.020	M10X50	100	55293.100.050
			M6X25	200	55293.060.025			
M5X6	200	55293.050.006				M12X25*	50	55293.120.025
M5X8	200	55293.050.008	M8X10	200	55293.080.010	M12X30*	50	55293.120.030
M5X10	200	55293.050.010						

6

Perno com fenda ponta cortada



DIN	**438**
ISO	7436
NEN	1486
NF	E25-163



Dados técnicos

d	d_z	n	P	d	d_z	n	P
M3	1.4	0.4	0.5	**M6**	3	1	1
M4	2	0.6	0.7	**M8**	5	1.2	1.25
M5	2.5	0.8	0.8	**M10**	6	1.6	1.5

Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
M	Fenda	Aço	14H	20000	6-7
M	Fenda	INOX A1/A2		51291	6-8

20000 **Perno com fenda ponta cortada** **G07A**

Rosca Métrica
Material Aço
Classe 14H



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X4	500	20000.030.004	M3X10	500	20000.030.010	M4X6	500	20000.040.006
M3X6	500	20000.030.006				M4X8	500	20000.040.008
M3X8	500	20000.030.008	M4X5	500	20000.040.005	M4X10	500	20000.040.010

20000	Perno com fenda ponta cortada	←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X12	500	20000.040.012	M5X6	500	20000.050.006	M6X8	500	20000.060.008
M4X16	500	20000.040.016	M5X8	500	20000.050.008	M6X10	500	20000.060.010
M4X25	250	20000.040.025	M5X10	500	20000.050.010	M6X12	250	20000.060.012
M4X30	250	20000.040.030	M5X16	250	20000.050.016	M6X16	250	20000.060.016
M4X35	250	20000.040.035	M5X20	250	20000.050.020	M6X20	250	20000.060.020

51291	Perno com fenda ponta cortada	R03A

Rosca Métrica
Material Aço inoxidável A1/A2

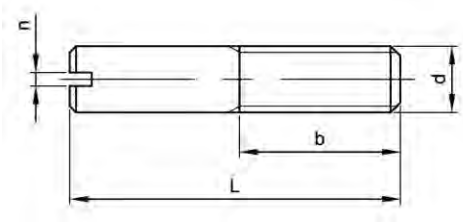


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X4	200	51291.030.004	M4X25	200	51291.040.025	M6X16	200	51291.060.016
M3X5	200	51291.030.005				M6X20	200	51291.060.020
M3X6	200	51291.030.006	M5X10	200	51291.050.010			
M3X8	200	51291.030.008	M5X12	200	51291.050.012	M8X10*	100	51291.080.010
			M5X16	200	51291.050.016	M8X12*	100	51291.080.012
M4X5*	200	51291.040.005	M5X20	200	51291.050.020	M8X16*	100	51291.080.016
M4X6	200	51291.040.006	M5X25*	200	51291.050.025	M8X20*	100	51291.080.020
M4X8	200	51291.040.008				M8X25*	100	51291.080.025
M4X10	200	51291.040.010	M6X6*	100	51291.060.006	M8X35*	100	51291.080.035
M4X12	200	51291.040.012	M6X8	200	51291.060.008			
M4X16	200	51291.040.016	M6X12	200	51291.060.012	M10X35*	100	51291.100.035
M4X20	200	51291.040.020						

6

- Dependendo da disponibilidade do A1, poderá ser fornecido em A2.

Perno com fenda



DIN **427**
ISO 2342



Dados técnicos

d	b	n	P
M3	3.6	0.4	0.5
M4	4.8	0.6	0.7
M5	6.0	0.8	0.8
M6	7.2	1.0	1
M8	9.6	1.2	1.25
M10	12.0	1.6	1.5

51296	Perno com fenda	R03A

Rosca Métrica
Material Aço inoxidável A2



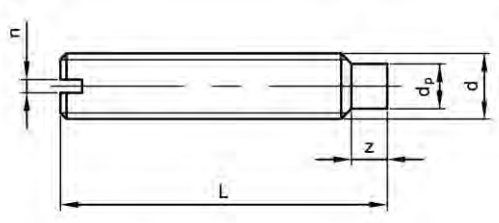
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6*	200	51296.030.006	M4X30*	200	51296.040.030	M6X12*	100	51296.060.012
M3X8*	200	51296.030.008	M4X35*	200	51296.040.035	M6X16*	100	51296.060.016
M3X10*	200	51296.030.010				M6X20*	100	51296.060.020
M3X12*	200	51296.030.012	M5X10*	200	51296.050.010	M6X25*	100	51296.060.025
M3X16*	200	51296.030.016	M5X12*	200	51296.050.012	M6X30*	100	51296.060.030
			M5X16*	200	51296.050.016	M6X35*	100	51296.060.035
M4X8*	200	51296.040.008	M5X20*	200	51296.050.020	M6X40*	100	51296.060.040
M4X10*	200	51296.040.010	M5X25*	200	51296.050.025			
M4X12*	200	51296.040.012	M5X30*	200	51296.050.030	M8X16*	100	51296.080.016
M4X16*	200	51296.040.016	M5X35*	200	51296.050.035	M8X20*	100	51296.080.020
M4X20*	200	51296.040.020	M5X40*	200	51296.050.040	M8X25*	100	51296.080.025
M4X25*	200	51296.040.025				M8X30*	100	51296.080.030

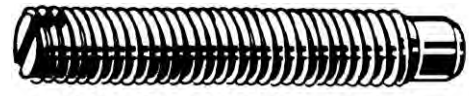
51296	Perno com fenda	←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M8X35*	100	51296.080.035	M10X20*	50	51296.100.020	M10X35*	50	51296.100.035
M8X40*	100	51296.080.040	M10X25*	50	51296.100.025	M10X40*	50	51296.100.040
			M10X30*	50	51296.100.030			

Perno com fenda e ponta longa

DIN 417





Dados técnicos

d	d_p (max.)	n	P	z (min.)
M3	2	0.4	0.5	1.5
M4	2.5	0.6	0.7	2
M5	3.5	0.8	0.8	2.5
M6	4	1	1	3
M8	5.5	1.2	1.25	4
M10	7	1.6	1.5	5
M12	8.5	2	1.75	6

6

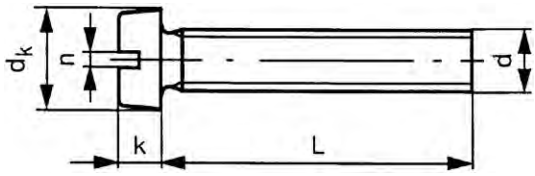
51290	Perno com fenda e ponta longa	R09A

Rosca Métrica
Material Aço inoxidável A2

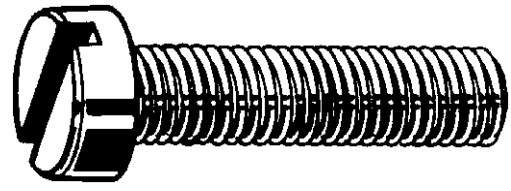


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X4*	200	51290.030.004	M5X8*	200	51290.050.008	M8X10*	100	51290.080.010
M3X5*	200	51290.030.005	M5X10*	200	51290.050.010	M8X12*	100	51290.080.012
M3X6*	200	51290.030.006	M5X12*	200	51290.050.012	M8X16*	100	51290.080.016
M3X8*	200	51290.030.008	M5X16*	200	51290.050.016	M8X20*	100	51290.080.020
M3X10*	200	51290.030.010	M5X20*	200	51290.050.020	M8X25*	100	51290.080.025
M3X12*	200	51290.030.012	M5X25*	200	51290.050.025	M8X30*	100	51290.080.030
M3X16*	200	51290.030.016				M8X40*	100	51290.080.040
M3X20*	200	51290.030.020	M6X6*	100	51290.060.006			
			M6X8*	100	51290.060.008	M10X12*	100	51290.100.012
M4X8*	200	51290.040.008	M6X10*	100	51290.060.010	M10X16*	100	51290.100.016
M4X10*	200	51290.040.010	M6X12*	100	51290.060.012	M10X20*	100	51290.100.020
M4X12*	200	51290.040.012	M6X16*	100	51290.060.016	M10X25*	100	51290.100.025
M4X16*	200	51290.040.016	M6X20*	100	51290.060.020	M10X30*	100	51290.100.030
M4X20*	200	51290.040.020						
			M8X8*	100	51290.080.008	M12X20*	50	51290.120.020

Parafuso cabeça cilindrica fenda



DIN	**84**
ISO	1207
NEN	1602
ASME	B18.6.7M
NF	E25-127
BS	4183



Dados técnicos

d	d_k	k	n	P	Rosca total C ≤
M1	2	0.7	0.25	0.25	30
M1.2	2.3	0.8	0.3	0.25	30
M1.4	2.6	0.9	0.3	0.3	30
M1.6	3	1	0.4	0.35	30
M1.7 (≠DIN)	3.4	1.2	0.4	0.35	30
M2	3.8	1.3	0.5	0.4	30
M2.3 (≠DIN)	4.4	1.5	0.6	0.45	30
M2.5	4.5	1.6	0.6	0.45	30
M2.6 (≠DIN)	5	1.7	0.6	0.45	30
M3	5.5	2	0.8	0.5	30
M3.5	6	2.4	1	0.6	40
M4	7	2.6	1.2	0.7	40
M5	8.5	3.3	1.2	0.8	40
M6	10	3.9	1.6	1	40
M8	13	5	2	1.25	40
M10	16	6	2.5	1.5	40
M12 (≠DIN)	18	7	3	1.75	40

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Cor	Código	Página
M	Fenda	Aço	4.8	Zn		24520	6-10
M	Fenda	Aço	4.8	Passiv. amar.		24510	6-11
M	Fenda	Aço	4.8	Passiv. preto		24515	6-11
M	Fenda	Aço	8.8	Zn		24402	6-12
M	Fenda	INOX A2				51121	6-12
M	Fenda	INOX A2		Embalagem grande		51120	6-12
M	Fenda	INOX A4				55120	6-13
M	Fenda	Latão Cu2/Cu3				48020	6-14
M	Fenda	Latão Cu2/Cu3		Niq.		48520	6-15
M	Fenda	Plástico PA	PA 6.6		Branco	56410	6-15

24520 **Parafuso cabeça cilindrica fenda** **H01A**

Rosca	Métrica
Material	Aço
Classe	4.8
Tratamento sup.	Zincado

RoHS



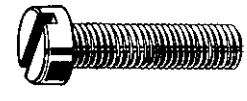
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X4	200	24520.020.004				M3,5X10	200	24520.035.010
M2X5	200	24520.020.005	M3X4	200	24520.030.004	M3,5X12	200	24520.035.012
M2X6	200	24520.020.006	M3X5	200	24520.030.005	M3,5X16	200	24520.035.016
M2X8	200	24520.020.008	M3X6	200	24520.030.006	M3,5X20	200	24520.035.020
M2X10	200	24520.020.010	M3X8	200	24520.030.008	M3,5X25	200	24520.035.025
M2X12	200	24520.020.012	M3X10	200	24520.030.010	M3,5X30	200	24520.035.030
M2X16	200	24520.020.016	M3X12	200	24520.030.012	M3,5X35	200	24520.035.035
M2X20	200	24520.020.020	M3X16	200	24520.030.016	M3,5X40	200	24520.035.040
M2X30	200	24520.020.030	M3X20	200	24520.030.020	M3,5X50	200	24520.035.050
			M3X25	200	24520.030.025			
M2,5X4	200	24520.025.004	M3X30	200	24520.030.030	M4X5	200	24520.040.005
M2,5X5	200	24520.025.005	M3X35	200	24520.030.035	M4X6	200	24520.040.006
M2,5X6	200	24520.025.006	M3X40	200	24520.030.040	M4X8	200	24520.040.008
M2,5X8	200	24520.025.008	M3X45	200	24520.030.045	M4X10	200	24520.040.010
M2,5X10	200	24520.025.010	M3X50	200	24520.030.050	M4X12	200	24520.040.012
M2,5X12	200	24520.025.012	M3X60	200	24520.030.060	M4X14	200	24520.040.014
M2,5X16	200	24520.025.016	M3X70	200	24520.030.070	M4X16	200	24520.040.016
M2,5X20	200	24520.025.020				M4X18	200	24520.040.018
M2,5X25	200	24520.025.025	M3,5X6	200	24520.035.006	M4X20	200	24520.040.020
M2,5X30	200	24520.025.030	M3,5X8	200	24520.035.008	M4X25	200	24520.040.025

24520 Parafuso cabeça cilindrica fenda

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X30	200	24520.040.030	M5X100	100	24520.050.100	M8X60	100	24520.080.060
M4X35	200	24520.040.035				M8X70	100	24520.080.070
M4X40	200	24520.040.040	M6X8	200	24520.060.008	M8X80	100	24520.080.080
M4X45	200	24520.040.045	M6X10	200	24520.060.010	M8X100	100	24520.080.100
M4X50	200	24520.040.050	M6X12	200	24520.060.012			
M4X55	200	24520.040.055	M6X16	200	24520.060.016	M10X16	100	24520.100.016
M4X60	200	24520.040.060	M6X20	200	24520.060.020	M10X20	100	24520.100.020
M4X65	200	24520.040.065	M6X25	200	24520.060.025	M10X25	100	24520.100.025
M4X70	200	24520.040.070	M6X30	200	24520.060.030	M10X30	100	24520.100.030
M4X80	200	24520.040.080	M6X35	200	24520.060.035	M10X35	100	24520.100.035
			M6X40	200	24520.060.040	M10X40	100	24520.100.040
M5X6	200	24520.050.006	M6X45	200	24520.060.045	M10X45	100	24520.100.045
M5X8	200	24520.050.008	M6X50	200	24520.060.050	M10X50	100	24520.100.050
M5X10	200	24520.050.010	M6X60	200	24520.060.060	M10X60	100	24520.100.060
M5X12	200	24520.050.012	M6X70	200	24520.060.070	M10X70	100	24520.100.070
M5X16	200	24520.050.016	M6X80	100	24520.060.080	M10X80	100	24520.100.080
M5X18	200	24520.050.018	M6X90	100	24520.060.090	M10X100	100	24520.100.100
M5X20	200	24520.050.020	M6X100	100	24520.060.100			
M5X25	200	24520.050.025				M12X20	100	24520.120.020
M5X30	200	24520.050.030	M8X10	200	24520.080.010	M12X25	100	24520.120.025
M5X35	200	24520.050.035	M8X12	200	24520.080.012	M12X30	100	24520.120.030
M5X40	200	24520.050.040	M8X16	200	24520.080.016	M12X35	100	24520.120.035
M5X45	200	24520.050.045	M8X20	200	24520.080.020	M12X40	100	24520.120.040
M5X50	200	24520.050.050	M8X25	200	24520.080.025	M12X50	100	24520.120.050
M5X55	100	24520.050.055	M8X30	200	24520.080.030	M12X60	50	24520.120.060
M5X60	200	24520.050.060	M8X35	200	24520.080.035	M12X70	50	24520.120.070
M5X70	200	24520.050.070	M8X40	200	24520.080.040	M12X80	50	24520.120.080
M5X80	100	24520.050.080	M8X45	200	24520.080.045			
M5X90	100	24520.050.090	M8X50	200	24520.080.050			

24510 Parafuso cabeça cilindrica fenda H01A

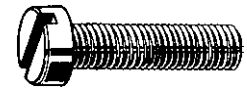
Rosca Métrica
Material Aço
Classe 4.8
Tratamento sup. Passivado a amarelo



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X6	500	24510.020.006	M4X6	500	24510.040.006	M5X60	200	24510.050.060
M2X8	500	24510.020.008	M4X8	500	24510.040.008	M5X70	200	24510.050.070
M2X10	500	24510.020.010	M4X10	500	24510.040.010	M5X80	200	24510.050.080
M2X12	500	24510.020.012	M4X12	500	24510.040.012			
M2X16	500	24510.020.016	M4X16	500	24510.040.016	M6X8	200	24510.060.008
			M4X20	500	24510.040.020	M6X10	200	24510.060.010
M2,5X6	500	24510.025.006	M4X25	500	24510.040.025	M6X12	200	24510.060.012
M2,5X8	500	24510.025.008	M4X30	500	24510.040.030	M6X16	200	24510.060.016
M2,5X10	500	24510.025.010	M4X35	500	24510.040.035	M6X20	200	24510.060.020
M2,5X12	500	24510.025.012	M4X40	500	24510.040.040	M6X25	200	24510.060.025
M2,5X16	500	24510.025.016	M4X45	500	24510.040.045	M6X30	200	24510.060.030
M2,5X20	500	24510.025.020	M4X50	500	24510.040.050	M6X35	200	24510.060.035
M2,5X25	500	24510.025.025	M4X60	200	24510.040.060	M6X40	200	24510.060.040
			M4X70	200	24510.040.070	M6X45	200	24510.060.045
M3X6	500	24510.030.006	M4X80	200	24510.040.080	M6X50	200	24510.060.050
M3X8	500	24510.030.008				M6X60	200	24510.060.060
M3X10	500	24510.030.010	M5X8	500	24510.050.008	M6X70	200	24510.060.070
M3X12	500	24510.030.012	M5X10	500	24510.050.010	M6X80	200	24510.060.080
M3X16	500	24510.030.016	M5X12	500	24510.050.012			
M3X20	500	24510.030.020	M5X16	500	24510.050.016	M8X16	200	24510.080.016
M3X25	500	24510.030.025	M5X20	500	24510.050.020	M8X20	200	24510.080.020
M3X30	500	24510.030.030	M5X25	500	24510.050.025	M8X25	200	24510.080.025
M3X35	500	24510.030.035	M5X30	500	24510.050.030	M8X30	200	24510.080.030
M3X40	500	24510.030.040	M5X35	500	24510.050.035	M8X35	200	24510.080.035
M3X50	500	24510.030.050	M5X40	500	24510.050.040	M8X40	200	24510.080.040
M3X60	500	24510.030.060	M5X45	200	24510.050.045	M8X50	200	24510.080.050
			M5X50	200	24510.050.050	M8X80	200	24510.080.080

24515 Parafuso cabeça cilindrica fenda H01A

Rosca Métrica
Material Aço
Classe 4.8
Tratamento sup. Passivado a preto



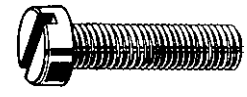
6

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X6	200	24515.020.006	M3X20	200	24515.030.020			
M2X8	200	24515.020.008	M3X25	200	24515.030.025	M5X6	200	24515.050.006
M2X10	200	24515.020.010	M3X30	200	24515.030.030	M5X8	200	24515.050.008
M2X12	200	24515.020.012				M5X10	200	24515.050.010
M2X16	200	24515.020.016	M4X6	200	24515.040.006	M5X12	200	24515.050.012
M2X20	200	24515.020.020	M4X8	200	24515.040.008	M5X16	200	24515.050.016
			M4X10	200	24515.040.010	M5X20	200	24515.050.020
M3X4	200	24515.030.004	M4X12	200	24515.040.012			
M3X6	200	24515.030.006	M4X16	200	24515.040.016	M6X8	200	24515.060.008
M3X8	200	24515.030.008	M4X20	200	24515.040.020	M6X10	200	24515.060.010
M3X10	200	24515.030.010	M4X25	200	24515.040.025	M6X16	200	24515.060.016
M3X12	200	24515.030.012	M4X30	200	24515.040.030	M6X20	200	24515.060.020
M3X16	200	24515.030.016						

24402 Parafuso cabeça cilindrica fenda — H07A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Zincado

RoHS

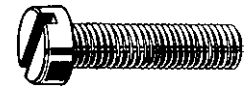


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X5	200	24402.020.005	M3X16	200	24402.030.016	M5X10	200	24402.050.010
M2X6	200	24402.020.006	M3X20	200	24402.030.020	M5X12	200	24402.050.012
M2X8	200	24402.020.008	M3X25	200	24402.030.025	M5X16	200	24402.050.016
M2X10	200	24402.020.010	M3X30	200	24402.030.030	M5X20	200	24402.050.020
M2X12	200	24402.020.012	M3X40	200	24402.030.040	M5X25	200	24402.050.025
M2X16	200	24402.020.016				M5X30	200	24402.050.030
M2X20	200	24402.020.020	M4X6	200	24402.040.006	M5X40	200	24402.050.040
			M4X8	200	24402.040.008	M5X50	200	24402.050.050
M2,5X5	200	24402.025.005	M4X10	200	24402.040.010			
M2,5X6	200	24402.025.006	M4X12	200	24402.040.012	M6X8	200	24402.060.008
M2,5X8	200	24402.025.008	M4X16	200	24402.040.016	M6X10	200	24402.060.010
M2,5X10	200	24402.025.010	M4X20	200	24402.040.020	M6X12	200	24402.060.012
			M4X25	200	24402.040.025	M6X16	200	24402.060.016
M3X5	200	24402.030.005	M4X30	200	24402.040.030	M6X20	200	24402.060.020
M3X6	200	24402.030.006	M4X40	200	24402.040.040	M6X25	200	24402.060.025
M3X8	200	24402.030.008	M4X50	200	24402.040.050	M6X30	200	24402.060.030
M3X10	200	24402.030.010				M6X40	200	24402.060.040
M3X12	200	24402.030.012	M5X8	200	24402.050.008			

51121 Parafuso cabeça cilindrica fenda — R02A

Rosca Métrica
Material Aço inoxidável A2

RoHS

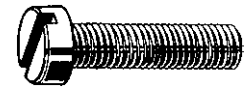


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X4	200	51121.020.004	M3X4	200	51121.030.004	M3X50	200	51121.030.050
M2X10	200	51121.020.010	M3X5	200	51121.030.005			
M2X20	200	51121.020.020	M3X6	200	51121.030.006	M4X6	200	51121.040.006
			M3X10	200	51121.030.010	M4X8	200	51121.040.008
M2,5X4	200	51121.025.004	M3X16	200	51121.030.016	M4X10	200	51121.040.010
M2,5X8	200	51121.025.008	M3X20	200	51121.030.020	M4X12	200	51121.040.012
M2,5X10	200	51121.025.010	M3X25	200	51121.030.025	M4X16	200	51121.040.016
M2,5X12	200	51121.025.012	M3X30	200	51121.030.030	M4X20	200	51121.040.020
			M3X40	200	51121.030.040			

51120 Parafuso cabeça cilindrica fenda — R02A

Rosca Métrica
Material Aço inoxidável A2

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M1X2*	1000	51120.010.002	M1X10	100	51120.010.010	M1,2X6	100	51120.012.006
M1X3	100	51120.010.003				M1,2X8	100	51120.012.008
M1X4	100	51120.010.004	M1,2X2*	1000	51120.012.002	M1,2X10	100	51120.012.010
M1X5	100	51120.010.005	M1,2X3	100	51120.012.003			
M1X6	100	51120.010.006	M1,2X4	100	51120.012.004	M1,4X3*	1000	51120.014.003
M1X8	100	51120.010.008	M1,2X5	100	51120.012.005	M1,4X4*	1000	51120.014.004

51120 Parafuso cabeça cilindrica fenda ←

d x L	✉	Ref. do artigo
M1,4X5*	1000	51120.014.005
M1,4X6*	1000	51120.014.006
M1,4X8*	1000	51120.014.008
M1,4X10*	1000	51120.014.010
M1,4X12*	1000	51120.014.012
M1,6X2*	1000	51120.016.002
M1,6X3	100	51120.016.003
M1,6X4	100	51120.016.004
M1,6X5	100	51120.016.005
M1,6X6	100	51120.016.006
M1,6X8	100	51120.016.008
M1,6X10	100	51120.016.010
M1,6X12	100	51120.016.012
M1,6X14*	1000	51120.016.014
M1,6X16*	1000	51120.016.016
M1,6X18*	1000	51120.016.018
M1,6X20*	1000	51120.016.020
M1,7X3*	1000	51120.017.003
M1,7X5*	1000	51120.017.005
M1,7X10*	1000	51120.017.010
M2X3	500	51120.020.003
M2X4	500	51120.020.004
M2X5	500	51120.020.005
M2X6	500	51120.020.006
M2X8	500	51120.020.008
M2X10	500	51120.020.010
M2X12	500	51120.020.012
M2X14*	1000	51120.020.014
M2X16	500	51120.020.016
M2X18*	1000	51120.020.018
M2X20	500	51120.020.020
M2X22*	500	51120.020.022
M2X25	500	51120.020.025
M2X30*	500	51120.020.030
M2X40*	500	51120.020.040
M2,3X3*	1000	51120.023.003
M2,3X4*	1000	51120.023.004
M2,3X10*	1000	51120.023.010
M2,3X20*	1000	51120.023.020
M2,5X3*	1000	51120.025.003
M2,5X4	500	51120.025.004
M2,5X5	500	51120.025.005
M2,5X6	500	51120.025.006
M2,5X8	500	51120.025.008
M2,5X10	500	51120.025.010
M2,5X12	500	51120.025.012
M2,5X14*	1000	51120.025.014
M2,5X16	500	51120.025.016
M2,5X18*	1000	51120.025.018
M2,5X20	500	51120.025.020
M2,5X22*	500	51120.025.022
M2,5X25	500	51120.025.025
M2,5X30*	500	51120.025.030
M2,5X35*	500	51120.025.035
M2,6X5*	1000	51120.026.005
M2,6X6*	1000	51120.026.006
M2,6X8*	1000	51120.026.008
M2,6X10*	1000	51120.026.010
M3X3*	500	51120.030.003
M3X4	500	51120.030.004
M3X5	500	51120.030.005
M3X6	500	51120.030.006
M3X8	500	51120.030.008
M3X10	500	51120.030.010
M3X12	500	51120.030.012
M3X14	500	51120.030.014
M3X16	500	51120.030.016
M3X18*	500	51120.030.018
M3X20	500	51120.030.020
M3X22*	500	51120.030.022
M3X25	500	51120.030.025
M3X28*	500	51120.030.028
M3X30	500	51120.030.030
M3X35	500	51120.030.035
M3X40	500	51120.030.040
M3X45*	200	51120.030.045
M3X50	500	51120.030.050
M3X55*	200	51120.030.055
M3X60	500	51120.030.060
M3,5X5*	500	51120.035.005
M3,5X6*	500	51120.035.006
M3,5X8*	500	51120.035.008
M3,5X10	500	51120.035.010
M3,5X12*	500	51120.035.012
M3,5X16*	500	51120.035.016
M3,5X20	500	51120.035.020
M3,5X25	500	51120.035.025
M3,5X30	500	51120.035.030
M3,5X35*	500	51120.035.035
M3,5X40*	500	51120.035.040
M3,5X50*	200	51120.035.050
M4X4*	500	51120.040.004
M4X5*	500	51120.040.005
M4X6	500	51120.040.006
M4X8	500	51120.040.008
M4X10	500	51120.040.010
M4X12	500	51120.040.012
M4X14*	500	51120.040.014
M4X16	500	51120.040.016
M4X18	500	51120.040.018
M4X20	500	51120.040.020
M4X22	200	51120.040.022
M4X25	200	51120.040.025
M4X30	200	51120.040.030
M4X35	200	51120.040.035
M4X40	200	51120.040.040
M4X45	200	51120.040.045
M4X50	200	51120.040.050
M4X55*	500	51120.040.055
M4X60	200	51120.040.060
M4X70	200	51120.040.070
M4X75*	200	51120.040.075
M4X80	200	51120.040.080
M4X90	200	51120.040.090
M4X100	200	51120.040.100
M5X6	200	51120.050.006
M5X8	200	51120.050.008
M5X10	200	51120.050.010
M5X12	200	51120.050.012
M5X14*	500	51120.050.014
M5X16	200	51120.050.016
M5X18*	500	51120.050.018
M5X20	200	51120.050.020
M5X22*	500	51120.050.022
M5X25	200	51120.050.025
M5X28*	500	51120.050.028
M5X30	200	51120.050.030
M5X35	200	51120.050.035
M5X40	200	51120.050.040
M5X45	200	51120.050.045
M5X50	200	51120.050.050
M5X55*	200	51120.050.055
M5X60	200	51120.050.060
M5X65*	200	51120.050.065
M5X70	200	51120.050.070
M5X80	200	51120.050.080
M5X90	200	51120.050.090
M5X100	200	51120.050.100
M6X6*	500	51120.060.006
M6X8	200	51120.060.008
M6X10	200	51120.060.010
M6X12	200	51120.060.012
M6X14*	500	51120.060.014
M6X16	200	51120.060.016
M6X18*	500	51120.060.018
M6X20	200	51120.060.020
M6X22*	200	51120.060.022
M6X25	200	51120.060.025
M6X30	200	51120.060.030
M6X35	100	51120.060.035
M6X40	100	51120.060.040
M6X45	100	51120.060.045
M6X50	100	51120.060.050
M6X55*	200	51120.060.055
M6X60	100	51120.060.060
M6X65*	200	51120.060.065
M6X70	100	51120.060.070
M6X75*	200	51120.060.075
M6X80	100	51120.060.080
M6X90	100	51120.060.090
M6X100	100	51120.060.100
M8X10*	200	51120.080.010
M8X12	100	51120.080.012
M8X16	100	51120.080.016
M8X20	100	51120.080.020
M8X25	100	51120.080.025
M8X30	100	51120.080.030
M8X35	100	51120.080.035
M8X40	100	51120.080.040
M8X45	100	51120.080.045
M8X50	100	51120.080.050
M8X60	100	51120.080.060
M8X70	50	51120.080.070
M8X80	50	51120.080.080
M8X90	50	51120.080.090
M8X100	50	51120.080.100
M10X16*	100	51120.100.016
M10X20	50	51120.100.020
M10X25	50	51120.100.025
M10X30	50	51120.100.030
M10X35*	100	51120.100.035
M10X40	50	51120.100.040
M10X45	50	51120.100.045
M10X50	50	51120.100.050
M10X60	50	51120.100.060
M10X70	50	51120.100.070
M10X80	50	51120.100.080
M10X90	50	51120.100.090
M10X100	50	51120.100.100

55120 Parafuso cabeça cilindrica fenda R42A

Rosca Métrica
Material Aço inoxidável A4

RoHS



d x L	✉	Ref. do artigo
M1X3*	1000	55120.010.003
M1X4*	1000	55120.010.004
M1X5*	1000	55120.010.005
M1,6X4*	1000	55120.016.004
M1,6X5*	1000	55120.016.005

6

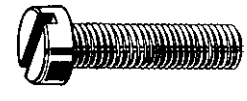
55120 Parafuso cabeça cilindrica fenda ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M1,6X6*	1000	55120.016.006	M3,5X5*	500	55120.035.005	M5X90	200	55120.050.090
M1,6X8*	1000	55120.016.008	M3,5X6*	500	55120.035.006	M5X100	200	55120.050.100
M1,6X10*	1000	55120.016.010	M3,5X8*	500	55120.035.008			
			M3,5X10*	500	55120.035.010	M6X8	200	55120.060.008
M2X3*	1000	55120.020.003	M3,5X12*	500	55120.035.012	M6X10	200	55120.060.010
M2X4*	1000	55120.020.004	M3,5X20*	500	55120.035.020	M6X12	200	55120.060.012
M2X5	500	55120.020.005	M3,5X30*	500	55120.035.030	M6X14*	500	55120.060.014
M2X6	500	55120.020.006	M3,5X35*	500	55120.035.035	M6X16	200	55120.060.016
M2X8	500	55120.020.008	M3,5X40*	500	55120.035.040	M6X18*	500	55120.060.018
M2X10	500	55120.020.010				M6X20	200	55120.060.020
M2X12	500	55120.020.012	M4X4*	500	55120.040.004	M6X22*	200	55120.060.022
M2X14*	1000	55120.020.014	M4X5*	500	55120.040.005	M6X25	200	55120.060.025
M2X16	500	55120.020.016	M4X6	500	55120.040.006	M6X30	200	55120.060.030
M2X20	500	55120.020.020	M4X8	500	55120.040.008	M6X35	100	55120.060.035
M2X25	500	55120.020.025	M4X10	500	55120.040.010	M6X40	100	55120.060.040
			M4X12	500	55120.040.012	M6X45	100	55120.060.045
M2,3X6*	1000	55120.023.006	M4X14*	500	55120.040.014	M6X50	100	55120.060.050
M2,3X10*	1000	55120.023.010	M4X16	500	55120.040.016	M6X55*	200	55120.060.055
			M4X18*	500	55120.040.018	M6X60	100	55120.060.060
M2,5X3*	1000	55120.025.003	M4X20	500	55120.040.020	M6X70	100	55120.060.070
M2,5X4*	1000	55120.025.004	M4X22*	500	55120.040.022	M6X80	100	55120.060.080
M2,5X5	500	55120.025.005	M4X25	200	55120.040.025	M6X90	100	55120.060.090
M2,5X6	500	55120.025.006	M4X28*	500	55120.040.028	M6X100	100	55120.060.100
M2,5X8	500	55120.025.008	M4X30	200	55120.040.030			
M2,5X10	500	55120.025.010	M4X35	200	55120.040.035	M8X10*	200	55120.080.010
M2,5X12	500	55120.025.012	M4X40	200	55120.040.040	M8X12*	200	55120.080.012
M2,5X14*	1000	55120.025.014	M4X45	200	55120.040.045	M8X16	100	55120.080.016
M2,5X16	500	55120.025.016	M4X50	200	55120.040.050	M8X20	100	55120.080.020
M2,5X18*	1000	55120.025.018	M4X60	200	55120.040.060	M8X25	100	55120.080.025
M2,5X20	500	55120.025.020	M4X70	200	55120.040.070	M8X30	100	55120.080.030
M2,5X25	500	55120.025.025	M4X80	200	55120.040.080	M8X35	100	55120.080.035
M2,5X30*	500	55120.025.030	M4X90	200	55120.040.090	M8X40	100	55120.080.040
			M4X100	200	55120.040.100	M8X45	100	55120.080.045
M3X3*	500	55120.030.003				M8X50	100	55120.080.050
M3X4	500	55120.030.004	M5X6*	500	55120.050.006	M8X60	100	55120.080.060
M3X5	500	55120.030.005	M5X8	200	55120.050.008	M8X70	50	55120.080.070
M3X6	500	55120.030.006	M5X10	200	55120.050.010	M8X80	50	55120.080.080
M3X8	500	55120.030.008	M5X12	200	55120.050.012	M8X90	50	55120.080.090
M3X10	500	55120.030.010	M5X14*	500	55120.050.014	M8X100	50	55120.080.100
M3X12	500	55120.030.012	M5X16	200	55120.050.016			
M3X14	500	55120.030.014	M5X18	200	55120.050.018	M10X16*	100	55120.100.016
M3X16	500	55120.030.016	M5X20	200	55120.050.020	M10X20	50	55120.100.020
M3X18	500	55120.030.018	M5X22*	500	55120.050.022	M10X25	50	55120.100.025
M3X20	500	55120.030.020	M5X25	200	55120.050.025	M10X30	50	55120.100.030
M3X22*	500	55120.030.022	M5X30	200	55120.050.030	M10X35	50	55120.100.035
M3X25	500	55120.030.025	M5X35	200	55120.050.035	M10X40	50	55120.100.040
M3X30	500	55120.030.030	M5X40	200	55120.050.040	M10X45	50	55120.100.045
M3X35	500	55120.030.035	M5X45	200	55120.050.045	M10X50	50	55120.100.050
M3X40	500	55120.030.040	M5X50	200	55120.050.050	M10X60	50	55120.100.060
M3X45*	200	55120.030.045	M5X55*	200	55120.050.055	M10X70	50	55120.100.070
M3X50	500	55120.030.050	M5X60	200	55120.050.060	M10X80	50	55120.100.080
M3X60	500	55120.030.060	M5X70	200	55120.050.070	M10X90	50	55120.100.090
			M5X80	200	55120.050.080	M10X100	50	55120.100.100

48020 Parafuso cabeça cilindrica fenda M05A

Rosca Métrica
Material Latão Cu2/Cu3

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X4	200	48020.020.004				M4X8	200	48020.040.008
M2X5	200	48020.020.005	M3X4	200	48020.030.004	M4X10	200	48020.040.010
M2X6	200	48020.020.006	M3X5	200	48020.030.005	M4X12	200	48020.040.012
M2X8	200	48020.020.008	M3X6	200	48020.030.006	M4X16	200	48020.040.016
M2X10	200	48020.020.010	M3X8	200	48020.030.008	M4X18	200	48020.040.018
M2X12	200	48020.020.012	M3X10	200	48020.030.010	M4X20	200	48020.040.020
M2X16	200	48020.020.016	M3X12	200	48020.030.012	M4X25	200	48020.040.025
M2X20	200	48020.020.020	M3X16	200	48020.030.016	M4X30	200	48020.040.030
			M3X20	200	48020.030.020	M4X35	200	48020.040.035
M2,5X5	200	48020.025.005	M3X25	200	48020.030.025	M4X40	200	48020.040.040
M2,5X6	200	48020.025.006	M3X30	200	48020.030.030	M4X50	200	48020.040.050
M2,5X8	200	48020.025.008	M3X35	200	48020.030.035	M4X60	200	48020.040.060
M2,5X10	200	48020.025.010	M3X40	200	48020.030.040			
M2,5X12	200	48020.025.012	M3X50	200	48020.030.050	M5X6	200	48020.050.006
M2,5X16	200	48020.025.016				M5X8	200	48020.050.008
M2,5X20	200	48020.025.020	M4X5	200	48020.040.005	M5X10	200	48020.050.010
M2,5X25	200	48020.025.025	M4X6	200	48020.040.006	M5X12	200	48020.050.012

48020 Parafuso cabeça cilindrica fenda

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X16	200	48020.050.016	M6X16	200	48020.060.016	M8X25	100	48020.080.025
M5X20	200	48020.050.020	M6X20	200	48020.060.020	M8X30	100	48020.080.030
M5X25	200	48020.050.025	M6X25	200	48020.060.025	M8X40	100	48020.080.040
M5X30	200	48020.050.030	M6X30	200	48020.060.030	M8X50	100	48020.080.050
M5X35	200	48020.050.035	M6X35	200	48020.060.035	M8X60	100	48020.080.060
M5X40	200	48020.050.040	M6X40	200	48020.060.040			
M5X45	200	48020.050.045	M6X45	200	48020.060.045	M10X20	100	48020.100.020
M5X50	200	48020.050.050	M6X50	200	48020.060.050	M10X25	100	48020.100.025
M5X60	200	48020.050.060	M6X60	100	48020.060.060	M10X30	100	48020.100.030
			M6X70	100	48020.060.070	M10X40	100	48020.100.040
M6X8	200	48020.060.008				M10X50	100	48020.100.050
M6X10	200	48020.060.010	M8X16	100	48020.080.016			
M6X12	200	48020.060.012	M8X20	100	48020.080.020			

48520 Parafuso cabeça cilindrica fenda M05A

Rosca Métrica
Material Latão Cu2/Cu3
Tratamento sup. Niquelado

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2,5X5	200	48520.025.005	M4X5	200	48520.040.005	M5X30	200	48520.050.030
M2,5X6	200	48520.025.006	M4X6	200	48520.040.006	M5X35	200	48520.050.035
M2,5X8	200	48520.025.008	M4X8	200	48520.040.008	M5X40	200	48520.050.040
M2,5X10	200	48520.025.010	M4X10	200	48520.040.010	M5X50	200	48520.050.050
M2,5X16	200	48520.025.016	M4X12	200	48520.040.012	M5X60	200	48520.050.060
M2,5X20	200	48520.025.020	M4X16	200	48520.040.016			
M2,5X25	200	48520.025.025	M4X20	200	48520.040.020	M6X8	200	48520.060.008
			M4X25	200	48520.040.025	M6X10	200	48520.060.010
M3X4	200	48520.030.004	M4X30	200	48520.040.030	M6X12	200	48520.060.012
M3X5	200	48520.030.005	M4X35	200	48520.040.035	M6X16	200	48520.060.016
M3X6	200	48520.030.006	M4X40	200	48520.040.040	M6X20	200	48520.060.020
M3X8	200	48520.030.008	M4X50	200	48520.040.050	M6X25	200	48520.060.025
M3X10	200	48520.030.010	M4X60	200	48520.040.060	M6X30	200	48520.060.030
M3X12	200	48520.030.012				M6X35	200	48520.060.035
M3X16	200	48520.030.016	M5X8	200	48520.050.008	M6X50	200	48520.060.050
M3X20	200	48520.030.020	M5X10	200	48520.050.010	M6X60	100	48520.060.060
M3X25	200	48520.030.025	M5X12	200	48520.050.012			
M3X30	200	48520.030.030	M5X16	200	48520.050.016	M8X20	100	48520.080.020
M3X35	200	48520.030.035	M5X20	200	48520.050.020	M8X35	100	48520.080.035
M3X50	200	48520.030.050	M5X25	200	48520.050.025	M8X60	100	48520.080.060

56410 Parafuso cabeça cilindrica fenda W02A

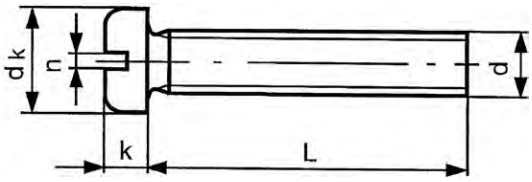
Rosca Métrica
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco

DIN ≈84
ISO ≈1207
NEN ≈1602
ASME ≈B18.6.7M
NF ≈E25-127
BS ≈4183

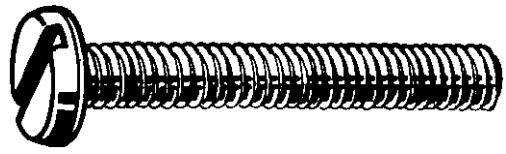


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X4	200	56410.030.004				M6X40	50	56410.060.040
M3X6	200	56410.030.006	M5X6	100	56410.050.006	M6X50	50	56410.060.050
M3X8	200	56410.030.008	M5X8	100	56410.050.008	M6X60	50	56410.060.060
M3X10	200	56410.030.010	M5X10	100	56410.050.010	M6X80	50	56410.060.080
M3X12	200	56410.030.012	M5X12	100	56410.050.012			
M3X16	200	56410.030.016	M5X16	100	56410.050.016	M8X10	25	56410.080.010
M3X20	200	56410.030.020	M5X20	100	56410.050.020	M8X16	25	56410.080.016
M3X25	200	56410.030.025	M5X25	100	56410.050.025	M8X20	25	56410.080.020
M3X30	200	56410.030.030	M5X30	100	56410.050.030	M8X25	25	56410.080.025
			M5X40	100	56410.050.040	M8X30	25	56410.080.030
M4X6	200	56410.040.006	M5X50	100	56410.050.050	M8X40	25	56410.080.040
M4X8	200	56410.040.008				M8X50	25	56410.080.050
M4X10	200	56410.040.010	M6X10	50	56410.060.010	M8X60	25	56410.080.060
M4X12	200	56410.040.012	M6X12	50	56410.060.012	M8X80	25	56410.080.080
M4X16	200	56410.040.016	M6X16	50	56410.060.016			
M4X20	200	56410.040.020	M6X20	50	56410.060.020	M10X20	25	56410.100.020
M4X25	200	56410.040.025	M6X25	50	56410.060.025	M10X30	25	56410.100.030
M4X30	200	56410.040.030	M6X30	50	56410.060.030	M10X40	25	56410.100.040
M4X40	200	56410.040.040						

Parafuso cabeça cilindrica baixa fenda



DIN	**85**
ISO	1580
NEN	1603
ASME	B18.6.7M
NF	E25-128
BS	4183



Dados técnicos

d	d_k	k	n	P	Rosca total C ≤
M1.6	3.2	1	0.5	0.35	16
M2 (≠DIN)	4	1.3	0.5	0.4	16
M2.5 (≠DIN)	5	1.5	0.6	0.45	16
M3	6	1.8	0.8	0.5	30
M3.5	7	2.1	1	0.6	38
M4	8	2.4	1.2	0.7	40
M5	10	3	1.2	0.8	40
M6	12	3.6	1.6	1	40
M8	16	4.8	2	1.25	40
M10	20	6	2.5	1.5	40

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Cor	Código	Página
M	Fenda	Aço	4.8	Zn		24640	6-16
M	Fenda	INOX A2				51140	6-16
M	Fenda	INOX A4				55140	6-17
M	Fenda	Latão Cu2/Cu3				48040	6-18
M	Fenda	Latão Cu2/Cu3		Niq.		48530	6-18
M	Fenda	Plástico PA	PA 6.6		Branco	56420	6-18

6

24640 Parafuso cabeça cilindrica baixa fenda — H01A

Rosca Métrica
Material Aço
Classe 4.8
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6	500	24640.030.006	M4X20	500	24640.040.020	M5X60	200	24640.050.060
M3X8	500	24640.030.008	M4X25	500	24640.040.025			
M3X10	500	24640.030.010	M4X30	500	24640.040.030	M6X8	200	24640.060.008
M3X12	500	24640.030.012	M4X40	500	24640.040.040	M6X10	200	24640.060.010
M3X16	500	24640.030.016				M6X12	200	24640.060.012
M3X20	500	24640.030.020	M5X6	500	24640.050.006	M6X16	200	24640.060.016
M3X25	500	24640.030.025	M5X8	500	24640.050.008	M6X20	200	24640.060.020
M3X30	500	24640.030.030	M5X10	500	24640.050.010	M6X25	200	24640.060.025
M3X40	500	24640.030.040	M5X12	500	24640.050.012	M6X30	200	24640.060.030
			M5X16	500	24640.050.016	M6X40	200	24640.060.040
M4X5	500	24640.040.005	M5X20	500	24640.050.020	M6X50	200	24640.060.050
M4X6	500	24640.040.006	M5X25	500	24640.050.025			
M4X8	500	24640.040.008	M5X30	500	24640.050.030	M8X16	200	24640.080.016
M4X10	500	24640.040.010	M5X40	500	24640.050.040	M8X20	200	24640.080.020
M4X12	500	24640.040.012	M5X50	200	24640.050.050	M8X25	200	24640.080.025
M4X16	500	24640.040.016						

51140 Parafuso cabeça cilindrica baixa fenda — R02A

Rosca Métrica
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M1,6X5*	1000	51140.016.005	M2X4*	1000	51140.020.004	M2X12*	1000	51140.020.012
M1,6X6*	1000	51140.016.006	M2X5*	1000	51140.020.005	M2X14*	1000	51140.020.014
M1,6X8*	1000	51140.016.008	M2X6	500	51140.020.006	M2X16*	1000	51140.020.016
			M2X8*	1000	51140.020.008	M2X18*	1000	51140.020.018
M2X3*	1000	51140.020.003	M2X10*	1000	51140.020.010	M2X20*	1000	51140.020.020

51140 Parafuso cabeça cilindrica baixa fenda ←

d x L	✉	Ref. do artigo
M2,5X3*	1000	51140.025.003
M2,5X4*	1000	51140.025.004
M2,5X5	500	51140.025.005
M2,5X6*	1000	51140.025.006
M2,5X8	500	51140.025.008
M2,5X10*	1000	51140.025.010
M2,5X12*	1000	51140.025.012
M2,5X14*	1000	51140.025.014
M2,5X16*	1000	51140.025.016
M2,5X20*	1000	51140.025.020
M2,5X25*	1000	51140.025.025
M3X4*	500	51140.030.004
M3X5	500	51140.030.005
M3X6	500	51140.030.006
M3X8	500	51140.030.008
M3X10	500	51140.030.010
M3X12	500	51140.030.012
M3X14*	500	51140.030.014
M3X16	500	51140.030.016
M3X20	500	51140.030.020
M3X25	500	51140.030.025
M3X30	500	51140.030.030
M3X35*	500	51140.030.035
M3X40	500	51140.030.040
M3X45*	500	51140.030.045
M3X50*	500	51140.030.050
M3,5X6*	500	51140.035.006
M3,5X8*	500	51140.035.008
M3,5X16*	500	51140.035.016
M4X5*	500	51140.040.005
M4X6	500	51140.040.006
M4X8	500	51140.040.008
M4X10	500	51140.040.010
M4X12	500	51140.040.012
M4X14*	500	51140.040.014
M4X16	500	51140.040.016
M4X20	500	51140.040.020
M4X22*	500	51140.040.022
M4X25	200	51140.040.025
M4X30	200	51140.040.030
M4X35	200	51140.040.035
M4X40	200	51140.040.040
M4X45*	500	51140.040.045
M4X50	200	51140.040.050
M4X60	200	51140.040.060
M5X6*	500	51140.050.006
M5X8	200	51140.050.008
M5X10	200	51140.050.010
M5X12	200	51140.050.012
M5X16	200	51140.050.016
M5X18*	500	51140.050.018
M5X20	200	51140.050.020
M5X25	200	51140.050.025
M5X30	200	51140.050.030
M5X35	200	51140.050.035
M5X40	200	51140.050.040
M5X45	200	51140.050.045
M5X50	200	51140.050.050
M5X60	200	51140.050.060
M5X70	200	51140.050.070
M5X80	200	51140.050.080
M5X100	200	51140.050.100
M6X8*	500	51140.060.008
M6X10	200	51140.060.010
M6X12	200	51140.060.012
M6X16	200	51140.060.016
M6X20	200	51140.060.020
M6X25	200	51140.060.025
M6X30	200	51140.060.030
M6X35	200	51140.060.035
M6X40	100	51140.060.040
M6X45	100	51140.060.045
M6X50	100	51140.060.050
M6X60	100	51140.060.060
M6X70	100	51140.060.070
M6X80	100	51140.060.080
M6X90	100	51140.060.090
M8X10	100	51140.080.010
M8X12	100	51140.080.012
M8X16*	200	51140.080.016
M8X20	100	51140.080.020
M8X25	100	51140.080.025
M8X30*	200	51140.080.030
M8X35	100	51140.080.035
M8X40	100	51140.080.040
M8X50	100	51140.080.050
M8X55*	100	51140.080.055
M8X60	50	51140.080.060
M8X90	50	51140.080.090
M8X100	50	51140.080.100

55140 Parafuso cabeça cilindrica baixa fenda R42A

Rosca Métrica
Material Aço inoxidável A4

RoHS



d x L	✉	Ref. do artigo
M2X3*	1000	55140.020.003
M2X4*	1000	55140.020.004
M2X5*	1000	55140.020.005
M2X6*	1000	55140.020.006
M2X8*	1000	55140.020.008
M2X10*	1000	55140.020.010
M2X20*	1000	55140.020.020
M2,5X6*	1000	55140.025.006
M2,5X8*	1000	55140.025.008
M2,5X10*	1000	55140.025.010
M2,5X12*	1000	55140.025.012
M3X4*	500	55140.030.004
M3X5	500	55140.030.005
M3X6	500	55140.030.006
M3X8	500	55140.030.008
M3X10	500	55140.030.010
M3X12	500	55140.030.012
M3X16	500	55140.030.016
M3X20	500	55140.030.020
M3X25	500	55140.030.025
M3X30	500	55140.030.030
M3X40*	500	55140.030.040
M3X50*	500	55140.030.050
M4X6	500	55140.040.006
M4X8	500	55140.040.008
M4X10	500	55140.040.010
M4X12*	500	55140.040.012
M4X16	500	55140.040.016
M4X20	500	55140.040.020
M4X25	200	55140.040.025
M4X30	200	55140.040.030
M4X35	200	55140.040.035
M4X40	200	55140.040.040
M4X45*	500	55140.040.045
M4X50*	500	55140.040.050
M5X6*	500	55140.050.006
M5X8	200	55140.050.008
M5X10	200	55140.050.010
M5X12	200	55140.050.012
M5X16	200	55140.050.016
M5X20	200	55140.050.020
M5X25	200	55140.050.025
M5X30	200	55140.050.030
M5X35*	500	55140.050.035
M5X40	200	55140.050.040
M5X45*	200	55140.050.045
M5X50	200	55140.050.050
M5X60	200	55140.050.060
M5X70*	200	55140.050.070
M5X80*	200	55140.050.080
M5X90*	200	55140.050.090
M6X8*	500	55140.060.008
M6X10	200	55140.060.010
M6X12	200	55140.060.012
M6X16	200	55140.060.016
M6X20	200	55140.060.020
M6X25	200	55140.060.025
M6X30	200	55140.060.030
M6X35	200	55140.060.035
M6X40	100	55140.060.040
M6X45*	200	55140.060.045
M6X50	100	55140.060.050
M6X60	100	55140.060.060
M6X70*	200	55140.060.070
M8X10*	200	55140.080.010
M8X12	100	55140.080.012
M8X16	100	55140.080.016
M8X20	100	55140.080.020
M8X25	100	55140.080.025
M8X30*	200	55140.080.030
M8X35	100	55140.080.035
M8X40*	200	55140.080.040
M8X50	100	55140.080.050

48040 Parafuso cabeça cilindrica baixa fenda — M05A

Rosca Métrica
Material Latão Cu2/Cu3



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X5	200	48040.030.005	M4X8	200	48040.040.008	M5X12	200	48040.050.012
M3X6	200	48040.030.006	M4X10	200	48040.040.010	M5X16	200	48040.050.016
M3X8	200	48040.030.008	M4X12	200	48040.040.012	M5X20	200	48040.050.020
M3X10	200	48040.030.010	M4X16	200	48040.040.016	M5X25	200	48040.050.025
M3X12	200	48040.030.012	M4X20	200	48040.040.020	M5X40	200	48040.050.040
M3X16	200	48040.030.016	M4X25	200	48040.040.025			
M3X20	200	48040.030.020	M4X40	200	48040.040.040	M6X10	200	48040.060.010
M3X25	200	48040.030.025				M6X12	200	48040.060.012
			M5X6	200	48040.050.006	M6X16	200	48040.060.016
M4X5	200	48040.040.005	M5X8	200	48040.050.008	M6X20	200	48040.060.020
M4X6	200	48040.040.006	M5X10	200	48040.050.010	M6X25	200	48040.060.025

48530 Parafuso cabeça cilindrica baixa fenda — M05A

Rosca Métrica
Material Latão Cu2/Cu3
Tratamento sup. Niquelado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2,5X10	200	48530.025.010	M3X25	200	48530.030.025			
M2,5X20	200	48530.025.020	M3X30	200	48530.030.030	M5X8	200	48530.050.008
M2,5X25	200	48530.025.025				M5X10	200	48530.050.010
			M4X6	200	48530.040.006	M5X12	200	48530.050.012
M3X5	200	48530.030.005	M4X8	200	48530.040.008	M5X25	200	48530.050.025
M3X6	200	48530.030.006	M4X10	200	48530.040.010			
M3X8	200	48530.030.008	M4X12	200	48530.040.012	M6X10	200	48530.060.010
M3X10	200	48530.030.010	M4X16	200	48530.040.016	M6X12	200	48530.060.012
M3X12	200	48530.030.012	M4X20	200	48530.040.020	M6X16	200	48530.060.016
M3X16	200	48530.030.016	M4X25	200	48530.040.025	M6X20	200	48530.060.020

56420 Parafuso cabeça cilindrica baixa fenda — W02A

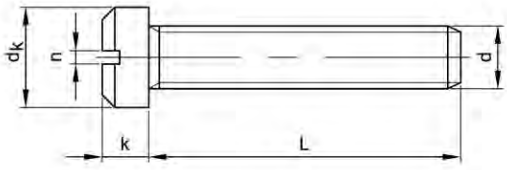
Rosca Métrica
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco

DIN ≈85
ISO ≈1580
NEN ≈1603
ASME ≈B18.6.7M
NF ≈E25-128
BS ≈4183

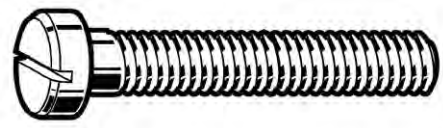


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X4	200	56420.030.004	M4X10	200	56420.040.010	M6X10	50	56420.060.010
M3X6	200	56420.030.006	M4X12	200	56420.040.012	M6X12	50	56420.060.012
M3X8	200	56420.030.008	M4X16	200	56420.040.016	M6X16	50	56420.060.016
M3X10	200	56420.030.010	M4X20	200	56420.040.020	M6X20	50	56420.060.020
M3X12	200	56420.030.012				M6X25	50	56420.060.025
M3X16	200	56420.030.016	M5X10	100	56420.050.010	M6X30	50	56420.060.030
M3X20	200	56420.030.020	M5X12	100	56420.050.012			
M3X25	200	56420.030.025	M5X16	100	56420.050.016	M8X10	25	56420.080.010
			M5X20	100	56420.050.020	M8X16	25	56420.080.016
M4X6	200	56420.040.006				M8X20	25	56420.080.020
M4X8	200	56420.040.008						

Parafuso cabeça cilíndrica reduzida com fenda



DIN 920



Dados técnicos

d	d_k (max.)	k (max.)	n	P
M2	2.8	1.2	0.3	0.4
M3	4	1.8	0.5	0.5
M4	5.5	2.4	0.6	0.7
M5	6.5	2.7	0.8	0.8
M6	8	3.1	1	1

51207 **Parafuso cabeça cilíndrica reduzida com fenda** **R09A**

Rosca Métrica
Material Aço inoxidável A2

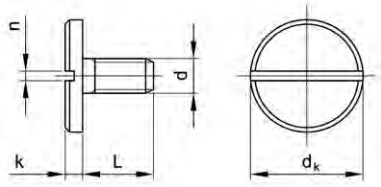


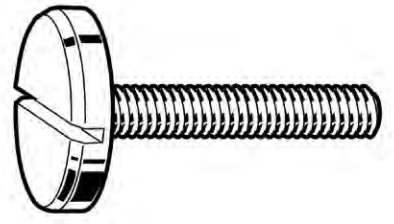
RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X4*	500	51207.020.004	M3X12*	500	51207.030.012	M5X5*	200	51207.050.005
M2X6*	500	51207.020.006	M3X16*	500	51207.030.016	M5X6*	200	51207.050.006
M2X8*	500	51207.020.008				M5X8*	200	51207.050.008
M2X10*	500	51207.020.010	M4X4*	500	51207.040.004	M5X10*	200	51207.050.010
			M4X6*	500	51207.040.006	M5X12*	200	51207.050.012
M3X4*	500	51207.030.004	M4X8*	500	51207.040.008	M5X16*	200	51207.050.016
M3X5*	500	51207.030.005	M4X10*	500	51207.040.010	M5X20*	200	51207.050.020
M3X6*	500	51207.030.006	M4X12*	500	51207.040.012			
M3X8*	500	51207.030.008	M4X16*	500	51207.040.016	M6X8*	200	51207.060.008
M3X10*	500	51207.030.010				M6X10*	200	51207.060.010

Parafuso cabeça larga com fenda

DIN 921



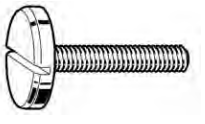


Dados técnicos

d	d_k (max.)	k (max.)	n	P
M2	6	1.2	0.5	0.4
M3	8	1.8	0.8	0.5
M4	12	2.4	1	0.7
M5	16	2.7	1.2	0.8
M6	20	3.1	1.6	1

51208 **Parafuso cabeça larga com fenda** **R09A**

Rosca Métrica
Material Aço inoxidável A2

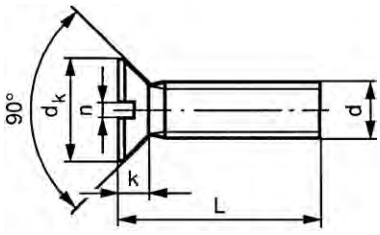


RoHS

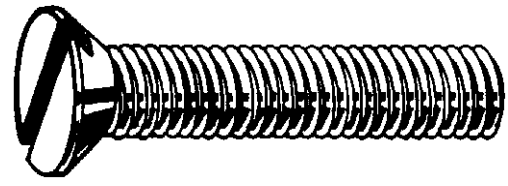
6

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X2*	100	51208.020.002				M5X12*	100	51208.050.012
M2X3*	100	51208.020.003	M4X5*	100	51208.040.005	M5X16*	100	51208.050.016
M2X4*	100	51208.020.004	M4X6*	100	51208.040.006	M5X20*	100	51208.050.020
M2X5*	100	51208.020.005	M4X8*	100	51208.040.008			
			M4X10*	100	51208.040.010	M6X8*	50	51208.060.008
M3X4*	100	51208.030.004	M4X12*	100	51208.040.012	M6X10*	50	51208.060.010
M3X5*	100	51208.030.005	M4X16*	100	51208.040.016	M6X12*	50	51208.060.012
M3X6*	100	51208.030.006				M6X16*	50	51208.060.016
M3X8*	100	51208.030.008	M5X6*	100	51208.050.006	M6X20*	50	51208.060.020
M3X10*	100	51208.030.010	M5X8*	100	51208.050.008	M6X25*	50	51208.060.025
M3X12*	100	51208.030.012	M5X10*	100	51208.050.010			

Parafuso cabeça embeber fenda



DIN	**963**
ISO	2009
NEN	2370
ASME	B18.6.7M
NF	E25-123
BS	4183



Dados técnicos

d	d_k	k (max.)	n	P	Rosca total C ≤
M1	1.9	0.6	0.25	0.25	5
M1.2	2.4	0.72	0.3	0.25	5
M1.4	2.6	0.84	0.3	0.3	16
M1.6	3	0.96	0.4	0.35	16
M2	3.8	1.2	0.5	0.4	18
M2.5	4.7	1.5	0.6	0.45	20
M3	5.6	1.65	0.8	0.5	22
M3.5	6.5	1.93	0.8	0.6	25
M4	7.5	2.2	1	0.7	25
M5	9.2	2.5	1.2	0.8	30
M6	11	3	1.6	1	35
M8	14.5	4	2	1.25	40
M10	18	5	2.5	1.5	50
M12	22	6	3	1.75	60
M14	25	7	3	2	60
M16	29	8	4	2	70
M18	33	9	4	2.5	80
M20	36	10	5	2.5	80

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Cor	Código	Página
M	Fenda	Aço	4.8	Zn		24540	6-21
M	Fenda	Aço	4.8	Passiv. amar.		24560	6-22
M	Fenda	Aço	4.8	Passiv. preto		24565	6-22
M	Fenda	Aço	8.8	Zn		24412	6-23
M	Fenda	INOX A2				51111	6-23
M	Fenda	INOX A2		Embalagem grande		51110	6-23
M	Fenda	INOX A4				55110	6-25
M	Fenda	Latão Cu2/Cu3				48170	6-25
M	Fenda	Latão Cu2/Cu3		Niq.		48550	6-26
M	Fenda	Plástico PA	PA 6.6		Branco	56440	6-26

24540 **Parafuso cabeça embeber fenda** **H01A**

Rosca	Métrica
Material	Aço
Classe	4.8
Tratamento sup.	Zincado

RoHS



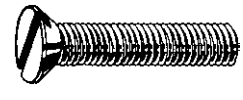
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X4	200	24540.020.004	M2,5X16	200	24540.025.016	M3X50	200	24540.030.050
M2X5	200	24540.020.005	M2,5X20	200	24540.025.020	M3X60	200	24540.030.060
M2X6	200	24540.020.006	M2,5X25	200	24540.025.025	M3X70	200	24540.030.070
M2X8	200	24540.020.008	M2,5X30	200	24540.025.030	M3X100	200	24540.030.100
M2X10	200	24540.020.010						
M2X12	200	24540.020.012	M3X4	200	24540.030.004	M3,5X6	200	24540.035.006
M2X16	200	24540.020.016	M3X5	200	24540.030.005	M3,5X8	200	24540.035.008
M2X20	200	24540.020.020	M3X6	200	24540.030.006	M3,5X10	200	24540.035.010
M2X25	200	24540.020.025	M3X8	200	24540.030.008	M3,5X12	200	24540.035.012
M2X30	200	24540.020.030	M3X10	200	24540.030.010	M3,5X16	200	24540.035.016
			M3X12	200	24540.030.012	M3,5X20	200	24540.035.020
M2,5X4	200	24540.025.004	M3X16	200	24540.030.016	M3,5X25	200	24540.035.025
M2,5X5	200	24540.025.005	M3X20	200	24540.030.020	M3,5X30	200	24540.035.030
M2,5X6	200	24540.025.006	M3X25	200	24540.030.025	M3,5X40	200	24540.035.040
M2,5X8	200	24540.025.008	M3X30	200	24540.030.030			
M2,5X10	200	24540.025.010	M3X35	200	24540.030.035	M4X6	200	24540.040.006
M2,5X12	200	24540.025.012	M3X40	200	24540.030.040	M4X8	200	24540.040.008
M2,5X14	200	24540.025.014	M3X45	200	24540.030.045	M4X10	200	24540.040.010

24540 Parafuso cabeça embeber fenda ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X12	200	24540.040.012	M6X16	200	24540.060.016	M10X35	100	24540.100.035
M4X16	200	24540.040.016	M6X18	200	24540.060.018	M10X40	100	24540.100.040
M4X20	200	24540.040.020	M6X20	200	24540.060.020	M10X45	100	24540.100.045
M4X25	200	24540.040.025	M6X25	200	24540.060.025	M10X50	100	24540.100.050
M4X30	200	24540.040.030	M6X30	200	24540.060.030	M10X60	100	24540.100.060
M4X35	200	24540.040.035	M6X35	200	24540.060.035	M10X70	100	24540.100.070
M4X40	200	24540.040.040	M6X40	200	24540.060.040	M10X80	100	24540.100.080
M4X45	200	24540.040.045	M6X45	200	24540.060.045	M10X100	100	24540.100.100
M4X50	200	24540.040.050	M6X50	200	24540.060.050			
M4X55	500	24540.040.055	M6X55	200	24540.060.055	M12X20	100	24540.120.020
M4X60	200	24540.040.060	M6X60	200	24540.060.060	M12X25	100	24540.120.025
M4X70	200	24540.040.070	M6X70	200	24540.060.070	M12X30	100	24540.120.030
M4X80	200	24540.040.080	M6X75	100	24540.060.075	M12X35	100	24540.120.035
M4X100	200	24540.040.100	M6X80	100	24540.060.080	M12X40	100	24540.120.040
			M6X90	100	24540.060.090	M12X50	100	24540.120.050
M5X6	200	24540.050.006	M6X100	100	24540.060.100	M12X60	100	24540.120.060
M5X8	200	24540.050.008				M12X70	100	24540.120.070
M5X10	200	24540.050.010	M8X10	200	24540.080.010	M12X80	100	24540.120.080
M5X12	200	24540.050.012	M8X12	200	24540.080.012	M12X100	100	24540.120.100
M5X16	200	24540.050.016	M8X16	200	24540.080.016			
M5X20	200	24540.050.020	M8X20	200	24540.080.020	M16X30	50	24540.160.030
M5X25	200	24540.050.025	M8X25	200	24540.080.025	M16X35	50	24540.160.035
M5X30	200	24540.050.030	M8X30	200	24540.080.030	M16X40	50	24540.160.040
M5X35	200	24540.050.035	M8X35	200	24540.080.035	M16X45	50	24540.160.045
M5X40	200	24540.050.040	M8X40	200	24540.080.040	M16X50	50	24540.160.050
M5X45	200	24540.050.045	M8X45	200	24540.080.045	M16X60	50	24540.160.060
M5X50	200	24540.050.050	M8X50	200	24540.080.050	M16X70	50	24540.160.070
M5X55	200	24540.050.055	M8X60	100	24540.080.060	M16X80	50	24540.160.080
M5X60	200	24540.050.060	M8X70	100	24540.080.070	M16X90	50	24540.160.090
M5X70	200	24540.050.070	M8X80	100	24540.080.080	M16X100	50	24540.160.100
M5X80	100	24540.050.080	M8X90	100	24540.080.090			
M5X90	100	24540.050.090	M8X100	100	24540.080.100	M20X40	50	24540.200.040
M5X100	100	24540.050.100				M20X50	50	24540.200.050
			M10X16	200	24540.100.016	M20X60	25	24540.200.060
M6X8	200	24540.060.008	M10X20	200	24540.100.020	M20X70	25	24540.200.070
M6X10	200	24540.060.010	M10X25	200	24540.100.025			
M6X12	200	24540.060.012	M10X30	200	24540.100.030			

24560 Parafuso cabeça embeber fenda H01A

Rosca Métrica
Material Aço
Classe 4.8
Tratamento sup. Passivado a amarelo



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X5	500	24560.030.005	M4X20	500	24560.040.020	M6X10	200	24560.060.010
M3X6	500	24560.030.006	M4X25	500	24560.040.025	M6X12	200	24560.060.012
M3X8	500	24560.030.008	M4X30	500	24560.040.030	M6X16	200	24560.060.016
M3X10	500	24560.030.010	M4X40	500	24560.040.040	M6X20	200	24560.060.020
M3X12	500	24560.030.012	M4X50	500	24560.040.050	M6X25	200	24560.060.025
M3X16	500	24560.030.016	M4X60	500	24560.040.060	M6X30	200	24560.060.030
M3X20	500	24560.030.020				M6X40	200	24560.060.040
M3X25	500	24560.030.025	M5X8	500	24560.050.008	M6X50	200	24560.060.050
M3X30	500	24560.030.030	M5X10	500	24560.050.010	M6X60	200	24560.060.060
M3X40	500	24560.030.040	M5X12	500	24560.050.012	M6X70	200	24560.060.070
M3X50	500	24560.030.050	M5X16	500	24560.050.016	M6X80	200	24560.060.080
M3X60	500	24560.030.060	M5X20	500	24560.050.020			
			M5X25	500	24560.050.025	M8X16	200	24560.080.016
M4X6	500	24560.040.006	M5X30	500	24560.050.030	M8X20	200	24560.080.020
M4X8	500	24560.040.008	M5X40	500	24560.050.040	M8X25	200	24560.080.025
M4X10	500	24560.040.010	M5X50	500	24560.050.050	M8X30	200	24560.080.030
M4X12	500	24560.040.012	M5X60	500	24560.050.060	M8X40	200	24560.080.040
M4X16	500	24560.040.016				M8X50	200	24560.080.050

24565 Parafuso cabeça embeber fenda H01A

Rosca Métrica
Material Aço
Classe 4.8
Tratamento sup. Passivado a preto



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X6	200	24565.020.006	M3X8	200	24565.030.008	M3X16	200	24565.030.016
			M3X10	200	24565.030.010	M3X20	200	24565.030.020
M3X6	200	24565.030.006	M3X12	200	24565.030.012			

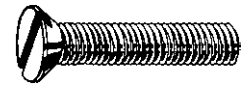
24565 Parafuso cabeça embeber fenda ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X6	200	24565.040.006	M5X20	200	24565.050.020	M8X20	200	24565.080.020
M4X8	200	24565.040.008	M5X25	200	24565.050.025	M8X25	200	24565.080.025
M4X10	200	24565.040.010	M5X35	200	24565.050.035	M8X30	200	24565.080.030
M4X12	200	24565.040.012				M8X35	200	24565.080.035
M4X16	200	24565.040.016	M6X20	200	24565.060.020	M8X40	200	24565.080.040
M4X20	200	24565.040.020	M6X25	200	24565.060.025	M8X50	200	24565.080.050
M4X25	200	24565.040.025	M6X30	200	24565.060.030			
M4X30	200	24565.040.030	M6X40	200	24565.060.040	M10X20	200	24565.100.020
			M6X50	200	24565.060.050	M10X30	200	24565.100.030
M5X10	200	24565.050.010				M10X40	100	24565.100.040
M5X12	200	24565.050.012	M8X12	200	24565.080.012	M10X50	100	24565.100.050
M5X16	200	24565.050.016	M8X16	200	24565.080.016			

24412 Parafuso cabeça embeber fenda H07A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Zincado

RoHS

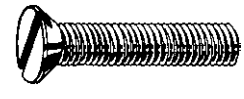


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2,5X6	200	24412.025.006	M3X30	200	24412.030.030	M5X20	200	24412.050.020
M2,5X8	200	24412.025.008				M5X25	200	24412.050.025
M2,5X10	200	24412.025.010	M4X6	200	24412.040.006	M5X30	200	24412.050.030
M2,5X12	200	24412.025.012	M4X8	200	24412.040.008	M5X40	200	24412.050.040
M2,5X16	200	24412.025.016	M4X10	200	24412.040.010			
			M4X12	200	24412.040.012	M6X10	200	24412.060.010
M3X5	200	24412.030.005	M4X16	200	24412.040.016	M6X12	200	24412.060.012
M3X6	200	24412.030.006	M4X20	200	24412.040.020	M6X16	200	24412.060.016
M3X8	200	24412.030.008	M4X30	200	24412.040.030	M6X20	200	24412.060.020
M3X10	200	24412.030.010				M6X25	200	24412.060.025
M3X12	200	24412.030.012	M5X8	200	24412.050.008	M6X30	200	24412.060.030
M3X16	200	24412.030.016	M5X10	200	24412.050.010	M6X40	200	24412.060.040
M3X20	200	24412.030.020	M5X12	200	24412.050.012			
M3X25	200	24412.030.025	M5X16	200	24412.050.016			

51111 Parafuso cabeça embeber fenda R02A

Rosca Métrica
Material Aço inoxidável A2

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X10	200	51111.020.010	M3X6	200	51111.030.006			
M2X16	200	51111.020.016	M3X8	200	51111.030.008	M4X6	200	51111.040.006
			M3X10	200	51111.030.010	M4X8	200	51111.040.008
M2,5X4	200	51111.025.004	M3X12	200	51111.030.012	M4X10	200	51111.040.010
M2,5X5	200	51111.025.005	M3X16	200	51111.030.016	M4X12	200	51111.040.012
M2,5X16	200	51111.025.016	M3X20	200	51111.030.020	M4X16	200	51111.040.016
M2,5X20	200	51111.025.020	M3X25	200	51111.030.025	M4X20	200	51111.040.020
			M3X30	200	51111.030.030			
M3X4	200	51111.030.004	M3X40	200	51111.030.040			

51110 Parafuso cabeça embeber fenda R02A

Rosca Métrica
Material Aço inoxidável A2

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M1X2*	1000	51110.010.002	M1,2X5*	1000	51110.012.005			
M1X3*	1000	51110.010.003	M1,2X6*	1000	51110.012.006	M1,6X2*	1000	51110.016.002
M1X4*	1000	51110.010.004	M1,2X8*	1000	51110.012.008	M1,6X3*	1000	51110.016.003
M1X5*	1000	51110.010.005				M1,6X4	100	51110.016.004
M1X6*	1000	51110.010.006	M1,4X3*	1000	51110.014.003	M1,6X5	100	51110.016.005
M1X8*	1000	51110.010.008	M1,4X4*	1000	51110.014.004	M1,6X6	100	51110.016.006
M1X10*	1000	51110.010.010	M1,4X5*	1000	51110.014.005	M1,6X8	100	51110.016.008
			M1,4X6*	1000	51110.014.006	M1,6X10	100	51110.016.010
M1,2X2*	1000	51110.012.002	M1,4X8*	1000	51110.014.008	M1,6X12	100	51110.016.012
M1,2X3*	1000	51110.012.003	M1,4X10*	1000	51110.014.010	M1,6X14*	1000	51110.016.014
M1,2X4*	1000	51110.012.004	M1,4X12*	1000	51110.014.012	M1,6X16*	1000	51110.016.016

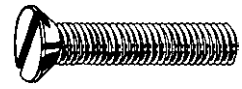
6

51110 Parafuso cabeça embeber fenda ←

d x L	✉	Ref. do artigo
M2X3*	1000	51110.020.003
M2X4	500	51110.020.004
M2X5	500	51110.020.005
M2X6	500	51110.020.006
M2X8	500	51110.020.008
M2X10	500	51110.020.010
M2X12	500	51110.020.012
M2X14*	1000	51110.020.014
M2X16	500	51110.020.016
M2X18*	1000	51110.020.018
M2X20	500	51110.020.020
M2X22*	500	51110.020.022
M2X25	500	51110.020.025
M2X28*	500	51110.020.028
M2X30*	500	51110.020.030
M2X35*	500	51110.020.035
M2X40*	500	51110.020.040
M2,5X4	500	51110.025.004
M2,5X5	500	51110.025.005
M2,5X6	500	51110.025.006
M2,5X8	500	51110.025.008
M2,5X10	500	51110.025.010
M2,5X12	500	51110.025.012
M2,5X14*	1000	51110.025.014
M2,5X16	500	51110.025.016
M2,5X20	500	51110.025.020
M2,5X25*	500	51110.025.025
M2,5X30*	500	51110.025.030
M3X3*	500	51110.030.003
M3X4	500	51110.030.004
M3X5*	500	51110.030.005
M3X6	500	51110.030.006
M3X8	500	51110.030.008
M3X10	500	51110.030.010
M3X12	500	51110.030.012
M3X14*	500	51110.030.014
M3X16	500	51110.030.016
M3X18*	500	51110.030.018
M3X20	500	51110.030.020
M3X22*	500	51110.030.022
M3X25	500	51110.030.025
M3X30	500	51110.030.030
M3X35	500	51110.030.035
M3X40	500	51110.030.040
M3X45*	200	51110.030.045
M3X50*	200	51110.030.050
M3X60*	200	51110.030.060
M3,5X6*	500	51110.035.006
M3,5X8*	500	51110.035.008
M3,5X10	500	51110.035.010
M3,5X12*	500	51110.035.012
M3,5X16*	500	51110.035.016
M3,5X20*	500	51110.035.020
M3,5X30*	500	51110.035.030
M4X5*	500	51110.040.005
M4X6	500	51110.040.006
M4X8	500	51110.040.008
M4X10	500	51110.040.010
M4X12	500	51110.040.012
M4X14*	500	51110.040.014
M4X16	500	51110.040.016
M4X18*	500	51110.040.018
M4X20	500	51110.040.020
M4X22*	500	51110.040.022
M4X25	200	51110.040.025
M4X30	200	51110.040.030
M4X35	200	51110.040.035
M4X40	200	51110.040.040
M4X45	200	51110.040.045
M4X50	200	51110.040.050
M4X55*	500	51110.040.055
M4X60	200	51110.040.060
M4X70	200	51110.040.070
M4X80	200	51110.040.080
M4X100*	200	51110.040.100
M5X6*	500	51110.050.006
M5X8	200	51110.050.008
M5X10	200	51110.050.010
M5X12	200	51110.050.012
M5X14*	500	51110.050.014
M5X16	200	51110.050.016
M5X18*	500	51110.050.018
M5X20	200	51110.050.020
M5X22*	500	51110.050.022
M5X25	200	51110.050.025
M5X28*	500	51110.050.028
M5X30	200	51110.050.030
M5X35	200	51110.050.035
M5X40	200	51110.050.040
M5X45	200	51110.050.045
M5X50	200	51110.050.050
M5X55	200	51110.050.055
M5X60	200	51110.050.060
M5X65*	200	51110.050.065
M5X70	200	51110.050.070
M5X80	200	51110.050.080
M5X90*	200	51110.050.090
M5X100	200	51110.050.100
M5X120*	200	51110.050.120
M6X8	200	51110.060.008
M6X10	200	51110.060.010
M6X12	200	51110.060.012
M6X14	200	51110.060.014
M6X16	200	51110.060.016
M6X18	200	51110.060.018
M6X20	200	51110.060.020
M6X22*	200	51110.060.022
M6X25	200	51110.060.025
M6X28*	200	51110.060.028
M6X30	200	51110.060.030
M6X35	100	51110.060.035
M6X40	100	51110.060.040
M6X45	100	51110.060.045
M6X50	100	51110.060.050
M6X55*	200	51110.060.055
M6X60	100	51110.060.060
M6X65	100	51110.060.065
M6X70	100	51110.060.070
M6X75	100	51110.060.075
M6X80	100	51110.060.080
M6X85	100	51110.060.085
M6X90	100	51110.060.090
M6X100	100	51110.060.100
M6X110*	200	51110.060.110
M6X120*	200	51110.060.120
M8X10	200	51110.080.010
M8X12	100	51110.080.012
M8X14*	200	51110.080.014
M8X16	100	51110.080.016
M8X18*	200	51110.080.018
M8X20	100	51110.080.020
M8X22*	200	51110.080.022
M8X25	100	51110.080.025
M8X30	100	51110.080.030
M8X35	100	51110.080.035
M8X40	100	51110.080.040
M8X45	100	51110.080.045
M8X50	100	51110.080.050
M8X55*	100	51110.080.055
M8X60	100	51110.080.060
M8X70	100	51110.080.070
M8X80	100	51110.080.080
M8X90	100	51110.080.090
M8X100	100	51110.080.100
M8X110*	100	51110.080.110
M8X120*	100	51110.080.120
M8X130*	100	51110.080.130
M8X140*	100	51110.080.140
M10X16*	100	51110.100.016
M10X20	50	51110.100.020
M10X25	50	51110.100.025
M10X30	50	51110.100.030
M10X35	50	51110.100.035
M10X40	50	51110.100.040
M10X45	50	51110.100.045
M10X50	50	51110.100.050
M10X55*	100	51110.100.055
M10X60	50	51110.100.060
M10X70	50	51110.100.070
M10X80	50	51110.100.080
M10X90	50	51110.100.090
M10X100	50	51110.100.100
M10X110*	50	51110.100.110
M10X120*	50	51110.100.120
M10X130*	50	51110.100.130
M12X20*	50	51110.120.020
M12X25	100	51110.120.025
M12X30*	50	51110.120.030
M12X35*	50	51110.120.035
M12X40*	50	51110.120.040
M12X45*	50	51110.120.045
M12X50*	50	51110.120.050
M12X55*	50	51110.120.055
M12X60*	50	51110.120.060
M12X70*	50	51110.120.070
M12X80*	50	51110.120.080
M12X90*	50	51110.120.090
M12X100*	50	51110.120.100
M12X120*	50	51110.120.120
M14X110*	25	51110.140.110
M14X120*	25	51110.140.120
M16X30*	25	51110.160.030
M16X35*	25	51110.160.035
M16X50*	25	51110.160.050
M16X55*	25	51110.160.055
M16X60*	25	51110.160.060
M16X70*	25	51110.160.070
M16X120*	10	51110.160.120
M16X150*	10	51110.160.150
M18X60*	25	51110.180.060
M18X80*	25	51110.180.080
M20X110*	10	51110.200.110
M20X120*	10	51110.200.120
M20X130*	10	51110.200.130

55110 Parafuso cabeça embeber fenda — R42A

Rosca Métrica
Material Aço inoxidável A4

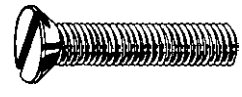


RoHS

d x L	✉	Ref. do artigo
M1X3*	1000	55110.010.003
M1X4*	1000	55110.010.004
M1X5*	1000	55110.010.005
M1,6X4*	1000	55110.016.004
M1,6X5*	1000	55110.016.005
M1,6X6*	1000	55110.016.006
M1,6X8*	1000	55110.016.008
M1,6X10*	1000	55110.016.010
M2X4*	1000	55110.020.004
M2X5	500	55110.020.005
M2X6	500	55110.020.006
M2X8	500	55110.020.008
M2X10	500	55110.020.010
M2X12	500	55110.020.012
M2X16	500	55110.020.016
M2X20	500	55110.020.020
M2,5X4*	1000	55110.025.004
M2,5X5	500	55110.025.005
M2,5X6	500	55110.025.006
M2,5X8	500	55110.025.008
M2,5X10	500	55110.025.010
M2,5X12	500	55110.025.012
M2,5X14*	1000	55110.025.014
M2,5X16	500	55110.025.016
M2,5X20	500	55110.025.020
M2,5X25*	500	55110.025.025
M3X4*	500	55110.030.004
M3X5*	500	55110.030.005
M3X6	500	55110.030.006
M3X8	500	55110.030.008
M3X10	500	55110.030.010
M3X12	500	55110.030.012
M3X14*	500	55110.030.014
M3X16	500	55110.030.016
M3X18*	500	55110.030.018
M3X20	500	55110.030.020
M3X25	500	55110.030.025
M3X30	500	55110.030.030
M3X35	500	55110.030.035
M3X40	500	55110.030.040
M3X45*	200	55110.030.045
M3X50*	200	55110.030.050
M3X60*	200	55110.030.060
M3,5X8*	500	55110.035.008
M4X5*	500	55110.040.005
M4X8	500	55110.040.008
M4X10	500	55110.040.010
M4X12	500	55110.040.012
M4X14*	500	55110.040.014
M4X16	500	55110.040.016
M4X18*	500	55110.040.018
M4X20	500	55110.040.020
M4X25	200	55110.040.025
M4X30	200	55110.040.030
M4X35	200	55110.040.035
M4X40	200	55110.040.040
M4X45	200	55110.040.045
M4X50	200	55110.040.050
M4X55*	500	55110.040.055
M4X60	200	55110.040.060
M4X70*	200	55110.040.070
M5X6	200	55110.050.006
M5X8	200	55110.050.008
M5X10	200	55110.050.010
M5X12	200	55110.050.012
M5X14*	500	55110.050.014
M5X16	200	55110.050.016
M5X18*	500	55110.050.018
M5X20	200	55110.050.020
M5X22*	500	55110.050.022
M5X25	200	55110.050.025
M5X30	200	55110.050.030
M5X35	200	55110.050.035
M5X40	200	55110.050.040
M5X45	200	55110.050.045
M5X50	200	55110.050.050
M5X55*	200	55110.050.055
M5X60	200	55110.050.060
M5X70	200	55110.050.070
M5X75*	200	55110.050.075
M5X80	200	55110.050.080
M5X90*	200	55110.050.090
M5X100*	200	55110.050.100
M6X8*	500	55110.060.008
M6X10	200	55110.060.010
M6X12	200	55110.060.012
M6X14*	500	55110.060.014
M6X16	200	55110.060.016
M6X18*	500	55110.060.018
M6X20	200	55110.060.020
M6X22*	200	55110.060.022
M6X25	200	55110.060.025
M6X30	200	55110.060.030
M6X35	100	55110.060.035
M6X40	100	55110.060.040
M6X45	100	55110.060.045
M6X50	100	55110.060.050
M6X55*	200	55110.060.055
M6X60	100	55110.060.060
M6X65*	200	55110.060.065
M6X70	100	55110.060.070
M6X80	100	55110.060.080
M6X90	100	55110.060.090
M6X100	100	55110.060.100
M6X110*	200	55110.060.110
M6X120*	200	55110.060.120
M8X10*	200	55110.080.010
M8X12*	200	55110.080.012
M8X16	100	55110.080.016
M8X20	100	55110.080.020
M8X25	100	55110.080.025
M8X30	100	55110.080.030
M8X35	100	55110.080.035
M8X40	100	55110.080.040
M8X45	100	55110.080.045
M8X50	100	55110.080.050
M8X55*	100	55110.080.055
M8X60	100	55110.080.060
M8X70	100	55110.080.070
M8X80	100	55110.080.080
M8X90	100	55110.080.090
M8X100	100	55110.080.100
M8X110*	100	55110.080.110
M8X120*	100	55110.080.120
M8X140*	100	55110.080.140
M10X16*	100	55110.100.016
M10X20	50	55110.100.020
M10X25	50	55110.100.025
M10X30	50	55110.100.030
M10X35	50	55110.100.035
M10X40	50	55110.100.040
M10X45*	100	55110.100.045
M10X50	50	55110.100.050
M10X55*	100	55110.100.055
M10X60	50	55110.100.060
M10X70	50	55110.100.070
M10X80	50	55110.100.080
M10X90	50	55110.100.090
M10X100	50	55110.100.100
M10X120*	50	55110.100.120
M10X140*	50	55110.100.140
M12X20	50	55110.120.020
M12X25	50	55110.120.025
M12X30	25	55110.120.030
M12X35*	50	55110.120.035
M12X40	25	55110.120.040
M12X45*	50	55110.120.045
M12X50	25	55110.120.050
M12X60	25	55110.120.060
M12X70	25	55110.120.070
M12X80	25	55110.120.080
M12X90	25	55110.120.090
M12X100*	50	55110.120.100
M12X120*	50	55110.120.120
M16X25*	25	55110.160.025
M16X35*	25	55110.160.035
M16X40*	25	55110.160.040
M16X45*	25	55110.160.045
M16X50*	25	55110.160.050
M16X60*	25	55110.160.060
M16X70*	25	55110.160.070
M16X80*	25	55110.160.080
M16X90*	25	55110.160.090
M16X100*	10	55110.160.100

48170 Parafuso cabeça embeber fenda — M05A

Rosca Métrica
Material Latão Cu2/Cu3



RoHS

d x L	✉	Ref. do artigo
M2X5	200	48170.020.005
M2X6	200	48170.020.006
M2X8	200	48170.020.008
M2X10	200	48170.020.010
M2X12	200	48170.020.012
M2X16	200	48170.020.016
M2X20	200	48170.020.020
M2,5X6	200	48170.025.006
M2,5X8	200	48170.025.008
M2,5X10	200	48170.025.010
M2,5X12	200	48170.025.012

6

48170 Parafuso cabeça embeber fenda

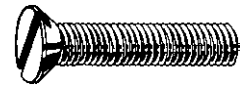
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2,5X16	200	48170.025.016	M5X12	200	48170.050.012	M8X40	100	48170.080.040
M2,5X20	200	48170.025.020	M5X16	200	48170.050.016	M8X50	100	48170.080.050
			M5X20	200	48170.050.020	M8X60	100	48170.080.060
M3X5	200	48170.030.005	M5X25	200	48170.050.025			
M3X6	200	48170.030.006	M5X30	200	48170.050.030	M10X16	100	48170.100.016
M3X8	200	48170.030.008	M5X35	200	48170.050.035	M10X20	100	48170.100.020
M3X10	200	48170.030.010	M5X40	200	48170.050.040	M10X25	100	48170.100.025
M3X12	200	48170.030.012	M5X50	200	48170.050.050	M10X30	100	48170.100.030
M3X16	200	48170.030.016				M10X35	100	48170.100.035
M3X20	200	48170.030.020	M6X8	200	48170.060.008	M10X40	100	48170.100.040
M3X25	200	48170.030.025	M6X10	200	48170.060.010	M10X45	100	48170.100.045
M3X30	200	48170.030.030	M6X12	200	48170.060.012	M10X50	100	48170.100.050
			M6X16	200	48170.060.016	M10X60	100	48170.100.060
M4X6	200	48170.040.006	M6X20	200	48170.060.020	M10X70	100	48170.100.070
M4X8	200	48170.040.008	M6X25	200	48170.060.025	M10X80	100	48170.100.080
M4X10	200	48170.040.010	M6X30	200	48170.060.030			
M4X12	200	48170.040.012	M6X35	200	48170.060.035	M12X20	100	48170.120.020
M4X16	200	48170.040.016	M6X40	200	48170.060.040	M12X25	100	48170.120.025
M4X20	200	48170.040.020	M6X50	200	48170.060.050	M12X30	100	48170.120.030
M4X25	200	48170.040.025	M6X60	100	48170.060.060	M12X35	100	48170.120.035
M4X30	200	48170.040.030	M6X70	100	48170.060.070	M12X40	100	48170.120.040
M4X35	200	48170.040.035				M12X50	100	48170.120.050
M4X40	200	48170.040.040	M8X16	100	48170.080.016	M12X60	100	48170.120.060
M4X50	200	48170.040.050	M8X20	100	48170.080.020	M12X70	100	48170.120.070
			M8X25	100	48170.080.025	M12X80	100	48170.120.080
M5X8	200	48170.050.008	M8X30	100	48170.080.030			
M5X10	200	48170.050.010	M8X35	100	48170.080.035			

6

48550 Parafuso cabeça embeber fenda — M05A

Rosca Métrica
Material Latão Cu2/Cu3
Tratamento sup. Niquelado

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2,5X10	200	48550.025.010	M4X20	200	48550.040.020			
M2,5X20	200	48550.025.020	M4X25	200	48550.040.025	M6X10	200	48550.060.010
			M4X30	200	48550.040.030	M6X16	200	48550.060.016
M3X6	200	48550.030.006	M4X35	200	48550.040.035	M6X20	200	48550.060.020
M3X8	200	48550.030.008	M4X50	200	48550.040.050	M6X30	200	48550.060.030
M3X10	200	48550.030.010				M6X40	200	48550.060.040
M3X12	200	48550.030.012	M5X8	200	48550.050.008	M6X50	200	48550.060.050
M3X16	200	48550.030.016	M5X10	200	48550.050.010	M6X60	100	48550.060.060
M3X20	200	48550.030.020	M5X12	200	48550.050.012	M6X80	100	48550.060.080
M3X25	200	48550.030.025	M5X16	200	48550.050.016			
M3X35	200	48550.030.035	M5X20	200	48550.050.020	M8X16	100	48550.080.016
M3X50	200	48550.030.050	M5X25	200	48550.050.025	M8X20	100	48550.080.020
			M5X30	200	48550.050.030	M8X25	100	48550.080.025
M4X8	200	48550.040.008	M5X35	200	48550.050.035	M8X50	100	48550.080.050
M4X10	200	48550.040.010	M5X40	200	48550.050.040	M8X70	100	48550.080.070
M4X12	200	48550.040.012	M5X60	200	48550.050.060	M8X80	100	48550.080.080
M4X16	200	48550.040.016	M5X70	200	48550.050.070			

56440 Parafuso cabeça embeber fenda — W02A

Rosca Métrica
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco

DIN **≈963**
ISO ≈2009
NEN ≈2370
ASME ≈B18.6.7M
NF ≈E25-123
BS ≈4183

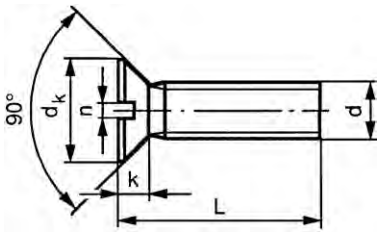


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X4	200	56440.030.004	M4X16	200	56440.040.016	M5X35	100	56440.050.035
M3X6	200	56440.030.006	M4X18	200	56440.040.018	M5X40	100	56440.050.040
M3X8	200	56440.030.008	M4X20	200	56440.040.020			
M3X10	200	56440.030.010	M4X25	200	56440.040.025	M6X8	100	56440.060.008
M3X12	200	56440.030.012	M4X30	200	56440.040.030	M6X10	50	56440.060.010
M3X16	200	56440.030.016	M4X35	200	56440.040.035	M6X16	50	56440.060.016
M3X20	200	56440.030.020				M6X20	50	56440.060.020
M3X25	200	56440.030.025	M5X8	100	56440.050.008	M6X25	50	56440.060.025
M3X30	200	56440.030.030	M5X10	100	56440.050.010	M6X30	50	56440.060.030
			M5X12	100	56440.050.012	M6X40	50	56440.060.040
M4X6	200	56440.040.006	M5X16	100	56440.050.016	M6X50	50	56440.060.050
M4X8	200	56440.040.008	M5X20	100	56440.050.020			
M4X10	200	56440.040.010	M5X25	100	56440.050.025	M8X20	25	56440.080.020
M4X12	200	56440.040.012	M5X30	100	56440.050.030	M8X25	25	56440.080.025

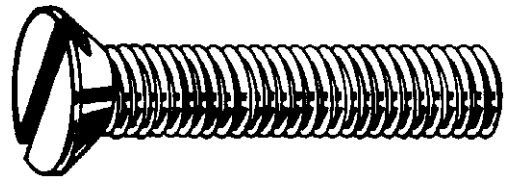
56440	Parafuso cabeça embeber fenda	←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M8X30	25	56440.080.030	M8X40	25	56440.080.040	M8X50	25	56440.080.050

Parafuso cabeça embeber fenda BSW



BS **≈450 (1958)**
NEN ≈1780 (1960)



Dados técnicos

d	d_k	Fios por polegada	k	n
1/8	5.5	40	1.4	0.8
5/32	7	32	1.8	0.9
3/16	8.3	24	2.2	1.1
1/4	11	20	2.8	1.3
5/16	13.5	18	3.4	1.5
3/8	16.5	16	4.2	1.8

- A rosca whitworth (BSW/BSF) não é internacionalmente recomendada.
- É aconselhado o uso de rosca métrica (M/MF).

6

Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
BSW	Fenda	Aço	4.8	24220	6-27
BSW	Fenda	Latão Cu2		48220	6-27

24220	Parafuso cabeça embeber fenda BSW	X07A

Rosca British Standard Whitworth
Material Aço
Classe 4.8



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
5/32X1/2	100	24220.039.012	3/16X1.1/2	100	24220.047.038	1/4X3 Inch	100	24220.063.076
5/32X5/8	100	24220.039.015	3/16X2 Inch	100	24220.047.050			
5/32X3/4	100	24220.039.019				5/16X5/8	100	24220.079.015
5/32X1 Inch	100	24220.039.025	1/4X3/8	100	24220.063.009	5/16X1 Inch	100	24220.079.025
5/32X1.1/4	100	24220.039.031	1/4X1/2	100	24220.063.012	5/16X1.3/4	50	24220.079.044
5/32X1.1/2	100	24220.039.038	1/4X5/8	100	24220.063.015	5/16X2 Inch	50	24220.079.050
			1/4X3/4	100	24220.063.019	5/16X2.1/2	50	24220.079.063
3/16X3/8	100	24220.047.009	1/4X1 Inch	100	24220.063.025			
3/16X1/2	100	24220.047.012	1/4X1.1/4	100	24220.063.031	3/8X1 Inch	100	24220.096.025
3/16X5/8	100	24220.047.015	1/4X1.1/2	100	24220.063.038	3/8X2 Inch	50	24220.096.050
3/16X3/4	100	24220.047.019	1/4X2 Inch	100	24220.063.050	3/8X2.1/2	50	24220.096.063
3/16X1 Inch	100	24220.047.025	1/4X2.1/2	100	24220.063.063	3/8X3 Inch	50	24220.096.076
3/16X1.1/4	100	24220.047.031						

48220	Parafuso cabeça embeber fenda BSW	X07A

Rosca British Standard Whitworth
Material Latão Cu2

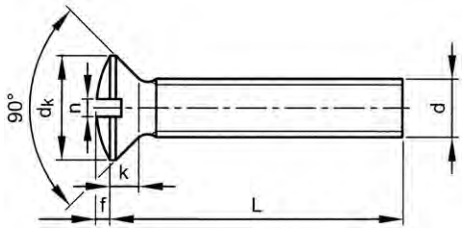


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/8X3/8	100	48220.031.009	5/32X3/4	100	48220.039.019	3/16X1 Inch	100	48220.047.025
1/8X1/2	100	48220.031.012	5/32X1 Inch	100	48220.039.025	3/16X1.1/4	100	48220.047.031
1/8X5/8	100	48220.031.015	5/32X1.1/4	100	48220.039.031	3/16X1.1/2	100	48220.047.038
1/8X3/4	100	48220.031.019				3/16X2 Inch	100	48220.047.050
1/8X1 Inch	100	48220.031.025	3/16X3/8	100	48220.047.009			
1/8X1.1/4	100	48220.031.031	3/16X1/2	100	48220.047.012	1/4X3/8	100	48220.063.009
			3/16X5/8	100	48220.047.015	1/4X1/2	100	48220.063.012
5/32X3/8	100	48220.039.009	3/16X3/4	100	48220.047.019	1/4X5/8	100	48220.063.015
5/32X1/2	100	48220.039.012						

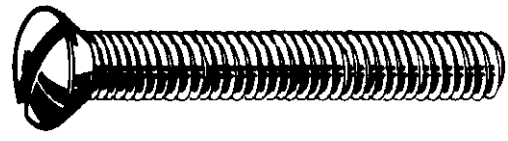
48220 **Parafuso cabeça embeber fenda BSW** ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/4X3/4	100	48220.063.019	5/16X5/8	100	48220.079.015	3/8X3/4	50	48220.096.019
1/4X1 Inch	100	48220.063.025	5/16X3/4	100	48220.079.019	3/8X1 Inch	50	48220.096.025
1/4X1.1/4	100	48220.063.031	5/16X1 Inch	100	48220.079.025	3/8X1.1/2	50	48220.096.038
1/4X1.1/2	100	48220.063.038	5/16X1.1/2	50	48220.079.038	3/8X2 Inch	50	48220.096.050
1/4X2 Inch	100	48220.063.050	5/16X2 Inch	50	48220.079.050	3/8X2.1/2	50	48220.096.063
1/4X2.1/2	50	48220.063.063	5/16X2.1/2	50	48220.079.063	3/8X3 Inch	50	48220.096.076
1/4X3 Inch	50	48220.063.076	5/16X3 Inch	50	48220.079.076			

Parafuso cabeça de lentilha fenda



DIN	**964**
ISO	2010
NEN	2371
ASME	B18.6.7M
NF	E25-124
BS	4183



Dados técnicos

d	d_k	f ≈	k (max.)	n	P	Rosca total C ≤
M2	3.8	0.5	1.2	0.5	0.4	16
M2.5	4.7	0.6	1.5	0.6	0.45	16
M3	5.6	0.75	1.65	0.8	0.5	20
M4	7.5	1	2.2	1	0.7	25
M5	9.2	1.25	2.5	1.2	0.8	30
M6	11	1.5	3	1.6	1	35
M8	14.5	2	4	2	1.25	40
M10	18	2.5	5	2.5	1.5	50

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Fenda	Aço	4.8	Zn	24570	6-28
M	Fenda	INOX A2			51210	6-29
M	Fenda	INOX A4			55210	6-29
M	Fenda	Latão Cu2/Cu3			48180	6-30
M	Fenda	Latão Cu2/Cu3		Niq.	48570	6-30

24570 **Parafuso cabeça de lentilha fenda** **H01A**

Rosca	Métrica
Material	Aço
Classe	4.8
Tratamento sup.	Zincado

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6	500	24570.030.006	M4X40	500	24570.040.040	M6X12	200	24570.060.012
M3X8	500	24570.030.008	M4X50	500	24570.040.050	M6X16	200	24570.060.016
M3X10	500	24570.030.010	M4X60	200	24570.040.060	M6X20	200	24570.060.020
M3X12	500	24570.030.012				M6X25	200	24570.060.025
M3X16	500	24570.030.016	M5X8	500	24570.050.008	M6X30	200	24570.060.030
M3X20	500	24570.030.020	M5X10	500	24570.050.010	M6X35	200	24570.060.035
M3X25	500	24570.030.025	M5X12	500	24570.050.012	M6X40	200	24570.060.040
M3X30	500	24570.030.030	M5X16	500	24570.050.016	M6X50	200	24570.060.050
M3X40	500	24570.030.040	M5X20	500	24570.050.020	M6X60	200	24570.060.060
			M5X25	500	24570.050.025			
M4X6	500	24570.040.006	M5X30	500	24570.050.030	M8X16	200	24570.080.016
M4X8	500	24570.040.008	M5X35	500	24570.050.035	M8X20	200	24570.080.020
M4X10	500	24570.040.010	M5X40	500	24570.050.040	M8X25	200	24570.080.025
M4X12	500	24570.040.012	M5X45	200	24570.050.045	M8X30	200	24570.080.030
M4X16	500	24570.040.016	M5X50	200	24570.050.050	M8X40	200	24570.080.040
M4X20	500	24570.040.020	M5X60	200	24570.050.060	M8X50	200	24570.080.050
M4X25	500	24570.040.025				M8X60	100	24570.080.060
M4X30	500	24570.040.030	M6X10	200	24570.060.010			

51210 Parafuso cabeça de lentilha fenda — R02A

Rosca Métrica
Material Aço inoxidável A2



RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X3*	1000	51210.020.003	M4X14	500	51210.040.014	M6X20	200	51210.060.020
M2X4*	1000	51210.020.004	M4X16	500	51210.040.016	M6X25	200	51210.060.025
M2X5	100	51210.020.005	M4X18*	500	51210.040.018	M6X30	200	51210.060.030
M2X6	100	51210.020.006	M4X20	500	51210.040.020	M6X35	100	51210.060.035
M2X8*	1000	51210.020.008	M4X25	200	51210.040.025	M6X40	100	51210.060.040
M2X10*	1000	51210.020.010	M4X30	200	51210.040.030	M6X45	100	51210.060.045
M2X12	100	51210.020.012	M4X35	200	51210.040.035	M6X50	100	51210.060.050
M2X16*	1000	51210.020.016	M4X40	200	51210.040.040	M6X55*	200	51210.060.055
M2X20*	1000	51210.020.020	M4X45	200	51210.040.045	M6X60	100	51210.060.060
M2X30*	500	51210.020.030	M4X50	200	51210.040.050	M6X70	100	51210.060.070
			M4X60	200	51210.040.060	M6X80	100	51210.060.080
M2,5X5*	1000	51210.025.005	M4X70*	200	51210.040.070	M6X90	100	51210.060.090
M2,5X6	100	51210.025.006	M4X80*	200	51210.040.080	M6X100	100	51210.060.100
M2,5X8	100	51210.025.008						
M2,5X10	100	51210.025.010	M5X6	200	51210.050.006	M8X12*	200	51210.080.012
M2,5X12	100	51210.025.012	M5X8	200	51210.050.008	M8X16	100	51210.080.016
M2,5X16	100	51210.025.016	M5X10	200	51210.050.010	M8X20	100	51210.080.020
M2,5X20*	1000	51210.025.020	M5X12	200	51210.050.012	M8X25	100	51210.080.025
M2,5X25*	500	51210.025.025	M5X14*	500	51210.050.014	M8X30	100	51210.080.030
M2,5X30*	500	51210.025.030	M5X16	200	51210.050.016	M8X35	100	51210.080.035
			M5X18*	500	51210.050.018	M8X40	100	51210.080.040
M3X5*	500	51210.030.005	M5X20	200	51210.050.020	M8X45	100	51210.080.045
M3X6	500	51210.030.006	M5X22*	500	51210.050.022	M8X50	100	51210.080.050
M3X8	500	51210.030.008	M5X25	200	51210.050.025	M8X60	100	51210.080.060
M3X10	500	51210.030.010	M5X30	200	51210.050.030	M8X70	100	51210.080.070
M3X12	500	51210.030.012	M5X35	200	51210.050.035	M8X80	100	51210.080.080
M3X14	500	51210.030.014	M5X40	200	51210.050.040	M8X90	100	51210.080.090
M3X16	500	51210.030.016	M5X45	200	51210.050.045	M8X100	100	51210.080.100
M3X18*	500	51210.030.018	M5X50	200	51210.050.050			
M3X20	500	51210.030.020	M5X55*	200	51210.050.055	M10X16*	100	51210.100.016
M3X25	500	51210.030.025	M5X60	100	51210.050.060	M10X20*	100	51210.100.020
M3X30	500	51210.030.030	M5X70	100	51210.050.070	M10X25*	100	51210.100.025
M3X35	500	51210.030.035	M5X80	100	51210.050.080	M10X30	100	51210.100.030
M3X40	500	51210.030.040	M5X90	100	51210.050.090	M10X35	100	51210.100.035
M3X45*	200	51210.030.045	M5X100*	200	51210.050.100	M10X40	100	51210.100.040
M3X50	500	51210.030.050				M10X45*	100	51210.100.045
			M6X8*	500	51210.060.008	M10X50	100	51210.100.050
M4X5*	500	51210.040.005	M6X10	200	51210.060.010	M10X55*	100	51210.100.055
M4X6	500	51210.040.006	M6X12	200	51210.060.012	M10X60	100	51210.100.060
M4X8	500	51210.040.008	M6X14*	500	51210.060.014	M10X70	50	51210.100.070
M4X10	500	51210.040.010	M6X16	200	51210.060.016	M10X100*	50	51210.100.100
M4X12	500	51210.040.012						

55210 Parafuso cabeça de lentilha fenda — R42A

Rosca Métrica
Material Aço inoxidável A4



RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X6	100	55210.020.006	M3X30	500	55210.030.030	M4X80*	200	55210.040.080
M2X8	100	55210.020.008	M3X35	500	55210.030.035			
M2X10*	1000	55210.020.010	M3X40	500	55210.030.040	M5X6	200	55210.050.006
M2X16	100	55210.020.016	M3X50	500	55210.030.050	M5X8	200	55210.050.008
M2X20	100	55210.020.020				M5X10	200	55210.050.010
			M4X6	500	55210.040.006	M5X12	200	55210.050.012
M2,5X6	100	55210.025.006	M4X8	500	55210.040.008	M5X14	200	55210.050.014
M2,5X8	100	55210.025.008	M4X10	500	55210.040.010	M5X16	200	55210.050.016
M2,5X10	100	55210.025.010	M4X12	500	55210.040.012	M5X18	200	55210.050.018
M2,5X12	100	55210.025.012	M4X14	500	55210.040.014	M5X20	200	55210.050.020
M2,5X16	100	55210.025.016	M4X16	500	55210.040.016	M5X25	200	55210.050.025
M2,5X25	100	55210.025.025	M4X18	500	55210.040.018	M5X30	200	55210.050.030
			M4X20	500	55210.040.020	M5X35	200	55210.050.035
M3X6	500	55210.030.006	M4X25	200	55210.040.025	M5X40	200	55210.050.040
M3X8	500	55210.030.008	M4X30	200	55210.040.030	M5X45	200	55210.050.045
M3X10	500	55210.030.010	M4X35	200	55210.040.035	M5X50	200	55210.050.050
M3X12	500	55210.030.012	M4X40	200	55210.040.040	M5X60	100	55210.050.060
M3X14	500	55210.030.014	M4X45	200	55210.040.045	M5X70	100	55210.050.070
M3X16	500	55210.030.016	M4X50	200	55210.040.050	M5X80	100	55210.050.080
M3X20	500	55210.030.020	M4X60	200	55210.040.060	M5X90*	200	55210.050.090
M3X25	500	55210.030.025	M4X70*	200	55210.040.070	M5X100	100	55210.050.100

6

55210 Parafuso cabeça de lentilha fenda ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
			M6X80	100	55210.060.080	M8X80*	100	55210.080.080
M6X10	200	55210.060.010	M6X90	100	55210.060.090	M8X90*	100	55210.080.090
M6X12	200	55210.060.012	M6X100	100	55210.060.100	M8X100*	100	55210.080.100
M6X14*	500	55210.060.014						
M6X16	200	55210.060.016	M8X16	100	55210.080.016	M10X20*	100	55210.100.020
M6X20	200	55210.060.020	M8X20	100	55210.080.020	M10X25*	100	55210.100.025
M6X25	200	55210.060.025	M8X25	100	55210.080.025	M10X30*	100	55210.100.030
M6X30	200	55210.060.030	M8X30	100	55210.080.030	M10X35*	100	55210.100.035
M6X35	100	55210.060.035	M8X35	100	55210.080.035	M10X40*	100	55210.100.040
M6X40	100	55210.060.040	M8X40	100	55210.080.040	M10X45*	100	55210.100.045
M6X45	100	55210.060.045	M8X45*	200	55210.080.045	M10X50*	100	55210.100.050
M6X50	100	55210.060.050	M8X50	100	55210.080.050	M10X60*	100	55210.100.060
M6X60	100	55210.060.060	M8X60	100	55210.080.060			
M6X70	100	55210.060.070	M8X70*	100	55210.080.070			

48180 Parafuso cabeça de lentilha fenda M05A

Rosca Métrica
Material Latão Cu2/Cu3

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2,5X8	200	48180.025.008	M4X20	200	48180.040.020	M6X12	200	48180.060.012
M2,5X10	200	48180.025.010	M4X25	200	48180.040.025	M6X16	200	48180.060.016
M2,5X12	200	48180.025.012	M4X30	200	48180.040.030	M6X20	200	48180.060.020
						M6X25	200	48180.060.025
M3X6	200	48180.030.006	M5X8	200	48180.050.008	M6X30	200	48180.060.030
M3X8	200	48180.030.008	M5X10	200	48180.050.010	M6X40	200	48180.060.040
M3X10	200	48180.030.010	M5X12	200	48180.050.012	M6X50	200	48180.060.050
M3X12	200	48180.030.012	M5X16	200	48180.050.016	M6X60	100	48180.060.060
M3X16	200	48180.030.016	M5X20	200	48180.050.020			
M3X20	200	48180.030.020	M5X25	200	48180.050.025	M8X16	100	48180.080.016
			M5X30	200	48180.050.030	M8X20	100	48180.080.020
M4X6	200	48180.040.006	M5X35	200	48180.050.035	M8X25	100	48180.080.025
M4X8	200	48180.040.008	M5X40	200	48180.050.040	M8X30	100	48180.080.030
M4X10	200	48180.040.010	M5X50	200	48180.050.050	M8X35	100	48180.080.035
M4X12	200	48180.040.012				M8X40	100	48180.080.040
M4X16	200	48180.040.016	M6X10	200	48180.060.010			

48570 Parafuso cabeça de lentilha fenda M05A

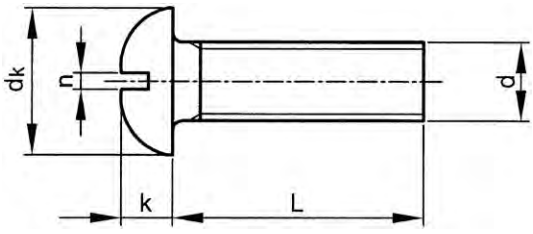
Rosca Métrica
Material Latão Cu2/Cu3
Tratamento sup. Niquelado

RoHS

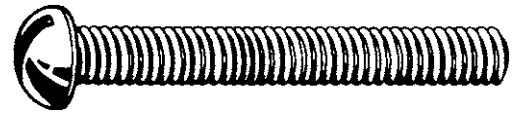


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6	200	48570.030.006	M4X25	200	48570.040.025	M5X40	200	48570.050.040
M3X8	200	48570.030.008	M4X30	200	48570.040.030	M5X50	200	48570.050.050
M3X10	200	48570.030.010	M4X35	200	48570.040.035			
M3X12	200	48570.030.012	M4X40	200	48570.040.040	M6X10	200	48570.060.010
M3X16	200	48570.030.016				M6X12	200	48570.060.012
M3X20	200	48570.030.020	M5X8	200	48570.050.008	M6X16	200	48570.060.016
			M5X10	200	48570.050.010	M6X20	200	48570.060.020
M4X6	200	48570.040.006	M5X12	200	48570.050.012	M6X25	200	48570.060.025
M4X8	200	48570.040.008	M5X16	200	48570.050.016	M6X30	200	48570.060.030
M4X10	200	48570.040.010	M5X20	200	48570.050.020	M6X40	200	48570.060.040
M4X12	200	48570.040.012	M5X25	200	48570.050.025	M6X50	200	48570.060.050
M4X16	200	48570.040.016	M5X30	200	48570.050.030	M6X60	100	48570.060.060
M4X20	200	48570.040.020	M5X35	200	48570.050.035			

Parafuso cabeça oval fenda



BS **≈450 (1958)**
NEN ≈1779 (1960)



Dados técnicos

d	d_k	Fios por polegada	k	n
1/8	5.5	40	2.1	0.8
5/32	7	32	2.7	0.9
3/16	8.3	24	3.2	1.1
1/4	11	20	4.3	1.3
5/16	13.5	18	5.4	1.5
3/8	16.5	16	6.5	1.8

- A rosca whitworth (BSW) não é internacionalmente recomendada.
- É aconselhado o uso de rosca métrica (M).
- Comprimentos superiores a 2 polegadas são parcialmente roscados, min. Parte roscada é 1.3/4 polegada.

Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
BSW	Fenda	Aço	4.8	24210	6-31
BSW	Fenda	Latão Cu2		48210	6-31

24210 Parafuso cabeça oval fenda X07A

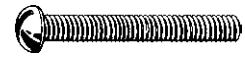
Rosca British Standard Whitworth
Material Aço
Classe 4.8



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/8X3/8	100	24210.031.009	3/16X3/8	100	24210.047.009	1/4X1.1/4	100	24210.063.031
1/8X1/2	100	24210.031.012	3/16X1/2	100	24210.047.012	1/4X1.1/2	100	24210.063.038
1/8X5/8	100	24210.031.015	3/16X5/8	100	24210.047.015	1/4X2 Inch	100	24210.063.050
1/8X3/4	100	24210.031.019	3/16X3/4	100	24210.047.019	1/4X2.1/2	100	24210.063.063
1/8X1 Inch	100	24210.031.025	3/16X1 Inch	100	24210.047.025	1/4X3 Inch	100	24210.063.076
1/8X1.1/4	100	24210.031.031	3/16X1.1/4	100	24210.047.031			
1/8X1.1/2	100	24210.031.038	3/16X1.1/2	100	24210.047.038	5/16X5/8	100	24210.079.015
			3/16X2 Inch	100	24210.047.050	5/16X3/4	100	24210.079.019
5/32X1/2	100	24210.039.012				5/16X1 Inch	100	24210.079.025
5/32X5/8	100	24210.039.015	1/4X3/8	100	24210.063.009	5/16X1.1/4	100	24210.079.031
5/32X3/4	100	24210.039.019	1/4X1/2	100	24210.063.012	5/16X1.1/2	100	24210.079.038
5/32X1 Inch	100	24210.039.025	1/4X5/8	100	24210.063.015	5/16X2 Inch	50	24210.079.050
5/32X1.1/2	100	24210.039.038	1/4X3/4	100	24210.063.019	5/16X2.1/2	50	24210.079.063
			1/4X1 Inch	100	24210.063.025	5/16X3 Inch	50	24210.079.076
3/16X1/4	100	24210.047.006						

48210 Parafuso cabeça oval fenda X07A

Rosca British Standard Whitworth
Material Latão Cu2

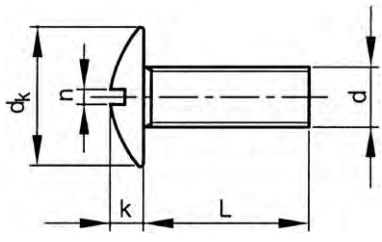


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
1/8X3/8	100	48210.031.009				1/4X5/8	100	48210.063.015
1/8X1/2	100	48210.031.012	3/16X3/8	100	48210.047.009	1/4X3/4	100	48210.063.019
1/8X5/8	100	48210.031.015	3/16X1/2	100	48210.047.012	1/4X1 Inch	100	48210.063.025
1/8X3/4	100	48210.031.019	3/16X5/8	100	48210.047.015	1/4X1.1/4	100	48210.063.031
1/8X1 Inch	100	48210.031.025	3/16X3/4	100	48210.047.019	1/4X1.1/2	100	48210.063.038
1/8X1.1/4	144	48210.031.031	3/16X1 Inch	100	48210.047.025	1/4X2 Inch	100	48210.063.050
			3/16X1.1/4	100	48210.047.031	1/4X2.1/2	100	48210.063.063
5/32X1/2	100	48210.039.012	3/16X1.1/2	100	48210.047.038	1/4X3 Inch	100	48210.063.076
5/32X5/8	100	48210.039.015	3/16X2 Inch	100	48210.047.050			
5/32X3/4	100	48210.039.019				5/16X5/8	100	48210.079.015
5/32X1 Inch	100	48210.039.025	1/4X3/8	100	48210.063.009	5/16X3/4	100	48210.079.019
5/32X1.1/4	100	48210.039.031	1/4X1/2	100	48210.063.012	5/16X1 Inch	100	48210.079.025

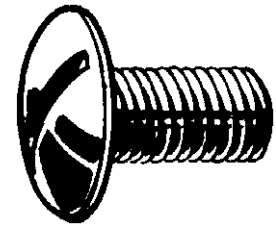
48210 **Parafuso cabeça oval fenda** ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
5/16X1.1/4	50	48210.079.031				3/8X2 Inch	50	48210.096.050
5/16X1.1/2	50	48210.079.038	3/8X3/4	50	48210.096.019	3/8X2.1/2	50	48210.096.063
5/16X2 Inch	50	48210.079.050	3/8X1 Inch	50	48210.096.025	3/8X3 Inch	50	48210.096.076
5/16X2.1/2	50	48210.079.063	3/8X1.1/4	50	48210.096.031			
5/16X3 Inch	50	48210.079.076	3/8X1.1/2	50	48210.096.038			

Parafuso cabeça oval larga com fenda



NF **≈E25-129**



Dados técnicos

d	d_k (max.)	k (max.)	n	P
M3	7	2	0.8	0.5
M4	10	2.2	1.2	0.7
M5	12.5	2.7	1.2	0.8
M6	15	3.3	1.6	1
M8	20	4.4	2.0	1.25

6

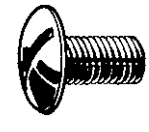
Grupos de produtos

Rosca	Encaixe	Material	Classe	Cor	Código	Página
M	Fenda	INOX A2			51215	6-32
M	Fenda	Plástico PA	PA 6.6	Branco	56460	6-33

51215 **Parafuso cabeça oval larga com fenda** **R02A**

Rosca Métrica
Material Aço inoxidável A2

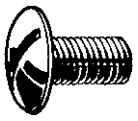
RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X5*	1000	51215.030.005				M6X45*	200	51215.060.045
M3X6*	1000	51215.030.006	M5X8	200	51215.050.008	M6X50*	200	51215.060.050
M3X8*	1000	51215.030.008	M5X10	200	51215.050.010	M6X60*	200	51215.060.060
M3X10*	1000	51215.030.010	M5X12	200	51215.050.012	M6X70*	200	51215.060.070
M3X12*	1000	51215.030.012	M5X16	200	51215.050.016	M6X80*	200	51215.060.080
M3X16*	1000	51215.030.016	M5X20	200	51215.050.020	M6X90*	200	51215.060.090
M3X20*	1000	51215.030.020	M5X25	200	51215.050.025	M6X100*	200	51215.060.100
M3X25*	1000	51215.030.025	M5X30	200	51215.050.030			
M3X35*	1000	51215.030.035	M5X40*	500	51215.050.040	M8X12*	200	51215.080.012
M3X40*	1000	51215.030.040	M5X45*	500	51215.050.045	M8X16*	200	51215.080.016
			M5X50*	500	51215.050.050	M8X20	200	51215.080.020
M4X6*	500	51215.040.006	M5X60*	500	51215.050.060	M8X25*	200	51215.080.025
M4X8	200	51215.040.008	M5X70*	500	51215.050.070	M8X30*	200	51215.080.030
M4X10	200	51215.040.010	M5X80*	500	51215.050.080	M8X35*	200	51215.080.035
M4X12	200	51215.040.012	M5X100*	500	51215.050.100	M8X40*	200	51215.080.040
M4X16	200	51215.040.016				M8X45*	200	51215.080.045
M4X20	200	51215.040.020	M6X8*	500	51215.060.008	M8X50*	200	51215.080.050
M4X25	200	51215.040.025	M6X10	200	51215.060.010	M8X60*	100	51215.080.060
M4X30*	500	51215.040.030	M6X12	200	51215.060.012	M8X70*	100	51215.080.070
M4X35*	500	51215.040.035	M6X16	200	51215.060.016	M8X80*	100	51215.080.080
M4X40*	500	51215.040.040	M6X20	100	51215.060.020	M8X90*	100	51215.080.090
M4X45*	500	51215.040.045	M6X25	100	51215.060.025	M8X100*	100	51215.080.100
M4X50*	500	51215.040.050	M6X30	100	51215.060.030	M8X120*	100	51215.080.120
M4X60*	500	51215.040.060	M6X35*	200	51215.060.035			
M4X70*	500	51215.040.070	M6X40*	200	51215.060.040			

56460	Parafuso cabeça oval larga com fenda	W02A

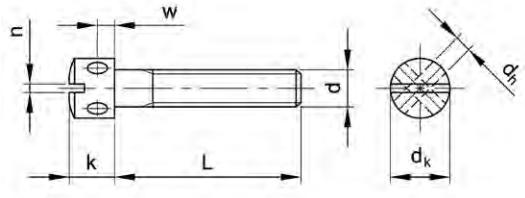
Rosca Métrica
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco

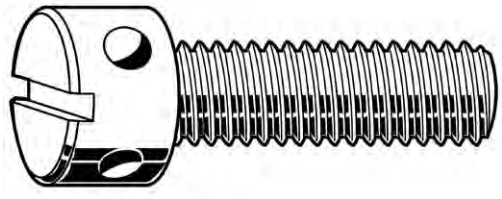


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X12	50	56460.060.012	M6X25	50	56460.060.025	M6X40	50	56460.060.040
M6X16	50	56460.060.016	M6X30	50	56460.060.030	M6X50	50	56460.060.050
M6X20	50	56460.060.020						

Parafuso cabeça cilindrica com fenda

DIN 404





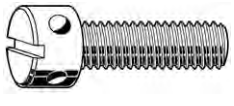
Dados técnicos

d	dh (min.)	d_k (max.)	k (max.)	n	P	w
M3	1.5	5.5	4	0.8	0.5	1.5
M4	2	7	5	1	0.7	2
M5	2.5	8.5	6.5	1.2	0.8	2.5
M6	3	10	8	1.6	1	3

51289	Parafuso cabeça cilindrica com fenda	R09A

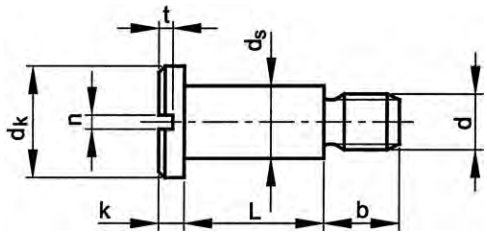
Rosca Métrica
Material Aço inoxidável A2
Classe 50

RoHS

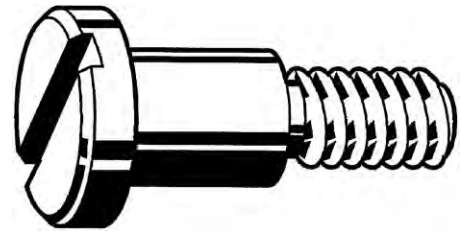


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X4*	200	51289.030.004	M4X8*	100	51289.040.008	M5X16*	50	51289.050.016
M3X5*	200	51289.030.005	M4X10*	100	51289.040.010	M5X20*	50	51289.050.020
M3X6*	200	51289.030.006	M4X12*	100	51289.040.012	M5X25*	50	51289.050.025
M3X8*	200	51289.030.008	M4X16*	100	51289.040.016	M5X30*	50	51289.050.030
M3X10*	200	51289.030.010	M4X20*	100	51289.040.020			
M3X12*	200	51289.030.012	M4X25*	100	51289.040.025	M6X10*	50	51289.060.010
M3X16*	200	51289.030.016	M4X30*	100	51289.040.030	M6X12*	50	51289.060.012
M3X20*	200	51289.030.020				M6X16*	50	51289.060.016
			M5X8*	50	51289.050.008	M6X20*	50	51289.060.020
M4X5*	100	51289.040.005	M5X10*	50	51289.050.010	M6X25*	50	51289.060.025
M4X6*	100	51289.040.006	M5X12*	50	51289.050.012	M6X30*	50	51289.060.030

Parafuso cabeça cilindrica com fenda com apoio



DIN **923**



Dados técnicos

d	b	d_k (max.)	d_s (h9)	k	n	P	t (min.)
M2	3	4.5	2.8	1.2	0.5	0.4	0.6
M3	4.5	7	4	1.8	0.8	0.5	0.9
M4	6	8.5	5.5	2.4	1	0.7	1.2
M5	7	11	7	2.7	1.2	0.8	1.3
M6	9	13	8	3.1	1.6	1	1.5
M8	11	16	10	3.8	2	1.25	1.9

Grupos de produtos

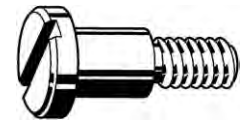
Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Fenda	Aço	5.8	Zn	24992	6-34
M	Fenda	INOX A1			51209	6-34

6

24992 Parafuso cabeça cilindrica com fenda com apoio H07A

Rosca Métrica
Material Aço
Classe 5.8
Tratamento sup. Zincado

RoHS

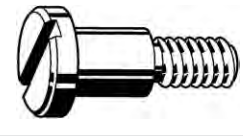


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X8	100	24992.030.008	M5X6	100	24992.050.006	M6X16	100	24992.060.016
M3X10	100	24992.030.010	M5X8	100	24992.050.008	M6X20	100	24992.060.020
M3X12	100	24992.030.012	M5X12	100	24992.050.012	M6X25	100	24992.060.025
			M5X16	100	24992.050.016			
M4X6	100	24992.040.006	M5X20	100	24992.050.020	M8X8	100	24992.080.008
M4X8	100	24992.040.008	M5X25	100	24992.050.025	M8X10	100	24992.080.010
M4X10	100	24992.040.010				M8X12	100	24992.080.012
M4X12	100	24992.040.012	M6X8	100	24992.060.008	M8X16	100	24992.080.016
M4X16	100	24992.040.016	M6X10	100	24992.060.010	M8X20	50	24992.080.020
			M6X12	100	24992.060.012	M8X25	50	24992.080.025

51209 Parafuso cabeça cilindrica com fenda com apoio R09A

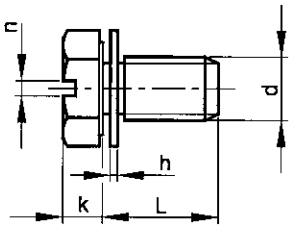
Rosca Métrica
Material Aço inoxidável A1

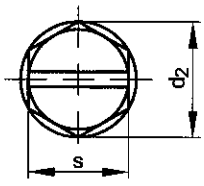
RoHS



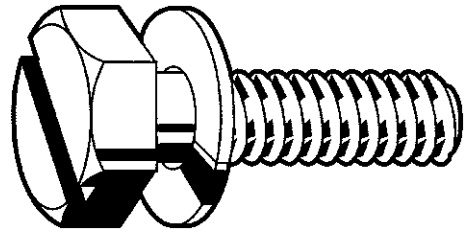
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X6*	100	51209.020.006	M4X12*	100	51209.040.012	M6X5*	50	51209.060.005
			M4X16*	100	51209.040.016	M6X6*	50	51209.060.006
M3X2*	100	51209.030.002	M4X20*	100	51209.040.020	M6X8*	50	51209.060.008
M3X3*	100	51209.030.003				M6X10*	50	51209.060.010
M3X4*	100	51209.030.004	M5X2*	100	51209.050.002	M6X12*	50	51209.060.012
M3X5*	100	51209.030.005	M5X3*	100	51209.050.003	M6X16*	50	51209.060.016
M3X6*	100	51209.030.006	M5X4*	100	51209.050.004	M6X20*	50	51209.060.020
M3X8*	100	51209.030.008	M5X5*	100	51209.050.005	M6X25*	50	51209.060.025
M3X10*	100	51209.030.010	M5X6*	100	51209.050.006			
			M5X8*	100	51209.050.008	M8X5*	50	51209.080.005
M4X2*	100	51209.040.002	M5X10*	100	51209.050.010	M8X6*	50	51209.080.006
M4X3*	100	51209.040.003	M5X12*	100	51209.050.012	M8X8*	50	51209.080.008
M4X4*	100	51209.040.004	M5X16*	100	51209.050.016	M8X10*	50	51209.080.010
M4X5*	100	51209.040.005				M8X12*	50	51209.080.012
M4X6*	100	51209.040.006	M6X3*	50	51209.060.003	M8X16*	50	51209.080.016
M4X8*	100	51209.040.008	M6X4*	50	51209.060.004	M8X20*	50	51209.080.020
M4X10*	100	51209.040.010						

Parafuso cabeça sextavada com fenda, com anilha





DIN **≈6900**
ISO ≈10644

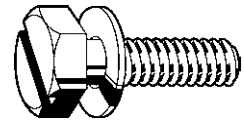


Dados técnicos

d	d_2	h	k	n	P	s
M4	8	0.8	2.8	1.2	0.7	7
M5	10	1	3.5	1.2	0.8	8
M6	12	1.2	4	1.6	1	10

24904 **Parafuso cabeça sextavada com fenda, com anilha** **H05A**

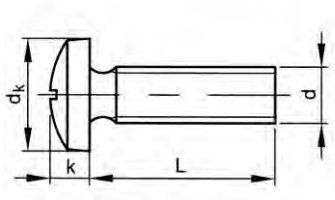
Rosca Métrica
Material Aço
Classe 5.8
Tratamento sup. Passivado a amarelo

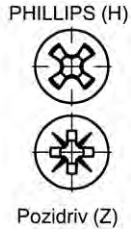


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X10	1000	24904.040.010	M5X12	1000	24904.050.012	M6X12	500	24904.060.012
M4X16	1000	24904.040.016	M5X18	500	24904.050.018	M6X18	500	24904.060.018

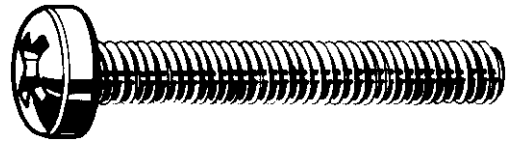
6

Parafuso cabeça de queijo fenda cruz





DIN **7985**
ISO 7045



Dados técnicos

d	d_k	k	Nr. fenda	P	Rosca total C ≤
M1.6	3.2	1.3	0	0.35	16
M2	4	1.6	1	0.4	16
M2.5	5	2	1	0.45	20
M3	6	2.4	1	0.5	20
M4	8	3.1	2	0.7	25
M5	10	3.8	2	0.8	25
M6	12	4.6	3	1	35
M8	16	6	4	1.25	40
M10	20	7.5	4	1.5	40

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.		Código	Página
M	Phillips	Aço	4.8	Zn		24665	6-36
M	Phillips	Aço	4.8	Zn	Embalagem grande	24660	6-36
M	Pozidriv	Aço	4.8	Zn		24662	6-37
M	Phillips	Aço	4.8	Passiv. amar.		24800	6-37
M	Phillips	Aço	4.8	Passiv. preto		24810	6-37
M	Phillips	INOX A2				51340	6-38
M	Pozidriv	INOX A2				51342	6-38
M	Phillips	INOX A4				55340	6-39
M	Pozidriv	INOX A4				55342	6-40
M	Pozidriv	Al P65		Anod.		45445	6-40

24665 Parafuso cabeça de queijo Phillips — H05A

Rosca	Métrica	**DIN**	**7985-H**
Material	Aço	ISO	7045-H
Classe	4.8		
Tratamento sup.	Zincado		

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X4	200	24665.020.004	M4X5	200	24665.040.005	M5X45	100	24665.050.045
M2X5	200	24665.020.005	M4X6	200	24665.040.006	M5X50	100	24665.050.050
M2X6	200	24665.020.006	M4X8	200	24665.040.008	M5X60	100	24665.050.060
M2X8	200	24665.020.008	M4X10	200	24665.040.010	M5X70	100	24665.050.070
M2X10	200	24665.020.010	M4X12	200	24665.040.012	M5X80	100	24665.050.080
			M4X16	200	24665.040.016			
M2,5X4	200	24665.025.004	M4X20	200	24665.040.020	M6X8	200	24665.060.008
M2,5X5	200	24665.025.005	M4X25	200	24665.040.025	M6X10	200	24665.060.010
M2,5X6	200	24665.025.006	M4X30	200	24665.040.030	M6X12	200	24665.060.012
M2,5X8	200	24665.025.008	M4X35	200	24665.040.035	M6X16	200	24665.060.016
M2,5X10	200	24665.025.010	M4X40	200	24665.040.040	M6X20	100	24665.060.020
M2,5X12	200	24665.025.012	M4X45	200	24665.040.045	M6X25	100	24665.060.025
			M4X50	200	24665.040.050	M6X30	100	24665.060.030
M3X4	200	24665.030.004	M4X60	200	24665.040.060	M6X35	100	24665.060.035
M3X5	200	24665.030.005	M4X80	200	24665.040.080	M6X40	100	24665.060.040
M3X6	200	24665.030.006				M6X45	100	24665.060.045
M3X8	200	24665.030.008	M5X6	200	24665.050.006	M6X50	100	24665.060.050
M3X10	200	24665.030.010	M5X8	200	24665.050.008	M6X60	100	24665.060.060
M3X12	200	24665.030.012	M5X10	200	24665.050.010	M6X70	100	24665.060.070
M3X16	200	24665.030.016	M5X12	200	24665.050.012			
M3X20	200	24665.030.020	M5X16	200	24665.050.016	M8X12	100	24665.080.012
M3X25	200	24665.030.025	M5X20	200	24665.050.020	M8X16	100	24665.080.016
M3X30	200	24665.030.030	M5X25	200	24665.050.025	M8X20	100	24665.080.020
M3X40	200	24665.030.040	M5X30	100	24665.050.030	M8X25	100	24665.080.025
M3X50	200	24665.030.050	M5X35	100	24665.050.035	M8X30	100	24665.080.030
			M5X40	100	24665.050.040	M8X35	100	24665.080.035

24660 Parafuso cabeça de queijo Phillips — H05A

Rosca	Métrica	**DIN**	**7985-H**
Material	Aço	ISO	7045-H
Classe	4.8		
Tratamento sup.	Zincado		

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X4	2000	24660.020.004	M4X6	1000	24660.040.006	M6X12	1000	24660.060.012
M2X5	2000	24660.020.005	M4X8	1000	24660.040.008	M6X16	500	24660.060.016
M2X6	2000	24660.020.006	M4X10	1000	24660.040.010	M6X20	250	24660.060.020
M2X8	2000	24660.020.008	M4X12	1000	24660.040.012	M6X25	250	24660.060.025
M2X10	2000	24660.020.010	M4X16	1000	24660.040.016	M6X30	250	24660.060.030
M2X20	2000	24660.020.020	M4X20	1000	24660.040.020	M6X35	250	24660.060.035
			M4X25	1000	24660.040.025	M6X40	250	24660.060.040
M2,5X4	2000	24660.025.004	M4X30	1000	24660.040.030	M6X45	250	24660.060.045
M2,5X5	2000	24660.025.005	M4X35	500	24660.040.035	M6X50	250	24660.060.050
M2,5X6	2000	24660.025.006	M4X40	500	24660.040.040	M6X60	250	24660.060.060
M2,5X8	2000	24660.025.008	M4X45	500	24660.040.045			
M2,5X10	2000	24660.025.010	M4X50	500	24660.040.050	M8X12	250	24660.080.012
M2,5X12	2000	24660.025.012				M8X16	250	24660.080.016
			M5X8	1000	24660.050.008	M8X20	250	24660.080.020
M3X4	2000	24660.030.004	M5X10	1000	24660.050.010	M8X25	250	24660.080.025
M3X5	2000	24660.030.005	M5X12	1000	24660.050.012	M8X30	250	24660.080.030
M3X6	2000	24660.030.006	M5X16	1000	24660.050.016	M8X35	250	24660.080.035
M3X8	2000	24660.030.008	M5X20	500	24660.050.020	M8X40	100	24660.080.040
M3X10	2000	24660.030.010	M5X25	500	24660.050.025	M8X45	100	24660.080.045
M3X12	2000	24660.030.012	M5X30	250	24660.050.030	M8X50	100	24660.080.050
M3X14	2000	24660.030.014	M5X35	250	24660.050.035	M8X60	100	24660.080.060
M3X16	2000	24660.030.016	M5X40	250	24660.050.040			
M3X20	2000	24660.030.020	M5X45	250	24660.050.045	M10X25	100	24660.100.025
M3X25	1000	24660.030.025	M5X50	250	24660.050.050	M10X30	100	24660.100.030
M3X30	1000	24660.030.030	M5X60	250	24660.050.060	M10X40	100	24660.100.040
M3X40	1000	24660.030.040				M10X50	100	24660.100.050
			M6X8	1000	24660.060.008	M10X60	100	24660.100.060
M4X5	1000	24660.040.005	M6X10	1000	24660.060.010			

6

24662 Parafuso cabeça de queijo Pozidriv — H05A

Rosca Métrica
Material Aço
Classe 4.8
Tratamento sup. Zincado

DIN 7985-Z
ISO 7045-Z

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6	2000	24662.030.006	M4X30	1000	24662.040.030	M6X12	1000	24662.060.012
M3X8	2000	24662.030.008	M4X35	500	24662.040.035	M6X16	500	24662.060.016
M3X10	2000	24662.030.010	M4X40	500	24662.040.040	M6X20	250	24662.060.020
M3X12	2000	24662.030.012				M6X25	250	24662.060.025
M3X16	2000	24662.030.016	M5X8	1000	24662.050.008	M6X30	250	24662.060.030
M3X20	2000	24662.030.020	M5X10	1000	24662.050.010	M6X35	250	24662.060.035
M3X25	1000	24662.030.025	M5X12	1000	24662.050.012	M6X40	250	24662.060.040
M3X30	1000	24662.030.030	M5X16	1000	24662.050.016	M6X50	250	24662.060.050
			M5X20	500	24662.050.020	M6X60	250	24662.060.060
M4X5	1000	24662.040.005	M5X25	500	24662.050.025			
M4X6	1000	24662.040.006	M5X30	250	24662.050.030	M8X16	250	24662.080.016
M4X8	1000	24662.040.008	M5X35	250	24662.050.035	M8X20	250	24662.080.020
M4X10	1000	24662.040.010	M5X40	250	24662.050.040	M8X25	250	24662.080.025
M4X12	1000	24662.040.012	M5X45	250	24662.050.045	M8X30	250	24662.080.030
M4X16	1000	24662.040.016	M5X50	250	24662.050.050	M8X40	100	24662.080.040
M4X20	1000	24662.040.020				M8X50	100	24662.080.050
M4X25	1000	24662.040.025	M6X10	1000	24662.060.010			

24800 Parafuso cabeça de queijo Phillips — H07A

Rosca Métrica
Material Aço
Classe 4.8
Tratamento sup. Passivado a amarelo

DIN 7985-H
ISO 7045-H



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6	500	24800.030.006	M4X12	200	24800.040.012	M5X40	200	24800.050.040
M3X8	500	24800.030.008	M4X16	200	24800.040.016			
M3X10	500	24800.030.010	M4X20	200	24800.040.020	M6X10	200	24800.060.010
M3X12	500	24800.030.012	M4X25	200	24800.040.025	M6X12	200	24800.060.012
M3X16	500	24800.030.016	M4X30	200	24800.040.030	M6X16	200	24800.060.016
M3X20	500	24800.030.020				M6X20	200	24800.060.020
M3X25	200	24800.030.025	M5X10	200	24800.050.010	M6X25	200	24800.060.025
M3X30	200	24800.030.030	M5X12	200	24800.050.012	M6X30	100	24800.060.030
			M5X16	200	24800.050.016	M6X40	100	24800.060.040
M4X6	200	24800.040.006	M5X20	200	24800.050.020	M6X50	100	24800.060.050
M4X8	200	24800.040.008	M5X25	200	24800.050.025	M6X60	100	24800.060.060
M4X10	200	24800.040.010	M5X30	200	24800.050.030			

24810 Parafuso cabeça de queijo Phillips — H07A

Rosca Métrica
Material Aço
Classe 4.8
Tratamento sup. Passivado a preto

DIN 7985-H
ISO 7045-H



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6	200	24810.030.006	M4X50	200	24810.040.050	M6X20	100	24810.060.020
M3X8	200	24810.030.008				M6X25	100	24810.060.025
M3X10	200	24810.030.010	M5X6	200	24810.050.006	M6X30	100	24810.060.030
M3X12	200	24810.030.012	M5X8	200	24810.050.008	M6X35	100	24810.060.035
M3X16	200	24810.030.016	M5X10	200	24810.050.010	M6X40	100	24810.060.040
M3X20	200	24810.030.020	M5X12	200	24810.050.012	M6X45	100	24810.060.045
M3X25	200	24810.030.025	M5X16	200	24810.050.016	M6X50	100	24810.060.050
M3X30	200	24810.030.030	M5X20	200	24810.050.020	M6X55	100	24810.060.055
			M5X25	200	24810.050.025	M6X60	100	24810.060.060
M4X6	200	24810.040.006	M5X30	100	24810.050.030			
M4X8	200	24810.040.008	M5X35	100	24810.050.035	M8X12	100	24810.080.012
M4X10	200	24810.040.010	M5X40	100	24810.050.040	M8X16	100	24810.080.016
M4X12	200	24810.040.012	M5X45	100	24810.050.045	M8X20	100	24810.080.020
M4X16	200	24810.040.016	M5X50	100	24810.050.050	M8X25	100	24810.080.025
M4X20	200	24810.040.020	M5X60	100	24810.050.060	M8X30	100	24810.080.030
M4X25	200	24810.040.025				M8X35	100	24810.080.035
M4X30	200	24810.040.030	M6X10	200	24810.060.010	M8X40	100	24810.080.040
M4X35	200	24810.040.035	M6X12	200	24810.060.012	M8X50	100	24810.080.050
M4X40	200	24810.040.040	M6X16	200	24810.060.016	M8X60	100	24810.080.060

51340 Parafuso cabeça de queijo Phillips — R01A

Rosca Métrica
Material Aço inoxidável A2

DIN 7985-H
ISO 7045-H

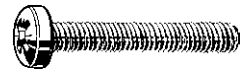


d x L	✉	Ref. do artigo
M1,6X2*	1000	51340.016.002
M1,6X3*	1000	51340.016.003
M1,6X4*	1000	51340.016.004
M1,6X5*	1000	51340.016.005
M1,6X6*	1000	51340.016.006
M1,6X8*	1000	51340.016.008
M1,6X10*	1000	51340.016.010
M1,6X12*	1000	51340.016.012
M1,6X14*	1000	51340.016.014
M1,6X16*	1000	51340.016.016
M1,6X18*	1000	51340.016.018
M1,6X20*	1000	51340.016.020
M2X3*	1000	51340.020.003
M2X4	100	51340.020.004
M2X5	100	51340.020.005
M2X6	100	51340.020.006
M2X8	100	51340.020.008
M2X10	100	51340.020.010
M2X12	100	51340.020.012
M2X14*	1000	51340.020.014
M2X16	100	51340.020.016
M2X18*	1000	51340.020.018
M2X20*	1000	51340.020.020
M2,5X3*	1000	51340.025.003
M2,5X4*	1000	51340.025.004
M2,5X5	100	51340.025.005
M2,5X6	100	51340.025.006
M2,5X8	100	51340.025.008
M2,5X10	100	51340.025.010
M2,5X12	100	51340.025.012
M2,5X14*	1000	51340.025.014
M2,5X16	100	51340.025.016
M2,5X18*	1000	51340.025.018
M2,5X20	100	51340.025.020
M2,5X22*	500	51340.025.022
M2,5X25*	500	51340.025.025
M2,5X28*	500	51340.025.028
M2,5X30*	500	51340.025.030
M3X3*	500	51340.030.003
M3X4*	500	51340.030.004
M3X5	200	51340.030.005
M3X6	200	51340.030.006
M3X8	200	51340.030.008
M3X10	200	51340.030.010
M3X12	200	51340.030.012
M3X14*	500	51340.030.014
M3X16	200	51340.030.016
M3X18*	500	51340.030.018
M3X20	200	51340.030.020
M3X22*	500	51340.030.022
M3X25	200	51340.030.025
M3X28*	500	51340.030.028
M3X30	200	51340.030.030
M3X35	200	51340.030.035
M3X40	200	51340.030.040
M3X45*	200	51340.030.045
M3X48*	200	51340.030.048
M3X50	200	51340.030.050
M3X55*	200	51340.030.055
M3X60*	200	51340.030.060
M4X4*	500	51340.040.004
M4X5*	500	51340.040.005
M4X6	200	51340.040.006
M4X8	200	51340.040.008
M4X10	200	51340.040.010
M4X12	200	51340.040.012
M4X14*	500	51340.040.014
M4X16	200	51340.040.016
M4X18*	500	51340.040.018
M4X20	200	51340.040.020
M4X22*	500	51340.040.022
M4X25	200	51340.040.025
M4X28*	500	51340.040.028
M4X30	200	51340.040.030
M4X35	200	51340.040.035
M4X40	200	51340.040.040
M4X45	200	51340.040.045
M4X50	200	51340.040.050
M4X55*	500	51340.040.055
M4X60	100	51340.040.060
M4X65*	500	51340.040.065
M4X70*	500	51340.040.070
M4X80*	500	51340.040.080
M4X90*	500	51340.040.090
M4X100*	500	51340.040.100
M5X6	100	51340.050.006
M5X7*	500	51340.050.007
M5X8	100	51340.050.008
M5X10	100	51340.050.010
M5X12	100	51340.050.012
M5X14*	500	51340.050.014
M5X16	100	51340.050.016
M5X18*	500	51340.050.018
M5X20	100	51340.050.020
M5X22*	500	51340.050.022
M5X25	100	51340.050.025
M5X28*	500	51340.050.028
M5X30	100	51340.050.030
M5X35	100	51340.050.035
M5X40	100	51340.050.040
M5X45	100	51340.050.045
M5X50	100	51340.050.050
M5X55*	200	51340.050.055
M5X60	100	51340.050.060
M5X65*	200	51340.050.065
M5X70*	200	51340.050.070
M5X75*	200	51340.050.075
M5X80	200	51340.050.080
M5X90*	200	51340.050.090
M5X100*	200	51340.050.100
M6X8	100	51340.060.008
M6X10	100	51340.060.010
M6X12	100	51340.060.012
M6X14*	500	51340.060.014
M6X16	100	51340.060.016
M6X18*	500	51340.060.018
M6X20	100	51340.060.020
M6X22*	500	51340.060.022
M6X25	100	51340.060.025
M6X28*	200	51340.060.028
M6X30	100	51340.060.030
M6X35	100	51340.060.035
M6X40	100	51340.060.040
M6X45	100	51340.060.045
M6X50	100	51340.060.050
M6X55	200	51340.060.055
M6X60	100	51340.060.060
M6X65*	200	51340.060.065
M6X70*	100	51340.060.070
M6X80*	100	51340.060.080
M6X90*	100	51340.060.090
M6X100*	100	51340.060.100
M8X10*	200	51340.080.010
M8X12	100	51340.080.012
M8X16	100	51340.080.016
M8X20	100	51340.080.020
M8X25	100	51340.080.025
M8X30	100	51340.080.030
M8X35	100	51340.080.035
M8X40	100	51340.080.040
M8X45	100	51340.080.045
M8X50	100	51340.080.050
M8X60	100	51340.080.060
M8X70*	100	51340.080.070
M8X80*	100	51340.080.080
M8X90*	100	51340.080.090
M10X25*	100	51340.100.025

51342 Parafuso cabeça de queijo Pozidriv — R01A

Rosca Métrica
Material Aço inoxidável A2

DIN 7985-Z
ISO 7045-Z



d x L	✉	Ref. do artigo
M1,6X2*	1000	51342.016.002
M1,6X3*	1000	51342.016.003
M1,6X4*	1000	51342.016.004
M1,6X5*	1000	51342.016.005
M1,6X6*	1000	51342.016.006
M1,6X8*	1000	51342.016.008
M1,6X10*	1000	51342.016.010
M1,6X14*	1000	51342.016.014
M1,6X16*	1000	51342.016.016
M1,6X20*	1000	51342.016.020
M2X3	100	51342.020.003
M2X4	100	51342.020.004
M2X5	100	51342.020.005
M2X6	100	51342.020.006
M2X8	100	51342.020.008
M2X10	100	51342.020.010
M2X12	100	51342.020.012
M2X14*	1000	51342.020.014
M2X16	100	51342.020.016
M2X18*	1000	51342.020.018
M2X20*	1000	51342.020.020
M2,5X3	100	51342.025.003
M2,5X4	100	51342.025.004
M2,5X5	100	51342.025.005
M2,5X6	100	51342.025.006
M2,5X8	100	51342.025.008
M2,5X10	100	51342.025.010
M2,5X12	100	51342.025.012
M2,5X14	100	51342.025.014
M2,5X16	100	51342.025.016
M2,5X18	100	51342.025.018

6

51342 Parafuso cabeça de queijo Pozidriv

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2,5X20	100	51342.025.020	M4X12	200	51342.040.012	M5X40	100	51342.050.040
M2,5X25*	500	51342.025.025	M4X14	200	51342.040.014	M5X45	100	51342.050.045
M2,5X28*	500	51342.025.028	M4X16	200	51342.040.016	M5X50	100	51342.050.050
M2,5X30*	500	51342.025.030	M4X18*	500	51342.040.018	M5X55*	200	51342.050.055
			M4X20	200	51342.040.020	M5X60*	200	51342.050.060
M3X3*	500	51342.030.003	M4X22*	500	51342.040.022	M5X70*	200	51342.050.070
M3X4	200	51342.030.004	M4X25	200	51342.040.025	M5X80*	200	51342.050.080
M3X5	200	51342.030.005	M4X28*	500	51342.040.028	M5X90*	200	51342.050.090
M3X6	200	51342.030.006	M4X30	200	51342.040.030	M5X100*	200	51342.050.100
M3X8	200	51342.030.008	M4X35	200	51342.040.035			
M3X10	200	51342.030.010	M4X40	200	51342.040.040	M6X8	100	51342.060.008
M3X12	200	51342.030.012	M4X45*	500	51342.040.045	M6X10	100	51342.060.010
M3X14	200	51342.030.014	M4X50	200	51342.040.050	M6X12	100	51342.060.012
M3X16	200	51342.030.016	M4X55*	200	51342.040.055	M6X14*	500	51342.060.014
M3X18*	500	51342.030.018	M4X60*	200	51342.040.060	M6X16	100	51342.060.016
M3X20	200	51342.030.020	M4X70*	200	51342.040.070	M6X18*	500	51342.060.018
M3X22*	500	51342.030.022	M4X80*	200	51342.040.080	M6X20	100	51342.060.020
M3X25	200	51342.030.025				M6X25	100	51342.060.025
M3X30	200	51342.030.030	M5X6	100	51342.050.006	M6X30	100	51342.060.030
M3X35	200	51342.030.035	M5X8	100	51342.050.008	M6X35	100	51342.060.035
M3X40	200	51342.030.040	M5X10	100	51342.050.010	M6X40	100	51342.060.040
M3X45*	200	51342.030.045	M5X12	100	51342.050.012	M6X45	100	51342.060.045
M3X50	200	51342.030.050	M5X14*	500	51342.050.014	M6X50	100	51342.060.050
M3X55*	200	51342.030.055	M5X16	100	51342.050.016	M6X55*	200	51342.060.055
M3X60*	200	51342.030.060	M5X18*	500	51342.050.018	M6X60*	200	51342.060.060
			M5X20	100	51342.050.020	M6X70*	100	51342.060.070
M4X4	200	51342.040.004	M5X22*	500	51342.050.022	M6X75*	100	51342.060.075
M4X5	200	51342.040.005	M5X25	100	51342.050.025	M6X80*	100	51342.060.080
M4X6	200	51342.040.006	M5X28*	500	51342.050.028	M6X90*	100	51342.060.090
M4X8	200	51342.040.008	M5X30	100	51342.050.030	M6X100*	100	51342.060.100
M4X10	200	51342.040.010	M5X35	100	51342.050.035			

55340 Parafuso cabeça de queijo Phillips R41A

Rosca Métrica **DIN** **7985-H**
Material Aço inoxidável A4 ISO 7045-H

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M1,6X2*	1000	55340.016.002	M3X8	200	55340.030.008	M5X8	100	55340.050.008
M1,6X3*	1000	55340.016.003	M3X10	200	55340.030.010	M5X10	100	55340.050.010
M1,6X4*	1000	55340.016.004	M3X12	200	55340.030.012	M5X12	100	55340.050.012
M1,6X5*	1000	55340.016.005	M3X14*	500	55340.030.014	M5X14*	500	55340.050.014
M1,6X6*	1000	55340.016.006	M3X16	200	55340.030.016	M5X16	100	55340.050.016
M1,6X8*	1000	55340.016.008	M3X18*	500	55340.030.018	M5X18*	500	55340.050.018
M1,6X10*	1000	55340.016.010	M3X20	200	55340.030.020	M5X20	100	55340.050.020
M1,6X12*	1000	55340.016.012	M3X25	200	55340.030.025	M5X22*	500	55340.050.022
M1,6X16*	1000	55340.016.016	M3X30	200	55340.030.030	M5X25	100	55340.050.025
			M3X35*	500	55340.030.035	M5X30	100	55340.050.030
M2X3*	1000	55340.020.003	M3X40*	500	55340.030.040	M5X35	100	55340.050.035
M2X4	100	55340.020.004	M3X45*	200	55340.030.045	M5X40	100	55340.050.040
M2X5	100	55340.020.005	M3X50*	200	55340.030.050	M5X45	100	55340.050.045
M2X6	100	55340.020.006	M3X60*	500	55340.030.060	M5X50	100	55340.050.050
M2X8	100	55340.020.008				M5X55*	200	55340.050.055
M2X10	100	55340.020.010	M4X4*	500	55340.040.004	M5X60*	200	55340.050.060
M2X12	100	55340.020.012	M4X5	200	55340.040.005	M5X70*	200	55340.050.070
M2X14*	1000	55340.020.014	M4X6	200	55340.040.006	M5X80*	200	55340.050.080
M2X16	100	55340.020.016	M4X8	200	55340.040.008	M5X90*	200	55340.050.090
M2X18*	1000	55340.020.018	M4X10	200	55340.040.010	M5X100*	200	55340.050.100
M2X20*	1000	55340.020.020	M4X12	200	55340.040.012			
			M4X14*	500	55340.040.014	M6X8	100	55340.060.008
M2,5X4	100	55340.025.004	M4X16	200	55340.040.016	M6X10	100	55340.060.010
M2,5X5	100	55340.025.005	M4X18*	500	55340.040.018	M6X12	100	55340.060.012
M2,5X6	100	55340.025.006	M4X20	200	55340.040.020	M6X14*	500	55340.060.014
M2,5X8	100	55340.025.008	M4X22*	500	55340.040.022	M6X16	100	55340.060.016
M2,5X10	100	55340.025.010	M4X25	200	55340.040.025	M6X18*	500	55340.060.018
M2,5X12	100	55340.025.012	M4X30	200	55340.040.030	M6X20	100	55340.060.020
M2,5X14*	1000	55340.025.014	M4X35	200	55340.040.035	M6X22*	500	55340.060.022
M2,5X16	100	55340.025.016	M4X40	200	55340.040.040	M6X25	100	55340.060.025
M2,5X18*	1000	55340.025.018	M4X45*	500	55340.040.045	M6X28*	200	55340.060.028
M2,5X20	100	55340.025.020	M4X50	200	55340.040.050	M6X30	100	55340.060.030
M2,5X25*	500	55340.025.025	M4X55*	500	55340.040.055	M6X35	100	55340.060.035
M2,5X30*	500	55340.025.030	M4X60*	500	55340.040.060	M6X40	100	55340.060.040
			M4X70*	500	55340.040.070	M6X45	100	55340.060.045
M3X3*	500	55340.030.003	M4X80*	500	55340.040.080	M6X50	100	55340.060.050
M3X4	200	55340.030.004	M4X90*	500	55340.040.090	M6X60	200	55340.060.060
M3X5*	500	55340.030.005				M6X65*	200	55340.060.065
M3X6	200	55340.030.006	M5X6*	500	55340.050.006	M6X70	200	55340.060.070

55340 Parafuso cabeça de queijo Phillips ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X80	200	55340.060.080	M8X16	100	55340.080.016	M8X40	100	55340.080.040
M6X90*	200	55340.060.090	M8X20	100	55340.080.020	M8X45*	200	55340.080.045
M6X100*	200	55340.060.100	M8X25	100	55340.080.025	M8X50	100	55340.080.050
			M8X30	100	55340.080.030	M8X60*	100	55340.080.060
M8X12*	200	55340.080.012	M8X35*	200	55340.080.035			

55342 Parafuso cabeça de queijo Pozidriv R41A

Rosca Métrica
Material Aço inoxidável A4

DIN **7985-Z**
ISO 7045-Z

RoHS

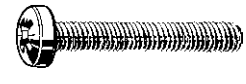


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M1,6X3*	1000	55342.016.003	M3X8*	500	55342.030.008	M5X10	500	55342.050.010
M1,6X4*	1000	55342.016.004	M3X10*	500	55342.030.010	M5X12*	500	55342.050.012
M1,6X5*	1000	55342.016.005	M3X12*	500	55342.030.012	M5X14*	500	55342.050.014
M1,6X6*	1000	55342.016.006	M3X14*	500	55342.030.014	M5X16*	500	55342.050.016
M1,6X10*	1000	55342.016.010	M3X16*	500	55342.030.016	M5X18*	500	55342.050.018
M1,6X12*	1000	55342.016.012	M3X18*	500	55342.030.018	M5X20*	500	55342.050.020
M1,6X14*	1000	55342.016.014	M3X20*	500	55342.030.020	M5X25*	500	55342.050.025
			M3X22*	500	55342.030.022	M5X30*	500	55342.050.030
M2X3*	1000	55342.020.003	M3X25*	500	55342.030.025	M5X35*	500	55342.050.035
M2X4*	1000	55342.020.004	M3X30*	500	55342.030.030	M5X40*	500	55342.050.040
M2X5*	1000	55342.020.005	M3X35*	500	55342.030.035	M5X45*	200	55342.050.045
M2X6*	1000	55342.020.006	M3X40*	500	55342.030.040	M5X50*	200	55342.050.050
M2X8*	1000	55342.020.008	M3X45*	200	55342.030.045	M5X60*	200	55342.050.060
M2X10*	1000	55342.020.010	M3X50*	200	55342.030.050	M5X70*	200	55342.050.070
M2X12*	1000	55342.020.012	M3X55*	200	55342.030.055	M5X80*	200	55342.050.080
M2X14*	1000	55342.020.014	M3X60*	200	55342.030.060	M5X90*	200	55342.050.090
M2X16*	1000	55342.020.016				M5X100*	200	55342.050.100
M2X18*	1000	55342.020.018	M4X4*	500	55342.040.004			
M2X20*	1000	55342.020.020	M4X5*	500	55342.040.005	M6X8*	500	55342.060.008
			M4X6	500	55342.040.006	M6X10*	500	55342.060.010
M2,5X3*	1000	55342.025.003	M4X8*	500	55342.040.008	M6X12*	500	55342.060.012
M2,5X4*	1000	55342.025.004	M4X10	500	55342.040.010	M6X16*	500	55342.060.016
M2,5X5*	1000	55342.025.005	M4X12	500	55342.040.012	M6X20*	500	55342.060.020
M2,5X6*	1000	55342.025.006	M4X14*	500	55342.040.014	M6X25*	200	55342.060.025
M2,5X8*	1000	55342.025.008	M4X16	500	55342.040.016	M6X30*	200	55342.060.030
M2,5X10*	1000	55342.025.010	M4X18*	500	55342.040.018	M6X35*	200	55342.060.035
M2,5X12*	1000	55342.025.012	M4X20*	500	55342.040.020	M6X40*	200	55342.060.040
M2,5X14*	1000	55342.025.014	M4X25*	500	55342.040.025	M6X45*	200	55342.060.045
M2,5X16*	1000	55342.025.016	M4X30*	500	55342.040.030	M6X50*	200	55342.060.050
M2,5X18*	1000	55342.025.018	M4X35*	500	55342.040.035	M6X55*	200	55342.060.055
M2,5X20*	1000	55342.025.020	M4X40*	500	55342.040.040	M6X60*	200	55342.060.060
M2,5X25*	500	55342.025.025	M4X45*	500	55342.040.045	M6X65*	100	55342.060.065
M2,5X30*	500	55342.025.030	M4X50*	500	55342.040.050	M6X70*	100	55342.060.070
			M4X55*	200	55342.040.055	M6X75*	100	55342.060.075
M3X3*	500	55342.030.003	M4X60*	200	55342.040.060	M6X80*	100	55342.060.080
M3X4*	500	55342.030.004				M6X90*	100	55342.060.090
M3X5*	500	55342.030.005	M5X6*	500	55342.050.006	M6X100*	100	55342.060.100
M3X6*	500	55342.030.006	M5X8*	500	55342.050.008			

45445 Parafuso cabeça de queijo Pozidriv W010

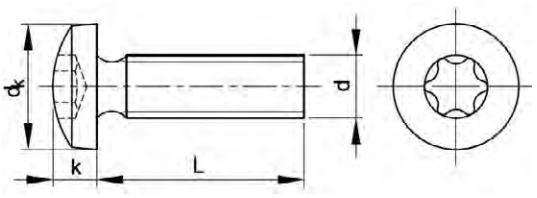
Rosca Métrica
Material Alumínio P65
Tratamento sup. Anodizado

DIN **≈7985-Z**
ISO ≈7045-Z

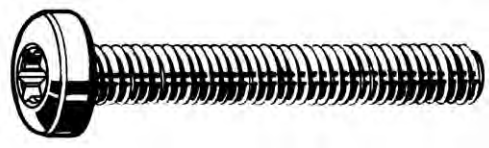


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X10	200	45445.030.010	M4X30	200	45445.040.030			
M3X12	200	45445.030.012				M6X12	200	45445.060.012
M3X16	200	45445.030.016	M5X10	200	45445.050.010	M6X16	200	45445.060.016
M3X20	200	45445.030.020	M5X12	200	45445.050.012	M6X20	200	45445.060.020
			M5X16	200	45445.050.016	M6X30	200	45445.060.030
M4X12	200	45445.040.012	M5X20	200	45445.050.020	M6X35	200	45445.060.035
M4X16	200	45445.040.016	M5X25	200	45445.050.025	M6X40	200	45445.060.040
M4X20	200	45445.040.020	M5X30	200	45445.050.030			
M4X25	200	45445.040.025	M5X40	200	45445.050.040			

Parafuso cabeça queijo hexalobular



ISO 14583



Dados técnicos

d	Chave caixa	d_k	k	P
M1.6	T5	3.2	1.3	0.35
M2	T6	4	1.6	0.4
M2.5	T8	5	2.1	0.45
M3	T10	5.6	2.4	0.5
M3.5	T15	7	2.6	0.6
M4	T20	8	3.1	0.7
M5	T25	9.5	3.7	0.8
M6	T30	12	4.6	1
M8	T45	16	6	1.25
M10	T50	20	7.5	1.5

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Hexalobular	Aço	8.8	Zn	24422	6-41
M	Hexalobular	INOX A2			51345	6-41
M	Hexalobular	INOX A4			55345	6-42

24422 Parafuso cabeça queijo hexalobular H07A

Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Zincado

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X8	200	24422.040.008	M5X8	200	24422.050.008	M6X10	200	24422.060.010
M4X10	200	24422.040.010	M5X10	200	24422.050.010	M6X12	200	24422.060.012
M4X12	200	24422.040.012	M5X12	200	24422.050.012	M6X16	200	24422.060.016
M4X16	200	24422.040.016	M5X16	200	24422.050.016	M6X20	200	24422.060.020
M4X20	200	24422.040.020	M5X20	200	24422.050.020			

51345 Parafuso cabeça queijo hexalobular R01A

Rosca Métrica
Material Aço inoxidável A2

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M1,6X2*	1000	51345.016.002	M2X16*	1000	51345.020.016	M2,5X30*	500	51345.025.030
M1,6X3*	1000	51345.016.003	M2X18*	1000	51345.020.018			
M1,6X4*	1000	51345.016.004	M2X20*	1000	51345.020.020	M3X3*	500	51345.030.003
M1,6X5*	1000	51345.016.005				M3X4*	500	51345.030.004
M1,6X6*	1000	51345.016.006	M2,5X3*	1000	51345.025.003	M3X5	500	51345.030.005
M1,6X8*	1000	51345.016.008	M2,5X4	1000	51345.025.004	M3X6	200	51345.030.006
M1,6X10*	1000	51345.016.010	M2,5X5*	1000	51345.025.005	M3X8	200	51345.030.008
M1,6X12*	1000	51345.016.012	M2,5X6	1000	51345.025.006	M3X10	200	51345.030.010
M1,6X16*	1000	51345.016.016	M2,5X8*	1000	51345.025.008	M3X12	200	51345.030.012
			M2,5X10	1000	51345.025.010	M3X14*	500	51345.030.014
M2X3*	1000	51345.020.003	M2,5X12*	1000	51345.025.012	M3X16	200	51345.030.016
M2X4*	1000	51345.020.004	M2,5X14*	1000	51345.025.014	M3X18*	500	51345.030.018
M2X5*	1000	51345.020.005	M2,5X16*	1000	51345.025.016	M3X20	200	51345.030.020
M2X6	1000	51345.020.006	M2,5X18*	1000	51345.025.018	M3X22*	500	51345.030.022
M2X8*	1000	51345.020.008	M2,5X20*	1000	51345.025.020	M3X25*	500	51345.030.025
M2X10*	1000	51345.020.010	M2,5X22*	1000	51345.025.022	M3X28*	500	51345.030.028
M2X12*	1000	51345.020.012	M2,5X25*	500	51345.025.025	M3X30	500	51345.030.030
M2X14*	1000	51345.020.014	M2,5X28*	500	51345.025.028	M3X35*	500	51345.030.035

51345 Parafuso cabeça queijo hexalobular ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X40*	500	51345.030.040				M6X22*	500	51345.060.022
M3X45*	200	51345.030.045	M5X6*	500	51345.050.006	M6X25	100	51345.060.025
M3X50*	200	51345.030.050	M5X8	200	51345.050.008	M6X28*	200	51345.060.028
M3X55*	200	51345.030.055	M5X10	200	51345.050.010	M6X30	100	51345.060.030
M3X60*	200	51345.030.060	M5X12	200	51345.050.012	M6X35	50	51345.060.035
			M5X14*	500	51345.050.014	M6X40	50	51345.060.040
M4X4*	500	51345.040.004	M5X16	200	51345.050.016	M6X45*	200	51345.060.045
M4X5*	500	51345.040.005	M5X18*	500	51345.050.018	M6X50*	200	51345.060.050
M4X6	500	51345.040.006	M5X20	200	51345.050.020	M6X55*	200	51345.060.055
M4X8	200	51345.040.008	M5X22*	500	51345.050.022	M6X60*	200	51345.060.060
M4X10	200	51345.040.010	M5X25*	500	51345.050.025	M6X65*	200	51345.060.065
M4X12	200	51345.040.012	M5X28*	500	51345.050.028	M6X70*	100	51345.060.070
M4X14	500	51345.040.014	M5X30	100	51345.050.030	M6X75*	100	51345.060.075
M4X16	200	51345.040.016	M5X35	100	51345.050.035	M6X80*	100	51345.060.080
M4X18*	500	51345.040.018	M5X40	100	51345.050.040	M6X90*	100	51345.060.090
M4X20	200	51345.040.020	M5X45*	200	51345.050.045	M6X100*	100	51345.060.100
M4X22*	500	51345.040.022	M5X50*	200	51345.050.050			
M4X25	200	51345.040.025	M5X55*	200	51345.050.055	M8X10*	200	51345.080.010
M4X28*	500	51345.040.028	M5X60*	200	51345.050.060	M8X12*	200	51345.080.012
M4X30	200	51345.040.030	M5X70*	200	51345.050.070	M8X16*	200	51345.080.016
M4X35	200	51345.040.035	M5X80*	200	51345.050.080	M8X20	200	51345.080.020
M4X40	200	51345.040.040	M5X90*	200	51345.050.090	M8X25*	200	51345.080.025
M4X45*	500	51345.040.045	M5X100*	200	51345.050.100	M8X30	200	51345.080.030
M4X50*	500	51345.040.050				M8X35*	200	51345.080.035
M4X55*	500	51345.040.055	M6X8*	500	51345.060.008	M8X40*	200	51345.080.040
M4X60*	500	51345.040.060	M6X10	100	51345.060.010	M8X45*	200	51345.080.045
M4X65*	500	51345.040.065	M6X12	100	51345.060.012	M8X50*	200	51345.080.050
M4X70*	500	51345.040.070	M6X14*	500	51345.060.014	M8X60*	200	51345.080.060
M4X80*	500	51345.040.080	M6X16	100	51345.060.016	M8X70*	200	51345.080.070
M4X90*	500	51345.040.090	M6X18*	500	51345.060.018	M8X80*	200	51345.080.080
M4X100*	500	51345.040.100	M6X20	100	51345.060.020			

55345 Parafuso cabeça queijo hexalobular R41A

Rosca Métrica
Material Aço inoxidável A4



RoHS

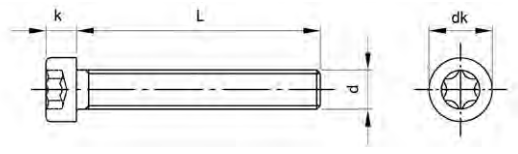
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M1,6X3*	1000	55345.016.003	M3X12*	500	55345.030.012	M5X22*	500	55345.050.022
M1,6X4*	1000	55345.016.004	M3X14*	500	55345.030.014	M5X25*	500	55345.050.025
M1,6X5*	1000	55345.016.005	M3X16*	500	55345.030.016	M5X30*	500	55345.050.030
M1,6X6*	1000	55345.016.006	M3X18*	500	55345.030.018	M5X35*	500	55345.050.035
M1,6X8*	1000	55345.016.008	M3X20*	500	55345.030.020	M5X40*	500	55345.050.040
M1,6X10*	1000	55345.016.010	M3X25*	500	55345.030.025	M5X45*	200	55345.050.045
M1,6X12*	1000	55345.016.012	M3X30*	500	55345.030.030	M5X50*	200	55345.050.050
M1,6X16*	1000	55345.016.016	M3X35*	500	55345.030.035	M5X55*	200	55345.050.055
			M3X40*	500	55345.030.040	M5X60*	200	55345.050.060
M2X3*	1000	55345.020.003	M3X45*	500	55345.030.045	M5X70*	200	55345.050.070
M2X4*	1000	55345.020.004	M3X50*	500	55345.030.050	M5X80*	200	55345.050.080
M2X6*	1000	55345.020.006				M5X90*	200	55345.050.090
M2X8*	1000	55345.020.008	M4X5*	500	55345.040.005	M5X100*	200	55345.050.100
M2X10*	1000	55345.020.010	M4X6*	500	55345.040.006			
M2X12*	1000	55345.020.012	M4X8*	500	55345.040.008	M6X8*	500	55345.060.008
M2X14*	1000	55345.020.014	M4X10*	500	55345.040.010	M6X10*	500	55345.060.010
M2X16*	1000	55345.020.016	M4X12*	500	55345.040.012	M6X12*	500	55345.060.012
M2X18*	1000	55345.020.018	M4X14*	500	55345.040.014	M6X14*	500	55345.060.014
M2X20*	1000	55345.020.020	M4X16*	500	55345.040.016	M6X16*	500	55345.060.016
			M4X18*	500	55345.040.018	M6X20*	200	55345.060.020
M2,5X3*	1000	55345.025.003	M4X20*	500	55345.040.020	M6X22*	200	55345.060.022
M2,5X4*	1000	55345.025.004	M4X22*	500	55345.040.022	M6X25*	200	55345.060.025
M2,5X5*	1000	55345.025.005	M4X25*	500	55345.040.025	M6X30*	200	55345.060.030
M2,5X6*	1000	55345.025.006	M4X30*	500	55345.040.030	M6X35*	200	55345.060.035
M2,5X8*	1000	55345.025.008	M4X35*	500	55345.040.035	M6X40*	200	55345.060.040
M2,5X10*	1000	55345.025.010	M4X40*	500	55345.040.040	M6X45*	200	55345.060.045
M2,5X12*	1000	55345.025.012	M4X45*	500	55345.040.045	M6X50*	200	55345.060.050
M2,5X14*	1000	55345.025.014	M4X50*	500	55345.040.050	M6X55*	200	55345.060.055
M2,5X16*	1000	55345.025.016	M4X55*	500	55345.040.055	M6X60*	200	55345.060.060
M2,5X20*	1000	55345.025.020	M4X60*	500	55345.040.060	M6X70*	100	55345.060.070
M2,5X25*	500	55345.025.025				M6X80*	100	55345.060.080
M2,5X30*	500	55345.025.030	M5X6*	500	55345.050.006	M6X90*	100	55345.060.090
			M5X8*	500	55345.050.008	M6X100*	100	55345.060.100
M3X3*	500	55345.030.003	M5X10*	500	55345.050.010			
M3X4*	500	55345.030.004	M5X12*	500	55345.050.012	M8X10*	200	55345.080.010
M3X5*	500	55345.030.005	M5X14*	500	55345.050.014	M8X12*	200	55345.080.012
M3X6*	500	55345.030.006	M5X16*	500	55345.050.016	M8X16*	200	55345.080.016
M3X8*	500	55345.030.008	M5X18*	500	55345.050.018	M8X20*	200	55345.080.020
M3X10*	500	55345.030.010	M5X20*	500	55345.050.020	M8X25*	200	55345.080.025

6

55345	Parafuso cabeça queijo hexalobular	←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M8X30*	200	55345.080.030	M8X45*	200	55345.080.045	M8X70*	200	55345.080.070
M8X35*	200	55345.080.035	M8X50*	200	55345.080.050	M8X80*	200	55345.080.080
M8X40*	200	55345.080.040	M8X60*	200	55345.080.060			

Parafuso cabeça cilindrica baixa hexalobular



ISO 14580



Dados técnicos

d	Chave caixa	d_k (max.)	k (max.)	P
M2	T6	3.8	1.55	0.4
M2.5	T8	4.5	1.85	0.45
M3	T10	5.5	2.4	0.5
M4	T20	7	3.1	0.7
M5	T25	8.5	3.65	0.8
M6	T30	10	4.4	1
M8	T45	13	5.8	1.25

6

51122	Parafuso cabeça cilindrica baixa hexalobular	Q05A

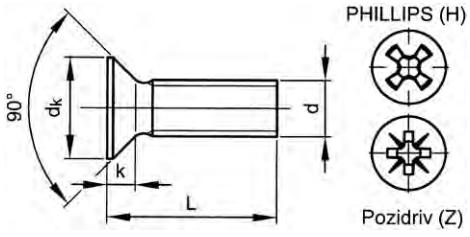
Rosca Métrica
Material Aço inoxidável A2
Classe 50

RoHS

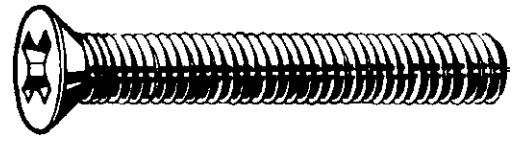


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X3*	1000	51122.020.003	M3X12*	1000	51122.030.012	M6X12*	500	51122.060.012
M2X4*	1000	51122.020.004	M3X16*	1000	51122.030.016	M6X16*	200	51122.060.016
M2X5*	1000	51122.020.005	M3X20*	1000	51122.030.020	M6X20*	200	51122.060.020
M2X6*	1000	51122.020.006				M6X25*	200	51122.060.025
M2X8*	1000	51122.020.008	M4X6*	1000	51122.040.006	M6X30*	200	51122.060.030
M2X10*	1000	51122.020.010	M4X8*	1000	51122.040.008	M6X35*	200	51122.060.035
M2X12*	1000	51122.020.012	M4X10*	1000	51122.040.010	M6X40*	200	51122.060.040
			M4X12*	1000	51122.040.012			
M2,5X3*	1000	51122.025.003	M4X16*	1000	51122.040.016	M8X10*	500	51122.080.010
M2,5X4*	1000	51122.025.004	M4X20*	500	51122.040.020	M8X12*	500	51122.080.012
M2,5X5*	1000	51122.025.005	M4X25*	500	51122.040.025	M8X16*	200	51122.080.016
M2,5X6*	1000	51122.025.006				M8X20*	200	51122.080.020
M2,5X8*	1000	51122.025.008	M5X8*	500	51122.050.008	M8X25*	200	51122.080.025
M2,5X10*	1000	51122.025.010	M5X10*	500	51122.050.010	M8X30*	100	51122.080.030
M2,5X12*	1000	51122.025.012	M5X12*	500	51122.050.012	M8X35*	100	51122.080.035
M2,5X16*	1000	51122.025.016	M5X16*	500	51122.050.016	M8X40*	100	51122.080.040
			M5X20*	500	51122.050.020	M8X45*	100	51122.080.045
M3X4*	1000	51122.030.004	M5X25*	200	51122.050.025	M8X50*	100	51122.080.050
M3X5*	1000	51122.030.005	M5X30*	200	51122.050.030	M8X55*	100	51122.080.055
M3X6*	1000	51122.030.006				M8X60*	100	51122.080.060
M3X8*	1000	51122.030.008	M6X8*	500	51122.060.008			
M3X10*	1000	51122.030.010	M6X10*	500	51122.060.010			

Parafuso cabeça de embeber fenda cruz



DIN **965**
ISO 7046-1
NF E25-119-1



Dados técnicos

d	d_k	k (max.)	Nr. fenda	P	Rosca total C ≤
M1.6	3	0.96	0	0.35	12
M2	3.8	1.2	1	0.4	16
M2.5	4.7	1.5	1	0.45	16
M3	5.6	1.65	1	0.5	20
M4	7.5	2.2	2	0.7	25
M5	9.2	2.5	2	0.8	30
M6	11	3	3	1	35
M8	14.5	4	4	1.25	40
M10	18	5	4	1.5	50

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.		Código	Página
M	Phillips	Aço	4.8	Zn		24671	6-44
M	Phillips	Aço	4.8	Zn	Embalagem grande	24670	6-45
M	Pozidriv	Aço	4.8	Zn		24672	6-45
M	Phillips	Aço	4.8	Passiv. preto		24840	6-45
M	Phillips	INOX A2				51300	6-46
M	Pozidriv	INOX A2				51302	6-46
M	Phillips	INOX A4				55300	6-47
M	Pozidriv	INOX A4				55302	6-48
M	Pozidriv	Al P65				45425	6-48

24671 Parafuso cabeça de embeber Phillips — H05A

Rosca Métrica
Material Aço
Classe 4.8
Tratamento sup. Zincado

DIN **965-H**
ISO 7046-1-H

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X5	200	24671.030.005	M4X45	200	24671.040.045	M6X12	200	24671.060.012
M3X6	200	24671.030.006	M4X60	200	24671.040.060	M6X16	200	24671.060.016
M3X8	200	24671.030.008	M4X70	200	24671.040.070	M6X20	100	24671.060.020
M3X10	200	24671.030.010				M6X25	100	24671.060.025
M3X12	200	24671.030.012	M5X8	200	24671.050.008	M6X30	100	24671.060.030
M3X16	200	24671.030.016	M5X10	200	24671.050.010	M6X35	100	24671.060.035
M3X20	200	24671.030.020	M5X12	200	24671.050.012	M6X40	100	24671.060.040
M3X25	200	24671.030.025	M5X16	200	24671.050.016	M6X50	100	24671.060.050
M3X30	200	24671.030.030	M5X20	200	24671.050.020	M6X60	100	24671.060.060
M3X40	200	24671.030.040	M5X25	200	24671.050.025	M6X70	100	24671.060.070
M3X50	200	24671.030.050	M5X30	100	24671.050.030	M6X80	100	24671.060.080
			M5X35	100	24671.050.035	M6X100	100	24671.060.100
M4X6	200	24671.040.006	M5X40	100	24671.050.040			
M4X8	200	24671.040.008	M5X50	200	24671.050.050	M8X16	100	24671.080.016
M4X10	200	24671.040.010	M5X60	100	24671.050.060	M8X20	100	24671.080.020
M4X12	200	24671.040.012	M5X70	100	24671.050.070	M8X25	100	24671.080.025
M4X16	200	24671.040.016	M5X80	100	24671.050.080	M8X30	100	24671.080.030
M4X20	200	24671.040.020	M5X100	100	24671.050.100	M8X35	100	24671.080.035
M4X25	200	24671.040.025				M8X60	100	24671.080.060
M4X30	200	24671.040.030	M6X10	200	24671.060.010	M8X80	100	24671.080.080

24670 Parafuso cabeça de embeber Phillips — H05A

Rosca	Métrica	**DIN**	**965-H**
Material	Aço	ISO	7046-1-H
Classe	4.8		
Tratamento sup.	Zincado		



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2,5X8	2000	24670.025.008	M4X30	1000	24670.040.030	M6X12	1000	24670.060.012
			M4X35	1000	24670.040.035	M6X16	500	24670.060.016
M3X5	2000	24670.030.005	M4X40	1000	24670.040.040	M6X20	250	24670.060.020
M3X6	2000	24670.030.006	M4X50	1000	24670.040.050	M6X25	250	24670.060.025
M3X8	2000	24670.030.008				M6X30	250	24670.060.030
M3X10	2000	24670.030.010	M5X8	1000	24670.050.008	M6X35	250	24670.060.035
M3X12	2000	24670.030.012	M5X10	1000	24670.050.010	M6X40	250	24670.060.040
M3X16	2000	24670.030.016	M5X12	1000	24670.050.012	M6X50	250	24670.060.050
M3X20	2000	24670.030.020	M5X16	1000	24670.050.016			
M3X35	2000	24670.030.035	M5X20	500	24670.050.020	M8X16	250	24670.080.016
			M5X25	500	24670.050.025	M8X20	250	24670.080.020
M4X6	1000	24670.040.006	M5X30	250	24670.050.030	M8X25	250	24670.080.025
M4X8	1000	24670.040.008	M5X35	250	24670.050.035	M8X30	250	24670.080.030
M4X10	1000	24670.040.010	M5X40	250	24670.050.040	M8X35	250	24670.080.035
M4X12	1000	24670.040.012	M5X45	250	24670.050.045	M8X40	100	24670.080.040
M4X16	1000	24670.040.016	M5X50	250	24670.050.050	M8X50	100	24670.080.050
M4X20	1000	24670.040.020						
M4X25	1000	24670.040.025	M6X10	1000	24670.060.010			

24672 Parafuso cabeça de embeber Pozidriv — H05A

Rosca	Métrica	**DIN**	**965-Z**
Material	Aço	ISO	7046-1-Z
Classe	4.8		
Tratamento sup.	Zincado		



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6	2000	24672.030.006	M5X8	1000	24672.050.008	M6X20	250	24672.060.020
M3X8	2000	24672.030.008	M5X10	1000	24672.050.010	M6X25	250	24672.060.025
M3X10	2000	24672.030.010	M5X12	1000	24672.050.012	M6X30	250	24672.060.030
M3X12	2000	24672.030.012	M5X16	1000	24672.050.016	M6X35	250	24672.060.035
M3X16	2000	24672.030.016	M5X20	500	24672.050.020	M6X40	250	24672.060.040
M3X20	2000	24672.030.020	M5X25	500	24672.050.025	M6X50	250	24672.060.050
			M5X30	250	24672.050.030	M6X60	250	24672.060.060
M4X6	1000	24672.040.006	M5X35	250	24672.050.035			
M4X8	1000	24672.040.008	M5X40	250	24672.050.040	M8X16	250	24672.080.016
M4X10	1000	24672.040.010	M5X50	250	24672.050.050	M8X20	250	24672.080.020
M4X12	1000	24672.040.012	M5X60	250	24672.050.060	M8X25	250	24672.080.025
M4X16	1000	24672.040.016				M8X30	250	24672.080.030
M4X20	1000	24672.040.020	M6X10	1000	24672.060.010	M8X35	250	24672.080.035
M4X25	1000	24672.040.025	M6X12	1000	24672.060.012	M8X40	100	24672.080.040
M4X30	1000	24672.040.030	M6X16	500	24672.060.016	M8X50	100	24672.080.050

24840 Parafuso cabeça de embeber Phillips — H07A

Rosca	Métrica	**DIN**	**965-H**
Material	Aço	ISO	7046-1-H
Classe	4.8		
Tratamento sup.	Passivado a preto		



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X4	200	24840.020.004	M4X25	200	24840.040.025	M6X10	200	24840.060.010
			M4X30	200	24840.040.030	M6X12	200	24840.060.012
M3X6	200	24840.030.006	M4X35	200	24840.040.035	M6X16	200	24840.060.016
M3X8	200	24840.030.008	M4X40	200	24840.040.040	M6X20	100	24840.060.020
M3X10	200	24840.030.010	M4X50	200	24840.040.050	M6X25	100	24840.060.025
M3X12	200	24840.030.012				M6X30	100	24840.060.030
M3X16	200	24840.030.016	M5X8	200	24840.050.008	M6X35	100	24840.060.035
M3X20	200	24840.030.020	M5X10	200	24840.050.010	M6X40	100	24840.060.040
M3X25	200	24840.030.025	M5X12	200	24840.050.012	M6X50	100	24840.060.050
M3X30	200	24840.030.030	M5X16	200	24840.050.016			
			M5X20	200	24840.050.020	M8X16	100	24840.080.016
M4X6	200	24840.040.006	M5X25	200	24840.050.025	M8X20	100	24840.080.020
M4X8	200	24840.040.008	M5X30	100	24840.050.030	M8X25	100	24840.080.025
M4X10	200	24840.040.010	M5X35	100	24840.050.035	M8X30	100	24840.080.030
M4X12	200	24840.040.012	M5X40	100	24840.050.040	M8X35	100	24840.080.035
M4X16	200	24840.040.016	M5X50	100	24840.050.050	M8X40	100	24840.080.040
M4X20	200	24840.040.020				M8X50	100	24840.080.050

51300 Parafuso cabeça de embeber Phillips — R01A

Rosca Métrica
Material Aço inoxidável A2

DIN 965-H
ISO 7046-2-H
NF E25-119-2

RoHS



d x L	✉	Ref. do artigo
M1,6X2*	1000	51300.016.002
M1,6X3*	1000	51300.016.003
M1,6X4*	1000	51300.016.004
M1,6X5*	1000	51300.016.005
M1,6X6*	1000	51300.016.006
M1,6X8*	1000	51300.016.008
M1,6X10*	1000	51300.016.010
M1,6X12*	1000	51300.016.012
M1,6X14*	1000	51300.016.014
M1,6X16*	1000	51300.016.016
M1,6X18*	1000	51300.016.018
M1,6X20*	1000	51300.016.020
M2X3*	1000	51300.020.003
M2X4	100	51300.020.004
M2X5	100	51300.020.005
M2X6	100	51300.020.006
M2X8	100	51300.020.008
M2X10	100	51300.020.010
M2X12	100	51300.020.012
M2X16	100	51300.020.016
M2X18*	1000	51300.020.018
M2X20*	1000	51300.020.020
M2,5X3*	1000	51300.025.003
M2,5X4*	1000	51300.025.004
M2,5X5	100	51300.025.005
M2,5X6	100	51300.025.006
M2,5X8	100	51300.025.008
M2,5X10	100	51300.025.010
M2,5X12	100	51300.025.012
M2,5X14*	1000	51300.025.014
M2,5X16	100	51300.025.016
M2,5X18*	1000	51300.025.018
M2,5X20	100	51300.025.020
M2,5X22*	1000	51300.025.022
M2,5X25*	1000	51300.025.025
M3X4	500	51300.030.004
M3X5*	500	51300.030.005
M3X6	200	51300.030.006
M3X8	200	51300.030.008
M3X10	200	51300.030.010
M3X12	200	51300.030.012
M3X14*	500	51300.030.014
M3X16	200	51300.030.016
M3X18*	500	51300.030.018
M3X20	200	51300.030.020
M3X22*	500	51300.030.022
M3X25	200	51300.030.025
M3X30	200	51300.030.030
M3X35	200	51300.030.035
M3X40	200	51300.030.040
M3X45*	500	51300.030.045
M3X50*	500	51300.030.050
M3X55*	500	51300.030.055
M3X60*	500	51300.030.060
M4X5	500	51300.040.005
M4X6	500	51300.040.006
M4X8	200	51300.040.008
M4X10	200	51300.040.010
M4X12	200	51300.040.012
M4X14*	500	51300.040.014
M4X16	200	51300.040.016
M4X18*	500	51300.040.018
M4X20	200	51300.040.020
M4X22*	500	51300.040.022
M4X25	200	51300.040.025
M4X30	200	51300.040.030
M4X35	200	51300.040.035
M4X40	200	51300.040.040
M4X45	200	51300.040.045
M4X50	200	51300.040.050
M4X55*	500	51300.040.055
M4X60	200	51300.040.060
M4X70*	200	51300.040.070
M4X80*	200	51300.040.080
M4X100*	200	51300.040.100
M5X6	500	51300.050.006
M5X8	100	51300.050.008
M5X10	100	51300.050.010
M5X12	100	51300.050.012
M5X14*	500	51300.050.014
M5X16	100	51300.050.016
M5X18*	500	51300.050.018
M5X20	100	51300.050.020
M5X22*	500	51300.050.022
M5X25	100	51300.050.025
M5X28*	500	51300.050.028
M5X30	100	51300.050.030
M5X35	100	51300.050.035
M5X40	100	51300.050.040
M5X45	100	51300.050.045
M5X50	100	51300.050.050
M5X55*	200	51300.050.055
M5X60	100	51300.050.060
M5X65*	200	51300.050.065
M5X70	100	51300.050.070
M5X80	100	51300.050.080
M5X90*	200	51300.050.090
M5X100	200	51300.050.100
M6X8*	500	51300.060.008
M6X10	100	51300.060.010
M6X12	100	51300.060.012
M6X14*	500	51300.060.014
M6X16	100	51300.060.016
M6X18*	500	51300.060.018
M6X20	100	51300.060.020
M6X22*	200	51300.060.022
M6X25	100	51300.060.025
M6X30	100	51300.060.030
M6X35	100	51300.060.035
M6X40	100	51300.060.040
M6X45	100	51300.060.045
M6X50	100	51300.060.050
M6X55*	200	51300.060.055
M6X60	100	51300.060.060
M6X65	100	51300.060.065
M6X70	100	51300.060.070
M6X75*	200	51300.060.075
M6X80	100	51300.060.080
M6X90*	200	51300.060.090
M6X100	200	51300.060.100
M8X12*	200	51300.080.012
M8X16*	200	51300.080.016
M8X20	100	51300.080.020
M8X25	100	51300.080.025
M8X30	100	51300.080.030
M8X35	100	51300.080.035
M8X40	100	51300.080.040
M8X45*	200	51300.080.045
M8X50	100	51300.080.050
M8X60	100	51300.080.060
M8X70	100	51300.080.070
M8X80	100	51300.080.080
M8X90*	200	51300.080.090
M8X100*	100	51300.080.100
M8X110*	100	51300.080.110
M8X120*	100	51300.080.120
M8X130*	100	51300.080.130
M8X150*	100	51300.080.150
M10X16*	100	51300.100.016
M10X20*	100	51300.100.020
M10X25*	100	51300.100.025
M10X30*	100	51300.100.030
M10X35*	100	51300.100.035
M10X40	100	51300.100.040
M10X45*	100	51300.100.045
M10X50*	100	51300.100.050
M10X60*	100	51300.100.060
M10X70*	50	51300.100.070
M10X80*	50	51300.100.080
M10X100*	50	51300.100.100

51302 Parafuso cabeça de embeber Pozidriv — R01A

Rosca Métrica
Material Aço inoxidável A2

DIN 965-Z
ISO 7046-2-Z
NF E25-119-2

RoHS



d x L	✉	Ref. do artigo
M1,6X2*	1000	51302.016.002
M1,6X3*	1000	51302.016.003
M1,6X4	100	51302.016.004
M1,6X5	100	51302.016.005
M1,6X6	100	51302.016.006
M1,6X8	100	51302.016.008
M1,6X10	100	51302.016.010
M1,6X12*	1000	51302.016.012
M1,6X14*	1000	51302.016.014
M1,6X16*	1000	51302.016.016
M1,6X18*	1000	51302.016.018
M1,6X20*	1000	51302.016.020
M2X3	100	51302.020.003
M2X4	100	51302.020.004
M2X5	100	51302.020.005
M2X6	100	51302.020.006
M2X8	100	51302.020.008
M2X10	100	51302.020.010
M2X12	100	51302.020.012
M2X14*	1000	51302.020.014
M2X16	100	51302.020.016
M2X18*	1000	51302.020.018
M2X20	100	51302.020.020
M2,5X3*	1000	51302.025.003
M2,5X4	100	51302.025.004
M2,5X5	100	51302.025.005
M2,5X6	100	51302.025.006
M2,5X8	100	51302.025.008

51302 Parafuso cabeça de embeber Pozidriv

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2,5X10	100	51302.025.010	M4X14*	500	51302.040.014	M5X70*	200	51302.050.070
M2,5X12	100	51302.025.012	M4X16	200	51302.040.016	M5X80*	200	51302.050.080
M2,5X14	100	51302.025.014	M4X18*	500	51302.040.018	M5X90*	200	51302.050.090
M2,5X16	100	51302.025.016	M4X20	200	51302.040.020	M5X100*	200	51302.050.100
M2,5X18*	1000	51302.025.018	M4X22*	500	51302.040.022			
M2,5X20	100	51302.025.020	M4X25	200	51302.040.025	M6X8	100	51302.060.008
M2,5X25*	1000	51302.025.025	M4X30	200	51302.040.030	M6X10	100	51302.060.010
			M4X35	200	51302.040.035	M6X12	100	51302.060.012
M3X4	200	51302.030.004	M4X40	200	51302.040.040	M6X14*	500	51302.060.014
M3X5	200	51302.030.005	M4X45*	500	51302.040.045	M6X16	100	51302.060.016
M3X6	200	51302.030.006	M4X50	200	51302.040.050	M6X20	100	51302.060.020
M3X8	200	51302.030.008	M4X55*	500	51302.040.055	M6X22*	500	51302.060.022
M3X10	200	51302.030.010	M4X60*	500	51302.040.060	M6X25	100	51302.060.025
M3X12	200	51302.030.012	M4X70*	500	51302.040.070	M6X30	100	51302.060.030
M3X14*	500	51302.030.014	M4X80*	200	51302.040.080	M6X35	100	51302.060.035
M3X16	200	51302.030.016				M6X40	100	51302.060.040
M3X18*	500	51302.030.018	M5X6	100	51302.050.006	M6X45*	200	51302.060.045
M3X20	200	51302.030.020	M5X8	100	51302.050.008	M6X50	100	51302.060.050
M3X22*	500	51302.030.022	M5X10	100	51302.050.010	M6X55*	200	51302.060.055
M3X25	200	51302.030.025	M5X12	100	51302.050.012	M6X60	100	51302.060.060
M3X30	200	51302.030.030	M5X14*	500	51302.050.014	M6X65*	200	51302.060.065
M3X35*	500	51302.030.035	M5X16	100	51302.050.016	M6X70*	200	51302.060.070
M3X40	200	51302.030.040	M5X18*	500	51302.050.018	M6X75*	200	51302.060.075
M3X45*	500	51302.030.045	M5X20	100	51302.050.020	M6X80*	200	51302.060.080
M3X50*	500	51302.030.050	M5X22*	500	51302.050.022	M6X90*	100	51302.060.090
M3X55*	500	51302.030.055	M5X25	100	51302.050.025	M6X100*	100	51302.060.100
M3X60*	500	51302.030.060	M5X30	100	51302.050.030			
			M5X35	100	51302.050.035	M8X16*	200	51302.080.016
M4X5	200	51302.040.005	M5X40	100	51302.050.040	M8X20*	200	51302.080.020
M4X6	200	51302.040.006	M5X45*	200	51302.050.045	M8X25*	200	51302.080.025
M4X8	200	51302.040.008	M5X50	100	51302.050.050	M8X30*	200	51302.080.030
M4X10	200	51302.040.010	M5X55*	200	51302.050.055	M8X35*	200	51302.080.035
M4X12	200	51302.040.012	M5X60	100	51302.050.060			

55300 Parafuso cabeça de embeber fenda Phillips R41A

Rosca Métrica
Material Aço inoxidável A4

DIN **965-H**
ISO 7046-2-H
NF E25-119-2

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M1,6X3*	1000	55300.016.003	M3X10	200	55300.030.010	M5X14*	500	55300.050.014
M1,6X4*	1000	55300.016.004	M3X12	200	55300.030.012	M5X16	100	55300.050.016
M1,6X5*	1000	55300.016.005	M3X14*	500	55300.030.014	M5X18*	500	55300.050.018
M1,6X6*	1000	55300.016.006	M3X16	200	55300.030.016	M5X20	100	55300.050.020
M1,6X8*	1000	55300.016.008	M3X18*	500	55300.030.018	M5X22*	500	55300.050.022
M1,6X10*	1000	55300.016.010	M3X20	200	55300.030.020	M5X25	100	55300.050.025
M1,6X12*	1000	55300.016.012	M3X22*	500	55300.030.022	M5X30	100	55300.050.030
M1,6X14*	1000	55300.016.014	M3X25	200	55300.030.025	M5X35	100	55300.050.035
M1,6X16*	1000	55300.016.016	M3X30	200	55300.030.030	M5X40	100	55300.050.040
			M3X35*	500	55300.030.035	M5X45*	200	55300.050.045
M2X4	100	55300.020.004	M3X45*	500	55300.030.045	M5X50	100	55300.050.050
M2X5	100	55300.020.005	M3X50*	500	55300.030.050	M5X55*	200	55300.050.055
M2X6	100	55300.020.006	M3X60*	500	55300.030.060	M5X60	100	55300.050.060
M2X8	100	55300.020.008				M5X70*	200	55300.050.070
M2X10	100	55300.020.010	M4X5*	500	55300.040.005	M5X80*	200	55300.050.080
M2X12	100	55300.020.012	M4X6	200	55300.040.006	M5X90*	200	55300.050.090
M2X16	100	55300.020.016	M4X8	200	55300.040.008	M5X100*	200	55300.050.100
M2X18*	1000	55300.020.018	M4X10	200	55300.040.010			
M2X20*	1000	55300.020.020	M4X12	200	55300.040.012	M6X8	100	55300.060.008
			M4X14*	500	55300.040.014	M6X10	100	55300.060.010
M2,5X3*	1000	55300.025.003	M4X16	200	55300.040.016	M6X12	100	55300.060.012
M2,5X5	100	55300.025.005	M4X18*	500	55300.040.018	M6X14*	500	55300.060.014
M2,5X6	100	55300.025.006	M4X20	200	55300.040.020	M6X16	100	55300.060.016
M2,5X8	100	55300.025.008	M4X22*	500	55300.040.022	M6X18*	500	55300.060.018
M2,5X10	100	55300.025.010	M4X25	200	55300.040.025	M6X20	100	55300.060.020
M2,5X12	100	55300.025.012	M4X30	200	55300.040.030	M6X22*	200	55300.060.022
M2,5X14*	1000	55300.025.014	M4X35	200	55300.040.035	M6X25	100	55300.060.025
M2,5X16	100	55300.025.016	M4X40	200	55300.040.040	M6X30	100	55300.060.030
M2,5X18*	1000	55300.025.018	M4X45*	500	55300.040.045	M6X35	100	55300.060.035
M2,5X20	100	55300.025.020	M4X55*	500	55300.040.055	M6X40	100	55300.060.040
M2,5X22*	1000	55300.025.022	M4X60*	500	55300.040.060	M6X45*	200	55300.060.045
M2,5X25*	1000	55300.025.025	M4X70*	200	55300.040.070	M6X50	100	55300.060.050
						M6X55*	200	55300.060.055
M3X4*	500	55300.030.004	M5X6*	500	55300.050.006	M6X60	100	55300.060.060
M3X5	500	55300.030.005	M5X8	100	55300.050.008	M6X70	100	55300.060.070
M3X6	200	55300.030.006	M5X10	100	55300.050.010	M6X75*	200	55300.060.075
M3X8	200	55300.030.008	M5X12	100	55300.050.012	M6X80*	200	55300.060.080

6

55300 Parafuso cabeça de embeber fenda Phillips ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X90*	200	55300.060.090	M8X40	100	55300.080.040	M10X30*	100	55300.100.030
M6X100	200	55300.060.100	M8X45*	200	55300.080.045	M10X35*	100	55300.100.035
			M8X50	100	55300.080.050	M10X40	100	55300.100.040
M8X12*	200	55300.080.012	M8X60	100	55300.080.060	M10X45*	100	55300.100.045
M8X16	100	55300.080.016	M8X80*	100	55300.080.080	M10X50*	100	55300.100.050
M8X20	100	55300.080.020				M10X60*	100	55300.100.060
M8X25	100	55300.080.025	M10X16*	100	55300.100.016	M10X70*	50	55300.100.070
M8X30	100	55300.080.030	M10X20*	100	55300.100.020	M10X80*	50	55300.100.080
M8X35	100	55300.080.035	M10X25*	100	55300.100.025			

55302 Parafuso cabeça de embeber Pozidriv R41A

Rosca Métrica
Material Aço inoxidável A4

DIN **965-Z**
ISO 7046-2-Z
NF E25-119-2

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M1,6X3	100	55302.016.003	M3X10	200	55302.030.010	M5X14*	500	55302.050.014
M1,6X4	100	55302.016.004	M3X12	200	55302.030.012	M5X16	100	55302.050.016
M1,6X5	100	55302.016.005	M3X14*	500	55302.030.014	M5X20	100	55302.050.020
M1,6X6	100	55302.016.006	M3X16	200	55302.030.016	M5X22*	500	55302.050.022
M1,6X8	100	55302.016.008	M3X18*	500	55302.030.018	M5X25	100	55302.050.025
M1,6X10	100	55302.016.010	M3X20	200	55302.030.020	M5X30	100	55302.050.030
M1,6X12	100	55302.016.012	M3X22*	500	55302.030.022	M5X35	100	55302.050.035
			M3X25	200	55302.030.025	M5X40	100	55302.050.040
M2X3	100	55302.020.003	M3X30	200	55302.030.030	M5X45*	200	55302.050.045
M2X4	100	55302.020.004	M3X35*	500	55302.030.035	M5X50	100	55302.050.050
M2X5	100	55302.020.005	M3X40	200	55302.030.040	M5X55*	200	55302.050.055
M2X6	100	55302.020.006	M3X45*	500	55302.030.045	M5X60	100	55302.050.060
M2X8	100	55302.020.008				M5X70*	200	55302.050.070
M2X10*	1000	55302.020.010	M4X5	200	55302.040.005	M5X80*	200	55302.050.080
M2X12	100	55302.020.012	M4X6	200	55302.040.006			
M2X14	100	55302.020.014	M4X8	200	55302.040.008	M6X8	100	55302.060.008
M2X16	100	55302.020.016	M4X10	200	55302.040.010	M6X10	100	55302.060.010
M2X20	100	55302.020.020	M4X12	200	55302.040.012	M6X12	100	55302.060.012
			M4X14*	500	55302.040.014	M6X14*	500	55302.060.014
M2,5X3*	1000	55302.025.003	M4X16	200	55302.040.016	M6X16	100	55302.060.016
M2,5X4	100	55302.025.004	M4X18*	500	55302.040.018	M6X18*	500	55302.060.018
M2,5X5	100	55302.025.005	M4X20	200	55302.040.020	M6X20	100	55302.060.020
M2,5X6	100	55302.025.006	M4X25	200	55302.040.025	M6X22*	500	55302.060.022
M2,5X8	100	55302.025.008	M4X30	200	55302.040.030	M6X25	100	55302.060.025
M2,5X10	100	55302.025.010	M4X35	200	55302.040.035	M6X30	100	55302.060.030
M2,5X12*	1000	55302.025.012	M4X40	200	55302.040.040	M6X35	100	55302.060.035
M2,5X14	100	55302.025.014	M4X45*	500	55302.040.045	M6X40	100	55302.060.040
M2,5X16	100	55302.025.016	M4X50	200	55302.040.050	M6X45*	200	55302.060.045
M2,5X18*	1000	55302.025.018	M4X60*	500	55302.040.060	M6X50	100	55302.060.050
M2,5X20	100	55302.025.020	M4X70*	500	55302.040.070	M6X60	100	55302.060.060
M2,5X25*	1000	55302.025.025				M6X70*	200	55302.060.070
			M5X6	100	55302.050.006	M6X75*	200	55302.060.075
M3X4	200	55302.030.004	M5X8	100	55302.050.008	M6X80*	200	55302.060.080
M3X5	200	55302.030.005	M5X10	100	55302.050.010	M6X90*	100	55302.060.090
M3X6	200	55302.030.006	M5X12	100	55302.050.012	M6X100*	100	55302.060.100
M3X8	200	55302.030.008						

45425 Parafuso cabeça de embeber Pozidriv W010

Rosca Métrica
Material Alumínio P65

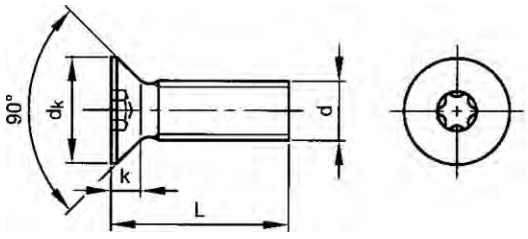
DIN **≈965**
ISO ≈7046-1
NF ≈E25-119-1



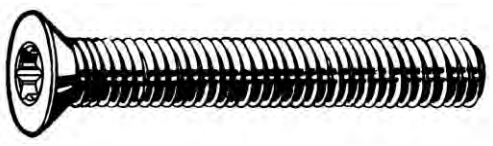
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X8	500	45425.030.008	M4X20	500	45425.040.020	M6X20	200	45425.060.020
M3X10	500	45425.030.010	M4X25	200	45425.040.025	M6X25	200	45425.060.025
M3X16	500	45425.030.016				M6X30	200	45425.060.030
M3X20	500	45425.030.020	M5X10	200	45425.050.010	M6X35	200	45425.060.035
M3X25	500	45425.030.025	M5X12	200	45425.050.012	M6X40	100	45425.060.040
			M5X16	200	45425.050.016	M6X50	100	45425.060.050
M4X10	500	45425.040.010	M5X20	200	45425.050.020			
M4X12	500	45425.040.012				M8X20	100	45425.080.020
M4X16	500	45425.040.016	M6X16	200	45425.060.016	M8X30	100	45425.080.030

6

Parafuso cabeça de embeber hexalobular



DIN **≈965**
ISO ≈14581
NF ≈E25-119-1



Dados técnicos

d	Chave caixa	d_k	k (max.)	P
M1.6	T5	3	0.96	0.35
M2	T6	3.8	1.2	0.4
M2.5	T8	4.7	1.5	0.45
M3	T10	5.6	1.65	0.5
M4	T20	7.5	2.2	0.7
M5	T25	9.2	2.5	0.8
M6	T30	11	3	1
M8	T45	14.5	4	1.25
M10	T50	18	5	1.5

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.	Código	Página
M	Hexalobular	Aço	4.8	Zn	24677	6-49
M	Hexalobular	INOX A2			51305	6-49
M	Hexalobular	INOX A4			55303	6-50

24677 Parafuso cabeça de embeber hexalobular H05A

Rosca Métrica
Material Aço
Classe 4.8
Tratamento sup. Zincado

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X5	200	24677.030.005	M4X16	200	24677.040.016			
M3X6	200	24677.030.006	M4X20	200	24677.040.020	M6X10	200	24677.060.010
M3X8	200	24677.030.008	M4X25	200	24677.040.025	M6X12	200	24677.060.012
M3X10	200	24677.030.010				M6X16	200	24677.060.016
M3X12	200	24677.030.012	M5X8	200	24677.050.008	M6X20	100	24677.060.020
M3X16	200	24677.030.016	M5X10	200	24677.050.010	M6X25	100	24677.060.025
M3X20	200	24677.030.020	M5X12	200	24677.050.012	M6X30	100	24677.060.030
			M5X16	200	24677.050.016	M6X35	100	24677.060.035
M4X6	200	24677.040.006	M5X20	200	24677.050.020	M6X40	100	24677.060.040
M4X8	200	24677.040.008	M5X25	100	24677.050.025			
M4X10	200	24677.040.010	M5X30	100	24677.050.030	M8X16	50	24677.080.016
M4X12	200	24677.040.012	M5X35	100	24677.050.035	M8X20	50	24677.080.020

51305 Parafuso cabeça de embeber hexalobular R01A

Rosca Métrica
Material Aço inoxidável A2

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M1,6X2*	1000	51305.016.002	M2X4*	1000	51305.020.004	M2,5X5*	1000	51305.025.005
M1,6X3*	1000	51305.016.003	M2X5*	1000	51305.020.005	M2,5X6	1000	51305.025.006
M1,6X4*	1000	51305.016.004	M2X6	1000	51305.020.006	M2,5X8*	1000	51305.025.008
M1,6X5*	1000	51305.016.005	M2X8*	1000	51305.020.008	M2,5X10*	1000	51305.025.010
M1,6X6*	1000	51305.016.006	M2X10*	1000	51305.020.010	M2,5X12*	1000	51305.025.012
M1,6X8*	1000	51305.016.008	M2X12*	1000	51305.020.012	M2,5X14*	1000	51305.025.014
M1,6X10*	1000	51305.016.010	M2X14*	1000	51305.020.014	M2,5X16*	1000	51305.025.016
M1,6X12*	1000	51305.016.012	M2X16*	1000	51305.020.016	M2,5X18*	1000	51305.025.018
M1,6X14*	1000	51305.016.014	M2X18*	1000	51305.020.018	M2,5X20*	1000	51305.025.020
M1,6X16*	1000	51305.016.016	M2X20*	1000	51305.020.020	M2,5X22*	1000	51305.025.022
M1,6X20*	1000	51305.016.020				M2,5X25*	1000	51305.025.025
			M2,5X3*	1000	51305.025.003			
M2X3*	1000	51305.020.003	M2,5X4	1000	51305.025.004	M3X4	500	51305.030.004

51305 Parafuso cabeça de embeber hexalobular

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X5	500	51305.030.005	M4X55*	500	51305.040.055	M6X16	100	51305.060.016
M3X6	200	51305.030.006	M4X60*	500	51305.040.060	M6X18*	500	51305.060.018
M3X8	200	51305.030.008	M4X65*	200	51305.040.065	M6X20	100	51305.060.020
M3X10	200	51305.030.010	M4X70*	200	51305.040.070	M6X22*	500	51305.060.022
M3X12	200	51305.030.012	M4X80*	200	51305.040.080	M6X25	100	51305.060.025
M3X14*	500	51305.030.014	M4X90*	200	51305.040.090	M6X30	100	51305.060.030
M3X16	200	51305.030.016	M4X100*	200	51305.040.100	M6X35	100	51305.060.035
M3X18*	500	51305.030.018				M6X40	100	51305.060.040
M3X20	200	51305.030.020	M5X6*	500	51305.050.006	M6X45*	200	51305.060.045
M3X22*	500	51305.030.022	M5X8	500	51305.050.008	M6X50*	200	51305.060.050
M3X25*	500	51305.030.025	M5X10	200	51305.050.010	M6X55*	200	51305.060.055
M3X30*	500	51305.030.030	M5X12	200	51305.050.012	M6X60*	200	51305.060.060
M3X35*	500	51305.030.035	M5X14*	500	51305.050.014	M6X65*	200	51305.060.065
M3X40*	500	51305.030.040	M5X16	200	51305.050.016	M6X70*	200	51305.060.070
M3X45*	500	51305.030.045	M5X18*	500	51305.050.018	M6X75*	200	51305.060.075
M3X50*	500	51305.030.050	M5X20	200	51305.050.020	M6X80*	200	51305.060.080
M3X55*	500	51305.030.055	M5X22*	500	51305.050.022	M6X90*	200	51305.060.090
M3X60*	500	51305.030.060	M5X25	100	51305.050.025	M6X100*	200	51305.060.100
			M5X28*	500	51305.050.028	M6X120*	200	51305.060.120
M4X5	500	51305.040.005	M5X30	100	51305.050.030	M6X130*	200	51305.060.130
M4X6*	500	51305.040.006	M5X35	100	51305.050.035	M6X140*	200	51305.060.140
M4X8	200	51305.040.008	M5X40	100	51305.050.040			
M4X10	200	51305.040.010	M5X45*	200	51305.050.045	M8X10*	200	51305.080.010
M4X12	200	51305.040.012	M5X50*	200	51305.050.050	M8X12*	200	51305.080.012
M4X14*	500	51305.040.014	M5X55*	200	51305.050.055	M8X16*	200	51305.080.016
M4X16	200	51305.040.016	M5X60*	200	51305.050.060	M8X20	200	51305.080.020
M4X18*	500	51305.040.018	M5X70*	200	51305.050.070	M8X25*	200	51305.080.025
M4X20	200	51305.040.020	M5X80*	200	51305.050.080	M8X30	200	51305.080.030
M4X22*	500	51305.040.022	M5X90*	200	51305.050.090	M8X35*	200	51305.080.035
M4X25	200	51305.040.025	M5X100*	200	51305.050.100	M8X40*	200	51305.080.040
M4X30	200	51305.040.030				M8X45*	200	51305.080.045
M4X35	100	51305.040.035	M6X8*	500	51305.060.008	M8X50*	200	51305.080.050
M4X40	100	51305.040.040	M6X10	100	51305.060.010	M8X60*	200	51305.080.060
M4X45*	500	51305.040.045	M6X12	100	51305.060.012	M8X70*	200	51305.080.070
M4X50	500	51305.040.050	M6X14*	500	51305.060.014	M8X80*	200	51305.080.080

55303 Parafuso cabeça de embeber hexalobular R41A

Rosca Métrica
Material Aço inoxidável A4



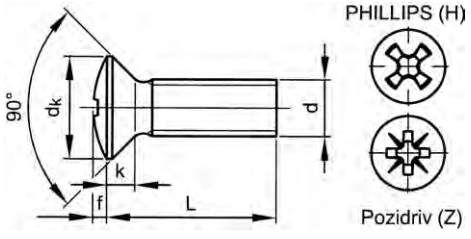
RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M1,6X3*	1000	55303.016.003	M3X14*	500	55303.030.014	M5X8*	500	55303.050.008
M1,6X4*	1000	55303.016.004	M3X16*	500	55303.030.016	M5X10*	500	55303.050.010
M1,6X5*	1000	55303.016.005	M3X18*	500	55303.030.018	M5X12*	500	55303.050.012
M1,6X6*	1000	55303.016.006	M3X20*	500	55303.030.020	M5X14*	500	55303.050.014
M1,6X8*	1000	55303.016.008	M3X25*	500	55303.030.025	M5X16*	500	55303.050.016
M1,6X10*	1000	55303.016.010	M3X30*	500	55303.030.030	M5X18*	500	55303.050.018
M1,6X14*	1000	55303.016.014	M3X35*	500	55303.030.035	M5X20*	500	55303.050.020
M1,6X16*	1000	55303.016.016	M3X40*	500	55303.030.040	M5X22*	500	55303.050.022
M1,6X20*	1000	55303.016.020	M3X45*	500	55303.030.045	M5X25*	500	55303.050.025
			M3X50*	500	55303.030.050	M5X28*	500	55303.050.028
M2X3*	1000	55303.020.003	M3X60*	500	55303.030.060	M5X30*	500	55303.050.030
M2X4*	1000	55303.020.004				M5X35*	500	55303.050.035
M2X6*	1000	55303.020.006	M4X5*	500	55303.040.005	M5X40*	500	55303.050.040
M2X8*	1000	55303.020.008	M4X6*	500	55303.040.006	M5X45*	200	55303.050.045
M2X12*	1000	55303.020.012	M4X8*	500	55303.040.008	M5X50*	200	55303.050.050
M2X14*	1000	55303.020.014	M4X10*	500	55303.040.010	M5X55*	200	55303.050.055
M2X16*	1000	55303.020.016	M4X12*	500	55303.040.012	M5X60*	200	55303.050.060
M2X20*	1000	55303.020.020	M4X14*	500	55303.040.014	M5X70*	200	55303.050.070
			M4X16*	500	55303.040.016	M5X80*	200	55303.050.080
M2,5X3*	1000	55303.025.003	M4X18*	500	55303.040.018	M5X90*	200	55303.050.090
M2,5X4*	1000	55303.025.004	M4X20*	500	55303.040.020	M5X100*	200	55303.050.100
M2,5X5*	1000	55303.025.005	M4X22*	500	55303.040.022			
M2,5X6*	1000	55303.025.006	M4X25*	500	55303.040.025	M6X8*	500	55303.060.008
M2,5X8*	1000	55303.025.008	M4X30*	500	55303.040.030	M6X10*	500	55303.060.010
M2,5X10*	1000	55303.025.010	M4X35*	500	55303.040.035	M6X12*	500	55303.060.012
M2,5X12	1000	55303.025.012	M4X40*	500	55303.040.040	M6X14*	500	55303.060.014
M2,5X14*	1000	55303.025.014	M4X45*	500	55303.040.045	M6X16*	500	55303.060.016
M2,5X16*	1000	55303.025.016	M4X50*	500	55303.040.050	M6X18*	500	55303.060.018
M2,5X20*	1000	55303.025.020	M4X55*	500	55303.040.055	M6X20*	500	55303.060.020
M2,5X25*	1000	55303.025.025	M4X60*	500	55303.040.060	M6X22*	500	55303.060.022
			M4X70*	200	55303.040.070	M6X25*	200	55303.060.025
M3X4*	500	55303.030.004	M4X80*	200	55303.040.080	M6X30*	200	55303.060.030
M3X5*	500	55303.030.005	M4X90*	200	55303.040.090	M6X35*	200	55303.060.035
M3X6*	500	55303.030.006				M6X40*	200	55303.060.040
M3X10*	500	55303.030.010	M5X6*	500	55303.050.006	M6X45*	200	55303.060.045

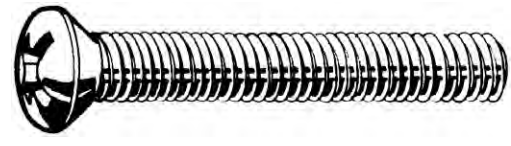
55303 **Parafuso cabeça de embeber hexalobular** ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X50*	200	55303.060.050				M8X35*	200	55303.080.035
M6X55*	200	55303.060.055	M8X10*	200	55303.080.010	M8X40*	200	55303.080.040
M6X60*	200	55303.060.060	M8X12*	200	55303.080.012	M8X45*	200	55303.080.045
M6X70*	200	55303.060.070	M8X16*	200	55303.080.016	M8X50*	200	55303.080.050
M6X80*	200	55303.060.080	M8X20*	200	55303.080.020	M8X60*	200	55303.080.060
M6X90*	200	55303.060.090	M8X25*	200	55303.080.025	M8X70*	200	55303.080.070
M6X100*	200	55303.060.100	M8X30*	200	55303.080.030	M8X80*	200	55303.080.080

Parafuso cabeça de lentilha



DIN **966**
ISO 7047
NF E25-120



Dados técnicos

d	d_k	f ≈	k (max.)	Nr. fenda	P	Rosca total C ≤
M2	3.8	0.5	1.2	1	0.4	16
M2.5	4.7	0.6	1.5	1	0.45	18
M3	5.6	0.75	1.65	1	0.5	20
M4	7.5	1	2.2	2	0.7	25
M5	9.2	1.25	2.5	2	0.8	30
M6	11	1.5	3	3	1	35
M8	14.5	2	4	4	1.25	40

Grupos de produtos

Rosca	Encaixe	Material	Classe	Tratamento sup.		Código	Página
M	Phillips	Aço	4.8	Zn		24691	6-51
M	Phillips	Aço	4.8	Zn	Embalagem grande	24690	6-52
M	Pozidriv	Aço	4.8	Zn		24692	6-52
M	Phillips	INOX A2				51320	6-52
M	Pozidriv	INOX A2				51322	6-53
M	Phillips	INOX A4				55320	6-53
M	Pozidriv	INOX A4				55322	6-53

24691 **Parafuso cabeça de lentilha Phillips** **H05A**

Rosca Métrica
Material Aço
Classe 4.8
Tratamento sup. Zincado

DIN **966-H**
ISO 7047-H

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6	200	24691.030.006	M4X25	200	24691.040.025			
M3X8	200	24691.030.008	M4X30	200	24691.040.030	M6X12	200	24691.060.012
M3X10	200	24691.030.010	M4X40	100	24691.040.040	M6X16	200	24691.060.016
M3X12	200	24691.030.012				M6X20	100	24691.060.020
M3X16	200	24691.030.016	M5X8	200	24691.050.008	M6X25	100	24691.060.025
M3X20	200	24691.030.020	M5X10	200	24691.050.010	M6X30	100	24691.060.030
			M5X12	200	24691.050.012	M6X35	100	24691.060.035
M4X6	200	24691.040.006	M5X16	200	24691.050.016	M6X40	100	24691.060.040
M4X8	200	24691.040.008	M5X20	200	24691.050.020	M6X50	100	24691.060.050
M4X10	200	24691.040.010	M5X25	200	24691.050.025			
M4X12	200	24691.040.012	M5X30	100	24691.050.030	M8X16	100	24691.080.016
M4X16	200	24691.040.016	M5X35	100	24691.050.035	M8X20	100	24691.080.020
M4X20	200	24691.040.020	M5X40	100	24691.050.040	M8X25	100	24691.080.025

6

24690 Parafuso cabeça de lentilha Phillips — H05A

Rosca	Métrica	**DIN**	**966-H**
Material	Aço	ISO	7047-H
Classe	4.8		
Tratamento sup.	Zincado		



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X10	2000	24690.030.010	M5X8	1000	24690.050.008	M6X20	250	24690.060.020
M3X12	2000	24690.030.012	M5X10	1000	24690.050.010	M6X25	250	24690.060.025
M3X16	2000	24690.030.016	M5X12	1000	24690.050.012	M6X30	250	24690.060.030
M3X20	2000	24690.030.020	M5X16	1000	24690.050.016	M6X35	250	24690.060.035
			M5X20	500	24690.050.020	M6X40	250	24690.060.040
M4X6	1000	24690.040.006	M5X25	500	24690.050.025	M6X50	250	24690.060.050
M4X8	1000	24690.040.008	M5X30	250	24690.050.030			
M4X10	1000	24690.040.010	M5X35	250	24690.050.035	M8X16	250	24690.080.016
M4X12	1000	24690.040.012	M5X40	250	24690.050.040	M8X20	250	24690.080.020
M4X16	1000	24690.040.016	M5X50	250	24690.050.050	M8X25	250	24690.080.025
M4X20	1000	24690.040.020				M8X30	250	24690.080.030
M4X25	1000	24690.040.025	M6X10	1000	24690.060.010	M8X35	250	24690.080.035
M4X30	1000	24690.040.030	M6X12	1000	24690.060.012	M8X40	100	24690.080.040
M4X40	500	24690.040.040	M6X16	500	24690.060.016	M8X50	100	24690.080.050

24692 Parafuso cabeça de lentilha Pozidriv — H05A

Rosca	Métrica	**DIN**	**966-Z**
Material	Aço	ISO	7047-Z
Classe	4.8		
Tratamento sup.	Zincado		



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6	2000	24692.030.006	M4X20	1000	24692.040.020			
M3X8	2000	24692.030.008	M4X25	1000	24692.040.025	M6X16	500	24692.060.016
M3X10	2000	24692.030.010	M4X30	1000	24692.040.030	M6X20	250	24692.060.020
M3X12	2000	24692.030.012				M6X25	250	24692.060.025
M3X16	2000	24692.030.016	M5X10	1000	24692.050.010			
M3X20	2000	24692.030.020	M5X12	1000	24692.050.012	M8X16	250	24692.080.016
			M5X16	1000	24692.050.016	M8X20	250	24692.080.020
M4X10	1000	24692.040.010	M5X20	500	24692.050.020	M8X25	250	24692.080.025
M4X12	1000	24692.040.012	M5X25	500	24692.050.025	M8X35	250	24692.080.035
M4X16	1000	24692.040.016	M5X30	250	24692.050.030			

51320 Parafuso cabeça de lentilha Phillips — R01A

Rosca	Métrica	**DIN**	**966-H**
Material	Aço inoxidável A2	ISO	7047-H



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X3*	1000	51320.020.003	M3X16	200	51320.030.016	M5X10	100	51320.050.010
M2X4*	1000	51320.020.004	M3X18*	500	51320.030.018	M5X12	100	51320.050.012
M2X5*	1000	51320.020.005	M3X20	200	51320.030.020	M5X14*	500	51320.050.014
M2X6*	1000	51320.020.006	M3X22*	500	51320.030.022	M5X16	100	51320.050.016
M2X8*	1000	51320.020.008	M3X25	200	51320.030.025	M5X18*	500	51320.050.018
M2X10*	1000	51320.020.010	M3X30	200	51320.030.030	M5X20	100	51320.050.020
M2X12*	1000	51320.020.012				M5X22*	500	51320.050.022
M2X14*	1000	51320.020.014	M4X6*	500	51320.040.006	M5X25	100	51320.050.025
M2X16*	1000	51320.020.016	M4X8	200	51320.040.008	M5X30	100	51320.050.030
M2X18*	1000	51320.020.018	M4X10	200	51320.040.010	M5X35	100	51320.050.035
M2X20*	1000	51320.020.020	M4X12	200	51320.040.012	M5X40	100	51320.050.040
M2X25*	1000	51320.020.025	M4X14*	500	51320.040.014	M5X45*	200	51320.050.045
M2X30*	1000	51320.020.030	M4X16	200	51320.040.016	M5X50	100	51320.050.050
			M4X18*	500	51320.040.018	M5X60	100	51320.050.060
M2,5X5*	1000	51320.025.005	M4X20	200	51320.040.020	M5X70	100	51320.050.070
M2,5X6	100	51320.025.006	M4X22*	500	51320.040.022	M5X75*	200	51320.050.075
M2,5X8*	1000	51320.025.008	M4X25	200	51320.040.025	M5X80*	200	51320.050.080
M2,5X10	100	51320.025.010	M4X30	200	51320.040.030	M5X90*	200	51320.050.090
M2,5X12*	1000	51320.025.012	M4X35*	500	51320.040.035	M5X100*	200	51320.050.100
			M4X40	200	51320.040.040			
M3X5*	500	51320.030.005	M4X45*	500	51320.040.045	M6X8*	500	51320.060.008
M3X6	200	51320.030.006	M4X50	200	51320.040.050	M6X10	100	51320.060.010
M3X8	200	51320.030.008	M4X60	200	51320.040.060	M6X12	100	51320.060.012
M3X10	200	51320.030.010				M6X14*	500	51320.060.014
M3X12	200	51320.030.012	M5X6*	500	51320.050.006	M6X16	100	51320.060.016
M3X14*	500	51320.030.014	M5X8	100	51320.050.008	M6X18*	500	51320.060.018

51320 Parafuso cabeça de lentilha Phillips ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X20	100	51320.060.020	M6X70*	200	51320.060.070	M8X25	100	51320.080.025
M6X25	100	51320.060.025	M6X75*	200	51320.060.075	M8X30	100	51320.080.030
M6X30	100	51320.060.030	M6X80	200	51320.060.080	M8X35	100	51320.080.035
M6X35	100	51320.060.035	M6X95*	200	51320.060.095	M8X40	100	51320.080.040
M6X40	100	51320.060.040	M6X100*	200	51320.060.100	M8X45*	200	51320.080.045
M6X45	100	51320.060.045				M8X50	100	51320.080.050
M6X50	100	51320.060.050	M8X12*	200	51320.080.012	M8X60	100	51320.080.060
M6X55*	200	51320.060.055	M8X16*	200	51320.080.016	M8X70*	100	51320.080.070
M6X60	100	51320.060.060	M8X20	100	51320.080.020	M8X80*	100	51320.080.080

51322 Parafuso cabeça de lentilha Pozidriv R01A

Rosca Métrica **DIN** **966-Z**
Material Aço inoxidável A2 ISO 7047-Z



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X3*	1000	51322.020.003				M5X20	100	51322.050.020
M2X4*	1000	51322.020.004	M4X6*	500	51322.040.006	M5X25	100	51322.050.025
M2X5*	1000	51322.020.005	M4X8	200	51322.040.008	M5X30	100	51322.050.030
M2X6*	1000	51322.020.006	M4X10	200	51322.040.010	M5X35	100	51322.050.035
M2X12*	1000	51322.020.012	M4X12	200	51322.040.012	M5X40	100	51322.050.040
M2X16*	1000	51322.020.016	M4X14*	500	51322.040.014	M5X45*	200	51322.050.045
			M4X16	200	51322.040.016	M5X50*	200	51322.050.050
M2,5X5*	1000	51322.025.005	M4X20	200	51322.040.020			
M2,5X6*	1000	51322.025.006	M4X25	200	51322.040.025	M6X10	100	51322.060.010
M2,5X8*	1000	51322.025.008	M4X30	200	51322.040.030	M6X12	100	51322.060.012
M2,5X10*	1000	51322.025.010	M4X35*	500	51322.040.035	M6X16	100	51322.060.016
			M4X40*	500	51322.040.040	M6X20	100	51322.060.020
M3X5*	500	51322.030.005				M6X25	100	51322.060.025
M3X6*	500	51322.030.006	M5X6*	500	51322.050.006	M6X30	100	51322.060.030
M3X8	200	51322.030.008	M5X8	100	51322.050.008	M6X35	100	51322.060.035
M3X10	200	51322.030.010	M5X10	100	51322.050.010	M6X40	100	51322.060.040
M3X12	200	51322.030.012	M5X12	100	51322.050.012	M6X50*	200	51322.060.050
M3X16	200	51322.030.016	M5X14*	500	51322.050.014			
M3X25*	500	51322.030.025	M5X16	100	51322.050.016	M8X30*	200	51322.080.030
M3X30*	500	51322.030.030	M5X18*	500	51322.050.018	M8X50*	200	51322.080.050

55320 Parafuso cabeça de lentilha Phillips R41A

Rosca Métrica **DIN** **966-H**
Material Aço inoxidável A4 ISO 7047-H



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6*	500	55320.030.006	M3X30*	500	55320.030.030	M4X40*	500	55320.040.040
M3X8*	500	55320.030.008				M4X50*	500	55320.040.050
M3X10*	500	55320.030.010	M4X8*	500	55320.040.008			
M3X12*	500	55320.030.012	M4X12*	500	55320.040.012	M5X8*	500	55320.050.008
M3X16*	500	55320.030.016	M4X25*	500	55320.040.025			
M3X20*	500	55320.030.020	M4X30*	500	55320.040.030	M6X40*	200	55320.060.040
M3X25*	500	55320.030.025	M4X35*	500	55320.040.035			

55322 Parafuso cabeça de lentilha Pozidriv R41A

Rosca Métrica **DIN** **966-Z**
Material Aço inoxidável A4 ISO 7047-Z

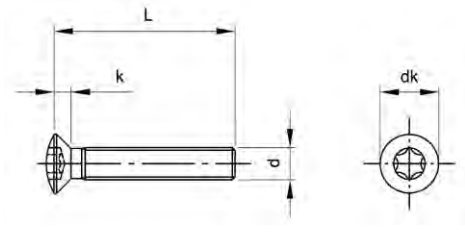


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2X6	100	55322.020.006	M3X5*	500	55322.030.005			
M2X8	100	55322.020.008	M3X6	200	55322.030.006	M4X5*	500	55322.040.005
M2X10	100	55322.020.010	M3X8	200	55322.030.008	M4X6*	500	55322.040.006
			M3X10	200	55322.030.010	M4X8	200	55322.040.008
M2,5X6	100	55322.025.006	M3X12	200	55322.030.012	M4X10	200	55322.040.010
M2,5X8	100	55322.025.008	M3X16	200	55322.030.016	M4X12	200	55322.040.012
M2,5X10	100	55322.025.010	M3X18*	500	55322.030.018	M4X14*	500	55322.040.014
M2,5X12	100	55322.025.012	M3X20*	500	55322.030.020	M4X16	200	55322.040.016
			M3X25*	500	55322.030.025	M4X18*	500	55322.040.018
M3X4*	500	55322.030.004	M3X30*	500	55322.030.030	M4X20	200	55322.040.020

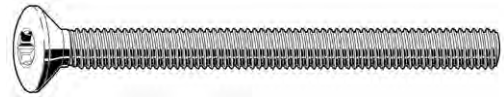
6

55322	Parafuso cabeça de lentilha Pozidriv								←
d x L		Ref. do artigo	d x L		Ref. do artigo	d x L		Ref. do artigo	
M4X25	200	55322.040.025	M5X20	100	55322.050.020	M6X16	100	55322.060.016	
M4X30	200	55322.040.030	M5X25	100	55322.050.025	M6X20	100	55322.060.020	
M4X35*	500	55322.040.035	M5X30	100	55322.050.030	M6X25	100	55322.060.025	
M4X40*	500	55322.040.040	M5X35*	500	55322.050.035	M6X30	100	55322.060.030	
M4X50*	500	55322.040.050	M5X40	100	55322.050.040	M6X35	100	55322.060.035	
			M5X50*	200	55322.050.050	M6X40	100	55322.060.040	
M5X8	100	55322.050.008	M5X70*	200	55322.050.070	M6X50*	200	55322.060.050	
M5X10	100	55322.050.010				M6X60*	200	55322.060.060	
M5X12	100	55322.050.012	M6X10	100	55322.060.010				
M5X16	100	55322.050.016	M6X12	100	55322.060.012				

Parafuso cabeça de lentilha baixa hexalobular



DIN **≈966**
ISO ≈14584



Dados técnicos

d	Chave caixa	d_k	k (max.)	P
M3	T10	5.6	1.65	0.5
M4	T20	7.5	2.2	0.7
M5	T25	9.2	2.5	0.8
M6	T30	11	3	1

Grupos de produtos

Rosca	Encaixe	Material	Código	Página
M	Hexalobular	INOX A2	51325	6-54
M	Hexalobular	INOX A4	55325	6-55

51325	Parafuso cabeça de lentilha baixa hexalobular								R01A
Rosca	Métrica								
Material	Aço inoxidável A2								
d x L		Ref. do artigo	d x L		Ref. do artigo	d x L		Ref. do artigo	
M3X4*	500	51325.030.004	M4X25*	500	51325.040.025	M5X45*	200	51325.050.045	
M3X5*	500	51325.030.005	M4X30*	500	51325.040.030	M5X50*	200	51325.050.050	
M3X6*	500	51325.030.006	M4X35*	500	51325.040.035	M5X55*	200	51325.050.055	
M3X8*	500	51325.030.008	M4X40*	500	51325.040.040	M5X60*	200	51325.050.060	
M3X10*	500	51325.030.010	M4X45*	500	51325.040.045	M5X70*	200	51325.050.070	
M3X12*	500	51325.030.012	M4X50*	500	51325.040.050				
M3X16*	500	51325.030.016	M4X60*	500	51325.040.060	M6X10*	500	51325.060.010	
M3X20*	500	51325.030.020				M6X12*	500	51325.060.012	
M3X25*	500	51325.030.025	M5X6*	500	51325.050.006	M6X16*	500	51325.060.016	
M3X30*	500	51325.030.030	M5X8*	500	51325.050.008	M6X20*	500	51325.060.020	
M3X35*	500	51325.030.035	M5X10*	500	51325.050.010	M6X25*	200	51325.060.025	
M3X40*	500	51325.030.040	M5X12*	500	51325.050.012	M6X30*	200	51325.060.030	
			M5X16*	500	51325.050.016	M6X35*	200	51325.060.035	
M4X8*	500	51325.040.008	M5X20*	500	51325.050.020	M6X40*	200	51325.060.040	
M4X10*	500	51325.040.010	M5X25*	500	51325.050.025	M6X45*	200	51325.060.045	
M4X12*	500	51325.040.012	M5X30*	500	51325.050.030	M6X50*	200	51325.060.050	
M4X16*	500	51325.040.016	M5X35*	500	51325.050.035	M6X60*	200	51325.060.060	
M4X20*	500	51325.040.020	M5X40*	500	51325.050.040				



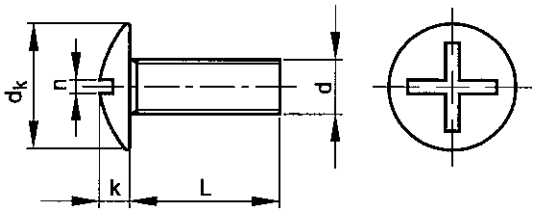
55325 **Parafuso cabeça de lentilha baixa hexalobular** **R41A**

Rosca Métrica
Material Aço inoxidável A4

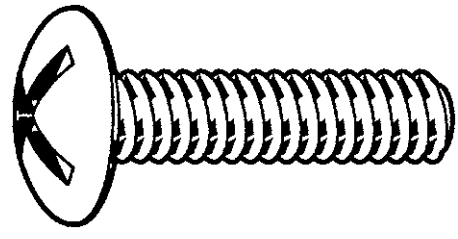


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X5*	500	55325.040.005	M5X10*	500	55325.050.010			
M4X6*	500	55325.040.006	M5X12*	500	55325.050.012	M6X12*	500	55325.060.012
M4X8*	500	55325.040.008	M5X16*	500	55325.050.016	M6X16*	500	55325.060.016
M4X10*	500	55325.040.010	M5X20*	500	55325.050.020	M6X20*	500	55325.060.020
M4X12*	500	55325.040.012	M5X25*	500	55325.050.025	M6X25*	200	55325.060.025
M4X16*	500	55325.040.016	M5X30*	500	55325.050.030	M6X30*	200	55325.060.030
M4X20*	500	55325.040.020	M5X35*	500	55325.050.035	M6X35*	200	55325.060.035
M4X25*	500	55325.040.025	M5X40*	500	55325.050.040	M6X40*	200	55325.060.040
M4X30*	500	55325.040.030	M5X50*	200	55325.050.050	M6X50*	200	55325.060.050
M4X40*	500	55325.040.040	M5X60*	200	55325.050.060	M6X60*	200	55325.060.060

Parafuso cabeça oval dupla fenda



NF **≈E25-129**



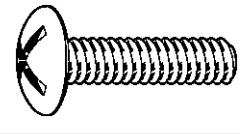
Dados técnicos

d	d_k (max.)	k (max.)	n (max.)	P
M5	12	4	1.3	0.8
M6	14	4.2	1.7	1
M8	20	4.4	2.31	1.25
M10	25	5.5	2.81	1.5

- M6 Aplicação em combinação com porcas planas com ponta em calhas.

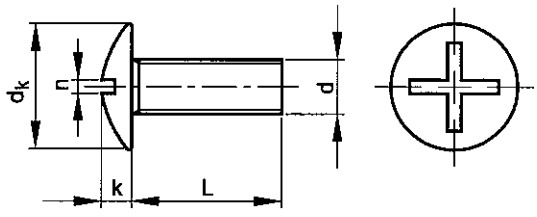
24650 **Parafuso cabeça oval dupla fenda** **H01X**

Rosca Métrica
Material Aço
Classe 4.8
Tratamento sup. Zincado

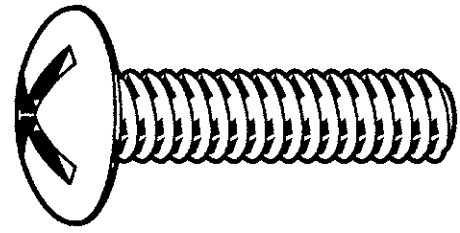


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X8	1000	24650.050.008	M6X30	200	24650.060.030	M8X40	100	24650.080.040
M5X10	1000	24650.050.010	M6X40	100	24650.060.040	M8X50	100	24650.080.050
M5X12	1000	24650.050.012	M6X50	100	24650.060.050	M8X60	100	24650.080.060
M5X16	1000	24650.050.016	M6X60	100	24650.060.060	M8X80	100	24650.080.080
			M6X80	100	24650.060.080	M8X100	100	24650.080.100
M6X10	1000	24650.060.010						
M6X12	1000	24650.060.013	M8X15	200	24650.080.016	M10X40	100	24650.100.040
M6X16	200	24650.060.016	M8X20	100	24650.080.020			
M6X20	200	24650.060.020	M8X30	100	24650.080.030			

Parafuso cabeça oval fenda dupla



NF E25-129



Dados técnicos

d	d_k (max.)	k (max.)	n	P
M4	10.0	2.2	1.2	0.7
M5	12.5	2.7	1.2	0.8
M6	15.0	3.3	1.6	1
M8	20.0	4.4	2.0	1.25
M10	25.0	5.5	2.5	1.5

Grupos de produtos

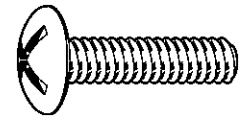
Rosca	Encaixe	Material	Classe	Tratamento sup.		Código	Página
M	Fenda	Aço	4.8	Zn		24862	6-56
M	Fenda	Aço	4.8	Zn	with nut	24874	6-56

6

24862 Parafuso cabeça oval fenda dupla — H01X

Rosca Métrica
Material Aço
Classe 4.8
Tratamento sup. Zincado

RoHS

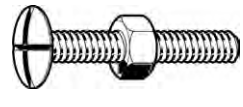


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X10	500	24862.040.010	M6X10	200	24862.060.010			
M4X16	500	24862.040.016	M6X12	200	24862.060.012	M8X16	200	24862.080.016
M4X20	500	24862.040.020	M6X16	200	24862.060.016	M8X20	100	24862.080.020
M4X25	500	24862.040.025	M6X20	200	24862.060.020	M8X25	100	24862.080.025
M4X30	500	24862.040.030	M6X25	200	24862.060.025	M8X30	100	24862.080.030
			M6X30	200	24862.060.030	M8X35	200	24862.080.035
M5X10	500	24862.050.010	M6X40	100	24862.060.040	M8X40	100	24862.080.040
M5X16	500	24862.050.016	M6X50	100	24862.060.050	M8X50	100	24862.080.050
M5X20	500	24862.050.020	M6X60	100	24862.060.060			
M5X25	200	24862.050.025	M6X70	100	24862.060.070	M10X50	100	24862.100.050
M5X30	200	24862.050.030	M6X100	100	24862.060.100	M10X60	50	24862.100.060

24874 Cabeça oval fenda dupla com porca sextavada — H01X

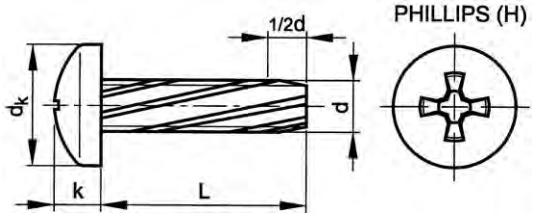
Rosca Métrica
Material Aço
Classe 4.8
Tratamento sup. Zincado

RoHS

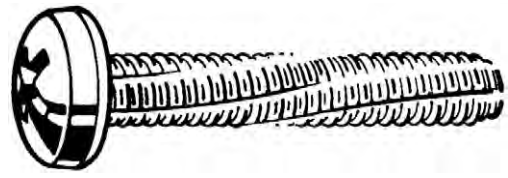


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X16	500	24874.040.016	M6X10	200	24874.060.010	M8X20	200	24874.080.020
M4X20	500	24874.040.020	M6X12	200	24874.060.012	M8X25	200	24874.080.025
M4X25	500	24874.040.025	M6X16	200	24874.060.016	M8X30	200	24874.080.030
M4X30	500	24874.040.030	M6X20	200	24874.060.020	M8X35	100	24874.080.035
M4X35	200	24874.040.035	M6X25	200	24874.060.025	M8X40	100	24874.080.040
M4X40	200	24874.040.040	M6X30	200	24874.060.030	M8X45	100	24874.080.045
M4X50	200	24874.040.050	M6X35	200	24874.060.035	M8X50	100	24874.080.050
			M6X40	200	24874.060.040	M8X60	100	24874.080.060
M5X16	200	24874.050.016	M6X45	100	24874.060.045	M8X70	100	24874.080.070
M5X20	200	24874.050.020	M6X50	100	24874.060.050	M8X80	100	24874.080.080
M5X25	200	24874.050.025	M6X60	100	24874.060.060	M8X100	100	24874.080.100
M5X30	200	24874.050.030	M6X70	100	24874.060.070			
M5X35	200	24874.050.035	M6X80	100	24874.060.080	M10X30	100	24874.100.030
M5X40	200	24874.050.040	M6X100	100	24874.060.100	M10X40	100	24874.100.040
M5X50	200	24874.050.050				M10X50	100	24874.100.050
M5X60	200	24874.050.060	M8X16	200	24874.080.016	M10X60	50	24874.100.060

Parafuso autocortante cabeça de queijo Phillips



DIN **7516 AE-H**



Dados técnicos

d	d_k	Furo ø (H11)	k	Nr. fenda	P
M3	6	2.7	2.4	1	0.5
M4	8	3.6	3.1	2	0.7
M5	10	4.5	3.8	2	0.8
M6	12	5.5	4.6	3	1

- Furo ø (H11) = Os diâmetros indicados são indicativos para materiais de dureza média.
- Para placas feitas de materiais de baixa dureza, furos guias paquenos,para placas feitas de materiais duros um furo de maior dimensão deve ser escolhido.
- É recomendado que a escolha do diâmetro exacto seja baseada em testes.
- A profundidade de ligação não deve exceder 2 d.

27100 **Parafuso autoroscante métrico cabeça queijo Phillips** **J04A**

Rosca Métrica
Material Aço
Tratamento sup. Zincado

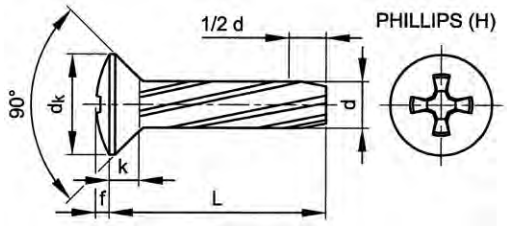
RoHS



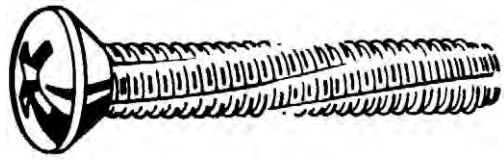
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6	2000	27100.030.006	M4X16	2000	27100.040.016	M5X30	500	27100.050.030
M3X8	2000	27100.030.008	M4X20	1000	27100.040.020			
M3X10	2000	27100.030.010	M4X25	1000	27100.040.025	M6X12	1000	27100.060.012
M3X12	2000	27100.030.012				M6X16	500	27100.060.016
M3X16	2000	27100.030.016	M5X10	2000	27100.050.010	M6X20	500	27100.060.020
			M5X12	1000	27100.050.012	M6X25	500	27100.060.025
M4X8	2000	27100.040.008	M5X16	1000	27100.050.016	M6X30	500	27100.060.030
M4X10	2000	27100.040.010	M5X20	500	27100.050.020	M6X35	250	27100.060.035
M4X12	2000	27100.040.012	M5X25	500	27100.050.025			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Parafuso autocortante cabeça de lentilha Phillips



DIN **7516 EE-H**



Dados técnicos

d	d_k	f ≈	Furo ø (H11)	k (max.)	Nr. fenda	P
M4	7.5	1	3.6	2.2	2	0.7
M5	9.2	1.25	4.5	2.5	2	0.8
M6	11	1.5	5.5	3	3	1

- Furo ø (H11) = Os diâmetros indicados são indicativos para materiais de dureza média.
- Para placas feitas de materiais de baixa dureza, furos guias paquenos, para placas feitas de materiais duros um furo de maior dimensão deve ser escolhido.
- Recomendado que a escolha do diâmetro exacto seja baseada em testes.
- A profundidade de ligação não deve exceder 2 d.

27180 **Parafuso autoroscante métrico cabeça lentilha Phillips** **J04A**

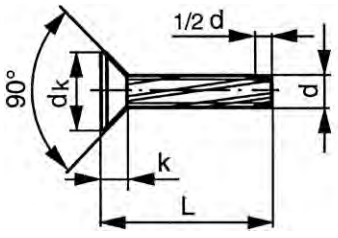
Rosca Métrica
Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X10	2000	27180.040.010						
M4X12	2000	27180.040.012	M5X16	1000	27180.050.016	M6X25	500	27180.060.025
M4X16	2000	27180.040.016	M5X20	500	27180.050.020	M6X30	500	27180.060.030
M4X20	1000	27180.040.020	M5X25	500	27180.050.025	M6X35	250	27180.060.035
M4X25	1000	27180.040.025	M5X30	500	27180.050.030			

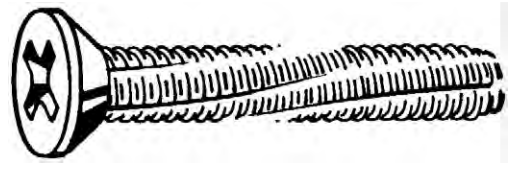
- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Parafuso autocortante cabeça de embeber Phillips



PHILLIPS(H) **DIN** **7516 DE-H**





Dados técnicos

d	d_k	Furo ø (H11)	k (max.)	Nr. fenda	P
M3	5.5	2.7	1.65	1	0.5
M4	8.4	3.6	2.7	2	0.7
M5	9.3	4.5	2.7	2	0.8
M6	11.3	5.5	3.3	3	1

- Furo ø (H11) = Os diâmetros indicados são indicativos para materiais de dureza média.
- Para placas feitas de materiais de baixa dureza, furos guias paquenos, para placas feitas de materiais duros um furo de maior dimensão deve ser escolhido.
- Recomendado que a escolha do diâmetro exacto seja baseada em testes.
- A profundidade de ligação não deve exceder 2 d.

27160 **Parafuso autoroscante métrico cabeça embeber Phillips** **J04A**

Rosca Métrica
Material Aço
Tratamento sup. Zincado

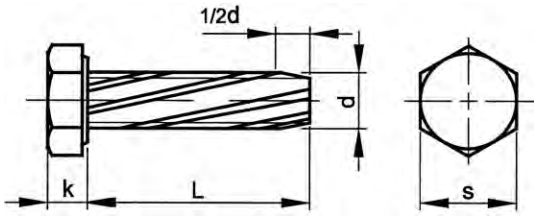
RoHS



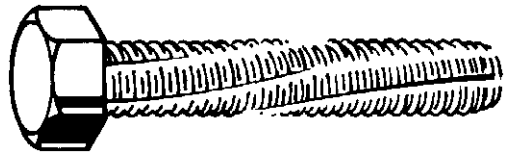
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X10	2000	27160.030.010	M4X25	1000	27160.040.025			
M3X12	2000	27160.030.012	M4X30	1000	27160.040.030	M6X16	500	27160.060.016
M3X16	2000	27160.030.016				M6X20	500	27160.060.020
M3X20	2000	27160.030.020	M5X10	1000	27160.050.010	M6X25	500	27160.060.025
			M5X12	1000	27160.050.012	M6X30	500	27160.060.030
M4X10	2000	27160.040.010	M5X16	1000	27160.050.016	M6X35	250	27160.060.035
M4X12	2000	27160.040.012	M5X20	500	27160.050.020	M6X40	250	27160.060.040
M4X16	2000	27160.040.016	M5X25	500	27160.050.025			
M4X20	1000	27160.040.020	M5X30	500	27160.050.030			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Parafuso auto cortante cabeça sextavada



DIN 7513 A



Dados técnicos

d	Furo ø (H11)	k	P	s
M5	4.5	3.5	0.8	8
M6	5.5	4	1	10
M8	7.4	5.3	1.25	13

- Furo ø (H11) = Os diâmetros indicados são indicativos para materiais de dureza média.
- Para placas feitas de materiais de baixa dureza, os furos guiasdevem ser pequenos, para placas feitas de materiais duros deve ser escolhido um furo de maior dimensão.
- Recomendado que a escolha do diâmetro exacto seja baseada em testes.
- A profundidade de ligação não deve exceder 2 d.

27010 Parafuso auto cortante cabeça sextavada **J04A**

Rosca Métrica
Material Aço
Tratamento sup. Zincado

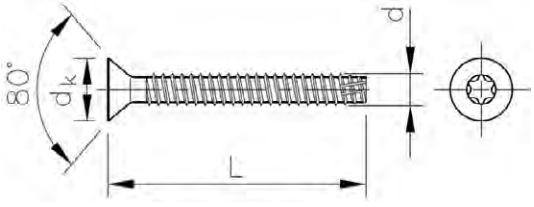
RoHS

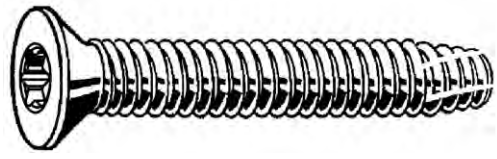


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X10	2000	27010.050.010	M6X16	500	27010.060.016	M8X16	500	27010.080.016
M5X12	1000	27010.050.012	M6X20	500	27010.060.020	M8X20	250	27010.080.020
M5X16	1000	27010.050.016	M6X25	500	27010.060.025	M8X25	250	27010.080.025
M5X20	500	27010.050.020	M6X30	500	27010.060.030	M8X30	250	27010.080.030
M5X25	500	27010.050.025	M6X35	250	27010.060.035	M8X35	250	27010.080.035
						M8X40	200	27010.080.040
M6X12	1000	27010.060.012						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Parafuso auto cortante cabeça de embeber hexalobular





Dados técnicos

d	Chave caixa	d_k	Fios por polegada	Furo ø
U6.3 (1/4)	T30	12	20	5.6

- Os diâmetros indicados são indicativos para materiais de dureza média.
- Para placas feitas de materiais de baixa dureza, os furos guiasdevem ser pequenos, para placas feitas de materiais duros deve ser escolhido um furo de maior dimensão.
- Recomendado que a escolha do diâmetro exacto seja baseada em testes.

31290 **Parafuso auto cortante cabeça de embeber hexalobular** **J10A**

Rosca Unified National Coarse
Material Aço
Tratamento sup. Zincado

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
6,3X38MM	1000	31290.063.038	6,3X65MM	500	31290.063.065	6,3X80MM	500	31290.063.080
6,3X50MM	1000	31290.063.050						

Parafusos auto roscantes TAPTITE 2000®

Geral
Graças à sua secção triangular (trilobular) e passagens fluidas sem tensão, os parafusos autorroscantes TAPTITE formam por si próprios a rosca interna na parede de um orifício pré-perfurado ou embutido; não é necessária a abertura da rosca e não existe formação de aparas, que são incómodas ou mesmo inadmissíveis. Além das vantagens comprovadas do seu antecessor standard, os parafusos TAPTITE 2000® possuem um inovador formato de rosca: o Radius Profile™. Isto resulta numa nova geração de elementos de fixação com excelentes propriedades mecânicas, de montagem e características ergonómicas; ainda não ultrapassada por qualquer outra tecnologia.

Aplicação
Os parafusos autorroscantes TAPTITE 2000® podem ser utilizados em todos os metais dúcteis até 500 N/mm2 ou 150 HB.

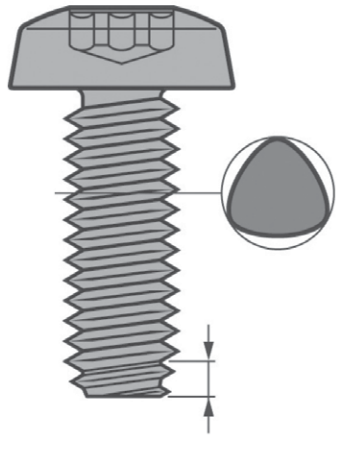
Carga
Graças ao endurecimento a frio do material, à estrutura ininterrupta de fibras e à completa sobreposição dos flancos, a união formada tem capacidade para suportar forças consideravelmente elevadas. Muitas vezes pode utilizar-se um parafuso de menor dimensão do que no caso das roscas abertas de forma convencional; conseguindo uma estrutura mais leve. Além disso, o Radius Profile™ requer a utilização de um binário de aperto inferior, aumentando a força de pré-carga e de extracção; ou seja, uma maior segurança na montagem.

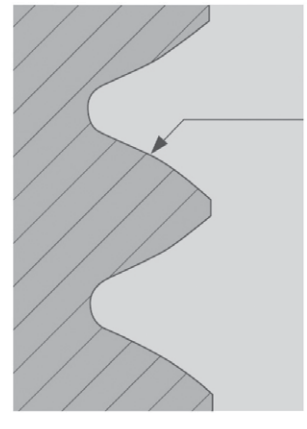
Bloqueio
Graças ao efeito de aperto exercido nos flancos da rosca, a união é autobloqueante; assim sendo, não existe necessidade de soluções de bloqueio.

Formação de Rosca
Através dos parafusos auto-roscantes TAPTITE 2000® é formada uma rosca isométrica normal na qual podem ser aparafusados outros elementos de fixação com a tolerância 6h (de acordo com a norma ISO 965).Encaixe, tipo de cabeça e comprimento da ponta São possíveis todas as soluções de encaixe e tipos de cabeça usuais. Serrilha debaixo da cabeça, uma determinada cor, uma anilha, tratamento com aplicação de adesivo ou selante é também possível. O comprimento da ponta da rosca cónica desta nova geração de parafusos auto-roscantes TAPTITE 2000® foi reduzido para aprox. 2 – 2,5 P (era de um máximo de 4P).

Material e tratamento de superfície
Os parafusos auto-roscantes TAPTITE 2000® são fabricados em aço carbono e superfície reforçada (mín. 450 HV0,3), enquanto o núcleo mantêm a sua ductilidade (300-350 HV10). Na versão standard, os parafusos são electrozincados sem Cr6+. São possíveis outros tratamentos de superficie ou materiais.

6





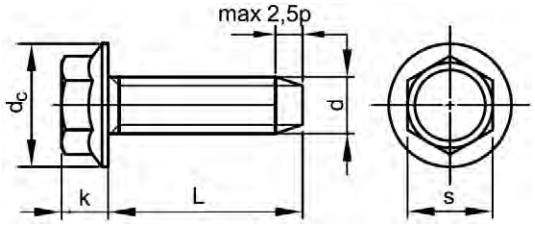
Valores de referência para parafusos TAPTITE 2000® (1)

d	M2,5	M3	M3,5	M4	M5	M6	M8
Torque de inserção (Nm)	0,4	0,8	1,3	2,0	3,2	6,4	16,0
Torque de aperto máximow (Nm)	0,8	1,5	2,5	3,7	7,0	12,0	30,0
Failure torque min. (Nm) (inserted)	1,2	2,0	3,3	4,8	10,0	16,0	41,0
Preloading force during assembly (kN)	---	1,9	2,6	3,4	5,6	7,8	15,0

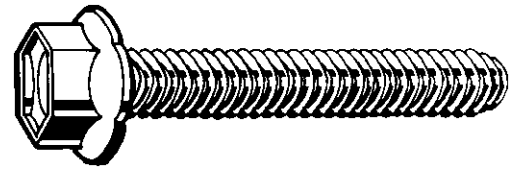
(1) Os valores indicados aplicam-se ao aço St 37 para um comprimento de aparafusamento de 1 x diâmetro da rosca.

TAPTITE 2000® é uma marca registrada da Conti Fasteners AG

Parafuso cabeça sextavada com flange



DIN **≈7500**



Dados técnicos

d	d_c (max.)	k (max.)	P	s
M3	6.9	2.58	0.5	5.5
M4	8.9	3.58	0.7	7
M5	10.4	4.45	0.8	8
M6	13	5.2	1	10
M8	17	7	1.25	13

- O comprimento nominal (C) é com tolerância js15.

67020 **Parafuso TAPTITE 2000® sextavado com flange** **J05A**

Rosca Métrica
Material Aço
Tratamento sup. Zincado

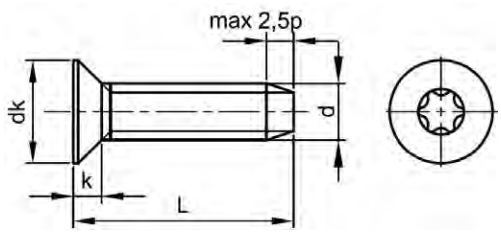




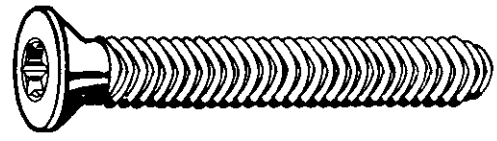
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X10	1000	67020.030.010	M5X8	500	67020.050.008	M6X16	500	67020.060.016
			M5X10	500	67020.050.010	M6X20	500	67020.060.020
M4X6	1000	67020.040.006	M5X12	500	67020.050.012	M6X25	500	67020.060.025
M4X8	1000	67020.040.008	M5X16	500	67020.050.016	M6X30	500	67020.060.030
M4X10	1000	67020.040.010	M5X20	500	67020.050.020			
M4X12	1000	67020.040.012				M8X15	500	67020.080.015
M4X16	1000	67020.040.016	M6X10	500	67020.060.010	M8X20	500	67020.080.020
			M6X12	500	67020.060.012	M8X25	500	67020.080.025

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Parafuso cabeça de embeber com Torx®



DIN **≈7500-1**



Dados técnicos

d	d_k	k (max.)	No. Torx®	P
M3	5.6	1.65	10	0.5
M4	7.5	2.2	20	0.7
M5	9.2	2.5	25	0.8
M6	11	3	30	1
M8	14.5	4	40	1.25

- O comprimento nominal (C) é com tolerância js15.

67080 **Parafuso TAPTITE 2000® cabeça de embeber Torx®** **J05A**

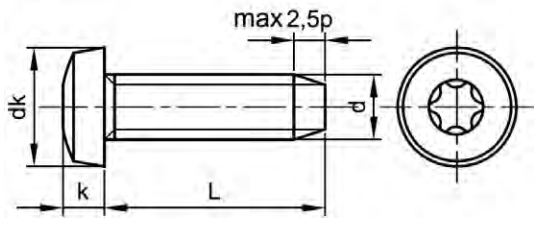
Rosca Métrica
Material Aço
Tratamento sup. Zincado



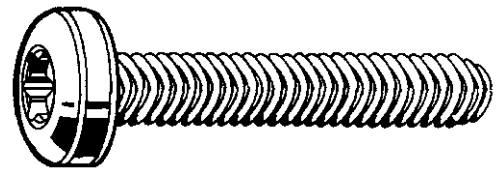
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X8	1000	67080.030.008	M4X25	1000	67080.040.025	M6X16	500	67080.060.016
M3X10	1000	67080.030.010				M6X20	500	67080.060.020
M3X12	1000	67080.030.012	M5X10	500	67080.050.010	M6X25	500	67080.060.025
M3X16	1000	67080.030.016	M5X12	500	67080.050.012	M6X30	500	67080.060.030
			M5X16	500	67080.050.016	M6X40	500	67080.060.040
M4X10	1000	67080.040.010	M5X20	500	67080.050.020			
M4X12	1000	67080.040.012	M5X25	500	67080.050.025	M8X40	500	67080.080.040
M4X16	1000	67080.040.016	M5X30	500	67080.050.030			
M4X20	1000	67080.040.020						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Parafuso cabeça queijo Torx®



DIN **≈7500-1**



Dados técnicos

d	d_k	k (max.)	No. Torx®	P
M2.5	5	2.12	8	0.45
M3	6	2.52	10	0.5
M3.5	7	2.82	15	0.6
M4	8	3.25	20	0.7
M5	10	3.95	25	0.8
M6	12	4.75	30	1

- O comprimento nominal (C) é com tolerância js15.

67155 **Parafuso TAPTITE 2000® cabeça de queijo Torx®** **J05A**

Rosca Métrica
Material Aço
Tratamento sup. Zincado

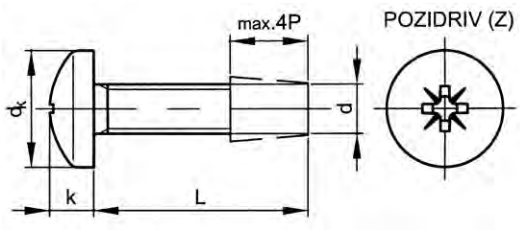


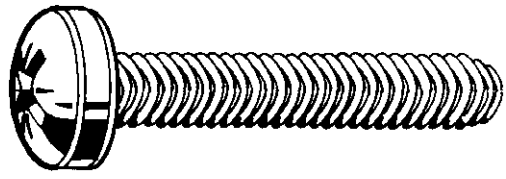


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2,5X16	1000	67155.025.016				M5X12	500	67155.050.012
			M4X6	1000	67155.040.006	M5X16	500	67155.050.016
M3X6	1000	67155.030.006	M4X8	1000	67155.040.008	M5X20	500	67155.050.020
M3X8	1000	67155.030.008	M4X10	1000	67155.040.010	M5X25	500	67155.050.025
M3X10	1000	67155.030.010	M4X12	1000	67155.040.012	M5X30	500	67155.050.030
M3X12	1000	67155.030.012	M4X16	1000	67155.040.016			
M3X16	1000	67155.030.016	M4X20	1000	67155.040.020	M6X10	500	67155.060.010
M3X20	1000	67155.030.020	M4X25	1000	67155.040.025	M6X12	500	67155.060.012
M3X25	1000	67155.030.025	M4X30	1000	67155.040.030	M6X16	500	67155.060.016
						M6X20	500	67155.060.020
M3,5X8	1000	67155.035.008	M5X8	500	67155.050.008	M6X30	500	67155.060.030
M3,5X12	1000	67155.035.012	M5X10	500	67155.050.010			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Parafuso autorroscante cabeça de queijo Pozidriv





Dados técnicos

d	d_k (max.)	k (max.)	Nr. fenda	P
M2.5	4.6	1.96	1	0.45
M3	4.7	1.96	1	0.5
M4	7.64	2.92	2	0.7
M5	9.14	3.52	3	0.8
M6	11.57	4.3	3	1

51330 **Parafuso Cabeça queijo Pozidriv** **R01A**

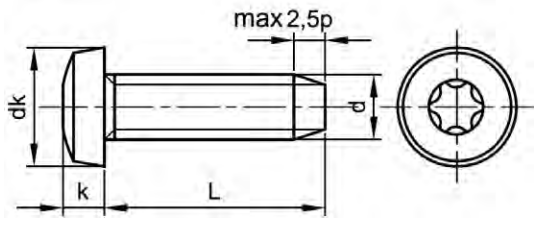
Rosca Métrica
Material Aço inoxidável A2

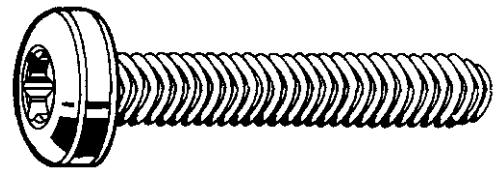


6

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2,5X5*	1000	51330.025.005	M3X20*	1000	51330.030.020	M5X10*	500	51330.050.010
M2,5X6*	1000	51330.025.006				M5X12*	500	51330.050.012
M2,5X8*	1000	51330.025.008	M4X6*	1000	51330.040.006	M5X16*	500	51330.050.016
M2,5X10*	1000	51330.025.010	M4X8*	1000	51330.040.008	M5X20*	500	51330.050.020
			M4X10*	1000	51330.040.010			
M3X5*	1000	51330.030.005	M4X12*	1000	51330.040.012	M6X10*	500	51330.060.010
M3X6*	1000	51330.030.006	M4X16*	1000	51330.040.016	M6X12*	500	51330.060.012
M3X8*	1000	51330.030.008	M4X20*	1000	51330.040.020	M6X16*	500	51330.060.016
M3X10*	1000	51330.030.010				M6X20*	500	51330.060.020
M3X12*	1000	51330.030.012	M5X8*	500	51330.050.008	M6X25*	500	51330.060.025
M3X16*	1000	51330.030.016						

Parafuso autorroscante cabeça de queijo Hexalobular





Dados técnicos

d	Chave caixa	d_k (max.)	k (max.)	P
M2.5	T8	5	2.1	0.45
M3	T10	5.6	2.4	0.5
M4	T20	8	3.1	0.7
M5	T25	9.5	3.7	0.8
M6	T30	12	4.6	1

51327 **Parafuso autorroscante cabeça de queijo Hexalobular** **R01A**

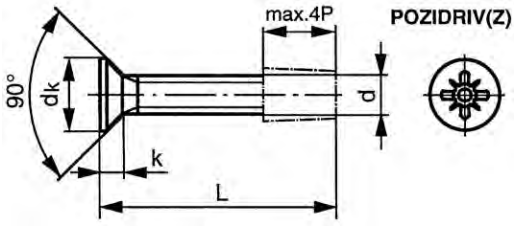
Rosca Métrica
Material Aço inoxidável A2

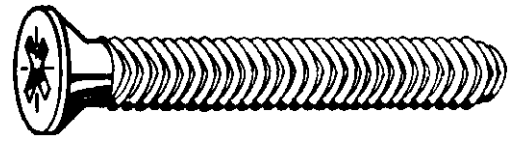


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2,5X4*	1000	51327.025.004	M3X20*	1000	51327.030.020	M5X12*	500	51327.050.012
M2,5X5*	1000	51327.025.005				M5X16*	500	51327.050.016
M2,5X6*	1000	51327.025.006	M4X6*	1000	51327.040.006	M5X20*	500	51327.050.020
M2,5X8*	1000	51327.025.008	M4X8	1000	51327.040.008	M5X25*	500	51327.050.025
M2,5X10*	1000	51327.025.010	M4X10*	1000	51327.040.010			
			M4X12*	1000	51327.040.012	M6X8*	500	51327.060.008
M3X5*	1000	51327.030.005	M4X16*	1000	51327.040.016	M6X10*	500	51327.060.010
M3X6*	1000	51327.030.006	M4X20*	1000	51327.040.020	M6X12*	500	51327.060.012
M3X8*	1000	51327.030.008	M4X25*	1000	51327.040.025	M6X16*	500	51327.060.016
M3X10*	1000	51327.030.010				M6X20*	500	51327.060.020
M3X12*	1000	51327.030.012	M5X8*	500	51327.050.008	M6X25*	500	51327.060.025
M3X16*	1000	51327.030.016	M5X10*	500	51327.050.010			

6

Parafuso autorroscante cabeça de embeber Pozidriv





Dados técnicos

d	d_k (max.)	k (max.)	Nr. fenda	P
M2.5	4.4	1.5	1	0.45
M3	5.2	1.65	1	0.5
M4	8	2.7	2	0.7
M5	8.9	2.7	2	0.8

51331 **Parafuso autorroscante cabeça de embeber Pozidriv** **R01A**

Rosca Métrica
Material Aço inoxidável A2

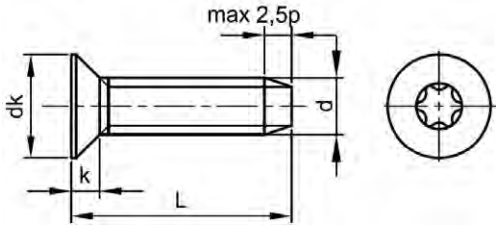


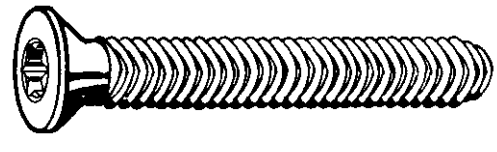
RoHS

6

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2,5X5*	1000	51331.025.005	M3X12*	1000	51331.030.012			
M2,5X6*	1000	51331.025.006				M5X10*	500	51331.050.010
M2,5X8*	1000	51331.025.008	M4X8*	1000	51331.040.008	M5X12	500	51331.050.012
M2,5X10*	1000	51331.025.010	M4X10*	1000	51331.040.010	M5X16*	500	51331.050.016
			M4X12*	1000	51331.040.012	M5X20*	500	51331.050.020
M3X6*	1000	51331.030.006	M4X16*	1000	51331.040.016	M5X25*	500	51331.050.025
M3X8*	1000	51331.030.008	M4X20*	1000	51331.040.020	M5X30*	500	51331.050.030
M3X10*	1000	51331.030.010						

Parafuso autorroscante cabeça de embeber Hexalobular



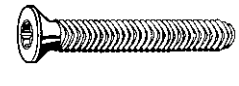


Dados técnicos

d	Chave caixa	d_k (max.)	k (max.)	P
M2.5	T8	5	2.1	0.45
M3	T8	5	2.1	0.45
M4	T8	5	2.1	0.45
M5	T8	5	2.1	0.45

51329 **Parafuso autorroscante cabeça de embeber Hexalobular** **R01A**

Rosca Métrica
Material Aço inoxidável A2



RoHS

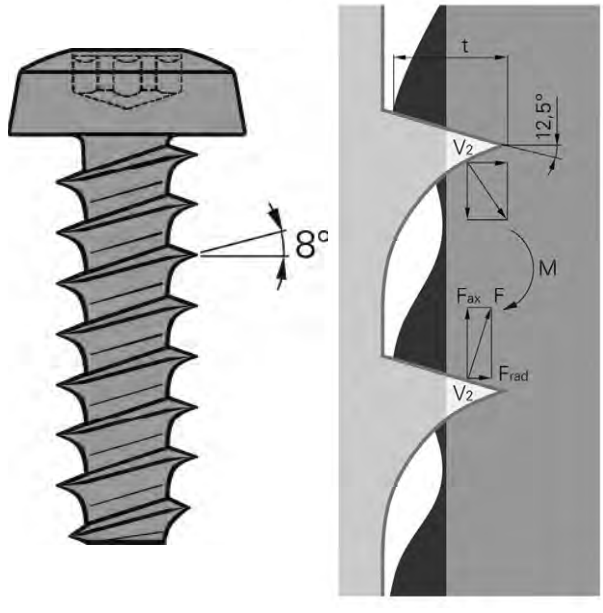
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M2,5X5*	1000	51329.025.005	M3X10*	1000	51329.030.010			
M2,5X6*	1000	51329.025.006	M3X12*	1000	51329.030.012	M5X10*	500	51329.050.010
M2,5X8*	1000	51329.025.008				M5X12*	500	51329.050.012
M2,5X10*	1000	51329.025.010	M4X8*	1000	51329.040.008	M5X16*	500	51329.050.016
M2,5X12*	1000	51329.025.012	M4X10*	1000	51329.040.010	M5X20*	500	51329.050.020
			M4X12*	1000	51329.040.012	M5X25*	500	51329.050.025
M3X6*	1000	51329.030.006	M4X16*	1000	51329.040.016	M5X30*	500	51329.050.030
M3X8*	1000	51329.030.008	M4X20*	1000	51329.040.020			

Parafusos com rosca REMFORM® auto roscantes para utilização em material plástico

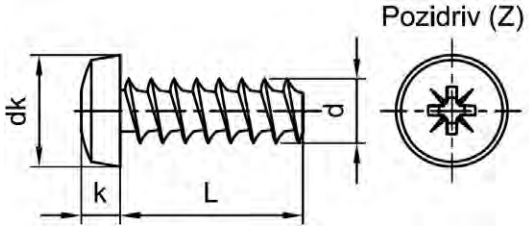
Características específicas dos parafusos autoroscantes REMFORM® para utilização em material plástico

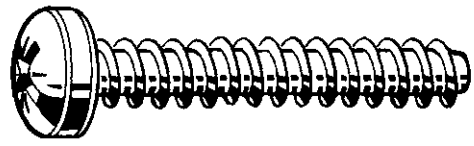
- A solução ideal para a fixação de/em todos os tipos de material plástico (termoplásticos ou elastómeros)
- Ângulo de rosca de apenas 80
- Geometria de rosca assimétrica, permitindo que o material plástico flua durante a montagem ao longo da rosca, resultante:
  - um deslocamento menor de material plástico
  - um menor binário de inserção
  - uma maior profundidade de perfil
  - maior penetração de rosca, e portanto maior capacidade de carga
  - menos perigo de fissuras no material plástico
  - aplicável em paredes finas
- Na versão standard:
  - classe de resistência 9.8
  - electrozincagem sem Cr6+
  - possibilidade de outros materiais e revestimentos
- Graças ao efeito de aperto exercido nos filetes da rosca, a união é autobloqueante

Detalhe da rosca REMFORM®



Parafuso cabeça de queijo Pozidriv





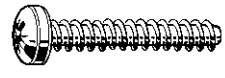
Dados técnicos

d (nom.)	d_k (max.)	k (max.)	Nr. fenda
2.2	4.0	1.6	1
2.5	4.4	1.7	1
3.0	5.3	2.0	1
3.5	6.1	2.5	2
4.0	7.0	2.7	2
5.0	8.8	3.4	2
6.0	10.5	4.0	3

67551 **Parafuso para plástico REMFORM® cabeça queijo Pozidriv** **J05A**

Rosca REMFORM®
Material Aço
Tratamento sup. Zincado

RoHS

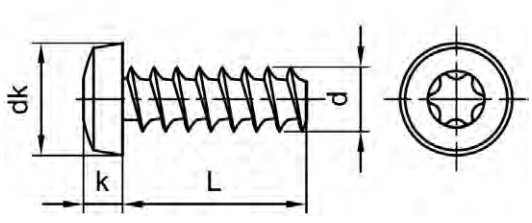


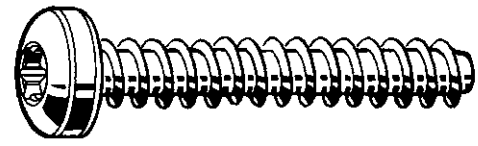
6

d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
2,2X6MM	200	67551.022.006	3X10MM	200	67551.030.010	4X14MM	200	67551.040.014
2,2X8MM	200	67551.022.008	3X12MM	200	67551.030.012	4X16MM	200	67551.040.016
2,2X10MM	200	67551.022.010	3X16MM	200	67551.030.016	4X20MM	200	67551.040.020
			3X20MM	200	67551.030.020	4X40MM	200	67551.040.040
2,5X6MM	200	67551.025.006						
2,5X8MM	200	67551.025.008	3,5X10MM	200	67551.035.010	5X16MM	200	67551.050.016
2,5X10MM	200	67551.025.010	3,5X12MM	200	67551.035.012	5X20MM	200	67551.050.020
2,5X12MM	200	67551.025.012	3,5X16MM	200	67551.035.016	5X25MM	200	67551.050.025
2,5X16MM	200	67551.025.016	3,5X25MM	200	67551.035.025	5X30MM	200	67551.050.030
						5X40MM	200	67551.050.040
3X6MM	200	67551.030.006	4X10MM	200	67551.040.010			
3X8MM	200	67551.030.008	4X12MM	200	67551.040.012	6X20MM	200	67551.060.020

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Parafuso cabeça queijo Torx®





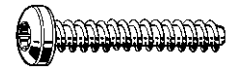
Dados técnicos

d (nom.)	d_k (max.)	k (max.)	No. Torx®
3.0	5.3	2.0	T10
4.0	7.0	2.7	T20

67552 **Parafuso para plástico REMFORM® cabeça queijo Torx®** **J05A**

Rosca REMFORM®
Material Aço
Tratamento sup. Zincado

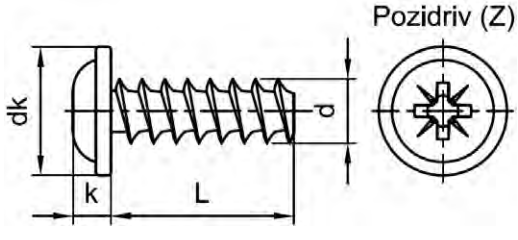
RoHS

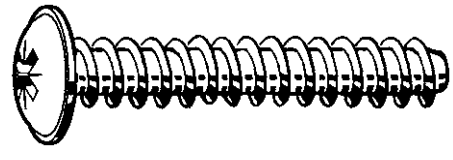


d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
3X8MM	200	67552.030.008	4X12MM	200	67552.040.012	4X16MM	200	67552.040.016
3X10MM	200	67552.030.010	4X14MM	200	67552.040.014	4X20MM	200	67552.040.020

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Parafuso para plástico cabeça redonda Pozidriv





Dados técnicos

d (nom.)	d_k (max.)	k (max.)	Nr. fenda
2.5	5	1.7	1
3.0	6	2	1
3.5	7	2.4	2
4.0	8	2.5	2

67553 **Parafuso para plástico REMFORM® cabeça redonda Pozidriv** **J05A**

Rosca REMFORM®
Material Aço
Tratamento sup. Zincado

RoHS

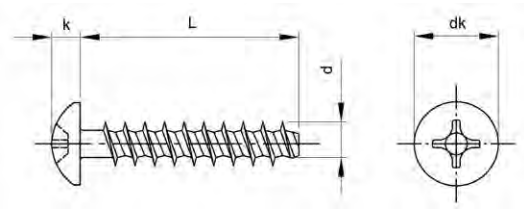


d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
2,5X8MM	200	67553.025.008						
			3,5X12MM	200	67553.035.012	4X10MM	200	67553.040.010
3X8MM	200	67553.030.008	3,5X16MM	200	67553.035.016	4X12MM	200	67553.040.012
3X10MM	200	67553.030.010	3,5X20MM	200	67553.035.020	4X16MM	200	67553.040.016

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

6

Parafuso duplo CSK sem ponta





Dados técnicos

d	d_k	k	Nr. fenda
3	5.6	2.2	1
3.5	6.5	2.55	2
4	7.5	2.7	2

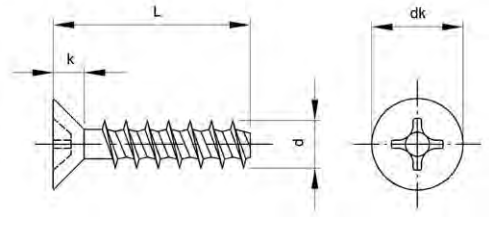
51798 **Parafuso duplo CSK sem ponta** **R03A**

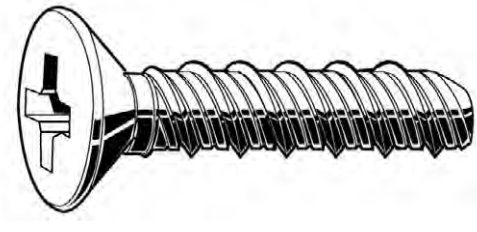
Rosca para plásticos
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3,0X8MM*	500	51798.030.008	3,5X8MM*	500	51798.035.008	4,0X8MM*	500	51798.040.008
3,0X10MM*	500	51798.030.010	3,5X10MM*	500	51798.035.010	4,0X10MM*	500	51798.040.010
3,0X12MM*	500	51798.030.012	3,5X12MM*	500	51798.035.012	4,0X12MM*	500	51798.040.012
3,0X14MM*	500	51798.030.014	3,5X14MM*	500	51798.035.014	4,0X14MM*	500	51798.040.014
3,0X16MM*	500	51798.030.016	3,5X16MM*	500	51798.035.016	4,0X16MM*	500	51798.040.016
3,0X20MM*	500	51798.030.020	3,5X20MM*	500	51798.035.020	4,0X20MM*	500	51798.040.020
3,0X25MM*	500	51798.030.025	3,5X25MM*	500	51798.035.025	4,0X25MM*	500	51798.040.025

Parafuso cabeça de embeber/Termo plástico



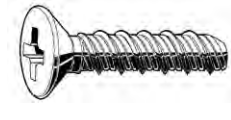


Dados técnicos

d	d_k	k	Nr. fenda
3	5.5	2.2	1
3.5	7.3	2.55	2
4	8.4	2.7	2

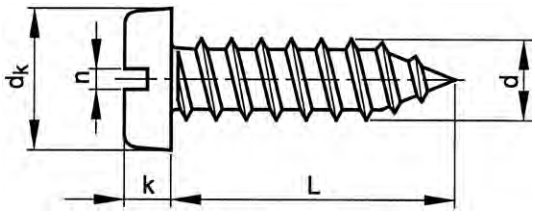
51801 **Parafuso cabeça de embeber/Termo plástico** **R03A**

Rosca para plásticos
Material Aço inoxidável A2

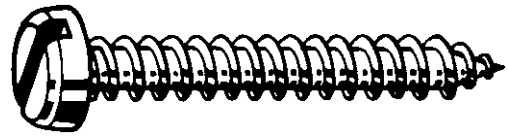


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3,0X8MM*	500	51801.030.008	3,5X8MM*	500	51801.035.008	4,0X8MM*	500	51801.040.008
3,0X10MM*	500	51801.030.010	3,5X10MM*	500	51801.035.010	4,0X10MM*	500	51801.040.010
3,0X12MM*	500	51801.030.012	3,5X12MM*	500	51801.035.012	4,0X12MM*	500	51801.040.012
3,0X14MM*	500	51801.030.014	3,5X14MM*	500	51801.035.014	4,0X14MM*	500	51801.040.014
3,0X16MM*	500	51801.030.016	3,5X16MM*	500	51801.035.016	4,0X16MM*	500	51801.040.016

Parafuso autorroscante cabeça cilíndrica com fenda



DIN	**7971**
ISO	1481
NF	E25-663
BS	4174



Dados técnicos

d	d_k	k	n	P
ST2.2	4.2	1.35	0.6	0.8
ST2.9	5.6	1.75	0.8	1.1
ST3.5	6.9	2.1	1	1.3
ST3.9	7.5	2.25	1	1.4

d	d_k	k	n	P
ST4.2	8.2	2.45	1.2	1.4
ST4.8	9.5	2.8	1.2	1.6
ST5.5	10.8	3.2	1.6	1.8
ST6.3	12.5	3.65	1.6	1.8

Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.		Código	Página
ST	Fenda	Aço	Zn		26600	6-73
ST	Fenda	Aço	Niq.		26000	6-73
ST	Fenda	INOX A2			51600	6-74
ST	Fenda	Aço	Niq.	sem ponta	26100	6-74

26600 Parafuso autorroscante cabeça cilíndrica com fenda — J02A

Rosca	Autorroscante
Material	Aço
Tratamento sup.	Zincado

DIN	**7971 C**
ISO	1481 C
NF	E25-663 C

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X6,5MM	200	26600.029.006	ST3,9X22MM	200	26600.039.022	ST4,8X32MM	100	26600.048.032
ST2,9X9,5MM	200	26600.029.009	ST3,9X25MM	200	26600.039.025	ST4,8X38MM	100	26600.048.038
ST2,9X13MM	200	26600.029.013	ST3,9X32MM	200	26600.039.032	ST4,8X45MM	100	26600.048.045
ST2,9X16MM	200	26600.029.016	ST3,9X38MM	200	26600.039.038			
ST2,9X19MM	200	26600.029.019				ST5,5X13MM	200	26600.055.013
ST2,9X22MM	200	26600.029.022	ST4,2X9,5MM	200	26600.042.009	ST5,5X16MM	200	26600.055.016
ST2,9X25MM	200	26600.029.025	ST4,2X13MM	200	26600.042.013	ST5,5X19MM	200	26600.055.019
			ST4,2X16MM	200	26600.042.016	ST5,5X22MM	200	26600.055.022
ST3,5X6,5MM	200	26600.035.006	ST4,2X19MM	200	26600.042.019	ST5,5X25MM	100	26600.055.025
ST3,5X9,5MM	200	26600.035.009	ST4,2X22MM	200	26600.042.022	ST5,5X32MM	100	26600.055.032
ST3,5X13MM	200	26600.035.013	ST4,2X25MM	200	26600.042.025	ST5,5X38MM	100	26600.055.038
ST3,5X16MM	200	26600.035.016	ST4,2X32MM	200	26600.042.032	ST5,5X45MM	100	26600.055.045
ST3,5X19MM	200	26600.035.019	ST4,2X38MM	200	26600.042.038	ST5,5X50MM	100	26600.055.050
ST3,5X22MM	200	26600.035.022	ST4,2X45MM	200	26600.042.045			
ST3,5X25MM	200	26600.035.025	ST4,2X50MM	200	26600.042.050	ST6,3X13MM	100	26600.063.013
ST3,5X32MM	200	26600.035.032				ST6,3X16MM	100	26600.063.016
ST3,5X38MM	200	26600.035.038	ST4,8X9,5MM	200	26600.048.009	ST6,3X19MM	100	26600.063.019
			ST4,8X13MM	200	26600.048.013	ST6,3X25MM	100	26600.063.025
ST3,9X9,5MM	200	26600.039.009	ST4,8X16MM	200	26600.048.016	ST6,3X32MM	100	26600.063.032
ST3,9X13MM	200	26600.039.013	ST4,8X19MM	200	26600.048.019	ST6,3X38MM	100	26600.063.038
ST3,9X16MM	200	26600.039.016	ST4,8X22MM	200	26600.048.022	ST6,3X45MM	100	26600.063.045
ST3,9X19MM	200	26600.039.019	ST4,8X25MM	200	26600.048.025	ST6,3X50MM	100	26600.063.050

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

26000 Parafuso autorroscante cabeça cilíndrica com fenda — J03A

Rosca	Autorroscante
Material	Aço
Tratamento sup.	Niquelado

DIN	**7971 C**
ISO	1481 C
NF	E25-663 C

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X6,5MM	200	26000.029.006	ST3,5X16MM	200	26000.035.016	ST3,9X19MM	200	26000.039.019
ST2,9X9,5MM	200	26000.029.009	ST3,5X19MM	200	26000.035.019	ST3,9X25MM	200	26000.039.025
ST2,9X13MM	200	26000.029.013	ST3,5X25MM	200	26000.035.025	ST3,9X32MM	200	26000.039.032
			ST3,5X32MM	200	26000.035.032	ST3,9X38MM	200	26000.039.038
ST3,5X9,5MM	200	26000.035.009						
ST3,5X13MM	200	26000.035.013	ST3,9X9,5MM	200	26000.039.009	ST4,2X9,5MM	200	26000.042.009

26000 Parafuso autorroscante cabeça cilíndrica com fenda

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST4,2X13MM	200	26000.042.013	ST4,8X25MM	200	26000.048.025	ST5,5X25MM	100	26000.055.025
ST4,2X16MM	200	26000.042.016	ST4,8X32MM	100	26000.048.032			
ST4,2X19MM	200	26000.042.019	ST4,8X38MM	100	26000.048.038	ST6,3X13MM	100	26000.063.013
ST4,2X25MM	200	26000.042.025	ST4,8X45MM	100	26000.048.045	ST6,3X16MM	100	26000.063.016
			ST4,8X50MM	100	26000.048.050	ST6,3X19MM	100	26000.063.019
ST4,8X9,5MM	200	26000.048.009				ST6,3X25MM	100	26000.063.025
ST4,8X13MM	200	26000.048.013	ST5,5X13MM	200	26000.055.013	ST6,3X38MM	100	26000.063.038
ST4,8X16MM	200	26000.048.016	ST5,5X16MM	200	26000.055.016			
ST4,8X19MM	200	26000.048.019	ST5,5X19MM	200	26000.055.019			

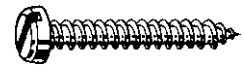
- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

51600 Parafuso autorroscante cabeça cilíndrica com fenda R02A

Rosca Autorroscante
Material Aço inoxidável A2

DIN **7971 C**
ISO 1481 C
NF E25-663 C

RoHS



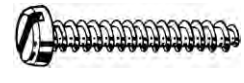
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,2X6,5MM*	1000	51600.022.006	ST3,9X13MM	200	51600.039.013	ST4,8X38MM	200	51600.048.038
ST2,2X9,5MM*	1000	51600.022.009	ST3,9X16MM	200	51600.039.016	ST4,8X45MM	200	51600.048.045
ST2,2X13MM*	1000	51600.022.013	ST3,9X19MM	200	51600.039.019	ST4,8X50MM	200	51600.048.050
ST2,2X16MM*	1000	51600.022.016	ST3,9X22MM	200	51600.039.022	ST4,8X60MM	200	51600.048.060
ST2,2X22MM*	1000	51600.022.022	ST3,9X25MM	200	51600.039.025	ST4,8X70MM	200	51600.048.070
ST2,2X25MM*	1000	51600.022.025	ST3,9X32MM	200	51600.039.032			
ST2,2X4,5MM*	1000	51600.022.045	ST3,9X38MM	200	51600.039.038	ST5,5X13MM	200	51600.055.013
						ST5,5X16MM	200	51600.055.016
ST2,9X6,5MM	200	51600.029.006	ST4,2X6,5MM*	1000	51600.042.006	ST5,5X19MM	200	51600.055.019
ST2,9X9,5MM	200	51600.029.009	ST4,2X9,5MM	200	51600.042.009	ST5,5X22MM	200	51600.055.022
ST2,9X13MM	200	51600.029.013	ST4,2X13MM	200	51600.042.013	ST5,5X25MM	200	51600.055.025
ST2,9X16MM	200	51600.029.016	ST4,2X16MM	200	51600.042.016	ST5,5X32MM	100	51600.055.032
ST2,9X19MM	200	51600.029.019	ST4,2X19MM	200	51600.042.019	ST5,5X38MM	100	51600.055.038
ST2,9X22MM	200	51600.029.022	ST4,2X22MM*	1000	51600.042.022	ST5,5X45MM	100	51600.055.045
ST2,9X25MM	200	51600.029.025	ST4,2X25MM	200	51600.042.025	ST5,5X50MM	100	51600.055.050
			ST4,2X32MM	200	51600.042.032	ST5,5X70MM*	200	51600.055.070
ST3,5X6,5MM	200	51600.035.006	ST4,2X38MM	200	51600.042.038			
ST3,5X9,5MM	200	51600.035.009	ST4,2X45MM	200	51600.042.045	ST6,3X13MM	100	51600.063.013
ST3,5X13MM	200	51600.035.013	ST4,2X50MM	200	51600.042.050	ST6,3X16MM	100	51600.063.016
ST3,5X16MM	200	51600.035.016	ST4,2X60MM*	200	51600.042.060	ST6,3X19MM	100	51600.063.019
ST3,5X19MM	200	51600.035.019				ST6,3X22MM	100	51600.063.022
ST3,5X22MM	200	51600.035.022	ST4,8X9,5MM	200	51600.048.009	ST6,3X25MM	100	51600.063.025
ST3,5X25MM	200	51600.035.025	ST4,8X13MM	200	51600.048.013	ST6,3X32MM	100	51600.063.032
ST3,5X32MM	200	51600.035.032	ST4,8X16MM	200	51600.048.016	ST6,3X38MM	100	51600.063.038
ST3,5X38MM	200	51600.035.038	ST4,8X19MM	200	51600.048.019	ST6,3X45MM	100	51600.063.045
			ST4,8X22MM	200	51600.048.022	ST6,3X50MM	100	51600.063.050
ST3,9X6,5MM	200	51600.039.006	ST4,8X25MM	200	51600.048.025	ST6,3X60MM*	200	51600.063.060
ST3,9X9,5MM	200	51600.039.009	ST4,8X32MM	200	51600.048.032	ST6,3X70MM*	200	51600.063.070

26100 Parafuso autorroscante cabeça cilíndrica com fenda J03A

Rosca Autorroscante
Material Aço
Tratamento sup. Niquelado

DIN **7971 F**
ISO 1481 F
NF E25-663 F

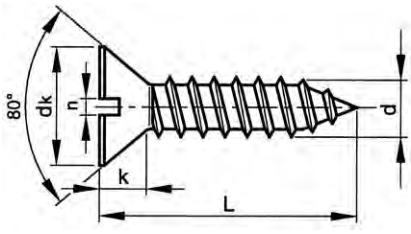
RoHS



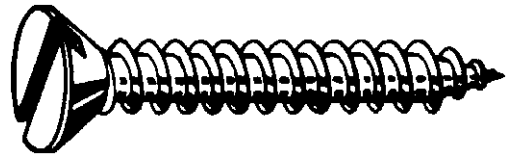
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,2X4,5MM	500	26100.022.004	ST2,2X8MM	500	26100.022.008			
ST2,2X6,5MM	500	26100.022.006	ST2,2X9,5MM	500	26100.022.009	ST2,9X6,5MM	500	26100.029.006

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Parafuso autorroscante cabeça embeber com fenda



DIN	**7972 C**
ISO	1482 C
NF	E25-660 C
BS	4174



Dados técnicos

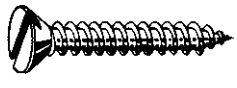
d	d_k	k ≈	n	P	d	d_k	k ≈	n	P
ST2.2	4.3	1.3	0.6	0.8	**ST4.2**	8.1	2.5	1.2	1.4
ST2.9	5.5	1.7	0.8	1.1	**ST4.8**	9.5	3	1.2	1.6
ST3.5	6.8	2.1	1	1.3	**ST5.5**	10.8	3.4	1.6	1.8
ST3.9	7.5	2.3	1	1.4	**ST6.3**	12.4	3.8	1.6	1.8

Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.	Código	Página
ST	Fenda	Aço	Zn	26620	6-75
ST	Fenda	INOX A2		51620	6-75

26620 Parafuso autorroscante cabeça embeber fenda J02A

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X6,5MM	200	26620.029.006	ST3,9X22MM	200	26620.039.022	ST4,8X32MM	100	26620.048.032
ST2,9X9,5MM	200	26620.029.009	ST3,9X25MM	200	26620.039.025	ST4,8X38MM	100	26620.048.038
ST2,9X13MM	200	26620.029.013	ST3,9X32MM	200	26620.039.032	ST4,8X45MM	100	26620.048.045
ST2,9X16MM	200	26620.029.016	ST3,9X38MM	200	26620.039.038	ST4,8X50MM	100	26620.048.050
ST2,9X19MM	200	26620.029.019						
ST2,9X25MM	200	26620.029.025	ST4,2X9,5MM	200	26620.042.009	ST5,5X13MM	200	26620.055.013
			ST4,2X13MM	200	26620.042.013	ST5,5X16MM	200	26620.055.016
ST3,5X9,5MM	200	26620.035.009	ST4,2X16MM	200	26620.042.016	ST5,5X19MM	200	26620.055.019
ST3,5X13MM	200	26620.035.013	ST4,2X19MM	200	26620.042.019	ST5,5X25MM	100	26620.055.025
ST3,5X16MM	200	26620.035.016	ST4,2X22MM	200	26620.042.022	ST5,5X32MM	100	26620.055.032
ST3,5X19MM	200	26620.035.019	ST4,2X25MM	200	26620.042.025	ST5,5X38MM	100	26620.055.038
ST3,5X22MM	200	26620.035.022	ST4,2X32MM	200	26620.042.032	ST5,5X45MM	100	26620.055.045
ST3,5X25MM	200	26620.035.025	ST4,2X38MM	200	26620.042.038	ST5,5X50MM	100	26620.055.050
ST3,5X32MM	200	26620.035.032	ST4,2X45MM	200	26620.042.045			
						ST6,3X25MM	100	26620.063.025
ST3,9X9,5MM	200	26620.039.009	ST4,8X13MM	200	26620.048.013	ST6,3X32MM	100	26620.063.032
ST3,9X13MM	200	26620.039.013	ST4,8X16MM	200	26620.048.016	ST6,3X38MM	100	26620.063.038
ST3,9X16MM	200	26620.039.016	ST4,8X19MM	200	26620.048.019	ST6,3X45MM	100	26620.063.045
ST3,9X19MM	200	26620.039.019	ST4,8X25MM	200	26620.048.025	ST6,3X50MM	100	26620.063.050

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

51620 Parafuso autorroscante cabeça embeber fenda R02A

Rosca Autorroscante
Material Aço inoxidável A2

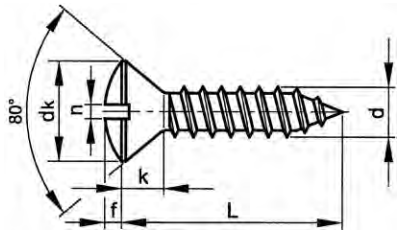


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,2X6,5MM*	1000	51620.022.006	ST2,9X25MM	200	51620.029.025			
ST2,2X9,5MM*	1000	51620.022.009				ST3,9X9,5MM	200	51620.039.009
ST2,2X13MM*	1000	51620.022.013	ST3,5X6,5MM	200	51620.035.006	ST3,9X13MM	200	51620.039.013
ST2,2X16MM*	1000	51620.022.016	ST3,5X9,5MM	200	51620.035.009	ST3,9X16MM	200	51620.039.016
			ST3,5X13MM	200	51620.035.013	ST3,9X19MM	200	51620.039.019
ST2,9X6,5MM	200	51620.029.006	ST3,5X16MM	200	51620.035.016	ST3,9X22MM	200	51620.039.022
ST2,9X9,5MM	200	51620.029.009	ST3,5X19MM	200	51620.035.019	ST3,9X25MM	200	51620.039.025
ST2,9X13MM	200	51620.029.013	ST3,5X22MM	200	51620.035.022	ST3,9X32MM	200	51620.039.032
ST2,9X16MM	200	51620.029.016	ST3,5X25MM	200	51620.035.025	ST3,9X38MM	200	51620.039.038
ST2,9X19MM	200	51620.029.019	ST3,5X32MM	200	51620.035.032			
ST2,9X22MM*	1000	51620.029.022	ST3,5X38MM	200	51620.035.038	ST4,2X9,5MM*	1000	51620.042.009

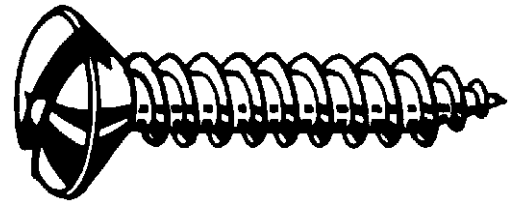
51620 **Parafuso autorroscante cabeça embeber fenda** ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST4,2X13MM	200	51620.042.013	ST4,8X32MM	200	51620.048.032	ST5,5X60MM*	200	51620.055.060
ST4,2X16MM	200	51620.042.016	ST4,8X38MM	200	51620.048.038	ST5,5X70MM*	200	51620.055.070
ST4,2X19MM	200	51620.042.019	ST4,8X45MM	200	51620.048.045			
ST4,2X22MM	200	51620.042.022	ST4,8X50MM	200	51620.048.050	ST6,3X13MM	100	51620.063.013
ST4,2X25MM	200	51620.042.025	ST4,8X70MM*	200	51620.048.070	ST6,3X16MM	100	51620.063.016
ST4,2X32MM	200	51620.042.032	ST4,8X80MM*	200	51620.048.080	ST6,3X19MM	100	51620.063.019
ST4,2X38MM	200	51620.042.038				ST6,3X22MM	100	51620.063.022
ST4,2X45MM	200	51620.042.045	ST5,5X13MM	200	51620.055.013	ST6,3X25MM	100	51620.063.025
ST4,2X50MM*	200	51620.042.050	ST5,5X16MM	200	51620.055.016	ST6,3X32MM	100	51620.063.032
			ST5,5X19MM	200	51620.055.019	ST6,3X38MM	100	51620.063.038
ST4,8X9,5MM	200	51620.048.009	ST5,5X22MM	200	51620.055.022	ST6,3X45MM	100	51620.063.045
ST4,8X13MM	200	51620.048.013	ST5,5X25MM	200	51620.055.025	ST6,3X50MM	100	51620.063.050
ST4,8X16MM	200	51620.048.016	ST5,5X32MM	100	51620.055.032	ST6,3X70MM*	200	51620.063.070
ST4,8X19MM	200	51620.048.019	ST5,5X38MM	100	51620.055.038	ST6,3X80MM*	200	51620.063.080
ST4,8X22MM	200	51620.048.022	ST5,5X45MM	100	51620.055.045			
ST4,8X25MM	200	51620.048.025	ST5,5X50MM	100	51620.055.050			

Parafuso autorroscante cabeça de lentilha com fenda



DIN **7973 C**
ISO 1483 C
NF E25-661 C
BS 4174



6

Dados técnicos

d	d_k	f ≈	k ≈	n	P
ST2.2	4.2	0.7	1.3	0.6	0.8
ST2.9	5.5	0.9	1.7	0.8	1.5
ST3.5	6.8	1.2	2.1	1	1.3
ST3.9	7.5	1.3	2.3	1	1.4
ST4.2	8.1	1.4	2.5	1.2	1.4
ST4.8	9.5	1.5	3	1.2	1.6
ST5.5	10.8	1.7	3.4	1.6	1.8
ST6.3	12.4	2	3.8	1.6	1.8

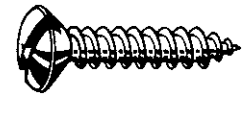
Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.	Código	Página
ST	Fenda	Aço	Zn	26640	6-76
ST	Fenda	Aço	Niq.	26040	6-77
ST	Fenda	INOX A2		51640	6-77

26640 **Parafuso autorroscante cabeça de lentilha com fenda** **J02A**

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X9,5MM	200	26640.029.009	ST3,9X25MM	200	26640.039.025	ST4,8X32MM	100	26640.048.032
ST2,9X13MM	200	26640.029.013	ST3,9X32MM	200	26640.039.032	ST4,8X38MM	100	26640.048.038
ST2,9X16MM	200	26640.029.016				ST4,8X45MM	100	26640.048.045
ST2,9X19MM	200	26640.029.019	ST4,2X9,5MM	200	26640.042.009	ST4,8X50MM	100	26640.048.050
ST2,9X25MM	200	26640.029.025	ST4,2X13MM	200	26640.042.013			
			ST4,2X16MM	200	26640.042.016	ST5,5X13MM	200	26640.055.013
ST3,5X9,5MM	200	26640.035.009	ST4,2X19MM	200	26640.042.019	ST5,5X16MM	200	26640.055.016
ST3,5X13MM	200	26640.035.013	ST4,2X25MM	200	26640.042.025	ST5,5X19MM	200	26640.055.019
ST3,5X16MM	200	26640.035.016	ST4,2X32MM	200	26640.042.032	ST5,5X25MM	100	26640.055.025
ST3,5X19MM	200	26640.035.019	ST4,2X38MM	200	26640.042.038	ST5,5X32MM	100	26640.055.032
ST3,5X25MM	200	26640.035.025	ST4,2X45MM	200	26640.042.045	ST5,5X38MM	100	26640.055.038
ST3,5X32MM	200	26640.035.032	ST4,2X50MM	200	26640.042.050	ST5,5X45MM	100	26640.055.045
ST3,5X38MM	200	26640.035.038						
			ST4,8X9,5MM	200	26640.048.009	ST6,3X16MM	100	26640.063.016
ST3,9X9,5MM	200	26640.039.009	ST4,8X13MM	200	26640.048.013	ST6,3X19MM	100	26640.063.019
ST3,9X13MM	200	26640.039.013	ST4,8X16MM	200	26640.048.016	ST6,3X25MM	100	26640.063.025
ST3,9X16MM	200	26640.039.016	ST4,8X19MM	200	26640.048.019	ST6,3X32MM	100	26640.063.032
ST3,9X19MM	200	26640.039.019	ST4,8X25MM	200	26640.048.025	ST6,3X38MM	100	26640.063.038

26640 Parafuso autorroscante cabeça de lentilha com fenda ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST6,3X45MM	100	26640.063.045	ST6,3X50MM	100	26640.063.050

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

26040 Parafuso autorroscante cabeça de lentilha com fenda J03A

Rosca Autorroscante
Material Aço
Tratamento sup. Niquelado

RoHS



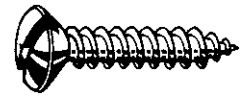
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X13MM	200	26040.029.013	ST3,9X25MM	200	26040.039.025	ST4,8X25MM	200	26040.048.025
ST2,9X19MM	200	26040.029.019	ST3,9X32MM	200	26040.039.032			
			ST3,9X38MM	200	26040.039.038	ST5,5X13MM	200	26040.055.013
ST3,5X13MM	200	26040.035.013				ST5,5X16MM	200	26040.055.016
ST3,5X16MM	200	26040.035.016	ST4,2X16MM	200	26040.042.016	ST5,5X19MM	200	26040.055.019
ST3,5X19MM	200	26040.035.019	ST4,2X19MM	200	26040.042.019	ST5,5X25MM	100	26040.055.025
ST3,5X25MM	200	26040.035.025	ST4,2X25MM	200	26040.042.025	ST5,5X32MM	100	26040.055.032
			ST4,2X38MM	200	26040.042.038	ST5,5X50MM	100	26040.055.050
ST3,9X9,5MM	200	26040.039.009						
ST3,9X13MM	200	26040.039.013	ST4,8X13MM	200	26040.048.013	ST6,3X25MM	100	26040.063.025
ST3,9X16MM	200	26040.039.016	ST4,8X16MM	200	26040.048.016	ST6,3X32MM	100	26040.063.032
ST3,9X19MM	200	26040.039.019	ST4,8X19MM	200	26040.048.019	ST6,3X38MM	100	26040.063.038

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

51640 Parafuso autorroscante cabeça de lentilha com fenda R02A

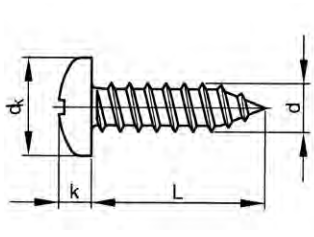
Rosca Autorroscante
Material Aço inoxidável A2

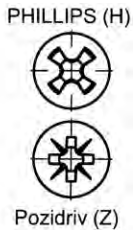
RoHS



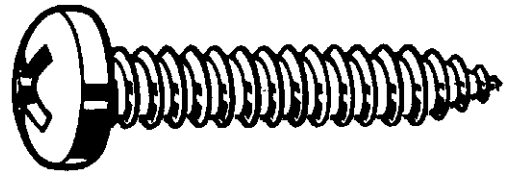
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,2X9,5MM*	1000	51640.022.009	ST3,9X22MM	200	51640.039.022	ST4,8X45MM	200	51640.048.045
ST2,2X13MM*	1000	51640.022.013	ST3,9X25MM	200	51640.039.025	ST4,8X50MM	200	51640.048.050
			ST3,9X32MM	200	51640.039.032	ST4,8X60MM*	200	51640.048.060
ST2,9X6,5MM	200	51640.029.006	ST3,9X38MM	200	51640.039.038	ST4,8X70MM*	200	51640.048.070
ST2,9X9,5MM	200	51640.029.009						
ST2,9X13MM	200	51640.029.013	ST4,2X9,5MM	200	51640.042.009	ST5,5X13MM	200	51640.055.013
ST2,9X16MM	200	51640.029.016	ST4,2X13MM	200	51640.042.013	ST5,5X16MM*	1000	51640.055.016
ST2,9X19MM	200	51640.029.019	ST4,2X16MM	200	51640.042.016	ST5,5X19MM	200	51640.055.019
ST2,9X22MM	200	51640.029.022	ST4,2X19MM	200	51640.042.019	ST5,5X22MM	200	51640.055.022
ST2,9X25MM	200	51640.029.025	ST4,2X22MM	200	51640.042.022	ST5,5X25MM	200	51640.055.025
			ST4,2X25MM	200	51640.042.025	ST5,5X32MM	100	51640.055.032
ST3,5X6,5MM	200	51640.035.006	ST4,2X32MM	200	51640.042.032	ST5,5X38MM	100	51640.055.038
ST3,5X9,5MM	200	51640.035.009	ST4,2X38MM	200	51640.042.038	ST5,5X45MM	100	51640.055.045
ST3,5X13MM	200	51640.035.013	ST4,2X45MM	200	51640.042.045	ST5,5X50MM	100	51640.055.050
ST3,5X16MM	200	51640.035.016	ST4,2X50MM	200	51640.042.050			
ST3,5X19MM	200	51640.035.019				ST6,3X13MM	100	51640.063.013
ST3,5X22MM	200	51640.035.022	ST4,8X9,5MM	200	51640.048.009	ST6,3X16MM	100	51640.063.016
ST3,5X25MM	200	51640.035.025	ST4,8X13MM	200	51640.048.013	ST6,3X19MM	100	51640.063.019
ST3,5X32MM	200	51640.035.032	ST4,8X16MM	200	51640.048.016	ST6,3X22MM*	500	51640.063.022
ST3,5X38MM	200	51640.035.038	ST4,8X19MM	200	51640.048.019	ST6,3X25MM	100	51640.063.025
			ST4,8X22MM	200	51640.048.022	ST6,3X32MM	100	51640.063.032
ST3,9X9,5MM	200	51640.039.009	ST4,8X25MM	200	51640.048.025	ST6,3X38MM	100	51640.063.038
ST3,9X13MM	200	51640.039.013	ST4,8X32MM	200	51640.048.032	ST6,3X45MM	100	51640.063.045
ST3,9X16MM	200	51640.039.016	ST4,8X38MM	200	51640.048.038	ST6,3X50MM	100	51640.063.050
ST3,9X19MM	200	51640.039.019						

Parafuso autorroscante cabeça cilíndrica cruz





DIN	**7981**
ISO	7049
ASME	B18.6.4
NF	E25-658



Dados técnicos

d	d_k	k	Nr. fenda	P
ST2.2	4.2	1.8	1	0.8
ST2.9	5.6	2.2	1	1.1
ST3.5	6.9	2.6	2	1.3
ST3.9	7.5	2.8	2	1.4
ST4.2	8.2	3.05	2	1.4
ST4.8	9.5	3.55	2	1.6
ST5.5	10.8	3.95	3	1.8
ST6.3	12.5	4.55	3	1.8

Grupos de produtos

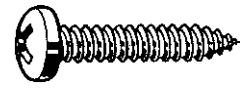
Rosca	Encaixe	Material	Tratamento sup.		Código	Página
ST	Phillips	Aço	Zn		26660	6-78
ST	Phillips	Aço	Zn	Embalagem grande	26670	6-79
ST	Pozidriv	Aço	Zn		26760	6-79
ST	Phillips	Aço	Niq.		26200	6-79
ST	Phillips	Aço	Niq.	Embalagem grande	26210	6-80
ST	Phillips	Aço	Passiv. preto		26400	6-80
ST	Pozidriv	Aço	Passiv. preto		26402	6-80
ST	Phillips	INOX A2			51660	6-81
ST	Phillips	INOX A2		Embalagem grande	51670	6-81
ST	Pozidriv	INOX A2			51661	6-82
ST	Pozidriv	INOX A4			55661	6-82
ST	Phillips	INOX A4			55660	6-83
ST	Phillips	Aço	Niq.	sem ponta	26300	6-83

6

26660 Parafuso autorroscante cabeça de queijo Phillips J01B

Rosca	Autorroscante	**DIN**	**7981 C-H**
Material	Aço	ISO	7049 C-H
Tratamento sup.	Zincado		

RoHS



d x L	✉	Ref. do artigo
ST2,2X6,5MM	200	26660.022.006
ST2,2X9,5MM	200	26660.022.009
ST2,2X16MM	200	26660.022.016
ST2,9X6,5MM	200	26660.029.006
ST2,9X9,5MM	200	26660.029.009
ST2,9X13MM	200	26660.029.013
ST2,9X16MM	200	26660.029.016
ST2,9X19MM	200	26660.029.019
ST2,9X22MM	200	26660.029.022
ST2,9X25MM	200	26660.029.025
ST3,5X6,5MM	200	26660.035.006
ST3,5X9,5MM	200	26660.035.009
ST3,5X13MM	200	26660.035.013
ST3,5X16MM	200	26660.035.016
ST3,5X19MM	200	26660.035.019
ST3,5X22MM	200	26660.035.022
ST3,5X25MM	200	26660.035.025
ST3,5X32MM	200	26660.035.032
ST3,5X38MM	200	26660.035.038
ST3,9X6,5MM	200	26660.039.006
ST3,9X9,5MM	200	26660.039.009
ST3,9X13MM	200	26660.039.013
ST3,9X16MM	200	26660.039.016
ST3,9X19MM	200	26660.039.019
ST3,9X22MM	200	26660.039.022
ST3,9X25MM	200	26660.039.025
ST3,9X32MM	200	26660.039.032
ST3,9X38MM	200	26660.039.038
ST4,2X9,5MM	200	26660.042.009
ST4,2X13MM	200	26660.042.013
ST4,2X16MM	200	26660.042.016
ST4,2X19MM	200	26660.042.019
ST4,2X22MM	200	26660.042.022
ST4,2X25MM	200	26660.042.025
ST4,2X32MM	200	26660.042.032
ST4,2X38MM	200	26660.042.038
ST4,2X45MM	200	26660.042.045
ST4,2X50MM	200	26660.042.050
ST4,2X60MM	200	26660.042.060
ST4,8X9,5MM	200	26660.048.009
ST4,8X13MM	200	26660.048.013
ST4,8X16MM	200	26660.048.016
ST4,8X19MM	200	26660.048.019
ST4,8X22MM	200	26660.048.022
ST4,8X25MM	200	26660.048.025
ST4,8X32MM	100	26660.048.032
ST4,8X38MM	100	26660.048.038
ST4,8X45MM	100	26660.048.045
ST4,8X50MM	100	26660.048.050
ST4,8X70MM	100	26660.048.070
ST5,5X13MM	200	26660.055.013
ST5,5X16MM	200	26660.055.016
ST5,5X19MM	200	26660.055.019
ST5,5X22MM	100	26660.055.022
ST5,5X25MM	100	26660.055.025
ST5,5X32MM	100	26660.055.032
ST5,5X38MM	100	26660.055.038
ST5,5X45MM	100	26660.055.045
ST5,5X50MM	100	26660.055.050
ST6,3X13MM	100	26660.063.013
ST6,3X16MM	100	26660.063.016
ST6,3X19MM	100	26660.063.019
ST6,3X22MM	100	26660.063.022
ST6,3X25MM	100	26660.063.025
ST6,3X32MM	100	26660.063.032
ST6,3X38MM	100	26660.063.038
ST6,3X45MM	100	26660.063.045
ST6,3X50MM	100	26660.063.050
ST6,3X60MM	100	26660.063.060
ST6,3X70MM	100	26660.063.070

26660 Parafuso autorroscante cabeça de queijo Phillips ←

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

26670 Parafuso autorroscante cabeça de queijo Phillips J01B

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado
DIN 7981 C-H
ISO 7049 C-H

RoHS



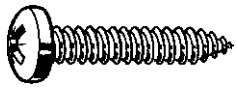
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X6,5MM	2000	26670.029.006	ST3,5X22MM	2000	26670.035.022	ST4,2X25MM	1000	26670.042.025
ST2,9X9,5MM	2000	26670.029.009	ST3,5X25MM	2000	26670.035.025	ST4,2X32MM	500	26670.042.032
ST2,9X13MM	2000	26670.029.013				ST4,2X50MM	500	26670.042.050
ST2,9X16MM	2000	26670.029.016	ST3,9X9,5MM	1000	26670.039.009			
ST2,9X19MM	2000	26670.029.019	ST3,9X16MM	1000	26670.039.016	ST4,8X13MM	1000	26670.048.013
						ST4,8X16MM	1000	26670.048.016
ST3,5X6,5MM	2000	26670.035.006	ST4,2X9,5MM	1000	26670.042.009	ST4,8X19MM	1000	26670.048.019
ST3,5X9,5MM	2000	26670.035.009	ST4,2X13MM	1000	26670.042.013	ST4,8X25MM	1000	26670.048.025
ST3,5X13MM	2000	26670.035.013	ST4,2X16MM	1000	26670.042.016	ST4,8X32MM	500	26670.048.032
ST3,5X16MM	2000	26670.035.016	ST4,2X19MM	1000	26670.042.019	ST4,8X38MM	500	26670.048.038
ST3,5X19MM	2000	26670.035.019						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

26760 Parafuso autorroscante cabeça de queijo Pozidriv J01A

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado
DIN 7981 C-Z
ISO 7049 C-Z
NF E25-658 C

RoHS



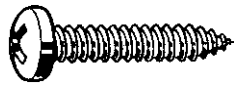
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,2X6,5MM	200	26760.022.006	ST3,9X19MM	200	26760.039.019	ST4,8X50MM	100	26760.048.050
			ST3,9X25MM	200	26760.039.025			
ST2,9X6,5MM	200	26760.029.006				ST5,5X13MM	200	26760.055.013
ST2,9X9,5MM	200	26760.029.009	ST4,2X9,5MM	200	26760.042.009	ST5,5X16MM	200	26760.055.016
ST2,9X13MM	200	26760.029.013	ST4,2X13MM	200	26760.042.013	ST5,5X19MM	200	26760.055.019
ST2,9X16MM	200	26760.029.016	ST4,2X16MM	200	26760.042.016	ST5,5X25MM	100	26760.055.025
ST2,9X19MM	200	26760.029.019	ST4,2X19MM	200	26760.042.019	ST5,5X32MM	100	26760.055.032
ST2,9X25MM	200	26760.029.025	ST4,2X25MM	200	26760.042.025	ST5,5X38MM	100	26760.055.038
			ST4,2X32MM	200	26760.042.032	ST5,5X45MM	100	26760.055.045
ST3,5X6,5MM	200	26760.035.006	ST4,2X38MM	200	26760.042.038	ST5,5X50MM	100	26760.055.050
ST3,5X9,5MM	200	26760.035.009	ST4,2X45MM	200	26760.042.045			
ST3,5X13MM	200	26760.035.013	ST4,2X50MM	200	26760.042.050	ST6,3X13MM	100	26760.063.013
ST3,5X16MM	200	26760.035.016				ST6,3X16MM	100	26760.063.016
ST3,5X19MM	200	26760.035.019	ST4,8X9,5MM	200	26760.048.009	ST6,3X19MM	100	26760.063.019
ST3,5X25MM	200	26760.035.025	ST4,8X13MM	200	26760.048.013	ST6,3X25MM	100	26760.063.025
ST3,5X32MM	200	26760.035.032	ST4,8X16MM	200	26760.048.016	ST6,3X32MM	100	26760.063.032
ST3,5X38MM	200	26760.035.038	ST4,8X19MM	200	26760.048.019	ST6,3X38MM	100	26760.063.038
			ST4,8X25MM	200	26760.048.025	ST6,3X45MM	100	26760.063.045
ST3,9X9,5MM	200	26760.039.009	ST4,8X32MM	100	26760.048.032	ST6,3X50MM	100	26760.063.050
ST3,9X13MM	200	26760.039.013	ST4,8X38MM	100	26760.048.038			
ST3,9X16MM	200	26760.039.016	ST4,8X45MM	100	26760.048.045			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

26200 Parafuso autorroscante cabeça de queijo Phillips J03B

Rosca Autorroscante
Material Aço
Tratamento sup. Niquelado
DIN 7981 C-H
ISO 7049 C-H

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X6,5MM	200	26200.029.006	ST3,5X19MM	200	26200.035.019	ST3,9X25MM	200	26200.039.025
ST2,9X9,5MM	200	26200.029.009	ST3,5X25MM	200	26200.035.025			
ST2,9X13MM	200	26200.029.013	ST3,5X32MM	200	26200.035.032	ST4,2X9,5MM	200	26200.042.009
ST2,9X16MM	200	26200.029.016	ST3,5X38MM	200	26200.035.038	ST4,2X13MM	200	26200.042.013
ST2,9X19MM	200	26200.029.019				ST4,2X16MM	200	26200.042.016
			ST3,9X9,5MM	200	26200.039.009	ST4,2X19MM	200	26200.042.019
ST3,5X6,5MM	200	26200.035.006	ST3,9X13MM	200	26200.039.013	ST4,2X25MM	200	26200.042.025
ST3,5X9,5MM	200	26200.035.009	ST3,9X16MM	200	26200.039.016	ST4,2X32MM	200	26200.042.032
ST3,5X13MM	200	26200.035.013	ST3,9X19MM	200	26200.039.019	ST4,2X38MM	200	26200.042.038
ST3,5X16MM	200	26200.035.016						

26200 Parafuso autorroscante cabeça de queijo Phillips ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST4,8X13MM	200	26200.048.013	ST5,5X13MM	200	26200.055.013	ST6,3X13MM	100	26200.063.013
ST4,8X16MM	200	26200.048.016	ST5,5X16MM	200	26200.055.016	ST6,3X16MM	100	26200.063.016
ST4,8X19MM	200	26200.048.019	ST5,5X19MM	200	26200.055.019	ST6,3X19MM	100	26200.063.019
ST4,8X25MM	200	26200.048.025	ST5,5X25MM	100	26200.055.025	ST6,3X25MM	100	26200.063.025
ST4,8X32MM	100	26200.048.032	ST5,5X32MM	100	26200.055.032	ST6,3X32MM	100	26200.063.032
ST4,8X38MM	100	26200.048.038	ST5,5X38MM	100	26200.055.038	ST6,3X38MM	100	26200.063.038

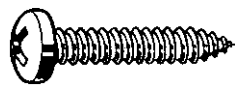
- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

26210 Parafuso autorroscante cabeça de queijo Phillips J03B

Rosca Autorroscante
Material Aço
Tratamento sup. Niquelado

DIN **7981 C-H**
ISO 7049 C-H

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X6,5MM	2000	26210.035.006				ST4,2X45MM	500	26210.042.045
ST3,5X9,5MM	2000	26210.035.009	ST4,2X9,5MM	1000	26210.042.009			
ST3,5X13MM	2000	26210.035.013	ST4,2X13MM	1000	26210.042.013	ST4,8X13MM	1000	26210.048.013
ST3,5X16MM	2000	26210.035.016	ST4,2X16MM	1000	26210.042.016	ST4,8X16MM	1000	26210.048.016
ST3,5X19MM	2000	26210.035.019	ST4,2X19MM	1000	26210.042.019			

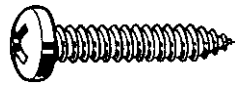
- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

6

26400 Parafuso autorroscante cabeça de queijo Phillips J03B

Rosca Autorroscante
Material Aço
Tratamento sup. Passivado a preto

DIN **7981 C-H**
ISO 7049 C-H



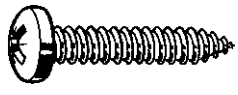
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X6,5MM	200	26400.029.006	ST3,9X9,5MM	200	26400.039.009	ST4,8X16MM	200	26400.048.016
ST2,9X9,5MM	200	26400.029.009	ST3,9X13MM	200	26400.039.013	ST4,8X19MM	200	26400.048.019
ST2,9X13MM	200	26400.029.013	ST3,9X16MM	200	26400.039.016	ST4,8X25MM	200	26400.048.025
ST2,9X16MM	200	26400.029.016	ST3,9X19MM	200	26400.039.019	ST4,8X32MM	100	26400.048.032
ST2,9X19MM	200	26400.029.019	ST3,9X25MM	200	26400.039.025	ST4,8X38MM	100	26400.048.038
ST2,9X25MM	200	26400.029.025				ST4,8X50MM	100	26400.048.050
			ST4,2X9,5MM	200	26400.042.009			
ST3,5X6,5MM	200	26400.035.006	ST4,2X13MM	200	26400.042.013	ST5,5X13MM	200	26400.055.013
ST3,5X9,5MM	200	26400.035.009	ST4,2X16MM	200	26400.042.016	ST5,5X16MM	200	26400.055.016
ST3,5X13MM	200	26400.035.013	ST4,2X19MM	200	26400.042.019	ST5,5X19MM	200	26400.055.019
ST3,5X16MM	200	26400.035.016	ST4,2X25MM	200	26400.042.025	ST5,5X25MM	100	26400.055.025
ST3,5X19MM	200	26400.035.019	ST4,2X32MM	200	26400.042.032	ST5,5X32MM	100	26400.055.032
ST3,5X25MM	200	26400.035.025	ST4,2X38MM	200	26400.042.038	ST5,5X38MM	100	26400.055.038
ST3,5X32MM	200	26400.035.032	ST4,2X50MM	200	26400.042.050	ST5,5X45MM	100	26400.055.045
ST3,5X38MM	200	26400.035.038				ST5,5X50MM	100	26400.055.050
			ST4,8X13MM	200	26400.048.013			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

26402 Parafuso autorroscante cabeça de queijo Pozidriv J03B

Rosca Autorroscante
Material Aço
Tratamento sup. Passivado a preto

DIN **7981 C-Z**
ISO 7049 C-Z
NF E25-658 C



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X6,5MM	200	26402.029.006	ST3,5X25MM	200	26402.035.025	ST4,2X32MM	200	26402.042.032
ST2,9X9,5MM	200	26402.029.009				ST4,2X38MM	200	26402.042.038
ST2,9X13MM	200	26402.029.013	ST3,9X13MM	200	26402.039.013	ST4,2X50MM	200	26402.042.050
ST2,9X16MM	200	26402.029.016	ST3,9X16MM	200	26402.039.016			
ST2,9X19MM	200	26402.029.019	ST3,9X19MM	200	26402.039.019	ST4,8X13MM	200	26402.048.013
ST2,9X25MM	200	26402.029.025	ST3,9X25MM	200	26402.039.025	ST4,8X16MM	200	26402.048.016
						ST4,8X19MM	200	26402.048.019
ST3,5X6,5MM	200	26402.035.006	ST4,2X9,5MM	200	26402.042.009	ST4,8X25MM	200	26402.048.025
ST3,5X9,5MM	200	26402.035.009	ST4,2X13MM	200	26402.042.013	ST4,8X32MM	100	26402.048.032
ST3,5X13MM	200	26402.035.013	ST4,2X16MM	200	26402.042.016	ST4,8X38MM	100	26402.048.038
ST3,5X16MM	200	26402.035.016	ST4,2X19MM	200	26402.042.019	ST4,8X50MM	100	26402.048.050
ST3,5X19MM	200	26402.035.019	ST4,2X25MM	200	26402.042.025			

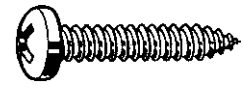
26402 Parafuso autorroscante cabeça de queijo Pozidriv

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST5,5X13MM	200	26402.055.013	ST5,5X19MM	200	26402.055.019			
ST5,5X16MM	200	26402.055.016	ST5,5X25MM	100	26402.055.025	ST6,3X19MM	100	26402.063.019

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

51660 Parafuso autorroscante cabeça de queijo Phillips R01A

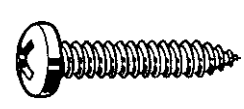
Rosca Autorroscante **DIN** **7981 C-H**
Material Aço inoxidável A2 ISO 7049 C-H



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,2X4,5MM	1000	51660.022.004	ST3,9X25MM	200	51660.039.025	ST4,8X90MM	200	51660.048.090
ST2,2X6,5MM*	1000	51660.022.006	ST3,9X28MM*	1000	51660.039.028	ST4,8X100MM	100	51660.048.100
ST2,2X9,5MM	1000	51660.022.009	ST3,9X32MM	200	51660.039.032	ST4,8X120MM*	200	51660.048.120
ST2,2X13MM*	1000	51660.022.013	ST3,9X38MM	200	51660.039.038			
ST2,2X16MM*	1000	51660.022.016	ST3,9X45MM*	500	51660.039.045	ST5,5X13MM	200	51660.055.013
ST2,2X19MM*	1000	51660.022.019	ST3,9X50MM*	500	51660.039.050	ST5,5X16MM	200	51660.055.016
ST2,2X22MM*	1000	51660.022.022	ST3,9X60MM*	500	51660.039.060	ST5,5X19MM	200	51660.055.019
ST2,2X25MM*	1000	51660.022.025	ST3,9X70MM*	500	51660.039.070	ST5,5X22MM	200	51660.055.022
						ST5,5X25MM	200	51660.055.025
ST2,9X6,5MM	200	51660.029.006	ST4,2X6,5MM	200	51660.042.006	ST5,5X32MM	100	51660.055.032
ST2,9X9,5MM	200	51660.029.009	ST4,2X9,5MM	200	51660.042.009	ST5,5X38MM	100	51660.055.038
ST2,9X13MM	200	51660.029.013	ST4,2X13MM	200	51660.042.013	ST5,5X42MM*	500	51660.055.042
ST2,9X16MM	200	51660.029.016	ST4,2X16MM	200	51660.042.016	ST5,5X45MM	100	51660.055.045
ST2,9X19MM	200	51660.029.019	ST4,2X19MM	200	51660.042.019	ST5,5X50MM	100	51660.055.050
ST2,9X22MM	200	51660.029.022	ST4,2X22MM	200	51660.042.022	ST5,5X55MM*	200	51660.055.055
ST2,9X25MM	200	51660.029.025	ST4,2X25MM	200	51660.042.025	ST5,5X60MM	200	51660.055.060
ST2,9X32MM*	1000	51660.029.032	ST4,2X32MM	200	51660.042.032	ST5,5X70MM*	200	51660.055.070
ST2,9X38MM	500	51660.029.038	ST4,2X38MM	200	51660.042.038	ST5,5X80MM*	200	51660.055.080
			ST4,2X45MM	200	51660.042.045	ST5,5X90MM*	200	51660.055.090
ST3,5X6,5MM	200	51660.035.006	ST4,2X50MM	200	51660.042.050	ST5,5X100MM*	200	51660.055.100
ST3,5X9,5MM	200	51660.035.009	ST4,2X60MM	200	51660.042.060	ST5,5X120MM*	200	51660.055.120
ST3,5X13MM	200	51660.035.013	ST4,2X70MM*	200	51660.042.070			
ST3,5X16MM	200	51660.035.016	ST4,2X80MM*	200	51660.042.080	ST6,3X13MM	100	51660.063.013
ST3,5X19MM	200	51660.035.019				ST6,3X16MM	100	51660.063.016
ST3,5X22MM	200	51660.035.022	ST4,8X9,5MM	200	51660.048.009	ST6,3X19MM	100	51660.063.019
ST3,5X25MM	200	51660.035.025	ST4,8X13MM	200	51660.048.013	ST6,3X22MM	100	51660.063.022
ST3,5X32MM	200	51660.035.032	ST4,8X16MM	200	51660.048.016	ST6,3X25MM	100	51660.063.025
ST3,5X38MM	200	51660.035.038	ST4,8X19MM	200	51660.048.019	ST6,3X32MM	100	51660.063.032
ST3,5X45MM*	500	51660.035.045	ST4,8X22MM	200	51660.048.022	ST6,3X38MM	100	51660.063.038
ST3,5X50MM*	500	51660.035.050	ST4,8X25MM	200	51660.048.025	ST6,3X45MM	100	51660.063.045
ST3,5X60MM*	500	51660.035.060	ST4,8X32MM	200	51660.048.032	ST6,3X50MM	100	51660.063.050
ST3,5X70MM*	500	51660.035.070	ST4,8X35MM*	500	51660.048.035	ST6,3X60MM*	200	51660.063.060
			ST4,8X38MM	200	51660.048.038	ST6,3X70MM*	200	51660.063.070
ST3,9X6,5MM	1000	51660.039.006	ST4,8X45MM	200	51660.048.045	ST6,3X80MM*	200	51660.063.080
ST3,9X9,5MM	200	51660.039.009	ST4,8X50MM	200	51660.048.050	ST6,3X90MM*	200	51660.063.090
ST3,9X13MM	200	51660.039.013	ST4,8X55MM*	200	51660.048.055	ST6,3X100MM*	200	51660.063.100
ST3,9X16MM	200	51660.039.016	ST4,8X60MM	200	51660.048.060	ST6,3X120MM*	200	51660.063.120
ST3,9X19MM	200	51660.039.019	ST4,8X70MM	200	51660.048.070			
ST3,9X22MM	200	51660.039.022	ST4,8X80MM	200	51660.048.080			

51670 Parafuso autorroscante cabeça de queijo Phillips R01A

Rosca Autorroscante **DIN** **7981 C-H**
Material Aço inoxidável A2 ISO 7049 C-H



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X9,5MM	1000	51670.035.009	ST4,2X32MM	1000	51670.042.032	ST4,8X16MM	1000	51670.048.016
			ST4,2X38MM	500	51670.042.038	ST4,8X19MM	1000	51670.048.019
ST4,2X13MM	1000	51670.042.013	ST4,2X50MM	1000	51670.042.050	ST4,8X25MM	1000	51670.048.025
ST4,2X16MM	1000	51670.042.016				ST4,8X38MM	500	51670.048.038
ST4,2X19MM	1000	51670.042.019	ST4,8X9,5MM	1000	51670.048.009	ST4,8X50MM	500	51670.048.050
ST4,2X25MM	1000	51670.042.025	ST4,8X13MM	1000	51670.048.013			

6

51661 Parafuso autorroscante cabeça queijo Pozidriv — R01A

Rosca Autorroscante
Material Aço inoxidável A2

DIN **7981 C-Z**
ISO 7049 C-Z
NF E25-658 C

RoHS



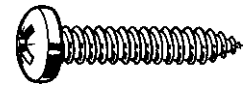
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,2X6,5MM*	1000	51661.022.006	ST3,9X32MM	200	51661.039.032	ST4,8X80MM*	200	51661.048.080
ST2,2X9,5MM*	1000	51661.022.009	ST3,9X38MM	200	51661.039.038	ST4,8X90MM*	200	51661.048.090
ST2,2X13MM*	1000	51661.022.013	ST3,9X45MM*	500	51661.039.045	ST4,8X100MM*	200	51661.048.100
ST2,2X16MM*	1000	51661.022.016	ST3,9X50MM*	500	51661.039.050			
						ST5,5X13MM	200	51661.055.013
ST2,9X6,5MM	200	51661.029.006	ST4,2X9,5MM	200	51661.042.009	ST5,5X16MM	200	51661.055.016
ST2,9X9,5MM	200	51661.029.009	ST4,2X13MM	200	51661.042.013	ST5,5X19MM	200	51661.055.019
ST2,9X13MM	200	51661.029.013	ST4,2X16MM	200	51661.042.016	ST5,5X22MM*	1000	51661.055.022
ST2,9X16MM	200	51661.029.016	ST4,2X19MM	200	51661.042.019	ST5,5X25MM	200	51661.055.025
ST2,9X19MM	200	51661.029.019	ST4,2X22MM*	1000	51661.042.022	ST5,5X32MM	100	51661.055.032
ST2,9X22MM*	1000	51661.029.022	ST4,2X25MM	200	51661.042.025	ST5,5X38MM	100	51661.055.038
ST2,9X25MM	200	51661.029.025	ST4,2X32MM	200	51661.042.032	ST5,5X45MM	100	51661.055.045
ST2,9X32MM*	1000	51661.029.032	ST4,2X38MM	200	51661.042.038	ST5,5X50MM	100	51661.055.050
			ST4,2X45MM	200	51661.042.045	ST5,5X60MM*	200	51661.055.060
ST3,5X6,5MM	200	51661.035.006	ST4,2X50MM	200	51661.042.050	ST5,5X70MM*	200	51661.055.070
ST3,5X9,5MM	200	51661.035.009	ST4,2X60MM*	200	51661.042.060	ST5,5X80MM*	200	51661.055.080
ST3,5X13MM	200	51661.035.013	ST4,2X70MM*	200	51661.042.070	ST5,5X100MM*	200	51661.055.100
ST3,5X16MM	200	51661.035.016						
ST3,5X19MM	200	51661.035.019	ST4,8X9,5MM	200	51661.048.009	ST6,3X13MM*	500	51661.063.013
ST3,5X22MM*	1000	51661.035.022	ST4,8X13MM	200	51661.048.013	ST6,3X16MM	100	51661.063.016
ST3,5X25MM	200	51661.035.025	ST4,8X16MM	200	51661.048.016	ST6,3X19MM	100	51661.063.019
ST3,5X32MM	200	51661.035.032	ST4,8X19MM	200	51661.048.019	ST6,3X22MM*	500	51661.063.022
ST3,5X38MM	200	51661.035.038	ST4,8X22MM*	1000	51661.048.022	ST6,3X25MM	100	51661.063.025
			ST4,8X25MM	200	51661.048.025	ST6,3X32MM	100	51661.063.032
ST3,9X6,5MM*	1000	51661.039.006	ST4,8X32MM	200	51661.048.032	ST6,3X38MM	100	51661.063.038
ST3,9X9,5MM	200	51661.039.009	ST4,8X38MM	200	51661.048.038	ST6,3X45MM*	200	51661.063.045
ST3,9X13MM	200	51661.039.013	ST4,8X45MM	200	51661.048.045	ST6,3X50MM	100	51661.063.050
ST3,9X16MM	200	51661.039.016	ST4,8X50MM	200	51661.048.050	ST6,3X60MM*	200	51661.063.060
ST3,9X19MM	200	51661.039.019	ST4,8X60MM	200	51661.048.060	ST6,3X70MM*	200	51661.063.070
ST3,9X22MM*	1000	51661.039.022	ST4,8X70MM*	200	51661.048.070	ST6,3X80MM*	200	51661.063.080
ST3,9X25MM	200	51661.039.025						

55661 Parafuso autorroscante cabeça de queijo Pozidriv — R41A

Rosca Autorroscante
Material Aço inoxidável A4

DIN **7981 C-Z**
ISO 7049 C-Z
NF E25-658 C

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,2X6,5MM*	1000	55661.022.006	ST3,9X32MM*	1000	55661.039.032	ST4,8X100MM*	200	55661.048.100
ST2,2X9,5MM*	1000	55661.022.009	ST3,9X38MM*	500	55661.039.038			
ST2,2X13MM*	1000	55661.022.013	ST3,9X45MM*	500	55661.039.045	ST5,5X13MM*	1000	55661.055.013
ST2,2X16MM*	1000	55661.022.016	ST3,9X50MM*	500	55661.039.050	ST5,5X16MM*	1000	55661.055.016
ST2,2X19MM*	1000	55661.022.019				ST5,5X19MM*	1000	55661.055.019
			ST4,2X9,5MM*	1000	55661.042.009	ST5,5X22MM*	1000	55661.055.022
ST2,9X6,5MM*	1000	55661.029.006	ST4,2X13MM*	1000	55661.042.013	ST5,5X25MM*	500	55661.055.025
ST2,9X9,5MM*	1000	55661.029.009	ST4,2X16MM*	1000	55661.042.016	ST5,5X32MM*	500	55661.055.032
ST2,9X13MM*	1000	55661.029.013	ST4,2X19MM*	1000	55661.042.019	ST5,5X38MM*	500	55661.055.038
ST2,9X16MM*	1000	55661.029.016	ST4,2X22MM*	1000	55661.042.022	ST5,5X45MM*	200	55661.055.045
ST2,9X19MM*	1000	55661.029.019	ST4,2X25MM*	1000	55661.042.025	ST5,5X50MM*	200	55661.055.050
ST2,9X22MM*	1000	55661.029.022	ST4,2X32MM*	500	55661.042.032	ST5,5X60MM*	200	55661.055.060
ST2,9X25MM*	1000	55661.029.025	ST4,2X38MM*	500	55661.042.038	ST5,5X70MM*	200	55661.055.070
			ST4,2X45MM*	500	55661.042.045	ST5,5X80MM*	200	55661.055.080
ST3,5X6,5MM*	1000	55661.035.006	ST4,2X50MM*	200	55661.042.050	ST5,5X100MM*	200	55661.055.100
ST3,5X9,5MM*	1000	55661.035.009	ST4,2X60MM*	200	55661.042.060			
ST3,5X13MM*	1000	55661.035.013	ST4,2X70MM*	200	55661.042.070	ST6,3X13MM*	500	55661.063.013
ST3,5X16MM*	1000	55661.035.016				ST6,3X16MM*	500	55661.063.016
ST3,5X19MM*	1000	55661.035.019	ST4,8X9MM*	1000	55661.048.009	ST6,3X19MM*	500	55661.063.019
ST3,5X22MM*	1000	55661.035.022	ST4,8X13MM*	1000	55661.048.013	ST6,3X22MM*	500	55661.063.022
ST3,5X25MM*	1000	55661.035.025	ST4,8X16MM*	1000	55661.048.016	ST6,3X25MM*	200	55661.063.025
ST3,5X32MM*	1000	55661.035.032	ST4,8X19MM*	1000	55661.048.019	ST6,3X32MM*	200	55661.063.032
ST3,5X38MM*	1000	55661.035.038	ST4,8X22MM*	1000	55661.048.022	ST6,3X38MM*	200	55661.063.038
			ST4,8X25MM*	500	55661.048.025	ST6,3X45MM*	200	55661.063.045
ST3,9X9,5MM*	1000	55661.039.009	ST4,8X32MM*	500	55661.048.032	ST6,3X50MM*	200	55661.063.050
ST3,9X13MM*	1000	55661.039.013	ST4,8X38MM*	500	55661.048.038	ST6,3X60MM*	200	55661.063.060
ST3,9X16MM*	1000	55661.039.016	ST4,8X45MM*	200	55661.048.045	ST6,3X70MM*	200	55661.063.070
ST3,9X19MM*	1000	55661.039.019	ST4,8X50MM*	200	55661.048.050	ST6,3X80MM*	200	55661.063.080
ST3,9X22MM*	1000	55661.039.022	ST4,8X70MM*	200	55661.048.070	ST6,3X100MM*	200	55661.063.100
ST3,9X25MM*	1000	55661.039.025	ST4,8X80MM*	200	55661.048.080			

6

55660 Parafuso autorroscante cabeça de queijo Phillips — R41A

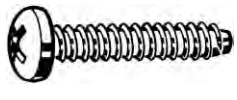
Rosca Autorroscante
Material Aço inoxidável A4
DIN 7981 C-H
ISO 7049 C-H



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,2X6,5MM*	1000	55660.022.006	ST3,9X32MM*	1000	55660.039.032			
ST2,2X9,5MM*	1000	55660.022.009	ST3,9X38MM*	500	55660.039.038	ST5,5X13MM	200	55660.055.013
ST2,2X13MM*	1000	55660.022.013	ST3,9X45MM*	500	55660.039.045	ST5,5X16MM	200	55660.055.016
ST2,2X22MM*	1000	55660.022.022	ST3,9X50MM*	500	55660.039.050	ST5,5X19MM	200	55660.055.019
						ST5,5X22MM	200	55660.055.022
ST2,9X6,5MM	200	55660.029.006	ST4,2X9,5MM	200	55660.042.009	ST5,5X25MM	200	55660.055.025
ST2,9X9,5MM	200	55660.029.009	ST4,2X13MM	200	55660.042.013	ST5,5X32MM	100	55660.055.032
ST2,9X13MM	200	55660.029.013	ST4,2X16MM	200	55660.042.016	ST5,5X38MM	100	55660.055.038
ST2,9X16MM	200	55660.029.016	ST4,2X19MM	200	55660.042.019	ST5,5X45MM	100	55660.055.045
ST2,9X19MM	200	55660.029.019	ST4,2X22MM	200	55660.042.022	ST5,5X50MM	100	55660.055.050
ST2,9X22MM*	1000	55660.029.022	ST4,2X25MM	200	55660.042.025	ST5,5X60MM*	200	55660.055.060
ST2,9X25MM	1000	55660.029.025	ST4,2X32MM	200	55660.042.032	ST5,5X70MM*	200	55660.055.070
ST2,9X32MM*	1000	55660.029.032	ST4,2X38MM	200	55660.042.038	ST5,5X80MM*	200	55660.055.080
			ST4,2X45MM*	500	55660.042.045	ST5,5X90MM*	200	55660.055.090
ST3,5X6,5MM*	1000	55660.035.006	ST4,2X50MM	200	55660.042.050	ST5,5X100MM*	200	55660.055.100
ST3,5X9,5MM	200	55660.035.009	ST4,2X60MM*	200	55660.042.060			
ST3,5X13MM	200	55660.035.013	ST4,2X70MM*	200	55660.042.070	ST6,3X13MM	100	55660.063.013
ST3,5X16MM	200	55660.035.016				ST6,3X16MM	100	55660.063.016
ST3,5X19MM	200	55660.035.019	ST4,8X9,5MM*	1000	55660.048.009	ST6,3X19MM	100	55660.063.019
ST3,5X22MM	200	55660.035.022	ST4,8X13MM	200	55660.048.013	ST6,3X22MM	100	55660.063.022
ST3,5X25MM	200	55660.035.025	ST4,8X16MM	200	55660.048.016	ST6,3X25MM	100	55660.063.025
ST3,5X32MM	200	55660.035.032	ST4,8X19MM	200	55660.048.019	ST6,3X32MM	100	55660.063.032
ST3,5X38MM*	1000	55660.035.038	ST4,8X22MM	200	55660.048.022	ST6,3X38MM	100	55660.063.038
			ST4,8X25MM	200	55660.048.025	ST6,3X45MM	100	55660.063.045
ST3,9X6,5MM*	1000	55660.039.006	ST4,8X32MM	200	55660.048.032	ST6,3X50MM	100	55660.063.050
ST3,9X9,5MM	200	55660.039.009	ST4,8X38MM	200	55660.048.038	ST6,3X60MM*	200	55660.063.060
ST3,9X13MM	200	55660.039.013	ST4,8X45MM*	200	55660.048.045	ST6,3X70MM*	200	55660.063.070
ST3,9X16MM	200	55660.039.016	ST4,8X50MM	200	55660.048.050	ST6,3X80MM*	200	55660.063.080
ST3,9X19MM	200	55660.039.019	ST4,8X60MM*	200	55660.048.060	ST6,3X90MM*	200	55660.063.090
ST3,9X22MM	200	55660.039.022	ST4,8X70MM*	200	55660.048.070	ST6,3X100MM*	200	55660.063.100
ST3,9X25MM	200	55660.039.025	ST4,8X80MM*	200	55660.048.080			

26300 Parafuso autorroscante cabeça de queijo Phillips sem ponta — J03B

Rosca Autorroscante
Material Aço
Tratamento sup. Niquelado
DIN 7981 F-H
ISO 7049 F-H

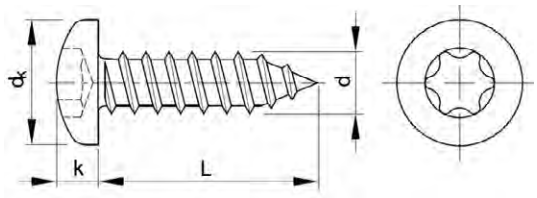


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,2X4,5MM	2000	26300.022.004	ST2,9X19MM	2000	26300.029.019	ST4,2X9,5MM	1000	26300.042.009
ST2,2X6,5MM	2000	26300.022.006				ST4,2X13MM	1000	26300.042.013
			ST3,5X6,5MM	2000	26300.035.006	ST4,2X16MM	1000	26300.042.016
ST2,9X4,5MM	2000	26300.029.004	ST3,5X8MM	2000	26300.035.008	ST4,2X19MM	500	26300.042.019
ST2,9X6,5MM	2000	26300.029.006	ST3,5X9,5MM	2000	26300.035.009	ST4,2X32MM	500	26300.042.032
ST2,9X8MM	2000	26300.029.008	ST3,5X13MM	2000	26300.035.013			
ST2,9X9,5MM	2000	26300.029.009	ST3,5X16MM	1000	26300.035.016	ST4,8X13MM	1000	26300.048.013
ST2,9X13MM	2000	26300.029.013	ST3,5X19MM	1000	26300.035.019	ST4,8X19MM	500	26300.048.019
ST2,9X16MM	2000	26300.029.016						

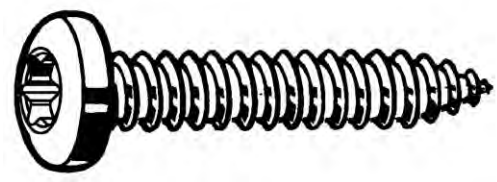
- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

6

Parafuso autorroscante cabeça de queijo hexalobular



ISO **14585 C**
DIN ≈7981 C
ASME ≈B18.6.4
NF ≈E25-654 C



Dados técnicos

d	Chave caixa	d_k	k	P
ST2.2	T6	4.2	1.8	0.8
ST2.9	T8/T10	5.6	2.2	1.1
ST3.5	T10	6.9	2.6	1.3
ST3.9 (≠ISO)	T15	7.5	2.8	1.4
ST4.2	T20	8.2	3.05	1.4
ST4.8	T25	9.5	3.55	1.6
ST5.5	T25	10.8	3.95	1.8
ST6.3	T30	12.5	4.55	1.8

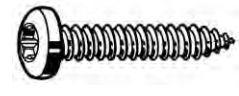
Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.	Código	Página
ST	Hexalobular	Aço	Zn	26501	6-84
ST	Hexalobular	INOX A2		51664	6-84
ST	Hexalobular	INOX A4		55664	6-85

6

26501 Parafuso autorroscante cabeça de queijo hexalobular J03A

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

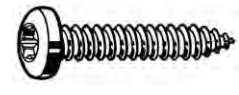


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X9,5MM	200	26501.029.009	ST3,9X13MM	200	26501.039.013	ST4,8X19MM	200	26501.048.019
ST2,9X13MM	200	26501.029.013						
			ST4,2X13MM	200	26501.042.013	ST5,5X19MM	200	26501.055.019
ST3,5X9,5MM	200	26501.035.009	ST4,2X16MM	200	26501.042.016	ST5,5X25MM	100	26501.055.025
ST3,5X13MM	200	26501.035.013	ST4,2X19MM	200	26501.042.019			
ST3,5X16MM	200	26501.035.016	ST4,2X25MM	200	26501.042.025	ST6,3X19MM	100	26501.063.019
ST3,5X19MM	200	26501.035.019				ST6,3X25MM	100	26501.063.025
			ST4,8X13MM	200	26501.048.013	ST6,3X32MM	100	26501.063.032
ST3,9X9,5MM	200	26501.039.009	ST4,8X16MM	200	26501.048.016	ST6,3X45MM	100	26501.063.045

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

51664 Parafuso autorroscante cabeça de queijo hexalobular R03A

Rosca Autorroscante
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,2X6,5MM*	1000	51664.022.006				ST3,9X16MM*	1000	51664.039.016
ST2,2X9,5MM*	1000	51664.022.009	ST3,5X6,5MM*	1000	51664.035.006	ST3,9X19MM*	1000	51664.039.019
ST2,2X13MM*	1000	51664.022.013	ST3,5X9,5MM*	1000	51664.035.009	ST3,9X22MM*	1000	51664.039.022
ST2,2X16MM*	1000	51664.022.016	ST3,5X13MM*	1000	51664.035.013	ST3,9X25MM*	1000	51664.039.025
ST2,2X19MM*	1000	51664.022.019	ST3,5X16MM	1000	51664.035.016	ST3,9X32MM*	1000	51664.039.032
ST2,2X22MM*	1000	51664.022.022	ST3,5X19MM*	1000	51664.035.019	ST3,9X38MM*	500	51664.039.038
ST2,2X25MM*	1000	51664.022.025	ST3,5X22MM*	1000	51664.035.022	ST3,9X45MM*	500	51664.039.045
			ST3,5X25MM*	1000	51664.035.025	ST3,9X50MM*	500	51664.039.050
ST2,9X6,5MM*	1000	51664.029.006	ST3,5X32MM*	1000	51664.035.032	ST3,9X60MM*	500	51664.039.060
ST2,9X9,5MM*	1000	51664.029.009	ST3,5X38MM*	1000	51664.035.038			
ST2,9X13MM*	1000	51664.029.013	ST3,5X45MM*	500	51664.035.045	ST4,2X9,5MM*	1000	51664.042.009
ST2,9X16MM*	1000	51664.029.016	ST3,5X50MM*	500	51664.035.050	ST4,2X13MM	1000	51664.042.013
ST2,9X19MM*	1000	51664.029.019				ST4,2X16MM*	1000	51664.042.016
ST2,9X22MM*	1000	51664.029.022	ST3,9X6,5MM*	1000	51664.039.006	ST4,2X19MM	1000	51664.042.019
ST2,9X25MM*	1000	51664.029.025	ST3,9X9,5MM*	1000	51664.039.009	ST4,2X22MM*	1000	51664.042.022
ST2,9X32MM*	1000	51664.029.032	ST3,9X13MM*	1000	51664.039.013	ST4,2X25MM*	1000	51664.042.025

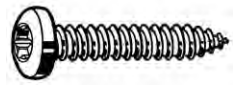
51664 Parafuso autorroscante cabeça de queijo hexalobular ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST4,2X32MM	500	51664.042.032	ST4,8X50MM*	200	51664.048.050	ST5,5X80MM*	200	51664.055.080
ST4,2X38MM	500	51664.042.038	ST4,8X60MM*	200	51664.048.060			
ST4,2X45MM*	500	51664.042.045	ST4,8X70MM*	200	51664.048.070	ST6,3X13MM*	500	51664.063.013
ST4,2X50MM*	200	51664.042.050				ST6,3X16MM*	500	51664.063.016
ST4,2X60MM*	200	51664.042.060	ST5,5X13MM*	1000	51664.055.013	ST6,3X19MM*	500	51664.063.019
			ST5,5X16MM*	1000	51664.055.016	ST6,3X22MM*	500	51664.063.022
ST4,8X9,5MM*	1000	51664.048.009	ST5,5X19MM*	1000	51664.055.019	ST6,3X25MM*	200	51664.063.025
ST4,8X13MM*	1000	51664.048.013	ST5,5X22MM*	1000	51664.055.022	ST6,3X32MM*	200	51664.063.032
ST4,8X16MM*	1000	51664.048.016	ST5,5X25MM*	500	51664.055.025	ST6,3X38MM*	200	51664.063.038
ST4,8X19MM*	1000	51664.048.019	ST5,5X32MM*	500	51664.055.032	ST6,3X45MM*	200	51664.063.045
ST4,8X22MM*	1000	51664.048.022	ST5,5X38MM*	500	51664.055.038	ST6,3X50MM*	200	51664.063.050
ST4,8X25MM*	500	51664.048.025	ST5,5X45MM*	200	51664.055.045	ST6,3X60MM*	200	51664.063.060
ST4,8X32MM*	500	51664.048.032	ST5,5X50MM	200	51664.055.050	ST6,3X70MM*	200	51664.063.070
ST4,8X38MM	500	51664.048.038	ST5,5X60MM	200	51664.055.060	ST6,3X80MM*	200	51664.063.080
ST4,8X45MM*	200	51664.048.045	ST5,5X70MM*	200	51664.055.070			

55664 Parafuso autorroscante cabeça de queijo hexalobular R43A

Rosca Autorroscante
Material Aço inoxidável A4

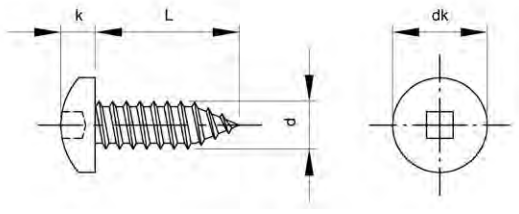
RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,2X6,5MM*	1000	55664.022.006	ST3,9X16MM*	1000	55664.039.016	ST4,8X45MM*	200	55664.048.045
ST2,2X9,5MM*	1000	55664.022.009	ST3,9X19MM*	1000	55664.039.019	ST4,8X50MM*	200	55664.048.050
ST2,2X13MM*	1000	55664.022.013	ST3,9X22MM*	1000	55664.039.022	ST4,8X60MM*	200	55664.048.060
ST2,2X16MM*	1000	55664.022.016	ST3,9X25MM*	1000	55664.039.025	ST4,8X70MM*	200	55664.048.070
ST2,2X19MM*	1000	55664.022.019	ST3,9X32MM*	1000	55664.039.032			
ST2,2X22MM*	1000	55664.022.022	ST3,9X38MM*	500	55664.039.038	ST5,5X13MM*	1000	55664.055.013
ST2,2X25MM*	1000	55664.022.025	ST3,9X45MM*	500	55664.039.045	ST5,5X16MM*	1000	55664.055.016
			ST3,9X50MM*	500	55664.039.050	ST5,5X19MM*	1000	55664.055.019
ST2,9X6,5MM*	1000	55664.029.006	ST3,9X60MM*	500	55664.039.060	ST5,5X22MM*	1000	55664.055.022
ST2,9X9,5MM*	1000	55664.029.009				ST5,5X25MM*	500	55664.055.025
ST2,9X13MM*	1000	55664.029.013	ST4,2X9,5MM*	1000	55664.042.009	ST5,5X32MM*	500	55664.055.032
ST2,9X16MM*	1000	55664.029.016	ST4,2X13MM*	1000	55664.042.013	ST5,5X38MM*	500	55664.055.038
ST2,9X19MM*	1000	55664.029.019	ST4,2X16MM*	1000	55664.042.016	ST5,5X45MM*	200	55664.055.045
ST2,9X22MM*	1000	55664.029.022	ST4,2X19MM*	1000	55664.042.019	ST5,5X50MM*	200	55664.055.050
ST2,9X25MM*	1000	55664.029.025	ST4,2X22MM*	1000	55664.042.022	ST5,5X60MM*	200	55664.055.060
ST2,9X32MM*	1000	55664.029.032	ST4,2X25MM*	1000	55664.042.025	ST5,5X70MM*	200	55664.055.070
			ST4,2X32MM*	500	55664.042.032	ST5,5X80MM*	200	55664.055.080
ST3,5X6,5MM*	1000	55664.035.006	ST4,2X38MM*	500	55664.042.038			
ST3,5X9,5MM*	1000	55664.035.009	ST4,2X45MM*	500	55664.042.045	ST6,3X13MM*	500	55664.063.013
ST3,5X13MM*	1000	55664.035.013	ST4,2X50MM*	200	55664.042.050	ST6,3X16MM*	500	55664.063.016
ST3,5X16MM*	1000	55664.035.016	ST4,2X60MM*	200	55664.042.060	ST6,3X19MM*	500	55664.063.019
ST3,5X19MM*	1000	55664.035.019				ST6,3X22MM*	500	55664.063.022
ST3,5X22MM*	1000	55664.035.022	ST4,8X9,5MM*	1000	55664.048.009	ST6,3X25MM*	200	55664.063.025
ST3,5X25MM*	1000	55664.035.025	ST4,8X13MM*	1000	55664.048.013	ST6,3X32MM*	200	55664.063.032
ST3,5X32MM*	1000	55664.035.032	ST4,8X16MM*	1000	55664.048.016	ST6,3X38MM*	200	55664.063.038
ST3,5X38MM*	1000	55664.035.038	ST4,8X19MM*	1000	55664.048.019	ST6,3X45MM*	200	55664.063.045
ST3,5X50MM*	500	55664.035.050	ST4,8X22MM*	1000	55664.048.022	ST6,3X50MM*	200	55664.063.050
			ST4,8X25MM*	500	55664.048.025	ST6,3X60MM*	200	55664.063.060
ST3,9X6,5MM*	1000	55664.039.006	ST4,8X32MM*	500	55664.048.032	ST6,3X70MM*	200	55664.063.070
ST3,9X9,5MM*	1000	55664.039.009	ST4,8X38MM*	500	55664.048.038	ST6,3X80MM*	200	55664.063.080
ST3,9X13MM*	1000	55664.039.013						

6

Parafuso autorroscante cabeça cilíndrica com encaixe quadrado



DIN	**≈7981 C**
ISO	≈7049 C
ASME	≈B18.6.4
NF	≈E25-654 C



Dados técnicos

d	d_k	k	Nr. quadrado	P
ST3.5	6.9	2.6	1	1.3
ST3.9	7.5	2.8	1	1.4
ST4.2	8.2	3.05	2	1.4
ST4.8	9.5	3.55	2	1.6

51663 **Parafuso autorroscante cabeça cilíndrica com encaixe quadrado** **R03A**

Rosca Autorroscante
Material Aço inoxidável A2



RoHS

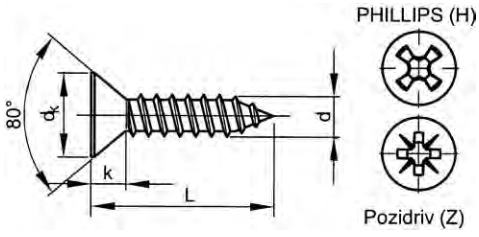
6

d x L	✉	Ref. do artigo
ST3,5X9,5MM*	200	51663.035.009
ST3,5X13MM*	200	51663.035.013
ST3,5X19MM*	200	51663.035.019
ST3,5X22MM*	200	51663.035.022
ST3,5X25MM*	200	51663.035.025
ST3,9X9,5MM*	200	51663.039.009
ST3,9X13MM*	200	51663.039.013
ST3,9X16MM*	200	51663.039.016
ST3,9X19MM*	200	51663.039.019
ST3,9X22MM*	200	51663.039.022
ST3,9X25MM*	200	51663.039.025
ST3,9X32MM*	200	51663.039.032
ST3,9X38MM*	200	51663.039.038

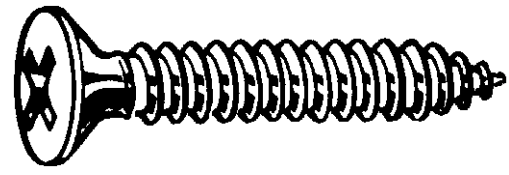
d x L	✉	Ref. do artigo
ST4,2X9,5MM*	200	51663.042.009
ST4,2X13MM*	200	51663.042.013
ST4,2X16MM*	200	51663.042.016
ST4,2X19MM*	200	51663.042.019
ST4,2X25MM*	200	51663.042.025
ST4,2X32MM*	200	51663.042.032
ST4,2X38MM*	200	51663.042.038
ST4,2X45MM*	200	51663.042.045
ST4,2X50MM*	200	51663.042.050
ST4,8X13MM*	200	51663.048.013
ST4,8X16MM*	200	51663.048.016
ST4,8X19MM*	200	51663.048.019

d x L	✉	Ref. do artigo
ST4,8X22MM*	200	51663.048.022
ST4,8X25MM*	200	51663.048.025
ST4,8X32MM*	200	51663.048.032
ST4,8X38MM*	200	51663.048.038
ST4,8X45MM*	200	51663.048.045
ST4,8X50MM*	200	51663.048.050
ST4,8X60MM*	200	51663.048.060
ST4,8X70MM*	200	51663.048.070
ST4,8X80MM*	200	51663.048.080
ST4,8X100MM*	200	51663.048.100
ST4,8X120MM*	200	51663.048.120
ST4,8X150MM*	200	51663.048.150

Parafuso autorroscante cabeça de embeber cruz



DIN **7982**
ISO 7050
NF E25-656



Dados técnicos

d	d_k	k ≈	Nr. fenda	P
ST2.2	4.3	1.3	1	0.8
ST2.9	5.5	1.7	1	1.1
ST3.5	6.8	2.1	2	1.3
ST3.9	7.5	2.3	2	1.4
ST4.2	8.1	2.5	2	1.4
ST4.8	9.5	3	2	1.6
ST5.5	10.8	3.4	3	1.8
ST6.3	12.4	3.8	3	1.8

Grupos de produtos

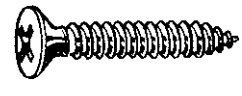
Rosca	Encaixe	Material	Tratamento sup.		Código	Página
ST	Phillips	Aço	Zn		26680	6-87
ST	Phillips	Aço	Zn	Embalagem grande	26690	6-88
ST	Pozidriv	Aço	Zn		26770	6-88
ST	Phillips	Aço	Niq.		26220	6-88
ST	Pozidriv	Aço	Passiv. preto		26432	6-89
ST	Phillips	INOX A2			51680	6-89
ST	Pozidriv	INOX A2			51681	6-89
ST	Phillips	INOX A4			55680	6-90
ST	Pozidriv	INOX A4			55681	6-90

26680 **Parafuso autorroscante cabeça de embeber Phillips** **J01B**

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

DIN **7982 C-H**
ISO 7050 C-H

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X6,5MM	200	26680.029.006	ST3,9X25MM	200	26680.039.025	ST4,8X50MM	100	26680.048.050
ST2,9X9,5MM	200	26680.029.009	ST3,9X32MM	200	26680.039.032			
ST2,9X13MM	200	26680.029.013				ST5,5X13MM	200	26680.055.013
ST2,9X16MM	200	26680.029.016	ST4,2X9,5MM	200	26680.042.009	ST5,5X16MM	200	26680.055.016
ST2,9X19MM	200	26680.029.019	ST4,2X13MM	200	26680.042.013	ST5,5X19MM	200	26680.055.019
ST2,9X22MM	200	26680.029.022	ST4,2X16MM	200	26680.042.016	ST5,5X22MM	100	26680.055.022
ST2,9X25MM	200	26680.029.025	ST4,2X19MM	200	26680.042.019	ST5,5X25MM	100	26680.055.025
			ST4,2X22MM	200	26680.042.022	ST5,5X32MM	100	26680.055.032
ST3,5X9,5MM	200	26680.035.009	ST4,2X25MM	200	26680.042.025	ST5,5X38MM	100	26680.055.038
ST3,5X13MM	200	26680.035.013	ST4,2X32MM	200	26680.042.032	ST5,5X45MM	100	26680.055.045
ST3,5X16MM	200	26680.035.016	ST4,2X38MM	200	26680.042.038	ST5,5X50MM	100	26680.055.050
ST3,5X19MM	200	26680.035.019	ST4,2X45MM	200	26680.042.045			
ST3,5X22MM	200	26680.035.022	ST4,2X50MM	200	26680.042.050	ST6,3X16MM	100	26680.063.016
ST3,5X25MM	200	26680.035.025				ST6,3X19MM	100	26680.063.019
ST3,5X32MM	200	26680.035.032	ST4,8X13MM	200	26680.048.013	ST6,3X22MM	100	26680.063.022
ST3,5X38MM	200	26680.035.038	ST4,8X16MM	200	26680.048.016	ST6,3X25MM	100	26680.063.025
			ST4,8X19MM	200	26680.048.019	ST6,3X32MM	100	26680.063.032
ST3,9X9,5MM	200	26680.039.009	ST4,8X22MM	200	26680.048.022	ST6,3X38MM	100	26680.063.038
ST3,9X13MM	200	26680.039.013	ST4,8X25MM	200	26680.048.025	ST6,3X45MM	100	26680.063.045
ST3,9X16MM	200	26680.039.016	ST4,8X32MM	100	26680.048.032	ST6,3X50MM	100	26680.063.050
ST3,9X19MM	200	26680.039.019	ST4,8X38MM	100	26680.048.038	ST6,3X60MM	100	26680.063.060
ST3,9X22MM	200	26680.039.022	ST4,8X45MM	100	26680.048.045			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

26690 Parafuso autorroscante cabeça de embeber Phillips — J01B

Rosca	Autorroscante	**DIN**	**7982 C-H**
Material	Aço	ISO	7050 C-H
Tratamento sup.	Zincado		

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X9,5MM	2000	26690.029.009	ST3,5X25MM	2000	26690.035.025	ST4,2X25MM	1000	26690.042.025
ST2,9X13MM	2000	26690.029.013						
			ST3,9X32MM	500	26690.039.032	ST4,8X16MM	1000	26690.048.016
ST3,5X9,5MM	2000	26690.035.009				ST4,8X19MM	1000	26690.048.019
ST3,5X13MM	2000	26690.035.013	ST4,2X13MM	1000	26690.042.013	ST4,8X25MM	1000	26690.048.025
ST3,5X16MM	2000	26690.035.016	ST4,2X16MM	1000	26690.042.016	ST4,8X32MM	500	26690.048.032
ST3,5X19MM	2000	26690.035.019	ST4,2X19MM	1000	26690.042.019	ST4,8X38MM	500	26690.048.038

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

26770 Parafuso autorroscante cabeça de embeber Pozidriv — J01A

Rosca	Autorroscante	**DIN**	**7982 C-Z**
Material	Aço	ISO	7050 C-Z
Tratamento sup.	Zincado	NF	E25-656 C

RoHS



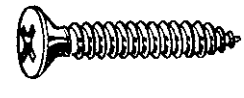
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X9,5MM	200	26770.029.009	ST3,9X32MM	200	26770.039.032			
ST2,9X13MM	200	26770.029.013				ST5,5X13MM	200	26770.055.013
ST2,9X16MM	200	26770.029.016	ST4,2X9,5MM	200	26770.042.009	ST5,5X16MM	200	26770.055.016
ST2,9X19MM	200	26770.029.019	ST4,2X13MM	200	26770.042.013	ST5,5X19MM	200	26770.055.019
ST2,9X25MM	200	26770.029.025	ST4,2X16MM	200	26770.042.016	ST5,5X25MM	100	26770.055.025
			ST4,2X19MM	200	26770.042.019	ST5,5X32MM	100	26770.055.032
ST3,5X9,5MM	200	26770.035.009	ST4,2X25MM	200	26770.042.025	ST5,5X38MM	100	26770.055.038
ST3,5X13MM	200	26770.035.013	ST4,2X32MM	200	26770.042.032	ST5,5X45MM	100	26770.055.045
ST3,5X16MM	200	26770.035.016	ST4,2X38MM	200	26770.042.038	ST5,5X50MM	100	26770.055.050
ST3,5X19MM	200	26770.035.019	ST4,2X45MM	200	26770.042.045			
ST3,5X25MM	200	26770.035.025				ST6,3X16MM	100	26770.063.016
ST3,5X32MM	200	26770.035.032	ST4,8X13MM	200	26770.048.013	ST6,3X19MM	100	26770.063.019
ST3,5X38MM	200	26770.035.038	ST4,8X16MM	200	26770.048.016	ST6,3X25MM	100	26770.063.025
			ST4,8X19MM	200	26770.048.019	ST6,3X32MM	100	26770.063.032
ST3,9X9,5MM	200	26770.039.009	ST4,8X25MM	200	26770.048.025	ST6,3X38MM	100	26770.063.038
ST3,9X13MM	200	26770.039.013	ST4,8X32MM	100	26770.048.032	ST6,3X45MM	100	26770.063.045
ST3,9X16MM	200	26770.039.016	ST4,8X38MM	100	26770.048.038	ST6,3X50MM	100	26770.063.050
ST3,9X19MM	200	26770.039.019	ST4,8X45MM	100	26770.048.045	ST6,3X60MM	100	26770.063.060
ST3,9X25MM	200	26770.039.025	ST4,8X50MM	100	26770.048.050			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

26220 Parafuso autorroscante cabeça de embeber Phillips — J03B

Rosca	Autorroscante	**DIN**	**7982 C-H**
Material	Aço	ISO	7050 C-H
Tratamento sup.	Niquelado		

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X13MM	200	26220.035.013	ST4,2X25MM	200	26220.042.025	ST5,5X25MM	100	26220.055.025
ST3,5X16MM	200	26220.035.016	ST4,2X32MM	200	26220.042.032	ST5,5X32MM	100	26220.055.032
ST3,5X19MM	200	26220.035.019	ST4,2X38MM	200	26220.042.038			
ST3,5X25MM	200	26220.035.025				ST6,3X25MM	100	26220.063.025
			ST4,8X16MM	200	26220.048.016	ST6,3X45MM	100	26220.063.045
ST4,2X9,5MM	200	26220.042.009	ST4,8X19MM	200	26220.048.019	ST6,3X50MM	100	26220.063.050
ST4,2X13MM	200	26220.042.013	ST4,8X25MM	200	26220.048.025	ST6,3X55MM	100	26220.063.055
ST4,2X16MM	200	26220.042.016	ST4,8X32MM	100	26220.048.032	ST6,3X60MM	100	26220.063.060
ST4,2X19MM	200	26220.042.019						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

26432 Parafuso autorroscante cabeça de embeber Pozidriv — J03B

Rosca Autorroscante
Material Aço
Tratamento sup. Passivado a preto

DIN 7982 C-Z
ISO 7050 C-Z
NF E25-656 C



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X13MM	200	26432.029.013	ST3,5X16MM	200	26432.035.016	ST4,2X16MM	200	26432.042.016
			ST3,5X19MM	200	26432.035.019	ST4,2X19MM	200	26432.042.019
ST3,5X9,5MM	200	26432.035.009						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

51680 Parafuso autorroscante cabeça de embeber Phillips — R01A

Rosca Autorroscante
Material Aço inoxidável A2

DIN 7982 C-H
ISO 7050 C-H

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,2X6,5MM	1000	51680.022.006	ST3,9X22MM	200	51680.039.022	ST4,8X80MM	200	51680.048.080
ST2,2X9,5MM*	1000	51680.022.009	ST3,9X25MM	200	51680.039.025	ST4,8X90MM	200	51680.048.090
ST2,2X13MM*	1000	51680.022.013	ST3,9X32MM	200	51680.039.032	ST4,8X100MM	100	51680.048.100
ST2,2X16MM	1000	51680.022.016	ST3,9X38MM	200	51680.039.038	ST4,8X120MM*	200	51680.048.120
ST2,2X19MM*	1000	51680.022.019	ST3,9X45MM*	500	51680.039.045			
ST2,2X22MM*	1000	51680.022.022	ST3,9X50MM	500	51680.039.050	ST5,5X13MM	200	51680.055.013
ST2,2X25MM*	1000	51680.022.025	ST3,9X60MM*	500	51680.039.060	ST5,5X16MM	200	51680.055.016
			ST3,9X70MM*	500	51680.039.070	ST5,5X19MM	200	51680.055.019
ST2,9X6,5MM	200	51680.029.006				ST5,5X22MM	200	51680.055.022
ST2,9X9,5MM	200	51680.029.009	ST4,2X9,5MM	200	51680.042.009	ST5,5X25MM	200	51680.055.025
ST2,9X13MM	200	51680.029.013	ST4,2X13MM	200	51680.042.013	ST5,5X32MM	100	51680.055.032
ST2,9X16MM	200	51680.029.016	ST4,2X16MM	200	51680.042.016	ST5,5X38MM	100	51680.055.038
ST2,9X19MM	200	51680.029.019	ST4,2X19MM	200	51680.042.019	ST5,5X45MM	100	51680.055.045
ST2,9X22MM	200	51680.029.022	ST4,2X22MM	200	51680.042.022	ST5,5X50MM	100	51680.055.050
ST2,9X25MM	200	51680.029.025	ST4,2X25MM	200	51680.042.025	ST5,5X60MM	200	51680.055.060
ST2,9X32MM*	1000	51680.029.032	ST4,2X32MM	200	51680.042.032	ST5,5X70MM*	200	51680.055.070
			ST4,2X38MM	200	51680.042.038	ST5,5X80MM*	200	51680.055.080
ST3,5X6,5MM*	1000	51680.035.006	ST4,2X45MM	200	51680.042.045	ST5,5X90MM*	200	51680.055.090
ST3,5X9,5MM	200	51680.035.009	ST4,2X50MM	200	51680.042.050	ST5,5X100MM*	200	51680.055.100
ST3,5X13MM	200	51680.035.013	ST4,2X60MM	200	51680.042.060	ST5,5X120MM*	200	51680.055.120
ST3,5X16MM	200	51680.035.016	ST4,2X70MM*	200	51680.042.070			
ST3,5X19MM	200	51680.035.019	ST4,2X80MM*	200	51680.042.080	ST6,3X13MM*	500	51680.063.013
ST3,5X22MM	200	51680.035.022				ST6,3X16MM	100	51680.063.016
ST3,5X25MM	200	51680.035.025	ST4,8X9,5MM	200	51680.048.009	ST6,3X19MM	100	51680.063.019
ST3,5X32MM	200	51680.035.032	ST4,8X13MM	200	51680.048.013	ST6,3X22MM	100	51680.063.022
ST3,5X38MM	200	51680.035.038	ST4,8X16MM	200	51680.048.016	ST6,3X25MM	100	51680.063.025
ST3,5X45MM*	500	51680.035.045	ST4,8X19MM	200	51680.048.019	ST6,3X32MM	100	51680.063.032
ST3,5X50MM*	500	51680.035.050	ST4,8X22MM	200	51680.048.022	ST6,3X38MM	100	51680.063.038
ST3,5X60MM*	500	51680.035.060	ST4,8X25MM	200	51680.048.025	ST6,3X45MM	100	51680.063.045
ST3,5X70MM*	500	51680.035.070	ST4,8X32MM	200	51680.048.032	ST6,3X50MM	100	51680.063.050
			ST4,8X38MM	200	51680.048.038	ST6,3X60MM*	200	51680.063.060
ST3,9X6,5MM*	1000	51680.039.006	ST4,8X45MM	200	51680.048.045	ST6,3X70MM*	200	51680.063.070
ST3,9X9,5MM	200	51680.039.009	ST4,8X50MM	200	51680.048.050	ST6,3X80MM*	200	51680.063.080
ST3,9X13MM	200	51680.039.013	ST4,8X55MM*	200	51680.048.055	ST6,3X90MM*	200	51680.063.090
ST3,9X16MM	200	51680.039.016	ST4,8X60MM	200	51680.048.060	ST6,3X100MM*	200	51680.063.100
ST3,9X19MM	200	51680.039.019	ST4,8X70MM	200	51680.048.070			

51681 Parafuso autorroscante cabeça de embeber Pozidriv — R01A

Rosca Autorroscante
Material Aço inoxidável A2

DIN 7982 C-Z
ISO 7050 C-Z
NF E25-656 C

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,2X6,5MM*	1000	51681.022.006	ST2,9X16MM	200	51681.029.016	ST3,5X19MM	200	51681.035.019
ST2,2X9,5MM*	1000	51681.022.009	ST2,9X19MM	200	51681.029.019	ST3,5X22MM*	1000	51681.035.022
ST2,2X13MM*	1000	51681.022.013	ST2,9X22MM*	1000	51681.029.022	ST3,5X25MM	200	51681.035.025
ST2,2X16MM*	1000	51681.022.016	ST2,9X25MM	200	51681.029.025	ST3,5X32MM	200	51681.035.032
ST2,2X19MM*	1000	51681.022.019	ST2,9X32MM*	1000	51681.029.032	ST3,5X38MM	200	51681.035.038
ST2,2X25MM*	1000	51681.022.025						
			ST3,5X6,5MM*	1000	51681.035.006	ST3,9X6,5MM*	1000	51681.039.006
ST2,9X6,5MM*	1000	51681.029.006	ST3,5X9,5MM	200	51681.035.009	ST3,9X9,5MM*	1000	51681.039.009
ST2,9X9,5MM	200	51681.029.009	ST3,5X13MM	200	51681.035.013	ST3,9X13MM	200	51681.039.013
ST2,9X13MM	200	51681.029.013	ST3,5X16MM	200	51681.035.016	ST3,9X16MM	200	51681.039.016

6

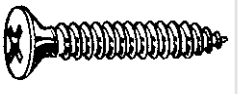
51681 Parafuso autorroscante cabeça de embeber Pozidriv

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,9X19MM	200	51681.039.019	ST4,8X9,5MM*	1000	51681.048.009	ST5,5X32MM	100	51681.055.032
ST3,9X22MM*	1000	51681.039.022	ST4,8X13MM*	1000	51681.048.013	ST5,5X38MM	100	51681.055.038
ST3,9X25MM	200	51681.039.025	ST4,8X16MM	200	51681.048.016	ST5,5X45MM	100	51681.055.045
ST3,9X32MM	200	51681.039.032	ST4,8X19MM	200	51681.048.019	ST5,5X50MM	100	51681.055.050
ST3,9X38MM*	500	51681.039.038	ST4,8X22MM*	1000	51681.048.022	ST5,5X60MM*	200	51681.055.060
ST3,9X45MM*	500	51681.039.045	ST4,8X25MM	200	51681.048.025	ST5,5X70MM*	200	51681.055.070
ST3,9X50MM*	500	51681.039.050	ST4,8X32MM	200	51681.048.032	ST5,5X80MM*	200	51681.055.080
			ST4,8X38MM	200	51681.048.038	ST5,5X100MM*	200	51681.055.100
ST4,2X9,5MM*	1000	51681.042.009	ST4,8X45MM	200	51681.048.045			
ST4,2X13MM	200	51681.042.013	ST4,8X50MM	200	51681.048.050	ST6,3X16MM*	500	51681.063.016
ST4,2X16MM	200	51681.042.016	ST4,8X60MM	200	51681.048.060	ST6,3X19MM*	500	51681.063.019
ST4,2X19MM	200	51681.042.019	ST4,8X70MM	200	51681.048.070	ST6,3X22MM*	500	51681.063.022
ST4,2X22MM*	1000	51681.042.022	ST4,8X80MM*	200	51681.048.080	ST6,3X25MM	100	51681.063.025
ST4,2X25MM	200	51681.042.025	ST4,8X90MM*	200	51681.048.090	ST6,3X32MM	100	51681.063.032
ST4,2X32MM	200	51681.042.032	ST4,8X100MM*	200	51681.048.100	ST6,3X38MM	100	51681.063.038
ST4,2X38MM	200	51681.042.038				ST6,3X45MM	100	51681.063.045
ST4,2X45MM	200	51681.042.045	ST5,5X13MM*	1000	51681.055.013	ST6,3X50MM	100	51681.063.050
ST4,2X50MM	200	51681.042.050	ST5,5X16MM*	1000	51681.055.016	ST6,3X60MM*	200	51681.063.060
ST4,2X60MM*	200	51681.042.060	ST5,5X19MM	200	51681.055.019	ST6,3X70MM*	200	51681.063.070
ST4,2X70MM*	200	51681.042.070	ST5,5X22MM*	1000	51681.055.022	ST6,3X80MM*	200	51681.063.080
			ST5,5X25MM*	500	51681.055.025			

55680 Parafuso autorroscante cabeça de embeber Phillips R41A

Rosca Autorroscante
Material Aço inoxidável A4

DIN **7982 C-H**
ISO 7050 C-H



RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,2X6,5MM*	1000	55680.022.006	ST3,9X38MM*	500	55680.039.038	ST4,8X90MM*	200	55680.048.090
ST2,2X9,5MM*	1000	55680.022.009	ST3,9X45MM*	500	55680.039.045	ST4,8X100MM*	200	55680.048.100
ST2,2X19MM*	1000	55680.022.019	ST3,9X50MM*	500	55680.039.050			
						ST5,5X13MM*	1000	55680.055.013
ST2,9X6,5MM*	1000	55680.029.006	ST4,2X9,5MM*	1000	55680.042.009	ST5,5X16MM	200	55680.055.016
ST2,9X9,5MM	200	55680.029.009	ST4,2X13MM	200	55680.042.013	ST5,5X19MM	200	55680.055.019
ST2,9X13MM	200	55680.029.013	ST4,2X16MM	200	55680.042.016	ST5,5X22MM	200	55680.055.022
ST2,9X16MM	200	55680.029.016	ST4,2X19MM	200	55680.042.019	ST5,5X25MM	200	55680.055.025
ST2,9X19MM	200	55680.029.019	ST4,2X22MM	200	55680.042.022	ST5,5X32MM	100	55680.055.032
ST2,9X22MM*	1000	55680.029.022	ST4,2X25MM	200	55680.042.025	ST5,5X38MM	100	55680.055.038
ST2,9X25MM	200	55680.029.025	ST4,2X32MM	200	55680.042.032	ST5,5X45MM	100	55680.055.045
ST2,9X32MM*	1000	55680.029.032	ST4,2X38MM	200	55680.042.038	ST5,5X50MM	100	55680.055.050
			ST4,2X45MM*	500	55680.042.045	ST5,5X60MM*	200	55680.055.060
ST3,5X6,5MM*	1000	55680.035.006	ST4,2X50MM*	200	55680.042.050	ST5,5X70MM*	200	55680.055.070
ST3,5X9,5MM	200	55680.035.009	ST4,2X60MM*	200	55680.042.060	ST5,5X80MM*	200	55680.055.080
ST3,5X13MM	200	55680.035.013	ST4,2X70MM*	200	55680.042.070	ST5,5X100MM*	200	55680.055.100
ST3,5X16MM	200	55680.035.016						
ST3,5X19MM	200	55680.035.019	ST4,8X9,5MM*	1000	55680.048.009	ST6,3X13MM*	500	55680.063.013
ST3,5X22MM	200	55680.035.022	ST4,8X13MM*	1000	55680.048.013	ST6,3X16MM	100	55680.063.016
ST3,5X25MM	200	55680.035.025	ST4,8X16MM	200	55680.048.016	ST6,3X19MM	100	55680.063.019
ST3,5X32MM	200	55680.035.032	ST4,8X19MM	200	55680.048.019	ST6,3X22MM	100	55680.063.022
ST3,5X38MM*	1000	55680.035.038	ST4,8X22MM	200	55680.048.022	ST6,3X25MM	100	55680.063.025
			ST4,8X25MM	200	55680.048.025	ST6,3X32MM	100	55680.063.032
ST3,9X9,5MM*	1000	55680.039.009	ST4,8X32MM	200	55680.048.032	ST6,3X38MM	100	55680.063.038
ST3,9X13MM	200	55680.039.013	ST4,8X38MM	200	55680.048.038	ST6,3X45MM	100	55680.063.045
ST3,9X16MM	200	55680.039.016	ST4,8X45MM*	200	55680.048.045	ST6,3X50MM	100	55680.063.050
ST3,9X19MM	200	55680.039.019	ST4,8X50MM*	200	55680.048.050	ST6,3X60MM*	200	55680.063.060
ST3,9X22MM	200	55680.039.022	ST4,8X60MM*	200	55680.048.060	ST6,3X70MM*	200	55680.063.070
ST3,9X25MM	200	55680.039.025	ST4,8X70MM*	200	55680.048.070	ST6,3X80MM*	200	55680.063.080
ST3,9X32MM*	1000	55680.039.032	ST4,8X80MM*	200	55680.048.080	ST6,3X90MM*	200	55680.063.090

55681 Parafuso autorroscante cabeça de embeber Pozidriv R41A

Rosca Autorroscante
Material Aço inoxidável A4

DIN **7982 C-Z**
ISO 7050 C-Z
NF E25-656 C



RoHS

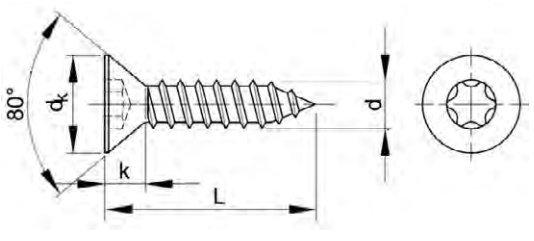
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,2X6,5MM*	1000	55681.022.006	ST2,9X9,5MM*	1000	55681.029.009			
ST2,2X9,5MM*	1000	55681.022.009	ST2,9X13MM*	1000	55681.029.013	ST3,5X6,5MM*	1000	55681.035.006
ST2,2X13MM*	1000	55681.022.013	ST2,9X16MM*	1000	55681.029.016	ST3,5X9,5MM*	1000	55681.035.009
ST2,2X16MM*	1000	55681.022.016	ST2,9X19MM*	1000	55681.029.019	ST3,5X13MM*	1000	55681.035.013
ST2,2X19MM*	1000	55681.022.019	ST2,9X22MM*	1000	55681.029.022	ST3,5X16MM*	1000	55681.035.016
			ST2,9X25MM*	1000	55681.029.025	ST3,5X19MM*	1000	55681.035.019
ST2,9X6,5MM*	1000	55681.029.006	ST2,9X32MM*	1000	55681.029.032	ST3,5X22MM*	1000	55681.035.022

6

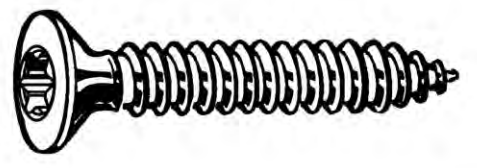
55681 **Parafuso autorroscante cabeça de embeber Pozidriv** ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X25MM*	1000	55681.035.025	ST4,2X50MM*	200	55681.042.050	ST5,5X38MM*	500	55681.055.038
ST3,5X32MM*	1000	55681.035.032	ST4,2X60MM*	200	55681.042.060	ST5,5X45MM*	200	55681.055.045
ST3,5X38MM*	1000	55681.035.038				ST5,5X50MM*	200	55681.055.050
			ST4,8X9MM*	1000	55681.048.009	ST5,5X60MM*	200	55681.055.060
ST3,9X9,5MM*	1000	55681.039.009	ST4,8X13MM*	1000	55681.048.013	ST5,5X70MM*	200	55681.055.070
ST3,9X13MM*	1000	55681.039.013	ST4,8X16MM*	1000	55681.048.016	ST5,5X80MM*	200	55681.055.080
ST3,9X16MM*	1000	55681.039.016	ST4,8X19MM*	1000	55681.048.019	ST5,5X90MM*	200	55681.055.090
ST3,9X19MM*	1000	55681.039.019	ST4,8X22MM*	1000	55681.048.022	ST5,5X100MM*	200	55681.055.100
ST3,9X22MM*	1000	55681.039.022	ST4,8X25MM*	500	55681.048.025			
ST3,9X25MM*	1000	55681.039.025	ST4,8X32MM*	500	55681.048.032	ST6,3X13MM*	500	55681.063.013
ST3,9X32MM*	1000	55681.039.032	ST4,8X38MM*	500	55681.048.038	ST6,3X16MM*	500	55681.063.016
ST3,9X38MM*	500	55681.039.038	ST4,8X45MM*	200	55681.048.045	ST6,3X19MM*	500	55681.063.019
ST3,9X50MM*	500	55681.039.050	ST4,8X50MM*	200	55681.048.050	ST6,3X22MM*	500	55681.063.022
			ST4,8X60MM*	200	55681.048.060	ST6,3X25MM*	200	55681.063.025
ST4,2X9,5MM*	1000	55681.042.009	ST4,8X70MM*	200	55681.048.070	ST6,3X32MM*	200	55681.063.032
ST4,2X13MM*	1000	55681.042.013	ST4,8X80MM*	200	55681.048.080	ST6,3X38MM*	200	55681.063.038
ST4,2X16MM*	1000	55681.042.016				ST6,3X45MM*	200	55681.063.045
ST4,2X19MM*	1000	55681.042.019	ST5,5X13MM*	1000	55681.055.013	ST6,3X50MM*	200	55681.063.050
ST4,2X22MM*	1000	55681.042.022	ST5,5X16MM*	1000	55681.055.016	ST6,3X60MM*	200	55681.063.060
ST4,2X25MM*	1000	55681.042.025	ST5,5X19MM*	1000	55681.055.019	ST6,3X70MM*	200	55681.063.070
ST4,2X32MM*	500	55681.042.032	ST5,5X22MM*	1000	55681.055.022	ST6,3X80MM*	200	55681.063.080
ST4,2X38MM*	500	55681.042.038	ST5,5X25MM*	500	55681.055.025	ST6,3X90MM*	200	55681.063.090
ST4,2X45MM*	500	55681.042.045	ST5,5X32MM*	500	55681.055.032	ST6,3X100MM*	200	55681.063.100

Parafuso autorroscante cabeça de embeber hexalobular



ISO **14586 C**
DIN ≈7982 C



6

Dados técnicos

d	Chave caixa	d_k	k ≈	P
ST2.2	T6	4.3	1.3	0.8
ST2.9	T10	5.5	1.7	1.1
ST3.5	T15	7.3	2.35	1.3
ST3.9 (≠ISO)	T20	7.5	2.3	1.3
ST4.2	T20	8.4	2.6	1.4
ST4.8	T25	9.3	2.8	1.6
ST5.5	T25	10.3	3	1.8
ST6.3	T30	11.3	3.15	1.8

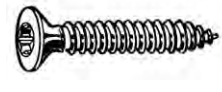
Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.	Código	Página
ST	Hexalobular	Aço	Zn	26521	6-91
ST	Hexalobular	INOX A2		51683	6-92
ST	Hexalobular	INOX A4		55683	6-92

26521 **Parafuso autorroscante cabeça de embeber hexalobular** **J03A**

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X9,5MM	200	26521.029.009	ST3,5X32MM	200	26521.035.032	ST4,2X9,5MM	500	26521.042.009
ST2,9X13MM	200	26521.029.013	ST3,5X38MM	200	26521.035.038	ST4,2X13MM	500	26521.042.013
ST2,9X16MM	500	26521.029.016				ST4,2X16MM	500	26521.042.016
ST2,9X19MM	500	26521.029.019	ST3,9X9,5MM	200	26521.039.009	ST4,2X19MM	200	26521.042.019
			ST3,9X16MM	500	26521.039.016	ST4,2X22MM	500	26521.042.022
ST3,5X9,5MM	1000	26521.035.009	ST3,9X19MM	500	26521.039.019	ST4,2X25MM	500	26521.042.025
ST3,5X13MM	1000	26521.035.013	ST3,9X22MM	500	26521.039.022	ST4,2X32MM	200	26521.042.032
ST3,5X16MM	200	26521.035.016	ST3,9X25MM	500	26521.039.025	ST4,2X38MM	200	26521.042.038
ST3,5X19MM	200	26521.035.019	ST3,9X32MM	500	26521.039.032	ST4,2X45MM	200	26521.042.045
ST3,5X22MM	500	26521.035.022	ST3,9X38MM	200	26521.039.038	ST4,2X50MM	200	26521.042.050
ST3,5X25MM	500	26521.035.025						

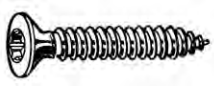
26521 Parafuso autorroscante cabeça de embeber hexalobular

d x L		Ref. do artigo	d x L		Ref. do artigo	d x L		Ref. do artigo
ST4,8X16MM	500	26521.048.016	ST4,8X38MM	200	26521.048.038			
ST4,8X19MM	200	26521.048.019	ST4,8X45MM	200	26521.048.045	ST6,3X45MM	100	26521.063.045
ST4,8X22MM	500	26521.048.022	ST4,8X50MM	100	26521.048.050	ST6,3X50MM	100	26521.063.050
ST4,8X25MM	200	26521.048.025						
ST4,8X32MM	200	26521.048.032	ST5,5X45MM	100	26521.055.045			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

51683 Parafuso autorroscante cabeça de embeber hexalobular R03A

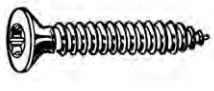
Rosca Autorroscante
Material Aço inoxidável A2



d x L		Ref. do artigo	d x L		Ref. do artigo	d x L		Ref. do artigo
ST2,2X6,5MM*	1000	51683.022.006	ST3,9X9,5MM*	1000	51683.039.009	ST4,8X45MM*	200	51683.048.045
ST2,2X9,5MM*	1000	51683.022.009	ST3,9X13MM*	1000	51683.039.013	ST4,8X50MM*	200	51683.048.050
ST2,2X13MM*	1000	51683.022.013	ST3,9X16MM*	1000	51683.039.016	ST4,8X60MM*	200	51683.048.060
ST2,2X16MM*	1000	51683.022.016	ST3,9X19MM*	1000	51683.039.019			
ST2,2X19MM*	1000	51683.022.019	ST3,9X22MM*	1000	51683.039.022	ST5,5X13MM*	1000	51683.055.013
ST2,2X22MM*	1000	51683.022.022	ST3,9X25MM*	1000	51683.039.025	ST5,5X16MM*	1000	51683.055.016
ST2,2X25MM*	1000	51683.022.025	ST3,9X32MM*	1000	51683.039.032	ST5,5X19MM*	1000	51683.055.019
			ST3,9X38MM*	500	51683.039.038	ST5,5X22MM*	1000	51683.055.022
ST2,9X6,5MM*	1000	51683.029.006	ST3,9X45MM*	500	51683.039.045	ST5,5X25MM*	500	51683.055.025
ST2,9X9,5MM*	1000	51683.029.009	ST3,9X50MM*	500	51683.039.050	ST5,5X32MM*	500	51683.055.032
ST2,9X13MM*	1000	51683.029.013				ST5,5X38MM*	500	51683.055.038
ST2,9X16MM*	1000	51683.029.016	ST4,2X9,5MM*	1000	51683.042.009	ST5,5X45MM*	200	51683.055.045
ST2,9X19MM*	1000	51683.029.019	ST4,2X13MM*	1000	51683.042.013	ST5,5X50MM*	200	51683.055.050
ST2,9X22MM*	1000	51683.029.022	ST4,2X16MM*	1000	51683.042.016	ST5,5X60MM*	200	51683.055.060
ST2,9X25MM*	1000	51683.029.025	ST4,2X19MM*	1000	51683.042.019	ST5,5X70MM*	200	51683.055.070
ST2,9X32MM*	1000	51683.029.032	ST4,2X22MM*	1000	51683.042.022	ST5,5X80MM*	200	51683.055.080
			ST4,2X25MM*	1000	51683.042.025			
ST3,5X6,5MM*	1000	51683.035.006	ST4,2X32MM*	500	51683.042.032	ST6,3X13MM*	500	51683.063.013
ST3,5X9,5MM*	1000	51683.035.009	ST4,2X38MM*	500	51683.042.038	ST6,3X16MM*	500	51683.063.016
ST3,5X13MM*	1000	51683.035.013	ST4,2X45MM*	500	51683.042.045	ST6,3X19MM*	500	51683.063.019
ST3,5X16MM*	1000	51683.035.016	ST4,2X50MM*	200	51683.042.050	ST6,3X22MM*	500	51683.063.022
ST3,5X19MM*	1000	51683.035.019				ST6,3X25MM*	200	51683.063.025
ST3,5X22MM*	1000	51683.035.022	ST4,8X9,5MM*	1000	51683.048.009	ST6,3X32MM*	200	51683.063.032
ST3,5X25MM*	1000	51683.035.025	ST4,8X13MM*	1000	51683.048.013	ST6,3X38MM*	200	51683.063.038
ST3,5X32MM*	1000	51683.035.032	ST4,8X16MM*	1000	51683.048.016	ST6,3X45MM*	200	51683.063.045
ST3,5X38MM*	1000	51683.035.038	ST4,8X19MM*	1000	51683.048.019	ST6,3X50MM*	200	51683.063.050
ST3,5X45MM*	500	51683.035.045	ST4,8X22MM*	1000	51683.048.022	ST6,3X60MM*	200	51683.063.060
ST3,5X50MM*	500	51683.035.050	ST4,8X25MM*	500	51683.048.025	ST6,3X70MM*	200	51683.063.070
			ST4,8X32MM*	500	51683.048.032	ST6,3X80MM*	200	51683.063.080
ST3,9X6,5MM*	1000	51683.039.006	ST4,8X38MM*	500	51683.048.038			

55683 Parafuso autorroscante cabeça de embeber hexalobular R43A

Rosca Autorroscante
Material Aço inoxidável A4

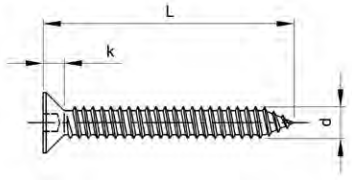


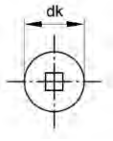
d x L		Ref. do artigo	d x L		Ref. do artigo	d x L		Ref. do artigo
ST2,2X6,5MM*	1000	55683.022.006	ST3,5X22MM*	1000	55683.035.022	ST4,2X16MM*	1000	55683.042.016
ST2,2X9,5MM*	1000	55683.022.009	ST3,5X25MM*	1000	55683.035.025	ST4,2X19MM*	1000	55683.042.019
ST2,2X13MM*	1000	55683.022.013	ST3,5X32MM*	1000	55683.035.032	ST4,2X22MM*	1000	55683.042.022
ST2,2X16MM*	1000	55683.022.016	ST3,5X38MM*	1000	55683.035.038	ST4,2X25MM*	1000	55683.042.025
ST2,2X19MM*	1000	55683.022.019	ST3,5X45MM*	500	55683.035.045	ST4,2X32MM*	500	55683.042.032
ST2,2X25MM*	1000	55683.022.025	ST3,5X50MM*	500	55683.035.050	ST4,2X38MM*	500	55683.042.038
						ST4,2X45MM*	500	55683.042.045
ST2,9X6,5MM*	1000	55683.029.006	ST3,9X6,5MM*	1000	55683.039.006	ST4,2X50MM*	200	55683.042.050
ST2,9X9,5MM*	1000	55683.029.009	ST3,9X9,5MM*	1000	55683.039.009	ST4,2X60MM*	200	55683.042.060
ST2,9X13MM*	1000	55683.029.013	ST3,9X13MM*	1000	55683.039.013			
ST2,9X16MM*	1000	55683.029.016	ST3,9X16MM*	1000	55683.039.016	ST4,8X9,5MM*	1000	55683.048.009
ST2,9X19MM*	1000	55683.029.019	ST3,9X19MM*	1000	55683.039.019	ST4,8X13MM*	1000	55683.048.013
ST2,9X22MM*	1000	55683.029.022	ST3,9X22MM*	1000	55683.039.022	ST4,8X16MM*	1000	55683.048.016
ST2,9X25MM*	1000	55683.029.025	ST3,9X25MM*	1000	55683.039.025	ST4,8X19MM*	1000	55683.048.019
ST2,9X32MM*	1000	55683.029.032	ST3,9X32MM*	1000	55683.039.032	ST4,8X22MM*	1000	55683.048.022
			ST3,9X38MM*	500	55683.039.038	ST4,8X25MM*	500	55683.048.025
ST3,5X6,5MM*	1000	55683.035.006	ST3,9X45MM*	500	55683.039.045	ST4,8X32MM*	500	55683.048.032
ST3,5X9,5MM*	1000	55683.035.009	ST3,9X50MM*	500	55683.039.050	ST4,8X38MM*	500	55683.048.038
ST3,5X13MM*	1000	55683.035.013				ST4,8X45MM*	200	55683.048.045
ST3,5X16MM*	1000	55683.035.016	ST4,2X9,5MM*	1000	55683.042.009	ST4,8X50MM*	200	55683.048.050
ST3,5X19MM*	1000	55683.035.019	ST4,2X13MM*	1000	55683.042.013	ST4,8X60MM*	200	55683.048.060

55683 **Parafuso autorroscante cabeça de embeber hexalobular** ←

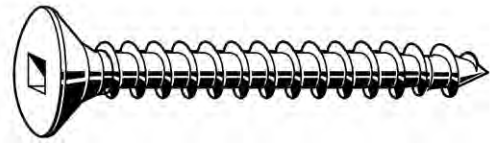
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
			ST5,5X50MM*	200	55683.055.050	ST6,3X25MM*	200	55683.063.025
ST5,5X13MM*	1000	55683.055.013	ST5,5X60MM*	200	55683.055.060	ST6,3X32MM*	200	55683.063.032
ST5,5X16MM*	1000	55683.055.016	ST5,5X70MM*	200	55683.055.070	ST6,3X38MM*	200	55683.063.038
ST5,5X19MM*	1000	55683.055.019	ST5,5X80MM*	200	55683.055.080	ST6,3X45MM*	200	55683.063.045
ST5,5X22MM*	1000	55683.055.022				ST6,3X50MM*	200	55683.063.050
ST5,5X25MM*	500	55683.055.025	ST6,3X13MM*	500	55683.063.013	ST6,3X60MM*	200	55683.063.060
ST5,5X32MM*	500	55683.055.032	ST6,3X16MM*	500	55683.063.016	ST6,3X70MM*	200	55683.063.070
ST5,5X38MM*	500	55683.055.038	ST6,3X19MM*	500	55683.063.019	ST6,3X80MM*	200	55683.063.080
ST5,5X45MM*	200	55683.055.045	ST6,3X22MM*	500	55683.063.022			

Parafuso autorroscante cabeça de embeber encaixe quadrado





DIN **≈7982 C**
ISO ≈7050 C



Dados técnicos

d	d_k	k ≈	Nr. quadrado	P
ST3.9	7.5	2.3	1	1.4
ST4.2	8.1	2.5	2	1.4
ST4.8	9.5	3	2	1.6

6

51864 **Parafuso autorroscante cabeça de embeber encaixe quadrado** **R03A**

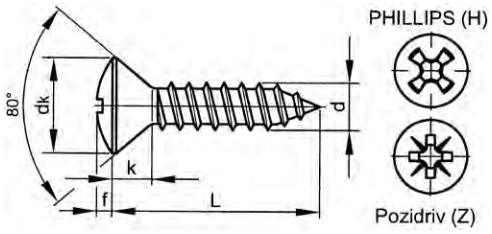
Rosca Autorroscante
Material Aço inoxidável A2

RoHS

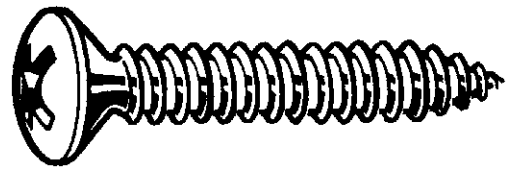


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,9X16MM*	200	51864.039.016	ST4,2X19MM*	200	51864.042.019	ST4,8X32MM*	200	51864.048.032
ST3,9X19MM*	200	51864.039.019	ST4,2X32MM*	200	51864.042.032	ST4,8X38MM*	200	51864.048.038
ST3,9X25MM*	200	51864.039.025	ST4,2X38MM*	200	51864.042.038	ST4,8X45MM*	200	51864.048.045
ST3,9X32MM*	200	51864.039.032	ST4,2X45MM*	200	51864.042.045	ST4,8X50MM*	200	51864.048.050
ST3,9X50MM*	200	51864.039.050	ST4,2X50MM*	200	51864.042.050	ST4,8X60MM*	200	51864.048.060
						ST4,8X70MM*	200	51864.048.070
ST4,2X13MM*	200	51864.042.013	ST4,8X16MM*	200	51864.048.016	ST4,8X80MM*	200	51864.048.080
ST4,2X25MM*	200	51864.042.015	ST4,8X19MM*	200	51864.048.019	ST4,8X95MM*	200	51864.048.095
ST4,2X16MM*	200	51864.042.016	ST4,8X25MM*	200	51864.048.025			

Parafuso autorroscante cabeça de lentilha cruz



DIN **7983**
ISO 7051
NF E25-657



Dados técnicos

d	d_k	f ≈	k ≈	Nr. fenda	P
ST2.2	4.3	0.7	1.3	1	0.8
ST2.9	5.5	0.9	1.7	1	1.1
ST3.5	6.8	1.2	2.1	2	1.3
ST3.9	7.5	1.3	2.3	2	1.4
ST4.2	8.1	1.4	2.5	2	1.4
ST4.8	9.5	1.5	3	2	1.6
ST5.5	10.8	1.7	3.4	3	1.8
ST6.3	12.4	2	3.8	3	1.8

Grupos de produtos

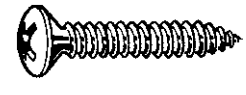
Rosca	Encaixe	Material	Tratamento sup.	Código	Página
ST	Phillips	Aço	Zn	26700	6-94
ST	Pozidriv	Aço	Zn	26780	6-95
ST	Phillips	Aço	Passiv. preto	26450	6-95
ST	Pozidriv	Aço	Passiv. preto	26452	6-95
ST	Phillips	Aço	Niq.	26240	6-96
ST	Phillips	INOX A2		51690	6-96
ST	Pozidriv	INOX A2		51689	6-96
ST	Phillips	INOX A4		55690	6-97
ST	Pozidriv	INOX A4		55689	6-97

26700 **Parafuso auto roscante cabeça lentilha Phillips** **J01B**

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

DIN **7983 C-H**
ISO 7051 C-H

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X9,5MM	200	26700.029.009	ST3,9X22MM	200	26700.039.022	ST4,8X45MM	100	26700.048.045
ST2,9X13MM	200	26700.029.013	ST3,9X25MM	200	26700.039.025	ST4,8X50MM	100	26700.048.050
ST2,9X16MM	200	26700.029.016						
ST2,9X19MM	200	26700.029.019	ST4,2X13MM	200	26700.042.013	ST5,5X13MM	200	26700.055.013
ST2,9X22MM	200	26700.029.022	ST4,2X16MM	200	26700.042.016	ST5,5X16MM	200	26700.055.016
ST2,9X25MM	200	26700.029.025	ST4,2X19MM	200	26700.042.019	ST5,5X19MM	200	26700.055.019
			ST4,2X22MM	200	26700.042.022	ST5,5X25MM	100	26700.055.025
ST3,5X9,5MM	200	26700.035.009	ST4,2X25MM	200	26700.042.025	ST5,5X32MM	100	26700.055.032
ST3,5X13MM	200	26700.035.013	ST4,2X32MM	200	26700.042.032	ST5,5X38MM	100	26700.055.038
ST3,5X16MM	200	26700.035.016	ST4,2X38MM	200	26700.042.038	ST5,5X45MM	100	26700.055.045
ST3,5X19MM	200	26700.035.019	ST4,2X45MM	200	26700.042.045	ST5,5X50MM	100	26700.055.050
ST3,5X22MM	200	26700.035.022	ST4,2X50MM	200	26700.042.050			
ST3,5X25MM	200	26700.035.025				ST6,3X16MM	100	26700.063.016
ST3,5X32MM	200	26700.035.032	ST4,8X13MM	200	26700.048.013	ST6,3X19MM	100	26700.063.019
ST3,5X38MM	200	26700.035.038	ST4,8X16MM	200	26700.048.016	ST6,3X22MM	100	26700.063.022
			ST4,8X19MM	200	26700.048.019	ST6,3X25MM	100	26700.063.025
ST3,9X9,5MM	200	26700.039.009	ST4,8X22MM	200	26700.048.022	ST6,3X32MM	100	26700.063.032
ST3,9X13MM	200	26700.039.013	ST4,8X25MM	200	26700.048.025	ST6,3X38MM	100	26700.063.038
ST3,9X16MM	200	26700.039.016	ST4,8X32MM	100	26700.048.032	ST6,3X45MM	100	26700.063.045
ST3,9X19MM	200	26700.039.019	ST4,8X38MM	100	26700.048.038	ST6,3X50MM	100	26700.063.050

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

26780 Parafuso autorroscante cabeça de lentilha Phillips — J01A

Rosca	Autorroscante	**DIN**	**7983 C-Z**
Material	Aço	ISO	7051 C-Z
Tratamento sup.	Zincado	NF	E25-657 C

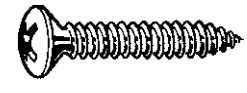
RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X9,5MM	200	26780.029.009	ST3,9X32MM	200	26780.039.032			
ST2,9X13MM	200	26780.029.013				ST5,5X13MM	200	26780.055.013
ST2,9X16MM	200	26780.029.016	ST4,2X13MM	200	26780.042.013	ST5,5X16MM	200	26780.055.016
ST2,9X19MM	200	26780.029.019	ST4,2X16MM	200	26780.042.016	ST5,5X19MM	200	26780.055.019
ST2,9X25MM	200	26780.029.025	ST4,2X19MM	200	26780.042.019	ST5,5X25MM	100	26780.055.025
			ST4,2X25MM	200	26780.042.025	ST5,5X32MM	100	26780.055.032
ST3,5X9,5MM	200	26780.035.009	ST4,2X32MM	200	26780.042.032	ST5,5X38MM	100	26780.055.038
ST3,5X13MM	200	26780.035.013	ST4,2X38MM	200	26780.042.038	ST5,5X45MM	100	26780.055.045
ST3,5X16MM	200	26780.035.016	ST4,2X45MM	200	26780.042.045	ST5,5X50MM	100	26780.055.050
ST3,5X19MM	200	26780.035.019						
ST3,5X25MM	200	26780.035.025	ST4,8X13MM	200	26780.048.013	ST6,3X16MM	100	26780.063.016
ST3,5X32MM	200	26780.035.032	ST4,8X16MM	200	26780.048.016	ST6,3X19MM	100	26780.063.019
ST3,5X38MM	200	26780.035.038	ST4,8X19MM	200	26780.048.019	ST6,3X22MM	100	26780.063.022
			ST4,8X25MM	200	26780.048.025	ST6,3X25MM	100	26780.063.025
ST3,9X9,5MM	200	26780.039.009	ST4,8X32MM	100	26780.048.032	ST6,3X32MM	100	26780.063.032
ST3,9X13MM	200	26780.039.013	ST4,8X38MM	100	26780.048.038	ST6,3X38MM	100	26780.063.038
ST3,9X16MM	200	26780.039.016	ST4,8X45MM	100	26780.048.045	ST6,3X45MM	100	26780.063.045
ST3,9X19MM	200	26780.039.019	ST4,8X50MM	100	26780.048.050	ST6,3X50MM	100	26780.063.050
ST3,9X25MM	200	26780.039.025						

26450 Parafuso autorroscante cabeça de lentilha Phillips — J03B

Rosca	Autorroscante	**DIN**	**7983 C-H**
Material	Aço	ISO	7051 C-H
Tratamento sup.	Passivado a preto		

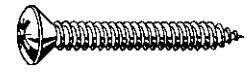


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X9,5MM	200	26450.029.009	ST3,9X9,5MM	200	26450.039.009	ST4,8X16MM	200	26450.048.016
ST2,9X13MM	200	26450.029.013	ST3,9X13MM	200	26450.039.013	ST4,8X19MM	200	26450.048.019
ST2,9X16MM	200	26450.029.016	ST3,9X16MM	200	26450.039.016	ST4,8X25MM	200	26450.048.025
ST2,9X19MM	200	26450.029.019	ST3,9X19MM	200	26450.039.019	ST4,8X32MM	100	26450.048.032
ST2,9X25MM	200	26450.029.025	ST3,9X25MM	200	26450.039.025	ST4,8X38MM	100	26450.048.038
						ST4,8X45MM	100	26450.048.045
ST3,5X9,5MM	200	26450.035.009	ST4,2X13MM	200	26450.042.013	ST4,8X50MM	100	26450.048.050
ST3,5X13MM	200	26450.035.013	ST4,2X16MM	200	26450.042.016			
ST3,5X16MM	200	26450.035.016	ST4,2X19MM	200	26450.042.019	ST5,5X16MM	200	26450.055.016
ST3,5X19MM	200	26450.035.019	ST4,2X25MM	200	26450.042.025	ST5,5X19MM	200	26450.055.019
ST3,5X25MM	200	26450.035.025	ST4,2X32MM	200	26450.042.032	ST5,5X25MM	100	26450.055.025
ST3,5X32MM	200	26450.035.032	ST4,2X38MM	200	26450.042.038	ST5,5X32MM	100	26450.055.032
ST3,5X38MM	200	26450.035.038				ST5,5X38MM	100	26450.055.038
			ST4,8X13MM	200	26450.048.013	ST5,5X50MM	100	26450.055.050

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

26452 Parafuso autorroscante cabeça de lentilha Pozidriv — J03B

Rosca	Autorroscante	**DIN**	**7983 C-Z**
Material	Aço	ISO	7051 C-Z
Tratamento sup.	Passivado a preto	NF	E25-657 C



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X13MM	200	26452.029.013				ST4,2X38MM	200	26452.042.038
ST2,9X19MM	200	26452.029.019	ST3,9X19MM	200	26452.039.019			
						ST4,8X16MM	200	26452.048.016
ST3,5X13MM	200	26452.035.013	ST4,2X13MM	200	26452.042.013	ST4,8X19MM	200	26452.048.019
ST3,5X16MM	200	26452.035.016	ST4,2X16MM	200	26452.042.016	ST4,8X25MM	200	26452.048.025
ST3,5X19MM	200	26452.035.019	ST4,2X19MM	200	26452.042.019	ST4,8X32MM	100	26452.048.032
ST3,5X25MM	200	26452.035.025	ST4,2X25MM	200	26452.042.025	ST4,8X38MM	100	26452.048.038
ST3,5X32MM	200	26452.035.032	ST4,2X32MM	200	26452.042.032			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

26240 Parafuso autorroscante cabeça de lentilha Phillips — J03B

Rosca Autorroscante
Material Aço
Tratamento sup. Niquelado
DIN 7983 C-H
ISO 7051 C-H

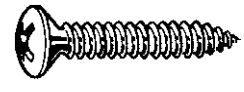


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X13MM	200	26240.029.013	ST4,2X19MM	200	26240.042.019	ST4,8X38MM	100	26240.048.038
ST2,9X19MM	200	26240.029.019	ST4,2X25MM	200	26240.042.025	ST4,8X50MM	100	26240.048.050
			ST4,2X32MM	200	26240.042.032			
ST3,5X13MM	200	26240.035.013	ST4,2X38MM	200	26240.042.038	ST5,5X19MM	200	26240.055.019
ST3,5X16MM	200	26240.035.016	ST4,2X45MM	200	26240.042.045	ST5,5X25MM	100	26240.055.025
ST3,5X19MM	200	26240.035.019				ST5,5X32MM	100	26240.055.032
ST3,5X25MM	200	26240.035.025	ST4,8X13MM	200	26240.048.013	ST5,5X38MM	100	26240.055.038
ST3,5X32MM	200	26240.035.032	ST4,8X16MM	200	26240.048.016			
			ST4,8X19MM	200	26240.048.019	ST6,3X25MM	100	26240.063.025
ST4,2X13MM	200	26240.042.013	ST4,8X25MM	200	26240.048.025	ST6,3X38MM	100	26240.063.038
ST4,2X16MM	200	26240.042.016	ST4,8X32MM	100	26240.048.032			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

51690 Parafuso autorroscante cabeça de lentilha Phillips — R01A

Rosca Autorroscante
Material Aço inoxidável A2
DIN 7983 C-H
ISO 7051 C-H



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,2X6,5MM*	1000	51690.022.006	ST3,9X22MM	200	51690.039.022	ST4,8X80MM	200	51690.048.080
ST2,2X9,5MM*	1000	51690.022.009	ST3,9X25MM	200	51690.039.025	ST4,8X90MM*	200	51690.048.090
ST2,2X13MM*	1000	51690.022.013	ST3,9X32MM	200	51690.039.032	ST4,8X100MM	100	51690.048.100
ST2,2X16MM*	1000	51690.022.016	ST3,9X38MM	200	51690.039.038	ST4,8X110MM*	200	51690.048.110
ST2,2X19MM*	1000	51690.022.019	ST3,9X45MM*	500	51690.039.045			
ST2,2X25MM*	1000	51690.022.025	ST3,9X50MM*	500	51690.039.050	ST5,5X13MM	200	51690.055.013
			ST3,9X60MM*	500	51690.039.060	ST5,5X16MM	200	51690.055.016
ST2,9X6,5MM	200	51690.029.006	ST3,9X70MM*	500	51690.039.070	ST5,5X19MM	200	51690.055.019
ST2,9X9,5MM	200	51690.029.009				ST5,5X22MM	200	51690.055.022
ST2,9X13MM	200	51690.029.013	ST4,2X9,5MM	200	51690.042.009	ST5,5X25MM	200	51690.055.025
ST2,9X16MM	200	51690.029.016	ST4,2X13MM	200	51690.042.013	ST5,5X32MM	100	51690.055.032
ST2,9X19MM	200	51690.029.019	ST4,2X16MM	200	51690.042.016	ST5,5X38MM	100	51690.055.038
ST2,9X22MM	200	51690.029.022	ST4,2X19MM	200	51690.042.019	ST5,5X45MM	100	51690.055.045
ST2,9X25MM	200	51690.029.025	ST4,2X22MM	200	51690.042.022	ST5,5X50MM	100	51690.055.050
ST2,9X32MM*	1000	51690.029.032	ST4,2X25MM	200	51690.042.025	ST5,5X60MM*	200	51690.055.060
			ST4,2X32MM	200	51690.042.032	ST5,5X70MM*	200	51690.055.070
ST3,5X6,5MM*	1000	51690.035.006	ST4,2X38MM	200	51690.042.038	ST5,5X80MM*	200	51690.055.080
ST3,5X9,5MM	200	51690.035.009	ST4,2X45MM	200	51690.042.045	ST5,5X90MM*	200	51690.055.090
ST3,5X13MM	200	51690.035.013	ST4,2X50MM	200	51690.042.050	ST5,5X100MM*	200	51690.055.100
ST3,5X16MM	200	51690.035.016	ST4,2X60MM	200	51690.042.060			
ST3,5X19MM	200	51690.035.019	ST4,2X70MM*	200	51690.042.070	ST6,3X13MM*	500	51690.063.013
ST3,5X22MM	200	51690.035.022				ST6,3X16MM	100	51690.063.016
ST3,5X25MM	200	51690.035.025	ST4,8X9,5MM	200	51690.048.009	ST6,3X19MM	100	51690.063.019
ST3,5X32MM	200	51690.035.032	ST4,8X13MM	200	51690.048.013	ST6,3X22MM	100	51690.063.022
ST3,5X38MM	200	51690.035.038	ST4,8X16MM	200	51690.048.016	ST6,3X25MM	100	51690.063.025
ST3,5X45MM*	500	51690.035.045	ST4,8X19MM	200	51690.048.019	ST6,3X32MM	100	51690.063.032
ST3,5X50MM*	500	51690.035.050	ST4,8X22MM	200	51690.048.022	ST6,3X38MM	100	51690.063.038
ST3,5X60MM*	500	51690.035.060	ST4,8X25MM	200	51690.048.025	ST6,3X45MM	100	51690.063.045
ST3,5X70MM*	500	51690.035.070	ST4,8X32MM	200	51690.048.032	ST6,3X50MM	100	51690.063.050
			ST4,8X38MM	200	51690.048.038	ST6,3X60MM*	200	51690.063.060
ST3,9X6,5MM*	1000	51690.039.006	ST4,8X45MM	200	51690.048.045	ST6,3X70MM*	200	51690.063.070
ST3,9X9,5MM	200	51690.039.009	ST4,8X50MM	200	51690.048.050	ST6,3X80MM*	200	51690.063.080
ST3,9X13MM	200	51690.039.013	ST4,8X60MM	200	51690.048.060	ST6,3X90MM*	200	51690.063.090
ST3,9X16MM	200	51690.039.016	ST4,8X70MM	200	51690.048.070	ST6,3X100MM*	200	51690.063.100
ST3,9X19MM	200	51690.039.019						

51689 Parafuso autorroscante cabeça de lentilha Pozidriv — R01A

Rosca Autorroscante
Material Aço inoxidável A2
DIN 7983 C-Z
ISO 7051 C-Z
NF E25-657 C



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,2X9,5MM*	1000	51689.022.009	ST2,9X9,5MM	200	51689.029.009	ST2,9X19MM	200	51689.029.019
			ST2,9X13MM	200	51689.029.013	ST2,9X22MM*	1000	51689.029.022
ST2,9X6,5MM*	1000	51689.029.006	ST2,9X16MM	200	51689.029.016	ST2,9X25MM	200	51689.029.025

51689 Parafuso autorroscante cabeça de lentilha Pozidriv

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X32MM*	1000	51689.029.032	ST4,2X16MM	200	51689.042.016	ST4,8X100MM*	200	51689.048.100
			ST4,2X19MM	200	51689.042.019			
ST3,5X6,5MM*	1000	51689.035.006	ST4,2X22MM*	1000	51689.042.022	ST5,5X13MM*	1000	51689.055.013
ST3,5X9,5MM*	1000	51689.035.009	ST4,2X25MM	200	51689.042.025	ST5,5X16MM*	1000	51689.055.016
ST3,5X13MM	200	51689.035.013	ST4,2X32MM	200	51689.042.032	ST5,5X19MM*	1000	51689.055.019
ST3,5X16MM	200	51689.035.016	ST4,2X38MM	200	51689.042.038	ST5,5X22MM*	1000	51689.055.022
ST3,5X19MM	200	51689.035.019	ST4,2X45MM	200	51689.042.045	ST5,5X25MM	200	51689.055.025
ST3,5X22MM*	1000	51689.035.022	ST4,2X50MM	200	51689.042.050	ST5,5X32MM	100	51689.055.032
ST3,5X25MM	200	51689.035.025	ST4,2X70MM*	200	51689.042.070	ST5,5X38MM	100	51689.055.038
ST3,5X32MM	200	51689.035.032				ST5,5X45MM	100	51689.055.045
ST3,5X38MM*	1000	51689.035.038	ST4,8X9,5MM*	1000	51689.048.009	ST5,5X50MM	100	51689.055.050
			ST4,8X13MM*	1000	51689.048.013	ST5,5X60MM*	200	51689.055.060
ST3,9X13MM	200	51689.039.013	ST4,8X16MM	200	51689.048.016			
ST3,9X16MM	200	51689.039.016	ST4,8X19MM	200	51689.048.019	ST6,3X16MM	100	51689.063.016
ST3,9X19MM	200	51689.039.019	ST4,8X22MM*	1000	51689.048.022	ST6,3X19MM*	500	51689.063.019
ST3,9X22MM*	1000	51689.039.022	ST4,8X25MM	200	51689.048.025	ST6,3X22MM*	500	51689.063.022
ST3,9X25MM	200	51689.039.025	ST4,8X32MM	200	51689.048.032	ST6,3X25MM	100	51689.063.025
ST3,9X32MM	200	51689.039.032	ST4,8X38MM	200	51689.048.038	ST6,3X32MM	100	51689.063.032
ST3,9X38MM	200	51689.039.038	ST4,8X45MM	200	51689.048.045	ST6,3X38MM	100	51689.063.038
ST3,9X45MM*	500	51689.039.045	ST4,8X50MM	200	51689.048.050	ST6,3X45MM*	200	51689.063.045
			ST4,8X60MM*	200	51689.048.060	ST6,3X50MM	100	51689.063.050
ST4,2X9,5MM*	1000	51689.042.009	ST4,8X70MM*	200	51689.048.070	ST6,3X90MM*	200	51689.063.090
ST4,2X13MM	200	51689.042.013	ST4,8X80MM*	200	51689.048.080			

55690 Parafuso autorroscante cabeça de lentilha Phillips R41A

Rosca Autorroscante
Material Aço inoxidável A4

DIN 7983 C-H
ISO 7051 C-H

RoHS



6

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,2X9,5MM*	1000	55690.022.009	ST3,9X45MM*	500	55690.039.045	ST4,8X70MM*	200	55690.048.070
			ST3,9X50MM*	500	55690.039.050			
ST2,9X9,5MM	200	55690.029.009				ST5,5X13MM*	1000	55690.055.013
ST2,9X13MM	200	55690.029.013	ST4,2X9,5MM*	1000	55690.042.009	ST5,5X16MM*	1000	55690.055.016
ST2,9X16MM	200	55690.029.016	ST4,2X13MM	200	55690.042.013	ST5,5X19MM	200	55690.055.019
ST2,9X19MM	200	55690.029.019	ST4,2X16MM	200	55690.042.016	ST5,5X22MM*	1000	55690.055.022
ST2,9X22MM*	1000	55690.029.022	ST4,2X19MM	200	55690.042.019	ST5,5X25MM	200	55690.055.025
ST2,9X25MM*	1000	55690.029.025	ST4,2X22MM	200	55690.042.022	ST5,5X32MM*	500	55690.055.032
ST2,9X32MM*	1000	55690.029.032	ST4,2X25MM	200	55690.042.025	ST5,5X38MM	100	55690.055.038
			ST4,2X32MM	200	55690.042.032	ST5,5X45MM	100	55690.055.045
ST3,5X9,5MM	200	55690.035.009	ST4,2X38MM	200	55690.042.038	ST5,5X50MM	100	55690.055.050
ST3,5X13MM	200	55690.035.013	ST4,2X45MM*	500	55690.042.045	ST5,5X70MM*	200	55690.055.070
ST3,5X16MM	200	55690.035.016	ST4,2X50MM*	200	55690.042.050	ST5,5X80MM*	200	55690.055.080
ST3,5X19MM	200	55690.035.019	ST4,2X60MM*	200	55690.042.060	ST5,5X90MM*	200	55690.055.090
ST3,5X22MM*	1000	55690.035.022	ST4,2X70MM*	200	55690.042.070			
ST3,5X25MM*	1000	55690.035.025				ST6,3X16MM*	500	55690.063.016
ST3,5X32MM*	1000	55690.035.032	ST4,8X13MM*	1000	55690.048.013	ST6,3X19MM*	500	55690.063.019
ST3,5X38MM*	1000	55690.035.038	ST4,8X16MM	200	55690.048.016	ST6,3X22MM*	500	55690.063.022
			ST4,8X19MM	200	55690.048.019	ST6,3X25MM*	200	55690.063.025
ST3,9X9,5MM*	1000	55690.039.009	ST4,8X22MM	200	55690.048.022	ST6,3X32MM*	200	55690.063.032
ST3,9X13MM	200	55690.039.013	ST4,8X25MM	200	55690.048.025	ST6,3X38MM*	200	55690.063.038
ST3,9X16MM	200	55690.039.016	ST4,8X32MM	200	55690.048.032	ST6,3X45MM*	200	55690.063.045
ST3,9X19MM	200	55690.039.019	ST4,8X38MM	200	55690.048.038	ST6,3X50MM*	200	55690.063.050
ST3,9X22MM	200	55690.039.022	ST4,8X45MM*	200	55690.048.045	ST6,3X60MM*	200	55690.063.060
ST3,9X25MM	200	55690.039.025	ST4,8X50MM*	200	55690.048.050	ST6,3X70MM*	200	55690.063.070
ST3,9X32MM*	1000	55690.039.032	ST4,8X60MM*	200	55690.048.060	ST6,3X80MM*	200	55690.063.080
ST3,9X38MM*	500	55690.039.038						

55689 Parafuso cabeça de embeber Pozidriv R41A

Rosca Autorroscante
Material Aço inoxidável A4

DIN 7983 C-Z
ISO 7051 C-Z
NF E25-657 C

RoHS

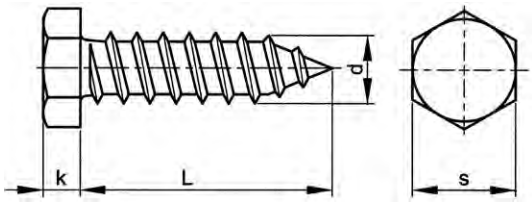


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,2X9,5MM*	1000	55689.022.009	ST2,9X25MM*	1000	55689.029.025	ST3,5X22MM*	1000	55689.035.022
ST2,2X13MM*	1000	55689.022.013	ST2,9X32MM*	1000	55689.029.032	ST3,5X25MM*	1000	55689.035.025
						ST3,5X32MM*	1000	55689.035.032
ST2,9X6,5MM*	1000	55689.029.006	ST3,5X6,5MM*	1000	55689.035.006	ST3,5X38MM*	1000	55689.035.038
ST2,9X9,5MM*	1000	55689.029.009	ST3,5X9,5MM*	1000	55689.035.009			
ST2,9X13MM*	1000	55689.029.013	ST3,5X13MM*	1000	55689.035.013	ST3,9X9,5MM*	1000	55689.039.000
ST2,9X16MM*	1000	55689.029.016	ST3,5X16MM*	1000	55689.035.016	ST3,9X13MM*	1000	55689.039.013
ST2,9X19MM*	1000	55689.029.019	ST3,5X19MM*	1000	55689.035.019	ST3,9X16MM*	1000	55689.039.016

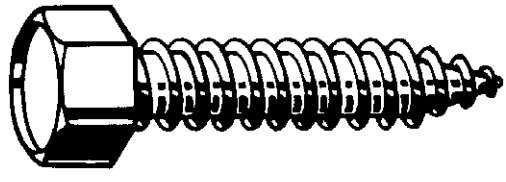
55689 **Parafuso cabeça de embeber Pozidriv** ←

d x L		Ref. do artigo	d x L		Ref. do artigo	d x L		Ref. do artigo
ST3,9X19MM*	1000	55689.039.019	ST4,8X13MM*	1000	55689.048.013	ST5,5X45MM*	200	55689.055.045
ST3,9X22MM*	1000	55689.039.022	ST4,8X16MM*	1000	55689.048.016	ST5,5X50MM*	200	55689.055.050
ST3,9X25MM*	1000	55689.039.025	ST4,8X19MM*	1000	55689.048.019	ST5,5X60MM*	200	55689.055.060
ST3,9X32MM*	1000	55689.039.032	ST4,8X22MM*	1000	55689.048.022	ST5,5X70MM*	200	55689.055.070
ST3,9X38MM*	500	55689.039.038	ST4,8X25MM*	500	55689.048.025	ST5,5X80MM*	200	55689.055.080
			ST4,8X32MM*	500	55689.048.032			
ST4,2X9,5MM*	1000	55689.042.009	ST4,8X38MM*	500	55689.048.038	ST6,3X16MM*	500	55689.063.016
ST4,2X13MM*	1000	55689.042.013	ST4,8X45MM*	200	55689.048.045	ST6,3X19MM*	500	55689.063.019
ST4,2X16MM*	1000	55689.042.016	ST4,8X50MM*	200	55689.048.050	ST6,3X25MM*	200	55689.063.025
ST4,2X19MM*	1000	55689.042.019	ST4,8X60MM*	200	55689.048.060	ST6,3X32MM*	200	55689.063.032
ST4,2X22MM*	1000	55689.042.022	ST4,8X70MM*	200	55689.048.070	ST6,3X38MM*	200	55689.063.038
ST4,2X25MM*	1000	55689.042.025				ST6,3X45MM*	200	55689.063.045
ST4,2X32MM*	500	55689.042.032	ST5,5X13MM*	1000	55689.055.013	ST6,3X50MM*	200	55689.063.050
ST4,2X38MM*	500	55689.042.038	ST5,5X16MM*	1000	55689.055.016	ST6,3X60MM*	200	55689.063.060
ST4,2X45MM*	500	55689.042.045	ST5,5X19MM*	1000	55689.055.019	ST6,3X70MM*	200	55689.063.070
ST4,2X50MM*	200	55689.042.050	ST5,5X22MM*	1000	55689.055.022	ST6,3X80MM*	200	55689.063.080
ST4,2X60MM*	200	55689.042.060	ST5,5X25MM*	500	55689.055.025	ST6,3X100MM*	200	55689.063.100
			ST5,5X32MM*	500	55689.055.032			
ST4,8X9MM*	1000	55689.048.009	ST5,5X38MM*	500	55689.055.038			

Parafuso autorroscante cabeça sextavada



DIN	**7976**
ISO	1479
ASME	B18.6.5M
NF	E25-662
BS	4174



6

Dados técnicos

d	k	P	s	d	k	P	s
ST2.9	1.5	1.1	5	**ST4.8**	3	1.6	8
ST3.5	2.3	1.3	5.5	**ST5.5**	4	1.8	8
ST3.9	2.3	1.3	7	**ST6.3**	4.8	1.8	10
ST4.2	2.8	1.4	7	**ST8**	5.8	2.1	13

Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.		Código	Página
ST	Sextavado	Aço	Zn		26080	6-98
ST	Sextavado	Aço	Zn	sem ponta	26180	6-99
ST	Sextavado	INOX A2			51650	6-99

26080 **Parafuso autorroscante cabeça sextabvada** **J04A**

Rosca	Autorroscante	**DIN**	**7976 C**
Material	Aço	ISO	1479 C
Tratamento sup.	Zincado	NF	E25-662 C

RoHS

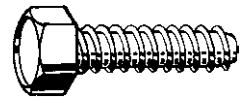


d x L		Ref. do artigo	d x L		Ref. do artigo	d x L		Ref. do artigo
ST4,2X25MM	1000	26080.042.025	ST4,8X50MM	200	26080.048.050	ST6,3X19MM	100	26080.063.019
						ST6,3X25MM	100	26080.063.025
ST4,8X9,5MM	200	26080.048.009	ST5,5X16MM	250	26080.055.016	ST6,3X32MM	100	26080.063.032
ST4,8X13MM	250	26080.048.013				ST6,3X38MM	100	26080.063.038
ST4,8X16MM	1000	26080.048.016	ST6,3X13MM	100	26080.063.013	ST6,3X45MM	100	26080.063.045
ST4,8X25MM	100	26080.048.025	ST6,3X16MM	100	26080.063.016	ST6,3X50MM	100	26080.063.050
ST4,8X38MM	200	26080.048.038						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

26180 Parafuso autorroscante cabeça sextavada sem ponta — J04A

Rosca	Autorroscante	**DIN**	**7976 F**
Material	Aço	ISO	1479 F
Tratamento sup.	Zincado	NF	E25-662 F



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST4,8X9,5MM	200	26180.048.009						
ST4,8X13MM	200	26180.048.013	ST6,3X13MM	100	26180.063.013	ST8(7,9)X16MM	100	26180.079.016
ST4,8X16MM	200	26180.048.016	ST6,3X16MM	100	26180.063.016	ST8(7,9)X19MM	100	26180.079.019
ST4,8X19MM	200	26180.048.019	ST6,3X19MM	100	26180.063.019	ST8(7,9)X25MM	100	26180.079.025
ST4,8X25MM	200	26180.048.025	ST6,3X25MM	100	26180.063.025			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

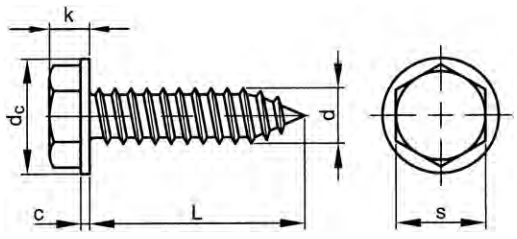
51650 Parafuso autorroscante cabeça sextavada — R01A

Rosca	Autorroscante	**DIN**	**7976 C**
Material	Aço inoxidável A2	ISO	1479 C
		NF	E25-662 C

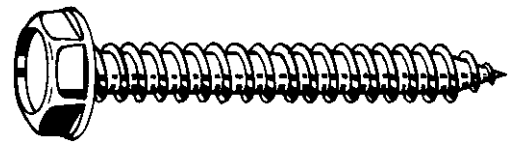


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X9,5MM*	1000	51650.029.009	ST4,2X38MM*	500	51650.042.038	ST5,5X80MM*	200	51650.055.080
ST2,9X13MM*	1000	51650.029.013	ST4,2X45MM*	500	51650.042.045	ST5,5X90MM*	200	51650.055.090
ST2,9X16MM*	1000	51650.029.016	ST4,2X50MM*	200	51650.042.050			
ST2,9X19MM*	1000	51650.029.019	ST4,2X70MM*	200	51650.042.070	ST6,3X13MM	100	51650.063.013
						ST6,3X16MM	100	51650.063.016
ST3,5X13MM*	1000	51650.035.013	ST4,8X9,5MM*	1000	51650.048.009	ST6,3X19MM	100	51650.063.019
ST3,5X16MM*	1000	51650.035.016	ST4,8X13MM	100	51650.048.013	ST6,3X22MM	100	51650.063.022
ST3,5X19MM*	1000	51650.035.019	ST4,8X16MM	100	51650.048.016	ST6,3X25MM	100	51650.063.025
ST3,5X22MM*	1000	51650.035.022	ST4,8X19MM	100	51650.048.019	ST6,3X32MM*	500	51650.063.032
ST3,5X25MM*	1000	51650.035.025	ST4,8X22MM*	1000	51650.048.022	ST6,3X38MM*	200	51650.063.038
ST3,5X32MM*	1000	51650.035.032	ST4,8X25MM	100	51650.048.025	ST6,3X45MM*	200	51650.063.045
			ST4,8X32MM	500	51650.048.032	ST6,3X50MM	200	51650.063.050
ST3,9X9,5MM*	1000	51650.039.009	ST4,8X38MM*	500	51650.048.038	ST6,3X60MM*	200	51650.063.060
ST3,9X13MM*	1000	51650.039.013	ST4,8X45MM*	200	51650.048.045	ST6,3X70MM*	200	51650.063.070
ST3,9X16MM*	1000	51650.039.016	ST4,8X50MM*	200	51650.048.050	ST6,3X80MM*	200	51650.063.080
ST3,9X19MM*	1000	51650.039.019	ST4,8X60MM*	200	51650.048.060	ST6,3X90MM*	200	51650.063.090
ST3,9X22MM*	1000	51650.039.022	ST4,8X70MM*	200	51650.048.070	ST6,3X100MM*	200	51650.063.100
ST3,9X25MM*	1000	51650.039.025	ST4,8X80MM*	200	51650.048.080	ST6,3X120MM*	200	51650.063.120
ST3,9X32MM*	1000	51650.039.032						
ST3,9X38MM*	500	51650.039.038	ST5,5X13MM*	1000	51650.055.013	ST8,0X16MM*	200	51650.080.016
ST3,9X45MM*	500	51650.039.045	ST5,5X16MM*	1000	51650.055.016	ST8,0X19MM*	200	51650.080.019
ST3,9X50MM*	500	51650.039.050	ST5,5X19MM*	1000	51650.055.019	ST8,0X22MM*	200	51650.080.022
			ST5,5X22MM*	1000	51650.055.022	ST8,0X25MM*	200	51650.080.025
ST4,2X9,5MM*	1000	51650.042.009	ST5,5X25MM*	500	51650.055.025	ST8,0X32MM*	200	51650.080.032
ST4,2X13MM	100	51650.042.013	ST5,5X32MM*	500	51650.055.032	ST8,0X38MM	200	51650.080.038
ST4,2X16MM	100	51650.042.016	ST5,5X38MM*	500	51650.055.038	ST8,0X45MM*	200	51650.080.045
ST4,2X19MM*	1000	51650.042.019	ST5,5X45MM*	200	51650.055.045	ST8,0X50MM*	200	51650.080.050
ST4,2X22MM	100	51650.042.022	ST5,5X50MM*	200	51650.055.050	ST8,0X60MM*	200	51650.080.060
ST4,2X25MM*	1000	51650.042.025	ST5,5X60MM*	200	51650.055.060	ST8,0X70MM*	200	51650.080.070
ST4,2X32MM*	500	51650.042.032	ST5,5X70MM*	200	51650.055.070			

Parafuso autorroscante cabeça sextavada e falsa anilha



DIN **≈6928 C**
ISO ≈7053 C
BS ≈7599



Dados técnicos

d	c	d_c	k	P	s
ST3.5	0.5	7.2	2.5	1.3	5.5
ST4.2	0.6	9	2.8	1.4	7
ST4.8	0.7	10	3.1	1.6	8

28100 **Parafuso autorroscante cabeça sextavada e falsa anilha** **J04A**

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

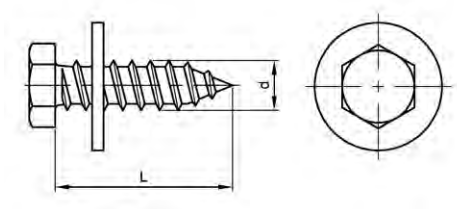
RoHS

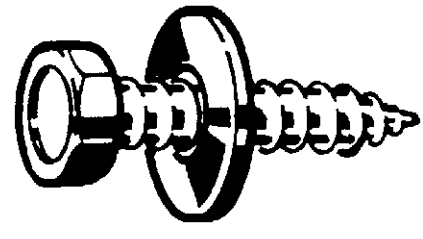


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X9,5MM	200	28100.035.009	ST4,2X13MM	200	28100.042.013	ST4,8X16MM	200	28100.048.016
ST3,5X13MM	200	28100.035.013	ST4,2X16MM	200	28100.042.016	ST4,8X19MM	200	28100.048.019
ST3,5X16MM	200	28100.035.016	ST4,2X19MM	200	28100.042.019	ST4,8X25MM	200	28100.048.025
ST3,5X19MM	200	28100.035.019	ST4,2X25MM	200	28100.042.025	ST4,8X32MM	200	28100.048.032
ST4,2X9,5MM	200	28100.042.009	ST4,8X13MM	200	28100.048.013			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Parafuso sextavado com ponta em cone e anilha





Dados técnicos

d	Anel ø
ST4.8	12x1.6
ST5.6	14.8x1.6
ST6.5	18x1.6

72045 **Parafuso sextavado com ponta em cone e anilha** **Y92D**

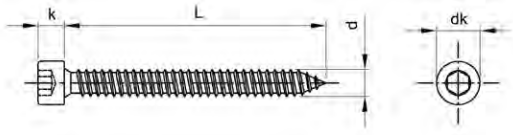
Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST4,8X16MM	200	72045.048.016	ST5,6X13MM	200	72045.056.013			
ST4,8X19MM	200	72045.048.019	ST5,6X16MM	200	72045.056.016	ST6,5X20MM	200	72045.065.020
			ST5,6X19MM	200	72045.056.019	ST6,5X25MM	200	72045.065.025

Parafuso autorroscante com sextavado interior





Dados técnicos

d	d_k	k	s
4.8	8.5	5	4
5.5	10	6	5
6.3	10	6	5

Grupos de produtos

Rosca	Encaixe	Material	Código	Página
ST	Sextavado	INOX A2	51651	6-101
ST	Sextavado	INOX A4	55651	6-101

51651 Parafuso autorroscante com sextavado interior — Q05A

Rosca Autorroscante
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
4,8X9,5MM*	500	51651.048.009	5,5X13MM*	500	51651.055.013			
4,8X13MM*	500	51651.048.013	5,5X16MM*	500	51651.055.016	6,3X13MM*	200	51651.063.013
4,8X16MM*	500	51651.048.016	5,5X19MM*	500	51651.055.019	6,3X16MM*	500	51651.063.016
4,8X19MM*	500	51651.048.019	5,5X22MM*	500	51651.055.022	6,3X19MM*	500	51651.063.019
4,8X22MM*	500	51651.048.022	5,5X25MM*	500	51651.055.025	6,3X22MM*	500	51651.063.022
4,8X25MM*	500	51651.048.025	5,5X30MM*	500	51651.055.030	6,3X25MM*	500	51651.063.025
4,8X30MM*	500	51651.048.030	5,5X32MM*	500	51651.055.032	6,3X30MM*	500	51651.063.030
4,8X32MM*	500	51651.048.032	5,5X35MM*	500	51651.055.035	6,3X32MM*	500	51651.063.032
4,8X35MM*	500	51651.048.035	5,5X38MM*	500	51651.055.038	6,3X38MM*	500	51651.063.038
4,8X38MM*	500	51651.048.038	5,5X40MM*	500	51651.055.040	6,3X42MM*	500	51651.063.042
4,8X40MM*	500	51651.048.040	5,5X42MM*	500	51651.055.042	6,3X45MM*	500	51651.063.045
4,8X42MM*	500	51651.048.042	5,5X45MM*	500	51651.055.045	6,3X50MM*	200	51651.063.050
4,8X45MM*	500	51651.048.045	5,5X50MM*	200	51651.055.050	6,3X55MM*	200	51651.063.055
4,8X50MM*	200	51651.048.050	5,5X55MM*	200	51651.055.055	6,3X60MM*	200	51651.063.060
4,8X55MM*	200	51651.048.055	5,5X60MM*	200	51651.055.060	6,3X65MM*	200	51651.063.065
4,8X60MM*	200	51651.048.060	5,5X65MM*	200	51651.055.065	6,3X70MM*	200	51651.063.070
4,8X70MM*	200	51651.048.070	5,5X70MM*	200	51651.055.070	6,3X75MM*	200	51651.063.075
4,8X80MM*	200	51651.048.080	5,5X75MM*	200	51651.055.075	6,3X80MM*	200	51651.063.080
4,8X90MM*	200	51651.048.090	5,5X80MM*	200	51651.055.080	6,3X90MM*	200	51651.063.090
4,8X100MM*	200	51651.048.100	5,5X90MM*	200	51651.055.090	6,3X100MM*	200	51651.063.100
			5,5X100MM*	200	51651.055.100			

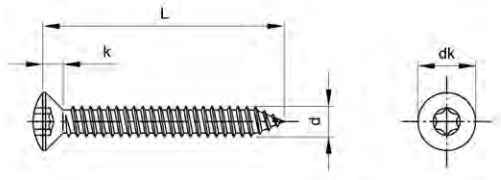
55651 Parafuso autorroscante com sextavado interior — Q45A

Rosca Autorroscante
Material Aço inoxidável A4



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
4,8X13MM*	500	55651.048.013	5,5X19MM*	500	55651.055.019	5,5X75MM*	200	55651.055.075
4,8X16MM*	500	55651.048.016	5,5X22MM*	500	55651.055.022	5,5X90MM*	200	55651.055.090
4,8X19MM*	500	55651.048.019	5,5X25MM*	500	55651.055.025			
4,8X22MM*	500	55651.048.022	5,5X30MM*	500	55651.055.030	6,3X13MM*	500	55651.063.013
4,8X25MM*	500	55651.048.025	5,5X32MM*	500	55651.055.032	6,3X16MM*	500	55651.063.016
4,8X32MM*	500	55651.048.032	5,5X38MM*	500	55651.055.038	6,3X19MM*	500	55651.063.019
4,8X38MM*	500	55651.048.038	5,5X42MM*	500	55651.055.042	6,3X25MM*	500	55651.063.025
4,8X45MM*	500	55651.048.045	5,5X45MM*	500	55651.055.045	6,3X32MM*	500	55651.063.032
4,8X70MM*	200	55651.048.070	5,5X50MM*	200	55651.055.050	6,3X45MM*	500	55651.063.045
4,8X100MM*	200	55651.048.100	5,5X55MM*	200	55651.055.055	6,3X50MM*	200	55651.063.050
			5,5X60MM*	200	55651.055.060	6,3X55MM*	200	55651.063.055
5,5X16MM*	500	55651.055.016	5,5X70MM*	200	55651.055.070	6,3X60MM*	200	55651.063.060

Parafuso cabeça de lentilha hexalobular



ISO **14587 C**
DIN ≈7983 C



Dados técnicos

d	Chave caixa	d_k	k
2.2 (≠ISO)	T6	4.3	1.3
2.9	T8	5.5	1.7
3.5	T10	6.8	2.1
3.9 (≠ISO)	T15	7.5	2.3
4.2	T20	8.1	2.5
4.8	T25	9.5	3
5.5	T25	10.8	3.4
6.3	T30	12.4	3.8

Grupos de produtos

Rosca	Encaixe	Material	Código	Página
ST	Hexalobular	INOX A2	51693	6-102
ST	Hexalobular	INOX A4	55693	6-103

6

51693 **Parafuso cabeça de lentilha hexalobular** **R03A**

Rosca Autorroscante
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
2,2X6,5MM*	1000	51693.022.006	3,9X13MM*	1000	51693.039.013	4,8X60MM*	200	51693.048.060
2,2X9,5MM*	1000	51693.022.009	3,9X16MM*	1000	51693.039.016	4,8X70MM*	200	51693.048.070
2,2X13MM*	1000	51693.022.013	3,9X19MM*	1000	51693.039.019	4,8X80MM*	200	51693.048.080
2,2X16MM*	1000	51693.022.016	3,9X22MM*	1000	51693.039.022			
2,2X19MM*	1000	51693.022.019	3,9X25MM*	1000	51693.039.025	5,5X13MM*	1000	51693.055.013
2,2X22MM*	1000	51693.022.022	3,9X32MM*	1000	51693.039.032	5,5X16MM*	1000	51693.055.016
2,2X25MM*	1000	51693.022.025	3,9X38MM*	500	51693.039.038	5,5X19MM*	1000	51693.055.019
			3,9X45MM*	500	51693.039.045	5,5X22MM*	1000	51693.055.022
2,9X6,5MM*	1000	51693.029.006	3,9X50MM*	500	51693.039.050	5,5X25MM*	500	51693.055.025
2,9X9,5MM*	1000	51693.029.009				5,5X32MM*	500	51693.055.032
2,9X13MM*	1000	51693.029.013	4,2X9,5MM*	1000	51693.042.009	5,5X38MM*	500	51693.055.038
2,9X16MM*	1000	51693.029.016	4,2X13MM*	1000	51693.042.013	5,5X45MM*	200	51693.055.045
2,9X19MM*	1000	51693.029.019	4,2X16MM*	1000	51693.042.016	5,5X60MM*	200	51693.055.060
2,9X22MM*	1000	51693.029.022	4,2X19MM*	1000	51693.042.019	5,5X70MM*	200	51693.055.070
2,9X25MM*	1000	51693.029.025	4,2X22MM*	1000	51693.042.022	5,5X80MM*	200	51693.055.080
2,9X32MM*	1000	51693.029.032	4,2X25MM*	1000	51693.042.025	5,5X50MM*	200	51693.055.950
			4,2X32MM*	500	51693.042.032			
3,5X6,5MM*	1000	51693.035.006	4,2X38MM*	500	51693.042.038	6,3X13MM*	500	51693.063.013
3,5X9,5MM*	1000	51693.035.009	4,2X45MM*	500	51693.042.045	6,3X16MM*	500	51693.063.016
3,5X13MM*	1000	51693.035.013	4,2X50MM*	200	51693.042.050	6,3X19MM*	500	51693.063.019
3,5X16MM*	1000	51693.035.016				6,3X22MM*	500	51693.063.022
3,5X19MM*	1000	51693.035.019	4,8X9MM*	1000	51693.048.009	6,3X25MM*	200	51693.063.025
3,5X22MM*	1000	51693.035.022	4,8X13MM*	1000	51693.048.013	6,3X32MM*	200	51693.063.032
3,5X25MM*	1000	51693.035.025	4,8X16MM*	1000	51693.048.016	6,3X38MM*	200	51693.063.038
3,5X32MM*	1000	51693.035.032	4,8X19MM*	1000	51693.048.019	6,3X45MM*	200	51693.063.045
3,5X38MM*	1000	51693.035.038	4,8X22MM*	1000	51693.048.022	6,3X50MM*	200	51693.063.050
3,5X45MM*	500	51693.035.045	4,8X25MM*	500	51693.048.025	6,3X60MM*	200	51693.063.060
3,5X50MM*	500	51693.035.050	4,8X32MM*	500	51693.048.032	6,3X70MM*	200	51693.063.070
			4,8X38MM*	500	51693.048.038	6,3X80MM*	200	51693.063.080
3,9X6,5MM*	1000	51693.039.006	4,8X45MM*	200	51693.048.045			
3,9X9,5MM*	1000	51693.039.009	4,8X50MM*	200	51693.048.050			

55693 **Parafuso cabeça de lentilha hexalobular** **R43A**

Rosca Autorroscante
Material Aço inoxidável A4

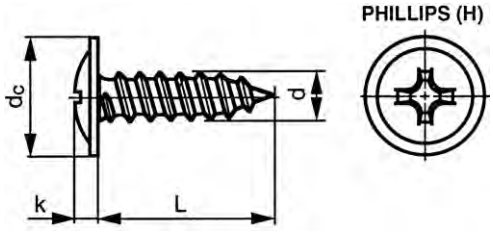


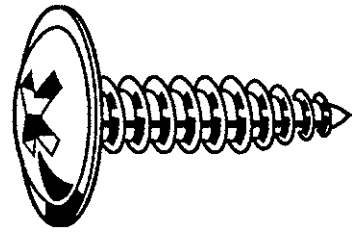
RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
2,2X16MM*	1000	55693.022.016				4,8X80MM*	200	55693.048.080
			4,2X9,5MM*	1000	55693.042.009			
2,9X13MM*	1000	55693.029.013	4,2X13MM*	1000	55693.042.013	5,5X13MM*	1000	55693.055.013
2,9X16MM*	1000	55693.029.016	4,2X16MM*	1000	55693.042.016	5,5X16MM*	1000	55693.055.016
2,9X19MM*	1000	55693.029.019	4,2X19MM*	1000	55693.042.019	5,5X19MM*	1000	55693.055.019
2,9X25MM*	1000	55693.029.025	4,2X22MM*	1000	55693.042.022	5,5X22MM*	1000	55693.055.022
2,9X32MM*	1000	55693.029.032	4,2X25MM*	1000	55693.042.025	5,5X25MM*	500	55693.055.025
			4,2X32MM*	500	55693.042.032	5,5X32MM*	500	55693.055.032
3,5X6,5MM*	1000	55693.035.006	4,2X38MM*	500	55693.042.038	5,5X38MM*	500	55693.055.038
3,5X13MM*	1000	55693.035.013	4,2X45MM*	500	55693.042.045	5,5X45MM*	200	55693.055.045
3,5X16MM*	1000	55693.035.016	4,2X50MM*	200	55693.042.050	5,5X50MM*	200	55693.055.050
3,5X19MM*	1000	55693.035.019	4,2X60MM*	200	55693.042.060	5,5X60MM*	200	55693.055.060
3,5X22MM*	1000	55693.035.022				5,5X70MM*	200	55693.055.070
3,5X25MM*	1000	55693.035.025	4,8X13MM*	1000	55693.048.013	5,5X80MM*	200	55693.055.080
3,5X32MM*	1000	55693.035.032	4,8X16MM*	1000	55693.048.016			
3,5X38MM*	1000	55693.035.038	4,8X19MM*	1000	55693.048.019	6,3X19MM*	500	55693.063.019
3,5X45MM*	500	55693.035.045	4,8X22MM*	1000	55693.048.022	6,3X25MM*	200	55693.063.025
			4,8X25MM*	500	55693.048.025	6,3X32MM*	200	55693.063.032
3,9X16MM*	1000	55693.039.016	4,8X32MM*	500	55693.048.032	6,3X38MM*	200	55693.063.038
3,9X19MM*	1000	55693.039.019	4,8X38MM*	500	55693.048.038	6,3X50MM*	200	55693.063.050
3,9X22MM*	1000	55693.039.022	4,8X45MM*	200	55693.048.045	6,3X60MM*	200	55693.063.060
3,9X32MM*	1000	55693.039.032	4,8X50MM*	200	55693.048.050	6,3X70MM*	200	55693.063.070
3,9X38MM*	500	55693.039.038	4,8X60MM*	200	55693.048.060	6,3X80MM*	200	55693.063.080
3,9X50MM*	500	55693.039.050	4,8X70MM*	200	55693.048.070			

6

Parafuso autorroscante cabeça redonda Phillips, com flange



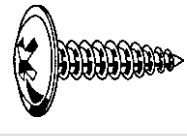


Dados técnicos

d	d_c (max.)	k	Nr. fenda	P
ST3.5	9	2.3	2	1.3
ST3.9	10	2.5	2	1.4
ST4.2	10	2.6	2	1.4
ST4.8	11.5	2.7	2	1.6

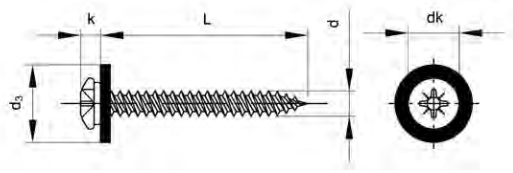
26456 **Parafuso autorroscante cabeça redonda Phillips, com flange** **J03A**

Rosca Autorroscante
Material Aço
Tratamento sup. Passivado a preto



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X16MM	100	26456.035.016	ST3,9X25MM	100	26456.039.025	ST4,2X25MM	100	26456.042.025
ST3,9X9,5MM	100	26456.039.009	ST4,2X13MM	100	26456.042.013	ST4,8X13MM	100	26456.048.013
ST3,9X13MM	100	26456.039.013	ST4,2X16MM	100	26456.042.016	ST4,8X16MM	100	26456.048.016
ST3,9X16MM	100	26456.039.016	ST4,2X19MM	100	26456.042.019	ST4,8X19MM	100	26456.048.019
ST3,9X19MM	100	26456.039.019	ST4,2X22MM	100	26456.042.022	ST4,8X25MM	100	26456.048.025

Parafuso para janelas com anilha





Dados técnicos

d	d_3	d_k	k	Nr. fenda
3.9	12	7.9	3.1	2

Grupos de produtos

Rosca	Encaixe	Material	Cor	Código	Página
ST	Pozidriv	INOX A2	Natural	51760	6-104
ST	Pozidriv	INOX A2	Branco	51764	6-104
ST	Pozidriv	INOX A2	Castanho	51767	6-104

6

51760 Parafuso para janelas com anilha natural — R03A

Rosca Autorroscante
Material Aço inoxidável A2
Cor Natural

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,9X16MM*	1000	51760.039.016	ST3,9X22MM*	1000	51760.039.022	ST3,9X32MM*	1000	51760.039.032
ST3,9X19MM*	1000	51760.039.019	ST3,9X25MM*	1000	51760.039.025			

51764 Parafuso para janelas com anilha branca — R03A

Rosca Autorroscante
Material Aço inoxidável A2
Cor Branco

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,9X16MM*	1000	51764.039.016	ST3,9X22MM*	1000	51764.039.022	ST3,9X32MM*	1000	51764.039.032
ST3,9X19MM*	1000	51764.039.019	ST3,9X25MM*	1000	51764.039.025			

51767 Parafuso para janelas com anilha castanha — R03A

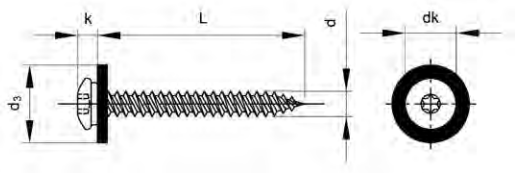
Rosca Autorroscante
Material Aço inoxidável A2
Cor Castanho

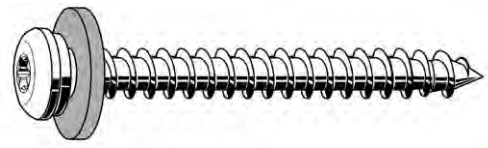
RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,9X16MM*	1000	51767.039.016	ST3,9X22MM*	1000	51767.039.022	ST3,9X32MM*	1000	51767.039.032
ST3,9X19MM*	1000	51767.039.019	ST3,9X25MM*	1000	51767.039.025			

Parafuso para janelas com anilha





Dados técnicos

d	Chave caixa	d_3	d_k	k
3.9	T15	12	7.9	3.1

Grupos de produtos

Rosca	Encaixe	Material	Cor	Código	Página
ST	Hexalobular	INOX A2	Natural	51761	6-105
ST	Hexalobular	INOX A2	Branco	51765	6-105
ST	Hexalobular	INOX A2	Castanho	51768	6-105

51761 Parafuso para janelas com anilha natural — R03A

Rosca Autorroscante
Material Aço inoxidável A2
Cor Natural



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,9X16MM*	200	51761.039.016	ST3,9X22MM*	200	51761.039.022	ST3,9X32MM*	200	51761.039.032
ST3,9X19MM*	200	51761.039.019	ST3,9X25MM*	200	51761.039.025			

51765 Parafuso para janelas com anilha branco — R03A

Rosca Autorroscante
Material Aço inoxidável A2
Cor Branco



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,9X16MM*	200	51765.039.016	ST3,9X22MM*	200	51765.039.022	ST3,9X32MM*	200	51765.039.032
ST3,9X19MM*	200	51765.039.019	ST3,9X25MM*	200	51765.039.025			

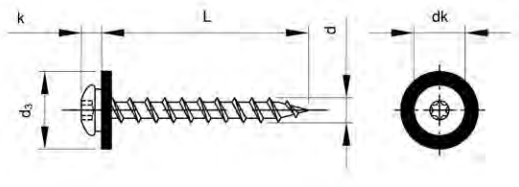
51768 Parafuso para janelas com anilha castanho — R03A

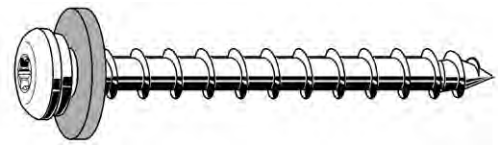
Rosca Autorroscante
Material Aço inoxidável A2
Cor Castanho



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,9X16MM*	200	51768.039.016	ST3,9X22MM*	200	51768.039.022	ST3,9X32MM*	200	51768.039.032
ST3,9X19MM*	200	51768.039.019	ST3,9X25MM*	200	51768.039.025			

Parafuso para janelas com anilha





Dados técnicos

d	Chave caixa	d_3	d_k	k
3.9	T15	12	7.9	3.1

Grupos de produtos

Rosca	Encaixe	Material	Cor	Código	Página
CT	Hexalobular	INOX A2	Natural	51762	6-106
CT	Hexalobular	INOX A2	Branco	51766	6-106
CT	Hexalobular	INOX A2	Castanho	51769	6-106

51762 Parafuso para janelas com anilha natural — R03A

Rosca Rosca rápida
Material Aço inoxidável A2
Cor Natural



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,9X16MM*	200	51762.039.016	ST3,9X22MM*	200	51762.039.022	ST3,9X32MM*	200	51762.039.032
ST3,9X19MM*	200	51762.039.019	ST3,9X25MM*	200	51762.039.025			

51766 Parafuso para janelas com anilha branco — R03A

Rosca Rosca rápida
Material Aço inoxidável A2
Cor Branco



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,9X16MM*	200	51766.039.016	ST3,9X22MM*	200	51766.039.022	ST3,9X32MM*	200	51766.039.032
ST3,9X19MM*	200	51766.039.019	ST3,9X25MM*	200	51766.039.025			

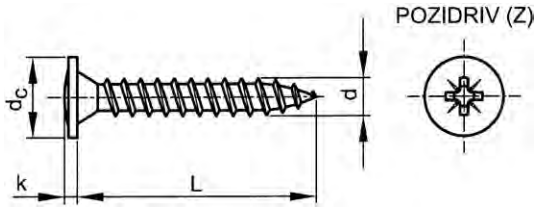
51769 Parafuso para janelas com anilha castanha — R03A

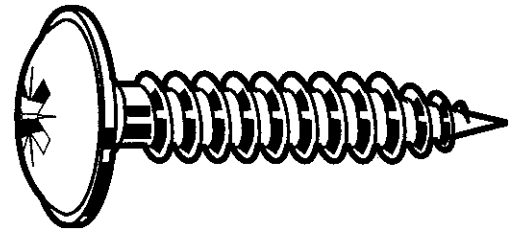
Rosca Rosca rápida
Material Aço inoxidável A2
Cor Castanho



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,9X16MM*	200	51769.039.016	ST3,9X22MM*	200	51769.039.022	ST3,9X32MM*	200	51769.039.032
ST3,9X19MM*	200	51769.039.019	ST3,9X25MM*	200	51769.039.025			

Parafuso fenda cruz para paineis



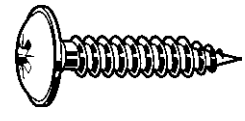


Dados técnicos

d	d_c	k	Nr. fenda
3.5	8	1.4	2
4	9	1.7	2
4.5	10	1.9	2
5	11.5	2.1	2

29570 **Parafuso autorroscante cabeça redonda larga Pozidriv** **K04A**

Material Aço
Tratamento sup. Zincado

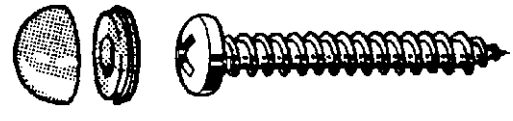


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3,5X17MM	200	29570.035.017				4,5X40MM	200	29570.045.040
3,5X20MM	200	29570.035.020	4X30MM	200	29570.040.030	4,5X45MM	200	29570.045.045
3,5X25MM	200	29570.035.025	4X35MM	200	29570.040.035			
3,5X30MM	200	29570.035.030	4X40MM	200	29570.040.040	5X40MM	100	29570.050.040
3,5X35MM	200	29570.035.035				5X60MM	100	29570.050.060

- Heco-fix plus parafusos rosca para aglomerado.
- Dependendo da disponibilidade as medidas podem variar.

6

Parafuso para matrículas Phillips

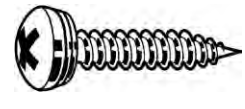


Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.		Código	Página
ST	Phillips	Aço	Zn		72008	6-107
ST	Phillips	Aço	Zn	com tampa	72005	6-108
ST	Pozidriv	Aço	FLZNNC-NC6	auto perfurante	72022	6-108

72008 **Parafuso autorroscante cabeça queijo Phillips** **Y92D**

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST4,8X16MM	100	72008.048.016	ST4,8X25MM	100	72008.048.025	ST4,8X32MM	100	72008.048.032
ST4,8X19MM	100	72008.048.020						

72005	Parafuso autorroscante cabeça queijo Phillips com tampa plástica	Y92D

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
4,8X13 BRANCO	100	72005.048.013	4,8X19 AMARELO	100	72005.048.019

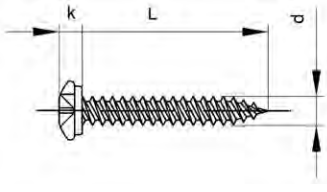
72022	Parafuso autoperfurante para matrículas Pozidriv (Z)	Y92A

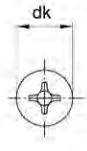
Rosca Autorroscante
Material Aço
Tratamento sup. Camada de zinco isento Cr^{6+}- ISO 10683 flZnnc

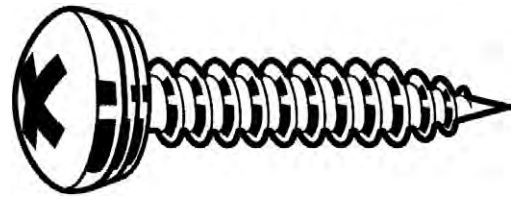


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
5,0X16MM	100	72022.050.016	5,0X19MM	100	72022.050.019	5,0X25MM	100	72022.050.025

Parafuso autorroscante cabeça redonda Phillips





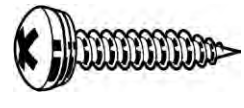


Dados técnicos

d	d_k	k	Nr. fenda
3.9	7.8	1.9	2

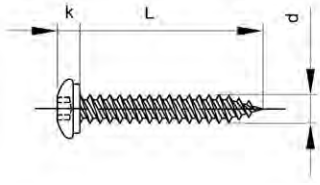
51652	Parafuso autorroscante cabeça redonda Phillips	R03A

Rosca Autorroscante
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,9X9,5MM*	1000	51652.039.009	ST3,9X19MM*	1000	51652.039.019	ST3,9X32MM*	1000	51652.039.032
ST3,9X13MM*	1000	51652.039.013	ST3,9X22MM*	1000	51652.039.022	ST3,9X38MM*	1000	51652.039.038
ST3,9X16MM*	1000	51652.039.016	ST3,9X25MM*	1000	51652.039.025			

Parafuso autorroscante para matrículas cabeça redonda







Dados técnicos

d	Chave caixa	d_k	k
3.9	T15	7.8	1.9

51653 **Parafuso autorroscante para matrículas cabeça redonda Torx** **R03A**

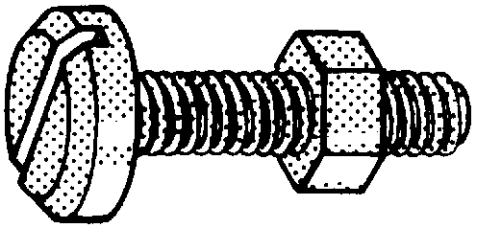
Rosca Autorroscante
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,9X13MM*	1000	51653.039.013	ST3,9X22MM*	1000	51653.039.022	ST3,9X32MM*	1000	51653.039.032
ST3,9X16MM*	1000	51653.039.016	ST3,9X25MM*	1000	51653.039.025	ST3,9X38MM*	1000	51653.039.038
ST3,9X19MM*	1000	51653.039.019						

6

Parafuso de fenda para matriculas

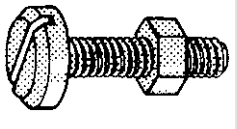


Grupos de produtos

Rosca	Encaixe	Material	Cor	Código	Página
M	Fenda	Plástico Nylon	Amarelo	72000	6-109
M	Fenda	Plástico Nylon	Preto	72002	6-109

72000 **Parafuso de fenda para matriculas** **Y92D**

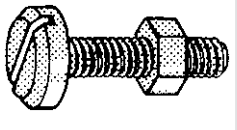
Rosca Métrica
Material Plástico Nylon (poliamida)
Cor Amarelo



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X16	100	72000.060.016	M6X25	100	72000.060.025

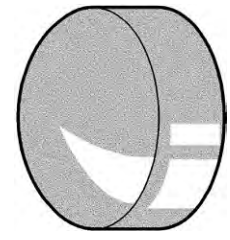
72002 **Parafuso de fenda para matriculas** **Y92D**

Rosca Métrica
Material Plástico Nylon (poliamida)
Cor Preto



d x L	✉	Ref. do artigo
M6X16	100	72002.060.016

Tampa para matricula (Snap)

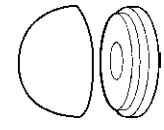


Grupos de produtos

Material		Código	Página
Plástico Nylon		72011	6-110
Plástico Nylon	para Phillips	72018	6-110

72011 Tampa para matricula (Snap) Y92D

Material Plástico Nylon (poliamida)



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
TAMPA AMARELO M5	100	72011.050.001	TAMPA PRETO M5	100	72011.050.002

- Para parafusos.

72018 Tampa para matricula (Snap) Y92D

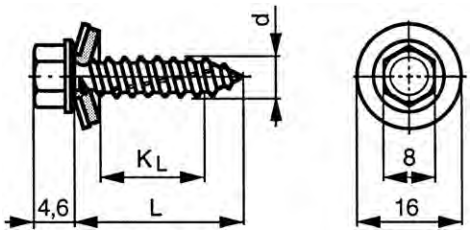
Material Plástico Nylon (poliamida)

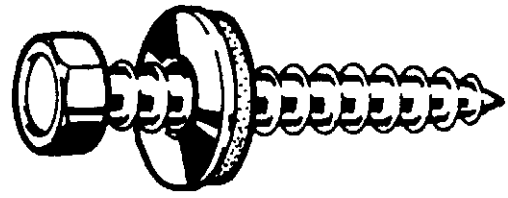


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
AZUL	100	72018.000.002	BRANCO	100	72018.000.011	PRETO	100	72018.000.012
AMARELO	100	72018.000.004						

- Para parafusos (grupos 72008/72022/51652/51653).

Parafuso para cobertura cabeça sextavada com anilha





- Os parafusos de cobertura em aço Inox são zincados.

Dados montagem

Espessura do material		0,63-1,1	1,25-1,5	2,0-3,0	3,0-3,9	4,0-4,9	5,0-5,9	6,1-10,0	>10,0
Recomendado parafuso de cobertura		Tipo A			Tipo B				
MATERIAL		TAMANHO FURO							
Parafuso cobertura	Construção								
Inox	Aço e Alumi.	4,0	4,5	5,0	5,05	5,35	5,65	5,8	5,85
Aluminio	Aluminio	4,0-4,5			--				
Aluminio	Madeira	4,0			--				
Gama de aperto KL em aço e alumi.		L-12			L-10				
Comprimento parafuso em madeira L		Min. 30 mm			--				

6

Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.		Código	Página
ST	Sextavado	INOX A2	Zn	Embalagem grande	31710	6-111
ST	Sextavado	INOX A2	Zn	A	31711	6-111
ST	Sextavado	INOX A2	Zn	B	31720	6-112
ST	Sextavado	Aço	Zn	A	31705	6-112

31710 SFS-TOPFORM Parafuso para cobertura tipo A — J07A

Rosca Autorroscante
Material Aço inoxidável A2
Tratamento sup. Zincado

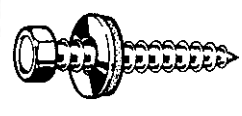


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
6,5X19MM	500	31710.065.019	6,5X51MM	100	31710.065.050	6,5X115MM	100	31710.065.115
6,5X25MM	500	31710.065.025	6,5X64MM	100	31710.065.064	6,5X127MM	100	31710.065.130
6,5X32MM	500	31710.065.032	6,5X76MM	100	31710.065.075	6,5X152MM	50	31710.065.150
6,5X38MM	250	31710.065.038	6,5X90MM	100	31710.065.090	6,5X178MM	50	31710.065.175
6,5X45MM	100	31710.065.045	6,5X100MM	100	31710.065.100			

- Aplicável em fixação de, por exemplo, vigas finas de aço até 3 mm espessura (resistência 370 N/mm^2), em aluminio ou madeira.

31711 SFS-TOPFORM Parafuso para cobertura tipo A — J07A

Rosca Autorroscante
Material Aço inoxidável A2
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
6,5X19MM	100	31711.065.019	6,5X32MM	100	31711.065.032	6,5X38MM	100	31711.065.038
6,5X25MM	100	31711.065.025						

- Aplicável em fixação de, por exemplo, vigas finas de aço até 3 mm espessura (resistência 370 N/mm^2), em aluminio ou madeira.

31720	SFS-TOPFORM Parafuso de tecto sem ponta tipo B	J07A

Rosca Autorroscante
Material Aço inoxidável A2
Tratamento sup. Zincado

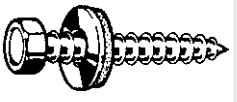


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
6,3X19MM	500	31720.063.019	6,3X25MM	500	31720.063.025

- Os parafusos para coberturas em aço inox são fornecidos em zincado.

31705	Parafuso para cobertura cabeça sextavada com anilha tipo A	J07A

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

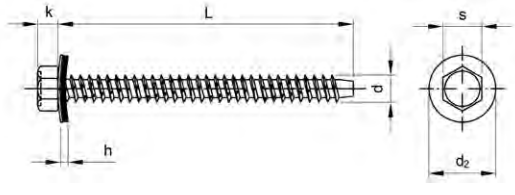


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
6,5X19MM	100	31705.065.019	6,5X50MM	100	31705.065.050	6,5X115MM	100	31705.065.115
6,5X25MM	100	31705.065.025	6,5X64MM	100	31705.065.064	6,5X130MM	100	31705.065.130
6,5X32MM	100	31705.065.032	6,5X75MM	100	31705.065.075	6,5X150MM	50	31705.065.150
6,5X38MM	100	31705.065.038	6,5X90MM	100	31705.065.090			

- Aplicável em fixação de, por exemplo, vigas finas de aço até 3 mm espessura (resistência 370 N/mm^2), em aluminio ou madeira.

6

Parafuso para cobertura ponta em cone com anilha de 16 mm





Dados técnicos

d	d_2	h	k	s
6.3	16	3	4.6	3/8
6.5	16	3	4.6	3/8

Grupos de produtos

Rosca	Encaixe	Material		Código	Página
ST	Sextavado	INOX A2	flat point	51891	6-112
ST	Sextavado	INOX A2	cone point	51892	6-113

51891	Parafuso para cobertura ponta em cone com anilha de 16 mm	R03A

Rosca Autorroscante
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
6,3X16MM*	500	51891.063.016	6,3X64MM*	100	51891.063.064	6,3X150MM*	100	51891.063.150
6,3X19MM*	500	51891.063.019	6,3X75MM*	100	51891.063.075	6,3X175MM*	100	51891.063.175
6,3X25MM*	200	51891.063.025	6,3X90MM*	100	51891.063.090	6,3X200MM*	100	51891.063.200
6,3X32MM*	200	51891.063.032	6,3X100MM*	100	51891.063.100	6,3X220MM*	100	51891.063.220
6,3X38MM*	200	51891.063.038	6,3X115MM*	100	51891.063.115	6,3X240MM*	100	51891.063.240
6,3X45MM*	200	51891.063.045	6,3X130MM*	100	51891.063.130	6,3X260MM*	100	51891.063.260
6,3X50MM*	200	51891.063.050						

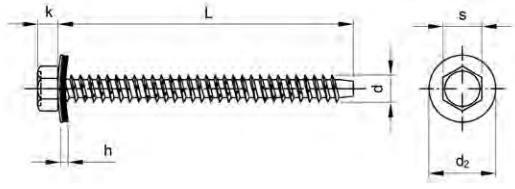
51892 **Parafuso para cobertura ponta em cone com anilha de 16 mm** **R03A**

Rosca Autorroscante
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
6,5X13MM*	500	51892.065.013	6,5X50MM*	200	51892.065.050	6,5X130MM*	100	51892.065.130
6,5X16MM*	500	51892.065.016	6,5X55MM*	200	51892.065.055	6,5X150MM*	100	51892.065.150
6,5X19MM*	500	51892.065.019	6,5X60MM*	200	51892.065.060	6,5X175MM*	100	51892.065.175
6,5X25MM*	200	51892.065.025	6,5X64MM*	100	51892.065.064	6,5X200MM*	100	51892.065.200
6,5X32MM*	200	51892.065.032	6,5X75MM*	100	51892.065.075	6,5X220MM*	100	51892.065.220
6,5X38MM*	200	51892.065.038	6,5X90MM*	100	51892.065.090	6,5X240MM*	100	51892.065.240
6,5X40MM*	200	51892.065.040	6,5X100MM*	100	51892.065.100	6,5X260MM*	100	51892.065.260
6,5X45MM*	200	51892.065.045	6,5X115MM*	100	51892.065.115			

Parafuso para cobertura sem ponta com anilha de 19mm





6

Dados técnicos

d	d_2	h	k	s
6.3	19	3	4.6	3/8
6.5	19	3	4.6	3/8

Grupos de produtos

Rosca	Encaixe	Material		Código	Página
ST	Sextavado	INOX A2	flat point	51893	6-113
ST	Sextavado	INOX A2	cone point	51894	6-113

51893 **Parafuso para cobertura sem ponta com anilha de 19mm** **R03A**

Rosca Autorroscante
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
6,3X16MM*	500	51893.063.016	6,3X64MM*	100	51893.063.064	6,3X150MM*	100	51893.063.150
6,3X19MM*	500	51893.063.019	6,3X75MM*	100	51893.063.075	6,3X175MM*	100	51893.063.175
6,3X25MM*	200	51893.063.025	6,3X90MM*	100	51893.063.090	6,3X200MM*	100	51893.063.200
6,3X32MM*	200	51893.063.032	6,3X100MM*	100	51893.063.100	6,3X220MM*	100	51893.063.220
6,3X38MM*	200	51893.063.038	6,3X115MM*	100	51893.063.115	6,3X240MM*	100	51893.063.240
6,3X45MM*	200	51893.063.045	6,3X130MM*	100	51893.063.130	6,3X260MM*	100	51893.063.260
6,3X50MM*	200	51893.063.050						

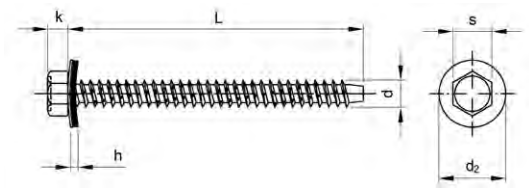
51894 **Parafuso para cobertura com ponta, com anilha de 19mm** **R03A**

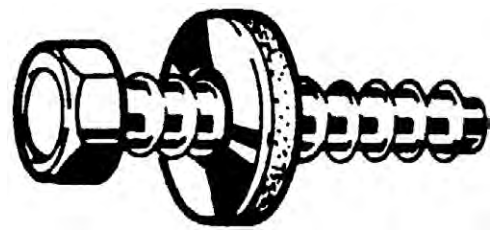
Rosca Autorroscante
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
6,5X16MM*	500	51894.065.016	6,5X64MM*	100	51894.065.064	6,5X165MM*	100	51894.065.165
6,5X19MM*	500	51894.065.019	6,5X75MM*	100	51894.065.075	6,5X175MM*	100	51894.065.175
6,5X25MM*	200	51894.065.025	6,5X90MM*	100	51894.065.090	6,5X200MM*	100	51894.065.200
6,5X32MM*	200	51894.065.032	6,5X100MM*	100	51894.065.100	6,5X220MM*	100	51894.065.220
6,5X38MM*	200	51894.065.038	6,5X115MM*	100	51894.065.115	6,5X240MM*	100	51894.065.240
6,5X45MM*	200	51894.065.045	6,5X130MM*	100	51894.065.130	6,5X260MM*	100	51894.065.260
6,5X50MM*	200	51894.065.050	6,5X150MM*	100	51894.065.150			

Parafuso para cobertura com anilha de 22mm





Dados técnicos

d	d_2	h	k	s
6.3	22	3	4.6	3/8
6.5	22	3	4.6	3/8

Grupos de produtos

Rosca	Encaixe	Material		Código	Página
ST	Sextavado	INOX A2	flat point	51777	6-114
ST	Sextavado	INOX A2	cone point	51771	6-114

51777 **Parafuso para cobertura sem ponta, com anilha de 22mm** **R03A**

Rosca Autorroscante
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
6,3X16MM*	500	51777.063.016	6,3X64MM*	100	51777.063.064	6,3X150MM*	100	51777.063.150
6,3X19MM*	500	51777.063.019	6,3X75MM*	100	51777.063.075	6,3X175MM*	100	51777.063.175
6,3X25MM*	200	51777.063.025	6,3X90MM*	100	51777.063.090	6,3X200MM*	100	51777.063.200
6,3X32MM*	200	51777.063.032	6,3X100MM*	100	51777.063.100	6,3X220MM*	100	51777.063.220
6,3X38MM*	200	51777.063.038	6,3X115MM*	100	51777.063.115	6,3X240MM*	100	51777.063.240
6,3X45MM*	200	51777.063.045	6,3X130MM*	100	51777.063.130	6,3X260MM*	100	51777.063.260
6,3X50MM*	200	51777.063.050						

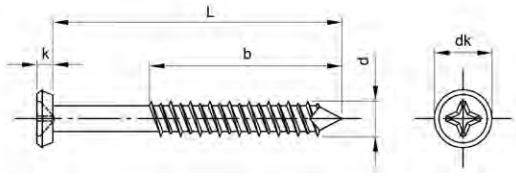
51771 **Parafuso para cobertura com ponta, com anilha de 22mm** **R03A**

Rosca Autorroscante
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
6,5X16MM*	500	51771.065.016	6,5X64MM*	100	51771.065.064	6,5X150MM*	100	51771.065.150
6,5X19MM*	500	51771.065.019	6,5X75MM*	100	51771.065.075	6,5X175MM*	100	51771.065.175
6,5X25MM*	200	51771.065.025	6,5X90MM*	100	51771.065.090	6,5X200MM*	100	51771.065.200
6,5X32MM*	200	51771.065.032	6,5X100MM*	100	51771.065.100	6,5X220MM*	100	51771.065.220
6,5X38MM*	200	51771.065.038	6,5X115MM*	100	51771.065.115	6,5X240MM*	100	51771.065.240
6,5X45MM*	200	51771.065.045	6,5X130MM*	100	51771.065.130	6,5X260MM*	100	51771.065.260
6,5X50MM*	200	51771.065.050						

Parafuso revestimento/Hi-Lo thd/center Pnt





Dados técnicos

d	d_k	k
5.5	9.2	3

51799 **Parafuso revestimento/Hi-Lo thd/center Pnt** **R03A**

Rosca Autorroscante
Material Aço inoxidável A2
Classe 50

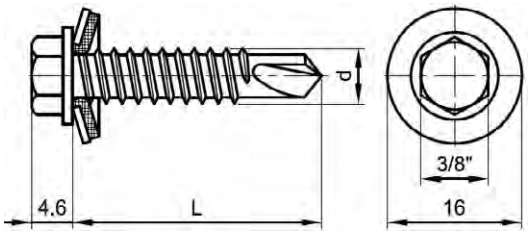


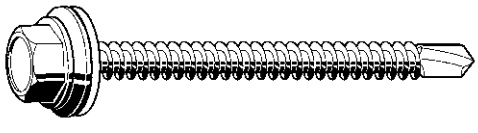
RoHS

d x L x b	✉	Ref. do artigo	d x L x b	✉	Ref. do artigo	d x L x b	✉	Ref. do artigo
ST5,5X25MM*	100	51799.055.025	ST5,5X45MM*	100	51799.055.045	ST5,5X55MM*	100	51799.055.055
ST5,5X35MM*	100	51799.055.035						

6

Parafuso para cobertura cabeça sextavada com anilha e ponta de broca





31702 **Parafuso para cobertura cabeça sextavada com anilha e ponta de broca** **J07A**

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

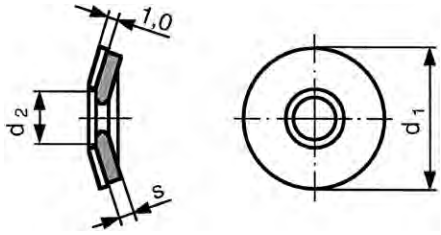


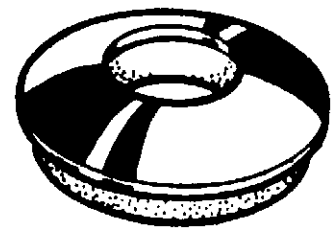
RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
6,3X19MM	250	31702.063.019	6,3X38MM	250	31702.063.038	6,3X60MM	100	31702.063.060
6,3X25MM	250	31702.063.025	6,3X50MM	100	31702.063.050	6,3X75MM	100	31702.063.075
6,3X32MM	200	31702.063.032						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Anilha de vedação





Dados técnicos

d_1	d_2	s	d_1	d_2	s
16	6.7	2	22	6.7	3
19	6.7	3	29	6.7	3

Dados montagem

Espessura do material		0,63-1,1	1,25-1,5	2,0-3,0	3,0-3,9	4,0-4,9	5,0-5,9	6,1-10,0	>10,0
Recomendado parafuso de cobertura		**Tipo A**			**Tipo B**				
MATERIAL		**TAMANHO FURO**							
Parafuso cobertura	Construção								
Inox	Aço e Alumi.	4,0	4,5	5,0	5,05	5,35	5,65	5,8	5,85
Aluminio	Aluminio	4,0-4,5			--				
Aluminio	Madeira	4,0			--				
Gama de aperto KL em aço e alumi.		L-12			L-10				
Comprimento parafuso em madeira L		Min. 30 mm			--				

6

Grupos de produtos

Material		Código	Página
INOX A2		31781	6-116
INOX A2	Embalagem grande	31780	6-116

31781 **Anilha de vedação** **J07A**

Material Aço inoxidável A2



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
16MM	100	31781.160.001	19MM	100	31781.190.001	22MM	100	31781.220.001

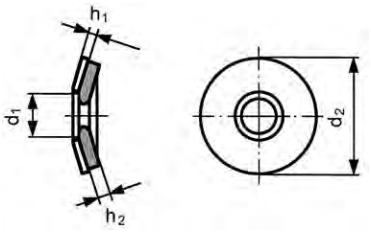
31780 **Anilha de vedação** **J07A**

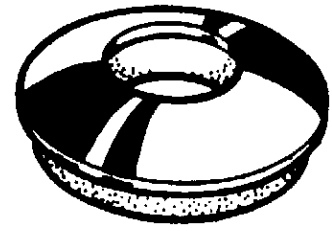
Material Aço inoxidável A2



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
16MM	500	31780.160.001	22MM	500	31780.220.001	29MM	100	31780.290.001
19MM	500	31780.190.001						

Anilha de vedação cinza EPDM





Dados técnicos

d_1	h_1	h_2
4.8	1	2
5.3	1	2
6.2	1	2
6.7	1	2
8.4	1	2
10.5	1	2
13	1	2

51422 Anilha de vedação cinza EPDM **R05A**

Material Aço inoxidável A2



d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
4,8X12MM*	1000	51422.048.012				8,4X22MM*	1000	51422.084.022
4,8X14MM*	1000	51422.048.014	6,7X16MM*	1000	51422.067.016	8,4X25MM*	1000	51422.084.025
			6,7X19MM*	1000	51422.067.019	8,4X29MM*	500	51422.084.029
5,3X12MM*	1000	51422.053.012	6,7X22MM*	1000	51422.067.022			
5,3X14MM*	1000	51422.053.014	6,7X25MM*	1000	51422.067.025	10,5X25MM*	1000	51422.105.025
5,3X16MM*	1000	51422.053.016	6,7X29MM*	500	51422.067.029	10,5X29MM*	500	51422.105.029
5,3X19MM*	1000	51422.053.019						
			8,4X16MM*	1000	51422.084.016	13,0X29MM*	500	51422.130.029
6,2X16MM*	1000	51422.062.016	8,4X19MM*	1000	51422.084.019			

Parafusos auto perfurantes MaxxFast

Elevada performance
O programa de parafusos auto perfurantes MaxxFast é constituido por produtos de elevada qualidade. Graças aos parafusos auto perfurantes MaxxFast, é possivel fazer uma fixação fiável em apenas uma operação. Com um só passo, é feito o furo correcto, a rosca é formada e os elementos fixados. Não é necessário fazer furo ou rosca previamente.

Artigos de fixação de elevada qualidade!
A broca integrada no parafuso, permite uma redução de custos substancial. Também previne erros no posicionamento das peças de trabalho. Durante o processo de fixação, o tempo de preparação e manuseamento da peça, assim como o da mudança de ferramenta, são eliminados.

Esta redução de tempo é mais notória em trabalhos com peças de maior dimensão. Cada parafuso faz o seu próprio furo e previne desperdicio de tempo, em comparação com a utilização de brocas. A utilização da broca correta está garantida, eliminado a possibilidade de erros. A utilização de parafusos auto perfurantes, previne falhas de fixação e, em geral, reduz os custos extra de inspeções.

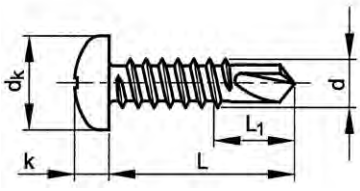
Economizando tempo e equipamento!
Montagem mais fácil e rápida. Casos estudo de montagens mostram que em alguns casos a redução de tempo na fixação pode ser reduzida mais de 50%. Não existem custos adicionais de investimento em equipamento especifico.

Os parafusos auto perfurantes MaxxFast estão disponiveis em 3 materiais diferentes:
- Aço zincado
- Aço inox
- Bi metal com tratamento de superficie Ruspert 500

Os parafusos auto perfurantes da MaxxFast estão disponiveis nos encaixes mais comuns: Phillips, Quadrado, Sextavado para aplicações em serie com ferramentas eléctricas. Existem também, no inovador encaixe ttap®.

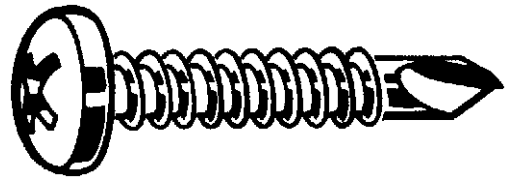


Parafuso autoperfurante cabeça cilíndrica Phillips





PHILLIPS (H) **DIN** **≈7504 M-H**
ISO ≈15481 H



Dados técnicos

d	d_k	k	L_1	Nr. fenda
ST2.9	5.30 - 5.60	1.95 - 2.20	4	1
ST3.5	6.54 - 6.90	2.35 - 2.60	4	2
ST3.9	7.14 - 7.50	2.55 - 2.80	4.5	2
ST4.2	7.84 - 8.20	2.75 - 3.05	5	2
ST4.8	9.14 - 9.50	3.25 - 3.55	6.5	2
ST5.5	10.37 - 10.80	3.65 - 3.95	8	3

30320 **MAXXFAST Parafuso autoperfurante cabeça de cilíndrica Phillips** **MF1A**

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

MAXXFAST PROFESSIONAL HARDWARE

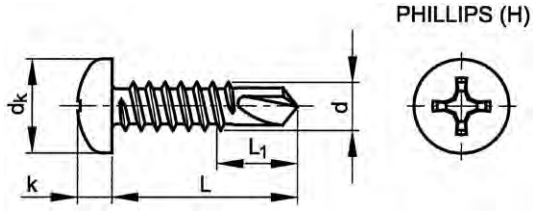
RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X9,5MM	200	30320.029.009	ST3,9X25MM	200	30320.039.025	ST4,8X25MM	200	30320.048.025
ST2,9X13MM	200	30320.029.013	ST3,9X32MM	200	30320.039.032	ST4,8X32MM	200	30320.048.032
						ST4,8X38MM	200	30320.048.038
ST3,5X9,5MM	200	30320.035.009	ST4,2X13MM	200	30320.042.013	ST4,8X45MM	200	30320.048.045
ST3,5X13MM	200	30320.035.013	ST4,2X16MM	200	30320.042.016	ST4,8X50MM	200	30320.048.050
ST3,5X16MM	200	30320.035.016	ST4,2X19MM	200	30320.042.019			
ST3,5X19MM	200	30320.035.019	ST4,2X22MM	200	30320.042.022	ST5,5X19MM	200	30320.055.019
ST3,5X22MM	200	30320.035.022	ST4,2X25MM	200	30320.042.025	ST5,5X22MM	200	30320.055.022
ST3,5X25MM	200	30320.035.025	ST4,2X32MM	200	30320.042.032	ST5,5X25MM	200	30320.055.025
						ST5,5X32MM	200	30320.055.032
ST3,9X13MM	200	30320.039.013	ST4,8X13MM	200	30320.048.013	ST5,5X38MM	200	30320.055.038
ST3,9X16MM	200	30320.039.016	ST4,8X16MM	200	30320.048.016	ST5,5X45MM	200	30320.055.045
ST3,9X19MM	200	30320.039.019	ST4,8X19MM	200	30320.048.019	ST5,5X50MM	200	30320.055.050
ST3,9X22MM	200	30320.039.022	ST4,8X22MM	200	30320.048.022			

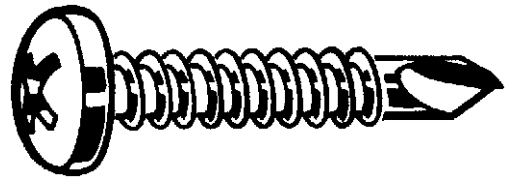
- Só embalagens completas.

Parafuso autoperfurante cabeça de queijo Phillips



PHILLIPS (H)

DIN **≈7504 M-H**
ISO ≈15481 H



Dados técnicos

d	d_k	k	L_1	Nr. fenda
ST2.9	5.30 - 5.60	2.15 - 2.40	4	1
ST3.5	6.64 - 7.00	2.35 - 2.60	4	2
ST3.9	7.14 - 7.50	2.55 - 2.80	4.5	2
ST4.2	7.64 - 8.00	2.80 - 3.10	4.5	2
ST4.8	9.14 - 9.50	3.40 - 3.70	6.5	2
ST5.5	10.57 -11.00	3.70 - 4.00	8	3

Grupos de produtos

Rosca	Encaixe	Material	Código	Página
ST	Phillips	INOX A2	30325	6-120
ST	Phillips	Bi-Metal	30330	6-120

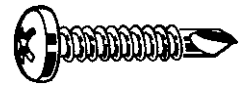
6

30325 MaxxFast Parafuso autoperfurante cabeça de queijo Phillips — MF1A

Rosca Autorroscante
Material Aço inoxidável A2

MAXXFAST PROFESSIONAL HARDWARE

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X9,5MM	200	30325.029.009	ST3,9X25MM	200	30325.039.025	ST4,8X25MM	200	30325.048.025
ST2,9X13MM	200	30325.029.013	ST3,9X32MM	200	30325.039.032	ST4,8X32MM	200	30325.048.032
						ST4,8X38MM	200	30325.048.038
ST3,5X9,5MM	200	30325.035.009	ST4,2X13MM	200	30325.042.013	ST4,8X45MM	200	30325.048.045
ST3,5X13MM	200	30325.035.013	ST4,2X16MM	200	30325.042.016	ST4,8X50MM	200	30325.048.050
ST3,5X16MM	200	30325.035.016	ST4,2X19MM	200	30325.042.019			
ST3,5X19MM	200	30325.035.019	ST4,2X22MM	200	30325.042.022	ST5,5X19MM	200	30325.055.019
ST3,5X22MM	200	30325.035.022	ST4,2X25MM	200	30325.042.025	ST5,5X22MM	200	30325.055.022
ST3,5X25MM	200	30325.035.025	ST4,2X32MM	200	30325.042.032	ST5,5X25MM	200	30325.055.025
						ST5,5X32MM	200	30325.055.032
ST3,9X13MM	200	30325.039.013	ST4,8X13MM	200	30325.048.013	ST5,5X38MM	200	30325.055.038
ST3,9X16MM	200	30325.039.016	ST4,8X16MM	200	30325.048.016	ST5,5X45MM	200	30325.055.045
ST3,9X19MM	200	30325.039.019	ST4,8X19MM	200	30325.048.019	ST5,5X50MM	200	30325.055.050
ST3,9X22MM	200	30325.039.022	ST4,8X22MM	200	30325.048.022			

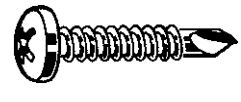
- Só embalagens completas.

30330 MAXXFAST Parafuso autoperfurante cabeça de queijo Phillips — MF1A

Rosca Autorroscante
Material Bi-Metal

MAXXFAST PROFESSIONAL HARDWARE

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X16MM	200	30330.035.016	ST4,2X16MM	200	30330.042.016	ST4,8X38MM	200	30330.048.038
ST3,5X19MM	200	30330.035.019	ST4,2X19MM	200	30330.042.019	ST4,8X45MM	200	30330.048.045
ST3,5X22MM	200	30330.035.022	ST4,2X22MM	200	30330.042.022	ST4,8X50MM	200	30330.048.050
ST3,5X25MM	200	30330.035.025	ST4,2X25MM	200	30330.042.025			
			ST4,2X32MM	200	30330.042.032	ST5,5X19MM	200	30330.055.019
ST3,9X16MM	200	30330.039.016				ST5,5X22MM	200	30330.055.022
ST3,9X19MM	200	30330.039.019	ST4,8X16MM	200	30330.048.016	ST5,5X25MM	200	30330.055.025
ST3,9X22MM	200	30330.039.022	ST4,8X19MM	200	30330.048.019	ST5,5X32MM	200	30330.055.032
ST3,9X25MM	200	30330.039.025	ST4,8X22MM	200	30330.048.022	ST5,5X38MM	200	30330.055.038
ST3,9X32MM	200	30330.039.032	ST4,8X25MM	200	30330.048.025	ST5,5X45MM	200	30330.055.045
			ST4,8X32MM	200	30330.048.032	ST5,5X50MM	200	30330.055.050

- Só embalagens completas.

Parafusos Auto perfurantes Fabory-Spedec

Encaixe
A gama Fabory-Spedec, parafusos autoperfurantes é fornecida com rosca autoperfurantes e encaixe Phillips, hexalobular ou SR. A fixação é feita numa única aplicação sem necessidade de pré furo ou rosca.

Standards
Os dimensões e formas de cabeça dos parafusos autoperfurante Fabory-Spedec estão de acordo com as normas DIN dos parafusos standard.

Material
Os parafusos Fabory-Spedec são feitos de aço endurecido (min. 560 HV 0.3), com o núcleo (270-425 HV 0.3). Os Fabory-Spedec cumprem com as medidas, requisitos e testes de acordo com o DIN 7504.

Roscas
Os parafusos autoperfurantes Fabory-Spedec (designação ST) estão de acordo com o DIN7970. Têm rosca total para uma melhor fixação da peça.

Sistema
Todos os parafusos autoperfurantes Fabory-Spedec fazem o furo com a sua broca integrada. Assim mais rápido e sem necessidade de alinhamento e posicionamento das partes.

Aplicação
Os parafusos autoperfurantes Fabory-Spedec aço inox A2 só podem ser usados em ligas de alumínio dureza Brinell até 75 HB, os parafusos em alumínio só podem ser utilizados em plásticos e ligas de alumínio

Guia de valores para parafusos autoperfurantes Fabory-Spedec tipo SN

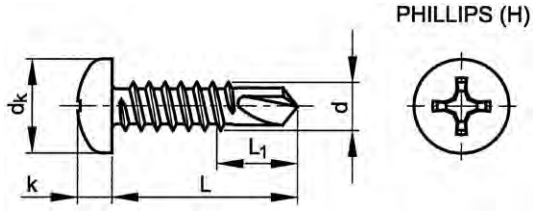
d		ST2,9	ST3,5	ST3,9	ST4,2	ST4,8	ST5,5	ST6,3
Força de tensão min. em N		4400	6300	8000	8300	12000	14000	21000
Resistência ao corte min. em N		2100	3700	3600	4100	6800	9000	13300
Torque de rutura Nm		2	3,7	4,5	5,1	9,2	14,5	23
Capacidade de furo em aço (St 37/52) incl. Espaço de intervenção	(min.)	0,5	1	1	1,75	2,75	2,75	2,75
	(max.)	2	2	2,5	3,5/3	5/4	6	6
Máquina de perfuração (descarregada)	r.p.m.	3500	3500	3500	3500	3500	2900	2900
	output watt	340-400	340-400	340-400	340-400	340-400	400-700	400-700
Tempo de furo médio em St 37	approx. sec.	3,5	4	5,7	4,1	3,6	6,9	13

Tipos de encaixe
Parafusos com vários tipos de encaixe , por exemplo fenda Phillips, Pozidriv hexalobular e SR. Os primeiros cinco tipos têm uma desvantagem geral, desvio dimensional do encaixe e da ferramenta resultam numa folga excessiva entre encaixe e ferramenta, resultante em instabilidade quando se aplica o parafuso. Esta folga pode ser um problema também, na desmontagem, numa localização difícil.

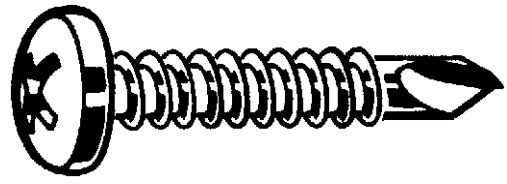
Encaixe SR
O encaixe SR foi desenvolvido para eliminar o problema de folga excessiva. O encaixe SR é uma combinação de encaixe quadrado com fenda cruzada. O encaixe cónico permite que o SR encaixe diretamente na ferramenta SR. O parafuso , permanece firmemente firme á ferramenta. A ligação excelente assegura que o desgaste do encaixe e da ferramenta (ponteira) seja reduzido. A duração da ponteira SR é o dobro

E ainda mais…
Nesta seção encontra uma extensa variedade de parafusos em aço, aço inoxidável e também Bi-Metal MaxxFast. Principalmente TTAP, mas também hexagonal, Pozidriv e encaixe quadrado.

MAXXFAST Parafuso autoperfurante cabeça de queijo Phillips



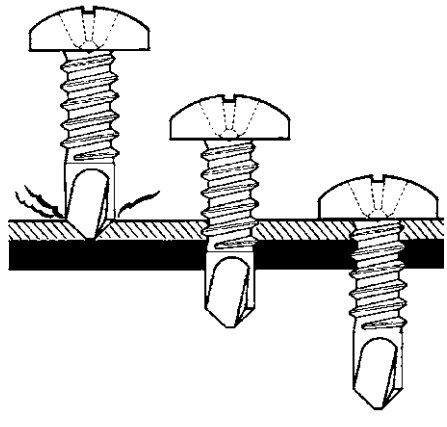
PHILLIPS (H) **DIN** **7504 M-H**
ISO 15481 H



Dados técnicos

d	d_k	k	L_1 ≈	Nr. fenda	P
ST2.9	5.6	2.2	4.5	1	1.1
ST3.5	6.9	2.6	5	2	1.3
ST3.9	7.5	2.8	6	2	1.4
ST4.2	8.2	3.05	7	2	1.4
ST4.8	9.5	3.55	8	2	1.6

- Comprimento max. de aperto KL = L - L_1.



6

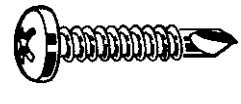
Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.		Código	Página
ST	Phillips	Aço	Zn		31255	6-122
ST	Phillips	Aço	Zn	Embalagem grande	31250	6-123
ST	Phillips	INOX A2			31120	6-123
ST	Phillips	Aço	Zn		31825	6-123
ST	Phillips	Aço	Zn	Embalagem grande	31820	6-123
ST	Phillips	INOX A2			31870	6-124

31255 **SPEDEC SN Parafuso autoperfurante cabeça de queijo Phillips** **J09A**

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

RoHS

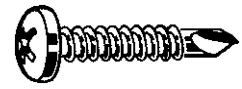


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X9,5MM	200	31255.035.009	ST3,9X16MM	200	31255.039.016	ST4,2X25MM	200	31255.042.025
ST3,5X13MM	200	31255.035.013	ST3,9X19MM	200	31255.039.019	ST4,2X32MM	200	31255.042.032
ST3,5X16MM	200	31255.035.016						
ST3,5X19MM	200	31255.035.019	ST4,2X13MM	200	31255.042.013	ST4,8X13MM	200	31255.048.013
ST3,5X25MM	200	31255.035.025	ST4,2X16MM	200	31255.042.016	ST4,8X16MM	200	31255.048.016
			ST4,2X19MM	200	31255.042.019	ST4,8X19MM	200	31255.048.019

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

31250 SPEDEC SN Parafuso autoperfurante cabeça de queijo Phillips J09A

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

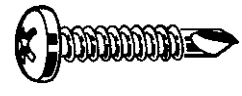


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X9,5MM	1000	31250.029.009	ST3,9X19MM	1000	31250.039.019			
			ST3,9X25MM	1000	31250.039.025	ST4,8X13MM	1000	31250.048.013
ST3,5X9,5MM	1000	31250.035.009	ST3,9X32MM	1000	31250.039.032	ST4,8X16MM	1000	31250.048.016
ST3,5X13MM	1000	31250.035.013				ST4,8X19MM	1000	31250.048.019
ST3,5X16MM	1000	31250.035.016	ST4,2X13MM	1000	31250.042.013	ST4,8X22MM	1000	31250.048.022
ST3,5X19MM	1000	31250.035.019	ST4,2X16MM	1000	31250.042.016	ST4,8X25MM	1000	31250.048.025
ST3,5X25MM	1000	31250.035.025	ST4,2X19MM	1000	31250.042.019	ST4,8X32MM	1000	31250.048.032
			ST4,2X22MM	1000	31250.042.022	ST4,8X38MM	500	31250.048.038
ST3,9X13MM	1000	31250.039.013	ST4,2X25MM	1000	31250.042.025	ST4,8X50MM	500	31250.048.050
ST3,9X16MM	1000	31250.039.016	ST4,2X32MM	1000	31250.042.032			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

31120 SPEDEC SN Parafuso autoperfurante cabeça de queijo Phillips J09A

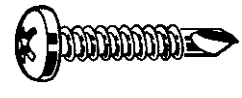
Rosca Autorroscante
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X13MM	1000	31120.029.013	ST3,9X16MM	1000	31120.039.016	ST4,2X25MM	1000	31120.042.025
			ST3,9X25MM	1000	31120.039.025			
ST3,5X9,5MM	1000	31120.035.009				ST4,8X16MM	1000	31120.048.016
ST3,5X13MM	1000	31120.035.013	ST4,2X13MM	1000	31120.042.013	ST4,8X22MM	1000	31120.048.022
ST3,5X19MM	1000	31120.035.019	ST4,2X16MM	1000	31120.042.016			
			ST4,2X19MM	1000	31120.042.019			

31825 SPEDEC SN Parafuso autoperfurante cabeça de queijo Phillips J09B

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X9,5MM	1000	31825.035.009	ST4,2X13MM	1000	31825.042.013	ST4,8X13MM	1000	31825.048.013
ST3,5X13MM	1000	31825.035.013	ST4,2X16MM	1000	31825.042.016	ST4,8X16MM	1000	31825.048.016
ST3,5X16MM	1000	31825.035.016	ST4,2X19MM	1000	31825.042.019	ST4,8X19MM	1000	31825.048.019
ST3,5X19MM	1000	31825.035.019	ST4,2X25MM	1000	31825.042.025	ST4,8X22MM	1000	31825.048.022
						ST4,8X25MM	1000	31825.048.025

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

31820 SPEDEC SN Parafuso autoperfurante cabeça de queijo Phillips J09B

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X9,5MM	2000	31820.035.009	ST3,9X25MM	2000	31820.039.025	ST4,2X38MM	2000	31820.042.038
ST3,5X13MM	2000	31820.035.013						
ST3,5X16MM	2000	31820.035.016	ST4,2X9,5MM	2000	31820.042.009	ST4,8X13MM	2000	31820.048.013
ST3,5X19MM	2000	31820.035.019	ST4,2X13MM	2000	31820.042.013	ST4,8X16MM	2000	31820.048.016
ST3,5X25MM	2000	31820.035.025	ST4,2X16MM	2000	31820.042.016	ST4,8X19MM	2000	31820.048.019
			ST4,2X19MM	2000	31820.042.019	ST4,8X25MM	2000	31820.048.025
ST3,9X16MM	2000	31820.039.016	ST4,2X25MM	2000	31820.042.025	ST4,8X32MM	1000	31820.048.032
ST3,9X19MM	2000	31820.039.019	ST4,2X32MM	2000	31820.042.032	ST4,8X50MM	1000	31820.048.050

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

31870	SPEDEC SN Parafuso autoperfurante cabeça de queijo Phillips	J09B

Rosca Autorroscante
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X9,5MM	2000	31870.035.009	ST3,9X25MM	2000	31870.039.025	ST4,2X25MM	2000	31870.042.025
ST3,5X13MM	2000	31870.035.013						
ST3,5X19MM	2000	31870.035.019	ST4,2X13MM	2000	31870.042.013	ST4,8X16MM	2000	31870.048.016
			ST4,2X16MM	2000	31870.042.016	ST4,8X22MM	2000	31870.048.022
ST3,9X16MM	2000	31870.039.016	ST4,2X19MM	2000	31870.042.019			

6

TTAP® drive

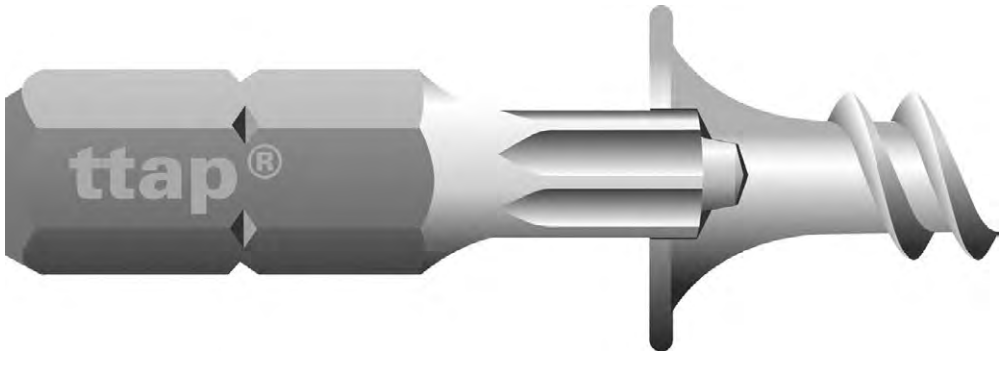
ttap® é um inovador sistema de encaixe hexalobular com distintas vantagens, comparado com o genérico hex-lob (Torx®). ttap® é um sistema desenhado para trabalhar em todo o tipo de aplicações, incluindo aplicações profissionais. O encaixe, permite o aperto com uma mão sem o uso de bit magnético. O ttap® permite montagens mais fáceis a custo mais baixo.

Fácil:
- Encaixe justo; encaixe da chave na fenda sem folgas,
- Não oscila; a chave não salta da fenda, não cai,
- Não necessita forçar; não é necessário força extra no final da aplicação,
- Montagens com uma só mão,
- Não é necessária ponteira magnética,
- Chave entra no encaixe do parafuso mais facilmente.

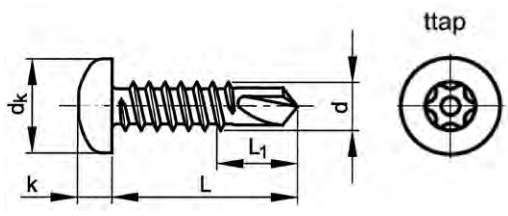
Eficiência de custos:
- Reduz o desgaste da ferramenta,
- Melhora a produtividade,
- Reduz o risco de danificar a protecção dos elementos a fixar,
- Maior eficiência no trabalho.

Hex-Lob (Torx®) Compativel
- TTAP® é um encaixe 100 % hexalobular, convertível – mas sem as suas desvantagens.
- Pode usar ponteiras Torx® em parafusos TTAP® , a mudança para TTAP® pode ser gradual

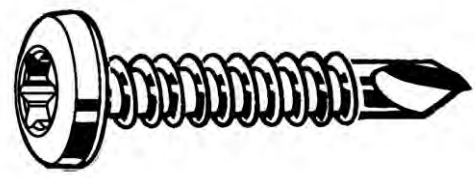
Beneficios para o utilizador:
- Não necessita forçar – não há necessidade de força extra
- Se comparar ttap® com Phillips ou Pozidriv, a maior vantagem é que não necessita de aplicar tanta força - ttap® reduz a fadiga



MAXXFAST Parafuso autoperfurante cabeça cilíndrica Ttap



DIN **≈7504 M**
ISO ≈15481



Dados técnicos

d	d_k	k	L_1	No. ttap
ST2.9	5.30 - 5.60	2.15 - 2.40	4	10
ST3.5	6.64 -7.00	2.35 - 2.60	4	15
ST3.9	7.14 -7.50	2.55 - 2.80	4.5	15
ST4.2	7.64 - 8.00	2.80 - 3.10	4.5	20
ST4.8	9.14 - 9.50	3.40 - 3.70	6.5	25
ST5.5	10.57 - 11.00	3.70 - 4.00	8	25

Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.	Código	Página
ST	ttap®	Aço	Zn	30380	6-126
ST	ttap®	INOX A2		30385	6-126

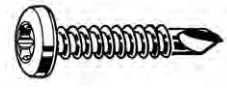
6

30380 MAXXFAST Parafuso autoperfurante cabeça cilíndrica com ttap® — MF1A

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

MAXXFAST PROFESSIONAL HARDWARE

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X9,5MM	200	30380.029.009	ST3,9X25MM	200	30380.039.025	ST4,8X25MM	200	30380.048.025
ST2,9X13MM	200	30380.029.013	ST3,9X32MM	200	30380.039.032	ST4,8X32MM	200	30380.048.032
						ST4,8X38MM	200	30380.048.038
ST3,5X9,5MM	200	30380.035.009	ST4,2X13MM	200	30380.042.013	ST4,8X45MM	200	30380.048.045
ST3,5X13MM	200	30380.035.013	ST4,2X16MM	200	30380.042.016	ST4,8X50MM	200	30380.048.050
ST3,5X16MM	200	30380.035.016	ST4,2X19MM	200	30380.042.019			
ST3,5X19MM	200	30380.035.019	ST4,2X22MM	200	30380.042.022	ST5,5X19MM	200	30380.055.019
ST3,5X22MM	200	30380.035.022	ST4,2X25MM	200	30380.042.025	ST5,5X22MM	200	30380.055.022
ST3,5X25MM	200	30380.035.025	ST4,2X32MM	200	30380.042.032	ST5,5X25MM	200	30380.055.025
						ST5,5X32MM	200	30380.055.032
ST3,9X13MM	200	30380.039.013	ST4,8X13MM	200	30380.048.013	ST5,5X38MM	200	30380.055.038
ST3,9X16MM	200	30380.039.016	ST4,8X16MM	200	30380.048.016	ST5,5X45MM	200	30380.055.045
ST3,9X19MM	200	30380.039.019	ST4,8X19MM	200	30380.048.019	ST5,5X50MM	200	30380.055.050
ST3,9X22MM	200	30380.039.022	ST4,8X22MM	200	30380.048.022			

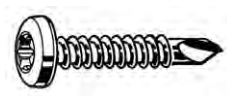
- Só embalagens completas.

30385 MAXXFAST Parafuso autoperfurante cabeça cilíndrica com ttap® — MF1A

Rosca Autorroscante
Material Aço inoxidável A2

MAXXFAST PROFESSIONAL HARDWARE

RoHS

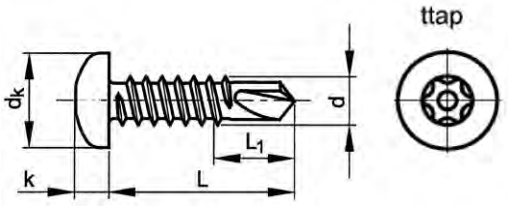


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X9,5MM	200	30385.029.009	ST3,9X25MM	200	30385.039.025	ST4,8X25MM	200	30385.048.025
ST2,9X13MM	200	30385.029.013	ST3,9X32MM	200	30385.039.032	ST4,8X32MM	200	30385.048.032
						ST4,8X38MM	200	30385.048.038
ST3,5X9,5MM	200	30385.035.009	ST4,2X13MM	200	30385.042.013	ST4,8X45MM	200	30385.048.045
ST3,5X13MM	200	30385.035.013	ST4,2X16MM	200	30385.042.016	ST4,8X50MM	200	30385.048.050
ST3,5X16MM	200	30385.035.016	ST4,2X19MM	200	30385.042.019			
ST3,5X19MM	200	30385.035.019	ST4,2X22MM	200	30385.042.022	ST5,5X19MM	200	30385.055.019
ST3,5X22MM	200	30385.035.022	ST4,2X25MM	200	30385.042.025	ST5,5X22MM	200	30385.055.022
ST3,5X25MM	200	30385.035.025	ST4,2X32MM	200	30385.042.032	ST5,5X25MM	200	30385.055.025
						ST5,5X32MM	200	30385.055.032
ST3,9X13MM	200	30385.039.013	ST4,8X13MM	200	30385.048.013	ST5,5X38MM	200	30385.055.038
ST3,9X16MM	200	30385.039.016	ST4,8X16MM	200	30385.048.016	ST5,5X45MM	200	30385.055.045
ST3,9X19MM	200	30385.039.019	ST4,8X19MM	200	30385.048.019	ST5,5X50MM	200	30385.055.050
ST3,9X22MM	200	30385.039.022	ST4,8X22MM	200	30385.048.022			

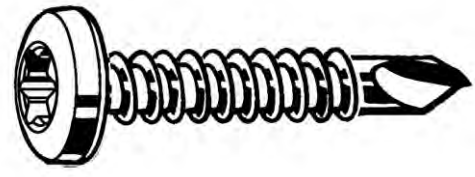
30385 MAXXFAST Parafuso autoperfurante cabeça cilíndrica com ttap® ←

- Só embalagens completas.

MAXXFAST Parafuso autoperfurante cabeça cilíndrica Ttap



DIN **≈7504 M**
ISO ≈15481



Dados técnicos

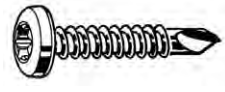
d	d_k	k	L_1	No. ttap
ST3.5	6.90 - 7.30	2.35	4	15
ST3.9	7.14 - 7.50	2.30	4.5	15
ST4.2	8.00 - 8.40	2.60	4.5	20
ST4.8	8.90 - 9.30	2.80	6.5	25
ST5.5	9.90 - 10.30	4.25	8	25

30390 MAXXFAST Parafuso autoperfurante cabeça cilíndrica com ttap® MF1A

Rosca Autorroscante
Material Bi-Metal

MAXXFAST PROFESSIONAL HARDWARE

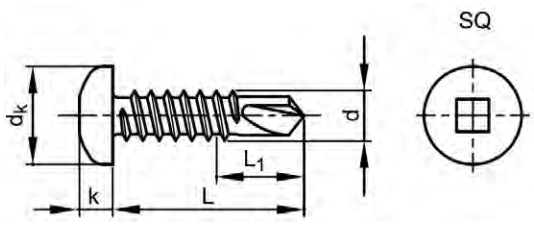
RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X16MM	200	30390.035.016	ST4,2X16MM	200	30390.042.016	ST4,8X38MM	200	30390.048.038
ST3,5X19MM	200	30390.035.019	ST4,2X19MM	200	30390.042.019	ST4,8X45MM	200	30390.048.045
ST3,5X22MM	200	30390.035.022	ST4,2X22MM	200	30390.042.022	ST4,8X50MM	200	30390.048.050
ST3,5X25MM	200	30390.035.025	ST4,2X25MM	200	30390.042.025			
			ST4,2X32MM	200	30390.042.032	ST5,5X19MM	200	30390.055.019
ST3,9X16MM	200	30390.039.016				ST5,5X22MM	200	30390.055.022
ST3,9X19MM	200	30390.039.019	ST4,8X16MM	200	30390.048.016	ST5,5X25MM	200	30390.055.025
ST3,9X22MM	200	30390.039.022	ST4,8X19MM	200	30390.048.019	ST5,5X32MM	200	30390.055.032
ST3,9X25MM	200	30390.039.025	ST4,8X22MM	200	30390.048.022	ST5,5X38MM	200	30390.055.038
ST3,9X32MM	200	30390.039.032	ST4,8X25MM	200	30390.048.025	ST5,5X45MM	200	30390.055.045
			ST4,8X32MM	200	30390.048.032	ST5,5X50MM	200	30390.055.050

- Só embalagens completas.

Parafuso autoperfurante cab. cilíndrica com encaixe quadrado



DIN **≈7504 M**
ISO ≈15481



Dados técnicos

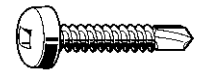
d	d_k	k	L_1	Nr. quadrado
ST3.5	6.64 - 7.00	2.35 - 2.60	4	1
ST3.9	7.14 - 7.50	2.55 - 2.80	4.5	2
ST4.2	7.64 - 8.00	2.80 - 3.10	5	2
ST4.8	9.14 - 9.50	3.40 - 3.70	6.5	2

30400 **MAXXFAST Parafuso autoperfurante cabeça cilíndrica encaixe quadrado** **MF1A**

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

MAXXFAST PROFESSIONAL HARDWARE

RoHS

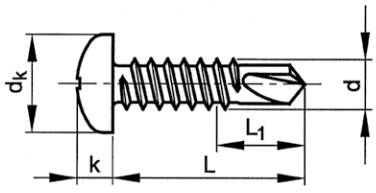


6

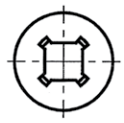
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3.5X9,5MM	200	30400.035.009	ST3.9X25MM	200	30400.039.025			
ST3.5X13MM	200	30400.035.013	ST3.9X32MM	200	30400.039.032	ST4.8X13MM	200	30400.048.013
ST3.5X16MM	200	30400.035.016				ST4.8X16MM	200	30400.048.016
ST3.5X19MM	200	30400.035.019	ST4.2X13MM	200	30400.042.013	ST4.8X19MM	200	30400.048.019
ST3.5X22MM	200	30400.035.022	ST4.2X16MM	200	30400.042.016	ST4.8X22MM	200	30400.048.022
ST3.5X25MM	200	30400.035.025	ST4.2X19MM	200	30400.042.019	ST4.8X25MM	200	30400.048.025
			ST4.2X22MM	200	30400.042.022	ST4.8X32MM	200	30400.048.032
ST3.9X13MM	200	30400.039.013	ST4.2X25MM	200	30400.042.025	ST4.8X35MM	200	30400.048.035
ST3.9X16MM	200	30400.039.016	ST4.2X30MM	200	30400.042.030	ST4.8X38MM	200	30400.048.038
ST3.9X19MM	200	30400.039.019	ST4.2X32MM	200	30400.042.032	ST4.8X45MM	200	30400.048.045
ST3.9X22MM	200	30400.039.022	ST4.2X40MM	200	30400.042.040	ST4.8X50MM	200	30400.048.050

- Só embalagens completas.

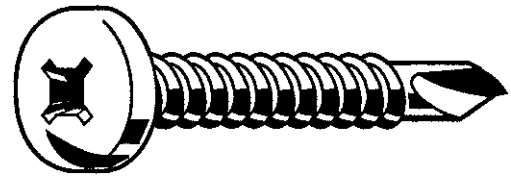
Parafuso autoperfurante cabeça cilíndrica com SR



SR



DIN ≈7504 M
ISO ≈15481



Dados técnicos

d	d_k	k	L_1 ≈	No. SR	P
ST3.5	7	2.6	5	1	1.3
ST3.9	7.5	2.95	6	2	1.4
ST4.2	8	3.25	7	2	1.4
ST4.8	9.5	3.7	8	2	1.6

- A fenda SR é uma combinação fenda cruz/quadrada. A fixação pode ponteiras SR, ver grupos 31535 e 31640.
- Max. fixação de comprimento KL = L – L_1.
- Aviso: electro-zincagem destes produtos, podem causar disfunção hidrogénica.



6

31480 SPEDEC SN Parafuso autoperfurante cabeça cilíndrica com SR **J08A**

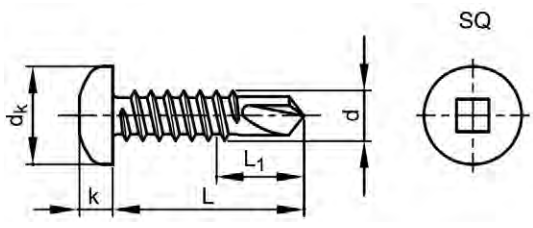
Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X13MM	1000	31480.035.013	ST3,9X25MM	1000	31480.039.025			
ST3,5X16MM	1000	31480.035.016				ST4,8X13MM	1000	31480.048.013
ST3,5X19MM	1000	31480.035.019	ST4,2X13MM	1000	31480.042.013	ST4,8X16MM	1000	31480.048.016
ST3,5X25MM	1000	31480.035.025	ST4,2X16MM	1000	31480.042.016	ST4,8X19MM	1000	31480.048.019
			ST4,2X19MM	1000	31480.042.019	ST4,8X25MM	1000	31480.048.025
ST3,9X13MM	1000	31480.039.013	ST4,2X25MM	1000	31480.042.025	ST4,8X32MM	1000	31480.048.032
ST3,9X16MM	1000	31480.039.016	ST4,2X32MM	1000	31480.042.032	ST4,8X38MM	1000	31480.048.038
ST3,9X19MM	1000	31480.039.019						

Parafuso autoperfurante cabeça cilíndrica com encaixe quadrado



DIN ≈7504 M
ISO ≈15481



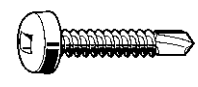
Dados técnicos

d	d_k	k	L_1 ≈	Nr. quadrado	P
ST3.5	6.7	2.6	2	1	1.3
ST4.2	7.9	3.25	3	2	1.4
ST4.8	9.3	3.7	4	2	1.6

26820 **Parafuso autoperfurante cabeça cilíndrica com encaixe quadrado** **J61A**

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

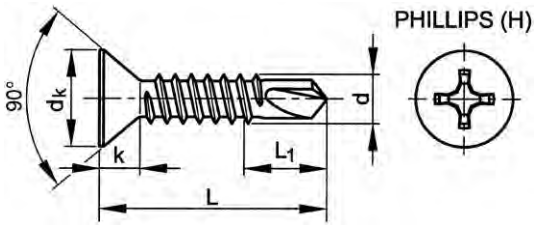
RoHS



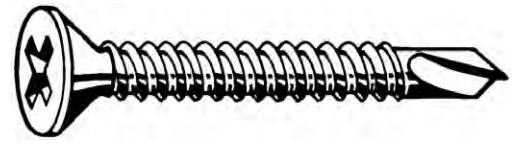
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3,5X9,5MM	200	26820.035.009	4,2X16MM	200	26820.042.016	4,2X32MM	200	26820.042.032
3,5X13MM	200	26820.035.013	4,2X19MM	200	26820.042.019			
			4,2X25MM	200	26820.042.025	4,8X16MM	200	26820.048.016
4,2X13MM	200	26820.042.013						

6

Parafuso autoperfurante cabeça de embeber fenda cruzada



DIN ≈7504 O-H
ISO ≈15482 H



Dados técnicos

d	d_k	k	L_1	Nr. fenda
ST3.5	6.90 -7.30	2.35	4	2
ST3.9	8.00 - 8.40	2.60	4.5	2
ST4.2	8.00 - 8.40	2.60	4.5	2
ST4.8	8.90 - 9.30	2.80	6.5	2
ST5.5	9.90 -10.30	3.00	8	3

Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.	Código	Página
ST	Phillips	Aço	Zn	30300	6-130
ST	Phillips	INOX A2		30305	6-131
ST	Phillips	Bi-Metal		30310	6-131

30300 **MAXXFAST Parafuso autoperfurante cabeça de embeber Phillips** **MF1A**

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

MAXXFAST PROFESSIONAL HARDWARE

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X13MM	200	30300.035.013	ST3,5X25MM	200	30300.035.025	ST3,9X19MM	200	30300.039.019
ST3,5X16MM	200	30300.035.016				ST3,9X22MM	200	30300.039.022
ST3,5X19MM	200	30300.035.019	ST3,9X13MM	200	30300.039.013	ST3,9X25MM	200	30300.039.025
ST3,5X22MM	200	30300.035.022	ST3,9X16MM	200	30300.039.016	ST3,9X32MM	200	30300.039.032

30300 MAXXFAST Parafuso autoperfurante cabeça de embeber Phillips

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
			ST4,8X16MM	200	30300.048.016	ST4,8X50MM	200	30300.048.050
ST4,2X16MM	200	30300.042.016	ST4,8X19MM	200	30300.048.019			
ST4,2X19MM	200	30300.042.019	ST4,8X22MM	200	30300.048.022	ST5,5X22MM	200	30300.055.022
ST4,2X22MM	200	30300.042.022	ST4,8X25MM	200	30300.048.025	ST5,5X25MM	200	30300.055.025
ST4,2X25MM	200	30300.042.025	ST4,8X32MM	200	30300.048.032	ST5,5X32MM	200	30300.055.032
ST4,2X32MM	200	30300.042.032	ST4,8X38MM	200	30300.048.038			
			ST4,8X45MM	200	30300.048.045			

- Só embalagens completas.

30305 MAXXFAST Parafuso autoperfurante cabeça de embeber Phillips MF1A

Rosca Autorroscante
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X13MM	200	30305.035.013	ST3,9X32MM	200	30305.039.032	ST4,8X22MM	200	30305.048.022
ST3,5X16MM	200	30305.035.016				ST4,8X25MM	200	30305.048.025
ST3,5X19MM	200	30305.035.019	ST4,2X16MM	200	30305.042.016	ST4,8X32MM	200	30305.048.032
ST3,5X22MM	200	30305.035.022	ST4,2X19MM	200	30305.042.019	ST4,8X38MM	200	30305.048.038
ST3,5X25MM	200	30305.035.025	ST4,2X22MM	200	30305.042.022	ST4,8X45MM	200	30305.048.045
			ST4,2X25MM	200	30305.042.025	ST4,8X50MM	200	30305.048.050
ST3,9X13MM	200	30305.039.013	ST4,2X32MM	200	30305.042.032			
ST3,9X16MM	200	30305.039.016				ST5,5X22MM	200	30305.055.022
ST3,9X19MM	200	30305.039.019	ST4,8X16MM	200	30305.048.016	ST5,5X25MM	200	30305.055.025
ST3,9X22MM	200	30305.039.022	ST4,8X19MM	200	30305.048.019	ST5,5X32MM	200	30305.055.032
ST3,9X25MM	200	30305.039.025						

- Só embalagens completas.

30310 MAXXFAST Parafuso autoperfurante cabeça de embeber Phillips MF1A

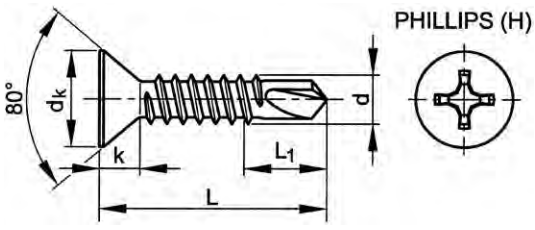
Rosca Autorroscante
Material Bi-Metal



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X16MM	200	30310.035.016	ST4,2X16MM	200	30310.042.016	ST4,8X25MM	200	30310.048.025
ST3,5X19MM	200	30310.035.019	ST4,2X19MM	200	30310.042.019	ST4,8X32MM	200	30310.048.032
ST3,5X22MM	200	30310.035.022	ST4,2X22MM	200	30310.042.022	ST4,8X38MM	200	30310.048.038
ST3,5X25MM	200	30310.035.025	ST4,2X25MM	200	30310.042.025	ST4,8X45MM	200	30310.048.045
			ST4,2X32MM	200	30310.042.032	ST4,8X50MM	200	30310.048.050
ST3,9X19MM	200	30310.039.019						
ST3,9X22MM	200	30310.039.022	ST4,8X16MM	200	30310.048.016	ST5,5X22MM	200	30310.055.022
ST3,9X25MM	200	30310.039.025	ST4,8X19MM	200	30310.048.019	ST5,5X25MM	200	30310.055.025
ST3,9X32MM	200	30310.039.032	ST4,8X22MM	200	30310.048.022	ST5,5X32MM	200	30310.055.032

- Só embalagens completas.

Parafuso autoperfurante cabeça de embeber Phillips



DIN 7504 O-H
ISO 15482 H



Dados técnicos

d	d_k	L_1 ≈	Nr. fenda	P
ST3.5	6.8	5	2	1.3
ST3.9	7.5	6	2	1.4
ST4.2	8.1	7	2	1.4
ST4.8	9.5	8	2	1.6
ST5.5	10.8	10	3	1.8
ST6.3	12.4	11	3	1.8

- Comprimento max. de aperto KL = L - L_1.

Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.		Código	Página
ST	Phillips	Aço	Zn		31256	6-132
ST	Phillips	Aço	Zn	Embalagem grande	31260	6-132
ST	Phillips	Aço	Zn		31830	6-133
ST	Phillips	INOX A2			31140	6-133
ST	Phillips	INOX A2			31880	6-133

6

31256 SPEDEC SN Parafuso autoperfurante cabeça de embeber Phillips J09A

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X13MM	200	31256.035.013	ST4,2X32MM	200	31256.042.032	ST4,8X32MM	200	31256.048.032
						ST4,8X38MM	200	31256.048.038
ST4,2X19MM	200	31256.042.019						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

31260 SPEDEC SN Parafuso autoperfurante cabeça de embeber Phillips J09A

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X13MM	1000	31260.035.013	ST3,9X32MM	1000	31260.039.032	ST4,8X38MM	500	31260.048.038
ST3,5X16MM	1000	31260.035.016				ST4,8X45MM	500	31260.048.045
ST3,5X19MM	1000	31260.035.019	ST4,2X16MM	1000	31260.042.016	ST4,8X50MM	500	31260.048.050
ST3,5X25MM	1000	31260.035.025	ST4,2X19MM	1000	31260.042.019			
			ST4,2X22MM	1000	31260.042.022	ST5,5X32MM	500	31260.055.032
ST3,9X13MM	1000	31260.039.013	ST4,2X25MM	1000	31260.042.025			
ST3,9X16MM	1000	31260.039.016	ST4,2X32MM	1000	31260.042.032	ST6,3X45MM	500	31260.063.045
ST3,9X19MM	1000	31260.039.019				ST6,3X50MM	500	31260.063.050
ST3,9X22MM	1000	31260.039.022	ST4,8X25MM	1000	31260.048.025	ST6,3X55MM	500	31260.063.055
ST3,9X25MM	1000	31260.039.025	ST4,8X32MM	1000	31260.048.032			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

31830 Parafuso autoperfurante cabeça de embeber Phillip — J09B

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

RoHS



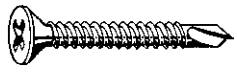
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X13MM	2000	31830.035.013	ST3,9X32MM	2000	31830.039.032	ST4,8X25MM	2000	31830.048.025
ST3,5X16MM	2000	31830.035.016				ST4,8X32MM	2000	31830.048.032
ST3,5X19MM	2000	31830.035.019	ST4,2X13MM	2000	31830.042.013	ST4,8X38MM	2000	31830.048.038
ST3,5X25MM	2000	31830.035.025	ST4,2X16MM	2000	31830.042.016	ST4,8X45MM	2000	31830.048.045
			ST4,2X19MM	2000	31830.042.019	ST4,8X50MM	2000	31830.048.050
ST3,9X13MM	2000	31830.039.013	ST4,2X25MM	2000	31830.042.025			
ST3,9X16MM	2000	31830.039.016	ST4,2X32MM	2000	31830.042.032	ST5,5X38MM	250	31830.055.038
ST3,9X19MM	2000	31830.039.019	ST4,2X38MM	2000	31830.042.038			
ST3,9X25MM	2000	31830.039.025						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

31140 SPEDEC SN Parafuso autoperfurante cabeça de embeber Phillips — J09A

Rosca Autorroscante
Material Aço inoxidável A2

RoHS

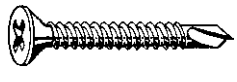


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X16MM	1000	31140.035.016	ST4,2X25MM	1000	31140.042.025	ST4,8X25MM	1000	31140.048.025
ST3,9X19MM	1000	31140.039.019						

31880 Parafuso auto perfurante cabeça embeber Philips — J09B

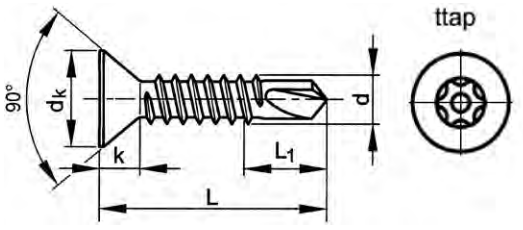
Rosca Autorroscante
Material Aço inoxidável A2

RoHS

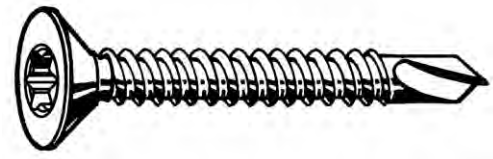


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X16MM	1000	31880.035.016	ST3,9X19MM	1000	31880.039.019	ST4,2X25MM	1000	31880.042.025

MAXXFAST Parafuso autoperfurante cabeça de embeber ttap



DIN ≈7504 O
ISO ≈15482



Dados técnicos

d	d_k	k	L_1	No. ttap
ST3.5	6.90 -7.30	2.35	4	15
ST3.9	7.14 -7.50	2.60	4.5	20
ST4.2	8.00 - 8.40	2.60	4.5	20
ST4.8	8.90 - 9.30	2.80	6.5	25
ST5.5	9.90 - 10.30	3.00	8	25

Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.	Código	Página
ST	ttap®	Aço	Zn	30350	6-134
ST	ttap®	INOX A2		30355	6-134
ST	ttap®	Bi-Metal		30360	6-135

6

30350 MAXXFAST Parafuso autoperfurante cabeça de embeber com ttap® — MF1A

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

MAXXFAST PROFESSIONAL HARDWARE

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X13MM	200	30350.035.013	ST3,9X32MM	200	30350.039.032	ST4,8X22MM	200	30350.048.022
ST3,5X16MM	200	30350.035.016				ST4,8X25MM	200	30350.048.025
ST3,5X19MM	200	30350.035.019	ST4,2X16MM	200	30350.042.016	ST4,8X32MM	200	30350.048.032
ST3,5X22MM	200	30350.035.022	ST4,2X19MM	200	30350.042.019	ST4,8X38MM	200	30350.048.038
ST3,5X25MM	200	30350.035.025	ST4,2X22MM	200	30350.042.022	ST4,8X45MM	200	30350.048.045
			ST4,2X25MM	200	30350.042.025	ST4,8X50MM	200	30350.048.050
ST3,9X13MM	200	30350.039.013	ST4,2X32MM	200	30350.042.032			
ST3,9X16MM	200	30350.039.016				ST5,5X22MM	200	30350.055.022
ST3,9X19MM	200	30350.039.019	ST4,8X16MM	200	30350.048.016	ST5,5X25MM	200	30350.055.025
ST3,9X22MM	200	30350.039.022	ST4,8X19MM	200	30350.048.019	ST5,5X32MM	200	30350.055.032
ST3,9X25MM	200	30350.039.025						

- Só embalagens completas.

30355 MAXXFAST Parafuso autoperfurante cabeça de embeber com ttap® — MF1A

Rosca Autorroscante
Material Aço inoxidável A2

MAXXFAST PROFESSIONAL HARDWARE

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X13MM	200	30355.035.013	ST3,9X32MM	200	30355.039.032	ST4,8X25MM	200	30355.048.025
ST3,5X16MM	200	30355.035.016				ST4,8X32MM	200	30355.048.032
ST3,5X19MM	200	30355.035.019	ST4,2X16MM	200	30355.042.016	ST4,8X38MM	200	30355.048.038
ST3,5X22MM	200	30355.035.022	ST4,2X19MM	200	30355.042.019	ST4,8X45MM	200	30355.048.045
ST3,5X25MM	200	30355.035.025	ST4,2X22MM	200	30355.042.022	ST4,8X50MM	200	30355.048.050
			ST4,2X25MM	200	30355.042.025			
ST3,9X13MM	200	30355.039.013	ST4,2X32MM	200	30355.042.032	ST5,5X22MM	200	30355.055.022
ST3,9X16MM	200	30355.039.016				ST5,5X25MM	200	30355.055.025
ST3,9X19MM	200	30355.039.019	ST4,8X16MM	200	30355.048.016	ST5,5X32MM	200	30355.055.032
ST3,9X22MM	200	30355.039.022	ST4,8X19MM	200	30355.048.019			
ST3,9X25MM	200	30355.039.025	ST4,8X22MM	200	30355.048.022			

- Só embalagens completas.

30360 **MAXXFAST Parafuso autoperfurante cabeça de embeber com ttap®** **MF1A**

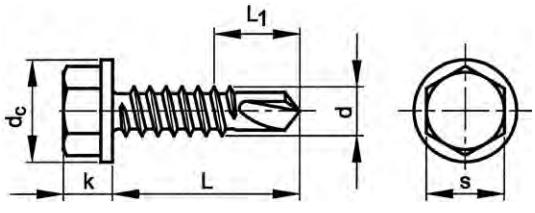
Rosca Autorroscante
Material Bi-Metal



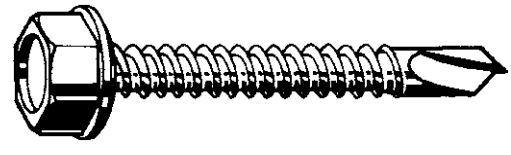
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X16MM	200	30360.035.016	ST4,2X16MM	200	30360.042.016	ST4,8X25MM	200	30360.048.025
ST3,5X19MM	200	30360.035.019	ST4,2X19MM	200	30360.042.019	ST4,8X32MM	200	30360.048.032
ST3,5X22MM	200	30360.035.022	ST4,2X22MM	200	30360.042.022	ST4,8X38MM	200	30360.048.038
ST3,5X25MM	200	30360.035.025	ST4,2X25MM	200	30360.042.025	ST4,8X45MM	200	30360.048.045
			ST4,2X32MM	200	30360.042.032	ST4,8X50MM	200	30360.048.050
ST3,9X19MM	200	30360.039.019						
ST3,9X22MM	200	30360.039.022	ST4,8X16MM	200	30360.048.016	ST5,5X22MM	200	30360.055.022
ST3,9X25MM	200	30360.039.025	ST4,8X19MM	200	30360.048.019	ST5,5X25MM	200	30360.055.025
ST3,9X32MM	200	30360.039.032	ST4,8X22MM	200	30360.048.022	ST5,5X32MM	200	30360.055.032

- Só embalagens completas.

Parafuso autoperfurante cabeça sextavada



DIN **≈7504 K**
ISO ≈15480



6

Dados técnicos

d	d_c (max.)	k (max.) - 30410	k (max.) - 30415	k (max.) - 30420	L_1	s
ST3.9	8.30	3.45	3.45	3.45	4.5	5.5
ST4.2	8.80	4.10	4.10	4.25	4.5	7.0
ST4.8	10.50	4.30	4.30	4.45	5.5	8.0
ST5.5	11	5.40	5.40	5.45	6.5	8.0
ST6.3	13.50	5.90	5.90	6.45	7.5	10.0

Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.	Código	Página
ST	Sextavado	Aço	Zn	30410	6-135
ST	Sextavado	INOX A2		30415	6-136
ST	Sextavado	Bi-Metal		30420	6-136

30410 **MAXXFAST Parafuso autoperfurante cabeça sextavada** **MF1A**

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,9X19MM	200	30410.039.019	ST4,8X22MM	200	30410.048.022			
ST3,9X25MM	200	30410.039.025	ST4,8X25MM	200	30410.048.025	ST6,3X19MM	200	30410.063.019
ST3,9X32MM	200	30410.039.032	ST4,8X32MM	200	30410.048.032	ST6,3X22MM	200	30410.063.022
			ST4,8X38MM	200	30410.048.038	ST6,3X25MM	200	30410.063.025
ST4,2X13MM	200	30410.042.013	ST4,8X45MM	200	30410.048.045	ST6,3X32MM	200	30410.063.032
ST4,2X16MM	200	30410.042.016	ST4,8X50MM	200	30410.048.050	ST6,3X38MM	200	30410.063.038
ST4,2X19MM	200	30410.042.019				ST6,3X45MM	200	30410.063.045
ST4,2X22MM	200	30410.042.022	ST5,5X19MM	200	30410.055.019	ST6,3X50MM	200	30410.063.050
ST4,2X25MM	200	30410.042.025	ST5,5X22MM	200	30410.055.022	ST6,3X60MM	200	30410.063.060
ST4,2X32MM	200	30410.042.032	ST5,5X25MM	200	30410.055.025	ST6,3X70MM	200	30410.063.070
			ST5,5X32MM	200	30410.055.032	ST6,3X80MM	100	30410.063.080
ST4,8X13MM	200	30410.048.013	ST5,5X38MM	200	30410.055.038	ST6,3X85MM	100	30410.063.085
ST4,8X16MM	200	30410.048.016	ST5,5X45MM	200	30410.055.045			
ST4,8X19MM	200	30410.048.019	ST5,5X50MM	200	30410.055.050			

- Só embalagens completas.

30415 MAXXFAST Parafuso autoperfurante cabeça sextavada MF1A

Rosca Autorroscante
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,9X19MM	200	30415.039.019	ST4,8X22MM	200	30415.048.022			
ST3,9X25MM	200	30415.039.025	ST4,8X25MM	200	30415.048.025	ST6,3X19MM	200	30415.063.019
ST3,9X32MM	200	30415.039.032	ST4,8X32MM	200	30415.048.032	ST6,3X22MM	200	30415.063.022
			ST4,8X38MM	200	30415.048.038	ST6,3X25MM	200	30415.063.025
ST4,2X13MM	200	30415.042.013	ST4,8X45MM	200	30415.048.045	ST6,3X32MM	200	30415.063.032
ST4,2X16MM	200	30415.042.016	ST4,8X50MM	200	30415.048.050	ST6,3X38MM	200	30415.063.038
ST4,2X19MM	200	30415.042.019				ST6,3X45MM	200	30415.063.045
ST4,2X22MM	200	30415.042.022	ST5,5X19MM	200	30415.055.019	ST6,3X50MM	200	30415.063.050
ST4,2X25MM	200	30415.042.025	ST5,5X22MM	200	30415.055.022	ST6,3X60MM	200	30415.063.060
ST4,2X32MM	200	30415.042.032	ST5,5X25MM	200	30415.055.025	ST6,3X70MM	200	30415.063.070
			ST5,5X32MM	200	30415.055.032	ST6,3X80MM	100	30415.063.080
ST4,8X13MM	200	30415.048.013	ST5,5X38MM	200	30415.055.038	ST6,3X85MM	100	30415.063.085
ST4,8X16MM	200	30415.048.016	ST5,5X45MM	200	30415.055.045			
ST4,8X19MM	200	30415.048.019	ST5,5X50MM	200	30415.055.050			

- Só embalagens completas.

30420 MAXXFAST Parafuso autoperfurante cabeça sextavada MF1A

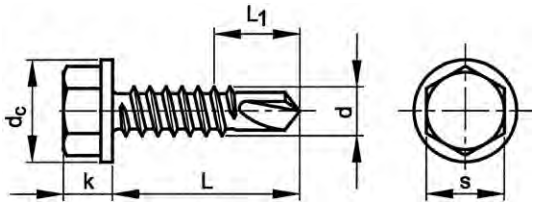
Rosca Autorroscante
Material Bi-Metal



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,9X19MM	200	30420.039.019	ST4,8X25MM	200	30420.048.025			
ST3,9X25MM	200	30420.039.025	ST4,8X32MM	200	30420.048.032	ST6,3X19MM	200	30420.063.019
ST3,9X32MM	200	30420.039.032	ST4,8X38MM	200	30420.048.038	ST6,3X22MM	200	30420.063.022
			ST4,8X45MM	200	30420.048.045	ST6,3X25MM	200	30420.063.025
ST4,2X16MM	200	30420.042.016	ST4,8X50MM	200	30420.048.050	ST6,3X32MM	200	30420.063.032
ST4,2X19MM	200	30420.042.019				ST6,3X38MM	200	30420.063.038
ST4,2X22MM	200	30420.042.022	ST5,5X19MM	200	30420.055.019	ST6,3X45MM	200	30420.063.045
ST4,2X25MM	200	30420.042.025	ST5,5X22MM	200	30420.055.022	ST6,3X50MM	200	30420.063.050
ST4,2X32MM	200	30420.042.032	ST5,5X25MM	200	30420.055.025	ST6,3X60MM	200	30420.063.060
			ST5,5X32MM	200	30420.055.032	ST6,3X70MM	200	30420.063.070
ST4,8X16MM	200	30420.048.016	ST5,5X38MM	200	30420.055.038	ST6,3X80MM	100	30420.063.080
ST4,8X19MM	200	30420.048.019	ST5,5X45MM	200	30420.055.045	ST6,3X85MM	100	30420.063.085
ST4,8X22MM	200	30420.048.022	ST5,5X50MM	200	30420.055.050			

- Só embalagens completas.

Parafuso autoperfurante cabeça sextavada



DIN **7504 K**
ISO 15480



Dados técnicos

d	d_c	k (max.)	L_1 ≈	P	s
ST3.5	8.3	3.4	6.8	1.3	5.5
ST4.2	8.8	4.25	7	1.4	7
ST4.8	10.5	4.45	8	1.6	8
ST5.5	11	5.45	10	1.8	8
ST6.3	13.2	6.45	11	1.8	10

- Comprimento max. de aperto KL = L - L_1.

Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.		Código	Página
ST	Sextavado	Aço	Zn		31235	6-137
ST	Sextavado	Aço	Zn	Embalagem grande	31230	6-137
ST	Sextavado	Aço	Zn		31815	6-138
ST	Sextavado	Aço	Zn	Embalagem grande	31810	6-138
ST	Sextavado	INOX A2			31100	6-138
ST	Sextavado	INOX A2			31860	6-138

31235 SPEDEC SN Parafuso autoperfurante cabeça sextavada J09A

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST4,2X13MM	200	31235.042.013	ST4,8X25MM	200	31235.048.025	ST5,5X32MM	100	31235.055.032
ST4,2X16MM	200	31235.042.016	ST4,8X32MM	200	31235.048.032			
ST4,2X19MM	200	31235.042.019	ST4,8X38MM	100	31235.048.038	ST6,3X19MM	200	31235.063.019
ST4,2X25MM	200	31235.042.025	ST4,8X45MM	100	31235.048.045	ST6,3X22MM	200	31235.063.022
ST4,2X32MM	200	31235.042.032	ST4,8X50MM	100	31235.048.050	ST6,3X25MM	200	31235.063.025
						ST6,3X32MM	100	31235.063.032
ST4,8X13MM	200	31235.048.013	ST5,5X19MM	200	31235.055.019	ST6,3X38MM	100	31235.063.038
ST4,8X16MM	200	31235.048.016	ST5,5X22MM	200	31235.055.022	ST6,3X45MM	100	31235.063.045
ST4,8X19MM	200	31235.048.019	ST5,5X25MM	200	31235.055.025	ST6,3X50MM	100	31235.063.050
ST4,8X22MM	200	31235.048.022						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

31230 SPEDEC SN Parafuso autoperfurante cabeça sextavada J09A

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST4,2X13MM	1000	31230.042.013	ST4,8X25MM	1000	31230.048.025	ST5,5X38MM	500	31230.055.038
ST4,2X16MM	1000	31230.042.016	ST4,8X32MM	1000	31230.048.032			
ST4,2X19MM	1000	31230.042.019	ST4,8X38MM	500	31230.048.038	ST6,3X19MM	500	31230.063.019
ST4,2X25MM	1000	31230.042.025	ST4,8X45MM	500	31230.048.045	ST6,3X22MM	500	31230.063.022
ST4,2X32MM	1000	31230.042.032	ST4,8X50MM	500	31230.048.050	ST6,3X25MM	500	31230.063.025
						ST6,3X32MM	500	31230.063.032
ST4,8X13MM	1000	31230.048.013	ST5,5X19MM	1000	31230.055.019	ST6,3X38MM	500	31230.063.038
ST4,8X16MM	1000	31230.048.016	ST5,5X22MM	1000	31230.055.022	ST6,3X45MM	500	31230.063.045
ST4,8X19MM	1000	31230.048.019	ST5,5X25MM	500	31230.055.025	ST6,3X50MM	500	31230.063.050
ST4,8X22MM	1000	31230.048.022	ST5,5X32MM	500	31230.055.032			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

31815 Parafuso autoperfurante cabeça sextavada J09B

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X9,5MM	1000	31815.035.009	ST4,2X38MM	1000	31815.042.038	ST5,5X32MM	500	31815.055.032
ST3,5X13MM	1000	31815.035.013				ST5,5X50MM	500	31815.055.050
ST3,5X16MM	1000	31815.035.016	ST4,8X13MM	1000	31815.048.013			
ST3,5X19MM	1000	31815.035.019	ST4,8X16MM	1000	31815.048.016	ST6,3X16MM	500	31815.063.016
ST3,5X25MM	1000	31815.035.025	ST4,8X19MM	1000	31815.048.019	ST6,3X19MM	500	31815.063.019
			ST4,8X25MM	1000	31815.048.025	ST6,3X25MM	500	31815.063.025
ST4,2X13MM	1000	31815.042.013	ST4,8X32MM	1000	31815.048.032	ST6,3X32MM	500	31815.063.032
ST4,2X16MM	1000	31815.042.016	ST4,8X38MM	1000	31815.048.038	ST6,3X38MM	500	31815.063.038
ST4,2X19MM	1000	31815.042.019				ST6,3X50MM	500	31815.063.050
ST4,2X25MM	1000	31815.042.025	ST5,5X19MM	1000	31815.055.019	ST6,3X60MM	500	31815.063.060
ST4,2X32MM	1000	31815.042.032	ST5,5X25MM	500	31815.055.025			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

31810 Parafuso autoperfurante cabeça sextavada J09B

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST4,2X13MM	2000	31810.042.013	ST4,8X16MM	2000	31810.048.016	ST5,5X25MM	1000	31810.055.025
ST4,2X16MM	2000	31810.042.016	ST4,8X19MM	2000	31810.048.019			
ST4,2X19MM	2000	31810.042.019	ST4,8X25MM	2000	31810.048.025	ST6,3X19MM	1000	31810.063.019
ST4,2X25MM	2000	31810.042.025	ST4,8X32MM	2000	31810.048.032	ST6,3X25MM	1000	31810.063.025
ST4,2X32MM	2000	31810.042.032	ST4,8X38MM	2000	31810.048.038	ST6,3X32MM	1000	31810.063.032
						ST6,3X38MM	1000	31810.063.038
ST4,8X13MM	2000	31810.048.013	ST5,5X19MM	2000	31810.055.019	ST6,3X50MM	1000	31810.063.050

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

31100 SPEDEC Parafuso autoperfurante perfurante cabeça sextavada J09A

Rosca Autorroscante
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST4,2X25MM	1000	31100.042.025	ST4,8X32MM	1000	31100.048.032	ST6,3X22MM	1000	31100.063.022
ST4,8X19MM	1000	31100.048.019						

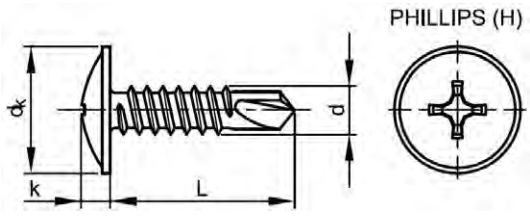
31860 Parafuso autoperfurante cabeça sextavada J09B

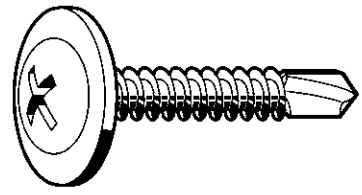
Rosca Autorroscante
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST4,2X25MM	2000	31860.042.025	ST4,8X32MM	1000	31860.048.032	ST5,5X22MM	1000	31860.055.022
ST4,8X19MM	1000	31860.048.019						

Parafuso autoperfurante para paineis Phillips





Dados técnicos

d	d_k	k	Nr. fenda
4.2	11	2.5	2

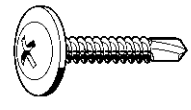
Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.	Código	Página
ST	Phillips	Aço	Zn	29580	6-139
ST	Phillips	Aço	Passiv. preto	29581	6-139

29580 **Parafuso autoperfurante para painéis** **K04A**

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

RoHS

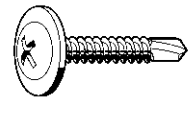


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
4,2X13MM	200	29580.042.013	4,2X19MM	200	29580.042.019	4,2X25MM	200	29580.042.025
4,2X16MM	200	29580.042.016						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

29581 **Parafuso autoperfurante para painéis** **K04A**

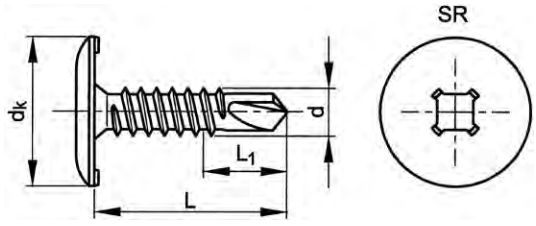
Rosca Autorroscante
Material Aço
Tratamento sup. Passivado a preto

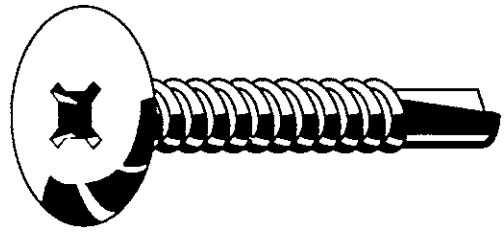


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
4,2X13MM	200	29581.042.013	4,2X19MM	200	29581.042.019	4,2X25MM	200	29581.042.025
4,2X16MM	200	29581.042.016						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Parafuso autoperfurante SR



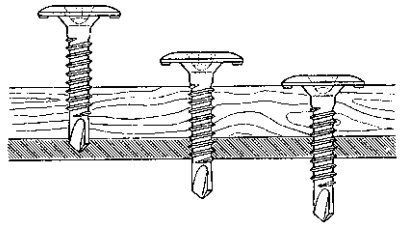


Dados técnicos

d x L	A	B	C	D	d_k	E	F	G	L_1 ≈	No. SR	P
ST4.8x16	9000	6000	6.5	1	13	3	1.5	4	9	2	1.6
ST4.8x19	9000	6000	6.5	1	15	3	1.5	4	9	2	1.6
ST4.8x25	9000	6000	6.5	1	15	3	1.5	4	9	2	1.6
ST4.8x32	9000	6000	6.5	1	15	3	1.5	4	9	2	1.6

- A = Carga de ruptura min. em N.
- B = Cargas transversais min. em N.
- C = Momento em Nm.
- D = Furo em vigas de aço (min.).
- E = Furo em vigas de aço (max.).
- F = Furo em vigas de aluminio (min.).
- G = Furo em vigas de aluminio (max.).
- Aplicável para montagem directa de madeira prensada placas de estuque em vigas de aluminio e aço.
- Max. comprimento de aperto KL = L – L_1.
- SR-a fenda é uma combinação cruz/quadrado. Montagem com SR ponteira de chave de parafusos, ver grupo 31630 e 31640.
- Aço com força de tração máx. 540 N/mm^2.

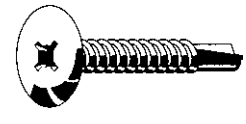
6



31445 **SPEDEC SCI Parafuso autoperfurante cabeça Oval fenda SR** **J12A**

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

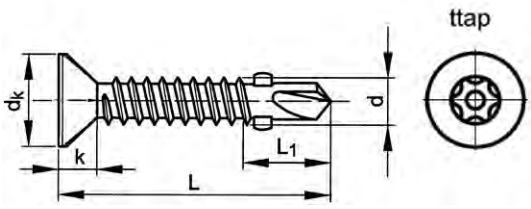
RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST4,8X16MM	1000	31445.048.016	ST4,8X25MM	1000	31445.048.025	ST4,8X32MM	1000	31445.048.032
ST4,8X19MM	1000	31445.048.019						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

MAXXFAST Parafuso autoperfurante com alhetas ttap





Dados técnicos

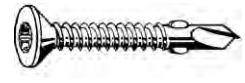
d	d_k	k	L_1	No. ttap
ST3.9	7.14 -7.50	2.30	4.5	20
ST4.2	8.00 - 8.40	2.60	4.5	20
ST4.8	8.90 - 9.30	2.80	6.5	25
ST5.5	9.90 -10.30	3.00	8	25
ST6.3	10.90 -11.30	3.15	9	25

Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.	Código	Página
ST	ttap®	Aço	Zn	30365	6-141
ST	ttap®	Bi-Metal		30375	6-141

30365 MAXXFAST Parafuso autoperfurante cabeça de embeber com abas e ttap® MF1A

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

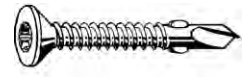


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3.9X25MM	200	30365.039.025	ST4.8X45MM	200	30365.048.045			
			ST4.8X50MM	200	30365.048.050	ST6.3X38MM	200	30365.063.038
ST4.2X32MM	200	30365.042.032				ST6.3X50MM	200	30365.063.050
			ST5.5X38MM	200	30365.055.038	ST6.3X60MM	200	30365.063.060
ST4.8X32MM	200	30365.048.032	ST5.5X45MM	200	30365.055.045			
ST4.8X38MM	200	30365.048.038	ST5.5X50MM	200	30365.055.050			

- Só embalagens completas.

30375 MAXXFAST Parafuso autoperfurante cabeça de embeber com abas e ttap® MF1A

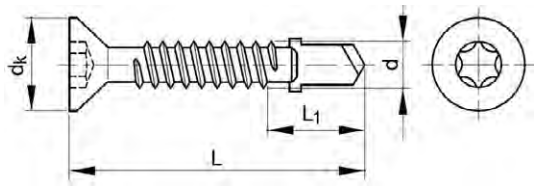
Rosca Autorroscante
Material Bi-Metal

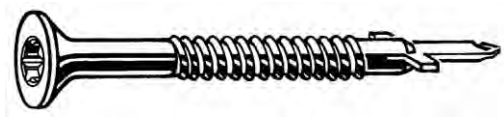


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3.9X25MM	200	30375.039.025	ST4.8X45MM	200	30375.048.045			
			ST4.8X50MM	200	30375.048.050	ST6.3X38MM	200	30375.063.038
ST4.2X32MM	200	30375.042.032				ST6.3X50MM	200	30375.063.050
			ST5.5X38MM	200	30375.055.038	ST6.3X60MM	200	30375.063.060
ST4.8X32MM	200	30375.048.032	ST5.5X45MM	200	30375.055.045			
ST4.8X38MM	200	30375.048.038	ST5.5X50MM	200	30375.055.050			

- Só embalagens completas.

Parafuso autoperfurante cabeça embeber Torx com alhetas





Dados técnicos

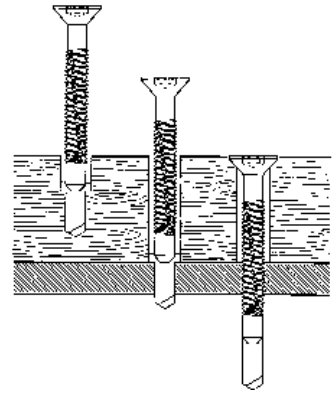
d	A	B	C	Chave caixa	D	d_k	E	F	G	L_1 ≈	P
ST6.3	17000	10000	16	T30	3	12	6	3	6	25	1.8

- A = Carga de ruptura min. em N.
- B = Cargas transversais min. em N.
- C = Momento em Nm.
- D = Furo em vigas de aço St37 (min.).
- E = Furo em vigas de aço St37 (max.).
- F = Furo em vigas de aço St52 (min.).
- G = Furo em vigas de aço St52 (max.).
- Aplicável directamente em vigas de madeira de baixa dureza.
- Max. comprimento aperto KL = L – L_1.
- St52: Com elevadas qualidades de aço a espessura do furo é reduzida.

6

FABORY-SPEDEC parafusos auto perfurantes tipo **SCT**:

- A ponta de perfuração foi substituida por uma placa de perfuração de aço especialmente endurecido.. este tipo garante, que quando a broca SC causa problemas a área de aplicação pode ser extendida considerávelmente.
- Numa única operação: começo de montagem, perfuração da madeira, perfuração de aço, abas partem-se, forma rosca, parafuso autoroscante, montagem terminada (ver sequência de montagem)
- Montagem com ferramenta eléctrica tipo CF 250(P), ver códigos de grupos 31570 (31572).



31460 **SPEDEC SCT Parafuso autoperfurante com abas cabeça embeber Torx®** **J10A**

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

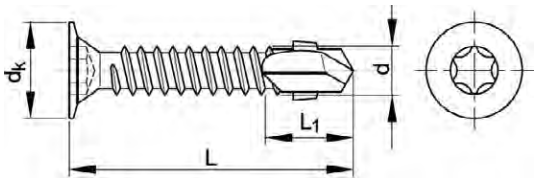
RoHS

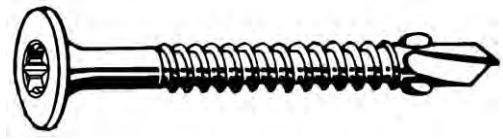


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST6,3X50MM	500	31460.063.050	ST6,3X70MM	500	31460.063.070	ST6,3X90MM	250	31460.063.090
ST6,3X60MM	500	31460.063.060	ST6,3X80MM	500	31460.063.080			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Parafuso autoperfurante cabeça embeber Torx® com alhetas



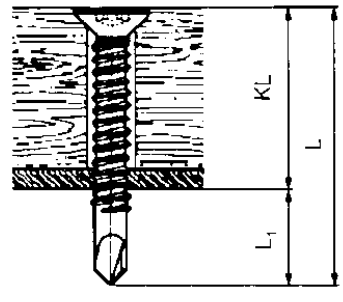


Dados técnicos

d	A	B	C	D	d_k	E	L_1 ≈	No. Torx®	P
ST5.5	10000	8000	10	2	12	5	15	T30	1.8

- A = Tensão de ruptura min. em N.
- B = Força transversal min. em N.
- C = Momento em Nm.
- D = Furo em aço St37 (min.).
- E = Furo em aço St37 (max.).
- Aplicável directamente em vigas de madeira de baixa dureza em vigas de aço.
- Max. comprimento aperto KL = L – L_1.
- St37: Com elevadas qualidades de aço a espessura do furo é reduzida.

FABORY-SPEDEC parfuso auto perfurante tipo **SC**:
- Com broca na ponta.
- Com cabeça de embeber (31411) para um melhor assentamento em madeira macia
- Com ranhuras debaixo da cabeça (31416) para melhor fixação na madeira
- Montagem com ferramenta eléctrica tipo CF 250(P), ver códios de grupos 31570 (31572)



6

Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.		Código	Página
ST	Torx®	Aço	Zn		31416	6-143
ST	Torx®	Aço	Zn	duplo	31411	6-143

31416 SPEDEC SC Parafuso autoperfurante com alhetas cabeça embeber Torx® J10A

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST5,5X38MM	1000	31416.055.038	ST5,5X50MM	1000	31416.055.050	ST5,5X55MM	1000	31416.055.055
ST5,5X45MM	1000	31416.055.045						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

31411 SPEDEC SC Parafuso autoperfurante com alhetas cabeça cilindrica Torx® J10A

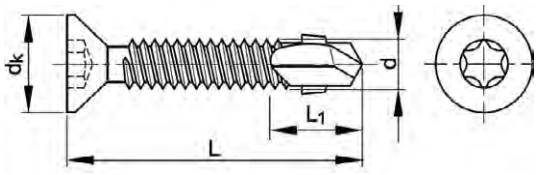
Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

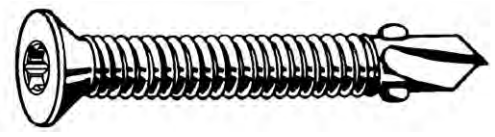


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST5,5X38MM	1000	31411.055.038	ST5,5X50MM	1000	31411.055.050	ST5,5X60MM	1000	31411.055.060
ST5,5X45MM	1000	31411.055.045	ST5,5X55MM	1000	31411.055.055			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Parafuso autoperfurante cabeça embeber Torx® com alhetas UNC



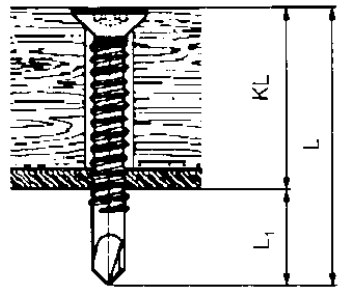


Dados técnicos

d	A	B	C	D	d_k	E	Fios por polegada	L_1 ≈	No. Torx®
U6.3 (1/4)	17000	10000	16	2.5	12	6	20	16	T30

- A = Tensão de ruptura min. em N.
- B = força transversal min. em N.
- C = Momento em Nm.
- D = Furo em aço St37 (min.).
- E = Furo em aço St37 (max.).
- Aplicável directamente em vigas de madeira de baixa dureza em vigas de aço.
- Max. comprimento aperto KL = L – L_1.
- St37: Com elevadas qualidades de aço a espessura do furo é reduzida.

FABORY-SPEDEC parafusos auto perfurantes tipo **SC**:
- Com ponta perfurante
- Com abas debaixo da cabeça para cabeça de embeber em madeira
- Montagem com ferramenta eléctrica tipo CF 250(P), ver grupo de artigos 31570 (31572)



6

31426 SPEDEC SC Parafuso autoperfurante UNC com alhetas cabeça embeber Torx® **J10A**

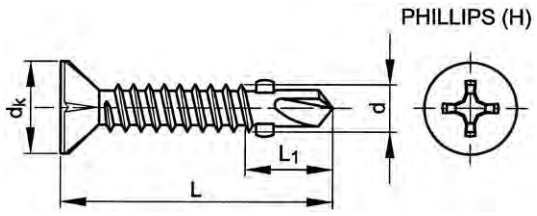
Rosca Unified National Coarse
Material Aço
Tratamento sup. Zincado

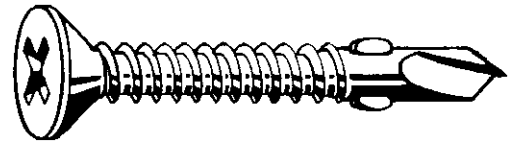


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
U6,3X45MM	1000	31426.063.045	U6,3X60MM	1000	31426.063.060	U6,3X80MM	500	31426.063.080
U6,3X50MM	1000	31426.063.050	U6,3X65MM	1000	31426.063.065	U6,3X85MM	500	31426.063.085
U6,3X55MM	1000	31426.063.055	U6,3X70MM	500	31426.063.070			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Parafuso autoperfurante cabeça de embeber Phillips com alhetas



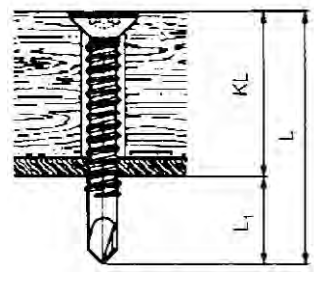


Dados técnicos

d	A	B	C	D	d_k	E	L ≈	Nr. fenda	P
ST4.2	7500	3500	5	0.7	8.1	2	9	2	1.4
ST4.8	11000	6000	8.5	2	9.5	3	10	2	1.6

- A = Carga de ruptura min. em N.
- B = Cargas transversais min. em N.
- C = Momento em Nm.
- D = Furo em vigas de aço St37 (min.).
- E = Furo em vigas de aço St37 (max.).
- Aplicável directamente em vigas de madeira de baixa dureza.
- Max. comprimento aperto KL = L – L_1.
- St37: Com elevadas qualidades de aço a espessura do furo é reduzida.

Caracteristica de parafusos auto perfuantes FABORY-SPEDEC tipo **SC**:
- Com **estrias debaixo da cabeça** para aplicação em madeira

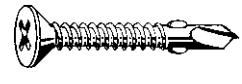


6

31282 SPEDEC SC Parafuso autoperfurante com alhetas cabeça embeber Phillips **J10A**

Rosca Autorroscante
Material Aço
Tratamento sup. Zincado

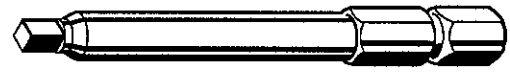
RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST4,2X30MM	500	31282.042.030				ST4,8X45MM	500	31282.048.045
ST4,2X40MM	500	31282.042.040	ST4,8X35MM	500	31282.048.035	ST4,8X65MM	500	31282.048.065

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Ferramenta para instalação parafuso autorroscante



Grupos de produtos

Encaixe		Código	Página
SR		31535	6-146
	CF 250	31570	6-146
	CF 250P	31572	6-146
Sextavado		31536	6-147

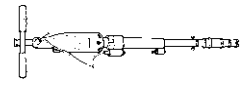
31535 SPEDEC Bit tipo SR — J90A



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
SR2-49	2	31535.001.770	SR1-49	2	31535.001.771

- Com encaixe extavado 1/4.
- Indicado para parafusos auto roscantes com SR (combinação com fenda quadrada).
- Comprimento 49 mm.
- Mais bits disponíveis em www.fabory.com

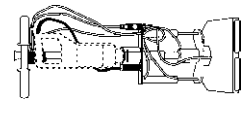
31570 SPEDEC Ferramenta tipo CF 250 — J91A



Tipo	✉	Ref. do artigo
FERRAMENTA COMPLETA	1	31570.001.770

- Indicado para parafusos autorroscantes tipo SC (com Torx® TX30) e tipo SCT (com Torx® TX30).
- Fabricante da chave:
- Fein ASze 648 d
- Input 740 W
- Voltage 220 V/50 Hz.
- Revolutions 0 - 1560 r.p.m. (loaded) e 1250-2600 r.p.m. (unloaded).
- Comprimento total 1080 mm.
- Pesot 9,8 kg.
- Direita
- Ajustável com profundidade-stop.
- Posição de trabalho vertical.
- Ergonómica
- 250 parafusos por hora !!

31572 SPEDEC Ferramenta pneumática tipo CF 250 P — J91A



Tipo	✉	Ref. do artigo
CF250	1	31572.001.770

- Tipo CF 250.
- Não é necessária força humana!!
- Peso 16,3 kg.

31536 SPEDEC Adaptador tipo E480 J90A



Tipo	✉	Ref. do artigo
E480	1	31536.001.770

- Com encaixe sextavado 1/4.
- Indicado para parafusos autoroscantes cabeça sextavada com colar tipo SN.
- Com entrefaces de 8 mm.
- Comprimento 73 mm.

Parafusos para madeira MaxxFast

Parafusos para todo o tipo de madeiras
O parafuso MaxxFast usado em todo o tipo de madeiras é um parafuso único, com um sistema de aparafusamento para todo o tipo de aplicações de madeira. Estes parafusos têm as propriedades mais avançadas de tecnologia, o que permite que sejam aplicados em todo o tipo de madeira, macia ou dura, MDF, madeira laminada e até em todo o tipo de madeiras exóticas ou tropicais. Para aplicação em madeiras duras é recomendável um furo prévio.

Dados Técnicos:
- Ponta com Mooncut
- Ripas de moagem (parafusos > 40mm)
- Proteção de cera
- Cabeça de auto escareamento de duas etapas
- Ripas de corte
- ttap®

O MaxxFast Universal está disponível numa vasta gama de parafusos de madeira, em aço, zincado e passivado a amarelo e em INOX. Também disponível em diferentes tipos de cabeça, de embeber e cabeça de queijo e com encaixe ttap® e Pozidriv.

Parafuso para construção em Madeira
O MaxxFast para construção em madeira é um parafuso único com um sistema multi-uso para uma vasta gama de aplicações na construção em madeira profissional, como escadas de madeira, alpendres, ligação e fixação de vigas. Estes parafusos são excepcionalmente fortes e não requerem furo.

Dados Técnicos:
- Ponta com Mooncut
- Ripas de moagem
- Proteção de cera
- Cabeça de auto escareamento de duas etapas
- Ripas de corte
- ttap®

O parafuso MaxxFast para construção em madeira está disponível numa vasta gama de dimensões em aço passivado a amarelo, com cabeça de auto escareamento ou com flange.

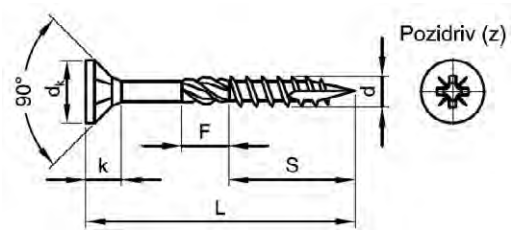


Parafuso para Deck
O parafuso para Deck da MaxxFast é um parafuso único, adequado para construções no exterior em todo o tipo de madeiras exóticas duras, ou madeiras duras… Para aplicação em madeiras duras é recomendável um furo prévio. Este parafuso possui uma ponta extremamente afiada e dois entalhes de corte que asseguram uma inserção rápida e previnem rachas na madeira.

Dados Técnicos:
- Ponta afiada com dois entalhes de corte
- Ripas de moagem
- Proteção de cera
- Cabeça de auto-escareamento reduzida
- Ripas de corte
- ttap®

O parafuso para Deck da MaxxFast está disponível numa grande variedade de medidas em aço inox A2.

Parafuso universal para madeira cabeça de embeber fenda cruz





Dados técnicos

d	d_k	k	Nr. fenda	d	d_k	k	Nr. fenda
3	6	3.5	1	4.5	9	5.0	2
3.5	7	4.0	2	5	10	5.5	2
4	8	4.5	2	6	12	6.3	3

- Só embalagens completas.
- F=9mm apenas se L≥40mm.
- Os diâmetros 3 e 3,5 não são adequados para fixação de juntas, por isso não têm marcação CE.

Grupos de produtos

Encaixe	Material	Tratamento sup.	Código	Página
Pozidriv	Aço	Zn	30000	6-149
Pozidriv	Aço	Passiv. amar.	30005	6-149
Pozidriv	INOX A2		30015	6-150

30000 MAXXFAST Parafuso para madeira cabeça embeber Pozidriv MF0A

Material Aço
Tratamento sup. Zincado

CE

MAXXFAST PROFESSIONAL HARDWARE

RoHS



d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo
3X10MM (6)	200	30000.030.010	4X40MM (25)	200	30000.040.040	5X45MM (30)	200	30000.050.045
3X12MM (8)	200	30000.030.012	4X45MM (30)	200	30000.040.045	5X50MM (35)	200	30000.050.050
3X16MM (12)	200	30000.030.016	4X50MM (35)	200	30000.040.050	5X60MM (45)	200	30000.050.060
3X20MM (16)	200	30000.030.020	4X60MM (45)	200	30000.040.060	5X70MM (54)	200	30000.050.070
3X25MM (21)	200	30000.030.025	4X70MM (54)	200	30000.040.070	5X80MM (54)	100	30000.050.080
3X30MM (26)	200	30000.030.030				5X90MM (60)	100	30000.050.090
3X35MM (31)	200	30000.030.035	4,5X16MM (11)	200	30000.045.016	5X100MM (66)	100	30000.050.100
			4,5X20MM (15)	200	30000.045.020			
3,5X12MM (8)	200	30000.035.012	4,5X25MM (20)	200	30000.045.025	6X30MM (23)	200	30000.060.030
3,5X16MM (12)	200	30000.035.016	4,5X30MM (25)	200	30000.045.030	6X35MM (28)	200	30000.060.035
3,5X20MM (16)	200	30000.035.020	4,5X35MM (30)	200	30000.045.035	6X40MM (25)	200	30000.060.040
3,5X25MM (21)	200	30000.035.025	4,5X40MM (25)	200	30000.045.040	6X45MM (30)	200	30000.060.045
3,5X30MM (26)	200	30000.035.030	4,5X45MM (30)	200	30000.045.045	6X50MM (35)	200	30000.060.050
3,5X35MM (31)	200	30000.035.035	4,5X50MM (35)	200	30000.045.050	6X60MM (45)	200	30000.060.060
3,5X40MM (25)	200	30000.035.040	4,5X60MM (45)	200	30000.045.060	6X70MM (54)	200	30000.060.070
3,5X45MM (30)	200	30000.035.045	4,5X70MM (54)	200	30000.045.070	6X80MM (54)	100	30000.060.080
3,5X50MM (35)	200	30000.035.050	4,5X80MM (54)	200	30000.045.080	6X90MM (60)	100	30000.060.090
						6X100MM (66)	100	30000.060.100
4X12MM (7)	200	30000.040.012	5X16MM (9)	200	30000.050.016	6X110MM (73)	100	30000.060.110
4X16MM (11)	200	30000.040.016	5X20MM (14)	200	30000.050.020	6X120MM (80)	100	30000.060.120
4X20MM (15)	200	30000.040.020	5X25MM (19)	200	30000.050.025	6X130MM (86)	100	30000.060.130
4X25MM (20)	200	30000.040.025	5X30MM (24)	200	30000.050.030	6X140MM (93)	100	30000.060.140
4X30MM (25)	200	30000.040.030	5X35MM (29)	200	30000.050.035	6X150MM (100)	100	30000.060.150
4X35MM (30)	200	30000.040.035	5X40MM (25)	200	30000.050.040			

30005 MAXXFAST Parafuso para madeira cabeça embeber Pozidriv MF0A

Material Aço
Tratamento sup. Passivado a amarelo

CE

MAXXFAST PROFESSIONAL HARDWARE



d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo
3X10MM (6)	200	30005.030.010	3X35MM (31)	200	30005.030.035	3,5X30MM (26)	200	30005.035.030
3X12MM (8)	200	30005.030.012				3,5X35MM (31)	200	30005.035.035
3X16MM (12)	200	30005.030.016	3,5X12MM (8)	200	30005.035.012	3,5X40MM (25)	200	30005.035.040
3X20MM (16)	200	30005.030.020	3,5X16MM (12)	200	30005.035.016	3,5X45MM (30)	200	30005.035.045
3X25MM (21)	200	30005.030.025	3,5X20MM (16)	200	30005.035.020	3,5X50MM (35)	200	30005.035.050
3X30MM (26)	200	30005.030.030	3,5X25MM (21)	200	30005.035.025			

30005 MAXXFAST Parafuso para madeira cabeça embeber Pozidriv ←

d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo
4X12MM (7)	200	30005.040.012	4,5X45MM (30)	200	30005.045.045	5X100MM (66)	100	30005.050.100
4X16MM (11)	200	30005.040.016	4,5X50MM (35)	200	30005.045.050			
4X20MM (15)	200	30005.040.020	4,5X60MM (45)	200	30005.045.060	6X30MM (23)	200	30005.060.030
4X25MM (20)	200	30005.040.025	4,5X70MM (54)	200	30005.045.070	6X35MM (28)	200	30005.060.035
4X30MM (25)	200	30005.040.030	4,5X80MM (54)	200	30005.045.080	6X40MM (25)	200	30005.060.040
4X35MM (30)	200	30005.040.035				6X45MM (30)	200	30005.060.045
4X40MM (25)	200	30005.040.040	5X16MM (9)	200	30005.050.016	6X50MM (35)	200	30005.060.050
4X45MM (30)	200	30005.040.045	5X20MM (14)	200	30005.050.020	6X60MM (45)	200	30005.060.060
4X50MM (35)	200	30005.040.050	5X25MM (19)	200	30005.050.025	6X70MM (54)	200	30005.060.070
4X60MM (45)	200	30005.040.060	5X30MM (24)	200	30005.050.030	6X80MM (54)	100	30005.060.080
4X70MM (54)	200	30005.040.070	5X35MM (29)	200	30005.050.035	6X90MM (60)	100	30005.060.090
			5X40MM (25)	200	30005.050.040	6X100MM (66)	100	30005.060.100
4,5X16MM (11)	200	30005.045.016	5X45MM (30)	200	30005.050.045	6X110MM (73)	100	30005.060.110
4,5X20MM (15)	200	30005.045.020	5X50MM (35)	200	30005.050.050	6X120MM (80)	100	30005.060.120
4,5X25MM (20)	200	30005.045.025	5X60MM (45)	200	30005.050.060	6X130MM (86)	100	30005.060.130
4,5X30MM (25)	200	30005.045.030	5X70MM (54)	200	30005.050.070	6X140MM (93)	100	30005.060.140
4,5X35MM (30)	200	30005.045.035	5X80MM (54)	100	30005.050.080	6X150MM (100)	100	30005.060.150
4,5X40MM (25)	200	30005.045.040	5X90MM (60)	100	30005.050.090			

30015 MAXXFAST Parafuso para madeira cabeça embeber Pozidriv MF0A

Material Aço inoxidável A2

MAXXFAST PROFESSIONAL HARDWARE



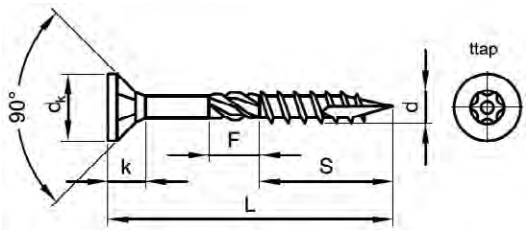
CE

RoHS

6

d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo
3X10MM (6)	200	30015.030.010	4X40MM (25)	200	30015.040.040	5X45MM (30)	200	30015.050.045
3X12MM (8)	200	30015.030.012	4X45MM (30)	200	30015.040.045	5X50MM (35)	200	30015.050.050
3X16MM (12)	200	30015.030.016	4X50MM (35)	200	30015.040.050	5X60MM (45)	200	30015.050.060
3X20MM (16)	200	30015.030.020	4X60MM (45)	200	30015.040.060	5X70MM (54)	200	30015.050.070
3X25MM (21)	200	30015.030.025	4X70MM (54)	200	30015.040.070	5X80MM (54)	100	30015.050.080
3X30MM (26)	200	30015.030.030				5X90MM (60)	100	30015.050.090
3X35MM (31)	200	30015.030.035	4,5X16MM (11)	200	30015.045.016	5X100MM (66)	100	30015.050.100
			4,5X20MM (15)	200	30015.045.020			
3,5X12MM (8)	200	30015.035.012	4,5X25MM (20)	200	30015.045.025	6X30MM (23)	200	30015.060.030
3,5X16MM (12)	200	30015.035.016	4,5X30MM (25)	200	30015.045.030	6X35MM (28)	200	30015.060.035
3,5X20MM (16)	200	30015.035.020	4,5X35MM (30)	200	30015.045.035	6X40MM (25)	200	30015.060.040
3,5X25MM (21)	200	30015.035.025	4,5X40MM (25)	200	30015.045.040	6X45MM (30)	200	30015.060.045
3,5X30MM (26)	200	30015.035.030	4,5X45MM (30)	200	30015.045.045	6X50MM (35)	200	30015.060.050
3,5X35MM (31)	200	30015.035.035	4,5X50MM (35)	200	30015.045.050	6X60MM (45)	200	30015.060.060
3,5X40MM (25)	200	30015.035.040	4,5X60MM (45)	200	30015.045.060	6X70MM (54)	200	30015.060.070
3,5X45MM (30)	200	30015.035.045	4,5X70MM (54)	200	30015.045.070	6X80MM (54)	100	30015.060.080
3,5X50MM (35)	200	30015.035.050	4,5X80MM (54)	200	30015.045.080	6X90MM (60)	100	30015.060.090
						6X100MM (66)	100	30015.060.100
4X12MM (7)	200	30015.040.012	5X16MM (9)	200	30015.050.016	6X110MM (73)	100	30015.060.110
4X16MM (11)	200	30015.040.016	5X20MM (14)	200	30015.050.020	6X120MM (80)	100	30015.060.120
4X20MM (15)	200	30015.040.020	5X25MM (19)	200	30015.050.025	6X130MM (86)	100	30015.060.130
4X25MM (20)	200	30015.040.025	5X30MM (24)	200	30015.050.030	6X140MM (93)	100	30015.060.140
4X30MM (25)	200	30015.040.030	5X35MM (29)	200	30015.050.035	6X150MM (100)	100	30015.060.150
4X35MM (30)	200	30015.040.035	5X40MM (25)	200	30015.050.040			

Parafuso universal para madeira cabeça de embeber com ttap®





Dados técnicos

d	d_k	k	No. ttap	d	d_k	k	No. ttap
3	6	3.5	10	4.5	9	5.0	20
3.5	7	4.0	15	5	10	5.5	25
4	8	4.5	20	6	12	6.3	25

- Só embalagens completas.
- F=9mm apenas se L≥40mm.
- Os diâmetros 3 e 3,5 não são adequados para fixação de juntas, por isso não têm marcação CE.

Grupos de produtos

Encaixe	Material	Tratamento sup.	Código	Página
ttap®	Aço	Zn	30100	6-151
ttap®	Aço	Passiv. amar.	30105	6-151
ttap®	INOX A2		30115	6-152

30100 MAXXFAST Parafuso para madeira cabeça embeber ttap® MF0A

Material Aço
Tratamento sup. Zincado

CE

MAXXFAST PROFESSIONAL HARDWARE

RoHS



d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo
3X10MM (6)	200	30100.030.010	4X40MM (25)	200	30100.040.040	5X45MM (30)	200	30100.050.045
3X12MM (8)	200	30100.030.012	4X45MM (30)	200	30100.040.045	5X50MM (35)	200	30100.050.050
3X16MM (12)	200	30100.030.016	4X50MM (35)	200	30100.040.050	5X60MM (45)	200	30100.050.060
3X20MM (16)	200	30100.030.020	4X60MM (45)	200	30100.040.060	5X70MM (54)	200	30100.050.070
3X25MM (21)	200	30100.030.025	4X70MM (54)	200	30100.040.070	5X80MM (54)	100	30100.050.080
3X30MM (26)	200	30100.030.030				5X90MM (60)	100	30100.050.090
3X35MM (31)	200	30100.030.035	4,5X16MM (11)	200	30100.045.016	5X100MM (66)	100	30100.050.100
			4,5X20MM (15)	200	30100.045.020			
3,5X12MM (8)	200	30100.035.012	4,5X25MM (20)	200	30100.045.025	6X30MM (23)	200	30100.060.030
3,5X16MM (12)	200	30100.035.016	4,5X30MM (25)	200	30100.045.030	6X35MM (28)	200	30100.060.035
3,5X20MM (16)	200	30100.035.020	4,5X35MM (30)	200	30100.045.035	6X40MM (25)	200	30100.060.040
3,5X25MM (21)	200	30100.035.025	4,5X40MM (25)	200	30100.045.040	6X45MM (30)	200	30100.060.045
3,5X30MM (26)	200	30100.035.030	4,5X45MM (30)	200	30100.045.045	6X50MM (35)	200	30100.060.050
3,5X35MM (31)	200	30100.035.035	4,5X50MM (35)	200	30100.045.050	6X60MM (45)	200	30100.060.060
3,5X40MM (25)	200	30100.035.040	4,5X60MM (45)	200	30100.045.060	6X70MM (54)	200	30100.060.070
3,5X45MM (30)	200	30100.035.045	4,5X70MM (54)	200	30100.045.070	6X80MM (54)	100	30100.060.080
3,5X50MM (35)	200	30100.035.050	4,5X80MM (54)	200	30100.045.080	6X90MM (60)	100	30100.060.090
						6X100MM (66)	100	30100.060.100
4X12MM (7)	200	30100.040.012	5X16MM (9)	200	30100.050.016	6X110MM (73)	100	30100.060.110
4X16MM (11)	200	30100.040.016	5X20MM (14)	200	30100.050.020	6X120MM (80)	100	30100.060.120
4X20MM (15)	200	30100.040.020	5X25MM (19)	200	30100.050.025	6X130MM (86)	100	30100.060.130
4X25MM (20)	200	30100.040.025	5X30MM (24)	200	30100.050.030	6X140MM (93)	100	30100.060.140
4X30MM (25)	200	30100.040.030	5X35MM (29)	200	30100.050.035	6X150MM (100)	100	30100.060.150
4X35MM (30)	200	30100.040.035	5X40MM (25)	200	30100.050.040			

30105 MAXXFAST Parafuso para madeira cabeça embeber ttap® MF0A

Material Aço
Tratamento sup. Passivado a amarelo

CE

MAXXFAST PROFESSIONAL HARDWARE



d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo
3X10MM (6)	200	30105.030.010	3X35MM (31)	200	30105.030.035	3,5X30MM (26)	200	30105.035.030
3X12MM (8)	200	30105.030.012				3,5X35MM (31)	200	30105.035.035
3X16MM (12)	200	30105.030.016	3,5X12MM (8)	200	30105.035.012	3,5X40MM (25)	200	30105.035.040
3X20MM (16)	200	30105.030.020	3,5X16MM (12)	200	30105.035.016	3,5X45MM (30)	200	30105.035.045
3X25MM (21)	200	30105.030.025	3,5X20MM (16)	200	30105.035.020	3,5X50MM (35)	200	30105.035.050
3X30MM (26)	200	30105.030.030	3,5X25MM (21)	200	30105.035.025			

30105 MAXXFAST Parafuso para madeira cabeça embeber ttap®

d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo
4X12MM (7)	200	30105.040.012	4,5X45MM (30)	200	30105.045.045	5X100MM (66)	100	30105.050.100
4X16MM (11)	200	30105.040.016	4,5X50MM (35)	200	30105.045.050			
4X20MM (15)	200	30105.040.020	4,5X60MM (45)	200	30105.045.060	6X30MM (23)	200	30105.060.030
4X25MM (20)	200	30105.040.025	4,5X70MM (54)	200	30105.045.070	6X35MM (28)	200	30105.060.035
4X30MM (25)	200	30105.040.030	4,5X80MM (54)	200	30105.045.080	6X40MM (25)	200	30105.060.040
4X35MM (30)	200	30105.040.035				6X45MM (30)	200	30105.060.045
4X40MM (25)	200	30105.040.040	5X16MM (9)	200	30105.050.016	6X50MM (35)	200	30105.060.050
4X45MM (30)	200	30105.040.045	5X20MM (14)	200	30105.050.020	6X60MM (45)	200	30105.060.060
4X50MM (35)	200	30105.040.050	5X25MM (19)	200	30105.050.025	6X70MM (54)	200	30105.060.070
4X60MM (45)	200	30105.040.060	5X30MM (24)	200	30105.050.030	6X80MM (54)	100	30105.060.080
4X70MM (54)	200	30105.040.070	5X35MM (29)	200	30105.050.035	6X90MM (60)	100	30105.060.090
			5X40MM (25)	200	30105.050.040	6X100MM (66)	100	30105.060.100
4,5X16MM (11)	200	30105.045.016	5X45MM (30)	200	30105.050.045	6X110MM (73)	100	30105.060.110
4,5X20MM (15)	200	30105.045.020	5X50MM (35)	200	30105.050.050	6X120MM (80)	100	30105.060.120
4,5X25MM (20)	200	30105.045.025	5X60MM (45)	200	30105.050.060	6X130MM (86)	100	30105.060.130
4,5X30MM (25)	200	30105.045.030	5X70MM (54)	200	30105.050.070	6X140MM (93)	100	30105.060.140
4,5X35MM (30)	200	30105.045.035	5X80MM (54)	100	30105.050.080	6X150MM (100)	100	30105.060.150
4,5X40MM (25)	200	30105.045.040	5X90MM (60)	100	30105.050.090			

30115 MAXXFAST Parafuso para madeira cabeça embeber ttap® MF0A

Material Aço inoxidável A2

MAXXFAST PROFESSIONAL HARDWARE

RoHS



CE

6

d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo
3X10MM (6)	200	30115.030.010	4X40MM (25)	200	30115.040.040	5X45MM (30)	200	30115.050.045
3X12MM (8)	200	30115.030.012	4X45MM (30)	200	30115.040.045	5X50MM (35)	200	30115.050.050
3X16MM (12)	200	30115.030.016	4X50MM (35)	200	30115.040.050	5X60MM (45)	200	30115.050.060
3X20MM (16)	200	30115.030.020	4X60MM (45)	200	30115.040.060	5X70MM (54)	200	30115.050.070
3X25MM (21)	200	30115.030.025	4X70MM (54)	200	30115.040.070	5X80MM (54)	100	30115.050.080
3X30MM (26)	200	30115.030.030				5X90MM (60)	100	30115.050.090
3X35MM (31)	200	30115.030.035	4,5X16MM (11)	200	30115.045.016	5X100MM (66)	100	30115.050.100
			4,5X20MM (15)	200	30115.045.020			
3,5X12MM (8)	200	30115.035.012	4,5X25MM (20)	200	30115.045.025	6X30MM (23)	200	30115.060.030
3,5X16MM (12)	200	30115.035.016	4,5X30MM (25)	200	30115.045.030	6X35MM (28)	200	30115.060.035
3,5X20MM (16)	200	30115.035.020	4,5X35MM (30)	200	30115.045.035	6X40MM (25)	200	30115.060.040
3,5X25MM (21)	200	30115.035.025	4,5X40MM (25)	200	30115.045.040	6X45MM (30)	200	30115.060.045
3,5X30MM (26)	200	30115.035.030	4,5X45MM	200	30115.045.045	6X50MM (35)	200	30115.060.050
3,5X35MM (31)	200	30115.035.035	4,5X50MM	200	30115.045.050	6X60MM (45)	200	30115.060.060
3,5X40MM (25)	200	30115.035.040	4,5X60MM (45)	200	30115.045.060	6X70MM (54)	200	30115.060.070
3,5X45MM (30)	200	30115.035.045	4,5X70MM (54)	200	30115.045.070	6X80MM (54)	100	30115.060.080
3,5X50MM (35)	200	30115.035.050	4,5X80MM (54)	200	30115.045.080	6X90MM (60)	100	30115.060.090
						6X100MM (66)	100	30115.060.100
4X12MM (7)	200	30115.040.012	5X16MM (9)	200	30115.050.016	6X110MM (73)	100	30115.060.110
4X16MM (11)	200	30115.040.016	5X20MM (14)	200	30115.050.020	6X120MM (80)	100	30115.060.120
4X20MM (15)	200	30115.040.020	5X25MM (19)	200	30115.050.025	6X130MM (86)	100	30115.060.130
4X25MM (20)	200	30115.040.025	5X30MM (24)	200	30115.050.030	6X140MM (93)	100	30115.060.140
4X30MM (25)	200	30115.040.030	5X35MM (29)	200	30115.050.035	6X150MM (100)	100	30115.060.150
4X35MM (30)	200	30115.040.035	5X40MM (25)	200	30115.050.040			

Parafusos para madeira auto roscantes

Geral
Os parafusos com rosca para madeira auto roscantes, foram especialmente desenvolvidos, para prevenir problemas resultantes da aplicação de parafusos convencionais para madeira em diferentes tipos de madeira. Estes parafusos têm diversas melhorias técnicas, que asseguram de forma fácil uma montagem rápida com ferramentas modernas, originando uma poupança de tempo e, consequentemente, de custo total de montagem.

Propriedades
Os benefícios destes produtos são resultado das seguintes propriedades: geometria da rosca, o ângulo da rosca foi reduzido de 60° a 40°.

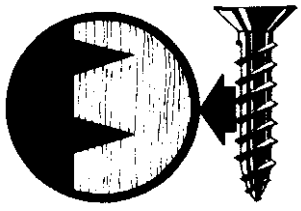
Vantagens
Para o mesmo diâmetro exterior, o diâmetro interior é mais pequeno e de igual espessura em todo o comprimentos do parafuso(excepto na ponta). A rosca do parafuso é total, mas dependendo do fabricante, poderá ser parcial. A ponta auto centrável, torna a furação mais fácil e com menos risco de oscilação. O consumo de tempo no pré furo é, na maioria das vezes, desnecessário. As características da rosca, permitem que o material seja cortado, sem se danificar. Menor risco de desagregação do material, ou que se desfaça, na instalação de portas, janelas ou outro material. Além de uma melhor fixação (até 35% mais força) e até 40% menor torque de montagem.

Material
Os parafusos para aglomerado são feitos de aço inox assim como de aço endurecido e tratamentos endurecidos. São mais fortes e resistente que os tradicionais parafusos para madeira, com uma performance de corte superior e não danificam o material durante a instalação. Um núcleo duro evita que a cabeça do parafuso se parta ou se dobre.

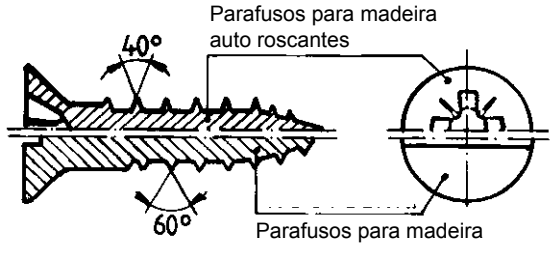
Montagem
Os parafusos para aglomerado e aço têm um lubrificante para maior resistência á corrosão, facilitando a aplicação.

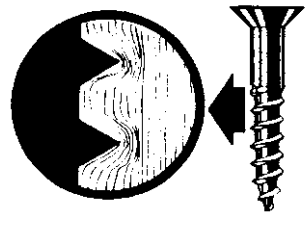
Tipos
Estão disponíveis em Pozidriv (Z) e hexalobular.
Além da gama Heco-Fix, a Fabory tem também uma gama extensa de parafusos universais MaxxFast com ttap®.
Consulte as páginas desta seção para informação mais detalhada.

Informação técnica



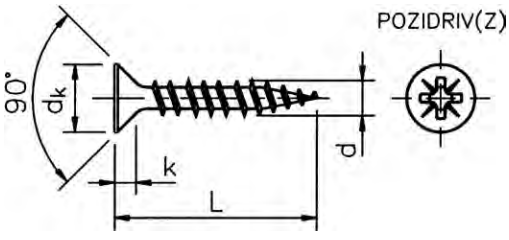
Parafusos para madeira auto roscantes

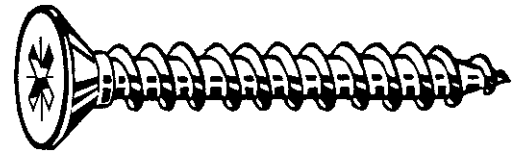




Parafusos para madeira

Parafuso rosca para madeira cabeça de embeber fenda cruz





Dados técnicos

d	d_k (max.)	k (max.)	Nr. fenda
2.5	5	1.2	1
3	5.9	1.9	1
3.5	6.9	2.1	2
4	7.9	2.5	2
4.5	8.9	2.7	2
5	9.6	3	2
6	11.6	3.6	3

- Todas as medidas são indicativas, dependem do fabricante.

Grupos de produtos

Encaixe	Material	Tratamento sup.		Código	Página
Pozidriv	Aço	Zn		29240	6-154
Pozidriv	Aço	Zn	Embalagem grande	29242	6-155
Pozidriv	Aço	Zn	HECO-FIX PLUS	29248	6-155
Pozidriv	Aço	Passiv. amar.		29440	6-155
Pozidriv	INOX A2			51750	6-156
Pozidriv	INOX A4			55750	6-156
Pozidriv	Aço	Zn	HECO-TOPIX	29349	6-157
Pozidriv	Aço	Passiv. amar.	HECO-TOPIX	29353	6-157
Pozidriv	Aço	Zn	HECO-UNIX PLUS	29370	6-157

29240 **Parafuso rosca para madeira cabeça de embeber Pozidriv** **K01A**

Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
2,5X10MM	200	29240.025.010	4X35MM	200	29240.040.035	5X50MM	200	29240.050.050
2,5X12MM	200	29240.025.012	4X40MM	200	29240.040.040	5X60MM	200	29240.050.060
2,5X16MM	200	29240.025.016	4X45MM	200	29240.040.045	5X70MM	200	29240.050.070
			4X50MM	200	29240.040.050	5X80MM	200	29240.050.080
3X10MM	200	29240.030.010	4X60MM	200	29240.040.060	5X90MM	200	29240.050.090
3X12MM	200	29240.030.012	4X70MM	200	29240.040.070	5X100MM	200	29240.050.100
3X16MM	200	29240.030.016						
3X20MM	200	29240.030.020	4,5X16MM	200	29240.045.016	6X30MM	200	29240.060.030
3X25MM	200	29240.030.025	4,5X20MM	200	29240.045.020	6X35MM	200	29240.060.035
3X30MM	200	29240.030.030	4,5X25MM	200	29240.045.025	6X40MM	200	29240.060.040
3X35MM	200	29240.030.035	4,5X30MM	200	29240.045.030	6X45MM	200	29240.060.045
			4,5X35MM	200	29240.045.035	6X50MM	200	29240.060.050
3,5X12MM	200	29240.035.012	4,5X40MM	200	29240.045.040	6X60MM	200	29240.060.060
3,5X16MM	200	29240.035.016	4,5X45MM	200	29240.045.045	6X70MM	200	29240.060.070
3,5X20MM	200	29240.035.020	4,5X50MM	200	29240.045.050	6X80MM	200	29240.060.080
3,5X25MM	200	29240.035.025	4,5X60MM	200	29240.045.060	6X90MM	200	29240.060.090
3,5X30MM	200	29240.035.030	4,5X70MM	200	29240.045.070	6X100MM	200	29240.060.100
3,5X35MM	200	29240.035.035	4,5X80MM	200	29240.045.080	6X110MM	200	29240.060.110
3,5X40MM	200	29240.035.040				6X120MM	200	29240.060.120
			5X20MM	200	29240.050.020	6X130MM	200	29240.060.130
4X12MM	200	29240.040.012	5X25MM	200	29240.050.025	6X140MM	200	29240.060.140
4X16MM	200	29240.040.016	5X30MM	200	29240.050.030	6X150MM	200	29240.060.150
4X20MM	200	29240.040.020	5X35MM	200	29240.050.035	6X160MM	100	29240.060.160
4X25MM	200	29240.040.025	5X40MM	200	29240.050.040			
4X30MM	200	29240.040.030	5X45MM	200	29240.050.045			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

29242 Parafuso rosca para madeira cabeça de embeber Pozidriv K01A

Material Aço
Tratamento sup. Zincado

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3X16MM	2000	29242.030.016	3,5X25MM	2000	29242.035.025	4X25MM	2000	29242.040.025
3X20MM	2000	29242.030.020	3,5X30MM	2000	29242.035.030	4X30MM	2000	29242.040.030
3X25MM	2000	29242.030.025	3,5X40MM	2000	29242.035.040	4X35MM	2000	29242.040.035
						4X40MM	2000	29242.040.040
3,5X16MM	2000	29242.035.016	4X16MM	2000	29242.040.016	4X45MM	2000	29242.040.045
3,5X20MM	2000	29242.035.020	4X20MM	2000	29242.040.020	4X50MM	2000	29242.040.050

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

29248 HECO-FIX Parafuso rosca para madeira cabeça embeber Pozidriv K04A

Material Aço
Tratamento sup. Zincado

HECO SCHRAUBEN

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
2,5X10MM	200	29248.025.010	4X20MM	200	29248.040.020	5X40MM	200	29248.050.040
2,5X12MM	200	29248.025.012	4X25MM	200	29248.040.025	5X45MM	200	29248.050.045
2,5X16MM	200	29248.025.016	4X30MM	200	29248.040.030	5X50MM	200	29248.050.050
2,5X20MM	200	29248.025.020	4X35MM	200	29248.040.035	5X60MM	200	29248.050.060
			4X40MM	200	29248.040.040	5X70MM	200	29248.050.070
3X10MM	200	29248.030.010	4X45MM	200	29248.040.045	5X80MM	200	29248.050.080
3X12MM	200	29248.030.012	4X50MM	200	29248.040.050	5X90MM	200	29248.050.090
3X16MM	200	29248.030.016	4X55MM	200	29248.040.055	5X100MM	200	29248.050.100
3X20MM	200	29248.030.020	4X60MM	200	29248.040.060			
3X25MM	200	29248.030.025	4X70MM	200	29248.040.070	6X30MM	200	29248.060.030
3X30MM	200	29248.030.030				6X35MM	200	29248.060.035
3X35MM	200	29248.030.035	4,5X16MM	200	29248.045.016	6X40MM	200	29248.060.040
3X40MM	200	29248.030.040	4,5X20MM	200	29248.045.020	6X45MM	200	29248.060.045
3X45MM	500	29248.030.045	4,5X25MM	200	29248.045.025	6X50MM	200	29248.060.050
			4,5X30MM	200	29248.045.030	6X60MM	200	29248.060.060
3,5X12MM	1000	29248.035.012	4,5X35MM	200	29248.045.035	6X70MM	200	29248.060.070
3,5X15MM	200	29248.035.015	4,5X40MM	200	29248.045.040	6X80MM	100	29248.060.080
3,5X16MM	200	29248.035.016	4,5X45MM	200	29248.045.045	6X90MM	100	29248.060.090
3,5X20MM	200	29248.035.020	4,5X50MM	200	29248.045.050	6X100MM	100	29248.060.100
3,5X25MM	200	29248.035.025	4,5X60MM	200	29248.045.060	6X110MM	100	29248.060.110
3,5X30MM	200	29248.035.030	4,5X70MM	200	29248.045.070	6X120MM	100	29248.060.120
3,5X35MM	200	29248.035.035	4,5X80MM	200	29248.045.080	6X130MM	100	29248.060.130
3,5X40MM	200	29248.035.040				6X140MM	100	29248.060.140
3,5X45MM	200	29248.035.045	5X20MM	200	29248.050.020	6X150MM	100	29248.060.150
3,5X50MM	200	29248.035.050	5X25MM	200	29248.050.025	6X160MM	100	29248.060.160
			5X30MM	200	29248.050.030	6X180MM	100	29248.060.180
4X16MM	200	29248.040.016	5X35MM	200	29248.050.035	6X200MM	100	29248.060.200

- Caracteristicas especiais de parafusos HECO-FIX PLUS para aglomerado:
- Redução de torque até 30%.
- Fácil utilização.
- Menos gasto de bateria da ferramenta.
- Forças axiais são reduzidas, menos desgaste das ponteiras.
- Menos tendência de desaperto, pela geometria do parafuso.
- Aviso: A electro zincagem deste material pode provocar disfunção hidrogénica.

29440 Parafuso rosca para madeira cabeça embeber Pozidriv K01B

Material Aço
Tratamento sup. Passivado a amarelo



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
2,5X12MM	200	29440.025.013	3X25MM	200	29440.030.025	3,5X35MM	200	29440.035.035
2,5X15MM	200	29440.025.015	3X30MM	200	29440.030.030	3,5X40MM	200	29440.035.040
2,5X16MM	200	29440.025.016	3X35MM	200	29440.030.035	3,5X45MM	200	29440.035.045
2,5X17MM	200	29440.025.017				3,5X50MM	200	29440.035.050
			3,5X12MM	200	29440.035.012			
3X10MM	200	29440.030.010	3,5X16MM	200	29440.035.016	4X12MM	200	29440.040.012
3X12MM	200	29440.030.012	3,5X20MM	200	29440.035.020	4X16MM	200	29440.040.016
3X16MM	200	29440.030.016	3,5X25MM	200	29440.035.025	4X20MM	200	29440.040.020
3X20MM	200	29440.030.020	3,5X30MM	200	29440.035.030	4X25MM	200	29440.040.025

6

29440 Parafuso rosca para madeira cabeça embeber Pozidriv

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
4X30MM	200	29440.040.030	4,5X60MM	200	29440.045.060	5X100MM	200	29440.050.100
4X35MM	200	29440.040.035	4,5X70MM	200	29440.045.070			
4X40MM	200	29440.040.040	4,5X80MM	200	29440.045.080	6X30MM	200	29440.060.030
4X45MM	200	29440.040.045				6X40MM	200	29440.060.040
4X50MM	200	29440.040.050	5X20MM	200	29440.050.020	6X50MM	200	29440.060.050
4X60MM	200	29440.040.060	5X25MM	200	29440.050.025	6X60MM	200	29440.060.060
4X70MM	200	29440.040.070	5X30MM	200	29440.050.030	6X70MM	200	29440.060.070
			5X35MM	200	29440.050.035	6X80MM	200	29440.060.080
4,5X16MM	200	29440.045.016	5X40MM	200	29440.050.040	6X90MM	200	29440.060.090
4,5X20MM	200	29440.045.020	5X45MM	200	29440.050.045	6X100MM	200	29440.060.100
4,5X25MM	200	29440.045.025	5X50MM	200	29440.050.050	6X110MM	200	29440.060.110
4,5X30MM	200	29440.045.030	5X55MM	200	29440.050.055	6X120MM	200	29440.060.120
4,5X35MM	200	29440.045.035	5X60MM	200	29440.050.060	6X130MM	200	29440.060.130
4,5X40MM	200	29440.045.040	5X70MM	200	29440.050.070	6X140MM	200	29440.060.140
4,5X45MM	200	29440.045.045	5X80MM	200	29440.050.080	6X150MM	200	29440.060.150
4,5X50MM	200	29440.045.050	5X90MM	200	29440.050.090			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

51750 Parafuso rosca para madeira cabeça embeber Pozidriv R03A

Material Aço inoxidável A2



RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3X10MM	200	51750.030.010	4X25MM	200	51750.040.025	5X45MM	200	51750.050.045
3X12MM	200	51750.030.012	4X30MM	200	51750.040.030	5X50MM	200	51750.050.050
3X13MM	200	51750.030.013	4X35MM	200	51750.040.035	5X55MM*	200	51750.050.055
3X14MM	200	51750.030.014	4X40MM	200	51750.040.040	5X60MM	200	51750.050.060
3X16MM	200	51750.030.016	4X45MM	200	51750.040.045	5X65MM*	100	51750.050.065
3X20MM	200	51750.030.020	4X50MM	200	51750.040.050	5X70MM	200	51750.050.070
3X25MM	200	51750.030.025	4X60MM	200	51750.040.060	5X80MM	200	51750.050.080
3X30MM	200	51750.030.030	4X70MM	200	51750.040.070	5X90MM	100	51750.050.090
3X35MM	200	51750.030.035				5X100MM	100	51750.050.100
3X40MM	200	51750.030.040	4,5X20MM	200	51750.045.020	5X120MM	100	51750.050.120
3X50MM*	200	51750.030.050	4,5X25MM	200	51750.045.025			
			4,5X30MM	200	51750.045.030	6X20MM*	100	51750.060.020
3,5X12MM*	500	51750.035.012	4,5X35MM	200	51750.045.035	6X25MM*	100	51750.060.025
3,5X13MM	200	51750.035.013	4,5X40MM	200	51750.045.040	6X30MM	100	51750.060.030
3,5X16MM	200	51750.035.016	4,5X45MM	200	51750.045.045	6X35MM	100	51750.060.035
3,5X20MM	200	51750.035.020	4,5X50MM	200	51750.045.050	6X40MM	100	51750.060.040
3,5X25MM	200	51750.035.025	4,5X60MM	200	51750.045.060	6X50MM	100	51750.060.050
3,5X30MM	200	51750.035.030	4,5X70MM	200	51750.045.070	6X60MM	100	51750.060.060
3,5X35MM	200	51750.035.035				6X70MM	100	51750.060.070
3,5X40MM	200	51750.035.040	5X20MM	200	51750.050.020	6X80MM	100	51750.060.080
			5X25MM	200	51750.050.025	6X90MM	100	51750.060.090
4X12MM*	500	51750.040.012	5X30MM	200	51750.050.030	6X100MM	100	51750.060.100
4X16MM	200	51750.040.016	5X35MM	200	51750.050.035	6X110MM	100	51750.060.110
4X20MM	200	51750.040.020	5X40MM	200	51750.050.040	6X120MM	100	51750.060.120

55750 Parafuso rosca para madeira cabeça embeber Pozidriv R43A

Material Aço inoxidável A4



RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3X12MM	200	55750.030.012	4X20MM	200	55750.040.020			
3X16MM	200	55750.030.016	4X25MM	200	55750.040.025	5X20MM*	500	55750.050.020
3X20MM	200	55750.030.020	4X30MM	200	55750.040.030	5X30MM	200	55750.050.030
3X25MM	200	55750.030.025	4X35MM	200	55750.040.035	5X40MM	200	55750.050.040
3X30MM	200	55750.030.030	4X40MM	200	55750.040.040	5X50MM	200	55750.050.050
			4X45MM	200	55750.040.045	5X60MM	200	55750.050.060
3,5X12MM	200	55750.035.012	4X50MM	200	55750.040.050	5X65MM*	100	55750.050.065
3,5X16MM	200	55750.035.016	4X60MM	200	55750.040.060	5X70MM	200	55750.050.070
3,5X20MM	200	55750.035.020	4X70MM*	200	55750.040.070			
3,5X25MM	200	55750.035.025				6X40MM	100	55750.060.040
3,5X30MM	200	55750.035.030	4,5X20MM*	500	55750.045.020	6X50MM*	100	55750.060.050
3,5X35MM	200	55750.035.035	4,5X40MM*	200	55750.045.040	6X60MM	100	55750.060.060
3,5X40MM	200	55750.035.040	4,5X45MM*	200	55750.045.045	6X70MM	100	55750.060.070
			4,5X50MM*	200	55750.045.050	6X80MM	100	55750.060.080
4X12MM	200	55750.040.012	4,5X60MM*	200	55750.045.060	6X90MM	100	55750.060.090
4X16MM	200	55750.040.016	4,5X70MM*	200	55750.045.070			

29349 HECO TOPIX Parafuso rosca para madeira cabeça embeber Pozidriv K04A

Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3,5X20MM	1000	29349.035.020	4X50MM	500	29349.040.050	5X60MM	200	29349.050.060
3,5X25MM	1000	29349.035.025	4X60MM	200	29349.040.060	5X70MM	200	29349.050.070
3,5X30MM	1000	29349.035.030	4X70MM	200	29349.040.070	5X80MM	200	29349.050.080
3,5X35MM	1000	29349.035.035				5X90MM	200	29349.050.090
3,5X40MM	500	29349.035.040	4,5X30MM	500	29349.045.030	5X100MM	200	29349.050.100
3,5X45MM	500	29349.035.045	4,5X35MM	500	29349.045.035	5X120MM	100	29349.050.120
3,5X50MM	500	29349.035.050	4,5X40MM	500	29349.045.040			
			4,5X45MM	500	29349.045.045	6X50MM	200	29349.060.050
4X25MM	1000	29349.040.025	4,5X50MM	200	29349.045.050	6X80MM	200	29349.060.080
4X30MM	1000	29349.040.030	4,5X60MM	200	29349.045.060	6X100MM	100	29349.060.100
4X35MM	1000	29349.040.035				6X110MM	100	29349.060.110
4X40MM	500	29349.040.040	5X40MM	500	29349.050.040	6X120MM	100	29349.060.120
4X45MM	500	29349.040.045	5X50MM	200	29349.050.050			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

29353 HECO TOPIX Parafuso rosca para madeira cabeça embeber Pozidriv K04A

Material Aço
Tratamento sup. Passivado a amarelo



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3,5X15MM	1000	29353.035.015	4X60MM	200	29353.040.060	5X60MM	200	29353.050.060
3,5X30MM	1000	29353.035.030				5X70MM	200	29353.050.070
3,5X35MM	1000	29353.035.035	4,5X30MM	500	29353.045.030	5X80MM	200	29353.050.080
			4,5X35MM	500	29353.045.035			
4X25MM	1000	29353.040.025	4,5X40MM	500	29353.045.040	6X80MM	100	29353.060.080
4X30MM	1000	29353.040.030	4,5X70MM	200	29353.045.070	6X90MM	100	29353.060.090
4X35MM	500	29353.040.035				6X100MM	100	29353.060.100
4X40MM	500	29353.040.040	5X40MM	500	29353.050.040	6X120MM	100	29353.060.120
4X50MM	500	29353.040.050	5X50MM	200	29353.050.050			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

29370 HECO UNIX PLUS Parafuso rosca para madeira cabeça embeber Pozidriv K04A

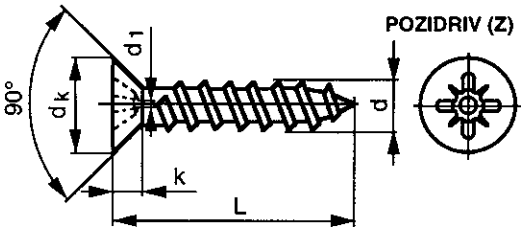
Material Aço
Tratamento sup. Zincado

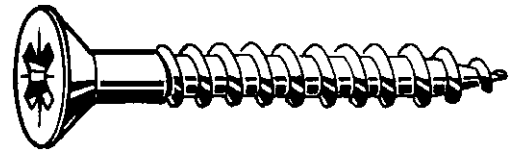


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3,5X20MM	1000	29370.035.020	4X60MM	200	29370.040.060	5X45MM	200	29370.050.045
3,5X25MM	1000	29370.035.025				5X50MM	200	29370.050.050
3,5X30MM	1000	29370.035.030	4,5X25MM	500	29370.045.025	5X60MM	200	29370.050.060
3,5X35MM	1000	29370.035.035	4,5X30MM	500	29370.045.030	5X80MM	200	29370.050.080
3,5X40MM	500	29370.035.040	4,5X35MM	500	29370.045.035			
3,5X50MM	500	29370.035.050	4,5X40MM	500	29370.045.040	6X35MM	200	29370.060.035
			4,5X45MM	500	29370.045.045	6X40MM	200	29370.060.040
4X25MM	1000	29370.040.025	4,5X50MM	200	29370.045.050	6X45MM	200	29370.060.045
4X30MM	1000	29370.040.030	4,5X60MM	200	29370.045.060	6X50MM	200	29370.060.050
4X35MM	500	29370.040.035				6X60MM	200	29370.060.060
4X40MM	500	29370.040.040	5X30MM	500	29370.050.030	6X80MM	100	29370.060.080
4X45MM	500	29370.040.045	5X35MM	500	29370.050.035	6X100MM	100	29370.060.100
4X50MM	500	29370.040.050	5X40MM	500	29370.050.040	6X120MM	100	29370.060.120

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Parafuso cabeça de embeber fenda cruz com furo para aglomerado





Dados técnicos

d	d_1	d_k	k	Nr. fenda
4	2.5	8	2.6	2
4.5	2.5	9	2.9	2
5	2.5	10	3.2	2
6	2.5	12	3.9	3

- Todas as medidas são indicativas, dependem do fabricante.

29385 **Parafuso cabeça de embeber fenda cruz com furo para aglomerado Pozidriv** **K03A**

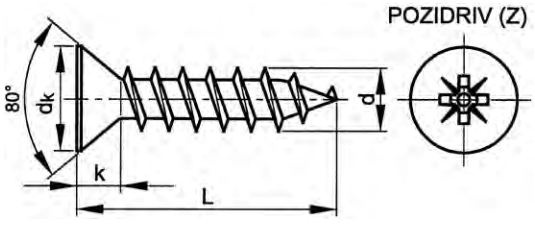
Material Aço
Tratamento sup. Zincado

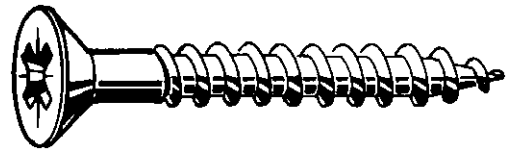


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
4X50MM	200	29385.040.050	4,5X60MM	200	29385.045.060			
			4,5X70MM	200	29385.045.070	6X50MM	200	29385.060.050
4,5X20MM	200	29385.045.020				6X60MM	100	29385.060.060
4,5X25MM	200	29385.045.025	5X40MM	200	29385.050.040	6X70MM	100	29385.060.070
4,5X30MM	200	29385.045.030	5X50MM	200	29385.050.050	6X80MM	100	29385.060.080
4,5X35MM	200	29385.045.035	5X60MM	200	29385.050.060	6X90MM	100	29385.060.090
4,5X40MM	200	29385.045.040	5X70MM	200	29385.050.070	6X100MM	100	29385.060.100
4,5X45MM	200	29385.045.045	5X80MM	200	29385.050.080	6X110MM	100	29385.060.110
4,5X50MM	200	29385.045.050	5X100MM	200	29385.050.100			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Parafuso cabeça de embeber reduzida fenda cruz para aglomerado





Dados técnicos

d	d_k	k	Nr. fenda
3	5	1.9	1

- Todas as medidas são indicativas, dependem do fabricante.

29243 **Parafuso cabeça de embeber reduzida fenda cruz para aglomerado Pozidriv** **K03A**

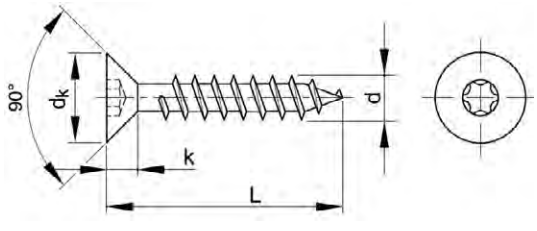
Material Aço
Tratamento sup. Passivado a amarelo

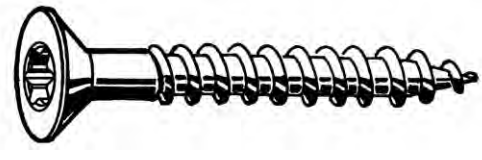


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3X13MM	200	29243.030.013	3X17MM	200	29243.030.017	3X25MM	200	29243.030.025
3X15MM	200	29243.030.015	3X20MM	200	29243.030.020			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Parafuso cabeça de embeber hexalobular para aglomerado





Dados técnicos

d	Chave caixa	d_k	k
3	T10	6	1.9
3.5	T15	7	2.3
4	T20	8	2.6
4.5	T25	9	2.9

d	Chave caixa	d_k	k
5	T25	10	3.2
6	T30	12	3.5
8	T40	14	4.1

- Todas as medidas são indicativas, dependem do fabricante.

Grupos de produtos

Encaixe	Material	Tratamento sup.		Código	Página
Hexalobular	Aço	Zn		29310	6-160
Hexalobular	Aço	Zn	HECO-TOPIX	29360	6-160
Hexalobular	Aço	Zn	HECO-UNIX TOP	29375	6-160
Hexalobular	INOX A2			51775	6-161
Hexalobular	INOX A4			55775	6-161

29310 Parafuso cabeça de embeber hexalobular para aglomerado — K01A

Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3X16MM	200	29310.030.016	4X30MM	200	29310.040.030	4,5X70MM	200	29310.045.070
3X20MM	200	29310.030.020	4X35MM	200	29310.040.035			
3X25MM	200	29310.030.025	4X40MM	200	29310.040.040	5X20MM	1000	29310.050.020
3X30MM	200	29310.030.030	4X45MM	200	29310.040.045	5X25MM	1000	29310.050.025
			4X50MM	200	29310.040.050	5X30MM	200	29310.050.030
3,5X16MM	200	29310.035.016	4X60MM	200	29310.040.060	5X35MM	200	29310.050.035
3,5X20MM	200	29310.035.020				5X40MM	200	29310.050.040
3,5X25MM	200	29310.035.025	4,5X20MM	200	29310.045.020	5X45MM	200	29310.050.045
3,5X30MM	200	29310.035.030	4,5X25MM	200	29310.045.025	5X50MM	200	29310.050.050
3,5X35MM	200	29310.035.035	4,5X30MM	200	29310.045.030	5X60MM	200	29310.050.060
3,5X40MM	200	29310.035.040	4,5X35MM	200	29310.045.035	5X70MM	200	29310.050.070
			4,5X40MM	200	29310.045.040	5X80MM	200	29310.050.080
4X16MM	200	29310.040.016	4,5X45MM	200	29310.045.045	5X90MM	200	29310.050.090
4X20MM	200	29310.040.020	4,5X50MM	200	29310.045.050	5X100MM	200	29310.050.100
4X25MM	200	29310.040.025	4,5X60MM	200	29310.045.060			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

29360 HECO TOPIX Parafuso cabeça de embeber hexalobular para aglomerado — K04A

Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3,5X30MM	1000	29360.035.030	4,5X40MM	500	29360.045.040	5X100MM	200	29360.050.100
3,5X35MM	1000	29360.035.035	4,5X45MM	500	29360.045.045			
3,5X40MM	500	29360.035.040	4,5X50MM	200	29360.045.050	6X50MM	200	29360.060.050
3,5X50MM	500	29360.035.050	4,5X60MM	200	29360.045.060	6X60MM	200	29360.060.060
			4,5X70MM	200	29360.045.070	6X70MM	200	29360.060.070
4X30MM	1000	29360.040.030	4,5X80MM	200	29360.045.080	6X80MM	100	29360.060.080
4X35MM	500	29360.040.035				6X90MM	100	29360.060.090
4X40MM	500	29360.040.040	5X40MM	500	29360.050.040	6X100MM	100	29360.060.100
4X45MM	500	29360.040.045	5X50MM	200	29360.050.050	6X120MM	100	29360.060.120
4X50MM	500	29360.040.050	5X60MM	200	29360.050.060	6X140MM	100	29360.060.140
4X60MM	200	29360.040.060	5X70MM	200	29360.050.070	6X160MM	100	29360.060.160
4X70MM	200	29360.040.070	5X80MM	200	29360.050.080	6X180MM	100	29360.060.180
			5X90MM	200	29360.050.090	6X200MM	100	29360.060.200

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

29375 HECO UNIX TOP Parafuso cabeça de embeber hexalobular para aglomerado — K04A

Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3,5X30MM	1000	29375.035.030	4,5X40MM	500	29375.045.040	5X90MM	200	29375.050.090
3,5X35MM	1000	29375.035.035	4,5X45MM	500	29375.045.045	5X100MM	100	29375.050.100
3,5X40MM	500	29375.035.040	4,5X50MM	200	29375.045.050	5X120MM	100	29375.050.120
3,5X45MM	500	29375.035.045	4,5X60MM	200	29375.045.060			
3,5X50MM	500	29375.035.050	4,5X70MM	200	29375.045.070	6X50MM	200	29375.060.050
			4,5X80MM	200	29375.045.080	6X60MM	200	29375.060.060
4X35MM	500	29375.040.035				6X70MM	200	29375.060.070
4X40MM	500	29375.040.040	5X40MM	500	29375.050.040	6X80MM	100	29375.060.080
4X45MM	500	29375.040.045	5X45MM	200	29375.050.045	6X90MM	100	29375.060.090
4X50MM	500	29375.040.050	5X50MM	200	29375.050.050	6X100MM	100	29375.060.100
4X60MM	200	29375.040.060	5X60MM	200	29375.050.060	6X120MM	100	29375.060.120
4X70MM	200	29375.040.070	5X70MM	200	29375.050.070	6X140MM	100	29375.060.140
			5X80MM	200	29375.050.080	6X160MM	100	29375.060.160

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

51775 Parafuso cabeça de embeber hexalobular para aglomerado R03A

Material Aço inoxidável A2



RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3X10MM*	500	51775.030.010	4X40MM	200	51775.040.040	5X60MM	200	51775.050.060
3X12MM*	500	51775.030.012	4X45MM	200	51775.040.045	5X65MM*	100	51775.050.065
3X16MM	200	51775.030.016	4X50MM	200	51775.040.050	5X70MM	200	51775.050.070
3X20MM	200	51775.030.020	4X60MM	200	51775.040.060	5X80MM	100	51775.050.080
3X25MM	200	51775.030.025	4X70MM	200	51775.040.070	5X90MM	100	51775.050.090
3X30MM	200	51775.030.030				5X100MM*	100	51775.050.100
3X35MM	200	51775.030.035	4,5X20MM	200	51775.045.020	5X120MM	100	51775.050.120
3X40MM	200	51775.030.040	4,5X25MM	200	51775.045.025			
3X50MM*	200	51775.030.050	4,5X30MM	200	51775.045.030	6X20MM*	100	51775.060.020
			4,5X35MM	200	51775.045.035	6X25MM*	100	51775.060.025
3,5X12MM*	500	51775.035.012	4,5X40MM	200	51775.045.040	6X30MM*	100	51775.060.030
3,5X16MM	200	51775.035.016	4,5X45MM	200	51775.045.045	6X35MM*	100	51775.060.035
3,5X20MM	200	51775.035.020	4,5X50MM	200	51775.045.050	6X40MM	100	51775.060.040
3,5X25MM	200	51775.035.025	4,5X60MM	200	51775.045.060	6X50MM*	100	51775.060.050
3,5X30MM	200	51775.035.030	4,5X70MM*	200	51775.045.070	6X60MM	100	51775.060.060
3,5X35MM	200	51775.035.035				6X70MM*	100	51775.060.070
3,5X40MM	200	51775.035.040	5X20MM	200	51775.050.020	6X80MM	100	51775.060.080
			5X25MM	200	51775.050.025	6X90MM*	100	51775.060.090
4X12MM*	500	51775.040.012	5X30MM	200	51775.050.030	6X100MM*	100	51775.060.100
4X16MM	200	51775.040.016	5X35MM	200	51775.050.035	6X120MM	100	51775.060.120
4X20MM	200	51775.040.020	5X40MM	200	51775.050.040			
4X25MM	200	51775.040.025	5X45MM	200	51775.050.045	8X60MM*	100	51775.080.060
4X30MM	200	51775.040.030	5X50MM	200	51775.050.050	8X90MM	100	51775.080.090
4X35MM	200	51775.040.035	5X55MM*	200	51775.050.055			

55775 Parafuso cabeça de embeber hexalobular para aglomerado R43A

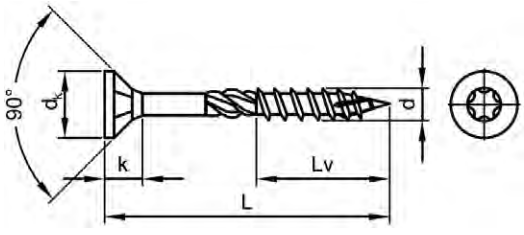
Material Aço inoxidável A4



RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3X16MM*	200	55775.030.016	4X30MM*	200	55775.040.030			
3X20MM*	200	55775.030.020	4X35MM*	200	55775.040.035	5X20MM*	200	55775.050.020
3X25MM*	200	55775.030.025	4X40MM*	200	55775.040.040	5X25MM*	200	55775.050.025
3X30MM*	200	55775.030.030	4X45MM*	200	55775.040.045	5X30MM*	200	55775.050.030
3X40MM*	200	55775.030.040	4X50MM*	200	55775.040.050	5X35MM*	200	55775.050.035
			4X60MM*	200	55775.040.060	5X40MM*	200	55775.050.040
3,5X16MM*	200	55775.035.016				5X45MM*	200	55775.050.045
3,5X20MM*	200	55775.035.020	4,5X20MM*	200	55775.045.020	5X50MM*	200	55775.050.050
3,5X25MM*	200	55775.035.025	4,5X25MM*	200	55775.045.025	5X55MM*	200	55775.050.055
3,5X30MM*	200	55775.035.030	4,5X30MM*	200	55775.045.030	5X60MM*	100	55775.050.060
3,5X35MM*	200	55775.035.035	4,5X35MM*	200	55775.045.035	5X70MM*	100	55775.050.070
3,5X40MM*	200	55775.035.040	4,5X40MM*	200	55775.045.040	5X80MM*	100	55775.050.080
3,5X45MM*	200	55775.035.045	4,5X45MM*	200	55775.045.045	5X90MM*	100	55775.050.090
			4,5X50MM*	200	55775.045.050	5X100MM*	100	55775.050.100
4X16MM*	200	55775.040.016	4,5X55MM*	200	55775.045.055	5X120MM*	100	55775.050.120
4X20MM*	200	55775.040.020	4,5X60MM*	200	55775.045.060			
4X25MM*	200	55775.040.025	4,5X70MM*	200	55775.045.070			

Parafuso para madeira cabeça embeber hexalobular





Dados técnicos

d	Chave caixa	d_k (max.)	k (max.)
3.5	T15	7.0	2.1
4	T15	8.0	2.5
4.5	T25	9.0	2.7
5	T25	9.7	3.0
6	T25	11.8	3.6

51773 **HECO TOPIX Parafuso para madeira cabeça embeber hexalobular** **K04A**

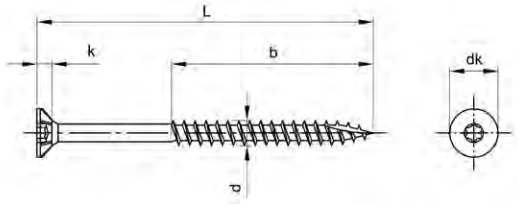
Material Aço inoxidável A2



6

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3,5X30MM	200	51773.035.030				5X70MM	200	51773.050.070
3,5X35MM	200	51773.035.035	4,5X40MM	200	51773.045.040	5X80MM	200	51773.050.080
3,5X40MM	200	51773.035.040	4,5X45MM	200	51773.045.045	5X90MM	200	51773.050.090
3,5X45MM	200	51773.035.045	4,5X50MM	200	51773.045.050	5X100MM	200	51773.050.100
3,5X50MM	200	51773.035.050	4,5X60MM	200	51773.045.060			
			4,5X70MM	200	51773.045.070	6X50MM	200	51773.060.050
4X30MM	200	51773.040.030	4,5X80MM	200	51773.045.080	6X60MM	200	51773.060.060
4X35MM	200	51773.040.035				6X70MM	200	51773.060.070
4X40MM	200	51773.040.040	5X40MM	200	51773.050.040	6X80MM	100	51773.060.080
4X45MM	200	51773.040.045	5X45MM	200	51773.050.045	6X90MM	200	51773.060.090
4X50MM	200	51773.040.050	5X50MM	200	51773.050.050	6X100MM	100	51773.060.100
4X60MM	200	51773.040.060	5X60MM	200	51773.050.060	6X120MM	100	51773.060.120

Parafuso para madeira cabeça de embeber com ponta cortante





Dados técnicos

d	Chave caixa	d_k	k
3	T10	6	1.9
3.5	T10	7	2.1
4	T20	8	2.5
4.5	T20	9	2.7
5	T25	10	3
6	T25	12	3.6

55755 **Parafuso para madeira cabeça de embeber com ponta cortante** **R43A**

Material Aço inoxidável A4

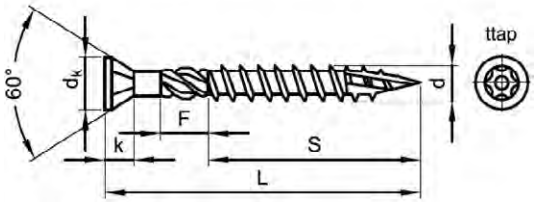


RoHS

6

d x L x b	✉	Ref. do artigo	d x L x b	✉	Ref. do artigo	d x L x b	✉	Ref. do artigo
3X12x12MM*	500	55755.030.012	4X45x30MM*	200	55755.040.045	5X45x30MM*	200	55755.050.045
3X16x16MM*	500	55755.030.016	4X50x30MM*	200	55755.040.050	5X50x30MM*	200	55755.050.050
3X20x20MM*	500	55755.030.020	4X60x36MM*	200	55755.040.060	5X55x36MM*	200	55755.050.055
3X25x18MM*	500	55755.030.025	4X70x42MM*	200	55755.040.070	5X60x36MM*	100	55755.050.060
3X30x18MM*	500	55755.030.030				5X70x42MM*	100	55755.050.070
3X40x24MM*	200	55755.030.040	4,5X20x20MM*	500	55755.045.020	5X80x48MM*	100	55755.050.080
			4,5X25x18MM*	500	55755.045.025	5X90x54MM*	100	55755.050.090
3,5X16x16MM*	500	55755.035.016	4,5X30x18MM*	500	55755.045.030	5X100x60MM*	100	55755.050.100
3,5X20x20MM*	500	55755.035.020	4,5X35x24MM*	500	55755.045.035	5X120x70MM*	100	55755.050.120
3,5X25x18MM*	500	55755.035.025	4,5X40x24MM*	200	55755.045.040			
3,5X30x18MM*	500	55755.035.030	4,5X45x30MM*	200	55755.045.045	6X30x20MM*	100	55755.060.030
3,5X35x24MM*	500	55755.035.035	4,5X50x30MM*	200	55755.045.050	6X40x24MM*	100	55755.060.040
3,5X40x24MM*	200	55755.035.040	4,5X55x36MM*	200	55755.045.055	6X45x30MM*	100	55755.060.045
3,5X45x30MM*	200	55755.035.045	4,5X60x36MM*	200	55755.045.060	6X50x30MM*	100	55755.060.050
3,5X50x30MM*	200	55755.035.050	4,5X70x42MM*	200	55755.045.070	6X60x36MM*	100	55755.060.060
			4,5X80x48MM*	200	55755.045.080	6X70x42MM*	100	55755.060.070
4X16x16MM*	500	55755.040.016				6X80x48MM*	100	55755.060.080
4X20x20MM*	500	55755.040.020	5X20x20MM*	500	55755.050.020	6X90x54MM*	100	55755.060.090
4X25x18MM*	500	55755.040.025	5X25x18MM*	500	55755.050.025	6X100x70MM*	100	55755.060.100
4X30x18MM*	500	55755.040.030	5X30x20MM*	500	55755.050.030	6X110x70MM*	100	55755.060.110
4X35x24MM*	500	55755.040.035	5X35x24MM*	500	55755.050.035	6X120x70MM*	100	55755.060.120
4X40x24MM*	200	55755.040.040	5X40x24MM*	200	55755.050.040			

Parafuso decking cabeça embeber reduzida com ttap®





Dados técnicos

d	d_k	k	No. ttap
5	9	5.1	20

- Só embalagens completas.
- F=9mm apenas se L≥40mm.

30250 **MAXXFAST Parafuso Decking cabeça embeber reduzida ttap®** **MF0A**

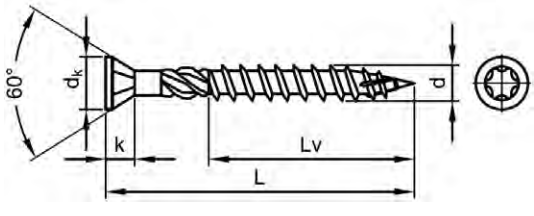
Material Aço inoxidável A2

CE



d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo
5X40MM (25)	200	30250.050.040	5X50MM (35)	200	30250.050.050	5X70MM (55)	100	30250.050.070
5X45MM (30)	200	30250.050.045	5X60MM (45)	100	30250.050.060	5X80MM (65)	100	30250.050.080

Parafuso decking cabeça embeber reduzida hexalobular





Dados técnicos

d	Chave caixa	d_k (max.)	k (max.)
5	T25	8.5	2.7

51774 **HECO TOPIX Parafuso decking cabeça embeber reduzida hexalobular** **K04A**

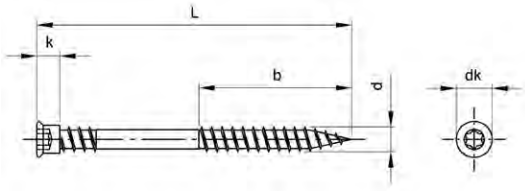
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
5X40MM	200	51774.050.040	5X60MM	200	51774.050.060	5X80MM	200	51774.050.080
5X50MM	200	51774.050.050	5X70MM	200	51774.050.070			

6

Parafuso cabeça cilíndrica, rosca dupla





Dados técnicos

d	Chave caixa	d_k	k
5.5	No.25	8	5.1

55561 **Parafuso cabeça de embeber rosca dupla** **R03A**

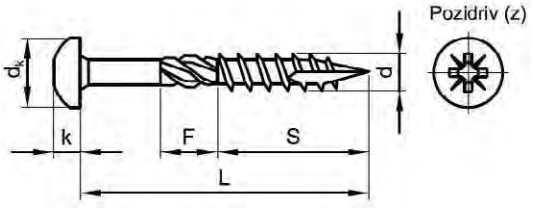
Material Aço inoxidável A4



d x L x b	✉	Ref. do artigo	d x L x b	✉	Ref. do artigo	d x L x b	✉	Ref. do artigo
5,5X40X18MM*	100	55561.055.040	5,5X70X34MM*	100	55561.055.070	5,5X90X36MM*	100	55561.055.090
5,5X50X18MM*	100	55561.055.050	5,5X80X36MM*	100	55561.055.080	5,5X100X36MM*	100	55561.055.100
5,5X60X24MM*	100	55561.055.060						

6

Parafuso universal para madeira cabeça de queijo fenda cruz





Dados técnicos

d	d_k	k	Nr. fenda	d	d_k	k	Nr. fenda
3	6	2.4	1	4.5	9	3.2	2
3.5	7	2.6	2	5	10	3.6	2
4	8	3.0	2	6	12	4.9	3

- Só embalagens completas.
- F=9mm apenas se L≥40mm.
- Os diâmetros 3 e 3,5 não são adequados para fixação de juntas, por isso não têm marcação CE.

Grupos de produtos

Encaixe	Material	Tratamento sup.	Código	Página
Pozidriv	Aço	Zn	30025	6-165
Pozidriv	Aço	Passiv. amar.	30030	6-166
Pozidriv	INOX A2		30040	6-166

30025 **MAXXFAST Parafuso para madeira cabeça queijo Pozidriv** **MF0A**

Material Aço
Tratamento sup. Zincado

CE



d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo
3X12MM (9)	200	30025.030.012	3,5X16MM (13)	200	30025.035.016	4X12MM (9)	200	30025.040.012
3X16MM (13)	200	30025.030.016	3,5X20MM (17)	200	30025.035.020	4X16MM (13)	200	30025.040.016
3X20MM (17)	200	30025.030.020	3,5X25MM (22)	200	30025.035.025	4X20MM (17)	200	30025.040.020
3X25MM (22)	200	30025.030.025	3,5X30MM (27)	200	30025.035.030	4X25MM (22)	200	30025.040.025
3X30MM (27)	200	30025.030.030	3,5X35MM (32)	200	30025.035.035	4X30MM (27)	200	30025.040.030
			3,5X40MM (25)	200	30025.035.040	4X35MM (32)	200	30025.040.035
3,5X12MM (9)	200	30025.035.012				4X40MM (25)	200	30025.040.040

30025 MAXXFAST Parafuso para madeira cabeça queijo Pozidriv

d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo
4X45MM (30)	200	30025.040.045	4,5X50MM (35)	200	30025.045.050	5X70MM (54)	200	30025.050.070
4X50MM (35)	200	30025.040.050				5X80MM (54)	100	30025.050.080
4X60MM (45)	200	30025.040.060	5X16MM (12)	200	30025.050.016			
			5X20MM (16)	200	30025.050.020	6X30MM (25)	200	30025.060.030
4,5X16MM (12)	200	30025.045.016	5X25MM (21)	200	30025.050.025	6X40MM (25)	200	30025.060.040
4,5X20MM (16)	200	30025.045.020	5X30MM (26)	200	30025.050.030	6X50MM (35)	200	30025.060.050
4,5X25MM (21)	200	30025.045.025	5X35MM (31)	200	30025.050.035	6X60MM (45)	200	30025.060.060
4,5X30MM (26)	200	30025.045.030	5X40MM (25)	200	30025.050.040	6X80MM (54)	100	30025.060.080
4,5X35MM (31)	200	30025.045.035	5X45MM (30)	200	30025.050.045	6X100MM (66)	100	30025.060.100
4,5X40MM (25)	200	30025.045.040	5X50MM (35)	200	30025.050.050			
4,5X45MM (30)	200	30025.045.045	5X60MM (45)	200	30025.050.060			

30030 MAXXFAST Parafuso para madeira cabeça queijo Pozidriv MF0A

Material Aço
Tratamento sup. Passivado a amarelo

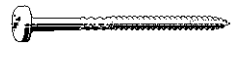


CE

d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo
3X12MM (9)	200	30030.030.012	4X30MM (27)	200	30030.040.030	5X25MM (21)	200	30030.050.025
3X16MM (13)	200	30030.030.016	4X35MM (32)	200	30030.040.035	5X30MM (26)	200	30030.050.030
3X20MM (17)	200	30030.030.020	4X40MM (25)	200	30030.040.040	5X35MM (31)	200	30030.050.035
3X25MM (22)	200	30030.030.025	4X45MM (30)	200	30030.040.045	5X40MM (25)	200	30030.050.040
3X30MM (27)	200	30030.030.030	4X50MM (35)	200	30030.040.050	5X45MM (30)	200	30030.050.045
			4X60MM (45)	200	30030.040.060	5X50MM (35)	200	30030.050.050
3,5X12MM (9)	200	30030.035.012				5X60MM (45)	200	30030.050.060
3,5X16MM (13)	200	30030.035.016	4,5X16MM (12)	200	30030.045.016	5X70MM (54)	200	30030.050.070
3,5X20MM (17)	200	30030.035.020	4,5X20MM (16)	200	30030.045.020	5X80MM (54)	100	30030.050.080
3,5X25MM (22)	200	30030.035.025	4,5X25MM (21)	200	30030.045.025			
3,5X30MM (27)	200	30030.035.030	4,5X30MM (26)	200	30030.045.030	6X30MM (25)	200	30030.060.030
3,5X35MM (32)	200	30030.035.035	4,5X35MM (31)	200	30030.045.035	6X40MM (25)	200	30030.060.040
3,5X40MM (25)	200	30030.035.040	4,5X40MM (25)	200	30030.045.040	6X50MM (35)	200	30030.060.050
			4,5X45MM (30)	200	30030.045.045	6X60MM (45)	200	30030.060.060
4X12MM (9)	200	30030.040.012	4,5X50MM (35)	200	30030.045.050	6X80MM (54)	100	30030.060.080
4X16MM (13)	200	30030.040.016				6X100MM (66)	100	30030.060.100
4X20MM (17)	200	30030.040.020	5X16MM (12)	200	30030.050.016			
4X25MM (22)	200	30030.040.025	5X20MM (16)	200	30030.050.020			

30040 MAXXFAST Parafuso para madeira cabeça queijo Pozidriv MF0A

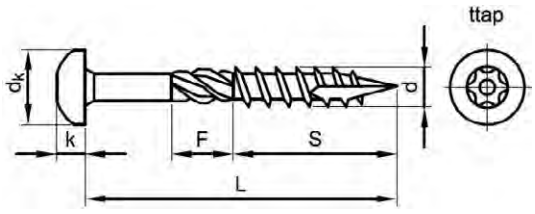
Material Aço inoxidável A2



CE

d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo
3X16MM (13)	200	30040.030.016						
3X20MM (17)	200	30040.030.020	4X16MM (13)	200	30040.040.016	5X20MM (16)	200	30040.050.020
3X25MM (22)	200	30040.030.025	4X20MM (17)	200	30040.040.020	5X25MM (21)	200	30040.050.025
3X30MM (27)	200	30040.030.030	4X25MM (22)	200	30040.040.025	5X30MM (26)	200	30040.050.030
			4X30MM (27)	200	30040.040.030	5X40MM (25)	200	30040.050.040
3,5X16MM (13)	200	30040.035.016	4X35MM (32)	200	30040.040.035	5X50MM (35)	200	30040.050.050
3,5X20MM (17)	200	30040.035.020	4X40MM (25)	200	30040.040.040	5X60MM (45)	200	30040.050.060
3,5X25MM (22)	200	30040.035.025	4X45MM (30)	200	30040.040.045			
3,5X30MM (27)	200	30040.035.030	4X50MM (35)	200	30040.040.050			

Parafuso universal para madeira cabeça de queijo com ttap®





Dados técnicos

d	d_k	k	No. ttap	d	d_k	k	No. ttap
3	6	2.4	10	4.5	9	3.2	20
3.5	7	2.6	15	5	10	3.6	25
4	8	2.9	20	6	12	4.2	25

- Só embalagens completas.
- F=9mm apenas se L≥40mm.
- Os diâmetros 3 e 3,5 não são adequados para fixação de juntas, por isso não têm marcação CE.

Grupos de produtos

Encaixe	Material	Tratamento sup.	Código	Página
ttap®	Aço	Zn	30125	6-167
ttap®	Aço	Passiv. amar.	30130	6-167
ttap®	INOX A2		30140	6-168

6

30125 MAXXFAST Parafuso para madeira cabeça queijo ttap® MF0A

Material Aço
Tratamento sup. Zincado

CE



d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo
3X12MM (9)	200	30125.030.012	4X30MM (27)	200	30125.040.030	5X20MM (16)	200	30125.050.020
3X16MM (13)	200	30125.030.016	4X35MM (32)	200	30125.040.035	5X25MM (21)	200	30125.050.025
3X20MM (17)	200	30125.030.020	4X40MM (25)	200	30125.040.040	5X30MM (26)	200	30125.050.030
3X25MM (22)	200	30125.030.025	4X45MM (30)	200	30125.040.045	5X35MM (31)	200	30125.050.035
3X30MM (27)	200	30125.030.030	4X50MM (35)	200	30125.040.050	5X40MM (25)	200	30125.050.040
			4X60MM (45)	200	30125.040.060	5X45MM (30)	200	30125.050.045
3,5X12MM (9)	200	30125.035.012				5X50MM (35)	200	30125.050.050
3,5X16MM (13)	200	30125.035.016	4,5X16MM (12)	200	30125.045.016	5X60MM (45)	200	30125.050.060
3,5X20MM (17)	200	30125.035.020	4,5X20MM (16)	200	30125.045.020	5X70MM (54)	200	30125.050.070
3,5X25MM (22)	200	30125.035.025	4,5X25MM (21)	200	30125.045.025	5X80MM (54)	100	30125.050.080
3,5X30MM (27)	200	30125.035.030	4,5X30MM (26)	200	30125.045.030			
3,5X35MM (32)	200	30125.035.035	4,5X35MM (31)	200	30125.045.035	6X30MM (25)	200	30125.060.030
3,5X40MM (25)	200	30125.035.040	4,5X40MM (25)	200	30125.045.040	6X40MM (25)	200	30125.060.040
			4,5X45MM (30)	200	30125.045.045	6X50MM (35)	200	30125.060.050
4X12MM (9)	200	30125.040.012	4,5X50MM (35)	200	30125.045.050	6X60MM (45)	200	30125.060.060
4X16MM (13)	200	30125.040.016				6X80MM (54)	100	30125.060.080
4X20MM (17)	200	30125.040.020	5X16MM (12)	200	30125.050.016	6X100MM (66)	100	30125.060.100
4X25MM (22)	200	30125.040.025						

30130 MAXXFAST Parafuso para madeira cabeça queijo ttap® MF0A

Material Aço
Tratamento sup. Passivado a amarelo

CE



d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo
3X12MM (9)	200	30130.030.012	3,5X40MM (25)	200	30130.035.040			
3X16MM (13)	200	30130.030.016				4,5X16MM (12)	200	30130.045.016
3X20MM (17)	200	30130.030.020	4X12MM (9)	200	30130.040.012	4,5X20MM (16)	200	30130.045.020
3X25MM (22)	200	30130.030.025	4X16MM (13)	200	30130.040.016	4,5X25MM (21)	200	30130.045.025
3X30MM (27)	200	30130.030.030	4X20MM (17)	200	30130.040.020	4,5X30MM (26)	200	30130.045.030
			4X25MM (22)	200	30130.040.025	4,5X35MM (31)	200	30130.045.035
3,5X12MM (9)	200	30130.035.012	4X30MM (27)	200	30130.040.030	4,5X40MM (25)	200	30130.045.040
3,5X16MM (13)	200	30130.035.016	4X35MM (32)	200	30130.040.035	4,5X45MM (30)	200	30130.045.045
3,5X20MM (17)	200	30130.035.020	4X40MM (25)	200	30130.040.040	4,5X50MM (35)	200	30130.045.050
3,5X25MM (22)	200	30130.035.025	4X45MM (30)	200	30130.040.045			
3,5X30MM (27)	200	30130.035.030	4X50MM (35)	200	30130.040.050	5X16MM (12)	200	30130.050.016
3,5X35MM (32)	200	30130.035.035	4X60MM (45)	200	30130.040.060	5X20MM (16)	200	30130.050.020

30130 **MAXXFAST Parafuso para madeira cabeça queijo ttap®** ←

d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo
5X25MM (21)	200	30130.050.025	5X60MM (45)	200	30130.050.060	6X50MM (35)	200	30130.060.050
5X30MM (26)	200	30130.050.030	5X70MM (54)	200	30130.050.070	6X60MM (45)	200	30130.060.060
5X35MM (31)	200	30130.050.035	5X80MM (54)	100	30130.050.080	6X80MM (54)	100	30130.060.080
5X40MM (25)	200	30130.050.040				6X100MM (66)	100	30130.060.100
5X45MM (30)	200	30130.050.045	6X30MM (25)	200	30130.060.030			
5X50MM (35)	200	30130.050.050	6X40MM (25)	200	30130.060.040			

30140 **MAXXFAST Parafuso para madeira cabeça queijo ttap®** **MF0A**

Material Aço inoxidável A2

MAXXFAST PROFESSIONAL HARDWARE

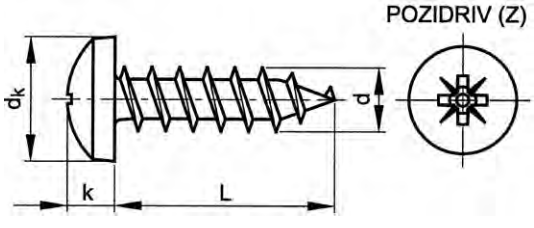
CE RoHS

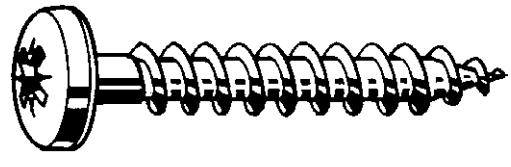


d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo
3X16MM (13)	200	30140.030.016						
3X20MM (17)	200	30140.030.020	4X16MM (13)	200	30140.040.016	5X20MM (16)	200	30140.050.020
3X25MM (22)	200	30140.030.025	4X20MM (17)	200	30140.040.020	5X25MM (21)	200	30140.050.025
3X30MM (27)	200	30140.030.030	4X25MM (22)	200	30140.040.025	5X30MM (26)	200	30140.050.030
			4X30MM (27)	200	30140.040.030	5X40MM (25)	200	30140.050.040
3,5X16MM (13)	200	30140.035.016	4X35MM (32)	200	30140.040.035	5X50MM (35)	200	30140.050.050
3,5X20MM (17)	200	30140.035.020	4X40MM (25)	200	30140.040.040	5X60MM (45)	200	30140.050.060
3,5X25MM (22)	200	30140.035.025	4X45MM (30)	200	30140.040.045			
3,5X30MM (27)	200	30140.035.030	4X50MM (35)	200	30140.040.050			

6

Parafuso rosca para madeira cabeça queijo fenda cruz





Dados técnicos

d	d_k (max.)	k (max.)	Nr. fenda
2.5	5	2.12	1
3	5.9	2.2	1
3.5	6.9	2.6	2
4	7.9	2.8	2
4.5	8.9	3.05	2
5	9.6	3.4	2
5.5	10.5	4.2	3
6	11.6	4	3

- Todas as medidas são indicativas, dependem do fabricante.

Grupos de produtos

Encaixe	Material	Tratamento sup.		Código	Página
Pozidriv	Aço	Zn		29340	6-168
Pozidriv	Aço	Zn	HECO-FIX PLUS	29345	6-169
Pozidriv	INOX A2			51770	6-169

29340 **Parafuso rosca para madeira cabeça queijo Pozidriv** **K01A**

Material Aço
Tratamento sup. Zincado

CE RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3X12MM	200	29340.030.012				3,5X30MM	200	29340.035.030
3X16MM	200	29340.030.016	3,5X12MM	200	29340.035.012	3,5X35MM	200	29340.035.035
3X20MM	200	29340.030.020	3,5X16MM	200	29340.035.016	3,5X40MM	200	29340.035.040
3X25MM	200	29340.030.025	3,5X20MM	200	29340.035.020			
3X30MM	200	29340.030.030	3,5X25MM	200	29340.035.025	4X12MM	200	29340.040.012

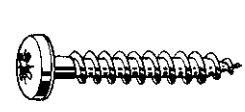
29340 Parafuso rosca para madeira cabeça queijo Pozidriv ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
4X16MM	200	29340.040.016	4,5X20MM	200	29340.045.020	5X25MM	200	29340.050.025
4X20MM	200	29340.040.020	4,5X25MM	200	29340.045.025	5X30MM	200	29340.050.030
4X25MM	200	29340.040.025	4,5X30MM	200	29340.045.030	5X35MM	200	29340.050.035
4X30MM	200	29340.040.030	4,5X35MM	200	29340.045.035	5X40MM	200	29340.050.040
4X35MM	200	29340.040.035	4,5X40MM	200	29340.045.040	5X45MM	200	29340.050.045
4X40MM	200	29340.040.040	4,5X45MM	200	29340.045.045	5X50MM	200	29340.050.050
4X45MM	200	29340.040.045	4,5X50MM	200	29340.045.050	5X60MM	200	29340.050.060
4X50MM	200	29340.040.050				5X70MM	200	29340.050.070
			5X16MM	200	29340.050.016	5X80MM	200	29340.050.080
4,5X16MM	200	29340.045.016	5X20MM	200	29340.050.020			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

29345 HECO-FIX PLUS Parafuso rosca para madeira cabeça queijo Pozidriv K04A

Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
2,5X12MM	1000	29345.025.012	4X16MM	200	29345.040.016	5X20MM	200	29345.050.020
2,5X16MM	200	29345.025.016	4X20MM	200	29345.040.020	5X25MM	200	29345.050.025
			4X25MM	200	29345.040.025	5X30MM	200	29345.050.030
3X12MM	200	29345.030.012	4X30MM	200	29345.040.030	5X35MM	200	29345.050.035
3X15MM	200	29345.030.015	4X35MM	200	29345.040.035	5X40MM	200	29345.050.040
3X16MM	200	29345.030.016	4X40MM	200	29345.040.040	5X45MM	200	29345.050.045
3X20MM	200	29345.030.020	4X45MM	200	29345.040.045	5X50MM	200	29345.050.050
3X25MM	200	29345.030.025	4X50MM	200	29345.040.050	5X60MM	200	29345.050.060
3X30MM	200	29345.030.030	4X60MM	200	29345.040.060	5X70MM	200	29345.050.070
						5X80MM	200	29345.050.080
3,5X15MM	200	29345.035.015	4,5X15MM	200	29345.045.015			
3,5X16MM	200	29345.035.016	4,5X16MM	200	29345.045.016	6X30MM	200	29345.060.030
3,5X20MM	200	29345.035.020	4,5X20MM	200	29345.045.020	6X35MM	200	29345.060.035
3,5X25MM	200	29345.035.025	4,5X25MM	200	29345.045.025	6X40MM	200	29345.060.040
3,5X30MM	200	29345.035.030	4,5X30MM	200	29345.045.030	6X50MM	200	29345.060.050
3,5X35MM	200	29345.035.035	4,5X40MM	200	29345.045.040	6X55MM	200	29345.060.055
3,5X40MM	200	29345.035.040	4,5X45MM	200	29345.045.045	6X60MM	200	29345.060.060
			4,5X50MM	200	29345.045.050	6X70MM	200	29345.060.070
4X12MM	200	29345.040.012	4,5X60MM	200	29345.045.060	6X80MM	200	29345.060.080
4X15MM	200	29345.040.015						

- Caracteristicas especiais de parafusos HECO-FIX PLUS para aglomerado:
- Redução de torque até 30%.
- Fácil utilização. menos gasto de bateria da ferramenta.
- Forças axiais são reduzidas, menos desgaste das ponteiras.
- Menos tendência de desaperto, pela geometria do parafuso.
- Aviso: A electro zincagem deste material pode provocar disfunção hidrogénica.

51770 Parafuso rosca para madeira cabeça queijo Pozidriv R03A

Material Aço inoxidável A2

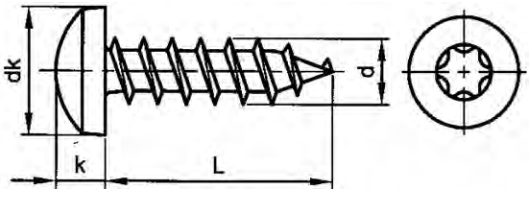


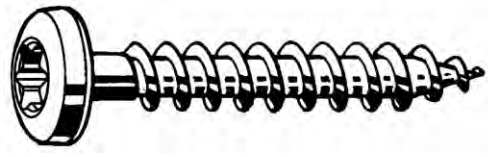
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3X16MM	200	51770.030.016	4X50MM	200	51770.040.050	5X45MM	200	51770.050.045
3X20MM	200	51770.030.020	4X60MM	200	51770.040.060	5X50MM	200	51770.050.050
3X25MM	200	51770.030.025	4X70MM*	200	51770.040.070	5X60MM	100	51770.050.060
3X30MM	200	51770.030.030				5X70MM	100	51770.050.070
3X35MM*	500	51770.030.035	4,5X16MM*	500	51770.045.016	5X80MM	100	51770.050.080
			4,5X20MM*	500	51770.045.020	5X90MM	100	51770.050.090
3,5X16MM	200	51770.035.016	4,5X25MM*	500	51770.045.025	5X100MM	100	51770.050.100
3,5X20MM	200	51770.035.020	4,5X30MM	200	51770.045.030			
3,5X25MM	200	51770.035.025	4,5X35MM	200	51770.045.035	5,5X50MM*	200	51770.055.050
3,5X30MM	200	51770.035.030	4,5X40MM	200	51770.045.040			
3,5X35MM	200	51770.035.035	4,5X45MM*	200	51770.045.045	6X20MM*	100	51770.060.020
3,5X40MM	200	51770.035.040	4,5X50MM	200	51770.045.050	6X25MM*	100	51770.060.025
			4,5X60MM*	200	51770.045.060	6X30MM*	100	51770.060.030
4X16MM	200	51770.040.016	4,5X70MM*	200	51770.045.070	6X35MM*	100	51770.060.035
4X20MM	200	51770.040.020				6X40MM*	100	51770.060.040
4X25MM	200	51770.040.025	5X20MM	200	51770.050.020	6X50MM*	100	51770.060.050
4X30MM	200	51770.040.030	5X25MM	200	51770.050.025	6X60MM*	100	51770.060.060
4X35MM	200	51770.040.035	5X30MM	200	51770.050.030	6X70MM*	100	51770.060.070
4X40MM	200	51770.040.040	5X35MM	200	51770.050.035	6X80MM*	100	51770.060.080
4X45MM	200	51770.040.045	5X40MM	200	51770.050.040	6X90MM*	100	51770.060.090

51770	Parafuso rosca para madeira cabeça queijo Pozidriv	←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
6X100MM*	100	51770.060.100	6X120MM*	100	51770.060.120
6X110MM*	100	51770.060.110	6X130MM*	100	51770.060.130

Parafuso rosca para madeira cabeça de queijo hexalobular





Dados técnicos

d	Chave caixa	d_k	k	d	Chave caixa	d_k	k
3	T10	5.7/6.0	2.1/2.3	4.5	T25	8.7/9.0	2.9/3.1
3.5	T15	6.7/7.0	2.2/2.4	5	T25	9.7/10.0	3.3/3.5
4	T20	7.7/8.0	2.6/2.8				

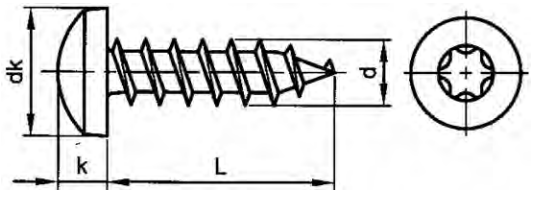
29346	Parafuso rosca para madeira cabeça de queijo hexalobular	K01A

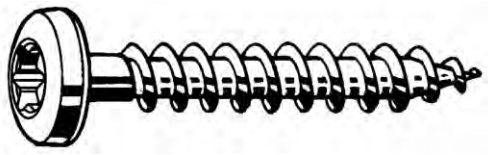
Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3X10MM	1000	29346.030.010				4,5X30MM	500	29346.045.030
3X12MM	1000	29346.030.012	4X12MM	1000	29346.040.012	4,5X35MM	500	29346.045.035
3X13MM	1000	29346.030.013	4X13MM	1000	29346.040.013	4,5X40MM	500	29346.045.040
3X15MM	1000	29346.030.015	4X15MM	1000	29346.040.015	4,5X45MM	500	29346.045.045
3X16MM	1000	29346.030.016	4X16MM	1000	29346.040.016	4,5X50MM	200	29346.045.050
3X20MM	1000	29346.030.020	4X20MM	1000	29346.040.020	4,5X60MM	200	29346.045.060
3X25MM	1000	29346.030.025	4X25MM	1000	29346.040.025	4,5X70MM	200	29346.045.070
3X30MM	1000	29346.030.030	4X30MM	1000	29346.040.030			
3X35MM	500	29346.030.035	4X35MM	500	29346.040.035	5X16MM	1000	29346.050.016
3X40MM	500	29346.030.040	4X40MM	500	29346.040.040	5X20MM	1000	29346.050.020
			4X45MM	500	29346.040.045	5X25MM	500	29346.050.025
3,5X16MM	1000	29346.035.016	4X50MM	500	29346.040.050	5X30MM	500	29346.050.030
3,5X20MM	1000	29346.035.020	4X60MM	500	29346.040.060	5X35MM	500	29346.050.035
3,5X25MM	1000	29346.035.025	4X70MM	500	29346.040.070	5X40MM	500	29346.050.040
3,5X30MM	1000	29346.035.030				5X45MM	200	29346.050.045
3,5X35MM	1000	29346.035.035	4,5X15MM	1000	29346.045.015	5X50MM	200	29346.050.050
3,5X40MM	500	29346.035.040	4,5X16MM	1000	29346.045.016	5X60MM	200	29346.050.060
3,5X45MM	500	29346.035.045	4,5X20MM	1000	29346.045.020	5X70MM	200	29346.050.070
3,5X50MM	500	29346.035.050	4,5X25MM	500	29346.045.025	5X80MM	200	29346.050.080

Parafuso cabeça cilíndrica TX





Dados técnicos

d	Chave caixa	d_k	k
6	T30	13	3
7	T30	14	3

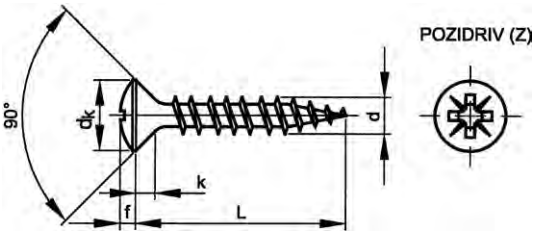
51789 **Parafuso cabeça cilíndrica TX** **R03A**

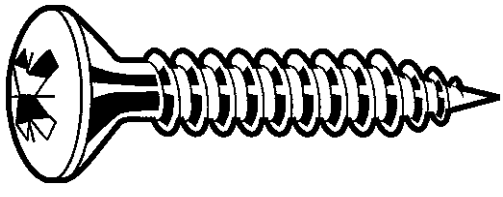
Material Aço inoxidável A2



d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
6X20MM*	200	51789.060.020	6X45MM*	200	51789.060.045	7X40MM*	200	51789.070.040
6X25MM*	200	51789.060.025	6X50MM*	200	51789.060.050	7X50MM*	200	51789.070.050
6X30MM*	200	51789.060.030				7X60MM*	200	51789.070.060
6X35MM*	200	51789.060.035	7X30MM*	200	51789.070.030	7X70MM*	200	51789.070.070
6X40MM*	200	51789.060.040	7X35MM*	200	51789.070.035			

Parafuso rosca para madeira cabeça lentilha fenda cruz





Dados técnicos

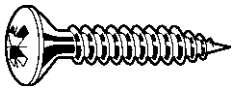
d	d_k (max.)	f ≈	k (max.)	Nr. fenda
3	5.9	0.7	1.9	1
3.5	6.9	0.9	2.1	2
4	7.9	1.05	2.45	2
4.5	8.9	1.2	2.7	2
5	9.6	1.2	3.1	2
6	11.6	1.6	3.7	3

Grupos de produtos

Encaixe	Material	Tratamento sup.	Código	Página
Pozidriv	Aço	Zn	29367	6-171
Pozidriv	INOX A2		51756	6-172

29367 **HECO-FIX PLUS Parafuso rosca para madeira cabeça lentilha Pozidriv** **K04A**

Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3X20MM	1000	29367.030.020	3,5X25MM	1000	29367.035.025			
			3,5X30MM	1000	29367.035.030	4X20MM	1000	29367.040.020
3,5X16MM	1000	29367.035.016	3,5X35MM	1000	29367.035.035	4X30MM	1000	29367.040.030
3,5X20MM	1000	29367.035.020	3,5X40MM	500	29367.035.040	4X35MM	500	29367.040.035

6

29367	HECO-FIX PLUS Parafuso rosca para madeira cabeça lentilha Pozidriv	←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
4X40MM	500	29367.040.040	4X50MM	500	29367.040.050	4,5X40MM	500	29367.045.040
4X45MM	500	29367.040.045						

- Caracteristicas especiais de parafusos HECO-FIX PLUS para aglomerado:
- Redução de torque até 30%.
- Fácil utilização.
- Menos gasto de bateria da ferramenta.
- Forças axiais são reduzidas, menos desgaste das ponteiras.
- Menos tendência de desaperto, pela geometria do parafuso.
- Aviso: A electro zincagem deste material pode provocar disfunção hidrogénica.

51756	Parafuso rosca para madeira cabeça lentilha Pozidriv	R03A

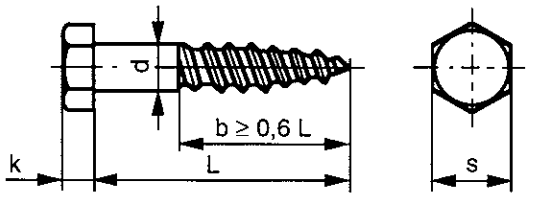
Material Aço inoxidável A2



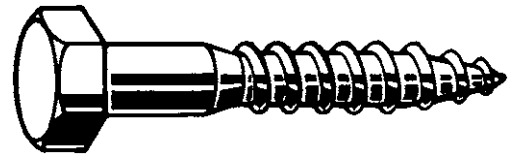
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3X16MM	200	51756.030.016	4X45MM	200	51756.040.045	5X50MM	200	51756.050.050
3X20MM	200	51756.030.020	4X50MM	200	51756.040.050	5X60MM	200	51756.050.060
3X25MM	200	51756.030.025				5X70MM	200	51756.050.070
3X30MM	200	51756.030.030	4,5X20MM	200	51756.045.020	5X90MM	100	51756.050.090
			4,5X25MM	200	51756.045.025	5X100MM	100	51756.050.100
3,5X16MM	200	51756.035.016	4,5X30MM	200	51756.045.030			
3,5X20MM	200	51756.035.020	4,5X35MM	200	51756.045.035	6X20MM	200	51756.060.020
3,5X25MM	200	51756.035.025	4,5X40MM	200	51756.045.040	6X25MM	200	51756.060.025
3,5X30MM	200	51756.035.030	4,5X45MM	200	51756.045.045	6X30MM	100	51756.060.030
3,5X35MM	200	51756.035.035	4,5X50MM	200	51756.045.050	6X35MM	100	51756.060.035
3,5X40MM	200	51756.035.040	4,5X60MM	200	51756.045.060	6X40MM	100	51756.060.040
						6X45MM	100	51756.060.045
4X16MM	200	51756.040.016	5X20MM	200	51756.050.020	6X50MM	100	51756.060.050
4X20MM	200	51756.040.020	5X25MM	200	51756.050.025	6X60MM	100	51756.060.060
4X25MM	200	51756.040.025	5X30MM	200	51756.050.030	6X70MM	100	51756.060.070
4X30MM	200	51756.040.030	5X35MM	200	51756.050.035	6X80MM	100	51756.060.080
4X35MM	200	51756.040.035	5X40MM	200	51756.050.040	6X90MM	100	51756.060.090
4X40MM	200	51756.040.040	5X45MM	200	51756.050.045	6X100MM	100	51756.060.100

- Todas as medidas são indicativas, dependem do fabricante.

Parafuso cabeça sextavada para madeira



DIN **571**
NEN 2260
NF E25-607



Dados técnicos

d	k	s	d	k	s
4	2.8	7	10	7	17
5	3.5	8	12	8	19
6	4	10	16	10	24
7	5	12	20	13	30
8	5.5	13			

- Rosca de parafuso de madeira de acordo com DIN 7998.

Grupos de produtos

Encaixe	Material	Tratamento sup.		Código	Página
Sextavado	Aço	Zn		08280	6-173
Sextavado	Aço	Galv. Q.		08450	6-174
Sextavado	INOX A2			51900	6-174
Sextavado	INOX A4			55900	6-175
Sextavado	INOX A2		anilha betume	51890	6-176

08280 **Parafuso cabeça sextavada para madeira** **E07A**

Material Aço
Tratamento sup. Zincado



RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
5X20MM	200	08280.050.020	7X90MM	100	08280.070.090	8X260MM	25	08280.080.260
5X25MM	200	08280.050.025	7X100MM	100	08280.070.100	8X280MM	25	08280.080.280
5X30MM	200	08280.050.030	7X110MM	100	08280.070.110	8X300MM	25	08280.080.300
5X35MM	200	08280.050.035	7X120MM	100	08280.070.120			
5X40MM	200	08280.050.040	7X130MM	100	08280.070.130	10X30MM	200	08280.100.030
5X45MM	200	08280.050.045	7X140MM	100	08280.070.140	10X35 MM	100	08280.100.035
5X50MM	200	08280.050.050	7X150MM	100	08280.070.150	10X40MM	100	08280.100.040
5X60MM	200	08280.050.060	7X160MM	50	08280.070.160	10X45MM	100	08280.100.045
			7X170MM	50	08280.070.170	10X50MM	100	08280.100.050
6X20MM	200	08280.060.020	7X200MM	50	08280.070.200	10X55MM	100	08280.100.055
6X25MM	200	08280.060.025	7X210MM	50	08280.070.210	10X60MM	100	08280.100.060
6X30MM	200	08280.060.030	7X230MM	50	08280.070.230	10X65 MM	100	08280.100.065
6X35MM	200	08280.060.035	7X250MM	50	08280.070.250	10X70MM	100	08280.100.070
6X40MM	200	08280.060.040	7X270MM	50	08280.070.270	10X80MM	100	08280.100.080
6X45MM	200	08280.060.045				10X90MM	100	08280.100.090
6X50MM	200	08280.060.050	8X25MM	200	08280.080.025	10X100MM	100	08280.100.100
6X55MM	200	08280.060.055	8X30MM	200	08280.080.030	10X110MM	50	08280.100.110
6X60MM	200	08280.060.060	8X35MM	200	08280.080.035	10X120MM	50	08280.100.120
6X65MM	200	08280.060.065	8X40MM	200	08280.080.040	10X130MM	50	08280.100.130
6X70MM	200	08280.060.070	8X45MM	200	08280.080.045	10X140MM	50	08280.100.140
6X80MM	200	08280.060.080	8X50MM	200	08280.080.050	10X150MM	50	08280.100.150
6X90MM	100	08280.060.090	8X55MM	200	08280.080.055	10X160MM	50	08280.100.160
6X100MM	100	08280.060.100	8X60MM	200	08280.080.060	10X180MM	50	08280.100.180
6X110MM	100	08280.060.110	8X65MM	200	08280.080.065	10X200MM	50	08280.100.200
6X120MM	100	08280.060.120	8X70MM	200	08280.080.070	10X220MM	25	08280.100.220
6X130MM	100	08280.060.130	8X80MM	200	08280.080.080	10X240MM	25	08280.100.240
6X140MM	100	08280.060.140	8X90MM	100	08280.080.090	10X260MM	25	08280.100.260
6X150MM	100	08280.060.150	8X100MM	100	08280.080.100	10X280MM	25	08280.100.280
6X160MM	100	08280.060.160	8X110MM	100	08280.080.110	10X300MM	25	08280.100.300
6X180MM	100	08280.060.180	8X120MM	100	08280.080.120			
6X200MM	100	08280.060.200	8X130MM	100	08280.080.130	12X40 MM	100	08280.120.040
			8X140MM	50	08280.080.140	12X45MM	100	08280.120.045
7X35MM	100	08280.070.035	8X150MM	50	08280.080.150	12X50MM	100	08280.120.050
7X40MM	100	08280.070.040	8X160MM	50	08280.080.160	12X55MM	100	08280.120.055
7X50MM	100	08280.070.050	8X180MM	50	08280.080.180	12X60MM	100	08280.120.060
7X60MM	100	08280.070.060	8X200MM	50	08280.080.200	12X70MM	50	08280.120.070
7X70MM	100	08280.070.070	8X220MM	50	08280.080.220	12X80MM	50	08280.120.080
7X80MM	100	08280.070.080	8X240MM	50	08280.080.240	12X90MM	50	08280.120.090

08280 Parafuso cabeça sextavada para madeira

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
12X100MM	50	08280.120.100	12X280MM	25	08280.120.280	16X160MM	25	08280.160.160
12X110MM	50	08280.120.110	12X300MM	25	08280.120.300	16X180MM	25	08280.160.180
12X120MM	50	08280.120.120				16X200MM	25	08280.160.200
12X130MM	50	08280.120.130	16X60MM	25	08280.160.060	16X220MM	25	08280.160.220
12X140MM	50	08280.120.140	16X70MM	25	08280.160.070			
12X150MM	50	08280.120.150	16X80MM	25	08280.160.080	20X120MM	25	08280.200.120
12X160MM	25	08280.120.160	16X90 MM	25	08280.160.090	20X140MM	25	08280.200.140
12X180MM	25	08280.120.180	16X100MM	25	08280.160.100	20X160MM	10	08280.200.160
12X200MM	25	08280.120.200	16X110MM	25	08280.160.110	20X180MM	10	08280.200.180
12X220MM	25	08280.120.220	16X120MM	25	08280.160.120	20X200MM	10	08280.200.200
12X240MM	25	08280.120.240	16X140MM	25	08280.160.140			
12X260MM	25	08280.120.260	16X150MM	25	08280.160.150			

08450 Parafuso cabeça sextavada para madeira A08A

Material Aço
Tratamento sup. Galvanizado a quente



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
7X70MM	100	08450.070.070	10X50MM	100	08450.100.050	12X100MM	50	08450.120.100
7X8MM	100	08450.070.080	10X60MM	100	08450.100.060	12X120MM	50	08450.120.120
7X90MM	100	08450.070.090	10X70MM	100	08450.100.070	12X140MM	50	08450.120.140
7X120MM	100	08450.070.120	10X80MM	100	08450.100.080	12X150MM	50	08450.120.150
7X130MM	100	08450.070.130	10X90MM	100	08450.100.090	12X160MM	25	08450.120.160
7X150MM	100	08450.070.150	10X100MM	100	08450.100.100	12X180MM	25	08450.120.180
7X170MM	50	08450.070.170	10X110MM	50	08450.100.110	12X200MM	25	08450.120.200
7X190MM	50	08450.070.190	10X120MM	50	08450.100.120	12X220MM	25	08450.120.220
			10X130MM	50	08450.100.130	12X240MM	25	08450.120.240
8X40MM	200	08450.080.040	10X140MM	50	08450.100.140			
8X50MM	200	08450.080.050	10X150MM	50	08450.100.150	16X60MM	25	08450.160.060
8X60MM	200	08450.080.060	10X160MM	50	08450.100.160	16X80MM	25	08450.160.080
8X70MM	200	08450.080.070	10X180MM	50	08450.100.180	16X100MM	25	08450.160.100
8X80MM	200	08450.080.080	10X200MM	50	08450.100.200	16X120MM	25	08450.160.120
8X90MM	100	08450.080.090	10X220MM	25	08450.100.220	16X130MM	25	08450.160.130
8X100MM	100	08450.080.100	10X240MM	25	08450.100.240	16X140MM	25	08450.160.140
8X110MM	100	08450.080.110				16X160MM	25	08450.160.160
8X120MM	100	08450.080.120	12X60MM	100	08450.120.060	16X180MM	25	08450.160.180
8X130MM	100	08450.080.130	12X70MM	50	08450.120.070	16X200MM	25	08450.160.200
8X140MM	50	08450.080.140	12X80MM	50	08450.120.080	16X220MM	25	08450.160.220
8X150MM	50	08450.080.150	12X90MM	50	08450.120.090	16X240MM	25	08450.160.240

51900 Parafuso cabeça sextavada para madeira R03A

Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
4X20MM*	200	51900.040.020	6X55MM*	200	51900.060.055	7X130MM	25	51900.070.130
4X25MM	200	51900.040.025	6X60MM	50	51900.060.060	7X140MM*	100	51900.070.140
4X30MM*	200	51900.040.030	6X65MM*	100	51900.060.065	7X150MM	25	51900.070.150
4X40MM*	200	51900.040.040	6X70MM	50	51900.060.070	7X160MM*	100	51900.070.160
4X45MM*	200	51900.040.045	6X80MM	50	51900.060.080	7X170MM	25	51900.070.170
			6X90MM	50	51900.060.090	7X180MM*	100	51900.070.180
5X20MM*	200	51900.050.020	6X100MM	50	51900.060.100	7X190MM*	100	51900.070.190
5X25MM*	200	51900.050.025	6X110MM	25	51900.060.110	7X210MM*	100	51900.070.210
5X30MM	100	51900.050.030	6X120MM	25	51900.060.120			
5X35MM*	200	51900.050.035	6X130MM*	100	51900.060.130	8X25MM*	100	51900.080.025
5X40MM	100	51900.050.040	6X140MM*	100	51900.060.140	8X30MM	50	51900.080.030
5X45MM*	200	51900.050.045				8X35MM*	100	51900.080.035
5X50MM	100	51900.050.050	7X30MM	50	51900.070.030	8X40MM	50	51900.080.040
5X60MM	100	51900.050.060	7X35MM*	200	51900.070.035	8X45MM	50	51900.080.045
5X70MM	100	51900.050.070	7X40MM	50	51900.070.040	8X50MM	50	51900.080.050
5X80MM*	200	51900.050.080	7X45MM*	200	51900.070.045	8X55MM	50	51900.080.055
5X90MM*	200	51900.050.090	7X50MM	50	51900.070.050	8X60MM	50	51900.080.060
			7X60MM	50	51900.070.060	8X65MM*	100	51900.080.065
6X25MM	100	51900.060.025	7X70MM	50	51900.070.070	8X70MM	25	51900.080.070
6X30MM	100	51900.060.030	7X80MM	50	51900.070.080	8X75MM*	100	51900.080.075
6X35MM	100	51900.060.035	7X90MM	50	51900.070.090	8X80MM	25	51900.080.080
6X40MM	100	51900.060.040	7X100MM	50	51900.070.100	8X90MM	25	51900.080.090
6X45MM	100	51900.060.045	7X110MM	50	51900.070.110	8X100MM	25	51900.080.100
6X50MM	100	51900.060.050	7X120MM	25	51900.070.120	8X110MM	25	51900.080.110

51900 Parafuso cabeça sextavada para madeira ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
8X120MM	10	51900.080.120	10X160MM	10	51900.100.160	12X220MM*	25	51900.120.220
8X130MM	10	51900.080.130	10X180MM	10	51900.100.180	12X240MM*	25	51900.120.240
8X140MM	10	51900.080.140	10X200MM	10	51900.100.200	12X250MM*	25	51900.120.250
8X150MM	10	51900.080.150	10X220MM*	50	51900.100.220	12X260MM*	25	51900.120.260
8X160MM	10	51900.080.160	10X240MM*	50	51900.100.240	12X280MM*	25	51900.120.280
8X180MM	10	51900.080.180	10X260MM*	25	51900.100.260	12X300MM*	25	51900.120.300
8X200MM	10	51900.080.200	10X280MM*	25	51900.100.280			
			10X300MM*	25	51900.100.300	16X50MM*	25	51900.160.050
10X40MM	25	51900.100.040				16X60MM*	25	51900.160.060
10X45MM*	100	51900.100.045	12X50MM	10	51900.120.050	16X70MM*	25	51900.160.070
10X50MM	25	51900.100.050	12X60MM	10	51900.120.060	16X80MM*	25	51900.160.080
10X55MM*	100	51900.100.055	12X70MM	10	51900.120.070	16X90MM*	25	51900.160.090
10X60MM	25	51900.100.060	12X80MM	10	51900.120.080	16X100MM*	25	51900.160.100
10X65MM*	100	51900.100.065	12X90MM	10	51900.120.090	16X110MM*	25	51900.160.110
10X70MM	25	51900.100.070	12X100MM	10	51900.120.100	16X120MM*	25	51900.160.120
10X80MM	10	51900.100.080	12X110MM	10	51900.120.110	16X130MM*	25	51900.160.130
10X90MM	10	51900.100.090	12X120MM	10	51900.120.120	16X140MM*	25	51900.160.140
10X100MM	10	51900.100.100	12X130MM	10	51900.120.130	16X150MM*	25	51900.160.150
10X110MM	10	51900.100.110	12X140MM	10	51900.120.140	16X160MM*	25	51900.160.160
10X120MM	10	51900.100.120	12X150MM	10	51900.120.150	16X180MM*	25	51900.160.180
10X130MM	10	51900.100.130	12X160MM	10	51900.120.160	16X200MM*	25	51900.160.200
10X140MM	10	51900.100.140	12X180MM	10	51900.120.180			
10X150MM	10	51900.100.150	12X200MM	10	51900.120.200			

55900 Parafuso cabeça sextavada para madeira R43A

Material Aço inoxidável A4



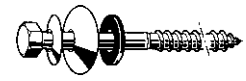
RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
5X25MM*	200	55900.050.025	8X50MM	50	55900.080.050	10X200MM*	50	55900.100.200
5X30MM*	200	55900.050.030	8X60MM	50	55900.080.060			
5X35MM*	200	55900.050.035	8X65MM*	100	55900.080.065	12X50MM*	100	55900.120.050
5X40MM*	200	55900.050.040	8X70MM	25	55900.080.070	12X60MM*	100	55900.120.060
5X45MM*	200	55900.050.045	8X75MM*	100	55900.080.075	12X65MM*	100	55900.120.065
5X50MM*	200	55900.050.050	8X80MM	25	55900.080.080	12X70MM*	50	55900.120.070
5X60MM*	200	55900.050.060	8X90MM	25	55900.080.090	12X75MM*	50	55900.120.075
5X70MM*	200	55900.050.070	8X100MM	25	55900.080.100	12X80 MM	50	55900.120.080
			8X110MM*	100	55900.080.110	12X90MM*	50	55900.120.090
6X25MM	100	55900.060.025	8X120MM*	100	55900.080.120	12X100MM*	50	55900.120.100
6X30MM	100	55900.060.030	8X130MM*	100	55900.080.130	12X110MM*	25	55900.120.110
6X35MM*	200	55900.060.035	8X140MM*	50	55900.080.140	12X120MM*	25	55900.120.120
6X40MM	100	55900.060.040	8X150MM*	50	55900.080.150	12X130MM*	25	55900.120.130
6X45MM	100	55900.060.045	8X160MM*	50	55900.080.160	12X140MM*	25	55900.120.140
6X50MM	100	55900.060.050	8X180MM*	50	55900.080.180	12X150MM*	25	55900.120.150
6X60MM	50	55900.060.060	8X200MM*	50	55900.080.200	12X160MM*	25	55900.120.160
6X65MM*	100	55900.060.065				12X180MM*	25	55900.120.180
6X70MM	50	55900.060.070	10X40MM	25	55900.100.040	12X200MM*	25	55900.120.200
6X75MM*	100	55900.060.075	10X50MM	25	55900.100.050			
6X80MM	50	55900.060.080	10X55MM*	100	55900.100.055	16X50MM*	25	55900.160.050
6X90MM*	100	55900.060.090	10X60MM	25	55900.100.060	16X60MM*	25	55900.160.060
6X100MM*	100	55900.060.100	10X65MM*	100	55900.100.065	16X70MM*	25	55900.160.070
6X110MM*	100	55900.060.110	10X70MM	25	55900.100.070	16X80MM*	25	55900.160.080
6X120MM*	100	55900.060.120	10X75MM*	100	55900.100.075	16X90MM*	25	55900.160.090
6X130MM*	100	55900.060.130	10X80MM	10	55900.100.080	16X100MM*	25	55900.160.100
			10X90MM*	50	55900.100.090	16X110MM*	25	55900.160.110
7X100MM*	100	55900.070.100	10X100MM	10	55900.100.100	16X120MM*	25	55900.160.120
7X110MM	100	55900.070.110	10X110MM*	50	55900.100.110	16X130MM*	25	55900.160.130
			10X120MM*	50	55900.100.120	16X140MM*	25	55900.160.140
8X25MM*	100	55900.080.025	10X130MM*	50	55900.100.130	16X150MM*	25	55900.160.150
8X30MM	50	55900.080.030	10X140MM*	50	55900.100.140	16X160MM*	25	55900.160.160
8X35MM*	100	55900.080.035	10X150MM*	50	55900.100.150	16X180MM*	25	55900.160.180
8X40MM	50	55900.080.040	10X160MM*	50	55900.100.160	16X200MM*	25	55900.160.200
8X45MM*	100	55900.080.045	10X180MM*	50	55900.100.180			

6

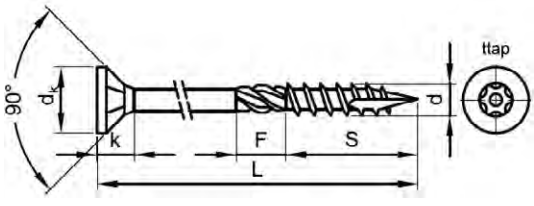
51890	Parafusos rosca de madeira cabeça sextavada	R03A

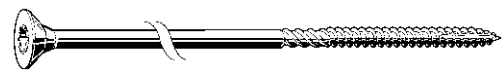
Material Aço inoxidável A2 **DIN** ≈571



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
7X110MM	100	51890.070.110	7X130MM	100	51890.070.130	7X150MM	100	51890.070.150

Parafuso para construção em madeira cabeça de embeber com ttap®





Dados técnicos

d	d_k	k	No. ttap
6	12	3.8	30
8	15	4.8	40
10	18.4	5.8	40

- Só embalagens completas.
- F=9mm apenas se L≥40mm.

30205	MAXXFAST Parafuso para madeira universal cabeça embeber ttap®	MF0A

Material Aço
Tratamento sup. Passivado a amarelo

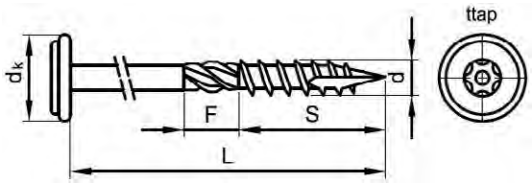
MAXXFAST PROFESSIONAL HARDWARE

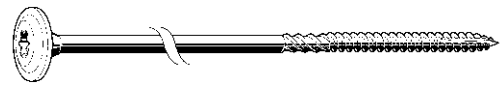


CE

d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo
6X160MM (98)	50	30205.060.160	8X200MM (124)	50	30205.080.200	10X140MM (85)	50	30205.100.140
6X180MM (111)	50	30205.060.180	8X220MM (138)	50	30205.080.220	10X160MM (98)	50	30205.100.160
6X200MM (124)	50	30205.060.200	8X240MM (152)	50	30205.080.240	10X180MM (111)	50	30205.100.180
6X220MM (138)	50	30205.060.220	8X260MM (166)	50	30205.080.260	10X200MM (124)	50	30205.100.200
6X240MM (152)	50	30205.060.240	8X280MM (178)	50	30205.080.280	10X220MM (138)	50	30205.100.220
6X260MM (166)	50	30205.060.260	8X300MM (192)	50	30205.080.300	10X240MM (152)	50	30205.100.240
6X280MM (178)	50	30205.060.280	8X320MM (205)	50	30205.080.320	10X260MM (166)	50	30205.100.260
6X300MM (192)	50	30205.060.300	8X340MM (218)	50	30205.080.340	10X280MM (178)	50	30205.100.280
			8X360MM (232)	50	30205.080.360	10X300MM (192)	50	30205.100.300
8X80MM (45)	50	30205.080.080	8X380MM (246)	50	30205.080.380	10X320MM (205)	50	30205.100.320
8X100MM (58)	50	30205.080.100	8X400MM (258)	50	30205.080.400	10X340MM (218)	50	30205.100.340
8X120MM (72)	50	30205.080.120				10X360MM (232)	50	30205.100.360
8X140MM (85)	50	30205.080.140	10X80MM (45)	50	30205.100.080	10X380MM (246)	50	30205.100.380
8X160MM (98)	50	30205.080.160	10X100MM (58)	50	30205.100.100	10X400MM (258)	50	30205.100.400
8X180MM (111)	50	30205.080.180	10X120MM (72)	50	30205.100.120			

Parafuso para construção em madeira cabeça flange com ttap®





Dados técnicos

d	d_k	k	No. ttap
6	15	3.3	30
8	18	4.2	40
10	21	4.7	40

- Só embalagens completas.
- F=9mm apenas se L≥40mm.

Grupos de produtos

Encaixe	Material	Tratamento sup.	Código	Página
ttap®	Aço	Passiv. amar.	30225	6-177
ttap®	INOX A2		30230	6-177

30225 **MAXXFAST Parafuso para construção em madeira cabeça flange com ttap®** **MF0A**

Material Aço
Tratamento sup. Passivado a amarelo

MAXXFAST PROFESSIONAL HARDWARE



CE

d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo
6X80MM (45)	100	30225.060.080	8X140MM (85)	50	30225.080.140	10X100MM (58)	50	30225.100.100
6X100MM (58)	100	30225.060.100	8X160MM (98)	50	30225.080.160	10X120MM (72)	50	30225.100.120
6X120MM (72)	100	30225.060.120	8X180MM (111)	50	30225.080.180	10X140MM (85)	50	30225.100.140
6X140MM (85)	100	30225.060.140	8X200MM (124)	50	30225.080.200	10X160MM (98)	50	30225.100.160
6X160MM (98)	50	30225.060.160	8X220MM (138)	50	30225.080.220	10X180MM (111)	50	30225.100.180
6X180MM (111)	50	30225.060.180	8X240MM (152)	50	30225.080.240	10X200MM (124)	50	30225.100.200
6X200MM (124)	50	30225.060.200	8X260MM (166)	50	30225.080.260	10X220MM (138)	50	30225.100.220
6X220MM (138)	50	30225.060.220	8X280MM (178)	50	30225.080.280	10X240MM (152)	50	30225.100.240
6X240MM (152)	50	30225.060.240	8X300MM (192)	50	30225.080.300	10X260MM (166)	50	30225.100.260
6X260MM (166)	50	30225.060.260	8X320MM (205)	50	30225.080.320	10X280MM (178)	50	30225.100.280
6X280MM (178)	50	30225.060.280	8X340MM (218)	50	30225.080.340	10X300MM (192)	50	30225.100.300
6X300MM (192)	50	30225.060.300	8X360MM (232)	50	30225.080.360	10X320MM (205)	50	30225.100.320
			8X380MM (246)	50	30225.080.380	10X340MM (218)	50	30225.100.340
8X80MM (45)	50	30225.080.080	8X400MM (258)	50	30225.080.400	10X360MM (232)	50	30225.100.360
8X100MM (58)	50	30225.080.100				10X380MM (246)	50	30225.100.380
8X120MM (72)	50	30225.080.120	10X80MM (45)	50	30225.100.080	10X400MM (258)	50	30225.100.400

30230 **MAXXFAST Parafuso para construção em madeira Universal com ttap®** **MF0A**

Material Aço inoxidável A2

MAXXFAST PROFESSIONAL HARDWARE

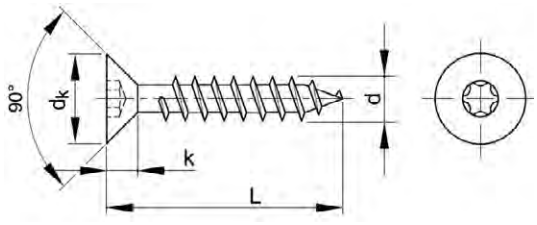


CE

RoHS

d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo	d x L (S)	✉	Ref. do artigo
8X80MM (45)	50	30230.080.080	8X120MM (72)	50	30230.080.120	8X160MM (98)	50	30230.080.160
8X100MM (58)	50	30230.080.100	8X140MM (85)	50	30230.080.140	8X180MM (111)	50	30230.080.180

Parafuso para madeira cabeça de embeber torx





Dados técnicos

d	Chave caixa	d_k	k
3	T10	6	1.9
3.5	T10	7	2.1
4	T20	8	2.5
4.5	T20	9	2.7
5	T25	10	3
6	T25	12	3.6
8	T40	15	4.1

Grupos de produtos

Encaixe	Material	Código	Página
Hexalobular	INOX A2	51878	6-178
Hexalobular	INOX A4	55878	6-179

6

51878 **Parafuso para madeira cabeça de embeber torx** **R03A**

Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3,0X25MM*	500	51878.030.025	4,5X55MM*	200	51878.045.055	6,0X110MM*	100	51878.060.110
3,0X30MM*	500	51878.030.030	4,5X60MM*	200	51878.045.060	6,0X130MM*	100	51878.060.130
3,0X35MM*	500	51878.030.035	4,5X70MM*	200	51878.045.070	6,0X140MM*	100	51878.060.140
3,0X40MM*	200	51878.030.040	4,5X80MM*	200	51878.045.080	6,0X150MM*	100	51878.060.150
3,0X45MM*	200	51878.030.045	4,5X100MM*	200	51878.045.100	6,0X160MM*	100	51878.060.160
3,0X50MM*	200	51878.030.050				6,0X180MM*	100	51878.060.180
			5,0x20MM*	500	51878.050.020	6,0X200MM*	100	51878.060.200
3,5X25MM*	500	51878.035.025	5,0X25MM*	500	51878.050.025	6,0X220MM*	100	51878.060.220
3,5X30MM*	500	51878.035.030	5,0X35MM*	500	51878.050.035	6,0X240MM*	100	51878.060.240
3,5X35MM*	500	51878.035.035	5,0X40MM*	200	51878.050.040	6,0X260MM*	100	51878.060.260
3,5X40MM*	200	51878.035.040	5,0X45MM*	200	51878.050.045	6,0X280MM*	100	51878.060.280
3,5X45MM*	200	51878.035.045	5,0X50MM*	200	51878.050.050	6,0X300MM*	100	51878.060.300
3,5X50MM*	200	51878.035.050	5,0X55MM*	200	51878.050.055			
			5,0X60MM*	100	51878.050.060	8,0X70MM*	100	51878.080.070
4,0X25MM*	500	51878.040.025	5,0X65MM*	100	51878.050.065	8,0X80MM*	100	51878.080.080
4,0X30MM*	500	51878.040.030	5,0X80MM*	100	51878.050.080	8,0X100MM*	100	51878.080.100
4,0X35MM*	500	51878.040.035	5,0X90MM*	100	51878.050.090	8,0X120MM*	100	51878.080.120
4,0X40MM*	200	51878.040.040	5,0X100MM*	100	51878.050.100	8,0X140MM*	100	51878.080.140
4,0X45MM*	200	51878.040.045	5,0X110MM*	100	51878.050.110	8,0X160MM*	100	51878.080.160
4,0X50MM*	200	51878.040.050				8,0X180MM*	100	51878.080.180
4,0X55MM*	200	51878.040.055	6,0X30MM*	100	51878.060.030	8,0X200MM*	100	51878.080.200
4,0X60MM*	200	51878.040.060	6,0X35MM*	100	51878.060.035	8,0X220MM*	100	51878.080.220
4,0X65MM*	200	51878.040.065	6,0X40MM*	100	51878.060.040	8,0X225MM*	100	51878.080.225
4,0X80MM*	200	51878.040.080	6,0X45MM*	100	51878.060.045	8,0X240MM*	100	51878.080.240
			6,0X50MM*	100	51878.060.050	8,0X260MM*	100	51878.080.260
4,5X25MM*	500	51878.045.025	6,0X55MM*	100	51878.060.055	8,0X280MM*	100	51878.080.280
4,5X30MM*	500	51878.045.030	6,0X60MM*	100	51878.060.060	8,0X300MM*	100	51878.080.300
4,5X35MM*	500	51878.045.035	6,0X70MM*	100	51878.060.070	8,0X325MM*	100	51878.080.325
4,5X40MM*	200	51878.045.040	6,0X80MM*	100	51878.060.080	8,0X350MM*	100	51878.080.350
4,5X45MM*	200	51878.045.045	6,0X90MM*	100	51878.060.090	8,0X360MM*	100	51878.080.360
4,5X50MM*	200	51878.045.050	6,0X100MM*	100	51878.060.100	8,0X375MM*	100	51878.080.375

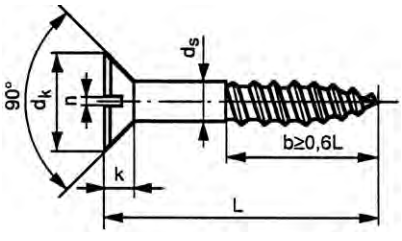
55878 **Parafuso para madeira cabeça de embeber torx** **R43A**

Material Aço inoxidável A4

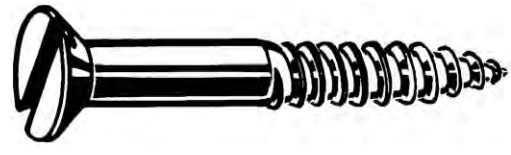


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
6,0X40MM*	100	55878.060.040	6,0X120MM*	100	55878.060.120	8,0X70MM*	100	55878.080.070
6,0X45MM*	100	55878.060.045	6,0X130MM*	100	55878.060.130	8,0X80MM*	100	55878.080.080
6,0X50MM*	100	55878.060.050	6,0X140MM*	100	55878.060.140	8,0X90MM*	100	55878.080.090
6,0X60MM*	100	55878.060.060	6,0X150MM*	100	55878.060.150	8,0X100MM*	100	55878.080.100
6,0X70MM*	100	55878.060.070	6,0X160MM*	100	55878.060.160	8,0X120MM*	100	55878.080.120
6,0X80MM*	100	55878.060.080	6,0X180MM*	100	55878.060.180	8,0X140MM*	100	55878.080.140
6,0X90MM*	100	55878.060.090	6,0X200MM*	100	55878.060.200	8,0X160MM*	100	55878.080.160
6,0X100MM*	100	55878.060.100				8,0X180MM*	100	55878.080.180
6,0X110MM*	100	55878.060.110	8,0X60MM*	100	55878.080.060	8,0X200MM*	100	55878.080.200

Parafuso rosca para madeira cabeça embeber fenda



DIN **97**
NEN 2250
NF E25-604



Dados técnicos

d_s	d_k	k (max.)	n	d_s	d_k	k (max.)	n
2	3.8	1.2	0.5	**5**	9.2	2.5	1.2
2.5	4.7	1.5	0.6	**5.5**	10.2	2.75	1.2
3	5.6	1.65	0.8	**6**	11	3	1.6
3.5	6.5	1.93	0.8	**7**	12.5	3.5	2
4	7.5	2.2	1	**8**	14.5	4	2
4.5	8.3	2.35	1	**10**	18	5	2.5

- Rosca de parafuso de madeira de acordo com DIN 7998.

Grupos de produtos

Encaixe	Material	Tratamento sup.	Código	Página
Fenda	Aço	Zn	25130	6-179
Fenda	INOX A2		51870	6-180
Fenda	INOX A4		55870	6-180
Fenda	Latão Cu2/Cu3		49230	6-181
Fenda	Latão Cu2/Cu3	Niq.	49330	6-181

25130 **Parafuso rosca para madeira cabeça embeber fenda** **K05A**

Material Aço
Tratamento sup. Zincado



d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
2X10MM	200	25130.020.010	3X30MM	200	25130.030.030			
2X12MM	200	25130.020.012	3X35MM	200	25130.030.035	4X10MM	200	25130.040.010
2X16MM	200	25130.020.016	3X40MM	200	25130.030.040	4X16MM	200	25130.040.016
2X20MM	200	25130.020.020	3X45MM	200	25130.030.045	4X20MM	200	25130.040.020
			3X50MM	200	25130.030.050	4X25MM	200	25130.040.025
2,5X10MM	200	25130.025.010				4X30MM	200	25130.040.030
2,5X12MM	200	25130.025.012	3,5X10MM	200	25130.035.010	4X35MM	200	25130.040.035
2,5X16MM	200	25130.025.016	3,5X12MM	200	25130.035.012	4X40MM	200	25130.040.040
2,5X20MM	200	25130.025.020	3,5X16MM	200	25130.035.016	4X45MM	200	25130.040.045
2,5X30MM	200	25130.025.030	3,5X20MM	200	25130.035.020	4X50MM	200	25130.040.050
			3,5X25MM	200	25130.035.025	4X60MM	200	25130.040.060
3X10MM	200	25130.030.010	3,5X30MM	200	25130.035.030	4X70MM	200	25130.040.070
3X12MM	200	25130.030.012	3,5X35MM	200	25130.035.035	4X80MM	200	25130.040.080
3X16MM	200	25130.030.016	3,5X40MM	200	25130.035.040	4X100MM	200	25130.040.100
3X20MM	200	25130.030.020	3,5X45MM	200	25130.035.045			
3X25MM	200	25130.030.025	3,5X50MM	200	25130.035.050	4,5X20MM	200	25130.045.020

25130 Parafuso rosca para madeira cabeça embeber fenda

d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
4,5X25MM	200	25130.045.025	5X50MM	200	25130.050.050	6X40MM	200	25130.060.040
4,5X30MM	200	25130.045.030	5X60MM	200	25130.050.060	6X45MM	200	25130.060.045
4,5X35MM	200	25130.045.035	5X70MM	200	25130.050.070	6X50MM	200	25130.060.050
4,5X40MM	200	25130.045.040	5X80MM	200	25130.050.080	6X60MM	100	25130.060.060
4,5X45MM	200	25130.045.045				6X70MM	100	25130.060.070
4,5X50MM	200	25130.045.050	5,5X25MM	200	25130.055.025	6X80MM	100	25130.060.080
4,5X60MM	200	25130.045.060	5,5X30MM	200	25130.055.030	6X90MM	100	25130.060.090
4,5X70MM	200	25130.045.070	5,5X40MM	200	25130.055.040	6X100MM	100	25130.060.100
			5,5X45MM	200	25130.055.045	6X120MM	100	25130.060.120
5X20MM	200	25130.050.020	5,5X50MM	200	25130.055.050			
5X25MM	200	25130.050.025				7X50MM	100	25130.070.050
5X30MM	200	25130.050.030	6X20MM	200	25130.060.020	7X60MM	100	25130.070.060
5X35MM	200	25130.050.035	6X25MM	200	25130.060.025	7X70MM	100	25130.070.070
5X40MM	200	25130.050.040	6X30MM	200	25130.060.030	7X80MM	100	25130.070.080
5X45MM	200	25130.050.045	6X35MM	200	25130.060.035	7X100MM	100	25130.070.100

51870 Parafuso rosca para madeira cabeça embeber fenda R03A

Material Aço inoxidável A2



RoHS

d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
2,5X10MM	200	51870.025.010	4X60MM	200	51870.040.060	5,5X50MM	200	51870.055.050
2,5X12MM	200	51870.025.012	4X70MM	200	51870.040.070	5,5X60MM	100	51870.055.060
2,5X16MM	200	51870.025.016				5,5X70MM	100	51870.055.070
2,5X20MM	200	51870.025.020	4,5X16MM*	200	51870.045.016	5,5X75MM*	100	51870.055.075
2,5X25MM	200	51870.025.025	4,5X20MM	200	51870.045.020	5,5X90MM	100	51870.055.090
			4,5X25MM	200	51870.045.025	5,5X100MM	100	51870.055.100
3X10MM	200	51870.030.010	4,5X30MM	200	51870.045.030			
3X12MM	200	51870.030.012	4,5X35MM	200	51870.045.035	6X25MM	200	51870.060.025
3X16MM	200	51870.030.016	4,5X40MM	200	51870.045.040	6X30MM	200	51870.060.030
3X20MM	200	51870.030.020	4,5X45MM	200	51870.045.045	6X35MM	200	51870.060.035
3X25MM	200	51870.030.025	4,5X50MM	200	51870.045.050	6X40MM	200	51870.060.040
3X30MM	200	51870.030.030	4,5X60MM*	200	51870.045.060	6X45MM	200	51870.060.045
3X35MM*	200	51870.030.035	4,5X70MM*	200	51870.045.070	6X50MM	200	51870.060.050
3X40MM*	200	51870.030.040				6X60MM	100	51870.060.060
			5X16MM*	200	51870.050.016	6X65MM*	100	51870.060.065
3,5X12MM	200	51870.035.012	5X20MM	200	51870.050.020	6X70MM	100	51870.060.070
3,5X16MM	200	51870.035.016	5X25MM	200	51870.050.025	6X80MM	100	51870.060.080
3,5X20MM	200	51870.035.020	5X30MM	200	51870.050.030	6X90MM*	100	51870.060.090
3,5X25MM	200	51870.035.025	5X35MM	200	51870.050.035	6X100MM	100	51870.060.100
3,5X30MM	200	51870.035.030	5X40MM	200	51870.050.040	6X110MM*	100	51870.060.110
3,5X35MM	200	51870.035.035	5X45MM	200	51870.050.045	6X120MM*	100	51870.060.120
3,5X40MM	200	51870.035.040	5X50MM	200	51870.050.050			
3,5X45MM*	200	51870.035.045	5X60MM	200	51870.050.060	8X30MM*	100	51870.080.030
3,5X50MM	200	51870.035.050	5X65MM*	100	51870.050.065	8X40MM*	100	51870.080.040
			5X70MM	200	51870.050.070	8X50MM*	100	51870.080.050
4X10MM*	200	51870.040.010	5X75MM*	100	51870.050.075	8X60MM*	100	51870.080.060
4X12MM*	200	51870.040.012	5X80MM	200	51870.050.080	8X70MM*	100	51870.080.070
4X16MM	200	51870.040.016	5X90MM	200	51870.050.090	8X80MM*	100	51870.080.080
4X20MM	200	51870.040.020	5X100MM*	100	51870.050.100	8X90MM*	100	51870.080.090
4X25MM	200	51870.040.025				8X100MM*	100	51870.080.100
4X30MM	200	51870.040.030	5,5X25MM	200	51870.055.025	8X120MM*	100	51870.080.120
4X35MM	200	51870.040.035	5,5X30MM	200	51870.055.030			
4X40MM	200	51870.040.040	5,5X35MM	200	51870.055.035	10X120MM*	100	51870.100.120
4X45MM	200	51870.040.045	5,5X40MM	200	51870.055.040			
4X50MM	200	51870.040.050	5,5X45MM	200	51870.055.045			

55870 Parafuso rosca para madeira cabeça embeber fenda R43A

Material Aço inoxidável A4



RoHS

d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
2,5X12MM*	500	55870.025.012	3X20MM	200	55870.030.020	3,5X20MM	200	55870.035.020
2,5X16MM*	500	55870.025.016	3X25MM*	200	55870.030.025	3,5X25MM	200	55870.035.025
2,5X20MM*	500	55870.025.020	3X30MM*	200	55870.030.030	3,5X30MM*	200	55870.035.030
2,5X25MM*	500	55870.025.025	3X35MM*	200	55870.030.035	3,5X35MM*	200	55870.035.035
			3X40MM*	200	55870.030.040	3,5X40MM*	200	55870.035.040
3X10MM*	200	55870.030.010				3,5X45MM*	200	55870.035.045
3X12MM*	200	55870.030.012	3,5X12MM*	200	55870.035.012	3,5X50MM*	200	55870.035.050
3X16MM	200	55870.030.016	3,5X16MM*	200	55870.035.016			

6

55870 Parafuso rosca para madeira cabeça embeber fenda ←

d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
4X16MM*	200	55870.040.016				6X40MM*	200	55870.060.040
4X20MM*	200	55870.040.020	5X16MM*	200	55870.050.016	6X45MM*	200	55870.060.045
4X25MM	200	55870.040.025	5X20MM*	200	55870.050.020	6X50MM	200	55870.060.050
4X30MM	200	55870.040.030	5X25MM*	200	55870.050.025	6X60MM	100	55870.060.060
4X35MM*	200	55870.040.035	5X30MM	200	55870.050.030	6X70MM	100	55870.060.070
4X40MM	200	55870.040.040	5X35MM*	200	55870.050.035	6X80MM	100	55870.060.080
4X45MM*	200	55870.040.045	5X40MM	200	55870.050.040	6X90MM	100	55870.060.090
4X50MM	200	55870.040.050	5X45MM*	200	55870.050.045	6X100MM	100	55870.060.100
4X60MM*	200	55870.040.060	5X50MM	200	55870.050.050	6X110MM*	100	55870.060.110
			5X60MM	200	55870.050.060			
4,5X25MM*	200	55870.045.025	5X70MM	200	55870.050.070	8X40MM*	100	55870.080.040
4,5X30MM*	200	55870.045.030	5X80MM	200	55870.050.080	8X50MM*	100	55870.080.050
4,5X35MM*	200	55870.045.035	5X90MM	200	55870.050.090	8X60MM*	100	55870.080.060
4,5X40MM*	200	55870.045.040				8X70MM*	100	55870.080.070
4,5X45MM*	200	55870.045.045	5,5X40MM	200	55870.055.040	8X80MM*	100	55870.080.080
4,5X50MM*	200	55870.045.050				8X100MM*	100	55870.080.100
4,5X60MM*	200	55870.045.060	6X30MM*	200	55870.060.030			
4,5X80MM*	200	55870.045.080	6X35MM*	200	55870.060.035			

49230 Parafuso rosca para madeira cabeça embeber fenda M07A

Material Latão Cu2/Cu3



RoHS

d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
2X8MM	200	49230.020.008	3,5X40MM	200	49230.035.040	5X40MM	200	49230.050.040
2X10MM	200	49230.020.010	3,5X45MM	200	49230.035.045	5X45MM	200	49230.050.045
2X12MM	200	49230.020.012	3,5X50MM	200	49230.035.050	5X50MM	200	49230.050.050
2X16MM	200	49230.020.016				5X60MM	200	49230.050.060
2X20MM	200	49230.020.020	4X12MM	200	49230.040.012	5X70MM	200	49230.050.070
			4X16MM	200	49230.040.016	5X80MM	200	49230.050.080
2,5X10MM	200	49230.025.010	4X20MM	200	49230.040.020			
2,5X12MM	200	49230.025.012	4X25MM	200	49230.040.025	5,5X30MM	200	49230.055.030
2,5X16MM	200	49230.025.016	4X30MM	200	49230.040.030	5,5X40MM	200	49230.055.040
2,5X20MM	200	49230.025.020	4X35MM	200	49230.040.035	5,5X45MM	200	49230.055.045
2,5X25MM	200	49230.025.025	4X40MM	200	49230.040.040	5,5X50MM	200	49230.055.050
2,5X30MM	200	49230.025.030	4X45MM	200	49230.040.045	5,5X60MM	100	49230.055.060
			4X50MM	200	49230.040.050	5,5X70MM	100	49230.055.070
3X10MM	200	49230.030.010	4X60MM	200	49230.040.060	5,5X80MM	100	49230.055.080
3X12MM	200	49230.030.012	4X70MM	200	49230.040.070	5,5X90MM	100	49230.055.090
3X16MM	200	49230.030.016				5,5X100MM	100	49230.055.100
3X20MM	200	49230.030.020	4,5X20MM	200	49230.045.020			
3X25MM	200	49230.030.025	4,5X25MM	200	49230.045.025	6X30MM	200	49230.060.030
3X30MM	200	49230.030.030	4,5X30MM	200	49230.045.030	6X35MM	200	49230.060.035
3X35MM	200	49230.030.035	4,5X35MM	200	49230.045.035	6X40MM	200	49230.060.040
3X40MM	200	49230.030.040	4,5X40MM	200	49230.045.040	6X45MM	200	49230.060.045
			4,5X45MM	200	49230.045.045	6X50MM	200	49230.060.050
3,5X10MM	200	49230.035.010	4,5X50MM	200	49230.045.050	6X60MM	100	49230.060.060
3,5X12MM	200	49230.035.012	4,5X60MM	200	49230.045.060	6X70MM	100	49230.060.070
3,5X16MM	200	49230.035.016				6X80MM	100	49230.060.080
3,5X20MM	200	49230.035.020	5X20MM	200	49230.050.020	6X90MM	100	49230.060.090
3,5X25MM	200	49230.035.025	5X25MM	200	49230.050.025	6X100MM	100	49230.060.100
3,5X30MM	200	49230.035.030	5X30MM	200	49230.050.030			
3,5X35MM	200	49230.035.035	5X35MM	200	49230.050.035	7X70MM	100	49230.070.070

49330 Parafuso rosca para madeira cabeça embeber fenda M07A

Material Latão Cu2/Cu3
Tratamento sup. Niquelado



RoHS

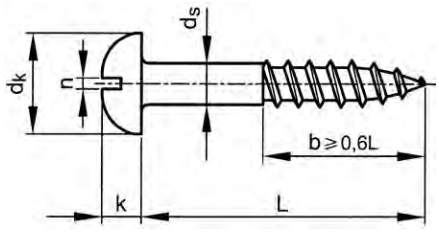
d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
2X10MM	200	49330.020.010	3X25MM	200	49330.030.025	4X25MM	200	49330.040.025
2X12MM	200	49330.020.012				4X30MM	200	49330.040.030
			3,5X10MM	200	49330.035.010	4X35MM	200	49330.040.035
2,5X12MM	200	49330.025.012	3,5X16MM	200	49330.035.016	4X40MM	200	49330.040.040
2,5X16MM	200	49330.025.016	3,5X20MM	200	49330.035.020	4X45MM	200	49330.040.045
2,5X20MM	200	49330.025.020	3,5X25MM	200	49330.035.025	4X50MM	200	49330.040.050
			3,5X40MM	200	49330.035.040			
3X10MM	200	49330.030.010				4,5X20MM	200	49330.045.020
3X12MM	200	49330.030.012	4X12MM	200	49330.040.012	4,5X25MM	200	49330.045.025
3X16MM	200	49330.030.016	4X16MM	200	49330.040.016	4,5X30MM	200	49330.045.030
3X20MM	200	49330.030.020	4X20MM	200	49330.040.020	4,5X35MM	200	49330.045.035

6

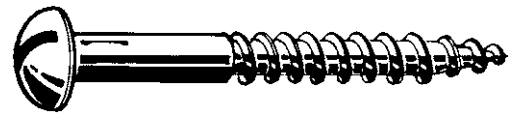
49330	Parafuso rosca para madeira cabeça embeber fenda	←

d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
4,5X40MM	200	49330.045.040				6X30MM	200	49330.060.030
4,5X60MM	200	49330.045.060	5,5X25MM	200	49330.055.025	6X40MM	200	49330.060.040
4,5X70MM	200	49330.045.070	5,5X30MM	200	49330.055.030	6X50MM	200	49330.060.050
			5,5X40MM	200	49330.055.040	6X60MM	100	49330.060.060
5X30MM	200	49330.050.030	5,5X50MM	200	49330.055.050	6X70MM	100	49330.060.070
5X40MM	200	49330.050.040	5,5X60MM	100	49330.055.060	6X80MM	100	49330.060.080
5X45MM	200	49330.050.045	5,5X70MM	100	49330.055.070			
5X60MM	200	49330.050.060						

Parafuso rosca para madeira cabeça oval fenda



DIN **96**
NEN 2251
NF E25-606



Dados técnicos

d_s	d_k	k (max.)	n
2	4	1.4	0.5
2.5	5	1.7	0.6
3	6	2.1	0.8
3.5	7	2.4	0.8
4	8	2.8	1
4.5	9	3.1	1
5	10	3.5	1.2
5.5	11	3.8	1.2
6	12	4.2	1.6
7	14	4.9	2
8	16	5.6	2

- Rosca de parafuso de madeira de acordo com DIN 7998.

Grupos de produtos

Encaixe	Material	Tratamento sup.	Código	Página
Fenda	Aço	Zn	25110	6-182
Fenda	INOX A2		51860	6-183
Fenda	INOX A4		55860	6-183
Fenda	Latão Cu2/Cu3		49210	6-184
Fenda	Latão Cu2/Cu3	Niq.	49310	6-184

25110	Parafuso rosca para madeira cabeça oval fenda	K05A

Material Aço
Tratamento sup. Zincado

RoHS



d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
2X10MM	200	25110.020.010				4X40MM	200	25110.040.040
2X12MM	200	25110.020.012	3,5X10MM	200	25110.035.010	4X50MM	200	25110.040.050
			3,5X12MM	200	25110.035.012	4X60MM	200	25110.040.060
2,5X10MM	200	25110.025.010	3,5X16MM	200	25110.035.016	4X70MM	200	25110.040.070
2,5X12MM	200	25110.025.012	3,5X20MM	200	25110.035.020	4X80MM	200	25110.040.080
2,5X16MM	200	25110.025.016	3,5X25MM	200	25110.035.025			
2,5X20MM	200	25110.025.020	3,5X30MM	200	25110.035.030	4,5X16MM	200	25110.045.016
2,5X25MM	200	25110.025.025	3,5X35MM	200	25110.035.035	4,5X20MM	200	25110.045.020
2,5X30MM	200	25110.025.030	3,5X40MM	200	25110.035.040	4,5X25MM	200	25110.045.025
			3,5X45MM	200	25110.035.045	4,5X30MM	200	25110.045.030
3X10MM	200	25110.030.010	3,5X60MM	200	25110.035.060	4,5X40MM	200	25110.045.040
3X12MM	200	25110.030.012				4,5X45MM	200	25110.045.045
3X16MM	200	25110.030.016	4X12MM	200	25110.040.012	4,5X50MM	200	25110.045.050
3X20MM	200	25110.030.020	4X16MM	200	25110.040.016	4,5X60MM	200	25110.045.060
3X25MM	200	25110.030.025	4X20MM	200	25110.040.020			
3X30MM	200	25110.030.030	4X25MM	200	25110.040.025	5X16MM	200	25110.050.016
3X35MM	200	25110.030.035	4X30MM	200	25110.040.030	5X20MM	200	25110.050.020
3X40MM	200	25110.030.040	4X35MM	200	25110.040.035	5X25MM	200	25110.050.025

25110 Parafuso rosca para madeira cabeça oval fenda

d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
5X30MM	200	25110.050.030	5,5X25MM	200	25110.055.025	6X30MM	200	25110.060.030
5X35MM	200	25110.050.035	5,5X30MM	200	25110.055.030	6X35MM	200	25110.060.035
5X40MM	200	25110.050.040	5,5X40MM	200	25110.055.040	6X40MM	200	25110.060.040
5X45MM	200	25110.050.045	5,5X45MM	200	25110.055.045	6X50MM	200	25110.060.050
5X50MM	200	25110.050.050	5,5X50MM	200	25110.055.050	6X60MM	100	25110.060.060
5X60MM	200	25110.050.060	5,5X60MM	100	25110.055.060	6X70MM	100	25110.060.070
5X70MM	200	25110.050.070	5,5X70MM	100	25110.055.070	6X80MM	100	25110.060.080
5X80MM	200	25110.050.080	5,5X100MM	100	25110.055.100			
						7X50MM	100	25110.070.050
5,5X20MM	200	25110.055.020	6X25MM	200	25110.060.025	7X60MM	100	25110.070.060

51860 Parafuso rosca para madeira cabeça oval fenda R03A

Material Aço inoxidável A2



d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
2,5X10MM	200	51860.025.010	4X35MM	200	51860.040.035	5X80MM	200	51860.050.080
2,5X12MM	200	51860.025.012	4X40MM	200	51860.040.040	5X90MM	200	51860.050.090
2,5X16MM	200	51860.025.016	4X45MM	200	51860.040.045	5X100MM*	100	51860.050.100
2,5X20MM	200	51860.025.020	4X50MM	200	51860.040.050			
2,5X25MM*	500	51860.025.025	4X60MM	200	51860.040.060	5,5X25MM	200	51860.055.025
			4X70MM*	200	51860.040.070	5,5X30MM	200	51860.055.030
3X10MM	200	51860.030.010				5,5X35MM	200	51860.055.035
3X12MM	200	51860.030.012	4,5X16MM*	200	51860.045.016	5,5X40MM	200	51860.055.040
3X16MM	200	51860.030.016	4,5X20MM*	200	51860.045.020	5,5X50MM	200	51860.055.050
3X20MM	200	51860.030.020	4,5X25MM	200	51860.045.025	5,5X60MM*	200	51860.055.060
3X25MM	200	51860.030.025	4,5X30MM	200	51860.045.030	5,5X90MM*	100	51860.055.090
3X30MM	200	51860.030.030	4,5X35MM	200	51860.045.035			
3X35MM*	200	51860.030.035	4,5X40MM	200	51860.045.040	6X20MM*	200	51860.060.020
3X40MM*	200	51860.030.040	4,5X45MM*	200	51860.045.045	6X25MM	200	51860.060.025
			4,5X50MM	200	51860.045.050	6X30MM	200	51860.060.030
3,5X12MM	200	51860.035.012	4,5X60MM*	200	51860.045.060	6X35MM	200	51860.060.035
3,5X16MM	200	51860.035.016	4,5X70MM*	200	51860.045.070	6X40MM	200	51860.060.040
3,5X20MM	200	51860.035.020				6X45MM	200	51860.060.045
3,5X25MM	200	51860.035.025	5X16MM	200	51860.050.016	6X50MM	200	51860.060.050
3,5X30MM	200	51860.035.030	5X20MM	200	51860.050.020	6X55MM*	200	51860.060.055
3,5X35MM	200	51860.035.035	5X25MM	200	51860.050.025	6X60MM	100	51860.060.060
3,5X40MM*	200	51860.035.040	5X30MM	200	51860.050.030	6X70MM	100	51860.060.070
3,5X45MM*	200	51860.035.045	5X35MM	200	51860.050.035	6X80MM	100	51860.060.080
3,5X50MM*	200	51860.035.050	5X40MM	200	51860.050.040	6X90MM	100	51860.060.090
			5X45MM	200	51860.050.045	6X100MM	100	51860.060.100
4X12MM	200	51860.040.012	5X50MM	200	51860.050.050	6X110MM*	100	51860.060.110
4X16MM	200	51860.040.016	5X55MM*	200	51860.050.055	6X120MM*	100	51860.060.120
4X20MM	200	51860.040.020	5X60MM	200	51860.050.060			
4X25MM	200	51860.040.025	5X65MM*	100	51860.050.065	8X60MM*	100	51860.080.060
4X30MM	200	51860.040.030	5X70MM	200	51860.050.070			

55860 Parafuso rosca para madeira cabeça oval fenda R43A

Material Aço inoxidável A4



d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
2,5X10MM*	500	55860.025.010	3,5X50MM*	200	55860.035.050	5X25MM*	200	55860.050.025
2,5X12MM*	500	55860.025.012				5X30MM*	200	55860.050.030
2,5X20MM*	500	55860.025.020	4X16MM*	200	55860.040.016	5X35MM*	200	55860.050.035
			4X20MM*	200	55860.040.020	5X40MM*	200	55860.050.040
3X12MM*	200	55860.030.012	4X25MM*	200	55860.040.025	5X45MM*	200	55860.050.045
3X16MM*	200	55860.030.016	4X30MM*	200	55860.040.030	5X50MM*	200	55860.050.050
3X20MM*	200	55860.030.020	4X35MM*	200	55860.040.035	5X60MM*	200	55860.050.060
3X25MM*	200	55860.030.025	4X40MM*	200	55860.040.040	5X70MM*	100	55860.050.070
3X30MM*	200	55860.030.030	4X45MM*	200	55860.040.045	5X75MM*	100	55860.050.075
3X40MM*	200	55860.030.040	4X50MM*	200	55860.040.050			
						6X30MM*	200	55860.060.030
3,5X16MM*	200	55860.035.016	4,5X20MM*	200	55860.045.020	6X35MM*	200	55860.060.035
3,5X20MM*	200	55860.035.020	4,5X35MM*	200	55860.045.035	6X40MM*	200	55860.060.040
3,5X25MM*	200	55860.035.025	4,5X50MM*	200	55860.045.050	6X45MM*	200	55860.060.045
3,5X30MM*	200	55860.035.030				6X50MM*	200	55860.060.050
3,5X40MM*	200	55860.035.040	5X20MM*	200	55860.050.020	6X70MM*	100	55860.060.070

49210 Parafuso rosca para madeira cabeça oval fenda — M07A

Material Latão Cu2/Cu3



d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
2X8MM	200	49210.020.008	3,5X30MM	200	49210.035.030	5X20MM	200	49210.050.020
2X10MM	200	49210.020.010	3,5X35MM	200	49210.035.035	5X25MM	200	49210.050.025
2X12MM	200	49210.020.012	3,5X40MM	200	49210.035.040	5X30MM	200	49210.050.030
2X16MM	200	49210.020.016	3,5X45MM	200	49210.035.045	5X35MM	200	49210.050.035
			3,5X50MM	200	49210.035.050	5X40MM	200	49210.050.040
2,5X10MM	200	49210.025.010				5X45MM	200	49210.050.045
2,5X12MM	200	49210.025.012	4X12MM	200	49210.040.012	5X50MM	200	49210.050.050
2,5X16MM	200	49210.025.016	4X16MM	200	49210.040.016	5X60MM	200	49210.050.060
2,5X20MM	200	49210.025.020	4X20MM	200	49210.040.020	5X70MM	200	49210.050.070
2,5X25MM	200	49210.025.025	4X25MM	200	49210.040.025	5X80MM	200	49210.050.080
2,5X30MM	200	49210.025.030	4X30MM	200	49210.040.030			
			4X35MM	200	49210.040.035	5,5X20MM	200	49210.055.020
3X10MM	200	49210.030.010	4X40MM	200	49210.040.040	5,5X30MM	200	49210.055.030
3X12MM	200	49210.030.012	4X45MM	200	49210.040.045	5,5X40MM	200	49210.055.040
3X16MM	200	49210.030.016	4X50MM	200	49210.040.050	5,5X50MM	200	49210.055.050
3X20MM	200	49210.030.020	4X60MM	200	49210.040.060	5,5X60MM	100	49210.055.060
3X25MM	200	49210.030.025	4X70MM	200	49210.040.070	5,5X70MM	100	49210.055.070
3X30MM	200	49210.030.030						
3X35MM	200	49210.030.035	4,5X20MM	200	49210.045.020	6X30MM	200	49210.060.030
3X40MM	200	49210.030.040	4,5X25MM	200	49210.045.025	6X35MM	200	49210.060.035
			4,5X30MM	200	49210.045.030	6X40MM	200	49210.060.040
3,5X10MM	200	49210.035.010	4,5X35MM	200	49210.045.035	6X45MM	200	49210.060.045
3,5X12MM	200	49210.035.012	4,5X40MM	200	49210.045.040	6X50MM	200	49210.060.050
3,5X16MM	200	49210.035.016	4,5X45MM	200	49210.045.045	6X60MM	100	49210.060.060
3,5X20MM	200	49210.035.020	4,5X50MM	200	49210.045.050	6X70MM	100	49210.060.070
3,5X25MM	200	49210.035.025				6X80MM	100	49210.060.080

49310 Parafuso rosca para madeira cabeça oval fenda — M07A

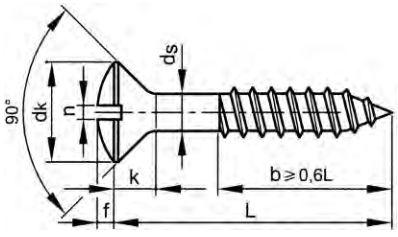
Material Latão Cu2/Cu3
Tratamento sup. Niquelado



d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
2X10MM	200	49310.020.010	3,5X16MM	200	49310.035.016	4,5X35MM	200	49310.045.035
2X12MM	200	49310.020.012	3,5X20MM	200	49310.035.020	4,5X40MM	200	49310.045.040
2X16MM	200	49310.020.016	3,5X25MM	200	49310.035.025	4,5X50MM	200	49310.045.050
			3,5X30MM	200	49310.035.030			
2,5X10MM	200	49310.025.010	3,5X35MM	200	49310.035.035	5X25MM	200	49310.050.025
2,5X12MM	200	49310.025.012	3,5X40MM	200	49310.035.040	5X30MM	200	49310.050.030
2,5X16MM	200	49310.025.016				5X35MM	200	49310.050.035
2,5X20MM	200	49310.025.020	4X12MM	200	49310.040.012	5X40MM	200	49310.050.040
2,5X25MM	200	49310.025.025	4X20MM	200	49310.040.020	5X50MM	200	49310.050.050
			4X25MM	200	49310.040.025			
3X10MM	200	49310.030.010	4X30MM	200	49310.040.030	5,5X50MM	200	49310.055.050
3X12MM	200	49310.030.012	4X35MM	200	49310.040.035	5,5X60MM	100	49310.055.060
3X16MM	200	49310.030.016	4X40MM	200	49310.040.040	5,5X70MM	100	49310.055.070
3X20MM	200	49310.030.020	4X45MM	200	49310.040.045			
3X25MM	200	49310.030.025	4X50MM	200	49310.040.050	6X30MM	200	49310.060.030
3X30MM	200	49310.030.030				6X40MM	200	49310.060.040
			4,5X20MM	200	49310.045.020	6X60MM	100	49310.060.060
3,5X10MM	200	49310.035.010	4,5X25MM	200	49310.045.025	6X70MM	100	49310.060.070
3,5X12MM	200	49310.035.012	4,5X30MM	200	49310.045.030	6X80MM	100	49310.060.080

6

Parafuso rosca para madeira cabeça lentilha com fenda



DIN **95**
NEN 2252
NF E25-605



Dados técnicos

d_s	d_k	f ≈	k (max.)	n
2	3.8	0.5	1.2	0.5
2.5	4.7	0.6	1.5	0.6
3	5.6	0.75	1.65	0.8
3.5	6.5	0.9	1.93	0.8
4	7.5	1	2.2	1
4.5	8.3	1.1	2.35	1
5	9.2	1.25	2.5	1.2
5.5	10.2	1.4	2.75	1.2
6	11	1.5	3	1.6
7	12.5	1.75	3.5	1.8
8	14.5	2	4	2

- Rosca de parafuso de madeira de acordo com DIN 7998.

6

Grupos de produtos

Encaixe	Material	Tratamento sup.	Código	Página
Fenda	INOX A2		51880	6-185
Fenda	INOX A4		55880	6-186
Fenda	Latão Cu2/Cu3		49250	6-186
Fenda	Latão Cu2/Cu3	Niq.	49350	6-186

51880 **Parafuso rosca para madeira cabeça lentilha com fenda** **R03A**

Material Aço inoxidável A2



RoHS

d_s x L	✉	Ref. do artigo
2,5X10MM	200	51880.025.010
2,5X12MM*	500	51880.025.012
2,5X16MM	200	51880.025.016
2,5X20MM	200	51880.025.020
2,5X25MM	200	51880.025.025
3X10MM*	200	51880.030.010
3X12MM	200	51880.030.012
3X16MM	200	51880.030.016
3X20MM	200	51880.030.020
3X25MM	200	51880.030.025
3X30MM	200	51880.030.030
3X35MM	200	51880.030.035
3X40MM*	200	51880.030.040
3,5X12MM	200	51880.035.012
3,5X16MM	200	51880.035.016
3,5X20MM	200	51880.035.020
3,5X25MM	200	51880.035.025
3,5X30MM	200	51880.035.030
3,5X35MM	200	51880.035.035
3,5X40MM	200	51880.035.040
3,5X45MM*	200	51880.035.045
3,5X50MM*	200	51880.035.050
4X12MM	200	51880.040.012
4X16MM	200	51880.040.016
4X20MM	200	51880.040.020
4X25MM	200	51880.040.025
4X30MM	200	51880.040.030
4X35MM	200	51880.040.035
4X40MM	200	51880.040.040
4X45MM	200	51880.040.045
4X50MM	200	51880.040.050
4X60MM	200	51880.040.060
4X70MM*	200	51880.040.070
4,5X16MM*	200	51880.045.016
4,5X20MM*	200	51880.045.020
4,5X25MM	200	51880.045.025
4,5X30MM	200	51880.045.030
4,5X35MM	200	51880.045.035
4,5X40MM	200	51880.045.040
4,5X45MM	200	51880.045.045
4,5X50MM	200	51880.045.050
4,5X60MM*	200	51880.045.060
4,5X65MM*	200	51880.045.065
4,5X70MM*	200	51880.045.070
5X16MM*	200	51880.050.016
5X20MM	200	51880.050.020
5X25MM	200	51880.050.025
5X30MM	200	51880.050.030
5X35MM	200	51880.050.035
5X40MM	200	51880.050.040
5X45MM	200	51880.050.045
5X50MM	200	51880.050.050
5X60MM	200	51880.050.060
5X70MM	200	51880.050.070
5X75MM*	100	51880.050.075
5X80MM*	100	51880.050.080
5X90MM*	100	51880.050.090
5X100MM*	100	51880.050.100
5,5X20MM*	200	51880.055.020
5,5X30MM*	200	51880.055.030
5,5X35MM*	200	51880.055.035
5,5X40MM	200	51880.055.040
5,5X45MM	200	51880.055.045
5,5X50MM	200	51880.055.050
5,5X60MM	100	51880.055.060
5,5X70MM	100	51880.055.070
6X20MM*	200	51880.060.020
6X25MM*	200	51880.060.025
6X30MM	200	51880.060.030
6X35MM	200	51880.060.035
6X40MM	200	51880.060.040
6X45MM	200	51880.060.045
6X50MM	200	51880.060.050
6X60MM	100	51880.060.060
6X65MM*	100	51880.060.065
6X70MM	100	51880.060.070
6X75MM*	100	51880.060.075
6X80MM*	100	51880.060.080
6X90MM*	100	51880.060.090
6X100MM*	100	51880.060.100
6X110MM*	100	51880.060.110
6X120MM*	100	51880.060.120
7X80MM*	100	51880.070.080
8X40MM*	100	51880.080.040
8X45MM*	100	51880.080.045
8X60MM*	100	51880.080.060
8X80MM*	100	51880.080.080

51880 Parafuso rosca para madeira cabeça lentilha com fenda ←

d_s x L	✉	Ref. do artigo
8X90MM*	100	51880.080.090

55880 Parafuso rosca para madeira cabeça lentilha com fenda R43A

Material Aço inoxidável A4



RoHS

d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
2,5X10MM*	500	55880.025.010	4X16MM*	200	55880.040.016	5X40MM*	200	55880.050.040
2,5X12MM*	500	55880.025.012	4X20MM*	200	55880.040.020	5X45MM*	200	55880.050.045
2,5X16MM*	500	55880.025.016	4X25MM*	200	55880.040.025	5X50MM*	200	55880.050.050
2,5X20MM*	500	55880.025.020	4X30MM*	200	55880.040.030	5X60MM*	200	55880.050.060
			4X35MM*	200	55880.040.035	5X70MM*	100	55880.050.070
3X12MM*	200	55880.030.012	4X40MM*	200	55880.040.040	5X80MM*	100	55880.050.080
3X16MM*	200	55880.030.016	4X45MM*	200	55880.040.045			
3X20MM*	200	55880.030.020	4X50MM*	200	55880.040.050	6X20MM*	200	55880.060.020
3X25MM*	200	55880.030.025	4X60MM*	200	55880.040.060	6X25MM*	200	55880.060.025
3X30MM*	200	55880.030.030	4X70MM*	200	55880.040.070	6X30MM*	200	55880.060.030
3X35MM*	200	55880.030.035				6X35MM*	200	55880.060.035
3X40MM*	200	55880.030.040	4,5X20MM*	200	55880.045.020	6X40MM*	200	55880.060.040
			4,5X25MM*	200	55880.045.025	6X45MM*	200	55880.060.045
3,5X16MM*	200	55880.035.016	4,5X30MM*	200	55880.045.030	6X50MM*	200	55880.060.050
3,5X20MM*	200	55880.035.020	4,5X45MM*	200	55880.045.045	6X60MM*	200	55880.060.060
3,5X25MM*	200	55880.035.025	4,5X50MM*	200	55880.045.050	6X70MM*	100	55880.060.070
3,5X30MM*	200	55880.035.030				6X75MM*	100	55880.060.075
3,5X35MM*	200	55880.035.035	5X20MM*	200	55880.050.020	6X80MM*	100	55880.060.080
3,5X40MM*	200	55880.035.040	5X25MM*	200	55880.050.025			
3,5X45MM*	200	55880.035.045	5X30MM*	200	55880.050.030	8X80MM*	100	55880.080.080
			5X35MM*	200	55880.050.035	8X90MM*	100	55880.080.090

49250 Parafuso rosca para madeira cabeça lentilha com fenda M07A

Material Latão Cu2/Cu3



RoHS

d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
2,5X10MM	200	49250.025.010	4X16MM	200	49250.040.016	4,5X70MM	200	49250.045.070
2,5X12MM	200	49250.025.012	4X20MM	200	49250.040.020			
2,5X16MM	200	49250.025.016	4X25MM	200	49250.040.025	5X25MM	200	49250.050.025
			4X30MM	200	49250.040.030	5X30MM	200	49250.050.030
3X12MM	200	49250.030.012	4X35MM	200	49250.040.035	5X35MM	200	49250.050.035
3X16MM	200	49250.030.016	4X40MM	200	49250.040.040	5X40MM	200	49250.050.040
3X20MM	200	49250.030.020	4X45MM	200	49250.040.045	5X45MM	200	49250.050.045
3X25MM	200	49250.030.025	4X50MM	200	49250.040.050	5X50MM	200	49250.050.050
3X30MM	200	49250.030.030	4X60MM	200	49250.040.060	5X60MM	200	49250.050.060
			4X70MM	200	49250.040.070	5X70MM	200	49250.050.070
3,5X12MM	200	49250.035.012				5X80MM	200	49250.050.080
3,5X16MM	200	49250.035.016	4,5X25MM	200	49250.045.025			
3,5X20MM	200	49250.035.020	4,5X30MM	200	49250.045.030	5,5X40MM	200	49250.055.040
3,5X25MM	200	49250.035.025	4,5X35MM	200	49250.045.035	5,5X50MM	200	49250.055.050
3,5X30MM	200	49250.035.030	4,5X40MM	200	49250.045.040	5,5X60MM	100	49250.055.060
3,5X35MM	200	49250.035.035	4,5X45MM	200	49250.045.045	5,5X70MM	100	49250.055.070
3,5X40MM	200	49250.035.040	4,5X50MM	200	49250.045.050	5,5X80MM	100	49250.055.080
			4,5X60MM	200	49250.045.060			

49350 Parafuso rosca para madeira cabeça lentilha com fenda M07A

Material Latão Cu2/Cu3
Tratamento sup. Niquelado



RoHS

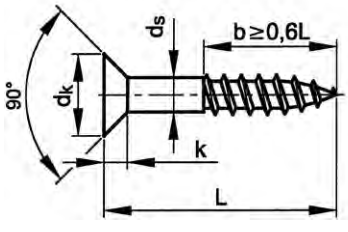
d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
2X10MM	200	49350.020.010	2,5X16MM	200	49350.025.016	3X12MM	200	49350.030.012
2X12MM	200	49350.020.012	2,5X20MM	200	49350.025.020	3X16MM	200	49350.030.016
2X16MM	200	49350.020.016	2,5X25MM	200	49350.025.025	3X20MM	200	49350.030.020
			2,5X30MM	200	49350.025.030	3X25MM	200	49350.030.025
2,5X10MM	200	49350.025.010				3X30MM	200	49350.030.030
2,5X12MM	200	49350.025.012	3X10MM	200	49350.030.010	3X35MM	200	49350.030.035

6

49350	Parafuso rosca para madeira cabeça lentilha com fenda	←

d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
3X40MM	200	49350.030.040	4X45MM	200	49350.040.045	5X40MM	200	49350.050.040
			4X50MM	200	49350.040.050	5X45MM	200	49350.050.045
3,5X12MM	200	49350.035.012	4X60MM	200	49350.040.060	5X50MM	200	49350.050.050
3,5X16MM	200	49350.035.016	4X70MM	200	49350.040.070	5X60MM	200	49350.050.060
3,5X20MM	200	49350.035.020				5X70MM	200	49350.050.070
3,5X25MM	200	49350.035.025	4,5X20MM	200	49350.045.020			
3,5X30MM	200	49350.035.030	4,5X25MM	200	49350.045.025	5,5X40MM	200	49350.055.040
3,5X35MM	200	49350.035.035	4,5X30MM	200	49350.045.030	5,5X50MM	200	49350.055.050
3,5X40MM	200	49350.035.040	4,5X35MM	200	49350.045.035	5,5X60MM	100	49350.055.060
3,5X45MM	200	49350.035.045	4,5X40MM	200	49350.045.040	5,5X70MM	100	49350.055.070
3,5X50MM	200	49350.035.050	4,5X45MM	200	49350.045.045			
			4,5X50MM	200	49350.045.050	6X30MM	200	49350.060.030
4X12MM	200	49350.040.012	4,5X60MM	200	49350.045.060	6X35MM	200	49350.060.035
4X16MM	200	49350.040.016	4,5X70MM	200	49350.045.070	6X40MM	200	49350.060.040
4X20MM	200	49350.040.020				6X45MM	200	49350.060.045
4X25MM	200	49350.040.025	5X20MM	200	49350.050.020	6X50MM	200	49350.060.050
4X30MM	200	49350.040.030	5X25MM	200	49350.050.025	6X60MM	100	49350.060.060
4X35MM	200	49350.040.035	5X30MM	200	49350.050.030	6X70MM	100	49350.060.070
4X40MM	200	49350.040.040	5X35MM	200	49350.050.035	6X80MM	100	49350.060.080

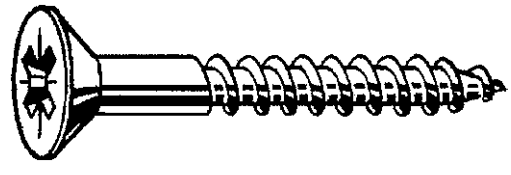
Parafuso rosca para madeira cabeça embeber fenda cruz



POZIDRIV (Z)



DIN **7997-Z**
NEN 2253
NF E25-601



6

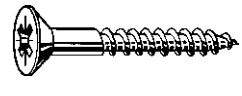
Dados técnicos

d_s	d_k	k (max.)	Nr. fenda
3	5.6	1.65	1
3.5	6.5	1.93	2
4	7.5	2.2	2
4.5	8.3	2.35	2
5	9.2	2.5	2
6	11	3	3

- Rosca de parafuso de madeira de acordo com DIN 7998.

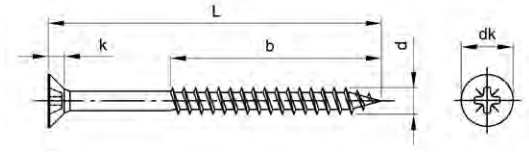
51876	Parafuso rosca para madeira cabeça embeber Pozidriv	R03A
Material	Aço inoxidável A2	

RoHS



d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
3X12MM	200	51876.030.012	4X50MM	200	51876.040.050	5X60MM	200	51876.050.060
3X16MM	200	51876.030.016	4X60MM	200	51876.040.060	5X70MM	200	51876.050.070
3X20MM	200	51876.030.020				5X75MM*	100	51876.050.075
3X25MM	200	51876.030.025	4,5X20MM	200	51876.045.020	5X80MM	200	51876.050.080
3X30MM*	200	51876.030.030	4,5X25MM	200	51876.045.025	5X90MM	200	51876.050.090
			4,5X30MM	200	51876.045.030	5X100MM	200	51876.050.100
3,5X16MM	200	51876.035.016	4,5X35MM	200	51876.045.035			
3,5X20MM	200	51876.035.020	4,5X40MM	200	51876.045.040	6X30MM*	200	51876.060.030
3,5X25MM	200	51876.035.025	4,5X45MM*	200	51876.045.045	6X35MM*	200	51876.060.035
3,5X30MM	200	51876.035.030	4,5X50MM	200	51876.045.050	6X40MM	200	51876.060.040
3,5X35MM*	200	51876.035.035	4,5X60MM*	200	51876.045.060	6X45MM*	200	51876.060.045
3,5X40MM	200	51876.035.040				6X50MM	200	51876.060.050
			5X20MM	200	51876.050.020	6X60MM	100	51876.060.060
4X16MM	200	51876.040.016	5X25MM*	200	51876.050.025	6X70MM	100	51876.060.070
4X20MM	200	51876.040.020	5X30MM	200	51876.050.030	6X80MM	100	51876.060.080
4X25MM	200	51876.040.025	5X35MM*	200	51876.050.035	6X90MM*	100	51876.060.090
4X30MM	200	51876.040.030	5X40MM	200	51876.050.040	6X100MM	100	51876.060.100
4X35MM	200	51876.040.035	5X45MM	200	51876.050.045	6X110MM*	100	51876.060.110
4X40MM	200	51876.040.040	5X50MM	200	51876.050.050	6X120MM*	100	51876.060.120
4X45MM	200	51876.040.045						

Parafuso cabeça de embeber PZ





Dados técnicos

d	d_k	k	Nr. fenda
3	6	1.9	1
3.5	7	2.1	2
4	8	2.5	2
4.5	9	2.7	2
5	10	3	2
6	12	3.6	3

Grupos de produtos

Encaixe	Material	Código	Página
Pozidriv	INOX A2	51874	6-188
Pozidriv	INOX A4	55874	6-188

6

51874 Parafuso cabeça de embeber PZ — R03A

Material Aço inoxidável A2



d_s x L x b	✉	Ref. do artigo	d_s x L x b	✉	Ref. do artigo	d_s x L x b	✉	Ref. do artigo
3X25X18MM*	500	51874.030.025	4X70X36MM*	200	51874.040.070	5X70X42MM*	100	51874.050.070
3X30X18MM*	500	51874.030.030	4X80X48MM*	200	51874.040.080	5X80X48MM*	100	51874.050.080
3X35X24MM*	500	51874.030.035				5X90X54MM*	100	51874.050.090
3X40X24MM*	200	51874.030.040	4,5X25X18MM*	500	51874.045.025	5X100X60MM*	100	51874.050.100
3X45X30MM*	200	51874.030.045	4,5X30X18MM*	500	51874.045.030	5X110X70MM*	100	51874.050.110
3X50X30MM*	200	51874.030.050	4,5X35X24MM*	500	51874.045.035			
			4,5X40X24MM*	200	51874.045.040	6X30X20MM*	100	51874.060.030
3,5X25X18MM*	500	51874.035.025	4,5X45X30MM*	200	51874.045.045	6X35X24MM*	100	51874.060.035
3,5X30X18MM*	500	51874.035.030	4,5X50X30MM*	200	51874.045.050	6X40X24MM*	100	51874.060.040
3,5X35X24MM*	500	51874.035.035	4,5X55X36MM*	200	51874.045.055	6X45X30MM*	100	51874.060.045
3,5X40X24MM*	200	51874.035.040	4,5X60X36MM*	200	51874.045.060	6X50X30MM*	100	51874.060.050
3,5X45X30MM*	200	51874.035.045	4,5X80X48MM*	200	51874.045.080	6X55X36MM*	100	51874.060.055
3,5X50X30MM*	200	51874.035.050	4,5X100X60MM*	200	51874.045.100	6X60X36MM*	100	51874.060.060
						6X70X42MM*	100	51874.060.070
4X25X18MM*	500	51874.040.025	5X25X18MM*	500	51874.050.025	6X80X48MM*	100	51874.060.080
4X30X18MM*	500	51874.040.030	5X30X20MM*	500	51874.050.030	6X90X54MM*	100	51874.060.090
4X35X24MM*	500	51874.040.035	5X35X24MM*	500	51874.050.035	6X130X70MM*	100	51874.060.130
4X40X24MM*	200	51874.040.040	5X40X24MM*	200	51874.050.040	6X140X70MM*	100	51874.060.140
4X45X30MM*	200	51874.040.045	5X45X30MM*	200	51874.050.045	6X150X70MM*	100	51874.060.150
4X50X30MM*	200	51874.040.050	5X50X30MM*	200	51874.050.050	6X160X70MM*	100	51874.060.160
4X55X36MM*	200	51874.040.055	5X55X36MM*	200	51874.050.055	6X180X70MM*	100	51874.060.180
4X60X36MM*	200	51874.040.060	5X60X36MM*	100	51874.050.060	6X200X70MM*	100	51874.060.200
4X65X36MM*	200	51874.040.065	5X65X36MM*	100	51874.050.065			

55874 Parafuso cabeça de embeber PZ — R43A

Material Aço inoxidável A4

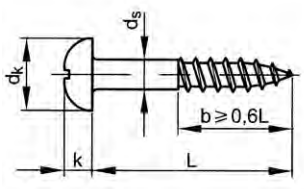


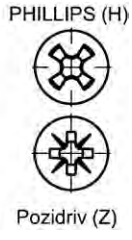
d_s x L x b	✉	Ref. do artigo	d_s x L x b	✉	Ref. do artigo	d_s x L x b	✉	Ref. do artigo
4X40X24MM*	200	55874.040.040	4,5X25X18MM*	500	55874.045.025	4,5X60X36MM*	200	55874.045.060
4X45X30MM*	200	55874.040.045	4,5X30X18MM*	500	55874.045.030	4,5X70X42MM*	200	55874.045.070
4X50X30MM*	200	55874.040.050	4,5X35X24MM*	500	55874.045.035	4,5X100X60MM*	100	55874.045.100
4X55X36MM*	200	55874.040.055	4,5X40X24MM*	200	55874.045.040			
4X60X36MM*	200	55874.040.060	4,5X45X30MM*	200	55874.045.045	5X25X18MM*	500	55874.050.025
4X70X42MM*	200	55874.040.070	4,5X50X30MM*	200	55874.045.050	5X30X20MM*	500	55874.050.030
			4,5X55X36MM*	200	55874.045.055	5X35X24MM*	500	55874.050.035

55874 **Parafuso cabeça de embeber PZ** ←

d_s x L x b	✉	Ref. do artigo	d_s x L x b	✉	Ref. do artigo	d_s x L x b	✉	Ref. do artigo
5X40X24MM*	200	55874.050.040	6X30X20MM*	100	55874.060.030	6X120X70MM*	100	55874.060.120
5X45X30MM*	200	55874.050.045	6X35X24MM*	100	55874.060.035	6X130X70MM*	100	55874.060.130
5X50X30MM*	200	55874.050.050	6X40X24MM*	100	55874.060.040	6X140X70MM*	100	55874.060.140
5X55X36MM*	200	55874.050.055	6X45X60MM*	100	55874.060.045	6X150X70MM*	100	55874.060.150
5X60X36MM*	100	55874.050.060	6X50X60MM*	100	55874.060.050	6X160X70MM*	100	55874.060.160
5X65X36MM*	100	55874.050.065	6X55X36MM*	100	55874.060.055	6X180X70MM*	100	55874.060.180
5X80X48MM*	100	55874.050.080	6X60X36MM*	100	55874.060.060	6X200X70MM*	100	55874.060.200
5X90X54MM*	100	55874.050.090	6X100X70MM*	100	55874.060.100			
			6X110X70MM*	100	55874.060.110			

Parafuso rosca para madeira cabeça oval fenda cruz





DIN **7996**
NEN 2254
NF E25-603



Dados técnicos

d_s	d_k	k	Nr. fenda
3	6	2.1	1
3.5	7	2.35	2
4	8	2.8	2
4.5	9	3.1	2
5	10	3.5	2
6	12	4.2	3

- Rosca de parafuso de madeira de acordo com DIN 7998.

Grupos de produtos

Encaixe	Material	Tratamento sup.	Código	Página
Phillips	Aço	Zn	25710	6-189
Pozidriv	INOX A2		51866	6-189

25710 **Parafuso rosca para madeira cabeça oval Phillips** **K05A**

Material Aço
Tratamento sup. Zincado
DIN **7996-H**

RoHS



d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
4X15MM	200	25710.040.015	4X25MM	200	25710.040.025	4X40MM	200	25710.040.040
4X20MM	200	25710.040.020	4X30MM	200	25710.040.030	4X50MM	200	25710.040.050

51866 **Parafuso rosca para madeira cabeça oval Pozidriv** **R03A**

Material Aço inoxidável A2
DIN **7996-Z**

RoHS

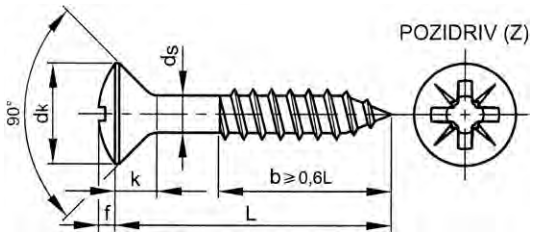


d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
3X10MM	200	51866.030.010				4,5X30MM*	200	51866.045.030
3X12MM*	200	51866.030.012	4X12MM	200	51866.040.012	4,5X35MM*	200	51866.045.035
3X16MM	200	51866.030.016	4X16MM	200	51866.040.016	4,5X40MM*	200	51866.045.040
3X20MM	200	51866.030.020	4X20MM	200	51866.040.020	4,5X45MM*	200	51866.045.045
3X25MM	200	51866.030.025	4X25MM	200	51866.040.025	4,5X60MM*	200	51866.045.060
3X30MM*	200	51866.030.030	4X35MM*	200	51866.040.035			
			4X40MM	200	51866.040.040	5X20MM	200	51866.050.020
3,5X20MM	200	51866.035.020	4X45MM*	200	51866.040.045	5X25MM	200	51866.050.025
3,5X25MM	200	51866.035.025	4X50MM*	200	51866.040.050	5X30MM	200	51866.050.030
3,5X30MM	200	51866.035.030	4X60MM*	200	51866.040.060	5X35MM	200	51866.050.035
3,5X35MM*	200	51866.035.035				5X40MM	200	51866.050.040
3,5X40MM*	200	51866.035.040	4,5X25MM*	200	51866.045.025	5X45MM	200	51866.050.045

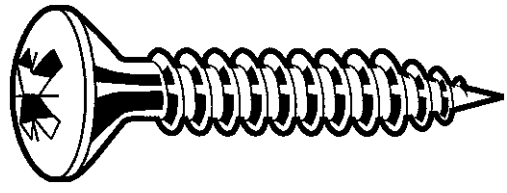
51866	Parafuso rosca para madeira cabeça oval Pozidriv	←

d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
5X50MM	200	51866.050.050	5X100MM	200	51866.050.100	6X50MM*	200	51866.060.050
5X60MM	200	51866.050.060				6X60MM*	200	51866.060.060
5X70MM	200	51866.050.070	6X30MM*	200	51866.060.030	6X70MM*	100	51866.060.070
5X80MM	200	51866.050.080	6X40MM*	200	51866.060.040	6X80MM*	100	51866.060.080
5X90MM	200	51866.050.090	6X45MM*	200	51866.060.045			

Parafuso rosca para madeira cabeça lentilha fenda cruz



DIN **7995-Z**



Dados técnicos

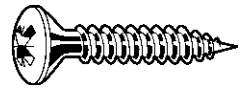
d_s	d_k	f ≈	k (max.)	Nr. fenda
3	5.6	0.75	1.65	1
3.5	6.5	0.9	1.93	2
4	7.5	1	2.2	2
4.5	8.3	1.1	2.35	2
5	9.2	1.25	2.5	2
6	11	1.5	3	3

6

51886	Parafuso rosca para madeira cabeça lentilha Pozidriv	R03A

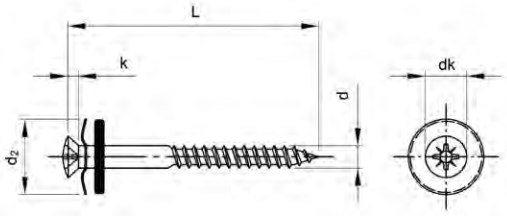
Material Aço inoxidável A2

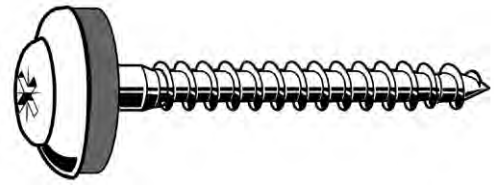
RoHS



d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
3X16MM	200	51886.030.016	4X60MM*	200	51886.040.060	5X25MM*	200	51886.050.025
3X20MM*	200	51886.030.020	4X70MM*	200	51886.040.070	5X30MM*	200	51886.050.030
3X25MM	200	51886.030.025				5X35MM*	200	51886.050.035
3X30MM*	200	51886.030.030	4,5X20MM*	200	51886.045.020	5X40MM	200	51886.050.040
3X35MM*	200	51886.030.035	4,5X25MM*	200	51886.045.025	5X45MM*	200	51886.050.045
			4,5X30MM*	200	51886.045.030	5X50MM*	200	51886.050.050
3,5X16MM	200	51886.035.016	4,5X35MM*	200	51886.045.035	5X60MM*	200	51886.050.060
3,5X20MM	200	51886.035.020	4,5X40MM*	200	51886.045.040	5X70MM*	100	51886.050.070
3,5X25MM*	200	51886.035.025	4,5X45MM*	200	51886.045.045	5X80MM*	100	51886.050.080
3,5X30MM*	200	51886.035.030	4,5X50MM*	200	51886.045.050			
3,5X35MM*	200	51886.035.035	4,5X55MM*	200	51886.045.055	6X25MM*	200	51886.060.025
			4,5X60MM*	200	51886.045.060	6X35MM*	200	51886.060.035
4X16MM	200	51886.040.016	4,5X65MM*	200	51886.045.065	6X40MM*	200	51886.060.040
4X20MM	200	51886.040.020	4,5X70MM*	200	51886.045.070	6X45MM*	200	51886.060.045
4X25MM	200	51886.040.025	4,5X80MM*	200	51886.045.080	6X50MM*	200	51886.060.050
4X30MM*	200	51886.040.030	4,5X90MM*	200	51886.045.090	6X60MM*	200	51886.060.060
4X35MM*	200	51886.040.035	4,5X100MM*	200	51886.045.100	6X70MM*	100	51886.060.070
4X40MM*	200	51886.040.040	4,5X120MM*	200	51886.045.120	6X80MM*	100	51886.060.080
4X45MM*	200	51886.040.045	4,5X150MM*	200	51886.045.150	6X90MM*	100	51886.060.090
4X50MM*	200	51886.040.050				6X100MM*	100	51886.060.100

Parafuso para madeira/3TG anilha Pozidriv





Dados técnicos

d	d_k	k	Nr. fenda
4.5	8.3	2.35	2
5	9.2	2.5	2

Grupos de produtos

Encaixe	Material	Tratamento sup.		Código	Página
Pozidriv	INOX A2		anel ø=15mm	51781	6-191
Pozidriv	INOX A2		anel ø=20mm	51785	6-191
Pozidriv	INOX A2		anel ø=25mm	51787	6-191
Pozidriv	INOX A2	Cobr.	anel ø=15mm	51844	6-192
Pozidriv	INOX A2	Cobr.	anel ø=20mm	51846	6-192
Pozidriv	INOX A2	Cobr.	anel ø=25mm	51848	6-192

51781 Parafuso rosca para madeira/3TG cabeça de lentilha Pozidriv anilha 15mm — R03A

Material Aço inoxidável A2

RoHS



d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo
4,5X20x15MM*	200	51781.045.020	4,5X55x15MM*	200	51781.045.055	4,5X100x15MM*	100	51781.045.100
4,5X25x15MM*	200	51781.045.025	4,5X60x15MM*	200	51781.045.060	4,5X120x15MM*	100	51781.045.120
4,5X30x15MM*	200	51781.045.030	4,5X65x15MM*	200	51781.045.065	4,5X150x15MM*	100	51781.045.150
4,5X35x15MM*	200	51781.045.035	4,5X70x15MM*	200	51781.045.070			
4,5X40x15MM*	200	51781.045.040	4,5X80x15MM*	200	51781.045.080	5,0X180x15MM*	100	51781.050.180
4,5X45x15MM*	200	51781.045.045	4,5X90x15MM*	200	51781.045.090	5,0X200x15MM*	100	51781.050.200
4,5X50x15MM*	200	51781.045.050						

51785 Parafuso rosca para madeira/3TG cabeça de lentilha Pozidriv anilha 20mm — R03A

Material Aço inoxidável A2

RoHS



d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo
4,5X20x20MM*	200	51785.045.020	4,5X35x20MM*	200	51785.045.035	4,5X60x20MM*	200	51785.045.060
4,5X25x20MM*	200	51785.045.025	4,5X45x20MM*	200	51785.045.045	4,5X70x20MM*	200	51785.045.070
4,5X30x20MM*	200	51785.045.030	4,5X55x20MM*	200	51785.045.055	4,5X80x20MM*	200	51785.045.080

51787 Parafuso rosca para madeira/3TG cabeça de lentilha Pozidriv anilha 25mm — R03A

Material Aço inoxidável A2

RoHS



d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo
4,5X20x25MM*	200	51787.045.020	4,5X35x25MM*	200	51787.045.035	4,5X70x25MM*	200	51787.045.070
4,5X25x25MM*	200	51787.045.025	4,5X60x25MM*	200	51787.045.060			

51844 Parafuso rosca para madeira/3TG cabeça de lentilha Pozidriv anilha 15mm R03A

Material Aço inoxidável A2
Tratamento sup. Cobreado



d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo
4,5X20x15MM*	200	51844.045.020	4,5X60x15MM*	200	51844.045.060	4,5X150x15MM*	100	51844.045.150
4,5X25x15MM*	200	51844.045.025	4,5X70x15MM*	200	51844.045.070			
4,5X35x15MM*	200	51844.045.035	4,5X80x15MM*	200	51844.045.080	5,0X180x15MM*	100	51844.050.180
4,5X45x15MM*	200	51844.045.045	4,5X100x15MM*	100	51844.045.100	5,0X200x15MM*	100	51844.050.200
4,5X55x15MM*	200	51844.045.055	4,5X120x15MM*	100	51844.045.120			

51846 Parafuso rosca para madeira/3TG cabeça de lentilha Pozidriv anilha 20mm R03A

Material Aço inoxidável A2
Tratamento sup. Cobreado



d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo
4,5X20x20MM*	200	51846.045.020	4,5X35x20MM*	200	51846.045.035	4,5X60x20MM*	200	51846.045.060
4,5X25x20MM*	200	51846.045.025	4,5X50x20MM*	200	51846.045.050	4,5X70x20MM*	200	51846.045.070

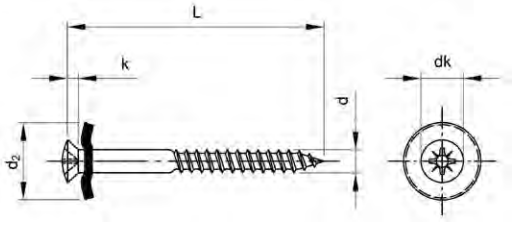
51848 Parafuso rosca para madeira/3TG cabeça de lentilha Pozidriv anilha 25mm R03A

Material Aço inoxidável A2
Tratamento sup. Cobreado



d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo
4,5X35x25MM*	200	51848.045.035	4,5X45x25MM*	200	51848.045.045

Parafuso para madeira/2TG Pozidriv com anilha





Dados técnicos

d	d_k	k	Nr. fenda
4.5	8.3	2.35	2
5	9.2	2.5	2

Grupos de produtos

Encaixe	Material	Tratamento sup.		Código	Página
Pozidriv	INOX A2		anel ø=15mm	51780	6-193
Pozidriv	INOX A2		anel ø=20mm	51788	6-193
Pozidriv	INOX A2		anel ø=25mm	51786	6-193
Pozidriv	INOX A2	Cobr.	anel ø=15mm	51843	6-194
Pozidriv	INOX A2	Cobr.	anel ø=20mm	51845	6-194
Pozidriv	INOX A2	Cobr.	anel ø=25mm	51847	6-194

51780 Parafuso para madeira/2TG Pozidriv com anilha 25mm — R03A

Material Aço inoxidável A2



d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo
4,5X20x15MM*	200	51780.045.020	4,5X60x15MM*	200	51780.045.060	4,5X150x15MM*	100	51780.045.150
4,5X25x15MM*	200	51780.045.025	4,5X65x15MM*	200	51780.045.065			
4,5X30x15MM*	200	51780.045.030	4,5X70x15MM*	200	51780.045.070	5,0X180x15MM*	100	51780.050.180
4,5X35x15MM*	200	51780.045.035	4,5X80x15MM*	200	51780.045.080	5,0X200x15MM*	100	51780.050.200
4,5X40x15MM*	200	51780.045.040	4,5X90x15MM*	200	51780.045.090	5,0X220x15MM*	100	51780.050.220
4,5X45x15MM*	200	51780.045.045	4,5X100x15MM*	100	51780.045.100	5,0X250x15MM*	100	51780.050.250
4,5X50x15MM*	200	51780.045.050	4,5X120x15MM*	100	51780.045.120	5,0X300x15MM*	100	51780.050.300
4,5X55x15MM*	200	51780.045.055						

51788 Parafuso para madeira/2TG Pozidriv com anilha 20mm — R03A

Material Aço inoxidável A2



d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo
4,5X20x20MM*	200	51788.045.020	4,5X55x20MM*	200	51788.045.055	4,5X150x20MM*	100	51788.045.150
4,5X25x20MM*	200	51788.045.025	4,5X60x20MM*	200	51788.045.060			
4,5X30x20MM*	200	51788.045.030	4,5X65x20MM*	100	51788.045.065	5,0X180x20MM*	100	51788.050.180
4,5X35x20MM*	200	51788.045.035	4,5X70x20MM*	100	51788.045.070	5,0X200x20MM*	100	51788.050.200
4,5X40x20MM*	200	51788.045.040	4,5X80x20MM*	100	51788.045.080	5,0X220x20MM*	100	51788.050.220
4,5X45x20MM*	200	51788.045.045	4,5X100x20MM*	100	51788.045.100	5,0X250x20MM*	100	51788.050.250
4,5X50x20MM*	200	51788.045.050	4,5X120x20MM*	100	51788.045.120			

51786 Parafuso para madeira/2TG Pozidriv com anilha 15mm — R03A

Material Aço inoxidável A2



d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo
4,5X20x25MM*	200	51786.045.020	4,5X40x25MM*	200	51786.045.040	4,5X55x25MM*	200	51786.045.055
4,5X25x25MM*	200	51786.045.025	4,5X45x25MM*	200	51786.045.045	4,5X60x25MM*	200	51786.045.060
4,5X30x25MM*	200	51786.045.030	4,5X50x25MM*	200	51786.045.050	4,5X70x25MM*	200	51786.045.070
4,5X35x25MM*	200	51786.045.035						

51843 Parafuso para madeira/2TG Pozidriv com anilha 25mm — R03A

Material Aço inoxidável A2
Tratamento sup. Cobreado



d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo
4,5X20x15MM*	200	51843.045.020	4,5X55x15MM*	200	51843.045.055	4,5X150x15MM*	100	51843.045.150
4,5X25x15MM*	200	51843.045.025	4,5X60x15MM*	200	51843.045.060			
4,5X30x15MM*	200	51843.045.030	4,5X65x15MM*	200	51843.045.065	5,0X220x15MM*	100	51843.050.220
4,5X35x15MM*	200	51843.045.035	4,5X80x15MM*	200	51843.045.080	5,0X250x15MM*	100	51843.050.250
4,5X40x15MM*	200	51843.045.040	4,5X100x15MM*	100	51843.045.100	5,0X280x15MM*	100	51843.050.280
4,5X45x15MM*	200	51843.045.045	4,5X120x15MM*	100	51843.045.120	5,0X300x15MM*	100	51843.050.300
4,5X50x15MM*	200	51843.045.050						

51845 Parafuso para madeira/2TG Pozidriv com anilha 15mm — R03A

Material Aço inoxidável A2
Tratamento sup. Cobreado



d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo
4,5X20x20MM*	200	51845.045.020	4,5X45x20MM*	200	51845.045.045	4,5X70x20MM*	100	51845.045.070
4,5X25x20MM*	200	51845.045.025	4,5X50x20MM*	200	51845.045.050	4,5X80x20MM*	100	51845.045.080
4,5X30x20MM*	200	51845.045.030	4,5X55x20MM*	200	51845.045.055	4,5X100x20MM*	100	51845.045.100
4,5X35x20MM*	200	51845.045.035	4,5X60x20MM*	200	51845.045.060	4,5X120x20MM*	100	51845.045.120
4,5X40x20MM*	200	51845.045.040	4,5X65x20MM*	100	51845.045.065			

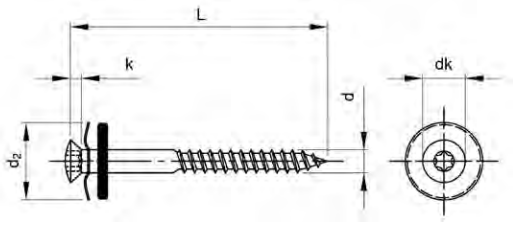
51847 Parafuso para madeira/2TG Pozidriv com anilha 20mm — R03A

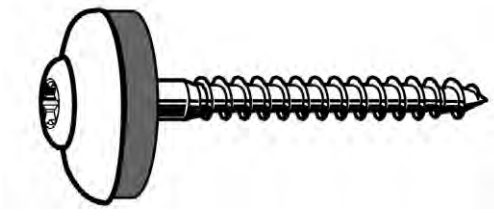
Material Aço inoxidável A2
Tratamento sup. Cobreado



d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo
4,5X20x25MM*	200	51847.045.020	4,5X35x25MM*	200	51847.045.035	4,5X50x25MM*	200	51847.045.050
4,5X25x25MM*	200	51847.045.025	4,5X40x25MM*	200	51847.045.040	4,5X60x25MM*	200	51847.045.060
4,5X30x25MM*	200	51847.045.030	4,5X45x25MM*	200	51847.045.045	4,5X70x25MM*	200	51847.045.070

Parafuso para madeira/3TG anilha TX





Dados técnicos

d	Chave caixa	d_k	k
4.5	T20	8.3	2.35
5	T20	9.2	2.5

Grupos de produtos

Encaixe	Material	Tratamento sup.		Código	Página
Hexalobular	INOX A2		anel ø=15mm	51793	6-195
Hexalobular	INOX A2		anel ø=20mm	51795	6-195
Hexalobular	INOX A2		anel ø=25mm	51797	6-195
Hexalobular	INOX A2	Cobr.	anel ø=15mm	51850	6-196
Hexalobular	INOX A2	Cobr.	anel ø=20mm	51852	6-196

51793 **Parafuso para madeira/3TG anilha 15mm TX** **R03A**

Material Aço inoxidável A2



d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo
4,5X20X15MM*	200	51793.045.020	4,5X55X15MM*	200	51793.045.055	4,5X120X15MM*	100	51793.045.120
4,5X25X15MM*	200	51793.045.025	4,5X60X15MM*	200	51793.045.060	4,5X150X15MM*	100	51793.045.150
4,5X30X15MM*	200	51793.045.030	4,5X65X15MM*	200	51793.045.065			
4,5X35X15MM*	200	51793.045.035	4,5X70X15MM*	200	51793.045.070	5,0X180X15MM*	100	51793.050.180
4,5X40X15MM*	200	51793.045.040	4,5X80X15MM*	200	51793.045.080	5,0X200X15MM*	100	51793.050.200
4,5X45X15MM*	200	51793.045.045	4,5X90X15MM*	200	51793.045.090	5,0X250X15MM*	100	51793.050.250
4,5X50X15MM*	200	51793.045.050	4,5X100X15MM*	100	51793.045.100	5,0X300X15MM*	100	51793.050.300

51795 **Parafuso para madeira/3TG anilha 20mm TX** **R03A**

Material Aço inoxidável A2



d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo
4,5X20X20MM*	200	51795.045.020	4,5X40X20MM*	200	51795.045.040	4,5X60X20MM*	200	51795.045.060
4,5X25X20MM*	200	51795.045.025	4,5X45X20MM*	200	51795.045.045	4,5X65X20MM*	100	51795.045.065
4,5X30X20MM*	200	51795.045.030	4,5X50X20MM*	200	51795.045.050	4,5X70X20MM*	100	51795.045.070
4,5X35X20MM*	200	51795.045.035	4,5X55X20MM*	200	51795.045.055	4,5X80X20MM*	100	51795.045.080

51797 **Parafuso para madeira/3TG anilha 25mm TX** **R03A**

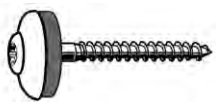
Material Aço inoxidável A2



d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo
4,5X25X25MM*	200	51797.045.025	4,5X45X25MM*	200	51797.045.045	4,5X55X25MM*	200	51797.045.055
4,5X35X25MM*	200	51797.045.035						

51850	Parafuso para madeira/3TG anilha 15mm TX	R03A

Material Aço inoxidável A2
Tratamento sup. Cobreado



d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo
4,5X20X15MM*	200	51850.045.020	4,5X65X15MM*	200	51850.045.065	5,0X180X15MM*	100	51850.050.180
4,5X25X15MM*	200	51850.045.025	4,5X70X15MM*	200	51850.045.070	5,0X200X15MM*	100	51850.050.200
4,5X30X15MM*	200	51850.045.030	4,5X80X15MM*	200	51850.045.080	5,0X220X15MM*	100	51850.050.220
4,5X35X15MM*	200	51850.045.035	4,5X100X15MM*	100	51850.045.100	5,0X250X15MM*	100	51850.050.250
4,5X45X15MM*	200	51850.045.045	4,5X120X15MM*	100	51850.045.120	5,0X280X15MM*	100	51850.050.280
4,5X55X15MM*	200	51850.045.055	4,5X150X15MM*	100	51850.045.150	5,0X300X15MM*	100	51850.050.300
4,5X60X15MM*	200	51850.045.060						

51852	Parafuso para madeira/3TG anilha 20mm TX	R03A

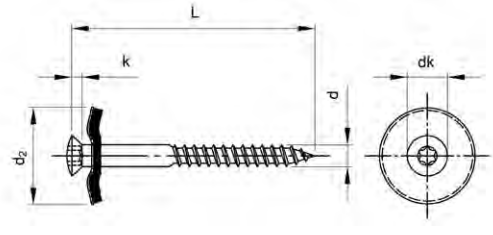
Material Aço inoxidável A2
Tratamento sup. Cobreado



d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo
4,5X20X20MM*	200	51852.045.020	4,5X40X20MM*	200	51852.045.040	4,5X60X20MM*	200	51852.045.060
4,5X25X20MM*	200	51852.045.025	4,5X45X20MM*	200	51852.045.045	4,5X70X20MM*	100	51852.045.070
4,5X35X20MM*	200	51852.045.035	4,5X50X20MM*	200	51852.045.050			

6

Parafuso para madeira /2TG anilha TX





Dados técnicos

d	Chave caixa	d_k	k
4.5	T20	8.3	2.35
5	T20	9.2	2.5
5.5	T20	8.3	5.1

Grupos de produtos

Encaixe	Material	Tratamento sup.		Código	Página
Hexalobular	INOX A2		anel ø=15mm	51792	6-196
Hexalobular	INOX A2		anel ø=20mm	51794	6-197
Hexalobular	INOX A2		anel ø=25mm	51796	6-197
Hexalobular	INOX A2	Cobr.	anel ø=15mm	51849	6-197
Hexalobular	INOX A2	Cobr.	anel ø=20mm	51851	6-197

51792	Parafuso para madeira/2TG anilha 15mm TX	R03A

Material Aço inoxidável A2



d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo
4,5X20X15MM*	200	51792.045.020	4,5X60X15MM*	200	51792.045.060			
4,5X25X15MM*	200	51792.045.025	4,5X65X15MM*	200	51792.045.065	5,0X180X15MM*	100	51792.050.180
4,5X30X15MM*	200	51792.045.030	4,5X70X15MM*	200	51792.045.070	5,0X200X15MM*	100	51792.050.200
4,5X35X15MM*	200	51792.045.035	4,5X80X15MM*	200	51792.045.080	5,0X220X15MM*	100	51792.050.220
4,5X40X15MM*	200	51792.045.040	4,5X90X15MM*	200	51792.045.090	5,0X250X15MM*	100	51792.050.250
4,5X45X15MM*	200	51792.045.045	4,5X120X15MM*	100	51792.045.120	5,0X280X15MM*	100	51792.050.280
4,5X50X15MM*	200	51792.045.050	4,5X150X15MM*	100	51792.045.150	5,0X300X15MM*	100	51792.050.300
4,5X55X15MM*	200	51792.045.055						

51794 Parafuso para madeira/2TG anilha 20mm TX R03A

Material Aço inoxidável A2



d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo
4,5X20X20MM*	200	51794.045.020	4,5X55X20MM*	200	51794.045.055	4,5X150X20MM*	100	51794.045.150
4,5X25X20MM*	200	51794.045.025	4,5X60X20MM*	200	51794.045.060			
4,5X30X20MM*	200	51794.045.030	4,5X65X20MM*	100	51794.045.065	5,0X180X20MM*	100	51794.050.180
4,5X35X20MM*	200	51794.045.035	4,5X70X20MM*	100	51794.045.070	5,0X200X20MM*	100	51794.050.200
4,5X40X20MM*	200	51794.045.040	4,5X80X20MM*	100	51794.045.080	5,0X220X20MM*	100	51794.050.220
4,5X45X20MM*	200	51794.045.045	4,5X100X20MM*	100	51794.045.100	5,0X250X20MM*	100	51794.050.250
4,5X50X20MM*	200	51794.045.050	4,5X120X20MM*	100	51794.045.120			

51796 Parafuso para madeira/2TG anilha 25mm TX R03A

Material Aço inoxidável A2



d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo
4,5X20X25MM*	200	51796.045.020	4,5X45X25MM*	200	51796.045.045	4,5X60X25MM*	200	51796.045.060
4,5X25X25MM*	200	51796.045.025	4,5X55X25MM*	200	51796.045.055	4,5X70X25MM*	100	51796.045.070
4,5X35X25MM*	200	51796.045.035						

51849 Parafuso para madeira/2TG anilha 15mm TX R03A

Material Aço inoxidável A2
Tratamento sup. Cobreado



d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo
			4,5X55X15MM*	200	51849.045.055	4,5X150X15MM*	100	51849.045.150
4,5X20X15MM*	200	51849.045.020	4,5X60X15MM*	200	51849.045.060	5,0X180X15MM*	100	51849.045.180
4,5X25X15MM*	200	51849.045.025	4,5X65X15MM*	200	51849.045.065			
4,5X30X15MM*	200	51849.045.030	4,5X70X15MM*	200	51849.045.070	5,0X200X15MM*	100	51849.050.200
4,5X35X15MM*	200	51849.045.035	4,5X80X15MM*	200	51849.045.080	5,0X220X15MM*	100	51849.050.220
4,5X40X15MM*	200	51849.045.040	4,5X90X15MM*	200	51849.045.090	5,0X250X15MM*	100	51849.050.250
4,5X45X15MM*	200	51849.045.045	4,5X100X15MM*	100	51849.045.100	5,0X280X15MM*	100	51849.050.280
4,5X50X15MM*	200	51849.045.050	4,5X120X15MM*	100	51849.045.120	5,0X300X15MM*	100	51849.050.300

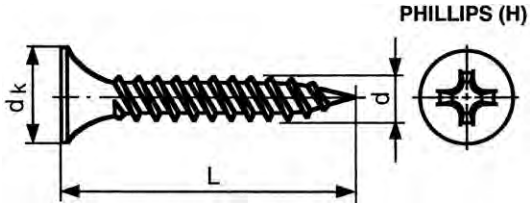
51851 Parafuso para madeira/2TG anilha 20mm TX R03A

Material Aço inoxidável A2
Tratamento sup. Cobreado



d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo	d x L x d_2	✉	Ref. do artigo
4,5X20X20MM*	200	51851.045.020	4,5X55X20MM*	200	51851.045.055			
4,5X25X20MM*	200	51851.045.025	4,5X60X20MM*	200	51851.045.060	5,0X200X20MM*	100	51851.050.200
4,5X30X20MM*	200	51851.045.030	4,5X65X20MM*	100	51851.045.065	5,0X220X20MM*	100	51851.050.220
4,5X35X20MM*	200	51851.045.035	4,5X70X20MM*	100	51851.045.070	5,0X250X20MM*	100	51851.050.250
4,5X40X20MM*	200	51851.045.040	4,5X80X20MM*	100	51851.045.080	5,0X280X20MM*	100	51851.050.280
4,5X45X20MM*	200	51851.045.045	4,5X100X20MM*	100	51851.045.100	5,0X300X20MM*	100	51851.050.300
4,5X50X20MM*	200	51851.045.050	4,5X120X20MM*	100	51851.045.120			

Parafuso para tecto falso

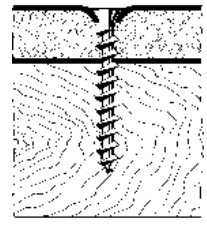




Dados técnicos

Nr.	d	d_k	Nr. fenda
6	3.5	8.3	2

Caracteristicas de parafusos para gesso:
- Indicados para placas de gesso madeira ou metal com espessura até 0,75mm
- Parafuso com cabeça de embeber que pode ser utilizado de forma que pode ser fácilmente retirado sem deixar marca no material



6

31305 Parafusos para tecto falso Philips **J11A**

Material Aço
Tratamento sup. Fosfatado

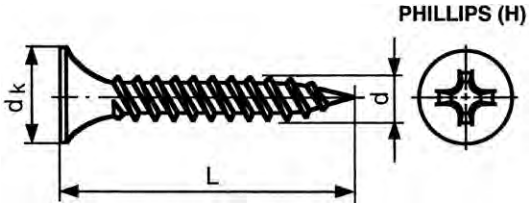


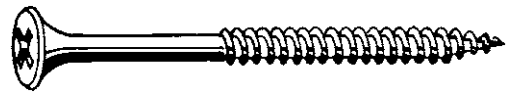


Nr. x C.	✉	Ref. do artigo	Nr. x C.	✉	Ref. do artigo	Nr. x C.	✉	Ref. do artigo
NO.6X1 Inch	1000	31305.035.025	NO.6X1.5/8	1000	31305.035.041	NO.6X2.1/4	500	31305.035.057

- Rápida penetração pela dupla rosca (fina).

Parafuso para tecto falso com fenda cruz

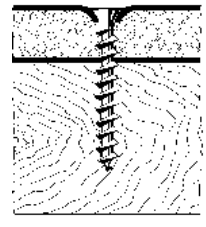




Dados técnicos

d	d_k	Nr. fenda
3.5	8.5	2
3.9	8.5	2
4.2	8.5	2
4.8	8.5	2

Caracteristicas de parafusos para gesso:
- Indicados para placas de gesso madeira ou metal com espessura até 0,75mm
- Parafuso com cabeça de embeber que pode ser utilizado de forma que pode ser fácilmente retirado sem deixar marca no material



31310 Parafusos para tecto falso Phillips **J11A**

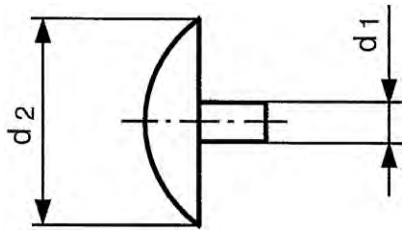
Material Aço
Tratamento sup. Fosfatado

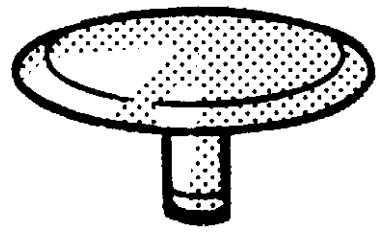


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3,5X25MM	1000	31310.035.025				4,2X75MM	1000	31310.042.075
3,5X35MM	1000	31310.035.035	3,9X45MM	1000	31310.039.045			
3,5X45MM	1000	31310.035.045	3,9X65MM	1000	31310.039.065	4,8X70MM	250	31310.048.070
3,5X55MM	500	31310.035.055						

- Rápida penetração pela dupla rosca (fina).

Tampa para parafusos cabeça embeber com furo





RAL	
1001	Beige
1005	Amarelo mel
1011	Castanho bege
1014	Marfim
1015	Marfim claro
1017	Amarelo açafrão

RAL	
6009	Verde pinha

RAL	
7001	Prateado
7011	Cinzento metal
7035	Cinzento claro
7038	Cinzento àgata

RAL	
8001	Castanho ocre
8007	Castanho Fulvo
8011	Castanho avelã
8014	Castanho sepia

RAL	
9005	Preto
9010	Branco puro

Grupos de produtos

Material	Classe		Cor	Código	Página
Plástico PA	PA 6.6		Sortido	25860	6-200
Plástico PA	PA 6.6	d2=15mm	Sortido	25862	6-200

6

25860 Tampa para parafusos cabeça embeber com furo — K90A

Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Sortido



d_1 x d_2 - RAL	✉	Ref. do artigo	d_1 x d_2 - RAL	✉	Ref. do artigo	d_1 x d_2 - RAL	✉	Ref. do artigo
2,5x12-1001	200	25860.251.001	2,5x12-7035	200	25860.257.035	3x15-1014	200	25860.301.014
2,5x12-1005	200	25860.251.005	2,5x12-7038	200	25860.257.038	3x15-1017	200	25860.301.017
2,5x12-1011	200	25860.251.011	2,5x12-8001	200	25860.258.001	3x15-8001	200	25860.308.001
2,5x12-1014	200	25860.251.014	2,5x12-8011	200	25860.258.011	3x15-8007	200	25860.308.007
2,5x12-1015	200	25860.251.015	2,5x12-8014	200	25860.258.014	3x15-8011	200	25860.308.011
2,5x12-6009	200	25860.256.009	2,5x12-9005	200	25860.259.005	3x15-9005	200	25860.309.005
2,5x12-7001	200	25860.257.001	2,5x12-9010	200	25860.259.010	3x15-9010	200	25860.309.010
2,5x12-7011	200	25860.257.011	3x15-1011	200	25860.301.011			

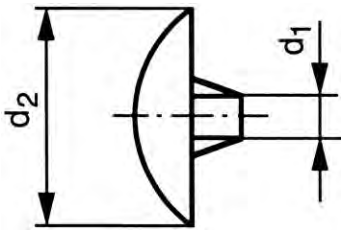
25862 Tampa para parafusos cabeça embeber com furo d2=15mm — K90A

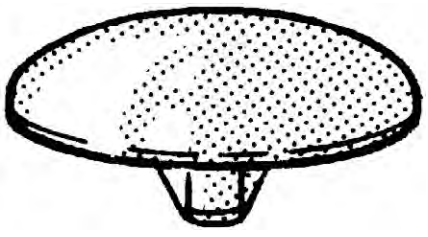
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Sortido



d_1 x d_2 - RAL	✉	Ref. do artigo	d_1 x d_2 - RAL	✉	Ref. do artigo	d_1 x d_2 - RAL	✉	Ref. do artigo
2,5x15-1011	200	25862.251.011	2,5x15-8007	200	25862.258.007	2,5x15-9005	200	25862.259.005
2,5x15-1014	200	25862.251.014	2,5x15-8011	200	25862.258.011	2,5x15-9010	200	25862.259.010

Tampa para parafusos cabeça embeber para aglomerado





- Caracteristicas especiais para tampas de parafusos cabeça de embeber Pozidriv para aglomerado:
- Previne a corrosão e acumulação de poeiras no encaixe.
- Aspecto exterior agradável.
- Fácil de montar.
- Re utilizável.

RAL	
1011	Castanho bege
1014	Marfim
1017	Amarelo açafrão

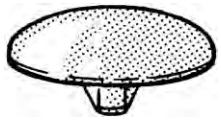
RAL	
7001	Prateado

RAL	
8001	Castanho ocre
8007	Castanho Fulvo
8011	Castanho avelã
8012	Castanho avermelhado

RAL	
9005	Preto
9010	Branco puro

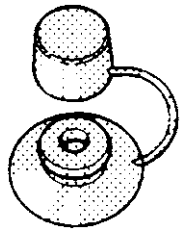
29390 **Tampa plástica para parafusos cabeça embeber Pozidriv** **K03D**

Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Sortido



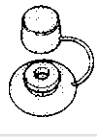
d_1 x d_2 - RAL	✉	Ref. do artigo	d_1 x d_2 - RAL	✉	Ref. do artigo	d_1 x d_2 - RAL	✉	Ref. do artigo
2x12-7001	200	29390.001.770	2x12-8007	200	29390.028.007	3x14,5-1014	200	29390.031.014
2x12-1011	200	29390.021.011	2x12-8011	200	29390.028.011	3x14,5-8011	200	29390.038.011
2x12-1014	200	29390.021.014	2x12-8012	200	29390.028.012	3x14,5-9005	200	29390.039.005
2x12-1017	200	29390.021.017	2x12-9005	200	29390.029.005	3x14,5-9010	200	29390.039.010
2x12-8001	200	29390.028.001	2x12-9010	200	29390.029.010			

Tampa para parafusos cabeça sextavada para madeira



08290 **Tampa para parafusos cabeça sextavada para madeira** **E07A**

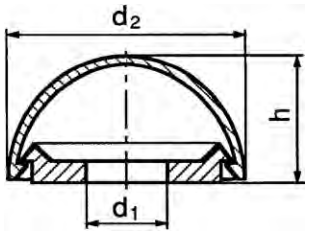
Material Plástico Poliamida (nylon)
Classe 6
Cor Sortido

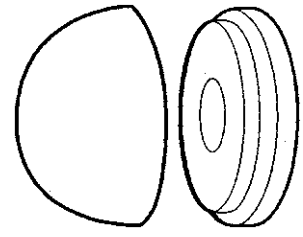


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
6-7MM Preto	100	08290.070.001	7MM Cinza	100	08290.070.011

6

Tampa para parafuso

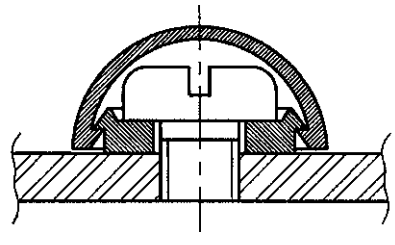




Dados técnicos

d	d_1	d_2	h	d	d_1	d_2	h
M4	4.3	12	5.9	M6	6.4	16.8	7.5
M5	5.3	14.5	6.5	M8	8.4	20.8	10.2

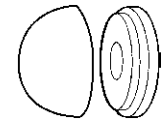
Exemplo de aplicação



6

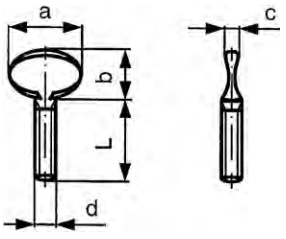
56610 **Tampa para parafuso** **W02A**

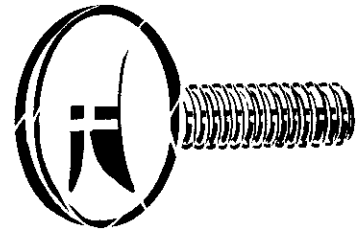
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	250	56610.040.001	M6	250	56610.060.001	M8	250	56610.080.001
M5	250	56610.050.001						

Parafuso métrico



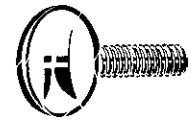


Dados técnicos

d	a	b	c	P
M5	20.5	15.5	3.5	0.8
M6	23.5	16	4.5	1
M8	27.5	19	4.5	1.25
M10	36	25	6.5	1.5

16295 **Parafuso métrico** **F11G**

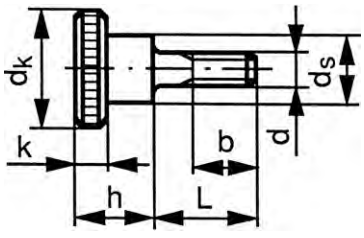
Rosca Métrica
Material Ferro fundido 35
Tratamento sup. Zincado



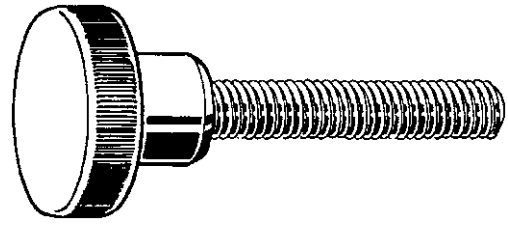
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X10	200	16295.050.010	M6X20	100	16295.060.020	M8X40	50	16295.080.040
M5X12	200	16295.050.012	M6X25	100	16295.060.025	M8X50	50	16295.080.050
M5X16	200	16295.050.016	M6X30	100	16295.060.030			
M5X20	200	16295.050.020				M10X20	50	16295.100.020
			M8X16	100	16295.080.016	M10X25	50	16295.100.025
M6X10	200	16295.060.010	M8X20	100	16295.080.020	M10X30	50	16295.100.030
M6X12	200	16295.060.012	M8X25	100	16295.080.025	M10X40	50	16295.100.040
M6X16	100	16295.060.016	M8X30	100	16295.080.030	M10X50	20	16295.100.050

- **L = comprimento útil da rosca.**

Parafuso serrilhado tipo alto



DIN 464



Dados técnicos

d	b	d_k	d_s	h	k	P	Rosca total C ≤
M3	9	12	6	7.5	2.5	0.5	12
M4	12	16	8	9.5	3.5	0.7	16
M5	15	20	10	11.5	4	0.8	16
M6	18	24	12	15	5	1	20
M8	24	30	16	18	6	1.25	25
M10	30	36	20	23	8	1.5	30

Grupos de produtos

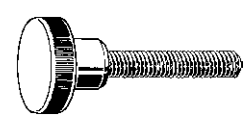
Rosca	Material	Tratamento sup.	Código	Página
M	Aço de corte	Zn	16650	6-204
M	INOX A1		51829	6-204
M	Latão Cu3		47480	6-205

6

16650 Parafuso serrilhado tipo alto F11G

Rosca Métrica
Material Aço de corte
Tratamento sup. Zincado

RoHS

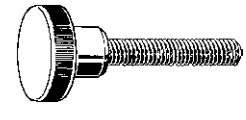


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6	100	16650.030.006				M6X40	25	16650.060.040
M3X8	100	16650.030.008	M5X6	50	16650.050.006	M6X50	25	16650.060.050
M3X10	100	16650.030.010	M5X8	50	16650.050.008			
M3X12	100	16650.030.012	M5X10	50	16650.050.010	M8X10	25	16650.080.010
M3X16	100	16650.030.016	M5X12	50	16650.050.012	M8X12	25	16650.080.012
M3X20	100	16650.030.020	M5X16	50	16650.050.016	M8X16	25	16650.080.016
M3X25	100	16650.030.025	M5X20	50	16650.050.020	M8X20	25	16650.080.020
M3X30	100	16650.030.030	M5X25	50	16650.050.025	M8X25	25	16650.080.025
			M5X30	50	16650.050.030	M8X30	25	16650.080.030
M4X6	50	16650.040.006	M5X40	50	16650.050.040	M8X40	25	16650.080.040
M4X8	50	16650.040.008				M8X50	25	16650.080.050
M4X10	50	16650.040.010	M6X8	25	16650.060.008			
M4X12	50	16650.040.012	M6X10	25	16650.060.010	M10X16	10	16650.100.016
M4X16	50	16650.040.016	M6X12	25	16650.060.012	M10X20	10	16650.100.020
M4X20	50	16650.040.020	M6X16	25	16650.060.016	M10X25	10	16650.100.025
M4X25	50	16650.040.025	M6X20	25	16650.060.020	M10X30	10	16650.100.030
M4X30	50	16650.040.030	M6X25	25	16650.060.025	M10X40	10	16650.100.040
M4X40	50	16650.040.040	M6X30	25	16650.060.030	M10X50	10	16650.100.050

51829 Parafuso serrilhado tipo alto R09A

Rosca Métrica
Material Aço inoxidável A1

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X4*	50	51829.030.004	M4X8*	50	51829.040.008	M5X16*	25	51829.050.016
M3X5*	50	51829.030.005	M4X10*	50	51829.040.010	M5X18*	25	51829.050.018
M3X6*	50	51829.030.006	M4X12*	50	51829.040.012	M5X20*	25	51829.050.020
M3X8*	50	51829.030.008	M4X16*	50	51829.040.016			
M3X10*	50	51829.030.010	M4X20*	50	51829.040.020	M6X8*	25	51829.060.008
M3X12*	50	51829.030.012	M4X25*	50	51829.040.025	M6X10*	25	51829.060.010
M3X16*	50	51829.030.016				M6X12*	25	51829.060.012
M3X20*	50	51829.030.020	M5X6*	25	51829.050.006	M6X16*	25	51829.060.016
			M5X8*	25	51829.050.008	M6X20*	25	51829.060.020
M4X5*	50	51829.040.005	M5X10*	25	51829.050.010	M6X25*	25	51829.060.025
M4X6*	50	51829.040.006	M5X12*	25	51829.050.012			

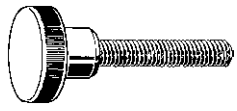
51829 **Parafuso serrilhado tipo alto** ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M8X12*	25	51829.080.012	M8X20*	25	51829.080.020
M8X16*	25	51829.080.016	M8X25*	25	51829.080.025

47480 **Parafuso serrilhado tipo alto** **M11D**

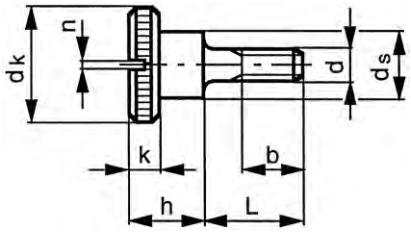
Rosca Métrica
Material Latão Cu3

RoHS

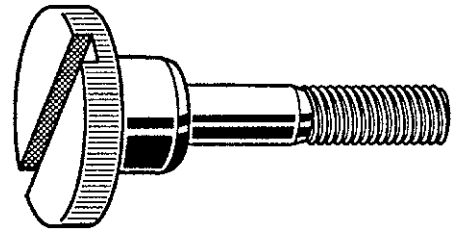


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6	100	47480.030.006				M6X16	25	47480.060.016
M3X8	100	47480.030.008	M5X8	50	47480.050.008	M6X20	25	47480.060.020
M3X10	100	47480.030.010	M5X10	50	47480.050.010	M6X25	25	47480.060.025
M3X12	100	47480.030.012	M5X12	50	47480.050.012	M6X30	25	47480.060.030
M3X16	100	47480.030.016	M5X16	50	47480.050.016	M6X40	25	47480.060.040
M3X20	100	47480.030.020	M5X20	50	47480.050.020			
			M5X25	50	47480.050.025	M8X12	25	47480.080.012
M4X8	50	47480.040.008	M5X30	50	47480.050.030	M8X16	25	47480.080.016
M4X10	50	47480.040.010				M8X20	25	47480.080.020
M4X12	50	47480.040.012	M6X8	25	47480.060.008	M8X25	25	47480.080.025
M4X16	50	47480.040.016	M6X10	25	47480.060.010	M8X30	25	47480.080.030
M4X20	50	47480.040.020	M6X12	25	47480.060.012	M8X40	25	47480.080.040
M4X30	50	47480.040.030						

Parafuso serrilhado com fenda



DIN **464 Sz**



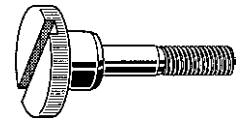
Dados técnicos

d	b	d_k	d_s	h	k	n	P	Rosca total C ≤
M3	9	12	6	7.5	2.5	0.8	0.5	10
M4	12	16	8	9.5	3.5	1	0.7	16
M5	15	20	10	11.5	4	1.2	0.8	16
M6	18	24	12	15	5	1.6	1	20

51828 **Parafuso serrilhado com fenda** **R09A**

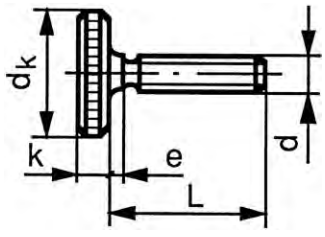
Rosca Métrica
Material Aço inoxidável A1

RoHS

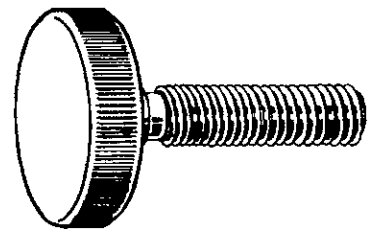


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6	50	51828.030.006	M4X12	25	51828.040.012	M5X40	25	51828.050.040
M3X8	50	51828.030.008	M4X16	25	51828.040.016			
M3X10	50	51828.030.010	M4X20	25	51828.040.020	M6X10	10	51828.060.010
M3X12*	50	51828.030.012	M4X30	25	51828.040.030	M6X12	10	51828.060.012
M3X16*	50	51828.030.016				M6X16	10	51828.060.016
			M5X10	25	51828.050.010	M6X20	10	51828.060.020
M4X6*	50	51828.040.006	M5X12	25	51828.050.012	M6X25	10	51828.060.025
M4X8	25	51828.040.008	M5X16	25	51828.050.016	M6X30	10	51828.060.030
M4X10	25	51828.040.010	M5X20	25	51828.050.020			

Parafuso serrilhado tipo baixo



DIN 653



Dados técnicos

d	d_k	e	k	P	Rosca total C ≤
M3	12	2	2.5	0.5	10
M4	16	3	3.5	0.7	16
M5	20	3	4	0.8	16
M6	24	4	5	1	16
M8	30	5	6	1.25	20
M10	36	6	8	1.5	25

Grupos de produtos

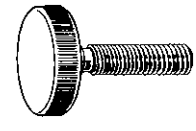
Rosca	Material	Tratamento sup.	Código	Página
M	Aço de corte	Zn	16660	6-206
M	INOX A1		51503	6-206
M	Latão Cu3		47490	6-207

6

16660 Parafuso serrilhado tipo baixo F11G

Rosca Métrica
Material Aço de corte
Tratamento sup. Zincado

RoHS

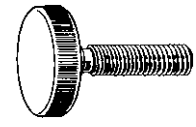


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6	100	16660.030.006				M6X40	25	16660.060.040
M3X8	100	16660.030.008	M5X8	50	16660.050.008	M6X50	25	16660.060.050
M3X10	100	16660.030.010	M5X10	50	16660.050.010			
M3X12	100	16660.030.012	M5X12	50	16660.050.012	M8X12	25	16660.080.012
M3X16	100	16660.030.016	M5X16	50	16660.050.016	M8X16	25	16660.080.016
M3X20	100	16660.030.020	M5X20	50	16660.050.020	M8X20	25	16660.080.020
M3X25	100	16660.030.025	M5X25	50	16660.050.025	M8X25	25	16660.080.025
			M5X30	50	16660.050.030	M8X30	25	16660.080.030
M4X6	50	16660.040.006	M5X40	50	16660.050.040	M8X40	25	16660.080.040
M4X8	50	16660.040.008				M8X50	25	16660.080.050
M4X10	50	16660.040.010	M6X10	25	16660.060.010			
M4X12	50	16660.040.012	M6X12	25	16660.060.012	M10X20	10	16660.100.020
M4X16	50	16660.040.016	M6X16	25	16660.060.016	M10X25	10	16660.100.025
M4X20	50	16660.040.020	M6X20	25	16660.060.020	M10X30	10	16660.100.030
M4X25	50	16660.040.025	M6X25	25	16660.060.025	M10X40	10	16660.100.040
M4X30	50	16660.040.030	M6X30	25	16660.060.030	M10X50	10	16660.100.050

51503 Parafuso serrilhado tipo baixo R09A

Rosca Métrica
Material Aço inoxidável A1

RoHS

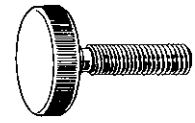


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X10*	50	51503.030.010				M6X20*	25	51503.060.020
M3X12*	50	51503.030.012	M5X10*	25	51503.050.010	M6X25*	25	51503.060.025
M3X16*	50	51503.030.016	M5X12*	25	51503.050.012	M6X30*	25	51503.060.030
			M5X16*	25	51503.050.016			
M4X8*	50	51503.040.008	M5X20*	25	51503.050.020	M8X12*	25	51503.080.012
M4X10*	50	51503.040.010				M8X16*	25	51503.080.016
M4X12*	50	51503.040.012	M6X10*	25	51503.060.010	M8X20*	25	51503.080.020
M4X16*	50	51503.040.016	M6X12*	25	51503.060.012	M8X25*	25	51503.080.025
M4X20*	50	51503.040.020	M6X16*	25	51503.060.016	M8X30*	25	51503.080.030
M4X25*	50	51503.040.025						

47490	Parafuso serrilhado tipo baixo	M11D

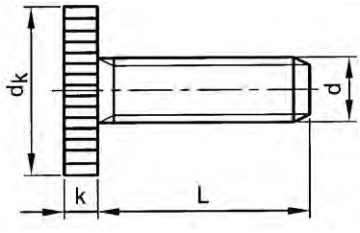
Rosca Métrica
Material Latão Cu3

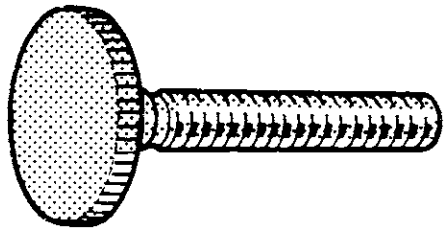




d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6	100	47490.030.006	M4X25	50	47490.040.025	M6X12	25	47490.060.012
M3X8	100	47490.030.008				M6X16	25	47490.060.016
M3X10	100	47490.030.010	M5X8	50	47490.050.008	M6X20	25	47490.060.020
M3X12	100	47490.030.012	M5X10	50	47490.050.010	M6X25	25	47490.060.025
M3X16	100	47490.030.016	M5X12	50	47490.050.012	M6X30	25	47490.060.030
M3X20	100	47490.030.020	M5X16	50	47490.050.016			
			M5X20	50	47490.050.020	M8X16	25	47490.080.016
M4X8	50	47490.040.008	M5X25	50	47490.050.025	M8X20	25	47490.080.020
M4X10	50	47490.040.010	M5X30	50	47490.050.030	M8X25	25	47490.080.025
M4X12	50	47490.040.012				M8X30	25	47490.080.030
M4X16	50	47490.040.016	M6X10	25	47490.060.010	M8X40	25	47490.080.040
M4X20	50	47490.040.020						

Parafuso serrilhado





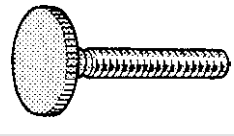
6

Dados técnicos

d	d_k	k	P
M5	16	3.4	0.8
M6	16	3.4	1
M8	16	3.4	1.25

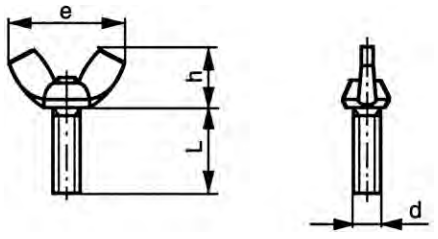
56230	Parafuso serrilhado plástico	W02A

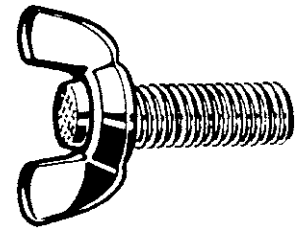
Rosca Métrica
Material Plástico
Classe PA 6.6
Cor Branco



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X30	100	56230.050.030	M6X16	50	56230.060.016			
			M6X20	50	56230.060.020	M8X16	25	56230.080.016
M6X8	100	56230.060.008	M6X25	50	56230.060.025	M8X20	25	56230.080.020
M6X10	50	56230.060.010	M6X30	50	56230.060.030	M8X25	25	56230.080.025

Parafuso com asas tipo ligeiro (Americano)





Dados técnicos

d	e ≈	h ≈	P
M3	18.5	8.8	0.5
M4	22	10.5	0.7
M5	22	10.5	0.8
M6	26.8	12.9	1

d	e ≈	h ≈	P
M8	30.3	14.8	1.25
M10	35.3	17.3	1.5
M12	47.4	22.3	1.75

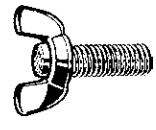
Grupos de produtos

Rosca	Encaixe	Material	Código	Página
M	Orelhas	INOX A2	51820	6-208
M	Orelhas	INOX A4	55820	6-208

6

51820 Parafuso com asas tipo ligeiro (Americano) R09A

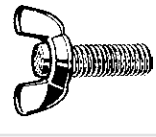
Rosca Métrica
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X10*	100	51820.030.010	M5X40*	50	51820.050.040	M8X45*	50	51820.080.045
M3X12*	100	51820.030.012	M5X45*	50	51820.050.045	M8X50*	50	51820.080.050
M3X16*	100	51820.030.016	M5X50*	50	51820.050.050	M8X60*	50	51820.080.060
M3X20*	100	51820.030.020						
M3X25*	100	51820.030.025	M6X10	25	51820.060.010	M10X16*	25	51820.100.016
			M6X12*	50	51820.060.012	M10X20	10	51820.100.020
M4X10*	100	51820.040.010	M6X15/16	25	51820.060.015	M10X25	10	51820.100.025
M4X12*	100	51820.040.012	M6X16	25	51820.060.016	M10X30	10	51820.100.030
M4X16	25	51820.040.016	M6X20	25	51820.060.020	M10X35*	25	51820.100.035
M4X20*	100	51820.040.020	M6X25	25	51820.060.025	M10X40	10	51820.100.040
M4X25*	100	51820.040.025	M6X30	25	51820.060.030	M10X50	10	51820.100.050
M4X30*	100	51820.040.030	M6X35*	50	51820.060.035	M10X60*	25	51820.100.060
M4X35*	100	51820.040.035	M6X40	25	51820.060.040			
M4X40*	100	51820.040.040	M6X45*	50	51820.060.045	M12X20*	25	51820.120.020
			M6X50*	50	51820.060.050	M12X25*	25	51820.120.025
M5X10	25	51820.050.010				M12X30*	25	51820.120.030
M5X12*	50	51820.050.012	M8X15/16	10	51820.080.015	M12X35*	25	51820.120.035
M5X15/16	25	51820.050.015	M8X20	10	51820.080.020	M12X40*	25	51820.120.040
M5X20	25	51820.050.020	M8X25	10	51820.080.025	M12X50*	25	51820.120.050
M5X25	25	51820.050.025	M8X30	10	51820.080.030	M12X60*	25	51820.120.060
M5X30	25	51820.050.030	M8X35*	50	51820.080.035			
M5X35*	50	51820.050.035	M8X40	10	51820.080.040			

55820 Parafuso com asas tipo ligeiro (Americano) R49A

Rosca Métrica
Material Aço inoxidável A4

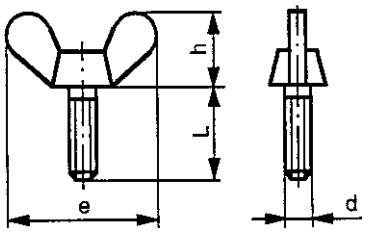


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X12*	100	55820.030.012	M5X15/16	25	55820.050.015	M6X30	25	55820.060.030
M3X16*	100	55820.030.016	M5X20*	50	55820.050.020	M6X40	25	55820.060.040
M3X30*	100	55820.030.030	M5X25*	50	55820.050.025			
			M5X30*	50	55820.050.030	M8X15/16	10	55820.080.015
M4X10*	100	55820.040.010				M8X20	10	55820.080.020
M4X12*	100	55820.040.012	M6X10	25	55820.060.010	M8X25	10	55820.080.025
M4X16*	100	55820.040.016	M6X12*	50	55820.060.012	M8X30	10	55820.080.030
M4X20*	100	55820.040.020	M6X15/16	25	55820.060.015	M8X35*	50	55820.080.035
			M6X20	25	55820.060.020	M8X40	10	55820.080.040
M5X10	25	55820.050.010	M6X25	25	55820.060.025	M8X45*	50	55820.080.045
M5X12*	50	55820.050.012						

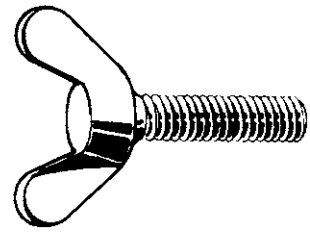
55820 **Parafuso com asas tipo ligeiro (Americano)** ←

d x L		Ref. do artigo	d x L		Ref. do artigo	d x L		Ref. do artigo
M8X50*	50	55820.080.050	M10X25	10	55820.100.025			
M8X55*	50	55820.080.055	M10X30	10	55820.100.030	M12X20*	25	55820.120.020
			M10X40	10	55820.100.040	M12X25*	25	55820.120.025
M10X20	10	55820.100.020	M10X45*	25	55820.100.045	M12X30*	25	55820.120.030

Parafuso com asas redondas



DIN **316**
NEN 1624



Dados técnicos

d	e (max.)	h (max.)	P	d	e (max.)	h (max.)	P
M4	20	10.5	0.7	**M10**	51	25	1.5
M5	26	13	0.8	**M12**	65	33.5	1.75
M6	33	17	1	**M16**	73	37.5	2
M8	39	20	1.25				

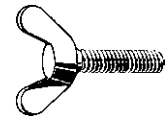
Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.	Código	Página
M	Orelhas	Ferro fundido	Zn	16210	6-209
M	Orelhas	INOX A2		51812	6-209
M	Orelhas	Latão		47530	6-210

16210 **Parafuso com asas redondas** **F11G**

Rosca Métrica
Material Ferro fundido
Tratamento sup. Zincado

RoHS

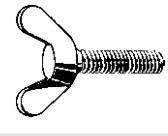


d x L		Ref. do artigo	d x L		Ref. do artigo	d x L		Ref. do artigo
M4X10	200	16210.040.010	M6X30	100	16210.060.030	M10X60	20	16210.100.060
M4X16	200	16210.040.016	M6X40	100	16210.060.040	M10X70	20	16210.100.070
M4X20	200	16210.040.020	M6X50	100	16210.060.050	M10X80	20	16210.100.080
M4X25	200	16210.040.025						
			M8X12	100	16210.080.012	M12X20	20	16210.120.020
M5X10	200	16210.050.010	M8X16	100	16210.080.016	M12X25	20	16210.120.025
M5X16	200	16210.050.016	M8X20	100	16210.080.020	M12X30	20	16210.120.030
M5X20	200	16210.050.020	M8X25	100	16210.080.025	M12X40	20	16210.120.040
M5X25	200	16210.050.025	M8X30	100	16210.080.030	M12X50	20	16210.120.050
M5X30	100	16210.050.030	M8X40	50	16210.080.040	M12X60	20	16210.120.060
M5X35	100	16210.050.035	M8X50	50	16210.080.050	M12X70	20	16210.120.070
M5X40	100	16210.050.040	M8X60	50	16210.080.060	M12X80	20	16210.120.080
M5X50	100	16210.050.050						
			M10X16	50	16210.100.016	M16X30	10	16210.160.030
M6X10	200	16210.060.010	M10X20	50	16210.100.020	M16X40	10	16210.160.040
M6X12	100	16210.060.012	M10X25	50	16210.100.025	M16X50	10	16210.160.050
M6X16	100	16210.060.016	M10X30	50	16210.100.030	M16X60	10	16210.160.060
M6X20	100	16210.060.020	M10X40	50	16210.100.040			
M6X25	100	16210.060.025	M10X50	20	16210.100.050			

51812 **Parafuso com asas redondas** **Q01A**

Rosca Métrica
Material Aço inoxidável A2

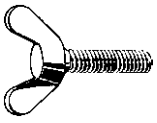
RoHS



d x L		Ref. do artigo	d x L		Ref. do artigo	d x L		Ref. do artigo
M6X25*	50	51812.060.025	M8X30*	25	51812.080.030	M10X30*	25	51812.100.030
M6X30*	50	51812.060.030				M10X50*	25	51812.100.050
			M10X25*	25	51812.100.025			

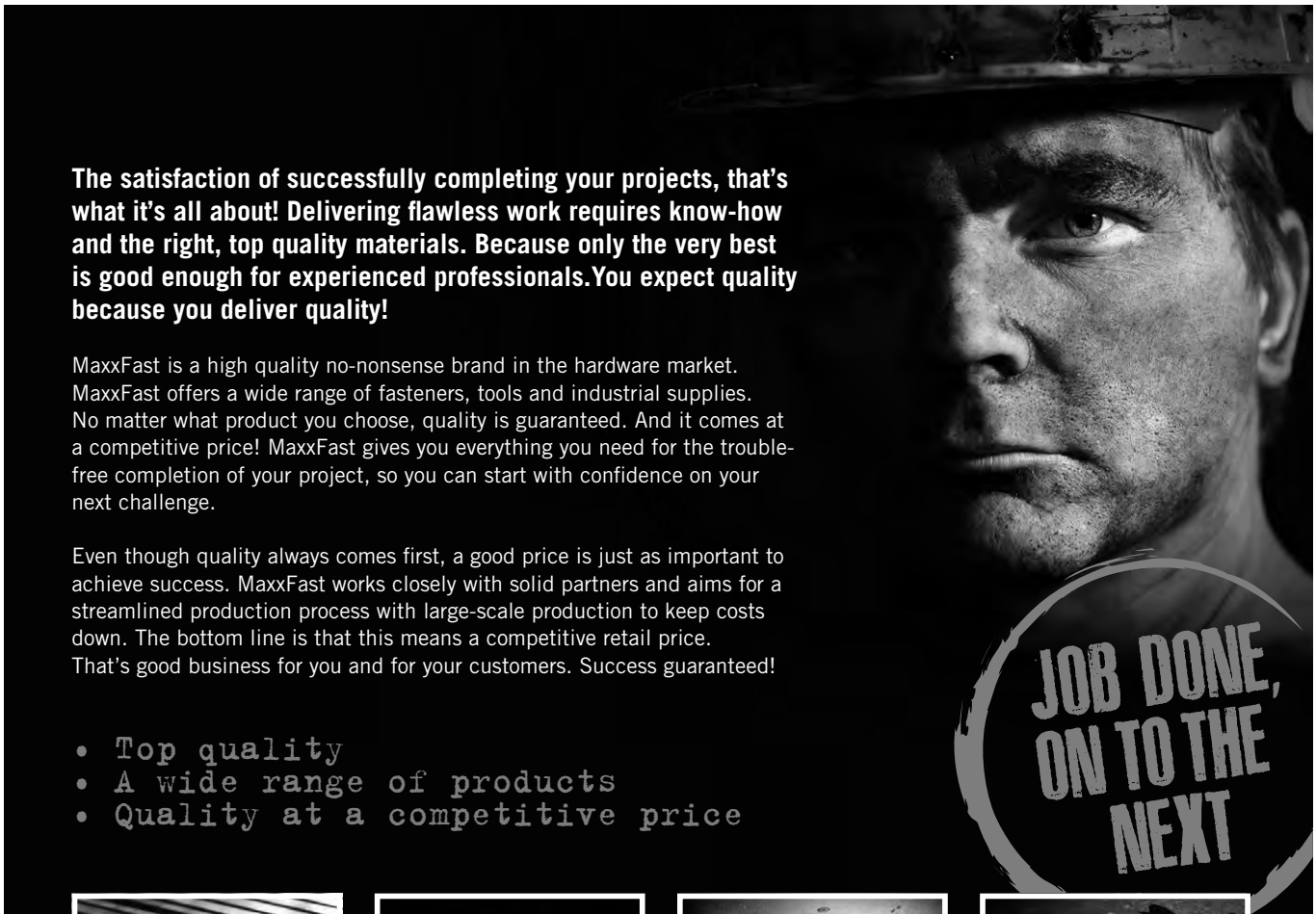
47530	Parafuso com asas redondas	M11D

Rosca Métrica
Material Latão



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X12	100	47530.050.012	M6X25	100	47530.060.025	M8X30	25	47530.080.030
M5X16	100	47530.050.016	M6X30	100	47530.060.030	M8X40	25	47530.080.040
M5X20	100	47530.050.020	M6X40	100	47530.060.040	M8X50	25	47530.080.050
M5X25	100	47530.050.025						
M5X30	100	47530.050.030	M8X10	50	47530.080.010	M10X20	50	47530.100.020
			M8X12	50	47530.080.012	M10X25	50	47530.100.025
M6X10	100	47530.060.010	M8X16	50	47530.080.016	M10X30	25	47530.100.030
M6X12	100	47530.060.012	M8X20	50	47530.080.020	M10X40	25	47530.100.040
M6X16	100	47530.060.016	M8X25	50	47530.080.025	M10X50	25	47530.100.050
M6X20	100	47530.060.020						

6

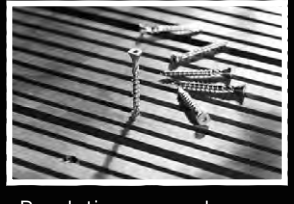


The satisfaction of successfully completing your projects, that's what it's all about! Delivering flawless work requires know-how and the right, top quality materials. Because only the very best is good enough for experienced professionals.You expect quality because you deliver quality!

MaxxFast is a high quality no-nonsense brand in the hardware market. MaxxFast offers a wide range of fasteners, tools and industrial supplies. No matter what product you choose, quality is guaranteed. And it comes at a competitive price! MaxxFast gives you everything you need for the trouble-free completion of your project, so you can start with confidence on your next challenge.

Even though quality always comes first, a good price is just as important to achieve success. MaxxFast works closely with solid partners and aims for a streamlined production process with large-scale production to keep costs down. The bottom line is that this means a competitive retail price. That's good business for you and for your customers. Success guaranteed!

- Top quality
- A wide range of products
- Quality at a competitive price


Revolutionary woodscrews


High performance self drilling screws


A great range of quality anchors


Proven quality chemical anchors


Leading hose clamps


New cable ties


Screw bits the right fit


Holesaws the sharp edge


Quality assortments

www.maxxfast.com

MAXXFAST
PROFESSIONAL HARDWARE

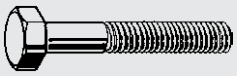
FABORY

Professionals build on innovation.

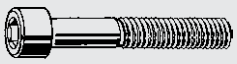


As a world-wide leading expert in nylon fixings, steel anchors and chemical fixings we are your reliable partner with our innovative products.

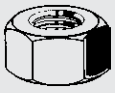
fischer
innovative solutions



1 Parafusos sextavado exterior



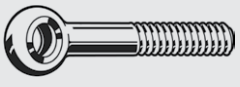
2 Produtos sextavados interiores



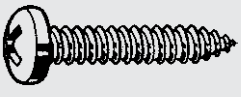
3 Porcas/porcas de rebitar / insertos



4 Varão roscado / pernos



5 Produtos olhal / gancho

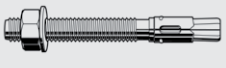


6 Parafusos

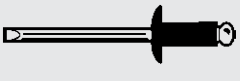
I Indice



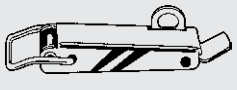
7 Anilha



8 Ancoragem



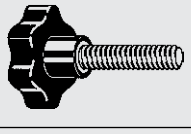
9 Rebites / cavilhas



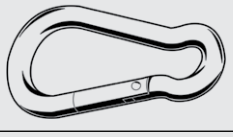
10 Parafusos de segurança / Sistemas de fixação



11 Sortidos



12 Sistemas de engenharia / peças para máquinas



13 Marítimo produtos

T Tecnologia de fixação

Indice alfabético

A

ABA abraçadeira 12-21
abraçadeira com borracha 12-20
abraçadeira mangueira 12-7, 12-9/12-11, 12-18
abraçadeira mangueira micro 12-16
abraçadeira mangueira mini 12-13
abraçadeira mangueira robusto 12-14, 12-15
abraçadeira sortido 12-22
duas abraçadeira orelhas 12-17
flexível chave de parafusos 12-23
uma abraçadeira orelha 12-16
Aberto gancho métrico 5-29
gancho não métrico 5-32, 5-33
Abraçadeira 10-56, 10-58, 10-59
Norma 12-117, 12-118
ABA 12-21
alicate metalica MaxxFast 12-129
alicate plástica MaxxFast 12-129
articulada Fischer 10-36
autoajustável fixação Lindapter 10-28
clip 7-132
com borracha ABA 12-20
com borracha MaxxFast 12-19
combinado 10-56, 10-57
duas orelhas ABA 12-17
fixação 12-121, 12-131, 12-134
fixação autocolante 12-132, 12-133
fixação com etiqueta 12-125, 12-126
fixação com olhal 12-124
fixação destacável 12-127
fixação destacável MaxxFast 12-126
fixação MaxxFast 12-120/12-122
fixação sortido 12-124
fixação suporte 12-129
fixação suporte MaxxFast 12-128
fixação Ty-Rap 12-123
helicoidal universal 10-55
isofónica duas peças Fischer 10-37
mangueira ABA 12-7, 12-9/12-11, 12-18
mangueira MaxxFast 12-6, 12-8, 12-10
mangueira micro ABA 12-16
mangueira mini ABA 12-13
mangueira mini MaxxFast 12-12
mangueira plástico 12-130
mangueira robusto ABA 12-14, 12-15
para tubos aço 12-33/12-38
push-pull grampo AMF 12-156/12-158
refrigeração Fischer 10-38
snap 10-58
sortido ABA 12-22
sortido MaxxFast 12-21
três partes 10-85
tubo 12-25
tubo de escape Awab 12-24
uma orelha ABA 12-16
universal 10-55
Acessório fechadura acessório 10-72
Aço perfurada banda aço Fischer 10-51
Acoplamento bush Vemo 8-97
Adaptador Amecoil 3-157
Adesivo para-choque 12-142
Ajustável anilha 7-133
articulação 12-53
fixação Fischer 8-43
fixação Lindapter 10-29
ligação 13-50, 13-51
parafuso Fischer 8-42
Ajuste anel 7-134
anel com vedação de elastómero 6-116
anilha 7-135/7-137, 7-139/7-141
anilha para haste 7-127
Alavanca manípulo 12-101, 12-102
manípulo bloqueio sólido 12-103, 12-104
manípulo com rosca exterior 12-102
manípulo métrica 12-99, 12-100
Alicate abraçadeira metalica MaxxFast 12-129
abraçadeira plástica MaxxFast 12-129
corte 13-56, 13-62
Alicate manual cego rebite ferramenta 9-79
Alta mama porca BSW 3-98
mama porca métrico 3-96/3-98
serrilhada porca métrico 3-112
serrilhado parafuso métrico 6-204, 6-205
serrilhado parafuso métrico com fenda 6-205
serrilhado puxador métrico para parafuso e porca com sextavado 12-84
Alta resistência parafuso métrico Peiner 1-89
Alto trackshoe porca UNF 3-40
Amecoil adaptador 3-157
bico mandril métrica 3-155/3-157
de fio inserto MEF para velas 3-147
de fio inserto métrico 3-145
de fio inserto métrico auto bloqueio 3-145
de fio inserto métrico extra fino 3-147
de fio inserto métrico fino 3-146
de fio inserto UNC 3-147
de fio inserto UNF 3-148
encenado macho MEF para inserto de fio de aço 3-143
extrator 3-158
inserto kit BSW 3-151
inserto kit métrico 3-148
inserto kit métrico extra fino 3-149, 3-150
inserto kit métrico fino 3-149
inserto kit UNC 3-150
inserto kit UNF 3-151

Amecoil	máquina	macho	grande	para inserto de fio de aço	3-142
			métrico fino	para inserto de fio de aço	3-143
			UNC	para inserto de fio de aço	3-144
			UNF	para inserto de fio de aço	3-144
	multidimensional	ferramenta manual	métrica		3-153
			métrica com ponta		3-154
			métrica completo		3-154, 3-155
	punção				3-158
	reparação	kit			3-152
AMF	gancho	grampo			12-159
	hook	grampo	horizontal		12-160
			vertical		12-161
	horizontal	grampo			12-153/12-155
	push-pull	grampo	abraçadeira		12-156/12-158
	receptáculo	catch	para grampo		12-162
	vertical	grampo			12-152
Amilha	Peiner				1-91
Amortecedor	protector				12-143
Ancoragem	bucha	Fischer			8-22, 8-23
	perno	ferramenta	Fischer		8-78
		Fischer			8-68/8-70, 8-74, 8-78
		MaxxFast			8-66, 8-67
		métrico	Fischer		8-75, 8-77
			MaxxFast		8-72
		Spit			8-71
	química	rosca interna	Fischer		8-90
Anel	ajuste				7-134
		com vedação de elastómero			6-116
	de retenção				13-68
	elevação				13-112, 13-113
	isolamento				12-147
	Quick system				10-78
	segurança	para ganchos de segurança			5-41
	triangular				13-131/13-133
	vedação	dentro	com EPDM		6-117
Angular	suporte	Fischer			10-45
Ângulo					13-122, 13-123
	instalação		Fischer		10-44
	receptáculo				10-83
Anilha					12-115
		Lindapter			10-24/10-26
	ajustável				7-133
	ajuste				7-135/7-137, 7-139/7-141
		para haste			7-127
	anti vibração		2 peças	Nord-Lock	7-96/7-101
			Nord-Lock		7-98, 7-102, 7-103
	borracha	vedação			7-151
	calha	Fischer			10-43
	com apoio				12-145
	com patilha				7-113/7-115, 7-117, 7-118
	concava				10-97/10-99, 12-143, 12-144
	contacto				7-81, 7-107, 7-108
	convexa	para parafuso de elevação			1-82
	cunha	para secção em I			7-143, 7-144
		para secção em U			7-145, 7-146
		para secções em I	Peiner		1-92
		para secções em U	Peiner		1-92
	dentada	Dubo			7-112
	elástica				7-55, 7-56, 7-58, 7-59
		com pontas quadradas			7-50/7-54, 7-56/7-58
	endurecida				10-11
	esférica	cónica			10-10
		cónico			10-10
		esférico			10-9, 10-10
	fixação	para haste			7-128, 7-129, 7-131, 7-132
	junta	fibra			7-150
	mola	cónica			7-61, 7-89
		curva			7-63/7-67
	ondulada				7-62
	para estruturas metálicas	para estruturas de aço			7-22, 7-23
	para madeira				7-43
	plana				7-5/7-9, 7-11, 7-12, 7-14/7-21, 7-29/7-33, 7-35/7-40, 7-47/7-49
			fibra		7-151
		com chanfro			7-33, 7-34
		com chanfro simples			7-34
		com único chanfro			7-34
		para cavilha tipo pesado			7-23, 7-24
		para cavilhas			7-27/7-29
		para construção em madeira			7-41
		para construções de madeira			7-40/7-42
		para parafuso cabeça queijo			7-26
		para parafusos cabeça de queijo			7-25, 7-26
		Permaglas			4-23
	profundidade	Lindapter			10-27
	proteção				10-79
	quadrada				7-142, 7-143
	recartilha dupla				7-60
	recartilha exterior				7-67
	recartilhada				7-68, 7-70/7-81
		cónica			7-69
		exterior/interior			7-69
	reparação	Mudwing			7-44, 7-45
	retenção				10-77
		Dubo			7-110
		para furar			7-124, 7-125

A

Indice alfabético

Anilha	*retenção*	para haste			7-121, 7-126
	SAE	plana			7-12, 7-13
	segurança				7-106
	USS	plana			7-10
	vedação				7-147/7-149, 10-79, 12-41, 12-144
		Dubo			7-111
		FESTAPLAN			7-149, 7-150
Anti vibração	anilha		2 peças	Nord-Lock	7-96/7-101
			Nord-Lock		7-98, 7-102, 7-103
Aperto	parafuso	métrico fino sem bloqueio			12-60
Apoio					12-146
	cilindrico	métrico			12-62/12-65
	encaixe				12-140
	isolator	métrico			12-65/12-69
	parafuso	métrico com sextavado interior			2-65, 2-68
		UNC			2-67
			com sextavado interior		2-67
	suporte				12-141
Arco	manilha				13-9
		com pino			5-22, 5-23
Argola	cavilha				13-64, 13-65
	dupla				13-33
	giratória				13-107, 13-108
	ligação				13-29, 13-30
	virola				13-61
Arreigada quadrada	parafuso	métrico			1-71, 1-72, 1-74
			quadrado curto		1-79
		métrico com porca sextavada			1-75
			longo quadrado		1-81
		UNC			1-76/1-78
Articulação					12-73
	ajustável				12-53
	soldar				12-54
Articulada	abraçadeira		Fischer		10-36
Auto bloqueantes	cabeça queijo	parafuso com flange	métrico com sextavado interior	Ripp	2-63
	exaustão	porca			3-41
	redonda	porca	métrico com inserto não metálico		3-125
	sextavada	porca	BSF	inserto não metálico	3-62
			BSW	inserto não metálico	3-62
			com flange	Ripp	3-73
			métrico		3-64, 3-74, 3-75
			métrico com anilha serrilhada		3-83
			métrico fino totalmente metálico		3-66
			métrico totalmente em aço inox		3-63
			métrico totalmente metálico		3-65, 3-72
				Stover	3-65
			MF com inserto não metálico		3-38, 3-48/3-53
			Pal	métrico	3-84
			UNC		3-79
				inserto não metálico	3-54/3-56, 3-58/3-60
				totalmente metálica	3-67
				totalmente metálico	3-67, 3-68
			UNF	inserto não metálico	3-57, 3-58, 3-60, 3-61
				totalmente metálica	3-69
				totalmente metálico	3-69
		porca autobloqueantes	métrico totalmente metálico	Securit	3-73
		porca com flange	métrico com inserto não metálico		3-80
		porca mama	métrico com inserto não metálico		3-101
			MF com inserto não metálico		3-102
	sextavado	parafuso com flange	métrico		1-64
				Ripp	1-62, 1-63
Auto cortante	cabeça cilíndrica baixa	parafuso	métrico com cabeça fenda cruz		6-57
	cabeça de embeber	parafuso	métrico com cabeça fenda cruz		6-59
	cabeça embeber	parafuso	métrico com cabeça fenda cruz		6-58
	sextavado	parafuso	métrico		6-60
Auto perfurante	cabeça cilíndrica	parafuso	encaixe quadrado		6-130
			fenda quadrada	MaxxFast	6-128
			SR		6-129
			ttap®	MaxxFast	6-126, 6-127
	cabeça de embeber		fenda cruzada	MaxxFast	6-131
		parafuso	Torx®		6-143
			ttap®	MaxxFast	6-134, 6-135, 6-141
			UNC	Torx®	6-144
	cabeça embeber	parafuso	com alhetas e Torx®		6-142
			fenda cruz		6-132, 6-133, 6-145
			fenda em cruz		6-133
	cabeça redonda	parafuso	SR recess		6-140
	cilindrica	parafuso	fenda cruzada	cabeça	6-122/6-124
			fenda em cruz	cabeça	6-123
	parafuso				6-146, 6-147
	sextavado	parafuso	MaxxFast		6-135, 6-136
		parafuso com flange			6-137, 6-138

A

Autoajustável	fixação	abraçadeira	Lindapter	10-28
Autocolante	fixação	abraçadeira		12-132, 12-133
Autocortante	roscado	inserto		3-171/3-173
			com sextavado interior	3-173, 3-174
Autoperfurante	bucha	para gesso		8-19
Autorroscante	cabeça baixa	parafuso de segurança	One way	10-126
	cabeça cilíndrica	parafuso de segurança		10-119
	cabeça de embeber	parafuso	métrico	6-68
			métrico hexalobular	6-68
		parafuso de segurança		10-122, 10-123, 10-125
			com cabeça fenda cruz	10-124
	cabeça de queijo	parafuso de segurança	com 2 furos	10-120
	cabeça de queijo baixa	parafuso		6-67
			métrico	6-66
	cabeça redonda	parafuso de segurança		10-117, 10-118
			com 2 furos	10-125
			com Tri-wing	10-122
	One way	parafuso de segurança		10-121
			cabeça cilindrica	10-121
Awab	tubo de escape	abraçadeira		12-24

B

Baixa	mama	porca	métrico	3-100, 3-101
	porca	UNC		3-39
Baixo	castelo	porca	métrico	3-88
			métrico fino	3-90
	quadrada	porca	métrico	3-115, 3-116
	serrilhada	porca	métrico	3-113, 3-114
	serrilhado	parafuso	métrico	6-206, 6-207
		puxador	métrico para porca e parafuso sextavado	12-84
	sextavada	porca	ISO métrico	3-32, 3-38
			métrico	3-31/3-33
			métrico fino	3-34/3-36
			métrico fino rosca esquerda	3-35
			métrico rosca esquerda	3-32, 3-33
			métrico supradimensionat	3-32
			MF rosca esquerda	3-36
	trackshoe	porca	UNF	3-41
Banda	perfurada	aço	Fischer	10-51
Band-It	sistema de fixação			12-26/12-28
Barra	fixação			10-73
	ligação	Vemo		8-97
Base	GMT			12-70
Betão celular	bucha		Fischer	8-21
Bico	mandril	métrica	Amecoil	3-155/3-157
Bloqueio duplo	mosquetão	Gancho		13-25
Bola				13-78, 13-79
	manípulo	métrico		12-76, 12-77
		métrico com furo cónico		12-77
	perno			10-76
Borracha	anilha	vedação		7-151
	bucha	com rosca bronze	Rawlplug	8-51
BSF	sextavada	porca		3-27
			inserto não metálico auto bloqueantes	3-62
	sextavado	parafuso		1-59, 1-61
BSP-R	cone	copo lubrificação	não métrico	12-45
BSW	cabeça de embeber	parafuso	com sextavado interior	2-50
	cabeça embeber	parafuso	fenda	6-27, 6-28
	cabeça queijo	parafuso	com sextavado interior	2-32
	inserto	kit	Amecoil	3-151
	mama	porca	alta	3-98
	olhal	parafuso		5-9
	orelhas	porca		3-105
	perno			4-33
		ponta cortada	com sextavado interior	2-90
	sextavada	porca		3-26, 3-27, 3-29
			inserto não metálico auto bloqueantes	3-62
	sextavado	parafuso		1-58, 1-60
	varão roscado			4-20
Bucha				8-5
	ancoragem	Fischer		8-22, 8-23
	autoperfurante	para gesso		8-19
	betão celular		Fischer	8-21
	borracha	com rosca bronze	Rawlplug	8-51
	cavidade	Fischer		8-57
	com parafuso	longo	Fischer	8-32, 8-33
	de pancada	Fischer		8-54
		MaxxFast		8-52, 8-53
		Spit		8-26
	expansão			8-45
			Rawlplug	8-45, 8-47, 8-48
		MaxxFast		8-44
		métrico com cone em latão	Fischer	8-48
		métrico com porca cónica		8-46
	Fischer			8-7, 8-9, 8-11, 8-49
	MaxxFast			8-4, 8-10, 8-12, 8-28
	pancada	com anilha de isolamento	Fischer	8-31
		Fischer		8-29, 8-30
	para gesso	Fischer		8-20
		MaxxFast		8-18

Indice alfabético

Bucha	química		Fischer		8-84
			Spit		8-85
	sortido	caixa	Fischer		8-8
	universal	Fischer			8-13
Bucha para	moldura	Fischer			8-35/8-39
		MaxxFast			8-33, 8-34
Bujão	sextavado interior	métrico fino com colar			2-96
		métrico fino com sextavado interior			2-92, 2-94
		rosca de tubos	com colar		2-95
		rosca de tubos	cilindrica		2-98
			com colar		2-97, 2-98
		rosca de tubos externa	com sextavado interior		2-93
Bush	acoplamento	Vemo			8-97

C

Cabeça	cilindrica	parafuso	auto perfurante	fenda cruzada	6-122/6-124
				fenda em cruz	6-123
	cobertura	parafuso	com vedação de elastómero		6-115
Cabeça baixa	parafuso	métrico com sextavado interior			2-33/2-35, 2-37, 2-38
	parafuso de segurança	autorro-scante	One way		10-126
Cabeça boleada	rebite				9-55/9-59, 9-68
		expansão			9-78
Cabeça chata	rebite				9-34, 9-35, 9-62/9-64, 9-67, 9-76
Cabeça cilindrica	One way	parafuso de segurança	autorroscante		10-121
Cabeça cilíndrica	fenda cruzada			MaxxFast	6-119, 6-120
	parafuso	auto perfurante	encaixe quadrado		6-130
			SR		6-129
		fenda quadrada	auto perfurante	MaxxFast	6-128
		métrico com fenda	sem ponta		6-74
		métrico com hexalobular			6-84, 6-85
		métrico fenda			6-73, 6-74
		métrico fenda com apoio			6-34
		para plásticos	para termo plástico		6-72
		ttap®	auto perfurante	MaxxFast	6-126, 6-127
	parafuso autorro-scante	fenda em cruz			6-86, 6-108
		métrico Torx®			6-109
	parafuso de segurança	autorroscante			10-119
		métrico			10-114
		métrico com 2 furos			10-113
	parafuso para madeira	com cabeça fenda cruz			6-193, 6-194
		com hexalobular			6-171, 6-195/6-197
Cabeça cilíndrica baixa	parafuso	métrico com cabeça fenda cruz	auto cortante		6-57
Cabeça convexa	parafuso	métrico com sextavado interior			10-95
	porca	métrico com sextavado interior			10-94
Cabeça de embeber		fenda cruzada	auto perfurante	MaxxFast	6-131
	Hollo-bolt	Lindapter			10-18
	parafuso	BSW	com sextavado interior		2-50
		cabeça embeber	Powers		8-57, 8-60
		com hexalobular			6-163, 6-178, 6-179
		métrico	autorroscante		6-68
		métrico com cabeça fenda cruz	auto cortante		6-59
		métrico com sextavado interior			2-40/2-44
		métrico hexalobular	autorroscante		6-68
		métrico para termo plástico			6-72
		métrico Torx®	formação de rosca	TAPTITE 2000®	6-64
		Torx®	auto perfurante		6-143
		ttap®	auto perfurante	MaxxFast	6-134, 6-135, 6-141
		UNC	com sextavado interior		2-46, 2-47
			hexalobular	rosca cortante	6-61
			Torx®	auto perfurante	6-144
		UNF	com sextavado interior		2-49, 2-50
	parafuso autorro-scante	fenda em cruz			6-93
		métrico com hexalobular			6-92
	parafuso de segurança	autorroscante			10-122, 10-123, 10-125
			com cabeça fenda cruz		10-124
		métrico			10-114/10-116
		métrico com 2 furos			10-116
	parafuso deck	com hexalobular	Heco-Topix		6-164
	parafuso para madeira	com cabeça fenda cruz			6-188/6-192
	rebite				9-72
Cabeça de embeber baixa	parafuso para madeira	com cabeça fenda cruz	Heco-Fix		6-169
		fenda em cruz			6-169
Cabeça de queijo	parafuso	métrico com cabeça fenda cruz			6-36/6-40
		métrico com hexalobular			6-43
		métrico fenda			6-11/6-15

Cabeça de queijo	parafuso de segurança	autorroscante	com 2 furos	10-120
Cabeça de queijo baixa	formação de rosca	métrico fenda cruzada	formação de REMFORM® rosca	6-70
	parafuso		autorroscante	6-67
		métrico	autorroscante	6-66
		métrico com hexalobular		6-41, 6-42
		métrico Torx®	formação de REMFORM® rosca	6-71
			TAPTITE 2000®	6-65
Cabeça em t	parafuso	com arreigada quadrada		5-2, 5-3
		Fischer		10-42, 10-44
		métrico		5-3
Cabeça embeber	cabeça de embeber	parafuso	Powers	8-57, 8-60
	para betão	parafuso	Powers	8-64
	parafuso	BSW	fenda	6-27, 6-28
		com alhetas e Torx®	auto perfurante	6-142
		fenda cruz	auto perfurante	6-132, 6-133, 6-145
		fenda em cruz	auto perfurante	6-133
			MaxxFast	6-149, 6-150
		métrico		6-50, 6-102, 6-103
		métrico com cabeça fenda cruz		6-44/6-48, 6-51/6-53, 6-94/6-97
			auto cortante	6-58
		métrico com fenda cruz		6-77
		métrico com hexalobular		2-44, 2-45, 6-54, 6-55
		métrico com pino e porca sextavada		1-80
		métrico fenda		6-22, 6-23, 6-25, 6-26, 6-28/6-30, 6-77
		métrico hexalobular		6-49
		ttap®	MaxxFast	6-151, 6-152, 6-164, 6-176
	parafuso aglomerado	com hexalobular	Heco-Topix	6-162
	parafuso autorroscante	métrico com cabeça fenda cruz		6-87/6-90
		métrico fenda		6-75, 6-76
	parafuso para aglomerado	com hexalobular		6-160, 6-161
			Heco-Topix	6-160
			Heco-Unix Top	6-160
		fenda em cruz	cabeça reduzida	6-159
			furo	6-158
		Hexalobular		6-161
	parafuso para madeira	com cabeça fenda cruz		6-187
			Heco-Fix	6-155, 6-172
			Heco-Topix	6-157
			Heco-Unix Plus	6-157
		fenda		6-180, 6-181, 6-186
		fenda em cruz		6-154/6-156, 6-172
Cabeça extra larga	cabeça redonda	rebite		9-71
Cabeça flange	parafuso	ttap®	MaxxFast	6-177
Cabeça larga	cabeça redonda	rebite		9-61
Cabeça quadrada	parafuso	métrico com ponta curta		1-83
		UNC	com ponta curta	1-84
Cabeça queijo	parafuso	BSW	com sextavado interior	2-32
		fenda em cruz	MaxxFast	6-166
		métrico		2-18, 2-19
		métrico com hexalobular		2-16, 2-17
		métrico com sextavado interior		2-3/2-7, 2-9, 2-10, 2-12, 2-14, 2-15
		métrico fino com sextavado interior		2-20
		métrico totalmente roscado		2-17/2-19
		ttap®	MaxxFast	6-167, 6-168
		UNC		2-26
			com sextavado interior	2-21/2-23, 2-25, 2-27
		UNF	com sextavado interior	2-29/2-31
	parafuso com flange	métrico com sextavado interior	auto bloqueantes Ripp	2-63
	parafuso para madeira	com hexalobular		6-170
Cabeça redonda	formação de rosca	métrico com fenda em cruz	formação de REMFORM® rosca	6-71
	para betão	parafuso	Powers	8-63
	parafuso	cabeça redonda	Powers	8-58
		métrico com fenda dupla		6-55, 6-56
		métrico com fenda dupla e porca sextavada		6-56
		métrico com hexalobular		2-54, 2-55
		métrico com sextavado interior		2-52, 2-53
		métrico fenda		6-31/6-33
		Powers		8-58
		SR recess	auto perfurante	6-140
		UNC	com sextavado interior	2-57
		UNF	com sextavado interior	2-58, 2-59
	parafuso autorroscante	métrico com cabeça fenda cruz		6-103
	parafuso com flange	métrico com hexalobular		2-62
		métrico com sextavado interior		2-60, 2-61
	parafuso de segurança	autorroscante		10-117, 10-118
			com 2 furos	10-125
			com Tri-wing	10-122
		com encaixe quadrado		10-126, 10-127
		métrico com hexalobular		10-112
		métrico com pino		10-110
		métrico com sextavado interior		10-111

C

Indice alfabético

Cabeça redonda	parafuso para madeira	com cabeça fenda cruz			6-189, 6-190
		fenda			6-183, 6-184
	rebite				9-31/9-33, 9-64/9-66, 9-69/9-71, 9-73/9-75
		cabeça extra larga			9-71
		cabeça larga			9-61
		expansão			9-77
Cabeça reduzida	cabeça embeber	parafuso para aglomerado	fenda em cruz		6-159
Cabeça sextavada	para betão	parafuso	Powers		8-62
	sextavado	parafuso	fenda	Powers	8-59
Cabo	metálico				13-55, 13-57, 13-58
	segurança	com argola			13-66
Caixa	sortido	aço			11-15
			MaxxFast		11-22
		bucha	Fischer		8-8
		plástico			11-4
Caixa S	sortido				11-23
Calha		Fischer			10-39
	anilha	Fischer			10-43
	de braço		Fischer		10-40
Camisa	fixação	Fischer			8-27
	para ancoragem	Fischer			8-50
	para sistema de injeção	acessório	Fischer		8-89
Capa	parafuso				6-104/6-106
	tampa	quadrada	GMT		12-69
	vedação	tampa			12-40
Cartucho	injeção	Fischer			8-86
		MaxxFast			8-85, 8-86
Casquilho	porca	métrico			10-100
Castelo	porca	métrico			3-85, 3-86
			baixo		3-88
		métrico fino			3-87, 3-89
			baixo		3-90
		UNF			3-91
Catch	receptáculo	para grampo	AMF		12-162
Caterpillar	trackshoe	parafuso			1-86
Cavidade	bucha	Fischer			8-57
	fixação	Fischer			8-16
		MaxxFast			8-15
Cavilha	argola				13-64, 13-65
	cilindrica				9-6, 9-7, 9-9, 9-10, 9-17, 9-18
			com piloto		9-13
		com rosca interna			9-12
	com anel				13-133
	cónica				9-4, 9-14/9-16
		com rosca exterior			9-10
		com rosca interna			9-11
	convexa				9-20
	elástica				9-24/9-27, 9-29, 9-30
	ferramenta				3-177
	pena	dupla			9-42, 9-43
	redonda				9-21, 9-22
	reverso				9-19
	segurança				9-35, 9-45
	simples				9-41
	tubo				9-44
Cebeça cilindrica	parafuso	métrico cabeça larga			6-20
		métrico cabeça reduzida			6-19
		métrico com cabeça fenda cruz			6-79/6-83
			sem ponta		6-83
		métrico fenda			6-16/6-18
Cego	rebite	ferramenta			9-80
			alicate manual		9-79
			pneumático		9-80
Central	parafuso	telhado e fachada			6-115
Chave	flexível	de parafusos	ABA		12-23
			MaxxFast		12-23
	Quick system				10-72
Chaveta		paralela			9-49
	meia cana				9-37/9-40
	meia lua				9-50, 9-51
	paralela				9-47, 9-48
	taco				9-51
Cilindrica	cavilha				9-6, 9-7, 9-9, 9-10, 9-17, 9-18
			com piloto		9-13
		com rosca interna			9-12
	de rebitar	parafuso			3-138
		porca			3-127/3-129, 3-136
	parafuso	auto perfurante	fenda cruzada	cabeça	6-122/6-124
			fenda em cruz	cabeça	6-123
	porca	com sextavado interior			10-92
Cilindrico	apoio	métrico			12-62/12-65
Cinco lóbulos	manípulo	métrico			12-83
Clip	abraçadeira				7-132
	de fixação	Lindapter			10-34
	para cabos				10-59
		porca			13-78
	push				12-139
Coat	gancho				13-118
Cobertura	parafuso	cabeça	com vedação de elastómero		6-115
		com vedação de elastómero			6-112
			sem ponta	SFS-Topform	6-112
			SFS-Topform		6-111
		em cone			6-113
		sem ponta			6-112
	tampa				6-110
		Fischer			10-41

C

Cobertura	*tampa*	parafuso para exteriores	Fischer		8-41
Colar	Fischer				10-35
Com anel	cavilha				13-133
Com anilha	sextavada	porca	com flange	Nord-Lock	3-82
Com argola	segurança	cabo			13-66
Com asas	perno	com cabeça de orelhas			10-75
Com cabeça	terminal				13-75
Com chave	fecho				13-111
Com fenda	inserto	interior	fenda		10-90
Com haste	parafuso de ajuste	fenda			6-9
Com ligação rápida	terminal				13-53, 13-54
Com manípulo	manivela				12-96
			com rosca interior		12-96
	volante				12-109
		dois raios			12-106
Com parafuso	bucha	longo	Fischer		8-32, 8-33
Com patilha	anilha				7-113/7-115, 7-117, 7-118
Com ponta	perno	métrico			2-87
		métrico com sextavado interior			2-86, 2-87, 2-89
Com rosca	dobradiça	com rosca			13-102, 13-103
	gancho				13-51, 13-52
Com tampa	dobradiça				13-104, 13-105
Combi	parafuso				13-76
		métrico			5-36/5-39
		métrico fenda			6-35
Combinado	abraçadeira				10-56, 10-57
Compens-ador	espessura				10-85
Compressão	helicoidal	mola			12-74
Concava	anilha				10-97/10-99, 12-143, 12-144
Cone	copo lubrificação	BSP-R	não métrico		12-45
		métrico			12-42
		métrico extra fino			12-45
		métrico fino			12-44
		UNF			12-46
Cónica	cavilha				9-4, 9-14/9-16
		com rosca exterior			9-10
		com rosca interna			9-11
	mola	anilha			7-61, 7-89
	recartilhada	anilha			7-69
	tubo	tampa			10-106
Conjunto	rebite	sortido			3-140
	reparação	métrico	V-Coil		3-159
		não métrico	V-Coil		3-160, 3-161
Conjunto reparação	vela de motor		V-Coil		3-161
Contacto	anilha				7-81, 7-107, 7-108
Convexa	anilha	para parafuso de elevação			1-82
	cavilha				9-20
Copo lubrificação		métrico			12-43
	cone	BSP-R	não métrico		12-45
		métrico			12-42
		métrico extra fino			12-45
		métrico fino			12-44
		UNF			12-46
	cupped	métrico			12-43
	plano	G			12-46
		métrico fino			12-44
Corda	encurtador				13-35
Corrente					13-136
Corte	alicate				13-56, 13-62
Cravar	porca	Jacknut			3-120
Cunha	anilha		para secção em I		7-143, 7-144
			para secção em U		7-145, 7-146
			para secções em I	Peiner	1-92
			para secções em U	Peiner	1-92
Cupped	copo lubrificação	métrico			12-43
Curva	mola	anilha			7-63/7-67

D

D	manilha				5-20, 5-21, 13-5/13-7, 13-10, 13-11
De alavanca	manípulo				12-98
			com rosca exterior		12-98, 12-99
De argola	porca				3-106
	recetáculo				13-129
De braço	calha		Fischer		10-40
De chão	fixação	Lindapter			10-33
De cravar	inserto	com colar			10-91
	porca	métrico para madeira			10-89
De fenda	passador	métrico fenda			10-96
De fio	inserto	MEF para velas	Amecoil		3-147
		métrico	Amecoil		3-145
		métrico auto bloqueio	Amecoil		3-145
		métrico extra fino	Amecoil		3-147
		métrico fino	Amecoil		3-146
		UNC	Amecoil		3-147
		UNF	Amecoil		3-148
De fixação	clip	Lindapter			10-34
	sistema	Lindapter			10-20/10-23
De flange	fixação	com parafuso e porca	Lindapter		10-31
		Lindapter			10-31
De ligação	parafuso	ligação	com sextavado interior		10-96
De pancada	bucha	Fischer			8-54
		MaxxFast			8-52, 8-53
		Spit			8-26
De parafusos	flexível	chave	ABA		12-23
			MaxxFast		12-23

Indice alfabético

De porta	fecho				13-127, 13-128
De rebitar	parafuso	cilindrica			3-138
	porca	cilindrica			3-127/3-129, 3-136
		embeber			3-130/3-132, 3-137
		embeber reduzida			3-133, 3-134
			haste sextavada		3-134, 3-135
	receptáculo				10-81
De retenção	anel				13-68
De suporte	gancho				13-125, 13-128
De suspensão	grampo	Fischer			10-50
Dentada	anilha	Dubo			7-112
Dentro	vedação	anel	com EPDM		6-117
Desliza-mento	porca	Fischer			10-42
Destacável	fixação	abraçadeira			12-127
				MaxxFast	12-126
Disco	fixação	mola			7-93, 7-104, 7-105
	manípulo	métrico aberto			12-81
		métrico com rosca exterior			12-81, 12-82
	mola				7-87, 7-88, 7-94
		para aplicações criticas			7-82/7-84, 7-91
		para rolamentos			7-92
Dobradiça					12-55, 13-82, 13-83, 13-85/13-97, 13-99, 13-100, 13-105
	com rosca				13-102, 13-103
	com tampa				13-104, 13-105
	flexível				13-106
Duas	abraçadeira	orelhas	ABA		12-17
Duas peças	isofónica	abraçadeira	Fischer		10-37
Duas roscas	perno	soldar			10-129
Dubo	dentada	anilha			7-112
	retenção	anilha			7-110
	vedação	anilha			7-111
Dupla	argola				13-33
	ligação		Fischer		10-52, 10-53
	pena	cavilha			9-42, 9-43
Duplo		junta	universal		12-49
	gancho	não métrico com 2 parafusos de olhal			5-42
	perno	métrico com haste reduzida			4-61, 4-62

E

Eixo	GMT				12-71
Elástica	anilha				7-55, 7-56, 7-58, 7-59
		com pontas quadradas			7-50/7-54, 7-56/7-58
	cavilha				9-24/9-27, 9-29, 9-30
Elástico	gancho				13-123
Elevação	anel				13-112, 13-113
	parafuso	métrico			1-81, 1-82
Elevada fricção	grampo	Lindapter			10-27
Elevada resistência	fixação	grampo	Lindapter		10-23
Embeber	de rebitar	porca			3-130/3-132, 3-137
Embeber reduzida	de rebitar	porca			3-133, 3-134
			haste sextavada		3-134, 3-135
Encaixe	apoio				12-140
	parafuso				12-137
	recetáculo				10-84
	tampa				12-138
Encenado	macho	MEF para inserto de fio de aço	Amecoil		3-143
Encurtador	corda				13-35
Endurecida	anilha				10-11
Escápula		métrica com gancho 100mm			8-93, 8-94
		métrica com gancho 50mm			8-93
Esfera					12-111/12-114
	perno	métrico com bola			12-56
Esférica	anilha	cónica			10-10
		cónico			10-10
		esférico			10-9, 10-10
	rótula		rosca esquerda		12-51, 12-52
		com rosca exterior			12-52
		com rosca interna			12-51
Espaçador					3-45, 12-148
	com 2 roscas				3-46
	redonda	métrico			3-123, 3-124
	suporte				12-135
Espessura	compensador				10-85
Esquerda	sextavada	porca	métrico		3-6, 3-7
Esticador					13-42, 13-43
Estrela	manípulo	com rosca exterior			12-82
		com rosca interior			12-82, 12-83
		métrico			12-78, 12-79
Exaustão	porca				3-42
		auto bloqueantes			3-41
Expansão		rebite	com tampa		9-68
	bucha				8-45
			Rawlplug		8-45, 8-47, 8-48
		MaxxFast			8-44
		métrico com cone em latão	Fischer		8-48
		métrico com porca cónica			8-46
	cabeça boleada	rebite			9-78
	cabeça redonda	rebite			9-77
Extensão	porca	métrico			10-8
Exterior/ interior	recartilhada	anilha			7-69
Extrator	Amecoil				3-158

F

Fechadura					10-67
	acessório				10-72
Fechadura (1&3)					10-69, 10-70
Fecho					10-62
	com chave				13-111
	de porta				13-127, 13-128
Fenda	perno	fenda			10-75
Fenda cruzada	cabeça cilíndrica	fenda cruzada		MaxxFast	6-119, 6-120

Fenda quadrada	cabeça cilíndrica	parafuso	auto perfurante	MaxxFast	6-128
Ferramenta					13-69
	ancoragem	perno	Fischer		8-78
	cavilha				3-177
	cego	rebite			9-80
			alicate manual		9-79
			pneumático		9-80
	fixação de anilhas				7-130
		cabo			7-129
		cabo, magnético			7-130
	injeção	Fischer			8-87
		MaxxFast			8-87
	inserto	para			3-175, 3-176
			com sextavado interior		3-177
	instalação	Fischer			8-24, 8-55, 8-83
		MaxxFast			8-55
		Spit			8-56
	máquina	rebitar			3-140
	para fixação		Fischer		8-17
			MaxxFast		8-17
Ferramenta manual	multidimensional	métrica	Amecoil		3-153
		métrica com ponta	Amecoil		3-154
		métrica completo	Amecoil		3-154, 3-155
Ferramenta para	inserto de fio		V-Coil		3-165/3-169
FESTAPLAN	vedação	anilha			7-149, 7-150
Fibra	junta	anilha			7-150
	plana	anilha			7-151
Fischer		calha			10-39
	ajustável	fixação			8-43
		parafuso			8-42
	ancoragem	perno			8-68/8-70, 8-74, 8-78
			ferramenta		8-78
			métrico		8-75, 8-77
	angular	suporte			10-45
	articulada	abraçadeira			10-36
	betão celular	bucha			8-21
	bucha				8-7, 8-9, 8-11, 8-49
		ancoragem			8-22, 8-23
		universal			8-13
	cabeça em t	parafuso			10-42, 10-44
	calha	anilha			10-43
	cavidade	bucha			8-57
		fixação			8-16
	cobertura	tampa			10-41
			parafuso para exteriores		8-41
	colar				10-35
	com parafuso	bucha	longo		8-32, 8-33
	de braço	calha			10-40
	de pancada	bucha			8-54
	de suspensão	grampo			10-50
	deslizamento	porca			10-42
	dupla	ligação			10-52, 10-53
	expansão	bucha	métrico com cone em latão		8-48
	fixação	camisa			8-27
		universal			8-14
	flange	suporte			10-46
	injeção	cartucho			8-86
		ferramenta			8-87
	instalação	ângulo			10-44
		ferramenta			8-24, 8-55, 8-83
	isofónica	abraçadeira	duas peças		10-37
	moldura	bucha para			8-35/8-39
	pancada	bucha			8-29, 8-30
			com anilha de isolamento		8-31
	para ancoragem	camisa			8-50
	para calha	ligação			10-48
	para fixação	ferramenta			8-17
		perno	química		8-81
	para gesso	bucha			8-20
	para janela	parafuso			8-41
	para sistema de injeção	camisa	acessório		8-89
	para viga	grampo			10-47
	parafuso	ligação			10-53
	paralela	ligação			10-49
	perfurada	banda	aço		10-51
	química	ancoragem	rosca interna		8-90
		bucha			8-84
	refrigeração	abraçadeira			10-38
	sortido	caixa	bucha		8-8
	suspensão	fixação			8-26
	transporte	mala			11-26
Fixação	abraçadeira				12-121, 12-131, 12-134
			autocolante		12-132, 12-133
			com etiqueta		12-125, 12-126
			com olhal		12-124
			destacável		12-127
				MaxxFast	12-126
			MaxxFast		12-120/12-122
			sortido		12-124
			suporte		12-129
				MaxxFast	12-128
			Ty-Rap		12-123
	acessório	MaxxFast			8-88
	ajustável	Fischer			8-43
		Lindapter			10-29
	anilha	para haste			7-128, 7-129, 7-131, 7-132
	autoajustável	abraçadeira	Lindapter		10-28
	barra				10-73
	camisa	Fischer			8-27
	cavidade	Fischer			8-16
		MaxxFast			8-15
	de chão	Lindapter			10-33

F

Indice alfabético

Fixação	de flange	com parafuso e porca	Lindapter		10-31
		Lindapter			10-31
	disco	mola			7-93, 7-104, 7-105
	grampo	elevada resistência	Lindapter		10-23
	para carris	Lindapter			10-30
	parafuso	métrico fino			12-61
		métrico fino com bloqueio			12-60
	sistema	Lindapter			10-32
		múltiplo			12-53
	suporte de parede				13-79
	suspensão	Fischer			8-26
	universal	Fischer			8-14
Fixação de anilhas	ferramenta				7-130
		cabo			7-129
		cabo, magnético			7-130
Fixação rápida	parafuso	com cabeça fenda cruz			6-198, 6-199
Fixo	manípulo	métrico não rotativo			12-93
Flange	suporte	Fischer			10-46
Flexível	chave	de parafusos	ABA		12-23
			MaxxFast		12-23
	dobradiça				13-106
	ligação				13-48, 13-49
		com olhal			13-50
	máquina	suporte			12-72
Flush Fit	Hollo-bolt	Lindapter			10-19
Formação de rosca	cabeça de embeber	parafuso	métrico Torx®	TAPTITE 2000®	6-64
	cabeça de queijo baixa	formação de rosca	métrico fenda cruzada	REMFORM®	6-70
		métrico fenda cruzada	formação de rosca	REMFORM®	6-70
		parafuso	métrico Torx®	REMFORM®	6-71
				TAPTITE 2000®	6-65
	cabeça redonda	formação de rosca	métrico com fenda em cruz	REMFORM®	6-71
		métrico com fenda em cruz	formação de rosca	REMFORM®	6-71
	sextavado	parafuso com flange	métrico	TAPTITE 2000®	6-63
Forquilha	junção		rosca esquerda		12-50
		com mola			12-50
Furo	cabeça embeber	parafuso para aglomerado	fenda em cruz		6-158

G

G	plano	copo lubrificação			12-46
Gaiola	porca	métrico			3-118
Gancho					5-26, 13-26, 13-27, 13-31, 13-114/13-117
	aberto	métrico			5-29
		não métrico			5-32, 5-33
	coat				13-118
	com rosca				13-51, 13-52
	de suporte				13-125, 13-128
	deslizante				13-38
	duplo	não métrico com 2 parafusos de olhal			5-42
	elástico				13-123
	grampo		AMF		12-159
	ligação				13-3
		com destorcedor			13-3
	mosquetão				13-14, 13-15, 13-17, 13-19/13-23, 13-32/13-34
		bloqueio duplo			13-25
	para betão	métrico			8-91, 8-92
	parede				13-120
		com rosca			13-124
	quadrado	não métrico			5-34
		não métrico com cabeça fenda cruz			5-35
	s-				5-42
	toldo				13-121
Gancho móvel	segurança	métrico			5-41
		não métrico			5-40
Gancho quadrado	pino	métrico			5-29
		não métrico			5-35
Gancho-s					13-119
Giratória	argola				13-107, 13-108
Giratório	manípulo				12-93
GMT	base				12-70
	eixo				12-71
	tampa	capa	quadrada		12-69
Grampo	de suspensão	Fischer			10-50
	elevada fricção	Lindapter			10-27
	fixação	elevada resistência	Lindapter		10-23
	gancho		AMF		12-159
	hook	horizontal	AMF		12-160
		vertical	AMF		12-161
	horizontal		AMF		12-153/12-155
	para viga	Fischer			10-47
	push-pull	abraçadeira	AMF		12-156/12-158
	vertical		AMF		12-152
Grande	máquina	macho	para inserto de fio de aço	Amecoil	3-142

H

Haste sextavada	de rebitar	porca	embeber reduzida		3-134, 3-135
Heco-Fix	cabeça de embeber baixa	parafuso para madeira	com cabeça fenda cruz		6-169
	cabeça embeber	parafuso para madeira	com cabeça fenda cruz		6-155, 6-172
Heco-Topix	cabeça de embeber	parafuso deck	com hexalobular		6-164

Heco-Topix	cabeça embeber	parafuso aglomerado	com hexalobular	6-162
		parafuso para aglomerado	com hexalobular	6-160
		parafuso para madeira	com cabeça fenda cruz	6-157
Heco-Unix Plus	cabeça embeber	parafuso para madeira	com cabeça fenda cruz	6-157
Heco-Unix Top	cabeça embeber	parafuso para aglomerado	com hexalobular	6-160
Helicoidal	abraçadeira	universal		10-55
	mola	compressão		12-74
		tensão	com olhal	12-75
Hollo-bolt	cabeça de embeber	Lindapter		10-18
	Flush Fit	Lindapter		10-19
	sextavado	Lindapter		10-16, 10-17
Hook	grampo	horizontal	AMF	12-160
		vertical	AMF	12-161
Horizontal	grampo		AMF	12-153/12-155
	hook	grampo	AMF	12-160

I

Injeção	cartucho	Fischer		8-86
		MaxxFast		8-85, 8-86
	ferramenta	Fischer		8-87
		MaxxFast		8-87
Inserto				10-86, 10-87
	com fenda	interior	fenda	10-90
	de cravar	com colar		10-91
	de fio	MEF para velas	Amecoil	3-147
		métrico	Amecoil	3-145
		métrico auto bloqueio	Amecoil	3-145
		métrico extra fino	Amecoil	3-147
		métrico fino	Amecoil	3-146
		UNC	Amecoil	3-147
		UNF	Amecoil	3-148
	ferramenta	para		3-175, 3-176
			com sextavado interior	3-177
	kit	BSW	Amecoil	3-151
		métrico	Amecoil	3-148
		métrico extra fino	Amecoil	3-149, 3-150
		métrico fino	Amecoil	3-149
		UNC	Amecoil	3-150
		UNF	Amecoil	3-151
	parafuso			10-88
	roscado	autocortante		3-171/3-173
			com sextavado interior	3-173, 3-174
	sextavado interior	com sextavado interior		10-89/10-91
	tubo	com placa	Vemo	8-98, 8-100
		Vemo		8-98, 8-99
Inserto de fio	ferramenta para		V-Coil	3-165/3-169
Instalação	ângulo		Fischer	10-44
	ferramenta	Fischer		8-24, 8-55, 8-83
		MaxxFast		8-55
		Spit		8-56
Interior	com fenda	inserto	fenda	10-90
Inviolável	porca	métrico		10-109
ISO	sextavada	porca	para equipamentos de pressão ISO	3-19
Isofónica	abraçadeira	duas peças	Fischer	10-37
Isolamento	anel			12-147
	tubo			12-146
Isolante	tubo			12-148
Isolator	apoio	métrico		12-65/12-69

J

Jacknut	cravar	porca		3-120
Joelho	ligação	M/MF com rosca interna direita		12-47
		M/MF com rosca interna esquerda		12-47, 12-48
Junção	forquilha		rosca esquerda	12-50
		com mola		12-50
Junta		duplo	universal	12-49
		única	universal	12-48
	anilha	fibra		7-150

K

Kalei	pressão	porca	métrico	3-93, 3-94
Kit	inserto	BSW	Amecoil	3-151
		métrico	Amecoil	3-148
		métrico extra fino	Amecoil	3-149, 3-150
		métrico fino	Amecoil	3-149
		UNC	Amecoil	3-150
		UNF	Amecoil	3-151
	reparação	Amecoil		3-152

L

Lateral	receptáculo			10-82
Ligação	ajustável			13-50, 13-51
	argola			13-29, 13-30
	barra	Vemo		8-97
	de ligação	parafuso	com sextavado interior	10-96
	dupla		Fischer	10-52, 10-53
	flexível			13-48, 13-49
		com olhal		13-50
	gancho			13-3
		com destorcedor		13-3
	joelho	M/MF com rosca interna direita		12-47
		M/MF com rosca interna esquerda		12-47, 12-48
	para calha	Fischer		10-48
	parafuso	Fischer		10-53
	paralela	Fischer		10-49
	porca	para ligação		13-77
Lindapter		anilha		10-24/10-26
	ajustável	fixação		10-29
	autoajustável	fixação	abraçadeira	10-28
	de chão	fixação		10-33
	de fixação	clip		10-34
		sistema		10-20/10-23

Indice alfabético

Lindapter	de flange	fixação		10-31
			com parafuso e porca	10-31
	elevada fricção	grampo		10-27
	fixação	grampo	elevada resistência	10-23
		sistema		10-32
	Flush Fit	Hollo-bolt		10-19
	Hollo-bolt	cabeça de embeber		10-18
		Flush Fit		10-19
		sextavado		10-16, 10-17
	para carris	fixação		10-30
	profundidade	anilha		10-27
Lingueta				13-109, 13-110
Livros	parafuso			10-102, 10-103
Longo	com parafuso	bucha	Fischer	8-32, 8-33
Longo quadrado	arreigada quadrada	parafuso	métrico com porca sextavada	1-81

M

Macho	encenado	MEF para inserto de fio de aço	Amecoil	3-143
	máquina	grande	para inserto de fio de aço Amecoil	3-142
		métrico fino para inserto de fio de aço	Amecoil	3-143
		UNC	para inserto de fio de aço Amecoil	3-144
		UNF	para inserto de fio de aço Amecoil	3-144
Mala	transporte	Fischer		11-26
Mama	porca	BSW	alta	3-98
		com tampa soldada		3-99
		métrico	alta	3-96/3-98
			baixa	3-100, 3-101
Mandril	bico	métrica	Amecoil	3-155/3-157
Mangueira	abraçadeira	ABA		12-7, 12-9/12-11, 12-18
		MaxxFast		12-6, 12-8, 12-10
		micro	ABA	12-16
		mini	ABA	12-13
			MaxxFast	12-12
		plástico		12-130
		robusto	ABA	12-14, 12-15
Manilha				13-12
	arco			13-9
		com pino		5-22, 5-23
	D			5-20, 5-21, 13-5/13-7, 13-10, 13-11
Manipulo	pega	métrico		12-97
Manípulo	alavanca			12-101, 12-102
		bloqueio sólido		12-103, 12-104
		com rosca exterior		12-102
		métrica		12-99, 12-100
	bola	métrico		12-76, 12-77
		métrico com furo cónico		12-77
	cinco lóbulos	métrico		12-83
	de alavanca			12-98
			com rosca exterior	12-98, 12-99
	disco	métrico aberto		12-81
		métrico com rosca exterior		12-81, 12-82
	estrela	com rosca exterior		12-82
		com rosca interior		12-82, 12-83
		métrico		12-78, 12-79
	fixo	métrico não rotativo		12-93
	giratório			12-93
	móvel	métrico rotativo		12-94, 12-95
	orelhas	métrico		12-87
		métrico com rosca exterior		12-88
	pega	métrica		12-92
	quatro lóbulos	aberto		12-79
		com rosca exterior		12-80
		com rosca interior		12-79, 12-80
	redondo	métrico com rosca exterior		12-87
	reforçado	métrica		12-92
	serrilhado	métrico com rosca exterior		12-85, 12-86
		métrico com rosca interior		12-86
Manivela	com manípulo			12-96
			com rosca interior	12-96
Máquina	flexível	suporte		12-72
	macho	grande	para inserto de fio de aço Amecoil	3-142
		métrico fino para inserto de fio de aço	Amecoil	3-143
		UNC	para inserto de fio de aço Amecoil	3-144
		UNF	para inserto de fio de aço Amecoil	3-144
	rebitar	ferramenta		3-140
MaxxFast	abraçadeira	com borracha		12-19
		mangueira		12-6, 12-8, 12-10
			mini	12-12
		sortido		12-21
	alicate	abraçadeira	metalica	12-129
			plástica	12-129
	ancoragem	perno		8-66, 8-67
			métrico	8-72
	bucha			8-4, 8-10, 8-12, 8-28
	cabeça cilíndrica	fenda cruzada		6-119, 6-120
		parafuso	fenda quadrada auto perfurante	6-128
			ttap® auto perfurante	6-126, 6-127
	cabeça de embeber		fenda cruzada auto perfurante	6-131

MaxxFast	*cabeça de embeber*	parafuso	ttap®	auto perfurante	6-134, 6-135, 6-141
	cabeça embeber	parafuso	fenda em cruz		6-149, 6-150
			ttap®		6-151, 6-152, 6-164, 6-176
	cabeça flange	parafuso	ttap®		6-177
	cabeça queijo	parafuso	fenda em cruz		6-166
			ttap®		6-167, 6-168
	cavidade	fixação			8-15
	de pancada	bucha			8-52, 8-53
	expansão	bucha			8-44
	fixação	abraçadeira			12-120/12-122
				destacável	12-126
				suporte	12-128
		acessório			8-88
	flexível	chave	de parafusos		12-23
	injeção	cartucho			8-85, 8-86
		ferramenta			8-87
	instalação	ferramenta			8-55
	moldura	bucha para			8-33, 8-34
	para fixação	ferramenta			8-17
		perno	química		8-80
	para gesso	bucha			8-18
	para janela	parafuso			8-40
	sextavado	parafuso	auto perfurante		6-135, 6-136
	sortido	caixa	aço		11-22
Meia cana	chaveta				9-37/9-40
Meia lua	chaveta				9-50, 9-51
Metalica	alicate	abraçadeira		MaxxFast	12-129
Metálico	cabo				13-55, 13-57, 13-58
	serra cabos				13-59
Micro	abraçadeira	mangueira	ABA		12-16
Mini	abraçadeira	mangueira	ABA		12-13
			MaxxFast		12-12
Mola	anilha	cónica			7-61, 7-89
		curva			7-63/7-67
	disco				7-87, 7-88, 7-94
		para aplicações criticas			7-82/7-84, 7-91
		para rolamentos			7-92
	fixação	disco			7-93, 7-104, 7-105
	helicoidal	compressão			12-74
		tensão	com olhal		12-75
	Quick system				10-80
	simples				13-67
Moldura	bucha para	Fischer			8-35/8-39
		MaxxFast			8-33, 8-34
Montagem estrutural	sextavado	métrico com porca sextavada			1-94, 1-96
Mosquetão					13-16, 13-23, 13-24
	gancho				13-14, 13-15, 13-17, 13-19/13-23, 13-32/13-34
		bloqueio duplo			13-25
	quick link				13-137
Móvel	manípulo	métrico rotativo			12-94, 12-95
Mudwing	reparação	anilha			7-44, 7-45
Multidimen-sional	ferramenta manual	métrica	Amecoil		3-153
		métrica com ponta	Amecoil		3-154
		métrica completo	Amecoil		3-154, 3-155
Múltiplo	fixação	sistema			12-53

N

Não-métrico	sortido	V-Coil			3-163, 3-164
Nord-Lock	anti vibração	anilha		2 peças	7-96/7-101, 7-98, 7-102, 7-103
	sextavada	porca	com anilha	com flange	3-82
Norma		abraçadeira			12-117, 12-118

O

Olhal	parafuso	BSW			5-9
		métrico			5-4, 5-5, 5-8, 5-9, 5-28
		métrico totalmente roscado			5-6
		não métrico			5-30/5-32
	porca	métrico			5-11, 5-12
		métrico com marcação CE			5-11
Ondulada	anilha				7-62
One way	cabeça baixa	parafuso de segurança	autorroscante		10-126
	parafuso de segurança	autorroscante			10-121
			cabeça cilindrica		10-121
Orelha	uma	abraçadeira	ABA		12-16
Orelhas	duas	abraçadeira	ABA		12-17
	manípulo	métrico			12-87
		métrico com rosca exterior			12-88
	parafuso	métrico com porca sextavada	Seha		1-79
		métrico com rosca exterior			12-88
		métrico orelhas redondas			6-209, 6-210
		métrico tipo americano (ligeiro)			6-208, 6-209
	porca	BSW			3-105
		métrico			3-107
		métrico tipo americano (ligeiro)			3-102, 3-103
		orelhas redondas			3-103, 3-104
Orelhas com colar	porca	métrico			3-107
O-ring					7-152/7-157
	rolo				7-158
Ornamental	tampa				12-39

P

Página de informações	Amecoil	insertos			3-141
	Demu/Vemo	ancoras de fixação			8-96
	Fabory	esferas			12-110
		Fastclip Sistemas de fixação			10-54
		insertos			3-170
		insertos II			3-178
		parafusos de segurança			10-107
		parceiro global para pernos			4-35
		porcas e parafusos de rebitar			3-126

M

Indice alfabético

P	*Fabory*	Quick System Fechaduras			10-65
		Quick System Fechos			10-60
		Quick System Parafusos quarto de volta			10-74
		rebites			9-52
		rebites II			9-53
		Sortidos de qualidade			11-2
		Spedec Parafusos auto perfurantes			6-121
	Fischer				8-6
	Kalei	porcas de pressão			3-92
	Keepstock Hardware				11-25
	Lindapter	conexões de aço estrutural			10-15
	MaxxFast	abraçadeiras			12-119, 12-5
		ancoragem quimica			8-79
		ancoras			8-3
		parafusos auto perfurantes			6-118
		parafusos para madeira			6-148
		Sortidos de qualidade			11-13
	Nord-Lock				7-95
	Parafusos para madeira auto roscantes				6-153
	Peiner	parafusos estruturais alta resistência			1-87
	Pernos – varões roscados – porcas sextavadas				4-36
	Pernos duas roscas com haste reduzida				4-60
	REMFORM®	parafusos com rosca auto roscantes			6-69
	TAPTITE 2000®	parafusos auto roscantes			6-62
	ttap®	Drive			6-125
Painel	parafuso		com cabeça fenda cruz		6-107, 6-139
Pal	sextavada	porca	métrico	auto bloqueantes	3-84
Pancada	bucha	com anilha de isolamento	Fischer		8-31
		Fischer			8-29, 8-30
	parafuso				9-22
	rebite				12-136
Para	inserto	ferramenta			3-175, 3-176
			com sextavado interior		3-177
Para ancoragem	camisa	Fischer			8-50
Para betão	gancho	métrico			8-91, 8-92
	parafuso	cabeça embeber	Powers		8-64
		cabeça redonda	Powers		8-63
		cabeça sextavada	Powers		8-62
Para cabos	clip				10-59
	porca	clip			13-78
Para calha	ligação	Fischer			10-48
Para carris	fixação	Lindapter			10-30
Para cofragem	roscado	varão			8-95
	sextavada	porca			8-95
Para esticador	porca	métrico			5-15
		métrico com dois ganchos			5-18
		métrico com dois olhais			5-17, 5-19
		métrico com dois pernos			5-14
		métrico com gancho e olhal			5-15, 5-16
		métrico para tubos			5-13
		métrico sextavado			5-13
Para estruturas metálicas	anilha	para estruturas de aço			7-22, 7-23
Para fendas em T	parafuso	métrico para fendas em T			10-4
Para fixação	ferramenta		Fischer		8-17
			MaxxFast		8-17
	perno	química	Fischer		8-81
			MaxxFast		8-80
			métrica		8-82
			Spit		8-83
Para gesso	bucha	Fischer			8-20
		MaxxFast			8-18
Para janela	parafuso		Fischer		8-41
			MaxxFast		8-40
Para livros	parafuso				10-103
	porca				10-101
Para matrículas	parafuso		fenda		6-109
		com cabeça fenda cruz			6-107, 6-108
Para plásticos	cabeça cilíndrica	parafuso	para termo plástico		6-72
Para sistema de injeção	camisa	acessório	Fischer		8-89
Para tubos	abraçadeira	aço			12-33/12-38
	tampa	Vemo			8-101
Para viga	grampo	Fischer			10-47
Para-choque	adesivo				12-142
Parafuso		auto perfurante			6-146, 6-147
		métrico			6-203
	ajustável	Fischer			8-42
	alta resistência	métrico	Peiner		1-89
	aperto	métrico fino sem bloqueio			12-60
	apoio	métrico com sextavado interior			2-65, 2-68
		UNC			2-67
			com sextavado interior		2-67
	arreigada quadrada	métrico			1-71, 1-72, 1-74
			quadrado curto		1-79
		métrico com porca sextavada			1-75
			longo quadrado		1-81
		UNC			1-76/1-78
	cabeça baixa	métrico com sextavado interior			2-33/2-35, 2-37, 2-38

Parafuso	cabeça cilíndrica	auto perfurante	encaixe quadrado		6-130
			SR		6-129
		fenda quadrada	auto perfurante	MaxxFast	6-128
		métrico com fenda	sem ponta		6-74
		métrico com hexalobular			6-84, 6-85
		métrico fenda			6-73, 6-74
		métrico fenda com apoio			6-34
		para plásticos	para termo plástico		6-72
		ttap®	auto perfurante	MaxxFast	6-126, 6-127
	cabeça cilíndrica baixa	métrico com cabeça fenda cruz	auto cortante		6-57
	cabeça convexa	métrico com sextavado interior			10-95
	cabeça de embeber	BSW	com sextavado interior		2-50
		cabeça embeber	Powers		8-57, 8-60
		com hexalobular			6-163, 6-178, 6-179
		métrico	autorroscante		6-68
		métrico com cabeça fenda cruz	auto cortante		6-59
		métrico com sextavado interior			2-40/2-44
		métrico hexalobular	autorroscante		6-68
		métrico para termo plástico			6-72
		métrico Torx®	formação de rosca	TAPTITE 2000®	6-64
		Torx®	auto perfurante		6-143
		ttap®	auto perfurante	MaxxFast	6-134, 6-135, 6-141
		UNC	com sextavado interior		2-46, 2-47
			hexalobular	rosca cortante	6-61
			Torx®	auto perfurante	6-144
		UNF	com sextavado interior		2-49, 2-50
	cabeça de queijo	métrico com cabeça fenda cruz			6-36/6-40
		métrico com hexalobular			6-43
		métrico fenda			6-11/6-15
	cabeça de queijo baixa	autorroscante			6-67
		métrico	autorroscante		6-66
		métrico com hexalobular			6-41, 6-42
		métrico Torx®	formação de rosca	REMFORM®	6-71
				TAPTITE 2000®	6-65
	cabeça em t	com arreigada quadrada			5-2, 5-3
		Fischer			10-42, 10-44
		métrico			5-3
	cabeça embeber	BSW	fenda		6-27, 6-28
		com alhetas e Torx®	auto perfurante		6-142
		fenda cruz	auto perfurante		6-132, 6-133, 6-145
		fenda em cruz	auto perfurante		6-133
			MaxxFast		6-149, 6-150
		métrico			6-50, 6-102, 6-103
		métrico com cabeça fenda cruz			6-44/6-48, 6-51/6-53, 6-94/6-97
			auto cortante		6-58
		métrico com fenda cruz			6-77
		métrico com hexalobular			2-44, 2-45, 6-54, 6-55
		métrico com pino e porca sextavada			1-80
		métrico fenda			6-22, 6-23, 6-25, 6-26, 6-28/6-30, 6-77
		métrico hexalobular			6-49
		ttap®	MaxxFast		6-151, 6-152, 6-164, 6-176
	cabeça flange	ttap®	MaxxFast		6-177
	cabeça quadrada	métrico com ponta curta			1-83
		UNC	com ponta curta		1-84
	cabeça queijo	BSW	com sextavado interior		2-32
		fenda em cruz	MaxxFast		6-166
		métrico			2-18, 2-19
		métrico com hexalobular			2-16, 2-17
		métrico com sextavado interior			2-3/2-7, 2-9, 2-10, 2-12, 2-14, 2-15
		métrico fino com sextavado interior			2-20
		métrico totalmente roscado			2-17/2-19
		ttap®	MaxxFast		6-167, 6-168
		UNC			2-26
			com sextavado interior		2-21/2-23, 2-25, 2-27
		UNF	com sextavado interior		2-29/2-31
	cabeça redonda	métrico com fenda dupla			6-55, 6-56
		métrico com fenda dupla e porca sextavada			6-56
		métrico com hexalobular			2-54, 2-55
		métrico com sextavado interior			2-52, 2-53
		métrico fenda			6-31/6-33
		Powers			8-58
		SR recess	auto perfurante		6-140
		UNC	com sextavado interior		2-57
		UNF	com sextavado interior		2-58, 2-59
	capa				6-104/6-106
	cebeça cilindrica	métrico cabeça larga			6-20
		métrico cabeça reduzida			6-19
		métrico com cabeça fenda cruz			6-79/6-83
			sem ponta		6-83
		métrico fenda			6-16/6-18
	central	telhado e fachada			6-115
	cilindrica	auto perfurante	fenda cruzada	cabeça	6-122/6-124

P

Indice alfabético

Parafuso	*cilindrica*		fenda em cruz	cabeça 6-123
	cobertura	cabeça	com vedação de elastómero	6-115
		com vedação de elastómero		6-112
			sem ponta SFS-Topform	6-112
			SFS-Topform	6-111
		em cone		6-113
		sem ponta		6-112
	combi			13-76
		métrico		5-36/5-39
		métrico fenda		6-35
	de ligação	ligação	com sextavado interior	10-96
	de rebitar	cilindrica		3-138
	elevação	métrico		1-81, 1-82
	encaixe			12-137
	fixação	métrico fino		12-61
		métrico fino com bloqueio		12-60
	fixação rápida	com cabeça fenda cruz		6-198, 6-199
	inserto			10-88
	ligação	Fischer		10-53
	livros			10-102, 10-103
	olhal	BSW		5-9
		métrico		5-4, 5-5, 5-8, 5-9, 5-28
		métrico totalmente roscado		5-6
		não métrico		5-30/5-32
	orelhas	métrico com porca sextavada	Seha	1-79
		métrico com rosca exterior		12-88
		métrico orelhas redondas		6-209, 6-210
		métrico tipo americano (ligeiro)		6-208, 6-209
	painel		com cabeça fenda cruz	6-107, 6-139
	pancada			9-22
	para betão	cabeça embeber	Powers	8-64
		cabeça redonda	Powers	8-63
		cabeça sextavada	Powers	8-62
	para fendas em T	métrico para fendas em T		10-4
	para janela		Fischer	8-41
			MaxxFast	8-40
	para livros			10-103
	para matrículas		fenda	6-109
		parafuso	com cabeça fenda cruz	6-107, 6-108
	phillips	métrico		6-33
	plana	com sextavado interior		10-95
	ponta plana		cone point	6-113
			em cone	6-114
			ponta plana	6-114
			sem ponta	6-113
	serrilhado	métrico		6-207
			alta	6-204, 6-205
			baixo	6-206, 6-207
			métrico com alta fenda	6-205
	sextavado	auto perfurante	MaxxFast	6-135, 6-136
		BSF		1-59, 1-61
		BSW		1-58, 1-60
		cabeça sextavada	fenda Powers	8-59
		ISO métrico		1-8, 1-24
		métrico		1-3, 1-5/1-7, 1-10/1-12, 1-14, 1-16/1-18, 1-20, 1-21, 1-23, 1-24, 1-26, 1-27, 1-29, 1-31/1-34, 1-36
			auto cortante	6-60
		métrico com fenda		1-35
		métrico com ponta		1-85
		métrico com porca sextavada		1-19
		métrico com rosca longa		1-70
		métrico fino		1-37/1-41
		métrico oversized		1-9, 1-25
		métrico para equipamentos de pressão		1-12, 1-27
		UNC		1-42/1-44, 1-46, 1-47, 1-49, 1-50
		UNF		1-53, 1-54, 1-56, 1-57
	sextavado interior			6-100
	trackshoe	Caterpillar		1-86
	união	métrico		10-104
Parafuso aglomerado	cabeça embeber	com hexalobular	Heco-Topix	6-162
Parafuso autorro-scante	cabeça cilíndrica	fenda em cruz		6-86, 6-108
		métrico Torx®		6-109
	cabeça de embeber	fenda em cruz		6-93
		métrico com hexalobular		6-92
	cabeça embeber	métrico com cabeça fenda cruz		6-87/6-90
		métrico fenda		6-75, 6-76
	cabeça redonda	métrico com cabeça fenda cruz		6-103
	sextavado			6-98, 6-99
		métrico		6-101
		métrico com falsa anilha		6-100
Parafuso com flange	cabeça queijo	métrico com sextavado interior	auto bloqueantes Ripp	2-63
	cabeça redonda	métrico com hexalobular		2-62
		métrico com sextavado interior		2-60, 2-61
	sextavado	auto perfurante		6-137, 6-138
		métrico		1-65/1-68
			auto bloqueantes	1-64
			Ripp	1-62, 1-63
			formação de rosca TAPTITE 2000®	6-63
		métrico dentada		1-68
		métrico fino		1-69

P

Parafuso de ajuste	com haste	fenda		6-9
	ponta cilíndrica	métrico		6-9
Parafuso de segurança	cabeça baixa	autorroscante	One way	10-126
	cabeça cilíndrica	autorroscante		10-119
		métrico		10-114
		métrico com 2 furos		10-113
	cabeça de embeber	autorroscante		10-122, 10-123, 10-125
			com cabeça fenda cruz	10-124
		métrico		10-114/10-116
		métrico com 2 furos		10-116
	cabeça de queijo	autorroscante	com 2 furos	10-120
	cabeça redonda	autorroscante		10-117, 10-118
			com 2 furos	10-125
			com Tri-wing	10-122
		com encaixe quadrado		10-126, 10-127
		métrico com hexalobular		10-112
		métrico com pino		10-110
		métrico com sextavado interior		10-111
	One way	autorroscante		10-121
			cabeça cilindrica	10-121
Parafuso deck	cabeça de embeber	com hexalobular	Heco-Topix	6-164
Parafuso em T	sortido	para fendas em T		10-13
Parafuso em U	tipo A métrica			12-30, 12-31
	tipo B métrica			12-32
Parafuso para aglomerado	cabeça embeber	com hexalobular		6-160, 6-161
			Heco-Topix	6-160
			Heco-Unix Top	6-160
		fenda em cruz	cabeça reduzida	6-159
			furo	6-158
		Hexalobular		6-161
Parafuso para madeira	cabeça cilíndrica	com cabeça fenda cruz		6-193, 6-194
		com hexalobular		6-171, 6-195/6-197
	cabeça de embeber	com cabeça fenda cruz		6-188/6-192
	cabeça de embeber baixa	com cabeça fenda cruz	Heco-Fix	6-169
		fenda em cruz		6-169
	cabeça embeber	com cabeça fenda cruz		6-187
			Heco-Fix	6-155, 6-172
			Heco-Topix	6-157
			Heco-Unix Plus	6-157
		fenda		6-180, 6-181, 6-186
		fenda em cruz		6-154/6-156, 6-172
	cabeça queijo	com hexalobular		6-170
	cabeça redonda	com cabeça fenda cruz		6-189, 6-190
		fenda		6-183, 6-184
	sextavado			6-174
		com anilha aço inox-betume		6-174, 6-175
		com anilha para betume		6-176
Paralela	chaveta			9-47/9-49
	ligação	Fischer		10-49
Parede	gancho			13-120
		com rosca		13-124
	suporte			13-80
Passador				5-27
	de fenda	métrico fenda		10-96
Patilha				10-64
Pega				12-90, 12-91, 13-134, 13-135
		métrico		12-91
		métrico com rosca interior em latão		12-90
	manipulo	métrico		12-97
	manípulo	métrica		12-92
	t	métrico com perno zincado		12-89
		métrico com rosca interior em latão		12-89
Peiner	alta resistência	parafuso	métrico	1-89
	amilha			1-91
	cunha	anilha	para secções em I	1-92
			para secções em U	1-92
	sextavada	porca	métrico	1-90
Pena	cavilha	dupla		9-42, 9-43
Perfurada	banda	aço	Fischer	10-51
Permaglas	anilha	plana		4-23
	sextavada	porca	métrico	4-22
	varão roscado		métrico	4-21
Perno	ancoragem	ferramenta	Fischer	8-78
		Fischer		8-68/8-70, 8-74, 8-78
		MaxxFast		8-66, 8-67
		métrico	Fischer	8-75, 8-77
			MaxxFast	8-72
		Spit		8-71
	bola			10-76
	BSW			4-33
	com asas	com cabeça de orelhas		10-75
	com ponta	métrico		2-87
		métrico com sextavado interior		2-86, 2-87, 2-89
	duas roscas	soldar		10-129
	duplo	métrico com haste reduzida		4-61, 4-62
	esfera	métrico com bola		12-56
	fenda			10-75, 10-76
	métrico			4-28, 4-30/4-32, 4-34
	métrico com 2 porcas sextavadas			4-56
	métrico para fendas em T			10-11
	para fixação química	Fischer		8-81

Indice alfabético

Perno	*para fixação*		MaxxFast	8-80
			métrica	8-82
			Spit	8-83
	ponta cortada	BSW	com sextavado interior	2-90
		métrico com sextavado interior		2-70, 2-71
		métrico fenda		6-8
		métrico fino sextavado interior		2-72
		métrico sextavado interior		2-76
		UNC	com sextavado interior	2-74
	ponta em cone	métrico com sextavado interior		2-83, 2-84
		métrico fenda		6-6, 6-7
	ponta plana	métrico fenda		6-4, 6-5
		métrico fino		2-81
	pressão	liso		12-59
		métrico com pino		12-57, 12-58
		métrico com pino plástico		12-59
	sem ponta	métrico com sextavado interior		2-79, 2-80
		UNC	com sextavado interior	2-77, 2-82, 2-85, 2-88, 2-91
		UNF	com sextavado interior	2-76, 2-78
	UNC	com 2 porcas sextavadas		4-40/4-42, 4-45, 4-47, 4-50, 4-51, 4-53
Pernos duas roscas				13-45, 13-46
Phillips	parafuso	métrico		6-33
Pino	gancho quadrado	métrico		5-29
		não métrico		5-35
Placa	soldar	plate		10-81
Plana	anilha			7-47/7-49
			fibra	7-151
		com chanfro		7-33, 7-34
		com chanfro simples		7-34
		com único chanfro		7-34
		para cavilha tipo pesado		7-23, 7-24
		para cavilhas		7-27/7-29
		para construção em madeira		7-41
		para construções de madeira		7-40/7-42
		para parafuso cabeça queijo		7-26
		para parafusos cabeça de queijo		7-25, 7-26
	parafuso	com sextavado interior		10-95
	porca	com sextavado interior		10-93
Plano	copo lubrificação	G		12-46
		métrico fino		12-44
Plástica	alicate	abraçadeira	MaxxFast	12-129
Plástico	abraçadeira	mangueira		12-130
Plate	soldar	placa		10-81
Plug	tampa			12-116
Pneumático	cego	rebite	ferramenta	9-80
Ponta	porca	métrico		3-117
Ponta cilíndrica	parafuso de ajuste	métrico		6-9
Ponta cortada	perno	BSW	com sextavado interior	2-90
		métrico com sextavado interior		2-70, 2-71
		métrico fenda		6-8
		métrico fino sextavado interior		2-72
		métrico sextavado interior		2-76
		UNC	com sextavado interior	2-74
Ponta em cone	perno	métrico com sextavado interior		2-83, 2-84
		métrico fenda		6-6, 6-7
Ponta plana	parafuso		cone point	6-113
			em cone	6-114
			ponta plana	6-114
			sem ponta	6-113
	perno	métrico fenda		6-4, 6-5
		métrico fino		2-81
Porca				3-106
		para fendas em T		10-5
	baixa	UNC		3-39
	cabeça convexa	métrico com sextavado interior		10-94
	casquilho	métrico		10-100
	castelo	métrico		3-85, 3-86
			baixo	3-88
		métrico fino		3-87, 3-89
			baixo	3-90
		UNF		3-91
	cilindrica	com sextavado interior		10-92
	cravar	Jacknut		3-120
	de argola			3-106
	de cravar	métrico para madeira		10-89
	de rebitar	cilindrica		3-127/3-129, 3-136
		embeber		3-130/3-132, 3-137
		embeber reduzida		3-133, 3-134
			haste sextavada	3-134, 3-135
	deslizamento	Fischer		10-42
	exaustão			3-42
		auto bloqueantes		3-41
	extensão	métrico		10-8
	gaiola	métrico		3-118
	inviolável	métrico		10-109
	ligação	para ligação		13-77
	mama	BSW	alta	3-98
		com tampa soldada		3-99
		métrico	alta	3-96/3-98
			baixa	3-100, 3-101
	métrica			10-108
	olhal	métrico		5-11, 5-12
		métrico com marcação CE		5-11
	orelhas	BSW		3-105
		métrico		3-107
		métrico tipo americano (ligeiro)		3-102, 3-103
		orelhas redondas		3-103, 3-104
	orelhas com colar	métrico		3-107
	para cabos	clip		13-78
	para esticador	métrico		5-15
		métrico com dois ganchos		5-18
		métrico com dois olhais		5-17, 5-19
		métrico com dois pernos		5-14

P

Porca	*para esticador*	métrico com gancho e olhal			5-15, 5-16
		métrico para tubos			5-13
		métrico sextavado			5-13
	para livros				10-101
	plana	com sextavado interior			10-93
	ponta	métrico			3-117
	pressão	métrico	Kalei		3-93, 3-94
	quadrada	métrico			3-116, 3-117
			baixo		3-115, 3-116
	quadrada de soldar	métrico			3-111
	rápida				3-119
	rebaixada	métrico fenda			3-125
	redonda	com gancho			3-122
		métrico			3-95
		métrico com fenda			3-123
		métrico com inserto não metálico	auto bloqueantes		3-125
		métrico fenda			3-122
		trapezoidal			4-25/4-27
			métrico	rosca esquerda	4-26
	segurança	sextavada			10-128
	serrilhada	métrico			3-114, 10-92
			alta		3-112
			baixo		3-113, 3-114
	sextavada				3-82
		BSF			3-27
			inserto não metálico	auto bloqueantes	3-62
		BSW			3-26, 3-27, 3-29
			inserto não metálico	auto bloqueantes	3-62
		com anilha	com flange	Nord-Lock	3-82
		com flange			3-75, 3-76
			auto bloqueantes	Ripp	3-73
		ISO métrico			3-8, 3-17/3-20, 3-43
			baixo		3-32, 3-38
		métrico			3-6/3-14, 3-28/3-30, 3-37, 3-42/3-45, 4-63, 10-6, 10-7
			auto bloqueantes		3-64, 3-74, 3-75
			baixo		3-31/3-33
			esquerda		3-6, 3-7
			Peiner		1-90
			Permaglas		4-22
			rosca esquerda		3-11, 3-12
		métrico ASTM A194			4-59
		métrico com anilha serrilhada	auto bloqueantes		3-83
		métrico fino			3-15, 3-16, 3-52
			baixo		3-34/3-36
		métrico fino rosca esquerda			3-15, 3-16
			baixo		3-35
		métrico fino totalmente metálico	auto bloqueantes		3-66
		métrico para perno rosca dupla			4-62
		métrico rosca esquerda	baixo		3-32, 3-33
		métrico supradimensionat			3-8, 3-9, 3-43
			baixo		3-32
		métrico totalmente em aço inox	auto bloqueantes		3-63
		métrico totalmente metálico		Snep	3-71
			auto bloqueantes		3-65, 3-72
				Stover	3-65
		MF com inserto não metálico	auto bloqueantes		3-38, 3-48/3-53
		MF rosca esquerda	baixo		3-36
		Pal	métrico	auto bloqueantes	3-84
		para cofragem			8-95
		para equipamentos de pressão ISO	ISO		3-19
		segurança			10-127
		tubo cilindrico	trackshoe		3-40
		UNC			3-20/3-22, 3-56
			ASTM A194		4-57/4-59
			auto bloqueantes		3-79
			inserto não metálico	auto bloqueantes	3-54/3-56, 3-58/3-60
			totalmente metálica	auto bloqueantes	3-67
			totalmente metálico	auto bloqueantes	3-67, 3-68
		UNF			3-23/3-25, 3-57
			inserto não metálico	auto bloqueantes	3-57, 3-58, 3-60, 3-61
			totalmente metálica	auto bloqueantes	3-69
			totalmente metálico	auto bloqueantes	3-69
	sextavada de soldar	métrico			3-108
	soldar	métrico			3-110
		métrico com flange lisa			3-109
	trackshoe	UNF	alto		3-40
			baixo		3-41
			quadrada		3-41
	UNC				3-22
	UNF				3-25
Porca autobloqueantes	sextavada	métrico totalmente aço inox		Snep	3-70
		métrico totalmente aluminio		Snep	3-71

Indice alfabético

Porca autobloque-antes	*sextavada*	métrico totalmente metálico	Snep		3-70
			auto bloqueantes	Securit	3-73
Porca com colar	sextavada	métrico			10-7, 10-8
Porca com flange	sextavada	dentada			3-77, 3-78, 3-81
		métrico			3-78
		métrico com inserto não metálico	auto bloqueantes		3-80
Porca mama	sextavada	métrico com inserto não metálico	auto bloqueantes		3-101
		MF com inserto não metálico	auto bloqueantes		3-102
Powers	cabeça de embeber	parafuso	cabeça embeber		8-57, 8-60
	cabeça redonda	parafuso	cabeça redonda		8-58
	para betão	parafuso	cabeça embeber		8-64
			cabeça redonda		8-63
			cabeça sextavada		8-62
	sextavado	parafuso	cabeça sextavada	fenda	8-59
Pressão	perno	liso			12-59
		métrico com pino			12-57, 12-58
		métrico com pino plástico			12-59
	porca	métrico	Kalei		3-93, 3-94
Profundidade	anilha	Lindapter			10-27
Proteção	anilha				10-79
	tampa				12-150, 12-151
Protector	amortecedor				12-143
Protectora	tampa	para parafuso e porca sextavada			1-98
		parafuso e porca sextavada			1-97
Punção		Amecoil			3-158
Push	clip				12-139
Push-pull	grampo	abraçadeira	AMF		12-156/12-158
Puxador	serrilhado	métrico para alta parafuso e porca com sextavado			12-84
		métrico para parafuso sextavado interior			12-85
		métrico para porca e parafuso sextavado	baixo		12-84

Q

Quadrada	anilha				7-142, 7-143
	porca	métrico			3-116, 3-117
			baixo		3-115, 3-116
	tampa	capa	GMT		12-69
	trackshoe	porca	UNF		3-41
	tubo	tampa			10-105
Quadrada de soldar	porca	métrico			3-111
Quadrado	gancho	não métrico			5-34
		não métrico com cabeça fenda cruz			5-35
Quadrado curto	arreigada quadrada	parafuso	métrico		1-79
Quatro lóbulos	manípulo	aberto			12-79
		com rosca exterior			12-80
		com rosca interior			12-79, 12-80
Quick link	mosquetão				13-137
Quick system	anel				10-78
	chave				10-72
	mola				10-80
Química	ancoragem	rosca interna	Fischer		8-90
	bucha		Fischer		8-84
			Spit		8-85
	para fixação	perno	Fischer		8-81
			MaxxFast		8-80
			métrica		8-82
			Spit		8-83

R

Rápida	porca				3-119
Rawlplug	borracha	bucha	com rosca bronze		8-51
	expansão	bucha			8-45, 8-47, 8-48
Rebaixada	porca	métrico fenda			3-125
Rebitar	máquina	ferramenta			3-140
Rebite	cabeça boleada				9-55/9-59, 9-68
		expansão			9-78
	cabeça chata				9-34, 9-35, 9-62/9-64, 9-67, 9-76
	cabeça de embeber				9-72
	cabeça redonda				9-31/9-33, 9-64/9-66, 9-69/9-71, 9-73/9-75
		cabeça extra larga			9-71
		cabeça larga			9-61
		expansão			9-77
	cego	ferramenta			9-80
			alicate manual		9-79
			pneumático		9-80
	conjunto	sortido			3-140
	expansão		com tampa		9-68
	pancada				12-136
Recartilha dupla	anilha				7-60
Recartilha exterior	anilha				7-67
Recartilhada	anilha				7-68, 7-70/7-81
		cónica			7-69
		exterior/interior			7-69
Receptáculo	ângulo				10-83
	catch	para grampo	AMF		12-162
	de rebitar				10-81
	lateral				10-82
Recetáculo	de argola				13-129
	encaixe				10-84
Rectangular	tubo	tampa			10-105
Redonda	cavilha				9-21, 9-22

Redonda	espaçador	métrico			3-123, 3-124
	porca	com gancho			3-122
		métrico			3-95
		métrico com fenda			3-123
		métrico com inserto não metálico	auto bloqueantes		3-125
		métrico fenda			3-122
		trapezoidal			4-25/4-27
			métrico	rosca esquerda	4-26
Redondo	manípulo	métrico com rosca exterior			12-87
	tubo	tampa			10-104
Redutor					3-47
Reforçado	manípulo	métrica			12-92
Refrigeração	abraçadeira		Fischer		10-38
REMFORM®	cabeça de queijo baixa	formação de rosca	métrico fenda cruzada	formação de rosca	6-70
		parafuso	métrico Torx®	formação de rosca	6-71
	cabeça redonda	formação de rosca	métrico com fenda em cruz	formação de rosca	6-71
Reparação	anilha	Mudwing			7-44, 7-45
	conjunto	métrico	V-Coil		3-159
		não métrico	V-Coil		3-160, 3-161
	kit	Amecoil			3-152
Retenção	anilha				10-77
		Dubo			7-110
		para furar			7-124, 7-125
		para haste			7-121, 7-126
Reverso	cavilha				9-19
Ripp	cabeça queijo	parafuso com flange	métrico com sextavado interior	auto bloqueantes	2-63
	sextavada	porca	com flange	auto bloqueantes	3-73
	sextavado	parafuso com flange	métrico	auto bloqueantes	1-62, 1-63
Robusto	abraçadeira	mangueira	ABA		12-14, 12-15
Rod	varão roscado	trapezoidal			4-24, 4-25
			rosca esquerda		4-24
Rolo	o-ring				7-158
Rosca cortante	cabeça de embeber	parafuso	UNC	hexalobular	6-61
Rosca de tubos	sextavado interior	bujão	com colar		2-95
Rosca de tubos cilindrica	sextavado interior	bujão			2-98
			com colar		2-97, 2-98
Rosca de tubos externa	sextavado interior	bujão	com sextavado interior		2-93
Rosca esquerda	esférica	rótula			12-51, 12-52
	forquilha	junção			12-50
	redonda	porca	trapezoidal	métrico	4-26
	sextavada	porca	métrico		3-11, 3-12
	varão	roscado	ISO métrico		4-5, 4-6, 4-8
			métrico		4-9
	varão roscado	rod	trapezoidal		4-24
Rosca interna	química	ancoragem	Fischer		8-90
Roscado	inserto	autocortante			3-171/3-173
			com sextavado interior		3-173, 3-174
	varão	ISO métrico			4-5, 4-7
			rosca esquerda		4-5, 4-6, 4-8
		métrico			4-3/4-12
			rosca esquerda		4-9
		métrico supradimensionat			4-5, 4-7, 4-10, 4-11
		para cofragem			8-95
Rótula	esférica		rosca esquerda		12-51, 12-52
		com rosca exterior			12-52
		com rosca interna			12-51

S

S-	gancho				5-42
SAE	anilha	plana			7-12, 7-13
Securit	sextavada	porca autobloqueantes	métrico totalmente metálico	auto bloqueantes	3-73
Segurança	anel	para ganchos de segurança			5-41
	anilha				7-106
	cabo	com argola			13-66
	cavilha				9-35, 9-45
	gancho móvel	métrico			5-41
		não métrico			5-40
	porca	sextavada			10-128
	sextavada	porca			10-127
Seha	orelhas	parafuso	métrico com porca sextavada		1-79
Sem ponta	cabeça cilíndrica	parafuso	métrico com fenda		6-74
	cebeça cilindrica	parafuso	métrico com cabeça fenda cruz		6-83
	cobertura	parafuso	com vedação de elastómero	SFS-Topform	6-112
	perno	métrico com sextavado interior			2-79, 2-80
		UNC	com sextavado interior		2-77, 2-82, 2-85, 2-88, 2-91
		UNF	com sextavado interior		2-76, 2-78
Serra cabos					5-24, 5-25
	metálico				13-59
Serrilhada	porca	métrico			3-114, 10-92
			alta		3-112
			baixo		3-113, 3-114
Serrilhado	manípulo	métrico com rosca exterior			12-85, 12-86
		métrico com rosca interior			12-86
	parafuso	métrico			6-207
			alta		6-204, 6-205
			baixo		6-206, 6-207
		métrico com alta fenda			6-205

R

Indice alfabético

Serrilhado	puxador	métrico para parafuso e porca com sextavado	alta		12-84
		métrico para interior	parafuso sextavado		12-85
		métrico para porca e parafuso sextavado	baixo		12-84
Sextavada	porca				3-82
		BSF			3-27
			inserto não metálico	auto bloqueantes	3-62
		BSW			3-26, 3-27, 3-29
			inserto não metálico	auto bloqueantes	3-62
		com anilha	com flange	Nord-Lock	3-82
		com flange			3-75, 3-76
			auto bloqueantes	Ripp	3-73
		ISO métrico			3-8, 3-17/3-20, 3-43
			baixo		3-32, 3-38
		métrico			3-6/3-14, 3-28/3-30, 3-37, 3-42/3-45, 4-63, 10-6, 10-7
			auto bloqueantes		3-64, 3-74, 3-75
			baixo		3-31/3-33
			esquerda		3-6, 3-7
			Peiner		1-90
			Permaglas		4-22
			rosca esquerda		3-11, 3-12
		métrico ASTM A194			4-59
		métrico com anilha serrilhada	auto bloqueantes		3-83
		métrico fino			3-15, 3-16, 3-52
			baixo		3-34/3-36
		métrico fino rosca esquerda			3-15, 3-16
			baixo		3-35
		métrico fino totalmente metálico	auto bloqueantes		3-66
		métrico para perno rosca dupla			4-62
		métrico rosca esquerda	baixo		3-32, 3-33
		métrico supradimensionat			3-8, 3-9, 3-43
			baixo		3-32
		métrico totalmente em aço inox	auto bloqueantes		3-63
		métrico totalmente metálico		Snep	3-71
			auto bloqueantes		3-65, 3-72
				Stover	3-65
		MF com inserto não metálico	auto bloqueantes		3-38, 3-48/3-53
		MF rosca esquerda	baixo		3-36
		Pal	métrico	auto bloqueantes	3-84
		para cofragem			8-95
		para equipamentos de pressão ISO	ISO		3-19
		segurança			10-127
		tubo cilindrico	trackshoe		3-40
		UNC			3-20/3-22, 3-56
			ASTM A194		4-57/4-59
			auto bloqueantes		3-79
			inserto não metálico	auto bloqueantes	3-54/3-56, 3-58/3-60
			totalmente metálica	auto bloqueantes	3-67
			totalmente metálico	auto bloqueantes	3-67, 3-68
		UNF			3-23/3-25, 3-57
			inserto não metálico	auto bloqueantes	3-57, 3-58, 3-60, 3-61
			totalmente metálica	auto bloqueantes	3-69
			totalmente metálico	auto bloqueantes	3-69
		porca autobloqueantes	métrico totalmente aço inox	Snep	3-70
			métrico totalmente aluminio	Snep	3-71
			métrico totalmente metálico	Snep	3-70
				auto bloqueantes	Securit	3-73
		porca com colar	métrico		10-7, 10-8
		porca com flange	dentada		3-77, 3-78, 3-81
			métrico		3-78
			métrico com inserto não metálico	auto bloqueantes	3-80
		porca mama	métrico com inserto não metálico	auto bloqueantes	3-101
			MF com inserto não metálico	auto bloqueantes	3-102
Sextavada de soldar	porca	métrico			3-108
Sextavado	Hollo-bolt	Lindapter			10-16, 10-17
	montagem estrutural	métrico com porca sextavada			1-94, 1-96
	parafuso	auto perfurante	MaxxFast		6-135, 6-136
		BSF			1-59, 1-61
		BSW			1-58, 1-60

S

Sextavado	*parafuso*	cabeça sextavada	fenda	Powers	8-59
		ISO métrico			1-8, 1-24
		métrico			1-3, 1-5/1-7, 1-10/1-12, 1-14, 1-16/1-18, 1-20, 1-21, 1-23, 1-24, 1-26, 1-27, 1-29, 1-31/1-34, 1-36
			auto cortante		6-60
		métrico com fenda			1-35
		métrico com ponta			1-85
		métrico com porca sextavada			1-19
		métrico com rosca longa			1-70
		métrico fino			1-37/1-41
		métrico oversized			1-9, 1-25
		métrico para equipamentos de pressão			1-12, 1-27
		UNC			1-42/1-44, 1-46, 1-47, 1-49, 1-50
		UNF			1-53, 1-54, 1-56, 1-57
	parafuso autorroscante				6-98, 6-99
		métrico			6-101
		métrico com falsa anilha			6-100
	parafuso com flange	auto perfurante			6-137, 6-138
		métrico			1-65/1-68
			auto bloqueantes		1-64
				Ripp	1-62, 1-63
			formação de rosca	TAPTITE 2000®	6-63
		métrico dentada			1-68
		métrico fino			1-69
	parafuso para madeira				6-174
		com anilha aço inox-betume			6-174, 6-175
		com anilha para betume			6-176
Sextavado interior	bujão	métrico fino com colar			2-96
		métrico fino com sextavado interior			2-92, 2-94
		rosca de tubos	com colar		2-95
		rosca de tubos cilindrica			2-98
			com colar		2-97, 2-98
		rosca de tubos externa	com sextavado interior		2-93
	inserto	com sextavado interior			10-89/10-91
	parafuso				6-100
SFS-Topform	cobertura	parafuso	com vedação de elastómero		6-111
				sem ponta	6-112
Simples	cavilha				9-41
	mola				13-67
Sistema	de fixação	Lindapter			10-20/10-23
	fixação	Lindapter			10-32
		múltiplo			12-53
Sistema de fixação	Band-It				12-26/12-28
Snap	abraçadeira				10-58
Snep	sextavada	porca	métrico totalmente metálico		3-71
		porca autobloqueantes	métrico totalmente aço inox		3-70
			métrico totalmente aluminio		3-71
			métrico totalmente metálico		3-70
Soldar	articulação				12-54
	duas roscas	perno			10-129
	placa	plate			10-81
	porca	métrico			3-110
		métrico com flange lisa			3-109
Sólido	volante				12-107, 12-108
Sortido	abraçadeira	ABA			12-22
		MaxxFast			12-21
	acessório				11-23, 11-24
	caixa	aço			11-15
			MaxxFast		11-22
		bucha	Fischer		8-8
		plástico			11-4
	caixa S				11-23
	conjunto	rebite			3-140
	fixação	abraçadeira			12-124
	métrico	V-Coil			3-162, 3-163
	não-métrico	V-Coil			3-163, 3-164
	parafuso em T	para fendas em T			10-13
Spit	ancoragem	perno			8-71
	de pancada	bucha			8-26
	instalação	ferramenta			8-56
	para fixação	perno	química		8-83
	química	bucha			8-85
Stover	sextavada	porca	métrico totalmente metálico	auto bloqueantes	3-65
Suporte	angular	Fischer			10-45
	apoio				12-141
	espaçador				12-135
	fixação	abraçadeira			12-129
				MaxxFast	12-128
	flange	Fischer			10-46
	flexível	máquina			12-72
	parede				13-80
Suporte de parede	fixação				13-79
Suspensão	fixação	Fischer			8-26
T					
T	pega	métrico com perno zincado			12-89
		métrico com rosca interior em latão			12-89
Taco	chaveta				9-51
Tampa					6-202
		com cabeça fenda cruz para aglomerado			6-201
		para parafusos cabeça com furo			6-200
		para parafusos cabeça sextavada rosca de madeira			6-201
	capa	quadrada	GMT		12-69

S

Indice alfabético

Tampa	cobertura				6-110
		Fischer			10-41
		parafuso para exteriores	Fischer		8-41
	encaixe				12-138
	ornamental				12-39
	para parafusos sextavado interior				2-91
	para tubos	Vemo			8-101
	plug				12-116
	proteção				12-150, 12-151
	protectora	para parafuso e porca sextavada			1-98
		parafuso e porca sextavada			1-97
	tubo	cónica			10-106
		quadrada			10-105
		rectangular			10-105
		redondo			10-104
	vedação	capa			12-40
TAPTITE 2000®	cabeça de embeber	parafuso	métrico Torx®	formação de rosca	6-64
	cabeça de queijo baixa	parafuso	métrico Torx®	formação de rosca	6-65
	sextavado	parafuso com flange	métrico	formação de rosca	6-63
Telhado e fachada	central	parafuso			6-115
Tensão	helicoidal	mola	com olhal		12-75
Tensor gancho					13-37, 13-39, 13-41
Terminal					13-71/13-74
	com cabeça				13-75
	com ligação rápida				13-53, 13-54
Terrace		com hexalobular			6-165
Toldo	gancho				13-121
Trackshoe	parafuso	Caterpillar			1-86
	porca	UNF	alto		3-40
			baixo		3-41
			quadrada		3-41
	sextavada	porca	tubo cilindrico		3-40
Transporte	mala	Fischer			11-26
Trapezoidal	redonda	porca			4-25/4-27
			métrico	rosca esquerda	4-26
	varão roscado	rod			4-24, 4-25
			rosca esquerda		4-24
Três partes	abraçadeira				10-85
Triangular	anel				13-131/13-133
Ttap®	cabeça cilíndrica	parafuso	auto perfurante	MaxxFast	6-126, 6-127
	cabeça de embeber	parafuso	auto perfurante	MaxxFast	6-134, 6-135, 6-141
	cabeça embeber	parafuso	MaxxFast		6-151, 6-152, 6-164, 6-176
	cabeça flange	parafuso		MaxxFast	6-177
	cabeça queijo	parafuso	MaxxFast		6-167, 6-168
T-terminal					13-47
Tubo	abraçadeira				12-25
	cavilha				9-44
	inserto	com placa	Vemo		8-98, 8-100
		Vemo			8-98, 8-99
	isolamento				12-146
	isolante				12-148
	tampa	cónica			10-106
		quadrada			10-105
		rectangular			10-105
		redondo			10-104
Tubo cilindrico	sextavada	porca	trackshoe		3-40
Tubo de escape	abraçadeira	Awab			12-24
Ty-Rap	fixação	abraçadeira			12-123
U					
Uma	abraçadeira	orelha	ABA		12-16
UNC	apoio	parafuso			2-67
			com sextavado interior		2-67
	arreigada quadrada	parafuso			1-76/1-78
	cabeça de embeber	parafuso	com sextavado interior		2-46, 2-47
			hexalobular	rosca cortante	6-61
			Torx®	auto perfurante	6-144
	cabeça quadrada	parafuso	com ponta curta		1-84
	cabeça queijo	parafuso			2-26
			com sextavado interior		2-21/2-23, 2-25, 2-27
	cabeça redonda	parafuso	com sextavado interior		2-57
	de fio	inserto	Amecoil		3-147
	inserto	kit	Amecoil		3-150
	máquina	macho	para inserto de fio de aço	Amecoil	3-144
	perno	com 2 porcas sextavadas			4-40/4-42, 4-45, 4-47, 4-50, 4-51, 4-53
		ponta cortada	com sextavado interior		2-74
		sem ponta	com sextavado interior		2-77, 2-82, 2-85, 2-88, 2-91
	porca				3-22
		baixa			3-39
	sextavada	porca			3-20/3-22, 3-56
			ASTM A194		4-57/4-59
			auto bloqueantes		3-79
			inserto não metálico	auto bloqueantes	3-54/3-56, 3-58/3-60
			totalmente metálica	auto bloqueantes	3-67
			totalmente metálico	auto bloqueantes	3-67, 3-68
	sextavado	parafuso			1-42/1-44, 1-46, 1-47, 1-49, 1-50
	varão roscado				4-15/4-17
			ASTM A193		4-37

UNF	cabeça de embeber	parafuso	com sextavado interior		2-49, 2-50
	cabeça queijo	parafuso	com sextavado interior		2-29/2-31
	cabeça redonda	parafuso	com sextavado interior		2-58, 2-59
	castelo	porca			3-91
	cone	copo lubrificação			12-46
	de fio	inserto	Amecoil		3-148
	inserto	kit	Amecoil		3-151
	máquina	macho	para inserto de fio de aço	Amecoil	3-144
	perno	sem ponta	com sextavado interior		2-76, 2-78
	porca				3-25
	sextavada	porca			3-23/3-25, 3-57
			inserto não metálico	auto bloqueantes	3-57, 3-58, 3-60, 3-61
			totalmente metálica	auto bloqueantes	3-69
			totalmente metálico	auto bloqueantes	3-69
	sextavado	parafuso			1-53, 1-54, 1-56, 1-57
	trackshoe	porca	alto		3-40
			baixo		3-41
			quadrada		3-41
	varão roscado				4-18, 4-19
União	parafuso	métrico			10-104
Única		junta	universal		12-48
USS	anilha	plana			7-10

V

Varão	roscado	ISO métrico			4-5, 4-7
			rosca esquerda		4-5, 4-6, 4-8
		métrico			4-3/4-12
			rosca esquerda		4-9
		métrico supradimensionat			4-5, 4-7, 4-10, 4-11
		para cofragem			8-95
Varão roscado		BSW			4-20
		métrico	Permaglas		4-21
		métrico ASTM A193			4-38
		métrico fino			4-13
		UNC			4-15/4-17
			ASTM A193		4-37
		UNF			4-18, 4-19
	rod	trapezoidal			4-24, 4-25
			rosca esquerda		4-24
V-Coil	inserto de fio	ferramenta para			3-165/3-169
	reparação	conjunto	métrico		3-159
			não métrico		3-160, 3-161
	sortido	métrico			3-162, 3-163
		não-métrico			3-163, 3-164
	vela de motor	conjunto reparação			3-161
Vedação	anel	dentro	com EPDM		6-117
	anilha				7-147/7-149, 10-79, 12-41, 12-144
		Dubo			7-111
		FESTAPLAN			7-149, 7-150
	borracha	anilha			7-151
	tampa	capa			12-40
Vela de motor	conjunto reparação		V-Coil		3-161
Vemo	barra	ligação			8-97
	bush	acoplamento			8-97
	inserto	tubo			8-98, 8-99
			com placa		8-98, 8-100
	para tubos	tampa			8-101
Vertical	grampo		AMF		12-152
	hook	grampo	AMF		12-161
Virola	argola				13-61
Volante					12-104, 12-105
	com manípulo				12-109
		dois raios			12-106
	dois raios				12-106
	sólido				12-107, 12-108

Indice de normas

ASME

B16.5	4-39
B18.16.6	3-54, 3-56/3-60
≈B18.17	3-102
≈B18.2.1	1-41, 1-52
B18.2.2	4-57
≈B18.2.2	3-20, 3-22, 3-23, 3-25, 3-39
B18.2.3.1M	1-2, 1-19
≈B18.2.3.1M	1-2, 1-19, 1-35
≈B18.2.3.4M	1-65/1-67, 1-69
B18.2.4.5M	3-31, 3-34
B18.21.1	7-9, 7-12, 7-52, 7-55, 7-56, 7-59, 7-69, 7-70, 7-74, 7-76
≈B18.21.1	7-36, 7-37, 7-46
B18.3	2-66
≈B18.3 (1936)	2-22, 2-28
≈B18.3 (1960)	2-21
B18.3.1M	2-2, 2-20
≈B18.3.1M	2-2, 2-17
≈B18.3.3M	2-64, 2-68
≈B18.3.4M	2-51, 2-54
B18.3.6M	2-69, 2-78, 2-83, 2-86
≈B18.3.6M	2-72, 2-76, 2-81
B18.31.3	4-14, 4-17
≈B18.3	2-45, 2-48, 2-73, 2-75, 2-77, 2-78, 2-82, 2-85, 2-88, 2-90
B18.5.2.3M	1-71
B18.5.2.3M	1-76
B18.5.2.3M/-	1-74
B18.6.4	6-78
≈B18.6.4	6-84, 6-86
B18.6.5M	6-98
B18.6.7M	6-10, 6-16, 6-21, 6-28
≈B18.6.7M	6-10, 6-16, 6-21

BS

≈1083 (1965)	1-59, 1-61, 3-27
≈1768	1-41, 1-52, 3-20, 3-23, 3-91
1769	4-57
1804-2	9-5
2470	2-66
≈2470	2-21, 2-32, 2-45, 2-48, 2-50, 2-73, 2-90
2485	10-4, 10-5
3673-2	7-125
3673-4	7-119, 7-122
4168-1	2-2, 2-20
≈4168-1	2-2, 2-17
4168-2	2-78
≈4168-2	2-81
4168-3	2-83
4168-4	2-86
4168-5	2-69
≈4168-5	2-72, 2-76
- / 4168-5	7-134
≈4168-6	2-51, 2-54
≈4168-7	2-64, 2-68
4168-8	2-39
≈4168-8	2-39
4174	6-73, 6-75, 6-76, 6-98
4183	6-10, 6-16, 6-21, 6-28
≈4183	6-10, 6-16, 6-21
4219	6-6
4235-1	9-46, 9-51
4235-2	9-50
4278	5-7
4464 A	7-57
≈4464 A	7-57
4464 B	7-49
≈4464 B	7-49
≈450 (1958)	6-27, 6-31
4620	9-31, 9-33
4882	4-39
≈4882	4-55
4929-1	3-64
4933	1-71
4933/-	1-74, 1-80, 1-81
≈4933	1-79
7060	9-26
≈7060	9-29
≈7599	6-100

DIN

≠580	5-7
≠582	5-10
1 B	9-3
1052	7-43
11024	9-43
≈11024	9-41, 9-42
125-1A	7-4
125-1B	7-33
126	7-11
127 B	7-49
≈127 B	7-49
128 A	7-64
≈128 A	7-64, 7-66
137 A	7-63
137 B	7-61
≈137 B	7-61
1434	9-35
1440	7-27
1441	7-28
1470	9-13
1471	9-14
1472	9-15
1473	9-17
1474	9-18
1475	9-20
1476	9-21
1478	5-13
≈1479	5-13
1480	5-14, 5-15
≈1480	5-15/5-19
1481	9-26
≈1481	9-29
15237	1-81, 1-82
1587 (1987)	3-96
≈1587 (1987)	3-96
1804 W	3-121
186 B	5-2
2093	7-85
2093 A	7-82
≈2093 A/C	7-87
2093 B	7-83
2093 C	7-84
2095	12-74
2097	12-75
2510 L/NF	4-61
2510 NF	4-62
≈313 (1956)	3-105
315	3-103
316	6-209
≈319 C	12-76
≈319 E	12-76
≈319 M	12-77
≈3404 A	12-44, 12-46
≈3405 A	12-43
388-1C	12-104
404	6-33
417	6-9
427	6-8
431 A	3-39
432	7-117
433	7-25
≈433	7-25
434	7-145
≈434	7-145
435	7-143
≈435	7-143
436	7-142
43699	7-81
≈436	7-142
438	6-7
439 B (1987)	3-31, 3-34
440 R	7-40
≈440R	7-40
440V	7-42
≈443	12-40
444 B	5-4
444 LB	5-6
462	7-116
463	7-114
464	6-204
464 Sz	6-205
466	3-112
467	3-113
≈470	12-41
471	7-119
≈471	7-119
472	7-122
≈472	7-122
479	1-83
508	10-5
529 A	8-91
529 E	8-92
≈5401	12-111
546	3-122
551	6-4
553	6-6
555 (1987)	3-30
- / 555 (1987)	1-79
557	3-116
561	1-85
562	3-115
571	6-173
≈571	6-173
580	5-7
≈580 (1957)	5-9
582	5-10
≈582 (1957)	5-12
601/555 (1987)	1-18
603	1-71
603/555 (1987)	1-74
≈603	1-73
604/555 (1987)	1-80
605/555 (1987)	1-81
≈608	1-79
609	1-70
6319 C	10-9
6319 D	10-9
6325	9-8
≈6325	9-9
6330 B	10-6
6331	10-7
≈6331	10-7
6334	3-42
≈6336 K	12-78
≈6336 L	12-78
6340	10-10
6379	10-11
648 A	12-52
648 B	12-50
653	6-206
660/124	9-31
661/302	9-33
6796	7-88
6797 A	7-80
6797 J	7-79
≈6797 J	7-79
≈6797A	7-80
6798 A	7-77
≈6798 A	7-77
6798 J	7-73
≈6798 J	7-73

6798 V	7-68
6799	7-125
6880	9-49
≈6880	9-49
6885 A	9-46
6887	9-51
6888	9-50
≈6900	6-35
6912	2-36
6917	1-92
6918	1-92
6921	1-65, 1-69
≈6921	1-66, 1-67
6923 (1983)	3-75
≈6923	3-77
6926	3-80
≈6926	3-81
≈6928 C	6-100
7	9-5
705A/EN 27434	7-134
≈705A/EN 27434	7-134
705A/ISO 4027 (DIN 914)	7-137
≈705A/ISO 4027	7-134
705A/ISO 4029	7-134
≈71412 A/B/C	12-44/12-46
≈71412	12-42
71752	12-49
71752 LH	12-49
71802 CS	12-47
≈7337 A	9-68
7343	9-23
≈7343	9-24
7344	9-25
7346	9-28
7349	7-23
741/555 (1987)	5-24
74361 C	7-61
≈7500-1	6-64, 6-65
≈7500	6-63
7504 K	6-137
≈7504 K	6-135
7504 M-H	6-122
≈7504 M-H	6-119, 6-120
≈7504 M	6-126/6-130
7504 O-H	6-132
≈7504 O-H	6-130
≈7504 O	6-134
7513 A	6-60
7516 AE-H	6-57
7516 DE-H	6-59
7516 EE-H	6-58
7603 A	7-146
7603 C	7-146
787	10-4
7965	10-90
7967	3-83
≈7967	3-83
7971 C	6-73
7971 F	6-73
7972 C	6-75
7973 C	6-76
7976 C	6-98
7976 F	6-98
7977	9-10
7978 A	9-11
7979 D	9-12
7980	7-57
≈7980	7-57
7981 C-H	6-78
≈7981 C	6-84, 6-86
7981 C-Z	6-78
7981 F-H	6-78
7982 C-H	6-87
≈7982 C	6-91, 6-93
7982 C-Z	6-87
7983 C-H	6-94
≈7983 C	6-102
7983 C-Z	6-94
7984	2-32
7985-H	6-35
7985-Z	6-35
≈7985-Z	6-35
7989-1	7-22
7991	2-39
≈7991	2-39, 2-44
7993 A	7-126
7995-Z	6-190
7996-H	6-189
7996-Z	6-189
7997-Z	6-187
80701	3-106
80704	3-106
808 D	12-49
808 E	12-48
8140-1A	3-145, 3-146
8140-1B	3-145
≈82101 A	5-19
835	4-34
84	6-10
≈84	6-10
85	6-16
≈85	6-16
9021	7-38
906	2-92, 2-93
908	2-94, 2-95
910	2-96, 2-97
912	2-2, 2-20
≈912	2-2, 2-17
913	2-78
≈913	2-81
914	2-83
915	2-86
916	2-69
≈916	2-72, 2-76
917	3-100
920	6-19
921	6-20
923	6-34
928	3-111
929	3-108
93	7-113
931	1-2
≈931 (1954)	1-58
≈931	1-2
933	1-19
≈933 (1954)	1-60
≈933	1-19, 1-35
≈934 (1954)	3-26, 3-29
934 (1987)	3-5, 3-14
≈934 (1987)	3-5, 3-28
935	3-87
935-1	3-85
936	3-37, 3-38
937	3-89
938	4-27
939	4-29
≈939 (1955)	4-33
94	9-36
95	6-185
950	12-105
96	6-182
960	1-36
961	1-39
963	6-21
≈963	6-21
964	6-28
965-H	6-44
≈965	6-44, 6-49
965-Z	6-44
966-H	6-51
≈966	6-54
966-Z	6-51
97	6-179
976-1	4-12
976-1A	4-2
≈976-1	4-12
979	3-88, 3-90
980V(1987)	3-64, 3-66
982	3-52
≈982	3-52
985 (1987)	3-47, 3-51
≈985 (1987)	3-47
986	3-101
988	7-137

EN

14399-4	1-88, 1-90
14399-6	1-91
15048	1-93, 1-95
≈1665	1-65/1-67, 1-69

IFI

100/107	3-67, 3-68, 3-79

ISO

-8738	7-27
1051	9-31, 9-33
10512	3-51
10513	3-66
10642	2-39
≈10642	2-39, 2-44
≈10644	6-35
1207	6-10
≈1207	6-10
12240-4	12-50, 12-52
1234	9-36
13337	9-28
14579	2-16
14580	6-43
≈14581	6-49
14583	6-41
≈14584	6-54
14585 C	6-84
14586 C	6-91
14587 C	6-102
1479 C	6-98
1479 F	6-98
1481 C	6-73
1481 F	6-73
1482 C	6-75
1483 C	6-76
15480	6-137
≈15480	6-135
15481 H	6-122
≈15481 H	6-119, 6-120
≈15481	6-126/6-130
15482 H	6-132
≈15482 H	6-130
≈15482	6-134
1580	6-16
≈1580	6-16
1617	3-100
2009	6-21
≈2009	6-21
2010	6-28
2338	9-5
2339 B	9-3
2342	2-83, 6-8
299	10-4, 10-5
3266	5-7
3290	12-111
3912	9-50
4014	1-2
4014/4032	1-93
≈4014	1-2
4016/-	1-18
4017	1-19

Indice de normas

4017/4032	1-95
≈4017	1-19, 1-35
4026	2-78
≈4026	2-81
4027	2-83
4028	2-86
4029	2-69
≈4029	2-72, 2-76
4032	3-17
4035	3-38
≈4126	1-66
4161	3-75
≈4161	3-77
≈4162	1-65, 1-67, 1-69
4762	2-2, 2-20
≈4762	2-2, 2-17
4766	6-4
7040	3-47
≈7040	3-47, 3-52
7042	3-64
7043	3-80
7045-H	6-35
7045-Z	6-35
≈7045-Z	6-35
7046-1-H	6-44
≈7046-1	6-44
7046-1-Z	6-44
7046-2-H	6-44
7046-2-Z	6-44
7047-H	6-51
7047-Z	6-51
7049 C-H	6-78
≈7049 C	6-86
7049 C-Z	6-78
7049 F-H	6-78
7050 C-H	6-87
≈7050 C	6-93
7050 C-Z	6-87
7051 C-H	6-94
7051 C-Z	6-94
≈7053 C	6-100
7089	7-4, 7-31
7090	7-33, 7-35
7091	7-11
7092	7-25
≈7092	7-25
7093	7-32, 7-38
7094	7-40
≈7094	7-40
≈7379	2-64, 2-68
7380-1	2-51
≈7380-1	2-54
7380-2	2-59
≈7380-2	2-62
7434	6-6
7436	6-7
8676	1-39
8677	1-71
8677/-	1-74
≈8677	1-73
8734 A	9-8
≈8734 A	9-9
8735 A	9-12
8736 A	9-11
8737	9-10
8739	9-13
8740	9-17
8741	9-18
8742	9-20
8744	9-14
8745	9-15
8746	9-21
8748	9-25
8750	9-23
≈8750	9-24
8752	9-26
≈8752	9-29
8765	1-36
R 773	9-46
R 774	9-51

NEN

10 B	9-3
102/697	1-18
1197 B	7-49
≈1197 B	7-49
1241	2-2, 2-20
≈1241	2-2, 2-17
1486	6-7
1487	6-4
1488	6-6
1555	1-2, 1-36
≈1555	1-2
1560	3-5, 3-14
≈1560	3-5, 3-28
1568	1-19, 1-39
≈1568	1-19, 1-35
1570	7-64
≈1570	7-64, 7-66
1601	2-32
1602	6-10
≈1602	6-10
1603	6-16
≈1603	6-16
1618	3-96
≈1618	3-96
1624	6-209
1625	3-103
≈1779 A (1960)	6-31
≈1780 A (1960)	6-27
182	9-36
1927	5-7
1928	5-10
2250	6-179
2251	6-182
2252	6-185
2253	6-187
2254	6-189
2260	6-173
2268	7-11
2269 A	7-4
2269 B	7-33
2270	7-25
≈2270	7-25
2272	7-145
≈2272	7-145
2273	7-143
≈2273	7-143
2274	7-23
2275	7-40
≈2275	7-40
2276	7-38
2277	7-113
2278	7-114
2279	7-117
2281	9-5
2282	9-8
≈2282	9-9
2307	10-6
2308 C	10-9
2308 D	10-9
2309	5-2
2310 B	5-4, 5-6
≈2324 (1960)	3-105
2328 A	8-91
2328 E	8-92
2331	4-27
2332	4-29
2334 B	3-31, 3-34
≈2336 (1961)	1-58
≈2337 (1961)	1-60
≈2338 (1960)	3-26, 3-29
2341	2-78
≈2341	2-81
2343	2-69
≈2343	2-72, 2-76
- / 2343	7-134
2344	2-86
≈2346 (1962)	4-33
≈2347 (1960)	5-9
≈2348 (1960)	5-12
2355/697	1-80
2359	2-39
≈2359	2-39
≈2369	4-2, 4-12
2370	6-21
≈2370	6-21
2371	6-28
2430	9-46
2450	7-80
≈2450	7-80
2451	7-79
≈2451	7-79
2452	3-64, 3-66
2453	7-77
≈2453	7-77
2454	7-73
≈2454	7-73
2456	7-63
2457	7-61
≈2457	7-61
2458	9-26
≈2458	9-29
2459	9-28
2460	9-21
2462	9-10
2463	9-11
2464	9-12
2553	9-23
≈2553	9-24
2554	9-25
2601	9-13
2602	9-14
2603	9-15
2604	9-17
2605	9-18
2606	9-20
303	1-71
303/697	1-74
5514	1-92
5515	1-92
697	3-30
- / 697	1-79
729	3-85, 3-87
≈964	5-19

NF

≈25-136	4-2, 4-12
E21-301	10-4, 10-5
E22-163	7-119
E22-165	7-122
E25-104	7-85
≈E25-107	2-44
E25-112	1-2
≈E25-112	1-2
E25-114	1-19
≈E25-114	1-19
E25-115-1/ E25-402	1-18
E25-119-1	6-44
≈E25-119-1	6-44, 6-49
E25-119-2	6-44
E25-120	6-51
E25-123	6-21
≈E25-123	6-21
E25-124	6-28
E25-125	2-2, 2-20
≈E25-125	2-2, 2-17

≈E25-126	2-51, 2-54
E25-127	6-10
≈E25-127	6-10
E25-128	6-16
≈E25-128	6-16
E25-129	6-56
≈E25-129	6-32, 6-55
E25-133	1-85
E25-134	1-83
E25-135	4-27, 4-29
≈E25-137	1-35
E25-151	1-39
E25-152	1-36
E25-160	6-4
E25-161	6-6
E25-163	6-7
E25-401	3-5, 3-14
≈E25-401	3-5, 3-28
E25-402	3-30
- / E25-402	1-74, 1-79/1-81
E25-404	3-116
E25-405-1	3-31
E25-406	3-75
≈E25-406	3-77
≈E25-409	3-52
E25-410	3-64, 3-66
E25-412	3-47, 3-51
≈E25-412	3-47
E25-453	3-34
E25-511	7-107
E25-512	7-67
E25-513	7-11, 7-14, 7-16, 7-18, 7-20, 7-38, 7-40
≈E25-513	7-14, 7-16, 7-18, 7-20, 7-40
E25-515	7-49
≈E25-515	7-49
E25-518	10-10
E25-601	6-187
E25-603	6-189
E25-604	6-179
E25-605	6-185
E25-606	6-182
E25-607	6-173
≈E25-654 C	6-84, 6-86
E25-656	6-87
E25-656 C	6-87
E25-657	6-94
E25-657 C	6-94
E25-658	6-78
E25-658 C	6-78
E25-660 C	6-75
E25-661 C	6-76
E25-662 C	6-98
E25-662 F	6-98
E25-663 C	6-73
E25-663 F	6-73
E25-774	9-36
E27-180	2-78
≈E27-180	2-81
E27-181	2-83
E27-182	2-86
E27-183	2-69
≈E27-183	2-72, 2-76
- / E27-183	7-134
≈E27-453	3-96
E27-460	3-83
≈E27-460	3-83
E27-475	9-8, 9-12
≈E27-475	9-9
E27-479	9-11
E27-620	7-61
≈E27-620	7-61
E27-624	7-77
≈E27-624	7-77
E27-625	7-73
≈E27-625	7-73
≈E27-626	7-72
E27-627	7-68

Indice de grupos de material

Grp	Pág
0	
01000	1-3
01010	1-20
01030	1-83
01036	1-79
01040	1-70
01049	1-64
01050	1-63
01055	1-64
01060	1-36
01061	1-37
01070	1-39
01071	1-39
01098	1-85
01100	3-6
01104	3-17
01110	3-6
01120	3-15
01130	3-15
01149	3-74
01150	3-74
01155	3-75
01200	1-5
01210	1-21
01220	1-6
01222	1-93
01226	1-7
01230	1-23
01232	1-95
01236	1-24
01240	1-37
01241	1-37
01250	1-40
01251	1-40
01256	1-65
01258	1-68
01300	3-7
01301	3-17
01310	3-7
01320	3-7
01321	3-18
01325	3-6
01326	3-7
01330	3-15
01336	3-8
01337	3-18
01340	3-15
01400	1-8
01405	1-94
01410	1-24
01415	1-96
01420	1-9
01430	1-25
01500	3-8
01510	3-18
01560	3-8
01580	3-32
01586	3-32
01587	3-38
03000	1-59
03010	1-61
03060	3-27
03400	1-58
03410	1-60
03460	3-26
03600	3-26
04025	1-90
04035	1-91
04100	1-10
04105	1-11
04108	1-11
04110	1-26
04116	1-26
04118	1-27
04119	3-9
04120	3-8
04121	3-9
04122	3-9
04124	3-18
04125	3-9
04127	3-19
04130	3-19
04132	1-66
04135	1-69
04160	1-38
04161	1-38
04170	1-40
04171	1-41
04180	3-16
04190	3-9
04210	1-88
04225	1-90
04237	1-91
04240	1-92
04250	1-92
04400	1-62
04405	1-62
04410	1-62
06000	1-86
06060	3-40
06070	3-41
06080	3-41
07000	2-7
07010	2-18
07015	2-6
07025	2-9
07030	2-36
07040	2-20
07041	2-20
07060	2-2
07065	2-6
07070	2-17
07071	2-18
07080	2-33
07090	2-33
07095	2-63
07105	2-34
07111	2-64
07116	2-67
07117	2-68
07141	2-59
07150	2-51
07151	2-52
07160	2-4
07165	2-16
07170	2-5
07200	2-32
07212	2-21
07250	2-30
07260	2-25
07290	2-54
07400	2-40
07407	2-41
07450	2-44
07470	2-39
07560	2-49
07600	2-50
07620	2-95
07640	2-94
07650	2-93
07660	2-92
07670	2-97
07680	2-96
07760	2-91
07800	2-83
07810	2-79
07812	2-81
07820	2-86
07840	2-69
07850	2-70
07852	2-72
07860	2-79
07890	2-76
07930	2-70
07940	2-90
08070	1-80
08100	3-30
08110	3-30
08200	1-18
08206	1-81
08250	1-74
08260	1-79
08280	6-173
08290	6-201
08310	1-71
08320	1-71
08420	1-75
08450	6-174
08750	1-12
08760	1-27
08781	3-19
09561	8-46
09610	8-45
1	
11007	3-16
11040	3-6
11042	3-7
11060	3-31
11070	3-34
11074	3-35
11075	3-35
11080	3-28
11120	3-116
11140	3-116
11200	3-27
11280	3-29
11300	3-10
11350	3-32
11360	3-31
11380	3-35
11382	3-32
11393	3-47
11396	3-46
11398	3-45
11400	3-42
11401	3-123
11408	3-44
11411	3-43
11417	3-43
11418	3-43
11430	10-108
11490	3-83
11560	3-125
11572	3-122
11590	3-75
11595	3-76
11598	3-76
11609	3-77
11610	3-77
11611	3-78
11740	3-22
11750	3-25
11772	3-122
11790	3-125
11840	3-39
12000	3-85
12010	3-86
12020	3-87
12060	3-88
12080	3-90
12161	3-91
12300	3-47
12302	3-48
12307	3-48
12310	3-48
12320	3-51
12340	3-62
12348	3-48
12350	3-49
12352	3-51
12400	3-62
12410	3-49
12422	3-52
12450	3-49
12460	3-80
12470	3-73
12471	3-73
12474	3-73
12479	3-82
12480	3-95
12530	3-84
12531	3-84
12600	3-53
12662	3-53
12858	3-64
12880	3-65
12910	3-65
12912	3-66
13000	3-73
13100	3-70
13190	3-72
13200	3-71
14000	3-111
14020	3-108
14100	10-89
14110	10-89
14200	3-110
14210	3-110
14230	3-109
14410	10-90
14439	10-89
14440	10-90
14441	10-95
14442	10-95
14443	10-92
14444	10-91
14445	10-92
14446	10-91
14450	10-96
14451	10-96
14456	10-93
14457	10-94
14483	10-93
14484	10-94
15000	3-93
15010	3-94
15020	3-94
15060	3-93
15070	3-94
15080	3-94
15900	12-151
15905	12-152
15910	12-153
15915	12-155
15916	12-154
15920	12-156
15925	12-157
15930	12-158
15935	12-159
15940	12-162
15945	12-160
15950	12-161
16000	5-8
16010	5-8
16040	5-9
16100	5-11
16110	5-11
16140	5-12
16150	5-15
16151	5-13
16153	5-13
16160	5-14
16170	5-15
16172	5-19
16177	5-16
16178	5-18
16180	5-4
16182	5-6
16190	5-2
16196	10-5
16202	10-4
16203	10-6
16204	10-7
16205	10-11
16206	10-9
16207	10-10
16210	6-209
16225	10-8
16226	10-11
16227	10-12
16228	10-13
16229	10-11
16250	3-102
16260	3-103
16270	3-103
16280	3-105
16295	6-203
16300	3-99
16410	3-100
16450	3-101
16500	3-96
16510	3-96
16516	3-97
16540	3-98
16650	6-204
16660	6-206

Indice de grupos de material

Grp	Pág
16680	3-112
16690	3-113
16711	5-20
16713	5-20
16715	5-23
16717	5-23
16728	5-25
16733	5-26
16812	5-21
16813	5-20
16817	5-22
16829	5-24
16831	5-27
16833	5-26
17020	5-30
17022	5-32
17023	5-31
17080	5-35
17119	5-34
17120	5-34
17123	5-29
17140	5-35
17199	5-33
17200	5-32
17203	5-29
17210	5-33
17220	5-33
17243	12-31
17260	12-30
17261	12-30
17262	12-30
17310	5-39
17315	5-39
17320	5-36
17380	5-42
17420	5-28
17443	5-40
17445	5-41
17447	5-41
17545	5-30
17567	12-32
17571	5-42
17576	5-38
17620	5-31
17690	5-28
17902	12-75
17912	12-74
18040	8-99
18060	8-100
18120	8-98
18140	8-98
18550	8-97
18570	8-97
18600	8-101
2	
20000	6-7
20010	6-4
20030	6-6
20108	4-3
20130	4-7
20132	4-7
20140	4-5
20145	4-10
20147	4-11
20150	4-7
20155	4-10
20157	4-11
20160	4-5
20170	4-7
20200	4-4
20220	4-6
20230	4-6
20232	4-6
20235	4-13
20240	4-20
20252	4-20
20300	4-5
20302	4-5
20330	4-10
20360	4-13
20372	4-10
20376	4-6
20380	4-5
20395	4-11
20410	4-11
20420	8-95
20430	8-95
20460	4-24
20464	4-24
20466	4-24
20470	4-25
20474	4-26
20476	4-26
20478	4-27
20610	8-93
20620	8-93
20630	8-93
20640	8-93
20650	8-93
20660	8-94
20661	8-94
20663	8-82
20710	8-91
20750	8-92
21500	4-29
21510	4-30
21515	4-30
21520	4-31
21540	4-33
21560	4-27
22060	4-55
22080	4-39
22082	4-41
22090	4-42
22100	4-38
22180	4-37
22190	4-37
22200	4-59
22280	4-57
22290	4-57
22320	4-45
22330	4-47
22380	4-58
22382	4-58
22383	4-58
22384	4-58
22386	4-59
22390	4-58
22393	4-58
22534	4-50
22538	4-51
22551	4-53
22554	4-53
23010	1-17
23510	4-61
23530	4-61
23550	4-62
23620	4-62
23660	4-62
24210	6-31
24220	6-27
24402	6-12
24412	6-23
24422	6-41
24510	6-11
24515	6-11
24520	6-10
24540	6-21
24560	6-22
24565	6-22
24570	6-28
24640	6-16
24650	6-55
24660	6-36
24662	6-37
24665	6-36
24670	6-45
24671	6-44
24672	6-45
24677	6-49
24690	6-52
24691	6-51
24692	6-52
24700	3-117
24769	3-115
24770	3-115
24800	6-37
24810	6-37
24840	6-45
24862	6-56
24874	6-56
24904	6-35
24992	6-34
25110	6-182
25130	6-179
25710	6-189
25750	10-126
25751	10-127
25860	6-200
25862	6-200
26000	6-73
26040	6-77
26080	6-98
26100	6-74
26180	6-99
26200	6-79
26210	6-80
26220	6-88
26240	6-96
26300	6-83
26400	6-80
26402	6-80
26432	6-89
26450	6-95
26452	6-95
26456	6-103
26501	6-84
26521	6-91
26600	6-73
26620	6-75
26640	6-76
26660	6-78
26670	6-79
26680	6-87
26690	6-88
26700	6-94
26760	6-79
26770	6-88
26780	6-95
26820	6-130
26910	10-121
27010	6-60
27100	6-57
27160	6-59
27180	6-58
27410	9-22
28100	6-100
29240	6-154
29242	6-155
29243	6-159
29248	6-155
29310	6-160
29340	6-168
29345	6-169
29346	6-170
29349	6-157
29353	6-157
29360	6-160
29367	6-171
29370	6-157
29375	6-160
29385	6-158
29390	6-201
29440	6-155
29570	6-107
29580	6-139
29581	6-139
3	
30000	6-149
30005	6-149
30015	6-150
30025	6-165
30030	6-166
30040	6-166
30100	6-151
30105	6-151
30115	6-152
30125	6-167
30130	6-167
30140	6-168
30205	6-176
30225	6-177
30230	6-177
30250	6-164
30300	6-130
30305	6-131
30310	6-131
30320	6-119
30325	6-120
30330	6-120
30350	6-134
30355	6-134
30360	6-135
30365	6-141
30375	6-141
30380	6-126
30385	6-126
30390	6-127
30400	6-128
30410	6-135
30415	6-136
30420	6-136
30500	8-4
30502	8-10
30505	8-12
30509	8-34
30510	8-28
30530	8-18
30531	8-18
30532	8-18
30537	8-15
30539	8-17
30550	8-66
30551	8-66
30552	8-66
30553	8-67
30554	8-72
30564	8-40
30565	8-40
30569	8-33
30570	8-44
30575	8-52
30576	8-53
30577	8-52
30579	8-55
30580	8-86
30581	8-85
30585	8-80
30595	8-87
30596	8-88
30650	12-6
30660	12-8
30664	12-10
30666	12-19
30667	12-12
30668	12-21
30669	12-23
30900	12-120
30901	12-121
30902	12-121
30903	12-126
30904	12-126
30905	12-122
30906	12-129
30907	12-129
30908	12-128
30950	11-22
31100	6-138
31120	6-123
31140	6-133
31230	6-137
31235	6-137
31250	6-123
31255	6-122
31256	6-132
31260	6-132
31282	6-145
31290	6-61
31305	6-198
31310	6-199
31411	6-143
31416	6-143
31426	6-144
31445	6-140
31460	6-142
31480	6-129

Indice de grupos de material

Grp	Pág
31535	6-146
31536	6-147
31570	6-146
31572	6-146
31702	6-115
31705	6-112
31710	6-111
31711	6-111
31720	6-112
31780	6-116
31781	6-116
31810	6-138
31815	6-138
31820	6-123
31825	6-123
31830	6-133
31860	6-138
31870	6-124
31880	6-133
32635	9-64
32642	9-67
33190	9-57
33410	9-77
33600	9-74
33610	9-73
33620	9-76
33650	9-74
33670	9-75
33695	9-75
33900	9-68
34110	9-55
34113	9-60
34120	9-62
34121	9-78
34125	9-70
34126	9-61
34128	9-72
34130	9-57
34140	9-63
34150	9-59
34180	9-58
34184	9-64
34185	9-69
34186	9-59
34190	9-56
34200	9-63
34205	9-70
34250	9-71
34310	9-56
34320	9-65
34330	9-65
34350	9-66
35145	9-79
35146	9-80
35760	9-80
36000	7-121
36050	7-124
36200	7-126
36215	7-127
36230	7-131
36233	7-128
36239	7-129
36250	7-129
36251	7-130
36252	7-130
36265	7-132
36270	7-89
36273	7-89
36300	7-82
36302	7-83
36303	7-84
36307	7-86
36325	7-93
36326	7-94
36390	7-105
36395	7-104
36396	7-105
36397	7-105
36411	7-105
36420	7-106
36425	7-106
36450	7-91
36460	7-92
37000	7-50
37020	7-50
37024	7-51
37025	7-51
37030	7-50
37060	7-51
37070	7-66
37080	7-64
37092	7-65
37110	7-63
37120	7-63
37150	7-62
37160	7-62
37200	7-57
37220	7-58
37240	7-60
37260	7-81
37265	7-108
37282	7-107
37300	7-80
37302	7-81
37320	7-79
37400	7-77
37420	7-77
37430	7-78
37440	7-78
37460	7-73
37480	7-73
37500	7-68
37520	7-68
37560	7-67
37580	7-72
37590	7-72
37810	7-135
37815	7-135
37820	7-135
37840	7-133
37845	7-134
37900	7-110
37901	7-111
37910	7-110
37920	7-112
37979	7-98
37980	7-96
37981	7-102
37982	7-99
37983	7-103
37984	7-101
37985	7-96
37986	7-99
37987	7-102
37988	7-103
38031	7-5
38043	7-20
38045	7-20
38047	7-21
38053	7-18
38055	7-18
38057	7-19
38063	7-14
38065	7-14
38067	7-15
38073	7-16
38075	7-16
38077	7-17
38080	7-6
38081	7-5
38093	7-7
38100	7-5
38125	7-7
38130	7-5
38131	7-31
38133	7-31
38140	7-6
38143	7-6
38152	7-6
38157	7-6
38160	7-33
38180	7-34
38190	7-34
38200	7-11
38205	7-11
38209	7-38
38210	7-38
38211	7-39
38212	7-39
38220	7-39
38230	7-41
38240	7-40
38250	7-25
38270	7-22
38280	7-22
38300	7-142
38310	7-142
38320	7-142
38400	7-44
38401	7-45
38410	7-44
38420	7-23
38430	7-24
38435	7-24
38438	7-24
38490	7-145
38495	7-145
38500	7-145
38520	7-143
38540	7-144
38583	7-140
38585	7-140
38590	7-141
38600	7-139
38602	7-140
38650	7-113
38670	7-118
38684	7-116
38690	7-115
38740	7-12
38760	7-27
38793	7-151
38796	7-151
38801	7-152
38802	7-152
38803	7-153
38805	7-153
38806	7-153
38807	7-153
38808	7-154
38810	7-154
38812	7-155
38814	7-155
38816	7-155
38840	7-158
38869	7-156
38871	7-156
38873	7-156
38874	7-156
38875	7-156
38877	7-157
38883	7-157
38885	7-157
38887	7-157
38900	12-115
38950	12-116
38958	7-28
39000	9-3
39011	9-10
39012	9-11
39060	9-28
39070	9-5
39078	9-9
39080	9-8
39090	9-12
39100	9-27
39140	9-23
39150	9-25
39200	9-50
39220	9-51
39250	9-46
39270	9-49
39310	9-37
39350	9-37
39360	9-38
39400	9-31
39410	9-33
39610	9-41
39630	9-42
39660	9-45
39680	9-44
39700	9-13
39710	9-14
39720	9-16
39730	9-17
39740	9-19
39750	9-20
39760	9-21
39797	9-35
4	
41000	11-3
41010	11-14
41020	11-23
41030	11-23
41040	11-24
43010	12-9
43011	12-9
43019	12-11
43020	12-10
43024	12-14
43025	12-18
43026	12-18
43030	12-23
43033	12-15
43055	12-22
43062	12-13
43063	12-13
43065	12-16
43074	12-16
43076	12-17
43080	12-7
43081	12-7
43110	12-20
43111	12-20
43115	12-21
43213	12-117
43214	12-118
43241	12-25
43246	12-24
43270	12-26
43271	12-27
43272	12-27
43273	12-27
43274	12-27
43275	12-28
43276	12-28
43279	12-27
43280	12-26
43295	12-123
43299	12-123
43310	12-124
43317	12-121
43323	12-124
43324	12-125
43325	12-126
45008	2-43
45010	1-33
45070	4-9
45080	3-12
45110	3-50
45140	10-98
45150	7-30
45180	7-29
45184	7-8
45191	7-147
45192	7-148
45193	7-148
45205	2-15
45208	2-44
45210	1-33
45270	4-9
45280	3-13
45300	3-71
45425	6-48
45445	6-40
45790	7-52
45810	1-33
45850	3-13
45910	1-34
45920	3-13
45930	7-9
45940	4-9
46010	1-33
46060	1-34
46090	4-9
46210	1-60

Grp	Pág
46290	4-20
47000	3-13
47030	3-33
47050	3-13
47100	3-27
47170	3-25
47195	3-44
47220	2-98
47300	3-101
47340	3-97
47360	3-98
47480	6-205
47490	6-207
47500	3-112
47510	3-113
47511	3-114
47530	6-210
47550	3-104
47560	3-104
47570	3-105
47711	10-103
47715	10-103
47720	10-102
47750	10-102
47780	10-101
47790	10-101
47796	10-100
48020	6-14
48040	6-18
48170	6-25
48180	6-30
48210	6-31
48220	6-27
48520	6-15
48530	6-18
48550	6-26
48570	6-30
49210	6-184
49230	6-181
49250	6-186
49310	6-184
49330	6-181
49350	6-186
5	
50020	7-29
50030	7-30
50040	7-34
50060	7-8
50065	7-8
50100	7-26
50150	7-34
50210	9-40
50230	10-97
50260	10-97
50280	10-98
50300	7-148
50301	7-148
50302	7-149
50303	7-149
50332	7-149
50333	7-149
50334	7-150
50370	9-33
50380	9-35
50390	9-40
50500	7-66
50540	7-79
50670	9-32
50680	9-34
50900	7-150
51000	1-12
51010	1-27
51012	1-35
51014	1-68
51018	1-66
51020	2-18
51028	2-60
51029	2-55
51030	2-52
51036	10-110
51037	10-112
51040	2-34
51041	2-62
51042	2-37
51044	2-65
51047	2-44
51050	2-10
51051	2-19
51052	2-16
51056	2-21
51060	2-41
51064	4-8
51068	4-3
51070	4-8
51071	4-10
51072	4-12
51074	4-8
51076	4-24
51077	4-25
51080	3-10
51081	3-19
51082	3-10
51088	3-117
51089	3-11
51090	3-33
51092	3-35
51093	3-33
51095	3-115
51097	10-109
51098	3-123
51100	3-10
51101	3-44
51102	10-6
51104	10-7
51106	3-43
51108	3-76
51109	3-28
51110	6-23
51111	6-23
51112	3-82
51113	3-124
51119	3-78
51120	6-12
51121	6-12
51122	6-43
51128	3-118
51140	6-16
51160	3-16
51162	3-11
51166	3-36
51170	4-26
51178	3-111
51180	3-108
51182	3-109
51183	3-110
51190	10-128
51200	3-40
51207	6-19
51208	6-20
51209	6-34
51210	6-29
51212	10-100
51215	6-32
51220	3-86
51221	3-37
51222	3-38
51224	3-88
51225	3-89
51230	2-87
51240	2-80
51250	2-84
51260	2-71
51270	4-31
51280	4-28
51281	5-38
51285	4-34
51287	5-37
51289	6-33
51290	6-9
51291	6-8
51292	6-4
51293	6-6
51296	6-8
51300	6-46
51302	6-46
51305	6-49
51320	6-52
51322	6-53
51325	6-54
51327	6-67
51329	6-68
51330	6-66
51331	6-68
51340	6-38
51342	6-38
51345	6-41
51350	10-97
51370	7-136
51371	7-136
51372	7-136
51373	7-137
51380	3-100
51390	7-58
51400	3-97
51405	3-102
51410	7-45
51415	7-22
51416	7-21
51417	7-19
51418	7-15
51419	7-17
51420	7-7
51422	6-117
51427	7-35
51428	9-29
51430	9-24
51435	7-121
51437	7-124
51440	7-126
51445	7-132
51446	7-128
51447	7-89
51448	7-88
51450	7-51
51456	7-81
51458	7-80
51460	7-78
51462	7-74
51463	7-68
51468	7-105
51480	9-34
51490	9-31
51500	1-72
51501	1-73
51503	6-206
51505	1-81
51506	1-82
51520	7-65
51530	7-39
51531	7-32
51532	7-24
51533	7-43
51534	7-27
51535	7-29
51540	7-114
51546	10-99
51550	7-64
51551	7-62
51552	7-139
51554	7-139
51555	7-141
51556	7-140
51557	7-141
51560	9-4
51572	10-118
51573	10-123
51574	10-115
51577	7-42
51578	10-114
51580	9-6
51582	9-18
51583	9-19
51585	9-15
51586	9-16
51588	10-122
51589	9-21
51590	7-41
51591	10-113
51592	10-116
51593	10-119
51594	10-124
51595	10-120
51596	10-124
51597	10-125
51598	10-119
51599	10-117
51600	6-74
51620	6-75
51640	6-77
51650	6-99
51651	6-101
51652	6-108
51653	6-109
51660	6-81
51661	6-82
51663	6-86
51664	6-84
51667	10-113
51668	10-121
51669	10-122
51670	6-81
51671	10-126
51672	10-111
51673	10-115
51674	10-127
51675	10-128
51680	6-89
51681	6-89
51683	6-92
51689	6-96
51690	6-96
51693	6-102
51700	9-38
51710	3-70
51718	3-53
51720	3-63
51728	3-50
51729	3-49
51730	3-49
51734	3-81
51735	3-84
51738	3-80
51739	3-52
51740	5-3
51742	5-16
51743	5-18
51744	5-17
51750	6-156
51756	6-172
51760	6-104
51761	6-105
51762	6-106
51764	6-104
51765	6-105
51766	6-106
51767	6-104
51768	6-105
51769	6-106
51770	6-169
51771	6-114
51773	6-162
51774	6-164
51775	6-161
51777	6-114
51780	6-193
51781	6-191
51785	6-191
51786	6-193
51787	6-191
51788	6-193
51789	6-171
51790	5-5
51792	6-196
51793	6-195
51794	6-197
51795	6-195
51796	6-197
51797	6-195
51798	6-72
51799	6-115
51800	3-104
51801	6-72
51810	3-102
51812	6-209
51820	6-208
51828	6-205

Indice de grupos de material

Grp	Pág	Grp	Pág	Grp	Pág	Grp	Pág	Grp	Pág	Grp	Pág
51829	6-204	53581	3-19	54155	13-26	54240	13-58	54509	13-90	54566	13-103
51830	3-112	54100	13-3	54156	13-27	54241	13-59	54511	13-92	54567	13-100
51840	3-113	54101	13-3	54157	13-22	54242	13-59	54512	13-93	54568	13-103
51843	6-194	54102	13-5	54158	13-29	54243	13-59	54513	13-85	54569	13-100
51844	6-192	54103	13-9	54159	13-29	54244	13-59	54514	13-82	54570	13-103
51845	6-194	54104	13-6	54160	13-30	54245	13-61	54515	13-82	54571	13-100
51846	6-192	54105	13-6	54161	13-30	54246	13-61	54516	13-85	54572	13-103
51847	6-194	54106	13-6	54162	13-30	54247	13-61	54517	13-82	54573	13-94
51848	6-192	54107	13-6	54163	13-30	54248	13-64	54518	13-90	54574	13-94
51849	6-197	54108	13-9	54164	13-31	54249	13-65	54519	13-93	54576	13-104
51850	6-196	54109	13-6	54165	13-32	54250	13-65	54520	13-90	54577	13-104
51851	6-197	54110	13-9	54166	13-34	54251	13-65	54521	13-90	54578	13-105
51852	6-196	54111	13-9	54167	13-32	54252	13-66	54522	13-94	54579	13-105
51860	6-183	54112	13-6	54168	13-33	54253	13-66	54523	13-87	54580	13-105
51864	6-93	54113	13-7	54169	13-33	54254	13-67	54524	13-90	54581	13-106
51866	6-189	54114	13-10	54170	13-33	54255	13-67	54525	13-91	54582	13-106
51870	6-180	54115	13-7	54171	13-35	54256	13-68	54526	13-88	54583	13-107
51874	6-188	54116	13-7	54200	13-37	54257	13-68	54527	13-85	54584	13-108
51876	6-187	54117	13-7	54201	13-37	54258	13-56	54528	13-85	54585	13-108
51878	6-178	54118	13-10	54202	13-37	54259	13-62	54529	13-91	54586	13-108
51880	6-185	54119	13-11	54203	13-38	54300	13-69	54530	13-85	54587	13-111
51886	6-190	54120	13-11	54204	13-39	54301	13-71	54531	13-83	54588	13-111
51890	6-176	54121	13-12	54206	13-41	54302	13-72	54532	13-83	54589	13-111
51891	6-112	54122	13-12	54207	13-41	54303	13-72	54533	13-83	54590	13-111
51892	6-113	54123	13-14	54208	13-41	54304	13-72	54534	13-91	54591	13-111
51893	6-113	54124	13-14	54209	13-41	54305	13-72	54535	13-95	54592	13-114
51894	6-113	54125	13-15	54210	13-44	54306	13-72	54536	13-95	54593	13-114
51900	6-174	54126	13-15	54211	13-45	54307	13-72	54537	13-86	54594	13-109
51908	7-143	54127	13-16	54212	13-45	54308	13-73	54538	13-94	54595	13-109
51910	7-115	54128	13-17	54213	13-45	54309	13-73	54539	13-83	54596	13-110
51914	7-118	54129	13-15	54214	13-45	54310	13-73	54540	13-86	54597	13-108
51920	7-146	54130	13-15	54215	13-45	54311	13-73	54541	13-96	54598	13-108
51922	7-144	54131	13-15	54216	13-46	54312	13-73	54542	13-96	54599	13-114
51930	7-25	54132	13-19	54217	13-47	54313	13-73	54543	13-96	54600	13-112
51935	10-10	54133	13-19	54218	13-47	54314	13-74	54544	13-86	54601	13-112
51936	10-10	54134	13-19	54219	13-48	54315	13-74	54545	13-86	54602	13-113
51940	5-8	54135	13-19	54220	13-48	54316	13-75	54546	13-97	54603	13-111
51941	5-8	54136	13-19	54221	13-48	54317	13-75	54547	13-88	54604	13-113
51950	5-11	54137	13-19	54222	13-50	54318	13-75	54548	13-88	54605	13-115
51951	5-11	54138	13-15	54223	13-49	54319	13-76	54549	13-99	54606	13-115
51961	2-92	54139	13-20	54224	13-49	54320	13-76	54550	13-102	54607	13-116
51962	2-93	54140	13-21	54225	13-50	54321	13-77	54551	13-99	54608	13-116
51964	2-95	54141	13-137	54226	13-51	54322	13-78	54552	13-102	54609	13-116
51965	2-96	54142	13-20	54227	13-51	54323	13-78	54553	13-99	54610	13-116
51966	2-97	54143	13-21	54228	13-52	54324	13-79	54554	13-102	54611	13-116
51970	9-41	54144	13-22	54229	13-53	54325	13-79	54555	13-99	54612	13-116
52420	7-8	54145	13-23	54230	13-53	54326	13-80	54556	13-102	54613	13-117
52451	7-52	54146	13-23	54231	13-54	54500	13-82	54557	13-99	54614	13-117
53080	3-11	54147	13-24	54232	13-55	54501	13-85	54558	13-102	54615	13-117
53162	3-12	54148	13-24	54233	13-55	54502	13-82	54559	13-99	54616	13-118
53460	7-79	54149	13-24	54234	13-55	54503	13-82	54560	13-102	54617	13-118
53510	1-16	54150	13-25	54235	13-55	54504	13-87	54561	13-100	54618	13-119
53520	1-31	54151	13-26	54236	13-55	54505	13-89	54562	13-103	54619	13-119
53521	1-32	54152	13-26	54237	13-57	54506	13-89	54563	13-100	54620	13-119
53570	2-14	54153	13-26	54238	13-57	54507	13-92	54564	13-103	54621	13-119
53580	3-12	54154	13-26	54239	13-57	54508	13-90	54565	13-100	54622	13-120

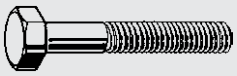
Grp	Pág	Grp	Pág	Grp	Pág	Grp	Pág	Grp	Pág	Grp	Pág
54623	13-121	55071	4-11	55402	3-97	55700	9-39	56290	3-107	56949	2-89
54624	13-121	55072	4-12	55410	7-45	55718	3-53	56300	7-8	56950	12-56
54625	13-122	55074	4-9	55415	7-23	55720	3-63	56310	7-9	56951	12-56
54626	13-122	55080	3-11	55416	7-21	55730	3-50	56320	7-26	56952	12-60
54627	13-123	55081	3-20	55417	7-19	55734	3-81	56330	7-40	56953	12-60
54628	13-123	55088	3-117	55418	7-15	55735	3-84	56332	7-40	56954	12-109
54629	13-124	55089	3-12	55419	7-17	55738	3-80	56410	6-15	56955	12-92
54630	13-125	55090	3-33	55420	7-7	55739	3-52	56420	6-18	56956	12-98
54631	13-125	55092	3-36	55425	7-32	55740	5-3	56440	6-26	56957	12-98
54632	13-127	55095	3-116	55426	7-34	55750	6-156	56460	6-33	56958	12-98
54633	13-127	55098	3-123	55427	7-35	55755	6-163	56480	10-104	56959	12-98
54634	13-127	55100	3-12	55436	7-97	55775	6-161	56610	6-202	56960	12-99
54635	13-127	55101	3-45	55437	7-97	55782	5-2	56660	1-97	56961	12-99
54636	13-127	55102	10-7	55438	7-98	55790	5-5	56661	1-98	56964	12-100
54637	13-127	55104	10-8	55443	7-93	55792	3-106	56662	1-98	56965	12-100
54638	13-128	55106	3-43	55447	7-89	55793	3-106	56672	12-130	56966	12-87
54639	13-128	55108	3-76	55450	7-51	55800	3-104	56680	12-143	56970	12-83
54640	13-128	55109	3-29	55453	7-100	55810	3-103	56690	12-144	56971	12-103
54641	13-129	55110	6-25	55454	7-101	55820	6-208	56710	12-145	56972	12-87
54642	13-129	55113	3-124	55456	7-100	55860	6-183	56730	12-84	56973	12-100
54643	13-131	55119	3-78	55460	7-78	55870	6-180	56735	12-84	56974	12-100
54644	13-131	55120	6-13	55462	7-74	55874	6-188	56740	12-85	56975	12-57
54645	13-132	55140	6-17	55463	7-97	55878	6-179	56760	12-146	56976	12-57
54646	13-132	55160	3-16	55464	7-98	55880	6-186	56767	12-147	56977	12-58
54647	13-132	55166	3-36	55465	7-100	55900	6-175	56770	12-144	56978	12-58
54648	13-132	55178	3-111	55466	7-101	55908	7-143	56772	12-148	56979	12-59
54649	13-132	55180	3-108	55490	9-32	55910	7-115	56780	12-149	56980	12-59
54650	13-132	55200	3-40	55500	1-72	55914	7-118	56783	12-150	56988	12-94
54651	13-133	55210	6-29	55501	1-74	55920	7-146	56790	10-106	57001	12-61
54652	13-133	55212	10-100	55505	1-82	55922	7-144	56792	10-104	57003	12-97
54653	13-133	55220	3-86	55506	1-82	55930	7-26	56795	10-105	57004	12-101
54654	13-134	55221	3-37	55510	9-48	55940	5-8	56797	10-105	57005	12-101
54655	13-134	55225	3-89	55512	9-49	55941	5-9	56799	12-143	57007	12-53
54656	13-135	55230	2-87	55516	9-51	55950	5-11	56800	12-147	57008	12-53
54701	13-136	55240	2-80	55520	7-65	55951	5-12	56806	12-146	57011	12-82
54702	13-136	55250	2-84	55530	7-39	55961	2-92	56818	12-137	57012	12-82
54703	13-137	55260	2-71	55531	7-33	55962	2-93	56819	12-136	57013	12-55
54704	13-42	55270	4-32	55532	7-24	55963	2-94	56824	12-139	57014	12-91
54705	13-43	55280	4-28	55533	7-43	55964	2-95	56830	12-138	57015	12-91
54706	13-43	55282	5-38	55534	7-28	55965	2-96	56832	12-133	57020	12-82
55000	1-14	55285	4-34	55540	7-114	55966	2-98	56833	12-129	57021	12-82
55010	1-29	55292	6-5	55551	7-62	55970	9-43	56834	12-127	57023	12-83
55012	1-36	55293	6-7	55561	6-165	56050	4-21	56835	12-132	57025	12-85
55018	1-67	55300	6-47	55577	7-42	56052	4-22	56837	12-134	57027	12-86
55020	2-19	55302	6-48	55580	9-7	56054	4-23	56839	12-135	57028	12-86
55025	2-61	55303	6-50	55590	7-41	56090	1-18	56840	12-131	57030	12-92
55030	2-53	55320	6-53	55651	6-101	56100	1-34	56843	12-141	57031	12-93
55032	2-55	55322	6-53	55660	6-83	56120	2-19	56890	12-142	57033	12-93
55040	2-35	55325	6-55	55661	6-82	56170	4-9	56901	12-104	57035	12-94
55042	2-38	55340	6-39	55664	6-85	56200	3-14	56914	12-76	57037	12-95
55047	2-45	55342	6-40	55680	6-90	56210	12-140	56915	12-77	57040	12-79
55050	2-12	55345	6-42	55681	6-90	56220	3-64	56916	12-76	57041	12-79
55060	2-42	55350	10-99	55683	6-92	56230	6-207	56921	12-79	57043	12-80
55067	4-13	55380	3-101	55689	6-97	56240	3-114	56922	12-78	57045	12-80
55068	4-4	55390	7-58	55690	6-97	56250	3-98	56931	12-86	57046	12-80
55070	4-8	55400	3-97	55693	6-103	56280	3-107	56940	12-105	57048	12-80

Indice de grupos de material

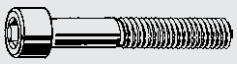
Grp	Pág
57049	12-95
57050	12-88
57051	12-88
57053	12-89
57054	12-89
57060	12-106
57061	12-106
57063	12-96
57064	12-96
57066	12-90
57067	12-90
57070	12-102
57071	12-102
57076	12-103
57077	12-104
57080	12-107
57081	12-107
57083	12-108
57084	12-108
57090	12-81
57091	12-81
57092	12-81
57425	12-47
57426	12-47
57475	12-47
57476	12-48
57510	12-48
57560	12-49
57578	12-50
57580	12-50
57600	12-52
57605	12-51
57650	12-52
57655	12-51
57676	12-72
57730	12-69
57745	12-70
57747	12-70
57748	12-70
57749	12-71
57750	12-71
57770	12-62
57771	12-63
57779	12-64
57780	12-64
57792	12-65
57793	12-66
57794	12-67
57795	12-68
57805	12-69
57807	12-73
6	
60311	10-56
60313	10-56
60315	10-57
60317	10-58
60319	10-55
60321	10-55
60323	10-59
60325	10-58
60331	10-59
61015	10-20
61020	10-20
61035	10-20
61040	10-21
61055	10-21
61060	10-21
61115	10-21
61120	10-21
61135	10-22
61140	10-22
61155	10-22
61165	10-22
61170	10-22
61180	10-23
61265	10-27
61290	10-29
61300	10-29
61317	10-31
61355	10-31
61390	10-31
61415	10-24
61420	10-24
61430	10-25
61435	10-25
61440	10-25
61450	10-23
61515	10-24
61530	10-24
61555	10-25
61570	10-26
61615	10-24
61630	10-25
61650	10-26
61670	10-26
61810	10-27
61850	10-32
61860	10-31
61936	10-30
61937	10-30
61938	10-30
61939	10-30
61941	10-33
61942	10-34
61944	10-16
61945	10-17
61946	10-17
61948	10-19
61949	10-19
61951	10-28
61952	10-18
61953	10-18
61961	10-28
61963	10-33
62255	10-61
62257	10-62
62265	10-63
62267	10-64
62272	10-75
62273	10-75
62274	10-76
62276	10-76
62282	10-77
62283	10-78
62284	10-78
62285	10-79
62286	10-79
62302	10-80
62303	10-80
62304	10-81
62305	10-82
62306	10-82
62323	10-83
62325	10-85
62332	10-85
62411	10-66
62412	10-68
62413	10-67
62414	10-70
62415	10-71
62416	10-72
62417	10-73
63050	8-89
63051	8-86
63052	8-89
63060	8-86
63100	8-7
63110	8-7
63120	8-11
63121	8-11
63150	8-8
63152	11-26
63158	8-5
63159	8-5
63160	8-9
63174	8-33
63186	8-84
63187	8-81
63188	8-81
63189	8-83
63190	8-36
63191	8-35
63192	8-39
63195	8-37
63196	8-38
63223	8-27
63226	8-50
63227	8-90
63240	8-16
63243	8-87
63248	8-17
63252	8-86
63260	8-25
63261	8-20
63270	8-14
63276	8-13
63277	8-13
63298	8-32
63300	8-21
63309	8-22
63310	8-23
63312	8-24
63313	8-24
63320	8-54
63321	8-54
63322	8-55
63323	8-74
63324	8-69
63325	8-70
63328	8-68
63400	8-48
63410	8-49
63421	8-75
63422	8-77
63428	8-56
63445	8-78
63500	10-35
63560	8-41
63562	8-41
63590	8-41
63600	8-43
63601	8-42
63611	8-29
63615	8-30
63616	8-30
63617	8-31
63690	8-78
63691	8-87
64010	10-86
64030	10-87
64050	10-86
64100	10-36
64108	10-37
64122	10-38
64130	10-39
64132	10-41
64134	10-40
64136	10-45
64140	10-46
64144	10-44
64152	10-48
64154	10-47
64158	10-43
64162	10-41
64163	10-44
64168	10-42
64180	10-49
64270	10-52
64271	10-52
64272	10-51
64273	10-53
64275	10-50
64500	12-33
64501	12-37
64502	12-37
64503	12-35
64504	12-36
64505	12-38
64506	12-38
64507	12-34
65411	3-120
65421	8-51
65435	8-47
65445	8-48
65450	8-45
66813	12-111
66816	12-111
66819	12-112
66860	12-112
66910	12-112
66920	12-112
66930	12-112
66950	12-113
66955	12-113
66960	12-114
66970	12-114
66990	12-114
67020	6-63
67080	6-64
67155	6-65
67551	6-70
67552	6-71
67553	6-71
69025	3-128
69035	3-133
69045	3-131
69135	3-127
69155	3-130
69190	3-136
69195	3-137
69315	3-128
69335	3-132
69355	3-136
69400	3-129
69407	3-129
69435	3-133
69440	3-135
69445	3-134
69450	3-134
69525	3-131
69526	3-128
69670	3-140
69685	3-139
69975	3-138
7	
70520	8-61
70521	8-62
70522	8-63
70523	8-63
70524	8-64
70525	8-59
70526	8-60
70527	8-57
70528	8-57
70529	8-57
70530	8-58
70531	8-58
70532	8-58
70615	8-85
70636	8-83
70646	8-83
70665	8-26
70880	8-19
70882	8-19
70927	8-71
70967	8-56
71010	3-148
71020	3-149
71021	3-149
71030	3-151
71040	3-150
71050	3-151
71090	3-152
71110	3-145
71120	3-146
71121	3-147
71130	3-148
71140	3-147
71210	3-145
71310	3-142
71320	3-143
71330	3-144
71340	3-144
71410	3-142
71510	3-153
71550	3-171
71551	3-173
71552	3-172
71554	3-173
71556	3-174
71560	3-172
71566	3-171
71570	10-88
71580	3-177
71592	3-176
71595	3-175

Indice de grupos de material

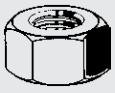
Grp	Pág
71597	3-177
71610	3-154
71620	3-154
71640	3-155
71710	3-155
71711	3-156
71720	3-156
71730	3-157
71740	3-156
71760	3-159
71762	3-162
71764	3-161
71766	3-160
71768	3-160
71770	3-160
71772	3-161
71774	3-163
71776	3-164
71778	3-164
71780	3-164
71782	3-165
71784	3-166
71786	3-167
71788	3-159
71790	3-163
71792	3-168
71794	3-168
71796	3-168
71798	3-169
71810	3-158
71860	3-158
71910	3-150
71920	3-147
71930	3-143
71940	3-154
71950	3-157
72000	6-109
72002	6-109
72004	9-68
72005	6-108
72008	6-107
72011	6-110
72018	6-110
72022	6-108
72030	7-61
72037	7-151
72045	6-100
72100	12-39
72110	12-39
72122	3-42
72123	3-42
72130	3-41
72131	3-41
72150	12-40
72160	12-41
72170	12-43
72185	12-46
72186	12-44
72210	12-42
72213	12-42
72220	12-44
72221	12-45
72230	12-43
72240	12-45
72243	12-45
72260	12-46
72293	3-119
72340	3-119
72350	3-118
8	
87911	12-54
87916	12-54
U	
U01000	1-43
U01060	1-52
U01062	1-53
U01080	1-84
U01100	3-21
U01120	3-24
U01200	1-44
U01300	3-21
U01330	3-24
U04100	1-47
U04104	1-46
U04120	3-21
U04122	3-21
U04160	1-54
U04162	3-24
U04180	3-24
U04181	3-24
U04360	1-56
U07000	2-22
U07001	2-25
U07040	2-29
U07111	2-66
U07150	2-56
U07151	2-57
U07230	2-58
U07410	2-46
U07415	2-47
U07566	2-49
U07800	2-85
U07810	2-82
U07820	2-88
U07840	2-73
U07845	2-90
U07852	2-75
U07890	2-77
U07891	2-78
U08100	3-20
U08110	3-21
U08160	3-23
U08161	3-23
U08200	1-41
U08210	1-42
U08300	1-76
U08305	1-77
U08307	1-77
U08320	1-77
U12100	3-79
U12120	3-79
U12300	3-54
U12320	3-60
U12348	3-54
U12353	3-61
U12380	3-57
U12381	3-57
U12411	3-55
U12421	3-61
U12422	3-61
U12423	3-56
U12450	3-55
U12601	3-58
U12705	3-59
U12910	3-67
U12920	3-67
U12950	3-69
U12960	3-69
U20170	4-16
U20200	4-14
U20300	4-15
U20360	4-18
U20365	4-18
U37000	7-53
U37020	7-53
U37025	7-54
U37060	7-53
U37170	7-56
U37171	7-57
U37180	7-55
U37183	7-56
U37200	7-59
U37320	7-76
U37321	7-76
U37420	7-70
U37480	7-75
U37500	7-69
U37590	7-69
U38100	7-10
U38130	7-10
U38157	7-10
U38160	7-37
U38200	7-12
U38205	7-13
U38400	7-48
U38402	7-48
U38403	7-47
U38405	7-48
U43150	7-54
U50450	7-71
U50462	7-76
U51000	1-49
U51007	1-57
U51030	2-57
U51041	2-30
U51044	2-67
U51050	2-26
U51060	2-47
U51067	4-19
U51070	4-16
U51080	3-22
U51130	2-59
U51160	3-25
U51205	7-13
U51260	2-74
U51261	2-76
U51390	7-59
U51410	7-48
U51411	3-61
U51420	7-10
U51422	3-58
U51450	7-54
U51460	7-70
U51462	7-75
U51500	1-78
U51530	7-36
U51566	2-50
U51705	3-60
U51718	3-59
U51730	3-56
U51738	3-55
U51915	3-68
U51960	3-69
U53460	7-71
U53462	7-75
U55000	1-50
U55041	2-31
U55050	2-27
U55067	4-19
U55070	4-17
U55080	3-22
U55205	7-13
U55410	7-49
U55411	3-61
U55420	7-10
U55450	7-54
U55460	7-71
U55462	7-75
U55530	7-36
U55730	3-55
U55915	3-68



1 Parafusos sextavado exterior



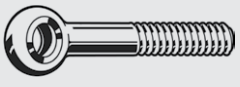
2 Produtos sextavados interiores



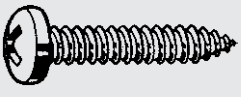
3 Porcas/porcas de rebitar / insertos



4 Varão roscado / pernos



5 Produtos olhal / gancho

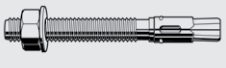


6 Parafusos

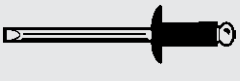
I Indice



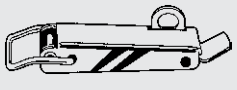
7 Anilha



8 Ancoragem



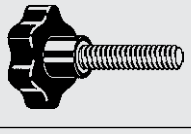
9 Rebites / cavilhas



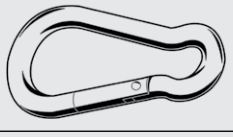
10 Parafusos de segurança / Sistemas de fixação



11 Sortidos



12 Sistemas de engenharia / peças para máquinas



13 Marítimo produtos

T Tecnologia de fixação

Anilha 7


Página 7-4
DIN 125-1A
Plana


Página 7-9
ASME B18.21.1
Plana USS


Página 7-11
DIN 126
Plana


Página 7-12
ASME B18.21.1
Plana SAE


Página 7-14
NF E25-513
Tipo L


Página 7-16
NF E25-513
Tipo LL


Página 7-18
NF E25-513
Tipo M


Página 7-20
NF E25-513
Tipo Z

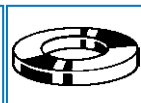

Página 7-22
DIN 7989-1
Para estruturas em aço

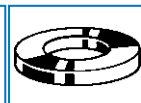

Página 7-23
DIN 7349
Para parafusos tipo pesado

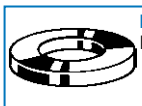

Página 7-25
DIN 433
Para parafusos cabeça de queijo


Página 7-27
DIN 1440
Para passador com perfuração

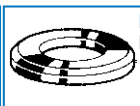

Página 7-28
DIN 1441
Para passador com perfuração

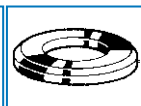

Página 7-29
Aluminio - Latão


Página 7-30
Alumínio AG3


Página 7-31
ISO 7089
Plana


Página 7-32
ISO 7093
Plana


Página 7-33
DIN 125-1B
Com chanfro


Página 7-35
ISO 7090
Plana


Página 7-36
ASME ≈B18.21.1
Plana Inox


Página 7-37
ASME ≈B18.21.1
Plana Aço


Página 7-38
DIN 9021
3xd


Página 7-40
DIN 440 R
Para construção em madeira


Página 7-42
DIN 440V
Para construção em madeira


Página 7-43
DIN 1052
Para construção em madeira


Página 7-44
Anilha de reparação


Página 7-46
ASME ≈ B18.21.1
Plana


Página 7-49
DIN 127 B
Ponta quadrada


Página 7-52
ASME B18.21.1
Ponta quadrada


Página 7-55
ASME B18.21.1
Ponta quadrada heavy


Página 7-56
ASME B18.21.1
Ponta quadrada extra


Página 7-57
DIN 7980
Para parafusos cabeça cilindrica


Página 7-59
ASME B18.21.1
Para parafusos cabeça cilindrica


Página 7-60
Dupla


Página 7-61
DIN 74361 C
Anilha de mola


Página 7-61
DIN 137 B
Ondulada


Página 7-63
DIN 137 A
Curvada


Página 7-64
DIN 128 A
Curvada


Página 7-66
DIN ≈128 A
Com recartilha


Página 7-67
NF E25-512
Tipo JZC


Página 7-68
DIN 6798 V
Tipo V


Página 7-69
ASME B18.21.1
Recartilha exterior


Página 7-69
ASME B18.21.1
Recartilha exterior e interior


Página 7-70
ASME B18.21.1
Externa


Página 7-72
NF ≈E27-626
Tipo DD


Página 7-73
DIN 6798 J
Tipo J


Página 7-74
ASME B18.21.1
Recartilha interna


Página 7-76
ASME B18.21.1
Interna heavy

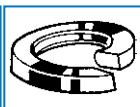

Página 7-77
DIN 6798 A
Tipo A


Página 7-79
DIN 6797 J
Tipo J

7

Anilha 7


Página 7-80
DIN 6797 A
Tipo A


Página 7-81
DIN 43699
Para mecanismo comutação

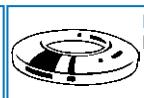

Página 7-82
DIN 2093 A
Tipo A pesado


Página 7-83
DIN 2093 B
Tipo B médio


Página 7-84
DIN 2093 C
Tipo C ligeiro

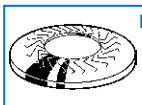

Página 7-85
DIN 2093
Aplicação universal

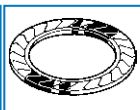

Página 7-87
DIN ≈2093 A/C
Tipo A pesado


Página 7-88
DIN 6796
Para ligações roscadas


Página 7-90
Aplicação critica


Página 7-92
Para rolamentos


Página 7-93
Tipo M


Página 7-94
Tipo Z


Página 7-96
NORD-LOCK


Página 7-98
NORD-LOCK polegadas


Página 7-99
J
NORD-LOCK diâmetro exterior largo


Página 7-101
NORD-LOCK diâmetro largo polegadas


Página 7-102
NORD-LOCK X-Series


Página 7-102
NORD-LOCK X-Series polegadas


Página 7-103
NORD-LOCK X-Series diâmetro largo


Página 7-103
NORD-LOCK X-Series diâmetro largo polegadas

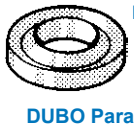

Página 7-104
Tipo S

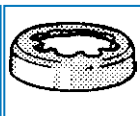

Página 7-106
Tipo VS


Página 7-107
NF E25-511
Tipo M


Página 7-108
Tipo P


Página 7-109
DUBO para parafusos sextavados e porca


Página 7-110
DUBO Para parafusos sextavado interior


Página 7-111
DUBO Anel dentado


Página 7-113
DIN 93
Com patilha longa


Página 7-114
DIN 463
Com patilha e aba


Página 7-116
DIN 462
Com patilha interna


Página 7-117
DIN 432
Com patilha externa


Página 7-119
DIN 471
Tipo A


Página 7-122
DIN 472
Tipo J


Página 7-125
DIN 6799
Freio retenção


Página 7-126
DIN 7993 A
Anel de ajuste


Página 7-128
Anilha para hastes tipo A

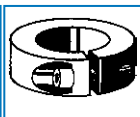

Página 7-129
Anilha para hastes tipo 4A


Página 7-129
Ferramenta de instalação para anilhas

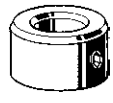

Página 7-130
Magnético

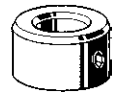

Página 7-131
Anilha de fixação para veios


Página 7-132
Tipo SL

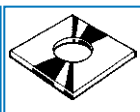

Página 7-133
Com parafuso sextavado interior

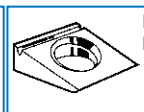

Página 7-134
Com 2 parafusos sextavado interior

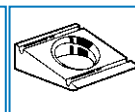

Página 7-134
DIN 705A
Com perno

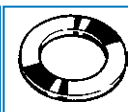

Página 7-137
DIN 705A/ISO 4027 (DIN 914)
Com 2 parafusos


Página 7-137
DIN 988
Anel de ajuste

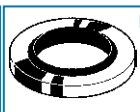

Página 7-142
DIN 436
Para construção em madeira


Página 7-143
DIN 435
Para secções em I


Página 7-145
DIN 434
Para secções em U

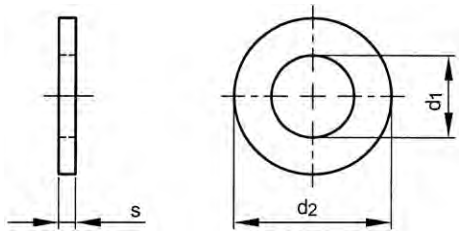

Página 7-146
DIN 7603 A/C
Anilha de ajuste

Anilha 7

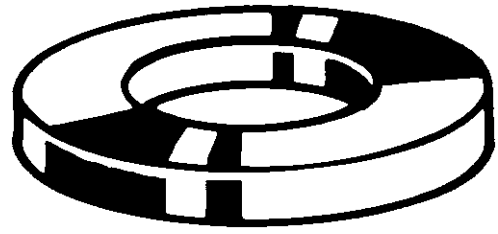
 Página 7-150	 Página 7-151	 Página 7-151	 Página 7-152	 Página 7-158
Anel de ajuste	Anilha para Toyota	Anilha de ajuste com borracha	O-ring	O-ring fio

7

Anilha plana



DIN **125-1A**
ISO 7089
NEN 2269 A



Dados técnicos

Para diâm.nom.	d_1	d_2	s
M1 (≠DIN)	1.1	3.2	0.3
M1.2 (≠DIN)	1.3	3.8	0.3
M1.4 (≠DIN)	1.5	3.8	0.3
M1.6	1.7	4	0.3
M1.7	1.8	4.5	0.3
M2	2.2	5	0.3
M2.5	2.7	6	0.5
M2.6	2.8	7	0.5
M3	3.2	7	0.5
M3.5	3.7	8	0.5
M4	4.3	9	0.8
M5	5.3	10	1
M6	6.4	12	1.6
M7	7.4	14	1.6
M8	8.4	16	1.6
M10	10.5	20	2
M11 (≠DIN)	12	24	2.5
M12	13	24	2.5
M14	15	28	2.5
M14.5 (≠DIN)	14.5	22	2.2
M16	17	30	3

Para diâm.nom.	d_1	d_2	s
M18	19	34	3
M20	21	37	3
M22	23	39	3
M24	25	44	4
M26 (≠DIN)	27.3	49.5	3.8
M27	28	50	4
M30	31	56	4
M33	34	60	5
M36	37	66	5
M39	40	72	6
M42	43	78	7
M45	46	85	7
M48	50	92	8
M50	52	92	8
M52	54	98	8
M56	58	105	9
M58 (≠DIN)	60	110	9
M60	62	110	9
M64	66	115	9
M72 (≠DIN)	74.3	123.7	9.75

- Anilhas planas sem chanfro de acc. com DIN 125-1 A com a dureza mínima de 140HV.
- Devido à pouca força de pressão estas anilhas planas são exclusivamente apropriadas em combinação com parafusos de classe < 8.8 e com porcas de classe < 8.

7

Grupos de produtos

Material	Classe	Tratamento sup.		Código	Página
Aço 140HV				38100	7-5
Aço 140HV		Zn		38031	7-5
Aço 140HV		ZNTHP-NC6		38081	7-5
Aço 140HV		Zn		38130	7-5
Aço 140HV		Zn	Embalagem grande	38140	7-6
Aço 140HV		Passiv. amar.		38080	7-6
Aço 140HV		Passiv. preto		38143	7-6
Aço 140HV		Galv. Q.		38157	7-6
Aço 140HV		FLZNNC-NC6		38152	7-6
Aço 200HV		Zn		38093	7-7
Aço 200HV		FLZNNC-NC6		38125	7-7
INOX A2				51420	7-7
INOX A4				55420	7-7
INOX A5				52420	7-8
Al				45184	7-8
Latão				50060	7-8
Latão		Niq.		50065	7-8
Plástico PA	PA 6.6			56300	7-8
Plástico PA	PA 6.6		Embalagem grande	56310	7-9
Ti				45930	7-9

38100 Anilha plana — L01A

Material Aço 140HV



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	250	38100.030.001	M18	100	38100.180.001	M42	10	38100.420.001
M4	250	38100.040.001	M20	100	38100.200.001	M45	10	38100.450.001
M5	250	38100.050.001	M22	50	38100.220.001	M48	10	38100.480.001
M6	250	38100.060.001	M24	50	38100.240.001	M52	5	38100.520.001
M8	250	38100.080.001	M27	100	38100.270.001	M56	5	38100.560.001
M10	200	38100.100.001	M30	25	38100.300.001	M58	1	38100.580.001
M11	150	38100.110.001	M33	25	38100.330.001	M60	1	38100.600.001
M12	150	38100.120.001	M36	25	38100.360.001	M64	1	38100.640.001
M14	100	38100.140.001	M39	10	38100.390.001	M72	1	38100.720.001
M16	100	38100.160.001						

38031 Anilha plana — L01A

Material Aço 140HV
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	250	38031.030.001	M11	150	38031.110.001	M22	50	38031.220.001
M4	250	38031.040.001	M12	150	38031.120.001	M24	25	38031.240.001
M5	250	38031.050.001	M14	100	38031.140.001	M27	10	38031.270.001
M6	250	38031.060.001	M16	100	38031.160.001	M30	10	38031.300.001
M8	250	38031.080.001	M18	100	38031.180.001			
M10	200	38031.100.001	M20	100	38031.200.001			

38081 Anilha plana — L95A

Material Aço 140HV
Tratamento sup. Passivação espessa Cr^{3+}



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	250	38081.030.001	M10	200	38081.100.001	M22	50	38081.220.001
M4	250	38081.040.001	M12	150	38081.120.001	M24	50	38081.240.001
M5	250	38081.050.001	M14	100	38081.140.001	M27	25	38081.270.001
M6	250	38081.060.001	M16	100	38081.160.001	M30	25	38081.300.001
M7	250	38081.070.001	M18	100	38081.180.001			
M8	250	38081.080.001	M20	100	38081.200.001			

38130 Anilha plana — L01A

Material Aço 140HV
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M1,6	500	38130.016.001	M11	150	38130.110.001	M33	25	38130.330.001
M2	500	38130.020.001	M12	150	38130.120.001	M36	25	38130.360.001
M2,5	500	38130.025.001	M14	100	38130.140.001	M39	10	38130.390.001
M2,6	500	38130.026.001	M16	100	38130.160.001	M42	10	38130.420.001
M3	250	38130.030.001	M18	100	38130.180.001	M45	10	38130.450.001
M4	250	38130.040.001	M20	100	38130.200.001	M48	10	38130.480.001
M5	250	38130.050.001	M22	50	38130.220.001	M52	5	38130.520.001
M6	250	38130.060.001	M24	50	38130.240.001	M56	5	38130.560.001
M7	250	38130.070.001	M26	50	38130.260.001	M60	5	38130.600.001
M8	250	38130.080.001	M27	25	38130.270.001	M64	5	38130.640.001
M10	200	38130.100.001	M30	25	38130.300.001			

38140 Anilha plana — L01A

Material Aço 140HV
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2	2500	38140.020.001	M6	2000	38140.060.001	M14	400	38140.140.001
M3	2500	38140.030.001	M8	2000	38140.080.001	M16	400	38140.160.001
M3,5	2500	38140.035.001	M10	1000	38140.100.001	M20	250	38140.200.001
M4	2500	38140.040.001	M11	500	38140.110.001	M24	250	38140.240.001
M5	2500	38140.050.001	M12	500	38140.120.001			

38080 Anilha plana — L01A

Material Aço 140HV
Tratamento sup. Passivado a amarelo



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	250	38080.030.001	M10	200	38080.100.001	M20	100	38080.200.001
M4	250	38080.040.001	M11	150	38080.110.001	M22	50	38080.220.001
M5	250	38080.050.001	M12	150	38080.120.001	M24	50	38080.240.001
M6	250	38080.060.001	M14	100	38080.140.001	M27	25	38080.270.001
M7	250	38080.070.001	M16	100	38080.160.001	M30	25	38080.300.001
M8	250	38080.080.001	M18	100	38080.180.001	M33	25	38080.330.001

38143 Anilha plana — L01A

Material Aço 140HV
Tratamento sup. Passivado a preto



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	250	38143.030.001	M8	250	38143.080.001	M14	100	38143.140.001
M4	250	38143.040.001	M10	200	38143.100.001	M16	100	38143.160.001
M5	250	38143.050.001	M12	150	38143.120.001	M20	100	38143.200.001
M6	250	38143.060.001						

7

38157 Anilha plana — A08A

Material Aço 140HV
Tratamento sup. Galvanizado a quente



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M8	200	38157.080.001	M18	100	38157.180.001	M27	50	38157.270.001
M10	200	38157.100.001	M20	100	38157.200.001	M30	50	38157.300.001
M12	150	38157.120.001	M24	100	38157.240.001	M36	50	38157.360.001
M16	100	38157.160.001						

38152 Anilha plana — L01A

Material Aço 140HV
Tratamento sup. Camada de zinco isento Cr^{6+}- ISO 10683 flZnnc



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6	250	38152.060.001	M14	100	38152.140.001	M24	50	38152.240.001
M8	250	38152.080.001	M16	100	38152.160.001	M27	50	38152.270.001
M10	200	38152.100.001	M20	100	38152.200.001	M30	25	38152.300.001
M12	150	38152.120.001						

38093 Anilha plana — L01A

Material Aço 200HV
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6	250	38093.060.001	M16	100	38093.160.001	M27	25	38093.270.001
M8	250	38093.080.001	M18	100	38093.180.001	M30	25	38093.300.001
M10	200	38093.100.001	M20	100	38093.200.001	M33	25	38093.330.001
M12	150	38093.120.001	M24	50	38093.240.001	M36	25	38093.360.001
M14	100	38093.140.001						

38125 Anilha plana — L01A

Material Aço 200HV
Tratamento sup. Camada de zinco isento Cr^{6+}- ISO 10683 flZnnc



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6	250	38125.060.001	M12	150	38125.120.001	M24	50	38125.240.001
M8	250	38125.080.001	M16	100	38125.160.001	M30	25	38125.300.001
M10	200	38125.100.001	M20	100	38125.200.001			

51420 Anilha plana — R05A

Material Aço inoxidável A2



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M1,2	200	51420.012.001	M7	500	51420.070.001	M27	50	51420.270.001
M1,6	200	51420.016.001	M8	500	51420.080.001	M30	50	51420.300.001
M1,7*	2000	51420.017.001	M10	500	51420.100.001	M33	50	51420.330.001
M2	200	51420.020.001	M12	500	51420.120.001	M36	50	51420.360.001
M2,5	200	51420.025.001	M14	200	51420.140.001	M39	25	51420.390.001
M3	500	51420.030.001	M16	200	51420.160.001	M40*	25	51420.400.001
M3,5	500	51420.035.001	M18	200	51420.180.001	M42	20	51420.420.001
M4	500	51420.040.001	M20	200	51420.200.001	M46*	10	51420.460.001
M5	500	51420.050.001	M22	100	51420.220.001	M50*	10	51420.500.001
M6	500	51420.060.001	M24	100	51420.240.001	M52	10	51420.520.001

55420 Anilha plana — R45A

Material Aço inoxidável A4



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M1,6	200	55420.016.001	M8	500	55420.080.001	M27	50	55420.270.001
M1,7*	2000	55420.017.001	M10	500	55420.100.001	M30	50	55420.300.001
M2	200	55420.020.001	M12	500	55420.120.001	M33	50	55420.330.001
M2,5	200	55420.025.001	M14	200	55420.140.001	M36	50	55420.360.001
M3	500	55420.030.001	M16	200	55420.160.001	M39*	25	55420.390.001
M3,5*	1000	55420.035.001	M18	200	55420.180.001	M42*	25	55420.420.001
M4	500	55420.040.001	M20	200	55420.200.001	M45	10	55420.450.001
M5	500	55420.050.001	M22	100	55420.220.001	M50*	10	55420.500.001
M6	500	55420.060.001	M24	100	55420.240.001	M52*	10	55420.520.001
M7	500	55420.070.001						

52420 Anilha plana — R45A

Material Aço inoxidável A5



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6*	1000	52420.060.001	M12*	200	52420.120.001	M24*	100	52420.240.001
M8*	500	52420.080.001	M16*	200	52420.160.001	M27*	50	52420.270.001
M10*	500	52420.100.001	M20*	200	52420.200.001			

45184 Anilha plana — W010

Material Alumínio



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	250	45184.030.001	M8	250	45184.080.001	M16	100	45184.160.001
M4	250	45184.040.001	M10	200	45184.100.001	M20	100	45184.200.001
M5	250	45184.050.001	M12	150	45184.120.001	M30	50	45184.300.001
M6	250	45184.060.001						

50060 Anilha plana — M11F

Material Latão



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	250	50060.030.001	M8	250	50060.080.001	M16	100	50060.160.001
M4	250	50060.040.001	M10	100	50060.100.001	M18	50	50060.180.001
M5	250	50060.050.001	M12	100	50060.120.001	M20	50	50060.200.001
M6	250	50060.060.001	M14	100	50060.140.001	M24	50	50060.240.001
M7	250	50060.070.001						

7

50065 Anilha plana — M11F

Material Latão
Tratamento sup. Niquelado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	250	50065.030.001	M8	250	50065.080.001	M16	100	50065.160.001
M4	250	50065.040.001	M10	100	50065.100.001	M20	50	50065.200.001
M5	250	50065.050.001	M12	100	50065.120.001	M24	50	50065.240.001
M6	250	50065.060.001						

56300 Anilha plana — W02A

Material Plástico Poliamida (nylon)
Classe PA 6.6



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M1,8	200	56300.018.001	M8	200	56300.080.001	M20	50	56300.200.001
M2	200	56300.020.001	M10	100	56300.100.001	M22	50	56300.220.001
M2,5	200	56300.025.001	M12	100	56300.120.001	M24	50	56300.240.001
M3	200	56300.030.001	M14	100	56300.140.001	M27	50	56300.270.001
M4	200	56300.040.001	M14,5	100	56300.145.001	M30	50	56300.300.001
M5	200	56300.050.001	M16	50	56300.160.001	M33	50	56300.330.001
M6	200	56300.060.001	M18	100	56300.180.001	M36	50	56300.360.001

56310 **Anilha plana** **W02A**

Material Plástico Poliamida (nylon)
Classe PA 6.6



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	1000	56310.030.001	M8	1000	56310.080.001	M14	500	56310.140.001
M4	1000	56310.040.001	M10	500	56310.100.001	M16	500	56310.160.001
M5	1000	56310.050.001	M12	500	56310.120.001	M20	500	56310.200.001
M6	1000	56310.060.001						

45930 **Anilha plana** **W01A**

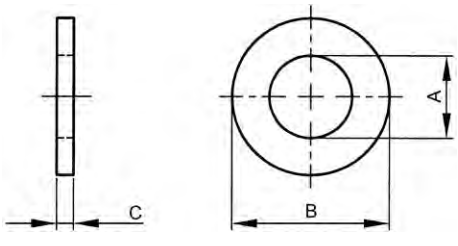
Material Titânio



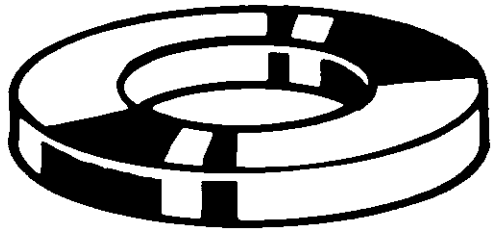
Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6	25	45930.060.001	M8	25	45930.080.001	M10	25	45930.100.001

- Titânio Grau 2 (nr. de material 3.7035) com uma elevada percentagem de titânio puro, assegura a estabilidade do produto e é indicado em ambientes extremamente corrosivos, onde outros materiais, como por exemplo aço inox, falham.
- Titânio grau 2 é, também, indicado para outras aplicações ligeiras.

Anilha plana USS



ASME B18.21.1



7

Dados técnicos

Para diâm.nom.	A	B	C
1/4	0.312	0.734	0.065
5/16	0.375	0.875	0.083
3/8	0.438	1.000	0.083
7/16	0.500	1.250	0.083
1/2	0.562	1.375	0.109
9/16	0.625	1.469	0.109
5/8	0.688	1.750	0.134
3/4	0.812	2.000	0.148
7/8	0.938	2.250	0.165
1 Inch	1.062	2.500	0.165
1.1/8	1.250	2.750	0.165
1.1/4	1.375	3.000	0.165
1.3/8	1.500	3.250	0.180
1.1/2	1.625	3.500	0.180

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço		U38100	7-10
Aço	Zn	U38130	7-10
Aço	Galv. Q.	U38157	7-10
INOX A2 (AISI304/18-8)		U51420	7-10
INOX A4 (AISI316/18-10)		U55420	7-10

U38100 Anilha plana USS — X09A

Material Aço



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
1/4*	100	U38100.025.0001	9/16*	25	U38100.056.0001	1.1/8*	5	U38100.112.0001
5/16*	100	U38100.031.0001	5/8*	25	U38100.062.0001	1.1/4*	5	U38100.125.0001
3/8*	100	U38100.037.0001	3/4*	20	U38100.075.0001	1.3/8*	5	U38100.137.0001
7/16*	50	U38100.043.0001	7/8*	10	U38100.087.0001	1.1/2*	5	U38100.150.0001
1/2*	50	U38100.050.0001	1 Inch*	5	U38100.100.0001			

U38130 Anilha plana USS — X09A

Material Aço
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
1/4*	100	U38130.025.0001	9/16*	25	U38130.056.0001	1.1/8*	5	U38130.112.0001
5/16*	100	U38130.031.0001	5/8*	25	U38130.062.0001	1.1/4*	5	U38130.125.0001
3/8*	100	U38130.037.0001	3/4*	20	U38130.075.0001	1.3/8*	5	U38130.137.0001
7/16*	50	U38130.043.0001	7/8*	10	U38130.087.0001	1.1/2*	5	U38130.150.0001
1/2*	50	U38130.050.0001	1 Inch*	5	U38130.100.0001			

U38157 Anilha plana USS — X09A

Material Aço
Tratamento sup. Galvanizado a quente



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
1/4*	100	U38157.025.0001	9/16*	25	U38157.056.0001	1.1/8*	5	U38157.112.0001
5/16*	100	U38157.031.0001	5/8*	25	U38157.062.0001	1.1/4*	5	U38157.125.0001
3/8*	100	U38157.037.0001	3/4*	20	U38157.075.0001	1.3/8*	5	U38157.137.0001
7/16*	50	U38157.043.0001	7/8*	10	U38157.087.0001	1.1/2*	5	U38157.150.0001
1/2*	50	U38157.050.0001	1 Inch*	5	U38157.100.0001			

U51420 Anilha plana USS — X15A

Material Aço inoxidável A2 (AISI 304/18-8)



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
1/4*	50	U51420.025.0001	9/16*	25	U51420.056.0001	1.1/8*	5	U51420.112.0001
5/16*	50	U51420.031.0001	5/8*	25	U51420.062.0001	1.1/4*	5	U51420.125.0001
3/8*	50	U51420.037.0001	3/4*	20	U51420.075.0001	1.3/8*	5	U51420.137.0001
7/16*	25	U51420.043.0001	7/8*	5	U51420.087.0001	1.1/2*	5	U51420.150.0001
1/2*	25	U51420.050.0001	1 Inch*	5	U51420.100.0001			

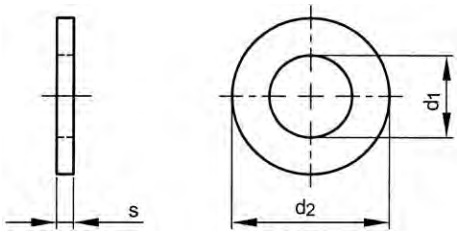
U55420 Anilha plana USS — X15A

Material Aço inoxidável A4 (AISI 316/18-10)

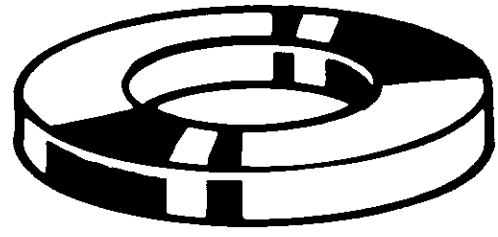


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
1/4*	50	U55420.025.0001	1/2*	25	U55420.050.0001	1.1/8*	5	U55420.112.0001
5/16*	50	U55420.031.0001	5/8*	25	U55420.062.0001	1.1/4*	5	U55420.125.0001
3/8*	50	U55420.037.0001	7/8*	5	U55420.087.0001	1.3/8*	5	U55420.137.0001
7/16*	25	U55420.043.0001	1 Inch*	5	U55420.100.0001	1.1/2*	5	U55420.150.0001

Anilha plana



DIN	**126**
ISO	7091
NEN	2268
NF	E25-513



Dados técnicos

Para diâm.nom.	d_1	d_2	s	Para diâm.nom.	d_1	d_2	s
M5	5.5	10	1	**M33**	36	60	5
M6	6.6	12	1.6	**M36**	39	66	5
M8	9	16	1.6	**M39**	42	72	6
M10	11	20	2	**M42**	45	78	7
M12	13.5	24	2.5	**M45**	48	85	7
M14	15.5	28	3	**M48**	52	92	8
M16	17.5	30	3	**M52**	56	98	8
M18	20	34	3	**M56**	62	105	9
M20	22	37	3	**M60**	66	110	9
M22	24	39	3	**M64**	70	115	9
M24	26	44	4	**M72**	78	125	10
M27	30	50	4	**M80**	86	140	12
M30	33	56	4	**M90**	96	160	12

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço		38200	7-11
Aço	Zn	38205	7-11
Aço	Galv. Q.	38740	7-12

38200 Anilha plana — L07G

Material Aço



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M5	1000	38200.050.001	M24	100	38200.240.001	M52	25	38200.520.001
M6	1000	38200.060.001	M27	100	38200.270.001	M56	25	38200.560.001
M8	1000	38200.080.001	M30	100	38200.300.001	M60	10	38200.600.001
M10	1000	38200.100.001	M33	100	38200.330.001	M64	10	38200.640.001
M12	500	38200.120.001	M36	100	38200.360.001	M72	10	38200.720.001
M14	250	38200.140.001	M39	50	38200.390.001	M80	5	38200.800.001
M16	250	38200.160.001	M42	50	38200.420.001	M90	5	38200.900.001
M20	200	38200.200.001	M45	25	38200.450.001			
M22	100	38200.220.001	M48	25	38200.480.001			

38205 Anilha plana — L07G

Material Aço
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6	1000	38205.060.001	M18	200	38205.180.001	M33	100	38205.330.001
M8	1000	38205.080.001	M20	200	38205.200.001	M36	100	38205.360.001
M10	1000	38205.100.001	M22	200	38205.220.001	M39	50	38205.390.001
M12	500	38205.120.001	M24	100	38205.240.001	M52	10	38205.520.001
M14	100	38205.140.001	M27	100	38205.270.001			
M16	250	38205.160.001	M30	100	38205.300.001			

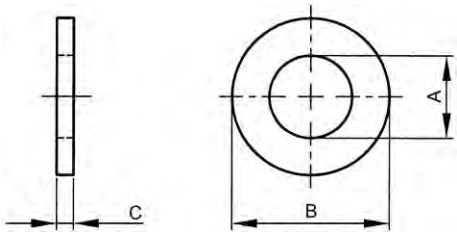
38740	Anilha plana	A08G

Material Aço
Tratamento sup. Galvanizado a quente

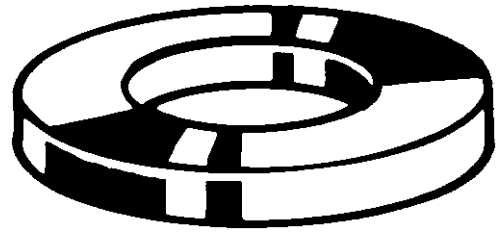


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6	1000	38740.060.001	M22	100	38740.220.001	M42	50	38740.420.001
M8	1000	38740.080.001	M24	100	38740.240.001	M45	25	38740.450.001
M10	1000	38740.100.001	M27	100	38740.270.001	M48	25	38740.480.001
M12	500	38740.120.001	M30	100	38740.300.001	M52	25	38740.520.001
M14	100	38740.140.001	M33	100	38740.330.001	M56	25	38740.560.001
M16	250	38740.160.001	M36	100	38740.360.001	M60	10	38740.600.001
M18	250	38740.180.001	M39	50	38740.390.001	M64	10	38740.640.001
M20	200	38740.200.001						

Anilha plana SAE



ASME B18.21.1



Dados técnicos

Para diâm.nom.	A	B	C
1/4	0.281	0.625	0.065
5/16	0.344	0.688	0.065
3/8	0.406	0.812	0.065
7/16	0.469	0.922	0.065
1/2	0.531	1.062	0.095
9/16	0.594	1.156	0.095
5/8	0.656	1.312	0.095
3/4	0.812	1.469	0.134
7/8	0.938	1.750	0.134
1 Inch	1.062	2.000	0.134
1.1/8	1.250	2.250	0.134
1.1/4	1.375	2.500	0.165
1.3/8	1.500	2.750	0.165
1.1/2	1.625	3.000	0.165

7

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço		U38200	7-12
Aço	Zn	U38205	7-13
INOX A2 (AISI304/18-8)		U51205	7-13
INOX A4 (AISI316/18-10)		U55205	7-13

U38200	Anilha plana SAE	X09A

Material Aço



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
1/4*	100	U38200.025.0001	9/16*	25	U38200.056.0001	1.1/8*	5	U38200.112.0001
5/16*	100	U38200.031.0001	5/8*	25	U38200.062.0001	1.1/4*	5	U38200.125.0001
3/8*	100	U38200.037.0001	3/4*	20	U38200.075.0001	1.3/8*	5	U38200.137.0001
7/16*	50	U38200.043.0001	7/8*	10	U38200.087.0001	1.1/2*	5	U38200.150.0001
1/2*	50	U38200.050.0001	1 Inch*	5	U38200.100.0001			

U38205 Anilha plana SAE — X09A

Material Aço
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
1/4*	100	U38205.025.0001	9/16*	25	U38205.056.0001	1.1/8*	5	U38205.112.0001
5/16*	100	U38205.031.0001	5/8*	25	U38205.062.0001	1.1/4*	5	U38205.125.0001
3/8*	100	U38205.037.0001	3/4*	20	U38205.075.0001	1.3/8*	5	U38205.137.0001
7/16*	50	U38205.043.0001	7/8*	10	U38205.087.0001	1.1/2*	5	U38205.150.0001
1/2*	50	U38205.050.0001	1 Inch*	5	U38205.100.0001			

U51205 Anilha plana SAE — X15A

Material Aço inoxidável A2 (AISI 304/18-8)



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
1/4*	50	U51205.025.0001	9/16*	25	U51205.056.0001	1.1/8*	5	U51205.112.0001
5/16*	50	U51205.031.0001	5/8*	25	U51205.062.0001	1.1/4*	5	U51205.125.0001
3/8*	50	U51205.037.0001	3/4*	20	U51205.075.0001	1.3/8*	5	U51205.137.0001
7/16*	25	U51205.043.0001	7/8*	5	U51205.087.0001	1.1/2*	5	U51205.150.0001
1/2*	25	U51205.050.0001	1 Inch*	5	U51205.100.0001			

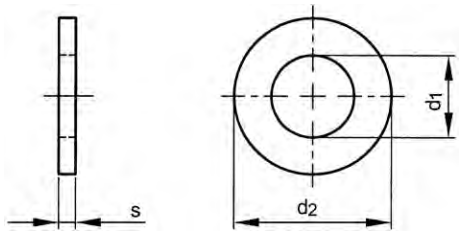
U55205 Anilha plana SAE — X15A

Material Aço inoxidável A4 (AISI 316/18-10)

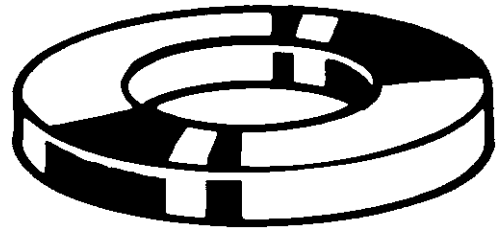


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
1/4*	50	U55205.025.0001	9/16*	25	U55205.056.0001	1.1/8*	5	U55205.112.0001
5/16*	50	U55205.031.0001	5/8*	25	U55205.062.0001	1.1/4*	5	U55205.125.0001
3/8*	50	U55205.037.0001	3/4*	20	U55205.075.0001	1.3/8*	5	U55205.137.0001
7/16*	25	U55205.043.0001	7/8*	5	U55205.087.0001	1.1/2*	5	U55205.150.0001
1/2*	25	U55205.050.0001	1 Inch*	5	U55205.100.0001			

Anilha plana tipo L



NF E25-513



Dados técnicos

Para diâm.nom.	d_1 (min.)	d_2 (max.)	s	Para diâm.nom.	d_1 (min.)	d_2 (max.)	s
M3	3.2	12	0.8	M14	15	36	2.5
M4	4.3	14	0.8	M16	17	40	3
M5	5.3	16	1	M18	19	45	3
M6	6.4	18	1.2	M20	21	50	3
M7	7.4	20	1.5	M22	23	55	3
M8	8.4	22	1.5	M24	25	60	4
M10	10.5	27	2	M27	28	65	4
M12	13	32	2.5	M30	31	70	4

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço		38063	7-14
Aço	Zn	38065	7-14
Aço	Passiv. amar.	38067	7-15
INOX A2		51418	7-15
INOX A4		55418	7-15

38063 **Anilha plana tipo L** **L07G**

Material Aço



RoHS

Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	500	38063.030.001	M10	200	38063.100.001	M22	100	38063.220.001
M4	500	38063.040.001	M12	200	38063.120.001	M24	100	38063.240.001
M5	500	38063.050.001	M14	200	38063.140.001	M27	100	38063.270.001
M6	500	38063.060.001	M16	100	38063.160.001	M30	100	38063.300.001
M7	250	38063.070.001	M18	100	38063.180.001			
M8	250	38063.080.001	M20	100	38063.200.001			

38065 **Anilha plana tipo L** **L07G**

Material Aço
Tratamento sup. Zincado



RoHS

Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	500	38065.030.001	M10	200	38065.100.001	M22	100	38065.220.001
M4	500	38065.040.001	M12	200	38065.120.001	M24	100	38065.240.001
M5	500	38065.050.001	M14	200	38065.140.001	M27	100	38065.270.001
M6	500	38065.060.001	M16	100	38065.160.001	M30	100	38065.300.001
M7	250	38065.070.001	M18	100	38065.180.001			
M8	250	38065.080.001	M20	100	38065.200.001			

38067 Anilha plana tipo L — L07G

Material Aço
Tratamento sup. Passivado a amarelo



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	500	38067.030.001	M10	200	38067.100.001	M22	100	38067.220.001
M4	500	38067.040.001	M12	200	38067.120.001	M24	100	38067.240.001
M5	500	38067.050.001	M14	100	38067.140.001	M27	100	38067.270.001
M6	500	38067.060.001	M16	100	38067.160.001	M30	100	38067.300.001
M7	250	38067.070.001	M18	100	38067.180.001			
M8	250	38067.080.001	M20	100	38067.200.001			

51418 Anilha plana tipo L — R05A

Material Aço inoxidável A2 **NF** **≈E25-513**

RoHS



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	250	51418.030.001	M10	250	51418.100.001	M18	100	51418.180.001
M4	250	51418.040.001	M12	200	51418.120.001	M20	100	51418.200.001
M5	250	51418.050.001	M14	200	51418.140.001	M24	50	51418.240.001
M6	250	51418.060.001	M16	100	51418.160.001	M27	50	51418.270.001
M8	250	51418.080.001						

55418 Anilha plana tipo L — R45A

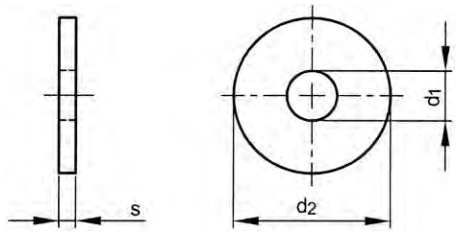
Material Aço inoxidável A4 **NF** **≈E25-513**

RoHS

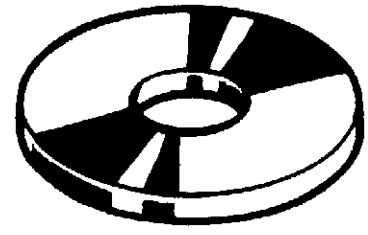


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	250	55418.030.001	M10	250	55418.100.001	M20	100	55418.200.001
M4	250	55418.040.001	M12	200	55418.120.001	M24	50	55418.240.001
M5	250	55418.050.001	M14	200	55418.140.001	M27	50	55418.270.001
M6	250	55418.060.001	M16	100	55418.160.001	M30	25	55418.300.001
M8	250	55418.080.001	M18	100	55418.180.001			

Anilha plana tipo LL



NF E25-513



Dados técnicos

Para diâm.nom.	d_1 (min.)	d_2 (max.)	s	Para diâm.nom.	d_1 (min.)	d_2 (max.)	s
M3	3.2	14	0.8	M14	15	45	2.5
M4	4.3	16	0.8	M16	17	50	3
M5	5.3	20	1	M18	19	55	3
M6	6.4	24	1.2	M20	21	60	3
M7	7.4	27	1.5	M22 (≠NF)	23	65	3
M8	8.4	30	1.5	M24 (≠NF)	25	70	4
M10	10.5	36	2	M27 (≠NF)	28	78	4
M12	13	40	2.5	M30 (≠NF)	31	80	4

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço		38073	7-16
Aço	Zn	38075	7-16
Aço	Passiv. amar.	38077	7-17
INOX A2		51419	7-17
INOX A4		55419	7-17

7

38073 Anilha plana tipo LL — L07G

Material Aço



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	1000	38073.030.001	M10	200	38073.100.001	M22	100	38073.220.001
M4	500	38073.040.001	M12	200	38073.120.001	M24	100	38073.240.001
M5	500	38073.050.001	M14	100	38073.140.001	M27	100	38073.270.001
M6	250	38073.060.001	M16	100	38073.160.001	M30	100	38073.300.001
M7	250	38073.070.001	M18	100	38073.180.001			
M8	250	38073.080.001	M20	100	38073.200.001			

38075 Anilha plana tipo LL — L07G

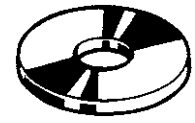
Material Aço
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	1000	38075.030.001	M10	200	38075.100.001	M22	100	38075.220.001
M4	500	38075.040.001	M12	200	38075.120.001	M24	100	38075.240.001
M5	500	38075.050.001	M14	100	38075.140.001	M27	100	38075.270.001
M6	250	38075.060.001	M16	100	38075.160.001	M30	100	38075.300.001
M7	250	38075.070.001	M18	100	38075.180.001			
M8	250	38075.080.001	M20	100	38075.200.001			

38077 Anilha plana tipo LL — L07G

Material Aço
Tratamento sup. Passivado a amarelo



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	1000	38077.030.001	M10	200	38077.100.001	M22	100	38077.220.001
M4	500	38077.040.001	M12	200	38077.120.001	M24	100	38077.240.001
M5	500	38077.050.001	M14	100	38077.140.001	M27	100	38077.270.001
M6	250	38077.060.001	M16	100	38077.160.001	M30	100	38077.300.001
M7	250	38077.070.001	M18	100	38077.180.001			
M8	250	38077.080.001	M20	100	38077.200.001			

51419 Anilha plana tipo LL — R05A

Material Aço inoxidável A2 **NF** **≈E25-513**

RoHS



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3*	500	51419.030.001	M6	250	51419.060.001	M12	200	51419.120.001
M4	250	51419.040.001	M8	250	51419.080.001	M14	100	51419.140.001
M5	250	51419.050.001	M10	250	51419.100.001	M16	100	51419.160.001

55419 Anilha plana tipo LL — R45A

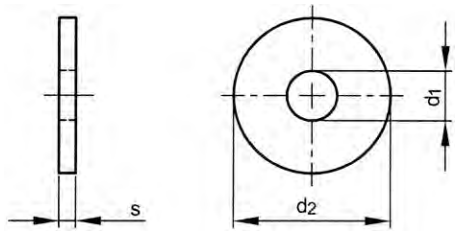
Material Aço inoxidável A4 **NF** **≈E25-513**

RoHS

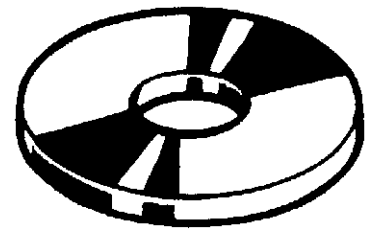


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3*	500	55419.030.001	M6	250	55419.060.001	M12	200	55419.120.001
M4*	500	55419.040.001	M8	250	55419.080.001	M16*	50	55419.160.001
M5*	200	55419.050.001	M10	250	55419.100.001			

Anilha plana tipo M



NF E25-513



Dados técnicos

Para diâm.nom.	d_1 (min.)	d_2 (max.)	s	Para diâm.nom.	d_1 (min.)	d_2 (max.)	s
M2	2.0	5.5	0.5	M20	21	40	3
M2.5 (≠DIN)	2.7	7	0.5	M22	23	45	3
M3	3.2	8	0.8	M24	25	50	4
M4	4.3	10	0.8	M27	28	55	4
M5	5.3	12	1	M30	31	60	4
M6	6.4	14	1.2	M33	34	65	5
M7	7.4	16	1.5	M36	37	70	5
M8	8.4	18	1.5	M39	40	75	6
M10	10.5	22	2	M42	43	80	6
M12	13	27	2.5	M45	46	85	7
M14	15	30	2.5	M48	50	90	7
M16	17	32	3	M52	54	100	8
M18	19	36	3	M56 (≠NF)	60	105	9

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço		38053	7-18
Aço	Zn	38055	7-18
Aço	Passiv. amar.	38057	7-19
INOX A2		51417	7-19
INOX A4		55417	7-19

7

38053 Anilha plana tipo M — L07G

Material Aço



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	500	38053.030.001	M14	200	38053.140.001	M33	100	38053.330.001
M4	500	38053.040.001	M16	100	38053.160.001	M36	100	38053.360.001
M5	500	38053.050.001	M18	100	38053.180.001	M39	100	38053.390.001
M6	500	38053.060.001	M20	100	38053.200.001	M42	100	38053.420.001
M7	250	38053.070.001	M22	100	38053.220.001	M45	100	38053.450.001
M8	250	38053.080.001	M24	100	38053.240.001	M48	25	38053.480.001
M10	200	38053.100.001	M27	100	38053.270.001	M52	25	38053.520.001
M12	200	38053.120.001	M30	100	38053.300.001	M56	25	38053.560.001

38055 Anilha plana tipo M — L07G

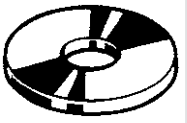
Material Aço
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	500	38055.030.001	M12	200	38055.120.001	M27	100	38055.270.001
M4	500	38055.040.001	M14	200	38055.140.001	M30	100	38055.300.001
M5	500	38055.050.001	M16	100	38055.160.001	M33	100	38055.330.001
M6	500	38055.060.001	M18	100	38055.180.001	M36	100	38055.360.001
M7	250	38055.070.001	M20	100	38055.200.001	M39	100	38055.390.001
M8	250	38055.080.001	M22	100	38055.220.001	M42	100	38055.420.001
M10	200	38055.100.001	M24	100	38055.240.001	M45	100	38055.450.001

38057 Anilha plana tipo M — L07G

Material Aço
Tratamento sup. Passivado a amarelo

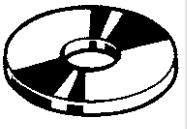


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	500	38057.030.001	M14	200	38057.140.001	M30	100	38057.300.001
M4	500	38057.040.001	M16	100	38057.160.001	M33	100	38057.330.001
M5	500	38057.050.001	M18	100	38057.180.001	M36	100	38057.360.001
M6	500	38057.060.001	M20	100	38057.200.001	M39	100	38057.390.001
M7	250	38057.070.001	M22	100	38057.220.001	M42	100	38057.420.001
M8	250	38057.080.001	M24	100	38057.240.001	M45	100	38057.450.001
M10	200	38057.100.001	M27	100	38057.270.001	M48	50	38057.480.001
M12	200	38057.120.001						

51417 Anilha plana tipo M — R05A

Material Aço inoxidável A2 **NF** **≈E25-513**

RoHS

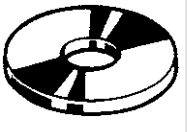


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2*	500	51417.020.001	M10	250	51417.100.001	M22	50	51417.220.001
M2,5	250	51417.025.001	M12	200	51417.120.001	M24	50	51417.240.001
M3	250	51417.030.001	M14	100	51417.140.001	M27	25	51417.270.001
M4	250	51417.040.001	M16	100	51417.160.001	M30	25	51417.300.001
M5	250	51417.050.001	M18	100	51417.180.001	M33	25	51417.330.001
M6	250	51417.060.001	M20	100	51417.200.001	M36	25	51417.360.001
M8	250	51417.080.001						

55417 Anilha plana tipo M — R45A

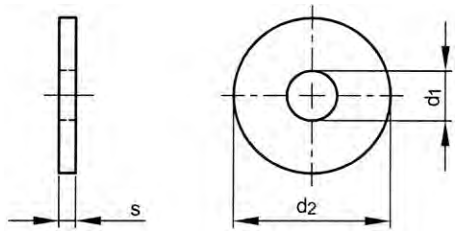
Material Aço inoxidável A4 **NF** **≈E25-513**

RoHS

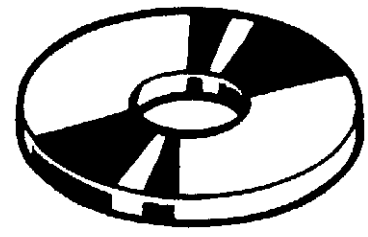


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2*	500	55417.020.001	M10	250	55417.100.001	M22	50	55417.220.001
M2,5*	500	55417.025.001	M12	200	55417.120.001	M24	50	55417.240.001
M3	250	55417.030.001	M14	100	55417.140.001	M27	25	55417.270.001
M4	250	55417.040.001	M16	100	55417.160.001	M30	25	55417.300.001
M5	250	55417.050.001	M18	100	55417.180.001	M33	25	55417.330.001
M6	250	55417.060.001	M20	100	55417.200.001	M36	25	55417.360.001
M8	250	55417.080.001						

Anilha plana tipo Z



NF **E25-513**



Dados técnicos

Para diâm.nom.	d_1 (min.)	d_2 (max.)	s	Para diâm.nom.	d_1 (min.)	d_2 (max.)	s
M2	2.2	4	0.5	M12	13	24	2.5
M2.5	2.7	5	0.5	M14	15	27	2.5
M3	3.2	6	0.8	M16	17	30	3
M4	4.3	8	0.8	M18	19	32	3
M5	5.3	10	1	M20	21	36	3
M6	6.4	12	1.2	M22	23	40	3
M7	7.4	14	1.5	M24	25	45	4
M8	8.4	16	1.5	M27	28	48	4
M10	10.5	20	2	M30	31	52	4

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço		38043	7-20
Aço	Zn	38045	7-20
Aço	Passiv. amar.	38047	7-21
INOX A2		51416	7-21
INOX A4		55416	7-21

38043 **Anilha plana tipo Z** **L07G**

Material Aço



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	500	38043.030.001	M10	200	38043.100.001	M20	100	38043.200.001
M4	500	38043.040.001	M12	150	38043.120.001	M22	100	38043.220.001
M5	500	38043.050.001	M14	100	38043.140.001	M24	100	38043.240.001
M6	250	38043.060.001	M16	100	38043.160.001	M27	100	38043.270.001
M8	250	38043.080.001	M18	100	38043.180.001	M30	100	38043.300.001

38045 **Anilha plana tipo Z** **L07G**

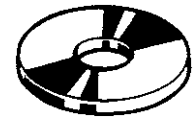
Material Aço
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	500	38045.030.001	M10	200	38045.100.001	M20	100	38045.200.001
M4	500	38045.040.001	M12	150	38045.120.001	M22	100	38045.220.001
M5	500	38045.050.001	M14	100	38045.140.001	M24	100	38045.240.001
M6	250	38045.060.001	M16	100	38045.160.001	M27	100	38045.270.001
M8	250	38045.080.001	M18	100	38045.180.001	M30	100	38045.300.001

38047 Anilha plana tipo Z — L07G

Material Aço
Tratamento sup. Passivado a amarelo



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	500	38047.030.001	M10	200	38047.100.001	M22	100	38047.220.001
M4	500	38047.040.001	M12	150	38047.120.001	M24	100	38047.240.001
M5	500	38047.050.001	M14	100	38047.140.001	M27	100	38047.270.001
M6	250	38047.060.001	M16	100	38047.160.001	M30	100	38047.300.001
M7	250	38047.070.001	M18	100	38047.180.001			
M8	250	38047.080.001	M20	100	38047.200.001			

51416 Anilha plana tipo Z — R05A

Material Aço inoxidável A2 **NF** **≈E25-513**

RoHS



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2*	500	51416.020.001	M6	250	51416.060.001	M20	100	51416.200.001
M2,5*	500	51416.025.001	M8	250	51416.080.001	M24	50	51416.240.001
M3	250	51416.030.001	M10	200	51416.100.001	M27	25	51416.270.001
M4	250	51416.040.001	M12	200	51416.120.001	M30	25	51416.300.001
M5	250	51416.050.001	M16	100	51416.160.001			

55416 Anilha plana tipo Z — R45A

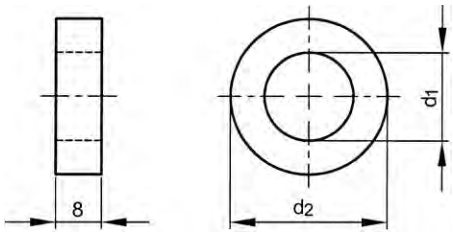
Material Aço inoxidável A4 **NF** **≈E25-513**

RoHS

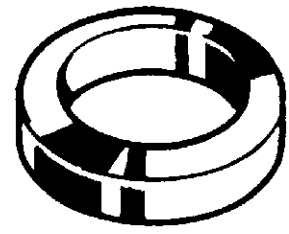


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2*	500	55416.020.001	M6	250	55416.060.001	M16	100	55416.160.001
M2,5*	500	55416.025.001	M8	250	55416.080.001	M20	100	55416.200.001
M3	250	55416.030.001	M10	200	55416.100.001	M24	50	55416.240.001
M4	250	55416.040.001	M12	200	55416.120.001	M30	25	55416.300.001
M5	250	55416.050.001	M14*	50	55416.140.001			

Anilha para estruturas de aço



DIN **7989-1**



Dados técnicos

Para diâm.nom.	d_1	d_2	Para diâm.nom.	d_1	d_2
M10	11	20	M24	26	44
M12	13.5	24	M27	30	50
M16	17.5	30	M30	33	56
M20	22	37	M33 (≠DIN)	35	60
M22 (≠DIN)	24	39	M36 (≠DIN)	38	66

- Espessura 8 mm, especialmente aplicado para parafusos sextavados, para estruturas de aço, de acc. Com DIN 7990.

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço	Zn	38280	7-22
Aço	Galv. Q.	38270	7-22
INOX A2		51415	7-22
INOX A4		55415	7-23

38280 Anilha para estruturas de aço — L07G

Material Aço
Tratamento sup. Zincado



RoHS

7

Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M10	500	38280.100.001	M20	100	38280.200.001	M30	50	38280.300.001
M12	500	38280.120.001	M24	100	38280.240.001	M33	25	38280.330.001
M16	250	38280.160.001	M27	50	38280.270.001	M36	25	38280.360.001

38270 Anilha para estruturas de aço — A08G

Material Aço
Tratamento sup. Galvanizado a quente



RoHS

Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M10	500	38270.100.001	M20	100	38270.200.001	M30	50	38270.300.001
M12	500	38270.120.001	M24	100	38270.240.001	M36	50	38270.360.001
M16	250	38270.160.001	M27	50	38270.270.001			

51415 Anilha para estruturas de aço — R05A

Material Aço inoxidável A2



RoHS

Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M10*	50	51415.100.001	M20*	50	51415.200.001	M27*	25	51415.270.001
M12*	50	51415.120.001	M22*	50	51415.220.001	M30*	10	51415.300.001
M16*	50	51415.160.001	M24*	25	51415.240.001	M33*	10	51415.330.001

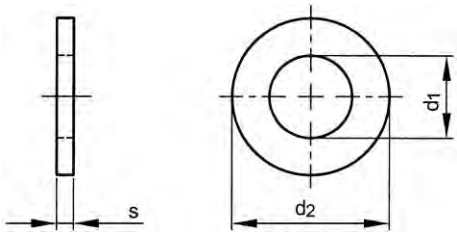
55415 **Anilha para estruturas de aço** **R45A**

Material Aço inoxidável A4

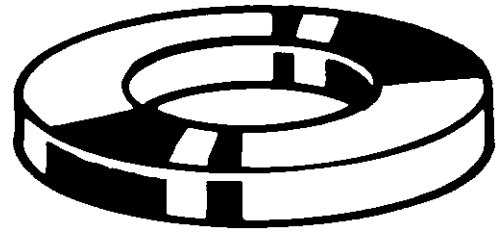


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M10*	50	55415.100.001	M20*	50	55415.200.001	M27*	25	55415.270.001
M12*	50	55415.120.001	M22*	50	55415.220.001	M30*	10	55415.300.001
M16*	50	55415.160.001	M24*	25	55415.240.001			

Anilha para cavilhas elásticas tipo pesado



DIN **7349**
NEN 2274



Dados técnicos

Para diâm.nom.	d_1	d_2	s
M3	3.2	9	1
M4	4.3	12	1.6
M5	5.3	15	2
M6	6.4	17	3
M8	8.4	21	4
M10	10.5	25	4
M12	13	30	6
M14	15	36	6

Para diâm.nom.	d_1	d_2	s
M16	17	40	6
M18	19	44	8
M20	21	44	8
M22	23	50	8
M24	25	50	10
M27	28	60	10
M30	31	68	10

- Estas anilhas são aplicadas em combinação com cavilhas elásticas de acc. com DIN 1481 (ISO 8752).

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço		38420	7-23
Aço	Zn	38430	7-24
Aço	Passiv. amar.	38435	7-24
Aço	Galv. Q.	38438	7-24
INOX A2		51532	7-24
INOX A4		55532	7-24

38420 **Anilha para cavilhas elásticas tipo pesado** **L07G**

Material Aço



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	250	38420.030.001	M10	100	38420.100.001	M20	50	38420.200.001
M4	250	38420.040.001	M12	100	38420.120.001	M22	100	38420.220.001
M5	250	38420.050.001	M14	50	38420.140.001	M24	25	38420.240.001
M6	100	38420.060.001	M16	50	38420.160.001	M30	25	38420.300.001
M8	100	38420.080.001	M18	100	38420.180.001			

38430 Anilha para cavilhas elásticas tipo pesado — L07G

Material Aço
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	250	38430.030.001	M10	200	38430.100.001	M20	100	38430.200.001
M4	250	38430.040.001	M12	150	38430.120.001	M22	50	38430.220.001
M5	250	38430.050.001	M14	50	38430.140.001	M24	50	38430.240.001
M6	250	38430.060.001	M16	100	38430.160.001	M27	25	38430.270.001
M8	250	38430.080.001	M18	100	38430.180.001	M30	25	38430.300.001

38435 Anilha para cavilhas elásticas tipo pesado — L07G

Material Aço
Tratamento sup. Passivado a amarelo



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M5	250	38435.050.001	M10	200	38435.100.001	M20	100	38435.200.001
M6	250	38435.060.001	M12	150	38435.120.001	M24	50	38435.240.001
M8	250	38435.080.001	M16	100	38435.160.001			

38438 Anilha para cavilhas elásticas tipo pesado — L07G

Material Aço
Tratamento sup. Galvanizado a quente



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M5	250	38438.050.001	M12	150	38438.120.001	M22	50	38438.220.001
M6	250	38438.060.001	M16	100	38438.160.001	M24	50	38438.240.001
M8	250	38438.080.001	M18	100	38438.180.001	M30	50	38438.300.001
M10	200	38438.100.001	M20	100	38438.200.001			

51532 Anilha para cavilhas elásticas tipo pesado — R09A

Material Aço inoxidável A2



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	100	51532.030.001	M10	100	51532.100.001	M18*	50	51532.180.001
M4	100	51532.040.001	M12	50	51532.120.001	M20	50	51532.200.001
M5	100	51532.050.001	M14*	100	51532.140.001	M22*	50	51532.220.001
M6	100	51532.060.001	M16	50	51532.160.001	M24*	50	51532.240.001
M8	100	51532.080.001						

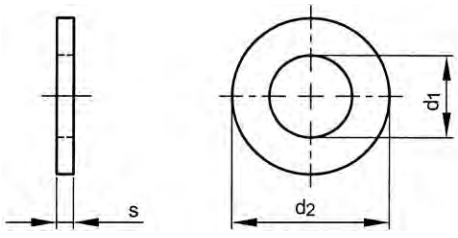
55532 Anilha para cavilhas elásticas tipo pesado — R49A

Material Aço inoxidável A4

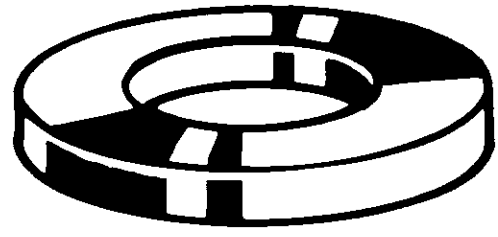


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	100	55532.030.001	M8	100	55532.080.001	M16	50	55532.160.001
M4	100	55532.040.001	M10	100	55532.100.001	M20	50	55532.200.001
M5	100	55532.050.001	M12	50	55532.120.001	M22*	50	55532.220.001
M6	100	55532.060.001	M14*	100	55532.140.001	M24	50	55532.240.001

Anilha para parafusos cabeça de queijo



DIN **433**
ISO 7092
NEN 2270



Dados técnicos

Para diâm.nom.	d_1	d_2	s
M1.7	1.7	3.5	0.3
M2.2	2.2	4.5	0.3
M2	2.2	4.5	0.3
M2.5	2.7	5.0	0.5
M2.6 (≠DIN)	2.7	5	0.5
M3	3.2	6	0.5
M3.5	3.7	7	0.5
M4	4.3	8	0.5
M5	5.3	9	1

Para diâm.nom.	d_1	d_2	s
M6	6.4	11	1.6
M8	8.4	15	1.6
M10	10.5	18	1.6
M12	13	20	2
M14	15	24	2.5
M16	17	28	2.5
M18	19	30	2.5
M20	21	34	3

Grupos de produtos

Material	Classe	Tratamento sup.	Cor	Código	Página
Aço		Zn		38250	7-25
INOX A2				51930	7-25
INOX A4				55930	7-26
Latão		Niq.		50100	7-26
Plástico PA	PA 6.6		Branco	56320	7-26

38250 Anilha para parafusos cabeça de queijo — L07G

Material Aço
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2	500	38250.020.001	M6	250	38250.060.001	M14	100	38250.140.001
M2,6	500	38250.026.001	M8	200	38250.080.001	M16	100	38250.160.001
M3	250	38250.030.001	M10	200	38250.100.001	M18	100	38250.180.001
M4	250	38250.040.001	M12	100	38250.120.001	M20	100	38250.200.001
M5	250	38250.050.001						

51930 Anilha para parafusos cabeça de queijo — R09A

Material Aço inoxidável A2



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M1,7*	2000	51930.017.001	M5	500	51930.050.001	M14	100	51930.140.001
M2,5	500	51930.025.001	M6	500	51930.060.001	M16	100	51930.160.001
M3	500	51930.030.001	M8	200	51930.080.001	M18	100	51930.180.001
M3,5*	1000	51930.035.001	M10	200	51930.100.001	M20	100	51930.200.001
M4	500	51930.040.001	M12	100	51930.120.001			

55930 Anilha para parafusos cabeça de queijo — R49A

Material Aço inoxidável A4



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2	100	55930.020.001	M5	500	55930.050.001	M14	100	55930.140.001
M2,5	100	55930.025.001	M6	500	55930.060.001	M16	100	55930.160.001
M3	500	55930.030.001	M8	200	55930.080.001	M18	100	55930.180.001
M3,5*	1000	55930.035.001	M10	200	55930.100.001	M20	100	55930.200.001
M4	500	55930.040.001	M12	100	55930.120.001			

50100 Anilha para parafusos cabeça de queijo — M11F

Material Latão
Tratamento sup. Niquelado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2	500	50100.020.001	M5	250	50100.050.001	M12	100	50100.120.001
M2,6	500	50100.026.001	M6	250	50100.060.001	M14	100	50100.140.001
M3	250	50100.030.001	M8	200	50100.080.001	M16	100	50100.160.001
M4	250	50100.040.001	M10	200	50100.100.001			

56320 Anilha para parafusos cabeça de queijo — W02A

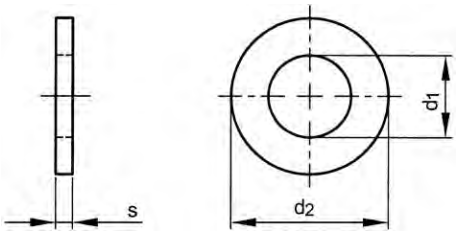
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco

DIN ≈433
ISO ≈7092
NEN ≈2270

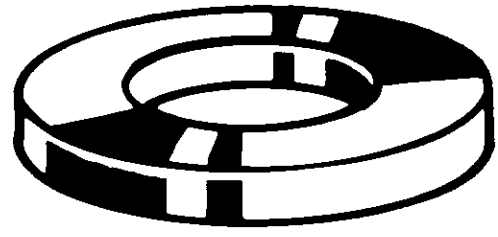


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	200	56320.030.001	M5	200	56320.050.001	M8	200	56320.080.001
M4	200	56320.040.001	M6	200	56320.060.001	M10	100	56320.100.001

Anilha para cavilhas



DIN **1440**
ISO (8738)



Dados técnicos

Para cavilha ø	d_1 (H11)	d_2	s	Para cavilha ø	d_1 (H11)	d_2	s
3	3	6	0.8	20	20	32	4
4	4	8	0.8	22	22	34	4
5	5	10	0.8 (1)	23	23	36	4
6	6	12	1.6	24	24	38	4
7	7	14	1.6	25	25	40	4
8	8	16 (15)	2	26	26	40	5
10	10	20 (18)	2.5	27	27	40	5
12	12	25 (20)	3	28	28	42	5
13	13	25	3	30	30	45	5
14	14	28 (22)	3	32	32	50	5
16	16	28 (24)	3	35	35	52	6
18	18	30	4	40	40	58	6

- Dependendo da disponibilidade podem ser fornecidas de acc. com ISO 8738 com os valores apropriados entre parêntesis.

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço	Zn	38760	7-27
INOX A2		51534	7-27
INOX A4		55534	7-28

38760 Anilha para cavilhas — L07G

Material Aço
Tratamento sup. Zincado



Para cavilha ø	✉	Ref. do artigo	Para cavilha ø	✉	Ref. do artigo	Para cavilha ø	✉	Ref. do artigo
4MM	250	38760.040.001	14MM	150	38760.140.001	25MM	25	38760.250.001
5MM	250	38760.050.001	16MM	100	38760.160.001	26MM	25	38760.260.001
6MM	250	38760.060.001	18MM	100	38760.180.001	28MM	25	38760.280.001
8MM	250	38760.080.001	20MM	100	38760.200.001	30MM	25	38760.300.001
10MM	200	38760.100.001	22MM	50	38760.220.001			
12MM	150	38760.120.001	23MM	25	38760.230.001			

51534 Anilha para cavilhas — R09A

Material Aço inoxidável A2



Para cavilha ø	✉	Ref. do artigo	Para cavilha ø	✉	Ref. do artigo	Para cavilha ø	✉	Ref. do artigo
3MM*	500	51534.030.001	13MM*	100	51534.130.001	25MM*	50	51534.250.001
4MM	100	51534.040.001	14MM	50	51534.140.001	26MM*	50	51534.260.001
5MM	100	51534.050.001	16MM	50	51534.160.001	27MM*	50	51534.270.001
6MM	100	51534.060.001	18MM*	100	51534.180.001	28MM*	50	51534.280.001
7MM*	500	51534.070.001	20MM*	100	51534.200.001	30MM*	50	51534.300.001
8MM	100	51534.080.001	22MM*	100	51534.220.001	32MM*	50	51534.320.001
10MM	100	51534.100.001	23MM*	50	51534.230.001	35MM*	25	51534.350.001
12MM	100	51534.120.001	24MM*	50	51534.240.001	40MM*	25	51534.400.001

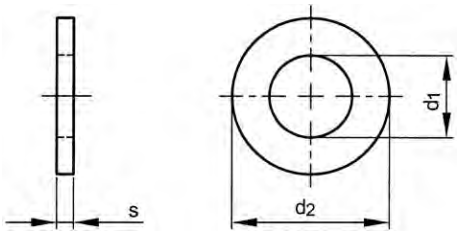
55534	Anilha para cavilhas	R45A

Material Aço inoxidável A4

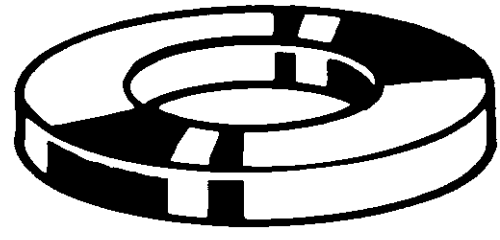


Para cavilha ø	✉	Ref. do artigo	Para cavilha ø	✉	Ref. do artigo	Para cavilha ø	✉	Ref. do artigo
M3*	500	55534.030.001	M12*	200	55534.120.001	M24*	50	55534.240.001
M4*	500	55534.040.001	M13*	100	55534.130.001	M25*	50	55534.250.001
M5*	500	55534.050.001	M14*	100	55534.140.001	M26*	50	55534.260.001
M6*	500	55534.060.001	M16*	100	55534.160.001	M28*	50	55534.280.001
M7*	500	55534.070.001	M18*	100	55534.180.001	M30*	50	55534.300.001
M8*	200	55534.080.001	M20*	100	55534.200.001	M32*	50	55534.320.001
M10*	200	55534.100.001	M22*	100	55534.220.001			

Anilha para cavilhas



DIN **1441**



Dados técnicos

Para cavilha ø	d_1	d_2	s	Para cavilha ø	d_1	d_2	s
5	5.5	10	0.8	24	25	38	4
6	7	12	1.6	25	26	40	4
7	8	14	1.6	26	27	40	5
8	9	16	2	28	29	42	5
10	11	20	2.5	30	31	45	5
12	13	25	3	33	34	50	5
13	13	25	3	36	37	52	6
14	15	28	3	40	41	58	6
16	17	28	3	50	51	68	8
18	19	30	4	60	62	80	9
20	21	32	4	70	72	95	10
22	23	34	4	75	78	100	10
23	24	36	4	80	82	110	12

7

Grupos de produtos

Material	Código	Página
Aço	38958	7-28
INOX A1	51535	7-29

38958	Anilha para cavilhas	L07G

Material Aço



Para cavilha ø	✉	Ref. do artigo	Para cavilha ø	✉	Ref. do artigo	Para cavilha ø	✉	Ref. do artigo
12MM	500	38958.120.001	23MM	100	38958.230.001	40MM	100	38958.400.001
14MM	500	38958.140.001	25MM	100	38958.250.001	50MM	100	38958.500.001
16MM	500	38958.160.001	28MM	100	38958.280.001	60MM	25	38958.600.001
18MM	100	38958.180.001	30MM	100	38958.300.001	70MM	25	38958.700.001
20MM	100	38958.200.001	33MM	100	38958.330.001	75MM	25	38958.750.001
22MM	100	38958.220.001	36MM	100	38958.360.001	80MM	25	38958.800.001

51535 **Anilha para cavilhas** **R05A**

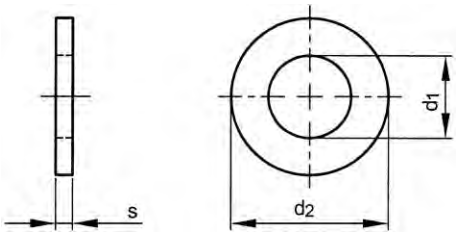
Material Aço inoxidável A1

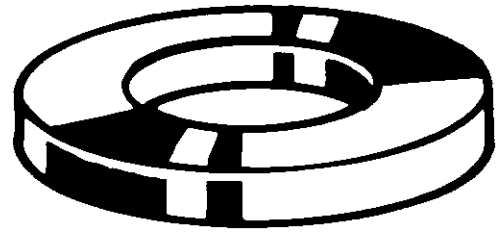




Para cavilha ø	✉	Ref. do artigo	Para cavilha ø	✉	Ref. do artigo	Para cavilha ø	✉	Ref. do artigo
5MM*	200	51535.050.001	13MM*	100	51535.130.001	24MM*	50	51535.240.001
6MM*	100	51535.060.001	14MM*	100	51535.140.001	26MM*	25	51535.260.001
7MM*	100	51535.070.001	16MM*	100	51535.160.001	28MM*	25	51535.280.001
8MM*	100	51535.080.001	18MM*	50	51535.180.001	30MM*	25	51535.300.001
10MM*	100	51535.100.001	20MM*	50	51535.200.001			
12MM*	100	51535.120.001	22MM*	50	51535.220.001			

Anilha plana





Dados técnicos

Para diâm.nom.	d_1	d_2	s
M2	2.2	5.5	0.3
M2.6	2.8	7	0.5
M3	3.5	8	0.5
M3.5	3.7	8	0.5
M4	4.2	9	0.6
M5	5.2	12	0.7
M6	6.5	14	0.8
M8	8.5	18	1.5

Para diâm.nom.	d_1	d_2	s
M10	10.3	22	1.5
M12	13.2	28	2
M14	14.8	31	2
M16	16.5	34	2
M20	21	40	2.5
M22	22.8	46	2.5
M24	26.5	52	3

Grupos de produtos

Material	Tratamento sup.		Código	Página
Al			45180	7-29
Latão	Niq.		50020	7-29
Latão	Niq.	Embalagem grande	50030	7-30

45180 **Anilha plana** **W01A**

Material Alumínio





Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M4	1000	45180.040.001	M8	250	45180.080.001	M16	100	45180.160.001
M5	1000	45180.050.001	M10	250	45180.100.001	M20	50	45180.200.001
M6	1000	45180.060.001	M12	100	45180.120.001			

50020 **Anilha plana** **M11F**

Material Latão
Tratamento sup. Niquelado





Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2	500	50020.020.001	M3,5	250	50020.035.001	M5	250	50020.050.001
M2,6	500	50020.026.001	M4	250	50020.040.001	M6	250	50020.060.001
M3	250	50020.030.001						

7

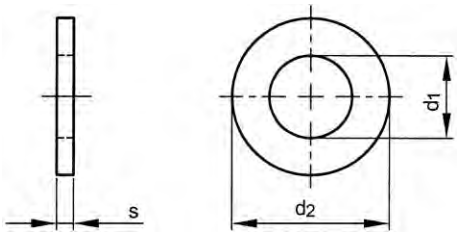
50030	Anilha plana	M11F

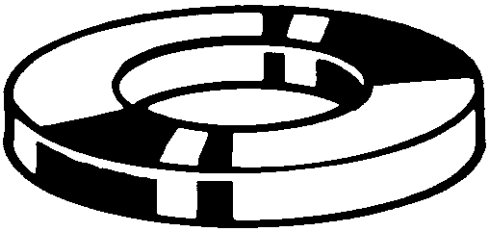
Material Latão
Tratamento sup. Niquelado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M8	250	50030.080.001	M14	100	50030.140.001	M22	50	50030.220.001
M10	250	50030.100.001	M16	100	50030.160.001	M24	50	50030.240.001
M12	100	50030.120.001	M20	50	50030.200.001			

Anilha plana AG3





Dados técnicos

Para diâm.nom.	d_1	d_2	s
M3	3.5	8	0.8
M4	4.5	10	0.8
M5	5.5	12	1
M6	6.25	14	1.2
M8	8.25	18	1.5
M10	10.25	22	2

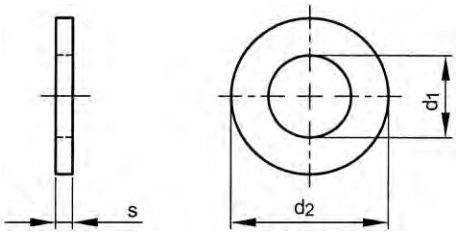
45150	Plain washer Aluminum	W01A

Material Alumínio Sopral A-G3
Tratamento sup. Anodizado

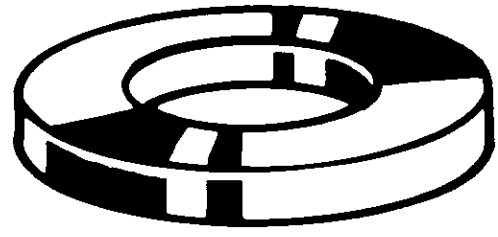


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	500	45150.030.001	M5	500	45150.050.001	M8	250	45150.080.001
M4	500	45150.040.001	M6	500	45150.060.001	M10	200	45150.100.001

Anilha plana



ISO 7089



Dados técnicos

Para diâm.nom.	d_1	d_2	s
M3	3.2	7	0.5
M4	4.3	9	0.8
M5	5.3	10	1
M6	6.4	12	1.6
M8	8.4	16	1.6
M10	10.5	20	2
M12	13	24	2.5
M14	15	28	2.5
M16	17	30	3
M18	19	34	3
M20	21	37	3
M22	23	39	3
M24	25	44	4
M27	28	50	4
M30	31	56	4
M33	34	60	5
M36	37	66	5
M39	42	72	6
M42	45	78	8
M45	48	85	8

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço 200HV	Zn	38131	7-31
Aço 200HV	Galv. Q.	38133	7-31
INOX A4		55425	7-32

38131 Anilha plana L01A

Material Aço 200HV
Tratamento sup. Zincado

RoHS



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M10	500	38131.100.001	M20	100	38131.200.001	M30	50	38131.300.001
M12	500	38131.120.001	M24	50	38131.240.001	M36	50	38131.360.001
M16	250	38131.160.001	M27	50	38131.270.001			

38133 Anilha plana L01A

Material Aço 200HV
Tratamento sup. Galvanizado a quente

RoHS



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M10	500	38133.100.001	M20	100	38133.200.001	M30	50	38133.300.001
M12	500	38133.120.001	M24	50	38133.240.001	M36	50	38133.360.001
M16	250	38133.160.001	M27	50	38133.270.001			

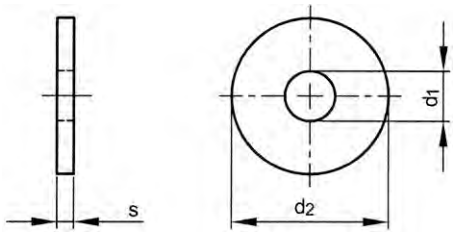
55425 **Anilha plana** **R45A**

Material Aço inoxidável A4

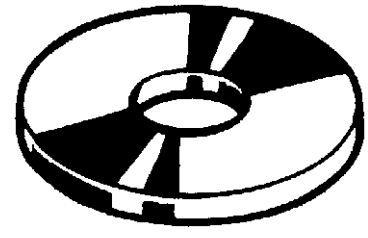


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3*	1000	55425.030.001	M14*	200	55425.140.001	M30*	50	55425.300.001
M4*	1000	55425.040.001	M16*	200	55425.160.001	M33*	25	55425.330.001
M5*	1000	55425.050.001	M18*	200	55425.180.001	M36*	25	55425.360.001
M6*	500	55425.060.001	M20*	200	55425.200.001	M39*	25	55425.390.001
M8*	500	55425.080.001	M22*	100	55425.220.001	M42*	25	55425.420.001
M10*	200	55425.100.001	M24*	100	55425.240.001	M45*	10	55425.450.001
M12*	200	55425.120.001	M27*	50	55425.270.001			

Anilha plana



ISO **7093**



Dados técnicos

Para diâm.nom.	d_1	d_2	s
M3	3.2	9	0.8
M3.5	3.7	11	0.8
M4	4.3	12	1
M5	5.3	15	1
M6	6.4	18	1.6
M8	8.4	24	2
M10	10.5	30	2.5
M12	13	37	3
M14	15	44	3
M16	17	50	3
M18	19	56	4
M20	21	60	4
M22	23	66	5
M24	25	72	5
M30	33	92	6

7

Grupos de produtos

Material	Código	Página
INOX A2	51531	7-32
INOX A4	55531	7-33

51531 **Anilha plana** **R05A**

Material Aço inoxidável A2



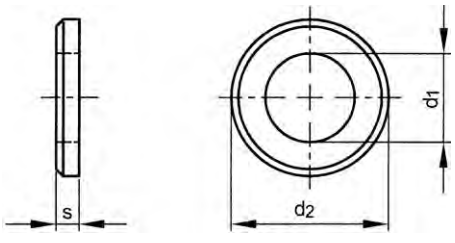
Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3*	1000	51531.030.001	M8*	500	51531.080.001	M18*	50	51531.180.001
M3,5*	1000	51531.035.001	M10*	200	51531.100.001	M20*	50	51531.200.001
M4*	1000	51531.040.001	M12*	200	51531.120.001	M22*	50	51531.220.001
M5*	1000	51531.050.001	M14*	100	51531.140.001	M24*	25	51531.240.001
M6*	500	51531.060.001	M16*	100	51531.160.001	M30*	25	51531.300.001

55531	Anilha plana	R45A
Material	Aço inoxidável A4	

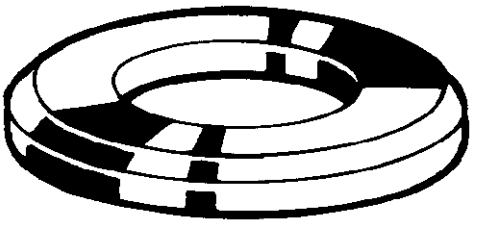


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3*	1000	55531.030.001	M10*	200	55531.100.001	M20*	50	55531.200.001
M4*	1000	55531.040.001	M12*	200	55531.120.001	M22*	50	55531.220.001
M5*	1000	55531.050.001	M14*	100	55531.140.001	M24*	25	55531.240.001
M6*	500	55531.060.001	M16*	100	55531.160.001	M30*	25	55531.300.001
M8*	500	55531.080.001	M18*	50	55531.180.001			

Anilha plana



DIN **125-1B**
ISO 7090
NEN 2269 B



Dados técnicos

Para diâm.nom.	d_1	d_2	s
M2.5	2.7	6	0.5
M3	3.2	7	0.5
M4	4.3	9	0.8
M5	5.3	10	1
M6	6.4	12	1.6
M7	7.4	14	1.6
M8	8.4	16	1.6
M10	10.5	20	2
M12	13	24	2.5
M14	15	28	2.5
M16	17	30	3
M18	19	34	3
M20	21	37	3
M22	23	39	3

Para diâm.nom.	d_1	d_2	s
M24	25	44	4
M27	28	50	4
M30	31	56	4
M33	34	60	5
M36	37	66	5
M39	40	72	6
M42	43	78	7
M45	46	85	7
M48	50	92	8
M52	54	98	8
M56	58	105	9
M60	62	110	9
M64	66	115	9

Grupos de produtos

Material	Tratamento sup.		Código	Página
Aço 140HV			38160	7-33
Aço 140HV	Zn		38180	7-34
Aço 140HV	Zn	Embalagem grande	38190	7-34
INOX A4			55426	7-34
Latão			50040	7-34
Latão	Niq.		50150	7-34

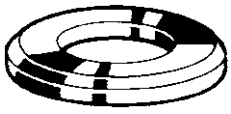
38160	Anilha plana	L07G
Material	Aço 140HV	



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M4	250	38160.040.001	M18	100	38160.180.001	M39	10	38160.390.001
M5	250	38160.050.001	M20	100	38160.200.001	M42	10	38160.420.001
M6	250	38160.060.001	M22	50	38160.220.001	M45	10	38160.450.001
M7	250	38160.070.001	M24	50	38160.240.001	M48	10	38160.480.001
M8	250	38160.080.001	M27	25	38160.270.001	M52	5	38160.520.001
M10	200	38160.100.001	M30	25	38160.300.001	M56	5	38160.560.001
M12	150	38160.120.001	M33	25	38160.330.001	M60	5	38160.600.001
M14	100	38160.140.001	M36	25	38160.360.001	M64	5	38160.640.001
M16	100	38160.160.001						

38180 Anilha plana — L07G

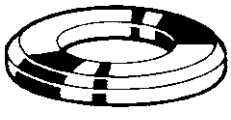
Material Aço 140HV
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M4	250	38180.040.001	M18	100	38180.180.001	M42	10	38180.420.001
M5	250	38180.050.001	M20	100	38180.200.001	M45	10	38180.450.001
M6	250	38180.060.001	M22	50	38180.220.001	M48	10	38180.480.001
M7	250	38180.070.001	M24	50	38180.240.001	M52	5	38180.520.001
M8	250	38180.080.001	M27	25	38180.270.001	M56	5	38180.560.001
M10	200	38180.100.001	M30	25	38180.300.001	M60	5	38180.600.001
M12	150	38180.120.001	M33	25	38180.330.001	M64	5	38180.640.001
M14	100	38180.140.001	M36	25	38180.360.001			
M16	100	38180.160.001	M39	10	38180.390.001			

38190 Anilha plana — L07G

Material Aço 140HV
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M5	2500	38190.050.001	M8	2000	38190.080.001	M12	500	38190.120.001
M6	2000	38190.060.001	M10	1000	38190.100.001	M16	400	38190.160.001

55426 Anilha plana — R45A

Material Aço inoxidável A4



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M5	250	55426.050.001	M12	200	55426.120.001	M24	50	55426.240.001
M6	250	55426.060.001	M16	100	55426.160.001	M27	25	55426.270.001
M8	250	55426.080.001	M20	100	55426.200.001	M30	25	55426.300.001
M10	200	55426.100.001						

50040 Anilha plana — M11F

Material Latão



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	250	50040.030.001	M10	100	50040.100.001	M22	50	50040.220.001
M4	250	50040.040.001	M12	100	50040.120.001	M24	50	50040.240.001
M5	250	50040.050.001	M14	100	50040.140.001	M27	50	50040.270.001
M6	250	50040.060.001	M16	100	50040.160.001	M30	25	50040.300.001
M7	250	50040.070.001	M18	100	50040.180.001			
M8	250	50040.080.001	M20	50	50040.200.001			

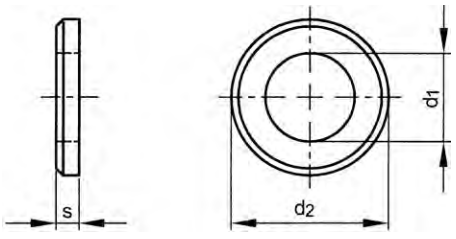
50150 Anilha plana — M11F

Material Latão
Tratamento sup. Niquelado

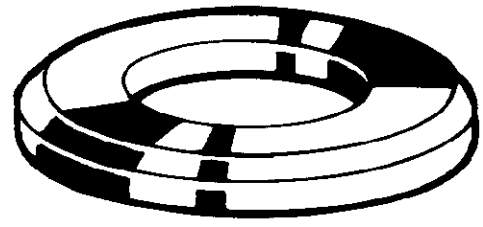


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2,5	250	50150.025.001	M5	250	50150.050.001	M10	100	50150.100.001
M3	250	50150.030.001	M6	250	50150.060.001	M12	100	50150.120.001
M4	250	50150.040.001	M8	250	50150.080.001	M16	100	50150.160.001

Anilha plana



ISO 7090



Dados técnicos

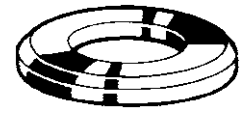
Para diâm.nom.	d_1	d_2	s
M5	5.3	10	1
M6	6.4	12	1.6
M8	8.4	16	1.6
M10	10.5	20	2
M12	13	24	2.5
M14	15	28	2.5
M16	17	30	3
M18	19	34	3
M20	21	37	3
M22	23	39	3
M24	25	44	4
M27	28	50	4
M30	31	56	4
M33	34	60	5
M36	37	66	5

Grupos de produtos

Material	Código	Página
INOX A2	51427	7-35
INOX A4	55427	7-35

51427 **Anilha plana** **R05A**

Material Aço inoxidável A2



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M5*	200	51427.050.001	M14*	100	51427.140.001	M24*	50	51427.240.001
M6*	200	51427.060.001	M16*	100	51427.160.001	M27*	25	51427.270.001
M8*	200	51427.080.001	M18*	100	51427.180.001	M30*	25	51427.300.001
M10*	100	51427.100.001	M20*	50	51427.200.001	M33*	10	51427.330.001
M12*	100	51427.120.001	M22*	50	51427.220.001	M36*	10	51427.360.001

55427 **Anilha plana** **R45A**

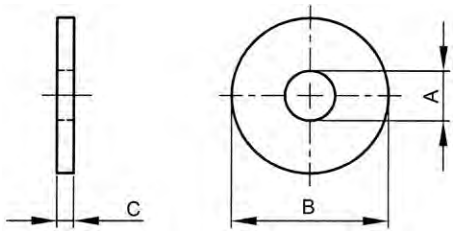
Material Aço inoxidável A4

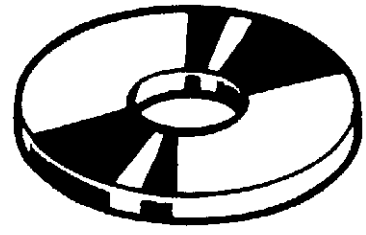


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M5*	200	55427.050.001	M14*	100	55427.140.001	M22*	50	55427.220.001
M6*	200	55427.060.001	M16*	100	55427.160.001	M24*	50	55427.240.001
M8*	200	55427.080.001	M18*	100	55427.180.001	M27*	25	55427.270.001
M10*	100	55427.100.001	M20*	50	55427.200.001	M30*	25	55427.300.001
M12*	100	55427.120.001						

Anilha plana Inox

ASME ≈B18.21.1





Dados técnicos

Para diâm.nom.	A	B	C
U51530.013.0001 NO.6	0.1560	0.6250	0.0310
U51530.013.0002 NO.6	0.1560	0.5630	0.0470
U51530.019.0001 NO.10	0.2190	0.5000	0.0470
U51530.019.0002 NO.10	0.2190	0.6880	0.0470
U51530.025.0001 1/4	0.2810	0.5000	0.0470
U51530.025.0002 1/4	0.2810	0.5630	0.0650
U51530.025.0006 1/4	0.2850	1.2500	0.1250
U51530.031.0001 5/16	0.3480	0.6250	0.0650
U55530.013.0001 NO.6	0.1560	0.5630	0.0470
U55530.019.0002 NO.10	0.2190	0.6880	0.0470
U55530.025.0001 1/4	0.2810	0.5000	0.0470
U55530.025.0002 1/4	0.2810	0.5630	0.0650
U55530.031.0001 5/16	0.3480	0.6250	0.0650

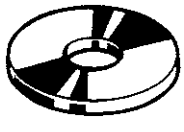
Grupos de produtos

Material	Código	Página
INOX A2 (AISI304/18-8)	U51530	7-36
INOX A4 (AISI316/18-10)	U55530	7-36

7

U51530 Anilha plana Inox **X15A**

Material Aço inoxidável A2 (AISI 304/18-8)



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.6*	50	U51530.013.0001	NO.10*	50	U51530.019.0002	1/4*	50	U51530.025.0006
NO.6*	50	U51530.013.0002	1/4*	50	U51530.025.0001	5/16*	50	U51530.031.0001
NO.10*	50	U51530.019.0001	1/4*	50	U51530.025.0002			

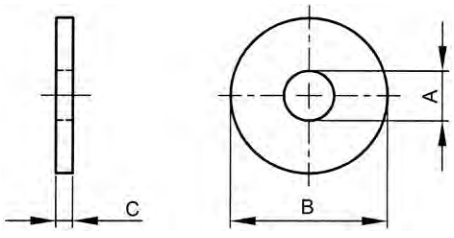
U55530 Anilha plana Inox **X15A**

Material Aço inoxidável A4 (AISI 316/18-10)

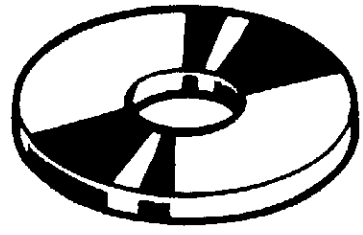


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.6*	50	U55530.013.0001	1/4*	50	U55530.025.0001	5/16*	50	U55530.031.0001
NO.10*	50	U55530.019.0002	1/4*	50	U55530.025.0002			

Anilha plana



ASME ≈B18.21.1



Dados técnicos

Para diâm.nom.	A	B	C
U38160.013.0002 NO.6	0.1560	0.5630	0.0470
U38160.016.0001 NO.8	0.1880	0.7500	0.0470
U38160.019.0002 NO.10	0.2190	0.6880	0.0470
U38160.019.0008 NO.10	0.2190	1.0000	0.1250
U38160.019.0009 NO.10	0.2190	1.0000	0.2500
U38160.025.0001 1/4	0.2850	0.5000	0.0470
U38160.025.0002 1/4	0.2850	0.5630	0.0470
U38160.025.0008 1/4	0.2850	1.5000	0.1250
U38160.025.0009 1/4	0.2850	1.5000	0.2500
U38160.031.0001 5/16	0.3480	0.6250	0.0470
U38160.031.0008 5/16	0.3480	2.0000	0.1250
U38160.031.0009 5/16	0.3480	2.0000	0.2500
U38160.037.0005 3/8	0.4100	2.0000	0.1250
U38160.037.0006 3/8	0.4100	2.0000	0.2500
U38160.050.0003 1/2	0.5350	2.0000	0.1250
U38160.050.0004 1/2	0.5350	2.0000	0.2500
U38160.050.0006 1/2	0.5350	3.0000	0.2500
U38160.062.0001 5/8	0.6880	2.5000	0.1250
U38160.062.0002 5/8	0.6880	2.5000	0.2500
U38160.062.0003 5/8	0.6880	3.0000	0.2500
U38160.075.0001 3/4	0.7810	3.0000	0.1250
U38160.075.0002 3/4	0.7810	3.0000	0.2500
U38160.075.0003 3/4	0.7810	3.0000	0.3750
U38160.087.0001 7/8	0.9380	3.0000	0.2500
U38160.087.0002 7/8	0.9380	3.2500	0.1250
U38160.087.0003 7/8	0.9380	3.2500	0.2500
U38160.087.0004 7/8	0.9380	3.2500	0.3750
U38160.100.0001 1	1.0630	3.2500	0.2500
U38160.100.0002 1	1.0630	3.5000	0.1250
U38160.100.0003 1	1.0630	3.5000	0.2500
U38160.100.0004 1	1.0630	3.5000	0.3750
U38160.125.0001 1.1/4	1.3750	4.0000	0.5000

U38160 Anilha plana **X09A**

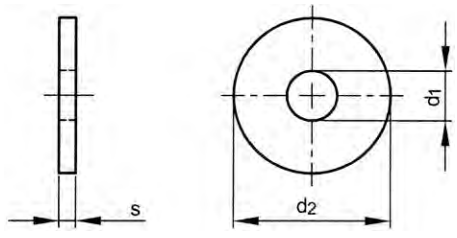
Material Aço



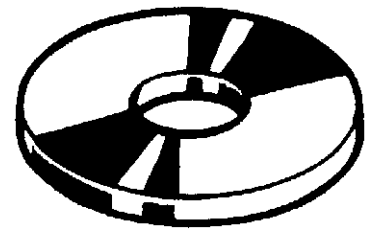
RoHS

Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.6*	100	U38160.013.0002	5/16*	100	U38160.031.0009	3/4*	20	U38160.075.0003
NO.8*	100	U38160.016.0001	3/8*	100	U38160.037.0005	7/8*	10	U38160.087.0001
NO.10*	100	U38160.019.0002	3/8*	100	U38160.037.0006	7/8*	10	U38160.087.0002
NO.10*	100	U38160.019.0008	1/2*	50	U38160.050.0003	7/8*	10	U38160.087.0003
NO.10*	100	U38160.019.0009	1/2*	50	U38160.050.0004	7/8*	10	U38160.087.0004
1/4*	100	U38160.025.0001	1/2*	50	U38160.050.0006	1 Inch*	5	U38160.100.0001
1/4*	100	U38160.025.0002	5/8*	25	U38160.062.0001	1 Inch*	5	U38160.100.0002
1/4*	100	U38160.025.0008	5/8*	25	U38160.062.0002	1 Inch*	5	U38160.100.0003
1/4*	100	U38160.025.0009	5/8*	25	U38160.062.0003	1 Inch*	5	U38160.100.0004
5/16*	100	U38160.031.0001	3/4*	20	U38160.075.0001	1.1/4*	5	U38160.125.0001
5/16*	100	U38160.031.0008	3/4*	20	U38160.075.0002			

Anilha plana ≈ 3 x d1



DIN **9021**
ISO 7093
NEN 2276
NF E25-513



Dados técnicos

Para diâm.nom.	d_1 (min.)	d_2 (max.)	s	Para diâm.nom.	d_1 (min.)	d_2 (max.)	s
M2 (≠DIN)	2.2	7	0.8	M10	10.5	30	2.5
M2.5	2.7	8	0.8	M12	13	37	3
M3	3.2	9	0.8	M14	15	44	3
M3.5	3.7	11	0.8	M16	17	50	3
M4	4.3	12	1	M18	20	56	4
M5	5.3	15	1.2	M20	22	60	4
M6	6.4	18	1.6	M24	26	72	5
M7	7.4	22	2	M30	33	92	6
M8	8.4	24	2	M36	39	110	8

Grupos de produtos

Material	Classe	Tratamento sup.		Cor	Código	Página
Aço					38209	7-38
Aço		Zn			38210	7-38
Aço		Zn	Embalagem grande		38220	7-39
Aço		Passiv. amar.			38211	7-39
Aço		Galv. Q.			38212	7-39
INOX A2					51530	7-39
INOX A4					55530	7-39
Plástico PA	PA 6.6			Preto	56332	7-40
Plástico PA	PA 6.6			Branco	56330	7-40

7

38209 Anilha plana ≈ 3 x d1 — L01A

Material Aço



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M4	500	38209.040.001	M8	200	38209.080.001	M14	100	38209.140.001
M5	200	38209.050.001	M10	200	38209.100.001	M16	100	38209.160.001
M6	200	38209.060.001	M12	100	38209.120.001	M20	100	38209.200.001

38210 Anilha plana ≈ 3 x d1 — L01A

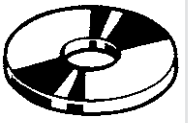
Material Aço
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	250	38210.030.001	M7	250	38210.070.001	M16	100	38210.160.001
M3,5	250	38210.035.001	M8	250	38210.080.001	M18	100	38210.180.001
M4	250	38210.040.001	M10	200	38210.100.001	M20	100	38210.200.001
M5	250	38210.050.001	M12	200	38210.120.001	M24	100	38210.240.001
M6	250	38210.060.001	M14	100	38210.140.001	M30	50	38210.300.001

38220 Anilha plana ≈ 3 x d1 — L01A

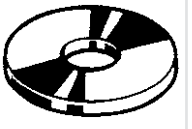
Material Aço
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M4	2500	38220.040.001	M7	2000	38220.070.001	M10	750	38220.100.001
M5	2500	38220.050.001	M8	1000	38220.080.001	M12	500	38220.120.001
M6	2000	38220.060.001						

38211 Anilha plana ≈ 3 x d1 — L01A

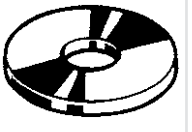
Material Aço
Tratamento sup. Passivado a amarelo



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	250	38211.030.001	M7	250	38211.070.001	M14	100	38211.140.001
M4	250	38211.040.001	M8	250	38211.080.001	M16	100	38211.160.001
M5	250	38211.050.001	M10	200	38211.100.001	M20	100	38211.200.001
M6	250	38211.060.001	M12	200	38211.120.001	M24	100	38211.240.001

38212 Anilha plana ≈ 3 x d1 — L01A

Material Aço
Tratamento sup. Galvanizado a quente

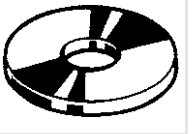


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M8	200	38212.080.001	M16	100	38212.160.001	M24	50	38212.240.001
M10	200	38212.100.001	M20	100	38212.200.001	M30	25	38212.300.001
M12	100	38212.120.001						

7

51530 Anilha plana ≈ 3 x d1 — R05A

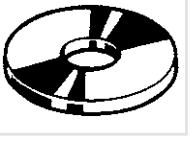
Material Aço inoxidável A2



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2*	1000	51530.020.001	M6	200	51530.060.001	M16	200	51530.160.001
M2,5*	1000	51530.025.001	M7*	500	51530.070.001	M18	200	51530.180.001
M3	200	51530.030.001	M8	200	51530.080.001	M20	200	51530.200.001
M3,5*	1000	51530.035.001	M10	200	51530.100.001	M24	25	51530.240.001
M4	200	51530.040.001	M12	200	51530.120.001	M30*	25	51530.300.001
M5	200	51530.050.001	M14	200	51530.140.001	M36*	10	51530.360.001

55530 Anilha plana ≈ 3 x d1 — R45A

Material Aço inoxidável A4



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2*	1000	55530.020.001	M6	200	55530.060.001	M16	200	55530.160.001
M2,5*	1000	55530.025.001	M7*	500	55530.070.001	M18	50	55530.180.001
M3	200	55530.030.001	M8	200	55530.080.001	M20	200	55530.200.001
M3,5*	1000	55530.035.001	M10	200	55530.100.001	M24	25	55530.240.001
M4	200	55530.040.001	M12	200	55530.120.001	M30	25	55530.300.001
M5	200	55530.050.001	M14	200	55530.140.001			

56332 **Anilha plana ≈ 3 x d1** **W02A**

Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Preto



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	200	56332.030.001	M6	200	56332.060.001	M10	100	56332.100.001
M4	200	56332.040.001	M8	200	56332.080.001	M12	100	56332.120.001
M5	200	56332.050.001						

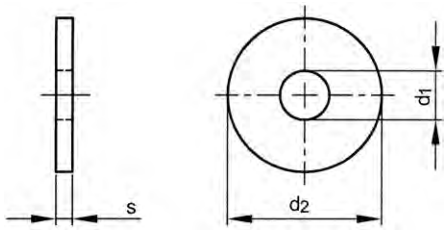
56330 **Anilha plana ≈ 3 x d1** **W02A**

Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco

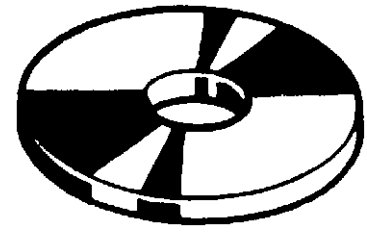


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	200	56330.030.009	M6	200	56330.060.017	M10	100	56330.100.030
M4	200	56330.040.012	M6 (s=2)	200	56330.060.018	M12 (d2=40)	100	56330.120.040
M5	200	56330.050.015	M8	200	56330.080.025	M16	100	56330.160.050

Anilha para construção em madeira



DIN **440 R**
ISO 7094
NEN 2275
NF E25-513



7

Dados técnicos

Para diâm.nom.	d_1	d_2	s	Para diâm.nom.	d_1	d_2	s
M5	5.5	18	2	M16	17.5	56	5
M6	6.6	22	2	M20	22	72	6
M8	9	28	3	M22	24	80	6
M10	11	34	3	M24	26	85	6
M12	13.5	44	4	M27	30	98	6
M14	15.5	50	4	M30	33	105	6

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço	Zn	38240	7-40
Aço	Galv. Q.	38230	7-41
INOX A2		51590	7-41
INOX A4		55590	7-41

38240 **Anilha para construção em madeira** **L07G**

Material Aço
Tratamento sup. Zincado



RoHS

Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M5	100	38240.050.001	M12	100	38240.120.001	M24	25	38240.240.001
M6	100	38240.060.001	M16	100	38240.160.001	M27	25	38240.270.001
M8	100	38240.080.001	M20	50	38240.200.001	M30	25	38240.300.001
M10	100	38240.100.001						

38230 Anilha para construção em madeira — A08G

Material Aço
Tratamento sup. Galvanizado a quente

RoHS



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M5	100	38230.050.001	M12	100	38230.120.001	M24	25	38230.240.001
M6	100	38230.060.001	M16	100	38230.160.001	M27	25	38230.270.001
M8	100	38230.080.001	M20	50	38230.200.001	M30	25	38230.300.001
M10	100	38230.100.001						

51590 Anilha para construção em madeira — R09A

Material Aço inoxidável A2

DIN	**≈440R**
ISO	≈7094
NEN	≈2275
NF	≈E25-513

RoHS



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M5	50	51590.050.001	M12	50	51590.120.001	M20	25	51590.200.001
M6	50	51590.060.001	M14*	50	51590.140.001	M22*	25	51590.220.001
M8	50	51590.080.001	M16	50	51590.160.001	M24	10	51590.240.001
M10	50	51590.100.001						

55590 Anilha para construção em madeira — R49A

Material Aço inoxidável A4

DIN	**≈440R**
ISO	≈7094
NEN	≈2275
NF	≈E25-513

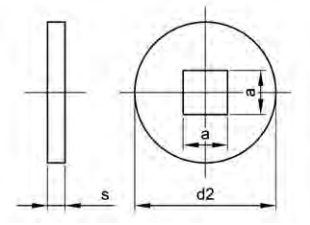
RoHS



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M5	50	55590.050.001	M10	50	55590.100.001	M20	25	55590.200.001
M6	50	55590.060.001	M12	50	55590.120.001	M22*	25	55590.220.001
M8	50	55590.080.001	M16	50	55590.160.001	M24	10	55590.240.001

Anilhas para madeira

DIN **440V**





Dados técnicos

Para diâm.nom.	a	d_2	s
M5	5.5	18	2
M6	6.6	22	2
M8	9	28	3
M10	11	34	3
M12	14	44	4
M16	18	56	5
M20	22	72	6

Grupos de produtos

Material	Código	Página
INOX A2	51577	7-42
INOX A4	55577	7-42

51577 **Anilhas para madeira** **R09A**

Material Aço inoxidável A2



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M5*	100	51577.050.001	M10*	50	51577.100.001	M16*	50	51577.160.001
M6*	100	51577.060.001	M12*	50	51577.120.001	M20*	25	51577.200.001
M8*	100	51577.080.001						

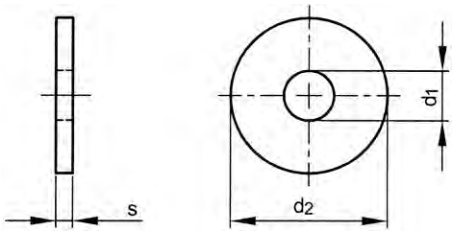
55577 **Anilhas para madeira** **R49A**

Material Aço inoxidável A4

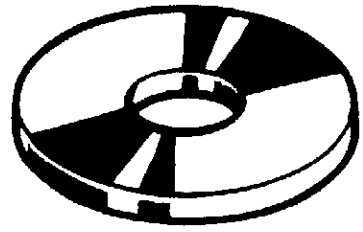


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M8*	100	55577.080.001	M10*	50	55577.100.001	M12*	50	55577.120.001

Anilha para construção em madeira



DIN 1052



Dados técnicos

d	d_1	d_2	s
M12	14	58	6
M16	18	68	6
M20	23	80	8
M22	25	92	8
M24	27	105	8

Grupos de produtos

Material	Código	Página
INOX A2	51533	7-43
INOX A4	55533	7-43

51533 **Anilha para construção em madeira** **R05A**

Material Aço inoxidável A2



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M12*	50	51533.120.001	M20*	25	51533.200.001	M24*	25	51533.240.001
M16*	50	51533.160.001	M22*	25	51533.220.001			

55533 **Anilha para construção em madeira** **R45A**

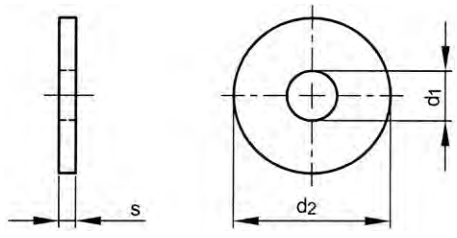
Material Aço inoxidável A4

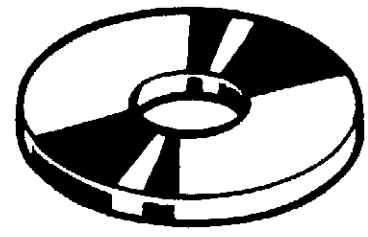


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M12*	50	55533.120.001	M20*	25	55533.200.001	M24*	25	55533.240.001
M16*	50	55533.160.001	M22*	25	55533.220.001			

7

Anilha de reparação





Dados técnicos

Para diâm.nom.	d_1	s
M3	3.3	0.8
M4	4.2	1.2
M5	5.2	1.3
M6	6.5	1.5
M7	7.4	1.5
M8	8.4	1.5
M10	10.5	1.5
M11	11.5	1.5
M12	12.5	2

Para diâm.nom.	d_1	s
M14	14.5	2
M16	16.5	2.5
M17	17.2	2.5
M20	20.2	2.5
M22	24	4
M24	25	4
M27	28	4
M30	32	4

Grupos de produtos

Material	Tratamento sup.		Código	Página
Aço	Zn		38400	7-44
Aço	Zn	Embalagem grande	38410	7-44
Aço	Passiv. amar.		38401	7-45
INOX A2			51410	7-45
INOX A4			55410	7-45

38400 **Anilha de reparação** **L01A**

Material Aço
Tratamento sup. Zincado



RoHS

Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo
M3X10	100	38400.030.010	M8X25	100	38400.080.025	M12X60	100	38400.120.060
M4X20	100	38400.040.020	M8X30	100	38400.080.030	M14X36	100	38400.140.036
M4X30	250	38400.040.030	M8X35	100	38400.080.035	M14X40	100	38400.140.040
M5X20	100	38400.050.020	M8X38	100	38400.080.038	M14X45	100	38400.140.045
M5X25	100	38400.050.025	M8X40	100	38400.080.040	M16X40	100	38400.160.040
M5X30	100	38400.050.030	M8X45	100	38400.080.045	M16X45	100	38400.160.045
M6X14	100	38400.060.014	M8X50	100	38400.080.050	M16X50	100	38400.160.050
M6X20	100	38400.060.020	M10X30	100	38400.100.030	M17X40	100	38400.170.040
M6X25	100	38400.060.025	M10X35	100	38400.100.035	M17X45	100	38400.170.045
M6X27	100	38400.060.027	M10X38	100	38400.100.038	M20X50	100	38400.200.050
M6X30	100	38400.060.030	M10X40	100	38400.100.040	M20X55	100	38400.200.055
M6X35	100	38400.060.035	M10X50	100	38400.100.050	M22X75	50	38400.220.075
M6X38	100	38400.060.038	M10X50(s=3)	100	38400.100.051	M24X80	50	38400.240.080
M6X40	100	38400.060.040	M10X60	100	38400.100.060	M24X85	50	38400.240.085
M7X20	100	38400.070.020	M11X35	100	38400.110.035	M27X85	25	38400.270.085
M7X25	100	38400.070.025	M12X30	100	38400.120.030	M30X95	25	38400.300.095
M7X30	100	38400.070.030	M12X36	100	38400.120.036			
M8X20	250	38400.080.020	M12X40	100	38400.120.040			

38410 **Anilha de reparação** **L01A**

Material Aço
Tratamento sup. Zincado

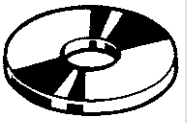


RoHS

Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo
M4X20	2000	38410.040.020	M6X25	700	38410.060.025	M8X30	700	38410.080.030
M5X20	1000	38410.050.020	M6X30	700	38410.060.030	M10X30	700	38410.100.030
M5X30	1000	38410.050.030	M8X25	700	38410.080.025			

38401 Anilha de reparação — L01A

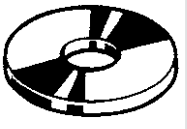
Material Aço
Tratamento sup. Passivado a amarelo



Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo
M3X10	100	38401.030.010	M6X30	100	38401.060.030	M10X30	100	38401.100.030
M4X20	100	38401.040.020	M6X40	100	38401.060.040	M12X36	100	38401.120.036
M5X20	100	38401.050.020	M7X25	100	38401.070.025	M14X36	100	38401.140.036
M5X25	100	38401.050.025	M8X25	100	38401.080.025	M16X50	100	38401.160.050
M5X30	100	38401.050.030	M8X30	100	38401.080.030	M20X55	100	38401.200.055
M6X25	100	38401.060.025	M8X40	100	38401.080.040	M24X85	50	38401.240.085

51410 Anilha de reparação — R05A

Material Aço inoxidável A2



Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo
M4X12*	500	51410.040.012	M6X40	200	51410.060.040	M10X30	200	51410.100.030
M4X15*	500	51410.040.015	M6X45*	200	51410.060.045	M10X35	200	51410.100.035
M4X20	200	51410.040.020	M6X50*	200	51410.060.050	M10X40	100	51410.100.040
M4X25*	200	51410.040.025	M6X55*	200	51410.060.055	M10X45*	200	51410.100.045
M5X15*	500	51410.050.015	M8X20	200	51410.080.020	M10X50*	200	51410.100.050
M5X20	200	51410.050.020	M8X25	200	51410.080.025	M12X30	200	51410.120.030
M5X25	200	51410.050.025	M8X30	200	51410.080.030	M12X35*	200	51410.120.035
M5X30*	200	51410.050.030	M8X35*	200	51410.080.035	M12X36	200	51410.120.036
M6X18	200	51410.060.018	M8X40	200	51410.080.040	M12X40*	200	51410.120.040
M6X20	200	51410.060.020	M8X45*	200	51410.080.045	M12X45*	200	51410.120.045
M6X25	200	51410.060.025	M8X50*	200	51410.080.050	M12X50*	200	51410.120.050
M6X30	200	51410.060.030	M8X55*	200	51410.080.055	M16X40	200	51410.160.040
M6X35*	200	51410.060.035	M10X25	200	51410.100.025	M16X50	200	51410.160.050

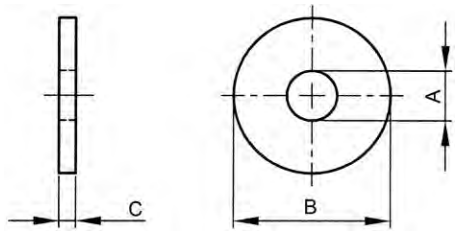
55410 Anilha de reparação — R45A

Material Aço inoxidável A4

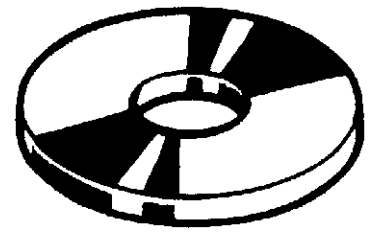


Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo
M4X12*	500	55410.040.012	M6X25	200	55410.060.025	M10X25*	200	55410.100.025
M4X15*	500	55410.040.015	M6X30	200	55410.060.030	M10X30X1,5	200	55410.100.030
M4X20	200	55410.040.020	M6X35*	200	55410.060.035	M10X35*	200	55410.100.035
M4X25*	200	55410.040.025	M6X40*	200	55410.060.040	M10X40*	200	55410.100.040
M5X15*	500	55410.050.015	M8X20	200	55410.080.020	M12X30	200	55410.120.030
M5X20	200	55410.050.020	M8X25	200	55410.080.025	M12X35*	200	55410.120.035
M5X24*	200	55410.050.025	M8X30	200	55410.080.030	M12X36	200	55410.120.036
M5X30*	200	55410.050.030	M8X35*	200	55410.080.035	M12X40*	200	55410.120.040
M6X20*	500	55410.060.020	M8X40*	200	55410.080.040	M16X40	200	55410.160.040

Anilha plana



ASME ≈B18.21.1



Dados técnicos

Nr.	A	B	C
U38400.006.0001 NO.0	0.063	0.125	0.031
U38400.006.0002 NO.0	0.063	0.188	0.031
U38400.006.0003 NO.0	0.063	0.250	0.031
U38400.007.0001 NO.2	0.094	0.156	0.031
U38400.007.0002 NO.2	0.094	0.219	0.031
U38400.007.0003 NO.2	0.094	0.281	0.031
U38400.008.0001 NO.2	0.094	0.188	0.031
U38400.008.0002 NO.2	0.094	0.250	0.031
U38400.008.0003 NO.2	0.094	0.344	0.031
U38400.011.0001 NO.2	0.094	0.250	0.016
U38400.011.0002 NO.4	0.125	0.250	0.047
U38400.011.0003 NO.4	0.125	0.313	0.031
U38400.011.0004 NO.4	0.125	0.375	0.047
U38400.011.0005 NO.4	0.125	0.438	0.047
U38400.013.0001 NO.6	0.156	0.375	0.049
U38400.013.0002 NO.6	0.156	0.313	0.047
U38400.013.0003 NO.6	0.156	0.438	0.047
U38400.013.0004 NO.6	0.156	0.563	0.047
U38400.016.0001 NO.8	0.188	0.438	0.049
U38400.016.0002 NO.8	0.188	0.375	0.047
U38400.016.0003 NO.8	0.188	0.500	0.047
U38400.016.0004 NO.8	0.188	0.625	0.063
U38400.016.0005 NO.10	0.219	0.375	0.047
U38400.018.0001 1/4	0.281	0.562	0.049
U38400.019.0001 NO.8	0.188	0.406	0.047
U38400.019.0002 NO.8	0.188	0.563	0.047
U38400.019.0003 NO.8	0.188	0.718	0.063
U38400.019.0004 NO.10	0.219	0.500	0.049
U38400.025.0001 1/4	0.281	0.500	0.063
U38400.025.0002 1/4	0.281	0.718	0.063
U38400.025.0003 1/4	0.281	1.000	0.063
U38400.025.0004 5/16	0.344	0.750	0.063
U38400.031.0001 5/16	0.344	0.625	0.063
U38400.031.0002 5/16	0.344	0.875	0.063
U38400.031.0003 5/16	0.344	1.125	0.063
U38400.037.0001 3/8	0.406	0.718	0.063
U38400.037.0002 3/8	0.406	1.000	0.063
U38400.037.0003 3/8	0.406	1.250	0.109
U38400.043.0001 7/16	0.469	0.875	0.063
U38400.043.0002 7/16	0.469	0.906	0.063
U38400.043.0003 7/16	0.469	1.125	0.063
U38400.043.0004 7/16	0.469	1.469	0.109
U38400.050.0001 1/2	0.531	1.000	0.063
U38400.050.0002 1/2	0.531	1.250	0.109
U38400.050.0003 1/2	0.531	1.750	0.109
U38400.056.0001 9/16	0.594	1.813	0.094
U38400.056.0002 5/8	0.625	1.500	0.109
U38400.075.0001 3/4	0.781	1.469	0.141
U38400.075.0002 3/4	0.781	1.500	0.141
U38400.075.0003 3/4	0.781	2.000	0.156
U38400.075.0004 3/4	0.813	2.000	0.156
U38400.112.0001 1.1/4	1.250	2.750	0.156
U38400.125.0001 1.1/4	1.375	2.500	0.156
U38400.137.0001 1.3/8	1.500	2.750	0.156
U38400.137.0002 1.3/8	1.500	3.250	0.156
U38400.150.0001 1.1/2	1.625	3.000	0.156
U38402.013.0001 NO.6	0.156	0.375	0.049

Nr.	A	B	C
U38402.016.0001 NO.8	0.188	0.438	0.049
U38402.018.0001 1/4	0.281	0.562	0.049
U38402.019.0001 NO.10	0.219	0.500	0.049
U38402.175.0001 1.3/4	1.875	4.000	0.180
U38402.200.0001 2 Inch	2.125	4.500	0.180
U38402.225.0001 2.1/4	2.375	4.750	0.220
U38402.250.0001 2.1/2	2.625	5.000	0.238
U38402.300.0001 3 Inch	3.125	5.500	0.284
U38403.011.0001 NO.4	0.125	0.313	0.078
U38403.013.0001 NO.6	0.156	0.375	0.078
U38403.016.0001 NO.8	0.188	0.438	0.078
U38403.019.0001 NO.8	0.188	0.500	0.094
U38403.025.0001 1/4	0.281	0.625	0.125
U38403.031.0001 5/16	0.344	0.750	0.125
U38403.037.0001 3/8	0.406	0.875	0.125
U38403.043.0001 7/16	0.469	1.000	0.125
U38403.050.0001 1/2	0.531	1.125	0.125
U38403.062.0001 5/8	0.656	1.375	0.125
U38403.075.0001 3/4	0.781	1.625	0.125
U38403.087.0001 7/8	0.906	1.750	0.156
U38403.100.0001 1 Inch	1.031	2.000	0.188
U38403.112.0001 1.1/8	1.156	2.250	0.219
U38403.125.0001 1.1/4	1.281	2.500	0.281
U38405.025.0001 1/4	0.281	0.625	0.094
U38405.031.0001 5/16	0.344	0.688	0.094
U38405.037.0001 3/8	0.406	0.813	0.125
U38405.043.0001 7/16	0.469	0.906	0.125
U38405.056.0001 9/16	0.594	1.156	0.172
U38405.062.0001 5/8	0.656	1.313	0.219
U38405.075.0001 3/4	0.781	1.469	0.219
U38405.087.0001 7/8	0.938	1.750	0.250
U38405.100.0001 1 Inch	1.063	2.000	0.250
U38405.112.0001 1.1/8	1.188	2.250	0.250
U38405.125.0001 1.1/4	1.375	2.500	0.250
U38405.137.0001 1.3/8	1.438	2.750	0.250
U38405.150.0001 1.1/2	1.563	3.000	0.250
U51410.006.0001 NO.0	0.063	0.125	0.016
U51410.007.0001 NO.2	0.094	0.156	0.016
U51410.008.0001 NO.2	0.094	0.188	0.031
U51410.011.0001 NO.4	0.125	0.313	0.078
U51410.011.0002 NO.4	0.125	0.250	0.063
U51410.011.0003 NO.4	0.125	0.313	0.031
U51410.013.0001 NO.6	0.156	0.375	0.049
U51410.013.0002 NO.6	0.156	0.313	0.063
U51410.013.0003 NO.6	0.156	0.375	0.031
U51410.013.0004 NO.6	0.156	0.375	0.078
U51410.016.0001 NO.6	0.156	0.375	0.063
U51410.016.0002 NO.8	0.188	0.438	0.049
U51410.016.0003 NO.8	0.188	0.438	0.078
U51410.019.0001 NO.8	0.188	0.500	0.094
U51410.019.0002 NO.10	0.219	0.500	0.049
U51410.021.0001 1/4	0.281	0.562	0.065
U51410.021.0002 1/4	0.281	0.500	0.047
U51410.025.0001 1/4	0.281	0.500	0.078
U51410.025.0002 1/4	0.281	0.625	0.047
U51410.025.0003 1/4	0.281	0.625	0.125
U51410.025.0004 1/4	0.281	0.625	0.188

Dados técnicos

Nr.	A	B	C
U51410.025.0005 1/4	0.313	0.750	0.047
U51410.031.0001 5/16	0.344	0.625	0.094
U51410.031.0002 5/16	0.344	0.688	0.047
U51410.031.0003 5/16	0.344	0.688	0.094
U51410.031.0004 5/16	0.344	0.750	0.047
U51410.031.0005 5/16	0.344	0.750	0.094
U51410.031.0006 5/16	0.344	0.750	0.125
U51410.031.0007 5/16	0.344	0.750	0.188
U51410.031.0008 11/32	0.375	0.875	0.063
U51410.037.0001 11/32	0.375	0.875	0.047
U51410.037.0002 3/8	0.406	0.750	0.094
U51410.037.0003 3/8	0.406	0.813	0.047
U51410.037.0004 3/8	0.406	0.875	0.125
U51410.037.0005 3/8	0.406	1.000	0.125
U51410.037.0006 3/8	0.406	1.000	0.188
U51410.037.0007 7/16	0.438	1.000	0.063
U51410.043.0001 7/16	0.469	0.906	0.047
U51410.043.0002 7/16	0.469	0.906	0.125
U51410.043.0003 7/16	0.469	1.000	0.125
U51410.043.0004 7/16	0.469	1.000	0.188
U51410.043.0005 1/2	0.500	1.125	0.047
U51410.043.0006 1/2	0.500	1.125	0.063
U51410.043.0007 1/2	0.500	1.250	0.063
U51410.050.0001 1/2	0.531	1.063	0.063
U51410.050.0002 1/2	0.531	1.063	0.188
U51410.050.0003 1/2	0.531	1.125	0.125
U51410.050.0004 1/2	0.531	1.125	0.188
U51410.050.0005 9/16	0.563	1.250	0.063
U51410.050.0006 9/16	0.563	1.375	0.094
U51410.056.0001 9/16	0.594	1.813	0.188
U51410.056.0002 5/8	0.625	1.500	0.094
U51410.062.0001 5/8	0.656	1.313	0.063
U51410.062.0002 5/8	0.656	1.313	0.219
U51410.062.0003 5/8	0.656	1.375	0.125
U51410.062.0004 5/8	0.656	1.375	0.188
U51410.062.0005 5/8	0.688	1.500	0.063
U51410.062.0006 5/8	0.688	1.500	0.078
U51410.062.0007 5/8	0.688	1.750	0.109
U51410.075.0001 3/4	0.781	1.500	0.109
U51410.075.0002 3/4	0.781	1.500	0.219
U51410.075.0003 3/4	0.781	1.625	0.125

Dados técnicos

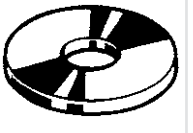
Nr.	A	B	C
U51410.075.0004 3/4	0.781	1.625	0.250
U51410.075.0005 3/4	0.781	1.750	0.078
U51410.075.0006 3/4	0.781	1.750	0.109
U51410.075.0007 3/4	0.781	2.000	0.125
U51410.087.0001 7/8	0.906	1.750	0.156
U51410.087.0002 7/8	0.906	1.750	0.250
U51410.087.0003 7/8	0.938	2.000	0.094
U51410.087.0004 7/8	0.938	2.000	0.109
U51410.087.0005 7/8	0.938	2.250	0.141
U51410.100.0001 1 Inch	1.031	2.000	0.188
U51410.100.0002 1 Inch	1.031	2.000	0.250
U51410.100.0003 1 Inch	1.031	2.000	0.281
U51410.100.0004 1 Inch	1.063	2.000	0.109
U51410.100.0005 1 Inch	1.063	2.500	0.141
U51410.112.0001 1.1/8	1.156	2.250	0.219
U51410.125.0001 1.1/4	1.281	2.500	0.281
U55410.011.0001 NO.4	0.125	0.313	0.031
U55410.016.0001 NO.6	0.156	0.375	0.031
U55410.019.0001 NO.8	0.188	0.438	0.031
U55410.019.0002 NO.10	0.219	0.500	0.049
U55410.025.0001 1/4	0.281	0.625	0.047
U55410.025.0002 1/4	0.313	0.750	0.047
U55410.031.0001 5/16	0.344	0.688	0.047
U55410.031.0002 5/16	0.344	0.750	0.047
U55410.031.0003 11/32	0.375	0.875	0.063
U55410.037.0001 11/32	0.375	0.875	0.047
U55410.037.0002 3/8	0.406	0.813	0.047
U55410.037.0003 7/16	0.438	1.000	0.063
U55410.043.0001 7/16	0.469	0.906	0.047
U55410.043.0002 1/2	0.500	1.250	0.063
U55410.050.0001 1/2	0.531	1.063	0.063
U55410.050.0002 9/16	0.563	1.250	0.063
U55410.050.0003 9/16	0.563	1.375	0.094
U55410.056.0001 5/8	0.625	1.500	0.094
U55410.062.0001 5/8	0.656	1.313	0.063
U55410.062.0002 5/8	0.688	1.500	0.078
U55410.062.0003 5/8	0.688	1.750	0.109
U55410.075.0001 3/4	0.781	1.500	0.109
U55410.075.0002 3/4	0.781	2.000	0.125
U55410.100.0001 1 Inch	1.063	2.000	0.109
U55410.100.0002 1 Inch	1.063	2.500	0.141

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço		U38403	7-47
Aço Cementado		U38402	7-48
Aço	Zn	U38400	7-48
Aço	Passiv. amar.	U38405	7-48
INOX A2 (AISI304/18-8)		U51410	7-48
INOX A4 (AISI316/18-10)		U55410	7-49

U38403 **Anilha plana** **X09A**

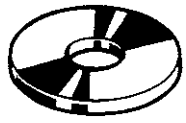
Material Aço



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.4*	100	U38403.011.0001	5/16*	100	U38403.031.0001	3/4*	20	U38403.075.0001
NO.6*	100	U38403.013.0001	3/8*	50	U38403.037.0001	7/8*	10	U38403.087.0001
NO.8*	100	U38403.016.0001	7/16*	50	U38403.043.0001	1 Inch*	5	U38403.100.0001
NO.10*	100	U38403.019.0001	1/2*	50	U38403.050.0001	1.1/8*	5	U38403.112.0001
1/4*	100	U38403.025.0001	5/8*	25	U38403.062.0001	1.1/4*	5	U38403.125.0001

U38402 Anilha plana — X09A

Material Aço Cementado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.6*	100	U38402.013.0001	NO.10*	100	U38402.019.0001	2.1/4*	5	U38402.225.0001
NO.8*	100	U38402.016.0001	1.3/4*	5	U38402.175.0001	2.1/2*	5	U38402.250.0001
3/16*	100	U38402.018.0001	2 Inch*	5	U38402.200.0001	3 Inch*	5	U38402.300.0001

U38400 Anilha plana — X09A

Material Aço
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.0*	100	U38400.006.0001	NO.8*	100	U38400.016.0002	7/16*	50	U38400.043.0001
NO.0*	100	U38400.006.0002	NO.8*	100	U38400.016.0003	7/16*	50	U38400.043.0002
NO.0*	100	U38400.006.0003	NO.8*	100	U38400.016.0004	7/16*	50	U38400.043.0003
NO.1*	100	U38400.007.0001	NO.8*	100	U38400.016.0005	7/16*	50	U38400.043.0004
NO.1*	100	U38400.007.0002	3/16*	100	U38400.018.0001	1/2*	50	U38400.050.0001
NO.1*	100	U38400.007.0003	NO.10*	100	U38400.019.0001	1/2*	50	U38400.050.0002
NO.2*	100	U38400.008.0001	NO.10*	100	U38400.019.0002	1/2*	50	U38400.050.0003
NO.2*	100	U38400.008.0002	NO.10*	100	U38400.019.0003	9/16*	25	U38400.056.0001
NO.2*	100	U38400.008.0003	NO.10*	100	U38400.019.0004	9/16*	25	U38400.056.0002
NO.2*	100	U38400.011.0001	1/4*	100	U38400.025.0001	3/4*	20	U38400.075.0001
NO.4*	100	U38400.011.0002	1/4*	100	U38400.025.0002	3/4*	20	U38400.075.0002
NO.4*	100	U38400.011.0003	1/4*	100	U38400.025.0003	3/4*	20	U38400.075.0003
NO.4*	100	U38400.011.0004	1/4*	100	U38400.025.0004	3/4*	20	U38400.075.0004
NO.4*	100	U38400.011.0005	5/16*	100	U38400.031.0001	1.1/8*	5	U38400.112.0001
NO.6*	100	U38400.013.0001	5/16*	100	U38400.031.0002	1.1/4*	5	U38400.125.0001
NO.6*	100	U38400.013.0002	5/16*	100	U38400.031.0003	1.3/8*	5	U38400.137.0001
NO.6*	100	U38400.013.0003	3/8*	100	U38400.037.0001	1.3/8*	5	U38400.137.0002
NO.6*	100	U38400.013.0004	3/8*	100	U38400.037.0002	1.1/2*	5	U38400.150.0001
NO.8*	100	U38400.016.0001	3/8*	100	U38400.037.0003			

7

U38405 Anilha plana — X09A

Material Aço
Tratamento sup. Passivado a amarelo



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
1/4*	100	U38405.025.0001	5/8*	25	U38405.062.0001	1.1/8*	5	U38405.112.0001
5/16*	100	U38405.031.0001	3/4*	20	U38405.075.0001	1.1/4*	5	U38405.125.0001
3/8*	100	U38405.037.0001	7/8*	10	U38405.087.0001	1.3/8*	5	U38405.137.0001
7/16*	50	U38405.043.0001	1 Inch*	5	U38405.100.0001	1.1/2*	5	U38405.150.0001
9/16*	25	U38405.056.0001						

U51410 Anilha plana — X15A

Material Aço inoxidável A2 (AISI 304/18-8)



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.0*	50	U51410.006.0001	NO.8*	50	U51410.016.0003	5/16*	50	U51410.031.0003
NO.1*	50	U51410.007.0001	NO.10*	50	U51410.019.0001	5/16*	50	U51410.031.0004
NO.2*	50	U51410.008.0001	NO.10*	50	U51410.019.0002	5/16*	50	U51410.031.0005
NO.4*	50	U51410.011.0001	NO.12*	50	U51410.021.0001	5/16*	50	U51410.031.0006
NO.4*	50	U51410.011.0002	NO.12*	50	U51410.021.0002	5/16*	50	U51410.031.0007
NO.4*	50	U51410.011.0003	1/4*	50	U51410.025.0001	5/16*	50	U51410.031.0008
NO.6*	50	U51410.013.0001	1/4*	50	U51410.025.0002	3/8*	50	U51410.037.0001
NO.6*	50	U51410.013.0002	1/4*	50	U51410.025.0003	3/8*	50	U51410.037.0002
NO.6*	50	U51410.013.0003	1/4*	50	U51410.025.0004	3/8*	50	U51410.037.0003
NO.6*	50	U51410.013.0004	1/4*	50	U51410.025.0005	3/8*	50	U51410.037.0004
NO.8*	50	U51410.016.0001	5/16*	50	U51410.031.0001	3/8*	50	U51410.037.0005
NO.8*	50	U51410.016.0002	5/16*	50	U51410.031.0002	3/8*	50	U51410.037.0006

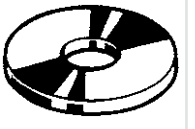
U51410 Anilha plana ←

Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
3/8*	50	U51410.037.0007	9/16*	25	U51410.056.0001	3/4*	20	U51410.075.0006
7/16*	25	U51410.043.0001	9/16*	25	U51410.056.0002	3/4*	20	U51410.075.0007
7/16*	25	U51410.043.0002	5/8*	25	U51410.062.0001	7/8*	5	U51410.087.0001
7/16*	25	U51410.043.0003	5/8*	25	U51410.062.0002	7/8*	5	U51410.087.0002
7/16*	25	U51410.043.0004	5/8*	25	U51410.062.0003	7/8*	5	U51410.087.0003
7/16*	25	U51410.043.0005	5/8*	25	U51410.062.0004	7/8*	5	U51410.087.0004
7/16*	25	U51410.043.0006	5/8*	25	U51410.062.0005	7/8*	5	U51410.087.0005
7/16*	25	U51410.043.0007	5/8*	25	U51410.062.0006	1 Inch*	5	U51410.100.0001
1/2*	25	U51410.050.0001	5/8*	25	U51410.062.0007	1 Inch*	5	U51410.100.0002
1/2*	25	U51410.050.0002	3/4*	20	U51410.075.0001	1 Inch*	5	U51410.100.0003
1/2*	25	U51410.050.0003	3/4*	20	U51410.075.0002	1 Inch*	5	U51410.100.0004
1/2*	25	U51410.050.0004	3/4*	20	U51410.075.0003	1 Inch*	5	U51410.100.0005
1/2*	25	U51410.050.0005	3/4*	20	U51410.075.0004	1.1/8*	5	U51410.112.0001
1/2*	25	U51410.050.0006	3/4*	20	U51410.075.0005	1.1/4*	5	U51410.125.0001

U55410 Anilha plana **X15A**

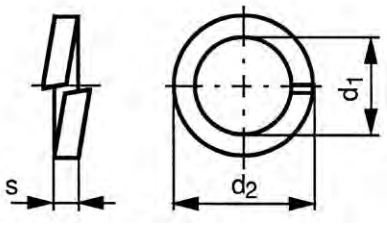
Material Aço inoxidável A4 (AISI 316/18-10)

RoHS

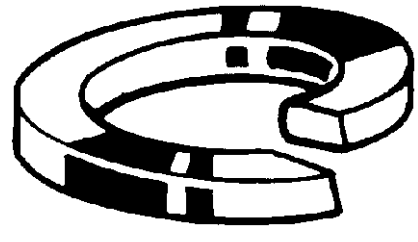


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.4*	50	U55410.011.0001	3/8*	50	U55410.037.0001	5/8*	25	U55410.062.0001
NO.8*	50	U55410.016.0001	3/8*	50	U55410.037.0002	5/8*	25	U55410.062.0002
NO.10*	50	U55410.019.0001	3/8*	50	U55410.037.0003	5/8*	25	U55410.062.0003
NO.10*	50	U55410.019.0002	7/16*	25	U55410.043.0001	3/4*	20	U55410.075.0001
1/4*	50	U55410.025.0001	7/16*	25	U55410.043.0002	3/4*	20	U55410.075.0002
1/4*	50	U55410.025.0002	1/2*	25	U55410.050.0001	1 Inch*	5	U55410.100.0001
5/16*	50	U55410.031.0001	1/2*	25	U55410.050.0002	1 Inch*	5	U55410.100.0002
5/16*	50	U55410.031.0002	1/2*	25	U55410.050.0003			
5/16*	50	U55410.031.0003	9/16*	25	U55410.056.0001			

Anilha de mola com pontas quadradas



DIN	**127 B**
NEN	1197 B
NF	E25-515
BS	4464 B



7

Dados técnicos

Para diâm.nom.	d_1 (min.)	d_2 (max.)	s
M2	2.1	4.4	0.5
M2.3 (≠DIN)	2.4	4.9	0.6
M2.5	2.6	5.1	0.6
M2.6 (≠DIN)	2.7	5.2	0.6
M3	3.1	6.2	0.8
M3.5	3.6	6.7	0.8
M4	4.1	7.6	0.9
M5	5.1	9.2	1.2
M6	6.1	11.8	1.6
M7	7.1	12.8	1.6
M8	8.1	14.8	2
M10	10.2	18.1	2.2
M11 (≠DIN)	11.2	18.2	2.2
M12	12.2	21.1	2.5
M14	14.2	24.1	3
M16	16.2	27.4	3.5
M18	18.2	29.4	3.5
M20	20.2	33.6	4

Para diâm.nom.	d_1 (min.)	d_2 (max.)	s
M22	22.5	35.9	4
M24	24.5	40	5
M27	27.5	43	5
M30	30.5	48.2	6
M33 (≠DIN)	33.5	55.2	6
M36	36.5	58.2	6
M39	39.5	61.2	6
M42	42.5	68.2	7
M45	45.5	71.2	7
M48	49	75	7
M52	53	83	8
M56	57	87	8
M60	61	91	8
M64	65	95	8
M68	69	99	8
M72	73	103	8
M76 (≠DIN)	77	107	8

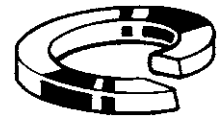
- Anilhas de mola de acc. com DIN 127 B devem ser usadas em combinação com parafusos de classe ≤ 5.8, não é aconselhada a sua utilização onde existam cargas dinâmicas.
- Para fixação sob condições de cargas dinâmicas é indicada a utilização de anilhas mola onduladas e anilhas anti vibração NORD-LOCK.
- Dependendo da disponibilidade estes artigos podem ser fornecidos em zincado ou passivados mecânicamente.
- AVISO: electrogalvanização destes artigos pode causar disfunção hidrogénica.

Grupos de produtos

Material	Tratamento sup.		Código	Página
Aço mola DIN267-26			37000	7-50
Aço mola DIN267-26	Zn		37020	7-50
Aço mola DIN267-26	Zn	Embalagem grande	37030	7-50
Aço mola DIN267-26	Passiv. amar.		37060	7-51
Aço mola DIN267-26	FLZNNC-NC6		37024	7-51
Aço mola DIN267-26	Galv. Q.		37025	7-51
INOX A2			51450	7-51
INOX A4			55450	7-51
INOX A5			52451	7-52
Al P60			45790	7-52

37000 Anilha de mola com pontas quadradas — L05A

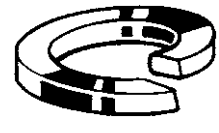
Material Aço mola DIN267-26



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	250	37000.030.001	M16	100	37000.160.001	M42	10	37000.420.001
M3,5	250	37000.035.001	M18	100	37000.180.001	M45	10	37000.450.001
M4	250	37000.040.001	M20	100	37000.200.001	M48	10	37000.480.001
M5	250	37000.050.001	M22	50	37000.220.001	M52	10	37000.520.001
M6	250	37000.060.001	M24	50	37000.240.001	M56	5	37000.560.001
M7	250	37000.070.001	M27	25	37000.270.001	M60	5	37000.600.001
M8	200	37000.080.001	M30	25	37000.300.001	M64	5	37000.640.001
M10	200	37000.100.001	M33	25	37000.330.001	M68	5	37000.680.001
M11	150	37000.110.001	M36	25	37000.360.001	M72	5	37000.720.001
M12	150	37000.120.001	M39	10	37000.390.001	M76	5	37000.760.001
M14	100	37000.140.001						

37020 Anilha de mola com pontas quadradas — L05A

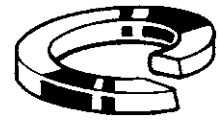
Material Aço mola DIN267-26
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2	500	37020.020.001	M7	250	37020.070.001	M20	100	37020.200.001
M2,3	500	37020.023.001	M8	200	37020.080.001	M22	50	37020.220.001
M2,6	500	37020.026.001	M10	200	37020.100.001	M24	50	37020.240.001
M3	250	37020.030.001	M11	150	37020.110.001	M27	25	37020.270.001
M3,5	250	37020.035.001	M12	150	37020.120.001	M30	25	37020.300.001
M4	250	37020.040.001	M14	100	37020.140.001	M33	25	37020.330.001
M5	250	37020.050.001	M16	100	37020.160.001	M36	25	37020.360.001
M6	250	37020.060.001	M18	100	37020.180.001	M39	10	37020.390.001

37030 Anilha de mola com pontas quadradas — L05A

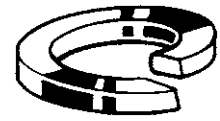
Material Aço mola DIN267-26
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	2500	37030.030.001	M8	2000	37030.080.001	M16	500	37030.160.001
M4	2500	37030.040.001	M10	1500	37030.100.001	M20	250	37030.200.001
M5	2500	37030.050.001	M12	1000	37030.120.001	M22	250	37030.220.001
M6	2000	37030.060.001	M14	500	37030.140.001	M24	250	37030.240.001

37060 Anilha de mola com pontas quadradas — L05A

Material Aço mola DIN267-26
Tratamento sup. Passivado a amarelo

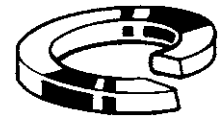


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	250	37060.030.001	M8	200	37060.080.001	M18	100	37060.180.001
M4	250	37060.040.001	M10	200	37060.100.001	M20	100	37060.200.001
M5	250	37060.050.001	M12	150	37060.120.001	M22	50	37060.220.001
M6	250	37060.060.001	M14	100	37060.140.001	M24	50	37060.240.001
M7	250	37060.070.001	M16	100	37060.160.001			

37024 Anilha de mola com pontas quadradas — L05A

Material Aço mola DIN267-26
Tratamento sup. Camada de zinco isento Cr^{6+}- ISO 10683 flZnnc

RoHS

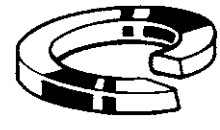


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6	250	37024.060.001	M12	150	37024.120.001	M24	50	37024.240.001
M8	200	37024.080.001	M16	100	37024.160.001	M30	25	37024.300.001
M10	200	37024.100.001	M20	100	37024.200.001			

37025 Anilha de mola com pontas quadradas — A08A

Material Aço mola DIN267-26
Tratamento sup. Galvanizado a quente

RoHS



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6	250	37025.060.001	M16	100	37025.160.001	M24	50	37025.240.001
M8	200	37025.080.001	M18	100	37025.180.001	M27	25	37025.270.001
M10	200	37025.100.001	M20	100	37025.200.001	M30	25	37025.300.001
M12	150	37025.120.001	M22	50	37025.220.001	M36	25	37025.360.001
M14	150	37025.140.001						

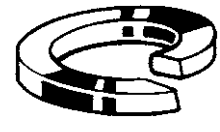
7

51450 Anilha de mola com pontas quadradas — R07A

Material Aço inoxidável A2

DIN	**≈127 B**
NEN	≈1197 B
NF	≈E25-515
BS	≈4464 B

RoHS



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2	200	51450.020.001	M8	500	51450.080.001	M24	100	51450.240.001
M2,3	200	51450.023.001	M10	500	51450.100.001	M27	50	51450.270.001
M2,5	200	51450.025.001	M11	500	51450.110.001	M30	50	51450.300.001
M2,6	200	51450.026.001	M12	500	51450.120.001	M33	50	51450.330.001
M3	500	51450.030.001	M14	200	51450.140.001	M36	50	51450.360.001
M3,5	500	51450.035.001	M16	200	51450.160.001	M39*	25	51450.390.001
M4	500	51450.040.001	M18	200	51450.180.001	M42*	25	51450.420.001
M5	500	51450.050.001	M20	200	51450.200.001	M45*	25	51450.450.001
M6	500	51450.060.001	M22	100	51450.220.001	M48*	25	51450.480.001
M7	500	51450.070.001						

- Dados técnicos estão de acordo com a norma DIN com exepção de material em aço inoxidável.

55450 Anilha de mola com pontas quadradas — R47A

Material Aço inoxidável A4

DIN	**≈127 B**
NEN	≈1197 B
NF	≈E25-515
BS	≈4464 B

RoHS



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2	200	55450.020.001	M3	500	55450.030.001	M4	500	55450.040.001
M2,5	200	55450.025.001	M3,5*	1000	55450.035.001	M5	500	55450.050.001

55450 Anilha de mola com pontas quadradas ←

Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6	500	55450.060.001	M18	200	55450.180.001	M33	50	55450.330.001
M8	500	55450.080.001	M20	200	55450.200.001	M36	50	55450.360.001
M10	500	55450.100.001	M22	100	55450.220.001	M39*	25	55450.390.001
M12	500	55450.120.001	M24	100	55450.240.001	M42*	25	55450.420.001
M14	200	55450.140.001	M27	50	55450.270.001			
M16	200	55450.160.001	M30	50	55450.300.001			

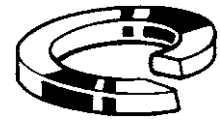
- Dados técnicos estão de acordo com a norma DIN com exepção de material em aço inoxidável.

52451 Anilha de mola com pontas quadradas **R45A**

Material Aço inoxidável A5

DIN	**≈127 B**
NEN	≈1197 B
NF	≈E25-515
BS	≈4464 B

RoHS

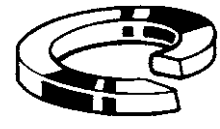


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M8*	1000	52451.080.001	M10*	500	52451.100.001

45790 Anilha de mola com pontas quadradas **W01A**

Material Alumínio P60

DIN	**≈127 B**
NEN	≈1197 B
NF	≈E25-515
BS	≈4464 B

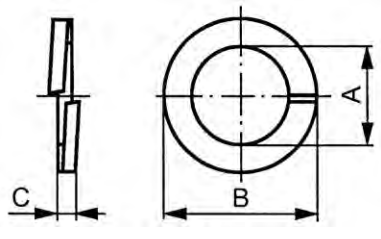


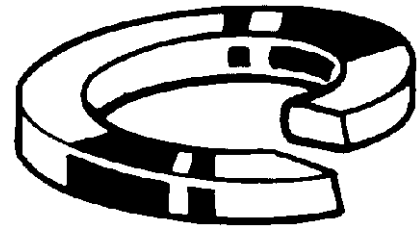
Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6	250	45790.060.001	M10	200	45790.100.001	M14	100	45790.140.001
M8	200	45790.080.001	M12	150	45790.120.001	M16	100	45790.160.001

Anilha de mola com pontas quadradas

7

ASME B18.21.1





Dados técnicos

Para diâm.nom.	A	B	T
No.2	0.088	0.172	0.02
No.3	0.101	0.195	0.025
No.4	0.114	0.209	0.025
No.5	0.127	0.236	0.031
No.6	0.141	0.25	0.031
No.8	0.167	0.293	0.040
No.10	0.193	0.334	0.047
No.12	0.22	0.377	0.056
1/4	0.252	0.487	0.062
5/16	0.314	0.583	0.078
3/8	0.377	0.68	0.094
7/16	0.44	0.77	0.109
1/2	0.502	0.869	0.125
9/16	0.564	0.965	0.141
5/8	0.628	1.073	0.156
3/4	0.753	1.265	0.188
7/8	0.878	1.459	0.219
1 Inch	1.003	1.656	0.25
1.1/8	1.129	1.847	0.281
1.1/4	1.254	2.036	0.312
1.3/8	1.379	2.219	0.344
1.1/2	1.504	2.419	0.375
1.5/8	1.633	2.553	0.359

Dados técnicos

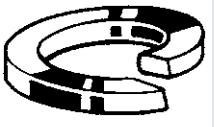
Para diâm.nom.	A	B	T
1.3/4	1.758	2.679	0.389
1.7/8	1.883	2.811	0.422
2 Inch	2.008	2.936	0.422
2.1/2	2.512	3.471	0.44
3 Inch	3.012	4.074	0.458

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço		U37000	7-53
Aço	Zn	U37020	7-53
Aço	Passiv. amar.	U37060	7-53
Aço	Galv. Q.	U37025	7-54
INOX A2 (AISI304/18-8)		U51450	7-54
INOX A4 (AISI316/18-10)		U55450	7-54
Latão SL		U43150	7-54

U37000 Anilha de mola com pontas quadradas X09A

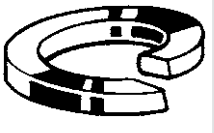
Material Aço



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.2	100	U37000.008.0001	3/8*	50	U37000.037.0001	1.1/4*	5	U37000.125.0001
NO.3*	100	U37000.009.0001	7/16*	25	U37000.043.0001	1.3/8*	5	U37000.137.0001
NO.4*	100	U37000.011.0001	1/2*	25	U37000.050.0001	1.1/2*	5	U37000.150.0001
NO.5*	100	U37000.012.0001	9/16*	25	U37000.056.0001	1.5/8*	5	U37000.162.0001
NO.6*	100	U37000.013.0001	5/8*	10	U37000.062.0001	1.3/4*	5	U37000.175.0001
NO.8*	100	U37000.016.0001	3/4*	10	U37000.075.0001	1.7/8*	5	U37000.187.0001
NO.10*	100	U37000.019.0001	7/8*	5	U37000.087.0001	2 Inch*	5	U37000.200.0001
NO.12*	100	U37000.021.0001	1 Inch*	5	U37000.100.0001	2.1/2*	5	U37000.250.0001
1/4*	100	U37000.025.0001	1.1/8*	5	U37000.112.0001	3 Inch*	5	U37000.300.0001
5/16*	100	U37000.031.0001						

U37020 Anilha de mola com pontas quadradas X09A

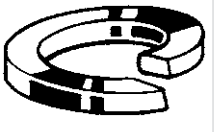
Material Aço
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.2*	100	U37020.008.0001	1/4*	100	U37020.025.0001	7/8*	5	U37020.087.0001
NO.3*	100	U37020.009.0001	5/16*	100	U37020.031.0001	1 Inch*	5	U37020.100.0001
NO.4*	100	U37020.011.0001	3/8*	50	U37020.037.0001	1.1/8*	5	U37020.112.0001
NO.5*	100	U37020.012.0001	7/16*	25	U37020.043.0001	1.1/4*	5	U37020.125.0001
NO.6*	100	U37020.013.0001	1/2*	25	U37020.050.0001	1.3/8*	5	U37020.137.0001
NO.8*	100	U37020.016.0001	9/16*	25	U37020.056.0001	1.1/2*	5	U37020.150.0001
NO.10*	100	U37020.019.0001	5/8*	10	U37020.062.0001	1.3/4*	5	U37020.175.0001
NO.12*	100	U37020.021.0001	3/4*	10	U37020.075.0001	2 Inch*	5	U37020.200.0001

U37060 Anilha de mola com pontas quadradas X09A

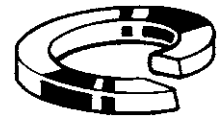
Material Aço
Tratamento sup. Passivado a amarelo



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
1/4*	100	U37060.025.0001	5/8*	10	U37060.062.0001	1.3/8*	5	U37060.137.0001
5/16*	100	U37060.031.0001	3/4*	10	U37060.075.0001	1.1/2*	5	U37060.150.0001
3/8*	50	U37060.037.0001	7/8*	5	U37060.087.0001	1.3/4*	5	U37060.175.0001
7/16*	25	U37060.043.0001	1 Inch*	5	U37060.100.0001	2 Inch*	5	U37060.200.0001
1/2*	25	U37060.050.0001	1.1/8*	5	U37060.112.0001			
9/16*	25	U37060.056.0001	1.1/4*	5	U37060.125.0001			

U37025 Anilha de mola com pontas quadradas — X09A

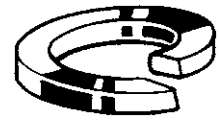
Material Aço
Tratamento sup. Galvanizado a quente



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
1/4*	100	U37025.025.0001	3/4*	10	U37025.075.0001	1.1/2*	5	U37025.150.0001
5/16*	100	U37025.031.0001	7/8*	5	U37025.087.0001	1.3/4*	5	U37025.175.0001
3/8*	50	U37025.037.0001	1 Inch*	5	U37025.100.0001	2 Inch*	5	U37025.200.0001
7/16*	25	U37025.043.0001	1.1/8*	5	U37025.112.0001	2.1/2*	5	U37025.250.0001
1/2*	25	U37025.050.0001	1.1/4*	5	U37025.125.0001			
5/8*	10	U37025.062.0001	1.3/8*	5	U37025.137.0001			

U51450 Anilha de mola com pontas quadradas — X15A

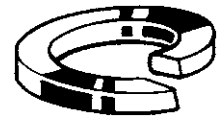
Material Aço inoxidável A2 (AISI 304/18-8)



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.2*	50	U51450.008.0001	NO.12*	50	U51450.021.0001	5/8*	10	U51450.062.0001
NO.3*	50	U51450.009.0001	1/4*	50	U51450.025.0001	3/4*	5	U51450.075.0001
NO.4*	50	U51450.011.0001	5/16*	50	U51450.031.0001	7/8*	5	U51450.087.0001
NO.5*	50	U51450.012.0001	3/8*	50	U51450.037.0001	1 Inch*	5	U51450.100.0001
NO.6*	50	U51450.013.0001	7/16*	25	U51450.043.0001	1.1/8*	5	U51450.112.0001
NO.8*	50	U51450.016.0001	1/2*	10	U51450.050.0001	1.1/4*	5	U51450.125.0001
NO.10*	50	U51450.019.0001	9/16*	10	U51450.056.0001	1.1/2*	5	U51450.150.0001

U55450 Anilha de mola com pontas quadradas — X15A

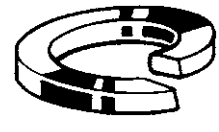
Material Aço inoxidável A4 (AISI 316/18-10)



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.2*	50	U55450.008.0001	1/4*	50	U55450.025.0001	3/4*	5	U55450.075.0001
NO.3*	50	U55450.009.0001	5/16*	50	U55450.031.0001	7/8*	5	U55450.087.0001
NO.4*	50	U55450.011.0001	3/8*	50	U55450.037.0001	1 Inch*	5	U55450.100.0001
NO.6*	50	U55450.013.0001	7/16*	25	U55450.043.0001	1.1/8*	5	U55450.112.0001
NO.8*	50	U55450.016.0001	1/2*	10	U55450.050.0001	1.1/4*	5	U55450.125.0001
NO.10*	50	U55450.019.0001	9/16*	10	U55450.056.0001	1.1/2*	5	U55450.150.0001
NO.12*	50	U55450.021.0001	5/8*	10	U55450.062.0001			

U43150 Anilha de mola com pontas quadradas — X09A

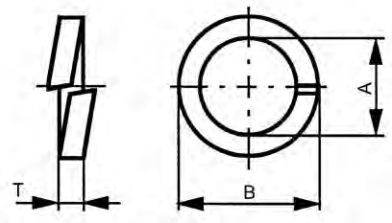
Material Bronze SL

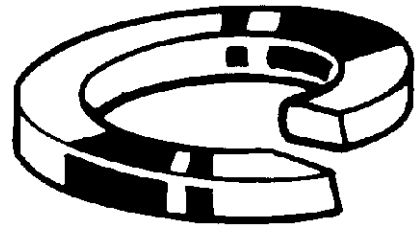


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.4*	100	U43150.011.0001	1/4*	100	U43150.025.0001	1/2*	25	U43150.050.0001
NO.10*	100	U43150.019.0001	3/8*	50	U43150.037.0001	5/8*	10	U43150.062.0001
NO.12*	100	U43150.021.0001						

Anilha de mola com pontas quadradas heavy

ASME B18.21.1





Dados técnicos

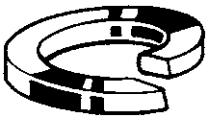
Para diâm.nom.	A	B	T
No.2	0.088	0.182	0.025
No.3	0.101	0.209	0.031
No.4	0.114	0.223	0.031
No.5	0.127	0.252	0.040
No.6	0.141	0.266	0.040
No.8	0.167	0.307	0.047
No.10	0.193	0.350	0.056
No.12	0.220	0.391	0.063
1/4	0.252	0.489	0.077
5/16	0.314	0.593	0.097
3/8	0.377	0.688	0.115
7/16	0.440	0.784	0.133
1/2	0.502	0.879	0.151
9/16	0.564	0.975	0.170
5/8	0.628	1.087	0.189
3/4	0.753	1.285	0.226
7/8	0.878	1.489	0.266
1 Inch	1.003	1.700	0.306
1.1/8	1.129	1.903	0.345
1.1/4	1.254	2.104	0.384
1.3/8	1.379	2.301	0.422
1.1/2	1.504	2.491	0.458
1.5/8	1.633	2.694	0.458
1.3/4	1.758	2.82	0.458
2 Inch	2.008	3.144	0.496
2.1/4	2.262	3.398	0.496
2.1/2	2.512	3.648	0.496
3 Inch	3.012	4.160	0.526

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço HV		U37180	7-55
Aço HV	Zn	U37183	7-56

U37180 Anilha de mola com pontas quadradas heavy **X09A**

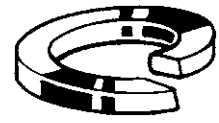
Material Aço HV



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.4*	100	U37180.011.0001	7/16*	25	U37180.043.0001	1.3/8*	5	U37180.137.0001
NO.5*	100	U37180.012.0001	1/2*	25	U37180.050.0001	1.1/2*	5	U37180.150.0001
NO.6*	100	U37180.013.0001	9/16*	25	U37180.056.0001	1.5/8*	5	U37180.162.0001
NO.8*	100	U37180.016.0001	5/8*	10	U37180.062.0001	1.3/4*	5	U37180.175.0001
NO.10*	100	U37180.019.0001	3/4*	10	U37180.075.0001	2 Inch*	5	U37180.200.0001
NO.12*	100	U37180.021.0001	7/8*	5	U37180.087.0001	2.1/4*	5	U37180.225.0001
1/4*	100	U37180.025.0001	1 Inch*	5	U37180.100.0001	2.1/2*	5	U37180.250.0001
5/16*	100	U37180.031.0001	1.1/8*	5	U37180.112.0001	3 Inch*	5	U37180.300.0001
3/8*	50	U37180.037.0001	1.1/4*	5	U37180.125.0001			

U37183	Anilha de mola com pontas quadradas heavy	X09A

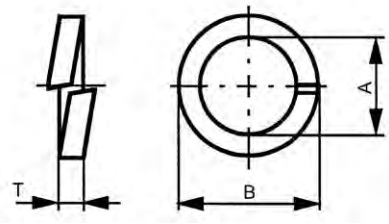
Material Aço HV
Tratamento sup. Zincado

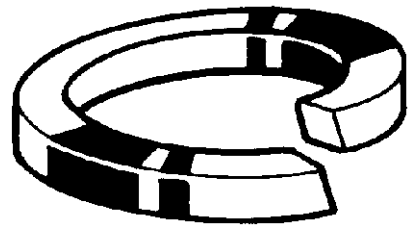


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.3*	100	U37183.009.0001	1/4*	100	U37183.025.0001	3/4*	10	U37183.075.0001
NO.4*	100	U37183.011.0001	5/16*	100	U37183.031.0001	7/8*	5	U37183.087.0001
NO.5*	100	U37183.012.0001	3/8*	50	U37183.037.0001	1 Inch*	5	U37183.100.0001
NO.6*	100	U37183.013.0001	7/16*	25	U37183.043.0001	1.1/8*	5	U37183.112.0001
NO.8*	100	U37183.016.0001	1/2*	25	U37183.050.0001	1.1/4*	5	U37183.125.0001
NO.10*	100	U37183.019.0001	9/16*	25	U37183.056.0001	1.3/8*	5	U37183.137.0001
NO.12*	100	U37183.021.0001	5/8*	10	U37183.062.0001	1.1/2*	5	U37183.150.0001

Anilha de mola com pontas quadradas extra duty

ASME B18.21.1





Dados técnicos

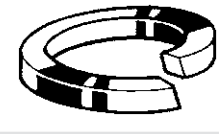
Para diâm.nom.	A	B	T
No.4	0.114	0.253	0.034
No.6	0.141	0.314	0.045
No.8	0.167	0.375	0.057
No.10	0.193	0.434	0.068
No.12	0.220	0.497	0.080
1/4	0.252	0.533	0.084
5/16	0.314	0.619	0.108
3/8	0.377	0.738	0.123
7/16	0.440	0.836	0.143
1/2	0.502	0.935	0.162
9/16	0.564	1.035	0.182
5/8	0.628	1.151	0.202
3/4	0.753	1.355	0.241
7/8	0.878	1.571	0.285
1 Inch	1.003	1.794	0.330
1.1/8	1.129	2.013	0.375
1.1/4	1.254	2.222	0.417
1.1/2	1.504	2.627	0.496

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço		U37170	7-56
Aço	Zn	U37171	7-57

U37170	Anilha de mola com pontas quadradas extra duty	X09A

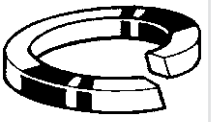
Material Aço



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.4*	100	U37170.011.0001	3/8*	50	U37170.037.0001	7/8*	5	U37170.087.0001
NO.6*	100	U37170.013.0001	7/16*	25	U37170.043.0001	1 Inch*	5	U37170.100.0001
NO.8*	100	U37170.016.0001	1/2*	25	U37170.050.0001	1.1/8*	5	U37170.112.0001
NO.10*	100	U37170.019.0001	9/16*	25	U37170.056.0001	1.1/4*	5	U37170.125.0001
1/4*	100	U37170.025.0001	5/8*	10	U37170.062.0001	1.1/2*	5	U37170.150.0001
5/16*	100	U37170.031.0001	3/4*	10	U37170.075.0001			

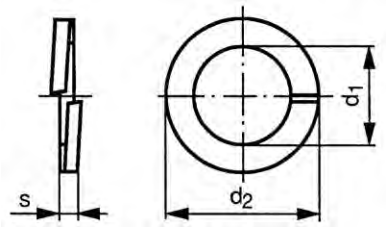
U37171 **Anilha de mola com pontas quadradas extra duty** **X09A**

Material Aço
Tratamento sup. Zincado

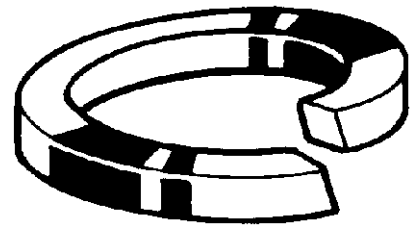


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.4*	100	U37171.011.0001	5/16*	100	U37171.031.0001	7/8*	5	U37171.087.0001
NO.6*	100	U37171.013.0001	3/8*	50	U37171.037.0001	1 Inch*	5	U37171.100.0001
NO.8*	100	U37171.016.0001	7/16*	25	U37171.043.0001	1.1/8*	5	U37171.112.0001
NO.10*	100	U37171.019.0001	9/16*	25	U37171.056.0001	1.1/4*	5	U37171.125.0001
NO.12*	100	U37171.021.0001	5/8*	10	U37171.062.0001	1.1/2*	5	U37171.150.0001
1/4*	100	U37171.025.0001	3/4*	10	U37171.075.0001			

Anilha de mola para parafusos com cabeça cilindrica



DIN **7980**
BS 4464 A



Dados técnicos

Para diâm.nom.	d_1 (min.)	d_2 (max.)	s
M3	3.1	5.6	1
M3.5	3.6	6.1	1
M4	4.1	7	1.2
M5	5.1	8.8	1.6
M6	6.1	9.9	1.6
M8	8.1	12.7	2
M10	10.2	16	2.5
M12	12.2	18	2.5
M14	14.2	21.1	3

Para diâm.nom.	d_1 (min.)	d_2 (max.)	s
M16	16.2	24.4	3.5
M18	18.2	26.4	3.5
M20	20.2	30.6	4.5
M22	22.5	32.9	4.5
M24	24.5	35.9	5
M27	27.5	38.9	5
M30	30.5	44.1	6
M36	36.5	52.2	7

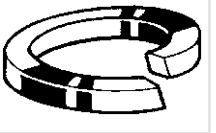
7

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço mola DIN267-26		37200	7-57
Aço mola DIN267-26	Zn	37220	7-58
INOX A2		51390	7-58
INOX A4		55390	7-58

37200 **Anilha de mola para parafusos com cabeça cilindrica** **L07D**

Material Aço mola DIN267-26

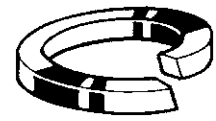


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	250	37200.030.001	M12	150	37200.120.001	M24	50	37200.240.001
M4	250	37200.040.001	M14	100	37200.140.001	M27	50	37200.270.001
M5	250	37200.050.001	M16	100	37200.160.001	M30	50	37200.300.001
M6	250	37200.060.001	M18	250	37200.180.001	M36	50	37200.360.001
M8	200	37200.080.001	M20	100	37200.200.001			
M10	200	37200.100.001	M22	50	37200.220.001			

- Anilha de mola acc. com DIN 7980 deve ser utilizada em combinação com parafusos aço classe < 8.8, a utilização em cargas dinâmicas não é aconselhada.
- Para fixações de cargas dinâmicas devem ser utilizadas as anilhas de mola com estrias e anilhas anti vibração NORD-LOCK.
- Dependendo da disponibilidade de stock estes artigos podem ser fornecidos em electro zincado ou zincado mecanicamente.
- Aviso: a electrozincagem destes produtos pode causar disfunção hidrogénica.

37220 Anilha de mola para parafusos com cabeça cilindrica L07D

Material Aço mola DIN267-26
Tratamento sup. Zincado



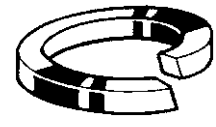
Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	250	37220.030.001	M10	200	37220.100.001	M22	50	37220.220.001
M4	250	37220.040.001	M12	150	37220.120.001	M24	50	37220.240.001
M5	250	37220.050.001	M14	100	37220.140.001	M27	50	37220.270.001
M6	250	37220.060.001	M16	100	37220.160.001	M30	50	37220.300.001
M8	200	37220.080.001	M20	100	37220.200.001			

- Anilha de mola acc. com DIN 7980 deve ser utilizada em combinação com parafusos aço classe < 8.8, a utilização em cargas dinâmicas não é aconselhada.
- Para fixações de cargas dinâmicas devem ser utilizadas as anilhas de mola com estrias e anilhas anti vibração NORD-LOCK.
- Dependendo da disponibilidade de stock estes artigos podem ser fornecidos em electro zincado ou zincado mecanicamente.
- Aviso: a electrozincagem destes produtos pode causar disfunção hidrogénica.

51390 Anilha de mola para parafusos com cabeça cilindrica R09A

Material Aço inoxidável A2

DIN ≈7980
BS ≈4464 A



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	250	51390.030.001	M8	250	51390.080.001	M18	100	51390.180.001
M3,5*	1000	51390.035.001	M10	200	51390.100.001	M20	100	51390.200.001
M4	250	51390.040.001	M12	200	51390.120.001	M24	50	51390.240.001
M5	250	51390.050.001	M14	100	51390.140.001	M27	50	51390.270.001
M6	250	51390.060.001	M16	100	51390.160.001	M30	50	51390.300.001

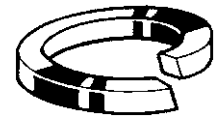
- É desaconselhada a utilização em cargas dinâmicas.
- Para fixações com cargas dinâmicas são aconselhadas as anilhas antivibração.
- O aço austenitico está dependente do fabricante e os tipos de aço podem variar conforme a norma DIN 267-11.

55390 Anilha de mola para parafusos com cabeça cilindrica R49A

7

Material Aço inoxidável A4

DIN ≈7980
BS ≈4464 A

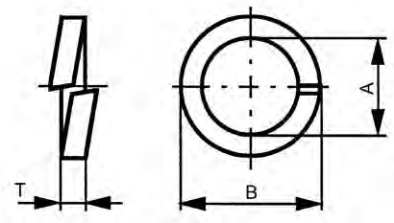


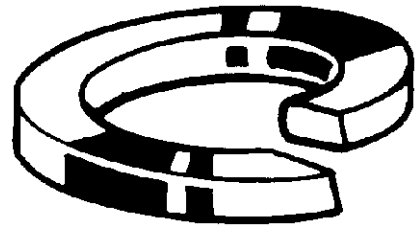
Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	250	55390.030.001	M10	200	55390.100.001	M20	100	55390.200.001
M4	250	55390.040.001	M12	200	55390.120.001	M24	50	55390.240.001
M5	250	55390.050.001	M14	100	55390.140.001	M27	50	55390.270.001
M6	250	55390.060.001	M16	100	55390.160.001	M30	50	55390.300.001
M8	250	55390.080.001	M18	100	55390.180.001			

- É desaconselhada a utilização em cargas dinâmicas.
- Para fixações em cargas dinâmicas são aconselhadas anilhas antivibração NORD-LOCK.
- O tipo de aço austenitico é do critério do fabricante, os tipos de aço podem variar de acordo com a norma DIN 267-11.

Anilha de mola alta

ASME B18.21.1





Dados técnicos

Para diâm.nom.	A	B	T
No.4	0.114	0.173	0.022
No.5	0.127	0.202	0.030
No.6	0.141	0.216	0.03
No.8	0.167	0.267	0.047
No.10	0.193	0.294	0.047
1/4	0.252	0.363	0.078
5/16	0.314	0.457	0.093
3/8	0.377	0.550	0.125
7/16	0.440	0.644	0.140
1/2	0.502	0.733	0.172
5/8	0.628	0.917	0.203
3/4	0.753	1.105	0.218
7/8	0.878	1.291	0.234
1 Inch	1.003	1.478	0.250
1.1/4	1.254	1.790	0.313
1.1/2	1.504	2.159	0.375

Grupos de produtos

Material	Código	Página
Aço	U37200	7-59
INOX A2 (AISI304/18-8)	U51390	7-59

U37200 Anilha de mola alta **X09A**

Material Aço



RoHS

Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.4*	100	U37200.011.0001	5/16*	100	U37200.031.0001	7/8*	5	U37200.087.0001
NO.5*	100	U37200.012.0001	3/8*	50	U37200.037.0001	1 Inch*	5	U37200.100.0001
NO.6*	100	U37200.013.0001	7/16*	25	U37200.043.0001	1.1/4*	5	U37200.125.0001
NO.8*	100	U37200.016.0001	1/2*	25	U37200.050.0001	1.1/2*	5	U37200.150.0001
NO.10*	100	U37200.019.0001	5/8*	10	U37200.062.0001			
1/4*	100	U37200.025.0001	3/4*	10	U37200.075.0001			

U51390 Anilha de mola alta **X15A**

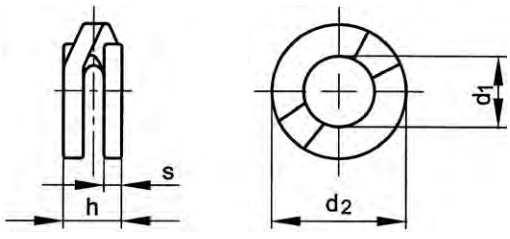
Material Aço inoxidável A2 (AISI 304/18-8)

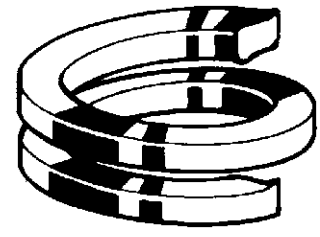


RoHS

Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
1/4	50	U51390.025.0001	3/8*	50	U51390.037.0001	7/16*	25	U51390.043.0001
5/16*	50	U51390.031.0001						

Anilha de mola dupla





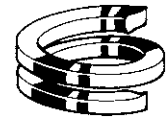
Dados técnicos

Para diâm.nom.	d_1	d_2	h	s
M5	5.1	8.7	4.2	1.2
M6	6.1	11.1	5.6	1.6
M8	8.2	14.2	7	2
M10	10.2	17.2	7.7	2.2
M12	12.2	20.2	8.8	2.5
M16	16.2	26.2	12.3	3.5
M20	20.2	32.2	14	4
M22	22.5	34.5	14	4
M26	26.5	40.5	17.5	5

37240 **Anilha de mola dupla** **L07D**

Material Aço mola

RoHS

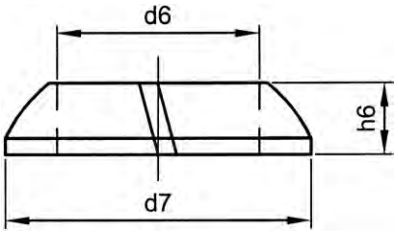


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M5	100	37240.050.001	M10	100	37240.100.001	M20	50	37240.200.001
M6	100	37240.060.001	M12	100	37240.120.001	M22	25	37240.220.001
M8	100	37240.080.001	M16	50	37240.160.001	M26	25	37240.260.001

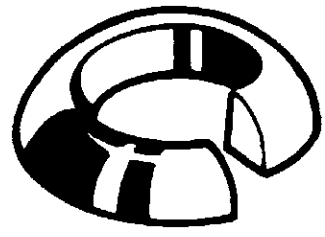
- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

7

Anilha de mola cónica



DIN **74361 C**



Dados técnicos

d	d_6	d_7	h_6	d	d_6	d_7	h_6
M12	12.5	23	5	M18	18.5	29	7
M14	14.5	26	6	M20	20.5	34	8
M16 (≠DIN)	17.5	27	7	M22	22.5	34	8

72030 **Anilha de mola cónica** **Y92E**

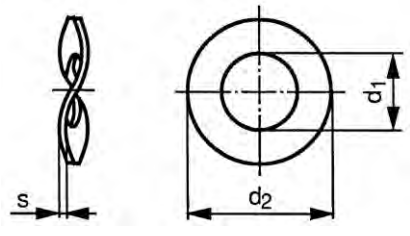
Material Aço mola DIN17221



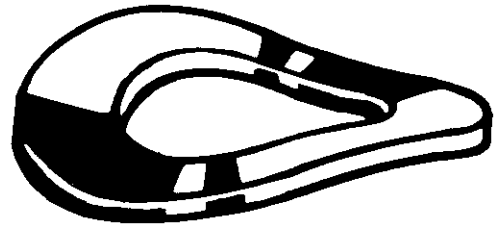
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M12	50	72030.120.001	M16	50	72030.160.001	M20	25	72030.200.001
M14	50	72030.140.001	M18	25	72030.180.001	M22	25	72030.220.001

- Indicado para parafusos para rodas.

Anilha de mola ondulada



DIN **137 B**
NEN 2457
NF E27-620



Dados técnicos

Para diâm.nom.	d_1	d_2	s	Para diâm.nom.	d_1	d_2	s
M3	3.2	8	0.5	M12	13	24	1.2
M3.5	3.7	8	0.5	M14	15	28	1.6
M4	4.3	9	0.5	M16	17	30	1.6
M5	5.3	11	0.5	M18	19	34	1.6
M6	6.4	12	0.5	M20	21	36	1.6
M7	7.4	14	0.8	M22	23	40	1.8
M8	8.4	15	0.8	M24	25	44	1.8
M10	10.5	21	1	M27	28	50	2

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço mola DIN267-26		37160	7-62
Aço mola DIN267-26	Passiv. amar.	37150	7-62
INOX A2		51551	7-62
INOX A4		55551	7-62

37160 Anilha de mola ondulada — L07D

Material Aço mola DIN267-26



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	1000	37160.030.001	M8	1000	37160.080.001	M16	100	37160.160.001
M4	1000	37160.040.001	M10	500	37160.100.001	M20	100	37160.200.001
M5	1000	37160.050.001	M12	500	37160.120.001	M22	100	37160.220.001
M6	1000	37160.060.001	M14	100	37160.140.001	M24	100	37160.240.001
M7	1000	37160.070.001						

- As anilhas onduladas de acc. com DIN 137 devem ser utilizadas com parafusos de aço classe < 5.8, a utilização em cargas dinâmicas não é aconselhada.
- São utilizadas para contrariar o efeito de desaperto entre parafuso e porca (ver DIN 267-26).
- As anilhas não previnem o desaperto por variação de carga radial e foram concebidas para utilização com parafusos mais curtos.
- Para cargas dinâmicas são recomendadas as anilhas de mola e as anilhas antivibração NORD-LOCK.
- Aviso: a electrozincagem destes produtos podem causar disfunção hidrogénica.

37150 Anilha de mola ondulada — L07D

Material Aço mola DIN267-26
Tratamento sup. Passivado a amarelo



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	1000	37150.030.001	M7	1000	37150.070.001	M12	500	37150.120.001
M4	1000	37150.040.001	M8	1000	37150.080.001	M14	100	37150.140.001
M5	1000	37150.050.001	M10	500	37150.100.001	M16	100	37150.160.001
M6	1000	37150.060.001						

- As anilhas onduladas de acc. com DIN 137 devem ser utilizadas com parafusos de aço classe < 5.8, a utilização em cargas dinâmicas não é aconselhada.
- São utilizadas para contrariar o efeito de desaperto entre parafuso e porca (ver DIN 267-26).
- As anilhas não previnem o desaperto por variação de carga radial e foram concebidas para utilização com parafusos mais curtos.
- Para cargas dinâmicas são recomendadas as anilhas de mola e as anilhas antivibração NORD-LOCK.
- Aviso: a electrozincagem destes produtos podem causar disfunção hidrogénica.

7

51551 Anilha de mola ondulada — R09A

Material Aço inoxidável A2

DIN	**≈137 B**
NEN	≈2457
NF	≈E27-620



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	200	51551.030.001	M8	200	51551.080.001	M20	50	51551.200.001
M3,5*	1000	51551.035.001	M10	100	51551.100.001	M22*	100	51551.220.001
M4	200	51551.040.001	M12	100	51551.120.001	M24	50	51551.240.001
M5	200	51551.050.001	M14*	200	51551.140.001	M27*	100	51551.270.001
M6	200	51551.060.001	M16	100	51551.160.001			
M7*	500	51551.070.001	M18*	200	51551.180.001			

- A utilização em cargas dinâmicas é desaconselhada.
- Para fixações em cargas dinâmicas aconselha-se autilização de anilhas antivibração NORD-LOCK.
- O tipo de aço austenitico é do critério do fabricante, os tipos de aço podem variar de acordo com a norma DIN 267-11.

55551 Anilha de mola ondulada — R49A

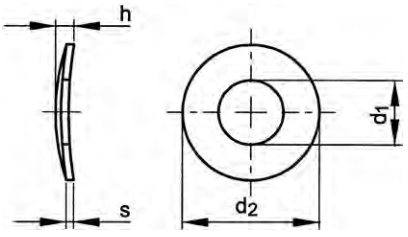
Material Aço inoxidável A4

DIN	**≈137 B**
NEN	≈2457
NF	≈E27-620

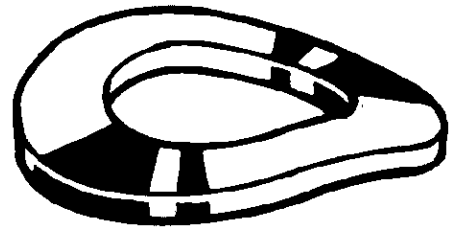


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3*	1000	55551.030.001	M5*	1000	55551.050.001	M8*	500	55551.080.001
M4*	1000	55551.040.001	M6*	500	55551.060.001			

Anilha de mola curva



DIN **137 A**
NEN 2456



Dados técnicos

Para diâm.nom.	d_1	d_2	h (max.)	s
M2	2.2	4.5	1	0.3
M2.3	2.5	5	1	0.3
M2.5 (≠DIN)	2.6	5	1	0.3
M2.6	2.8	5.5	1.1	0.3
M3	3.2	6	1.3	0.4
M3.5	3.7	7	1.4	0.4
M4	4.3	8	1.6	0.5
M5	5.3	10	1.8	0.5
M6	6.4	11	2.2	0.5
M7	7.4	12	2.4	0.5
M8	8.4	15	3.4	0.5
M10	10.5	18	4	0.8

- As anilhas onduladas de acc. com DIN 137 devem ser usadas com parafusos de classe < 5.8, não é aconselhada a sua utilização onde existem cargas dinâmicas.
- São indicadas para contrariar o efeito de deslizamento que existe em uniões parafuso/porca que provoca o desaperto. (ver DIN 267-26).
- Não previnem efectivamente o desaperto das uniões quando submetidas a cargas radiais e são destinadas a ser usadas com parafusos de comprimento pequeno predominantemente sujeito a cargas pontuais.
- Para fixação em de cargas dinâmicas é aconselhada a utilização de anilhas mola onduladas e anilhas anti vibração NORD-LOCK.

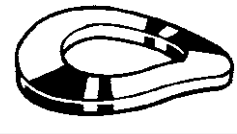
Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço mola DIN267-26		37120	7-63
Aço mola DIN267-26	Passiv. amar.	37110	7-63
INOX A1		51550	7-64

37120 Anilha de mola curva L07D

Material Aço mola DIN267-26

RoHS

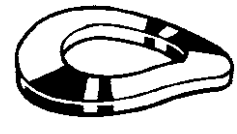


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2	500	37120.020.001	M3,5	500	37120.035.001	M7	500	37120.070.001
M2,3	500	37120.023.001	M4	500	37120.040.001	M8	500	37120.080.001
M2,6	500	37120.026.001	M5	500	37120.050.001	M10	200	37120.100.001
M3	500	37120.030.001	M6	500	37120.060.001			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

37110 Anilha de mola curva L07D

Material Aço mola DIN267-26
Tratamento sup. Passivado a amarelo

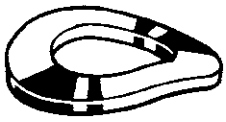


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2	500	37110.020.001	M4	500	37110.040.001	M7	500	37110.070.001
M2,5	500	37110.025.001	M5	500	37110.050.001	M8	500	37110.080.001
M3	500	37110.030.001	M6	500	37110.060.001	M10	200	37110.100.001

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

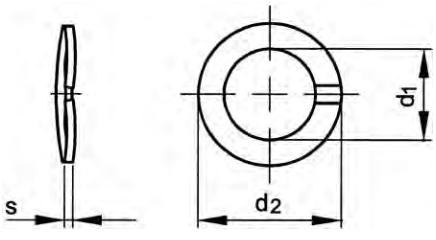
51550	Anilha de mola curva	R05A

Material Aço inoxidável A1

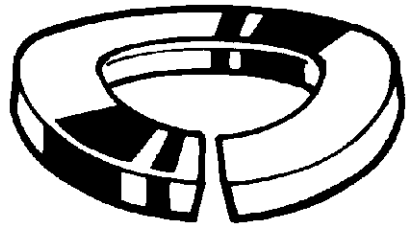


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2*	1000	51550.020.001	M3,5*	1000	51550.035.001	M7*	500	51550.070.001
M2,3*	1000	51550.023.001	M4*	1000	51550.040.001	M8*	500	51550.080.001
M2,5*	1000	51550.025.001	M5*	1000	51550.050.001	M10*	500	51550.100.001
M3*	1000	51550.030.001	M6*	500	51550.060.001			

Anilha de mola curva



DIN 128 A
NEN 1570



Dados técnicos

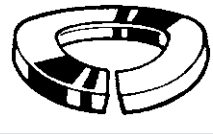
Para diâm.nom.	d_1 (min.)	d_2 (max.)	s	Para diâm.nom.	d_1 (min.)	d_2 (max.)	s
M2	2.1	4.4	0.5	M14	14.2	24.1	2.4
M2.3 (≠DIN)	2.4	4.9	0.6	M16	16.2	27.4	2.8
M2.5	2.6	5.1	0.6	M18	18.2	29.4	2.8
M2.6 (≠DIN)	2.7	5.2	0.6	M20	20.2	33.6	3.2
M3	3.1	6.2	0.7	M22	22.5	35.9	3.2
M3.5	3.6	6.7	0.7	M24	24.5	40	4
M4	4.1	7.6	0.8	M27	27.5	43	4
M5	5.1	9.2	1	M30	30.5	48.2	6
M6	6.1	11.8	1.3	M33 (≠DIN)	34	54.2	6
M7	7.1	12.7	1.3	M36	36.5	58.2	6
M8	8.1	14.8	1.6	M39 (≠DIN)	39.5	59.2	6
M10	10.2	18.1	1.8	M42 (≠DIN)	42.5	68.2	7
M11 (≠DIN)	11.3	19.3	2.1	M45 (≠DIN)	46.7	70.5	7
M12	12.2	21.1	2.1	M48 (≠DIN)	49	75	7

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço mola DIN267-26	Zn Mec.	37080	7-64
Aço mola DIN267-26	Passiv. amar.	37092	7-65
INOX A2		51520	7-65
INOX A4		55520	7-65
Bronze fosfatado Cu4		50500	7-66

37080	Anilha de mola curva	L07D

Material Aço mola DIN267-26
Tratamento sup. Zincagem mecânica



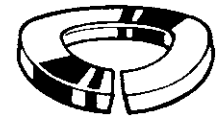
Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2	500	37080.020.001	M8	200	37080.080.001	M24	50	37080.240.001
M2,5	500	37080.025.001	M10	200	37080.100.001	M27	25	37080.270.001
M2,6	500	37080.026.001	M11	150	37080.110.001	M30	25	37080.300.001
M3	250	37080.030.001	M12	150	37080.120.001	M33	25	37080.330.001
M3,5	250	37080.035.001	M14	100	37080.140.001	M36	25	37080.360.001
M4	250	37080.040.001	M16	100	37080.160.001	M39	10	37080.390.001
M5	250	37080.050.001	M18	100	37080.180.001	M42	10	37080.420.001
M6	250	37080.060.001	M20	100	37080.200.001	M45	10	37080.450.001
M7	250	37080.070.001	M22	50	37080.220.001	M48	10	37080.480.001

37080 Anilha de mola curva ←

- As anilhas de mola curvas acc. com DIN 128 A têm mais vantagens que as anilhas de mola acc. com DIN 127 A, também pela sua forma curva: não estragam a superficie a fixar, a porca ou o parafuso; podem ser utilizadas com rosca esquerda; não causam deformações no aperto ou no desaperto, reutilizáveis; indicadas para linhas de montagem automáticas e devem ser utilizadas em combinação com parafusos classe < 8.8. Utilização em fixações com cargas dinâmicas não é aconselhada.
- Para cargas dinâmicas devem ser utilizadas anilhas de mola e anilhas antivibração NORD-LOCK, disponiveis nesta secção.

37092 Anilha de mola curva L07D

Material Aço mola DIN267-26
Tratamento sup. Passivado a amarelo



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M4	250	37092.040.001	M8	200	37092.080.001	M12	150	37092.120.001
M5	250	37092.050.001	M10	200	37092.100.001	M14	100	37092.140.001
M6	250	37092.060.001						

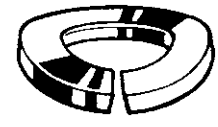
- As anilhas de mola curvas acc. com DIN 128 A têm mais vantagens que as anilhas de mola acc. com DIN 127 A, também pela sua forma curva: não estragam a superficie a fixar, a porca ou o parafuso; podem ser utilizadas com rosca esquerda; não causam deformações no aperto ou no desaperto, reutilizáveis; indicadas para linhas de montagem automáticas e devem ser utilizadas em combinação com parafusos classe < 8.8. Utilização em fixações com cargas dinâmicas não é aconselhada.
- Para cargas dinâmicas de vem ser utilizadas anilhas de mola e anilhas antivibração NORD-LOCK, disponiveis nesta secção.

51520 Anilha de mola curva R09A

Material Aço inoxidável A2

DIN **≈128 A**
NEN ≈1570

RoHS



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2	100	51520.020.001	M6	250	51520.060.001	M18	100	51520.180.001
M2,5	100	51520.025.001	M8	200	51520.080.001	M20	100	51520.200.001
M2,6	100	51520.026.001	M10	200	51520.100.001	M22	50	51520.220.001
M3	250	51520.030.001	M12	150	51520.120.001	M24	50	51520.240.001
M3,5	250	51520.035.001	M14	100	51520.140.001	M30	25	51520.300.001
M4	250	51520.040.001	M16	100	51520.160.001	M36	25	51520.360.001
M5	250	51520.050.001						

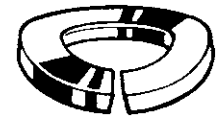
- As dimensões das anilhas de mola onduladas DIN 128 A, apresentam um desvio reforçado da espessura, que resulta em uma melhoria considerável das suas caracteristicas.
- As anilhas de mola onduladas de acc. com DIN 128 A são superiores quando comparadas com as anilhas de mola de acc. com DIN 127 A, devido á sua forma curva apresentam mais vantagens: não estraga a superficie do material a fixar, porca ou parafuso; também pode ser utilizada com rosca esquerda; não ficam disformes durante o aperto e desaperto, são reutilizáveis; podem ser utilizadas em aplicações automáticas. Está desaconselhada a aplicação em cargas dinâmicas.
- Para cargas dinâmicas devem ser utilizadas anilhas de mola anilhas antivibração NORD-LOCK, disponiveis nesta secção.
- O tipo de aço austenitico é do critério do fabricante, os tipos de aço podem variar de acordo com a norma DIN 267-11.

55520 Anilha de mola curva R49A

Material Aço inoxidável A4

DIN **≈128 A**
NEN ≈1570

RoHS



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2*	1000	55520.020.001	M6	250	55520.060.001	M14*	250	55520.140.001
M2,5*	1000	55520.025.001	M8	200	55520.080.001	M16	100	55520.160.001
M3	250	55520.030.001	M10	200	55520.100.001	M20	100	55520.200.001
M4	250	55520.040.001	M12	150	55520.120.001	M24*	100	55520.240.001
M5	250	55520.050.001						

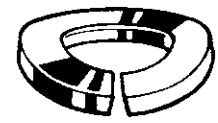
- As dimensões das anilhas de mola onduladas DIN 128 A, apresentam um desvio reforçado da espessura, que resulta em uma melhoria considerável das suas caracteristicas.
- As anilhas de mola onduladas de acc. com DIN 128 A são superiores quando comparadas com as anilhas de mola de acc. com DIN 127 A, devido á sua forma curva apresentam mais vantagens: não estraga a superficie do material a fixar, porca ou parafuso; também pode ser utilizada com rosca esquerda; não ficam disformes durante o aperto e desaperto, são reutilizáveis; podem ser utilizadas em aplicações automáticas.
- Está desaconselhada a aplicação em cargas dinâmicas. Para cargas dinâmicas devem ser utilizadas anilhas anti vibração NORD-LOCK.
- O tipo de aço austenitico é do critério do fabricante, os tipos de aço podem variar de acordo com a norma DIN 267-11.

50500	Anilha de mola curva	M11F

Material Bronze fosfatado Cu4

DIN ≈128 A
NEN ≈1570

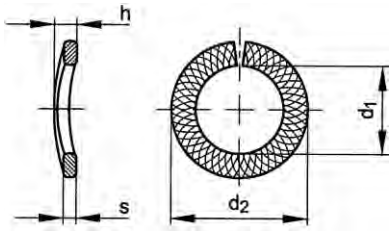
RoHS



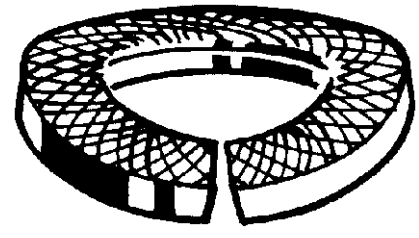
Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2,6	500	50500.026.001	M6	250	50500.060.001	M16	100	50500.160.001
M3	250	50500.030.001	M8	200	50500.080.001	M18	100	50500.180.001
M4	250	50500.040.001	M10	200	50500.100.001	M20	100	50500.200.001
M5	250	50500.050.001	M12	150	50500.120.001			

- As medidas têm variações ligeiras do DIN 128 A, estas anilhas de mola têm um desvio de espessura reforçada resultando numa considerável melhoria das suas caracteristicas.

Anilha de mola curva



DIN ≈128 A
NEN ≈1570

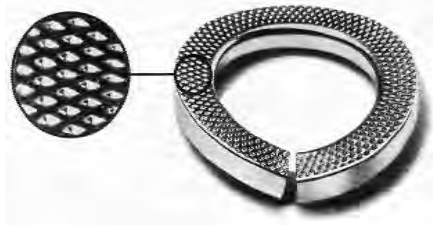


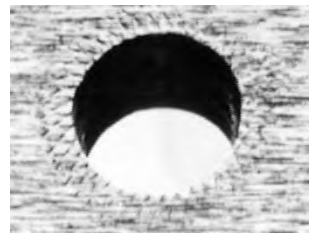
Dados técnicos

Para diâm.nom.	d_1	d_2 (max.)	s	Para diâm.nom.	d_1	d_2 (max.)	s
M4	4.1	7.6	0.8	**M16**	16.2	27.4	2.8
M5	5.1	9.2	1	**M18**	18.2	29.4	2.8
M6	6.1	11.8	1.3	**M20**	20.2	33.6	3.2
M8	8.1	14.9	1.6	**M22**	22.5	35.9	3.2
M10	10.2	18.1	1.8	**M24**	24.5	40	4
M12	12.2	21.1	2.1	**M27**	27.5	43	4
M14	14.2	24.1	2.4	**M30**	30.5	48.2	6

7

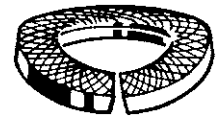
Caracteristicas especiais das anilhas onduladas *FABORY*:
- Aplicável com parafusos sextavados, porcas sextavadas, de classe ≤ **8.8**
- O perfil da superficie (patenteado) garante um bom bloqueamento contra desaperto e reduz a perda de pré-carga
- Compensação contra movimento ou defleções de mola
- Pouco dano, pode ser utilizado em materiais moles e com tratamentos de superficie
- Reutilizável
- Indicado para aplicação automática
- Insensivel a temperaturas de -10°C até +300°C
- Medidas e outras propriedades de acordo com DIN 128 A
- Aplicação simples com os parafusos standard
- Também aplicável com parafusos sextavados, porcas sextavadas etc. com rosca esquerda





37070	Anilhas de mola curvadas	L07D

Material Aço mola DIN267-26
Tratamento sup. Zincagem mecânica a amarelo

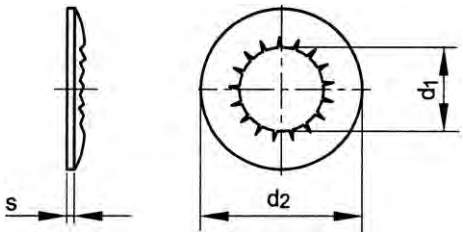


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M4	250	37070.040.001	M10	200	37070.100.001	M18	100	37070.180.001
M5	250	37070.050.001	M12	150	37070.120.001	M20	100	37070.200.001
M6	250	37070.060.001	M14	100	37070.140.001	M22	50	37070.220.001
M8	200	37070.080.001	M16	100	37070.160.001	M24	50	37070.240.001

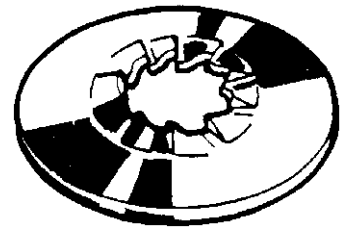
37070 Anilhas de mola curvadas ←

Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M27	25	37070.270.001	M30	25	37070.300.001

Anilha recartilhada interior tipo JZC



NF E25-512



Dados técnicos

Para diâm.nom.	d_1	d_2	s	Para diâm.nom.	d_1	d_2	s
M3	3.2	8.7	0.5	**M6**	6.1	18.3	1
M4	4.3	11.2	0.6	**M10**	10.2	26.3	1.4
M5	5.1	16.2	1	**M12**	12.2	32.4	1.4

- O objectivo das anilhas de colar dentadas é permitir o fluxo de corrente eléctrica entre componentes envernizados, agentes anti-corrosivos ou materiais similares, as pontas dobradas das anilhas penetram no material quando os componentes são unidos. Quando as anilhas são montadas com a intenção de impedir que parafusos de baixa classe se desapertem, a sua eficácia deve ser verificada dependendo da aplicação.
- Dentes internos e diâmetro exterior extra largo d_2, resiliência extra devido à sua forma.

37560 Anilha recartilhada interior tipo JZC **L07D**

Material Aço mola

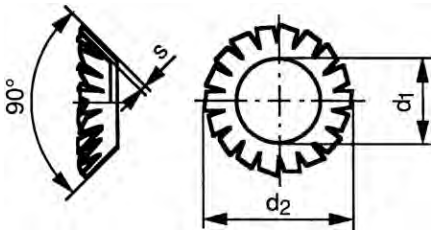
RoHS



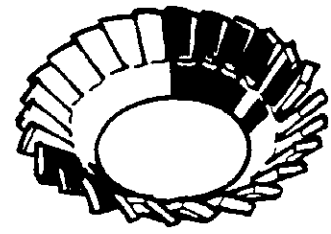
Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	1000	37560.030.001	M5	1000	37560.050.001	M10	100	37560.100.001
M4	1000	37560.040.001	M6	1000	37560.060.001	M12	100	37560.120.001

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Anilha recartilhada exterior cónica



DIN **6798 V**
NF E27-627



Dados técnicos

Para diâm.nom.	d_1	d_2 ≈	s
M3	3.2	6	0.2
M4	4.3	8	0.25
M5	5.3	9.8	0.3
M6	6.4	11.8	0.4
M8	8.4	15.3	0.4

Para diâm.nom.	d_1	d_2 ≈	s
M10	10.5	19	0.5
M12	13	23	0.5
M14	15	26.2	0.6
M16	17	30.2	0.6

- O objectivo das anilhas de colar dentadas é permitir o fluxo de corrente eléctrica entre componentes envernizados, agentes anti-corrosivos ou materiais similares, as pontas dobradas das anilhas penetram no material quando os componentes são unidos. Quando as anilhas são montadas com a intenção de impedir que parafusos de baixa classe se desapertem, a sua eficácia deve ser verificada dependendo da aplicação.
- Destinado a parafusos e porcas com medidas de entre-faces standards.

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço mola 350-425 HV10		37500	7-68
Aço mola 350-425 HV10	Zn	37520	7-68
INOX A2		51463	7-68

37500 Anilha recartilhada exterior cónica — L07D

Material Aço mola 350-425 HV10



RoHS

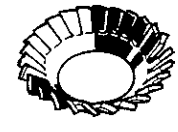
7

Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	1000	37500.030.001	M6	1000	37500.060.001	M12	500	37500.120.001
M4	1000	37500.040.001	M8	1000	37500.080.001	M14	100	37500.140.001
M5	1000	37500.050.001	M10	1000	37500.100.001	M16	100	37500.160.001

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

37520 Anilha recartilhada exterior cónica — L07D

Material Aço mola 350-425 HV10
Tratamento sup. Zincado



RoHS

Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M4	1000	37520.040.001	M6	1000	37520.060.001	M10	1000	37520.100.001
M5	1000	37520.050.001	M8	1000	37520.080.001	M12	500	37520.120.001

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

51463 Anilha recartilhada exterior cónica — R09A

Material Aço inoxidável A2

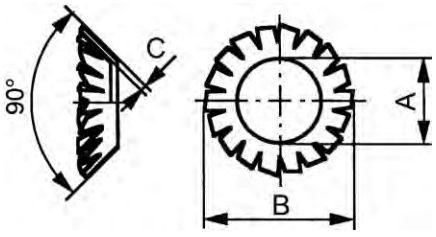


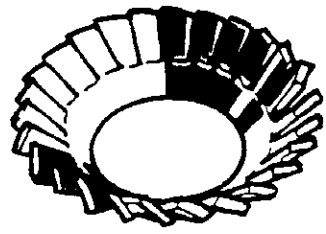
RoHS

Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3*	1000	51463.030.001	M6*	1000	51463.060.001	M12*	500	51463.120.001
M4*	1000	51463.040.001	M8*	500	51463.080.001	M16*	200	51463.160.001
M5*	1000	51463.050.001	M10*	500	51463.100.001			

Anilha cónica com recartilha exterior

ASME B18.21.1



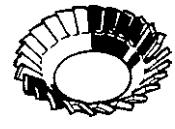


Dados técnicos

Para diâm.nom.	A	B	C
No.6	0.140	0.289	0.017
No.8	0.167	0.322	0.017
No.10	0.195	0.354	0.020
No.12	0.220	0.421	0.020
1/4	0.255	0.454	0.020
5/16	0.318	0.599	0.023
3/8	0.383	0.765	0.028

U37500 **Anilha cónica com recartilha exterior** **X09A**

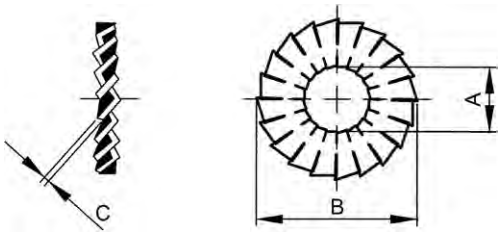
Material Aço mola
Tratamento sup. Zincado

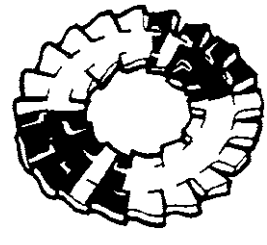


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.6*	100	U37500.013.0001	NO.12*	100	U37500.021.0001	5/16*	100	U37500.031.0001
NO.8*	100	U37500.016.0001	1/4*	100	U37500.025.0001	3/8*	50	U37500.037.0001
NO.10*	100	U37500.019.0001						

Anilha com recartilha interior e exterior

ASME B18.21.1



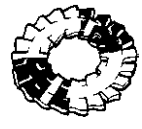


Dados técnicos

Para diâm.nom.	A	B	C
No.4	0.115	0.510	0.017
No.6	0.141	0.610	0.023
No.8	0.168	0.690	0.028
No.10	0.195	0.740	0.032
1/4	0.256	0.965	0.037
5/16	0.320	1.045	0.042
3/8	0.384	1.130	0.042
1/2	0.512	1.3801	0.052

U37590 **Anilha com recartilha interior e exterior** **X09A**

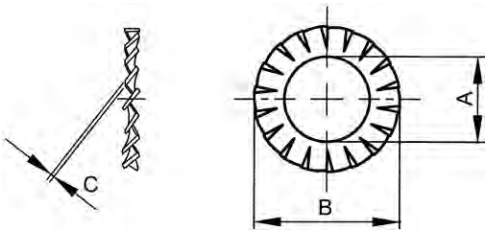
Material Aço mola
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.4*	100	U37590.011.0001	NO.10*	100	U37590.019.0001	3/8*	50	U37590.037.0001
NO.6*	100	U37590.013.0001	1/4*	100	U37590.025.0001	1/2*	25	U37590.050.0001
NO.8*	100	U37590.016.0001	5/16*	100	U37590.031.0001			

Anilha com recartilha exterior

ASME B18.21.1





Dados técnicos

Para diâm.nom.	A	B	C
No.3	0.102	0.220	0.01
No.4	0.115	0.245	0.012
No.5	0.129	0.270	0.014
No.6	0.141	0.305	0.016
No.8	0.168	0.365	0.018
No.10	0.195	0.395	0.018
No.12	0.221	0.460	0.020
1/4	0.256	0.494	0.023
5/16	0.320	0.588	0.028
3/8	0.384	0.670	0.032
7/16	0.448	0.740	0.032
1/2	0.513	0.880	0.037
9/16	0.576	0.960	0.037
5/8	0.641	1.045	0.042
3/4	0.768	1.22	0.047
7/8	0.897	1.380	0.052
1 Inch	1.025	1.59	0.059

Grupos de produtos

Material	Código	Página
Aço	U37420	7-70
INOX A2 (AISI304/18-8)	U51460	7-70
INOX A4 (AISI316/18-10)	U55460	7-71
INOX AISI410	U53460	7-71
Latão PH	U50450	7-71

7

U37420 Anilha com recartilha exterior X09A

Material Aço



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.4*	100	U37420.011.0001	1/4*	100	U37420.025.0001	9/16*	25	U37420.056.0001
NO.6*	100	U37420.013.0001	5/16*	100	U37420.031.0001	5/8*	10	U37420.062.0001
NO.8*	100	U37420.016.0001	3/8*	50	U37420.037.0001	3/4*	10	U37420.075.0001
NO.10*	100	U37420.019.0001	7/16*	25	U37420.043.0001	7/8*	5	U37420.087.0001
NO.12*	100	U37420.021.0001	1/2*	25	U37420.050.0001	1 Inch*	5	U37420.100.0001

U51460 Anilha com recartilha exterior X15A

Material Aço inoxidável A2 (AISI 304/18-8)



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.4*	50	U51460.011.0001	NO.10*	50	U51460.019.0001	3/8*	50	U51460.037.0001
NO.6*	50	U51460.013.0001	1/4*	50	U51460.025.0001	1/2*	10	U51460.050.0001
NO.8*	50	U51460.016.0001	5/16*	50	U51460.031.0001			

U55460 Anilha com recartilha exterior X15A

Material Aço inoxidável A4 (AISI 316/18-10)



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.3*	50	U55460.009.0001	NO.5*	50	U55460.012.0001	NO.8*	50	U55460.016.0001
NO.4*	50	U55460.011.0001	NO.6*	50	U55460.013.0001	NO.10*	50	U55460.019.0001

U53460 Anilha com recartilha exterior X15A

Material Aço inoxidável AISI410



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.4*	50	U53460.011.0001	1/4*	50	U53460.025.0001	1/2*	10	U53460.050.0001
NO.6*	50	U53460.013.0001	5/16*	50	U53460.031.0001	5/8*	10	U53460.062.0001
NO.8*	50	U53460.016.0001	3/8*	50	U53460.037.0001	3/4*	5	U53460.075.0001
NO.10*	50	U53460.019.0001	7/16*	25	U53460.043.0001			

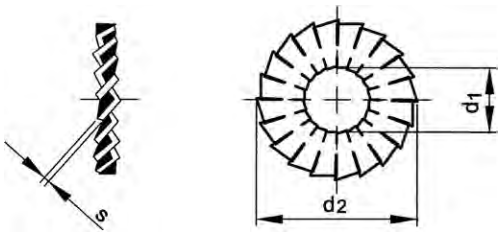
U50450 Anilha com recartilha exterior X09A

Material Bronze PH

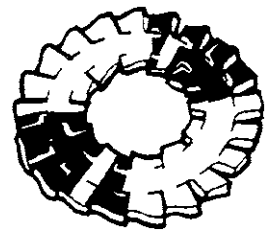


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.4	100	U50450.011.0001	NO.10*	100	U50450.019.0001	3/8*	50	U50450.037.0001
NO.6*	100	U50450.013.0001	1/4*	100	U50450.025.0001	1/2*	25	U50450.050.0001
NO.8*	100	U50450.016.0001	5/16*	100	U50450.031.0001			

Anilha recartilhada dupla tipo DD



NF ≈E27-626



Dados técnicos

Para diâm.nom.	d_1	d_2	s
M4	4.2	15.6	0.8
M5	5.2	17.9	0.8
M6	6.2	18.2	0.8
M8	8.2	22.3	1
M10	10.3	26.1	1.1
M12	12.3	30.3	1.2
M16	16.5	36.1	1.4

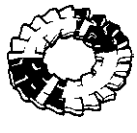
- O objectivo das anilhas de colar dentadas é permitir o fluxo de corrente eléctrica entre componentes envernizados, agentes anti-corrosivos ou materiais similares, as pontas dobradas das anilhas penetram no material quando os componentes são unidos. Quando as anilhas são montadas com a intenção de impedir que parafusos de baixa classe se desapertem, a eficácia deve ser verificada dependendo da aplicação.
- Dentes internos e diâmetro exterior extra largo d_2. Recomendado para furos largos e longos, onde a superfície de contacto requerida é grande e entre partes para prevenir movimentos.

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço mola		37580	7-72
Aço mola	Zn	37590	7-72

37580 Anilha recartilhada dupla tipo DD — L07D

Material Aço mola



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M4	1000	37580.040.001	M8	500	37580.080.001	M12	100	37580.120.001
M5	1000	37580.050.001	M10	500	37580.100.001	M16	100	37580.160.001
M6	500	37580.060.001						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

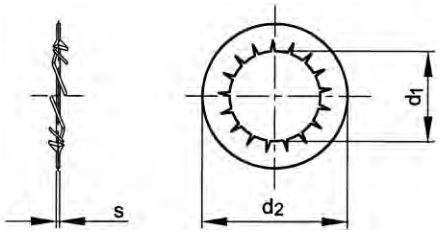
37590 Anilha recartilhada dupla tipo DD — L07D

Material Aço mola
Tratamento sup. Zincado

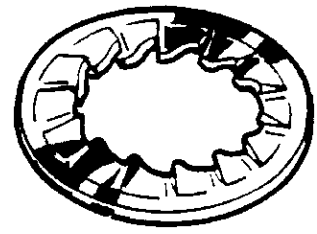


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M4	1000	37590.040.001	M8	500	37590.080.001	M12	100	37590.120.001
M5	1000	37590.050.001	M10	500	37590.100.001	M16	100	37590.160.001
M6	500	37590.060.001						

Anilha recartilhada interior



DIN **6798 J**
NEN 2454
NF E27-625



Dados técnicos

Para diâm.nom.	d_1	d_2	s	Para diâm.nom.	d_1	d_2	s
M2	2.2	4.5	0.3	M8	8.4	15	0.8
M2.3 (≠DIN)	2.5	5	0.4	M10	10.5	18	0.9
M2.5	2.7	5.5	0.4	M12	13	20.5	1
M3	3.2	6	0.4	M14	15	24	1
M3.5	3.7	7	0.5	M16	17	26	1.2
M4	4.3	8	0.5	M18	19	30	1.4
M5 (≠DIN)	5.1	9	0.5	M20	21	33	1.4
M5	5.3	10	0.6	M22	23	36	1.5
M6	6.4	11	0.7	M24	25	38	1.5
M7	7.4	12.5	0.8	M27	28	44	1.6
M8 (≠DIN)	8.2	14	0.8	M30	31	48	1.6

- O objectivo das anilhas de colar dentadas é permitir o fluxo de corrente eléctrica entre componentes envernizados , agentes anti-corrosivos ou materiais similares, as pontas dobradas das anilhas penetram no material quando os componentes são unidos. Quando as anilhas são montadas com a intenção de impedir que parafusos de baixa classe se desapertem, a sua eficácia deve ser verificada dependendo da aplicação
- Destinado a parafusos e porcas com medidas de entre-faces standards.

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço mola 350-425 HV10		37460	7-73
Aço mola 350-425 HV10	Zn	37480	7-73
INOX A2		51462	7-74
INOX A4		55462	7-74

7

37460 Anilha recartilhada interior L07D

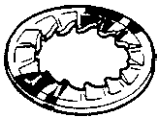
Material Aço mola 350-425 HV10



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2	1000	37460.020.001	M7	1000	37460.070.001	M18	100	37460.180.001
M3	1000	37460.030.001	M8 (≠DIN)	1000	37460.080.001	M20	100	37460.200.001
M3,5	1000	37460.035.001	M8	1000	37460.080.002	M22	100	37460.220.001
M4	1000	37460.040.001	M10	1000	37460.100.001	M24	100	37460.240.001
M5 (≠DIN)	1000	37460.050.001	M12	1000	37460.120.001	M27	100	37460.270.001
M5	1000	37460.050.002	M14	500	37460.140.001	M30	100	37460.300.001
M6	1000	37460.060.001	M16	500	37460.160.001			

37480 Anilha recartilhada interior L07D

Material Aço mola 350-425 HV10
Tratamento sup. Zincado



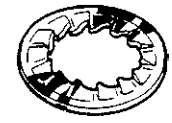
Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2	1000	37480.020.001	M6	1000	37480.060.001	M14	500	37480.140.001
M2,5	1000	37480.025.001	M7	1000	37480.070.001	M16	500	37480.160.001
M3	1000	37480.030.001	M8 (≠DIN)	1000	37480.080.001	M18	100	37480.180.001
M3,5	1000	37480.035.001	M8	1000	37480.080.002	M20	100	37480.200.001
M4	1000	37480.040.001	M10	1000	37480.100.001	M22	100	37480.220.001
M5 (≠DIN)	1000	37480.050.001	M12	1000	37480.120.001	M24	100	37480.240.001
M5	1000	37480.050.002						

51462 Anilha recartilhada interior R09A

Material Aço inoxidável A2

DIN ≈6798 J
NEN ≈2454
NF ≈E27-625

RoHS



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2,5	200	51462.025.001	M8	200	51462.080.001	M18	100	51462.180.001
M3	200	51462.030.001	M8 (≠DIN)*	1000	51462.082.001	M20	100	51462.200.001
M4	200	51462.040.001	M10	100	51462.100.001	M22*	200	51462.220.001
M5	200	51462.050.001	M12	100	51462.120.001	M24	50	51462.240.001
M5 (≠DIN)*	1000	51462.051.001	M14	100	51462.140.001	M27	50	51462.270.001
M6	200	51462.060.001	M16	100	51462.160.001	M30*	100	51462.300.001
M7*	1000	51462.070.001						

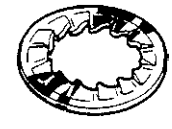
- O tipo de aço austenitico é do critério do fabricante, os tipos de aço podem variar de acordo com a norma DIN 267-11.

55462 Anilha recartilhada interior R49A

Material Aço inoxidável A4

DIN ≈6798 J
NEN ≈2454
NF ≈E27-625

RoHS

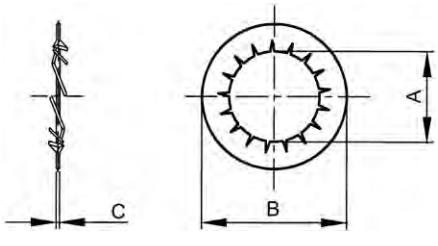


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2,3*	1000	55462.023.001	M8	200	55462.080.001	M18	100	55462.180.001
M3	200	55462.030.001	M8*	1000	55462.080.002	M20	100	55462.200.001
M4	200	55462.040.001	M8 (≠DIN)*	1000	55462.082.001	M22*	200	55462.220.001
M5	200	55462.050.001	M10	100	55462.100.001	M24	50	55462.240.001
M5*	1000	55462.050.002	M12	100	55462.120.001	M27*	100	55462.270.001
M5 (≠DIN)*	1000	55462.051.001	M14	100	55462.140.001	M30*	100	55462.300.001
M6	200	55462.060.001	M16	100	55462.160.001			

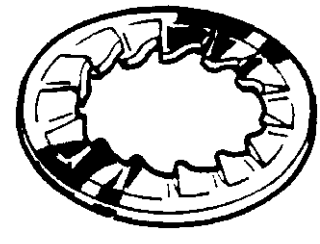
- O tipo de aço austenitico é do critério do fabricante, os tipos de aço podem variar de acordo com a norma DIN 267-11.

Anilha com recartilha interior

7



ASME B18.21.1



Dados técnicos

Para diâm.nom.	A	B	C
No.2	0.089	0.172	0.010
No.3	0.102	0.215	0.010
No.4	0.115	0.245	0.012
No.6	0.141	0.275	0.016
No.8	0.168	0.325	0.018
No.10	0.195	0.365	0.018
No.12	0.221	0.394	0.020
1/4	0.256	0.460	0.023
5/16	0.320	0.594	0.028
3/8	0.384	0.670	0.032
7/16	0.448	0.740	0.032
1/2	0.512	0.867	0.037
9/16	0.576	0.957	0.037
5/8	0.640	1.045	0.042
3/4	0.769	1.220	0.047
7/8	0.894	1.364	0.052
1 Inch	1.019	1.590	0.059

Grupos de produtos

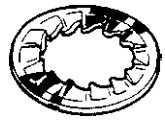
Material	Tratamento sup.	Código	Página
Aço	Zn	U37480	7-75

Grupos de produtos

Material	Tratamento sup.	Código	Página
INOX A2 (AISI304/18-8)		U51462	7-75
INOX A4 (AISI316/18-10)		U55462	7-75
INOX AISI410		U53462	7-75
Latão PH		U50462	7-76

U37480 Anilha com recartilha interior X09A

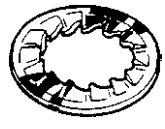
Material Aço
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.2*	100	U37480.008.0001	1/4*	100	U37480.025.0001	5/8*	10	U37480.062.0001
NO.4*	100	U37480.011.0001	5/16*	100	U37480.031.0001	3/4*	10	U37480.075.0001
NO.6*	100	U37480.013.0001	3/8*	50	U37480.037.0001	7/8*	5	U37480.087.0001
NO.8*	100	U37480.016.0001	7/16*	25	U37480.043.0001	1 Inch*	5	U37480.100.0001
NO.10*	100	U37480.019.0001	1/2*	25	U37480.050.0001			
NO.12*	100	U37480.021.0001	9/16*	25	U37480.056.0001			

U51462 Anilha com recartilha interior X15A

Material Aço inoxidável A2 (AISI 304/18-8)



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.4*	50	U51462.011.0001	1/4*	50	U51462.025.0001	9/16*	10	U51462.056.0001
NO.6*	50	U51462.013.0001	5/16*	50	U51462.031.0001	5/8*	10	U51462.062.0001
NO.8*	50	U51462.016.0001	3/8*	50	U51462.037.0001	3/4*	5	U51462.075.0001
NO.10*	50	U51462.019.0001	1/2*	10	U51462.050.0001			

U55462 Anilha com recartilha interior X15A

Material Aço inoxidável A4 (AISI 316/18-10)



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.4*	50	U55462.011.0001	NO.10*	50	U55462.019.0001	5/16*	50	U55462.031.0001
NO.6*	50	U55462.013.0001	1/4*	50	U55462.025.0001	3/8*	50	U55462.037.0001
NO.8*	50	U55462.016.0001						

U53462 Anilha com recartilha interior X15A

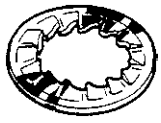
Material Aço inoxidável AISI410



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.2*	50	U53462.008.0001	NO.10*	50	U53462.019.0001	7/16*	25	U53462.043.0001
NO.3*	50	U53462.009.0001	NO.12*	50	U53462.021.0001	1/2*	10	U53462.050.0001
NO.4*	50	U53462.011.0001	1/4*	50	U53462.025.0001	5/8*	10	U53462.062.0001
NO.6*	50	U53462.013.0001	5/16*	50	U53462.031.0001	3/4*	5	U53462.075.0001
NO.8*	50	U53462.016.0001	3/8*	50	U53462.037.0001			

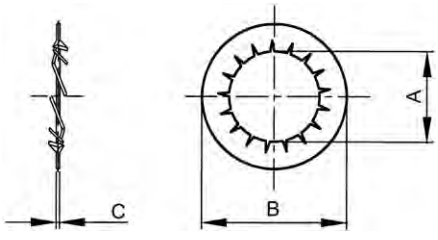
U50462	Anilha com recartilha interior	X09A

Material Bronze PH

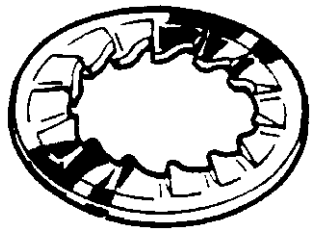


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
NO.2*	100	U50462.008.0001	NO.8*	100	U50462.016.0001	5/16*	100	U50462.031.0001
NO.4*	100	U50462.011.0001	NO.10*	100	U50462.019.0001	3/8*	50	U50462.037.0001
NO.6*	100	U50462.013.0001	1/4*	100	U50462.025.0001	1/2*	25	U50462.050.0001

Anilha com recartilha interior heavy



ASME B18.21.1



Dados técnicos

Para diâm.nom.	A	B	C
1/4	0.256	0.500	0.035
5/16	0.320	0.590	0.040
3/8	0.384	0.700	0.042
1/2	0.512	0.880	0.055
5/8	0.640	1.100	0.059
3/4	0.768	1.240	0.070

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço mola HV		U37320	7-76
Aço mola HV	Zn	U37321	7-76

7

U37320	Anilha com recartilha interior heavy	X09A

Material Aço mola HV



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
1/4*	100	U37320.025.0001	3/8*	50	U37320.037.0001	5/8*	10	U37320.062.0001
5/16*	100	U37320.031.0001	1/2*	25	U37320.050.0001	3/4*	10	U37320.075.0001

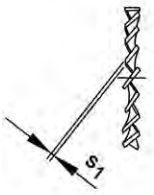
U37321	Anilha com recartilha interior heavy	X09A

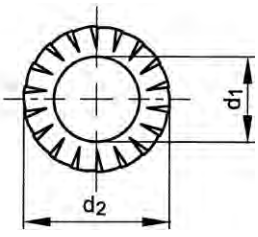
Material Aço mola HV
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
1/4*	100	U37321.025.0001	3/8*	50	U37321.037.0001	5/8*	10	U37321.062.0001
5/16*	100	U37321.031.0001	1/2*	25	U37321.050.0001	3/4*	10	U37321.075.0001

Anilha recartilhada exterior





DIN **6798 A**
NEN 2453
NF E27-624



Dados técnicos

Para diâm.nom.	d_1	d_2	s_1
M2	2.2	4.5	0.3
M2.5	2.7	5.5	0.4
M2.6 (≠DIN)	2.8	5.5	0.4
M3	3.2	6	0.4
M3.5	3.7	7	0.5
M4	4.3	8	0.5
M5 (≠DIN)	5.1	9	0.5
M5	5.3	10	0.6
M6	6.4	11	0.7
M7	7.4	12.5	0.8
M8 (≠DIN)	8.2	14	0.8
M8	8.4	15	0.8

Para diâm.nom.	d_1	d_2	s_1
M10	10.5	18	0.9
M11 (≠DIN)	11.5	19.5	0.9
M12	13	20.5	1
M14	15	24	1
M16	17	26	1.2
M18	19	30	1.4
M20	21	33	1.4
M22	23	36	1.5
M24	25	38	1.5
M27	28	44	1.6
M30	31	48	1.6

- O objectivo das anilhas de colar dentadas é permitir o fluxo de corrente eléctrica entre componentes envernizados , agentes anti-corrosivos ou materiais similares, as pontas dobradas das anilhas penetram no material quando os componentes são unidos. Quando as anilhas são montadas com a intenção de impedir que parafusos de baixa classe se desapertem, a sua eficácia deve ser verificada dependendo da aplicação.
- Destinado a parafusos e porcas com medidas de entre-faces standards.

Grupos de produtos

Material	Tratamento sup.		Código	Página
Aço mola 350-425 HV10			37400	7-77
Aço mola 350-425 HV10	Zn		37420	7-77
Aço mola 350-425 HV10	Zn	Embalagem grande	37430	7-78
Aço mola 350-425 HV10	Passiv. amar.		37440	7-78
INOX A2			51460	7-78
INOX A4			55460	7-78
INOX A5			53460	7-79
Bronze fosfatado Cu4			50540	7-79

37400 Anilha recartilhada exterior — L07D

Material Aço mola 350-425 HV10



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2	1000	37400.020.001	M7	1000	37400.070.001	M18	100	37400.180.001
M3	1000	37400.030.001	M8 (≠DIN)	1000	37400.080.001	M20	100	37400.200.001
M3,5	1000	37400.035.001	M8	1000	37400.080.002	M22	100	37400.220.001
M4	1000	37400.040.001	M10	1000	37400.100.001	M24	100	37400.240.001
M5 (≠DIN)	1000	37400.050.001	M12	1000	37400.120.001	M27	100	37400.270.001
M5	1000	37400.050.002	M14	500	37400.140.001	M30	100	37400.300.001
M6	1000	37400.060.001	M16	500	37400.160.001			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

37420 Anilha recartilhada exterior — L07D

Material Aço mola 350-425 HV10
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2	200	37420.020.001	M3,5	200	37420.035.001	M5 (≠DIN)	200	37420.050.001
M2,5	200	37420.025.001	M4	200	37420.040.001	M5	200	37420.050.002
M3	200	37420.030.001						

37420 Anilha recartilhada exterior ←

Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6	200	37420.060.001	M11	100	37420.110.001	M20	100	37420.200.001
M7	200	37420.070.001	M12	100	37420.120.001	M22	100	37420.220.001
M8 (≠DIN)	200	37420.080.001	M14	100	37420.140.001	M24	100	37420.240.001
M8	200	37420.080.002	M16	100	37420.160.001	M27	100	37420.270.001
M10	100	37420.100.001	M18	100	37420.180.001	M30	50	37420.300.001

37430 Anilha recartilhada exterior L07D

Material Aço mola 350-425 HV10
Tratamento sup. Zincado

RoHS



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2,5	10000	37430.025.001	M5 (≠DIN)	10000	37430.050.001	M10	2000	37430.100.001
M3	10000	37430.030.001	M6	5000	37430.060.001	M12	2000	37430.120.001
M4	10000	37430.040.001	M8 (≠DIN)	5000	37430.080.001			

37440 Anilha recartilhada exterior L07D

Material Aço mola 350-425 HV10
Tratamento sup. Passivado a amarelo



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	200	37440.030.001	M8 (≠DIN)	200	37440.080.001	M16	100	37440.160.001
M4	200	37440.040.001	M10	100	37440.100.001	M20	100	37440.200.001
M5 (≠DIN)	200	37440.050.001	M12	100	37440.120.001	M24	100	37440.240.001
M6	200	37440.060.001						

51460 Anilha recartilhada exterior R09A

Material Aço inoxidável A2

DIN **≈6798 A**
NEN ≈2453
NF ≈E27-624

RoHS



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2	200	51460.020.001	M6	200	51460.060.001	M16	100	51460.160.001
M2,5	200	51460.025.001	M7	200	51460.070.001	M18	100	51460.180.001
M2,6 (≠DIN)	200	51460.026.001	M8	200	51460.080.001	M20	100	51460.200.001
M3	200	51460.030.001	M8 (≠DIN)*	1000	51460.082.001	M22	50	51460.220.001
M3,5	200	51460.035.001	M10	100	51460.100.001	M24	50	51460.240.001
M4	200	51460.040.001	M12	100	51460.120.001	M27	50	51460.270.001
M5	200	51460.050.001	M14	100	51460.140.001	M30	25	51460.300.001
M5 (≠DIN)*	1000	51460.051.001						

- O tipo de aço austenitico é do critério do fabricante, os tipos de aço podem variar de acordo com a norma DIN 267-11.

55460 Anilha recartilhada exterior R49A

Material Aço inoxidável A4

DIN **≈6798 A**
NEN ≈2453
NF ≈E27-624

RoHS



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2	200	55460.020.001	M5,1*	1000	55460.051.001	M16	100	55460.160.001
M2,5	200	55460.025.001	M6	200	55460.060.001	M18	100	55460.180.001
M2,6 (≠DIN)	200	55460.026.001	M8	200	55460.080.001	M20	100	55460.200.001
M3	200	55460.030.001	M8 (≠DIN)*	1000	55460.080.002	M22	50	55460.220.001
M3,5	200	55460.035.001	M8,2*	1000	55460.082.001	M24	50	55460.240.001
M4	200	55460.040.001	M10	100	55460.100.001	M27	50	55460.270.001
M5	200	55460.050.001	M12	100	55460.120.001	M30	25	55460.300.001
M5 (≠DIN)*	1000	55460.050.002	M14	100	55460.140.001			

- O tipo de aço austenitico é do critério do fabricante, os tipos de aço podem variar de acordo com a norma DIN 267-11.

53460 **Anilha recartilhada exterior** **R45A**

Material Aço inoxidável A5

DIN **≈6798 A**
NEN ≈2453
NF ≈E27-624



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6*	1000	53460.060.001	M8*	1000	53460.080.001

50540 **Anilha recartilhada exterior** **M11F**

Material Bronze fosfatado Cu4

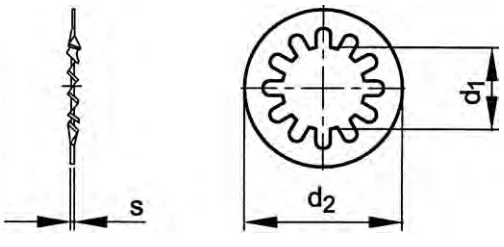
DIN **≈6798 A**
NEN ≈2453
NF ≈E27-624



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2	200	50540.020.001	M4	200	50540.040.001	M8	200	50540.080.001
M2,5	200	50540.025.001	M5	200	50540.050.001	M10	100	50540.100.001
M3	200	50540.030.001	M6	200	50540.060.001	M12	100	50540.120.001
M3,5	200	50540.035.001						

- Indicado para parafusos e porcas com entrefaces normal.

Anilha dentada interior



DIN **6797 J**
NEN 2451



Dados técnicos

Para diâm.nom.	d_1	d_2	s	Para diâm.nom.	d_1	d_2	s
M2	2.2	4.5	0.3	M10	10.5	18	0.9
M2.3 (≠DIN)	2.5	5	0.4	M12	13	20.5	1
M2.5	2.7	5.5	0.4	M14	15	24	1
M2.7	2.7	5.5	0.4	M16	17	26	1.2
M3	3.2	6	0.4	M18	19	30	1.4
M4	4.3	8	0.5	M20	21	33	1.4
M5	5.3	10	0.6	M22	23	36	1.5
M6	6.4	11	0.7	M24	25	38	1.5
M7	7.4	12.5	0.8	M27	28	44	1.6
M8	8.4	15	0.8	M30	31	48	1.6

- O objectivo das anilhas de colar dentadas é permitir o fluxo de corrente eléctrica entre componentes envernizados , agentes anti-corrosivos ou materiais similares, as pontas dobradas das anilhas penetram no material quando os componentes são unidos. Quando as anilhas são montadas com a intenção de impedir que parafusos de baixa classe se desapertem, a sua eficácia deve ser verificada dependendo da aplicação.
- Destinado a parafusos e porcas com entrefaces menores que o standard e quando se pretende que os dentes fiquem visiveis no lado interior.

Grupos de produtos

Material	Código	Página
Aço mola 350-425 HV10	37320	7-79
INOX A2	51458	7-80

37320 **Anilha dentada interior** **L07D**

Material Aço mola 350-425 HV10



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	500	37320.030.001	M6	250	37320.060.001	M12	200	37320.120.001
M4	500	37320.040.001	M8	200	37320.080.001	M16	100	37320.160.001
M5	250	37320.050.001	M10	200	37320.100.001	M20	100	37320.200.001

51458	Anilha dentada interior	R09A

Material Aço inoxidável A2

DIN ≈6797 J
NEN ≈2451

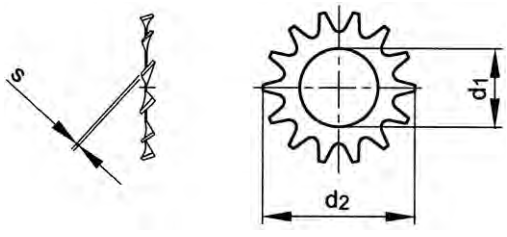
RoHS



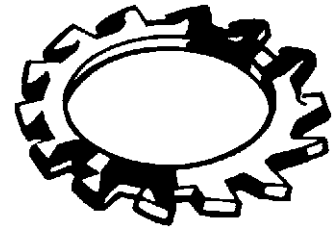
Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2*	1000	51458.020.001	M7*	1000	51458.070.001	M18*	200	51458.180.001
M2,3*	1000	51458.023.001	M8	200	51458.080.001	M20	100	51458.200.001
M3	200	51458.030.001	M8,2*	1000	51458.082.001	M22*	200	51458.220.001
M4	200	51458.040.001	M10	200	51458.100.001	M24*	200	51458.240.001
M5	200	51458.050.001	M12	100	51458.120.001	M27*	100	51458.270.001
M5,1*	1000	51458.051.001	M14	100	51458.140.001	M30*	100	51458.300.001
M6	200	51458.060.001	M16	100	51458.160.001			

- O tipo de aço austenitico é do critério do fabricante, os tipos de aço podem variar de acordo com a norma DIN 267-11.

Anilha dentada exterior



DIN 6797 A
NEN 2450



Dados técnicos

Para diâm.nom.	d_1	d_2	s	Para diâm.nom.	d_1	d_2	s
M2	2.2	4.5	0.3	M10	10.5	18	0.9
M2.3 (≠DIN)	2.5	5	0.4	M12	13	20.5	1
M2.5	2.7	5.5	0.4	M14	15	24	1
M3	3.2	6	0.4	M16	17	26	1.2
M3.5	3.7	7	0.5	M18	19	30	1.4
M4	4.3	8	0.5	M20	21	33	1.4
M5	5.3	10	0.6	M22	23	36	1.5
M6	6.4	11	0.7	M24	25	38	1.5
M7	7.4	12.5	0.8	M27	28	44	1.6
M8	8.4	15	0.8	M30	31	48	1.6

- O objectivo das anilhas de colar dentadas é permitir o fluxo de corrente eléctrica entre componentes envernizados , agentes anti-corrosivos ou materiais similares, as pontas dobradas das anilhas penetram no material quando os componentes são unidos. Quando as anilhas são montadas com a intenção de impedir que parafusos de baixa classe se desapertem, a sua eficácia deve ser verificada dependendo da aplicação.
- Destinado a parafusos e porcas com medidas de entre-faces standards.

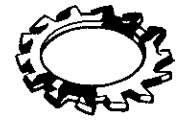
Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço mola 350-425 HV10		37300	7-80
Aço mola 350-425 HV10	Zn	37302	7-81
INOX A2		51456	7-81

37300	Anilha dentada exterior	L07D

Material Aço mola 350-425 HV10

RoHS



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	500	37300.030.001	M8	200	37300.080.001	M16	100	37300.160.001
M4	500	37300.040.001	M10	200	37300.100.001	M20	100	37300.200.001
M5	250	37300.050.001	M12	200	37300.120.001	M24	50	37300.240.001
M6	250	37300.060.001	M14	100	37300.140.001			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

37302 **Anilha dentada exterior** **L07D**

Material Aço mola 350-425 HV10
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	500	37302.030.001	M8	200	37302.080.001	M16	200	37302.160.001
M4	500	37302.040.001	M10	200	37302.100.001	M20	100	37302.200.001
M5	250	37302.050.001	M12	200	37302.120.001	M24	50	37302.240.001
M6	250	37302.060.001	M14	100	37302.140.001			

51456 **Anilha dentada exterior** **R09A**

Material Aço inoxidável A2

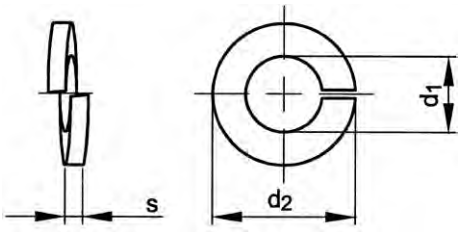
DIN **≈6797A**
NEN ≈2450



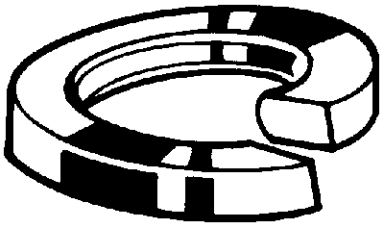
Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2*	1000	51456.020.001	M7*	1000	51456.070.001	M18*	200	51456.180.001
M2,3*	1000	51456.023.001	M8	200	51456.080.001	M20	100	51456.200.001
M3	200	51456.030.001	M10	200	51456.100.001	M22*	200	51456.220.001
M4	200	51456.040.001	M12	100	51456.120.001	M24*	200	51456.240.001
M5	200	51456.050.001	M14*	500	51456.140.001	M27*	100	51456.270.001
M6	200	51456.060.001	M16	100	51456.160.001	M30*	100	51456.300.001

- O tipo de aço austenitico é do critério do fabricante, os tipos de aço podem variar de acordo com a norma DIN 267-11.

Anilha de mola de contacto



DIN **43699**



7

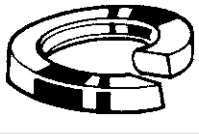
Dados técnicos

Para diâm.nom.	d_1	d_2	s	Para diâm.nom.	d_1	d_2	s
M6 (≠DIN)	6.1	12.1	2	M12	12.2	22.2	3.5
M8	8.2	15.2	2.2	M16	16.2	28.2	4
M10	10.2	18.2	2.5	M20	20.2	34.2	5

- Dependendo da disponibilidade estes artigos podem ser fornecidos em zincado ou com passivação mecânica.

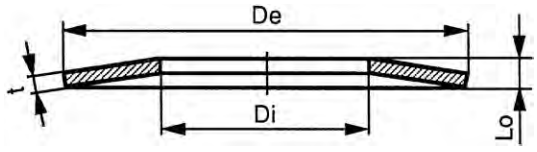
37260 **Anilha de mola de contacto** **L07D**

Material Aço mola
Tratamento sup. Zincado

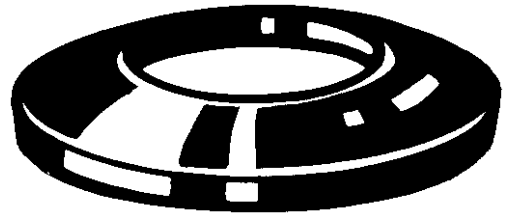


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6	250	37260.060.001	M10	200	37260.100.001	M16	100	37260.160.001
M8	200	37260.080.001	M12	150	37260.120.001	M20	100	37260.200.001

Disco de mola para aplicações criticas tipo A (pesado)



DIN **2093 A**



Dados técnicos

D_e (h12)	D_i (H12)	F	Lo	t	D_e (h12)	D_i (H12)	F	Lo	t
8	4.2	210	0.6	0.4	**35.5**	18.3	5190	2.8	2
10	5.2	329	0.75	0.5	**40**	20.4	6450	3.15	2.25
12.5	6.2	673	1	0.7	**45**	22.4	7720	3.5	2.5
14	7.2	813	1.1	0.8	**50**	25.4	12000	4.1	3
16	8.2	1000	1.25	0.9	**56**	28.5	11400	4.3	3
18	9.2	1250	1.4	1	**63**	31	15000	4.9	3.5
20	10.2	1530	1.55	1.1	**71**	36	20500	5.6	4
22.5	11.2	1950	1.75	1.25	**80**	41	33700	6.7	5
25	12.2	2910	2.05	1.5	**90**	46	31400	7	5
28	14.2	2850	2.15	1.5	**100**	51	48000	8.2	6
31.5	16.3	3900	2.45	1.75	**112**	57	43800	8.5	6

- Discos de mola acc. DIN 2093 são usados em aplicações criticas em que a segurança é o factor principal. Aplicações similares podem ser encontradas por exemplo em embraiagens, dobradiças e aplicações de constante pressão. Devido à combinação correcta de discos a elasticidade e/ou a defleção pode ser correctamente doseada. As especificações técnicas destes discos vão de encontro às mais elevadas expetativas de cargas estáticas e dinâmicas. Excedem os requerimentos da DIN 2093.
- Grupo material 1: t < 1,25 de aço Ck 75.
- Grupo material 2: 1,25 ≤ t ≤ 6,0 de aço 50 Cr V4 (Fractura por fadiga pode ser largamente prevenida porque os discos bordo maquinado).
- F = Força da mola em Newton a uma deflação s ≈ 0,75 h_o(h_o= L_o– t).
- Para o cálculo dos discos, ver DIN 2092.
- Dados técnicos disponiveis sob pedido.

36300 **Disco de mola para aplicações criticas tipo A (pesado)** **L07C**

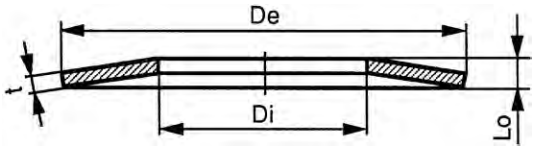
Material Aço Ck 75 Werkstoffnr. 1.1248
Tratamento sup. Fosfatado

RoHS

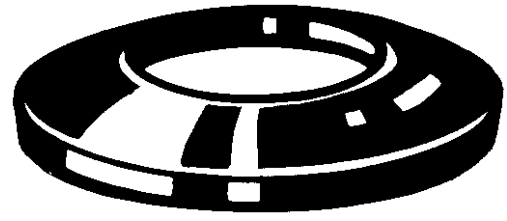


D_e x D_i x t	✉	Ref. do artigo	D_e x D_i x t	✉	Ref. do artigo	D_e x D_i x t	✉	Ref. do artigo
8X4,2X0,4MM	100	36300.084.004	25X12,2X1,5MM	50	36300.262.015	56X28,5X3MM	10	36300.588.030
10X5,2X0,5MM	100	36300.105.005	28X14,2X1,5MM	50	36300.294.015	63X31X3,5MM	5	36300.661.035
12,5X6,2X0,7MM	100	36300.131.007	31,5X16,3X1,75MM	50	36300.331.017	71X36X4MM	5	36300.746.040
14X7,2X0,8MM	100	36300.147.008	35,5X18,3X2MM	25	36300.373.020	80X41X5MM	1	36300.841.050
16X8,2X0,9MM	100	36300.168.009	40X20,4X2,25MM	25	36300.420.022	90X46X5MM	1	36300.946.050
18X9,2X1MM	100	36300.189.010	45X22,4X2,5MM	10	36300.472.025	100X51X6MM	1	36300.960.060
20X10,2X1,1MM	50	36300.210.011	50X25,4X3MM	10	36300.525.030	112X57X6MM	1	36300.968.060
22,5X11,2X1,25MM	50	36300.236.012						

Disco de mola para aplicações criticas tipo B (médio)



DIN 2093 B

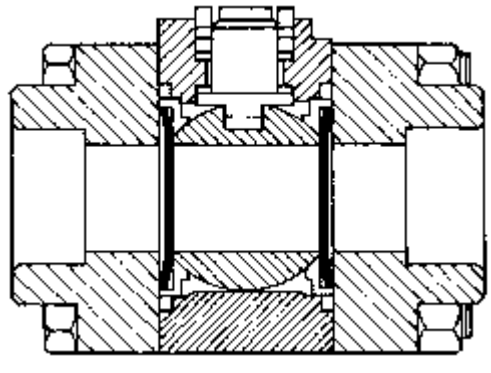


Dados técnicos

D_e (h12)	D_i (H12)	F	Lo	t	D_e (h12)	D_i (H12)	F	Lo	t
8	4.2	119	0.55	0.3	**35.5**	18.3	1700	2.25	1.25
10	5.2	213	0.7	0.4	**40**	20.4	2620	2.65	1.5
12.5	6.2	291	0.85	0.5	**45**	22.4	3660	3.05	1.75
14	7.2	279	0.9	0.5	**50**	25.4	4760	3.4	2
16	8.2	412	1.05	0.6	**56**	28.5	4440	3.6	2
18	9.2	572	1.2	0.7	**63**	31	7180	4.25	2.5
20	10.2	745	1.35	0.8	**71**	36	6730	4.5	2.5
22.5	11.2	710	1.45	0.8	**80**	41	10500	5.3	3
25	12.2	868	1.6	0.9	**90**	46	14200	6	3.5
28	14.2	1110	1.8	1	**100**	51	13100	6.3	3.5
31.5	16.3	1920	2.15	1.25	**112**	57	17800	7.2	4

- Discos de mola de acc. to DIN 2093 são usados em aplicações criticas em que a segurança é o factor principal. Aplicações similares podem ser encontradas por exemplo em embraiagens, dobradiças e aplicações de constante pressão. Devido à combinação correcta de discos a elasticidade e/ou a defleção pode ser correctamente doseada. As especificações técnicas destes discos vão de encontro às mais elevadas expetativas de cargas estáticas e dinâmicas. Excedem os requerimentos da DIN 2093.
- Grupo material 1: t < 1,25 de aço C75S.
- Grupo material 2: 1,25 ≤ t ≤ 6,0 de aço 51 Cr V4 (Fractura por fadiga pode ser largamente prevenida porque os discos bordo maquinado).
- F = Força da mola em Newton a uma deflação s ≈ 0,75 h_o (h_o = L_o – t).
- Espessura nominal. Para o cálculo dos discos, ver DIN 2092.

Exemplo de aplicação



Ball valve

7

36302 Disco de mola para aplicações criticas tipo B (médio) L07C

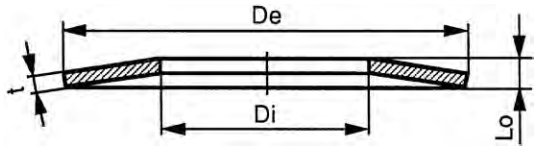
Material Aço mola
Tratamento sup. Fosfatado

RoHS

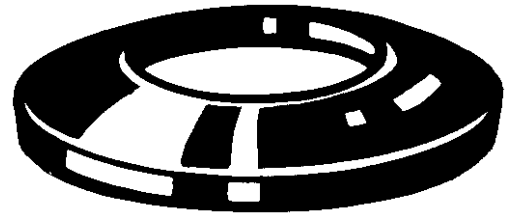


D_e x D_i x t	✉	Ref. do artigo	D_e x D_i x t	✉	Ref. do artigo	D_e x D_i x t	✉	Ref. do artigo
8X4,2X0,3MM	100	36302.084.003	25X12,2X0,9MM	50	36302.262.009	63X31X2,5MM	5	36302.661.025
10X5,2X0,4MM	100	36302.105.004	28X14,2X1MM	50	36302.294.010	71X36X2,5MM	5	36302.746.025
12,5X6,2X0,5MM	100	36302.131.005	31,5X16,3X1,25MM	50	36302.331.012	80X41X3MM	1	36302.841.030
14X7,2X0,5MM	100	36302.147.005	35,5X18,3X1,25MM	25	36302.373.012	90X46X3,5MM	1	36302.946.035
16X8,2X0,6MM	100	36302.168.006	40X20,4X1,5MM	25	36302.420.015	100X51X3,5MM	1	36302.960.035
18X9,2X0,7MM	100	36302.189.007	45X22,4X1,75MM	10	36302.472.017	112X57X4MM	1	36302.968.040
20X10,2X0,8MM	50	36302.210.008	50X25,4X2MM	10	36302.525.020			
22,5X11,2X0,8MM	50	36302.236.008	56X28,5X2MM	10	36302.588.020			

Disco de mola para aplicações criticas tipo C (ligeiro)



DIN **2093 C**

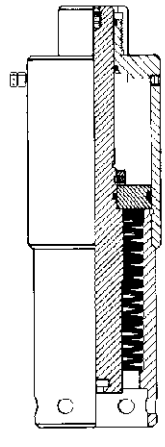


Dados técnicos

D_e (h12)	D_i (H12)	F	Lo	t	D_e (h12)	D_i (H12)	F	Lo	t
8	4.2	39	0.45	0.2	**40**	20.4	1020	2.3	1
10	5.2	58	0.55	0.25	**45**	22.4	1890	2.85	1.25
12.5	6.2	152	0.8	0.35	**50**	25.4	1550	2.85	1.25
14	7.2	123	0.8	0.35	**56**	28.5	2620	3.45	1.5
16	8.2	155	0.9	0.4	**63**	31	4240	4.15	1.8
18	9.2	214	1.05	0.45	**71**	36	5140	4.6	2
20	10.2	254	1.15	0.5	**80**	41	6610	5.2	2.25
22.5	11.2	425	1.4	0.6	**90**	46	7680	5.7	2.5
25	12.2	601	1.6	0.7	**100**	51	8610	6.2	2.7
28	14.2	801	1.8	0.8	**112**	57	10500	6.9	3
31.5	16.3	687	1.85	0.8	**125**	64	15400	8	3.5
35.5	18.3	831	2.05	0.9					

- Discos de mola de acc. to DIN 2093 são usadas em aplicações criticas em que a segurança é o factor principal.Aplicações similares podem ser encontradas por exemplo em embraiagens, dobradiças e aplicações de constante pressão. Devido à combinação correcta de discos a elasticidade e/ou a defleção pode ser correctamente doseada. As especificações técnicas destes discos vão de encontro às mais elevadas expetativas de cargas estáticas e dinâmicas. Excedem os requerimentos da DIN 2093.
- Grupo material 1: t < 1,25 de aço C75S.
- Grupo material 2: 1,25 ≤ t ≤ 6,0 de aço 51 Cr V4 (Fractura por fadiga pode ser largamente prevenida porque os discos são de bordo maquinado).
- F = Força da mola em Newton a uma deflação s ≈ 0,75 ho (ho = Lo – t).
- Para o cálculo dos discos, ver DIN 2092.

Exemplo de aplicação



7

36303 **Disco de mola para aplicações criticas tipo C (ligeiro)** **L07C**

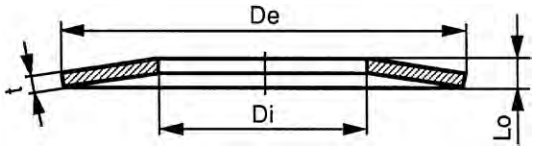
Material Aço mola
Tratamento sup. Fosfatado

RoHS

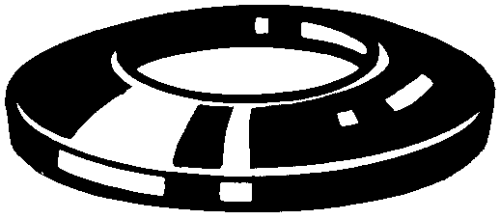


D_e x D_i x t	✉	Ref. do artigo	D_e x D_i x t	✉	Ref. do artigo	D_e x D_i x t	✉	Ref. do artigo
8X4,2X0,2MM	100	36303.084.002	25X12,2X0,7MM	50	36303.262.007	63X31X1,8MM	5	36303.661.018
10X5,2X0,25MM	100	36303.105.002	28X14,2X0,8MM	50	36303.294.008	71X36X2MM	5	36303.746.020
12,5X6,2X0,35MM	100	36303.131.003	31,5X16,3X0,8MM	50	36303.331.008	80X41X2,25MM	1	36303.841.022
14X7,2X0,35MM	100	36303.147.003	35,5X18,3X0,9MM	25	36303.373.009	90X46X2,5MM	1	36303.946.025
16X8,2X0,4MM	100	36303.168.004	40X20,4X1MM	25	36303.420.010	100X51X2,7MM	1	36303.960.027
18X9,2X0,45MM	100	36303.189.004	45X22,4X1,25MM	10	36303.472.012	112X57X3MM	1	36303.968.030
20X10,2X0,5MM	50	36303.210.005	50X25,4X1,25MM	10	36303.525.012	125X64X3,5MM	1	36303.970.035
22,5X11,2X0,6MM	50	36303.236.006	56X28,5X1,5MM	10	36303.588.015			

Disco de mola



DIN **2093**
NF E25-104



Dados técnicos

D_e (h12)	D_i (H12)	F	Lo	t	Tipo
6	3.2	119	0.45	0.3	-
8	3.2	26	0.4	0.2	-
8	3.2	104	0.55	0.3	-
8	3.2	185	0.6	0.4	-
8	3.2	357	0.7	0.5	-
8	4.2	39	0.45	0.2	C
8	4.2	118	0.55	0.3	B
8	4.2	209	0.6	0.4	A
10	3.2	98	0.65	0.3	-
10	3.2	179	0.7	0.4	-
10	3.2	278	0.75	0.5	-
10	4.2	189	0.7	0.4	-
10	4.2	294	0.75	0.5	-
10	5.2	58	0.55	0.25	C
10	5.2	209	0.7	0.4	B
10	5.2	325	0.75	0.5	A
12	4.2	178	0.8	0.4	-
12	4.2	284	0.85	0.5	-
12	5.2	349	0.9	0.5	-
12	5.2	506	0.95	0.6	-
12	6.2	326	0.85	0.5	-
12	6.2	551	0.95	0.6	-
12.5	5.2	272	0.85	0.5	-
12.5	6.2	151	0.8	0.35	C
12.5	6.2	293	0.85	0.5	B
12.5	6.2	659	1	0.7	A
14	7.2	123	0.8	0.35	C
14	7.2	279	0.9	0.5	B
14	7.2	796	1.1	0.8	A
15	5.2	278	1	0.5	-
15	5.2	407	1.05	0.6	-
15	5.2	555	1.1	0.7	-
15	6.2	289	1	0.5	-
15	6.2	423	1.05	0.6	-
15	6.2	577	1.1	0.7	-
15	8.2	665	1.1	0.7	-
15	8.2	982	1.2	0.8	-
16	8.2	154	0.9	0.4	C
16	8.2	410	1.05	0.6	B
16	8.2	1012	1.25	0.9	A
18	6.2	139	1	0.4	-
18	6.2	245	1.1	0.5	-
18	6.2	400	1.2	0.6	-
18	6.2	552	1.25	0.7	-
18	6.2	725	1.3	0.8	-
18	8.2	265	1.1	0.5	-
18	8.2	596	1.25	0.7	-
18	8.2	782	1.3	0.8	-
18	8.2	1501	1.5	1	-
18	9.2	214	1.05	0.45	C
18	9.2	566	1.2	0.7	B
18	9.2	1253	1.4	1	A
20	8.2	412	1.3	0.6	-
20	8.2	568	1.35	0.7	-
20	8.2	751	1.4	0.8	-
20	8.2	953	1.45	0.9	-
20	8.2	1294	1.55	1	-

D_e (h12)	D_i (H12)	F	Lo	t	Tipo
20	10.2	254	1.15	0.5	C
20	10.2	748	1.35	0.8	B
20	10.2	1049	1.45	0.9	-
20	10.2	1424	1.55	1	-
20	10.2	1520	1.55	1.1	A
20	10.2	2475	1.75	1.25	-
20	10.2	4255	2	1.5	-
22.5	11.2	425	1.4	0.6	C
22.5	11.2	707	1.45	0.8	B
22.5	11.2	1928	1.75	1.25	A
23	8.2	543	1.5	0.7	-
23	8.2	718	1.55	0.8	-
23	8.2	918	1.6	0.9	-
23	8.2	1239	1.7	1	-
23	10.2	1057	1.65	0.9	-
23	10.2	1315	1.7	1	-
23	12.2	2330	1.85	1.25	-
23	12.2	3295	2	1.5	-
25	12.2	569	1.6	0.7	C
25	12.2	862	1.6	0.9	B
25	12.2	1358	1.8	1	-
25	12.2	2213	1.95	1.25	-
25	12.2	2924	2.05	1.5	A
28	10.2	661	1.75	0.8	-
28	10.2	1129	1.9	1	-
28	10.2	1852	2.05	1.25	-
28	10.2	2721	2.2	1.5	-
28	12.2	1267	1.95	1	-
28	12.2	2081	2.1	1.25	-
28	12.2	3075	2.25	1.5	-
28	14.2	801	1.8	0.8	C
28	14.2	1107	1.8	1	B
28	14.2	2238	2.1	1.25	-
28	14.2	2839	2.15	1.5	A
31.5	12.2	1170	2.1	1	-
31.5	12.2	1805	2.2	1.25	-
31.5	12.2	2690	2.35	1.5	-
31.5	16.3	687	1.85	0.8	C
31.5	16.3	1912	2.15	1.25	B
31.5	16.3	3228	2.4	1.5	-
31.5	16.3	3859	2.45	1.75	A
31.5	16.3	6170	2.75	2	-
34	12.2	1172	2.25	1	-
34	12.2	1814	2.35	1.25	-
34	12.2	2719	2.5	1.5	-
34	14.2	1988	2.4	1.25	-
34	14.2	2982	2.55	1.5	-
34	16.3	3153	2.55	1.5	-
34	16.3	5779	2.85	2	-
35.5	18.3	832	2.05	0.9	C
35.5	18.3	1698	2.5	1.25	B
35.5	18.3	5184	2.8	2	A
40	14.2	1779	2.65	1.25	-
40	14.3	2544	2.75	1.5	-
40	14.2	4766	3.05	2	-
40	16.3	2748	2.8	1.5	-
40	16.3	5166	3.1	2	-

Dados técnicos

D_e (h12)	D_i (H12)	F	Lo	t	Tipo
40	20.4	1016	2.3	1	C
40	20.4	2620	2.65	1.5	B
40	20.4	5698	3.1	2	-
40	20.4	6497	3.15	2.25	A
40	20.4	9384	3.45	2.5	-
45	22.4	1890	2.85	1.25	C
45	22.4	3644	3.05	1.75	B
45	22.4	7712	3.5	2.5	A
50	18.4	4564	3.5	2	-
50	20.4	4685	3.5	2	-
50	22.4	5219	3.6	2	-
50	22.4	8505	3.9	2.5	-
50	25.4	1549	2.85	1.25	C
50	25.4	4760	3.4	2	B
50	25.4	9058	3.9	2.5	-
50	25.4	11970	4.1	3	A
56	28.5	2621	3.45	1.5	C
56	28.5	4436	3.6	2	B
56	28.5	11382	4.3	3	A
60	20.4	7293	4.3	2.5	-
60	20.4	11569	4.7	3	-
60	25.4	8159	4.4	2.5	-
60	25.4	11762	4.65	3	-
60	30.5	9430	4.5	2.5	-
60	30.5	13219	4.7	3	-
60	30.5	18143	5	3.5	-
63	31	4236	4.15	1.8	C
63	31	7185	4.25	2.5	B

Dados técnicos

D_e (h12)	D_i (H12)	F	Lo	t	Tipo
63	31	15017	4.9	3.5	A
70	25.5	4435	4.5	2	-
70	30.5	11420	5.1	3	-
70	35.5	12281	5.1	3	-
70	35.5	23923	5.8	4	-
70	40.5	23338	5.6	4	-
70	40.5	33653	6.2	5	-
71	36	5141	4.6	2	C
71	36	6722	4.5	2.5	B
71	36	20524	5.6	4	A
80	31	10346	5.5	3	-
80	36	11912	5.7	3	-
80	36	21388	6.2	4	-
80	41	6609	5.2	2.25	C
80	41	10512	5.3	3	B
80	41	22861	6.2	4	-
80	41	33541	6.7	5	A
90	46	7680	5.7	2.5	C
90	46	14153	6	3.5	B
90	46	31337	7	5	A
100	41	20240	7.2	4	-
100	51	8604	6.2	2.7	C
100	51	13063	6.3	3.5	B
100	51	36319	7.8	5	-
100	51	47995	8.2	6	A
112	57	17743	7.2	4	B
112	57	43683	8.5	6	A

- Os discos de mola mencionados de acc. com ≈ DIN 2093 são de uso geral. Para aplicações mais criticas é aconselhada a escolha de discos de mola do grupo 36300, 36302, 36303 e 36450.
- Groupo 1: t < 1,25 de aço C67S.
- Groupo 2: 1,25 ≤ t ≤ 6,0 de aço 51 Cr V4 (bordos dos discos não maquinados).
- F = Força dos discos em Newton numa defleção s ≈ 0,75 ho (ho = Lo - t).
- Tipo A: execução pesada (De/t ≈ 18).
- Tipo B: execução média (De/t ≈ 28).
- Tipo C: execução leve (De/t ≈ 40).
- Se o tipo não for mencionado, as dimensões não são normalização DIN.
- Para o cálculo dos discos, ver DIN 2092.

7

36307 Disco de mola **L07C**

Material Aço mola
Tratamento sup. Fosfatado

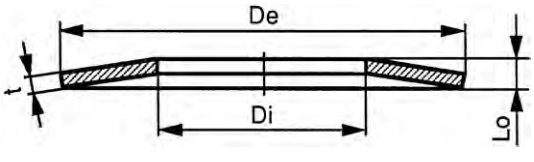


D_e x D_i x t	✉	Ref. do artigo	D_e x D_i x t	✉	Ref. do artigo	D_e x D_i x t	✉	Ref. do artigo
6x3,2x0,3MM	100	36307.063.003	15x5,2x0,5MM	100	36307.155.005	20x10,2x0,5MM	50	36307.210.005
8x3,2x0,2MM	100	36307.083.002	15x5,2x0,6MM	100	36307.155.006	20x10,2x0,8MM	50	36307.210.008
8x3,2x0,3MM	100	36307.083.003	15x5,2x0,7MM	100	36307.155.007	20x10,2x0,9MM	50	36307.210.009
8x3,2x0,4MM	100	36307.083.004	15x6,2x0,5MM	100	36307.156.005	20x10,2x1MM	50	36307.210.010
8x3,2x0,5MM	100	36307.083.005	15x6,2x0,6MM	100	36307.156.006	20x10,2x1,1MM	50	36307.210.011
8x4,2x0,2MM	100	36307.084.002	15x6,2x0,7MM	100	36307.156.007	20x10,2x1,25MM	50	36307.210.012
8x4,2x0,3MM	100	36307.084.003	15x8,2x0,7MM	100	36307.158.007	20x10,2x1,5MM	50	36307.210.015
8x4,2x0,4MM	100	36307.084.004	15x8,2x0,8MM	100	36307.158.008	22,5x11,2x0,6MM	50	36307.236.006
10x3,2x0,4MM	100	36307.103.004	16x8,2x0,4MM	100	36307.168.004	22,5x11,2x0,8MM	50	36307.236.008
10x3,2x0,5MM	100	36307.103.005	16x8,2x0,6MM	100	36307.168.006	22,5x11,2x1,25MM	50	36307.236.012
10x4,2x0,4MM	100	36307.104.004	16x8,2x0,9MM	100	36307.168.009	23x8,2x0,7MM	50	36307.238.007
10x4,2x0,5MM	100	36307.104.005	18x6,2x0,4MM	100	36307.186.004	23x8,2x0,8MM	50	36307.238.008
10x5,2x0,25MM	100	36307.105.002	18x6,2x0,5MM	100	36307.186.005	23x8,2x0,9MM	50	36307.238.009
10x5,2x0,4MM	100	36307.105.004	18x6,2x0,6MM	100	36307.186.006	23x8,2x1MM	50	36307.238.010
10x5,2x0,5MM	100	36307.105.005	18x6,2x0,7MM	100	36307.186.007	23x10,2x0,9MM	50	36307.240.009
12x4,2x0,4MM	100	36307.124.004	18x6,2x0,8MM	100	36307.186.008	23x10,2x1MM	50	36307.240.010
12x4,2x0,5MM	100	36307.124.005	18x8,2x0,5MM	100	36307.188.005	23x12,2x1,25MM	50	36307.242.012
12x5,2x0,5MM	100	36307.125.005	18x8,2x0,7MM	100	36307.188.007	23x12,2x1,5MM	50	36307.242.015
12x5,2x0,6MM	100	36307.125.006	18x8,2x0,8MM	100	36307.188.008	25x12,2x0,7MM	50	36307.262.007
12x6,2x0,5MM	100	36307.126.005	18x8,2x1MM	100	36307.188.010	25x12,2x0,9MM	50	36307.262.009
12x6,2x0,6MM	100	36307.126.006	18x9,2x0,45MM	100	36307.189.004	25x12,2x1,25MM	50	36307.262.012
12,5X5,2X0,5	100	36307.130.005	18x9,2x0,7MM	100	36307.189.007	25x12,2x1,5MM	50	36307.262.015
12,5x6,2x0,35MM	100	36307.131.003	18x9,2x1MM	100	36307.189.010	28x10,2x0,8MM	50	36307.290.008
12,5x6,2x0,5MM	100	36307.131.005	20x8,2x0,6MM	50	36307.208.006	28x10,2x1MM	50	36307.290.010
12,5x6,2x0,7MM	100	36307.131.007	20x8,2x0,7MM	50	36307.208.007	28x10,2x1,25MM	50	36307.290.012
14X7,2x0,35MM	100	36307.147.003	20x8,2x0,8MM	50	36307.208.008	28x10,2x1,5MM	50	36307.290.015
14x7,2x0,5MM	100	36307.147.005	20x8,2x0,9MM	50	36307.208.009	28x12,2x1MM	50	36307.292.010
14x7,2x0,8MM	100	36307.147.008	20x8,2x1MM	50	36307.208.010	28x12,2x1,25MM	50	36307.292.012

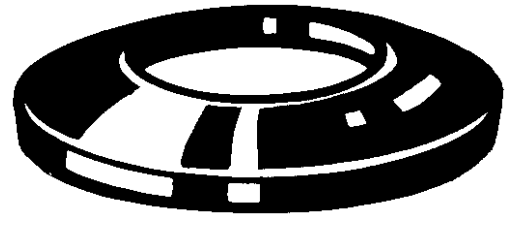
36307 Disco de mola ←

D_e x D_i x t	✉	Ref. do artigo	D_e x D_i x t	✉	Ref. do artigo	D_e x D_i x t	✉	Ref. do artigo
28x12,2x1,5MM	50	36307.292.015	40x20,4x1MM	25	36307.420.010	70x25,5x2MM	5	36307.725.020
28x14,2x0,8MM	50	36307.294.008	40x20,4x1,5MM	25	36307.420.015	70x30,5x3MM	5	36307.730.030
28x14,2x1MM	50	36307.294.010	40x20,4x2MM	25	36307.420.020	70x35,5x3MM	5	36307.735.030
28x14,2x1,25MM	50	36307.294.012	40x20,4x2,25MM	25	36307.420.022	70x35,5x4MM	5	36307.735.040
28x14,2x1,5MM	50	36307.294.015	40x20,4x2,5MM	25	36307.420.025	70x40,5x4MM	5	36307.740.040
31,5x12,2x1MM	50	36307.327.010	45x22,4x1,25MM	10	36307.472.012	70x40,5x5MM	5	36307.740.050
31,5x12,2x1,25MM	50	36307.327.012	45x22,4x1,75MM	10	36307.472.017	71x36x2MM	5	36307.746.020
31,5x12,2x1,5MM	50	36307.327.015	45x22,4x2,5MM	10	36307.472.025	71x36x2,5MM	5	36307.746.025
31,5x16,3x0,8MM	50	36307.331.008	50x18,4x2MM	10	36307.518.020	71x36x4MM	5	36307.746.040
31,5x16,3x1,25MM	50	36307.331.012	50x20,4x2MM	10	36307.520.020	80x31x3MM	1	36307.831.030
31,5x16,3x1,5MM	50	36307.331.015	50x22,4x2MM	10	36307.522.020	80x36x3MM	1	36307.836.030
31,5x16,3x1,75MM	50	36307.331.017	50x22,4x2,5MM	10	36307.522.025	80x36x4MM	1	36307.836.040
31,5x16,3x2MM	50	36307.331.020	50x25,4x1,25MM	10	36307.525.012	80x41x2,25MM	1	36307.841.022
34x12,2x1MM	25	36307.352.010	50x25,4x2MM	10	36307.525.020	80x41x3MM	1	36307.841.030
34x12,2x1,25MM	25	36307.352.012	50x25,4x2,5MM	10	36307.525.025	80x41x4MM	1	36307.841.040
34x12,2x1,5MM	25	36307.352.015	50x25,4x3MM	10	36307.525.030	80x41x5MM	1	36307.841.050
34X1x,2x1,25MM	25	36307.354.012	56x28,5x1,5MM	10	36307.588.015	90x46x2,5MM	1	36307.946.025
34x14,2x1,5MM	25	36307.354.015	56x28,5x2MM	10	36307.588.020	90x46x3,5MM	1	36307.946.035
34x16,3x1,5MM	25	36307.356.015	56x28,5x3MM	10	36307.588.030	90x46x5MM	1	36307.946.050
34x16,3x2MM	25	36307.356.020	60X20,5X2,5	5	36307.620.025	100x41x4MM	1	36307.960.004
35,5x18,3x0,9M	25	36307.373.009	60x25,4x2,5MM	5	36307.625.025	100x51x2,7MM	1	36307.960.027
35,5x18,3x1,25MM	25	36307.373.012	60x25,4x3MM	5	36307.625.030	100x51x3,5MM	1	36307.960.035
35,5x18,3x2MM	25	36307.373.020	60x30,5x2,5MM	5	36307.630.025	100x51x5MM	1	36307.960.050
40x14,2x1,25MM	25	36307.414.012	60x30,5x3MM	5	36307.630.030	100x51x6MM	1	36307.960.060
40x14,3x1,5MM	25	36307.414.015	60x30,5x3,5MM	5	36307.630.035	112x57x4MM	1	36307.968.040
40x14,3x2MM	25	36307.414.020	63x31x1,8MM	5	36307.661.018	112x57x6MM	1	36307.968.060
40x16,3x1,5MM	25	36307.416.015	63x31x2,5MM	5	36307.661.025			
40x16,3x2MM	25	36307.416.020	63x31x3,5MM	5	36307.661.035			

Disco de mola tipo A (pesado)



DIN **≈2093 A/C**



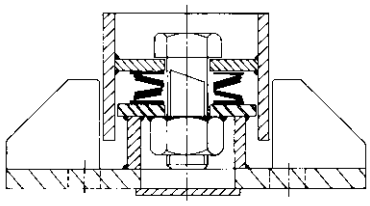
7

Dados técnicos

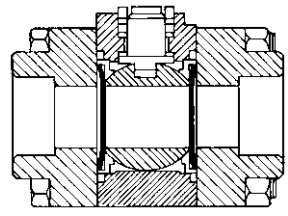
D_e (h12)	D_i (H12)	F	Lo	t	D_e (h12)	D_i (H12)	F	Lo	t
8	4.2	192	0.6	0.4	**28**	14.2	2004	2.15	1.5
10	5.2	298	0.75	0.5	**31.5**	16.3	2745	2.3	1.75
12	5.2	350	0.9	0.5	**35.5**	18.3	4200	2.65	2
12-1	6.2	547	0.95	0.6	**40**	20.4	932	2.3	1
12.5	6.2	499	0.95	0.7	**40**	20.4	4630	2.95	2.25
14	7.2	730	1.1	0.8	**45**	22.4	5719	3.3	2.5
15	8.2	-	1.25	0.8	**50**	25.4	9212	3.85	3
16	8.2	928	1.25	0.9	**56**	28.5	9134	4.05	3
18	9.2	1149	1.4	1	**71**	36	16626	5.6	4
20	10.2	1394	1.55	1.1	**80**	41	25845	6.7	5
22.5	11.2	1402	1.75	1.25	**100**	51	37336	8.2	6
25	12.2	1931	1.9	1.5					

- Discos de mola acc. DIN 2093 A são usados em aplicações criticas em que a segurança é o factor principal. Aplicações similares podem ser encontradas por exemplo em embraiagens, dobradiças e aplicações de constante pressão. Devido à combinação correcta de discos a elasticidade e/ou a defleção pode ser correctamente doseada. As especificações técnicas destes discos vão de encontro às mais elevadas expetativas de cargas estáticas e dinâmicas. Os tratamentos térmicos dão aos discos uma cor bronze-conreada.
- D_e(h12) 8-10-12,5-14-16-18-20-22,5-25-28-31,5-40 X 12 CrNi 17 7 (Werkstoffnr. 1.4310).
- D_e(h12) 35,5-50-56-71 X 35 CrMo 17 (Werkstoffno. 1.4122).
- D_e(h12) 45 X 7 CrNiAl 17 7 (Werkstoffno. 1.4568).
- D_e(h12) 80-100 X 22 CrMoV 12 1 (Werkstoffno. 1.4923).
- F = força de disco em Newton numa defleção de s = 0,75 h_o(h_o= L_o– t).
- D_e(h12)=40, t=1 ATENÇAO: de acc. com ≈ DIN 2993 C standarizado: execução 'leve'.
- Para o cálculo dos discos, ver DIN 2092.

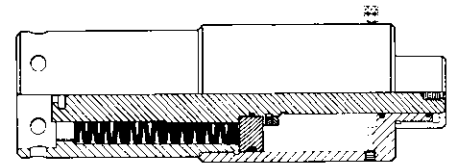
Exemplos de aplicação



Absorção de choque



Válvula de bola



Interruptor

51448 **Disco de mola tipo A (pesado)** **R09A**

Material Aço inoxidável

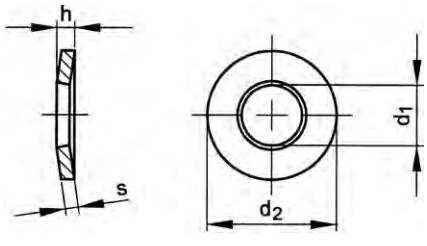
RoHS



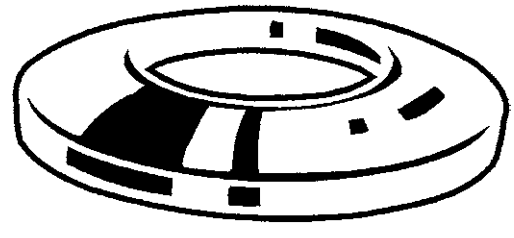
D_e x D_i x t	✉	Ref. do artigo	D_e x D_i x t	✉	Ref. do artigo	D_e x D_i x t	✉	Ref. do artigo
8X3,2X0,5MM*	200	51448.083.005	16X8,2X0,6MM*	100	51448.168.006	28X14,2X1,0MM*	50	51448.294.010
8X4,2X0,3MM*	200	51448.084.003	16X8,2X0,9MM	50	51448.168.009	28X14,2X1,5MM	25	51448.294.015
8X4,2X0,4MM	50	51448.084.004	18X6,2X0,4MM*	100	51448.186.004	31,5X16,3X1,25MM*	50	51448.331.012
10X5,2X0,4MM*	200	51448.105.004	18X9,2X0,7MM*	100	51448.189.007	31,5X16,3X1,75MM	25	51448.331.017
10X5,2X0,5MM	50	51448.105.005	18X9,2X1,0MM	50	51448.189.010	35,5X18,3X1,25MM*	50	51448.373.012
12X4,2X0,4MM*	200	51448.124.004	20X8,2X0,5MM*	100	51448.208.005	35,5X18,3X2,0MM	10	51448.373.020
12X4,2X0,5MM*	200	51448.124.005	20X10,2X0,6MM*	100	51448.210.006	40X20,4X1,0MM	10	51448.420.010
12X5,2X0,5MM	50	51448.125.005	20X10,2X0,8MM*	100	51448.210.008	40X20,4X1,5MM*	25	51448.420.015
12X6,2X0,5MM*	200	51448.126.005	20X10,2X0,9MM*	100	51448.210.009	40X20,4X2,0MM*	25	51448.420.020
12,5X6,2X0,5MM*	200	51448.131.005	20X10,2X1,0MM*	100	51448.210.010	40X20,4X2,25MM	10	51448.420.022
12,5X6,2X0,7MM	50	51448.131.007	20X10,2X1,1MM	25	51448.210.011	45X22,4X2,5MM	5	51448.472.025
14X7,2X0,8MM	50	51448.147.008	22,5X11,2X1,25MM	25	51448.236.012	50X25,4X3,0MM	5	51448.520.030
15X8,2X0,8MM*	100	51448.158.008	25X12,2X0,9MM*	50	51448.262.009	56X28,5X3,0MM	5	51448.588.030
16X8,2X0,4MM*	100	51448.168.004	25X12,2X1,5MM	25	51448.262.015	71X36,0X4,0MM	1	51448.746.040

Anilha de mola cónica para ligações roscadas

7



DIN **6796**



Dados técnicos

Para diâm.nom.	d_1 (H14)	d_2 (h14)	h (max.)	s
M3	3.2	7	0.85	0.6
M4	4.3	9	1.3	1
M5	5.3	11	1.55	1.2
M6	6.4	14	2	1.5
M8	8.4	18	2.6	2
M10	10.5	23	3.2	2.5
M12	13	29	3.95	3
M14	15	35	4.65	3.5
M16	17	39	5.25	4
M18	19	42	5.8	4.5
M20	21	45	6.4	5
M22	23	49	7.05	5.5
M24	25	56	7.75	6
M30	31	70	9.2	7

- Discos de mola de acc. com DIN 6796 devem ser usados em combinação com parafusos de classe 8.8 e 10.9, não é aconselhada a sua utilização onde existam cargas dinâmicas.
- Para fixação sob condições de cargas dinâmicas é indicada a utilização de anilhas mola onduladas e anilhas anti vibração NORD-LOCK.

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço mola DIN267-26		36270	7-89

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço mola DIN267-26	Passiv. mec. amar.	36273	7-89
INOX A2		51447	7-89
INOX A4		55447	7-89

36270 Anilha de mola cónica para ligações roscadas — L07C

Material Aço mola DIN267-26

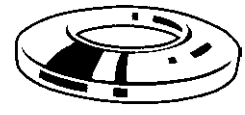


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M4	100	36270.040.001	M10	100	36270.100.001	M20	50	36270.200.001
M5	100	36270.050.001	M12	100	36270.120.001	M22	25	36270.220.001
M6	100	36270.060.001	M14	50	36270.140.001	M24	25	36270.240.001
M8	100	36270.080.001	M16	50	36270.160.001			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

36273 Anilha de mola cónica para ligações roscadas — L07C

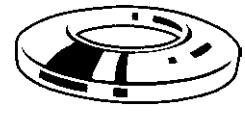
Material Aço mola DIN267-26
Tratamento sup. Zincagem mecânica a amarelo



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	100	36273.030.001	M8	100	36273.080.001	M16	50	36273.160.001
M4	100	36273.040.001	M10	100	36273.100.001	M20	50	36273.200.001
M5	100	36273.050.001	M12	100	36273.120.001	M24	25	36273.240.001
M6	100	36273.060.001	M14	50	36273.140.001			

51447 Anilha de mola cónica para ligações roscadas — R05A

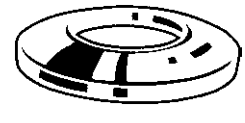
Material Aço inoxidável A2



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3*	500	51447.030.001	M10	200	51447.100.001	M18*	100	51447.180.001
M4	500	51447.040.001	M12	200	51447.120.001	M20*	100	51447.200.001
M5	500	51447.050.001	M14*	100	51447.140.001	M22*	50	51447.220.001
M6*	500	51447.060.001	M16*	100	51447.160.001	M24*	50	51447.240.001
M8	200	51447.080.001						

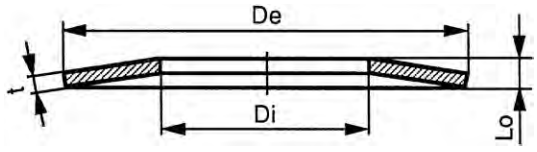
55447 Anilha de mola cónica para ligações roscadas — R45A

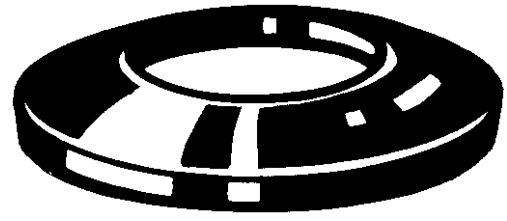
Material Aço inoxidável A4



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3*	500	55447.030.001	M10*	200	55447.100.001	M18*	100	55447.180.001
M4*	500	55447.040.001	M12*	200	55447.120.001	M20*	100	55447.200.001
M5*	500	55447.050.001	M14*	100	55447.140.001	M22*	50	55447.220.001
M6	500	55447.060.001	M16*	100	55447.160.001	M24*	50	55447.240.001

Disco de mola para aplicações criticas





Dados técnicos

D_e (h12)	D_i (H12)	F	Lo	t	D_e (h12)	D_i (H12)	F	Lo	t
8	3.2	104	0.55	0.3	28	10.2	2723	2.2	1.5
8	3.2	186	0.6	0.4	28	12.2	3077	2.25	1.5
8	3.2	357	0.7	0.5	28	14.2	2240	2.1	1.25
10	3.2	98	0.65	0.3	31.5	12.2	1170	2.1	1
10	3.2	179	0.7	0.4	31.5	12.2	1800	2.2	1.25
10	3.2	279	0.75	0.5	31.5	12.2	2697	2.35	1.5
10	4.2	189	0.7	0.4	31.5	16.3	3230	2.4	1.5
10	4.2	294	0.75	0.5	31.5	16.3	6173	2.75	2
12	4.2	178	0.8	0.4	34	12.2	1172	2.25	1
12	4.2	284	0.85	0.5	34	12.2	1815	2.35	1.25
12	5.2	350	0.9	0.5	34	12.2	2721	2.5	1.5
12	5.2	506	0.95	0.6	34	14.2	1989	2.4	1.25
12	6.2	326	0.85	0.5	34	14.2	2984	2.55	1.5
12	6.2	552	0.95	0.6	34	16.3	5783	2.85	2
12	5.2	272	0.85	0.5	40	14.2	1778	2.65	1.25
15	5.2	176	0.95	0.4	40	14.2	2542	2.75	1.5
15	5.2	278	1	0.5	40	14.2	4763	3.05	2
15	5.2	407	1.05	0.6	40	16.3	2749	2.8	1.5
15	5.2	555	1.1	0.7	40	16.3	5169	3.1	2
15	6.2	289	1	0.5	40	18.3	5956	3.15	2
15	6.2	424	1.05	0.6	40	20.4	5701	3.1	2
15	6.2	578	1.1	0.7	40	20.4	9390	3.45	2.5
15	8.2	666	1.1	0.7	50	18.4	2603	3.5	1.5
15	8.2	982	1.2	0.8	50	18.3	4567	3.5	2
18	6.2	139	1	0.4	50	20.4	4687	3.5	2
18	6.2	245	1.1	0.5	50	22.4	5222	3.6	2
18	6.2	400	1.2	0.6	50	22.4	7919	3.85	2.5
18	6.2	553	1.25	0.7	50	25.4	2512	3.1	1.5
18	6.2	726	1.3	0.8	50	25.4	9063	3.9	2.5
18	8.2	265	1.1	0.5	60	20.4	7297	4.3	2.5
18	8.2	596	1.25	0.7	60	25.4	8164	4.4	2.5
18	8.2	783	1.3	0.8	60	25.4	11768	4.65	3
18	8.2	1181	1.4	1	60	30.5	9430	4.5	2.5
20	8.2	412	1.3	0.6	60	30.5	13226	4.7	3
20	8.2	569	1.35	0.7	60	30.5	18153	5	3.5
20	8.2	751	1.4	0.8	70	25.5	4437	4.5	2
20	8.2	954	1.45	0.9	70	30.5	11426	5.1	3
20	8.2	1294	1.55	1	70	35.5	12287	5.1	3
20	10.2	1050	1.45	0.9	70	40.5	23351	5.6	4
20	10.2	1425	1.55	1	70	40.5	33672	6.2	5
20	10.2	2477	1.75	1.25	80	31	10352	5.5	3
20	10.2	2521	1.8	1.5	80	36	11919	5.7	3
23	8.2	544	1.5	0.7	80	36	21400	6.2	4
23	8.2	719	1.55	0.8	80	41	22874	6.2	4
23	8.2	919	1.6	0.9	100	41	20251	7.2	4
23	10.2	1058	1.65	0.9	100	51	36339	7.8	5
23	10.2	1315	1.7	1	125	51	44307	9.4	6
23	12.2	2331	1.85	1.25	125	61	50722	9.6	6
23	12.2	3297	2	1.5	150	61	45456	10.8	6
25	12.2	2214	1.95	1.25	150	81	89532	11.7	8
28	10.2	662	1.75	0.8	200	92	137688	15.6	10
28	10.2	1130	1.9	1	200	112	195830	16.2	12
28	10.2	1853	2.05	1.25	250	127	383017	21.8	16

Encontre os seus produtos (ferramentas, quimicos, segurança) em www.fabory.com

- Discos de mola são usados em aplicações criticas em que a segurança é o factor principal. Aplicações similares podem ser encontradas por exemplo em embraiagens, dobradiças e aplicações de constante pressão. Devido à combinação correcta de discos a elasticidade e/ou a defleção pode ser correctamente doseada.As especificações técnicas destes discos vão de encontro às mais elevadas expetativas de cargas estáticas e dinâmicas. Excedem os requerimentos da DIN 2093.
- Grupo de material 1: t < 1,25 de aço Ck 67.
- Grupo material 2: 1,25 ≤ t ≤ 6,0 de aço 50 Cr V4.
- Grupo material 3: 6,0 > t ≤ 14,0 de aço 50 Cr V4.
- Fractura por fadiga pode ser largamente prevenida porque os discos do grupo 2 e 3 têm bordo maquinado.
- F = Força da mola em Newton a uma deflação s ≈ 0,75 h_o(h_o= L_o– t).
- Para o cálculo dos discos, ver DIN 2092.
- Dados técnicos disponiveis sob pedido.

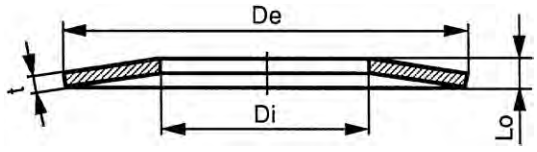
36450 Disco de mola para aplicações criticas **L07C**

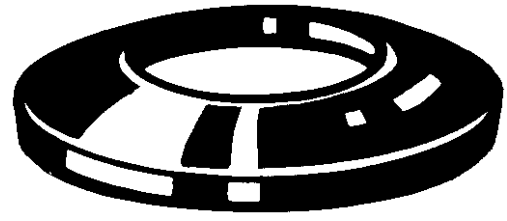
Material Aço Ck 67 Werkstoffnr. 1.1231
Tratamento sup. Fosfatado



D_e x D_i x t	✉	Ref. do artigo	D_e x D_i x t	✉	Ref. do artigo	D_e x D_i x t	✉	Ref. do artigo
8X3,2X0,3MM	100	36450.083.003	20X8,2X0,9MM	50	36450.208.009	40X16,3X2,0MM	25	36450.416.020
8X3,2X0,4MM	100	36450.083.004	20X8,2X1,0MM	50	36450.208.010	40X18,3X2,0MM	25	36450.418.020
8X3,2X0,5MM	100	36450.083.005	20X10,2X0,9MM	50	36450.210.009	40X20,4X2,0MM	25	36450.420.020
10X3,2X0,3MM	100	36450.103.003	20X10,2X1,0MM	50	36450.210.010	40X20,4X2,5MM	25	36450.420.025
10X3,2X0,4MM	100	36450.103.004	20X10,2X1,25MM	50	36450.210.012	50X18,4X1,5MM	25	36450.518.015
10X3,2X0,5MM	100	36450.103.005	20X10,2X1,5MM	50	36450.210.015	50X18,3X2,0MM	10	36450.518.020
10X4,2X0,4MM	100	36450.104.004	23X8,2X0,7MM	50	36450.238.007	50X20,4X2,0MM	10	36450.520.020
10X4,2X0,5MM	100	36450.104.005	23x8,2x0,8MM	50	36450.238.008	50X22,4X2,0MM	10	36450.522.020
12X4,2X0,4MM	100	36450.124.004	23X8,2X0,9MM	50	36450.238.009	50X22,4X2,5MM	10	36450.522.025
12X4,2X0,5MM	100	36450.124.005	23X10,2X0,9MM	50	36450.240.009	50X25,4X1,5MM	10	36450.525.015
12X5,2X0,5MM	100	36450.125.005	23X10,2X1,0MM	50	36450.240.010	50X25,4X2,5MM	10	36450.525.025
12X5,2X0,6MM	100	36450.125.006	23X12,2X1,25MM	50	36450.242.012	60X20,4X2,5MM	5	36450.620.025
12X6,2X0,5MM	100	36450.126.005	23X12,2X1,5MM	50	36450.242.015	60X25,4X2,5MM	5	36450.625.025
12X6,2X0,6MM	100	36450.126.006	25X12,2X1,25MM	50	36450.262.012	60X25,4X3,0MM	5	36450.625.030
15X5,2X0,4MM	100	36450.155.004	28X10,2X0,8MM	50	36450.290.008	60X30,5X2,5MM	5	36450.630.025
15X5,2X0,5MM	100	36450.155.005	28X10,2X1,0MM	50	36450.290.010	60X30,5X3,0MM	5	36450.630.030
15X5,2X0,6MM	100	36450.155.006	28X10,2X1,25MM	50	36450.290.012	60X30,5X3,5MM	5	36450.630.035
15X5,2X0,7MM	100	36450.155.007	28X10,2X1,5MM	50	36450.290.015	70X25,5X2,0MM	5	36450.725.020
15X6,2X0,5MM	100	36450.156.005	28X12,2X1,5MM	50	36450.292.015	70X30,5X3,0MM	5	36450.730.030
15X6,2X0,6MM	100	36450.156.006	28X14,2X1,25MM	50	36450.294.012	70X35,5X3,0MM	5	36450.735.030
15X6,2X0,7MM	100	36450.156.007	31,5X12,2X1,0MM	50	36450.327.010	70X40,5X4,0MM	5	36450.740.040
15X8,2X0,7MM	100	36450.158.007	31,5X12,2X1,25MM	50	36450.327.012	70X40,5X5,0MM	5	36450.740.050
15X8,2X0,8MM	100	36450.158.008	31,5X12,2X1,5MM	50	36450.327.015	80X31,0X3,0MM	1	36450.831.030
18X6,2X0,4MM	100	36450.186.004	31,5X16,3X1,5MM	50	36450.331.015	80X36,0X3,0MM	1	36450.836.030
18X6,2X0,5MM	100	36450.186.005	31,5X16,3X2,0MM	50	36450.331.020	80x36,0x4,0MM	1	36450.836.040
18X6,2X0,6MM	100	36450.186.006	34X12,2X1,0MM	25	36450.352.010	80X41,0X4,0MM	1	36450.841.040
18X6,2X0,7MM	100	36450.186.007	34X12,2X1,25MM	25	36450.352.012	100X41,0X4,0MM	1	36450.960.040
18X6,2X0,8MM	100	36450.186.008	34X12,2X1,5MM	25	36450.352.015	100X51,0X5,0MM	1	36450.982.050
18X8,2X0,5MM	100	36450.188.005	34X14,2X1,25MM	25	36450.354.012	125X51,0X6,0MM	1	36450.987.060
18X8,2X0,7MM	100	36450.188.007	34X14,2X1,5MM	25	36450.354.015	125X61,0X6,0MM	1	36450.987.065
18X8,2X0,8MM	100	36450.188.008	34X16,3X2,0MM	25	36450.356.020	150X61,0X6,0MM	1	36450.992.060
18X8,2X1,0MM	100	36450.188.010	40X14,2X1,25MM	25	36450.414.012	150X81,0X8,0MM	1	36450.992.080
20X8,2X0,6MM	50	36450.208.006	40X14,2X1,5MM	25	36450.414.015	200X92,0X10,0MM	1	36450.997.100
20X8,2X0,7MM	50	36450.208.007	40x14,2x2,0MM	25	36450.414.020	200X112,0X12,0MM	1	36450.997.120
20X8,2X0,8MM	50	36450.208.008	40X16,3X1,5MM	25	36450.416.015	250X127,0X16,0MM	1	36450.999.160

Disco de mola para esferas



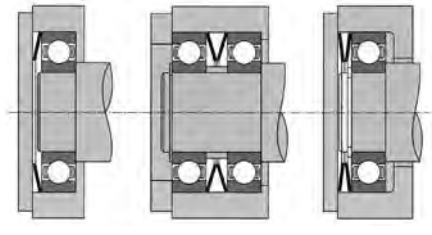


Dados técnicos

D_e (h12)	D_i (H12)	F	Lo	t	D_e (h12)	D_i (H12)	F	Lo	t
9.8	6.2	23	0.4	0.2	**31.7**	20.4	81	1.1	0.4
12.8	7.2	29	0.5	0.25	**34.6**	22.4	118	1.2	0.5
15.8	8.2	23	0.55	0.25	**36.6**	20.4	110	1.3	0.5
18.8	10.2	51	0.7	0.35	**39.6**	25.5	110	1.3	0.5
21.8	12.3	46	0.75	0.35	**41.6**	25.5	113	1.4	0.5
23.7	14.3	81	0.9	0.4	**46.5**	30.5	153	1.4	0.6
25.7	14.3	63	0.9	0.4	**51.5**	35.5	135	1.5	0.6
27.7	17.3	80	1	0.4	**54.5**	40.5	141	1.5	0.6
29.7	17.3	83	1.1	0.4	**61.5**	40.5	176	1.8	0.7

- F = Força da mola em Newton a uma deflação s ≈ 0,75 h_o(h_o= L_o– t).
- Para o cálculo dos discos, ver DIN 2092.
- Dados técnicos disponiveis sob pedido.

Exemplo de aplicação



7

36460 **Disco de mola para esferas** **L07C**

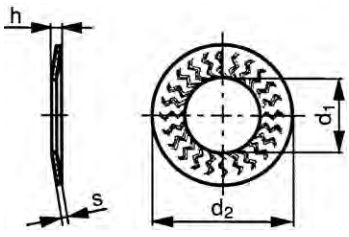
Material Aço
Tratamento sup. Fosfatado

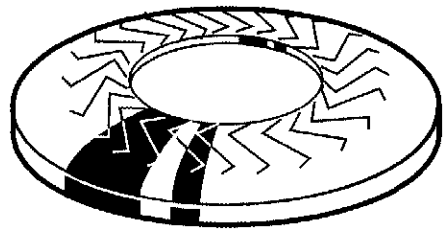
RoHS



D_e x D_i x t	✉	Ref. do artigo	D_e x D_i x t	✉	Ref. do artigo	D_e x D_i x t	✉	Ref. do artigo
9,8X6,2X0,2MM	100	36460.104.002	25,7X14,3X0,4MM	50	36460.271.004	39,6X25,5X0,5MM	25	36460.421.005
12,8X7,2X0,25MM	100	36460.135.002	27,7X17,3X0,4MM	50	36460.294.004	41,6X25,5X0,5MM	25	36460.441.005
15,8X8,2X0,25MM	100	36460.166.002	29,7X17,3X0,4MM	50	36460.314.004	46,5X30,5X0,6MM	25	36460.495.006
18,8X10,2X0,35MM	50	36460.198.003	31,7X20,4X0,4MM	25	36460.337.004	51,5X35,5X0,6MM	10	36460.550.006
21,8X12,3X0,35MM	50	36460.230.003	34,6X22,4X0,5MM	25	36460.368.005	54,5X40,5X0,6MM	10	36460.585.006
23,7X14,3X0,4MM	50	36460.251.004	36,6X20,4X0,5MM	25	36460.386.005	61,5X40,5X0,7MM	10	36460.655.007

Anilha de segurança Tipo M





Dados técnicos

Para diâm.nom.	d_1	d_2	h	s
M4	4.1	10.2	1.5	1
M5	5.1	12.2	1.8	1.2
M6	6.1	14.2	2.2	1.4
M8	8.2	18.2	2.4	1.4
M10	10.2	22.25	2.75	1.6
M12	12.4	27.25	3.05	1.8
M14	14.4	30.25	3.5	2.4
M16	16.4	32.5	3.95	2.5

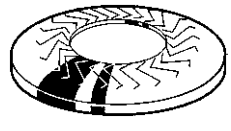
Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço mola 420-510 HV10	FLZNNC-NC6	36325	7-93
INOX A4		55443	7-93

36325 SK Anilha de bloqueio tipo M — L07C

Material Aço mola 420-510 HV10
Tratamento sup. Camada de zinco isento Cr^{6+}- ISO 10683 flZnnc

RoHS



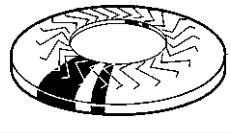
Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M5	250	36325.050.001	M10	200	36325.100.001	M14	100	36325.140.001
M6	250	36325.060.001	M12	150	36325.120.001	M16	100	36325.160.001
M8	200	36325.080.001						

- O tratamento de superficie de acordo com ISO 10683 Zinc Flake elimina a possibilidade de disfunção hidrogénica.
- Discos de mola SK, tipo M, podem ser usados com parafusos classe ≤ 10.9.

55443 SK Anilha disco anti vibração Tipo M — R49A

Material Aço inoxidável A4

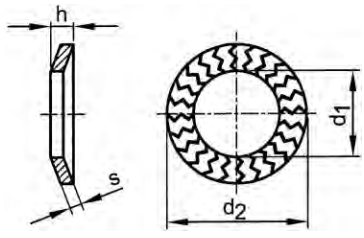
RoHS

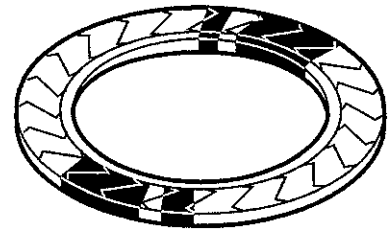


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M4	250	55443.040.001	M8	200	55443.080.001	M12	100	55443.120.001
M5	250	55443.050.001	M10	200	55443.100.001	M16	100	55443.160.001
M6	250	55443.060.001						

- Discos de mola SK, tipo M, podem ser utilizados com parafusos aço inox A2/A4 , até e incluindo classe 80.

Anilha de segurança tipo Z





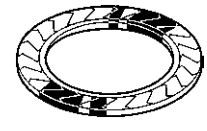
Dados técnicos

Para diâm.nom.	d_1	d_2	h	s
M6	6.1	9.9	1.6	1.4
M8	8.2	12.7	1.7	1.4
M10	10.2	16.1	2	1.6
M12	12.4	18.3	2.2	1.8
M16	16.4	24.6	3.1	2.5

- Anilhas tipo SK, tipo Z, podem ser usadas com parafusos sextavados interiores ou parafusos cabeça de queijo, classe ≤ 10.9.

36326 **SK Anilha bloqueante tipo Z** **L07C**

Material Aço mola 420-510 HV10
Tratamento sup. Camada de zinco isento Cr^{6+}- ISO 10683 flZnnc

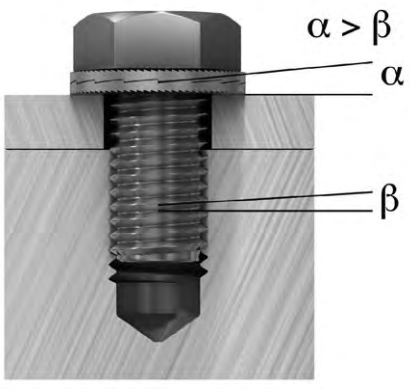


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6	250	36326.060.001	M10	200	36326.100.001	M16	100	36326.160.001
M8	200	36326.080.001	M12	150	36326.120.001			

- Com o tratamento de superficie Zinc Flake ISO 10683, o risco de disfunção hidrogénica é eliminado.

7

NORD-LOCK®



- Previne o desaperto por vibração e cargas dinâmicas
- Reutilizável
- Não necessita ferramenta especial
- M3-M130 / UNC 1/4”-1” em aço Delta Protekt®
- M3-M80 / UNC 1/4”-1” em aço inox
- M3-M39 / UNC 1/4”-1” em 254 SMO®

As anilhas Nord-Lock estão disponiveis em diâmetros standard e diâmetros extra (são chamadas anilhas SP)

- As anilhas SP foram desenvolvidas para utilização em furos largos, superficies pintadas ou materiais menos duros
- Aconselha-se o uso de anilhas Nord-Lock SP em parafusos com falange ou porcas para uma distribuição ótima de carga.

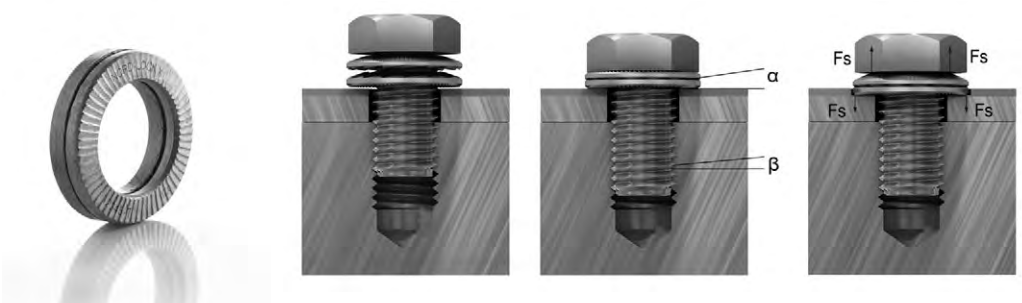


Disponivel nos seguintes materiais:
aço, aço inox e 254 SMO®

Sob pedido:
INCONEL®/HASTELLOY® C-276 e INCONEL®718

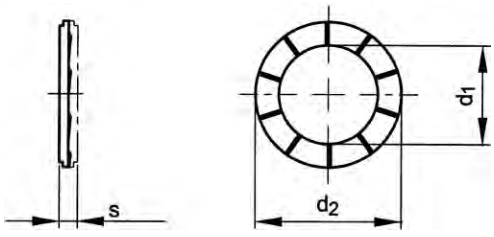
Nord-Lock X series™

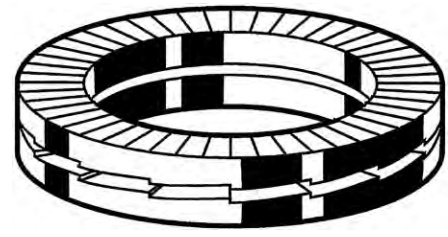
- Previne o desaperto do parafuso, causado pela vibração e cargas dinâmicas.
- Compensa a perda de pré-carga devido ao pagamento e relaxamento.
- Uma solução que abrange vários desafios de projeto.
- M6-M20 em aço Delta Protekt®
- Diâmetro standard ou extra (SP)



As anilhas Nord-Lock são certificadas aprovadas e utilizadas em diversas indústrias., tais como: energia, transporte, minas, construção em geral e construção de pontes, fabricação e processamento, construção naval, agricultura, veículos pesados, e indústria militar.

Anilha anti vibração





Dados técnicos

Para diâm.nom.	d_1	d_2	s (Set)
M3	3.4	7	2.2
M3.5	3.9	7.6	2.2
M4	4.4	7.6	2.2
M5	5.4	9	2.2
M6	6.5	10.8	2.2
M8	8.7	13.5	2.5
M10	10.7	16.6	2.5
M11	11.4	18.5	2.5
M12	13	19.5	2.5
M14	15.2	23	3.4
M16	17	25.4	3.4

Para diâm.nom.	d_1	d_2	s (Set)
M18	19.5	29	3.4
M20	21.4	30.7	3.4
M22	23.4	34.5	3.4
M24	25.3	39	3.4
M27	28.4	42	6.8
M30	31.4	47	6.8
M33	34.4	48.5	6.8
M36	37.4	55	6.8
M39	40.4	58.5	6.8
M42	43.2	63	6.8

- Para informação geral sobre anilhas NORD-LOCK , ver INFO-página.

Grupos de produtos

Material	Tratamento sup.		Código	Página
Aço	Delta Pro		37980	7-96
Aço	Delta Pro	Blister	37985	7-96
INOX A4			55437	7-97
INOX A4		Blister	55436	7-97
INOX 254 SMO®			55463	7-97

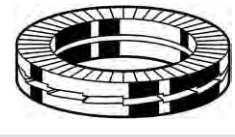
7

37980 NORD-LOCK Anilha anti vibração — NL1A

Material Aço
Tratamento sup. Delta Protekt®

NORD-LOCK Bolt securing system

RoHS



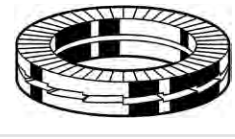
Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	200	37980.030.001	M11	200	37980.110.001	M24	100	37980.240.001
M3,5	200	37980.035.001	M12	200	37980.120.001	M27	50	37980.270.001
M4	200	37980.040.001	M14	100	37980.140.001	M30	50	37980.300.001
M5	200	37980.050.001	M16	100	37980.160.001	M33	25	37980.330.001
M6	200	37980.060.001	M18	100	37980.180.001	M36	25	37980.360.001
M8	200	37980.080.001	M20	100	37980.200.001	M39	25	37980.390.001
M10	200	37980.100.001	M22	100	37980.220.001	M42	25	37980.420.001

37985 NORD-LOCK Anilha anti vibração — NL3A

Material Aço
Tratamento sup. Delta Protekt®

NORD-LOCK Bolt securing system

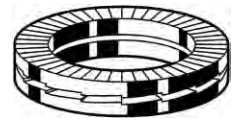
RoHS



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6 (20PC)	1	37985.060.001	M10 (20PC)	1	37985.100.001	M16 (8PC)	1	37985.160.001
M8 (20PC)	1	37985.080.001	M12 (10PC)	1	37985.120.001	M20 (4PC)	1	37985.200.001

55437 NORD-LOCK Anilha antivibração — NL1A

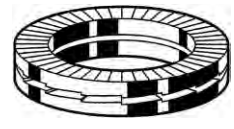
Material Aço inoxidável A4



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	200	55437.030.001	M11	200	55437.110.001	M24	100	55437.240.001
M3,5	200	55437.035.001	M12	200	55437.120.001	M27	50	55437.270.001
M4	200	55437.040.001	M14	100	55437.140.001	M30	50	55437.300.001
M5	200	55437.050.001	M16	100	55437.160.001	M33	25	55437.330.001
M6	200	55437.060.001	M18	100	55437.180.001	M36	25	55437.360.001
M8	200	55437.080.001	M20	100	55437.200.001	M39	25	55437.390.001
M10	200	55437.100.001	M22	100	55437.220.001	M42	25	55437.420.001

55436 NORD-LOCK Anilha antivibração — NL3A

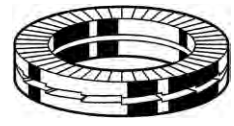
Material Aço inoxidável A4



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6 (10PC)	1	55436.060.001	M10 (10PC)	1	55436.100.001	M16 (4PC)	1	55436.160.001
M8 (10PC)	1	55436.080.001	M12 (6PC)	1	55436.120.001	M20 (3PC)	1	55436.200.001

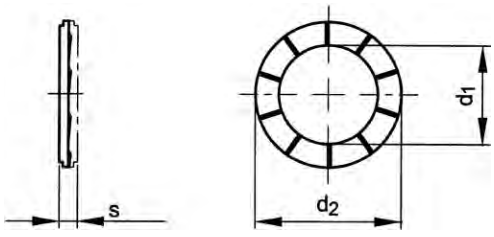
55463 NORD-LOCK Anilha antivibração — NL1A

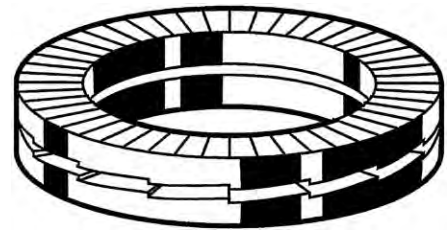
Material Aço inoxidável 254 SMO®



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	200	55463.030.001	M11	200	55463.110.001	M24	100	55463.240.001
M3,5	200	55463.035.001	M12	200	55463.120.001	M27	50	55463.270.001
M4	200	55463.040.001	M14	100	55463.140.001	M30	50	55463.300.001
M5	200	55463.050.001	M16	100	55463.160.001	M33	25	55463.330.001
M6	200	55463.060.001	M18	100	55463.180.001	M36	25	55463.360.001
M8	200	55463.080.001	M20	100	55463.200.001	M39	25	55463.390.001
M10	200	55463.100.001	M22	100	55463.220.001			

Anilha polegadas





Dados técnicos

Para diâm.nom.	d_1	d_2	s (Set)
1/4	0.28	0.65	2.3
3/8	0.41	0.65	2.5
1/2	0.53	0.77	2.5
3/4	0.79	1.21	3.4
1 Inch	1.1	1.54	3.4

Grupos de produtos

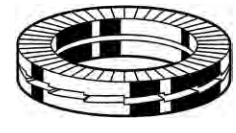
Material	Tratamento sup.	Código	Página
Aço	Delta Pro	37979	7-98
INOX A4		55438	7-98
INOX 254 SMO®		55464	7-98

37979 NORD-LOCK Anilhas anti vibração NL1A

Material Aço
Tratamento sup. Delta Protekt®

NORD-LOCK Bolt securing system

RoHS



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
1/4	200	37979.063.001	1/2	200	37979.127.001	1 Inch	100	37979.254.001
3/8	200	37979.096.001	3/4	100	37979.191.001			

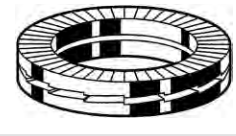
7

55438 NORD-LOCK Anilhas anti vibração NL1A

Material Aço inoxidável A4

NORD-LOCK Bolt securing system

RoHS



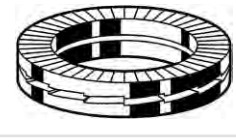
Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
1/4	200	55438.063.001	1/2	200	55438.127.001	1 Inch	100	55438.254.001
3/8	200	55438.096.001	3/4	100	55438.191.001			

55464 NORD-LOCK Anilha anti vibração NL1A

Material Aço inoxidável 254 SMO®

NORD-LOCK Bolt securing system

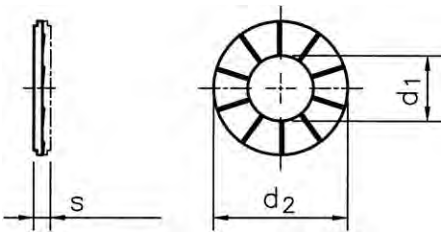
RoHS

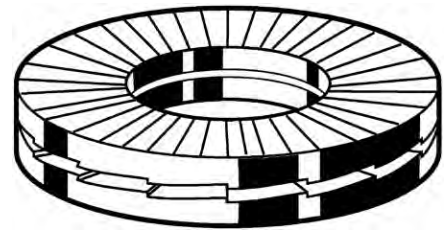


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
1/4	200	55464.063.001	1/2	200	55464.127.001	1 Inch	100	55464.254.001
3/8	200	55464.096.001	3/4	100	55464.191.001			

Anilha anti vibração diâmetro exterior largo

J





Dados técnicos

Para diâm.nom.	d_1	d_2	s (Set)
M3.5	3.9	9	2.2
M4	4.4	9	2.2
M5	5.4	10.8	2.2
M6	6.5	13.5	2.5
M8	8.7	16.6	2.5
M10	10.7	21	2.5
M12	13	25.4	3.4
M14	15.2	30.7	3.4
M16	17	30.7	3.4

Para diâm.nom.	d_1	d_2	s (Set)
M18	19.5	34.5	3.4
M20	21.4	39	3.4
M22	23.4	42	4.6
M24	25.3	48.5	4.6
M27	28.4	48.5	5.8
M30	31.4	58.5	6.6
M33	34.4	58.5	6.6
M36	37.4	63	6.6

- Para informação geral sobre anilhas anti vibração NORD-LOCK, ver INFO-páginas.
- Anilhas anti vibração com aba larga são recomendadas furos mais largos e longos, quando uma maior superficie de contacto é necesssária.
- Folheto técnico disponivel sob pedido.

Grupos de produtos

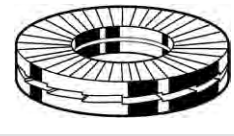
Material	Tratamento sup.		Código	Página
Aço	Delta Pro		37982	7-99
Aço	Delta Pro	Blister	37986	7-99
INOX A4			55453	7-100
INOX A4		Blister	55456	7-100
INOX 254 SMO®			55465	7-100

37982 **NORD-LOCK Anilha anti vibração diametro exterior largo** **NL1A**

Material Aço
Tratamento sup. Delta Protekt®

NORD-LOCK Bolt securing system

RoHS



Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo
M3,5X9	200	37982.035.009	M12X25,4	100	37982.120.025	M24X48,5	50	37982.240.048
M4X9	200	37982.040.009	M14X30,7	100	37982.140.030	M27X48,5	25	37982.270.048
M5X10,8	200	37982.050.010	M16X30,7	100	37982.160.030	M30X58,5	25	37982.300.058
M6X13,5	200	37982.060.013	M18X34,5	100	37982.180.034	M33X58,5	25	37982.330.058
M8X16,6	200	37982.080.016	M20X39	100	37982.200.039	M36X63	25	37982.360.630
M10X21	200	37982.100.021	M22X42	50	37982.220.042			

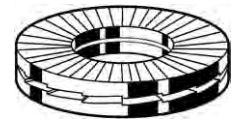
- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

37986 **NORD-LOCK Anilha anti vibração diametro exterior largo** **NL3A**

Material Aço
Tratamento sup. Delta Protekt®

NORD-LOCK Bolt securing system

RoHS

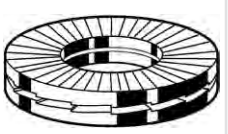


Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo
M6X13,5 (20PC)	1	37986.060.001	M10X21 (10PC)	1	37986.100.001	M16X30,7 (4PC)	1	37986.160.001
M8X16,6 (20PC)	1	37986.080.001	M12X25,4 (8PC)	1	37986.120.001	M20X39 (2PC)	1	37986.200.001

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

55453 NORD-LOCK Anilha anti vibração diâmetro exterior largo — NL1A

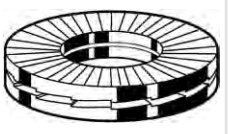
Material Aço inoxidável A4



Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo
M3,5X9	200	55453.035.009	M10X21,0	200	55453.100.021	M20X39	100	55453.200.039
M4X9	200	55453.040.009	M12X25,4	100	55453.120.025	M22X42	50	55453.220.042
M5X10,8	200	55453.050.010	M14X30,7	100	55453.140.030	M24X48,5	50	55453.240.048
M6X13,5	200	55453.060.013	M16X30,7	100	55453.160.030	M27X48,5	25	55453.270.048
M8X16,6	200	55453.080.016	M18X34,5	100	55453.180.034	M30X58,5	25	55453.300.058

55456 NORD-LOCK Anilha anti vibração diâmetro exterior largo — NL3A

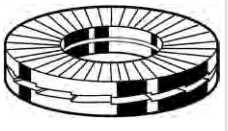
Material Aço inoxidável A4



Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo
M6X13,5 (10PC)	1	55456.060.001	M10X21 (6PC)	1	55456.100.001	M16X30,7 (2PC)	1	55456.160.001
M8X16,6 (10PC)	1	55456.080.001	M12X25,4 (4PC)	1	55456.120.001	M20X39 (2PC)	1	55456.200.001

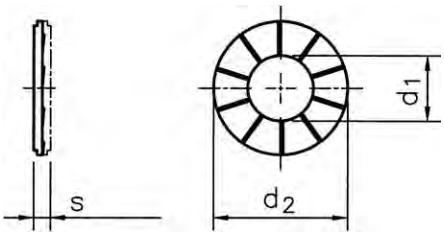
55465 NORD-LOCK Anilha anti vibração diâmetro exterior largo — NL1A

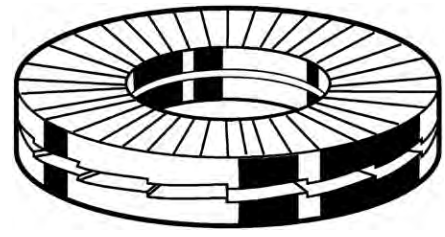
Material Aço inoxidável 254 SMO®



Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo
M3,5X9	200	55465.035.009	M10X21,0	200	55465.100.021	M20X39,0	100	55465.200.039
M4X9	200	55465.040.009	M12X25,4	100	55465.120.025	M22X42,0	50	55465.220.042
M5X10,8	200	55465.050.010	M14X30,7	100	55465.140.030	M24X48,5	50	55465.240.048
M6X13,5	200	55465.060.013	M16X30,7	100	55465.160.030	M27X48,5	25	55465.270.048
M8X16,6	200	55465.080.016	M18X34,5	100	55465.180.034			

Anilha diâmetro exterior largo polegadas





Dados técnicos

Para diâm.nom.	d_1	d_2	s (Set)
1/4	0.28	0.53	2.5
3/8	0.41	0.83	2.5
1/2	0.53	1.00	3.4
3/4	0.79	1.54	3.4
1 Inch	1.1	1.91	5.6

Grupos de produtos

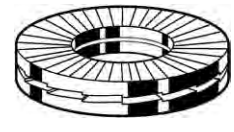
Material	Tratamento sup.	Código	Página
Aço	Delta Pro	37984	7-101
INOX A4		55454	7-101
INOX 254 SMO®		55466	7-101

37984 NORD-LOCK Anilha diâmetro exterior largo polegadas NL1A

Material Aço
Tratamento sup. Delta Protekt®

NORD-LOCK Bolt securing system

RoHS



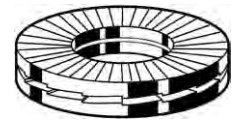
Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo
1/4X13,5	200	37984.063.013	1/2X25,4	100	37984.127.025	1 InchX48,5	50	37984.254.048
3/8X21,0	200	37984.096.021	3/4X39,0	100	37984.191.039			

55454 NORD-LOCK Anilha diâmetro exterior largo polegadas NL1A

Material Aço inoxidável A4

NORD-LOCK Bolt securing system

RoHS



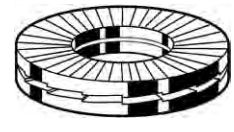
Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo
1/4X13,5	200	55454.063.013	1/2X25,4	100	55454.127.025	1 InchX48,5	50	55454.254.048
3/8X21,0	200	55454.096.021	3/4X39,0	100	55454.191.039			

55466 NORD-LOCK Anilha diâmetro exterior largo polegadas NL1A

Material Aço inoxidável 254 SMO®

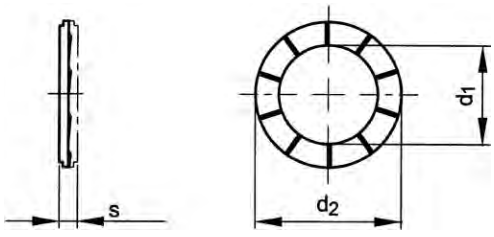
NORD-LOCK Bolt securing system

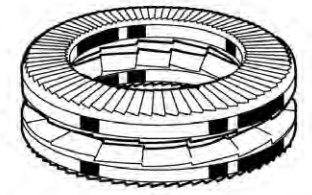
RoHS



Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo
1/4X13,5	200	55466.063.013	1/2X25,4	100	55466.127.025	1 InchX48,5	50	55466.254.048
3/8X21,0	200	55466.096.021	3/4X39,0	100	55466.191.039			

Anilha cónica á prova de vibração





Dados técnicos

Para diâm.nom.	d_1	d_2	s (Set)
M6	6.3	10.8	2.2
M8	8.4	13.5	2.3
M10	10.5	16.6	3
M12	12.5	19.5	3.5
M14	14.6	23.0	4.05
M16	16.6	25.4	4.8
M20	20.7	30.7	6.1

37981 **NORD-LOCK Anilha cónica á prova de vibração, X-series** **NL1A**

Material Aço
Tratamento sup. Delta Protekt®

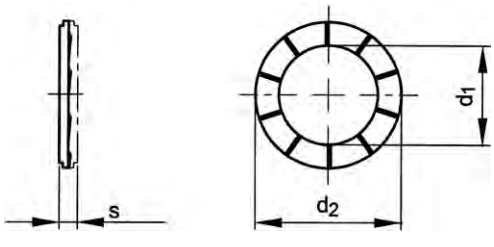


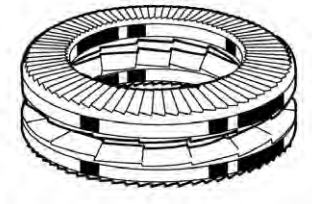


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6	200	37981.060.001	M12	200	37981.120.001	M16	100	37981.160.001
M8	200	37981.080.001	M14	100	37981.140.001	M20	100	37981.200.001
M10	200	37981.100.001						

Anilha cónica á prova de vibração polegadas

7





Dados técnicos

Para diâm.nom.	d_1	d_2	s (Set)
1/4	6.7	11.5	0.069
3/8	10.0	16.6	0.106
1/2	13.2	19.5	0.142

37987 **NORD-LOCK Anilha cónica á prova de vibração polegadas, X-series** **NL1A**

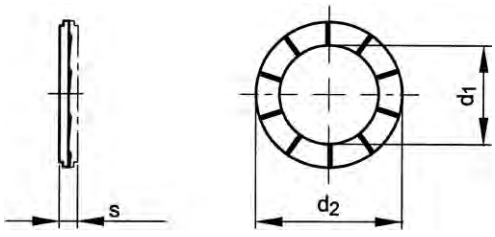
Material Aço
Tratamento sup. Delta Protekt®

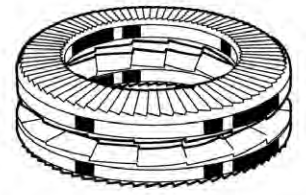




Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
1/4	200	37987.063.001	3/8	200	37987.096.001	1/2	200	37987.127.001

Anilha cónica á prova de vibração, diâmetro exterior largo, X-series





Dados técnicos

Para diâm.nom.	d_1	d_2	s (Set)
M6	6.3	13.5	1.74
M8	8.4	16.6	2.3
M10	10.5	21.0	3.5
M12	12.5	25.4	4.2
M16	16.6	30.7	4.8
M20	20.7	39.0	5.63

37983 **NORD-LOCK Anilha cónica á prova de vibração, diâmetro exterior largo, X-series** **NL1A**

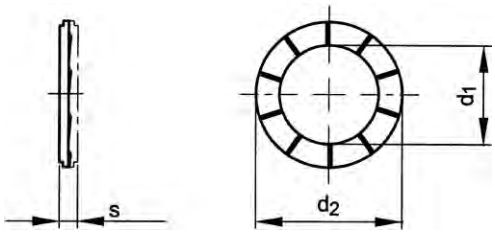
Material Aço
Tratamento sup. Delta Protekt®

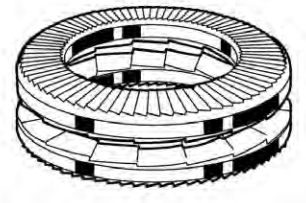




Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo
M6X13,5	200	37983.060.013	M10X21	200	37983.100.021	M16X30,7	100	37983.160.030
M8X16,6	200	37983.080.016	M12X25,4	100	37983.120.025	M20X39	100	37983.200.039

Anilha cónica á prova de vibração, diâmetro exterior largo, polegadas, X-series





Dados técnicos

Para diâm.nom.	d_1	d_2	s (Set)
3/8	10.0	21.0	0.138
1/2	13.2	25.4	0.165

37988 **NORD-LOCK Anilha cónica á prova de vibração, diâmetro exterior largo, polegadas, X-series** **NL1A**

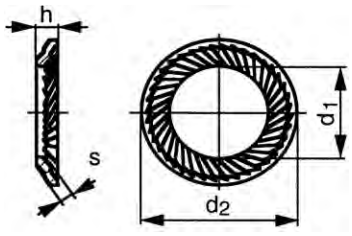
Material Aço
Tratamento sup. Delta Protekt®





Para diâm. nom. x d_2	✉	Ref. do artigo	Para diâm. nom. x d_2	✉	Ref. do artigo
3/8X21	200	37988.096.021	1/2X25,4	100	37988.127.025

Anilha de segurança Tipo S

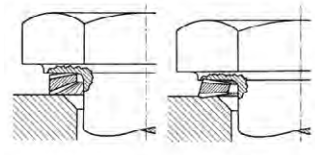




Dados técnicos

Para diâm.nom.	d_1 (H14)	d_2 (h14)	h (max.)	s
M2.5	2.7	4.8	0.9	0.45
M3	3.2	5.5	0.9	0.4 (0.45)
M4	4.3	7	1	0.5
M5	5.3	8.5 (9)	1.1	0.6
M6	6.4	10	1.2	0.7
M8	8.4	13	1.4	0.8
M10	10.5	16	1.6	1
M12	13	18	1.7	1 (1.1)
M14	15	21 (22)	2	1.2
M16	17	24	2.1	1.2 (1.3)
M18	19	27	2.3	1.5
M20	21	30	2.5	1.5
M22	23	33	2.7	1.5
M24	25.6	36	2.9	1.8
M27	28.6	39	3.1	2
M30	31.6	45	3.6	2

Caracteristicas de anilhas de segurança tipo S:
- O contacto é feito primeiro com o diâmetro exterior, resultando numa máxima força de alavanca
- Alta segurança contra vibração devido ao contacto com as esterias
- Pode ser usada com parafusos de classe ≤ **8.8**



7

Grupos de produtos

Material	Tratamento sup.		Código	Página
Aço mola			36395	7-104
Aço mola			36390	7-105
Aço mola		Embalagem grande	36396	7-105
Aço mola	ZNTHP-NC6		36397	7-105
Aço mola	ZNTHP-NC6		36411	7-105
INOX A2			51468	7-105

36395 **Anilha de segurança Tipo S** **L07A**

Material Aço mola

RoHS



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	500	36395.030.001	M6	500	36395.060.001	M12	250	36395.120.001
M4	500	36395.040.001	M8	250	36395.080.001	M14	100	36395.140.001
M5	500	36395.050.001	M10	250	36395.100.001	M16	100	36395.160.001

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

36390 Anilha bloqueante tipo S — L07A

Material Aço mola



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M18	100	36390.180.001	M22	50	36390.220.001	M27	50	36390.270.001
M20	100	36390.200.001	M24	50	36390.240.001	M30	50	36390.300.001

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

36396 Anilha de segurança Tipo S — L07A

Material Aço mola



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	2000	36396.030.001	M6	1000	36396.060.001	M12	500	36396.120.001
M4	1000	36396.040.001	M8	1000	36396.080.001	M14	500	36396.140.001
M5	1000	36396.050.001	M10	1000	36396.100.001	M16	500	36396.160.001

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

36397 Anilha de segurança Tipo S — L07A

Material Aço mola
Tratamento sup. Passivação espessa Cr^{3+}



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	500	36397.030.001	M6	500	36397.060.001	M12	250	36397.120.001
M4	500	36397.040.001	M8	250	36397.080.001	M14	100	36397.140.001
M5	500	36397.050.001	M10	250	36397.100.001	M16	100	36397.160.001

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

36411 Anilha bloqueante tipo S — L07A

Material Aço mola
Tratamento sup. Passivação espessa Cr^{3+}



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M18	100	36411.180.001	M22	50	36411.220.001	M27	50	36411.270.001
M20	100	36411.200.001	M24	50	36411.240.001	M30	50	36411.300.001

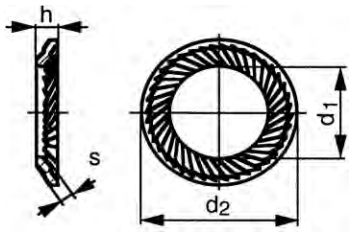
51468 Anilha bloqueante tipo S — R09A

Material Aço inoxidável A2



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M2,5	500	51468.025.001	M8	250	51468.080.001	M16	100	51468.160.001
M3	500	51468.030.001	M10	250	51468.100.001	M20	50	51468.200.001
M4	500	51468.040.001	M12	250	51468.120.001	M24	50	51468.240.001
M5	500	51468.050.001	M14	100	51468.140.001	M30	50	51468.300.001
M6	500	51468.060.001						

Anilha de segurança tipo VS

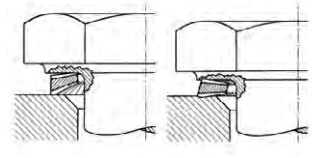




Dados técnicos

Para diâm.nom.	d_1 (H14)	d_2 (h14)	h (max.)	s
M5	5.3	9	1.3	1
M6	6.4	10	1.4	1
M8	8.4	13	1.7	1.2
M10	10.5	16	2	1.5
M12	13	18	2.1	1.5
M14	15	22	2.2	1.5
M16	17	24	2.6	2
M20	21	30	2.8	2
M24	25.6	36	3.4	2.5
M30	31.6	45	3.8	2.5

Caracteristicas de anilhas de segurança tipo VS:
- Execução reforçada (aumenta a espessura do metal) resultando em caracteristicas elásticas considerávelmente melhoradas
- O contacto é feito primeiro com o diâmetro exterior, resultando numa máxima força de alavanca
- Alta segurança contra vibração devido ao contacto com as estrías
- Pode ser usada com parafusos de classe ≤ **10.9** e em superficies endurecidas



Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço mola		36420	7-106
Aço mola	ZNTHP-NC6	36425	7-106

7

36420 Anilha bloqueante tipo VS — L07A

Material Aço mola



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M5	500	36420.050.001	M12	250	36420.120.001	M20	100	36420.200.001
M6	500	36420.060.001	M14	100	36420.140.001	M24	50	36420.240.001
M8	250	36420.080.001	M16	100	36420.160.001	M30	50	36420.300.001
M10	250	36420.100.001						

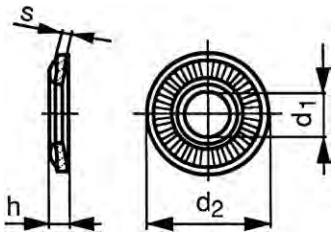
36425 Anilha bloqueante tipo VS — L07A

Material Aço mola
Tratamento sup. Passivação espessa Cr^{3+}

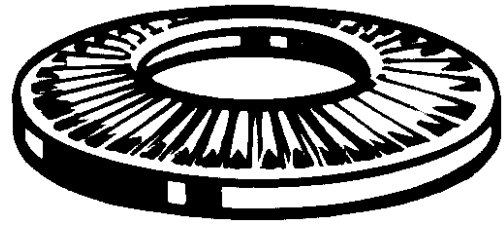


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M5	500	36425.050.001	M12	250	36425.120.001	M20	100	36425.200.001
M6	500	36425.060.001	M14	100	36425.140.001	M24	50	36425.240.001
M8	250	36425.080.001	M16	100	36425.160.001	M30	50	36425.300.001
M10	250	36425.100.001						

Anilha de contacto



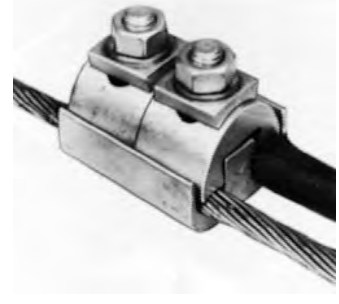
NF E25-511



Dados técnicos

Para diâm.nom.	d_1 (H14)	d_2 (js 15)	h (max.)	s
M3	3.1	8	1	0.6
M4	4.1	10	1.4	0.9
M5	5.1	12	1.8	1.1
M6	6.1	14	2.1	1.3
M7 (≠NF)	7.2	18	2.4	1.4
M8	8.2	18	2.35	1.4
M10	10.2	22	2.75	1.6
M12	12.4	27	3.1	1.8
M16	16.4	32	4.1	2.8
M20	20.5	40	4.9	3.2

Caracteristicas anilhas contacto *FABORY* tipo médio:
- Indicado para simultâneamente anilha de bloqueante e anilha plana para furos largos ou alongados
- Não danifica a superficie, bloqueamento excepcional e alta elasticidade para compensar montagem e funcionamento
- Excelente contacto em aplicações eléctricas evitando o sobreaquecimento
- Aplicável com parafusos de classe ≤ 10.9



37282 Anilhas de contacto médias **L07D**

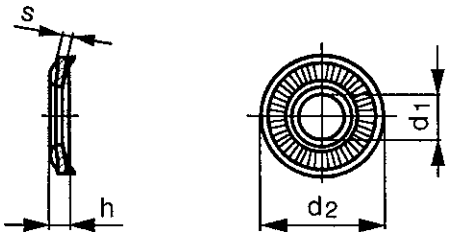
Material Aço mola
Tratamento sup. Passivação espessa Cr^{3+}

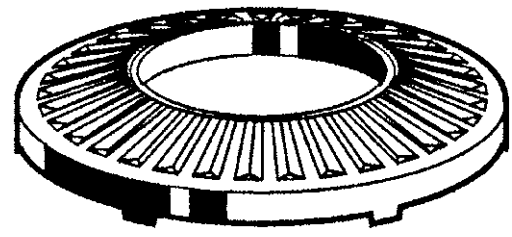
RoHS



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	200	37282.030.001	M6	100	37282.060.001	M12	100	37282.120.001
M4	200	37282.040.001	M8	100	37282.080.001	M16	100	37282.160.001
M5	100	37282.050.001	M10	100	37282.100.001	M20	100	37282.200.001

Anilha de contacto





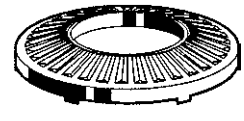
Dados técnicos

Para diâm.nom.	d_1 (H14)	d_2 (js 15)	h (max.)	s
M4	4.1	8	1.15	0.8
M5	5.1	10	1.5	1
M6	6.1	12	1.8	1.2
M8	8.2	16	2.4	1.4
M10	10.2	20	2.6	1.6
M12	12.4	24	2.6	1.6

- Caracteristicas especiais das anilhas de contacto tipo P:
- Adequada para uso simultâneo como anilha de contacto e como anilha plana com furo de tamanho superior.
- Não danifica a superficie, capacidade de fixação superior e altamente elástica.
- Excelente contacto em aplicações eléctricas evitando sobreaquecimento.
- Fornecidas com seis pontas (altura 0,3 mm), penetram a protecção e fornecem excelente ligação à terra.
- Aplicável com parafusos de classe de aço ≤ 10.9.

37265 **Anilhas de contacto P** **L07D**

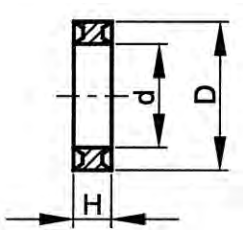
Material Aço mola
Tratamento sup. Passivação espessa Cr^{3+}

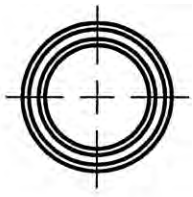


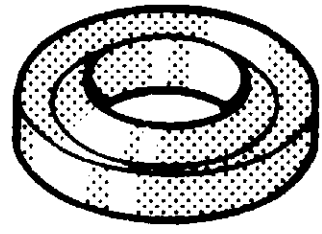
Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M4	200	37265.040.001	M6	100	37265.060.001	M10	100	37265.100.001
M5	100	37265.050.001	M8	100	37265.080.001	M12	100	37265.120.001

7

Anel de retenção para parafusos e porcas sextavadas







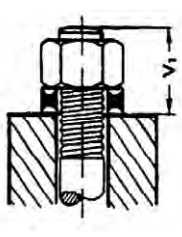
Dados técnicos

Para diâm.nom.	d	D	H	Tipo	V1 (min.)
M3	3.2	8	2.2	98/198	5
M4	4.15	9.5	2.6	99/199	6
M5	5.15	10.6	3	100/200	7
M6	6.2	12.7	3.5	101/201	8.5
M7	7.1	14.5	3.8	202	9
M8	8.1	16.2	4	102/203	10.5
M10	10.2	19.6	4.5	205	12.5
M12	12.2	23.6	5	207	14.5
M14	14.2	25.4	5.5	208	16.5
M16	16.2	29.4	6	211	19
M18	18.2	35.1	6.5	213	21.5
M20	20.3	35.7	7	215	23
M22	22.5	41.6	7.5	111/217	24.5
M24	24.3	41.6	8	219	26
M27	27.3	47.3	8.5	114/222	28.5
M30	30.2	53.1	8.5	115/225	30.5
M33	33.2	57.7	9	117/228	34
M36	36.2	63.5	10	119/231	38
M39	39.2	69.3	11	121/234	41
M45	45.2	80.8	16	125/240	51

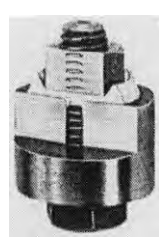
Caracteristicas especiais anel retenção DUBO:
- Bloqueia, porque o anel de retenção deforma-se em volta do sextavado.
- Sela, porque é pressionado entre a rosca do parafuso e o elemento roscado.
- Reduz o ruído, porque o comportamento do plástico-elástico absorve as vibrações.
- Isola contra corrosão electrólica de conactoentre diferentes metais.
- Resistente à temperatura de -60°C a +120°C com carga estática e de -60°C a +80°C com cargas dinâmicas
- Porcas e parafusos sextavados de classe 8 e 8.8 e superior, DUBO anéis de retenção têm de ser utilizados juntamente com um anel de colar dentado DUBO

Dados montagem / Exemplo de aplicação

Sem anel de colar dentado







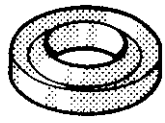
Antes do aperto após o aperto

Grupos de produtos

Material	Classe		Cor	Código	Página
Plástico PA	6.6		Branco	37900	7-110
Plástico PA	6.6	Embalagem grande	Branco	37910	7-110

37900	DUBO Anilha de retenção plástica para parafuso e porca	W05C

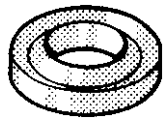
Material Plástico Poliamida (nylon)
Classe 6.6
Cor Branco



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	100	37900.030.001	M12	50	37900.120.001	M27	10	37900.270.001
M4	100	37900.040.001	M14	50	37900.140.001	M30	5	37900.300.001
M5	100	37900.050.001	M16	50	37900.160.001	M33	5	37900.330.001
M6	100	37900.060.001	M18	25	37900.180.001	M36	5	37900.360.001
M7	100	37900.070.001	M20	25	37900.200.001	M39	5	37900.390.001
M8	100	37900.080.001	M22	10	37900.220.001	M45	5	37900.450.001
M10	100	37900.100.001	M24	10	37900.240.001			

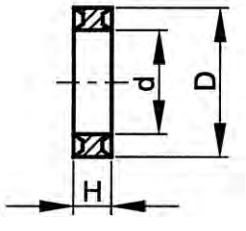
37910	DUBO Anilha de retenção plástica para parafuso e porca	W05C

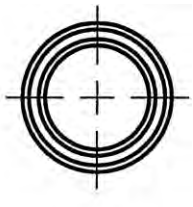
Material Plástico Poliamida (nylon)
Classe 6.6
Cor Branco

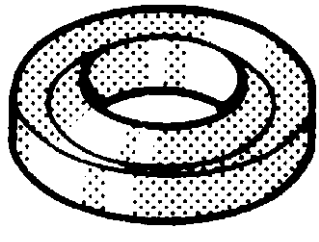


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M4	1000	37910.040.001	M8	1000	37910.080.001	M12	500	37910.120.001
M5	1000	37910.050.001	M10	1000	37910.100.001	M16	250	37910.160.001
M6	1000	37910.060.001						

Anel de retenção para parafusos sextavado interior







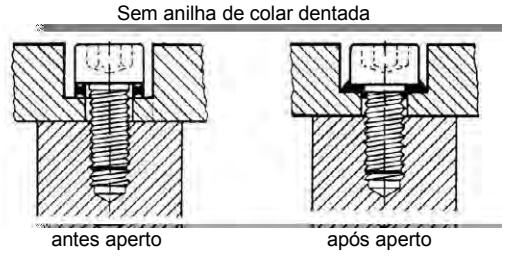
7

Dados técnicos

Para diâm.nom.	d	D	H
M4	4.1	7.7	2
M5	5.15	9.8	3
M6	6.5	10.5	2.5
M8	8.1	14	3.3
M10	10.2	17	3.8
M12	12.2	19	4.4
M14	14.2	23	5.2
M16	16.2	25	5.6
M20	20.2	31.5	6.5

Caracteristicas de anilhas de retenção DUBO:
- Bloqueia, porque o anel de retenção deforma-se à volta da cabeça do parafuso
- Sela, porque o anel é pressionado para a rosca e furo do parafuso
- Reduz o ruído, porque o comportamento do plástico absorve vibrações
- Isolamento contra corrosão alectrolitica por contacto de diferentes metais
- Resistente à temperatura de -60°C a +120°C com carga estática e de -60°C a +80°C com carga dinâmica
- Parafuso sextavados interiores de classe 8.8 e superior, DUBO anilhas de retenção devem ser usadas juntamente com uma anilha de aço DUBO anilha de colar dentada

Exemplo de aplicação

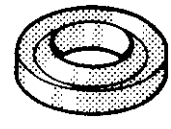




37901 **DUBO Freio de segurança em plástico para parafusos sext. Interior** **W05C**

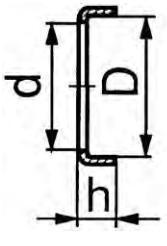
Material Plástico Poliamida (nylon)
Classe 6

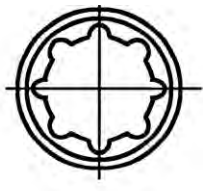


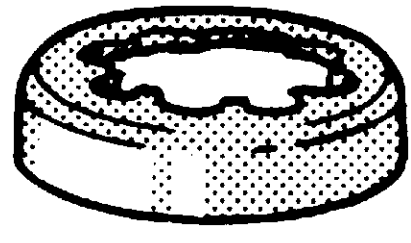


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M4	100	37901.040.001	M8	100	37901.080.001	M14	50	37901.140.001
M5	100	37901.050.001	M10	100	37901.100.001	M16	50	37901.160.001
M6	100	37901.060.001	M12	50	37901.120.001	M20	25	37901.200.001

Anel dentado







7

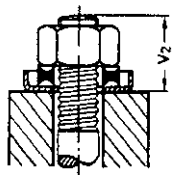
Dados técnicos

Para diâm.nom.	d	D	h	V2
M4-M5	6.8	11.2	3.15	3.15
M6	9	13.2	4.15	9.25
M8	12	17.2	4.8	11.5
M10	13.5	21.3	5.7	13.5
M12	15.5	24.5	6	16
M16	21	31.25	6.75	20.75
M18-M20	26	37.5	7.25	23.25-24.75
3/4	27	39.5	7.25	24.75
M22-M24	30.5	44	8	26.5-28
M27	35	50.5	9	30.5
M30	40	56	10	-
M33	45	61	10.5	-
M36	50	67	11.05	-

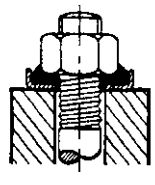
Dados montagem

Parafusos sextavados, - porcas e parafusos cabeça sextavado interior de classe 8 e 8.8 e superior, DUBO anilhas de retenção deven ser usadas com anilhas de aço DUBO colar dentada.

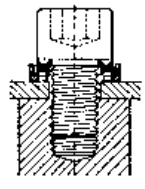
Número artigo	Aplicação com			
	Parafuso e porca sextavada		Parfuso sextavado interior	
	Métrico	Não métrico	Metrico	Não métrico
37920.040.001	M4 - M5	5/32 - 3/16	M6	1/4
37920.060.001	M6	1/4	-	-
37920.080.001	M8	5/16	M10	3/8
37920.100.001	M10	3/8	M12	1/2
37920.120.001	M12	7/16	M14	-
37920.160.001	M16	-	M18	-
37920.180.001	M18 - M20	-	M22	7/8
37920.191.001	-	3/4	M24	-
37920.220.001	M22 - M24	7/8	-	-
37920.270.001	M27	1.IN. – 1.1/16	-	-
37920.300.001	M30	1.1/8	-	-
37920.330.001	M33	1.1/4	-	-
37920.360.001	M36	1.1/2	-	-



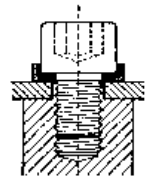
antes aperto



após aperto



antes aperto



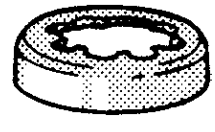
após aperto

7

37920 DUBO Anilha dentada **W05C**

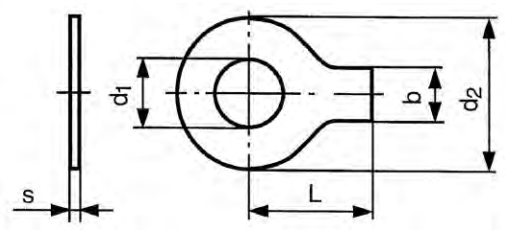
Material Aço
Tratamento sup. Zincado



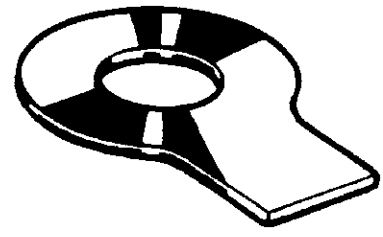


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M4/5	100	37920.040.001	M12	50	37920.120.001	M27	10	37920.270.001
M6	100	37920.060.001	M16	50	37920.160.001	M30	5	37920.300.001
M8	100	37920.080.001	M18/20	25	37920.180.001	M33	5	37920.330.001
M10	100	37920.100.001	M22/24	25	37920.220.001	M36	5	37920.360.001

Anilha com aba longa



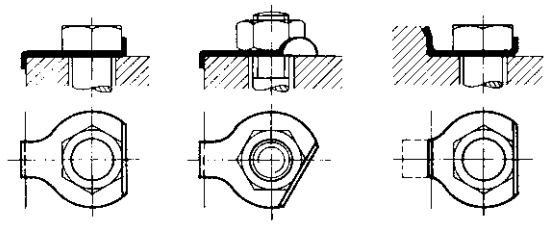
DIN **93**
NEN 2277



Dados técnicos

Para diâm.nom.	b	d_1	d_2	L	s
M4	5	4.3	14	14	0.38
M5	6	5.3	17	16	0.5
M6	7	6.4	19	18	0.5
M8	8	8.4	22	20	0.75
M10	10	10.5	26	22	0.75
M12	12	13	30	28	1
M14	12	15	33	28	1
M16	15	17	36	32	1
M18	18	19	40	36	1
M20	18	21	42	36	1
M22	20	23	50	42	1
M24	20	25	50	42	1
M27	23	28	58	48	1.6
M30	26	31	63	52	1.6
M33	28	34	68	56	1.6
M36	30	37	75	60	1.6
M39	32	40	82	64	1.6
M42	35	43	88	70	1.6
M45	38	46	95	75	1.6
M48	40	50	100	80	1.6
M52	44	54	108	85	1.6

Exemplo de aplicação



7

Grupos de produtos

Material	Código	Página
Aço	38650	7-113
INOX A2	51540	7-114
INOX A4	55540	7-114

38650 **Anilha com aba longa** **L07J**

Material Aço



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6	100	38650.060.001	M20	50	38650.200.001	M36	10	38650.360.001
M8	100	38650.080.001	M22	50	38650.220.001	M39	10	38650.390.001
M10	100	38650.100.001	M24	25	38650.240.001	M42	10	38650.420.001
M12	100	38650.120.001	M27	25	38650.270.001	M45	10	38650.450.001
M14	100	38650.140.001	M30	10	38650.300.001	M48	10	38650.480.001
M16	100	38650.160.001	M33	10	38650.330.001	M52	10	38650.520.001
M18	50	38650.180.001						

51540	Anilha com aba longa	R09A
Material	Aço inoxidável A2	



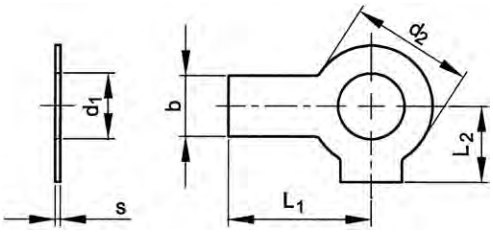
Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M4*	500	51540.040.001	M14	100	51540.140.001	M27	25	51540.270.001
M5*	500	51540.050.001	M16	100	51540.160.001	M30	10	51540.300.001
M6	100	51540.060.001	M18*	200	51540.180.001	M36*	50	51540.360.001
M8	100	51540.080.001	M20	50	51540.200.001	M39*	25	51540.390.001
M10	100	51540.100.001	M22*	100	51540.220.001			
M12	100	51540.120.001	M24	25	51540.240.001			

55540	Anilha com aba longa	R49A
Material	Aço inoxidável A4	

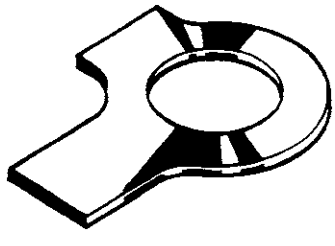


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M4*	500	55540.040.001	M14	100	55540.140.001	M27	25	55540.270.001
M5*	500	55540.050.001	M16	100	55540.160.001	M30	10	55540.300.001
M6	100	55540.060.001	M18*	200	55540.180.001	M33	10	55540.330.001
M8	100	55540.080.001	M20	50	55540.200.001	M36*	50	55540.360.001
M10	100	55540.100.001	M22	25	55540.220.001	M39*	25	55540.390.001
M12	100	55540.120.001	M24	25	55540.240.001			

Anilha com aba longa e patilha



DIN **463**
NEN 2278

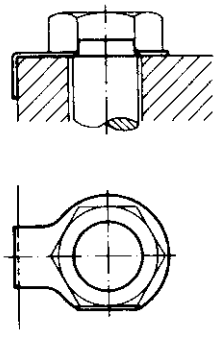


7

Dados técnicos

Para diâm.nom.	b	d_1	d_2	L_1	L_2	s
M4	5	4.3	9	14	6.5	0.38
M5	6	5.3	10	16	8	0.5
M6	7	6.4	12.5	18	9	0.5
M8	8	8.4	17	20	11	0.75
M10	10	10.5	21	22	13	0.75
M12	12	13	24	28	15	1
M14	12	15	28	28	16	1
M16	15	17	30	32	18	1
M18	18	19	34	36	20	1
M20	18	21	37	36	21	1
M22	20	23	39	42	23	1
M24	20	25	44	42	25	1
M27	23	28	50	48	29	1.6
M30	26	31	56	52	32	1.6
M33	28	34	60	56	34	1.6
M36	30	37	66	60	38	1.6
M39	32	40	72	64	41	1.6
M42	35	43	78	70	44	1.6

Exemplo de aplicação

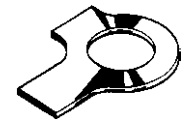


Grupos de produtos

Material	Código	Página
Aço	38690	7-115
INOX A2	51910	7-115
INOX A4	55910	7-115

38690 Anilha com aba longa e patilha — L07J

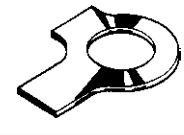
Material Aço



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6	100	38690.060.001	M18	50	38690.180.001	M33	10	38690.330.001
M8	100	38690.080.001	M20	50	38690.200.001	M36	10	38690.360.001
M10	100	38690.100.001	M22	25	38690.220.001	M39	10	38690.390.001
M12	100	38690.120.001	M24	25	38690.240.001	M42	10	38690.420.001
M14	100	38690.140.001	M27	25	38690.270.001			
M16	100	38690.160.001	M30	10	38690.300.001			

51910 Anilha com aba longa e patilha — R09A

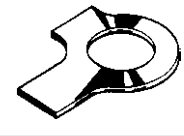
Material Aço inoxidável A2



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M5*	100	51910.050.001	M16	50	51910.160.001	M30	10	51910.300.001
M6	100	51910.060.001	M18*	50	51910.180.001	M33	10	51910.330.001
M8	50	51910.080.001	M20	50	51910.200.001	M36*	10	51910.360.001
M10	50	51910.100.001	M22*	25	51910.220.001	M39*	10	51910.390.001
M12	50	51910.120.001	M24	25	51910.240.001			
M14	50	51910.140.001	M27	25	51910.270.001			

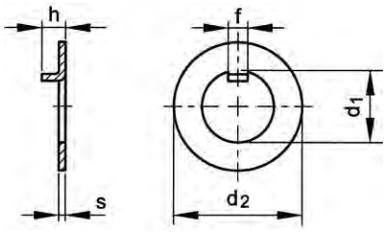
55910 Anilha com aba longa e patilha — R49A

Material Aço inoxidável A4

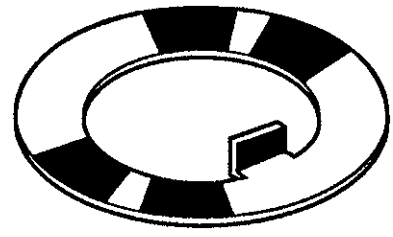


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M4*	100	55910.040.001	M14	50	55910.140.001	M27	25	55910.270.001
M5*	100	55910.050.001	M16	50	55910.160.001	M30	10	55910.300.001
M6	100	55910.060.001	M18*	50	55910.180.001	M33	10	55910.330.001
M8	50	55910.080.001	M20	50	55910.200.001	M36*	10	55910.360.001
M10	50	55910.100.001	M22*	25	55910.220.001	M39*	10	55910.390.001
M12	50	55910.120.001	M24	25	55910.240.001			

Anilha com patilha interior



DIN **462**



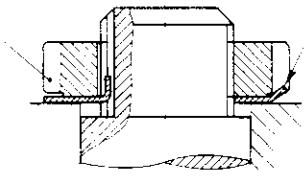
Dados técnicos

d_1 (H11)	d_2 (h11)	f (C11)	h	n (H11)	s	t (max.)
10	25	4	3	4	0.8	7.3
12	28	5	3	5	0.8	9.2
14	30	5	3	5	0.8	11.3
16	32	5	3	5	1	13.4
18	34	6	4	6	1	15.3
20	36	6	4	6	1	17.4
22	40	6	4	6	1	19.4
24	42	6	4	6	1	21.5
26	45	7	5	7	1	23.4
28	50	7	5	7	1	25.4
30	50	7	5	7	1.2	27.4
32	52	7	5	7	1.2	29.5
35	55	7	5	7	1.2	32.5
38	58	8	5	8	1.2	35.2
40	62	8	5	8	1.2	37.2
42	62	8	5	8	1.2	39.2
45	68	8	5	8	1.2	42.2
48	75	8	5	8	1.2	45.2
50	75	8	5	8	1.2	47.2
55	80	10	6	10	1.2	52.1
58	90	10	6	10	1.5	55.1
60	90	10	6	10	1.5	57.1
62	95	10	6	10	1.5	59.1
65	95	10	6	10	1.5	62.2
68	100	10	6	10	1.5	65.2
70	100	10	6	10	1.5	67.2
72	110	10	7	10	1.5	68.7
75	110	10	7	10	1.5	71.7
80	115	10	7	10	1.5	76.7
85	120	10	7	10	1.5	81.7
90	130	10	7	10	1.5	86.7
95	135	12	8	12	1.5	91.6
100	145	12	8	12	1.5	96.7

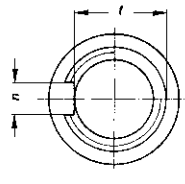
7

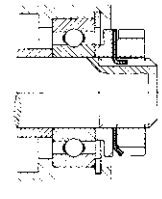
Exemplo de aplicação /Dados montagem

Porca faces dentadas para ferramenta de acc. com DIN 1804W



Anilha interna de acc. com DIN 462

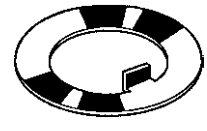




38684 **Anilha com patilha interior** **L07J**

Material Aço
Tratamento sup. Zincado

RoHS

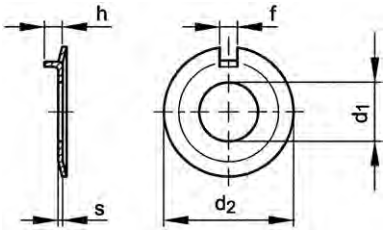


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
10MM	100	38684.100.001	18MM	50	38684.180.001	26MM	25	38684.260.001
12MM	100	38684.120.001	20MM	50	38684.200.001	28MM	25	38684.280.001
14MM	50	38684.140.001	22MM	50	38684.220.001	30MM	25	38684.300.001
16MM	50	38684.160.001	24MM	25	38684.240.001	32MM	25	38684.320.001

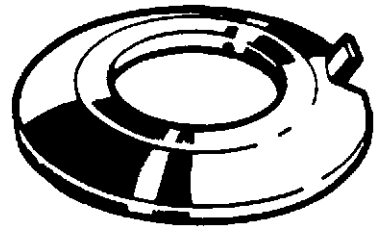
Encontre os seus produtos (ferramentas, quimicos, segurança) em www.fabory.com

38684	Anilha com patilha interior							←
d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
35MM	25	38684.350.001	55MM	25	38684.550.001	72MM	5	38684.720.001
38MM	25	38684.380.001	58MM	25	38684.580.001	75MM	5	38684.750.001
40MM	25	38684.400.001	60MM	5	38684.600.001	80MM	5	38684.800.001
42MM	25	38684.420.001	62MM	5	38684.620.001	85MM	5	38684.850.001
45MM	25	38684.450.001	65MM	5	38684.650.001	90MM	5	38684.900.001
48MM	25	38684.480.001	68MM	5	38684.680.001	95MM	5	38684.950.001
50MM	25	38684.500.001	70MM	5	38684.700.001	100MM	5	38684.982.001

Anilha com patilha exterior



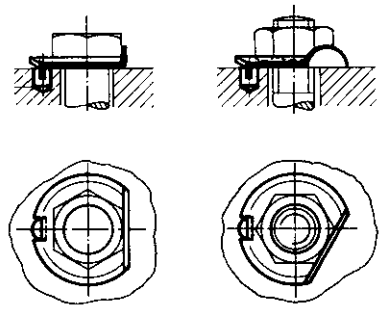
DIN **432**
NEN 2279



Dados técnicos

Diâm.nom. eixo d_1	d_1	d_2	f	h ≈	s
M4	4.3	14	2.5	2	0.4
M5	5.3	17	3.5	2.5	0.75
M6	6.4	19	3.5	3	0.75
M8	8.4	22	3.5	4	1
M10	10.5	26	4.5	4	1
M12	13	30	4.5	4.5	1.2
M14	15	33	4.5	4.5	1.2
M16	17	36	5.5	4.5	1.2
M18	19	40	6.5	4.5	1.2
M20	21	42	6.5	4.5	1.6
M22	23	50	7.5	6.5	1.6
M24	25	50	7.5	6.5	1.6
M27	28	58	8.5	9.5	1.6
M30	31	63	8.5	9.5	1.6
M33	34	68	9.5	9.5	1.6
M36	37	75	11	9.5	2
M39	40	82	11	11	2
M42	43	88	11	11	2
M45	46	95	13	12	2
M48	50	100	13	13	2
M52	54	105	13	13	2
M56	58	112	16	14	2.5
M60	62	118	16	13.5	2.5
M64	66	125	18	13.5	2.5

Exemplo de aplicação



Grupos de produtos

Material	Código	Página
Aço	38670	7-118
INOX A2	51914	7-118
INOX A4	55914	7-118

38670 Anilha com patilha exterior — L07J

Material Aço



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6	100	38670.060.001	M22	50	38670.220.001	M42	10	38670.420.001
M8	100	38670.080.001	M24	25	38670.240.001	M45	10	38670.450.001
M10	100	38670.100.001	M27	25	38670.270.001	M48	10	38670.480.001
M12	100	38670.120.001	M30	10	38670.300.001	M52	10	38670.520.001
M14	100	38670.140.001	M33	10	38670.330.001	M56	5	38670.560.001
M16	100	38670.160.001	M36	10	38670.360.001	M60	5	38670.600.001
M18	50	38670.180.001	M39	10	38670.390.001	M64	5	38670.640.001
M20	50	38670.200.001						

51914 Anilha com patilha exterior — R09A

Material Aço inoxidável A2



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M4*	100	51914.040.001	M14*	50	51914.140.001	M24*	25	51914.240.001
M5*	100	51914.050.001	M16*	50	51914.160.001	M27*	25	51914.270.001
M6*	100	51914.060.001	M18*	50	51914.180.001	M30*	25	51914.300.001
M8*	100	51914.080.001	M20*	50	51914.200.001	M33*	10	51914.330.001
M10*	100	51914.100.001	M22*	25	51914.220.001	M36*	10	51914.360.001

55914 Anilha com patilha exterior — R49A

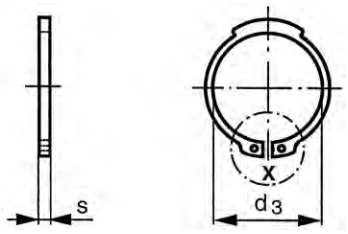
Material Aço inoxidável A4



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M5*	100	55914.050.001	M14*	50	55914.140.001	M22*	25	55914.220.001
M6*	100	55914.060.001	M16*	50	55914.160.001	M24*	25	55914.240.001
M8*	100	55914.080.001	M18*	50	55914.180.001	M27*	25	55914.270.001
M10*	100	55914.100.001	M20*	50	55914.200.001	M30*	25	55914.300.001
M12*	50	55914.120.001						

7

Freio exterior - tipo normal



DIN **471**
NF E22-163
BS 3673-4



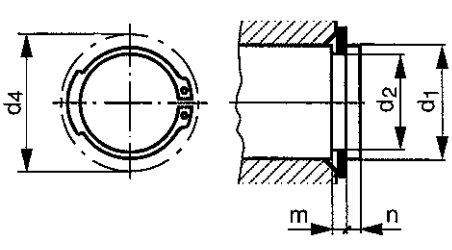
Dados técnicos

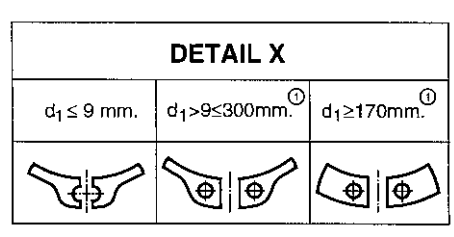
Diâm.nom. eixo d_1	Anel d_3	Anel d_4	Anel s	Fenda d_2	Fenda m (H13)	Fenda n (mín.)
3	2.7	7	0.4	2.8	0.5	0.3
4	3.7	8.6	0.4	3.8	0.5	0.3
5	4.7	10.3	0.6	4.8	0.7	0.3
6	5.6	11.7	0.7	5.7	0.8	0.5
7	6.5	13.5	0.8	6.7	0.9	0.5
8	7.4	14.7	0.8	7.6	0.9	0.6
9	8.4	16	1	8.6	1.1	0.6
10	9.3	17	1	9.6	1.1	0.6
11	10.2	18	1	10.5	1.1	0.8
12	11	19	1	11.5	1.1	0.8
13	11.9	20.2	1	12.4	1.1	0.9
14	12.9	21.4	1	13.4	1.1	0.9
15	13.8	22.6	1	14.3	1.1	1.1
16	14.7	23.8	1	15.2	1.1	1.2
17	15.7	25	1	16.2	1.1	1.2
18	16.5	26.2	1.2	17	1.3	1.5
19	17.5	27.2	1.2	18	1.3	1.5
20	18.5	28.4	1.2	19	1.3	1.5
21	19.5	29.6	1.2	20	1.3	1.5
22	20.5	30.8	1.2	21	1.3	1.5
23 (≠DIN)	21.5	31	1.2	22	1.3	1.5
24	22.2	33.2	1.2	22.9	1.3	1.7
25	23.2	34.2	1.2	23.9	1.3	1.7
26	24.2	35.5	1.2	24.6	1.3	1.7
27 (≠DIN)	24.9	35.4	1.2	25.9	1.3	2.1
28	25.9	37.9	1.5	26.6	1.6	2.1
29	26.9	39.1	1.5	27.6	1.6	2.1
30	27.9	40.5	1.5	28.6	1.6	2.1
31 (≠DIN)	28.6	40.3	1.5	29.3	1.6	2.6
32	29.6	43	1.5	30.3	1.6	2.6
33 (≠DIN)	30.5	43.4	1.5	31.3	1.6	2.6
34	31.5	45.4	1.5	32.3	1.6	2.6
35	32.2	46.8	1.5	33	1.6	3
36	33.2	47.8	1.75	34	1.85	3
37 (≠DIN)	34.2	48	1.75	35	1.85	3
38	35.2	50.2	1.75	36	1.85	3
39 (≠DIN)	36	50.2	1.75	37	1.85	3
40	36.5	52.6	1.75	37.5	1.85	3.8
42	38.5	55.7	1.75	39.5	1.85	3.8
44 (≠DIN)	40.5	56	1.75	41.5	1.85	3.8
45	41.5	59.1	1.75	42.5	1.85	3.8
46	42.5	60.2	1.75	43.5	1.85	3.8
47 (≠DIN)	43.5	61.3	1.75	44.5	1.85	3.8
48	44.5	62.5	1.75	45.5	1.85	3.8
50	45.8	64.5	2	47	2.15	4.5
52	47.8	66.7	2	49	2.15	4.5
54 (≠DIN)	49.8	67	2	51	2.15	4.5
55	50.8	70.2	2	52	2.15	4.5
56	51.8	71.6	2	53	2.15	4.5
57 (≠DIN)	52.8	70	2	54	2.15	4.5
58	53.8	73.6	2	55	2.15	4.5
60	55.8	75.6	2	57	2.15	4.5
62	57.8	77.8	2	59	2.15	4.5
63	58.8	79	2	60	2.15	4.5
65	60.8	81.4	2.5	62	2.65	4.5
67 (≠DIN)	62.5	82	2.5	64	2.65	4.5
68	63.5	84.8	2.5	65	2.65	4.5

Dados técnicos

Diâm.nom. eixo d_1	Anel d_3	Anel d_4	Anel s	Fenda d_2	Fenda m (H13)	Fenda n (mín.)
70	65.5	87	2.5	67	2.65	4.5
72	67.5	89.2	2.5	69	2.65	4.5
75	70.5	92.7	2.5	72	2.65	4.5
77 (≠DIN)	72.5	94	2.5	74	2.65	4.5
78	73.5	96.1	2.5	75	2.65	4.5
80	74.5	98.1	2.5	76.5	2.65	5.3
82	76.5	100.3	2.5	78.5	2.65	5.3
85	79.5	103.3	3	81.5	3.15	5.3
87 (≠DIN)	81.5	104	3	83.5	3.15	5.3
88	82.5	106.5	3	84.5	3.15	5.3
90	84.5	108.5	3	86.5	3.15	5.3
92 (≠DIN)	86.5	111	3	88.5	3.15	5.3
95	89.5	114.8	3	91.5	3.15	5.3
97 (≠DIN)	91.5	116	3	93.5	3.15	5.3
98 (≠DIN)	92.5	117	3	94.5	3.15	5.3
100	94.5	120.2	3	96.5	3.15	5.3
105	98	125.8	4	101	4.15	6
110	103	131.2	4	106	4.15	6
115	108	137.3	4	111	4.15	6
120	113	143.1	4	116	4.15	6
125	118	149	4	121	4.15	6
130	123	154.4	4	126	4.15	6
135	128	159.8	4	131	4.15	6
140	133	165.2	4	136	4.15	6
145	138	170.6	4	141	4.15	6
150	142	177.3	4	145	4.15	7.5
155	146	182.3	4	150	4.15	7.5
160	151	188	4	155	4.15	7.5
165	155.5	193.4	4	160	4.15	7.5
170	160.5	198.4	4	165	4.15	7.5
175	165.5	203.4	4	170	4.15	7.5
180	170.5	210	4	175	4.15	7.5
185	175.5	215	4	180	4.15	7.5
190	180.5	220	4	185	4.15	7.5
195	185.5	225	4	190	4.15	7.5
200	190.5	230	4	195	4.15	7.5
210	198	240	5	204	5.15	9
220	208	250	5	214	5.15	9
230	218	260	5	224	5.15	9
240	228	270	5	234	5.15	9
250	238	280	5	244	5.15	9
260	245	294	5	252	5.15	12
270	255	304	5	262	5.15	12
280	265	314	5	272	5.15	12
290	275	324	5	282	5.15	12
300	285	334	5	292	5.15	12

- Dependendo da disponibilidade pode ser fornecido tipo fosfatado. O freio tipo pesado só está disponivel sob consulta.
- AVISO: electrogalvanização destes artigos pode causar disfunção hidrogénica.





① à descrição do fabricante

Grupos de produtos

Material	Código	Página
Aço mola	36000	7-121
INOX	51435	7-121

36000 Freio exterior - tipo normal — L07A

Material Aço mola



Diâm. nom. eixo d_1	✉	Ref. do artigo	Diâm. nom. eixo d_1	✉	Ref. do artigo	Diâm. nom. eixo d_1	✉	Ref. do artigo
3MM	500	36000.003.001	38MM	100	36000.038.001	97MM	5	36000.097.001
4MM	500	36000.004.001	39MM	100	36000.039.001	98MM	5	36000.098.001
5MM	500	36000.005.001	40MM	50	36000.040.001	100MM	5	36000.100.001
6MM	500	36000.006.001	42MM	50	36000.042.001	105MM	5	36000.105.001
7MM	500	36000.007.001	44MM	50	36000.044.001	110MM	5	36000.110.001
8MM	250	36000.008.001	45MM	50	36000.045.001	115MM	5	36000.115.001
9MM	250	36000.009.001	46MM	50	36000.046.001	120MM	5	36000.120.001
10MM	250	36000.010.001	47MM	50	36000.047.001	125MM	5	36000.125.001
11MM	250	36000.011.001	48MM	50	36000.048.001	130MM	5	36000.130.001
12MM	250	36000.012.001	50MM	50	36000.050.001	135MM	5	36000.135.001
13MM	100	36000.013.001	52MM	50	36000.052.001	140MM	5	36000.140.001
14MM	100	36000.014.001	54MM	25	36000.054.001	145MM	5	36000.145.001
15MM	100	36000.015.001	55MM	25	36000.055.001	150MM	3	36000.150.001
16MM	100	36000.016.001	56MM	25	36000.056.001	155MM	3	36000.155.001
17MM	100	36000.017.001	57MM	25	36000.057.001	160MM	3	36000.160.001
18MM	100	36000.018.001	58MM	25	36000.058.001	165MM	3	36000.165.001
19MM	100	36000.019.001	60MM	25	36000.060.001	170MM	3	36000.170.001
20MM	100	36000.020.001	62MM	25	36000.062.001	175MM	2	36000.175.001
21MM	100	36000.021.001	63MM	25	36000.063.001	180MM	2	36000.180.001
22MM	100	36000.022.001	65MM	10	36000.065.001	185MM	2	36000.185.001
23MM	100	36000.023.001	67MM	10	36000.067.001	190MM	2	36000.190.001
24MM	100	36000.024.001	68MM	10	36000.068.001	195MM	2	36000.195.001
25MM	100	36000.025.001	70MM	10	36000.070.001	200MM	2	36000.200.001
26MM	100	36000.026.001	72MM	10	36000.072.001	210MM	2	36000.210.001
27MM	100	36000.027.001	75MM	10	36000.075.001	220MM	2	36000.220.001
28MM	100	36000.028.001	77MM	10	36000.077.001	230MM	2	36000.230.001
29MM	100	36000.029.001	78MM	10	36000.078.001	240MM	2	36000.240.001
30MM	100	36000.030.001	80MM	10	36000.080.001	250MM	2	36000.250.001
31MM	100	36000.031.001	82MM	10	36000.082.001	260MM	2	36000.260.001
32MM	100	36000.032.001	85MM	5	36000.085.001	270MM	2	36000.270.001
33MM	100	36000.033.001	87MM	5	36000.087.001	280MM	2	36000.280.001
34MM	100	36000.034.001	88MM	5	36000.088.001	290MM	2	36000.290.001
35MM	100	36000.035.001	90MM	5	36000.090.001	300MM	2	36000.300.001
36MM	100	36000.036.001	92MM	5	36000.092.001			
37MM	100	36000.037.001	95MM	5	36000.095.001			

7

51435 Freio exterior - tipo normal — R09A

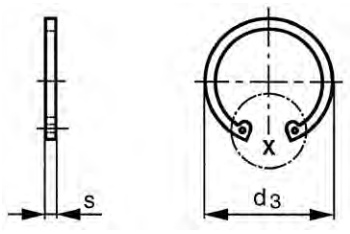
Material Aço inoxidável **DIN** ≈471



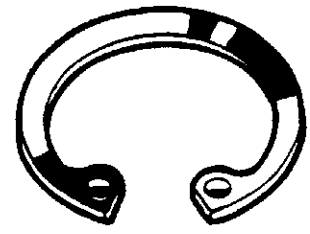
Diâm. nom. eixo d_1	✉	Ref. do artigo	Diâm. nom. eixo d_1	✉	Ref. do artigo	Diâm. nom. eixo d_1	✉	Ref. do artigo
3MM*	200	51435.003.001	21MM	50	51435.021.001	45MM	10	51435.045.001
4MM	200	51435.004.001	22MM	50	51435.022.001	47MM	10	51435.047.001
5MM	200	51435.005.001	23MM	50	51435.023.001	48MM	10	51435.048.001
6MM	200	51435.006.001	24MM	50	51435.024.001	50MM	5	51435.050.001
7MM	200	51435.007.001	25MM	25	51435.025.001	52MM	5	51435.052.001
8MM	100	51435.008.001	26MM	25	51435.026.001	55MM	5	51435.055.001
9MM	100	51435.009.001	27MM	25	51435.027.001	60MM	5	51435.060.001
10MM	100	51435.010.001	28MM	25	51435.028.001	65MM	5	51435.065.001
11MM	100	51435.011.001	29MM*	50	51435.029.001	70MM	5	51435.070.001
12MM	100	51435.012.001	30MM	25	51435.030.001	75MM	5	51435.075.001
13MM	50	51435.013.001	32MM	25	51435.032.001	80MM	5	51435.080.001
14MM	50	51435.014.001	34MM	25	51435.034.001	85MM	1	51435.085.001
15MM	50	51435.015.001	35MM	25	51435.035.001	90MM	1	51435.090.001
16MM	50	51435.016.001	36MM	25	51435.036.001	95MM	1	51435.095.001
17MM	50	51435.017.001	38MM	25	51435.038.001	100MM	1	51435.100.001
18MM	50	51435.018.001	39MM*	25	51435.039.001	105MM*	10	51435.105.001
19MM	50	51435.019.001	40MM	10	51435.040.001	110MM*	10	51435.110.001
20MM	50	51435.020.001	42MM	10	51435.042.001	120MM*	10	51435.120.001

- Os freios em aço inox são feitas em aço inox martensitico.
- Nas fixações deve ser utilizado um alicate para freios, com parafuso de limitação para abertura e fecho do freio.
- É, também, aconselhável a utilização de um aperto minimo se a aplicação o permitir.
- Deve ser evitado o contacto com liquidos que contêm cloretos (limpeza), para reduzir o risco de corrosão.

Freio interior - tipo normal



DIN **472**
NF E22-165
BS 3673-4

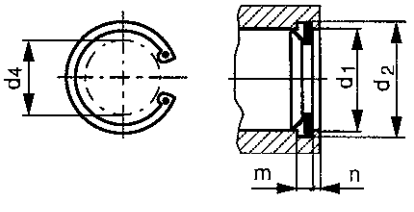


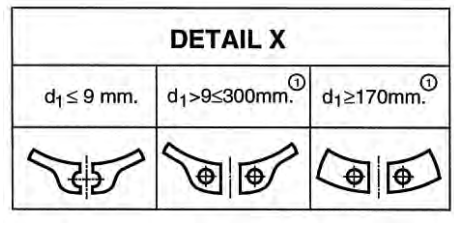
Dados técnicos

Diâm.nom. furo d_1	Anel d_3	Anel d_4	Anel s	Fenda d_2	Fenda m (H13)	Fenda n (mín.)
8	8.7	3	0.8	8.4	0.9	0.6
9	9.8	3.7	0.8	9.4	0.9	0.6
10	10.8	3.3	1	10.4	1.1	0.6
11	11.8	4.1	1	11.4	1.1	0.6
12	13	4.9	1	12.5	1.1	0.8
13	14.1	5.4	1	13.6	1.1	0.9
14	15.1	6.2	1	14.6	1.1	0.9
15	16.2	7.2	1	15.7	1.1	1.1
16	17.3	8	1	16.8	1.1	1.2
17	18.3	8.8	1	17.8	1.1	1.2
18	19.5	9.4	1	19	1.1	1.5
19	20.5	10.4	1	20	1.1	1.5
20	21.5	11.2	1	21	1.1	1.5
21	22.5	12.2	1	22	1.1	1.5
22	23.5	13.2	1	23	1.1	1.5
23 (≠DIN)	24.6	15.4	1.2	24.1	1.3	1.7
24	25.9	14.8	1.2	25.2	1.3	1.8
25	26.9	15.5	1.2	26.2	1.3	1.8
26	27.9	16.1	1.2	27.2	1.3	1.8
27 (≠DIN)	29.1	18.2	1.2	28.4	1.3	2.1
28	30.1	17.9	1.2	29.4	1.3	2.1
29 (≠DIN)	31.1	19.6	1.2	30.4	1.3	2.1
30	32.1	19.9	1.2	31.4	1.3	2.1
31	33.4	20	1.2	32.7	1.3	2.6
32	34.4	20.6	1.2	33.7	1.3	2.6
33 (≠DIN)	35.5	22.2	1.2	34.7	1.3	2.6
34	36.5	22.6	1.5	35.7	1.6	2.6
35	37.8	23.6	1.5	37	1.6	3
36	38.8	24.6	1.5	38	1.6	3
37	39.8	25.4	1.5	39	1.6	3
38	40.8	26.4	1.5	40	1.6	3
39 (≠DIN)	42	28.6	1.5	41	1.6	3
40	43.5	27.8	1.75	42.5	1.85	3.8
41 (≠DIN)	44.5	29	1.75	43.5	1.85	3.8
42	45.5	29.6	1.75	44.5	1.85	3.8
43 (≠DIN)	46.5	-	1.75	45.5	1.85	3.8
44 (≠DIN)	47.5	32	1.75	46.5	1.85	3.8
45	48.5	32	1.75	47.5	1.85	3.8
46 (≠DIN)	49.5	34.6	1.75	48.5	1.85	3.8
47	50.5	33.5	1.75	49.5	1.85	3.8
48	51.5	34.5	1.75	50.5	1.85	3.8
50	54.2	36.3	2	53	2.15	4.5
52	56.2	37.9	2	55	2.15	4.5
53 (≠DIN)	57.2	40	2	56	2.15	4.5
54	58.2	41	2	57	2.15	4.5
55	59.2	40.7	2	58	2.15	4.5
56	60.2	41.7	2	59	2.15	4.5
57 (≠DIN)	61.2	44	2	60	2.15	4.5
58	62.2	43.5	2	61	2.15	4.5
60	64.2	44.7	2	63	2.15	4.5
62	66.2	46.7	2	65	2.15	4.5
63	67.2	47.7	2	66	2.15	4.5
64 (≠DIN)	68.2	48.7	2	67	2.65	4.5
65	69.2	49	2.5	68	2.65	4.5
67 (≠DIN)	71.5	52	2.5	70	2.65	4.5
68	72.5	51.6	2.5	71	2.65	4.5
70	74.5	53.6	2.5	73	2.65	4.5

Dados técnicos

Diâm.nom. furo d_1	Anel d_3	Anel d_4	Anel s	Fenda d_2	Fenda m (H13)	Fenda n (mín.)
72	76.5	55.6	2.5	75	2.65	4.5
75	79.5	58.6	2.5	78	2.65	4.5
77 (≠DIN)	81.5	62	2.5	80	2.65	4.5
78	82.5	60.1	2.5	81	2.65	4.5
80	85.5	62.1	2.5	83.5	2.65	5.3
82	87.5	64.1	2.5	85.5	2.65	5.3
85	90.5	66.9	3	88.5	3.15	5.3
87 (≠DIN)	92.5	69.8	3	90.5	3.15	5.3
88	93.5	69.9	3	91.5	3.15	5.3
90	95.5	71.9	3	93.5	3.15	5.3
92	97.5	73.3	3	95.5	3.15	5.3
95	100.5	76.5	3	98.5	3.15	5.3
97 (≠DIN)	102.5	79.4	3	100.5	3.15	5.3
98	103.5	79	3	101.5	3.15	5.3
100	105.5	80.6	3	103.5	3.15	5.3
102	108	82	4	106	4.15	6
105	112	85	4	109	4.15	6
108	115	88	4	112	4.15	6
110	117	88.2	4	114	4.15	6
112	119	90	4	116	4.15	6
115	122	93	4	119	4.15	6
117 (≠DIN)	124	97	4	121	4.15	6
120	127	96.9	4	124	4.15	6
125	132	101.9	4	129	4.15	6
130	137	106.9	4	134	4.15	6
135	142	111.5	4	139	4.15	6
140	147	116.5	4	144	4.15	6
145	152	121	4	149	4.15	6
150	158	124.8	4	155	4.15	7.5
155	164	129.8	4	160	4.15	7.5
160	169	132.7	4	165	4.15	7.5
165	174.5	137.7	4	170	4.15	7.5
170	179.5	141.6	4	175	4.15	7.5
172 (≠DIN)	181.5	-	4	177	4.15	7.5
175	184.5	146.6	4	180	4.15	7.5
180	189.5	150.2	4	185	4.15	7.5
185	194.5	155.2	4	190	4.15	7.5
188 (≠DIN)	197.5	-	4	193	4.15	7.5
190	199.5	160.2	4	195	4.15	7.5
195	204.5	165.2	4	200	4.15	7.5
200	209.5	170.2	4	205	4.15	7.5
210	222	180.2	5	216	5.15	9
215 (≠DIN)	227	-	5	221	5.15	9
220	232	190.2	5	226	5.15	9
225 (≠DIN)	237	-	5	231	5.15	9
230	242	200.2	5	236	5.15	9
240	252	210.2	5	246	5.15	9
250	262	220.2	5	256	5.15	9
260	275	226	5	268	5.15	12
270 (≠DIN)	285	-	5	278	5.15	12
275 (≠DIN)	290	241	5	283	5.15	12
280	295	246	5	288	5.15	12
290	305	256	5	298	5.15	12
300	315	266	5	308	5.15	12





① à descrição do fabricante

Grupos de produtos

Material	Código	Página
Aço mola EN 10132-4	36050	7-124
INOX	51437	7-124

36050 Freio interior - tipo normal L07A

Material Aço mola EN 10132-4



Diâm. nom. furo d_1	✉	Ref. do artigo	Diâm. nom. furo d_1	✉	Ref. do artigo	Diâm. nom. furo d_1	✉	Ref. do artigo
8MM	250	36050.008.001	45MM	50	36050.045.001	108MM	5	36050.108.001
9MM	250	36050.009.001	46MM	50	36050.046.001	110MM	5	36050.110.001
10MM	250	36050.010.001	47MM	50	36050.047.001	112MM	5	36050.112.001
11MM	250	36050.011.001	48MM	50	36050.048.001	115MM	5	36050.115.001
12MM	250	36050.012.001	50MM	50	36050.050.001	117MM	5	36050.117.001
13MM	100	36050.013.001	52MM	50	36050.052.001	120MM	5	36050.120.001
14MM	100	36050.014.001	53MM	25	36050.053.001	125MM	5	36050.125.001
15MM	100	36050.015.001	54MM	25	36050.054.001	130MM	5	36050.130.001
16MM	100	36050.016.001	55MM	25	36050.055.001	135MM	5	36050.135.001
17MM	100	36050.017.001	56MM	25	36050.056.001	140MM	5	36050.140.001
18MM	100	36050.018.001	57MM	25	36050.057.001	145MM	5	36050.145.001
19MM	100	36050.019.001	58MM	25	36050.058.001	150MM	3	36050.150.001
20MM	100	36050.020.001	60MM	25	36050.060.001	155MM	3	36050.155.001
21MM	100	36050.021.001	62MM	25	36050.062.001	160MM	3	36050.160.001
22MM	100	36050.022.001	63MM	25	36050.063.001	165MM	3	36050.165.001
23MM	100	36050.023.001	64MM	25	36050.064.001	170MM	3	36050.170.001
24MM	100	36050.024.001	65MM	10	36050.065.001	172MM	3	36050.172.001
25MM	100	36050.025.001	67MM	10	36050.067.001	175MM	2	36050.175.001
26MM	100	36050.026.001	68MM	10	36050.068.001	180MM	2	36050.180.001
27MM	100	36050.027.001	70MM	10	36050.070.001	185MM	2	36050.185.001
28MM	100	36050.028.001	72MM	10	36050.072.001	190MM	2	36050.190.001
29MM	100	36050.029.001	75MM	10	36050.075.001	195MM	2	36050.195.001
30MM	100	36050.030.001	77MM	10	36050.077.001	200MM	2	36050.200.001
31MM	100	36050.031.001	78MM	10	36050.078.001	210MM	2	36050.210.001
32MM	100	36050.032.001	80MM	10	36050.080.001	215MM	2	36050.215.001
33MM	100	36050.033.001	82MM	10	36050.082.001	220MM	2	36050.220.001
34MM	100	36050.034.001	85MM	5	36050.085.001	225MM	2	36050.225.001
35MM	100	36050.035.001	87MM	5	36050.087.001	230MM	2	36050.230.001
36MM	100	36050.036.001	88MM	5	36050.088.001	240MM	2	36050.240.001
37MM	100	36050.037.001	90MM	5	36050.090.001	250MM	2	36050.250.001
38MM	100	36050.038.001	92MM	5	36050.092.001	260MM	2	36050.260.001
39MM	100	36050.039.001	95MM	5	36050.095.001	270MM	2	36050.270.001
40MM	50	36050.040.001	97MM	5	36050.097.001	275MM	2	36050.275.001
41MM	50	36050.041.001	98MM	5	36050.098.001	280MM	2	36050.280.001
42MM	50	36050.042.001	100MM	5	36050.100.001	290MM	2	36050.290.001
43MM	50	36050.043.001	102MM	5	36050.102.001	300MM	2	36050.300.001
44MM	50	36050.044.001	105MM	5	36050.105.001			

- Dependendo da disponibilidade podem ser fornecidos em fosfatado.
- O tipo pesado está sempre disponivel sob pedido.
- Aviso: a electro zincagem destes produtos pode causar disfunção hidrogénica.

51437 Freio interior - tipo normal R09A

Material Aço inoxidável **DIN** ≈472

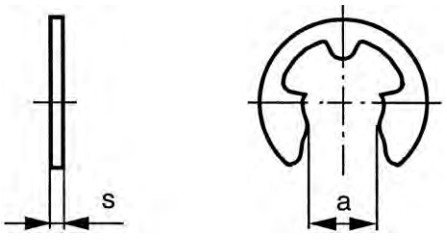


Diâm. nom. furo d_1	✉	Ref. do artigo	Diâm. nom. furo d_1	✉	Ref. do artigo	Diâm. nom. furo d_1	✉	Ref. do artigo
8MM	100	51437.008.001	23MM	50	51437.023.001	38MM	25	51437.038.001
9MM	100	51437.009.001	24MM	50	51437.024.001	39MM	25	51437.039.001
10MM	100	51437.010.001	25MM	25	51437.025.001	40MM	10	51437.040.001
11MM	100	51437.011.001	26MM	25	51437.026.001	41MM*	25	51437.041.001
12MM	100	51437.012.001	27MM	25	51437.027.001	42MM	10	51437.042.001
13MM	50	51437.013.001	28MM	25	51437.028.001	43MM*	25	51437.043.001
14MM	50	51437.014.001	29MM	25	51437.029.001	44MM*	25	51437.044.001
15MM	50	51437.015.001	30MM	25	51437.030.001	45MM	10	51437.045.001
16MM	50	51437.016.001	31MM*	25	51437.031.001	47MM	10	51437.047.001
17MM	50	51437.017.001	32MM	25	51437.032.001	48MM	10	51437.048.001
18MM	50	51437.018.001	33MM	25	51437.033.001	50MM	5	51437.050.001
19MM	50	51437.019.001	34MM	25	51437.034.001	52MM	5	51437.052.001
20MM	50	51437.020.001	35MM	25	51437.035.001	55MM	5	51437.055.001
21MM	50	51437.021.001	36MM	25	51437.036.001	58MM	5	51437.058.001
22MM	50	51437.022.001	37MM	25	51437.037.001	60MM	5	51437.060.001

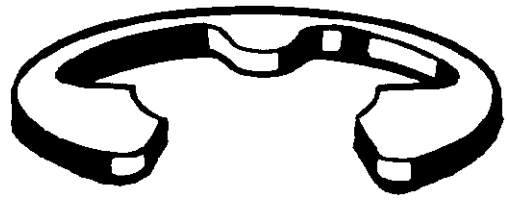
51437	Freio interior - tipo normal								←
Diâm. nom. furo d_1	✉	Ref. do artigo	Diâm. nom. furo d_1	✉	Ref. do artigo	Diâm. nom. furo d_1	✉	Ref. do artigo	
62MM	5	51437.062.001	75MM	5	51437.075.001	100MM	1	51437.100.001	
65MM	5	51437.065.001	80MM	5	51437.080.001	105MM*	10	51437.105.001	
68MM	5	51437.068.001	85MM	1	51437.085.001	110MM*	10	51437.110.001	
70MM	5	51437.070.001	90MM	1	51437.090.001	112MM*	10	51437.112.001	
72MM	5	51437.072.001	95MM	1	51437.095.001	140MM*	10	51437.140.001	

- Os freios em aço inox são de aço inox martensitico.
- Nas fixações é deve ser utilizado um alicate para freios, com parafuso de limitação para abertura e fecho do freio.
- É, também, aconselhável a utilização de um aperto minimo se a aplicação o permitir.
- Deve ser evitado o contacto com liquidos que contêm cloretos (limpeza), para reduzir o risco de corosão.

Freio de segurança



DIN **6799**
BS 3673-2

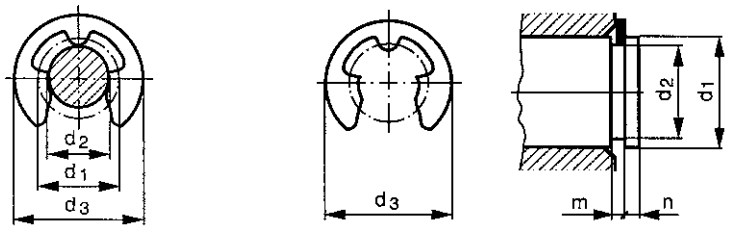


Dados técnicos

Diâm.nom. fenda d_2 (h11)	Anel a	Anel d_3 (máx.)	Anel s	Diam. d_1	Fenda m	Fenda n (mín.)
1.2	1.01	3.25	0.3	1.4-2	0.34	0.6
1.5	1.28	4.25	0.4	2-2.5	0.44	0.8
1.9	1.61	4.8	0.5	2.5-3	0.54	1
2.3	1.94	6.3	0.6	3-4	0.64	1
3.2	2.7	7.3	0.6	4-5	0.64	1
4	3.34	9.3	0.7	5-7	0.74	1.2
5	4.11	11.3	0.7	6-8	0.74	1.2
6	5.26	12.3	0.7	7-9	0.74	1.2
7	5.84	14.3	0.9	8-11	0.94	1.5
8	6.52	16.3	1	9-12	1.05	1.8
9	7.63	18.8	1.1	10-14	1.15	2
10	8.32	20.4	1.2	11-15	1.25	2
12	10.45	23.4	1.3	13-18	1.35	2.5
15	12.61	29.4	1.5	16-24	1.55	3
19	15.92	37.6	1.75	20-31	1.8	3.5
24	21.88	44.6	2	25-38	2.05	4

- Dependendo da disponibilidade o tipo fosfatado pode ser fornecido.

Dados montagem



Grupos de produtos

Material	Código	Página
Aço mola 460-580 HV	36200	7-126
INOX	51440	7-126

7

36200	Freio de segurança	L07A

Material Aço mola 460-580 HV



Diâm. nom. ranhura d_2 (h11)	✉	Ref. do artigo	Diâm. nom. ranhura d_2 (h11)	✉	Ref. do artigo	Diâm. nom. ranhura d_2 (h11)	✉	Ref. do artigo
1,2MM	500	36200.012.001	5MM	500	36200.050.001	10MM	250	36200.100.001
1,5MM	500	36200.015.001	6MM	500	36200.060.001	12MM	100	36200.120.001
1,9MM	500	36200.019.001	7MM	250	36200.070.001	15MM	100	36200.150.001
2,3MM	500	36200.023.001	8MM	250	36200.080.001	19MM	100	36200.190.001
3,2MM	500	36200.032.001	9MM	250	36200.090.001	24MM	100	36200.240.001
4MM	500	36200.040.001						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

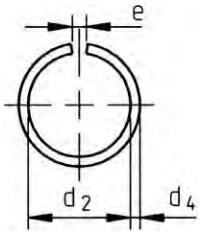
51440	Freio de segurança	R09A

Material Aço inoxidável

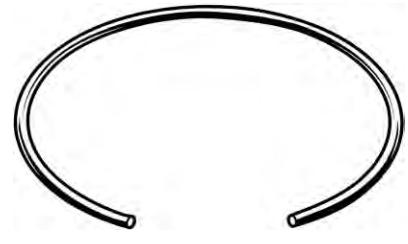


Diâm. nom. ranhura d_2 (h11)	✉	Ref. do artigo	Diâm. nom. ranhura d_2 (h11)	✉	Ref. do artigo	Diâm. nom. ranhura d_2 (h11)	✉	Ref. do artigo
1,2MM	500	51440.012.001	5MM	250	51440.050.001	10MM	100	51440.100.001
1,5MM	500	51440.015.001	6MM	250	51440.060.001	12MM	100	51440.120.001
1,9MM	500	51440.019.001	7MM	250	51440.070.001	15MM	100	51440.150.001
2,3MM	250	51440.023.001	8MM	250	51440.080.001	19MM	100	51440.190.001
3,2MM	250	51440.032.001	9MM	100	51440.090.001	24MM	100	51440.240.001
4MM	250	51440.040.001						

Anel para freios



DIN **7993 A**



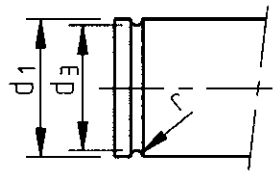
Dados técnicos

Diâm.nom. eixo d_1	d_2	d_3	d_4	e ≈	r
6	5.1	5.2	0.8	1	0.5
8	7.1	7.2	0.8	2	0.5
10	9.1	9.2	0.8	2	0.5
12	10.8	11	1	3	0.6
14	12.8	13	1	3	0.6
16	14.2	14.4	1.6	3	0.9
20	17.7	18	2	3	1.1
22	19.7	20	2	3	1.1
24	21.7	22	2	3	1.1
25	22.7	23	2	3	1.1
26	23.7	24	2	3	1.1
28	25.7	26	2	3	1.1
30	27.7	28	2	3	1.1
32	29.1	29.5	2.5	4	1.4
35	32.1	32.5	2.5	4	1.4
38	35.1	35.5	2.5	4	1.4
40	37.1	37.5	2.5	4	1.4
45	42	42.5	2.5	4	1.4
48	45	45.5	2.5	4	1.4
50	47	47.5	2.5	4	1.4
55	51.1	51.8	3.2	4	1.8
60	56.1	56.8	3.2	4	1.8
65	61.1	61.8	3.2	4	1.8
70	66	66.8	3.2	5	1.8
75	71	71.8	3.2	5	1.8

Dados técnicos

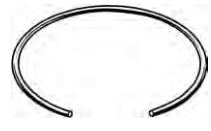
Diâm.nom. eixo d_1	d_2	d_3	d_4	e ≈	r
80	76	76.8	3.2	5	1.8
85	81	81.8	3.2	5	1.8
90	86	86.8	3.2	5	1.8
105	100.8	101.8	3.2	5	1.8
110	105.8	106.8	3.2	5	1.8
120	115.8	116.8	3.2	5	1.8

Dados montagem



36215 Anel para freios **L07A**

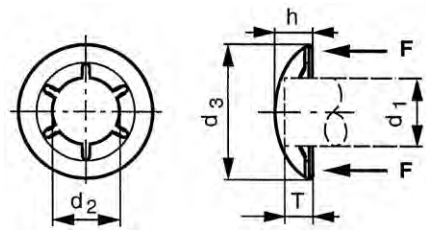
Material Aço mola



Diâm. nom. eixo d_1	✉	Ref. do artigo	Diâm. nom. eixo d_1	✉	Ref. do artigo	Diâm. nom. eixo d_1	✉	Ref. do artigo
6MM	250	36215.006.001	28MM	100	36215.028.001	60MM	25	36215.060.001
8MM	100	36215.008.001	30MM	100	36215.030.001	65MM	10	36215.065.001
10MM	250	36215.010.001	32MM	100	36215.032.001	70MM	10	36215.070.001
12MM	250	36215.012.001	35MM	100	36215.035.001	75MM	10	36215.075.001
14MM	100	36215.014.001	38MM	100	36215.038.001	80MM	10	36215.080.001
16MM	100	36215.016.001	40MM	50	36215.040.001	85MM	5	36215.085.001
20MM	100	36215.020.001	45MM	50	36215.045.001	90MM	5	36215.090.001
22MM	100	36215.022.001	48MM	50	36215.048.001	105MM	5	36215.105.001
24MM	100	36215.024.001	50MM	50	36215.050.001	110MM	5	36215.110.001
25MM	100	36215.025.001	55MM	25	36215.055.001	120MM	5	36215.120.001
26MM	100	36215.026.001						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Anilha de fixação para veio com tampa aço inox tipo A





Dados técnicos

Para eixo d_1 (h11)	d_2 (max.)	d_3	F-1	h	T (max.)
2	1.84	10.6	200	3	2.5
3	2.81	10.6	200	3	2.5
4	3.8	12.4	400	3.8	3
5	4.74	12.4	400	3.8	3
6	5.7	16.2	800	5	4
8	7.66	16.2	800	5	4
10	9.74	19.7	1.000	5.9	4.5
12	11.62	26	2.500	7.5	6
13	12.64	26	2.500	7.5	6
14	13.65	29.4	2.500	9	7
15	14.68	39.4	2.500	9	7
16	15.53	29.4	2.500	9	7
17	16.78	29.4	2.500	9	7
19	18.68	38.2	3.500	11.7	8.7
20	19.63	38.2	3.500	11.7	8.7
25	24.63	43.4	3.850	13.75	9.5

- F-1 = carga permitida em Newton (eixo St 37).

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço mola	Acabamento em bronze e envernizado	36233	7-128
INOX		51446	7-128

7

36233 Anilha de fixação para veio com tampa aço inox tipo A — L07B

Material Aço mola
Tratamento sup. Acabamento em bronze e envernizado



Para eixo d_1	✉	Ref. do artigo	Para eixo d_1	✉	Ref. do artigo	Para eixo d_1	✉	Ref. do artigo
3MM	250	36233.030.001	6MM	250	36233.060.001	12MM	250	36233.120.001
4MM	250	36233.040.001	8MM	250	36233.080.001	16MM	100	36233.160.001
5MM	250	36233.050.001	10MM	250	36233.100.001	20MM	100	36233.200.001

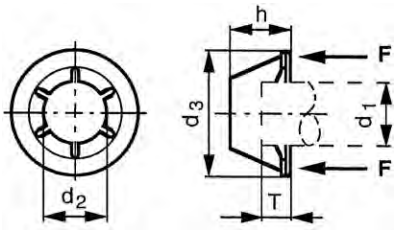
51446 Anilha de fixação para veio com tampa aço inox tipo A — R09A

Material Aço inoxidável



Para eixo d_1	✉	Ref. do artigo	Para eixo d_1	✉	Ref. do artigo	Para eixo d_1	✉	Ref. do artigo
3MM	100	51446.030.001	6MM	100	51446.060.001	12MM	100	51446.120.001
4MM	100	51446.040.001	8MM	100	51446.080.001	14MM	100	51446.140.001
5MM	100	51446.050.001	10MM	100	51446.100.001			

Anilha de fixação para veio com tampa aço zinc. Tipo 4A





Dados técnicos

Para eixo d_1 (h11)	d_2 (max.)	d_3	F-1	h	T (max.)
4	3.8	12.3	400	5.7	5.3
5	4.74	12.3	400	5.7	5.3
6	5.7	16.2	800	7.2	6.7
8	7.66	16.2	800	7.2	6.7
10	9.74	19.7	1.000	8.1	7.8

- F-1 = carga permitida em Newton (eixo St 37).

36239 **Anilha de fixação para veio com tampa aço zinc. Tipo 4A** **L07B**

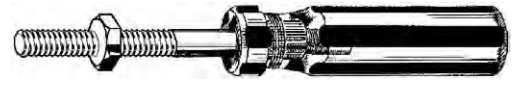
Material Aço mola
Tratamento sup. Acabamento em bronze e envernizado



Para eixo d_1	✉	Ref. do artigo	Para eixo d_1	✉	Ref. do artigo	Para eixo d_1	✉	Ref. do artigo
4MM	250	36239.040.001	6MM	250	36239.060.001	10MM	250	36239.100.001
5MM	250	36239.050.001	8MM	250	36239.080.001			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Ferramenta para instalação de anilhas



- Aplicação com suportes magnéticos, grupo de artigos 36251 e 36252.

36250 **Ferramenta para instalação de anilhas bloqueadoras** **L07B**



Tipo	✉	Ref. do artigo
SUPORTE	1	36250.001.770

Ponteira magnética



Grupos de produtos

	Código	Página
Ponteira magnética	36251	7-130
Ponteira magnética	36252	7-130

36251 Ponteira magnética L07B



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
1,6-3,2MM	1	36251.016.032	9,0-11,0MM	1	36251.090.110	18,0-23,0MM	1	36251.180.230
4,0-5,0MM	1	36251.040.050	12,0-13,0MM	1	36251.120.130	24,0-25,0MM	1	36251.240.250
6,0-8,0MM	1	36251.060.080	14,0-17,0MM	1	36251.140.170			

- Indicado para a fixação de anilhas com tampa, feitas de aço mola.
- Aplicação com ferramenta, grupo de artigo 36250.
- Haste 6,0-8,0MM: Também indicado para anilhas com tampa tipo 4A, de aço mola e aço inox: 4,0 mm - 5,0 mm.
- Haste 9,0-11,0MM: Também indicado para anilhas com tampa tipo 4A, de aço mola e aço inox: 6,0 mm - 9,0 mm.
- Haste 12,0-13,0MM: Também indicado para anilhas com tampa tipo 4A, de aço mola e aço inox:10,0 mm - 11,0 mm.

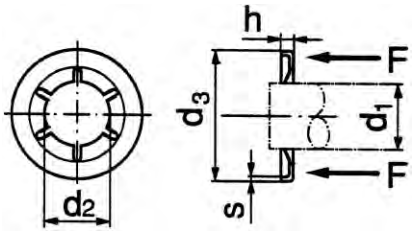
36252 Ponteira magnética L07B

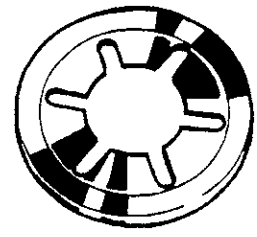


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
1,6-3,2MM	1	36252.016.032	9,0-11,0MM	1	36252.090.110	14,0-17,0MM	1	36252.140.170
4,0-5,0MM	1	36252.040.050	12,0-13,0MM	1	36252.120.130	18,0-22,0MM	1	36252.180.220
6,0-8,0MM	1	36252.060.080						

- Indicado para instalação de anilhas com tampa tipo A, de aço mola e/ou aço inox.
- Aplicação de ferramenta grupo de artigo 36250.

Anilha de fixação para veio (sem tampa)





Dados técnicos

Para eixo d_1 (h11)	d_2 (max.)	d_3	F-1	h	s
2	1.84	9.7	200	1.3	0.2
3	2.81	9.7	200	1.3	0.2
4	3.8	11.5	400	1.3	0.2
5	4.74	11.5	400	1.3	0.2
6	5.7	15.3	800	1.3	0.25
6.35	6.08	15.3	800	1.3	0.25
7	6.72	15.3	800	1.3	0.25
8	7.66	15.3	800	1.3	0.25
9	8.75	18.4	1.000	1.9	0.3
10	9.74	18.4	1.000	1.9	0.3
11	10.76	18.4	1.000	1.9	0.3
12	11.62	25	2.500	2.3	0.4
13	12.64	25	2.500	2.3	0.4
14	13.66	28.2	2.500	2.3	0.4
15	14.68	28.2	2.500	2.3	0.4
16	15.53	28.2	2.500	2.3	0.4
17	16.68	28.2	2.500	2.3	0.4
18	17.62	36.6	3.500	3	0.4
19	18.69	36.6	3.850	3	0.4
20	19.63	36.6	3.850	3	0.4
24	23.66	41.4	3.850	3.2	0.5
25	24.63	41.4	3.850	3.2	0.5

- F-1 = carga admissivel em Newton (eixo St 37).

7

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço mola	Acabamento em bronze e envernizado	36230	7-131
INOX		51445	7-132

36230 Anilha de fixação para veio (sem tampa) **L07B**

Material Aço mola
Tratamento sup. Acabamento em bronze e envernizado



Para eixo d_1	✉	Ref. do artigo	Para eixo d_1	✉	Ref. do artigo	Para eixo d_1	✉	Ref. do artigo
2MM	500	36230.020.001	9MM	250	36230.090.001	16MM	100	36230.160.001
3MM	500	36230.030.001	10MM	250	36230.100.001	17MM	100	36230.170.001
4MM	500	36230.040.001	11MM	250	36230.110.001	18MM	100	36230.180.001
5MM	500	36230.050.001	12MM	250	36230.120.001	19MM	100	36230.190.001
6MM	500	36230.060.001	13MM	100	36230.130.001	20MM	100	36230.200.001
6,35MM	500	36230.063.501	14MM	100	36230.140.001	24MM	50	36230.240.001
7MM	250	36230.070.001	15MM	100	36230.150.001	25MM	50	36230.250.001
8MM	250	36230.080.001						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

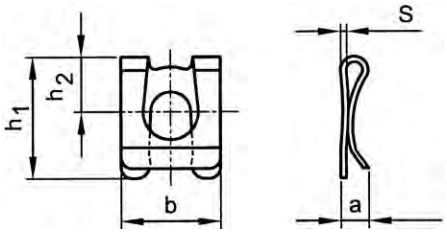
51445	Anilha de fixação para veio (sem tampa)	R09A

Material Aço inoxidável



Para eixo d_1	✉	Ref. do artigo	Para eixo d_1	✉	Ref. do artigo	Para eixo d_1	✉	Ref. do artigo
3MM	100	51445.030.001	6MM	100	51445.060.001	10MM	100	51445.100.001
4MM	100	51445.040.001	8MM	100	51445.080.001	12MM	100	51445.120.001
5MM	100	51445.050.001						

Clip SL



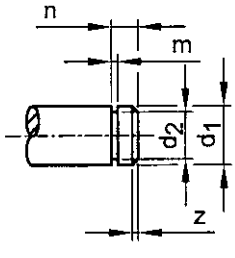


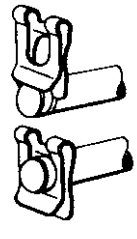
Dados técnicos

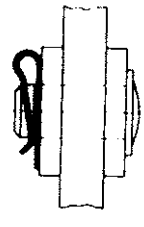
Diâm.nom. eixo d_1	a	b	d_2 (h11)	h_1	h_2	m	n	s	z
4	2.2	7	3.2	8.5	4	0.64	2	0.3	0.5
5	2.7	9	4	10.8	5	0.74	2.5	0.35	0.5
6	3.2	11	5	14	6	0.74	3	0.4	0.75
8	3.7	14	6	17.5	8	0.94	3.5	0.45	1
10	4.7	18	8	22	10	1.05	4.5	0.5	1
12	5.5	22	9	26	12	11.5	5	0.5	1.25
14	5.7	25	10	30	13.5	1.25	5.5	0.6	1.5
16	6.8	28	12	34.5	16	1.35	6	0.6	1.5

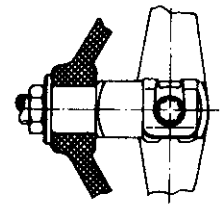
Dados de Montagem / Dados de Aplicação

7









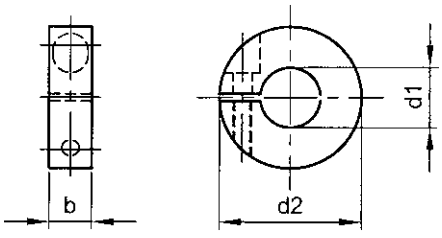
36265	Clip SL	L07A

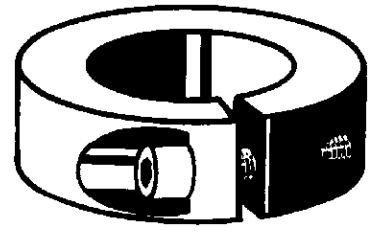
Material Aço mola
Tratamento sup. Zincado



Diâm. nom. eixo d_1	✉	Ref. do artigo	Diâm. nom. eixo d_1	✉	Ref. do artigo	Diâm. nom. eixo d_1	✉	Ref. do artigo
4MM	500	36265.040.001	8MM	200	36265.080.001	14MM	100	36265.140.001
5MM	500	36265.050.001	10MM	200	36265.100.001	16MM	100	36265.160.001
6MM	500	36265.060.001	12MM	200	36265.120.001			

Anel de ajuste com parafuso sextavado interior





Dados técnicos

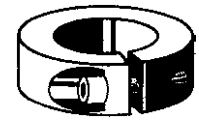
d_1	b	d_2	Dimensão do parafuso	d_1	b	d_2	Dimensão do parafuso
8	10	25	M4x15	**25**	12	50	M5x20
10	10	32	M4x15	**30**	12	56	M5x20
12	10	32	M4x15	**35**	12	63	M5x20
15	12	40	M5x20	**40**	14	70	M6x20
16	12	40	M5x20	**45**	14	80	M6x20
20	12	45	M5x20	**50**	14	80	M6x20

- Caracteristicas especiais de anéis ajustáveis:
- Simples instalação, pouca carga no parafuso de ajuste.
- Compensa variações de tolerância no ajuste.
- Simples desmontagem e movimentos precisos.
- A união permanece não danificada devido à deformação do metal durante o aperto.
- As forças de união são distribuidas uniformemente pela circunferência.

37840 **Anel de ajuste com parafuso sextavado interior** **L07F**

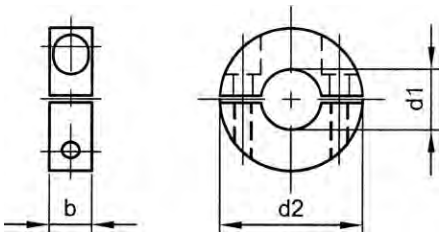
Material Aço de corte

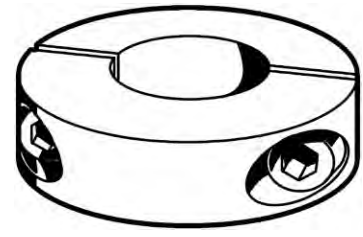
RoHS



d_1 x d_2 x b	✉	Ref. do artigo	d_1 x d_2 x b	✉	Ref. do artigo	d_1 x d_2 x b	✉	Ref. do artigo
8X25X10MM	10	37840.080.001	16X40X12MM	5	37840.160.001	35X63X12MM	2	37840.350.001
10X32X10MM	10	37840.100.001	20X45X12MM	5	37840.200.001	40X70X14MM	2	37840.400.001
12X32X10MM	5	37840.120.001	25X50X12MM	5	37840.250.001	45X80X14MM	2	37840.450.001
15X40X12MM	5	37840.150.001	30X56X12MM	5	37840.300.001	50X80X14MM	2	37840.500.001

Anel de ajuste com 2 parafusos sextavados





Dados técnicos

d_1 (H8)	b (j14)	d_2 (H13)	d_1 (H8)	b (j14)	d_2 (H13)
8	10	25	25	12	50
10	10	332	30	12	56
12	10	32	35	12	63
15	12	40	40	14	70
16	12	40	45	14	80
20	12	45	50	14	80

37845 **Anel de ajuste com 2 parafusos sextavados** **L07F**

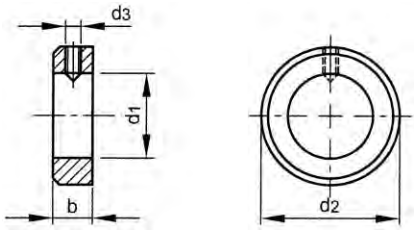
Material Aço de corte



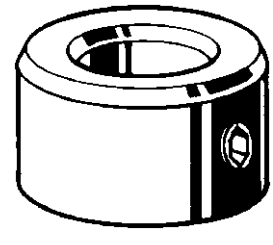
d_1 x d_2 x b	✉	Ref. do artigo	d_1 x d_2 x b	✉	Ref. do artigo	d_1 x d_2 x b	✉	Ref. do artigo
8X25X10MM	10	37845.080.001	16X40X12MM	5	37845.160.001	35X63X12MM	2	37845.350.001
10X32X10MM	10	37845.100.001	20X45X12MM	5	37845.200.001	40X70X14MM	2	37845.400.001
12X32X10MM	5	37845.120.001	25X50X12MM	5	37845.250.001	45X80X14MM	2	37845.450.001
15X40X12MM	5	37845.150.001	30X56X12MM	5	37845.300.001	50X80X14MM	2	37845.500.001

Anel de ajuste com perno

7



DIN **705A**



Dados técnicos

d_1 (H8)	b (js14)	d_2 (h13)	d_3	d_1 (H8)	b (js14)	d_2 (h13)	d_3
3	5	7	M2	30	16	45	M8
4	5	8	M2.5	32	16	50	M8
5	6	10	M3	34 (≠DIN)	16	50	M8
6	8	12	M4	35	16	56	M8
7	8	12	M4	36	16	56	M8
8	8	16	M4	38 (≠DIN)	16	56	M8
9 (≠DIN)	10	18	M5	40	18	63	M10
10	10	20	M5	42 (≠DIN)	18	63	M10
11 (≠DIN)	10	20	M5	45	18	70	M10
12	12	22	M6	48 (≠DIN)	18	70	M10
13 (≠DIN)	12	22	M6	50	18	80	M10
14	12	25	M6	55	18	80	M10
15	12	25	M6	56	18	80	M10
16	12	28	M6	58 (≠DIN)	20	90	M10
18	14	32	M6	60	20	90	M10
20	14	32	M6	63	20	90	M10
22	14	36	M6	65	20	100	M10
24	16	40	M8	70	20	100	M10
25	16	40	M8	75	22	110	M12
26	16	40	M8	80	22	110	M12
28	16	45	M8				

Grupos de produtos

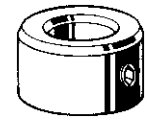
Material	Tratamento sup.		Código	Página
Aço de corte		com ISO 4029	37810	7-135
Aço de corte		com EN 27434	37815	7-135
Aço de corte	Zn	com ISO 4029	37820	7-135
INOX A1		com ISO 4029	51370	7-136
INOX A1		com EN 27434	51372	7-136
INOX A2		with ISO 4027	51371	7-136

37810 Anel de ajuste com perno sextavado interior DIN 705A/ISO 4029 (DIN 916) L07F

Material Aço de corte

DIN **705A/4029**
NEN - /2343
NF - /E27-183
BS - /4168-5

RoHS



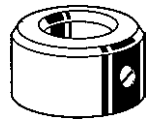
d_1 x d_2 x b	✉	Ref. do artigo	d_1 x d_2 x b	✉	Ref. do artigo	d_1 x d_2 x b	✉	Ref. do artigo
3X7X5MM	50	37810.030.001	18X32X14MM	10	37810.180.001	42X63X18MM	5	37810.420.001
4X8X5MM	50	37810.040.001	20X32X14MM	10	37810.200.001	45X70X18MM	5	37810.450.001
5X10X6MM	50	37810.050.001	22X36X14MM	10	37810.220.001	48X70X18MM	5	37810.480.001
6X12X8MM	50	37810.060.001	24X40X16MM	10	37810.240.001	50X80X18MM	5	37810.500.001
7X12X8MM	50	37810.070.001	25X40X16MM	10	37810.250.001	55X80X18MM	1	37810.550.001
8X16X8MM	50	37810.080.001	26X40X16MM	10	37810.260.001	56X80X18MM	1	37810.560.001
9X18X10MM	25	37810.090.001	28X45X16MM	10	37810.280.001	58X90X20MM	1	37810.580.001
10X20X10MM	25	37810.100.001	30X45X16MM	10	37810.300.001	60X90X20MM	1	37810.600.001
11X20X10MM	25	37810.110.001	32X50X16MM	10	37810.320.001	63X90X20MM	1	37810.630.001
12X22X12MM	10	37810.120.001	34X50X16MM	5	37810.340.001	65X100X20MM	1	37810.650.001
13X22X12MM	10	37810.130.001	35X56X16MM	5	37810.350.001	70X100X20MM	1	37810.700.001
14X25X12MM	10	37810.140.001	36X56X16MM	5	37810.360.001	75X110X22MM	1	37810.750.001
15X25X12MM	10	37810.150.001	38X56X16MM	5	37810.380.001	80X110X22MM	1	37810.800.001
16X28X12MM	10	37810.160.001	40X63X18MM	5	37810.400.001			

37815 Anel de ajuste com perno fenda DIN 705A/EN 27434 (DIN 553) L07F

Material Aço de corte

DIN **705A/27434**

RoHS



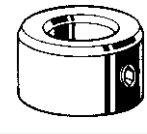
d_1 x d_2 x b	✉	Ref. do artigo	d_1 x d_2 x b	✉	Ref. do artigo	d_1 x d_2 x b	✉	Ref. do artigo
3X7X5MM	50	37815.030.001	18X32X14MM	10	37815.180.001	40X63X18MM	5	37815.400.001
4X8X5MM	50	37815.040.001	20X32X14MM	10	37815.200.001	42X63X18MM	5	37815.420.001
5X10X6MM	50	37815.050.001	22X36X14MM	10	37815.220.001	45X70X18MM	5	37815.450.001
6X12X8MM	50	37815.060.001	24X40X16MM	10	37815.240.001	48X70X18MM	5	37815.480.001
7X12X8MM	50	37815.070.001	25X40X16MM	10	37815.250.001	50X80X18MM	5	37815.500.001
8X16X8MM	50	37815.080.001	26X40X16MM	10	37815.260.001	55X80X18MM	1	37815.550.001
9X18X10MM	25	37815.090.001	28X45X16MM	10	37815.280.001	58X90X20MM	1	37815.580.001
10X20X10MM	25	37815.100.001	30X45X16MM	10	37815.300.001	60X90X20MM	1	37815.600.001
11X20X10MM	25	37815.110.001	32X50X16MM	10	37815.320.001	63X90X20MM	1	37815.630.001
12X22X12MM	10	37815.120.001	34X50X16MM	5	37815.340.001	65X100X20MM	1	37815.650.001
14X25X12MM	10	37815.140.001	35X56X16MM	5	37815.350.001	70X100X20MM	1	37815.700.001
15X25X12MM	10	37815.150.001	36X56X16MM	5	37815.360.001	75X110X22MM	1	37815.750.001
16X28X12MM	10	37815.160.001	38X56X16MM	5	37815.380.001	80X110X22MM	1	37815.800.001

37820 Anel de ajuste com perno sextavado DIN 705A/ISO 4029 (DIN 916) L07F

Material Aço de corte
Tratamento sup. Zincado

DIN **705A/4029**
NEN - /2343
NF - /E27-183
BS - /4168-5

RoHS



d_1 x d_2 x b	✉	Ref. do artigo	d_1 x d_2 x b	✉	Ref. do artigo	d_1 x d_2 x b	✉	Ref. do artigo
5X10X6MM	50	37820.050.001	16X28X12MM	10	37820.160.001	30X45X16MM	10	37820.300.001
6X12X8MM	50	37820.060.001	18X32X14MM	10	37820.180.001	35X56X16MM	5	37820.350.001
8X16X8MM	50	37820.080.001	20X32X14MM	10	37820.200.001	40X63X18MM	5	37820.400.001
10X20X10MM	25	37820.100.001	22X36X14MM	10	37820.220.001	45X70X18MM	5	37820.450.001
12X22X12MM	10	37820.120.001	25X40X16MM	10	37820.250.001	50X80X18MM	5	37820.500.001
14X25X12MM	10	37820.140.001	26X40X16MM	10	37820.260.001	60X90X20MM	1	37820.600.001
15X25X12MM	10	37820.150.001	28X45X16MM	10	37820.280.001	70X100X20MM	1	37820.700.001

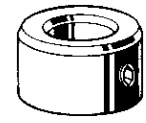
7

51370 Anel de ajuste com perno sextavado interior DIN 705A/ISO 4029 (DIN 916) R09A

Material Aço inoxidável A1

DIN **705A/4029**
NEN - /2343
NF - /E27-183
BS - /4168-5

RoHS



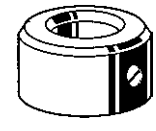
d_1 x d_2 x b	✉	Ref. do artigo	d_1 x d_2 x b	✉	Ref. do artigo	d_1 x d_2 x b	✉	Ref. do artigo
5X10X6MM	25	51370.050.001	16X28X12MM	5	51370.160.001	35X56X16MM	2	51370.350.001
6X12X8MM	25	51370.060.001	18X32X14MM	5	51370.180.001	36X56X16MM	1	51370.360.001
8X16X8MM	25	51370.080.001	20X32X14MM	5	51370.200.001	40X63X18MM	1	51370.400.001
10X20X10MM	10	51370.100.001	22X36X14MM	5	51370.220.001	45X70X18MM	1	51370.450.001
12X22X12MM	10	51370.120.001	25X40X16MM	5	51370.250.001	50X80X18MM	1	51370.500.001
14X25X12MM	10	51370.140.001	28X45X16MM	2	51370.280.001	60X90X20MM	1	51370.600.001
15X25X12MM	10	51370.150.001	30X45X16MM	2	51370.300.001			

51372 Anel ajuste com perno fenda DIN ≈705A/EN 27434 (DIN 553) R09A

Material Aço inoxidável A1

DIN **≈705A/27434**

RoHS



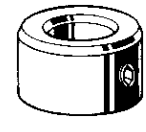
d_1 x d_2 x b	✉	Ref. do artigo	d_1 x d_2 x b	✉	Ref. do artigo	d_1 x d_2 x b	✉	Ref. do artigo
5X10X6MM	25	51372.050.001	16X28X12MM	5	51372.160.001	34X50X16MM	2	51372.340.001
6X12X8MM	25	51372.060.001	20X32X14MM	5	51372.200.001	35X56X16MM	2	51372.350.001
8X16X8MM	25	51372.080.001	24X40X16MM	5	51372.240.001	36X56X16MM	1	51372.360.001
9X18X10MM	10	51372.090.001	25X40X16MM	5	51372.250.001	38X56X16MM	1	51372.380.001
10X20X10MM	10	51372.100.001	26X40X16MM	5	51372.260.001	40X63X18MM	1	51372.400.001
11X20X10MM	10	51372.110.001	28X45X16MM	2	51372.280.001	45X70X18MM	1	51372.450.001
12X22X12MM	10	51372.120.001	30X45X16MM	2	51372.300.001	50X80X18MM	1	51372.500.001
15X25X12MM	10	51372.150.001	32X50X16MM	2	51372.320.001			

51371 Anel de ajuste com perno sextavado interior DIN ≈705A/ISO 4027 (DIN 914) R09A

Material Aço inoxidável A2

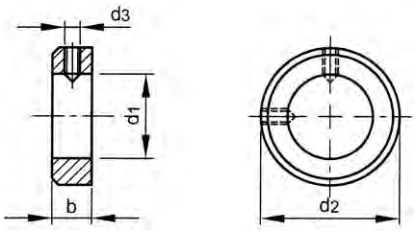
DIN **≈705A/4027**

RoHS

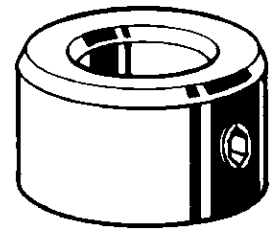


d_1 x d_2 x b	✉	Ref. do artigo	d_1 x d_2 x b	✉	Ref. do artigo	d_1 x d_2 x b	✉	Ref. do artigo
5X10X6MM*	100	51371.050.001	18X32X14MM*	25	51371.180.001	35X56X16MM*	10	51371.350.001
6X12X8MM*	100	51371.060.001	20X32X14MM*	25	51371.200.001	36X56X16MM*	10	51371.360.001
8X16X8MM*	100	51371.080.001	22X36X14MM*	25	51371.220.001	38X56X16MM*	10	51371.380.001
9X16X8MM*	100	51371.090.001	24X40X16MM*	25	51371.240.001	40X63X18MM*	10	51371.400.001
10X20X10MM*	50	51371.100.001	25X40X16MM*	25	51371.250.001	45X70X18MM*	5	51371.450.001
11X20X10MM*	50	51371.110.001	26X40X16MM*	25	51371.260.001	50X80X18MM*	5	51371.500.001
12X22X12MM*	50	51371.120.001	28X45X16MM*	25	51371.280.001	55X80X18MM*	5	51371.550.001
13X22X12MM*	50	51371.130.001	30X45X16MM*	25	51371.300.001	60X90X20MM*	5	51371.600.001
14X25X12MM*	50	51371.140.001	32X16X50MM*	10	51371.320.001	65X100X20MM*	5	51371.650.001
15X25X12MM*	50	51371.150.001	34X50X16MM*	10	51371.340.001	70X100X20MM*	5	51371.700.001
16X28X12MM	50	51371.160.001						

Anel de ajuste com 2 pernos sextavado interior DIN 705A/2 x ISO 4027 (DIN 914)



DIN **705A/4027 (914)**

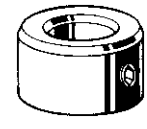


Dados técnicos

d_1 (H8)	b	d_1	d_2	d_3
75	22	75	110	12
80	22	80	110	12
90	22	90	125	12

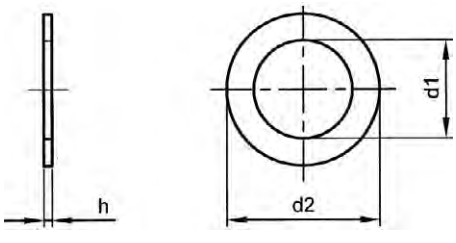
51373 **Anel de ajuste com 2 pernos sextavado interior** **R09A**

Material Aço inoxidável A2
Classe 50

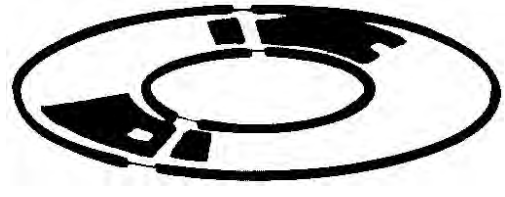


d_1 x d_2 x b	✉	Ref. do artigo	d_1 x d_2 x b	✉	Ref. do artigo	d_1 x d_2 x b	✉	Ref. do artigo
75X110X22MM*	5	51373.750.001	80X110X22MM*	5	51373.800.001	90X125X22MM*	5	51373.900.001

Anilha de ajuste



DIN **988**



Dados técnicos

d_1 x d_2	d_1 (max.)	d_1 (min.)	d_2 (max.)	d_2 (min.)
3x6	3.12	3.02	5.97	5.85
4x8	4.15	4.03	7.96	7.81
5x10	5.15	5.03	9.96	9.81
6x12	6.15	6.03	11.95	11.77
6x18 (≠DIN)	6.15	6.03	17.95	17.77
7x13	7.15	7.04	12.95	12.77
8x14	8.19	8.04	13.95	13.77
8x20 (≠DIN)	8.16	8.04	19.95	19.77
9x15	9.19	9.04	14.95	14.77
10x16	10.19	10.04	15.95	15.77
10x18 (≠DIN)	10.19	10.04	15.95	17.77
10x22 (≠DIN)	10.19	10.04	21.935	21.725
11x17	11.23	11.05	16.95	16.77
12x18	12.23	12.05	17.95	17.77
12x20 (≠DIN)	12.23	12.05	19.935	19.725
12x24 (≠DIN)	12.23	12.05	23.935	23.725
13x19	13.23	13.05	17.95	17.77
14x20	14.23	14.05	19.935	19.725
14x26 (≠DIN)	14.23	14.03	25.935	25.725
15x21	15.23	15.05	20.935	20.725
16x22	16.23	16.05	21.935	21.725
16x26 (≠DIN)	16.23	16.05	25.935	25.275
16x28 (≠DIN)	16.23	16.05	27.935	27.275
17x24	17.23	17.05	23.935	23.725
18x25	18.23	18.05	24.935	24.725
18x30 (≠DIN)	18.23	18.05	29.735	29.725
19x26	19.275	19.065	25.935	25.725
20x28	20.275	20.065	27.935	27.725

Dados técnicos

d_1 x d_2	d_1 (max.)	d_1 (min.)	d_2 (max.)	d_2 (min.)
20x32 (≠DIN)	20.275	20.065	31.92	31.67
22x30	22.275	22.065	29.935	29.725
22x32	22.275	22.065	31.92	31.67
22x34 (≠DIN)	22.275	22.065	33.92	33.67
24x36 (≠DIN)	24.275	24.065	35.92	35.67
25x35	25.275	25.065	34.92	34.67
25x36	25.275	25.065	35.92	35.67
26x37	26.275	26.065	36.92	36.67
26x38 (≠DIN)	26.275	26.065	37.92	37.67
28x40	28.275	28.065	39.92	39.67
30x35 (≠DIN)	30.275	30.065	34.92	34.67
30x40 (≠DIN)	30.275	30.065	39.92	39.67
30x42	30.275	30.065	41.92	41.67
32x44 (≠DIN)	32.33	32.08	43.92	43.67
32x45	32.33	32.08	44.92	44.67
34x46 (≠DIN)	34.33	34.08	45.92	45.67
35x45	35.33	35.08	44.92	44.67
36x45	36.33	36.08	44.92	44.67
36x48 (≠DIN)	36.33	36.08	47.92	47.67
37x47	37.33	37.08	46.92	46.67
38x50 (≠DIN)	38.33	38.08	49.92	49.67
40x50	40.33	40.08	49.92	49.67
40x52 (≠DIN)	40.33	40.08	51.9	51.6
42x52	42.33	42.08	51.9	51.6
42x54 (≠DIN)	43.33	42.08	53.9	53.6
44x56 (≠DIN)	44.33	44.08	55.9	55.6
45x55	45.33	45.08	54.9	54.6
45x56	45.33	45.08	55.9	55.6
46x58 (≠DIN)	46.33	46.08	57.9	57.6
48x60	48.33	48.08	59.9	59.6
50x62	50.33	50.08	61.9	61.6
50x63	50.33	50.08	62.9	62.6
52x65	52.4	52.1	64.9	64.6
55x68	55.4	55.1	67.9	67.6
56x68 (≠DIN)	56.4	56.1	67.9	67.6
56x70	56.4	56.1	69.9	69.6
56x72	56.4	56.1	71.9	71.6
60x72 (≠DIN)	60.4	60.1	71.9	71.6
60x75	60.4	60.1	74.9	74.6
63x80	63.4	63.1	79.9	79.6
65x80 (≠DIN)	65.4	65.1	79.9	79.6
65x85	65.4	65.1	84.88	84.53
70x85 (≠DIN)	70.4	70.1	84.88	84.53
70x90	70.4	70.1	89.88	89.53
75x90 (≠DIN)	75.4	75.1	89.88	89.53
75x95	75.4	75.1	94.88	94.53
80x100	80.4	80.1	99.88	99.53
85x105	85.47	85.12	104.88	104.53
90x110	90.47	90.12	109.88	109.53
95x110 (≠DIN)	95.47	95.12	109.88	109.53
100x120	100.47	100.12	119.88	119.53
100x125	100.47	100.12	124.855	124.455
105x125 (≠DIN)	105.47	105.12	124.855	124.455
105x130	105.47	105.12	129.855	129.455
110x130 (≠DIN)	110.47	110.12	129.855	129.455
110x140	110.47	110.12	139.855	139.455
120x140 (≠DIN)	120.47	120.12	139.855	139.455
120x150	120.47	120.12	149.855	149.455
130x150 (≠DIN)	130.545	130.145	149.855	149.455
130x160	130.545	130.145	159.855	159.455
140x170	140.545	140.145	169.855	169.455
150x180	150.545	150.145	179.855	179.455
160x180 (≠DIN)	160.545	160.145	179.855	179.455
160x190	160.545	160.145	189.83	189.37
170x200	170.545	170.145	199.83	199.37
185x215 (≠DIN)	185.47	185.12	214.83	214.37

Grupos de produtos

Material		Código	Página
Aço 2 K 50 vlgs DIN1624	h=0,1mm	38600	7-139
INOX A2	h=0,1mm	51552	7-139
INOX A2	h=0,2mm	51554	7-139
Aço 2 K 50 vlgs DIN1624	h=0,25mm	38602	7-140
Aço 2 K 50 vlgs DIN1624	h=0,3mm	38583	7-140
INOX A2	h=0,3mm	51556	7-140
Aço 2 K 50 vlgs DIN1624	h=0,5mm	38585	7-140
INOX A2	h=0,5mm	51555	7-141
Aço 2 K 50 vlgs DIN1624	h=1,0mm	38590	7-141
INOX A2	h=1,0mm	51557	7-141

38600 Anilha de ajuste h=0,1mm — L07H

Material Aço 2 K 50 vlgs DIN1624



d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
8X14MM	100	38600.080.014	22X34MM	50	38600.220.034	42X52MM	25	38600.420.052
8X20MM	100	38600.080.020	24X36MM	50	38600.240.036	50X62MM	25	38600.500.062
10X16MM	100	38600.100.016	25X35MM	50	38600.250.035	56X70MM	25	38600.560.070
10X22MM	100	38600.100.022	26X38MM	50	38600.260.038	56X72MM	10	38600.560.072
12X18MM	100	38600.120.018	28X40MM	50	38600.280.040	63X80MM	25	38600.630.080
12X24MM	100	38600.120.024	30X35MM	50	38600.300.035	75X90MM	10	38600.750.090
14X26MM	100	38600.140.026	30X42MM	50	38600.300.042	80X100MM	10	38600.800.100
16X28MM	50	38600.160.028	32X44MM	25	38600.320.044	90X110MM	10	38600.900.110
17X24MM	50	38600.170.024	34X46MM	25	38600.340.046	105X125MM	10	38600.983.125
18X25MM	50	38600.180.025	36X48MM	25	38600.360.048	110X140MM	5	38600.984.140
18X30MM	50	38600.180.030	37X47MM	50	38600.370.047	120X140MM	10	38600.986.140
20X28MM	50	38600.200.028	38X50MM	25	38600.380.050	140X170MM	5	38600.990.170
20X32MM	50	38600.200.032	40X50MM	25	38600.400.050			

51552 Anilha de ajuste h=0,1mm — R05A

Material Aço inoxidável A2



d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
5X10MM*	100	51552.050.010	16X22MM*	100	51552.160.022	28X40MM*	100	51552.280.040
6X12MM	100	51552.060.012	20X28MM*	100	51552.200.028	30X42MM*	100	51552.300.042
10X16MM	100	51552.100.016	25X35MM*	100	51552.250.035	40X50MM*	100	51552.400.050
12X18MM	100	51552.120.018						

51554 Anilha de ajuste h=0,2mm — R05A

Material Aço inoxidável A2



d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
4X8MM	100	51554.040.008	11X17MM*	100	51554.110.017	15X21MM	100	51554.150.021
5X10MM*	100	51554.050.010	12X18MM*	100	51554.120.018	16X22MM*	100	51554.160.022
6X12MM	100	51554.060.012	13X19MM*	100	51554.130.019	20X28MM*	100	51554.200.028
8X14MM*	100	51554.080.014	14X20MM*	100	51554.140.020	25X35MM*	100	51554.250.035
10X16MM	100	51554.100.016						

38602 Anilha de ajuste h=0,25mm — L07H

Material Aço 2 K 50 vlgs DIN1624



d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
8X20MM	100	38602.080.020	18X30MM	50	38602.180.030	38X50MM	25	38602.380.050
10X16MM	100	38602.100.016	20X32MM	50	38602.200.032	42X54MM	25	38602.420.054
10X22MM	100	38602.100.022	22X34MM	50	38602.220.034	44X56MM	25	38602.440.056
12X20MM	100	38602.120.020	24X36MM	50	38602.240.036	46X58MM	25	38602.460.058
12X24MM	100	38602.120.024	26X38MM	50	38602.260.038	48X60MM	25	38602.480.060
14X26MM	100	38602.140.026	32X44MM	25	38602.320.044	50X62MM	25	38602.500.062
16X26MM	100	38602.160.026	34X46MM	25	38602.340.046	56X68MM	25	38602.560.068
16X28MM	50	38602.160.028	36X48MM	25	38602.360.048	60X72MM	25	38602.600.072

38583 Anilha de ajuste h=0,3mm — L07H

Material Aço 2 K 50 vlgs DIN1624



d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
3X6MM	100	38583.030.006	25X35MM	50	38583.250.035	65X80MM	10	38583.650.080
4X8MM	100	38583.040.008	25X36MM	50	38583.250.036	65X85MM	10	38583.650.085
5X10MM	100	38583.050.010	26X37MM	50	38583.260.037	70X90MM	10	38583.700.090
6X12MM	100	38583.060.012	28X40MM	50	38583.280.040	75X90MM	10	38583.750.090
8X14MM	100	38583.080.014	30X35MM	50	38583.300.035	80X100MM	10	38583.800.100
10X16MM	100	38583.100.016	30X42MM	50	38583.300.042	85X105MM	10	38583.850.105
12X18MM	100	38583.120.018	32X45MM	25	38583.320.045	90X110MM	10	38583.900.110
14X20MM	100	38583.140.020	35X45MM	25	38583.350.045	95X110MM	10	38583.950.110
15X21MM	100	38583.150.021	36X45MM	25	38583.360.045	100X120MM	10	38583.982.120
16X22MM	50	38583.160.022	37X47MM	25	38583.370.047	105X125MM	10	38583.983.125
17X24MM	50	38583.170.024	40X50MM	25	38583.400.050	110X130MM	10	38583.984.130
18X25MM	50	38583.180.025	42X52MM	25	38583.420.052	110X140MM	10	38583.984.140
19X26MM	50	38583.190.026	45X55MM	25	38583.450.055	130X160MM	10	38583.988.160
20X28MM	50	38583.200.028	50X62MM	25	38583.500.062	140X170MM	10	38583.990.170
22X30MM	50	38583.220.030	56X72MM	25	38583.560.072	160X180MM	10	38583.993.180
22X32MM	50	38583.220.032	60X75MM	25	38583.600.075	185X215MM	10	38583.996.215
24X36MM	50	38583.240.036	63X80MM	10	38583.630.080			

51556 Anilha de ajuste h=0,3mm — R05A

Material Aço inoxidável A2



d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
5X10MM*	100	51556.050.010	14X20MM*	100	51556.140.020	17X24MM*	100	51556.170.024
6X12MM*	100	51556.060.012	16X22MM*	100	51556.160.022	20X28MM*	100	51556.200.028
12X18MM*	100	51556.120.018						

38585 Anilha de ajuste h=0,5mm — L07H

Material Aço 2 K 50 vlgs DIN1624



d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
3X6MM	100	38585.030.006	19X26MM	50	38585.190.026	40X50MM	25	38585.400.050
4X8MM	100	38585.040.008	20X28MM	50	38585.200.028	42X52MM	25	38585.420.052
5X10MM	100	38585.050.010	22X32MM	50	38585.220.032	45X55MM	10	38585.450.055
6X12MM	100	38585.060.012	25X35MM	50	38585.250.035	50X62MM	10	38585.500.062
8X14MM	100	38585.080.014	26X37MM	50	38585.260.037	56X72MM	10	38585.560.072
10X16MM	100	38585.100.016	28X40MM	50	38585.280.040	60X75MM	10	38585.600.075
12X18MM	100	38585.120.018	30X42MM	50	38585.300.042	63X80MM	10	38585.630.080
14X20MM	100	38585.140.020	32X45MM	25	38585.320.045	65X80MM	10	38585.650.080
16X22MM	50	38585.160.022	35X45MM	25	38585.350.045	70X85MM	10	38585.700.085
17X24MM	50	38585.170.024	36X45MM	25	38585.360.045	70X90MM	10	38585.700.090
18X25MM	50	38585.180.025	37X47MM	25	38585.370.047	75X90MM	10	38585.750.090

7

38585 Anilha de ajuste h=0,5mm ←

d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
80X100MM	10	38585.800.100	110X130MM	10	38585.984.130	140X170MM	5	38585.990.170
90X110MM	10	38585.900.110	110X140MM	10	38585.984.140	150X180MM	5	38585.992.180
100X120MM	10	38585.981.120	130X150MM	5	38585.988.150	160X180MM	5	38585.993.180
105X125MM	10	38585.983.125	130X160MM	5	38585.988.160			

51555 Anilha de ajuste h=0,5mm R05A

Material Aço inoxidável A2

RoHS



d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
4X8MM*	100	51555.040.008	14X20MM*	100	51555.140.020	25X35MM*	100	51555.250.035
5X10MM	100	51555.050.010	15X21MM	100	51555.150.021	28X40MM*	100	51555.280.040
6X12MM	100	51555.060.012	16X22MM*	100	51555.160.022	30X42MM*	100	51555.300.042
8X14MM	100	51555.080.014	17X24MM*	100	51555.170.024	35X45MM*	100	51555.350.045
10X16MM	100	51555.100.016	20X28MM*	100	51555.200.028	40X50MM*	100	51555.400.050
12X18MM	100	51555.120.018	22X30MM*	100	51555.220.030			

38590 Anilha de ajuste h=1,0mm L07H

Material Aço 2 K 50 vlgs DIN1624

RoHS



d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
3X6MM	100	38590.030.006	16X22MM	50	38590.160.022	30X42MM	50	38590.300.042
4X8MM	100	38590.040.008	18X25MM	50	38590.180.025	32X45MM	25	38590.320.045
5X10MM	100	38590.050.010	20X28MM	50	38590.200.028	35X45MM	25	38590.350.045
6X12MM	100	38590.060.012	20X32MM	50	38590.200.032	36X45MM	25	38590.360.045
8X14MM	100	38590.080.014	22X32MM	50	38590.220.032	37X47MM	25	38590.370.047
10X16MM	100	38590.100.016	25X35MM	50	38590.250.035	40X50MM	25	38590.400.050
12X18MM	100	38590.120.018	26X37MM	50	38590.260.037	45X55MM	10	38590.450.055
12X24MM	100	38590.120.024	26X38MM	50	38590.260.038	50X62MM	10	38590.500.062
14X20MM	100	38590.140.020	28X40MM	50	38590.280.040	60X75MM	10	38590.600.075

51557 Anilha de ajuste h=1,0mm R05A

Material Aço inoxidável A2

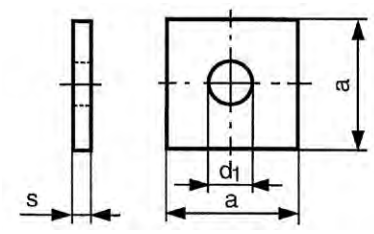
RoHS



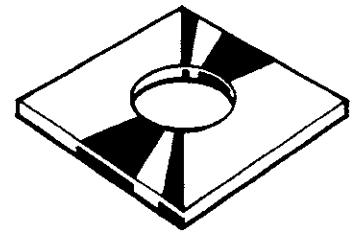
d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
6X12MM*	100	51557.060.012	13X19MM*	100	51557.130.019	20X28MM	100	51557.200.028
8X14MM	100	51557.080.014	14X20MM*	100	51557.140.020	25X35MM*	100	51557.250.035
10X16MM	100	51557.100.016	15X21MM	100	51557.150.021	30X42MM*	100	51557.300.042
11X17MM*	100	51557.110.017	16X22MM	100	51557.160.022	35X45MM*	100	51557.350.045
12X18MM	100	51557.120.018	17X24MM*	100	51557.170.024			

7

Anilha quadrada



DIN **436**



Dados técnicos

Para diâm.nom.	a	d_1	s
M8 (≠DIN)	30	9	3
M10	30	11	3
M12	40	13.5	4
M16	50	17.5	5
M20	60	22	5

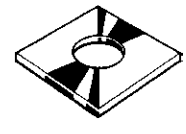
Para diâm.nom.	a	d_1	s
M22	70	24	6
M24	80	26	6
M27	90	30	6
M30	95	33	6

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço		38300	7-142
Aço	Zn	38310	7-142
Aço	Galv. Q.	38320	7-142
INOX A2		51908	7-143
INOX A4		55908	7-143

38300 Anilha quadrada — L07G

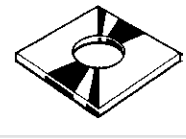
Material Aço



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M8	100	38300.080.001	M16	100	38300.160.001	M22	50	38300.220.001
M10	100	38300.100.001	M20	50	38300.200.001	M24	25	38300.240.001
M12	100	38300.120.001						

38310 Anilha quadrada — L07G

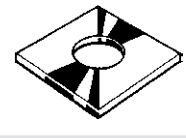
Material Aço
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M8	100	38310.080.001	M16	100	38310.160.001	M24	25	38310.240.001
M10	100	38310.100.001	M20	50	38310.200.001	M27	25	38310.270.001
M12	100	38310.120.001	M22	50	38310.220.001	M30	25	38310.300.001

38320 Anilha quadrada — A08G

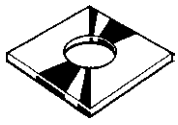
Material Aço
Tratamento sup. Galvanizado a quente



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M8	100	38320.080.001	M16	100	38320.160.001	M24	25	38320.240.001
M10	100	38320.100.001	M20	50	38320.200.001	M27	25	38320.270.001
M12	100	38320.120.001	M22	50	38320.220.001	M30	10	38320.300.001

51908 **Anilha quadrada** **R09A**

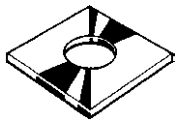
Material Aço inoxidável A2 **DIN** ≈436



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M10	100	51908.100.001	M16	100	51908.160.001	M24	25	51908.240.001
M12	100	51908.120.001	M20	50	51908.200.001			

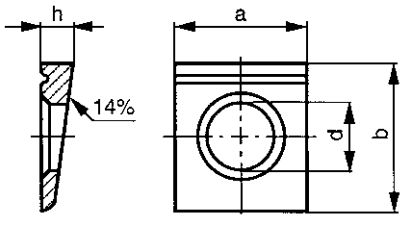
55908 **Anilha quadrada** **R49A**

Material Aço inoxidável A4 **DIN** ≈436

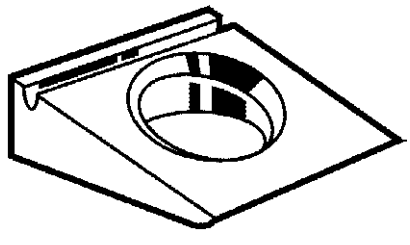


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M10	100	55908.100.001	M16	100	55908.160.001	M24	25	55908.240.001
M12	100	55908.120.001	M20	50	55908.200.001			

Anilha quadrada para secções-I 14%



DIN **435**
NEN 2273



Dados técnicos

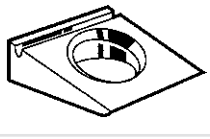
Para diâm.nom.	a	b	d	h	Para diâm.nom.	a	b	d	h
M8	22	22	9	4.6	**M22**	44	50	24	10
M10	22	22	11	4.6	**M24**	56	56	26	10.8
M12	26	30	13.5	6.2	**M27**	56	56	30	10.8
M16	32	36	17.5	7.5	**M30 (≠DIN)**	62	62	33	11.7
M20	40	44	22	9.2	**M33 (≠DIN)**	68	68	36	11.7

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço 100-250 HV10		38520	7-143
Aço 100-250 HV10	Galv. Q.	38540	7-144
INOX A2		51922	7-144
INOX A4		55922	7-144

38520 **Anilha quadrada para secções-I 14%** **L07G**

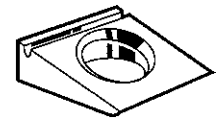
Material Aço 100-250 HV10



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M8	100	38520.080.001	M16	100	38520.160.001	M22	50	38520.220.001
M10	100	38520.100.001	M20	50	38520.200.001	M24	25	38520.240.001
M12	100	38520.120.001						

38540 Anilha quadrada para secções-I 14% — A08G

Material Aço 100-250 HV10
Tratamento sup. Galvanizado a quente

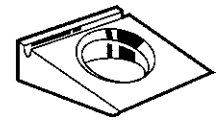


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M8	100	38540.080.001	M20	50	38540.200.001	M27	25	38540.270.001
M10	100	38540.100.001	M22	50	38540.220.001	M30	10	38540.300.001
M12	100	38540.120.001	M24	25	38540.240.001	M33	10	38540.330.001
M16	100	38540.160.001						

51922 Anilha quadrada para secções-I 14% — R09A

Material Aço inoxidável A2

DIN **≈435**
NEN ≈2273

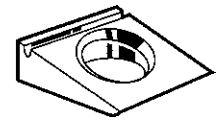


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M8	50	51922.080.001	M16	50	51922.160.001	M22*	10	51922.220.001
M10	50	51922.100.001	M20*	25	51922.200.001	M24*	10	51922.240.001
M12	50	51922.120.001						

55922 Anilha quadrada para secções-I 14% — R49A

Material Aço inoxidável A4

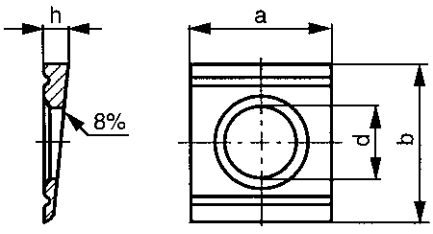
DIN **≈435**
NEN ≈2273



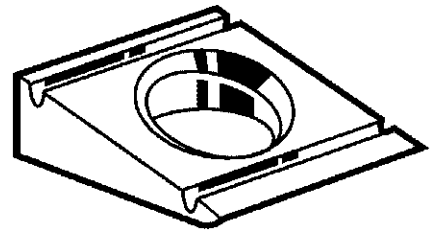
Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M8*	50	55922.080.001	M16	50	55922.160.001	M22*	10	55922.220.001
M10	50	55922.100.001	M20*	25	55922.200.001	M24*	10	55922.240.001
M12	50	55922.120.001						

7

Anilha quadrada 8% para seções em U



DIN **434**
NEN 2272



Dados técnicos

Para diâm.nom.	a	b	d	h
M8	22	22	9	3.8
M10	22	22	11	3.8
M12	26	30	13.5	4.9
M14 (≠DIN)	26.2	30.1	16.3	5.5
M16	32	36	17.5	5.9
M20	40	44	22	7

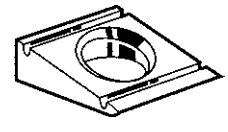
Para diâm.nom.	a	b	d	h
M22	44	50	24	8
M24	56	56	26	8.5
M27	56	56	30	8.5
M30 (≠DIN)	56	56	33	8.5
M33 (≠DIN)	56	56	36	8.5

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço 100-250 HV10		38500	7-145
Aço 100-250 HV10	Zn	38495	7-145
Aço 100-250 HV10	Galv. Q.	38490	7-145
INOX A2		51920	7-146
INOX A4		55920	7-146

38500 Anilha quadrada 8% para seções em U — L07G

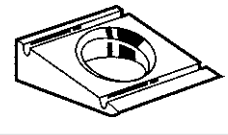
Material Aço 100-250 HV10



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M8	100	38500.080.001	M16	100	38500.160.001	M27	25	38500.270.001
M10	100	38500.100.001	M20	50	38500.200.001	M30	10	38500.300.001
M12	100	38500.120.001	M22	50	38500.220.001	M33	10	38500.330.001
M14	100	38500.140.001	M24	25	38500.240.001			

38495 Anilha quadrada 8% para seções em U — L07G

Material Aço 100-250 HV10
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M8	200	38495.080.001	M12	100	38495.120.001	M20	50	38495.200.001
M10	200	38495.100.001	M16	100	38495.160.001	M24	50	38495.240.001

38490 Anilha quadrada 8% para seções em U — A08G

Material Aço 100-250 HV10
Tratamento sup. Galvanizado a quente



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M8	100	38490.080.001	M20	50	38490.200.001	M27	25	38490.270.001
M10	100	38490.100.001	M22	50	38490.220.001	M30	10	38490.300.001
M12	100	38490.120.001	M24	25	38490.240.001	M33	10	38490.330.001
M16	100	38490.160.001						

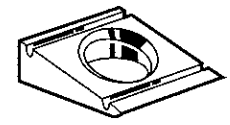
7

51920 Anilha quadrada 8% para seções em U — R09A

Material Aço inoxidável A2

DIN ≈434
NEN ≈2272

RoHS



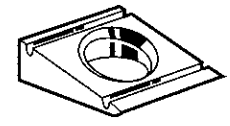
Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M8	50	51920.080.001	M16	50	51920.160.001	M22*	10	51920.220.001
M10	50	51920.100.001	M20	25	51920.200.001	M24*	10	51920.240.001
M12	50	51920.120.001						

55920 Anilha quadrada 8% para seções em U — R49A

Material Aço inoxidável A4

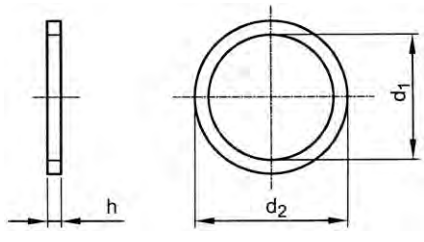
DIN ≈434
NEN ≈2272

RoHS

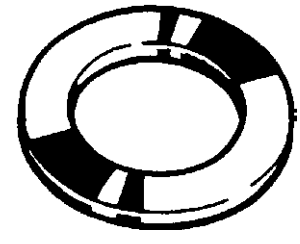


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M8	50	55920.080.001	M16	50	55920.160.001	M24*	10	55920.240.001
M10	50	55920.100.001	M20	25	55920.200.001	M30*	10	55920.300.001
M12	50	55920.120.001	M22*	10	55920.220.001			

Anilha de vedação



DIN 7603 A/C



7

Dados técnicos

d_1 x d_2 x h	d_1	d_2	d_1 x d_2 x h	d_1	d_2
4x8x1	4.2	7.9	12x15.5x1.5	12.2	15.4
5x7.5x1	5.2	7.9	12x16x1 (≠DIN)	12.2	15.9
5x9x1	5.2	8.9	12x16x1.5	12.2	15.9
5x9x1.5	5.2	8.9	12x16x2	12.2	15.9
5x10x1 (≠DIN)	5.2	9.9	12x17x1.5	12.2	16.9
6x10x1	6.2	9.9	12x18x1.5	12.2	17.9
6x10x1.5	6.2	9.9	12x18x2	12.2	17.9
6x12x1 (≠DIN)	6.2	11.9	12x20x1.5 (≠DIN)	12.2	19.9
6x12x1.5 (≠DIN)	6.2	11.9	12.5x20x1.5 (≠DIN)	12.7	19.9
6.5x9.5x1	6.7	9.4	13x18x1.5 (≠DIN)	13.2	17.9
7x10x1 (≠DIN)	7.2	9.9	13x18x2 (≠DIN)	13.2	17.9
7x15x2 (≠DIN)	7.1	14.9	14x18x1 (≠DIN)	14.2	17.9
8x11.5x1	8.2	11.4	14x18x1.5	14.2	17.9
8x11.5x1.5	8.2	11.4	14x18x2	14.2	17.9
8x12x1	8.2	11.9	14x18x2 (≠DIN)	14.2	17.9
8x12x1.5	8.2	11.9	14x20x1 (≠DIN)	14.2	19.9
8x13x1	8.2	12.9	14x20x1.5	14.2	19.9
8x14x1	8.2	13.9	14x20x2	14.2	19.9
8x14x1.5	8.2	13.9	14x20x2 (≠DIN)	14.2	19.9
9x14x1 (≠DIN)	9.2	13.9	14x22x1.5 (≠DIN)	14.2	21.9
9x14x1.5 (≠DIN)	9.2	13.9	15x19x1.5	15.2	18.9
10x13.5x1	10.2	13.4	15x20x1 (≠DIN)	15.2	19.9
10x13.5x1.5	10.2	13.4	15x20x1.5 (≠DIN)	15.2	19.9
10x14x1	10.2	13.9	15x20x2 (≠DIN)	15.2	19.9
10x14x1.5	10.2	13.9	16x20x1.5	16.2	19.9
10x15x1	10.2	14.9	16x20x2	16.2	19.9
10x16x1	10.2	15.9	16x20x2 (≠DIN)	16.2	19.9
10x16x1.5	10.2	15.9	16x21x2 (≠DIN)	16.2	20.9
10x19x2 (≠DIN)	10.2	18.9	16x22x1.5	16.2	21.9
10x20x1.5 (≠DIN)	10.2	19.9	16x22x2	16.2	21.9
10.5x17x1.5 (≠DIN)	10.7	16.9	16x22x2 (≠DIN)	16.2	21.9
11x17x1.5 (≠DIN)	11.2	16.9	16.5x24x2 (≠DIN)	16.7	23.9

Dados técnicos

d_1 x d_2 x h	d_1	d_2
17x21x1.5	17.2	20.9
17x21x2	17.2	20.9
17x22x1.5 (≠DIN)	17.2	21.9
17x23x1.5	17.2	22.9
17x23x2	17.2	22.9
17x24x2 (≠DIN)	17.2	23.9
17.5x25x2 (≠DIN)	17.7	24.9
18x22x1.5	18.2	21.9
18x22x2	18.2	21.9
18x24x1.5	18.2	23.9
18x24x2	18.2	23.9
18x24x2 (≠DIN)	18.2	23.9
19x26x2 (≠DIN)	19.2	25.9
20x24x1.5	20.2	23.9
20x24x2	20.2	23.9
20x24x2 (≠DIN)	20.2	23.9
20x26x1.5	20.2	25.9
20x26x2	20.2	25.9
21x26x1.5	21.2	25.9
21x26x2	21.2	25.9
21x26x2 (≠DIN)	21.2	25.9
21x28x1.5 (≠DIN)	21.2	27.9
21x28x2 (≠DIN)	21.2	27.9
22x26x2 (≠DIN)	22.2	25.9
22x27x1.5	22.2	26.9
22x27x2	22.2	26.9
22x29x1.5	22.2	28.9
22x29x2	22.2	28.9
22x29x2 (≠DIN)	22.2	28.9
24x29x2	24.3	28.9
24x29x2.5	24.3	28.9
24x30x2 (≠DIN)	24.3	29.9
24x30x2.5 (≠DIN)	24.3	29.9
24x32x2	24.3	319
24x32x2.5	24.3	31.9
26x31x2	26.3	30.9
26x32x2	26.3	31.9

Dados técnicos

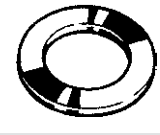
d_1 x d_2 x h	d_1	d_2
26x32x2.5	26.3	31.9
26x33x2 (≠DIN)	26.3	32.9
26x34x2	26.3	33.9
26x34x2.5	26.3	33.9
27x32x2	27.3	31.9
27x32x2.5	27.3	31.9
28x33x1 (≠DIN)	28.3	32.9
28x34x2 (≠DIN)	28.3	33.9
28x34x2.5 (≠DIN)	28.3	33.9
30x36x2	30.3	35.9
30x36x2.5	30.3	35.9
30x38x2	30.3	37.9
30x38x2.5	30.3	37.9
32x38x2	32.3	37.9
32x38x2.5	32.3	37.9
32x40x2	32.3	39.9
33x39x2	33.3	38.9
33x39x2.5	33.3	38.9
35x41x2	35.3	40.9
35x41x2.5	35.3	40.9
35x45x2 (≠DIN)	35.3	44.9
36x42x2	36.3	41.9
36x42x2.5	36.3	41.9
38x44x2	38.3	43.9
38x44x2.5	38.3	43.9
40x47x2	40.3	46.9
40x47x2.5	40.3	46.9
42x49x2	42.3	48.9
42x49x2.5	42.3	48.9
45x52x2	445.3	51.9
45x52x2.5 (≠DIN)	45.3	51.9
48x55x2	48.3	54.9
48x55x2.5	48.3	54.9
50x57x2	50.2	56.9
60x68x2.5	60.5	67.8
75x84x2.5	75.5	83.8
90x100x2.5	90.5	99.8

Grupos de produtos

Material		Código	Página
Al 99F11	h=1,0mm	45191	7-147
Al 99F11	h=1,5mm	45192	7-148
Al 99F11	h=2,0mm	45193	7-148
Cu	h=1,0mm	50300	7-148
Cu	h=1,5mm	50301	7-148
Cu	h=2,0mm	50302	7-149
Cu	h=2,5mm	50303	7-149
Cu/FESTAPLAN	h=1,5mm	50332	7-149
Cu/FESTAPLAN	h=2,0mm	50333	7-149
Cu/FESTAPLAN	h=2,5mm	50334	7-150

45191 **Anilha afinação dureza HB 32-45 h=1mm** **W01D**

Material Alumínio 99F11 **DIN** **7603 A**

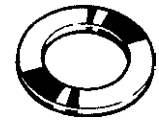


d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
4X8MM	100	45191.040.008	6,5X9,5MM	100	45191.065.009	8X14MM	100	45191.080.014
5X7,5MM	100	45191.050.007	8X11,5MM	100	45191.080.011	10X13,5MM	100	45191.100.013
5X9MM	100	45191.050.009	8X12MM	100	45191.080.012	10X14MM	100	45191.100.014
6X10MM	100	45191.060.010	8X13MM	100	45191.080.013	10X16MM	100	45191.100.016
6X12MM (≠DIN)	100	45191.060.012						

- Aplicável em ligações com tubos e tampas.

45192 Anilha afinação dureza HB 32-45 h=1,5mm — W01D

Material Alumínio 99F11 **DIN** 7603 A

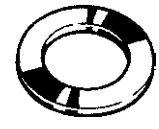


d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
12X15,5MM	100	45192.120.015	15X19MM	100	45192.150.019	18X24MM	100	45192.180.024
12X16MM	100	45192.120.016	16X20MM	100	45192.160.020	20X24MM	50	45192.200.024
12X17MM	100	45192.120.017	16X22MM	100	45192.160.022	20X26MM	50	45192.200.026
12X18MM	100	45192.120.018	17X21MM	100	45192.170.021	21X28MM (≠DIN)	50	45192.210.028
13X18MM (≠DIN)	100	45192.130.018	17X23MM	100	45192.170.023	22X27MM	50	45192.220.027
14X18MM	100	45192.140.018	18X22MM	100	45192.180.022	22X29MM	50	45192.220.029
14X20MM	100	45192.140.020						

- Aplicável em ligações com tubos e tampas.

45193 Anilha afinação dureza HB 32-45 h=2mm — W01D

Material Alumínio 99F11 **DIN** 7603 A



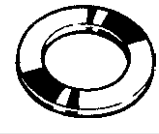
d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
24X29MM	50	45193.240.029	28X34MM (≠DIN)	10	45193.280.034	40X47MM	10	45193.400.047
24X30MM (≠DIN)	50	45193.240.030	30X36MM	10	45193.300.036	42X49MM	10	45193.420.049
26X31MM	50	45193.260.031	30X38MM	10	45193.300.038	48X55MM	10	45193.480.055
26X32MM	50	45193.260.032	32X38MM	10	45193.320.038	50X57MM	10	45193.500.057
26X34MM	10	45193.260.034	33X39MM	10	45193.330.039			
27X32MM	10	45193.270.032	35X41MM	10	45193.350.041			

- Aplicável em ligações com tubos e tampas.

50300 Anilhas de afinação h=1mm — M03A

Material Cobre **DIN** 7603 A

RoHS



d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
5X10MM (≠DIN)	100	50300.050.010	8X14MM	100	50300.080.014	14X18MM (≠DIN)	50	50300.140.018
6X10MM	100	50300.060.010	9X14MM (≠DIN)	100	50300.090.014	14X20MM (≠DIN)	50	50300.140.020
6X12MM	100	50300.060.012	10X14MM	100	50300.100.014	15X20MM (≠DIN)	50	50300.150.020
6,5X9,5MM	100	50300.065.009	10X15MM	100	50300.100.015	28X33MM	100	50300.280.033
7X10MM (≠DIN)	100	50300.070.010	10X16MM	100	50300.100.016			
8X12MM	100	50300.080.012	12X16MM (≠DIN)	50	50300.120.016			

- Aplicável em ligações com tubos e tampas.

50301 Anilhas de afinação h=1,5mm — M03A

Material Cobre **DIN** 7603 A

RoHS

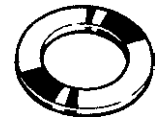


d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
6X10MM	100	50301.060.010	12X18MM	50	50301.120.018	17X21MM	50	50301.170.021
8X14MM	100	50301.080.014	12X20MM (≠DIN)	50	50301.120.020	17X22MM (≠DIN)	50	50301.170.022
9X14MM (≠DIN)	100	50301.090.014	12,5X20MM (≠DIN)	50	50301.125.020	18X22MM	25	50301.180.022
10X14MM	100	50301.100.014	13X18MM (≠DIN)	50	50301.130.018	18X24MM	25	50301.180.024
10X16MM	100	50301.100.016	14X18MM	50	50301.140.018	20X24MM	25	50301.200.024
10X20MM (≠DIN)	100	50301.100.020	14X20MM	50	50301.140.020	20X26MM	25	50301.200.026
10,5X17MM (≠DIN)	100	50301.105.017	14X22MM (≠DIN)	50	50301.140.022	21X26MM	25	50301.210.026
11X17MM (≠DIN)	100	50301.110.017	15X20MM (≠DIN)	50	50301.150.020	21X28MM (≠DIN)	25	50301.210.028
12X16MM	50	50301.120.016	16X20MM	50	50301.160.020	22X27MM	25	50301.220.027
12X17MM	50	50301.120.017	16X22MM	50	50301.160.022	22X29MM	25	50301.220.029

- Aplicável em ligações com tubos e tampas.

50302 Anilhas de afinação h=2mm — M03A

Material Cobre **DIN** 7603 A

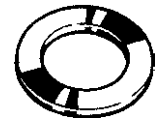


d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
7,1X15MM (≠DIN)	100	50302.071.015	19X26MM (≠DIN)	25	50302.190.026	28X34MM (≠DIN)	10	50302.280.034
10X19MM (≠DIN)	100	50302.100.019	20X24MM (≠DIN)	25	50302.200.024	30X36MM	10	50302.300.036
13X18MM (≠DIN)	50	50302.130.018	21X26MM (≠DIN)	25	50302.210.026	30X38MM	10	50302.300.038
14X18MM (≠DIN)	50	50302.140.018	21X28MM (≠DIN)	25	50302.210.028	32X38MM	10	50302.320.038
14X20MM (≠DIN)	50	50302.140.020	22X26MM (≠DIN)	25	50302.220.026	32X40MM	10	50302.320.040
15X20MM (≠DIN)	50	50302.150.020	22X29MM (≠DIN)	25	50302.220.029	33X39MM	10	50302.330.039
16X20MM (≠DIN)	50	50302.160.020	24X30MM (≠DIN)	25	50302.240.030	35X45MM (≠DIN)	10	50302.350.045
16X21MM (≠DIN)	50	50302.160.021	24X32MM	25	50302.240.032	36X42MM	10	50302.360.042
16X22MM (≠DIN)	50	50302.160.022	26X31MM	10	50302.260.031	38X44MM	10	50302.380.044
16,5X24MM (≠DIN)	25	50302.165.024	26X32MM	10	50302.260.032	40X47MM	10	50302.400.047
17X24MM (≠DIN)	25	50302.170.024	26X33MM (≠DIN)	10	50302.260.033	45X52MM	10	50302.450.052
17,5X25MM (≠DIN)	25	50302.175.025	26X34MM	10	50302.260.034	50X57MM	10	50302.500.057
18X24MM (≠DIN)	25	50302.180.024						

- Aplicável em ligações com tubos e tampas.

50303 Anilhas de afinação h=2,5mm — M03A

Material Cobre **DIN** 7603 A



d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
60X68MM	10	50303.600.068	75X84MM	10	50303.750.084	90X100MM	10	50303.900.100

- Aplicável em ligações com tubos e tampas.

50332 Anilhas de afinação h=1,5mm — M03A

Material Cobre/FESTAPLAN **DIN** 7603 C



d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
5X9MM	100	50332.050.009	8X11,5MM	100	50332.080.011	10X13,5MM	100	50332.100.013
6X10MM	100	50332.060.010	8X12MM	100	50332.080.012	10X14MM	100	50332.100.014
6X12MM (≠DIN)	100	50332.060.012	8X14MM	100	50332.080.014	10X16MM	100	50332.100.016

- Fibras minerais marca FESTAPLAN.
- Indicado para aplicações com temperaturas máximas de 180°C.

50333 Anilhas de afinação h=2mm — M03A

Material Cobre/FESTAPLAN **DIN** 7603 C



d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
12X16MM	100	50333.120.016	16X22MM	100	50333.160.022	20X26MM	50	50333.200.026
12X18MM	100	50333.120.018	17X21MM	100	50333.170.021	21X26MM	50	50333.210.026
13X18MM (≠DIN)	100	50333.130.018	17X23MM	100	50333.170.023	22X27MM	50	50333.220.027
14X18MM	100	50333.140.018	18X22MM	100	50333.180.022	22X29MM	50	50333.220.029
14X20MM	100	50333.140.020	18X24MM	50	50333.180.024			
16X20MM	100	50333.160.020	20X24MM	50	50333.200.024			

- Fibras minerais marca FESTAPLAN.
- Indicado para aplicações com temperaturas máximas de 180°C.

50334 **Anilhas de afinação h=2,5mm** **M03A**

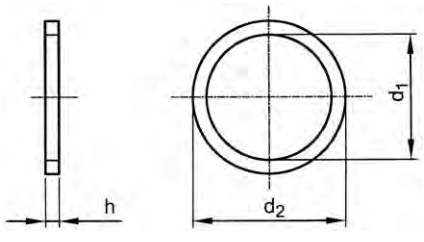
Material Cobre/FESTAPLAN **DIN** **7603 C**

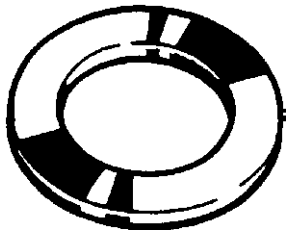


d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
24X29MM	25	50334.240.029	28X34MM (≠DIN)	25	50334.280.034	36X42MM	25	50334.360.042
24X30MM (≠DIN)	25	50334.240.030	30X36MM	25	50334.300.036	38X44MM	25	50334.380.044
24X32MM	25	50334.240.032	30X38MM	25	50334.300.038	40X47MM	25	50334.400.047
26X32MM	25	50334.260.032	32X38MM	25	50334.320.038	42X49MM	25	50334.420.049
26X34MM	25	50334.260.034	33X39MM	25	50334.330.039	45X52MM (≠DIN)	10	50334.450.052
27X32MM	25	50334.270.032	35X41MM	25	50334.350.041	48X55MM	10	50334.480.055

- Fibras minerais marca FESTAPLAN.
- Indicado para aplicações com temperaturas máximas de 180°C.

Anilha de junta





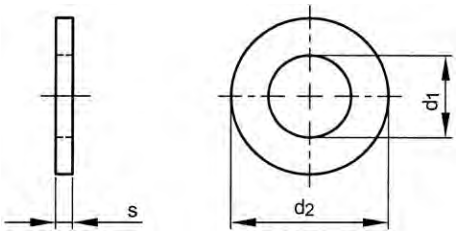
50900 **Anilha de junta h=1mm** **W05C**

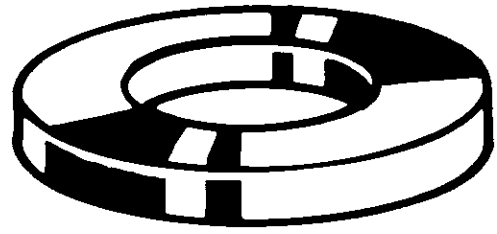
Material Fibra vulcanizada Vf3110 DIN 737



d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
3X5MM	200	50900.030.005	8,5X14MM	200	50900.085.014	18X24MM	100	50900.180.024
3,5X6MM	200	50900.035.006	9X14MM	200	50900.090.014	19X23MM	100	50900.190.023
4X6,5MM	200	50900.040.006	9,5X14MM	200	50900.095.014	20X24MM	100	50900.200.024
4,5X8MM	200	50900.045.008	10X14MM	200	50900.100.014	22X26MM	50	50900.220.026
5X8MM	200	50900.050.008	10,5X17MM	200	50900.105.017	24X28MM	50	50900.240.028
5X10MM	200	50900.050.010	11X17MM	200	50900.110.017	25X34MM	50	50900.250.034
5,5X9MM	200	50900.055.009	12X16MM	200	50900.120.016	26X33MM	50	50900.260.033
6X9MM	200	50900.060.009	12,5X18MM	100	50900.125.018	28X40MM	50	50900.280.040
6X10MM	200	50900.060.010	13X18MM	100	50900.130.018	30X42MM	50	50900.300.042
6X12MM	200	50900.060.012	14X18MM	100	50900.140.018	32X44MM	25	50900.320.044
6,5X10MM	200	50900.065.010	15X19MM	100	50900.150.019	34X46MM	25	50900.340.046
7X10MM	200	50900.070.010	16X20MM	100	50900.160.020	36X48MM	25	50900.360.048
8X12MM	200	50900.080.012	16X21MM	100	50900.160.021	38X50MM	25	50900.380.050
8X16MM	200	50900.080.016	17X22MM	100	50900.170.022	40X52MM	25	50900.400.052

Anilha para automóvel Toyota





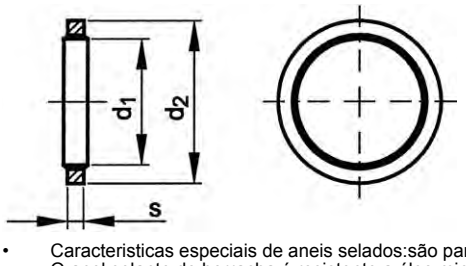
72037 **Anilha para automóvel Toyota** **Y92E**

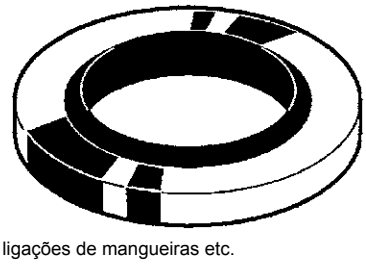
Material Fibra vulcanizada



d_1 x d_2 x s	✉	Ref. do artigo	d_1 x d_2 x s	✉	Ref. do artigo
12X24X2MM	25	72037.120.020	18X28X2MM	25	72037.180.020

Anilha de vedação com borracha





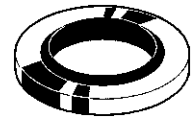
- Caracteristicas especiais de aneis selados:são particularmente adequados para uniões roscadas, juntas de tubos, ligações de mangueiras etc.
- O anel selante de borracha é resistente a óleo mineral, água, gás e a numerosos agentes.

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço	Zn	38793	7-151
Aço	Zn	38796	7-151

38793 **Anilha de vedação com borracha** **L07G**

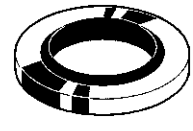
Material Aço
Tratamento sup. Zincado



d_1 x d_2 x s	✉	Ref. do artigo	d_1 x d_2 x s	✉	Ref. do artigo	d_1 x d_2 x s	✉	Ref. do artigo
4,5X7X1MM	100	38793.052.100	12,7X18X1,5MM	100	38793.145.150	22,7X30X2MM	25	38793.257.200
5,7X10X1MM	100	38793.067.100	12,7X20X1,5MM	100	38793.147.150	24,7X32X2MM	25	38793.279.200
6,7X11X1MM	100	38793.078.100	14,7X22X1,5MM	50	38793.169.150	26,7X35X2MM	25	38793.302.200
7,1X12X1MM	100	38793.083.100	16,7X24X1,5MM	50	38793.191.150	27,2X36X2MM	25	38793.308.200
8,7X16X1MM	100	38793.103.100	18,7X26X1,5MM	50	38793.213.150	28,7X37X2MM	25	38793.324.200
10,7X18X1,5MM	100	38793.125.150	20,7X28X1,5MM	50	38793.235.150	31X39X2MM	10	38793.349.200

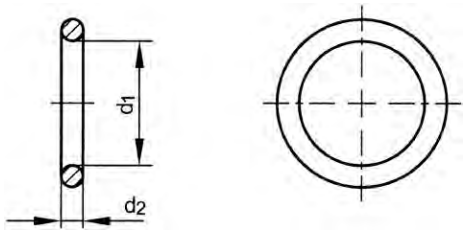
38796 **Anilha de vedação com borracha** **L07G**

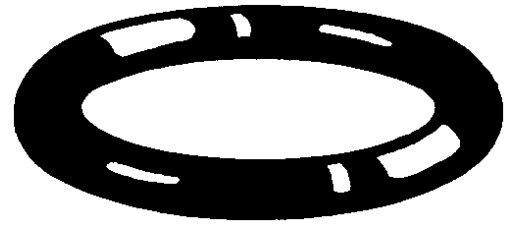
Material Aço
Tratamento sup. Zincado



d_1 x d_2 x s	✉	Ref. do artigo	d_1 x d_2 x s	✉	Ref. do artigo	d_1 x d_2 x s	✉	Ref. do artigo
13,34X6,99X1,22	50	38796.000.010	26,92X19,69X2,34	25	38796.000.017	42,8X33,89X3,25	10	38796.000.023
13,34X8,31X1,22	50	38796.000.011	28,58X21,54X2,34	10	38796.000.018	47,75X38,96X3,25	10	38796.000.025
15,88X10,37X2,03	50	38796.000.012	31,75X23,49X2,34	10	38796.000.019	52,38X42,93X3,25	10	38796.000.026
20,57X13,74X2,03	50	38796.000.014	34,93X27,05X2,34	10	38796.000.020	69,85X54,89X3,25	10	38796.000.027
25,4X16,51X2,03	25	38796.000.015	36,58X29,33X2,34	10	38796.000.021	15,9X10,5X2,1	10	38796.000.221
23,8X17,28X2,03	25	38796.000.016	41,4X32,64X3,25	10	38796.000.022			

O-ring





- d_1 = diâmetro interior.

Grupos de produtos

Material		Cor	Código	Página
Borracha NBR 70º Shore A	d2=1,5mm	Preto	38801	7-152
Borracha NBR 70º Shore A	d2=1,6mm	Preto	38802	7-152
Borracha NBR 70º Shore A	d2=1,78mm	Preto	38803	7-153
Borracha NBR 70º Shore A	d2=2,0mm	Preto	38805	7-153
Borracha NBR 70º Shore A	d2=2,4mm	Preto	38806	7-153
Borracha NBR 70º Shore A	d2=2,5mm	Preto	38807	7-153
Borracha NBR 70º Shore A	d2=2,62mm	Preto	38808	7-154
Borracha NBR 70º Shore A	d2=3,0mm	Preto	38810	7-154
Borracha NBR 70º Shore A	d2=3,53mm	Preto	38812	7-155
Borracha NBR 70º Shore A	d2=4,0mm	Preto	38814	7-155
Borracha NBR 70º Shore A	d2=5,0mm	Preto	38816	7-155
Borracha FPM 80º Shore	d2=1,6mm	Preto	38869	7-156
Borracha FPM 80º Shore	d2=1,78mm	Preto	38871	7-156
Borracha FPM 80º Shore	d2=1,9mm	Preto	38873	7-156
Borracha FPM 80º Shore	d2=2,0mm	Preto	38874	7-156
Borracha FPM 80º Shore	d2=2,4mm	Preto	38875	7-156
Borracha FPM 80º Shore	d2=2,62mm	Preto	38877	7-157
Borracha FPM 80º Shore	d2=3,53mm	Preto	38883	7-157
Borracha FPM 80º Shore	d2=4,0mm	Preto	38885	7-157
Borracha FPM 80º Shore	d2=5,0mm	Preto	38887	7-157

7

38801 O-ring d2=1,5mm W05A

Material Borracha NBR 70º Shore A
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
3,0MM	50	38801.003.001	7,0MM	50	38801.007.001	9,0MM	50	38801.009.001
5,0MM	50	38801.005.001	7,5MM	50	38801.007.501	35,0MM	10	38801.035.001
6,0MM	50	38801.006.001	8,0MM	50	38801.008.001			

38802 O-ring d2=1,6mm W05A

Material Borracha NBR 70º Shore A
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
3,1MM	50	38802.003.101	12,1MM	25	38802.012.101	21,1MM	25	38802.021.101
4,1MM	50	38802.004.101	13,1MM	25	38802.013.101	22,1MM	10	38802.022.101
5,1MM	50	38802.005.101	14,1MM	25	38802.014.101	25,1MM	10	38802.025.101
6,1MM	50	38802.006.101	15,1MM	25	38802.015.101	27,1MM	10	38802.027.101
7,1MM	50	38802.007.101	16,1MM	25	38802.016.101	29,1MM	10	38802.029.101
8,1MM	50	38802.008.101	17,1MM	25	38802.017.101	32,1MM	10	38802.032.101
9,1MM	50	38802.009.101	18,1MM	25	38802.018.101	35,1MM	10	38802.035.101
10,1MM	25	38802.010.101	19,1MM	25	38802.019.101	37,1MM	10	38802.037.101
11,1MM	25	38802.011.101	20,1MM	25	38802.020.101			

38803 O-ring 568A d2=1,78mm — W05A

Material Borracha NBR 70° Shore A
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
1,78-AS 004	50	38803.001.781	10,82-AS 013	50	38803.010.821	34,65-AS 028	10	38803.034.651
2,57-AS 005	50	38803.002.571	11,11MM	50	38803.011.111	36,27MM	10	38803.036.271
2,90-AS 006	50	38803.002.901	12,42-AS 014	50	38803.012.421	37,82-AS 029	10	38803.037.821
3,17MM	50	38803.003.171	14,00-AS 015	50	38803.014.001	41,00-AS 030	10	38803.041.001
3,68-AS 007	50	38803.003.681	15,60-AS 016	25	38803.015.601	44,17-AS 031	10	38803.044.171
3,69-AS 007	50	38803.003.691	17,16-AS 017	25	38803.017.161	47,37-AS 032	10	38803.047.371
4,48-AS 008	50	38803.004.481	18,77-AS 018	25	38803.018.771	50,52-AS 033	10	38803.050.521
4,76MM	50	38803.004.761	20,35-AS 019	25	38803.020.351	53,67-AS 034	5	38803.053.671
5,28-AS 009	50	38803.005.281	21,95-AS 020	25	38803.021.951	56,87-AS 035	5	38803.056.871
6,07-AS 010	50	38803.006.071	25,12-AS 022	10	38803.025.121	60,04MM	5	38803.060.041
6,35MM	50	38803.006.351	26,70-AS 023	10	38803.026.701	63,22-AS 037	5	38803.063.221
6,75MM	50	38803.006.751	28,30-AS 024	10	38803.028.301	66,40-AS 038	5	38803.066.401
7,66-AS 011	50	38803.007.661	29,87-AS 025	10	38803.029.871	69,57-AS 039	5	38803.069.571
7,94MM	50	38803.007.941	31,47-AS 026	10	38803.031.471	72,76-AS 040	5	38803.072.761
8,73MM	50	38803.008.731	33,05-AS 027	10	38803.033.051	82,28-AS 042	5	38803.082.281
9,25-AS 012	50	38803.009.251						

38805 O-ring d2=2,0mm — W05A

Material Borracha NBR 70° Shore A
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
4,0MM	50	38805.004.001	18,0MM	25	38805.018.001	36,0MM	10	38805.036.001
5,0MM	50	38805.005.001	19,0MM	25	38805.019.001	37,0MM	10	38805.037.001
5,5MM	50	38805.005.501	20,0MM	10	38805.020.001	38,0MM	10	38805.038.001
6,0MM	50	38805.006.001	21,0MM	10	38805.021.001	40,0MM	10	38805.040.001
7,0MM	50	38805.007.001	22,0MM	10	38805.022.001	42,0MM	10	38805.042.001
8,0MM	50	38805.008.001	23,0MM	10	38805.023.001	43,0MM	10	38805.043.001
9,0MM	50	38805.009.001	24,0MM	10	38805.024.001	45,0MM	10	38805.045.001
10,0MM	50	38805.010.001	25,0MM	10	38805.025.001	46,0MM	10	38805.046.001
11,0MM	50	38805.011.001	26,0MM	10	38805.026.001	47,0MM	10	38805.047.001
12,0MM	50	38805.012.001	27,0MM	10	38805.027.001	50,0MM	10	38805.050.001
13,0MM	25	38805.013.001	28,0MM	10	38805.028.001	53,0MM	5	38805.053.001
14,0MM	25	38805.014.001	30,0MM	10	38805.030.001	55,0MM	5	38805.055.001
15,0MM	25	38805.015.001	32,0MM	10	38805.032.001	56,0MM	5	38805.056.001
16,0MM	25	38805.016.001	33,0MM	10	38805.033.001	58,0MM	5	38805.058.001
17,0MM	25	38805.017.001	35,0MM	10	38805.035.001			

38806 O-ring d2=2,4mm — W05A

Material Borracha NBR 70° Shore A
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
5,3MM	50	38806.005.301	9,3MM	50	38806.009.301	14,3MM	25	38806.014.301
6,3MM	50	38806.006.301	10,3MM	50	38806.010.301	16,3MM	25	38806.016.301
7,3MM	50	38806.007.301	11,3MM	50	38806.011.301	17,3MM	25	38806.017.301
8,0MM	50	38806.008.001	12,3MM	50	38806.012.301	20,3MM	25	38806.020.301
8,3MM	50	38806.008.301	13,3MM	50	38806.013.301	25,3MM	25	38806.025.301

38807 O-ring d2=2,5mm — W05A

Material Borracha NBR 70° Shore A
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
5,0MM	50	38807.005.001	8,0MM	50	38807.008.001	11,0MM	50	38807.011.001
6,0MM	50	38807.006.001	9,0MM	50	38807.009.001	12,0MM	50	38807.012.001
7,0MM	50	38807.007.001	10,0MM	50	38807.010.001	13,0MM	50	38807.013.001

38807 O-ring d2=2,5mm ←

d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
14,0MM	25	38807.014.001	23,0MM	10	38807.023.001	32,0MM	10	38807.032.001
15,0MM	25	38807.015.001	24,0MM	10	38807.024.001	35,0MM	10	38807.035.001
16,0MM	25	38807.016.001	25,0MM	10	38807.025.001	36,0MM	10	38807.036.001
17,0MM	25	38807.017.001	26,0MM	10	38807.026.001	38,0MM	10	38807.038.001
18,0MM	10	38807.018.001	27,0MM	10	38807.027.001	39,0MM	10	38807.039.001
19,0MM	10	38807.019.001	28,0MM	10	38807.028.001	40,0MM	10	38807.040.001
20,0MM	10	38807.020.001	29,0MM	10	38807.029.001	44,0MM	10	38807.044.001
21,0MM	10	38807.021.001	30,0MM	10	38807.030.001			
22,0MM	10	38807.022.001	31,0MM	10	38807.031.001			

38808 O-ring 568A d2=2,62mm W05A

Material Borracha NBR 70° Shore A
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
9,19-AS 110	50	38808.009.191	22,22MM	10	38808.022.221	50,47-AS 136	5	38808.050.471
9,92MM	50	38808.009.921	23,47-AS 119	10	38808.023.471	52,07-AS 137	5	38808.052.071
10,78-AS 111	50	38808.010.781	23,81MM	10	38808.023.811	55,25-AS 139	5	38808.055.251
11,91MM	50	38808.011.911	25,07-AS 120	10	38808.025.071	56,82-AS 140	5	38808.056.821
12,37-AS 112	50	38808.012.371	26,64MM	10	38808.026.641	58,42-AS 141	5	38808.058.421
12,70MM	50	38808.012.701	29,82-AS 123	10	38808.029.821	60,00-AS 142	5	38808.060.001
13,10MM	25	38808.013.101	31,42-AS 124	10	38808.031.421	61,60-AS 143	5	38808.061.601
13,95-AS 113	25	38808.013.951	33,00-AS 125	10	38808.033.001	63,17-AS 144	5	38808.063.171
15,08MM	25	38808.015.081	34,59-AS 126	10	38808.034.591	64,77-AS 145	5	38808.064.771
15,54-AS 114	25	38808.015.541	36,17-AS 127	10	38808.036.171	67,95-AS 147	5	38808.067.951
15,88MM	25	38808.015.881	37,77-AS 128	10	38808.037.771	69,52-AS 148	5	38808.069.521
17,13-AS 115	25	38808.017.131	39,34-AS 129	10	38808.039.341	71,12-AS 149	5	38808.071.121
17,86MM	25	38808.017.861	40,95-AS 130	10	38808.040.951	74,30MM	5	38808.074.301
18,72-AS 116	25	38808.018.721	44,12-AS 132	10	38808.044.121	80,60MM	5	38808.080.601
20,29-AS 117	10	38808.020.291	45,69-AS 133	10	38808.045.691	82,22-AS 152	5	38808.082.221
20,63MM	10	38808.020.631	47,29-AS 134	10	38808.047.291	83,80MM	5	38808.083.801
21,89-AS 118	10	38808.021.891	48,90-AS 135	10	38808.048.901	94,93MM	5	38808.094.931

38810 O-ring d2=3,0mm W05A

Material Borracha NBR 70° Shore A
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
5,0MM	50	38810.005.001	26,0MM	10	38810.026.001	52,0MM	5	38810.052.001
6,0MM	50	38810.006.001	26,2MM	10	38810.026.201	54,5MM	5	38810.054.501
7,0MM	50	38810.007.001	27,0MM	10	38810.027.001	56,0MM	5	38810.056.001
8,0MM	50	38810.008.001	28,0MM	10	38810.028.001	58,0MM	5	38810.058.001
9,0MM	50	38810.009.001	29,0MM	10	38810.029.001	59,0MM	5	38810.059.001
10,0MM	50	38810.010.001	30,0MM	10	38810.030.001	62,0MM	5	38810.062.001
11,0MM	50	38810.011.001	31,0MM	10	38810.031.001	64,5MM	5	38810.064.501
12,0MM	50	38810.012.001	32,0MM	10	38810.032.001	66,0MM	5	38810.066.001
13,0MM	50	38810.013.001	33,0MM	10	38810.033.001	72,0MM	5	38810.072.001
14,0MM	25	38810.014.001	34,0MM	10	38810.034.001	74,5MM	5	38810.074.501
15,0MM	25	38810.015.001	35,0MM	10	38810.035.001	78,0MM	5	38810.078.001
16,0MM	25	38810.016.001	36,0MM	10	38810.036.001	79,5MM	5	38810.079.501
17,0MM	25	38810.017.001	37,0MM	10	38810.037.001	84,5MM	5	38810.084.501
18,0MM	25	38810.018.001	38,0MM	10	38810.038.001	89,5MM	5	38810.089.501
19,0MM	25	38810.019.001	39,0MM	10	38810.039.001	108,0MM	5	38810.108.001
20,0MM	25	38810.020.001	40,0MM	10	38810.040.001	119,5MM	5	38810.119.501
20,2MM	10	38810.020.201	41,0MM	10	38810.041.001	175,0MM	5	38810.175.001
21,0MM	10	38810.021.001	42,0MM	10	38810.042.001	180,0MM	5	38810.180.001
22,0MM	10	38810.022.001	43,0MM	10	38810.043.001	195,0MM	5	38810.195.001
22,2MM	10	38810.022.201	44,0MM	10	38810.044.001	210,0MM	5	38810.210.001
23,0MM	10	38810.023.001	45,0MM	10	38810.045.001	220,0MM	5	38810.220.001
24,0MM	10	38810.024.001	46,0MM	10	38810.046.001	245,0MM	5	38810.245.001
24,2MM	10	38810.024.201	47,0MM	10	38810.047.001	250,0MM	5	38810.250.001
25,0MM	10	38810.025.001	48,0MM	10	38810.048.001	300,0MM	5	38810.300.001

38812 O-ring 568A d2=3,53mm W05A

Material Borracha NBR 70° Shore A
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
18,64-AS 210	25	38812.018.641	44,45MM	10	38812.044.451	72,62-AS 233	5	38812.072.621
20,22-AS 211	10	38812.020.221	46,04MM	10	38812.046.041	74,60MM	5	38812.074.601
21,82-AS 212	10	38812.021.821	47,22-AS 225	10	38812.047.221	78,97-AS 235	5	38812.078.971
23,40-AS 213	10	38812.023.401	49,21MM	10	38812.049.211	82,14-AS 236	5	38812.082.141
24,99-AS 214	10	38812.024.991	50,40MM	5	38812.050.401	85,32-AS 237	5	38812.085.321
25,80MM	10	38812.025.801	50,80-AS 226	5	38812.050.801	91,67-AS 238	5	38812.091.671
26,58-AS 215	10	38812.026.581	52,39MM	5	38812.052.391	94,84-AS 240	5	38812.094.841
28,17-AS 216	10	38812.028.171	53,57-AS 227	5	38812.053.571	98,02-AS 241	5	38812.098.021
29,75-AS 217	10	38812.029.751	53,98MM	5	38812.053.981	101,20-AS 242	5	38812.101.201
31,34-AS 218	10	38812.031.341	55,56MM	5	38812.055.561	104,37-AS 243	5	38812.104.371
32,92-AS 219	10	38812.032.941	57,15MM	5	38812.057.151	107,54-AS 244	5	38812.107.541
34,52-AS 220	10	38812.034.521	58,74MM	5	38812.058.741	110,72-AS 245	5	38812.110.721
36,10-AS 221	10	38812.036.101	59,92-AS 229	5	38812.059.921	117,07-AS 247	5	38812.117.071
37,69-AS 222	10	38812.037.691	60,33MM	5	38812.060.331	123,42-AS 249	5	38812.123.421
39,69MM	10	38812.039.691	66,27-AS 231	5	38812.066.271	132,94-AS 252	5	38812.132.941
40,87-AS 223	10	38812.040.871	68,26MM	5	38812.068.261	136,12-AS 253	5	38812.136.121
41,28MM	10	38812.041.281	69,44-AS 232	5	38812.069.441	142,47-AS 255	5	38812.142.471
42,86MM	10	38812.042.861	69,85MM	5	38812.069.851	151,99-AS 258	5	38812.151.991
44,04-AS 224	10	38812.044.041	71,44MM	5	38812.071.441			

38814 O-ring d2=4,0mm W05A

Material Borracha NBR 70° Shore A
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
9,0MM	50	38814.009.001	30,0MM	10	38814.030.001	55,0MM	5	38814.055.001
10,0MM	50	38814.010.001	32,0MM	10	38814.032.001	58,0MM	5	38814.058.001
12,0MM	25	38814.012.001	34,0MM	10	38814.034.001	59,0MM	5	38814.059.001
14,0MM	25	38814.014.001	35,0MM	10	38814.035.001	60,0MM	5	38814.060.001
16,0MM	25	38814.016.001	36,0MM	10	38814.036.001	64,0MM	5	38814.064.001
18,0MM	25	38814.018.001	38,0MM	10	38814.038.001	65,0MM	5	38814.065.001
19,0MM	25	38814.019.001	40,0MM	10	38814.040.001	66,0MM	5	38814.066.001
20,0MM	25	38814.020.001	42,0MM	10	38814.042.001	70,0MM	5	38814.070.001
21,0MM	25	38814.021.001	43,0MM	10	38814.043.001	72,0MM	5	38814.072.001
22,0MM	25	38814.022.001	44,0MM	10	38814.044.001	75,0MM	5	38814.075.001
23,0MM	25	38814.023.001	48,0MM	10	38814.048.001	78,0MM	5	38814.078.001
24,0MM	25	38814.024.001	49,0MM	10	38814.049.001	80,0MM	5	38814.080.001
25,0MM	10	38814.025.001	50,0MM	10	38814.050.001	87,0MM	5	38814.087.001
26,0MM	10	38814.026.001	52,0MM	5	38814.052.001	125,0MM	5	38814.125.001
28,0MM	10	38814.028.001						

38816 O-ring d2=5,0mm W05A

Material Borracha NBR 70° Shore A
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
12,0MM	25	38816.012.001	22,0MM	10	38816.022.001	45,0MM	10	38816.045.001
15,0MM	25	38816.015.001	23,0MM	10	38816.023.001	48,0MM	10	38816.048.001
16,0MM	25	38816.016.001	25,0MM	10	38816.025.001	50,0MM	10	38816.050.001
17,0MM	25	38816.017.001	27,0MM	10	38816.027.001	55,0MM	5	38816.055.001
18,0MM	25	38816.018.001	30,0MM	10	38816.030.001	65,0MM	5	38816.065.001
19,0MM	25	38816.019.001	35,0MM	10	38816.035.001	70,0MM	5	38816.070.001
20,0MM	10	38816.020.001	40,0MM	10	38816.040.001	75,0MM	5	38816.075.001
21,0MM	10	38816.021.001						

38869 O-ring (Viton), d2=1,6mm — W07A

Material Borracha FPM 80º Shore
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
2,2MM	50	38869.002.201	4,7MM	50	38869.004.701	10,1MM	25	38869.010.101
2,8MM	50	38869.002.801	5,1MM	50	38869.005.101	11,1MM	25	38869.011.101
3,1MM	50	38869.003.101	6,1MM	50	38869.006.101	12,1MM	25	38869.012.101
3,7MM	50	38869.003.701	7,1MM	50	38869.007.101	13,1MM	25	38869.013.101
4,1MM	50	38869.004.101	9,1MM	50	38869.009.101			

38871 O-ring (Viton), 568A d2=1,78mm — W07A

Material Borracha FPM 80º Shore
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
2,90-AS 006	50	38871.002.901	6,07-AS 010	50	38871.006.071	12,42-AS 014	25	38871.012.421
3,69-AS 007	50	38871.003.691	7,65MM	50	38871.007.651	14,00MM	25	38871.014.001
4,48-AS 008	50	38871.004.481	9,25-AS 012	50	38871.009.251	15,60-AS 016	25	38871.015.601
5,28-AS 009	50	38871.005.281	10,82-AS 013	25	38871.010.821	17,17MM	25	38871.017.171

38873 O-ring (Viton), d2=1,9mm — W07A

Material Borracha FPM 80º Shore
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
2,4MM	50	38873.002.401	4,2MM	50	38873.004.201	7,2MM	50	38873.007.201
2,6MM	50	38873.002.601	4,9MM	50	38873.004.901	8,9MM	50	38873.008.901
3,4MM	50	38873.003.401	5,7MM	50	38873.005.701			

7

38874 O-ring (Viton), d2=2,0mm — W07A

Material Borracha FPM 80º Shore
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
4,0MM	50	38874.004.001	10,0MM	25	38874.010.001	16,0MM	25	38874.016.001
6,0MM	50	38874.006.001	12,0MM	25	38874.012.001	18,0MM	25	38874.018.001
8,0MM	50	38874.008.001	14,0MM	25	38874.014.001	20,0MM	10	38874.020.001

38875 O-ring (Viton), d2=2,4mm — W07A

Material Borracha FPM 80º Shore
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
3,3MM	50	38875.003.301	8,3MM	50	38875.008.301	12,3MM	50	38875.012.301
4,3MM	50	38875.004.301	9,3MM	50	38875.009.301	13,3MM	25	38875.013.301
5,3MM	50	38875.005.301	10,3MM	25	38875.010.301	14,3MM	25	38875.014.301
6,3MM	50	38875.006.301	11,3MM	25	38875.011.301	15,3MM	25	38875.015.301
7,3MM	50	38875.007.301						

38877 O-ring (Viton), 568A d2=2,62mm — W07A

Material Borracha FPM 80° Shore
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
9,20MM	50	38877.009.201	15,54-AS 114	25	38877.015.541	20,30MM	10	38877.020.301
10,78-AS 111	25	38877.010.781	17,12MM	25	38877.017.121	21,90MM	10	38877.021.901
12,37-AS 112	25	38877.012.371	18,72-AS 116	25	38877.018.721	23,47-AS 119	10	38877.023.471
13,95-AS 113	25	38877.013.951						

38883 O-ring (Viton), 568A d2=3,53mm — W07A

Material Borracha FPM 80° Shore
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
18,64-AS 210	25	38883.018.641	26,57MM	10	38883.026.571	34,52-AS 220	10	38883.034.521
20,22-AS 211	10	38883.020.221	28,17-AS 216	10	38883.028.171	36,09MM	10	38883.036.091
21,82-AS 212	10	38883.021.821	29,74MM	10	38883.029.741	37,69MM	10	38883.037.691
23,39MM	10	38883.023.391	31,34-AS 218	10	38883.031.341	40,87-AS 223	10	38883.040.871
24,99-AS 214	10	38883.024.991	32,92MM	10	38883.032.921			

38885 O-ring (Viton), d2=4,0mm — W07A

Material Borracha FPM 80° Shore
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
30,0MM	10	38885.030.001	34,0MM	10	38885.034.001	38,0MM	10	38885.038.001
32,0MM	10	38885.032.001	35,0MM	10	38885.035.001	40,0MM	10	38885.040.001

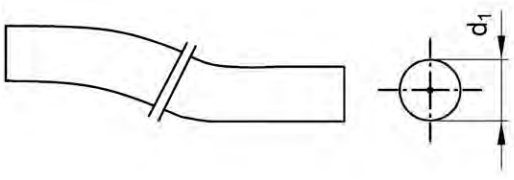
38887 O-ring (Viton), d2=5,0mm — W07A

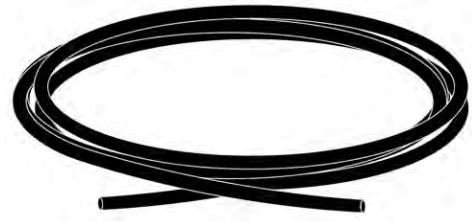
Material Borracha FPM 80° Shore
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
35,0MM	10	38887.035.001	45,0MM	10	38887.045.001	50,0MM	10	38887.050.001
40,0MM	10	38887.040.001						

O-ring em rolo



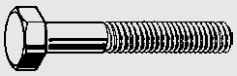


38840	NBR 70SH O-RING A 2 MTR	W05A
Material	Borracha NBR 70º Shore A	
Cor	Preto	

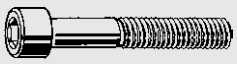


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
1,78	1	38840.001.781	3,53	1	38840.003.531	5,7	1	38840.005.701
2,0	1	38840.002.001	4,0	1	38840.004.001	6,0	1	38840.006.001
2,40	1	38840.002.401	5,0	1	38840.005.001	6,99	1	38840.006.991
3,0	1	38840.003.001	5,34	1	38840.005.341	8,0	1	38840.008.001

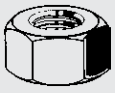
7



1 Parafusos sextavado exterior



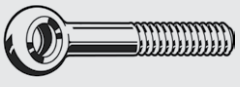
2 Produtos sextavados interiores



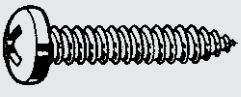
3 Porcas/porcas de rebitar / insertos



4 Varão roscado / pernos



5 Produtos olhal / gancho

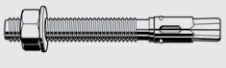


6 Parafusos

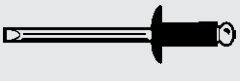
I Indice



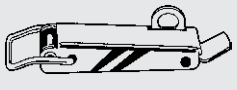
7 Anilha



8 Ancoragem



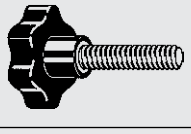
9 Rebites / cavilhas



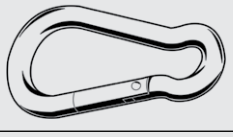
10 Parafusos de segurança / Sistemas de fixação



11 Sortidos



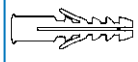
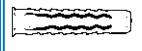
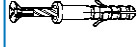
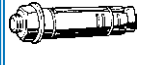
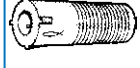
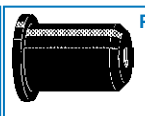
12 Sistemas de engenharia / peças para máquinas



13 Marítimo produtos

T Tecnologia de fixação

Ancoragem 8

Página 8-4  MAXXFAST UniFast	Página 8-5  Nylon	Página 8-7  FISCHER Tipo S	Página 8-8  FISCHER Sortido	Página 8-9  FISCHER Tipo MS
Página 8-10  MAXXFAST MultiFast	Página 8-10  FISCHER Tipo SX	Página 8-12  MAXXFAST 4Fast	Página 8-13  FISCHER Tipo UX/UX-R	Página 8-14  FISCHER Universal tipo FU
Página 8-15  Bucha metálica	Página 8-16  FISCHER Tipo HM/HMS	Página 8-17  Ferramenta de instalação	Página 8-18  MAXXFAST Bucha para gesso	Página 8-19  SPIT Driva
Página 8-20  FISCHER Tipo GK/GKS	Página 8-21  FISCHER Tipo GB	Página 8-22  FISCHER Tipo FTP Aço	Página 8-23  FISCHER Tipo FTP Plástico	Página 8-24 FISCHER Ferramenta de instalação FTP
Página 8-25  Gancho fixação ao teto	Página 8-26  SPIT Tipo SDA	Página 8-27  FISCHER Tipo FNH	Página 8-28  MAXXFAST HammerFast	Página 8-29 FISCHER Tipo N-Z
Página 8-30  FISCHER Tipo N-FZ	Página 8-31  FISCHER Tipo N-D	Página 8-32  FISCHER Tipo SXS	Página 8-33  MAXXFAST Bucha para moldura	Página 8-34  MAXXFAST Bucha para moldura nylon
Página 8-35 FISCHER Tipo F-S	Página 8-36  FISCHER Tipo F-M	Página 8-37  FISCHER Tipo FUR-T	Página 8-38  FISCHER Tipo FUR-SS	Página 8-39  FISCHER Tipo SXR-T
Página 8-40 Parafuso para fixação de moldura	Página 8-41  FISCHER Tampa	Página 8-42 FISCHER Tipo JS	Página 8-43 FISCHER Tipo S/J/S	Página 8-44  MAXXFAST Bucha de expansão
Página 8-44  Bucha de expansão	Página 8-45  Bucha de expansão	Página 8-46  Bucha expansiva Aço inoxidável	Página 8-46  Bucha expansivel com perno	Página 8-47  Bucha expansivel com parafuso
Página 8-48  FISCHER Tipo M	Página 8-49  FISCHER Tipo PA	Página 8-50 FISCHER Tipo FSA-S	Página 8-51  Bucha	Página 8-52  MAXXFAST Bucha de pancada

Ancoragem 8

Página 8-53

Ancoragem perno expansível

Página 8-55

Ferramenta

Página 8-56

Ferramenta de instalação SA

Página 8-56

FISCHER Tipo FH

Página 8-57

Parafuso WALLDOG

Página 8-58

Parafuso WALLDOG

Página 8-59

Parafuso TAPH

Página 8-60

Parafuso TAPC

Página 8-61

Parafuso para betão BT

Página 8-62

Parafuso para betão A4 BT

Página 8-63

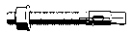
Parafuso para betão BT

Página 8-63

Parafuso para betão BT

Página 8-64

Parafuso para betão BT

Página 8-65

MAXXFAST ThruFast-ThruMaxx

Página 8-67

Ancoragem EXA

Página 8-68

FISCHER Tipo FBN II

Página 8-70

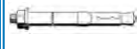
SPIT Tipo FIX 3

Página 8-71

MAXXFAST Ancoragem perno

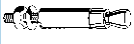
Página 8-73

FISCHER Tipo FAZ II

Página 8-74

FISCHER Tipo FH II-B

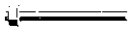
Página 8-76

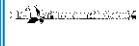
FISCHER Tipo FH II-S

Página 8-77

FISCHER Tipo FZA

Página 8-78

FISCHER Ferramenta

Página 8-80

MAXXFAST Pernos

Página 8-81

FISCHER Tipo RGM

Página 8-82

Rod

Página 8-82

SPIT Tipo Maxima

Página 8-83

FISCHER Ferramenta de instalação

Página 8-84

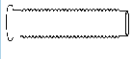
Cápsula

Página 8-85

Cartucho de injecção

Página 8-87

Pistola de injeção

Página 8-88

MAXXFAST Acessórios

Página 8-89

FISCHER Camisa de injecção

Página 8-90

FISCHER Tipo RG MI

Página 8-91
DIN 529 A

Tipo A

Página 8-92
DIN 529 E

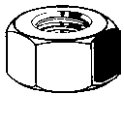
Tipo E

Página 8-92

Hook anchor

Página 8-95

Haste para cofragem

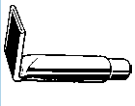
Página 8-95

Porca para cofragem

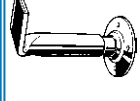
Página 8-97

VEMO Tipo 1550

Página 8-97

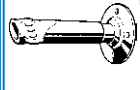
VEMO Tipo 1551

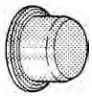
Página 8-98

VEMO Type 1140

Página 8-98

VEMO Tipo 1130

Página 8-99

VEMO Tipo 995G

Página 8-100

VEMO Tipo 1036

Página 8-101

VEMO Tipo 2244

8

MaxxFast - Gama variada de ancoragem

MaxxFast introduz uma vasta gama de produtos de ancoragem de elevada qualidade. Esta gama consiste em buchas de nylon, hammerplugs e buchas metálicas. Estes produtos de elevada qualidade vão responder às suas necessidades para a maioria das aplicações.

Buchas & ancoragem
A bucha de nylon UniFast dispõe de uma flange para prevenir que saia do apoio. A bucha MultiFast de nylon pode ser utilizada na generalidade dos materiais de construção. A bucha de expansão 4Fast 4-way cria uma ancoragem muito forte. A bucha HammerFast é muito fácil de aplicar e reduz o tempo de instalação.

- Bucha Gypsum
- Ancoragem metálica e ferramenta
- Bucha de expansão
- Bucha para moldura
- Ancoragem Drop-in e ferramenta

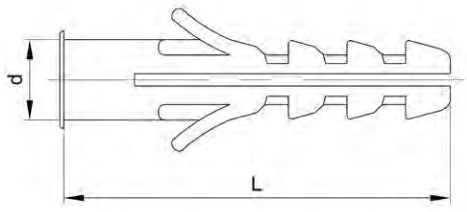
Buchas metálicas
Os pernos de ancoragem ThruFast, estão disponíveis em aço zincado e aço inox A2 e são excelentes para a generalidade das ancoragens. Os pernos ThruMaxx ETA7 foram aprovados pela "European Organization for Technical Approval" e estão disponíveis em aço zincado e aço inox A4. Ambos oferecem resistência e fiabilidade para os melhores resultados.

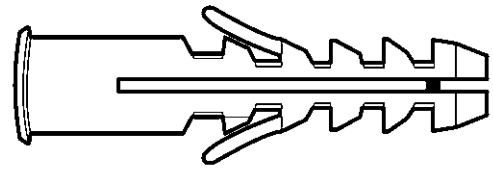
Também as ancoragens ProMaxx opção ETA 1, estão disponíveis. Estes produtos de elevada qualidade irã responder às suas necessidades nas aplicações mais exigentes.

- THRUMAXX ETA7 aço zincado
- THRUMAXX ETA7 aço inox A4
- PROMAXX ETA1 aço zincado
- THRUFAST aço zincado
- THRUFAST aço inox A2



Bucha UniFast



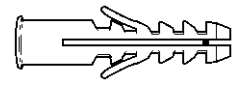


Dados técnicos

d	5	6	7	8	10	12
Furo ø	5	6	7	8	10	12
L	25	30	30	40	50	60
Profundidade do furo (mín.)	35	40	40	50	60	70
Aplicado em combinação com:						
Parafusos para madeira	2.5-4	3.5-4	4-4.5	4.5-6	6-8	8-10
Resistência á tracção para parafusos de madeira em kN						
Betão ≥ C20/25	0.42	0.64	0.76	0.90	1.80	2.10
Tijolo ≥ Mz12	0.36	0.50	0.64	0.80	0.88	0.90

30500 **MAXXFAST Bucha UniFast** **MF40**

Material Plástico Nylon (poliamida)
Cor Cinza

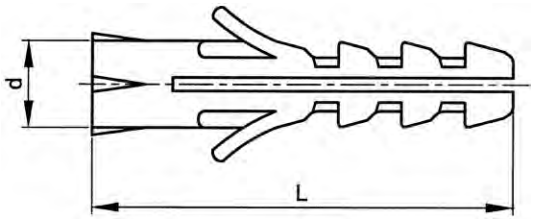


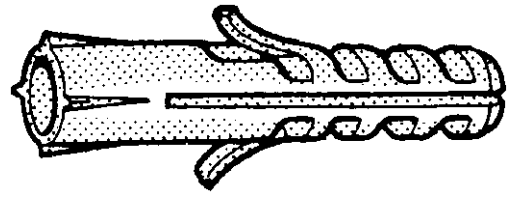
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
5MM	100	30500.050.001	7MM	100	30500.070.001	10MM	50	30500.100.001
6MM	100	30500.060.001	8MM	100	30500.080.001	12MM	25	30500.120.001

- Só embalagens completas.

8

Bucha

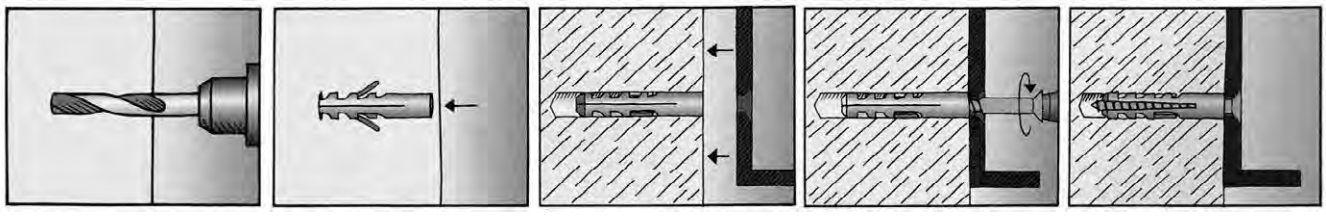




Dados técnicos

d	4	5	6	7	8	10	12	14
Furo ø	4	5	6	7	8	10	12	14
L	20	25	30	37	40	50	60	80
Profundidade do furo (mín.)	25	35	40	45	55	70	80	100
Aplicado em combinação com:								
Parafusos para madeira cabeça sex. ø	2-3	3-4.5	4.5-5	4.5-5.5	5-6	6-8	8-10	10-12

Sequência de montagem

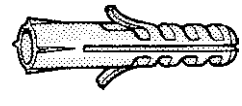


Grupos de produtos

Material		Cor	Código	Página
Plástico Nylon		Cinza	63158	8-5
Plástico Nylon	Embalagem grande	Cinza	63159	8-5

63158 Bucha **N05A**

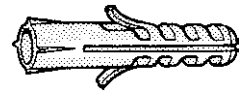
Material Plástico Nylon (poliamida)
Cor Cinza



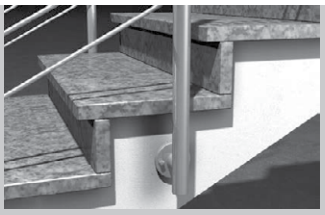
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
4MM	200	63158.040.001	7MM	100	63158.070.001	12MM	25	63158.120.001
5MM	100	63158.050.001	8MM	100	63158.080.001	14MM	20	63158.140.001
6MM	100	63158.060.001	10MM	50	63158.100.001			

63159 Bucha **N05A**

Material Plástico Nylon (poliamida)
Cor Cinza



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
5MM	1000	63159.050.001	8MM	250	63159.080.001	12MM	100	63159.120.001
6MM	500	63159.060.001	10MM	200	63159.100.001			







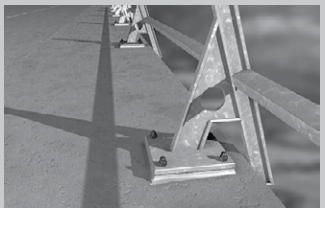


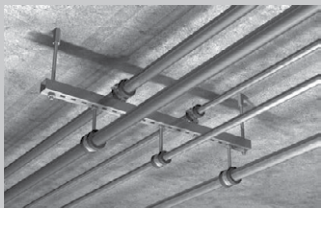
fischer





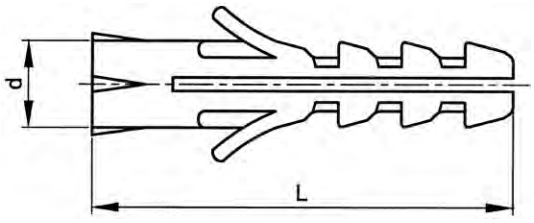


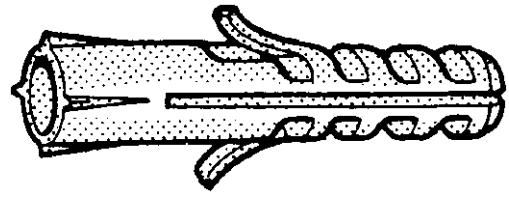





8

Bucha tipo S



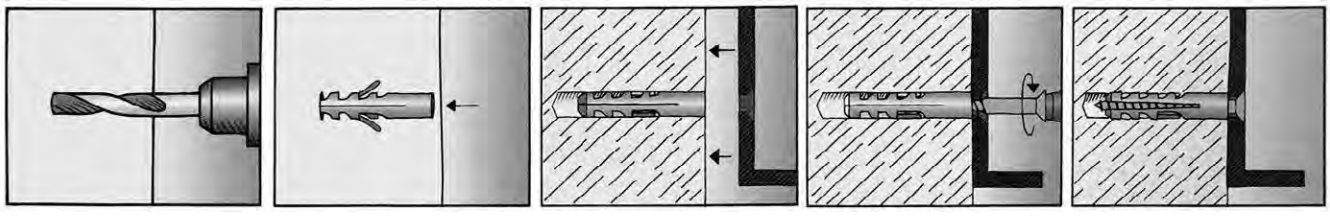


Dados técnicos

Tipo	S4	S5	S6	S7	S8	S10	S12	S14	S16	S20
d	4	5	6	7	8	10	12	14	16	20
Furo ø	4	5	6	7	8	10	12	14	16	20
L	20	25	30	30	40	50	60	75	80	90
Profundidade do furo (mín.)	25	35	40	40	55	70	80	90	100	120
Aplicado em combinação com:										
Parafusos para madeira	2-**3**	3-**4**	4-**5**	4-**5.5**	4.5-**6**	6-**8**	8-**10**	10-**12**	**12 -1/2”**	**16**
Cargas máximas admissiveis em kN										
Betão celular ≥ PB4. PP4 (G4)	-	-	0.05	-	0.07	0.16	0.28	0.40	-	-
Betão ≥ C20/25	0.16	0.28	0.40	-	0.60	1.10	1.50	1.85	2.26	3.88
Tijolo arenoso ≥ KS12	0.14	0.24	0.28	-	0.55	-	-	-	-	-
Tijolo ≥ Mz12	0.14	0.24	0.28	.	0.50	-	-	-	-	-

- Carga admissivel em KN no maior diâmetro do parafuso, (valores a negrito), e se montagem da bucha estiver corretamente montada na superficie.
- Carga admissível inclui o fator de segurança 7.

Sequência de montagem



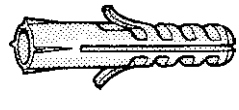
Grupos de produtos

Material		Cor	Código	Página
Plástico Nylon		Cinza	63100	8-7
Plástico Nylon	Embalagem grande	Cinza	63110	8-7

8

63100 FISCHER Bucha tipo S — N01A

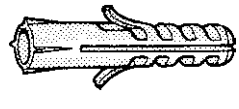
Material Plástico Nylon (poliamida)
Cor Cinza



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
S 4	200	63100.040.001	S 8	100	63100.080.001	S 14	20	63100.140.001
S 5	100	63100.050.001	S 10	50	63100.100.001	S 16	10	63100.160.001
S 6	100	63100.060.001	S 12	25	63100.120.001	S 20	5	63100.200.001
S 7	100	63100.070.001						

63110 FISCHER Bucha tipo S — N01A

Material Plástico Nylon (poliamida)
Cor Cinza

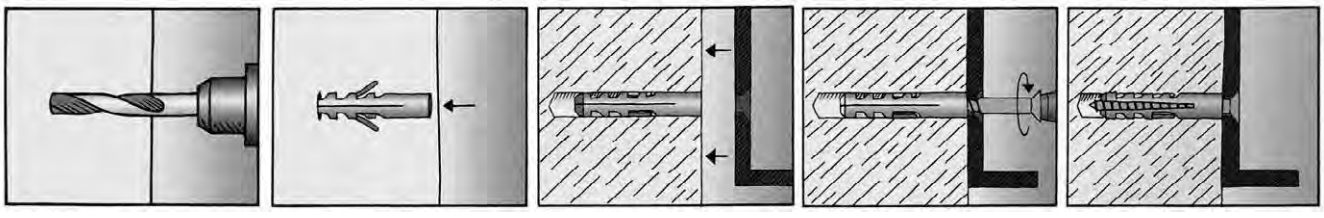


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
S 5	1000	63110.050.001	S 6	500	63110.060.001	S 8	250	63110.080.001

Sortido de buchas



Sequência de montagem



63150	FISCHER Sortido de buchas	N03B

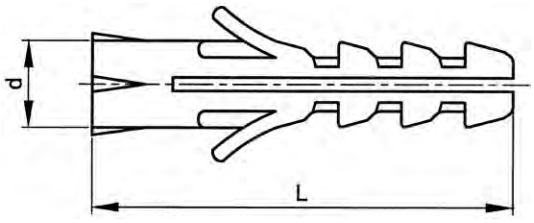
fischer innovative solutions

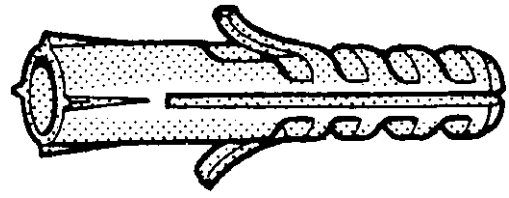


Tipo	✉	Ref. do artigo		
BOX S-5/6/8	1	63150.568.001	• Caixa plástica vermelha, com janela • Contém: • 100 buchas de nylon tipo S 5 • 100, buchas de nylon tipo S 6 • 100 buchas de nylon tipo S 8	

8

Bucha tipo MS



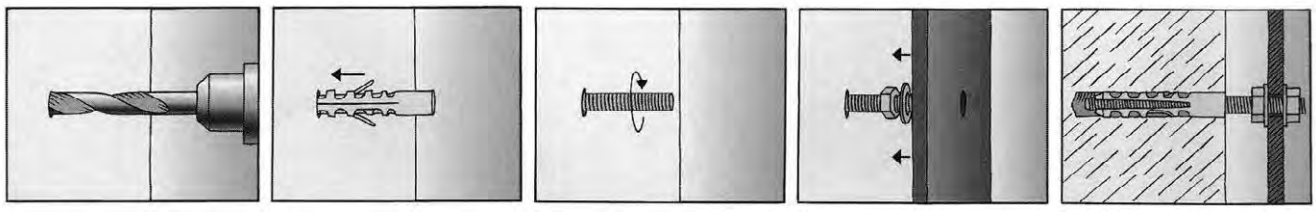


Dados técnicos

Tipo	M6-S	M8-S	M10-S	M12-S
d	8	10	14	16
Furo ø	8	10	14	16
L	40	50	70	80
Profundidade do furo (mín.)	55	70	90	100
Cargas máximas admissiveis em kN				
Betão ≥ C20/25	0.30	0.54	0.66	1.06
Tijolo arenoso ≥ KS12	0.24	0.33	0.43	0.71
Tijolo Mz12	0.24	0.33	0.46	0.79

- A bucha tipo MS é aplicada com parafusos métricos.
- Carga admissível inclui o fator de segurança 7.

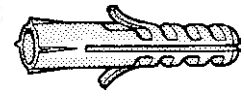
Sequência de montagem



63160 **FISCHER Bucha tipo MS** **N03B**

Rosca Métrica
Material Plástico Nylon (poliamida)
Cor Bege

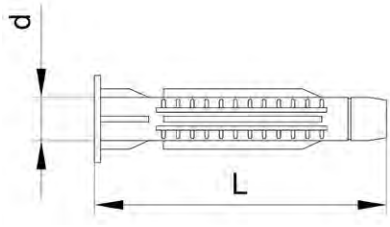
fischer innovative solutions

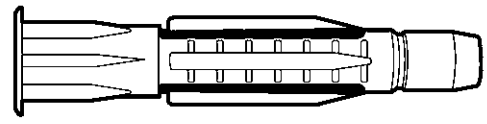


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
M6 S	100	63160.060.001	M10 S	20	63160.100.001	M12 S	10	63160.120.001
M8 S	50	63160.080.001						

8

Bucha MultiFast





Dados técnicos

d	6	8	10
Furo ø	6	8	10
L	35	50	60
Profundidade do furo (mín.)	45	60	70
Aplicado em combinação com:			
Parafusos para madeira	4	4.5	5
Resistência á tracção para parafusos de madeira em kN			
Betão ≥ C20/25	0.65	0.80	0.95
Tijolo ≥ Mz12	0.20	0.32	0.38

30502 **MAXXFAST Bucha MultiFast** **MF50**

Material Plástico Nylon (poliamida)
Cor Cinza

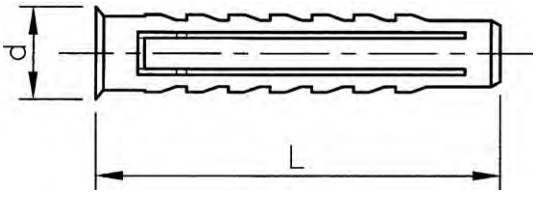
MAXXFAST PROFESSIONAL HARDWARE

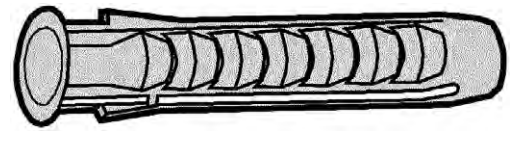


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
6MM	100	30502.060.001	8MM	100	30502.080.001	10MM	50	30502.100.001

- Só embalagens completas.

Bucha tipo SX



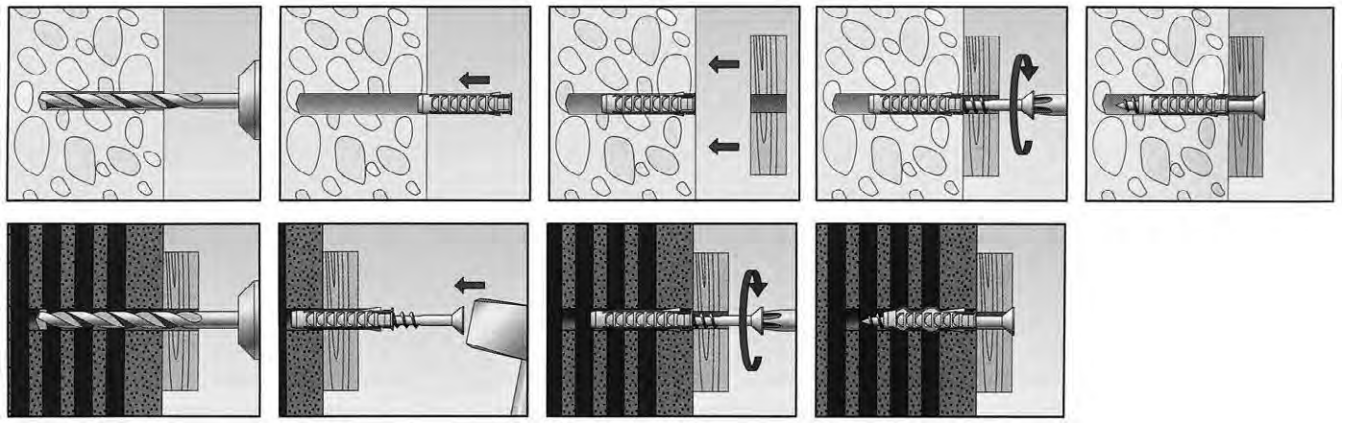


Dados técnicos

Tipo	SX 4	SX 5	SX 6	SX 6-L	SX 8	SX 8-L	SX 10	SX 12	SX 14	SX 16
d	4	5	6	6	8	8	10	12	14	16
Furo ø	4	5	6	6	8	8	10	12	14	16
L	20	25	30	50	40	65	50	60	70	80
Profundidade do furo (mín.)	25	35	40	60	50	75	70	80	90	100
Aplicado em combinação com:										
Parafusos para madeira	2-**3**	3-**4**	4-**5**	4-**5**	4.5-**6**	4.5-**6**	6-**8**	8-**10**	10-**12**	12-**1/2”**
Cargas máximas admissiveis em kN										
Betão celular ≥ G2	-	0.03	0.03	0.03	0.04	0.04	0.09	0.14	0.31	0.31
Betão celular ≥ G4	-	0.09	0.09	0.09	0.14	0.14	0.29	0.44	0.49	0.49
Betão ≥ C20/25	-	0.29	0.7	0.7	0.71	0.71	1.21	1.71	2.01	2.01
Pedra Perfurada ≥ Hlz12. ρ ≥ 1.0 kg/dm^3	-	0.07	0.07	0.07	0.17	0.17	0.17	0.26	0.44	0.44
Tijolo arenoso ≥ KS12	-	0.29	0.5	0.5	0.6	0.6	1.21	1.71	2.01	2.01
Tijolo oco KSL12	-	0.17	0.3	0.3	0.33	0.33	0.29	0.35	0.31	0.31
Tijolo ≥ Mz12	-	0.23	0.31	0.31	0.59	0.59	0.64	0.71	0.8	0.8

- Carga admissivel em KN no maior diâmetro do parafuso, (valores a negrito), e se montagem da bucha estiver corretamente montada na superficie.
- Quando são utilizados parafusos para aglomerado, os valores devem ser reduzidos em 30%.
- Os valores são apenas para fixações em tijolo, por causa da possivel variação da qualidade das ligações.

Sequência de montagem

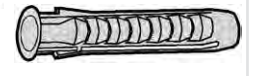


Grupos de produtos

Material		Cor	Código	Página
Plástico Nylon	SX	Cinza	63120	8-11
Plástico Nylon	SX-L	Cinza	63121	8-11

63120 FISCHER Bucha com aba tipo SX — N01A

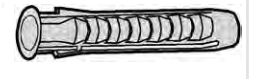
Material Plástico Nylon (poliamida)
Cor Cinza



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
SX4	200	63120.040.001	SX8	100	63120.080.001	SX14	20	63120.140.001
SX5	100	63120.050.001	SX10	50	63120.100.001	SX16	10	63120.160.001
SX6	100	63120.060.001	SX12	25	63120.120.001			

63121 FISCHER Bucha com aba tipo SX-L — N01A

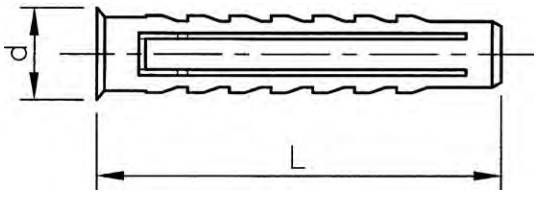
Material Plástico Nylon (poliamida)
Cor Cinza



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
SXL6	100	63121.060.002	SXL8	50	63121.080.002

8

Bucha 4Fast





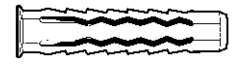
Dados técnicos

d	5	6	8	10	12
Furo ø	5	6	8	10	12
L	25	30	40	50	60
Profundidade do furo (mín.)	30	50	50	60	70
Aplicado em combinação com:					
Parafusos para madeira	4	4.5	5	6	10
Resistência á tracção para parafusos de madeira em kN					
Betão ≥ C20/25	0.80	1.10	1.20	1.86	2.60
Tijolo ≥ Mz12	0.46	0.90	1.00	1.10	1.20

30505 **MAXXFAST Bucha 4Fast** **MF40**

Material Plástico Nylon (poliamida)
Cor Cinza

MAXXFAST PROFESSIONAL HARDWARE

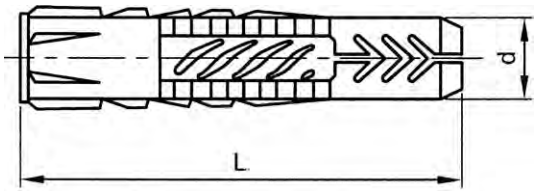


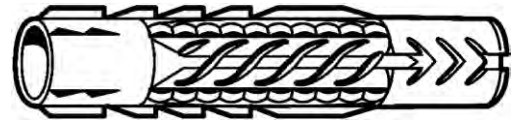
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
5MM	100	30505.050.001	8MM	100	30505.080.001	12MM	25	30505.120.001
6MM	100	30505.060.001	10MM	50	30505.100.001			

- Só embalagens completas.

8

Bucha universal UX/UX-R





Dados técnicos

Tipo	UX (R) 6	UX (R) 8	UX (R) 10	UX 12	UX 14
Espessura do material (mín.)	9.5	9.5	12.5	-	-
Furo ø	6	8	10	12	14
L	35	50	60	70	75
Profundidade do furo (mín.)	45	60	75	85	95
Aplicado em combinação com:					
Parafusos para madeira	4-**5**	4.5-**6**	6-**8**	8-**10**	10-**12**
Cargas máximas admissiveis em kN					
Betão celular ≥ PB4. PP4 (G4)	0.2	0.3	0.4	0.6	0.7
Pedra Perfurada Hlz12	0.2	0.2	0.2	0.3	4
Placa de gesso 12.5mm	0.1	0.1	0.1	-	-
Placa de gesso ≥ 2x12.5mm	0.15	0.15	0.15	-	-
Tijolo oco KSL12	0.4	0.5	0.6	0.8	0.8
Tijolo ≥ Mz12	0.2	0.3	0.5	0.7	0.8

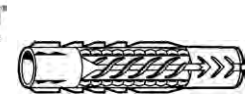
- Carga admissivel incluí o fator de segurança 7.Carga admissivel em KN no maior diâmetro do parafuso, (valores a negrito), e se montagem da bucha estiver corretamente montada na superficie.
- Carga admissivel incluí o fator de segurança 7.

Grupos de produtos

Material		Código	Página
Plástico	UX	63276	8-13
Plástico	UX-R	63277	8-13

63276 **FISCHER Bucha universal UX** **N03A**

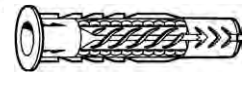
Material Plástico



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
UX 6	100	63276.060.001	UX 10	50	63276.100.001	UX 14	20	63276.140.001
UX 8	100	63276.080.001	UX 12	25	63276.120.001			

63277 **FISCHER Bucha universal UX-R** **N03A**

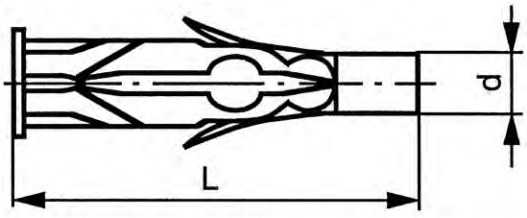
Material Plástico

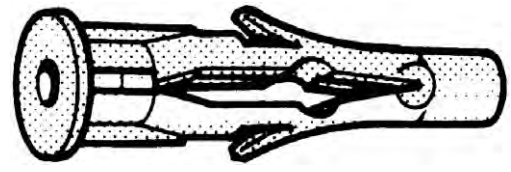


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
6 UX-R	100	63277.060.001	8 UX-R	100	63277.080.001	10 UX-R	50	63277.100.001

8

Bucha universal



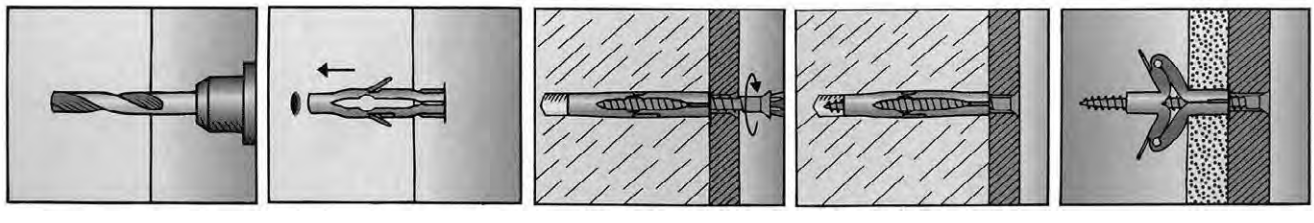


Dados técnicos

Tipo	FU 6x35	FU 6x45	FU 8x50	FU 10x60
d	6	6	8	10
Espessura do material (mín.)	6	6	6	6
Furo ø	6	6	8	10
L	35	45	50	60
Profundidade do furo (mín.)	45	55	60	70
Aplicado em combinação com:				
Parafusos para madeira	3-**3.5**	3-**3.5**	4-**4.5**	5-**6**
Resistência á tracção para parafusos de madeira/				
Aglomerado 10mm	-	-	-	-
Betão C20/25	0.28	0.28	0.57	0.86
Betão celular PB2. PP2 (G2)	0.03	0.03	0.09	0.13
Betão celular PB4. PP4 (G4)	0.13	0.13	0.22	0.27
Pedra Perfurada Hlz12	-	-	-	-
Placa de gesso 10mm	-/0.4	-/0.4	-/0.45	-/0.45
Pomes V2	0.10	0.10	0.21	0.22
Tijolo arenoso KS12	0.25	0.25	0.50	0.78
Tijolo Mz12	0.26	0.26	0.50	0.78
Tijolo oco KSL6	-	-	-	-

- Carga admissivel em KN no maior diâmetro do parafuso, (valores a negrito), e se montagem da bucha estiver corretamente montada na superficie.
- Carga admissivel incluí o fator de segurança 7.

Sequência de montagem

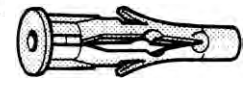


8

63270 **FISCHER Bucha universal tipo FU** **N03A**

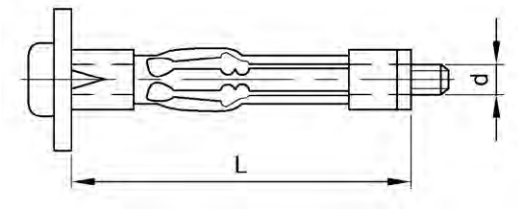
Material Plástico Nylon (poliamida)
Cor Cinza

fischer innovative solutions



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
FU 6X35	50	63270.060.035	FU 8X50	50	63270.080.050	FU 10X60	25	63270.100.060
FU 6X45	50	63270.060.045						

Bucha metálica MAXXFAST





Dados técnicos

d x L	Comprimento do parafuso	Espessura máxima de aperto ($t_{fix.máx.}$-$t_{fix.min.}$)	Furo ø	Profundidade da cavidade (mín.)	Resistência á tracção em N
M4x21	28	1-4	8	26	-
M4x34	41	3-9	8	39	-
M4x40	47	8-15	8	46	300
M4x47	54	16-21	8	53	300
M4x60	67	32-38	8	66	500
M5x37	43.5	5-13	10	46	250
M5x53	60	5-16	10	59	500
M5x66	74	16-32	10	72	900
M5x81	89	32-45	10	89	900
M6x37	45	5-13	12	46	200
M6x53	60	5-16	12	59	300
M6x66	74	16-32	12	72	800
M6x81	88	32-45	12	89	800

- Força de tração para espessura máxima de placa

30537 **Bucha metálica MAXXFAST H-Fast Pozidrive** **MF4A**

Rosca Métrica
Material Aço
Tratamento sup. Zincado

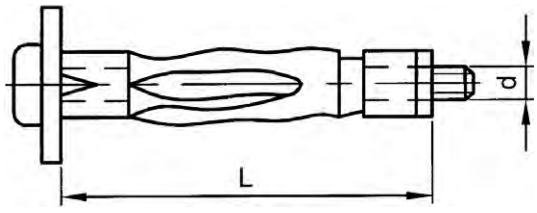
MAXXFAST PROFESSIONAL HARDWARE

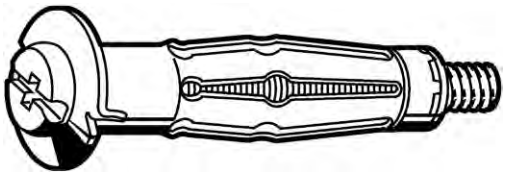
RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X21	50	30537.040.021	M5X37	50	30537.050.037	M6X37	50	30537.060.037
M4X34	50	30537.040.032	M5X53	50	30537.050.052	M6X53	50	30537.060.052
M4X40	50	30537.040.038	M5X66	50	30537.050.065	M6X66	50	30537.060.065
M4X47	50	30537.040.046	M5X81	50	30537.050.080	M6X81	50	30537.060.080
M4X60	50	30537.040.059						

Bucha metálica



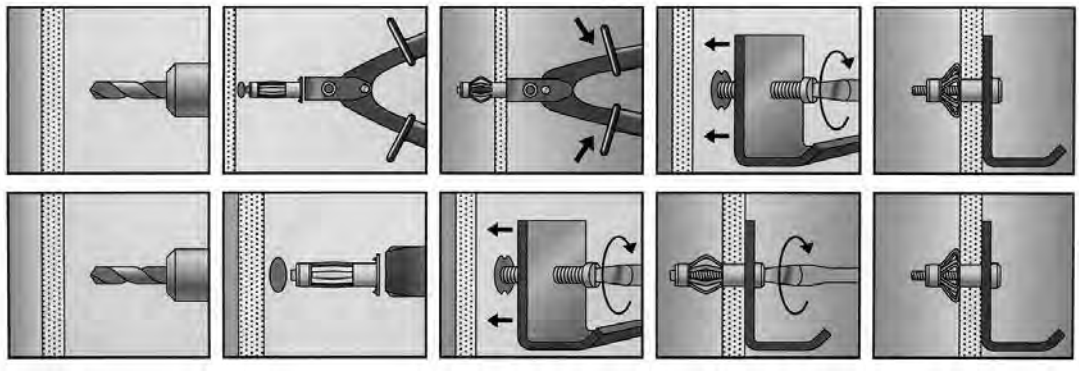


Dados técnicos

Tipo	d	Dimensão do parafuso	Espessura do material (máx.)	Espessura do suporte (máx.)	Furo ø	L	Profundidade do furo (mín.)
HM 4x32	M4	M4	3-13	-	8	32	42
HM 4x32 S	M4	M4X40	3-13	15-25	8	32	40
HM 4x45 S	M4	M4x52	16-23	12-21	8	45	55
HM 4x46 S	M4	M4x52	5-18	23	8	46	56
HM 4x60 S	M4	M4X65	31-40	12-21	8	60	60
HM 5x37 S	M5	M5X45	6-15	8-17	10	37	45
HM 5x52 S	M5	M5X58	7-21	10-24	10	52	58
HM 5x65 S	M5	M5X71	20-34	12-26	10	65	71
HM 6x37	M6	M6	6-15	-	12	37	47
HM 6x37 S	M6	M6X45	6-15	12-21	12	37	45
HM 6x52 S	M6	M6X58	7-21	14-28	12	52	58
HM 6x65 S	M6	M6X70	20-34	≤ 24	12	65	70
HM 6x80	M6	M6	38-50	-	12	80	90
HM 6x80 S	M6	M6X88	32-50	16-34	12	80	88
HM 8x55 SS	M8	M8X60	10-21	≤ 24	12	55	60

- HM4x32/ HM5x37/ HM6x37/ HM6x80 entrega sem parafuso.
- HM8x55SS com parafuso cabeça sextavada. Fixação só com utilização de alicates profissionais HM Z 1.

Sequência de montagem



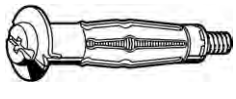
8

63240 **Bucha metálica FISCHER tipo HM/HM-S** **N03A**

Rosca Métrica
Material Aço
Tratamento sup. Zincado

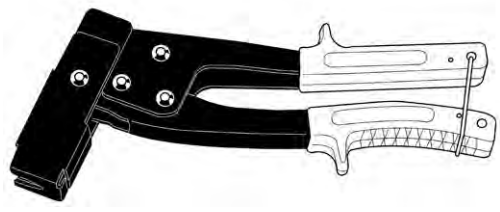
fischer innovative solutions

RoHS



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
HM4X32S	50	63240.040.132	HM5X37S	50	63240.050.137	HM6X52S	50	63240.060.152
HM4X45S	50	63240.040.145	HM5X52S	50	63240.050.152	HM6X65S	50	63240.060.165
HM4X54S	50	63240.040.154	HM5X65S	50	63240.050.165	HM6X80S	50	63240.060.180
HM4X60S	50	63240.040.160	HM6X37S	50	63240.060.137	HM8X55S	50	63240.080.155

Ferramenta de instalação



Grupos de produtos

Código	Página
30539	8-17
63248	8-17

30539 MAXXFAST Ferramenta de montagem — MFNA



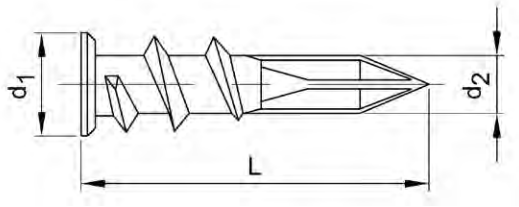
Tipo	✉	Ref. do artigo
HA-FAST	1	30539.000.005

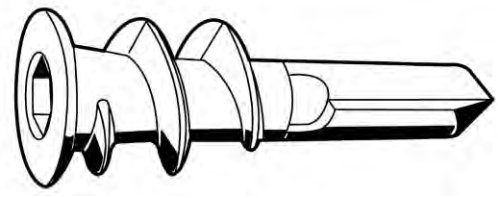
63248 FISCHER Ferramenta de montagem — N03A



Tipo	✉	Ref. do artigo		
HMZ 2	1	63248.000.100	• Pinça bricolage • Indicado para a instalação de fixações para cavidades FISCHER	
HMZ 1	1	63248.000.105	• Pinça profissional • Indicado para a instalação de fixações para cavidades FISCHER	

Bucha para gesso





Dados técnicos

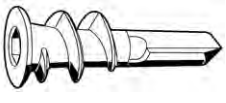
d_1 x L	d_2	Dimensão do parafuso	Espessura do material	Nr. fenda	Profundidade da cavidade (mín.)
15x33	6	4.5x35	9-16	2	30
13x29	6	4.2x30	9-16	2	25
13x37	6	4.2x50	9-16	2	25

Grupos de produtos

Encaixe	Material	Tratamento sup.	Código	Página
Phillips	Plástico Nylon		30530	8-18
Phillips	Aço	Zn	30531	8-18
Phillips	Zamac 3		30532	8-18

30530 **MAXXFAST Bucha para gesso** **MF4A**

Material Plástico Nylon (poliamida)

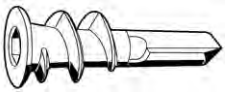


d_1 x L	✉	Ref. do artigo
15X33MM	50	30530.120.001

30531 **MAXXFAST Bucha para gesso** **MF4A**

Material Aço
Tratamento sup. Zincado

RoHS

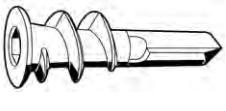


d_1 x L	✉	Ref. do artigo
13X29MM	50	30531.015.029

30532 **MAXXFAST Bucha para gesso** **MF4A**

Material Zamac 3

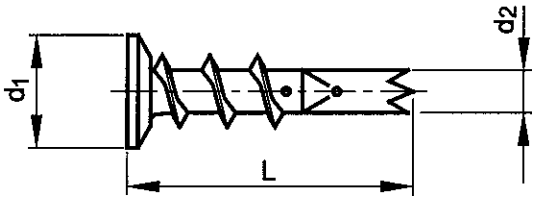
RoHS

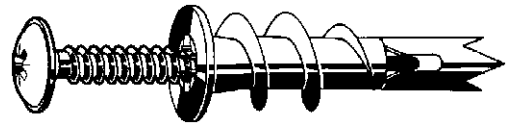


d_1 x L	✉	Ref. do artigo
13X37MM	50	30532.060.037

8

Bucha auto-perfurante para gesso

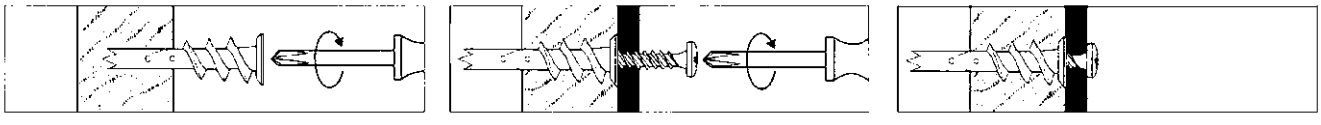




Dados técnicos

Tipo	TP 12	TP 12-PLUS	TF 27
Tensão de corte min.em kN	0.18	0.28	0.18
d_1	14	16	14
d_2	8	15.5	8
Dimensão do parafuso	4.5x35	4.5x45	4.5x50
Espessura do material (mín.)	10	10-13	10
Gama de aperto	0-12	0-12	12-27
L	31	39	31
No. Pozidriv (Z)	2	2	2

Sequência de montagem



Grupos de produtos

Material	Tratamento sup.		Código	Página
Zamac 3	Zn		70880	8-19
Zamac 3	Zn	PLUS	70882	8-19

70880 DRIVA Bucha auto-perfurante gesso N05A

Material Zamac 3
Tratamento sup. Zincado



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
TP 12	100	70880.120.001	TF 27	100	70880.270.001

- Ancoragem auto perfurante para fixações em gesso FABORY DRIVA Zamac 3 (zinc alloy), tipo TP 12 com parafusos zincados para paineis e tipo TF 27 com parafusos cabeça de embeber zincado.
- Os valores são para aplicações em gesso 10 mm e 13 mm e betão celular (6 mm pré furo).
- A carga admissivel (Nrec/Vrec) inclui o fator de segurança 5 na carga limite.

70882 DRIVA PLUS Bucha auto-perfurante gesso N05A

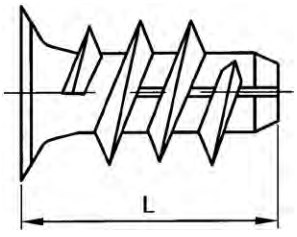
Material Zamac 3
Tratamento sup. Zincado

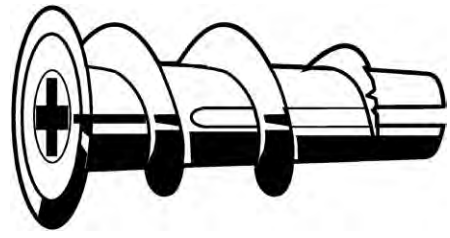


Tipo	✉	Ref. do artigo
TP 12-PLUS	100	70882.120.001

- Ancoragem auto perfurante FABORY DRIVA PLUS para fixações em gesso em Zamac 3 (zinc alloy). Com parafusos zincados, especialmente desenvolvidos para ancoragem FABORY DRIVA PLUS.
- The Allowable load (Nrec/Vrec) Includes the safety factor of 5 on the ultimate load.

Bucha para gesso



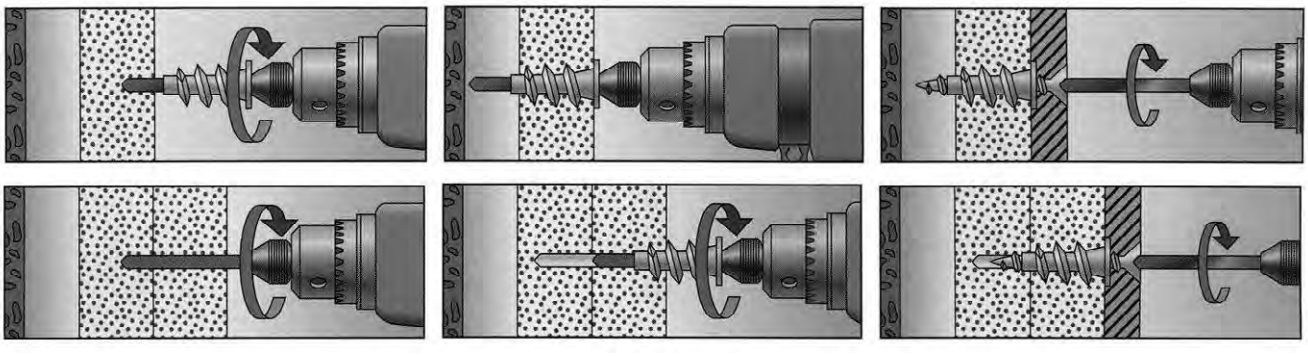


Dados técnicos

Tipo	GK	GKS
Escala de aperto	-	13
L	22	22
Profundidade da cavidade (mín.)	25	25
Parafuso ø	4-5	4.5x35
Cargas máximas admissiveis em kN		
Placa de gesso 9.5mm	0.07	0.07
Placa de gesso 12.5mm	0.08	0.08
Placa de gesso ≥ 2x12.5mm	0.11	0.11

- GKS Fornecidos com ferramenta de instalação e parafusos para gesso.
- GK Min. Comprimento de parafuso = comprimento da bucha 22 mm + espessura do componente de construção.
- Cargas admissiveis em kN são válidas para parafusos para aglomerados com diâmetros especificos.

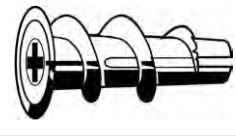
Sequência de montagem



8

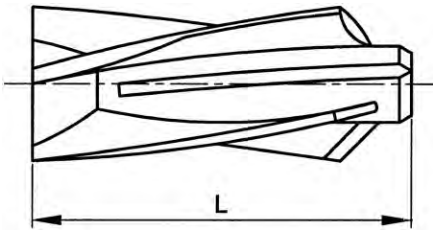
63261 **FISCHER Bucha fixação para gesso tipo GK/GKS** **N03A**

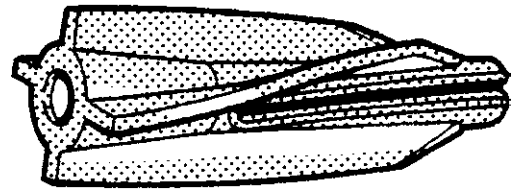
Material Plástico Nylon (poliamida)
Cor Cinza



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
GK 4,0X35	100	63261.040.035	GKS 4,5X35	50	63261.045.035

Bucha para betão celular





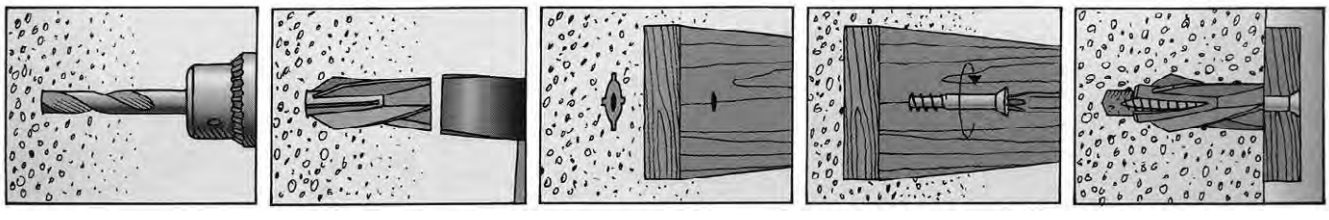
Dados técnicos

Tipo	GB8	GB10	GB14
Furo ø	8	10	14
L	50	55	75
Profundidade do furo (mín.)	60	65	90
Aplicado em combinação com:			
Parafuso ø	5	7	10
Cargas máximas admissiveis em kN			
Betão celular ≥ G3.3 (GB3.3)	0.3	0.5	0.8
Betão celular ≥ G4.4 (GB4.4)	0.4	0.6	0.9
Betão celular ≥ PB2. PP2 (G2)	0.20	0.25	0.40
Betão celular ≥ PB3.3 (GB3.3)*	0.3	0.5	0.3
Betão celular ≥ PB4. PP4 (G4)	0.4	0.6	0.9

- Cargas admissiveis são válidas para parafusos de segurança FISCHER
- Em termos de produto, o conjunto da aplicação deve ser considerado na totalidade.

* Capacidade de carga do betão celular, teto e paineis de teto acc. DIN 4223

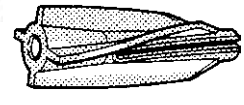
Sequência de montagem



63300 **FISCHER Bucha para betão celular tipo GB** **N03B**

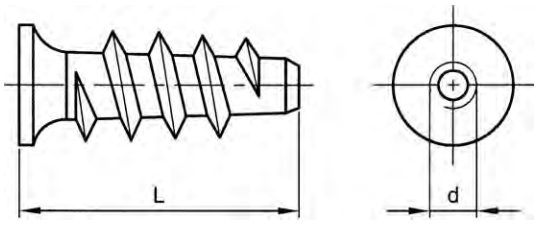
Material Plástico Nylon (poliamida)
Cor Cinza

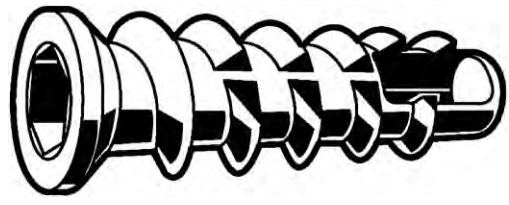
fischer innovative solutions



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
GB 8	25	63300.080.001	GB 10	20	63300.100.001	GB 14	10	63300.140.001

Bucha FPT aço





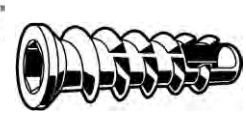
Dados técnicos

Tipo	M6	M8	M10
Furo ø	8 - (10)	10 - (12)	12 - (14)
L	50	60	70
Profundidade de aparafusamento (máx.)	20	25	30
Profundidade do furo até ao ponto mais profundo	60	70	80
Aplicado em combinação com:			
Parafuso ø	M6	M8	M10
Cargas máximas admissiveis em kN			
Betão celular PB2. PP2 (≥ 2.5 N/mm$_2$)	0.30	0.45	0.60
Betão celular PB4. PP4 (≥ 5.0 N/mm$_2$)	0.50	0.65	0.70
Betão celular PB6. PP6 (≥ 7.5 N/mm$_2$)	0.7	0.8	0.9
Placa de gesso 10mm	-	0.45	0.65

- Cargas admissiveis em kN são válidas para parafusos com diâmetros especificos.
- Cargas admissiveis incluem fator de segurança 5
- Furo 0/; valores entre parentises aplicados a betão celular classe ≥ 5,0 N/mm2.

63309 **FISCHER Bucha aço tipo FTP** **N03A**

Material Aço

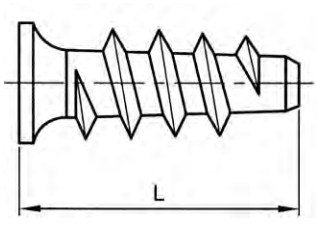


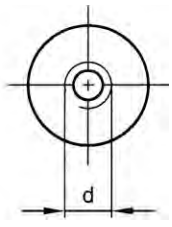
Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
M6	25	63309.060.001	M8	25	63309.080.001	M10	25	63309.100.001

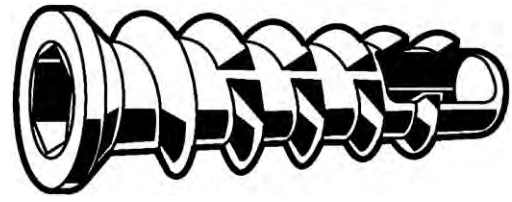
- Ferramentas, ver páginas seguintes.

8

Bucha FPT plástico







Dados técnicos

Tipo	K4	K6	K8	K10
Furo ø	8 - (10)	8 - (10)	10 - (12)	12 - (14)
L	50	50	60	70
Parafusos para madeira ø	4-4.5	5-6	7-8	9-10
Profundidade de aparafusamento (máx.)	35	40	45	50
Profundidade do furo até ao ponto mais profundo	60	60	70	80
Aplicado em combinação com:				
Parafuso ø	M4	M5-6	M8	M8-10
Cargas máximas admissiveis em kN				
Betão celular PB2. PP2 (≥ 2.5 N/mm$_2$)	0.15	0.20	0.30	0.40
Betão celular PB4. PP4 (≥ 5.0 N/mm$_2$)	0.25	0.30	0.40	0.50
Placa de gesso 10mm	-	-	0.29	0.54

- Cargas admissiveis em kN são válidas para parafusos com diâmetros especificos.
- Cargas admissiveis incluem fator de segurança 5
- Furo 0/; valores entre parentises aplicados a betão celular classe ≥ 5,0 N/mm2.

63310 **FISCHER Bucha plástica tipo FTP** **N03A**

Material Plástico

fischer innovative solutions



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
K4	25	63310.040.001	K8	25	63310.080.001	K10	10	63310.100.001
K6	25	63310.060.001						

- Ferramentas, ver páginas seguintes.

8

Ferramenta de instalação FPT

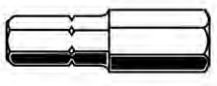


Grupos de produtos

Material	Código	Página
Aço	63312	8-24
Plástico	63313	8-24

63312 **FISCHER Ferramenta de instalação aço tipo FTP** **N03A**

Material Aço



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
EM6	1	63312.060.001	EM8	1	63312.080.001	EM10	1	63312.100.001

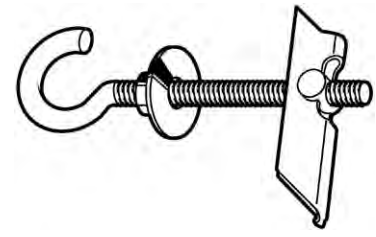
63313 **FISCHER Ferramenta de instalação plástico tipo FTP** **N03A**

Material Plástico



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
EK4/6	1	63313.040.001	EK8	1	63313.080.001	EK10	1	63313.100.001

Gancho fixação ao teto



Dados técnicos

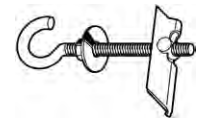
Tipo	Espessura do material (mín.)	Furo ø	L	N_{rec}	Para parafuso	Profundidade da cavidade (mín.)
K 54	65	10	125	-	4MM	58
KD 3	65	12	95	0.45	M3X90	27
KD 4	69	14	105	0.90	M4X100	34
KD 5	63	16	100	2.20	M5X100	70
KD 6	63	16	100	2.80	M6X100	70
KD 8	55	20	100	4.30	M8X100	75
KDH 3	51	12	105	0.07	M3X80	27
KDH 4	35	14	95	0.13	M4X80	34
KDH 5	60	16	130	0.30	M5X90	70
KDH 8	55	20	130	1.40	M8X100	75

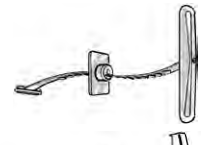
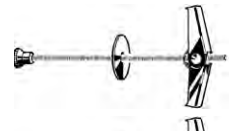
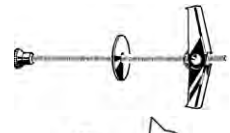
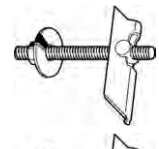
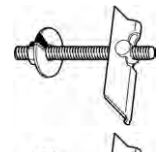
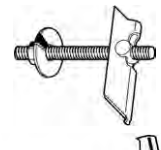
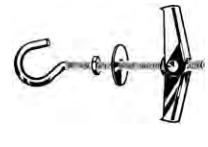
- **N_{rec}= Carga recomendada kN.**
- Incluí fator de segurança 2,25.
- Falha/dobra do gancho é decisiva.

63260 **Gancho de fixação ao teto FISCHER tipo K** **N03B**

Tratamento sup. Zincado

fischer innovative solutions

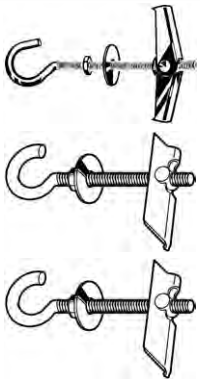


Tipo	✉	Ref. do artigo	
K-54	25	63260.000.054	
KD-3	50	63260.001.003	
KD-4	25	63260.001.004	
KD-5	25	63260.001.005	
KD-6	25	63260.001.006	
KD-8	20	63260.001.008	
KDH-3	25	63260.002.003	

8

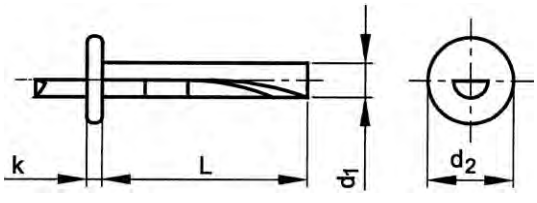
63260	Gancho de fixação ao teto FISCHER tipo K	←

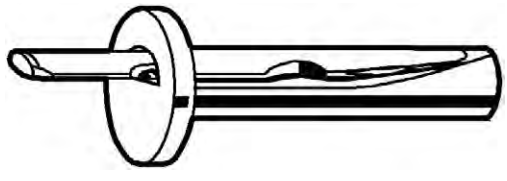
Tipo	✉	Ref. do artigo
KDH-4	25	63260.002.004
KDH-5	20	63260.002.005
KDH-8	20	63260.002.008



- KD & KDH= Aço.
- K= Plástico.

Ancoragem prego para calhas

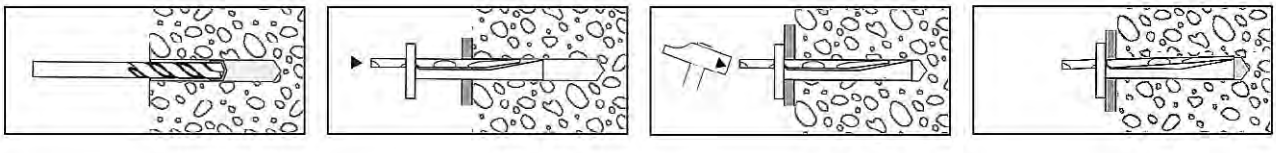




Dados técnicos	
Tipo	SDA 6
d_1	5.8
d_2	15
Furo ø	6
Gama de aperto (máx.)	4.5
k	2.5
L	35
Profundidade do furo (mín.)	40
Cargas máximas admissiveis em kN	
Betão ≥ C20/25	0.5

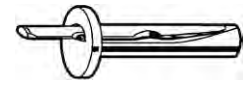
- As cargas de aperto nas zonas de pressão.

Sequência de montagem



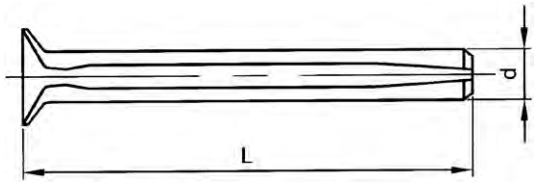
70665	SPIT Ancoragem prego tipo SDA	P03A

Material	Aço
Tratamento sup.	Passivado a amarelo



Tipo	✉	Ref. do artigo
SDA 6	100	70665.060.001

Casquilho



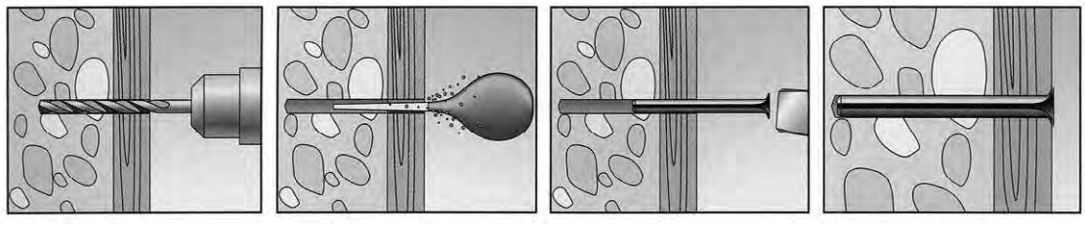


Dados técnicos

Tipo	FNH 5/50	FNH 6/40	FNH 6/50	FNH 6/60	FNH 6/80	FNH 8/70	FNH 8/90	FNH 8/110	FNH 8/130	FNH 8/150
d	5	6	6	6	6	8	8	8	8	8
Escala de aperto (máx.)	30	10	20	30	50	30	50	70	90	110
Furo ø	5	6	6	6	6	8	8	8	8	8
L	50	40	50	60	80	70	90	110	130	150
Profundidade de ancoragem efectiva (h_{ef})	20	30	30	30	30	40	40	40	40	40
Profundidade do furo (mín.)	60	50	60	70	90	80	100	120	140	160
Cargas máximas admissiveis em kN										
Betão ≥ C20/25	0.10	0.35	0.35	0.35	0.35	0.60	0.60	0.60	0.60	0.60

- O tratamento de superficie DACROMET® elimina o risco de fratura por disfunção hidrogénica.
- Profundidade de furo (min.) Para fixação sangrada.
- Cargas admissiveis em kN são válidas para aplicações não-estruturais
- Cargas admissiveis incluem fator de segurança 4.

Sequência de montagem



63223 FISCHER Casquilho **N03A**

Material Aço
Tratamento sup. Dacromet 500 LC Grade A

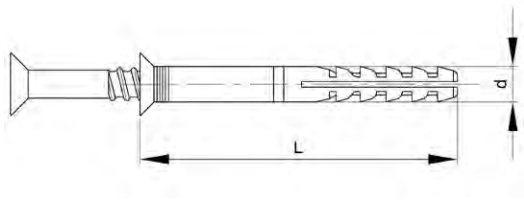
fischer innovative solutions

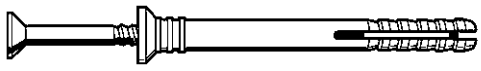


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
FNH 5/50	100	63223.050.050	FNH 6/80	100	63223.060.080	FNH 8/110	50	63223.080.110
FNH 6/40	100	63223.060.040	FNH 8/70	100	63223.080.070	FNH 8/130	100	63223.080.130
FNH 6/50	100	63223.060.050	FNH 8/90	50	63223.080.090	FNH 8/150	50	63223.080.150
FNH 6/60	100	63223.060.060						

8

Bucha HammerFast





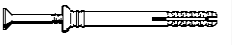
Dados técnicos

d x L	5x30	5x35	5x50	6x40	6x50	6x60	8x60	8x80	8x100	8x120
Furo ø	5	5	5	6	6	6	8	8	8	8
Gama de aperto	5	10	25	10	20	30	20	40	60	80
Profundidade do furo (mín.)	50	55	70	60	70	80	80	100	120	140
Cargas máximas admissiveis em kN										
Betão ≥ C20/25	0.32	0.32	0.32	0.36	0.36	0.36	0.44	0.44	0.44	0.44
Tijolo ≥ Mz12	0.20	0.20	0.20	0.28	0.28	0.28	0.36	0.36	0.36	0.36

- Cargas admissiveis em kN são válidas para pregos com diâmetros especificos.
- Cargas admissiveis incluem fator de segurança 5.

30510 MAXXFAST Bucha HammerFast **MF50**

Material Plástico Nylon (poliamida)
Tratamento sup. Zincado
Cor Cinza

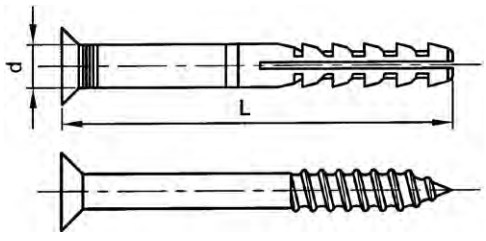


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
5X30MM	100	30510.050.030	6X50MM	100	30510.060.050	8X80MM	50	30510.080.080
5X35MM	100	30510.050.035	6X60MM	100	30510.060.060	8X100MM	50	30510.080.100
5X50MM	100	30510.050.050	8X60MM	100	30510.080.060	8X120MM	50	30510.080.120
6X40MM	100	30510.060.040						

- Só embalagens completas.

8

Bucha prego tipo N-Z



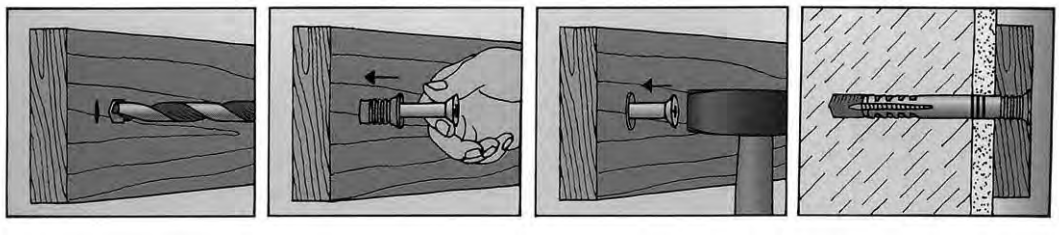


Dados técnicos

Tipo	N5x 30 Z	N5x 40 Z	N5x 50 Z	N6x 40 Z	N6x 60 Z	N6x 80 Z	N8x 60 Z	N8x 80 Z	N8x 100 Z	N8x 120 Z	N10x 100 Z	N10x 135 Z	N10x 160 Z
d	5	5	5	6	6	6	8	8	8	8	10	10	10
Dimensão do prego	3.5x38	3.5x48	3.5x58	4x48	4x64	4x88	5x65	5x85	5x105	5x120	7x110	7x145	7x170
Escala de aperto (máx.)	5	15	25	10	30	50	20	40	60	80	50	85	110
Furo ø	5	5	5	6	6	6	8	8	8	8	10	10	10
L	30	40	50	40	60	80	60	80	100	120	100	135	160
Profundidade do furo (mín.)	45	55	65	55	75	95	75	95	115	135	115	150	175
Cargas máximas admissiveis em kN													
Betão C20/25	0.16	0.16	0.16	0.2	0.2	0.2	0.27	0.27	0.27	0.27	0.33	0.33	0.33
Betão celular ≥ PB2. PP2 (G2)	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.1	0.1	0.1
Betão celular ≥ PB4. PP4 (G4)	0.5	0.5	0.5	0.65	0.65	0.65	0.8	0.8	0.8	0.8	1.2	1.2	1.2
Pomes V4	0.05	0.05	0.05	0.12	0.12	0.12	0.15	0.15	0.15	0.15	0.16	0.16	0.16
Tijolo arenoso KS12	0.14	0.14	0.14	0.17	0.17	0.17	0.24	0.24	0.24	0.24	0.33	0.33	0.33
Tijolo Mz12	0.14	0.14	0.14	0.18	0.18	0.18	0.24	0.24	0.24	0.24	0.3	0.3	0.3

- Cargas admissiveis em kN são válidas para pregos com diâmetros especificos.
- Cargas admissiveis incluem fator de segurança 4
- Com um prego em aço zincado ou aço Inox A2 com fenda em Pozidriv (Z).

Sequência de montagem



Grupos de produtos

Material	Tratamento sup.	Cor	Código	Página
Plástico Nylon	Zn	Sortido	63611	8-29
Plástico Nylon		Cinza	63616	8-30

63611 FISCHER Bucha prego tipo N-Z **N03C**

Material Plástico Nylon (poliamida)
Tratamento sup. Zincado
Cor Sortido



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
N5X30MM	100	63611.050.030	N5X50MM Branco	100	63611.050.511	N8X100MM	50	63611.080.100
N5X30MM Castanho	100	63611.050.031	N6X40MM	50	63611.060.040	N8X120MM	50	63611.080.120
N5X40MM Castanho	100	63611.050.040	N6X60MM	50	63611.060.060	N10X100MM	50	63611.100.100
N5X40MM	100	63611.050.041	N6X80MM	50	63611.060.080	N10X135MM	50	63611.100.135
N5X50MM	100	63611.050.050	N8X60MM	50	63611.080.060	N10X160MM	50	63611.100.160
N5X40MM Branco	100	63611.050.411	N8X80MM	50	63611.080.080			

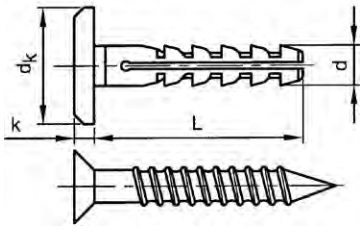
63616	FISCHER Bucha prego tipo N-Z inox tipo N-Z	N03C

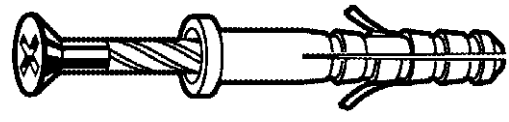
Material Plástico Nylon (poliamida)
Cor Cinza



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
5X30MM	100	63616.050.030	6X60MM	50	63616.060.060	8X80MM	50	63616.080.080
6X40MM	50	63616.060.040	8X60MM	50	63616.080.060	8X100MM	50	63616.080.100

Bucha prego tipo N-FZ





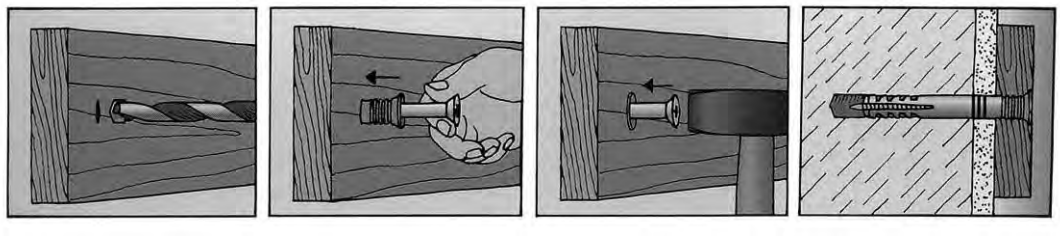
Dados técnicos

Tipo	N6x40 FZ	N8x40 FZ
d	6	8
Dimensão do prego	4x48	5x45
d_k	13	20
Escala de aperto (máx.)	7	0.5
Furo ø	6	8
L	40	40
Profundidade do furo (mín.)	55	55
Cargas máximas admissiveis em kN		
Betão C20/25	0.20	0.27
Betão celular G2	0.04	0.05
Betão celular G4	0.10	0.13
Pomes V4	0.12	0.15
Tijolo arenoso KS12	0.17	0.24
Tijolo Mz12	0.18	0.24

- Cargas admissiveis em kN são válidas para pregos com diâmetros especificos.
- Cargas admissiveis incluem fator de segurança 4.

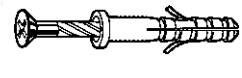
8

Sequência de montagem



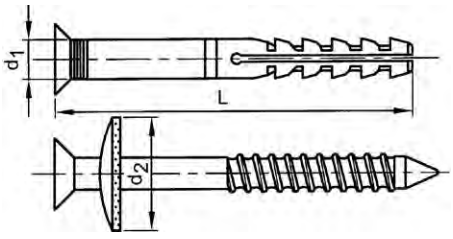
63615	FISCHER Bucha prego tipo N-FZ	N03C

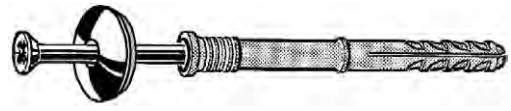
Material Plástico Nylon (poliamida)
Cor Cinza



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
N 6X40 FZ	50	63615.060.040	N 8X40 FZ	50	63615.080.040

Bucha prego com anilha isoladora





Dados técnicos

Tipo	N6x40 D	N6x60 D
d_1	6	6
d_2	19	19
Dimensão do prego	4x48	4x64
Escala de aperto (máx.)	10	30
Furo ø	6	6
L	40	60
Profundidade de ancoragem efectiva (h_{ef})	30	30
Profundidade do furo (mín.)	55	75
Cargas máximas admissiveis em kN		
Betão C20/25	0.2	0.2
Betão celular PB2. PP2 (G2)	0.04	0.04
Betão celular PB4. PP4 (G4)	0.1	0.1
Pomes V4	0.12	0.12
Tijolo arenoso KS12	0.17	0.17
Tijolo Mz12	0.18	0.18

- Cargas admissiveis em kN são válidas para pregos com diâmetros especificos.
- Cargas admissiveis incluem fator de segurança 4.

63617 **FISCHER Bucha prego tipo N-D** **N03C**

Material Plástico Nylon (poliamida)
Cor Cinza

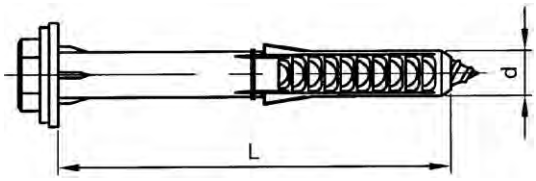
fischer innovative solutions

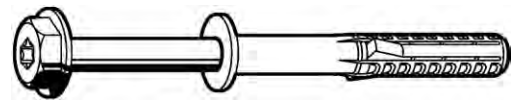


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
6X40MM	50	63617.060.040	6X60MM	50	63617.060.060

- Com prego Pozidriv (Z) aço inox A2 e anilha de vedação aço inox A2/elastômero.

Bucha longa





Dados técnicos

Tipo	SX10x80 T	SX10x100 T	SX10x140 T	SX10x160 T	SXS 10x60 F US A4	SXS 10x80 F US A4	SXS 10x100 F US A4	SXS 10x120 F US A4	SXS 10x140 F US A4	SXS 10x160 F US A4
Chave caixa	No.40	No.40	No.40	No.40	No.40	No.40	No.40	No.40	No.40	No.40
d	10	10	10	10	10	10	10	10	10	10
Dimensão do parafuso	7x87	7X107	7X147	7x167	7x69	7x89	7x109	7x129	7x149	7x169
Escala de aperto (máx.)	30	50	90	110	10	30	50	70	90	110
Furo ø	10	10	10	10	10	10	10	10	10	10
L	80	100	140	160	60	80	100	120	140	160
Profundidade do furo (mín.)	90	110	150	170	70	90	110	130	150	170
Cargas máximas admissiveis em kN										
Betão C12/15	2	2	2	2	2	2	2	2	2	2

- Cargas admissiveis (kN) para uma só ancoragem em fixações múltiplas de aplicações não estruturais em betão.
- Para combinações de cargas de tração, cargas transversais, momentos fletores, bem como distâncias de borda reduzidas ou espaçamentos (grupos-âncora) ver aprovação

Sequência de montagem



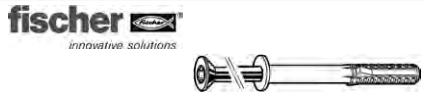
Grupos de produtos

Material		Cor	Código	Página
Plástico	SXS-T	Cinza	63298	8-32
Plástico	SXS-F US A4	Cinza	63174	8-33

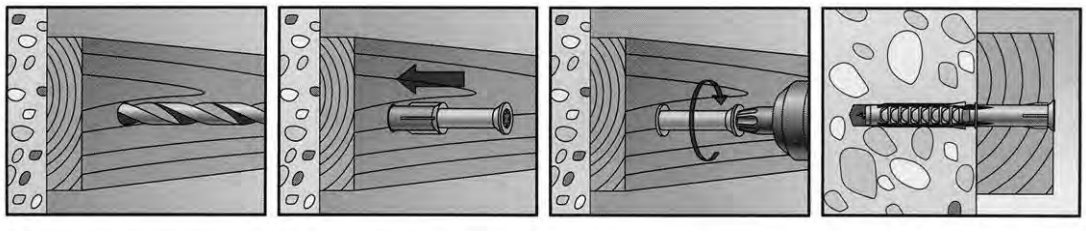
8

63298 FISCHER Bucha longa tipo SXS-T **N03A**

Material Plástico
Cor Cinza



Sequência de montagem

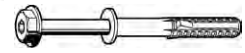


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
SXS 10X80T	50	63298.100.080	SXS 10X140T	50	63298.100.140	SXS 10X160T	50	63298.100.160
SXS 10X100T	50	63298.100.100						

- Com parafuso cabeça de embeber hexalobular aço zincado.

63174 **FISCHER Bucha longa tipo SXS-F US A4** **N03A**

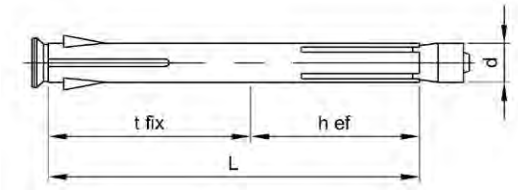
Material Plástico
Cor Cinza



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
10X60	50	63174.100.060	10X100	50	63174.100.100	10X140	50	63174.100.140
10X80	50	63174.100.080	10X120	50	63174.100.120	10X160	50	63174.100.160

- Colar de fixação ø 18 x 2 mm, com parafuso cabeça sextavada hexalobular e anilha incorporada em aço inox A4.

Bucha para moldura





Dados técnicos

d x L	10x72	10x92	10x112	10x132	10x152	10x182
Diâmetro da cabeça	13	13	13	13	13	13
Furo ø	10	10	10	10	10	10
Espessura máxima de aperto ($t_{fix,máx.}$)	40	60	80	100	120	150
Profundidade de ancoragem efectiva (h_{ef})	40	40	40	40	40	40
Profundidade do furo (mín.)	60	60	60	60	60	60
Resistência á tracção em kN	1.7	1.7	1.7	1.7	1.7	1.7
Tensão de corte em N	500	500	500	500	500	500
Parafuso ø	M6	M6	M6	M6	M6	M6

30569 **MAXXFAST Bucha para moldura** **MF4A**

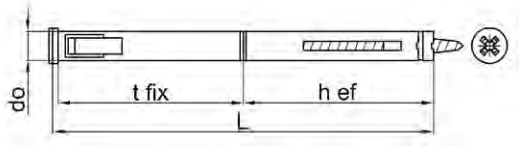
Material Aço
Tratamento sup. Zincado

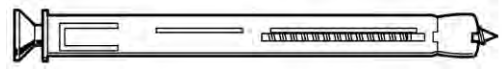


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
10X72	50	30569.060.072	10X112	50	30569.060.112	10X152	50	30569.060.152
10X92	50	30569.060.092	10X132	50	30569.060.132	10X182	50	30569.060.182

8

Bucha para moldura nylon





Dados técnicos

d_o x L	8x80	8x100	8x120	8x140	10x100	10x120	10x140	10x165
Diâmetro da cabeça	10	10	10	10	12	12	12	12
Furo ø	8	8	8	8	10	10	10	10
Espessura máxima de aperto ($t_{fix,máx.}$)	30	50	70	90	40	60	80	105
Profundidade de ancoragem efectiva (h_{ef})	40	40	40	40	50	50	50	50
Profundidade do furo (mín.)	55	55	55	55	55	55	55	55
Resistência á tracção em N	560	560	560	560	960	960	960	960
Tensão de corte em N	160	160	160	160	240	240	240	240
T_{inst}	4	4	4	4	4	4	4	4

- **T_{inst}= Aperto Nm.**

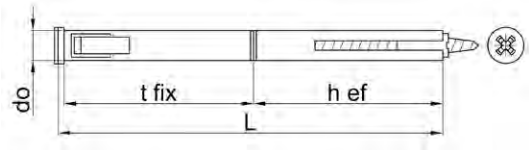
30509 **MAXXFAST Bucha para moldura nylon** **MF5A**

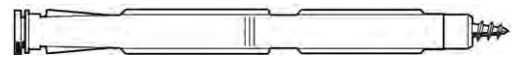
Material Plástico Nylon (poliamida)



Broca ø x L	✉	Ref. do artigo	Broca ø x L	✉	Ref. do artigo	Broca ø x L	✉	Ref. do artigo
8X80	50	30509.080.080	8X140	50	30509.080.140	10X120	50	30509.100.120
8X100	50	30509.080.100				10X140	50	30509.100.140
8X120	50	30509.080.120	10X100	50	30509.100.100	10X165	50	30509.100.165

Bucha para moldura de janela tipo F-S



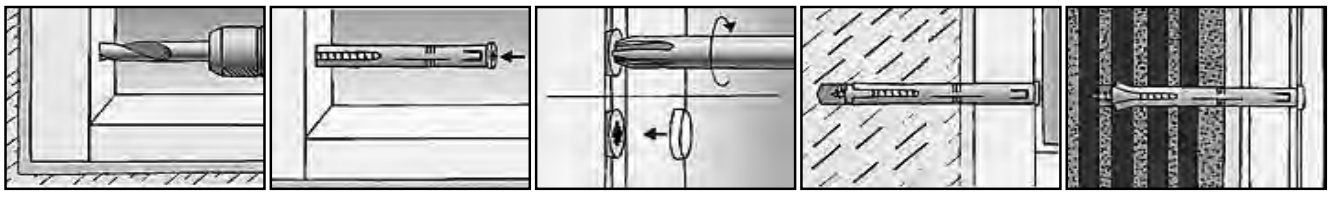


Dados técnicos

Tipo	d_o	h_{ef}	L	Min. t_d	t_{fix}
F 10 S 75	10	50	75	90	15
F 10 S 100	10	50	100	115	40
F 10 S 120	10	50	120	135	60
F 10 S 140	10	50	140	155	80
F 10 S 165	10	50	165	180	105

- **d_o= Diâmetro nominal do furo**
- **Min. t_d= Profundidade de furo recomendado**
- **h_{ef}= Profundidade efectiva da ancoragem**
- **t_{fix}= Gama de aperto**

Sequência de montagem



63191 **FISCHER Bucha para moldura de janela tipo F-S** **N03A**

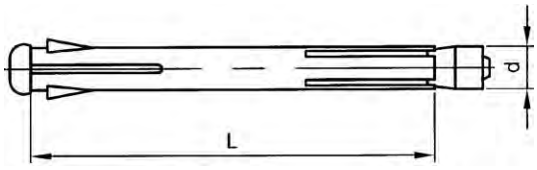
Material Plástico Nylon (poliamida)
Cor Cinza

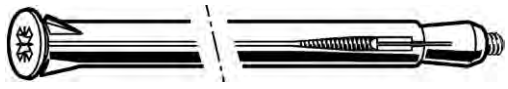
fischer innovative solutions



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
F 10 S 75	50	63191.100.075	F 10 S 120	50	63191.100.120	F 10 S 165	50	63191.100.165
F 10 S 100	50	63191.100.100	F 10 S 140	50	63191.100.140			

Bucha para moldura de aço tipo F-M



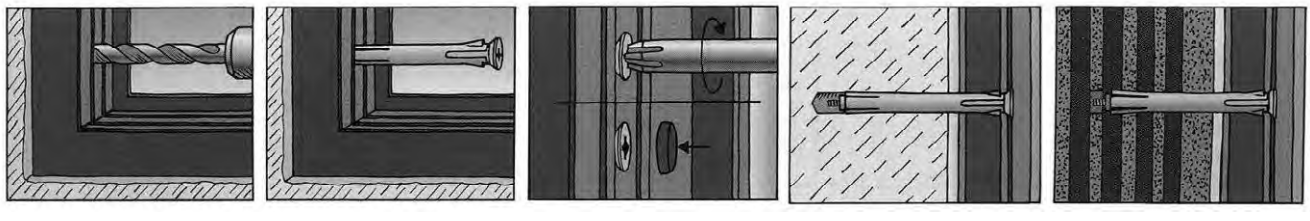


Dados técnicos

Tipo	F 8 M 72	F 8 M 92	F 8 M 112	F 8 M 132	F 10 M 72	F 10 M 92	F 10 M 112	F 10 M 132	F 10 M 152	F 10 M 182	F 10 M 202
d	8	8	8	8	10	10	10	10	10	10	10
Escala de aperto (máx.)	42	62	82	102	42	62	82	102	122	152	172
Furo ø	8	8	8	8	10	10	10	10	10	10	10
L	72	92	112	132	72	92	112	132	152	182	202
Profundidade de ancoragem efectiva (h_{ef})	30	30	30	30	30	30	30	30	30	30	30
Profundidade do furo (mín.)	90	110	130	150	90	110	130	150	170	200	220
Cargas máximas admissiveis em kN											
Betão ≥ C20/25	-	-	-	-	1.38	1.38	1.38	1.38	1.38	1.38	1.38
Pomes ≥V2	-	-	-	-	0.48	0.48	0.48	0.48	0.48	0.48	0.48
Tijolo arenoso ≥ KS12	-	-	-	-	1.28	1.28	1.28	1.28	1.28	1.28	1.28
Tijolo oco ≥ KSL6	-	-	-	-	0.55	0.55	0.55	0.55	0.55	0.55	0.55
Tijolo ≥ Mz12	-	-	-	-	1.28	1.28	1.28	1.28	1.28	1.28	1.28

- Carga admissivel (kN) por bucha para multiplas aplicações não estruturais
- Cargas admissiveis incluem fator de segurança 4.
- Manga de fixação com tratamento em aluminio-zinco, com parafuso aço zincado com encaixe Pozidriv (Z).

Sequência de montagem



8

63190 FISCHER Bucha para moldura de aço tipo F-M **N03A**

Material Aço

fischer innovative solutions

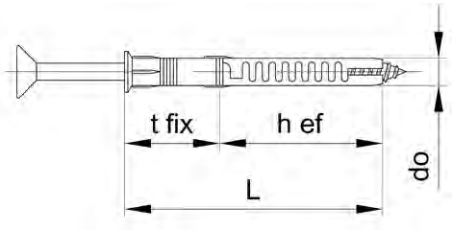
RoHS

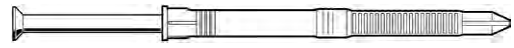


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
F 8 M 72	100	63190.080.072	F 10 M 72	100	63190.100.072	F 10 M 152	100	63190.100.152
F 8 M 92	100	63190.080.092	F 10 M 92	100	63190.100.092	F 10 M 182	50	63190.100.182
F 8 M 112	100	63190.080.112	F 10 M 112	100	63190.100.112	F 10 M 202	50	63190.100.202
F 8 M 132	100	63190.080.132	F 10 M 132	100	63190.100.132			

- F 8 M:Cabeça redonda
- F10M: Cabeça de embeber

Bucha longa universal tipo FUR-T



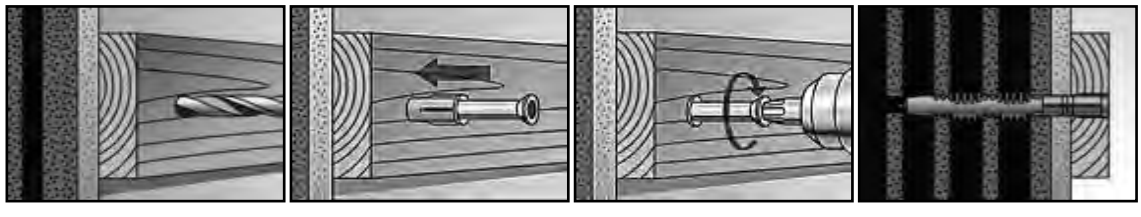


Dados técnicos

d_o x L	8x100	8x120	10x100	10x115	10x135
Chave caixa	T30	T30	T40	T40	T40
h_{ef}	70	70	70	70	70
Min. t_d	110	130	110	125	145
S	10	10	13	13	13
t_{fix}	30	50	30	45	65
Cargas máximas admissiveis em kN					
Betão ≥ C12/15	-	-	1.8	1.8	1.8

- **d_o= Diâmetro nominal do furo**
- **Min. t_d= Profundidade de furo recomendado**
- **h_{ef}= Profundidade efectiva da ancoragem**
- **t_{fix}= Gama de aperto**
- Carga admissivel (kN) por bucha para multiplas aplicações não estruturais em betão.
- Para combinações de cargas de tração, cargas transversais, momentos fletores, bem como distâncias de borda reduzidas ou espaçamentos (grupos-âncora) ver aprovação

Sequência de montagem



63195 **FISCHER Bucha longa universal tipo FUR-T** **N03A**

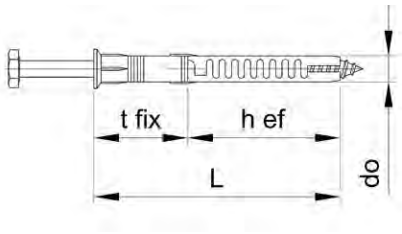
Material Plástico Nylon (poliamida)
Cor Cinza

fischer innovative solutions



Broca ø x L	✉	Ref. do artigo	Broca ø x L	✉	Ref. do artigo	Broca ø x L	✉	Ref. do artigo
8X100MM	50	63195.080.100	10X100MM	50	63195.100.100	10X135MM	50	63195.100.135
8X120MM	50	63195.080.120	10X115MM	50	63195.100.115			

Bucha longa universal tipo FUR-SS



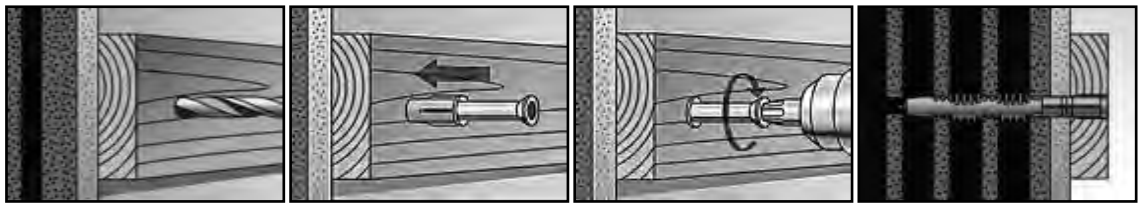


Dados técnicos

d_o x L	h_{ef}	Min. t_d	t_{fix}
8x80	70	90	10
8x100	70	110	30
8x120	70	130	50
10x80	70	90	10
10x100	70	110	30
10x115	70	125	45
10x135	70	145	65
10x160	70	170	90
10x185	70	195	115
10x200	70	210	130
10x230	70	240	160

- **d_o= Diâmetro nominal do furo**
- **Min. t_d= Profundidade de furo recomendado**
- **h_{ef}= Profundidade efectiva da ancoragem**
- **t_{fix}= Gama de aperto**

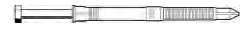
Sequência de montagem



63196 FISCHER Bucha longa universal tipo FUR-SS N03A

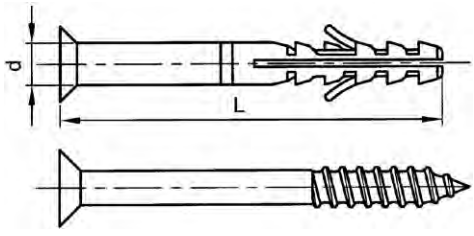
Material Plástico Nylon (poliamida)
Cor Cinza

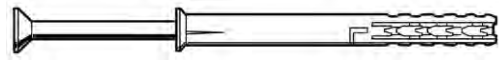
fischer innovative solutions



d_o x L	✉	Ref. do artigo	d_o x L	✉	Ref. do artigo	d_o x L	✉	Ref. do artigo
8X80MM	50	63196.080.080	10X80MM	50	63196.100.080	10X160MM	50	63196.100.160
8X100MM	50	63196.080.100	10X100MM	50	63196.100.100	10X185MM	50	63196.100.185
8X120MM	50	63196.080.120	10X115MM	50	63196.100.115	10X200MM	50	63196.100.200
			10X135MM	50	63196.100.135	10X230MM	50	63196.100.230

Bucha longa tipo SXR-T



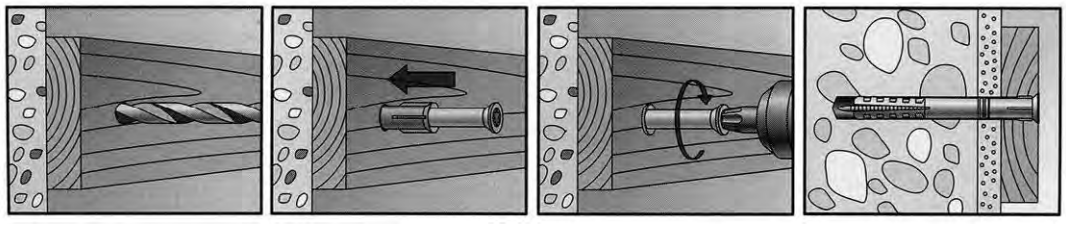


Dados técnicos

d_o x L	8x60	8x80	8x100	8x120	10x80	10x100	10x120	10x140	10x160
Chave caixa	T30	T30	T30	T30	T40	T40	T40	T40	T40
h_{ef}	50	50	50	50	50	50	50	50	50
Min. t_d	70	90	110	130	90	110	130	150	170
t_{fix}	10	30	50	70	30	50	70	90	110
Cargas máximas admissiveis em kN									
Betão ≥ C12/15	1.20	1.20	1.20	1.20	1.98	1.98	1.98	1.98	1.98
Pedra Perfurada Hlz12	0.17	0.17	0.17	0.17	0.26	0.26	0.26	0.26	0.26
Pomes ≥V2	-	-	-	-	0.71	0.71	0.71	0.71	0.71
Tijolo arenoso ≥ KS12	0.71	0.71	0.71	0.71	0.86	0.86	0.86	0.86	0.86
Tijolo oco KSL12	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57
Tijolo ≥ Mz12	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57

- **d_o = Diâmetro nominal do furo.**
- **Min. t_d= Profundidade de furo recomendado.**
- **h_{ef}= Profundidade efectiva da ancoragem.**
- **t_{fix}= Gama de aperto.**
- Carga admissivel (kN) por bucha para multiplas aplicações não estruturais.
- Cargas admissiveis incluem fator de segurança 1,4.
- Para combinações de cargas de tração, cargas transversais, momentos fletores, bem como distâncias de borda reduzidas ou espaçamentos (grupos-âncora) ver aprovação.

Sequência de montagem



8

63192 FISCHER Bucha longa com parafuso Pozidriv tipo SXR-T **N03A**

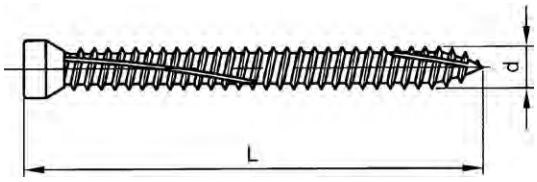
Material Plástico Nylon (poliamida)
Cor Cinza

fischer innovative solutions



Broca ø x L	✉	Ref. do artigo	Broca ø x L	✉	Ref. do artigo	Broca ø x L	✉	Ref. do artigo
8X60MM	50	63192.080.060	8X120MM	50	63192.080.120	10X120MM	50	63192.100.120
8X80MM	50	63192.080.080	10X80MM	50	63192.100.080	10X140MM	50	63192.100.140
8X100MM	50	63192.080.100	10X100MM	50	63192.100.100	10X160MM	50	63192.100.160

Parafuso para fixação de moldura



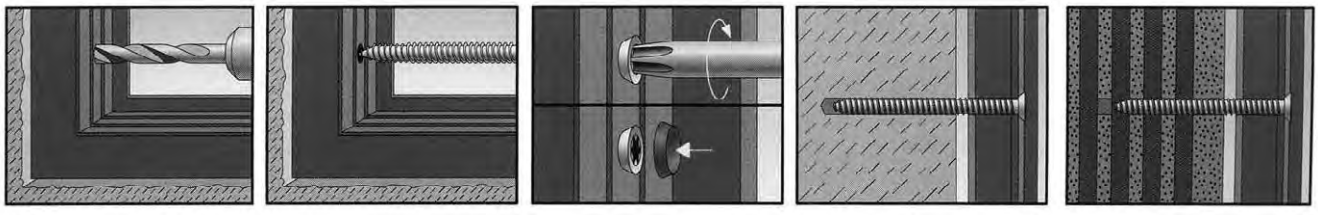


Dados técnicos

Tipo	Furo ø	L
7.5x72	6	72
7.5x92	6	92
7.5x112	6	112
7.5X132	6	132
7.5X152	6	152
7.5X182	6	182
7.5X212	6	212

- Indicado para betão, tijolo sólido, tijolo perfurado, blocos de betão,pome sólido, concreto celular, pedra natural etc.

Sequência de montagem



Grupos de produtos

Encaixe	Material	Tratamento sup.		Código	Página
Hexalobular	Aço	Zn		30564	8-40
Hexalobular	Aço	Zn		30565	8-40
Torx®	Aço	Zn	FFSZ	63560	8-41
Torx®	Aço	Zn	FFS	63562	8-41

8

30564 MAXXFAST Parafuso para fixação de moldura - Head 11,5/Hexalobular 30 MF4A

Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
7,5X72MM	100	30564.075.072	7,5X132MM	100	30564.075.132	7,5X182MM	100	30564.075.182
7,5X92MM	100	30564.075.092	7,5X152MM	100	30564.075.152	7,5X212MM	100	30564.075.212
7,5X112MM	100	30564.075.112						

30565 MAXXFAST Parafuso para fixação de moldura - Head 7,5/Hexalobular 25 MF5A

Material Aço
Tratamento sup. Zincado

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
7,5X72MM	100	30565.075.072	7,5X112MM	100	30565.075.112	7,5X132MM	100	30565.075.132
7,5X92MM	100	30565.075.092						

63560 **FISCHER Parafuso para fixação de moldura tipo FFSZ - Head 7,5/TX 25** **N03A**

Material Aço
Tratamento sup. Zincado



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
FFSZ 7,5X72	100	63560.075.072	FFSZ 7,5X112	100	63560.075.112	FFSZ 7,5X152	100	63560.075.152
FFSZ 7,5X92	100	63560.075.092	FFSZ 7,5X132	100	63560.075.132	FFSZ 7,5X212	100	63560.075.212

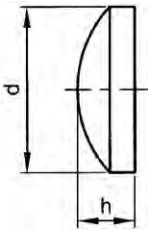
63562 **FISCHER Parafuso para fixação de moldura tipo FFS - Head 11,5/TX 30** **N03A**

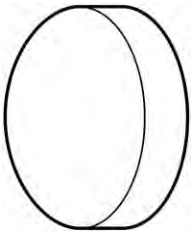
Material Aço
Tratamento sup. Zincado



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
FFS 7,5X72	100	63562.075.072	FFS 7,5X132	100	63562.075.132	FFS 7,5X182	100	63562.075.182
FFS 7,5X92	100	63562.075.092	FFS 7,5X152	100	63562.075.152	FFS 7,5X212	100	63562.075.212
FFS 7,5X112	100	63562.075.112						

Tampa para parafusos



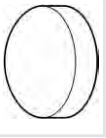


Dados técnicos

Tipo	d	h
FSS A-W	15	4
FSS A-BR	15	4

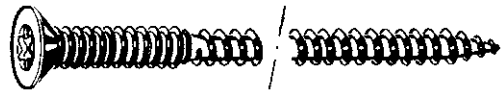
63590 **FISCHER Tampa plástica tipo FSS A** **N03A**

Material Plástico Poliamida (nylon)
Classe 6
Cor Sortido



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
Branco	100	63590.000.011	Castanho escuro	100	63590.000.019

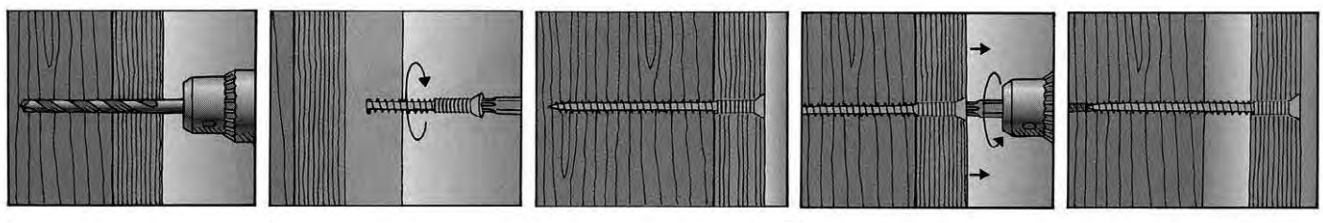
Parafuso ajustável



Dados técnicos

Tipo	**JS 6x110**
Ajuste sem etapas	0-55
Chave caixa	T40
Espessura para madeira (máx)	25
Furo ø	5
Profundidade de montagem (mín.)	30
Profundidade do furo (mín.)	50-110

Sequência de montagem

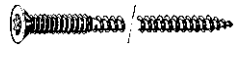


63601 **FISCHER Parafuso ajustável tipo JS** **N03B**

Material Aço
Tratamento sup. Zincado

fischer innovative solutions

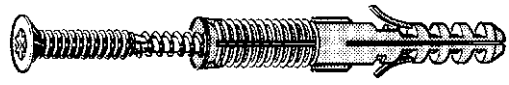
RoHS



Tipo	✉	Ref. do artigo
JS 6X110MM	50	63601.060.110

8

Fixação ajustável

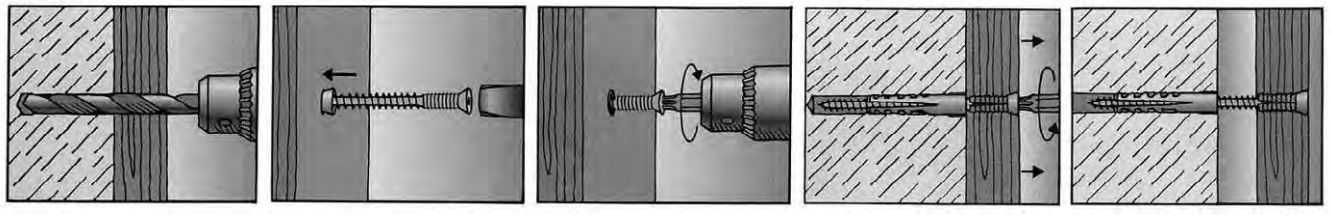


Dados técnicos

Tipo	**S10J75S**
Ajuste sem etapas	0-30
Chave caixa	T40
Comprimento da bucha	75
Espessura para madeira (máx)	25
Furo ø	10
Profundidade de montagem (mín.)	50
Profundidade do furo (mín.)	115

- Fixação ajustável tipo S10J75S para fixações em madeira e pedra.
- Com parafuso ajustável tipo JS 6 x 110,aço zincado.

Sequência de montagem



63600 FISCHER Fixação ajustável tipo S10J75S **N03A**

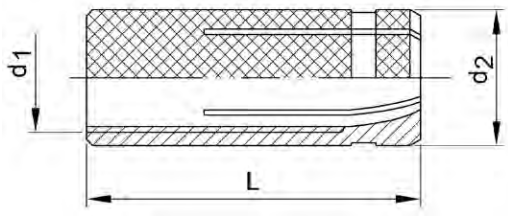
Material Plástico Nylon (poliamida)
Cor Cinza

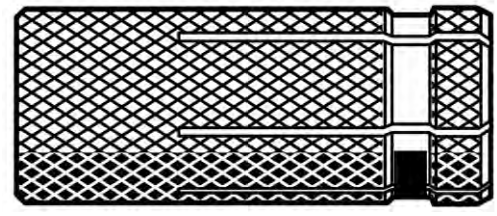


Tipo	✉	Ref. do artigo
S 10-J 75 S	50	63600.060.110

8

Bucha de expansão





Dados técnicos

d_1	M4	M5	M6	M8	M10	M12
d_2	5	6	8	10	12	15
Espessura mínima de elemento de betão ($h_{min.}$)	25	30	35	40	45	50
h_{ef}	16	18	23	28	34	38
L	16	18	23	28	34	38
Profundidade do furo (mín.)	20	22	28	33	40	45
Resistência á tracção em N	600	700	1000	1500	2100	3200

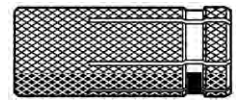
- **h_{ef}= Espessura da ancoragem efectiva.**

30570 MAXXFAST Bucha de expansão **MF5A**

Rosca Métrica
Material Latão

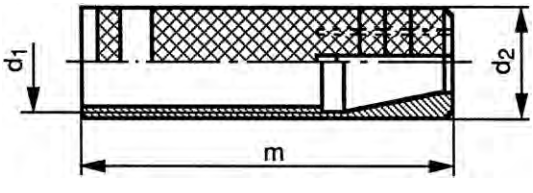
MAXXFAST PROFESSIONAL HARDWARE

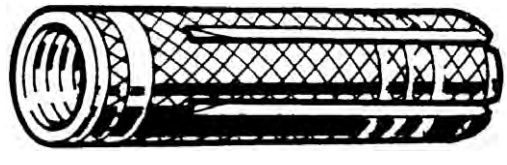
RoHS



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M4	50	30570.040.001	M6	50	30570.060.001	M10	25	30570.100.001
M5	50	30570.050.001	M8	25	30570.080.001	M12	25	30570.120.001

Bucha de expansão





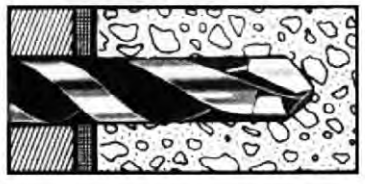
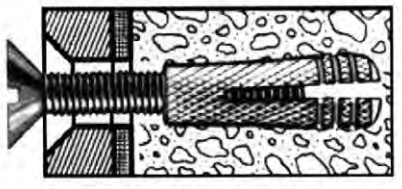
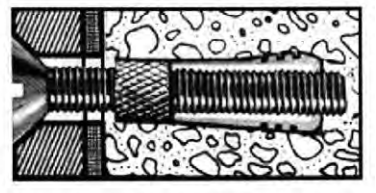
Dados técnicos

d_1	M4	M5	M6	M8	M10	M12
d_2	5	6	7.5	10	12	15.5
Furo ø	5.5	6.5	8	11	13	18
m	16	20	24	30	34	40
P	0.7	0.8	1	1.25	1.5	1.75
Resistência á tracção em kN						
Betão ≥ C20/25	0.25	0.4	0.65	1.1	1.6	2.2
Pedra ≥ 15 N/mm²	0.2	3.35	0.55	0.9	1.3	1.6

- Profundidade de furo = parte a fixar + camada de tratamento de superficie + comprimento da bucha + 10 mm.
- Comprimento do parafuso = parte a fixar + camada de tratamento de superficie + comprimento da bucha.
- É aconselhável utilizar um factor de segurança.

8

Caracteristicas especiais de buchas expansiveis:
- Fornecidas com expansão cónica contra as parades do furo durante o aperto
- Aplicação para instalação em furo
- Podem ser aplicadas em betão, pedra, tijolo, madeira rigida
- Resistente contra corrosão
- Resistente a temperaturas até 200°C

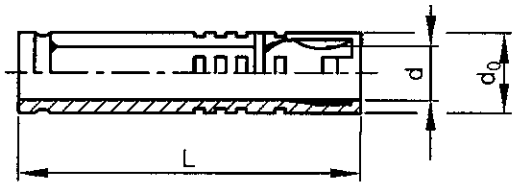
09610 **Bucha de expansão** **N07A**

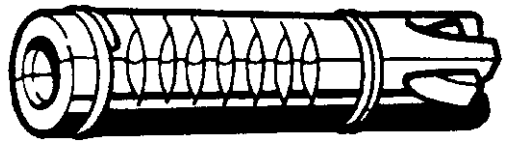
Rosca Métrica
Material Latão



d_1 x m	✉	Ref. do artigo	d_1 x m	✉	Ref. do artigo	d_1 x m	✉	Ref. do artigo
M4X16	50	09610.040.016	M6X24	50	09610.060.024	M10X34	25	09610.100.034
M5X20	50	09610.050.020	M8X30	25	09610.080.030	M12X40	25	09610.120.040

Bucha expansiva





Dados técnicos

d	M6	M8	M10	M12	M16
$C_{min.}$	53	60	75	90	143
d_f	6.5	9	11	13	17
d_o	12	14	16	20	25
f_s	-	-	-	-	-
h_{ef}	45	50	60	75	115
h_{min}	100	100	100	100	142.5
h_o	50	55	65	85	125
k_N	3.33	4.17	6.67	8.89	22.2
L	45	50	60	75	115
$S_{min.}$	35	40	50	60	95
t_{fix} (max.)	-	-	-	-	-
T_{inst}	6.5	15	27	50	120

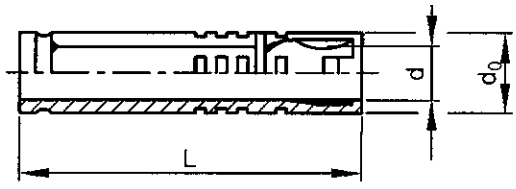
- **d_o = Diâmetro nominal de furo bit.**
- **T_{inst} = Aperto Nm.**
- **d_f = Diâmetro do furo de passagem no elemento a fixar.**
- **h_{min} = Espessura minima em betão.**
- **h_o = Profundidade de furo recomendado.**
- **k_N = A carga designada é em kN, Betão não fissurado.**
- **h_{ef} = Espessura da ancoragem efectiva.**
- **$S_{min.}$ = Distância minima.**
- **$C_{min.}$ = Distância minima aos bordos.**

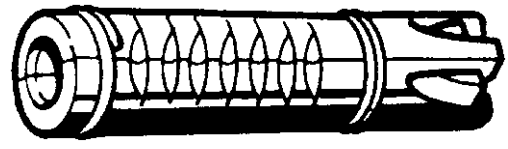
65450 **Bucha expansiva** **N61A**

Rosca Métrica
Material Aço
Classe 5.8
Tratamento sup. Zincado

d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6	100	65450.060.001	M10	100	65450.100.001	M16	25	65450.160.001
M8	100	65450.080.001	M12	50	65450.120.001			

Bucha expansiva





Dados técnicos

Tipo	d	d_d	d_o	k_N	L	T_{inst}
M6 (rvs)	M6	40	10	5.7	40	10
M8 (rvs)	M8	50	14	9.3	50	25
M10 (rvs)	M10	60	16	21.5	60	50
M12 (rvs)	M12	80	20	28.4	80	85

- d_o= Diâmetro nominal do furo.
- d_d= Profundidade do encaixe.
- d_f= Diâmetro da ancoragem.
- k_N = Designload is k_N, Non-cracked concrete.
- Tinst = Aperto torque em Nm.

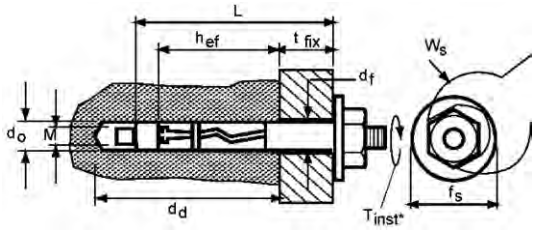
09561 **Bucha expansiva A4** **P01A**

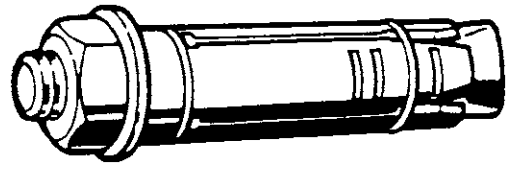
Rosca Métrica
Material Aço inoxidável A4



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X40	50	09561.060.040	M10X60	25	09561.100.060	M12X80	10	09561.120.080
M8X50	50	09561.080.050						

Bucha expansiva com perno





Dados técnicos

d x t_{fix}	M6x10	M6x25	M6x60	M8x10	M8x25	M8x60	M10x15	M10x30	M10x60	M12x15	M12x30	M12x75	M16x15	M16x35
$C_{min.}$	53	53	53	60	60	60	75	75	75	90	90	90	143	143
d	M6	M6	M6	M8	M8	M8	M10	M10	M10	M12	M12	M12	M16	M16
d_f	6.5	6.5	6.5	9	9	9	11	11	11	13	13	13	17	17
d_o	12	12	12	14	14	14	16	16	16	20	20	20	25	25
f_s	12.5	12.5	12.5	17	17	17	21	21	21	24	24	24	30	30
h_{ef}	45	45	45	50	50	50	60	60	60	80	80	80	120	120
h_{min}	100	100	100	100	100	100	100	100	100	100	100	100	142.5	142.5
h_o	50	50	50	55	55	55	65	65	65	85	85	85	125	125
k_N	3.33	3.33	3.33	4.17	4.17	4.17	6.67	6.67	6.67	8.89	8.89	8.89	22.2	22.2
L	65	80	115	75	90	125	90	105	135	110	125	170	150	170
s	10	10	10	13	13	13	17	17	17	19	19	19	24	24
$S_{min.}$	35	35	35	40	40	40	50	50	50	60	60	60	95	95
t_{fix} (max.)	10	25	60	10	25	60	15	30	60	15	30	75	15	35
T_{inst}	6.5	6.5	6.5	15	15	15	27	27	27	50	50	50	120	120

- d_o= Diâmetro nominal de furo bit.
- f_s= Diâmetro cabeça.
- s (W_s) = Entre-faces.
- T_{inst}= Aperto Nm.
- d_f= Diâmetro do furo de passagem no elemento a fixar.
- $h_{min.}$ = Espessura minima em betão.
- d_d (h_o)= Profundidade de furo recomendado.
- t_{fix}= Espessura da fixação.
- h_{ef}= Espessura da ancoragem efectiva.
- $S_{min.}$= Distância minima.
- $C_{min.}$= Distância minima aos bordos.

8

65435	Bucha expansiva com perno	N61A

Rosca	Métrica
Material	Aço
Classe	5.8
Tratamento sup.	Zincado

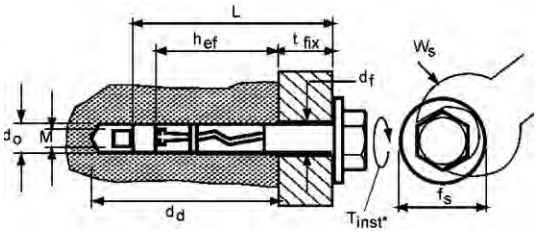


ETA
European Technical Approval
Option 1 for cracked concrete

Cálculos finais devem estar em conformidade com European Technical Approval (ETA), esta aprovação está também disponivel sob pedido.

d x t_{fix}	✉	Ref. do artigo	d x t_{fix}	✉	Ref. do artigo	d x t_{fix}	✉	Ref. do artigo
M6X10	50	65435.060.010	M8X60	50	65435.080.060	M12X15	25	65435.120.015
M6X25	50	65435.060.025				M12X30	25	65435.120.030
M6X60	50	65435.060.060	M10X15	50	65435.100.015	M12X75	25	65435.120.075
			M10X30	50	65435.100.030			
M8X10	50	65435.080.010	M10X60	50	65435.100.060	M16X15	10	65435.160.015
M8X25	50	65435.080.025				M16X35	10	65435.160.035

Bucha expansiva com parafuso





Dados técnicos

d x t_{fix}	M6x10	M6x25	M6x40	M8x10	M8x25	M8x40	M10x10	M10x25	M10x50	M10x75	M12x10	M12x40	M12x60	M16x15	M16x30	M16x60
$C_{min.}$	53	53	53	60	60	60	75	75	75	75	90	90	90	143	143	143
d	M6	M6	M6	M8	M8	M8	M10	M10	M10	M10	M12	M12	M12	M16	M16	M16
d_f	6.5	6.5	6.5	9	9	9	11	11	11	11	13	13	13	17	17	17
d_o	12	12	12	14	14	14	16	16	16	16	20	20	20	25	25	25
f_s	12.5	12.5	12.5	17	17	17	21	21	21	21	24	24	24	30	30	30
h_{ef}	45	45	45	50	50	50	60	60	60	60	80	80	80	120	120	120
h_{min}	100	100	100	100	100	100	100	100	100	100	100	100	100	142.5	142.5	142.5
h_o	50	50	50	55	55	55	65	65	65	65	85	85	85	125	125	125
k_N	3.33	3.33	3.33	4.17	4.17	4.17	6.67	6.67	6.67	6.67	8.89	8.89	8.89	22.2	22.2	22.2
L	55	70	85	65	80	95	75	90	115	140	90	120	140	135	150	180
s	10	10	10	13	13	13	17	17	17	17	19	19	19	24	24	24
$S_{min.}$	35	35	35	40	40	40	50	50	50	50	60	60	60	95	95	95
t_{fix} (max.)	10	25	40	10	25	40	10	25	50	75	10	40	60	15	30	60
T_{inst}	6.5	6.5	6.5	15	15	15	27	27	27	27	50	50	50	120	120	120

- **d_o = Diâmetro nominal de furo bit.**
- **f_s= Diâmetro cabeça.**
- **s (W_s) = Entre-faces.**
- **T_{inst} = Aperto Nm.**
- **d_f= Diâmetro do furo de passagem no elemento a fixar.**
- **h_{min} = Espessura minima em betão.**
- **d_d (h_o)= Profundidade de furo recomendado.**
- **t_{fix}= Espessura da fixação.**
- **h_{ef}= Espessura da ancoragem efectiva.**
- **$S_{min.}$ = Distância minima.**
- **$C_{min.}$= Distância minima aos bordos.**

8

65445	Bucha expansiva com parafuso	N61A

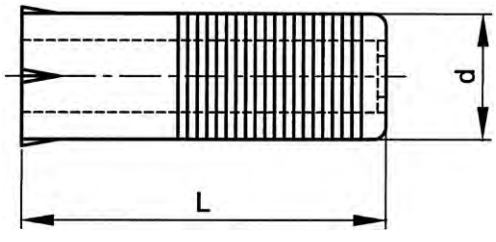
Rosca Métrica
Material Aço
Classe 5.8

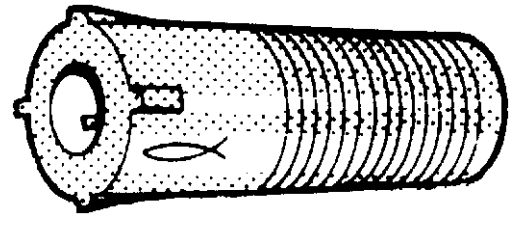


Cálculos finais devem estar em conformidade com European Technical Approval (ETA), esta aprovação está também disponivel sob pedido.

d x t_{fix}	✉	Ref. do artigo	d x t_{fix}	✉	Ref. do artigo	d x t_{fix}	✉	Ref. do artigo
M6X10	50	65445.060.010				M12X40	25	65445.120.040
M6X25	50	65445.060.025	M10X10	50	65445.100.010	M12X60	25	65445.120.060
M6X40	50	65445.060.040	M10X25	50	65445.100.025			
			M10X50	50	65445.100.050	M16X15	10	65445.160.015
M8X10	50	65445.080.010	M10X75	50	65445.100.075	M16X30	10	65445.160.030
M8X25	50	65445.080.025				M16X60	10	65445.160.060
M8X40	50	65445.080.040	M12X10	25	65445.120.010			

Bucha expansiva com cone em latão



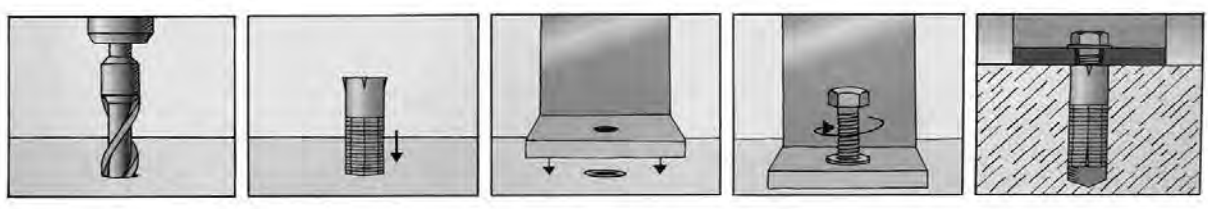


Dados técnicos

Tipo	M5	M6	M8	M10	M12
d	10	12	16	20	24
Furo ø	10	12	16	20	24
L	35	40	50	60	70
Profundidade do furo (mín.)	45	50	65	80	90
T_{inst}	4	7	16	32	54
Resistência á tracção em kN					
Betão ≥ C20/25	1.1	1.8	2.6	4.4	5.0

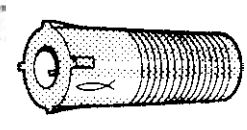
- **T_{inst}= Aperto Nm.**
- Carga admissivel (kN) para uma bucha, válida para parafusos maquinado scom valores especificos de rosca.
- Carga admissivel incluí fator de segurança 5.

Sequência de montagem



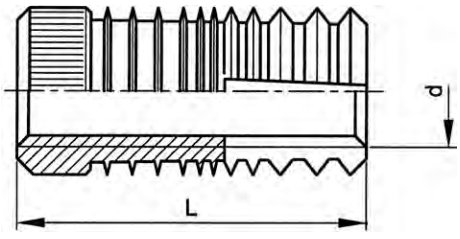
63400	FISCHER Bucha tipo M	N03B

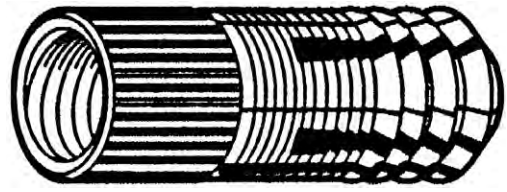
Rosca Métrica
Material Plastico reforçado com fibra de vidro



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
M5	50	63400.050.001	M8	20	63400.080.001	M12	5	63400.120.001
M6	50	63400.060.001	M10	10	63400.100.001			

Bucha de latão



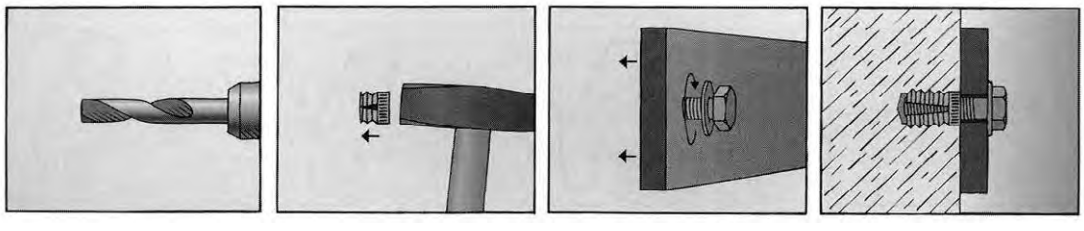


Dados técnicos

Tipo	PA 4 M6/7,5	PA 4 M6/13,5	PA 4 M8/25	PA 4 M10/25
d	M6	M6	M8	M10
Furo ø	8	8	10	12
Furo ø em construção	7.5	7.5	9.5	11.5
L	7.5	13.5	25	25
P	1.00	1.00	1.25	1.50
Profundidade de montagem (mín.)	7.5	13.5	25.0	25.0
Profundidade do furo (mín.)	7.5	13.5	25.0	25.0
Cargas máximas admissiveis em kN				
Aglomerado	0.2	0.4	-	-
Madeira de faia	0.5	1.0	-	-
Madeira de pinheiro	0.18	0.38	-	-
Plástico	0.75	2.00	-	-
Tijolo Mz12	-	0.80	1.95	2.30

- Comprimento min. parafuso = comprimento da bucha + espessura do obejcto a fixar.
- Carga admissivel (kN) para uma bucha, válida para parafusos maquinados com valores especificos de rosca.
- Carga admissivel incluí fator de segurança 4.

Sequência de montagem

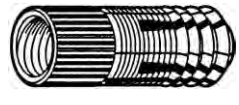


63410 FISCHER Bucha de latão tipo PA 4 **N03A**

Rosca Métrica
Material Latão

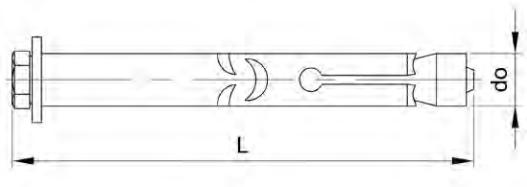
fischer innovative solutions

RoHS



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
PA4 M6X7,5	200	63410.060.007	PA4 M8X25	50	63410.080.025	PA4 M10X25	25	63410.100.025
PA4 M6X13,5	100	63410.060.013						

Bucha metálica com parafuso FSA-S



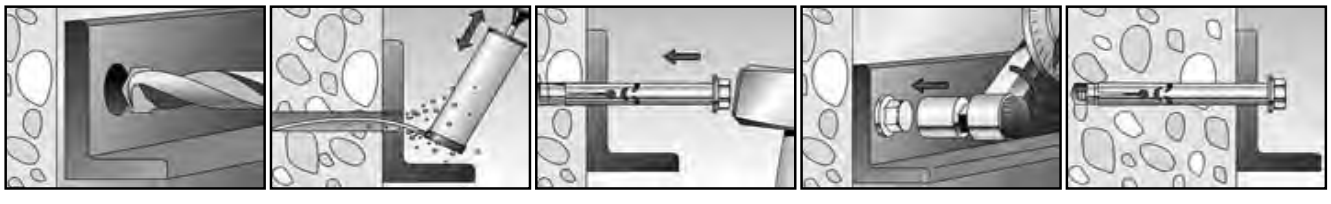


Dados técnicos

Tipo	FSA 8/15 S	FSA 8/40 S	FSA 8/65 S	FSA 10/10 S	FSA 10/35 S	FSA 10/60 S	FSA 12/10 S	FSA 12/25 S	FSA 12/50 S
d_o	8	8	8	10	10	10	12	12	12
h_{ef}	35	35	35	40	40	40	50	50	50
L	59	84	109	60	86	110	70	85	110
Min. t_d	65	90	115	65	90	115	75	90	115
t_{fix}	15	40	65	10	35	60	10	25	50
Cargas máximas admissiveis em kN									
Betão ≥ C20/25	5.2	5.2	5.2	12.9	12.9	12.9	25.7	25.7	25.7

- **d_o= Diâmetro nominal do furo**
- **t_{fix}= Gama de aperto**
- **h_{ef}= Profundidade efectiva de ancoragem**
- **Min. t_d= Profundidade de furo recomendado**
- A carga admissivel é válida para uma única bucha, em betão fissurado (zona de tensão) com betão classe ≥ C20/25.

Sequência de montagem



63226 FISCHER Bucha metálica com parafuso FSA-S **N03A**

Rosca Métrica
Material Aço
Tratamento sup. Zincado

fischer innovative solutions

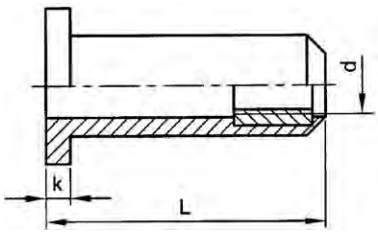
RoHS

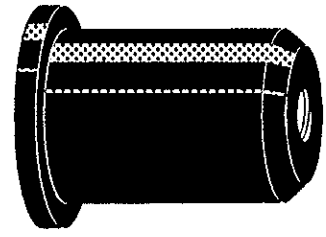


8

Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
FSA 8/15 S	50	63226.080.015	FSA 10/10 S	20	63226.100.010	FSA 12/10 S	20	63226.120.010
FSA 8/40 S	50	63226.080.040	FSA 10/35 S	20	63226.100.035	FSA 12/25 S	20	63226.120.025
FSA 8/65 S	50	63226.080.065	FSA 10/60 S	20	63226.100.060	FSA 12/50 S	20	63226.120.050

Bucha





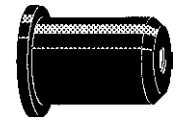
Dados técnicos

d x L	Furo ø	Gama de aperto (máx.)	k
M4x12.6	8	0 - 4	1.4
M4x24	8	6 - 14	1.4
M5x14	10	0 - 5	1.3
M5x25	10	8 - 16	1.3
M5x38	10	20 - 30	1.3
M6x15	13	0 - 3	1.3
M6x25	13	6 - 13	2
M6x35	13	11 - 23	1.3
M8x27.9	16	4 - 10	5
M8x30	18	6 - 15	1.2
M8x50	18	15 - 39	2
M10x55	20	20 - 36	1.3
M12x75	24	30 - 50	1.3

65421 **Bucha de borracha com rosca de latão** **N61B**

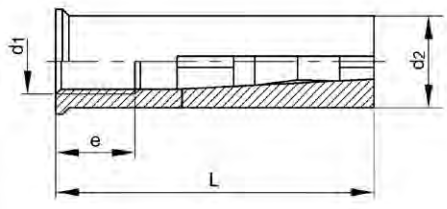
Rosca Métrica
Material Borracha

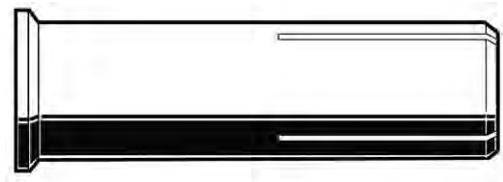
RAWL FIXINGS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X12,6	50	65421.040.011	M6X15	50	65421.060.015	M8X30	50	65421.080.031
M4X24	50	65421.040.024	M6X25	50	65421.060.025	M8X50	50	65421.080.050
M5X14	50	65421.050.014	M6X35	50	65421.060.035	M10X55	25	65421.100.055
M5X25	50	65421.050.025	M8X27,9	50	65421.080.030	M12X75	20	65421.120.075
M5X38	50	65421.050.038						

Bucha de pancada





Dados técnicos

d_1	M6	M8	M10	M12	M16	M20
$C_{min.}$	105	105	140	175	230	280
d_o	8	10	12	15	20	25
d_w	7	9	12	14	18	22
e (max.)	10	13	17	21	27	34
e (min.)	6	8	10	12	16	20
h_1	27	33	43	54	70	86
h_c	100	100	100	100	130	160
L	25	30	40	50	65	80
N_{rec}	2.08	2.74	3.57	5.87	8.73	11.94
$S_{min.}$	60	90	80	100	130	160
T_{inst}	4	11	17	38	60	120

- **d_o= Diâmetro nominal de furo bit**
- **d_w= Diâmetro do furo de passagem no elemento a fixar**
- **h_1= Profundidade do furo até ao ponto mais profundo**
- **h_c= Espessura mínima de elemento de betão**
- **e = Comprimento do parafuso a ser roscado**
- **$S_{min.}$ = Distância minima**
- **$C_{min.}$= Distância minima aos bordos**
- **N_{rec}= Carga recomendada kN**
- **T_{inst}= Aperto Nm**
- A carga admissivel (N_{rec}) é válida para uma só ancoragem, em betão não-fissurado (zona de pressão) com betão classe C20/25, incl. factor de segurança γ_f= 1,4 e se $S_{min.}$ and $C_{min.}$ não forem considerados.

Grupos de produtos

Rosca	Material	Tratamento sup.	Código	Página
M	Aço	Zn	30577	8-52
M	Aço	Passiv. amar.	30575	8-52
M	INOX A4		30576	8-53

8

30577 MAXXFAST Bucha de pancada DC-MAXX — MF5A

Rosca Métrica
Material Aço
Tratamento sup. Zincado

MAXXFAST PROFESSIONAL HARDWARE

RoHS



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6	100	30577.060.001	M10	50	30577.100.001	M12 Diamond cut*	10	30577.120.002
M8	100	30577.080.001	M12	25	30577.120.001	M16	25	30577.160.001

*Especial para máquinas de corte de diamante

30575 MAXXFAST Bucha de pancada D-MAXX — MF5A

Rosca Métrica
Material Aço
Tratamento sup. Passivado a amarelo

MAXXFAST PROFESSIONAL HARDWARE

RoHS



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6	100	30575.060.001	M10	50	30575.100.001	M16	25	30575.160.001
M8	100	30575.080.001	M12	25	30575.120.001	M20	10	30575.200.001

30576	MAXXFAST Bucha de pancada D-MAXX	MF5A

Rosca Métrica
Material Aço inoxidável A4

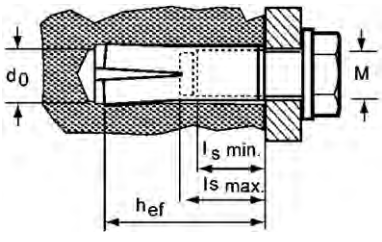
MAXXFAST PROFESSIONAL HARDWARE

RoHS



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6	100	30576.060.001	M10	50	30576.100.001	M16	25	30576.160.001
M8	100	30576.080.001	M12	25	30576.120.001	M20	10	30576.200.001

Bucha de pancada



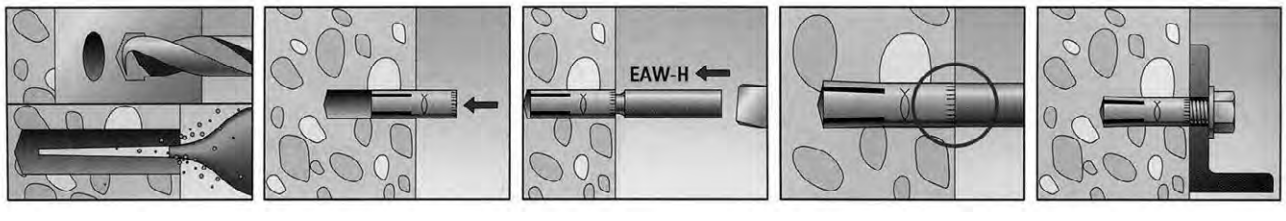


Dados técnicos

Tipo	d	d_o	h_{ef}	k_N	L	l_s (max.)	l_s min.	t	T_{inst}
EA II M6	M6	8	30	4	30	13	6	32	4
EA II M8	M8	10	30	4	30	13	8	33	8
EA II M10	M10	12	40	6.1	40	17	10	43	15
EA II M12	M12	15	50	8.5	50	22	12	54	35
EA II M16	M16	20	65	12.6	65	28	16	70	60
EA II M20	M20	25	80	17.2	80	34	20	85	120

- **d_o= Diâmetro nominal do furo.**
- **t = Profundidade de furo recomendado.**
- **L (h_{ef})= Profundidade efetiva da ancoragem.**
- **$l_s$min. = Profundidade do parafuso**
- **$l_s$max. = Profundidade do parafuso max.**
- **kN = Carga em kN em combinação com parafusos 8.8 & A4-70.**
- **T_{inst}= Aperto Nm.**
- O cone deve ser instalado com uma ferramenta de instalação tipo EAW H (fim estreito) no corpo da ancoragem (grupo de artigo 63322).
- Somente parte da aprovação para tetos suspensos leves.
- Para mais dadoa técnicos a aporvação é disponivel sob pedido.

Sequência de montagem



8

Grupos de produtos

Rosca	Material	Tratamento sup.	Código	Página
M	Aço	Zn	63320	8-54
M	INOX A4		63321	8-54

63320	FISCHER Bucha de pancada tipo EA II	N03A

Rosca Métrica
Material Aço
Tratamento sup. Zincado



Cálculos finais devem estar em conformidade com European Technical Approval (ETA), esta aprovação está também disponivel sob pedido.

Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
EA II M6 (EV)	100	63320.060.001	EA II M12 (EV)	25	63320.120.001	EA II M16 (EV)	20	63320.160.001
EA II M8 (EV)	100	63320.080.001	EA II M12 D (EV)	25	63320.120.005	EA II M20 (EV)	10	63320.200.001
EA II M10 (EV)	50	63320.100.001						

63321	FISCHER Bucha de pancada tipo EA II	N03A

Rosca Métrica
Material Aço inoxidável A4

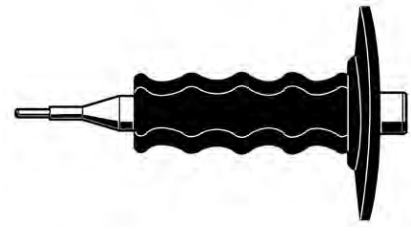


Cálculos finais devem estar em conformidade com European Technical Approval (ETA), esta aprovação está também disponivel sob pedido.

Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
EA II M6 A4	100	63321.060.001	EA II M10 A4	50	63321.100.001	EA II M16 A4	20	63321.160.001
EA II M8 A4	100	63321.080.001	EA II M12 A4	25	63321.120.001	EA II M20 A4	20	63321.200.001

8

Ferramenta



Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço		30579	8-55
Aço	Zn	63322	8-55

30579 MAXXFAST Ferramenta — MF5A

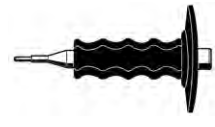
Material Aço



Dimensão.	✉	Ref. do artigo	Dimensão.	✉	Ref. do artigo	Dimensão.	✉	Ref. do artigo
M6	1	30579.060.001	M10	1	30579.100.001	M16	1	30579.160.001
M8	1	30579.080.001	M12	1	30579.120.001	M20	1	30579.200.001

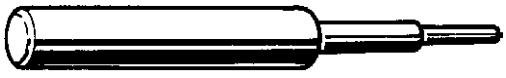
63322 Ferramenta — N03A

Material Aço
Tratamento sup. Zincado

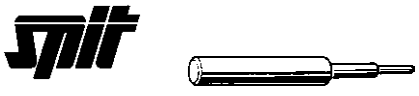


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
EAW H 6 PLUS	1	63322.060.001	EAW H 10 PLUS	1	63322.100.001	EAW H 16 PLUS	1	63322.160.001
EAW H 8 PLUS	1	63322.080.001	EAW H 12 PLUS	1	63322.120.001	EAW H 20 PLUS	1	63322.200.001

Ferramenta de instalação SA

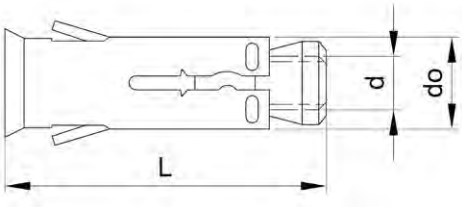


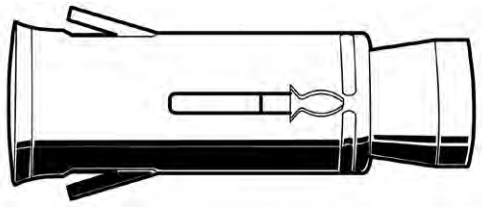
70967	SPIT Ferramenta para instalação de buchas	P03C
Material	Aço	



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
S 6	1	70967.000.006	S 10	1	70967.000.010	S 12	1	70967.000.012
S 8	1	70967.000.008						

Ancoragem tipo FHY



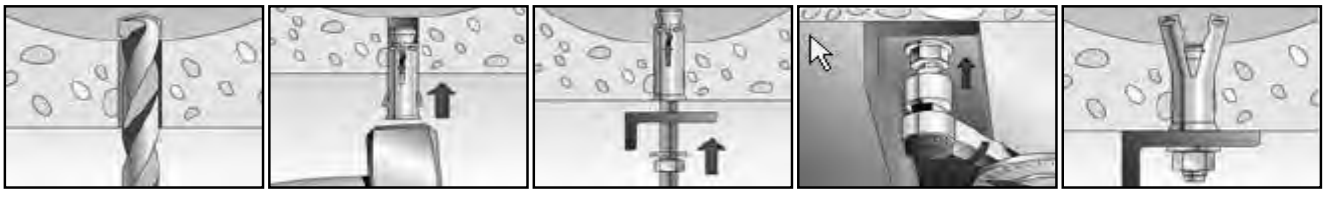


Dados técnicos

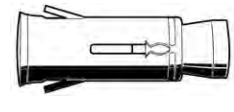
Tipo / d	FHY M6	FHY M8	FHY M10
d_o	10	12	16
Espessura do suporte (mín.)	40	40	40
h_{ef}	30	35	40
L	37	43	52
Min. t_d	50	60	65
T_{inst}	10	10	20
Cargas máximas admissiveis em kN			
Betão ≥ C45/55	2	2	3

- **d_o= Diâmetro nominal de furo**
- **Mín. t_d= Profundidade de furo recomendado**
- **h_{ef}= Profundidade efetiva de ancoragem**
- **Tinst = Aperto torque em Nm. (screws for class 5.8 or A4-70).**
- Carga admissivel (kN) para uma única bucha em paineis de betão pré-esforçado e núcleo oco.
- Para combinações de cargas de tração, cargas transversais, momentos fletores, bem como distâncias de borda reduzidas ou

Sequência de montagem

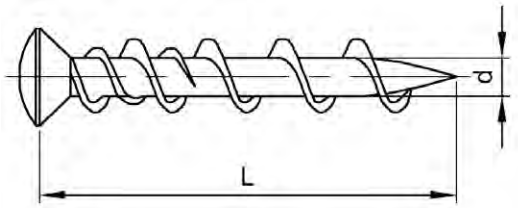


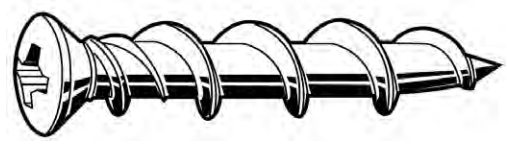
63428	FISCHER Ancoragem tipo FHY	N03A
Rosca	Métrica	
Material	Aço	
Tratamento sup.	Zincado	



Tipo / d	✉	Ref. do artigo	Tipo / d	✉	Ref. do artigo	Tipo / d	✉	Ref. do artigo
FHY M6	50	63428.060.001	FHY M8	25	63428.080.001	FHY M10	20	63428.100.001

Parafuso cabeça de lentilha





Dados técnicos

d x L	d_o	h_o	L	Nr. fenda	No. Torx®	N_{rec}	t_{fix}
5x32	5	35	32	2	-	0.3	3
5x50	5	35	50	-	25	0.3	21
5x70	5	35	70	-	25	0.3	41

- d_o= Diâmetro nominal de furo.
- h_o= Profundidade de furo.
- N_{rec}= Carga recomendada kN para betão.
- t_{fix}= Gama de aperto.

Grupos de produtos

Encaixe	Material	Tratamento sup.		Código	Página
Phillips	Aço	Zn		70527	8-57
Phillips	Aço	Zn	cabeça branca	70528	8-57
Torx®	Aço	Zn		70529	8-57

70527 Parafuso cabeça de lentilha PHILLIPS tipo WALLDOG — P05A

Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo
5X32MM	100	70527.050.032

- Só embalagens completas.

70528 Parafuso cabeça de lentilha PHILLIPS tipo WALLDOG — P05A

Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo
5X32MM	100	70528.050.032

- Só embalagens completas.

70529 Parafuso cabeça de lentilha Torx tipo WALLDOG — P05A

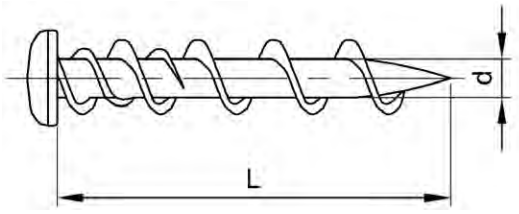
Material Aço
Tratamento sup. Zincado

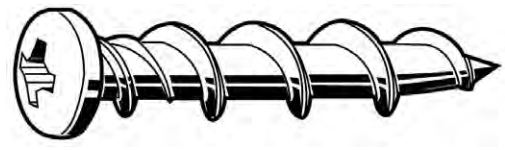


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
5X50MM	100	70529.050.050	5X70MM	100	70529.050.070

- Só embalagens completas.

Parafuso cabeça de queijo





Dados técnicos

d x L	d	L	Nr. fenda	No. Torx®	N_{rec}	t_{fix}
5x32	5	32	2	-	0.3	3
5x50	5	50	-	25	0.3	21
5x70	5	70	-	25	0.3	41

- N_{rec} = Carga. recomendada kN.
- t_{fix} = Gama de aperto.

Grupos de produtos

Encaixe	Material	Tratamento sup.		Código	Página
Phillips	Aço	Zn		70530	8-58
Phillips	Aço	Zn	cabeça branca	70531	8-58
Torx®	Aço	Zn		70532	8-58

70530 Parafuso cabeça de queijo PHILLIPS tipo WALLDOG — P05A

Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo
5X32MM	100	70530.050.032

- Só embalagens completas.

70531 Parafuso cabeça de queijo PHILLIPS tipo WALLDOG cabeça branca — P05A

Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo
5X32MM	100	70531.050.032

- Só embalagens completas.

70532 Parafuso cabeça de queijo Torx tipo WALLDOG — P05A

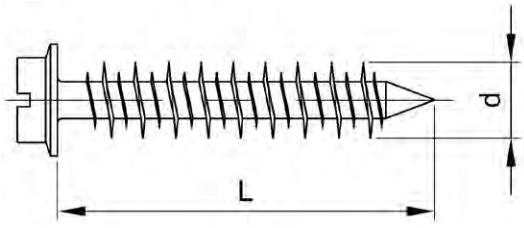
Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
5X50MM	100	70532.050.050	5X70MM	100	70532.050.070

- Só embalagens completas.

Parafuso cabeça sextavada tipo TAPH





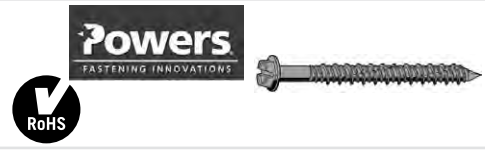
Dados técnicos

d x L	d_o	L	N_{rec}	s	t_{fix}
4.8x32	4.0	32	0.5	1/4	7
4.8x45	4.0	45	0.5	1/4	20
4.8x57	4.0	57	0.5	1/4	32
6.3x32	4.8	32	0.5	5/16-8MM	7
6.3x45	4.8	45	0.5	5/16-8MM	20
6.3x57	4.8	57	0.5	5/16-8MM	32
6.3x70	4.8	70	0.5	5/16-8MM	45
6.3x82	4.8	82	0.5	5/16-8MM	57

- **d_o= Diâmetro nominal de furo.**
- **h_o= Profundidade de furo.**
- **N_{rec}= Carga recomendada kN para betão.**
- **t_{fix}= Gama de aperto.**
- **s = Entre-faces.**

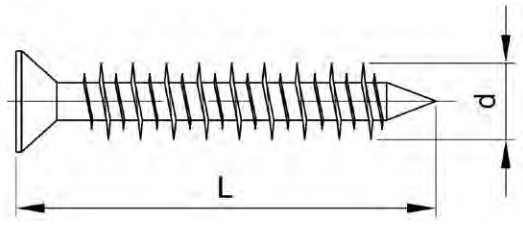
70525 **Parafuso cabeça sextavada tipo TAPH** **P05A**

Material Aço
Tratamento sup. Perma-Seal



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
4,8X32MM	100	70525.048.032				6,3X57MM	100	70525.063.057
4,8X45MM	100	70525.048.045	6,3X32MM	100	70525.063.032	6,3X70MM	100	70525.063.070
4,8X57MM	100	70525.048.057	6,3X45MM	100	70525.063.045	6,3X82MM	100	70525.063.082

Parafuso cabeça embeber tipo TAPC





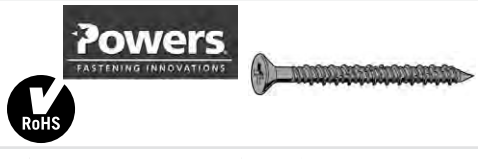
Dados técnicos

d x L	d_o	L	Nr. fenda	N_{rec}	t_{fix}
4.8x32	4.0	32	2	0.5	7
4.8x45	4.0	45	2	0.5	20
4.8x57	4.0	57	2	0.5	32
4.8x70	4.0	70	2	0.5	45
4.8x82	4.0	82	2	0.5	57
4.8x100	4.0	100	2	0.5	75
6.3x32	4.8	32	3	0.5	7
6.3x45	4.8	45	3	0.5	20
6.3x57	4.8	57	3	0.5	32
6.3x70	4.8	70	3	0.5	45
6.3x82	4.8	82	3	0.5	57
6.3x100	4.8	100	3	0.5	75
6.3x125	4.8	125	3	0.5	100

- **d_o= Diâmetro nominal de furo.**
- **N_{rec}= Carga recomendada kN.**
- **t_{fix}= Gama de aperto.**

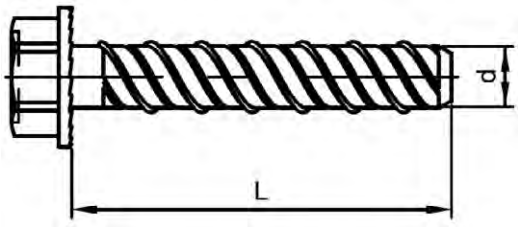
70526 **Parafuso cabeça embeber tipo TAPC** **P05A**

Material Aço
Tratamento sup. Perma-Seal



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
4,8X32MM	100	70526.048.032	4,8X100MM	100	70526.048.100	6,3X70MM	100	70526.063.070
4,8X45MM	100	70526.048.045	6,3X32MM	100	70526.063.032	6,3X82MM	100	70526.063.082
4,8X57MM	100	70526.048.057	6,3X45MM	100	70526.063.045	6,3X100MM	100	70526.063.100
4,8X82MM	100	70526.048.082	6,3X57MM	100	70526.063.057	6,3X125MM	100	70526.063.125

Concrete parafuso cabeça sextavada tipo BT





Dados técnicos

Tipo	d	L	N_{rec}	s	t_{fix}
BT550	5	50	1.5	7	15
BT650	6	50	1.5	10	15
BT680	6	80	1.9	10	35
BT6100	6	100	1.9	10	55
BT6120	6	120	1.9	10	75
BT6140	6	140	1.9	10	95
BT850	8	50	1.9	13	5
BT875	8	75	3.3	13	10
BT8100	8	100	3.3	13	35
BT1060	10	60	2.6	17	5
BT1075	10	75	2.6	17	20
BT10100	10	100	2.6/4.1	17	45/25
BT10110	10	110	2.6/4.1	17	55/35
BT10120	10	120	2.6/4.1	17	65/45
BT10140	10	140	2.6/4.1	17	85/65
BT10160	10	160	2.6/4.1	17	105/85
BT10200	10	200	2.6/4.1	17	145/125
BT10240	10	240	2.6/4.1	17	185/165
BT10280	10	280	2.6/4.1	17	225/205
BT10320	10	320	2.6/4.1	17	265/245
BT1275	12	75	4.1	19	5
BT12100	12	100	4.1/5.4	19	30/15
BT12150	12	150	4.1/5.4	19	80/65
BT12200	12	200	4.1/5.4	19	130/115
BT16100	16	100	6.3	23	20
BT16150	16	150	6.3/9.9	23	70/40
BT16200	16	200	6.3/9.9	23	120/90
BT16240	16	240	6.3/9.9	23	160/130
BT16280	16	280	6.3/9.9	23	200/170
BT16320	16	320	6.3/9.9	23	240/120

- **d = Diâmetro nominal de furo.**
- **N_{rec}= Carga recomendada kN.**
- **s = Entre-faces.**
- **t_{fix}= Gama de aperto.**

70520 **Parafuso cabeça sextavada para betão tipo BT** **P05A**

Material Aço
Tratamento sup. Zincado



ETA
European Technical Approval
Option 1 for cracked concrete

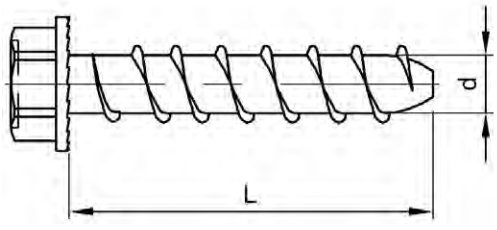
Cálculos finais devem estar em conformidade com European Technical Approval (ETA), esta aprovação está também disponivel sob pedido.

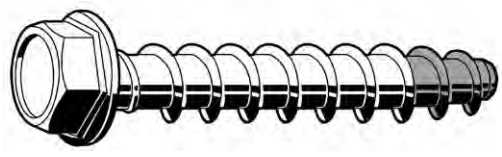
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
BT 5X50	100	70520.050.050	BT 6X140	50	70520.060.140	BT 10X75	50	70520.100.075
BT 6X50	100	70520.060.050	BT 8X50	50	70520.080.050	BT 10X100	50	70520.100.100
BT 6X80	50	70520.060.080	BT 8X75	50	70520.080.075	BT 10X110	25	70520.100.110
BT 6X100	100	70520.060.100	BT 8X100	50	70520.080.100	BT 10X120	25	70520.100.120
BT 6X120	100	70520.060.120	BT 10X60	50	70520.100.060	BT 10X140	25	70520.100.140

70520	Parafuso cabeça sextavada para betão tipo BT								←
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	
BT 10X160	20	70520.100.160	BT 12X100	25	70520.120.100	BT 16X200	10	70520.160.200	
BT 10X200	20	70520.100.200	BT 12X150	20	70520.120.150	BT 16X240	10	70520.160.240	
BT 10X240	20	70520.100.240	BT 12X200	20	70520.120.200	BT 16X280	10	70520.160.280	
BT 10X280	20	70520.100.280	BT 16X100	20	70520.160.100	BT 16X320	10	70520.160.320	
BT 12X75	25	70520.120.075	BT 16X150	10	70520.160.150				

- ETA1=BT10/BT12/BT16

Parafuso cabeça sextavada para betão Inox A4 tipo BT



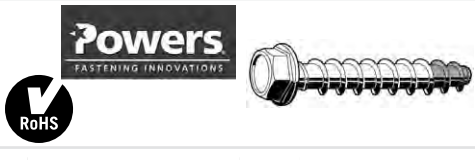


Dados técnicos

Tipo	d	L	N_{rec}	s	t_{fix}
BT645	6	45	1.7	10	1
BT660	6	60	2	10	5
BT875	8	75	2.3	13	10
BT895	8	95	2.3	13	30
BT1085	10	85	4.1	17	5
BT10100	10	100	4.1	17	20

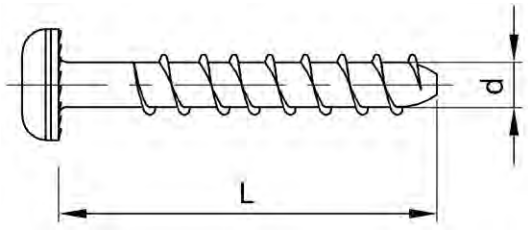
- **d = Diâmetro nominal de furo.**
- **N_{rec} = Carga recomendada kN for Non-cracked concrete.**
- **s = Entre-faces.**
- **t_{fix} = Gama de aperto.**

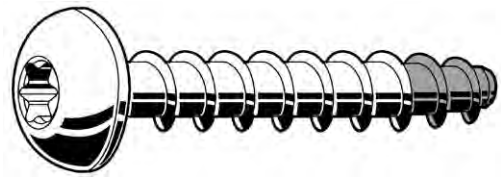
70521	Parafuso cabeça sextavada para betão Inox A4 tipo BT	P05A
Material	Aço inoxidável A4	



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
6X45MM	100	70521.060.045	8/10X75MM	50	70521.080.075	10/5X85MM	50	70521.100.085
6/5X60MM	100	70521.060.060	8/30X95MM	50	70521.080.095	10/20X100MM	50	70521.100.100

Parafuso cabeça oval para betão tipo BT





Dados técnicos

Tipo	L	No. Torx®	N_{rec}	t_{fix}
BT645	45	40	1.5	10
BT650	50	40	1.5	15

- d = Diâmetro nominal de furo.
- N_{rec}= Carga recomendada kN.
- t_{fix}= Gama de aperto.

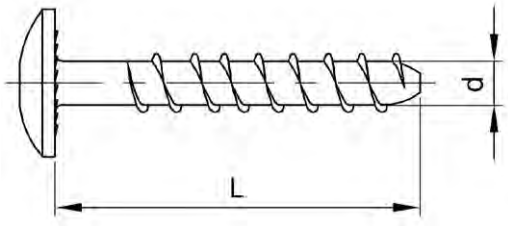
70522 **Parafuso cabeça oval para betão tipo BT** **P05A**

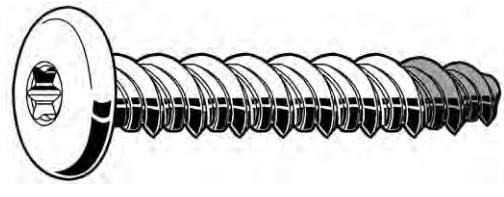
Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
6X45MM	100	70522.060.045	6X50MM	100	70522.060.050

Parafuso cabeça queijo para betão tipo BT





Dados técnicos

Tipo	d	L	No. Torx®	N_{rec}	t_{fix}
BT640	6	40	30	1.2	10
BT650	6	50	30	1.5	15
BT665	6	65	30	1.9	20

- N_{rec}= Carga. recomendada kN for Non-cracked concrete
- t_{fix}= Gama de aperto

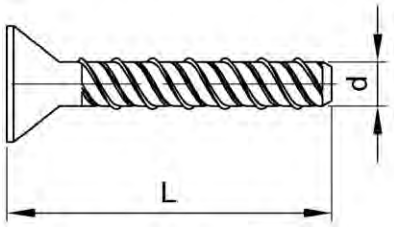
70523 **Parafuso cabeça de queijo para betão tipo BT** **P05A**

Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
6X40MM	100	70523.060.040	6X50MM	100	70523.060.050	6X65MM	100	70523.060.065

Parafuso sextavado interior cabeça de embeber para betão tipo BT





Dados técnicos

Tipo	Chave caixa	d	L	N_{rec}	s	t_{fix}
BT650	T40	6	50	1.5	-	15
BT675	T40	6	75	1.5	-	40
BT850	T40	8	50	1.9	-	5
BT875	-	8	75	3.3	6	10
BT8100	-	8	100	3.3	6	35
BT1060	-	10	60	2.6	6	5
BT1075	-	10	75	2.6	8	20
BT10100	-	10	100	2.6/4.1	8	45/25
BT1275	-	12	75	4.1	10	5
BT12100	-	12	100	4.1/5.4	10	30/15
BT12150	-	12	150	4.1/5.4	10	80/65

- **d = Diâmetro nominal de furo.**
- **N_{rec}= Carga recomendada kN for Non-cracked concrete.**
- **s = Entre-faces.**
- **t_{fix}= Gama de aperto.**

70524 **Parafuso sextavado interior cabeça de embeber para betão tipo BT** **P05A**

Material Aço
Tratamento sup. Zincado



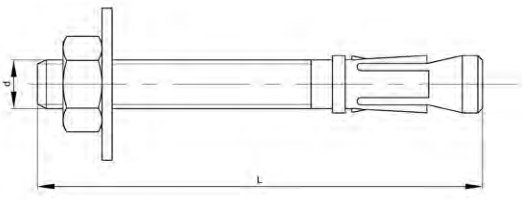


Cálculos finais devem estar em conformidade com European Technical Approval (ETA), esta aprovação está também disponivel sob pedido.

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
6X50MM	100	70524.060.050	8X100MM	50	70524.080.100	12X75MM	25	70524.120.075
6X75MM	50	70524.060.075	10X60MM	50	70524.100.060	12X100MM	25	70524.120.100
8X50MM	50	70524.080.050	10X75MM	50	70524.100.075	12X150MM	20	70524.120.150
8X75MM	50	70524.080.075	10X100MM	50	70524.100.100			

- ETA1=BT10/BT12

Ancoragem perno ThruFast - ThruMaxx



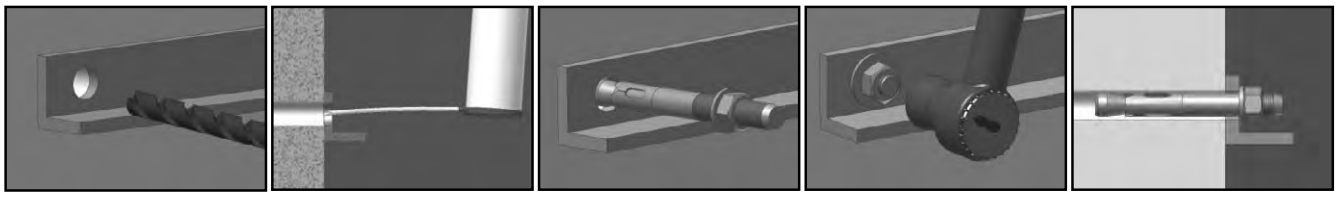


Dados técnicos

Tipo	Anel ø	C_{cr}, N	d	d_f	d_o	h (nom.)	h_1	h_{ef}	L	N_{rec}	s	S_{cr}, N	t_{fix} (max.)	T_{inst}
6x60	12	60	M6	7	6	49.5	55	40	60	4.29	10	120	2	7
6x70	12	60	M6	7	6	49.5	55	40	70	3.93	10	120	12	7
6x80	12	60	M6	7	6	49.5	55	40	80	3.93	10	120	22	7
6x80 (A2-A4)	12	60	M6	7	6	49.5	55	40	80	4.29	10	120	22	7
6x90	12	60	M6	7	6	49.5	55	40	90	3.93	10	120	32	7
6x100	12	60	M6	7	6	49.5	55	40	100	3.93	10	120	42	7
6x120	12	60	M6	7	6	49.5	55	40	120	3.93	10	120	62	7
6x140	12	60	M6	7	6	49.5	55	40	140	3.93	10	120	82	7
8x75	16	72	M8	9	8	59.5	65	48	75	5.71	13	144	5	20
8x90	16	72	M8	9	8	59.5	65	48	90	5.71	13	144	20	20
8x115	16	72	M8	9	8	59.5	65	48	115	5.71	13	144	45	20
8x130	16	72	M8	9	8	59.5	65	48	130	5.71	13	144	60	20
8x155	16	72	M8	9	8	59.5	65	48	155	5.71	13	144	85	20
10x70	20	83	M10	12	10	53.5	60	42	70	5.43	17	165	5	35
10x90	20	83	M10	12	10	66.5	75	55	90	6.35	17	165	10	35
10x120	20	83	M10	12	10	66.5	75	55	120	6.35	17	165	40	35
10x150	20	83	M10	12	10	66.5	75	55	150	6.35	17	165	70	35
10x170	20	83	M10	12	10	66.5	75	55	170	6.35	17	165	90	35
12x75	24	98	M12	14	12	55	60	43	75	5.64	19	195	5	60
12x90	24	98	M12	14	12	77	85	65	90	8.84	19	195	5	60
12x110	24	98	M12	14	12	77	85	65	110	9.92	19	195	18	60
12x140	24	98	M12	14	12	77	85	65	140	9.92	19	195	48	60
12x160	24	98	M12	14	12	77	85	65	160	9.92	19	195	68	60
12x180	24	98	M12	14	12	77	85	65	180	9.92	19	195	88	60
14x120	28	113	M14	16	14	91	100	75	120	11.91	22	225	12	90
14x145	28	113	M14	16	14	91	100	75	145	11.91	22	225	37	90
14x170	28	113	M14	16	14	91	100	75	170	11.91	22	225	62	90
16x90	30	126	M16	18	16	69	75	49	90	6.86	24	252	4	120
16x125	30	126	M16	18	16	103.5	110	84	125	13.89	24	252	3	120
16x145	30	126	M16	18	16	103.5	110	84	145	13.89	24	252	23	120
16x170	30	126	M16	18	16	103.5	110	84	170	13.89	24	252	48	120
16x220	30	126	M16	18	16	103.5	110	84	220	13.89	24	252	98	120
20x120	37	155	M20	22	20	93	105	71	120	11.96	30	309	5	240
20x170	37	155	M20	22	20	125	135	103	170	19.84	30	309	23	240
20x220	37	155	M20	22	20	125	135	103	220	19.84	30	309	73	240

- **d_o= Diâmetro nominal de furo**
- **s = Entre-faces**
- **ring ø = Diâmetro do anel**
- **d_f= Diâmetro do furo de passagem no elemento a fixar**
- **h_1= Profundidade de furo recomendado**
- **h(nom) = Profundidade de furo minima**
- **h_{ef}= Profundidade efectiva de ancoragem**
- **S_{cr},N = Distância entre os eixos**
- **C_{cr},N = Distância ao bordo**
- **t_{fix}(max) = Gama de aperto**
- **T_{inst}= Aperto Nm**
- **N_{rec}= Carga recomendada kN**
- A carga admissivel é válida para uma só ancoragem, em betão não-fissurado (zona de pressão) com betão classe C20/25, incl. factor de segurança γ_f= 1,4 e se S_{cr}, N and C_{cr}, N não forem considerados.

Sequência de montagem



Grupos de produtos

Rosca	Material	Tratamento sup.		Código	Página
M	Aço	Zn		30550	8-66
M	INOX A2			30552	8-66
M	Aço	Zn	ETA-7	30551	8-66
M	INOX A4		ETA-7	30553	8-67

30550 MAXXFAST Ancoragem perno ThruFast — MF50

Rosca Métrica
Material Aço
Tratamento sup. Zincado

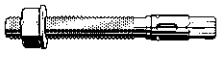


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
6X70	200	30550.060.070	8X155	50	30550.080.155	12X180	25	30550.120.180
6X80	200	30550.060.080	10X70	100	30550.100.070	14X120	25	30550.140.120
6X90	200	30550.060.090	10X90	100	30550.100.090	14X145	25	30550.140.145
6X100	200	30550.060.100	10X120	50	30550.100.120	14X170	20	30550.140.170
6X120	100	30550.060.120	10X150	50	30550.100.150	16X125	25	30550.160.125
6X140	100	30550.060.140	12X75	50	30550.120.075	16X145	25	30550.160.145
8X75	100	30550.080.075	12X110	50	30550.120.110	16X170	10	30550.160.170
8X90	100	30550.080.090	12X140	25	30550.120.140	16X220	10	30550.160.220
8X115	100	30550.080.115	12X160	25	30550.120.160	20X170	10	30550.200.170
8X130	100	30550.080.130						

- Só embalagens completas.

30552 MAXXFAST Ancoragem perno ThruFast — MF50

Rosca Métrica
Material Aço inoxidável A2



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
6X60	200	30552.060.060	10X120	50	30552.100.120	16X145	25	30552.160.145
6X80	200	30552.060.080	10X150	50	30552.100.150	16X170	10	30552.160.170
8X75	100	30552.080.075	12X90	50	30552.120.090	20X120	10	30552.200.120
8X90	100	30552.080.090	12X110	50	30552.120.110	20X170	10	30552.200.170
8X115	100	30552.080.115	12X140	25	30552.120.140	20X220	10	30552.200.220
10X90	100	30552.100.090	16X90	25	30552.160.090			

- Só embalagens completas.

30551 MAXXFAST Ancoragem perno ThruMaxx — MF50

Rosca Métrica
Material Aço
Tratamento sup. Zincado



European Technical Approval
Option 7 for cracked concrete

Cálculos finais devem estar em conformidade com European Technical Approval (ETA), esta aprovação está também disponivel sob pedido.

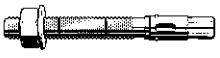
Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
6X70	200	30551.060.070	8X130	100	30551.080.130	12X180	25	30551.120.180
6X80	200	30551.060.080	8X155	50	30551.080.155	14X120	25	30551.140.120
6X90	200	30551.060.090	10X90	100	30551.100.090	14X145	25	30551.140.145
6X100	200	30551.060.100	10X120	50	30551.100.120	14X170	20	30551.140.170
6X120	100	30551.060.120	10X150	50	30551.100.150	16X125	25	30551.160.125
6X140	100	30551.060.140	10X170	50	30551.100.170	16X145	25	30551.160.145
8X75	100	30551.080.075	12X110	50	30551.120.110	16X170	10	30551.160.170
8X90	100	30551.080.090	12X140	25	30551.120.140	20X170	10	30551.200.170
8X115	100	30551.080.115	12X160	25	30551.120.160			

30551 MAXXFAST Ancoragem perno ThruMaxx ←

- Só embalagens completas.

30553 MAXXFAST Ancoragem perno ThruMaxx **MF50**

Rosca Métrica
Material Aço inoxidável A4



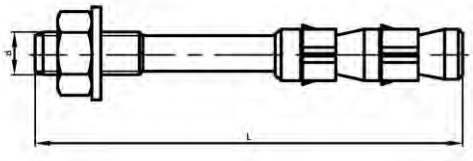
European Technical Approval
Option 7 for cracked concrete

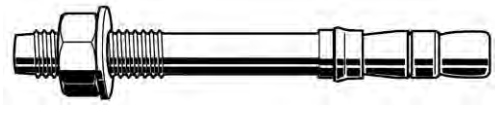
Cálculos finais devem estar em conformidade com European Technical Approval (ETA), esta aprovação está também disponivel sob pedido.

Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
6X60	200	30553.060.060	10X90	100	30553.100.090	12X140	25	30553.120.140
6X80	200	30553.060.080	10X120	50	30553.100.120	16X145	25	30553.160.145
8X75	100	30553.080.075	10X150	50	30553.100.150	16X170	10	30553.160.170
8X90	100	30553.080.090	12X90	50	30553.120.090	20X170	10	30553.200.170
8X115	100	30553.080.115	12X110	50	30553.120.110	20X220	10	30553.200.220

- Só embalagens completas.

Perno de ancoragem EXA



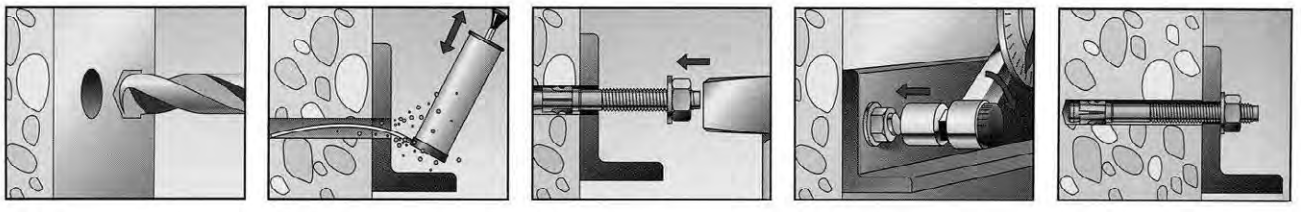


Dados técnicos

d	d	d_o	h_{ef}	k_N	L	Min. t_d	s	t_{fix}
8/5	M8	8	47	4.1	60	60	13	5
8/15	M8	8	47	4.1	65	60	13	15
10/5	M10	10	49	6.3	70	65	17	5
10/15	M10	10	49	6.3	92	65	17	15
10/45	M10	10	49	6.3	122	65	17	45
12/5	M12	12	67	9.9	80	85	19	5
12/15	M12	12	67	9.9	116	85	19	15
12/55	M12	12	67	9.9	156	85	19	55
16/10	M16	16	85	16.7	110	110	24	10
16/30	M16	16	85	16.7	153	110	24	30

- **d_o = Diâmetro nominal de furo.**
- **Min. td= Profundidade de furo aconselhada.**
- **h_{ef}= Espessura da ancoragem efectiva.**
- **t_{fix}= Gama de aperto.**
- **kN = A carga designada é em kN, Betão não fissurado.**
- A carga permitida é para 1 só ancoragem, betão fissurado (zona de tensão) na classe C20/25, inclui fator de segurança parcial γf= 1,4 e quando o Scr, N e Ccr, N não são excedidos.
- Para os cálculos finais, é mandatório ter em consideração a European Technical Approval (ETA), que está disponivel sob pedido.

Sequência de montagem

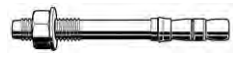


63328	FISCHER Perno de ancoragem EXA	N07F

Material Aço
Tratamento sup. Zincado

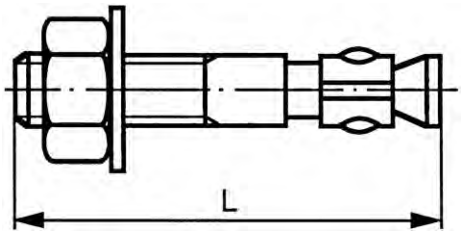
fischer innovative solutions

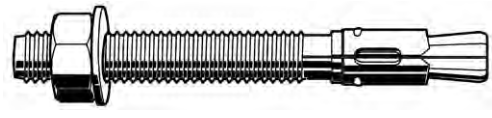
RoHS



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
8/5 (8X60)	50	63328.008.005	10/45 (10X122)	50	63328.010.045	12/55 (12X156)	25	63328.012.055
8/15 (8X65)	50	63328.008.015	12/5 (12X80)	25	63328.012.005	16/10 (16X110)	20	63328.016.010
10/5 (10X70)	50	63328.010.005	12/15 (12X116)	25	63328.012.015	16/30 (16X153)	10	63328.016.030
10/15 (10X92)	50	63328.010.015						

Ancoragem perno tipo FBN II





Dados técnicos

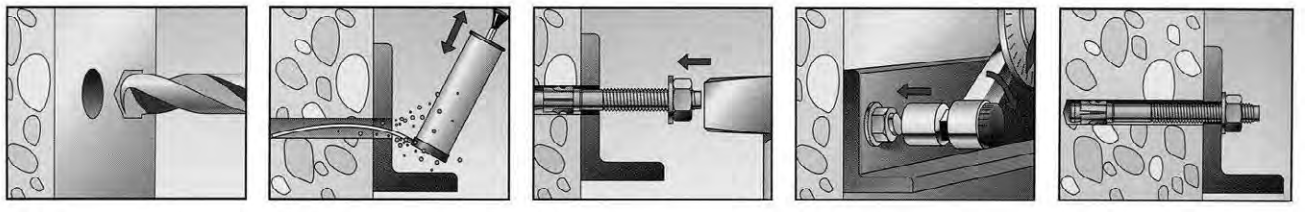
Tipo	Anel ø	d	d_o	h_{ef}	k_N	L	Min. t_d	t_{fix}
FBN II 6/5	12X1.6	M6	6	30	1.5	50	45	5
FBN II 6/10	12X1.6	M6	6	30	1.5	55	50	10
FBN II 6/30	12X1.6	M6	6	30	1.5	75	70	30
FBN II 8/5	16X1.6	M8	8	40	2.9-6.1	66	61	5
FBN II 8/10	16X1.6	M8	8	40	2.9-6.1	71	66	10
FBN II 8/20	16X1.6	M8	8	40	2.9-6.1	81	76	20
FBN II 8/30	16X1.6	M8	8	40	2.9-6.1	91	86	30
FBN II 8/50	16X1.6	M8	8	40	2.9-6.1	111	106	50
FBN II 8/70	16X1.6	M8	8	40	2.9-6.1	131	126	70
FBN II 8/100	16X1.6	M8	8	40	2.9-6.1	161	156	100
FBN II 8/5 K	16X1.6	M8	8	30	2.9-6.1	56	51	5
FBN II 8/10 K	16X1.6	M8	8	30	2.9-6.1	61	56	10
FBN II 8/30 K	16X1.6	M8	8	30	2.9-6.1	81	76	30
FBN II 10/10	20X2	M10	10	50	6.1-8.5	86	78	10
FBN II 10/20	20X2	M10	10	50	6.1-8.5	96	88	20
FBN II 10/30	20X2	M10	10	50	6.1-8.5	106	98	30
FBN II 10/50	20X2	M10	10	50	6.1-8.5	126	118	50
FBN II 10/70	20X2	M10	10	50	6.1-8.5	146	138	70
FBN II 10/100	20X2	M10	10	50	6.1-8.5	176	168	100
FBN II 10/140	20X2	M10	10	50	6.1-8.5	216	208	140
FBN II 10/160	20X2	M10	10	50	6.1-8.5	236	228	160
FBN II 10/5 K	20X2	M10	10	40	6.1-8.5	71	63	5
FBN II 10/10 K	20X2	M10	10	40	6.1-8.5	76	68	10
FBN II 10/30 K	20X2	M10	10	40	6.1-8.5	96	88	30
FBN II 12/10	24X2.5	M12	12	65	8.5-12.6	106	95	10
FBN II 12/20	24X2.5	M12	12	65	8.5-12.6	116	105	20
FBN II 12/30	24X2.5	M12	12	65	8.5-12.6	126	115	30
FBN II 12/50	24X2.5	M12	12	65	8.5-12.6	146	135	50
FBN II 12/80	24X2.5	M12	12	65	8.5-12.6	176	165	80
FBN II 12/100	24X2.5	M12	12	65	8.5-12.6	196	185	100
FBN II 12/120	24X2.5	M12	12	65	8.5-12.6	216	205	120
FBN II 12/140	24X2.5	M12	12	65	8.5-12.6	236	225	140
FBN II 12/160	24X2.5	M12	12	65	8.5-12.6	256	245	160
FBN II 12/5 K	24X2.5	M12	12	50	8.5-12.6	86	75	5
FBN II 12/10 K	24X2.5	M12	12	50	8.5-12.6	91	80	10
FBN II 12/30 K	24X2.5	M12	12	50	8.5-12.6	111	100	30
FBN II 16/10	30X3	M16	16	80	12.6-17.2	130	114	10
FBN II 16/25	30X3	M16	16	80	12.6-17.2	145	129	25
FBN II 16/50	30X3	M16	16	80	12.6-17.2	170	154	50
FBN II 16/80	30X3	M16	16	80	12.6-17.2	200	184	80
FBN II 16/100	30X3	M16	16	80	12.6-17.2	220	204	100
FBN II 16/140	30X3	M16	16	80	12.6-17.2	260	244	140
FBN II 16/160	30X3	M16	16	80	12.6-17.2	280	264	160
FBN II 16/200	30X3	M16	16	80	12.6-17.2	320	304	200

Dados técnicos

Tipo	Anel ø	d	d_o	h_{ef}	k_N	L	Min. t_d	t_{fix}
FBN II 16/15 K	30X3	M16	16	65	12.6-17.2	120	104	15
FBN II 16/25 K	30X3	M16	16	65	12.6-17.2	130	114	25
FBN II 20/30	37X3	M20	20	105	17.2-25.8	184	165	30
FBN II 20/60	37X3	M20	20	105	17.2-25.8	214	195	60
FBN II 20/80	37X3	M20	20	105	17.2-25.8	234	215	80
FBN II 20/120	37X3	M20	20	105	17.2-25.8	274	255	120
FBN II 20/10 K	37X3	M20	20	80	17.2-25.8	139	120	10

- **d_o= Diâmetro nominal do furo.**
- **t_{fix}= Gama de aperto.**
- **h_{ef}= Profundidade efectiva de ancoragem.**
- **Min. t_d= Profundidade de furo recomendado.**
- **kN = Carga em kN.**
- A carga admissivel é válida para uma só ancoragem, em betão fissurado (zona de pressão) com betão classe C20/25, incl. factor de segurança γ_f= 1,4 se S_{cr}, N e C_{cr}, N forem tidos em consideração.
- Quando é efectuada uma redução de distância entre eixos e aos bordos, deve o calculo de forças deve ser revisto, utilizando o guia técnico ou o software de cálculo, disponiveis sob pedido.
- Os cálculos finais devem estar em confotmidade com a European Technical Approval (ETA), esta aprovação também está disponivel, sob pedido.

Sequência de montagem



Grupos de produtos

Rosca	Material	Tratamento sup.	Código	Página
M	Aço	Zn	63324	8-69
M	INOX A4		63325	8-70

63324 FISCHER Ancoragem perno tipo FBN II **N03A**

Rosca Métrica
Material Aço
Tratamento sup. Zincado

fischer innovative solutions

RoHS



8

ETA CE
European Technical Approval
Option 7 for cracked concrete

Cálculos finais devem estar em conformidade com European Technical Approval (ETA), esta aprovação está também disponivel sob pedido.

Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
6/5 (6x50)	100	63324.060.005	10/70 (10X146)	20	63324.100.070	12/10 K (12X91)	20	63324.121.010
6/10 (6x55)	100	63324.060.010	10/100 (10X176)	20	63324.100.100	12/30 K (12X111)	20	63324.121.030
6/30 (6x75)	100	63324.060.030	10/140 (10X216)	20	63324.100.140	16/25 (16X145)	10	63324.160.025
8/5 (8X66)	50	63324.080.005	10/160 (10X236)	20	63324.100.160	16/50 (16X170)	10	63324.160.050
8/10 (8X71)	50	63324.080.010	10/5 K (10X71)	50	63324.101.005	16/80 (16X200)	10	63324.160.080
8/20 (8X81)	50	63324.080.020	10/10 K (10X76)	50	63324.101.010	16/100 (16X220)	10	63324.160.100
8/30 (8X91)	50	63324.080.030	12/10 (12X106)	20	63324.120.010	16/140 (16X260)	10	63324.160.140
8/50 (8X111)	50	63324.080.050	12/20 (12X116)	20	63324.120.020	16/160 (16X280)	10	63324.160.160
8/70 (8X131)	20	63324.080.070	12/30 (12X126)	20	63324.120.030	16/200 (16X320)	10	63324.160.200
8/100 (8X161)	20	63324.080.100	12/50 (12X146)	20	63324.120.050	16/15 K (16X120)	10	63324.161.015
8/5 K (8X56)	50	63324.081.005	12/80 (12X176)	20	63324.120.080	16/25 K (16X130)	10	63324.161.025
8/10 K (8X61)	50	63324.081.010	12/100 (12X196)	20	63324.120.100	20/30 (20X184)	10	63324.200.030
10/10 (10X86)	50	63324.100.010	12/120 (12X216)	20	63324.120.120	20/60 (20X214)	10	63324.200.060
10/20 (10X96)	50	63324.100.020	12/140 (12X236)	20	63324.120.140	20/80 (20X234)	10	63324.200.080
10/30 (10X106)	50	63324.100.030	12/160 (12X256)	20	63324.120.160	20/120 (20X274)	10	63324.200.120
10/50 (10X126)	20	63324.100.050	12/5 K (12X86)	20	63324.121.005	20/10 K (20X139)	10	63324.201.010

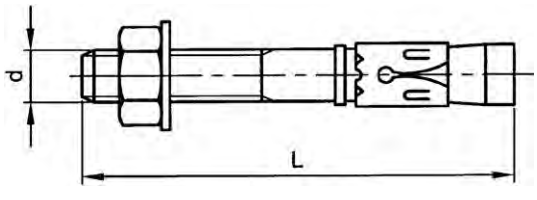
63325	FISCHER Ancoragem perno tipo FBN II	N03A
Rosca	Métrica	
Material	Aço inoxidável A4	

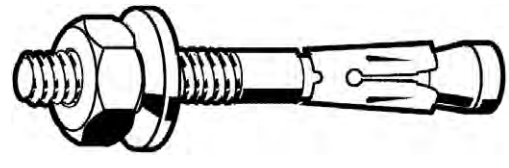


Cálculos finais devem estar em conformidade com European Technical Approval (ETA), esta aprovação está também disponivel sob pedido.

Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
6/10 (6X55)	100	63325.060.010	10/30 (10X106)	50	63325.100.030	12/100 (12X196)	20	63325.120.100
6/30 (6X75)	100	63325.060.030	10/50 (10X126)	20	63325.100.050	16/10 (16X130)	10	63325.160.010
8/10 (8X71)	50	63325.080.010	10/100 (10X176)	20	63325.100.100	16/25 (16X145)	10	63325.160.025
8/30 (8X91)	50	63325.080.030	12/20 (12X116)	20	63325.120.020	16/50 (16X170)	10	63325.160.050
8/50 (8X111)	50	63325.080.050	12/30 (12X126)	20	63325.120.030			
10/20 (10X96)	50	63325.100.020	12/50 (12X146)	20	63325.120.050			

Ancoragem perno



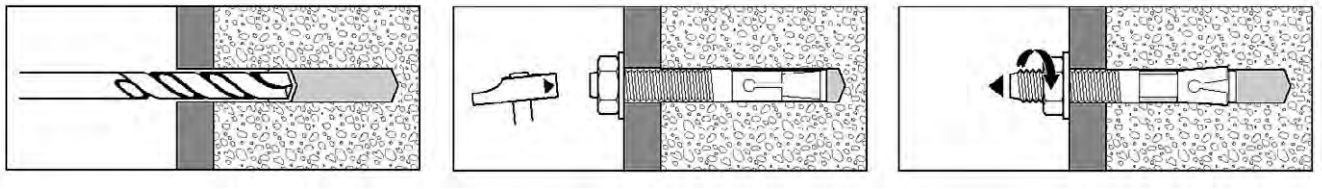


Dados técnicos

Tipo	C_{cr}, N	$C_{min.}$	Código	d	d_f	d_o	h_{ef}	h_{min}	h_o	L	N	S_{cr}, N	$S_{min.}$	t_{fix}	T_{inst}
8-20	72-55	60-55	C	M8	9	8	48-35	100	65-52	70	3.0-2.0	144-155	50-45	7-20	15
8-40	72-55	60-55	E	M8	9	8	48-35	100	65-52	90	3.0-2.0	144-105	50-45	27-40	15
8-80	72-55	60-55	H	M8	9	8	48-35	100	65-52	130	3.0-2.0	144-105	50-45	67-80	15
10-15	78-75	75-65	C	M10	12	10	52-42	104-100	72-62	76.2	4.0-3.0	156-125	65-55	5-15	30
10-35	78-75	75-65	E	M10	12	10	52-42	104-100	72-62	96.2	4.0-3.0	156-126	65-55	25-35	30
10-80	78-75	75-65	I	M10	12	10	52-42	104-100	72-62	141.2	4.0-3.0	156-126	65-55	70-80	30
12-25	102-100	100-90	E	M12	14	12	68-50	136-100	93-75	100	6.6-5.3	204-150	100-75	8-25	50
12-65	102-100	100-90	I	M12	14	12	68-50	136-100	93-75	140	6.6-5.3	204-105	100-75	48-65	50
12-105	102-100	100-90	L	M12	14	12	68-50	136-100	93-75	180	6.6-5.3	204-150	100-75	88-105	50
12-145	102-100	100-90	O	M12	14	12	68-50	136-100	93-75	220	6.6-5.3	204-150	100-75	128-145	50
16-30	129-100	100-105	G	M16	18	16	86-64	172-128	117-95	125	13.2-8.3	258-192	100-90	8-30	100
16-75	129-100	100-105	K	M16	18	16	86-64	172-128	117-95	170	13.2-8.3	258-192	100-90	53-75	100
20-50	150-115	115-125	J	M20	22	20	100-74	200-148	136-110	160	9.9-9.9	300-222	100-105	25-50	160
20-105	150-115	115-125	J	M20	22	20	100-74	200-148	136-110	215	9.9-9.9	300-222	100-105	80-105	160

- **Código = Código marcação.**
- **d_o= Diâmetro nominal de furo bit.**
- **T_{inst}= Aperto Nm.**
- **d_f= Diâmetro do furo de passagem no elemento a fixar.**
- **h_{min}= Espessura minima em betão.**
- **h_o= Profundidade de furo recomendado.**
- **t_{fix}= Espessura da fixação.**
- **h_{ef}= Espessura da ancoragem efectiva.**
- **S_{cr}, N = Distância entre os eixos.**
- **C_{cr}, N = Distância ao bordo.**
- **$S_{min.}$= Distância minima.**
- **$C_{min.}$= Distância minima aos bordos.**
- **N = Carga admissivel em kN.**
- A carga admissivel é válida para uma só ancoragem, em betão não-fissurado (zona de pressão) com betão classe C20/25, incl. factor de segurança γ_f= 1,4 e se S_{cr}, N and C_{cr}, N não forem considerados.
- Quando é efectuada uma redução de distância entre eixos e aos bordos, deve o calculo de forças deve ser revisto, utilizando o guia técnico ou o software de cálculo, disponiveis sob pedido.
- Os cálculos finais devem estar em confotmidade com a European Technical Approval (ETA), esta aprovação também está disponivel, sob pedido.

Sequência de montagem



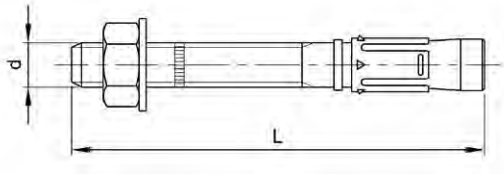
70927 **Perno ancoragem FIX 3** **P03A**

Material Aço
Tratamento sup. Zincado



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
M8X20	100	70927.080.020	M12X25	25	70927.120.025	M16X30	20	70927.160.030
M8X40	50	70927.080.040	M12X65	25	70927.120.065	M16X75	10	70927.160.075
M10X15	50	70927.100.015	M12X105	25	70927.120.105	M20X50	10	70927.200.050
M10X35	50	70927.100.035	M12X145	20	70927.120.145	M20X105	10	70927.200.105
M10X80	25	70927.100.080						

Ancoragem perno Promaxx





Dados técnicos

d x L	Anel ø	$C_{cr,}$ N	$C_{min.}$	Código	d_f	d_o	h (nom.)	h_1	h_{ef}	N_{rec}	s	$S_{cr,}$ N	$S_{min.}$	t_{fix} (max.)	T_{inst}
M8x75	16	72	75	C	9	8	55	60	48	3.57	13	144	75	9	20
M8x95	16	72	75	E	9	8	55	60	48	3.57	13	144	75	29	20
M8x115	16	72	75	G	9	8	55	60	48	3.57	13	144	75	49	20
M10x90	20	90	90	E	12	10	68	75	60	4.76	17	150	90	10	40
M10x105	20	90	90	F	12	10	68	75	60	4.76	17	150	90	25	40
M10x115	20	90	90	G	12	10	68	75	60	4.76	17	150	90	35	40
M10x135	20	90	90	H	12	10	68	75	60	4.76	17	150	90	55	40
M10x165	20	90	90	J	12	10	68	75	60	4.76	17	150	90	85	40
M10x185	20	90	90	L	12	10	68	75	60	4.76	17	150	90	105	40
M12x110	24	105	105	F	14	12	80	85	70	6.35	19	175	105	14	60
M12x120	24	105	105	G	14	12	80	85	70	6.35	19	175	105	24	60
M12x130	24	105	105	H	14	12	80	85	70	6.35	19	175	105	34	60
M12x150	24	105	105	I	14	12	80	85	70	6.35	19	175	105	54	60
M12x180	24	105	105	L	14	12	80	85	70	6.35	19	175	105	84	60
M12x200	24	105	105	M	14	12	80	85	70	6.35	19	175	105	104	60
M16x145	30	128	130	I	18	16	97	105	85	13.89	24	213	130	28	100
M16x175	30	128	130	K	18	16	97	105	85	13.89	24	213	130	58	100
M16x220	30	128	130	O	18	16	97	105	85	13.89	24	213	130	103	100
M16x250	30	128	130	Q	18	16	97	105	85	13.89	24	213	130	133	100
M20x170	37	150	150	K	22	20	114	125	100	15.87	30	250	150	32	200
M20x200	37	150	150	O	22	20	114	125	100	15.87	30	250	150	82	200

- **Código = Código marcação**
- **d_o= Diâmetro nominal de furo bit**
- **d_f= Diâmetro do furo de passagem no elemento a fixar**
- **h_1= Profundidade do furo até ao ponto mais profundo**
- **h_{nom}= Profundidade de furo minima**
- **h_{ef}= Profundidade efectiva de ancoragem**
- **t_{fix}(max) = Gama de aperto**
- **s = Entre-faces**
- **ring ø = Diâmetro do anel**
- **$S_{cr,}$N = Distância entre os eixos**
- **$C_{cr,}$N = Distância ao bordo**
- **$S_{min.}$= Distância minima**
- **$C_{min.}$= Distância minima aos bordos**
- **N_{rec}= Carga recomendada kN**
- **T_{inst}= Aperto Nm**
- A carga admissivel (N_{rec}) é válida para uma só ancoragem, em betão não-fissurado (zona de pressão) com betão classe C20/25, incl. factor de segurança γ_f= 1,4 e se $S_{cr,}$N and $C_{cr,}$N não forem considerados.
- Quando é efetuada um redução no espaço e na distância aos cantos, deve ser realizado o re calculo das forças, utilizando o guia técnico, que está disponível sob pedido.
- Os cálculos finais devem estar em confotmidade com a European Technical Approval (ETA), esta aprovação também está disponivel, sob pedido.

ETA
European Technical Approval
Option 1 for cracked concrete

Cálculos finais devem estar em conformidade com European Technical Approval (ETA), esta aprovação está também disponivel sob pedido.

30554 MAXXFAST Ancoragem perno **MF4A**

Rosca	Métrica
Material	Aço
Tratamento sup.	Zincado

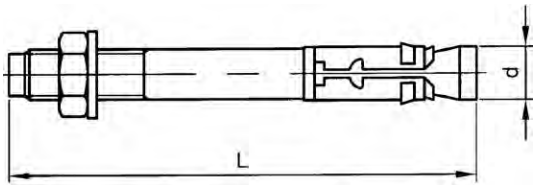
MAXXFAST PROFESSIONAL HARDWARE

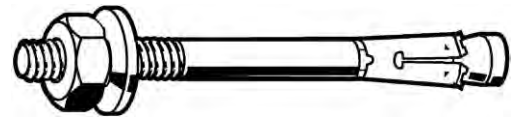
RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M8X75	50	30554.080.075	M10X165	25	30554.100.165	M12X200	25	30554.120.200
M8X95	50	30554.080.095	M10X185	25	30554.100.185	M16X145	10	30554.160.145
M8X115	50	30554.080.115	M12X110	25	30554.120.110	M16X175	10	30554.160.175
M10X90	50	30554.100.090	M12X120	25	30554.120.120	M16X220	10	30554.160.220
M10X105	25	30554.100.105	M12X130	25	30554.120.130	M16X250	10	30554.160.250
M10X115	25	30554.100.115	M12X150	25	30554.120.150	M20X170	10	30554.200.170
M10X135	25	30554.100.135	M12X180	25	30554.120.180	M20X200	10	30554.200.200

Ancoragem perno



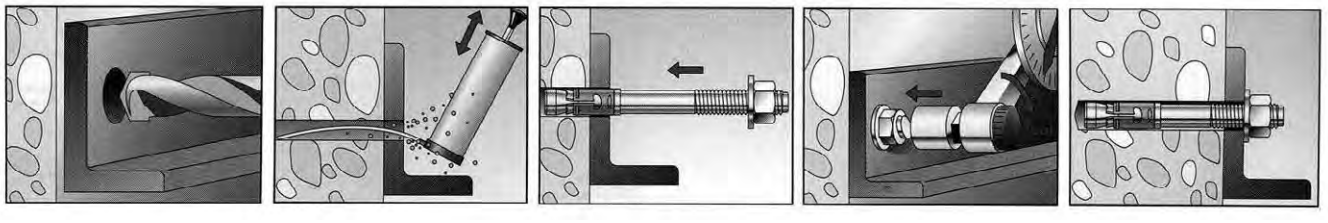


Dados técnicos

Tipo	Anel ø	d	d_o	h_{ef}	k_N	L	Min. t_d	s	t_{fix}
FAZ II 8/10	16X1.6	M8	8	45	2.4	77	75	13	10
FAZ II 8/30	16X1.6	M8	8	45	2.4	97	95	13	30
FAZ II 8/50	16X1.6	M8	8	45	2.4	117	115	13	50
FAZ II 8/100	16X1.6	M8	8	45	2.4	167	165	13	100
FAZ II 8/150	16X1.6	M8	8	45	2.4	217	215	13	150
FAZ II 10/10	20X2	M10	10	60	4.3	95	90	17	10
FAZ II 10/20	20X2	M10	10	60	4.3	105	100	17	20
FAZ II 10/30	20X2	M10	10	60	4.3	115	110	17	30
FAZ II 10/50	20X2	M10	10	60	4.3	135	130	17	50
FAZ II 10/80	20X2	M10	10	60	4.3	165	160	17	80
FAZ II 10/100	20X2	M10	10	60	4.3	185	180	17	100
FAZ II 10/150	20X2	M10	10	60	4.3	235	230	17	150
FAZ II 12/10	24X2.5	M12	12	70	7.6	110	105	19	10
FAZ II 12/20	24X2.5	M12	12	70	7.6	120	115	19	20
FAZ II 12/30	24X2.5	M12	12	70	7.6	130	125	19	30
FAZ II 12/50	24X2.5	M12	12	70	7.6	180	145	19	50
FAZ II 12/80	24X2.5	M12	12	70	7.6	180	175	19	80
FAZ II 12/100	24X2.5	M12	12	70	7.6	200	195	19	100
FAZ II 12/150	24X2.5	M12	12	70	7.6	250	245	19	150
FAZ II 12/200	24X2.5	M12	12	70	7.6	300	295	19	200
FAZ II 16/25	30X3	M16	16	85	13.4	150	140	24	25
FAZ II 16/50	30X3	M16	16	85	13.4	175	165	24	50
FAZ II 16/100	30X3	M16	16	85	13.4	225	215	24	100
FAZ II 16/150	30X3	M16	16	85	13.4	275	265	24	150
FAZ II 16/200	30X3	M16	16	85	13.4	325	315	24	200
FAZ II 16/250	30X3	M16	16	85	13.4	375	365	24	250
FAZ II 16/300	30X3	M16	16	85	13.4	425	415	24	300
FAZ II 20/30	37X3	M20	20	100	17.1	170	155	30	30
FAZ II 20/60	37X3	M20	20	100	17.1	200	185	30	60
FAZ II 20/150	37X3	M20	20	100	17.1	290	275	30	150
FAZ II 24/30	44X4	M24	24	125	24.0	204	185	36	30
FAZ II 24/60	44X4	M24	24	125	24.0	234	215	36	60

- **d_o= Diâmetro nominal de furo.**
- **Min. t_d= Profundidade de furo recomendado.**
- **h_{ef}= Profundidade efectiva de ancoragem.**
- **t_{fix}= Gama de aperto.**
- **s = Entre-faces.**
- **kN = Carga em kN.**
- A carga admissivel é válida para uma única bucha, em betão fissurado (zona de tensão) com betão classe C20/25, incl. factor de segurança parcial γ_f= 1,4 e se o S_{cr}, N e C_{cr}, N são tidos em consideração.
- Cálculos finais devem estar em conformidade com European Technical Approval (ETA), esta aprovação é também disponivel sob pedido.

Sequência de montagem



8

63323	FISCHER Ancoragem perno tipo FAZ II	N03A

Rosca Métrica
Material Aço
Tratamento sup. Zincado

fischer innovative solutions

RoHS

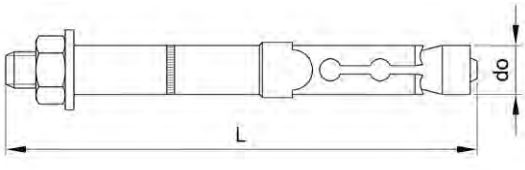


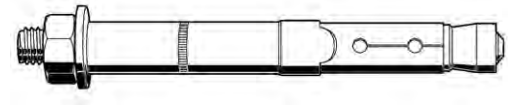
ETA
European Technical Approval
Option 1 for cracked concrete

Cálculos finais devem estar em conformidade com European Technical Approval (ETA), esta aprovação está também disponivel sob pedido.

Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
FAZII8/10	50	63323.080.010	FAZII10/100	20	63323.100.100	FAZII16/50	10	63323.160.050
FAZII8/30	50	63323.080.030	FAZII12/10	20	63323.120.010	FAZII16/100	10	63323.160.100
FAZII8/50	50	63323.080.050	FAZII12/20	20	63323.120.020	FAZII16/200	10	63323.160.200
FAZII8/100	25	63323.080.100	FAZII12/30	20	63323.120.030	FAZII16/250	10	63323.160.250
FAZII10/10	50	63323.100.010	FAZII12/50	20	63323.120.050	FAZII16/300	10	63323.160.300
FAZII10/20	25	63323.100.020	FAZII12/80	20	63323.120.080	FAZII20/30	5	63323.200.030
FAZII10/30	25	63323.100.030	FAZII12/100	20	63323.120.100	FAZII20/60	5	63323.200.060
FAZII10/50	20	63323.100.050	FAZII12/200	10	63323.120.200	FAZII24/30	5	63323.240.030
FAZII10/80	20	63323.100.080	FAZII16/25	10	63323.160.025	FAZII24/60	5	63323.240.060

Ancoragem perno tipo FH II-B



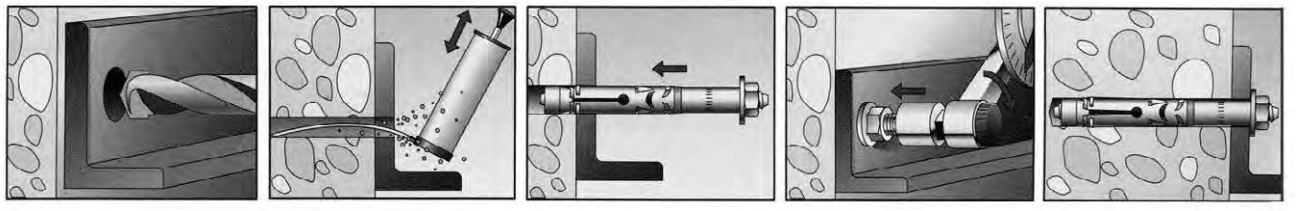


Dados técnicos

Tipo	Anel ø	d	d_o	h_{ef}	k_N	L	Min. t_d	s	t_{fix}
FH II 10/10 B	18X1.6	M6	10	50	2.0	85	80	10	10
FH II 10/25 B	18X1.6	M6	10	50	2.0	100	95	10	25
FH II 10/50 B	18X1.6	M6	10	50	2.0	125	120	10	50
FH II 12/10 B	22X2.5	M8	12	60	5.7	90	90	12	10
FH II 12/25 B	22X2.5	M8	12	60	5.7	105	105	13	25
FH II 12/50 B	22X2.5	M8	12	60	5.7	130	130	13	50
FH II 12/100 B	22X2.5	M8	12	60	5.7	184	190	13	100
FH II 15/10 B	25X3	M10	15	70	7.6	110	100	17	10
FH II 15/25 B	25X3	M10	15	70	7.6	125	115	17	25
FH II 15/50 B	25X3	M10	15	70	7.6	150	140	17	50
FH II 15/100 B	25X3	M10	15	70	7.6	200	190	17	100
FH II 18/25 B	30X3	M12	18	80	11.9	135	130	19	25
FH II 18/50 B	30X3	M12	18	80	11.9	160	155	19	50
FH II 18/100 B	30X3	M12	18	80	11.9	214	205	19	100
FH II 24/25 B	40X5	M16	24	100	17.1	167	150	24	25
FH II 24/50 B	40X5	M16	24	100	17.1	195	175	24	50
FH II 24/100 B	40X5	M16	24	100	17.1	242	225	24	100

- **d_o= Diâmetro nominal de furo.**
- **Min. t_d= Profundidade de furo recomendado.**
- **h_{ef}= Profundidade efectiva de ancoragem.**
- **t_{fix}= Gama de aperto.s = entre-faces.**
- **kN = Carga em kN.**
- A carga admissivel é válida para uma só ancoragem, em betão fissurado (zona de pressão) com betão classe C20/25, incl. factor de segurança γ_f= 1,4 se S_{cr}, N e C_{cr}, N forem tidos em consideração.
- Quando é efectuada uma redução de distância entre eixos e aos bordos, deve o calculo de forças deve ser revisto, utilizando o guia técnico ou o software de cálculo, disponiveis sob pedido.
- Os cálculos finais devem estar em conformidade com a European Technical Approval (ETA), esta aprovação também está disponivel, sob pedido.

Sequência de montagem

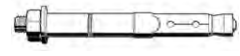


63421	FISCHER Ancoragem perno tipo FH II-B	N03A

Rosca	Métrica
Material	Aço
Tratamento sup.	Zincado

fischer innovative solutions

RoHS



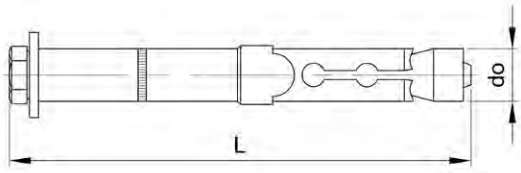
ETA

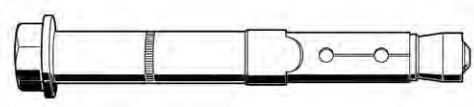
European Technical Approval
Option 1 for cracked concrete

Cálculos finais devem estar em conformidade com European Technical Approval (ETA), esta aprovação está também disponivel sob pedido.

Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
FH II 10/10 B	50	63421.100.011	FH II 12/100 B	25	63421.120.100	FH II 18/50 B	20	63421.180.050
FH II 10/25 B	50	63421.100.026	FH II 15/10 B	25	63421.150.010	FH II 18/100 B	10	63421.180.100
FH II 10/50 B	50	63421.100.051	FH II 15/25 B	25	63421.150.025	FH II 24/25 B	10	63421.240.025
FH II 12/10 B	50	63421.120.010	FH II 15/50 B	25	63421.150.050	FH II 24/50 B	10	63421.240.050
FH II 12/25 B	50	63421.120.025	FH II 15/100 B	20	63421.150.100	FH II 24/100 B	5	63421.240.100
FH II 12/50 B	25	63421.120.050	FH II 18/25 B	20	63421.180.025			

Ancoragem perno tipo FH II-S



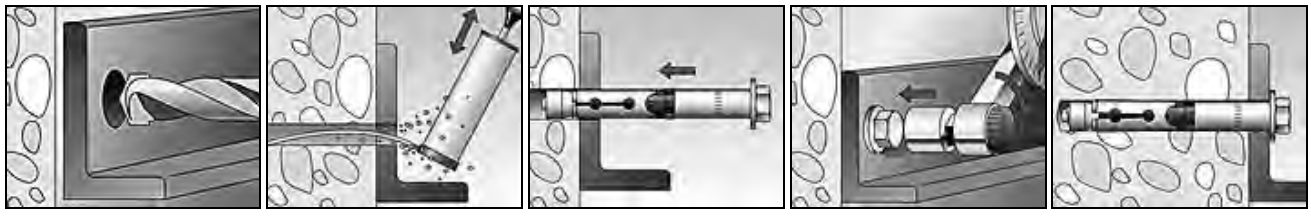


Dados técnicos

Tipo	Anel ø	d	d_o	h_{ef}	k_N	L	Min. t_d	s	t_{fix}
FH II 10/10 S	18X1.6	M6	10	50	2.0	84	85	10	10
FH II 10/25 S	18X1.6	M6	10	50	2.0	99	100	10	25
FH II 10/50 S	18X1.6	M6	10	50	2.0	124	125	10	50
FH II 12/10 S	22X2.5	M8	12	60	5.7	90	90	13	10
FH II 12/25 S	22X2.5	M8	12	60	5.7	105	105	13	25
FH II 12/50 S	22X2.5	M8	12	60	5.7	130	130	13	50
FH II 15/10 S	25X3	M10	15	70	7.6	106	100	17	10
FH II 15/25 S	25X3	M10	15	70	7.6	121	115	17	25
FH II 15/50 S	25X3	M10	15	70	7.6	146	140	17	50
FH II 18/10 S	30X3	M12	18	80	11.9	118	115	19	10
FH II 18/25 S	30X3	M12	18	80	11.9	132	130	19	25
FH II 18/50 S	30X3	M12	18	80	11.9	157	155	19	50
FH II 24/25 S	40X5	M16	24	100	17.1	160	150	24	25
FH II 24/50 S	40X5	M16	24	100	17.1	185	175	24	50

- **d_o= Diâmetro nominal de furo.**
- **Min. t_d= Profundidade de furo recomendado.**
- **h_{ef}= Profundidade efectiva de ancoragem.**
- **t_{fix}= Gama de aperto.**
- **s = entre-faces.**
- **kN = Carga em kN.**
- A carga admissivel é válida para uma só ancoragem, em betão fissurado (zona de pressão) com betão classe C20/25, incl. factor de segurança γ_f= 1,4 se S_{cr}, N e C_{cr}, N forem tidos em consideração.
- Quando é efectuada uma redução de distância entre eixos e aos bordos, deve o calculo de forças deve ser revisto, utilizando o guia técnico ou o software de cálculo, disponiveis sob pedido.
- Os cálculos finais devem estar em confotmidade com a European Technical Approval (ETA), esta aprovação também está disponivel, sob pedido.

Sequência de montagem



63422	FISCHER Ancoragem perno tipo FH II-S	N03A

Rosca Métrica
Material Aço
Tratamento sup. Zincado

fischer innovative solutions

RoHS

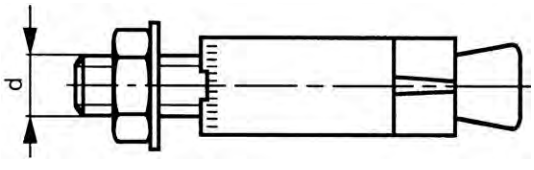


ETA
European Technical Approval
Option 1 for cracked concrete

Cálculos finais devem estar em conformidade com European Technical Approval (ETA), esta aprovação está também disponivel sob pedido.

Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
FH II 10/10 S	50	63422.100.011	FH II 12/50 S	25	63422.120.050	FH II 18/25 S	20	63422.180.025
FH II 10/25 S	50	63422.100.026	FH II 15/10 S	25	63422.150.010	FH II 18/50 S	20	63422.180.050
FH II 10/50 S	50	63422.100.051	FH II 15/25 S	25	63422.150.025	FH II 24/25 S	10	63422.240.025
FH II 12/10 S	50	63422.120.010	FH II 15/50 S	25	63422.150.050	FH II 24/50 S	10	63422.240.050
FH II 12/25 S	50	63422.120.025	FH II 18/10 S	20	63422.180.010			

Ancoragem perno



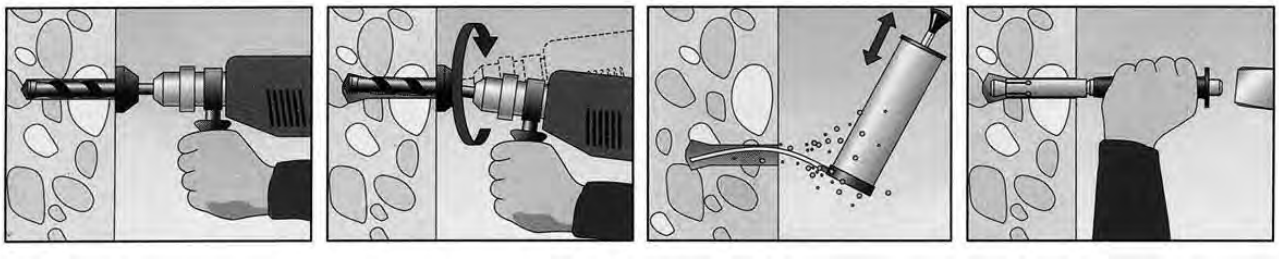


Dados técnicos

Tipo	FZA 12x40 M8/15	FZA 12x50 M8/15	FZA 14x40 M10/25	FZA 14x60 M10/25	FZA 18x80 M12/25
d	M8	M8	M10	M10	M12
Escala de aperto (máx.)	15	15	25	25	25
Furo ø (tipo FZUB)	12x40	12x50	14x40	14x60	18x80
Profundidade de furo	40	50	40	60	80
T_{inst}	20	20	40	40	60
Cargas máximas admissiveis em kN					
Betão ≥ C20/25	2.4	4.3	2.4	5.7	9.5

- Admissivel para fixações em zonas de tensão!
- A carga admissivel é válida para uma só ancoragem, em betão fissurado (zona de pressão) com betão classe C20/25, incl. factor de segurança γ_f= 1,4 se S_{cr}, N e C_{cr}, N forem tidos em consideração.
- Quando é efectuada uma redução de distância entre eixos e aos bordos, deve o calculo de forças deve ser revisto, utilizando o guia técnico ou o software de cálculo, disponiveis sob pedido.
- Os cálculos finais devem estar em confotmidade com a European Technical Approval (ETA), esta aprovação também está disponivel, sob pedido.

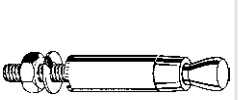
Sequência de montagem



8

63445 **FISCHER-ZYKON Ancoragem perno tipo FZA** **N03B**

Rosca	Métrica
Material	Aço
Tratamento sup.	Zincado

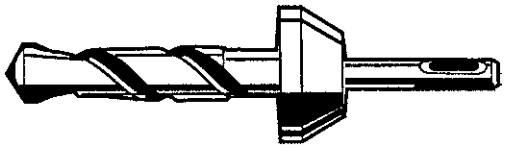


European Technical Approval
Option 1 for cracked concrete

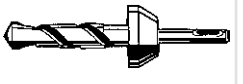
Cálculos finais devem estar em conformidade com European Technical Approval (ETA), esta aprovação está também disponivel sob pedido.

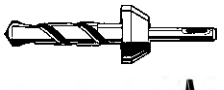
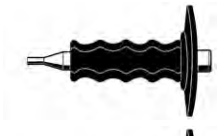
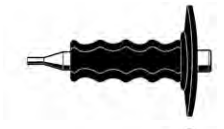
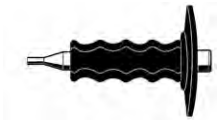
Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
FZA 12X40 M8/15	25	63445.120.040	FZA 14X40 M10/25	25	63445.140.040	FZA 18X80 M12/25	10	63445.180.080
FZA 12X50 M8/15	20	63445.120.050	FZA 14X60 M10/25	10	63445.140.060			

Ferramenta de instalação



63690 **FISCHER Ferramenta instalação tipo FZA** **N03A**



Tipo	✉	Ref. do artigo		
FZUB 12X40	1	63690.100.005	• Cónico, geometria de furo correcta • Furar e cortar numa só operação • Equipado com limitador de profundidade elástico • SDS-plus	
FZUB 14X40	1	63690.100.010	• Cónico, geometria de furo correcta • Furar e cortar numa só operação • Equipado com limitador de profundidade elástico • SDS-plus	
FZUB 12X50	1	63690.100.015	• Cónico, geometria de furo correcta • Furar e cortar numa só operação • Equipado com limitador de profundidade elástico • SDS-plus	
FZUB 14X60	1	63690.100.020	• Cónico, geometria de furo correcta • Furar e cortar numa só operação • Equipado com limitador de profundidade elástico • SDS-plus	
FZUB 18X80	1	63690.100.025	• Cónico, geometria de furo correcta • Furar e cortar numa só operação • Equipado com limitador de profundidade elástico • SDS-plus	
FZE 12 PLUS	1	63690.100.030		
FZE 14 PLUS	1	63690.100.035		
FZE 18 PLUS	1	63690.100.040		

8

Ancoragem quimica

A MaxxFast introduz na gama, produtos de ancoragem quimica. A gama consiste em dois tipos de ancoragem quimica (standard duty & heavy duty), pernos zincados, mangas de plástico e acessórios. Estes produtos de elevada qualidade, respondem ás necessidades da maioria das suas aplicações. A VinyMaxx é a nova ancoragem quimica standard. Pode ser utilizada em material maciço e oco. A AcryMaxx é a ancoragem quimica heavy. Pode ser utilizada em betão e pedra de elevada É a solução ideal para a maioria das aplicações. As nossas ancoragens quimicas têm todas as caracteristicas necessárias para os melhores resultados.

VinyMaxx standard duty
Para aplicações standard

- Para material oco ou maciço
- Abertura automática
- Pode ser utilizada mais tarde, não seca
- Sem cheiro (isento de estireno)
- Pode ser instalado em betão húmido
- Pode ser instalado em furos com água

Ejemplos de aplicações:
- Balaustradas
- Corrimões
- Persianas
- Antenas

AcryMaxx ETA 1 heavy duty
Aprovado para utilização em varões roscados em betão fissurado e não fissurado (ETAG001, opção1)

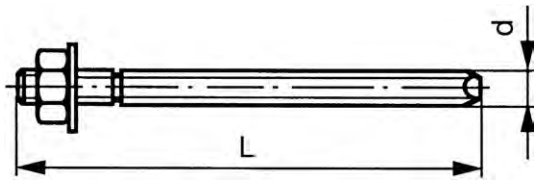
Para aplicações heavy

- Para altas cargas
- Materiais sólidos
- Abertura automática
- Sem cheiro (isento de estireno)
- Pode ser instalado em betão húmido
- Pode ser instalado em furos com água

Ejemplos de aplicações:
- Barreiras de segurança
- Sistemas de armazenagem
- Máquinas
- Estruturas metálicas



Pernos para fixação quimica





Dados técnicos

Tipo	M8x110	M10x130	M12x160	M12x220	M16x190	M16x220	M20x260
C_{cr}, N	90 - 105	105 - 132	120 - 158	120 - 158	150 - 188	150 - 188	180 - 225
$C_{min.}$	0.5*hef ≥ 40mm	0.5*hef ≥ 40mm	0.5*hef ≥ 40mm	0.5*hef ≥ 40mm	0.5*hef ≥ 40mm	0.5*hef ≥ 40mm	0.5*hef ≥ 40mm
d	8	10	12	12	16	16	20
d_f	9	12	14	14	18	18	22
d_o	10	12	14	14	18	18	24
h_{ef}	60-100	70-120	80-145	80-146	100-190	100-191	120-240
h_{min}	hef + 30mm; ≥100mm	hef + 30mm; ≥100mm	hef + 30mm; ≥100mm	hef + 30mm; ≥100mm	hef + 30mm; ≥100mm	hef + 30mm; ≥100mm	hef + 48mm
h_o	hef + 5mm	hef + 5mm	hef + 5mm	hef + 5mm	hef + 5mm	hef + 5mm	hef + 5mm
L	110	130	160	220	190	220	260
Cargas máximas admissiveis em kN							
Betão	7.78	11.35	15.56	15.56	21.94	21.94	28.41

- **C_{cr}, N = Distância ao bordo (betão fissurado).**
- **C_{min} = Distância minima ao borod (betão fissurado).**
- **d_f = Diâmetro de furo da peça a fixar.**
- **d_o = Diâmetro de furo no suporte.**
- **h_{ef} = Profundidade de ancoragem efectia.**
- **h_{min} = Espessura minima do suporte.**
- **h_o = Profundidade minima de perfuração.**
- **S_{cr}, N = Caracteristicas distância.**
- **Betão C20/25; cargas recomendadas para betão não fissurado.**
- A carga admissivel só é valida para AcryMaxx em combinação com pernos de ancoragem classe aço 5.8
- A carga admissivel é válida para uma única bucha, em betão fissurado (zona de tensão) com betão classe C20/25, incl. factor de segurança parcial γ_f= 1,4 e se o S_{cr}, N e C_{cr}, N são tidos em consideração.
- Cálculos finais devem estar em conformidade com European Technical Approval (ETA), esta aprovação é também disponivel sob pedido.



Cálculos finais devem estar em conformidade com European Technical Approval (ETA), esta aprovação está também disponivel sob pedido.

8

30585 MAXXFAST Pernos para fixação quimica MF40

Rosca Métrica
Material Aço
Tratamento sup. Zincado

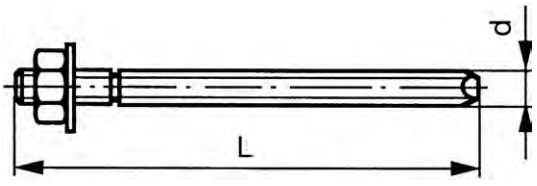
MAXXFAST PROFESSIONAL HARDWARE

RoHS



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
M8X110	10	30585.080.110	M12X220	10	30585.120.220	M16X220	10	30585.160.220
M10X130	10	30585.100.130	M16X190	10	30585.160.190	M20X260	6	30585.200.260
M12X160	10	30585.120.160						

Pernos para fixação quimica





Dados técnicos

Tipo	M8x 110	M10x 130	M10x 165	M10x 190	M12x 160	M12x 220	M12x 250	M12x 300	M16x 190	M16x 250	M16x 300	M20x 260	M20x 350	M24x 300	M30x 380
d	M8	M10	M10	M10	M12	M12	M12	M12	M16	M16	M16	M20	M20	M24	M30
L	110	130	165	190	160	220	250	300	190	250	300	260	350	300	380
t_{fix} (max.)	13	20	57	82	25	90	120	170	35	98	148	65	155	65	65
Cargas máximas admissiveis em kN															
Betão	6.3	7.9	7.9	7.9	11.9	11.9	11.9	11.9	19.8	19.8	19.8	29.8	29.8	37.7	67.5

- t_{fix}(max.) = gama de aperto (max.)
- Betão C20/25 to C50/65; recomendado para betão não-fissurado.

Grupos de produtos

Rosca	Material	Tratamento sup.	Código	Página
M	Aço	Zn	63187	8-81
M	INOX A4		63188	8-81

63187 FISCHER Perno roscado RG M — N03B

Rosca Métrica
Material Aço
Tratamento sup. Zincado

fischer innovative solutions



RoHS

Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
M8X110	10	63187.080.110	M12X250	10	63187.120.250	M20X260	10	63187.200.260
M10X130	10	63187.100.130	M12X300	10	63187.120.300	M20X350	10	63187.200.350
M10X165	10	63187.100.165	M16X165	10	63187.160.165	M24X300	10	63187.240.300
M10X190	10	63187.100.190	M16X190	10	63187.160.190	M30X380	5	63187.300.380
M12X160	10	63187.120.160	M16X250	10	63187.160.250			
M12X220	10	63187.120.220	M16X300	10	63187.160.300			

63188 FISCHER Perno roscado RG M — N03B

Rosca Métrica
Material Aço inoxidável A4

fischer innovative solutions

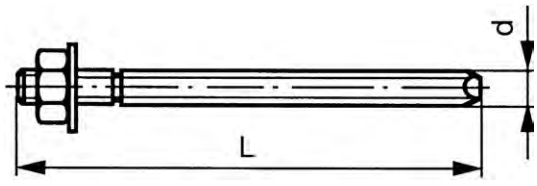


RoHS

Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
M8X110	10	63188.080.110	M12X160	10	63188.120.160	M20X260	10	63188.200.260
M10X130	10	63188.100.130	M16X190	10	63188.160.190	M24X300	10	63188.240.300
M10X165	10	63188.100.165						

8

Perno para ancoragem





20663 **Perno para ancoragem** **G06A**

Rosca	Métrica
Material	Aço
Classe	5.8
Tratamento sup.	Galvanizado a quente

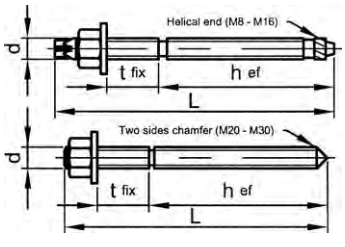
RoHS

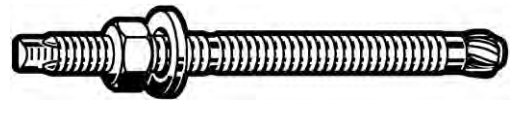


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X130	10	20663.100.130	M16X190	10	20663.160.190	M20X260	1	20663.200.260
M12X160	10	20663.120.160						

- Só embalagens completas.

Perno para ancoragem Maxima





Dados técnicos

Tipo	M8	M10	M12	M16	M20	M24	M30
Binário de aperto em Nm	10	20	30	60	120	200	400
Cargas máximas admissiveis em kN	5.3	8.3	13.2	19.8	36.9	38	46.3
D	M8	M10	M12	M16	M20	M24	M30
Distância ao bordo ($C_{cr.}$ N). característica	80	90	110	125	170	210	280
Distância entre eixos ($S_{cr.}$ N). característica	160	180	220	250	340	420	560
Distância mínima entre eixos ($S_{min.}$)	40	45	55	65	85	105	140
Distância mínima à borda ($C_{min.}$)	40	45	55	65	85	105	140
Diâmetro do furo no elemento a fixar (d_f)	9	12	14	18	22	26	33
Diâmetro nominal da broca (d_o)	10	12	14	18	25	28	35
Espessura máxima de aperto ($t_{fix.máx.}$-$t_{fix.min.}$)	15	25	30	40	68	64	70
Espessura mínima de elemento de betão ($h_{min.}$)	110	120	150	160	220	300	350
L	105	128	155	183	260	300	380
Profundidade de ancoragem efectiva ($h_{ef.min}$-$h_{ef.max.}$)	80	90	110	125	170	210	280
Profundidade do furo até ao ponto mais profundo ($h_{omin.}$-$h_{omax.}$)	80	90	110	125	170	210	280

- M8 - M16 são fornecidos com ferramenta de instalação.
- Para completar a ancoragem quimica, a cápsula e o perno (incl. porca e anilha) devem ser encomendados separadamente.
- Mais informação técnica de aprovação está disponivel sob pedido.

Grupos de produtos

Rosca	Material	Tratamento sup.	Código	Página
M	Aço	Zn	70636	8-83
M	INOX A4		70646	8-83

70636 SPIT Perno — P03A

Rosca Métrica
Material Aço
Tratamento sup. Zincado



ETA
European Technical Approval
Option 7 for cracked concrete

Cálculos finais devem estar em conformidade com European Technical Approval (ETA), esta aprovação está também disponivel sob pedido.

Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
M8	10	70636.080.001	M16	10	70636.160.001	M24	10	70636.240.001
M10	10	70636.100.001	M20	10	70636.200.001	M30	5	70636.300.001
M12	10	70636.120.001						

- Só embalagens completas.

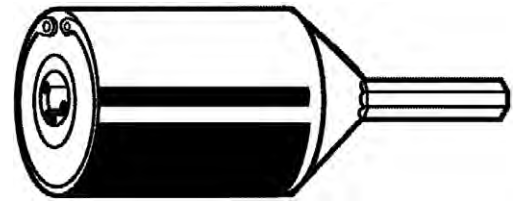
70646 SPIT Perno — P03B

Rosca Métrica
Material Aço inoxidável A4



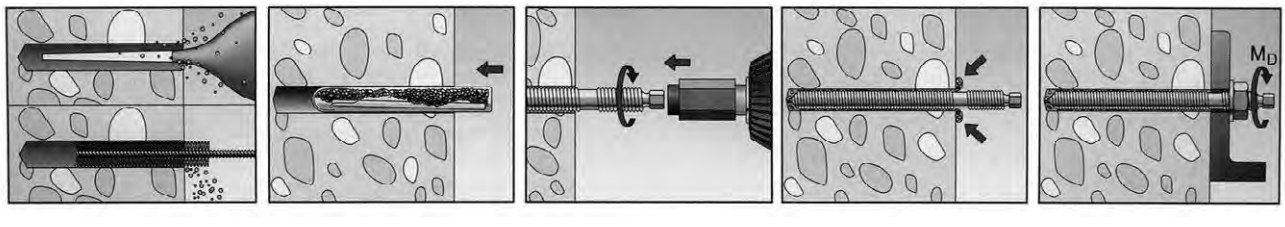
Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
M8	10	70646.080.001	M12	10	70646.120.001	M20	10	70646.200.001
M10	10	70646.100.001	M16	10	70646.160.001	M24	10	70646.240.001

Ferramenta de instalação



8

Sequência de montagem

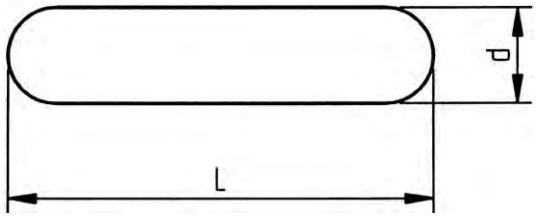


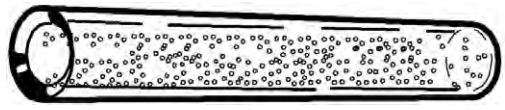
63189 FISCHER Ferramenta de instalação — N03B



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
M8	1	63189.080.001	M12	1	63189.120.001	M20	1	63189.200.001
M10	1	63189.100.001	M16	1	63189.160.001			

Cápsula quimica





Dados técnicos

Tipo	d	Furo ø	L	Profundidade do furo (mín.)
M8	9	10	80	80
M10	10.5	12	85	90
M12	12.5	14	95	110
M16	16.5	18	95	125
M20	23	25	160	170
M24	23	28	190	210
M30	27.5	35	260	280

- Para uma completa ancoragem quimica, a cápsula e o perno (incl. porca e anilha), devem ser encomendadas separadamente.

Grupos de produtos

Material	Código	Página
Vidro	63186	8-84
Vidro	70615	8-85

63186 **FISCHER Cápsula quimica tipo RM** **N03A**

Material Vidro

fischer innovative solutions



ETA
European Technical Approval
Option 7 for cracked concrete

Cálculos finais devem estar em conformidade com European Technical Approval (ETA), esta aprovação está também disponivel sob pedido.

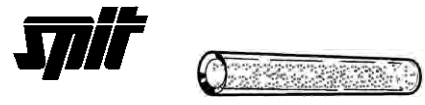
Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
R M8	10	63186.080.001	R M16	10	63186.160.001	R M24	5	63186.240.001
R M10	10	63186.100.001	R M20	10	63186.200.001	R M30	5	63186.300.001
R M12	10	63186.120.001						

- Só embalagens completas.

8

70615	SPIT Cápsula quimica tipo EA	P03A

Material Vidro



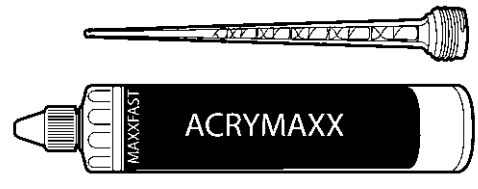


Cálculos finais devem estar em conformidade com European Technical Approval (ETA), esta aprovação está também disponivel sob pedido.

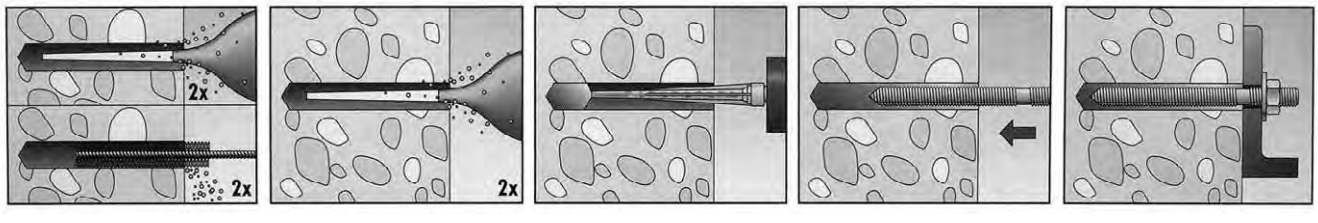
Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
M8	10	70615.080.001	M16	10	70615.160.001	M24	10	70615.240.001
M10	10	70615.100.001	M20	10	70615.200.001	M30	5	70615.300.001
M12	10	70615.120.001						

- Só embalagens completas.

Ancoragem quimica



Dados montagem



8

Grupos de produtos

	Código	Página
VinyMaxx	30581	8-85
AcryMaxx	30580	8-86
FIS VS	63252	8-86
FIS V	63051	8-86
FIS VS	63060	8-86

30581	MAXXFAST Ancoragem quimica VinyMaxx	MF40



Tipo	✉	Ref. do artigo		
VinyMaxx	1	30581.000.310	• Bucha quimica de elevada qualidade, isenta de estireno para substratos sólidos e ocos. • 310 ml.	

30580 MAXXFAST Ancoragem quimica AcryMaxx — MF40





Cálculos finais devem estar em conformidade com European Technical Approval (ETA), esta aprovação está também disponivel sob pedido.

Tipo	✉	Ref. do artigo
AcryMaxx	1	30580.000.310

- Bucha quimica de dois componentes, de elevada qualidade, isenta de estireno para fixação de varão roscado em betão.
- Aprovado pela European Technical Approval e com marcação CE.
- Resistente a temperaturas extremas (de -40ºC a +80ºC) depois de polimerização.
- 310 ml.



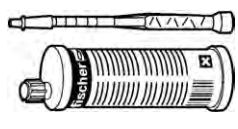
63252 FISCHER Ancoragem quimica — N03A



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
FIS VS 300 T	1	63252.000.300	FIS P 300 T	12	63252.441.030	FIS VT300T	1	63252.520.020

- FIS VS300 T= ETA1
- FIS P300T ≠ ETA
- FIS VT300T= ETA7

63051 FISCHER Ancoragem quimica — N03A



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
V360S=FIS	1	63051.000.360	VT380C=FIS	1	63051.000.380

- V360S=FIS= ETA1
- VT380C=FIS= ETA7

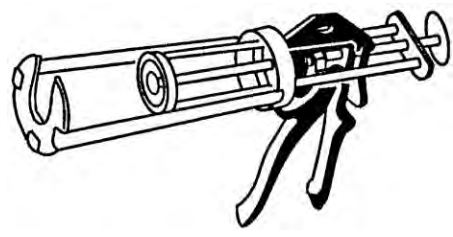
63060 FISCHER Ancoragem quimica — N03A



Tipo	✉	Ref. do artigo
VS150C	6	63060.000.150

VS150C= ETA1

Pistola de injeção



Grupos de produtos

Código	Página
30595	8-87
63691	8-87
63243	8-87

30595 MAXXFAST Pistola de injeção — MFN0



Tipo	✉	Ref. do artigo
Pistola	1	30595.000.100

63691 FISCHER Pistola de injeção — N03C



Tipo	✉	Ref. do artigo			
FIS AM	1	63691.100.015	•	Indicado para cartucho de injecção type FIS V 360 S, FIS HB 345 S, FIS EM 390 S, FIS VS 150C & PU foam.	
FIS AC	1	63691.100.020	•	Indicado para cartucho de injecção tipo FIS P 380 C, FIS VT 380 C, FIS V410 C.	
KP M 2	1	63691.100.035	•	Indicado para cartucho de injecção tipo FIS V410 C, FIS V T 380 C, FIP C 700 HO, PE 410 SF.	

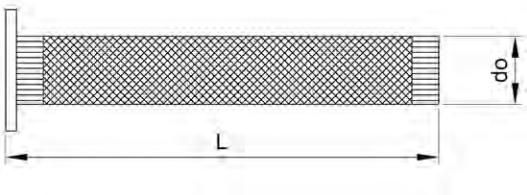
63243 FISCHER Escova — N03A

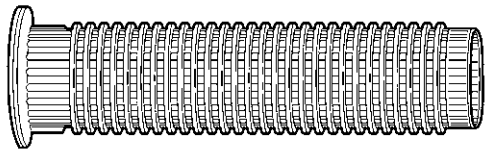


Tipo	✉	Ref. do artigo
14/20 MM	1	63243.014.020

8

Acessórios de fixação



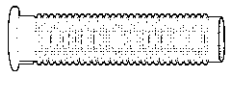


Dados técnicos

Tipo	12x50	15x85	15x130	20x85
Diâmetro do varão roscado	M6	M8-M10-M12	M8-M10-M12	M12-M16
d_o	12	15	15	20
Furo ø	12	15	15	20
L	50	85	130	85
Profundidade de montagem (mín.)	50	85	130	85
Profundidade do furo (mín.)	60	95	140	95

30596 MAXXFAST Acessórios de fixação **MFN0**

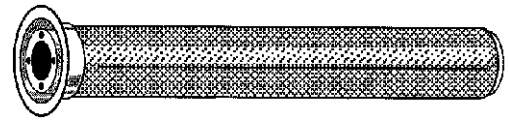
MAXXFAST PROFESSIONAL HARDWARE



Tipo	✉	Ref. do artigo			
Sistema de Injecção	1	30596.000.001	•	Plástico	
Bico Misturador	5	30596.000.005	•	Plástico	
Escova Branco	1	30596.008.012	•	8-12mm	
ESCOVA AZUL	1	30596.010.018	•	10-18mm	
ESCOVA VERMEL-HO	1	30596.012.028	•	12-28mm	
MANGA ÂNCORA	10	30596.012.050	• •	Plástico Nylon (poliamida) 12x50	
Manga Âncora	10	30596.015.085	• •	Plástico Nylon (poliamida) 15x85	
Manga Âncora	10	30596.015.130	• •	Plástico Nylon (poliamida) 15x130	
Manga Âncora	10	30596.020.085	• •	Plástico Nylon (poliamida) 20x85	

8

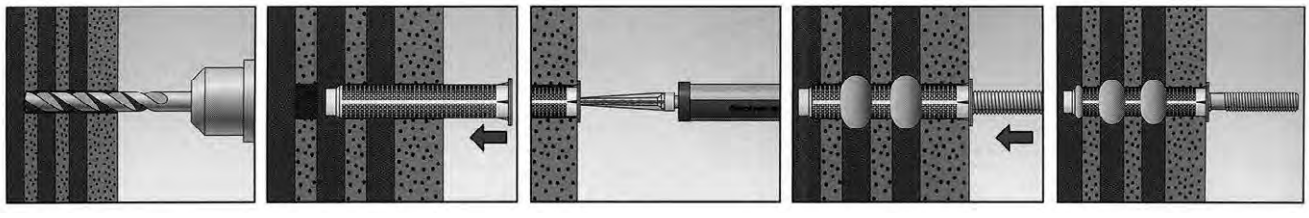
Camisa para sistema de injecção



Dados técnicos

Tipo	FIS H16 x 85N	FIS H18 x 85N	FIS H20 x 85N	FIS H12 X 1000	FIS H16 X 1000	FIS H22 X 1000
d	16	18	20	12	16	22
Diâmetro do varão roscado	M8	M10	M12	M6-M8	M10-M12	M12-M16
Furo ø	16	18	20	12	16	22
L	85	85	85	1000	1000	1000
Profundidade de montagem (mín.)	85	85	85	-	-	-
Profundidade do furo (mín.)	95	95	95	-	-	-

Sequência de montagem



Grupos de produtos

Material	Tratamento sup.	Código	Página
Plástico PA		63052	8-89
Aço	Zn	63050	8-89

63052 FISCHER Camisa de injecção tipo FIS H N **N03A**

Material Plástico Poliamida (nylon)



Tipo		Ref. do artigo	Tipo		Ref. do artigo	Tipo		Ref. do artigo
FIS16X85MM	20	63052.160.085	FIS18X85MM	20	63052.180.085	FIS20X85MM	20	63052.200.085

63050 FISCHER Camisa metálica tipo FIS H L **N03A**

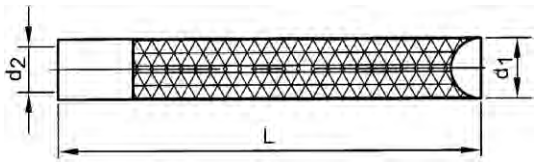
Material Aço
Tratamento sup. Zincado

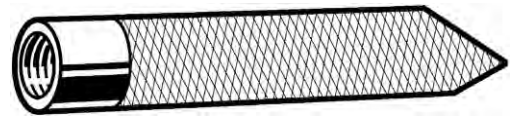


d x L		Ref. do artigo	d x L		Ref. do artigo	d x L		Ref. do artigo
12X1000MM	10	63050.120.001	16X1000MM	10	63050.160.001	22X1000MM	6	63050.220.001

8

Bucha com rosca interior



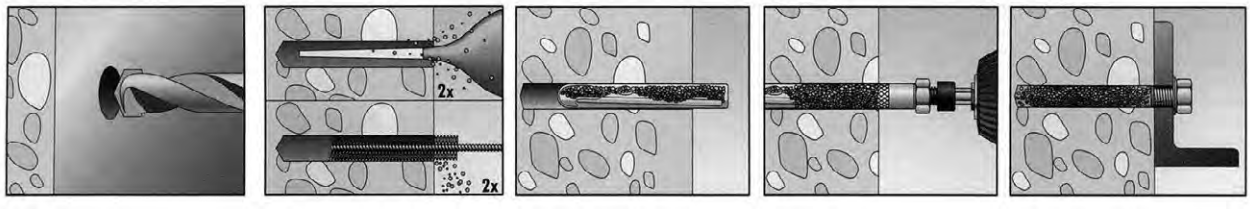


Dados técnicos

Tipo	RG 8x75 M5 I	RG 10x75 M6 I	RG 12x90 M8 I	RG 16x90 M10 I	RG 18x125 M12 I
d_1	8	10	12	16	18
d_2	M5	M6	M8	M10	M12
Distância ao bordo ($C_{cr,N}$). característica	55	70	145	195	210
Distância entre eixos ($S_{cr,N}$). característica	110	140	290	390	420
Distância mínima entre eixos ($S_{min.}$)	40	45	45	45	60
Distância mínima à borda ($C_{min.}$)	40	45	45	45	60
Diâmetro do furo no elemento a fixar (d_f)	6	7	9	12	14
Diâmetro nominal da broca (d_o)	10	12	14	18	18
Espessura mínima de elemento de betão ($h_{min.}$)	120	120	120	120	170
L	75	75	75	75	75
N=carga admissivel em kN	3.4	4.8	9.1	14.4	21.1

- A carga admissivel é válida para uma só ancoragem, em betão não-fissurado (zona de pressão) com betão classe C20/25, em combinação com parafusos classe 5.8 e se os $S_{cr,N}$ e $C_{cr,N}$ não forem considerados. Quando é efectuada uma redução entre eixos e distância ao bordo, o cáculo de forças deve ser revisto.
- Para uma fixação quimica completa a cápsula e o perno devem ser encomendados separadamente. A ferramenta de instalação está incluida em cada embalagem.

Sequência de montagem



8

63227 FISCHER Bucha com rosca interior tipo RG MI **N03A**

Rosca	Métrica
Material	Aço
Tratamento sup.	Zincado

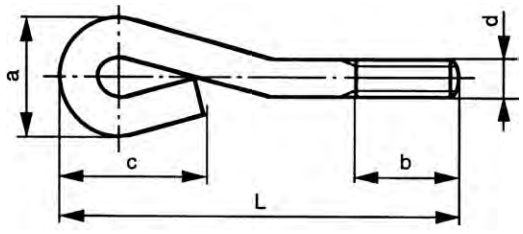
fischer innovative solutions

RoHS



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
RG 8X75 M5 I	10	63227.050.001	RG 12X90 M8 I	10	63227.080.090	RG 18X125 M12 I	10	63227.120.100
RG 10X75 M6 I	10	63227.060.001	RG 16X90 M10 I	10	63227.100.090			

Gancho tipo A



DIN **529 A**
NEN 2328 A



Dados técnicos

d	a	b	c	P
M12	36	30	65	1.75
M16	48	40	85	2
M20	60	50	105	2.5
M24	75	60	125	3
M30	95	75	155	3.5

20710 **Gancho tipo A** **G06D**

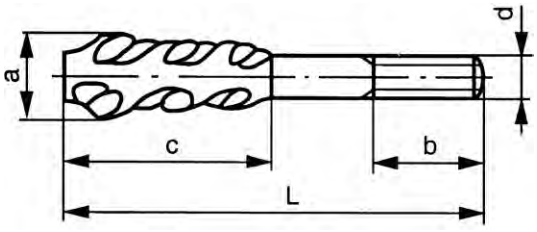
Rosca Métrica
Material Aço
Classe 4.6



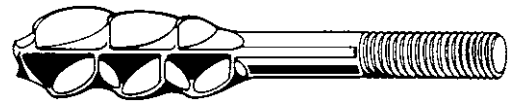
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M12X160	25	20710.120.160	M16X400	10	20710.160.400	M24X250	3	20710.240.250
M12X200	25	20710.120.200				M24X320	3	20710.240.320
M12X250	25	20710.120.250	M20X200	5	20710.200.200	M24X400	3	20710.240.400
			M20X250	5	20710.200.250	M24X500	3	20710.240.500
M16X160	10	20710.160.160	M20X320	5	20710.200.320			
M16X200	10	20710.160.200	M20X400	5	20710.200.400	M30X400	2	20710.300.400
M16X250	10	20710.160.250	M20X500	5	20710.200.500	M30X500	2	20710.300.500
M16X320	10	20710.160.320				M30X630	2	20710.300.630

8

Perno tipo E



DIN **529 E**
NEN 2328 E



Dados técnicos

d	a	b	c	P
M10	20	25	55	1.5
M12	24	30	70	1.75
M16	32	40	90	2
M20	40	50	100	2.5
M24	48	60	135	3
M30	60	75	150	3.5

20750 **Perno tipo E** **G06D**

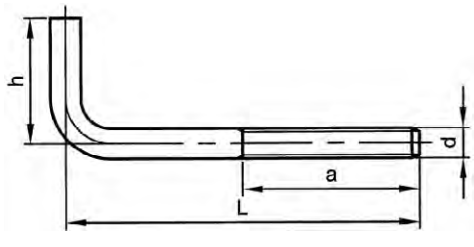
Rosca Métrica
Material Aço
Classe 3.6
Tratamento sup. Zincado

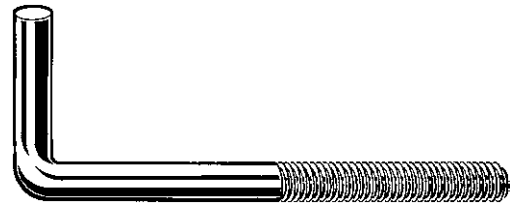
RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X125	25	20750.100.125	M20X200	5	20750.200.200	M24X320	3	20750.240.320
M12X125	25	20750.120.125	M20X320	5	20750.200.320	M30X320	2	20750.300.320
M16X160	10	20750.160.160	M24X250	3	20750.240.250	M30X630	2	20750.300.630

Escápula





Dados técnicos

d	a	P
M10	150	1.5
M12	150	1.75
M16	150	2
M20	150	2.5
M24	150	3
M30	150	3.5

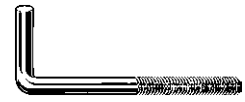
- Aço com uma tensão de ruptura min. De 400 N/mm^{2}e carga máxima de min. 240 N/mm^2.

Grupos de produtos

Rosca	Material	Classe	Tratamento sup.		Código	Página
M	Aço			gancho 50 mm	20610	8-93
M	Aço		Zn	gancho 50 mm	20630	8-93
M	Aço		Galv. Q.	gancho 50 mm	20650	8-93
M	Aço			gancho 100 mm	20620	8-93
M	Aço		Zn	gancho 100 mm	20640	8-93
M	Aço		Galv. Q.	gancho 100 mm	20660	8-94
M	Aço	8.8	Galv. Q.	gancho 100mm	20661	8-94

20610 Escápula métrica 50mm — G06D

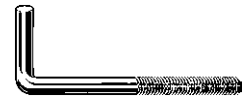
Rosca Métrica
Material Aço



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X200	1	20610.100.200				M16X450	1	20610.160.450
M10X300	1	20610.100.300	M16X250	1	20610.160.250			
			M16X300	1	20610.160.300	M20X400	1	20610.200.400
M12X300	1	20610.120.300	M16X350	1	20610.160.350	M20X450	1	20610.200.450
M12X400	1	20610.120.400	M16X400	1	20610.160.400			

20630 Escápula métrica 50mm — G06D

Rosca Métrica
Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X200	1	20630.100.200	M16X300	1	20630.160.300			
			M16X350	1	20630.160.350	M20X350	1	20630.200.350
M12X250	1	20630.120.250	M16X400	1	20630.160.400	M20X400	1	20630.200.400
			M16X450	1	20630.160.450	M20X450	1	20630.200.450
M16X250	1	20630.160.250	M16X500	1	20630.160.500			

20650 Escápula métrica 50mm rosca oversized — G06D

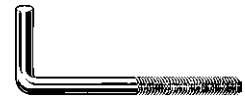
Rosca Métrica
Material Aço
Tratamento sup. Galvanizado a quente



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M12X300	1	20650.120.300	M16X350	1	20650.160.350			
M12X400	1	20650.120.400	M16X400	1	20650.160.400	M20X350	1	20650.200.350
			M16X450	1	20650.160.450	M20X400	1	20650.200.400
M16X300	1	20650.160.300	M16X500	1	20650.160.500	M20X450	1	20650.200.450

20620 Escápula métrica 100mm — G06D

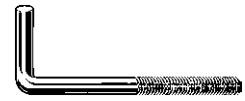
Rosca Métrica
Material Aço



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M16X300	1	20620.160.300	M20X400	1	20620.200.400	M24X600	1	20620.240.600
M16X400	1	20620.160.400	M20X500	1	20620.200.500	M24X700	1	20620.240.700
M16X500	1	20620.160.500	M20X600	1	20620.200.600	M24X800	1	20620.240.800
M16X600	1	20620.160.600	M20X700	1	20620.200.700			
M16X700	1	20620.160.700	M20X800	1	20620.200.800	M30X500	1	20620.300.500
M16X800	1	20620.160.800				M30X600	1	20620.300.600
			M24X400	1	20620.240.400	M30X700	1	20620.300.700
M20X300	1	20620.200.300	M24X500	1	20620.240.500			

20640 Escápula métrica 100mm — G06D

Rosca Métrica
Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M12X300	1	20640.120.300	M16X300	1	20640.160.300	M16X800	1	20640.160.800
M12X400	1	20640.120.400	M16X400	1	20640.160.400			
M12X500	1	20640.120.500	M16X500	1	20640.160.500	M20X300	1	20640.200.300
M12X600	1	20640.120.600	M16X600	1	20640.160.600	M20X400	1	20640.200.400
			M16X700	1	20640.160.700	M20X500	1	20640.200.500

20640 Escápula métrica 100mm ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M20X600	1	20640.200.600	M24X500	1	20640.240.500	M30X500	1	20640.300.500
M20X700	1	20640.200.700	M24X600	1	20640.240.600	M30X600	1	20640.300.600
M20X800	1	20640.200.800	M24X700	1	20640.240.700	M30X700	1	20640.300.700
			M24X800	1	20640.240.800	M30X800	1	20640.300.800
M24X400	1	20640.240.400						

20660 Escápula métrica 100mm rosca oversized G06D

Rosca Métrica
Material Aço
Tratamento sup. Galvanizado a quente

RoHS

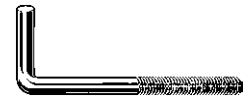


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M12X300	1	20660.120.300	M16X800	1	20660.160.800	M24X500	1	20660.240.500
M12X400	1	20660.120.400				M24X600	1	20660.240.600
M12X500	1	20660.120.500	M20X300	1	20660.200.300	M24X700	1	20660.240.700
M12X600	1	20660.120.600	M20X400	1	20660.200.400	M24X800	1	20660.240.800
			M20X500	1	20660.200.500			
M16X300	1	20660.160.300	M20X600	1	20660.200.600	M30X500	1	20660.300.500
M16X400	1	20660.160.400	M20X700	1	20660.200.700	M30X600	1	20660.300.600
M16X500	1	20660.160.500	M20X800	1	20660.200.800	M30X700	1	20660.300.700
M16X600	1	20660.160.600				M30X800	1	20660.300.800
M16X700	1	20660.160.700	M24X400	1	20660.240.400			

20661 Escápula métrica 100mm rosca oversized G06A

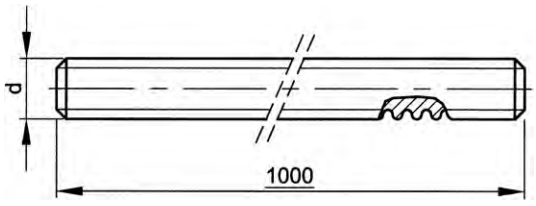
Rosca Métrica
Material Aço
Classe 8.8
Tratamento sup. Galvanizado a quente

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M16X400	1	20661.160.400	M20X400	1	20661.200.400	M24X400	1	20661.240.400
M16X500	1	20661.160.500	M20X500	1	20661.200.500	M24X500	1	20661.240.500
M16X600	1	20661.160.600	M20X600	1	20661.200.600	M24X600	1	20661.240.600

Varão roscado para cofragem





- Caracteristicas especiais de pernos para cofragem:
- São embutidos em betão, sem utilização de camisas de plástico ou outras protecções.
- Após endurecimento do betão o varão pode ser solto com um martelo.
- O betão não adere á rosca, por isso não é necessário limpar o varão e pode ser re utilizado.

20420 **Varão roscado 1 metro** **G05B**

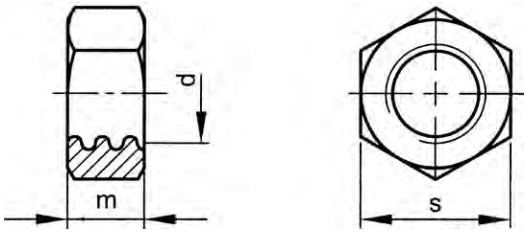
Material Aço
Classe ≥4.8

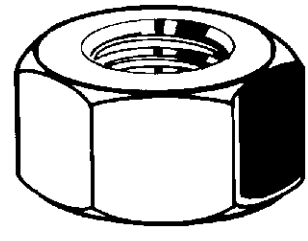


RoHS

d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
20MM	4	20420.200.001	24MM	4	20420.240.001	30MM	2	20420.300.001

Porca sextavada para cofragem





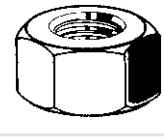
Dados técnicos

d	m	P	s
20	16	5	30
24	19	5	36
30	24	5	46

- Caracteristicas especiais de pernos para cofragem:
- São embutidos em betão, sem utilização de camisas de plástico ou outras protecções.
- Após endurecimento do betão o varão pode ser solto com um martelo.
- O betão não adere á rosca, por isso não é necessário limpar o varão e pode ser re utilizado.

20430 **Porca sextavada para cofragem** **G05B**

Material Aço
Classe 5



RoHS

d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
20MM	8	20430.200.001	24MM	8	20430.240.001	30MM	4	20430.300.001

Demu ancoragem HALFEN - soluções de fixação sistemáticas

Os sistemas de ancoragem DEMU com rosca interna são utilizados para ancoragens predominantemente em situações estáticas ou quase estáticas em betão reforçado ou não reforçado classe C20/25 a C90/105. Podem ser utilizadas em betão fissurado ou não fissurado , para transmissão de cargas de tração, ao corte ou a combinação de ambos.

VEMO ANCORAGEM



Informação geral:
As ancoragens VEMO são especialmente para fixações com baixas capacidade de carga, principalmente para fixações temporárias e aplicações sem significado estrutural. Não existe atualmente método de cálculo para cálculo de capacidades de carga para a maioria destas ancoragens.

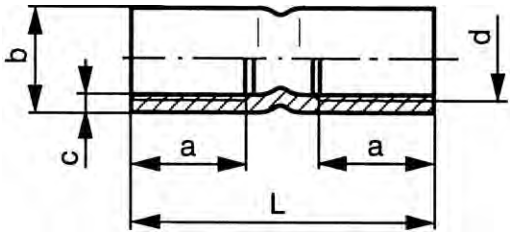
Proteção á corrosão
- Galvanização de zinco (GV) - a superfície da ancoragem á zincada (isenta de crómio hexavalente) com espessura de aproximadamente 5–8 µm, fornece proteção mínima á corrosão (ambientes secos interiores)
- Aço inox (A4) - As ancoragens em A4 são fabricadas em aço inox fornecendo uma elevada proteção á corrosão média (ambientes exteriores).

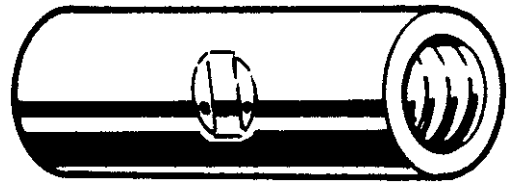
Diferentes tipos:
995-GB GV, 995 A4, 995-G GV / A4, 995-DG GV, 1036-G GV / A4, 1130 GV, 1140 GV / A4

Disponível nos diâmetros:
M6, M8, M10, M12, M16, M20, M24 e M30

Exemplo de aplicações:
Fixação de janelas, máquinas (sem cargas dinâmicas), fixação temporária de elementos pré moldados, etc.

Barra de ligação





Dados técnicos

d	a	b	c	Carga de tensão kN	P
M12	18	15.5	2.5	39	1.75
M16	24	21	3.4	75	2
M20	30	26	4.2	115	2.5

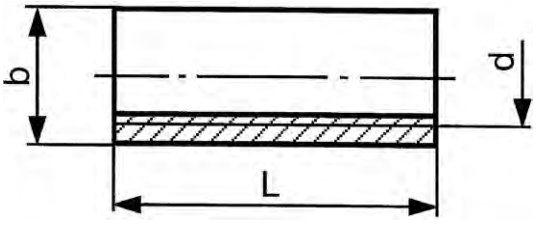
18550 **Conector no. 1550** **P07A**

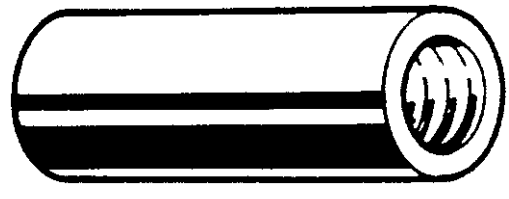
Rosca Métrica
Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M12X35	200	18550.120.035	M16X45	200	18550.160.045	M20X55	100	18550.200.055

Casquilho



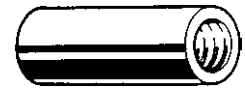


Dados técnicos

d	b	Carga de tensão kN	P
M6	10	13	1
M8	12	16	1.25
M10	13	14	1.5
M12	15.5	39	1.75
M16	21	75	2
M20	26	115	2.5
M24	32	181	3
M30	40	284	3.5

18570 **Conector no. 1551** **P07A**

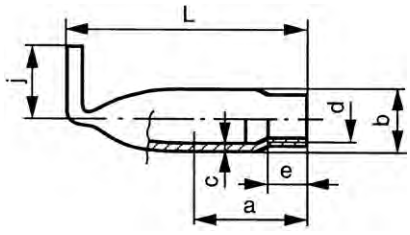
Rosca Métrica
Material Aço
Tratamento sup. Zincado

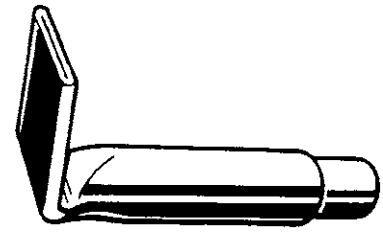


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X15	200	18570.060.015	M12X35	200	18570.120.035	M24X70	50	18570.240.070
M8X20	200	18570.080.020	M16X45	200	18570.160.045	M30X90	25	18570.300.090
M10X25	200	18570.100.025	M20X55	100	18570.200.055			

8

Tubo de inserto No. 1140





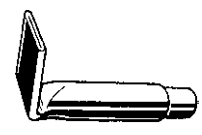
Dados técnicos

d	M10	M12	M16
a	35	40	32
b	13.5	17	21.3
c	1.5	2	3.2
e	10	12	16
j	25	30	35
Resistência á tracção em kN			
Betão	24	32	52

- Força de tracção em kN.
- É aconselhável a utilização do factor de segurança 4.

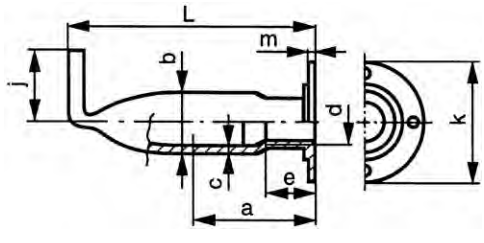
18120 **VEMO Insertos 90° inclinação tipo 1140** **P07A**

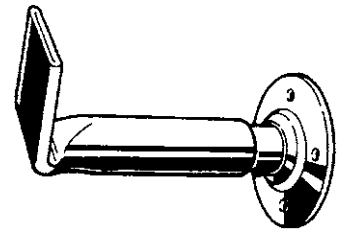
Rosca Métrica
Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X60	400	18120.100.060	M12X70	200	18120.120.070	M16X100	100	18120.160.100

Inserto com base No. 1130





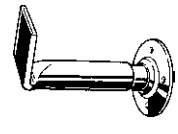
Dados técnicos

d	M10	M12	M16	M20
a	35	40	32	40
b	13.5	17	21.3	26.9
c	1.5	2	2.6	2.6
e	10	12	16	20
j	25	30	35	35
k	34	40	44	48
m	1	1	1.5	1.5
Resistência á tracção em kN				
Betão	24	32	52	64

- É aconselhável a utilização do factor de segurança 4.

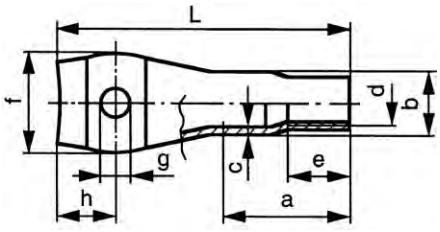
18140 **VEMO Inserto 90° inclinação, com prato pregos tipo 1130** **P07A**

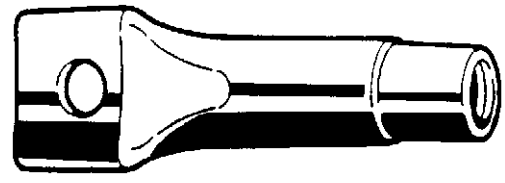
Rosca Métrica
Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X60	400	18140.100.060	M12X70	200	18140.120.070	M16X100	100	18140.160.100

Tubo de inserto No. 995G





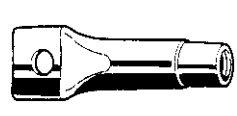
Dados técnicos

d	M6	M8	M10	M12	M16	M16	M20	M24	M30
a	20	25	20	23	25	32	40	50	70
b	8.5	10.5	13.5	17	21.3	21.3	26.9	33.7	42
c	1	1	1.5	2	3.2	3.2	3.2	4	4
e	6	8	10	12	16	16	20	24	30
f	12.5	16	20	25	30	30	39	48	64
g	6.0	8.1	6.2	7.2	9.2	9.2	12.2	14.2	15.2
h	7	8	12	15	17	22	22	25	25
L	40	50	50	60	70	100	100	120	150
Resistência á tracção em kN									
Betão	6	10	14	20	28	40	50	72	110

- É aconselhável a utilização do factor de segurança 4.

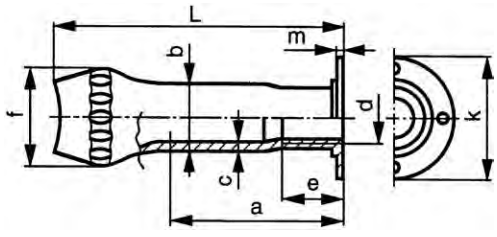
18040 **VEMO Inserto, com buraco tipo 995G** **P07A**

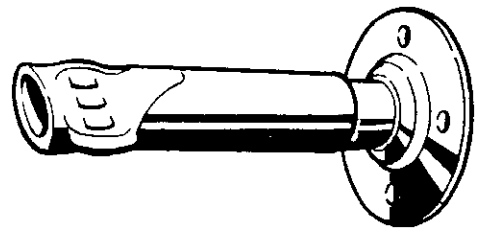
Rosca Métrica
Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X40	500	18040.060.040	M12X60	400	18040.120.060	M20X100	100	18040.200.100
M8X50	500	18040.080.050	M16X70	200	18040.160.070	M24X120	50	18040.240.120
M10X50	500	18040.100.050	M16X100	100	18040.160.100	M30X150	25	18040.300.150

Inserto com base No. 1036





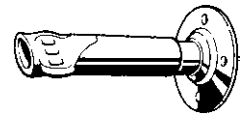
Dados técnicos

d	M10	M12	M16	M20	M24
a	30	40	32	50	40
b	13.5	17	21.3	26.9	33.7
c	1.5	2	2.6	2.6	4
e	10	12	16	20	24
f	20	25	31	39	48
k	34	40	44	48	57
m	1	1	1.5	1.5	1.5
Resistência á tracção em kN					
Betão	16	24	40	50	64

- É aconselhável a utilização do factor de segurança 4.

18060 **VEMO Inserto, com prato de pregos tipo 1036** **P07A**

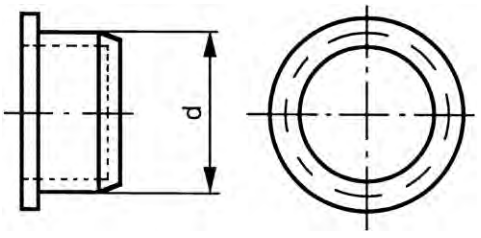
Rosca Métrica
Material Aço
Tratamento sup. Zincado

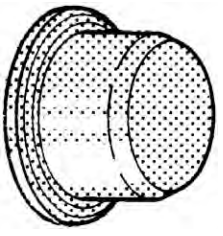


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X50	200	18060.100.050	M16X100	100	18060.160.100	M24X120	50	18060.240.120
M12X70	200	18060.120.070	M20X100	100	18060.200.100			

8

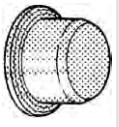
Tampa para tubo



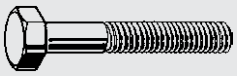


18600 **VEMO Tampa de plástico tipo 2244** **P07A**

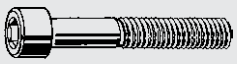
Material Plástico Polietileno



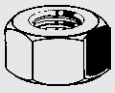
d = Para diâm. nom.	✉	Ref. do artigo	d = Para diâm. nom.	✉	Ref. do artigo	d = Para diâm. nom.	✉	Ref. do artigo
M6-Vermelho	100	18600.060.001	M12-Vermelho	100	18600.120.001	M20-Azul	100	18600.200.001
M8-Vermelho	100	18600.080.001	M16-Preto	100	18600.160.001	M24-Vermelho	100	18600.240.001
M10-Vermelho	100	18600.100.001						



1 Parafusos sextavado exterior



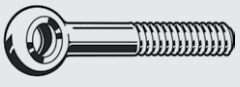
2 Produtos sextavados interiores



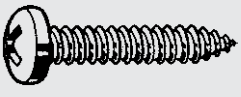
3 Porcas/porcas de rebitar / insertos



4 Varão roscado / pernos



5 Produtos olhal / gancho

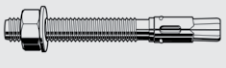


6 Parafusos

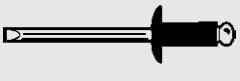
I Indice



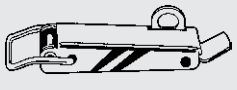
7 Anilha



8 Ancoragem



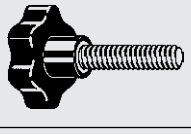
9 Rebites / cavilhas



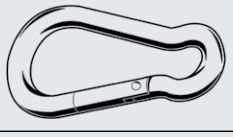
10 Parafusos de segurança / Sistemas de fixação



11 Sortidos



12 Sistemas de engenharia / peças para máquinas



13 Marítimo produtos

T Tecnologia de fixação

Rebites/cavilhas 9

Página 9-3 DIN 1 B — Cónica

Página 9-5 DIN 7 — Cilindrica

Página 9-8 DIN 6325 — Cilindrica tolerância m6

Página 9-9 DIN ≈6325 — Cilindrica tolerância h6

Página 9-10 DIN 7977 — Cónica com rosca exterior

Página 9-11 DIN 7978 A — Cónica com rosca interior

Página 9-12 DIN 7979 D — Cilindrica com rosca interna

Página 9-13 DIN 1470 — Cavilha com chanfro com pino

Página 9-14 DIN 1471 — Cavilha com chanfro

Página 9-15 DIN 1472 — Cavilha com meio chanfro

Página 9-17 DIN 1473 — Cavilha com chanfro

Página 9-18 DIN 1474 — Cavilha com chanfro

Página 9-20 DIN 1475 — Chanfro centrado

Página 9-21 DIN 1476 — Cavilha

Página 9-22 — Parafuso guia

Página 9-23 ISO 8750 — Médio

Página 9-24 ISO ≈8750 — Aço Inox

Página 9-25 ISO 8748 — Pesado

Página 9-26 ISO 8752 — Pesado

Página 9-28 ISO 13337 — Light

Página 9-29 DIN ≈1481 — Pesado aço inox

Página 9-31 DIN 660/124 — Cabeça redonda

Página 9-33 DIN 661/302 — Cabeça de embeber

Página 9-35 DIN 1434 — Passador com perfuração

Página 9-36 DIN 94 — Cavilha cilindrica

Página 9-41 DIN ≈11024 — Simples

Página 9-42 DIN ≈11024 — Duplo

Página 9-43 DIN 11024 — A4 duplo

Página 9-44 — Cavilha para tubos

Página 9-45 — Cavilha com argola

Página 9-46 DIN 6885 A — Chaveta paralela tipo pesado

Página 9-49 DIN 6880 — Comprimento 1 metro

Página 9-50 DIN 6888 — Chaveta disco

Página 9-51 DIN 6887 — Cunha

Página 9-54 — Rebite

Página 9-60 — Rebite cabeça larga

Página 9-62 — Rebite cabeça de embeber

Página 9-64 — Rebite BULB

Página 9-65 — Rebites PLUS BULB

Página 9-66 — Rebites P-LOCK

Página 9-67 — Rebite cabeça chata BULB

Página 9-68 — Para matriculas

Página 9-68 DIN ≈7337 A — Rebite cabeça boleada

Página 9-69 — Rebite Multigrip, Tipo B

Página 9-70 — Rebite multigrip

Página 9-71 — Rebite cabeça extra larga

Página 9-72 — Rebite cabeça de embeber

Página 9-73 — Rebite estanque

Página 9-76 — Rebite estanque

Página 9-77 — Rebite expansão

Rebites/cavilhas 9

Página 9-78



Rebite de expansão tripo

Página 9-79



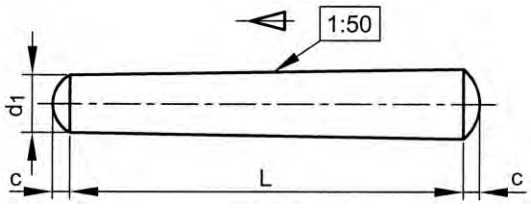
Ferramenta de rebitar

Página 9-80

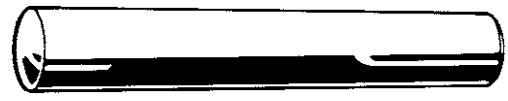


Conjunto de rebitar

Cavilha



DIN **1 B**
ISO 2339 B
NEN 10 B

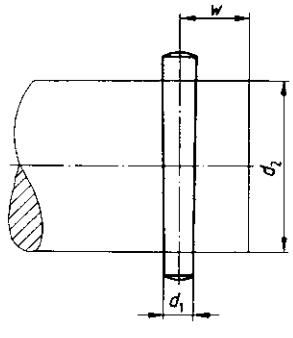


Dados técnicos

d_1 (h10)	c (max.)	d_2 >	d_2 ≤	W (min.)
0.6	0.1	1	2	2
0.8	0.12	2	3	2.5
1	0.15	3	4	3
1.5	0.23	4/5	5/6	3.5/4
2	0.3	6	8	4.5
2.5	0.4	8	9	5
3	0.45	8	11	5
4	0.6	11	17	6
5	0.75	17	23	7.5
6	0.9	23	30	9
6.5 (≠DIN)	1	25	33	10
7 (≠DIN)	1.2	33	40	12
8	1.2	30/38	38/45	10/11
10	1.5	45/50	50/75	11.5/13
12	1.8	75	110	15
13 (≠DIN)	1.8	75	110	15
14	2	75	110	15
16	2.5	110	160	18

- Cavilhas roscadas são indicadas para uniões tipo fricção e/ou roscadas de um ou dois elementos individuais. A forma deste artigo permite que a ligação seja rápidamente desfeita, e quando estes elementos sse juntam, a ligação permanece tão precisa como anteriormente.
- O comprimento nominal (L) não incluí as pontas boleadas (tolerância js15).

Dados montagem



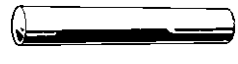
9

Grupos de produtos

Material	Código	Página
Aço de corte	39000	9-3
INOX A1	51560	9-4

39000 Cavilha **L11A**

Material Aço de corte



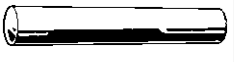
d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
1X14MM	200	39000.010.014	1,5X30MM	200	39000.015.030	2X30MM	100	39000.020.030
1X18MM	200	39000.010.018				2X40MM	100	39000.020.040
1X20MM	200	39000.010.020	2X10MM	200	39000.020.010	2X50MM	50	39000.020.050
			2X12MM	200	39000.020.012			
1,5X10MM	200	39000.015.010	2X14MM	200	39000.020.014	2,5X12MM	200	39000.025.012
1,5X14MM	200	39000.015.014	2X16MM	200	39000.020.016	2,5X16MM	200	39000.025.016
1,5X20MM	200	39000.015.020	2X20MM	100	39000.020.020	2,5X20MM	100	39000.025.020
1,5X24MM	200	39000.015.024	2X24MM	100	39000.020.024	2,5X24MM	100	39000.025.024

39000 Cavilha ←

d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
2,5X26MM	100	39000.025.026	5X100MM	25	39000.050.100	10X40MM	25	39000.100.040
2,5X30MM	100	39000.025.030				10X50MM	25	39000.100.050
2,5X36MM	50	39000.025.036	6X20MM	50	39000.060.020	10X60MM	25	39000.100.060
2,5X40MM	50	39000.025.040	6X24MM	50	39000.060.024	10X70MM	10	39000.100.070
2,5X50MM	50	39000.025.050	6X30MM	50	39000.060.030	10X80MM	10	39000.100.080
			6X40MM	25	39000.060.040	10X100MM	10	39000.100.100
3X12MM	100	39000.030.012	6X50MM	25	39000.060.050	10X110MM	10	39000.100.110
3X14MM	100	39000.030.014	6X60MM	25	39000.060.060	10X120MM	10	39000.100.120
3X16MM	100	39000.030.016	6X70MM	25	39000.060.070	10X140MM	10	39000.100.140
3X20MM	100	39000.030.020	6X80MM	25	39000.060.080	10X150MM	10	39000.100.150
3X24MM	100	39000.030.024	6X100MM	10	39000.060.100	10X160MM	10	39000.100.160
3X30MM	100	39000.030.030	6X120MM	10	39000.060.120			
3X36MM	50	39000.030.036	6X140MM	10	39000.060.140	12X40MM	10	39000.120.040
3X40MM	50	39000.030.040				12X50MM	10	39000.120.050
3X50MM	50	39000.030.050	6,5X50MM	25	39000.065.050	12X60MM	10	39000.120.060
3X60MM	25	39000.030.060	6,5X60MM	25	39000.065.060	12X70MM	10	39000.120.070
			6,5X80MM	25	39000.065.080	12X80MM	10	39000.120.080
4X16MM	100	39000.040.016	6,5X100MM	10	39000.065.100	12X100MM	10	39000.120.100
4X20MM	100	39000.040.020				12X120MM	10	39000.120.120
4X24MM	100	39000.040.024	7X50MM	25	39000.070.050	12X140MM	10	39000.120.140
4X26MM	50	39000.040.026	7X60MM	25	39000.070.060	12X160MM	10	39000.120.160
4X30MM	50	39000.040.030	7X70MM	25	39000.070.070			
4X36MM	50	39000.040.036	7X80MM	10	39000.070.080	13X100MM	10	39000.130.100
4X40MM	50	39000.040.040	7X100MM	10	39000.070.100	13X120MM	10	39000.130.120
4X50MM	50	39000.040.050				13X150MM	10	39000.130.150
4X60MM	25	39000.040.060	8X30MM	25	39000.080.030			
4X70MM	25	39000.040.070	8X36MM	25	39000.080.036	14X90MM	10	39000.140.090
4X80MM	25	39000.040.080	8X40MM	25	39000.080.040			
4X100MM	25	39000.040.100	8X50MM	25	39000.080.050	16X50MM	5	39000.160.050
			8X60MM	25	39000.080.060	16X60MM	5	39000.160.060
5X20MM	100	39000.050.020	8X70MM	25	39000.080.070	16X70MM	5	39000.160.070
5X24MM	50	39000.050.024	8X80MM	10	39000.080.080	16X80MM	5	39000.160.080
5X26MM	50	39000.050.026	8X90MM	10	39000.080.090	16X100MM	5	39000.160.100
5X30MM	50	39000.050.030	8X100MM	10	39000.080.100	16X120MM	5	39000.160.120
5X40MM	50	39000.050.040	8X120MM	10	39000.080.120	16X150MM	5	39000.160.150
5X50MM	50	39000.050.050	8X140MM	10	39000.080.140	16X180MM	5	39000.160.180
5X60MM	25	39000.050.060	8X160MM	10	39000.080.160	16X200MM	5	39000.160.200
5X70MM	25	39000.050.070						
5X80MM	25	39000.050.080	10X30MM	25	39000.100.030			

51560 Cavilha R09A

Material Aço inoxidável A1

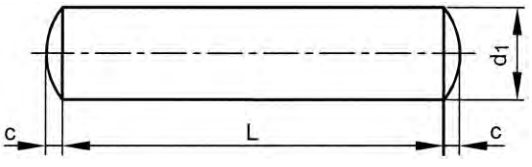


RoHS

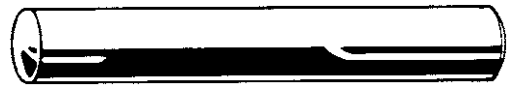
d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
1X10MM	100	51560.010.010	3X24MM	100	51560.030.024	5X45MM*	100	51560.050.045
1X12MM	100	51560.010.012	3X26MM*	100	51560.030.026	5X50MM*	100	51560.050.050
			3X30MM	100	51560.030.030	5X55MM*	100	51560.050.055
1,5X10MM*	200	51560.015.010	3X32MM*	100	51560.030.032	5X60MM*	100	51560.050.060
1,5X12MM*	200	51560.015.012	3X40MM*	100	51560.030.040	5X70MM*	100	51560.050.070
			3X45MM*	100	51560.030.045			
2X8MM	100	51560.020.008	3X50MM*	100	51560.030.050	6X12MM	100	51560.060.012
2X10MM	100	51560.020.010				6X16MM	100	51560.060.016
2X12MM	100	51560.020.012	4X10MM	100	51560.040.010	6X20MM	100	51560.060.020
2X16MM*	200	51560.020.016	4X12MM	100	51560.040.012	6X24MM	100	51560.060.024
2X20MM*	200	51560.020.020	4X16MM	100	51560.040.016	6X25MM*	100	51560.060.025
2X24MM*	200	51560.020.024	4X20MM	100	51560.040.020	6X26MM*	100	51560.060.026
2X26MM*	200	51560.020.026	4X24MM	100	51560.040.024	6X30MM	50	51560.060.030
2X30MM*	200	51560.020.030	4X25MM*	100	51560.040.025	6X32MM*	100	51560.060.032
2X36MM*	200	51560.020.036	4X26MM*	100	51560.040.026	6X40MM	50	51560.060.040
			4X28MM*	100	51560.040.028	6X45MM*	100	51560.060.045
2,5X10MM	100	51560.025.010	4X30MM	100	51560.040.030	6X50MM	50	51560.060.050
2,5X16MM	100	51560.025.016	4X36MM	100	51560.040.036	6X55MM*	100	51560.060.055
2,5X20MM	100	51560.025.020	4X40MM*	100	51560.040.040	6X60MM*	100	51560.060.060
2,5X24MM	100	51560.025.024	4X45MM*	100	51560.040.045	6X70MM*	100	51560.060.070
2,5X36MM*	200	51560.025.036	4X50MM*	100	51560.040.050	6X80MM*	100	51560.060.080
			4X60MM*	100	51560.040.060	6X100MM*	100	51560.060.100
3X6MM	100	51560.030.006						
3X8MM	100	51560.030.008	5X16MM	100	51560.050.016	8X16MM	50	51560.080.016
3X10MM	100	51560.030.010	5X20MM	100	51560.050.020	8X24MM	50	51560.080.024
3X12MM	100	51560.030.012	5X24MM	100	51560.050.024	8X30MM	50	51560.080.030
3X14MM*	100	51560.030.014	5X26MM*	100	51560.050.026	8X36MM	50	51560.080.036
3X16MM	100	51560.030.016	5X30MM	100	51560.050.030	8X40MM	50	51560.080.040
3X18MM*	100	51560.030.018	5X32MM*	100	51560.050.032	8X45MM*	50	51560.080.045
3X20MM	100	51560.030.020	5X36MM	100	51560.050.036	8X50MM	25	51560.080.050
3X22MM*	100	51560.030.022	5X40MM	100	51560.050.040	8X55MM*	50	51560.080.055

51560	Cavilha								←
d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	
8X60MM	25	51560.080.060	10X24MM	50	51560.100.024	10X55MM*	25	51560.100.055	
8X70MM*	50	51560.080.070	10X30MM	50	51560.100.030	10X60MM	25	51560.100.060	
8X80MM*	50	51560.080.080	10X36MM*	25	51560.100.036	10X70MM	25	51560.100.070	
8X90MM*	50	51560.080.090	10X40MM	25	51560.100.040	10X80MM	25	51560.100.080	
8X100MM*	50	51560.080.100	10X45MM*	25	51560.100.045	10X100MM*	25	51560.100.100	
			10X50MM	25	51560.100.050				

Cavilha paralela



DIN	**7**
ISO	2338
NEN	2281
BS	1804-2



Dados técnicos

d_1 (m6)	c (max.)	d_1 (m6)	c (max.)
1	0.15	6	0.9
1.5	0.23	8	1.2
2	0.3	10	1.5
2.5	0.4	12	1.8
3	0.45	14	2
4	0.6	16	2.5
5	0.75	20	3

- Cavilhas paralelas são desenhadas para a montagem de um ou dois elementos. Uma ligação de tipo fricção pode ser alcançada através da escolha correcta de elementos. Se a ligação é para ser desmontada repetidamente, então é mas indicada a utilização de cavilhas roscadas de acordo com DIN 1.
- d x L: O comprimento nominal (L) não incluí as pontas com chanfro.

Grupos de produtos

Material	Código	Página
Aço de corte	39070	9-5
INOX A1/A2	51580	9-6
INOX A4	55580	9-7

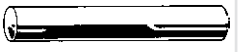
39070	Cavilha paralela								L11A
Material	Aço de corte								
d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	
2X10MM	200	39070.020.010	4X8MM	100	39070.040.008	5X32MM	100	39070.050.032	
2X12MM	200	39070.020.012	4X10MM	100	39070.040.010	5X36MM	100	39070.050.036	
2X14MM	200	39070.020.014	4X12MM	100	39070.040.012	5X40MM	50	39070.050.040	
2X16MM	200	39070.020.016	4X14MM	100	39070.040.014	5X45MM	50	39070.050.045	
2X18MM	200	39070.020.018	4X16MM	100	39070.040.016	5X50MM	50	39070.050.050	
2X20MM	200	39070.020.020	4X18MM	100	39070.040.018	5X60MM	50	39070.050.060	
2X24MM	200	39070.020.024	4X20MM	100	39070.040.020	5X70MM	50	39070.050.070	
			4X24MM	100	39070.040.024				
2,5X10MM	200	39070.025.010	4X28MM	100	39070.040.028	6X10MM	100	39070.060.010	
2,5X12MM	200	39070.025.012	4X30MM	100	39070.040.030	6X12MM	100	39070.060.012	
2,5X14MM	200	39070.025.014	4X36MM	100	39070.040.036	6X14MM	100	39070.060.014	
2,5X16MM	200	39070.025.016	4X40MM	100	39070.040.040	6X16MM	100	39070.060.016	
2,5X20MM	200	39070.025.020	4X50MM	100	39070.040.050	6X18MM	100	39070.060.018	
			4X60MM	100	39070.040.060	6X20MM	100	39070.060.020	
3X10MM	200	39070.030.010				6X24MM	50	39070.060.024	
3X12MM	200	39070.030.012	5X10MM	100	39070.050.010	6X28MM	50	39070.060.028	
3X14MM	200	39070.030.014	5X12MM	100	39070.050.012	6X30MM	50	39070.060.030	
3X16MM	200	39070.030.016	5X14MM	100	39070.050.014	6X32MM	50	39070.060.032	
3X18MM	200	39070.030.018	5X16MM	100	39070.050.016	6X36MM	50	39070.060.036	
3X20MM	200	39070.030.020	5X18MM	100	39070.050.018	6X40MM	50	39070.060.040	
3X24MM	100	39070.030.024	5X20MM	100	39070.050.020	6X45MM	50	39070.060.045	
3X26MM	100	39070.030.026	5X22MM	100	39070.050.022	6X50MM	50	39070.060.050	
3X28MM	100	39070.030.028	5X24MM	100	39070.050.024	6X60MM	25	39070.060.060	
3X30MM	100	39070.030.030	5X28MM	100	39070.050.028	6X70MM	25	39070.060.070	
			5X30MM	100	39070.050.030	6X80MM	25	39070.060.080	

39070 Cavilha paralela ←

d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
			8X100MM	25	39070.080.100	10X120MM	25	39070.100.120
8X10MM	50	39070.080.010	8X120MM	25	39070.080.120			
8X12MM	50	39070.080.012				12X24MM	25	39070.120.024
8X14MM	50	39070.080.014	10X16MM	25	39070.100.016	12X30MM	25	39070.120.030
8X16MM	50	39070.080.016	10X18MM	25	39070.100.018	12X32MM	25	39070.120.032
8X18MM	50	39070.080.018	10X20MM	25	39070.100.020	12X36MM	25	39070.120.036
8X20MM	50	39070.080.020	10X24MM	25	39070.100.024	12X40MM	25	39070.120.040
8X24MM	50	39070.080.024	10X28MM	25	39070.100.028	12X45MM	25	39070.120.045
8X28MM	50	39070.080.028	10X30MM	25	39070.100.030	12X50MM	10	39070.120.050
8X30MM	50	39070.080.030	10X32MM	25	39070.100.032	12X60MM	10	39070.120.060
8X32MM	50	39070.080.032	10X36MM	25	39070.100.036	12X70MM	10	39070.120.070
8X36MM	50	39070.080.036	10X40MM	25	39070.100.040	12X80MM	10	39070.120.080
8X40MM	25	39070.080.040	10X50MM	25	39070.100.050	12X100MM	10	39070.120.100
8X50MM	25	39070.080.050	10X60MM	25	39070.100.060	12X120MM	10	39070.120.120
8X60MM	25	39070.080.060	10X70MM	25	39070.100.070			
8X70MM	25	39070.080.070	10X80MM	25	39070.100.080	16X50MM	10	39070.160.050
8X80MM	25	39070.080.080	10X100MM	25	39070.100.100			

51580 Cavilha paralela R09A

Material Aço inoxidável A1/A2



RoHS

d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
1X3MM*	500	51580.010.003	3X6MM	100	51580.030.006	6X6MM*	100	51580.060.006
1X4MM	100	51580.010.004	3X8MM	100	51580.030.008	6X8MM*	100	51580.060.008
1X5MM	100	51580.010.005	3X10MM	100	51580.030.010	6X10MM	100	51580.060.010
1X6MM	100	51580.010.006	3X12MM	100	51580.030.012	6X12MM	100	51580.060.012
1X8MM	100	51580.010.008	3X14MM	100	51580.030.014	6X14MM	100	51580.060.014
1X10MM	100	51580.010.010	3X16MM	100	51580.030.016	6X16MM	100	51580.060.016
1X12MM	100	51580.010.012	3X18MM	100	51580.030.018	6X18MM	100	51580.060.018
1X14MM*	500	51580.010.014	3X20MM	100	51580.030.020	6X20MM	100	51580.060.020
1X16MM*	500	51580.010.016	3X24MM	100	51580.030.024	6X24MM	100	51580.060.024
1X20MM*	500	51580.010.020	3X28MM	100	51580.030.028	6X28MM	50	51580.060.028
			3X30MM	100	51580.030.030	6X30MM	50	51580.060.030
1,5X3MM*	500	51580.015.003	3X32MM	100	51580.030.032	6X32MM	50	51580.060.032
1,5X4MM	100	51580.015.004	3X36MM	100	51580.030.036	6X36MM	50	51580.060.036
1,5X5MM	100	51580.015.005	3X40MM	100	51580.030.040	6X40MM	50	51580.060.040
1,5X6MM	100	51580.015.006	3X65MM*	500	51580.030.065	6X45MM	50	51580.060.045
1,5X8MM	100	51580.015.008				6X50MM	50	51580.060.050
1,5X10MM	100	51580.015.010	4X5MM*	200	51580.040.005	6X55MM*	100	51580.060.055
1,5X12MM	100	51580.015.012	4X6MM	100	51580.040.006	6X60MM	50	51580.060.060
1,5X14MM	100	51580.015.014	4X8MM	100	51580.040.008	6X70MM	25	51580.060.070
1,5X16MM	100	51580.015.016	4X10MM	100	51580.040.010	6X80MM	25	51580.060.080
1,5X18MM	100	51580.015.018	4X12MM	100	51580.040.012	6X90MM*	100	51580.060.090
1,5X20MM	100	51580.015.020	4X14MM	100	51580.040.014			
			4X16MM	100	51580.040.016	8X8MM	100	51580.080.008
2X4MM*	500	51580.020.004	4X18MM	100	51580.040.018	8X10MM	100	51580.080.010
2X5MM	100	51580.020.005	4X20MM	100	51580.040.020	8X12MM	100	51580.080.012
2X6MM	100	51580.020.006	4X24MM	100	51580.040.024	8X14MM	100	51580.080.014
2X8MM	100	51580.020.008	4X28MM	100	51580.040.028	8X16MM	100	51580.080.016
2X10MM	100	51580.020.010	4X30MM	100	51580.040.030	8X18MM	50	51580.080.018
2X12MM	100	51580.020.012	4X32MM	100	51580.040.032	8X20MM	100	51580.080.020
2X14MM	100	51580.020.014	4X36MM	100	51580.040.036	8X24MM	50	51580.080.024
2X16MM	100	51580.020.016	4X40MM	100	51580.040.040	8X28MM	50	51580.080.028
2X18MM	100	51580.020.018	4X50MM	100	51580.040.050	8X30MM	50	51580.080.030
2X20MM	100	51580.020.020	4X60MM*	200	51580.040.060	8X32MM	50	51580.080.032
2X24MM	100	51580.020.024				8X36MM	50	51580.080.036
2X28MM	100	51580.020.028	5X5MM*	100	51580.050.005	8X40MM	50	51580.080.040
2X32MM	100	51580.020.032	5X6MM	100	51580.050.006	8X45MM	25	51580.080.045
			5X8MM	100	51580.050.008	8X50MM	25	51580.080.050
2,5X4MM*	500	51580.025.004	5X10MM	100	51580.050.010	8X55MM	25	51580.080.055
2,5X5MM	100	51580.025.005	5X12MM	100	51580.050.012	8X60MM	25	51580.080.060
2,5X6MM	100	51580.025.006	5X14MM	100	51580.050.014	8X70MM	25	51580.080.070
2,5X8MM	100	51580.025.008	5X16MM	100	51580.050.016	8X80MM	25	51580.080.080
2,5X10MM	100	51580.025.010	5X18MM	100	51580.050.018	8X90MM*	100	51580.080.090
2,5X12MM	100	51580.025.012	5X20MM	100	51580.050.020			
2,5X14MM	100	51580.025.014	5X24MM	100	51580.050.024	10X10MM*	50	51580.100.010
2,5X16MM	100	51580.025.016	5X28MM	100	51580.050.028	10X12MM	25	51580.100.012
2,5X18MM*	500	51580.025.018	5X30MM	100	51580.050.030	10X14MM	25	51580.100.014
2,5X20MM	100	51580.025.020	5X32MM	100	51580.050.032	10X16MM	50	51580.100.016
2,5X24MM	100	51580.025.024	5X36MM	100	51580.050.036	10X18MM	25	51580.100.018
2,5X28MM*	500	51580.025.028	5X40MM	100	51580.050.040	10X20MM	50	51580.100.020
2,5X32MM*	500	51580.025.032	5X45MM	50	51580.050.045	10X24MM	50	51580.100.024
			5X50MM	50	51580.050.050	10X28MM	25	51580.100.028
3X4MM*	200	51580.030.004	5X60MM	50	51580.050.060	10X30MM	50	51580.100.030
3X5mm*	200	51580.030.005				10X32MM	25	51580.100.032

9

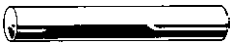
51580 Cavilha paralela

d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
10X36MM	25	51580.100.036	12X60MM	10	51580.120.060	16X50MM	10	51580.160.050
10X40MM	25	51580.100.040	12X70MM	10	51580.120.070	16X55MM	10	51580.160.055
10X45MM	25	51580.100.045	12X80MM	10	51580.120.080	16X60MM	10	51580.160.060
10X50MM	25	51580.100.050	12X90MM	10	51580.120.090	16X70MM	10	51580.160.070
10X55MM	25	51580.100.055	12X100MM	10	51580.120.100	16X80MM	10	51580.160.080
10X60MM	25	51580.100.060				16X90MM*	25	51580.160.090
10X70MM	25	51580.100.070	14X20MM	25	51580.140.020	16X100MM*	25	51580.160.100
10X80MM	25	51580.100.080	14X24MM	25	51580.140.024			
10X90MM	25	51580.100.090	14X28MM	25	51580.140.028	20X20MM*	10	51580.200.020
10X100MM	25	51580.100.100	14X32MM	25	51580.140.032	20X24MM*	10	51580.200.024
			14X36MM	25	51580.140.036	20X30MM*	10	51580.200.030
12X16MM*	25	51580.120.016	14X40MM	25	51580.140.040	20X32MM*	10	51580.200.032
12X18MM*	25	51580.120.018	14X50MM	10	51580.140.050	20X36MM*	10	51580.200.036
12X20MM	25	51580.120.020	14X100MM	10	51580.140.100	20X40MM*	10	51580.200.040
12X24MM*	25	51580.120.024				20X45MM*	10	51580.200.045
12X28MM*	25	51580.120.028	16X20MM*	25	51580.160.020	20X50MM*	10	51580.200.050
12X30MM*	25	51580.120.030	16X24MM	25	51580.160.024	20X55MM*	10	51580.200.055
12X32MM	25	51580.120.032	16X28MM	25	51580.160.028	20X60MM*	10	51580.200.060
12X36MM	25	51580.120.036	16X30MM*	25	51580.160.030	20X70MM*	10	51580.200.070
12X40MM	25	51580.120.040	16X32MM	25	51580.160.032	20X80MM*	10	51580.200.080
12X45MM	10	51580.120.045	16X36MM	25	51580.160.036	20X90MM*	10	51580.200.090
12X50MM	10	51580.120.050	16X40MM	25	51580.160.040	20X100MM*	10	51580.200.100
12X55MM	10	51580.120.055	16X45MM	10	51580.160.045			

- Dependendo da disponibilidade de stock pode ser fornecido em A1 ou A2.

55580 Cavilha paralela R49A

Material Aço inoxidável A4



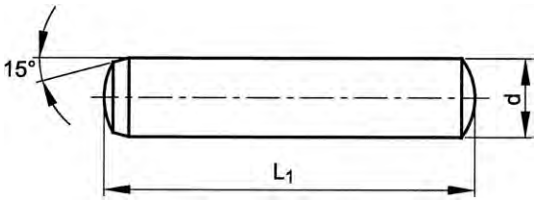
d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
1X3MM*	500	55580.010.003	3X5MM*	200	55580.030.005	5X32MM	100	55580.050.032
1X4MM*	500	55580.010.004	3X6MM*	200	55580.030.006	5X36MM	100	55580.050.036
1X5MM	100	55580.010.005	3X8MM	100	55580.030.008	5X40MM	100	55580.050.040
1X6MM*	500	55580.010.006	3X10MM	100	55580.030.010	5X45MM	50	55580.050.045
1X8MM	100	55580.010.008	3X12MM	100	55580.030.012	5X50MM	50	55580.050.050
1X10MM*	500	55580.010.010	3X14MM	100	55580.030.014	5X60MM	50	55580.050.060
1X16MM*	500	55580.010.016	3X16MM	100	55580.030.016			
			3X18MM	100	55580.030.018	6X6MM*	100	55580.060.006
1,5X3MM*	500	55580.015.003	3X20MM	100	55580.030.020	6X8MM*	100	55580.060.008
1,5X4MM*	500	55580.015.004	3X24MM	100	55580.030.024	6X10MM	100	55580.060.010
1,5X5MM	100	55580.015.005	3X28MM	100	55580.030.028	6X12MM	100	55580.060.012
1,5X6MM	100	55580.015.006	3X30MM	100	55580.030.030	6X14MM	100	55580.060.014
1,5X8MM	100	55580.015.008	3X32MM	100	55580.030.032	6X16MM	100	55580.060.016
1,5X10MM	100	55580.015.010	3X36MM	100	55580.030.036	6X18MM	100	55580.060.018
1,5X12MM	100	55580.015.012	3X40MM	100	55580.030.040	6X20MM	100	55580.060.020
1,5X14MM	100	55580.015.014				6X24MM	100	55580.060.024
1,5X16MM	100	55580.015.016	4X5MM*	200	55580.040.005	6X28MM	50	55580.060.028
			4X6MM*	200	55580.040.006	6X30MM	50	55580.060.030
2X4MM*	500	55580.020.004	4X8MM	100	55580.040.008	6X32MM	50	55580.060.032
2X5MM*	500	55580.020.005	4X10MM	100	55580.040.010	6X36MM	50	55580.060.036
2X6MM	100	55580.020.006	4X12MM	100	55580.040.012	6X40MM	50	55580.060.040
2X8MM	100	55580.020.008	4X14MM	100	55580.040.014	6X45MM	50	55580.060.045
2X10MM	100	55580.020.010	4X16MM	100	55580.040.016	6X50MM	50	55580.060.050
2X12MM	100	55580.020.012	4X18MM	100	55580.040.018	6X55MM*	100	55580.060.055
2X14MM	100	55580.020.014	4X20MM	100	55580.040.020	6X60MM	50	55580.060.060
2X16MM	100	55580.020.016	4X24MM	100	55580.040.024	6X70MM*	100	55580.060.070
2X18MM	100	55580.020.018	4X28MM	100	55580.040.028			
2X20MM	100	55580.020.020	4X30MM	100	55580.040.030	8X8MM*	100	55580.080.008
2X24MM*	500	55580.020.024	4X32MM	100	55580.040.032	8X10MM	100	55580.080.010
2X32MM*	500	55580.020.032	4X36MM	100	55580.040.036	8X12MM	100	55580.080.012
			4X40MM	100	55580.040.040	8X14MM	100	55580.080.014
2,5X4MM*	500	55580.025.004	4X50MM	100	55580.040.050	8X16MM	100	55580.080.016
2,5X5MM*	500	55580.025.005				8X18MM	50	55580.080.018
2,5X6MM	100	55580.025.006	5X5MM*	100	55580.050.005	8X20MM	100	55580.080.020
2,5X8MM	100	55580.025.008	5X6MM*	100	55580.050.006	8X24MM	50	55580.080.024
2,5X10MM	100	55580.025.010	5X8MM	100	55580.050.008	8X28MM	50	55580.080.028
2,5X12MM	100	55580.025.012	5X10MM	100	55580.050.010	8X30MM	50	55580.080.030
2,5X14MM	100	55580.025.014	5X12MM	100	55580.050.012	8X32MM	50	55580.080.032
2,5X16MM	100	55580.025.016	5X14MM	100	55580.050.014	8X36MM	50	55580.080.036
2,5X20MM	100	55580.025.020	5X16MM	100	55580.050.016	8X40MM	50	55580.080.040
2,5X24MM*	500	55580.025.024	5X18MM	100	55580.050.018	8X45MM	25	55580.080.045
2,5X28MM*	500	55580.025.028	5X20MM	100	55580.050.020	8X50MM	25	55580.080.050
2,5X32MM*	500	55580.025.032	5X24MM	100	55580.050.024	8X55MM*	100	55580.080.055
			5X28MM	100	55580.050.028	8X60MM	25	55580.080.060
3X4MM*	200	55580.030.004	5X30MM	100	55580.050.030	8X70MM	25	55580.080.070

9

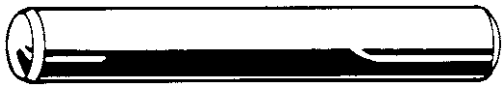
55580 Cavilha paralela ←

d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
8X80MM	25	55580.080.080	10X80MM	25	55580.100.080	12X90MM	10	55580.120.090
			10X90MM	25	55580.100.090	12X100MM	10	55580.120.100
10X12MM*	50	55580.100.012	10X100MM	25	55580.100.100			
10X14MM	25	55580.100.014				16X24MM*	25	55580.160.024
10X16MM	50	55580.100.016	12X16MM	25	55580.120.016	16X28MM*	25	55580.160.028
10X18MM	25	55580.100.018	12X18MM	25	55580.120.018	16X32MM*	25	55580.160.032
10X20MM	50	55580.100.020	12X20MM	25	55580.120.020	16X36MM*	25	55580.160.036
10X24MM	50	55580.100.024	12X24MM*	25	55580.120.024	16X40MM*	25	55580.160.040
10X28MM	25	55580.100.028	12X28MM*	25	55580.120.028	16X45MM*	25	55580.160.045
10X30MM	50	55580.100.030	12X32MM	25	55580.120.032	16X50MM*	25	55580.160.050
10X32MM	25	55580.100.032	12X36MM	25	55580.120.036	16X55MM*	25	55580.160.055
10X36MM	25	55580.100.036	12X40MM	25	55580.120.040	16X60MM*	25	55580.160.060
10X40MM	25	55580.100.040	12X45MM	10	55580.120.045	16X70MM*	25	55580.160.070
10X45MM	25	55580.100.045	12X50MM	10	55580.120.050	16X80MM*	25	55580.160.080
10X50MM	25	55580.100.050	12X55MM	10	55580.120.055	16X90MM*	25	55580.160.090
10X55MM	25	55580.100.055	12X60MM	10	55580.120.060	16X100MM*	25	55580.160.100
10X60MM	25	55580.100.060	12X70MM*	25	55580.120.070			
10X70MM	25	55580.100.070	12X80MM	10	55580.120.080	20X100MM*	10	55580.200.100

Cavilha paralela temperada m6



DIN	**6325**
ISO	8734 A
NEN	2282
NF	E27-475

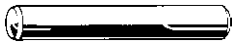


- Cavilhas paralelas são utilizadas maioritáriamente em ferramentas, aparelhos de fixação e aparelhos de medição.
- O comprimento nominal (L_1) incluí as pontas com chanfro (tolerância js14).

39080 Cavilha paralela temperada m6 **L11A**

Material Aço 60 ± 2HRc

RoHS

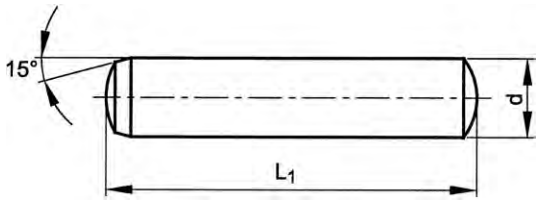


d x L_1	✉	Ref. do artigo	d x L_1	✉	Ref. do artigo	d x L_1	✉	Ref. do artigo
1X4MM	100	39080.010.004	2,5X6MM	100	39080.025.006	4X10MM	100	39080.040.010
1X5MM	100	39080.010.005	2,5X8MM	100	39080.025.008	4X12MM	100	39080.040.012
1X6MM	100	39080.010.006	2,5X10MM	100	39080.025.010	4X14MM	100	39080.040.014
1X8MM	100	39080.010.008	2,5X12MM	100	39080.025.012	4X16MM	100	39080.040.016
1X10MM	100	39080.010.010	2,5X14MM	100	39080.025.014	4X18MM	100	39080.040.018
1X12MM	100	39080.010.012	2,5X16MM	100	39080.025.016	4X20MM	100	39080.040.020
			2,5X18MM	100	39080.025.018	4X24MM	100	39080.040.024
1,5X5MM	100	39080.015.005	2,5X20MM	100	39080.025.020	4X26MM	100	39080.040.026
1,5X6MM	100	39080.015.006	2,5X24MM	100	39080.025.024	4X28MM	100	39080.040.028
1,5X8MM	100	39080.015.008	2,5X28MM	100	39080.025.028	4X30MM	100	39080.040.030
1,5X10MM	100	39080.015.010	2,5X32MM	100	39080.025.032	4X32MM	100	39080.040.032
1,5X12MM	100	39080.015.012	2,5X36MM	100	39080.025.036	4X36MM	100	39080.040.036
1,5X14MM	100	39080.015.014	2,5X40MM	100	39080.025.040	4X40MM	100	39080.040.040
1,5X16MM	100	39080.015.016	2,5X45MM	100	39080.025.045	4X45MM	100	39080.040.045
1,5X18MM	100	39080.015.018	2,5X50MM	100	39080.025.050	4X50MM	100	39080.040.050
1,5X20MM	100	39080.015.020				4X60MM	100	39080.040.060
1,5X24MM	100	39080.015.024	3X6MM	100	39080.030.006			
1,5X28MM	100	39080.015.028	3X8MM	100	39080.030.008	5X8MM	100	39080.050.008
1,5X32MM	100	39080.015.032	3X10MM	100	39080.030.010	5X10MM	100	39080.050.010
			3X12MM	100	39080.030.012	5X12MM	100	39080.050.012
2X5MM	100	39080.020.005	3X14MM	100	39080.030.014	5X14MM	100	39080.050.014
2X6MM	100	39080.020.006	3X16MM	100	39080.030.016	5X16MM	100	39080.050.016
2X8MM	100	39080.020.008	3X18MM	100	39080.030.018	5X18MM	100	39080.050.018
2X10MM	100	39080.020.010	3X20MM	100	39080.030.020	5X20MM	100	39080.050.020
2X12MM	100	39080.020.012	3X24MM	100	39080.030.024	5X24MM	100	39080.050.024
2X14MM	100	39080.020.014	3X28MM	100	39080.030.028	5X26MM	100	39080.050.026
2X16MM	100	39080.020.016	3X30MM	100	39080.030.030	5X28MM	100	39080.050.028
2X20MM	100	39080.020.020	3X32MM	100	39080.030.032	5X30MM	100	39080.050.030
2X24MM	100	39080.020.024	3X36MM	100	39080.030.036	5X32MM	100	39080.050.032
2X28MM	100	39080.020.028	3X40MM	100	39080.030.040	5X36MM	100	39080.050.036
2X30MM	100	39080.020.030	3X50MM	100	39080.030.050	5X40MM	100	39080.050.040
2X32MM	100	39080.020.032	3X60MM	100	39080.030.060	5X45MM	50	39080.050.045
2X36MM	100	39080.020.036				5X50MM	50	39080.050.050
2X40MM	100	39080.020.040	4X6MM	100	39080.040.006	5X55MM	50	39080.050.055
			4X8MM	100	39080.040.008	5X60MM	50	39080.050.060

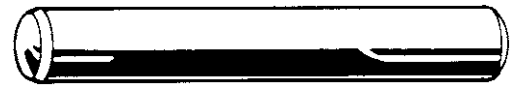
39080 **Cavilha paralela temperada h6** ←

d x L_1	✉	Ref. do artigo	d x L_1	✉	Ref. do artigo	d x L_1	✉	Ref. do artigo
			8X55MM	25	39080.080.055	12X55MM	25	39080.120.055
6X8MM	100	39080.060.008	8X60MM	25	39080.080.060	12X60MM	25	39080.120.060
6X10MM	100	39080.060.010	8X70MM	25	39080.080.070	12X70MM	25	39080.120.070
6X12MM	100	39080.060.012	8X80MM	25	39080.080.080	12X80MM	10	39080.120.080
6X14MM	100	39080.060.014	8X90MM	25	39080.080.090	12X90MM	10	39080.120.090
6X16MM	100	39080.060.016	8X100MM	25	39080.080.100	12X100MM	10	39080.120.100
6X18MM	100	39080.060.018				12X120MM	10	39080.120.120
6X20MM	100	39080.060.020	10X12MM	50	39080.100.012			
6X24MM	100	39080.060.024	10X14MM	50	39080.100.014	14X32MM	25	39080.140.032
6X26MM	100	39080.060.026	10X16MM	50	39080.100.016	14X36MM	25	39080.140.036
6X28MM	100	39080.060.028	10X20MM	50	39080.100.020	14X40MM	25	39080.140.040
6X30MM	100	39080.060.030	10X24MM	50	39080.100.024	14X50MM	25	39080.140.050
6X32MM	50	39080.060.032	10X28MM	50	39080.100.028	14X60MM	10	39080.140.060
6X36MM	50	39080.060.036	10X30MM	50	39080.100.030	14X80MM	10	39080.140.080
6X40MM	50	39080.060.040	10X32MM	50	39080.100.032	14X100MM	10	39080.140.100
6X45MM	50	39080.060.045	10X36MM	25	39080.100.036	14X120MM	10	39080.140.120
6X50MM	50	39080.060.050	10X40MM	25	39080.100.040			
6X55MM	50	39080.060.055	10X45MM	25	39080.100.045	16X36MM	10	39080.160.036
6X60MM	50	39080.060.060	10X50MM	25	39080.100.050	16X40MM	10	39080.160.040
6X70MM	25	39080.060.070	10X55MM	25	39080.100.055	16X50MM	10	39080.160.050
6X80MM	25	39080.060.080	10X60MM	25	39080.100.060	16X60MM	10	39080.160.060
			10X70MM	25	39080.100.070	16X80MM	10	39080.160.080
8X10MM	100	39080.080.010	10X80MM	25	39080.100.080	16X100MM	10	39080.160.100
8X12MM	100	39080.080.012	10X90MM	25	39080.100.090	16X120MM	10	39080.160.120
8X14MM	100	39080.080.014	10X100MM	25	39080.100.100			
8X16MM	100	39080.080.016				20X30MM	100	39080.200.030
8X18MM	100	39080.080.018	12X16MM	25	39080.120.016	20X32MM	10	39080.200.032
8X20MM	100	39080.080.020	12X20MM	25	39080.120.020	20X36MM	10	39080.200.036
8X24MM	50	39080.080.024	12X24MM	25	39080.120.024	20X40MM	10	39080.200.040
8X26MM	50	39080.080.026	12X26MM	25	39080.120.026	20X50MM	10	39080.200.050
8X28MM	50	39080.080.028	12X28MM	25	39080.120.028	20X60MM	10	39080.200.060
8X30MM	50	39080.080.030	12X30MM	25	39080.120.030	20X70MM	10	39080.200.070
8X32MM	50	39080.080.032	12X32MM	25	39080.120.032	20X80MM	10	39080.200.080
8X36MM	50	39080.080.036	12X36MM	25	39080.120.036	20X100MM	10	39080.200.100
8X40MM	50	39080.080.040	12X40MM	25	39080.120.040	20X120MM	10	39080.200.120
8X45MM	50	39080.080.045	12X45MM	25	39080.120.045			
8X50MM	25	39080.080.050	12X50MM	25	39080.120.050			

Cavilha paralela temperada h6



DIN	**≈6325**
ISO	≈8734 A
NEN	≈2282
NF	≈E27-475

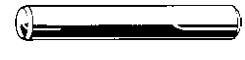


- Cavilhas paralelas são utilizadas maioritáriamente para cavilhas de ferramentas, aparelhos de fixação e aparelhos de medida.
- d x L_1: O comprimento nominal (L_1) incluí as pontas boleadas(tolerância js14).

9

39078 **Cavilha paralela temperada h6** **L11A**

Material Aço 60 ± 2HRc

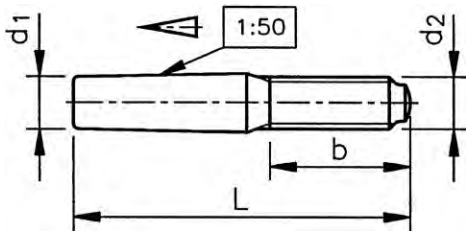


d x L_1	✉	Ref. do artigo	d x L_1	✉	Ref. do artigo	d x L_1	✉	Ref. do artigo
2X5MM	100	39078.020.005				4X12MM	100	39078.040.012
2X6MM	100	39078.020.006	3X6MM	100	39078.030.006	4X14MM	100	39078.040.014
2X8MM	100	39078.020.008	3X8MM	100	39078.030.008	4X16MM	100	39078.040.016
2X10MM	100	39078.020.010	3X10MM	100	39078.030.010	4X18MM	100	39078.040.018
2X12MM	100	39078.020.012	3X12MM	100	39078.030.012	4X20MM	100	39078.040.020
2X14MM	100	39078.020.014	3X14MM	100	39078.030.014	4X24MM	100	39078.040.024
2X16MM	100	39078.020.016	3X16MM	100	39078.030.016	4X28MM	100	39078.040.028
2X20MM	100	39078.020.020	3X20MM	100	39078.030.020	4X30MM	100	39078.040.030
2X24MM	100	39078.020.024	3X24MM	100	39078.030.024	4X32MM	100	39078.040.032
2X28MM	100	39078.020.028	3X28MM	100	39078.030.028	4X40MM	100	39078.040.040
			3X30MM	100	39078.030.030	4X50MM	100	39078.040.050
2,5X6MM	100	39078.025.006	3X32MM	100	39078.030.032			
2,5X8MM	100	39078.025.008	3X40MM	100	39078.030.040	5X8MM	100	39078.050.008
2,5X10MM	100	39078.025.010				5X10MM	100	39078.050.010
2,5X16MM	100	39078.025.016	4X8MM	100	39078.040.008	5X12MM	100	39078.050.012
2,5X24MM	100	39078.025.024	4X10MM	100	39078.040.010	5X14MM	100	39078.050.014

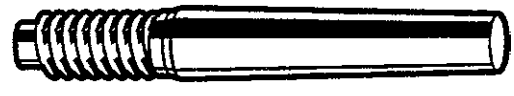
39078 Cavilha paralela temperada h6 ←

d x L_1	✉	Ref. do artigo	d x L_1	✉	Ref. do artigo	d x L_1	✉	Ref. do artigo
5X16MM	100	39078.050.016	6X45MM	50	39078.060.045	10X60MM	25	39078.100.060
5X20MM	100	39078.050.020	6X50MM	50	39078.060.050	10X80MM	25	39078.100.080
5X24MM	100	39078.050.024	6X60MM	50	39078.060.060	10X100MM	25	39078.100.100
5X26MM	100	39078.050.026						
5X28MM	100	39078.050.028	8X16MM	100	39078.080.016	12X24MM	25	39078.120.024
5X30MM	100	39078.050.030	8X20MM	100	39078.080.020	12X32MM	25	39078.120.032
5X32MM	100	39078.050.032	8X24MM	50	39078.080.024	12X36MM	25	39078.120.036
5X36MM	100	39078.050.036	8X28MM	50	39078.080.028	12X40MM	25	39078.120.040
5X40MM	100	39078.050.040	8X30MM	50	39078.080.030	12X45MM	25	39078.120.045
5X50MM	100	39078.050.050	8X32MM	50	39078.080.032	12X50MM	25	39078.120.050
5X60MM	100	39078.050.060	8X36MM	50	39078.080.036	12X60MM	25	39078.120.060
			8X40MM	50	39078.080.040	12X80MM	10	39078.120.080
6X10MM	100	39078.060.010	8X50MM	25	39078.080.050	12X100MM	10	39078.120.100
6X12MM	100	39078.060.012	8X60MM	25	39078.080.060			
6X14MM	100	39078.060.014	8X70MM	25	39078.080.070	16X40MM	10	39078.160.040
6X16MM	100	39078.060.016	8X80MM	25	39078.080.080	16X50MM	10	39078.160.050
6X18MM	100	39078.060.018				16X60MM	10	39078.160.060
6X20MM	100	39078.060.020	10X20MM	50	39078.100.020	16X80MM	10	39078.160.080
6X24MM	100	39078.060.024	10X24MM	50	39078.100.024	16X100MM	10	39078.160.100
6X26MM	100	39078.060.026	10X28MM	50	39078.100.028			
6X28MM	100	39078.060.028	10X30MM	50	39078.100.030	20X40MM	10	39078.200.040
6X30MM	100	39078.060.030	10X32MM	50	39078.100.032	20X50MM	10	39078.200.050
6X32MM	50	39078.060.032	10X36MM	25	39078.100.036	20X60MM	10	39078.200.060
6X36MM	50	39078.060.036	10X40MM	25	39078.100.040	20X80MM	10	39078.200.080
6X40MM	50	39078.060.040	10X50MM	25	39078.100.050			

Cavilha paralela rosca externa



DIN **7977**
ISO 8737
NEN 2462



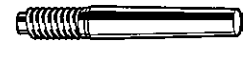
Dados técnicos

d_1	b	d_2	d_1	b	d_2
5	14	M5	**12**	27	M12
6	18	M6	**16**	35	M16
8	22	M8	**20**	35	M16
10	24	M10			

- d_1x L: O comprimento nominal (L) incluí as pontas boleadas (tolerância js15).

39011 Cavilha paralela rosca externa **L11A**

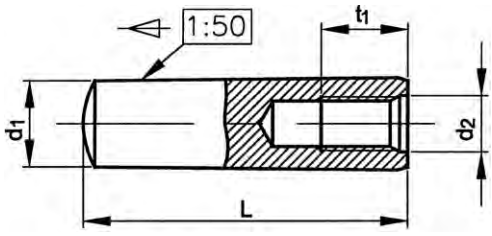
Material Aço de corte



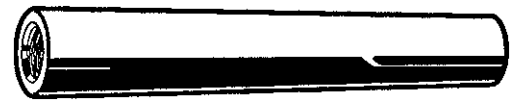
RoHS

d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
5X40MM	50	39011.050.040	8X75MM	10	39011.080.075			
5X45MM	50	39011.050.045				16X85MM	5	39011.160.085
5X50MM	50	39011.050.050	10X60MM	10	39011.100.060	16X100MM	5	39011.160.100
			10X65MM	10	39011.100.065	16X120MM	5	39011.160.120
6X45MM	25	39011.060.045	10X75MM	10	39011.100.075	16X140MM	5	39011.160.140
6X50MM	25	39011.060.050	10X85MM	10	39011.100.085	16X160MM	5	39011.160.160
6X55MM	25	39011.060.055	10X100MM	10	39011.100.100			
6X60MM	25	39011.060.060				20X100MM	5	39011.200.100
			12X75MM	5	39011.120.075	20X120MM	5	39011.200.120
8X55MM	10	39011.080.055	12X85MM	5	39011.120.085	20X140MM	5	39011.200.140
8X60MM	10	39011.080.060	12X100MM	5	39011.120.100	20X160MM	5	39011.200.160
8X65MM	10	39011.080.065	12X120MM	5	39011.120.120			

Cavilha paralela com rosca interna



DIN	**7978 A**
ISO	8736 A
NEN	2463
NF	E27-479



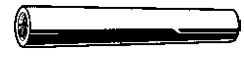
Dados técnicos

d_1	d_2	t_1	d_1	d_2	t_1
6	M4	6	**12**	M8	12
8	M5	8	**16**	M10	16
10	M6	10	**20**	M12	18

- d_1x L: O comprimento nominal (L) incluí as pontas boleadas (tolerância js15).

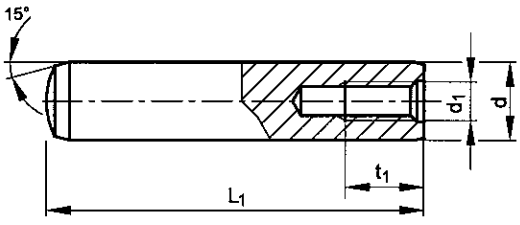
39012 **Cavilha paralela com rosca interna** **L11A**

Material Aço de corte

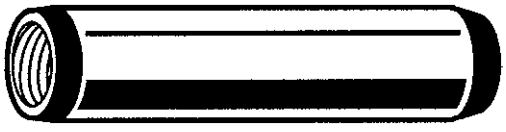


d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
6X16MM	50	39012.060.016	8X50MM	10	39012.080.050	12X60MM	10	39012.120.060
6X24MM	50	39012.060.024	8X60MM	10	39012.080.060	12X70MM	10	39012.120.070
6X28MM	50	39012.060.028	8X70MM	10	39012.080.070	12X80MM	5	39012.120.080
6X30MM	50	39012.060.030				12X100MM	5	39012.120.100
6X32MM	25	39012.060.032	10X24MM	25	39012.100.024			
6X36MM	25	39012.060.036	10X28MM	25	39012.100.028	16X40MM	5	39012.160.040
6X40MM	25	39012.060.040	10X32MM	25	39012.100.032	16X50MM	5	39012.160.050
6X50MM	25	39012.060.050	10X40MM	10	39012.100.040	16X60MM	5	39012.160.060
6X60MM	25	39012.060.060	10X50MM	10	39012.100.050	16X80MM	5	39012.160.080
			10X60MM	10	39012.100.060	16X90MM	5	39012.160.090
8X20MM	50	39012.080.020	10X70MM	10	39012.100.070	16X100MM	5	39012.160.100
8X24MM	25	39012.080.024	10X80MM	10	39012.100.080	16X120MM	5	39012.160.120
8X28MM	25	39012.080.028	10X100MM	10	39012.100.100			
8X30MM	25	39012.080.030				20X60MM	5	39012.200.060
8X32MM	25	39012.080.032	12X32MM	10	39012.120.032	20X80MM	5	39012.200.080
8X36MM	25	39012.080.036	12X40MM	10	39012.120.040	20X100MM	5	39012.200.100
8X40MM	25	39012.080.040	12X50MM	10	39012.120.050	20X120MM	5	39012.200.120

Cavilha paralela com rosca interna endurecida



DIN	**7979 D**
ISO	8735 A
NEN	2464
NF	E27-475



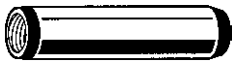
Dados técnicos

d (m6)	d_1	t_1	d (m6)	d_1	t_1
5 (≠DIN)	M3	4	**14**	M8	12
6	M4	6	**16**	M8	12
8	M5	8	**20**	M10	16
10	M6	10	**25**	M16	24
12	M6	10	**30**	M20	30

- d x L_1: O comprimento nominal (L1) incluí as pontas com chanfro (tolerância js15).

39090 **Cavilha paralela com rosca interna endurecida** **L11A**

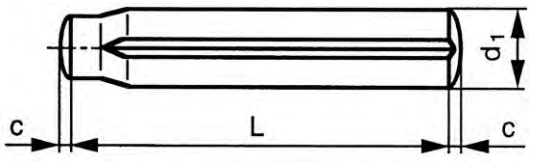
Material Aço 60 ± 2HRc



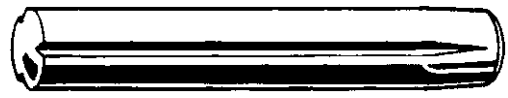
RoHS

d x L_1	✉	Ref. do artigo	d x L_1	✉	Ref. do artigo	d x L_1	✉	Ref. do artigo
5X12MM	100	39090.050.012	8X40MM	25	39090.080.040	12X50MM	10	39090.120.050
5X16MM	50	39090.050.016	8X45MM	25	39090.080.045	12X60MM	10	39090.120.060
5X20MM	50	39090.050.020	8X50MM	10	39090.080.050	12X70MM	10	39090.120.070
5X24MM	50	39090.050.024	8X60MM	10	39090.080.060	12X80MM	5	39090.120.080
5X28MM	50	39090.050.028	8X70MM	10	39090.080.070	12X100MM	5	39090.120.100
5X30MM	25	39090.050.030	8X80MM	50	39090.080.080			
5X32MM	25	39090.050.032				14X60MM	5	39090.140.060
5X36MM	25	39090.050.036	10X20MM	25	39090.100.020			
5X40MM	25	39090.050.040	10X24MM	25	39090.100.024	16X32MM	5	39090.160.032
			10X28MM	25	39090.100.028	16X40MM	5	39090.160.040
6X16MM	50	39090.060.016	10X30MM	25	39090.100.030	16X50MM	5	39090.160.050
6X20MM	50	39090.060.020	10X32MM	25	39090.100.032	16X60MM	5	39090.160.060
6X24MM	50	39090.060.024	10X36MM	10	39090.100.036	16X70MM	5	39090.160.070
6X28MM	50	39090.060.028	10X40MM	10	39090.100.040	16X80MM	5	39090.160.080
6X30MM	50	39090.060.030	10X45MM	10	39090.100.045	16X90MM	5	39090.160.090
6X32MM	25	39090.060.032	10X50MM	10	39090.100.050	16X100MM	5	39090.160.100
6X40MM	25	39090.060.040	10X60MM	10	39090.100.060	16X120MM	5	39090.160.120
6X45MM	25	39090.060.045	10X70MM	10	39090.100.070			
6X50MM	25	39090.060.050	10X80MM	10	39090.100.080	20X50MM	5	39090.200.050
6X60MM	25	39090.060.060	10X100MM	10	39090.100.100	20X60MM	5	39090.200.060
						20X70MM	5	39090.200.070
8X16MM	50	39090.080.016	12X24MM	10	39090.120.024	20X80MM	5	39090.200.080
8X20MM	50	39090.080.020	12X28MM	10	39090.120.028	20X100MM	5	39090.200.100
8X24MM	25	39090.080.024	12X30MM	10	39090.120.030	20X120MM	5	39090.200.120
8X28MM	25	39090.080.028	12X32MM	10	39090.120.032			
8X30MM	25	39090.080.030	12X36MM	10	39090.120.036	25X60MM	5	39090.250.060
8X32MM	25	39090.080.032	12X40MM	10	39090.120.040	25X70MM	5	39090.250.070
8X36MM	25	39090.080.036	12X45MM	10	39090.120.045			

Cavilha cilindrica com chanfro e piloto



DIN **1470**
ISO 8739
NEN 2601

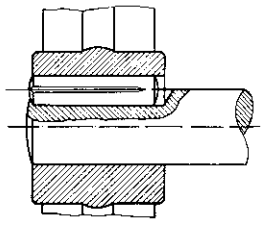


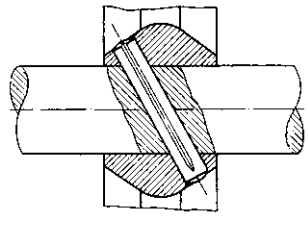
Dados técnicos

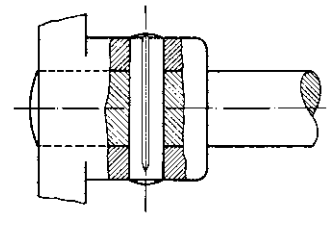
d_1	c ≈	Tolerância	V	d_1	c ≈	Tolerância	V
1.5	0.2	h9	1.6	4	0.5	h11	10.6
2	0.25	h9	2.85	5	0.6	h11	16.5
2.5	0.3	h9	4.25	6	0.8	h11	22.8
3	0.4	h9	6.15	8	1	h11	40.5

- V = Força transversal dupla min. em kN.
- Para o diâmetro do furo d_1(nom.) com tolerância H11 é recomendada.
- O diâmetro nominal (L) não incluí as ponta boleadas (tolerância js15).

Exemplos de aplicação



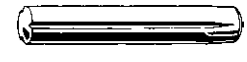




39700 **Cavilha cilindrica com chanfro e piloto** **L11F**

Material Aço de corte

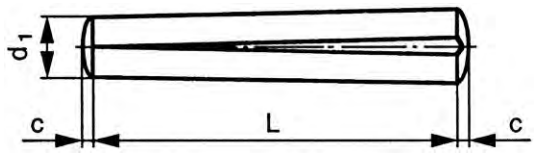
RoHS



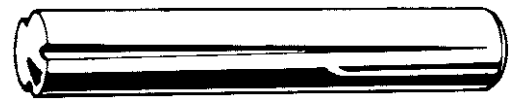
d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
1,5X4MM	200	39700.015.004	3X20MM	200	39700.030.020	6X16MM	100	39700.060.016
1,5X6MM	200	39700.015.006	3X30MM	200	39700.030.030	6X20MM	100	39700.060.020
1,5X8MM	200	39700.015.008				6X24MM	100	39700.060.024
1,5X10MM	200	39700.015.010	4X8MM	200	39700.040.008	6X30MM	100	39700.060.030
1,5X16MM	200	39700.015.016	4X10MM	200	39700.040.010	6X36MM	100	39700.060.036
			4X12MM	200	39700.040.012	6X40MM	100	39700.060.040
2X5MM	200	39700.020.005	4X16MM	200	39700.040.016	6X45MM	100	39700.060.045
2X6MM	200	39700.020.006	4X20MM	200	39700.040.020	6X50MM	100	39700.060.050
2X8MM	200	39700.020.008	4X24MM	200	39700.040.024	6X60MM	100	39700.060.060
2X10MM	200	39700.020.010	4X30MM	200	39700.040.030			
2X16MM	200	39700.020.016	4X36MM	100	39700.040.036	8X12MM	100	39700.080.012
2X20MM	200	39700.020.020	4X40MM	100	39700.040.040	8X16MM	100	39700.080.016
2X24MM	200	39700.020.024				8X20MM	100	39700.080.020
			5X12MM	200	39700.050.012	8X24MM	100	39700.080.024
2,5X10MM	200	39700.025.010	5X16MM	200	39700.050.016	8X30MM	100	39700.080.030
2,5X12MM	200	39700.025.012	5X20MM	100	39700.050.020	8X36MM	50	39700.080.036
2,5X16MM	200	39700.025.016	5X24MM	100	39700.050.024	8X40MM	50	39700.080.040
2,5X20MM	200	39700.025.020	5X30MM	100	39700.050.030	8X45MM	50	39700.080.045
			5X36MM	100	39700.050.036	8X50MM	50	39700.080.050
3X10MM	200	39700.030.010	5X40MM	100	39700.050.040	8X60MM	50	39700.080.060
3X12MM	200	39700.030.012				8X70MM	50	39700.080.070
3X16MM	200	39700.030.016	6X10MM	100	39700.060.010			

9

Cavilha cónica com chanfro



DIN **1471**
ISO 8744
NEN 2602

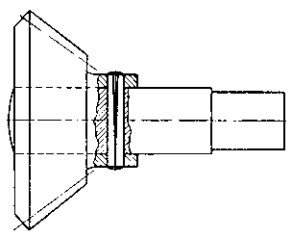


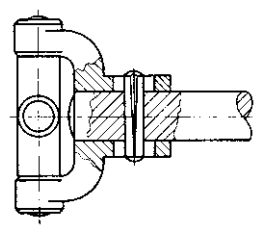
Dados técnicos

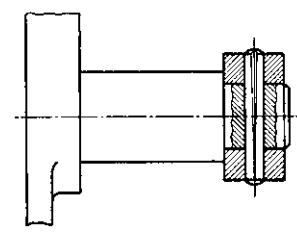
d_1	c ≈	Tolerância	V	d_1	c ≈	Tolerância	V
1.5	0.2	h9	1.6	4	0.5	h11	10.6
2	0.25	h9	2.85	5	0.63	h11	16.5
2.5	0.3	h9	4.25	6	0.8	h11	22.8
3	0.4	h9	6.15	8	1	h11	40.5

- V = Força transversal dupla min. em kN.
- Para o diâmetro do furo d_1(nom.) com tolerância H11 é recomendada.
- O diâmetro nominal (L) não incluí as ponta boleadas (tolerância js15).

Exemplos de aplicação





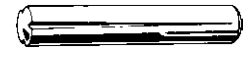


Grupos de produtos

Material	Código	Página
Aço de corte	39710	9-14
INOX A1	51585	9-15

39710 **Cavilha cónica com chanfro** **L11F**

Material Aço de corte

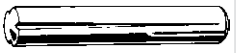


RoHS

d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
1,5X4MM	200	39710.015.004				5X30MM	100	39710.050.030
1,5X5MM	200	39710.015.005	3X6MM	200	39710.030.006	5X36MM	100	39710.050.036
1,5X8MM	200	39710.015.008	3X8MM	200	39710.030.008	5X40MM	100	39710.050.040
1,5X10MM	200	39710.015.010	3X10MM	200	39710.030.010			
1,5X16MM	200	39710.015.016	3X12MM	200	39710.030.012	6X10MM	100	39710.060.010
1,5X20MM	200	39710.015.020	3X16MM	200	39710.030.016	6X12MM	100	39710.060.012
			3X20MM	200	39710.030.020	6X16MM	100	39710.060.016
2X5MM	200	39710.020.005	3X24MM	200	39710.030.024	6X20MM	100	39710.060.020
2X6MM	200	39710.020.006				6X24MM	100	39710.060.024
2X8MM	200	39710.020.008	4X8MM	200	39710.040.008	6X30MM	100	39710.060.030
2X10MM	200	39710.020.010	4X10MM	200	39710.040.010	6X40MM	100	39710.060.040
2X12MM	200	39710.020.012	4X12MM	200	39710.040.012	6X45MM	100	39710.060.045
2X16MM	200	39710.020.016	4X16MM	200	39710.040.016	6X50MM	100	39710.060.050
2X20MM	200	39710.020.020	4X20MM	200	39710.040.020	6X60MM	100	39710.060.060
2X24MM	200	39710.020.024	4X24MM	200	39710.040.024			
2X30MM	200	39710.020.030	4X30MM	200	39710.040.030	8X12MM	100	39710.080.012
			4X36MM	100	39710.040.036	8X16MM	100	39710.080.016
2,5X6MM	200	39710.025.006	4X40MM	100	39710.040.040	8X20MM	100	39710.080.020
2,5X8MM	200	39710.025.008				8X24MM	100	39710.080.024
2,5X10MM	200	39710.025.010	5X10MM	200	39710.050.010	8X30MM	100	39710.080.030
2,5X12MM	200	39710.025.012	5X12MM	200	39710.050.012	8X40MM	50	39710.080.040
2,5X16MM	200	39710.025.016	5X16MM	200	39710.050.016	8X50MM	50	39710.080.050
2,5X20MM	200	39710.025.020	5X20MM	100	39710.050.020	8X60MM	50	39710.080.060
2,5X30MM	200	39710.025.030	5X24MM	100	39710.050.024	8X70MM	50	39710.080.070

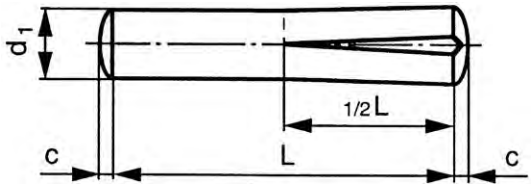
9

51585	Cavilha cónica com chanfro	R09A
Material	Aço inoxidável A1	

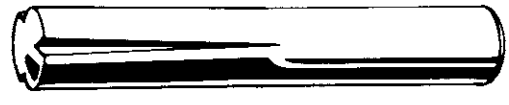


d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
2X8MM*	500	51585.020.008				5X35MM*	200	51585.050.035
2X10MM*	500	51585.020.010	4X8MM*	200	51585.040.008	5X40MM*	200	51585.050.040
2X12MM*	500	51585.020.012	4X12MM*	200	51585.040.012			
2X16MM*	500	51585.020.016	4X16MM*	200	51585.040.016	6X10MM*	100	51585.060.010
2X20MM*	500	51585.020.020	4X20MM*	200	51585.040.020	6X12MM*	100	51585.060.012
			4X25MM*	200	51585.040.025	6X16MM*	100	51585.060.016
2,5X20MM*	500	51585.025.020	4X40MM*	200	51585.040.040	6X20MM*	100	51585.060.020
						6X25MM*	100	51585.060.025
3X8MM*	500	51585.030.008	5X8MM*	200	51585.050.008	6X30MM*	100	51585.060.030
3X10MM*	500	51585.030.010	5X10MM*	200	51585.050.010	6X40MM*	100	51585.060.040
3X12MM*	500	51585.030.012	5X12MM*	200	51585.050.012			
3X16MM*	500	51585.030.016	5X16MM*	200	51585.050.016	8X30MM*	50	51585.080.030
3X18MM*	500	51585.030.018	5X20MM*	200	51585.050.020	8X40MM*	50	51585.080.040
3X20MM*	500	51585.030.020	5X25MM*	200	51585.050.025	8X60MM*	50	51585.080.060
3X25MM*	500	51585.030.025	5X30MM*	200	51585.050.030			

Cavilha de ajuste com chanfro



DIN	**1472**
ISO	8745
NEN	2603

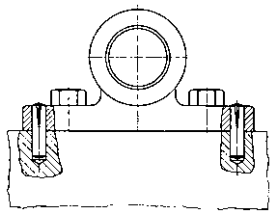


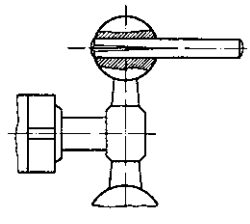
Dados técnicos

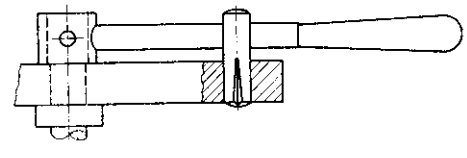
d_1	c ≈	Tolerância	V	d_1	c ≈	Tolerância	V
1.5	0.2	h9	1.6	4	0.5	h11	10.6
2	0.25	h9	2.85	5	0.6	h11	16.5
2.5	0.3	h9	4.25	6	0.8	h11	22.8
3	0.4	h9	6.15	8	1	h11	40.5

- V = Força transversal dupla min. em kN.
- Para o diâmetro do furo d_1(nom.) com tolerância H11 é recomendada.
- O diâmetro nominal (L) não incluí as ponta boleadas (tolerância js15).

Exemplos de aplicação





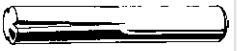


Grupos de produtos

Material	Código	Página
Aço de corte	39720	9-16
INOX A1	51586	9-16

39720 Cavilha de ajuste com chanfro — L11F

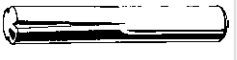
Material Aço de corte



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
1,5X4MM	200	39720.015.004	3X20MM	200	39720.030.020	6X10MM	100	39720.060.010
1,5X6MM	200	39720.015.006	3X24MM	200	39720.030.024	6X12MM	100	39720.060.012
1,5X8MM	200	39720.015.008	3X30MM	200	39720.030.030	6X16MM	100	39720.060.016
1,5X12MM	200	39720.015.012				6X20MM	100	39720.060.020
1,5X16MM	200	39720.015.016	4X8MM	200	39720.040.008	6X24MM	100	39720.060.024
			4X10MM	200	39720.040.010	6X30MM	100	39720.060.030
2X6MM	200	39720.020.006	4X12MM	200	39720.040.012	6X36MM	100	39720.060.036
2X8MM	200	39720.020.008	4X16MM	200	39720.040.016	6X40MM	100	39720.060.040
2X10MM	200	39720.020.010	4X20MM	200	39720.040.020	6X50MM	100	39720.060.050
2X12MM	200	39720.020.012	4X24MM	200	39720.040.024	6X60MM	100	39720.060.060
2X16MM	200	39720.020.016	4X28MM	200	39720.040.028			
2X20MM	200	39720.020.020	4X30MM	200	39720.040.030	8X12MM	100	39720.080.012
			4X36MM	100	39720.040.036	8X16MM	100	39720.080.016
2,5X6MM	200	39720.025.006				8X20MM	100	39720.080.020
2,5X10MM	200	39720.025.010	5X8MM	200	39720.050.008	8X24MM	100	39720.080.024
2,5X12MM	200	39720.025.012	5X10MM	200	39720.050.010	8X30MM	100	39720.080.030
2,5X16MM	200	39720.025.016	5X12MM	200	39720.050.012	8X36MM	50	39720.080.036
2,5X20MM	250	39720.025.020	5X16MM	200	39720.050.016	8X40MM	50	39720.080.040
			5X20MM	100	39720.050.020	8X45MM	50	39720.080.045
3X8MM	200	39720.030.008	5X24MM	100	39720.050.024	8X50MM	50	39720.080.050
3X10MM	200	39720.030.010	5X30MM	100	39720.050.030	8X60MM	50	39720.080.060
3X12MM	200	39720.030.012	5X40MM	100	39720.050.040	8X70MM	50	39720.080.070
3X16MM	200	39720.030.016						

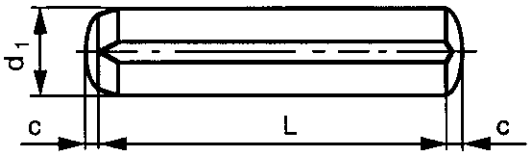
51586 Cavilha de ajuste com chanfro — R09A

Material Aço inoxidável A1

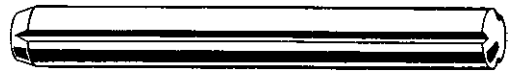


d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
2X6MM*	500	51586.020.006	4X16MM*	200	51586.040.016	6X16MM*	100	51586.060.016
2X8MM*	500	51586.020.008	4X18MM*	200	51586.040.018	6X18MM*	100	51586.060.018
2X10MM*	500	51586.020.010	4X20MM*	200	51586.040.020	6X20MM*	100	51586.060.020
2X12MM*	500	51586.020.012	4X25MM*	200	51586.040.025	6X25MM*	100	51586.060.025
2X16MM*	500	51586.020.016	4X30MM*	200	51586.040.030	6X30MM*	100	51586.060.030
			4X35MM*	200	51586.040.035	6X35MM*	100	51586.060.035
3X6MM*	500	51586.030.006	4X40MM*	200	51586.040.040	6X40MM*	100	51586.060.040
3X8MM*	500	51586.030.008				6X50MM*	100	51586.060.050
3X10MM*	500	51586.030.010	5X10MM*	200	51586.050.010			
3X12MM*	500	51586.030.012	5X12MM*	200	51586.050.012	8X12MM*	50	51586.080.012
3X16MM*	500	51586.030.016	5X16MM*	200	51586.050.016	8X16MM*	50	51586.080.016
3X18MM*	500	51586.030.018	5X18MM*	200	51586.050.018	8X20MM*	50	51586.080.020
3X20MM*	500	51586.030.020	5X20MM*	200	51586.050.020	8X25MM*	50	51586.080.025
3X25MM*	500	51586.030.025	5X25MM*	200	51586.050.025	8X30MM*	50	51586.080.030
			5X30MM*	200	51586.050.030	8X35MM*	50	51586.080.035
4X8MM*	200	51586.040.008	5X40MM*	200	51586.050.040	8X40MM*	50	51586.080.040
4X10MM*	200	51586.040.010				8X60MM*	50	51586.080.060
4X12MM*	200	51586.040.012	6X12MM*	100	51586.060.012			

Cavilha cilindrica com chanfro



DIN **1473**
ISO 8740
NEN 2604

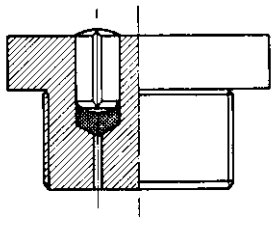


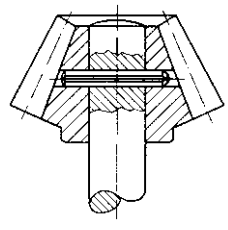
Dados técnicos

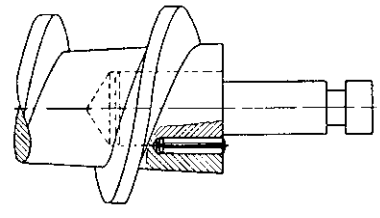
d_1	c ≈	Tolerância	V	d_1	c ≈	Tolerância	V
1.5	0.2	h9	1.6	4	0.4	h11	10.6
2	0.25	h9	2.85	5	0.6	h11	16.5
2.5	0.3	h9	4.25	6	0.8	h11	22.8
3	0.4	h9	6.15	8	1	h11	40.5

- V = Força transversal dupla min. em kN.
- Para o diâmetro do furo d_1(nom.) com tolerância H11 é recomendada.
- O diâmetro nominal (L) não incluí as ponta boleadas (tolerância js15).

Exemplos de aplicação





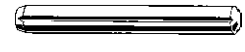


Grupos de produtos

Material	Código	Página
Aço de corte	39730	9-17
INOX A1	51582	9-18

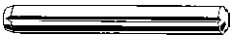
39730 **Cavilha cilindrica com chanfro** **L11F**

Material Aço de corte



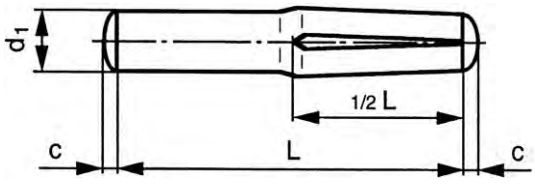
d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
1,5X5MM	200	39730.015.005	3X10MM	200	39730.030.010	5X40MM	100	39730.050.040
1,5X6MM	200	39730.015.006	3X12MM	200	39730.030.012			
1,5X8MM	200	39730.015.008	3X16MM	200	39730.030.016	6X10MM	100	39730.060.010
1,5X10MM	200	39730.015.010	3X20MM	200	39730.030.020	6X12MM	100	39730.060.012
1,5X12MM	200	39730.015.012	3X24MM	200	39730.030.024	6X16MM	100	39730.060.016
1,5X16MM	200	39730.015.016	3X30MM	200	39730.030.030	6X20MM	100	39730.060.020
						6X24MM	100	39730.060.024
2X5MM	200	39730.020.005	4X8MM	200	39730.040.008	6X30MM	100	39730.060.030
2X6MM	200	39730.020.006	4X10MM	200	39730.040.010	6X36MM	100	39730.060.036
2X8MM	200	39730.020.008	4X12MM	200	39730.040.012	6X40MM	100	39730.060.040
2X10MM	200	39730.020.010	4X16MM	200	39730.040.016	6X45MM	100	39730.060.045
2X12MM	200	39730.020.012	4X20MM	200	39730.040.020	6X50MM	100	39730.060.050
2X16MM	200	39730.020.016	4X24MM	200	39730.040.024	6X60MM	100	39730.060.060
2X20MM	200	39730.020.020	4X30MM	200	39730.040.030			
2X24MM	200	39730.020.024	4X36MM	100	39730.040.036	8X12MM	100	39730.080.012
2X30MM	200	39730.020.030	4X40MM	100	39730.040.040	8X16MM	100	39730.080.016
						8X20MM	100	39730.080.020
2,5X10MM	200	39730.025.010	5X8MM	200	39730.050.008	8X24MM	100	39730.080.024
2,5X12MM	200	39730.025.012	5X10MM	200	39730.050.010	8X30MM	100	39730.080.030
2,5X16MM	200	39730.025.016	5X12MM	200	39730.050.012	8X36MM	50	39730.080.036
2,5X20MM	200	39730.025.020	5X16MM	200	39730.050.016	8X40MM	50	39730.080.040
2,5X24MM	200	39730.025.024	5X20MM	100	39730.050.020	8X45MM	50	39730.080.045
			5X24MM	100	39730.050.024	8X50MM	50	39730.080.050
3X6MM	200	39730.030.006	5X30MM	100	39730.050.030	8X60MM	50	39730.080.060
3X8MM	200	39730.030.008	5X36MM	100	39730.050.036	8X70MM	50	39730.080.070

51582	Cavilha cilindrica com chanfro	R09A
Material	Aço inoxidável A1	

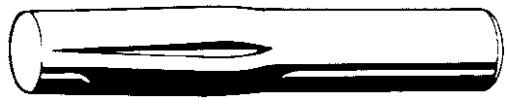


d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
2X8MM*	500	51582.020.008	4X20MM*	200	51582.040.020	6X18MM*	100	51582.060.018
2X10MM*	500	51582.020.010	4X25MM*	200	51582.040.025	6X20MM*	100	51582.060.020
2X12MM*	500	51582.020.012	4X30MM*	200	51582.040.030	6X25MM*	100	51582.060.025
2X16MM*	500	51582.020.016	4X35MM*	200	51582.040.035	6X30MM*	100	51582.060.030
2X20MM*	500	51582.020.020	4X40MM*	200	51582.040.040	6X35MM*	100	51582.060.035
						6X40MM*	100	51582.060.040
3X8MM*	500	51582.030.008	5X10MM*	200	51582.050.010	6X45MM*	100	51582.060.045
3X10MM*	500	51582.030.010	5X12MM*	200	51582.050.012	6X50MM*	100	51582.060.050
3X12MM*	500	51582.030.012	5X16MM*	200	51582.050.016	6X60MM*	100	51582.060.060
3X16MM*	500	51582.030.016	5X20MM*	200	51582.050.020			
3X18MM*	500	51582.030.018	5X25MM*	200	51582.050.025	8X12MM*	50	51582.080.012
3X20MM*	500	51582.030.020	5X30MM*	200	51582.050.030	8X16MM*	50	51582.080.016
3X25MM*	500	51582.030.025	5X35MM*	200	51582.050.035	8X20MM*	50	51582.080.020
			5X40MM*	200	51582.050.040	8X25MM*	50	51582.080.025
4X8MM*	200	51582.040.008				8X30MM*	50	51582.080.030
4X10MM*	200	51582.040.010	6X10MM*	100	51582.060.010	8X35MM*	50	51582.080.035
4X12MM*	200	51582.040.012	6X12MM*	100	51582.060.012	8X40MM*	50	51582.080.040
4X16MM*	200	51582.040.016	6X16MM*	100	51582.060.016	8X50MM*	50	51582.080.050
4X18MM*	200	51582.040.018						

Cavilha cilindrica com estria



DIN	**1474**
ISO	8741
NEN	2605



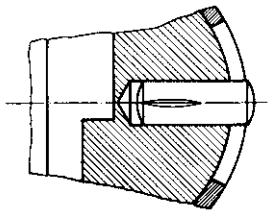
Dados técnicos

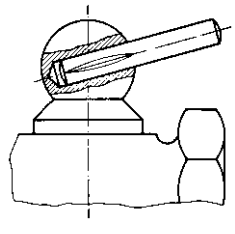
d_1	c ≈	Tolerância	V	d_1	c ≈	Tolerância	V
1.5	0.2	h9	1.6	4	0.5	h11	10.6
2	0.25	h9	2.85	5	0.63	h11	16.5
2.5	0.3	h9	4.25	6	0.8	h11	22.8
3	0.4	h9	6.15	8	1	h11	40.5

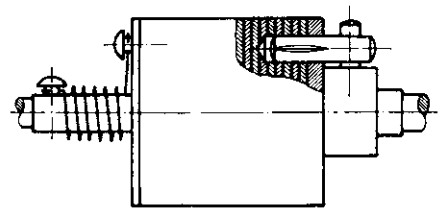
- V = Força transversal dupla min. em kN.
- Para o diâmetro do furo d_1(nom.) com tolerância H11 é recomendada.
- O diâmetro nominal (L) não incluí as pontas com chanfro (tolerância js15).

9

Exemplos de aplicação





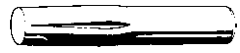


Grupos de produtos

Material	Código	Página
Aço de corte	39740	9-19
INOX A1	51583	9-19

39740 Cavilha cilindrica com estria — L11F

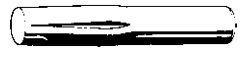
Material Aço de corte



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
1,5X5MM	200	39740.015.005	3X16MM	200	39740.030.016	6X12MM	100	39740.060.012
1,5X6MM	200	39740.015.006	3X20MM	200	39740.030.020	6X16MM	100	39740.060.016
1,5X8MM	200	39740.015.008	3X24MM	200	39740.030.024	6X20MM	100	39740.060.020
1,5X10MM	200	39740.015.010	3X30MM	200	39740.030.030	6X24MM	100	39740.060.024
1,5X12MM	200	39740.015.012				6X30MM	100	39740.060.030
			4X8MM	200	39740.040.008	6X40MM	100	39740.060.040
2X5MM	200	39740.020.005	4X10MM	200	39740.040.010	6X45MM	100	39740.060.045
2X6MM	200	39740.020.006	4X12MM	200	39740.040.012	6X50MM	100	39740.060.050
2X8MM	200	39740.020.008	4X16MM	200	39740.040.016	6X60MM	100	39740.060.060
2X10MM	200	39740.020.010	4X20MM	200	39740.040.020			
2X12MM	200	39740.020.012	4X24MM	200	39740.040.024	8X12MM	100	39740.080.012
2X16MM	200	39740.020.016	4X30MM	200	39740.040.030	8X16MM	100	39740.080.016
			4X36MM	100	39740.040.036	8X20MM	100	39740.080.020
2,5X6MM	200	39740.025.006				8X24MM	100	39740.080.024
2,5X8MM	200	39740.025.008	5X8MM	200	39740.050.008	8X30MM	100	39740.080.030
2,5X10MM	200	39740.025.010	5X10MM	200	39740.050.010	8X36MM	50	39740.080.036
2,5X12MM	200	39740.025.012	5X12MM	200	39740.050.012	8X40MM	50	39740.080.040
2,5X16MM	200	39740.025.016	5X16MM	200	39740.050.016	8X45MM	50	39740.080.045
			5X20MM	100	39740.050.020	8X50MM	50	39740.080.050
3X6MM	200	39740.030.006	5X24MM	100	39740.050.024	8X60MM	50	39740.080.060
3X8MM	200	39740.030.008	5X30MM	100	39740.050.030	8X70MM	50	39740.080.070
3X10MM	200	39740.030.010	5X36MM	100	39740.050.036			
3X12MM	200	39740.030.012						

51583 Cavilha cilindrica com estria — R09A

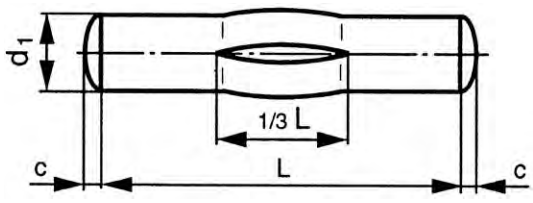
Material Aço inoxidável A1



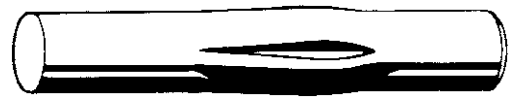
d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
2X8MM*	500	51583.020.008	4X10MM*	200	51583.040.010	5X25MM*	200	51583.050.025
2X10MM*	500	51583.020.010	4X12MM*	200	51583.040.012	5X35MM*	200	51583.050.035
2X12MM*	500	51583.020.012	4X16MM*	200	51583.040.016			
2X16MM*	500	51583.020.016	4X20MM*	200	51583.040.020	6X16MM*	100	51583.060.016
			4X25MM*	200	51583.040.025	6X20MM*	100	51583.060.020
3X8MM*	500	51583.030.008				6X30MM*	100	51583.060.030
3X10MM*	500	51583.030.010	5X12MM*	200	51583.050.012	6X40MM*	100	51583.060.040
3X12MM*	500	51583.030.012	5X16MM*	200	51583.050.016			
3X16MM*	500	51583.030.016	5X18MM*	200	51583.050.018	8X40MM*	100	51583.080.040
			5X20MM*	200	51583.050.020			

9

Cavilha cilindrica com estria



DIN **1475**
ISO 8742
NEN 2606

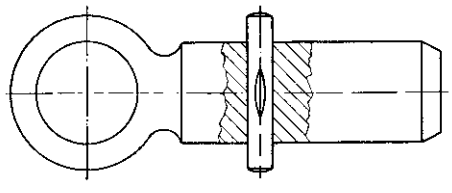


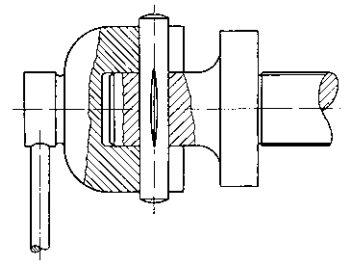
Dados técnicos

d_1	c ≈	Tolerância	V	d_1	c ≈	Tolerância	V
1.5	0.2	h9	1.6	4	0.5	h11	10.6
2	0.25	h9	2.85	5	0.6	h11	16.5
2.5	0.3	h9	4.25	6	0.8	h11	22.8
3	0.4	h11	6.15	8	1	h11	40.5

- V = Força transversal dupla min. em kN.
- Para o diâmetro do furo d_1(nom.) com tolerância H11 é recomendada.
- O diâmetro nominal (L) não incluí as pontas com chanfro (tolerância js15).

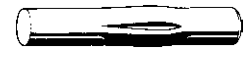
Exemplos de aplicação





39750 **Cavilha cilindrica com estria** **L11F**

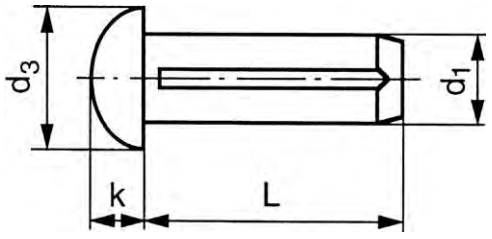
Material Aço de corte



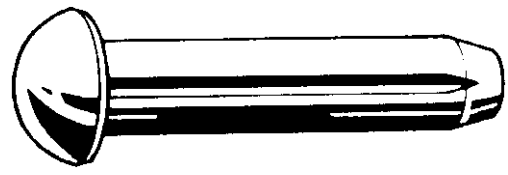
d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
1,5X8MM	200	39750.015.008	3X12MM	200	39750.030.012	5X40MM	100	39750.050.040
1,5X10MM	200	39750.015.010	3X16MM	200	39750.030.016			
1,5X16MM	200	39750.015.016	3X20MM	200	39750.030.020	6X12MM	100	39750.060.012
			3X24MM	200	39750.030.024	6X16MM	100	39750.060.016
2X6MM	200	39750.020.006	3X30MM	200	39750.030.030	6X20MM	100	39750.060.020
2X10MM	200	39750.020.010				6X24MM	100	39750.060.024
2X12MM	200	39750.020.012	4X12MM	200	39750.040.012	6X30MM	100	39750.060.030
2X16MM	200	39750.020.016	4X16MM	200	39750.040.016	6X36MM	100	39750.060.036
2X20MM	200	39750.020.020	4X20MM	200	39750.040.020	6X40MM	100	39750.060.040
2X24MM	200	39750.020.024	4X24MM	200	39750.040.024	6X45MM	100	39750.060.045
			4X30MM	200	39750.040.030	6X50MM	100	39750.060.050
2,5X8MM	200	39750.025.008	4X36MM	100	39750.040.036	6X60MM	100	39750.060.060
2,5X10MM	200	39750.025.010	4X40MM	100	39750.040.040			
2,5X12MM	200	39750.025.012				8X20MM	100	39750.080.020
2,5X16MM	200	39750.025.016	5X10MM	200	39750.050.010	8X24MM	100	39750.080.024
2,5X20MM	200	39750.025.020	5X12MM	200	39750.050.012	8X30MM	100	39750.080.030
2,5X24MM	200	39750.025.024	5X16MM	200	39750.050.016	8X36MM	50	39750.080.036
2,5X30MM	200	39750.025.030	5X20MM	100	39750.050.020	8X40MM	50	39750.080.040
			5X24MM	100	39750.050.024	8X45MM	50	39750.080.045
3X6MM	200	39750.030.006	5X30MM	100	39750.050.030	8X50MM	50	39750.080.050
3X8MM	200	39750.030.008	5X36MM	100	39750.050.036	8X60MM	50	39750.080.060
3X10MM	200	39750.030.010						

9

Cavilha cabeça redonda



DIN **1476**
ISO 8746
NEN 2460



Dados técnicos

d_1	d_3	k	Tolerância
1.4	2.4	0.8	0/ - 0.05
1.7 (≠DIN)	3	1	0/ - 0.05
2	3.5	1.2	0/ - 0.05
2.5	4.4	1.4	0/ - 0.05
2.6 (≠DIN)	4.5	1.6	0/ - 0.075
3	5.2	1.8	0/ - 0.075
4	7	2.4	0/ - 0.1
5	8.8	3	0/ - 0.1
6	10.5	3.6	0/ - 0.1

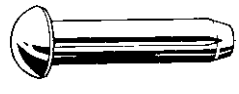
- Para o diâmetro do furo d_1(nom.) com tolerância H11 é recomendada.
- O comprimento nominal (L) é com tolerância js15.

Grupos de produtos

Material	Código	Página
Aço UTS 36-2	39760	9-21
INOX A2	51589	9-21

39760 **Cavilha cabeça redonda** **L11F**

Material Aço USt 36-2



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
1,4X3MM	200	39760.014.003	2,6X4MM	200	39760.026.004	4X10MM	200	39760.040.010
1,4X4MM	200	39760.014.004	2,6X5MM	200	39760.026.005	4X12MM	200	39760.040.012
1,4X6MM	200	39760.014.006	2,6X6MM	200	39760.026.006	4X15MM	200	39760.040.015
			2,6X8MM	200	39760.026.008			
1,7X3MM	200	39760.017.003	2,6X10MM	200	39760.026.010	5X8MM	200	39760.050.008
1,7X4MM	200	39760.017.004				5X10MM	200	39760.050.010
1,7X5MM	200	39760.017.005	3X4MM	200	39760.030.004	5X12MM	200	39760.050.012
1,7X6MM	200	39760.017.006	3X5MM	200	39760.030.005	5X15MM	200	39760.050.015
			3X6MM	200	39760.030.006	5X20MM	200	39760.050.020
2X3MM	200	39760.020.003	3X8MM	200	39760.030.008	5X25MM	200	39760.050.025
2X4MM	200	39760.020.004	3X10MM	200	39760.030.010			
2X5MM	200	39760.020.005	3X12MM	200	39760.030.012	6X10MM	200	39760.060.010
2X6MM	200	39760.020.006	3X15MM	200	39760.030.015	6X12MM	200	39760.060.012
2X8MM	200	39760.020.008				6X15MM	200	39760.060.015
2X10MM	200	39760.020.010	4X6MM	200	39760.040.006	6X20MM	200	39760.060.020
			4X8MM	200	39760.040.008	6X25MM	200	39760.060.025
2,6X3MM	200	39760.026.003						

51589 **Cavilha cabeça redonda** **R09A**

Material Aço inoxidável A2



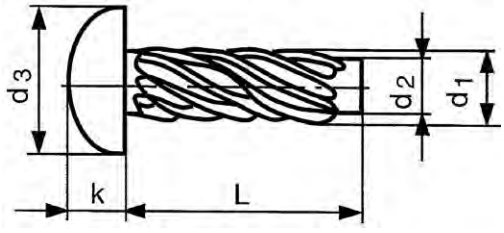
d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
2X3MM*	500	51589.020.003	2,5X3MM*	500	51589.025.003	3X4MM*	500	51589.030.004
2X4MM*	500	51589.020.004	2,5X4MM*	500	51589.025.004	3X5MM	500	51589.030.005
2X5MM*	500	51589.020.005	2,5X5MM*	500	51589.025.005	3X6MM*	500	51589.030.006
2X6MM*	500	51589.020.006	2,5X6MM*	500	51589.025.006	3X8MM*	500	51589.030.008
2X8MM*	500	51589.020.008	2,5X8MM*	500	51589.025.008	3X10MM*	500	51589.030.010
2X10MM*	500	51589.020.010	2,5X10MM*	500	51589.025.010	3X12MM*	500	51589.030.012
						3X16MM*	500	51589.030.016

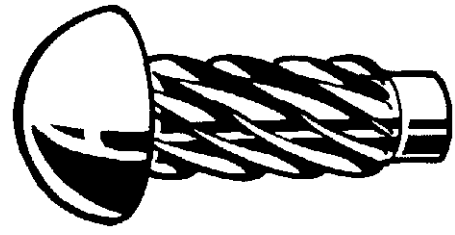
9

51589 **Cavilha cabeça redonda** ←

d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
			4X10MM*	200	51589.040.010	5X8MM*	200	51589.050.008
4X5MM*	200	51589.040.005	4X12MM*	200	51589.040.012	5X10MM*	200	51589.050.010
4X6MM*	200	51589.040.006				5X12MM*	200	51589.050.012
4X8MM*	200	51589.040.008	5X6MM*	200	51589.050.006	5X16MM*	200	51589.050.016

Parafuso pancada





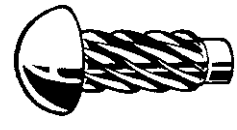
Dados técnicos

d_1	d_2	d_3	Furo ø ≈	k
1.5	1.35	2.5	1.4	0.8
1.9	1.7	3.2	1.7	1.2
2.5	2.15	4.1	2.2	1.7
2.9	2.65	5.3	2.6	2.1
3.5	3.1	6.6	3.1	2.6

27410 **Parafuso pancada** **J04A**

Material Aço
Tratamento sup. Niquelado

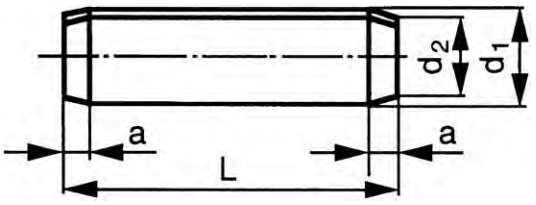
RoHS



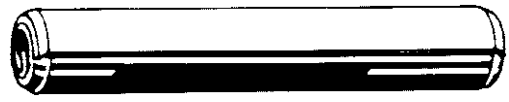
d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
1,5X3,2MM	500	27410.015.003				2,9X6,5MM	500	27410.029.006
1,5X4,7MM	500	27410.015.004	2,5X3,2MM	500	27410.025.003	2,9X8MM	500	27410.029.008
1,5X6,5MM	500	27410.015.006	2,5X4,7MM	500	27410.025.004			
			2,5X6,5MM	500	27410.025.006	3,5X6,5MM	500	27410.035.006
1,9X3,2MM	500	27410.019.003				3,5X8MM	500	27410.035.008
1,9X4,7MM	500	27410.019.004	2,9X4,7MM	500	27410.029.004	3,5X9,5MM	500	27410.035.009
1,9X6,5MM	500	27410.019.006						

9

Cavilha elástica espiral média



ISO	**8750**
DIN	7343
NEN	2553



Dados técnicos

d (nom.)	a ≈	d_1 (max.)	d_1 (min.)	d_2	V
1	0.3	1.15	1.05	0.95	0.6
1.5	0.5	1.73	1.62	1.4	1.45
2	0.7	2.25	2.13	1.9	2.5
2.5	0.7	2.78	2.65	2.4	3.9
3	0.9	3.3	3.15	2.9	5.5
4	1.1	4.4	4.2	3.9	9.6
5	1.3	5.5	5.25	4.85	15
6	1.5	6.5	6.25	5.85	22
8	2	8.63	8.3	7.8	39
10	2.5	10.8	10.35	9.75	62
12	3	12.85	12.4	11.7	89
14	3.5	14.95	14.45	13.6	120
16	4	17	16.45	15.6	155

- V = Dupla carga transversal min. em kN.
- Caracteristicas de cavilhas elásticas (cavilhas em espiral):
- São utilizadas para ligações desmontáveis (posicionamento) de duas ou mais partes e podem ser utilizadas como eixo ou dobradiça.
- Devido à sua forma em espiral a secção é de (approx. 2.1/4 bobinas) as cavilhas elásticas deste tipo são (cavilhas em espiral) são muito flexiveis e podem ser usadas mais vezes para cargas dinâmicas. Igual distribuição em toda a secção produz uma boa pressão de ajuste,que pode absorver forças transversaisindependente da sua direcção.
- Devido à sua forma em espiral (approx. 2.1/4 bobinas) as cavilhas elásticas deste tipo são muito flexiveis e podem ser usadas mais vezes para cargas dinâmicas. A igual distribuição em toda a secção produz uma boa pressão de ajuste,que pode absorver forças transversais independente da sua direcção.
- São com pontas chanfradas nas pontas ,para poderem ser inseridas e instaladas automáticamente.
- Para o furo diâmetro d (nom.) Tolerância H12 é recomendada excepto para d (nom.)1mm, a tolerância H10 é recomendada.

Exemplos de aplicação

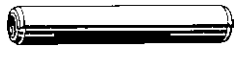





9

39140 Cavilha elástica espiral **L09A**

Material Aço mola 420-560 HV30



RoHS

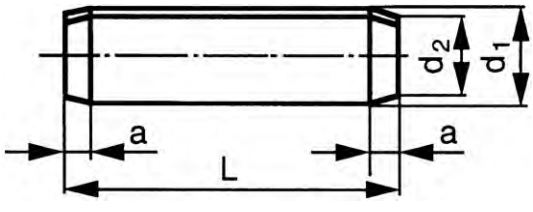
d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
1,5X4MM	200	39140.015.004	2,5X10MM	200	39140.025.010	3X28MM	200	39140.030.028
1,5X6MM	200	39140.015.006	2,5X12MM	200	39140.025.012	3X30MM	200	39140.030.030
1,5X8MM	200	39140.015.008	2,5X14MM	200	39140.025.014			
1,5X10MM	200	39140.015.010	2,5X16MM	200	39140.025.016	4X10MM	200	39140.040.010
1,5X12MM	200	39140.015.012	2,5X18MM	200	39140.025.018	4X12MM	200	39140.040.012
1,5X14MM	200	39140.015.014	2,5X20MM	200	39140.025.020	4X16MM	200	39140.040.016
1,5X16MM	200	39140.015.016	2,5X24MM	200	39140.025.024	4X18MM	200	39140.040.018
						4X20MM	200	39140.040.020
2X6MM	200	39140.020.006	3X8MM	200	39140.030.008	4X22MM	200	39140.040.022
2X8MM	200	39140.020.008	3X10MM	200	39140.030.010	4X24MM	200	39140.040.024
2X10MM	200	39140.020.010	3X12MM	200	39140.030.012	4X26MM	200	39140.040.026
2X12MM	200	39140.020.012	3X14MM	200	39140.030.014	4X28MM	200	39140.040.028
2X14MM	200	39140.020.014	3X16MM	200	39140.030.016	4X30MM	200	39140.040.030
2X16MM	200	39140.020.016	3X20MM	200	39140.030.020	4X32MM	100	39140.040.032
2X20MM	200	39140.020.020	3X22MM	200	39140.030.022	4X35MM	100	39140.040.035
			3X24MM	200	39140.030.024	4X40MM	100	39140.040.040
2,5X8MM	200	39140.025.008	3X26MM	200	39140.030.026			

39140 Cavilha elástica espiral ←

d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
5X12MM	200	39140.050.012	6X45MM	50	39140.060.045	10X70MM	25	39140.100.070
5X16MM	200	39140.050.016	6X50MM	50	39140.060.050	10X80MM	10	39140.100.080
5X20MM	100	39140.050.020						
5X22MM	100	39140.050.022	8X20MM	100	39140.080.020	12X30MM	25	39140.120.030
5X24MM	100	39140.050.024	8X24MM	100	39140.080.024	12X35MM	25	39140.120.035
5X26MM	100	39140.050.026	8X30MM	50	39140.080.030	12X40MM	25	39140.120.040
5X28MM	100	39140.050.028	8X32MM	50	39140.080.032	12X50MM	10	39140.120.050
5X30MM	100	39140.050.030	8X35MM	50	39140.080.035	12X55MM	10	39140.120.055
5X32MM	100	39140.050.032	8X40MM	50	39140.080.040	12X60MM	10	39140.120.060
5X35MM	100	39140.050.035	8X50MM	50	39140.080.050	12X70MM	10	39140.120.070
5X40MM	100	39140.050.040	8X60MM	50	39140.080.060	12X80MM	10	39140.120.080
5X45MM	100	39140.050.045	8X70MM	25	39140.080.070	12X85MM	10	39140.120.085
						12X90MM	10	39140.120.090
6X12MM	200	39140.060.012	10X20MM	50	39140.100.020	12X100MM	10	39140.120.100
6X16MM	200	39140.060.016	10X22MM	50	39140.100.022	12X120MM	10	39140.120.120
6X20MM	100	39140.060.020	10X24MM	50	39140.100.024			
6X24MM	100	39140.060.024	10X28MM	50	39140.100.028	16X40MM	5	39140.160.040
6X26MM	100	39140.060.026	10X30MM	50	39140.100.030	16X50MM	5	39140.160.050
6X28MM	100	39140.060.028	10X35MM	25	39140.100.035	16X60MM	5	39140.160.060
6X30MM	100	39140.060.030	10X40MM	25	39140.100.040	16X80MM	5	39140.160.080
6X32MM	100	39140.060.032	10X45MM	25	39140.100.045	16X90MM	5	39140.160.090
6X35MM	100	39140.060.035	10X50MM	25	39140.100.050	16X100MM	5	39140.160.100
6X40MM	100	39140.060.040	10X60MM	25	39140.100.060	16X120MM	5	39140.160.120

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Cavilha elástica espiral média A2



ISO **≈8750**
DIN ≈7343
NEN ≈2553



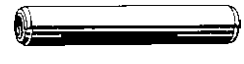
Dados técnicos

d (nom.)	a ≈	d_1 (max.)	d_1 (min.)	d_2	V
1	0.3	1.15	1.05	0.95	0.45
1.5	0.5	1.73	1.62	1.4	1.05
2	0.7	2.25	2.13	1.9	1.9
2.5	0.7	2.78	2.65	2.4	2.9
3	0.9	3.3	3.15	2.9	4.2
4	1.1	4.4	4.2	3.9	7.6
5	1.3	5.5	5.25	4.85	11.5
6	1.5	6.5	6.25	5.85	16.8
8	2	8.63	8.3	7.8	30

- V = Dupla carga transversal min. em kN.
- Caracteristicas de cavilhas elásticas (cavilhas em espiral):
- São utilizadas para ligações desmontáveis (posicionamento) de duas ou mais partes e podem ser utilizadas como eixo ou dobradiça.
- Devido á sua forma em espiral (approx. 2.1/4 bobinas) as cavilhas elásticas deste tipo são muito flexiveis e podem ser usadas mais vezes para cargas dinâmicas.
- A igual distribuição em toda a secção produz uma boa pressão de ajuste,que pode absorver forças transversais independente da sua direcção.
- São com pontas chanfradas nas pontas ,para poderem ser inseridas e instaladas automáticamente.
- O tipo de aço austenitico depende do fabricante, e pode variar do aço descrito em DIN 267-11.
- Para o furo diâmetro d (nom.) é recomendada a tolerância H12, excepto para d (nom.)1mm.

51430 Cavilha espiral **R09A**

Material Aço inoxidável A2

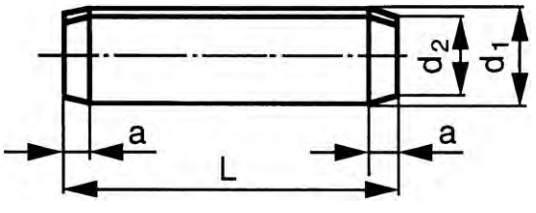


d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
1X4MM	200	51430.010.004	1,5X5MM	200	51430.015.005			
1X6MM	200	51430.010.006	1,5X6MM*	1000	51430.015.006	2X5MM*	1000	51430.020.005
1X8MM	200	51430.010.008	1,5X8MM	200	51430.015.008	2X6MM	200	51430.020.006
1X10MM	200	51430.010.010	1,5X10MM	200	51430.015.010	2X8MM	200	51430.020.008
1X12MM	200	51430.010.012	1,5X12MM	200	51430.015.012	2X10MM	200	51430.020.010
			1,5X14MM	200	51430.015.014	2X12MM	200	51430.020.012
1,5X4MM	200	51430.015.004	1,5X16MM	200	51430.015.016	2X14MM	200	51430.020.014

51430 Cavilha espiral ←

d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
2X16MM	200	51430.020.016	4X12MM	200	51430.040.012	5X45MM	100	51430.050.045
2X18MM	200	51430.020.018	4X14MM	200	51430.040.014	5X50MM	100	51430.050.050
2X20MM	200	51430.020.020	4X16MM	200	51430.040.016			
			4X18MM	200	51430.040.018	6X12MM	200	51430.060.012
2,5X6MM*	1000	51430.025.006	4X20MM	200	51430.040.020	6X14MM	200	51430.060.014
2,5X8MM	200	51430.025.008	4X22MM	200	51430.040.022	6X16MM	200	51430.060.016
2,5X10MM	200	51430.025.010	4X24MM	200	51430.040.024	6X18MM	100	51430.060.018
2,5X12MM	200	51430.025.012	4X26MM	200	51430.040.026	6X20MM	100	51430.060.020
2,5X14MM	200	51430.025.014	4X28MM	200	51430.040.028	6X22MM	100	51430.060.022
2,5X16MM	200	51430.025.016	4X30MM	200	51430.040.030	6X24MM	100	51430.060.024
2,5X18MM	200	51430.025.018	4X32MM*	500	51430.040.032	6X26MM	100	51430.060.026
2,5X20MM	200	51430.025.020	4X35MM	100	51430.040.035	6X28MM	100	51430.060.028
2,5X24MM	200	51430.025.024	4X40MM	100	51430.040.040	6X30MM	100	51430.060.030
			4X45MM*	500	51430.040.045	6X32MM	100	51430.060.032
3X8MM	200	51430.030.008	4X50MM*	500	51430.040.050	6X35MM	100	51430.060.035
3X10MM	200	51430.030.010				6X40MM	100	51430.060.040
3X12MM	200	51430.030.012	5X10MM*	500	51430.050.010	6X45MM	100	51430.060.045
3X14MM	200	51430.030.014	5X12MM	200	51430.050.012	6X50MM	100	51430.060.050
3X16MM	200	51430.030.016	5X14MM	200	51430.050.014			
3X18MM	200	51430.030.018	5X16MM	200	51430.050.016	8X16MM	100	51430.080.016
3X20MM	200	51430.030.020	5X18MM	100	51430.050.018	8X20MM	100	51430.080.020
3X22MM	200	51430.030.022	5X20MM	100	51430.050.020	8X24MM	100	51430.080.024
3X24MM	200	51430.030.024	5X22MM*	500	51430.050.022	8X26MM	50	51430.080.026
3X26MM	200	51430.030.026	5X24MM	100	51430.050.024	8X28MM	50	51430.080.028
3X28MM	200	51430.030.028	5X26MM	100	51430.050.026	8X30MM	50	51430.080.030
3X30MM	200	51430.030.030	5X28MM	100	51430.050.028	8X32MM	50	51430.080.032
3X32MM*	500	51430.030.032	5X30MM	100	51430.050.030	8X35MM	50	51430.080.035
			5X32MM	100	51430.050.032	8X40MM	50	51430.080.040
4X8MM	200	51430.040.008	5X35MM	100	51430.050.035	8X45MM	50	51430.080.045
4X10MM	200	51430.040.010	5X40MM	100	51430.050.040	8X50MM	50	51430.080.050

Cavilha elástica espiral pesada



ISO **8748**
DIN 7344
NEN 2554



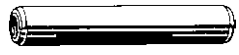
Dados técnicos

d (nom.)	a ≈	d_1 (max.)	d_1 (min.)	d_2	V
1.5	0.5	1.71	1.61	1.4	1.9
2	0.7	2.21	2.11	1.9	3.5
2.5	0.7	2.73	2.62	2.4	5.5
3	0.9	3.25	3.12	2.9	7.6
4	1.1	4.3	4.15	3.9	13.5
5	1.3	5.35	5.15	4.85	20
6	1.5	6.4	6.18	5.85	30

- V = Dupla carga transversal min. em kN.
- Caracteristicas de cavilhas elásticas (cavilhas em espiral):
- São utilizadas para ligações desmontáveis (posicionamento) de duas ou mais partes e podem ser utilizadas como eixo ou dobradiça.
- Devido á sua forma em espiral (approx. 2.1/4 bobinas) as cavilhas elásticas deste tipo são muito flexiveis e podem ser usadas mais vezes para cargas dinâmicas.
- A igual distribuição em toda a secção produz uma boa pressão de ajuste,que pode absorver forças transversais independente da sua direcção.
- Têm as pontas chanfradas , para poderem ser inseridas e instaladas automaticamente.
- Para o furo diâmetro d (nom.) é recomendada a tolerância H12, excepto para d (nom.) 1mm.

39150 Cavilha elástica tipo direito **L09A**

Material Aço mola 420-560 HV30



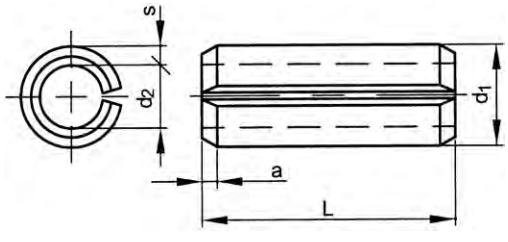
d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
1,5X4MM	200	39150.015.004	1,5X12MM	200	39150.015.012	2X8MM	200	39150.020.008
1,5X5MM	200	39150.015.005	1,5X14MM	200	39150.015.014	2X10MM	200	39150.020.010
1,5X6MM	200	39150.015.006	1,5X16MM	200	39150.015.016	2X12MM	200	39150.020.012
1,5X8MM	200	39150.015.008				2X14MM	200	39150.020.014
1,5X10MM	200	39150.015.010	2X6MM	200	39150.020.006	2X16MM	200	39150.020.016

39150 Cavilha elástica tipo direito ←

d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
2X20MM	200	39150.020.020	4X10MM	200	39150.040.010	5X26MM	100	39150.050.026
			4X12MM	200	39150.040.012	5X28MM	100	39150.050.028
2,5X10MM	200	39150.025.010	4X14MM	200	39150.040.014	5X30MM	100	39150.050.030
2,5X12MM	200	39150.025.012	4X16MM	200	39150.040.016	5X32MM	100	39150.050.032
2,5X14MM	200	39150.025.014	4X18MM	200	39150.040.018	5X35MM	100	39150.050.035
2,5X16MM	200	39150.025.016	4X20MM	200	39150.040.020	5X40MM	100	39150.050.040
2,5X18MM	200	39150.025.018	4X22MM	200	39150.040.022	5X45MM	100	39150.050.045
2,5X20MM	200	39150.025.020	4X24MM	200	39150.040.024			
2,5X22MM	200	39150.025.022	4X26MM	200	39150.040.026	6X14MM	100	39150.060.014
2,5X24MM	200	39150.025.024	4X28MM	200	39150.040.028	6X16MM	100	39150.060.016
			4X30MM	200	39150.040.030	6X18MM	100	39150.060.018
3X8MM	200	39150.030.008	4X32MM	100	39150.040.032	6X20MM	100	39150.060.020
3X10MM	200	39150.030.010	4X35MM	100	39150.040.035	6X22MM	100	39150.060.022
3X12MM	200	39150.030.012	4X40MM	100	39150.040.040	6X24MM	100	39150.060.024
3X14MM	200	39150.030.014				6X26MM	100	39150.060.026
3X16MM	200	39150.030.016	5X12MM	200	39150.050.012	6X28MM	100	39150.060.028
3X20MM	200	39150.030.020	5X14MM	200	39150.050.014	6X30MM	100	39150.060.030
3X22MM	200	39150.030.022	5X16MM	200	39150.050.016	6X32MM	100	39150.060.032
3X24MM	200	39150.030.024	5X18MM	100	39150.050.018	6X35MM	100	39150.060.035
3X28MM	200	39150.030.028	5X20MM	100	39150.050.020	6X40MM	100	39150.060.040
3X30MM	200	39150.030.030	5X22MM	100	39150.050.022	6X50MM	100	39150.060.050
			5X24MM	100	39150.050.024			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Cavilha elástica pesada



ISO 8752
DIN 1481
NEN 2458
BS 7060



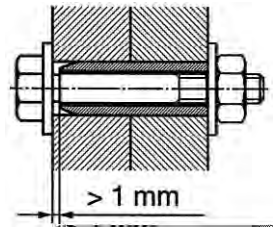
Dados técnicos

d (nom.)	a (min.)	d_1 (max.)	d_1 (min.)	d_2 ≈	s	V
1.5	0.25	1.8	1.7	1.1	0.3	1.58
2	0.35	2.4	2.3	1.5	0.4	2.82
2.5	0.4	2.9	2.8	1.8	0.5	4.38
3	0.5	3.5	3.3	2.1	0.6	6.32
3.5	0.6	4	3.8	2.3	0.75	9.06
4	0.65	4.6	4.4	2.8	0.8	11.24
4.5	0.8	5.1	4.9	2.9	1	15.36
5	0.9	5.6	5.4	3.4	1	17.54
6	1.2	6.7	6.4	3.9	1.25	26.04
7 (≠DIN)	2	7.8	7.5	4.5	1.5	31.4
8	1.6	8.8	8.5	5.5	1.5	42.76
9 (≠DIN)	2	9.8	9.5	5.5	2	60.66
10	2	10.8	10.5	6.5	2	70.16
12	2	12.8	12.5	7.5	2.5	104.1
13	2	13.8	13.5	8.5	2.5	115.1
14	2	14.8	14.4	8.5	3	144.7
16	2	16.8	16.5	10.5	3	171
18	2	18.9	18.5	11.5	3.5	222.5
20	3	20.9	20.5	12.5	4	280.6

- V = Dupla carga transversal min. em kN.
- Para furo de diâmetro d(nom.) com tolerância H12 é recomendada.

Caracteristicas especiais de cavilhas:
- São usadas para ligar dois ou mais elementos de construção entre si.
- Altamente indicado para absorver forças de corte
- Para evitar movimentos em ligações aparafusadas leves este tipo de cavilhas pode ser utilizada de acordo com a informação abaixo

d (nom.) tipo de cavilha	6	8	10	12	16	18
Indicado para parafuso de medida	M3	M4	M5	M6	M8	M10
Anilhas de acc.com o DIN 7349	3,2	4,3	5,3	6,4	8,4	10,5



39100 Cavilha elástica pesada — L09A

Material Aço mola 420-560 HV30



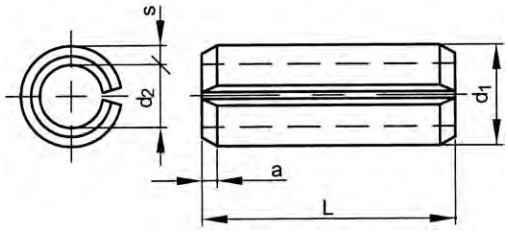
RoHS

d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
1,5X6MM	200	39100.015.006	4X12MM	200	39100.040.012	8X16MM	500	39100.080.016
1,5X8MM	200	39100.015.008	4X14MM	200	39100.040.014	8X20MM	50	39100.080.020
1,5X10MM	200	39100.015.010	4X16MM	200	39100.040.016	8X24MM	50	39100.080.024
1,5X12MM	200	39100.015.012	4X18MM	200	39100.040.018	8X26MM	50	39100.080.026
1,5X16MM	200	39100.015.016	4X20MM	200	39100.040.020	8X30MM	50	39100.080.030
1,5X20MM	200	39100.015.020	4X22MM	200	39100.040.022	8X32MM	50	39100.080.032
			4X24MM	200	39100.040.024	8X35MM	50	39100.080.035
2X4MM	200	39100.020.004	4X26MM	200	39100.040.026	8X40MM	50	39100.080.040
2X8MM	200	39100.020.008	4X28MM	200	39100.040.028	8X45MM	50	39100.080.045
2X10MM	200	39100.020.010	4X30MM	200	39100.040.030	8X50MM	50	39100.080.050
2X12MM	200	39100.020.012	4X32MM	100	39100.040.032	8X55MM	50	39100.080.055
2X14MM	200	39100.020.014	4X35MM	100	39100.040.035	8X60MM	50	39100.080.060
2X16MM	200	39100.020.016	4X40MM	100	39100.040.040	8X70MM	25	39100.080.070
2X20MM	200	39100.020.020	4X45MM	100	39100.040.045	8X80MM	25	39100.080.080
2X24MM	200	39100.020.024	4X50MM	100	39100.040.050	8X100MM	10	39100.080.100
2X26MM	200	39100.020.026	4X60MM	100	39100.040.060			
2X30MM	200	39100.020.030				10X20MM	50	39100.100.020
2X40MM	200	39100.020.040	4,5X10MM	200	39100.045.010	10X22MM	50	39100.100.022
			4,5X12MM	200	39100.045.012	10X24MM	50	39100.100.024
2,5X6MM	1	39100.025.006	4,5X14MM	200	39100.045.014	10X26MM	50	39100.100.026
2,5X8MM	200	39100.025.008	4,5X16MM	200	39100.045.016	10X30MM	50	39100.100.030
2,5X10MM	200	39100.025.010	4,5X20MM	200	39100.045.020	10X35MM	50	39100.100.035
2,5X12MM	200	39100.025.012	4,5X30MM	100	39100.045.030	10X40MM	25	39100.100.040
2,5X16MM	200	39100.025.016	4,5X40MM	200	39100.045.040	10X45MM	25	39100.100.045
2,5X18MM	200	39100.025.018	4,5X45MM	100	39100.045.045	10X50MM	25	39100.100.050
2,5X20MM	200	39100.025.020	4,5X50MM	200	39100.045.050	10X55MM	25	39100.100.055
2,5X24MM	200	39100.025.024	4,5X60MM	200	39100.045.060	10X60MM	25	39100.100.060
2,5X26MM	200	39100.025.026				10X70MM	25	39100.100.070
2,5X28MM	200	39100.025.028	5X10MM	200	39100.050.010	10X75MM	25	39100.100.075
2,5X30MM	200	39100.025.030	5X12MM	200	39100.050.012	10X80MM	10	39100.100.080
2,5X35MM	200	39100.025.035	5X16MM	100	39100.050.016	10X90MM	10	39100.100.090
2,5X40MM	200	39100.025.040	5X18MM	100	39100.050.018	10X100MM	10	39100.100.100
			5X20MM	100	39100.050.020			
3X6MM	200	39100.030.006	5X24MM	100	39100.050.024	12X24MM	25	39100.120.024
3X8MM	200	39100.030.008	5X26MM	100	39100.050.026	12X30MM	25	39100.120.030
3X10MM	200	39100.030.010	5X28MM	100	39100.050.028	12X36MM	25	39100.120.036
3X12MM	200	39100.030.012	5X30MM	100	39100.050.030	12X40MM	25	39100.120.040
3X14MM	200	39100.030.014	5X32MM	100	39100.050.032	12X45MM	100	39100.120.045
3X16MM	200	39100.030.016	5X35MM	100	39100.050.035	12X50MM	10	39100.120.050
3X18MM	200	39100.030.018	5X40MM	100	39100.050.040	12X60MM	10	39100.120.060
3X20MM	200	39100.030.020	5X45MM	100	39100.050.045	12X65MM	10	39100.120.065
3X22MM	200	39100.030.022	5X50MM	100	39100.050.050	12X70MM	10	39100.120.070
3X24MM	200	39100.030.024	5X55MM	100	39100.050.055	12X80MM	10	39100.120.080
3X26MM	200	39100.030.026	5X60MM	100	39100.050.060	12X90MM	10	39100.120.090
3X28MM	200	39100.030.028	5X70MM	50	39100.050.070	12X100MM	10	39100.120.100
3X30MM	200	39100.030.030	5X80MM	50	39100.050.080	12X120MM	10	39100.120.120
3X32MM	200	39100.030.032						
3X35MM	200	39100.030.035	6X12MM	200	39100.060.012	16X36MM	5	39100.160.036
3X40MM	200	39100.030.040	6X16MM	100	39100.060.016	16X40MM	5	39100.160.040
3X45MM	200	39100.030.045	6X18MM	100	39100.060.018	16X50MM	5	39100.160.050
3X50MM	200	39100.030.050	6X20MM	100	39100.060.020	16X60MM	5	39100.160.060
			6X22MM	100	39100.060.022	16X70MM	5	39100.160.070
3,5X10MM	200	39100.035.010	6X24MM	100	39100.060.024	16X75MM	5	39100.160.075
3,5X12MM	200	39100.035.012	6X26MM	100	39100.060.026	16X80MM	5	39100.160.080
3,5X16MM	200	39100.035.016	6X28MM	100	39100.060.028	16X90MM	5	39100.160.090
3,5X18MM	200	39100.035.018	6X30MM	100	39100.060.030	16X100MM	5	39100.160.100
3,5X20MM	200	39100.035.020	6X32MM	100	39100.060.032	16X120MM	5	39100.160.120
3,5X22MM	200	39100.035.022	6X35MM	100	39100.060.035			
3,5X24MM	200	39100.035.024	6X40MM	100	39100.060.040	18X50MM	5	39100.180.050
3,5X26MM	200	39100.035.026	6X45MM	50	39100.060.045			
3,5X30MM	200	39100.035.030	6X50MM	50	39100.060.050	20X60MM	5	39100.200.060
3,5X32MM	200	39100.035.032	6X55MM	50	39100.060.055	20X70MM	5	39100.200.070
3,5X35MM	200	39100.035.035	6X60MM	50	39100.060.060	20X80MM	5	39100.200.080
3,5X40MM	200	39100.035.040	6X65MM	50	39100.060.065	20X85MM	5	39100.200.085
3,5X45MM	200	39100.035.045	6X70MM	50	39100.060.070	20X90MM	5	39100.200.090
3,5X50MM	200	39100.035.050	6X80MM	50	39100.060.080	20X95MM	5	39100.200.095
			6X90MM	50	39100.060.090	20X100MM	5	39100.200.100
4X8MM	200	39100.040.008	6X100MM	50	39100.060.100	20X120MM	5	39100.200.120
4X10MM	200	39100.040.010						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

9

Cavilha elástica ligeira



ISO **13337**
DIN 7346
NEN 2459

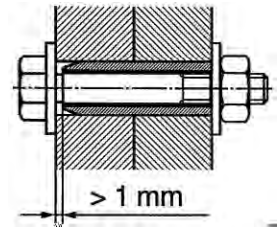


Dados técnicos

d (nom.)	a	d_1 (max.)	d_1 (min.)	d_2 ≈	s	V
2	0.2	2.4	2.3	1.9	0.2	1.5
2.5	0.25	2.9	2.8	2.3	0.25	2.4
3	0.25	3.5	3.3	2.7	0.3	3.5
4	0.5	4.6	4.4	3.4	0.5	8
5	0.5	5.6	5.4	4.4	0.5	10.4
6	0.7	6.7	6.4	4.9	0.75	18
8	1.5	8.8	8.5	7	0.75	24
10	2	10.8	10.5	8.5	1	40
13	2	13.8	13.5	11	1.25	66

- V = Dupla carga transversal min. in kN.
- Para furo de diâmetro d(nom.) com tolerância H12 é recomendado.
- a: cavilhas com mais de 10mm têm uma só ponta chanfrada.

Caracteristicas especiais de cavilhas:
- São usadas para ligar dois ou mais elementos de construção entre si.
- Altamente indicado para absorver forças de corte
- Para evitar movimentos em ligações aparafusadas leves este tipo de cavilhas pode ser utilizada de acordo com a informação abaixo



d (nom.) tipo de cavilha	6	7	8	11	13	16	18
Indicado para parafuso de medida	M4	M5	M6	M8	M10	M12	M14
Anilhas de acc.com DIN 125-1A	4,3	5,3	6,4	8,4	10,5	13	15

39060 **Cavilha elástica ligeira** **L09A**

Material Aço mola 420-560 HV30



RoHS

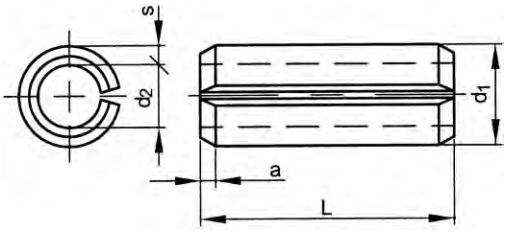
d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
2X8MM	200	39060.020.008	3X40MM	200	39060.030.040	6X16MM	200	39060.060.016
2X10MM	200	39060.020.010				6X20MM	100	39060.060.020
2X12MM	200	39060.020.012	4X10MM	200	39060.040.010	6X24MM	100	39060.060.024
2X14MM	200	39060.020.014	4X12MM	200	39060.040.012	6X28MM	100	39060.060.028
2X16MM	200	39060.020.016	4X14MM	200	39060.040.014	6X30MM	100	39060.060.030
2X18MM	200	39060.020.018	4X16MM	200	39060.040.016	6X32MM	100	39060.060.032
2X20MM	200	39060.020.020	4X20MM	200	39060.040.020	6X36MM	100	39060.060.036
2X24MM	200	39060.020.024	4X22MM	200	39060.040.022	6X40MM	100	39060.060.040
2X28MM	200	39060.020.028	4X24MM	200	39060.040.024	6X50MM	50	39060.060.050
			4X28MM	200	39060.040.028			
2,5X6MM	200	39060.025.006	4X30MM	200	39060.040.030	8X10MM	100	39060.080.010
2,5X8MM	200	39060.025.008	4X36MM	100	39060.040.036	8X12MM	100	39060.080.012
2,5X10MM	200	39060.025.010	4X40MM	100	39060.040.040	8X16MM	100	39060.080.016
2,5X12MM	200	39060.025.012	4X45MM	100	39060.040.045	8X20MM	100	39060.080.020
2,5X14MM	200	39060.025.014	4X50MM	100	39060.040.050	8X22MM	100	39060.080.022
2,5X16MM	200	39060.025.016				8X24MM	100	39060.080.024
2,5X20MM	200	39060.025.020	5X6MM	200	39060.050.006	8X26MM	100	39060.080.026
2,5X24MM	200	39060.025.024	5X8MM	200	39060.050.008	8X30MM	50	39060.080.030
2,5X30MM	200	39060.025.030	5X10MM	200	39060.050.010	8X32MM	50	39060.080.032
			5X12MM	200	39060.050.012	8X36MM	50	39060.080.036
3X8MM	200	39060.030.008	5X16MM	200	39060.050.016	8X40MM	50	39060.080.040
3X10MM	200	39060.030.010	5X20MM	100	39060.050.020	8X45MM	50	39060.080.045
3X12MM	200	39060.030.012	5X28MM	100	39060.050.028	8X50MM	50	39060.080.050
3X16MM	200	39060.030.016	5X30MM	100	39060.050.030			
3X20MM	200	39060.030.020	5X36MM	100	39060.050.036	10X12MM	50	39060.100.012
3X22MM	200	39060.030.022	5X40MM	100	39060.050.040	10X16MM	50	39060.100.016
3X24MM	200	39060.030.024				10X20MM	50	39060.100.020
3X30MM	200	39060.030.030	6X10MM	200	39060.060.010	10X24MM	50	39060.100.024
3X36MM	200	39060.030.036	6X12MM	200	39060.060.012	10X30MM	50	39060.100.030

39060 Cavilha elástica ligeira ←

d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
10X40MM	25	39060.100.040	10X50MM	25	39060.100.050	10X60MM	25	39060.100.060

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Cavilha elástica pesada A2



DIN **≈1481**
ISO ≈8752
NEN ≈2458
BS ≈7060

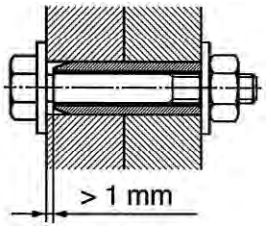


Dados técnicos

d (nom.)	a	d_1 (max.)	d_1 (min.)	d_2 ≈	s	V
1	0.15	1.3	1.2	0.8	0.2	0.44
1.5	0.25	1.8	1.7	1.1	0.3	0.98
2	0.35	2.4	2.3	1.5	0.4	1.8
2.5	0.4	2.9	2.8	1.8	0.5	2.84
3	0.5	3.5	3.3	2.1	0.6	4.06
3.5	0.6	4	3.8	2.3	0.75	9.06
4	0.65	4.6	4.4	2.8	0.8	7.24
4.5	0.8	5.1	4.9	2.9	1	15.36
5	0.9	5.6	5.4	3.4	1	10.74
6	1.2	6.7	6.4	3.9	1.25	16.16
8	2	8.8	8.5	5.5	1.5	26.46
10	2	10.8	10.5	6.5	2	42.14
12	2	12.8	12.5	7.5	2.5	-

- V = Dupla carga transversal min. em kN.
- O tipo de aço austenitico depende do fabricante, e pode variar do aço descrito em DIN 267-11.
- Para o diâmetro do furo d(nom.) com tolerância H12 é recomendado.
- a: pontas com chanfro de 30° em ambos os extremos para medidas até e incluindo 6mm, cavilhas com mais de 6mm têm uma única ponta boleada de 15°.

Caracteristicas especiais de cavilhas:
- São usadas para ligar dois ou mais elementos de construção entre si.
- Altamente indicado para absorver forças de corte
- Para evitar movimentos em ligações aparafusadas leves este tipo de cavilhas pode ser utilizada de acordo com a informação abaixo:

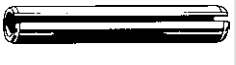


d (nom.) tipo de cavilha	6	8	10	12	16	18
Indicado para parafuso de medida	M3	M4	M5	M6	M8	M10
Anilhas de acc.com o DIN 7349	3,2	4,3	5,3	6,4	8,4	10,5

9

51428 Cavilha elástica pesada A2 **R09A**

Material Aço inoxidável A2



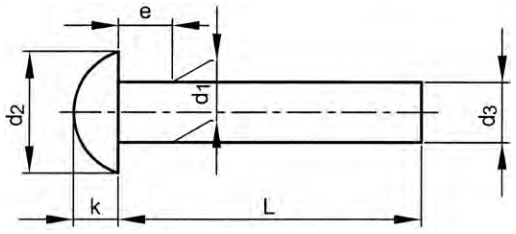
RoHS

d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
1X4MM*	1000	51428.010.004	1,5X20MM	200	51428.015.020	2,5X4MM*	1000	51428.025.004
1X5MM*	1000	51428.010.005				2,5X5MM*	1000	51428.025.005
1X10MM*	1000	51428.010.010	2X4MM*	1000	51428.020.004	2,5X6MM*	1000	51428.025.006
1X12MM*	1000	51428.010.012	2X5MM*	1000	51428.020.005	2,5X8MM*	1000	51428.025.008
1X14MM*	1000	51428.010.014	2X6MM	200	51428.020.006	2,5X10MM*	1000	51428.025.010
1X16MM*	1000	51428.010.016	2X8MM	200	51428.020.008	2,5X12MM	200	51428.025.012
1X18MM*	1000	51428.010.018	2X10MM	200	51428.020.010	2,5X14MM	200	51428.025.014
			2X12MM	200	51428.020.012	2,5X16MM	200	51428.025.016
1,5X4MM*	1000	51428.015.004	2X14MM*	1000	51428.020.014	2,5X18MM*	1000	51428.025.018
1,5X5MM*	1000	51428.015.005	2X16MM	200	51428.020.016	2,5X20MM	200	51428.025.020
1,5X6MM	200	51428.015.006	2X18MM*	1000	51428.020.018	2,5X22MM*	1000	51428.025.022
1,5X8MM	200	51428.015.008	2X20MM	200	51428.020.020	2,5X24MM	200	51428.025.024
1,5X10MM	200	51428.015.010	2X22MM*	1000	51428.020.022	2,5X26MM	200	51428.025.026
1,5X12MM	200	51428.015.012	2X24MM	200	51428.020.024	2,5X28MM	200	51428.025.028
1,5X14MM*	1000	51428.015.014	2X26MM*	1000	51428.020.026	2,5X30MM	200	51428.025.030
1,5X16MM	200	51428.015.016	2X30MM	200	51428.020.030			
1,5X18MM*	1000	51428.015.018				3X4MM*	1000	51428.030.004

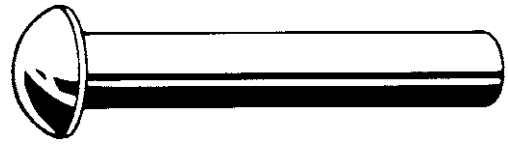
51428 Cavilha elástica pesada A2 ←

d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
3X5MM*	1000	51428.030.005	4,5X16MM*	500	51428.045.016			
3X6MM*	1000	51428.030.006	4,5X18MM*	500	51428.045.018	8X10MM*	500	51428.080.010
3X8MM	200	51428.030.008	4,5X20MM*	500	51428.045.020	8X12MM*	500	51428.080.012
3X10MM	200	51428.030.010	4,5X24MM*	500	51428.045.024	8X14MM*	500	51428.080.014
3X12MM	200	51428.030.012	4,5X26MM*	500	51428.045.026	8X16MM*	500	51428.080.016
3X14MM	200	51428.030.014	4,5X28MM*	500	51428.045.028	8X18MM*	500	51428.080.018
3X16MM	200	51428.030.016	4,5X30MM*	500	51428.045.030	8X20MM*	500	51428.080.020
3X18MM	200	51428.030.018	4,5X32MM*	500	51428.045.032	8X22MM*	500	51428.080.022
3X20MM	200	51428.030.020	4,5X36MM*	500	51428.045.036	8X24MM*	500	51428.080.024
3X22MM*	1000	51428.030.022	4,5X40MM*	500	51428.045.040	8X26MM*	250	51428.080.026
3X24MM	200	51428.030.024	4,5X45MM*	500	51428.045.045	8X28MM*	250	51428.080.028
3X26 MM	200	51428.030.026	4,5X50MM*	500	51428.045.050	8X30MM	50	51428.080.030
3X28MM*	1000	51428.030.028				8X32MM*	250	51428.080.032
3X30MM	200	51428.030.030	5X6MM*	500	51428.050.006	8X35MM	50	51428.080.035
3X32MM	200	51428.030.032	5X8MM*	500	51428.050.008	8X40MM	50	51428.080.040
3X35MM	200	51428.030.035	5X10MM*	500	51428.050.010	8X45MM*	250	51428.080.045
3X40MM	200	51428.030.040	5X12MM*	500	51428.050.012	8X50MM	50	51428.080.050
			5X14MM*	500	51428.050.014	8X55MM*	250	51428.080.055
3,5X8MM*	1000	51428.035.008	5X16MM	100	51428.050.016	8X60MM	50	51428.080.060
3,5X10MM*	1000	51428.035.010	5X18MM*	500	51428.050.018	8X65MM*	250	51428.080.065
3,5X12MM*	1000	51428.035.012	5X20MM	100	51428.050.020	8X70MM	50	51428.080.070
3,5X14MM*	1000	51428.035.014	5X22MM*	500	51428.050.022	8X75MM*	250	51428.080.075
3,5X16MM*	1000	51428.035.016	5X24MM	100	51428.050.024	8X80MM	50	51428.080.080
3,5X18MM*	1000	51428.035.018	5X26MM	100	51428.050.026	8X85MM*	200	51428.080.085
3,5X20MM*	1000	51428.035.020	5X30MM	100	51428.050.030	8X90MM*	100	51428.080.090
3,5X22MM*	1000	51428.035.022	5X32MM*	500	51428.050.032	8X100MM	50	51428.080.100
3,5X24MM*	1000	51428.035.024	5X35MM	100	51428.050.035			
3,5X26MM*	1000	51428.035.026	5X36 MM	100	51428.050.036	10X12MM*	500	51428.100.012
3,5X28MM*	1000	51428.035.028	5X40MM	100	51428.050.040	10X14MM*	500	51428.100.014
3,5X30MM*	1000	51428.035.030	5X45MM	100	51428.050.045	10X16MM*	500	51428.100.016
3,5X32MM*	1000	51428.035.032	5X50MM	100	51428.050.050	10X18MM*	500	51428.100.018
3,5X36MM*	1000	51428.035.036	5X55MM*	250	51428.050.055	10X20MM	50	51428.100.020
3,5X40MM*	1000	51428.035.040	5X60MM	100	51428.050.060	10X22MM*	500	51428.100.022
			5X65MM*	250	51428.050.065	10X25MM*	500	51428.100.025
4X4MM*	500	51428.040.004	5X70MM	100	51428.050.070	10X26MM*	500	51428.100.026
4X5MM*	500	51428.040.005				10X28MM*	500	51428.100.028
4X6MM*	500	51428.040.006	6X12MM	100	51428.060.012	10X30MM	50	51428.100.030
4X8MM*	500	51428.040.008	6X14MM*	500	51428.060.014	10X32MM*	500	51428.100.032
4X10MM*	500	51428.040.010	6X16MM	100	51428.060.016	10X35MM	25	51428.100.035
4X12MM	200	51428.040.012	6X18MM*	500	51428.060.018	10X36MM*	250	51428.100.036
4X14MM	200	51428.040.014	6X20MM	500	51428.060.020	10X40MM	25	51428.100.040
4X16MM	200	51428.040.016	6X22MM*	500	51428.060.022	10X45MM*	250	51428.100.045
4X18MM*	500	51428.040.018	6X24MM	100	51428.060.024	10X50MM	25	51428.100.050
4X20MM	200	51428.040.020	6X26MM	100	51428.060.026	10X55MM*	200	51428.100.055
4X22MM*	500	51428.040.022	6X28MM*	500	51428.060.028	10X60MM	25	51428.100.060
4X24MM	200	51428.040.024	6X30MM	100	51428.060.030	10X65MM*	200	51428.100.065
4X26MM	200	51428.040.026	6X32MM	100	51428.060.032	10X70MM	25	51428.100.070
4X28MM*	500	51428.040.028	6X35MM	50	51428.060.035	10X75MM*	100	51428.100.075
4X30MM	200	51428.040.030	6X36MM	100	51428.060.036	10X80MM	10	51428.100.080
4X32MM	100	51428.040.032	6X40MM	100	51428.060.040	10X85MM*	100	51428.100.085
4X35MM	50	51428.040.035	6X45MM*	250	51428.060.045	10X90MM*	100	51428.100.090
4X40MM	100	51428.040.040	6X50MM	50	51428.060.050	10X95MM*	100	51428.100.095
4X45MM*	500	51428.040.045	6X55MM*	250	51428.060.055	10X100MM	10	51428.100.100
4X50MM	100	51428.040.050	6X60MM	50	51428.060.060	10X120MM*	50	51428.100.120
			6X65MM*	250	51428.060.065			
4,5X10MM*	500	51428.045.010	6X70MM	50	51428.060.070	12X30MM	200	51428.120.030
4,5X12MM*	500	51428.045.012	6X75MM*	250	51428.060.075			
4,5X14MM*	500	51428.045.014	6X80MM	50	51428.060.080			

Rebite cabeça redonda



DIN	**660/124**
ISO	1051
BS	4620



Dados técnicos

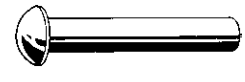
d_1	d_2	d_3 (min.)	e (max.)	k (js14)
2	3.5	1.87	1	1.2
2.5	4.4	2.37	1.25	1.5
3	5.2	2.87	1.5	1.8
4	7	3.87	2	2.4
5	8.8	4.82	2.5	3
6	10.5	5.82	3	3.6
8	14	7.76	4	4.8
10 (DIN124)	16	9.4	5	6.5

Grupos de produtos

Material	Código	Página
Aço EN 10263-2	39400	9-31
INOX A2	51490	9-31
INOX A4	55490	9-32
Al 99,5 EN1301-2	50670	9-32
Cu EN 10263-5	50370	9-33

39400 **Rebite cabeça redonda** **L11C**

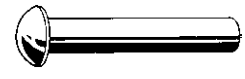
Material Aço EN 10263-2



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
2X6MM	1000	39400.020.006	4X25MM	500	39400.040.025	6X40MM	250	39400.060.040
2X8MM	1000	39400.020.008	4X30MM	500	39400.040.030	6X50MM	250	39400.060.050
2X10MM	1000	39400.020.010	4X40MM	250	39400.040.040	6X60MM	100	39400.060.060
2X12MM	1000	39400.020.012						
2X16MM	1000	39400.020.016	5X8MM	1000	39400.050.008	8X10MM	250	39400.080.010
			5X10MM	1000	39400.050.010	8X12MM	250	39400.080.012
3X6MM	1000	39400.030.006	5X12MM	1000	39400.050.012	8X16MM	250	39400.080.016
3X8MM	1000	39400.030.008	5X16MM	1000	39400.050.016	8X20MM	250	39400.080.020
3X10MM	1000	39400.030.010	5X20MM	500	39400.050.020	8X25MM	250	39400.080.025
3X12MM	1000	39400.030.012	5X25MM	500	39400.050.025	8X30MM	250	39400.080.030
3X16MM	1000	39400.030.016	5X30MM	500	39400.050.030	8X35MM	100	39400.080.035
3X20MM	1000	39400.030.020	5X40MM	250	39400.050.040	8X40MM	100	39400.080.040
3X25MM	1000	39400.030.025	5X50MM	250	39400.050.050	8X50MM	100	39400.080.050
3X30MM	1000	39400.030.030				8X60MM	100	39400.080.060
			6X10MM	500	39400.060.010			
4X6MM	1000	39400.040.006	6X12MM	500	39400.060.012	10X20MM	100	39400.100.020
4X8MM	1000	39400.040.008	6X16MM	500	39400.060.016	10X25MM	100	39400.100.025
4X10MM	1000	39400.040.010	6X20MM	500	39400.060.020	10X30MM	100	39400.100.030
4X12MM	1000	39400.040.012	6X25MM	250	39400.060.025	10X35MM	100	39400.100.035
4X16MM	1000	39400.040.016	6X30MM	250	39400.060.030	10X40MM	100	39400.100.040
4X20MM	1000	39400.040.020	6X35MM	250	39400.060.035	10X50MM	100	39400.100.050

51490 **Rebite cabeça redonda** **R09A**

Material Aço inoxidável A2



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
2X6MM*	500	51490.020.006	2X12MM*	500	51490.020.012			
2X8MM*	500	51490.020.008	2X16MM*	500	51490.020.016	2,5X6MM*	500	51490.025.006
2X10MM*	500	51490.020.010	2X20MM*	500	51490.020.020	2,5X8MM*	500	51490.025.008

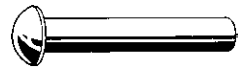
9

51490 Rebite cabeça redonda

d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
2,5X10MM*	500	51490.025.010	4X16MM	100	51490.040.016	5X28MM*	200	51490.050.028
2,5X12MM*	500	51490.025.012	4X18MM*	200	51490.040.018	5X30MM	100	51490.050.030
2,5X35MM*	500	51490.025.035	4X20MM	100	51490.040.020	5X35MM*	200	51490.050.035
			4X25MM	100	51490.040.025	5X40MM*	200	51490.050.040
3X6MM	200	51490.030.006	4X28MM*	200	51490.040.028			
3X8MM	200	51490.030.008	4X30MM	100	51490.040.030	6X10MM	100	51490.060.010
3X10MM	200	51490.030.010	4X35MM*	200	51490.040.035	6X12MM	100	51490.060.012
3X12MM	200	51490.030.012	4X40MM	100	51490.040.040	6X14MM*	100	51490.060.014
3X14MM*	500	51490.030.014	4X45MM*	200	51490.040.045	6X16MM	100	51490.060.016
3X16MM	200	51490.030.016	4X50MM	100	51490.040.050	6X18MM*	100	51490.060.018
3X18MM*	500	51490.030.018	4X60MM	100	51490.040.060	6X20MM	100	51490.060.020
3X20MM	200	51490.030.020				6X22MM*	100	51490.060.022
3X22MM*	500	51490.030.022	5X8MM	100	51490.050.008	6X25MM	100	51490.060.025
3X25MM*	500	51490.030.025	5X10MM	100	51490.050.010	6X28MM*	100	51490.060.028
			5X12MM	100	51490.050.012	6X30MM	100	51490.060.030
4X6MM*	200	51490.040.006	5X14MM*	200	51490.050.014	6X35MM	100	51490.060.035
4X8MM	200	51490.040.008	5X16MM	100	51490.050.016	6X40MM*	100	51490.060.040
4X10MM	200	51490.040.010	5X18MM*	200	51490.050.018	6X45MM*	100	51490.060.045
4X12MM	200	51490.040.012	5X20MM	100	51490.050.020	6X50MM*	100	51490.060.050
4X14MM*	200	51490.040.014	5X25MM	100	51490.050.025			

55490 Rebite cabeça redonda R49A

Material Aço inoxidável A4



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
3X6MM*	500	55490.030.006	4X12MM*	200	55490.040.012	5X12MM*	200	55490.050.012
3X8MM*	500	55490.030.008	4X16MM*	200	55490.040.016	5X20MM*	200	55490.050.020
3X10MM*	500	55490.030.010	4X25MM*	200	55490.040.025			
3X20MM*	500	55490.030.020	4X35MM*	200	55490.040.035	6X10MM*	100	55490.060.010
			4X40MM*	200	55490.040.040	6X12MM*	100	55490.060.012
4X6MM*	200	55490.040.006				6X20MM*	100	55490.060.020
4X8MM*	200	55490.040.008	5X8MM*	200	55490.050.008	6X30MM*	100	55490.060.030
4X10MM*	200	55490.040.010	5X10MM*	200	55490.050.010	6X35MM*	100	55490.060.035

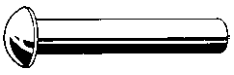
50670 Rebite cabeça redonda W01A

Material Alumínio 99,5 EN1301-2



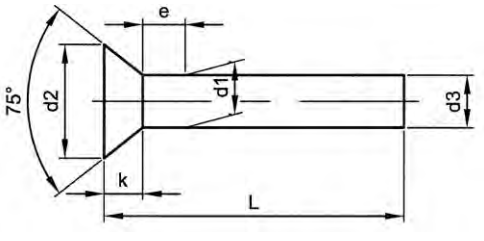
d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
2X4MM	1000	50670.020.004	4X6MM	1000	50670.040.006			
2X6MM	1000	50670.020.006	4X8MM	1000	50670.040.008	6X10MM	500	50670.060.010
2X8MM	1000	50670.020.008	4X10MM	1000	50670.040.010	6X12MM	500	50670.060.012
2X10MM	1000	50670.020.010	4X12MM	1000	50670.040.012	6X16MM	500	50670.060.016
2X12MM	1000	50670.020.012	4X16MM	1000	50670.040.016	6X20MM	500	50670.060.020
2X16MM	1000	50670.020.016	4X20MM	1000	50670.040.020	6X25MM	250	50670.060.025
			4X25MM	500	50670.040.025	6X30MM	250	50670.060.030
3X4MM	1000	50670.030.004	4X30MM	500	50670.040.030	6X35MM	250	50670.060.035
3X6MM	1000	50670.030.006	4X40MM	250	50670.040.040	6X40MM	250	50670.060.040
3X7MM	1000	50670.030.007				6X50MM	250	50670.060.050
3X8MM	1000	50670.030.008	5X8MM	1000	50670.050.008			
3X10MM	1000	50670.030.010	5X10MM	1000	50670.050.010	8X16MM	250	50670.080.016
3X12MM	1000	50670.030.012	5X12MM	1000	50670.050.012	8X20MM	250	50670.080.020
3X16MM	1000	50670.030.016	5X16MM	1000	50670.050.016	8X25MM	250	50670.080.025
3X20MM	1000	50670.030.020	5X20MM	500	50670.050.020	8X30MM	250	50670.080.030
3X25MM	1000	50670.030.025	5X25MM	500	50670.050.025	8X35MM	100	50670.080.035
3X30MM	1000	50670.030.030	5X30MM	500	50670.050.030	8X40MM	100	50670.080.040
			5X40MM	250	50670.050.040			

50370	Rebite cabeça redonda	M11F
Material	Cobre EN 10263-5	

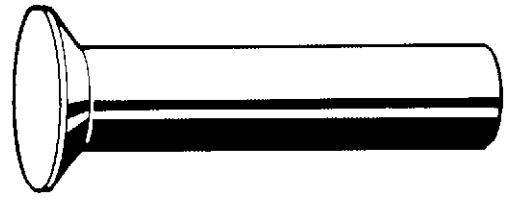


d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
2X4MM	1000	50370.020.004	4X6MM	1000	50370.040.006	6X10MM	500	50370.060.010
2X6MM	1000	50370.020.006	4X8MM	1000	50370.040.008	6X12MM	500	50370.060.012
2X8MM	1000	50370.020.008	4X10MM	1000	50370.040.010	6X16MM	500	50370.060.016
2X10MM	1000	50370.020.010	4X12MM	1000	50370.040.012	6X20MM	500	50370.060.020
2X12MM	1000	50370.020.012	4X16MM	1000	50370.040.016	6X25MM	250	50370.060.025
2X16MM	1000	50370.020.016	4X20MM	1000	50370.040.020	6X30MM	250	50370.060.030
			4X25MM	500	50370.040.025	6X35MM	250	50370.060.035
2,5X6MM	1000	50370.025.006	4X30MM	500	50370.040.030	6X40MM	250	50370.060.040
2,5X8MM	1000	50370.025.008	4X40MM	250	50370.040.040	6X50MM	250	50370.060.050
2,5X10MM	1000	50370.025.010						
			5X8MM	1000	50370.050.008	8X16MM	250	50370.080.016
3X4MM	1000	50370.030.004	5X10MM	1000	50370.050.010	8X20MM	250	50370.080.020
3X6MM	1000	50370.030.006	5X12MM	1000	50370.050.012	8X25MM	250	50370.080.025
3X8MM	1000	50370.030.008	5X16MM	1000	50370.050.016	8X30MM	250	50370.080.030
3X10MM	1000	50370.030.010	5X20MM	500	50370.050.020	8X40MM	100	50370.080.040
3X12MM	1000	50370.030.012	5X25MM	500	50370.050.025	8X50MM	100	50370.080.050
3X16MM	1000	50370.030.016	5X30MM	500	50370.050.030			
3X20MM	1000	50370.030.020	5X40MM	250	50370.050.040	10X30MM	100	50370.100.030
3X25MM	1000	50370.030.025	5X50MM	250	50370.050.050	10X40MM	100	50370.100.040
3X30MM	1000	50370.030.030				10X50MM	100	50370.100.050

Rebite cabeça de embeber



DIN	**661/302**
ISO	1051
BS	4620



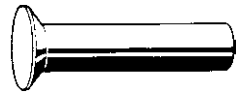
Dados técnicos

d_1	d_2	d_3 (min.)	e (max.)	k ≈
2	3.5	1.87	1	1
2.5	4.4	2.37	1.25	1.2
3	5.2	2.87	1.5	1.4
4	7	3.87	2	2
5	8.8	4.82	2.5	2.5
6	10.5	5.82	3	3
8	14	7.76	4	4
10 (DIN302)	14.5	9.4	5	3

Grupos de produtos

Material	Código	Página
Aço EN 10263-2	39410	9-33
INOX A2	51480	9-34
Al 99,5 EN1301-2	50680	9-34
Cu EN 12166	50380	9-35

39410	Rebite cabeça de embeber	L11C
Material	Aço EN 10263-2	



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
2X6MM	1000	39410.020.006				3X16MM	1000	39410.030.016
2X8MM	1000	39410.020.008	3X6MM	1000	39410.030.006	3X20MM	1000	39410.030.020
2X10MM	1000	39410.020.010	3X8MM	1000	39410.030.008	3X25MM	1000	39410.030.025
2X12MM	1000	39410.020.012	3X10MM	1000	39410.030.010	3X30MM	1000	39410.030.030
2X16MM	1000	39410.020.016	3X12MM	1000	39410.030.012			

39410 Rebite cabeça de embeber ←

d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
4X6MM	1000	39410.040.006	5X25MM	500	39410.050.025			
4X8MM	1000	39410.040.008	5X30MM	500	39410.050.030	8X16MM	250	39410.080.016
4X10MM	1000	39410.040.010	5X40MM	250	39410.050.040	8X20MM	250	39410.080.020
4X12MM	1000	39410.040.012	5X50MM	250	39410.050.050	8X25MM	250	39410.080.025
4X16MM	1000	39410.040.016				8X30MM	250	39410.080.030
4X20MM	1000	39410.040.020	6X10MM	500	39410.060.010	8X35MM	100	39410.080.035
4X25MM	500	39410.040.025	6X12MM	500	39410.060.012	8X40MM	100	39410.080.040
4X30MM	500	39410.040.030	6X16MM	500	39410.060.016	8X50MM	100	39410.080.050
			6X20MM	500	39410.060.020	8X60MM	100	39410.080.060
5X8MM	1000	39410.050.008	6X25MM	250	39410.060.025			
5X10MM	1000	39410.050.010	6X30MM	250	39410.060.030	10X30MM	100	39410.100.030
5X12MM	1000	39410.050.012	6X35MM	250	39410.060.035	10X40MM	100	39410.100.040
5X16MM	1000	39410.050.016	6X40MM	250	39410.060.040	10X50MM	100	39410.100.050
5X20MM	500	39410.050.020	6X50MM	250	39410.060.050			

51480 Rebite cabeça de embeber R09A

Material Aço inoxidável A2



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
2X6MM*	500	51480.020.006	4X4MM*	200	51480.040.004	5X18MM*	200	51480.050.018
2X8MM*	500	51480.020.008	4X6MM*	200	51480.040.006	5X20MM	100	51480.050.020
2X10MM*	500	51480.020.010	4X8MM	200	51480.040.008	5X22MM*	200	51480.050.022
2X12MM*	500	51480.020.012	4X10MM	200	51480.040.010	5X25MM	100	51480.050.025
2X16MM*	500	51480.020.016	4X12MM	200	51480.040.012	5X30MM	100	51480.050.030
2X20MM*	500	51480.020.020	4X16MM	100	51480.040.016	5X35MM*	200	51480.050.035
			4X18MM*	200	51480.040.018	5X40MM*	200	51480.050.040
3X6MM	200	51480.030.006	4X20MM	100	51480.040.020			
3X8MM	200	51480.030.008	4X22MM*	200	51480.040.022	6X10MM	100	51480.060.010
3X10MM	200	51480.030.010	4X25MM	100	51480.040.025	6X12MM	100	51480.060.012
3X12MM	200	51480.030.012	4X30MM	100	51480.040.030	6X16MM	100	51480.060.016
3X16MM	200	51480.030.016				6X18MM*	100	51480.060.018
3X18MM*	500	51480.030.018	5X8MM	100	51480.050.008	6X20MM	100	51480.060.020
3X20MM*	500	51480.030.020	5X10MM	100	51480.050.010	6X25MM	100	51480.060.025
3X22MM*	500	51480.030.022	5X12MM	100	51480.050.012	6X30MM	100	51480.060.030
3X25MM*	500	51480.030.025	5X14MM*	200	51480.050.014	6X40MM*	100	51480.060.040
			5X16MM	100	51480.050.016	6X50MM*	100	51480.060.050

50680 Rebite cabeça de embeber W01A

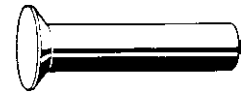
Material Alumínio 99,5 EN1301-2



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
2X6MM	1000	50680.020.006	4X10MM	1000	50680.040.010	6X12MM	500	50680.060.012
2X8MM	1000	50680.020.008	4X12MM	1000	50680.040.012	6X16MM	500	50680.060.016
2X10MM	1000	50680.020.010	4X16MM	1000	50680.040.016	6X20MM	500	50680.060.020
2X12MM	1000	50680.020.012	4X20MM	1000	50680.040.020	6X25MM	250	50680.060.025
2X16MM	1000	50680.020.016	4X25MM	500	50680.040.025	6X30MM	250	50680.060.030
			4X30MM	500	50680.040.030	6X35MM	250	50680.060.035
3X6MM	1000	50680.030.006				6X40MM	250	50680.060.040
3X8MM	1000	50680.030.008	5X8MM	1000	50680.050.008	6X50MM	250	50680.060.050
3X10MM	1000	50680.030.010	5X10MM	1000	50680.050.010			
3X12MM	1000	50680.030.012	5X12MM	1000	50680.050.012	8X16MM	250	50680.080.016
3X16MM	1000	50680.030.016	5X16MM	1000	50680.050.016	8X20MM	250	50680.080.020
3X20MM	1000	50680.030.020	5X20MM	500	50680.050.020	8X25MM	250	50680.080.025
3X25MM	1000	50680.030.025	5X25MM	500	50680.050.025	8X30MM	250	50680.080.030
3X30MM	1000	50680.030.030	5X30MM	500	50680.050.030	8X35MM	100	50680.080.035
			5X40MM	250	50680.050.040	8X40MM	100	50680.080.040
4X6MM	1000	50680.040.006				8X50MM	100	50680.080.050
4X8MM	1000	50680.040.008	6X10MM	500	50680.060.010			

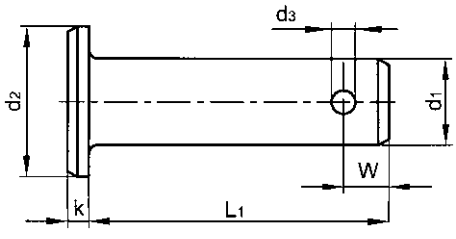
50380 **Rebite cabeça de embeber** **M11F**

Material Cobre EN 12166

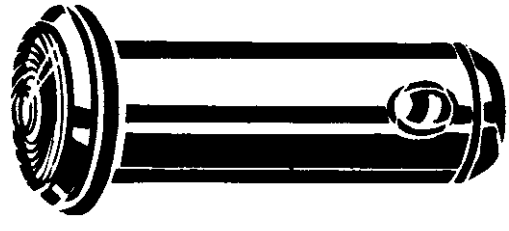


d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
2X6MM	1000	50380.020.006	4X12MM	1000	50380.040.012			
2X8MM	1000	50380.020.008	4X16MM	1000	50380.040.016	6X10MM	500	50380.060.010
2X10MM	1000	50380.020.010	4X20MM	1000	50380.040.020	6X16MM	500	50380.060.016
			4X25MM	500	50380.040.025	6X20MM	500	50380.060.020
3X6MM	1000	50380.030.006	4X30MM	500	50380.040.030	6X25MM	250	50380.060.025
3X8MM	1000	50380.030.008				6X30MM	250	50380.060.030
3X10MM	1000	50380.030.010	5X10MM	1000	50380.050.010	6X40MM	250	50380.060.040
3X12MM	1000	50380.030.012	5X12MM	1000	50380.050.012	6X50MM	250	50380.060.050
3X16MM	1000	50380.030.016	5X16MM	1000	50380.050.016			
3X20MM	1000	50380.030.020	5X20MM	500	50380.050.020	8X16MM	250	50380.080.016
3X25MM	1000	50380.030.025	5X25MM	500	50380.050.025	8X20MM	250	50380.080.020
			5X30MM	500	50380.050.030	8X25MM	250	50380.080.025
4X8MM	1000	50380.040.008	5X40MM	250	50380.050.040	8X30MM	250	50380.080.030
4X10MM	1000	50380.040.010	5X50MM	250	50380.050.050	8X40MM	100	50380.080.040

Passador com perfuração



DIN **1434**



Dados técnicos

d_1 (h11)	d_2 (h14)	d_3 (H14)	k (js14)	W (min.)
4	6	1	1	1.8
5	8	1.6	1.5	2
6	9	1.6	1.5	2.5
8	12	2	2	3
10	14	3.2	2	4
12	17	4	3	5
14	19	4	3	5
16	21	4	3	5

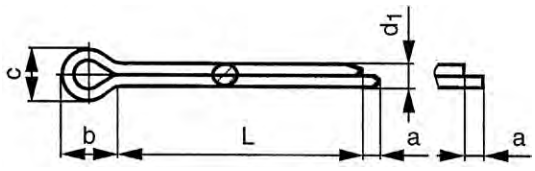
39797 **Passador com perfuração** **L11F**

Material Aço
Tratamento sup. Zincado



d_1 x L_1	✉	Ref. do artigo	d_1 x L_1	✉	Ref. do artigo	d_1 x L_1	✉	Ref. do artigo
4X12MM	100	39797.040.012	8X22MM	100	39797.080.022	14X40MM	25	39797.140.040
5X14MM	100	39797.050.014	10X28MM	50	39797.100.028	16X45MM	10	39797.160.045
6X18MM	100	39797.060.018	12X35MM	25	39797.120.035			

Chaveta meia cana



DIN	**94**
ISO	1234
NEN	182
NF	E25-774

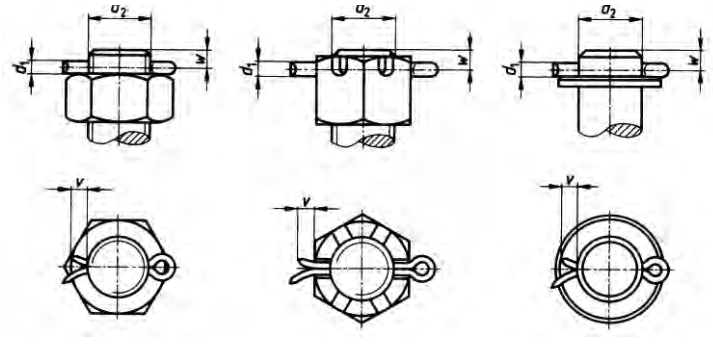


Dados técnicos

d (nom.)	a (max.)	b ≈	c (max.)	c (min.)	d_1 (max.)	d_1 (min.)
1	1.6	3	1.8	1.6	0.9	0.8
1.2	2.5	3	2	1.7	1	0.9
1.6	2.5	3.2	2.8	2.4	1.4	1.3
2	2.5	4	3.6	3.2	1.8	1.7
2.5	2.5	5	4.6	4	2.3	2.1
3.2	3.2	6.4	5.8	5.1	2.9	2.7
3.5 (≠DIN)	3.5	7	6.8	6.1	3.2	3
4	4	8	7.4	6.5	3.7	3.5
4.5 (≠DIN)	4	8.5	8.2	7.6	4.2	4
5	4	10	9.2	8	4.6	4.4
6.3	4	12.6	11.8	10.3	5.9	5.7
7 (≠DIN)	4.7	12.3	12.5	12.45	6.5	6.7
8	4	16	15	13.1	7.5	7.3
10	6.3	20	19	16.6	9.5	9.3
13	6.3	26	24.8	21.7	12.4	12.1

- Para o furo de chavetas de meia-cana, tolerância H13 é recomendada para d (nom.) ≤ 1,2 mm e tolerância H14 para d (nom.) ≥ 1,6 mm e superior.
- A forma da ponta da chaveta de meia-cana depende do fabricante.
- O comprimento nominal (L) é com tolerância js17.

Tabela-escolha de cavilhas



d (nom.)			1	1,6	2	2,5	3,2	4	5	6,3	8	10	13
d2	parte com rosca*	Acima	3,5	5,5	7	9	11	14	20	27	39	56	80
		Até incl.	4,5	7	9	11	14	20	27	39	56	80	120
	parte sem rosca**	Acima	3	5	6	8	9	12	17	23	29	44	69
		Até incl.	4	6	8	9	12	17	23	29	44	69	110
v		min.	4	5	6	6	8	8	10	12	14	16	20

* para aplicação em partes com rosca externa deve ser usado o maior diâmetro da parte lisa.
** para carris e construções sujeitas a forças alternadas, é recomendado o uso de uma cavilha mais larga.

A distância do furo W depende da parte de construção na qual a cavilha é inserida. Se necessário ver a norma dessa parte particular.

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço		39310	9-37
Aço	Zn	39350	9-37
Aço	Passiv. amar.	39360	9-38
INOX A2		51700	9-38
INOX A4		55700	9-39
Latão		50210	9-40
Cu		50390	9-40

39310 Chaveta meia cana — L09B

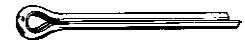
Material Aço



d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
1X12MM	250	39310.010.012	3,2X32MM	250	39310.032.032	6,3X40MM	100	39310.063.040
1X16MM	250	39310.010.016	3,2X40MM	250	39310.032.040	6,3X50MM	100	39310.063.050
1X20MM	250	39310.010.020	3,2X50MM	250	39310.032.050	6,3X63MM	100	39310.063.063
1X25MM	250	39310.010.025	3,2X63MM	250	39310.032.063	6,3X71MM	100	39310.063.071
1X32MM	250	39310.010.032				6,3X80MM	100	39310.063.080
			3,5X25MM	250	39310.035.025	6,3X100MM	100	39310.063.100
1,6X10MM	250	39310.016.010	3,5X30MM	250	39310.035.030			
1,6X12MM	250	39310.016.012	3,5X35MM	250	39310.035.035	7X63MM	100	39310.070.063
1,6X16MM	250	39310.016.016	3,5X40MM	250	39310.035.040	7X80MM	100	39310.070.080
1,6X20MM	250	39310.016.020	3,5X50MM	250	39310.035.050			
1,6X25MM	250	39310.016.025	3,5X60MM	250	39310.035.060	8X40MM	100	39310.080.040
1,6X32MM	250	39310.016.032	3,5X70MM	250	39310.035.070	8X45MM	100	39310.080.045
1,6X40MM	250	39310.016.040	3,5X80MM	250	39310.035.080	8X50MM	100	39310.080.050
1,6X50MM	250	39310.016.050				8X63MM	50	39310.080.063
			4X20MM	250	39310.040.020	8X80MM	50	39310.080.080
2X16MM	250	39310.020.016	4X25MM	250	39310.040.025	8X90MM	50	39310.080.090
2X20MM	250	39310.020.020	4X28MM	250	39310.040.028	8X100MM	50	39310.080.100
2X25MM	250	39310.020.025	4X32MM	250	39310.040.032	8X125MM	50	39310.080.125
2X32MM	250	39310.020.032	4X40MM	250	39310.040.040			
2X40MM	250	39310.020.040	4X50MM	200	39310.040.050	10X63MM	50	39310.100.063
2X50MM	250	39310.020.050	4X63MM	200	39310.040.063	10X71MM	50	39310.100.071
2X63MM	250	39310.020.063	4X80MM	200	39310.040.080	10X80MM	50	39310.100.080
						10X90MM	25	39310.100.090
2,5X16MM	250	39310.025.016	5X25MM	200	39310.050.025	10X100MM	25	39310.100.100
2,5X20MM	250	39310.025.020	5X32MM	200	39310.050.032	10X125MM	25	39310.100.125
2,5X25MM	250	39310.025.025	5X36MM	200	39310.050.036	10X160MM	25	39310.100.160
2,5X32MM	250	39310.025.032	5X40MM	200	39310.050.040			
2,5X40MM	250	39310.025.040	5X50MM	200	39310.050.050	13X63MM	25	39310.130.063
2,5X50MM	250	39310.025.050	5X63MM	100	39310.050.063	13X80MM	25	39310.130.080
2,5X63MM	250	39310.025.063	5X80MM	100	39310.050.080	13X100MM	25	39310.130.100
			5X100MM	100	39310.050.100	13X125MM	25	39310.130.125
3,2X16MM	250	39310.032.016				13X140MM	25	39310.130.140
3,2X20MM	250	39310.032.020	6,3X25MM	100	39310.063.025	13X160MM	25	39310.130.160
3,2X25MM	250	39310.032.025	6,3X32MM	100	39310.063.032			

39350 Chaveta meia cana — L09B

Material Aço
Tratamento sup. Zincado



d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
1X25MM	250	39350.010.025	2,5X50MM	250	39350.025.050	4X28MM	250	39350.040.028
1X32MM	250	39350.010.032	2,5X63MM	250	39350.025.063	4X32MM	250	39350.040.032
						4X36MM	250	39350.040.036
1,6X10MM	250	39350.016.010	3,2X16MM	250	39350.032.016	4X40MM	250	39350.040.040
1,6X12MM	250	39350.016.012	3,2X20MM	250	39350.032.020	4X45MM	250	39350.040.045
1,6X16MM	250	39350.016.016	3,2X25MM	250	39350.032.025	4X50MM	200	39350.040.050
1,6X20MM	250	39350.016.020	3,2X28MM	250	39350.032.028	4X63MM	200	39350.040.063
1,6X25MM	250	39350.016.025	3,2X32MM	250	39350.032.032	4X71MM	200	39350.040.071
1,6X32MM	250	39350.016.032	3,2X36MM	250	39350.032.036	4X80MM	200	39350.040.080
1,6X40MM	250	39350.016.040	3,2X40MM	250	39350.032.040	4X100MM	200	39350.040.100
1,6X50MM	250	39350.016.050	3,2X45MM	250	39350.032.045			
			3,2X50MM	250	39350.032.050	4,5X40MM	200	39350.045.040
2X16MM	250	39350.020.016	3,2X63MM	250	39350.032.063	4,5X50MM	200	39350.045.050
2X18MM	250	39350.020.018				4,5X63MM	200	39350.045.063
2X20MM	250	39350.020.020	3,5X20MM	250	39350.035.020	4,5X71MM	200	39350.045.071
2X25MM	250	39350.020.025	3,5X25MM	250	39350.035.025			
2X32MM	250	39350.020.032	3,5X30MM	250	39350.035.030	5X25MM	200	39350.050.025
2X36MM	250	39350.020.036	3,5X32MM	250	39350.035.032	5X32MM	200	39350.050.032
2X40MM	250	39350.020.040	3,5X35MM	250	39350.035.035	5X36MM	200	39350.050.036
2X50MM	250	39350.020.050	3,5X36MM	250	39350.035.036	5X40MM	200	39350.050.040
2X63MM	250	39350.020.063	3,5X40MM	250	39350.035.040	5X45MM	200	39350.050.045
			3,5X50MM	250	39350.035.050	5X50MM	200	39350.050.050
2,5X16MM	250	39350.025.016	3,5X60MM	250	39350.035.060	5X56MM	200	39350.050.056
2,5X20MM	250	39350.025.020	3,5X63MM	250	39350.035.063	5X63MM	100	39350.050.063
2,5X25MM	250	39350.025.025	3,5X70MM	250	39350.035.070	5X71MM	100	39350.050.071
2,5X32MM	250	39350.025.032	3,5X80MM	250	39350.035.080	5X80MM	100	39350.050.080
2,5X36MM	250	39350.025.036				5X90MM	100	39350.050.090
2,5X40MM	250	39350.025.040	4X20MM	250	39350.040.020	5X100MM	100	39350.050.100
2,5X45MM	250	39350.025.045	4X25MM	250	39350.040.025			

9

39350 Chaveta meia cana ←

d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
6,3X32MM	100	39350.063.032	8X40MM	100	39350.080.040	10X90MM	25	39350.100.090
6,3X36MM	100	39350.063.036	8X45MM	100	39350.080.045	10X100MM	25	39350.100.100
6,3X40MM	100	39350.063.040	8X50MM	100	39350.080.050	10X112MM	25	39350.100.112
6,3X45MM	100	39350.063.045	8X63MM	50	39350.080.063	10X125MM	25	39350.100.125
6,3X50MM	100	39350.063.050	8X71MM	50	39350.080.071	10X140MM	25	39350.100.140
6,3X56MM	100	39350.063.056	8X80MM	50	39350.080.080	10X160MM	25	39350.100.160
6,3X63MM	100	39350.063.063	8X90MM	50	39350.080.090	10X180MM	25	39350.100.180
6,3X71MM	100	39350.063.071	8X100MM	50	39350.080.100	10X200MM	25	39350.100.200
6,3X80MM	100	39350.063.080	8X112MM	50	39350.080.112			
6,3X90MM	100	39350.063.090	8X125MM	50	39350.080.125	13X71MM	25	39350.130.071
6,3X100MM	100	39350.063.100	8X140MM	50	39350.080.140	13X100MM	25	39350.130.100
6,3X125MM	100	39350.063.125				13X112MM	25	39350.130.112
			10X56MM	100	39350.100.056	13X125MM	25	39350.130.125
7X71MM	100	39350.070.071	10X63MM	50	39350.100.063	13X140MM	25	39350.130.140
			10X71MM	50	39350.100.071	13X160MM	25	39350.130.160
8X32MM	100	39350.080.032	10X80MM	50	39350.100.080			

39360 Chaveta meia cana L09B

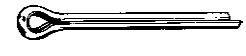
Material Aço
Tratamento sup. Passivado a amarelo



d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
2X16MM	250	39360.020.016	3,2X32MM	250	39360.032.032	4X40MM	250	39360.040.040
2X20MM	250	39360.020.020	3,2X40MM	250	39360.032.040	4X50MM	250	39360.040.050
2X25MM	250	39360.020.025						
2X32MM	250	39360.020.032	4X20MM	250	39360.040.020	5X32MM	200	39360.050.032
			4X25MM	250	39360.040.025	5X40MM	200	39360.050.040
3,2X20MM	250	39360.032.020	4X32MM	250	39360.040.032	5X50MM	200	39360.050.050
3,2X25MM	250	39360.032.025						

51700 Chaveta meia cana R09A

Material Aço inoxidável A2



d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
1X6MM*	1000	51700.010.006	1,6X20MM	250	51700.016.020	2,5X36MM*	1000	51700.025.036
1X8MM*	1000	51700.010.008	1,6X22MM*	1000	51700.016.022	2,5X40MM	100	51700.025.040
1X10MM	250	51700.010.010	1,6X25MM	250	51700.016.025	2,5X45MM*	1000	51700.025.045
1X12MM	250	51700.010.012	1,6X28MM*	1000	51700.016.028	2,5X50MM	100	51700.025.050
1X14MM*	1000	51700.010.014	1,6X32MM	250	51700.016.032			
1X16MM	250	51700.010.016	1,6X36MM*	1000	51700.016.036	3,2X16MM	100	51700.032.016
1X18MM*	1000	51700.010.018	1,6X40MM	250	51700.016.040	3,2X18MM*	500	51700.032.018
1X20MM	250	51700.010.020	1,6X45MM*	1000	51700.016.045	3,2X20MM	100	51700.032.020
1X22MM*	1000	51700.010.022				3,2X22MM*	500	51700.032.022
1X25MM	250	51700.010.025	2X6MM*	1000	51700.020.006	3,2X25MM	100	51700.032.025
1X28MM*	1000	51700.010.028	2X10MM	250	51700.020.010	3,2X28MM*	500	51700.032.028
1X32MM	250	51700.010.032	2X12MM*	1000	51700.020.012	3,2X32MM	100	51700.032.032
1X36MM*	1000	51700.010.036	2X14MM*	1000	51700.020.014	3,2X36MM	100	51700.032.036
1X40MM	250	51700.010.040	2X16MM	250	51700.020.016	3,2X40MM	100	51700.032.040
1X45MM*	1000	51700.010.045	2X18MM	250	51700.020.018	3,2X45MM	100	51700.032.045
			2X20MM	250	51700.020.020	3,2X50MM	100	51700.032.050
1,2X8MM*	1000	51700.012.008	2X22MM*	1000	51700.020.022	3,2X56MM*	500	51700.032.056
1,2X10MM*	1000	51700.012.010	2X25MM	250	51700.020.025	3,2X63MM	100	51700.032.063
1,2X12MM*	1000	51700.012.012	2X28MM*	1000	51700.020.028	3,2X71MM*	500	51700.032.071
1,2X14MM*	1000	51700.012.014	2X32MM	250	51700.020.032	3,2X80MM*	500	51700.032.080
1,2X16MM*	1000	51700.012.016	2X36MM*	1000	51700.020.036			
1,2X18MM*	1000	51700.012.018	2X40MM	250	51700.020.040	4X16MM*	500	51700.040.016
1,2X20MM*	1000	51700.012.020	2X45MM*	1000	51700.020.045	4X18MM*	500	51700.040.018
1,2X22MM*	1000	51700.012.022	2X50MM	250	51700.020.050	4X20MM	100	51700.040.020
1,2X25MM*	1000	51700.012.025				4X22MM*	500	51700.040.022
1,2X32MM*	1000	51700.012.032	2,5X10MM	100	51700.025.010	4X25MM	100	51700.040.025
1,2X40MM*	1000	51700.012.040	2,5X12MM*	1000	51700.025.012	4X28MM	100	51700.040.028
			2,5X14MM*	1000	51700.025.014	4X32MM	100	51700.040.032
1,6X6MM*	1000	51700.016.006	2,5X16MM	100	51700.025.016	4X36MM	100	51700.040.036
1,6X8MM*	1000	51700.016.008	2,5X18MM*	1000	51700.025.018	4X40MM	100	51700.040.040
1,6X10MM	250	51700.016.010	2,5X20MM	100	51700.025.020	4X45MM	100	51700.040.045
1,6X12MM	250	51700.016.012	2,5X22MM*	1000	51700.025.022	4X50MM	100	51700.040.050
1,6X14MM*	1000	51700.016.014	2,5X25MM	100	51700.025.025	4X56MM*	500	51700.040.056
1,6X16MM	250	51700.016.016	2,5X28MM*	1000	51700.025.028	4X63MM	100	51700.040.063
1,6X18MM*	1000	51700.016.018	2,5X32MM	100	51700.025.032	4X71MM*	500	51700.040.071

9

51700 Chaveta meia cana

d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
4X80MM	100	51700.040.080	5X100MM	50	51700.050.100	8X50MM	25	51700.080.050
4X90MM*	500	51700.040.090				8X56MM*	100	51700.080.056
4X100MM*	500	51700.040.100	6,3X20MM*	250	51700.063.020	8X63MM	25	51700.080.063
			6,3X25MM	50	51700.063.025	8X71MM*	100	51700.080.071
5X20MM*	250	51700.050.020	6,3X32MM	50	51700.063.032	8X80MM	25	51700.080.080
5X22MM*	250	51700.050.022	6,3X36MM*	250	51700.063.036	8X90MM*	100	51700.080.090
5X25MM	50	51700.050.025	6,3X40MM	50	51700.063.040	8X100MM	25	51700.080.100
5X28MM*	250	51700.050.028	6,3X45MM*	250	51700.063.045			
5X32MM	50	51700.050.032	6,3X50MM	50	51700.063.050	10X32MM*	100	51700.100.032
5X35MM	50	51700.050.035	6,3X56MM*	250	51700.063.056	10X40MM*	100	51700.100.040
5X36MM	50	51700.050.036	6,3X63MM	50	51700.063.063	10X50MM*	100	51700.100.050
5X40MM	50	51700.050.040	6,3X71MM	50	51700.063.071	10X56MM*	100	51700.100.056
5X45MM*	250	51700.050.045	6,3X80MM	50	51700.063.080	10X63MM	25	51700.100.063
5X50MM	50	51700.050.050	6,3X90MM*	250	51700.063.090	10X71MM*	100	51700.100.071
5X56MM*	250	51700.050.056	6,3X100MM	50	51700.063.100	10X80MM	25	51700.100.080
5X63MM	50	51700.050.063				10X90MM*	100	51700.100.090
5X71MM	50	51700.050.071	8X32MM*	100	51700.080.032	10X100MM	25	51700.100.100
5X80MM	50	51700.050.080	8X40MM	25	51700.080.040	10X125MM	25	51700.100.125
5X90MM*	250	51700.050.090	8X45MM*	100	51700.080.045	10X180MM	25	51700.100.180

- O tipo de aço austenitico é do critério do fabricante, os tipos de aço podem variar de acordo com a norma ISO 3506.

55700 Chaveta meia cana R49A

Material Aço inoxidável A4



d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
1X8MM*	1000	55700.010.008	2,5X20MM	100	55700.025.020	5X36MM*	250	55700.050.036
1X10MM	250	55700.010.010	2,5X22MM*	1000	55700.025.022	5X40MM	50	55700.050.040
1X12MM	250	55700.010.012	2,5X25MM	100	55700.025.025	5X45MM*	250	55700.050.045
1X16MM	250	55700.010.016	2,5X28MM*	1000	55700.025.028	5X50MM	50	55700.050.050
1X18MM*	1000	55700.010.018	2,5X32MM	100	55700.025.032	5X56MM*	250	55700.050.056
1X20MM	250	55700.010.020	2,5X36MM*	1000	55700.025.036	5X63MM	50	55700.050.063
1X25MM	250	55700.010.025	2,5X40MM	100	55700.025.040	5X71MM*	250	55700.050.071
			2,5X45MM*	1000	55700.025.045	5X80MM	50	55700.050.080
1,2X8MM*	1000	55700.012.008	2,5X50MM	100	55700.025.050	5X90MM*	250	55700.050.090
1,2X10MM*	1000	55700.012.010				5X100MM	50	55700.050.100
1,2X12MM*	1000	55700.012.012	3,2X16MM	100	55700.032.016			
1,2X16MM*	1000	55700.012.016	3,2X18MM*	500	55700.032.018	6,3X25MM	50	55700.063.025
1,2X20MM*	1000	55700.012.020	3,2X20MM	100	55700.032.020	6,3X32MM	50	55700.063.032
1,2X25MM*	1000	55700.012.025	3,2X22MM*	500	55700.032.022	6,3X36MM*	250	55700.063.036
1,2X32MM*	1000	55700.012.032	3,2X25MM	100	55700.032.025	6,3X40MM	50	55700.063.040
			3,2X28MM*	500	55700.032.028	6,3X45MM*	250	55700.063.045
1,6X8MM*	1000	55700.016.008	3,2X32MM	100	55700.032.032	6,3X50MM	50	55700.063.050
1,6X10MM	250	55700.016.010	3,2X36MM*	500	55700.032.036	6,3X56MM*	250	55700.063.056
1,6X12MM	250	55700.016.012	3,2X40MM	100	55700.032.040	6,3X63MM	50	55700.063.063
1,6X16MM	250	55700.016.016	3,2X45MM*	500	55700.032.045	6,3X71MM*	250	55700.063.071
1,6X18MM*	1000	55700.016.018	3,2X50MM	100	55700.032.050	6,3X80MM	50	55700.063.080
1,6X20MM	250	55700.016.020	3,2X56MM*	500	55700.032.056	6,3X90MM*	250	55700.063.090
1,6X22MM*	1000	55700.016.022	3,2X63MM	100	55700.032.063	6,3X100MM	50	55700.063.100
1,6X25MM	250	55700.016.025						
1,6X28MM*	1000	55700.016.028	4X16MM*	500	55700.040.016	8X32MM*	100	55700.080.032
1,6X32MM	250	55700.016.032	4X20MM	100	55700.040.020	8X36MM*	100	55700.080.036
1,6X40MM*	1000	55700.016.040	4X22MM*	500	55700.040.022	8X40MM	25	55700.080.040
			4X25MM	100	55700.040.025	8X45MM*	100	55700.080.045
2X10MM	250	55700.020.010	4X28MM*	500	55700.040.028	8X50MM	25	55700.080.050
2X12MM*	1000	55700.020.012	4X32MM	100	55700.040.032	8X56MM*	100	55700.080.056
2X16MM	250	55700.020.016	4X36MM*	500	55700.040.036	8X63MM	25	55700.080.063
2X18MM	250	55700.020.018	4X40MM	100	55700.040.040	8X71MM*	100	55700.080.071
2X20MM	250	55700.020.020	4X45MM*	500	55700.040.045	8X80MM	25	55700.080.080
2X22MM*	1000	55700.020.022	4X50MM	100	55700.040.050	8X90MM*	100	55700.080.090
2X25MM	250	55700.020.025	4X56MM*	500	55700.040.056	8X100MM	25	55700.080.100
2X28MM*	1000	55700.020.028	4X63MM	100	55700.040.063			
2X32MM	250	55700.020.032	4X71MM*	500	55700.040.071	10X40MM*	100	55700.100.040
2X36MM*	1000	55700.020.036	4X80MM	100	55700.040.080	10X63MM	25	55700.100.063
2X40MM	250	55700.020.040	4X100MM*	500	55700.040.100	10X71MM*	100	55700.100.071
2X45MM*	1000	55700.020.045				10X80MM	25	55700.100.080
2X50MM	250	55700.020.050	5X18MM*	250	55700.050.018	10X90MM*	100	55700.100.090
			5X20MM*	250	55700.050.020	10X100MM	25	55700.100.100
2,5X10MM	100	55700.025.010	5X22MM*	250	55700.050.022	10X125MM	25	55700.100.125
2,5X12MM*	1000	55700.025.012	5X25MM	50	55700.050.025			
2,5X16MM	100	55700.025.016	5X28MM*	250	55700.050.028	13 X 90 MM	25	55700.130.090
2,5X18MM*	1000	55700.025.018	5X32MM	50	55700.050.032			

- O tipo de aço austenitico é do critério do fabricante, os tipos de aço podem variar de acordo com a norma ISO 3506.

50210 Chaveta meia cana — M11F

Material Latão



d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
1,6X20MM	500	50210.016.020	2,5X50MM	500	50210.025.050	4X50MM	250	50210.040.050
1,6X25MM	500	50210.016.025	2,5X63MM	500	50210.025.063	4X63MM	250	50210.040.063
1,6X32MM	500	50210.016.032				4X80MM	250	50210.040.080
1,6X40MM	500	50210.016.040	3,2X25MM	250	50210.032.025			
			3,2X32MM	250	50210.032.032	5X40MM	100	50210.050.040
2X25MM	500	50210.020.025	3,2X40MM	250	50210.032.040	5X50MM	100	50210.050.050
2X32MM	500	50210.020.032	3,2X50MM	250	50210.032.050	5X63MM	100	50210.050.063
2X40MM	500	50210.020.040	3,2X63MM	250	50210.032.063	5X80MM	100	50210.050.080
2X50MM	500	50210.020.050						
			4X25MM	250	50210.040.025	6,3X63MM	100	50210.063.063
2,5X25MM	500	50210.025.025	4X32MM	250	50210.040.032	6,3X80MM	100	50210.063.080
2,5X32MM	500	50210.025.032	4X40MM	250	50210.040.040	6,3X100MM	100	50210.063.100
2,5X40MM	500	50210.025.040						

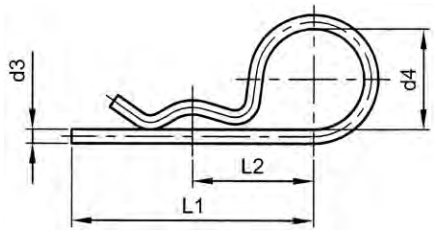
50390 Chaveta meia cana — M11F

Material Cobre

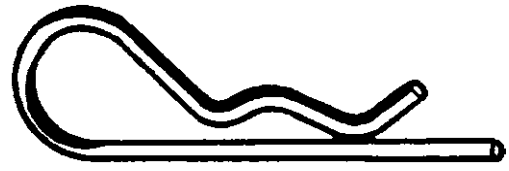


d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo	d (nom.) x L	✉	Ref. do artigo
1,6X20MM	500	50390.016.020	3,2X40MM	250	50390.032.040			
1,6X32MM	500	50390.016.032	3,2X50MM	250	50390.032.050	5X40MM	100	50390.050.040
			3,2X63MM	250	50390.032.063	5X50MM	100	50390.050.050
2X32MM	500	50390.020.032				5X63MM	100	50390.050.063
2X40MM	500	50390.020.040	4X32MM	250	50390.040.032	5X80MM	100	50390.050.080
			4X40MM	250	50390.040.040			
2,5X32MM	500	50390.025.032	4X50MM	250	50390.040.050	6,3X63MM	100	50390.063.063
2,5X40MM	500	50390.025.040	4X63MM	250	50390.040.063	6,3X80MM	100	50390.063.080
			4X80MM	250	50390.040.080	6,3X100MM	100	50390.063.100
3,2X32MM	250	50390.032.032						

Cavilha simples



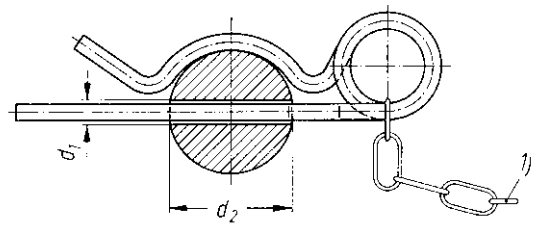
DIN ≈11024



Dados técnicos

d_1 (nom.) = furo ø	Para eixo ø d_2 >	Para eixo ø d_2 ≤	d_3	d_4	L_1	L_2
2.5	9	14	2	10	50	25
3.5	10	16	3	18	60	28
4.5	16	20	4	20	60	30
6	20	28	5	24	85	40
7	28	40	6	30	105	50
8	28	45	7	30	105	50
9	30	45	8	28	110	55

Dados montagem



Para o diâmetro, d1 (nom.)com tolerância H13 é recomendado.
É também recomendado ligar a chaveta a utilizar ao parafuso a ser bloqueado de modo a não se perder.

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço mola	Passiv. amar.	39610	9-41
INOX A2		51970	9-41

39610 Cavilha simples **L11E**

Material Aço mola
Tratamento sup. Passivado a amarelo



d_1 (=d_3)	✉	Ref. do artigo	d_1 (=d_3)	✉	Ref. do artigo	d_1 (=d_3)	✉	Ref. do artigo
2,5 (=2 MM)	50	39610.020.001	6 (=5 MM)	25	39610.050.001	8 (=7 MM)	10	39610.070.001
3,5 (=3 MM)	50	39610.030.001	7 (=6 MM)	25	39610.060.001	9 (=8 MM)	10	39610.080.001
4,5 (=4 MM)	25	39610.040.001						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

51970 Cavilha simples **R09A**

Material Aço inoxidável A2

RoHS

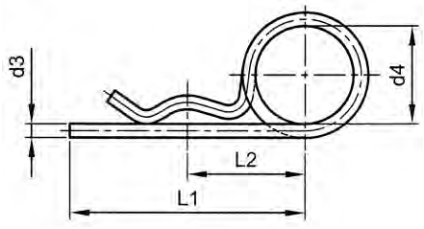


d_1 (=d_3)	✉	Ref. do artigo	d_1 (=d_3)	✉	Ref. do artigo	d_1 (=d_3)	✉	Ref. do artigo
2,5 (=2 MM)	50	51970.020.001	4,5 (=4 MM)	25	51970.040.001	7 (=6 MM)	25	51970.060.001
3,5 (=3 MM)	50	51970.030.001	6 (=5 MM)	25	51970.050.001			

9

Cavilha dupla

DIN ≈11024

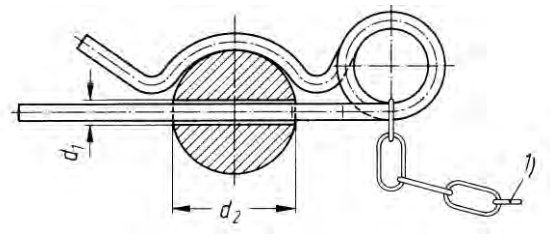




Dados técnicos

d_1 (nom.) = furo ø	Para eixo ø d_2 >	Para eixo ø d_2 ≤	d_3	d_4	L_1	L_2
3.5	14	20	3	16	62	32
4.5	17	24	4	23	78	44
5.5	18	30	5	26	92	50
6.5	24	36	6	30	120	70
8	26	40	7	30	130	72
9	24	40	8	30	130	76

Dados montagem



Para o diâmetro d1 (nom.), é recomendada tolerância H13.
É também recomendado ligar a chaveta a utilizar ao parafuso a ser bloqueado de modo a não se perder.

39630 Cavilha dupla **L11E**

Material Aço mola
Tratamento sup. Passivado a amarelo



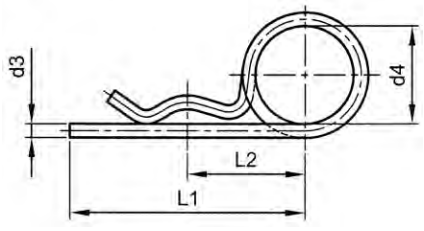
d_1 (=d_3)	✉	Ref. do artigo	d_1 (=d_3)	✉	Ref. do artigo	d_1 (=d_3)	✉	Ref. do artigo
3,5 (=3 MM)	50	39630.030.001	5,5 (=5 MM)	25	39630.050.001	8 (=7 MM)	10	39630.070.001
4,5 (=4 MM)	25	39630.040.001	6,5 (=6 MM)	25	39630.060.001	9 (=8MM)	10	39630.080.001

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

9

Cavilha dupla A4

DIN 11024

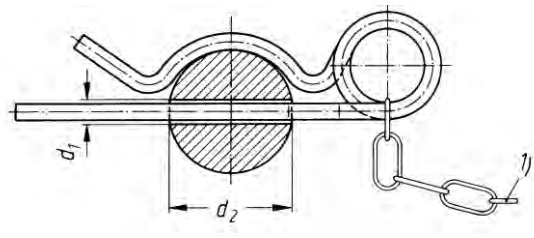




Dados técnicos

d_1 (nom.) = furo ø	Para eixo ø d_2 >	Para eixo ø d_2 ≤	d_3	d_4	L_1	L_2
3.2	11.2	14	2.8	20	48	26
4	14	20	3.6	20	64	32
5	20	26	4.5	25	80	39
7	34	45	6.3	30	125	56
8	45	56	7	30	150	63

Dados de montagem



Para o diâmetro d1 (nom.), é recomendada tolerância H13.
É também recomendado que ligue a mola ao parafuso a ser bloqueado de modo a não se perder.

55970 Cavilha dupla A4 **R09A**

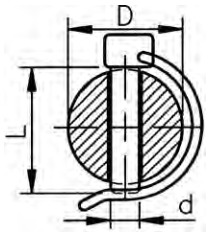
Material Aço inoxidável A4

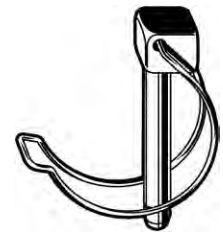


d_1 (=d_3)	✉	Ref. do artigo	d_1 (=d_3)	✉	Ref. do artigo	d_1 (=d_3)	✉	Ref. do artigo
3,2 (=2,8MM)	50	55970.032.001	5 (=4,5MM)	50	55970.050.001	8 (=7MM)	10	55970.080.001
4 (=3,6MM)	50	55970.040.001	7 (=6,3MM)	10	55970.070.001			

9

Cavilha para tubo

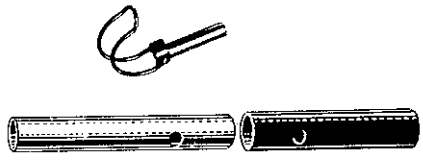




Dados técnicos

d x L	Para diâm. nom. D mm	Para diâm. nom. D polegada
6x40	36	1.13/32
6x45	40	1.9/16
8x40	36	1.13/32
8x45	40	1.9/16
8x50	45	1.3/4
10x40	36	1.13/32
10x50	45	1.3/4
10x60	55	2.11/64

Dados montagem





39680 **Cavilha para tubo** **L11G**

Material Aço mola
Tratamento sup. Passivado a amarelo

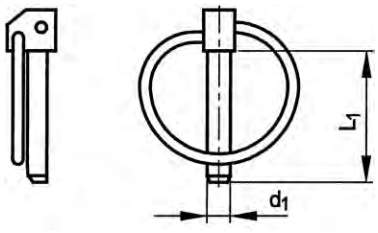


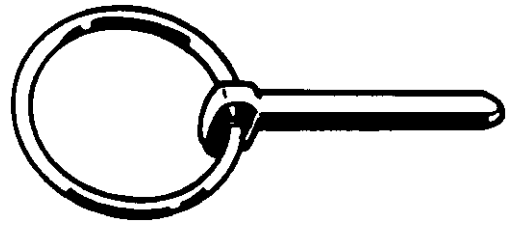
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
6X40MM	25	39680.060.040	8X45MM	25	39680.080.045	10X40MM	10	39680.100.040
6X45MM	25	39680.060.045	8X50MM	25	39680.080.050	10X50MM	10	39680.100.050
						10X60MM	10	39680.100.060
8X40MM	25	39680.080.040						

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

9

Cavilha de segurança



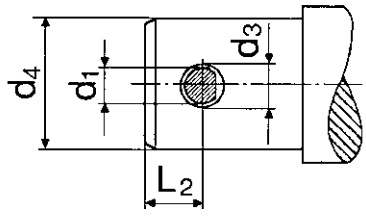


Dados técnicos

d_1	d_3 (H11)	d_4 (max.)	Forma da haste	L_2
4.5	5	25	a	8
6	6.2	32	a	10
7	8	32	b	12
8	8.5	32	b	12
9.5	10	32	b	14
10	10.5	32	b	14
11	12	32	b	14

- Forma da haste a = redondo, b = plano num lado

Dados montagem



39660 Cavilha de segurança **L11E**

Material Aço mola
Tratamento sup. Passivado a amarelo

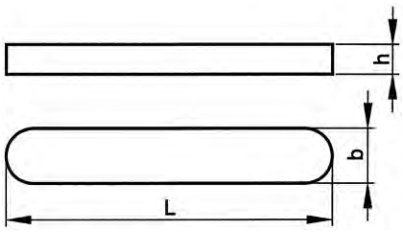


d_1 x L_1	✉	Ref. do artigo	d_1 x L_1	✉	Ref. do artigo	d_1 x L_1	✉	Ref. do artigo
4,5x40MM	25	39660.045.001	8x40MM	25	39660.080.001	10x40MM	10	39660.100.001
6x40MM	25	39660.060.001	9,5x40MM	25	39660.095.001	11x40MM	10	39660.110.001
7x40MM	25	39660.070.001						

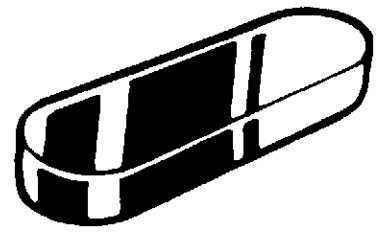
- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

9

Chaveta paralela tipo pesado



DIN	**6885 A**
ISO	773
NEN	2430
BS	4235-1



Dados técnicos

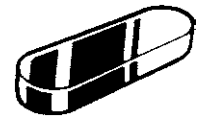
b	Para eixo ø >	Para eixo ø ≤	h	b	Para eixo ø >	Para eixo ø ≤	h
2	6	8	2	18	50	58	11
3	8	10	3	20	75	85	12
4	10	12	4	22	75	80	14
5	12	17	5	25	85	95	14
6	17	22	6	28	95	110	16
8	22	30	7	32	110	130	18
10	30	38	8	36	130	150	20
12	38	44	8	40	150	170	22
14	44	50	9	45	170	200	25
16	50	58	10	50	200	230	28

Grupos de produtos

Material	Código	Página
Aço C45K	39250	9-46
INOX A4	55510	9-48

39250 **Chaveta paralela tipo pesado** **L11B**

Material Aço C45K



b x h x L	✉	Ref. do artigo	b x h x L	✉	Ref. do artigo	b x h x L	✉	Ref. do artigo
2X2X6MM	50	39250.022.006	4X4X15MM	50	39250.044.015	5X5X80MM	50	39250.055.080
2X2X8MM	50	39250.022.008	4X4X16MM	50	39250.044.016			
2X2X10MM	50	39250.022.010	4X4X18MM	50	39250.044.018	6X6X10MM	50	39250.066.010
2X2X12MM	50	39250.022.012	4X4X20MM	50	39250.044.020	6X6X12MM	50	39250.066.012
2X2X14MM	50	39250.022.014	4X4X22MM	50	39250.044.022	6X6X14MM	50	39250.066.014
2X2X16MM	50	39250.022.016	4X4X25MM	50	39250.044.025	6X6X15MM	50	39250.066.015
2X2X18MM	50	39250.022.018	4X4X28MM	50	39250.044.028	6X6X16MM	50	39250.066.016
2X2X20MM	50	39250.022.020	4X4X30MM	50	39250.044.030	6X6X18MM	50	39250.066.018
2X2X22MM	50	39250.022.022	4X4X32MM	50	39250.044.032	6X6X20MM	50	39250.066.020
2X2X25MM	50	39250.022.025	4X4X35MM	50	39250.044.035	6X6X22MM	50	39250.066.022
2X2X28MM	50	39250.022.028	4X4X36MM	50	39250.044.036	6X6X25MM	50	39250.066.025
2X2X30MM	50	39250.022.030	4X4X40MM	50	39250.044.040	6X6X28MM	50	39250.066.028
2X2X36MM	50	39250.022.036	4X4X45MM	50	39250.044.045	6X6X30MM	50	39250.066.030
2X2X40MM	50	39250.022.040	4X4X50MM	50	39250.044.050	6X6X32MM	50	39250.066.032
						6X6X35MM	50	39250.066.035
3X3X6MM	50	39250.033.006	5X5X10MM	50	39250.055.010	6X6X36MM	50	39250.066.036
3X3X8MM	50	39250.033.008	5X5X12MM	50	39250.055.012	6X6X40MM	50	39250.066.040
3X3X10MM	50	39250.033.010	5X5X14MM	50	39250.055.014	6X6X45MM	50	39250.066.045
3X3X12MM	50	39250.033.012	5X5X15MM	50	39250.055.015	6X6X50MM	50	39250.066.050
3X3X14MM	50	39250.033.014	5X5X16MM	50	39250.055.016	6X6X55MM	50	39250.066.055
3X3X15MM	50	39250.033.015	5X5X18MM	50	39250.055.018	6X6X56MM	50	39250.066.056
3X3X16MM	50	39250.033.016	5X5X20MM	50	39250.055.020	6X6X60MM	50	39250.066.060
3X3X18MM	50	39250.033.018	5X5X22MM	50	39250.055.022	6X6X63MM	50	39250.066.063
3X3X20MM	50	39250.033.020	5X5X25MM	50	39250.055.025	6X6X65MM	50	39250.066.065
3X3X22MM	50	39250.033.022	5X5X28MM	50	39250.055.028	6X6X70MM	50	39250.066.070
3X3X25MM	50	39250.033.025	5X5X30MM	50	39250.055.030	6X6X75MM	50	39250.066.075
3X3X28MM	50	39250.033.028	5X5X32MM	50	39250.055.032	6X6X80MM	50	39250.066.080
3X3X30MM	50	39250.033.030	5X5X35MM	50	39250.055.035	6X6X90MM	50	39250.066.090
3X3X32MM	50	39250.033.032	5X5X36MM	50	39250.055.036	6X6X100MM	50	39250.066.100
3X3X35MM	50	39250.033.035	5X5X40MM	50	39250.055.040			
3X3X40MM	50	39250.033.040	5X5X45MM	50	39250.055.045	8X7X10MM	50	39250.087.010
			5X5X50MM	50	39250.055.050	8X7X12MM	50	39250.087.012
4X4X6MM	50	39250.044.006	5X5X55MM	50	39250.055.055	8X7X15MM	50	39250.087.015
4X4X8MM	50	39250.044.008	5X5X56MM	50	39250.055.056	8X7X16MM	50	39250.087.016
4X4X10MM	50	39250.044.010	5X5X60MM	50	39250.055.060	8X7X18MM	50	39250.087.018
4X4X12MM	50	39250.044.012	5X5X63MM	50	39250.055.063	8X7X20MM	50	39250.087.020
4X4X14MM	50	39250.044.014	5X5X70MM	50	39250.055.070	8X7X22MM	50	39250.087.022

39250 Chaveta paralela tipo pesado

b x h x L	✉	Ref. do artigo	b x h x L	✉	Ref. do artigo	b x h x L	✉	Ref. do artigo
8X7X25MM	50	39250.087.025	12X8X140MM	10	39250.128.140	20X12X125MM	10	39250.212.125
8X7X28MM	50	39250.087.028	12X8X160MM	10	39250.128.160	20X12X140MM	10	39250.212.140
8X7X30MM	50	39250.087.030	12X8X180MM	10	39250.128.180	20X12X160MM	10	39250.212.160
8X7X32MM	50	39250.087.032				20X12X180MM	10	39250.212.180
8X7X35MM	25	39250.087.035	14X9X25MM	10	39250.149.025	20X12X200MM	10	39250.212.200
8X7X36MM	25	39250.087.036	14X9X28MM	10	39250.149.028	20X12X220MM	10	39250.212.220
8X7X40MM	25	39250.087.040	14X9X30MM	10	39250.149.030			
8X7X45MM	25	39250.087.045	14X9X32MM	10	39250.149.032	22X14X50MM	10	39250.234.050
8X7X50MM	25	39250.087.050	14X9X35MM	10	39250.149.035	22X14X56MM	10	39250.234.056
8X7X55MM	25	39250.087.055	14X9X36MM	10	39250.149.036	22X14X60MM	10	39250.234.060
8X7X60MM	25	39250.087.060	14X9X40MM	10	39250.149.040	22X14X63MM	10	39250.234.063
8X7X63MM	25	39250.087.063	14X9X45MM	10	39250.149.045	22X14X70MM	10	39250.234.070
8X7X65MM	25	39250.087.065	14X9X50MM	10	39250.149.050	22X14X80MM	10	39250.234.080
8X7X70MM	25	39250.087.070	14X9X55MM	10	39250.149.055	22X14X90MM	10	39250.234.090
8X7X75MM	25	39250.087.075	14X9X56MM	10	39250.149.056	22X14X100MM	10	39250.234.100
8X7X80MM	25	39250.087.080	14X9X60MM	10	39250.149.060	22X14X110MM	10	39250.234.110
8X7X85MM	25	39250.087.085	14X9X63MM	10	39250.149.063	22X14X120MM	10	39250.234.120
8X7X90MM	25	39250.087.090	14X9X65MM	10	39250.149.065	22X14X125MM	10	39250.234.125
8X7X100MM	25	39250.087.100	14X9X70MM	10	39250.149.070	22X14X140MM	10	39250.234.140
8X7X110MM	25	39250.087.110	14X9X75MM	10	39250.149.075	22X14X160MM	10	39250.234.160
8X7X120MM	25	39250.087.120	14X9X80MM	10	39250.149.080	22X14X180MM	10	39250.234.180
8X7X125MM	25	39250.087.125	14X9X85MM	10	39250.149.085	22X14X200MM	10	39250.234.200
8X7X140MM	25	39250.087.140	14X9X90MM	10	39250.149.090	22X14X220MM	10	39250.234.220
8X7X160MM	25	39250.087.160	14X9X100MM	10	39250.149.100	22X14X250MM	10	39250.234.250
8X7X180MM	25	39250.087.180	14X9X110MM	10	39250.149.110			
			14X9X120MM	10	39250.149.120	25X14X63MM	10	39250.264.063
10X8X16MM	25	39250.108.016	14X9X125MM	10	39250.149.125	25X14X70MM	10	39250.264.070
10X8X18MM	25	39250.108.018	14X9X140MM	10	39250.149.140	25X14X80MM	10	39250.264.080
10X8X20MM	25	39250.108.020	14X9X160MM	10	39250.149.160	25X14X90MM	10	39250.264.090
10X8X22MM	25	39250.108.022	14X9X180MM	10	39250.149.180	25X14X100MM	10	39250.264.100
10X8X25MM	25	39250.108.025				25X14X110MM	10	39250.264.110
10X8X28MM	25	39250.108.028	16X10X30MM	10	39250.170.030	25X14X120MM	10	39250.264.120
10X8X30MM	25	39250.108.030	16X10X32MM	10	39250.170.032	25X14X125MM	10	39250.264.125
10X8X32MM	25	39250.108.032	16X10X36MM	10	39250.170.036	25X14X140MM	10	39250.264.140
10X8X35MM	25	39250.108.035	16X10X40MM	10	39250.170.040	25X14X160MM	10	39250.264.160
10X8X36MM	25	39250.108.036	16X10X45MM	10	39250.170.045	25X14X180MM	10	39250.264.180
10X8X40MM	25	39250.108.040	16X10X50MM	10	39250.170.050	25X14X200MM	5	39250.264.200
10X8X45MM	25	39250.108.045	16X10X56MM	10	39250.170.056	25X14X220MM	5	39250.264.220
10X8X50MM	25	39250.108.050	16X10X60MM	10	39250.170.060	25X14X250MM	5	39250.264.250
10X8X55MM	25	39250.108.055	16X10X63MM	10	39250.170.063	25X14X280MM	5	39250.264.280
10X8X56MM	25	39250.108.056	16X10X70MM	10	39250.170.070			
10X8X60MM	25	39250.108.060	16X10X80MM	10	39250.170.080	28X16X63MM	5	39250.296.063
10X8X63MM	25	39250.108.063	16X10X90MM	10	39250.170.090	28X16X70MM	5	39250.296.070
10X8X65MM	25	39250.108.065	16X10X100MM	10	39250.170.100	28X16X80MM	5	39250.296.080
10X8X70MM	25	39250.108.070	16X10X110MM	10	39250.170.110	28X16X90MM	5	39250.296.090
10X8X75MM	25	39250.108.075	16X10X120MM	10	39250.170.120	28X16X100MM	5	39250.296.100
10X8X80MM	25	39250.108.080	16X10X125MM	10	39250.170.125	28X16X110MM	5	39250.296.110
10X8X85MM	25	39250.108.085	16X10X140MM	10	39250.170.140	28X16X125MM	5	39250.296.125
10X8X90MM	25	39250.108.090	16X10X160MM	10	39250.170.160	28X16X140MM	5	39250.296.140
10X8X100MM	25	39250.108.100	16X10X180MM	10	39250.170.180	28X16X160MM	5	39250.296.160
10X8X110MM	25	39250.108.110	16X10X200MM	10	39250.170.200	28X16X180MM	5	39250.296.180
10X8X120MM	25	39250.108.120				28X16X200MM	5	39250.296.200
10X8X125MM	25	39250.108.125	18X11X40MM	10	39250.191.040	28X16X220MM	5	39250.296.220
10X8X140MM	25	39250.108.140	18X11X45MM	10	39250.191.045	28X16X250MM	5	39250.296.250
10X8X160MM	25	39250.108.160	18X11X50MM	10	39250.191.050	28X16X320MM	5	39250.296.320
10X8X180MM	25	39250.108.180	18X11X56MM	10	39250.191.056			
			18X11X60MM	10	39250.191.060	32X18X70MM	5	39250.338.070
12X8X20MM	25	39250.128.020	18X11X63MM	10	39250.191.063	32X18X80MM	5	39250.338.080
12X8X22MM	25	39250.128.022	18X11X70MM	10	39250.191.070	32X18X90MM	5	39250.338.090
12X8X25MM	25	39250.128.025	18X11X80MM	10	39250.191.080	32X18X100MM	5	39250.338.100
12X8X28MM	25	39250.128.028	18X11X90MM	10	39250.191.090	32X18X110MM	5	39250.338.110
12X8X30MM	25	39250.128.030	18X11X100MM	10	39250.191.100	32X18X125MM	5	39250.338.125
12X8X32MM	25	39250.128.032	18X11X110MM	10	39250.191.110	32X18X140MM	5	39250.338.140
12X8X35MM	25	39250.128.035	18X11X120MM	10	39250.191.120	32X18X160MM	5	39250.338.160
12X8X36MM	25	39250.128.036	18X11X125MM	10	39250.191.125	32X18X180MM	5	39250.338.180
12X8X40MM	25	39250.128.040	18X11X140MM	10	39250.191.140	32X18X200MM	5	39250.338.200
12X8X45MM	25	39250.128.045	18X11X160MM	10	39250.191.160	32X18X220MM	5	39250.338.220
12X8X50MM	25	39250.128.050	18X11X180MM	10	39250.191.180	32X18X250MM	5	39250.338.250
12X8X55MM	10	39250.128.055	18X11X200MM	10	39250.191.200	32X18X280MM	5	39250.338.280
12X8X56MM	10	39250.128.056				32X18X320MM	5	39250.338.320
12X8X60MM	10	39250.128.060	20X12X40MM	10	39250.212.040	32X18X360MM	5	39250.338.360
12X8X63MM	10	39250.128.063	20X12X45MM	10	39250.212.045			
12X8X65MM	10	39250.128.065	20X12X50MM	10	39250.212.050	36X20X80MM	5	39250.380.080
12X8X70MM	10	39250.128.070	20X12X56MM	10	39250.212.056	36X20X90MM	5	39250.380.090
12X8X75MM	10	39250.128.075	20X12X60MM	10	39250.212.060	36X20X100MM	5	39250.380.100
12X8X80MM	10	39250.128.080	20X12X63MM	10	39250.212.063	36X20X110MM	5	39250.380.110
12X8X85MM	10	39250.128.085	20X12X70MM	10	39250.212.070	36X20X120MM	5	39250.380.120
12X8X90MM	10	39250.128.090	20X12X80MM	10	39250.212.080	36X20X125MM	5	39250.380.125
12X8X100MM	10	39250.128.100	20X12X90MM	10	39250.212.090	36X20X140MM	5	39250.380.140
12X8X110MM	10	39250.128.110	20X12X100MM	10	39250.212.100	36X20X160MM	5	39250.380.160
12X8X120MM	10	39250.128.120	20X12X110MM	10	39250.212.110	36X20X180MM	5	39250.380.180
12X8X125MM	10	39250.128.125	20X12X120MM	10	39250.212.120	36X20X200MM	5	39250.380.200

39250 Chaveta paralela tipo pesado ←

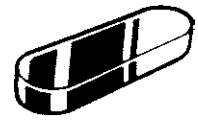
b x h x L	✉	Ref. do artigo	b x h x L	✉	Ref. do artigo	b x h x L	✉	Ref. do artigo
36X20X220MM	5	39250.380.220	40X22X220MM	5	39250.422.220	45X25X280MM	5	39250.475.280
36X20X250MM	5	39250.380.250	40X22X250MM	5	39250.422.250	45X25X320MM	5	39250.475.320
36X20X280MM	5	39250.380.280	40X22X280MM	5	39250.422.280	45X25X360MM	5	39250.475.360
36X20X320MM	5	39250.380.320	40X22X320MM	5	39250.422.320	45X25X400MM	5	39250.475.400
36X20X360MM	5	39250.380.360	40X22X360MM	5	39250.422.360			
36X20X400MM	5	39250.380.400	40X22X400MM	5	39250.422.400	50X28X125MM	3	39250.528.125
						50X28X140MM	3	39250.528.140
40X22X80MM	5	39250.422.080	45X25X100MM	5	39250.475.100	50X28X160MM	3	39250.528.160
40X22X90MM	5	39250.422.090	45X25X110MM	5	39250.475.110	50X28X180MM	3	39250.528.180
40X22X100MM	5	39250.422.100	45X25X125MM	5	39250.475.125	50X28X200MM	3	39250.528.200
40X22X110MM	5	39250.422.110	45X25X140MM	5	39250.475.140	50X28X220MM	3	39250.528.220
40X22X125MM	5	39250.422.125	45X25X160MM	5	39250.475.160	50X28X250MM	3	39250.528.250
40X22X140MM	5	39250.422.140	45X25X180MM	5	39250.475.180	50X28X280MM	3	39250.528.280
40X22X160MM	5	39250.422.160	45X25X200MM	5	39250.475.200	50X28X320MM	3	39250.528.320
40X22X180MM	5	39250.422.180	45X25X220MM	5	39250.475.220	50X28X360MM	3	39250.528.360
40X22X200MM	5	39250.422.200	45X25X250MM	5	39250.475.250	50X28X400MM	3	39250.528.400

- Aço para chaves de acc. com DIN 1652 e DIN 6880.

55510 Chaveta paralela tipo pesado R49A

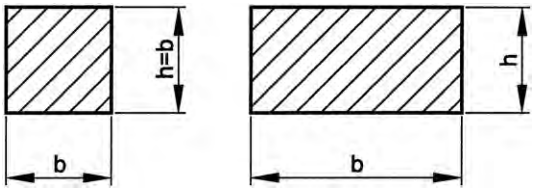
Material Aço inoxidável A4

RoHS

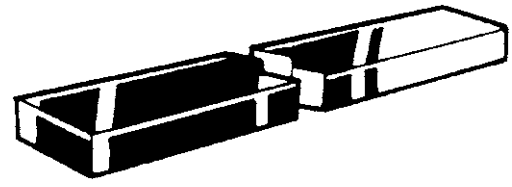


b x h x L	✉	Ref. do artigo	b x h x L	✉	Ref. do artigo	b x h x L	✉	Ref. do artigo
3X3X16MM	50	55510.033.016	6X6X63MM	25	55510.066.063	12X8X50MM	10	55510.128.050
3X3X25MM	50	55510.033.025	6X6X70MM	25	55510.066.070	12X8X56MM	50	55510.128.056
						12X8X60MM	50	55510.128.060
4X4X10MM*	200	55510.044.010	8X7X14MM*	100	55510.087.014	12X8X63MM	5	55510.128.063
4X4X12MM	25	55510.044.012	8X7X16MM	25	55510.087.016	12X8X70MM	5	55510.128.070
4X4X14MM*	200	55510.044.014	8X7X18MM	25	55510.087.018	12X8X80MM	5	55510.128.080
4X4X16MM	25	55510.044.016	8X7X20MM	25	55510.087.020	12X8X90MM*	50	55510.128.090
4X4X18MM*	200	55510.044.018	8X7X25MM	25	55510.087.025	12X8X100MM	5	55510.128.100
4X4X20MM	25	55510.044.020	8X7X28MM*	100	55510.087.028			
4X4X22MM	25	55510.044.022	8X7X30MM	25	55510.087.030	14X9X28MM	5	55510.149.028
4X4X25MM	25	55510.044.025	8X7X32MM	25	55510.087.032	14X9X30MM*	50	55510.149.030
4X4X30MM*	200	55510.044.030	8X7X35MM*	100	55510.087.035	14X9X32MM*	50	55510.149.032
4X4X32MM	25	55510.044.032	8X7X36MM	25	55510.087.036	14X9X36MM*	50	55510.149.036
4X4X36MM*	200	55510.044.036	8X7X40MM	10	55510.087.040	14X9X40MM	5	55510.149.040
4X4X40MM	25	55510.044.040	8X7X45MM	100	55510.087.045	14X9X45MM	5	55510.149.045
4X4X50MM*	200	55510.044.050	8X7X50MM	10	55510.087.050	14X9X50MM	5	55510.149.050
			8X7X60MM	10	55510.087.060	14X9X56MM	5	55510.149.056
5X5X10MM*	200	55510.055.010	8X7X63MM	10	55510.087.063	14X9X60MM	5	55510.149.060
5X5X12MM	25	55510.055.012	8X7X70MM	10	55510.087.070	14X9X63MM	5	55510.149.063
5X5X14MM*	200	55510.055.014	8X7X80MM	10	55510.087.080	14X9X70MM	5	55510.149.070
5X5X16MM	25	55510.055.016	8X7X90MM	10	55510.087.090	14X9X80MM	5	55510.149.080
5X5X18MM*	200	55510.055.018	8X7X100MM	10	55510.087.100	14X9X90MM	50	55510.149.090
5X5X20MM	25	55510.055.020	8X7X125MM	5	55510.087.125	14X9X100MM	5	55510.149.100
5X5X22MM*	200	55510.055.022						
5X5X25MM	25	55510.055.025	10X8X16MM	10	55510.108.016	16X10X50MM	5	55510.170.050
5X5X30MM*	200	55510.055.030	10X8X25MM	10	55510.108.025	16X10X63MM	5	55510.170.063
5X5X32MM	25	55510.055.032	10X8X28MM*	100	55510.108.028	16X10X70MM	5	55510.170.070
5X5X36MM*	200	55510.055.036	10X8X30MM*	100	55510.108.030	16X10X80MM	5	55510.170.080
5X5X40MM	25	55510.055.040	10X8X32MM	10	55510.108.032	16X10X100MM	5	55510.170.100
5X5X50MM	25	55510.055.050	10X8X36MM*	100	55510.108.036			
			10X8X40MM	10	55510.108.040	18X11X50MM	5	55510.191.050
6X6X12MM*	200	55510.066.012	10X8X45MM*	100	55510.108.045	18X11X60MM	5	55510.191.060
6X6X14MM*	200	55510.066.014	10X8X50MM	10	55510.108.050	18X11X63MM	5	55510.191.063
6X6X16MM	25	55510.066.016	10X8X56MM*	100	55510.108.056	18X11X70MM	5	55510.191.070
6X6X18MM*	200	55510.066.018	10X8X60MM	10	55510.108.060	18X11X80MM	5	55510.191.080
6X6X20MM	25	55510.066.020	10X8X63MM	10	55510.108.063	18X11X90MM	5	55510.191.090
6X6X22MM	25	55510.066.022	10X8X70MM	10	55510.108.070	18X11X100MM	5	55510.191.100
6X6X25MM	25	55510.066.025	10X8X80MM	10	55510.108.080	18X11X110MM	5	55510.191.110
6X6X28MM*	200	55510.066.028	10X8X90MM	10	55510.108.090	18X11X140MM	5	55510.191.140
6X6X30MM	200	55510.066.030	10X8X100MM	10	55510.108.100			
6X6X32MM	25	55510.066.032	10X8X125MM	5	55510.108.125	20X12X50MM	5	55510.212.050
6X6X35MM	25	55510.066.035				20X12X70MM	5	55510.212.070
6X6X36MM*	200	55510.066.036	12X8X30MM*	50	55510.128.030	20X12X80MM	5	55510.212.080
6X6X40MM	25	55510.066.040	12X8X32MM	10	55510.128.032	20X12X90MM	5	55510.212.090
6X6X45MM	25	55510.066.045	12X8X36MM*	50	55510.128.036	20X12X100MM	5	55510.212.100
6X6X50MM	25	55510.066.050	12X8X40MM	10	55510.128.040	20X12X110MM	5	55510.212.110
6X6X60MM*	200	55510.066.060	12X8X45MM*	50	55510.128.045	20X12X140MM	5	55510.212.140

Placa aço para chaveta 1 metro



DIN **6880**



- O aço estirado tem a superficie brilhante e corresponde a uma maior precisão de dimensões. Usado para a fabricação de cavilhas paralelas e cavilhas com cabeça de batente.
- Para b a tolerância é h9 e para h tolerância é h11 (excepto para dimensão 12 x 8 a tolerância é h9 bem como para b e h.

Grupos de produtos

Material	Código	Página
Aço C45K	39270	9-49
INOX A4	55512	9-49

39270 **Placa aço para chaveta 1 metro** **L11B**

Material Aço C45K



b x h	✉	Ref. do artigo	b x h	✉	Ref. do artigo	b x h	✉	Ref. do artigo
3X3MM	2	39270.033.001	12X8MM	2	39270.128.001	20X20MM	1	39270.220.001
4X4MM	2	39270.044.001	12X12MM	2	39270.132.001	22X14MM	1	39270.234.001
5X5MM	2	39270.055.001	14X9MM	1	39270.149.001	22X22MM	1	39270.242.001
6X6MM	2	39270.066.001	14X14MM	1	39270.154.001	25X14MM	1	39270.264.001
7X7MM	2	39270.077.001	16X10MM	1	39270.170.001	28X16MM	1	39270.296.001
8X7MM	2	39270.087.001	16X16MM	1	39270.176.001	32X18MM	1	39270.338.001
8X8MM	2	39270.088.001	18X11MM	1	39270.191.001	36X20MM	1	39270.380.001
10X8MM	2	39270.108.001	18X18MM	1	39270.198.001	40X22MM	1	39270.422.001
10X10MM	2	39270.110.001	20X12MM	1	39270.212.001	45X25MM	1	39270.475.001

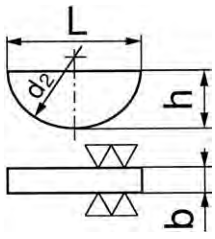
55512 **Placa aço para chaveta 1 metro** **R49A**

Material Aço inoxidável A4 **DIN** **≈6880**

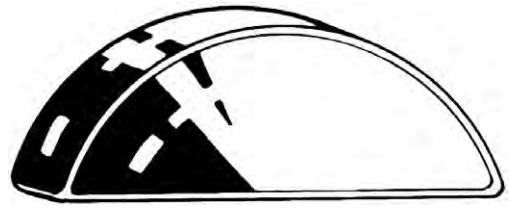


b x h	✉	Ref. do artigo	b x h	✉	Ref. do artigo	b x h	✉	Ref. do artigo
4X4MM	2	55512.044.001	12X8MM	2	55512.128.001	20X12MM	1	55512.212.001
5X5MM	2	55512.055.001	14X9MM	1	55512.149.001	22X14MM	1	55512.234.001
6X6MM	2	55512.066.001	16X10MM	1	55512.170.001	25X14MM	1	55512.264.001
8X7MM	2	55512.087.001	18X11MM	1	55512.191.001	28X16MM	1	55512.296.001
10X8MM	2	55512.108.001						

Chaveta redonda



DIN **6888**
ISO 3912
BS 4235-2



Dados técnicos

b (h9) x h (h12)	Para eixo (1.) ø >	Para eixo (1.) ø ≤	Para eixo (2.) ø >	Para eixo (2.) ø ≤	d_2	L ≈
2x2.6	6	8	10	12	7	6.76
2x3.7	6	8	10	12	10	9.66
2x5 (≠DIN)	8	10	12	17	-	12.65
2.5x3.7	8	10	12	17	10	9.66
3x3.7	8	10	12	17	10	9.66
3x5	8	10	12	17	13	12.65
3x6.5	-	-	12	17	16	15.72
3x7.5 (≠DIN)	10	12	17	22	-	18.57
4x5	10	12	17	22	13	12.65
4x6.5 (≠DIN)	10	12	17	22	16	15.72
4x7.5	10	12	17	22	16	15.72
4x9	12	17	22	30	16	15.72
5x6.5	12	17	22	30	16	15.72
5x7.5	12	17	22	30	19	18.57
5x9	-	-	22	30	22	21.63
6x9	17	22	30	38	22	21.63
6x11	-	-	30	38	28	27.35
6x13 (≠DIN)	22	30	38	-	-	31.43
6x15 (≠DIN)	-	-	-	-	-	37.14
8x11	22	30	38	-	28	27.35
8x13	-	-	38	-	32	31.43
10x13	30	38	38	-	32	31.43

- (1.) Aplicação é válida para chavetas, que são usadas para ajuste e transmitem movimento de rotação.
- (2.) Aplicação é válida para chavetas, que são utilizadas para posicionamento de elementos móveis. Outros artigos de ajuste são utilizados ex: cavilhas paralelas ou cavilhas de ajuste.

Grupos de produtos

Material	Classe	Código	Página
Aço DIN6882	60	39200	9-50
INOX A4		55516	9-51

39200 **Chaveta redonda** **L11B**

Material Aço DIN6882
Classe 60



b x h	✉	Ref. do artigo	b x h	✉	Ref. do artigo	b x h	✉	Ref. do artigo
2X2,6MM	100	39200.020.002				6X9MM	50	39200.060.009
2X3,7MM	100	39200.020.003	4X5MM	50	39200.040.005	6X11MM	25	39200.060.011
2X5MM	100	39200.020.005	4X6,5MM	50	39200.040.006	6X13MM	25	39200.060.013
			4X7,5MM	50	39200.040.007	6X15MM	25	39200.060.015
2,5X3,7MM	100	39200.025.003	4X9MM	50	39200.040.009			
						8X11MM	10	39200.080.011
3X3,7MM	100	39200.030.003	5X6,5MM	50	39200.050.006	8X13MM	10	39200.080.013
3X5MM	100	39200.030.005	5X7,5MM	50	39200.050.007			
3X6,5MM	100	39200.030.006	5X9MM	50	39200.050.009	10X13MM	10	39200.100.013
3X7,5MM	50	39200.030.007						

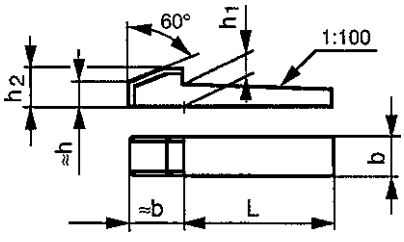
55516 **Chaveta redonda** **R49A**

Material Aço inoxidável A4



b x h	✉	Ref. do artigo	b x h	✉	Ref. do artigo	b x h	✉	Ref. do artigo
3X3,7MM	50	55516.030.003	4X5MM	25	55516.040.005	5X9MM	25	55516.050.009
3X5MM	50	55516.030.005	4X6,5MM	25	55516.040.006			
3X6,5MM	50	55516.030.006	4X7,5MM	25	55516.040.007	6X9MM	25	55516.060.009

Cavilha cunha



DIN **6887**
ISO 774
BS 4235-1



Dados técnicos

b (h9)	Para eixo ø >	Para eixo ø ≤	h (nom.)	h_1	h_2
6	17	22	6	6.1	10
8	22	30	7	7.2	11
10	30	38	8	8.2	12
12	38	44	8	8.2	12
14	44	50	9	9.2	14
16	50	58	10	10.2	16
18	58	65	11	11.2	18
32	110	130	18	18.3	28
36	130	150	20	20.4	32
40	150	170	22	22.4	36

- b(h9) Para o receptáculo da chave, é recomendada a tolerância D10.

39220 **Cavilha cunha** **L11B**

Material Aço DIN6880



b x h x L	✉	Ref. do artigo	b x h x L	✉	Ref. do artigo	b x h x L	✉	Ref. do artigo
6X6X40MM	25	39220.066.040	12X8X50MM	10	39220.128.050	16X10X80MM	10	39220.170.080
6X6X50MM	25	39220.066.050	12X8X60MM	10	39220.128.060	16X10X100MM	10	39220.170.100
6X6X60MM	25	39220.066.060	12X8X63MM	10	39220.128.063			
			12X8X70MM	10	39220.128.070	18X11X63MM	10	39220.191.063
8X7X40MM	25	39220.087.040	12X8X80MM	10	39220.128.080	18X11X70MM	10	39220.191.070
8X7X50MM	25	39220.087.050	12X8X90MM	10	39220.128.090	18X11X80MM	10	39220.191.080
8X7X63MM	25	39220.087.063	12X8X100MM	10	39220.128.100	18X11X90MM	10	39220.191.090
8X7X70MM	25	39220.087.070				18X11X100MM	10	39220.191.100
8X7X80MM	25	39220.087.080	14X9X50MM	10	39220.149.050	18X11X140MM	10	39220.191.140
			14X9X63MM	10	39220.149.063			
10X8X40MM	25	39220.108.040	14X9X70MM	10	39220.149.070	32X18X160MM	5	39220.338.160
10X8X50MM	25	39220.108.050	14X9X80MM	10	39220.149.080	32X18X200MM	5	39220.338.200
10X8X63MM	25	39220.108.063	14X9X90MM	10	39220.149.090			
10X8X70MM	25	39220.108.070	14X9X100MM	10	39220.149.100	36X20X160MM	5	39220.380.160
10X8X80MM	25	39220.108.080				36X20X200MM	5	39220.380.200
10X8X100MM	25	39220.108.100	16X10X63MM	10	39220.170.063			
			16X10X70MM	10	39220.170.070	40X22X200MM	5	39220.422.200
12X8X40MM	10	39220.128.040						

Fabory rebites

A tecnologia de rebites é simples. Os materiais a ser rebitados têm de estar acessíveis a partir de apenas um dos lados.O rebite é composto por duas partes: o corpo e o prego. O corpo é deformado quando o rebite é instalado e é esta deformação que mantém os materiais juntos. O prego é a parte que deforma o corpo do rebite. Esta parte é mais forte que o corpo. O prego parte no ponto especifico. O ponto de quebra assegura que o prego parte no momento certo, para que o corpo seja deformado e os materiais fiquem fixados corretamente.

A gama de rebites Fabory compreende seis grupos principais:
Omni: rebites standard
Plus Bulb & P-Lock: rebites de elevada resistência
Multi: rebites abertos com uma elevada gama de aperto
Sigma: rebites cegos
Specials: rebites especiais para aplicação em materiais suaves (EXPO, TRIPO, HAMMER)

Fabory Omni

Os rebites Omni Fabory representam uma gama de rebites standard. É um rebite para utilização geral, com o prego posicionado logo após a cabeça.

Fabory rebites de elevada resistência (P-Lock & Plus Bulb)

Os rebites de elevada resistência foram especialmente desenvolvidos para aplicações criticas, por exemplo, indústria automóvel, construção, reparação e serviços, HVAC… Isto é, em todas as indústrias, onde são necessárias cargas elevadas combinadas com necessidade de fiabilidade. Rebites alta resistência são conhecidos por sua elevada resistência à tração e ao corte e capacidade de retenção do prego.

Grupo de elevada resistência 34350 (P-Lock)
O rebite com aperto Multigrip e uma elevada resistência á tração e ao corte, oferece uma elevada resistência a vibrações e á estanquicidade. Depois de aplicado, parte do prego fica no corpo permanentemente, por causa do sistema de bloqueio do prego. Para aplicar este rebite é necessária ferramenta especifica ou adaptador (ver especificação da ferramenta). Força mínima requerida 13,5 kN

Grupo de elevada resistência 32635 - 32642 (Plus Bulb)
Os rebites Bulb foram desenvolvidos para colmatar uma necessidade de mercado para um rebite de elevada resistência, para aplicações em superfícies mais finas. O diâmetro largo da cabeça e flange secundária, espalham a carga por uma área maior, assegurando a fixação. Esta fixação assegura uma instalação mais rápida e mais fácil.

As vantagens dos grupos de material 34350 (P-Lock) e 32635-32642 (Plus Bulb) são:
- O sistema especial de bloqueio aumenta a força de aperto
- Depois de aplicado o prego fica permanentemente bloqueado
- Ligação 100% estanque
- Elevada resistência a vibrações
- Grande capacidade de aperto

Elevada resistência grupos de material 34320 - 34330 (Plus Bulb)
Os rebites Plus Bulb, em aço ou aço inox, forma uma flange secundário, depois de aplicados. O que torna o rebite ideal para aplicações criticas em superfícies finas.

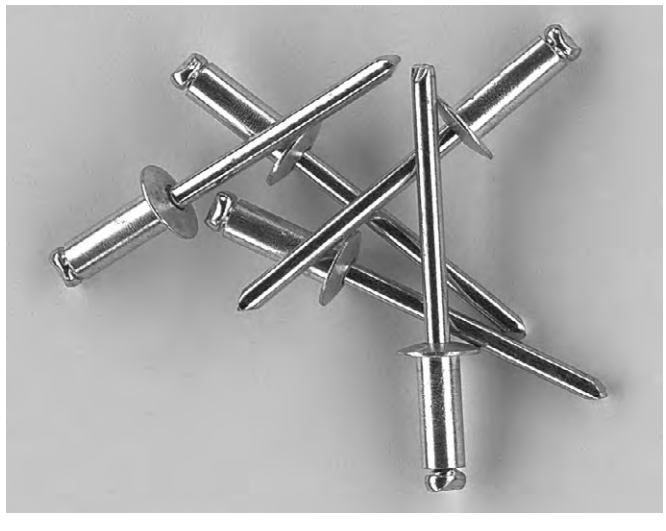
Vantagens:
- Força de tração e tensão ao corte
- Prego de retenção permanente,
- Elevada capacidade de preenchimento, compensa furos demasiado grandes ou desalinhados
- Fornece uma boa área de assentamento
- Boa difusão da carga
- Resistência á vibração
- Não é necessária ferramenta especial ou adaptador

Fabory Multi

O rebite Multi de Fabory é um rebite multi-aperto com uma gama de aperto maior. O que ajuda a reduzir o stock. Os rebites Multi podem ser utilizados para aplicações genéricas. É formado um bolbo na parte de trás, espalhando a carga por uma área mais vasta. Depois de aplicado, o prego permanece no rebite, e torna-o resistente á vibração. Pelas suas características estruturais, tem boas capacidades de preenchimento de furo, por isso o pré furo é menos critico.

Fabory Sigma

A gama Fabory Sigma é composta por rebites fechados especialmente desenvolvidos que combinam uma forte fixação com estanquicidade de água ou ar. Durante a instalação o corpo expande para preencher o furo, permitindo ao rebite aguentar pressões até 35 bar (3500kPa). O prego é retido a 100%, fornecendo elevada resistência á vibração. O resultado é um rebite com elevada capacidade de tração e ao corte. Para assegurar uma fixação ótima, é importante que o furo seja da dimensão correta.



Fabory Specials

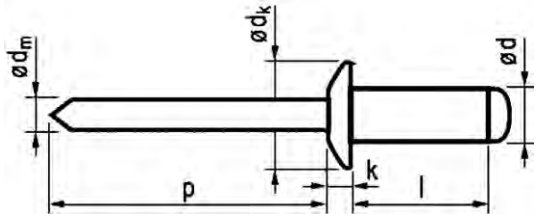
Em complemento ás gamas standard de rebites, A Fabory oferece outros tipos de rebites para aplicações especificas: Fabory Specials. Para aplicação em materiais suaves

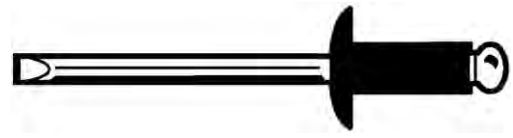
- EXPO rebites
- TRIPO rebites
- HAMMER rebites

Ferramentas

Uma gama de ferramentas está disponível, para complementar a gama de rebites. Desde pequenas ferramentas para fixações mais ligeiras, até ferramentas para fixações mais criticas. As ferramentas de elevada qualidade da Fabory abrangem as ferramentas manuais, pneumáticas até ás ferramentas a bateria. Para mais detalhes vá a www.fabory.com .

Rebite cabeça boleada





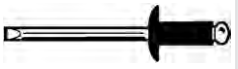
Dados técnicos

ø d	Furo ø	k	p	ø d_k
2.4	2.5	0.7	≥27	5.0
3.0	3.1	0.8	≥27	6.5
3.2	3.3	0.8	≥27	6.5
4.0	4.1	1.0	≥27	8.0
4.8	4.9	1.1	≥27	9.5
5.0	5.1	1.1	≥27	9.5
6.0	6.1	1.5	≥31	12.0
6.4	6.5	1.8	≥31	13.0

Grupos de produtos

Material	Tratamento sup.		Código	Página
Al AlMg 2,5/3,5		Al-Aç zn	34110	9-55
Al AlMg 2,5/3,5		Al anod preto-Aç zn	34310	9-56
Al AlMg 3		Al-Al	34190	9-56
Al AlMg 2,5		Al-Al	33190	9-57
Aço	Zn	Aç zn-Aç zn	34130	9-57
INOX A2		Inox A2-Inox A2	34180	9-58
INOX A4		Inox A4-Inox A4	34186	9-59
Cu		Cu-Aç zn	34150	9-59

34110	OMNI Rebite cabeça boleada	T05A
Material	Alumínio AlMg 2,5/3,5	



ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
2,4	4,0	≈ 2,0	≈ 1,45	355	315
2,4	6,0	2,0-4,0	≈ 1,45	355	315
2,4	8,0	4,0-6,0	≈ 1,45	355	315
3,0	4,0	≈ 1,5	≈ 1,75	810	620
3,0	6,0	1,5-3,5	≈ 1,75	810	620
3,0	8,0	3,5-5,5	≈ 1,75	810	620
3,0	10,0	5,5-7,5	≈ 1,75	810	620
3,0	12,0	7,5-9,5	≈ 1,75	810	620
3,0	16,0	11,5-13,5	≈ 1,75	810	620
3,2	4,0	≈ 1,5	≈ 1,75	980	760
3,2	6,0	1,5-3,5	≈ 1,75	980	760
3,2	8,0	3,5-5,5	≈ 1,75	980	760
3,2	10,0	5,5-7,5	≈ 1,75	980	760
3,2	12,0	7,5-9,5	≈ 1,75	980	760
3,2	14,0	9,5-11,5	≈ 1,75	980	760
3,2	16,0	11,5-13,5	≈ 1,75	980	760
3,2	18,0	13,5-15,5	≈ 1,75	980	760
3,2	20,0	15,5-17,5	≈ 1,75	980	760
4,0	5,0	≈ 1,5	≈ 2,10	1600	1200
4,0	6,0	1,5-3,0	≈ 2,10	1600	1200
4,0	8,0	3,0-5,0	≈ 2,10	1600	1200
4,0	10,0	5,0-6,5	≈ 2,10	1600	1200
4,0	12,0	6,5-8,5	≈ 2,10	1600	1200
4,0	14,0	8,5-10,5	≈ 2,10	1600	1200
4,0	16,0	10,5-12,5	≈ 2,10	1600	1200
4,0	18,0	12,5-14,5	≈ 2,10	1600	1200
4,0	20,0	14,5-16,5	≈ 2,10	1600	1200
4,0	25,0	19,0-21,5	≈ 2,10	1600	1200
4,0	30,0	21,5-26,0	≈ 2,10	1600	1200
4,0	35,0	26,0-30,0	≈ 2,10	1600	1200
4,8	6,0	1,0-3,0	≈ 2,70	2230	1690
4,8	8,0	3,0-4,5	≈ 2,70	2230	1690
4,8	10,0	4,5-6,0	≈ 2,70	2230	1690
4,8	12,0	6,0-8,0	≈ 2,70	2230	1690
4,8	14,0	8,0-10,0	≈ 2,70	2230	1690
4,8	16,0	10,0-12,0	≈ 2,70	2230	1690
4,8	18,0	12,0-14,0	≈ 2,70	2230	1690
4,8	20,0	14,0-16,0	≈ 2,70	2230	1690
4,8	22,0	16,0-18,0	≈ 2,70	2230	1690

ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,8	25,0	18,0-21,0	≈ 2,70	2230	1690
4,8	28,0	21,0-23,5	≈ 2,70	2230	1690
4,8	30,0	23,5-25,0	≈ 2,70	2230	1690
4,8	35,0	25,0-30,0	≈ 2,70	2230	1690
4,8	45,0	35,0-39,0	≈ 2,70	2230	1690
5,0	6,0	1,0-3,0	≈ 2,70	2500	2000
5,0	8,0	3,0-4,5	≈ 2,70	2500	2000
5,0	10,0	4,5-6,0	≈ 2,70	2500	2000
5,0	12,0	6,0-8,0	≈ 2,70	2500	2000
5,0	14,0	8,0-10,0	≈ 2,70	2500	2000
5,0	16,0	10,0-12,0	≈ 2,70	2500	2000
5,0	18,0	12,0-14,0	≈ 2,70	2500	2000
5,0	21,0	14,0-17,0	≈ 2,70	2500	2000
5,0	25,0	17,0-20,0	≈ 2,70	2500	2000
5,0	27,0	20,0-23,0	≈ 2,70	2500	2000
5,0	30,0	23,0-25,0	≈ 2,70	2500	2000
5,0	35,0	25,0-30,0	≈ 2,70	2500	2000
5,0	40,0	30,0-35,0	≈ 2,70	2500	2000
5,0	45,0	35,0-40,0	≈ 2,70	2500	2000
5,0	50,0	40,0-45,0	≈ 2,70	2500	2000
5,0	55,0	45,0-50,0	≈ 2,70	2500	2000
5,0	60,0	50,0-55,0	≈ 2,70	2500	2000
6,0	8,0	2,0-4,0	≈ 3,60	3900	3000
6,0	10,0	4,0-6,0	≈ 3,60	3900	3000
6,0	12,0	6,0-8,0	≈ 3,60	3900	3000
6,0	14,0	7,0-9,0	≈ 3,60	3900	3000
6,0	16,0	9,0-11,0	≈ 3,60	3900	3000
6,0	18,0	11,0-13,0	≈ 3,60	3900	3000
6,0	22,0	13,0-17,0	≈ 3,60	3900	3000
6,0	26,0	17,0-20,0	≈ 3,60	3900	3000
6,0	30,0	20,0-24,0	≈ 3,60	3900	3000
6,4	12,0	4,0-6,0	≈ 3,85	4090	3120
6,4	15,0	6,0-9,0	≈ 3,85	4090	3120
6,4	18,0	9,0-13,0	≈ 3,85	4090	3120
6,4	22,0	13,0-16,0	≈ 3,85	4090	3120
6,4	26,0	16,0-20,0	≈ 3,85	4090	3120
6,4	30,0	18,0-24,0	≈ 3,85	4090	3120
6,4	35,0	24,0-30,0	≈ 3,85	4090	3120

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
2,4X4MM	500	34110.024.004	3,2X16MM	500	34110.032.016	4,8X8MM	500	34110.048.008
2,4X6MM	500	34110.024.006	3,2X18MM	500	34110.032.018	4,8X10MM	500	34110.048.010
2,4X8MM	500	34110.024.008	3,2X20MM	500	34110.032.020	4,8X12MM	500	34110.048.012
						4,8X14MM	500	34110.048.014
3,0X4MM	500	34110.030.004	4,0X6MM	500	34110.040.006	4,8X16MM	500	34110.048.016
3,0X6MM	500	34110.030.006	4,0X8MM	500	34110.040.008	4,8X18MM	500	34110.048.018
3,0X8MM	500	34110.030.008	4,0X10MM	500	34110.040.010	4,8X20MM	500	34110.048.020
3,0X10MM	500	34110.030.010	4,0X12MM	500	34110.040.012	4,8X22MM	500	34110.048.022
3,0X12MM	500	34110.030.012	4,0X14MM	500	34110.040.014	4,8X25MM	500	34110.048.025
3,0X16MM	500	34110.030.016	4,0X16MM	500	34110.040.016	4,8X30MM	250	34110.048.030
			4,0X18MM	500	34110.040.018	4,8X35MM	250	34110.048.035
3,2X4MM	500	34110.032.004	4,0X20MM	500	34110.040.020	4,8X45MM	250	34110.048.045
3,2X6MM	500	34110.032.006	4,0X25MM	500	34110.040.025			
3,2X8MM	500	34110.032.008	4,0X30MM	500	34110.040.030	5,0X6MM	500	34110.050.006
3,2X10MM	500	34110.032.010	4,0X35MM	500	34110.040.035	5,0X8MM	500	34110.050.008
3,2X12MM	500	34110.032.012				5,0X10MM	500	34110.050.010
3,2X14MM	500	34110.032.014	4,8X6MM	500	34110.048.006	5,0X12MM	500	34110.050.012

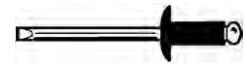
9

34110 OMNI Rebite cabeça boleada ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
5,0X14MM	500	34110.050.014	5,0X50MM	100	34110.050.050	6,0X26MM	250	34110.060.026
5,0X16MM	500	34110.050.016	5,0X60MM	250	34110.050.060	6,0X30MM	250	34110.060.030
5,0X18MM	500	34110.050.018						
5,0X21MM	500	34110.050.021	6,0X8MM	500	34110.060.008	6,4X12MM	250	34110.064.012
5,0X25MM	500	34110.050.025	6,0X10MM	500	34110.060.010	6,4X15MM	250	34110.064.015
5,0X27MM	250	34110.050.027	6,0X12MM	500	34110.060.012	6,4X18MM	250	34110.064.018
5,0X30MM	500	34110.050.030	6,0X14MM	250	34110.060.014	6,4X22MM	250	34110.064.022
5,0X35MM	100	34110.050.035	6,0X16MM	500	34110.060.016	6,4X26MM	250	34110.064.026
5,0X40MM	250	34110.050.040	6,0X18MM	250	34110.060.018	6,4X30MM	250	34110.064.030
5,0X45MM	100	34110.050.045	6,0X22MM	250	34110.060.022	6,4X35MM	250	34110.064.035

34310 OMNI Rebite cabeça boleada T05A

Material Alumínio AlMg 2,5/3,5



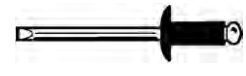
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,0	8,0	3,5-5,5	≈ 1,75	810	620
3,0	10,0	5,5-7,5	≈ 1,75	810	620
3,0	12,0	7,5-9,5	≈ 1,75	810	620

ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,0	8,0	3,0-5,0	≈ 2,10	1600	1200
4,0	10,0	5,0-6,5	≈ 2,10	1600	1200
4,0	12,0	6,5-8,5	≈ 2,10	1600	1200

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3,0X8MM	500	34310.030.008				4,0X10MM	500	34310.040.010
3,0X10MM	500	34310.030.010	4,0X8MM	500	34310.040.008	4,0X12MM	500	34310.040.012
3,0X12MM	500	34310.030.012						

34190 OMNI Rebite cabeça boleada T05A

Material Alumínio AlMg 3



ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,0	4,0	≈ 1,5	≈ 1,75	810	620
3,0	6,0	1,5-3,5	≈ 1,75	810	620
3,0	8,0	3,5-5,5	≈ 1,75	810	620
3,0	10,0	5,5-7,0	≈ 1,75	810	620
3,0	12,0	7,0-9,0	≈ 1,75	810	620
3,2	6,0	1,5-3,5	≈ 1,95	980	760
3,2	8,0	3,5-5,5	≈ 1,95	980	760
4,0	6,0	1,0-3,0	≈ 2,10	1600	1200
4,0	8,0	3,0-5,0	≈ 2,10	1600	1200
4,0	10,0	5,0-7,0	≈ 2,10	1600	1200
4,0	12,0	7,0-9,0	≈ 2,10	1600	1200
4,0	16,0	11,5-12,5	≈ 2,10	1600	1200

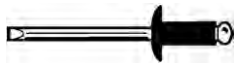
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,0	20,0	15,0-17,0	≈ 2,10	1600	1200
4,0	25,0	17,0-20,0	≈ 2,10	1600	1200
4,8	10,0	4,5-6,5	≈ 2,70	2230	1690
4,8	12,0	6,5-8,5	≈ 2,70	2230	1690
4,8	14,0	8,5-10,5	≈ 2,70	2230	1690
4,8	16,0	10,5-12,5	≈ 2,70	2230	1690
5,0	8,0	2,5-4,5	≈ 2,70	2500	2000
5,0	10,0	4,5-6,5	≈ 2,70	2500	2000
5,0	12,0	6,5-8,5	≈ 2,70	2500	2000
5,0	14,0	8,5-10,5	≈ 2,70	2500	2000
5,0	16,0	10,5-12,5	≈ 2,70	2500	2000

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3,0X6MM	500	34190.030.006	4,0X8MM	500	34190.040.008	4,8X12MM	500	34190.048.012
3,0X8MM	500	34190.030.008	4,0X10MM	500	34190.040.010	4,8X14MM	500	34190.048.014
3,0X10MM	500	34190.030.010	4,0X12MM	500	34190.040.012	4,8X16MM	500	34190.048.016
3,0X12MM	500	34190.030.012	4,0X16MM	500	34190.040.016			
			4,0X20MM	250	34190.040.020	5,0X8MM	500	34190.050.008
3,2X6MM	500	34190.032.006	4,0X25MM	500	34190.040.025	5,0X10MM	500	34190.050.010
3,2X8MM	500	34190.032.008				5,0X12MM	500	34190.050.012
			4,8X10MM	500	34190.048.010	5,0X16MM	500	34190.050.016
4,0X6MM	500	34190.040.006						

9

33190 OMNI Rebite cabeça boleada T05A

Material Alumínio AlMg 2,5



ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,2	6,0	1,5-3,5	≈ 1,95	670	535
3,2	8,0	3,5-5,5	≈ 1,95	670	535
3,2	10,0	5,5-7,5	≈ 1,95	670	535
4,0	6,0	1,5-3,0	≈ 2,45	1025	845
4,0	8,0	3,0-5,0	≈ 2,45	1025	845
4,0	10,0	5,0-7,0	≈ 2,45	1025	845

ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,0	12,0	7,0-9,0	≈ 2,45	1025	845
4,8	8,0	2,5-4,5	≈ 2,90	1425	1155
4,8	10,0	4,5-6,5	≈ 2,90	1425	1155
4,8	12,0	6,5-8,5	≈ 2,90	1425	1155
4,8	14,0	8,5-10,5	≈ 2,90	1425	1155

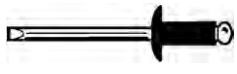
d x L	✉	Ref. do artigo
3,2X6MM	500	33190.032.006
3,2X8MM	500	33190.032.008
3,2X10MM	500	33190.032.010
4,0X6MM	500	33190.040.006

d x L	✉	Ref. do artigo
4,0X8MM	500	33190.040.008
4,0X10MM	500	33190.040.010
4,0X12MM	500	33190.040.012

d x L	✉	Ref. do artigo
4,8X8MM	500	33190.048.008
4,8X10MM	500	33190.048.010
4,8X12MM	500	33190.048.012
4,8X14MM	500	33190.048.014

34130 OMNI Rebite cabeça boleada T05A

Material Aço
Tratamento sup. Zincado



ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,0	6,0	1,5-3,0	≈ 1,90	1125	915
3,0	8,0	3,0-5,0	≈ 1,90	1125	915
3,0	10,0	5,0-7,0	≈ 1,90	1125	915
3,0	12,0	7,0-9,0	≈ 1,90	1125	915
3,0	14,0	9,0-11,0	≈ 1,90	1125	915
3,2	6,0	1,5-3,0	≈ 2,00	1285	1060
3,2	8,0	3,0-5,0	≈ 2,00	1285	1060
3,2	10,0	5,0-7,0	≈ 2,00	1285	1060
3,2	12,0	7,0-9,0	≈ 2,00	1285	1060
3,2	14,0	9,0-11,0	≈ 2,00	1285	1060
4,0	6,0	1,5-2,5	≈ 2,50	1990	1550
4,0	8,0	2,5-4,5	≈ 2,50	1990	1550
4,0	10,0	4,5-6,5	≈ 2,50	1990	1550
4,0	12,0	6,5-8,5	≈ 2,50	1990	1550
4,0	14,0	8,5-10,5	≈ 2,50	1990	1550
4,0	16,0	10,5-12,5	≈ 2,50	1990	1550
4,0	18,0	12,5-14,5	≈ 2,50	1990	1550
4,0	20,0	14,5-16,5	≈ 2,50	1990	1550
4,8	6,0	1,0-2,5	≈ 2,90	2920	2300
4,8	8,0	2,5-4,5	≈ 2,90	2920	2300
4,8	10,0	4,5-6,0	≈ 2,90	2920	2300
4,8	12,0	6,0-8,0	≈ 2,90	2920	2300
4,8	14,0	8,0-10,0	≈ 2,90	2920	2300
4,8	16,0	10,0-11,5	≈ 2,90	2920	2300

ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,8	18,0	11,5-13,5	≈ 2,90	2920	2300
4,8	20,0	13,5-15,0	≈ 2,90	2920	2300
4,8	22,0	15,0-17,0	≈ 2,90	2920	2300
4,8	25,0	17,0-20,0	≈ 2,90	2920	2300
5,0	8,0	2,5-4,0	≈ 2,90	3255	2575
5,0	10,0	4,0-6,0	≈ 2,90	3255	2575
5,0	12,0	6,0-8,0	≈ 2,90	3255	2575
5,0	14,0	8,0-10,0	≈ 2,90	3255	2575
5,0	16,0	10,0-11,5	≈ 2,90	3255	2575
5,0	18,0	11,5-13,5	≈ 2,90	3255	2575
5,0	20,0	13,5-15,0	≈ 2,90	3255	2575
5,0	25,0	15,0-16,5	≈ 2,90	3255	2575
5,0	30,0	21,0-24,0	≈ 2,90	3255	2575
5,0	35,0	22,0-30,0	≈ 2,90	3255	2575
5,0	40,0	27,0-35,0	≈ 2,90	3255	2575
6,0	10,0	1,5-4,5	≈ 3,60	5020	4040
6,0	12,0	3,5-6,5	≈ 3,60	5020	4040
6,4	12,0	3,5-6,5	≈ 3,85	5415	4355
6,4	15,0	6,5-9,5	≈ 3,85	5415	4355
6,4	18,0	9,5-12,5	≈ 3,85	5415	4355
6,4	22,0	14,5-16,5	≈ 3,85	5415	4355
6,4	26,0	18,5-20,5	≈ 3,85	5415	4355
6,4	30,0	22,5-24,5	≈ 3,85	5415	4355

d x L	✉	Ref. do artigo
3,0X6MM	500	34130.030.006
3,0X8MM	500	34130.030.008
3,0X10MM	500	34130.030.010
3,0X12MM	500	34130.030.012

d x L	✉	Ref. do artigo
3,0X14MM	500	34130.030.014
3,2X6MM	500	34130.032.006
3,2X8MM	500	34130.032.008

d x L	✉	Ref. do artigo
3,2X10MM	500	34130.032.010
3,2X12MM	500	34130.032.012
3,2X14MM	500	34130.032.014

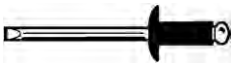
34130 OMNI Rebite cabeça boleada ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
4,0X6MM	500	34130.040.006	4,8X14MM	500	34130.048.014	5,0X20MM	500	34130.050.020
4,0X8MM	500	34130.040.008	4,8X16MM	500	34130.048.016	5,0X40MM	250	34130.050.040
4,0X10MM	500	34130.040.010	4,8X18MM	500	34130.048.018			
4,0X12MM	500	34130.040.012	4,8X20MM	500	34130.048.020	6,0X12MM	250	34130.060.012
4,0X14MM	500	34130.040.014	4,8X22MM	250	34130.048.022			
4,0X16MM	500	34130.040.016	4,8X25MM	250	34130.048.025	6,4X12MM	250	34130.064.012
4,0X18MM	500	34130.040.018				6,4X15MM	250	34130.064.015
4,0X20MM	500	34130.040.020	5,0X8MM	500	34130.050.008	6,4X18MM	200	34130.064.018
			5,0X10MM	500	34130.050.010	6,4X22MM	250	34130.064.022
4,8X6MM	500	34130.048.006	5,0X12MM	500	34130.050.012	6,4X26MM	250	34130.064.026
4,8X8MM	500	34130.048.008	5,0X14MM	500	34130.050.014	6,4X30MM	100	34130.064.030
4,8X10MM	500	34130.048.010	5,0X16MM	250	34130.050.016			
4,8X12MM	500	34130.048.012	5,0X18MM	200	34130.050.018			

34180 OMNI Rebite cabeça boleada T05A

Material Aço inoxidável A2

RoHS



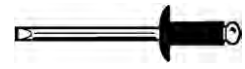
ø d	l		ø d_m			ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)	(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,0	6,0	1,5-2,5	≈ 1,90	2000	1600	4,0	25,0	17,0-21,0	≈ 2,50	3800	3100
3,0	8,0	2,5-4,5	≈ 1,90	2000	1600	4,8	8,0	1,5-3,0	≈ 2,90	6000	4500
3,0	10,10	4,5-6,5	≈ 1,90	2000	1600	4,8	10,0	3,0-5,0	≈ 2,90	6000	4500
3,0	12,0	6,5-8,5	≈ 1,90	2000	1600	4,8	12,0	5,0-7,0	≈ 2,90	6000	4500
3,0	15,0	9,5-11,5	≈ 1,90	2000	1600	4,8	16,0	9,0-11,0	≈ 2,90	6000	4500
3,2	6,0	1,5-2,5	≈ 2,00	2500	1800	4,8	18,0	11,0-13,0	≈ 2,90	6000	4500
3,2	8,0	2,5-4,5	≈ 2,00	2500	1800	4,8	20,0	13,0-15,0	≈ 2,90	6000	4500
3,2	10,0	4,5-6,5	≈ 2,00	2500	1800	4,8	25,0	15,0-20,0	≈ 2,90	6000	4500
3,2	12,0	6,5-8,5	≈ 2,00	2500	1800	4,8	27,0	18,0-22,0	≈ 2,90	6000	4500
3,2	15,0	8,5-12,0	≈ 2,00	2500	1800	4,8	30,0	20,0-25,0	≈ 2,90	6000	4500
4,0	6,0	≈ 2,0	≈ 2,50	3800	3100	5,0	8,0	1,5-3,0	≈ 2,90	6500	5000
4,0	8,0	2,0-4,0	≈ 2,50	3800	3100	5,0	10,0	3,0-5,0	≈ 2,90	6500	5000
4,0	10,0	4,0-6,0	≈ 2,50	3800	3100	5,0	12,0	5,0-7,0	≈ 2,90	6500	5000
4,0	13,0	7,0-9,0	≈ 2,50	3800	3100	5,0	16,0	9,0-11,0	≈ 2,90	6500	5000
4,0	14,0	9,0-10,0	≈ 2,50	3800	3100	5,0	18,0	11,0-13,0	≈ 2,90	6500	5000
4,0	16,0	10,0-12,0	≈ 2,50	3800	3100	5,0	20,0	13,0-15,0	≈ 2,90	6500	5000
4,0	18,0	12,0-14,0	≈ 2,50	3800	3100	5,0	25,0	17,0-20,0	≈ 2,90	6500	5000
4,0	20,0	14,0-16,0	≈ 2,50	3800	3100						

9

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3,0X6MM	500	34180.030.006	4,0X6MM	500	34180.040.006	4,8X14MM	500	34180.048.014
3,0X8MM	500	34180.030.008	4,0X8MM	500	34180.040.008	4,8X16MM	500	34180.048.016
3,0X10MM	500	34180.030.010	4,0X10MM	500	34180.040.010	4,8X18MM	500	34180.048.018
3,0X12MM	500	34180.030.012	4,0X13MM	500	34180.040.013	4,8X20MM	500	34180.048.020
3,0X15MM	500	34180.030.015	4,0X16MM	500	34180.040.016	4,8X25MM	500	34180.048.025
			4,0X18MM	500	34180.040.018	4,8X30MM	500	34180.048.030
3,2X6MM	500	34180.032.006	4,0X20MM	500	34180.040.020			
3,2X8MM	500	34180.032.008	4,0X25MM	500	34180.040.025	5,0X8MM	500	34180.050.008
3,2X10MM	500	34180.032.010				5,0X10MM	500	34180.050.010
3,2X12MM	500	34180.032.012	4,8X8MM	500	34180.048.008	5,0X12MM	500	34180.050.012
3,2X15MM	500	34180.032.015	4,8X10MM	500	34180.048.010	5,0X16MM	500	34180.050.016
			4,8X12MM	500	34180.048.012	5,0X20MM	250	34180.050.020

34186 OMNI Rebite cabeça boleada T05A

Material Aço inoxidável A4



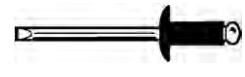
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,0	6,0	1,5-2,5	≈ 1,90	2000	1600
3,0	8,0	2,5-4,5	≈ 1,90	2000	1600
3,0	10,0	4,6-6,5	≈ 1,90	2000	1600
3,0	12,0	6,5-8,5	≈ 1,90	2000	1600
3,2	6,0	1,5-2,5	≈ 2,00	2500	1800
3,2	8,0	2,5-4,5	≈ 2,00	2500	1800
3,2	10,0	4,5-6,5	≈ 2,00	2500	1800
3,2	12,0	6,5-8,5	≈ 2,00	2500	1800
4,0	6,0	≈ 2,0	≈ 2,50	3800	3100
4,0	8,0	2,0-4,0	≈ 2,50	3800	3100

ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,0	10,0	4,0-6,0	≈ 2,50	3800	3100
4,0	13,0	7,0-9,0	≈ 2,50	3800	3100
4,0	16,0	10,0-12,0	≈ 2,50	3800	3100
4,8	8,0	1,5-3,0	≈ 2,90	6000	4500
4,8	10,0	3,0-5,0	≈ 2,90	6000	4500
4,8	12,0	5,0-7,0	≈ 2,90	6000	4500
4,8	16,0	9,0-11,0	≈ 2,90	6000	4500
4,8	18.0	11,0-13,0	≈ 2,90	6000	4500
4,8	20.0	13,0-15,0	≈ 2,90	6000	4500

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3,0X6MM	500	34186.030.006	3,2X12MM	500	34186.032.012			
3,0X8MM	500	34186.030.008				4,8X8MM	500	34186.048.008
3,0X10MM	500	34186.030.010	4,0X6MM	500	34186.040.006	4,8X10MM	500	34186.048.010
			4,0X8MM	500	34186.040.008	4,8X12MM	500	34186.048.012
3,2X6MM	500	34186.032.006	4,0X10MM	500	34186.040.010	4,8X16MM	500	34186.048.016
3,2X8MM	500	34186.032.008	4,0X13MM	500	34186.040.013	4,8X18MM	500	34186.048.018
3,2X10MM	500	34186.032.010	4,0X16MM	500	34186.040.016	4,8X20MM	500	34186.048.020

34150 OMNI Rebite cabeça boleada T05A

Material Cobre



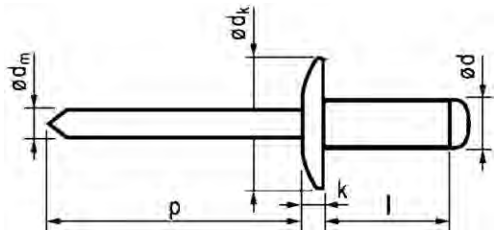
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,0	6,0	1,0-3,0	≈ 1,75	700	600
3,0	8,0	3,0-5,0	≈ 1,75	700	600
3,0	10,0	5,0-7,0	≈ 1,75	700	600
3,0	12,0	7,0-9,0	≈ 1,75	700	600
4,0	6,0	1,0-2,5	≈ 2,10	1500	1000

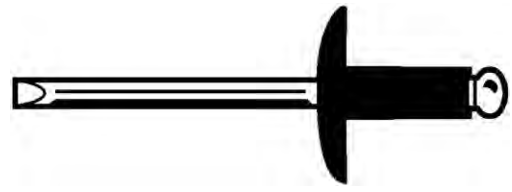
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,0	8,0	2,5-4,5	≈ 2,10	1500	1000
4,0	10,0	4,5-6,5	≈ 2,10	1500	1000
4,0	12,0	6,5-8,5	≈ 2,10	1500	1000
4,0	16,0	10,5-12,5	≈ 2,10	1500	1000

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3,0X6MM	500	34150.030.006				4,0X10MM	500	34150.040.010
3,0X8MM	500	34150.030.008	4,0X6MM	500	34150.040.006	4,0X12MM	500	34150.040.012
3,0X10MM	500	34150.030.010	4,0X8MM	500	34150.040.008	4,0X16MM	500	34150.040.016
3,0X12MM	500	34150.030.012						

9

Rebite cabeça larga





Dados técnicos

ø d	Furo ø	k	p	ø d_k
3.2	3.3	≤ 2.0	≥27	9.5
4.0	4.1	≤ 2.0	≥27	12.0
4.8xk14	4.9	≤ 2.5	≥27	14.0
4.8xk16	4.9	≤ 2.5	≥27	16.0
5.0xk9.5	5.1	≤ 2.5	≥27	9.5
5.0xk11	5.1	≤ 2.5	≥27	11.0
5.0xk14	5.1	≤ 2.5	≥27	14.0
5.0xk16	5.1	1.1	≥27	16.0

Grupos de produtos

Material		Código	Página
Al AlMg 3,5	Al-Aç zn	34113	9-60
Al AlMg 2,5	Al-Aç zn	34126	9-61

34113 **OMNI Rebite cabeça boleada larga** **T05A**

Material Alumínio AlMg 3,5



ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,2	6,0	1,5-3,5	≈ 1,70	980	760
3,2	8,0	3,5-5,5	≈ 1,70	980	760
3,2	10,0	5,5-7,5	≈ 1,70	980	760
3,2	12,0	7,5-9,5	≈ 1,70	980	760
4,0	6,0	1,5-3,0	≈ 2,10	1600	1200
4,0	8,0	3,0-5,0	≈ 2,10	1600	1200
4,0	10,0	5,0-6,5	≈ 2,10	1600	1200
4,0	12,0	6,5-8,5	≈ 2,10	1600	1200
4,0	14,0	8,5-10,5	≈ 2,10	1600	1200
4,0	16,0	10,5-12,5	≈ 2,10	1600	1200
4,8	8,0	3,0-4,5	≈ 2,10	2230	1690
4,8	10,0	4,5-6,0	≈ 2,10	2230	1690
4,8	12,0	6,0-8,0	≈ 2,10	2230	1690
4,8	16,0	10,0-12,0	≈ 2,10	2230	1690
4,8	18,0	12,0-14,0	≈ 2,10	2230	1690
4,8	20,0	14,0-16,0	≈ 2,10	2230	1690
5,0	8,0	2,0-5,0	≈ 2,70	2500	2000
5,0	10,0	4,0-6,5	≈ 2,70	2500	2000
5,0	12,0	6,0-8,0	≈ 2,70	2500	2000
5,0	14,0	7,0-10,0	≈ 2,70	2500	2000

ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
5,0	16,0	8,0-12,0	≈ 2,70	2500	2000
5,0	18,0	11,5-13,5	≈ 2,70	2500	2000
5,0	20,0	12,0-15,5	≈ 2,70	2500	2000
5,0	25,0	15,0-20,5	≈ 2,70	2500	2000
5,0	30,0	20,0-25,0	≈ 2,70	2500	2000
5,0	8,0	3,0-4,5	≈ 2,70	2500	2000
5,0	10,0	4,5-6,0	≈ 2,70	2500	2000
5,0	12,0	6,0-8,0	≈ 2,70	2500	2000
5,0	14,0	8,0-10,0	≈ 2,70	2500	2000
5,0	16,0	10,0-12,0	≈ 2,70	2500	2000
5,0	18,0	12,0-14,0	≈ 2,70	2500	2000
5,0	21,0	14,0-17,0	≈ 2,70	2500	2000
5,0	25,0	17,0-20,0	≈ 2,70	2500	2000
5,0	30,0	23,0-26,0	≈ 2,70	2500	2000
5,0	10,0	2,0-6,5	≈ 2,70	2500	2000
5,0	16,0	6,0-12,0	≈ 2,70	2500	2000
5,0	20,0	11,5-15,5	≈ 2,70	2500	2000
5,0	25,0	15,0-20,5	≈ 2,70	2500	2000
5,0	31,0	20,0-28,0	≈ 2,70	2500	2000

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3,2X6MM D=9,5	500	34113.320.609	4,0X6MM D=12	500	34113.400.612	4,0X16MM D=12	500	34113.401.612
3,2X8MM D=9,5	500	34113.320.809	4,0X8MM D=12	500	34113.400.812			
						4,8X10MM D=16	250	34113.481.016
3,2X10MM D=9,5	500	34113.321.009	4,0X10MM D=12	500	34113.401.012	4,8X12MM D=16	500	34113.481.216
3,2X12MM D=9,5	500	34113.321.209	4,0X12MM D=12	500	34113.401.212	4,8X16MM D=16	250	34113.481.616
			4,0X14MM D=12	100	34113.401.412	4,8X18MM D=16	250	34113.481.816

9

34113 OMNI Rebite cabeça boleada larga ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
			5,0X12MM D=14	500	34113.501.214	5,0X20MM D=16	250	34113.502.016
4,8X20MM D=16	250	34113.482.016	5,0X14MM D=11	500	34113.501.411	5,0X21MM D=14	250	34113.502.114
			5,0X14MM D=14	500	34113.501.414	5,0X24MM D14	250	34113.502.414
5,0X8MM D=11	500	34113.500.811	5,0X16MM D=11	500	34113.501.611	5,0X25MM D=11	500	34113.502.511
5,0X8MM D=14	250	34113.500.814	5,0X16MM D=14	500	34113.501.614	5,0X25MM D=16	250	34113.502.516
			5,0X16MM D=16	500	34113.501.616			
5,0X10MM D=11	500	34113.501.011	5,0X18MM D=11	500	34113.501.811	5,0X30MM D=11	250	34113.503.011
5,0X10MM D=14	250	34113.501.014	5,0X18MM D=14	500	34113.501.814	5,0X30MM D=14	250	34113.503.014
5,0X10MM D=16	250	34113.501.016				5,0X35MM D=16	250	34113.503.516
5,0X12MM D=11	500	34113.501.211	5,0X20MM D=11	250	34113.502.011			

34126 MULTI Rebite cabeça boleada larga T05A

Material Alumínio AlMg 2,5

RoHS



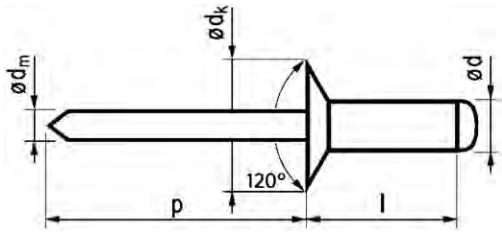
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,2	8,0	0,5-5,0	≈ 1,78	980	680
3,2	9,5	2,0-6,5	≈ 1,78	980	680
3,2	11,1	3,5-8,0	≈ 1,78	980	680
4,0	8,0	0,5-4,5	≈ 2,18	1600	1150
4,0	12,7	4,0-9,5	≈ 2,18	1600	1150

ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,0	17,0	8,5-13,5	≈ 2,18	1600	1150
4,8	10,0	0,5-5,0	≈ 2,78	2350	1500
4,8	14,0	4,0-9,0	≈ 2,78	2350	1500
4,8	16,0	6,0-11,0	≈ 2,78	2350	1500
4,8	20,0	10,0-15,0	≈ 2,78	2350	1500

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3,2X8MM D=9,5	500	34126.320.809	4,0X13MM D=12	500	34126.401.312	4,8X14MM D=14	250	34126.481.414
3,2X9MM D=9,5	500	34126.320.909	4,0X17MM D=12	500	34126.401.712	4,8X16MM D=14	250	34126.481.614
3,2X10MM D=9,5	500	34126.321.109	4,8X10MM D=14	250	34126.481.014	4,8X20MM D=14	250	34126.482.014
4,0X8MM D=12	500	34126.400.812						

9

Rebite cabeça embeber





Dados técnicos

ø d	Furo ø	p	ø d_k
3.0	3.1	≥27	6.0
3.2	3.3	≥27	6.0
4.0	4.1	≥27	7.5
4.8	4.9	≥27	9.0
5.0	5.1	≥27	9.0

Grupos de produtos

Material	Tratamento sup.		Código	Página
Al AlMg 2,5/3,5		Al-Aç zn	34120	9-62
Al AlMg 3		Al-Inox A2	34200	9-63
Aço	Zn	Aç zn-Aç zn	34140	9-63
INOX A2		Inox A2-Inox A3	34184	9-64

34120 **OMNI Rebite cabeça embeber** **T05A**

Material Alumínio AlMg 2,5/3,5



ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,0	6,0	1,5-3,5	≈ 1,75	810	620
3,0	8,0	3,5-5,5	≈ 1,75	810	620
3,0	10,0	5,5-7,5	≈ 1,75	810	620
3,0	12,0	7,5-9,5	≈ 1,75	810	620
3,2	6,0	1,5-3,5	≈ 1,75	980	760
3,2	8,0	3,5-5,5	≈ 1,75	980	760
3,2	10,0	5,5-7,5	≈ 1,75	980	760
3,2	12,0	7,5-9,5	≈ 1,75	980	760
4,0	6,0	1,5-3,0	≈ 2,10	1600	1200
4,0	8,0	3,0-5,0	≈ 2,10	1600	1200
4,0	10,0	5,0-6,5	≈ 2,10	1600	1200
4,0	12,0	6,5-8,5	≈ 2,10	1600	1200
4,0	14,0	10,5-12,5	≈ 2,10	1600	1200
4,0	16,0	12,5-14,5	≈ 2,10	1600	1200
4,8	8,0	3,0-4,5	≈ 2,70	2230	1690

ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,8	10,0	4,5-6,0	≈ 2,70	2230	1690
4,8	12,0	6,0-8,0	≈ 2,70	2230	1690
4,8	14,0	8,0-10,0	≈ 2,70	2230	1690
4,8	16,0	10,0-12,0	≈ 2,70	2230	1690
4,8	18,0	12,0-14,0	≈ 2,70	2230	1690
4,8	20,0	14,0-16,0	≈ 2,70	2230	1690
4,8	25,0	18,0-21,0	≈ 2,70	2230	1690
5,0	8,0	3,0-4,5	≈ 2,70	2500	2000
5,0	10,0	4,5-6,0	≈ 2,70	2500	2000
5,0	12,0	6,0-8,0	≈ 2,70	2500	2000
5,0	14,0	8,0-10,0	≈ 2,70	2500	2000
5,0	16,0	10,0-12,0	≈ 2,70	2500	2000
5,0	18,0	12,0-14,0	≈ 2,70	2500	2000
5,0	21,0	14,0-17,0	≈ 2,70	2500	2000
5,0	25,0	17,0-20,0	≈ 2,70	2500	2000

d x L	✉	Ref. do artigo
3,0X6MM	500	34120.030.006
3,0X8MM	500	34120.030.008
3,0X10MM	500	34120.030.010
3,0X12MM	500	34120.030.012
3,2X6MM	500	34120.032.006
3,2X8MM	500	34120.032.008
3,2X10MM	500	34120.032.010
3,2X12MM	500	34120.032.012
4,0X6MM	500	34120.040.006
4,0X8MM	500	34120.040.008
4,0X10MM	500	34120.040.010
4,0X12MM	500	34120.040.012
4,0X16MM	500	34120.040.016
4,0X18MM	500	34120.040.018
4,8X8MM	500	34120.048.008
4,8X10MM	500	34120.048.010
4,8X12MM	500	34120.048.012
4,8X14MM	500	34120.048.014
4,8X16MM	500	34120.048.016
4,8X18MM	500	34120.048.018
4,8X20MM	250	34120.048.020
4,8X25MM	250	34120.048.025
5,0X8MM	500	34120.050.008
5,0X10MM	500	34120.050.010
5,0X12MM	500	34120.050.012
5,0X14MM	250	34120.050.014
5,0X16MM	500	34120.050.016
5,0X18MM	500	34120.050.018
5,0X20MM	250	34120.050.020
5,0X25MM	250	34120.050.025

34200 OMNI Rebite cabeça embeber T05A

Material Alumínio AlMg 3



ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,0	6,0	1,5-3,5	≈ 1,75	870	680
3,0	8,0	3,5-5,0	≈ 1,75	870	680
3,0	10,0	5,0-7,0	≈ 1,75	870	680
4,0	6,0	1,0-2,5	≈ 2,10	1600	1200
4,0	8,0	2,5-5,0	≈ 2,10	1600	1200

ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,0	10,0	5,0-6,5	≈ 2,10	1600	1200
4,0	12,0	6,0-8,0	≈ 2,10	1600	1200
5,0	12,0	4,0-8,5	≈ 2,70	2500	2000
5,0	14,0	8,0-10,0	≈ 2,70	2500	2000
5,0	16,0	10,0-12,0	≈ 2,70	2500	2000

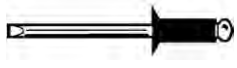
d x L	✉	Ref. do artigo
3,0X6MM	500	34200.030.006
3,0X8MM	500	34200.030.008
3,0X10MM	500	34200.030.010

d x L	✉	Ref. do artigo
4,0X6MM	500	34200.040.006
4,0X8MM	500	34200.040.008
4,0X10MM	500	34200.040.010

d x L	✉	Ref. do artigo
4,0X12MM	500	34200.040.012
5,0X12MM	500	34200.050.012

34140 OMNI Rebite cabeça embeber T05A

Material Aço
Tratamento sup. Zincado



ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,0	6,0	1,5-3,0	≈ 1,90	1125	915
3,0	8,0	3,0-5,0	≈ 1,90	1125	915
3,0	10,0	5,0-7,0	≈ 1,90	1125	915
3,0	12,0	7,0-9,0	≈ 1,90	1125	915
3,2	6,0	1,5-3,0	≈ 2,00	1285	1060
3,2	8,0	3,0-5,0	≈ 2,00	1285	1060
4,0	6,0	1,5-2,5	≈ 2,50	1990	1550
4,0	8,0	2,5-4,5	≈ 2,50	1990	1550
4,0	10,0	4,5-6,5	≈ 2,50	1990	1550
4,0	12,0	6,5-8,5	≈ 2,50	1990	1550

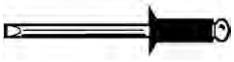
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,0	16,0	10,5,12,5	≈ 2,50	1990	1550
4,8	8,0	2,5-4,5	≈ 2,90	2920	2300
4,8	10,0	4,5-6,0	≈ 2,90	2920	2300
4,8	12,0	6,0-8,0	≈ 2,90	2920	2300
4,8	14,0	8,0-10,0	≈ 2,90	2920	2300
4,8	16,0	10,0-11,5	≈ 2,90	2920	2300
4,8	18,0	11,5-13,5	≈ 2,90	2920	2300
4,8	20,0	13,5-15,5	≈ 2,90	2920	2300
5,0	20,0	13,5-15,0	≈ 2,90	4000	3100
5,0	25,0	17,0-20,0	≈ 2,90	4000	3100

d x L	✉	Ref. do artigo
3,0X6MM	500	34140.030.006
3,0X8MM	500	34140.030.008
3,0X10MM	500	34140.030.010
3,0X12MM	500	34140.030.012
3,2X6MM	1000	34140.032.006
3,2X8MM	500	34140.032.008
4,0X6MM	500	34140.040.006

d x L	✉	Ref. do artigo
4,0X8MM	500	34140.040.008
4,0X10MM	500	34140.040.010
4,0X12MM	500	34140.040.012
4,0X14MM	500	34140.040.014
4,0X16MM	500	34140.040.016
4,8X8MM	500	34140.048.008
4,8X10MM	500	34140.048.010
4,8X12MM	200	34140.048.012

d x L	✉	Ref. do artigo
4,8X14MM	500	34140.048.014
4,8X16MM	500	34140.048.016
4,8X18MM	500	34140.048.018
4,8X20MM	250	34140.048.020
5,0X20MM	250	34140.050.020
5,0X25MM	250	34140.050.025

34184	OMNI Rebite cabeça embeber	T05A
Material	Aço inoxidável A2	



ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,0	8,0	2,0-4,0	≈ 2,50	3800	3100
4,0	10,0	4,0-6,0	≈ 2,50	3800	3100
4,0	12,0	6,0-8,0	≈ 2,50	3800	3100
4,0	15,0	9,0-11,0	≈ 2,50	3800	3100

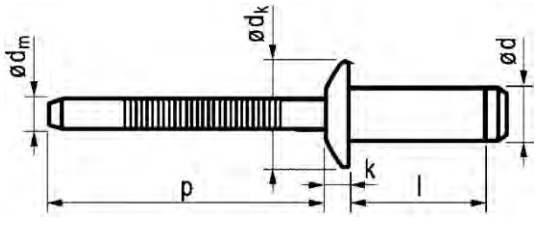
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,8	8,0	1,5-3,0	≈ 2,90	6000	4500
4,8	10,0	3,0-5,0	≈ 2,90	6000	4500
4,8	12,0	5,0-7,0	≈ 2,90	6000	4500
4,8	15,0	8,0-10,0	≈ 2,90	6000	4500

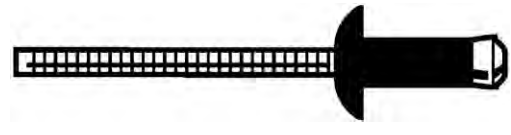
d x L	✉	Ref. do artigo
4,0X8MM	500	34184.040.008
4,0X10MM	500	34184.040.010
4,0X12MM	500	34184.040.012

d x L	✉	Ref. do artigo
4,0X15MM	500	34184.040.015
4,8X8MM	500	34184.048.008

d x L	✉	Ref. do artigo
4,8X10MM	500	34184.048.010
4,8X12MM	500	34184.048.012
4,8X15MM	500	34184.048.015

Rebite estrutural cabeça boleada PLUS BULB

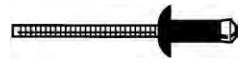




Dados técnicos

ø d	Furo ø	k	p	ø d_k
4.8	5.0	2.2	≥32	9.8
6.4	6.6	3.0	≥32	13.0

32635	PLUS BULB Rebite estrutural cabeça boleada	T01A
Material	Aço	
Tratamento sup.	Zincado	



9

ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,8	11,5	3,5-6,0	≈ 3,02	3600	3920/6270
4,8	14,0	6,0-8,5	≈ 3,02	3600	3920/6270
6,4	10,5	2,8-4,8	≈ 4,17	6600	5390/11180
6,4	12,5	4,8-6,8	≈ 4,17	6600	5390/11180

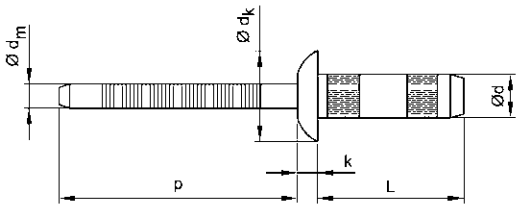
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
6,4	14,5	6,8-8,8	≈ 4,17	6600	5390/11180
6,4	16,5	8,8-10,8	≈ 4,17	6600	5390/11180
6,4	18,5	10,8-12,8	≈ 4,17	6600	5390/11180
6,4	20,5	12,8-14,8	≈ 4,17	6600	5390/11180

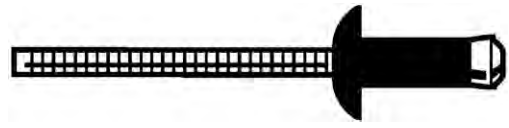
d x L	✉	Ref. do artigo
4,8X11,5MM	500	32635.048.011
4,8X14MM	250	32635.048.014

d x L	✉	Ref. do artigo
6,4X10,5MM	250	32635.064.010
6,4X12,5MM	250	32635.064.012
6,4X14,5MM	200	32635.064.014

d x L	✉	Ref. do artigo
6,4X16,5MM	200	32635.064.016
6,4X18,5MM	200	32635.064.018
6,4X20,5MM	200	32635.064.020

PLUS BULB Rebite estrutural cabeça boleada





Dados técnicos

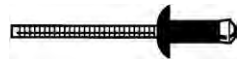
ø d	Furo ø	k (max.)	p	ø d_k
3.2	3.3	1.4	>27	6.8
4.0	4.1	1.5	>27	8.0
4.8	4.9	1.5	>27	9.6

Grupos de produtos

Material	Código	Página
Aço	34320	9-65
INOX	34330	9-65

34320 **PLUS BULB Rebite estrutural cabeça boleada** **T05A**

Material Aço



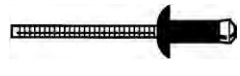
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,2	6,6	1,0-3,0	≈ 2,00	1300	1200
3,2	9,2	3,0-5,0	≈ 2,00	1300	1700
3,2	11,5	5,0-7,0	≈ 2,00	1300	2500
4,0	7,5	1,0-3,0	≈ 2,60	2800	3500
4,0	9,5	3,0-5,0	≈ 2,60	2800	3500

ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,0	12,5	5,0-7,0	≈ 2,60	2800	3500
4,8	10,0	1,5-3,5	≈ 3,00	3800	4200
4,8	12,0	3,5-6,0	≈ 3,00	3800	4200
4,8	14,3	6,0-8,5	≈ 3,00	3800	4200

d x L		Ref. do artigo	d x L		Ref. do artigo	d x L		Ref. do artigo
3,2X7,0MM	500	34320.032.007	4,0X8,0MM	500	34320.040.008	4,8X9,0MM	500	34320.048.009
3,2X9,0MM	500	34320.032.009	4,0X10,0MM	500	34320.040.010	4,8X12,0MM	500	34320.048.012
3,2X11,0MM	500	34320.032.011	4,0X12,0MM	500	34320.040.012	4,8X14,0MM	500	34320.048.014

34330 **PLUS BULB Rebite estrutural cabeça boleada** **T05A**

Material Aço inoxidável A2



ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,2	6,6	1,0-3,0	≈ 2,10	2000	1600
3,2	9,2	3,5-5,0	≈ 2,10	2000	1700
3,2	11,5	5,0-7,0	≈ 2,10	2000	2500
4,0	7,5	1,0-3,0	≈ 2,60	4000	4200
4,0	9,5	3,0-5,0	≈ 2,60	4000	4200

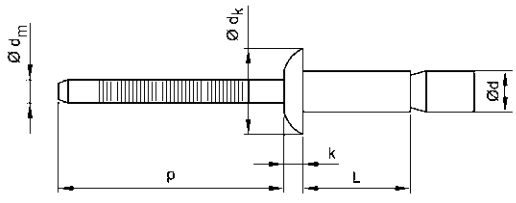
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,0	12,5	5,0-7,0	≈ 2,60	4000	4200
4,8	10,0	1,5-3,5	≈ 3,20	5000	5500
4,8	12,0	3,5-6,0	≈ 3,20	5000	5500
4,8	14,3	6,0-8,5	≈ 3,20	5000	5500

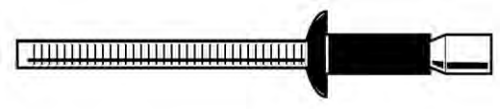
d x L		Ref. do artigo	d x L		Ref. do artigo	d x L		Ref. do artigo
3,2X7,0MM	500	34330.032.007	3,2X11,0MM	500	34330.032.011	4,0X8,0MM	500	34330.040.008
3,2X9,0MM	500	34330.032.009				4,0X10,0MM	500	34330.040.010

34330	PLUS BULB Rebite estrutural cabeça boleada	←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
4,0X12,0MM	500	34330.040.012	4,8X9,0MM	500	34330.048.009	4,8X14,0MM	500	34330.048.014
			4,8X12,0MM	500	34330.048.012			

P-LOCK Rebite estrutural cabeça boleada





Dados técnicos

ø d	Furo ø	k (max.)	p	ø d_k
6.4	6.6	2.9	>27	12.7

34350	P-LOCK Rebite estrutural cabeça boleada	T05A

Material Aço



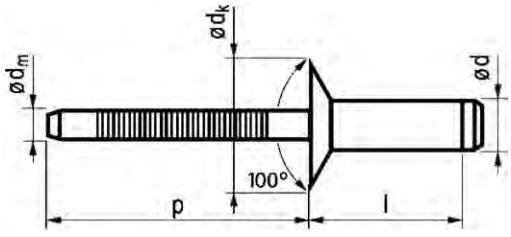
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
6,4	14,0	2,0-9,5	≈ 4,00	10400	11700

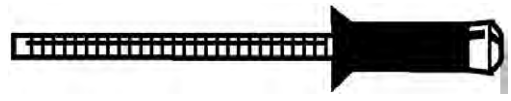
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
6,4	20,0	2,0-15,8	≈ 4,00	10400	11700

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
6,4X14MM	250	34350.064.014	6,4X20MM	250	34350.064.020

9

Rebite estrutural cabeça de embeber PLUS BULB



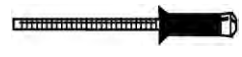


Dados técnicos

ø d	Furo ø	k	p	ø d_k
6.4	6.6	2.0	≥32	10.0

32642 **PLUS BULB Rebite estrutural cabeça embeber** **T05A**

Material Aço
Tratamento sup. Zincado



RoHS

ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
6,4	13,5	5,8-7,8	≈ 4,17	5490	5390/10300
6,4	15,5	7,8-9,8	≈ 4,17	5490	5390/10300

ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
6,4	17,5	9,8-11,8	≈ 4,17	5490	5390/10300
6,4	19,5	11,8-13,8	≈ 4,17	5490	5390/10300

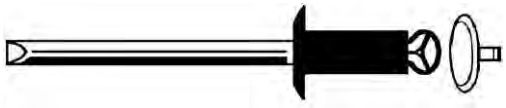
d x L	✉	Ref. do artigo
6,4X13,5MM	250	32642.064.013
6,4X15,5MM	250	32642.064.015

d x L	✉	Ref. do artigo
6,4X17,5MM	250	32642.064.017

d x L	✉	Ref. do artigo
6,4X19,5MM	250	32642.064.019

9

Rebite flor para chapa de matricula com tampa



Dados técnicos

d	Diâmetro da cabeça
4.8	9.5

72004 **Rebite flor para chapa de matricula com tampa** **Y92D**

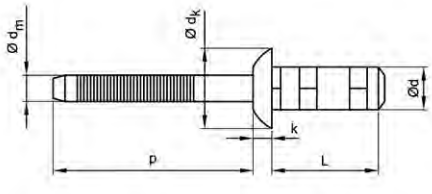
Material Alumínio

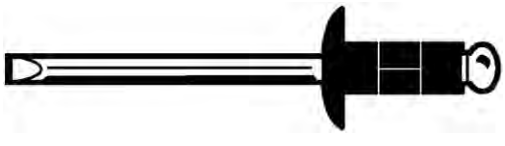


d x L	✉	Ref. do artigo
4,8X15,5MM	100	72004.048.015

Rebite cabeça boleada aba

DIN **≈7337 A**



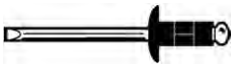


Dados técnicos

ø d	Furo ø	k (max.)	p	ø d_k
3.2	3.3	1.02	>27	6.4
4.0	4.1	1.27	>27	7.9
4.8	4.9	1.52	>27	9.5

33900 **MULTI Rebite cabeça boleada** **T05A**

Material Aço



ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,2	11,4	1,6-6,4	≈ 2,05	1400	1100
4,0	12,0	1,6-6,4	≈ 2,65	2100	1800
4,0	13,6	3,2-8,0	≈ 2,65	2100	1800

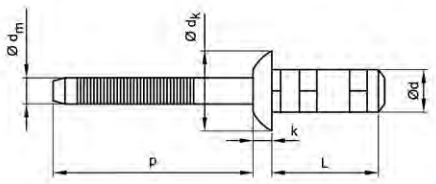
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,8	12,7	1,6-6,4	≈ 3,00	3100	2600
4,8	14,3	3,2-8,0	≈ 3,00	3100	2600
4,8	19,3	8,0-12,7	≈ 3,00	3100	2600

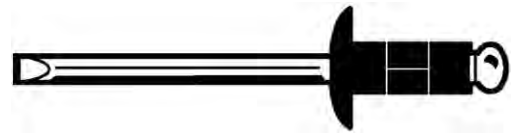
d x L	✉	Ref. do artigo
3,2X11MM	500	33900.032.011
4,0X12,5MM	500	33900.040.012

d x L	✉	Ref. do artigo
4,0X13MM	500	33900.040.013
4,8X12,7MM	500	33900.048.012

d x L	✉	Ref. do artigo
4,8X14MM	500	33900.048.014
4,8X19MM	500	33900.048.019

Multigrip Rebite cabeça boleada, Tipo B



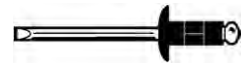


Dados técnicos

ø d	Furo ø	k (max.)	p	ø d_k
3.2	3.3	1.02	>27	6.4
4.0	4.1	1.27	>27	7.9
4.8	4.9	1.52	>27	9.5

34185 **Multigrip Rebite cabeça boleada, Tipo B** **T05A**

Material Aço inoxidável A2



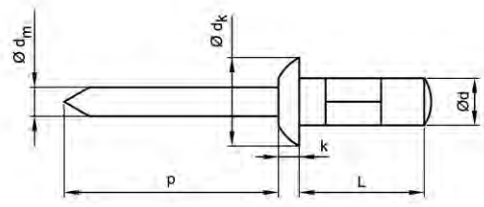
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,2	9,9	1,0-4,8	≈ 2,20	2000	1700
4,0	12,0	1,6-6,4	≈ 2,70	3200	2900
4,0	13,6	3,2-8,0	≈ 2,70	3200	2900
4,0	16,8	6,4-11,2	≈ 2,70	3200	2900

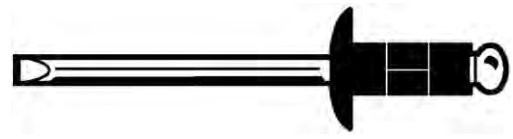
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,8	12,7	1,6-6,4	≈ 3,10	4800	4100
4,8	14,3	3,2-8,0	≈ 3,10	4800	4100
4,8	17,5	6,5-10,0	≈ 3,10	4800	4100
4,8	19,3	8,0-12,5	≈ 3,10	4800	4100

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3,2X10MM	500	34185.032.010	4,0X16MM	500	34185.040.016	4,8X14MM	500	34185.048.014
						4,8X17,5MM	500	34185.048.017
4,0X12MM	500	34185.040.012	4,8X12,7MM	500	34185.048.012	4,8X19MM	500	34185.048.019
4,0X13MM	500	34185.040.013						

9

Rebite multigrip





Dados técnicos

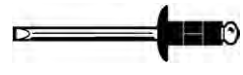
ø d	Furo ø	k	p	ø d_k
3.2	3.3	≤ 1.4	≥27	6.0
4.0	4.1	≤ 1.7	≥27	8.0
4.8	4.9	≤ 2.0	≥27	9.5

Grupos de produtos

Material		Código	Página
Al AlMg 2,5	Al-Aç zn	34125	9-70
Al AlMg 5	Al-Inox A2	34205	9-70

34125 **MULTI Rebite boleada multigrip** **T05A**

Material Alumínio AlMg 2,5



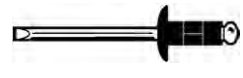
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,2	8,0	0,5-5,0	≈ 1,78	980	680
3,2	9,5	2,0-6,5	≈ 1,78	980	680
3,2	11,1	3,5-8,0	≈ 1,78	980	680
4,0	9,5	1,0-6,0	≈ 2,18	1600	1150
4,0	12,7	4,0-9,5	≈ 2,18	1600	1150

ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,0	17,0	8,5-13,5	≈ 2,18	1600	1150
4,8	10,3	0,5-5,5	≈ 2,78	2350	1500
4,8	15,1	5,0-10,5	≈ 2,78	2350	1500
4,8	17,0	7,0-12,0	≈ 2,78	2350	1500
4,8	24,8	14,5-19,5	≈ 2,78	2350	1500

d x L	✉	Ref. do artigo
3,2X8MM	500	34125.032.008
3,2X9,5MM	500	34125.032.009
3,2X11,1MM	500	34125.032.011
4,0X9,5MM	500	34125.040.009
4,0X12,7MM	500	34125.040.013
4,0X17MM	500	34125.040.017
4,8X10,3MM	500	34125.048.011
4,8X15,1MM	250	34125.048.015
4,8X17MM	500	34125.048.017
4,8X24,8MM	500	34125.048.025

34205 **Rebite multigrip** **T05A**

Material Alumínio AlMg 5



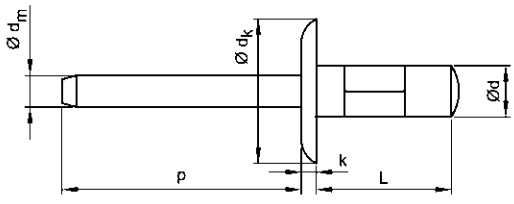
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,2	8,0	0,5-5,0	≈ 1,78	980	680
3,2	9,5	2,0-6,5	≈ 1,78	980	680
3,2	11,1	3,5-8,0	≈ 1,78	980	680
4,0	9,5	1,0-6,0	≈ 2,18	1600	1150
4,0	12,7	4,0-9,5	≈ 2,18	1600	1150

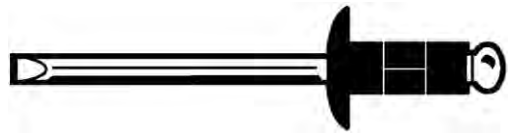
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,0	17,0	8,5-13,5	≈ 2,18	1600	1150
4,8	10,3	0,5-5,5	≈ 2,78	2350	1500
4,8	15,1	5,0-10,5	≈ 2,78	2350	1500
4,8	17,0	7,0-12,0	≈ 2,78	2350	1500
4,8	24,8	14,5-19,5	≈ 2,78	2350	1500

d x L	✉	Ref. do artigo
3,2X8,0MM	500	34205.032.008
3,2X9,5MM	500	34205.032.009
3,2X11,1MM	500	34205.032.011
4,0X9,5MM	500	34205.040.009
4,0X12,7MM	500	34205.040.012

34205	Rebite multigrip								←
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	
4,0X16,9MM	500	34205.040.016	4,8X10,3MM	500	34205.048.010	4,8X16,9MM	500	34205.048.016	
			4,8X15,1MM	500	34205.048.015	4,8X24,8MM	250	34205.048.024	

Multigrip rebite cabeça larga

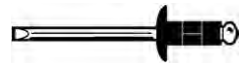


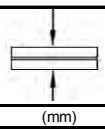
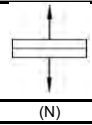


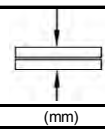
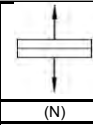
Dados técnicos

ø d	Furo ø	k (max.)	p	ø d_k
4.8	4.9	2.5	>27	16.0

34250	Multigrip rebite cabeça larga	T05A
Material	Alumínio AlMg 3	

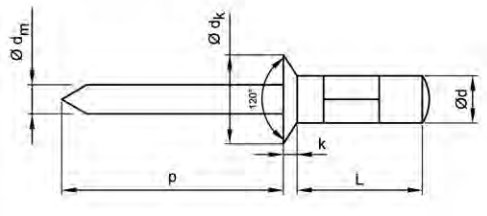


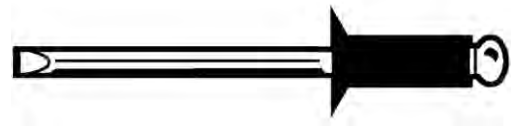
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,8	10,0	0,5-5,0	≈ 2,78	2350	1500
4,8	10,3	0,5-5,5	≈ 2,78	2350	1500
4,8	12,0	2,0-7,0	≈ 2,78	2350	1500
4,8	14,0	4,0-9,0	≈ 2,78	2350	1500
4,8	16,0	6,0-11,0	≈ 2,78	2350	1500
4,8	17,0	7,0-12,0	≈ 2,78	2350	1500

ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,8	18,0	8,0-13,0	≈ 2,78	2350	1500
4,8	20,0	10,0-15,0	≈ 2,78	2350	1500
4,8	22,0	12,0-17,0	≈ 2,78	2350	1500
4,8	24,0	14,0-19,0	≈ 2,78	2350	1500
4,8	24,8	14,5-19,5	≈ 2,78	2350	1500
4,8	27,0	16,0-22,0	≈ 2,78	2350	1500

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
4,8X10X16MM	250	34250.048.010	4,8X16X16MM	250	34250.048.016	4,8X22X16MM	250	34250.048.022
4,8X10,3X16MM	250	34250.048.011	4,8X17X16MM	250	34250.048.017	4,8X24X16MM	250	34250.048.024
4,8X12X16MM	250	34250.048.012	4,8X18X16MM	250	34250.048.018	4,8X24,8X16MM	250	34250.048.025
4,8X14X16MM	250	34250.048.014	4,8X20X16MM	250	34250.048.020	4,8X27X16MM	250	34250.048.027

Multigrip rebite cabeça embeber



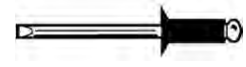


Dados técnicos

ø d	Furo ø	p	ø d_k
3.2	3.3	>27	6.0
4.0	4.1	>27	8.0
4.8	4.9	>27	9.5

34128 **Multigrip rebite cabeça embeber** **T05A**

Material Alumínio AlMg 5



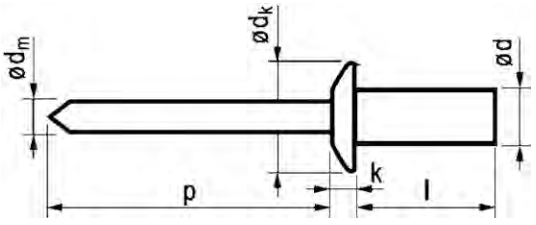
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,2	8,0	1,5-5,0	≈ 1,78	980	680
3,2	9,7	2,5-6,5	≈ 1,78	980	680
3,2	10,0	2,5-7,0	≈ 1,78	980	680
3,2	12,0	4,5-9,0	≈ 1,78	980	680
4,0	8,0	1,5-4,5	≈ 2,18	1600	1150
4,0	10,0	1,5-6,5	≈ 2,18	1600	1150
4,0	11,3	2,5-7,5	≈ 2,18	1600	1150

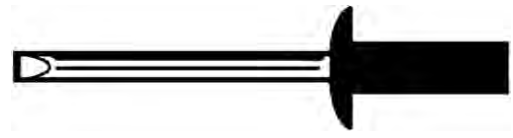
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,0	12,0	3,5-8,5	≈ 2,18	1600	1150
4,0	14,0	5,5-10,5	≈ 2,18	1600	1150
4,8	10,0	1,5-5,0	≈ 2,78	2350	1500
4,8	12,0	2,0-7,0	≈ 2,78	2350	1500
4,8	14,0	4,0-9,0	≈ 2,78	2350	1500
4,8	16,0	6,0-11,0	≈ 2,78	2350	1500
4,8	16,9	7,0-12,0	≈ 2,78	2350	1500

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3,2X8MM	500	34128.032.008	4,0X10MM	500	34128.040.010	4,8X12MM	500	34128.048.012
3,2X9,7MM	500	34128.032.009	4,0X11,3MM	500	34128.040.011	4,8X14MM	500	34128.048.014
3,2X10MM	500	34128.032.010	4,0X12MM	500	34128.040.012	4,8X16MM	500	34128.048.016
3,2X12MM	500	34128.032.012	4,0X14MM	500	34128.040.014	4,8X16,9MM	500	34128.048.017
4,0X8MM	500	34128.040.008	4,8X10MM	500	34128.048.010			

9

Rebite estanque cabeça boleada





Dados técnicos

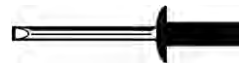
ø d	Furo ø	k	p	ø d_k
3.2	3.3	≤ 1.4	≥27	6.0
4.0xk 1.4	4.1	1.4	≥27	8.0
4.0xk ≤ 1.7	4.1	≤ 1.7	≥27	8.0
4.8xk 1.7	4.9	1.7	≥27	9.5
4.8xk ≤ 2.0	4.9	≤ 2.0	≥27	9.5
6.4	6.5	≤ 2.5	≥27	12.7

Grupos de produtos

Material	Tratamento sup.		Código	Página
Al AlMg 5		Al-Aç	33610	9-73
Al AlMg 5		Al-Inox A2	33650	9-74
Al Al 99,5		Al-Al	33600	9-74
Aço	Zn	Aç zn-Aç zn	33695	9-75
INOX A2		Inox A2-Inox A2	33670	9-75

33610 **SIGMA Rebite estanque cabeça boleada** **T03A**

Material Alumínio AlMg 5



ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,2	6,5	0,5-2,0	≈ 1,70	1250	1070
3,2	8,0	2,0-3,5	≈ 1,70	1250	1070
3,2	9,5	3,5-5,0	≈ 1,70	1250	1070
3,2	10,7	5,0-6,5	≈ 1,70	1250	1070
3,2	12,7	6,5-8,0	≈ 1,70	1250	1070
4,0	8,0	0,5-3,5	≈ 2,18	2240	1700
4,0	9,5	3,5-4,5	≈ 2,18	2240	1700
4,0	11,0	4,5-6,0	≈ 2,18	2240	1700
4,0	12,7	6,0-7,5	≈ 2,18	2240	1700
4,8	8,0	1,0=3,0	≈ 2,63	3100	2200

ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,8	9,5	3,0-4,5	≈ 2,63	3100	2200
4,8	11,0	4,5-6,0	≈ 2,63	3100	2200
4,8	12,5	6,0-7,5	≈ 2,63	3100	2200
4,8	14,0	7,5-9,0	≈ 2,63	3100	2200
4,8	16,0	9,0-11,0	≈ 2,63	3100	2200
4,8	18,0	11,0-13,0	≈ 2,63	3100	2200
4,8	21,0	13,0-16,0	≈ 2,63	3100	2200
6,4	12,5	1,5,6,0	≈ 3,70	4900	3950
6,4	16,0	6,0-8,0	≈ 3,70	4900	3950

d x L	✉	Ref. do artigo
3,2X6,5MM	500	33610.032.006
3,2X8MM	500	33610.032.008
3,2X9,5MM	500	33610.032.009
3,2X10MM	500	33610.032.010
3,2X12,5MM	500	33610.032.012
4,0X8MM	500	33610.040.008
4,0X9,5MM	500	33610.040.009
4,0X11MM	500	33610.040.011
4,0X12,5MM	500	33610.040.012
4,8X8MM	500	33610.048.008
4,8X9,5MM	500	33610.048.009
4,8X11MM	500	33610.048.011
4,8X12MM	500	33610.048.012
4,8X14MM	500	33610.048.014
4,8X16MM	500	33610.048.016
4,8X18MM	500	33610.048.018
4,8X21MM	500	33610.048.021
6,4X12,5MM	250	33610.064.012
6,4X16MM	250	33610.064.016

33650 SIGMA Rebite estanque cabeça boleada T03A

Material Alumínio AlMg 5



ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,2	6,5	0,5-2,0	≈ 1,70	1250	1070
3,2	8,0	2,0-3,5	≈ 1,70	1250	1070
3,2	9,5	3,5-5,0	≈ 1,70	1250	1070
3,2	11,0	5,0-6,5	≈ 1,70	1250	1070
3,2	12,7	6,5-8,0	≈ 1,70	1250	1070
4,0	8,0	0,5-3,5	≈ 2,18	2240	1700
4,0	9,5	3,5-4,5	≈ 2,18	2240	1700
4,0	11,0	4,5-6,5	≈ 2,18	2240	1700
4,0	12,7	6,5-8,0	≈ 2,18	2240	1700

ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,8	8,0	1,0-3,0	≈ 2,63	3100	2200
4,8	9,5	3,0-4,5	≈ 2,63	3100	2200
4,8	11,0	4,5-6,0	≈ 2,63	3100	2200
4,8	12,5	6,0-7,5	≈ 2,63	3100	2200
4,8	14,0	7,5-9,0	≈ 2,63	3100	2200
4,8	16,0	9,0-11,0	≈ 2,63	3100	2200
4,8	18,0	11,0-13,0	≈ 2,63	3100	2200
4,8	21,0	13,0-16,0	≈ 2,63	3100	2200

d x L	✉	Ref. do artigo
3,2X6,5MM	1000	33650.032.006
3,2X8MM	500	33650.032.008
3,2X9,5MM	500	33650.032.009
3,2X11MM	500	33650.032.011
3,2X12,5MM	500	33650.032.012
4,0X8MM	500	33650.040.008
4,0X9,5MM	500	33650.040.009
4,0X11MM	500	33650.040.011
4,0X12,5MM	500	33650.040.012
4,8X8MM	500	33650.048.008
4,8X9,5MM	500	33650.048.009
4,8X11MM	500	33650.048.011
4,8X12,5MM	500	33650.048.012
4,8X14MM	250	33650.048.014
4,8X16MM	500	33650.048.016
4,8X18MM	500	33650.048.018
4,8X21MM	500	33650.048.021

33600 SIGMA Rebite estanque cabeça boleada T03A

Material Alumínio Al 99,5



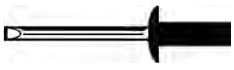
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,2	8,0	0,5-3,5	≈ 1,80	460	450
3,2	9,5	3,5-5,5	≈ 1,80	460	450
4,0	9,5	0,5-5,0	≈ 2,20	820	580
4,0	12,5	5,0-8,0	≈ 2,20	820	580

ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,8	9,5	1,0-4,5	≈ 2,65	1120	900
4,8	11,5	4,5-6,5	≈ 2,65	1120	900
4,8	14,5	6,5-9,5	≈ 2,65	1120	900
4,8	18,0	9,5-13,0	≈ 2,65	1120	900

d x L	✉	Ref. do artigo
3,2X8MM	500	33600.032.008
3,2X9,5MM	500	33600.032.009
4,0X9,5MM	500	33600.040.009
4,0X12,5MM	500	33600.040.012
4,8X9,5MM	500	33600.048.009
4,8X11,5MM	500	33600.048.011
4,8X14,5MM	250	33600.048.014
4,8X18MM	500	33600.048.018

33695 SIGMA Rebite estanque cabeça boleada T03A

Material Aço
Tratamento sup. Zincado



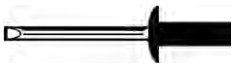
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,0	6,0	0,5-1,5	≈ 2,30	2500	2300
4,0	8,0	1,5-3,0	≈ 2,30	2500	2300
4,0	12,0	5,0-6,5	≈ 2,30	2500	2300
4,0	15,0	6,5-10,5	≈ 2,30	2500	2300

ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,8	8,0	1,0-3,0	≈ 2,90	3800	2900
4,8	12,0	5,0-6,5	≈ 2,90	3800	2900
4,8	16,0	6,5-10,5	≈ 2,90	3800	2900

d x L	✉	Ref. do artigo
4,0X6MM	500	33695.040.006
4,0X8MM	500	33695.040.008
4,0X12MM	500	33695.040.012
4,0X15MM	500	33695.040.015
4,8X8MM	500	33695.048.008
4,8X12MM	500	33695.048.012
4,8X16MM	500	33695.048.016

33670 SIGMA Rebite estanque cabeça boleada T03A

Material Aço inoxidável A2

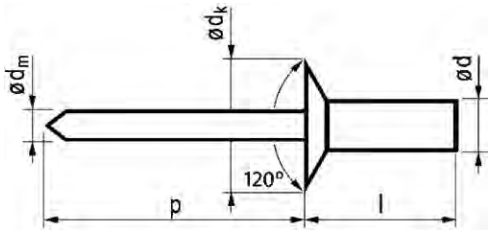


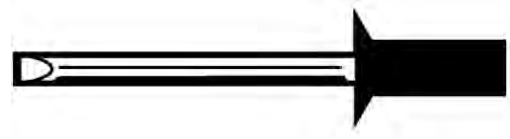
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,2	6,0	0,5-1,5	≈ 1,90	2500	2000
3,2	8,0	1,5-3,0	≈ 1,90	2500	2000
3,2	9,5	3,0-5,0	≈ 1,90	2500	2000
3,2	12,0	5,0-7,0	≈ 1,90	2500	2000
4,0	6,0	0,5-1,5	≈ 2,30	4000	3000
4,0	8,0	1,5-3,0	≈ 2,30	4000	3000
4,0	9,5	3,0-5,0	≈ 2,30	4000	3000

ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,0	12,0	5,0-6,5	≈ 2,30	4000	3000
4,0	16,0	6,5-10,5	≈ 2,30	4000	3000
4,8	8,0	1,0-3,0	≈ 2,90	5500	4500
4,8	9,5	3,0-5,0	≈ 2,90	5500	4500
4,8	12,0	5,0-6,5	≈ 2,90	5500	4500
4,8	16,0	6,5-10,5	≈ 2,90	5500	4500

d x L	✉	Ref. do artigo
3,2X6MM	500	33670.032.006
3,2X8MM	500	33670.032.008
3,2X9MM	500	33670.032.009
3,2X12MM	500	33670.032.012
4,0X6MM	500	33670.040.006
4,0X8MM	500	33670.040.008
4,0X9MM	500	33670.040.009
4,0X12MM	500	33670.040.012
4,0X16MM	500	33670.040.016
4,8X8MM	500	33670.048.008
4,8X9MM	500	33670.048.009
4,8X12MM	500	33670.048.012
4,8X16MM	500	33670.048.016

Rebite estanque cabeça de embeber



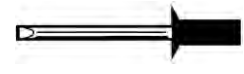


Dados técnicos

ø d	Furo ø	p	ø d_k
3.2	3.3	≥27	6.0
4.0	4.1	≥27	7.5
4.8	4.9	≥27	9.0

33620 **SIGMA Rebite estanque cabeça de embeber** **T03A**

Material Alumínio AlMg 5



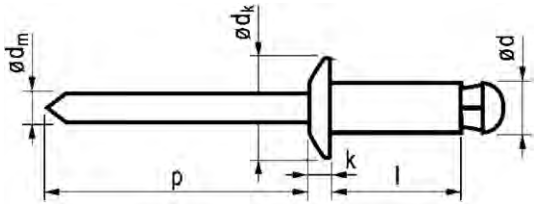
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,2	7,5	1,5-3,5	≈ 1,70	1245	1070
3,2	9,0	3,0-5,0	≈ 1,70	1245	1070
3,2	10,5	4,5-6,5	≈ 1,70	1245	1070
3,2	12,0	6,0-7,5	≈ 1,70	1245	1070
4,0	9,5	3,0-5,0	≈ 2,20	2240	1710
4,0	11,0	4,5-6,5	≈ 2,20	2240	1710
4,0	12,5	6,0-8,0	≈ 2,20	2240	1710

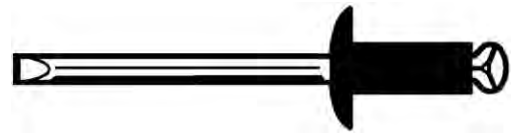
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,8	9,5	2,5-4,5	≈ 2,65	3070	2230
4,8	11,0	4,0-6,0	≈ 2,65	3070	2230
4,8	12,5	5,5-7,5	≈ 2,65	3070	2230
4,8	14,0	7,0-9,0	≈ 2,65	3070	2230
4,8	15,5	8,5-10,5	≈ 2,65	3070	2230
4,8	19,0	12,0-14,0	≈ 2,65	3070	2230

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3,2X7,5MM	500	33620.032.007	4,0X9,5MM	500	33620.040.009	4,8X11MM	500	33620.048.011
3,2X9,5MM	500	33620.032.009	4,0X11MM	500	33620.040.011	4,8X12,5MM	500	33620.048.012
3,2X10,5MM	500	33620.032.010	4,0X12,5MM	500	33620.040.012	4,8X14MM	500	33620.048.014
3,2X12MM	500	33620.032.012				4,8X15,5MM	500	33620.048.015
			4,8X9,5MM	250	33620.048.009	4,8X19,5MM	250	33620.048.019

9

Rebite de expansão



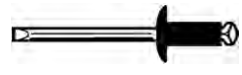


Dados técnicos

ø d	Furo ø	k	p	ø d_k
3.2	3.7	1	≥27	6.5
4.0	4.5	1.2	≥27	8.0
4.8	5.3	1.4	≥27	9.0

33410 **EXPO Rebite de expansão cabeça boleada** **T03A**

Material Alumínio AlMg 3,5

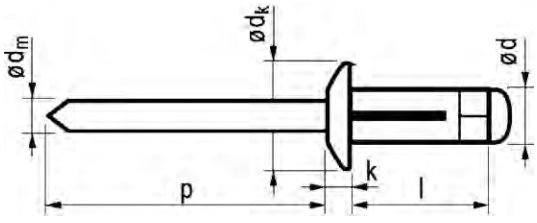


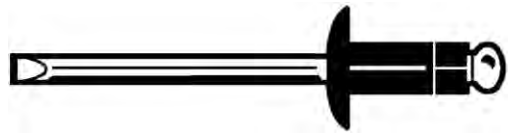
ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
3,2	10,0	1,0-3,0	≈ 1,80	750	820
3,2	16,0	7,0-9,0	≈ 1,80	750	820
3,2	18,0	9,0-11,0	≈ 1,80	750	820
4,0	10,0	1,5-5,0	≈ 2,10	1140	1280
4,0	16,0	8,0-11,0	≈ 2,10	1140	1280
4,0	18,0	10,0-13,0	≈ 2,10	1140	1280
4,8	10,0	1,5-4,0	≈ 2,70	2450	2100

ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,8	14,0	4,0-8,0	≈ 2,70	2450	2100
4,8	18,0	8,0-12,0	≈ 2,70	2450	2100
4,8	22,0	12,0-16,0	≈ 2,70	2450	2100
4,8	25,0	16,0-19,0	≈ 2,70	2450	2100
4,8	30,0	19,0-24,0	≈ 2,70	2450	2100
4,8	35,0	24,0-29,0	≈ 2,70	2450	2100

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
3,2X10MM	500	33410.032.010	4,0X16MM	500	33410.040.016	4,8X18MM	500	33410.048.018
3,2X16MM	500	33410.032.016	4,0X18MM	500	33410.040.018	4,8X22MM	500	33410.048.022
3,2X18MM	500	33410.032.018				4,8X25MM	250	33410.048.025
			4,8X10MM	500	33410.048.010	4,8X30MM	250	33410.048.030
4,0X10MM	500	33410.040.010	4,8X14MM	500	33410.048.014	4,8X35MM	250	33410.048.035

Rebite cabeça boleada tipo flor



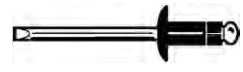


Dados técnicos

ø d	Furo ø	k	p	ø d_k
4.0	4.2	≤ 1.7	≥27	8.0
4.8	5.0	≤ 2.0	≥27	9.6

34121 **TRIPO Rebite cabeça boleada tipo flor** **T05A**

Material Alumínio AlMg 3



RoHS

ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,0	13,6	1,0-3,0	≈ 2,50	800	500
4,0	18,8	3,0-7,0	≈ 2,50	800	500
4,8	15,3	1,0-3,0	≈ 2,90	1100	800

ø d	l		ø d_m		
(mm)	(mm)	(mm)	(mm)	(N)	(N)
4,8	20,5	3,0-9,0	≈ 2,90	1100	800
4,8	24,5	5,0-12,0	≈ 2,90	1100	800

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
4,0X13MM	500	34121.040.013				4,8X20MM	250	34121.048.020
4,0X18MM	500	34121.040.018	4,8X15MM	500	34121.048.015	4,8X24MM	250	34121.048.024

9

Ferramenta de rebitar



	ø 2,4			ø 3,0 - 3,2			ø 4,0			ø 4,8 - 5,0			ø 6,0 - 6,4		
	Al	Aço	Inox	Al	Aço	Inox	Al	Aço	Inox	Al	Aço	Inox	Al	Aço	Inox
F 80															
F 150															
F 260															
FEZ1000															
FEZ2000															

Opção adicional

Capacidade recomendada

Grupos de produtos

Código	Página
35145	9-79
35760	9-80

35145 **Ferramenta para rebitar** **T90A**



Tipo	✉	Ref. do artigo		
F80	1	35145.080.001	• Máquina de rebitar profissional. • Possibilidade de utilização por apenas uma mão. • Capacidade: ø3,0 - 6.4 mm. • Peso: 2,2 kg. • Dimensões: 310 mm (fechado) - 830 mm (abrir). • Corpo: aluminio. • Nivel: aço. • Equipamento: peças ø3,0 - 6,4 mm.	
F150 B	1	35145.150.001	• Máquina de rebitar profissional para trabalhos ligeiros. • Capacidade: ø2,4 - 5,0 mm. • Peso: 0,7 kg. • Dimensões: 255 mm. • Corpo: Aluminio. • Nivel: aço. • Equipamento: peças ø3,0 - 5,0 mm.	
F260	1	35145.260.001	• Ferramenta de rebitar com braço longo e macho frontal ajustável, permite que o ponto de quebra se faça na posição ideal. • Capacidade: ø3,0 - 6,4 mm. • Peso: 1,8 kg. • Dimensões: 500 mm. • Corpo: plástico com partes de metal. • Nivel: aço. • Equipamento: peças ø3,0 - 6,4 mm.	

35760	Ferramenta para rebitar pneumática	T91A



Tipo	✉	Ref. do artigo		
FEZ 1000	1	35760.100.001	• Ferramenta de rebitar hidraulica/pneumática com extracção, colector de prego. • Capacidade:ø3,0 - 5,0 mm. • Peso: 1,25 kg. • Dimensões: 264 x 272 x 102 mm. • Patilha: 17,0 mm. • Pressão requerida: 5-7 Bar. • Força de tracção (6 Bar): 7,3 kN. • Equipamento: peças ø3,0 - 5,0 mm.	
FEZ 2000	1	35760.200.001	• Ferramenta de rebitar hidraulica/pneumática com extracção, colector de prego. • Capacidade: ø4,0 - 6,4 mm. • Peso: 1,65 kg. • Dimensões: 275 x 272 x 125 mm. • Patilha: 21,0 mm. • Pressão requerida: 5-7 Bar. • Força de tracção(6 Bar): 12,5 kN. • Equipamento: peças ø4,0 - 6,4 mm.	

Conjunto rebites

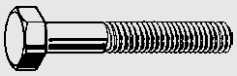


35146	Conjunto rebites	T90A

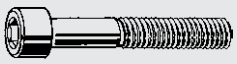


Dimensão.	✉	Ref. do artigo		
F150BS	1	35146.150.001	• Conjuntos em caixa de aluminio. • F150 Ferramenta com 8 tamanhos de rebites de Ø 3,2 mm a Ø 4,8 mm para trabalhos pequenos e leves.	

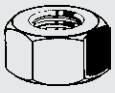
9



1 Parafusos sextavado exterior



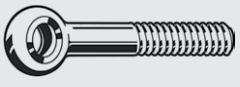
2 Produtos sextavados interiores



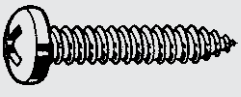
3 Porcas/porcas de rebitar / insertos



4 Varão roscado / pernos



5 Produtos olhal / gancho

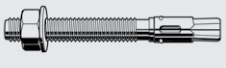


6 Parafusos

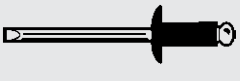
I Indice



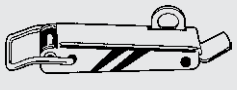
7 Anilha



8 Ancoragem



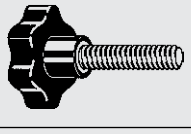
9 Rebites / cavilhas



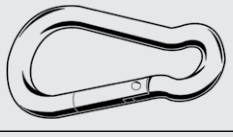
10 Parafusos de segurança / Sistemas de fixação



11 Sortidos



12 Sistemas de engenharia / peças para máquinas



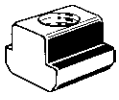
13 Marítimo produtos

T Tecnologia de fixação

Parafusos de segurança/Sistemas de fixação 10

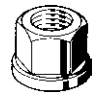
Página 10-4 DIN 787

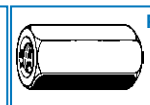
Para fendas em T

Página 10-5 DIN 508

Para fixações em T Métrico

Página 10-6 DIN 6330 B

Esfera simples Métrico

Página 10-7 DIN 6331

Com colar Métrico

Página 10-8

3xd Métrico

Página 10-9 DIN 6319

Anilha esférica

Página 10-10 DIN 6340

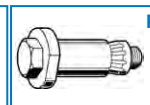
Anilhas para fixações em T

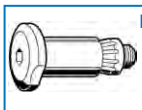
Página 10-11 DIN 6379

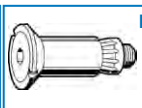
Para fixações em T Métrico

Página 10-12

Sortido para fendas em T

Página 10-16

LINDAPTER Hollo-bolt sextavado

Página 10-17

LINDAPTER Hollo-bolt cabeça de embeber

Página 10-18

LINDAPTER Hollo-bolt Flush Fit

Página 10-19

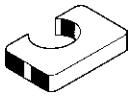
LINDAPTER Ferramenta para Hollo-Bolt

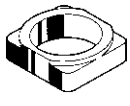
Página 10-20

LINDAPTER Sistema de fixação

Página 10-23

LINDAPTER Type AAF

Página 10-23

LINDAPTER Anilhas

Página 10-27

LINDAPTER tipo W

Página 10-27

LINDAPTER tipo CF

Página 10-28

LINDAPTER tipo LR

Página 10-29

LINDAPTER tipo D2

Página 10-30

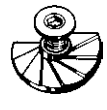
LINDAPTER tipo BR

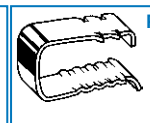
Página 10-31

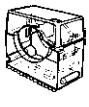
LINDAPTER Sistema de fixação

Página 10-32

LINDAPTER Sistema de fixação

Página 10-33

LINDAPTER Fixador chão

Página 10-34

LINDAPTER GF3030

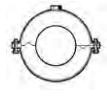
Página 10-35

FISCHER Abraçadeira

Página 10-36

Abraçadeira para tubos de suspensão

Página 10-37

Abraçadeira para tubos

Página 10-38

Abraçadeira isofónica

Página 10-39

Calha

Página 10-40

Calha

Página 10-41

Tampa

Página 10-41

Parafuso cabeça em T clix

Página 10-42

Porca deslizante

Página 10-43

Anilha de calha

Página 10-43

Parafuso cabeça em T

Página 10-44

Suporte de montagem

Página 10-45

Suporte de ângulo

Página 10-46

Suporte

Página 10-47

Fixação em U

Página 10-48

Ligação de calha

Página 10-49

Ligação paralela

Página 10-50

Fixação de suspensão

Página 10-51

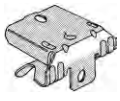
Banda perfurada

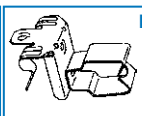
Página 10-52

Base de ligação dupla

Página 10-53

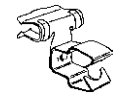
Parafuso de ligação

Página 10-55

Fixação tipo H

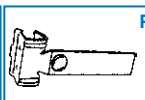
Página 10-55

Fixação tipo 50H

Página 10-56

Clip de fixação tipo BC

Página 10-56

Clip de fixação tipo BCC


Página 10-57
Clip de fixação tipo RH

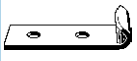

Página 10-58
Parafuso tipo PF

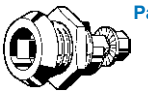

Página 10-58
Clip de fixação


Página 10-59
Fixador tipo MC

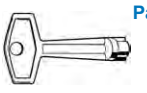

Página 10-59
Clip para cabo


Página 10-61
Fechos


Página 10-63
Gancho


Página 10-66
Fechadura


Página 10-68
Patilha

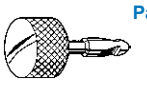

Página 10-71
Chave

Página 10-72
Guia


Página 10-73
Guia


Página 10-75
Perno com fenda


Página 10-75
Perno com orelhas


Página 10-76
Perno com serrilha


Página 10-76
Perno de bola


Página 10-77
Anilha de retenção


Página 10-78
Anel de retenção

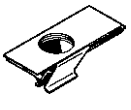

Página 10-79
Anilha de protecção


Página 10-79
Anel de ajuste


Página 10-80
Mola cónica


Página 10-80
Receptáculo


Página 10-81
Receptáculo para soldar


Página 10-82
Receptáculo de encaixe

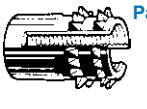

Página 10-82
Receptáculo de angulo

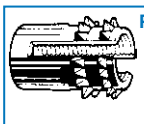

Página 10-83
Receptáculo frontal

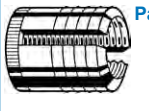

Página 10-85
Clip de 3 partes


Página 10-85
Proteja cups

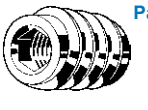

Página 10-86
Tipo C latão


Página 10-86
Tipo D latão


Página 10-87
Tipo E latão

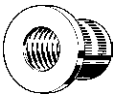

Página 10-88
Tipo 530 latão


Página 10-88
Para madeira

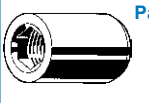

Página 10-89
Tipo SK/SKD

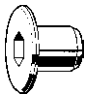

Página 10-90
DIN 7965
Tipo A


Página 10-91
Tipo SKDZ


Página 10-91
Tipo TS


Página 10-92
Tipo RM


Página 10-92
Tipo RSK


Página 10-93
Tipo RF


Página 10-94
Tipo RT


Página 10-95
Tipo KF

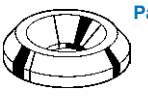

Página 10-95
Tipo KT

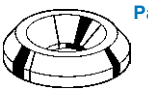
Página 10-96
Tipo KOK


Página 10-96
Tipo Q


Página 10-97
Aberto

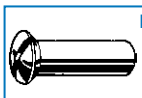

Página 10-98
Fechado


Página 10-98
Para parafusos cabeça de embeber


Página 10-99
Para parafusos cabeça de embeber

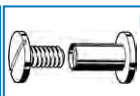

Página 10-100
Porca

Parafusos de segurança/Sistemas de fixação 10

Página 10-101

Porca para livros

Página 10-102

Parafuso para livro

Página 10-103

Parafusos para libros

Página 10-103

Peça de alongamento

Página 10-104

Parafuso para livro

Página 10-104

Protecção de tubo

Página 10-105

Protecção de tubo

Página 10-105

Protecção de tubo

Página 10-106

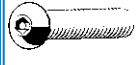
Protecção de tubo cónica

Página 10-108

SECURITY Porca

Página 10-109

SECURITY porca inviolável

Página 10-110

SECURITY sextavado interior com pino

Página 10-111

SECURITY com sextavado interior

Página 10-112

SECURITY hexalobular com pino

Página 10-113

SECURITY com 2 furos

Página 10-113

SECURITY One-way

Página 10-114

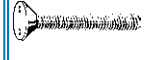
SECURITY sextavado interior com pino

Página 10-115

SECURITY com encaixe

Página 10-115

SECURITY hexalobular com pino

Página 10-116

SECURITY com 2 furos

Página 10-117

SECURITY sextavado interior com pino

Página 10-118

SECURITY hexalobular com pino

Página 10-119

SECURITY fenda cruz com pino

Página 10-119

SECURITY com 2 furos

Página 10-120

SECURITY com 2 furos

Página 10-121

SECURITY One-way

Página 10-122

SECURITY com fenda Tri-wing

Página 10-122

SECURITY sextavado interior com pino

Página 10-123

SECURITY hexalobular com pino

Página 10-124

SECURITY fenda cruz com pino

Página 10-124

SECURITY com 2 furos

Página 10-125

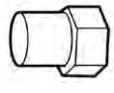
SECURITY com 2 furos

Página 10-126

SECURITY One-way

Página 10-126

SECURITY com fenda quadrada

Página 10-127

SECURITY inserto hexagonal

Página 10-128

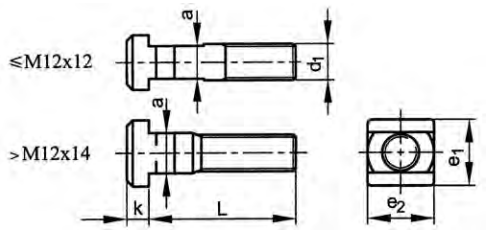
SECURITY inserto hexalobular

Página 10-128

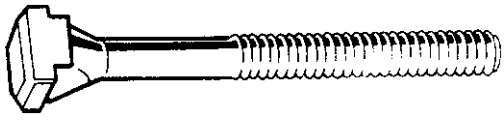
Pernos de soldar

10

Parafuso com fenda T



DIN	**787**
ISO	299
NF	E21-301
BS	2485



Dados técnicos

d_1 x a	e ($e_2 \geq e_1$)	k	P	d_1 x a	e ($e_2 \geq e_1$)	k	P
M8x8	13	6	1.25	**M16x18**	28	10	2
M10x10	15	6	1.5	**M20x20 (≠DIN)**	32	12	2.5
M12x12	18	7	1.75	**M20x22**	35	14	2.5
M12x14	22	8	1.75	**M24x24 (≠DIN)**	40	16	3
M16x16 (≠DIN)	25	9	2	**M24x28**	44	18	3

- Para as medidas de fendas T, ver DIN 649.

16202 **Parafuso com fenda T** **F95A**

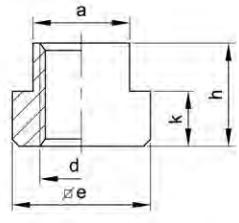
Rosca	Métrica
Material	Aço
Classe	10.9/8.8



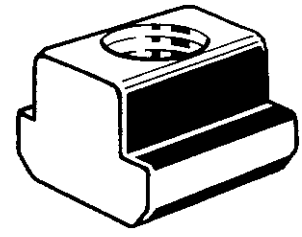
d_1 x a x L	✉	Ref. do artigo	d_1 x a x L	✉	Ref. do artigo	d_1 x a x L	✉	Ref. do artigo
M8X8X32	25	16202.088.032	M12X14X80	25	16202.134.080	M20X20X125	5	16202.220.125
M8X8X50	25	16202.088.050	M12X14X125	25	16202.134.125	M20X20X160	5	16202.220.160
M8X8X80	25	16202.088.080				M20X20X200	5	16202.220.200
			M16X16X63	10	16202.176.063			
M10X10X40	25	16202.110.040	M16X16X80	10	16202.176.080	M20X22X80	5	16202.222.080
M10X10X63	25	16202.110.063	M16X16X100	10	16202.176.100	M20X22X125	5	16202.222.125
M10X10X100	25	16202.110.100	M16X16X125	10	16202.176.125	M20X22X200	5	16202.222.200
			M16X16X160	10	16202.176.160			
M12X12X50	25	16202.132.050				M24X24X100	5	16202.264.100
M12X12X63	25	16202.132.063	M16X18X63	10	16202.178.063	M24X24X160	5	16202.264.160
M12X12X80	25	16202.132.080	M16X18X100	10	16202.178.100	M24X24X250	5	16202.264.250
M12X12X100	25	16202.132.100	M16X18X160	10	16202.178.160			
M12X12X125	25	16202.132.125				M24X28X100	5	16202.268.100
			M20X20X80	5	16202.220.080	M24X28X160	5	16202.268.160
M12X14X50	25	16202.134.050	M20X20X100	5	16202.220.100	M24X28X250	5	16202.268.250
M12X14X63	25	16202.134.063						

- Para parafusos T até e incluindo M12 classe 10.9, acima de M12 classe 8.8.

Porca para calha em T



DIN	**508**
ISO	299
NF	E21-301
BS	2485



Dados técnicos

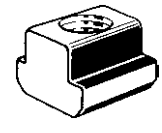
d x a	e	h	k	P
M5x6	10	8	4	0.8
M6x8	13	10	6	1
M8x10	15	12	6	1.25
M8x12 (≠DIN)	18	14	7	1.25
M10x12	18	14	7	1.5
M10x14 (≠DIN)	22	16	8	1.5
M12x14	22	16	8	1.75
M12x16 (≠DIN)	25	18	9	1.75

d x a	e	h	k	P
M12x18 (≠DIN)	28	20	10	1.75
M14x16 (≠DIN)	25	18	9	2
M14x18 (≠DIN)	28	20	10	2
M16x18	28	20	10	2
M16x22 (≠DIN)	35	28	14	2
M20x22	35	28	14	2.5
M24x28	44	36	18	3

- Para as medidas de fendas T, ver DIN 649.

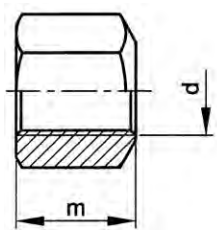
16196 **Porca para calha em T** **F95A**

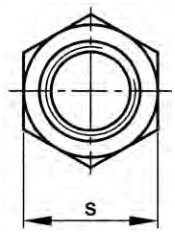
Rosca	Métrica
Material	Aço
Classe	|10|



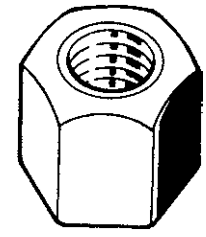
d x a	✉	Ref. do artigo	d x a	✉	Ref. do artigo	d x a	✉	Ref. do artigo
M5X6	50	16196.050.006	M10X14	50	16196.100.014	M14X18	25	16196.140.018
M6X8	50	16196.060.008	M12X14	50	16196.120.014	M16X18	25	16196.160.018
M8X10	50	16196.080.010	M12X16	25	16196.120.016	M16X22	25	16196.160.022
M8X12	50	16196.080.012	M12X18	25	16196.120.018	M20X22	10	16196.200.022
M10X12	50	16196.100.012	M14X16	25	16196.140.016	M24X28	10	16196.240.028

Porca sextavada





DIN **6330 B**
NEN 2307

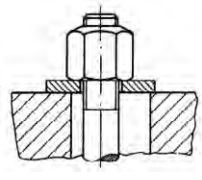


Dados técnicos

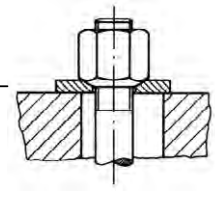
d	m (js15)	P	s	d	m (js15)	P	s
M6	9	1	10	M16	24	2	24
M8	12	1.25	13	M20	30	2.5	30
M10 (≠DIN)	15	1.5	17	M24	36	3	36
M10	15	1.5	16	M27	39	3	41
M12 (≠DIN)	18	1.75	19	M30	45	3.5	46
M12	18	1.75	18	M33	48	3.5	50
M14 (≠DIN)	21	2	22	M36	54	4	55

Exemplos de aplicação

Anilha de acc. com DIN 6340



Anilha cónica de acc. com DIN 6319D

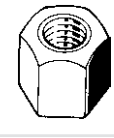


Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
M	Sextavado	Aço	10	16203	10-6
M	Sextavado	INOX A1	70	51102	10-6
M	Sextavado	INOX A4	70	55102	10-7

16203 Porca sextavada F95A

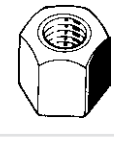
Rosca Métrica
Material Aço
Classe 10



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M8	50	16203.080.001	M12 s=19	50	16203.120.190	M20	10	16203.200.001
M10 s=16	50	16203.100.001	M14	25	16203.140.001	M24	10	16203.240.001
M10 s=17	50	16203.100.170	M16	25	16203.160.001	M30	5	16203.300.001
M12 s=18	50	16203.120.001						

51102 Porca sextavada R09A

Rosca Métrica
Material Aço inoxidável A1
Classe 70

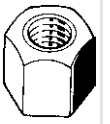


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6*	50	51102.060.001	M14*	25	51102.140.001	M27*	10	51102.270.001
M8	50	51102.080.001	M16	25	51102.160.001	M30*	10	51102.300.001
M10	50	51102.100.001	M20	10	51102.200.001	M33*	10	51102.330.001
M12	50	51102.120.001	M24	10	51102.240.001			

10

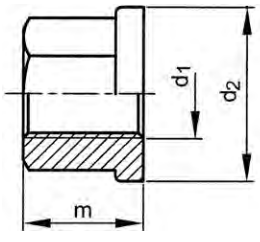
55102 **Porca sextavada** **R49A**

Rosca Métrica
Material Aço inoxidável A4
Classe 70

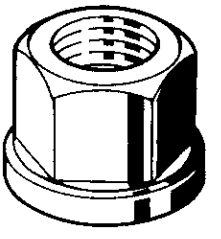


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6*	50	55102.060.001	M14*	25	55102.140.001	M27*	10	55102.270.001
M8	50	55102.080.001	M16	25	55102.160.001	M30*	10	55102.300.001
M10	50	55102.100.001	M20	10	55102.200.001	M36*	10	55102.360.001
M12	50	55102.120.001	M24	10	55102.240.001			

Porca sextavada com colar



DIN **6331**



Dados técnicos

d_1	d_2 (h13)	m (js15)	P	s
M6	14	9	1	10
M8	18	12	1.25	13
M10	22	15	1.5	16/17
M12	25	18	1.75	18
M14	28	21	2	22

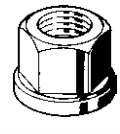
d_1	d_2 (h13)	m (js15)	P	s
M16	31	24	2	24
M20	37	30	2.5	30
M24	45	36	3	36
M30	58	45	3.5	46

Grupos de produtos

Rosca	Encaixe	Material	Classe	Código	Página
M	Sextavado	Aço	10	16204	10-7
M	Sextavado	INOX A1	70	51104	10-7
M	Sextavado	INOX A4	70	55104	10-8

16204 **Porca sextavada com colar** **F95A**

Rosca Métrica
Material Aço
Classe 10

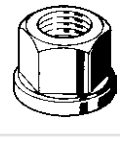


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6	50	16204.060.001	M12	50	16204.120.001	M20	10	16204.200.001
M8	50	16204.080.001	M14	50	16204.140.001	M24	10	16204.240.001
M10 s=16	50	16204.100.001	M16	25	16204.160.001	M30	10	16204.300.001

51104 **Porca sextavada com colar** **R09A**

Rosca Métrica
Material Aço inoxidável A1
Classe 70

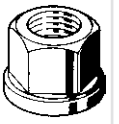
DIN **≈6331**



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6*	50	51104.060.001	M12	25	51104.120.001	M20	5	51104.200.001
M8	25	51104.080.001	M14*	25	51104.140.001	M24	5	51104.240.001
M10 s=17	25	51104.100.001	M16	10	51104.160.001			

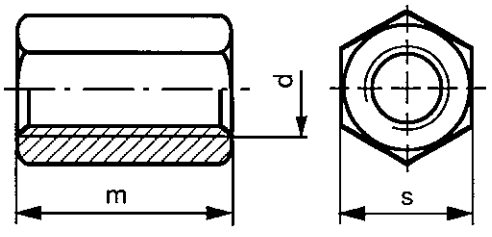
55104 **Porca sextavada com colar** **R49A**

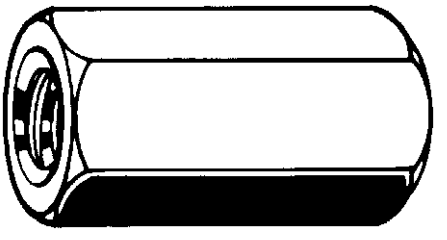
Rosca	Métrica	**DIN**	**≈6331**
Material	Aço inoxidável A4		
Classe	70		



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6*	50	55104.060.001	M12	25	55104.120.001	M20	5	55104.200.001
M8	25	55104.080.001	M14*	25	55104.140.001	M24	5	55104.240.001
M10 s=17	25	55104.100.001	M16	10	55104.160.001			

Porca ligação 3xd



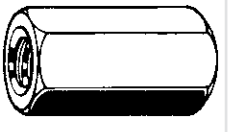


Dados técnicos

d	m	P	s	d	m	P	s
M8	24	1.25	13	**M20**	60	2.5	30
M10	30	1.5	17	**M24**	72	3	36
M12	36	1.75	19	**M27**	81	3	41
M14	42	2	22	**M30**	90	3.5	46
M16	48	2	24	**M36**	108	4	55

16225 **Porca ligação 3xd** **F95A**

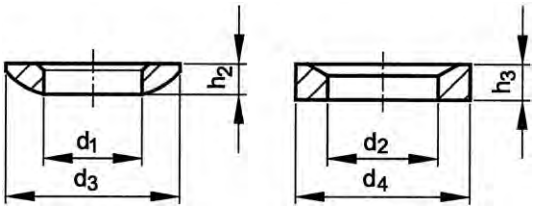
Rosca	Métrica
Material	Aço
Classe	|10|



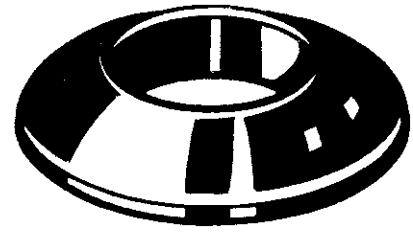
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M8	25	16225.080.001	M16	10	16225.160.001	M27	5	16225.270.001
M10	25	16225.100.001	M20	5	16225.200.001	M30	5	16225.300.001
M12	25	16225.120.001	M24	5	16225.240.001	M36	5	16225.360.001

10

Anilha cónica e esférica



DIN **6319**
NEN 2308

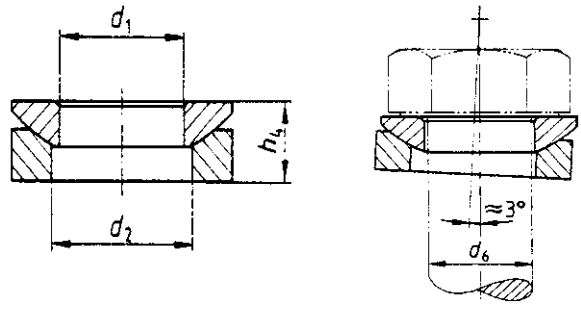


Dados técnicos

Para diâm.nom.	d_1 (H13)	d_2 (H13)	d_3	d_4	h_2	h_3	h_4 ≈	S
M6	6.4	7.1	12	12	2.3	2.8	4.2	9
M8	8.4	9.6	17	17	3.2	3.5	5.6	17
M10	10.5	12	21	21	4	4.2	6.5	26
M12	13	14.2	24	24	4.6	5	8	38
M14	15	16.5	28	28	5	5.6	8.5	53
M16	17	19	30	30	5.3	6.2	9.6	73
M20	21	23.2	36	36	6.3	7.5	11.7	117
M24	25	28	44	44	8.2	9.5	15.2	168
M30	31	35	56	56	11.2	12	19.2	269
M36	37	42	69	69	14	15	23.5	394

- S = carga estática em kN (max.).
- A combinação de uma anilha esférica tipo C com uma cónica tipo D permite uma variação de ≈ 3° em qualquer direcção, quando da fixação do parafuso.
- ATENÇÃO: quando estas anilhas são aplicadas com parafusos classes 10.9 ou 10, a carga de aperto admissivel será no máximo de 46% de R_e; para classes 8.8 e 8 no máximo 66% de R_e.
- Estas anilhas não podem ser aplicadas em furos com chanfro.

Sequência de montagem



Grupos de produtos

Material		Código	Página
Aço 550+100 HV10	Tipo C	16206	10-9
INOX A2	Tipo C	51936	10-10
Aço 550+100 HV10	Tipo D	16207	10-10
INOX A2	Tipo D	51935	10-10

16206 **Anilha esférica e cónica tipo C** **F95A**

Material Aço 550+100 HV10

DIN **6319 C**
NEN 2308 C

RoHS

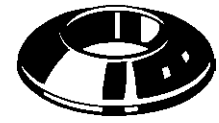


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6	100	16206.060.001	M14	50	16206.140.001	M24	25	16206.240.001
M8	100	16206.080.001	M16	50	16206.160.001	M30	25	16206.300.001
M10	100	16206.100.001	M20	25	16206.200.001	M36	25	16206.360.001
M12	100	16206.120.001						

51936 Anilha esférica tipo C — F95A

Material Aço inoxidável A2

DIN 6319 C
NEN 2308 C

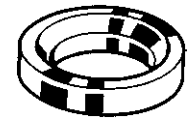


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M8	50	51936.080.001	M12	25	51936.120.001	M20	25	51936.200.001
M10	50	51936.100.001	M16	100	51936.160.001			

16207 Anilha cónica tipo D — F95A

Material Aço 550+100 HV10

DIN 6319 D
NEN 2308 D

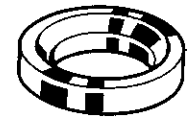


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6	100	16207.060.001	M14	50	16207.140.001	M24	25	16207.240.001
M8	100	16207.080.001	M16	50	16207.160.001	M30	25	16207.300.001
M10	100	16207.100.001	M20	25	16207.200.001	M36	25	16207.360.001
M12	100	16207.120.001						

51935 Anilha cónica tipo D — F95A

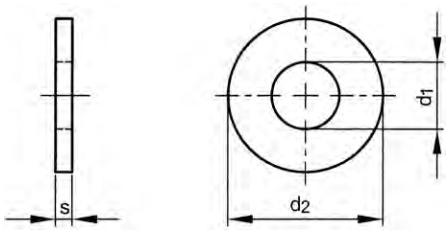
Material Aço inoxidável A2

DIN 6319 D
NEN 2308 D

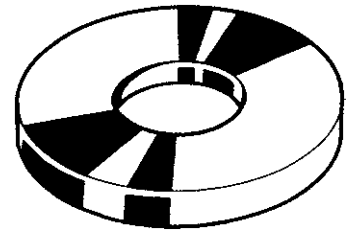


Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M8	50	51935.080.001	M12	25	51935.120.001	M20	25	51935.200.001
M10	50	51935.100.001	M16	25	51935.160.001			

Anilha para abraçadeiras



DIN 6340
NF E25-518



Dados técnicos

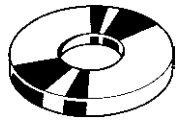
Para diâm.nom.	d_1 (H14)	d_2 (h14)	s	Para diâm.nom.	d_1 (H14)	d_2 (h14)	s
M6	6.4	17	3	M14 (≠DIN)	15	40	5
M8	8.4	23	4	M16	17	45	6
M10	10.5	28	4	M20	21	50	6
M12	13	35	5	M24	25	60	8

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço 350+80 HV30		16205	10-11
Aço 350+80 HV30	Zn	16229	10-11

16205 Anilha para abraçadeiras — F95A

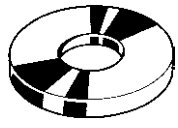
Material Aço 350+80 HV30



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6	50	16205.060.001	M12	50	16205.120.001	M20	10	16205.200.001
M8	50	16205.080.001	M14	50	16205.140.001	M24	10	16205.240.001
M10	50	16205.100.001	M16	25	16205.160.001			

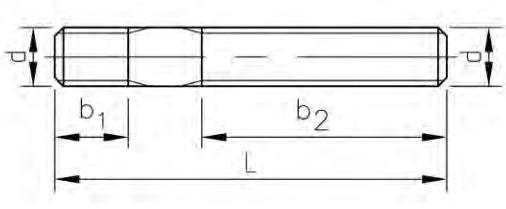
16229 Anilha para abraçadeiras — F95A

Material Aço 350+80 HV30
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M6	100	16229.060.001	M10	100	16229.100.001	M16	100	16229.160.001
M8	100	16229.080.001	M12	100	16229.120.001	M20	100	16229.200.001

Perno



DIN 6379



Dados técnicos

d	b_1	P
M8	11	1.25
M10	13	1.5
M12	15	1.75
M14 (≠DIN)	17	2

d	b_1	P
M16	19	2
M20	27	2.5
M24	35	3

- Pernos até (e inclusive) M12 são classe 10.9, superior a M12 classe 8.8.

16226 Perno — F95A

Rosca Métrica
Material Aço
Classe 10.9/8.8



d x L (b_2)	✉	Ref. do artigo	d x L (b_2)	✉	Ref. do artigo	d x L (b_2)	✉	Ref. do artigo
M8X40 (20)	25	16226.080.040	M12X125 (75)	25	16226.120.125	M20X200 (125)	5	16226.200.200
M8X63 (40)	25	16226.080.063	M12X160 (100)	25	16226.120.160	M20X250 (160)	5	16226.200.250
M8X100 (63)	25	16226.080.100	M12X200 (125)	10	16226.120.200	M20X315 (200)	3	16226.200.315
M8X160 (100)	25	16226.080.160				M20X400 (250)	3	16226.200.400
			M16X63 (32)	10	16226.160.063	M20X500 (315)	3	16226.200.500
M10X50 (25)	25	16226.100.050	M16X80 (50)	10	16226.160.080			
M10X80 (50)	25	16226.100.080	M16X100 (63)	10	16226.160.100	M24X100 (45)	10	16226.240.100
M10X100 (75)	25	16226.100.100	M16X125 (75)	10	16226.160.125	M24X125 (70)	10	16226.240.125
M10X125 (75)	25	16226.100.125	M16X160 (100)	10	16226.160.160	M24X160 (100)	10	16226.240.160
M10X160 (100)	25	16226.100.160	M16X200 (125)	5	16226.160.200	M24X200 (125)	5	16226.240.200
M10X200 (125)	10	16226.100.200	M16X250 (160)	5	16226.160.250	M24X250 (160)	5	16226.240.250
			M16X315 (180)	5	16226.160.315	M24X315 (200)	5	16226.240.315
M12X50 (25)	25	16226.120.050				M24X400 (250)	3	16226.240.400
M12X63 (32)	25	16226.120.063	M20X80 (32)	10	16226.200.080	M24X500 (315)	3	16226.240.500
M12X80 (50)	25	16226.120.080	M20X125 (70)	10	16226.200.125	M24X630 (315)	3	16226.240.630
M12X100 (63)	25	16226.120.100	M20X160 (100)	10	16226.200.160			

Conjunto de parafusos T



Grupos de produtos

Material	Código	Página
Aço	16227	10-12
Aço	16228	10-13

16227 **Conjunto de parafusos em T Nº 6520** **F95A**

Material Aço



Nr.	✉	Ref. do artigo	
M10X10	1	16227.100.010	Embalado em caixa de madeira Conteúdo: • 2 peças parafusos T acc. com DIN 787 comprimento 40 mm • 4 peças parafusos T acc. com DIN 787 comprimento 63 mm • 4 peças parafusos T acc. com DIN 787 comprimento 100 mm • 4 peças pernos T acc. com DIN 6379 comprimento 50 mm • 4 peças pernos T acc. com DIN 6379 comprimento 80 mm • 4 peças pernos T acc. com DIN 6379 comprimento 200 mm • 4 peças porcas sextavadas 1,5 d acc. com DIN 6330 B • 4 peças porcas extensão altura 3 x d • 4 peças anilhas acc. com DIN 6319 C e 4 peças cónicas acc. com DIN 6319 G • 4 peças anilhas acc. com DIN 6340
M12X12	1	16227.120.012	Embalado em caixa de madeira Conteúdo: • 2 peças parafusos T acc. com DIN 787 comprimento 50 mm • 4 peças parafusos T acc. com DIN 787 comprimento 80 mm • 4 peças parafusos T acc. com DIN 787 comprimento 125 mm • 4 peças pernos T acc. com DIN 6379 comprimento 63 mm • 4 peças studs for T-slots acc. com DIN 6379 comprimento 100 mm • 4 peças pernos T acc. com DIN 6379 comprimento 200 mm • 4 peças porcas sextavadas 1,5 d acc. com DIN 6330 B • 4 peças eporcas extensão altura 3 x d • 4 peças anilhas acc. com DIN 6319 C e 4 peças cónicas acc. com DIN 6319 G • 4 peças anilhas acc. com DIN 6340
M12X14	1	16227.120.014	Embalado em caixa de madeira Conteúdo: • 2 peças parafusos T acc. com DIN 787 comprimento 50 mm • 4 peças parafusos T acc. com DIN 787 comprimento 80 mm • 4 peças porcas T acc. com DIN 508 • 4 peças pernos T acc. com DIN 6379 comprimento 63 mm • 4 peças pernos T acc. com DIN 6379 comprimento 100 mm • 4 peças pernos T acc. com DIN 6379 comprimento 125 mm • 4 peças pernos T acc. com DIN 6379 comprimento 200 mm • 4 peças porcas sextavadas 1,5 d acc. com DIN 6330 B • 4 peças porcas extensão altura 3 x d • 4 peças anilhas acc. com DIN 6319 C e 4 peças cónicas acc. com DIN 6319 G • 4 peças anilhas acc. com DIN 6340
M16X18	1	16227.160.018	Embalado em caixa de madeira Conteúdo: • 2 peças parafusos T acc. com DIN 787 comprimento 63 mm • 4 peças parafusos T acc. com DIN 787 comprimento 100 mm • 4 peças porcas T acc. com DIN 508 • 4 peças pernos T acc. com DIN 6379 comprimento 80 mm • 4 peças pernos T acc. com DIN 6379 comprimento 125 mm • 4 peças pernos T acc. com DIN 6379 comprimento 160 mm • 4 peças pernos T acc. com DIN 6379 comprimento 250 mm • 4 peças porcas sextavadas 1,5 d acc. com DIN 6330 B • 4 peças porcas extrensão altura 3 x d • 4 peças anilhas acc. com DIN 6319 C e 4 peças cónicas acc. com DIN 6319 G • 4 peças anilhas acc. com DIN 6340









10

16227 Conjunto de parafusos em T Nº 6520 ←

Nr.	✉	Ref. do artigo		
M20X22	1	16227.200.022	Embalado em caixa de madeira Conteúdo: • 2 peças parafusos T acc. com DIN 787 comprimento 80 mm • 4 peças parafusos T acc. com DIN 787 comprimento 125 mm • 4 peças porcas T acc. com DIN 508 • 4 peças pernos T acc. com DIN 6379 comprimento 80 mm • 4 peças pernos T acc. com DIN 6379 comprimento 125 mm • 4 peças Pernos T acc. com DIN 6379 comprimento 200 mm • 4 peças pernos T acc. com DIN 6379 comprimento 315 mm • 4 peças porcas sextavadas 1,5 d acc. com DIN 6330 B • 4 peças porcas extensão altura 3 x d • 4 peças anilhas esféricas acc. com DIN 6319 C e 4 peças cónicas acc. com DIN 6319 G • 4 peças anilhas acc. com DIN 6340	
M24X28	1	16227.240.028	Embalado em caixa de madeira Conteúdo: • 2 peças parafusos T acc. com DIN 787 comprimento 100 mm • 4 peças parafusos T acc. com DIN 787 comprimento 160 mm • 4 peças porcas T acc. com DIN 508 • 4 peças pernos T acc. com DIN 6379 comprimento 100 mm • 4 peças pernos T acc. com DIN 6379 comprimento 160 mm • 4 peças pernos T acc. com DIN 6379 comprimento 250 mm • 4 peças pernos T acc. com DIN 6379 comprimento 400 mm • 4 peças porcas sextavadas 1,5 d acc. com DIN 6330 B • 4 peças porcas extensão altura 3 x d • 4 peças anilhas esféricas acc. com DIN 6319 C e 4 peças cónicas acc. com DIN 6319 G • 4 peças anilhas acc. com DIN 6340	

16228 Conjunto de parafusos em T Nº 6530 F95A

Material Aço

RoHS



Nr.	✉	Ref. do artigo		
M10X10	1	16228.100.010	Embalado em caixa de madeira Conteúdo: • 4 peças grampos 11 x 80 mm • 4 peças universal no. 1 • 4 peças universal no. 2 • 4 peças universal no. 3 • 2 peças parafusos T acc. com DIN 787 comprimento 40 mm • 4 peças parafusos T acc. com DIN 787 comprimento 63 mm • 4 peças parafusos T acc. com DIN 787 comprimento 100 mm • 4 peças pernos T acc. com DIN 6379 comprimento 80 mm • 6 peças porcas sextavadas 1,5 d acc. com DIN 6330 B • 4 peças porca extensão altura 3 x d • 6 peças cónicas acc. com ≈ DIN 6319 G • 4 peças grampos (incl. parafuso cabeça cilindrica sextavado interior acc. com DIN 912, chave sextavado interior acc. com DIN 911 e porca T acc. com DIN 508) • 1 chave de bocas 17 mm	
M12X12	1	16228.120.012	Embalado em caixa de madeira Conteúdo: • 4 peças grampos 14 x 100 mm • 4 peças universal no. 2 • 4 peças universal no. 3 • 2 peças parafusos T acc. com DIN 787 comprimento 50 mm • 4 peças parafusos T acc. com DIN 787 comprimento 80 mm • 4 peças parafusos T acc. com DIN 787 comprimento 125 mm • 4 peças pernos T acc. com DIN 6379 comprimento 100 mm • 6 peças porcas sextavadas 1,5 d acc. com DIN 6330 B • 4 peças porcas de extensão altura 3 x d • 6 peças cónicas acc. com ≈ DIN 6319 G • 4 peças grampos (incl. parafuso cab. cilindrica sextavado interior acc. com DIN 912, chave sextavado interior acc. com DIN 911 e porcas T acc. com DIN 508) • 1 chave de bocas 19 mm	
M12X14	1	16228.120.014	Embalado em caixa de madeira Conteúdo: • 4 peças grampos 14 x 100 mm • 4 peças universal no. 2 • 4 peças universal no. 3 • 2 peças parafusos t acc. com DIN 787 comprimento 50 mm • 4 peças parafusos T acc. com DIN 787 comprimento 80 mm • 4 peças parafusos T acc. com DIN 787 comprimento 125 mm • 4 peças pernos T acc. com DIN 6379 comprimento 100 mm • 6 peças porcas sextavadas 1,5 d acc. com DIN 6330 B • 4 peças porcas de extensão altura 3 x d • 6 peças conicas acc. com ≈ DIN 6319 G • 4 peças grampos (incl. parafusos cab. cilindrica sextavado interior acc. com DIN 912, chaves sextavado interior acc. com DIN 911 e porcas T acc. com DIN 508) • 1 chave de bocas 19 mm • 1 raspador	

16228	Conjunto de parafusos em T Nº 6530		
Nr.	✉	**Ref. do artigo**	
M16X18	1	16228.160.018	Embalado em caixa de madeira Conteúdo: • 4 peças grampos 18 x 125 mm • 4 peças universal no. 2 • 4 peças universal no. 3 • 2 peças Parafusos para fendas T acc. com DIN 787 comprimento 63 mm • 4 Parafusos para fendas T acc. com DIN 787 comprimento 100 mm • 4 peças parafusos para fendas T acc. com DIN 787 comprimento 160 mm • 4 peças Pernos para T acc. com DIN 6379 comprimento 125 mm • 6 peças porcas sextavadas 1,5 d acc. com DIN 6330 B • 4 peças porcas de extensão altura 3 x d • 6 peças ccónicos acc. com ≈ DIN 6319 G • 4 peças grampos baixos (incl. parafusos cab. cilindrica com sextavado interior acc. com DIN 912, chaves sextavado interior acc. com DIN 911 e porcas acc. com DIN 508) • 1 chave de bocas 24 mm • 1 raspador



Lindapter - Inovação técnica em ligações metálicas

Faça fixações em aço sem necessidade de furar ou soldar: as fixações Lindapter são de fácil instalação, indicadas para fixação de vigas de aço, construções em suspensão, linhas ferroviárias ou chão metálico.

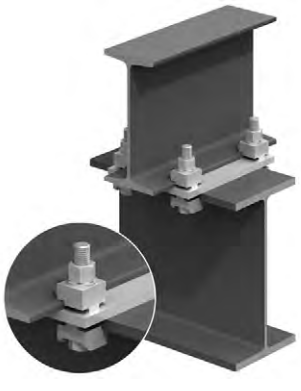
Benefícios:

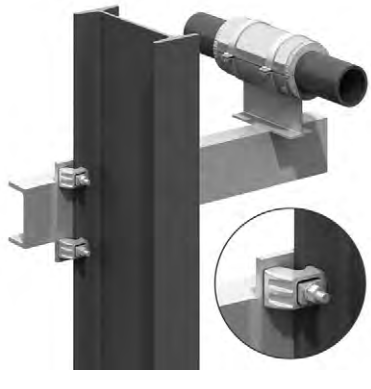
- Diminuição de tempo de instalação e custos de mão de obra
- Utilização de ferramentas manuais simples, sem necessidade de soldar ou furar
- Pode ser utilizado em sítios fechados onde não é permitido soldar
- As fixações podem ser desmontadas
- A peça de trabalho e os tratamentos de superfície não se danificam e podem ser reutilizadas
- Possibilidade de ajustar no local
- Produtos aprovados pela indústria em geral

Grampos para viga
Os grampos para vigas são uma alternativa a furar e soldar, poupa tempo de instalação e custos de mão de obra. Os grampos podem ser utilizados em partes metálicas, de quase todas as dimensões e fornecer uma fixação segura e forte, juntando as duas partes a fixar facilmente.

Grampos de elevada resistência ao deslize (HSR)
Os grampos Lindapter HSR foram especificamente desenvolvidos, para cargas elevadas , incluindo aplicações com fricção e com cargas combinadas. O tipo AAF é a última adição á família de grampos HSR, que oferecem ajustabilidade, proteção á corrosão e elevada capacidade de carga, inclusive em temperaturas negativas até -60ºC.

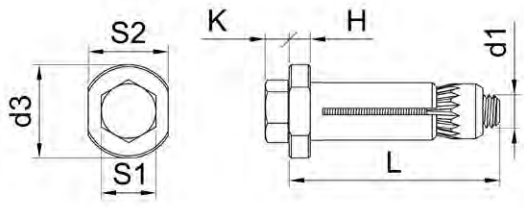
Hollo-bolt
Os Lindapters Hollo-Bolts têm marcação CE e estão disponíveis em diversos materiais, comprimentos e diâmetros. Os três tipos principais de cabeça são: sextavado, embeber e Flush Fit, estão disponíveis em diâmetros de M8 a M12. Para ligações de maior dimensão as medidas M16 e M20, em sextavado, foram otimizados para suportar força adicional, 3 vezes mais que um produto do mesmo diâmetro sem este mecanismo. O Hollo-bolt é o único parafuso de expansão que foi desenvolvido de acordo com o guia BCSA/SCI "Joints in steel construction". É também o único parafuso de expansão para estruturas metálicas, totalmente aprovado pelo ICC-ES para utilização em tocas as categorias sísmicas de A a F.

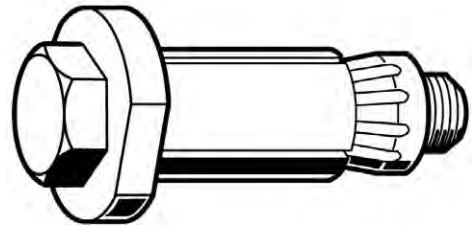






Hollow sistema de fixação sextavado



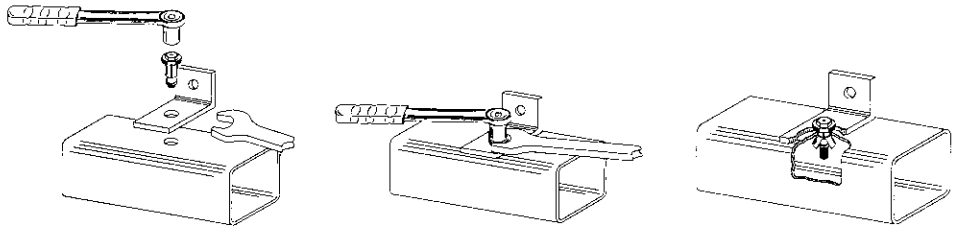


Dados técnicos

d_1 x L	M8x 50	M8x 70	M8x 90	M10x 55	M10x 70	M10x 90	M12x 60	M12x 80	M12x 100	M16x 75	M16x 100	M16x 120	M20x 90	M20x 120	M20x 150
Binário de aperto em Nm	23	23	23	45	45	45	80	80	80	190	190	190	300	300	300
d_3	22	22	22	29	29	29	32	32	32	38	38	38	51	51	51
Furo ø	14	14	14	18	18	18	20	20	20	26	26	26	33	33	33
Gama de aperto (máx.)	22	41	60	22	41	60	25	47	69	29	50	71	34	60	86
Gama de aperto (mín.)	3	22	41	3	22	41	3	25	47	12	29	50	12	34	60
h	5	5	5	6	6	6	7	7	7	8	8	8	10	10	10
k	5.3	5.3	5.3	6.4	6.4	6.4	7.5	7.5	7.5	10	10	10	12.5	12.5	12.5
s_1	13	13	13	17	17	17	19	19	19	24	24	24	30	30	30
s_2	19	19	19	24	24	24	30	30	30	36	36	36	46	46	46
Tensão de corte em kN (5:1)	5	5	5	10	10	10	15	15	15	30	30	30	40	40	40
Tensão de ruptura em kN (5:1)	4	4	4	8.5	8.5	8.5	10.5	10.5	10.5	21	21	21	35	35	35

- **M8-M10-M12; +1,0/-0,2 / M16-M20; +2,0/-0,2**
- O Hollo-Bolt é um inserto simples, para fixação em construção de aço (ponta cónica), num furo.O Hollo-Bolt fixa-se com uma chave ajustável no colar. Utilizando uma chave dinamométrica, apertar-se o parafuso sextavado, com o troque indicado na tabela abaixo.
- O torque de aperto recomendado origina uma carga de fixação limitada na montagem, a ligação pode não ser comparada com uma fixação parafuso/porca.

Sequência de montagem



Grupos de produtos

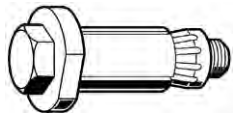
Rosca	Encaixe	Material	Tratamento sup.	Código	Página
M	Sextavado	Aço	Zn	61944	10-16
M	Sextavado	Aço	Galv. Q.	61945	10-17
M	Sextavado	INOX A4		61946	10-17

61944 LINDAPTER Hollo-Bolt sextavado **S02A**

Rosca Métrica
Material Aço
Tratamento sup. Zincado

Hollo-Bolt®

RoHS

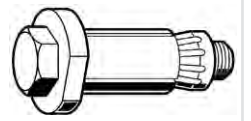


10

d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M8X50	100	61944.080.050				M16X100	25	61944.160.100
M8X70	100	61944.080.070	M12X60	50	61944.120.060	M16X120	20	61944.160.120
M8X90	50	61944.080.090	M12X80	25	61944.120.080			
			M12X100	25	61944.120.100	M20X90	10	61944.200.090
M10X55	50	61944.100.055				M20X120	10	61944.200.120
M10X70	50	61944.100.070	M16X75	25	61944.160.075	M20X150	10	61944.200.150
M10X90	50	61944.100.090						

61945 LINDAPTER Hollo-Bolt sextavado — S02A

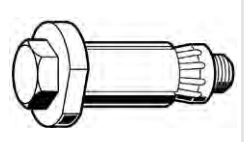
Rosca Métrica
Material Aço
Tratamento sup. Galvanizado a quente



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M8X50	100	61945.080.050				M16X100	25	61945.160.100
M8X70	100	61945.080.070	M12X60	50	61945.120.060	M16X120	20	61945.160.120
M8X90	50	61945.080.090	M12X80	25	61945.120.080			
			M12X100	25	61945.120.100	M20X90	10	61945.200.090
M10X55	50	61945.100.055				M20X120	10	61945.200.120
M10X70	50	61945.100.070	M16X75	25	61945.160.075	M20X150	10	61945.200.150
M10X90	50	61945.100.090						

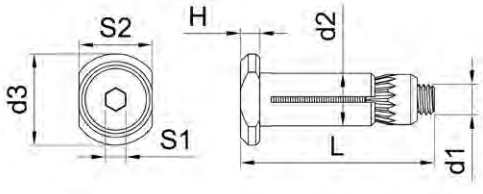
61946 LINDAPTER Hollo-Bolt sextavado — S02A

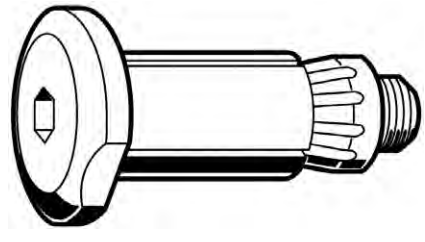
Rosca Métrica
Material Aço inoxidável A4



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M8X50	100	61946.080.050				M16X100	25	61946.160.100
M8X70	100	61946.080.070	M12X55	50	61946.120.060	M16X120	20	61946.160.120
M8X90	100	61946.080.090	M12X80	25	61946.120.080			
			M12X100	25	61946.120.100	M20X90	10	61946.200.090
M10X50	50	61946.100.055				M20X120	10	61946.200.120
M10X70	50	61946.100.070	M16X75	25	61946.160.075	M20X150	10	61946.200.150
M10X90	50	61946.100.090						

Hollow sistema de fixação cabeça de embeber



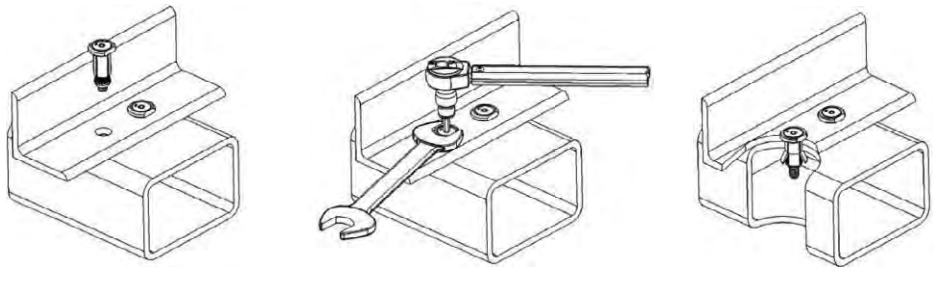


Dados técnicos

d_1 x L	M8x50	M8x70	M8x90	M10x55	M10x70	M10x90	M12x60	M12x80	M12x100	M16x75	M16x100	M16x120
Binário de aperto em Nm	23	23	23	45	45	45	80	80	80	190	190	190
d_2	14	14	14	18	18	18	20	20	20	26	26	26
d_3	22	22	22	29	29	29	32	32	32	38	38	38
Gama de aperto (máx.)	22	41	60	22	41	60	25	47	69	29	50	71
Gama de aperto (mín.)	3	22	41	3	22	41	3	25	47	12	29	50
H	5	5	5	6	6	6	7	7	7	8	8	8
s_1	5	5	5	6	6	6	8	8	8	10	10	10
s_2	19	19	19	24	24	24	30	30	30	36	36	36
Tensão de corte em kN (5:1)	5	5	5	10	10	10	15	15	15	30	30	30
Tensão de ruptura em kN (5:1)	4	4	4	8.5	8.5	8.5	10.5	10.5	10.5	21	21	21

- **M8-M10-M12; +1,0/-0,2 / M16; +2,0/-0,2**
- O Hollo-bolt é um inserto simples, para fixação em construção de aço (ponta cónica), num furo.
- Força de corte permitida. Aplicação sob influência de cargas dinâmicas necessita uma fixação cuidada.
- O torque de aperto recomendado origina uma carga de fixação limitada na montagem, a ligação pode não ser comparada com uma fixação parafuso/porca.

Sequência de montagem

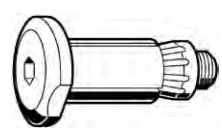


Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.	Código	Página
M	Sextavado interior	Aço	Zn	61952	10-18
M	Sextavado interior	INOX A2		61953	10-18

61952 LINDAPTER Hollo-bolt cabeça de embeber — S02A

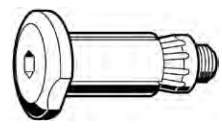
Rosca Métrica
Material Aço
Tratamento sup. Zincado



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M8X50	100	61952.080.050	M10X70	50	61952.100.070	M12X100	25	61952.120.100
M8X70	100	61952.080.070	M10X90	50	61952.100.090			
M8X90	50	61952.080.090				M16X75	25	61952.160.075
			M12X60	50	61952.120.060	M16X100	25	61952.160.100
M10X55	50	61952.100.055	M12X80	25	61952.120.080	M16X120	20	61952.160.120

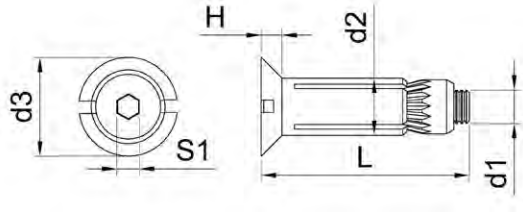
61953 LINDAPTER Hollo-bolt cabeça de embeber — S02A

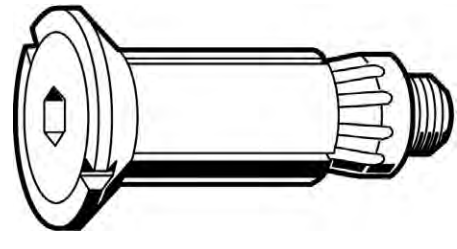
Rosca Métrica
Material Aço inoxidável A2



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M8X50	100	61953.080.050	M10X70	50	61953.100.070	M12X100	25	61953.120.100
M8X70	100	61953.080.070	M10X90	50	61953.100.090			
M8X90	100	61953.080.090				M16X75	25	61953.160.075
			M12X60	50	61953.120.060	M16X100	25	61953.160.100
M10X55	50	61953.100.055	M12X80	25	61953.120.080	M16X120	20	61953.160.120

Hollow sistema de fixação cabeça de embeber



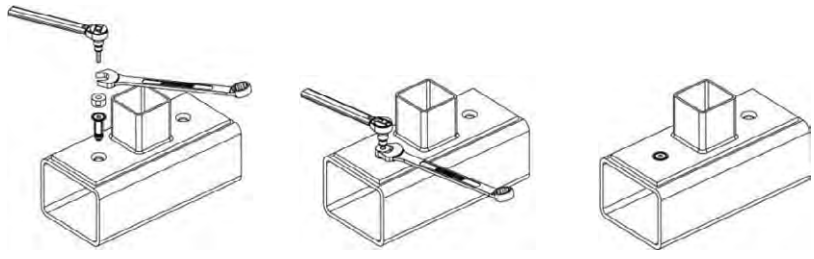


Dados técnicos

d_1 x L	Binário de aperto em Nm	d_2 = furo ø *	d_3	Gama de aperto (máx.)	Gama de aperto (mín.)	H	s_1	Tensão de corte em kN (5:1)	Tensão de ruptura em kN (5:1)
M8x50	23	14	24	27	10	5	5	5	4
M10x50	45	18	30	27	12	6	6	10	8.5
M12x55	80	20	33	30	12	7	8	15	10.5

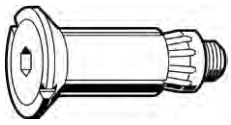
- *** M8-M10-M12; +1,0/-0,2**
- Para a instalação utilizar ferramenta auxiliar 61949.
- O Hollo-bolt é um inserto simples, para fixação em construção de aço (ponta cónica), num furo.
- Força de corte permitida. Aplicação sob influência de cargas dinâmicas necessita uma fixação cuidada.
- O torque de aperto recomendado origina uma carga de fixação limitada na montagem, a ligação pode não ser comparada com uma fixação parafuso/porca.

Sequência de montagem



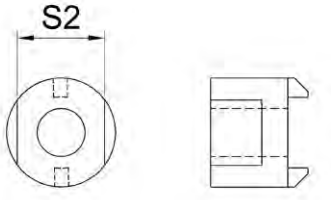
61948	LINDAPTER Hollo-bolt Flush Fit sistema de fixação cabeça de embeber	S02A

Rosca Métrica
Material Aço
Tratamento sup. Zincado



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M8X50	100	61948.080.050	M10X50	50	61948.100.050	M12x55	50	61948.120.055

Ferramenta para sistema hollow cabeça de embeber





Dados técnicos

Para diâm.nom.	s_2
M8	19
M10	24
M12	30

- Ferramenta para Hollo-bolt 61948.

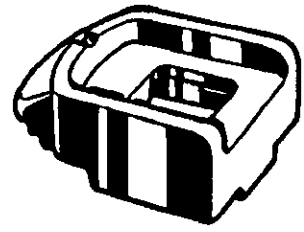
61949	LINDAPTER Hollo-bolt Flush Fit ferramenta	S02A

Material Aço
Tratamento sup. Zincado



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M8	1	61949.080.001	M10	1	61949.100.001	M12	1	61949.120.001

Sistema de fixação



Grupos de produtos

Material	Tratamento sup.		Código	Página
F.Mal.	Zn	A curto	61015	10-20
F.Mal.	Galv. Q.	A curto	61020	10-20
F.Mal.	Zn	A médio	61035	10-20
F.Mal.	Galv. Q.	A médio	61040	10-21
F.Mal.	Zn	A longo	61055	10-21
F.Mal.	Galv. Q.	A longo	61060	10-21
F.Mal.	Zn	B curto	61115	10-21
F.Mal.	Galv. Q.	B curto	61120	10-21
F.Mal.	Zn	B médio	61135	10-22
F.Mal.	Galv. Q.	B médio	61140	10-22
F.Mal.	Zn	B longo	61155	10-22
F.Mal.	Galv. Q.	B longo	61165	10-22
Ferro SG	Galv. Q.	AF curto	61170	10-22
Ferro SG	Galv. Q.	AF médio	61180	10-23

61015 LINDAPTER Sistema de fixação Tipo A curto — S05A

Material Ferro maleável
Tratamento sup. Zincado

lindapter

RoHS



Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo
M10	100	61015.100.001	M16	50	61015.160.001	M24	20	61015.240.001
M12	100	61015.120.001	M20	50	61015.200.001			

- Com chanfro, maximo 8°.

61020 LINDAPTER Sistema de fixação Tipo A curto — S05A

Material Ferro maleável
Tratamento sup. Galvanizado a quente

lindapter

RoHS



Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo
M10	100	61020.100.001	M16	50	61020.160.001	M24	20	61020.240.001
M12	100	61020.120.001	M20	50	61020.200.001			

- Com chanfro, maximo 8°.

61035 LINDAPTER Sistema de fixação Tipo A médio — S05A

Material Ferro maleável
Tratamento sup. Zincado

lindapter

RoHS



Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo
M10	100	61035.100.001	M16	50	61035.160.001	M24	20	61035.240.001
M12	100	61035.120.001	M20	50	61035.200.001			

- Com chanfro, maximo 8°.

61040 LINDAPTER Sistema de fixação Tipo A médio S05A

Material Ferro maleável
Tratamento sup. Galvanizado a quente



Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo
M10	100	61040.100.001	M16	50	61040.160.001	M24	10	61040.240.001
M12	100	61040.120.001	M20	50	61040.200.001			

- Com chanfro, maximo 8°.

61055 LINDAPTER Sistema de fixação Tipo A longo S05A

Material Ferro maleável
Tratamento sup. Zincado



Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo
M10	100	61055.100.001	M16	50	61055.160.001	M24	20	61055.240.001
M12	100	61055.120.001	M20	50	61055.200.001			

- Com chanfro, maximo 8°.

61060 LINDAPTER Sistema de fixação Tipo A longo S05A

Material Ferro maleável
Tratamento sup. Galvanizado a quente

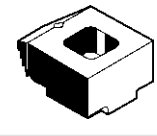


Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo
M10	100	61060.100.001	M16	50	61060.160.001	M24	10	61060.240.001
M12	100	61060.120.001	M20	50	61060.200.001			

- Com chanfro, maximo 8°.

61115 LINDAPTER Sistema de fixação Tipo B curto S05A

Material Ferro maleável
Tratamento sup. Zincado

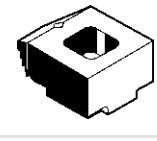


Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo
M10	100	61115.100.001	M16	50	61115.160.001	M24	20	61115.240.001
M12	100	61115.120.001	M20	25	61115.200.001			

- Com superficie superior plana, maximo 8°.

61120 LINDAPTER Sistema de fixação Tipo B curto S05A

Material Ferro maleável
Tratamento sup. Galvanizado a quente

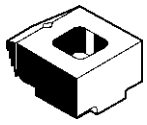


Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo
M10	100	61120.100.001	M16	50	61120.160.001	M24	20	61120.240.001
M12	100	61120.120.001	M20	25	61120.200.001			

- Com superficie superior plana, maximo 8°.

61135 LINDAPTER Sistema de fixação Tipo B médio — S05A

Material Ferro maleável
Tratamento sup. Zincado

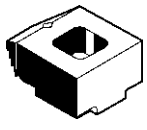


Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo
M10	100	61135.100.001	M16	50	61135.160.001	M24	20	61135.240.001
M12	100	61135.120.001	M20	25	61135.200.001			

- Com superficie superior plana, maximo 8°.

61140 LINDAPTER Sistema de fixação Tipo B médio — S05A

Material Ferro maleável
Tratamento sup. Galvanizado a quente

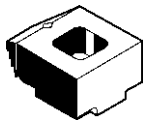


Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo
M10	100	61140.100.001	M16	50	61140.160.001	M24	10	61140.240.001
M12	100	61140.120.001	M20	25	61140.200.001			

- Com superficie superior plana, maximo 8°.

61155 LINDAPTER Sistema de fixação Tipo B longo — S05A

Material Ferro maleável
Tratamento sup. Zincado



Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo
M10	100	61155.100.001	M16	50	61155.160.001	M24	20	61155.240.001
M12	100	61155.120.001	M20	25	61155.200.001			

- Com superficie superior plana, maximo 8°.

61165 LINDAPTER Sistema de fixação Tipo B longo — S05A

Material Ferro maleável
Tratamento sup. Galvanizado a quente



Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo
M10	100	61165.100.001	M16	50	61165.160.001	M24	20	61165.240.001
M12	100	61165.120.001	M20	25	61165.200.001			

- Com superficie superior plana, maximo 8°.

10

61170 LINDAPTER Sistema de fixação Tipo AF curto — S05A

Material Ferro SG
Tratamento sup. Galvanizado a quente



Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo
M12	25	61170.120.001	M20	10	61170.200.001	M24	5	61170.240.001
M16	10	61170.160.001						

- Com superficie superior plana, maximo 10°.

61180 **LINDAPTER Sistema de fixação Tipo AF médio** **S05A**

Material Ferro SG
Tratamento sup. Galvanizado a quente



Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo
M12	25	61180.120.001	M20	10	61180.200.001	M24	5	61180.240.001
M16	20	61180.160.001						

- Com superficie superior plana, maximo 10º.

Grampo autoajustável



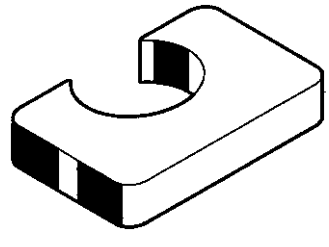
61450 **Grampo autoajustável Tipo AAF** **S05A**

Material Ferro SG
Tratamento sup. Galvanizado a quente



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M12	20	61450.120.001	M16	10	61450.160.001	M20	4	61450.200.001

Anilha

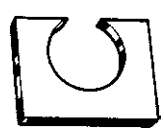


Grupos de produtos

Material	Tratamento sup.		Código	Página
Aço	Zn	CW	61415	10-24
Aço	Galv. Q.	CW	61420	10-24
Aço	Zn	P1 curto	61515	10-24
Aço	Galv. Q.	P1 curto	61530	10-24
Aço	Zn	P2 curto	61615	10-24
Aço	Galv. Q.	P2 curto	61630	10-25
Aço	Galv. Q.	AF/CW	61430	10-25
Aço	Galv. Q.	AF/P1	61435	10-25
Aço	Galv. Q.	AF/P2	61440	10-25
Aço	Zn	P1 longo	61555	10-25
Aço	Galv. Q.	P1 longo	61570	10-26
Ferro fundido	Zn	P2 longo	61650	10-26
Ferro fundido	Galv. Q.	P2 longo	61670	10-26

61415 LINDAPTER Anilha Tipo CW — S05A

Material Aço
Tratamento sup. Zincado



Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo
M10	250	61415.100.001	M16	250	61415.160.001	M24	100	61415.240.001
M12	250	61415.120.001	M20	100	61415.200.001			

- Indicação para fixações em aço tipo A, B e BR.

61420 LINDAPTER Anilha Tipo CW — S05A

Material Aço
Tratamento sup. Galvanizado a quente

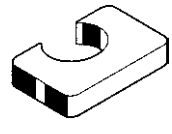


Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo
M10	250	61420.100.001	M16	250	61420.160.001	M24	100	61420.240.001
M12	250	61420.120.001	M20	100	61420.200.001			

- Indicação para fixações em aço tipo A, B e BR.

61515 LINDAPTER Anilha Tipo P1 curto — S05A

Material Aço
Tratamento sup. Zincado

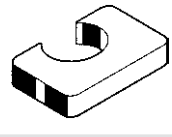


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M10	250	61515.100.001	M16	100	61515.160.001	M24	25	61515.240.001
M12	200	61515.120.001	M20	100	61515.200.001			

- Indicado para fixações em aço tipo A, B e BR.

61530 LINDAPTER Anilha Tipo P1 curto — S05A

Material Aço
Tratamento sup. Galvanizado a quente



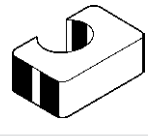
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M10	250	61530.100.001	M16	100	61530.160.001	M24	25	61530.240.001
M12	200	61530.120.001	M20	100	61530.200.001			

- Indicado para fixações em aço tipo A, B e BR.

10

61615 LINDAPTER Anilha Tipo P2 curto — S05A

Material Aço
Tratamento sup. Zincado

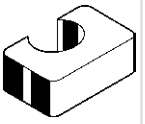


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M10	100	61615.100.001	M16	100	61615.160.001	M24	25	61615.240.001
M12	100	61615.120.001	M20	50	61615.200.001			

- Indicado para fixações em aço tipo A, B e BR.

61630 LINDAPTER Anilha Tipo P2 curto S05A

Material Aço
Tratamento sup. Galvanizado a quente



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M10	100	61630.100.001	M16	100	61630.160.001	M24	25	61630.240.001
M12	100	61630.120.001	M20	50	61630.200.001			

- Indicado para fixações em aço tipo A, B e BR.

61430 LINDAPTER Anilha Tipo AF/CW S05A

Material Aço
Tratamento sup. Galvanizado a quente



Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo	Para diâmetro do parafuso	✉	Ref. do artigo
M12	250	61430.120.001	M16	200	61430.160.001	M20	200	61430.200.001

- Indicado para fixações tipo AF.

61435 LINDAPTER Anilha Tipo AF/P1 S05A

Material Aço
Tratamento sup. Galvanizado a quente

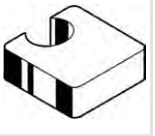


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M12	100	61435.120.001	M20	50	61435.200.001	M24	25	61435.240.001
M16	100	61435.160.001						

- Indicado para fixações tipo AF.

61440 LINDAPTER Anilha Tipo AF/P2 S05A

Material Aço
Tratamento sup. Galvanizado a quente

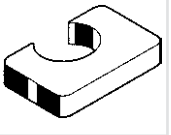


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M12	50	61440.120.001	M20	10	61440.200.001	M24	10	61440.240.001
M16	50	61440.160.001						

- Indicado para fixações tipo AF.

61555 LINDAPTER Anilha Tipo P1 longo S05A

Material Aço
Tratamento sup. Zincado

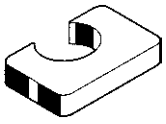


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M10	100	61555.100.001	M16	100	61555.160.001	M24	25	61555.240.001
M12	100	61555.120.001	M20	50	61555.200.001			

- Indicado para fixações em aço tipo D1, D2 e LR.

61570 LINDAPTER Anilha Tipo P1 longo — S05A

Material Aço
Tratamento sup. Galvanizado a quente

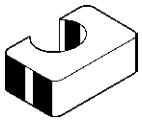


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M12	100	61570.120.001	M20	50	61570.200.001	M24	25	61570.240.001
M16	100	61570.160.001						

- Indicado para fixações em aço tipo D1, D2 e LR.

61650 LINDAPTER Anilha Tipo P2 longo — S05A

Material Ferro fundido
Tratamento sup. Zincado

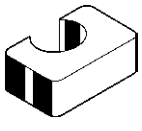


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M10	100	61650.100.001	M16	50	61650.160.001	M24	25	61650.240.001
M12	100	61650.120.001	M20	10	61650.200.001			

- Indicado para fixações em aço tipo D2 e LR.

61670 LINDAPTER Anilha Tipo P2 longo — S05A

Material Ferro fundido
Tratamento sup. Galvanizado a quente

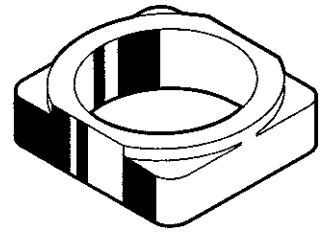


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M12	100	61670.120.001	M20	25	61670.200.001	M24	20	61670.240.001
M16	100	61670.160.001						

- Indicado para fixações em aço tipo D2 e LR.

10

Anilha de profundidade

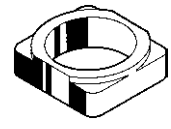


61810 **LINDAPTER Anilha de profundidade Tipo W** **S05A**

Material Ferro fundido
Tratamento sup. Zincado

lindapter

RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M10	1000	61810.100.001	M16	500	61810.160.001	M20	250	61810.200.001
M12	500	61810.120.001						

- Indicado para fixações em aço tipo A e D2.
- Para preenchimento sob o chanfro.

Grampo de elevada fricção



61265 **LINDAPTER Grampo de elevada fricção Tipo CF** **S05A**

Material Ferro SG
Tratamento sup. Galvanizado a quente

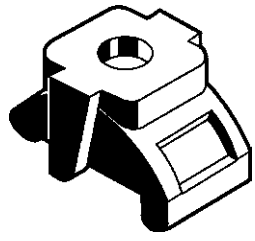
lindapter

RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M12	25	61265.120.001	M16	20	61265.160.001	M20	10	61265.200.001

Sistema fixação ajustável



Grupos de produtos

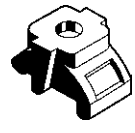
Material	Tratamento sup.	Código	Página
F.Mal.	Zn	61951	10-28
F.Mal.	Galv. Q.	61961	10-28

61951 LINDAPTER Sistema fixação ajustável Tipo LR — S05A

Material Ferro maleável
Tratamento sup. Zincado

lindapter

RoHS



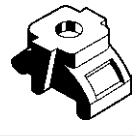
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M10	50	61951.100.001	M16	25	61951.160.001	M24	5	61951.240.001
M12	50	61951.120.001	M20	10	61951.200.001			

61961 LINDAPTER Sistema fixação ajustável Tipo LR — S05A

Material Ferro maleável
Tratamento sup. Galvanizado a quente

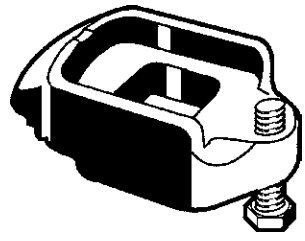
lindapter

RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
10MM	50	61961.100.001	16MM	25	61961.160.001	24MM	5	61961.240.001
12MM	100	61961.120.001	20MM	10	61961.200.001			

Grampo ajustável com parafuso



Grupos de produtos

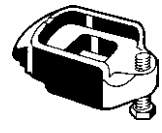
Material	Tratamento sup.	Código	Página
F.Mal.	Zn	61290	10-29
F.Mal.	Galv. Q.	61300	10-29

61290 LINDAPTER Sistema de fixação ajustável Tipo D2 S05A

Material Ferro maleável
Tratamento sup. Zincado

lindapter

RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M10	100	61290.100.001	M16	50	61290.160.001	M20	25	61290.200.001
M12	100	61290.120.001						

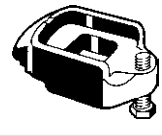
- Com chanfro e parafuso ajustável.

61300 LINDAPTER Sistema de fixação ajustável Tipo D2 S05A

Material Ferro maleável
Tratamento sup. Galvanizado a quente

lindapter

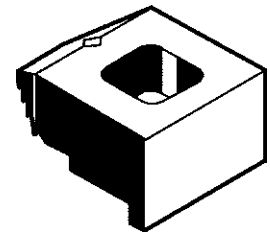
RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M10	100	61300.100.001	M16	50	61300.160.001	M20	25	61300.200.001
M12	100	61300.120.001						

- Com chanfro e parafuso ajustável.

Fixação para carris

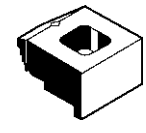


Grupos de produtos

Material	Tratamento sup.		Código	Página
F.Mal.	Zn	BR curto	61936	10-30
F.Mal.	Zn	BR médio	61937	10-30
F.Mal.	Galv. Q.	BR curto	61938	10-30
F.Mal.	Galv. Q.	BR médio	61939	10-30

61936 LINDAPTER Fixação para carril Tipo BR curto S05A

Material Ferro maleável
Tratamento sup. Zincado

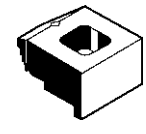


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M12	100	61936.120.001	M16	50	61936.160.001	M20	25	61936.200.001

- Com superficie superior plana, inclinação max. 8°.

61937 LINDAPTER Fixação para carril Tipo BR médio S05A

Material Ferro maleável
Tratamento sup. Zincado

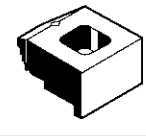


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M12	100	61937.120.001	M16	50	61937.160.001	M20	25	61937.200.001

- Com superficie superior plana, inclinação max. 8°.

61938 LINDAPTER Fixação para carril Tipo BR curto S05A

Material Ferro maleável
Tratamento sup. Galvanizado a quente

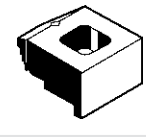


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M12	100	61938.120.001	M16	50	61938.160.001	M20	25	61938.200.001

- Com superficie superior plana, inclinação max. 8°.

61939 LINDAPTER Fixação para carril Tipo BR médio S05A

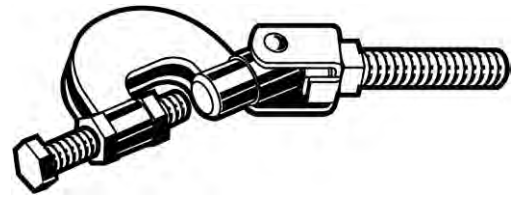
Material Ferro maleável
Tratamento sup. Galvanizado a quente



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M12	100	61939.120.001	M16	50	61939.160.001	M20	25	61939.200.001

- Com superficie superior plana, inclinação max. 8°.

Fixação de flange



Grupos de produtos

Material	Tratamento sup.		Código	Página
Ferro SG	Zn	FLS	61860	10-31
F.Mal.	Zn	LC	61317	10-31
F.Mal.	Zn	FL	61355	10-31
F.Mal.	Galv. Q.	F3	61390	10-31

61860 LINDAPTER Fixação de flange Tipo FLS S05A

Material Ferro SG
Tratamento sup. Zincado

lindapter

RoHS



Para haste roscada/ tipo nr.	✉	Ref. do artigo	Para haste roscada/ tipo nr.	✉	Ref. do artigo
M8	25	61860.080.001	M10	25	61860.100.001

61317 LINDAPTER Fixação de flange Tipo LC S05A

Material Ferro maleável
Tratamento sup. Zincado

lindapter

RoHS



Para haste roscada/ tipo nr.	✉	Ref. do artigo
M6	100	61317.060.001

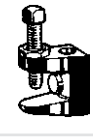
Com posição horizontal e vertical

61355 LINDAPTER Fixação de flange Tipo FL S05A

Material Ferro maleável
Tratamento sup. Zincado

lindapter

RoHS



Para haste roscada/ tipo nr.	✉	Ref. do artigo	Para haste roscada/ tipo nr.	✉	Ref. do artigo	Para haste roscada/ tipo nr.	✉	Ref. do artigo
M8 FL1	100	61355.080.001	M12 FL3	50	61355.120.001	M12 FL4	25	61355.120.004
M10 FL2	50	61355.100.001						

- Com parafuso de pressão e porca.
- Aprovado por VdS e FM.

61390 LINDAPTER Fixação de flange Tipo F3 S05A

Material Ferro maleável
Tratamento sup. Galvanizado a quente

lindapter

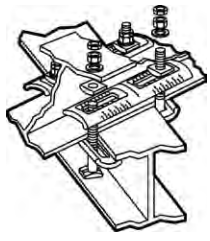
RoHS



Para haste roscada/ tipo nr.	✉	Ref. do artigo	Para haste roscada/ tipo nr.	✉	Ref. do artigo
M12	25	61390.120.001	M16	10	61390.160.001

- Aprovado por FM.

Sistema de fixação



Dados técnicos

Diâm.nom.	**M16**
Binário de aperto em Nm	147
Carga máx em kN (5:1)	30
Espessura da flange/ajustável	5-19
Largura da flange/ajustabilidade	75-180

- GRAMPO FIXAÇÃO é uma fixação ajustável que une flanges de duas vigas de aço sem necessidade de uso de um prato de ajuste. Esta fixação forma uma união que é indicada para vigas com diversos tipos de flanges largura e espessura.
- Conteúdo de GRAMPO FIXAÇÃO: 4 componentes básicos: corpo especial, parafusos especiais, anilhas especiais, anilhas planas, porcas sextavadas e porcas sextavadas baixas.
- Documentação Técnica disponivel sob pedido.

Exemplo de aplicação



61850 **LINDAPTER Sistema de fixação** **S05A**

Rosca Métrica
Material Aço
Tratamento sup. Zincado

lindapter

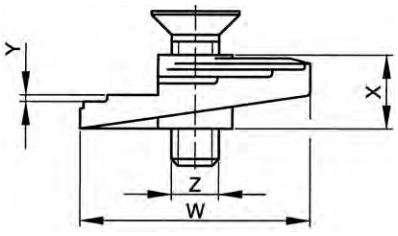
RoHS

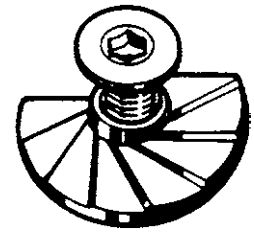


Diâm. nom.	✉	Ref. do artigo
M16	1	61850.160.001

10

Fixador de chão





Dados técnicos

Z	W	X	Y
M8	60	20	2
M10	60	20	2
M12	60	20	2

- O FLOORFAST, fixação para chão de placas, permite fixar as placas de aço a partir da parte de cima, por um único homem, usando simplesmente uma chave sextavada. Não existe necessidade de acesso por baixo nem necessidade de furação ou soldadura.
- Documentação Técnica disponivel sob pedido.

Sequência de montagem





Grupos de produtos

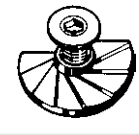
Rosca	Material	Tratamento sup.	Código	Página
M	F.Mal.	Zn	61941	10-33
M	F.Mal.	Galv. Q.	61963	10-33

61941 LINDAPTER Fixador de chão **S05A**

Rosca Métrica
Material Ferro maleável
Tratamento sup. Zincado

lindapter

RoHS



Z	✉	Ref. do artigo	Z	✉	Ref. do artigo	Z	✉	Ref. do artigo
M8	50	61941.080.001	M10	50	61941.100.001	M12	50	61941.120.001

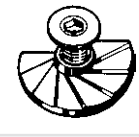
Also available in stainless steel Grade 316.

61963 LINDAPTER Fixador de chão **S05A**

Rosca Métrica
Material Ferro maleável
Tratamento sup. Galvanizado a quente

lindapter

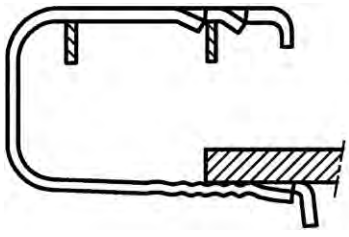
RoHS

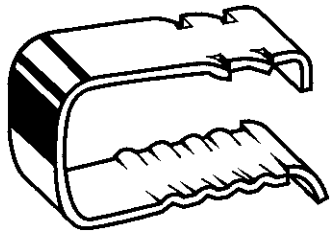


Z	✉	Ref. do artigo
10MM	100	61963.100.001

Also available in stainless steel Grade 316.

Clip GF 3030



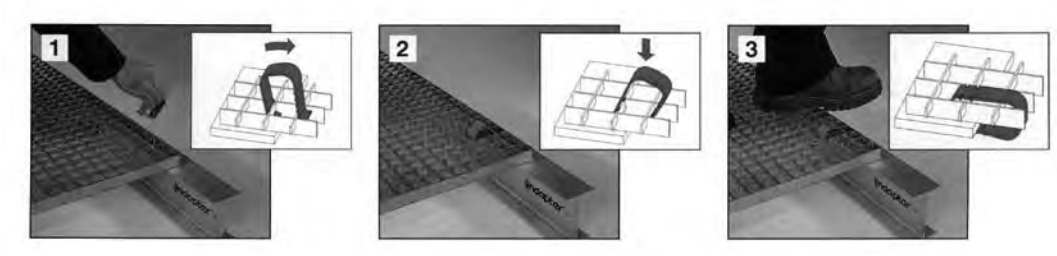


Dados técnicos

Tipo	**GF3030**
Carga de aperto por grampo em N	340-530-680
Espessura total de fixação	38-43-48

- O GF 3030 é um fixação de chão que permite a fixação de placa de chão tipo europeu 30 x 30 a secções de aço.
- A instalação do produto, que pode ser feita por uma única pessoa, aplicado na parte superior, sem necessidade de furação ou soldadura.
- Não só significa economia de custos, como também mantêm a integridade das construções em aço.
- O GF 3030 é desenhado especialmente para ser usado com placas de chão em grelha de 30 mm.
- É no entanto possivel usar o produto em outras placas de chão de grelha, tendo em atenção que a profundidade de fixação (profundidade fixação + espessura flange) é entre 38 mm (minímo) e 48 mm (máximo).
- A espessura da flange é entre 8-18 mm.De acordo com BS 4921 Class 1 (380ºC max.) mais passivação e proteção em Delta Seal prateado.
- Documentação Técnica disponivel sob pedido.

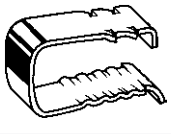
Dados montagem



61942 LINDAPTER Clip de chão GF3030 **S05A**

Material Aço mola
Tratamento sup. Sheraplex

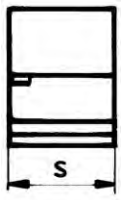
lindapter

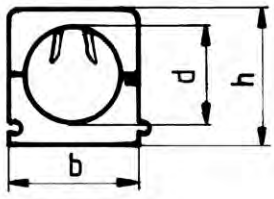


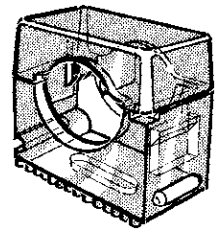
Tipo	✉	Ref. do artigo
GF 3030	50	61942.001.770

10

Abraçadeira





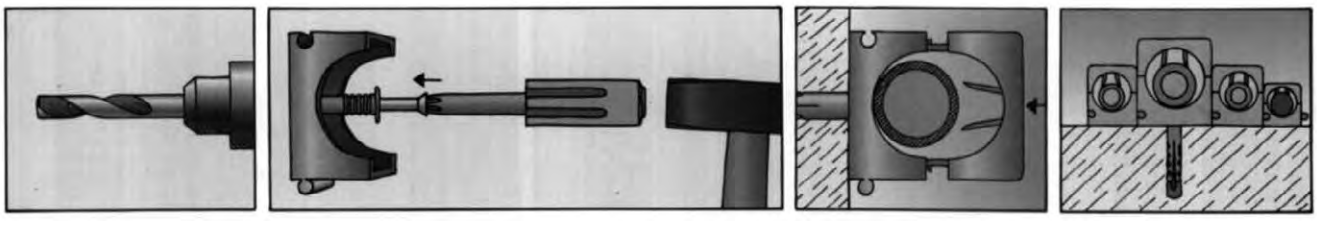


Dados técnicos

Tipo	b	Cabo/Tubo diâmetro d	h	Resistência á tracção em N	s
SCH 812	21.5	8-12	23.1	0.09	16.5
SCH 1216	27.5	12-16	28.7	0.2	16.5
SCH 1619	32.5	16-19	37.6	0.2	16.5
SCH 1623	36	16-23	37.6	0.2	16.5
SCH 2332	46.5	23-32	50	0.3	16.5
SCH 3242	53.5	32-42	62	0.4	16.5

- Pode-se utilizar até 4 suportes em linha.
- Força de tração (breaking force) requerida para arrancar o clip do suporteforce. É aconselhado um factor de segurança: ≥ 7.

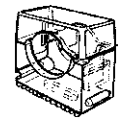
Sequência de montagem



63500 **FISCHER Abraçadeira para tubos tipo SCH** **N03B**

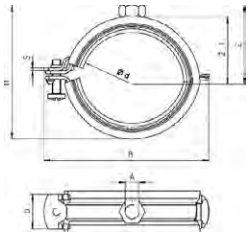
Material Plástico Poliamida (nylon)

fischer innovative solutions



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
SCH 8-12MM	100	63500.008.013	SCH 16-19MM	50	63500.016.019	23-32MM	25	63500.023.032
SCH 12-16MM	50	63500.012.016	SCH 16-23MM	50	63500.016.023	32-42MM	25	63500.032.042

Abraçadeira para tubos de suspensão



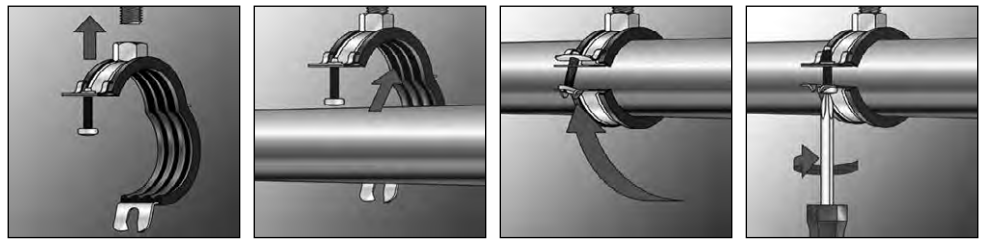


Dados técnicos

ø d	A	B	b x s	Dimensão do parafuso	Diâmetro do tubo	H	h	N
15-19	M8	52	20x1.25	M5x25	3/8	40	6.8	0.60
20-24	M8	58	20x1.25	M5x25	1/2	45	6.8	0.60
25-30	M8	63	20x1.25	M5x25	3/4	49	6.8	0.60
32-37	M8	72	20x1.25	M5x25	1 Inch	57	6.8	0.8
40-45	M8	79	20x1.5	M5x30	1.1/4	66	6.8	0.8
48-53	M8	88	20x1.5	M5x30	1.1/2	76	6.8	0.8
59-63	M8	99	20x1.5	M5x30	2 Inch	85	6.8	0.8

- N = Carga estática máx. recomendada (centr. tensão) [kN].

Sequência de montagem



- Inserir tubo, pressionar as partes de fixação da abraçadeira, encaixar parafuso de fixação e aparafusar.

64100 **FISCHER Abraçadeira isofónica FGRS Plus** **N02A**

Material Aço DD11

fischer innovative solutions

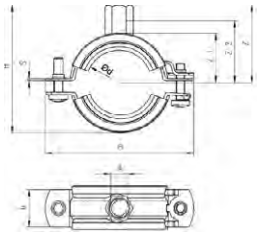
RoHS

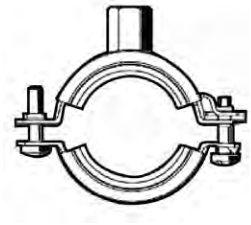


Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo
15-19	100	64100.015.019	32-37	100	64100.032.037	48-53	50	64100.048.053
20-24	100	64100.020.024	40-45	50	64100.040.045	59-63	50	64100.059.063
25-30	100	64100.025.030						

- Abraçadeira de articulada com sistema de ajuste patenteado.
- Isolamento de som conforme DIN 4109.
- Vantagens/Beneficios:
- Rápida ligação permite uma instalação rápida e simples com uma só mão.
- Abraçadeira articulada pode ser aberta para a introdução do tubo.
- Poupança de tempo e energia na instalação do tubo.
- Para fixação:
- Tubagem nas paredes, tectos e chão em instalações sanitárias e de aquecimento.
- Propriedades:
- Material : Aço DD11 (material no. 1.0332) acc. com DIN EN 10111.
- Zincado: Electro zincado , 5 - 9 µm.
- Porca de ligação (FGRS Plus): Resistência soldadura M8, SW 13.
- Parafuso de fixação (FGRS Plus): parafuso combinado.
- Isolamento de som: Material: SBR/EPDM; isento de cloro; isento de silicone.
- Isolamento fónico: DIN 4109.
- Resistência á temperatura: -50° to +110°C.
- Dureza: 45 +- 5° Shore.
- Comportamento ao fogo DIN 4102: classe B2.

Abraçadeira para tubos



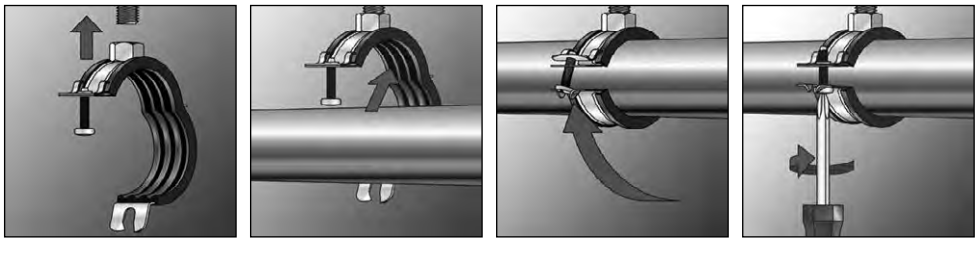


Dados técnicos

ø d	A	B	b x s	Dimensão do parafuso	Diâmetro do tubo	H	h	N
15-19	M8/M10	61	20x1.25	M5x25	3/8	51	17	0.8
20-24	M8/M10	66	20x1.25	M5x25	1/2	56	17	0.8
25-30	M8/M10	72	20x1.25	M5x25	3/4	62	17	0.8
32-37	M8/M10	79	20x1.25	M5x25	1 Inch	67	17	0.8
40-45	M8/M10	86	20x1.25	M5x30	1.1/4	78	17	1.00
48-53	M8/M10	94	20x1.5	M5x30	1.1/2	83	17	1.00
59-63	M8/M10	114	20x1.5	M6x30	2 Inch	96	17	1.40
62-64	M8/M10	114	25x2.0	M6x30	-	96	17	1.40
68-73	M8/M10	124	25x2.0	M6x30	-	108	17	1.40
74-78	M8/M10	129	25x2.0	M6x30	2.1/2	113	17	1.80
80-86	M8/M10	133	25x2.0	M6x30	-	115	17	1.80
89-92	M8/M10	142	25x2.0	M6x30	3 Inch	125	17	1.80
95-103	M8/M10	156	25x2.0	M6x30	-	140	17	1.80

- N = Carga estática máx. recomendada (centr. tensão) [kN].

Sequência de montagem



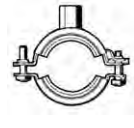
- Inserir tubo, pressionar as partes de fixação da abraçadeira, encaixar parafuso de fixação e aparafusar.

64108 FISCHER Abraçadeira isofónica FGRS Plus **N02A**

Material Aço DD11

fischer innovative solutions

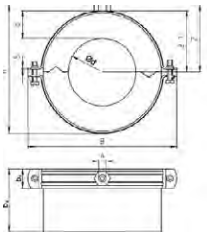
RoHS

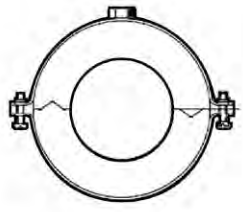


Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo
15-19	100	64108.015.019	40-45	50	64108.040.045	74-78	25	64108.074.078
20-24	100	64108.020.024	48-53	50	64108.048.053	80-86	25	64108.080.086
25-30	100	64108.025.030	62-64	25	64108.062.064	89-92	25	64108.089.092
32-37	100	64108.032.037	68-73	25	64108.068.073	95-103	25	64108.095.103

- Abraçadeira de articulada 2 partes com sistema de ajuste patenteado.
- Isolamento de som conforme DIN 4109.
- Vantagens/beneficios:
- Rápida ligação permite uma instalação rápida e simples com uma só mão.
- Abraçadeira articulada pode ser aberta para a introdução do tubo.
- Poupança de tempo e energia na instalação do tubo.
- Para fixação:
- Tubagem nas paredes, tectos e chão em instalações sanitárias e de aquecimento.
- Propriedades:
- Material : Aço DD11 (material no. 1.0332) acc. com DIN EN 10111.
- Zincado: Electro zincado , 5 - 9 µm.
- Porca de ligação (FGRS Plus): Resistência soldadura M8, SW 13.
- Parafuso de fixação (FGRS Plus): parafuso combinado.
- Isolamento de som: Material: SBR/EPDM; isento de cloro; isento de silicone.
- Isolamento fónico: DIN 4109.
- Resistência á temperatura: -50° to +110°C.
- Dureza: 45 +- 5° Shore.
- Comportamento ao fogo DIN 4102: classe B2.

Abraçadeira de refrigeração





Dados técnicos

ø d	A	B	b_2 x d	Diâmetro do tubo	H	h	M	N	Z
21	M8	126	40x30	1/2	92	6.8	1.5	0.06	60

- N = Carga estática máx. recomendada (centr. tensão) [kN].
- M = Série Max. recom. span) [m].

Dados de Montagem

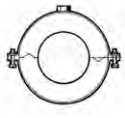
- Aplicar proteção anti corrosão na tubagem.
- Inserir tubo, puxe filme protector e cole.
- Aparafuse as partes.
- Na parte frontal,cole isolante para refrigerar a união.

64122 **FISCHER Abraçadeira de tubo de refrigeração FRS F** **N02A**

Material PU

fischer innovative solutions

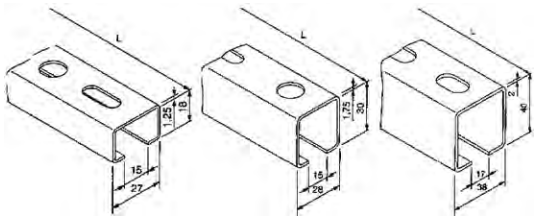
RoHS

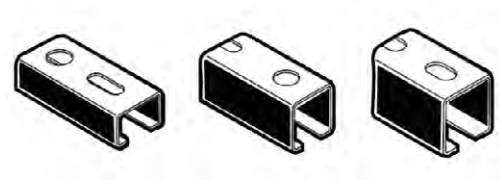


ø x d	✉	Ref. do artigo
21/30	1	64122.021.030

- Abraçadeira isofónica duas partes com PU.
- Isolamento com autoadesivo.
- Vantagens/beneficios:
- Isolamento PU para um efeito isotérmico isolado.
- Espuma PU rigída resistente á compressão para absorção da carga.
- Difusão de vapor controlada pela banda exterior de aluminio.
- Vida útil prolongada.
- Juntas de vedação na isolação para melhor vedação.
- Instalação simples graças ao ângulo de abertura.
- Parafuso de fixação com cabeça larga combi, para evitar desaperto.
- Para fixação:
- Tubagem em refrigeração e ar condicionado com isolamento PU.
- Propriedades:
- Material espuma de poliuretano de estrutura molecular fechada.
- Resistência á difusão 2500 K.
- Densidade 80 kg/m³.
- Forma de compressão 0.6 N/mm².
- Conductividade (at 0°C) 0.030 W/(m*K).
- Parafuso fixação: Parafuso cabeça plana combinado.
- Resistência á temperatura - 40 °C to + 80 °C.
- Comportamento ao fogo DIN 4102: classe B2.

Calha

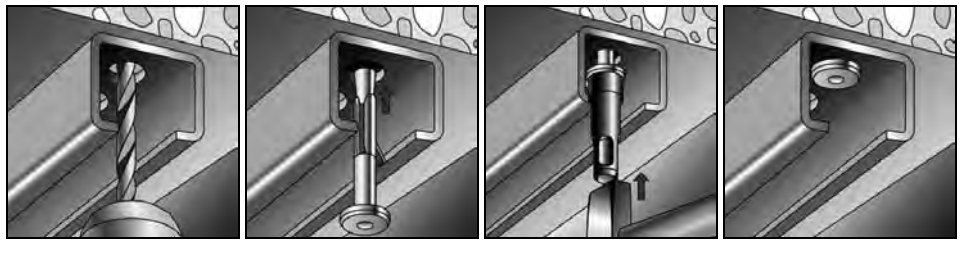




Dados técnicos

Perfil	B	H	L	Iy	Iz	P_1	P_2	Perfil	Wx
27/18	27	18	2000	0.36	0.96	0.84	1.25	27/18/1.25-2m	0.34
28/30	28	30	2000	1.77	2.09	1.59	1.75	28/30/1.75-2m	1.02
38/40	38	40	2000	5.39	6.18	2.55	2	38/40/2.00-2m	2.4

Sequência montagem



- Boas possibilidades de montagem usando a fixação correcta.

64130 FISCHER Calha MS **N02A**

Material Aço
Tratamento sup. Zincado

fischer innovative solutions

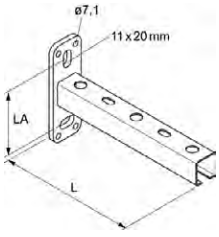
RoHS

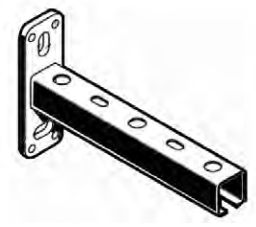


B x H x L	✉	Ref. do artigo	B x H x L	✉	Ref. do artigo	B x H x L	✉	Ref. do artigo
27/18 2000	1	64130.027.182	28/30 2000	1	64130.028.302	38/40 2000	1	64130.038.402

- Calha C para instalação em segurança de fixações horizontais e verticais.
- Fixação rápida de tubagens e vigas.
- Vantagens/beneficios:
- Elevada flexibilidade e força de tracção devido á otimização da secção cruzada do perfil.
- Elevada flexibilidade devido ás diferentes formas do orificio.
- Opções versáteis para instalação em parede, pavimento e tecto.
- As peças d eligação especialmente sincronizadas permitem a montagem de construções sujeitas a cargas versáteis, seguras e simples.
- Corte e instalação mais simples devido ás dimensões estampadas da grelha no lado da guia.
- Para fixação:
- Tubagens e condutas de ventilação.
- Material: Aço DX51D+Z 275 NA-C (material no. 1.0226+Z) acc. com DIN EN 10327.
- Zincado, approx. 20 µm.

Calha de braço





Dados técnicos

Perfil x C	Base zincada	L	LA	Perfil
27/18-200	120 x 40 x 4	200	79	27/18
27/18-300	120 x 40 x 4	300	79	27/18
28/30-320	120 x 40 x 4	320	79	28/30
28/30-440	120 x 40 x 4	440	79	28/30
38/40-360	120 x 40 x 6	360	79	38/40
38/40-520	120 x 40 x 6	520	79	38/40
38/40-600	120 x 40 x 6	600	79	38/40

- LA = Espaçamento dos furos [mm].

Dados montagem

- Boas possibilidades de fixação usando a fixação adequada.
- Furos na placa base oferecem boa possibilidade de ajustamento.

64134 FISCHER Braço de Calha ALK **N02A**

Material Aço
Tratamento sup. Zincado



Perfil x C	✉	Ref. do artigo	Perfil x C	✉	Ref. do artigo	Perfil x C	✉	Ref. do artigo
ALK 38/40-600	10	64134.020.929	ALK 28/30-320	10	64134.079.578	ALK 38/40-360	10	64134.079.581
ALK 27/18-200	20	64134.079.575	ALK 28/30-440	10	64134.079.579	ALK 38/40-520	10	64134.079.582
ALK 27/18-300	20	64134.079.576						

- Calha perfil C com base soldada.
- Indicada para fixações na parede, mas também em estruturas de tectos e chão.
- ALK Q com topo soldada.
- Vantagens/beneficios:
- Instalação rápida e simples de tubagens.
- Base estável para construções sujeitas a cargas.
- Possibilidade de utilização versátil para comprimentos irregulares.
- As ranhuras existentes na guia proporcionam possibilidades de instalação versátil.
- Para fixação:
- Tubagens, cabos e condutas de ventilação.
- Propriedades:
- Zincado min. 8 µm.
- Material:
- Base: aço DC01 (material no. 1.0330) acc. com DIN EN 10111.
- Calha: aço S235JR (material no. 1.0037) acc. com DIN EN 1025.

Tampa

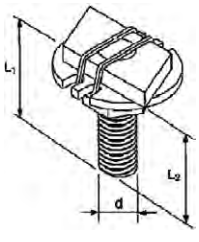


64132	FISCHER Tampa plástica AK	N02A
Material	Plástico Polietileno	



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
AK 27/18	100	64132.027.018	AK 28/30	100	64132.028.030	AK 38/40	50	64132.038.040

Parafuso cabeça em T clix

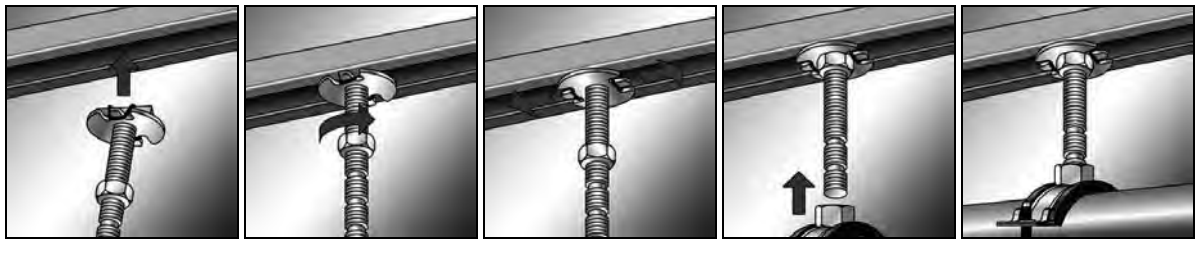




Dados técnicos

d x L_1	L_1	L_2	Perfil
M8x30	30	25	27/18+28/30+30/15
M8x40	40	35	27/18+28/30+30/15

Sequência montagem



- Introduzir o parafuso tipo T no carril e rodar.
- Depois do alinhamento, o parafuso T deve ser apertado com a porca.

64162	FISCHER Parfuso em T para calha FHS clix	N02A
Material	Aço	
Tratamento sup.	Zincado	

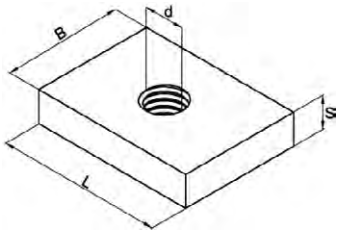


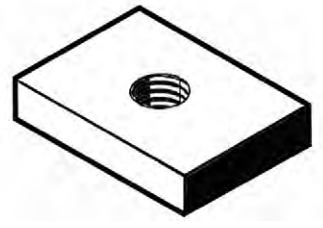
d x L_1	✉	Ref. do artigo	d x L_1	✉	Ref. do artigo
8X30	100	64162.080.030	8X40	100	64162.080.040

64162 FISCHER Parfuso em T para calha FHS clix ←

- FHS Clix N – parafuso em T patenteado.
- FHS Clix – para calhas de menor dimensão (27/18, 28/30, 30/15)
- Vantagens/beneficios:
- Mecanismo de segurança patenteado.
- Instalação simples, rápida e efectiva.
- Utilização de menos peças que em outros sistemas de fixação.
- Alinhamento simples.
- Compativel com a maioria dos perfis com 15 mm.
- Elemento de ligação entre:
- Calhas e tubagens.
- Apoios e tubagens.
- Propriedades:
- Material: Aço DD11 (material no. 1.0332) acc. com DIN EN 10111.
- Zincado, 8 µm.

Porca para calha





Dados técnicos

d	B	L	Perfil	S
M8	23	33	27/18+28/30+30/15+38/40+40/60+40/120	6
M10	23	33	27/18+28/30+30/15+38/40+40/60+40/120	6

- Elementos de fixação para elementos MS rails.
- Vantagens / Beneficios:
- Instalação simples.
- Simples alinhamento nos carris.
- Adequado em carris MS perfis com 15 mm e 17 mm.
- Os elementos de ligação entre:
- Construções de carris e abraçadeiras de tubos.
- Suportes de balanço e abraçadeiras de tubos.

Dados montagem

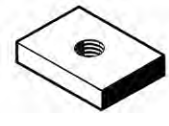
- Após alinhamento, a placa roscada deve ser aparafusada com a porca.

64168 FISCHER Porca para calha SM **N02A**

Material Aço
Tratamento sup. Zincado

fischer innovative solutions

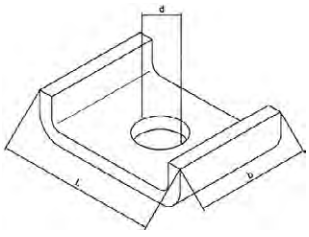
RoHS

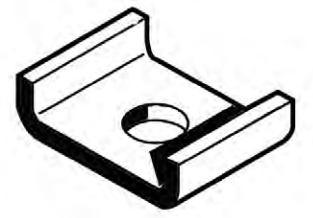


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
38 M8	50	64168.080.001	38 M10	50	64168.100.001

10

Anilha para calha





Dados técnicos

Tipo	b	L	Perfil	ø d
HK27	33	25	27/18+28/30+30/15	11.5
HK38	33	40	38/40	12.5

64158 FISCHER Anilha para calha HK **N02A**

Material Aço
Tratamento sup. Zincado

fischer innovative solutions

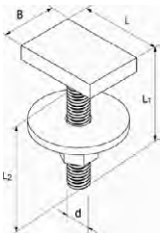
RoHS

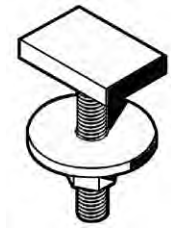


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
27	50	64158.270.001	38	50	64158.380.001

- As anilhas de calha são utilizadas para a fixação de, por exemplo, sistemas de ancoragem.
- Utilizado em em fixações de segurança.
- Vantagens/beneficios:
- Evita deformação das guias.
- Para fixação:
- Calhas, componentes em calhas.

Parafuso cabeça em T





Dados técnicos

d x L_1	B	d	L	L_1	L_2	Perfil	S
M8x30	24	M8	30	30	24	27/18+28/30+30/15+38/40+40/60+40/120	6
M8x40	24	M8	30	40	34	27/18+28/30+30/15+38/40+40/60+40/120	6
M10x30	24	M10	30	30	24	27/18+28/30+30/15+38/40+40/60+40/120	6
M10x40	24	M10	30	40	34	27/18+28/30+30/15+38/40+40/60+40/120	6

- Parafusos cabeça T para todos os perfis standard com espaçamento entre furos de 15 e 17mm.
- Vantagens/beneficios: instalação simples, rápida e efectiva.
- Menos peças que nas fixações tradicionais.
- Alinhamento simples no carril.
- Como elemento de ligação entre: carril e tubagem.
- Suportes e abraçadeiras para tubagem.

Dados montagem

- Inserir o parafuso em T no carril numa das extremidades.
- Após alinhamento, o parafuso T deve ser apertado com a porca.

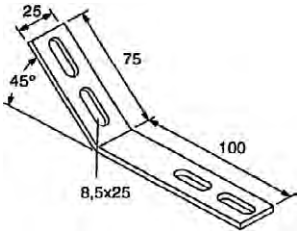
64163 **FISCHER Parfuso em T para calha HS 38** **N02A**

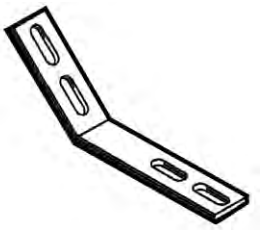
Material Aço
Tratamento sup. Zincado



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
38 M8X30	50	64163.080.030				38 M10X40	50	64163.100.040
38 M8X40	50	64163.080.040	38 M10X30	50	64163.100.030			

Apoio angular

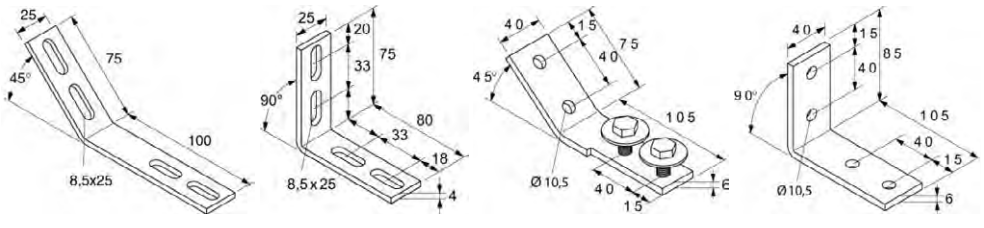




Dados técnicos

Tipo	B	H	L	Perfil	S	Ângulo
MW27-45°	25	75	100	27/18+28/30+30/15	4	45°
MW27-90°	25	75	80	27/18+28/30+30/15	4	90°
MW38-45°	40	75	105	38/40+41/21+41/41+40/60+40/120	6	45°
MW38-90°	40	85	105	38/40+41/21+41/41+40/60+40/120	6	90°

Dados de montagem



MW 27-45° MW 27-90° MW 38-45° MW 38-90°

- Boa possibilidade de fixação usando um ângulo correcto.
- Para facilitar a instalação, o ângulo MW 38-45° é fornecido com parafusos de montagem.

64144 **FISCHER Apoio angular MW** **N02A**

Material Aço
Tratamento sup. Zincado

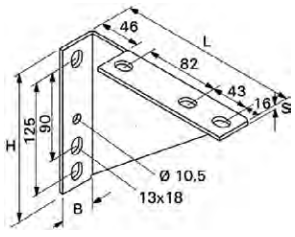


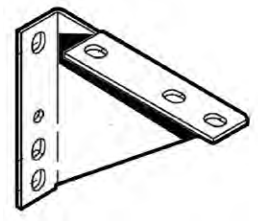
10

Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
27-45	25	64144.027.045	38-45	10	64144.038.045	38-90	20	64144.038.090
27-90	25	64144.027.090						

- Apoio angular para instalação de estruturas sujeitas a carga que não podem ser soldadas.
- Os apoios são utilizados em elementos que não podem ser soldados.
- São utilizados para reforçar fixações.
- Vantagens/beneficios:
- Não é necessário soldar.
- Os componentes do sistema podem ser utilizados de diversas formas.
- Diversas possibilidades de instalação.
- Para produção:
- Estruturas sujeitas a cargas, apoios, projecções.
- Propriedades:
- Material: Aço S235 JR (material no. 1.0037) acc. com DIN EN 10025.
- Zincado, 8 µm.

Suporte angular





Dados técnicos

Tipo	B	H	L	Perfil	S
207/165	40	165	207	38/40+41/21+41/41+40/60+40/120	4

Dados montagem

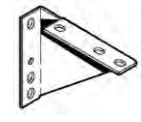
- Boas possibilidades fixação usando fixações adequadas.
- Montando duas fixações, são conseguidos valores significamente mais elevados de cargas e momentos.

64136 FISCHER Suporte angular MW **N02A**

Material Aço
Tratamento sup. Zincado

fischer innovative solutions

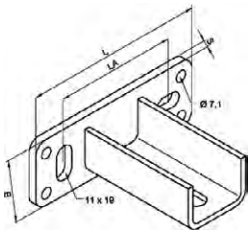
RoHS

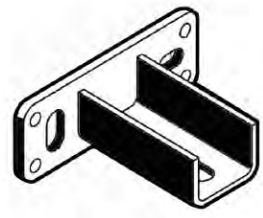


Tipo	✉	Ref. do artigo
207/165	6	64136.207.165

- Apoio angular.
- Para apoios e estruturas sujeitas a cargas.
- Vantagens/Beneficios:
- Diversas possibilidades para instalação em parede, pavimentos e tecto.
- O apoio universal permite produzir uma construção sujeita a carga com elevado nivel de estabilidade e segurança.
- Para produção:
- Estruturas para guias sujeitas a carga, projecções.
- Para instrução:
- Tubagens, componentes de tubagens.
- Propriedades:
- Material: aço DD11 (material no. 1.0332) acc. com DIN EN 10111.
- Zincado, 8 µm.

Suporte para calha





Dados técnicos

Tipo	B	L	LA	Perfil	S
SF Q 27	40	125	84	27/18+28/30+30/15	5
SF Q 38	50	136	95	38/40+41/21+41/41+40/60+40/120	6

Dados montagem

- Inserir e aparafusar o caril na flange de assentamento.
- Boas possibilidades de fixação utilizando as fixações adequadas.
- Bom ajustamento de altura usando anilhas na base.

64140 FISCHER Suporte para calha SF Q **N02A**

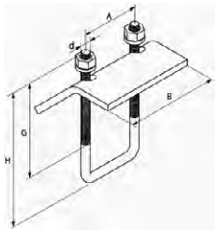
Material Aço
Tratamento sup. Zincado

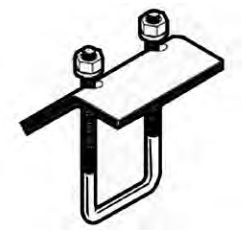


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
Q27	15	64140.270.001	Q38	10	64140.380.001

- Elemento de ligação para produção de construções robustas,
- Vantagens/benefícios:
- Elemento de ligação sólido para construções sujeitas a cargas.
- Instalação simples através da introdução de guia de montagem.
- Para produção:
- Calhas de carril.
- Travessas.
- Projecções.
- Propriedades:
- Material: Base: Aço DD11 (material no. 1.0332) acc. com DIN EN 10111.
- U-Profil: S235JR acc. com DIN EN 10025.
- Zincado, 8 µm.

Grampo de viga





Dados técnicos

Tipo	A	B	d	G	Gama de aperto	H	N	Perfil
TKR27/18	37	60	M6	60	0-29	81	2.8	27/18+28/30
TKR38/40	47	70	M8	55	0-24.5	86	5.40	38/40

- N = Carga máxima estática aconselhada (centr. tensão) [kN].

Dados montagem

- São necessários dois suportes para fixação na grelha de aço.

64154 FISCHER Grampo de viga TKR **N02A**

Material Aço
Tratamento sup. Zincado

fischer innovative solutions

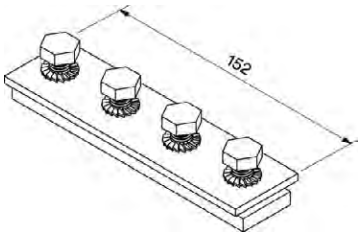
RoHS

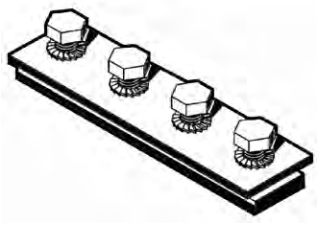


Tipo	✉	Ref. do artigo
27/18	25	64154.027.018

- Elementos para fixação em vigas de aço.
- Vantagens/beneficios:
- Não é necessário furar ou soldar.
- É possivel efectuar ajustes em qualquer altura.
- Graças aos diferentes comprimentos de gancho, o apoio deve ser fixado em todas as traves T.
- Para fixação guias a vigas de aço.

Ligação para calha





Dados técnicos

Tipo	Perfil	Tipo	Perfil
SV27	27/18+28/30	SV38	38/40

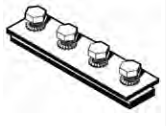
Sequência montagem



- Conectores de calha são instalados na calha e depois apertados.

64152 FISCHER Ligação para calha SV **N02A**

Material Aço
Tratamento sup. Zincado



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
27	20	64152.270.001	38	10	64152.380.001

- As fixações podem ser mais precisas quando se utilizam conetores para calha.
- Vantagens/Beneficios:
- Ligações fáceis e robustas.
- Instalação simples através do encaixe na guia.
- Utilização de parafuso que garantem uma ligação segura.
- Para produção:
- Ligações para calha.
- Propriedades:
- Material SV 27 / SV 38: Aço DC01 (material no. 1.0330) acc. com DIN EN 10130.
- Zincado, 8 µm.

Ligação paralela



Dados técnicos

Tipo	d	N
PV M8	M8	2.00

- N = Carga máxima estática aconselhada (centr. tensão) [kN].

Dados montagem

- Mantém as partes roscadas juntas, conector paralelo.
- Segurança com porca bloqueante.
- É possivel o ajustamento rodando o pin roscado.

64180 FISCHER Ligação paralela PV **N02A**

Material Zamac 3

fischer innovative solutions

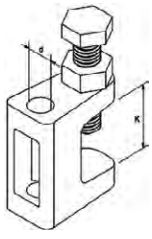
RoHS



Tipo	✉	Ref. do artigo
M8	100	64180.080.001

- Conector simples e de fácil utilização, para extensão e/ou fixação de varão.
- Vantagens/beneficios:
- Fácil instalação.
- Possibilidade de ajuste simples.
- Suporta cargas pesadas.
- Ajuste do nivel na própria instalação.
- Ajuste rápido dos varões.
- Propiedades:
- Material ferro forjado.

Grampo de suspensão





Dados técnicos

Tipo	d	K	N
TKL M8	M8	0-23	2.50
TKL ø9	ø9	0-18	1.20
TKL M10	M10	0-20	2.50
TKL ø11	ø11	0-20	2.50

- N = Carga máxima estática aconselhada (centr. tensão) [kN].

Dados de montagem

- Suporte de segurança necessário para sistemas VdS começando a partir da DN 65.

64275 FISCHER Grampo de suspensão TKL **N02A**

Material Ferro fundido
Tratamento sup. Zincado



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
TKL M8	50	64275.080.001	TKL M10	50	64275.100.001	TKL ø11	50	64275.110.001
TKL ø9	50	64275.090.001						

- O apoio para abraçadeira torna mais simples todas as operações de fixação, através do encaixe nas vigas.
- Vantagens/beneficios:
- Capacidade para cargas pesadas.
- Ajuste simples e rápido do nivel.
- È possivel ajustar depois de fazer o furo.
- Aprovado por VdS.
- Fixação sem necessidade de recorrer a soldadura ou furação.
- O apoio não desliza.
- Para fixação tubagens, sistemas de ventilação.
- Propriedades:
- Material: ferro maleável EN-GJMB-350-10 acc. com DIN 1562.
- Zincado, 8 µm.
- Parafuso: cabeça sextavada DIN 933.8.8, com ponta de acc. com EN ISO 4753 e porca.

Cinta de aço perfurada



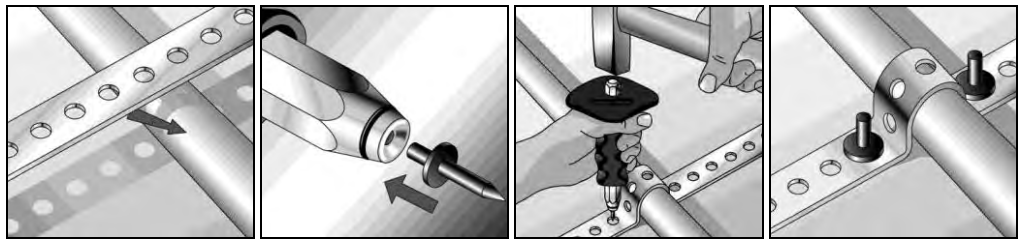


Dados técnicos

Tipo	B	d	L	S
LBV 17	17	6.5	10	0.75
LBV 26	25	8.5	10	0.88

- Para fixar com: ED 15; ED 18; ED 22.

Sequência montagem



- Corte simples da banda metálica no tamanho pretendido.
- Fixar usado o prego de impacto Fischer ED.
- Para suspensão no tecto em betão é recomendada a bucha Fischer FNA II.

64272 FISCHER Cinta de aço perfurada LBV **N02A**

Material Aço
Tratamento sup. Zincado

fischer innovative solutions

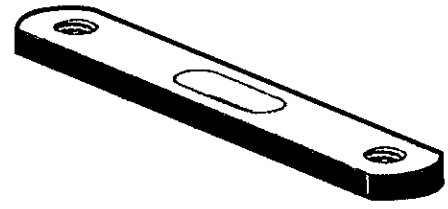
RoHS



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
17 (ROLL, 10 MTR)	1	64272.170.001	26 (ROLL, 10 MTR)	1	64272.260.001

- Banda de aço com furos para instalações simples em placa de aço zincado ou plástico.
- Vantagens/beneficios:
- Instalação simples e vantajosa.
- Instalação universal.
- Possibilidade de diversos tamanhos.
- Para fixação tubagens no chão ou suspensas no tecto.
- Propriedades:
- Material: aço DX51 D+Z (material no. 1.0226) acc. com DIN EN 10327.
- Zincado 5 - 27 µm.

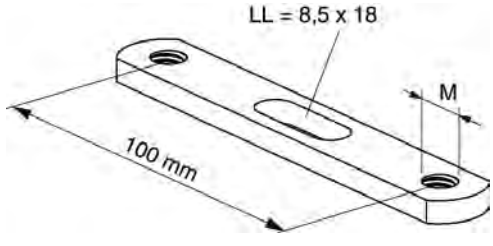
Ligação dupla

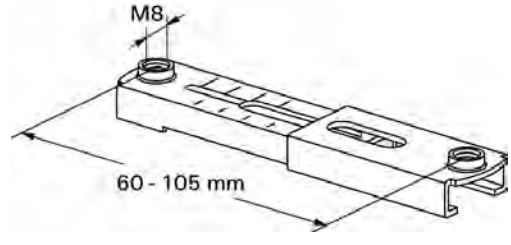


Dados técnicos

Tipo	L	M
DPP 65	65	M8
DPP 85	85	M8
DPF 60-105	105	M8

Dados montagem



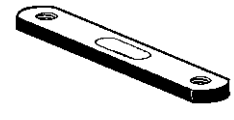


Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço	Zn	64271	10-52
Aço	Zn	64270	10-52

64271 FISCHER Ligação dupla DPP **N02A**

Material Aço
Tratamento sup. Zincado



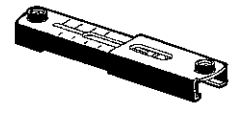
L	✉	Ref. do artigo	L	✉	Ref. do artigo
DPP 65	50	64271.000.065	DPP 85	50	64271.000.085

- Para fixação de tubagens duplas, com apenas um ponto de fixação.
- Vantagens/beneficios:
- Apenas um ponto de fixação para duas tubagens.
- Excelente para uma instação visivel.
- Possibilidade de ajuste através de renhura.
- Para fixação:
- Tubagens duplas.
- Propriedades:
- Material: Aço DD11 (material no. 1.0332) acc. com DIN EN 10111.
- Zincado, 5 - 9 µm.

10

64270 FISCHER Ligação dupla DPF **N02A**

Material Aço
Tratamento sup. Zincado

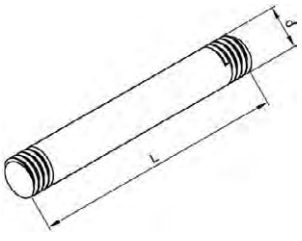


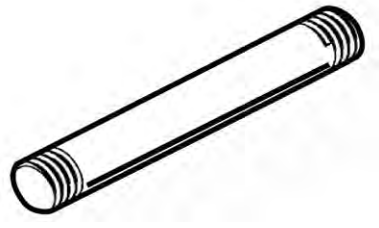
L	✉	Ref. do artigo
DPF 60-105	50	64270.060.105

64270 FISCHER Ligação dupla DPF ←

- Para fixação de tubagens duplas, com apenas um ponto de fixação.
- Vantagens/beneficios:
- Apenas um ponto de fixação para duas tubagens.
- Excelente para uma instalação visivel.
- Possibilidade de ajuste através de renhura.
- Espaçamento varável do tubo através do conector DPF.
- Para fixação:
- Tubagens duplas.
- Propriedades:
- Material: Aço DD11 (material no. 1.0332) acc. com DIN EN 10111.
- Zincado, 5 - 9 µm.

Parafuso de ligação





Dados técnicos

Tipo	d	L
SBB 35	M8	35
SBB 55	M8	55

64273 FISCHER Parafuso de ligação SBB N02A

Material Aço
Tratamento sup. Zincado

fischer innovative solutions

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
35	100	64273.080.035	55	100	64273.080.055

- Elemento de ligação ideal para placas conector duplo e multi.
- Propriedades:
- Aço S235 JR (material no. 1.0037) acc. com DIN EN 10025.
- Zincado, 8 µm.

Fabory Sistemas de fixação Fastclip

Geral
O sistema de fixação Fastclip consiste num clip de fixação, que pode ser instalado em estruturas de aço, como um simples sistema de suspensão ou em combinação com outros acessórios. A instalação pode ser manual ou com outras ferramentas como martelo, alicates combinados, ou chave de parafusos. É uma fixação que permite uma grande poupança de tempo e custos.

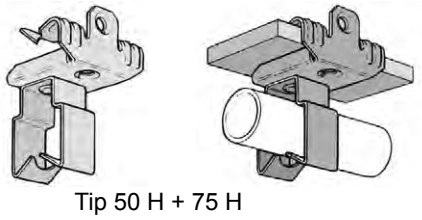
Aplicação
Os sistemas de fixação Fabory Fastclip têm infinitas Possibilidades de combinações, que podem ser utilizadas em construção civil, como por exemplo, instalações eléctricas, tectos, sanitários, ar condicionado e aquecimento.

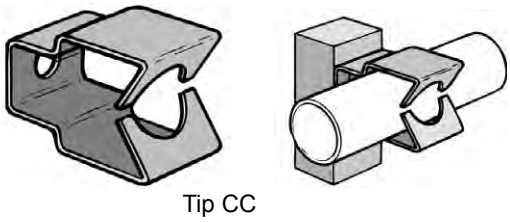
Normas
Os sistemas de fixação Fabory Fastclip são de acordo com a norma DIN 18168.

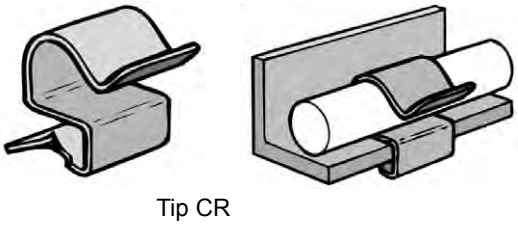
Cargas
As cargas são expressas em Newton com limite da carga estática. Os valores indicam as cargas máximas permitidas nas aplicações. Limite de carga se ultrapassado pode causar ruptura do parafuso. Os valores apresentados são para cargas verticais. Quando a capacidade de carga dos parafusos excede o do elemento estrutural, o elemento com menor capacidade de carga deve ser considerado. O sistema de fixação Fabory Fastclip é fabricado a partir de aço de mola e endurecido.

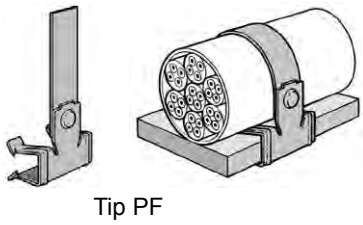
Tratamento de superfície
O tratamento de superfície, aplicado aos sistemas de fixação Fabory Fastclip, é Deltatone, com uma micragem de 10-12 µm (a resistência á corrosão em ensaio de nevoeiro salino de acordo com ASTM B117/ DIN 50021 ca. 480 horas). O Deltatone elimina a possibilidade de fractura por disfunção hidrogénica.

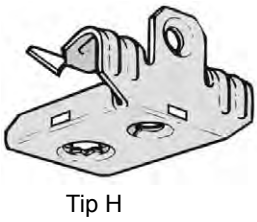
Exemplo de aplicação

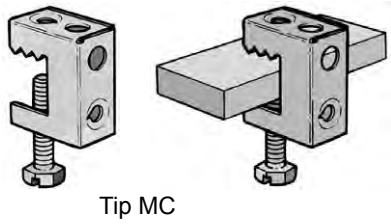

Tip 50 H + 75 H

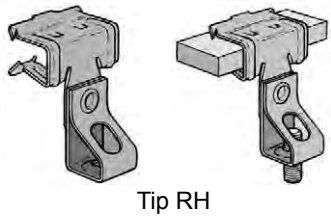

Tip CC

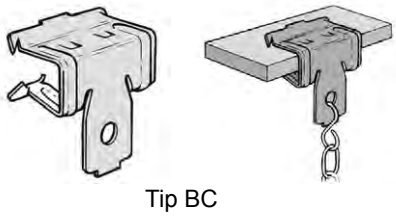

Tip CR

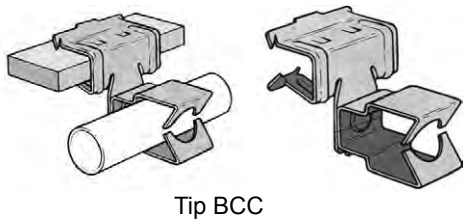

Tip PF


Tip H


Tip MC

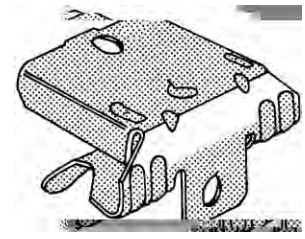

Tip RH


Tip BC


Tip BCC

10

Fixação para tubos



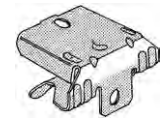
Dados técnicos

Tipo	Carga máxima estática	Espessura da flange
H2-4	450 N (3:1)	3-7
H5-8	450 N (3:1)	8-12.5

- Para informação técnica e exemplos de aplicação sobre DELTATONE, consulta a página INFO.

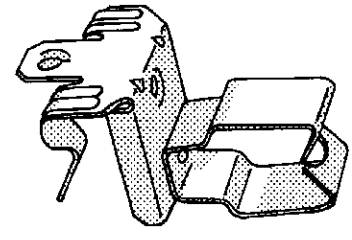
60319 FASTCLIP Fixação para tubos **S06A**

Material Aço mola
Tratamento sup. Deltatone



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
H 2-4	100	60319.002.004	H 5-8	100	60319.005.008

Fixação para tubos



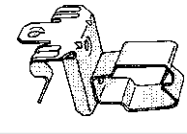
Dados técnicos

Tipo	Carga máxima estática	Espessura da flange	Tamanho tubo
50H2-4	110 N (3:1)	3-7	20
50H5-8	110 N (3:1)	8-12.5	20
75H2-4	110 N (3:1)	3-7	25
75H5-8	110 N (3:1)	8-12.5	25

- Para informação técnica e exemplos de aplicação sobre DELTATONE, consulta a página INFO.

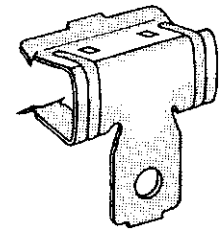
60321 FASTCLIP Fixação para tubos **S06A**

Material Aço mola
Tratamento sup. Deltatone



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
50H 2-4	50	60321.502.004	75H 2-4	100	60321.752.004	75H 5-8	50	60321.755.008
50H 5-8	50	60321.505.008						

Fixação tipo BC



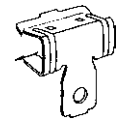
Dados técnicos

Tipo	Carga máxima estática	Espessura da flange
BC-250	900 N (3:1)	5-9
BC-500	900 N (3:1)	10-16
BC-750	900 N (3:1)	17-20

- Para informação técnica e exemplos de aplicação sobre DELTATONE, consulta a página INFO.

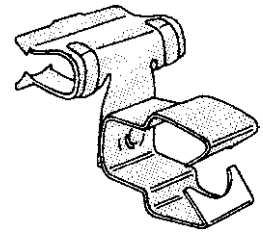
60311 FASTCLIP Fixação tipo BC **S06A**

Material Aço mola
Tratamento sup. Deltatone



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
BC-250	100	60311.000.250	BC-500	100	60311.000.500	BC-750	100	60311.000.750

Fixação tipo BCC



Dados técnicos

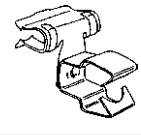
Tipo	Carga máxima estática	Espessura da flange	Tamanho tubo
BCC 25-50	110 N (3:1)	5-9	20
BC 50-50	110 N (3:1)	10-16	20
BCC 25-75	110 N (3:1)	5-9	25
BCC 50-75	110 N (3:1)	10-16	25
BCC 25-100	110 N (3:1)	5-9	32
BCC 50-100	110 N (3:1)	10-16	32

- Para informação técnica e exemplos de aplicação sobre DELTATONE, consulta a página INFO.

10

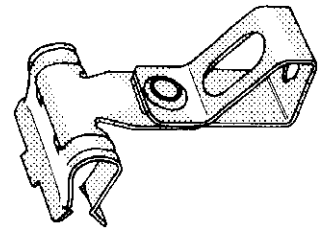
60313 FASTCLIP Fixação tipo BCC **S06A**

Material Aço mola
Tratamento sup. Deltatone



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
BCC 25-50	100	60313.025.050	BCC 25-100	50	60313.025.100	BCC 50-75	50	60313.050.075
BCC 25-75	100	60313.025.075	BCC 50-50	100	60313.050.050	BCC 50-100	50	60313.050.100

Fixação tipo RH



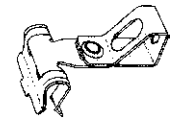
Dados técnicos

Tipo	Carga máxima estática	Espessura da flange	Perno
RH-6MT/25	680 N (3:1)	5-9	M6
RH-6MT/50	680 N (3:1)	10-16	M6
RH-6MT/75	680 N (3:1)	17-20	M6
RH-8MT/25	680 N (3:1)	5-9	M8
RH-8MT/50	680 N (3:1)	10-16	M8
RH-8MT/75	680 N (3:1)	17-20	M8
RH-10MT/25	680 N (3:1)	5-9	M10
RH-10MT/50	680 N (3:1)	10-16	M10
RH-10MT/75	680 N (3:1)	17-20	M10

- Para informação técnica e exemplos de aplicação sobre DELTATONE, consulta a página INFO.

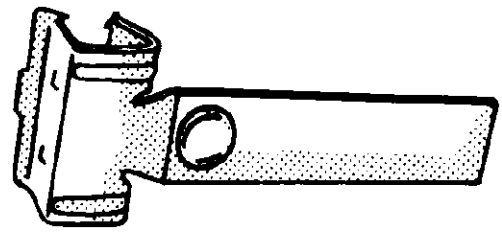
60315 FASTCLIP Fixação tipo RH **S06A**

Material Aço mola
Tratamento sup. Deltatone



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
RH-6MT/25	100	60315.060.025	RH-8MT/25	100	60315.080.025	RH-10MT/25	100	60315.100.025
RH-6MT/50	100	60315.060.050	RH-8MT/50	50	60315.080.050	RH-10MT/50	100	60315.100.050
RH-6MT/75	100	60315.060.075	RH-8MT/75	100	60315.080.075	RH-10MT/75	100	60315.100.075

Fixação tipo PF



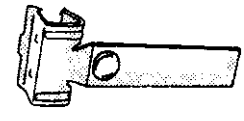
Dados técnicos

Tipo	Espessura da flange
PF-250	5-9
PF-500	10-16

- Para informação técnica e exemplos de aplicação sobre DELTATONE, consulta a página INFO.

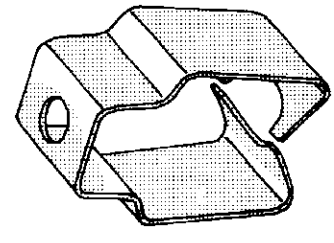
60317 FASTCLIP Fixação tipo PF **S06A**

Material Aço mola
Tratamento sup. Deltatone



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
PF-250	100	60317.000.250	PF-500	50	60317.000.500

Fixação para tubos tipo CC



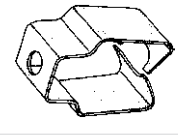
Dados técnicos

Tipo	Carga máxima estática	Parafuso ø	Tamanho tubo
CC-500	110 N (3:1)	6	20
CC-750	110 N (3:1)	6	25
CC-1000	110 N (3:1)	6	32

- Para informação técnica e exemplos de aplicação sobre DELTATONE, consulta a página INFO.

60325 FASTCLIP Fixação tipo CC **S06A**

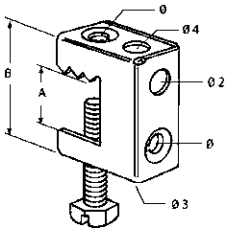
Material Aço mola
Tratamento sup. Deltatone

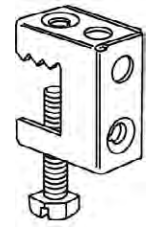


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
CC-500	100	60325.000.500	CC-750	100	60325.000.750	CC-1000	100	60325.001.000

10

Grampo de fixação tipo MC





Dados técnicos

Tipo	A	B	Carga máxima estática	ø	ø 2	ø 3	ø 4
MC	2-18	35	450 N	M6	6.5	11	6.5

- Para informação técnica e exemplos de aplicação sobre DELTATONE, consulta a página INFO.

60323 FASTCLIP Grampo fixação tipo MC **S06A**

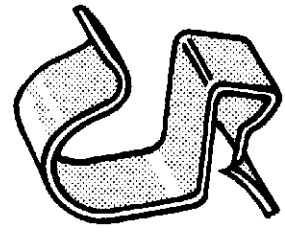
Material Aço mola
Tratamento sup. Deltatone



Tipo	✉	Ref. do artigo
MC	100	60323.001.770

- Inclui parafuso cabeça sextavada.

Clip para cabos tipo CR



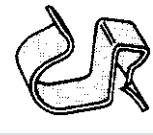
Dados técnicos

Tipo	Espessura da flange	Para cabo
CR-215	2-4	15-18
CR-219	2-4	19-24
CR-225	2-4	25-30
CR-412	4-7	12-14
CR-415	4-7	15-18
CR-419	4-7	19-24
CR-812	8-12	12-14
CR-815	8-12	15-18
CR-819	8-12	19-24
CR-825	8-12	25-30

- Para informação técnica e exemplos de aplicação sobre DELTATONE, consulta a página INFO.

60331 FASTCLIP Clip para cabos tipo CR **S06A**

Material Aço mola
Tratamento sup. Deltatone



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
CR-215	100	60331.000.215	CR-415	100	60331.000.415	CR-815	100	60331.000.815
CR-219	100	60331.000.219	CR-419	100	60331.000.419	CR-819	100	60331.000.819
CR-225	100	60331.000.225	CR-812	100	60331.000.812	CR-825	100	60331.000.825
CR-412	100	60331.000.412						

Fabory Quick System
Fechos

Aplicação
Os fechos Fabory têm um papel importante nos sistemas de fixação Fabory Quick,a gama de aplicações é vasta desde, por exemplo, o fecho de simples tampas até á segurança de equipamentos.

Montagem
O principio dos fechos do sistema de fixação Fabory Quick, é idêntico, em medidas, fecho e ajustabilidade. O fecho é fixado de um dos lados e a patilha do outro. Para fechar, o fecho é colocado sobre a patilha, e ao baixar o fecho, por tensão fica fechado.

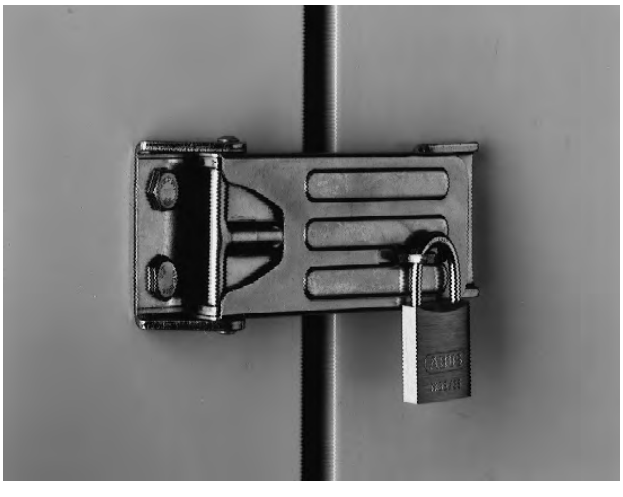
Apresentação
O espaço disponível, normalmente determina, a escolha final do fecho Fabory Quick. A apresentação dos produtos é feita por ordem de medidas, os tamanhos mais pequenos são apresentados primeiro e os maiores no fim. Existe, também, a distinção entre os modelos em aço e aço inox. Em cada apresentação de produto é fornecida toda a informação necessária, de forma clara.

Outra informação
Informação como as cargas, os tratamentos de superfície, as propriedades especificas de fecho ou a ajustabilidade, estão, também, disponíveis.

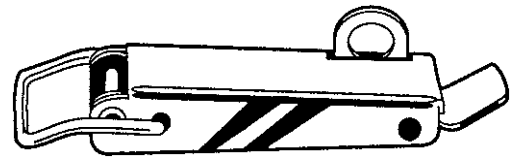
Patilha
Para cada fecho é indicada a correspondente patilha. A utilização de patilhas alternativas, é possível, a correcta montagem deverá ser determinada por experimentação.

Especiais
Dependendo da aplicação, estão disponíveis outras formas de fechos especiais, tratamentos de superfície, etc, sob consulta.

Exemplo de aplicação



Fecho



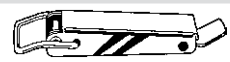
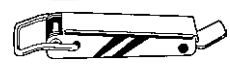
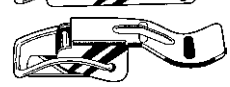
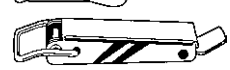
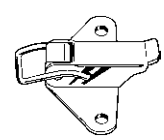
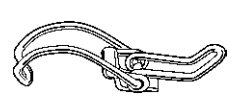
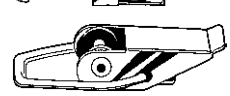
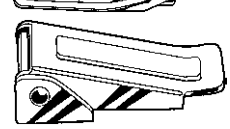
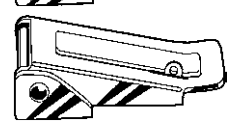
Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço	Zn	62255	10-61
INOX A2		62257	10-62

62255 QUICK SYSTEM Fecho **S04A**

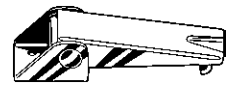
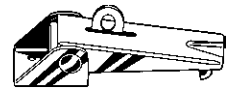
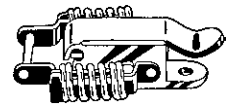
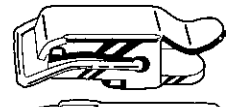
Material Aço
Tratamento sup. Zincado



Nr.	✉	Ref. do artigo		
2.00.00.04/6	5	62255.200.004	• Carga máxima admissivel 2000 N • Força minima de rutura 4000 N • Dimensões comprimento x largura x altura :131 x 43 x 19 mm	
2.00.01.04/6	5	62255.200.104	• Pode ser utilizado com cadeado. • Carga máxima admissivel 2000 N • Força minima de rutura 4000 N • Dimensões comprimento x largura x altura : 131 x 43 x 30,5 mm.	
2.01.00.04/6	10	62255.201.004	• Carga máxima admissivel 1500 N • Força minima de rutura 3000 N • Dimensões comprimento x largura x altura : 101 x 34 x 12,5 mm.	
2.02.00.04/6	10	62255.202.004	• Carga máxima admissivel 400 N • Força minima de rutura 1000 N • Dimensões comprimento x largura x altura : 52 x 21 x 10,7 mm.	
2.03.00.04/6	10	62255.203.004	• Carga máxima admissivel 550 N • Força minima de rutura 1500 N • Dimensões comprimento x largura x altura : 75 x 23 x 11 mm.	
2.03.02.04/6	10	62255.203.204	• Com fecho secundário • Carga máxima admissivel 550 N • Força minima de rutura 1500 N • Dimensões comprimento x largura x altura : 75 x 23 x 11 mm	
2.04.00.04/6	10	62255.204.004	• Carga máxima admissivel 550 N • Força minima de rutura 1500 N • Dimensões comprimento x largura x altura : 42,5 x 41 x 12 mm	
2.05.00.04/6	5	62255.205.004	• 12 mm ajustável • Carga máxima admissivel 1100 N • Força minima de rutura 2500 N • Dimensões comprimento x largura x altura :128 x 52 x 18 mm	
2.06.00.04/6	10	62255.206.004	• Carga máxima admissivel 1000 N • Força minima de rutura 2500 N • Dimensões comprimento x largura x altura : 84 x 28 x 17 mm	
2.06.01.04/6	10	62255.206.104	• Para utilizar com cadeado • Carga máxima admissivel 1000 N • Força minima de rutura 2500 N • Dimensões comprimento x largura x altura : 84 x 28 x 17 mm	
2.07.00.04	10	62255.207.004	• Fecho que encaixa no elemento a fixar directamente • Por soldadura ou soldadura por pontos • Carga máxima admissivel 300 N • Min. Força de rutura 600 N • Dimensões comprimento x largura x altura : 81 x 29 x 18 mm	
2.08.00.04	10	62255.208.004	• Fecho que encaixa no elemento a fixar directamente • Carga máxima admissivel 500N • Min. Força de rutura 900 N • Dimensões comprimento x largura x altura : 90 x 20 x 17 mm	
2.17.00.04/6	10	62255.217.004	• Carga máxima admissivel 400 N. • Força minima de rutura 1000 N • Dimensões comprimento x largura x altura : 51 x 22 x 12,5 mm	
2.18.00.04/6	5	62255.218.004	• 12 mm ajustável • Carga máxima admissivel 1500 N. • Força minima de rutura 3000 N • Dimensões comprimento x largura x altura : 88 x 52 x 26 mm	
2.18.01.04/6	5	62255.218.104	• 12 mm ajustável • Para utilizar com cadeado • Carga máxima admissivel 1500 N • Força minima de rutura 3000 N • Dimensões comprimento x largura x altura: 88 x 52 x 25 mm	

10

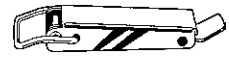
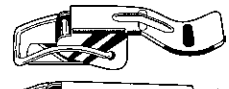
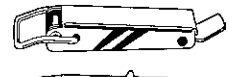
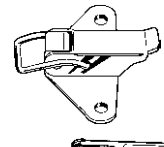
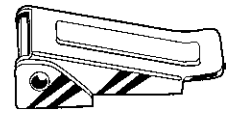
62255 QUICK SYSTEM Fecho ←

Nr.	✉	Ref. do artigo		
2.19.00.04	5	62255.219.004	• Fecho que encaixa no elemento a fixar directamente • Carga máxima admissivel 750 N • Min. Força de rutura 1500 N • Dimensões comprimento x largura x altura : 128,5 x 28,5 x 27 mm	
2.40.00.04/6	5	62255.240.086	• 15 mm ajustável • Carga máxima admissivel 2000 N. • Força minima de rutura 4000 N • Dimensões comprimento x largura x altura :131,5 x 45,5 x 23 mm	
2.41.00.04/6	10	62255.241.086	• 10 mm ajustável • Carga máxima admissivel 1000 N. • Força minima de rutura 2000 N • Dimensões comprimento x largura x altura :70 x 25,5 x 18 mm	
2.41.01.04/6	10	62255.241.186	• 10 mm ajustável • Para utilizar com cadeado • Carga máxima admissivel 1000 N. • Força minima de rutura 2000 N. • Dimensões comprimento x largura x altura : 70 x 25,5 x 18,5 mm	
2.42.00.04/6	10	62255.242.086	• Com molas de tensão. • Carga máxima admissivel 500 N. • Força minima de rutura N. • Dimensões comprimento x largura x altura : 54 x 37 x 12,5 mm.	
2.43.00.04/6	10	62255.243.086	• Carga máxima admissivel 550 N • Força minima de rutura 1500 N • Dimensões comprimento x largura x altura : 45 x 23 x 12	
2.45.00.04/6	10	62255.245.086	• Carga máxima admissivel 150 N • Força minima de rutura 300 N • Dimensões comprimento x largura x altura : 32 x 16 x 6 mm	

62257 QUICK SYSTEM Fecho S04A

Material Aço inoxidável A2



Nr.	✉	Ref. do artigo		
2.00.00.30/6	5	62257.200.030	• Carga máxima admissivel 2000 N • Força minima de rutura 4000 N • Dimensões comprimento x largura x altura : 131 x 43 x 19 mm	
2.00.02.30/6	5	62257.200.230	• Com fecho secundário • Carga máxima admissivel 2000 N • Força minima de rutura 4000 N • Dimensões comprimento x largura x altura : 131 x 43 x 19 mm	
2.01.00.30/6	10	62257.201.030	• Carga máxima admissivel 1500 N • Força minima de rutura 3000 N • Dimensões Comprimento x largura x altura : 101 x 34 x 12,5 mm	
2.02.00.30/6	10	62257.202.030	• Carga máxima admissivel 400 N • Força minima de rutura 1000 N • Dimensões comprimento x largura x altura: 52 x 21 x 10,7 mm	
2.03.00.30/6	10	62257.203.030	• Carga máxima admissivel 550 N • Força minima de rutura 1500 N • Dimensões comprimento x largura x altura: 75 x 23 x 11 mm	
2.03.02.30/6	10	62257.203.230	• Com fecho secundário • Carga máxima admissivel 550 N • Carga de rutura minima 1500 N • Dimensões comprimento x largura x altura 75 x 23 x 11 mm	
2.04.00.30/6	10	62257.204.030	• Carga máxima admissivel 550 N • Carga de rutura minima 1500 N • Dimensões comprimento x largura x altura : 42,5 x 41 x 12 mm	
2.05.00.30/6	5	62257.205.030	• 12 mm ajustável • Carga máxima admissivel 1100 N • Carga de rutura minima 2500 N • Dimensões comprimento x largura x altura : 128 x 52 x 18 mm	
2.05.02.30/6	10	62257.205.230	• 12 mm ajustável Com bloqueio • Carga máxima admissivel 1100 N • Carga rutura minima 2500 N • Dimensões comprimento x largura x altura : 128 x 52 x 18 mm	
2.06.00.30/6	10	62257.206.030	• Carga máxima admissivel 1000 N • Carga de rutura minima 2500 N • Dimensões comprimento x largura x altura : 84 x 28 x 17 mm	
2.06.01.30/6	10	62257.206.130	• Para utilizar com cadeado • Carga máxima admissivel 1000 N • Resistência á rutura minima 2500 N • Dimensões comprimento x largura x altura: 84 x 28 x 17 mm	
2.18.00.30/6	5	62257.218.030	• 12 mm ajustável • Carga máxima admissivel 1500 N • Resistência á rutura minima 3000 N • Dimensões comprimento x largura x altura : 88 x 52 x 25 mm	

10

62257	QUICK SYSTEM Fecho			←

Nr.	✉	Ref. do artigo			
2.41.00.30/6	10	62257.241.030	•	10 mm ajustável Carga máxima admissivel 1000 N Resistência á rutura minima 2000 N Dimensões comprimento x largura x altura: 70 x 25,5 x 18 mm	
2.43.00.30/6	10	62257.243.030	•	Carga máxima permitida 550 N (120 lb). Força minima de rutura 1500 N (340 lb). Dimensões comprimento x largura x altura: 45 x 23 x 12 mm.	

Patilha para fechadura



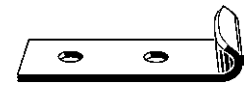
Grupos de produtos

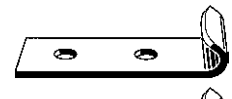
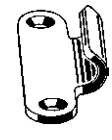
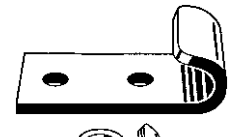
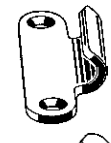
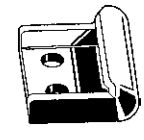
Material	Tratamento sup.	Código	Página
Aço	Zn	62265	10-63
INOX		62267	10-64

62265	QUICK SYSTEM Patilha fixação	S04A

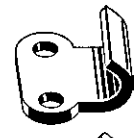
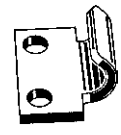
Material Aço
Tratamento sup. Zincado

RoHS

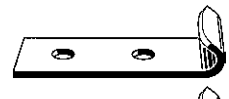
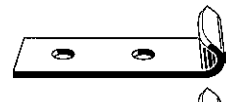
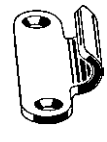
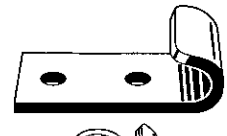
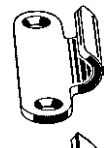
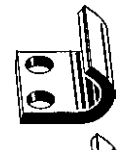
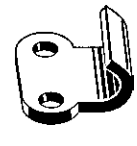


Nr.	✉	Ref. do artigo			
2.00.00.04/5	5	62265.200.004	•	Indicado para fechos tipo 2.00.00.04/6 e 2.00.01.04/6	
2.01.00.04/5	5	62265.201.004	•	Indicado para fechos tipo 2.01.00.04/6	
2.02.00.04/5	10	62265.202.004	•	Indicado para fechos tipo 2.02.00.04/6	
2.03.00.04/5	10	62265.203.004	•	Indicado para fechos tipo 2.03.00.04/6 e 2.03.02.04/6	
2.04.00.04/5	10	62265.204.004	•	Indicado para fechos tipo 2.04.00.04/6	
2.05.00.04/5	5	62265.205.004	•	Indicado para fechos tipo 2.02.00.04/6, 2.06.00.04/6 e 2.06.01.04/6	
2.18.00.04/5	5	62265.218.004	•	Indicado para fechos tipo 2.18.00.04/6 e 2.18.01.04/6	
2.40.00.08/5	5	62265.240.008	•	Indicado para fechos tipo 2.40.00.08/6 e 2.40.01.08/6	

10

62265	QUICK SYSTEM Patilha fixação				←
Nr.	✉	**Ref. do artigo**			
2.41.00.08/5	10	62265.241.008	•	Indicado para fechos tipo 2.41.00.08/6 e 2.41.01.08/6	
2.42.00.08/5	10	62265.242.008	•	Indicado para fechos tipo 2.42.00.08/6 e 2.43.00.08/6	
2.44.00.08/5	10	62265.244.008	•	Indicado para fechos tipo 2.45.00.08/6	

62267	QUICK SYSTEM Patilha fixação				S04A
Material	Aço inoxidável				

Nr.	✉	**Ref. do artigo**			
2.00.00.30/5	5	62267.200.030	•	Indicado para fechos tipo 2.00.00.30/6 e 2.00.02.30/6	
2.01.00.30/5	5	62267.201.030	•	Indicado para fechos tipo 2.01.00.30/6	
2.02.00.30/5	10	62267.202.030	•	Indicado para fechos tipo 2.02.00.30/6	
2.03.00.30/5	10	62267.203.030	•	Indicado para fechos tipo 2.03.00.30/6 e 2.03.02.30/6	
2.04.00.30/5	10	62267.204.030	•	Indicado para fechos tipo 2.04.00.30/6	
2.05.00.30/5	5	62267.205.030	•	Indicado para fechos tipo 2.05.00.30/6, 2.05.02.30/6, 2.06.00.30/6 e 2.06.01.30/6	
2.18.00.30/5	5	62267.218.030	•	Indicado para fechos tipo 2.18.00.30/6	
2.41.00.30/5	10	62267.241.030	•	Indicado para fechos tipo 2.41.00.30/6	
2.42.00.30/5	10	62267.242.030	•	Indicado para fechos tipo 2.43.00.30/6	

10

Fabory Quick System
Fechaduras

Aplicação
As fechaduras Fabory Quick são principalmente usadas para o fecho de caixas de instalação, portas, máquinas, etc.

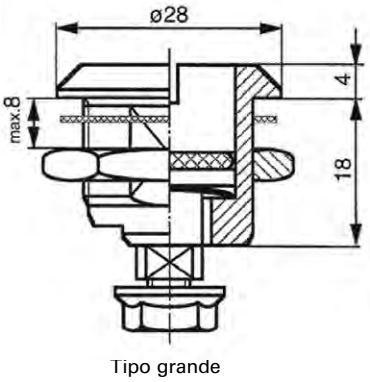
Montagem
As fechaduras são montadas numa porta em um painel. Na operação de fecho do sistema, a patilha montada na fechadura encaixa e prende na parte da porta e isto garante um fecho seguro.

Função
As fechaduras Fabory Quick são idênticas na sua função; medidas; método operativo, produção. No tipo de material existe uma vasta variedade (poliamida preto, partes interiores em zincado, zincado e aço inox). Nos modelos standard, o O-ring e a anilha de vedação são fornecidas, o que torna os fechos vedantes de acordo com IP65.

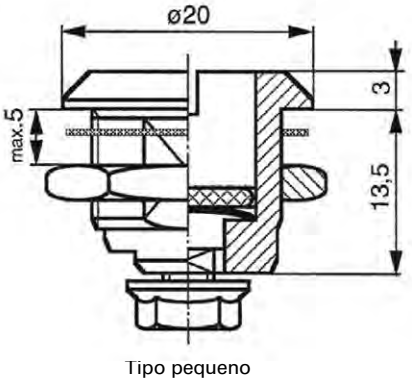
Tipos
As fechaduras Fabory Quick estão disponíveis em medidas pequenas e grandes.



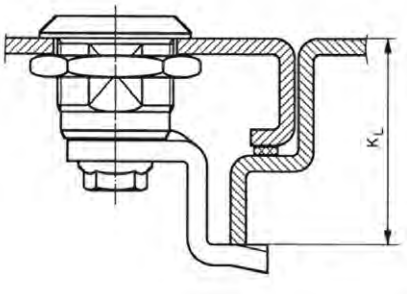
Informação técnica e de montagem



Tipo grande

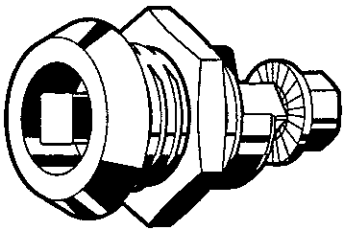


Tipo pequeno



Gama aperto KL

Fechadura

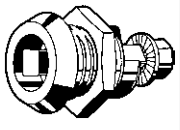


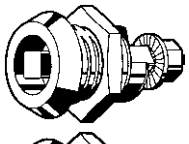
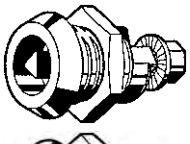
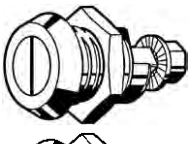
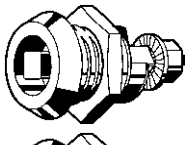
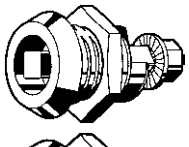
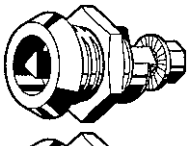
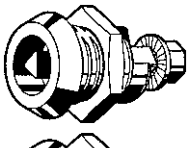
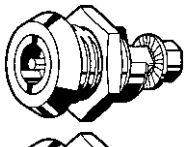
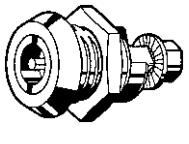
Grupos de produtos

Material	Tratamento sup.	Código	Página
	Crom.	62411	10-66
INOX		62413	10-67

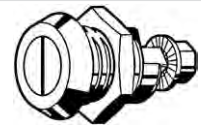
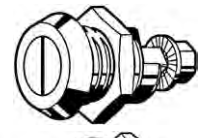
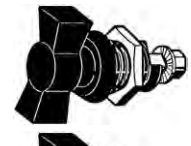
62411 QUICK SYSTEM Fechadura **S04A**

Tratamento sup. Cromado



Nr.	✉	Ref. do artigo			
221178A	10	62411.221.178	•	Fechadura com quadrado 6 mm • Zincado • Chave tipo 291109, ver grupo de artigos 62415	
221179A	10	62411.221.179	•	Fechadura em triângulo 6,5 mm • Zincado • Chave tipo 291112, ver grupo de artigos 62415	
221180A	10	62411.221.180	•	Fechadura com cabeça com fenda • Zincado	
221308A	10	62411.221.308	•	Fechadura com quadrado 7 mm • Zincado • Chave tipo 291102, ver gruo de artigo 62415	
221308B	10	62411.221.309	•	Fechadura com quadrado 7 mm • Poliamida preto com partes interiores em zincado • Chave tipo 291102, ver gruo de artigo 62415	
221313A	10	62411.221.313	•	Fechadura com triângulo 8 mm • Zincado • Chave tipo 291105, ver grupo artigo 62415	
221313B	10	62411.221.314	•	Fechadura com triângulo 8 mm • Poliamida preto com partes interiores em zincado • Chave tipo 291105, ver grupo artigo 62415	
221316A	10	62411.221.316	•	Fechadura com ponteira dupla 3 mm • Zincado • Chave tipo 291107, grupo de artigo 62415	
221316B	10	62411.221.317	•	Fechadura com ponteira dupla 3 mm • Poliamida preto com partes interiores em zincado • Chave tipo 291107, ver grupo de artigos 62415	

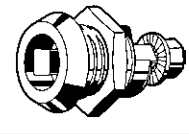
62411 QUICK SYSTEM Fechadura

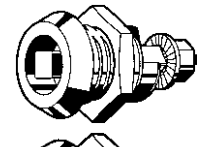
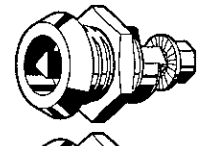
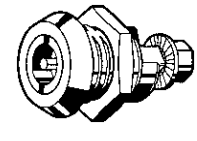
Nr.	✉	Ref. do artigo		
221320A	10	62411.221.320	• Fechadura com cabeça com fenda • Zincado	
221320B	10	62411.221.321	• Fechadura com cabeça com fenda • Poliamida preto, com partes no interior zincadas	
241334	1	62411.241.334	• Fechadura com fecho cilindrico • Chave individual • Fornecido com 2 chaves • Zincado	
241336	1	62411.241.336	• Fechadura com fecho cilindrico • Chave individual • Fornecido com 2 chaves • Zincado	
251350	1	62411.251.350	• Fechadura em T • Zincado	
251352	1	62411.251.352	• Fechadura em T com fecho cilindrico • Chave individual • Fornecido com 2 chaves • Zincado	
251354	1	62411.251.354	• Fechadura em T com fecho cilindrico • Chave individual • Fornecido com 2 chaves • Zincado	
295074A	10	62411.295.074	• Fechadura com manipulo de asas • Zincado	
295074B	10	62411.295.075	• Fechadura com manipulo de asas • Poliamida preto com peças em zincado	

62413 QUICK SYSTEM Fechadura S04A

Material Aço inoxidável

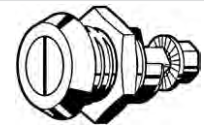
RoHS



Nr.	✉	Ref. do artigo		
223003A	1	62413.213.003	• Chave, ver tipo 291102, grupo de artigo 62415.	
223013A	1	62413.213.005	• Chave, ver tipo 291105, grupo de artigo 62415.	
223016A	1	62413.213.006	• Chave, ver tipo 291107, grupo de artigo 62415.	

62413	QUICK SYSTEM Fechadura	←

Nr.	✉	Ref. do artigo		
223020A	1	62413.213.008	•	Fenda.



Patilha



Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço	Zn	62412	10-68
INOX		62414	10-70

62412	QUICK SYSTEM Patilha	S04A

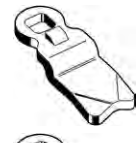
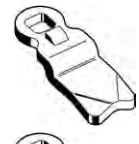
Material Aço
Tratamento sup. Zincado

RoHS



Nr.	✉	Ref. do artigo		
232101	10	62412.232.101	•	Patilha com 1 ponto de fixação. • Indicado para fechaduras tipo largo. • Gama de aperto 4mm.
232102	10	62412.232.102	•	Patilha com 1 ponto de fixação. • Indicado para fechaduras tipo largo. • Gama de aperto 6mm.
232103	10	62412.232.103	•	Patilha com 1 ponto de fixação. • Indicado para fechaduras tipo largo. • Gama de aperto 8mm.
232104	10	62412.232.104	•	Patilha com 1 ponto de fixação. • Indicado para fechaduras tipo largo. • Gama de aperto 10mm.
232105	10	62412.232.105	•	Patilha com 1 ponto de fixação. • Indicado para fechaduras tipo largo. • Gama de aperto 12mm.
232106	10	62412.232.106	•	Patilha com 1 ponto de fixação. • Indicado para fechaduras tipo largo. • Gama de aperto 13mm.
232107	10	62412.232.107	•	Patilha com 1 ponto de fixação. • Indicado para fechaduras tipo largo. • Gama de aperto 14mm.



62412	QUICK SYSTEM Patilha			
Nr.	✉	**Ref. do artigo**		
232108	10	62412.232.108	• Patilha com 1 ponto de fixação. • Indicado para fechaduras tipo largo. • Gama de aperto 16mm.	
232109	10	62412.232.109	• Patilha com 1 ponto de fixação. • Indicado para fechaduras tipo largo. • Gama de aperto 18mm.	
232110	10	62412.232.110	• Patilha com 1 ponto de fixação. • Indicado para fechaduras tipo largo. • Gama de aperto 20mm.	
232111	10	62412.232.111	• Patilha com 1 ponto de fixação. • Indicado para fechaduras tipo largo. • Gama de aperto 22mm.	
232112	10	62412.232.112	• Patilha com 1 ponto de fixação. • Indicado para fechaduras tipo largo. • Gama de aperto 24mm.	
232113	10	62412.232.113	• Patilha com 1 ponto de fixação. • Indicado para fechaduras tipo largo. • Gama de aperto 25mm.	
232114	10	62412.232.114	• Patilha com 1 ponto de fixação. • Indicado para fechaduras tipo largo. • Gama de aperto 26mm.	
232115	10	62412.232.115	• Patilha com 1 ponto de fixação. • Indicado para fechaduras tipo largo. • Gama de aperto 28mm.	
232136	10	62412.232.136	• Patilha com 3 pontos de fixação. • Indicado para fechaduras tipo largo. • Gama de aperto 18 mm. • Aplicável com barras de fixação. • 2 Anilhas de retenção (para fixar com as barras) são fornecidas separadamente.	
232137	10	62412.232.137	• Patilha com 3 pontos de fixação. • Indicado para fechaduras tipo largo. • Gama de aperto 20 mm. • Aplicável com barras de fixação. • 2 Anilhas de retenção (para fixar com as barras) são fornecidas separadamente.	
232138	10	62412.232.138	• Patilha com 3 pontos de fixação. • Indicado para fechaduras tipo largo. • Gama de aperto 22 mm. • Aplicável com barras de fixação. • 2 Anilhas de retenção (para fixar com as barras) são fornecidas separadamente.	
232139	10	62412.232.139	• Patilha com 3 pontos de fixação. • Indicado para fechaduras tipo largo. • Gama de aperto 24 mm. • Aplicável com barras de fixação. • 2 Anilhas de retenção (para fixar com as barras) são fornecidas separadamente.	
232141	10	62412.232.141	• Patilha com 3 pontos de fixação. • Indicado para fechaduras tipo largo. • Gama de aperto 26 mm. • Aplicável com barras de fixação. • 2 Anilhas de retenção (para fixar com as barras) são fornecidas separadamente.	
232142	10	62412.232.142	• Patilha com 3 pontos de fixação. • Indicado para fechaduras tipo largo. • Gama de aperto 28 mm. • Aplicável com barras de fixação. • 2 Anilhas de retenção (para fixar com as barras) são fornecidas separadamente.	

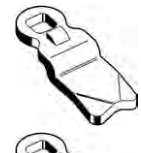
62412 QUICK SYSTEM Patilha

Nr.	✉	Ref. do artigo		
232155	10	62412.232.155	• Patilha com 1 ponto de fixação. • Indicado para fechaduras tipo pequeno. • Gama de aperto 7,5mm.	
232160	10	62412.232.160	• Patilha com 1 ponto de fixação. • Indicado para fechaduras tipo pequeno. • Gama de aperto 13,5mm.	
232164	10	62412.232.164	• Patilha com 1 ponto de fixação. • Indicado para fechaduras tipo pequeno. • Gama de aperto 19,5mm.	

62414 QUICK SYSTEM Patilha S04A

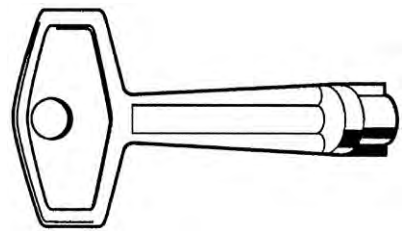
Material Aço inoxidável



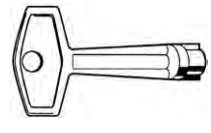
Nr.	✉	Ref. do artigo		
233004	1	62414.233.004	• Patilha com 1 ponto de fixação. • Indicado para fechaduras, tipo largo. • Gama de aperto 10mm.	
233005	1	62414.233.005	• Patilha com 1 ponto de fixação. • Indicado para fechaduras, tipo largo. • Gama de aperto 12mm.	
233006	1	62414.233.006	• Patilha com 1 ponto de fixação. • Indicado para fechaduras, tipo largo. • Gama de aperto 13mm.	
233007	1	62414.233.007	• Patilha com 1 ponto de fixação. • Indicado para fechaduras, tipo largo. • Gama de aperto 14mm.	
233008	1	62414.233.008	• Patilha com 1 ponto de fixação. • Indicado para fechaduras, tipo largo. • Gama de aperto 16mm.	
233009	1	62414.233.009	• Patilha com 1 ponto de fixação. • Indicado para fechaduras, tipo largo. • Gama de aperto 18mm.	
233010	1	62414.233.010	• Patilha com 1 ponto de fixação. • Indicado para fechaduras, tipo largo. • Gama de aperto 20mm.	
233011	1	62414.233.011	• Patilha com 1 ponto de fixação. • Indicado para fechaduras, tipo largo. • Gama de aperto 22mm.	
233012	1	62414.233.012	• Patilha com 1 ponto de fixação. • Indicado para fechaduras, tipo largo. • Gama de aperto 24mm.	

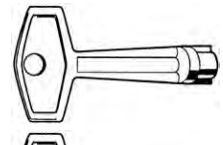
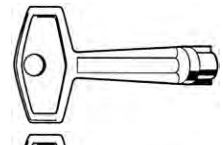
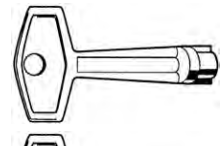
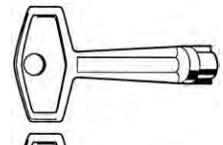
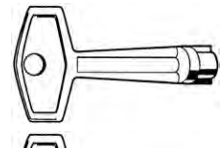
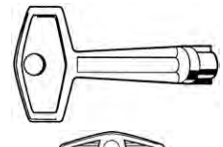
62414	QUICK SYSTEM Patilha			
Nr.	✉	**Ref. do artigo**		
233013	1	62414.233.013	• Patilha com 1 ponto de fixação. • Indicado para fechaduras, tipo largo. • Gama de aperto 26mm.	
233014	1	62414.233.014	• Patilha com 1 ponto de fixação. • Indicado para fechaduras, tipo largo. • Gama de aperto 26mm.	
233015	1	62414.233.015	• Patilha com 1 ponto de fixação. • Indicado para fechaduras, tipo largo. • Gama de aperto 28mm.	

Chave



62415	QUICK SYSTEM Chave de fecho			S04A



Nr.	✉	**Ref. do artigo**		
291102	1	62415.291.102	• Indicado para fechaduras, tipo largo • Zinc • Quadrado 7 mm	
291103	1	62415.291.103	• Indicado para fechaduras, tipo largo • Zinc • Quadrado 8 mm	
291104	1	62415.291.104	• Indicado para fechaduras, tipo largo • Zinc • Triângulo 7 mm	
291105	1	62415.291.105	• Indicado para fechaduras, tipo largo • Zinc • Triângulo 8 mm	
291107	1	62415.291.107	• Indicado para fechaduras, tipo largo • Zinc • Ponteira dupla 3 mm	
291108	1	62415.291.108	• Indicado para fechaduras, tipo largo • Zinc • Ponteira dupla 5 mm	
291109	1	62415.291.109	• Indicado para fechaduras, tipo pequeno • Zinc • Quadrado 6 mm	

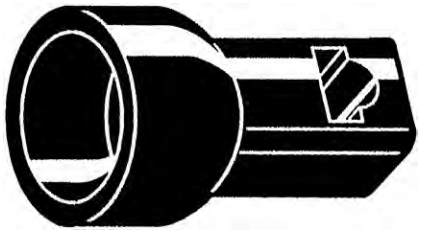
62415	QUICK SYSTEM Chave de fecho			←
Nr.	✉	**Ref. do artigo**		
291112	1	62415.291.112	• Indicado para fechaduras, tipo pequeno • Zinc • Triângulo 6,5 mm	

Acessórios para fechadura

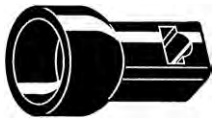


62416	QUICK SYSTEM Acessório			S04A
Nr.	✉	**Ref. do artigo**		
282103	4	62416.282.103	• Barra de fixação • Comprimento 600 mm	
282107	4	62416.282.107	• Barra de fixação • Comprimento 1000 mm	
282113	4	62416.282.113	• Barra de fixação • Adaptador deve ser encomendado separadamente • Comprimento 600 mm	
282116	4	62416.282.116	• Barra de fixação • Adaptador deve ser encomendado separadamente • Comprimento 1000 mm	
282119	4	62416.282.119	• Adaptor • Zinc • Indicado para barras de fixação	

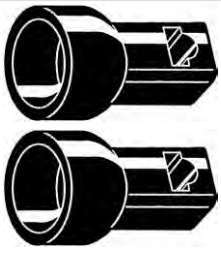
Barra ligação



62417	QUICK SYSTEM Acessório guia	S04A
Material	Plástico Poliamida (nylon)	



Nr.	✉	Ref. do artigo		
200-3601	4	62417.203.601	• Tipo 258 024 • Reversão 20 mm	
200-3602	4	62417.203.602	• Tipo 258 023 • Reversão26 mm	



10

Fabory Quick System
Parafusos quarto de volta

Geral
O sistema de fixação de parafusos quarto volta Fabory Quick System É um sistema simples, fácil e rápido de ligação de painéis ou componentes.

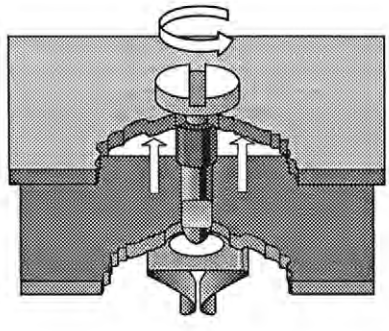
Aplicação
É um sistema de fácil utilização, que pode ser removido ou substituído sempre que for necessário. Mesmo uma vez por mês ou várias vezes por hora.

Principio
O parafuso quarto de volta consiste na montagem de um perno com um receptáculo.

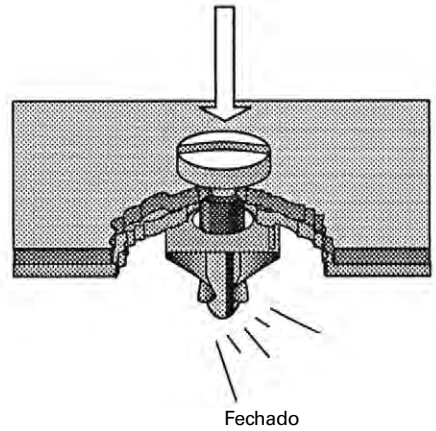
Montagem
O funcionamento deste sistema é a fixação por pressão. Ver sequência de montagem abaixo.

Montagem





Aberto

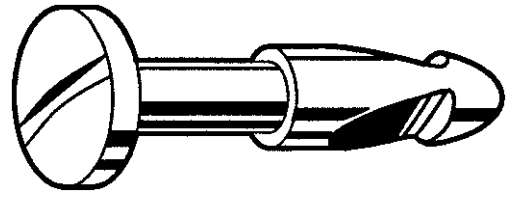


Fechado

10

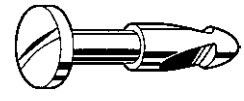
Encontre os seus produtos (ferramentas, quimicos, segurança) em www.fabory.com

Perno cabeça com fenda



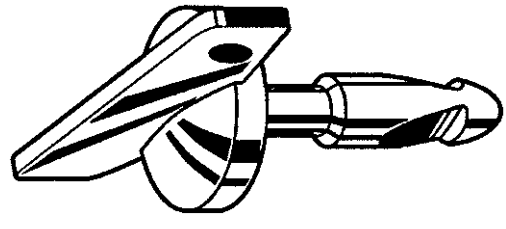
62272 **QUICK SYSTEM Perno de fecho tipo D** **S04A**

Material Latão
Tratamento sup. Niquelado



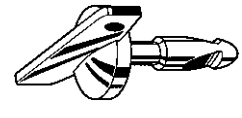
Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo
D 0802	25	62272.000.802	D 1107	25	62272.001.107	D 1122	25	62272.001.122
D 0803	25	62272.000.803	D 1108	25	62272.001.108	D 1604	25	62272.001.604
D 0804	25	62272.000.804	D 1109	25	62272.001.109	D 1606	25	62272.001.606
D 0805	25	62272.000.805	D 1110	25	62272.001.110	D 1608	25	62272.001.608
D 0806	25	62272.000.806	D 1111	25	62272.001.111	D 1610	25	62272.001.610
D 0807	25	62272.000.807	D 1112	25	62272.001.112	D 1612	25	62272.001.612
D 0808	25	62272.000.808	D 1114	25	62272.001.114	D 1614	25	62272.001.614
D 1103	25	62272.001.103	D 1116	25	62272.001.116	D 1616	25	62272.001.616
D 1104	25	62272.001.104	D 1118	25	62272.001.118	D 1618	25	62272.001.618
D 1105	25	62272.001.105	D 1120	25	62272.001.120	D 1620	25	62272.001.620
D 1106	25	62272.001.106						

Perno cabeça de asas



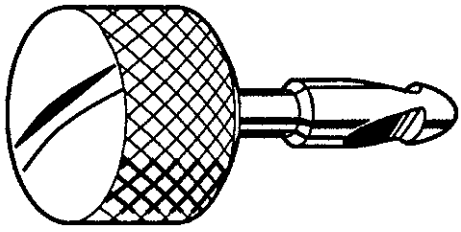
62273 **QUICK SYSTEM Perno de fecho com asa tipo W** **S04A**

Material Latão
Tratamento sup. Niquelado



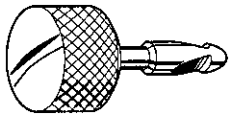
Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo
W 0802	25	62273.000.802	W 1107	25	62273.001.107	W 1122	25	62273.001.122
W 0803	25	62273.000.803	W 1108	25	62273.001.108	W 1604	25	62273.001.604
W 0804	25	62273.000.804	W 1109	25	62273.001.109	W 1606	25	62273.001.606
W 0805	25	62273.000.805	W 1110	25	62273.001.110	W 1608	25	62273.001.608
W 0806	25	62273.000.806	W 1111	25	62273.001.111	W 1610	25	62273.001.610
W 0807	25	62273.000.807	W 1112	25	62273.001.112	W 1612	25	62273.001.612
W 0808	25	62273.000.808	W 1114	25	62273.001.114	W 1614	25	62273.001.614
W 1103	25	62273.001.103	W 1116	25	62273.001.116	W 1616	25	62273.001.616
W 1104	25	62273.001.104	W 1118	25	62273.001.118	W 1618	25	62273.001.618
W 1105	25	62273.001.105	W 1120	25	62273.001.120	W 1620	25	62273.001.620
W 1106	25	62273.001.106						

Perno com manipulo serrilhado



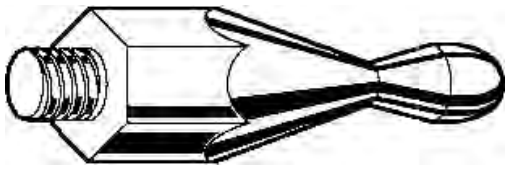
62274 **QUICK SYSTEM Perno com manipulo serrilhado tipo K** **S04A**

Material Latão
Tratamento sup. Niquelado



Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo
K 0803	25	62274.000.803	K 1107	25	62274.001.107	K 1606	25	62274.001.606
K 0804	25	62274.000.804	K 1108	25	62274.001.108	K 1608	25	62274.001.608
K 0805	25	62274.000.805	K 1110	25	62274.001.110	K 1610	25	62274.001.610
K 0806	25	62274.000.806	K 1112	25	62274.001.112	K 1612	25	62274.001.612
K 0808	25	62274.000.808	K 1114	25	62274.001.114	K 1614	25	62274.001.614
K 1103	25	62274.001.103	K 1116	25	62274.001.116	K 1616	25	62274.001.616
K 1104	25	62274.001.104	K 1118	25	62274.001.118	K 1618	25	62274.001.618
K 1105	25	62274.001.105	K 1120	25	62274.001.120	K 1620	25	62274.001.620
K 1106	25	62274.001.106	K 1122	25	62274.001.122			

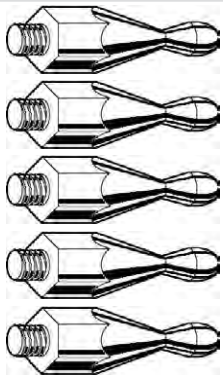
Perno de bola



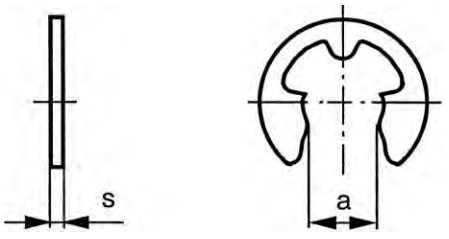
62276 **QUICK SYSTEM Perno de bola tipo KB** **S04A**



Tipo	✉	Ref. do artigo		
KB 08 M4 S=7	25	62276.408.010	•	Latão niquelado.
KB 08 M5 S=11	25	62276.508.020	•	Latão niquelado.
KB 08 M5 S=111	25	62276.508.040	•	Latão niquelado.
KB 1615 M6X7 S=8	25	62276.616.150	•	Aço zincado, passivado amarelo.
KB 1615 M6X15 S=8	25	62276.616.151	•	Aço zincado, passivado amarelo.



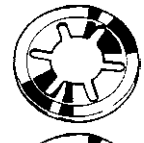
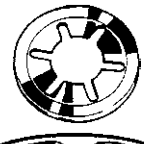
Anilha retenção



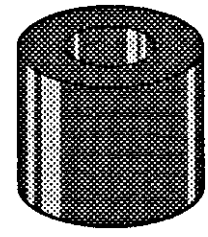


62282	QUICK SYSTEM Anilha de retenção	S04A
Material	Aço mola	



Diâm. nom.	✉	Ref. do artigo			
2,3MM	25	62282.023.001	•	Anilha de retenção (perno fixador) Aço mola, fosfatado	
4MM	25	62282.040.001	•	Anilha de retenção (perno fixador) Aço mola, fosfatado	
4MM	25	62282.040.002	•	Anilha de retenção (retenção quick) Aço mola, acabamento em bronze e envernizado	
6MM	25	62282.060.002	•	Anilha de retenção (retenção quick) Aço mola, acabamento em bronze e envernizado	
8 MM	25	62282.080.001	•	Anilha de retenção (perno fixador) Aço mola, fosfatado	
10MM	25	62282.100.002	•	Anilha de retenção (retenção quick) Aço mola, acabamento em bronze e envernizado	

Anel

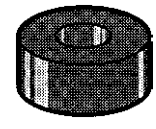


Grupos de produtos

Material		Código	Página
Neoprene	R	62283	10-78
Neoprene	RC	62284	10-78

62283 QUICK SYSTEM Anel de retenção tipo R — S04A

Material Neoprene



Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo
R 1208	25	62283.001.208	R 2511	25	62283.002.511	R 4808	25	62283.004.808
R 1708	25	62283.001.708	R 2516	25	62283.002.516	R 5011	25	62283.005.011
R 1711	25	62283.001.711	R 3208	25	62283.003.208	R 5616	25	62283.005.616
R 1716	25	62283.001.716	R 4011	25	62283.004.011	R 6011	25	62283.006.011
R 2508	25	62283.002.508	R 4016	25	62283.004.016			

62284 QUICK SYSTEM Anel de retenção tipo RC — S04A

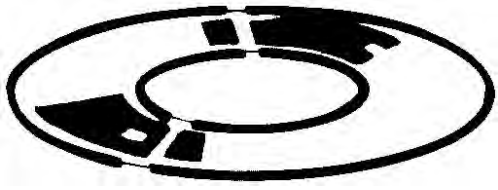
Material Neoprene



Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo
RC 4008	25	62284.004.008	RC 6011/3	25	62284.060.113	RC 6011/6	25	62284.060.116

- Só indicado para fixação de três partes tipo CR, ver grupo de artigos 62325.

Anilha de proteção



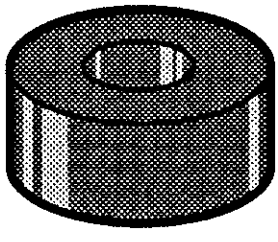
62285 **QUICK SYSTEM Anilha de proteção Tipo RT** **S04A**

Material Plástico Poliamida (nylon)
Classe 6



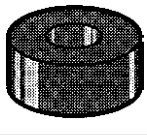
Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo
RT 0208	25	62285.000.208	RT 0211	25	62285.000.211	RT 0216	25	62285.000.216

Anilha de vedação



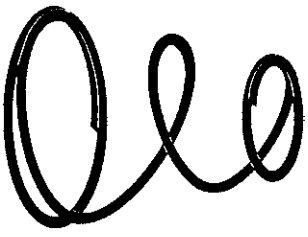
62286 **QUICK SYSTEM Anilha de selar Tipo RW** **S04A**

Material Neoprene



Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo
RW 0511	25	62286.000.511	RW 1508	25	62286.001.508	RW 2011	25	62286.002.011
RW 1011	25	62286.001.011	RW 1511	25	62286.001.511	RW 2016	25	62286.002.016

Mola

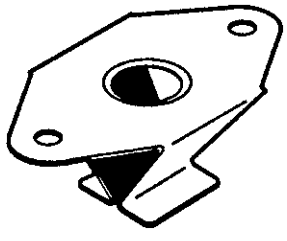


62302	QUICK SYSTEM Mola cónica tipo KF	S04A
Material	Aço mola	

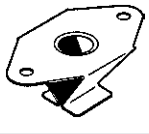


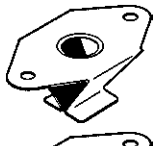
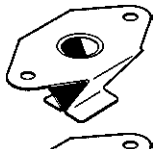
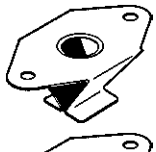
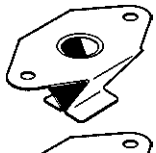
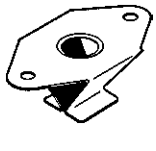
Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo
KF 08	25	62302.000.008	KF 11	25	62302.000.011	KF 16	25	62302.000.016

Recetáculo



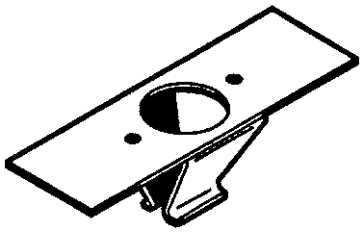
62303	QUICK SYSTEM Recetáculo rebitado	S04A

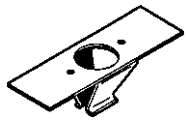


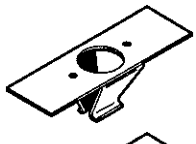
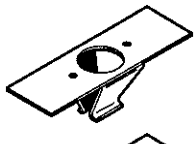
Nr.	✉	Ref. do artigo			
C 08/2,6	25	62303.080.001	•	Aço zincado	
C 08/19	25	62303.080.002	•	Aço zincado	
C 08/2,6	25	62303.080.003	•	Aço inox	
C 11	25	62303.110.001	•	Aço zincado	
C 11	25	62303.110.002	•	Aço inox	
C 16	25	62303.160.001	•	Aço zincado	

62303	QUICK SYSTEM Recetáculo rebitado				←
Nr.	✉	**Ref. do artigo**			
C 16	25	62303.160.002	•	Aço inox	

Recetáculo para soldar

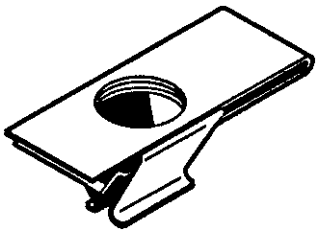


62304	QUICK SYSTEM Recetáculo soldado				S04A
					

Nr.	✉	**Ref. do artigo**			
CP 08	25	62304.000.008	•	Aço zincado	
CP 11	25	62304.000.011	•	Aço zincado	
CP 16	25	62304.000.016	•	Aço zincado	
C 08/MSN	25	62304.080.004	•	Aço inox	

10

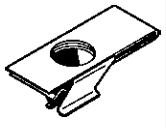
Recetáculo lateral



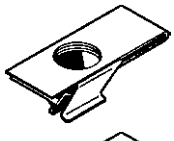
62305	QUICK SYSTEM Recetáculo de encaixe	S04A

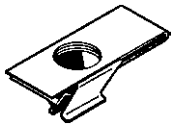
Material Aço
Tratamento sup. Zincado

RoHS



Nr.	✉	Ref. do artigo		
CS 08/1,4	25	62305.080.001	•	Para espessura de suporte: 0,5 - 1,4 mm.
CS 08/3,0	25	62305.080.003	•	Para espessura de suporte: 1,5 - 3,0 mm.





Recetáculo de ângulo



62306	QUICK SYSTEM Recetáculo de ângulo longo	S04A

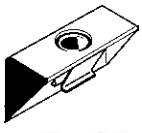
Material Aço
Tratamento sup. Zincado

RoHS

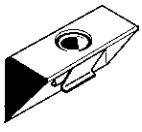


Tipo	✉	Ref. do artigo
MSC 08/1	25	62306.080.001
MSCR 08	25	62306.080.002
MSC 11/1	25	62306.110.001
MSCR 11	25	62306.110.002



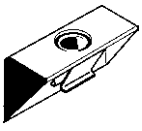




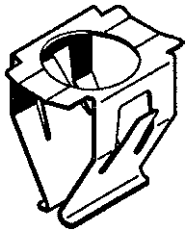


10

62306	QUICK SYSTEM Recetáculo de ângulo longo	←

Tipo	✉	Ref. do artigo	
MSC 16/1	25	62306.160.001	
MSCR 16	25	62306.160.002	

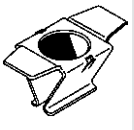
Recetáculo de encaixe

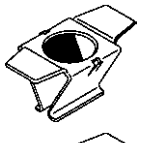
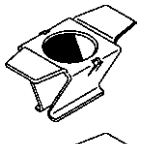
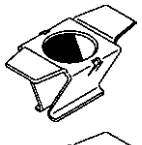
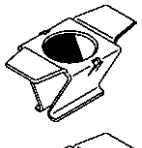
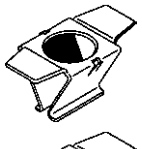
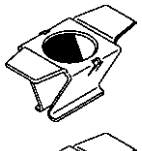
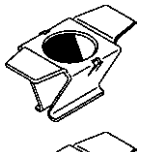
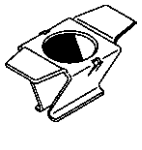


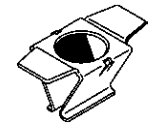
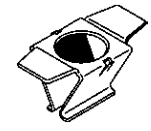
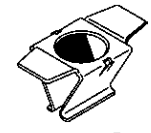
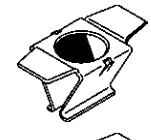
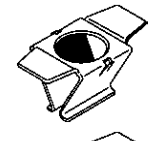
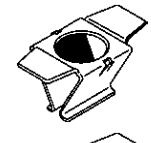
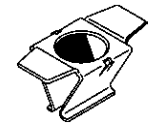
62323	QUICK SYSTEM Recetáculo de encaixe	S04A

Material Aço

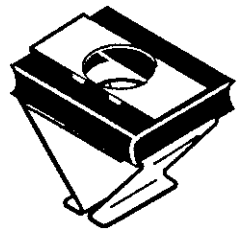
RoHS



Nr.	✉	Ref. do artigo			
CC 08/1	25	62323.080.001	•	Aço zincado	
CC 08/2	25	62323.080.002	•	Aço zincado	
CC 08/3	25	62323.080.003	•	Aço zincado	
CC 08/4	25	62323.080.004	•	Aço zincado	
CC 11/1	25	62323.110.001	•	Aço zincado	
CC 11/2	25	62323.110.002	•	Aço zincado	
CC 11/3	25	62323.110.003	•	Aço zincado	
CC 11/4	25	62323.110.004	•	Aço zincado	

62323	QUICK SYSTEM Recetáculo de encaixe				←
Nr.	✉	**Ref. do artigo**			
CX11/15	25	62323.110.015	•	Aço inox	
CX11/20	25	62323.110.020	•	Aço inox	
CX11/25	25	62323.110.025	•	Aço inox	
CC 16/1	25	62323.160.001	•	Aço zincado	
CC 16/2	25	62323.160.002	•	Aço zincado	
CC 16/3	25	62323.160.003	•	Aço zincado	
CC 16/4	25	62323.160.004	•	Aço zincado	

Clip 3 partes



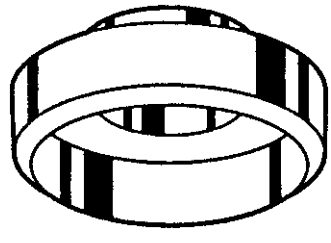
62325 **QUICK SYSTEM Clip 3 partes, Type CR** **S04A**



Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo
CR1008	25	62325.001.008	CR2008	25	62325.002.008	CR2011	25	62325.002.011
CR1508	25	62325.001.508						

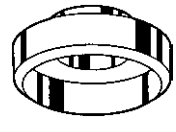
- Aço inox/ aço com anilha em neoprene.
- Para anilha de retenção tipo RC, ver grupo de artigos 62284.

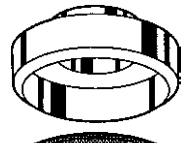
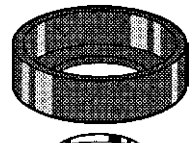
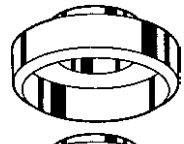
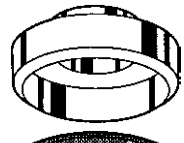
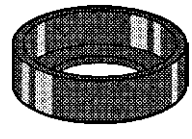
Capa protetora



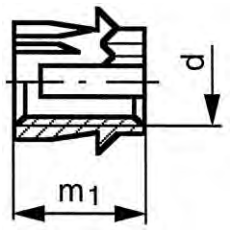
62332 **QUICK SYSTEM Capa protetora Tipo TA/TAR** **S04A**

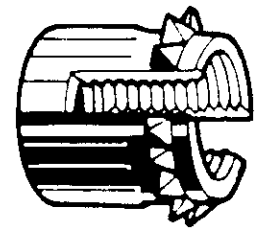
Cor Sortido



Tipo	✉	Ref. do artigo			
TA 08	25	62332.080.001	•	Latão niquelado	
TAR 08	25	62332.080.002	•	Plástico preto	
TA 11	25	62332.110.001	•	Latão niquelado	
TA 16	25	62332.160.001	•	Latão niquelado	
TAR 16	25	62332.160.002	•	Plástico preto	

Inserto de latão Tipo C





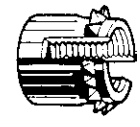
Dados técnicos

d	Furo ø	m_1	P	d	Furo ø	m_1	P
M3	4.7	5	0.5	M5	6.8	6	0.8
M4	5.6	5	0.7	M6	7.7	7	1

- Caracteristicas especiais dos insertos:
- São indicados para materiais macios, como plástico, madeira, aglomerado ou aluminio, com rosca ISO-métrica.
- Durante a fixação os dentes fixam-se nas paredes do furo.
- A ligação é auto bloqueante em choques e vibrações.
- O tipo C, com uma só fila de dentes, é recomendado para forças reduzidas e desmontagens pouco frequentes.

64010 **Inserto de latão Tipo C** **N07A**

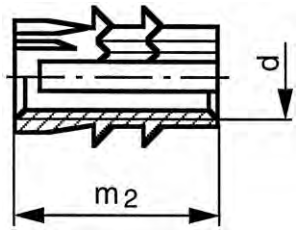
Rosca Métrica
Material Latão

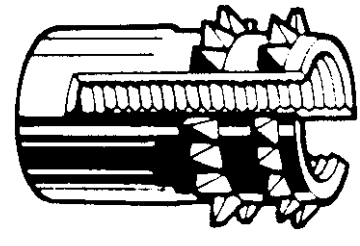


RoHS

d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	200	64010.030.001	M5	100	64010.050.001	M6	100	64010.060.001
M4	200	64010.040.001						

Insertos de latão Tipo D





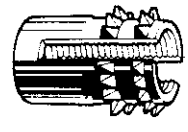
Dados técnicos

d	Furo ø	m_2	P	d	Furo ø	m_2	P
M3	4.7	9.5	0.5	M6	7.7	9	1
M4	5.6	9.5	0.7	M8	9.6	10	1.25
M5	6.8	9.5	0.8				

- Caracteristicas especiais dos insertos:
- São indicados para materiais macios, como plástico, madeira, aglomerado ou aluminio, com rosca ISO-métrica.
- Durante a fixação os dentes fixam-se nas paredes do furo.
- A ligação é auto bloqueante em choques e vibrações.
- O tipo D, com duas filas de dentes, pode ser utilizado para madeira, forças elevadas e desmontagens frequentes.

64050 **Insertos de latão Tipo D** **N07A**

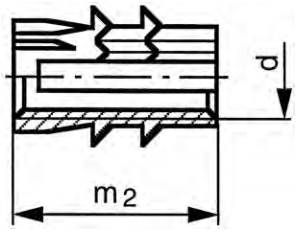
Rosca Métrica
Material Latão

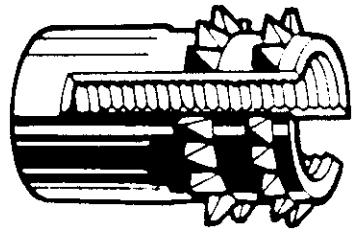


RoHS

d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	200	64050.030.001	M5	100	64050.050.001	M8	100	64050.080.001
M4	200	64050.040.001	M6	100	64050.060.001			

Inserto de latão Tipo E

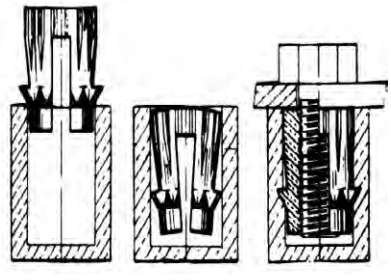




Dados técnicos

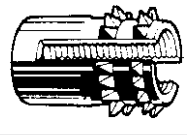
d	Furo ø	m_2	P
M3	4.7	8	0.5
M4	5.6	8	0.7

Caracteristicas especiais dos insertos:
- São altamente indicados para materiais como plásticos, madeira, aglomerado madeira e aluminio com forte rosca ISO-métrica numa forma rápida e eficiente.
- Durante a montagem os dentes fazem ancoragem na parede do furo.
- O inserto é autobloqueante contra vibrações e choques.
- Tipo E (versão curta do tipo D) com duas filas de dentes pode ser usado em madeira, forças elevadas e desmontagens frequentes.



64030 **Inserto de latão Tipo E** **N07A**

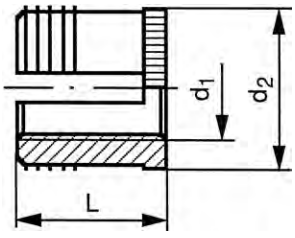
Rosca Métrica
Material Latão

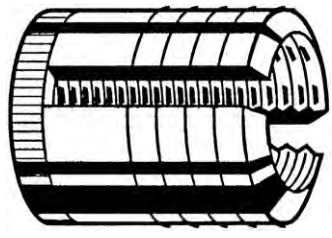


d	✉	Ref. do artigo	d	✉	Ref. do artigo
M3	200	64030.030.001	M4	200	64030.040.001

10

Inserto de latão Tipo 530





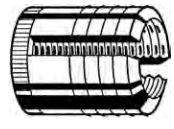
Dados técnicos

d_1	d_2	Furo ø	L	P
M3	4.3	4	4.8	0.5
M4	5.9	5.6	8	0.7
M5	6.7	6.4	9.5	0.8
M6	8.3	8	12.7	1
M8	9.9	9.5	12.7	1.25

- É recomendado para uma seleção ótima do diâmetro, que sejam realizados testes.

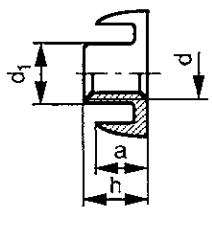
71570 **Inserto de latão Tipo 530** **N07A**

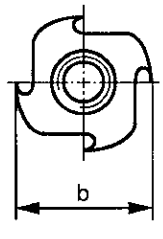
Rosca Métrica
Material Latão

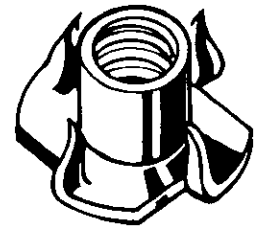


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M3	200	71570.030.001	M5	100	71570.050.001	M8	100	71570.080.001
M4	200	71570.040.001	M6	100	71570.060.001			

Porca de cravar para madeira







Dados técnicos

d	a	b	d_1	h	P
M3	3.5	13	4.3	5	0.5
M4	4.5	15	5	8	0.7
M5	5.5	17	6.3	8	0.8
M6	7	19	7.3	9	1
M8	7.5	22	9.7	11	1.25
M10	9	25	11.9	12	1.5
M12	9.5	27	13.7	14.5	1.75

Grupos de produtos

Rosca	Material	Tratamento sup.	Código	Página
M	Aço		14100	10-89
M	Aço	Zn	14110	10-89

14100 Porca de cravar para madeira — F01F

Rosca Métrica
Material Aço



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	500	14100.040.001	M6	500	14100.060.001	M10	250	14100.100.001
M5	500	14100.050.001	M8	500	14100.080.001			

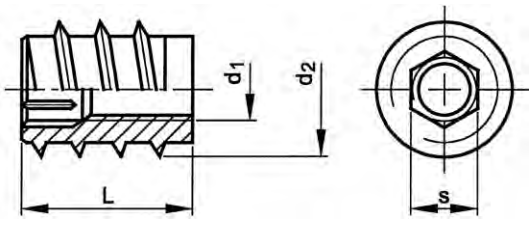
14110 Porca de cravar para madeira — F01F

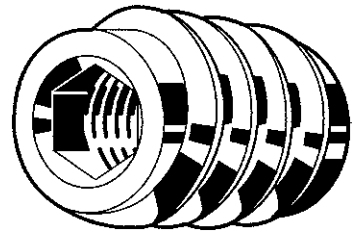
Rosca Métrica
Material Aço
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	500	14110.040.001	M6	500	14110.060.001	M10	250	14110.100.001
M5	500	14110.050.001	M8	500	14110.080.001	M12	100	14110.120.001

Inserto sextavado interior





Dados técnicos

d_1	d_2	Furo ø madeira dura	Furo ø madeira macia	P	s
M4	8	6.9-7.2	6.6-6.9	0.7	4
M5	10	8.7-9.2	8.4-8.9	0.8	5
M6	12	10.2-10.8	10.0-10.4	1	6
M8	14	12.2-12.8	12.0-12.4	1.25	8
M8x23	16	14.2-14.8	14.0-14.5	1.25	8
M10	18.5	16.7-17.2	16.2-16.7	1.5	10

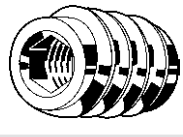
- É recomendado para uma seleção ótima do diâmetro, que sejam realizados testes.

Grupos de produtos

Rosca	Material	Tratamento sup.		Código	Página
M	Aço	Zn		14439	10-89
M	Aço	Zn	com colar	14440	10-90

14439 Inserto sextavado interior tipo SK — F01F

Rosca Métrica
Material Aço
Tratamento sup. Zincado

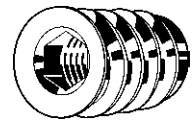


d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M4X10	100	14439.040.010	M6X12	100	14439.060.012	M8X15	100	14439.080.015
			M6X15	100	14439.060.015	M8X23	100	14439.080.023
M5X12	100	14439.050.012	M6X20	100	14439.060.020			
						M10X25	100	14439.100.025

14440 **Inserto sextavado interior tipo SKD** **F01F**

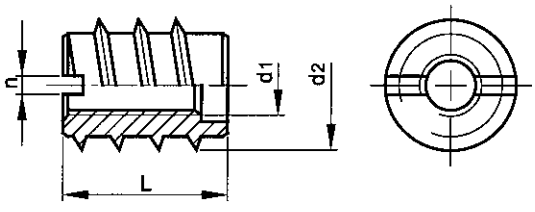
Rosca Métrica
Material Aço
Tratamento sup. Zincado

RoHS

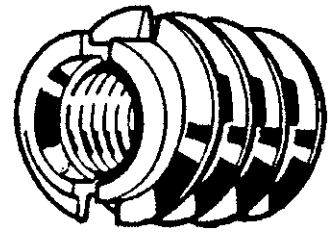


d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M4X10	100	14440.040.010	M6X15	100	14440.060.015	M8X18	100	14440.080.018
			M6X18	100	14440.060.018			
M5X12	100	14440.050.012				M10X20	100	14440.100.020

Inserto com fixação de fenda



DIN **7965**



Dados técnicos

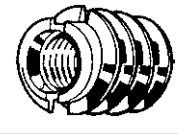
d_1	d_2	Furo ø madeira dura	Furo ø madeira macia	n	P
M3	6	4.9-5.2	4.6-4.9	1	0.5
M4	8	6.1-6.6	5.7-6.1	1.2	0.7
M5	10	8.0-8.5	7.6-8.0	1.6	0.8
M6	12	9.9-10.4	9.4-9.9	2	1
M8x15 (≠DIN)	14	11.9-12.4	11.4-11.9	2.5	1.25
M8x18	16	13.3-14.0	12.6-13.3	2.5	1.25
M10	18.5	15.8-16.5	15.1-15.8	3	1.5
M12	22	19.0-19.8	18.3-19.0	3	1.75

- É recomendado para uma seleção ótima do diâmetro, que sejam realizados testes.

14410 **Inserto com fixação de fenda tipo A** **F01F**

Rosca Métrica
Material Aço

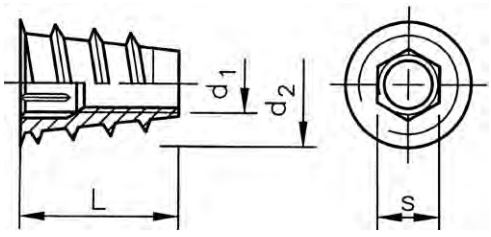
RoHS

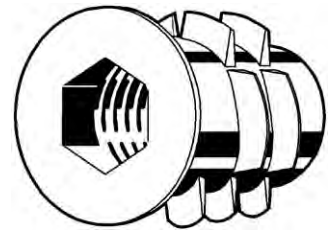


d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M3X8	100	14410.030.008	M5X12	100	14410.050.012	M8X18	100	14410.080.018
M4X8	100	14410.040.008	M6X12	100	14410.060.012	M10X20	100	14410.100.020
M4X10	100	14410.040.010	M6X15	100	14410.060.015	M10X25	100	14410.100.025
M4X12	100	14410.040.012						
			M8X15	100	14410.080.014	M12X30	100	14410.120.030

10

Inserto sextavado interior com colar





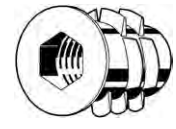
Dados técnicos

d_1	d_2	Furo ø (máx.)	Furo ø (mín.)	P	s
M4	8.5	6	5.7	0.7	4
M5	11.5	8	7.7	0.8	5
M6	12.5	9	8.7	1	6
M8	14.5	11	10.7	1.25	8
M10	16	12.5	12.2	1.5	10

- É recomendado para uma seleção ótima do diâmetro, que sejam realizados testes.

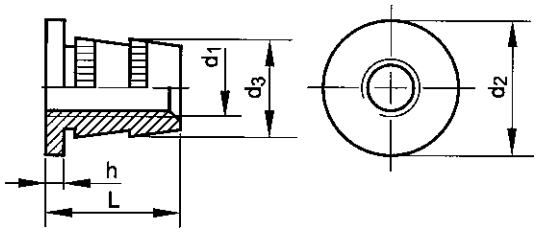
14446 **Inserto sextavado interior com colar tipo SKDZ** **F01F**

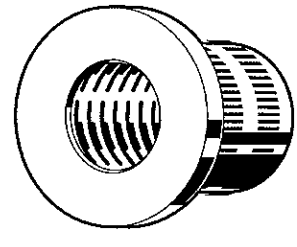
Rosca Métrica
Material Zinco fundido
Tratamento sup. Passivado a amarelo



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M4X10	100	14446.040.010	M6X10	100	14446.060.010	M8X25	100	14446.080.025
			M6X13	100	14446.060.013			
M5X10	100	14446.050.010				M10X13	100	14446.100.013
M5X13	100	14446.050.013	M8X13	100	14446.080.013	M10X25	100	14446.100.025

Inserto de cravar com colar





Dados técnicos

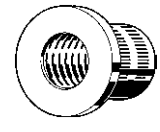
d_1	d_2	d_3	h	L	P
M4	8	5.5	1	8	0.7
M5	10	6.5	1.3	10	0.8
M6	12	8.5	1.5	12	1
M8	15	10.5	2	12	1.25
M10	18.5	12.5	2	12	1.5

- É recomendado para uma seleção ótima do diâmetro, que sejam realizados testes.

14444 **Inserto de cravar com colar tipo TS** **F01F**

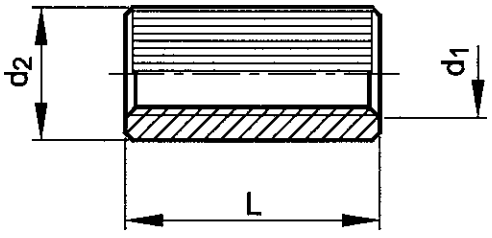
Rosca Métrica
Material Aço
Tratamento sup. Zincado

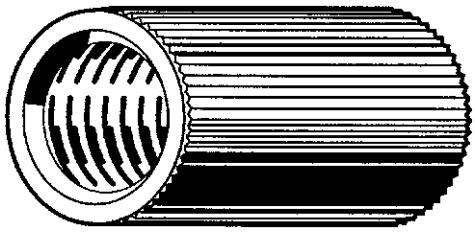
RoHS



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M4	100	14444.040.001	M6	100	14444.060.001	M10	100	14444.100.001
M5	100	14444.050.001	M8	100	14444.080.001			

Porca com serrilha





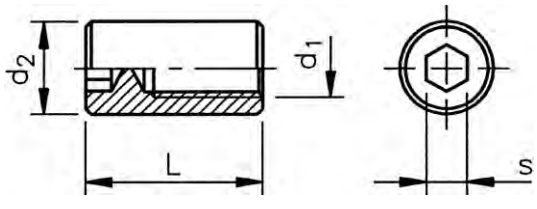
14443 **Porca com serrilha tipo RM** **F01F**

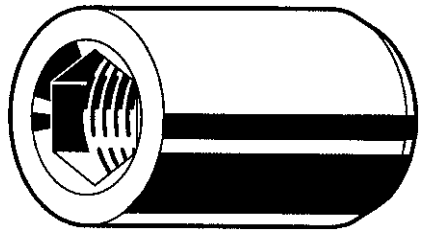
Rosca	Métrica
Material	Aço
Tratamento sup.	Zincado



d_1 x d_2 x L	✉	Ref. do artigo	d_1 x d_2 x L	✉	Ref. do artigo
M6x10x15	100	14443.060.015	M6x10x18	100	14443.060.018

Porca redonda sextavado interior





14445 **Porca redonda sextavado interior tipo RSK** **F01F**

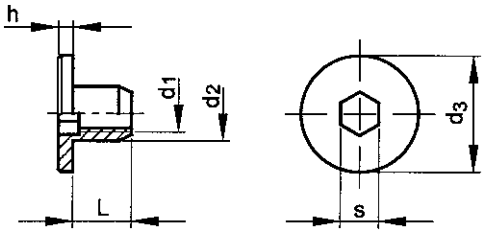
Rosca	Métrica
Material	Aço
Tratamento sup.	Zincado

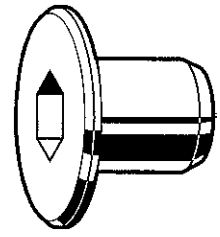


d_1 x d_2 x L	✉	Ref. do artigo	d_1 x d_2 x L	✉	Ref. do artigo
M6x10x16 (s=5)	100	14445.060.016	M6x10x20 (s=5)	100	14445.060.020

10

Porca cabeça plana sextavado interior





Dados técnicos

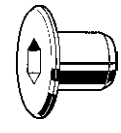
d_1	d_2	d_3	h	P	s
M6	9	15	2	1	5
M8	10	20	2	1.25	5

Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.	Código	Página
M	Sextavado interior	Aço	Niq.	14456	10-93
M	Sextavado interior	Latão	Niq.	14483	10-93

14456 **Porca cabeça plana sextavado interior tipo RF** **F01F**

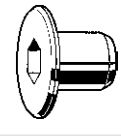
Rosca Métrica
Material Aço
Tratamento sup. Niquelado



d_1 x L	✉	Ref. do artigo
M6x12	100	14456.060.001

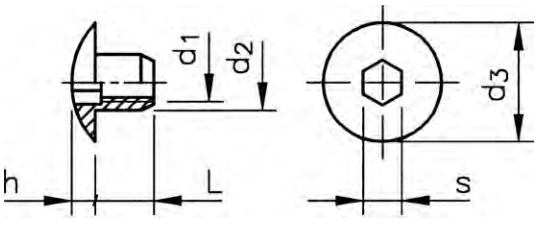
14483 **Porca cabeça plana sextavado interior tipo RF** **F01F**

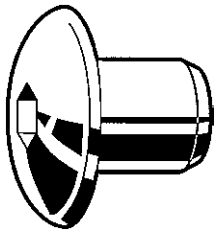
Rosca Métrica
Material Latão
Tratamento sup. Niquelado



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M6x10	100	14483.060.001	M8x10	100	14483.080.001

Porca cabeça oval sextavado interior





Dados técnicos

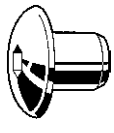
d_1	d_2	d_3	h	P	s
M6	9	15	3.5	1	5
M8	10	20	3	1.25	5

Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.	Código	Página
M	Sextavado interior	Aço	Niq.	14457	10-94
M	Sextavado interior	Latão	Niq.	14484	10-94

14457 **Porca cabeça oval sextavada interior-Tipo RT** **F01F**

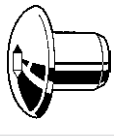
Rosca Métrica
Material Aço
Tratamento sup. Niquelado



d_1 x L	✉	Ref. do artigo
M6x12	100	14457.060.001

14484 **Porca cabeça oval sextavada interior-Tipo RT** **F01F**

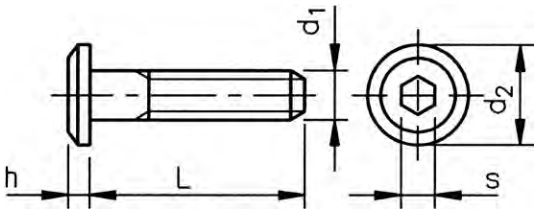
Rosca Métrica
Material Latão
Tratamento sup. Niquelado

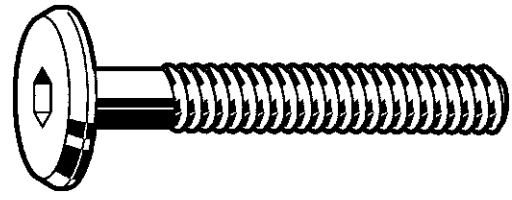


d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M6x10	100	14484.060.001	M8x10	100	14484.080.001

10

Parfuso cabeça plana sextavado interior





Dados técnicos

d_1	d_2	h	P	s
M6	15	2.5	1	4

14441 **Parfuso cabeça plana sextavado interior tipo KF** **H09A**

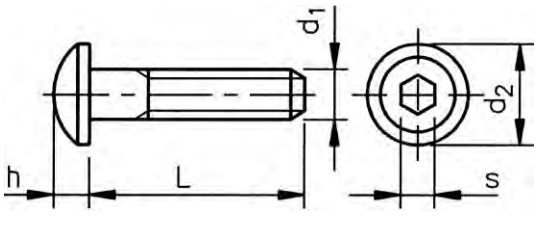
Rosca Métrica
Material Aço
Tratamento sup. Zincado

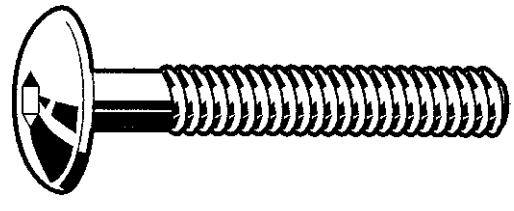
RoHS



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M6X12	100	14441.060.012	M6X35	100	14441.060.035	M6X70	100	14441.060.070
M6X16	100	14441.060.016	M6X40	100	14441.060.040	M6X80	100	14441.060.080
M6X20	100	14441.060.020	M6X45	100	14441.060.045	M6X90	100	14441.060.090
M6X25	100	14441.060.025	M6X50	100	14441.060.050	M6X100	100	14441.060.100
M6X30	100	14441.060.030	M6X60	100	14441.060.060			

Parafuso cabeça oval sextavado interior





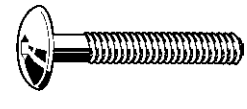
Dados técnicos

d_1	d_2	h	P	s
M6	15	3.3	1	4

14442 **Parafuso cabeça oval sextavado interior tipo KT** **H09A**

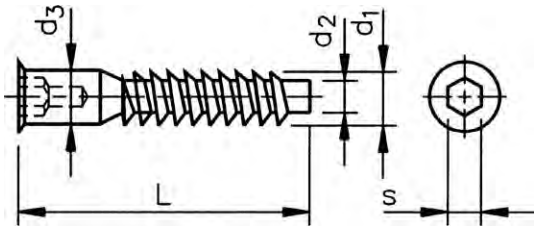
Rosca Métrica
Material Aço
Tratamento sup. Zincado

RoHS



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M6X12	100	14442.060.012	M6X35	100	14442.060.035	M6X70	100	14442.060.070
M6X16	100	14442.060.016	M6X40	100	14442.060.040	M6X80	100	14442.060.080
M6X20	100	14442.060.020	M6X45	100	14442.060.045	M6X90	100	14442.060.090
M6X25	100	14442.060.025	M6X50	100	14442.060.050	M6X100	100	14442.060.100
M6X30	100	14442.060.030	M6X60	100	14442.060.060			

Parafuso de ligação sextavado interior





Dados técnicos

d_1	d_2	d_3	Furo ø	s
7	4.5	7	4.5	4

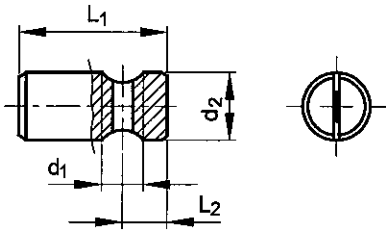
14451 **Parafuso de ligação sextavado interior tipo KOK** **H09A**

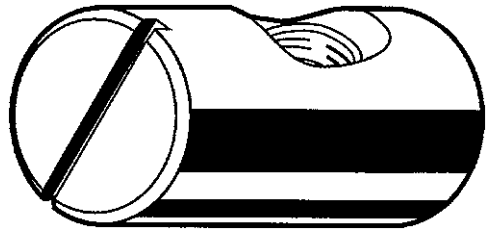
Material Aço
Tratamento sup. Zincado



d_1 x L	✉	Ref. do artigo
7X50MM	200	14451.070.050

Passador de fenda



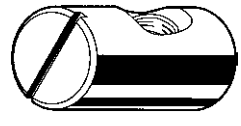


Dados técnicos

d_1 x L_1	d_2	L_2	P	d_1 x L_1	d_2	L_2	P
M6x12	10	6	1	M6x17	10	6	1
M6x14	10	6	1	M6x20	10	10	1
M6x15	10	6	1	M6x25	10	12.5	1

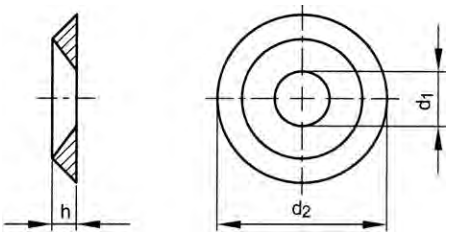
14450 **Passador de fenda - tipo Q** **F01F**

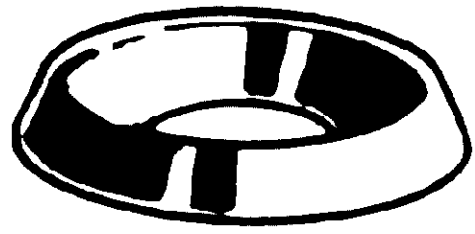
Rosca Métrica
Material Aço
Tratamento sup. Zincado



d_1 x L_1	✉	Ref. do artigo	d_1 x L_1	✉	Ref. do artigo	d_1 x L_1	✉	Ref. do artigo
M6X12	100	14450.060.012	M6X15	100	14450.060.015	M6X20	100	14450.060.020
M6X14	100	14450.060.014	M6X17	100	14450.060.017	M6X25	100	14450.060.025

Anilha concava modelo aberto

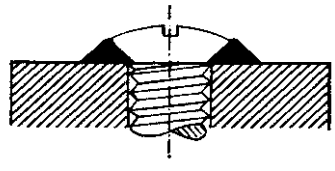




Dados técnicos

Diâm.nom. d_1	d_2	h	Para parafuso ø
3.2	9	1.9	2.5-3
4	11	2.3	3.5-4
4.8	13	2.7	4-4.5
5.5	15	3.2	5
6.6	17	3.2	5.5-6
7.4	20	4	7

Exemplo de aplicação



Grupos de produtos

Material	Tratamento sup.	Código	Página
INOX A2		51350	10-97
Latão		50230	10-97
Latão	Niq.	50260	10-97

51350 Anilha concava modelo aberto — R09A

Material Aço inoxidável A2



Diâm. nom. d_1	✉	Ref. do artigo	Diâm. nom. d_1	✉	Ref. do artigo	Diâm. nom. d_1	✉	Ref. do artigo
3,2MM	250	51350.032.001	4,8MM	250	51350.048.001	6,6MM	200	51350.066.001
4,0MM	250	51350.040.001	5,5MM	200	51350.055.001	7,4MM	200	51350.074.001

50230 Anilha concava modelo aberto — M11F

Material Latão



Diâm. nom. d_1	✉	Ref. do artigo	Diâm. nom. d_1	✉	Ref. do artigo	Diâm. nom. d_1	✉	Ref. do artigo
3,2MM	250	50230.032.001	4,8MM	250	50230.048.001	6,6MM	200	50230.066.001
4,0MM	250	50230.040.001	5,5MM	200	50230.055.001	7,4MM	200	50230.074.001

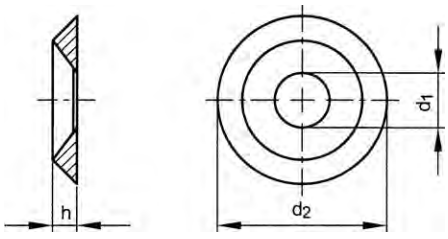
50260 Anilha concava modelo aberto — M11F

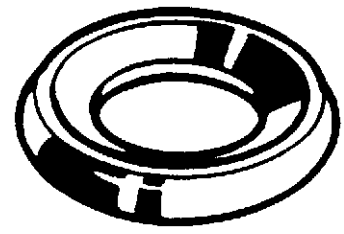
Material Latão
Tratamento sup. Niquelado



Diâm. nom. d_1	✉	Ref. do artigo	Diâm. nom. d_1	✉	Ref. do artigo	Diâm. nom. d_1	✉	Ref. do artigo
3,2MM	250	50260.032.001	4,8MM	250	50260.048.001	6,6MM	200	50260.066.001
4,0MM	250	50260.040.001	5,5MM	200	50260.055.001	7,4MM	200	50260.074.001

Anilha concava modelo fechado



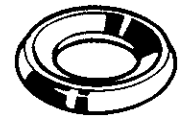


Dados técnicos

Diâm.nom. d_1	d_2	h	Para parafuso	Para parafuso auto-roscante
4	9	2	M3	ST2.9
5	11	2.3	M4	ST4.2
6	13	2.5	M5	ST4.8

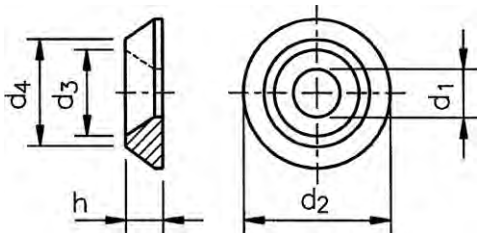
50280 **Anilha concava modelo fechado** **M11F**

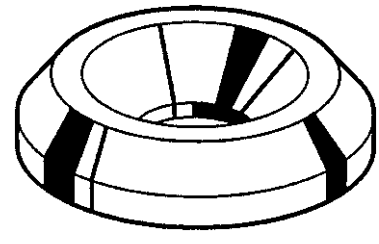
Material Latão
Tratamento sup. Niquelado



Diâm. nom. d_1	✉	Ref. do artigo	Diâm. nom. d_1	✉	Ref. do artigo	Diâm. nom. d_1	✉	Ref. do artigo
4,0MM	250	50280.040.001	5,0MM	250	50280.050.001	6,0MM	150	50280.060.001

Anilha para parafusos cab. Chata 90º



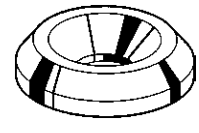


Dados técnicos

Para diâm.nom. d_1	d_1 (min.)	d_2 (max.)	d_3 (min.)	d_4	h (min.)
M4	4.3	14	8.6	9.5	2.3
M5	5.3	16	10.4	11.5	2.8
M6	6.4	18	12.4	13.5	3.3
M8	8.4	25	16.4	17.5	4.8

45140 **Anilha para parafusos cab. Chata 90º** **W01A**

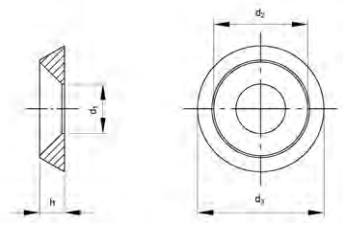
Material Alumínio

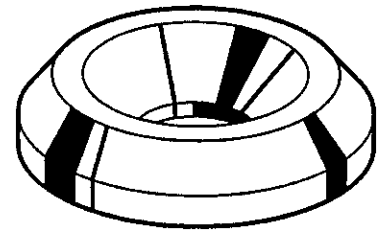


Para diâm. nom. d_1	✉	Ref. do artigo	Para diâm. nom. d_1	✉	Ref. do artigo	Para diâm. nom. d_1	✉	Ref. do artigo
M4	100	45140.040.001	M6	100	45140.060.001	M8	100	45140.080.001
M5	100	45140.050.001						

10

Anilha





Dados técnicos

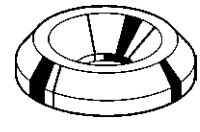
d	d_1	d_2	d_3	h
M3	3.5	6.5	9	2
M4	4.5	8	11	2.5
M5	5.5	10	14	3
M6	7	12	16	4
M8	9	16	22	5
M10	11	20	28	6
M12	14	24	32	6.5

Grupos de produtos

Material	Código	Página
INOX A1	51546	10-99
INOX A4	55350	10-99

51546 **Anilha** **R09A**

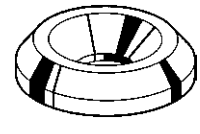
Material Aço inoxidável A1



Para diâm. nom. d_1	✉	Ref. do artigo	Para diâm. nom. d_1	✉	Ref. do artigo	Para diâm. nom. d_1	✉	Ref. do artigo
M3	100	51546.030.001	M6	100	51546.060.001	M10*	50	51546.100.001
M4	100	51546.040.001	M8	100	51546.080.001	M12*	50	51546.120.001
M5	100	51546.050.001						

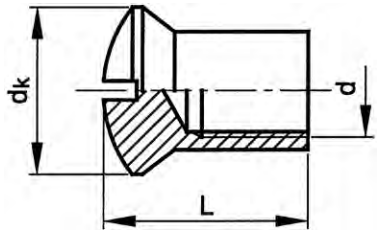
55350 **Anilha** **R05A**

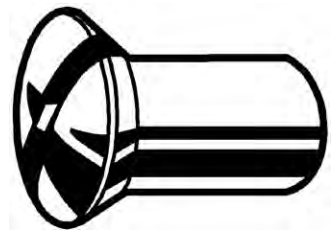
Material Aço inoxidável A4



Para diâm. nom. d_1	✉	Ref. do artigo	Para diâm. nom. d_1	✉	Ref. do artigo	Para diâm. nom. d_1	✉	Ref. do artigo
M3*	200	55350.030.001	M6*	100	55350.060.001	M10*	50	55350.100.001
M4*	200	55350.040.001	M8*	100	55350.080.001	M12*	50	55350.120.001
M5*	200	55350.050.001						

Casquilho





Dados técnicos

d	P
M4	0.7
M5	0.8
M6	1
M8	1.25

Grupos de produtos

Rosca	Material	Tratamento sup.	Código	Página
M	Latão	Niq.	47796	10-100
M	INOX A1		51212	10-100
M	INOX A4		55212	10-100

47796 Casquilho M01D

Rosca Métrica
Material Latão
Tratamento sup. Niquelado



d x d_k x L	✉	Ref. do artigo	d x d_k x L	✉	Ref. do artigo	d x d_k x L	✉	Ref. do artigo
M4X7X12	100	47796.040.012	M5X9X15	100	47796.050.015	M6X10X20	100	47796.060.020
M4X7X14	100	47796.040.014	M5X9X20	100	47796.050.020	M8X15X15	100	47796.080.015
M4X7X20	100	47796.040.020	M6X12X14	100	47796.060.014	M8X15X20	100	47796.080.020
M5X9X10	100	47796.050.010	M6X10X15	100	47796.060.015	M8X15X25	100	47796.080.025

51212 Casquilho R05A

Rosca Métrica
Material Aço inoxidável A1

RoHS



d x d_k x L	✉	Ref. do artigo	d x d_k x L	✉	Ref. do artigo	d x d_k x L	✉	Ref. do artigo
M4X7X12*	100	51212.040.012	M6X10X15*	100	51212.060.015	M8X15X20*	100	51212.080.020
M5X9X15*	100	51212.050.015						

55212 Casquilho R45A

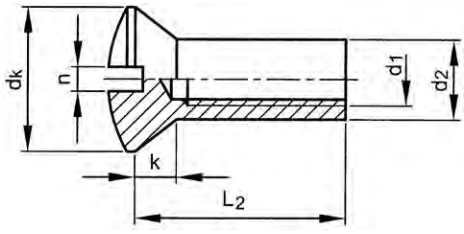
Rosca Métrica
Material Aço inoxidável A4

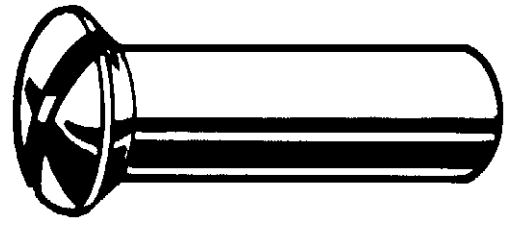
RoHS



d x d_k x L	✉	Ref. do artigo	d x d_k x L	✉	Ref. do artigo	d x d_k x L	✉	Ref. do artigo
M4X7X12*	100	55212.040.012	M6X10X15*	100	55212.060.015	M8X15X20*	100	55212.080.020
M5X9X15*	100	55212.050.015						

Porca para livro (patente)





Dados técnicos

d_1	d_2	d_k	k (max.)	n	P
M4	5	7.5	2.2	1	0.7

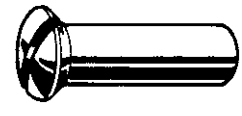
Grupos de produtos

Rosca	Material	Tratamento sup.	Código	Página
M	Latão		47780	10-101
M	Latão	Niq.	47790	10-101

47780 **Porca para livro (patente)** **M11D**

Rosca Métrica
Material Latão

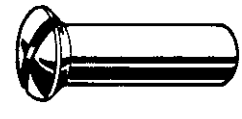
RoHS



d_1 x L_2	✉	Ref. do artigo
M4X22	250	47780.040.022

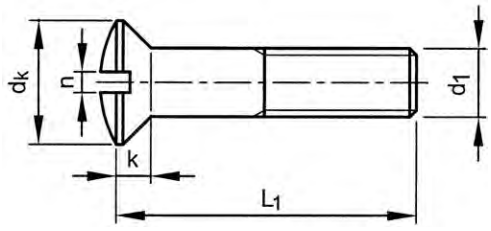
47790 **Porca para livro (patente)** **M11D**

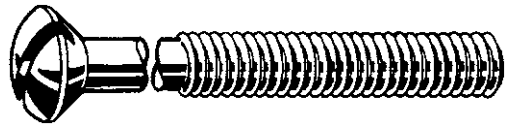
Rosca Métrica
Material Latão
Tratamento sup. Niquelado



d_1 x L_2	✉	Ref. do artigo
M4X22	250	47790.040.022

Parafuso para livros





Dados técnicos

d_1	d_k	k (max.)	n	P
M4	7.5	2.2	1	0.7

Grupos de produtos

Rosca	Material	Tratamento sup.	Código	Página
M	Aço	Niq.	47720	10-102
M	Latão	Niq.	47750	10-102

47720 **Parafuso para livros** **M11D**

Rosca Métrica
Material Aço
Tratamento sup. Niquelado



d_1 x L_1	✉	Ref. do artigo	d_1 x L_1	✉	Ref. do artigo	d_1 x L_1	✉	Ref. do artigo
M4X38	250	47720.040.038	M4X45	250	47720.040.045	M4X55	250	47720.040.055

47750 **Parafuso para livros** **M11D**

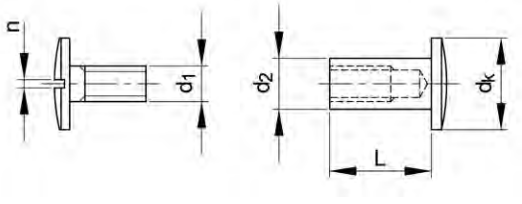
Rosca Métrica
Material Latão
Tratamento sup. Niquelado

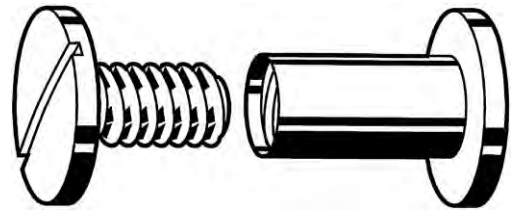


d_1 x L_1	✉	Ref. do artigo	d_1 x L_1	✉	Ref. do artigo
M4X38	250	47750.040.038	M4X45	250	47750.040.045

10

Parafuso para livros



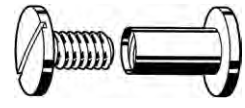


Dados técnicos

d_1	d_2	d_k	n	P
M3.5	5	9	0.8	0.6

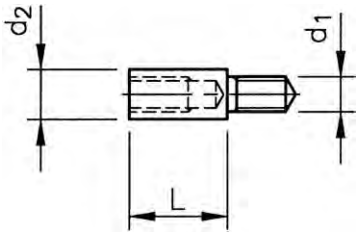
47711 **Parafuso para livros** **M11D**

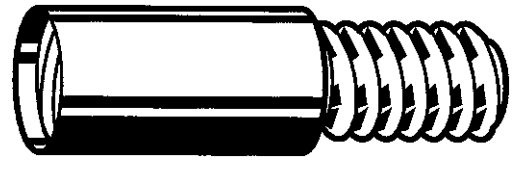
Material Latão



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M3,5X10	100	47711.035.010	M3,5X25	50	47711.035.025	M3,5X50	25	47711.035.050
M3,5X15	100	47711.035.015	M3,5X30	50	47711.035.030	M3,5X60	25	47711.035.060
M3,5X20	100	47711.035.020	M3,5X40	25	47711.035.040			

Peça de alongamento para parafuso de livros



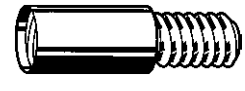


Dados técnicos

L	d_1	d_2	P
10	M3.5	5	0.6
15	M3.5	5	0.6

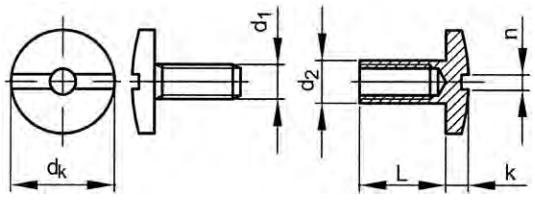
47715 **Peça de alongamento para parafuso de livros** **M11D**

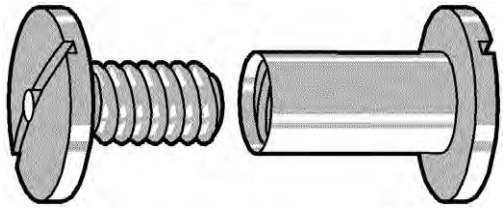
Rosca Métrica
Material Latão



L	✉	Ref. do artigo	L	✉	Ref. do artigo
10MM	100	47715.000.010	15MM	100	47715.000.015

Parafuso de união



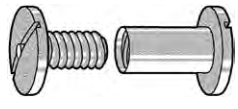


Dados técnicos

d_1	d_2	d_k	k	n	P
M4	5	12	2.6	1.8	0.7

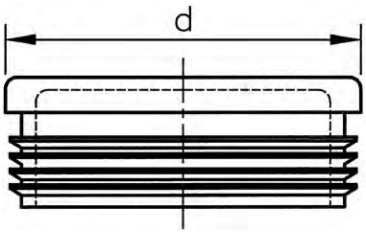
56480 **Parafuso de união** **W02A**

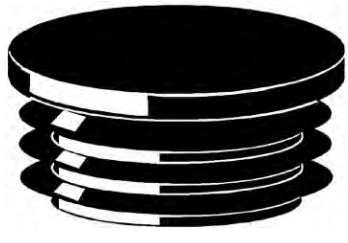
Rosca Métrica
Material Plástico Polietileno
Cor Branco



L	✉	Ref. do artigo	L	✉	Ref. do artigo	L	✉	Ref. do artigo
6MM	100	56480.060.001	25MM	50	56480.250.001	60MM	50	56480.600.001
8MM	100	56480.080.001	30MM	50	56480.300.001	70MM	25	56480.700.001
10MM	100	56480.100.001	35MM	50	56480.350.001	80MM	25	56480.800.001
15MM	50	56480.160.001	40MM	50	56480.400.001	90MM	25	56480.900.001
20MM	50	56480.200.001	50MM	50	56480.500.001			

Tampa redonda





56792 **Tampa redonda** **W05F**

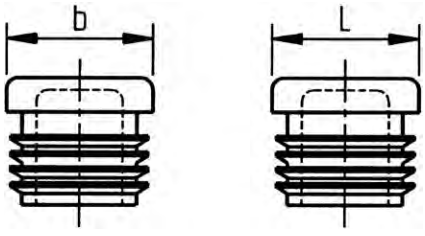
Material Plástico Polietileno
Cor Preto



d (t)	✉	Ref. do artigo	d (t)	✉	Ref. do artigo	d (t)	✉	Ref. do artigo
12MM (1-2mm)	25	56792.120.001	23MM (0,8-2,5mm)	25	56792.230.001	36MM (1-3mm)	25	56792.360.001
13MM (1-2mm)	25	56792.130.001	24MM (1-2,5mm)	25	56792.240.001	37MM (1-3mm)	25	56792.370.001
14MM (1-2mm)	25	56792.140.001	25MM (1-2mm)	25	56792.250.001	38MM (1-2mm)	25	56792.380.001
15MM (0,8-2mm)	25	56792.150.001	26MM (1-3mm)	25	56792.260.001	40MM (1-2mm)	25	56792.400.001
16MM (1-2mm)	25	56792.160.001	27MM (1-3mm)	25	56792.270.001	42MM (1-2mm)	25	56792.420.001
18MM (1-2mm)	25	56792.180.001	28MM (0,8-2,5mm)	25	56792.280.001	45MM (1-3,5mm)	25	56792.450.001
19MM (1-2mm)	25	56792.190.001	30MM (0,8-2,5mm)	25	56792.300.001	48MM (1-2mm)	25	56792.480.001
20MM (0,8-2,5mm)	25	56792.200.001	32MM (0,8-2mm)	25	56792.320.001	50MM (1-2,5mm)	25	56792.500.001
21MM (0,8-2mm)	25	56792.210.001	34MM (1-3mm)	25	56792.340.001	55MM (1-3mm)	25	56792.550.001
22MM (1-2mm)	25	56792.220.001	35MM (1-3mm)	25	56792.350.001	60MM (1,5-2,5mm)	25	56792.600.001

- (t) = Indicado para espessura de material.

Tampa quadrada





56795 **Tampa quadrada** **W05F**

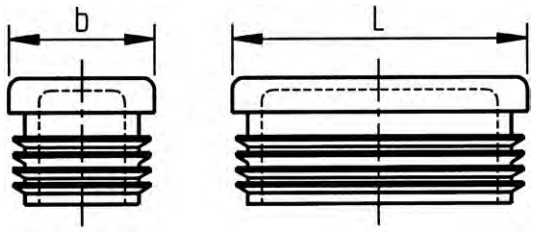
Material Plástico Polietileno
Cor Preto



L x b (t)	✉	Ref. do artigo	L x b (t)	✉	Ref. do artigo	L x b (t)	✉	Ref. do artigo
12-12MM (1-2mm)	100	56795.120.120	30-30MM (1-2mm)	100	56795.300.300	60-60MM (1,5-2,5mm)	25	56795.600.600
15-15MM (1-2mm)	100	56795.150.150	35-35MM (1-2mm)	50	56795.350.350	70-70MM (2-4mm)	10	56795.700.700
20-20MM (1-2mm)	100	56795.200.200	40-40MM (1-2mm)	25	56795.400.400	80-80MM (2-4mm)	10	56795.800.800
22-22MM (1-2mm)	100	56795.220.220	45-45MM (1-3mm)	25	56795.450.450	100-100MM (3-6mm)	10	56795.982.982
25-25MM (1-2mm)	100	56795.250.250	50-50MM (1-3mm)	25	56795.500.500			

- (t) = Indicado para espessura de material.15-15MM;
- Com hastes lisas.

Tampa rectangular





56797 **Tampa rectangular** **W05F**

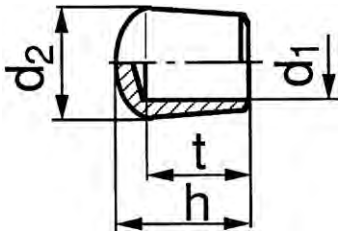
Material Plástico Polietileno
Cor Preto

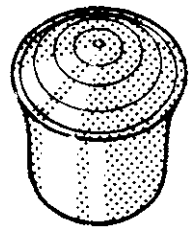


L x b (t)	✉	Ref. do artigo	L x b (t)	✉	Ref. do artigo	L x b (t)	✉	Ref. do artigo
20-10MM (0,75-2mm)	100	56797.200.100	40-25MM (1-2mm)	50	56797.400.250	70-40MM (1-2mm)	25	56797.700.400
20-15MM (1-2mm)	100	56797.200.150	40-30MM (1-2mm)	50	56797.400.300	80-40MM (1-3mm)	25	56797.800.400
25-10MM (1-2mm)	100	56797.250.100	45-25MM (1-2mm)	50	56797.450.250	80-40x4MM (2-4mm)	25	56797.800.404
25-15MM (1-2mm)	100	56797.250.150	50-20MM (1-2mm)	50	56797.500.200	80-50MM (2-4mm)	25	56797.800.500
30-10MM (1-2mm)	100	56797.300.100	50-25MM (1-3mm)	50	56797.500.250	100-40x4MM (1,5-4mm)	25	56797.960.400
30-15MM (1,2-2,5mm)	100	56797.300.150	50-30MM (1-3mm)	50	56797.500.300	100-60x4MM (2,5-4,5mm)	25	56797.960.600
30-20MM (1-2mm)	100	56797.300.200	60-20MM (1-3mm)	50	56797.600.200	120-30MM (1-2mm)	25	56797.980.300
35-20MM (1-2mm)	100	56797.350.200	60-30MM (2-4mm)	50	56797.600.300	120-60MM (2-3mm)	25	56797.980.600
35-25MM (1-3mm)	50	56797.350.250	60-40MM (2-4mm)	50	56797.600.400	120-80MM (2-3mm)	25	56797.980.800
40-20MM (1-2mm)	50	56797.400.200	70-20MM (1-2mm)	25	56797.700.200			

- (t) = Indicado para espessura de material.

Tampa cónica



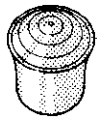


Dados técnicos

d_1	d_2	h	t	d_1	d_2	h	t
3	5	10	8	32	36	33	25
4	6	11	9	34	38	33	25
5	7	7.5	7	35	39	33	25
6	8	13	10.5	38	42	33	27
8	11	15	13	40	44	33	24
10	15	18	14	42	46	33	27
12	17	21	17	43	47	33	26
13	17	20	16	45	49	33	26
14	19	22	18	47	51	33	24
16	21	24	20	48	53	33	28
18	25	27	22	49	53	33	28
19	24	24	19	50	53	33	24
20	27	30	24	54	57	35	26
22	29	33	26	59	63	38	27
24	32	36	30	63	67	38	28
25	30	31	24	69	73	38	28
26	33	36	31	75	78	40	28
28	32	30	24	90	95	45	31
30	34	31	24	103	106	40	35

56790 **Tampa cónica** **W02A**

Material Plástico Cloreto de polivinilo
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
3MM	100	56790.030.001	20MM	50	56790.200.001	43MM	25	56790.430.001
4MM	100	56790.040.001	22MM	50	56790.220.001	45MM	25	56790.450.001
5MM	100	56790.050.001	25MM	25	56790.250.001	47MM	25	56790.470.001
6MM	100	56790.060.001	28MM	25	56790.280.001	48MM	25	56790.480.001
8MM	100	56790.080.001	30MM	25	56790.300.001	50MM	25	56790.500.001
10MM	100	56790.100.001	32MM	25	56790.320.001	54MM	25	56790.540.001
12/13MM	100	56790.120.001	34MM	25	56790.340.001	59MM	25	56790.590.001
14MM	100	56790.140.001	35MM	25	56790.350.001	63MM	25	56790.630.001
16MM	100	56790.160.001	38MM	25	56790.380.001	69MM	10	56790.690.001
18MM	50	56790.180.001	40MM	25	56790.400.001	75MM	10	56790.750.001
19MM	50	56790.190.001	42MM	25	56790.420.001	90MM	10	56790.900.001

Parafusos de segurança Fabory

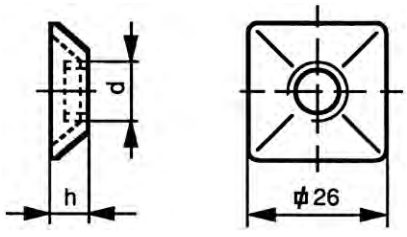
Para prevenir o vandalismo ou o furto os parafusos de segurança são utilizados numa variedade de aplicações, tais como mobiliário exterior, painéis de sinalização, iluminação exterior, etc. A utilização destes parafusos reduz o vandalismo/furto, já que são necessárias ferramentas especiais para o seu desaperto.

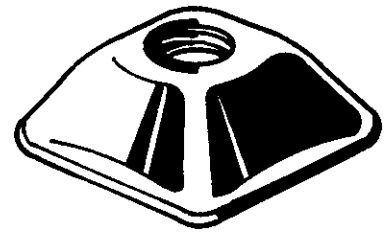
Os parafusos e porcas de segurança Fabory, providenciam um nível de segurança pelo seu design, que torna necessária a utilização de ferramentas especiais para a sua aplicação ou remoção. A Fabory oferece uma variedade de artigos (tipos de cabeça, encaixe) e, claro, as ferramentas para a sua aplicação. Os parafusos e porcas de segurança estão disponíveis em rosca métrica e não métrica.

A utilização de parafusos de segurança Fabory são uma boa alternativa de fixação,assim como um investimento em segurança. Só podem ser removidos se você o decidir!



SECURITY Porca





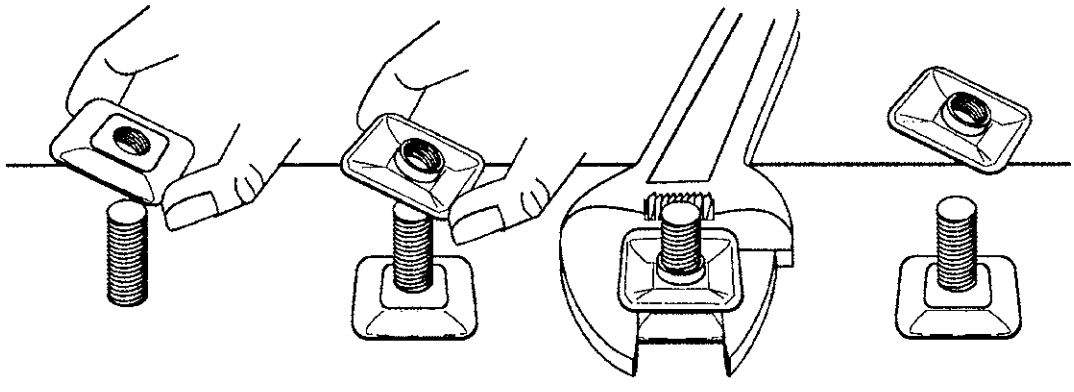
Dados técnicos

d	M6-4k	M8-4k	M10-4k	M12-6k
h ≈	6.2	7	6.8	7.3
P	1	1.25	1.5	1.75

- As porcas de segurança até M10 são de forma quadrada, a M12 é sextavada, com tamanho 31 mm.

Sequência montagem

Caracteristicas especiais porca *FABORY* SECURITY:
- Montagem feita sempre com duas porcas idênticas
- Aparafusa-se a primeira porca no parafuso à mão. Instala-se a segunda porca ao contrário até uma distância de meia volta da primeira porca,resultado numa forma única.Ambas as porcas podem ser agora apertadas simultâneamente com uma chave. Após esta montagem a porca superior pode ser retirada à mão.
- Desmontagem: aparafusar uma segunda porca ao contrário no parafuso à mão até à distância de meia volta da porca já montada. Desapertar ambas simultâneamente com uma chave.



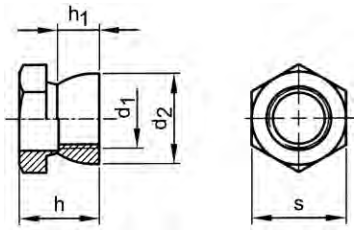
11430 SECURITY Porca **K91A**

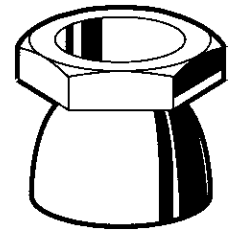
Rosca Métrica
Material Aço Min.55HRc
Tratamento sup. Passivado a amarelo



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6-4k	10	11430.060.001	M10-4k	10	11430.100.001	M12-6k	10	11430.120.001
M8-4k	10	11430.080.001						

SECURITY Porca inviolável

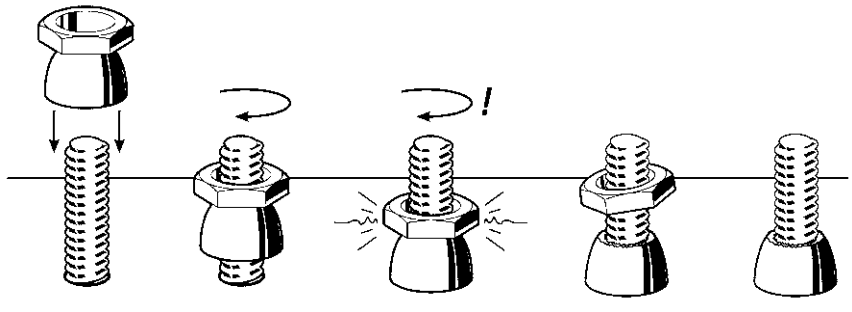




Dados técnicos

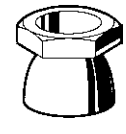
d_1	d_2	h	h_1	P	Ponto de ruptura em Nm	s
M6	9.8	9.5	4.5	1	7-13	11
M8	12.8	12	7	1.25	13-25	13
M10	16.8	15	8.5	1.5	30-40	17
M12	18.8	16	9	1.75	35-45	19
M16	23.8	22	13	2	45-60	24
M20	29.8	25	18.5	2.5	65-80	27

Dados montagem



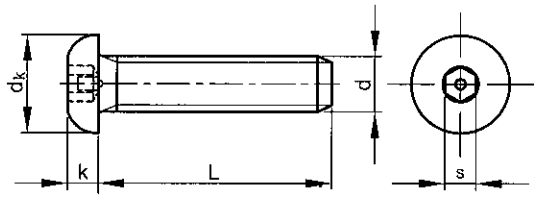
51097 **SECURITY Porca inviolável** **K91A**

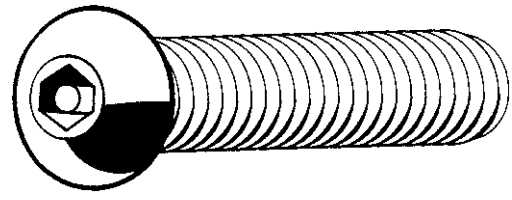
Rosca Métrica
Material Aço inoxidável A2



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6 S=10	100	51097.060.001	M10 S=17	50	51097.100.001	M16 S=24	25	51097.160.001
M8 S=13	100	51097.080.001	M12 S=19	50	51097.120.001	M20*	100	51097.200.001

SECURITY Parafuso cabeça redonda sextavado interior com pino



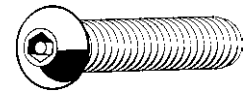


Dados técnicos

d	d_k (max.)	k (max.)	P	s
M3	5.7	1.65	0.5	2
M4	7.6	2.2	0.7	2.5
M5	9.5	2.75	0.8	3
M6	10.5	3.3	1	4
M8	14	4.4	1.25	5
M10	10	5.5	1.5	6

51036 **SECURITY Parafuso cabeça redonda sextavado interior com pino** **K91A**

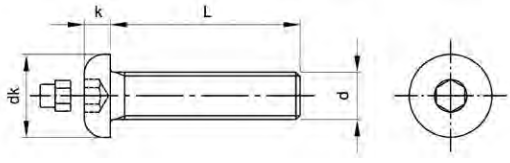
Rosca Métrica
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6*	100	51036.030.006	M5X20	50	51036.050.020	M8X25	25	51036.080.025
M3X8*	100	51036.030.008	M5X25	25	51036.050.025	M8X30	25	51036.080.030
M3X10*	100	51036.030.010	M5X30	25	51036.050.030	M8X40	25	51036.080.040
M3X12*	100	51036.030.012	M5X40*	100	51036.050.040	M8X45*	100	51036.080.045
M3X16*	100	51036.030.016				M8X50	25	51036.080.050
M3X20*	100	51036.030.020	M6X10	25	51036.060.010	M8X60*	100	51036.080.060
			M6X12	25	51036.060.012			
M4X6*	100	51036.040.006	M6X16	25	51036.060.016	M10X16*	100	51036.100.016
M4X8*	100	51036.040.008	M6X20	25	51036.060.020	M10X20*	100	51036.100.020
M4X10	50	51036.040.010	M6X25	25	51036.060.025	M10X25*	100	51036.100.025
M4X12	50	51036.040.012	M6X30	25	51036.060.030	M10X30*	100	51036.100.030
M4X16	50	51036.040.016	M6X40	25	51036.060.040	M10X40*	100	51036.100.040
M4X20	50	51036.040.020	M6X50	25	51036.060.050	M10X45*	100	51036.100.045
M4X25	50	51036.040.025	M6X60*	100	51036.060.060	M10X50*	100	51036.100.050
M4X30	50	51036.040.030				M10X60*	100	51036.100.060
			M8X10	25	51036.080.010	M10X70*	100	51036.100.070
M5X10	50	51036.050.010	M8X12	25	51036.080.012	M10X75*	100	51036.100.075
M5X12	50	51036.050.012	M8X16	25	51036.080.016	M10X90*	100	51036.100.090
M5X16	50	51036.050.016	M8X20	25	51036.080.020			

10

SECURITY Parafuso cabeça redonda com sextavado interior





Dados técnicos

d	d_k	k	s
M6	10.5	3.3	4
M8	14	4.4	5
M10	17.5	5.5	6
M12	21	6.6	7

51672 **SECURITY Parafuso cabeça redonda com sextavado interior** **K91A**

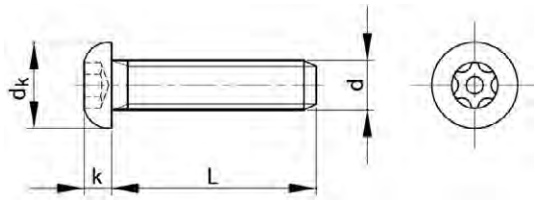
Rosca Métrica
Material Aço inoxidável A2

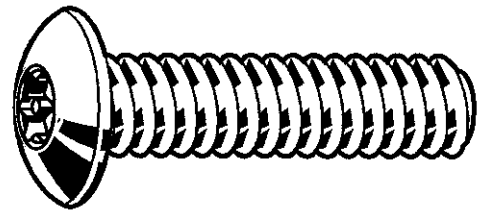


RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X12*	100	51672.060.012	M8X20*	100	51672.080.020	M10X35*	100	51672.100.035
M6X16*	100	51672.060.016	M8X25*	100	51672.080.025	M10X40*	100	51672.100.040
M6X20*	100	51672.060.020	M8X30*	100	51672.080.030	M10X45*	100	51672.100.045
M6X25*	100	51672.060.025	M8X40*	100	51672.080.040	M10X60*	100	51672.100.060
M6X30*	100	51672.060.030	M8X45*	100	51672.080.045			
M6X35*	100	51672.060.035	M8X50*	100	51672.080.050	M12X25*	100	51672.120.025
M6X50*	100	51672.060.050	M8X60*	100	51672.080.060	M12X30*	100	51672.120.030
M6X60*	100	51672.060.060				M12X40*	100	51672.120.040
			M10X25*	100	51672.100.025	M12X50*	100	51672.120.050
M8X12*	100	51672.080.012	M10X30*	100	51672.100.030	M12X60*	100	51672.120.060

SECURITY Parafuso cabeça redonda hexalobular com pino





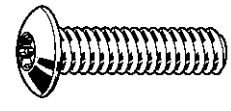
Dados técnicos

d	Chave caixa	d_k (max.)	k (max.)	P
M3	T10	5.7	1.65	0.5
M4	T20	7.6	2.2	0.7
M5	T25	9.5	2.75	0.8
M6	T30	10.5	3.3	1
M8	T40	14	4.4	1.25
M10	T45	17.5	5.5	1.5

51037 **SECURITY Parafuso cabeça redonda hexalobular com pino** **K91A**

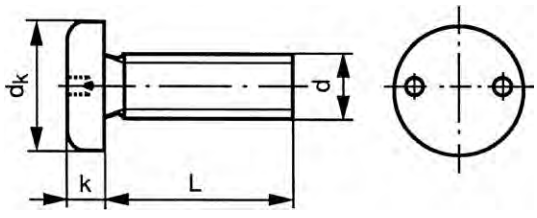
Rosca Métrica
Material Aço inoxidável A2
Classe 70

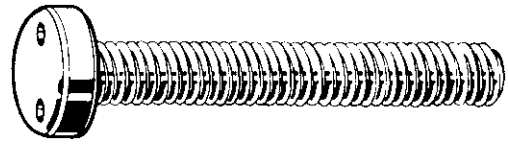
RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6*	100	51037.030.006	M5X16	50	51037.050.016	M6X55*	100	51037.060.055
M3X8*	100	51037.030.008	M5X20	50	51037.050.020	M6X60*	100	51037.060.060
M3X10*	100	51037.030.010	M5X25	25	51037.050.025			
M3X12*	100	51037.030.012	M5X30	25	51037.050.030	M8X12	25	51037.080.012
M3X16*	100	51037.030.016	M5X40*	100	51037.050.040	M8X16	25	51037.080.016
M3X20*	100	51037.030.020	M5X50*	100	51037.050.050	M8X20	25	51037.080.020
			M5X60*	100	51037.050.060	M8X25	25	51037.080.025
M4X6*	100	51037.040.006				M8X30	25	51037.080.030
M4X8*	100	51037.040.008	M6X10	25	51037.060.010	M8X40	25	51037.080.040
M4X10	50	51037.040.010	M6X12	25	51037.060.012	M8X50	25	51037.080.050
M4X12	50	51037.040.012	M6X14*	100	51037.060.014	M8X60*	100	51037.080.060
M4X16	50	51037.040.016	M6X16	25	51037.060.016			
M4X20	50	51037.040.020	M6X18*	100	51037.060.018	M10X16*	100	51037.100.016
M4X25	50	51037.040.025	M6X20	25	51037.060.020	M10X20*	100	51037.100.020
M4X30	50	51037.040.030	M6X22*	100	51037.060.022	M10X25*	100	51037.100.025
M4X35*	100	51037.040.035	M6X25	25	51037.060.025	M10X30*	100	51037.100.030
M4X40*	100	51037.040.040	M6X30	25	51037.060.030	M10X40*	100	51037.100.040
M4X50*	100	51037.040.050	M6X35*	100	51037.060.035	M10X50*	100	51037.100.050
			M6X40	25	51037.060.040	M10X60*	100	51037.100.060
M5X8*	100	51037.050.008	M6X45*	100	51037.060.045	M10X65*	100	51037.100.065
M5X10	50	51037.050.010	M6X50	25	51037.060.050	M10X70*	100	51037.100.070
M5X12	50	51037.050.012						

SECURITY Parafuso cabeça cilindrica com 2 furos





Dados técnicos

d	d_k	k	P	d	d_k	k	P
M3	6	1.8	0.5	M5	10	3	0.8
M4	8	2.4	0.7	M6	12	3.6	1

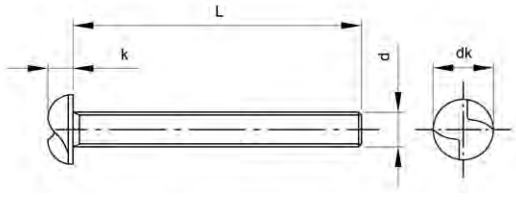
51591 **SECURITY Parafuso cabeça cilindrica com 2 furos** **K91A**

Rosca Métrica
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6*	100	51591.030.006	M4X12	10	51591.040.012	M5X30	10	51591.050.030
M3X8*	100	51591.030.008	M4X16	10	51591.040.016			
M3X10	10	51591.030.010	M4X20	10	51591.040.020	M6X10*	100	51591.060.010
M3X12	10	51591.030.012	M4X25	10	51591.040.025	M6X12	10	51591.060.012
M3X16	10	51591.030.016				M6X16	10	51591.060.016
M3X20*	100	51591.030.020	M5X10*	100	51591.050.010	M6X20	10	51591.060.020
			M5X12	10	51591.050.012	M6X25	10	51591.060.025
M4X6*	100	51591.040.006	M5X16	10	51591.050.016	M6X30	10	51591.060.030
M4X8*	100	51591.040.008	M5X20	10	51591.050.020	M6X40	10	51591.060.040
M4X10	10	51591.040.010	M5X25	10	51591.050.025			

SECURITY Parafuso de segurança cabeça cilíndrica





Dados técnicos

d	d_k	k
M4	7.5	3
M5	9.17	3.5
M6	12	4.4
M8	13	4.8

51667 **SECURITY Parafuso de segurança cabeça cilíndrica** **K91A**

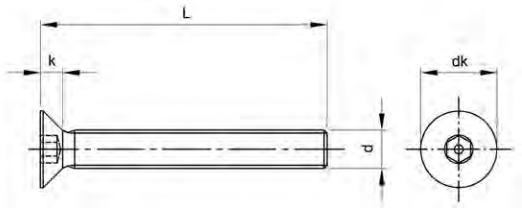
Rosca Métrica
Material Aço inoxidável A2

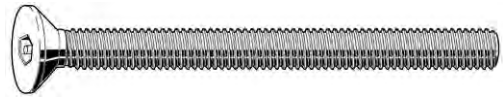


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X8*	100	51667.040.008	M4X50*	100	51667.040.050	M5X40*	100	51667.050.040
M4X10*	100	51667.040.010				M5X50*	100	51667.050.050
M4X12*	100	51667.040.012	M5X8*	100	51667.050.008	M5X60*	100	51667.050.060
M4X16*	100	51667.040.016	M5X10*	100	51667.050.010	M5X70*	100	51667.050.070
M4X20*	100	51667.040.020	M5X12*	100	51667.050.012			
M4X25*	100	51667.040.025	M5X16*	100	51667.050.016	M6X10*	100	51667.060.010
M4X30*	100	51667.040.030	M5X20*	100	51667.050.020	M6X12*	100	51667.060.012
M4X35*	100	51667.040.035	M5X25*	100	51667.050.025	M6X16*	100	51667.060.016
M4X40*	100	51667.040.040	M5X30*	100	51667.050.030	M6X20*	100	51667.060.020

51667	SECURITY Parafuso de segurança cabeça cilíndrica								←
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	
M6X25*	100	51667.060.025	M6X70*	100	51667.060.070	M8X30*	100	51667.080.030	
M6X30*	100	51667.060.030				M8X35*	100	51667.080.035	
M6X35*	100	51667.060.035	M8X10*	100	51667.080.010	M8X40*	100	51667.080.040	
M6X40*	100	51667.060.040	M8X12*	100	51667.080.012	M8X45*	100	51667.080.045	
M6X45*	100	51667.060.045	M8X16*	100	51667.080.016	M8X50*	100	51667.080.050	
M6X50*	100	51667.060.050	M8X20*	100	51667.080.020	M8X60*	100	51667.080.060	
M6X60*	100	51667.060.060	M8X25*	100	51667.080.025	M8X70*	100	51667.080.070	

SECURITY Parafuso cabeça de embeber com pino





Dados técnicos

d	Chave caixa	d_k	k
M3	2	6	1.75
M4	2.5	8	2.4
M5	3	10	2.95
M6	4	12	3.45
M8	5	16	4.6
M10	6	20	5.5

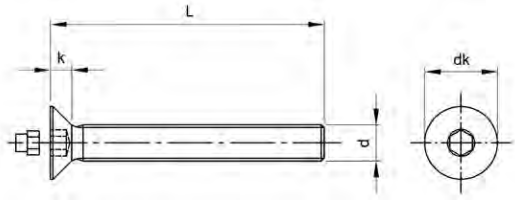
51578	SECURITY Parafuso cabeça de embeber com pino	K91A

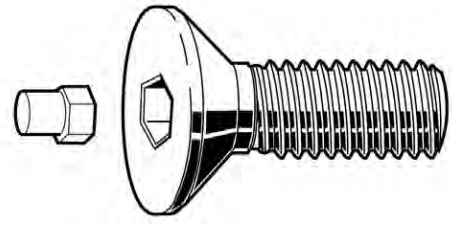
Rosca Métrica
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6*	100	51578.030.006	M5X12*	100	51578.050.012			
M3X8*	100	51578.030.008	M5X16*	100	51578.050.016	M8X10*	100	51578.080.010
M3X10*	100	51578.030.010	M5X20*	100	51578.050.020	M8X12*	100	51578.080.012
M3X12*	100	51578.030.012	M5X25*	100	51578.050.025	M8X16*	100	51578.080.016
M3X16*	100	51578.030.016	M5X30*	100	51578.050.030	M8X20*	100	51578.080.020
M3X20*	100	51578.030.020	M5X40*	100	51578.050.040	M8X25*	100	51578.080.025
			M5X50*	100	51578.050.050	M8X30*	100	51578.080.030
M4X8*	100	51578.040.008				M8X40*	100	51578.080.040
M4X10*	100	51578.040.010	M6X10*	100	51578.060.010	M8X50*	100	51578.080.050
M4X12*	100	51578.040.012	M6X12*	100	51578.060.012	M8X60*	100	51578.080.060
M4X16*	100	51578.040.016	M6X16*	100	51578.060.016			
M4X20*	100	51578.040.020	M6X20*	100	51578.060.020	M10X25*	100	51578.100.025
M4X25*	100	51578.040.025	M6X25*	100	51578.060.025	M10X30*	100	51578.100.030
M4X30*	100	51578.040.030	M6X30*	100	51578.060.030	M10X40*	100	51578.100.040
M4X40*	100	51578.040.040	M6X40*	100	51578.060.040	M10X50*	100	51578.100.050
			M6X50*	100	51578.060.050	M10X60*	100	51578.100.060
M5X10*	100	51578.050.010						

SECURITY Parafuso cabeça de embeber





Dados técnicos

d	Chave caixa	d_k	k
M6	4	12	3.45
M8	5	16	4.6
M10	6	20	5.5
M12	8	24	6.5

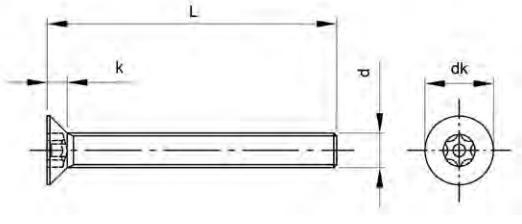
51673 **SECURITY Parafuso cabeça de embeber** **K91A**

Rosca Métrica
Material Aço inoxidável A2
Classe 50



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X12*	100	51673.060.012	M6X50*	100	51673.060.050	M8X60*	100	51673.080.060
M6X20*	100	51673.060.020						
M6X25*	100	51673.060.025	M8X16*	100	51673.080.016	M10X25*	100	51673.100.025
M6X30*	100	51673.060.030	M8X40*	100	51673.080.040			
M6X40*	100	51673.060.040	M8X50*	100	51673.080.050	M12X30*	100	51673.120.030

SECURITY Parafuso cabeça de embeber com pino





Dados técnicos

d	Chave caixa	d_k	k
M3	T10	6	1.75
M4	T20	8	2.4
M5	T25	10	2.95
M6	T30	12	3.45

51574 **SECURITY Parafuso cabeça de embeber com pino** **K91A**

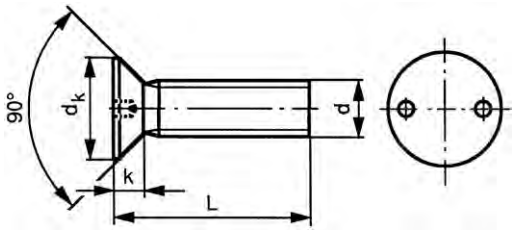
Rosca Métrica
Material Aço inoxidável A2
Classe 50

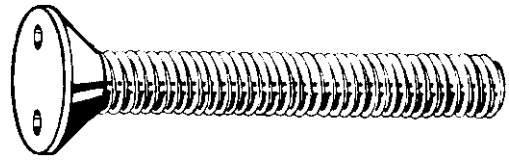


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X6*	100	51574.030.006	M4X16*	100	51574.040.016	M5X20*	100	51574.050.020
M3X8*	100	51574.030.008	M4X20*	100	51574.040.020	M5X25*	100	51574.050.025
M3X10*	100	51574.030.010	M4X25*	100	51574.040.025	M5X30*	100	51574.050.030
M3X12*	100	51574.030.012	M4X30*	100	51574.040.030	M5X40*	100	51574.050.040
M3X16*	100	51574.030.016	M4X40*	100	51574.040.040	M5X50*	100	51574.050.050
M3X20*	100	51574.030.020	M4X50*	100	51574.040.050	M5X60*	100	51574.050.060
						M5X70*	100	51574.050.070
M4X6*	100	51574.040.006	M5X8*	100	51574.050.008	M5X80*	100	51574.050.080
M4X8*	100	51574.040.008	M5X10*	100	51574.050.010			
M4X10*	100	51574.040.010	M5X12*	100	51574.050.012	M6X10*	100	51574.060.010
M4X12*	100	51574.040.012	M5X16*	100	51574.050.016	M6X12*	100	51574.060.012

51574	SECURITY Parafuso cabeça de embeber com pino								←
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	
M6X16*	100	51574.060.016	M6X30*	100	51574.060.030	M6X60*	100	51574.060.060	
M6X20*	100	51574.060.020	M6X40*	100	51574.060.040				
M6X25*	100	51574.060.025	M6X50*	100	51574.060.050				

SECURITY Parafuso cabeça de embeber com 2 furos





Dados técnicos

d	d_k	k (max.)	P	d	d_k	k (max.)	P
M3	6.3	1.7	0.5	M5	10.4	2.7	0.8
M4	9.4	2.7	0.7	M6	12.6	3.3	1

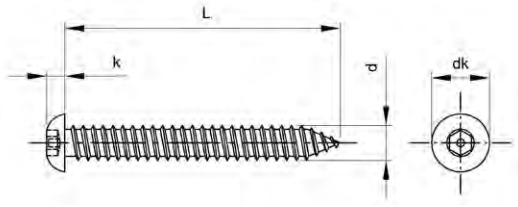
51592	SECURITY Parafuso cabeça de embeber com 2 furos	K91A
Rosca	Métrica	
Material	Aço inoxidável A2	



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X10	10	51592.030.010	M4X20	10	51592.040.020	M5X30	10	51592.050.030
M3X12	10	51592.030.012	M4X25	10	51592.040.025			
M3X16	10	51592.030.016				M6X12	10	51592.060.012
			M5X12	10	51592.050.012	M6X20	10	51592.060.020
M4X10	10	51592.040.010	M5X16	10	51592.050.016	M6X25	10	51592.060.025
M4X12	10	51592.040.012	M5X20	10	51592.050.020	M6X30	10	51592.060.030
M4X16	10	51592.040.016	M5X25	10	51592.050.025	M6X40	10	51592.060.040

10

SECURITY Parafuso cabeça redonda sextavado interior com pino





Dados técnicos

d	Chave caixa	d_k	k
ST3.5	2	5.7	1.65
ST4.2	2.5	7.6	2.2
ST4.8	3	9.5	2.75
ST6.3	4	10.5	3.3

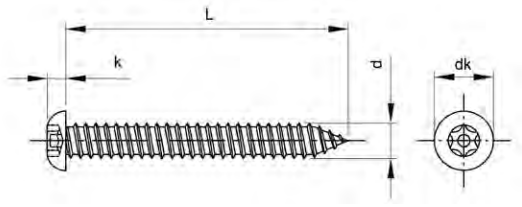
51599 **SECURITY Parafuso cabeça redonda sextavado interior com pino** **K91A**

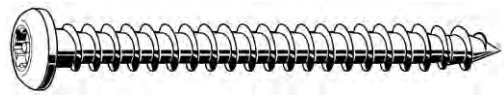
Rosca Autorroscante
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X9,5MM*	100	51599.035.009	ST4,2X19MM*	100	51599.042.019	ST4,8X32MM*	100	51599.048.032
ST3,5X13MM*	100	51599.035.013	ST4,2X25MM*	100	51599.042.025	ST4,8X38MM*	100	51599.048.038
ST3,5X16MM*	100	51599.035.016	ST4,2X32MM*	100	51599.042.032	ST4,8X50MM*	100	51599.048.050
ST3,5X19MM*	100	51599.035.019	ST4,2X38MM*	100	51599.042.038			
ST3,5X25MM*	100	51599.035.025	ST4,2X50MM*	100	51599.042.050	ST6,3X16MM*	100	51599.063.016
ST3,5X38MM*	100	51599.035.038				ST6,3X19MM*	100	51599.063.019
			ST4,8X13MM*	100	51599.048.013	ST6,3X25MM*	100	51599.063.025
ST4,2X9,5MM*	100	51599.042.009	ST4,8X16MM*	100	51599.048.016	ST6,3X32MM*	100	51599.063.032
ST4,2X13MM*	100	51599.042.013	ST4,8X19MM*	100	51599.048.019	ST6,3X38MM*	100	51599.063.038
ST4,2X16MM*	100	51599.042.016	ST4,8X25MM*	100	51599.048.025	ST6,3X50MM*	100	51599.063.050

SECURITY Parafuso cabeça redonda hexalobular com pino





Dados técnicos

d	Chave caixa	d_k	k
ST3.5	T10	5.7	1.65
ST4.2	T15	7.6	2.2
ST4.8	T25	9.5	2.75
ST5.5	T27	9.9	2.9
ST6.3	T27	10.5	3.3

51572 **SECURITY Parafuso cabeça redonda hexalobular com pino** **K91A**

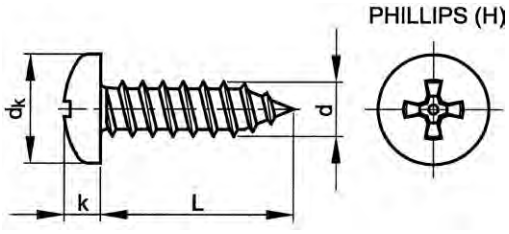
Rosca Autorroscante
Material Aço inoxidável A2

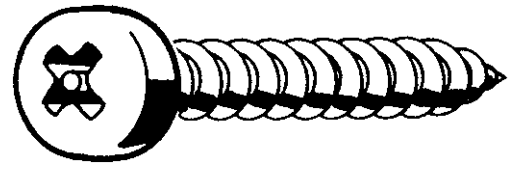


RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X13MM*	100	51572.035.013	ST4,8X13MM*	100	51572.048.013	ST5,5X50MM*	100	51572.055.050
ST3,5X19MM*	100	51572.035.019	ST4,8X19MM*	100	51572.048.019	ST5,5X63MM*	100	51572.055.063
ST3,5X25MM*	100	51572.035.025	ST4,8X25MM*	100	51572.048.025	ST5,5X75MM*	100	51572.055.075
ST3,5X38MM*	100	51572.035.038	ST4,8X32MM*	100	51572.048.032			
			ST4,8X38MM*	100	51572.048.038	ST6,3X13MM*	100	51572.063.013
ST4,2X13MM*	100	51572.042.013	ST4,8X50MM*	100	51572.048.050	ST6,3X19MM*	100	51572.063.019
ST4,2X19MM*	100	51572.042.019				ST6,3X25MM*	100	51572.063.025
ST4,2X25MM*	100	51572.042.025	ST5,5X19MM*	100	51572.055.019	ST6,3X32MM*	100	51572.063.032
ST4,2X32MM*	100	51572.042.032	ST5,5X32MM*	100	51572.055.032	ST6,3X38MM*	100	51572.063.038
ST4,2X38MM*	100	51572.042.038	ST5,5X38MM*	100	51572.055.038	ST6,3X50MM*	100	51572.063.050

SECURITY Parafuso cabeça cilindrica fenda cruz com pino



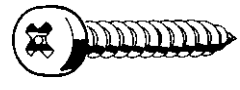


Dados técnicos

d	d_k ≈	k ≈	Nr. fenda	P
ST3.5	7	2.5	2	1.3
ST4.2	8.1	2.8	2	1.4
ST4.8	9.3	3.5	2	1.6
ST5.5	10.6	3.8	3	1.8

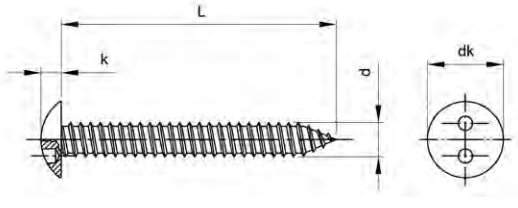
51593 **SECURITY Parafuso cabeça cilindrica Phillips com pino** **K91A**

Rosca Autorroscante
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X13MM	10	51593.035.013	ST4,2X32MM	10	51593.042.032	ST4,8X50MM	10	51593.048.050
ST3,5X19MM	10	51593.035.019	ST4,2X38MM	10	51593.042.038			
ST3,5X25MM	10	51593.035.025				ST5,5X19MM	10	51593.055.019
ST3,5X38MM	10	51593.035.038	ST4,8X13MM	10	51593.048.013	ST5,5X25MM	10	51593.055.025
			ST4,8X19MM	10	51593.048.019	ST5,5X32MM	10	51593.055.032
ST4,2X13MM	10	51593.042.013	ST4,8X25MM	10	51593.048.025	ST5,5X38MM	10	51593.055.038
ST4,2X19MM	10	51593.042.019	ST4,8X32MM	10	51593.048.032	ST5,5X50MM	10	51593.055.050
ST4,2X25MM	10	51593.042.025	ST4,8X38MM	10	51593.048.038			

SECURITY Parafuso cabeça cilíndrica com dois furos





Dados técnicos

d	d_k	k
ST4.2	9.5	2.2
ST4.8	10.5	2.75

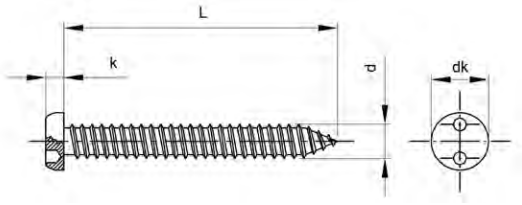
51598 **SECURITY Parafuso cabeça cilíndrica com dois furos** **K91A**

Rosca Autorroscante
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST4,2X13MM*	100	51598.042.013				ST4,8X25MM*	100	51598.048.025
ST4,2X19MM*	100	51598.042.019	ST4,8X9,5MM*	100	51598.048.009	ST4,8X32MM*	100	51598.048.032
ST4,2X25MM*	100	51598.042.025	ST4,8X13MM*	100	51598.048.013	ST4,8X38MM*	100	51598.048.038
ST4,2X32MM*	100	51598.042.032	ST4,8X19MM*	100	51598.048.019	ST4,8X50MM*	100	51598.048.050
ST4,2X38MM*	100	51598.042.038						

SECURITY Parafuso cabeça cilíndrica com 2 furos





Dados técnicos

d	d_k	k
ST2.9	5.6	1.65
ST3.5	5.7	1.65
ST4.2	7.6	2.2
ST4.8	9.5	2.75
ST5.5	10.5	3.3
ST6.3	12.4	3.3

51595 **SECURITY Parafuso cabeça cilíndrica com 2 furos** **K91A**

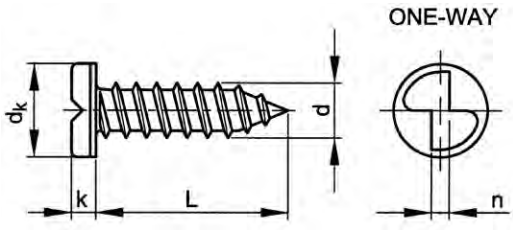
Rosca Autorroscante
Material Aço inoxidável A2

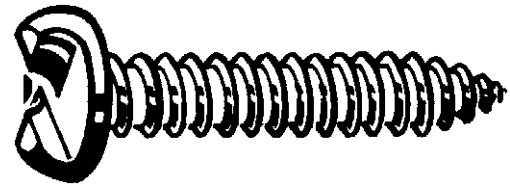


RoHS

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X6,5MM*	100	51595.029.006	ST3,5X50MM*	100	51595.035.050	ST4,8X32MM*	100	51595.048.032
ST2,9X9,5MM*	100	51595.029.009				ST4,8X38MM*	100	51595.048.038
ST2,9X13MM*	100	51595.029.013	ST4,2X13MM*	100	51595.042.013	ST4,8X45MM*	100	51595.048.045
ST2,9X16MM*	100	51595.029.016	ST4,2X16MM*	100	51595.042.016	ST4,8X50MM*	100	51595.048.050
ST2,9X19MM*	100	51595.029.019	ST4,2X19MM*	100	51595.042.019			
ST2,9X25MM*	100	51595.029.025	ST4,2X25MM*	100	51595.042.025	ST5,5X13MM*	100	51595.055.013
			ST4,2X32MM*	100	51595.042.032	ST5,5X19MM*	100	51595.055.019
ST3,5X6,5MM*	100	51595.035.006	ST4,2X38MM*	100	51595.042.038	ST5,5X25MM*	100	51595.055.025
ST3,5X9,5MM*	100	51595.035.009	ST4,2X45MM*	100	51595.042.045	ST5,5X32MM*	100	51595.055.032
ST3,5X13MM*	100	51595.035.013	ST4,2X50MM*	100	51595.042.050	ST5,5X38MM*	100	51595.055.038
ST3,5X16MM*	100	51595.035.016				ST5,5X50MM*	100	51595.055.050
ST3,5X19MM*	100	51595.035.019	ST4,8X13MM*	100	51595.048.013			
ST3,5X25MM*	100	51595.035.025	ST4,8X16MM*	100	51595.048.016	ST6,3X25MM*	100	51595.063.025
ST3,5X32MM*	100	51595.035.032	ST4,8X19MM*	100	51595.048.019	ST6,3X32MM*	100	51595.063.032
ST3,5X38MM*	100	51595.035.038	ST4,8X25MM*	100	51595.048.025	ST6,3X50MM*	100	51595.063.050

SECURITY Parafuso “one-way”





Dados técnicos

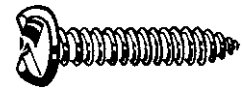
d	d_k	k	n	P
ST2.9	5.6	1.75	0.8	1.1
ST3.5	6.9	2.1	1	1.3
ST4.2	8.2	2.45	1.2	1.4
ST4.8	9.1	3.5	1.4	1.6
ST5.5	10.4	3.9	1.6	1.8
ST6.3	12	4.4	2.0	1.8

Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.	Código	Página
ST	One-way	Aço	Zn	26910	10-121
ST	One-way	INOX A2		51668	10-121

26910 SECURITY Parafuso “one-way” K91A

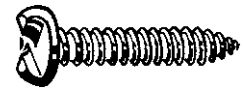
Rosca Autorroscante
Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X19MM	200	26910.029.019	ST3,5X25MM	200	26910.035.025	ST4,2X32MM	200	26910.042.032
						ST4,2X38MM	200	26910.042.038
ST3,5X13MM	200	26910.035.013	ST4,2X19MM	200	26910.042.019	ST4,2X50MM	200	26910.042.050
ST3,5X19MM	200	26910.035.019	ST4,2X25MM	200	26910.042.025	ST4,2X63MM	200	26910.042.063

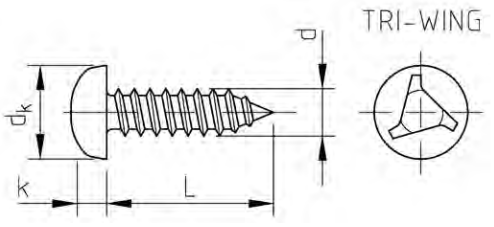
51668 SECURITY Parafuso “one-way” K91A

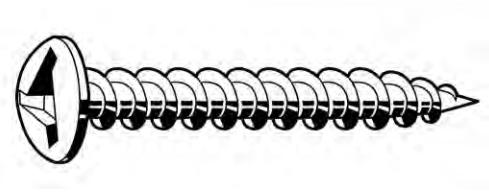
Rosca Autorroscante
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X9,5MM	200	51668.029.009	ST4,2X32MM	200	51668.042.032	ST5,5X25MM*	100	51668.055.025
ST2,9X13MM	200	51668.029.013	ST4,2X38MM	200	51668.042.038	ST5,5X32MM*	100	51668.055.032
ST2,9X16MM*	100	51668.029.016	ST4,2X50MM	200	51668.042.050	ST5,5X38MM*	100	51668.055.038
ST2,9X19MM	200	51668.029.019				ST5,5X50MM*	100	51668.055.050
			ST4,8X13MM*	100	51668.048.013	ST5,5X63MM*	100	51668.055.063
ST3,5X13MM	200	51668.035.013	ST4,8X16MM*	100	51668.048.016			
ST3,5X16MM*	100	51668.035.016	ST4,8X19MM*	100	51668.048.019	ST6,3X19MM*	100	51668.063.019
ST3,5X19MM	200	51668.035.019	ST4,8X25MM*	100	51668.048.025	ST6,3X25MM*	100	51668.063.025
ST3,5X25MM	200	51668.035.025	ST4,8X32MM*	100	51668.048.032	ST6,3X32MM*	100	51668.063.032
ST3,5X32MM*	100	51668.035.032	ST4,8X38MM*	100	51668.048.038	ST6,3X38MM*	100	51668.063.038
			ST4,8X50MM*	100	51668.048.050	ST6,3X50MM*	100	51668.063.050
ST4,2X13MM*	100	51668.042.013				ST6,3X63MM*	100	51668.063.063
ST4,2X19MM	200	51668.042.019	ST5,5X19MM*	100	51668.055.019	ST6,3X75MM*	100	51668.063.075
ST4,2X25MM	200	51668.042.025						

SECURITY Parafuso cabeça cilindrica com tri-wing





Dados técnicos

d	d_k	k	No. Tri-Wing	P
ST4.2	8.18	2.44	W4	1.7
ST4.8	9.48	2.88	W5	2

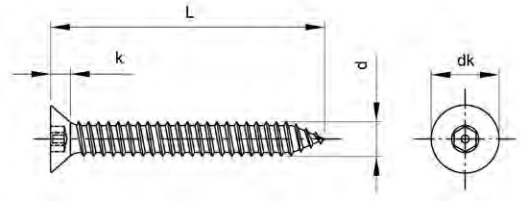
51669 **SECURITY Parafuso cabeça cilindrica com tri-wing** **K91A**

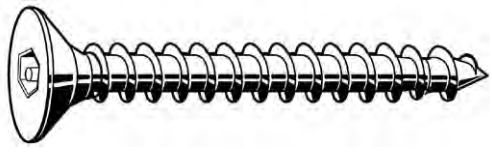
Rosca Autorroscante
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST4,2X13MM	10	51669.042.013	ST4,2X32MM	10	51669.042.032	ST4,8X19MM	10	51669.048.019
ST4,2X19MM	10	51669.042.019				ST4,8X25MM	10	51669.048.025
ST4,2X25MM	10	51669.042.025	ST4,8X13MM	10	51669.048.013			

SECURITY Parafuso cabeça de embeber com pino





Dados técnicos

d	Chave caixa	d_k	k
ST3.5	2	6.8	2.15
ST4.2	2.5	8.1	2.6
ST4.8	3	9.5	3.15
ST5.5	4	10.8	3.55
ST6.3	4	12.4	4

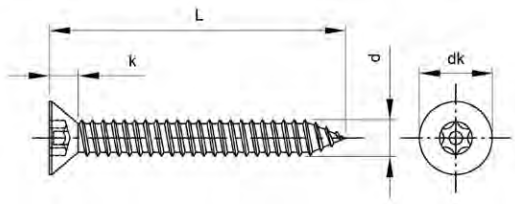
51588 **SECURITY Parafuso cabeça de embeber com pino** **K91A**

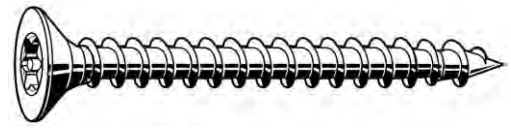
Rosca Autorroscante
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X9,5MM*	100	51588.035.009	ST4,2X38MM*	100	51588.042.038			
ST3,5X19MM*	100	51588.035.019	ST4,2X50MM*	100	51588.042.050	ST5,5X19MM*	100	51588.055.019
ST3,5X25MM*	100	51588.035.025				ST5,5X32MM*	100	51588.055.032
ST3,5X38MM*	100	51588.035.038	ST4,8X16MM*	100	51588.048.016			
			ST4,8X19MM*	100	51588.048.019	ST6,3X19MM*	100	51588.063.019
ST4,2X13MM*	100	51588.042.013	ST4,8X25MM*	100	51588.048.025	ST6,3X25MM*	100	51588.063.025
ST4,2X16MM*	100	51588.042.016	ST4,8X32MM*	100	51588.048.032	ST6,3X50MM*	100	51588.063.050
ST4,2X19MM*	100	51588.042.019	ST4,8X38MM*	100	51588.048.038			
ST4,2X25MM*	100	51588.042.025	ST4,8X50MM*	100	51588.048.050			

SECURITY Parafuso cabeça de embeber hexalobular com pin





Dados técnicos

d	Chave caixa	d_k	k
ST3.5	T15	6.8	2.15
ST4.2	T20	8.1	2.6
ST4.8	T25	9.5	3.15
ST5.5	T27	10.8	3.55
ST6.3	T30	12.4	4

51573 **SECURITY Parafuso cabeça de embeber hexalobular com pin** **K91A**

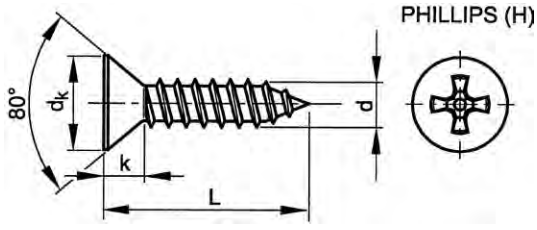
Rosca Autorroscante
Material Aço inoxidável A2

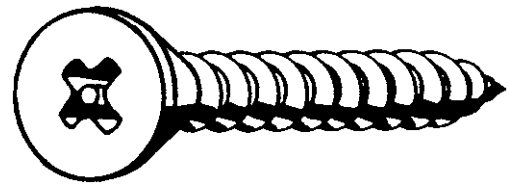
RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X13MM*	100	51573.035.013	ST4,2X32MM*	100	51573.042.032	ST5,5X25MM*	100	51573.055.025
ST3,5X16MM*	100	51573.035.016	ST4,2X38MM*	100	51573.042.038	ST5,5X38MM*	100	51573.055.038
ST3,5X19MM*	100	51573.035.019				ST5,5X50MM*	100	51573.055.050
ST3,5X25MM*	100	51573.035.025	ST4,8X13MM*	100	51573.048.013	ST5,5X75MM*	100	51573.055.075
ST3,5X32MM*	100	51573.035.032	ST4,8X16MM*	100	51573.048.016			
ST3,5X38MM*	100	51573.035.038	ST4,8X19MM*	100	51573.048.019	ST6,3X16MM*	100	51573.063.016
			ST4,8X25MM*	100	51573.048.025	ST6,3X19MM*	100	51573.063.019
ST4,2X13MM*	100	51573.042.013	ST4,8X32MM*	100	51573.048.032	ST6,3X25MM*	100	51573.063.025
ST4,2X16MM*	100	51573.042.016	ST4,8X38MM*	100	51573.048.038	ST6,3X32MM*	100	51573.063.032
ST4,2X19MM*	100	51573.042.019	ST4,8X50MM*	100	51573.048.050	ST6,3X38MM*	100	51573.063.038
ST4,2X25MM*	100	51573.042.025				ST6,3X50MM*	100	51573.063.050

SECURITY Parafuso cabeça de embeber fenda cruz com pino





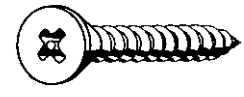
Dados técnicos

d	d_k ≈	k ≈	Nr. fenda	P
ST3.5	6.7	2.7	2	1.3
ST4.2	8.3	3.4	2	1.4
ST4.8	9	3.4	2	1.6
ST5.5	10.6	4.3	3	1.8

51594 **SECURITY Parafuso cabeça de embeber Phillips com pino** **K91A**

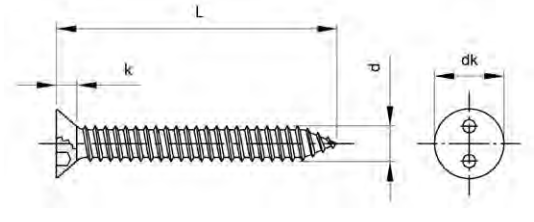
Rosca Autorroscante
Material Aço inoxidável A2

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X13MM	10	51594.035.013	ST4,2X32MM	10	51594.042.032	ST4,8X50MM	10	51594.048.050
ST3,5X25MM	10	51594.035.025	ST4,2X38MM	10	51594.042.038			
ST3,5X32MM	10	51594.035.032				ST5,5X19MM	10	51594.055.019
ST3,5X38MM	10	51594.035.038	ST4,8X19MM	10	51594.048.019	ST5,5X25MM	10	51594.055.025
			ST4,8X25MM	10	51594.048.025	ST5,5X32MM	10	51594.055.032
ST4,2X19MM	10	51594.042.019	ST4,8X32MM	10	51594.048.032	ST5,5X38MM	10	51594.055.038
ST4,2X25MM	10	51594.042.025	ST4,8X38MM	10	51594.048.038	ST5,5X50MM	10	51594.055.050

SECURITY Parafuso cabeça de embeber com 2 furos





Dados técnicos

d	d_k	k
ST2.9	5.6	1.7
ST3.5	6.8	2.15
ST4.2	8.1	2.6
ST4.8	9.5	3.15
ST5.5	10.8	3.55
ST6.3	12.4	4

51596 **SECURITY Parafuso cabeça de embeber com 2 furos** **K91A**

Rosca Autorroscante
Material Aço inoxidável A2

RoHS

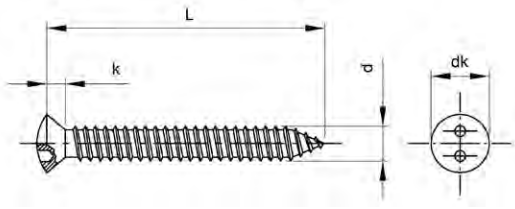


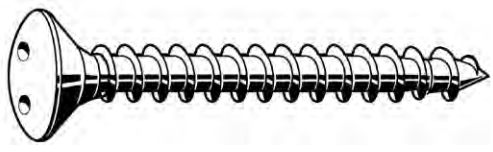
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST2,9X6,5MM*	100	51596.029.006	ST3,5X13MM*	100	51596.035.013	ST4,2X13MM*	100	51596.042.013
ST2,9X9,5MM*	100	51596.029.009	ST3,5X16MM*	100	51596.035.016	ST4,2X16MM*	100	51596.042.016
ST2,9X13MM*	100	51596.029.013	ST3,5X19MM*	100	51596.035.019	ST4,2X19MM*	100	51596.042.019
ST2,9X19MM*	100	51596.029.019	ST3,5X25MM*	100	51596.035.025	ST4,2X25MM*	100	51596.042.025
ST2,9X25MM*	100	51596.029.025	ST3,5X32MM*	100	51596.035.032	ST4,2X32MM*	100	51596.042.032
			ST3,5X38MM*	100	51596.035.038	ST4,2X38MM*	100	51596.042.038
ST3,5X9,5MM*	100	51596.035.009				ST4,2X50MM*	100	51596.042.050

51596 **SECURITY Parafuso cabeça de embeber com 2 furos** ←

d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
			ST4,8X38MM*	100	51596.048.038	ST5,5X38MM*	100	51596.055.038
ST4,8X13MM*	100	51596.048.013	ST4,8X45MM*	100	51596.048.045	ST5,5X50MM*	100	51596.055.050
ST4,8X16MM*	100	51596.048.016	ST4,8X50MM*	100	51596.048.050			
ST4,8X19MM*	100	51596.048.019				ST6,3X50MM*	100	51596.063.050
ST4,8X25MM*	100	51596.048.025	ST5,5X25MM*	100	51596.055.025			
ST4,8X32MM*	100	51596.048.032	ST5,5X32MM*	100	51596.055.032			

SECURITY Parafuso cabeça de lentilha com 2 furos





Dados técnicos

d	d_k	k
3.5	5.7	1.65
4.2	7.6	2.2
4.8	9.5	2.75

51597 **SECURITY Parafuso cabeça de lentilha com 2 furos** **K91A**

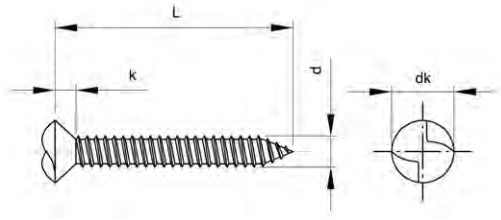
Rosca Autorroscante
Material Aço inoxidável A2

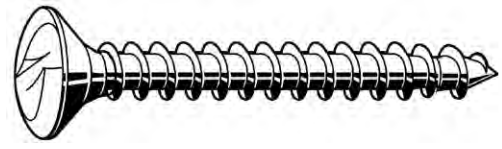
RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST3,5X16MM*	100	51597.035.016	ST4,2X13MM*	100	51597.042.013			
ST3,5X19MM*	100	51597.035.019	ST4,2X19MM*	100	51597.042.019	ST4,8X13MM*	100	51597.048.013
ST3,5X25MM*	100	51597.035.025	ST4,2X25MM*	100	51597.042.025	ST4,8X19MM*	100	51597.048.019
ST3,5X32MM*	100	51597.035.032	ST4,2X32MM*	100	51597.042.032	ST4,8X25MM*	100	51597.048.025
ST3,5X38MM*	100	51597.035.038	ST4,2X38MM*	100	51597.042.038	ST4,8X32MM*	100	51597.048.032
ST3,5X50MM*	100	51597.035.050	ST4,2X50MM*	100	51597.042.050	ST4,8X38MM*	100	51597.048.038

SECURITY Parafuso cabeça de lentilha one-way





Dados técnicos

d	d_k	k
4.2	8.4	3.9
4.8	9.8	4.5

51671 **SECURITY Parafuso cabeça de lentilha one-way** **K91A**

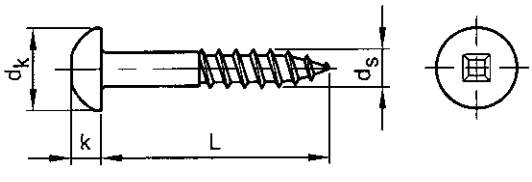
Rosca Autorroscante
Material Aço inoxidável A2

RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
ST4,2X13MM*	100	51671.042.013	ST4,2X38MM*	100	51671.042.038	ST4,8X19MM*	100	51671.048.019
ST4,2X19MM*	100	51671.042.019				ST4,8X25MM*	100	51671.048.025
ST4,2X25MM*	100	51671.042.025	ST4,8X13MM*	100	51671.048.013	ST4,8X38MM*	100	51671.048.038
ST4,2X32MM*	100	51671.042.032						

SECURITY Parafuso cabeça redonda encaixe quadrado para madeira





Dados técnicos

d_s	d_k	k (max.)	Nr. quadrado
4.2	8	2.8	2

Grupos de produtos

Encaixe	Material	Tratamento sup.		Código	Página
Fenda quadrada interior	Aço	Zn		25750	10-126
Fenda quadrada interior	Aço	Zn	totalmente roscado	25751	10-127

10

25750 **SECURITY Parafuso cabeça redonda encaixe quadrado para madeira** **K05A**

Material Aço
Tratamento sup. Zincado

RoHS



d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
4,2X32MM	200	25750.042.032	4,2X38MM	200	25750.042.038	4,2X50MM	200	25750.042.050

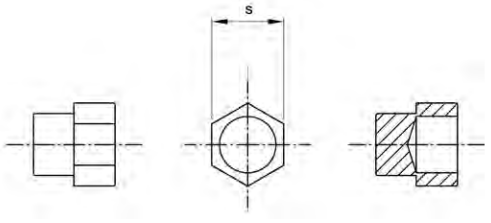
25751 **SECURITY Parafuso cabeça redonda encaixe quadrado para madeira** **K05A**

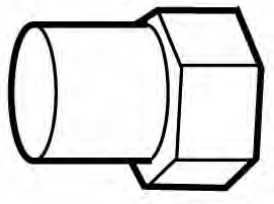
Material Aço
Tratamento sup. Zincado



d_s x L	✉	Ref. do artigo	d_s x L	✉	Ref. do artigo
4,2X19MM	200	25751.042.019	4,2X25MM	200	25751.042.025

SECURITY Encaixe para sextavado interior



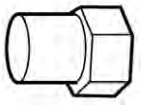


Dados técnicos

d	s
M4	4
M5	5
M6	6
M8	8

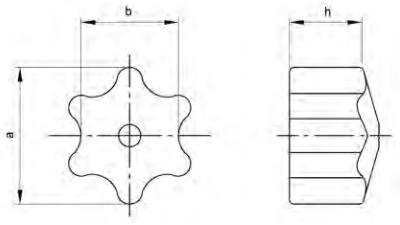
51674 **SECURITY Encaixe para sextavado interior** **K91A**

Material Aço inoxidável A1



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4*	100	51674.040.001	M6*	100	51674.060.001	M8*	100	51674.080.001
M5*	100	51674.050.001						

SECURITY Encaixe para hexalobular





Dados técnicos

d	a	b	Chave caixa	h
10	2.74	2.05	T10	1.1
15	3.27	2.4	T15	1.8
20	3.86	2.85	T20	1.6
25	4.43	3.25	T25	2.45
30	5.52	4.05	T30	2.2
40	6.65	4.85	T40	3.4

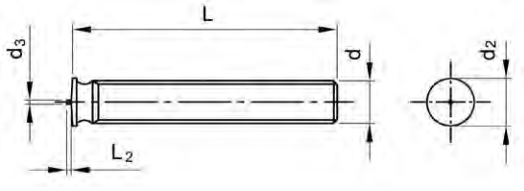
51675 **SECURITY Encaixe para hexalobular** **K91A**

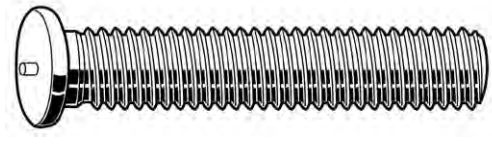
Material Aço inoxidável



Dimensão.	✉	Ref. do artigo	Dimensão.	✉	Ref. do artigo	Dimensão.	✉	Ref. do artigo
T10*	100	51675.000.010	T20*	100	51675.000.020	T30*	100	51675.000.030
T15*	100	51675.000.015	T25*	100	51675.000.025	T40*	100	51675.000.040

Perno de soldar





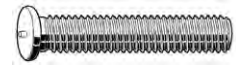
Dados técnicos

d_2	d_2	d_3	k	L_2
M3	4.5	0.5	0.7	0.5
M4	5.5	0.6	0.7	0.7
M5	6.5	0.8	0.8	0.8
M6	7.5	0.9	0.8	1.0
M8	9	1.2	0.8	1.4

10

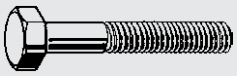
51190 **Perno de soldar** **R09A**

Rosca Métrica
Material Aço inoxidável A2

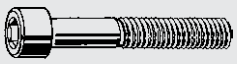


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X8*	500	51190.030.008	M4X20*	500	51190.040.020	M5X30*	500	51190.050.030
M3X10*	500	51190.030.010	M4X25*	500	51190.040.025	M5X35*	500	51190.050.035
M3X12*	500	51190.030.012	M4X30*	500	51190.040.030	M5X40*	500	51190.050.040
M3X16*	500	51190.030.016	M4X35*	500	51190.040.035			
M3X20*	500	51190.030.020				M6X8*	200	51190.060.008
M3X25*	500	51190.030.025	M5X8*	500	51190.050.008	M6X10*	200	51190.060.010
			M5X10*	500	51190.050.010	M6X12*	200	51190.060.012
M4X8*	500	51190.040.008	M5X12*	500	51190.050.012	M6X16*	200	51190.060.016
M4X10*	500	51190.040.010	M5X16*	500	51190.050.016	M6X20*	200	51190.060.020
M4X12*	500	51190.040.012	M5X20*	500	51190.050.020	M6X25*	200	51190.060.025
M4X16*	500	51190.040.016	M5X25*	500	51190.050.025	M6X30*	200	51190.060.030

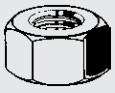
51190	Perno de soldar							←
d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X35*	200	51190.060.035	M8X16*	200	51190.080.016	M8X40*	200	51190.080.040
M6X40*	200	51190.060.040	M8X20*	200	51190.080.020	M8X45*	200	51190.080.045
			M8X25*	200	51190.080.025	M8X50*	200	51190.080.050
M8X10*	200	51190.080.010	M8X30*	200	51190.080.030	M8X60*	200	51190.080.060
M8X12*	200	51190.080.012	M8X35*	200	51190.080.035			



1 Parafusos sextavado exterior



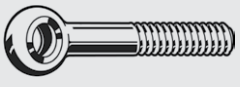
2 Produtos sextavados interiores



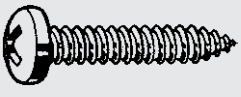
3 Porcas/porcas de rebitar / insertos



4 Varão roscado / pernos



5 Produtos olhal / gancho

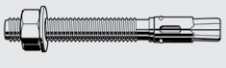


6 Parafusos

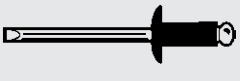
I Indice



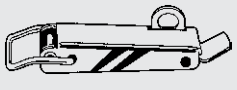
7 Anilha



8 Ancoragem



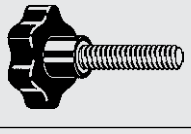
9 Rebites / cavilhas



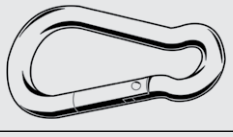
10 Parafusos de segurança / Sistemas de fixação



11 Sortidos



12 Sistemas de engenharia / peças para máquinas



13 Marítimo produtos

T Tecnologia de fixação

Sortidos 11



Página 11-3

Caixa plástico



Página 11-14

Caixa metálica



Página 11-23

Acessórios para sortidos



Página 11-26

Mala de transporte

FABORY sortidos de qualidade

Sortidos de qualidade Fabory, feitos dos parafusos mais utilizados, numa gama única (tipo 9T e 18T) e aço (tipo S), indicadas para reparações, manutenções, serviços, etc.Todos os sortidos de qualidade Fabory estão disponíveis em stock.

Mais de 120 sortidos Fabory em caixa de plástico (tipos 9T e 18T), foram cuidadosamente selecionados dos parafusos mais comuns e indispensáveis em todos os serviços de manutenção e engenharia.





Todas as caixas transparentes são fornecidas com uma etiqueta, que contém o conteúdo do sortido, com fecho. As caixas de plástico são amigas do ambiente, têm 9 ou 18 divisões.





Graças á sua composição única , cerca de 100 caixas de sortido (tipo S), fazem parte da completa gama de sortidos de qualidade Fabory são indicados para reparações e manutenção na fábrica, oficina ou em qualquer local onde a intervenção seja necessária.

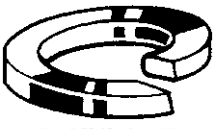
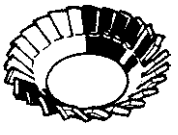
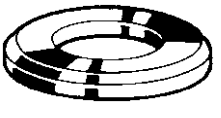
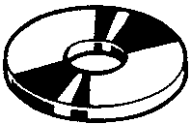
Todas as caixas de aço são fornecidas com divisórias interiores e uma tabela com o conteúdo do sortido.

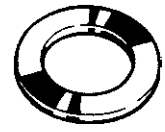
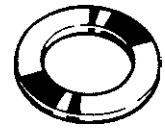
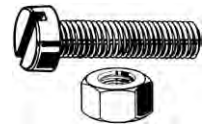
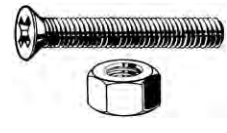
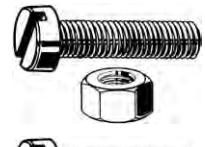
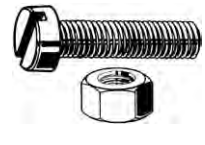
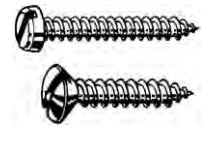
Caixa de sortido em plástico



41000	Caixa de sortido em plástico	Y94A

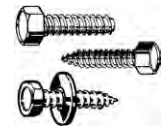
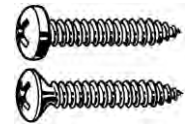
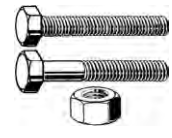
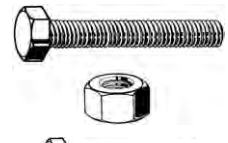
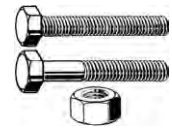
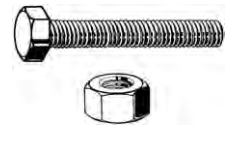
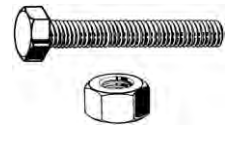
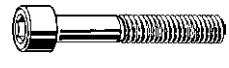
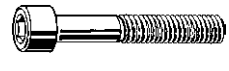
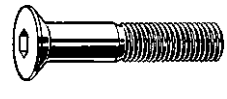
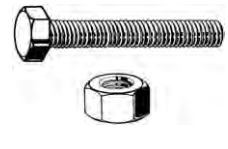
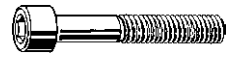


Dimensão.	✉	Ref. do artigo		
9 T 1	1	41000.000.001	Composição: • Anilhas de mola acc. com DIN 127 B • Aço zincado • Conteúdo: • M5 / M6 / M8 / M10 / M11 / M12 / M14 / M16 / M20 • 523 peças	
9 T 3	1	41000.000.003	Composição: • Anilhas com recartilha exterior cónica acc. com DIN 6798 A • Aço zincado • Conteúdo: • M4 / M5 / M6 / M8 / M10 / M12 / M14 / M16 / M20 • 743 peças	
9 T 5	1	41000.000.005	Composição: • Anilhas com recartilha exterior cónica acc. com DIN 6798 V • Steel • Conteúdo: • M3 / M4 / M5 / M6 / M8 / M10 / M12 / M14 / M16 / M20 • 595 peças	
9 T 6	1	41000.000.006	Composição: • Anilhas onduladas acc. com DIN 137 B • Aço • Conteúdo: • M5 / M6 / M7 / M8 / M10 / M12 / M14 / M16 / M20 • 570 peças	
9 T 7	1	41000.000.007	Composição: • Anilhas planas acc. com DIN 125-1 A • Aço zincado • Conteúdo: • M3 / M4 / M5 / M6 / M8 / M10 / M12 / M14 / M16 • 825 peças	
9 T 8	1	41000.000.008	Composição: • Anilhas planas com chanfro acc. com DIN 125-1 B • Latão • Conteúdo: • M3 / M4 / M5 / M6 / M8 / M10 / M12 / M14 / M16 • 835 peças	
9 T 9	1	41000.000.009	Composição: • Anilhas planas com chanfro acc. com DIN 125-1 B e anilhas planas sem chanfro acc. com DIN 125-1 A • Aço • Conteúdo: • M5 / M6 / M8 / M10 / M11 / M12 / M14 / M16 / M20 • 440 peças	
18 T 10	1	41000.000.010	Composição: • Anilhas de vedação acc. com DIN 7603 A • Aluminio 99F11, dureza HB 32-45 • Conteúdo: • Ø 4x8x1 / 5x9x1 / 6x10x1 / 6x12x1 / 8x12x1 / 8x14x1 / 10x14x1 / 12x18x1,5 / 14x20x1,5 / 16x20x1,5 / 16x22x1,5 / 18x24x1,5 / 20x26x1,5 / 22x27x1,5 / 24x30x2 / 26x32x2 • 571 peças	
9 T 11	1	41000.000.011	Composição: • Anilhas de reparação e anilhas planas d2 ≈ 3xd1 acc. com DIN 9021 • Aço zincado • Conteúdo: • Anilhas de reparação: M4x20 / M5x20 / M6x25 / M8x30 / M10x30 / M12x36 • DIN 9021: M6x18 / M8x24 / M10x30 • 180 peças	
9 T 12	1	41000.000.012	Composição: • Anilhas de ajuste espessura 0,1 mm • Aço • Conteúdo: • Ø 8x20 / 10x22 / 12x24 / 14x26 / 16x28 / 18x30 / 20x32 / 22x34 / 24x36 • 215 peças	

41000	Caixa de sortido em plástico			←
Dimensão.	✉	**Ref. do artigo**		
9 T 13	1	41000.000.013	Composição: • Anilhas cónica modelo aberto • Latão niquelado • Conteúdo: • Ø 3,2 / 4 / 4,8 / 5,5 / 6,6 / 7,4 • 850 peças	
18 T 14	1	41000.000.014	Composição: • Anilhas de afinação acc. com DIN 7603 A • Cobre • Conteúdo: • Ø 5x10x1 / 6x10x1 / 7x10x1 / 8x12x1 / 9x14x1 / 10x16x1,5 / 10,5x17x1,5 / 11x17x1,5 / 12x16x1,5 / 12,5x20x1,5 / 13x18x2 / 14x18x1 / 14x20x1,5 / 15x20x2 / 16x22x2 / 16,5x24x2 / 17x24x2 / 17,5x25x2 • 244 peças	
9 T 15	1	41000.000.015	Composição: • Anilhas de afinação acc. com DIN 7603 A • Cobre • Conteúdo: • Ø 18x24x2 / 20x24x2 / 22x26x2 / 24x30x2 / 26x33x2 / 28x35x2 / 30x38x2 / 32x40x2 / 35x45x2 • 90 peças	
9 T 16	1	41000.000.016	Composição: • Cavilhas acc. com DIN 94 • Aço • Conteúdo: • 1x25 / 1,6x32 / 2x40 / 2,5x40 / 3,2x40 -x50 / 4x32 -x50 / 5x50 • 600 peças	
9 T 17	1	41000.000.017	Composição: • Parafusos rosca de metais cabeça queijo com fenda acc. com DIN 84 e porcas sextavadas acc. com DIN 934 • Aço classe 4.8-l8l zincado • Conteúdo: • M3x25 -x40 / M4x25 -x40 / M5x25 -x40 / M6x25 -x40 -x50 • 550 peças	
9 T 18	1	41000.000.018	Composição: • Parafusos rosca de metais cabeça de embeber com fenda acc. com DIN 963 e porcas sextavadas acc. com DIN 934 • Aço classe 4.8-l8l zincado • Conteúdo: • M3x10 -x30 / M4x16 -x40 / M5x16 -x30 -x40 / M6x16 -x50 • 490 peças	
9 T 19	1	41000.000.019	Composição: • Parafusos rosca de metais cabeça de queijo Phillips (H) acc. com DIN 7985 H e porcas sextavadas acc. com DIN 934 • Aço classe 4.8-l8l zincado • Conteúdo: • M3x25 -x30 / M4x25 -x40 / M5x25 -x40 / M6x25 -x40 -x50 • 550 peças	
9 T 20	1	41000.000.020	Composição: • Parafuso rosca de metais cabeça de embeber Phillips (H) acc. com DIN 965 H e porcas sextavadas acc. com DIN 934 • Aço classe 4.8-l8l zincado • Conteúdo: • M3x10 -x20 / M4x16 -x30 / M5x16 -x30 -x40 / M6x16 -x50 • 480 peças	
9 T 21	1	41000.000.021	Composição: • Parafusos rosca de metais cabeça queijo com fenda acc. com DIN 84 e porcas sextavadas acc. com DIN 934 • Aço classe 4.8-l8l zincado • Conteúdo: • M5x10 -x16 -x20 -x25 / M6x10 -x16 -x20 -x25 -x30 • 400 peças	
9 T 22	1	41000.000.022	Composição: • Parafusos rosca de metais cabeça queijo com fenda acc. com DIN 84 e porcas sextavadas acc. com DIN 934 • Latão • Conteúdo: • M3x25 -x40 / M4x25 -x40 / M5x25 -x40 / M6x25 -x40 -x50 • 470 peças	
9 T 23	1	41000.000.023	Composição: • Parafusos autoroscantes cabeça de queijo com fenda acc. com DIN 7971 C e Parafusos autoroscantes cabeça de lentilha com fenda acc. com DIN 7973 C • Aço niquelado • Conteúdo: • ST2,9x13 / ST3,5x16 -x19 / ST4,2x16 -x19 -x25 / ST4,8x16 -x19 / ST5,5x25 • 390 peças	
9 T 24	1	41000.000.024	Composição: • Parafusos autoroscantes cabeça de queijo com fenda acc. com DIN 7971 C • Aço niquelado • Conteúdo: • ST2,9x13 / ST3,5x16 -x19 / ST4,2x16 -x19 -x25 / ST4,8x16 -x19 / ST5,5x25 • 390 peças	
9 T 25	1	41000.000.025	Composição: • Parafuso autoroscante cabeça de lentilha com fenda acc. com DIN 7973 C • Aço niquelado • Conteúdo: • ST2,9x13 / ST3,5x16 -x19 / ST4,2x16 -x19 -x25 / ST4,8x16 -x19 / ST5,5x25 • 390 peças	

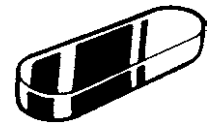
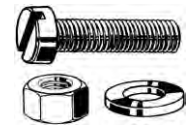
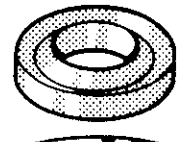
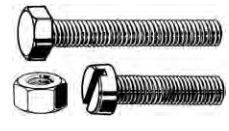
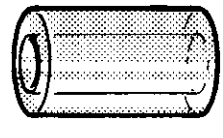
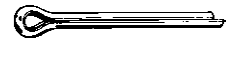
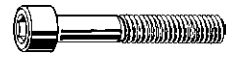
11

41000	Caixa de sortido em plástico	←

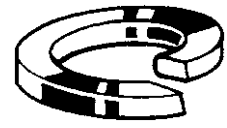
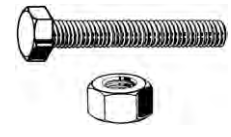
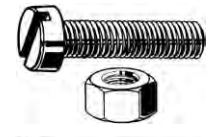
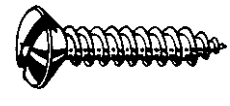
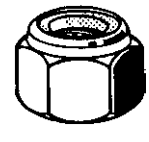
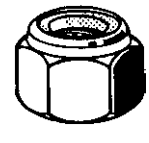
Dimensão.	✉	Ref. do artigo		
9 T 26	1	41000.000.026	Composição: • Parafusos de segurança one-way • Aço zincado • Conteúdo: • ST2,9x19 / ST3,5x13 -x19 -x25 / ST4,2x19 -x25 -x32 -x38 -x50 • 370 peças	
9 T 27	1	41000.000.027	Composição: • Parafuso autoroscante cabeça sextavada acc. com ≈ DIN 7976 C, parafuso autoroscante cabeça sextavada acc. com DIN 7976 F e parafuso autoroscante cabeça sextavada em cone com anilha • Aço zincado e passivado a amarelo • Conteúdo:≈ DIN 7976 C: ST3,5x16 / ST4,2x16 -x19 -x25 / ST4,8x19 -x25 • DIN 7976 F: ST6,3x25 • Com cone e anilha: ST5,6x13 / ST6,5x20 • 255 peças	
18 T 28	1	41000.000.028	Composição: • Parafuso autoroscante cabeça de queijo Phillips (H) acc. com DIN 7981 C-H e parafuso autoroscante cabeça de lentilha Phillips (H) acc. com DIN 7983 C-H • Aço zincado, passivado a preto • Conteúdo:ST2,9x19 / ST3,5x16 -x25 / ST4,2x16 -x25 -x32 / ST4,8x19 -x25 -x32 • 440 peças	
9 T 29	1	41000.000.029	Composição: • Parafusos cabeça sextavada acc. com ISO 8765, parafusos cabeça sextavada acc. com ISO 8676 e porcas sextavadas acc. com DIN 934 • Métrico fino • Aço classe 8.8-I8I • Conteúdo: • M8x1x30 -x40 / M10x1x30 -x40 / M10x1,25x30 -x40 • 76 peças	
9 T 30	1	41000.000.030	Composição: • Parafusos cabeça sextavada acc. com ISO 4017 e porcas sextavadas acc. com DIN 934 • Aço classe 8.8-I8I zincado • Conteúdo: • M5x12 -x16 -x20 -x25 / M6x12 -x16 -x20 -x25 -x30 • 320 peças	
9 T 32	1	41000.000.032	Composição: • Parafusos cabeça sextavada e porcas sextavadas • Aço classe ≈ 8.8/8 • Conteúdo: • UNC 1/4 x 5/8 -x 3/4 -x 1.IN. -x 1.1/4 / UNC 5/16 x 1.IN. -x 1.1/2 / UNC 3/8 x 1.IN. -x 1.1/2 / UNC 1/2 x 1.1/4 • 126 peças	
9 T 33	1	41000.000.033	Composição: • Parafusos cabeça sextavada acc. com DIN 933 (1954) e porcas sextavadas acc. com DIN 934 (1954) • Aço classe ≈ 8.8/8 • Conteúdo: • BSW 1/4 x15 -x20 -x25 -x30 / BSW 5/16 x20 -x30 / BSW 3/8 x25 -x35 / BSW 1/2 x30 • 110 peças	
9 T 34	1	41000.000.034	Composição: • Parafusos cabeça sextavada acc. com ISO 4017 e porcas sextavadas acc. com DIN 934 • Latão • Conteúdo: • M5x12 -x16 -x20 -x25 / M6x12 -x16 -x20 -x25 -x30 • 300 peças	
9 T 35	1	41000.000.035	Composição: • Parafusos cabeça cilindrica com sextavado interior acc. com DIN 912 • Aço classe 8.8 zincado • Conteúdo: • M6x16 -x20 -x25 -x30 / M8x25 -x30 -x35 / M10x25 -x35 • 95 peças	
9 T 36	1	41000.000.036	Composição: • Parafuso cabeça cilindrica sextavado interior • Aço classe ≈ 12.9 • Conteúdo: • UNC 1/4 x 5/8 -x 3/4 -x 1.IN. -x 1.1/4 / UNC 5/16 x 1.IN. -x 1.1/4 -x 1.1/2 / UNC 3/8 x 1.IN. -x 1.1/2 • 98 peças	
9 T 37	1	41000.000.037	Composição: • Parafusos cabeça de embeber com sextavado interior acc. com DIN 7991 • Aço classe 8.8 zincado • Conteúdo: • M6x20 -x25 -x30 / M8x20 -x25 -x30 -x40 / M10x30 -x40 • 78 peças	
9 T 39	1	41000.000.039	Composição: • Parafusos cabeça sextavada acc. com ISO 4017 e porcas sextavadas acc. com DIN 934 • Aço classe 8.8-I8I zincado, passivado a amarelo • Conteúdo: • M5x10 -x20 / M6x12 -x30 / M8x20 -x40 / M10x30 -x40 • 190 peças	
9 T 40	1	41000.000.040	Composição: • Parafusos cabeça cilindrica sextavado interior acc. com DIN 912 • Aço classe 12.9 • Conteúdo: • M6x16 -x20 -x25 -x30 / M8x25 -x30 -x35 / M10x25 -x35 • 95 peças	

11

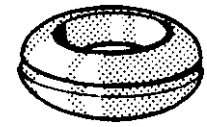
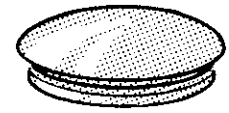
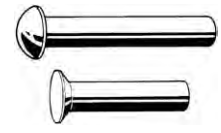
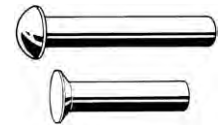
41000 Caixa de sortido em plástico ←

Dimensão.	✉	Ref. do artigo		
18 T 41	1	41000.000.041	Composição: • Anilhas de afinação acc. com DIN 7603 C • Cobre/FESTAPLAN • Conteúdo: • Ø 5x9x1,5 / 6x10x1,5 / 8x12x1,5 / 8x14x1,5 / 10x14x1,5 / 10x16x1,5 / 12x16x2 / 12x18x2 / 14x18x2 / 14x20x2 / 16x20x2 / 16x22x2 / 18x22x2 / 18x24x2 / 20x24x2 / 20x26x2 / 22x27x2 / 22x29x2 • 200 peças	
9 T 42	1	41000.000.042	Composição: • Anilhas de afinação acc. com DIN 7603 C • Cobre/FESTAPLAN • Conteúdo: • Ø 24x32x2,5 / 26x32x2,5 / 26x34x2,5 / 30x36x2,5 / 30x38x2,5 / 32x38x2,5 / 35x41x2,5 / 38x44x2,5 / 40x47x2,5 • 65 peças	
9 T 51	1	41000.000.051	Composição: • Chavetas tipo pesado acc. com DIN 6885 A • Aço • Conteúdo: • 5x5x20 -x32 -x40 / 6x6x20 -x32 / 8x7x40 -x50 / 10x8x50 -x63 • 90 peças	
9 T 54	1	41000.000.054	Composição: • Anilhas fibra • Conteúdo: • Ø 20x24 / 22x26 / 24x28 / 25x34 / 26x33 / 28x40 / 30x42 / 32x44 / 34x46 • 120 peças	
18 T 55	1	41000.000.055	Composição: • Porcas sextavadas acc. com ≈ DIN 934, parafusos rosca de metais cabeça cilindrica com fenda acc. com ≈ DIN 84 e anilhas sem chanfro ≈ DIN 125-1 A • Plástico PA 6.6 (branco) • Conteúdo:M3x6 -x8 -x10 -x12 / M4x8 -x10 -x12 -x16 / M5x10 -x16 -x20 -x25 • 770 peças	
9 T 56	1	41000.000.056	Composição: • Anilhas planas • Aluminio Sopral AG3 • Conteúdo: • M3 / M4 / M5 / M6 / M8 / M10 / M12 / M16 / M20 • 514 peças	
9 T 57	1	41000.000.057	Composição: • Anilhas DUBO para pafusos e porcas sextavadas • Plástico PA 6 (branco) • Conteúdo: • M5 / M6 / M8 / M10 / M12 / M14 / M16 / M18 / M20 • 311 peças	
9 T 58	1	41000.000.058	Composição: • Anilhas planas acc. com ≈ DIN 125-1 A • Plastic PA 6.6 (branco) • Conteúdo: • M4 / M5 / M6 / M8 / M10 / M12 / M14 / M16 / M20 • 484 peças	
9 T 59	1	41000.000.059	Composição: • Parafusos cabeça sextavada acc. com ≈ ISO 4017, porcas sextavadas acc. com ≈ DIN 934 e parafusos rosca de metais cabeça de queijo com fenda acc. com ≈ DIN 84 • Plástico PA 6.6 (branco) • Conteúdo: • M5x20 / M6x20 -x40 / M8x30 -x50 / M10x50 • 106 peças	
18 T 60	1	41000.000.060	Composição: • Espaçadores • Plástico PA 6.6 (branco) • Conteúdo: • Ø 2,5x5x5 / 2,5x5x15 / 3x8x5 / 3x8x15 / 3,5x6x5 / 3,5x6x15 / 4x8x15 / 5x10x5 / 5x10x15 / 6x10x5 / 6x10x15 / 8x12x5 / 8x12x15 / 10x15x5 / 10x15x15 / 10x15x25 / 12x18x5 / 12x18x15 • 191 peças	
9 T 62	1	41000.000.062	Composição: • Parafusos para aglomerado cabeça de embeber Pozidriv (Z) • Aço zincado • Conteúdo: • 3x13 -x17 -x20 / 3,5x20 -x25 / 4x20 -x25 -x30 / 5x40 • 380 peças	
9 T 66	1	41000.000.066	Composição: • Chavetas meia cana acc. com DIN 94 • Aço inox A2 • Conteúdo: • 1x20 / 1,6x20 / 2x32 / 2,5x32 / 3,2x32 -x40 / 4x40 / 5x50 / 6,3x50 • 165 peças	
9 T 68	1	41000.000.068	Composição: • Parafusos cabeça cilindrica com sextavado interior acc. com DIN 912 • Aço inox A2-70 • Conteúdo: • M6x16 -x20 -x25 -x30 / M8x25 -x30 -x35 / M10x25 -x35 • 85 peças	
18 T 69	1	41000.000.069	Composição: • Parafuso rosca de metais cabeça de queijo com fenda acc. com DIN 84, porcas sextavadas acc. com DIN 934, anilhas planas acc. com DIN 125-1 A e anilhas de mola acc. com ≈ DIN 127 B • Aço inox A2-70 • Conteúdo: • M1,6x6 / M2x8 / M2,5x10 / M3x6 -x8 -x10 / M4x8 -x10 -x12 / M5x10 -x16 -x20 • 945 peças	

11

41000	Caixa de sortido em plástico			←
Dimensão.	✉	**Ref. do artigo**		
9 T 70	1	41000.000.070	Composição: • Anilhas de mola acc. com DIN 127 B • Aço inox A2 • Conteúdo: • M4 / M5 / M6 / M8 / M10 / M12 / M14 / M16 / M20 • 527 peças	
9 T 71	1	41000.000.071	Composição: • Anilhas planas acc. com DIN 125-1 A • Aço inox A2 • Conteúdo: • M4 / M5 / M6 / M8 / M10 / M12 / M14 / M16 / M20 • 390 peças	
9 T 72	1	41000.000.072	Composição: • Parafuso para madeira cabeça redonda com fenda acc. com DIN 96 • Aço inox A2 • Conteúdo: • 3x12 -x16 / 4x20 -x25 -x30 -x40 / 5x25 -x40 -x50 • 279 peças	
9 T 73	1	41000.000.073	Composição: • Parafuso para madeira cabeça embeber com fenda acc. com DIN 97 • Aço inox A2 • Conteúdo: • 3x20 -x25 / 4x20 -x25 -x30 -x40 / 5x30 -x40 -x50 • 223 peças	
9 T 74	1	41000.000.074	Composição: • Parafusos para aglomerado cabeça de embeber Pozidriv (Z) • Aço inox A2 • Conteúdo: • 3,5x25 -x30 / 4x20 -x30 -x40 -x50 / 5x50 -x60 -x70 • 220 peças	
9 T 75	1	41000.000.075	Composição: • Parafusos cabeça sextavada acc. com ISO 4017 e porcas sextavadas acc. com DIN 934 • Aço Inox A2-70 • Conteúdo: • M6x16 -x20 -x25 / M8x20 -x25 -x30 / M10x25 -x30 -x40 • 138 peças	
9 T 76	1	41000.000.076	Composição: • Parafusos rosca de metais cabeça de queijo com fenda acc. com DIN 84 e porcas sextavadas acc. com DIN 934 • Aço inox A2-70 • Conteúdo: • M4x10 -x16 -x20 / M5x10 -x16 -x20 / M6x16 -x20 -x25 • 360 peças	
9 T 77	1	41000.000.077	Composição: • Parafusos rosca de metais cabeça de embeber com fenda acc. com DIN 963 e porcas sextavadas acc. com DIN 934 • Aço inox A2-70 • Conteúdo: • M4x10 -x16 -x20 / M5x10 -x16 -x20 / M6x16 -x20 -x25 • 360 peças	
9 T 78	1	41000.000.078	Composição: • Parafusos autoroscantes cabeça de queijo com fenda acc. com DIN 7971 C • Aço inox A2 • Conteúdo: • ST2,9x13 / ST3,5x9,5 -x13 -x19 / ST4,2x13 -x19 -x25 / ST4,8x19 -x25 • 265 peças	
9 T 79	1	41000.000.079	Composição: • Parafusos autoroscantes cabeça lentilha com fenda acc. com DIN 7973 C • Aço inox A2 • Conteúdo: • ST2,9x13 / ST3,5x9,5 -x13 -x19 / ST4,2x13 -x19 -x25 / ST4,8x19 -x25 • 265 peças	
9 T 80	1	41000.000.080	Composição: • Porcas sextavadas autobloqueantes com inserto não metálico acc. com DIN 985 • Aço classe 5/8 zincado • Conteúdo: • M4 / M5 / M6 / M7 / M8 / M10 / M12 / M14 / M16 • 214 peças	
9 T 81	1	41000.000.081	Composição: • Porcas sextavadas autobloqueantes com inserto não metálico acc. com DIN 985 • Aço classe ≥ 6 zincado • Conteúdo: • M10x1 -x1,25 / M12x1,25 -x1,5UNF 1/4 / UNF 5/16 / UNF 3/8 / UNF 7/16 / UNF 1/2 • 95 peças	
18 T 85	1	41000.000.085	Composição: • O-rings (métrico) Borracha - NBR 70° shore (preta) • Conteúdo: • Ø 5x1,5 / 6x1,5 / 7x1,5 / 8x1,5 / 8x2 / 10x2 / 12x2 / 11,3x2,4 / 13,3x2,4 / 12x2,5 / 14x2,5 / 15x2,5 / 16x2,5 / 18x3 / 20,2x3 / 22,2x3 / 24,2x3 / 26,2x3 • 179 peças	
18 T 86	1	41000.000.086	Composição: • O-rings (não-métrico) Borracha - NBR 70° shore (preto) • Conteúdo: • Ø 5,28x1,78 / 6,07x1,78 / 7,66x1,78 / 9,25x1,78 / 10,82x1,78 / 12,42x1,78 / 10,78x2,62 / 12,37x2,62 / 13,95x2,62 / 15,08x2,62 / 17,13x2,62 / 18,72x2,62 / 20,29x2,62 / 21,89x2,62 / 23,47x2,62 / 23,40x3,53 / 24,99x3,53 / 26,58x3,53 • 167 peças	

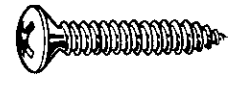
41000	Caixa de sortido em plástico		←
Dimensão.	✉	**Ref. do artigo**	
9 T 88	1	41000.000.088	Composição: • Anilhas cabos Borracha (preta) • Conteúdo: • Ø 4x6,4 / 5,5x8 / 6,4x9,5 / 8x9,5 / 9,5x12,5 / 11x12,5 / 12,5x17,5 / 14,2x17,5 / 16x19 • 218 peças
9 T 89	1	41000.000.089	Composição: • Tampas Borracha (preta) • Conteúdo: • Ø 6,4x9,5 / 8x14,2 / 9,5x15,4 / 11,2x17,7 / 12,5x18,7 / 15,5x22 / 19x25,5 / 20x25,5 / 22,5x28,4 • 178 peças
9 T 91	1	41000.000.091	Composição: • Rebites de pancada cabeça redonda acc. com DIN 660 e Rebites de pancada cabeça chata acc. com DIN 661 • Cobrer • Conteúdo: • 2x6 -x10 / 3x6 -x10 / 4x10 -x16 / 5x12 -x20 / 6x20 • 620 peças
9 T 93	1	41000.000.093	Composição: • Rebites de pancada cabeça redonda acc. com DIN 660 e Rebites de pancada cabeça chata acc. com DIN 661 • Aluminio • Conteúdo: • 2x6 -x10 / 3x6 -x10 / 4x10 -x16 / 5x12 -x20 / 6x20 • 620 peças
18 T 101	1	41000.000.101	Composição: • Anilhas Fibra • Conteúdo: • Ø 5x8 / 6x9 / 6,5x10 / 7x10 / 8x12 / 8,5x14 / 9x14 / 9,5x14 / 10x14 / 11x17 / 12x16 / 12,5x18 / 14x18 / 15x19 / 16x21 / 17x22 / 18x24 / 19x23 • 400 peças
18 T 102	1	41000.000.102	Composição: • Freios exteriores acc. com DIN 471 • Aço • Conteúdo: • Ø 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 20 / 21 / 22 / 23 / 24 / 25 / 26 / 27 • 260 peças
18 T 103	1	41000.000.103	Composição: • Freios interiores acc. com DIN 472 • Aço • Conteúdo: • Ø 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 20 / 21 / 22 / 23 / 24 / 25 / 26 / 27 • 260 peças
9 T 104	1	41000.000.104	Composição: • Freios exteriores acc. com DIN 471 • Aço • Conteúdo: • Ø 29 / 30 / 31 / 33 / 35 / 36 / 38 / 40 / 42 • 115 peças
9 T 105	1	41000.000.105	Composição: • Freios interiores acc. com DIN 472 • Aço • Conteúdo: • Ø 28 / 29 / 30 / 32 / 35 / 36 / 37 / 40 / 42 • 115 peças
18 T 107	1	41000.000.107	Composição: • Parafuso autoroscante cabeça de queijo com fenda acc. com DIN 7971 C • Aço niquelado • Conteúdo: • ST2,9x13 / ST3,5x13 -x16 -x19 -x25 / ST4,2x13 -16 -x19 -x25 / ST4,8x16 -x19 -x25 -x32 / ST5,5x19 -25 -x32 / ST6,3x25 -x38 • 500 peças
18 T 109	1	41000.000.109	Composição: • Parafuso autoroscante cabeça de lentilha Phillips (H) acc. com DIN 7983 C-H • Aço niquelado • Conteúdo: • ST2,9x13 / ST3,5x13 -x16 -x19 -x25 / ST4,2x13 -x16 -x19 -x25 / ST4,8x16 -x19 -x25 -x32 / ST5,5x19 -x25 -x32 / ST6,3x25 -x38 • 500 peças
18 T 110	1	41000.000.110	Composição: • Pernos sextavado interior com ponta cortada acc. com DIN 916 (excl. UNC) • Aço classe 45H • Conteúdo: • M4x5 -x10 / M5x10 -x16 / M6x8 -x12 -x20 / M8x12 -x20 / UNC 3/16 x 1/4 -x 3/8 / UNC 1/4 x 3/8 -x 1/2 -x 5/8 -x 3/4 / UNC 5/16 x 1/2 -x 5/8 -x 3/4 • 229 peças
18 T 111	1	41000.000.111	Composição: • Chavetas acc. com DIN 6888 • Aço • Conteúdo: • 2x3,7 / 2,5x3,7 / 3x3,7 -x5 -x6,5 / 4x5 -x6,5 -x7,5 -x9 / 5x6,5 -x9 / 6x9 -x11 -x13 -x15 / 8x11 -x13 / 10x13 • 220 peças



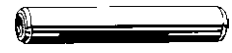
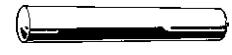
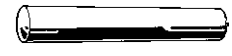
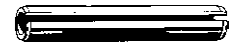
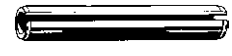
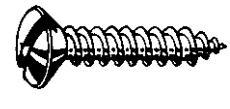
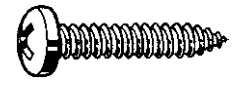


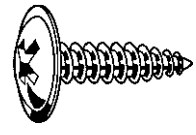
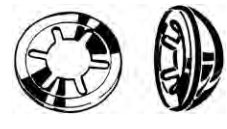






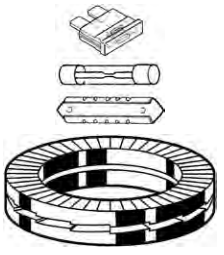
11

41000	Caixa de sortido em plástico			←
Dimensão.	✉	**Ref. do artigo**		
18 T 112	1	41000.000.112	Composição: • Parafuso rosca de metais cabeça de queijo com fenda acc. com DIN 84 e porcas sextavadas acc. com DIN 934 • Aço classe 4.8-l8l zincado • Conteúdo: • M3x4 -x6 -x8 -x10 -x12 -x16 -x20 -x25 / M4x6 -x8 -x10 -x12 -x16 -x20 -x25 -x30 1020 peças	
18 T 113	1	41000.000.113	Composição: • Cavilhas PRYM standard acc. com ISO 8750 • Aço • Conteúdo: • 1,5x8 -x12 / 2x10 -x16 / 3x12 -x14 -x16 -x20 -x24 -x30 / 4x16 -x20 -x24 -x30 -x40 / 5x20 -x40 / 6x40 • 415 peças	
18 T 114	1	41000.000.114	Composição: • Cavilhas acc. com DIN 1 B • Aço • Conteúdo: • 2x10 -x12 -x14 -x20 -x30 / 3x14 -x20 -x24 -x30 -x40 / 4x20 -x30 -x40 / 5x20 -x30 -x40 / 6x30 -x40 • 365 peças	
18 T 115	1	41000.000.115	Composição: • Cavilhas paralelas endurecidas acc. com DIN 6325 • Aço dureza 60 ± 2 HRC • Conteúdo: • 2x10 -x12 -x14 -x20 -x28 / 3x14 -x20 -x24 -x32 -x40 / 4x20 -x32 -x40 / 5x20 -x32 -x40 / 6x28 -x40 • 187 peças	
18 T 116	1	41000.000.116	Composição: • Cavilhas tipo pesado acc. com ISO 8752 • Aço • Conteúdo: • 1,5x8 -x12 / 2x10 -x16 / 2,5x30 / 3x14 -x16 -x20 -x24 -x30 / 4x16 -x20 -x24 -x30 -x40 / 5x20 -x40 / 6x40 • 414 peças	
9 T 117	1	41000.000.117	Composição: • Cavilhas tipo pesado acc. com ISO 8752 • Aço • Conteúdo: • 4x50 / 5x50 -x60 / 6x50 -x60 -x70 / 8x50 -x60 -x70 • 136 peças	
9 T 121	1	41000.000.121	Composição: • Parafusos rosca de madeira cabeça de embeber com fenda acc. com DIN 97 • Latão • Conteúdo: • 3x20 -x25 / 4x20 -x25 -x30 -x40 / 5x30 -x40 -x50 • 223 peças	
9 T 122	1	41000.000.122	Composição: • Parafuso rosca de madeira cabeça redonda com fenda acc. com DIN 96 • Latão • Conteúdo: • 3x20 / 3,5x20 -x25 -x30 / 4x20 -x25 -x30 / 5x30 -x40 • 235 peças	
9 T 125	1	41000.000.125	Composição: • Parafuso rosca de madeira cabeça chata com fenda acc. com DIN 97 • Aço zincado • Conteúdo: • 3x20 / 3,5x20 -x25 -x30 / 4x20 -x25 -x30 / 5x40 -x50 • 425 peças	
9 T 126	1	41000.000.126	Composição: • Parafuso rosca de madeira cabeça redonda com fenda acc. com DIN 96 • Aço zincado • Conteúdo: • 3x20 / 3,5x20 -x25 -x30 / 4x20 -x25 -x30 / 5x30 -x40 • 425 peças	
18 T 131	1	41000.000.131	Composição: • Parafuso autoroscante cabeça de queijo com fenda acc. com DIN 7971 C • Aço zincado • Conteúdo: • ST2,9x13 / ST3,5x13 -x16 -x19 -x25 / ST4,2x13 -x16 -x19 -x25 / ST4,8x16 -x19 -x25 -x32 / ST5,5x19 -x25 -x32 / ST6,3x25 -x38 • 500 peças	
18 T 133	1	41000.000.133	Composição: • Parafuso autoroscante cabeça lentilha com fenda acc. com DIN 7973 C • Aço zincado • Conteúdo: • ST2,9x13 / ST3,5x13 -x16 -x19 -x25 / ST4,2x13 -x16 -x19 -x25 / ST4,8x16 -x19 -x25 -x32 / ST5,5x19 -x25 -x32 / ST6,3x25 -x38 • 500 peças	
18 T 137	1	41000.000.137	Composição: • Parafuso autoroscante cabeça de queijo Phillips (H) acc. com DIN 7981 C-H Aço zincado • Conteúdo: • ST2,9x13 / ST3,5x13 -x16 -x19 -x25 / ST4,2x13 -x16 -x19 -x25 / ST4,8x16 -x19 -x25 -x32 / ST5,5x19 -x25 -x32 / ST6,3x25 -x38 • 500 peças	

41000	Caixa de sortido em plástico			←
Dimensão.	✉	**Ref. do artigo**		
18 T 139	1	41000.000.139	Composição: • Parafuso autoroscante cabeça lentilha Phillips (H) acc. com DIN 7983 C-H • Aço zincado • Conteúdo: • ST2,9x13 / ST3,5x13 -x16 -x19 -x25 / ST4,2x13 -x16 -x19 -x25 / ST4,8x16 -x19 -x25 -x32 / ST5,5x19 -x25 -x32 / ST6,3x25 -x38 • 500 peças	
9 T 140	1	41000.000.140	Composição: • Parafusos autoroscantes cabeça de queijo Phillips (H) acc. com DIN 7981 C-H • Aço zincado, passivado a preto • Conteúdo: • ST2,9x19 / ST3,5x16 -x25 / ST4,2x16 -x25 -x32 / ST4,8x19 -x25 -x32 • 440 peças	
9 T 141	1	41000.000.141	Composição: • Parafusos autoroscantes cabeça de lentilha Phillips (H) acc. com DIN 7983 C-HSteel zincado, passivado a preto Conteúdo:ST2,9x19 / ST3,5x16 -x25 / ST4,2x16 -x25 -x32 / ST4,8x19 -x25 -x32 • 440 peças	
9 T 143	1	41000.000.143	Composição: • Parafusos autoroscantes cabeça redonda com flange Phillips (H) • Aço zincado, passivado a preto • Conteúdo: • ST3,5x16 -x19 / ST4,2x16 -x19 -x22 / ST4,8x16 -x19 -x25 • 360 peças	
9 T 151	1	41000.000.151	Composição: • Anéis fibra • Conteúdo: • Ø 3x5 / 4x6,5 / 4,5x8 / 5x8 / 5,5x9 / 6x9 / 6,5x10 / 7x10 / 8x12 • 750 peças	
9 T 152	1	41000.000.152	Composição: • Chavetas acc. com DIN 6888 • Aço • Conteúdo: • 2x2,6 -x3,7 -x5 / 2,5x3,7 / 3x3,7 -x5 -x6,5 -x7,5 / 4x5 • 235 peças	
9 T 156	1	41000.000.156	Composição: • Freios exteriores acc. com DIN 471 e freios interiores acc. com DIN 472 • Aço • Conteúdo: • Ø 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15 / 16 • 326 peças	
9 T 157	1	41000.000.157	Composição: • Freios acc. com DIN 6799 • Aço • Conteúdo: • Ø 1,5 / 1,9 / 2,3 / 3,2 / 4 / 5 / 6 / 7 / 8 • 550 peças	
9 T 159	1	41000.000.159	Composição: • Anilhas STARLOCK • Aço mola (sem capa) e aço mola (com tampa em aço inox) • Conteúdo: • Ø 3 / 4 / 5 / 6 / 8 / 10 / 12 / 16 / 20 • 289 peças	
9 T 175	1	41000.000.175	Composição: • Copos de lubrificação cone tipo acc. com ≈ DIN 71412 • Aço zincado • Conteúdo: • R 1/8 -45° -90° -180° / R 1/4 -45° -90° -180°SAE (UNF) 1/4 -180° / UNF 5/16 -180° / UNF 3/8 -180° • 97 peças	
18 T 176	1	41000.000.176	Composição: • Copos de lubrificação cone tipo acc. com ≈ DIN 71412 e copos de lubrificação drive-in • Aço zincado • Conteúdo: • M6x1-45° -90° -180° • M8x1-45° -90° -180° / M8x1,25-45° -90° -180° • M10x1-45° -90° -180° / M10x1,5-90° -180° • Copos de lubrificação Drive-in: 6-45° -180° / 8-90° -180° • 123 peças	
9 T 177	1	41000.000.177	Composição: • Copos de lubrificaçãocone tipo acc. com ≈ DIN 71412 • Aço zincado • Conteúdo: • M6x1-45° -90° -180° • M8x1-180° / M8x1,25-45° -90° -180° • M10x1-180° / M10x1,5-180° • 120 peças	
9 T 201	1	41000.000.201	Composição: • Anilhas planas acc. com DIN 125-1 A e anilhas de mola acc. com DIN 127 B • Aço zincado • Conteúdo: • M5 / M6 / M8 / M10 / M11 • 675 peças	
9 T 203	1	41000.000.203	Composição: • Anilhas planas acc. com DIN 125-1 A e anilhas de mola acc. com DIN 127 B • Aço zincado, passivado a amarelo • Conteúdo: • M5 / M6 / M8 / M10 / M12 • 630 peças	

11

41000	Caixa de sortido em plástico		←
Dimensão.	✉	**Ref. do artigo**	
18 T 209	1	41000.000.209	Composição: • Parafusos autoroscantes cabeça queijo Phillips (H) acc. com DIN 7981 C-H • Aço niquelado • Conteúdo: • ST2,9x13 / ST3,5x13 -x16 -x19 -x25 / ST4,2x13 -x16 -x19 -x25 / ST4,8x16 -x19 -x25 x32 / ST5,5x19-x25 -x32 / ST6,3x25-x38 • 500 peças
18 T 210	1	41000.000.210	Composição: • Pernos sextavado interior com ponta acc. com DIN 916 • Aço classe 45H • Conteúdo: • M4x5 -x8 -x10 / M5x8 -x10 -x12 -x16 / M6x8 -x10 -x12 -x16 -x20 / M8x12 -x16 -x20 / M10x16 -x20 -x25 • 245 peças
9 T 212	1	41000.000.212	Composição: • Anilhas de afinação 0,1 mm • Aço • Conteúdo: • Ø 24x36 / 26x38 / 28x40 / 30x42 / 32x44 / 34x46 / 36x48 / 38x50 / 40x50 • 160 peças
9 T 214	1	41000.000.214	Composição: • Cavilha acc. com DIN 1 B • Aço • Conteúdo: • 3x50 / 4x50 -x60 / 5x50 -x60 / 6x50 -x60 -x70 / 6,5x60 • 150 peças
9 T 219	1	41000.000.219	Composição: • Parafusos rosca de metais cabeça de queijo Phillips (H) acc. com DIN 7985 H • Aço classe 4.8 zincado, passivado a preto • Conteúdo: • M3x6 -x10 -x16 -x20 -x30 / M4x10 -x20 -x30 -x50 • 525 peças
9 T 220	1	41000.000.220	Composição: • Parafuso rosca de metais cabeça de embeber Phillips (H) acc. com DIN 965H • Aço classe 4.8 zincado, passivado a preto • Conteúdo: • M3x6 -x10 -x16 -x20 -x30 / M4x10 -x20 -x30 -x50 • 525 peças
9 T 230	1	41000.000.230	Composição: • Parafusos cabeça sextavada acc. com ISO 4017 e porcas sextavadas acc. com DIN 934 • Aço classe 8.8-l8l zincado • Conteúdo: • M8x20 -x25 -x30 -x35 / M10x25 -x30 -x35 • 86 peças
9 T 231	1	41000.000.231	Composição: • Parafusos cabeça sextavada e porcas sextavadas • Aço Grade 5 zincado • Conteúdo: • UNF 1/4 x 5/8 -x 3/4 -x 1.IN. -x 1.1/4 / UNF 5/16 x 1.IN. -x 1.1/2 / UNF 3/8 x 1.IN. -x 1.1/2 / UNF 1/2 x 1.1/4 • 126 peças
9 T 240	1	41000.000.240	Composição: • Molas de compressão helicoidais acc. com DIN 2095 • Aço mola zincado • Conteúdo: • 0,5x6,5x30 / 0,8x7,7x35 -x50 / 1x8x30 / 1x10x60 / 1,5x10x50 / 1,5x12x40 / 1,5x14x60 / 2x14x50 • 105 peças
9 T 245	1	41000.000.245	Composição: • Molas helicoidais de tensão acc. com DIN 2097 • Aço mola zincado • Conteúdo: • 0,5x4,5x20 / 0,5x6,5x20 -x30 / 0,8x6,7x35 / 0,8x7,7x40 -x50 / 1x10x40 -x60 / 1,5x10x50 • 166 peças
18 T 250	1	41000.000.250	Composição: • Molas de compressão helicoidais acc. com DIN 2095 e molas de tensão helicoidais acc. com DIN 2097 • Aço mola zincado • Conteúdo: • 0,5x3,5x15 -x20 / 0,5x4,5x12 / 0,5x6,5x20 -x25 -x35 / 0,8x5,7x25 / 0,8x6,7x25 -x30 / 0,8x7,7x30 / 1x6x25 -x30 / 1x8x25 -x35 / 1x10x25 -x35 / 1x10x40 -x60 / 1,5x10x35 • 251 peças
9 T 300	1	41000.000.300	Composição: • Terminais isolados e conectores • Aco/plástico • Conteúdo: • cabo 0,5 - 1,5 mm2: tipo 545 / 547 / 548 • cabo 1,5 - 2,5 mm2: tipo 546 / 550 / 549 • cabo 2,5 - 6,0 mm2: tipo 563 (M8) / 554 (M10) • Conector tipo C-560 azul • 149 peças
18 T 305	1	41000.000.305	Composição: • Terminais isolados • Aço/Plástico • Conteúdo: • Cabo 0,5 - 1,5 mm2: tipo 599 / 741 / 541 / 540 / 1541 / 561 / 556 (M3) / 535 (M4) / 557 (M5) • Cabo 1,5 - 2,5 mm2: tipo 742 / 542 / 740 / 1542 / 562 / 536 (M4) / 537 (M5) / 560 (M6) • Cabo 2,5 - 6,0 mm2: tipo 539 (M6) • 204 peças

41000	Caixa de sortido em plástico			←
Dimensão.	✉	**Ref. do artigo**		
18 T 320	1	41000.000.320	Composição: • Fusíveis • Aço/plástico • Conteúdo: • 7,5A / 10A / 15A / 20A / 25A / 30A2A (5x20 mm) / 2A (6,35x25 mm) / 5A / 10A / 15A / 20A / 25A5A / 8A / 16A / 25A / 40A • 152 peças	
9 T 321	1	41000.000.321	Composição: • Anilhas anti vibração NORD-LOCK 2 peças • Aço. Tratamento Deltaprotekt • Conteúdo: • M4 / M5 / M6 / M8 / M10 / M12 / M14 / M16 • 180 (x2) peças	

MaxxFast sortidos de qualidade

Uma nova gama de caixas de sortidos MaxxFast com os parafusos, buchas e abraçadeiras mais usuais, em caixas de metal muito práticas.

Os sortidos MaxxFast são indicados para reparações e manutenções em qualquer local!

A gama é constituída pelos seguintes sortidos:
6 sortidos de Parafusos para madeira MaxxFast de diversos tipos
1 sortido de buchas de nylon MaxxFast
2 sortidos de buchas de nylon MaxxFast com parafusos para aglomerado
1 sortido de abraçadeiras MaxxFast



Caixa de sortido em metal

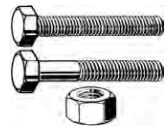
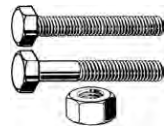
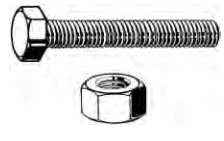
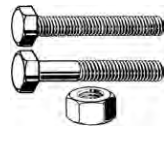
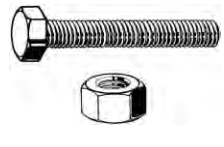
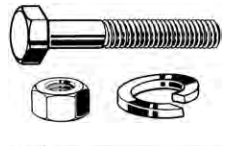
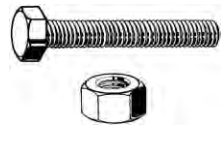


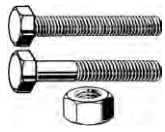
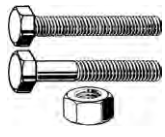
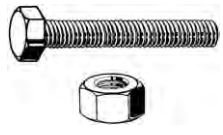
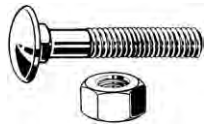
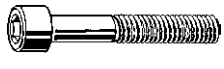
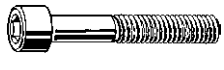
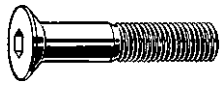
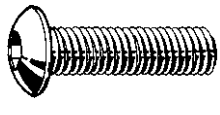
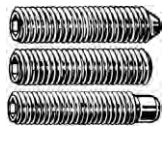
Grupos de produtos

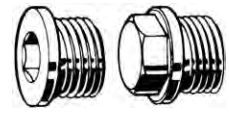
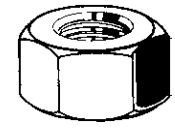
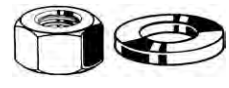
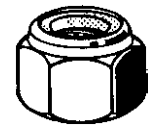
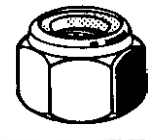
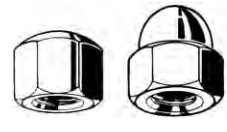
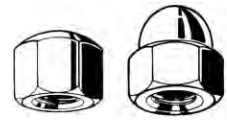
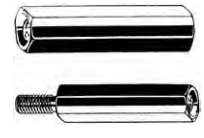
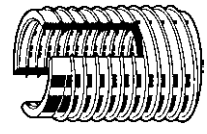
	Código	Página
S-Case	41010	11-14
MaxxFast	30950	11-22

41010 Caixa de sortido em metal **Y94A**

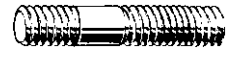
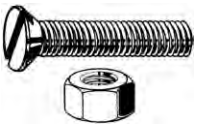
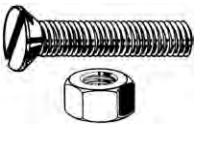
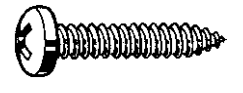
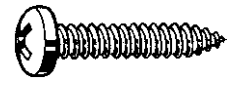


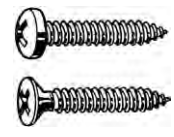
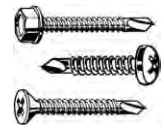
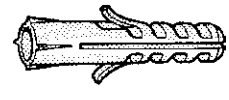
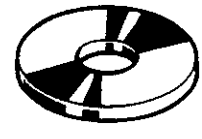
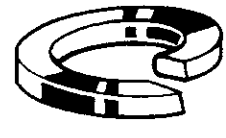
Dimensão.	✉	Ref. do artigo		
S 502	1	41010.000.502	Composição: • Parafusos cabeça sextavada acc. com ISO 4014, parafusos cabeça sextavada acc. com ISO 4017 e porcas sextavadas acc. com DIN 934 • Aço classe 8.8-I8I zincado • Conteúdo: • M5x10 -x16 -x20 -x30 -x40 / M6x12 -x16 -x20 -x25 -x30 -x40 -x50 / M8x20 -x25 -x30 -x40 -x50 -x60 • 758 peças	
S 504	1	41010.000.504	Composição: • Parafusos cabeça sextavada acc. com ISO 4014, parafusos cabeça sextavada acc. com ISO 4017 e porcas sextavadas acc. com DIN 934 • Aço classe 8.8-I8I zincado • Conteúdo: • M10x20 -x25 -x30 -x40 -x50 -x60 / M12x30 -x40 -x50 / M14x50 -x60 / M16x40 -x50 -x60 • 157 peças	
S 506	1	41010.000.506	Composição: • Parafusos cabeça sextavada acc. com ISO 4017 e porcas sextavadas acc. com DIN 934 • Aço classe 8.8-I8I zincado • Conteúdo: • M5x10 -x16 -x20 / M6x16 -x20 -x25 / M8x20 -x25 -x30 / M10x30 -x40 / M12x30 -x40 • 950 peças	
S 508	1	41010.000.508	Composição: • Parafusos cabeça sextavada acc. com ISO 4017 • Aço classe 8.8 zincado, passivado a amarelo • Conteúdo: • M5x16 -x25 / M6x10 -x16 - x20 -x25 / M8x20 -x25 -x30 / M10x25 -x30 -x35 • 610 peças	
S 510	1	41010.000.510	Composição: • Parafusos cabeça sextavada acc. com ISO 8765, parafusos cabeça sextavada acc. com ISO 8676 e porcas sextavadas acc. com DIN 934 • Métrico fino Aço classe 8.8-I8I • Conteúdo: • M10x1,25x20 -x25 -x30 -x40 -x50 / M12x1,5x30 -x40 -x45 -x50 / M14x1,5x30 -x40 -x50 -x60 / M16x1,5x30 -x40 -x50 -x60 • 196 peças	
S 512	1	41010.000.512	Composição: • Parafusos cabeça sextavada acc. com ISO 4017 e porcas sextavadas acc. com DIN 934 • Aço inox A2-70 • Conteúdo: • M5x16 -x20 / M6x16 -x20 -x25 / M8x20 -x25 -x30 / M10x20 -x30 -x40 / M12x30 -x40 • 434 peças	
S 514	1	41010.000.514	Composição: • Parafusos cabeça sextavada acc. com ISO 4014, porcas sextavadas acc. com DIN 934 e anilhas de mola acc. com DIN 127 B • Aço inox A2-70 • Conteúdo: • M6x30 -x35 -x40 -x50 -x60 / M8x30 -x35 -x40 -x50 -x60 / M10x40 -x50 -x60 / M12x50 552 peças	
S 518	1	41010.000.518	Composição: • Parafusos cabeça sextavada acc. com ≈ ISO 4017 e porcas sextavadas acc. com ≈ DIN 934 • Plástico PA 6.6 (branco) • Conteúdo: • M5x10 -x20 / M6x10 -x20 -x25 -x30 -x40 / M8x16 -x20 -x25 -x30 -x40 -x50 • 987 peças	

41010	Caixa de sortido em metal			←
Dimensão.	✉	**Ref. do artigo**		
S 520	1	41010.000.520	Composição: • Parafusos e porcas sextavados • Aço Grade 5 zincado • Conteúdo: • UNF 1/4 x 5/8 -x 3/4 -x 1.IN. -x 1.1/4 -x 1.1/2 -x 2.IN. / UNF 5/16 x 3/4 -x 1.IN. -x 1.1/4 -x 1.1/2 -x 2.IN. / UNF 3/8 x 3/4 -x 1.IN. -x 1.1/4 -x 1.1/2 -x 2.IN. -x 2.1/2 / UNF 7/16 x 1.1/2 • 600 peças	
S 522	1	41010.000.522	Composição: • Parafusos e porcas sextavados • Aço Grade 5 zincado • Conteúdo: • UNF 7/16 x 1.IN. -x 1.1/4 -x 1.1/2 -x 1.3/4 - x 2.IN. / UNF 1/2 x 1.IN. -x 1.1/4 -x 1.1/2 -x 2.IN. / UNF 9/16 x 1.3/4 -x 2.IN. / UNF 5/8 x 1.1/2 -x 2.IN. -x 2.1/2 • 148 peças	
S 524	1	41010.000.524	Composição: • Parafusos e porcas sextavados • Aço Grade 5 zincado • Conteúdo: • UNC 1/4 x 1/2 -x 5/8 -x 3/4 -x 1.IN. / UNC 5/16 x 3/4 -x 1.IN. -x 1.1/4 -x 1.1/2 / UNC 3/8 x 3/4 -x 1.IN. -x 1.1/4 -x 1.1/2 / UNC 1/2 x 1.1/4 -x 1.1/2 • 670 peças	
S 526	1	41010.000.526	Composição: • Parafusos sextavados e porcas sextavadas • Aço inox A4 • Conteúdo: • UNC 1/4 x 3/4 / UNC 5/16 x 3/4 -x 1.IN. / UNC 3/8 x 3/4 -x1.IN. / UNC 1/2 x 1.IN. • 395 peças	
S 528	1	41010.000.528	Composição: • Parafusos arreigada quadrada acc. com DIN 603 e porcas sextavadas acc. com DIN 555 • Aço Classe 4.6-8 zincado • Conteúdo: • M5x16 -x20 -x25 -x30 / M6x25 -x30 -x35 -x40 / M8x25 -x40 -x50 -x60 • 517 peças	
S 530	1	41010.000.530	Composição: • Parafusos para madeira cabeça sextavada acc. com DIN 571 • Aço zincado • Conteúdo: • 6x30 -x40 -x50 -x60 / 8x30 -x40 -x50 -x60 -x70 -x80 / 10x50 -x60 mm • 357 peças	
S 532	1	41010.000.532	Composição: • Parafusos para madeira cabeça sextavada acc. com DIN 571 • Aço inox A2 • Conteúdo: • 6x30 -x40 -x50 -x60 -x70 / 8x40 -x50 -x60 -x70 -x80 / 10x50 -x70 • 323 peças	
S 534	1	41010.000.534	Composição: • Parafusos sextvado interior cabeça cilindrica acc. com DIN 912 • Aço classe 8.8 zincado • Conteúdo: • M4x10 -x16 -x20 / M5x10 -x16 -x20 -x25 -x30 / M6x10 -x16 -x20 -x25 -x30 -x40 / M8x20 -x25 -x30 -x40 • 885 peças	
S 536	1	41010.000.536	Composição: • Parafusos sextavado interior cabeça cilindrica acc. com DIN 912 • Aço inox A2-70 • Conteúdo: • M4x10 -x12 -x16 / M5x10 -x12 -x16 -x20 / M6x10 -x12 -x16 -x20 -x25 -x30 / M8x16 -x20 -x25 -x30 -x35 • 355 peças	
S 538	1	41010.000.538	Composição: • Parafusos sextavado interior cabeça de embeber acc. com DIN 7991 • Aço classe 8.8 zincado • Conteúdo: • M3x8 -x16 / M4x10 -x12 -x16 / M5x10 -x16 / M6x10 -x16 -x20 -x25 / M8x20 -x25 -x30 / M10x20 -x25 -x30 -x40 • 1147 peças	
S 540	1	41010.000.540	Composição: • Parafusos sextavado interior cabeça redonda acc. com ≈ ISO 7380 • Aço classe 10.9 zincado • Conteúdo: • M4x6 -x10 / M5x12 -x16 -x20 / M6x10 -x12 -x16 -x20 -x25 / M8x16 -x20 -x25 / M10x20 -x25 -x30 / M12x25 -x30 • 582 peças	
S 542	1	41010.000.542	Composição: • Pernos sextavdo interior com ponta plana acc. com DIN 913, pernos sextavado interior com ponta acc. com DIN 914 e pernos sextavavado interior acc. com DIN 915 • Aço classe 45H • Conteúdo: • M4x5 -x8 -x10 / M5x6 -x10 -x20 / M6x8 -x10 -x12 -x16 -x20 / M8x10 -x16 • 1950 peças	
S 544	1	41010.000.544	Composição: • Pernos sextavado interior com ponta cortada acc. com DIN 916 • Aço classe 45H zincado • Conteúdo: • M4x4 -x6 -x8 -x10 / M5x6 -x8 -x10 / M6x8 -x10 -x16 -x20 / M8x10 -x12 -x16 -x20 / M10x16 -x20 -x25 • 1105 peças	

41010	Caixa de sortido em metal			←
Dimensão.	✉	**Ref. do artigo**		
S 546	1	41010.000.546	Composição: • Pernos sextavado interior com ponta acc. com DIN 916 • Aço Inox A2-70 • Conteúdo: • M6x6 -x8 -x10 -x16 / M8x16 -x20 -x25 -x30 / M10x10 -x16 -x20 -x30 • 585 peças	
S 548	1	41010.000.548	Composição: • Pernos sextado interior acc. com DIN 908 e pernos sextavados acc. com DIN 910 • Métrico fino Aço • Conteúdo: • M10x1 / M12x1,5 / M14x1,5 / M16x1,5 / M18x1,5 / M20x1,5 / M22x1,5 / M24x1,5 / M30x1,5 • 126 peças	
S 550	1	41010.000.550	Composição: • Porcas sextavadas acc. com DIN 934 • Aço classe l8l zincado • Conteúdo: • M3 / M4 / M5 / M6 / M8 / M10 / M12 / M16 • 2200 peças	
S 552	1	41010.000.552	Composição: • Porcas sextavadas acc. com ISO 4032 e anilhas planas acc. com DIN 125-1A • Aço classe 8 zincado, passivado a amarelo • Conteúdo: • M4 / M5 / M6 / M8 / M10 / M12 • 2210 peças	
S 554	1	41010.000.554	Composição: • Porcas sextavadas acc. com DIN 934 e anilhas planas de acc. com DIN 125-1 A • Aço inox A2–70 • Conteúdo: • M4 / M5 / M6 / M8 / M10 / M12 • 1700 peças	
S 556	1	41010.000.556	Composição: • Porcas auto bloqueantes com inserto não metálico de acc. com to DIN 985 • Aço classe ≥ 5 zincado • Conteúdo: • M3 / M4 / M5 / M6 / M7 / M8 / M10 / M12 / M14 / M16 • 1450 peças	
S 558	1	41010.000.558	Composição: • Porcas auto bloqueantes com inserto não metálico de acc. com ≈ DIN 985 • Aço inox A2 • Conteúdo: • M3 / M4 / M5 / M6 / M8 / M10 / M12 / M14 / M16 / M20 • 614 peças	
S 560	1	41010.000.560	Composição: • Porca sextavada de mama de acc. com DIN 1587 e porca sextavada de mama baixa de acc. com DIN 917 • Aço classe 6 zincado • Conteúdo: • M4 / M5 / M6 / M8 / M10 • 1050 peças	
S 562	1	41010.000.562	Composição: • Porcas de mama sextavadas acc. com DIN 1587 e porcas sextavada de mama baixa de acc. com DIN 917 • Aço inox A1-50 • Conteúdo: • M4 / M5 / M6 / M8 / M10 • 540 peças	
S 564	1	41010.000.564	Composição: • Parafusos de orelhas redondas de acc. com DIN 316 e porcas de orelhas tipo Americano • Ferro e aço classe 04 zincado • Conteúdo: • DIN 316: M5x16 / M6x10 -x20 -x30 / M8x20 -x30 • Porcas de orelhas: M4 / M5 / M6 / M8 / M10 / M12 • 417 peças	
S 566	1	41010.000.566	Composição: • Insertos com fenda tipo A acc. com DIN 7965 e porcas de cravar para madeira • Aço • Conteúdo: • DIN 7965:M4x10 / M5x12 / M6x15 / M8x15 -x18 • Porcas de cravar para madeira: M4 / M5 / M6 / M8 / M10 • 665 peças	
S 570	1	41010.000.570	Composição: • Espaçadores com 2 x rosca interior tipo H1200 e espaçadores com rosca interna e externa tipo H1202 • Aço zincado • Conteúdo: • H1200: M3x5x5 -x8,5x8,5 -x10x10 -x20x7 / M4x10x10 -x15x15 / -x25x9 -x40x9 -x50x9 • H1202: M3x5x3 -x10x7 -x15x7 -x30x7 / M4x10x6 -x30x9 -x40x9 / M5x20x11 -x30x11 • 435 peças	
S 572	1	41010.000.572	Composição: • Insertos auto cortantes tipo 300 • Aço zincado, passivado a amareloe aço inox C4 • Conteúdo: • M3 / M4 / M5 / M6 / M8 / M10 / M12 / M16 • 420 peças	

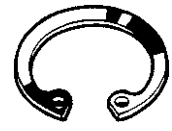
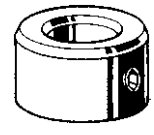
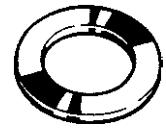
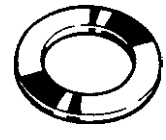
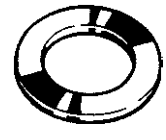
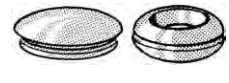
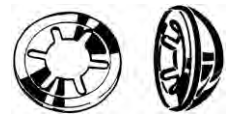
41010 **Caixa de sortido em metal** ←

Dimensão.	✉	Ref. do artigo		
S 574	1	41010.000.574	Composição: • Gancho fechado art. 1G: 2,40x10x5 / 4,00x30x12 / 4,40x40x16 • Escápula quadrada art. 4: 2,40x25 / 3,20x30 / 4,00x50 • Escápula art. 7: 2,65x30 / 3,20x40 • Escápula pesada art. 9G: 5,25x40 -x50 • Gancho aberto art. 11: 2,40x16/30 / 3,20x20/40 • Aço zincado • 1050 peças	
S 576	1	41010.000.576	Composição: • Pernos combinados art. 73A e pernos combinados art. 69G • Aço zincado • Conteúdo: • Art. 73A: M6x40 -x50 -x60 -x90 / M8x60 -x70 • Art. 69G: M8x80 -x90 / M10x80 -x90 -x100 • 226 peças	
S 578	1	41010.000.578	Composição: • Manilha • Aço inox A4 • Conteúdo: • 5 / 6 / 8 / 10 / 12 • 32 peças	
S 580	1	41010.000.580	Composição: • Varão de acc. com DIN 976-1 A • Aço ≥ 4.6 zincado, passivado a amarelo • Conteúdo: • M4x30 -x40 / M5x40 -x50 / M6x30 -x40 -x50 / M8x60 -x70 -x80 / M10x40 -x60 • 505 peças	
S 582	1	41010.000.582	Composição: • Pernos ≈ 1,25 d de acc. com DIN 939 • Aço inox A4 • Conteúdo: • M6x30 / M8x20 -x25 -x40 -x50 / M10x25 -x30 -x40 -x50 / M12x40 -x50 / M16x50 • 73 peças	
S 584	1	41010.000.584	Composição: • Parafusos rosca de metais cabeça de queijo fenda de acc. com DIN 84 e porcas sextavadas de acc. com DIN 934 • Aço 4.8-l8l zincado • Conteúdo: • M3x10 -x12 -x16 -x20 -x25 / M4x10 -x16 -x20 -x25 -x30 / M5x20 -x25 -x30 -x40 / M6x25 -x30 -x40 -x50 • 3060 peças	
S 586	1	41010.000.586	Composição: • Parafusos rosca de metais de acc. com DIN 963 e porcas sextavadas de acc. com DIN 934 • Aço 4.8-l8l zincado • Conteúdo: • M3x10 -x20 -x30 / M4x10 -x20 -x30 / M5x10 -x20 -x25 / M6x20 -x30 / M8x20 -x25 • 2970 peças	
S 588	1	41010.000.588	Composição: • Parafusos rosca de metais cabeça de queijo com fenda de acc. com DIN 84 e porcas sextavadas de acc. com DIN 934 • Aço inox A2-70 • Conteúdo: • M3x8 -x10 -x16 / M4x8 - x10 -x16 -x20 / M5x10 -x12 -x16 -x20 / M6x10 -x16 -x20 • 4550 peças	
S 590	1	41010.000.590	Composição: • Parafusos rosca de metais cabeça de embeber de acc. com DIN 963 e porcas sextavadas de acc. com DIN 934 • Aço inox A2-70 • Conteúdo: • M3x6 -x10 -x16 / M4x10 -x16 -x20 / M5x10 -x16 -x20 -x30 / M6x16 -x20 -x25 -x30 • 1550 peças	
S 592	1	41010.000.592	Composição: • Porcas sextavadas de acc. com ≈ DIN 934, parafusos cabeça de quaijo fenda de acc. com ≈ DIN 84, Parafusos cabeça de embeber com fenda de acc. com ≈ DIN 963 e anilhas planas de acc. com ≈ DIN 125-1 A • Plástico PA 6.6 (branco) • Conteúdo: • M3x10 / M4x8 -x20 / M5x16 / M6x20 • 2100 peças	
S 594	1	41010.000.594	Composição: • Parafuso autoroscante cabeça de queijo Phillips (H) de acc. com DIN 7981 C-H • Aço zincado • Conteúdo: • ST2,9x13 / ST3,5x13 -x16 -x19 -x25 / ST4,2x13 -x16 -x19 -x25 / ST4,8x16 -x19 -x25 -x32 / ST5,5x19 -x25 -x32 / ST6,3x25 -x38 • 1855 peças	
S 596	1	41010.000.596	Composição: • Parafuso autoroscante cabeça de queijo Phillips (H) de acc. com DIN 7981 C-H • Aço zincado, passivado a preto • Conteúdo: • ST2,9x6,5 -x9,5 -x13 -x19 / ST3,5x9,5 -x13 -x16 -x19 -x25 / ST3,9x9,5 / ST4,2x9,5 -x13 -x16 -x19 -x25 / ST4,8x16 -x19 -x25 • 2145 peças	

41010	Caixa de sortido em metal			←
Dimensão.	✉	**Ref. do artigo**		
S 598	1	41010.000.598	Composição: • Parafuso autoroscante cabeça de embeber Phillips (H) de acc. com DIN 7982 C-H • Aço zincado • Conteúdo: ST2,9x9,5 -x13 / ST3,5x16 -x19 -x25 -x32 / ST3,9x19 / ST4,2x13 -x16 -x19 -x25 -x32 -x38 / ST4,8x19 -x25 -x32 / ST5,5x25 -x32 • 1650 peças	
S 600	1	41010.000.600	Composição: • Parafuso autoroscante cabeça de queijo Phillips (H) de acc. com DIN 7981 C-H e parafuso autoroscante cabeça de embeber Phillips (H) de acc. com DIN 7982 C-H • Aço inox A2 • Conteúdo: • ST3,5x9,5 -x13 -x16 -x19 -x25 / ST4,2x13 -x16 -x19 -x25 -x32 / ST4,8x19 -x25 • 1675 peças	
S 602	1	41010.000.602	Composição: • Parafusos autoroscantes cabeça de lentilha Phillips (H) de acc. com DIN 7983 C-H • Aço zincado • Conteúdo: • ST2,9x9,5 -x13 -x16 / ST3,5x13 -x16 -x19 -x25 / ST4,2x13 -x16 -x19 -x25 -x32 / ST4,8x16 -x19 -x25 -x32 / ST5,5x19 -x25 • 2175 peças	
S 604	1	41010.000.604	Composição: • Parafusos autoroscante cabeça de lentilha Phillips (H) de acc. com DIN 7983 C-H • Aço zincado, passivado a amarelo • Conteúdo: • ST2,9x9,5 -x13 -x19 / ST3,5x13 -x16 -x19 -x25 / ST3,9x16 -x25 / ST4,2x13 -x16 -x19 -x25 -x32 / ST4,8x16 -x19 -x25 -x32 • 1875 peças	
S 606	1	41010.000.606	Composição: • Parafusos para aglomerado cabeça de embeber Pozidriv (Z) • Aço zincado • Conteúdo: • 3,5x20 -x25 -x30 -x35 -x40 / 4x17 -x20 -x25 -x30 -x35 -x40 -x45 -x50 / 4,5x30 -x40 -x50 / 5x50 -x60 • 1225 peças	
S 608	1	41010.000.608	Composição: • *SPÉDEC*: parafusos autoperfurantes Phillips (H) cabeça queijo de acc. com DIN 7504 M-H, parafusos autoperfurantes Phillips (H) cabeça embeber de acc. com DIN 7504 O-H e parafusos autoperfurantes cabeça sextavada com colar de acc. com DIN 7504 K • Aço zincado • Conteúdo: • ST3,5x9,5 -x19 / ST3,9x13 -x19 / ST4,2x13 -x19 -x25 -x32 / ST4,8x13 -x16 -x19 -x32 / ST5,5x32 / ST6,3x19 • 1460 peças	
S 610	1	41010.000.610	Composição: • Buchas • Plástico (cinza) • Conteúdo: • 4 / 5 / 6 / 7 / 8 / 10 / 12 • 720 peças	
S 612	1	41010.000.612	Composição: • Anilhas de reparação e anilhas planas d2 ≈ 3xd1 de acc. com DIN 9021 • Aço zincado • Conteúdo: • Anilhas de reparação: • M4x20 / M5x20 / M6x25 -x30 / M8x30 / M10x30 / M12x36 DIN 9021: M4x12 / M5x15 / M6x18 / M8x24 / M10x24 • 1300 peças	
S 614	1	41010.000.614	Composição: • Anilhas planas de acc. com DIN 125-1 A e anilhas de mola de acc. com DIN 127 B • Aço zincado • Conteúdo: • M4 / M5 / M6 / M8 / M10 / M11 / M12 / M14 / M16 • 1700 peças	
S 616	1	41010.000.616	Composição: • Amilhas de mola de acc. com DIN 127 B • Aço inox A2 • Conteúdo: • M3 / M4 / M5 / M6 / M8 / M10 / M12 / M14 / M16 / M20 / M24 / M27 • 1180 peças	
S 618	1	41010.000.618	Composição: • Anilhas curvas de acc. com DIN 137 B, anilhas com recartilha exterior de acc. com DIN 6798 A e anilhas com recartilha interior de acc. com DIN 6798 J • Aço zincado e aço passivado a amarelo • Conteúdo: • M3 / M4 / M5 / M6 / M8 / M10 • 6450 peças	
S 620	1	41010.000.620	Composição: • Anilhas planas de acc. com DIN 125-1 A, anilhas curvas de acc. coc DIN 137 B e anilhas com recartilha exterior de acc. com ≈ DIN 6798 A • Aço inox A2 • Conteúdo: • M3 / M4 / M5 / M6 / M8 / M10 • 2475 peças	

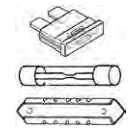
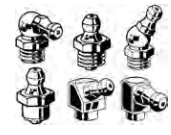
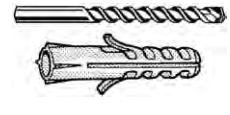
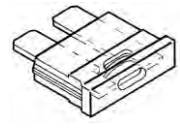
11

41010 Caixa de sortido em metal ←

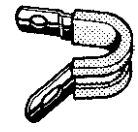
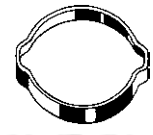
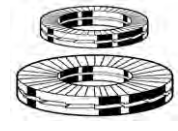
Dimensão.	✉	Ref. do artigo		
S 622	1	41010.000.622	Composição: • Freios exteriores de acc. com DIN 471 • Aço • Conteúdo: • Ø 25 / 26 / 27 / 30 / 31 / 33 / 35 / 38 / 40 / 42 • 247 peças	
S 624	1	41010.000.624	Composição: • Freios interiores de acc. com DIN 472 • Aço • Conteúdo: • Ø 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 / 19 / 20 / 22 / 24 / 25 / 26 / 27 • 1460 peças	
S 626	1	41010.000.626	Composição: • Freios exteriores de acc. com DIN 471 e freios interiores de acc.com DIN 472 • Aço inox • Conteúdo: • Ø 5 / 6 / 8 / 10 / 12 / 14 / 16 / 20 / 22 / 25 / 26 / 30 / 32 / 35 / 42 / 47 • 263 peças	
S 628	1	41010.000.628	Composição: • Anel de ajuste de acc. com =~~ DIN 705A com perno sext. int de acc. com DIN 916 • Aço Inox A1 • Conteúdo: • 6x12x8 / 8x16x8 / 10x20x10 / 12x22x12 / 14x25x12 / 15x25x12 / 20x32x14 / 25x40x16 / 30x45x16 / 36x56x16 • 46 peças	
S 630	1	41010.000.630	Composição: • Anilhas de acc. com DIN 7603 C • Cobre • Conteúdos: • Ø 6x10x1 / 8x12x1 / 8x14x1,5 / 10x14x1,5 / 10x16x1,5 / 12x16x1,5 / 12x18x1,5 / 13x18x1,5 / 14x18x1 / 14x20x1,5 / 16x20x1,5 • 840 peças	
S 632	1	41010.000.632	Composição: • Anilhas de acc. com DIN 7603 A • Cobre • Conteúdo: • Ø 8x12x1 / 10x14x1,5 / 10x16x1,5 / 12x16x1,5 / 12x18x1,5 / 12x20x1,5 / 14x18x1,5 / 14x20x1,5 /14x20x2 / 16x20x1,5 / 16x22x2 / 18x24x2 / 20x24x1,5 / 22x26x2 / 24x30x2 / 26x33x2 / 28x34x2 / 30x38x2 • 780 peças	
S 634	1	41010.000.634	Composição: • Anilhas de acc. com DIN 7603 A • Cobre • Conteúdo: • Ø 14x20x2 / 15x20x2 / 16x22x2 / 17x24x2 / 18x24x2 / 20x24x2 / 22x26x2 / 24x30x2 / 26x33x2 / 28x34x2 / 30x38x2 / 32x40x2 • 275 peças	
S 636	1	41010.000.636	Composição: • Anilhas de acc. com DIN 7603 C Cobre/FESTAPLAN • Conteúdo: • Ø 6x10x1,5 / 8x12x1,5 / 8x14x1,5 / 12x16x2 / 14x18x2 / 14x20x2 / 16x22x2 / 18x24x2 / 20x26x2 / 24x32x2,5 / 26x32x2,5 / 32x38x2,5 • 645 peças	
S 638	1	41010.000.638	Composição: • Anilha para juntas fibra • Conteúdo: • Ø 5x8 / 6x9 / 7x10 / 8x12 / 9x14 / 10x14 / 11x17 / 12x16 / 12,5x18 / 14x18 / 15x19 / 16x21 / 17x22 / 18x24 / 19x23 / 20x24 / 22x26 / 24x28 • 1910 peças	
S 640	1	41010.000.640	Composição: • O-rings (metrico) • Borracha - NBR 70° shore (preto) • Conteúdo: • Ø 5x1,5 / 6x1,5 / 7x1,5 / 8x2 / 10x2 / 12x2 / 18x2 / 20x2 / 11,3x2,4 / 13,3x2,4 / 13x2,5 / 14x2,5 / 15x2,5 / 16x2,5 / 20,2x3 / 22,2x3 / 24,2x3 / 26,2x3 • 1075 peças	
S 642	1	41010.000.642	Composição: • O-ring com fitas métricas, x acto, molde de corte e cola cianocrilato • Borracha - Buna N 70° shore • Conteúdo: • Ø 1,78 / 2,0 / 2,4 / 2,62 / 3,0 / 3,53 / 4,0 / 5,0 / 5,33 / 5,7 • ATENÇÃO: quantidade é 10x2 metros cord	
S 644	1	41010.000.644	Composição: • Anilhas e tampas para cabos Borracha (preto) • Conteúdo: • Anilha Ø 4x6,4 / 5,5x8 / 6,4x9,5 / 8x9,5 / 9,5x12,5 / 11x12,5 / 12,5x17,5 / 14,2x17,5 / 16x19 • Tampas vedação: Ø 6,4x9,5 / 8x14,2 / 9,5x15,4 / 11,2x17,7 / 12,5x18,7 / 15,5x22 / 19x25,5 / 20x25,5 / 22,5x28,4 • 596 peças	
S 646	1	41010.000.646	Composição: • STARLOCK • Anilhas Aço mola (sem tampa) e aço mola (com tampa aço inox) • Conteúdo: • Ø 3 / 4 / 5 / 6 / 8 / 10 • 1400 peças	

11

41010	Caixa de sortido em metal		←
Dimensão.	✉	**Ref. do artigo**	
S 648	1	41010.000.648	Composição: • Cavilha tipo pesado de acc. com ISO 8752 • Aço • Conteúdo: • 4x30 -x40 -x50 -x60 / 5x20 -x26 -x30 -x40 -x50 -x60 / 6x40 -x50 -x60 -x70 / 8x40 -x50 -x60 -x70 • 520 peças
S 650	1	41010.000.650	Composição: • Chavetas PRYM standard acc. com ISO 8750 • Aço • Conteúdo: • 1,5x12 / 2x16 / 3x16 -x20 -x24 / 4x20 -x24 -x30 -x40 / 5x30 -x50 / 6x40 -x50 -x70 8x50 -x70 / 10x50 -x70 • 1040 peças
S 652	1	41010.000.652	Composição: • Chaveta PRYM standard duty acc. com ≈ ISO 8750 • Aço Inox A2 • Conteúdo: • 2,5x8 -x16 / 3x8 -x10 -x12 -x16 -x20 / 4x10 -x14 -x16 -x18 -x22 -x30 / 5x24 -x26 -x50 / 6x20 • 725 peças
S 654	1	41010.000.654	Composição: • Chavetas meia cana acc. com DIN 94 • Aço zincado • Conteúdo: • 2x20 -x40 / 2,5x32 -x40 / 3,2x40 -x50 / 4x40 -x50 / 5x40 -x50 / 6,3x63 -x801 • 345 peças
S 656	1	41010.000.656	Composição: • Chavetas meia cana acc. com DIN 94 • Aço inox A2 • Conteúdo: • 1,6x16 -x32 / 2x16 -x20 -x32 -x40 / 2,5x25 -x32 / 3,2x20 -x40 / 4x25 -x32 • 915 peças
S 658	1	41010.000.658	Composição: • Chavetas paralelas - tipo pesado acc. com DIN 6885 A • Aço • Conteúdo: • 4x4x12 / 5x5x10 -x20 -x25 / 6x6x12 -x20 -x25 -x32 -x40 / 8x7x25 -x32 -x40 -x50 / 10x8x40 -x50 -x63 / 12x8x40 -x50 • 336 peças
S 660	1	41010.000.660	Composiçã • Chavetas acc. com DIN 6888 • Aço • Conteúdo: • 2x3,7 / 2,5x3,7 / 3x3,7 -x5 -x6,5 / 4x5 -x6,5 -x7,5 -x9 / 5x6,5 -x9 / 6x9 -x11 -x13 -x15 / 8x11 -x13 / 10x13 • 450 peças
S 662	1	41010.000.662	Composição: • Parafuso com perfuração acc. com DIN 1434, anilha plana para parafuso perfuração acc. com DIN 1440 e chavetas meia cana acc. com DIN 94 • Aço zincado • Conteúdo: • ISO 2341 B: Ø 5x14 / 6x18 / 8x22 / 10x28 / 12x35 / 14x40 • DIN 1440: For pin Ø 5 / 6 / 8 / 10 /12 / 14 / 16 • DIN 94: 1,6x10 / 2x16 / 2,5x20 / 3,2x20 / 4x25 • 234 peças
S 666	1	41010.000.666	Composição: • Anilhas de afinação acc. com DIN 7603 A, anilhas de afinação acc. com DIN 7603 C e anilhas planas acc com DIN 125-1 • Aluminio 99F11; dureza HB 32-45, cobre, cobre/FESTAPLAN e plástico PA 6.6 (branco) • Conteúdo: • Aluminio: Ø 8x14x1 / 10x14x1 / 12x18x1,5 / 14x20x1,5 / 16x22x1,5 / 18x24x1,5 / 20x26x1,5 • Copper: Ø 10x16x1,5 / 12x16x1,5 / 14x20x1,5 / 16x22x2 / 18x24x2 / 20x24x2 • Cobre/FESTAPLAN: Ø 14x20x2 / 16x22x2 / 18x24x2 / 20x26x2 • Plástico: M14,51 • 155 peças
S 668	1	41010.000.668	Composição: • Terminal pre-isolada • Aço/plástico • Conteúdo: • Cabo 0,5 - 1,5 mm2: tipo 599 / 741 / 541 / 540 / 1541 / 561 / 556 (M3) / 535 (M4) / 557 (M5) • Cabo 1,5 - 2,5 mm2: tipo 742 / 542 / 740 / 1542 / 562 / 536 (M4) / 537 (M5) / 560(M6) • Cabo 2,5 - 6,0 mm2: tipo 539 (M6) • 408 peças
S 670	1	41010.000.670	Composição: • Terminais pre isolados • Aço/Plástico • Conteúdo: • Cabo 0,5 - 1,5 mm2: tipo 545 / 547 / 548 • Cabo 1,5 - 2,5 mm2: tipo 546 / 550 / 549 • Cabo 2,5 - 6,0 mm2: tipo 563 (M8) / 554 (M10) • Conector tipo C-560 azul • 298 peças

41010	Caixa de sortido em metal			←
Dimensão.	✉	**Ref. do artigo**		
S 672	1	41010.000.672	Composição: • Fusíveis para carros • Aço/plástico • Conteúdo: • 7,5A / 10A / 15A / 20A / 25A / 30A • 2A (5x20 mm) / 2A (6,35x25 mm) / 5A / 10A / 15A / 20A / 25A • 5A / 8A / 16A / 25A / 40A • 304 peças	
S 676	1	41010.000.676	Composição: • Copos de lubrificação cone acc com ≈ DIN 71412 e copos de lubrificação pressão • Aço zincado • Conteúdo: • M6x1-45° -90° -180° / M8x1-45° -90° -180° / M8x1,25-45° -90° -180° / M10x1-45° -90° -180° / M10x1,25-45° -90° -180° • Copos lubrificação pressão: 6-45° -180° / 8-90° -180° • 246 peças	
S 680	1	41010.000.680	Composição: • Molas helicoidais acc. com DIN 2095 • Aço mola zincado • Conteúdo: • 0,5x3,5x15 / 0,5x4,5x12 / 0,5x6,5x20 -x30 / 0,8x5,7x25 / 0,8x6,7x25 / 0,8x7,7x30 -x35 -x50 / 1x6x25 / 1x8x25 -x30 / 1x10x25 -x60 / 1,5x10x50 / 1,5x12x40 / 1,5x14x60 / 2x14x50 • 695 peças	
S 682	1	41010.000.682	Composição: • Molas helicoidais acc com DIN 2097 • Aço mola zincado • Conteúdo: • 0,5x3,5x20 / 0,5x4,5x20 / 0,5x6,5x20 -x25 -x30 -x35 / 0,8x6,7x30 -x35 / 0,8x7,7x40 -x50 / 1x6x30 / 1x8x25 -x35 / 1x10x35 -x40 -x60 / 1,5x10x35 -x50 • 522 peças	
S 684	1	41010.000.684	Composição: • SECURITY: parafusos cabeça cilindrica com 2 furos, parafusos cabeça de embeber com 2 furos, parafusos fenda cruz com pino, parafusos para madeira fenda quadrada, parafusos sextavado interior com pino, ponteiras, chave sextavado interior, chave de parafusos e porcas • Aço, aço zincado e aço inox A2 • Conteúdo: • Parafusos cabeça cilindrica com 2 furos: M4x10 / M5x12 + ponteira • Parafuso cabeça de embeber com 2 furos: M3x12 / M4x10 + ponteira • Parafusos cabeça cilindrica com pino: ST 4,8x13 -x19 + ponteira • Parafusos one way: ST 3,5x25 / ST 4,2x19 -x32 • Parafusos para madeira fenda quadrada: 4,2x25 -x32 • Parafuso sextavado interior com pino: M6x25 + chave sextavado interior • Porcas : M8 • Chave • 310 peças	
S 686	1	41010.000.686	Composição: • Brocas de acordo DIN 338-RN (código U0000) • Aço HSS • Conteúdo: • Ø 0,5 / 1 / 1,5 / 2 / 2,5 / 3 / 3,5 / 4 / 4,5 / 5 / 5,5 / 6 / 6,5 / 7 / 7,5 / 8 / 8,5 / 9 / 9,5 / 10 • 175 peças	
S 688	1	41010.000.688	Composição: • Parafusos para mobiliário: insertos sextavados tipo SK, insertos sextavados com colar tipo SKD, porcas serrilhadas tipo RM, porcas sextavadas tipo RSK, porcas cabeça plana tipo RF, porcas cabeça redonda tipo RT, insertos com colar tipo TS, parafusos de encaixe tipo Q, parafusos cabeça plana tipo KF, parafusos cabeça redonda com sext. int. tipo KT conectores tipo KOK • Aço zincado, aço niquelado e latão niquelado • Conteúdo: • Insertos sextavado interior: M6x15 • Insertos sextavados com colar: M6x15 • Porcas serrilhadas: M6x18 • Porcas: M6x16 • Porca sextavada plana: M6 • Porca sextavada cab. red. : M6 • Insertos com colar: M6 • Conectores com fenda: M6x12 -x14 • Parafusos cabeça plana sext. int.: M6x50 -x60 -x70 • Parafusos cabeça redonda sext. int.: M6x50 -x60 -x70 • Conector sextavado: 7x50 • 425 peças	
S 690	1	41010.000.690	Composição: • Buchas e brocas tipo A • Plástico nylon (cinza) e aço • Conteúdo: • 5 / 6 / 7 / 8 / 10 / 12 • 520 peças	
S 692	1	41010.000.692	Composição: • Fusível para carros • Aço/plástico • Conteúdo: • 7,5A / 10A / 15A / 20A / 25A / 30A4A / 5A / 7,5A / 10A / 15A / 20A / 25A / 30A • 20A / 30A / 40A / 50A / 60A / 70A / 80A • 276 peças	
S 694	1	41010.000.694	Composição: • NORD-LOCK anilhas anti vibração 2 peças • Aço Deltaprotekt • Conteúdo: • M8 / M10 / M14 / M16 / M18 / M20 / M24 • 170 (x2) peças	

41010 Caixa de sortido em metal

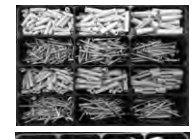
Dimensão.	✉	Ref. do artigo		
S 698	1	41010.000.698	Composição: • OMNI rebites, anilhas planas acc. com DIN 125-1 A e ferramenta manual • Aluminio com mandril • Aço zincado • Conteúdo: • 3x6 -x8 -x10 / 4x6 -x8 -x10 -x12 -x16 / 4,8x8 - x10 -x12 -x14 • DIN 125-1 A: M3 / M4 / M5 Ferramenta manual: tipo F150B • 1.565 peças	
S 700	1	41010.000.700	Composição: • ABA Clip com protecção de borracha • Conteúdo: • 5 / 6 / 8 / 10 / 11 / 13 / 14 / 16 mm • 130 peças	
S 702	1	41010.000.702	Composição: • ABA Nova e abraçadeiras Mini • Conteúdo: • Nova 11-17 / 13-20 / 15-24 / 19-28 / 22-32 / 26-38 mm • Mini No. 8 / 10 / 12 / 14 / 16 / 17 • 1 chave flexivel • 146 peças	
S 704	1	41010.000.704	Composição: • ABA abraçadeiras 2 orelhas • Conteúdo: • 5-7 / 7-9 / 9-11 / 11-13 / 13-15 / 15-18 / 17-20 / 20-23 / 23-25 • 1 ferramenta • 601 peças	
S706	1	41010.000.706	Composição: • NORD-LOCK Anilha anti vibração / NORD-LOCK Anilha anti vibração diâmetro extra • Conteúdo: • M6 - M8 - M10 - M12 - M16 - M20 / M6x13,5 - M8x16 - M10x21 - M12x25 - M16x30 - M20x39 • 350 peças	

30950 Caixa de sortido em metal MFNA

MAXXFAST PROFESSIONAL HARDWARE



Dimensão.	✉	Ref. do artigo		
Parafuso madeira 3,5X25-6X60	1	30950.007.001	Composição: • 3,5x25mm, 4x30mm, 4x35mm, 4x40mm, 4x45mm, 5x40mm, 5x50mm, 6x60mm • MF 1/4 Bit TTAP 15, MF 1/4 Bit TTAP 20, MF 1/4 Bit TTAP 25	
Parafuso madeira 3,5X16-5X70	1	30950.007.002	Composição: • 3,5x16mm, 3,5x20mm, 3,5x25mm, 3,5x30mm, 3,5x35mm, 4x30mm, 4x40mm, 4x50mm, 4x60mm, 5x50mm, 5x60mm, 5x70mm • MF 1/4 Bit TTAP15, MF 1/4 Bit TTAP 20, MF 1/4 Bit TTAP 25	
Parafuso madeira 3X16-5X50	1	30950.007.003	Composição: • 3x16mm, 3,5x20mm, 3,5x25mm, 4x16mm, 4x20mm, 4x25mm, 4x30mm, 4x40mm, 5x20mm, 5x30mm, 5x40mm, 5x50mm • MF 1/4 Bit TTAP 10, MF 1/4 Bit TTAP 15, MF 1/4 Bit TTAP 20, MF 1/4 Bit TTAP 25	
Parafuso madeira 3,5X25-6X60	1	30950.007.010	Composição: • 3,5x25mm, 4x30mm, 4x35mm, 4x40mm, 4x45mm, 5x40mm, 5x50mm, 6x60mm • MF 1/4 Bit TTAP PZ2, MF 1/4 Bit TTAP PZ3	
Parafuso madeira 3,5X16-5X70	1	30950.007.011	Composição: • 3,5x16mm, 3,5x20mm, 3,5x25mm, 3,5x30mm, 3,5x35mm, 4x30mm, 4x40mm, 4x50mm, 4x60mm, 5x50mm, 5x60mm, 5x70mm • MF 1/4 Bit PZ2	
Parafuso madeira 3X16-5X50	1	30950.007.012	Composição: • 3x16mm, 3,5x20mm, 3,5x25mm, 4x16mm, 4x20mm, 4x25mm, 4x30mm, 4x40mm, 5x20mm, 5x30mm, 5x40mm, 5x50mm • MF 1/4 Bit PZ1, MF 1/4 Bit PZ2	
Bucha 5-6-8-10-12	1	30950.009.001	Composição: • 4FAST: 5, 6, 8, 10, 12mm • Multifast: 6, 8, 10mm	

30950	Caixa de sortido em metal			←
Dimensão.	✉	**Ref. do artigo**		
Bucha + screw 5-6-8-10	1	30950.009.002	Composição: • 4FAST: 5, 6, 8, 10mm • Chipboard screw: 4x30mm, 4,5x40mm, 5x50mm, 6x60mm	
Bucha + screw 6-8-10	1	30950.009.003	Composição: • 4FAST: 6, 8, 10mm • Chipboard screw: 4,5x40mm, 5x50mm, 6x60mm, 4,5x45mm, 4,5x60mm, 5x70mm • Multtifast: 6, 8, 10mm	
Abraçadeira metálica 8-70	1	30950.012.001	Composição: • 9mm 8-16, 12-22, 16-27, 20-32, 25-40, 32-50, 40-60, 50-70	

Acessórios para sortidos



Grupos de produtos

Código	Página
41030	11-23
41020	11-23
41040	11-24

41030	Suporte	*99B



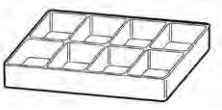
Tipo	✉	Ref. do artigo		
SF-3	1	41030.001.770	• Indicado para caixas de sortido metálicas ,3 x tipo S. • Medidas: 385 x 265 x 215 mm. • Robusto. • Com dois furos na parte trás, que permitem a fixação á parede se necessário.	
SF-5	1	41030.001.780	• Indicado para caixas de sortido metálicas ,5 x tipo S. • Medidas: 415 x 255 x 430 mm. • Cada gaveta tem um fecho de segurança vermelho. Todas as gavetas são extensíveis. • Fecho cilindrico que permite que todas as gavetas sejam fechadas de uma só vez. • Materias de fixação estão incluidos, que permitem que seja fixado á parede.	

41020	Caixa de sortido	*99B

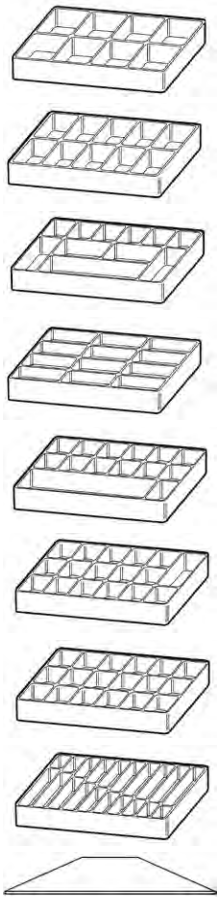


Tipo	✉	Ref. do artigo	
Caixa de S completo	1	41020.001.775	

41040	Acessórios	*99B



Tipo	✉	Ref. do artigo
8-Comp.	1	41040.100.008
10-Comp.	1	41040.100.010
11-Comp.	1	41040.100.011
12-Comp.	1	41040.100.012
14-Comp.	1	41040.100.014
17-Comp.	1	41040.100.017
18-Comp.	1	41040.100.018
20-Comp.	1	41040.100.020
Espuma cobrir	1	41040.200.010



KEEPSTOCK HARDWARE

Todo o hardware que precisa para a solução keepstock mais eficiente. Uma variedade de armários, prateleiras, caixas e muito mais.



Armário autónomo com 12 prateleiras sem divisórias.
W1200.000.005
198x60x30 cm



Armário de armazenamento inclinado sem compartimentos basculantes. Adequado para 96 compartimentos basculantes.
W1200.200.027
200x100x30 cm



Armário autónomo com 12 prateleiras sem divisórias.
W1201.201.031
198x100x30 cm



Armário de transporte com duas pegas.
W1201.202.300
147x100x52 cm



Armário com 8 orifícios para varão roscado.
W1297.000.008
63x60x25 cm



Unidade de compartimento móvel com 2 rodas fixas em nylon e 2 giratórias com travão, e 18 faixas de montagem para os compartimentos nº 52, 53, 54 e 55.
W1210.001.775



Unidade basculante de plástico para armário.
W1276.001.125
160x115x110 cm



Compartimento basculante para unidade basculante.
W1276.001.105



Divisória de plástico para armário.
W1290.001.030



Divisória de metal para armário.
W1290.000.030



Compartimento de plástico para suspensão.
W1275.000.052: 16,5x20,5x35 cm
W1275.000.053: 13x15x24 cm
W1275.000.054: 17,5x10x17,5 cm
W1275.000.055: 5x10,5x9 cm

Por favor, consulte o nosso site, **www.fabory.com**, para obter informações detalhadas sobre o hardware KeepStock, bem como soluções KeepStock.

Caixa de transporte



63152	FISCHER Caixa de transporte	N03B

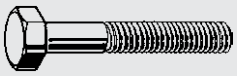
Material Plástico
Cor Vermelho

fischer innovative solutions

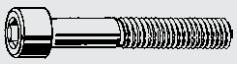


Tipo	✉	Ref. do artigo		
MOBIBOX	1	63152.001.770	•	Com pega de aluminio vermelha.

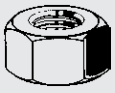




1 Parafusos sextavado exterior



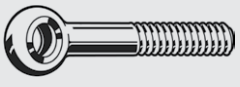
2 Produtos sextavados interiores



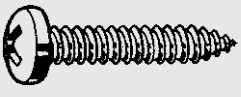
3 Porcas/porcas de rebitar / insertos



4 Varão roscado / pernos



5 Produtos olhal / gancho

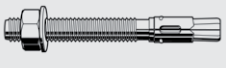


6 Parafusos

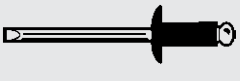
I Indice



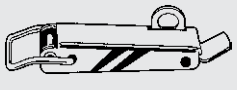
7 Anilha



8 Ancoragem



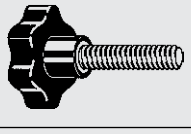
9 Rebites / cavilhas



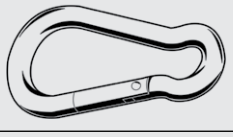
10 Parafusos de segurança / Sistemas de fixação



11 Sortidos



12 Sistemas de engenharia / peças para máquinas



13 Marítimo produtos

T Tecnologia de fixação


Página 12-6
Abraçadeira 9mm


Página 12-8
Abraçadeira 12mm


Página 12-9
Abraçadeira 12mm aço inox


Página 12-11
Abraçadeira em aço inox


Página 12-12
MAXXFAST Mini abraçadeira


Página 12-13
ABA Mini abraçadeira

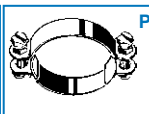

Página 12-14
ABA Abraçadeira heavy duty aço inox


Página 12-15
ABA Abraçadeira heavy duty


Página 12-16
Micro abraçadeira


Página 12-16
Abraçadeira uma orelha

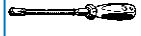

Página 12-17
ABA abraçadeira duas orelhas


Página 12-18
Abraçadeira duas partes


Página 12-19
MAXXFAST Abraçadeira de borracha


Página 12-20
ABA Abraçadeira de borracha

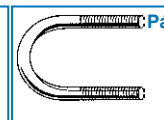

Página 12-21
Sortido de abraçadeiras

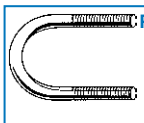

Página 12-23
Chave flexivel


Página 12-24
Abraçadeira para tubo de escape


Página 12-25
Abraçadeira 8 mm


Página 12-26
BAND-IT


Página 12-29
U-bolt tipo A


Página 12-31
U-bolt tipo B

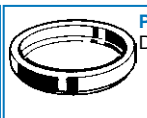

Página 12-32
Abraçadeira aço


Página 12-34
Abraçadeira aço inox


Página 12-36
Abraçadeira aço

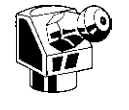

Página 12-37
Abraçadeira aço inox


Página 12-39
Placa de cobertura decorativa


Página 12-40
DIN ≈443
Tampa de vedação


Página 12-41
DIN ≈470
Anilha de vedação


Página 12-42
DIN ≈71412
Conico Métrico


Página 12-43
Empurrar


Página 12-43
DIN ≈3405 A
Modelo cónico Métrico


Página 12-44
DIN ≈3404 A
Plano Métrico (fino)


Página 12-44
DIN ≈71412 A/B/C
Cónico Métrico fino


Página 12-45
DIN ≈71412 A/B/C
Cónico Métrico extra fino


Página 12-45
DIN ≈71412 A/B/C
Cónico não Métrico R


Página 12-46
DIN ≈71412 A/B/C
Cónico não Métrico UNF


Página 12-46
DIN ≈3404 A
Plano G


Página 12-47
DIN 71802 CS
Métrico/métrico fino


Página 12-48
DIN 808 E
Simples


Página 12-49
DIN 808 D
Duplo


Página 12-49
DIN 71752
Junção de forquilha


Página 12-50
DIN 648 B
Varão com rosca interior


Página 12-52
DIN 648 A
Varão com rosca exterior


Página 12-53
Multi fixação


Página 12-53
Ligação individualmente ajustável

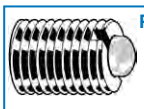

Página 12-54
Dobradiça de soldar

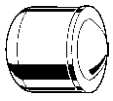

Página 12-55
Dobradiça em thermoplast

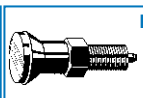

Página 12-56
Perno de pressão com bola

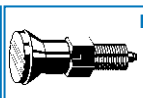

Página 12-57
Pernos de pressão com pino e fenda

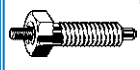

Página 12-58
Com pino e sextavado interior

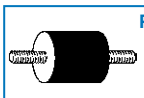

Página 12-59
Com pino de plástico e sextavado interior

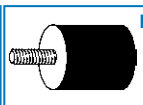

Página 12-59
Execução suave

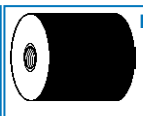

Página 12-60
Sem bloqueio

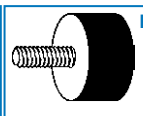

Página 12-60
Com bloqueio plástico


Página 12-61
Aço


Página 12-61
Suporte tipo A


Página 12-62
Apoio tipo B


Página 12-63
Apoio tipo C


Página 12-64
Apoio tipo D-KD


Página 12-65
Suporte tipo RA


Página 12-66
Apoio tipo RAEM


Página 12-67
Apoio tipo RAB

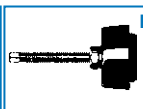

Página 12-68
Apoio tipo M


Página 12-69
Apoio tipo SE


Página 12-69
Tampa quadrada


Página 12-70
Base


Página 12-71
Eixo


Página 12-72
Suporte máquinas

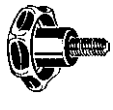

Página 12-73
Articulação elástica tipo VP

Página 12-74
DIN 2095
Mola de compressão

Página 12-75
DIN 2097
Mola de tensão


Página 12-76
DIN ≈319
Métrico


Página 12-77
DIN ≈319 M
Com furo cónico


Página 12-78
DIN ≈6336 L
Tipo L Métrico


Página 12-78
DIN ≈6336 K
Tipo K Métrico


Página 12-79
4- raios métrico


Página 12-80
4-raios Métrico

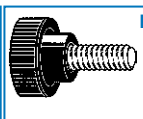

Página 12-81
Métrico

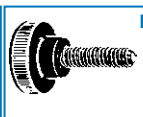

Página 12-82
3-Estrelas Métrico

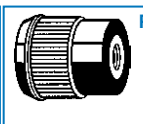

Página 12-83
5-Estrelas Métrico


Página 12-84
Para sextavado


Página 12-85
Para parafuso sextavado

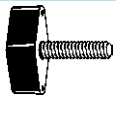

Página 12-85
Métrico


Página 12-86
Métrico


Página 12-87
Métrico


Página 12-87
Métrico


Página 12-88
Métrico

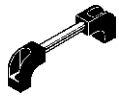

Página 12-88
Métrico


Página 12-89
Métrico


Página 12-90
Com inserto métrico


Página 12-90
Com furo


Página 12-91
Métrico sólido


Página 12-91
Com tubo e furo


Página 12-92
Cónico plano métrico


Página 12-92
Cónico redondo métrico

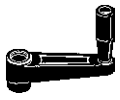

Página 12-93
Buraco cónico

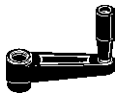

Página 12-93
Não rotativo métrico


Página 12-94
Rotativo métrico


Página 12-95
Rotativo métrico

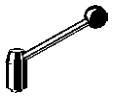

Página 12-95
Manipulo rotativo métrico


Página 12-96
Dodrável métrico

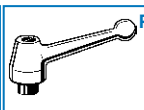

Página 12-96
Com pega Métrico

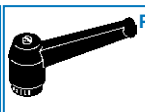

Página 12-97
Com bola métrico


Página 12-97
Elevatório Métrico


Página 12-98
Elevação Métrica


Página 12-99
Elevatório Métrico


Página 12-101
Elevatório com bola Métrico


Página 12-102
Elevatório Métrico


Página 12-103
Alta resistência Métrico


Página 12-103
Sólido Métrico


Página 12-104
DIN 388-1C
Plástico


Página 12-105
DIN 950
Aluminio


Página 12-106
2-raios plástico


Página 12-106
Manipulo rotativo métrico 2 raios


Página 12-107
Plástico


Página 12-107
Sódigo com pega plástico

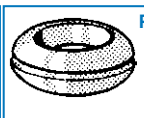

Página 12-108
Cabo dobrável em plástico


Página 12-108
Cabo dobrável em plástico


Página 12-109
Cabo dobrável em plástico


Página 12-111
DIN ≈5401
Esfera

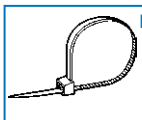

Página 12-113
Esfera não ferrosa


Página 12-115
Revestimento de cabo


Página 12-116
Bujão


Página 12-117
Clip com 1 aba


Página 12-118
Clip com 2 abas


Página 12-120
Abraçadeira

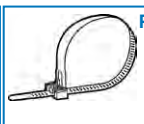

Página 12-122
Abraçadeira aço inoxidável

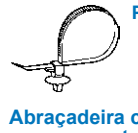

Página 12-123
Abraçadeira


Página 12-124
Sortido de abraçadeiras

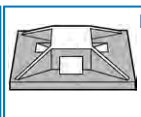

Página 12-124
Abraçadeira com olhal


Página 12-125
Abraçadeira com etiqueta

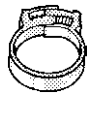

Página 12-126
Abraçadeira destacável

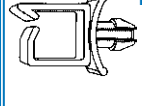

Página 12-127
Abraçadeira com peça de montagem


Página 12-127
Peça de montagem


Página 12-128
Peça de montagem

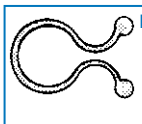

Página 12-129
Alicate para abraçadeiras plásticas/metalicas

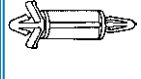

Página 12-130
Abraçadeira em plástico

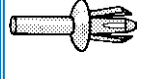

Página 12-131
Clip de fixação

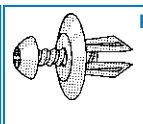

Página 12-132
Clip adesivo

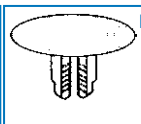

Página 12-133
Clip adesivo

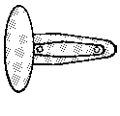

Página 12-134
Furador

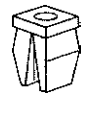

Página 12-135
Espaçador plástico

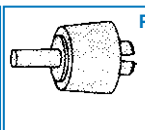

Página 12-136
Prego de pancada

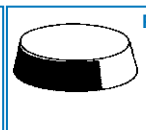

Página 12-137
Prego de parafuso


Página 12-138
Cavilha de montagem


Página 12-139
Cavilha de pressão

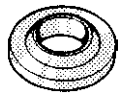

Página 12-140
Encaixe de apoio

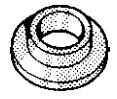

Página 12-141
Apoio

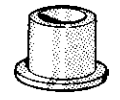

Página 12-142
Autocolante

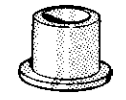

Página 12-143
Protector amortecedor


Página 12-143
Plástico fechado

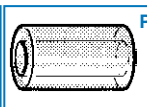

Página 12-144
Anilha de retenção

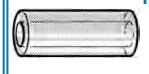

Página 12-145
Anilha de apoio


Página 12-145
Isolamento de tubo

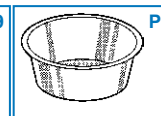

Página 12-146
Rolamento plástico


Página 12-147
Anel de isolamento


Página 12-147
Espaçador plástico


Página 12-148
Insulating tube


Página 12-149
Tampa de vedação


Página 12-150
Capa de protecção


Página 12-151
Vertical


Página 12-153
Horizontal


Página 12-156
Grampo deslizante


Página 12-159
Grampo


Página 12-160
Horizontal


Página 12-161
Vertical


Página 12-162
Receptáculo para gancho

MaxxFast abraçadeiras de utilização profissional

- Curva suave que evita que o tubo se danifique.
- Encaixe forte, através da fixação mecânica.
- O design assegura um forte contacto entre o parafuso e a banda.
- La conception d'ensemble assure une excellente répartition de la force de serrage autour de la bande, évitant ainsi les fuites à haute pression.Assegura uma excelente distribuição da força de aperto ao longo da banda, evitando, assim, fugas de pressão.
- Em conformidade com a norma RoSH (2006)
- DIN 3017

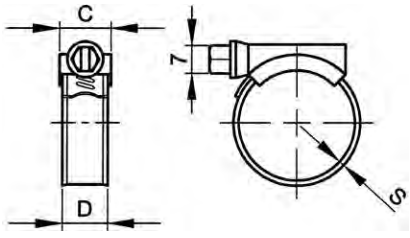


MaxxFast Abraçadeiras zincadas
- MaxxFast 9MM Abraçadeiras Zinc
- MaxxFast 12MM Abraçadeiras Zinc
- MaxxFast ferramenta para abraçadeiras
- MaxxFast clips mini zincados
- MaxxFast abraçadeiras de borracha

MaxxFast abraçadeiras aço inox
- MaxxFast 12MM Abraçadeiras Inox

MaxxFast rack para abraçadeiras
Os nossos racks de abraçadeiras MaxxFast são constituidos pelas medidas mais usadas de abraçadeiras, mini abraçadeiras e uma ferramenta especifica.

Abraçadeira com 9 mm





Dados técnicos

Tipo	Binário de aperto em Nm (máx.)	C (max.)	D	S
8-14	3.5	12	9	0.8
8-16	3	14	9	0.6
11-17	3.5	12	9	0.8
12-22	3	14	9	0.6
13-20	4	12	9	0.8
15-24	4	12	9	0.8
16-27	3.5	14	9	0.7
19-28	4	12	9	0.8
20-32	3.5	14	9	0.7
22-32	4	12	9	0.8
25-40	4	14	9	0.7
26-38	4.5	12	9	0.8
32-44	4.5	12	9	0.8
32-50	4	14	9	0.7
38-50	4.5	12	9	0.8
40-60	4	14	9	0.7
44-56	4.5	12	9	0.8
50-65	4.5	12	9	0.8
50-70	4	14	9	0.7
58-75	4.5	12	9	0.8
68-85	4.5	12	9	0.8

- O número tipo indica o minimo e o máximo da gama de aperto.

Grupos de produtos

Material	Tratamento sup.		Código	Página
Aço	Zn		30650	12-6
Aço	Zn		43081	12-7
Aço	Zn	Embalagem grande	43080	12-7

30650 **MAXXFAST Abraçadeira com 9 mm** **MF60**

Material Aço
Tratamento sup. Zincado

MAXXFAST PROFESSIONAL HARDWARE

RoHS



Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo
8-16MM	50	30650.008.016	20-32MM	50	30650.020.032	40-60MM	25	30650.040.060
12-22MM	50	30650.012.022	25-40MM	50	30650.025.040	50-70MM	25	30650.050.070
16-27MM	50	30650.016.027	32-50MM	25	30650.032.050			

- Só embalagens completas.

43081 ABA Abraçadeira com 9mm — Y01A

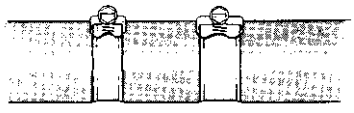
Material Aço
Tratamento sup. Zincado

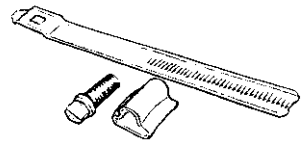
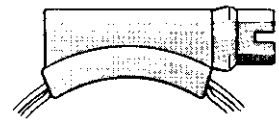
ABA

RoHS



Abraçadeiras ABA:
- Com **AZUL** um ponto de aperto (patente ABA)
- Banda boleada, não danifica o tubo
- Banda suave para proteger o tubo
- Fácil de instalar e desinstalar devido à cabeça sextavada
- Reutilizável



Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo
8-14MM	10	43081.008.014	11-17MM	10	43081.011.017	13-20MM	10	43081.013.020

43080 ABA Abraçadeira com 9mm — Y01A

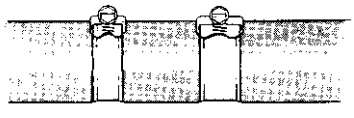
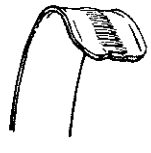
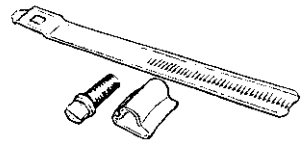
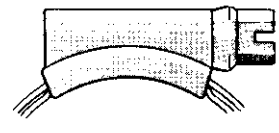
Material Aço
Tratamento sup. Zincado

ABA

RoHS

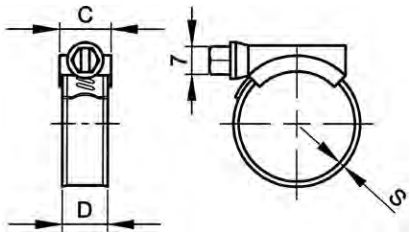


Abraçadeiras ABA:
- Com **AZUL** um ponto de aperto (patente ABA)
- Banda boleada, não danifica o tubo
- Banda suave para proteger o tubo
- Fácil de instalar e desinstalar devido à cabeça sextavada
- Reutilizável

Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo
8-14MM	50	43080.008.014	22-32MM	50	43080.022.032	44-56MM	50	43080.044.056
11-17MM	50	43080.011.017	26-38MM	50	43080.026.038	50-65MM	50	43080.050.065
13-20MM	50	43080.013.020	32-44MM	50	43080.032.044	58-75MM	25	43080.058.075
15-24MM	50	43080.015.024	38-50MM	50	43080.038.050	68-85MM	25	43080.068.085
19-28MM	50	43080.019.028						

Abraçadeira com 12 mm





Dados técnicos

Tipo	Binário de aperto em Nm (máx.)	C (max.)	D	S
13-20	5	17	12	0.8
15-24	5	17	12	0.8
16-27	4.2	18	12	0.8
19-28	5	17	12	0.8
20-32	5.2	18	12	0.8
22-32	5	17	12	0.8
25-40	5.2	18	12	0.8
26-38	5	17	12	0.8
32-44	6	17	12	1
32-50	6	18	12	0.8
38-50	6	17	12	1
40-60	6	18	12	0.8
44-56	6	17	12	1
50-65	6	17	12	1
50-70	6.8	18	12	0.8
58-75	6	17	12	1
60-80	6.8	18	12	0.8
68-85	6	17	12	1
70-90	6.8	18	12	0.8
77-95	6	17	12	1
80-100	6.8	18	12	0.8
87-112	6	17	12	1
90-110	6.8	18	12	0.8
104-138	6	17	12	1
130-165	6	17	12	1
150-180	6	17	12	1
175-205	6	17	12	1
200-231	6	17	12	1
226-256	6	17	12	1
251-282	6	17	12	1
277-307	6	17	12	1

- O número tipo indica o minimo e o máximo da gama de aperto.

Grupos de produtos

Material	Tratamento sup.		Código	Página
Aço	Zn		30660	12-8
Aço	Zn		43011	12-9
Aço	Zn	Embalagem grande	43010	12-9

30660 MAXXFAST Abraçadeira com 12 mm **MF60**

Material Aço
Tratamento sup. Zincado

MAXXFAST PROFESSIONAL HARDWARE

RoHS



Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo
16-27MM	50	30660.016.027	40-60MM	25	30660.040.060	70-90MM	10	30660.070.090
20-32MM	50	30660.020.032	50-70MM	25	30660.050.070	80-100MM	10	30660.080.100
25-40MM	50	30660.025.040	60-80MM	25	30660.060.080	90-110MM	10	30660.090.110
32-50MM	50	30660.032.050						

- Só embalagens completas

43011 **ABA Abraçadeira com 12mm** **Y01A**

Material Aço
Tratamento sup. Zincado

ABA

RoHS



Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo
15-24MM	10	43011.015.024	38-50MM	10	43011.038.050	77-95MM	10	43011.077.095
19-28MM	10	43011.019.028	44-56MM	10	43011.044.056	87-112MM	10	43011.087.112
22-32MM	10	43011.022.032	50-65MM	10	43011.050.065	104-138MM	10	43011.104.138
26-38MM	10	43011.026.038	58-75MM	10	43011.058.075	130-165MM	10	43011.130.165
32-44MM	10	43011.032.044	68-85MM	10	43011.068.085			

43010 **ABA Abraçadeira com 12mm** **Y01A**

Material Aço
Tratamento sup. Zincado

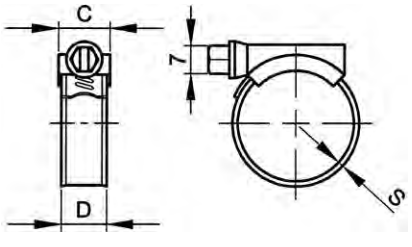
ABA

RoHS



Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo
15-24MM	50	43010.015.024	50-65MM	50	43010.050.065	150-180MM	10	43010.150.180
19-28MM	50	43010.019.028	58-75MM	25	43010.058.075	175-205MM	10	43010.175.205
22-32MM	50	43010.022.032	68-85MM	25	43010.068.085	200-231MM	10	43010.200.231
26-38MM	50	43010.026.038	77-95MM	25	43010.077.095	226-256MM	10	43010.226.256
32-44MM	50	43010.032.044	87-112MM	25	43010.087.112	251-282MM	10	43010.251.282
38-50MM	50	43010.038.050	104-138MM	25	43010.104.138	277-307MM	10	43010.277.307
44-56MM	50	43010.044.056	130-165MM	25	43010.130.165			

Abraçadeira com 12 mm A2





Dados técnicos

Tipo	Binário de aperto em Nm (máx.)	C (max.)	D	S
15-24	5	17	12	0.8
16-27	4.6	18	12	0.8
19-28	5	17	12	0.8
20-32	5.6	18	12	0.8
22-32	5	17	12	0.8
25-40	5.6	18	12	0.8
26-38	5	17	12	0.8
32-44	6	17	12	0.8
32-50	6.5	18	12	0.8
38-50	6	17	12	0.8
40-60	6.5	18	12	0.8
44-56	6	17	12	0.8
50-65	6	17	12	0.8
50-70	7	18	12	0.8
58-75	6	17	12	0.8
68-85	6	17	12	0.8
77-95	6	17	12	0.8
87-112	6	17	12	0.8
104-138	6	17	12	0.8
130-165	6	17	12	0.8
150-180	6	17	12	0.8
175-205	6	17	12	0.8
200-231	6	17	12	0.8
226-256	6	17	12	0.8
251-282	6	17	12	0.8
277-307	6	17	12	0.8

- O número tipo indica o minimo e o máximo da gama de aperto.

Grupos de produtos

Material	Código	Página
INOX A2	30664	12-10
INOX A2	43020	12-10

30664 MAXXFAST Abraçadeira com 12 mm A2 — MF60

Material Aço inoxidável A2

MAXXFAST PROFESSIONAL HARDWARE

RoHS



Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo
16-27MM	10	30664.016.027	25-40MM	10	30664.025.040	40-60MM	10	30664.040.060
20-32MM	10	30664.020.032	32-50MM	10	30664.032.050	50-70MM	10	30664.050.070

- Só embalagens completas

43020 ABA Abraçadeira com 12mm — Y03A

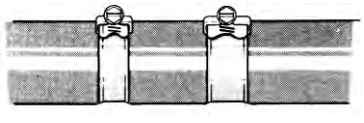
Material Aço inoxidável A2

ABA

RoHS

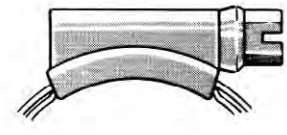


Caracteristicas especiais de abraçadeiras ABA:
- Com uma peça de pressão aço inox (patente ABA)
- Banda boleada, não danifica o encaixe
- Banda suave na parte interior que protege a abraçadeira
- Fácil de instalar devido ao parafuso sextavado e com fenda
- Reutilizável



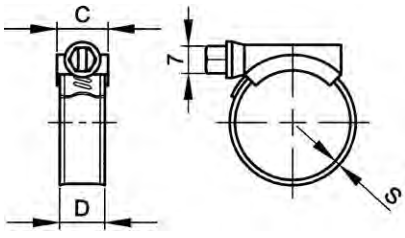


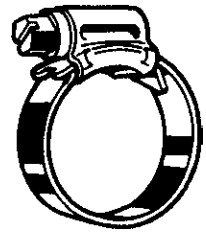




Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo
15-24MM	10	43020.015.024	50-65MM	10	43020.050.065	150-180MM	5	43020.150.180
19-28MM	10	43020.019.028	58-75MM	10	43020.058.075	175-205MM	5	43020.175.205
22-32MM	10	43020.022.032	68-85MM	10	43020.068.085	200-231MM	5	43020.200.231
26-38MM	10	43020.026.038	77-95MM	10	43020.077.095	226-256MM	5	43020.226.256
32-44MM	10	43020.032.044	87-112MM	5	43020.087.112	251-282MM	3	43020.251.282
38-50MM	10	43020.038.050	104-138MM	5	43020.104.138	277-307MM	3	43020.277.307
44-56MM	10	43020.044.056	130-165MM	5	43020.130.165			

Abraçadeira A4





Dados técnicos

Tipo	Binário de aperto em Nm	C	D	S
8-14	2.5-3.5	13	9	1
11-17	2.5-3.5	19	9	1
13-20	2.5-3.5	19	9	1
15-24	2.5-3.5	19	12	1
19-28	2.5-3.5	19	12	1
22-32	2.5-3.5	19	12	1
26-38	3.5-4.5	19	12	1
32-44	3.5-4.5	19	12	1
38-50	3.5-4.5	19	12	1
44-56	5-6	19	12	1
50-65	5-6	19	12	1
58-75	5-6	19	12	1
68-85	5-6	19	12	1
77-95	5-6	19	12	1
87-112	5-6	19	12	1
104-138	5-6	19	12	1
130-165	5-6	19	12	1
150-180	5-6	19	12	1
175-205	5-6	19	12	1
200-231	5-6	19	12	1
226-256	5-6	19	12	1
251-282	5-6	19	12	1
277-307	5-6	19	12	1

- O número tipo indica o minimo e o máximo da gama de aperto.

43019 **AWAB Abraçadeira** **Y03A**

Material Aço inoxidável A4

ABA

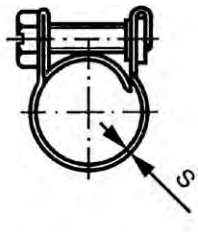
RoHS



Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo
8-14MM D= 9MM	10	43019.008.014	38-50MM D=12MM	10	43019.038.050	130-165MM D=12MM	5	43019.130.165
11-17MM D= 9MM	10	43019.011.017	44-56MM D=12MM	10	43019.044.056	150-180MM D=12MM	5	43019.150.181
13-20MM D= 9MM	10	43019.013.020	50-65MM D=12MM	10	43019.050.065	175-205MM D=12MM	5	43019.180.206
15-24MM D=12MM	10	43019.015.024	58-75MM D=12MM	10	43019.058.075	200-231MM D=12MM	5	43019.205.232
19-28MM D=12MM	10	43019.019.028	68-85MM D=12MM	10	43019.068.085	226-256MM D=12MM	5	43019.231.257
22-32MM D=12MM	10	43019.022.032	77-95MM D=12MM	10	43019.077.095	251-282MM D=12MM	3	43019.256.283
26-38MM D=12MM	10	43019.026.038	87-112MM D=12MM	5	43019.087.112	277-307MM D=12MM	3	43019.282.308
32-44MM D=12MM	10	43019.032.044	104-138MM D=12MM	5	43019.104.138			

Abraçadeira Mini







Dados técnicos

Tipo	Binário de aperto em Nm	D	Gama de aperto (máx.)	Gama de aperto (mín.)	S
6	0.4	8.4	6	5	0.5
8	0.4	9	8	7	0.5
9	1	10	9	7.5	0.5
9.5-10	1	10	10	9.5	0.5
10-11	1	10	11	10	0.5
12-13	1	10	13	12	0.5
13-14	1	10	14	13	0.5
14-15	1	10	15	14	0.5
15-17	1	10	17	15	0.5

30667 **MAXXFAST Abraçadeira Mini** **MF6A**

Material Aço
Tratamento sup. Zincado

MAXXFAST PROFESSIONAL HARDWARE

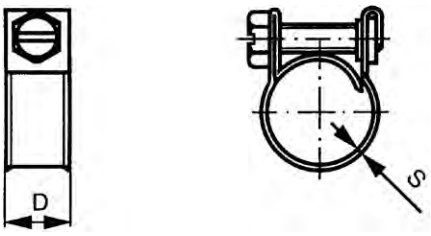
RoHS

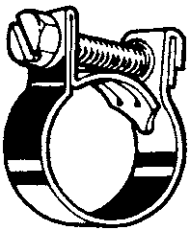


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
6	10	30667.006.001	9,5-10	10	30667.009.010	13-14	10	30667.013.014
8	10	30667.008.001	10-11	10	30667.010.011	14-15	10	30667.014.015
9	10	30667.009.001	12-13	10	30667.012.013	15-17	10	30667.015.017

- As porcas sextavadas correspondentes têm uma classe de aço ≥ l4l.

Abraçadeira Mini





Dados técnicos

Nr.	Binário de aperto em Nm	D	Gama de aperto (máx.)	Gama de aperto (mín.)	S
No.8	1.5	9	8.5	7	0.5
No.9	1.5	9	9.5	8	0.5
No.10	1.5	9	10.5	9	0.5
No.11	1.5	9	11.5	9.5	0.5
No.12	1.5	9	12.5	10.5	0.5
No.13	1.5	9	13.5	11.5	0.5
No.14	1.5	9	14.5	12.5	0.5
No.15	1.5	9	15.5	13.5	0.5
No.16	1.5	9	16.5	14	0.5
No.17	1.5	9	17.5	15	0.5

- Abraçadeiras ABA MINI: vedação de pequenos tubos de paredes finas, fácil de aplicar com uma porca fixa.

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço	Zn	43063	12-13
INOX A2		43062	12-13

43063 ABA MINI Abraçadeira — Y03A

Material Aço
Tratamento sup. Zincado

ABA

RoHS



Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo
No.8	25	43063.000.008	No.12	25	43063.000.012	No.15	25	43063.000.015
No.9	25	43063.000.009	No.13	25	43063.000.013	No.16	25	43063.000.016
No.10	25	43063.000.010	No.14	25	43063.000.014	No.17	25	43063.000.017
No.11	25	43063.000.011						

43062 ABA MINI Abraçadeira — Y03A

Material Aço inoxidável A2

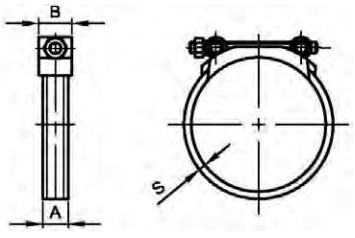
ABA

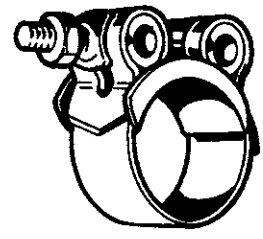
RoHS



Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo
No.8	25	43062.000.008	No.12	25	43062.000.012	No.15	25	43062.000.015
No.9	25	43062.000.009	No.13	25	43062.000.013	No.16	25	43062.000.016
No.10	25	43062.000.010	No.14	25	43062.000.014	No.17	25	43062.000.017
No.11	25	43062.000.011						

Abraçadeira heavy duty





Dados técnicos

Tipo	A	B	S
29-31	18	19.8	0.6
32-35	20	19.8	1
36-39	20	22	1
40-43	20	22	1
44-47	20	24.5	1
48-51	20	24.5	1
52-55	20	24.5	1
56-59	20	24.5	1
60-63	20	24.5	1
64-67	25	24.5	1
68-73	25	26.5	1
74-79	25	26.5	1
80-85	25	26.5	1.2
86-91	25	26.5	1.2

Tipo	A	B	S
92-97	25	26.5	1.2
98-103	25	26.5	1.2
104-112	25	26.5	1.2
113-121	25	26.5	1.2
122-130	25	26.5	1.2
131-139	25	29	1.2
140-148	25	29	1.2
149-161	25	29	1.5
162-174	25	29	1.5
175-187	25	29	1.5
188-200	25	29	1.5
201-213	25	29	1.5
214-226	25	29	1.5

- Abraçadeira ABA ROBUST com abas é destinada a trabalhos pesados.
- É usada principalmente onde é necessário apertar com abraçadeiras reforçadas.
- A gama de aperto mínima e máxima é determinada pelo tipo de número.

Dados montagem

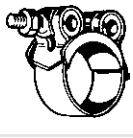


43024 **ABA ROBUST abraçadeira** **Y03A**

Material Aço inoxidável A4

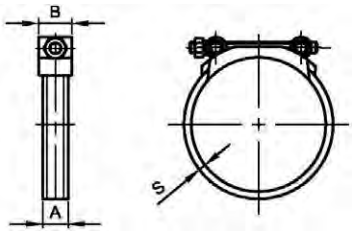
ABA

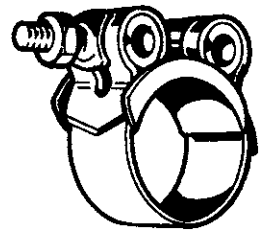
RoHS



Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo
29-31MM	10	43024.029.031	64-67MM	10	43024.064.067	122-130MM	5	43024.122.130
32-35MM	10	43024.032.035	68-73MM	10	43024.068.073	131-139MM	5	43024.131.139
36-39MM	10	43024.036.039	74-79MM	10	43024.074.079	140-148MM	3	43024.140.148
40-43MM	10	43024.040.043	80-85MM	10	43024.080.085	149-161MM	3	43024.149.161
44-47MM	10	43024.044.047	86-91MM	5	43024.086.091	162-174MM	3	43024.162.174
48-51MM	10	43024.048.051	92-97MM	5	43024.092.097	175-187MM	3	43024.175.187
52-55MM	10	43024.052.055	98-103MM	5	43024.098.103	188-200MM	3	43024.188.200
56-59MM	10	43024.056.059	104-112MM	5	43024.104.112	201-213MM	3	43024.201.213
60-63MM	10	43024.060.063	113-121MM	5	43024.113.121	214-226MM	3	43024.214.226

Abraçadeira heavy duty





Dados técnicos

Tipo	A	B	S
29-31	18	20	0.6
31-34	18	20	0.6
34-37	18	20	0.6
37-40	18	20	0.6
40-43	18	20	0.6
43-47	20	22.1	0.8
47-51	20	22.1	0.8
51-55	20	22.1	0.8
55-59	20	22.1	0.8
59-63	20	22.1	0.8
63-68	20	22.1	0.8
68-73	20	22.1	0.8
73-79	20	22.1	0.8
79-85	20	22.1	0.8
85-91	20	22.1	0.8
91-97	20	22.1	0.8
97-104	20	22.1	0.8

Tipo	A	B	S
104-111	20	22.1	0.8
111-118	20	22.1	0.8
118-125	20	22.1	0.8
125-132	20	22.1	0.8
132-139	20	22.1	0.8
139-146	20	22.1	0.8
146-153	20	22.1	0.8
153-160	20	22.1	0.8
160-167	20	22.1	0.8
167-174	20	22.1	0.8
174-187	30	32.5	1.25
187-200	30	32.5	1.25
200-213	30	32.5	1.25
213-226	30	32.5	1.25
226-239	30	32.5	1.25
239-252	30	32.5	1.25

- Abraçadeira ABA ROBUST com abas é destinada a trabalhos pesados. É usada principalmente onde é necessário apertar com abraçadeiras reforçadas.
- A gama de aperto mínima e máxima é determinada pelo tipo de número.

Dados montagem

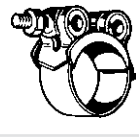


43033 ABA Abraçadeira reforçada **Y03A**

Material Aço inoxidável AISI 430

ABA

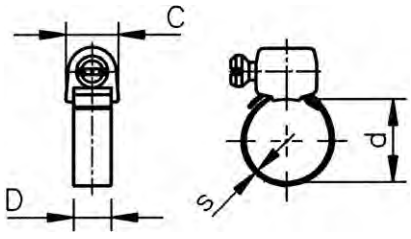
RoHS



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
29-31	25	43033.029.031	68-73	25	43033.068.073	139-146	5	43033.139.146
31-34	25	43033.031.034	73-79	25	43033.073.079	146-153	5	43033.146.153
34-37	25	43033.034.037	79-85	25	43033.079.085	153-160	5	43033.153.160
37-40	25	43033.037.040	85-91	10	43033.085.091	160-167	5	43033.160.167
40-43	25	43033.040.043	91-97	10	43033.091.097	167-174	5	43033.167.174
43-47	25	43033.043.047	97-104	10	43033.097.104	174-187	5	43033.174.187
47-51	25	43033.047.051	104-111	10	43033.104.111	187-200	5	43033.187.200
51-55	25	43033.051.055	111-118	10	43033.111.118	200-213	5	43033.200.213
55-59	25	43033.055.059	118-125	10	43033.118.125	213-226	5	43033.213.226
59-63	25	43033.059.063	125-132	5	43033.125.132	226-239	5	43033.226.239
63-68	25	43033.063.068	132-139	5	43033.132.139	239-252	5	43033.239.252

- Tipo de material: banda e ferragem AISI 430 / parafuso em aço electro zincado.
- Até tipo 40-43 com parafuso sextavado M6x40, diâmetro de chave 8mm.
- Tipo 43-47 até tipo 167-174 com parafuso sextavado interior M7x55, diâmetro de chave 5mm.
- Tipo 174-187 até tipo 239-252 com parafuso sextavado M10x80, diâmetro de chave 17mm.

Abraçadeira Micro





Dados técnicos

Tipo	Binário de aperto em Nm	C	D	s
6-11	0.5-0.7	7.5	5	0.4
7-11	0.5-0.7	9	5.5	0.5

- Material fita de aço Inox.
- A gama de aperto mínima e máxima é determinada pelo tipo de número.

43065 ABA MICRO abraçadeira **Y03A**

Material Aço
Tratamento sup. Zincado

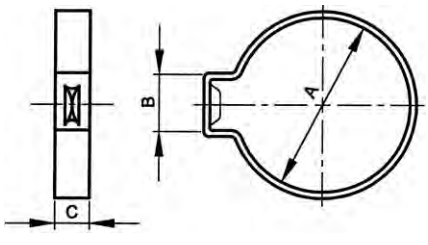
ABA

RoHS



Gama de aperto	✉	Ref. do artigo
7-11MM	25	43065.007.011

Abraçadeira de uma orelha





Dados técnicos

Tipo	A	B	C
10-12	12.3	7	6.5
12-14	14	7	6.5
14-16	16.5	8.5	7
16-18	18.5	9.5	7

- Pode ser instalado fácilmente e rápidamente com um alicate.
- A gama de aperto mínima e máxima é determinada pelo tipo de número.

43074 ABA Abraçadeira de uma orelha **Y03A**

Material Aço
Tratamento sup. Passivação espessa Cr^{3+}

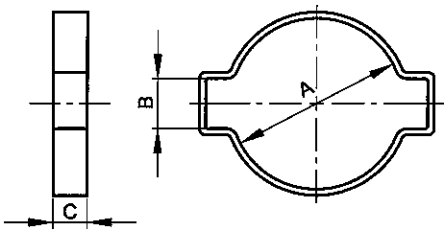
ABA

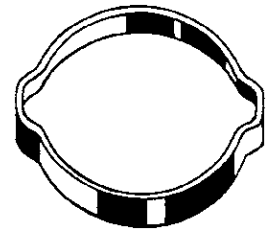
RoHS



Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo	Gama de aperto	✉	Ref. do artigo
10-12MM	50	43074.010.012	14-16MM	50	43074.014.016	16-18MM	50	43074.016.018
12-14MM	50	43074.012.014						

Abraçadeira duas orelhas





Dados técnicos

Tipo	A	B	C
5-7	7.3	4.3	6
7-9	9.3	4.8	6
9-11	11.3	5.3	6.5
11-13	13.3	5.8	6.5
13-15	15.3	6.3	7
15-18	18.5	7	7.5
17-20	20.5	7.6	7.5
20-23	23.5	8.5	8

Tipo	A	B	C
22-25	25.5	9.1	8.5
25-28	28.5	10	9
28-31	31.5	11	9.5
31-34	34.5	11	9.5
34-37	37.5	11.5	9.5
37-40	40.5	12	10
40-43	43.3	8.5	10
43-46	46.3	8.5	10

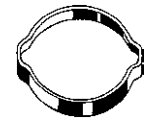
- Pode ser instalado fácilmente e rápidamente com um alicate.
- A gama de aperto mínima e máxima é determinada pelo tipo de número.

43076 ABA Abraçadeira de duas orelhas **Y03A**

Material Aço
Tratamento sup. Passivação espessa Cr^{3+}

ABA

RoHS

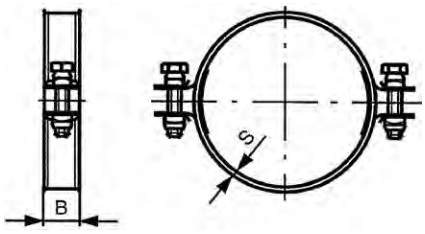


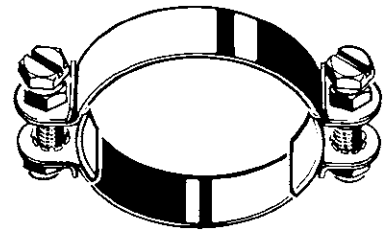
Gama de aperto	✉	Ref. do artigo
5-7MM	50	43076.005.007
7-9MM	50	43076.007.009
9-11MM	50	43076.009.011
11-13MM	50	43076.011.013
13-15MM	50	43076.013.015
15-18MM	50	43076.015.018

Gama de aperto	✉	Ref. do artigo
17-20MM	50	43076.017.020
20-23MM	50	43076.020.023
22-25MM	50	43076.022.025
25-28MM	50	43076.025.028
28-31MM	50	43076.028.031
31-34MM	50	43076.031.034

Gama de aperto	✉	Ref. do artigo
34-37MM	50	43076.034.037
37-40MM	50	43076.037.040
40-43MM	50	43076.040.043
43-46MM	50	43076.043.046

Abraçadeira duas partes





Dados técnicos

Tipo	B	S	Tipo	B	S
33-39	20	1	106-116	25	1.25
37-43	20	1	112-122	25	1.25
43-49	20	1	118-128	25	1.25
49-55	20	1	126-136	25	1.25
55-63	20	1	136-146	25	1.25
61-69	20	1	156-166	25	1.25
67-75	20	1	166-176	25	1.25
73-81	20	1	176-186	25	1.25
79-87	20	1	186-196	25	1.25
85-93	20	1	196-206	25	1.25
89-97	20	1	208-218	25	1.25
95-103	20	1	218-228	25	1.25
97-105	20	1	228-238	25	1.25
96-106	25	1.25	238-248	25	1.25
102-112	25	1.25	146-156	25	1.25

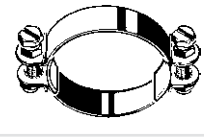
- Fita de aço pesada zincada com uma espessura de tratamento de min. 18µm.
- A gama de aperto mínima e máxima é determinada pelo tipo de número.

Grupos de produtos

Material	Tratamento sup.		Código	Página
Aço	Zn	B=20	43025	12-18
Aço	Zn	B=25	43026	12-18

43025 Abraçadeira duas partes — Y03A

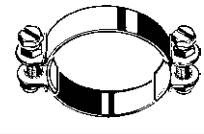
Material Aço
Tratamento sup. Zincado



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
33-39MM	5	43025.033.039	61-69MM	5	43025.061.069	85-93MM	5	43025.085.093
37-43MM	5	43025.037.043	67-75MM	5	43025.067.075	89-97MM	5	43025.089.097
43-49MM	5	43025.043.049	73-81MM	5	43025.073.081	95-103MM	5	43025.095.103
49-55MM	5	43025.049.055	79-87MM	5	43025.079.087	97-105MM	5	43025.097.105
55-63MM	5	43025.055.063						

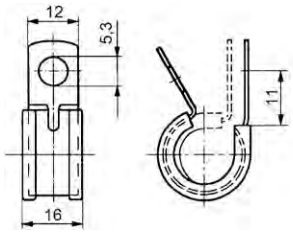
43026 Abraçadeira duas partes — Y03A

Material Aço
Tratamento sup. Zincado



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
96-106MM	2	43026.096.106	136-146MM	2	43026.136.146	196-206MM	1	43026.196.206
102-112MM	2	43026.102.112	146-156MM	2	43026.146.156	208-218MM	1	43026.208.218
106-116MM	2	43026.106.116	156-166MM	2	43026.156.166	218-228MM	1	43026.218.228
112-122MM	2	43026.112.122	166-176MM	2	43026.166.176	228-238MM	1	43026.228.238
118-128MM	2	43026.118.128	176-186MM	1	43026.176.186	238-248MM	1	43026.238.248
126-136MM	2	43026.126.136	186-196MM	1	43026.186.196			

Abraçadeira de borracha





Dados técnicos

Tipo	d	D	Tubo ø
5	5.3	12	5
6	5.3	12	6
8	5.3	12	8
10	5.3	12	10
12	5.3	12	12
13	5.3	12	13
14	5.3	12	14
15	5.3	12	15
16	5.3	12	16
17	5.3	12	17
18	5.3	12	18

Tipo	d	D	Tubo ø
19	5.3	12	19
20	5.3	12	20
21	5.3	12	21
22	5.3	12	22
23	5.3	12	23
24	5.3	12	24
25	5.3	12	25
26	5.3	12	26
27	5.3	12	27
28	5.3	12	28

30666 **MAXXFAST Abraçadeira de borracha** **MF6A**

Material Aço
Tratamento sup. Zincado

MAXXFAST PROFESSIONAL HARDWARE

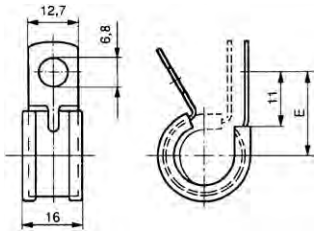
RoHS

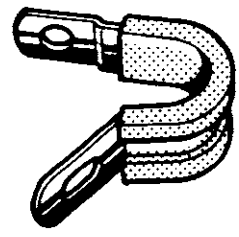


Tipo-tubo ø	✉	Ref. do artigo	Tipo-tubo ø	✉	Ref. do artigo	Tipo-tubo ø	✉	Ref. do artigo
5/12	10	30666.050.012	15/12	10	30666.150.012	22/12	10	30666.220.012
6/12	10	30666.060.012	16/12	10	30666.160.012	23/12	10	30666.230.012
8/12	10	30666.080.012	17/12	10	30666.170.012	24/12	10	30666.240.012
10/12	10	30666.100.012	18/12	10	30666.180.012	25/12	10	30666.250.012
12/12	10	30666.120.012	19/12	10	30666.190.012	26/12	10	30666.260.012
13/12	10	30666.130.012	20/12	10	30666.200.012	27/12	10	30666.270.012
14/12	10	30666.140.012	21/12	10	30666.210.012	28/12	10	30666.280.012

- Só embalagens completas.

Abraçadeira de borracha





Dados técnicos

Tipo	E	Tubo ø
300	14.6	3
301	15.4	5
302	16.2	6
303	17	8
304	17.8	10
305	18.6	11
306	19.4	13
307	20.2	14
308	21	16
309	21.8	18
310	22.6	19
311	23.4	21
312	24.2	22
313	25	24

Tipo	E	Tubo ø
314	25.8	25
315	27.1	27
316	27.9	29
317	28.6	30
318	29.4	32
319	30.2	33
320	31	35
321	31.8	37
322	32.6	38
323	38	45
325	45.5	54
326	34	41
329	43.5	60

- Caracteristicas clip de borracha ABA:
- Com perfil de borracha (EPDM).
- Elevada resistência à água, desgaste, variações de temperatura e envelhecimento.
- Especialmente usados para situações de vibração como tubos suspensos, cabos, cabos de circuitos e mangueiras etc.

Grupos de produtos

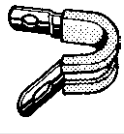
Material	Tratamento sup.		Código	Página
Aço	Galv. Q.		43111	12-20
Aço	Galv. Q.	Embalagem grande	43110	12-20
INOX A2			43115	12-21

43111 ABA Isofónica de clip — Y03A

Material Aço
Tratamento sup. Galvanizado a quente

ABA

RoHS



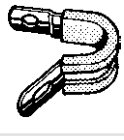
Tipo-tubo ø	✉	Ref. do artigo	Tipo-tubo ø	✉	Ref. do artigo	Tipo-tubo ø	✉	Ref. do artigo
300-3MM	25	43111.000.300	305-11MM	25	43111.000.305	309-18MM	25	43111.000.309
301-5MM	25	43111.000.301	306-13MM	25	43111.000.306	310-19MM	25	43111.000.310
302-6MM	25	43111.000.302	307-14MM	25	43111.000.307	311-21MM	25	43111.000.311
303-8MM	25	43111.000.303	308-16MM	25	43111.000.308	312-22MM	25	43111.000.312
304-10MM	25	43111.000.304						

43110 ABA Isofónica de clip — Y03A

Material Aço
Tratamento sup. Galvanizado a quente

ABA

RoHS



Tipo-tubo ø	✉	Ref. do artigo	Tipo-tubo ø	✉	Ref. do artigo	Tipo-tubo ø	✉	Ref. do artigo
300-3MM	100	43110.000.300	309-18MM	50	43110.000.309	318-32MM	50	43110.000.318
301-5MM	100	43110.000.301	310-19MM	50	43110.000.310	319-33MM	50	43110.000.319
302-6MM	100	43110.000.302	311-21MM	50	43110.000.311	320-35MM	50	43110.000.320
303-8MM	100	43110.000.303	312-22MM	50	43110.000.312	321-37MM	50	43110.000.321
304-10MM	100	43110.000.304	313-24MM	50	43110.000.313	322-38MM	50	43110.000.322
305-11MM	100	43110.000.305	314-25MM	50	43110.000.314	323-45MM	50	43110.000.323
306-13MM	100	43110.000.306	315-27MM	50	43110.000.315	325-54MM	50	43110.000.325
307-14MM	100	43110.000.307	316-29MM	50	43110.000.316	326-41MM	50	43110.000.326
308-16MM	100	43110.000.308	317-30MM	50	43110.000.317	329-60MM	50	43110.000.329

Furo de montagem ø = 5,3MM

43115	Abraçadeira de borracha	Y03A

Material Aço inoxidável A2



Tipo-tubo ø	✉	Ref. do artigo	Tipo-tubo ø	✉	Ref. do artigo	Tipo-tubo ø	✉	Ref. do artigo
302-6MM	25	43115.000.006	307-14MM	25	43115.000.014	312-22MM	25	43115.000.023
303-8MM	25	43115.000.008	309-18MM	25	43115.000.018	314-25MM	25	43115.000.026
304-10MM	25	43115.000.010	311-21MM	25	43115.000.021	322-38MM	25	43115.000.040
306-13MM	25	43115.000.013						

Sortido de abraçadeiras



Grupos de produtos

Código	Página
30668	12-21
43055	12-22

30668	MAXXFAST Conjunto de abraçadeiras	MFNA



Dimensão.	✉	Ref. do artigo
8-70 Vazio	1	30668.000.005
8-70 + Abraçadeiras	1	30668.000.010



- Os nossos conjuntos de abraçadeiras MaxxFast são constituidos pelas medidas mais usadas de abraçadeiras, mini abraçadeiras e uma ferramenta especifica.

Conteúdo do conjunto

MaxxFast abraçadeiras zincadas 9mm:
- 8-16mm - 10un
- 12-22mm - 10un
- 16-27mm - 10un
- 20-32mm - 10un
- 25-40mm - 10un
- 32-50mm - 10un
- 40-60mm - 10un
- 50-70mm - 10un



MaxxFast mini abraçadeiras zincados:
- 8mm - 10un
- 9mm - 10un
- 9,5-10mm - 10un
- 10-11mm - 10un
- 12-13mm - 10un
- 13-14mm - 10un
- 14-15mm - 10un
- 15-17mm - 10un

MaxxFast ferramenta para abraçadeiras 7mm - 1un
- 2 buchas e 2 ganchos para instalação

43055	ABA Sortido abraçadeiras	Y95A



Tipo	✉	Ref. do artigo	
244C	1	43055.001.803	• Sortido tipo 244 • Dimensões: 65 x 15 x 23,4 cm • Contém: • 12 x 8-14/9 W1 • 12 x 11-17/9 W1 • 12 x 13-20/9 W1 • 24 x 15-24/12 W1 • 12 x 19-28/12 W1 • 12 x 22-32/12 W1 • 12 x 26-38/12 W1 • 12 x 32-44/12 W1 • 12 x 38-50/12 W1 • 12 x 44-56/12 W1 • 12 x 50-65/12 W1 • 10 x Mini 8 C • 10 x Mini 9 C • 10 x Mini 10 C • 10 x Mini 11 C • 10 x Mini 12 C • 10 x Mini 13 C • 10 x Mini 14 C • 10 x Mini 15 C • 10 x Mini 16 C • 10 x Mini 17 C • 1 ABA Chave flexivel modelo 250 mm
270C	1	43055.001.805	• Em caixa de plástico • Dimensões: 40 x 27 x 8,5 cm • Conteúdo: • 50 x 8-14/9 W1 • 50 x 11-17/9 W1 • 50 x 13-20/9 W1 • 25 x 15-24/12 W1 • 25 x 19-28/12 W1 • 20 x 22-32/12 W1 • 15 x 26-38/12 W1 • 15 x 32-44/12 W1 • 10 x 38-50/12 W1 • 10 x 44-56/12 W1 • 1 ABA Chave flexivel modelo 250 mm
ABA Suporte 244 vazio	1	43055.790.244	

Chave flexível



Grupos de produtos

Código	Página
30669	12-23
43030	12-23

30669 MAXXFAST Ferramenta para abraçadeiras MT2A



Dimensão.	✉	Ref. do artigo
7 MM	1	30669.000.100

- Chave flexível com 7mm para abraçadeiras MaxxFast.
- Compatível com abraçadeiras de norma europeia.
- Cabo ergonómico bi-material para maior conforto e transmissão de torque.
- Eixo flexível para facilitar a instalação ou remoção, mesmo em areas reduzidas.
- Chave com design especial para abraçadeiras standard (S=7mm).

43030 ABA Chave parafusos flexível Y95A

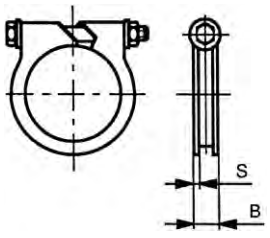


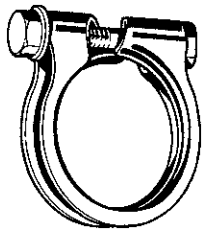
Tipo	✉	Ref. do artigo		
Flex	1	43030.001.770	•	Modelo normal
Flex long	1	43030.001.780	•	Modelo longo 600 mm



- Para areas de acesso dificil.
- Fornecido com chave sextavado interior 7 mm, não salta.
- Curva até 90°.
- Pode ser utilizada com todos os tipos de abraçadeiras ABA e AWAB.

Abraçadeira de escape



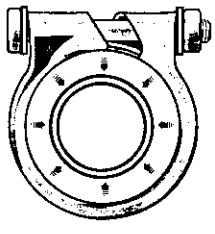


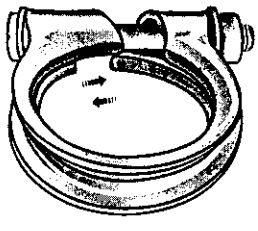
Dados técnicos

Tipo	B	Binário de aperto em Nm	Gama de aperto (máx.)	Gama de aperto (mín.)	S
R27-1.5	11.5	8-10	27	24	1.5
R30-1.5	11.5	8-10	30	27	1.5
R33-1.5	11.5	8-10	33	30	1.5
R42-2	11.5	8-10	42	39	2.0
R45-2.5	11.5	8-10	45	42	2.5
R48-2.5	12.5	10-15	48	45	2.5
R51-2.5	12.5	10-15	51	48	2.5
R55-2.5	12.5	10-15	55	52	2.5
R58-2.5	12.5	10-15	58	55	2.5

Dados montagem





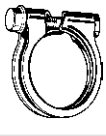


43246 **AWAB Abraçadeira de escape** **Y03A**

Material Aço

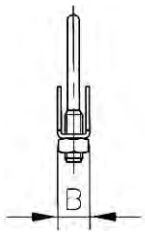
ABA

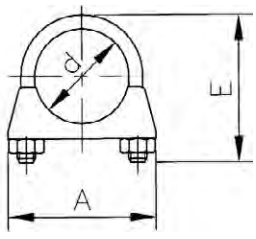
RoHS

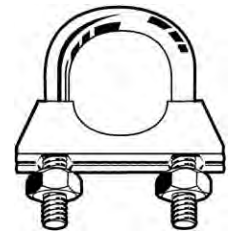


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
R27-1,5MM	10	43246.270.001	R42-2MM	10	43246.420.001	R51-2,5MM	10	43246.510.001
R30-1,5MM	10	43246.300.001	R45-2,5MM	10	43246.450.001	R55-2,5MM	10	43246.550.001
R33-1,5MM	10	43246.330.001	R48-2,5MM	10	43246.480.001	R58-2,5MM	10	43246.580.001

Abraçadeira de escape 8mm







Dados técnicos

Para diâm.nom. d	A	B	E	Para diâm.nom. d	A	B	E
25	50	14.5	52	50	84	13.5	77
26	55	13.5	57	51	76	14.5	76
28	54.5	13.5	56	52	53.5	13.5	77
32	59.5	13.5	59	54	88	13.5	78
35	60	14.5	63	57	82.5	14.5	83
36	63	13.5	68	58	91	13.5	85
38	67	13.5	62	60	94	13.5	84.5
42	72	13.5	68.5	65	99	13.5	89
45	75	13.5	70	70	107	13.5	94
48	79.5	13.5	74	75	115	13.5	102

43241 **Abraçadeira de escape 8mm** **Y03A**

Material Aço
Tratamento sup. Zincado



Para diâm. nom. d	✉	Ref. do artigo	Para diâm. nom. d	✉	Ref. do artigo	Para diâm. nom. d	✉	Ref. do artigo
26MM	10	43241.260.001	45MM	10	43241.450.001	60MM	10	43241.600.001
28MM	10	43241.280.001	48MM	10	43241.480.001	64/65MM	10	43241.650.001
32MM	10	43241.320.001	50MM	10	43241.500.001	70MM	10	43241.700.001
36MM	10	43241.360.001	51/52MM	10	43241.520.001	75/76MM	10	43241.750.001
38MM	10	43241.380.001	54MM	10	43241.540.001			
42MM	10	43241.420.001	58MM	10	43241.580.001			

- En função da disponibilidade estas dimensões podem ser ligeiramente diferentes.

Sistema de fixação



		Largura	Espessura	Força media de ruptura	Ear-Lokt	Clip	Scru-Lok	J-020	C-001
		IN	mm	mm	Lbs	43272.380.xxx	43273.380.xxx	43274.380.xxx	43276.385.041	43276.380.001
43270.380.201		1/4	6.35	0.51	500	211			X	X
43270.380.202		3/8	9.52	0.64	900	212	322	451	X	X
43270.380.203		1/2	12.70	0.76	1500	213	323	452		X
43270.380.204		5/8	15.87	0.76	1875	214	324	453		X
43270.380.205		3/4	19.05	0.76	2250	215	325	454		X
43280.000.203		3/8	9.52	0.64	900	212	322	451	X	X
43280.000.204		1/2	12.70	0.76	1500	213	323	452		X
43280.000.205		5/8	15.87	0.76	1875	214	324	453		X
43280.000.206		3/4	19.05	0.76	2250	215	325	454		X
43271.380.302		3/8	9.52	0.38	450	212	322	451	X	X
43271.380.303		1/2	12.70	0.38	600	213	323	452		X
43271.380.304		5/8	15.87	0.38	750	214	324	453		X
43271.380.305		3/4	19.05	0.38	900	215	325	454		X

Grupos de produtos

Material		Código	Página
INOX	Cinto tipo 201	43270	12-26
INOX	Cinta tipo 201 com dispensador	43280	12-26
INOX	Clip de fixação	43272	12-27
INOX	Cinta	43271	12-27
INOX	Clip de fixação para cravar	43273	12-27
INOX	Clip de fixação para aparafusar	43274	12-27
INOX	Clip fixação	43279	12-27
INOX	Cinta de fixação	43275	12-28
	Ferramentas	43276	12-28

43270 Cinta tipo 201 — Y63A

Material Aço inoxidável

BAND-IT

RoHS



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
C-202 1/4-30,5M-0,51MM	1	43270.380.201	C-204 1/2-30,5M-0,76MM	1	43270.380.203	C-206 3/4-30,5M-0,76MM	1	43270.380.205
C-203 3/8-30,5M-0,64MM	1	43270.380.202	C-205 5/8-30,5M-0,76MM	1	43270.380.204			

43280 Dispensador com cinta 201 — Y63A

Material Aço inoxidável

BAND-IT

RoHS



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
C203Y 3/8-30,5M-0,64MM	1	43280.000.203	C205G 5/8-30,5M-0,76MM	1	43280.000.205	C206R 3/4-30,5M-0,76MM	1	43280.000.206
C204B 1/2-30,5M-0,76MM	1	43280.000.204						

43272 Clip de fixação cravar — Y63A

Material Aço inoxidável

BAND-IT®

RoHS



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
C-252 1/4-0,38MM	100	43272.380.211	C-254 1/2-0,38MM	100	43272.380.213	C-256 3/4-0,38MM	100	43272.380.215
C-253 3/8-0,38MM	100	43272.380.212	C-255 5/8-0,38MM	100	43272.380.214			

43271 Cinta — Y63A

Material Aço inoxidável

BAND-IT®

RoHS



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
C-133 3/8-30,5M-0,38MM	1	43271.380.302	C-135 5/8-30,5M-0,38MM	1	43271.380.304	C-136 3/4-30,5M-0,38MM	1	43271.380.305
C-134 1/2-30,5M-0,38MM	1	43271.380.303						

43273 Clip de fixação cravar — Y63A

Material Aço inoxidável

BAND-IT®

RoHS



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
C-153 3/8	100	43273.380.322	C-155 5/8	100	43273.380.324	C-156 3/4	100	43273.380.325
C-154 1/2	100	43273.380.323						

43274 Clip de fixação aparafusar — Y63A

Material Aço inoxidável

BAND-IT®

RoHS



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
C-720 1/4	50	43274.380.451	C-724 1/2	25	43274.380.453	C-726 3/4	25	43274.380.454
C-722 3/8	50	43274.380.452						

- Para cinta tipo 201 e cinta Valu-strap.

43279 Clips de fixação — Y63A

Material Aço inoxidável

BAND-IT®

RoHS



Tipo	✉	Ref. do artigo		
D-007 BR-IT Lmount	50	43279.007.001	• Fixação em L - ângulo direito. • Para parafusos 6 mm.	
D-008 BR-IT 2Bolt	50	43279.008.001	• Fixação direita 2 parafusos.	

43279 Clips de fixação

Tipo	✉	Ref. do artigo		
D-001 1-BT DIREITO	50	43279.380.484	•	Fixação direita 1 parafuso.
D-021 1-BT FLARED	50	43279.380.485	•	Fixação plana 1 parafuso.





43275 Cinta de fixação — Y63A

Material Aço inoxidável

BAND-IT

RoHS



Tipo	✉	Ref. do artigo		
M-158 Scru-Band Pack	1	43275.153.001	•	Cinta 3,5m (Inox, 9,5mm espessura). • 5 Furos de fixação. • 5 Parafusos.
M-211 SEAL KLMM	10	43275.380.471	•	10 Banda de fixação. • 10 Furos de fixação. • Funciona com C-133 (43271.380.302) e C134 (43271.380.3030) cinta Valu-strap.
M-210 SEAL BND	1	43275.380.473	•	Cinta Valu-strap 30,5m. • 25 Parafusos de fixação. • 25 Furos de fixação.







43276 Ferramentas — Y63A

BAND-IT

RoHS

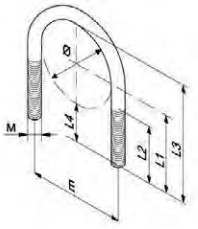


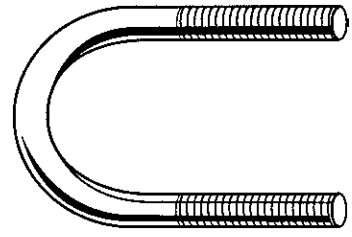
Tipo	✉	Ref. do artigo		
380001 C-001	1	43276.380.001	•	Ferramenta tipo C-001: para bandas de 3/16” a 3/4
J-020 POKKITII	1	43276.385.041	•	Ferramenta tipo J-020 Pok-it II: para bandas de 3/16” a 3/8





Parafuso em U tipo A





Dados técnicos

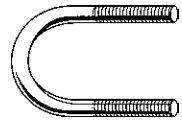
d x L_3	d	E	L_1	L_2	L_4
M5x37	22	25	26	21	15
M6x33	18	28	24	18	15
M6x37	22	29	26	20	15
M6x42	27	31	29	22	15
M6x49	34	34	32	26	15
M6x62	42	36	41	27	20
M6x68	48	38	44	27	20
M6x85	60	41	55	32	25
M6x101	76	43	63	32	25
M6x114	89	45	70	32	25
M6x144	114	50	87	37	30
M8x37	22	52	26	18	15
M8x42	27	54	29	20	15
M8x49	34	56	32	24	15
M8x62	42	58	41	29	20
M8x68	48	60	44	29	20
M8x85	60	69	55	34	25
M8x101	76	71	63	34	25
M8x114	89	73	70	34	25
M8x132	102	75	81	39	30
M8x144	114	85	87	39	30
M8x170	140	87	100	39	30
M10x42	27	89	29	18	15
M10x49	34	91	32	22	15
M10x62	42	98	41	31	20
M10x68	48	100	44	31	20
M10x85	60	102	55	36	25
M10x101	76	104	63	36	25
M10x114	89	113	70	36	25
M10x132	102	115	81	41	30
M10x144	114	117	87	41	30
M10x170	140	123	100	41	30
M10x203	168	125	119	46	35
M10x259	219	127	150	51	40
M12x85	60	129	55	38	25
M12x101	76	133	63	38	25
M12x114	89	152	70	38	25
M12x132	102	154	81	43	30
M12x144	114	156	87	43	30
M12x170	140	160	100	43	30
M12x203	168	182	119	48	35
M12x259	219	184	150	53	40
M12x313	273	188	177	53	40
M12x364	324	218	202	53	40
M16x144	114	233	87	48	30
M16x170	140	235	100	48	30
M16x203	168	239	119	53	35
M16x259	219	243	150	58	40
M16x313	273	289	177	58	40
M16x364	324	293	202	58	40
M20x234	194	297	137	62	40
M20x259	219	341	150	62	40
M20x313	273	345	177	62	40
M20x364	324	349	202	62	40
M24x364	324	353	202	66	40

Grupos de produtos

Rosca	Material	Tratamento sup.	Código	Página
M	Aço	Zn	17260	12-30
M	INOX A2		17261	12-30
M	INOX A4		17262	12-30

17260 Parafuso em U tipo A — F11B

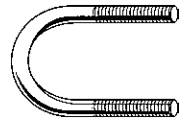
Rosca Métrica
Material Aço
Tratamento sup. Zincado



M x L_3	✉	Ref. do artigo	M x L_3	✉	Ref. do artigo	M x L_3	✉	Ref. do artigo
M5x37	1	17260.050.028	M8x132	1	17260.080.113	M12x132	1	17260.120.117
M6x33	1	17260.060.025	M8x144	1	17260.080.125	M12x144	1	17260.120.129
M6x37	1	17260.060.029	M8x170	1	17260.080.152	M12x170	1	17260.120.156
M6x42	1	17260.060.034	M10x42	1	17260.100.038	M12x203	1	17260.120.184
M6x49	1	17260.060.041	M10x49	1	17260.100.045	M12x259	1	17260.120.235
M6x62	1	17260.060.050	M10x62	1	17260.100.054	M12x313	1	17260.120.289
M6x68	1	17260.060.056	M10x68	1	17260.100.060	M12x364	1	17260.120.341
M6x85	1	17260.060.069	M10x85	1	17260.100.073	M16x144	1	17260.160.133
M6x101	1	17260.060.085	M10x101	1	17260.100.089	M16x170	1	17260.160.160
M6x114	1	17260.060.098	M10x114	1	17260.100.102	M16x203	1	17260.160.188
M6x144	1	17260.060.123	M10x132	1	17260.100.115	M16x259	1	17260.160.239
M8x37	1	17260.080.031	M10x144	1	17260.100.127	M16x313	1	17260.160.293
M8x42	1	17260.080.036	M10x170	1	17260.100.154	M16x364	1	17260.160.345
M8x49	1	17260.080.043	M10x203	1	17260.100.182	M20x234	1	17260.200.218
M8x62	1	17260.080.052	M10x259	1	17260.100.233	M20x259	1	17260.200.243
M8x68	1	17260.080.058	M12x85	1	17260.120.075	M20x313	1	17260.200.297
M8x85	1	17260.080.071	M12x101	1	17260.120.091	M20x364	1	17260.200.349
M8x101	1	17260.080.087	M12x114	1	17260.120.104	M24x364	1	17260.240.353
M8x114	1	17260.080.100						

17261 Parafuso em U tipo A — F11C

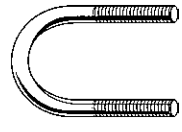
Rosca Métrica
Material Aço inoxidável A2



M x L_3	✉	Ref. do artigo	M x L_3	✉	Ref. do artigo	M x L_3	✉	Ref. do artigo
M5x37	1	17261.050.028	M8x132	1	17261.080.113	M12x132	1	17261.120.117
M6x33	1	17261.060.025	M8x144	1	17261.080.125	M12x144	1	17261.120.129
M6x37	1	17261.060.029	M8x170	1	17261.080.152	M12x170	1	17261.120.156
M6x42	1	17261.060.034	M10x42	1	17261.100.038	M12x203	1	17261.120.184
M6x49	1	17261.060.041	M10x49	1	17261.100.045	M12x259	1	17261.120.235
M6x62	1	17261.060.050	M10x62	1	17261.100.054	M12x313	1	17261.120.289
M6x68	1	17261.060.056	M10x68	1	17261.100.060	M12x364	1	17261.120.341
M6x85	1	17261.060.069	M10x85	1	17261.100.073	M16x144	1	17261.160.133
M6x101	1	17261.060.085	M10x101	1	17261.100.089	M16x170	1	17261.160.160
M6x114	1	17261.060.098	M10x114	1	17261.100.102	M16x203	1	17261.160.188
M6x144	1	17261.060.123	M10x132	1	17261.100.115	M16x259	1	17261.160.239
M8x37	1	17261.080.031	M10x144	1	17261.100.127	M16x313	1	17261.160.293
M8x42	1	17261.080.036	M10x170	1	17261.100.154	M16x364	1	17261.160.345
M8x49	1	17261.080.043	M10x203	1	17261.100.182	M20x234	1	17261.200.218
M8x62	1	17261.080.052	M10x259	1	17261.100.233	M20x259	1	17261.200.243
M8x68	1	17261.080.058	M12x85	1	17261.120.075	M20x313	1	17261.200.297
M8x85	1	17261.080.071	M12x101	1	17261.120.091	M20x364	1	17261.200.349
M8x101	1	17261.080.087	M12x114	1	17261.120.104	M24x364	1	17261.240.353
M8x114	1	17261.080.100						

17262 Parafuso em U tipo A — F11C

Rosca Métrica
Material Aço inoxidável A4



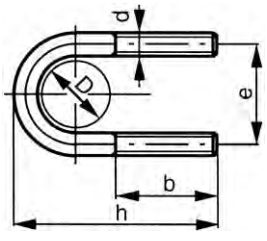
M x L_3	✉	Ref. do artigo	M x L_3	✉	Ref. do artigo	M x L_3	✉	Ref. do artigo
M5x37	1	17262.050.028	M6x62	1	17262.060.050	M6x144	1	17262.060.123
M6x33	1	17262.060.025	M6x68	1	17262.060.056	M8x37	1	17262.080.031
M6x37	1	17262.060.029	M6x85	1	17262.060.069	M8x42	1	17262.080.036
M6x42	1	17262.060.034	M6x101	1	17262.060.085	M8x49	1	17262.080.043
M6x49	1	17262.060.041	M6x114	1	17262.060.098	M8x62	1	17262.080.052

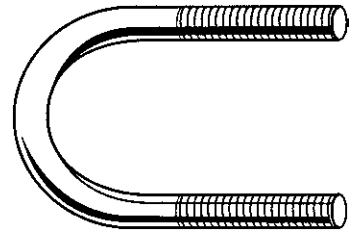
12

17262	Parafuso em U tipo A	F11C

M x L_3	✉	Ref. do artigo	M x L_3	✉	Ref. do artigo	M x L_3	✉	Ref. do artigo
M8x68	1	17262.080.058	M10x132	1	17262.100.115	M12x364	1	17262.120.341
M8x85	1	17262.080.071	M10x144	1	17262.100.127	M16x144	1	17262.160.133
M8x101	1	17262.080.087	M10x170	1	17262.100.154	M16x170	1	17262.160.160
M8x114	1	17262.080.100	M10x203	1	17262.100.182	M16x203	1	17262.160.188
M8x132	1	17262.080.113	M10x259	1	17262.100.233	M16x259	1	17262.160.239
M8x144	1	17262.080.125	M12x85	1	17262.120.075	M16x313	1	17262.160.293
M8x170	1	17262.080.152	M12x101	1	17262.120.091	M16x364	1	17262.160.345
M10x42	1	17262.100.038	M12x114	1	17262.120.104	M20x234	1	17262.200.218
M10x49	1	17262.100.045	M12x132	1	17262.120.117	M20x259	1	17262.200.243
M10x62	1	17262.100.054	M12x144	1	17262.120.129	M20x313	1	17262.200.297
M10x68	1	17262.100.060	M12x170	1	17262.120.156	M20x364	1	17262.200.349
M10x85	1	17262.100.073	M12x203	1	17262.120.184	M24x364	1	17262.240.353
M10x101	1	17262.100.089	M12x259	1	17262.120.235			
M10x114	1	17262.100.102	M12x313	1	17262.120.289			

Parafuso em U tipo B





Dados técnicos

d x h	b	D (nom. mm)	D (nom. polegada)	e
M6x42	20	22	1/2	29
M6x53	25	27	3/4	34
M6x61	30	34	1 Inch	41
M8x42	20	22	1/2	29
M8x61	30	34	1 Inch	44
M8x65	25	35	1 Inch	48
M8x71	30	27	3/4	36
M8x74	35	42	1.1/4	52
M8x85	40	48	1.1/2	57
M8x99	40	60	2 Inch	71
M10x85	40	48	1.1/2	59
M10x99	40	60	2 Inch	73
M10x112	40	76	2.1/2	89
M12x124	50	89	3 Inch	102
M12x155	50	117	4 Inch	126
M16x140	-	-	-	-
M16x184	60	140	5 Inch	160
M16x209	60	168	6 Inch	186
M16x216	-	-	-	-
M16x266	60	216	8 Inch	240

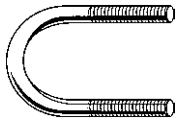
Grupos de produtos

Rosca	Material	Tratamento sup.	Código	Página
M	Aço	Zn	17243	12-31
M	INOX A2		17567	12-32

17243	Parafuso em U artigo 40G	F11B

Rosca Métrica
Material Aço
Tratamento sup. Zincado

RoHS



d x h x e x b	✉	Ref. do artigo	d x h x e x b	✉	Ref. do artigo	d x h x e x b	✉	Ref. do artigo
M6X42X29X20	50	17243.060.029	M8X74X52X35	50	17243.080.052			
M6X53X34X25	50	17243.060.034	M8X85X57X40	50	17243.080.057	M12X124X102X50	10	17243.120.102
M6X61X41X30	50	17243.060.041				M12X155X126X50	10	17243.120.126
			M10X85X59X40	25	17243.100.059			
M8X71X36X30	50	17243.080.036	M10X99X73X40	25	17243.100.073	M16X184X160X60	3	17243.160.160
M8X61X44X30	50	17243.080.044	M10X112X89X40	25	17243.100.089	M16X209X186X60	3	17243.160.186

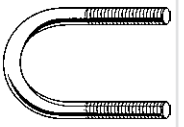
12

17243 Parafuso em U artigo 40G ←

d x h x e x b	✉	Ref. do artigo
M16X266X240X60	2	17243.160.240

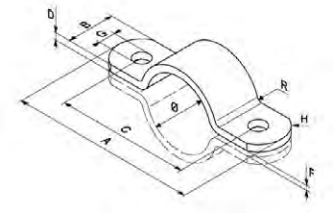
17567 Parafuso em U artigo 40R F11C

Rosca Métrica
Material Aço inoxidável A2



d x h x e x b	✉	Ref. do artigo	d x h x e x b	✉	Ref. do artigo	d x h x e x b	✉	Ref. do artigo
M6X42X29X20	25	17567.060.029	M8X61X44X30	25	17567.080.044	M8X85X57X40	25	17567.080.057
M6X53X34X25	25	17567.060.034	M8X74X52X35	25	17567.080.052	M8X99X71X40	25	17567.080.073

Abraçadeira de uma parte aço





Dados técnicos

ø	A	C	F	G	H	R
12	63	38	3	9	18	4
16	68	43	3	9	18	4
18	72	47	3	9	18	4
20	75	50	3	9	18	4
22	80	55	3	9	18	4
25	88	58	4	11	18	5
27	92	62	4	11	18	5
30	93	63	4	11	18	5
32	95	65	4	11	18	5
34	98	68	4	11	18	5
38	104	74	4	11	18	5
42	126	86	5	14	22	6
45	132	92	5	14	22	6
48	135	95	5	14	22	6
54	140	100	5	14	22	6
57	145	105	5	14	22	6
60	150	110	5	14	22	6
63	150	110	5	14	22	6
66	155	115	5	14	22	6
70	162	122	5	14	22	6
76	165	125	5	14	22	6
80	172	132	5	14	22	6
83	175	135	5	14	22	6
89	180	140	5	14	22	6
95	185	145	5	14	22	6
102	200	160	5	14	38	10
108	210	170	5	14	38	10
114	215	175	5	14	38	10
120	220	180	5	14	38	10
127	225	185	5	14	38	10
133	255	205	6	18	60	12
140	260	210	6	18	60	12
146	266	216	6	18	60	12
152	272	222	6	18	60	12
159	285	235	6	18	60	12
165	290	240	6	18	60	12
168	293	243	6	18	60	12
174	300	250	6	18	60	12
178	304	254	6	18	60	12
191	320	270	6	18	60	12

Dados técnicos

ø	A	C	F	G	H	R
194	326	276	6	18	60	12
203	335	285	6	18	60	12
216	344	294	6	18	60	12
219	356	306	6	18	60	12
226	362	312	6	18	60	12
241	370	320	6	22	60	12
245	376	326	6	22	60	12
253	385	335	6	22	60	12
267	400	350	6	22	60	12
273	410	360	6	22	60	12
300	430	380	6	22	60	12
318	470	410	8	22	60	12
324	480	420	8	22	60	12
356	515	455	8	22	60	12
368	545	470	12	22	60	22
406	585	510	12	22	60	22
420	600	525	12	22	60	22
457	655	580	12	22	60	22
508	680	605	12	22	60	22
520	690	615	12	22	60	22
559	733	658	12	22	60	22
610	795	720	12	22	60	22
660	845	770	12	22	60	22
710	895	820	12	22	60	22
762	947	872	12	22	60	22
812	975	920	12	22	60	22
914	1124	1034	15	27	60	22

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço		64500	12-33
Aço	Galv. Q.	64507	12-34

64500 **Abraçadeira de uma parte aço** **F11B**

Material Aço



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
12MM	1	64500.012.001	89MM	1	64500.089.001	245MM	1	64500.245.001
16MM	1	64500.016.001	95MM	1	64500.095.001	253MM	1	64500.253.001
18MM	1	64500.018.001	102MM	1	64500.102.001	267MM	1	64500.267.001
20MM	1	64500.020.001	108MM	1	64500.108.001	273MM	1	64500.273.001
22MM	1	64500.022.001	114MM	1	64500.114.001	300MM	1	64500.300.001
25MM	1	64500.025.001	120MM	1	64500.120.001	318MM	1	64500.318.001
27MM	1	64500.027.001	127MM	1	64500.127.001	324MM	1	64500.324.001
30MM	1	64500.030.001	133MM	1	64500.133.001	356MM	1	64500.356.001
32MM	1	64500.032.001	140MM	1	64500.140.001	368MM	1	64500.368.001
34MM	1	64500.034.001	146MM	1	64500.146.001	406MM	1	64500.406.001
38MM	1	64500.038.001	152MM	1	64500.152.001	420MM	1	64500.420.001
42MM	1	64500.042.001	159MM	1	64500.159.001	457MM	1	64500.457.001
45MM	1	64500.045.001	165MM	1	64500.165.001	508MM	1	64500.508.001
48MM	1	64500.048.001	168MM	1	64500.168.001	520MM	1	64500.520.001
54MM	1	64500.054.001	174MM	1	64500.174.001	559MM	1	64500.559.001
57MM	1	64500.057.001	178MM	1	64500.178.001	610MM	1	64500.610.001
60MM	1	64500.060.001	191MM	1	64500.191.001	660MM	1	64500.660.001
63MM	1	64500.063.001	194MM	1	64500.194.001	710MM	1	64500.710.001
66MM	1	64500.066.001	203MM	1	64500.203.001	762MM	1	64500.762.001
70MM	1	64500.070.001	216MM	1	64500.216.001	812MM	1	64500.812.001
76MM	1	64500.076.001	219MM	1	64500.219.001	914MM	1	64500.914.001
80MM	1	64500.080.001	226MM	1	64500.226.001			
83MM	1	64500.083.001	241MM	1	64500.241.001			

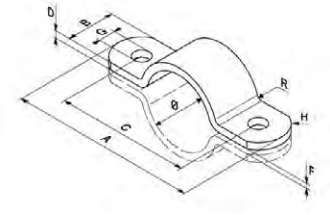
64507	Abraçadeira de uma parte aço	F11B

Material Aço
Tratamento sup. Galvanizado a quente



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
12MM	1	64507.012.001	80MM	1	64507.080.001	219MM	1	64507.219.001
16MM	1	64507.016.001	83MM	1	64507.083.001	226MM	1	64507.226.001
18MM	1	64507.018.001	89MM	1	64507.089.001	241MM	1	64507.241.001
20MM	1	64507.020.001	95MM	1	64507.095.001	245MM	1	64507.245.001
22MM	1	64507.022.001	102MM	1	64507.102.001	253MM	1	64507.253.001
25MM	1	64507.025.001	108MM	1	64507.108.001	267MM	1	64507.267.001
27MM	1	64507.027.001	114MM	1	64507.114.001	273MM	1	64507.273.001
30MM	1	64507.030.001	120MM	1	64507.120.001	300MM	1	64507.300.001
32MM	1	64507.032.001	127MM	1	64507.127.001	318MM	1	64507.318.001
34MM	1	64507.034.001	133MM	1	64507.133.001	324MM	1	64507.324.001
38MM	1	64507.038.001	140MM	1	64507.140.001	356MM	1	64507.356.001
42MM	1	64507.042.001	152MM	1	64507.152.001	368MM	1	64507.368.001
45MM	1	64507.045.001	159MM	1	64507.159.001	406MM	1	64507.406.001
48MM	1	64507.048.001	165MM	1	64507.165.001	420MM	1	64507.420.001
54MM	1	64507.054.001	168MM	1	64507.168.001	457MM	1	64507.457.001
57MM	1	64507.057.001	178MM	1	64507.178.001	508MM	1	64507.508.001
60MM	1	64507.060.001	191MM	1	64507.191.001	520MM	1	64507.520.001
63MM	1	64507.063.001	194MM	1	64507.194.001	610MM	1	64507.610.001
66MM	1	64507.066.001	203MM	1	64507.203.001	710MM	1	64507.710.001
70MM	1	64507.070.001	216MM	1	64507.216.001	812MM	1	64507.812.001
76MM	1	64507.076.001						

Abraçadeira de uma parte aço inox





Dados técnicos

ø	A	C	F	G	H	R
12	63	39	3	7	20	3
16	67	43	3	7	20	3
18	69	45	3	7	20	3
20	71	47	3	7	20	3
22	73	49	3	7	20	3
25	76	52	3	7	20	3
27	78	54	3	7	20	3
30	81	57	3	7	20	3
32	83	59	3	7	20	3
34	85	61	3	7	20	3
38	89	65	3	7	20	3
42	102	74	3	10	25	4
45	105	77	3	10	25	4
48	108	80	3	10	25	4
51	112	83	3	10	25	4
54	114	86	3	10	25	4
57	117	89	3	10	25	4
60	120	92	3	10	25	4
63	123	95	3	10	25	4
66	126	98	3	10	25	4
70	138	110	4	10	30	4
76	144	116	4	10	30	4
80	148	120	4	10	30	4
83	151	123	4	10	30	4
89	157	129	4	10	30	4
95	163	135	4	10	30	4
102	170	142	4	10	30	4
108	176	148	4	10	30	4
114	182	154	4	10	30	4

Dados técnicos

ø	A	C	F	G	H	R
120	188	160	4	10	30	4
127	195	167	4	10	30	4
133	218	182	5	12	40	5
140	225	189	5	12	40	5
146	231	195	5	12	40	5
152	237	201	5	12	40	5
159	244	208	5	12	40	5
165	250	214	5	12	40	5
168	253	217	5	12	40	5
174	259	223	5	12	40	5
178	263	227	5	12	40	5
191	276	240	5	12	40	5
194	279	243	5	12	40	5
203	288	252	5	12	40	5
216	301	265	5	12	40	5
219	304	268	5	12	40	5
226	311	275	5	12	40	5
241	341	301	5	14	40	8
245	345	305	5	14	40	8
253	353	313	5	14	40	8
267	367	327	5	14	40	8
273	373	333	5	14	40	8
300	400	360	5	14	40	8
318	418	378	5	14	40	8
324	424	384	5	14	40	8
356	456	416	5	14	40	8
368	468	428	5	14	40	8
406	506	466	5	14	40	8
420	520	480	5	14	40	8
457	557	517	5	14	40	8
508	608	568	5	14	40	8
520	620	580	5	14	40	8
559	659	619	5	14	40	8
610	710	670	5	14	40	8

Grupos de produtos

Material	Código	Página
INOX A2	64503	12-35
INOX A4	64504	12-36

64503 **Abraçadeira de uma parte aço inox** **F11B**

Material Aço inoxidável A2



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
12MM	1	64503.012.001	76MM	1	64503.076.001	203MM	1	64503.203.001
16MM	1	64503.016.001	80MM	1	64503.080.001	216MM	1	64503.216.001
18MM	1	64503.018.001	83MM	1	64503.083.001	219MM	1	64503.219.001
20MM	1	64503.020.001	89MM	1	64503.089.001	226MM	1	64503.226.001
22MM	1	64503.022.001	95MM	1	64503.095.001	241MM	1	64503.241.001
25MM	1	64503.025.001	102MM	1	64503.102.001	245MM	1	64503.245.001
27MM	1	64503.027.001	108MM	1	64503.108.001	253MM	1	64503.253.001
30MM	1	64503.030.001	114MM	1	64503.114.001	267MM	1	64503.267.001
32MM	1	64503.032.001	120MM	1	64503.120.001	273MM	1	64503.273.001
34MM	1	64503.034.001	127MM	1	64503.127.001	300MM	1	64503.300.001
38MM	1	64503.038.001	133MM	1	64503.133.001	318MM	1	64503.318.001
42MM	1	64503.042.001	140MM	1	64503.140.001	324MM	1	64503.324.001
45MM	1	64503.045.001	146MM	1	64503.146.001	356MM	1	64503.356.001
48MM	1	64503.048.001	152MM	1	64503.152.001	368MM	1	64503.368.001
51MM	1	64503.051.001	159MM	1	64503.159.001	406MM	1	64503.406.001
54MM	1	64503.054.001	165MM	1	64503.165.001	420MM	1	64503.420.001
57MM	1	64503.057.001	168MM	1	64503.168.001	457MM	1	64503.457.001
60MM	1	64503.060.001	174MM	1	64503.174.001	508MM	1	64503.508.001
63MM	1	64503.063.001	178MM	1	64503.178.001	520MM	1	64503.520.001
66MM	1	64503.066.001	191MM	1	64503.191.001	559MM	1	64503.559.001
70MM	1	64503.070.001	194MM	1	64503.194.001	610MM	1	64503.610.001

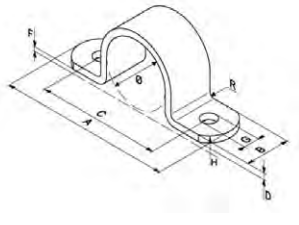
64504	Abraçadeira de uma parte aço inox	F11B

Material Aço inoxidável A4



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
12MM	1	64504.012.001	76MM	1	64504.076.001	203MM	1	64504.203.001
16MM	1	64504.016.001	80MM	1	64504.080.001	216MM	1	64504.216.001
18MM	1	64504.018.001	83MM	1	64504.083.001	219MM	1	64504.219.001
20MM	1	64504.020.001	89MM	1	64504.089.001	226MM	1	64504.226.001
22MM	1	64504.022.001	95MM	1	64504.095.001	241MM	1	64504.241.001
25MM	1	64504.025.001	102MM	1	64504.102.001	245MM	1	64504.245.001
27MM	1	64504.027.001	108MM	1	64504.108.001	253MM	1	64504.253.001
30MM	1	64504.030.001	114MM	1	64504.114.001	267MM	1	64504.267.001
32MM	1	64504.032.001	120MM	1	64504.120.001	273MM	1	64504.273.001
34MM	1	64504.034.001	127MM	1	64504.127.001	300MM	1	64504.300.001
38MM	1	64504.038.001	133MM	1	64504.133.001	318MM	1	64504.318.001
42MM	1	64504.042.001	140MM	1	64504.140.001	324MM	1	64504.324.001
45MM	1	64504.045.001	146MM	1	64504.146.001	356MM	1	64504.356.001
48MM	1	64504.048.001	152MM	1	64504.152.001	368MM	1	64504.368.001
51MM	1	64504.051.001	159MM	1	64504.159.001	406MM	1	64504.406.001
54MM	1	64504.054.001	165MM	1	64504.165.001	420MM	1	64504.420.001
57MM	1	64504.057.001	168MM	1	64504.168.001	457MM	1	64504.457.001
60MM	1	64504.060.001	174MM	1	64504.174.001	508MM	1	64504.508.001
63MM	1	64504.063.001	178MM	1	64504.178.001	520MM	1	64504.520.001
66MM	1	64504.066.001	191MM	1	64504.191.001	559MM	1	64504.559.001
70MM	1	64504.070.001	194MM	1	64504.194.001	610MM	1	64504.610.001

Abraçadeira para tubos aço





Dados técnicos

ø	A	C	F	G	H	R
22	80	55	3	9	18	4
27	92	62	4	11	18	5
34	98	68	4	11	18	5
42	126	86	5	14	22	6
48	135	95	5	14	22	6
60	150	110	5	14	22	6
70	162	122	5	14	22	6
76	165	125	5	14	22	6
89	180	140	5	14	22	6
102	200	160	5	14	38	10
114	215	175	5	14	38	10
140	260	210	6	18	60	12
194	326	276	6	18	60	12
219	356	306	6	18	60	12
168	293	243	6	18	60	12
273	410	360	6	22	60	12
324	480	420	8	22	60	12

Grupos de produtos

Material	Tratamento sup.	Código	Página
Aço		64501	12-37
Aço	Galv. Q.	64502	12-37

64501 **Abraçadeira para tubos aço** **F11B**

Material Aço



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
22MM	1	64501.022.001	60MM	1	64501.060.001	114MM	1	64501.114.001
27MM	1	64501.027.001	70MM	1	64501.070.001	140MM	1	64501.140.001
34MM	1	64501.034.001	76MM	1	64501.076.001	194MM	1	64501.194.001
42MM		64501.042.001	89MM	1	64501.089.001	219MM	1	64501.219.001
48MM	1	64501.048.001	102MM	1	64501.102.001			

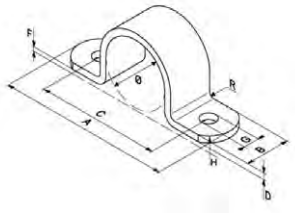
64502 **Abraçadeira para tubos aço** **F11B**

Material Aço
Tratamento sup. Galvanizado a quente



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
22MM	1	64502.022.001	60MM	1	64502.060.001	168MM	1	64502.168.001
27MM	1	64502.027.001	76MM	1	64502.076.001	219MM	1	64502.219.001
42MM	1	64502.042.001	89MM	1	64502.089.001	273MM	1	64502.273.001
48MM	1	64502.048.001	114MM	1	64502.114.001	324MM	1	64502.324.001

Abraçadeira para tubos aço inox





Dados técnicos

ø	A	C	F	G	H	R
12	63	39	3	7	20	3
16	67	43	3	7	20	3
18	69	45	3	7	20	3
20	71	47	3	7	20	3
22	73	49	3	7	20	3
25	76	52	3	7	20	3
27	78	54	3	7	20	3
30	81	57	3	7	20	3
32	83	59	3	7	20	3
34	85	61	3	7	20	3
38	89	65	3	7	20	3
42	102	74	3	10	25	4
45	105	77	3	10	25	4
48	108	80	3	10	25	4
57	117	89	3	10	25	4
60	120	92	3	10	25	4
70	138	110	4	10	30	4
76	144	116	4	10	30	4
89	157	129	4	10	30	4
102	170	142	4	10	30	4
108	176	148	4	10	30	4
114	182	154	4	10	30	4
120	188	160	4	10	30	4
127	195	167	4	10	30	4
133	218	182	5	12	40	5
140	225	189	5	12	40	5
152	237	201	5	12	40	5
159	244	208	5	12	40	5
168	253	217	5	12	40	5

Dados técnicos

ø	A	C	F	G	H	R
191	276	240	5	12	40	5
219	304	268	5	12	40	5
241	341	301	5	14	40	8
273	373	333	5	14	40	8
324	424	384	5	14	40	8
368	468	428	5	14	40	8
406	506	466	5	14	40	8
457	557	517	5	14	40	8
520	620	580	5	14	40	8
610	710	670	5	14	40	8

Grupos de produtos

Material	Código	Página
INOX A2	64505	12-38
INOX A4	64506	12-38

64505 Abraçadeira para tubos aço inox F11B

Material Aço inoxidável A2



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
12MM	1	64505.012.001	48MM	1	64505.048.001	152MM	1	64505.152.001
16MM	1	64505.016.001	57MM	1	64505.057.001	159MM	1	64505.159.001
18MM	1	64505.018.001	60MM	1	64505.060.001	168MM	1	64505.168.001
20MM	1	64505.020.001	70MM	1	64505.070.001	191MM	1	64505.191.001
22MM	1	64505.022.001	76MM	1	64505.076.001	219MM	1	64505.219.001
25MM	1	64505.025.001	89MM	1	64505.089.001	241MM	1	64505.241.001
27MM	1	64505.027.001	102MM	1	64505.102.001	273MM	1	64505.273.001
30MM	1	64505.030.001	108MM	1	64505.108.001	324MM	1	64505.324.001
32MM	1	64505.032.001	114MM	1	64505.114.001	368MM	1	64505.368.001
34MM	1	64505.034.001	120MM	1	64505.120.001	406MM	1	64505.406.001
38MM	1	64505.038.001	127MM	1	64505.127.001	457MM	1	64505.457.001
42MM	1	64505.042.001	133MM	1	64505.133.001	520MM	1	64505.520.001
45MM	1	64505.045.001	140MM	1	64505.140.001	610MM	1	64505.610.001

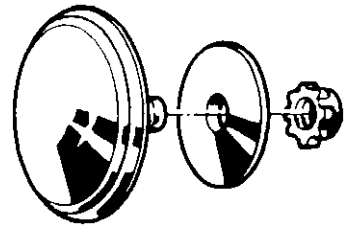
64506 Abraçadeira para tubos aço inox F11B

Material Aço inoxidável A4



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
12MM	1	64506.012.001	48MM	1	64506.048.001	152MM	1	64506.152.001
16MM	1	64506.016.001	57MM	1	64506.057.001	159MM	1	64506.159.001
18MM	1	64506.018.001	60MM	1	64506.060.001	168MM	1	64506.168.001
20MM	1	64506.020.001	70MM	1	64506.070.001	191MM	1	64506.191.001
22MM	1	64506.022.001	76MM	1	64506.076.001	219MM	1	64506.219.001
25MM	1	64506.025.001	89MM	1	64506.089.001	241MM	1	64506.241.001
27MM	1	64506.027.001	102MM	1	64506.102.001	273MM	1	64506.273.001
30MM	1	64506.030.001	108MM	1	64506.108.001	324MM	1	64506.324.001
32MM	1	64506.032.001	114MM	1	64506.114.001	368MM	1	64506.368.001
34MM	1	64506.034.001	120MM	1	64506.120.001	406MM	1	64506.406.001
38MM	1	64506.038.001	127MM	1	64506.127.001	457MM	1	64506.457.001
42MM	1	64506.042.001	133MM	1	64506.133.001	520MM	1	64506.520.001
45MM	1	64506.045.001	140MM	1	64506.140.001	610MM	1	64506.610.001

Tampa ornamental



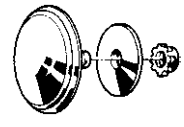
- Montado em embalagem de display completo, com anilha de reparação e porca de plástico.

Grupos de produtos

Material	Tratamento sup.	Cor	Código	Página
Plástico		Preto	72110	12-39
Plástico	Crom.	Bege	72100	12-39

72110 Tampa ornamental — Y92E

Material Plástico
Cor Preto

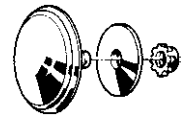


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
13-21-29 (6-22 ASS/S)	25	72110.001.770	18MM (6-21E/S)	25	72110.180.001	29MM (6-21C/S)	25	72110.320.001
13MM (6-21/S)	25	72110.130.001	21MM (6-21B/S)	25	72110.220.001	42MM (6-21D/S)	12	72110.400.001

- ASS/S (6-22), conteúdo:
- 13mm - 10 peças
- 21mm - 5 peças
- 29mm - 10 peças

72100 Tampa ornamental — Y92E

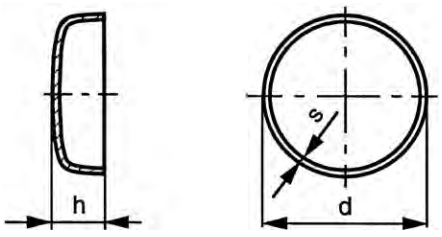
Material Plástico
Tratamento sup. Cromado
Cor Bege



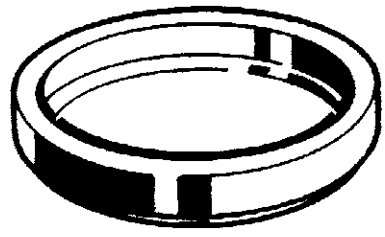
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
13-21-29 (6-22 ASS)	25	72100.001.770	21MM (6-21B)	25	72100.220.001	42MM (6-21D)	12	72100.400.001
18MM (6-21E)	25	72100.180.001	29MM (6-21C)	25	72100.320.001			

- ASS (6-22), conteúdo:
- 13mm - 10 peças
- 21mm - 5 peças
- 29mm - 10 peças

Tampa de vedação



DIN ≈443



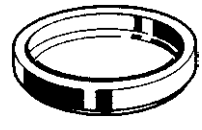
Dados técnicos

d (zc10)	h (js16)	s
8	3	0.75
10	3	0.75
12	4	1
14	5	1
16	5	1
18	6	1
20	6	1
22	7	1.6
24 (≠DIN)	7	1.6
25	8	1.6

d (zc10)	h (js16)	s
28	9	1.6
30	9	1.6
36	11	1.6
38	12	1.6
40	12	1.6
45	14	1.6
50	15	1.6
52	16	2
56	17	2

72150 **Tampa de vedação** **Y92D**

Material Aço
Tratamento sup. Zincado

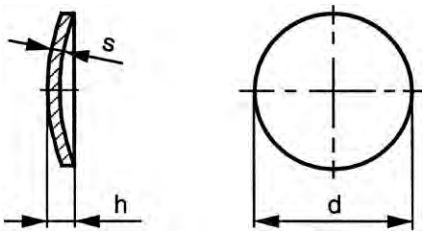


d	✉	Ref. do artigo
8MM	10	72150.080.001
10MM	10	72150.100.001
12MM	10	72150.120.001
14MM	10	72150.140.001
16MM	10	72150.160.001
18MM	10	72150.180.001
20MM	10	72150.200.001

d	✉	Ref. do artigo
22MM	10	72150.220.001
24MM	10	72150.240.001
25MM	10	72150.250.001
28MM	10	72150.280.001
30MM	10	72150.300.001
36MM	10	72150.360.001

d	✉	Ref. do artigo
38MM	10	72150.380.001
40MM	10	72150.400.001
45MM	10	72150.450.001
50MM	10	72150.500.001
52MM	10	72150.520.001
56MM	10	72150.560.001

Anilha de vedação



DIN **≈470**



Dados técnicos

d (js11)	h	s
10	2.67	1.6
12	2.77	1.6
14	2.94	1.6
16	3.11	1.6
18	3.28	1.6
20	3.45	1.6
22	4.09	2
25	4.38	2
28	4.53	2
30	4.77	2

d (js11)	h	s
32	4.95	2
34	5.11	2
36	5.36	2
38	5.6	2
40	5.7	2
45	6.15	2
50	6.62	2
52	6.66	2
56	7.06	2

72160 **Anilha de vedação** **Y92D**

Material Aço
Tratamento sup. Zincado



d	✉	Ref. do artigo
10MM	20	72160.100.001
12MM	20	72160.120.001
14MM	20	72160.140.001
16MM	20	72160.160.001
18MM	20	72160.180.001
20MM	20	72160.200.001
22MM	20	72160.220.001

d	✉	Ref. do artigo
25MM	20	72160.250.001
28MM	20	72160.280.001
30MM	20	72160.300.001
32MM	20	72160.320.001
34MM	20	72160.340.001
36MM	20	72160.360.001

d	✉	Ref. do artigo
38MM	20	72160.380.001
40MM	20	72160.400.001
45MM	20	72160.450.001
50MM	20	72160.500.001
52MM	20	72160.520.001
56MM	20	72160.560.001

Copo de lubrificação tipo cone

DIN **≈71412**



- Macho de rosca métrica de acc. ≈ DIN 158.

Grupos de produtos

Rosca	Material	Tratamento sup.	Código	Página
M	Aço	Zn	72210	12-42
M	INOX A1		72213	12-42

72210 Copo de lubrificação tipo cone — Y05A

Rosca Métrica
Material Aço
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6-45°	100	72210.060.045	M8-90°	100	72210.080.090	M10-180°	100	72210.100.180
M6-90°	100	72210.060.090	M8-180°	100	72210.080.180	M12-45°	50	72210.120.045
M6-180°	100	72210.060.180	M10-45°	100	72210.100.045	M12-90°	50	72210.120.090
M8-45°	100	72210.080.045	M10-90°	100	72210.100.090	M12-180°	50	72210.120.180

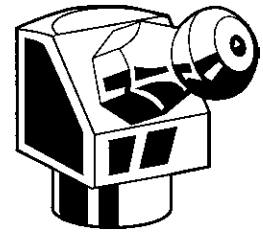
72213 Copo de lubrificação tipo cone — Y05A

Rosca Métrica
Material Aço inoxidável A1



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6-45°	50	72213.060.045	M8-45°	50	72213.080.045	M10-45°	50	72213.100.045
M6-90°	50	72213.060.090	M8-90°	50	72213.080.090	M10-90°	50	72213.100.090
M6-180°	50	72213.060.180	M8-180°	50	72213.080.180	M10-180°	50	72213.100.180

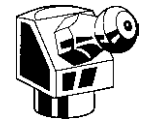
Copo de lubrificação tipo A/B/C (A=180°/B=45°/C=90°



- Tolerância do furo em aço – 0,25 a 0,3 mm, aluminio 0,15 a 0,2 mm e em ferro fundido – 0,1 mm.

72230 **Copo de lubrificação tipo A/B/C** **Y05A**

Material Aço
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
6MM-45°	100	72230.060.045	8MM-45°	100	72230.080.045	10MM-45°	100	72230.100.045
6MM-90°	100	72230.060.090	8MM-90°	100	72230.080.090	10MM-90°	100	72230.100.090
6MM-180°	100	72230.060.180	8MM-180°	100	72230.080.180	10MM-180°	100	72230.100.180

Copo de lubrificação

DIN **≈3405 A**



72170 **Copo de lubrificação** **Y05A**

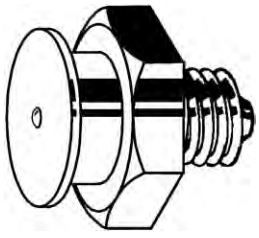
Rosca Métrica fina
Material Aço
Tratamento sup. Zincado



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6X0,75	100	72170.060.075	M8X1,00	100	72170.080.100			
M6X1,00	100	72170.060.100	M8X1,25	100	72170.080.125	M10X1,00	100	72170.100.100

Copo de lubrificação plano M/MF

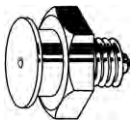
DIN **≈3404 A**



72186 **Copo de lubrificação plano M/MF** **Y05A**

Rosca Métrica fina
Material Aço
Tratamento sup. Zincado

RoHS



d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo	d x P	✉	Ref. do artigo
M6X0,75	100	72186.060.075	M8X1,00	100	72186.080.100	M10X1,00	100	72186.100.100
M6X1,00	100	72186.060.100	M8X1,25	100	72186.080.125	M10X1,50	100	72186.100.150

Copo de lubrificação tipo cone MF (A=180º/B=45º/C=90º)

DIN **≈71412 A/B/C**



- Macho de rosca métrica de acc. ≈ DIN 158.

72220 **Copo de lubrificação tipo cone MF (A=180º/B=45º/C=90º)** **Y05A**

Rosca Métrica fina
Material Aço
Tratamento sup. Zincado

RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M8X1,00-45°	100	72220.080.045				M12X1,50-90°	50	72220.120.090
M8X1,00-90°	100	72220.080.090	M12X1,50-45°	50	72220.120.045	M12X1,50-180°	50	72220.120.180
M8X1,00-180°	100	72220.080.180						

Copo de lubrificação tipo cone MEF (A=180º/B=45º/C=90º)

DIN ≈71412 A/B/C



- Macho de rosca métrica extra fina de acc. ≈ DIN 158.

72221 **Copo de lubrificação tipo cone MEF (A=180º/B=45º/C=90º)** **Y05A**

Rosca Métrica extra fina
Material Aço
Tratamento sup. Zincado

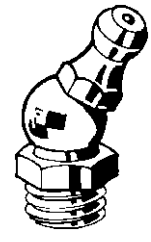
RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M6X0,75-45°	100	72221.060.045	M8X0,75-90°	100	72221.080.090	M10X1,00-180°	100	72221.100.180
M6X0,75-90°	100	72221.060.090	M8X0,75-180°	100	72221.080.180			
M6X0,75-180°	100	72221.060.180				M12X1,00-45°	50	72221.120.045
			M10X1,00-45°	100	72221.100.045	M12X1,00-90°	50	72221.120.090
M8X0,75-45°	100	72221.080.045	M10X1,00-90°	100	72221.100.090	M12X1,00-180°	50	72221.120.180

Copo de lubrificação cone R (A=180º/B=45º/C=90º)

DIN ≈71412 A/B/C



- Macho rosca gás acc. ≈ DIN 3858.

Grupos de produtos

Rosca	Material	Tratamento sup.	Código	Página
R	Aço	Zn	72240	12-45
R	INOX		72243	12-45

72240 **Copo de lubrificação cone R (A=180º/B=45º/C=90º)** **Y05A**

Rosca GAS
Material Aço
Tratamento sup. Zincado

RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/8-45°	100	72240.031.045	1/4-90°	50	72240.063.090	3/8-180°	25	72240.096.180
1/8-90°	100	72240.031.090	1/4-180°	50	72240.063.180	1/2-45°	25	72240.127.045
1/8-180°	100	72240.031.180	3/8-45°	25	72240.096.045	1/2-90°	25	72240.127.090
1/4-45°	50	72240.063.045	3/8-90°	25	72240.096.090	1/2-180°	25	72240.127.180

72243 **Copo de lubrificação cone R (A=180º/B=45º/C=90º)** **Y05A**

Rosca GAS
Material Aço inoxidável

RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/8-45°	50	72243.031.045	1/8-180°	50	72243.031.180	1/4-90°	50	72243.063.090
1/8-90°	50	72243.031.090	1/4-45°	50	72243.063.045	1/4-180°	50	72243.063.180

Copo de lubrificação cone tipo UNF (A=180º/B=45º/C=90º)

DIN ≈71412 A/B/C



72260 **Copo de lubrificação cone tipo UNF (A=180º/B=45º/C=90º)** **Y05A**

Rosca Unified National Fine
Material Aço
Tratamento sup. Zincado

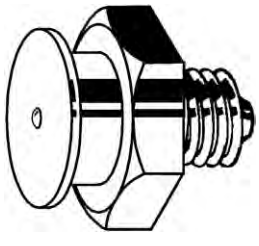
RoHS



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/4-45°	100	72260.063.045	5/16-90°	100	72260.079.090	3/8-180°	100	72260.096.180
1/4-90°	100	72260.063.090	5/16-180°	100	72260.079.180	1/2-45°	50	72260.127.045
1/4-180°	100	72260.063.180	3/8-45°	100	72260.096.045	1/2-90°	50	72260.127.090
5/16-45°	100	72260.079.045	3/8-90°	100	72260.096.090	1/2-180°	50	72260.127.180

Copo de lubrificação plano G

DIN ≈3404 A



- Cavilhas paralelas roscadas de accc. com DIN ISO 228-1.

72185 **Copo de lubrificação plano G** **Y05A**

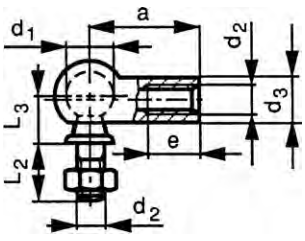
Rosca GAS
Material Aço
Tratamento sup. Zincado

RoHS

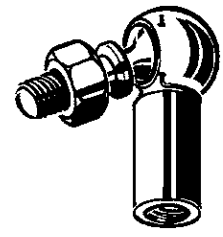


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1/8	100	72185.031.001	1/4	100	72185.063.001	3/8	100	72185.096.001

Joelho de ligação



DIN **71802 CS**



Dados técnicos

d_2	a	Carga estática em kN	d_1	d_3	e (min.)	L_2	L_3	P
M5	22	0.3	8	8	10.2	10.2	9	0.8
M6	25	0.7	10	10	11.5	12.5	11	1
M8	30	1.5	13	13	14	16.5	13	1.25
M10	35	2	16	16	15.5	20	16	1.5
M12 (≠DIN)	35	2	16	16	15.5	20	16	1.75
M14	45	3	19	22	21.5	28	20	1.5
M16 (≠DIN)	45	3	19	22	21.5	28	20	2

- Caracteristicas especiais de juntas:
- São entregues completas, com rosca interna direita e esquerda.
- Equipado com perno de acordo com DIN 71805 tipo B com anel de retenção ac. com DIN 71805 tipo S, articulação angular ac. com DIN 71803 tipo A e porca sextavada ac. to DIN 934.

Grupos de produtos

Rosca	Material	Tratamento sup.		Código	Página
M	Aço	Zn	direita	57425	12-47
MF	Aço	Zn	direita	57426	12-47
M	Aço	Zn	esquerda	57475	12-47
MF	Aço	Zn	esquerda	57476	12-48

57425 Joelho de ligação — L11A

Rosca Métrica
Material Aço
Tratamento sup. Zincado



d_2	✉	Ref. do artigo	d_2	✉	Ref. do artigo	d_2	✉	Ref. do artigo
M5	5	57425.050.001	M8	5	57425.080.001	M12	5	57425.120.001
M6	5	57425.060.001	M10	5	57425.100.001	M16	1	57425.160.001

57426 Joelho de ligação — L11A

Rosca Métrica fina
Material Aço
Tratamento sup. Zincado



d_2	✉	Ref. do artigo
M14X1,50	5	57426.140.150

57475 Joelho de ligação — L11A

Rosca Métrica
Material Aço
Tratamento sup. Zincado



d_2	✉	Ref. do artigo	d_2	✉	Ref. do artigo	d_2	✉	Ref. do artigo
M5	5	57475.050.001	M8	5	57475.080.001	M12	5	57475.120.001
M6	5	57475.060.001	M10	5	57475.100.001	M16	1	57475.160.001

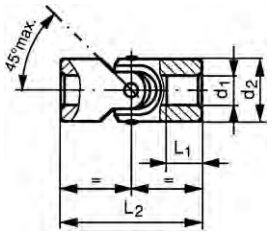
57476 **Joelho de ligação** **L11A**

Rosca	Métrica fina
Material	Aço
Tratamento sup.	Zincado



d_2	✉	Ref. do artigo
M14X1,50	5	57476.140.150

Junta universal simples



DIN **808 E**



Dados técnicos

d_1 (H7)	d_2 (k11)	L_1	L_2	Md (max.) (Nm
8 (≠DIN)	13	12	42	6
10	16	15	52	8
12	20	18	62	20
16	25	22	74	30
20	32	25	86	60
25	40	32	108	160
32	50	40	132	290

- MD max. = aperto máximo admissivel.

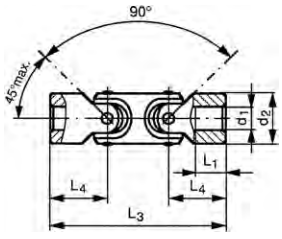
57510 **Junta universal simples** **L11A**

Material	Aço de corte



d_1 x d_2 x L_2	✉	Ref. do artigo	d_1 x d_2 x L_2	✉	Ref. do artigo	d_1 x d_2 x L_2	✉	Ref. do artigo
8X13X42MM	1	57510.080.013	16X25X74MM	1	57510.160.025	25X40X108MM	1	57510.250.040
10X16X52MM	1	57510.100.016	20X32X86MM	1	57510.200.032	32X50X132MM	1	57510.320.050
12X20X62MM	1	57510.120.020						

Junta dupla universal



DIN **808 D**



Dados técnicos

d_1 (H7)	d_2 (k11)	L_1	L_3	L_4	Md (max.) (Nm
8 (≠DIN)	13	12	60	21	6
10	16	15	74	26	8
12	20	18	88	31	20
16	25	22	104	37	30
20	32	25	124	43	60
25	40	32	156	54	160

- MD max. = aperto máximo admissivel.

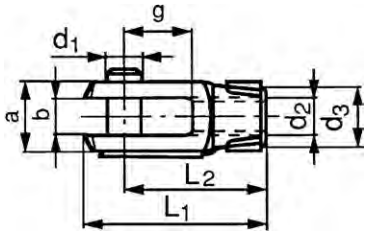
57560 **Junta dupla universal** **L11A**

Material Aço de corte

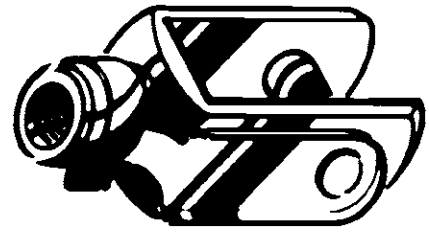


d_1 x d_2 x L_3	✉	Ref. do artigo	d_1 x d_2 x L_3	✉	Ref. do artigo	d_1 x d_2 x L_3	✉	Ref. do artigo
8X13X60MM	1	57560.080.013	12X20X88MM	1	57560.120.020	20X32X124MM	1	57560.200.032
10X16X74MM	1	57560.100.016	16X25X104MM	1	57560.160.025	25X40X156MM	1	57560.250.040

Junção de forquilha tipo ES



DIN **71752**



Dados técnicos

d_1 x g	a	b (B13)	d_2	d_3	L_1	L_2
4x8	8	4	M4	8	21	16
5x10	10	5	M5	9	26	20
5x20	10	5	M5	9	36	30
6x12	12	6	M6	10	31	24
6x24	12	6	M6	10	43	36
8x16	16	8	M8	14	42	32
8x32	16	8	M8	14	58	48
10x20	20	10	M10	18	52	40
10x40	20	10	M10	18	72	60
12x24	24	12	M12	20	62	48
12x48	24	12	M12	20	86	72
14x28	27	14	M14	24	72	56
14x56	27	14	M14	24	101	85
16x32	32	16	M16	26	83	64
16x64	32	16	M16	26	115	96
20x40 (≠DIN)	40	20	M20	34	105	80

- Caracteristicas especiais de junções de forquilha:são fornecidas com mola tipo ES.
- Devido à fixação axial, pode ser usada mais rápido e fácil sem ferramenta, que com o método tradicional com passador com perfuração com cabeça pequena de acordo com DIN 1434, chaveta de meia cana DIN 94 e anilha plana para passadores com perfuração DIN 1440.
- Aplicações tipicas de juntas de forquilha são limpa para-brisas, travões-gás ou hastes de acopolamento e transmissão movimentos lineares.
- Tolerância d1 = H9/h11.

Grupos de produtos

Rosca	Material	Tratamento sup.		Código	Página
M	Aço de corte	Zn		57580	12-50
M	Aço de corte	Zn	rosca esquerda	57578	12-50

57580 Junção de forquilha tipo ES — L11A

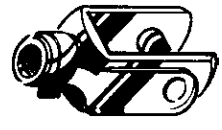
Rosca Métrica
Material Aço de corte
Tratamento sup. Zincado



d_1 x g	✉	Ref. do artigo	d_1 x g	✉	Ref. do artigo	d_1 x g	✉	Ref. do artigo
5X10MM	5	57580.050.010	8X32MM	5	57580.080.032	14X28MM	2	57580.140.028
5X20MM	5	57580.050.020	10X20MM	5	57580.100.020	14X56MM	2	57580.140.056
6X12MM	5	57580.060.012	10X40MM	5	57580.100.040	16X32MM	2	57580.160.032
6X24MM	5	57580.060.024	12X24MM	2	57580.120.024	16X64MM	1	57580.160.064
8X16MM	5	57580.080.016	12X48MM	2	57580.120.048	20X40MM	1	57580.200.040

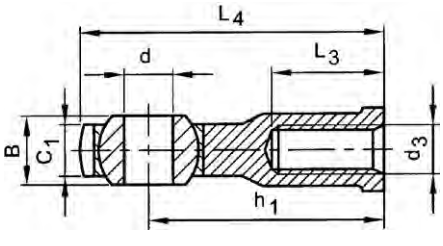
57578 Junção de forquilha tipo ES rosca esquerda — L11A

Rosca Métrica
Material Aço de corte
Tratamento sup. Zincado
DIN 71752 LH

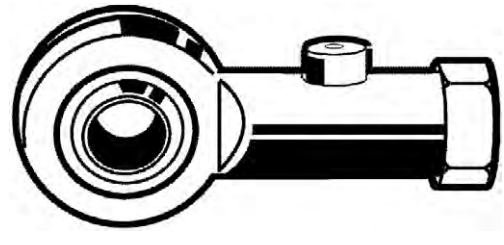


d_1 x g	✉	Ref. do artigo	d_1 x g	✉	Ref. do artigo	d_1 x g	✉	Ref. do artigo
5X20MM	5	57578.050.020	8X32MM	5	57578.080.032	12X48MM	2	57578.120.048
6X12MM	5	57578.060.012	10X20MM	5	57578.100.020	14X28MM	2	57578.140.028
6X24MM	5	57578.060.024	10X40MM	5	57578.100.040	16X32MM	2	57578.160.032
8X16MM	5	57578.080.016	12X24MM	2	57578.120.024	20X40MM	1	57578.200.040

Rótula com rosca interna tipo SFC

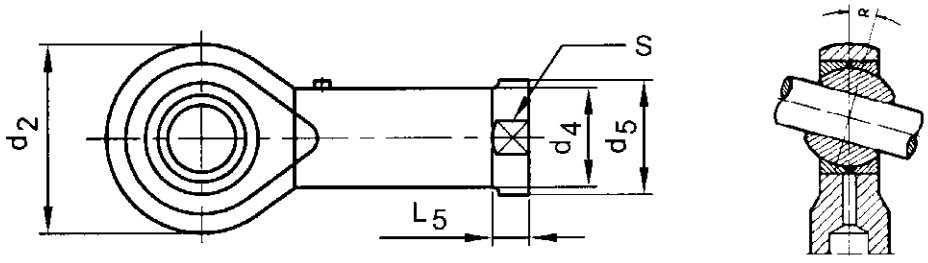


DIN 648 B
ISO 12240-4



Dados técnicos

Tipo	SFC5	SFC6	SFC8	SFC10	SFC12	SFC14	SFC16
B	8	9	12	14	16	19	21
C_1 (max.)	7.5	7.5	9.5	11.5	12.5	14.5	15.5
Carga estática (C°) em N	6.000	7.000	12.000	14.500	17.000	24.000	28.500
d (H7)	5	6	8	10	12	14	16
d_2 (max.)	18	20	24	28	32	36	42
d_3	M5	M6	M8	M10	M12	M14	M16
d_4 (max.)	9	10	12.5	15	17.5	20	22
d_5 (max.)	12	13	16	19	22	25	27
h_1	27	30	36	43	50	57	64
L_3 (min.)	8	9	12	15	18	21	24
L_4(max.)	37	41	49	58	67	76	86
L_5 (max.)	4	5	5	6.5	6.5	8	8
s	9	11	14	17	19	22	22
α ° ≈	13	13	13	13	13	15	15

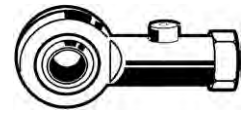


Grupos de produtos

Rosca	Material		Código	Página
M	Aço	direita	57605	12-51
M	Aço	rosca esquerda	57655	12-51

57605 Rótula fêmea tipo SFC — L11A

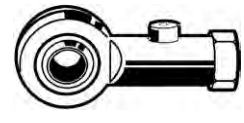
Rosca Métrica
Material Aço



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
5	1	57605.050.001	10	1	57605.100.001	14	1	57605.140.001
6	1	57605.060.001	12	1	57605.120.001	16	1	57605.160.001
8	1	57605.080.001						

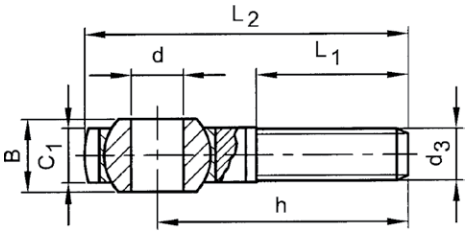
57655 Rótula rosca esquerda fêmea tipo SFC — L11A

Rosca Métrica
Material Aço

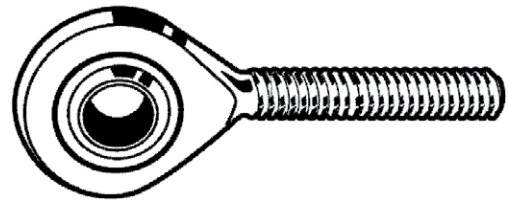


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
5	1	57655.050.001	10	1	57655.100.001	14	1	57655.140.001
6	1	57655.060.001	12	1	57655.120.001	16	1	57655.160.001
8	1	57655.080.001						

Rótula com rosca externa

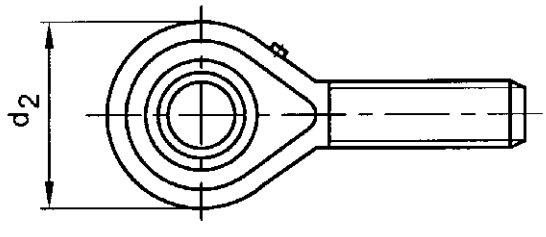


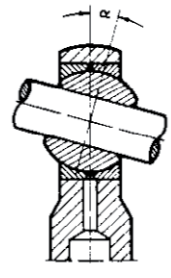
DIN **648 A**
ISO 12240-4



Dados técnicos

Tipo	SMC 5	SMC 6	SMC 8	SMC 10	SMC 12	SMC 14	SMC 16
B	8	9	12	14	16	19	21
C_1 (max.)	7.5	7.5	9.5	11.5	12.5	14.5	15.5
Carga estática (C°) em N	3.000	4.000	8.000	13.000	17.000	24.000	28.500
d (H7)	5	6	8	10	12	14	16
d_2 (max.)	18	20	24	28	32	36	42
d_3	M5	M6	M8	M10	M12	M14	M16
h	33	36	42	48	54	60	66
L_1 (min.)	19	21	25	28	32	36	37
L_2 (max.)	43	47	55	63	71	79	88
α ° ≈	13	13	13	13	13	15	15





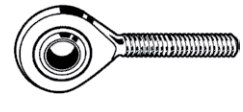
Grupos de produtos

Rosca	Material	Tratamento sup.		Código	Página
M	Aço	Zn	direita	57600	12-52
M	Aço	Zn	rosca esquerda	57650	12-52

57600 Rótula com rosca tipo SMC — L11A

Rosca Métrica
Material Aço
Tratamento sup. Zincado

RoHS

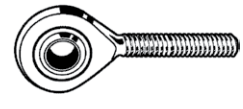


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
5MM	1	57600.050.001	10MM	1	57600.100.001	14MM	1	57600.140.001
6MM	1	57600.060.001	12MM	1	57600.120.001	16MM	1	57600.160.001
8MM	1	57600.080.001						

57650 Rótula com rosca esquerda tipo SMC — L11A

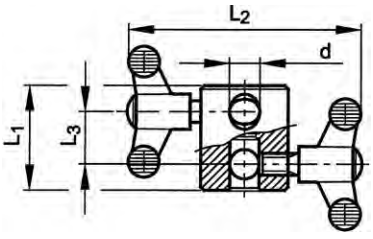
Rosca Métrica
Material Aço
Tratamento sup. Zincado

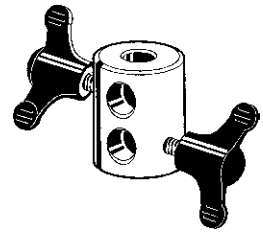
RoHS



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
5MM	1	57650.050.001	10MM	1	57650.100.001	14MM	1	57650.140.001
6MM	1	57650.060.001	12MM	1	57650.120.001	16MM	1	57650.160.001
8MM	1	57650.080.001						

Sistema de fixação múltiplo





Dados técnicos

d	L_1	L_2	L_3
10	40	90	20
12	44	90	20
16	56	126	24

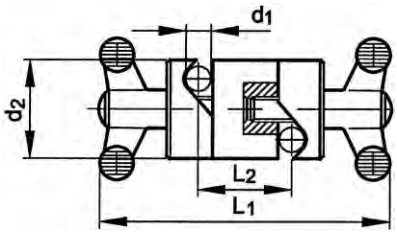
57007 **Sistema de fixação múltiplo** **W03A**

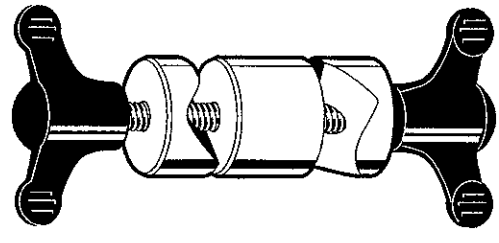
Material Alumínio



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
10MM	1	57007.100.001	12MM	1	57007.120.001	16MM	1	57007.160.001

Articulação ajustável individual



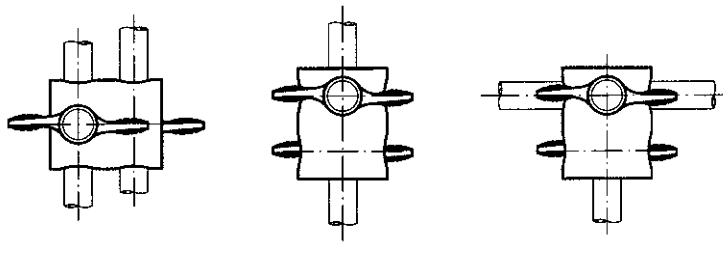


Dados técnicos

d_1	d_2	L_1	L_2
10	32	100	32
12	36	104	34
16	45	142	44

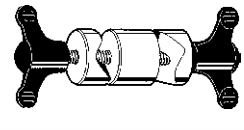
- Corpo em aluminio, com rosca em aço classe 5.8 zincado, e alhetas em Poliamida PA 6.

Dados montagem



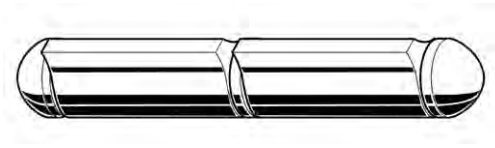
57008 **Articulação ajustável individual** **W03A**

Material Alumínio



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
10MM	1	57008.100.001	12MM	1	57008.120.001	16MM	1	57008.160.001

Dobradiça de soldar aço/latão



Grupos de produtos

Material	Código	Página
Aço	87911	12-54
INOX	87916	12-54

87911 Dobradiça de soldar aço/latão — POM1

Material Aço



Dimensão.	✉	Ref. do artigo	Dimensão.	✉	Ref. do artigo	Dimensão.	✉	Ref. do artigo
40	25	87911.000.040	80	25	87911.000.080	150	25	87911.000.150
50	25	87911.000.050	100	25	87911.000.100	180	25	87911.000.180
60	25	87911.000.060	120	25	87911.000.120	200	25	87911.000.200
70	25	87911.000.070	135	25	87911.000.135			

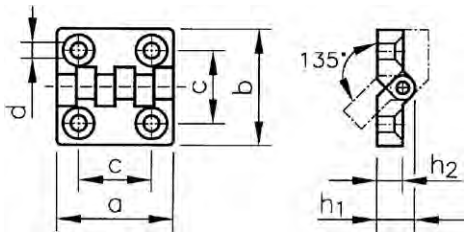
87916 Dobradiça — POM1

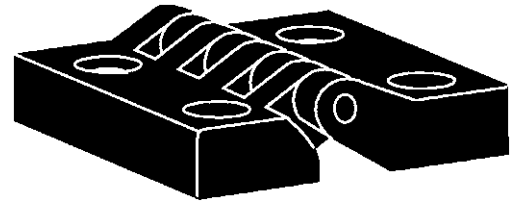
Material Aço inoxidável



Dimensão.	✉	Ref. do artigo	Dimensão.	✉	Ref. do artigo	Dimensão.	✉	Ref. do artigo
60	25	87916.000.060	100	25	87916.000.100	180MM	25	87916.000.180
80	25	87916.000.080	120	25	87916.000.120			

Dobradiça

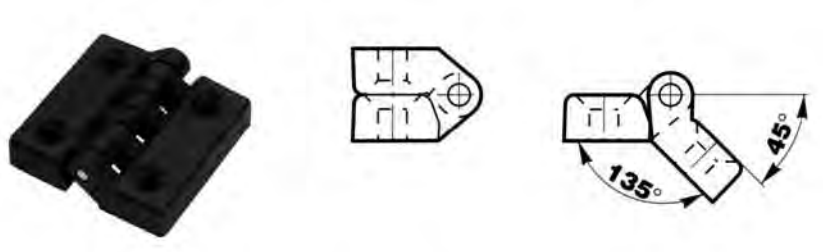




Dados técnicos

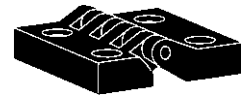
a x b	c	d	h_1	h_2
48 x 48	30	6.5	15.5	10.5
64 x 64	40	6.5	19	13

Dados montagem



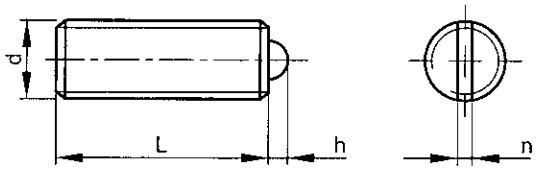
57013 **Dobradiça** **W03A**

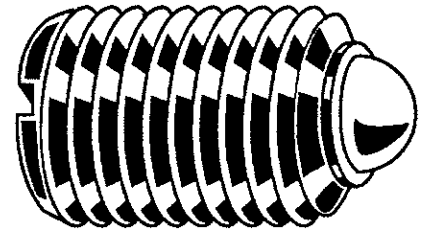
Material Plastico reforçado com fibra de vidro
Cor Preto



a x b	✉	Ref. do artigo	a x b	✉	Ref. do artigo	a x b	✉	Ref. do artigo
48X48MM	4	57013.040.040				64X64MM	4	57013.064.064

Perno com bola





Dados técnicos

d	h	n	P	Pressão da mola em N
M3	0.5	0.4	0.5	1.5-3
M4	0.8	0.6	0.7	4-10
M5	0.9	0.8	0.8	6-11
M6	1	1	1	9-15
M8	1.5	1.2	1.25	15-30
M10	2	1.6	1.5	20-40
M12	2.5	2	1.75	30-55
M16	3.5	2.5	2	65-125
M20	4.5	2.5	2.5	80-160

Grupos de produtos

Rosca	Material	Código	Página
M	Aço de corte	56950	12-56
M	INOX	56951	12-56

56950 **Perno com bola** **W03A**

Rosca Métrica
Material Aço de corte

RoHS

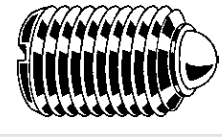


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X7	50	56950.030.007	M6X14	50	56950.060.014	M12X22	10	56950.120.022
M4X9	50	56950.040.009	M8X16	25	56950.080.016	M16X24	10	56950.160.024
M5X12	50	56950.050.012	M10X19	25	56950.100.019	M20X30	10	56950.200.030

56951 **Perno com bola** **W03A**

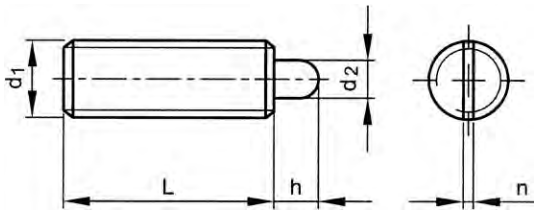
Rosca Métrica
Material Aço inoxidável

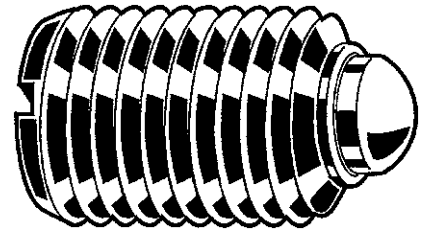
RoHS



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M3X7	25	56951.030.007	M6X14	25	56951.060.014	M12X22	10	56951.120.022
M4X9	25	56951.040.009	M8X16	10	56951.080.016	M16X24	10	56951.160.024
M5X12	25	56951.050.012	M10X19	10	56951.100.019	M20X30	10	56951.200.030

Perno com bola com fenda





Dados técnicos

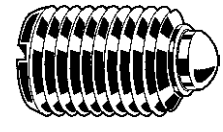
d_1	d_2	h	n	P	Pressão da mola em N
M4	1.8	1.5	0.6	0.7	6-20
M5	2.4	2	0.8	0.8	6-20
M6	2.7	2	1	1	7-20
M8	4	2	1.2	1.25	15-35
M10	4.5	2.5	1.6	1.5	20-45
M12	6	3.5	2	1.75	25-60
M16	8.5	4.5	2.5	2	45-100

Grupos de produtos

Rosca	Material	Código	Página
M	Aço de corte	56975	12-57
M	INOX	56976	12-57

56975 **Perno com bola com fenda** **W03A**

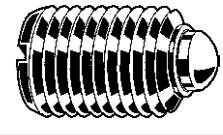
Rosca Métrica
Material Aço de corte



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M4X9	50	56975.040.009	M8X16	25	56975.080.016	M12X22	10	56975.120.022
M5X12	50	56975.050.012	M10X19	25	56975.100.019	M16X24	10	56975.160.024
M6X14	50	56975.060.014						

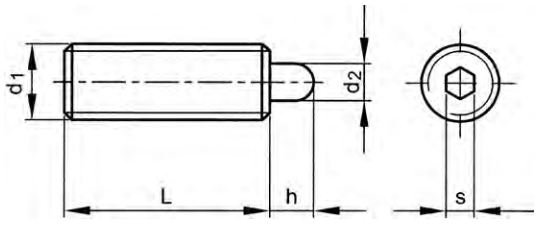
56976 **Perno com bola com fenda** **W03A**

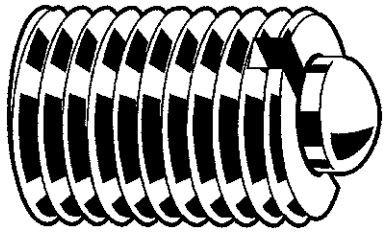
Rosca Métrica
Material Aço inoxidável



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M4X9	25	56976.040.009	M8X16	10	56976.080.016	M12X22	10	56976.120.022
M5X12	25	56976.050.012	M10X19	10	56976.100.019	M16X24	10	56976.160.024
M6X14	25	56976.060.014						

Perno com bola e sextavado interior





Dados técnicos

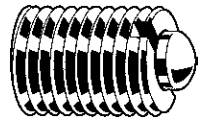
d_1	d_2	h	P	Pressão da mola em N	s
M3	1	1.5	0.5	0.5-3.5	0.7
M4	1.5	1.5	0.7	5-16	1.3
M5	2.4	2.3	0.8	6-20	1.5
M6	2.7	2.5	1	7-20	2
M8	3.5	3	1.25	9-35	2.5
M10	4	3	1.5	9-35	3
M12	6	4	1.75	10-55	4
M16	7.5	5	2	45-100	5
M20	10	7	2.5	60-145	6

Grupos de produtos

Rosca	Material	Código	Página
M	Aço de corte	56977	12-58
M	INOX	56978	12-58

56977 **Perno com bola e sextavado interior** **W03A**

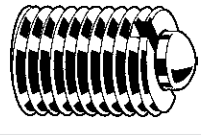
Rosca Métrica
Material Aço de corte



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M3X10	50	56977.030.010	M6X20	50	56977.060.020	M12X28	10	56977.120.028
M4X15	50	56977.040.015	M8X22	25	56977.080.022	M16X32	10	56977.160.032
M5X18	50	56977.050.018	M10X22	25	56977.100.022	M20X40	10	56977.200.040

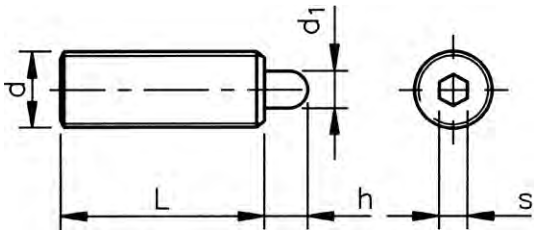
56978 **Perno com bola e sextavado interior** **W03A**

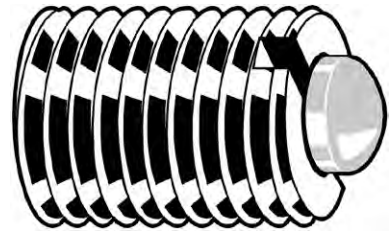
Rosca Métrica
Material Aço inoxidável



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M4X15	25	56978.040.015	M8X22	10	56978.080.022	M12X28	10	56978.120.028
M5X18	25	56978.050.018	M10X22	10	56978.100.022	M16X32	10	56978.160.032
M6X20	25	56978.060.020						

Perno com bola em plástico e sextavado interior





Dados técnicos

d	d_1	h	P	Pressão da mola em N	s
M4	1.5	1.5	0.7	5-16	1.3
M5	2.4	2.3	0.8	5-20	1.5
M6	2.7	2.5	1	6-20	2
M8	3.5	3	1.25	7-35	2.5
M10	4	3	1.5	9-35	3
M12	6	4	1.75	10-55	4
M16	7.5	5	2	45-100	5

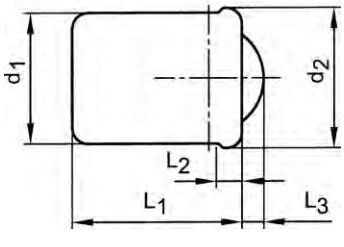
56980 **Perno com bola em plástico e sextavado interior** **W03A**

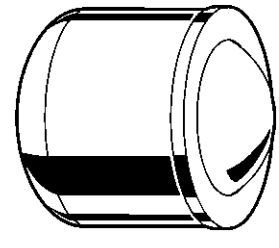
Rosca Métrica
Material Aço de corte



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X15	25	56980.040.015	M8X22	10	56980.080.022	M12X28	10	56980.120.028
M5X18	25	56980.050.018	M10X22	10	56980.100.022	M16X32	10	56980.160.032
M6X20	25	56980.060.020						

Perno com bola não roscado



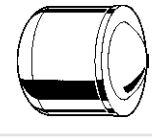


Dados técnicos

d_1	d_2	L_1	L_2	L_3	Pressão da mola em N
4	4.6	5	1	0.8	3-7
5	5.6	6	1	1	4-7
6	6.5	7	1	1.5	6-12
8	8.5	9	1	1.8	6-12

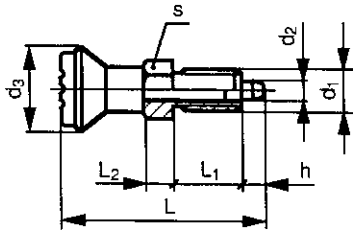
56979 **Perno com bola não roscado** **W03A**

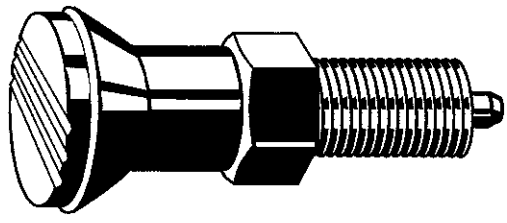
Material Aço inoxidável



d_1 x L_1	✉	Ref. do artigo	d_1 x L_1	✉	Ref. do artigo	d_1 x L_1	✉	Ref. do artigo
4X5MM	50	56979.040.005	6X7MM	50	56979.060.007	8X9MM	25	56979.080.009
5X6MM	50	56979.050.006						

Parafuso bloqueante sem fecho em plástico



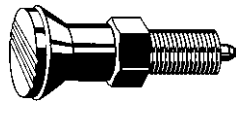


Dados técnicos

d_1 x P x h	d_2	d_3	h	L	L_2	s
M10x1.0x5	5	21	5	47	7	13
M12x1.5x6	6	25	6	56	8	14
M16x1.5x8	8	33	8	74	10	19
M16x1.5x15	8	33	15	80	13	19

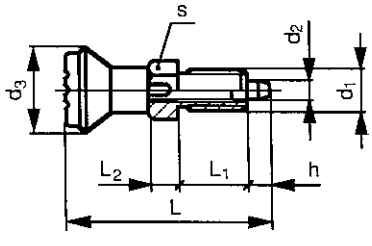
56952 **Parafuso bloqueante sem fecho em plástico** **W03A**

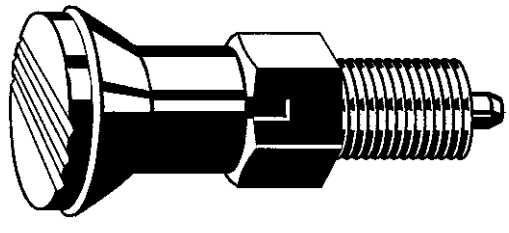
Rosca Métrica fina
Material Plástico Poliamida (nylon)/Aço
Classe 6
Cor Preto



d_1 x P x L_1 (h)	✉	Ref. do artigo	d_1 x P x L_1 (h)	✉	Ref. do artigo	d_1 x P x L_1 (h)	✉	Ref. do artigo
M10X1,00X17/5	10	56952.100.017	M12X1,50X20/6	5	56952.120.020	M16X1,50X26/8	3	56952.160.026

Parafuso bloqueante



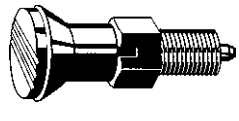


Dados técnicos

d_1 x P x h	d_2	d_3	h	L	L_2	s
M10x1.0x5	5	21	5	47	10	13
M12x1.5x6	6	25	6	56	11	14
M16x1.5x8	8	33	8	74	13	19

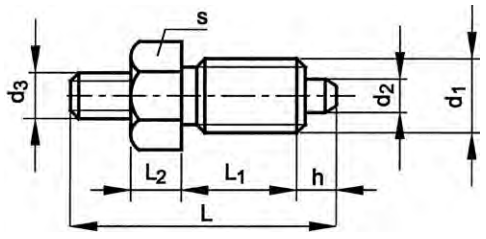
56953 **Parafuso bloqueante** **W03A**

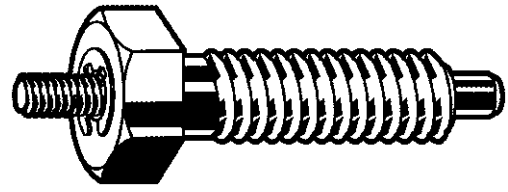
Rosca Métrica fina
Material Plástico Poliamida (nylon)/Aço
Classe 6
Cor Preto



d_1 x P x L_1 (h)	✉	Ref. do artigo	d_1 x P x L_1 (h)	✉	Ref. do artigo	d_1 x P x L_1 (h)	✉	Ref. do artigo
M10X1,00X17/5	10	56953.100.017	M12X1,50X20/6	5	56953.120.020	M16X1,50X26/8	3	56953.160.026

Parafuso bloqueante



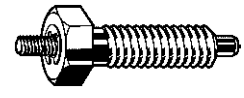


Dados técnicos

d_1 x P x h	d_2	d_3	h	L	L_2	s
M10x1.0x5	5	M4	5	37	7	13
M12x1.5x6	6	M6	6	43	8	14
M16x1.5x8	8	M8	8	56	10	19
M20x1.5x10	10	M8	10	62	12	22

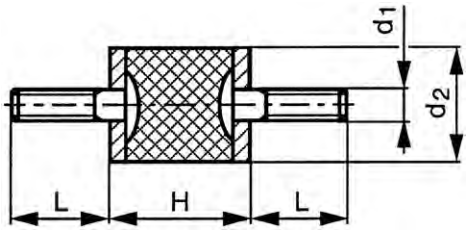
57001 **Parafuso bloqueante** **W03A**

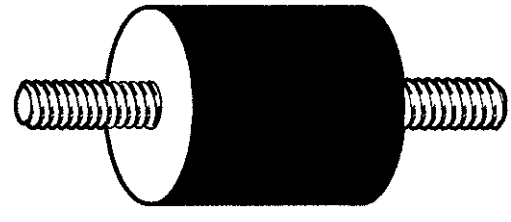
Rosca Métrica fina
Material Aço



d_1 x P x L_1 (h)	✉	Ref. do artigo	d_1 x P x L_1 (h)	✉	Ref. do artigo	d_1 x P x L_1 (h)	✉	Ref. do artigo
M10X1,00X17/5	10	57001.100.100	M16X1,50X26/8	3	57001.160.150	M20X1,50X28/10	2	57001.200.150
M12X1,50X20/6	5	57001.120.150						

Apoio cilindrico tipo A





Dados técnicos

Tipo	Carga máx. de compressão (N)	Carga máxima admissivel á força de corte em N	d_1	d_2	H	L
A10/10	40	20	M4	10	10	10
A15/08	60	25	M4	15	8	10
A15/15	100	40	M4	15	15	10
A18/8.5	180	70	M6	18	8.5	16
A20/15	160	70	M6	20	15	18
A20/20	160	70	M6	20	20	18
A20/25	150	60	M6	20	25	18
A25/10	300	120	M6	25	10	18
A25/15	290	110	M6	25	15	18
A25/20	280	110	M6	25	20	18
A25/25	260	105	M6	25	25	18
A25/30	250	90	M6	25	30	18
A30/15	500	170	M8	30	15	20
A30/20	440	170	M8	30	20	20
A30/30	380	150	M8	30	30	20
A30/40	300	100	M8	30	40	20
A40/30	700	300	M8	40	30	23
A40/40	650	260	M8	40	40	23
A50/20	2.000	500	M10	50	20	28
A50/25	1.400	500	M10	50	25	28
A50/30	1.400	500	M10	50	30	28
A50/40	1.100	450	M10	50	40	28
A50/45	1.050	450	M10	50	45	28
A50/50	1.050	420	M10	50	50	28
A70/45	2.300	900	M10	70	45	28
A75/25	3.400	1.000	M12	75	25	37

Dados técnicos

Tipo	Carga máx. de compressão (N)	Carga máxima admissivel á força de corte em N	d_1	d_2	H	L
A75/40	2.900	1.000	M12	75	40	37
A75/50	2.800	1.000	M12	75	50	37
A75/55	2.500	1.000	M12	75	55	37
A100/40	6.600	2.000	M16	100	40	41
A100/55	5.100	2.000	M16	100	55	41
A100/60	5.100	2.000	M16	100	60	41
A100/65	5.100	2.000	M16	100	65	41

- Extensão em borracha natural 55°/60° shore.

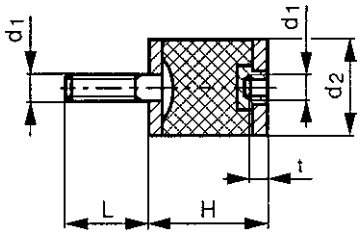
57770 Apoio cilindrico tipo A **S11A**

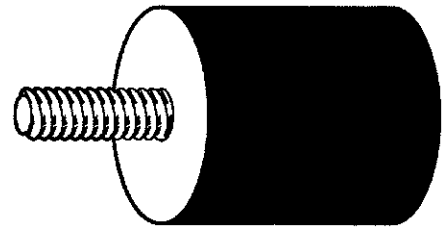
Rosca Métrica
Material Aço
Tratamento sup. Zincado



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
10/10 M4X10	10	57770.010.010	25/30 M6X18	10	57770.025.030	50/45 M10X28	5	57770.050.045
15/8 M4X10	10	57770.015.008	30/15 M8X20	10	57770.030.015	50/50 M10X28	5	57770.050.050
15/15 M4X13	10	57770.015.015	30/20 M8X20	10	57770.030.020	70/45 M10X28	5	57770.070.045
18/8,5 M6X16	10	57770.018.008	30/30 M8X20	10	57770.030.030	75/25 M12X37	5	57770.075.025
20/15 M6X18	10	57770.020.015	30/40 M8X20	10	57770.030.040	75/40 M12X37	5	57770.075.040
20/20 M6X18	10	57770.020.020	40/30 M8X23	10	57770.040.030	75/50 M12X37	5	57770.075.050
20/25 M6X18	10	57770.020.025	40/40 M8X23	10	57770.040.040	75/55 M12X37	5	57770.075.055
25/10 M6X18	10	57770.025.010	50/20 M10X28	5	57770.050.020	100/40 M16X41	2	57770.100.040
25/15 M6X18	10	57770.025.015	50/25 M10X28	5	57770.050.025	100/55 M16X41	2	57770.100.055
25/20 M6X18	10	57770.025.020	50/30 M10X28	5	57770.050.030	100/60 M16X41	2	57770.100.060
25/25 M6X18	10	57770.025.025	50/40 M10X28	5	57770.050.040	100/60M16X45	2	57770.100.065

Apoio cilindrico tipo B





Dados técnicos

Tipo	Carga máx. de compressão (N)	Carga máxima admissivel á força de corte em N	d_1	d_2	H	L	t
B10/10	56	10	M4	10	10	10	4
B15/15	115	50	M4	15	15	10	4
B20/15	160	105	M6	20	15	18	6
B20/20	160	90	M6	20	20	18	6
B20/25	150	90	M6	20	25	18	6
B25/15	290	160	M6	25	15	18	6
B25/20	280	145	M6	25	20	18	6
B25/25	260	135	M6	25	25	18	6
B25/30	250	135	M6	25	30	18	6
B30/15	676	208	M8	30	15	20	8
B30/20	380	210	M8	30	20	20	8
B30/30	355	190	M8	30	30	20	8
B30/40	600	340	M8	30	40	23	8
B40/30	600	340	M8	40	30	23	8
B40/40	600	330	M8	40	40	23	8
B50/20	1.300	455	M10	50	20	28	10
B50/30	1.200	500	M10	50	30	28	10
B50/40	1.100	315	M10	50	40	28	10
B50/45	1.050	510	M10	50	45	28	10
B50/50	1.050	505	M10	50	50	28	10
B70/45	2.200	995	M10	70	45	28	10
B75/40	2.900	1.215	M12	75	40	37	12
B75/50	2.600	1.185	M12	75	50	37	12
B75/55	2.400	1.170	M12	75	55	37	12
B100/40	6.500	2.310	M16	100	40	41	16

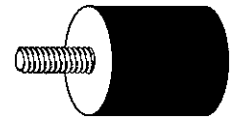
Dados técnicos

Tipo	Carga máx. de compressão (N)	Carga máxima admissivel á força de corte em N	d_1	d_2	H	L	t
B100/55	5.100	2.180	M16	100	55	41	16
B100/60	5.000	2.125	M16	100	60	41	16

- Extensão em borracha natural 55°/60° shore.
- Tolerância ac. com DIN 7715-2, classe M3.

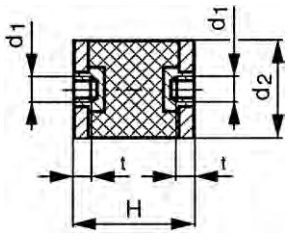
57771 Apoio cilindrico tipo B **S11A**

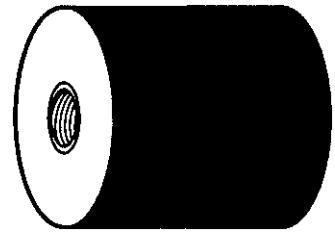
Rosca Métrica
Material Aço
Tratamento sup. Zincado



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
10/10 M4X10-5	10	57771.010.010	30/15 M8X20	10	57771.030.015	50/45 M10X28-10	5	57771.050.045
15/15 M4X10-5	10	57771.015.015	30/20 M8X20-8	10	57771.030.020	50/50 M10X28-10	5	57771.050.050
20/15 M6X18-6	10	57771.020.015	30/30 M8X20-8	10	57771.030.030	70/45 M10X28-10	5	57771.070.045
20/20 M6X18-6	10	57771.020.020	30/40 M8X20	10	57771.030.040	75/40 M12X37-12	5	57771.075.040
20/25 M6X18-6	10	57771.020.025	40/30 M8X23-8	10	57771.040.030	75/50 M12X37	5	57771.075.050
25/15 M6X18-6	10	57771.025.015	40/40 M8X23-8	10	57771.040.040	75/55 M12X37-12	5	57771.075.055
25/20 M6X18-6	10	57771.025.020	50/20 M10X28-10	5	57771.050.020	100/40 M16X41-16	2	57771.100.040
25/25 M6X18-6	10	57771.025.025	50/30 M10X28-10	5	57771.050.030	100/55 M16X41-16	2	57771.100.055
25/30 M6X18-6	10	57771.025.030	50/40 M10X28-10	5	57771.050.040	100/60 M16X41-16	2	57771.100.060

Apoio cilindrico tipo C





Dados técnicos

Tipo	Carga máx. de compressão (N)	Carga máxima admissivel á força de corte em N	d_1	d_2	H	t
C10/10	96	12	M4	10	10	5
C15/15	120	40	M4	15	15	5
C20/20	170	50	M6	20	20	6
C20/25	150	40	M6	20	25	6
C25/20	280	90	M6	25	20	6
C25/25	260	80	M6	25	25	6
C25/30	250	80	M6	25	30	6
C30/20	380	120	M8	30	20	8
C30/30	355	110	M8	30	30	8
C30/40	429	208	M8	30	40	8
C40/30	700	250	M8	40	30	8
C40/40	650	250	M8	40	40	8
C50/30	1.200	400	M10	50	30	10
C50/40	1.100	400	M10	50	40	10
C50/45	1.050	400	M10	50	45	10
C50/50	1.050	400	M10	50	50	10
C70/45	2.200	750	M10	70	45	10
C75/40	2.900	900	M12	75	40	12
C75/50	2.600	900	M12	75	50	12
C100/40	6.500	1.500	M16	100	40	16
C100/55	5.100	1.500	M16	100	55	16
C100/60	5.000	1.500	M16	100	60	16

- Extensão em borracha natural 55°/60° shore.
- Tolerância ac. com DIN 7715-2, classe M3.

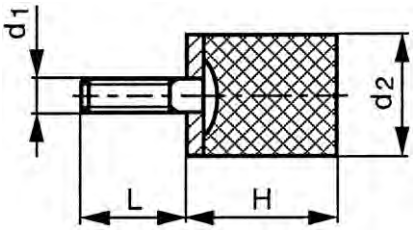
57780	Apoio cilindrico tipo C	S11A

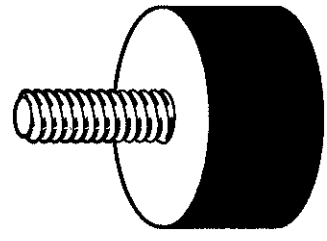
Rosca Métrica
Material Aço
Tratamento sup. Zincado



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
10/10M4X5	10	57780.010.010	30/20M8X8	10	57780.030.020	50/45M10X10	5	57780.050.045
15/15M4X5	10	57780.015.015	30/30M8X8	10	57780.030.030	50/50M10X10	5	57780.050.050
20/20M6X6	10	57780.020.020	30/40M8X8	10	57780.030.040	70/45M10X10	5	57780.070.045
20/25M6X6	10	57780.020.025	40/30M8X8	10	57780.040.030	75/40M12X12	5	57780.075.040
25/20M6X6	10	57780.025.020	40/40M8X8	10	57780.040.040	75/50M12X12	5	57780.075.050
25/25M6X6	10	57780.025.025	50/30M10X10	5	57780.050.030	100/40M16X16	2	57780.100.040
25/30M6X6	10	57780.025.030	50/40M10X10	5	57780.050.040	100/55M16X16	2	57780.100.055

Apoio cilindrico

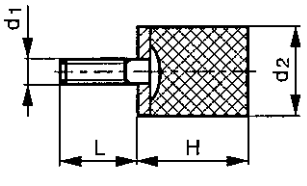


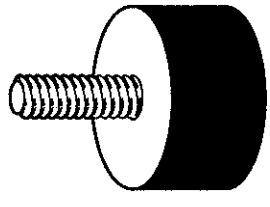


Dados técnicos

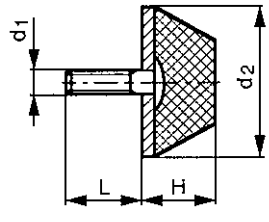
Tipo	Carga máx. de compressão (N)	d_1	d_2	H	L
D10/10	59	M4	10	10	10
D20/15	160	M6	20	15	18
KD25/17	250	M6	25	17	18
D25/17	290	M6	25	17	18
D30/17	380	M8	30	17	20
D30/20	350	M8	30	20	20
D40/28	680	M8	40	28	23
D40/30	660	M8	40	30	23
D40/38	660	M8	40	38	23
KD50/18	1.400	M10	50	18	28
D50/20	1.500	M10	50	20	28
D50/42	1.100	M10	50	42	28
D70/42	2.200	M10	70	42	30
D75/25	5.446	M12	75	25	37
D100/40	6.600	M16	100	40	41

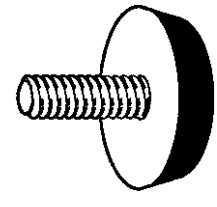
- Extensão em borracha natural 55°/60° shore.
- Tolerância ac. com DIN 7715-2, classe M3.





TIPO D

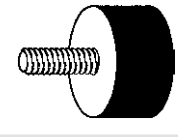




TIPO KD

57779	Apoio cilindrico tipo D em KD	S11A

Rosca Métrica
Material Aço
Tratamento sup. Zincado

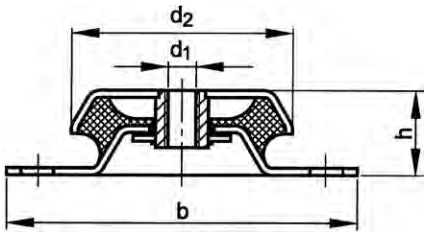


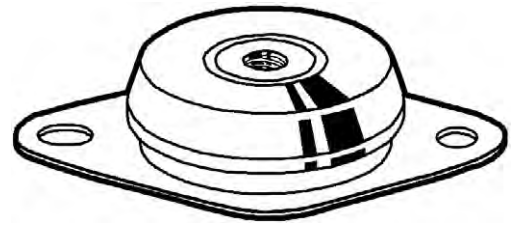
Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
D10/10 M4X10	10	57779.010.010	D25/17 M6X18	10	57779.025.117	D40/28 M8X23	10	57779.040.028
D20/15 M6X18	10	57779.020.015	D30/17 M8X20	10	57779.030.017	D40/30 M8X23	10	57779.040.030
DK25/17 M6X18	10	57779.025.017	D30/20 M8X20	10	57779.030.020	D40/38 M8X23	10	57779.040.038

57779 Apoio cilindrico tipo D em KD ←

Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
KD50/18	5	57779.050.018	D50/42 M10X28	5	57779.050.042	D75/25 M12X37	5	57779.075.025
D50/20 M10X28	5	57779.050.020	D70/42 M10X30	5	57779.070.042	D100/40 M16X41	2	57779.100.040

Apoio tipo RA



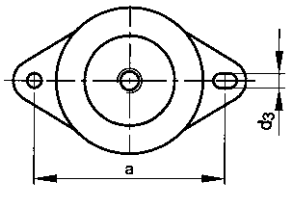


Dados técnicos

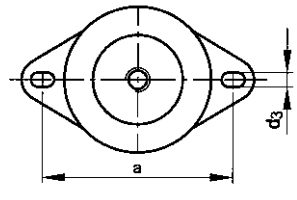
Tipo	a	b	Carga máx. de compressão (N)	d_1	d_2	d_3	h
RA 100/M10	110	130	2.400	M10	79	9	30
RA 100/M12	110	130	2.400	M12	79	9	30
RA 200/M10	124	150	2.800	M10	94	10	35
RA 200/M12	124	150	2.800	M12	94	10	35
RA 350/M12	140-148	175	4.500	M12	101	14	38
RA 350/M16	140-148	175	4.500	M16	101	14	38
RA 500/M16	158	192	7.000	M16	123	14	42
RA 800/M16	182	216	13.000	M16	144	14	48

- Tampa aço zincado, passivado azul, material isolador de vibração borracha natural (NR) 60° Shore (tol. ± 5°) e a base em aço com uncorite Aqua 100, passivado a preto.

Caracteristicas especiais de apoios *FABORY* tipo RA:
- Adequado para o isolamento de vibrações e ruído em diferentes máquinas com movimentos rotativos, como compressores, motores de combustão, geradores, conversores, bombas, conjuntos industriais e maritimos, para uso com prensas, quinadeiras e outras máquinas.
- Aplicado de forma standard com um design de segurança com uma peça stop.



TIPO RA 100, RA 200, RA 500, RA 800



TIPO RA 350

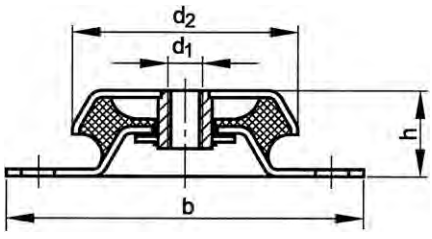
57792 Apoio tipo RA **S12A**

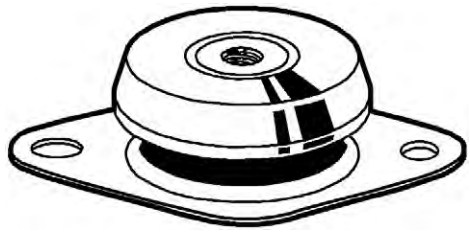
Rosca Métrica
Material Aço



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
100-M10	2	57792.100.100	200-M12	2	57792.200.120	500-M16	1	57792.500.160
100-M12	2	57792.100.120	350-M12	1	57792.350.120	800-M16	1	57792.800.160
200-M10	2	57792.200.100	350-M16	1	57792.350.160			

Apoio tipo RAEM



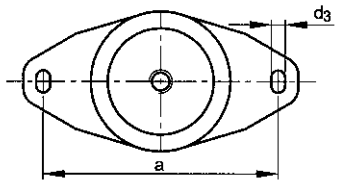


Dados técnicos

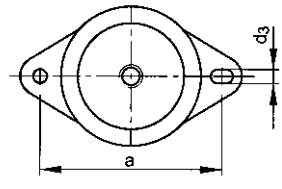
Tipo	a	b	Carga máx. de compressão (N)	d_1	d_2	d_3	h
RAEM 40/M10	88	110	600	M10	64	9	35.5
RAEM 60/M12	100	120	1.200	M12	63	11	35.5
RAEM 125/M10	110	135	1.800	M10	84	11	35.5
RAEM 125/M12	110	135	1.800	M12	84	11	35.5
RAEM 350/M12	140-148	175	4.000	M12	110	14	42
RAEM 350/M16	140-148	175	4.000	M16	110	14	42
RAEM 800/M16	182	216	8.000	M16	155	14	54

- Tampa aço zincado, passivado azul, material isolador de vibração borracha natural (NR) 60° Shore (tol. ± 5°) e a base em aço com uncorite Aqua 100, passivado a preto.

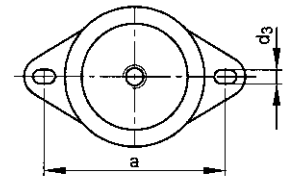
Características especiais de apoios *FABORY tipo* RAEM:
- Para aplicações que requerem máximo isolamento.
- Indicado para isolamento efectivo de vibração e ruído em diferentes máquinas com movimentos rotativos, como compressores, unidades AC, geradores, motores de combustão, conjuntos de energia de emergência, maquinaria de grande utilização, conjuntos industriais e marítimos.
- Aplicado de forma standard com um design de segurança com uma peça stop.



TIPO RAEM 60



TIPO RAEM 40, RAEM 125, RAEM 800



TIPO RAEM 350

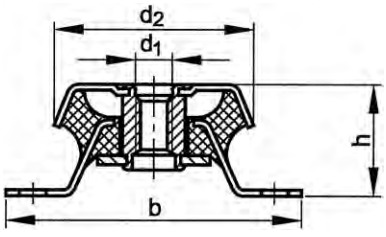
57793 Apoio tipo RAEM **S12A**

Rosca Métrica
Material Aço



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
40-M10	2	57793.040.100	125-M12	2	57793.125.120	350-M16	1	57793.350.160
60-M12	2	57793.060.120	350-M12	1	57793.350.120	800-M16	1	57793.800.160
125-M10	2	57793.125.100						

Apoio tipo RAB



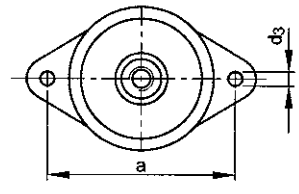


Dados técnicos

Tipo	a	b	Carga máx. de compressão (N)	d_1	d_2	h
RAB-0	76	93.5	1.300	M12	63	35
RAB-2	76	93.5	1.050	M12	63	35
RAB-3	76	93.5	700	M12	63	35

- Tampa aço zincado, passivado azul, material isolador de vibração borracha butilio (NR) 55° Shore (tol. ± 5°) e a base em aço com uncorite Aqua 100, passivado a preto.

Caracteristicas de apoio *FABORY tipo* RAB:
- Otimas caracteristicas de dureza e estabilidade horizontal
- Especialmente eficaz em motores diesel pequenos 1, 2 e 3 cilindros
- Encaixe standard com um design anti falha e com stop resiliente



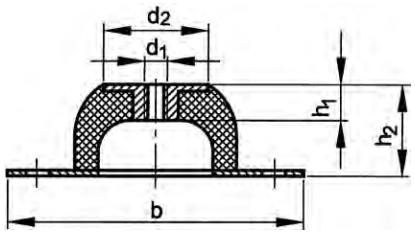
57794 Apoio tipo RAB **S12A**

Rosca Métrica
Material Aço



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
0-M12	2	57794.000.120	2-M12	2	57794.002.120	3-M12	2	57794.003.120

Apoio tipo M



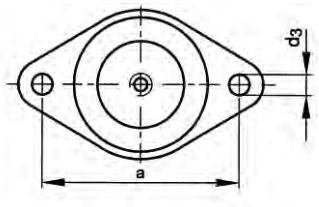


Dados técnicos

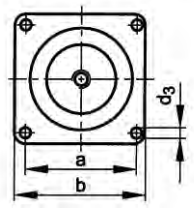
Tipo	a	b	Carga máx. de compressão (N)	d_1	d_2	d_3	h_1	h_2
M 7	50	64	90	M6	18	7	7	20
M 25	66	85	500	M8	33	8	11	25
M 50	92	114	800	M10	45	10	14	35
M 100	110	136	1.500	M10	53	11.5	15	40
M 200	124	151	2.200	M10	58	11.5	13	45
M 400	120	150	5.000	M12	78	14.5	18	63

- Tampa em aço com Suncorite Aqua 100 passivado a preto, material isolador de vibração borracha natural (NR) 60° Shore (tol. ± 5°) e a base em aço com Suncorite Aqua 100 passivado a preto.

Caracteristicas especiais apoio tipo M:
- Alta elasticidade, vertical e horizontal
- Também adequado à atenuação de choque
- O efeito nocivo de óleo pode ser evitado através do design do apoio ou por utilização de uma proteção mecânica.



TIPO M7, M25, M50, M100, M200



TIPO M400

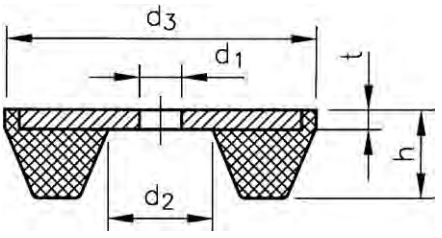
57795 **Apoio tipo M** **S12A**

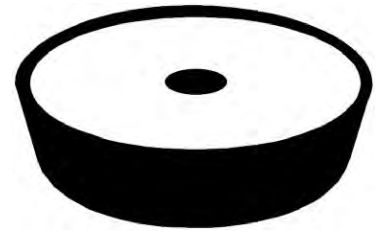
Rosca Métrica
Material Aço



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
7-M6	4	57795.007.060	50-M10	4	57795.050.100	200-M10	2	57795.200.100
25-M8	4	57795.025.080	100-M10	2	57795.100.100	400-M12	1	57795.400.120

Apoio tipo SE





Dados técnicos

Tipo	Carga máx. de compressão (N)	d_1	d_2	d_3	h	t
SE 75	1.500	8	18	55	15	3
SE 250	4.000	10	25	75	17	4

- Caracteristicas especiais de apoios tipo SE:
- Montagem simples, a fricção é normalmente suficiente para prevenir que o aparelho se mova.
- Indicado para equipamento de escritório, maquinaria têxtil, aparelhos domésticos, motores eléctricos, etc.
- Tampa em aço com Suncorite Aqua 100 passivado a preto, e material de vibração isolado em borracha natural (NR) 50° Shore.

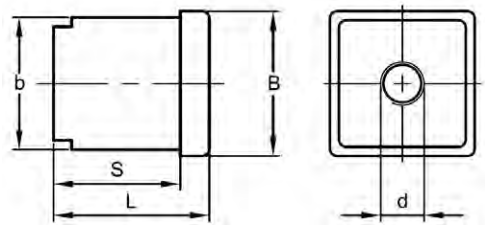
57805 **Apoio tipo SE** **S12A**

Rosca Métrica
Material Aço
Tratamento sup. Zincado



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
75SE	4	57805.000.075	250SE	4	57805.000.250

Tampa quadrada





Dados técnicos

d x B x b	B	b	d	L	S
M10x30x27.5	30	27.5	M10	33	27
M12x40x36.5	40	36.5	M12	43	35
M12x50x45.5	50	45.5	M12	55	44
M14x40x36.5	40	36.5	M14	43	35
M16x40x36.5	40	36.5	M16	43	35
M16x40x37.5	40	37.5	M16	43	35
M16x50x45.5	50	45.5	M16	55	44
M16x50x47.5	50	47.5	M16	55	44
M16x60x56.5	60	56.5	M16	55	45
M20x50x45.5	50	45.5	M20	55	44
M20x50x46.5	50	46.5	M20	55	44

57730 **Tampa quadrada** **S11A**

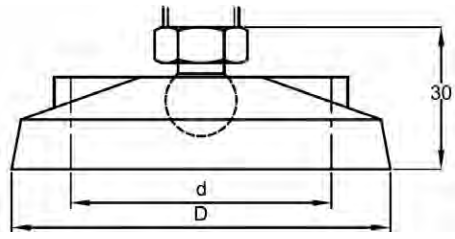
Material Plástico Poliamida (nylon)

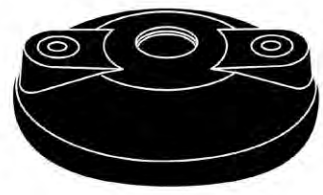
GMT BENELUX BV VIBRATION CONTROL



d x B x b	✉	Ref. do artigo	d x B x b	✉	Ref. do artigo	d x B x b	✉	Ref. do artigo
M10X30X27,5	2	57730.103.027	M16X40X36,5	1	57730.164.036	M16X60X56,5	1	57730.166.056
M12X40X36,5	2	57730.124.036	M16X40X37,5	1	57730.164.037	M20X50X45,5	1	57730.205.045
M12X50X45,5	2	57730.125.045	M16X50X45,5	1	57730.165.045	M20X50X46,5	1	57730.205.046
M14X40X36,5	2	57730.144.036	M16X50X47,5	1	57730.165.047			

Base





Dados técnicos

D	80	100	120
d	55	74	94

- Os diâmetros 80, 100 e 120 do grupo de artigos 57747 têm uma base plana com furos de fixação.

Grupos de produtos

Material	Código	Página
Plástico PA	57747	12-70
Aço	57748	12-70
INOX A2	57745	12-70

57747 **Base** **S11A**

Material Plástico Poliamida (nylon)



D	✉	Ref. do artigo	D	✉	Ref. do artigo	D	✉	Ref. do artigo
50MM	4	57747.000.050	80MM	4	57747.000.080	120MM	2	57747.000.120
60MM	4	57747.000.060	100MM	2	57747.000.100			

57748 **Base** **S11A**

Material Aço



D	✉	Ref. do artigo	D	✉	Ref. do artigo	D	✉	Ref. do artigo
30MM	4	57748.000.030	60MM	4	57748.000.060	120MM	2	57748.000.120
40MM	4	57748.000.040	80MM	4	57748.000.080			

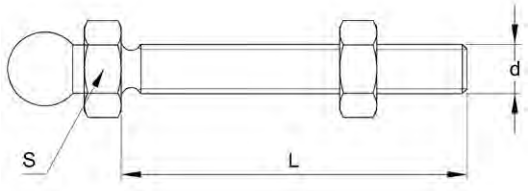
57745 **Base** **S11A**

Material Aço inoxidável A2



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
40MM	4	57745.040.001	60MM	4	57745.060.001	80MM	4	57745.080.001

Eixo





Dados técnicos

d	s	d	s
M8	14	M16	17
M10	14	M20	22
M12	14	M24*	17

* Esta porca tem dois lados direitos em vez da forma hexagonal.

Grupos de produtos

Rosca	Encaixe	Material	Tratamento sup.	Código	Página
M	Sextavado	Aço	Zn	57750	12-71
M	Sextavado	INOX A2		57749	12-71

57750 Eixo — S11A

Rosca Métrica
Material Aço
Tratamento sup. Zincado



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X45	4	57750.100.045				M20X125	2	57750.200.125
M10X70	4	57750.100.070	M16X66	4	57750.160.066	M20X150	2	57750.200.150
M10X90	4	57750.100.090	M16X100	4	57750.160.100	M20X200	2	57750.200.200
M10X125	4	57750.100.125	M16X125	4	57750.160.125			
			M16X150	4	57750.160.150	M24X85	2	57750.240.085
M12X45	4	57750.120.045	M16X200	2	57750.160.200	M24X100	2	57750.240.100
M12X66	4	57750.120.066				M24X125	2	57750.240.125
M12X100	4	57750.120.100	M20X85	2	57750.200.085	M24X150	2	57750.240.150
M12X125	4	57750.120.125	M20X100	2	57750.200.100	M24X200	2	57750.240.200
M12X150	4	57750.120.150						

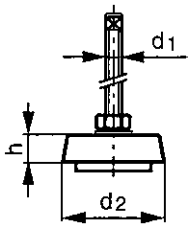
57749 Eixo — S11A

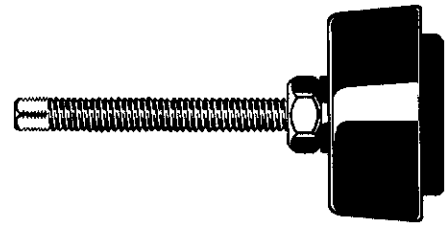
Rosca Métrica
Material Aço inoxidável A2



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M8X40	4	57749.080.040	M12X125	4	57749.120.125	M20X125	2	57749.200.125
M8X80	4	57749.080.080	M12X150	4	57749.120.150	M20X150	2	57749.200.150
						M20X200	2	57749.200.200
M10X45	4	57749.100.045	M16X66	4	57749.160.066	M20X250	1	57749.200.250
M10X70	4	57749.100.070	M16X100	4	57749.160.100			
M10X90	4	57749.100.090	M16X125	4	57749.160.125	M24X85	2	57749.240.085
M10X125	4	57749.100.125	M16X150	2	57749.160.150	M24X100	2	57749.240.100
			M16X200	2	57749.160.200	M24X125	2	57749.240.125
M12X45	4	57749.120.045				M24X150	2	57749.240.150
M12X66	4	57749.120.066	M20X85	2	57749.200.085	M24X200	2	57749.240.200
M12X100	4	57749.120.100	M20X100	2	57749.200.100			

Suporte para máquina flexivel



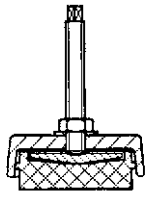


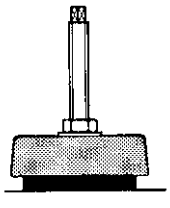
Dados técnicos

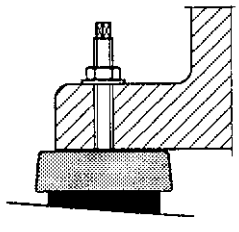
Tipo	T3	T5	T10	T15	T20	T25	T35	T40
Altura externa da borracha	10	12	14	15	16	17	20	20
Comprimento de ajuste do parafuso	100	100	120	120	150	150	170	170
d_1 x P	M10x1.25	M12x1.25	M14x1.5	M16x1.5	M16x1.5	M20x1.5	M20x1.5	M24x1.5
d_2	60	81	97	120	139	163	211	236
Força em kN	0.5-1.5	1.5-4.5	4.5-7.5	6-12.5	7.5-15	11-22.5	22.5-45	30-60
h	28	30	38	42	46	50	54	54
Carga em kN por suporte								
Máx. curso 125/min.	-	0.7-2	2-4	3-7	4-10	7-15	15-30	20-40
Máx. curso 160/min.	-	0.6-1.4	1.2-3.5	2.2-4.6	3.5-6	4.8-8	9-16	13-22
Máx. curso 200/min.	-	0.5-1.2	1-2.5	1.7-3.8	2.5-5	3.7-6.7	7.5-13	10-17

- Aço classe 8.8 com perfil em borracha NBR.
- Até á dimensão tipo T20, tem cabeça quadrada, acima de T20 é de cabeça sextavada.
- A carga estática por suporte é em kN.
- A carga dinâmica por suporte em kN para prensa, número max. de pancadas por minuto.
- Outros tipos de borracha e/ou dureza estão disponiveis sob pedido.

Exemplos de aplicação

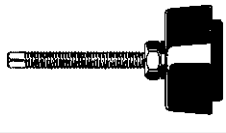






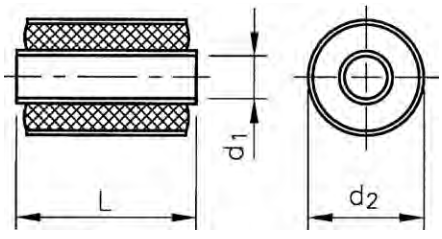
57676 **Suporte para máquina flexivel** **S11A**

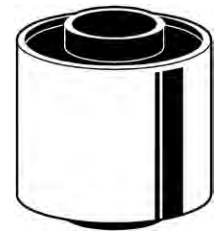
Rosca Métrica fina
Material Aço
Classe 8.8



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
T3	4	57676.000.003	T15	2	57676.000.015	T35	1	57676.000.035
T5	4	57676.000.005	T20	2	57676.000.020	T40	1	57676.000.040
T10	4	57676.000.010	T25	1	57676.000.026			

Articulação elástica

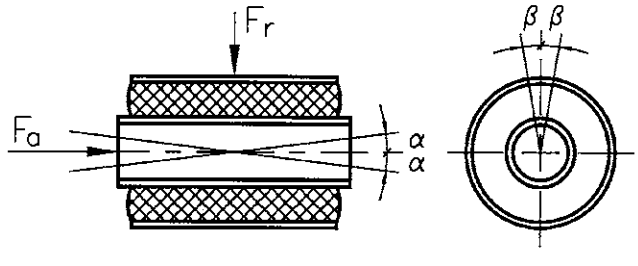




Dados técnicos

d_1 x d_2 x L	Fa (max.) (N)	Fr (max.) (N)	α (max.) emº	β (max.) emº
10x25x25	750	2.300	8	15
10x25x40	1.500	3.800	8	15
15x35x30	1.500	3.500	8	15
15x35x50	2.500	6.000	8	15
20x45x40	2.600	6.800	8	15
20x45x75	5.500	13.500	8	15
25x50x45	3.800	9.000	8	14
25x50x85	7.500	18.000	8	14
30x60x55	5.100	12.000	8	14
30x60x100	10.500	25.000	8	14
35x65x60	10.500	25.000	8	14
35x65x110	8.300	20.500	7	12
40x70x65	8.300	20.500	7	12
40x70x120	18.000	40.000	6	11
45x75x70	10.000	24.000	7	12
45x75x130	20.000	40.000	6	10
50x80x75	12.000	28.500	7	11
50x80x140	23.500	49.000	6	10

- Mangas tipo VP desenhadas para suportarem movimentos de torsão e axiais, e cargas radiais.
- Consistem em duas mangas concentricas com borracha unidas entre elas.



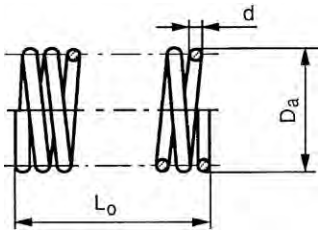
57807 **Articulação elástica tipo VP** **S12A**

Material Aço



d_1 x d_2 x L	✉	Ref. do artigo	d_1 x d_2 x L	✉	Ref. do artigo	d_1 x d_2 x L	✉	Ref. do artigo
10X25X25MM	2	57807.125.025				40X70X65MM	1	57807.470.065
10X25X40MM	2	57807.125.040	25X50X45MM	1	57807.275.045	40X70X120MM	1	57807.470.120
			25X50X85MM	1	57807.275.085			
15X35X30MM	2	57807.185.030				45X75X70MM	1	57807.525.070
			30X60X55MM	1	57807.360.055			
20X45X40MM	2	57807.245.040				50X80X75MM	1	57807.580.075
20X45X75MM	1	57807.245.075						

Mola de compressão



DIN 2095



- Pontas finais fechadas, não boleadas.

17912 Mola de compressão **Y92A**

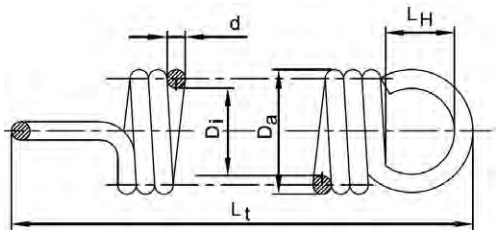
Material Aço mola
Tratamento sup. Zincado



d x D_a x L_o	✉	Ref. do artigo	d x D_a x L_o	✉	Ref. do artigo	d x D_a x L_o	✉	Ref. do artigo
0,5X3,5X12MM	100	17912.053.012	0,8X7,7X40MM	100	17912.077.040	1,5X12,0X75MM	50	17912.162.075
0,5X3,5X15MM	100	17912.053.015	0,8X7,7X50MM	100	17912.077.050			
0,5X3,5X20MM	100	17912.053.020				1,5X14,0X40MM	100	17912.164.040
0,5X3,5X25MM	100	17912.053.025	1,0X6,0X20MM	100	17912.106.020	1,5X14,0X60MM	100	17912.164.060
			1,0X6,0X25MM	100	17912.106.025	1,5X14,0X75MM	50	17912.164.075
0,5X4,5X12MM	100	17912.054.012	1,0X6,0X30MM	100	17912.106.030	1,5X14,0X100MM	50	17912.164.100
0,5X4,5X15MM	100	17912.054.015	1,0X6,0X50MM	100	17912.106.050			
0,5X4,5X20MM	100	17912.054.020				2,0X12,0X35MM	100	17912.212.035
0,5X4,5X25MM	100	17912.054.025	1,0X8,0X25MM	100	17912.108.025	2,0X12,0X50MM	100	17912.212.050
			1,0X8,0X30MM	100	17912.108.030	2,0X12,0X75MM	100	17912.212.075
0,5X6,5X20MM	100	17912.056.020	1,0X8,0X35MM	100	17912.108.035			
0,5X6,5X25MM	100	17912.056.025				2,0X14,0X50MM	100	17912.214.050
0,5X6,5X30MM	100	17912.056.030	1,0X10,0X25MM	100	17912.110.025	2,0X14,0X75MM	50	17912.214.075
0,5X6,5X35MM	100	17912.056.035	1,0X10,0X35MM	100	17912.110.035	2,0X14,0X100MM	50	17912.214.100
0,5X6,5X40MM	100	17912.056.040	1,0X10,0X40MM	100	17912.110.040			
			1,0X10,0X60MM	100	17912.110.060	2,0X20,0X60MM	50	17912.220.060
0,8X4,7X15MM	100	17912.074.015	1,0X10,0X75MM	100	17912.110.075	2,0X20,0X75MM	50	17912.220.075
0,8X4,7X20MM	100	17912.074.020	1,0X10,0X100MM	100	17912.110.100	2,0X20,0X100MM	100	17912.220.100
0,8X4,7X25MM	100	17912.074.025						
			1,5X8,5X25MM	100	17912.158.025	2,25X14,0X50MM	100	17912.239.050
0,8X5,7X25MM	100	17912.075.025	1,5X8,5X35MM	100	17912.158.035	2,25X14,0X75MM	100	17912.239.075
0,8X5,7X35MM	100	17912.075.035				2,25X14,0X100MM	100	17912.239.100
			1,5X9,0X40MM	100	17912.159.040			
0,8X6,7X20MM	100	17912.076.020	1,5X9,0X75MM	100	17912.159.075	2,25X17,0X60MM	50	17912.242.060
0,8X6,7X25MM	100	17912.076.025				2,25X17,0X75MM	50	17912.242.075
0,8X6,7X30MM	100	17912.076.030	1,5X10,0X35MM	100	17912.160.035	2,25X17,0X100MM	50	17912.242.100
0,8X6,7X35MM	100	17912.076.035	1,5X10,0X50MM	100	17912.160.050			
			1,5X10,0X75MM	100	17912.160.075	2,25X22,0X60MM	50	17912.247.060
0,8X7,7X25MM	100	17912.077.025	1,5X10,0X100MM	50	17912.160.100	2,25X22,0X75MM	50	17912.247.075
0,8X7,7X30MM	100	17912.077.030				2,25X22,0X100MM	50	17912.247.100
0,8X7,7X35MM	100	17912.077.035	1,5X12,0X40MM	100	17912.162.040			

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Mola de tensão



DIN 2097



- Com olhal inglês $L_H \approx 1{,}1\ D_i$.

17902 Mola de tensão **Y92A**

Material Aço mola
Tratamento sup. Zincado

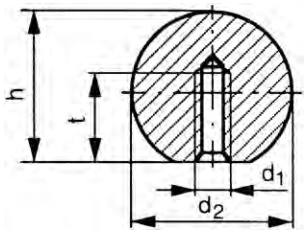


RoHS

d x D_a x L_t	✉	Ref. do artigo
0,5X3,5X12MM	100	17902.053.012
0,5X3,5X15MM	100	17902.053.015
0,5X3,5X20MM	100	17902.053.020
0,5X3,5X25MM	100	17902.053.025
0,5X4,5X12MM	100	17902.054.012
0,5X4,5X15MM	100	17902.054.015
0,5X4,5X20MM	100	17902.054.020
0,5X4,5X25MM	100	17902.054.025
0,5X6,5X20MM	100	17902.056.020
0,5X6,5X25MM	100	17902.056.025
0,5X6,5X30MM	100	17902.056.030
0,5X6,5X35MM	100	17902.056.035
0,5X6,5X40MM	100	17902.056.040
0,5X6,0X46MM	100	17902.056.046
0,8X4,7X15MM	100	17902.074.015
0,8X4,7X20MM	100	17902.074.020
0,8X4,7X25MM	100	17902.074.025
0,8X5,7X25MM	100	17902.075.025
0,8X5,7X35MM	100	17902.075.035
0,8X6,7X20MM	100	17902.076.020
0,8X6,7X25MM	100	17902.076.025
0,8X6,7X30MM	100	17902.076.030
0,8X6,7X35MM	100	17902.076.035
0,8X7,7X25MM	100	17902.077.025
0,8X7,7X30MM	100	17902.077.030
0,8X7,7X35MM	100	17902.077.035
0,8X7,7X40MM	100	17902.077.040
0,8X7,7X50MM	100	17902.077.050
1,0X6,0X20MM	100	17902.106.020
1,0X6,0X25MM	100	17902.106.025
1,0X6,0X30MM	100	17902.106.030
1,0X6,0X44MM	100	17902.106.044
1,0X6,0X50MM	100	17902.106.050
1,0X8,0X25MM	100	17902.108.025
1,0X8,0X30MM	100	17902.108.030
1,0X8,0X35MM	100	17902.108.035
1,0X10,0X25MM	100	17902.110.025
1,0X10,0X35MM	100	17902.110.035
1,0X10,0X40MM	100	17902.110.040
1,0X10,0X60MM	100	17902.110.060
1,0X10,0X75MM	100	17902.110.075
1,0X10,0X100MM	100	17902.110.100
1,5X8,5X25MM	100	17902.158.025
1,5X8,5X35MM	100	17902.158.035
1,5X9,0X40MM	100	17902.159.040
1,5X9,0X75MM	100	17902.159.075
1,5X10,0X35MM	100	17902.160.035
1,5X10,0X50MM	100	17902.160.050
1,5X10,0X75MM	100	17902.160.075
1,5X10,0X100MM	100	17902.160.100
1,5X12,0X40MM	100	17902.162.040
1,5X12,0X75MM	100	17902.162.075
1,5X14,0X40MM	100	17902.164.040
1,5X14,0X60MM	100	17902.164.060
1,5X14,0X75MM	100	17902.164.075
1,5X14,0X100MM	50	17902.164.100
2,0X12,0X35MM	100	17902.212.035
2,0X12,0X50MM	100	17902.212.050
2,0X12,0X75MM	100	17902.212.075
2,0X14,0X50MM	100	17902.214.050
2,0X14,0X75MM	100	17902.214.075
2,0X14,0X100MM	50	17902.214.100
2,0X20,0X60MM	50	17902.220.060
2,0X20,0X75MM	50	17902.220.075
2,0X20,0X100MM	50	17902.220.100
2,25X14,0X50MM	100	17902.239.050
2,25X14,0X75MM	100	17902.239.075
2,25X14,0X100MM	50	17902.239.100
2,25X17,0X60MM	100	17902.242.060
2,25X17,0X75MM	50	17902.242.075
2,25X17,0X100MM	25	17902.242.100
2,25X22,0X60MM	100	17902.247.060
2,25X22,0X75MM	50	17902.247.075
2,25X22,0X100MM	25	17902.247.100

- Aviso: electro-zincagem destes produtos pode causar disfunção hidrogénica.

Manípulo de bola



DIN **≈319**



Dados técnicos

d_1 x d_2	h	P	t
M3x10	9.5	0.5	5
M4x12	11	0.7	7.5
M4x16	15	0.7	7.5
M4x20	18	0.7	10.5
M5x16	15	0.8	7.5
M5x20	18	0.8	10.5
M5x25	22.5	0.8	13.5
M6x16	15	1	7.5
M6x20	18	1	10.5
M6x25	22.5	1	13.5
M6x32	29	1	16
M8x20	18	1.25	10.5
M8x25	13.5	1.25	13.5
M8x32	29	1.25	16
M8x35	21	1.25	13.5

d_1 x d_2	h	P	t
M8x36	34	1.25	16
M8x40	37	1.25	21
M10x32	29	1.5	16
M10x35	21	1.5	13.5
M10x40	37	1.5	21
M10x45	43	1.5	21
M10x50	46	1.5	25
M12x40	37	1.75	21
M12x45	43	1.75	21
M12x50	46	1.75	25
M12x60	57	1.75	30
M14x40	37	1.75	21
M16x50	46	2	25
M16x60	57	2	30

Grupos de produtos

Rosca	Material	Classe	Cor	Código	Página
M	Plástico PF	FS31	Preto	56914	12-76
M	Plástico PF	FS31	Preto	56916	12-76

56914 Manípulo de bola tipo C — W03F

Rosca Métrica
Material Plástico Fenolformaldehyde (bakelite)
Classe FS31
Cor Preto

DIN **≈319 C**



d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
M3X10	5	56914.030.010	M6X25	5	56914.060.025	M10X45	5	56914.100.045
			M6X32	5	56914.060.032	M10X50	5	56914.100.050
M4X12	5	56914.040.012						
M4X16	5	56914.040.016	M8X20	5	56914.080.020	M12X40	5	56914.120.040
M4X20	5	56914.040.020	M8X25	5	56914.080.025	M12X45	5	56914.120.045
			M8X32	5	56914.080.032	M12X50	5	56914.120.050
M5X16	5	56914.050.016	M8X35	5	56914.080.035			
M5X20	5	56914.050.020	M8X40	5	56914.080.040	M14X40	5	56914.140.040
M5X25	5	56914.050.025						
			M10X32	5	56914.100.032	M16X50	5	56914.160.050
M6X16	5	56914.060.016	M10X35	5	56914.100.035	M16X60	5	56914.160.060
M6X20	5	56914.060.020	M10X40	5	56914.100.040			

56916 Manípulo de bola tipo E — W03F

Rosca Métrica
Material Plástico Fenolformaldehyde (bakelite)
Classe FS31
Cor Preto

DIN **≈319 E**



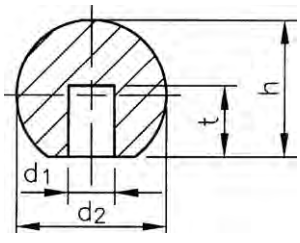
d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
M4X16	10	56916.040.016				M10X50	5	56916.100.050
			M8X32	5	56916.080.032			
M5X20	10	56916.050.020	M8X36	5	56916.080.036	M12X40	5	56916.120.040
M5X25	10	56916.050.025	M8X40	5	56916.080.040	M12X50	5	56916.120.050
						M12X60	5	56916.120.060
M6X25	5	56916.060.025	M10X40	5	56916.100.040			
M6X32	5	56916.060.032	M10X45	5	56916.100.045	M16X60	5	56916.160.060

12

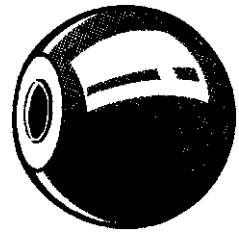
56916 **Manípulo de bola tipo E** ←

- Com rosca interior em aço zincado, medidas M4 x 16 e M16 x 60 com rosca interior em latão.

Manípulo de bola com furo



DIN **≈319 M**

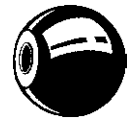


Dados técnicos

d_1 x d_2	h	t	d_1 x d_2	h	t
4x16	15	9	**10x32**	29	15
5x20	18	12	**10x40**	37	20
6x25	22.5	15	**12x40**	37	20
8x25	22.5	15	**12x50**	46	22
8x32	29	15	**16x50**	46	22

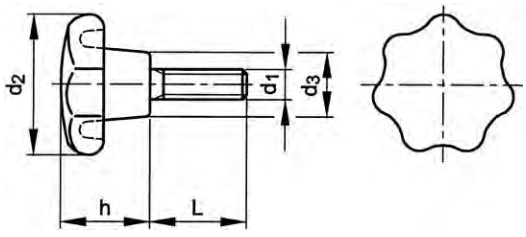
56915 **Manípulo de bola com furo tipo M** **W03F**

Material Plástico Fenolformaldehyde (bakelite)
Classe FS31
Cor Preto

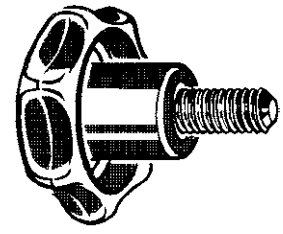


d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
4X16MM	10	56915.040.016	8X32MM	5	56915.080.032	12X40MM	5	56915.120.040
5X20MM	10	56915.050.020	10X32MM	5	56915.100.032	12X50MM	5	56915.120.050
6X25MM	5	56915.060.025	10X40MM	5	56915.100.040	16X50MM	5	56915.160.050
8X25MM	5	56915.080.025						

Manípulo de aperto estrela tipo L



DIN ≈6336 L

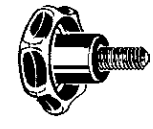


Dados técnicos

d_1	d_2	d_3	h	P
M5	25	12	16	0.8
M6	32	14	20	1
M8	40	16	25	1.25
M10	50	21	32	1.5

56922 **Manípulo de aperto estrela tipo L** **W03F**

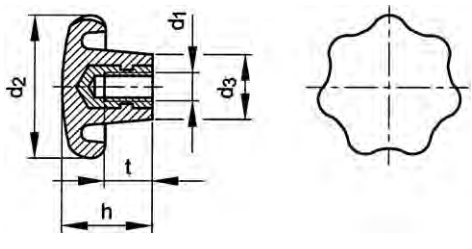
Rosca Métrica
Material Plástico Fenolformaldehyde (bakelite)
Classe FS31
Cor Preto



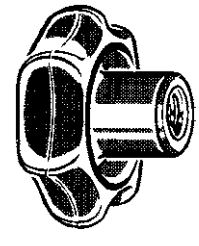
d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M5X15	10	56922.050.015	M8X15	10	56922.080.015	M10X15	5	56922.100.015
M5X20	10	56922.050.020	M8X20	10	56922.080.020	M10X20	5	56922.100.020
M6X15	10	56922.060.015	M8X25	10	56922.080.025	M10X25	5	56922.100.025
M6X20	10	56922.060.020	M8X30	10	56922.080.030	M10X30	5	56922.100.030
M6X25	10	56922.060.025	M8X40	10	56922.080.040	M10X35	5	56922.100.035
M6X30	10	56922.060.030	M8X50	10	56922.080.050			

- Com rosca exterior em aço zincado a amarelo.

Manípulo de aperto estrela



DIN ≈6336 K



Dados técnicos

d_1 x d_2	d_2	d_3	h	P	t
M4x20	20	10	17	0.7	8
M5x25	25	12	16	0.8	10.5
M5x32	32	14	20	0.8	10.5
M6x32	32	14	20	1	13.5
M6x40	40	16	25	1	13.5
M8x40	40	16	25	1.25	16
M8x50	50	21	32	1.25	16
M8x63	63	23	40	1.25	16
M10x50	50	21	32	1.5	21
M10x63	63	23	40	1.5	21
M12x50	50	21	32	1.75	21
M12x63	63	23	40	1.75	25
M12x80	80	34	48	1.75	25
M16x80	80	34	48	2	30

56921 **Manípulo de aperto estrela** **W03F**

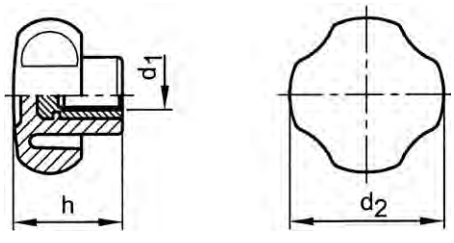
Rosca	Métrica
Material	Plástico Fenolformaldehyde (bakelite)
Classe	FS31
Cor	Preto

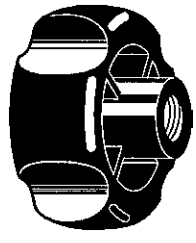


d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
M4X20	10	56921.040.020						
			M8X40	10	56921.080.040	M12X50	5	56921.120.050
M5X25	10	56921.050.025	M8X50	10	56921.080.050	M12X63	5	56921.120.063
M5X32	10	56921.050.032	M8X63	10	56921.080.063	M12X80	5	56921.120.080
M6X32	10	56921.060.032	M10X50	5	56921.100.050	M16X80	5	56921.160.080
M6X40	10	56921.060.040	M10X63	5	56921.100.063			

- Com rosca interior zincado, a medida M4 x 20 a rosca interior é em latão.

Manípulo 4-lóbulos de aperto





Dados técnicos

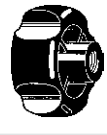
d_1	d_2	h	P	d_1	d_2	h	P
M4	20	13	0.7	**M8**	40	28	1.25
M5	20	13	0.8	**M10**	50	32	1.5
M6	25	15	1	**M12**	60	38	1.75

Grupos de produtos

Rosca	Material		Cor	Código	Página
M	PRFV		Preto	57040	12-79
M	PRFV	fêmea	Preto	57041	12-79
M	PRFV	macho	Preto	57043	12-80

57040 **Manípulo 4-lóbulos Fêmea** **W03A**

Rosca	Métrica
Material	Plastico reforçado com fibra de vidro
Cor	Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M4	10	57040.040.001	M6	10	57040.060.001	M10	5	57040.100.001
M5	10	57040.050.001	M8	10	57040.080.001	M12	5	57040.120.001

57041 **Manípulo 4-lóbulos Fêmea** **W03A**

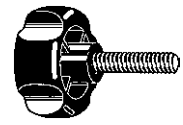
Rosca	Métrica
Material	Plastico reforçado com fibra de vidro
Cor	Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M4	10	57041.040.001	M6	10	57041.060.001	M10	5	57041.100.001
M5	10	57041.050.001	M8	10	57041.080.001	M12	5	57041.120.001

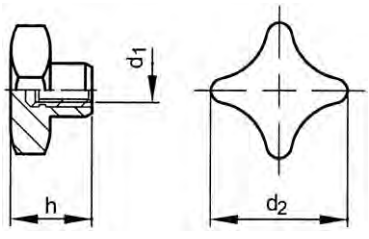
57043	Manípulo 4-lóbulos macho	W03A

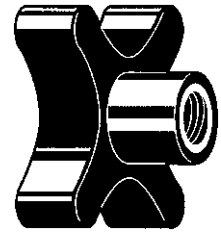
Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M4X10	10	57043.040.010	M6X15	10	57043.060.015	M10X30	5	57043.100.030
M5X16	10	57043.050.015	M8X30	10	57043.080.030	M12X50	5	57043.120.050

Manípulo 4-lóbulos de aperto





Dados técnicos

d_1	d_2	h	P	d_1	d_2	h	P
M6	40	24	1	M10	50	28.5	1.5
M8	40	24	1.25	M12	60	33	1.75

Grupos de produtos

Rosca	Material		Cor	Código	Página
M	PRFV		Preto	57045	12-80
M	PRFV	macho	Preto	57046	12-80
M	PRFV	fêmea	Preto	57048	12-80

57045	Manípulo 4-estrela fêmea	W03A

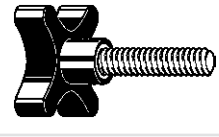
Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6	10	57045.060.001	M10	5	57045.100.001	M12	5	57045.120.001
M8	10	57045.080.001						

57046	Manípulo 4-estrela macho	W03A

Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M6X20	10	57046.060.020	M10X40	5	57046.100.040	M12X50	5	57046.120.050
M8X30	10	57046.080.030						

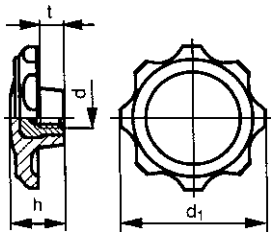
57048	Manípulo 4-estrela fêmea	W03A

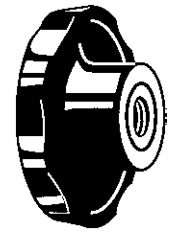
Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6	10	57048.060.001	M10	5	57048.100.001	M12	5	57048.120.001
M8	10	57048.080.001						

Manípulo disco





Dados técnicos

d x d_1 x h	P	d x d_1 x h	P
M5x30x20	0.8	M8x40x24	1.25
M6x30x20	1	M8x50x16	1.25
M6x30x24	1	M10x50x28.5	1.5
M6x40x14.5	1	M10x70x20	1.5
M6x40x24	1	M12x60x33	1.75

Grupos de produtos

Rosca	Material		Cor	Código	Página
M	PRFV		Preto	57090	12-81
M	PRFV	fêmea	Preto	57091	12-81
M	PRFV	macho	Preto	57092	12-81
M	PRFV		Preto	57011	12-82
M	PRFV	macho	Preto	57012	12-82

57090 Manípulo disco fêmea — W03A

Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



d x d_1 x h	✉	Ref. do artigo	d x d_1 x h	✉	Ref. do artigo	d x d_1 x h	✉	Ref. do artigo
M6X30X24	10	57090.060.001	M10X50X28.5	5	57090.100.001	M12X60X33	5	57090.120.001
M8X40X24	10	57090.080.001						

57091 Manípulo disco fêmea — W03A

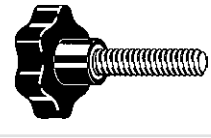
Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



d x d_1 x h	✉	Ref. do artigo	d x d_1 x h	✉	Ref. do artigo	d x d_1 x h	✉	Ref. do artigo
M6X40X24	10	57091.060.001	M10X50X28,5	5	57091.100.001	M12X60X33	5	57091.120.001
M8X40X24	10	57091.080.001						

57092 Manípulo disco macho — W03A

Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M6X20	10	57092.060.020	M10X30	5	57092.100.030	M12X50	5	57092.120.050
M8X30	10	57092.080.030						

57011 Manípulo disco fêmea — W03A

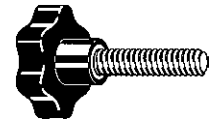
Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



d x d_1 x h	✉	Ref. do artigo	d x d_1 x h	✉	Ref. do artigo	d x d_1 x h	✉	Ref. do artigo
M5X30X20	10	57011.050.001	M8X40X24	10	57011.080.001	M12X60X33	5	57011.120.001
M6X30X20	10	57011.060.001	M10X50X28.5	5	57011.100.001			

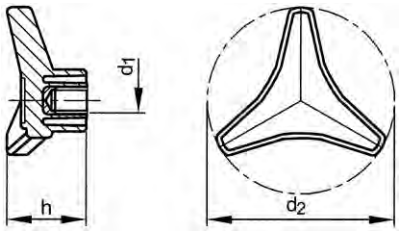
57012 Manípulo disco macho — W03A

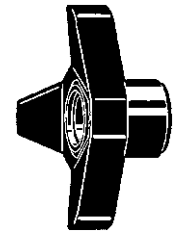
Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X15	10	57012.050.015	M8X20	10	57012.080.020	M12X40	5	57012.120.040
M6X20	10	57012.060.020	M10X30	5	57012.100.030			

Manipulo triangular





Dados técnicos

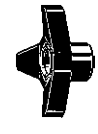
d_1	d_2	h	P	d_1	d_2	h	P
M8	85	36	1.25	M12	105	45	1.75
M10	85	36	1.5	M14	105	45	2

Grupos de produtos

Rosca	Material		Cor	Código	Página
M	PRFV		Preto	57020	12-82
M	PRFV	macho	Preto	57021	12-82
M	PRFV	fêmea	Preto	57023	12-83

57020 Manípulo estrela fêmea — W03A

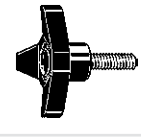
Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M8	10	57020.080.001	M12	5	57020.120.001	M14	5	57020.140.001
M10	10	57020.100.001						

57021 Manípulo estrela macho — W03A

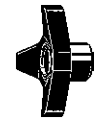
Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M8X30	10	57021.080.030	M12X50	5	57021.120.050	M14X50	5	57021.140.050
M10X40	10	57021.100.040						

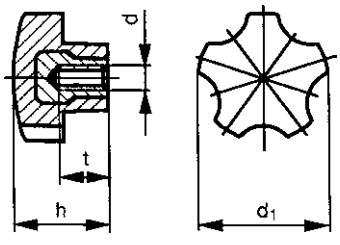
57023	Manípulo reforçado estrela fêmea	W03A

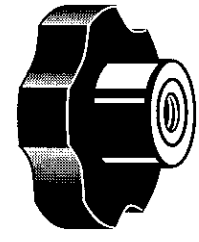
Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M8	10	57023.080.001	M12	5	57023.120.001	M14	5	57023.140.001
M10	10	57023.100.001						

Manípulo cinco lóbulos de aperto





Dados técnicos

d	d_1	h	P	d	d_1	h	P
M5	32	22.4	0.8	M8	40	28	1.25
M6	32	22.4	1	M10	40	28	1.5

56970	Manípulo cinco lóbulos de aperto	W03A

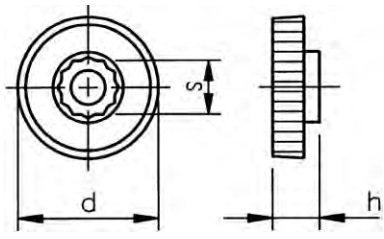
Rosca Métrica
Material Plástico Fenolformaldehyde (bakelite)
Classe FS31
Cor Preto

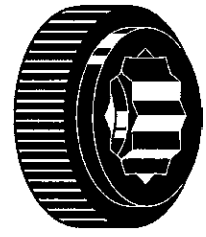


d x t	✉	Ref. do artigo	d x t	✉	Ref. do artigo	d x t	✉	Ref. do artigo
M5X10	10	56970.050.010	M8X14	10	56970.080.014	M10X14	5	56970.100.014
M6X9	10	56970.060.009						

- Com rosca em latão, medidas M8 x 14 e M10 x 14 com rosca em aço zincado.

Manípulo serrilhado para parafusos sextavados e porcas





Dados técnicos

Para uso com x d	d	s
M4x13	13	7
M4x17	17	7
M5x17	17	8
M5x20	20	8
M6x20	20	10

Para uso com x d	d	s
M6x25	25	10
M8x25	25	13
M8x36	36	13
M10x36	36	17

Grupos de produtos

Rosca	Material		Cor	Código	Página
M	Plástico POM	fina	Preto	56730	12-84
M	Plástico POM	alta	Preto	56735	12-84

56730 Manipulo serrilhado para parafusos e porcas sextavados W02A

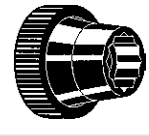
Rosca Métrica
Material Plástico Polioximetileno
Cor Preto



Destinado a com x d x h	✉	Ref. do artigo	Destinado a com x d x h	✉	Ref. do artigo	Destinado a com x d x h	✉	Ref. do artigo
M4X13x4,5	100	56730.040.013	M5X20x6,5	100	56730.050.020	M8X25x8	100	56730.080.025
M4X17x5,5	100	56730.040.017	M6X20x6,5	100	56730.060.020	M8X36x10	100	56730.080.036
M5X17x5,5	100	56730.050.017	M6X25x8	100	56730.060.025	M10X36x10	100	56730.100.036

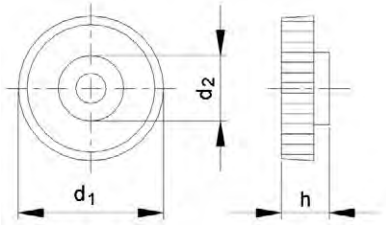
56735 Manipulo serrilhado para parafusos e porcas sextavados W02A

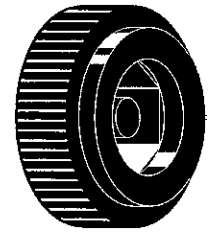
Rosca Métrica
Material Plástico Polioximetileno
Cor Preto



Destinado a com x d x h	✉	Ref. do artigo	Destinado a com x d x h	✉	Ref. do artigo	Destinado a com x d x h	✉	Ref. do artigo
M4X13x9,5	100	56735.040.013	M5X20x15	100	56735.050.020	M8X25x18	100	56735.080.025
M4X17x11,5	100	56735.040.017	M6X20x15	100	56735.060.020	M8X36x23	100	56735.080.036
M5X17x11,5	100	56735.050.017	M6X25x18	100	56735.060.025	M10X36x23	100	56735.100.036

Manípulo serrilhado para parafusos sextavados interior





Dados técnicos

Para uso com x d_1	d_1	d_2	h
M3x11	11	5.5	4.5
M4x13	13	7	5.5
M4x17	17	7	5.5
M5x17	17	8.5	6.5
M5x20	20	8.5	6.5

Para uso com x d_1	d_1	d_2	h
M6x20	20	10	7.5
M6x25	25	10	7.5
M8x25	25	13	9.5
M8x36	36	13	9.5
M10x36	36	16	12

56740 **Manípulo serrilhado para parafusos sextavados interior** **W02A**

Rosca Métrica
Material Plástico Polioximetileno
Cor Preto

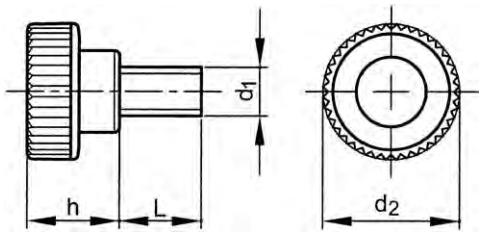


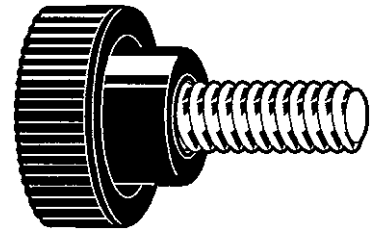
Destinado a x d_1	✉	Ref. do artigo
M3X11	100	56740.030.011
M4X13	100	56740.040.013
M4X17	100	56740.040.017
M5X17	100	56740.050.017

Destinado a x d_1	✉	Ref. do artigo
M5X20	100	56740.050.020
M6X20	100	56740.060.020
M6X25	100	56740.060.025

Destinado a x d_1	✉	Ref. do artigo
M8X25	100	56740.080.025
M8X36	100	56740.080.036
M10X36	100	56740.100.036

Manípulo serrilhado aberto





Dados técnicos

d_1	d_2	h	P
M5	21	15	0.8
M6	21	15	1

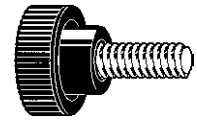
d_1	d_2	h	P
M8	26	18	1.25
M10	33	23	1.5

Grupos de produtos

Rosca	Material		Cor	Código	Página
M	PRFV	macho	Preto	57025	12-85
M	PRFV	femêa	Preto	57027	12-86
M	PRFV	femêa	Preto	57028	12-86

57025 **Manípulo serrilhado macho** **W03A**

Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



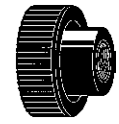
d_1 x L	✉	Ref. do artigo
M5X15	10	57025.050.015
M6X20	10	57025.060.020

d_1 x L	✉	Ref. do artigo
M8X25	10	57025.080.025

d_1 x L	✉	Ref. do artigo
M10X30	5	57025.100.030

57027	Manípulo serrilhado fêmea	W03A

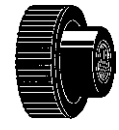
Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M5	10	57027.050.001	M8	10	57027.080.001	M10	5	57027.100.001
M6	10	57027.060.001						

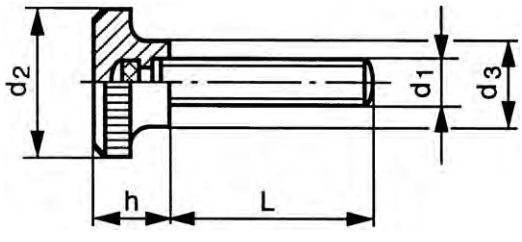
57028	Manípulo serrilhado fêmea	W03A

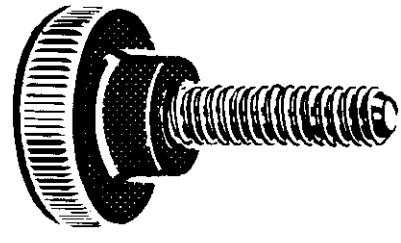
Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M5	10	57028.050.001	M8	10	57028.080.001	M10	5	57028.100.001
M6	10	57028.060.001						

Manípulo serrilhado



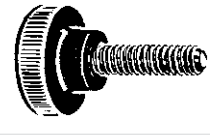


Dados técnicos

Tipo	d_1	d_2	d_3	h	P
700	M5	18	10	12	0.8
710	M6	22	12	13	1
711	M8	26	15	13	1.25

56931	Manípulo serrilhado	W03F

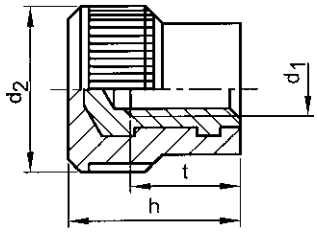
Rosca Métrica
Material Plástico Fenolformaldehyde (bakelite)
Classe FS31
Cor Preto

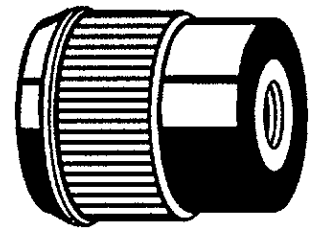


Tipo-d_1 x C	✉	Ref. do artigo	Tipo-d_1 x C	✉	Ref. do artigo	Tipo-d_1 x C	✉	Ref. do artigo
700-M5X20	10	56931.050.020	710-M6X30	10	56931.060.030	711-M8X30	10	56931.080.030
700-M5X30	10	56931.050.030	711-M8X20	10	56931.080.020	711-M8X40	10	56931.080.040
710-M6X20	10	56931.060.020						

- Dependo da disponibilidade pode ser fornecido em aço zincado ou passivado a amarelo.

Manípulo serrilhado



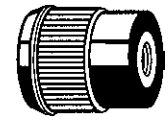


Dados técnicos

d_1	d_2	h	P
M3	12	13.5	0.5
M4	12	13.5	0.7
M5	15	15.5	0.8
M6	15	15.5	1

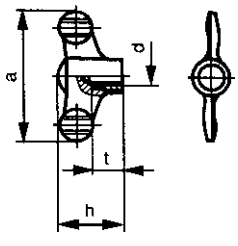
56972 **Manípulo serrilhados** **W03A**

Rosca Métrica
Material Plástico Fenolformaldehyde (bakelite)
Classe FS31
Cor Preto



d_1 x t	✉	Ref. do artigo	d_1 x t	✉	Ref. do artigo	d_1 x t	✉	Ref. do artigo
M3X6,5	25	56972.030.006	M5X10	10	56972.050.010	M6X9	10	56972.060.009
M4X10	25	56972.040.010						

Manipulo





Dados técnicos

d	a	h	P	t
M5	50	24	0.8	10
M6	50	24	1	10
M8	75	35	1.25	14
M10	75	35	1.5	14

56966 **Manipulo** **W03A**

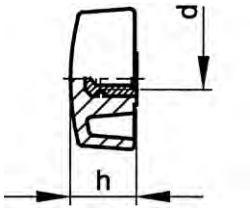
Rosca Métrica
Material Plástico Poliamida (nylon)
Classe 6
Cor Preto

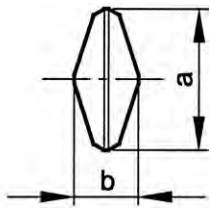


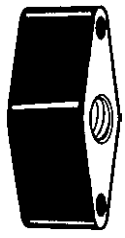
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	10	56966.050.001	M8	5	56966.080.001	M10	5	56966.100.001
M6	10	56966.060.001						

- Com aço zincado, rosca em passivado a amarelo

Manipulo







Dados técnicos

d	a	b	h	P
M5	33	15	16.5	0.8
M6	33	15	16.5	1
M8	33	15	16.5	1.25
M10	45	19	17	1.5

57051 **Manípulo com rosca em latão** **W03A**

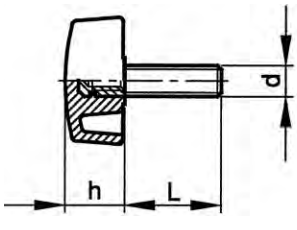
Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto

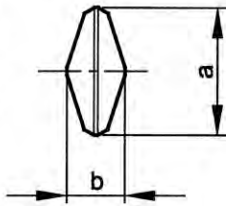


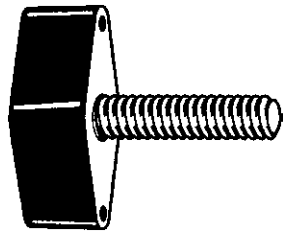
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	10	57051.050.001	M8	10	57051.080.001	M10	5	57051.100.001
M6	10	57051.060.001						

- A forma da medida M10 pode ser diferente.

Parafuso de asas





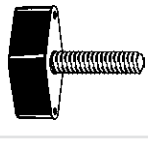


Dados técnicos

d	a	b	h	P
M5	33	15	16.5	0.8
M6	33	15	16.5	1
M8	33	15	16.5	1.25
M10	45	19	17	1.5

57050 **Parafuso de asa** **W03A**

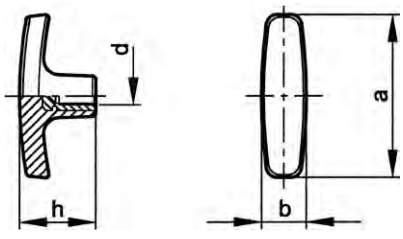
Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto

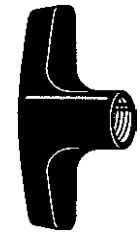


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X15	10	57050.050.015	M8X25	10	57050.080.025	M10X30	5	57050.100.030
M6X20	10	57050.060.020						

- A forma da medida M10 pode ser diferente.

Manipulo





Dados técnicos

d	a	b	h	P
M5	50	15	24	0.8
M6	60	17	33	1
M8	60	17	33	1.25
M10	72	18	35	1.5

Grupos de produtos

Rosca	Material		Cor	Código	Página
M	PRFV	femêa	Preto	57053	12-89
M	PRFV	macho	Preto	57054	12-89

57053 Manípulo plástico em T fêmea — W03A

Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	10	57053.050.001	M8	10	57053.080.001	M10	5	57053.100.001
M6	10	57053.060.001						

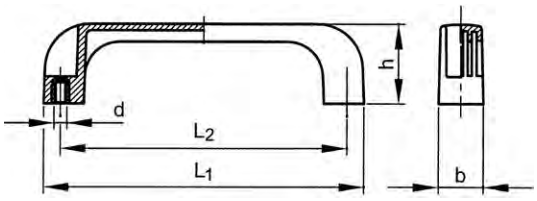
57054 Manípulo plástico em T macho — W03A

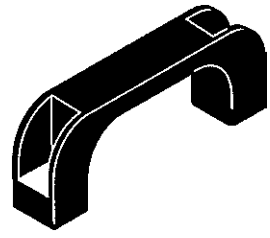
Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X20	10	57054.050.020	M8X20	10	57054.080.020	M10X30	5	57054.100.030
M6X20	10	57054.060.020						

Puxador



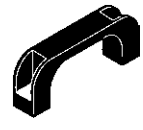


Dados técnicos

d x L_1	b	h	L_2	P
M5x110	21	37	94	0.8
M6x139	24	40	120	1
M6x151	26	43	132	1
M8x200	28	50	180	1.25
M10x260	32	53	235	1.5

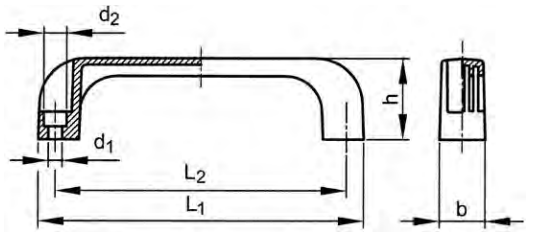
57067 **Puxador** **W03A**

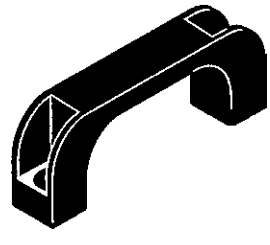
Rosca Métrica
Material Plastico reforçado com fibra de vidro



d x L_1	✉	Ref. do artigo	d x L_1	✉	Ref. do artigo	d x L_1	✉	Ref. do artigo
M5X110	5	57067.050.110	M6X151	5	57067.060.151	M10X260	2	57067.100.260
M6X139	5	57067.060.139	M8X200	2	57067.080.200			

Puxador



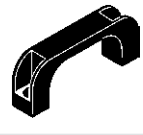


Dados técnicos

d_1 x L_1	b	d_2	h	L_2
6.5x110	21	11	37	94
6.5x139	24	14	40	120
8.5x151	26	14	43	132
8.5x200	28	14.5	50	180
10.5x260	32	17	53	235

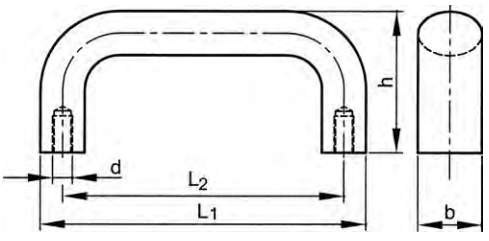
57066 **Puxador** **W03A**

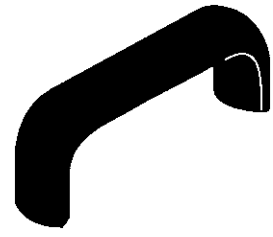
Material Plastico reforçado com fibra de vidro
Cor Preto



d_1 x L_1	✉	Ref. do artigo	d_1 x L_1	✉	Ref. do artigo	d_1 x L_1	✉	Ref. do artigo
6,5X110MM	5	57066.065.110	8,5X151MM	5	57066.085.151	10,5X260MM	2	57066.105.260
6,5X139MM	5	57066.065.139	8,5X200MM	2	57066.085.200			

Puxador sólido





Dados técnicos

d x L_1	b	h	L_2	P
M5x106.5	20	40.5	94	0.8
M6x134	25	50	117	1
M6x148	25	50	132	1
M8x168	29	58	150	1.25
M8x197	29	58	179	1.25

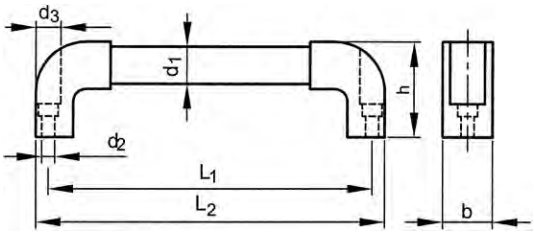
57014 **Puxador sólido métrico** **W03A**

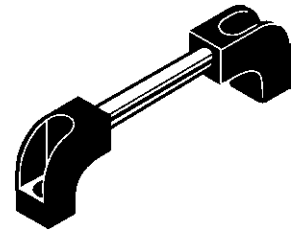
Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



d x L_1	✉	Ref. do artigo	d x L_1	✉	Ref. do artigo	d x L_1	✉	Ref. do artigo
M5X106	5	57014.050.106	M6X148	5	57014.060.148	M8X197	2	57014.080.197
M6X134	5	57014.060.134	M8X168	2	57014.080.168			

Puxador tubular



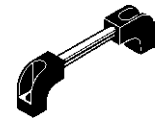


Dados técnicos

d_1 x L_1	b	d_2	d_3	h	L_2
20x200	30	8.5	14	62	220
20x250	30	8.5	14	62	270
20x300	30	8.5	14	62	320
30x350	40	10.5	16	77	374
30x400	40	10.5	16	77	424
30x500	40	10.5	16	77	524

57015 **Puxador tubular** **W03A**

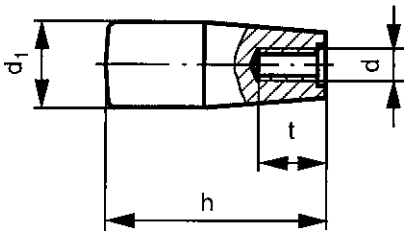
Material Plastico reforçado com fibra de vidro
Cor Preto

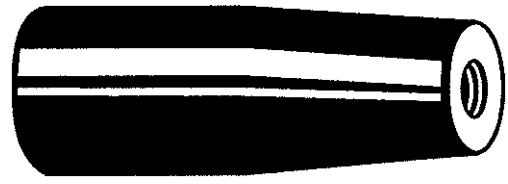


d_1 x L_1	✉	Ref. do artigo	d_1 x L_1	✉	Ref. do artigo	d_1 x L_1	✉	Ref. do artigo
20X200MM	2	57015.020.200	20X300MM	2	57015.020.300	30X400MM	2	57015.030.400
20X250MM	2	57015.020.250	30X350MM	2	57015.030.350	30X500MM	2	57015.030.500

- Com pega em aluminio anodizado.

Manipulo





Dados técnicos

d	d_1	h	P
M6	17	45	1
M8	17	45	1.25
M10	28	70	1.5

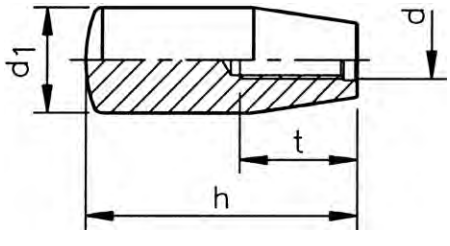
56955 **Manipulo** **W03A**

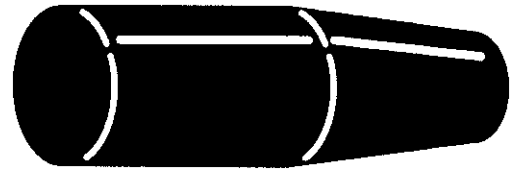
Rosca Métrica
Material Plástico Fenolformaldehyde (bakelite)
Classe FS31
Cor Preto



d x t	✉	Ref. do artigo	d x t	✉	Ref. do artigo	d x t	✉	Ref. do artigo
M6X14	10	56955.060.014	M8X16	10	56955.080.016	M10X28	5	56955.100.028

Manipulo





Dados técnicos

d	d_1	h	P	t
M5	18	40	0.8	20
M6	20	50	1	20
M8	23	60	1.25	27
M10	27	80	1.5	34
M12	29	90	1.75	42

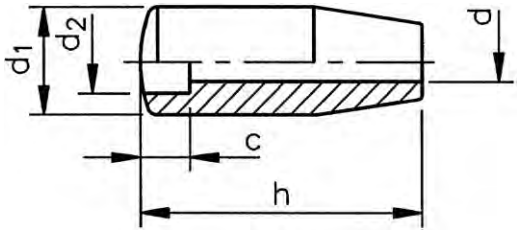
57030 **Manipulo** **W03A**

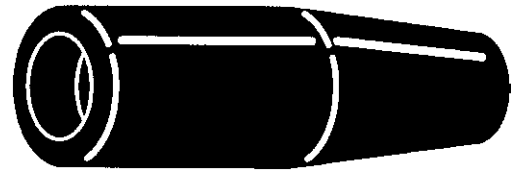
Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	10	57030.050.001	M8	10	57030.080.001	M12	5	57030.120.001
M6	10	57030.060.001	M10	5	57030.100.001			

Manipulo





Dados técnicos

d	c	d_1	d_2	h
6.5	6.5	20	10.5	50
8.5	8.5	23	13.5	60
10.5	10.5	27	16.5	80
12.5	12.5	29	19.5	90

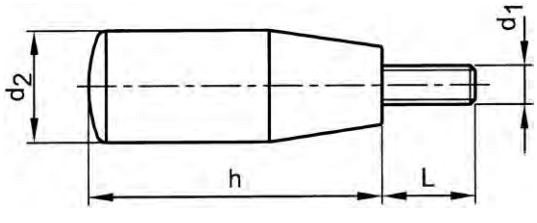
57031 **Manipulo** **W03A**

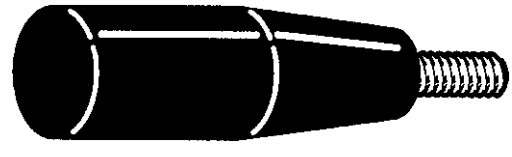
Material Plastico reforçado com fibra de vidro
Cor Preto



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
6,5MM	10	57031.065.001	10,5MM	5	57031.105.001	12,5MM	5	57031.125.001
8,5MM	10	57031.085.001						

Manipulo fixo





Dados técnicos

d_1	d_2	h	P	d_1	d_2	h	P
M6	20	50	1	M10	27	80	1.5
M8	23	60	1.25	M12	29	90	1.75

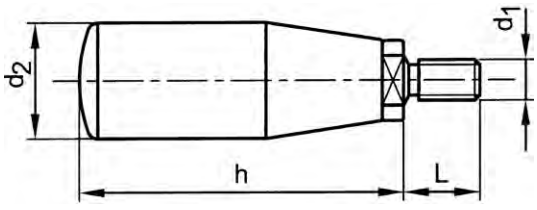
57033 **Manípulo fixo plástico macho** **W03A**

Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M6X20	10	57033.060.020	M10X30	5	57033.100.030	M12X30	5	57033.120.030
M8X30	10	57033.080.030						

Manipulo móvel





Dados técnicos

d_1 x h	d_2	L	P
M6x55	20	12	1
M8x67	23	15	1.25
M8x73	23	12	1.25
M10x87	25	15	1.5

d_1 x h	d_2	L	P
M10x100	30	16	1.5
M12x97	29	15	1.75
M12x104	31	23	1.75

Grupos de produtos

Rosca	Material	Classe	Cor	Código	Página
M	Plástico PF	FS31	Preto	56988	12-94
M	PRFV		Preto	57035	12-94

56988 Manipulo móvel W03F

Rosca Métrica
Material Plástico Fenolformaldehyde (bakelite)
Classe FS31
Cor Preto



d_1 x h	✉	Ref. do artigo	d_1 x h	✉	Ref. do artigo	d_1 x h	✉	Ref. do artigo
M8x73	10	56988.080.001	M10x100	5	56988.100.001	M12x104	5	56988.120.001

- Com rosca giratória aço zincado.

57035 Manipulo móvel W03A

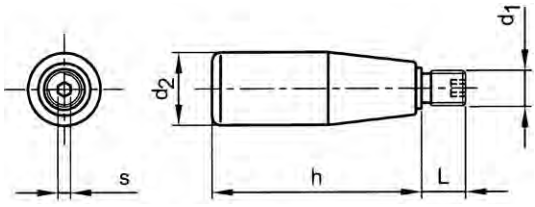
Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto

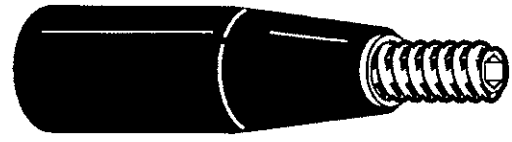


d_1 x h	✉	Ref. do artigo	d_1 x h	✉	Ref. do artigo	d_1 x h	✉	Ref. do artigo
M6x55	10	57035.060.001	M10x87	5	57035.100.001	M12x97	5	57035.120.001
M8x67	10	57035.080.001						

- Com rosca giratória aço zincado.

Manipulo móvel





Dados técnicos

d_1	d_2	h	L	P	s
M6	23	62	15	1	4
M8	23	62	15	1.25	4
M10	26	82	15	1.5	5
M12	26	82	15	1.75	5

57049 **Manipulo móvel** **W03A**

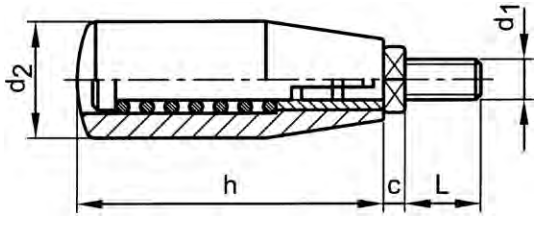
Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto

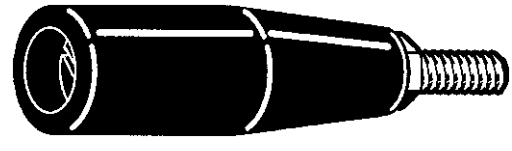


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6	10	57049.060.001	M10	5	57049.100.001	M12	5	57049.120.001
M8	10	57049.080.001						

- Com rosca giratória aço zincado com sextavado interior.

Manipulo móvel





Dados técnicos

d_1	c	d_2	h	L	P
M6	6	20	50	9	1
M8	6.5	25	78	16	1.25
M10	7.5	25	82	17	1.5

57037 **Manipulo móvel** **W03A**

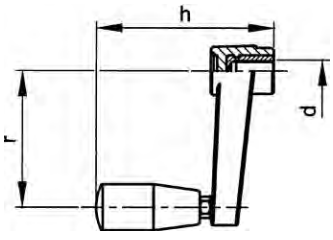
Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto

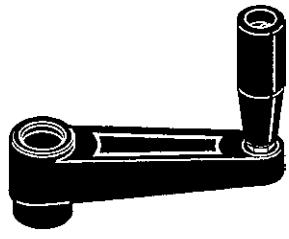


d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
M6	10	57037.060.001	M8	10	57037.080.001	M10	5	57037.100.001

- Com rosca giratória aço zincado.
- A forma da medida M10 pode ser diferente.

Manivela com manípulo plástico





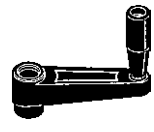
Dados técnicos

d	h	P	r
M8	86	1.25	65
M10	87	1.5	80
M12	105	1.75	110

d	h	P	r
M14	127	2	140
M16	141	2	185

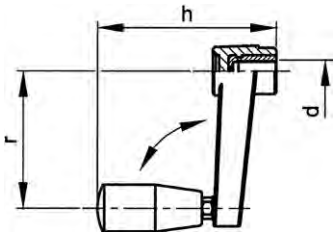
57063 **Manivela com manípulo plástico** **W03A**

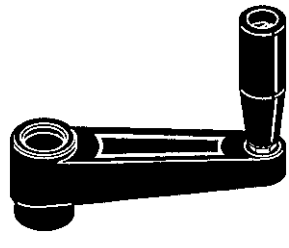
Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M8	2	57063.080.001	M12	2	57063.120.001	M16	1	57063.160.001
M10	2	57063.100.001	M14	1	57063.140.001			

Manivela com manípulo rectráctil plástico





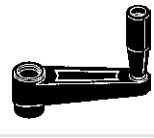
Dados técnicos

d	h	P	r
M8	86	1.25	65
M10	87	1.5	80
M12	115	1.75	110

d	h	P	r
M14	137	2	140
M16	151	2	185

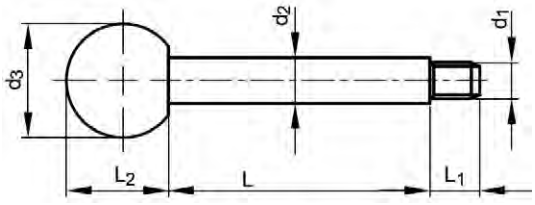
57064 **Manivela com manípulo retráctil com rosca em latão** **W03A**

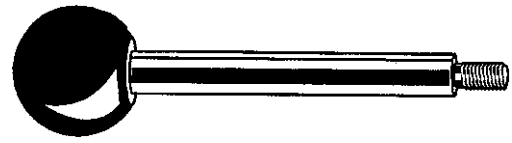
Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M8	2	57064.080.001	M12	2	57064.120.001	M16	1	57064.160.001
M10	2	57064.100.001	M14	1	57064.140.001			

Manipulo de bola





Dados técnicos

d_1	d_2	d_3	L_1	L_2	P
M6	8	20	9	18	1
M8	10	25	13	22.5	1.25
M10	12	32	15	29	1.5

57003 **Manípulo de bola aço** **W03A**

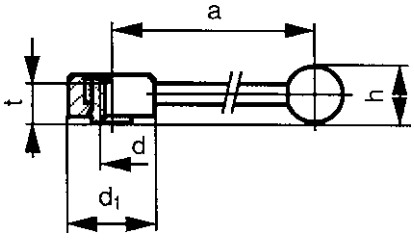
Rosca Métrica
Material Aço de corte



d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo	d_1 x L	✉	Ref. do artigo
M6X65	5	57003.060.065	M8X80	5	57003.080.080	M10X80	5	57003.100.080

- Com esfera em plástico (FS31).

Manípulo de alavanca





Dados técnicos

d_1 x a	a	d_2	h	P
M8x97	97	33	25	1.25
M8x102	102	33	25	1.25
M10x118	118	41	32	1.5
M10x130	130	41	30	1.5
M12x118	11	41	8	1.75
M12x130	130	41	30	1.75
M16x143	143	45	32	2
M16x148	148	45	37	2

- Com esfera de plástico preto (FS31).

Grupos de produtos

Rosca	Material		Código	Página
M	Aço de corte		56958	12-98
M	Aço de corte	macho	56959	12-98

56958 Manípulo de alavanca W03A

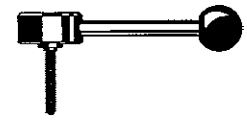
Rosca Métrica
Material Aço de corte



d_1 x a x L	✉	Ref. do artigo	d_1 x a x L	✉	Ref. do artigo	d_1 x a x L	✉	Ref. do artigo
M8x97x18	3	56958.080.018	M12x118x21	3	56958.120.021	M16x143x27	2	56958.160.027
M10x118x21	3	56958.100.021						

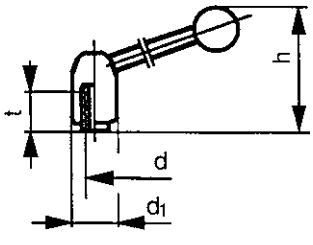
56959 Manípulo de alavanca macho W03A

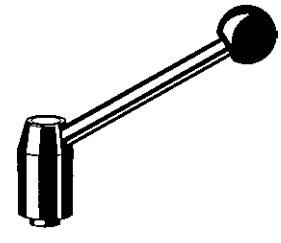
Rosca Métrica
Material Aço de corte



d_1 x a x L	✉	Ref. do artigo	d_1 x a x L	✉	Ref. do artigo	d_1 x a x L	✉	Ref. do artigo
M8x102x30	3	56959.080.030	M12x130x40	2	56959.120.040	M16x148x40	2	56959.160.040
M10x130x30	3	56959.100.030						

Manípulo de alavanca





Dados técnicos

d	a	d_2	h	P
M8	87	24	70.5	1.25
M10	87	24	70.5	1.5
M12	106	28	84	1.75
M16	128	33	96	2

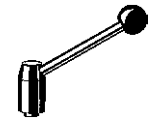
- Com esfera de plástico preto (FS31).

Grupos de produtos

Rosca	Material		Código	Página
M	Aço de corte		56956	12-98
M	Aço de corte	macho	56957	12-98

56956 Manípulo de alavanca fêmea W03A

Rosca Métrica
Material Aço de corte



d x t	✉	Ref. do artigo	d x t	✉	Ref. do artigo	d x t	✉	Ref. do artigo
M8X14	3	56956.080.023	M12X17	2	56956.120.026	M16X23	1	56956.160.030
M10X14	3	56956.100.023						

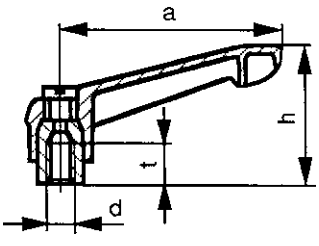
56957 **Manípulo de alavanca macho** **W03A**

Rosca Métrica
Material Aço de corte



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M8X30	3	56957.080.030	M12X40	2	56957.120.040	M16X50	1	56957.160.050
M10X30	3	56957.100.030						

Manipulo de alavanca





Dados técnicos

d	a	h	P
M4	30	30	0.7
M5	40	31	0.8
M6	40	31	1
M8	65	42.5	1.25

d	a	h	P
M10	65	42.5	1.5
M12	95	63	1.75
M16	110	73	2

Grupos de produtos

Rosca	Material	Classe		Cor	Código	Página
M	Aço de corte		fêmea	Preto	56960	12-99
M	Aço de corte			Preto	56961	12-99
M	PRFV	6.6	fêmea	Preto	56964	12-100
M	PRFV	6.6		Preto	56965	12-100
M	PRFV	6.6	fêmea	Laranja	56973	12-100
M	PRFV	6.6		Laranja	56974	12-100

56960 **Manipulo de alavanca** **W03A**

Rosca Métrica
Material Aço de corte
Cor Preto

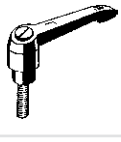


d x t	✉	Ref. do artigo	d x t	✉	Ref. do artigo	d x t	✉	Ref. do artigo
M4X9	5	56960.040.009	M8X12	5	56960.080.012	M12X17	3	56960.120.017
M5X9	5	56960.050.009	M10X14	3	56960.100.014	M16X23	1	56960.160.023
M6X9	5	56960.060.009						

- Aço torneado com rosca interior e alavanca em ferro fundido zincado (acc. com DIN 1743)
- Cor preto.

56961 **Manipulo de alavanca** **W03A**

Rosca Métrica
Material Aço de corte
Cor Preto



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X30	5	56961.050.030	M8X40	5	56961.080.040	M12X50	3	56961.120.050
M6X30	5	56961.060.030	M10X50	3	56961.100.050	M16X60	1	56961.160.060

- Aço torneado com rosca interior e alavanca em ferro fundido zincado (acc. com DIN 1743).
- Cor preto.

56964 Manipulo de alavanca W03A

Rosca Métrica
Material Plastico reforçado com fibra de vidro
Classe 6.6
Cor Preto

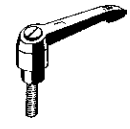


d x t	✉	Ref. do artigo	d x t	✉	Ref. do artigo	d x t	✉	Ref. do artigo
M4X9	10	56964.040.009	M8X12	5	56964.080.012	M12X17	3	56964.120.017
M5X9	10	56964.050.009	M10X14	3	56964.100.014	M16X23	1	56964.160.023
M6X9	10	56964.060.009						

- Com fibra de fidro reforçada e rosca em aço.
- Cor preto RAL 7021.

56965 Manipulo de alavanca W03A

Rosca Métrica
Material Plastico reforçado com fibra de vidro
Classe 6.6
Cor Preto



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X30	5	56965.050.030	M8X40	5	56965.080.040	M12X50	3	56965.120.050
M6X30	5	56965.060.030	M10X50	3	56965.100.050	M16X60	1	56965.160.060

- Com fibra de vidro reforçada e rosca em aço.
- Cor preto RAL 7021.

56973 Manipulo de alavanca W03A

Rosca Métrica
Material Plastico reforçado com fibra de vidro
Classe 6.6
Cor Laranja

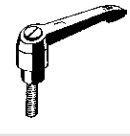


d x t	✉	Ref. do artigo	d x t	✉	Ref. do artigo	d x t	✉	Ref. do artigo
M4X9	10	56973.040.009	M8X12	5	56973.080.012	M12X17	3	56973.120.017
M5X9	10	56973.050.009	M10X14	3	56973.100.014	M16X23	1	56973.160.023
M6X9	10	56973.060.009						

- Com fibra de vidro reforçada e rosca em aço.
- Cor laranja RAL 2004.

56974 Manipulo de alavanca W03A

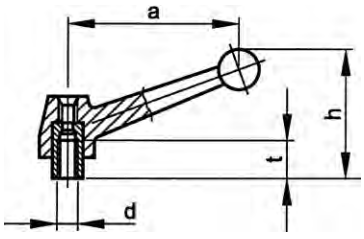
Rosca Métrica
Material Plastico reforçado com fibra de vidro
Classe 6.6
Cor Laranja

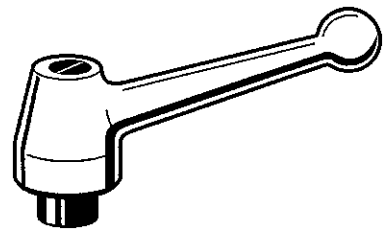


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X30	5	56974.050.030	M8X40	5	56974.080.040	M12X50	3	56974.120.050
M6X30	5	56974.060.030	M10X50	3	56974.100.050	M16X60	1	56974.160.060

- Com fibra de vidro reforçada e rosca em aço.
- Cor laranja RAL 2004

Manipulo de alavanca aço





Dados técnicos

d	a	h	P
M8	83	64	1.25
M10	83	64	1.5
M12	108	81.5	1.75
M16	132	93	2

Grupos de produtos

Rosca	Material		Cor	Código	Página
M	Aço forjado C35		Cinza	57004	12-101
M	Aço forjado C35	fêmea	Cinza	57005	12-101

57004 **Manipulo de alavanca aço** **W03A**

Rosca Métrica
Material Aço forjado C35
Cor Cinza

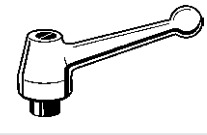


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M10X30	2	57004.100.030	M12X40	2	57004.120.040	M16X50	1	57004.160.050

- Com rosca aço classe 5.8.

57005 **Manípulo de alavanca aço fêmea** **W03A**

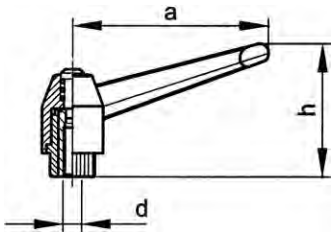
Rosca Métrica
Material Aço forjado C35
Cor Cinza

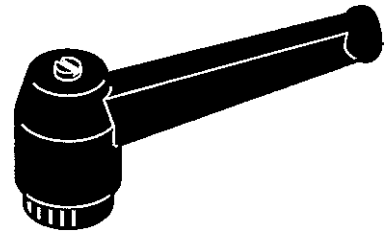


d x t	✉	Ref. do artigo	d x t	✉	Ref. do artigo	d x t	✉	Ref. do artigo
M8X17	2	57005.080.017	M12X23	2	57005.120.023	M16X27	1	57005.160.027
M10X17	2	57005.100.017						

- Com rosca aço classe 5.8.

Manipulo de alavanca alta





Dados técnicos

d	a	h	P
M4	43	35	0.7
M5	43	35	0.8
M6	43	35	1
M8	65	46	1.25

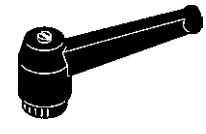
d	a	h	P
M10	83	57	1.5
M12	104	70	1.75
M16	104	70	2

Grupos de produtos

Rosca	Material		Cor	Código	Página
M	PRFV		Preto	57070	12-102
M	PRFV	macho	Preto	57071	12-102

57070 Manipulo de alavanca alta fêmea W03A

Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M4	10	57070.040.001	M8	10	57070.080.001	M12	5	57070.120.001
M5	10	57070.050.001	M10	5	57070.100.001	M16	5	57070.160.001
M6	10	57070.060.001						

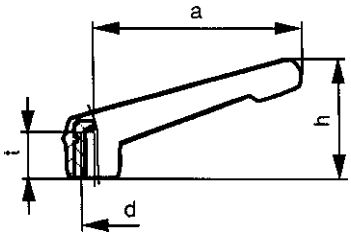
57071 Manipulo de alavanca alta macho W03A

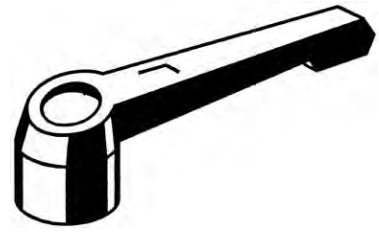
Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M4X15	10	57071.040.015	M8X30	10	57071.080.030	M12X50	5	57071.120.050
M5X20	10	57071.050.020	M10X40	5	57071.100.040	M16X50	5	57071.160.050
M6X25	10	57071.060.025						

Manipulo de fixação alta





Dados técnicos

d	a	h	P
M4	40	27	0.7
M5	40	27	0.8
M6	40	27	1
M8	65	36.5	1.25

d	a	h	P
M10	80	45	1.5
M12	95	54	1.75
M16	110	63	2

56971 **Manipulo de fixação alta** **W03A**

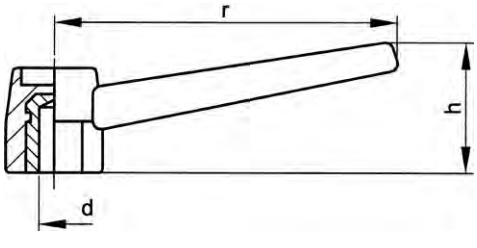
Rosca Métrica
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Preto

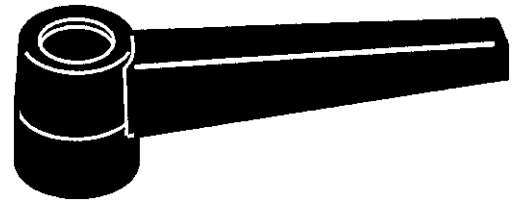


d x t	✉	Ref. do artigo	d x t	✉	Ref. do artigo	d x t	✉	Ref. do artigo
M4X11	10	56971.040.011	M8X12	5	56971.080.012	M12X20	3	56971.120.020
M5X11	10	56971.050.011	M10X16	3	56971.100.016	M16X24	1	56971.160.024
M6X11	10	56971.060.011						

- Com rosca aço zincado, passivado a amarelo.

Manipulo de fixação





Dados técnicos

d	h	P	r
M5	21	0.8	43
M6	21	1	43

d	h	P	r
M8	26	1.25	68
M10	39	1.5	83

Grupos de produtos

Rosca	Material		Cor	Código	Página
M	PRFV		Preto	57076	12-103
M	PRFV	macho	Preto	57077	12-104

57076 **Manipulo de fixação fêmea** **W03A**

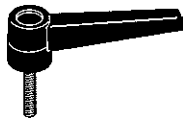
Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5	10	57076.050.001	M8	10	57076.080.001	M10	5	57076.100.001
M6	10	57076.060.001						

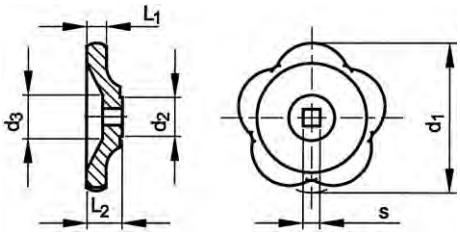
57077	Manipulo de fixação macho	W03A

Rosca Métrica
Material Plastico reforçado com fibra de vidro
Cor Preto

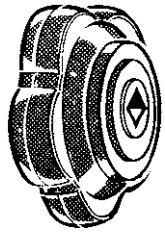


d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo	d x L	✉	Ref. do artigo
M5X20	10	57077.050.020	M8X30	10	57077.080.030	M10X40	5	57077.100.040
M6X20	10	57077.060.020						

Manipulo



DIN **388-1C**



Dados técnicos

s (H11) x d_1	d_2	d_3	L_1	L_2
5x50 (≠DIN)	22	21	10	18
5x63 (≠DIN)	22	24	11	20
6x50 (≠DIN)	22	22	10	18
6x63 (≠DIN)	22	24	11	20
7x63	22	24	11	20

s (H11) x d_1	d_2	d_3	L_1	L_2
7x80 (≠DIN)	28	30	12	22
8x63 (≠DIN)	22	24	11	20
8x80	28	28	12	22
9x100	28	30	14	25

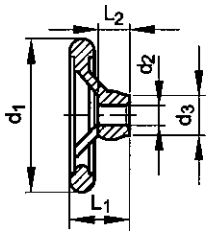
56901	Manipulo	W03F

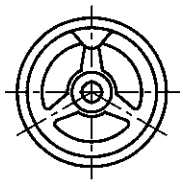
Material Plástico Fenolformaldehyde (bakelite)
Classe FS31
Cor Preto



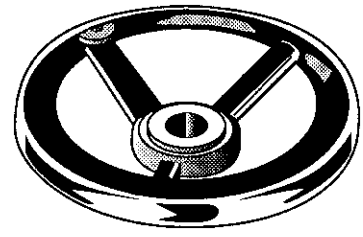
s x d_1	✉	Ref. do artigo	s x d_1	✉	Ref. do artigo	s x d_1	✉	Ref. do artigo
5X50MM	10	56901.050.050	6X63MM	10	56901.060.063	8X63MM	10	56901.080.063
5X63MM	10	56901.050.063	7X63MM	10	56901.070.063	8X80MM	10	56901.080.080
6X50MM	10	56901.060.050	7X80MM	10	56901.070.080	9X100MM	5	56901.090.100

Volante AL





DIN 950



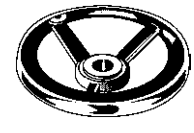
Dados técnicos

d_2 (H7) x d_1	d_3	L_1 ≈	L_2	Raios
10x80	24	29	16	3
10x100	26	36	18	3
12x125	28	36	18	3
14x140	30	39	19	3
16x160	32	40	20	3
18x180 (≠DIN)	35	43	22	3
20x200 (≠DIN)	38	45	24	3
20x225 (≠DIN)	42	48	26	5
24x250 (≠DIN)	45	50	28	5
24x280 (≠DIN)	50	53	30	5
26x315	53	56	33	5
28x360 (≠DIN)	60	59	35	5
30x400	65	63	38	5
34x500	78	72	45	5

56940 **Volante aluminio** **W03F**

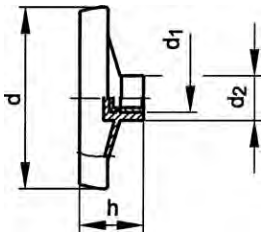
Material Alumínio

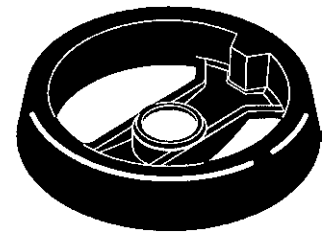




d_2 x d_1	✉	Ref. do artigo	d_2 x d_1	✉	Ref. do artigo	d_2 x d_1	✉	Ref. do artigo
10X80MM 3-RAIOS	1	56940.100.080	18X180MM 3-RAIOS	1	56940.180.001	26X315MM 5-RAIOS	1	56940.315.001
10X100MM 3-RAIOS	1	56940.100.100	20X200MM 3-RAIOS	1	56940.200.001	28X360MM 5-RAIOS	1	56940.360.001
12X125MM 3-RAIOS	1	56940.120.125	20X225MM 5-RAIOS	1	56940.225.001	30X400MM 5-RAIOS	1	56940.400.001
14X140MM 3-RAIOS	1	56940.140.140	24X250MM 5-RAIOS	1	56940.250.001	34X500MM 5-RAIOS	1	56940.500.001
16X160MM 3-RAIOS	1	56940.160.001	24X280MM 5-RAIOS	1	56940.280.001			

Volante raio duplo plástico



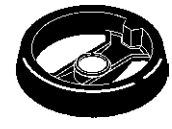


Dados técnicos

d	d_1 (H7)	d_2	h	d	d_1 (H7)	d_2	h
80	8	24	34	**164**	14	40	56
100	10	28	42	**200**	16	50	61
130	12	32	50	**255**	20	56	71

57060 **Volante raio duplo plástico** **W03A**

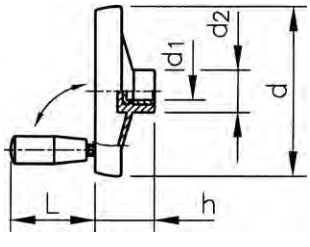
Material Plastico reforçado com fibra de vidro
Cor Preto

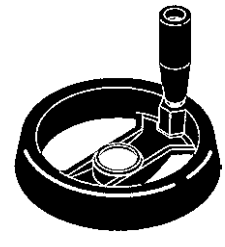


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
80MM	2	57060.080.001	130MM	2	57060.130.001	200MM	1	57060.200.001
100MM	2	57060.100.001	164MM	2	57060.160.001	255MM	1	57060.250.001

- Com inserto aço zincado.

Volante com manipulo



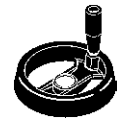


Dados técnicos

d	d_1 (H7)	d_2	h	L	d	d_1 (H7)	d_2	h	L
80	8	24	34	56	**164**	14	40	56	76
100	10	28	43	56	**200**	16	50	61	76
130	12	32	50	76	**255**	20	56	71	98

57061 **Volante com manipulo** **W03A**

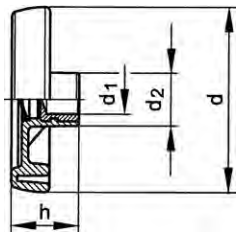
Material Plastico reforçado com fibra de vidro
Cor Preto

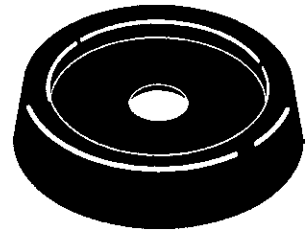


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
80MM	2	57061.080.001	130MM	2	57061.130.001	200MM	1	57061.200.001
100MM	2	57061.100.001	164MM	2	57061.160.001	255MM	1	57061.250.001

- Com inserto aço zincado.

Volante sólido



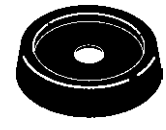


Dados técnicos

d	d_1	d_2	h	d	d_1	d_2	h
80	8	25	33	**150**	14	38	54
100	10	30	39	**173**	16	40	57
126	125	36	44	**203**	18	44	59

57080 **Volante sólido** **W03A**

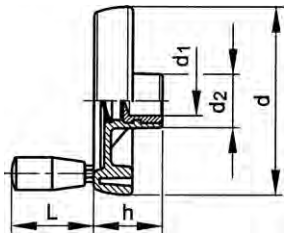
Material Plastico reforçado com fibra de vidro
Cor Preto

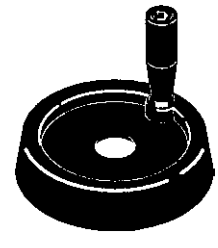


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
80MM	2	57080.080.001	126MM	2	57080.125.001	173MM	1	57080.175.001
100MM	2	57080.100.001	150MM	2	57080.150.001	203MM	1	57080.200.001

- Com inserto aço zincado.

Volante solido com manípulo





Dados técnicos

d	d_1	d_2	h	L	d	d_1	d_2	h	L
80	8	24	33	55	**150**	14	38	53	76
100	10	30	39	55	**173**	16	40	56	86
126	12	36	44	66	**203**	18	44	59	86

57081 **Volante solido com manípulo** **W03A**

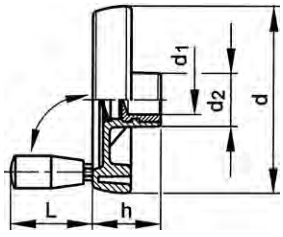
Material Plastico reforçado com fibra de vidro
Cor Preto

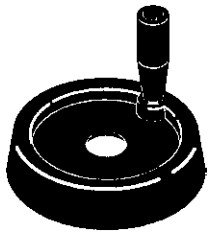


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
80MM	2	57081.080.001	126MM	2	57081.125.001	173MM	1	57081.175.001
100MM	2	57081.100.001	150MM	2	57081.150.001	203MM	1	57081.200.001

- Com inserto aço zincado.

Volante com manípulo





Dados técnicos

d	d_1	d_2	h	L
80	8	24	33	55
100	10	30	39	55
126	12	36	44	76

57083 **Volante com manípulo** **W03A**

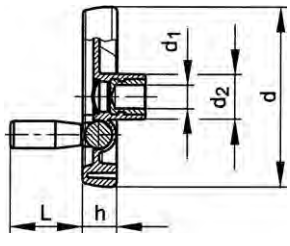
Material Plastico reforçado com fibra de vidro
Cor Preto

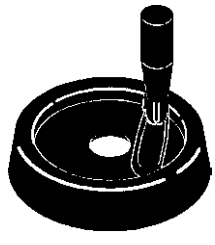


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
80MM	2	57083.080.001	100MM	2	57083.100.001	126MM	2	57083.125.001

- Com inserto aço zincado.

Volante com manípulo



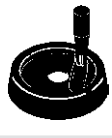


Dados técnicos

d	d_1 (H7)	d_2	h	L	d	d_1 (H7)	d_2	h	L
80	8	24	33	39	**150**	14	38	53	60
100	10	30	42	49	**175**	16	40	58	80
125	12	36	47	58	**200**	18	44	63	90

57084 **Volante com manípulo** **W03A**

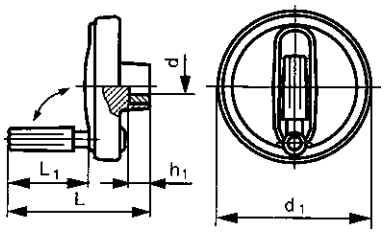
Material Plastico reforçado com fibra de vidro
Cor Preto

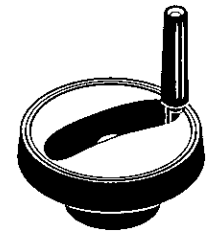


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
80MM	2	57084.080.001	125MM	2	57084.125.001	175MM	1	57084.175.001
100MM	2	57084.100.001	150MM	2	57084.150.001	200MM	1	57084.200.001

- Com inserto aço zincado.

Volante com manipulo





Dados técnicos

d (H7) x d_1	h_1	L	L_1	d (H7) x d_1	h_1	L	L_1
8x80	13	75	40	**12x125**	18.5	109	59.9
10x100	13	90	49	**14x160**	18.5	144	83.5

56954 **Volante com manipulo** **W03A**

Material Thermoplastic Poliamida (nylon)
Classe 6
Cor Preto



d x d_1	✉	Ref. do artigo	d x d_1	✉	Ref. do artigo	d x d_1	✉	Ref. do artigo
8X80MM	1	56954.080.080	12X125MM	1	56954.120.125	14X160MM	1	56954.140.160
10X100MM	1	56954.100.100						

- Com inserto em aço.

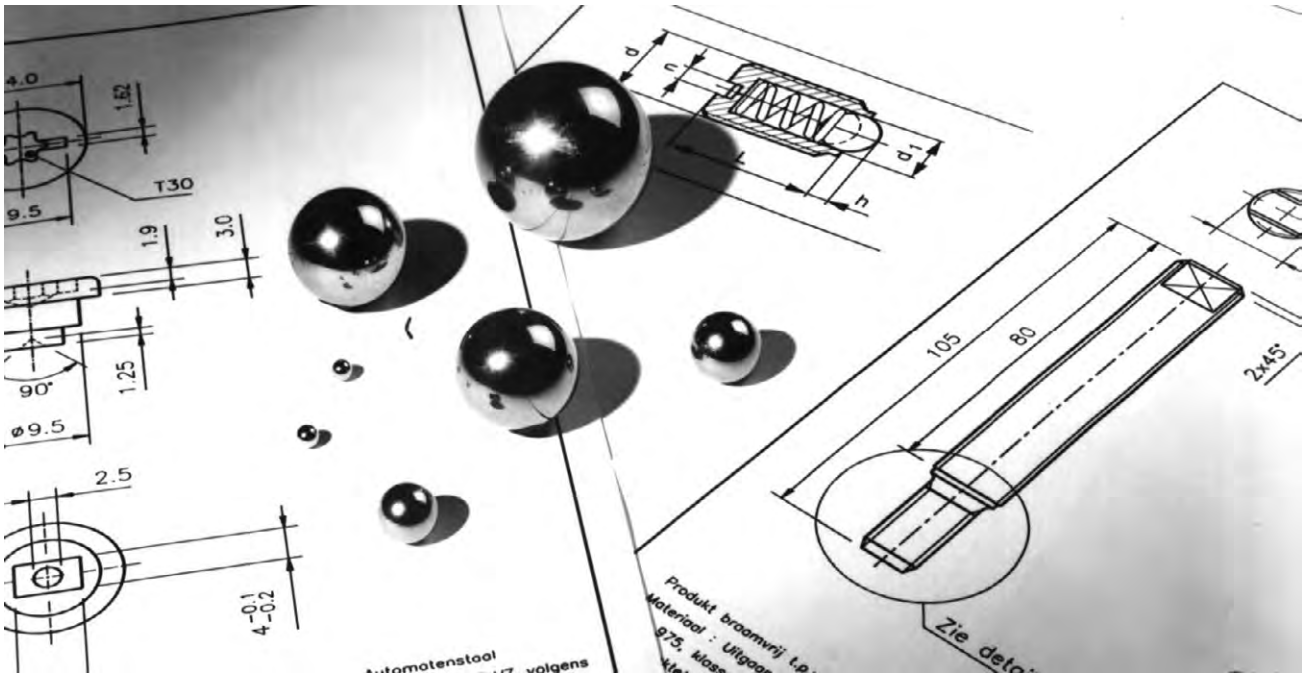
Fabory Esferas

Normalização
As esferas Fabory são de acordo com DIN 5401-1 e 5401-2, norma ISO 3290. As esferas Fabory não normalizadas, são desenvolvidas com os mais elevados padrões de qualidade.

Stock
As esferas Fabory estão disponíveis em stock em diversos tamanhos, tolerâncias e dureza, nos seguintes materiais: aço com liga de cromo, aço carbono, aço forjado, aço inox, plástico, vidro, etc.

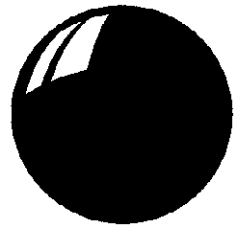
Especiais
Produtos especiais disponíveis sob pedido.

Aplicações
As esferas Fabory são utilizadas em fixações cilíndricas, isqueiros, pistolas de spray, barreiras, gravadores video, selantes, e polimentos.



Esfera

DIN **≈5401**
ISO 3290



Grupos de produtos

Material	Classe		Código	Página
Aço cromado HRc 60-67	G20	Embalagem unitária	66813	12-111
Aço cromado HRc 60-67	G28	Embalagem unitária	66816	12-111
Aço cromado HRc 60-67	G40	Embalagem unitária	66819	12-112
Aço carbono não-endurecido HRc 25		Embalagem unitária	66860	12-112
INOX AISI304 não-endurecido HRc 25-29		Embalagem unitária	66910	12-112
INOX AISI316 não-endurecido HRc 25-29		Embalagem unitária	66920	12-112
INOX AISI420 endurecido HRC 52-55	G100	Embalagem unitária	66930	12-112

66813 Esfera S50A

Material Aço cromado HRc 60-67
Classe G20



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1,000MM	1	66813.001.000	6,747MM	1	66813.006.747	15,081MM	1	66813.015.081
1,500MM	1	66813.001.500	7,000MM	1	66813.007.000	15,875MM	1	66813.015.875
1,588MM	1	66813.001.588	7,144MM	1	66813.007.144	16,000MM	1	66813.016.000
1,984MM	1	66813.001.984	7,938MM	1	66813.007.938	16,669MM	1	66813.016.669
2,000MM	1	66813.002.000	8,000MM	1	66813.008.000	17,000MM	1	66813.017.000
2,381MM	1	66813.002.381	8,500MM	1	66813.008.500	17,462MM	1	66813.017.462
2,500MM	1	66813.002.500	8,731MM	1	66813.008.731	18,000MM	1	66813.018.000
2,778MM	1	66813.002.778	9,000MM	1	66813.009.000	18,256MM	1	66813.018.256
3,000MM	1	66813.003.000	9,525MM	1	66813.009.525	19,050MM	1	66813.019.050
3,175MM	1	66813.003.175	10,000MM	1	66813.010.000	19,844MM	1	66813.019.844
3,500MM	1	66813.003.500	10,319MM	1	66813.010.319	20,000MM	1	66813.020.000
3,969MM	1	66813.003.969	11,000MM	1	66813.011.000	20,637MM	1	66813.020.637
4,000MM	1	66813.004.000	11,112MM	1	66813.011.112	21,000MM	1	66813.021.000
4,500MM	1	66813.004.500	11,906MM	1	66813.011.906	21,431MM	1	66813.021.431
4,762MM	1	66813.004.762	12,000MM	1	66813.012.000	22,000MM	1	66813.022.000
5,000MM	1	66813.005.000	12,700MM	1	66813.012.700	22,225MM	1	66813.022.225
5,500MM	1	66813.005.500	13,000MM	1	66813.013.000	23,000MM	1	66813.023.000
5,556MM	1	66813.005.556	13,494MM	1	66813.013.494	23,019MM	1	66813.023.019
6,000MM	1	66813.006.000	14,000MM	1	66813.014.000	24,000MM	1	66813.024.000
6,350MM	1	66813.006.350	14,287MM	1	66813.014.287	24,606MM	1	66813.024.606
6,500MM	1	66813.006.500	15,000MM	1	66813.015.000	25,000MM	1	66813.025.000

66816 Esfera S50A

Material Aço cromado HRc 60-67
Classe G28



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
25,400MM	1	66816.025.400	31,750MM	1	66816.031.750	41,275MM	1	66816.041.275
26,000MM	1	66816.026.000	33,337MM	1	66816.033.337	42,863MM	1	66816.042.863
26,988MM	1	66816.026.988	34,925MM	1	66816.034.925	44,450MM	1	66816.044.450
28,000MM	1	66816.028.000	35,000MM	1	66816.035.000	45,000MM	1	66816.045.000
28,575MM	1	66816.028.575	36,512MM	1	66816.036.512	46,038MM	1	66816.046.038
30,000MM	1	66816.030.000	38,100MM	1	66816.038.100	47,625MM	1	66816.047.625
30,162MM	1	66816.030.162	40,000MM	1	66816.040.000	50,000MM	1	66816.050.000

66819 Esfera — S50A

Material Aço cromado HRc 60-67
Classe G40



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
50,800MM	1	66819.050.800	63,500MM	1	66819.063.500	80,000MM	1	66819.080.000
52,500MM	1	66819.052.500	69,850MM	1	66819.069.850	100,000MM	1	66819.100.000
60,000MM	1	66819.060.000	70,000MM	1	66819.070.000			

66860 Esfera — S51A

Material Aço carbono não-endurecido HRc 25



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
7,144MM	1	66860.007.144	9,525MM	1	66860.009.525	15,875MM	1	66860.015.875

66910 Esfera — S52A

Material Aço inoxidável AISI304 não-endurecido HRc 25-29



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
2,500MM	1	66910.002.500	6,000MM	1	66910.006.000	10,000MM	1	66910.010.000
3,969MM	1	66910.003.969	6,350MM	1	66910.006.350	12,000MM	1	66910.012.000
4,000MM	1	66910.004.000	8,000MM	1	66910.008.000			

66920 Esfera — S52A

Material Aço inoxidável AISI316 não-endurecido HRc 25-29



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1,000MM	1	66920.001.000	6,000MM	1	66920.006.000	12,700MM	1	66920.012.700
2,000MM	1	66920.002.000	6,350MM	1	66920.006.350	14,000MM	1	66920.014.000
2,381MM	1	66920.002.381	7,144MM	1	66920.007.144	15,875MM	1	66920.015.875
2,500MM	1	66920.002.500	7,938MM	1	66920.007.938	19,050MM	1	66920.019.050
3,000MM	1	66920.003.000	8,000MM	1	66920.008.000	20,000MM	1	66920.020.000
3,175MM	1	66920.003.175	9,525MM	1	66920.009.525	25,000MM	1	66920.025.000
3,969MM	1	66920.003.969	10,000MM	1	66920.010.000	25,400MM	1	66920.025.400
4,000MM	1	66920.004.000	11,112MM	1	66920.011.112			
4,762MM	1	66920.004.762	12,000MM	1	66920.012.000			

66930 Esfera — S52A

Material Aço inoxidável AISI420 endurecido HRC 52-55
Classe G100

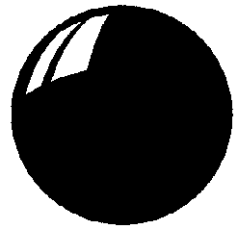


d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
1,000MM	1	66930.001.000	4,762MM	1	66930.004.762	9,525MM	1	66930.009.525
1,500MM	1	66930.001.500	5,000MM	1	66930.005.000	10,000MM	1	66930.010.000
2,000MM	1	66930.002.000	5,556MM	1	66930.005.556	11,112MM	1	66930.011.112
2,381MM	1	66930.002.381	6,000MM	1	66930.006.000	12,000MM	1	66930.012.000
2,500MM	1	66930.002.500	6,350MM	1	66930.006.350	12,700MM	1	66930.012.700
3,000MM	1	66930.003.000	7,000MM	1	66930.007.000	13,000MM	1	66930.013.000
3,175MM	1	66930.003.175	7,144MM	1	66930.007.144	14,000MM	1	66930.014.000
3,500MM	1	66930.003.500	7,938MM	1	66930.007.938	14,287MM	1	66930.014.287
3,969MM	1	66930.003.969	8,000MM	1	66930.008.000	15,000MM	1	66930.015.000
4,000MM	1	66930.004.000	8,731MM	1	66930.008.731	15,875MM	1	66930.015.875
4,500MM	1	66930.004.500	9,000MM	1	66930.009.000	16,000MM	1	66930.016.000

66930 **Esfera** ←

d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
18,000MM	1	66930.018.000	25,000MM	1	66930.025.000	40,000MM	1	66930.040.000
19,050MM	1	66930.019.050	25,400MM	1	66930.025.400	50,000MM	1	66930.050.000
20,000MM	1	66930.020.000	30,000MM	1	66930.030.000	60,000MM	1	66930.060.000
22,000MM	1	66930.022.000	30,162MM	1	66930.030.162			
22,225MM	1	66930.022.225	34,925MM	1	66930.034.925			

Esfera não standard



Grupos de produtos

Material	Classe		Cor	Código	Página
Plástico PP		Embalagem unitária		66950	12-113
Plástico PA	PA 6.6	Embalagem unitária	Natural	66955	12-113
Plástico POM		Embalagem unitária	Branco	66960	12-114
Plástico PTFE		Embalagem unitária	Branco	66970	12-114
Vidro		Embalagem unitária		66990	12-114

66950 **Esfera não standard** **S54A**

Material Plástico Polipropileno



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
2,000MM	1	66950.002.000	6,500MM	1	66950.006.500	15,875MM	1	66950.015.875
2,381MM	1	66950.002.381	7,000MM	1	66950.007.000	16,000MM	1	66950.016.000
2,500MM	1	66950.002.500	7,938MM	1	66950.007.938	17,000MM	1	66950.017.000
3,000MM	1	66950.003.000	8,000MM	1	66950.008.000	18,000MM	1	66950.018.000
3,175MM	1	66950.003.175	9,000MM	1	66950.009.000	19,000MM	1	66950.019.000
3,500MM	1	66950.003.500	9,525MM	1	66950.009.525	20,000MM	1	66950.020.000
3,969MM	1	66950.003.969	10,000MM	1	66950.010.000	22,000MM	1	66950.022.000
4,000MM	1	66950.004.000	11,000MM	1	66950.011.000	25,000MM	1	66950.025.000
4,500MM	1	66950.004.500	12,000MM	1	66950.012.000	25,400MM	1	66950.025.400
5,000MM	1	66950.005.000	13,000MM	1	66950.013.000	30,000MM	1	66950.030.000
6,000MM	1	66950.006.000	14,000MM	1	66950.014.000	35,000MM	1	66950.035.000
6,350MM	1	66950.006.350	15,000MM	1	66950.015.000	38,000MM	1	66950.038.000

Dependendo do tamanho, as cores destas bolas pode variar, entre o verde, cinza e natural.

66955 **Esfera não standard** **S54A**

Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Natural



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
2,000MM	1	66955.002.000	5,000MM	1	66955.005.000	13,000MM	1	66955.013.000
2,381MM	1	66955.002.381	6,000MM	1	66955.006.000	14,000MM	1	66955.014.000
2,500MM	1	66955.002.500	6,350MM	1	66955.006.350	15,000MM	1	66955.015.000
3,000MM	1	66955.003.000	7,000MM	1	66955.007.000	18,000MM	1	66955.018.000
3,175MM	1	66955.003.175	8,000MM	1	66955.008.000	20,000MM	1	66955.020.000
3,500MM	1	66955.003.500	10,000MM	1	66955.010.000	30,000MM	1	66955.030.000
3,969MM	1	66955.003.969	11,112MM	1	66955.011.112			
4,000MM	1	66955.004.000	12,700MM	1	66955.012.700			

66960 Esfera não standard — S54A

Material Plástico Polioximetileno
Cor Branco



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
2,000MM	1	66960.002.000	6,350MM	1	66960.006.350	13,000MM	1	66960.013.000
2,500MM	1	66960.002.500	6,500MM	1	66960.006.500	14,000MM	1	66960.014.000
3,000MM	1	66960.003.000	8,000MM	1	66960.008.000	15,000MM	1	66960.015.000
3,175MM	1	66960.003.175	9,000MM	1	66960.009.000	15,875MM	1	66960.015.875
3,500MM	1	66960.003.500	10,000MM	1	66960.010.000	16,000MM	1	66960.016.000
4,000MM	1	66960.004.000	11,000MM	1	66960.011.000	19,000MM	1	66960.019.000
5,000MM	1	66960.005.000	12,000MM	1	66960.012.000	20,000MM	1	66960.020.000
6,000MM	1	66960.006.000						

66970 Esfera não standard — S54A

Material Plástico Politetrafluorocloretileno
Cor Branco



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
2,000MM	1	66970.002.000	5,000MM	1	66970.005.000	12,700MM	1	66970.012.700
2,500MM	1	66970.002.500	8,000MM	1	66970.008.000	15,000MM	1	66970.015.000
3,000MM	1	66970.003.000	10,000MM	1	66970.010.000	16,000MM	1	66970.016.000
3,175MM	1	66970.003.175	12,000MM	1	66970.012.000	20,000MM	1	66970.020.000
4,000MM	1	66970.004.000						

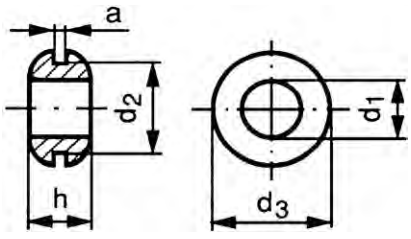
66990 Esfera não standard — S54A

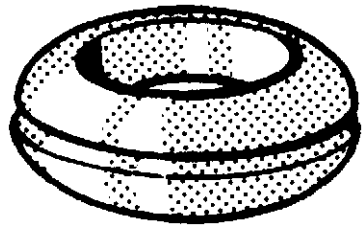
Material Vidro



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
3,000MM	1	66990.003.000	5,000MM	1	66990.005.000	10,000MM	1	66990.010.000

Anel





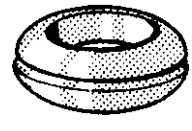
Dados técnicos

d_1 x d_2	a	d_3	h	d_1 x d_2	a	d_3	h
3.2x4.75	1.6	8	6.4	**12.5x17.5**	1.6	22	6.4
4.0x6.4	1.6	9.5	6.3	**12.5x20**	1.6	25.5	6.4
4.75x9.5	1.6	12.5	7	**14.2x17.5**	1.6	22	4.8
4.8x9.5	1.6	12.5	6.8	**15.5x20**	1.6	24	7.5
5.5x8	1.6	11	5.5	**16.0x19**	1.6	24	6
6.4x9.5	1.6	14.2	6.4	**16.0x20**	1.6	24	7.5
8.0x9.5	1.6	14.2	8	**17.5x19**	1.6	24	4.8
8.0x11	1.6	14.2	4.8	**18.5x25.2**	1.6	31.4	8
8.0x12.5	1.6	16	6.4	**22.0x25.5**	1.6	30	8
9.5x12.5	1.6	17	7	**24.7x32**	1.6	38	7.8
9.5x14.2	1.6	19	6.4	**32.0x38**	1.6	46	9.5
11.0x12.5	1.6	19	6.4	**45.0x50**	1.6	60	10

- Caracteristicas especiais de aneis de retenção:
- Protege cabos eléctricos, em chapa de ferro.
- Excelente isolamento.
- Forte e seguro.
- Reduz a vibração.

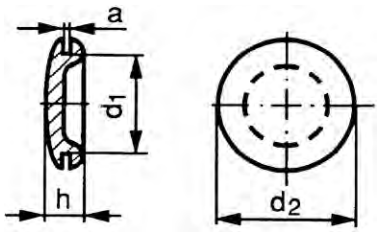
38900 Anel **W05D**

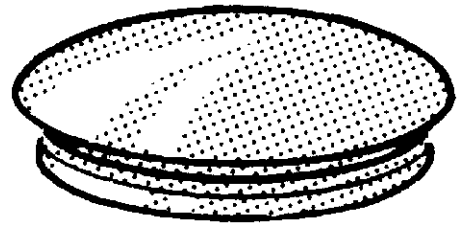
Material Plástico Cloreto de polivinilo
Cor Preto



d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
3,2X4,75MM	100	38900.032.047	9,5X12,5MM	100	38900.095.125	16,0X20,0MM	50	38900.160.200
4,0X6,4MM	100	38900.040.064	9,5X14,2MM	100	38900.095.142	17,5X19,0MM	50	38900.175.190
4,8X9,5MM	100	38900.048.095	11,0X12,5MM	100	38900.110.125	18,5X25,2MM	25	38900.185.252
5,5X8,0MM	100	38900.055.080	12,5X17,5MM	100	38900.125.175	22,0X25,5MM	25	38900.220.255
6,4X9,5MM	100	38900.064.095	12,5X20,0MM	100	38900.125.200	24,7X32,0MM	25	38900.249.310
8,0X9,5MM	100	38900.080.095	14,2X17,5MM	50	38900.142.175	32,0X38,0MM	25	38900.320.380
8,0X11,0MM	100	38900.080.110	16,0X19,0MM	50	38900.160.190	45,0X50,0MM	25	38900.450.500
8,0X12,5MM	100	38900.080.125						

Tampa



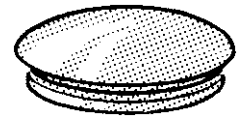


Dados técnicos

d_1 x d_2	a	h	d_1 x d_2	a	h
4.7x9.3	1.6	4.6	**19.0x25.5**	1.6	6.5
6.4x9.5	1.6	5	**20.0x25.5**	1.6	6.7
8.0x14.2	1.6	5	**22.5x28.4**	1.6	9.3
9.5x15.4	1.6	7.3	**25.4x32**	1.6	9
11.2x17.7	1.6	6.2	**31.5x38.2**	1.6	7.5
12.5x18.7	1.6	5.6	**38.2x43.3**	1.6	8.2
15.5x22	1.6	7.5	**51.5x57.5**	1.6	11.4

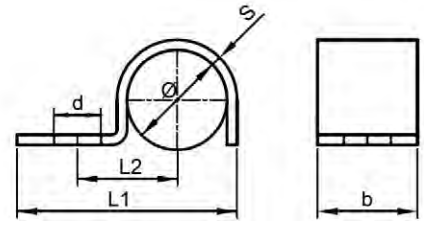
38950 **Tampa** **W05D**

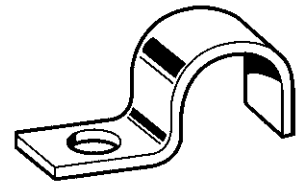
Material Plástico Cloreto de polivinilo
Cor Preto



d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo	d_1 x d_2	✉	Ref. do artigo
4,7X9,3MM	100	38950.047.093	12,5X18,7MM	100	38950.125.187	25,4X32,0MM	25	38950.254.320
6,4X9,5MM	100	38950.064.095	15,5X22,0MM	100	38950.155.220	31,5X38,2MM	25	38950.315.382
8,0X14,2MM	100	38950.080.142	19,0X25,5MM	100	38950.190.255	38,2X43,3MMM	25	38950.382.433
9,5X15,4MM	100	38950.095.154	20,0X25,5MM	50	38950.200.255	51,5X57,5MM	25	38950.515.575
11,2X17,7MM	100	38950.112.177	22,5X28,4MM	50	38950.225.284			

Clip com uma aba





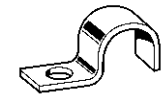
Dados técnicos

Para tubo ø	b	d	L_1	L_2	s	ø
1x4	10	4.8	18	9	1	4
1x5	10	4.8	18.5	9	1	5
1x6	10	4.8	20	10	1	6
1x7	10	4.8	20.5	10	1	7
1x8	10	4.8	22	11	1	8
1x10	10	4.8	23	11	1	10
1x12	12	5.8	30.5	16	1.5	12
1x15	12	5.8	34	18	1.5	15
1x16	12	5.8	35	18	1.5	16
1x18	12	7	35.5	18	1.5	18
1x20	12	7	37.5	18	1.5	20
1x22	12	7	39.5	20	1.5	22
2x6	10	4.8	26.5	13	1	6
2x8	10	4.8	30.5	15	1	8
2x10	10	4.8	33.5	16	1	10
2x12	12	5.8	43	22	1.5	12

43213 **Clip com uma aba** **Y61A**

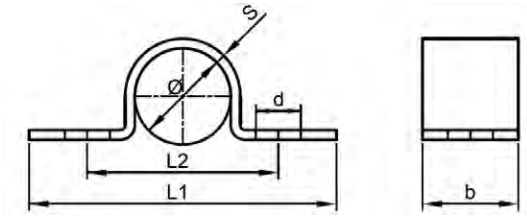
Material Aço
Tratamento sup. Zincado

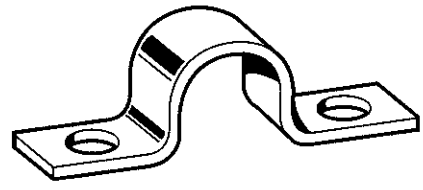




Para tubo ø	✉	Ref. do artigo	Para tubo ø	✉	Ref. do artigo	Para tubo ø	✉	Ref. do artigo
1X4	100	43213.010.004	1X12	100	43213.010.012	2X6	100	43213.020.006
1X5	100	43213.010.005	1X15	100	43213.010.015	2X8	100	43213.020.008
1X6	100	43213.010.006	1X16	100	43213.010.016	2X10	100	43213.020.010
1X7	100	43213.010.007	1X18	100	43213.010.018	2X12	100	43213.020.012
1X8	100	43213.010.008	1X20	100	43213.010.020			
1X10	100	43213.010.010	1X22	100	43213.010.022			

Clip com duas abas



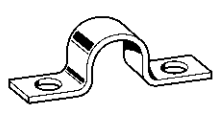


Dados técnicos

Para tubo ø	b	d	L_1	L_2	s	ø
1x6	10	4.8	32	20	1	6
1x8	10	4.8	34	22	1	8
1x10	10	4.8	34	22	1	10
1x12	12	5.8	46	32	1.5	12
1x15	12	5.8	50	36	1.5	15
1x18	12	7	50	36	1.5	18
1x20	12	7	52	38	1.5	20
1x22	12	7	54	40	1.5	22
2x6	10	4.8	38	26	1	6
2x8	10	4.8	42	30	1	8
2x10	10	4.8	44	32	1	10
2x12	12	5.8	58	44	1.5	12
2x18	12	7	69	55	1.5	18

43214 **Clip com duas abas** **Y61A**

Material Aço
Tratamento sup. Zincado



Para tubo ø	✉	Ref. do artigo	Para tubo ø	✉	Ref. do artigo	Para tubo ø	✉	Ref. do artigo
1X6	100	43214.010.006	1X18	100	43214.010.018	2X8	100	43214.020.008
1X8	100	43214.010.008	1X20	100	43214.010.020	2X10	100	43214.020.010
1X10	100	43214.010.010	1X22	100	43214.010.022	2X12	100	43214.020.012
1X12	100	43214.010.012	2X6	100	43214.020.006	2X18	100	43214.020.018
1X15	100	43214.010.015						

MaxxFast abraçadeiras

A MaxxFast lança uma nova gama de abraçadeiras e acessórios de elevada qualidade. Esta gama é constituída por abraçadeiras standard em nylon (branco e preto), de abraçadeiras coloridas (azul, amarelo, verde, cinza, vermelho e laranja), abraçadeiras reutilizáveis nylon (branco e preto), suportes de nylon e abraçadeiras de elevada resistência em Inox A2. Estes produtos de elevada qualidade respondem ás necessidades das aplicações mais exigentes.



As nossas abraçadeiras clássicas brancas e pretas estão disponíveis em diversas medidas e são resistentes aos óleos e gorduras , sal e outros ácidos diluídos.

As abraçadeiras coloridas estão disponíveis em 6 cores, para codificação de circuitos ou necessidades estéticas.

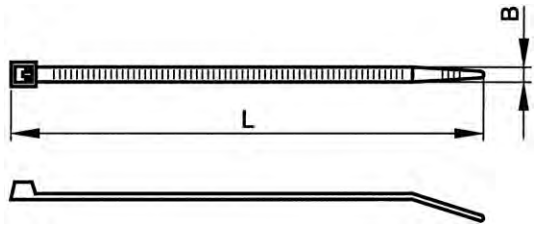
As abraçadeiras podem ser utilizadas várias vezes, reduzindo os custos e desperdícios em aplicações temporárias.

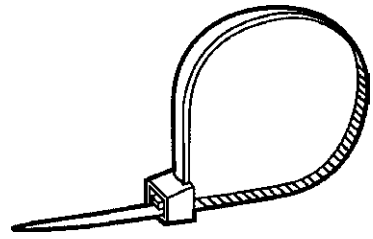
Os diferentes suportes em nylon são adaptados á maior parte das soluções e permitem uma fixação segura e rápida.

Abraçadeiras inox A2

- Fabricadas em inox A2 de elevada qualidade
- Resistentes aos produtos quimicos corrosivos, água do mar, radiações e exposição a temperaturas extremas (-85 °C / +500 °C)
- Mecanismo de bloqueio : grande resistência á tracção e facilidade de inserção para uma instalação rápida e fácil.
- Disponível em diversas medidas para utilização em transporte marítimo, indústria alimentar e ambientes estéreis.

Abraçadeira plástica





Dados técnicos

L x B	Máx. abraçadeira ø	Tensão de ruptura em N
100x2.5	22	80
200x2.5	50	80
140x3.6	33	180
200x3.6	53	180
160x4.8	38	220
200x4.8	50	220
250x4.8	60	220
300x4.8	76	220
368x4.8	102	220
430x4.8	110	220
300x7.6	76	533
368x7.6	102	533
450x7.6	132	533
540x7.6	105	533
430x9.0	110	778
530x9.0	140	778
710x9.0	190	778
780x9.0	228	778
830x9.0	239	778
500x12.5	140	1.118

- Dependendo da disponibilidade de stock, as dimensões podem variar.

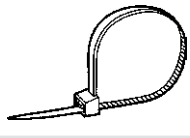
Grupos de produtos

Material	Classe		Cor	Código	Página
Plástico PA	PA 6.6		Branco	30900	12-120
Plástico PA	PA 6.6		Preto	30901	12-121
Plástico PA	PA 6.6		Sortido	30902	12-121
Plástico PA	PA 6.6	Embalagem grande	Preto	43317	12-121

30900 **MAXXFAST Abraçadeira plástica branco** **MF8A**

Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco

MAXXFAST PROFESSIONAL HARDWARE

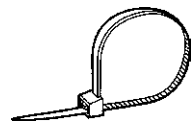


L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
100X2,5	100	30900.100.025	250X4,8	100	30900.250.048	430X9,0	100	30900.430.090
140X3,6	100	30900.140.036	300X4,8	100	30900.300.048	450X7,6	100	30900.450.076
160X4,8	100	30900.160.048	300X7,6	100	30900.300.076	540X7,6	100	30900.540.076
200X2,5	100	30900.200.025	368X4,8	100	30900.368.048	780X9,0	100	30900.780.090
200X3,6	100	30900.200.036	368X7,6	100	30900.368.076			
200X4,8	100	30900.200.048	430X4,8	100	30900.430.048			

- Só embalagens completas.

30901 MAXXFAST Abraçadeira plástica preto — MF8A

Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Preto

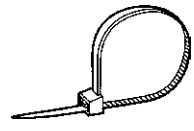


L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
100X2,5	100	30901.100.025	300X4,8	100	30901.300.048	500X12,5	100	30901.500.125
140X3,6	100	30901.140.036	300X7,6	100	30901.300.076	530X9,0	100	30901.530.090
160X4,8	100	30901.160.048	368X4,8	100	30901.368.048	540X7,6	100	30901.540.076
200X2,5	100	30901.200.025	368X7,6	100	30901.368.076	710X9,0	100	30901.710.090
200X3,6	100	30901.200.036	430X4,8	100	30901.430.048	780X9,0	100	30901.780.090
200X4,8	100	30901.200.048	430X9,0	100	30901.430.090	830X9,0	100	30901.830.090
250X4,8	100	30901.250.048	450X7,6	100	30901.450.076			

- Só embalagens completas.

30902 MAXXFAST Abraçadeira plástica — MF8A

Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Sortido

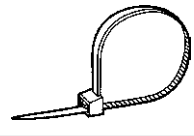


L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
Azul 200X4,8	100	30902.000.002	Verde 200X4,8	100	30902.000.005	Vermelho 200X4,8	100	30902.000.009
Amarelo 200X4,8	100	30902.000.004	Cinza 200X4,8	100	30902.000.006	Laranja 200X4,8	100	30902.000.030

- Só embalagens completas.

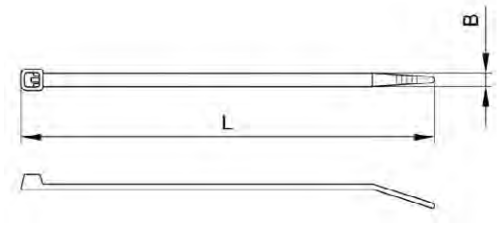
43317 Abraçadeira plástica preto — W050

Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Preto



L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
100X2,5	1000	43317.100.025	200X4,8	1000	43317.200.048	300X4,8	1000	43317.300.048

Abraçadeira aço inoxidável





Dados técnicos

L x B	Máx. abraçadeira ø	Tensão de ruptura em N
125x4.6	33	451
200x4.6	50	451
290x4.6	76	451
360x4.6	102	451
520x4.6	156	451
680x4.6	207	451
840x4.6	257	451
200x7.94	50	1.118
290x7.94	76	1.118
360x7.94	102	1.118
520x7.94	150	1.118
680x7.94	207	1.118
840x7.94	257	1.118
1020x9.0	312	1.118

30905 **MAXXFAST Abraçadeira plástica aço inoxidável** **MF9A**

Material Aço inoxidável A2

MAXXFAST PROFESSIONAL HARDWARE

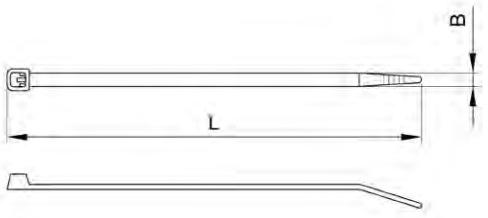
RoHS

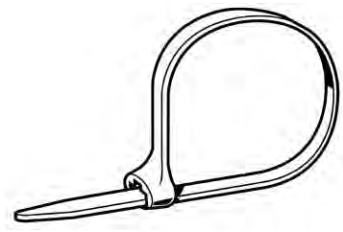


L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
125X4,6	100	30905.125.046	360X4,6	100	30905.360.046	680X7,94	100	30905.680.079
200X4,6	100	30905.200.046	360X7,94	100	30905.360.079	840X4,6	100	30905.840.046
200X7,94	100	30905.200.079	520X4,6	100	30905.520.046	840X7,94	100	30905.840.079
290X4,6	100	30905.290.046	520X7,94	100	30905.520.079	1020X9,0	100	30905.920.090
290X7,94	100	30905.290.079	680X4,6	100	30905.680.046			

- Só embalagens completas.

Abraçadeira com clip aço inox





Dados técnicos

L x B	Máx. abraçadeira ø	Tensão de ruptura em N
92x2.4	16	81
140x3.6	29	180
186x4.8	45	225
281x3.6	76	180
338x7.0	90	544
360x4.8	102	225
762x7.0	229	544
200x2.4	50	81
356x2.4	102	81
208x3.6	50	180
368x3.6	103	180
293x4.8	78	225
223x7.0	50	544

Grupos de produtos

Material	Classe		Cor	Código	Página
Plástico PA	PA 6.6	UV-resistente	Preto	43295	12-123
Plástico PA	PA 6.6		Natural	43299	12-123

43295 Abraçadeira com clip aço inox — Y70A

Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Preto

Ty-Rap



L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
92X2,4	100	43295.000.023	360X4,8	100	43295.000.028	208X3,6	100	43295.000.242
140X3,6	100	43295.000.024	762X7,0	50	43295.000.029	368X3,6	100	43295.000.244
186X4,8	100	43295.000.025	200X2,4	100	43295.000.232	293X4,8	100	43295.000.253
281X3,6	100	43295.000.026	356X2,4	100	43295.000.234	223X7,0	50	43295.005.272
338X7,0	50	43295.000.027						

43299 Abraçadeira com clip aço inox — Y70A

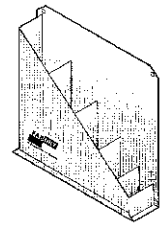
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Natural

Ty-Rap



L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
92x2,4	100	43299.000.023	338x7,0	50	43299.000.027	208x3,6	100	43299.000.242
140x3,6	100	43299.000.024	360x4,8	100	43299.000.028	368x3,6	100	43299.000.244
186x4,8	100	43299.000.025	762x7,0	100	43299.000.029	293x4,8	100	43299.000.253
281x3,6	100	43299.000.026	200x2,4	100	43299.000.232	223x7,0	100	43299.005.272

Sortido de abraçadeiras



43310	Sortido de abraçadeiras	Y94A

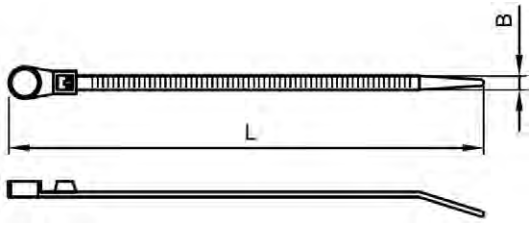
Material Plástico Poliamida (nylon)
Classe PA 6.6

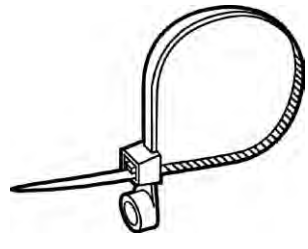


Tipo	✉	Ref. do artigo	
Sortido	1	43310.001.700	• Conteúdo: • 100 x 2,5 mm - 500un. • 140 x 3,6 mm - 300un. • 200 x 4,8 mm - 300un. • 300 x 4,8 mm - 300un. • 368 x 4,8 mm - 200un.



Abraçadeira com olhal





Dados técnicos

L x B	Diâmetro do olhal ø	Máx. abraçadeira ø	Tensão de ruptura em N
110x2.5	3.2	22	81
150x3.6	4.2	32	182
200x4.8	5.5	50	222
377x4.8	5.5	102	222
380x7.6	6.3	98	544

- Dependendo da disponibilidade de stock, as dimensões podem variar.

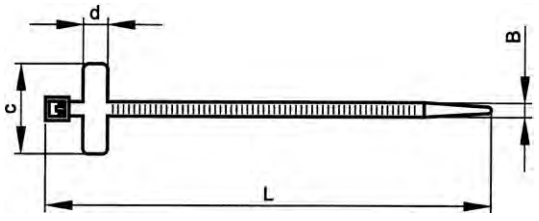
43323	Abraçadeira com olhal	W050

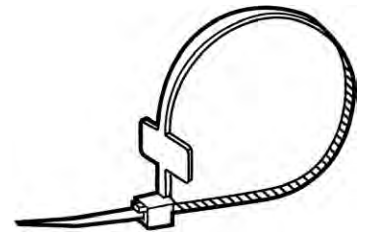
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco



L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
110X2,5	100	43323.110.025	200X4,8	100	43323.200.048	380X7,6	100	43323.368.076
150X3,6	100	43323.150.036	377X4,8	100	43323.368.048			

Abraçadeira com etiqueta

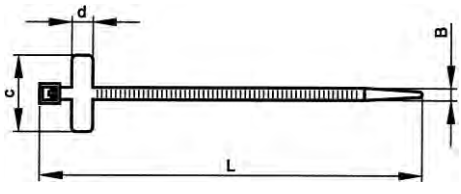


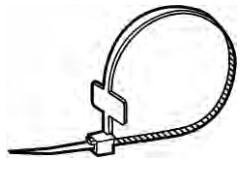


Dados técnicos

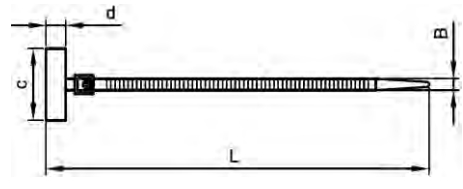
L x B	c	d	Máx. abraçadeira ø	Tensão de ruptura em N	Tipo no.
100x2.5	25.4	8	18	81	1
110x2.5	20.4	9.1	18	81	2
200x2.5	25.4	8	50	81	1
220x4.8	28	13	54	225	3
200x4.8 - 4	30	28	54	225	4
270x4.8	28	13	65	225	3
270x4.8 - 4	30	28	65	225	4

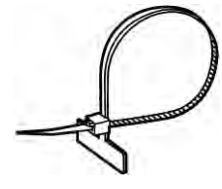
- Dependendo da disponibilidade de stock, as dimensões podem variar.



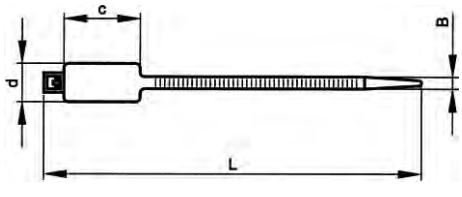


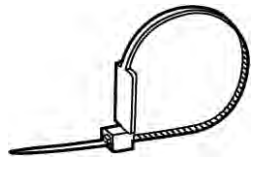
TIPO 1



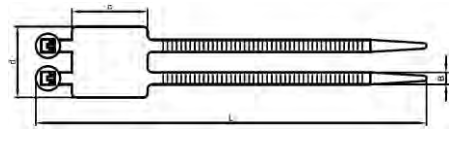


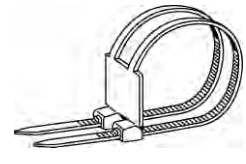
TIPO 2





TIPO 3





TIPO 4

Grupos de produtos

Material	Classe	Cor	Código	Página
Plástico PA	PA 6.6	Branco	43324	12-125
Plástico PA	PA 6.6	Branco	43325	12-126

43324 **Abraçadeira com etiqueta** **W050**

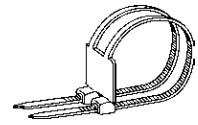
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco



L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
100X2,5MT	100	43324.100.025	200X2,5MT	100	43324.200.025	270X4,8MT	100	43324.270.048
110X2,5MT	100	43324.110.025	220X4,8MT	100	43324.220.048			

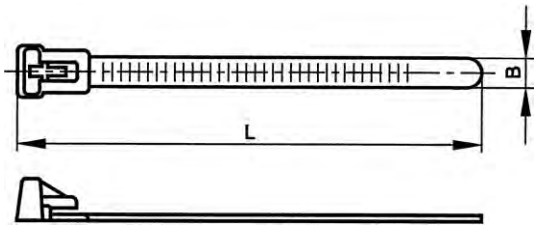
43325	Abraçadeira com etiqueta	W050

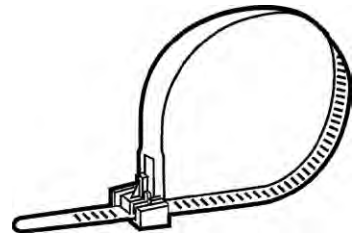
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco



L x B	✉	Ref. do artigo
270X4,8MT2	100	43325.270.048

Abraçadeira reversivel





Dados técnicos

L x B	Máx. abraçadeira ø	Tensão de ruptura em N
140x3.6	33	180
200x4.8	50	220
300x4.8	86	220
368x4.8	102	220
100x7.6	20	220
150x7.6	35	220
200x7.6	50	220
300x7.6	80	220

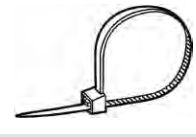
- Dependendo da disponibilidade de stock, as dimensões podem variar.

Grupos de produtos

Material	Classe	Cor	Código	Página
Plástico PA	PA 6.6	Preto	30903	12-126
Plástico PA	PA 6.6	Branco	30904	12-126

30903	MAXXFAST Abraçadeira reversivel	MF8A

Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Preto



L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
100X7,6	100	30903.100.076	200X7,6	100	30903.200.076	300X7,6	100	30903.300.076
150X7,6	100	30903.150.076						

- Só embalagens completas.

30904	MAXXFAST Abraçadeira reversivel	MF8A

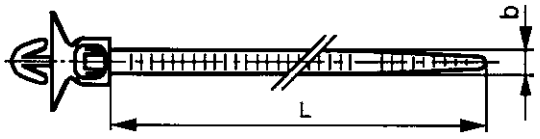
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco

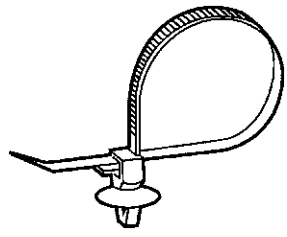


L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
140X3,6	100	30904.140.036	300X4,8	100	30904.300.048	368X4,8	100	30904.368.048
200X4,8	100	30904.200.048						

- Só embalagens completas.

Abraçadeira reversivel com clip de montagem





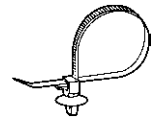
Dados técnicos

Nr.	**2781**
b	4.5
Espessura do material	0.6-1.6
Furo ø	6.5
L	140
Máx. abraçadeira ø	8-35
Tensão de ruptura em N	140

- Dependendo da disponibilidade de stock, as dimensões podem variar.

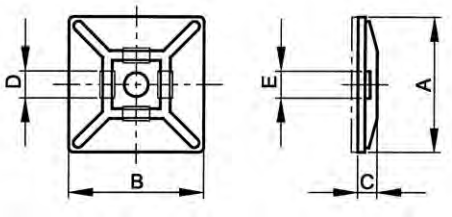
56834 **Abraçadeira reversivel com clip de montagem** **W05B**

Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Preto



Nr.	✉	Ref. do artigo
2781 Preto	100	56834.278.101

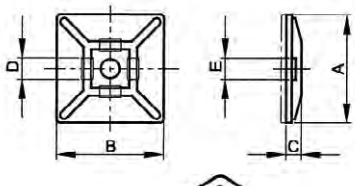
Suporte abraçadeira





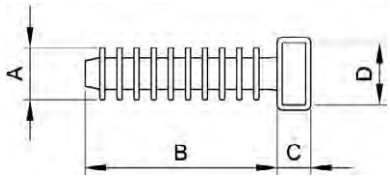
Dados técnicos

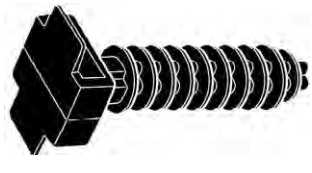
Tipo	A	B	C	D	E
19X19	19	19	4	3.8	3
28X28	28	28	5	5.5	5
2.4-4.8	9	14	7	5	3.5
2.4-9.0	10	37	6.5	9.2	-



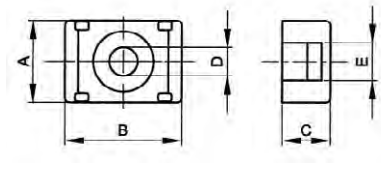


1





2





3

30908	MAXXFAST Suporte abraçadeira	MF8A

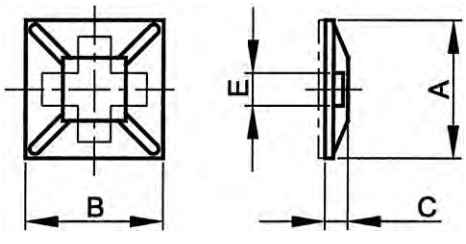
Material Plástico Poliamida (nylon)

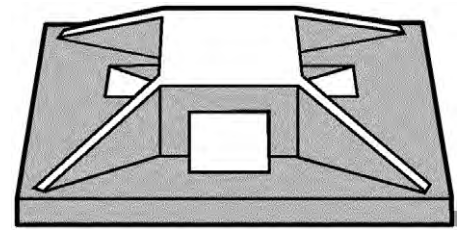


Dimensão.	✉	Ref. do artigo	Dimensão.	✉	Ref. do artigo	Dimensão.	✉	Ref. do artigo
Type-1-Branco19X19	100	30908.001.019	Type-1-Preto19X19	100	30908.002.019	Type-3-Preto2,4-4,8	100	30908.102.024
Type-1-Branco28X28	100	30908.001.028	Type-1-Preto28X28	100	30908.002.028	Type-2-Preto2,4-9,0	100	30908.770.024

- (1) Suporte de nylon 19x19mm para abraçadeiras até 3,6 mm. Suporte de nylon 28x28mm para abraçadeiras até 4,8 mm. Disponível em branco ou negrore-sistente aos UV. Adesivo de alta resistência para uma instalação rápida e efi caz. Também pode ser instalado com um parafuso.
- (2) Acessório para abraçadeira disponível em preto (resistente aos UV). Para instalar faça um furo (diâmetro: 7 mm - profundidade: 40 mm) no betão e introduza o martelo. Para abraçadeiras até 9mm.
- (3) Suporte de nylon preto (resistente aos UV). Fixação com parafuso. Para abraçadeiras até 4,8 mm.

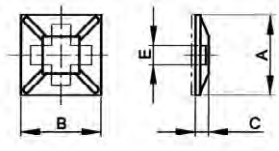
Suporte abraçadeira

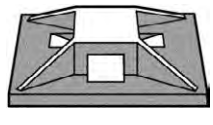




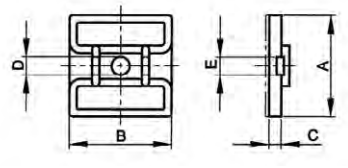
Dados técnicos

Nr.	A	B	C	D ø	E	Para abraçadeiras
100	12.5	12.5	3.2	-	3.2	3.2
101	21	21	3.5	-	4.7	4.6
101-S	19	19	3.9	3.2	4.5	4.2
102	28	28	4	5	5	4.7/4.8
103	28	28	4	5	5	4.8
1675	25.4	25.4	6.8	4	3.6	2.5
1676	25.4	25.4	6.8	4	7.8	6.5
1708	9	13	6	3.1	4	3.6





No. 100/101

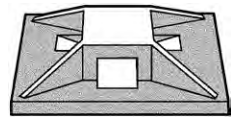




No. 103

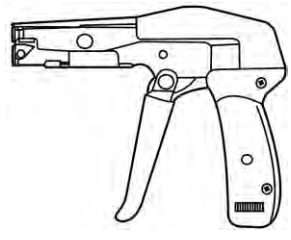
56833	Suporte abraçadeira	W05B

Material Plástico Poliamida (nylon)
Cor Branco



Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo
100 AUTOCOLANTE	100	56833.100.001	103 AUTOCOLANTE	100	56833.103.001

Alicate para abraçadeiras plásticas/metalicas



Grupos de produtos

Código	Página
30906	12-129
30907	12-129

30906	MAXXFAST Alicate para abraçadeiras plásticas	MFNA



Para diâmetro de cabo	✉	Ref. do artigo	Para diâmetro de cabo	✉	Ref. do artigo
2,4-4,8MM	1	30906.024.048	3,6-9,5MM	1	30906.036.095

- Ferramenta manual para abraçadeiras até 4,8mm. Aperta e corta automaticamente numa só operação.

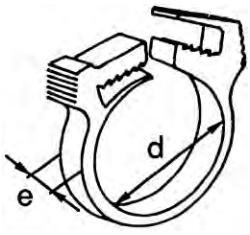
30907	MAXXFAST Alicate para abraçadeiras metalicas	MFNA

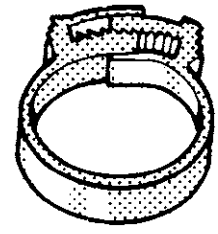


Para diâmetro de cabo	✉	Ref. do artigo
4,6-7,94MM	1	30907.046.079

- Ferramenta manual para abraçadeiras em Inox A2 até 7,94 mm. Aperta e corta automaticamente numa só operação.

Abraçadeira plástico





Dados técnicos

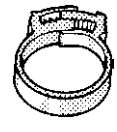
d	e
8-9.2	5
9.5-10.5	5
10.2-12	6
12-13.5	6
12.8-15	7
15-17.2	7
17-18.5	7
18.2-20.5	7

d	e
20.5-23	7
22-25	7
25-28	7
27-30	7.5
29.5-32.5	7.5
32.5-35.5	8
35-38.5	8

- d = gama de aperto

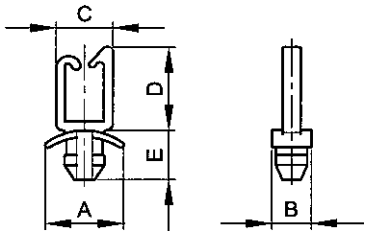
56672 **Abraçadeira plástico** **W02A**

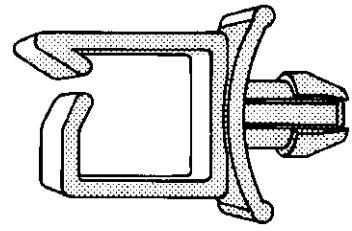
Material Plástico Poliamida (nylon)
Classe PA 6.6



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
8,0-9,2MM	50	56672.008.009	15,0-17,2MM	50	56672.015.017	25,0-28,0MM	25	56672.025.028
9,2-10,5MM	50	56672.009.011	17,0-18,5MM	25	56672.017.019	27,0-30,0MM	25	56672.027.030
10,2-12,0MM	50	56672.010.012	18,2-20,5MM	25	56672.018.021	29,5-32,5MM	10	56672.029.033
12,0-13,5MM	50	56672.012.014	20,5-23,0MM	25	56672.020.023	32,5-35,5MM	10	56672.032.035
12,8-15,0MM	50	56672.012.015	22,0-25,0MM	25	56672.022.025	35,0-38,5MM	10	56672.035.038

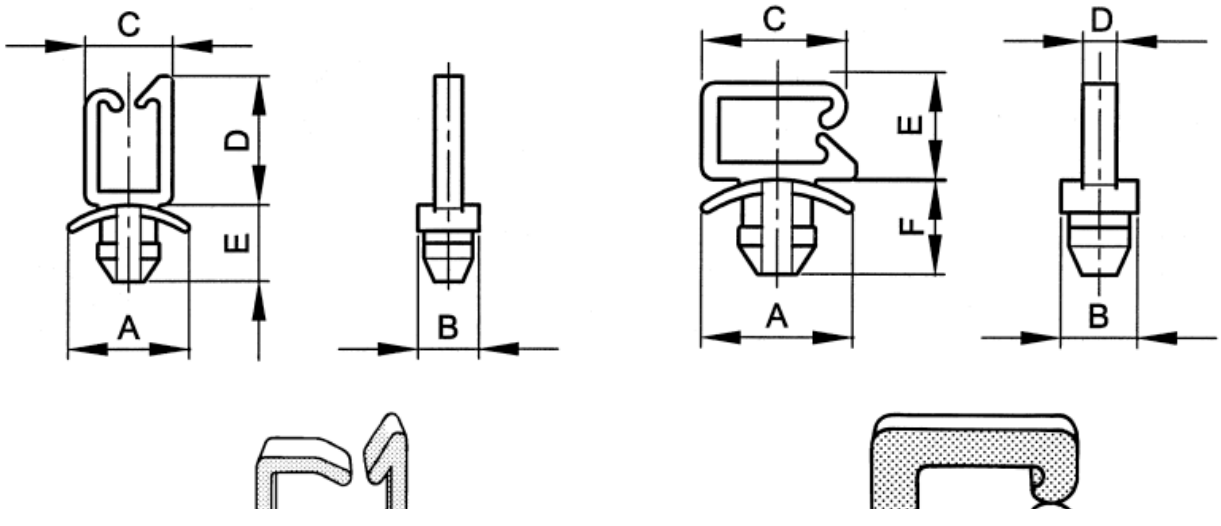
Clip para fixação





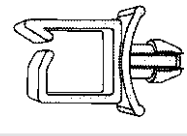
Dados técnicos

Nr.	0320	1590
A	13.4	12.4
B	5.7	5.5
C	11	11.9
D	13	2.4
E	7.8	8.5
Espessura do material	0.4-1.5	0.4-1.8
F	-	7.5
Furo ø/□	4.8 ø	4.8 ø
Máx. cabo ø	8	5
Tipo no.	1	2



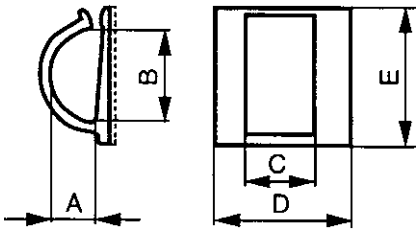
56840 **Clip para fixação** **W05B**

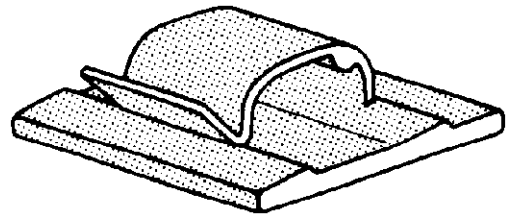
Material	Plástico Poliamida (nylon)
Classe	PA 6.6
Cor	Branco



Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo
0320 NATURAL	100	56840.032.001	1590 NATURAL	100	56840.159.001

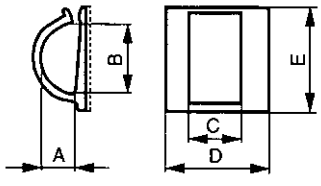
Clip auto adesivo

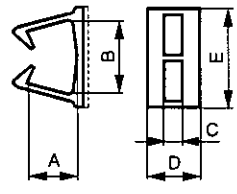


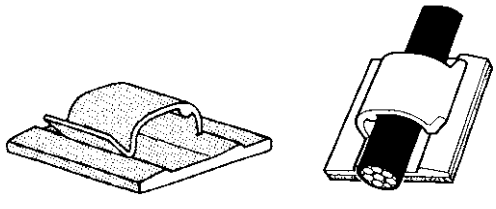


Dados técnicos

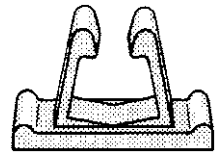
Nr.	1030	1061	1087	1818	2748
A	7	13.5	4	8	6.4
B	11.7	21	4.6	11.7	8
C	12.4	25.4	9.5	9.5	5.5
D	25.4	31.8	16	19	8.8
E	25.4	31.8	16	19	18
Máx. cabo ø	8	16	5	8	6.5
Tipo no.	1	1	1	1	2







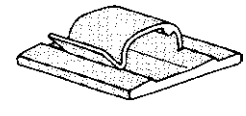
TIPO 1



TIPO 2

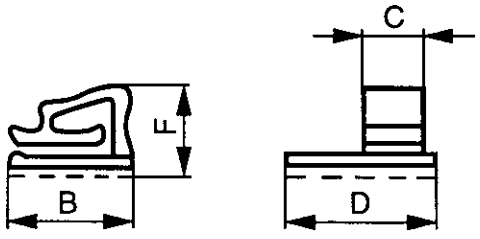
56835 **Clip auto adesivo** **W05B**

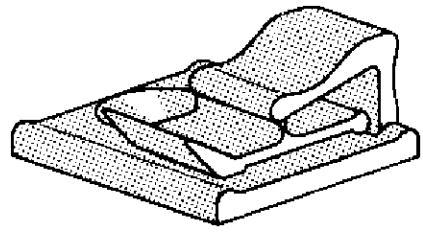
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco



Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo
1030 NATURAL	100	56835.103.001	1087 NATURAL	100	56835.108.701	2748 NATURAL	100	56835.274.801
1061 NATURAL	100	56835.106.101	1818 NATURAL	100	56835.181.801			

Clip auto adesivo

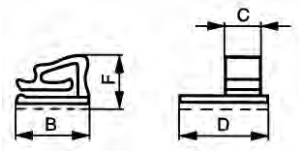


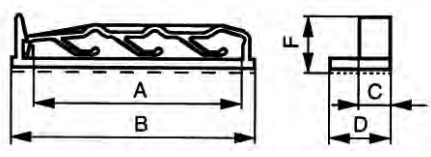


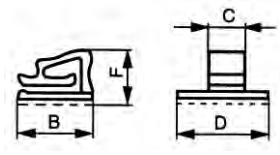
Dados técnicos

Nr.	A	B	C	D	F
2622	-	16	7	16	10
7122	51	62	8	16	14
7255	-	16	7	16	10

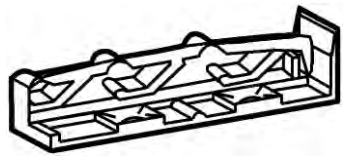
- 2622 - 7122 = Com furo na base









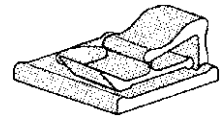




Nr. 2622 | Nr. 7122 | Nr. 7255

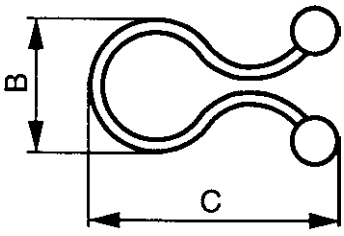
56832 Clip auto adesivo **W05B**

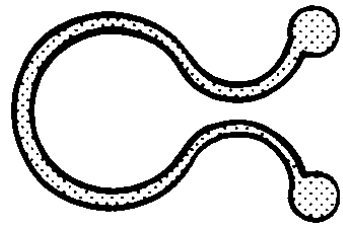
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco



Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo
2622 NATURAL	100	56832.262.201	7122 NATURAL	50	56832.712.201	7255 NATURAL	100	56832.725.501

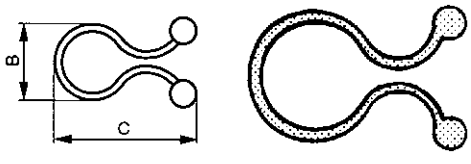
Clip



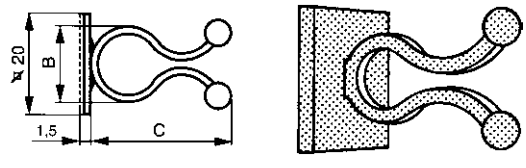


Dados técnicos

Nr.	B	C	Cabo ø	Tipo no.
0787	8.5	20	4-6.9	1
0788	12.5	25	7-9.5	1
0789	15	30	10-12.5	1
0794	23	40	17-20	1
0960	12	25	7-9.5	2
1334	11.9	25	7.5-10	3
1650	19	35	13.5-16	2
1651	23	40	17-20	2
1652	30	46	25-27.5	2



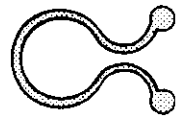
Tipo 1; com perfil recto
Tipo 2; com perfil boleado



Tipo 3; com aplicação adesiva

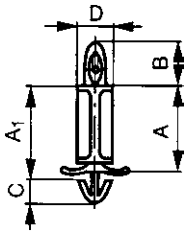
56837 Clip **W05B**

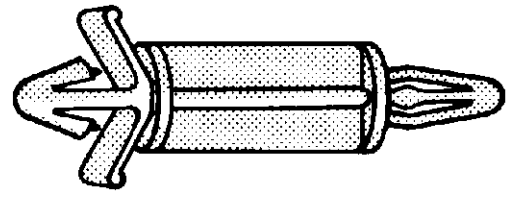
Material Plástico Poliamida (nylon)
Classe PA 6.6



Nr. Cor	✉	Ref. do artigo	Nr. Cor	✉	Ref. do artigo	Nr. Cor	✉	Ref. do artigo
0787 NATURAL	100	56837.078.701	0794 PRETO	100	56837.079.402	1650 NATURAL	100	56837.165.001
0788 NATURAL	100	56837.078.801	0960 NATURAL	100	56837.096.001	1650 PRETO	100	56837.165.002
0788 PRETO	100	56837.078.802	1334 NATURAL	100	56837.133.401	1651 NATURAL	100	56837.165.101
0789 NATURAL	100	56837.078.901	1334 AUTOCOLANTE	100	56837.133.402	1652 NATURAL	100	56837.165.201
0794 NATURAL	100	56837.079.401						

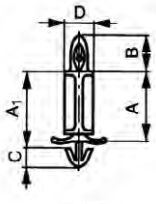
Espaçador



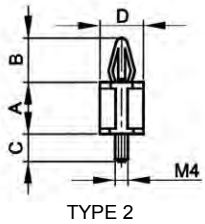


Dados técnicos

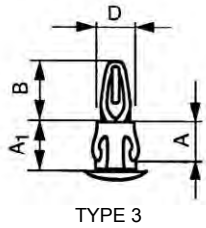
Nr.	7061	7062	7065	7112	7115	7192	7193
A	4.8	6.4	6.4	13.2	10.2	9.5	6.4
A_1	8.4	9.9	7.9	19.6	13.2	-	-
B	10	10	9.5	4	10	10	10
Base zincada furo ø/□	4.8 ø	4.8 ø	6.3 □	4.9 ø	4.8 ø	4 ø	4 ø
C	5.5	5.5	1.5	4	7	6.4	6.4
D ø	7	7	5.8	10	7.1	9	9
Espessura da base zincada	0.4-2	0.4-2	1.6	1.4-1.8	0.8-3	0.4-3	0.4-3
Espessura de prato	1.6	1.6	1.6	1.4-1.8	0.8-2.5	1.6	1.6
Furo de prato ø	4	4	4	4.9	3.5	4	4
Tipo no.	1	1	3	5	6	2	2



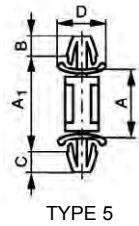
TYPE 1



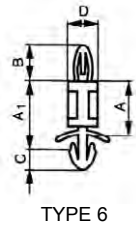
TYPE 2



TYPE 3



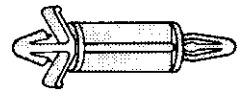
TYPE 5



TYPE 6

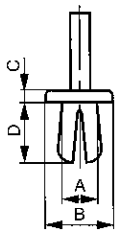
56839 **Espaçador** **W05B**

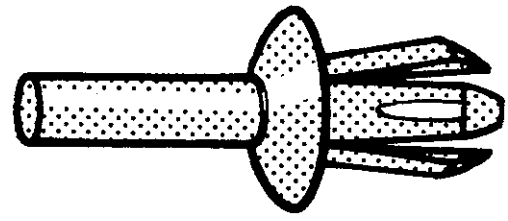
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco



Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo
7061 NATURAL	100	56839.706.101	7112 NATURAL	100	56839.711.201	7192 NATURAL	100	56839.719.201
7062 NATURAL	100	56839.706.201	7115 NATURAL	100	56839.711.501	7193 NATURAL	100	56839.719.301
7065 NATURAL	100	56839.706.501						

Prego pancada

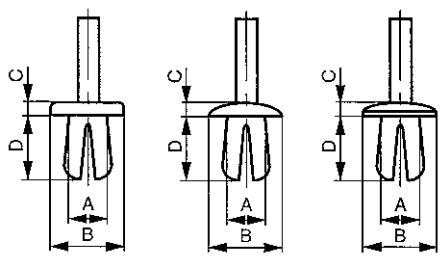




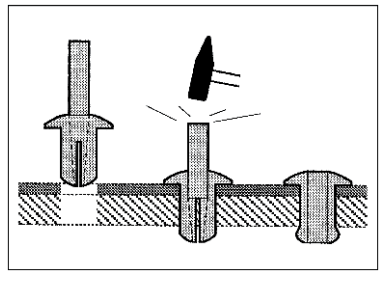
Dados técnicos

Nr.	0164	0756	0765	0780	1283	7005
A ø	4.2	3.5	6.2	4.8	4.8	3.8
B ø	6	6.3	11	8.7	7.1	7.5
C	1.5	1.8	2	2.5	1.2	1.3
D	5	6.6	12.3	7.4	11.1	8.2
Espessura do material	1-3.5	3.2-4.8	5.5-9.5	1.6-4.75	4-8.7	4-6.5
Furo ø	4.3-4.8	3.4-3.6	6.4-7	4.75	4.8-5.4	4-4.2
Tipo no.	1	2	1	1	3	3

- Diâmetro maior é recomendado com o uso de materiais de maiores espessura.
- É recomendado que a seleção do diâmetro exacto seja feita com base em testes.

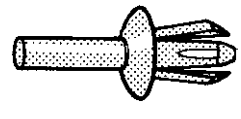


TIPO 1 TIPO 2 TIPO 3



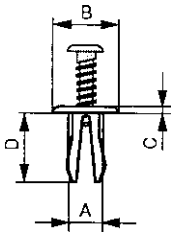
56819 Prego pancada **W05B**

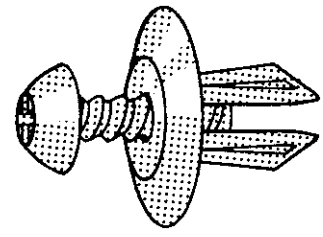
Material	Plástico Poliamida (nylon)
Classe	PA 6.6
Cor	Sortido



Nr. Cor	✉	Ref. do artigo	Nr. Cor	✉	Ref. do artigo	Nr. Cor	✉	Ref. do artigo
0756 NATURAL	100	56819.075.601	0780 NATURAL	100	56819.078.001	1283 Preto	100	56819.128.302
0756 Preto	100	56819.075.602	0780 Preto	100	56819.078.002	7005 NATURAL	100	56819.700.501
0765 NATURAL	100	56819.076.501	1283 NATURAL	100	56819.128.301	7005 Preto	100	56819.700.502
0765 Preto	100	56819.076.502						

Parafuso de encaixe



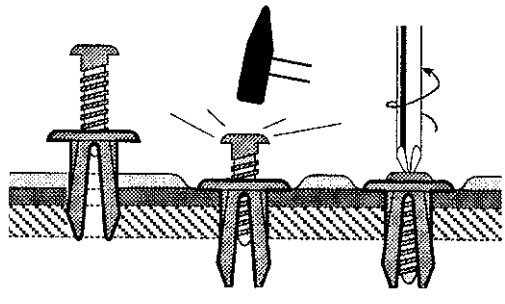


Dados técnicos

Nr.	2384	2710	3008
A ø	6	5	8
B ø	16	12	20
C	1.5	1.5	1.3
D	11	11	14
Espessura do material	4	3.75-6	3-10
Furo ø	6.5	5	8

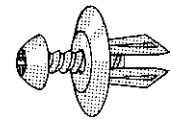
- Diâmetro maior é recomendado com o uso de materiais de maiores espessura.
- É recomendado que a seleção do diâmetro exacto seja feita com base em testes.

Dados montagem



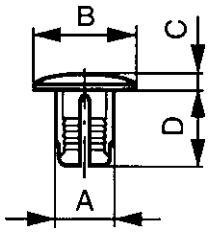
56818 Parafuso de encaixe **W05B**

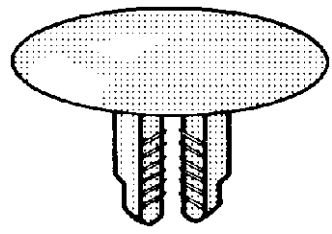
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Preto



Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo
2384 PRETO	100	56818.238.401	2710 PRETO	100	56818.271.001	3008 PRETO	100	56818.300.801

Tampa de encaixe

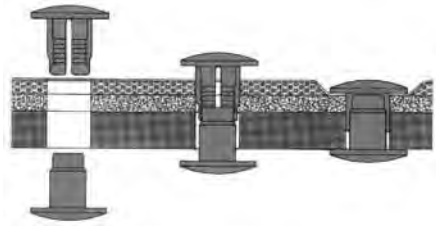


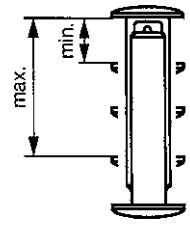


Dados técnicos

Nr.	7012	7013	7015
A ø	7	7	7
B ø	19.1	19.1	10.3
C	2.4	2.4	1.6
D	8.7	12.4	5.7
Espessura do material	8.8-12.7	12.7-20.6	6-7.5
Furo	7.1	7.1	7.1

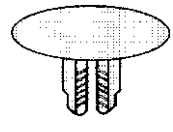
Dados montagem





56830 **Tampa de encaixe** **W05B**

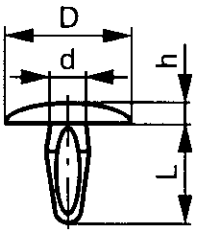
Material	Plástico Poliamida (nylon)
Classe	PA 6.6
Cor	Branco

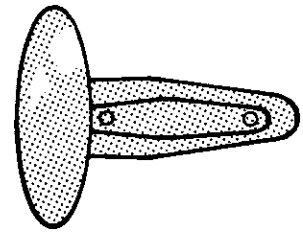


Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo
7012 NATURAL	100	56830.701.201	7013 NATURAL	100	56830.701.301	7015 NATURAL	100	56830.701.501

- ATENÇÃO: embalagem 100 peças = 50 fixações

Clip

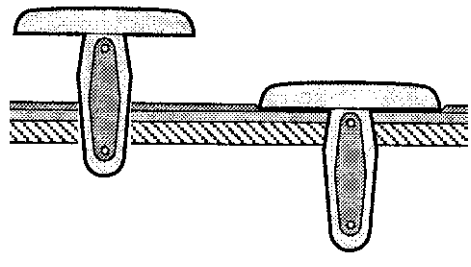




Dados técnicos

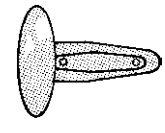
Nr.	0001	0130	0796	1840	1854
D ø	14	14	14	7.9	9.5
d ø	4.7	6	4.6	2.6	4.6
Espessura do material	3-6	3-7	2	0.8-3.6	0.8-4
Furo ø	4.8	6	5	2.7	4.8
h	2.2	2.5	3	1.3	1.5
L	15	19	14.5	12.3	11.1

Dados montagem



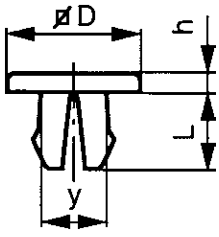
56824 Clip **W05B**

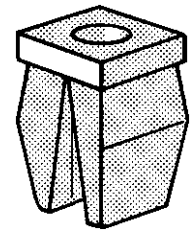
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Sortido



Nr. Cor	✉	Ref. do artigo	Nr. Cor	✉	Ref. do artigo	Nr. Cor	✉	Ref. do artigo
0001 PRETO	100	56824.000.101	0796 BRANCO	100	56824.079.602	1854 NATURAL	100	56824.185.401
0130 BRANCO	100	56824.013.001	1840 PRETO	100	56824.184.001	1854 PRETO	100	56824.185.402
0796 PRETO	100	56824.079.601						

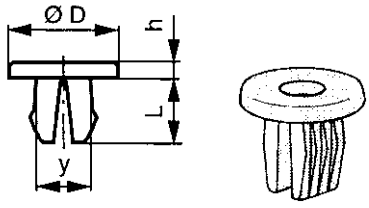
Apoio



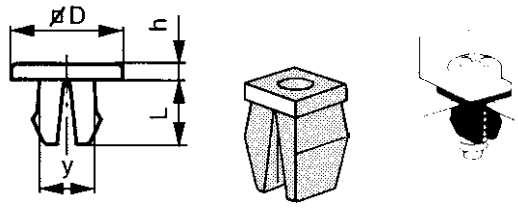


Dados técnicos

Nr.	0012	0013	0916	1378
D ø/□	13 ø	9.5 ø	10 □	5.6 □
Espessura do material	0.8-4	0.8-4	0.8-4.5	0.8-2
Furo ø/□	7 □	7 □	6 ø	4.3 □
h	1.5	1.2	3	1.3
L	8.3	8.3	8	5.6
Para parafuso	ST4.2	ST4.2	ST4.2	ST2.9
Tipo no.	1	1	2	2
Y	6.9	6.9	5.6	4.3

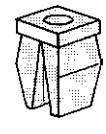


TIPO 1



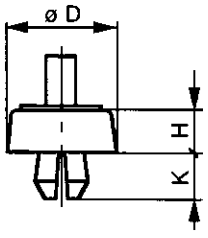
TIPO 2

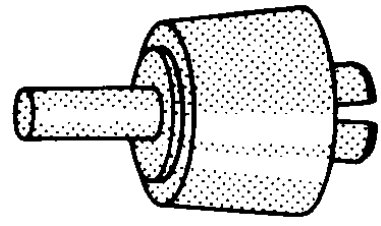
56210	Apoio	W05B
Material	Plástico Poliamida (nylon)	
Classe	PA 6.6	
Cor	Natural	



Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo
0012	100	56210.012.001	0916	100	56210.091.601	1378	100	56210.137.801
0013	100	56210.013.001						

Apoio



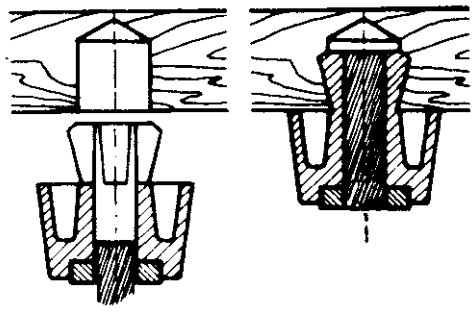


Dados técnicos

Nr.	0897	1024	1162	1806	2243
D ø	17	16	12	16	21
Espessura do material	1-2.5	1.5-3	0.8-2	0.9-1.5	0.8-4
Furo ø aço	7+0.1	7+0.2	6+0.2	7.7+0.1	7.7+0.1
Furo ø madeira	7+0.2	7+0.2	6+0.2	8+0.1	8+0.2
H	10.5+0.5	6.5+0.5	3.6	12	15
K	4	7	5.5	8	7

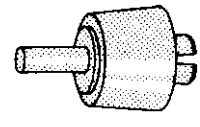
- Material no. 0897: polystyrol, outros números poliamida PA 6.6.

Dados montagem



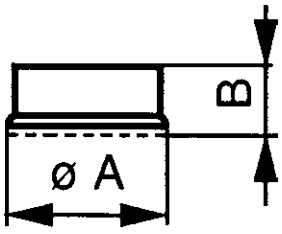
56843 Apoio **W05B**

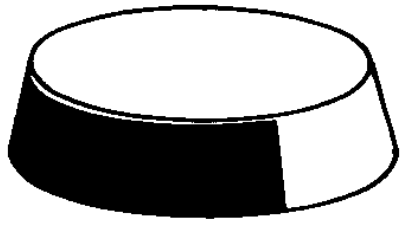
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Preto



Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo
0897 PRETO	50	56843.089.701	1162 PRETO	50	56843.116.201	2243 PRETO	50	56843.224.301
1024 PRETO	50	56843.102.401	1806 PRETO	50	56843.180.601			

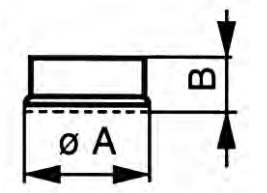
Parachoque autoadesivo





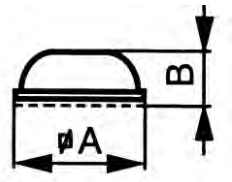
Dados técnicos

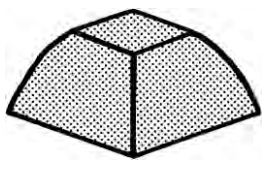
Nr.	A ø/□	B	Tipo no.
7220	12.7 ø	3.5	1
7224	12.7 ø	1.5	1
7229	22.3 ø	10.2	3
7231	20.6 ø	7.6	2
7239	12.7 ø	3.0	2



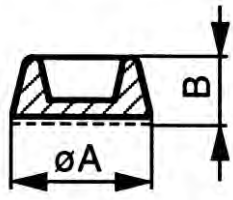


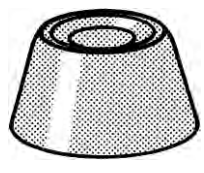
TIPO 1





TIPO 2





TIPO 3

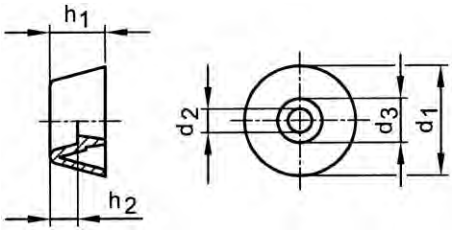
56890 **Parachoque autoadesivo** **W05B**

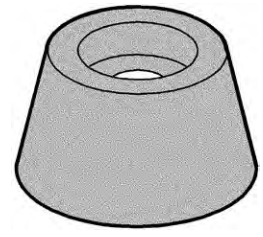
Material Plástico Poliuretano
Cor Preto



Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo	Nr.	✉	Ref. do artigo
7220 PRETO	100	56890.722.001	7229 PRETO	100	56890.722.901	7239 PRETO	100	56890.723.901
7224 PRETO	100	56890.722.401	7231 PRETO	100	56890.723.101			

Amortecedor





Dados técnicos

d_1	d_2	d_3	h_1	h_2
15	3.2	6	7.5	4
20	4.3	8	10	5
25	4.3	10	12.5	6.5
30	5.3	12	15	7.5

- Caraterísticas especiais dos protetores (amortecedores):
- Suaves ainda que flexiveis e resistentes.
- Para fixações em portas, janelas, etc.
- Altura reduzida, montagem simples com um único parafuso ou rebite.

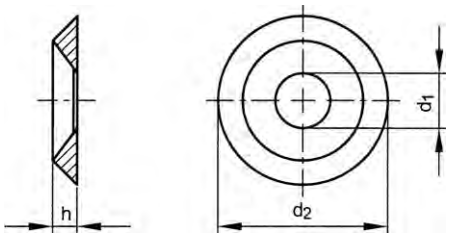
56799 **Amortecedor** **W05E**

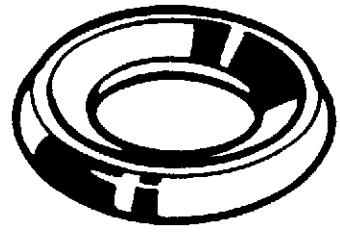
Material Plástico Cloreto de polivinilo
Cor Preto



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
15MM	25	56799.150.001	25MM	25	56799.250.001	30MM	25	56799.300.001
20MM	25	56799.200.001						

Anilha côncava modelo PA





Dados técnicos

Para diâm.nom.	d_1	d_2	h
M3	3.2	10.2	2.8
M4	4.3	12	3.2

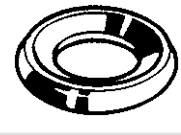
Para diâm.nom.	d_1	d_2	h
M5	5.3	14	3.8
M6	6.4	16	4.5

Grupos de produtos

Material	Classe	Cor	Código	Página
Plástico PA	PA 6.6	Branco	56680	12-143
Plástico PA	PA 6.6	Preto	56690	12-144

56680 **Anilha côncava modelo PA** **W02A**

Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	100	56680.030.001	M5	50	56680.050.001	M6	25	56680.060.001
M4	50	56680.040.001						

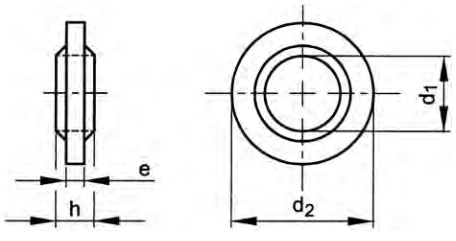
56690 **Anilha côncava modelo PA** **W02A**

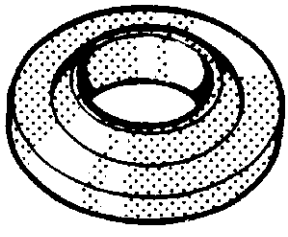
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Preto



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	100	56690.030.001	M5	50	56690.050.001	M6	25	56690.060.001
M4	50	56690.040.001						

Anilha de retenção





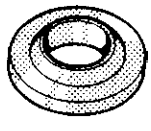
Dados técnicos

Para diâm.nom.	d_1	d_2	e	h
M3	3.1	7	0.6	12
M4	4.2	9	1.2	2.8
M5	5.2	10.6	1.4	3
M6	6.1	12	1.6	3.8
M8	8.1	16.2	1.8	4
M10	10.2	19.6	2.1	5

Para diâm.nom.	d_1	d_2	e	h
M12	12.1	22	2.2	5
M14	14.2	25.4	2.4	5.5
M16	16.2	29.4	2.5	62
M18	218.2	32	2.5	6.8
M20	20.3	35.7	2.7	7

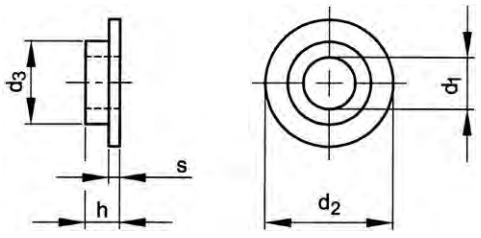
56770 **Anilha de retenção em plástico** **W02A**

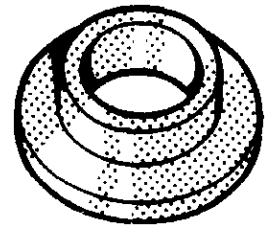
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	100	56770.030.001	M8	50	56770.080.001	M14	25	56770.140.001
M4	100	56770.040.001	M10	50	56770.100.001	M16	25	56770.160.001
M5	100	56770.050.001	M12	50	56770.120.001	M20	10	56770.200.001
M6	100	56770.060.001						

Anilha de apoio



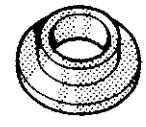


Dados técnicos

Para diâm.nom.	d_1	d_2	d_3	h	s
M3	3.1	8.1	6.1	2	1.2
M4	4.3	12	6.5	2.6	1.5
M5	5	12	9	4.9	2
M6	6.5	15.8	9.6	4.4	1.6

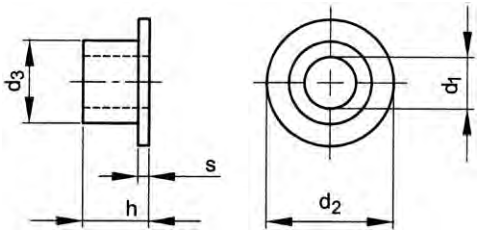
56710 **Anilha com gola** **W02A**

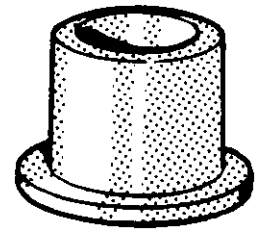
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	100	56710.030.001	M5	100	56710.050.001	M6	50	56710.060.001
M4	100	56710.040.001						

Tubo de isolamento

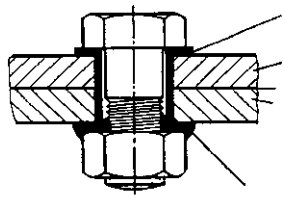




Dados técnicos

Para diâm.nom.	d_1	d_2	d_3	h	s
M5	5	10.5	8.5	4.8	1.5
M6	6.1	12.2	8	6	2
M8	8.1	20	14.2	11.9	2.6
M10	10.1	19.8	14.9	11.8	2.6
M12	12.1	23.9	17.7	15.6	2.6
M14	14.1	25.9	19.8	17.8	2.7
M16	16.1	27.7	21.7	19.7	3.1
M20	20.1	31.9	26.7	23.9	3.1

Exemplo de isolamento contra corrosão numa ligação roscada



Anel isolamento

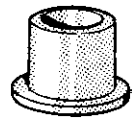
Latão
Folha de nylon

Aço

Anilha retenção DUBO

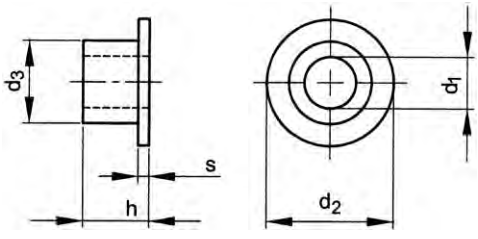
56760	Tubo de isolamento	W02A

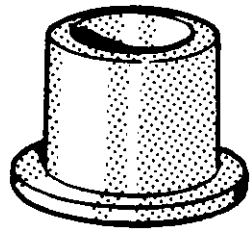
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M5	100	56760.050.001	M10	50	56760.100.001	M16	10	56760.160.001
M6	100	56760.060.001	M12	50	56760.120.001	M20	10	56760.200.001
M8	50	56760.080.001	M14	25	56760.140.001			

Apoio





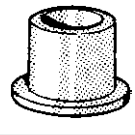
Dados técnicos

d_1	d_2	d_3	h	s	d_1	d_2	d_3	h	s
3	8	5	7	2	18	30	22	25	2.5
4	9	6	8	2	20	30	24	26	2
5	11	8	10	2	25	37	30	30	2.5
6	12	9	11	2	28	40	33	33	2.5
8	16	11	13	2	30	42	35	35	2.5
10	18	13	15	2	32	45	38	38	3
12	21	16	19	2	40	55	46	46	3
14	28	18	21	3	50	67	56	50	3.5
16	28	20	22	2.5	60	81	68	50	4

- Especificações da manga de proteção:
- Produzido sem autolubrificante nylon 6.6 e desenhado com colar
- Insensivel à sujidade, influências atmosféricas e maioria dos quimicos.
- Extremamente adequado para dobradiças silenciosas, e máquinas de baixas rotações.
- Isolamento elétrico também entre o eixo e rolamento
- Indicado para fixação H6-H7
- Após montagem ocupa approx 1% do diâmetro

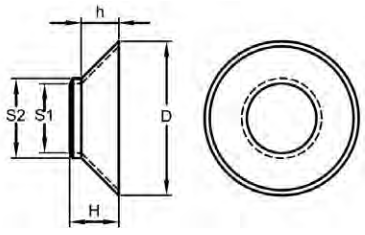
56806	Apoio	W03E

Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Natural



d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
3MM	100	56806.030.001	12MM	100	56806.120.001	28MM	10	56806.280.001
4MM	100	56806.040.001	14MM	100	56806.140.001	30MM	10	56806.300.001
5MM	100	56806.050.001	16MM	100	56806.160.001	32MM	10	56806.320.001
6MM	100	56806.060.001	18MM	50	56806.180.001	40MM	5	56806.400.001
8MM	100	56806.080.001	20MM	50	56806.200.001	50MM	5	56806.500.001
10MM	100	56806.100.001	25MM	25	56806.250.001	60MM	3	56806.600.001

Anel de isolamento





Dados técnicos

Para diâm.nom.	D	h	H	s_1	s_2
M3	8.2	1.7	3.7	3.1	4.9
M4	10.4	2.3	4.3	4.1	5.9
M5	12.4	2.8	4.8	5.1	6.9
M6	14.4	3.3	5.3	6.1	7.9
M8	18.6	4.4	6.4	8.1	9.9
M10	22.5	5.0	10.3	10.2	12.4
M12	26.8	6.5	8.5	12.1	13.9

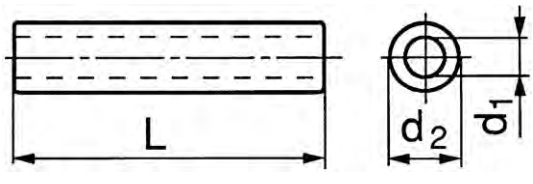
56767 **Anel de isolamento** **W05E**

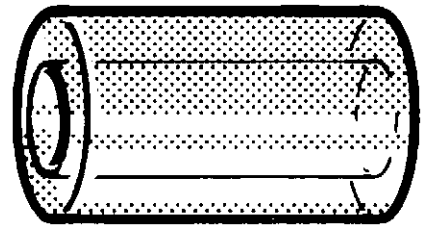
Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Natural



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
M3	100	56767.030.002	M6	100	56767.060.002	M10	100	56767.100.002
M4	100	56767.040.002	M8	100	56767.080.002	M12	100	56767.120.002
M5	100	56767.050.002						

Espaçador





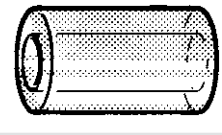
Dados técnicos

Para diâm.nom.	d_1
2.5	2.6
3	3.1
3.5	3.6
4	4.2
5	5.2

Para diâm.nom.	d_1
6	6.2
8	8.2
10	10.3
12	12.8

56800 **Espaçador** **W02A**

Material Plástico Poliamida (nylon)
Classe PA 6.6
Cor Branco

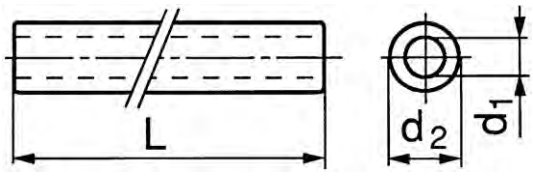


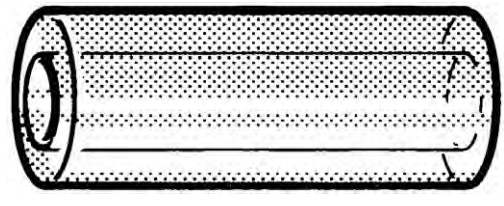
Para diâm. nom. x d_2 x L	✉	Ref. do artigo	Para diâm. nom. x d_2 x L	✉	Ref. do artigo	Para diâm. nom. x d_2 x L	✉	Ref. do artigo
2,5X4X2MM	500	56800.024.002	2,5X5X25MM	500	56800.025.025	3X5X15MM	500	56800.029.015
			2,5X5X30MM	500	56800.025.030	3X5X20MM	500	56800.029.020
2,5X5X2MM	500	56800.025.002				3X5X25MM	500	56800.029.025
2,5X5X3MM	500	56800.025.003	3X5X2MM	500	56800.029.002	3X5X30MM	500	56800.029.030
2,5X5X5MM	500	56800.025.005	3X5X3MM	500	56800.029.003			
2,5X5X7,5MM	500	56800.025.007	3X5X5MM	500	56800.029.005	3X8X2,5MM	500	56800.030.002
2,5X5X10MM	500	56800.025.010	3X5X7,5MM	500	56800.029.007	3X8X3MM	500	56800.030.003
2,5X5X15MM	500	56800.025.015	3X5X10MM	500	56800.029.010	3X8X5MM	500	56800.030.005
2,5X5X20MM	500	56800.025.020						

56800 Espaçador ←

Para diâm. nom. x d_2 x L	✉	Ref. do artigo	Para diâm. nom. x d_2 x L	✉	Ref. do artigo	Para diâm. nom. x d_2 x L	✉	Ref. do artigo
3X8X7,5MM	500	56800.030.007	5X10X3MM	200	56800.050.003	8X12X30MM	200	56800.080.030
3X8X10MM	500	56800.030.010	5X10X5MM	200	56800.050.005			
3X8X15MM	500	56800.030.015	5X10X7,5MM	200	56800.050.007	8X15X15MM	200	56800.081.515
3X8X20MM	500	56800.030.020	5X10X10MM	200	56800.050.010			
3X8X25MM	500	56800.030.025	5X10X15MM	200	56800.050.015	8,2X18X5MM	100	56800.082.005
3X8X30MM	500	56800.030.030	5X10X20MM	200	56800.050.020			
			5X10X25MM	200	56800.050.025	10X15X3MM	200	56800.100.003
3,5X6X3MM	200	56800.035.003	5X10X30MM	200	56800.050.030	10X15X5MM	200	56800.100.005
3,5X6X5MM	200	56800.035.005				10X15X7,5MM	200	56800.100.007
3,5X6X7,5MM	200	56800.035.007	6X10X2,5MM	200	56800.060.002	10X15X10MM	200	56800.100.010
3,5X6X10MM	200	56800.035.010	6X10X3MM	200	56800.060.003	10X15X15MM	200	56800.100.015
3,5X6X15MM	200	56800.035.015	6X10X5MM	200	56800.060.005	10X15X20MM	200	56800.100.020
3,5X6X20MM	200	56800.035.020	6X10X7,5MM	200	56800.060.007	10X15X25MM	200	56800.100.025
3,5X6X25MM	200	56800.035.025	6X10X10MM	200	56800.060.010	10X15X30MM	200	56800.100.030
3,5X6X30MM	200	56800.035.030	6X10X15MM	200	56800.060.015			
			6X10X20MM	200	56800.060.020	10X22X20MM	200	56800.102.020
4X8X2,5MM	200	56800.040.002	6X10X25MM	200	56800.060.025			
4X8X3MM	200	56800.040.003	6X10X30MM	200	56800.060.030	12X18X3MM	200	56800.120.003
4X8X5MM	200	56800.040.005				12X18X5MM	200	56800.120.005
4X8X7,5MM	200	56800.040.007	8X12X3MM	200	56800.080.003	12X18X7,5MM	200	56800.120.007
4X8X10MM	200	56800.040.010	8X12X5MM	200	56800.080.005	12X18X10MM	200	56800.120.010
4X8X15MM	200	56800.040.015	8X12X7,5MM	200	56800.080.007	12X18X15MM	200	56800.120.015
4X8X20MM	200	56800.040.020	8X12X10MM	200	56800.080.010	12X18X20MM	200	56800.120.020
4X8X25MM	200	56800.040.025	8X12X15MM	200	56800.080.015	12X18X25MM	200	56800.120.025
4X8X30MM	200	56800.040.030	8X12X20MM	200	56800.080.020	12X18X30MM	200	56800.120.030
			8X12X25MM	200	56800.080.025			

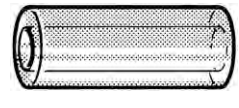
Tubo isolante





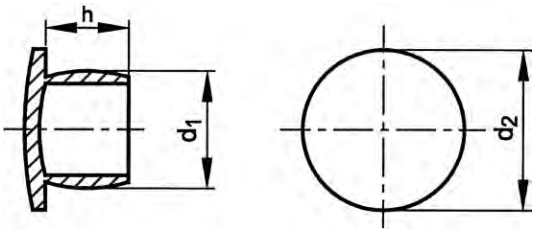
56772 Tubo isolante 2 mtr **W03G**

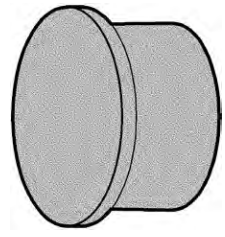
Material Plástico Poliamida (nylon)
Classe PA 6.6



Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo	Para diâm. nom.	✉	Ref. do artigo
4X5MM	100	56772.040.005	8X5MM	100	56772.080.005	12X5MM	100	56772.120.005
			8X6MM	100	56772.080.006	12X10MM	100	56772.120.010
5X5MM	100	56772.050.005	8X10MM	50	56772.080.010			
5X10MM	100	56772.050.010				16X5MM	100	56772.160.005
			10X5MM	100	56772.100.005	16X25MM	25	56772.160.025
6X5MM	100	56772.060.005	10X8MM	100	56772.100.008			
						20X5MM	100	56772.200.005

Tampa de protecção





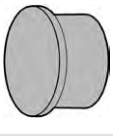
Dados técnicos

d_1	d_2	h	d_1	d_2	h
2.1	3.5	7	19.6	26	9
2.6	12	4	20.0	25.5	9
2.7	12	6	21.0	26	13
3.3	12	6	22.3	29	9
4.4	9	5.5	23.0	27.3	19.3
4.7	7	5	24.0	27	12.5
5.2	11	6	24.5	32	13
5.4	12	7.5	25.0	31.5	6
6.0	11	7	26.0	31.5	12
6.6	7.5	5	27.2	29.6	15
7.2	11	6.5	28.6	34.5	15
7.3	11	6	31.2	38	13
8.0	12	7	33.5	41	11.5
8.5	12	8	34.0	40	20
8.8	11.5	8	35.5	47	15
9.3	12.5	9	36.5	47	18
10.0	15	9	39.5	46	15
10.1	12	4	42.0	44.5	13
10.7	14.5	9	43.3	50	15
11.9	14.2	8	45.5	51	16
12.8	17.5	9	45.8	51	16
13.2	17.5	8	50.5	57	14
13.6	19	8.5	52.0	60	16
14.6	18.5	9.5	55.5	60	16
15.4	19	8.5	58.0	63	18
15.7	19	8.5	61.5	74	20
16.8	20	9	70.0	80	18
17.2	23	10	85.0	95	18
18.8	21.5	9	110.0	130	18

- Bucha cilindrica com boa vedação.
- Para vedar temporariamente furos, mas também para vedações permanentes.
- Grande capacidade de aperto, de confiança, mesmos em situações dificeis.

56780 **Tampa de protecção** **W05E**

Material Plástico Polietileno
Cor Natural

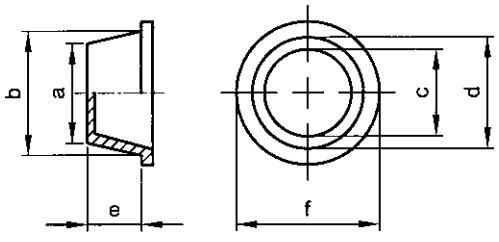


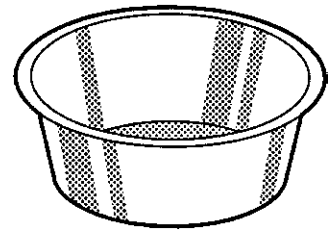
d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
2,1MM	100	56780.021.001	10,1MM	100	56780.101.001	24,5MM	50	56780.245.001
2,6MM	100	56780.026.001	10,7MM	100	56780.107.001	25,0MM	50	56780.250.001
2,7MM	100	56780.027.001	11,9MM	100	56780.119.001	26,0MM	50	56780.260.001
3,3MM	100	56780.033.001	12,8MM	100	56780.128.001	27,2MM	50	56780.272.001
4,4MM	100	56780.044.001	13,2MM	100	56780.132.001	28,6MM	50	56780.286.001
4,7MM	100	56780.047.001	13,6MM	100	56780.136.001	31,2MM	50	56780.312.001
5,2MM	100	56780.052.001	14,6MM	100	56780.146.001	33,5MM	25	56780.335.001
5,4MM	100	56780.054.001	15,4MM	100	56780.154.001	34,0MM	25	56780.340.001
6,0MM	100	56780.060.001	15,7MM	100	56780.157.001	35,5MM	100	56780.355.001
6,6MM	100	56780.066.001	16,8MM	100	56780.168.001	36,5MM	25	56780.365.001
7,0MM	100	56780.070.001	17,2MM	100	56780.172.001	39,5MM	25	56780.395.001
7,2MM	100	56780.072.001	18,8MM	100	56780.188.001	42,0MM	25	56780.420.001
7,3MM	100	56780.073.001	19,6MM	100	56780.196.001	43,3MM	25	56780.433.001
8,0MM	100	56780.080.001	20,0MM	50	56780.200.001	45,5MM	25	56780.455.001
8,5MM	100	56780.085.001	21,0MM	50	56780.210.001	45,8MM	25	56780.458.001
8,8MM	100	56780.088.001	22,3MM	50	56780.223.001	50,5MM	25	56780.505.001
9,3MM	100	56780.093.001	23,0MM	100	56780.230.001	52,0MM	25	56780.520.001
10,0MM	100	56780.100.001	24,0MM	50	56780.240.001	55,5MM	25	56780.555.001

56780	Tampa de protecção	←

d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo	d_1	✉	Ref. do artigo
58,0MM	25	56780.580.001	70,0MM	25	56780.700.001	110,0MM	25	56780.960.001
61,5MM	25	56780.615.001	85,0MM	25	56780.850.001			

Tampa de protecção





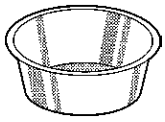
Dados técnicos

Tipo	a	b	c	d	e	f
M4CAP-M6PLUG	4.4	6.1	2.8	4.5	9.5	9.5
M6CAP-M8PLUG	6.2	7.7	5	5.9	9.5	11.1
M8CAP-M10PLUG	8.4	10	6.9	8.2	9.5	13.5
M10CAP-M12PLUG	10	11.3	8.5	10	9.5	15
M12CAP	12.1	13.9	10.6	12.3	11	17.5
M14CAP	14.2	16	12.7	14.4	12.1	19
M14PLUG	11.5	13	10	11.5	9.5	16.7
M16PLUG	13.6	15.4	12.1	13.7	11.2	19
M16CAP-M20PLUG	16.4	18.3	14.8	16.9	12.7	22.2
M18CAP	17.8	20	16.4	18.3	14.4	23.8
M18PLUG	14.7	17	13.2	15.4	12.7	20.6
M20CAP	21.3	23.2	19.2	21.5	15.9	27
M20PLUG	17.7	19.6	15.2	17.3	12.7	22.2
M22CAP	22	25	20.5	23	15.9	28.5
M22PLUG	18.5	20.9	17.1	19.3	14.3	24.6
M24PLUG	21.2	23.2	19.3	21.7	12.3	27.3
M24CAP-M27PLUG	23.4	26.4	21.4	24.4	17.5	29.3
M27CAP-M30PLUG	24.7	27.7	23.2	26.1	19	32
M30CAP-M33PLUG	30	32.6	27.5	30.9	15.5	36.7
M33CAP-M35PLUG	31.1	34.3	29.8	32.8	19	38.1
M35CAP-M36PLUG	33.3	37.2	32	35.6	22.6	41.5
M38CAP-M40PLUG	36.9	40.6	35	39	22.5	44
M39CAP-M45PLUG	39.4	42.7	38.2	41.1	19	47.6
M42CAP-M45PLUG	41.4	44.8	39.7	43	19	49.2
M45CAP-M48PLUG	44.5	47.3	42.9	46.2	19	50.8
M48PLUG	45.2	49.5	43.6	47.9	24.5	54
M48CAP-M52PLUG	48.6	51.2	46.7	48.9	18.7	55.5
M52CAP-M56PLUG	53.5	57	51.2	55.3	25.2	62.4
M56CAP-M60PLUG	54.5	61	52.2	59	25	65.1
M60CAP-M62PLUG	59.6	62.6	57	61	24.6	66.7
M75PLUG	70	75.8	68.1	74	25.4	79.4

- A forma destes artigos permite serem usados como excelente proteção contra deterioração, sujidade, humidade e corrosão, durante a armazenagem e transporte.
- Quando usado como bucha, a dimensão b deve ser min. 5% maior que a abertura, diâmetros acima de 30mm podem requerer um ajuste mais preciso.
- Quando usado como tampa, a dimensão c deve ser min. 5% menor que o diâmetro a tapar, diâmetros acima de 30mm podem requerer um ajuste mais preciso.

56783	Tampa de protecção	W05B

Material	Plástico Polietileno
Cor	Vermelho

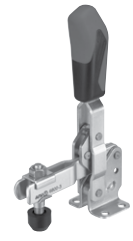


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
M4TAMPA-M6BUCHA	500	56783.040.060	M16BUCHA	250	56783.160.002	M24BUCHA	100	56783.240.002
M6TAMPA-M8BUCHA	500	56783.060.080	M16TAMPA-M20BUCHA	250	56783.160.200	M24TAMPA-M27BUCHA	100	56783.240.270
M8TAMPA-M10BUCHA	500	56783.080.100	M18TAMPA	250	56783.180.000	M27TAMPA-M30BUCHA	100	56783.270.300
M10TAMPA-M12BUCHA	500	56783.100.120	M18BUCHA	250	56783.180.002	M30TAMPA-M33BUCHA	100	56783.300.330
M12TAMPA	250	56783.120.000	M20TAMPA	100	56783.200.000	M33TAMPA-M35BUCHA	50	56783.330.350
M14TAMPA	250	56783.140.000	M20BUCHA	100	56783.200.002	M35TAMPA-M36BUCHA	50	56783.350.360
M14BUCHA	250	56783.140.002	M22BUCHA	100	56783.220.002	M38TAMPA-M40BUCHA	50	56783.380.400

56783 **Tampa de protecção** ←

Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
M39TAMPA-M45BUCHA	50	56783.390.450	M48BUCHA	25	56783.480.002	M58TAMPA-M60BUCHA	25	56783.580.600
M42TAMPA-M45BUCHA	50	56783.420.450	M48TAMPA-M52BUCHA	25	56783.480.520	M60TAMPA-M62BUCHA	25	56783.600.620
M45TAMPA-M48BUCHA	25	56783.450.480	M52TAMPA-M56BUCHA	25	56783.520.560	M75BUCHA	25	56783.750.002

Grampo vertical



Grupos de produtos

Material	Tratamento sup.		Código	Página
Aço	Zn	horizontal	15900	12-151
Aço	Zn	angular	15905	12-152

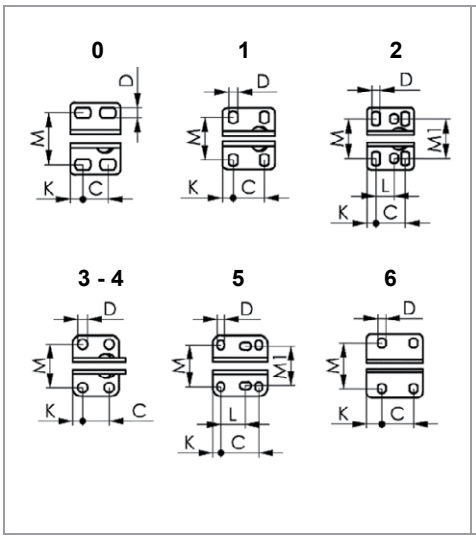
15900 **Grampo vertical 6800** **F97A**

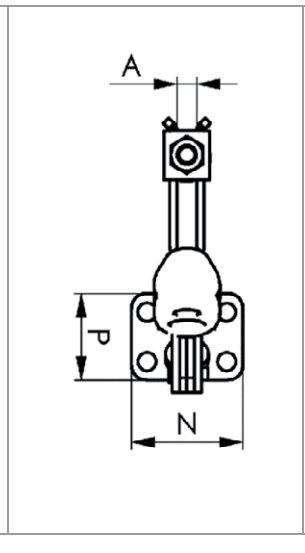
Material Aço
Tratamento sup. Zincado

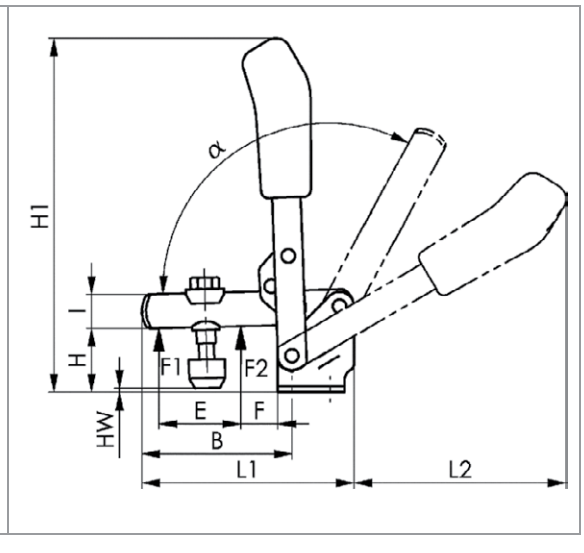


Tipo	A	B	C	D	E	F	F1 [kN]	F2 [kN]	H	H1	HW min.	HW max.	I	K	L	L1	L2	M	M1	N	P	α	α*	Parafusos de aperto
0	4	31	11,0	4,5	14	5,5	0,5	0,7	18,0	81,0	-1,5	3,5	8	5,5	-	49	50	23	-	32	22	95°	-	M 4x 25
1	5	39	16,0	4,5	18	6,0	0,6	1,1	19,0	98,5	-4,0	2,0	10	5,5	-	61	59	24	-	35	27	95°	-	M 5x 30
2	6	52	20,0	5,5	25	11,0	0,8	1,2	23,0	130	-3,0	4,5	12	6,0	12,5	78	80	27	27	43	32	105°	60°	M 6x 35
3	8	79	20,0	7,5	36	19,0	1,2	2,5	33,0	186	2,0	11,0	18	7,5	-	112	112	32	-	46	35	105°	60°	M 8x 45
4	10	101	32,0	8,6	54	16,0	1,7	3,0	42,5	221	-6,0	22,5	20	13,0	-	141	130	45	-	64	53	105°	60°	M 8x 65
5	14	140	45,0	8,5	73	34,0	3,0	5,0	55,8	281	-3,0	27,5	25	9,5	29,0	195	185	49	45	70	65	115°	60°	M12x 80
6	14	165	50,5	13,0	89	26,0	3,4	5,5	81,0	332	-2,5	55,0	30	24,5	-	231	207	71	-	100	90	140°	60°	M12x110

* O ângulo de abertura pode ser alterado quando se pressiona o pino stop.







Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
NO.0	1	15900.000.100	NO.3	1	15900.000.103	NO.5	1	15900.000.105
NO.1	1	15900.000.101	NO.4	1	15900.000.104	NO.6	1	15900.000.106
NO.2	1	15900.000.102						

15900 Grampo vertical 6800 ←

- Com braço aberto e base horizontal.
- Fornecido completo com parafuso temperado e zincado.

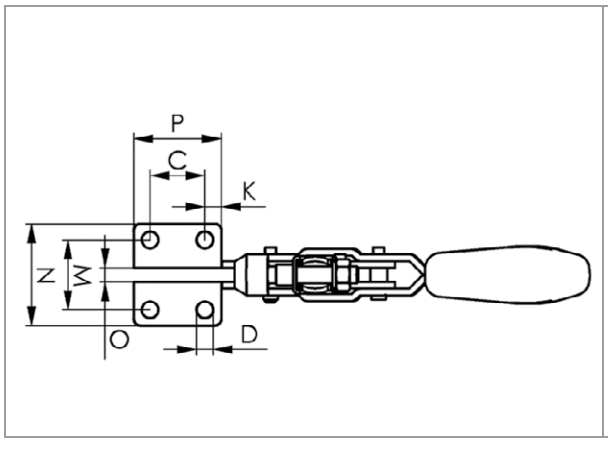
15905 Grampo vertical 6803 F97A

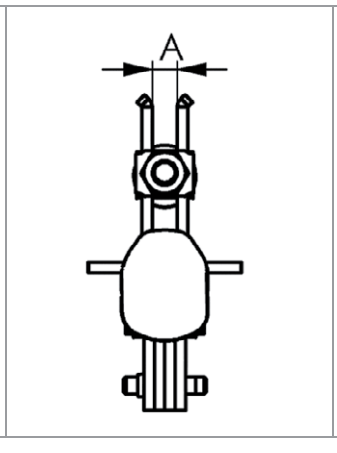
Material Aço
Tratamento sup. Zincado

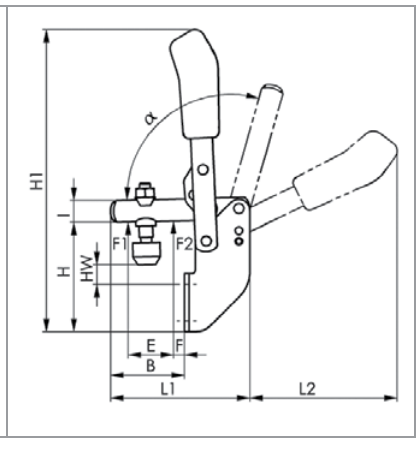


Tipo	A	B	C	D	E	F	F1 [kN]	F2 [kN]	H	H1	HW min.	HW max.	I	K	L1	L2	M	N	O	P	α	α*	Parafusos de aperto
1	5	34	14	4,5	19	8	0,8	1,1	47	132	-1,5	5,5	10	10	60	58	20,0	30	5	30	105°	-	M5x30
2	6	40	20	5,5	25	9	1,0	1,2	61	180	2,0	11,0	12	6	78	63	25,5	38	5	32	105°	60°	M6x35
3	8	65	24	6,5	43	11	1,4	2,5	71	243	6,0	18,0	18	7	112	111	28,5	43	6	38	105°	60°	M8x45
4	10	84	32	8,5	50	17	2,0	3,0	102	280	11,0	40,0	20	54	140	129	32,0	52	8	96	105°	60°	M8x65

* O ângulo de abertura pode ser alterado quando se pressiona o pino stop.



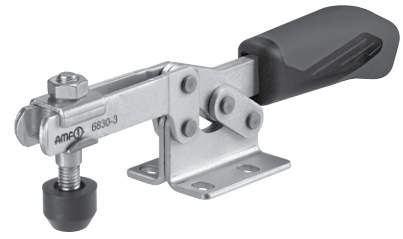




Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
NO.1	1	15905.000.101	NO.3	1	15905.000.103	NO.4	1	15905.000.104
NO.2	1	15905.000.102						

- Com braço aberto e base angular.
- Fornecido completo com parafuso temperdao e zincado.

Grampo horizontal



Grupos de produtos

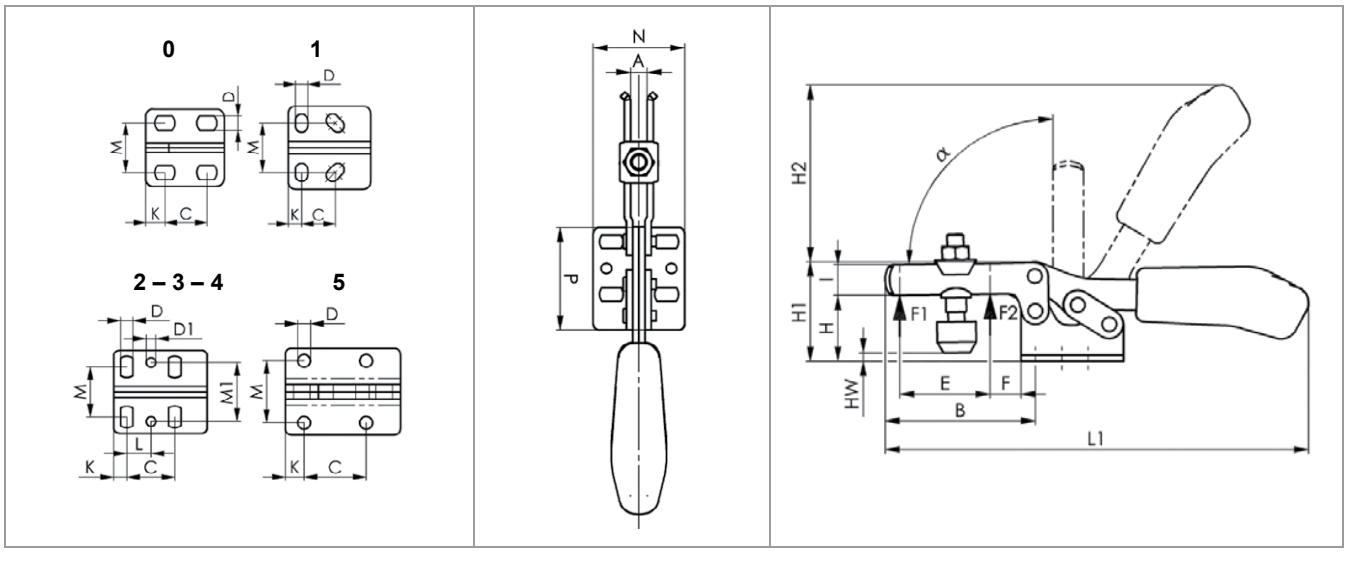
Material	Tratamento sup.		Código	Página
Aço	Zn	horizontal	15910	12-153
Aço	Zn	horizontal	15916	12-154
Aço	Zn	angular	15915	12-155

15910 **Grampo horinzontal 6830** **F97A**

Material Aço
Tratamento sup. Zincado



Tipo	A	B	C	D	D1	E	F	F1 [kN]	F2 [kN]	H	H1	H2	HW min.	HW max.	I	K	L	L1	M	M1	N	P	α	Parafusos de aperto
0	5	28	13,5	4,6	-	9,0	5	0,25	0,4	14,5	23,0	34	-5,0	1	7,5	6,3	-	79	16,0	-	25,0	25,5	90°	M4x25
1	5	42	14,0	5,2	-	18,5	8	0,8	1,1	19,0	30,0	49	-4,0	2	10,0	5,5	-	120	20,3	-	34,0	34,0	90°	M5x30
2	6	64	26,0	5,6	5,6	32,0	16	1,0	1,2	24,0	45,0	68	-1,5	5	13,0	6,0	12,7	162	24,5	28,5	42,0	38,0	90°	M6x35
3	8	73	25,7	6,5	5,1	36,0	15	1,8	2,5	32,0	48,5	86	-2,0	9,0	15,0	7,0	13	206	26,8	31,6	44,5	50,0	90°	M8x45
4	10	113	41,0	8,5	8,5	63,0	27	2,0	3,0	45,0	75,0	115	-4,0	24	20,0	8,0	20,5	281	36,0	43,0	58,0	57,0	90°	M8x65
5	10	123	41,5	8,5	-	78,0	16	3,0	5,0	46,0	73,0	128	-1,5	25	25,0	12,5	-	321	41,5	-	58,0	77,0	90°	M8x65



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
NO.0	1	15910.000.100	NO.2	1	15910.000.102	NO.4	1	15910.000.104
NO.1	1	15910.000.101	NO.3	1	15910.000.103	NO.5	1	15910.000.105

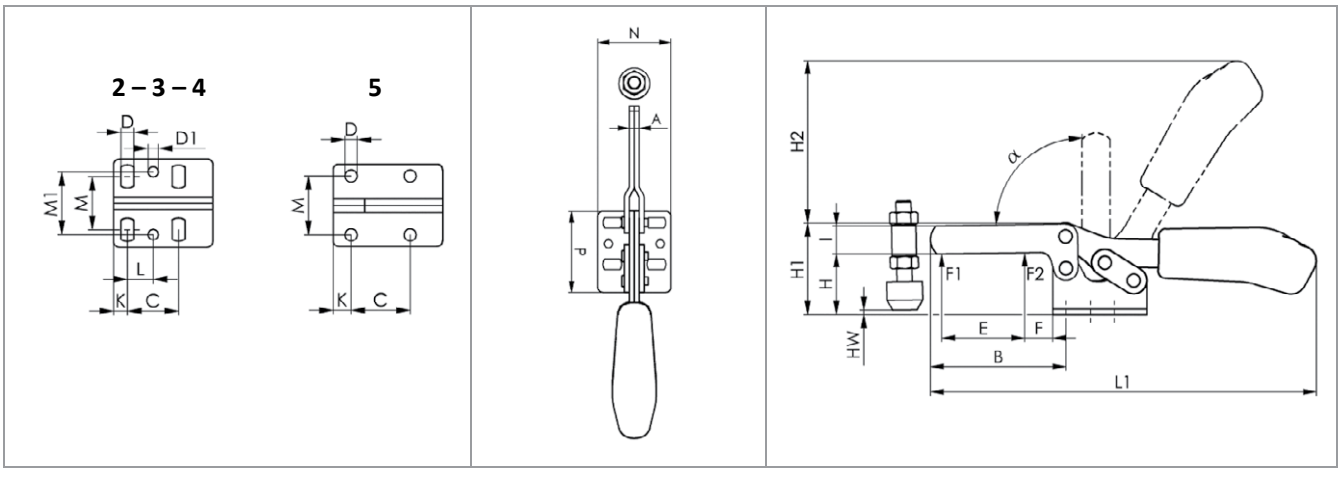
- Com braço aberto e base horizontal.
- Fornecido completo com parafuso temperado e zincado.

15916	Grampo horinzontal 6834	F97A

Material Aço
Tratamento sup. Zincado



Tipo	A	B	C	D	D1	E	F	F1 [kN]	F2 [kN]	H	H1	H2	HW min.	HW max.	I	K	L	L1	M	M1	N	P	α	Parafusos de aperto
2	5	63	26,0	5,6	5,6	35	16,0	1,0	1,2	24	45,0	68	-4,0	4	13	6,0	12,7	161	24,5	28,5	42	38	90°	M 6x35
3	6	72	26,0	6,5	5,1	44	15,0	1,8	2,5	32	48,5	86	-3,5	9	15	7,0	13,0	205	27,0	32,0	45	50	90°	M 8x45
4	8	111	41,0	8,5	8,5	66	26,0	2,0	3,0	45	75,0	114	-6,0	22	20	8,0	20,5	280	36,0	43,0	58	57	90°	M 8x65
5	10	121	41,5	8,0	-	78	17,5	3,0	5,0	46	73,0	128	-13,0	12	25	12,5	-	320	41,5	-	58	77	90°	M12x80



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
NO.2	1	15916.000.102	NO.4	1	15916.000.104	NO.5	1	15916.000.105
NO.3	1	15916.000.103						

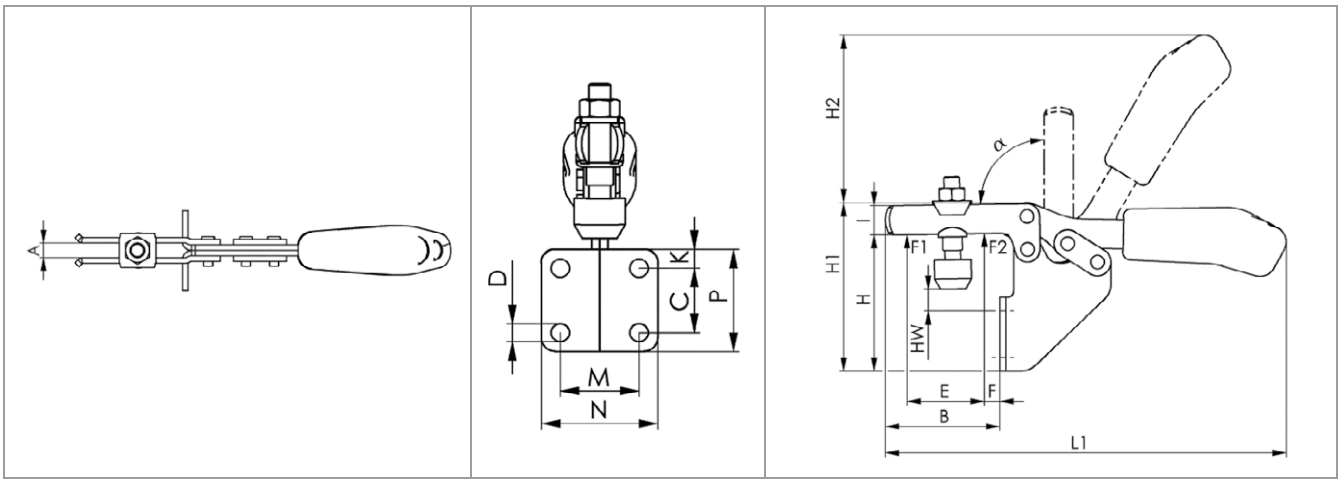
- Com braço aberto e base horizontal.
- Fornecido completo com parafuso temperado e galvanizado, parafuso zincado no. 6885 e camisa e camisa.

15915 Grampo horizontal 6833 F97A

Material Aço
Tratamento sup. Zincado



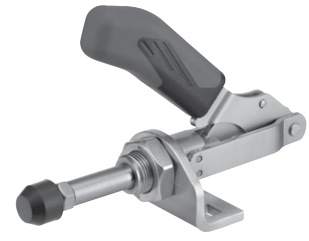
Tipo	A	B	C	D	E	F	F1 [kN]	F2 [kN]	H	H1	H2	HW min.	HW max.	I	K	L1	M	N	P	α	Parafusos de aperto
1	5	32	13,5	5,2	18,5	4,0	0,8	1,1	57	68	49	14	20	10	8	120	19,0	31	28	90°	M5x30
2	6	52	20,0	5,6	32,0	10,5	1,0	1,2	73	94	68	22	29	13	6	162	25,5	37	32	90°	M6x35
3	8	59	24,0	6,8	37,0	8,0	1,8	2,5	70	86	86	5	16	15	7	206	29,0	43	38	90°	M8x45
4	10	93	32,0	8,5	63,0	15,0	2,0	3,0	102	133	115	11	40	20	40	282	32,0	52	82	90°	M8x65



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
NO.1	1	15915.000.101	NO.3	1	15915.000.103	NO.4	1	15915.000.104
NO.2	1	15915.000.102						

- Com braço aberto e base angular.
- Fornecido completo com parafuso temperado e zincado.

Grampo push-pull



Grupos de produtos

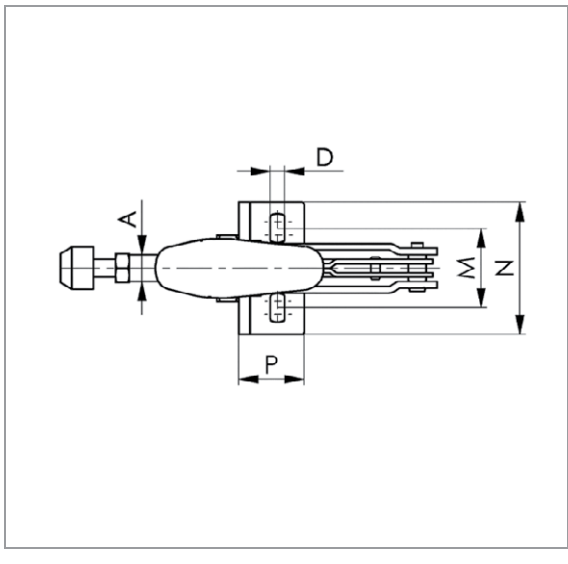
Material	Tratamento sup.		Código	Página
Aço	Zn	base angular pequena	15920	12-156
Aço	Zn	versão curta	15925	12-157
Aço	Zn	versão heavy	15930	12-158

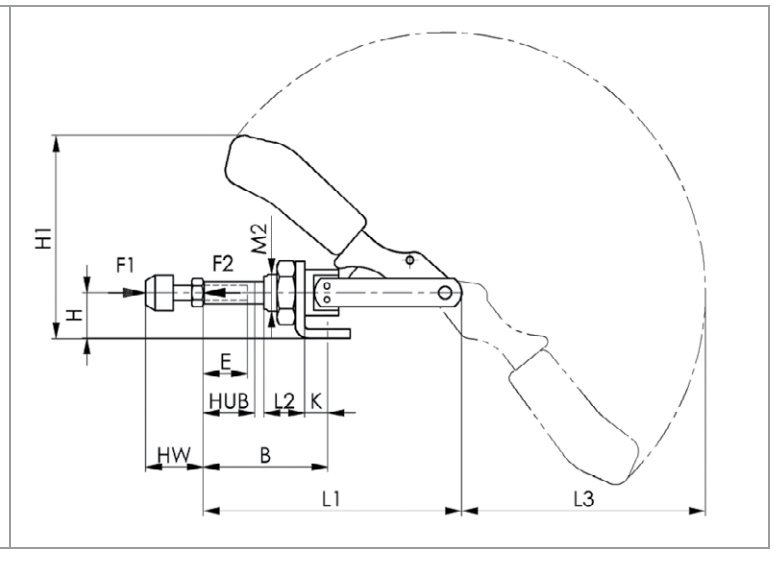
15920 **Grampo Tipo Push-pull 6841** **F97A**

Material Aço
Tratamento sup. Zincado



Tipo	A	B min.	B max.	D	E	F1 [kN]	F2 [kN]	H	H1	HUB	HW min.	HW max.	K	L1	L2	L3	M min.	M max.	M2	N	P	Parafusos de aperto
0	6,5	17,0	33,0	4,5	13	0,8	0,8	12	47	16	12	20	6,5	66,0	10	52	-	16,0	M10x1,0	25	16	M 4x20
1	8,0	24,5	44,5	4,5	20	1,0	1,0	15	60	20	12	20	7,0	91,0	16	72	16	19,5	M12x1,5	30	20	M 4x20
2	10,0	32,5	57,5	5,6	25	2,0	2,0	20	95	26	17	25	12,5	114,0	19	105	-	36,0	M16x1,5	50	34	M 6x25
3	12,0	37,0	69,0	6,5	30	2,5	2,5	25	110	32	22	35	13,0	140,0	22	129	30	42,0	M20x1,5	60	30	M 8x35
5-M27	16,0	41,5	81,5	8,5	50	4,5	4,5	30	126	40	30	50	15,0	171,5	25	142	30	45,0	M27x2,0	65	35	M12x50





Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
NO.0	1	15920.000.100	NO.2	1	15920.000.102	NO.5	1	15920.000.105
NO.1	1	15920.000.101	NO.3	1	15920.000.103	NO.5-M27	1	15920.000.527

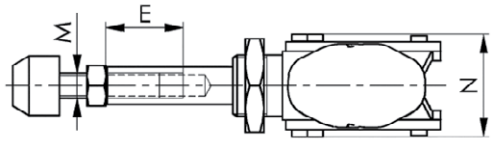
- Com base pequena angular.
- Para grampo push- and pull.
- Fornecido completo com parafuso temperado zincado.

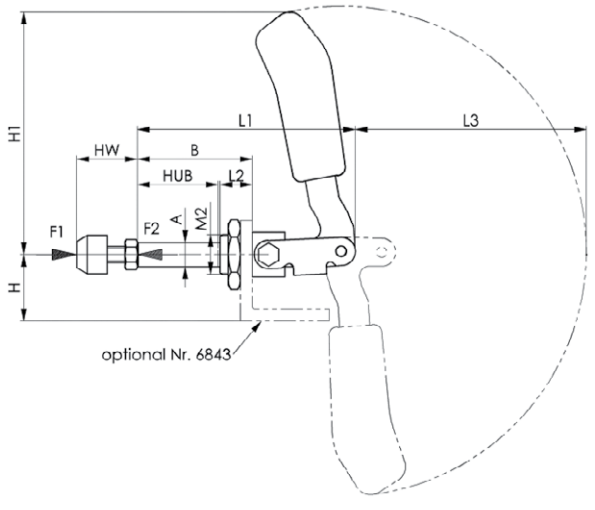
15925 **Grampo Tipo Push-pull 6844** **F97A**

Material Aço
Tratamento sup. Zincado



Tipo	A	B	E	F1 [kN]	F2 [kN]	H	H1	HUB	HW min.	HW max.	L1	L2	L3	M	M2	N	Parafusos de aperto
2	10	35	15	1,0	1,0	24	76	21	18	27	70	13	82	M 6	M16x1,5	31	M 6x25
3	12	56	25	2,5	2,5	33	128	40	22	35	110	16	130	M 8	M20x1,5	33	M 8x35
5-M27	16	92	35	4,0	4,0	37	148	67	30	50	175	24	138	M12	M27x2,0	50	M12x50





Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
NO.2	1	15925.000.102	NO.5	1	15925.000.105	NO.5-M27	1	15925.000.527
NO.3	1	15925.000.103						

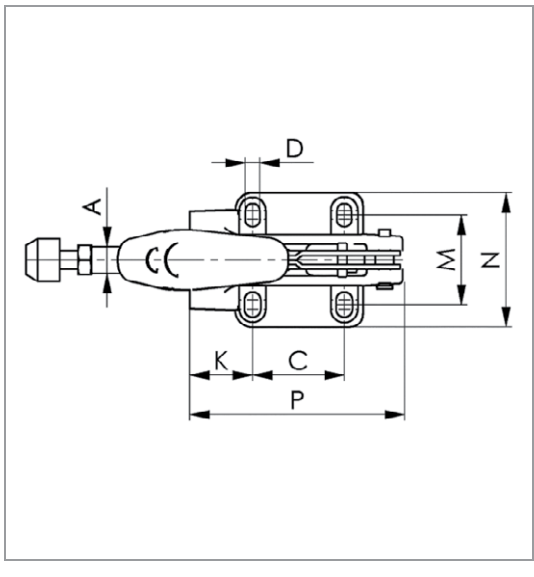
- Versão curta.
- Para grampo push- and pull.
- Fornecido completo temperado zincado.

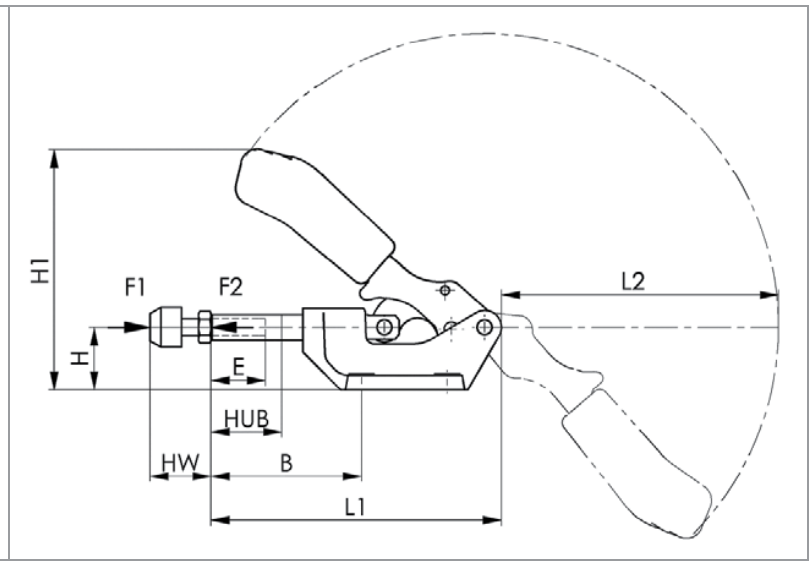
15930 Grampo Tipo Push-pull 6842 F97A

Material Aço
Tratamento sup. Zincado



Tipo	A	B min.	B max.	C	D	E	F1 [kN]	F2 [kN]	H	H1	HUB	HW min.	HW max.	K	L1	L2	M min.	M max.	N	P	Parafusos de aperto
3	12	40	72	41	6,5	30	4	4	30	115	32	35	48	28	140	130	36	44	60	96	M 8x35
5	16	58	98	41	8,5	50	10	10	38	134	40	30	50	46	172	140	41	50	70	122	M12x50
7	22	59	105	70	11,0	50	25	25	55	180	50	30	50	45	218	192	57	65	93	158	M12x50





Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
NO.3	1	15930.000.103	NO.5	1	15930.000.105	NO.7	1	15930.000.107

- Para grampo push- and pull.
- Tipo pesado com guia.
- Fornecido completo com parafuso temperado e zincado.

Grampo tipo gancho

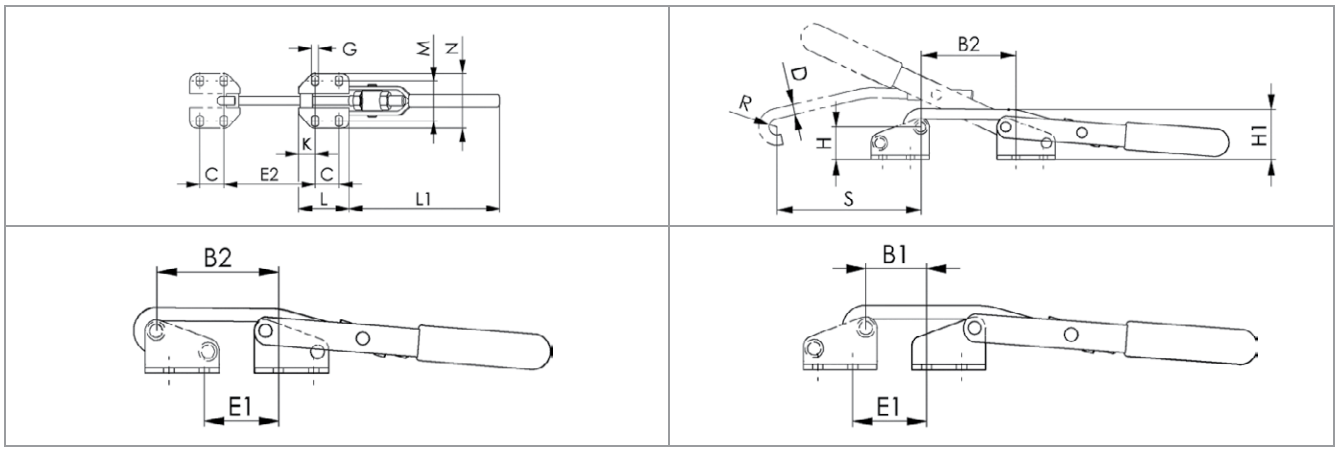


15935 **Grampo 6847** **F97A**

Material Aço
Tratamento sup. Zincado



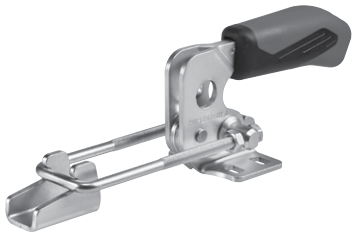
Tipo	B1	B2	C	D	E1	E2	F1 [kN]	G	H	H1	K	L	L1	M	N	R	S	Distância de ajustamento [mm]
1	15-23	34-42	19	5,3	15-23	34,0-42,0	2	4,5	22,5	33	6	31	130	28	41	4,5	45	8
3	32-44	67-79	19	7,1	40-52	74,5-86,5	3	5,5	23,0	36	13	40	230	32-35	46	5,5	98	12
5	26-40	57-71	29	12,0	28-42	58,5-72,5	5	11,0	49,0	70	13	55	308	60	88	8,0	144	14



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
NO.1	1	15935.000.101	NO.3	1	15935.000.103	NO.5	1	15935.000.105

- Para recetáculos: ver grupo de artigo 15940.

Grampo tipo gancho horizontal

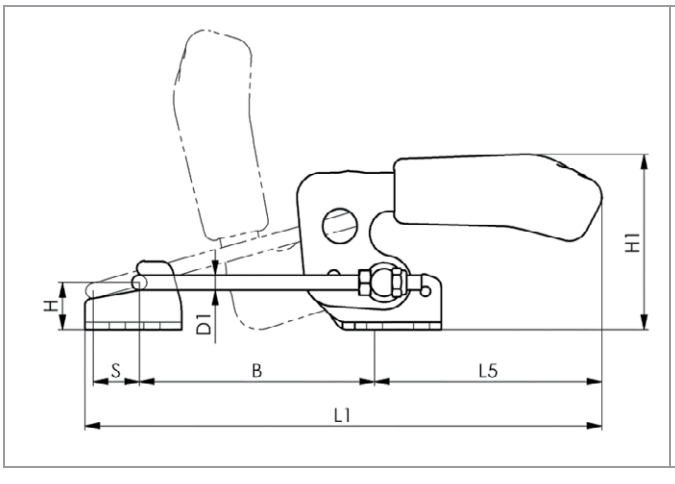


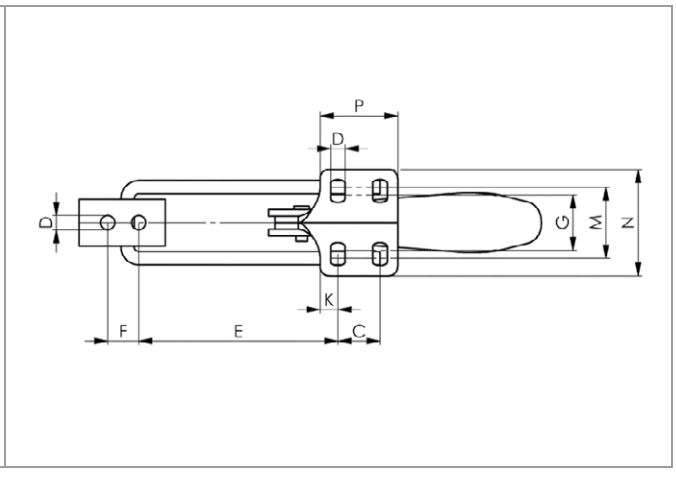
15945 **Grampo com receptáculo horizontal 6848H** **F97A**

Material Aço
Tratamento sup. Zincado



Tipo	B min.	B max.	C	D	D1	E min.	E max.	F	F1 [kN]	G	H	H1	K	L1	L5	M	N	P	S
2	42	74	13	5,2	4	38	70	11	1,6	19	12	47	6,5	156	70	24	38	26	23
3	53	95	19	6,5	6	48	90	14	3,2	25	19	70	8,0	210	95	32	48	35	30
4	72	127	32	8,5	8	65	120	19	7,0	36	25	92	9,5	270	113	45	65	51	44





Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
NO.2	1	15945.000.102	NO.3	1	15945.000.103	NO.4	1	15945.000.104

- Fornecido com recetáculo completo.

Grampo tipo gancho vertical

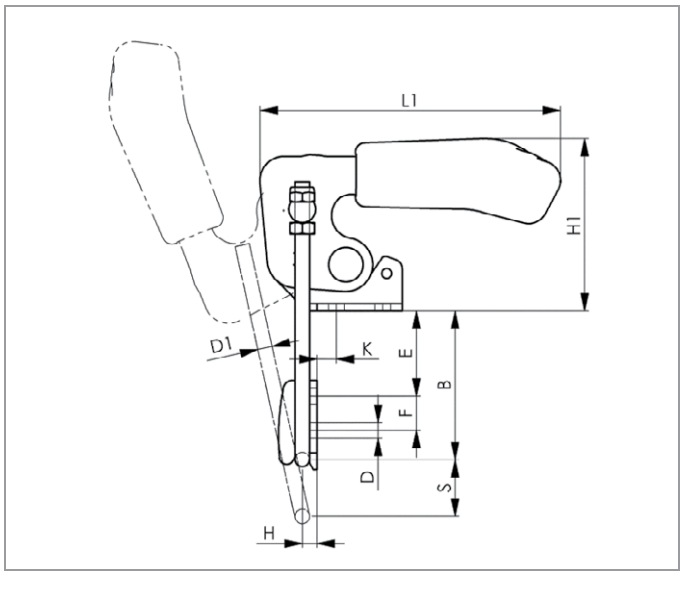


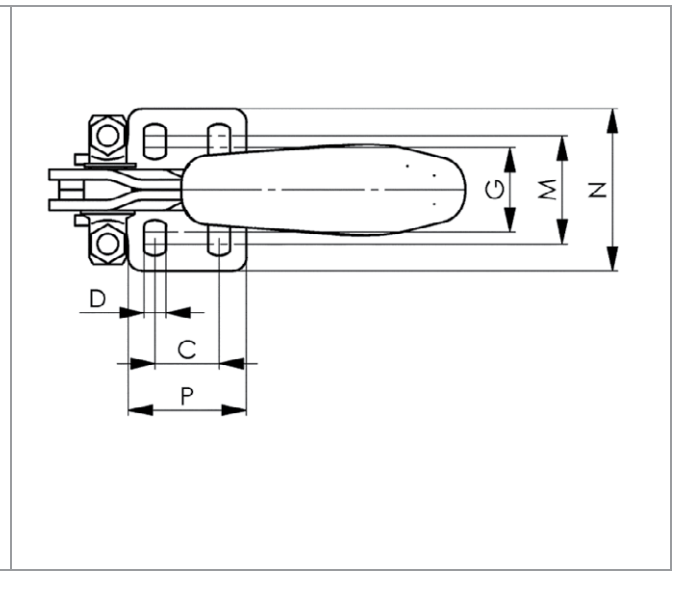
15950 **Grampo com receptáculo vertical 6848V** **F97A**

Material Aço
Tratamento sup. Zincado



Tipo	B min.	B max.	C	D	D1	E min.	E max.	F1 [kN]	F	G	H	H1	K	L1	M	N	P	S
2	24	47	13	5,2	4	5	28	1,6	11	19	4,5	47	7,0	90	24	38	26	23
3	33	61	19	6,5	6	7	35	3,2	14	25	6,0	70	8,0	127	32	48	35	30
4	43	79	32	8,5	8	9	45	7,0	19	36	8,0	92	9,5	150	45	65	51	40





Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
NO.2	1	15950.000.102	NO.3	1	15950.000.103	NO.4	1	15950.000.104

- Fornecido com recetáculo completo.

Receptáculo para grampo



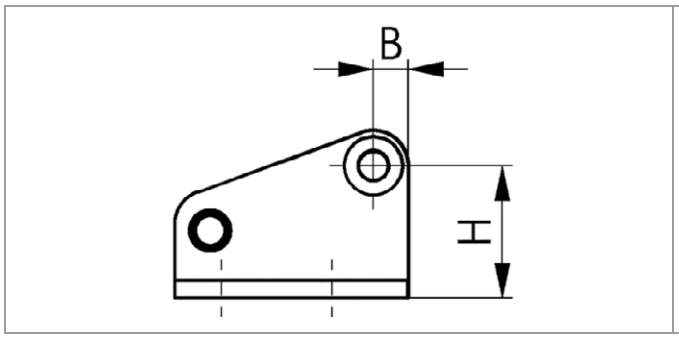
15940 **Receptáculo para grampo 6847** **F97A**

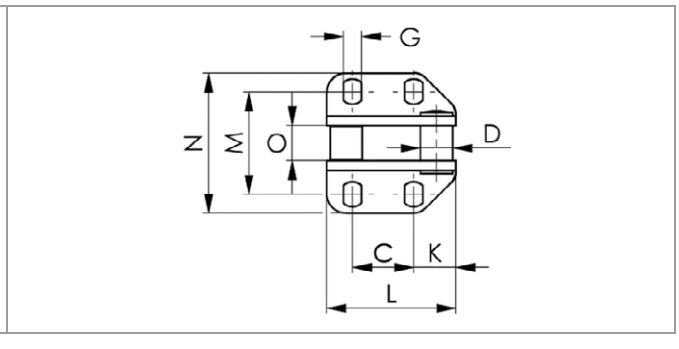
Material Aço
Tratamento sup. Zincado

RoHS



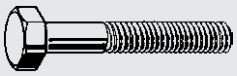
Tipo	B	C	D	G	H	K	L	M	N	O
1	6	19	8	4,5	22,5	6	31	28	41	6,8
3	6	19	10	5,5	23,0	13	40	32-35	46	10,8
5	12	29	15	11,0	49,0	13	55	60	88	13,7



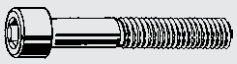


Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
NO.1	1	15940.000.101	NO.3	1	15940.000.103	NO.5	1	15940.000.105

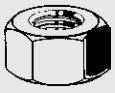
- Indicado para grampo de gancho, ver gurpo de artigo 15935.



1 Parafusos sextavado exterior



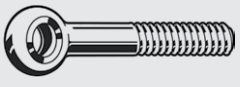
2 Produtos sextavados interiores



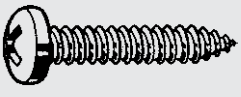
3 Porcas/porcas de rebitar / insertos



4 Varão roscado / pernos



5 Produtos olhal / gancho

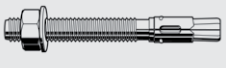


6 Parafusos

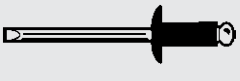
I Indice



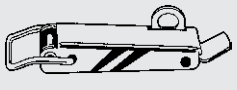
7 Anilha



8 Ancoragem



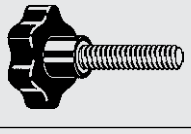
9 Rebites / cavilhas



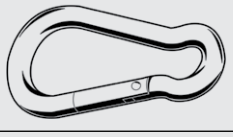
10 Parafusos de segurança / Sistemas de fixação



11 Sortidos



12 Sistemas de engenharia / peças para máquinas



13 Marítimo produtos

T Tecnologia de fixação

Marítimo produtos 13

 Página 13-3 Ligação gancho	 Página 13-4 Manilha	 Página 13-8 Manilha circular	 Página 13-10 Manilha torcida	 Página 13-11 Manilha com cavilha
 Página 13-12 Chave multiusos	 Página 13-13 Mosquetão	 Página 13-16 Mosquetão com travamento	 Página 13-17 Mosquetão com mola	 Página 13-18 Mosquetão assimétrico
 Página 13-20 Mosquetão com rosca	 Página 13-21 Mosquetão	 Página 13-22 Mosquetão com fecho especial	 Página 13-23 Gancho ligação	 Página 13-24 Gancho com duplo fecho
 Página 13-25 Gancho	 Página 13-27 ligação gancho argola	 Página 13-28 Ligação argola	 Página 13-31 Gancho de fixação	 Página 13-32 Ligação argola de alumínio
 Página 13-33 Argola Dupla	 Página 13-34 Gancho mola simples	 Página 13-35 Ajuste de corda	 Página 13-36 Ligações	 Página 13-38 Gancho deslizante
 Página 13-39 Manga ligação	 Página 13-40 Ligação	 Página 13-42 Esticadores	 Página 13-43 Perno terminal	 Página 13-46 Terminal T
 Página 13-47 Ligação flexível	 Página 13-49 Terminal para ligação	 Página 13-50 Ligação ajustável	 Página 13-51 Gancho com rosca	 Página 13-52 Gancho
 Página 13-53 Terminal com ligação rápida	 Página 13-54 Cabo em aço	 Página 13-56 Alicate corte de cabo de aço	 Página 13-56 Passa cabos	 Página 13-58 Serra cabos
 Página 13-60 Terminal	 Página 13-62 Alicate corte	 Página 13-63 Cavilha com argola	 Página 13-66 Cavilha com argola de segurança	 Página 13-67 Cavilha mola
 Página 13-68 Cavilha de anel	 Página 13-69 Ferramenta	 Página 13-70 Terminal	 Página 13-74 Terminal com cabeça	 Página 13-75 Parafuso dupla rosca

Marítimo produtos 13


Página 13-76
Porca para ligação


Página 13-77
Porca clip para cabos de aço


Página 13-78
Bola com interior roscado


Página 13-79
Artigo ligação fixação de parede


Página 13-80
Anilha plana para artigo ligação fixação de parede


Página 13-81
Dobradiça


Página 13-84
Dobradiça


Página 13-87
Dobradiça


Página 13-88
Dobradiça


Página 13-91
Dobradiça


Página 13-92
Dobradiça


Página 13-93
Dobradiça


Página 13-95
Dobradiça


Página 13-96
Dobradiça


Página 13-97
Dobradiça


Página 13-98
Dobradiça


Página 13-101
Dobradiça com roscas


Página 13-104
Dobradiça


Página 13-105
Dobradiça


Página 13-106
Chave de segurança


Página 13-107
Argola giratória


Página 13-109
Lingueta


Página 13-110
Fecho com chave


Página 13-112
Anel de elevação


Página 13-113
Fecho


Página 13-114
Gancho


Página 13-117
Proteção de fecho


Página 13-118
Gancho em S


Página 13-120
Gancho de parede


Página 13-121
Gancho de toldo


Página 13-122
Suporte angular


Página 13-123
Gancho elástico


Página 13-124
Gancho de parede roscado


Página 13-125
Gancho de suporte


Página 13-126
Fecho de porta


Página 13-128
Gancho de suporte


Página 13-129
Argola


Página 13-130
Anel


Página 13-133
Cavilha com anel


Página 13-134
Pega


Página 13-135
Corrente


Página 13-136
Mosquetão

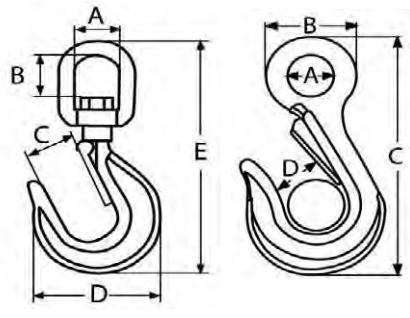
13

Ligação gancho



Dados técnicos

Nr.	A	B	C	D	E	≈ Carga de rutura, em N
54100.028.001	28	17	18	69	147	20.000
54100.036.001	36	36	33	97	193	37.000
54101.019.001	19	33.5	100	20.5	-	15.000
54101.028.001	28	44.5	115	23	-	18.000



54100 **54101**

Grupos de produtos

Material	Código	Página
INOX A4	54100	13-3
INOX A4	54101	13-3

54100 Gancho com destorcedor — MH11

Material Aço inoxidável A4



A	✉	Ref. do artigo	A	✉	Ref. do artigo
28MM*	1	54100.028.001	36MM*	1	54100.036.001

54101 Ligação gancho — MH11

Material Aço inoxidável A4



A	✉	Ref. do artigo	A	✉	Ref. do artigo
19MM*	5	54101.019.001	28MM*	5	54101.028.001

Manilha

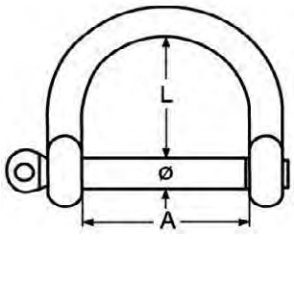


Dados técnicos

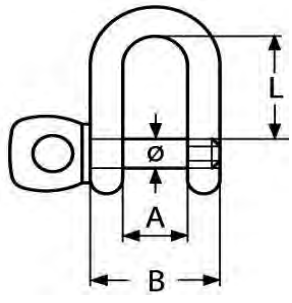
Nr.	A	B	L	ø	≈ Carga de rutura, em N
54102.050.001	25	-	20	5	7.500
54102.060.001	24	-	33	6	13.500
54102.080.001	26	-	31	8	25.000
54102.100.001	41	-	55	10	33.500
54102.120.001	50	-	66	12	40.000
54104.040.001	8	16	14	4	7.000
54104.050.001	19	20	14.5	5	10.000
54104.060.001	12	24	21	6	15.000
54104.080.001	16	32	28	8	30.000
54104.100.001	20	40	36	10	45.000
54104.120.001	24	48	44	12	70.000
54104.160.001	32	64	56	16	100.000
54104.190.001	35	76	65.5	19	160.000
54105.050.001	10	20	16.5	5	11.000
54105.060.001	12	24	21	6	16.000
54105.080.001	16	32	28	8	32.000
54105.100.001	20	40	34	10	49.000
54105.120.001	24	48	36	12	66.000
54106.050.001	10	20	16.5	5	10.000
54106.060.001	12	24	18	6	15.000
54106.080.001	16	32	28	8	22.000
54106.100.001	20	40	35	10	37.000
54106.120.001	24	48	45	12	54.000
54106.140.001	28	56	49	14	65.000
54106.160.001	32	64	52	16	88.000
54106.190.001	38	76	63.5	19	160.000
54106.220.001	44	88	76	22	190.000
54107.040.001	8	16	15	4	10.800
54107.050.001	10	20	17.5	5	15.500
54107.060.001	12	24	21	6	18.600
54107.080.001	16	32	29	8	43.800
54107.100.001	20	40	35	10	58.000
54107.120.001	24	48	43	12	81.000
54109.048.001	9.7	5	19	6.4	13.200
54109.064.001	12	6	22	8	20.000
54109.080.001	13.5	8	26	9.5	30.000
54109.096.001	17	10	32	11	40.000
54109.127.001	21	12	41	16	80.000
54109.160.001	27	16	51	19	120.000
54109.190.001	32	20	60	22	160.000
54109.220.001	36	22	71	25	200.000
54112.040.001	8.5	-	31.3	4	7.000
54112.050.001	10	-	40	5	10.000
54112.060.001	12	-	48	6	15.000
54112.080.001	16	-	64	8	32.000
54112.100.001	20	-	80	10	49.000
54112.120.001	24	-	96	12	70.000
54113.050.001	10	-	37.5	5	11.000
54113.060.001	12	-	43	6	16.000
54113.080.001	16	-	60	8	32.000
54113.100.001	20	-	75	10	49.000
54113.120.001	24	-	90	12	66.000
54115.050.001	12	2.6	18.5	5	4.000
54115.060.001	14	3	22	6	5.000
54115.080.001	18	3.7	28	8	9.000
54116.040.001	10	-	15	4	8.000
54116.050.001	12	-	17.5	5	11.000

Dados técnicos

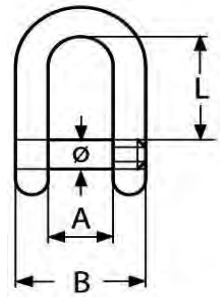
Nr.	A	B	L	ø	≈ Carga de rutura, em N
54116.060.001	16	-	21	6	20.000
54117.040.001	12	-	24	4	8.000
54117.050.001	16	-	21	5	11.000
54117.060.001	17	-	26	6	20.000



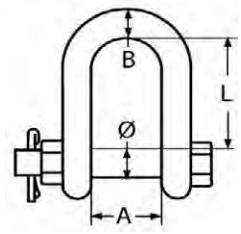
54102



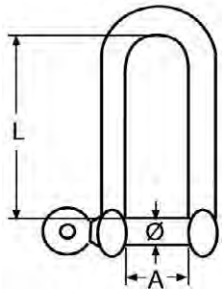
54104-5-7



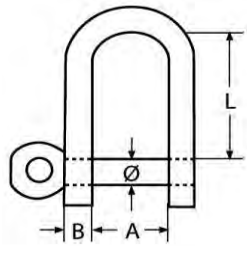
54106



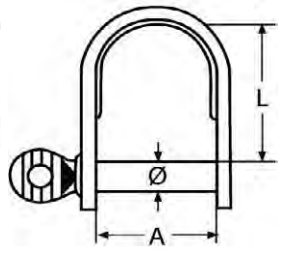
54109



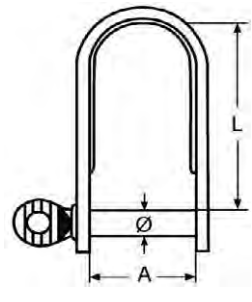
54112-3



54115



54116



54117

Grupos de produtos

Material	Código	Página
INOX A4	54102	13-5
INOX A4	54104	13-6
INOX A4	54105	13-6
INOX A4	54106	13-6
INOX A4	54107	13-6
INOX A4	54109	13-6
INOX A4	54112	13-6
INOX A4	54113	13-7
INOX A4	54115	13-7
INOX A4	54116	13-7
INOX A4	54117	13-7

54102 **Manilha** **MH11**

Material Aço inoxidável A4



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
5MM*	10	54102.050.001	8MM*	10	54102.080.001	12MM*	5	54102.120.001
6MM*	10	54102.060.001	10MM*	5	54102.100.001			

54104 Manilha curta — MH11

Material Aço inoxidável A4



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
4MM*	50	54104.040.001	8MM*	20	54104.080.001	16MM*	10	54104.160.001
5MM*	50	54104.050.001	10MM*	20	54104.100.001	19MM*	10	54104.190.001
6MM*	50	54104.060.001	12MM*	20	54104.120.001			

54105 Manilha redonda com cavilha — MH11

Material Aço inoxidável A4



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
5MM*	10	54105.050.001	8MM*	10	54105.080.001	12MM*	5	54105.120.001
6MM*	10	54105.060.001	10MM*	5	54105.100.001			

54106 Manilha redonda com parafuso sextavado interior — MH11

Material Aço inoxidável A4



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
5MM*	10	54106.050.001	10MM*	5	54106.100.001	16MM*	5	54106.160.001
6MM*	10	54106.060.001	12MM*	5	54106.120.001	19MM*	1	54106.190.001
8MM*	10	54106.080.001	14MM*	5	54106.140.001	22MM*	1	54106.220.001

54107 Manilha, forjada — MH11

Material Aço inoxidável A4



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
4MM*	10	54107.040.001	6MM*	10	54107.060.001	10MM*	5	54107.100.001
5MM*	10	54107.050.001	8MM*	10	54107.080.001	12MM*	5	54107.120.001

54109 Manilha com cavilha de segurança — MH11

Material Aço inoxidável A4



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
4,8MM*	10	54109.048.001	9,5MM*	5	54109.096.001	19MM*	1	54109.190.001
6,4MM*	10	54109.064.001	12,7MM*	5	54109.127.001	22MM*	1	54109.220.001
8MM*	10	54109.080.001	16MM*	5	54109.160.001			

54112 Manilha, forma longa — MH11

Material Aço inoxidável A4



13

ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
4MM*	10	54112.040.001	6MM*	10	54112.060.001	10MM*	5	54112.100.001
5MM*	10	54112.050.001	8MM*	10	54112.080.001	12MM*	5	54112.120.001

54113 Manilha, longa com cavilha — MH11

Material Aço inoxidável A4



RoHS

ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
5MM*	10	54113.050.001	8MM*	10	54113.080.001	12MM*	5	54113.120.001
6MM*	10	54113.060.001	10MM*	5	54113.100.001			

54115 Manilha plana, semi redonda — MH11

Material Aço inoxidável A4



RoHS

ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
5MM*	10	54115.050.001	6MM*	10	54115.060.001	8MM*	10	54115.080.001

54116 Manilha plana com perno, curta — MH11

Material Aço inoxidável A4



RoHS

ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
4MM*	10	54116.040.001	5MM*	10	54116.050.001	6MM*	10	54116.060.001

54117 Manilha plana com perno, longa — MH11

Material Aço inoxidável A4



RoHS

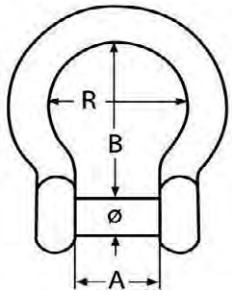
ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
4MM*	10	54117.040.001	5MM*	10	54117.050.001	8MM*	10	54117.060.001

Manilha circular

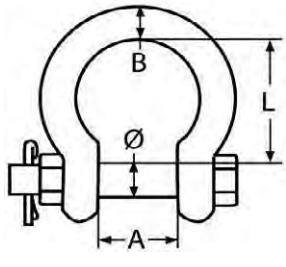


Dados técnicos

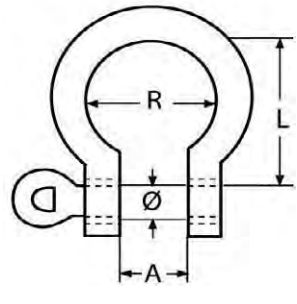
Nr.	A	B	L	R	ø	≈ Carga de rutura, em N
54103.050.001	11	25	-	17	5	12.000
54103.060.001	12	30	-	21	6	17.000
54103.080.001	16	44	-	28	8	25.000
54103.100.001	21	49	-	34	10	43.000
54103.120.001	25	57	-	42	12	62.000
54103.160.001	31	80	-	56	16	70.000
54103.190.001	36	96	-	66	19	140.000
54108.048.001	9.7	5	22	-	6.4	13.200
54108.064.001	12	6	29	-	8	20.000
54108.080.001	13.5	8	31	-	9.5	30.000
54108.096.001	17	10	36	-	11	40.000
54108.127.001	21	12	48	-	16	80.000
54108.160.001	27	16	60	-	19	120.000
54108.190.001	32	20	71	-	22	160.000
54108.220.001	36	22	84	-	25	200.000
54110.040.001	8	-	14	14	4	8.000
54110.050.001	10	-	17.5	17	7	12.000
54110.060.001	12	-	21	21	6	19.000
54110.080.001	16	-	28	28	8	28.000
54110.100.001	20	-	35	34	10	43.000
54110.120.001	24	-	42	42	12	65.000
54110.130.001	26	-	39	45	13	75.000
54110.160.001	32	-	56	56	16	120.000
54110.190.001	38	-	78.5	66	19	182.000
54110.220.001	44	-	77	78	22	210.000
54111.050.001	10	-	17.5	17	5	13.000
54111.060.001	12	-	21	21	6	18.000
54111.080.001	16	-	28	28	8	35.000
54111.100.001	20	-	35	34	10	54.000



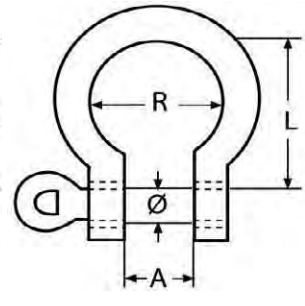
54103



54108



54110



54111

Grupos de produtos

Material	Código	Página
INOX A4	54103	13-9
INOX A4	54108	13-9
INOX A4	54110	13-9
INOX A4	54111	13-9

54103 Manilha com parafuso — MH11

Material Aço inoxidável A4



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
5MM*	10	54103.050.001	10MM*	5	54103.100.001	16MM*	5	54103.160.001
6MM*	10	54103.060.001	12MM*	5	54103.120.001	19MM*	1	54103.190.001
8MM*	10	54103.080.001						

54108 Manilha com cavilha de segurança — MH11

Material Aço inoxidável A4



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
4,8MM*	10	54108.048.001	9,5MM*	5	54108.096.001	19MM*	1	54108.190.001
6,4MM*	10	54108.064.001	12,7MM*	5	54108.127.001	22MM*	1	54108.220.001
8MM*	10	54108.080.001	16MM*	5	54108.160.001			

54110 Manilha — MH11

Material Aço inoxidável A4



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
4MM*	20	54110.040.001	10MM*	10	54110.100.001	16MM*	5	54110.160.001
5MM*	20	54110.050.001	12MM*	5	54110.120.001	19MM*	1	54110.190.001
6MM	20	54110.060.001	13MM*	5	54110.130.001	22MM*	1	54110.220.001
8MM	10	54110.080.001						

54111 Manilha com cavilha — MH11

Material Aço inoxidável A4



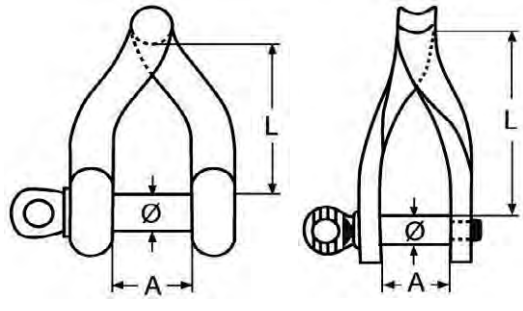
ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
5MM*	10	54111.050.001	8MM*	10	54111.080.001	10MM*	5	54111.100.001
6MM*	10	54111.060.001						

Manilha torcida



Dados técnicos

Nr.	A	L	ø	≈ Carga de rutura, em N
54114.050.001	10	27	5	12.000
54114.060.001	12	30	6	17.500
54114.080.001	16	42	8	30.000
54114.100.001	20	55	10	58.000
54114.120.001	24	65	12	70.000
54118.040.001	11	24	4	8.000
54118.050.001	12	40	5	14.000



54114 54118

Grupos de produtos

Material	Código	Página
INOX A4	54114	13-10
INOX A4	54118	13-10

54114 Manilha torcida **MH11**

Material Aço inoxidável A4



RoHS

ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
5MM*	10	54114.050.001	8MM*	10	54114.080.001	12MM*	5	54114.120.001
6MM*	10	54114.060.001	10MM*	5	54114.100.001			

54118 Manilha plana com perno, torneada **MH11**

Material Aço inoxidável A4



RoHS

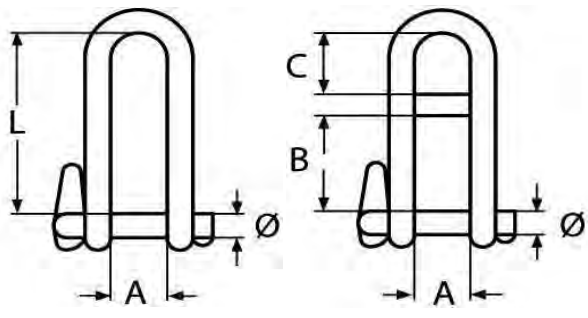
ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
4MM*	10	54118.040.001	5MM*	10	54118.050.001

Manilha com cavilha



Dados técnicos

Nr.	A	B	C	L	ø	≈ Carga de rutura, em N
54119.050.001	13	40	12.5	-	5	9.540
54119.060.001	16	49	15.0	-	6	13.630
54119.080.001	21.5	66	20.5	-	8	22.720
54120.050.001	13	-	-	40	5	9.540
54120.060.001	16	-	-	49	6	13.630
54120.080.001	22	-	-	62	8	22.710



54119 54120

Grupos de produtos

Material	Código	Página
INOX A4	54119	13-11
INOX A4	54120	13-11

54119 Manilha com cavilha **MH11**

Material Aço inoxidável A4



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
5MM*	10	54119.050.001	6MM*	10	54119.060.001	8MM*	10	54119.080.001

54120 Manilha com barra **MH11**

Material Aço inoxidável A4



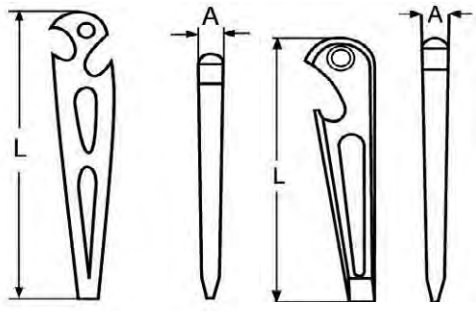
ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
5MM*	10	54120.050.001	6MM*	10	54120.060.001	8MM*	10	54120.080.001

Chave multiusos



Dados técnicos

Nr.	A	L
54121.032.100	2.0	100
54122.050.086	5.0	86



54121 54122

Grupos de produtos

Material	Código	Página
INOX A2	54121	13-12
INOX A4	54122	13-12

54121 **Chave multiusos** **MH11**

Material Aço inoxidável A2



A	✉	Ref. do artigo
2MM*	5	54121.032.100

54122 **Chave multiusos** **MH11**

Material Aço inoxidável A4



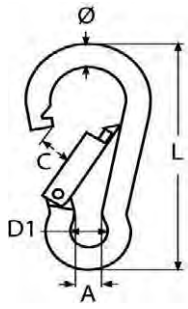
A	✉	Ref. do artigo
5MM*	10	54122.050.086

Mosquetão

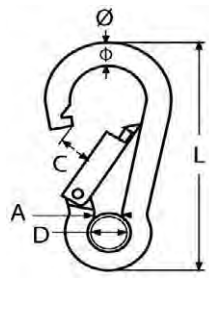


Dados técnicos

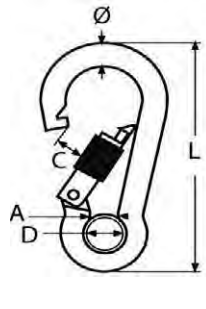
Nr.	A	B	C	D	D_1	L	ø	≈ Carga de rutura, em N
54123.050.050	6	-	8	-	10	50	5	5.700
54123.060.060	8	-	9	-	11	60	6	6.700
54123.070.070	8	-	9	-	13	70	7	7.500
54123.080.080	8	-	9	-	13	80	8	8.700
54123.100.100	10	-	12	-	16	100	10	11.500
54123.110.120	11	-	16	-	18	120	11	12.500
54124.040.040	5	-	7	5	-	40	4	2.000
54124.050.050	6	-	8	6.5	-	50	5	4.000
54124.060.060	8	-	9	7.2	-	60	6	6.000
54124.070.070	8	-	9	9	-	70	7	9.000
54124.080.080	8	-	9	10.2	-	80	8	11.500
54124.100.100	10	-	12	13	-	100	10	14.500
54124.110.120	11	-	16	15	-	120	11	15.500
54124.120.140	13	-	19	18	-	140	12	16.500
54125.040.040	6.5	-	7	5	-	40	4	4.000
54125.050.050	7.5	-	8	9	-	50	5	6.000
54125.060.060	7.5	-	9	10	-	60	6	9.000
54125.070.070	9	-	9	11	-	70	7	10.000
54125.080.080	8	-	8	13	-	80	8	12.000
54125.100.100	10	-	10	16	-	100	10	14.000
54125.110.120	11	-	15	18	-	120	11	15.000
54126.040.040	5	-	7	5	-	40	4	4.000
54126.050.050	6	-	8	9	-	50	5	6.000
54126.060.060	8	-	9	10	-	60	6	9.000
54126.070.070	8	-	9	11	-	70	7	10.000
54126.080.080	8	-	8	13	-	80	8	12.000
54126.100.100	10	-	10	16	-	100	10	14.000
54126.110.120	11	-	15	18	-	120	11	15.000
54129.060.060	-	30	7.5	8.5	-	60	6	2.720
54129.080.080	-	40	10	12	-	80	8	5.080
54129.100.100	-	50	12	15	-	100	10	7.280
54130.050.050	-	26	15	8	-	50	5	3.870
54130.060.060	-	30	16	8.5	-	60	6	4.170
54130.080.080	-	40	23	12	-	80	8	9.900
54130.100.100	-	50	27	15	-	100	10	13.000
54131.050.050	-	26	15	7.8	-	50	5	3.870
54131.060.060	-	30	16	7.8	-	60	6	4.170
54131.080.080	-	40	23	10.8	-	80	8	9.900
54131.100.100	-	50	27	14	-	100	10	13.000
54138.060.060	-	30	8.5	-	-	60	6	2.720
54138.080.080	-	40	10	-	-	80	8	5.080
54138.100.100	-	50	12	-	-	100	10	7.280
54138.110.120	-	60	17	-	-	120	11	8.160



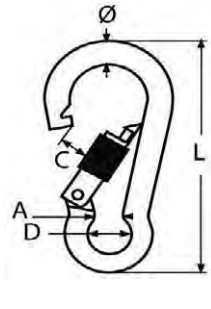
54123



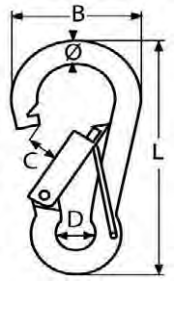
54124



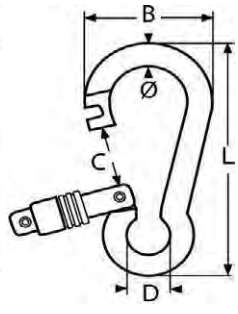
54125



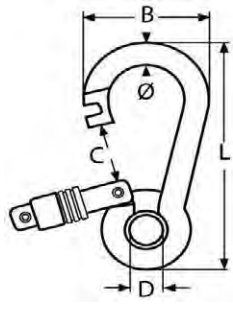
54126



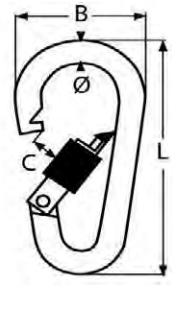
54129



54130



54131



54138

Grupos de produtos

Material	Código	Página
INOX A4	54123	13-14
INOX A4	54124	13-14
INOX A4	54125	13-15
INOX A4	54126	13-15
INOX A4	54129	13-15
INOX A4	54130	13-15
INOX A4	54131	13-15
INOX A4	54138	13-15

54123 **Mosquetão** **MH11**

Material Aço inoxidável A4



ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo
5X50MM	20	54123.050.050	7X70MM*	20	54123.070.070	10X100MM*	10	54123.100.100
6X60MM	20	54123.060.060	8X80MM	20	54123.080.080	11X120MM*	10	54123.110.120

54124 **Mosquetão** **MH11**

Material Aço inoxidável A4



ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo
4X40MM*	10	54124.040.040	7X70MM*	10	54124.070.070	11X120MM*	5	54124.110.120
5X50MM*	10	54124.050.050	8X80MM*	10	54124.080.080	12X140MM*	5	54124.120.140
6X60MM*	10	54124.060.060	10X100MM*	5	54124.100.100			

54125 Mosquetão com porca de segurança — MH11

Material Aço inoxidável A4



ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo
4X40MM*	10	54125.040.040	7X70MM*	10	54125.070.070	10X100MM*	5	54125.100.100
5X50MM*	10	54125.050.050	8X80MM*	10	54125.080.080	11X120MM*	5	54125.110.120
6X60MM*	10	54125.060.060						

54126 Mosquetão com porca de segurança — MH11

Material Aço inoxidável A4



ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo
4X40MM*	10	54126.040.040	7X70MM*	10	54126.070.070	10X100MM*	5	54126.100.100
5X50MM*	10	54126.050.050	8X80MM*	10	54126.080.080	11X120MM*	5	54126.110.120
6X60MM*	10	54126.060.060						

54129 Mosquetão com fecho de segurança — MH11

Material Aço inoxidável A4



ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo
6X60MM*	10	54129.060.060	8X80MM*	10	54129.080.080	10X100MM*	5	54129.100.100

54130 Mosquetão com porca — MH11

Material Aço inoxidável A4



ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo
5X50MM*	10	54130.050.050	8X80MM*	10	54130.080.080	10X100MM*	5	54130.100.100
6X60MM*	10	54130.060.060						

54131 Mosquetão com fecho — MH11

Material Aço inoxidável A4



ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo
5X50MM*	10	54131.050.050	8X80MM*	10	54131.080.080	10X100MM*	5	54131.100.100
6X60MM*	10	54131.060.060						

54138 Mosquetão com porca de segurança — MH11

Material Aço inoxidável A4



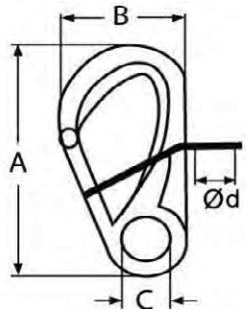
ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo
6X60MM*	10	54138.060.060	10X100MM*	5	54138.100.100	11X120MM*	5	54138.110.120
8X80MM*	10	54138.080.080						

Mosquetão com travamento



Dados técnicos

Nr.	A	B	C	ø d	≈ Carga de rutura, em N
54127.108.063	108	63	21	35	9.100



54127

54127	Mosquetão com travamento	MH11
Material	Aço inoxidável A4	



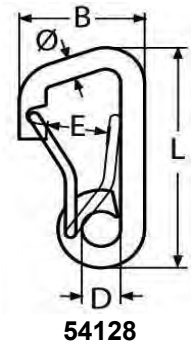
A x B	✉	Ref. do artigo
108X63MM*	5	54127.108.063

Mosquetão com mola



Dados técnicos

Nr.	B	D	E	L	ø	≈ Carga de rutura, em N
54128.060.001	35	7	10	61	6	6.000
54128.080.001	48	11	13	81	8	16.000
54128.100.001	58	13	15	102	10	25.000
54128.120.001	70	16	21	122	12	30.000
54128.160.001	97	25	27	165	16	33.000



54128

54128 **Mosquetão com mola** **MH11**

Material Aço inoxidável A4



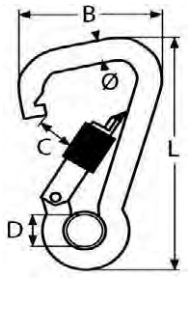
ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
6MM*	10	54128.060.001	10MM*	5	54128.100.001	16MM*	5	54128.160.001
8MM*	10	54128.080.001	12MM*	5	54128.120.001			

Mosquetão assimétrico

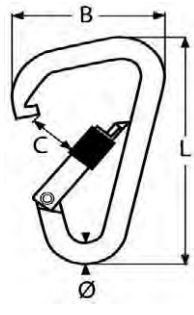


Dados técnicos

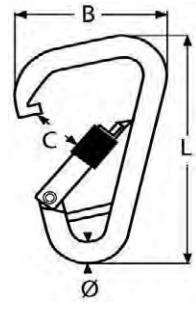
Nr.	B	C	D	E	L	ø	≈ Carga de rutura, em N
54132.060.060	35	9	8	-	60	6	4.560
54132.080.080	46	12.5	11	-	80	8	7.280
54132.100.100	60	16	14	-	100	10	10.920
54132.110.120	70	21.5	18	-	120	11	12.600
54133.110.120	70	24	-	-	120	11	16.000
54134.110.120	70	24	-	-	120	11	16.000
54135.100.115	60	19	-	-	115	10	27.200
54136.080.080	45	12	1.7	13	80	8	13.300
54136.100.100	55	14	2	16	100	10	25.100
54137.080.064	45	11.5	-	-	80	8	15.900
54137.100.080	55	14	-	-	100	10	16.800
54142.080.080	45	13	11	-	80	8	8.700
54142.100.100	58	18	14	-	100	10	13.500
54142.110.120	70	24	18	-	120	11	15.000



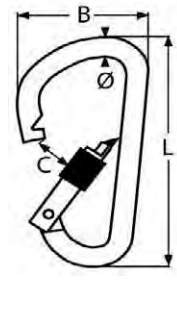
54132



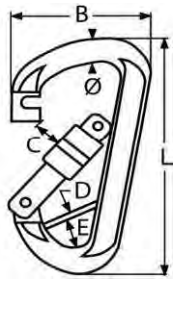
54133



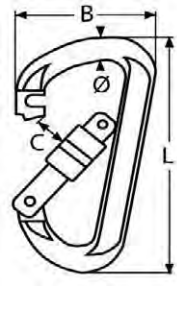
54134



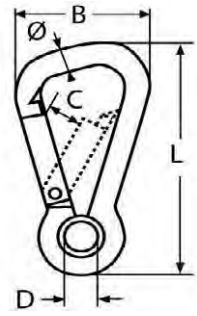
54135



54136



54137



54142

Grupos de produtos

Material	Código	Página
INOX A4	54132	13-19
INOX A4	54133	13-19
INOX A4	54134	13-19
INOX A4	54135	13-19
INOX A4	54136	13-19
INOX A4	54137	13-19
INOX A4	54142	13-20

54132 Mosquetão com porca assimétrico — MH11

Material Aço inoxidável A4



ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo
6X60MM*	10	54132.060.060	10X100MM*	5	54132.100.100	11X120MM*	5	54132.110.120
8X80MM*	10	54132.080.080						

54133 Mosquetão com porca assimétrico — MH11

Material Aço inoxidável A4



ø x L	✉	Ref. do artigo
11X120MM*	5	54133.110.120

54134 Mosquetão com porca de segurança e barra — MH11

Material Aço inoxidável A4



ø x L	✉	Ref. do artigo
11X120MM*	5	54134.110.120

54135 Mosquetão com porca de segurança — MH11

Material Aço inoxidável A4



ø x L	✉	Ref. do artigo
10X115MM*	5	54135.100.115

54136 Mosquetão com porca e barra — MH11

Material Aço inoxidável A4



ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo
8X80MM*	10	54136.080.080	10X100MM*	5	54136.100.100

54137 Mosquetão com porca — MH11

Material Aço inoxidável A4



ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo
8X64MM*	10	54137.080.064	10X80MM*	5	54137.100.080

54142	Mosquetão assimétrico	MH11
Material	Aço inoxidável A4	



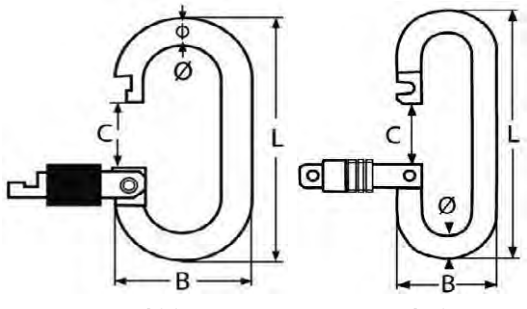
ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo
8X80*	10	54142.080.080	10X100*	5	54142.100.100	11X120*	5	54142.110.120

Mosquetão com rosca



Dados técnicos

Nr.	B	C	L	ø	≈ Carga de rutura, em N
54139.060.052	30	14	55	6	4.400
54139.080.070	35	18	70	8	9.050
54140.050.070	25	15	70	5	3.700
54140.060.080	30	16	80	6	4.400
54140.060.090	35	23	90	8	9.050
54140.100.110	40	27	110	10	13.950



54139 **54140**

Grupos de produtos

Material	Código	Página
INOX A4	54139	13-20
INOX A4	54140	13-21

54139	Mosquetão com porca de segurança	MH11
Material	Aço inoxidável A4	



ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo
6X52MM*	10	54139.060.052	8X70MM*	10	54139.080.070

54140	Gancho com porca	MH11
Material	Aço inoxidável A4	



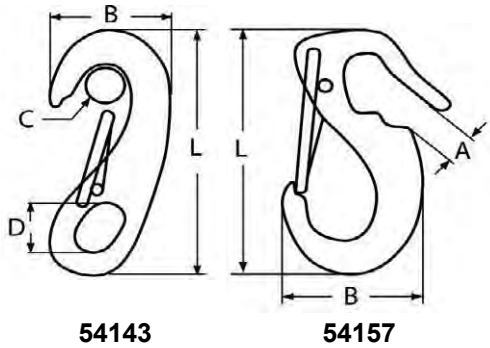
ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo
5X70MM*	10	54140.050.070	8X90MM*	10	54140.060.090	10X110MM*	5	54140.100.110
6X80MM*	10	54140.060.080						

Mosquetão



Dados técnicos

Nr.	A	B	C	D	L	≈ Carga de rutura, em N
54143.050.001	-	24	10	10.5	50	2.000
54143.070.001	-	31	12	13	70	7.000
54143.100.001	-	46	22	21	100	18.000
54157.050.001	6.5	25	-	-	50	2.500
54157.065.001	10	35	-	-	65	5.500
54157.090.001	13	49	-	-	90	10.000



54143 **54157**

Grupos de produtos

Material	Código	Página
INOX A4	54143	13-21
INOX A4	54157	13-22

54143	Mosquetão	MH11
Material	Aço inoxidável A4	



L	✉	Ref. do artigo	L	✉	Ref. do artigo	L	✉	Ref. do artigo
50MM*	10	54143.050.001	70MM*	10	54143.070.001	100MM*	5	54143.100.001

54157	Gancho	MH11
Material	Aço inoxidável A4	



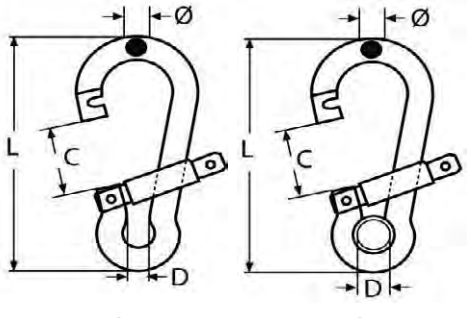
L	✉	Ref. do artigo	L	✉	Ref. do artigo	L	✉	Ref. do artigo
50MM*	10	54157.050.001	65MM*	10	54157.065.001	90MM*	5	54157.090.001

Mosquetão com fecho especial



Dados técnicos

Nr.	C	D	L	ø	≈ Carga de rutura, em N
54144.080.080	19	8	80	8	8.000
54144.100.100	22	11	100	10	12.000
54144.110.120	26	12	120	11	20.000
54145.080.080	19	10	80	8	8.000
54145.100.100	22	14	100	10	12.000
54145.110.120	26	17	120	11	20.000



54144 **54145**

Grupos de produtos

Material	Código	Página
INOX A4	54144	13-22
INOX A4	54145	13-23

54144	Mosquetão com fecho especial	MH11
Material	Aço inoxidável A4	



ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo
8X80*	10	54144.080.080	10X100*	10	54144.100.100	11X120*	10	54144.110.120

54145	Gancho com fecho especial	MH11
Material	Aço inoxidável A4	



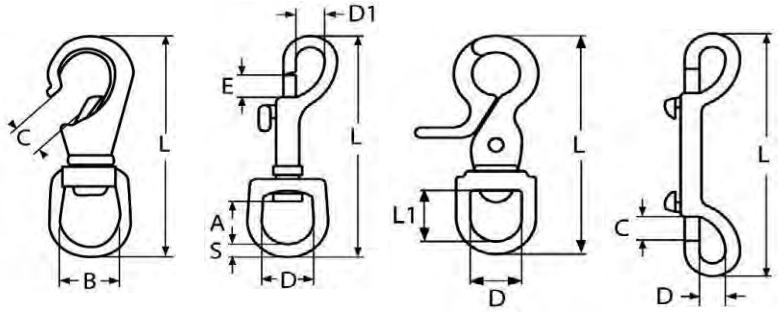
ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo
8X80*	10	54145.080.080	10X100*	5	54145.100.100	11X120*	5	54145.110.120

Gancho ligação



Dados técnicos

Nr.	A	B	C	D	D_1	E	L	L_2	S
54146.160.001	-	21	11	-	-	-	86	-	-
54146.190.001	-	21	12	-	-	-	99.5	-	-
54146.220.001	-	21	16	-	-	-	117.5	-	-
54147.090.001	10.5	-	-	9	7	7	62	-	3
54147.120.001	13.5	-	-	12	8	8	75	-	4
54147.160.001	15.5	-	-	16	9	9	87	-	4
54147.190.001	19	-	-	19	9	9	90	-	5
54148.130.001	-	-	-	13	-	-	65	16	-
54148.160.001	-	-	-	16	-	-	65	19	-
54149.011.115	-	-	10	11	-	-	115	-	-



54146 **54147** **54148** **54149**

Grupos de produtos

Material	Código	Página
INOX A4	54146	13-23
INOX A4	54147	13-24
INOX A4	54148	13-24
INOX A4	54149	13-24

54146	Gancho com olhal	MH11
Material	Aço inoxidável A4	



C	✉	Ref. do artigo	C	✉	Ref. do artigo	C	✉	Ref. do artigo
11MM*	5	54146.160.001	12MM*	5	54146.190.001	16MM*	5	54146.220.001

54147	Gancho com destorcedor	MH11
Material	Aço inoxidável A4	



D	✉	Ref. do artigo	D	✉	Ref. do artigo	D	✉	Ref. do artigo
9MM*	10	54147.090.001	16MM*	5	54147.160.001	19MM*	5	54147.190.001
12MM	10	54147.120.001						

54148	Mosquetão com destorcedor	MH11
Material	Aço inoxidável A4	



D	✉	Ref. do artigo	D	✉	Ref. do artigo
13MM*	5	54148.130.001	16MM*	5	54148.160.001

54149	Mosquetão duplo	MH11
Material	Aço inoxidável A4	



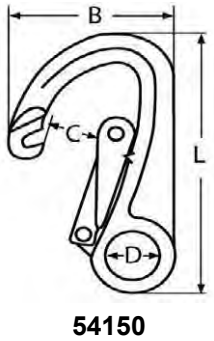
D x L	✉	Ref. do artigo
11X115MM*	5	54149.011.115

Gancho com duplo fecho



Dados técnicos

Nr.	B	C	D	L	≈ Carga de rutura, em N
54150.100.110	62	19	20	110	14.000



54150

54150	Gancho com duplo fecho	MH11
Material	Aço inoxidável A4	



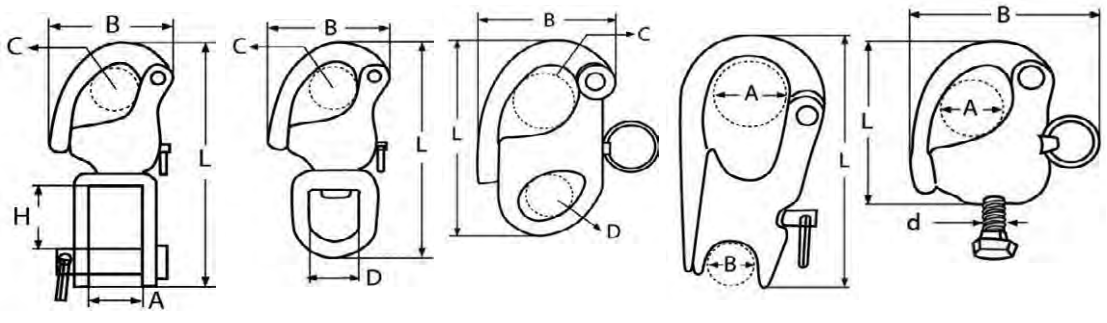
L	✉	Ref. do artigo
110MM*	5	54150.100.110

Gancho



Dados técnicos

Nr.	A	B	C	d	D	H	L
54151.070.001	12	33	12	-	-	9	70
54151.087.001	13	42	16	-	-	15	87
54151.128.001	22	58	22	-	-	20	128
54152.070.001	-	33	12	-	12	-	70
54152.087.001	-	42	16	-	16	-	87
54152.128.001	-	58	22	-	22	-	128
54153.052.001	-	35	12	-	9	-	52
54153.066.001	-	45	16	-	12	-	66
54153.096.001	-	60	22	-	16	-	96
54154.012.052	10	12	-	-	-	-	52
54154.015.066	14	15	-	-	-	-	66
54154.025.096	18	25	-	-	-	-	96
54155.060.001	12	30	-	M6	-	-	42
54155.080.001	16	40	-	M8	-	-	53
54155.100.001	22	62	-	M10	-	-	75



54151 **54152** **54153** **54154** **54155**

Grupos de produtos

Material	Código	Página
INOX A4	54151	13-26
INOX A4	54152	13-26
INOX A4	54153	13-26
INOX A4	54154	13-26
INOX A4	54155	13-26

54151 Manilha com destorcedor — MH11

Material Aço inoxidável A4



L	✉	Ref. do artigo	L	✉	Ref. do artigo	L	✉	Ref. do artigo
70MM*	5	54151.070.001	87MM*	5	54151.087.001	128MM*	5	54151.128.001

54152 Manilha com destorcedor — MH11

Material Aço inoxidável A4



L	✉	Ref. do artigo	L	✉	Ref. do artigo	L	✉	Ref. do artigo
70MM*	5	54152.070.001	87MM*	5	54152.087.001	128MM*	5	54152.128.001

54153 Manilha de pressão giratória — MH11

Material Aço inoxidável A4



L	✉	Ref. do artigo	L	✉	Ref. do artigo	L	✉	Ref. do artigo
52MM*	5	54153.052.001	66MM*	5	54153.066.001	96MM*	5	54153.096.001

54154 Manilha — MH11

Material Aço inoxidável A4



B x L	✉	Ref. do artigo	B x L	✉	Ref. do artigo	B x L	✉	Ref. do artigo
12X52*	5	54154.012.052	15X66*	5	54154.015.066	25X96*	5	54154.025.096

54155 Manilha com parafuso — MH11

Material Aço inoxidável A4



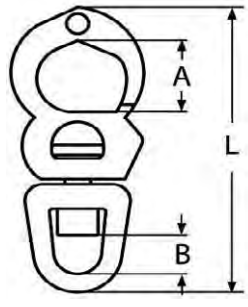
L	✉	Ref. do artigo	L	✉	Ref. do artigo	L	✉	Ref. do artigo
6MM*	5	54155.060.001	8MM*	5	54155.080.001	10MM*	5	54155.100.001

ligação gancho argola



Dados técnicos

Nr.	A	B	L	≈ Carga de rutura, em N
54156.085.001	18	12	85	15.000
54156.105.001	24	14	105	25.000
54156.125.001	27	18	125	35.000



54156

54156 **ligação gancho argola** **MH11**

Material Aço inoxidável A4



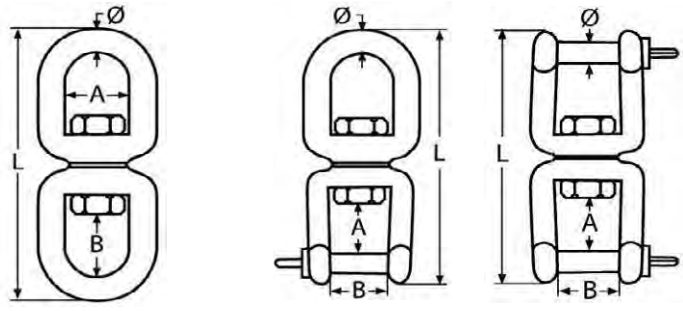
L	✉	Ref. do artigo	L	✉	Ref. do artigo	L	✉	Ref. do artigo
85MM*	1	54156.085.001	105MM*	1	54156.105.001	125MM*	1	54156.125.001

Ligação argola

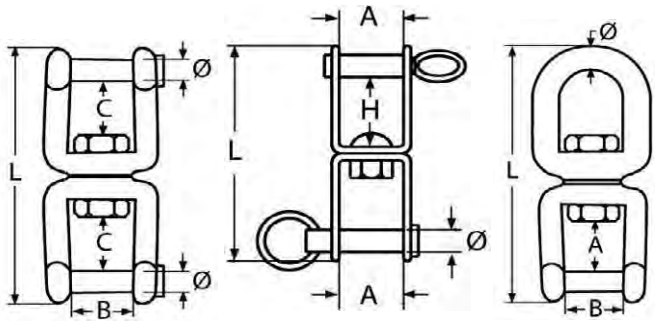


Dados técnicos

Nr.	A	B	C	H	L	ø
54158.050.001	13	13	-	-	60	5
54158.060.001	15	15	-	-	65	6
54158.080.001	20	22	-	-	90	8
54158.100.001	24	27	-	-	115	10
54158.130.001	32	35	-	-	154	13
54158.160.001	39	45	-	-	188	16
54158.190.001	41	50	-	-	231	19
54159.060.001	11	12	-	-	66	6
54159.080.001	16	16	-	-	94	8
54159.100.001	22	22	-	-	118	10
54159.130.001	28	28	-	-	152	13
54159.160.001	37	34	-	-	188	16
54159.190.001	45	38	-	-	229	19
54160.050.001	11	10	-	-	60	5
54160.060.001	11	12	-	-	66	6
54160.080.001	16	16	-	-	94	8
54160.100.001	22	20	-	-	118	10
54160.130.001	28	28	-	-	152	13
54160.160.001	37	34	-	-	188	16
54160.190.001	45	38	-	-	229	19
54161.050.001	-	10	11	-	60	5
54161.060.001	-	12	11	-	66	6
54161.080.001	-	16	16	-	94	8
54161.100.001	-	20	22	-	118	10
54161.130.001	-	26	28	-	152	13
54161.160.001	-	34	37	-	188	16
54161.190.001	-	38	45	-	229	19
54162.120.047	12	-	-	10	47	5
54162.140.055	14	-	-	11	55	6
54163.050.001	11	10	-	-	60	5
54163.060.001	12	12	-	-	66	6
54163.080.001	16	16	-	-	92	8
54163.100.001	22	20	-	-	118	10
54163.130.001	28	26	-	-	152	13
54163.160.001	34	32	-	-	188	16
54163.190.001	44	38	-	-	229	19



54158 54159 54160



54161 54162 54163

Grupos de produtos

Material	Código	Página
INOX A4	54158	13-29
INOX A4	54159	13-29
INOX A4	54160	13-30
INOX A4	54161	13-30
INOX A2	54162	13-30
INOX A4	54163	13-30

54158 **Suporte giratório olhal** **MH11**

Material Aço inoxidável A4



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
5MM*	10	54158.050.001	10MM*	5	54158.100.001	16MM*	1	54158.160.001
6MM*	10	54158.060.001	13MM*	1	54158.130.001	19MM*	1	54158.190.001
8MM*	10	54158.080.001						

54159 **Suporte giratório olhal manilha** **MH11**

Material Aço inoxidável A4



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
6MM*	10	54159.060.001	10MM*	5	54159.100.001	16MM*	1	54159.160.001
8MM*	10	54159.080.001	13MM*	1	54159.130.001	19MM*	1	54159.190.001

54160 Destorcedor com garfo — MH11

Material Aço inoxidável A4



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
5MM*	10	54160.050.001	10MM*	5	54160.100.001	16MM*	1	54160.160.001
6MM*	10	54160.060.001	13MM*	1	54160.130.001	19MM*	1	54160.190.001
8MM*	10	54160.080.001						

54161 Destorcedor com garfo e parafuso sextavado interior — MH11

Material Aço inoxidável A4



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
5MM*	10	54161.050.001	10MM*	5	54161.100.001	16MM*	1	54161.160.001
6MM*	10	54161.060.001	13MM*	1	54161.130.001	19MM*	1	54161.190.001
8MM*	10	54161.080.001						

54162 Destorcedor com garfo — MH11

Material Aço inoxidável A2



A x L	✉	Ref. do artigo	A x L	✉	Ref. do artigo
12X47*	10	54162.120.047	14X55*	10	54162.140.055

54163 Destorcedor, olhal-garfo — MH11

Material Aço inoxidável A4



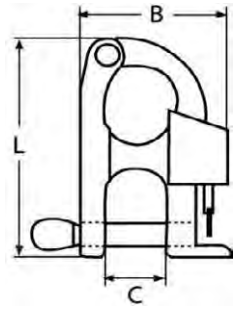
ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
5MM*	10	54163.050.001	10MM*	5	54163.100.001	16MM*	1	54163.160.001
6MM*	10	54163.060.001	13MM*	1	54163.130.001	19MM*	1	54163.190.001
8MM*	10	54163.080.001						

Gancho de fixação



Dados técnicos

Nr.	B	C	L	≈ Carga de rutura, em N
54164.060.001	37	16	60	8.000



54164

54164	Gancho de fixação	MH11
Material	Aço inoxidável A4	



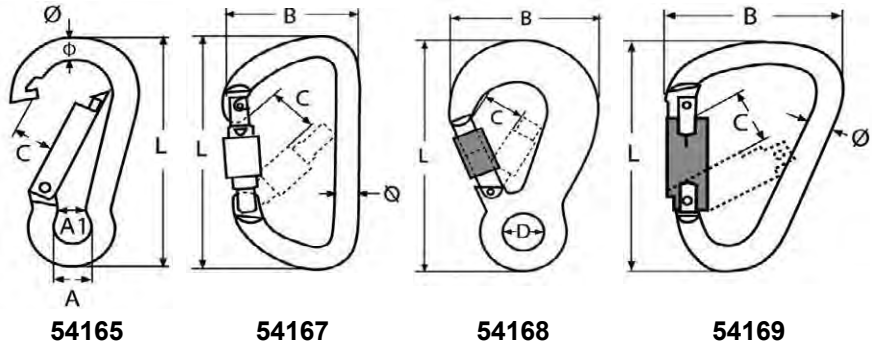
L	✉	Ref. do artigo
60MM*	5	54164.060.001

Mosquetão de alumínio



Dados técnicos

Nr.	A	A_1	B	C	D	L	ø	≈ Carga de rutura, em N
54165.050.050	10	6	-	8	-	50	5	1.000
54165.060.060	11	8	-	9	-	60	6	1.600
54165.080.080	13	8	-	9	-	80	8	3.500
54167.110.116	-	-	64	22	-	116	11	22.000
54168.130.001	-	-	80	21	21	130	-	20.000
54169.120.120	-	-	80	25	-	120	12	24.000
54169.140.190	-	-	104	46	-	190	14	26.000



54165 **54167** **54168** **54169**

Grupos de produtos

Material	Código	Página
Al	54165	13-32
Al	54167	13-32
Al	54168	13-33
Al	54169	13-33

54165 **Mosquetão - cores diversas** **MH11**

Material Alumínio



ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo
5X50MM*	10	54165.050.050	6X60MM	10	54165.060.060	8X80MM*	10	54165.080.080

54167 **Gancho com controlo de um ponto** **MH11**

Material Alumínio



ø x L	✉	Ref. do artigo
11X116MM*	5	54167.110.116

54168	Mosquetão	MH11
Material	Alumínio	



L	✉	Ref. do artigo
130MM*	5	54168.130.001

54169	Mosquetão	MH11
Material	Alumínio	



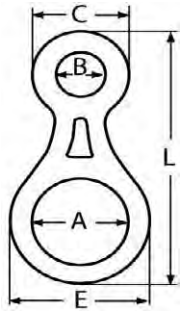
ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo
12X120MM*	5	54169.120.120	14X190MM*	5	54169.140.190

Argola Dupla



Dados técnicos

Nr.	A	B	C	E	L	≈ Carga de rutura, em N
54170.145.001	51	26	48	76	145	30.000



54170

54170	Argola Dupla	MH11
Material	Alumínio	



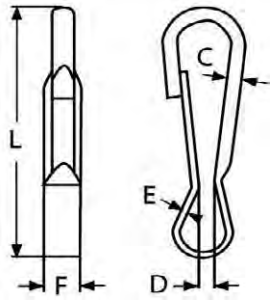
L	✉	Ref. do artigo
145MM*	5	54170.145.001

Gancho mola simples



Dados técnicos

Nr.	C	D	E	F	L
54166.030.001	3.3	1.4	2.8	3.6	30
54166.040.001	4.5	1.9	4.1	5.0	40
54166.050.001	5.4	2.3	4.6	6.4	50
54166.060.001	6.2	2.8	5.6	7.1	60



54166

54166 **Gancho mola simples** **MH11**

Material Aço inoxidável A2



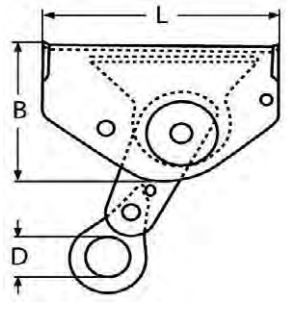
L	✉	Ref. do artigo	L	✉	Ref. do artigo	L	✉	Ref. do artigo
30MM	100	54166.030.001	50MM*	50	54166.050.001	60MM*	50	54166.060.001
40MM*	100	54166.040.001						

Ajuste de corda



Dados técnicos

Nr.	B	D	L	WR-ø
54171.120.001	78	22	122	12
54171.160.001	78	22	122	16



54171

54171 **Ajuste de corda** **MH11**

Material Aço inoxidável A2



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
12MM*	1	54171.120.001	16MM*	1	54171.160.001

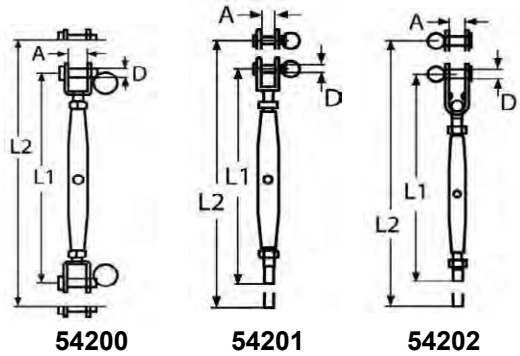
Ligações



Dados técnicos

Nr.	A	D	L_1	L_2	Rosca	WR-ø
54200.040.001	5.5	4	110	170	M4	-
54200.050.001	6.5	5	130	190	M5	-
54200.060.001	7.5	6	150	220	M6	-
54200.080.001	11	8	165	240	M8	-
54200.100.001	12	9	190	280	M10	-
54200.120.001	14	12	245	360	M12	-
54200.140.001	15	12	270	390	M14	-
54200.160.001	17	16	310	450	M16	-
54200.200.001	20	19	360	510	M20	-
54201.050.025	6	5	155	215	M5	2.5
54201.060.030	7.5	6	175	245	M6	3
54201.060.040	7.5	6	185	255	M6	4
54201.080.040	11	8	200	275	M8	4
54201.080.050	11	8	205	280	M8	5
54201.100.050	12	9	230	320	M10	5
54201.100.060	12	9	245	355	M10	6
54201.120.060	14	12	285	400	M12	6
54201.120.080	14	12	305	420	M12	8
54201.140.070	15	15	315	435	M14	7
54201.160.080	17	17	360	500	M16	8
54201.160.100	17	16	370	510	M16	10
54201.200.100	20	20	410	560	M20	10
54201.200.120	20	20	410	560	M20	12
54202.060.030	7	6	180	250	M6	3
54202.060.040	7	6	190	260	M6	4
54202.080.040	10	8	210	285	M8	4
54202.080.050	10	8	215	290	M8	5
54202.100.050	12	9	250	340	M10	5
54202.100.060	12	9	265	355	M10	6
54202.120.060	13	12	300	410	M12	6
54202.120.080	13	12	320	430	M12	8
54202.140.070	15	14	328	453	M14	7
54202.160.080	17	16	390	530	M16	8
54202.160.100	17	16	400	540	M16	10
54202.200.100	20	19	450	590	M20	10

- **WR-ø = Diâmetro do cabo.**



54200 **54201** **54202**

Grupos de produtos

Material	Código	Página
INOX A4	54200	13-37
INOX A4	54201	13-37
INOX A4	54202	13-37

54200 Esticador garfo-garfo — MH11

Material Aço inoxidável A4



Rosca	✉	Ref. do artigo	Rosca	✉	Ref. do artigo	Rosca	✉	Ref. do artigo
M4*	10	54200.040.001	M8*	10	54200.080.001	M14*	1	54200.140.001
M5*	10	54200.050.001	M10	5	54200.100.001	M16*	1	54200.160.001
M6*	10	54200.060.001	M12*	5	54200.120.001	M20*	1	54200.200.001

54201 Esticador com terminal em garfo — MH11

Material Aço inoxidável A4



Rosca / WR-ø	✉	Ref. do artigo	Rosca / WR-ø	✉	Ref. do artigo	Rosca / WR-ø	✉	Ref. do artigo
M5/2,5MM*	10	54201.050.025	M10/5MM*	5	54201.100.050	M16/8MM*	1	54201.160.080
M6/3MM*	10	54201.060.030	M10/6MM*	5	54201.100.060	M16/10MM*	1	54201.160.100
M6/4MM*	10	54201.060.040	M12/6MM*	5	54201.120.060	M20/10MM*	1	54201.200.100
M8/4MM*	10	54201.080.040	M12/8MM*	5	54201.120.080	M20/12MM*	1	54201.200.120
M8/5MM*	10	54201.080.050	M14/7MM*	1	54201.140.070			

54202 Esticador com terminal articulado — MH11

Material Aço inoxidável A4



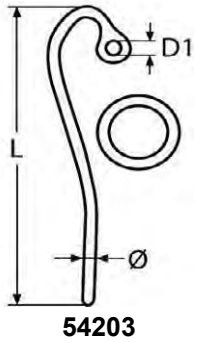
Rosca / WR-ø	✉	Ref. do artigo	Rosca / WR-ø	✉	Ref. do artigo	Rosca / WR-ø	✉	Ref. do artigo
M6/3MM*	5	54202.060.030	M10/5MM*	5	54202.100.050	M14/7MM*	1	54202.140.070
M6/4MM*	5	54202.060.040	M10/6MM*	5	54202.100.060	M16/8MM*	1	54202.160.080
M8/4MM*	5	54202.080.040	M12/6MM*	5	54202.120.060	M16/10MM*	1	54202.160.100
M8/5MM*	5	54202.080.050	M12/8MM*	5	54202.120.080	M20/10MM*	1	54202.200.100

Gancho deslizante



Dados técnicos

Nr.	D_1	Diâmetro da cabeça	L	ø
54203.132.001	5.1	7.1	132	5
54203.142.001	6.2	9.6	142	6
54203.192.001	8.5	11.3	192	8
54203.235.001	13.0	14.4	235	12



54203

54203 **Gancho deslizante** **MH11**

Material Aço inoxidável A4

RoHS



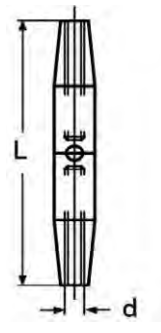
L	✉	Ref. do artigo	L	✉	Ref. do artigo	L	✉	Ref. do artigo
132MM*	5	54203.132.001	192MM*	2	54203.192.001	235MM*	2	54203.235.001
142MM*	5	54203.142.001						

Manga ligação



Dados técnicos

Nr.	d	L
54204.050.001	M5	80
54204.060.001	M6	95
54204.080.001	M8	105
54204.100.001	M10	125
54204.120.001	M12	150
54204.140.001	M14	165
54204.160.001	M16	190
54204.200.001	M20	200



54204

54204 **Manga ligação** **MH11**

Material Aço inoxidável A4



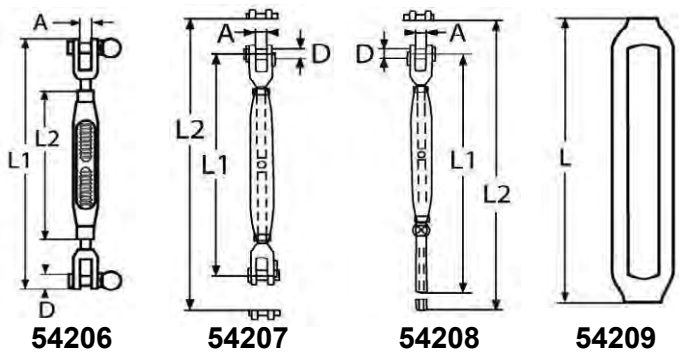
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5*	10	54204.050.001	M10*	5	54204.100.001	M16*	1	54204.160.001
M6*	10	54204.060.001	M12*	5	54204.120.001	M20*	1	54204.200.001
M8*	10	54204.080.001	M14*	1	54204.140.001			

Ligação



Dados técnicos

Nr.	A	D	L	L_1	L_2	Rosca	WR-ø
54206.050.001	6.5	5	-	120	70	M5	-
54206.060.001	7.5	6	-	140	90	M6	-
54206.080.001	11	8	-	180	120	M8	-
54206.100.001	12	9	-	220	150	M10	-
54206.120.001	14	12	-	300	200	M12	-
54206.140.001	15	12	-	325	220	M14	-
54206.160.001	17	16	-	375	250	M16	-
54206.200.001	20	19	-	450	300	M20	-
54207.050.001	6.5	5	-	135	195	M5	-
54207.060.001	7.5	6	-	160	230	M6	-
54207.080.001	11	8	-	180	255	M8	-
54207.100.001	12	9	-	210	300	M10	-
54207.120.001	14	12	-	270	380	M12	-
54207.140.001	15	12	-	295	415	M14	-
54207.160.001	17	16	-	340	480	M16	-
54208.050.025	6.5	5	-	155	215	M5	2.5
54208.060.030	7.5	6	-	180	250	M6	3
54208.060.040	7.5	6	-	190	260	M6	4
54208.080.040	11	8	-	210	285	M8	4
54208.080.050	11	8	-	215	290	M8	5
54208.100.050	12	9	-	240	330	M10	5
54208.100.060	12	9	-	255	345	M10	6
54208.120.060	14	12	-	300	410	M12	6
54208.120.080	14	12	-	320	430	M12	8
54208.140.070	15	12	-	330	450	M14	7
54208.160.080	17	16	-	370	510	M16	8
54208.160.100	17	16	-	380	520	M16	10
54209.060.001	-	-	90	-	-	M6	-
54209.080.001	-	-	120	-	-	M8	-
54209.100.001	-	-	150	-	-	M10	-
54209.120.001	-	-	200	-	-	M12	-
54209.160.001	-	-	250	-	-	M16	-
54209.200.001	-	-	300	-	-	M20	-



54206 54207 54208 54209

Grupos de produtos

Material	Código	Página
INOX A4	54206	13-41
INOX A4	54207	13-41
INOX A4	54208	13-41
INOX A4	54209	13-41

54206 Esticador garfo-garfo — MH11

Material Aço inoxidável A4



Rosca	✉	Ref. do artigo	Rosca	✉	Ref. do artigo	Rosca	✉	Ref. do artigo
M5*	10	54206.050.001	M10*	5	54206.100.001	M16*	1	54206.160.001
M6*	10	54206.060.001	M12*	5	54206.120.001	M20*	1	54206.200.001
M8*	10	54206.080.001	M14*	1	54206.140.001			

54207 Esticador garfo-garfo — MH11

Material Aço inoxidável A4



Rosca	✉	Ref. do artigo	Rosca	✉	Ref. do artigo	Rosca	✉	Ref. do artigo
M5*	10	54207.050.001	M10*	5	54207.100.001	M14*	1	54207.140.001
M6*	10	54207.060.001	M12*	5	54207.120.001	M16*	1	54207.160.001
M8*	10	54207.080.001						

54208 Esticador de garfo — MH11

Material Aço inoxidável A4



Rosca / WR-ø	✉	Ref. do artigo	Rosca / WR-ø	✉	Ref. do artigo	Rosca / WR-ø	✉	Ref. do artigo
M5/2,5MM*	10	54208.050.025	M8/5MM*	10	54208.080.050	M12/8MM*	5	54208.120.080
M6/3MM*	10	54208.060.030	M10/5MM*	5	54208.100.050	M14/7MM*	1	54208.140.070
M6/4MM*	10	54208.060.040	M10/6MM*	5	54208.100.060	M16/8MM*	1	54208.160.080
M8/4MM*	10	54208.080.040	M12/6MM*	5	54208.120.060	M16/10MM*	1	54208.160.100

54209 Esticador — MH11

Material Aço inoxidável A4



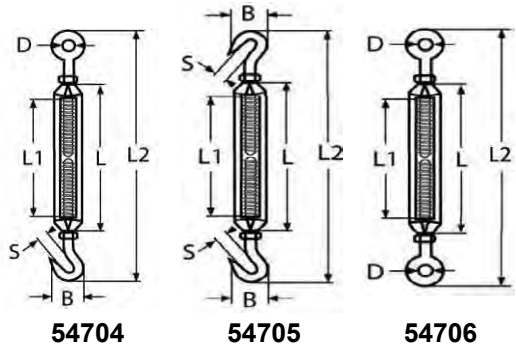
Rosca	✉	Ref. do artigo	Rosca	✉	Ref. do artigo	Rosca	✉	Ref. do artigo
M6*	10	54209.060.001	M10*	5	54209.100.001	M16*	1	54209.160.001
M8*	10	54209.080.001	M12*	5	54209.120.001	M20*	1	54209.200.001

Esticadores



Dados técnicos

Nr.	B	D	L	L_1	L_2	Rosca	S	≈ Carga de rutura, em N
54704.060.001	16	10	90	66	160	M6	10	3.200
54704.080.001	20	14	120	94	200	M8	11	5.600
54704.100.001	28	16	150	120	240	M10	12	8.800
54704.120.001	36	18	200	168	300	M12	14	12.000
54704.160.001	40	26	250	210	390	M16	16	24.000
54704.200.001	50	30	300	245	440	M20	18	36.000
54705.060.001	16	10	90	66	160	M6	10	3.200
54705.080.001	20	14	120	94	200	M8	11	5.600
54705.100.001	28	16	150	120	240	M10	12	8.800
54705.120.001	36	18	200	168	300	M12	14	12.000
54705.160.001	40	26	250	210	390	M16	16	24.000
54705.200.001	50	30	300	245	440	M20	18	36.000
54706.060.001	16	10	90	66	160	M6	10	3.200
54706.080.001	20	14	120	94	200	M8	11	5.600
54706.100.001	28	16	150	120	240	M10	12	8.800
54706.120.001	36	18	200	168	300	M12	14	12.000
54706.160.001	40	26	250	210	390	M16	16	24.000
54706.200.001	50	30	300	245	440	M20	18	36.000



54704 **54705** **54706**

Grupos de produtos

Material	Código	Página
INOX A4	54704	13-42
INOX A4	54705	13-43
INOX A4	54706	13-43

54704 **Esticador olhal-gancho** **MH11**

Material Aço inoxidável A4



Rosca	✉	Ref. do artigo	Rosca	✉	Ref. do artigo	Rosca	✉	Ref. do artigo
M6*	1	54704.060.001	M10*	1	54704.100.001	M16*	1	54704.160.001
M8*	1	54704.080.001	M12*	1	54704.120.001	M20*	1	54704.200.001

54705 **Esticador gancho-gancho** **MH11**

Material Aço inoxidável A4



Rosca	✉	Ref. do artigo	Rosca	✉	Ref. do artigo	Rosca	✉	Ref. do artigo
M6*	1	54705.060.001	M10*	1	54705.100.001	M16*	1	54705.160.001
M8*	1	54705.080.001	M12*	1	54705.120.001	M20*	1	54705.200.001

54706 **Esticador olhal-olhal** **MH11**

Material Aço inoxidável A4



Rosca	✉	Ref. do artigo	Rosca	✉	Ref. do artigo	Rosca	✉	Ref. do artigo
M6*	1	54706.060.001	M10*	1	54706.100.001	M16*	1	54706.160.001
M8*	1	54706.080.001	M12*	1	54706.120.001	M20*	1	54706.200.001

Perno terminal

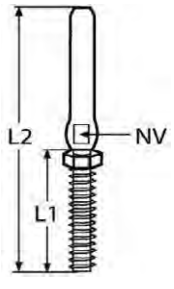


Dados técnicos

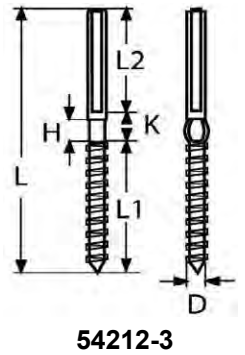
Nr.	A	D	D_1	H	K	L	L_1	L_2	NV	Rosca	WR-ø
54210.050.025	-	-	-	-	-	-	40	86	4	M5	2.5
54210.060.030	-	-	-	-	-	-	48	100	5	M6	3
54210.060.040	-	-	-	-	-	-	48	110	6	M6	4
54210.080.040	-	-	-	-	-	-	57	117	6	M8	4
54210.080.050	-	-	-	-	-	-	57	124	7	M8	5
54210.100.050	-	-	-	-	-	-	63	130	7	M10	5
54210.100.060	-	-	-	-	-	-	63	145	10	M10	6
54210.120.060	-	-	-	-	-	-	80	162	10	M12	6
54210.120.080	-	-	-	-	-	-	80	180	14	M12	8
54210.140.070	-	-	-	-	-	-	90	180	12	M14	7
54210.160.080	-	-	-	-	-	-	100	200	14	M16	8
54210.160.100	-	-	-	-	-	-	100	210	15	M16	10
54210.200.100	-	-	-	-	-	-	119	230	15	M20	10
54210.200.120	-	-	-	-	-	-	120	245	17	M20	12
54210.220.140	-	-	-	-	-	-	140	308	22	M22	14
54210.240.160	-	-	-	-	-	-	170	363	24	M24	16
54211.050.025	-	-	-	-	-	-	40	86	4	M5	2.5
54211.060.030	-	-	-	-	-	-	48	100	5	M6	3
54211.060.040	-	-	-	-	-	-	48	110	6	M6	4
54211.080.040	-	-	-	-	-	-	57	117	6	M8	4
54211.080.050	-	-	-	-	-	-	57	124	7	M8	5
54211.100.050	-	-	-	-	-	-	63	130	7	M10	5
54211.100.060	-	-	-	-	-	-	63	145	10	M10	6
54211.120.060	-	-	-	-	-	-	80	162	10	M12	6
54211.120.080	-	-	-	-	-	-	80	180	14	M12	8
54211.140.070	-	-	-	-	-	-	90	180	12	M14	7
54211.160.080	-	-	-	-	-	-	100	200	14	M16	8
54211.160.100	-	-	-	-	-	-	100	210	15	M16	10
54211.200.100	-	-	-	-	-	-	119	230	15	M20	10
54211.200.120	-	-	-	-	-	-	120	245	17	M20	12
54212.030.001	-	6	-	8	5	97	48	38	-	-	3
54212.040.001	-	8	-	10	6	115	54	45	-	-	4
54212.050.001	-	10	-	10	7	128	61	52	-	-	5

Dados técnicos

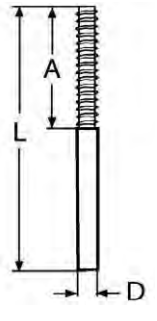
Nr.	A	D	D_1	H	K	L	L_1	L_2	NV	Rosca	WR-ø
54212.060.001	-	12	-	10	10	162	79	63	-	-	6
54213.030.001	-	6	-	8	5	97	48	38	-	-	3
54213.040.001	-	8	-	10	6	115	54	45	-	-	4
54213.050.001	-	10	-	10	7	128	61	52	-	-	5
54213.060.001	-	12	-	10	10	162	79	63	-	-	6
54214.050.001	40	4.4	-	-	-	85	-	-	-	M5	-
54214.060.001	45	5.2	-	-	-	100	-	-	-	M6	-
54214.080.001	52	7.0	-	-	-	112	-	-	-	M8	-
54214.100.001	62	8.8	-	-	-	127	-	-	-	M10	-
54214.120.001	75	10.7	-	-	-	140	-	-	-	M12	-
54214.140.001	82	12.5	-	-	-	150	-	-	-	M14	-
54214.160.001	95	14.2	-	-	-	170	-	-	-	M16	-
54214.200.001	105	18.1	-	-	-	185	-	-	-	M20	-
54215.050.001	40	4.4	-	-	-	85	-	-	-	M5	-
54215.060.001	45	5.2	-	-	-	100	-	-	-	M6	-
54215.080.001	52	7.0	-	-	-	112	-	-	-	M8	-
54215.100.001	62	8.8	-	-	-	127	-	-	-	M10	-
54215.120.001	75	10.7	-	-	-	140	-	-	-	M12	-
54215.140.001	82	12.5	-	-	-	150	-	-	-	M14	-
54215.160.001	95	14.2	-	-	-	170	-	-	-	M16	-
54215.200.001	105	18.1	-	-	-	185	-	-	-	M20	-
54216.025.001	-	5.4	5.5	-	-	48.5	-	-	-	-	2.5
54216.030.001	-	6.5	6.35	-	-	55	-	-	-	-	3
54216.040.001	-	8.5	7.5	-	-	65	-	-	-	-	4
54216.050.001	-	10.5	9.0	-	-	80	-	-	-	-	5
54216.060.001	-	12.5	12.5	-	-	94	-	-	-	-	6
54216.070.001	-	12.7	14	-	-	105	-	-	-	-	7
54216.080.001	-	14.5	16.0	-	-	124	-	-	-	-	8
54216.100.001	-	16.4	17.8	-	-	142	-	-	-	-	10
54216.120.001	-	19.3	19.5	-	-	160	-	-	-	-	12



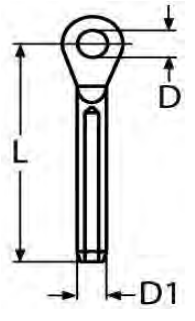
54210-11



54212-3



54214-5



54216

Grupos de produtos

Material	Código	Página
INOX A4	54210	13-44
INOX A4	54211	13-45
INOX A4	54212	13-45
INOX A4	54213	13-45
INOX A4	54214	13-45
INOX A4	54215	13-45
INOX A4	54216	13-46

54210 **Perno roscado com porca, direita** **MH11**

Material Aço inoxidável A4



Rosca / WR-ø	✉	Ref. do artigo	Rosca / WR-ø	✉	Ref. do artigo	Rosca / WR-ø	✉	Ref. do artigo
M5/2,5MM*	10	54210.050.025	M8/5MM*	10	54210.080.050	M12/8MM*	5	54210.120.080
M6/3MM*	10	54210.060.030	M10/5MM*	5	54210.100.050	M14/7MM*	1	54210.140.070
M6/4MM*	10	54210.060.040	M10/6MM*	5	54210.100.060	M16/8MM*	1	54210.160.080
M8/4MM*	10	54210.080.040	M12/6MM*	5	54210.120.060	M16/10MM*	1	54210.160.100

54210 Perno roscado com porca, direita

Rosca / WR-ø	✉	Ref. do artigo	Rosca / WR-ø	✉	Ref. do artigo
M20/10MM*	1	54210.200.100	M22/14MM*	1	54210.220.140
M20/12MM*	1	54210.200.120	M24/16MM*	1	54210.240.160

54211 Perno roscado com porca, esquerda — MH11

Material Aço inoxidável A4



Rosca / WR-ø	✉	Ref. do artigo	Rosca / WR-ø	✉	Ref. do artigo	Rosca / WR-ø	✉	Ref. do artigo
M5/2,5MM*	10	54211.050.025	M10/5MM*	5	54211.100.050	M16/8MM*	1	54211.160.080
M6/3MM*	10	54211.060.030	M10/6MM*	5	54211.100.060	M16/10MM*	1	54211.160.100
M6/4MM*	10	54211.060.040	M12/6MM*	5	54211.120.060	M20/10MM*	1	54211.200.100
M8/4MM*	10	54211.080.040	M12/8MM*	5	54211.120.080	M20/12MM*	1	54211.200.120
M8/5MM*	10	54211.080.050	M14/7MM*	1	54211.140.070			

54212 Perno com rosca para madeira, direita — MH11

Material Aço inoxidável A4



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
3MM*	10	54212.030.001	5MM*	5	54212.050.001	6MM*	5	54212.060.001
4MM*	10	54212.040.001						

54213 Perno com rosca para madeira, esquerda — MH11

Material Aço inoxidável A4



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
3MM*	10	54213.030.001	5MM*	5	54213.050.001	6MM*	5	54213.060.001
4MM*	10	54213.040.001						

54214 Perno rosca direita — MH11

Material Aço inoxidável A4



Rosca	✉	Ref. do artigo	Rosca	✉	Ref. do artigo	Rosca	✉	Ref. do artigo
M5*	10	54214.050.001	M10*	5	54214.100.001	M16*	1	54214.160.001
M6*	10	54214.060.001	M12*	5	54214.120.001	M20*	1	54214.200.001
M8*	10	54214.080.001	M14*	1	54214.140.001			

54215 Perno rosca esquerda — MH11

Material Aço inoxidável A4



Rosca	✉	Ref. do artigo	Rosca	✉	Ref. do artigo	Rosca	✉	Ref. do artigo
M5*	10	54215.050.001	M10*	5	54215.100.001	M16*	1	54215.160.001
M6*	10	54215.060.001	M12*	5	54215.120.001	M20*	1	54215.200.001
M8*	10	54215.080.001	M14*	1	54215.140.001			

54216	Terminal em olhal	MH11
Material	Aço inoxidável A4	



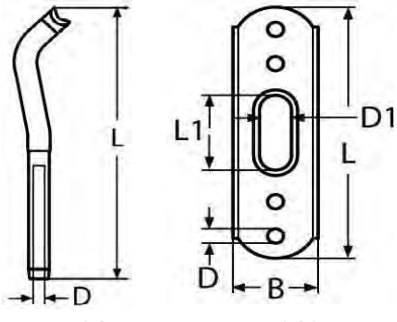
WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
2,5MM*	10	54216.025.001	5MM*	5	54216.050.001	8MM*	1	54216.080.001
3MM	10	54216.030.001	6MM*	5	54216.060.001	10MM*	1	54216.100.001
4MM*	10	54216.040.001	7MM*	5	54216.070.001	12MM*	1	54216.120.001

Terminal T



Dados técnicos

Nr.	B	D	D_1	L	L_1	WR-ø
54217.030.001	-	-	-	85	-	3
54217.040.001	-	-	-	100	-	4
54217.050.001	-	-	-	115	-	5
54217.060.001	-	-	-	140	-	6
54217.070.001	-	-	-	145	-	7
54217.080.001	-	-	-	185	-	8
54217.100.001	-	-	-	215	-	10
54218.040.001	27	5.0	9.9	88	27	4
54218.050.001	27	5.0	9.9	88	27	5
54218.060.001	39	6.3	15.6	122	35	6
54218.070.001	39	6.4	15.9	122	35	7
54218.080.001	39	6.5	18.8	151	41	8
54218.100.001	39	6.5	18.8	151	41	10



54217 **54218**

Grupos de produtos

Material	Código	Página
INOX A4	54217	13-47
INOX A4	54218	13-47

54217 **Terminal T** **MH11**

Material Aço inoxidável A4



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
3MM*	1	54217.030.001	6MM*	1	54217.060.001	8MM*	1	54217.080.001
4MM*	1	54217.040.001	7MM*	1	54217.070.001	10MM*	1	54217.100.001
5MM*	1	54217.050.001						

54218 **Placa de suporte para terminal em T** **MH11**

Material Aço inoxidável A4



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
4MM*	1	54218.040.001	6MM*	1	54218.060.001	8MM*	1	54218.080.001
5MM*	1	54218.050.001	7MM*	1	54218.070.001	10MM*	1	54218.100.001

Ligação flexível

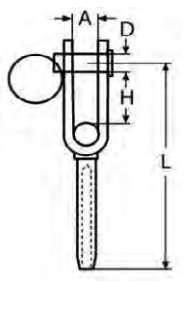


Dados técnicos

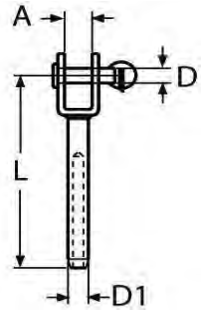
Nr.	A	d	D	H	L_1	L_2
54219.030.001	7	-	6	15	-	-
54219.040.001	10	-	8	20	-	-
54219.050.001	12	-	9	25	-	-
54219.060.001	13	-	12	30	-	-
54219.080.001	17	-	16	40	-	-
54219.100.001	20	-	19	45	-	-
54220.025.001	6.5	-	5	-	-	-
54220.030.001	7.5	-	6	-	-	-
54220.040.001	11	-	8	-	-	-
54220.050.001	12	-	9	-	-	-
54220.060.001	14	-	12	-	-	-
54220.070.001	15	-	12	-	-	-
54220.080.001	17	-	16	-	-	-
54220.100.001	20	-	18	-	-	-
54220.120.001	23	-	19	-	-	-
54220.140.001	30	-	22	-	-	-
54220.160.001	30	-	25	-	-	-
54221.030.001	7.5	-	6	-	73	-
54221.040.001	11	-	8	-	86	-
54221.050.001	12	-	9	-	100	-
54221.060.001	14	-	12	-	128	-
54221.070.001	15	-	12	-	135	-
54221.080.001	17	-	16	-	155	-
54223.050.001	6	M5	5	13	62	42
54223.060.001	7	M6	6	15	77	48
54223.080.001	10	M8	8	20	94	56
54223.100.001	12	M10	9	25	115	67
54223.120.001	13	M12	12	30	136	81
54223.140.001	15	M14	14	35	140	89
54223.160.001	17	M16	16	40	163	103
54223.200.001	20	M20	19	45	198	115
54224.050.001	6	M5	5	13	62	42
54224.060.001	7	M6	6	15	77	48

Dados técnicos

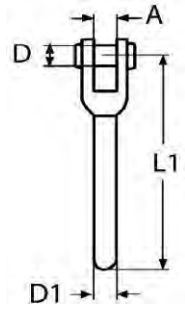
Nr.	A	d	D	H	L_1	L_2
54224.080.001	10	M8	8	20	94	56
54224.100.001	12	M10	9	25	116	67
54224.120.001	13	M12	12	30	136	81
54224.140.001	15	M14	14	35	140	89
54224.160.001	17	M16	16	40	163	103
54224.200.001	20	M20	19	45	198	115



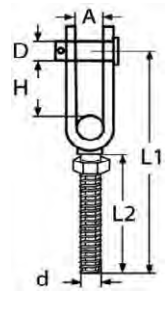
54219



54220



54221



54223-4

Grupos de produtos

Material	Código	Página
INOX A4	54219	13-48
INOX A4	54220	13-48
INOX A4	54221	13-48
INOX A4	54223	13-49
INOX A2	54224	13-49

54219 Terminal articulado — MH11

Material Aço inoxidável A4



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
3MM*	5	54219.030.001	5MM*	5	54219.050.001	8MM*	1	54219.080.001
4MM*	5	54219.040.001	6MM*	5	54219.060.001	10MM*	1	54219.100.001

54220 Terminal em garfo — MH11

Material Aço inoxidável A4



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
2,5MM*	10	54220.025.001	6MM*	5	54220.060.001	12MM*	1	54220.120.001
3MM*	10	54220.030.001	7MM*	5	54220.070.001	14MM*	1	54220.140.001
4MM*	10	54220.040.001	8MM*	5	54220.080.001	16MM*	1	54220.160.001
5MM*	5	54220.050.001	10MM*	1	54220.100.001			

54221 Terminal em garfo — MH11

Material Aço inoxidável A4



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
3MM*	10	54221.030.001	5MM*	5	54221.050.001	7MM*	5	54221.070.001
4MM*	10	54221.040.001	6MM*	5	54221.060.001	8MM*	5	54221.080.001

54223	Articulação com rosca direita	MH11
Material	Aço inoxidável A4	



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5*	10	54223.050.001	M10*	5	54223.100.001	M16*	1	54223.160.001
M6*	10	54223.060.001	M12*	5	54223.120.001	M20*	1	54223.200.001
M8*	5	54223.080.001	M14*	1	54223.140.001			

54224	Articulação com rosca esquerda	MH11
Material	Aço inoxidável A2	



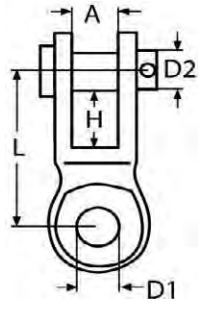
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5*	10	54224.050.001	M10*	5	54224.100.001	M16*	1	54224.160.001
M6*	10	54224.060.001	M12*	5	54224.120.001	M20*	1	54224.200.001
M8*	5	54224.080.001	M14*	1	54224.140.001			

Terminal para ligação



Dados técnicos

Nr.	A	D_1	D_2	H	L
54222.050.001	6	5.5	5.2	7	22
54222.060.001	7	6.6	6.3	9	27
54222.080.001	10	8.5	8.3	10	31
54222.100.001	12	10.0	9.3	12	36
54222.120.001	13	13.0	12.4	17	50
54222.140.001	14	15.0	15.0	20	60
54222.160.001	15	16.5	17.0	29	80



54222

54222	Terminal para ligação	MH11

Material Aço inoxidável A4



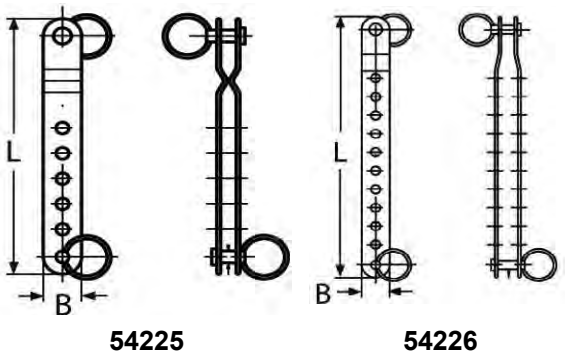
A	✉	Ref. do artigo	A	✉	Ref. do artigo	A	✉	Ref. do artigo
6MM*	5	54222.050.001	12MM*	1	54222.100.001	14MM*	1	54222.140.001
7MM*	5	54222.060.001	13MM*	1	54222.120.001	15MM*	1	54222.160.001
10MM*	5	54222.080.001						

Ligação ajustável



Dados técnicos

Nr.	B	L	Parafuso
54225.104.001	15	104	5
54226.100.001	15	100	5
54226.155.001	15	155	5
54226.200.001	15	200	5



54225 54226

Grupos de produtos

Material	Código	Página
INOX A2	54225	13-50
INOX A2	54226	13-51

54225	Ligação ajustável	MH11

Material Aço inoxidável A2



L	✉	Ref. do artigo
104MM*	5	54225.104.001

54226	Ligação ajustável	MH11
Material	Aço inoxidável A2	



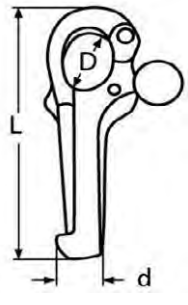
L	✉	Ref. do artigo	L	✉	Ref. do artigo	L	✉	Ref. do artigo
100MM*	5	54226.100.001	155MM*	5	54226.155.001	200MM*	5	54226.200.001

Gancho com rosca



Dados técnicos

Nr.	d	D	L	≈ Carga de rutura, em N
54227.060.001	M6	18.5	75	12.000
54227.080.001	M8	27.0	100	15.000
54227.100.001	M10	35.0	144	35.000
54227.120.001	M12	39.0	150	35.000



54227

54227	Gancho com rosca	MH11
Material	Aço inoxidável A4	



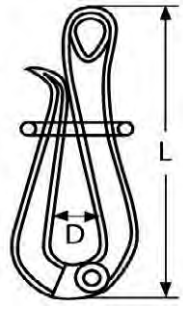
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
6MM*	1	54227.060.001	10MM*	1	54227.100.001	12MM*	1	54227.120.001
8MM*	1	54227.080.001						

Gancho



Dados técnicos

Nr.	D	L
54228.100.001	18	100
54228.150.001	22	150



54228

54228	Gancho		MH11
Material	Aço inoxidável A4		



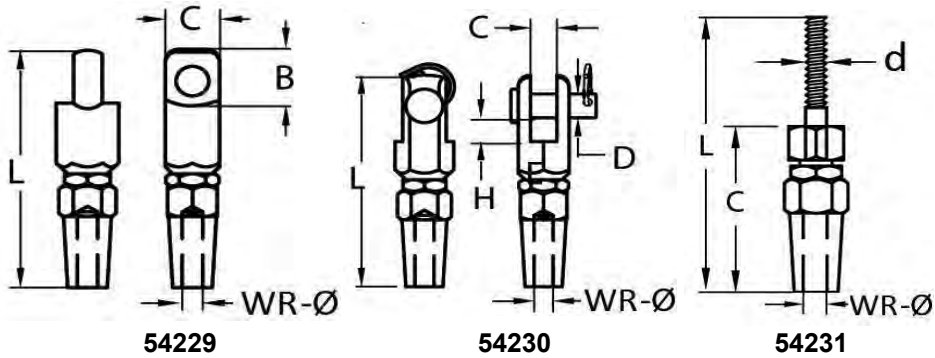
L	✉	Ref. do artigo	L	✉	Ref. do artigo
100MM*	5	54228.100.001	150MM*	5	54228.150.001

Terminal com ligação rápida



Dados técnicos

Nr.	B	C	d	D	H	L	WR-ø
54229.040.001	8	6.5	-	-	-	67	4
54229.050.001	10	8	-	-	-	80	5
54229.060.001	12	9	-	-	-	95	6
54229.080.001	14	10	-	-	-	119	8
54230.040.001	-	8	-	8	8	72	4
54230.050.001	-	10	-	10	10	82	5
54230.060.001	-	12	-	12	12	94	6
54230.080.001	-	14	-	14	14	116	8
54231.040.001	-	57	M8	-	-	100	4
54231.050.001	-	63	M10	-	-	117	5
54231.060.001	-	80	M12	-	-	145	6
54231.080.001	-	100	M16	-	-	182	8



54229 **54230** **54231**

Grupos de produtos

Material	Código	Página
INOX A4	54229	13-53
INOX A4	54230	13-53
INOX A4	54231	13-54

54229 **Terminal de olhal montagem rápida** **MH11**

Material Aço inoxidável A4



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
4MM*	1	54229.040.001	6MM*	1	54229.060.001	8MM*	1	54229.080.001
5MM*	1	54229.050.001						

54230 **Terminal de garfo de montagem em garfo** **MH11**

Material Aço inoxidável A4



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
4MM*	1	54230.040.001	6MM*	1	54230.060.001	8MM*	1	54230.080.001
5MM*	1	54230.050.001						

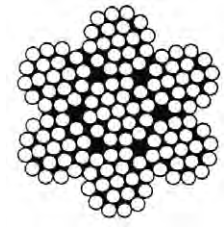
54231	Ligação de terminal rápida	MH11

Material Aço inoxidável A4



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
4MM*	1	54231.040.001	6MM*	1	54231.060.001	8MM*	1	54231.080.001
5MM*	1	54231.050.001						

Cabo em aço



Dados técnicos

Nr.	Peso kg/m	WR-ø	≈ Carga de ruptura min., em N
54232.020.001	0.015	2	2.330
54232.030.001	0.035	3	4.690
54232.040.001	0.061	4	8.340
54232.050.001	0.096	5	13.000
54232.060.001	0.138	6	18.800
54232.070.001	0.187	7	25.500
54232.080.001	0.243	8	33.300
54232.100.001	0.381	10	52.100
54232.120.001	0.548	12	75.000
54232.140.001	0.764	14	102.000
54233.020.001	0.016	2	2.250
54233.030.001	0.035	3	5.070
54233.040.001	0.063	4	9.010
54233.050.001	0.098	5	14.100
54233.060.001	0.142	6	20.300
54233.070.001	0.193	7	27.600
54233.080.001	0.252	8	36.100
54233.100.001	0.303	10	56.300
54234.040.601	-	4/6	-
54234.040.701	-	4/7	-
54235.010.015	0.012	1/1.5	630
54235.012.020	0.014	1.25/2	880
54235.020.030	0.023	2/3	2.250
54235.030.040	0.044	3/4	5.070
54235.040.050	0.072	4/5	9.010
54235.050.070	0.117	5/7	14.100
54236.010.001	0.005	1	830
54236.020.001	0.02	2	3.300
54236.030.001	0.045	3	7.420
54236.040.001	0.08	4	13.200
54236.050.001	0.124	5	20.600
54236.060.001	0.178	6	29.700
54236.070.001	0.243	7	40.400
54236.080.001	0.317	8	52.800
54236.100.001	0.495	10	82.500
54236.120.001	0.713	12	119.000
54236.140.001	0.971	14	162.000
54236.160.001	1.27	16	211.000

Grupos de produtos

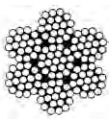
Material	Cor	Código	Página
INOX A4		54232	13-55
INOX A4		54233	13-55
INOX A4	Branco	54234	13-55

Grupos de produtos

Material	Cor	Código	Página
INOX A4	Transparente	54235	13-55
INOX A4		54236	13-55

54232 Cabo em aço inox 7X19 — MH11

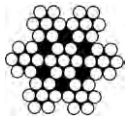
Material Aço inoxidável A4



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
2MM-250MTR*	1	54232.020.001	6MM-250MTR*	1	54232.060.001	10MM-250MTR*	1	54232.100.001
3MM-250MTR	1	54232.030.001	7MM-250MTR*	1	54232.070.001	12MM-250MTR*	1	54232.120.001
4MM-250MTR*	1	54232.040.001	8MM-250MTR*	1	54232.080.001	14MM-250MTR*	1	54232.140.001
5MM-250MTR*	1	54232.050.001						

54233 Cabo em aço inox 7X7 médio — MH11

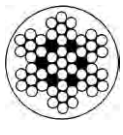
Material Aço inoxidável A4



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
2MM-250MTR*	1	54233.020.001	5MM-250MTR*	1	54233.050.001	8MM-250MTR*	1	54233.080.001
3MM-250MTR*	1	54233.030.001	6MM-250MTR*	1	54233.060.001	10MM-250MTR*	1	54233.100.001
4MM-250MTR*	1	54233.040.001	7MM-250MTR*	1	54233.070.001			

54234 Cabo em aço inox 7X7 revestido PVC branco — MH11

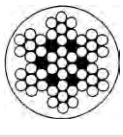
Material Aço inoxidável A4
Cor Branco



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
4/6-250MTR*	1	54234.040.601	4/7-250MTR*	1	54234.040.701

54235 Cabo em aço inox 7X7 revestido PVC transparente — MH11

Material Aço inoxidável A4
Cor Transparente



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
1/1,5 250MTR*	1	54235.010.015	2/3 250MTR*	1	54235.020.030	4/5 -250MTR*	1	54235.040.050
1,25/2 250MTR*	1	54235.012.020	3/4 250MTR*	1	54235.030.040	5/7 250MTR*	1	54235.050.070

54236 Cabo em aço inox 1X19 — MH11

Material Aço inoxidável A4



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
1MM-250MTR*	1	54236.010.001	5MM-250MTR*	1	54236.050.001	10MM-250MTR*	1	54236.100.001
2MM-250MTR*	1	54236.020.001	6MM-250MTR*	1	54236.060.001	12MM-250MTR*	1	54236.120.001
3MM-250MTR*	1	54236.030.001	7MM-250MTR*	1	54236.070.001	14MM-250MTR*	1	54236.140.001
4MM-250MTR*	1	54236.040.001	8MM-250MTR*	1	54236.080.001	16MM-250MTR*	1	54236.160.001

Alicate corte de cabo de aço



Dados técnicos

Nr.	L	ø arame max.
54258.050.001	195	5
54258.120.001	470	12
54258.160.001	800	16
54258.120.100	-	12
54258.160.100	-	16

54258 **Alicate corte de cabo de aço** **MH11**



Dimensão.	✉	Ref. do artigo	Dimensão.	✉	Ref. do artigo	Dimensão.	✉	Ref. do artigo
5MM*	1	54258.050.001	Spare blade 12MM*	1	54258.120.100	Spare blade 16MM*	1	54258.160.100
12MM*	1	54258.120.001	16MM*	1	54258.160.001			

Passa cabos

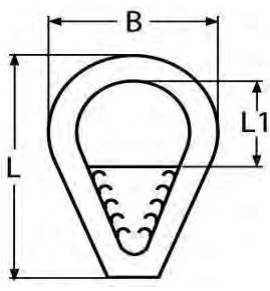


Dados técnicos

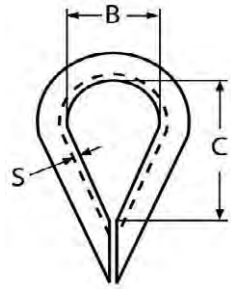
Nr.	B	C	D	E	K	L	L_1	S	WR-ø
54237.060.001	23	-	-	-	-	37	11	-	6
54237.080.001	31	-	-	-	-	50	15	-	8
54237.100.001	39	-	-	-	-	53	21	-	10
54237.120.001	42	-	-	-	-	60	25	-	12
54237.140.001	51	-	-	-	-	74	30	-	14
54238.040.001	11	18	-	-	-	-	-	1.0	4
54238.050.001	14	20	-	-	-	-	-	1.2	5
54238.060.001	15	23	-	-	-	-	-	1.2	6
54238.080.001	18	29	-	-	-	-	-	1.5	8
54238.100.001	24	37	-	-	-	-	-	1.5	10
54239.020.001	5	15	21	15	6.4	-	-	-	2
54239.030.003	6	20	26	18	8.4	-	-	-	3
54239.040.001	7	25	32	21	11	-	-	-	4
54239.050.001	9	31	42	28	12	-	-	-	5
54239.060.001	10	32	43	28	12	-	-	-	6
54239.080.001	11	41	58	43	13	-	-	-	8
54239.100.001	13	50	72	51	14	-	-	-	10
54239.120.001	16	60	86	62	16	-	-	-	12
54239.160.001	20	75	110	82	21	-	-	-	16
54239.190.001	24	90	124	94	31	-	-	-	19
54239.220.001	28	100	130	100	38	-	-	-	22
54239.250.001	32	116	148	115	48	-	-	-	25
54240.040.001	13	19	-	-	-	-	-	2	4
54240.060.001	16	22	-	-	-	-	-	2	6
54240.080.001	23	38	-	-	-	-	-	2	8

Dados técnicos

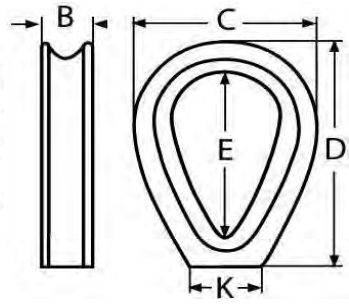
Nr.	B	C	D	E	K	L	L_1	S	WR-ø
54240.100.001	24	40	-	-	-	-	-	3	10
54240.120.001	24	41	-	-	-	-	-	3	12
54240.140.001	26	44	-	-	-	-	-	3	14
54240.160.001	34	54	-	-	-	-	-	5	16
54240.180.001	34	56	-	-	-	-	-	6	18
54240.200.001	35	57	-	-	-	-	-	6	20



54237



54238-40



54239

Grupos de produtos

Material	Código	Página
INOX A4	54237	13-57
INOX A4	54238	13-57
INOX A4	54239	13-57
Plástico	54240	13-58

54237 Passa cabos com barra — MH11

Material Aço inoxidável A4



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
6MM*	10	54237.060.001	10MM*	10	54237.100.001	14MM*	5	54237.140.001
8MM*	10	54237.080.001	12MM*	5	54237.120.001			

54238 Passa cabos — MH11

Material Aço inoxidável A4



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
4MM	50	54238.040.001	6MM	20	54238.060.001	10MM*	20	54238.100.001
5MM	50	54238.050.001	8MM*	20	54238.080.001			

54239 Passa cabos fechado — MH11

Material Aço inoxidável A4



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
2MM*	10	54239.020.001	6MM*	10	54239.060.001	16MM*	1	54239.160.001
3MM	10	54239.030.003	8MM*	5	54239.080.001	19MM*	1	54239.190.001
4MM*	10	54239.040.001	10MM*	5	54239.100.001	22MM*	1	54239.220.001
5MM*	10	54239.050.001	12MM*	5	54239.120.001	25MM*	1	54239.250.001

54240	Passa cabos em nylon	MH11
Material	Plástico	



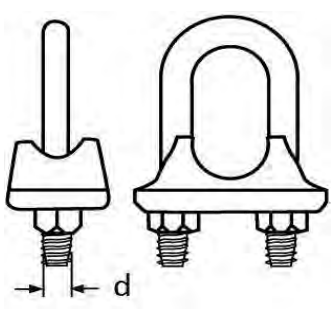
WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
4MM*	20	54240.040.001	10MM*	10	54240.100.001	16MM*	5	54240.160.001
6MM*	20	54240.060.001	12MM*	10	54240.120.001	18MM*	5	54240.180.001
8MM*	20	54240.080.001	14MM*	10	54240.140.001	20MM*	5	54240.200.001

Serra cabos

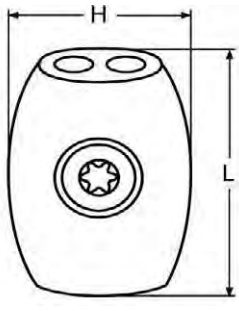


Dados técnicos

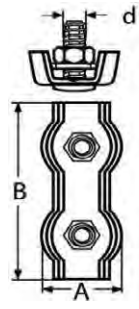
Nr.	A	B	C	Chave caixa	d	H	L	WR-ø
54241.030.001	-	-	-	-	M3	-	-	3
54241.050.001	-	-	-	-	M5	-	-	5
54241.060.001	-	-	-	-	M6	-	-	6
54241.080.001	-	-	-	-	M6	-	-	8
54241.100.001	-	-	-	-	M8	-	-	10
54241.120.001	-	-	-	-	M10	-	-	13
54241.160.001	-	-	-	-	M10	-	-	16
54242.020.001	-	-	-	T20	-	11	28	2
54242.030.001	-	-	-	T25	-	12	28	3
54242.040.001	-	-	-	T30	-	14	34	4
54242.050.001	-	-	-	T30	-	15	34	5
54242.060.001	-	-	-	T30	-	15	35	6
54243.020.001	11.5	33	-	-	M4	-	-	2
54243.030.001	14.5	38	-	-	M4	-	-	3
54243.040.001	16.5	43	-	-	M5	-	-	4
54243.050.001	20.0	51	-	-	M5	-	-	5
54243.060.001	24.5	63	-	-	M6	-	-	6
54243.080.001	31.5	78	-	-	M8	-	-	8
54243.100.001	38.0	96	-	-	M10	-	-	10
54244.020.001	4	11.5	15	-	M4	-	-	2
54244.030.001	6	14.5	18	-	M4	-	-	3
54244.040.001	8	16.5	20	-	M5	-	-	4
54244.050.001	10	20.0	24	-	M5	-	-	5
54244.060.001	12	24.5	29	-	M6	-	-	6
54244.080.001	16	31.5	35	-	M8	-	-	8
54244.100.001	20	38.0	48	-	M10	-	-	10



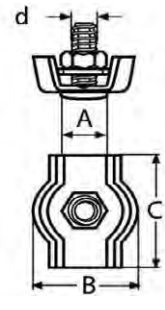
54241



54242



54243



54244

13

Grupos de produtos

Material	Código	Página
INOX A4	54241	13-59

Grupos de produtos

Material	Código	Página
INOX A4	54242	13-59
INOX A4	54243	13-59
INOX A4	54244	13-59

54241 Serra cabos — MH11

Material Aço inoxidável A4



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
3MM	20	54241.030.001	8MM*	10	54241.080.001	12MM*	10	54241.120.001
5MM	20	54241.050.001	10MM*	10	54241.100.001	16MM*	5	54241.160.001
6MM	20	54241.060.001						

54242 Fixação para cabo de arame forma oval — MH11

Material Aço inoxidável A4



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
2MM*	10	54242.020.001	4MM*	10	54242.040.001	6MM*	5	54242.060.001
3MM	10	54242.030.001	5MM*	5	54242.050.001			

54243 Fixação para cabo de arame — MH11

Material Aço inoxidável A4



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
2MM*	20	54243.020.001	5MM*	10	54243.050.001	8MM*	5	54243.080.001
3MM*	20	54243.030.001	6MM*	10	54243.060.001	10MM*	5	54243.100.001
4MM*	20	54243.040.001						

54244 Fixação para cabo de arame simples — MH11

Material Aço inoxidável A4



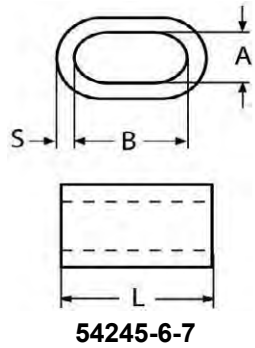
WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
2MM*	20	54244.020.001	5MM*	10	54244.050.001	8MM*	10	54244.080.001
3MM*	20	54244.030.001	6MM*	10	54244.060.001	10MM*	10	54244.100.001
4MM*	20	54244.040.001						

Terminal



Dados técnicos

Nr.	A	B	Fixação tamanho	L	S	WR-ø
54245.010.001	1.7	3.4	1.5	6	0.75	1
54245.015.001	2.4	4.8	2.0	7	0.85	1.5
54245.020.001	2.7	5.4	2.5	9	1.0	2
54245.030.001	3.8	7.6	3.5	13	1.5	3
54245.040.001	4.9	9.8	4.5	16	1.9	4
54245.050.001	6.6	13.2	6.0	21	2.5	5
54245.060.001	7.2	14.4	6.5	23	2.7	6
54245.070.001	8.8	17.6	8.0	28	3.3	7
54245.080.001	9.9	19.8	9.0	32	3.7	8
54245.100.001	12.1	24.2	11.0	39	4.5	10
54245.120.001	14.2	28.4	13.0	46	5.4	12
54245.160.001	19.6	39.2	18.0	63	7.6	16
54246.010.001	1.2	2.4	1.0	5	0.65	1
54246.020.001	2.5	4.5	2.0	9	1.0	2
54246.030.001	3.5	7.5	3.0	11	1.0	3
54246.040.001	4.5	9.2	4.0	14	1.5	4
54246.050.001	5.6	11.5	5.0	18	2.0	5
54246.060.001	6.8	13.5	6.0	21	2.5	6
54246.070.001	8.0	16.5	7.0	25	2.5	7
54246.080.001	9.0	18	8.0	28	3.0	8
54246.100.001	11.5	22.5	10.0	35	3.2	10
54246.120.001	14.2	28.5	12.0	42	4.0	12
54247.010.001	1.7	3.4	1.5	6	0.75	1
54247.015.001	2.4	4.8	2.0	7	0.85	1.5
54247.020.001	2.7	5.4	2.5	9	1.0	2
54247.030.001	3.8	7.6	3.5	13	1.5	3
54247.040.001	4.9	9.8	4.5	16	1.9	4
54247.050.001	6.6	13.2	6.0	21	2.5	5
54247.060.001	7.2	14.4	6.5	23	2.7	6
54247.070.001	8.8	17.6	8.0	28	3.3	7
54247.080.001	9.9	19.8	9.0	32	3.7	8
54247.100.001	12.1	24.2	11.0	39	4.5	10
54247.120.001	14.2	28.4	13.0	46	5.4	12



54245-6-7

Grupos de produtos

Material	Código	Página
Cu	54245	13-61
INOX A4	54246	13-61
Al	54247	13-61

54245 Terminal de cobre — MH11

Material Cobre



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
1MM*	100	54245.010.001	4MM*	100	54245.040.001	8MM*	5	54245.080.001
1,5MM*	100	54245.015.001	5MM*	50	54245.050.001	10MM*	1	54245.100.001
2MM*	100	54245.020.001	6MM*	50	54245.060.001	12MM*	1	54245.120.001
3MM*	100	54245.030.001	7MM*	5	54245.070.001	16MM*	10	54245.160.001

54246 Anel de aperto em aço inox — MH11

Material Aço inoxidável A4



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
1MM*	10	54246.010.001	5MM*	10	54246.050.001	8MM*	5	54246.080.001
2MM*	10	54246.020.001	6MM*	10	54246.060.001	10MM*	1	54246.100.001
3MM*	10	54246.030.001	7MM*	5	54246.070.001	12MM*	1	54246.120.001
4MM*	10	54246.040.001						

54247 Terminal de alumínio — MH11

Material Alumínio



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
1MM	100	54247.010.001	4MM*	100	54247.040.001	8MM*	10	54247.080.001
1,5MM	100	54247.015.001	5MM*	50	54247.050.001	10MM*	10	54247.100.001
2MM	100	54247.020.001	6MM*	50	54247.060.001	12MM*	5	54247.120.001
3MM*	100	54247.030.001	7MM*	10	54247.070.001			

Alicate corte



Dados técnicos

Nr.	Fixação tamanho
54259.010.045	1.0-4.5
54259.010.001	1.0
54259.015.001	1.5
54259.020.001	2.0
54259.025.001	2.5
54259.030.001	3.0
54259.035.001	3.5
54259.040.001	4.0
54259.045.001	4.5

54259 **Alicate corte** **MH11**



Dimensão.	✉	Ref. do artigo	Dimensão.	✉	Ref. do artigo	Dimensão.	✉	Ref. do artigo
1,0 dies*	1	54259.010.001	2,0 dies*	1	54259.020.001	3,5 dies*	1	54259.035.001
1,0-4,5 pliers without dies*	1	54259.010.045	2,5 dies*	1	54259.025.001	4,0 dies*	1	54259.040.001
1,5 dies*	1	54259.015.001	3,0 dies*	1	54259.030.001	4,5 dies*	1	54259.045.001

Cavilha com argola

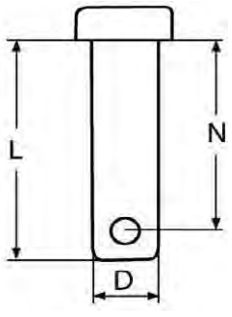


Dados técnicos

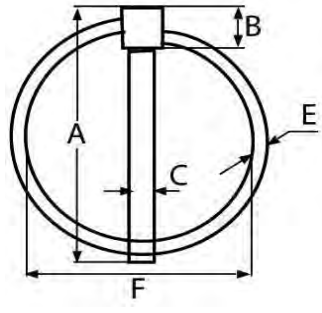
Nr.	A	B	C	D	E	F	L	L_1	N	ø
54248.040.014	-	-	-	4	-	-	14	-	11	-
54248.040.020	-	-	-	4	-	-	20	-	16	-
54248.050.015	-	-	-	5	-	-	15	-	11	-
54248.050.018	-	-	-	5	-	-	18	-	14	-
54248.050.021	-	-	-	5	-	-	21	-	17	-
54248.060.015	-	-	-	6	-	-	15	-	11	-
54248.060.020	-	-	-	6	-	-	20	-	16	-
54248.060.024	-	-	-	6	-	-	24	-	20	-
54248.060.025	-	-	-	6	-	-	25	-	21	-
54248.060.029	-	-	-	6	-	-	29	-	25	-
54248.060.034	-	-	-	6	-	-	34	-	30	-
54248.060.036	-	-	-	6	-	-	36	-	32	-
54248.060.044	-	-	-	6	-	-	44	-	40	-
54248.060.045	-	-	-	6	-	-	45	-	41	-
54248.060.054	-	-	-	6	-	-	54	-	50	-
54248.060.064	-	-	-	6	-	-	64	-	60	-
54248.080.021	-	-	-	8	-	-	21	-	17	-
54248.080.024	-	-	-	8	-	-	24	-	20	-
54248.080.027	-	-	-	8	-	-	27	-	23	-
54248.080.032	-	-	-	8	-	-	32	-	28	-
54248.080.034	-	-	-	8	-	-	34	-	30	-
54248.080.044	-	-	-	8	-	-	44	-	40	-
54248.080.054	-	-	-	8	-	-	54	-	50	-
54248.080.064	-	-	-	8	-	-	64	-	60	-
54248.080.074	-	-	-	8	-	-	74	-	70	-
54248.080.084	-	-	-	8	-	-	84	-	80	-
54248.095.026	-	-	-	9.5	-	-	26	-	22	-
54248.095.030	-	-	-	9.5	-	-	30	-	26	-
54248.100.034	-	-	-	10	-	-	34	-	30	-
54248.100.044	-	-	-	10	-	-	44	-	40	-
54248.100.054	-	-	-	10	-	-	54	-	50	-
54248.100.064	-	-	-	10	-	-	64	-	60	-
54248.100.074	-	-	-	10	-	-	74	-	70	-
54248.100.084	-	-	-	10	-	-	84	-	80	-
54248.100.094	-	-	-	10	-	-	94	-	90	-
54248.100.104	-	-	-	10	-	-	104	-	100	-
54248.110.029	-	-	-	11	-	-	29	-	25	-
54248.120.030	-	-	-	12	-	-	30	-	26	-
54248.120.045	-	-	-	12	-	-	45	-	40	-
54248.120.055	-	-	-	12	-	-	55	-	50	-
54248.120.065	-	-	-	12	-	-	65	-	60	-
54248.120.075	-	-	-	12	-	-	75	-	70	-
54248.120.085	-	-	-	12	-	-	85	-	80	-
54248.120.095	-	-	-	12	-	-	95	-	90	-
54248.120.105	-	-	-	12	-	-	105	-	100	-
54248.120.115	-	-	-	12	-	-	115	-	110	-
54248.120.125	-	-	-	12	-	-	125	-	120	-
54248.140.041	-	-	-	14	-	-	41	-	36	-
54249.044.001	49.6	7.5	4.4	-	2.4	39.0	-	-	-	-
54249.060.001	56.2	8.0	6.0	-	3.2	44.8	-	-	-	-
54249.074.001	56.5	8.4	7.4	-	3.1	44.9	-	-	-	-
54249.106.001	56.5	10.7	10.6	-	3.2	43.4	-	-	-	-
54250.060.020	-	-	-	6	-	-	20	12	-	-
54250.060.025	-	-	-	6	-	-	26	18	-	-
54250.060.031	-	-	-	6	-	-	31	23	-	-
54250.060.056	-	-	-	6	-	-	56	48	-	-
54250.060.065	-	-	-	6	-	-	65	57	-	-

Dados técnicos

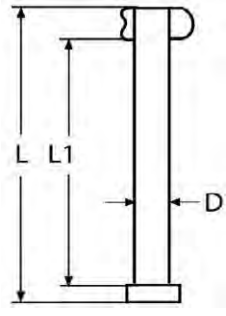
Nr.	A	B	C	D	E	F	L	L_1	N	ø
54250.080.028	-	-	-	8	-	-	28	20	-	-
54250.080.034	-	-	-	8	-	-	34	25	-	-
54250.080.038	-	-	-	8	-	-	38	30	-	-
54250.080.043	-	-	-	8	-	-	43	35	-	-
54250.100.035	-	-	-	10	-	-	35	25	-	-
54250.100.045	-	-	-	10	-	-	45	35	-	-
54250.100.055	-	-	-	10	-	-	55	45	-	-
54251.050.028	-	-	-	-	-	-	28	-	13	5
54251.060.035	-	-	-	-	-	-	35	-	22	6
54251.080.033	-	-	-	-	-	-	33	-	22	8
54251.080.046	-	-	-	-	-	-	46	-	36	8



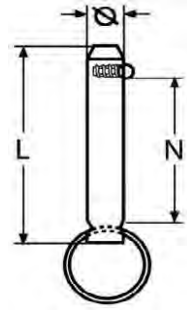
54248



54249



54250



54251

Grupos de produtos

Material	Código	Página
INOX A4	54248	13-64
INOX A4	54249	13-65
INOX A2	54250	13-65
INOX A2	54251	13-65

54248 **Cavilha com argola** **MH11**

Material Aço inoxidável A4



D x L	✉	Ref. do artigo	D x L	✉	Ref. do artigo	D x L	✉	Ref. do artigo
4X14*	20	54248.040.014	8X21*	20	54248.080.021	10X84*	1	54248.100.084
4X20*	20	54248.040.020	8X24*	20	54248.080.024	10X94*	1	54248.100.094
			8X27*	20	54248.080.027	10X104*	1	54248.100.104
5X15*	20	54248.050.015	8X32*	20	54248.080.032			
5X18*	20	54248.050.018	8X34*	2	54248.080.034	11X29*	10	54248.110.029
5X21*	20	54248.050.021	8X44*	2	54248.080.044			
			8X54*	2	54248.080.054	12X30*	10	54248.120.030
6X15*	20	54248.060.015	8X64*	2	54248.080.064	12X45*	1	54248.120.045
6X20*	20	54248.060.020	8X74*	2	54248.080.074	12X55*	1	54248.120.055
6X24*	5	54248.060.024	8X84*	2	54248.080.084	12X65*	1	54248.120.065
6X25*	20	54248.060.025				12X75*	1	54248.120.075
6X29*	20	54248.060.029	9,5X26*	10	54248.095.026	12X85*	1	54248.120.085
6X34*	5	54248.060.034	9,5X30*	1	54248.095.030	12X95*	1	54248.120.095
6X36*	20	54248.060.036				12X105*	1	54248.120.105
6X44*	5	54248.060.044	10X34*	1	54248.100.034	12X115*	1	54248.120.115
6X45*	20	54248.060.045	10X44*	1	54248.100.044	12X125*	1	54248.120.125
6X54*	5	54248.060.054	10X54*	1	54248.100.054			
6X64*	5	54248.060.064	10X64*	1	54248.100.064	14X41*	10	54248.140.041
			10X74*	1	54248.100.074			

54249 Pino com anel — MH11

Material Aço inoxidável A4



C	✉	Ref. do artigo	C	✉	Ref. do artigo	C	✉	Ref. do artigo
4,4MM	10	54249.044.001	7,4MM*	5	54249.074.001	10,6MM*	5	54249.106.001
6,0MM*	10	54249.060.001						

54250 Pino de segurança — MH11

Material Aço inoxidável A2



D x L	✉	Ref. do artigo	D x L	✉	Ref. do artigo	D x L	✉	Ref. do artigo
6X20*	5	54250.060.020						
6X26*	5	54250.060.025	8X28*	2	54250.080.028	10X35*	1	54250.100.035
6X31*	5	54250.060.031	8X34*	2	54250.080.034	10X45*	1	54250.100.045
6X56*	5	54250.060.056	8X38*	2	54250.080.038	10X55*	1	54250.100.055
6X65*	5	54250.060.065	8X43*	2	54250.080.043			

54251 Pino de encaixe com anel de segurança — MH11

Material Aço inoxidável A2



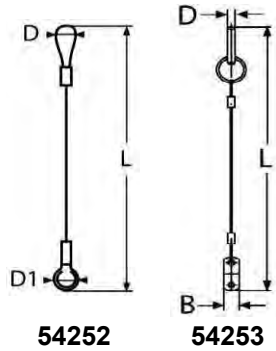
ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo
5X28*	10	54251.050.028	8X33*	10	54251.080.033	8X46*	10	54251.080.046
6X35*	10	54251.060.035						

Cabo com argola de segurança



Dados técnicos

Nr.	B	D	D_1	L
54252.145.001	-	8	5.4	145
54253.060.025	13	6	-	25



54252 54253

Grupos de produtos

Material	Código	Página
INOX A2	54252	13-66
INOX A2	54253	13-66

54252 **Cabo de aço com argola de segurança** **MH11**

Material Aço inoxidável A2



L	✉	Ref. do artigo
145MM*	10	54252.145.001

54253 **Cabo de aço com sistema de segurança** **MH11**

Material Aço inoxidável A2



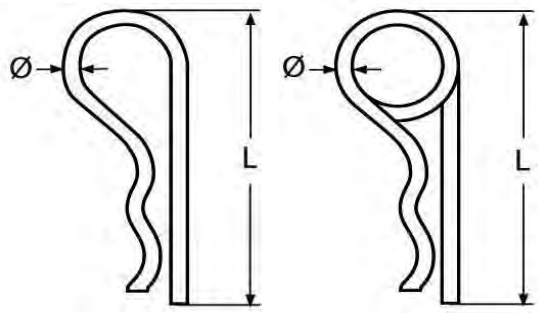
D x L	✉	Ref. do artigo
6X25MM*	10	54253.060.025

Cavilha mola



Dados técnicos

Nr.	Furo ø	L	ø
54254.020.001	2.5	48	2.0
54254.025.001	3.0	48	2.5
54254.030.001	3.5	70	3.0
54254.040.001	4.5	76	4.0
54254.050.001	6.0	100	5.0
54254.060.001	7.0	125	6.0
54255.025.001	1.5	54	2.25
54255.032.001	3.2	61	2.8
54255.040.001	4.0	78	3.6
54255.050.001	5.0	97	4.5
54255.063.001	6.3	115	5.6
54255.070.001	7.0	146	6.3
54255.080.001	8.0	172	7.0



54254 54255

Grupos de produtos

Material	Código	Página
INOX A4	54254	13-67
INOX A4	54255	13-67

54254 Cavilha mola **MH11**

Material Aço inoxidável A4



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
2MM	50	54254.020.001	3MM	50	54254.030.001	5MM*	20	54254.050.001
2,5MM*	50	54254.025.001	4MM	20	54254.040.001	6MM	10	54254.060.001

54255 Cavilha mola **MH11**

Material Aço inoxidável A4



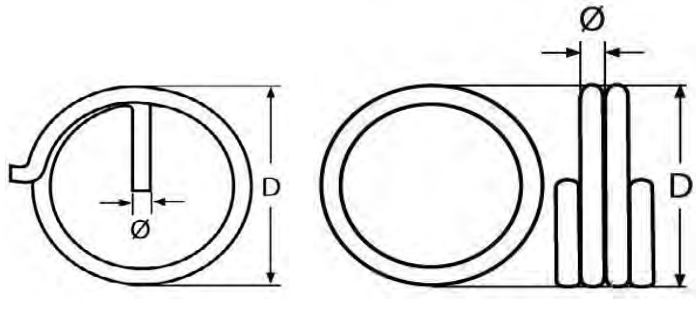
ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
2,5MM*	10	54255.025.001	5,0MM*	5	54255.050.001	7,0MM*	1	54255.070.001
3,2MM*	10	54255.032.001	6,3MM*	5	54255.063.001	8,0MM*	1	54255.080.001
4,0MM*	10	54255.040.001						

Cavilha de anel



Dados técnicos

Nr.	D	ø
54256.010.010	10	1.0
54256.012.015	15	1.2
54256.015.020	20	1.5
54256.018.025	25	1.8
54257.100.001	10	1.5
54257.160.001	16	1.5



54256 **54257**

Grupos de produtos

Material	Código	Página
INOX A4	54256	13-68
INOX A2	54257	13-68

54256 **Cavilha de anel** **MH11**

Material Aço inoxidável A4



ø x D	✉	Ref. do artigo	ø x D	✉	Ref. do artigo	ø x D	✉	Ref. do artigo
1,0X10*	50	54256.010.010	1,5X20*	20	54256.015.020	1,8X25*	20	54256.018.025
1,2X15*	50	54256.012.015						

54257 **Anel de retenção** **MH11**

Material Aço inoxidável A2



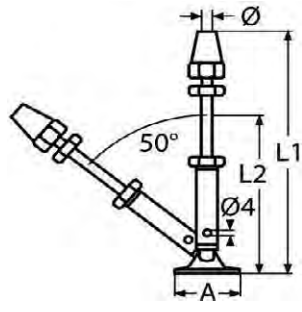
D	✉	Ref. do artigo	D	✉	Ref. do artigo
10MM*	50	54257.100.001	16MM*	50	54257.160.001

Ferramenta



Dados técnicos

Nr.	A	L_1	L_2	Tipo	WR-ø
54300.000.005	38	143	200	quadrado	4
54300.000.010	38	143	200	redondo	4



54300

54300	Ferramenta	MH11
Material	Aço inoxidável A4	



Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
QUADRADO*	1	54300.000.005	REDONDO*	1	54300.000.010

Terminal

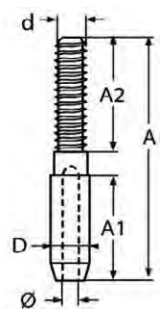


Dados técnicos

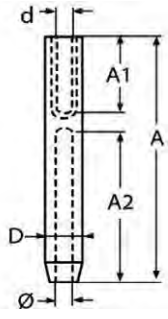
Nr.	A	A_1	A_2	B	d	D	D_1	D_2	H	WR-ø	ø
54301.050.030	50	18	27	-	M5	6.3	-	-	-	-	3
54301.060.040	60	25	30	-	M6	7.5	-	-	-	-	4
54301.080.050	70	31	31	-	M8	9.0	-	-	-	-	5
54301.100.060	85	37	40	-	M10	12.5	-	-	-	-	6
54302.050.030	50	18	27	-	M5	6.3	-	-	-	-	3
54302.060.040	60	25	30	-	M6	7.5	-	-	-	-	4
54302.080.050	70	31	31	-	M8	9.0	-	-	-	-	5
54302.100.060	85	37	40	-	M10	12.5	-	-	-	-	6
54303.050.030	55	20	28	-	M5	6.3	-	-	-	-	3
54303.060.040	65	22	36	-	M6	7.5	-	-	-	-	4
54303.060.050	70	22	41	-	M8	9.0	-	-	-	-	5
54303.080.060	85	25	53	-	M10	12.5	-	-	-	-	6
54304.050.030	55	20	28	-	M5	6.3	-	-	-	-	3
54304.060.040	65	22	36	-	M6	7.5	-	-	-	-	4
54304.060.050	70	22	41	-	M6	9.0	-	-	-	-	5
54304.080.060	85	25	53	-	M8	12.5	-	-	-	-	6
54305.050.001	40	20	-	8	M5	5	-	-	10	-	-
54305.060.001	47	25	-	8	M6	6	-	-	10	-	-
54305.080.001	52	25	-	10	M8	8	-	-	12	-	-
54305.100.001	72	45	-	12	M10	10	-	-	14	-	-
54306.050.001	40	20	-	8	M5	5	-	-	10	-	-
54306.060.001	47	25	-	8	M6	6	-	-	10	-	-
54306.080.001	52	25	-	10	M8	8	-	-	12	-	-
54306.100.001	72	45	-	12	M10	10	-	-	14	-	-
54307.050.001	45	23	-	-	M5	5.5	-	-	3	-	-
54307.060.001	47	28	-	-	M6	6.5	-	-	4	-	-
54307.080.001	55	40	-	-	M8	8.5	-	-	5	-	-
54307.100.001	65	47	-	-	M10	10.5	-	-	6	-	-
54308.050.001	45	23	-	-	M5	5.5	-	-	3	-	-
54308.060.001	47	28	-	-	M6	6.5	-	-	4	-	-
54308.080.001	55	40	-	-	M8	8.5	-	-	5	-	-
54308.100.001	65	47	-	-	M10	10.5	-	-	6	-	-
54309.050.001	55	27	-	8	M5	7.5	5	-	10	-	-
54309.060.001	60	30	-	9	M6	8	6	-	10	-	-
54309.080.001	65	31	-	10	M8	12	8	-	12	-	-
54309.100.001	75	40	-	12	M10	14	10	-	12	-	-
54310.050.001	55	27	-	8	M5	7.5	5	-	10	-	-
54310.060.001	60	30	-	9	M6	8	6	-	10	-	-
54310.080.001	65	31	-	10	M8	12	8	-	12	-	-
54310.100.001	75	40	-	12	M10	14	10	-	12	-	-
54311.050.001	55	-	-	-	M5	-	-	-	-	-	-
54311.060.001	65	-	-	-	M6	-	-	-	-	-	-
54311.080.001	70	-	-	-	M8	-	-	-	-	-	-
54311.100.001	85	-	-	-	M10	-	-	-	-	-	-
54312.000.005	80	45	30	-	M6 L	12	-	-	-	3+4	-
54312.100.005	80	45	30	-	M6 R	12	-	-	-	3+4	-
54313.050.001	65	30	30	-	M5	-	-	-	-	-	-
54313.060.001	65	30	30	-	M6	-	-	-	-	-	-
54313.080.001	65	30	30	-	M8	-	-	-	-	-	-
54313.100.001	85	40	40	-	M10	-	-	-	-	-	-
54313.120.001	105	50	50	-	M12	-	-	-	-	-	-
54314.030.001	40	18	-	-	-	6.3	-	6.5	5	-	3
54314.040.001	52	24	-	-	-	7.5	-	8.5	6	-	4
54314.050.001	62	30	-	-	-	9.0	-	9.5	7	-	5
54314.060.001	75	36	-	-	-	12.5	-	13	8	-	6
54315.030.001	55	-	-	8	-	6.3	5	-	10	-	3
54315.040.001	65	-	-	8	-	7.5	6	-	10	-	4

Dados técnicos

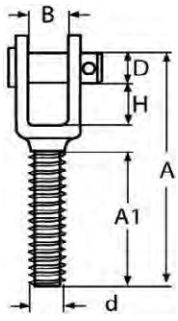
Nr.	A	A_1	A_2	B	d	D	D_1	D_2	H	WR-ø	ø
54315.050.001	70	-	-	10	-	8.9	6	-	12	-	5
54315.060.001	85	-	-	12	-	12.4	10	-	14	-	6



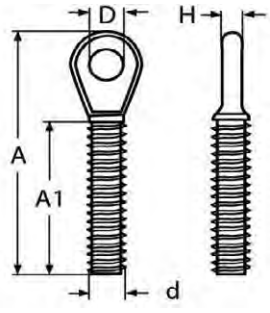
54301-2



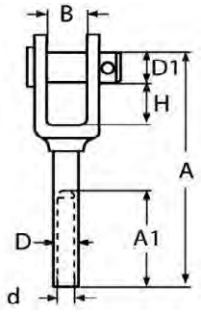
54303-4



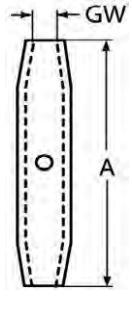
54305-6



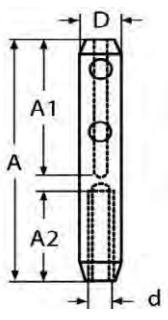
54307-8



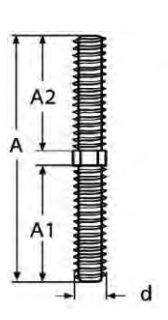
54309-10



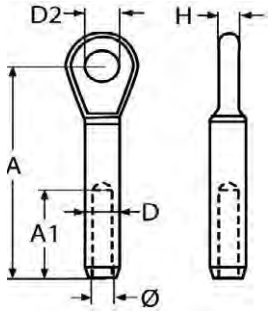
54311



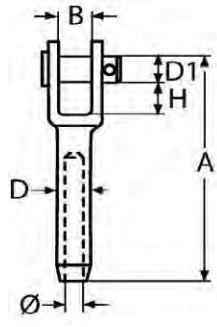
54312



54313



54314



54315

Grupos de produtos

Material	Código	Página
INOX A4	54301	13-71
INOX A4	54302	13-72
INOX A4	54303	13-72
INOX A4	54304	13-72
INOX A4	54305	13-72
INOX A4	54306	13-72
INOX A4	54307	13-72
INOX A4	54308	13-73
INOX A4	54309	13-73
INOX A4	54310	13-73
INOX A4	54311	13-73
INOX A4	54312	13-73
INOX A4	54313	13-73
INOX A4	54314	13-74
INOX A4	54315	13-74

54301 **Terminal roscado ESS, rosca direita** **MH11**

Material Aço inoxidável A4



RoHS

d / WR-ø	✉	Ref. do artigo	d / WR-ø	✉	Ref. do artigo	d / WR-ø	✉	Ref. do artigo
M5/3MM*	10	54301.050.030	M8/5MM*	5	54301.080.050	M10/6MM*	5	54301.100.060
M6/4MM*	10	54301.060.040						

54302 Terminal roscado ESS, rosca esquerda — MH11

Material Aço inoxidável A4



d / WR-ø	✉	Ref. do artigo	d / WR-ø	✉	Ref. do artigo	d / WR-ø	✉	Ref. do artigo
M5/3MM*	10	54302.050.030	M8/5MM*	5	54302.080.050	M10/6MM*	5	54302.100.060
M6/4MM*	10	54302.060.040						

54303 Terminal roscado ESS com rosca interior, direita — MH11

Material Aço inoxidável A4



d / WR-ø	✉	Ref. do artigo	d / WR-ø	✉	Ref. do artigo	d / WR-ø	✉	Ref. do artigo
M5/3MM RI*	10	54303.050.030	M6/5MM RI*	5	54303.060.050	M8/6MM RI*	5	54303.080.060
M6/4MM RI*	10	54303.060.040						

54304 Terminal roscado ESS com rosca interior, esquerda — MH11

Material Aço inoxidável A4



d / WR-ø	✉	Ref. do artigo	d / WR-ø	✉	Ref. do artigo	d / WR-ø	✉	Ref. do artigo
M5/3MM LE*	10	54304.050.030	M6/5MM LE*	5	54304.060.050	M8/6MM LE*	5	54304.080.060
M6/4MM LE*	10	54304.060.040						

54305 Garfo com rosca direita — MH11

Material Aço inoxidável A4



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5*	10	54305.050.001	M8*	5	54305.080.001	M10*	5	54305.100.001
M6*	10	54305.060.001						

54306 Garfo com rosca esquerda — MH11

Material Aço inoxidável A4



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5*	10	54306.050.001	M8*	5	54306.080.001	M10*	5	54306.100.001
M6*	1	54306.060.001						

54307 Olhal com rosca direita ESS — MH11

Material Aço inoxidável A4



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5*	10	54307.050.001	M8*	5	54307.080.001	M10*	5	54307.100.001
M6*	10	54307.060.001						

54308 Olhal com rosca esquerda ESS — MH11

Material Aço inoxidável A4



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5*	10	54308.050.001	M8*	5	54308.080.001	M10*	5	54308.100.001
M6*	10	54308.060.001						

54309 Terminal com rosca interior esquerda ESS — MH11

Material Aço inoxidável A4



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5*	10	54309.050.001	M8*	5	54309.080.001	M10*	5	54309.100.001
M6*	10	54309.060.001						

54310 Terminal com rosca interior esquerda ESS — MH11

Material Aço inoxidável A4



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5*	10	54310.050.001	M8*	5	54310.080.001	M10*	5	54310.100.001
M6*	10	54310.060.001						

54311 Terminal para esticador — MH11

Material Aço inoxidável A4



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5*	10	54311.050.001	M8*	5	54311.080.001	M10*	5	54311.100.001
M6*	10	54311.060.001						

54312 Terminal ESS, montagem própria, esqu. DS 3+4mm — MH11

Material Aço inoxidável A4



d / WR-ø	✉	Ref. do artigo	d / WR-ø	✉	Ref. do artigo
M6/3+4MM LE*	5	54312.000.005	M6/3+4MM RI*	5	54312.100.005

54313 Pernos de duas roscas direita e esquerda — MH11

Material Aço inoxidável A4



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5*	10	54313.050.001	M8*	5	54313.080.001	M12*	5	54313.120.001
M6*	10	54313.060.001	M10*	5	54313.100.001			

54314	Terminal em olhal ESS	MH11
Material	Aço inoxidável A4	



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
3MM*	10	54314.030.001	5MM*	5	54314.050.001	6MM*	5	54314.060.001
4MM*	10	54314.040.001						

54315	Terminal em garfo ESS	MH11
Material	Aço inoxidável A4	



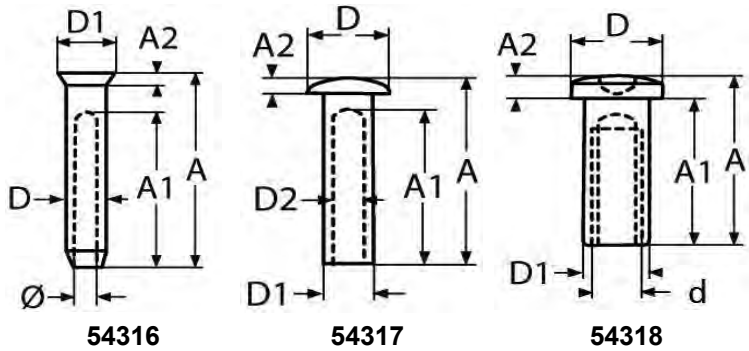
WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
3MM*	10	54315.030.001	5MM*	5	54315.050.001	6MM*	5	54315.060.001
4MM*	10	54315.040.001						

Terminal com cabeça



Dados técnicos

Nr.	A	A_1	A_2	d	D	D_1	D_2	ø
54316.030.001	34	27	2	-	8	6.3	-	3
54316.040.001	43	35	2	-	9.5	7.5	-	4
54316.050.001	50	40	3	-	13	9	-	5
54316.060.001	64	50	3	-	16.5	12.5	-	6
54317.030.001	25	18	2	-	9	5.5	3.3	3
54317.040.001	30	24	2	-	11	6.5	4.3	4
54317.050.001	35	28	2.5	-	13	7.5	5.3	5
54317.060.001	40	32	3	-	16	9	6.3	6
54318.050.001	25	18	4	M5	12	7.5	-	-
54318.060.001	30	24	4	M6	12	8	-	-
54318.080.001	35	28	5	M8	16	12	-	-
54318.100.001	40	32	6	M10	20	14	-	-



54316 54317 54318

Grupos de produtos

Material	Código	Página
INOX A4	54316	13-75
INOX A4	54317	13-75
INOX A4	54318	13-75

54316	Terminal com cabeça	MH11
Material	Aço inoxidável A4	



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
3MM*	10	54316.030.001	5MM*	5	54316.050.001	6MM*	5	54316.060.001
4MM*	10	54316.040.001						

54317	Terminal com cabeça	MH11
Material	Aço inoxidável A4	



WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
3MM*	10	54317.030.001	5MM*	5	54317.050.001	6MM*	5	54317.060.001
4MM*	10	54317.040.001						

54318	Terminal com cabeça	MH11
Material	Aço inoxidável A4	



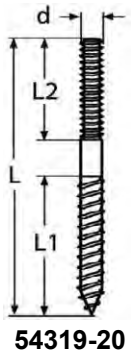
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5*	10	54318.050.001	M8*	5	54318.080.001	M10*	5	54318.100.001
M6*	10	54318.060.001						

Perno dupla rosca



Dados técnicos

Nr.	d	L	L_1	L_2
54319.050.001	M5	80	43	32
54319.060.001	M6	90	50	35
54319.080.001	M8	130	65	55
54319.100.001	M10	150	75	55
54320.050.001	M5	80	43	32
54320.060.001	M6	90	50	35
54320.080.001	M8	130	65	55
54320.100.001	M10	150	75	55



54319-20

Grupos de produtos

Material	Código	Página
INOX A4	54319	13-76
INOX A4	54320	13-76

54319 **Perno de duas roscas com rosca direita** **MH11**

Material Aço inoxidável A4



d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5*	5	54319.050.001	M8*	5	54319.080.001	M10*	5	54319.100.001
M6*	5	54319.060.001						

54320 **Perno de duas roscas com rosca esquerda** **MH11**

Material Aço inoxidável A4



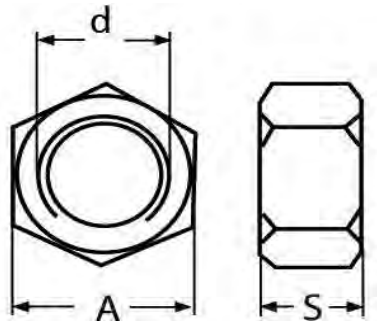
d	✉	Ref. do artigo	d	✉	Ref. do artigo	d	✉	Ref. do artigo
M5*	5	54320.050.001	M8*	5	54320.080.001	M10*	5	54320.100.001
M6*	5	54320.060.001						

Porca para ligação



Dados técnicos

Nr.	A	d	S	Tipo
54321.050.001	7.9	M5	3.8	R5
54321.050.002	7.9	M5	3.8	L5
54321.060.001	9.8	M6	4.8	R6
54321.060.002	9.8	M6	4.8	L6
54321.080.001	10.0	M8	5.0	R8
54321.080.002	10.0	M8	5.0	L8
54321.100.001	12.7	M10	6.2	R10
54321.100.002	12.7	M10	6.2	L10
54321.120.001	17.0	M12	8.0	R12
54321.120.002	17.0	M12	8.0	L12
54321.140.001	22.0	M14	11.0	R14
54321.140.002	22.0	M14	11.0	L14
54321.160.001	24.0	M16	13.0	R16
54321.160.002	24.0	M16	13.0	L16
54321.200.001	26.5	M20	14.5	R20
54321.200.002	26.5	M20	14.5	L20



54321

54321	Porca para ligação	MH11
Material	Aço inoxidável A4	



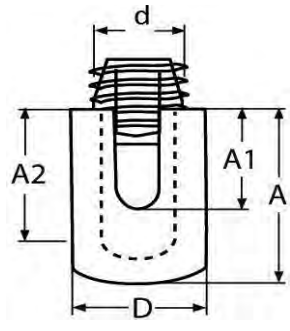
Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo	Tipo	✉	Ref. do artigo
M5 LE*	10	54321.050.001	M10 LE*	10	54321.100.001	M16 LE*	5	54321.160.001
M5 RI*	10	54321.050.002	M10 RI*	10	54321.100.002	M16 RI*	5	54321.160.002
M6 LE*	10	54321.060.001	M12 LE*	10	54321.120.001	M20 LE*	5	54321.200.001
M6 RI*	10	54321.060.002	M12 RI*	10	54321.120.002	M20 RI*	5	54321.200.002
M8 LE*	10	54321.080.001	M14 LE*	5	54321.140.001			
M8 RI*	10	54321.080.002	M14 RI*	5	54321.140.002			

Porca clip para cabos de aço



Dados técnicos

Nr.	A	A_1	A_2	d	D	WR-ø
54322.030.001	19	11	14	M12	20	3
54322.040.001	21	13	16	M12	20	4
54322.050.001	23	13	18	M12	20	5
54322.060.001	25	15	20	M12	20	6



54322

54322	Porca clip para cabos de aço	MH11

Material Aço inoxidável A4



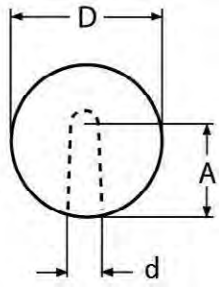
WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo	WR-ø	✉	Ref. do artigo
3MM*	10	54322.030.001	5MM*	5	54322.050.001	6MM*	5	54322.060.001
4MM*	10	54322.040.001						

Esfera com interior roscado



Dados técnicos

Nr.	A	d	D
54323.015.001	6	M6	15
54323.020.001	17	M6	20
54323.025.001	17	M6	25
54323.030.001	18	M6	30
54323.040.001	24	M8	40
54323.050.001	24	M8	50
54324.015.001	6	M6	15
54324.020.001	17	M6	20
54324.025.001	17	M6	25
54324.030.001	18	M6	30
54324.040.001	24	M8	40
54324.050.001	24	M8	50



54323-24

Grupos de produtos

Material	Código	Página
INOX A2	54323	13-78
INOX A2	54324	13-79

54323	Esfera maciça com rosca interior ESS, branco	MH11

Material Aço inoxidável A2



D	✉	Ref. do artigo	D	✉	Ref. do artigo	D	✉	Ref. do artigo
15MM BRANC*	10	54323.015.001	25MM BRANC*	10	54323.025.001	40MM BRANC*	5	54323.040.001
20MM BRANC*	10	54323.020.001	30MM BRANC*	10	54323.030.001	50MM BRANC*	5	54323.050.001

54324	Esfera maciça com rosca interior ESS, polida	MH11
Material	Aço inoxidável A2	



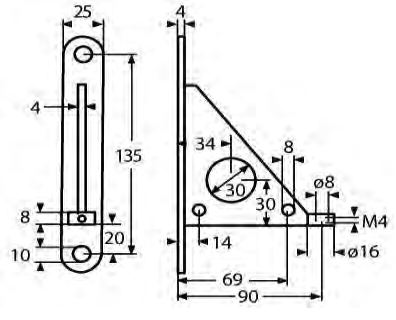
D	✉	Ref. do artigo	D	✉	Ref. do artigo	D	✉	Ref. do artigo
15MM POLIDA*	10	54324.015.001	25MM POLIDA*	10	54324.025.001	40MM POLIDA*	5	54324.040.001
20MM POLIDA*	10	54324.020.001	30MM POLIDA*	10	54324.030.001	50MM POLIDA*	5	54324.050.001

Artigo ligação fixação de parede

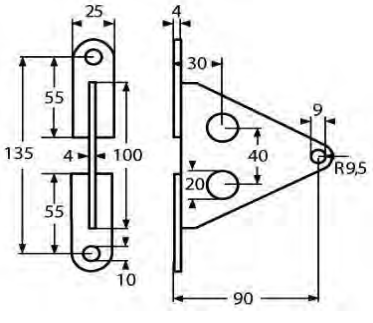


Dados técnicos

Nr.	Tipo
54325.000.005	A
54325.100.005	B



54325 A



54325 B

54325	Artigo ligação fixação de parede	MH11
Material	Aço inoxidável A4	



Tipo	✉	Ref. do artigo
TIPO A 135X90	1	54325.000.005
TIPO B 135X90	1	54325.100.005



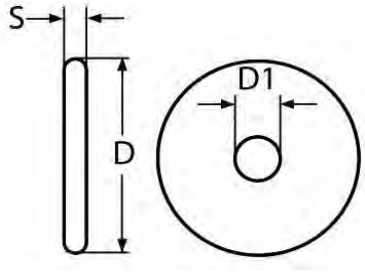


Anilha plana para artigo ligação fixação de parede



Dados técnicos

Nr.	D	D_1	S
54326.058.001	58	14	6



54326

54326	Anilha plana para artigo ligação fixação de parede	MH11
Material	Aço inoxidável A2	



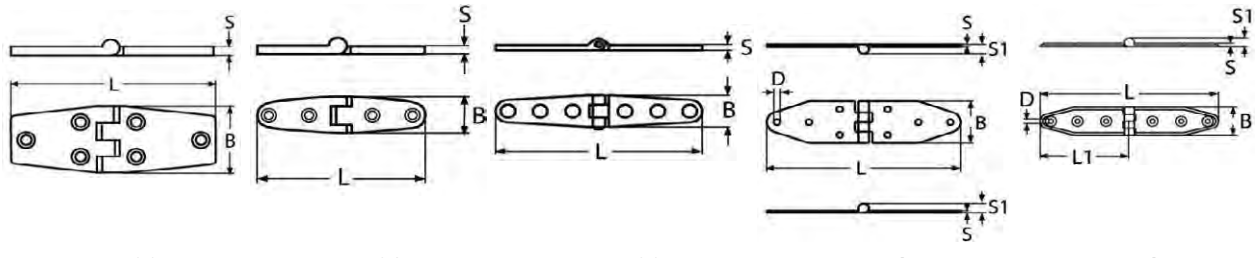
D	✉	Ref. do artigo
58MM*	10	54326.058.001

Dobradiça

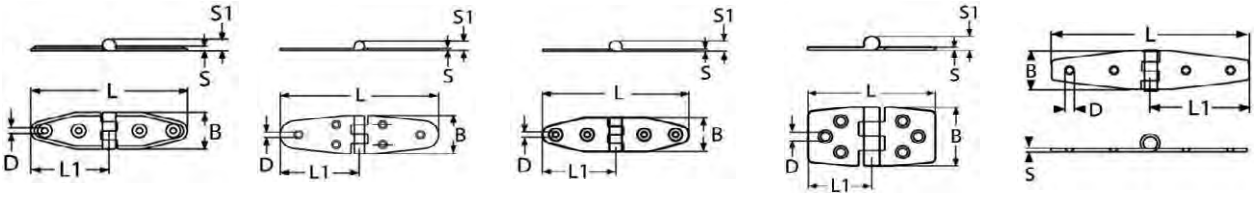


Dados técnicos

Nr.	B	D	L	L_1	S	S_1	Tipo
54500.076.001	38	-	76	-	4	-	-
54500.100.001	38	-	100	-	4	-	-
54502.100.025	25	-	100	-	4	-	-
54503.160.027	27	-	160	-	4	-	-
54514.180.040	40	5	180	-	2	9	A
54514.180.041	40	5	180	-	2	9	B
54515.160.028	28	4.5	160	80	3	8	-
54517.105.028	28	4.5	105	53	3	8	-
54531.145.038	38	5.5	145	72.5	2	9	-
54532.100.028	28	5.5	100	50	2	9	-
54533.075.038	38	5.5	75	37.5	2	9	-
54533.097.038	38	5.5	97	48.5	2	9	-
54539.102.027	27	3.8	102	51	2	-	-



54500 **54502** **54503** **54514** **54515**



54517 **54531** **54532** **54533** **54539**

Grupos de produtos

Material	Código	Página
INOX A4	54500	13-82
INOX A4	54502	13-82
INOX A4	54503	13-82
INOX A2	54514	13-82
INOX A2	54515	13-82
INOX A2	54517	13-82
INOX A2	54531	13-83
INOX A2	54532	13-83
INOX A2	54533	13-83
INOX A2	54539	13-83

54500	Dobradiça	MH11
Material	Aço inoxidável A4	



L	✉	Ref. do artigo	L	✉	Ref. do artigo
76MM	5	54500.076.001	100MM*	5	54500.100.001

54502	Dobradiça	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
100X25*	5	54502.100.025

54503	Dobradiça	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
160X27*	5	54503.160.027

54514	Dobradiça forma A+B	MH11
Material	Aço inoxidável A2	



L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
TYPE A 180X40*	5	54514.180.040	TYPE B 180X40*	5	54514.180.041

54515	Dobradiça	MH11
Material	Aço inoxidável A2	



L x B	✉	Ref. do artigo
160X28*	5	54515.160.028

54517	Dobradiça	MH11
Material	Aço inoxidável A2	



L x B	✉	Ref. do artigo
105X28*	5	54517.105.028

54531	Dobradiça	MH11
Material	Aço inoxidável A2	



L x B	✉	Ref. do artigo
145X38*	5	54531.145.038

54532	Dobradiça	MH11
Material	Aço inoxidável A2	



L x B	✉	Ref. do artigo
100X28*	5	54532.100.028

54533	Dobradiça	MH11
Material	Aço inoxidável A2	



L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
75X38*	5	54533.075.038	97X38*	5	54533.097.038

54539	Dobradiça	MH11
Material	Aço inoxidável A2	



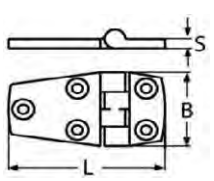
L x B	✉	Ref. do artigo
102X27*	5	54539.102.027

Dobradiça

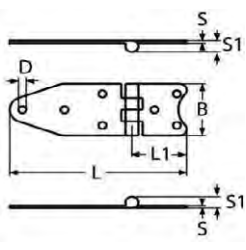


Dados técnicos

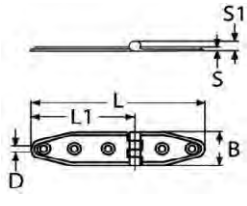
Nr.	B	D	L	L_1	S	S_1	Tipo
54501.056.038	38	-	56	-	4	-	-
54501.076.038	38	-	76	-	4	-	-
54513.129.040	40	5	129	38	2	9	A
54513.129.041	40	5	129	38	2	9	B
54516.133.028	28	4.5	133	80	3	8	-
54527.058.038	38	5.5	58	40	2	9	-
54527.068.038	38	5.5	68	49	2	9	-
54528.087.038	38	5.5	87	38	2	9	-
54528.097.038	38	5.5	97	40	2	9	-
54530.110.038	38	5.5	110	38	2	9	-
54537.100.054	54	-	100	60	4	-	-
54537.100.075	75	-	152	100	4	-	-
54537.197.098	98	-	197	140	4	-	-
54540.135.027	27	3.8	135	50	2	-	-
54544.180.038	38	-	180	60	2	-	-
54545.070.038	38	-	70	35	2	-	-



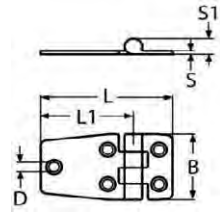
54501



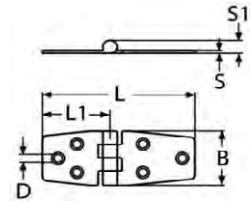
54513



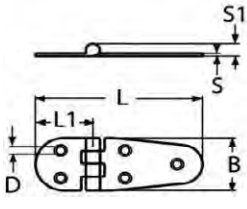
54516



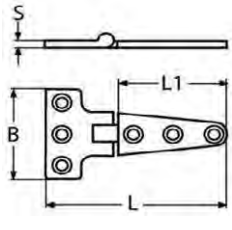
54527



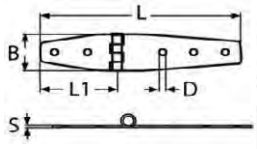
54528



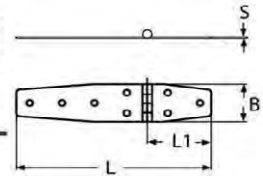
54530



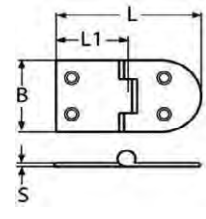
54537



54540



54544



54545

Grupos de produtos

Material	Código	Página
INOX A4	54501	13-85
INOX A2	54513	13-85
INOX A2	54516	13-85
INOX A2	54527	13-85
INOX A2	54528	13-85
INOX A2	54530	13-85
INOX A4	54537	13-86
INOX A2	54540	13-86
INOX A2	54544	13-86

Grupos de produtos

Material	Código	Página
INOX A2	54545	13-86

54501 Dobradiça — MH11

Material Aço inoxidável A4



L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
56X38*	5	54501.056.038	76X38	1	54501.076.038

54513 Dobradiça forma A+B — MH11

Material Aço inoxidável A2



L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
TYPE A 129X40*	5	54513.129.040	TYPE B 129X40*	5	54513.129.041

54516 Dobradiça — MH11

Material Aço inoxidável A2



L x B	✉	Ref. do artigo
133X28*	5	54516.133.028

54527 Dobradiça — MH11

Material Aço inoxidável A2



L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
58X38*	5	54527.058.038	68X38	5	54527.068.038

54528 Dobradiça — MH11

Material Aço inoxidável A2



L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
87X38*	5	54528.087.038	97X38*	5	54528.097.038

54530 Dobradiça — MH11

Material Aço inoxidável A2



L x B	✉	Ref. do artigo
110X38*	5	54530.110.038

54537	Dobradiça	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
100X54*	1	54537.100.054	152X75*	1	54537.100.075	197X98*	1	54537.197.098

54540	Dobradiça	MH11
Material	Aço inoxidável A2	



L x B	✉	Ref. do artigo
135X27*	5	54540.135.027

54544	Dobradiça	MH11
Material	Aço inoxidável A2	



L x B	✉	Ref. do artigo
180X38*	5	54544.180.038

54545	Dobradiça	MH11
Material	Aço inoxidável A2	



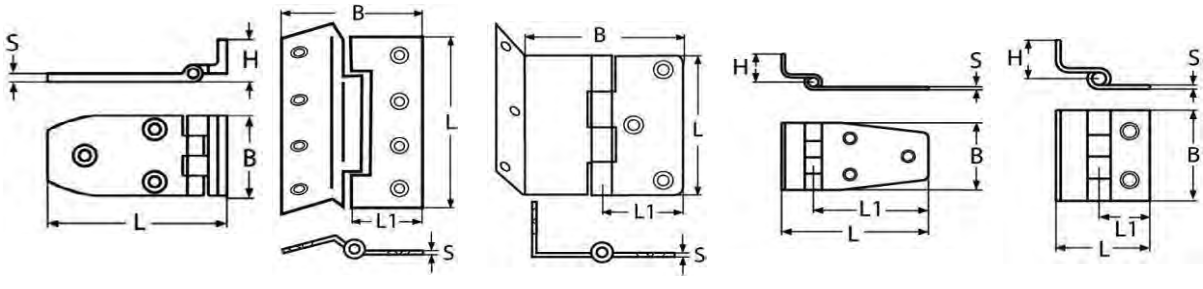
L x B	✉	Ref. do artigo
70X38*	5	54545.070.038

Dobradiça



Dados técnicos

Nr.	B	H	L	L_1	S
54504.056.038	38	9.5	56	-	4
54504.070.038	38	9.5	76	-	4
54523.152.001	76	-	152	22	3
54526.100.001	87	-	100	33	3
54547.653.821	38	21	65	45	2
54547.653.835	38	35	76	45	2
54548.035.038	38	20	35	15	2



54504 **54523** **54526** **54547** **54548**

Grupos de produtos

Material	Código	Página
INOX A4	54504	13-87
INOX A2	54523	13-87
INOX A4	54526	13-88
INOX A2	54547	13-88
INOX A2	54548	13-88

54504 **Dobradiça** **MH11**

Material Aço inoxidável A4



L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
56X38*	5	54504.056.038	70X38*	5	54504.070.038

54523 **Dobradiça** **MH11**

Material Aço inoxidável A2



L	✉	Ref. do artigo
152MM*	1	54523.152.001

54526	Dobradiça	MH11
Material	Aço inoxidável A4	



L	✉	Ref. do artigo
100MM*	1	54526.100.001

54547	Dobradiça	MH11
Material	Aço inoxidável A2	



L x B x H	✉	Ref. do artigo	L x B x H	✉	Ref. do artigo
65X38X21*	5	54547.653.821	65X38X35*	5	54547.653.835

54548	Dobradiça	MH11
Material	Aço inoxidável A2	



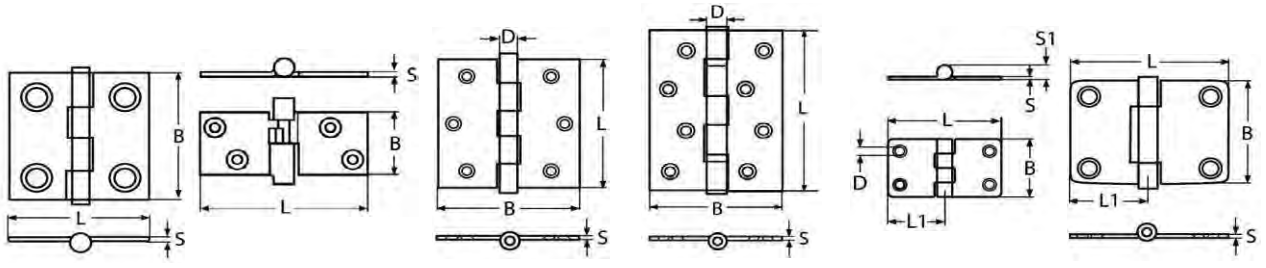
L x B	✉	Ref. do artigo
35X38*	5	54548.035.038

Dobradiça

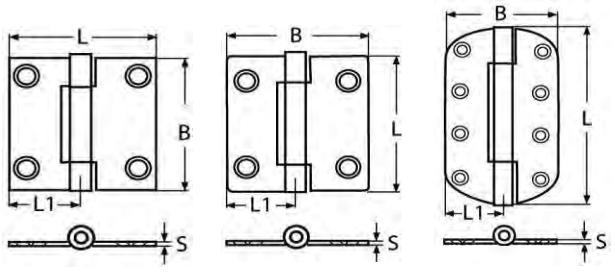


Dados técnicos

Nr.	B	D	L	L_1	S	S_1
54505.038.038	38	-	38	-	4	-
54505.050.050	50	-	50	-	4	-
54506.090.038	38	-	90	-	3	-
54508.075.075	75	10	75	-	2	-
54509.100.075	75	11	100	-	2.5	-
54518.038.038	38	5.5	38	19	2	9
54518.068.038	38	5.5	68	34	2	9
54520.049.001	37	-	49	24.5	2	-
54521.050.001	50	-	50	25	2	-
54524.075.001	70	-	75	35	3	-
54525.100.001	71	-	152	35.5	3.5	-
54529.075.038	38	5.5	75	37.5	2	9
54534.050.035	35	3.3	50	-	1.7	8
54534.062.040	40	3.3	62	-	1.7	8
54534.075.048	48	5.5	75	-	1.7	8
54534.100.054	54	6.6	100	-	1.7	8



54505 **54506** **54508** **54509** **54518** **54520**



54521 **54524** **54525** **54529** **54534**

Grupos de produtos

Material	Código	Página
INOX A4	54505	13-89
INOX A4	54506	13-89
INOX A2	54508	13-90
INOX A2	54509	13-90
INOX A2	54518	13-90
INOX A2	54520	13-90
INOX A2	54521	13-90
INOX A4	54524	13-90
INOX A4	54525	13-91
INOX A2	54529	13-91
INOX A2	54534	13-91

54505 **Dobradiça** **MH11**

Material Aço inoxidável A4



L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
38X38	5	54505.038.038	50X50	5	54505.050.050

54506 **Dobradiça** **MH11**

Material Aço inoxidável A4



L x B	✉	Ref. do artigo
90X38*	5	54506.090.038

54508	Dobradiça heavy duty	MH11
Material	Aço inoxidável A2	



L x B	✉	Ref. do artigo
75X75	5	54508.075.075

54509	Dobradiça heavy duty	MH11
Material	Aço inoxidável A2	



L x B	✉	Ref. do artigo
100X75*	5	54509.100.075

54518	Dobradiça	MH11
Material	Aço inoxidável A2	



L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
38X38*	5	54518.038.038	68X38*	5	54518.068.038

54520	Dobradiça	MH11
Material	Aço inoxidável A2	



L	✉	Ref. do artigo
49MM*	5	54520.049.001

54521	Dobradiça	MH11
Material	Aço inoxidável A2	



L	✉	Ref. do artigo
50MM*	5	54521.050.001

54524	Dobradiça	MH11
Material	Aço inoxidável A4	



L	✉	Ref. do artigo
75MM*	2	54524.075.001

54525	Dobradiça	MH11
Material	Aço inoxidável A4	



L	✉	Ref. do artigo
152MM*	2	54525.100.001

54529	Dobradiça	MH11
Material	Aço inoxidável A2	



L x B	✉	Ref. do artigo
75X38*	5	54529.075.038

54534	Dobradiça	MH11
Material	Aço inoxidável A2	



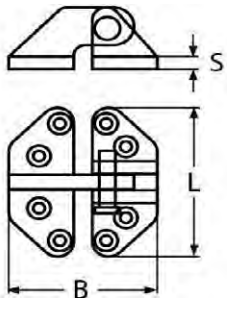
L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
50X35	5	54534.050.035	75X48*	5	54534.075.048	100X54*	5	54534.100.054
62X40*	5	54534.062.040						

Dobradiça



Dados técnicos

Nr.	B	L	S
54507.074.065	65	74	6



54507

54507	Dobradiça	MH11
Material	Aço inoxidável A4	



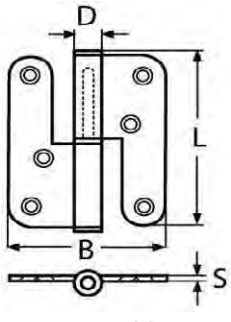
L x B	✉	Ref. do artigo
74X65*	2	54507.074.065

Dobradiça

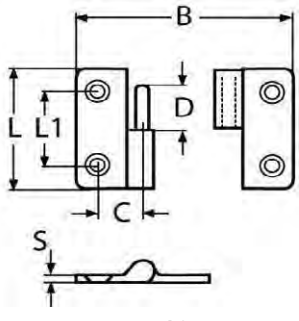


Dados técnicos

Nr.	B	C	D	L	L_1	S	Tipo
54511.100.080	80	-	14	100	-	3	L
54511.100.081	80	-	14	100	-	3	R
54512.037.037	37	12.5	13.5	37	23	2.6	R
54512.137.137	37	12.5	13.5	37	23	2.6	L



54511



54512

Grupos de produtos

Material	Código	Página
INOX A2	54511	13-92
INOX A4	54512	13-93

54511	Dobradiça de duas partes	MH11
Material	Aço inoxidável A2	



L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
100X80 Left*	2	54511.100.080	100X80 Right*	1	54511.100.081

54512	Dobradiça duas partes	MH11

Material Aço inoxidável A4



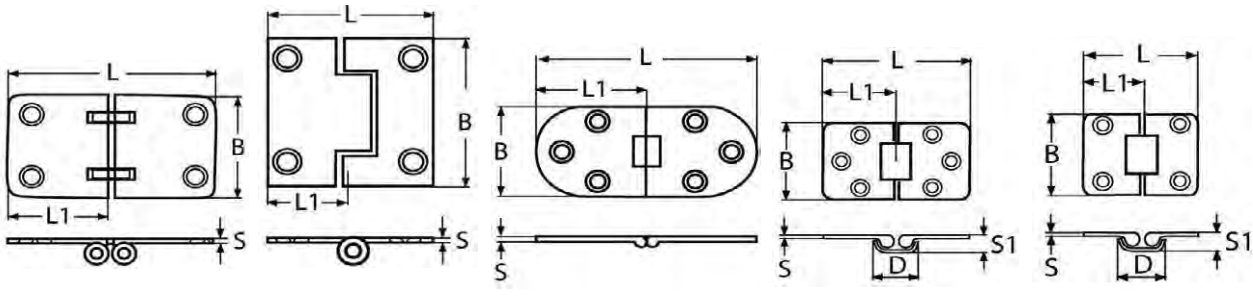
L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
37X37 Left*	5	54512.037.037	37X37 Right*	5	54512.137.137

Dobradiça



Dados técnicos

Nr.	B	D	L	L_1	S	S_1
54519.071.001	40	-	71	35.5	2	-
54522.050.001	50	-	50	25	2	-
54538.066.030	30	-	66	33	2	-
54573.070.042	42	6	70	35	2.2	7.5
54574.052.042	42	6	52	26	2.2	7.5



54519 **54522** **54538** **54573** **54574**

Grupos de produtos

Material	Código	Página
INOX A2	54519	13-93
INOX A2	54522	13-94
INOX A4	54538	13-94
INOX A4	54573	13-94
INOX A4	54574	13-94

54519	Dobradiça	MH11

Material Aço inoxidável A2



L	✉	Ref. do artigo
71MM*	5	54519.071.001

54522	Dobradiça	MH11
Material	Aço inoxidável A2	



L	✉	Ref. do artigo
50MM*	5	54522.050.001

54538	Dobradiça	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
66X30*	5	54538.066.030

54573	Dobradiça	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
70x42*	5	54573.070.042

54574	Dobradiça	MH11
Material	Aço inoxidável A4	



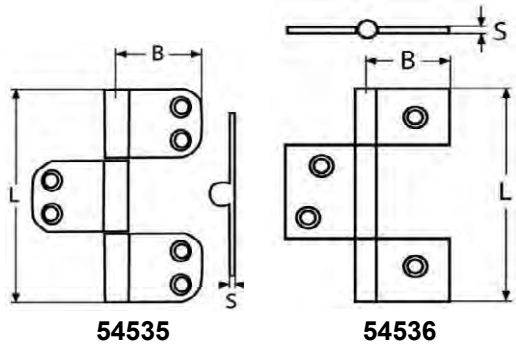
L x B	✉	Ref. do artigo
52X42*	5	54574.052.042

Dobradiça



Dados técnicos

Nr.	B	L	S
54535.098.037	37	98	1.5
54536.085.001	30	85	1.5



Grupos de produtos

Material	Código	Página
INOX A4	54535	13-95
INOX A2	54536	13-95

54535 **Dobradiça** **MH11**

Material Aço inoxidável A4

RoHS



L x B	✉	Ref. do artigo
98X37*	1	54535.098.037

54536 **Dobradiça** **MH11**

Material Aço inoxidável A2

RoHS



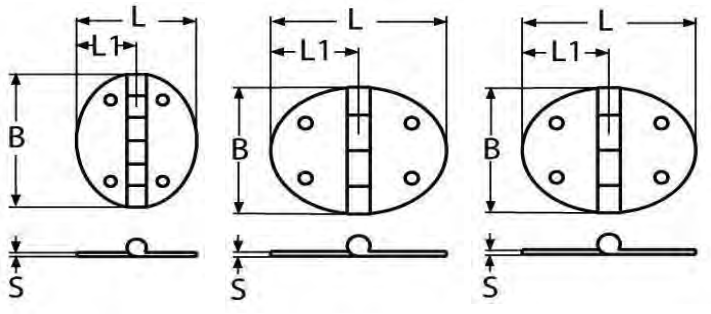
L	✉	Ref. do artigo
85MM*	5	54536.085.001

Dobradiça



Dados técnicos

Nr.	B	L	L_1	S
54541.075.056	78	56	28	2
54542.067.048	48	67	36.5	2
54543.051.035	35	51	25.5	2



54541 **54542** **54543**

Grupos de produtos

Material	Código	Página
INOX A2	54541	13-96
INOX A2	54542	13-96
INOX A2	54543	13-96

54541 **Dobradiça** **MH11**

Material Aço inoxidável A2



B x L	✉	Ref. do artigo
78X56*	5	54541.075.056

54542 **Dobradiça** **MH11**

Material Aço inoxidável A2



L x B	✉	Ref. do artigo
67X48*	5	54542.067.048

54543 **Dobradiça** **MH11**

Material Aço inoxidável A2



13

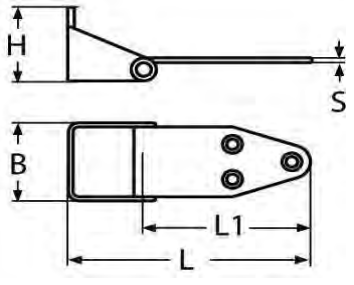
L x B	✉	Ref. do artigo
51X35*	5	54543.051.035

Dobradiça



Dados técnicos

Nr.	B	H	L	L_1	S
54546.127.047	47	41	127	98	2.5



54546

54546	Dobradiça	MH11
Material	Aço inoxidável A2	



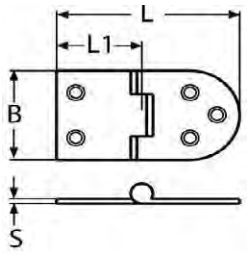
L x B	✉	Ref. do artigo
127X47*	2	54546.127.047

Dobradiça

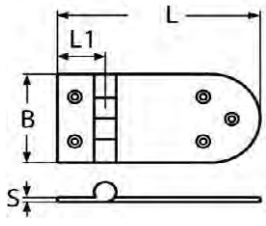


Dados técnicos

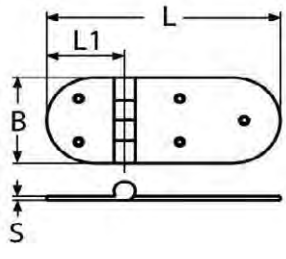
Nr.	B	L	L_1	S
54549.076.040	40	76	30	4
54551.134.065	65	134	21	4
54553.146.065	65	146	51	4
54555.190.065	65	190	95	4
54557.086.065	65	83	32	4
54559.072.065	65	72	21	4
54561.103.065	65	103	21	4
54563.052.061	61	52	19	4
54565.080.065	65	80	33	4
54567.070.040	40	70	30	3.5
54569.126.040	40	126	40	3.5
54571.127.065	65	127	32	4



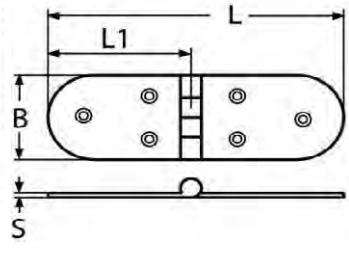
54549



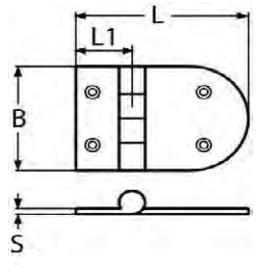
54551



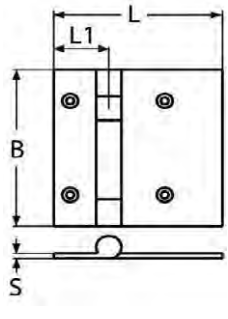
54553-69



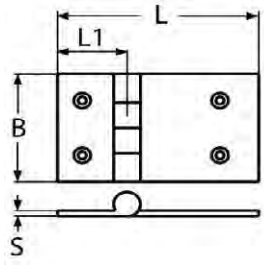
54555



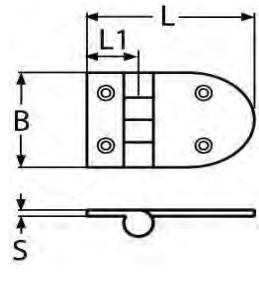
54557-59-61-71



54563



54565



54567

Grupos de produtos

Material	Código	Página
INOX A4	54549	13-99
INOX A4	54551	13-99
INOX A4	54553	13-99
INOX A4	54555	13-99
INOX A4	54557	13-99
INOX A4	54559	13-99
INOX A4	54561	13-100
INOX A4	54563	13-100
INOX A4	54565	13-100
INOX A4	54567	13-100
INOX A4	54569	13-100
INOX A4	54571	13-100

54549	Dobradiça	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
76X40*	2	54549.076.040

54551	Dobradiça	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
134X65*	2	54551.134.065

54553	Dobradiça	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
146X65*	2	54553.146.065

54555	Dobradiça	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
190X65*	2	54555.190.065

54557	Dobradiça	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
83X65*	2	54557.086.065

54559	Dobradiça	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
72X65*	2	54559.072.065

54561	Dobradiça	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
103X65*	2	54561.103.065

54563	Dobradiça	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
52X61*	2	54563.052.061

54565	Dobradiça	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
80X65*	2	54565.080.065

54567	Dobradiça	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
70X40*	2	54567.070.040

54569	Dobradiça	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
126X40*	2	54569.126.040

54571	Dobradiça	MH11
Material	Aço inoxidável A4	



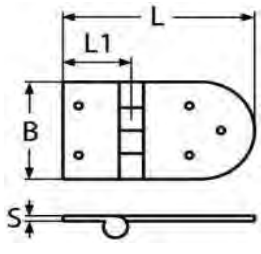
L x B	✉	Ref. do artigo
127X65*	2	54571.127.065

Dobradiça com roscas

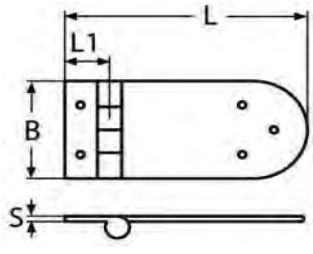


Dados técnicos

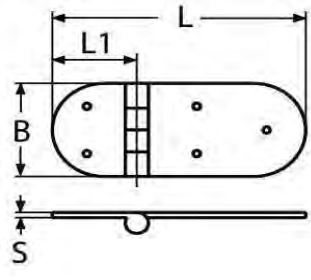
Nr.	B	L	L_1	S
54550.076.040	40	76	30	4
54552.134.065	65	134	21	4
54554.146.065	65	146	51	4
54556.190.065	65	190	95	4
54558.083.065	65	83	32	4
54560.072.065	72	65	21	4
54562.103.065	65	103	21	4
54564.052.061	61	52	19	4
54566.070.040	65	80	33	4
54568.070.040	40	70	30	3.5
54570.126.040	40	126	40	3.5
54572.127.065	65	127	32	4



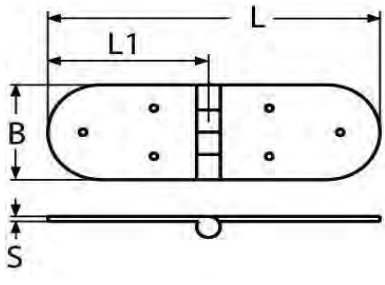
54550-72



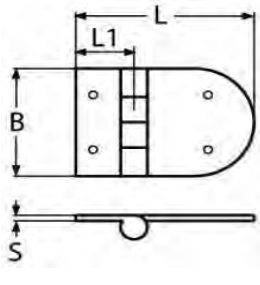
54552



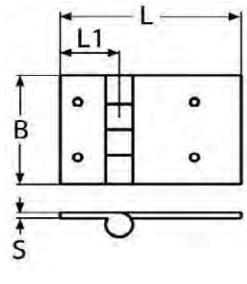
54554-70



54556



54558-60-62-68



54564-66

Grupos de produtos

Material	Código	Página
INOX A4	54550	13-102
INOX A4	54552	13-102
INOX A4	54554	13-102
INOX A4	54556	13-102
INOX A4	54558	13-102
INOX A4	54560	13-102
INOX A4	54562	13-103
INOX A4	54564	13-103
INOX A4	54566	13-103
INOX A4	54568	13-103
INOX A4	54570	13-103
INOX A4	54572	13-103

54550	Dobradiça com roscas	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
76X40*	2	54550.076.040

54552	Dobradiça com roscas	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
134X65*	2	54552.134.065

54554	Dobradiça com roscas	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
146X65*	2	54554.146.065

54556	Dobradiça com roscas	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
190X65*	2	54556.190.065

54558	Dobradiça com roscas	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
83X65*	2	54558.083.065

54560	Dobradiça com roscas	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
72X65*	2	54560.072.065

54562	Dobradiça com roscas	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
103X65*	2	54562.103.065

54564	Dobradiça com roscas	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
52X61*	2	54564.052.061

54566	Dobradiça com roscas	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
80X65*	2	54566.070.040

54568	Dobradiça com roscas	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
70X40*	2	54568.070.040

54570	Dobradiça com roscas	MH11
Material	Aço inoxidável A4	



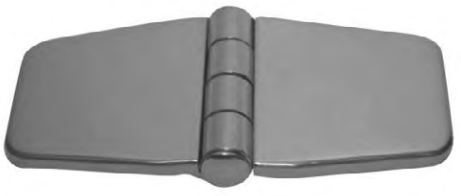
L x B	✉	Ref. do artigo
126X40*	2	54570.126.040

54572	Dobradiça com roscas	MH11
Material	Aço inoxidável A4	



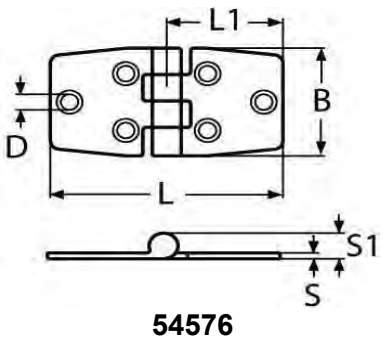
L x B	✉	Ref. do artigo
127X65*	2	54572.127.065

Dobradiça

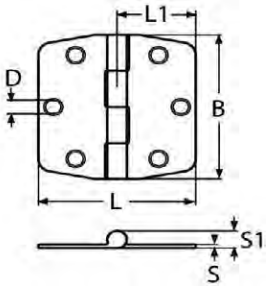


Dados técnicos

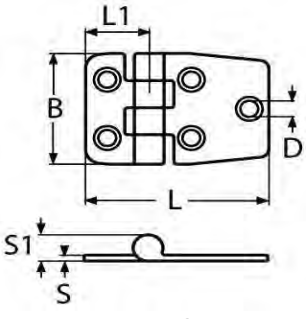
Nr.	B	D	L	L_1	S	S_1
54576.074.040	40	5.5	74	37	2	9
54577.075.074	75	7.5	74	37	2	9
54578.057.037	37	6	57	18	2	9
54579.036.036	36	6	36	18	2	9



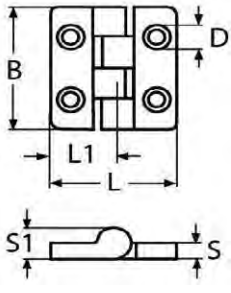
54576



54577



54578



54579

Grupos de produtos

Material	Código	Página
INOX A4	54576	13-104
INOX A4	54577	13-104
INOX A4	54578	13-105
INOX A4	54579	13-105

54576 **Dobradiça** **MH11**

Material Aço inoxidável A4



L x B	✉	Ref. do artigo
74X40*	5	54576.074.040

54577 **Dobradiça** **MH11**

Material Aço inoxidável A4



B x L	✉	Ref. do artigo
75X74*	5	54577.075.074

54578	Dobradiça	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
57X37*	5	54578.057.037

54579	Dobradiça	MH11
Material	Aço inoxidável A4	



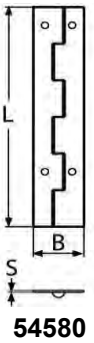
L x B	✉	Ref. do artigo
36X36*	5	54579.036.036

Dobradiça



Dados técnicos

Nr.	B	L	S
54580.007.016	16	3500	0.7
54580.007.018	18	3500	0.7
54580.007.020	20	3500	0.7
54580.007.025	25	3500	0.7
54580.007.032	32	3500	0.7
54580.007.040	40	3500	0.7
54580.015.032	32	2000	1.5
54580.015.040	40	2000	1.5



54580

54580	Dobradiça	MH11
Material	Aço inoxidável A2	



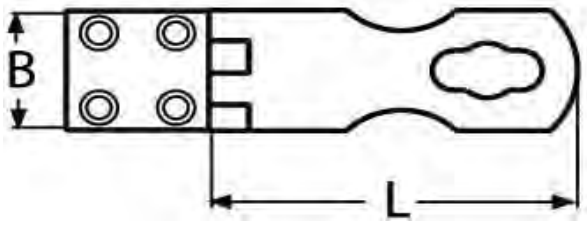
S x B	✉	Ref. do artigo	S x B	✉	Ref. do artigo	S x B	✉	Ref. do artigo
0,7X16MM*	1	54580.007.016	0,7X25MM*	1	54580.007.025			
0,7X18MM*	1	54580.007.018	0,7X32MM*	1	54580.007.032	1,5X32MM*	1	54580.015.032
0,7X20MM*	1	54580.007.020	0,7X40MM*	1	54580.007.040	1,5X40MM	1	54580.015.040

Chave de segurança

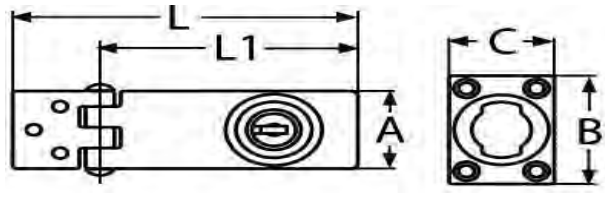


Dados técnicos

Nr.	A	B	C	L	L_1
54581.071.024	-	24	-	67	-
54582.030.001	30	42	30	98	78



54581



54582

Grupos de produtos

Material	Código	Página
INOX A2	54581	13-106
INOX A2	54582	13-106

54581 **Chave de segurança** **MH11**

Material Aço inoxidável A2



L x B	✉	Ref. do artigo
67X24	5	54581.071.024

54582 **Chave de segurança** **MH11**

Material Aço inoxidável A2



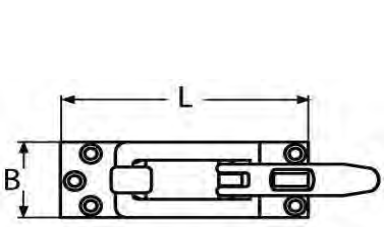
A	✉	Ref. do artigo
30MM*	1	54582.030.001

Argola giratória

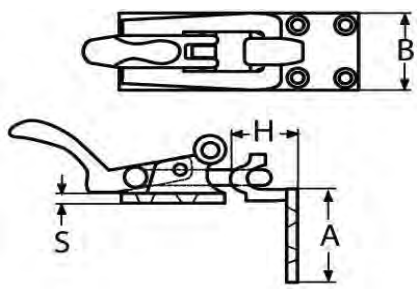


Dados técnicos

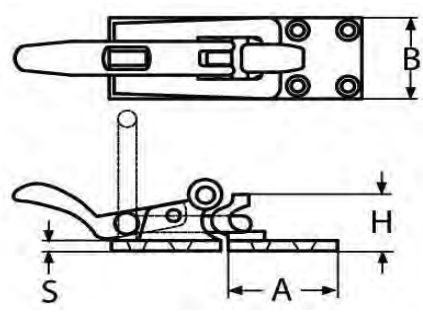
Nr.	A	B	C	d	D	H	L	L_1	L_2	S
54583.080.028	-	28	-	-	-	-	80	-	-	-
54584.037.037	37	37	-	-	-	20	-	-	-	4
54585.037.037	37	37	-	-	-	20	-	-	-	4
54586.080.028	-	28	-	-	-	-	75	25	50	-
54597.070.001	72	35	24	-	-	-	-	-	-	-
54598.065.075	20	18	26	M4	41	-	65-75	-	-	-
54598.085.095	20	18	26	M5	15	-	85-95	-	-	-
54598.115.125	29	25	30	M6	18	-	115-125	-	-	-
54598.165.185	30	35	30	M8	18	-	165-185	-	-	-



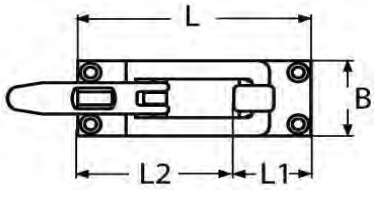
54583



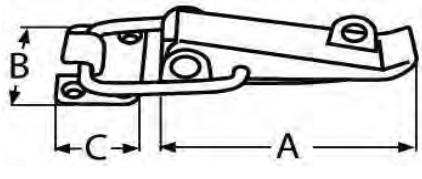
54584



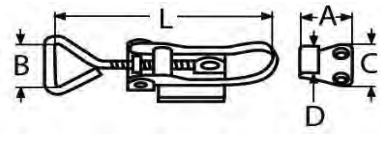
54585



54586



54597



54598

Grupos de produtos

Material	Código	Página
INOX A4	54583	13-107
INOX A4	54584	13-108
INOX A4	54585	13-108
INOX A4	54586	13-108
INOX A2	54597	13-108
INOX A2	54598	13-108

54583 **Argola giratória com fecho** **MH11**

Material Aço inoxidável A4

RoHS



L x B	✉	Ref. do artigo
80X28*	1	54583.080.028

54584	Argola giratória	MH11
Material	Aço inoxidável A4	



A x B	✉	Ref. do artigo
37X37MM*	1	54584.037.037

54585	Argola giratória	MH11
Material	Aço inoxidável A4	



A x B	✉	Ref. do artigo
37X37MM*	1	54585.037.037

54586	Argola giratória	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
75X28*	1	54586.080.028

54597	Fecho com tensor, com fe	MH11
Material	Aço inoxidável A2	



A	✉	Ref. do artigo
72MM*	1	54597.070.001

54598	Fecho	MH11
Material	Aço inoxidável A2	



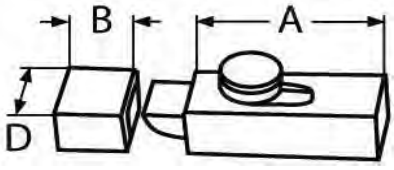
L	✉	Ref. do artigo	L	✉	Ref. do artigo	L	✉	Ref. do artigo
65-75MM*	1	54598.065.075	115-125MM	1	54598.115.125	165-185MM*	1	54598.165.185
85-95MM*	1	54598.085.095						

Lingueta

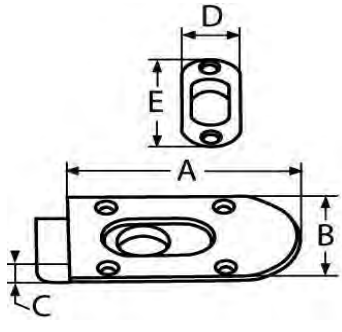


Dados técnicos

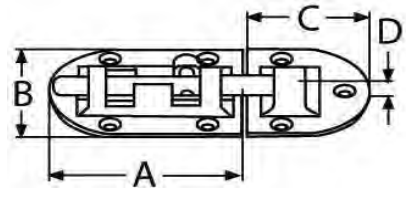
Nr.	A	B	C	D	E	Espessura
54594.072.001	72	27	-	30	-	-
54595.091.001	91	56	9	16	54	-
54596.015.045	45	30	15	9.5	-	2.3
54596.036.076	76	38	36	9.5	-	4



54594



54595



54596

Grupos de produtos

Material	Código	Página
INOX A4	54594	13-109
INOX A4	54595	13-109
INOX A4	54596	13-110

54594 Lingueta **MH11**

Material Aço inoxidável A4



A	✉	Ref. do artigo
72MM*	1	54594.072.001

54595 Mola deslizante **MH11**

Material Aço inoxidável A4



A	✉	Ref. do artigo
91MM*	1	54595.091.001

54596	Lingueta	MH11
Material	Aço inoxidável A4	



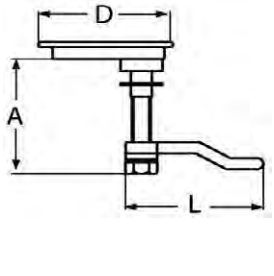
C x A		Ref. do artigo	C x A		Ref. do artigo
15X45*	1	54596.015.045	36X76*	1	54596.036.076

Fecho com chave

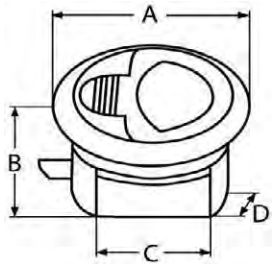


Dados técnicos

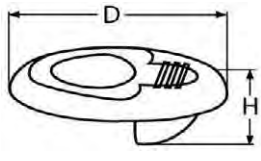
Nr.	A	B	C	D	Espessura	H	L	L_1	L_2	Tipo
54587.063.063	73	-	-	63	-	-	63	-	-	Square
54587.063.163	73	-	-	63	-	-	60	-	-	Round
54588.060.001	60	41	50	33	-	-	-	-	-	-
54589.050.001	-	-	-	50	6	19	-	-	-	-
54590.050.050	-	50	-	-	6	-	50	-	-	-
54591.061.001	61	50	33	-	-	-	-	-	-	-
54603.050.001	50	55	-	-	-	-	32	30	65	-



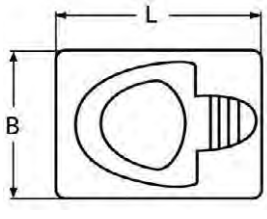
54587



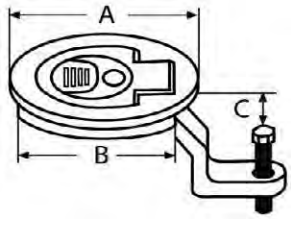
54588



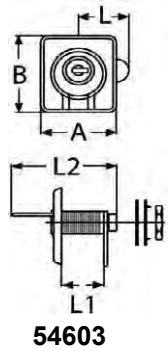
54589



54590



54591



54603

Grupos de produtos

Material	Código	Página
INOX A4	54587	13-111
INOX A4	54588	13-111
INOX A4	54589	13-111
INOX A4	54590	13-111
INOX A4	54591	13-111
INOX A4	54603	13-111

54587 Puxador de embutir com fechadura — MH11

Material Aço inoxidável A4



D x A	✉	Ref. do artigo	D x A	✉	Ref. do artigo
63X63 Square*	1	54587.063.063	63 Round*	1	54587.063.163

54588 Puxador de embutir — MH11

Material Aço inoxidável A4



A	✉	Ref. do artigo
60MM*	1	54588.060.001

54589 Fecho com chave — MH11

Material Aço inoxidável A4



D	✉	Ref. do artigo
50MM*	1	54589.050.001

54590 Fecho com chave — MH11

Material Aço inoxidável A4



L x B	✉	Ref. do artigo
50X50*	1	54590.050.050

54591 Puxador de embutir com fechadura — MH11

Material Aço inoxidável A4



A	✉	Ref. do artigo	A	✉	Ref. do artigo
Spare key*	1	54591.001.770	61MM*	1	54591.061.001

54603 Puxador de embutir com fechadura — MH11

Material Aço inoxidável A4



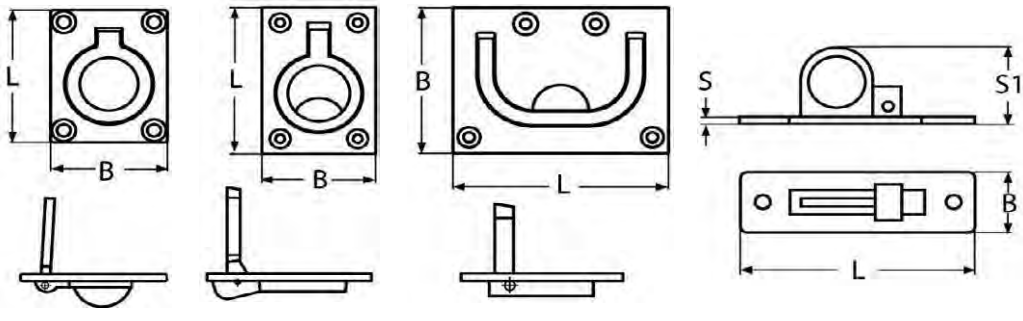
A	✉	Ref. do artigo
50MM*	1	54603.050.001

Anel de elevação



Dados técnicos

Nr.	B	L	S	S_1
54600.047.038	38	47	-	-
54601.063.044	44	63	-	-
54602.075.056	56	75	-	-
54604.090.001	25	90	3	33



54600 54601 54602 54604

Grupos de produtos

Material	Código	Página
INOX A4	54600	13-112
INOX A4	54601	13-112
INOX A4	54602	13-113
INOX A2	54604	13-113

54600 **Anel de elevação** **MH11**

Material Aço inoxidável A4



RoHS

L x B	✉	Ref. do artigo
47X38*	1	54600.047.038

54601 **Anel de elevação** **MH11**

Material Aço inoxidável A4



RoHS

L x B	✉	Ref. do artigo
63X44*	1	54601.063.044

54602	Anel de elevação	MH11
Material	Aço inoxidável A4	



L x B	✉	Ref. do artigo
75X56*	1	54602.075.056

54604	Anel de elevação	MH11
Material	Aço inoxidável A2	



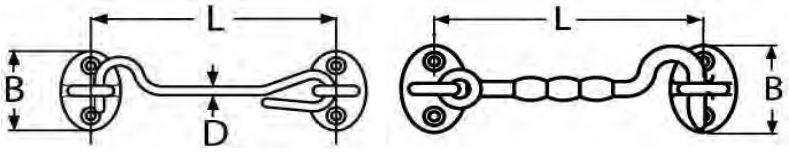
L	✉	Ref. do artigo
90MM*	1	54604.090.001

Fecho



Dados técnicos

Nr.	B	Comprimento (mm)	D	Espessura	L
54592.050.001	33	-	4.4	-	50
54592.070.001	33	-	4.4	-	70
54592.090.001	33	-	4.4	-	90
54593.100.001	37.5	-	-	-	100
54599.080.001	-	80	-	3.9	-
54599.120.001	-	120	-	4.4	-



54592 **54593**

Grupos de produtos

Material	Código	Página
INOX A4	54592	13-114
INOX A4	54593	13-114
INOX A2	54599	13-114

54592	Fecho	MH11
Material	Aço inoxidável A4	



L	✉	Ref. do artigo	L	✉	Ref. do artigo	L	✉	Ref. do artigo
50MM*	5	54592.050.001	70MM*	5	54592.070.001	90MM*	5	54592.090.001

54593	Fecho	MH11
Material	Aço inoxidável A4	



L	✉	Ref. do artigo
100MM*	1	54593.100.001

54599	Gancho com olhal	MH11
Material	Aço inoxidável A2	



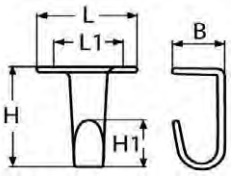
Comprimento	✉	Ref. do artigo	Comprimento	✉	Ref. do artigo
80MM*	5	54599.080.001	120MM*	5	54599.120.001

Gancho

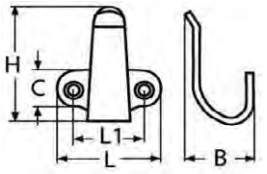


Dados técnicos

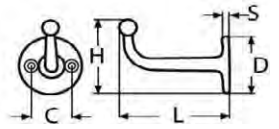
Nr.	A	B	C	D	H	H_1	L	L_1	S
54605.032.500	-	17	-	-	32.5	14	32.5	20	-
54605.043.001	-	22	-	-	47.5	21	43	30	-
54606.035.001	-	23	16	-	44	-	35	21.5	-
54606.043.001	-	25	18	-	56	-	43	30	-
54607.047.001	-	-	18.5	28	37	-	47	-	3
54607.065.001	-	-	22.5	35	44	-	65	-	4
54608.040.030	-	30	-	-	-	-	40	-	-
54609.030.025	-	30	-	-	-	-	40	-	-
54610.035.033	-	33	-	-	-	-	35	-	-
54611.100.001	10	60	-	-	-	-	35	-	-
54612.120.001	12	36	-	-	-	-	48	-	-
54613.060.001	6	30	-	-	-	-	-	-	-
54614.055.038	-	43	20	-	-	-	55	-	-
54615.050.001	50	50	28	10	-	-	-	-	-



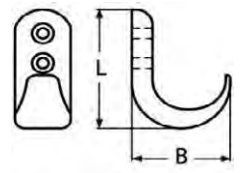
54605



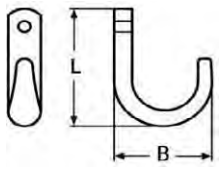
54606



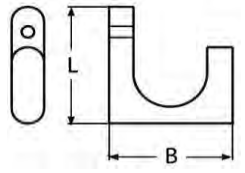
54607



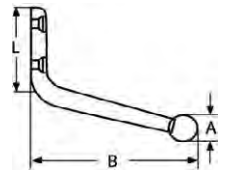
54608



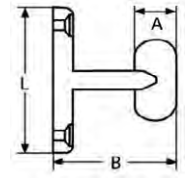
54609



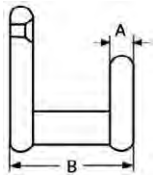
54610



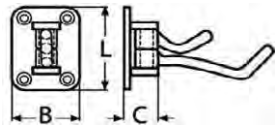
54611



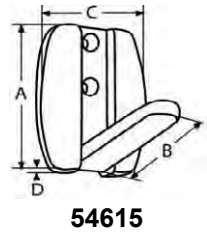
54612



54613



54614



54615

Grupos de produtos

Material	Código	Página
INOX A2	54605	13-115
INOX A2	54606	13-115
INOX A2	54607	13-116
INOX A2	54608	13-116
INOX A2	54609	13-116
INOX A2	54610	13-116
INOX A2	54611	13-116
INOX A2	54612	13-116
INOX A2	54613	13-117
INOX A2	54614	13-117
INOX A4	54615	13-117

54605 **Gancho polido** **MH11**

Material Aço inoxidável A2



L	✉	Ref. do artigo	L	✉	Ref. do artigo
32,5MM*	10	54605.032.500	43MM*	10	54605.043.001

54606 **Gancho polido** **MH11**

Material Aço inoxidável A2



L	✉	Ref. do artigo	L	✉	Ref. do artigo
35MM*	10	54606.035.001	43MM*	10	54606.043.001

54607	Gancho polido	MH11
Material	Aço inoxidável A2	



L	✉	Ref. do artigo	L	✉	Ref. do artigo
47MM*	10	54607.047.001	65MM*	10	54607.065.001

54608	Gancho polido	MH11
Material	Aço inoxidável A2	



L x B	✉	Ref. do artigo
40X30*	10	54608.040.030

54609	Gancho polido	MH11
Material	Aço inoxidável A2	



L x B	✉	Ref. do artigo
30X25*	10	54609.030.025

54610	Gancho polido	MH11
Material	Aço inoxidável A2	



L x B	✉	Ref. do artigo
35X33*	10	54610.035.033

54611	Gancho	MH11
Material	Aço inoxidável A2	



A	✉	Ref. do artigo
10MM*	10	54611.100.001

54612	Gancho	MH11
Material	Aço inoxidável A2	



A	✉	Ref. do artigo
12MM*	10	54612.120.001

54613	Gancho	MH11
Material	Aço inoxidável A2	



A	✉	Ref. do artigo
6MM*	10	54613.060.001

54614	Suporte móvel	MH11
Material	Aço inoxidável A2	



L x B	✉	Ref. do artigo
55X38*	5	54614.055.038

54615	Gancho dobrável	MH11
Material	Aço inoxidável A4	



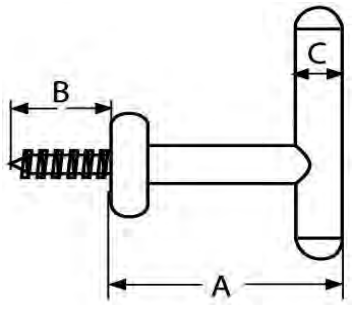
A	✉	Ref. do artigo
50MM*	5	54615.050.001

Proteção de fecho

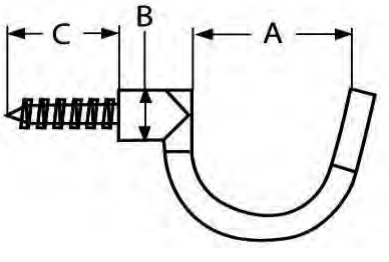


Dados técnicos

Nr.	A	B	C
54616.040.001	40	17	8
54617.026.001	26	9	18



54616



54617

Grupos de produtos

Material	Código	Página
INOX A2	54616	13-118
INOX A2	54617	13-118

54616	Proteção de fecho	MH11
Material	Aço inoxidável A2	



A	✉	Ref. do artigo
40MM*	10	54616.040.001

54617	Proteção de fecho	MH11
Material	Aço inoxidável A2	



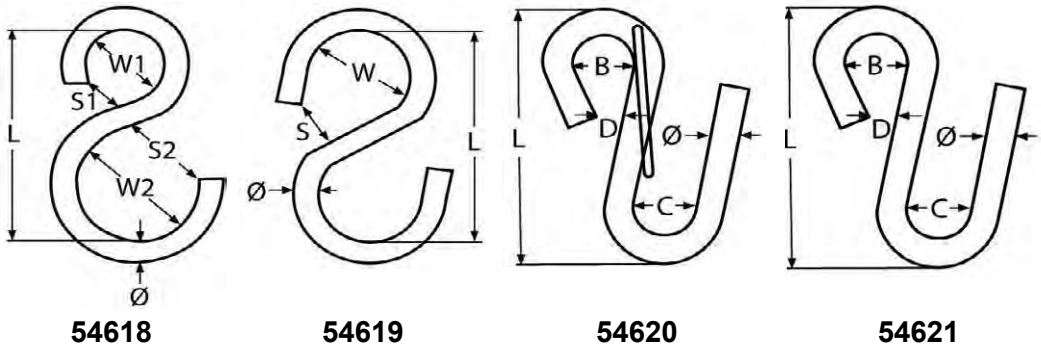
A	✉	Ref. do artigo
26MM*	10	54617.026.001

Gancho em S



Dados técnicos

Nr.	B	C	D	L	S	S_1	S_2	W	W_1	W_2	ø
54618.030.001	-	-	-	30	-	5	10	-	9	16	3
54618.040.001	-	-	-	36	-	6	12	-	12	19	4
54618.050.001	-	-	-	43	-	6	12	-	14	21	5
54618.060.001	-	-	-	50	-	7	15	-	15	25	6
54618.080.001	-	-	-	67	-	9	20	-	20	33	8
54619.030.001	-	-	-	24	4	-	-	9	-	-	3
54619.040.001	-	-	-	32	6	-	-	12	-	-	4
54619.050.001	-	-	-	40	8	-	-	15	-	-	5
54619.060.001	-	-	-	48	9	-	-	17	-	-	6
54619.080.001	-	-	-	64	12	-	-	24	-	-	8
54619.100.001	-	-	-	80	13	-	-	30	-	-	10
54620.095.001	17	19.5	6.9	90	-	-	-	-	-	-	9.5
54620.110.001	17	22	7	100	-	-	-	-	-	-	11
54620.130.001	17	22	8	112	-	-	-	-	-	-	13
54621.050.001	9	9	2	52	-	-	-	-	-	-	5
54621.060.001	10	10	5	64	-	-	-	-	-	-	6
54621.080.001	16	17	5	75	-	-	-	-	-	-	8
54621.100.001	20	20	8	95	-	-	-	-	-	-	10



54618 **54619** **54620** **54621**

Grupos de produtos

Material	Código	Página
INOX A2	54618	13-119
INOX A2	54619	13-119
INOX A4	54620	13-119
INOX A4	54621	13-119

54618 Gancho em S, assimétrico — MH11

Material Aço inoxidável A2



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
3MM*	20	54618.030.001	5MM	20	54618.050.001	8MM*	10	54618.080.001
4MM*	20	54618.040.001	6MM*	10	54618.060.001			

54619 Gancho em S, simétrico — MH11

Material Aço inoxidável A2



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
3MM*	20	54619.030.001	5MM*	20	54619.050.001	8MM*	10	54619.080.001
4MM	20	54619.040.001	6MM*	10	54619.060.001	10MM*	5	54619.100.001

54620 Gancho em S com segurança — MH11

Material Aço inoxidável A4



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
9,5MM*	5	54620.095.001	11,0MM*	5	54620.110.001	13,0MM*	5	54620.130.001

54621 Gancho em S — MH11

Material Aço inoxidável A4



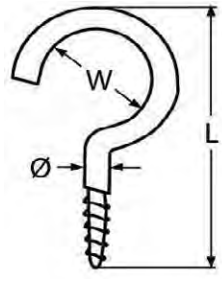
ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
5MM*	10	54621.050.001	8MM*	10	54621.080.001	10MM*	5	54621.100.001
6MM*	10	54621.060.001						

Gancho de parede



Dados técnicos

Nr.	L	W	ø
54622.029.040	40	12	2.9
54622.033.050	50	16	3.3
54622.033.060	60	16	3.3
54622.044.050	50	16	4.4
54622.048.065	65	22	4.8
54622.052.080	80	26	5.2
54622.058.100	100	26	5.8



54622

54622 **Gancho de parede** **MH11**

Material Aço inoxidável A4



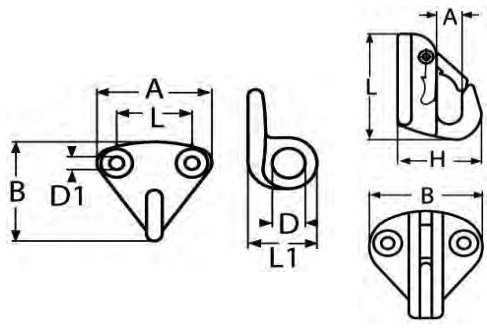
ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo
2,9X40*	100	54622.029.040	4,4X50*	50	54622.044.050	5,2X80*	20	54622.052.080
3,3X50*	100	54622.033.050	4,8X65*	50	54622.048.065	5,8X100*	20	54622.058.100
3,3X60*	100	54622.033.060						

Gancho de toldo



Dados técnicos

Nr.	A	B	D	D_1	H	L	L_1
54623.100.001	30	35	10	4.5	-	20	22
54624.080.001	8	34	-	-	24	36	-
54624.110.001	11	34	-	-	34	42	-



54623 **54624**

Grupos de produtos

Material	Código	Página
INOX A4	54623	13-121
INOX A4	54624	13-121

54623 **Gancho de toldo** **MH11**

Material Aço inoxidável A4



D	✉	Ref. do artigo
10MM*	10	54623.100.001

54624 **Gancho** **MH11**

Material Aço inoxidável A4



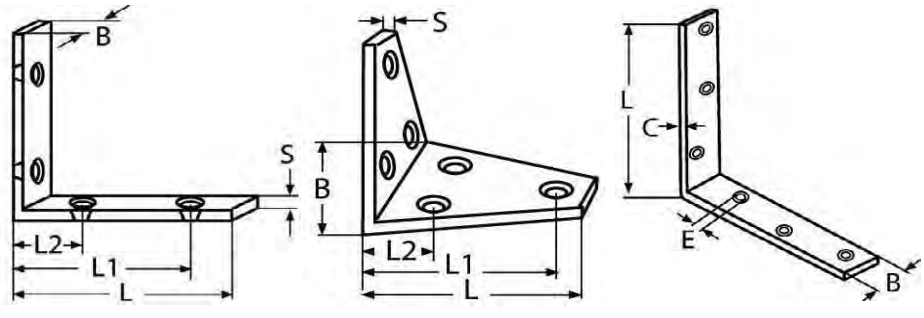
A	✉	Ref. do artigo	A	✉	Ref. do artigo
8MM*	5	54624.080.001	11MM*	5	54624.110.001

Suporte angular



Dados técnicos

Nr.	B	C	E	L	L_1	L_2	S
54625.031.012	12	-	-	31	25	12	3
54625.046.013	13	-	-	46	38	18	3
54625.061.015	15	-	-	61	51	21	3
54626.041.025	25	-	-	41	35	18	3
54626.056.035	35	-	-	56	47.5	18.5	3
54626.080.050	50	-	-	80	71	24	4
54627.150.001	30	5	5	150	-	-	-
54627.200.001	30	5	5	200	-	-	-
54627.250.001	30	5	5	250	-	-	-
54627.300.001	30	5	5	300	-	-	-



54625 **54626** **54627**

Grupos de produtos

Material	Código	Página
INOX A2	54625	13-122
INOX A2	54626	13-122
INOX A2	54627	13-123

54625 **Suporte angular** **MH11**

Material Aço inoxidável A2



L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
31X12*	10	54625.031.012	46X13*	10	54625.046.013	61X15*	10	54625.061.015

54626 **Suporte angular** **MH11**

Material Aço inoxidável A2



L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo	L x B	✉	Ref. do artigo
41X25*	10	54626.041.025	56X35*	10	54626.056.035	80X50*	10	54626.080.050

54627	Suporte angular	MH11
Material	Aço inoxidável A2	



L	✉	Ref. do artigo	L	✉	Ref. do artigo	L	✉	Ref. do artigo
150MM*	2	54627.150.001	250MM*	2	54627.250.001	300MM*	2	54627.300.001
200MM*	2	54627.200.001						

Gancho elástico



Dados técnicos

Nr.	ø
54628.060.001	6
54628.080.001	8
54628.100.001	10

54628	Gancho elástico	MH11
Material	Aço inoxidável A2	



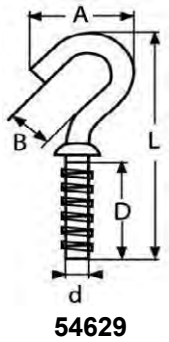
ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
6MM*	20	54628.060.001	8MM*	20	54628.080.001	10MM*	20	54628.100.001

Gancho de parede roscado



Dados técnicos

Nr.	A	B	d	D	L
54629.079.001	36	16	5/16	41	89



54629

54629	Gancho de parede roscado	MH11
Material	Aço inoxidável A4	



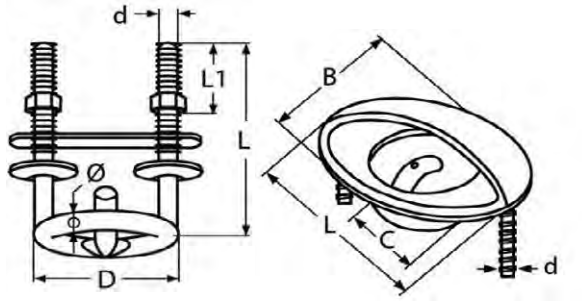
GW	✉	Ref. do artigo
5/16"*	10	54629.079.001

Gancho de suporte



Dados técnicos

Nr.	B	C	d	D	L	L_1	ø
54630.100.060	-	-	M10	60	100	50	9
54630.125.090	-	-	M12	90	125	65	12
54631.092.062	62	50	M8	-	92	-	-



54630 54631

Grupos de produtos

Material	Código	Página
INOX A4	54630	13-125
INOX A4	54631	13-125

54630 Gancho de suporte **MH11**

Material Aço inoxidável A4



L x D	✉	Ref. do artigo	L x D	✉	Ref. do artigo
100X60*	1	54630.100.060	125X90*	1	54630.125.090

54631 Gancho de suporte **MH11**

Material Aço inoxidável A4



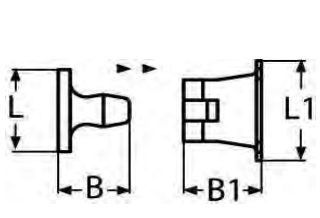
L x B	✉	Ref. do artigo
92X62*	1	54631.092.062

Fecho de porta

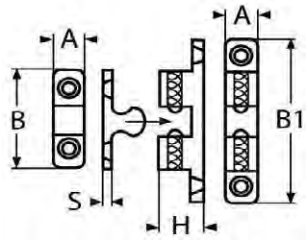


Dados técnicos

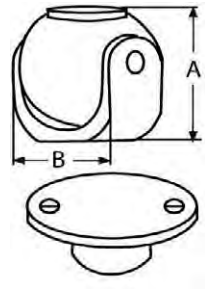
Nr.	A	B	B_1	C	H	L	L_1	S
54632.029.001	-	22	25	-	-	29	34	-
54632.041.001	-	70	31	-	-	41	40.5	-
54632.042.001	-	40	31	-	-	42	41	-
54633.090.050	9	29	50	-	12	-	-	2
54634.034.034	34	34	-	-	-	-	-	-
54635.034.034	34	34	-	-	-	-	-	-
54636.051.115	-	51	-	25	-	90-115	-	-
54637.051.025	-	51	-	25	-	90-115	-	-
54638.080.001	-	-	-	-	-	40	60	-



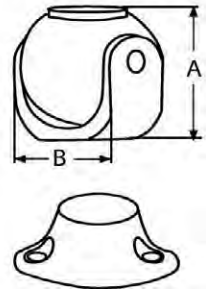
54632



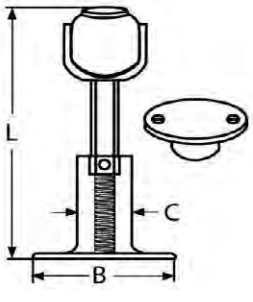
54633



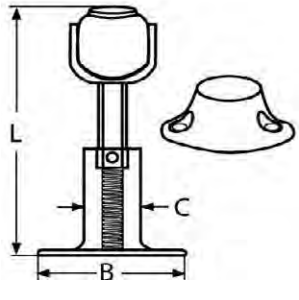
54634



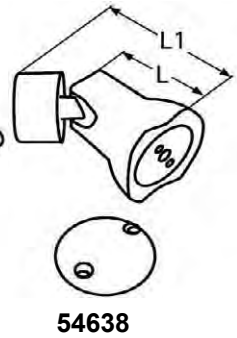
54635



54636



54637



54638

Grupos de produtos

Material	Código	Página
INOX A2	54632	13-127
INOX A4	54633	13-127
INOX A4	54634	13-127
INOX A4	54635	13-127
INOX A4	54636	13-127
INOX A4	54637	13-127
INOX A4	54638	13-128

54632 Fecho de porta — MH11

Material Aço inoxidável A2



L	✉	Ref. do artigo	L	✉	Ref. do artigo	L	✉	Ref. do artigo
29MM*	5	54632.029.001	41MM*	5	54632.041.001	42MM*	5	54632.042.001

54633 Suporte para porta — MH11

Material Aço inoxidável A4



A x B_1	✉	Ref. do artigo
9X50	5	54633.090.050

54634 Retentor de porta magnético — MH11

Material Aço inoxidável A4



A x B	✉	Ref. do artigo
34X34*	5	54634.034.034

54635 Retentor da porta, com prato de montagem — MH11

Material Aço inoxidável A4



A x B	✉	Ref. do artigo
34X34*	1	54635.034.034

54636 Suporte ajustável — MH11

Material Aço inoxidável A4



B x A	✉	Ref. do artigo
51X115*	2	54636.051.115

54637 Suporte ajustável com prato — MH11

Material Aço inoxidável A4



B x A	✉	Ref. do artigo
51X25*	1	54637.051.025

54638	Suporte magnético, oscilável	MH11
Material	Aço inoxidável A4	



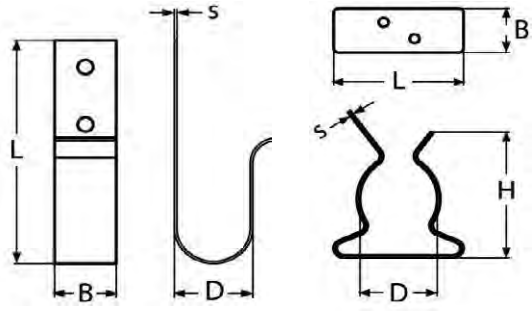
Dimensão.	✉	Ref. do artigo
80MM*	1	54638.080.001

Gancho de suporte



Dados técnicos

Nr.	B	D	H	L	S
54639.100.001	25	32	-	100	1
54640.036.001	19	20	38	35	1.3
54640.050.001	19	28	54	50	1.3



54639 **54640**

Grupos de produtos

Material	Código	Página
INOX A2	54639	13-128
INOX A2	54640	13-128

54639	Gancho de suporte	MH11
Material	Aço inoxidável A2	



L	✉	Ref. do artigo
100MM*	10	54639.100.001

54640	Gancho de suporte	MH11
Material	Aço inoxidável A2	



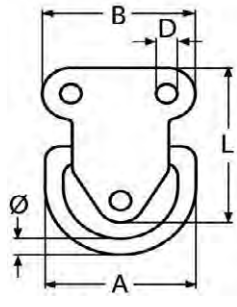
L	✉	Ref. do artigo	L	✉	Ref. do artigo
35MM*	10	54640.036.001	50MM*	10	54640.050.001

Argola

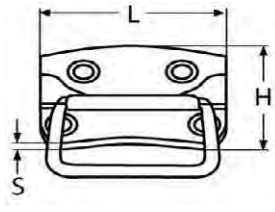


Dados técnicos

Nr.	A	B	D	H	L	S	ø
54641.060.001	55	50	7	-	58	-	6
54641.080.001	55	50	7	-	58	-	8
54642.100.080	-	-	-	80	100	1.5	-



54641



54642

Grupos de produtos

Material	Código	Página
INOX A2	54641	13-129
INOX A2	54642	13-129

54641 **Argola rebatível** **MH11**

Material Aço inoxidável A2



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
6MM*	5	54641.060.001	8MM*	5	54641.080.001

54642 **Argola** **MH11**

Material Aço inoxidável A2



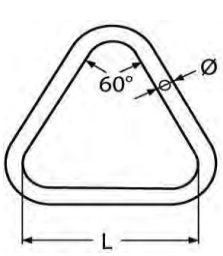
L x H	✉	Ref. do artigo
100X80*	1	54642.100.080

Anel

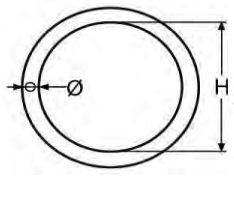


Dados técnicos

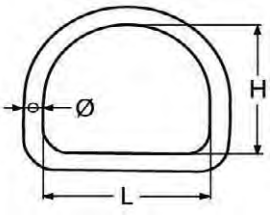
Nr.	A	B	C	D	H	L	Ângulo	ø
54643.060.040	-	-	-	-	-	40	60	6
54643.060.045	-	-	-	-	-	45	60	6
54643.060.050	-	-	-	-	-	50	60	6
54643.080.045	-	-	-	-	-	45	60	8
54643.080.050	-	-	-	-	-	50	60	8
54644.030.015	-	-	-	-	15	-	-	3
54644.030.020	-	-	-	-	20	-	-	3
54644.030.030	-	-	-	-	30	-	-	3
54644.040.025	-	-	-	-	25	-	-	4
54644.040.030	-	-	-	-	30	-	-	4
54644.040.035	-	-	-	-	35	-	-	4
54644.050.030	-	-	-	-	30	-	-	5
54644.050.040	-	-	-	-	40	-	-	5
54644.060.035	-	-	-	-	35	-	-	6
54644.060.040	-	-	-	-	40	-	-	6
54644.060.045	-	-	-	-	45	-	-	6
54644.080.040	-	-	-	-	40	-	-	8
54644.080.050	-	-	-	-	50	-	-	8
54644.100.050	-	-	-	-	50	-	-	10
54644.100.080	-	-	-	-	60	-	-	10
54644.120.070	-	-	-	-	70	-	-	12
54645.030.015	-	-	-	-	15	15	-	3
54645.030.020	-	-	-	-	18	20	-	3
54645.040.020	-	-	-	-	18	20	-	4
54645.040.025	-	-	-	-	23	25	-	4
54645.050.025	-	-	-	-	23	25	-	5
54645.050.030	-	-	-	-	26	30	-	5
54645.060.030	-	-	-	-	27	30	-	6
54645.060.040	-	-	-	-	36	40	-	6
54645.060.050	-	-	-	-	47	50	-	6
54645.080.050	-	-	-	-	47	50	-	8
54646.060.040	-	-	-	-	40	-	-	6
54646.080.050	-	-	-	-	50	-	-	8
54646.100.060	-	-	-	-	60	-	-	10
54646.120.080	-	-	-	-	80	-	-	12
54647.060.050	28	50	10	-	-	-	-	6
54647.080.050	28	50	10	-	-	-	-	8
54648.050.001	5	53	-	-	52	-	-	5
54648.060.001	5	54	-	-	53	-	-	6
54648.080.001	5	56	-	-	62	-	-	8
54649.060.001	43	30	-	-	-	-	-	6
54649.080.001	51	35	-	-	-	-	-	8
54650.060.001	42	30	-	-	-	-	-	6
54650.080.001	51	35	-	-	-	-	-	8
54651.200.001	-	-	-	20	-	-	-	1.4
54651.300.001	-	-	-	30	-	-	-	2.0
54652.130.001	-	63	-	-	-	120	-	13
54652.160.001	-	76	-	-	-	146	-	16
54652.190.001	-	89	-	-	-	165	-	19
54652.250.001	-	89	-	-	-	178	-	25



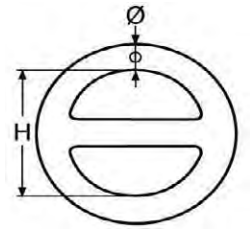
54643



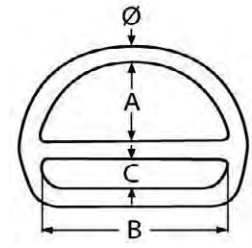
54644



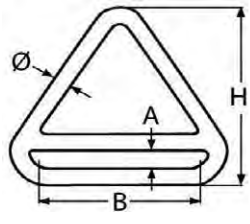
54645



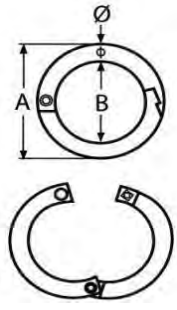
54646



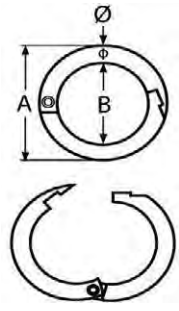
54647



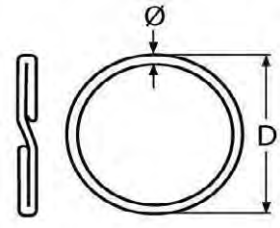
54648



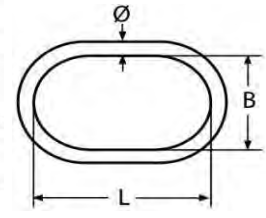
54649



54650



54651



64652

Grupos de produtos

Material	Código	Página
INOX A2	54643	13-131
INOX A4	54644	13-131
INOX A2	54645	13-132
INOX A4	54646	13-132
INOX A4	54647	13-132
INOX A4	54648	13-132
INOX A4	54649	13-132
INOX A2	54650	13-132
INOX A2	54651	13-133
INOX A4	54652	13-133

54643 Anel triangular — MH11

Material Aço inoxidável A2



ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo
6X40*	10	54643.060.040	6X50*	5	54643.060.050	8X45*	5	54643.080.045
6X45*	10	54643.060.045				8X50*	5	54643.080.050

54644 Anel soldado e polido — MH11

Material Aço inoxidável A4



ø x H	✉	Ref. do artigo	ø x H	✉	Ref. do artigo	ø x H	✉	Ref. do artigo
3-15*	50	54644.030.015	5-30*	20	54644.050.030	8-50*	10	54644.080.050
3-20*	50	54644.030.020	5-40*	20	54644.050.040	10-50*	10	54644.100.050
3-30*	50	54644.030.030	6-35*	20	54644.060.035	10-60*	10	54644.100.080
4-25*	50	54644.040.025	6-40*	20	54644.060.040	12-70*	5	54644.120.070
4-30*	50	54644.040.030	6-45*	20	54644.060.045			
4-35*	50	54644.040.035	8-40*	10	54644.080.040			

54645 Anel com barra soldada — MH11

Material Aço inoxidável A2



ø x H	✉	Ref. do artigo	ø x H	✉	Ref. do artigo	ø x H	✉	Ref. do artigo
3-15*	1	54645.030.015	5-25*	1	54645.050.025	6-40*	1	54645.060.040
3-20*	1	54645.030.020	5-30*	1	54645.050.030	6-50*	1	54645.060.050
4-20*	1	54645.040.020	6-30*	1	54645.060.030	8-50*	1	54645.080.050
4-25*	1	54645.040.025						

54646 Anel com barra — MH11

Material Aço inoxidável A4



ø x H	✉	Ref. do artigo	ø x H	✉	Ref. do artigo	ø x H	✉	Ref. do artigo
6-40*	10	54646.060.040	10-60*	5	54646.100.060	12-80*	5	54646.120.080
8-50*	10	54646.080.050						

54647 Anel com barra — MH11

Material Aço inoxidável A4



ø x B	✉	Ref. do artigo	ø x B	✉	Ref. do artigo
6-50*	10	54647.060.050	8-50*	10	54647.080.050

54648 Anel triangular com barra — MH11

Material Aço inoxidável A4



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
5MM*	10	54648.050.001	6MM*	10	54648.060.001	8MM*	10	54648.080.001

54649 Anel — MH11

Material Aço inoxidável A4



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
6MM*	10	54649.060.001	8MM*	10	54649.080.001

54650 Anel — MH11

Material Aço inoxidável A2



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
6MM*	10	54650.060.001	8MM*	10	54650.080.001

54651	Anel	MH11
Material	Aço inoxidável A1/A2	



D		Ref. do artigo	D		Ref. do artigo
20MM	100	54651.200.001	30MM	100	54651.300.001

54652	Anel oval	MH11
Material	Aço inoxidável A4	



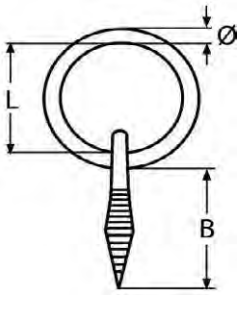
ø		Ref. do artigo	ø		Ref. do artigo	ø		Ref. do artigo
13MM*	5	54652.130.001	19MM*	5	54652.190.001	25MM*	1	54652.250.001
16MM*	5	54652.160.001						

Cavilha com anel



Dados técnicos

Nr.	B	L	ø
54653.030.001	35	25	3
54653.040.001	35	30	4
54653.050.001	38	35	5
54653.060.001	40	40	6
54653.080.001	40	45	8



54653

54653	Cavilha com anel	MH11
Material	Aço inoxidável A4	



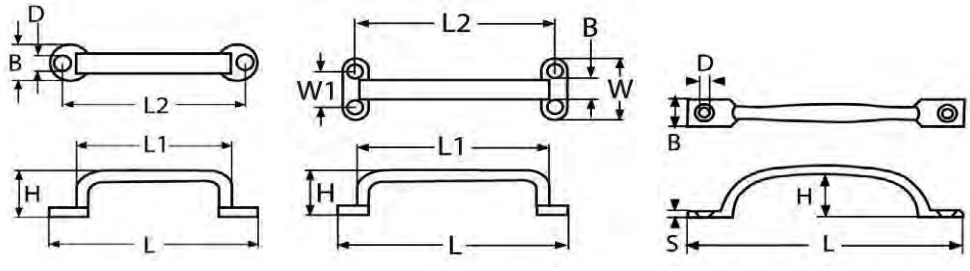
ø		Ref. do artigo	ø		Ref. do artigo	ø		Ref. do artigo
3MM*	10	54653.030.001	5MM*	10	54653.050.001	8MM*	5	54653.080.001
4MM*	10	54653.040.001	6MM*	10	54653.060.001			

Pega



Dados técnicos

Nr.	B	D	H	L	L_1	L_2	S	W	W_1
54654.065.001	13	7	16	65	48	57	-	-	-
54654.080.001	14	8	20	80	64	72	-	-	-
54654.100.001	18	10	25	100	75	88	-	-	-
54655.118.001	12	-	27	118	100	105	-	36	26
54655.152.001	18	-	32	152	130	135	-	43	35
54656.106.001	17	6.5	27.5	150	-	-	3.6	-	-



54654 **54655** **54656**

Grupos de produtos

Material	Código	Página
INOX A2	54654	13-134
INOX A2	54655	13-134
INOX A4	54656	13-135

54654 **Pega polida** **MH11**

Material Aço inoxidável A2



L	✉	Ref. do artigo	L	✉	Ref. do artigo	L	✉	Ref. do artigo
65MM*	5	54654.065.001	80MM*	5	54654.080.001	100MM*	5	54654.100.001

54655 **Pega polida** **MH11**

Material Aço inoxidável A2



L	✉	Ref. do artigo	L	✉	Ref. do artigo
118MM*	1	54655.118.001	152MM*	1	54655.152.001

54656	Pega	MH11
Material	Aço inoxidável A4	



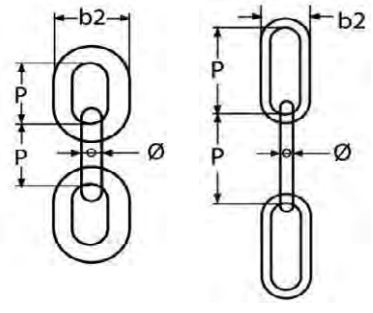
L	✉	Ref. do artigo
106MM*	5	54656.106.001

Corrente



Dados técnicos

Nr.	B_2	Comprimento (mtr)	P	ø	≈ Carga de rutura, em N
54701.020.001	8	100 m	12	2	1.250
54701.030.001	11	100 m	16	3	2.800
54701.040.001	14	50 m	16	4	8.000
54701.050.001	17	50 m	18.5	5	12.500
54701.060.001	20	50 m	18.5	6	16.000
54701.080.001	26	50 m	24	8	32.000
54701.100.001	34	50 m	28	10	50.000
54702.015.001	6.3	100 m	12	1.5	900
54702.020.001	8.4	100 m	22	2	1.250
54702.030.001	12	100 m	26	3	2.800
54702.040.001	16	50 m	32	4	6.300
54702.050.001	20	50 m	35	5	10.000
54702.060.001	24	50 m	42	6	12.500
54702.080.001	32	50 m	52	8	25.000
54702.100.001	40	50 m	65	10	40.000



54701 **54702**

Grupos de produtos

Material	Código	Página
INOX A4	54701	13-136
INOX A4	54702	13-136

54701	Correntes DIN 766	MH11

Material Aço inoxidável A4



ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
2MM-100MTR	1	54701.020.001	5MM-50MTR*	1	54701.050.001	8MM-50MTR*	1	54701.080.001
3MM-100MTR*	1	54701.030.001	6MM-50MTR*	1	54701.060.001	10MM-50MTR*	1	54701.100.001
4MM-50MTR	1	54701.040.001						

54702	Correntes DIN 763	MH11

Material Aço inoxidável A4



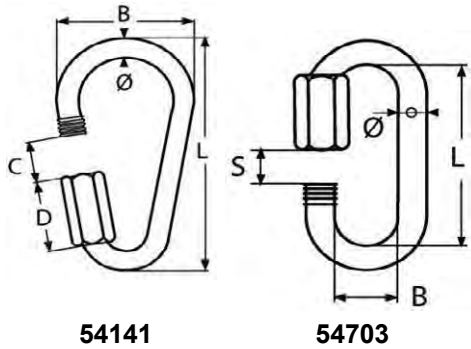
ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
1,5MM-100MTR*	1	54702.015.001	4MM-50MTR*	1	54702.040.001	8MM-50MTR*	1	54702.080.001
2MM-100MTR*	1	54702.020.001	5MM-50MTR*	1	54702.050.001	10MM-50MTR*	1	54702.100.001
3MM-100MTR	1	54702.030.001	6MM-50MTR	1	54702.060.001			

Mosquetão



Dados técnicos

Nr.	B	C	D	L	S	ø
54141.040.061	32	11	19	61	-	4
54141.050.070	37	13	22	70	-	5
54141.060.082	42	14	25	82	-	6
54141.080.100	53	17	31	100	-	8
54141.100.118	63	20	36	118	-	10
54141.120.144	76	23	43	144	-	12
54703.040.001	12	-	-	32	5.5	4
54703.050.001	13	-	-	39	6.5	5
54703.060.001	14	-	-	45	7.5	6
54703.080.001	18	-	-	58	9.5	8
54703.100.001	22	-	-	69	12	10



54141 **54703**

Grupos de produtos

Material	Código	Página
INOX A4	54141	13-137
INOX A4	54703	13-137

54141 **Mosquetão** **MH11**

Material Aço inoxidável A4



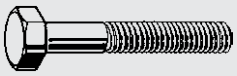
ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo	ø x L	✉	Ref. do artigo
4X61*	10	54141.040.061	6X82*	10	54141.060.082	10X118*	5	54141.100.118
5X70*	10	54141.050.070	8X100*	10	54141.080.100	12X144*	5	54141.120.144

54703 **Mosquetão** **MH11**

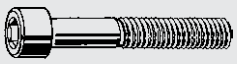
Material Aço inoxidável A4



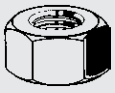
ø	✉	Ref. do artigo	ø	✉	Ref. do artigo	ø	✉	Ref. do artigo
4MM*	20	54703.040.001	6MM*	20	54703.060.001	10MM	10	54703.100.001
5MM*	20	54703.050.001	8MM*	10	54703.080.001			



1 Parafusos sextavado exterior



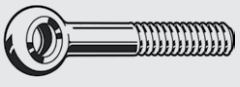
2 Produtos sextavados interiores



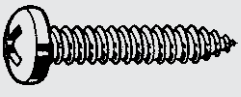
3 Porcas/porcas de rebitar / insertos



4 Varão roscado / pernos



5 Produtos olhal / gancho

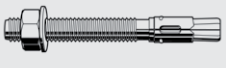


6 Parafusos

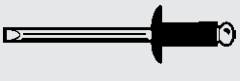
I Indice



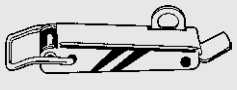
7 Anilha



8 Ancoragem



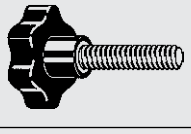
9 Rebites / cavilhas



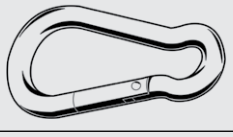
10 Parafusos de segurança / Sistemas de fixação



11 Sortidos



12 Sistemas de engenharia / peças para máquinas



13 Marítimo produtos

T Tecnologia de fixação

Fastening Technology

Table of contents

1	**Introduction**	**3**
2	**Mechanical properties of fasteners**	**3**
2.1	Mechanical properties of carbon and alloy steel bolts, screws and studs	3
2.1.1	Field of application	3
2.1.2	Designation system of property classes	4
2.1.3	Marking of bolts, socket head cap screws and studs	4
2.1.4	Mechanical properties of bolts, screws and studs	5
2.1.5	Decarburization	6
2.1.6	Minimum breaking torques	7
2.1.7	Influence of elevated temperatures on mechanical properties	7
2.1.8	Mechanical properties of externally threaded fasteners, low or medium (alloy) carbon steel	8
2.1.9	Mechanical properties of externally threaded Stainless Steel Fasteners in Accordance with ASTM F593	8
2.2	Mechanical properties of carbon and low alloy steel nuts	8
2.2.1	Field of application	9
2.2.2	Designation system of property classes	9
2.2.3	Marking of steel nuts	10
2.2.4	Mechanical properties of steel nuts	10
2.2.5	Mechanical properties of internally threaded steel fasteners, according to SAE J995	12
2.2.6	Mechanical properties of internally threaded stainless steel fasteners, according to ASTM F594	12
2.3	Corrosion-resistant stainless steel fasteners	12
2.3.1	Field of application	12
2.3.2	Designation system of property classes	13
2.3.3	Marking of austenitic stainless steel fasteners	14
2.3.4	Mechanical and other physical properties of austenitic stainless steel fasteners	14
3	**Thread**	**16**
3.1	Metric (ISO) screw thread, coarse series – M	16
3.1.1	Limit dimensions for metric screw thread, coarse series, fit 6H/6g	16
3.2	Metric (ISO) screw thread, fine series – MF	17
3.2.1	Limit dimensions for metric screw thread, fine series, fit 6H/6g	17
3.3	Unified (ISO) screw thread – UNC	18
3.3.1	Limit dimensions for unified screw thread: coarse UNC, tolerance classes 2A and 2B	18
3.4	Unified (ISO) screw thread – UNF	19
3.4.1	Limit dimensions for unified screw thread: fine UNF, tolerance classes 2A and 2B	19
3.5	Unified (ISO) screw thread - 8UN	20
3.5.1	Limit dimensions for unified screw thread 8UN, tolerance classes 2A and 2B	20
3.6	Unified number threads – UNC and UNF	21
3.6.1	Limit dimensions for UNC and UNF-number thread, tolerance classes 2A and 2B	21
3.7	Screw threads, fine versus coarse thread	22
3.7.1	Explanation	22
3.8	Metric screw threads with tolerance class Sk6 for studs	23
3.8.1	Limit dimensions for metric screw thread with tolerance class Sk6	23
3.9	Tapping screw thread – ST	24
3.9.1	Limit dimensions for tapping screw thread	24
3.9.2	Thread ends for tapping screw thread	24
3.10	Metric-fine tapered external screw thread – DIN 158-1	25
3.10.1	Limit dimensions for tapered external screw thread, short type	25
3.11	Whitworth tapered external pipe thread R – DIN 3858	26
3.11.1	Nominal sizes for tapered external thread with tolerance 2, short type a	26
3.12	Parallel pipe thread G – ISO 228-1	27
3.12.1	Limit dimensions for parallel pipe thread - G	27
4	**Basic standards**	**28**
4.1	Drilling sizes for tapping screws and bolts	28
4.1.1	Application guidelines	28
4.1.2	Application possibilities	28
4.1.3	Guidelines for core hole diameters d_b [1]	29

4.2 Core holes for thread forming screws in metals (Taptite 2000®) 31
4.2.1 Recommendations for drilled and punched holes in materials in the hardness range up to 150 HB, 500 N/mm² 31
4.3 Core holes for thread forming screws in plastics (Remform®) 32
4.3.1 Recommendations for the geometry of holes and bosses for Remform® screws 32
4.4 Length of protrusion of bolt ends (l_p) 33
4.5 Drill sizes before tapping screw threads 33
4.5.1 General notes 33
4.5.2 Drill sizes Metric (ISO) screw thread - coarse - M 33
4.5.3 Drill sizes Metric (ISO) screw thread - fine - MF 34
4.5.4 Drill sizes Whitworth parallel pipe thread – G 34
4.6 Width across flats according to ISO 34

5 Surface coatings for fasteners 35

5.1 Introduction 35
5.1.1 Overview of coating systems 35
5.1.2 Coating thickness limits 36
5.1.3 Hydrogen embrittlement 36
5.1.4 European directives RoHS and ELV 37
5.2 Electroplating 37
5.3 Hot dip galvanizing 39
5.4 Zinc flake coatings 40

6 Inspection documents for fasteners 41

6.1 Test reports and certificates EN 10204 41
6.2 PPAP documents 42
6.3 CE-certification 43

7 Directions for the design and assembly of fastenings 44

7.1 Tightening torque tables for steel bolted joints 44
7.1.1 Assembly preload / tightening torques - coarse pitch 44
7.1.2 Assembly preload / tightening torques - fine pitch 46
7.2 Tightening torque tables for stainless steel bolted joints 47
7.2.1 Assembly preload / tightening torques 47
7.3 Coefficients of friction μ_G and μ_K 48
7.4 Tightening torque tables for steel inch threaded bolts 49
7.4.1 Assembly preload / tightening torques – UNC (coarse thread) 50
7.4.2 Assembly preload / tightening torques – UNF (fine thread) 51
7.5 Galling (seizing) of stainless steel 52
7.6 Screw-in depths for blind holes 52
7.7 Ratio of shear strength to tensile strength 52
7.8 Clamping length table for preloaded bolts HV according to EN 14399-4 53
7.9 Locking 54
7.9.1 Loss of preload 54
7.9.2 Classification of locking systems 54
7.9.3 Some practical suggestions for an optimum bolted joint 55

8 Tables 56

8.1 SI units 56
8.2 Conversion of tensile strength, Vickers, Brinell and Rockwell hardnesses 57
8.3 Contact and chemical corrosion tables 58
8.3.1 Contact corrosion table 58
8.3.2 Chemical corrosion table 59

1 Introduction

Designing and producing safe fastenings demands for professional knowledge, experience and information. Important aspect s such as dimensional tolerances, mechanical and chemical properties must be considered. Also the directives for the calculation, assembly and securing of fastenings are of extreme importance. All this information is scattered over a wide range of standards, technical directives and publications in various languages.

Fabory has collected the most important technical information that is frequently consulted by product developers, designers, purchasers and contractors. A large part of this is based on international (ISO) and European (EN) standards. It is necessary to observe that although most national standards such as DIN have become obsolete and replaced by corresponding ISO or EN standards, the market situation often still requires fasteners to DIN. Where appropriate we have included information on those DIN standards as well.

The information based upon standards, is updated till September 2015. It is important to be aware that fastener manufacturers may apply a transition period from the former to the latest edition of a standard.

Of course much more technical information is available at Fabory. Please contact our technical specialists if specific information is not found in this technical section, or if more detail is required.
Also keep in mind that Fabory has the technical competence to give professional advice and help on many fastening subjects and applications. At Fabory, a team of fastener experts is devoted to help customers with safe and innovative fastening solutions.

Although all technical specifications and data have been compiled with the greatest care, the companies belonging to or affiliated to the Fabory Group accept no liability whatsoever in connection with this information and the way it is used.

2 Mechanical properties of fasteners

2.1 Mechanical properties of carbon and alloy steel bolts, screws and studs

2.1.1 Field of application

The property classes and their associated mechanical properties, as defined in ISO 898-1:2013 apply to bolts, screws and studs with metric (ISO) thread, with nominal diameters up to and including 39 mm, made of carbon steel or alloy steel and when tested at an ambient temperature range of 10°C to 35°C. Fasteners might not retain the specified mechanical and physical properties at elevated and/or lower temperatures.

They do not apply to set screws and similar threaded fasteners not under tensile stresses (ref. ISO 898-5) or to specific requirements such as weldability, corrosion resistance (stainless steel ref. ISO 3506-1), ability to withstand temperatures above 150°C or below -50°C. (ref. DIN 267–13). The class designation system may be used for other sizes (e.g. d > 39 mm), provided that all of the mechanical properties in the table are met. Certain fasteners might not fulfil the tensile or torsional requirement of ISO 898-1 because of the geometry of their heads (e.g. low heads, countersunk heads) or because of a reduced shank.

2.1.2 Designation system of property classes

The property class symbols, indicating the most important mechanical properties, consist of two numbers separated by a dot, for example 10.9.

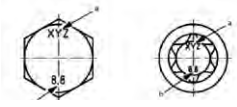
The first number indicates 1/100 of the nominal tensile strength in N/mm^2 (see R_m in the table).
So property class 10.9 has a tensile strength of 10x100 = 1000 N/mm^2.

The second number indicates 10 times the ratio between lower yield stress R_{el} (or proof stress $R_{p\,0.2}$ or non-proportional elongation R_{pf}) and the nominal tensile strength R_m (yield strength ratio).

So at property class 10.9 the second figure 9 is derived from the formula: $10 \times \frac{900}{1000}$

The nominal yield stress of this example (10.9) can easily be calculated by multiplying 10 times the product of the two property class numbers: 10 x 10 x 9 = 900 N/mm^2.

2.1.3 Marking of bolts, socket head cap screws and studs



a : manufacturer's identification mark
b : property class symbol

Fig. 1

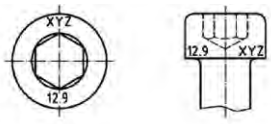


Fig. 2

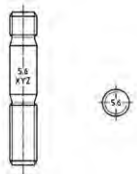


Fig. 3

- Marking is obligatory for hexagon and hexalobular bolts and screws with nominal diameter d ≥ M5, of all property classes, preferably on top of the head (fig.1).
- Marking is obligatory for hexagon and hexalobular socket head cap screws with nominal diameter d ≥ M5, of all property classes, preferably on top of the head (fig.2).
- When carbon steels with additives (e.g. B, Mn, Cr or Mo) are used for class 12.9, the symbol 12.9 shall be underlined: 12.9
- Studs with nominal diameter d ≥ M5 and property classes ≥ 5.6, shall be marked on the shaft or on the nut end (required if thread with interference fit) (fig.3). Alternative identification with symbols (fig.4) is permissible.
- Left-hand thread shall be marked for nominal diameters d ≥ M5 with the symbol shown in figure 5, either on the top of the head or on the point. Alternative marking, as shown in figure 6, may be used for hexagon bolts and screws.
- The manufacturer's designation is mandatory on all products that are marked with property classes.
- If marking is required for other types of bolts and screws, the same marking system shall be used.
- Marking is not usual for screws with flat countersunk head, oval countersunk head, cheese head, pan head or similar that have internal driving features.
- The property class marking of fasteners with reduced loadability is preceded by "0".
  Example: hexagon socket countersunk screws with property class "10.9" shall be marked "010.9".

Property class	5.6	8.8	9.8	10.9	12.9
Alternative Marking symbool	–	O	+	□	Δ

Fig. 4

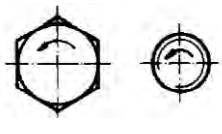


Fig. 5

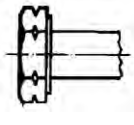


Fig. 6

2.1.4 Mechanical properties of bolts, screws and studs

Mechanical and physical properties in the below table are based on ISO 898-1:2013.

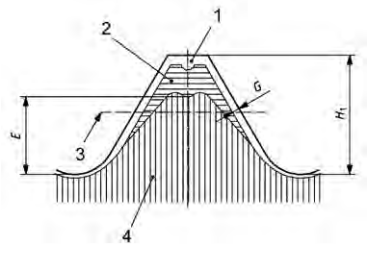
Mechanical or physical property		4.6	4.8	5.6	5.8	6.8	8.8		9.8	10.9	12.9 12.9
							d ≤ 16mm[a]	d > 16mm[b]	d ≤ 16mm		
Tensile Strength, R_m, MPa	Nom.[c]	400		500		600	800		900	1000	1200
	Min.	400	420	500	520	600	800	830	900	1040	1220
Lower yield strength, R_{eL}[d], MPa	Nom.[c]	240	-	300	-						
	Min.	240	-	300	-						
Stress at 0,2% non-proportional elongation, $R_{p0,2}$, MPa	Nom.[c]	-					640		720	900	1080
	Min.	-					640	660	720	940	1100
Stress at 0,0048d non-proportional elongation, for full-size fasteners, R_{pf}, MPa	Nom.[c]	-	320	-	400	480	-				
	Min.	-	340[e]	-	420[e]	480[e]	-				
Stress under proof load, S_p, MPa	Nom.	225	310	280	380	440	580	600	650	830	970
Percentage elongation after fracture for machined test pieces, A, %	Min.	22	-	20	-	-	12	12	10	9	8
Percentage reduction of area after fracture for Machined test pieces, Z, %	Min.	-					52		48	48	44
Elongation after fracture for full-size fasteners, A_f %	Min.	-	0,24	-	0,22	0,20	-				
Head soundness		No fracture									
Vickers-hardness, HV (F ≥ 98N)	Min.	120	130	155	160	190	250	255	290	320	385
	Max.	220[g]				250	320	335	360	380	435
Surface hardness, $HV_{0,3}$	Max.	-					[h]			[h,i]	[h,j]
Height of non-decarburized thread zone, E, mm	Min.	-					½ H_1			2/3 H_1	¾ H_1
Depth of complete decarburization In the thread, G, mm	Max.	-					0,015				
Reduction of hardness after retempering, HV	Max.	-					20				
Breaking torque, M_B, Nm	Min.	-					According to ISO 898-7				
Impact strength, K_V[kl], J	Min.			27			27	27	27	27	[m]
Surface integrity in acc.with		ISO 6157-1[l]									ISO 6157-3

Remarks:

[a] Values do not apply for structural bolting
[b] For structural bolting d≥M12
[c] Nominal values are specified only for the purpose of the designations system for property classes
[d] If the lower yield strength cannot be determined, a measurement of the stress at 0,2% non-proportional elongation is permissible
[e] Values under investigation
[g] Max hardness at the end of a fastener shall be max. 250 HV
[h] Surface hardness shall not be more than 30$HV_{0,3}$ above the measured core $HV_{0,3}$ hardness
[l] Max. 390 HV
[j] Max. 435 HV
[k] Test temperature -20°C
[l] Applies to d ≥ 16mm
[m] Value under investigation

2.1.5 Decarburization

The mechanical properties of heat treated steel are determined to a high degree by its carbon content. No air must be allowed to enter the furnaces during the hardening process of steel bolts in property classes 8.8, 10.9 and 12.9, otherwise the carbon that is present in on the surface of the steel would be oxidized by hot air.
This is the reason that the continuous furnaces for the hardening process are equipped with fire curtains, and protective gas is supplied to the furnaces to keep the oxygen level in control.
A loss of carbon content (decarburization), caused by heat treatment processes, beyond the limits specified in the table of par. 2.1.4, can reduce the strength of the thread and could cause failure.



Zones of decarburization in the thread:

1	Completely decarburized
2	Partially decarburized
3	Pitch line
4	Base metal
E	Height of the non-decarburized thread zone
G	Depth of complete decarburization in the thread
H_1	Height of external thread in maximum material condition

2.1.6 Minimum breaking torques

Often smaller screw diameters cannot be tensile tested. ISO 898-7:1995 defines the minimum breaking torques below which a bolt or screw may not rupture if clamped according to the test procedure. These values are not applicable for hexagon socket set screws.

The details below are based on ISO 898-7 (1992) & DIN 267-25 (1984, has been withdrawn)

Basic diameter	Pitch P	Property class						
		4.6	4.8	5.6	5.8	8.8	10.9	12.9
		Minimum breaking torque, in Nm according:						
		DIN 267-25						
						ISO 898-7*		
M1	0,25	0,020	0,020	0,024	0,024	0,033	0,040	0,045
M1,2	0,25	0,045	0,046	0,054	0,055	0,075	0,092	0,10
M1,4	0,3	0,070	0,073	0,084	0,087	0,12	0,14	0,16
M1,6	0,35	0,098	0,10	0,12	0,12	0,16	0,20	0,22
M2	0,4	0,22	0,23	0,26	0,27	0,37	0,45	0,50
M2.5	0,45	0,49	0,51	0,59	0,60	0,82	1,0	1,1
M3	0,5	0,92	0,96	1,1	1,1	1,5	1,9	2,1
M3,5	0,6	1,4	1,5	1,7	1,8	2,4	3,0	3,3
M4	0,7	2,1	2,2	2,5	2,6	3,6	4,4	4,9
M5	0,8	4,5	4,7	5,5	5,6	7,6	9,3	10
M6	1	7,6	7,9	9,1	9,4	13	16	17
M7	1	14	14	16	17	23	28	31
M8	1,25	19	20	23	24	33	40	44
M8 x 1	1	23	23	27	28	38	46	52
M10	1,5	39	41	47	49	66	81	90
M10 x 1	1	50	52	60	62	84	103	114
M10 x 1,25	1,25	44	46	53	54	74	90	100

*The values only apply to the property classes 8.8 - 10.9 and 12.9. Because of a greater spread in the test results at the property classes < 8.8 they are no longer included in the ISO 898-7.

The minimum breaking torque values given in the table shall apply to bolts and screws assigned to thread tolerance classes 6g, 6f or 6e.

2.1.7 Influence of elevated temperatures on mechanical properties

Up to a service temperature of 150°C, no detrimental effects due to a change of mechanical properties of fasteners with property classes to ISO 898-1 are known. However at temperatures over 150°C and up to a maximum temperature of 300°C, the functional performance should be ensured carefully.

With increasing temperature, a progressive reduction of lower yield strength or stress at non-proportional elongation and a reduction of tensile strength can be experienced.

The continuous operating of fasteners at elevated temperatures can result in stress relaxation, which accompanies a loss of clamp force.
DIN 267-13 defines fastener materials with specific mechanical properties for use at temperatures ranging from -200°C to +700°C.

2.1.8 Mechanical properties of externally threaded fasteners, low or medium (alloy) carbon steel

Specification	Material	Size range (in.)	Min. proof strength (psi)	Min. tensile strength (psi)	Core hardness Rockwell		Min. yield strength (psi)	Grade Identification Marketing	Compatible nuts
					Min.	Max.			
SAE J429-Grade 2	Low or medium carbon steel	¼ - ¾	55 000	74 000	B80	B100	57 000		ASTM A563 Grade A Hex
		⅞- 1½	33 000	60 000	B70	B100	36 000		
SAE J429-Grade 5	Medium carbon steel: quenched & tempered	¼ - 1	85 000	120 000	C25	C34	92 000		SAE J995 Grade 5 Hex
		1⅛ – 1½	74 000	105 000	C19	C30	81 000		
SAE J429-Grade 8	Medium carbon alloy steel: quenched & tempered	¼ - 1½	120 000	150 000	C33	C39	130 000		SAE J995 Grade 8 Hex
ASTM A574 socket head cap screw	Medium carbon alloy steel: quenched & tempered	#0 – ½	140 000	180 000	C39	C45	153 000		
		½ - 4	135 000	170 000	C37	C45			
ASTM A574 socket button & flat countersunk head cap screw	Medium carbon alloy steel: quenched & tempered	#0 – ½		145 000	C39	C44			
		Over ½		135 000	C37	C44			

2.1.9 Mechanical properties of externally threaded Stainless Steel Fasteners in Accordance with ASTM F593

Stainless alloy group	Condition	Nominal Dia. (in.)	Tensile strength (psi)	Core hardness Rockwell		Min. yield strength (psi)	Grade Identification Marketing	Compatible nuts ASTM F594
				Min.	Max.			
1 (304, 304L)	CW	¼ - ⅝	100 000 – 150 000	B95	C32	65 000		F594C
		¾ - 1½	85 000 – 140 000	B80	C32	45 000		F594D
2 (316, 316L)	CW	¼ - ⅝	100 000 – 150 000	B95	C32	65 000		F594G
		¾ - 1½	85 000 – 140 000	B80	C32	45 000		F594H
CW = Annealed and cold worked (large sizes may be hot worked and annealed)								

2.2 Mechanical properties of carbon and low alloy steel nuts

2.2.1 Field of application

The property classes and their associated mechanical properties, are defined in ISO 898-2:2012 and apply to nuts *with* metric (ISO) thread, with nominal diameters up to and including 39 mm, made of carbon steel or low alloy steel and when tested at an ambient temperature range of 10 °C to 35 °C.

ISO 898-2 does not apply to nuts with specific requirements such as weldability, corrosion resistance (stainless steel ref. ISO 3506-2), ability to withstand temperatures above 300°C or below -50°C. (ref. DIN 267–13). The class designation system may be used for other sizes (e.g. d > 39 mm), provided that all of the mechanical properties in the table are met.
ISO 898-2 is applicable to 3 styles of nuts:

- Style 2: high nut with minimum height $m_{min} \approx 0{,}9D$ or $m_{min} > 0{,}9D$
- Style 1: regular nut with minimum height $m_{min} \geq 0{,}8D$
- Style 0 : low nut with minimum height $0{,}45D \leq m_{min} < 0{,}8D$

Important remark on nuts with property classes to DIN:

Nuts according to obsolete DIN standards, such as DIN 934 (with nominal heights of approximately 0,8d), cannot be loaded reliably up to the yield point of the corresponding bolt. The mechanical properties of these nuts are described in the withdrawn standard DIN 267-4. To distinguish nuts with mechanical properties according to the obsolete DIN 267-4 from ISO 898-2, their property class marking shall be between two vertical lines, e.g. |8| (ref. Par. 2.2.3).

For new designs it is highly recommended to apply nuts with property classes according to ISO standards instead of the obsolete DIN standards! Most software used for the selection of the fastener size and property class, also for the assembly conditions (torque/tension), is based upon the ISO properties, not on the (in many cases lower) DIN properties.

2.2.2 Designation system of property classes

Regular nuts (style 1) and high nuts (style 2) are marked with their property class symbol, which is the number to the left of the appropriate maximum property class of bols, screws and studs with which they can be mated. The property class symbol of thin nuts (style 0) consists of two numbers. The first number is “0”, indicating the reduced loadability of the nut compared to the loadability of regular and high nuts. The second number corresponds to 1/100 of the nominal stress under proof load on a hardened test mandrel (in N/mm²).

Property class of nut	Maximum property class of mating bolt, screw and stud	Regular nut (Style 1)	High nut (Style 2)	Thin nut (Style 0)
		Thread range		
04	(*)	-	-	M5 - M39 M8x1 – M39x3
05	(*)	-	-	M5 - M39 M8x1 – M39x3
5	5.8	M5 - M39 M8x1 – M39x3	-	
6	6.8	M5 - M39 M8x1 – M39x3	-	
8	8.8	M5 - M39 M8x1 – M39x3	M5 - M39 M8x1 – M39x3	
9	9.8	-	M5 - M39	
10	10.9	M5 - M39 M8x1 – M16x1,5	M5 - M39 M8x1 – M39x3	
12	12.9/12.9	M5 - M16	M5 - M39 M8x1 – M16x1,5	
Example of Nut style 1: ISO 4032 Example of Nut style 2: ISO 4033				

(*) Thin nuts used as jam nuts should be assembled together with a regular or a high nut. In those assemblies the thin nut is first tightened against the assembled parts and then the regular or high nut is tightened against the thin nut.

2.2.3 Marking of steel nuts

Hexagon nuts ≥ M5 of all property classes shall be marked on the side or on a bearing surface with the property class designation and where technically possible the manufacturer's mark (see figure 1). Left-hand threads for nuts ≥ M5 must be marked on the bearing surface with a counter-clockwise arrow or with a groove halfway up the nut (see figure 2).

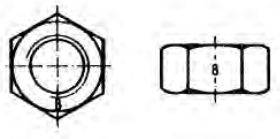


Fig.1

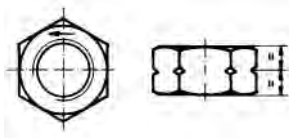


Fig.2

Important remark on nuts with property classes to DIN:

Hexagon nuts ≥ M5, with mechanical properties according to the obsolete DIN 267-4, shall be marked with the symbol of the property class, a vertical bar on either side of the symbol and the manufacturer's designation on the bearing surface or flat (see figure 3).

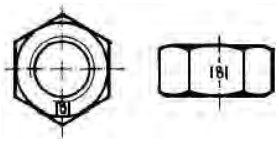


Fig.3

2.2.4 Mechanical properties of steel nuts

The details below are based on ISO 898-2:2012 and are applicable to nuts with thread to the standard tolerance class 6H. A decrease of thread stripping strength may occur for nuts with a fundamental deviation greater than zero.
Depending on the nut style, the ability to withstand the proof load overrules the hardness requirements. Therefore only the proof loads are published in this technical information.

Proof load values for nuts with coarse thread:

Thread D	Pitch P	Proof load, N Property class							
		04	05	5	6	8	9	10	12
M5	0,8	5 400	7 100	8 250	9 500	12 140	13 000	14 800	16 300
M6	1	7 640	10 000	11 700	13 500	17 200	18 400	20 900	23 100
M7	1	11 000	14 500	16 800	19 400	24 700	26 400	30 100	33 200
M8	1,25	13 900	18 300	21 600	24 900	31 800	34 400	38 100	42 500
M10	1,5	22 000	29 000	34 200	39 400	50 500	54 500	60 300	67 300
M12	1,75	32 000	42 200	51 400	59 000	74 200	80 100	88 500	100 300
M14	2	43 700	57 500	70 200	80 500	101 200	109 300	120 800	136 900
M16	2	59 700	78 500	95 800	109 900	138 200	149 200	164 900	186 800
M18	2,5	73 000	96 000	121 000	138 200	176 600	176 600	203 500	230 400
M20	2,5	93 100	122 500	154 400	176 400	225 400	225 400	259 700	294 000
M22	2,5	115 100	151 500	190 900	218 200	278 800	278 800	321 200	363 600
M24	3	134 100	176 500	222 400	254 200	324 800	324 800	374 200	423 600
M27	3	174 400	229 500	289 200	330 500	422 300	422 300	486 500	550 800
M30	3,5	213 200	280 500	353 400	403 900	516 100	516 100	594 700	673 200
M33	3,5	263 700	347 000	437 200	499 700	638 500	638 500	735 600	832 800
M36	4	310 500	408 500	514 700	588 200	751 600	751 600	866 000	980 400
M39	4	370 900	488 000	614 900	702 700	897 900	897 900	1 035 000	1 171 000

Proof load values for nuts with fine pitch thread:

Thread D x P	Proof load, N Property class						
	04	05	5	6	8	10	12
M8 x 1	14 900	19 600	27 000	30 200	37 400	43 100	47 000
M10 x 1,25	23 300	30 600	44 200	47 100	58 400	67 300	73 400
M10 x 1	24 500	32 200	44 500	49 700	61 600	71 000	77 400
M12 x 1,5	33 500	44 000	60 800	68 700	84 100	97 800	105 700
M12 x 1,25	35 000	46 000	63 500	71 800	88 000	102 200	110 500
M14 x 1,5	47 500	62 500	86 300	97 500	119 400	138 800	150 000
M16 x 1,5	63 500	83 500	115 200	130 300	159 500	185 400	200 400
M18 x 2	77 500	102 000	146 900	177 500	210 100	220 300	-
M18 x 1,5	81 700	107 500	154 800	187 000	221 500	232 200	-
M20 x 2	98 000	129 000	185 800	224 500	265 700	278 600	-
M20 x 1,5	103 400	136 000	195 800	236 600	280 200	293 800	-
M22 x 2	120 800	159 000	229 000	276 700	327 500	343 400	-
M22 x 1,5	126 500	166 500	239 800	289 700	343 000	359 600	-
M24 x 2	145 900	192 000	276 500	334 100	395 500	414 700	-
M27x 2	188 500	248 000	351 100	431 500	510 900	535 700	-
M30 x 2	236 000	310 500	447 100	540 300	639 600	670 700	-
M33 x 2	289 200	380 500	547 900	662 100	783 800	821 900	-
M36 x 3	328 700	432 500	622 800	804 400	942 800	934 200	-
M39 x 3	391 400	515 000	741 600	957 900	1 123 000	1 112 000	-

Important remark on nuts with property classes according to DIN:

The proof load stress of hexagon nuts, with mechanical properties according to the withdrawn DIN 267-4, are significantly different (in most cases lower) than those acc. ISO 898-2:

Thread *D*	Pitch *P*	Nuts with mechanical properties to the withdrawn DIN 267-4 Proof load, N Property class				
		|5|	|6|	|8|	|10|	|12|
M5	0,8	7100	8500	11 400	14 200	17 000
M6	1	10 000	12 000	16 000	20 000	24 000
M7	1	14 500	17 300	23 000	29 000	34 700
M8	1,25	18 300	22 000	29 000	36 500	43 000
M10	1,5	29 000	35 000	46 000	58 000	69 500
M12	1,75	42 100	50 500	67 000	84 000	100 000
M14	2	57 500	69 000	92 000	115 000	138 000
M16	2	78 500	94 000	136 000	157 000	188 000
M18	2,5	96 000	115 000	154 000	192 000	230 000
M20	2,5	122 000	147 000	196 000	245 000	294 000
M22	2,5	151 000	182 000	242 000	303 000	364 000
M24	3	176 000	212 000	282 000	353 000	423 000
M27	3	230 000	276 000	367 000	459 000	550 000
M30	3,5	280 000	336 000	448 000	561 000	673 000
M33	3,5	347 000	416 000	555 000	694 000	833 000
M36	4	408 000	490 000	653 000	817 000	980 000
M39	4	488 000	585 000	780 000	976 000	1 170 000

For new designs it is highly recommended to apply nuts with property classes according to ISO standards instead of the obsolete DIN standards!

2.2.5 Mechanical properties of internally threaded steel fasteners, according to SAE J995

Grade	Material	Nominal size (in.)	Proof load Stress (psi)	Rockwell hardness		Grade identification marking
				Min.	Max.	
2	Carbon steel	¼ - 1½	90 000*		C32	
			80 000**			
5	Carbon steel	¼ - 4	120 000*		C32	
			109 000**			
		1 – 1½	105 000*		C32	
			940 00**			
8	Medium carbon alloy steel: quenched & tempered	¼ - ⅝	150 000	C24	C32	
		⅝ – 1		C26	C34	
		1 – 1½		C26	C36	
* UNC and 8UN **UNF, 12UN &finer						

2.2.6 Mechanical properties of internally threaded stainless steel fasteners, according to ASTM F594

Stainless alloy group	Condition	Nominal Diameter. (in.)	Proof stress (psi)	Rockwell hardness	
				Min.	Max.
1 (304, 304L)	CW	¼ - ⅝	100 000	B95	C35
		¾ - 1½	85 000	B80	C35
2 (316, 316L)	CW	¼ - ⅝	100 000	B95	C35
		¾ - 1½	85 000	B80	C35
CW = Annealed and cold worked (large sizes may be hot worked and annealed)					

2.3 Corrosion-resistant stainless steel fasteners

2.3.1 Field of application

Mechanical properties of stainless steel fasteners are defined in ISO 3506:2009 parts 1 to 4:
Part 1: Bolts, screws and studs
Part 2: Nuts
Part 3: Set screws and similar fasteners not under tensile stress
Part 4: Tapping screws

The term “STAINLESS” steel is used to refer to a wide range of materials, all of which have at least 12% chromium (Cr) and normally also other alloying elements, with nickel (Ni) and molybdenum (Mo) being the most important. In these steels chromic oxide will be formed at the surface, which protects it from corrosion. At elevated temperatures chrome will tend to form carbides instead of oxide.

For fasteners, the extensive range of stainless steels has been subdivided according to ISO 3506 into 3 material groups based on their metallurgical structure:

Austenitic (A) Martensitic (C) Ferritic (F)

The martensitic and ferritic groups are of hardly any importance for commercial fasteners. The austenitic material group - also referred to as chromium-nickel steel - is the most used for fasteners and is further subdivided into 5 steel grades, each with a different resistance to corrosion and a specific field of application.

A1:
A free-cutting steel grade, having superior machinability due to a higher percentage of phosphorus and sulphur. As a consequence however, general corrosion resistance is reduced. This “free cutting” stainless steel is seldom used for mass produced fasteners.

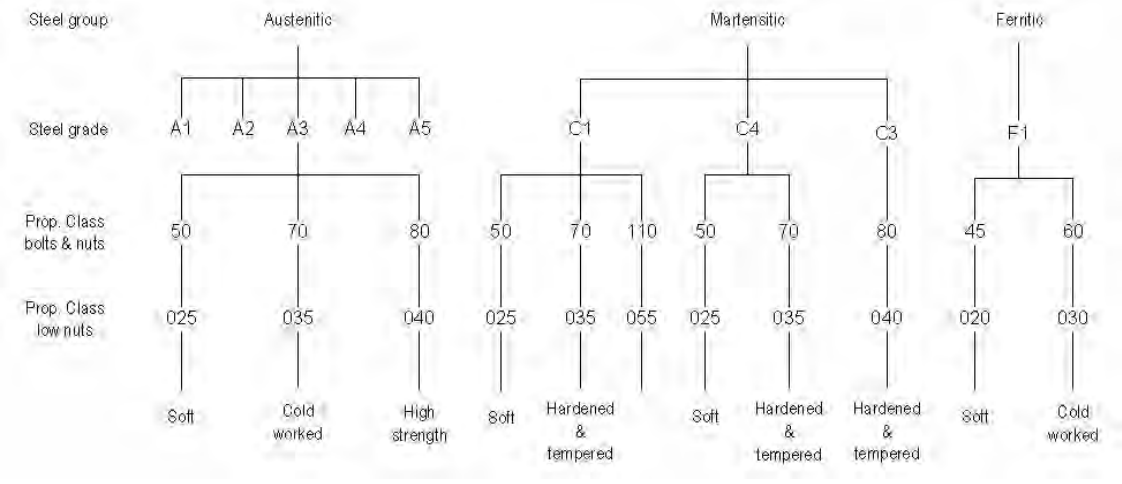
A2:
The most frequently used stainless steel grade (for mass production of fasteners) - also called 18/8 (18% Cr, 8% Ni) - with outstanding corrosion resistance under normal atmospheric conditions, in wet environments and when exposed to oxidizing and organic acids, and many alkaline solutions.
However A2 is not suitable for use in non-oxidizing acids and agents with chloride content, i.e. in swimming pools and sea water.

A3:
This is a stabilized stainless steel with A2 properties. Due to elements Ti, Nb or Ta which reduce the binding of carbon to chromium, this steel grade is particularly suitable for use at elevated temperatures. It is relatively rarely used for mass produced fasteners.

A4:
Steels of grade A4 are “acid proof steels”, which are Mo alloyed and give a considerably better corrosion resistance in aggressive conditions such as those found in sea climates (chlorides), industrial atmospheres (sulphur dioxide), where oxidizing acids are present and if pitting may occur. However in aggressive conditions such as offshore, high chloride environment or similar applications, steels with a higher content of Cr, Ni and in particular Mo are required.

A5:
This is a stabilized stainless steel with A4 properties. Due to elements Ti, Nb or Ta which reduce the binding of carbon to chromium, this steel grade is particularly suitable for use at elevated temperatures. It is relatively rarely used for mass produced fasteners.

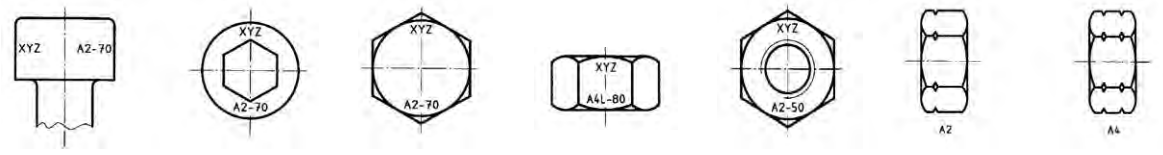
2.3.2 Designation system of property classes



The designation of the property class represents 1/10 of the tensile strength (bolt or screw) or 1/10 of the stress under proof load for nuts. If the first digit is “0”, this indicates the nut has a reduced loadability compared to a normal nut.

2.3.3 Marking of austenitic stainless steel fasteners

Stainless steel hexagon bolts and nuts and socket cap screws of size M5 and above and all packaging shall be marked with the manufacturer's identification mark and the steel grade, followed by the two (or three) digits of the property class or as an alternative for turned nuts by grooving, see examples below. If the property class is not indicated, property class 50 or 025 applies. Low carbon austenitic stainless steel with carbon content not exceeding 0,03% may additionally be marked with an "L".



Marking of studs and other fasteners shall be agreed on by user and manufacturer.

2.3.4 Mechanical and other physical properties of austenitic stainless steel fasteners

Mechanical properties of austenitic stainless steel bolts, screws, studs and nuts:

Stainless steel		Property class	Bolts and screws			Nuts type 1
Steel group	Steel grade		Tensile strength R_m [1] min. N/mm²	0.2% yield strength $R_{p0.2}$ [1] min. N/mm²	Elongation at fracture A [2] min. mm	Proof load value Sp min. N/mm²
Austenitic	A1, A2, A3, A4, A5	50	500	210	0,6d	500
		70	700	450	0,4d	700
		80	800	600	0,3d	800

[1] Values are calculated on the nominal stress area (ref. Thread sizes tables)
[2] Determined according to ISO 3506-1 on the actual screw length and not on a prepared test piece.

Minimum breaking torque in Nm for austenitic stainless steel grade bolts and screws M1,6 to M16 (coarse thread):

Nominal thread size	Property class 50	Property class 70	Property class 80
M1,6	0,15	0,2	0,24
M2	0,3	0,4	0,48
M2,5	0,6	0,9	0,96
M3	1,1	1,6	1,76
M4	2,7	3,8	4,32
M5	5,5	7,8	8,8
M6	9,3	13	15
M8	23	32	37
M10	46	65	74
M12	80	110	130
M16	210	290	330

0.2% yield strength ($Rp_{0.2}$) of austenitic stainless steel at elevated temperatures:

Steel grade	+100°C	+200°C	+300°C	+400°C
A2, A3, A4, A5	85 [1)]	80 [1)]	75 [1)]	70 [1)]
[1)] These values are given as a % of the values at room temperature. The values only apply to fasteners assigned to property classes 70 and 80.				

Application at low temperatures:

Steel grade	Lower limits of operational temperature at continuous operation	
A2, A3	-200°C	
A4, A5	bolts and screws[1)]	-60°C
	studs	-200°C
[1)] In connection with the alloying element Mo, the stability of the austenite is reduced and the transition temperature is shifted to higher values, if a high degree of deformation during the production of the fastener is applied.		

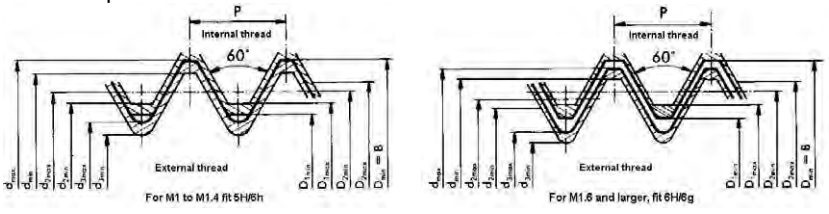
Magnetic properties:
Austenitic stainless steel fasteners generally are non-magnetic. However after cold working, some magnetic properties may be evident. In this respect A4 is better than A2 with A1 being the most unfavourable. Some applications like those for electrotechnical equipment, and in marine and nuclear industry, require a magnetic permeability as close as possible to 1.0. Ex stock fasteners are not suitable for these purposes and special non-magnetisable steel types must be mutually agreed on.

3 Thread

3.1 Metric (ISO) screw thread, coarse series – M

Basic profile and limiting profiles

The bold lines indicate the maximum material profiles. The maximum material profile of the internal thread is the basic profile.



	External thread	Internal thread
B = basic major diameter	d = major diameter	D = major diameter
P = pitch	d_3 = minor diameter	D_1 = minor diameter
	d_2 = pitch diameter	D_2 = pitch diameter

3.1.1 Limit dimensions for metric screw thread, coarse series, fit 6H/6g

The table below is based on ISO 965-1 (2013). Dimensions in mm.

Basic[2] diameter	Pitch	External thread tolerance 6g[1] (bolts and screws)						Internal thread tolerance 6H[1] (nuts)				Section at minor diameter	Stress area
		Major diameter		Pitch diameter		Minor diameter		Pitch diameter		Minor diameter			
												$\frac{\pi}{4} d_3^2$	$\frac{\pi}{4}\left(\frac{d_2+d_3}{2}\right)^2$
$B = D_{min.}$	P	$d_{max.}$	$d_{min.}$	$d_{2max.}$	$d_{2min.}$	$d_{3max.}$	$d_{3min.}$	$D_{2min.}$	$D_{2max.}$	$D_{1min.}$	$D_{1max.}$	A_{d3} mm²	A_s mm²
1 [1]	0,25	1,000	0,933	0,838	0,785	0,693	0,630	0,838	0,894	0,729	0,785	0,337	0,460
1,1 [1]	0,25	1,100	1,033	0,938	0,885	0,793	0,730	0,938	0,994	0,829	0,885	0,494	0,588
1,2 [1]	0,25	1,200	1,133	1,038	0,985	0,893	0,830	1,038	1,094	0,929	0,985	0,626	0,732
1,4 [1]	0,3	1,400	1,325	1,205	1,149	1,032	0,964	1,205	1,265	1,075	1,142	0,837	0,983
1,6	0,35	1,581	1,496	1,354	1,291	1,152	1,075	1,373	1,458	1,221	1,321	1,075	1,27
1,8	0,35	1,781	1,696	1,554	1,491	1,352	1,275	1,573	1,658	1,421	1,521	1,474	1,70
2	0,4	1,981	1,886	1,721	1,654	1,490	1,407	1,740	1,830	1,567	1,679	1,788	2,07
2,2	0,45	2,180	2,080	1,888	1,817	1,628	1,540	1,908	2,003	1,713	1,838	2,133	2,48
2,5	0,45	2,480	2,380	2,188	2,117	1,928	1,840	2,208	2,303	2,013	2,138	2,980	3,39
3	0,5	2,980	2,874	2,655	2,580	2,367	2,273	2,675	2,775	2,459	2,599	4,475	5,03
3,5	0,6	3,479	3,354	3,089	3,004	2,743	2,635	3,110	3,222	2,850	3,010	6,000	6,78
4	0,7	3,978	3,838	3,523	3,433	3,119	3,002	3,545	3,663	3,242	3,422	7,749	8,78
4,5	0,75	4,478	4,338	3,991	3,901	3,558	3,439	4,013	4,131	3,688	3,878	10,07	11,3
5	0,8	4,976	4,826	4,456	4,361	3,995	3,869	4,480	4,605	4,134	4,334	12,69	14,2
6	1	5,974	5,794	5,324	5,212	4,747	4,596	5,350	5,500	4,917	5,153	17,89	20,1
7	1	6,974	6,794	6,324	6,212	5,747	5,596	6,350	6,500	5,917	6,153	26,18	28,9
8	1,25	7,972	7,760	7,160	7,042	6,438	6,272	7,188	7,348	6,647	6,912	32,84	36,6
9	1,25	8,972	8,760	8,160	8,042	7,438	7,272	8,188	8,348	7,647	7,912	43,78	48,1
10	1,5	9,968	9,732	8,994	8,862	8,128	7,938	9,026	9,206	8,376	8,676	52,3	58,0
11	1,5	10,968	10,732	9,994	9,862	9,128	8,938	10,026	10,206	9,376	9,676	65,9	72,3
12	1,75	11,966	11,701	10,829	10,679	9,819	9,602	10,863	11,063	10,106	10,441	76,2	84,3
14	2	13,962	13,682	12,663	12,503	11,508	11,271	12,701	12,913	11,835	12,210	104,7	115
16	2	15,962	15,682	14,663	14,503	13,508	13,271	14,701	14,913	13,835	14,210	144,1	157
18	2,5	17,958	17,623	16,334	16,164	14,891	14,625	16,376	16,600	15,294	15,744	175,1	193
20	2,5	19,958	19,623	18,334	18,164	16,891	16,625	18,376	18,600	17,294	17,744	225,2	245
22	2,5	21,958	21,623	20,334	20,164	18,891	18,625	20,376	20,600	19,294	19,744	281,5	303
24	3	23,952	23,577	22,003	21,803	20,271	19,955	22,051	22,316	20,752	21,252	324,3	353
27	3	26,952	26,577	25,003	24,803	23,271	22,955	25,051	25,316	23,752	24,252	427,1	459
30	3,5	29,947	29,522	27,674	27,462	25,653	25,306	27,727	28,007	26,211	26,711	519,0	561
33	3,5	32,947	32,522	30,674	30,462	28,653	28,306	30,727	31,007	29,211	29,711	647,2	694
36	4	35,940	35,465	33,342	33,118	31,033	30,655	33,402	33,702	31,670	32,270	759,3	817
39	4	38,940	38,465	36,342	36,118	34,033	33,655	36,402	36,702	34,670	35,270	913	976
42	4,5	41,937	41,437	39,014	38,778	36,416	36,007	39,077	39,392	37,129	37,799	1045	1121
45	4,5	44,937	44,437	42,014	41,778	39,416	39,007	42,077	42,392	40,129	40,799	1224	1306
48	5	47,929	47,399	44,681	44,431	41,795	41,352	44,752	45,087	42,587	43,297	1377	1473
52	5	51,929	51,399	48,681	48,431	45,795	45,352	48,752	49,087	46,587	47,297	1652	1758
56	5,5	55,925	55,365	52,353	52,088	49,177	48,700	52,428	52,783	50,046	50,796	1905	2030
60	5,5	59,925	59,365	56,353	56,088	53,177	52,700	56,428	56,783	54,046	54,796	2227	2362
64	6	63,920	63,320	60,023	59,743	56,559	56,048	60,103	60,478	57,505	58,305	2520	2676
68	6	67,920	67,320	64,023	63,743	60,559	60,048	64,103	64,478	61,505	62,305	2888	3055

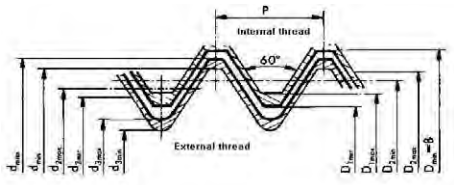
[1] The values for basic diameters 1 to 1.4 mm correspond to the fit 5H/6h.

[2] Metric screw thread is designated by the basic diameter, preceded by the profile letter M and followed by the tolerance grade, e.g. 6, and the tolerance position, e.g. g. Example: M10–6g. If no tolerance class is indicated, the above mentioned fits are valid. For basic diameters above 68mm. See metric screw thread, fine series.

3.2 Metric (ISO) screw thread, fine series – MF

Basic profile and limiting profiles

The bold lines indicate the maximum material profiles. The maximum material profile of the internal thread is the basic profile.



B = basic major diameter
P = pitch

External thread	Internal thread
d = major diameter	D = major diameter
d_3 = minor diameter	D_1 = minor diameter
d_2 = pitch diameter	D_2 = pitch diameter

3.2.1 Limit dimensions for metric screw thread, fine series, fit 6H/6g

The table below is based on ISO 965-1 (2013). Dimensions in mm.

Basic[2] diameter	Pitch	External thread tolerance 6g[1] (bolts and screws)						Internal thread tolerance 6H[1] (nuts)				Section at minor diameter	Stress area
		Major diameter		Pitch diameter		Minor diameter		Pitch diameter		Minor diameter			
												$\frac{\pi}{4} d_3^2$	$\frac{\pi}{4}\left(\frac{d_2+d_3}{2}\right)^2$
$B = D_{min.}$	P	$d_{max.}$	$d_{min.}$	$d_{2max.}$	$d_{2min.}$	$d_{3max.}$	$d_{3min.}$	$D_{2min.}$	$D_{2max.}$	$D_{1min.}$	$D_{1max.}$	A_{d3} mm²	A_s mm²
6	0,75	5,978	5,838	5,491	5,391	5,058	4,929	5,513	5,645	5,188	5,378	20,27	22,0
8	1	7,974	7,794	7,324	7,212	6,747	6,596	7,350	7,500	6,917	7,153	36,03	39,2
10	1	9,974	9,794	9,324	9,212	8,747	8,596	9,350	9,500	8,917	9,153	60,45	64,5
10	1,25	9,972	9,760	9,160	9,042	8,438	8,272	9,188	9,348	8,647	8,912	56,29	61,2
12	1	11,974	11,794	11,324	11,206	10,747	10,590	11,350	11,510	10,917	11,153	91,15	96,1
12	1,25	11,972	11,760	11,160	11,028	10,438	10,258	11,188	11,368	10,647	10,912	86,03	92,1
12	1,5	11,968	11,732	10,994	10,854	10,128	9,930	11,026	11,216	10,376	10,676	81,07	88,1
14	1,5	13,968	13,732	12,994	12,854	12,128	11,930	13,026	13,216	12,376	12,676	116,1	125
16	1,5	15,968	15,732	14,994	14,854	14,128	13,930	15,026	15,216	14,376	14,676	157,5	167
18	1,5	17,968	17,732	16,994	16,854	16,128	15,930	17,026	17,216	16,376	16,676	205,1	216
18	2	17,962	17,682	16,663	16,503	15,508	15,271	16,701	16,913	15,835	16,210	189,8	204
20	1,5	19,968	19,732	18,994	18,854	18,128	17,930	19,026	19,216	18,376	18,676	259,0	272
20	2	19,962	19,682	18,663	18,503	17,508	17,271	18,701	18,913	17,835	18,210	241,8	258
22	1,5	21,968	21,732	20,994	20,854	20,128	19,930	21,026	21,216	20,376	20,676	319,2	333
22	2	21,962	21,682	20,663	20,503	19,508	19,271	20,701	20,913	19,835	20,210	300,1	318
24	1,5	23,968	23,732	22,994	22,844	22,128	21,920	23,026	23,226	22,376	22,676	385,7	401
24	2	23,962	23,682	22,663	22,493	21,508	21,261	22,701	22,925	21,835	22,210	364,6	384
27	1,5	26,968	26,732	25,994	25,844	25,128	24,920	26,026	26,226	25,376	25,676	497,2	514
27	2	26,962	26,682	25,663	25,493	24,508	24,261	25,701	25,925	24,835	25,210	473,2	496
30	1,5	29,968	29,732	28,994	28,844	28,128	27,920	29,026	29,226	28,376	28,676	622,8	642
30	2	29,962	29,682	28,663	28,493	27,508	27,261	28,701	28,925	27,835	28,210	596,0	621
33	1,5	32,968	32,732	31,994	31,844	31,128	30,920	32,026	32,226	31,376	31,676	762,6	784
33	2	32,962	32,682	31,663	31,493	30,508	30,261	31,701	31,925	30,835	31,210	732,8	761
36	1,5	35,968	35,732	34,994	34,844	34,128	33,920	35,026	35,226	34,376	34,676	916,5	940
36	3	35,952	35,682	34,003	33,803	32,271	31,955	34,051	34,316	32,752	33,252	820,4	865
39	1,5	38,968	38,732	37,994	37,844	37,128	36,920	38,026	38,226	37,376	37,676	1085	1110
39	3	38,952	38,577	37,003	36,803	35,271	34,955	37,051	37,316	35,752	36,252	979,7	1028
42	1,5	41,968	41,732	40,994	40,844	40,128	39,920	41,026	41,226	40,376	40,676	1267	1294
42	3	41,952	41,577	40,003	39,803	38,271	37,955	40,051	40,316	38,752	39,252	1153	1206
45	1,5	44,968	44,732	43,994	43,844	43,128	42,920	44,026	44,226	43,376	43,676	1463	1492
45	3	44,952	44,577	43,003	42,803	41,276	40,955	43,051	43,316	41,752	42,252	1341	1398
48	1,5	47,968	47,732	46,994	46,834	46,128	45,910	47,026	47,238	46,376	46,676	1674	1705
48	3	47,952	47,577	46,003	45,791	44,271	43,943	46,051	46,331	44,752	45,252	1543	1604
52	1,5	51,968	51,732	50,994	50,834	50,128	49,910	51,026	51,238	50,376	50,676	1976	2010
52	3	51,952	51,577	50,003	49,791	48,271	47,943	50,051	50,331	48,752	49,252	1834	1900
56	2	55,962	55,682	54,663	54,483	53,508	53,251	54,701	54,937	53,835	54,210	2252	2301
56	4	55,940	55,465	53,342	53,106	51,033	50,643	53,402	53,717	51,670	52,270	2050	2144
60	4	59,940	59,465	57,342	57,106	55,033	54,643	57,402	57,717	55,670	56,270	2384	2485
64	4	63,940	63,465	61,342	61,106	59,033	58,643	61,402	61,717	59,670	60,270	2743	2851
68	4	67,940	67,465	65,342	65,106	63,033	62,643	65,402	65,717	63,670	64,270	3127	3242
72	6	71,920	71,320	68,023	67,743	64,559	64,048	68,103	68,478	65,505	66,305	3287	3463
76	6	75,920	75,320	72,023	71,743	68,559	68,048	72,103	72,478	69,505	70,305	3700	3889
80	6	79,920	79,320	76,023	75,743	72,559	72,048	76,103	76,478	73,505	74,305	4144	4344
90	6	89,920	89,320	86,023	85,743	82,559	82,048	86,103	86,478	83,505	84,305	5364	5590
100	6	99,920	99,320	96,023	95,723	92,559	92,028	96,103	96,503	93,505	94,305	6740	7000
110	6	109,920	109,320	106,023	105,723	102,559	102,028	106,103	106,503	103,505	104,305	8273	8560

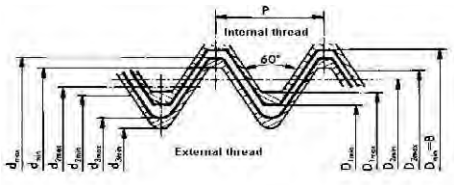
[1] For coated threads the maximum values of d, d2 and d3 are equal to the values of the basic profile. ($d_{2max.} = D_{2min.}$ and $d_{3max.} = D_{1min.}$)

[2] Metric screw thread, fine series, are designated by the basic diameter, preceded by the profile letter M and followed by the pitch separated by an x and then by the tolerance grade, e.g. 6, and the tolerance position, e.g. H. Example: M10x1,25-6H. If no tolerance class is mentioned, the fit 6H/6g applies.

3.3 Unified (ISO) screw thread – UNC

Basic profile and limiting profiles

The bold lines indicate the maximum material profiles. The maximum material profile of the internal thread is the basic profile.



B = basic major diameter
P = pitch
N = number of threads per inch

	External thread	Internal thread
	d = major diameter	D = major diameter
	d_3 = minor diameter	D_1 = minor diameter
	d_2 = pitch diameter	D_2 = pitch diameter

3.3.1 Limit dimensions for unified screw thread: coarse UNC, tolerance classes 2A and 2B

The table below is based on ISO 5864 (1993). Dimensions in mm.

Basic diameter	No. of threads	External thread tolerance 2A (bolts and screws)						Internal thread tolerance 2B (nuts)					Section at minor diameter	Stress area
		Major diameter		Pitch diameter		Minor diameter		Major diameter	Pitch diameter		Minor diameter		$\frac{\pi}{4} d_3^2$	$\frac{\pi}{4}\left(\frac{d_2+d_3}{2}\right)^2$
B inch	N	$d_{max.}$	$d_{min.}$	$d_{2max.}$	$d_{2min.}$	$d_{3max.}$	$d_{3min.}$	$D_{min.}$	$D_{2min.}$	$D_{2max.}$	$D_{1min.}$	$D_{1max.}$	A_{d3} mm²	A_s mm²
¼	20	6,322	6,117	5,496	5,403	4,765	4,580	6,350	5,525	5,646	4,979	5,257	17,4	20,5
5/16	18	7,907	7,687	6,990	6,889	6,174	5,972	7,938	7,021	7,155	6,401	6,731	29,3	33,8
⅜	16	9,491	9,254	8,460	8,349	7,543	9,318	9,525	8,494	8,638	7,798	8,153	43,7	50
7/16	14	11,076	10,816	9,898	9,779	8,851	8,603	11,113	9,934	10,088	9,144	9,550	60,2	68,6
½	13	12,661	12,386	11,391	11,265	10,264	9,998	12,700	11,430	11,595	10,592	11,023	81,1	91,5
9/16	12	14,246	13,958	12,872	12,741	11,650	11,367	14,288	12,914	13,086	11,989	12,446	105	117,4
⅝	11	15,834	15,528	14,335	14,197	13,002	12,698	15,875	14,377	14,559	13,386	13,868	130	146
¾	10	19,004	18,677	17,353	17,204	15,887	15,555	19,050	17,399	17,594	16,307	16,840	195	215
⅞	9	22,176	21,824	20,342	20,183	18,714	18,352	22,225	20,392	20,599	19,177	19,761	270	298
1.IN.	8	25,349	24,969	23,286	23,114	21,452	21,052	25,400	23,338	23,561	21,971	22,606	355	391
1⅛	7	28,519	28,103	26,162	25,980	24,066	23,623	28,575	26,218	26,456	24,638	25,349	447	492
1¼	7	31,694	31,278	29,337	29,150	27,241	26,792	31,750	29,393	29,636	27,813	28,524	574	625
1⅜	6	34,864	34,402	32,113	31,911	29,669	29,162	34,925	32,175	32,438	30,353	31,115	680	745
1½	6	38,039	37,577	35,288	35,083	32,844	32,335	38,100	35,350	35,615	33,528	34,290	835	906
1¾	5	44,381	43,861	41,081	40,856	38,148	37,557	44,450	41,151	41,445	38,964	39,827	1123	1226
2.IN.	4½	50,726	50,168	47,061	46,820	43,802	43,155	50,800	47,135	47,449	44,679	45,593	1484	1613
2¼	4½	57,076	56,518	53,411	53,165	50,152	49,500	57,150	53,485	53,804	51,029	51,943	1948	2097
2½	4	63,421	62,817	59,296	59,033	55,631	54,910	63,500	59,376	59,717	56,617	57,581	2400	2581
2¾	4	69,768	69,165	65,643	65,378	61,978	61,255	69,850	65,726	66,073	62,967	63,931	2981	3181
3.IN.	4	76,118	75,515	71,993	71,722	68,328	67,600	76,200	72,076	72,428	69,317	70,281	3626	3852

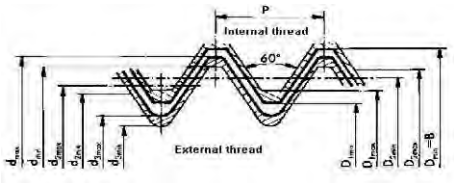
Unified screw thread is designated by the nominal diameter followed by the number of threads per inch (n), the thread series UNC and the tolerance class. E.g.: 3/8 – 16 UNC – 2A. If no tolerance class is specified, the fit 2A/2B applies.

For coated external threads, the maximum values of d, d_2 and d_3 are equal to the values of the basic profile: ($d_{2max.}$ = $D_{2min.}$ and $d_{3max.}$ = $D_{1min.}$)

3.4 Unified (ISO) screw thread – UNF

Basic profile and limiting profiles

The bold lines indicate the maximum material profiles. The maximum material profile of the internal thread is the basic profile.



B = basic major diameter
P = pitch
N = number of threads per inch

External thread	Internal thread
d = major diameter	D = major diameter
d_3 = minor diameter	D_1 = minor diameter
d_2 = pitch diameter	D_2 = pitch diameter

3.4.1 Limit dimensions for unified screw thread: fine UNF, tolerance classes 2A and 2B

The table below is based on ISO 5864 (1993). Dimensions in mm.

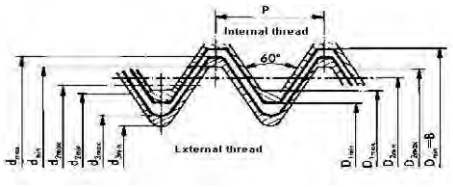
Basic diameter	No. of threads	External thread tolerance 2A (bolts and screws)						Internal thread tolerance 2B (nuts)					Section at minor diameter	Stress area
		Major diameter		Pitch diameter		Minor diameter		Major diameter	Pitch diameter		Minor diameter		$\frac{\pi}{4} d_3^2$	$\frac{\pi}{4}\left(\frac{d_2+d_3}{2}\right)^2$
B inch	N	$d_{max.}$	$d_{min.}$	$d_{2max.}$	$d_{2min.}$	$d_{3max.}$	$d_{3min.}$	$D_{min.}$	$D_{2min.}$	$D_{2max.}$	$D_{1min.}$	$D_{1max.}$	A_{d3} mm²	A_s mm²
¼	28	6,324	6,160	5,735	5,652	5,212	5,063	6,350	5,761	5,869	5,360	5,588	21,0	23,5
5/16	24	7,909	7,727	7,221	7,128	6,611	6,442	7,938	7,250	7,371	6,782	7,035	33,8	37,4
⅜	24	9,497	9,315	8,808	8,713	8,199	8,027	9,525	8,837	8,961	8,382	8,636	52,2	56,6
7/16	20	11,079	10,874	10,253	10,148	9,522	9,325	11,113	10,287	10,424	9,729	10,033	70,3	76,6
½	20	12,666	12,462	11,841	11,733	11,109	10,910	12,700	11,875	12,016	11,329	11,607	95,9	103
9/16	18	14,251	14,031	13,335	13,221	12,519	12,304	14,288	13,371	13,520	12,751	13,081	122	131
⅝	18	15,839	15,619	14,922	14,804	14,107	13,887	15,875	14,959	15,110	14,351	14,681	155	165
¾	16	19,011	18,774	17,980	17,854	17,063	16,823	19,050	18,019	18,183	17,323	17,678	226	241
⅞	14	22,184	21,923	21,005	20,869	19,959	19,693	22,225	21,047	21,224	20,270	20,675	310	328
1.IN.	12	25,354	25,065	23,980	23,831	22,758	22,457	25,400	24,026	24,218	23,114	23,571	403	428
1.IN.	14	25,357	25,095	24,178	24,036	23,123	25,400	24,220	24,407	23,444	23,825	–	420	439
1⅛	12	28,529	28,240	27,155	27,003	25,933	25,629	28,575	27,201	27,398	26,289	26,746	524	552
1¼	12	31,704	31,415	30,330	30,173	29,108	28,799	31,750	30,376	30,579	29,464	29,921	661	692
1⅜	12	34,879	34,588	33,502	33,343	32,280	31,969	34,925	33,551	33,759	32,639	33,096	813	848
1½	12	38,051	37,763	36,677	36,516	35,455	35,141	38,100	36,726	36,936	35,814	36,271	981	1020

Unified screw thread is designated by the basic diameter followed by the number of threads per inch (n), the thread series UNF and the tolerance class. E.g.: 3/8 – 24 UNF – 2A. If no tolerance class is specified, the fit 2A/2B applies.

For coated external threads, the maximum values of d, d_2 and d_3 are equal to the values of the basic profile: ($d_{2max.}$ = $D_{2min.}$ and $d_{3max.}$ = $D_{1min.}$)

3.5 Unified (ISO) screw thread - 8UN

Basic profile and limiting profiles
The bold lines indicate the maximum material profiles. The maximum material profile of the internal thread is the basic profile.



B = basic major diameter
P = pitch
N = number of threads per inch

	External thread	**Internal thread**
	d = major diameter	D = major diameter
	d_3 = minor diameter	D_1 = minor diameter
	d_2 = pitch diameter	D_2 = pitch diameter

3.5.1 Limit dimensions for unified screw thread 8UN, tolerance classes 2A and 2B

The table below is based on ISO 5864 (1993). Dimensions in mm.

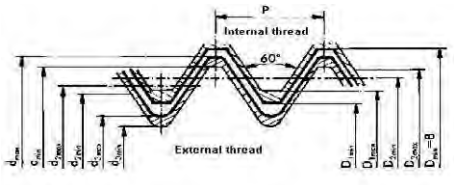
Basic diameter	**No. of threads**	**External thread tolerance 2A (bolts and screws)**					**Internal thread tolerance 2B (nuts)**					**Section at minor diameter**	**Stress area**
		Major diameter		**Pitch diameter**		**Minor diameter**	**Major diameter**	**Pitch diameter**		**Minor diameter**		$\frac{\pi}{4} d_3^2$	$\frac{\pi}{4}\left(\frac{d_2+d_3}{2}\right)^2$
B inch	N	$d_{max.}$	$d_{min.}$	$d_{2max.}$	$d_{2min.}$	nominal	$D_{min.}$	$D_{2min.}$	$D_{2max.}$	$D_{1min.}$	$D_{1max.}$	A_{d3} mm²	A_s mm²
1⅛	8	28,521	28,141	26,459	26,284	24,653	28,575	26,513	26,741	25,146	25,781	470	510
1¼	8	31,697	31,316	29,634	29,456	27,800	31,750	29,688	29,921	28,321	28,956	599	645
1⅜	8	34,869	34,488	32,807	32,624	30,973	34,925	32,863	33,099	31,496	32,131	745	795
1½	8	38,044	37,663	35,982	35,796	34,148	38,100	36,038	36,279	34,671	35,306	906	963
1⅝	8	41,219	40,838	39,157	38,969	37,323	41,275	39,213	39,459	37,846	38,481	1084	1148
1¾	8	44,392	44,011	43,329	42,139	40,495	44,450	42,388	42,636	41,021	41,656	1277	1342
1⅞	8	47,567	47,186	45,564	45,309	43,670	47,625	45,563	45,817	44,196	44,831	1484	1555
2.IN.	8	50,742	50,361	48,679	48,481	46,845	50,800	48,738	48,994	47,371	47,371	1710	1787

Unified screw thread is designated by the basic diameter followed by the number of threads per inch (n), the thread series UN and the tolerance class. E.g.: 1.3/8 – 8UN – 2A. If no tolerance class is specified, the fit 2A/2B applies.

For coated external threads, the maximum values of d, d2 and d3 are equal to the values of the basic profile: ($d_{2max.}$ = $D_{2min.}$ and $d_{3max.}$ = $D_{1min.}$)

3.6 Unified number threads – UNC and UNF

Basic profile and limiting profiles
The bold lines indicate the maximum material profiles. The maximum material profile of the internal thread is the basic profile.



B = basic major diameter
P = pitch
N = number of threads per inch

External thread	Internal thread
d = major diameter	D = major diameter
d_3 = minor diameter	D_1 = minor diameter
d_2 = pitch diameter	D_2 = pitch diameter

3.6.1 Limit dimensions for UNC and UNF-number thread, tolerance classes 2A and 2B

The table below is based on ISO 5864 (1993). Dimensions in mm.

Designation	Basic diameter	No. of threads	External thread tolerance 2A (bolts and screws)					Internal thread tolerance 2B (nuts)			
			Major diameter		Pitch diameter		Minor diameter	Pitch diameter		Minor diameter	
	B	N	$d_{max.}$	$d_{min.}$	$d_{2max.}$	$d_{2min.}$	$d_{3max.}$	$D_{2min.}$	$D_{2max.}$	$D_{1min.}$	$D_{1max.}$
2-56 UNC	2,184	56	2,169	2,066	1,874	1,822	1,612	1,890	1,960	1,695	1,871
3-48 UNC	2,514	48	2,496	2,383	2,153	2,096	1,846	2,172	2,247	1,941	2,146
4–40 UNC	2,844	40	2,824	2,695	2,413	2,350	2,044	2,434	2,517	2,157	2,385
5–40 UNC	3,175	40	3,154	3,026	2,743	2,678	2,374	2,764	2,847	2,487	2,697
6–32 UNC	3,505	32	3,484	3,333	2,969	2,899	2,512	2,990	3,083	2,642	2,895
8–32 UNC	4,165	32	4,142	3,991	3,627	3,554	3,169	3,650	3,746	3,302	3,530
10–24 UNC	4,826	24	4,800	4,618	4,112	4,029	3,502	4,138	4,246	3,683	3,962
12–24 UNC	5,486	24	5,461	5,279	4,772	4,687	4,163	4,799	4,909	4,344	4,597
4–48 UNF	2,844	48	2,827	2,713	2,484	2,424	2,176	2,502	2,580	2,271	2,458
5–44 UNF	3,175	44	3,157	3,036	2,781	2,718	2,448	2,800	2,880	2,551	2,740
6–40 UNF	3,505	40	3,484	33,56	3,073	3,008	2,705	3,094	3,180	2,820	3,022
8–36 UNF	4,165	36	4,145	4,006	3,688	3,617	3,279	3,709	3,799	3,404	3,606
10–32 UNF	4,826	32	4,803	4,651	4,287	4,212	3,830	4,311	4,409	3,963	4,165
12–28 UNF	5,486	28	5,461	5,296	4,871	4,791	4,348	4,898	5,003	4,496	4,724

3.7 Screw threads, fine versus coarse thread

3.7.1 Explanation

The general trend for commercial fasteners has shown a gradual and noticeable shift in popularity towards coarse threads. And rightly so, as there are increasingly less reasons to justify the use of fine threads. Although fine threads are used in special cases (such as for adjusters, or for certain engine screws), these cases occur so infrequently that fasteners with fine thread are becoming more and more a special product with all the attendant economic disadvantages (higher price, poor availability, double stocking)
The fine screw thread was mainly created for, and is still popular in, the automotive industry - and other related industries.

The most important arguments of the proponents of fine thread are:

- higher static tensile strength because of the thread's larger stress area
- because of the smaller helix angle, it offers more resistance to loosening when subjected to vibration
- improved adjustment accuracy

In practice however, most constructions are not loaded statically but dynamically, so fatigue strength is the criterion. Coarse thread exhibits better fatigue resistance because stress concentration at the root decreases as thread pitch increases. The argument of better resistance to loosening has been outdated by the development of mechanical and chemical locking systems, which offer a more effective solution for loss of preload especially when the fastener is exposed to dynamic transverse forces.

Further advantages of course thread are:

- less sensitive to damage, and generally easier and quicker assembly
- thicker coatings possible as a consequence of the larger thread allowances
- less danger of thread being stripped

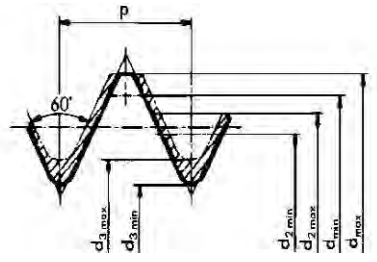
The most important pros and cons are summarised in the following evaluation table:

functional properties	screw thread coarse [1)]	screw thread fine
Static strength	+	++
Dynamic strength	+	-
Resistance to loosening	-	+
Insensitive to damage	+	-
Coating thickness	+	-
Insensitive to being stripped	+	-
Ease of assembly	+	-
Low cost/availability	+	-

[1)] Coarse thread is recommended for standardized fasteners in general constructions.

3.8 Metric screw threads with tolerance class Sk6 for studs

Basic profile and limiting profiles
The bold line indicates the minimum material profile.



P = Pitch
d = major diameter = basic size
d_2 = pitch diameter
d_3 = minor diameter

The tolerance class Sk6 is used for general applications e.g. the inserted end of studs as per DIN 939 (joints without a seal function) and in combination with internal thread, with the tolerance class fine (4H respectively, 4H5H) as per DIN 13 Part 14. In fact, these tolerance classes for the pitch diameter have to do with a transition fit, because in many cases no actual interference fit will be achieved.

Note:
A true interference fit for metric threads has been developed (MFS), which is achieved by including the oversize in the major diameter. Refer to DIN 8141 Part 1 for the tolerances and to DIN 8141 Part 2 for the associated sizes of the threads. However, these norms only apply to applications in aluminium cast alloys for the sizes M5 through M16. Further developments are dependent on the experience gained.

3.8.1 Limit dimensions for metric screw thread with tolerance class Sk6

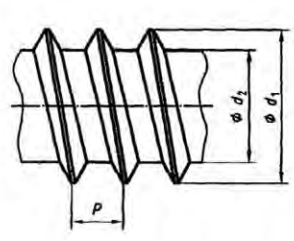
The table below is based on DIN 13-51 (2013). Dimensions in mm.

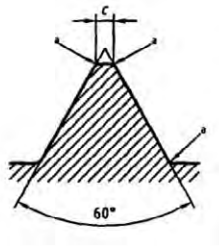
Basic diameter	Pitch	external thread (studs)					
		Major diameter		Pitch diameter		Minor diameter	
d	P	$d_{max.}$	$d_{min.}$	$d_{2max.}$	$d_{2min.}$	$d_{3max.}$	$d_{3min.}$
6	1	6	5,776	5,406	5,335	4,773	4,663
(7) [1]	1	7	6,776	6,406	6,335	5,773	5,633
8	1,25	8	7,750	7,244	7,173	6,466	6,343
(9) [1]	1,25	9	8,750	8,244	8,173	7,466	7,343
10	1,5	10	9,720	9,082	9,011	8,160	8,017
(11) [1]	1,5	11	10,720	10,082	10,011	9,160	9,017
12	1,75	12	11,600	10,943	10,843	9,853	9,691
14	2	14	13,525	12,781	12,681	11,546	11,369
16	2	16	15,525	14,781	14,681	13,546	13,369
18	2,5	18	17,470	16,456	16,356	14,933	14,731
20	2,5	20	19,470	18,456	18,356	16,933	16,731
22	2,5	22	21,470	20,456	20,356	18,933	18,731
24	3	24	23,400	22,131	22,031	20,319	20,078

[1] Preferably not to be used

Designation of this screw thread e.g. M12 Sk6

3.9 Tapping screw thread – ST





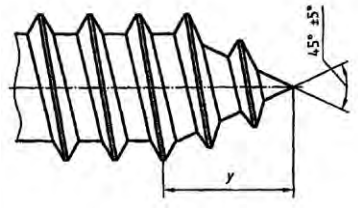
Edges slightly radiused at (a)

3.9.1 Limit dimensions for tapping screw thread

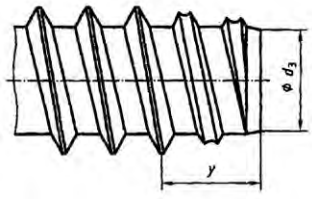
The table below is based on ISO 1478 (1999). Dimensions in mm.

Basic diameter	No.	Pitch	Major diameter		Minor diameter		flat end diameter		crest flatten-ing	point taper length y_{max}		
		P~	$d_{1max.}$	$d_{1min.}$	$d_{2max.}$	$d_{2min.}$	$d_{3max.}$	$d_{3min.}$	$c_{max.}$	Type C	Type F	Type R
ST 2,2	2	0,8	2,24	2,1	1,63	1,52	1,47	1,37	0,1	2	1,6	--
ST 2,6	3	0,9	2,57	2,43	1,9	1,8	1,73	1,6	0,1	2,3	1,8	--
ST 2,9	4	1,1	2,9	2,76	2,18	2,08	2,01	1,88	0,1	2,6	2,1	--
ST 3,3	5	1,3	3,3	3,12	2,39	2,29	2,21	2,08	0,1	3	2,5	--
ST 3,5	6	1,3	3,53	3,35	2,64	2,51	2,41	2,26	0,1	3,2	2,5	2,7
ST 3,9	7	1,4	3,91	3,73	2,92	2,77	2,67	2,51	0,1	3,5	2,7	3
ST 4,2	8	1,4	4,22	4,04	3,10	2,95	2,84	2,69	0,1	3,7	2,8	3,2
ST 4,8	10	1,6	4,8	4,62	3,58	3,43	3,3	3,12	0,15	4,3	3,2	3,6
ST 5,5	12	1,8	5,46	5,28	4,17	3,99	3,86	3,68	0,15	5	3,6	4,3
ST 6,3	14	1,8	6,25	6,03	4,88	4,7	4,55	4,34	0,15	6	3,6	5
ST 8	16	2,1	8	7,78	6,2	5,99	5,84	5,64	0,15	7,5	4,2	6,3

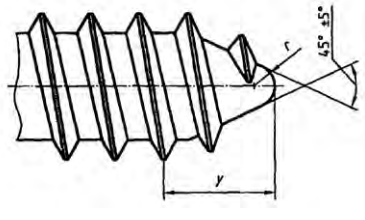
3.9.2 Thread ends for tapping screw thread



Type C (Cone)

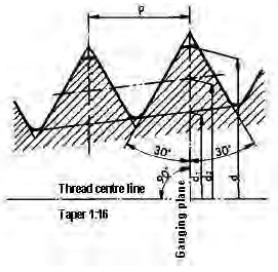


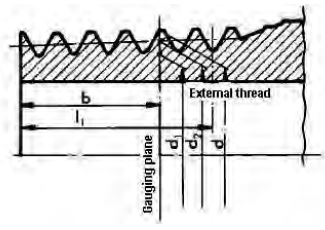
Type F (Flat)



Type R (Rounded)

3.10 Metric-fine tapered external screw thread – DIN 158-1





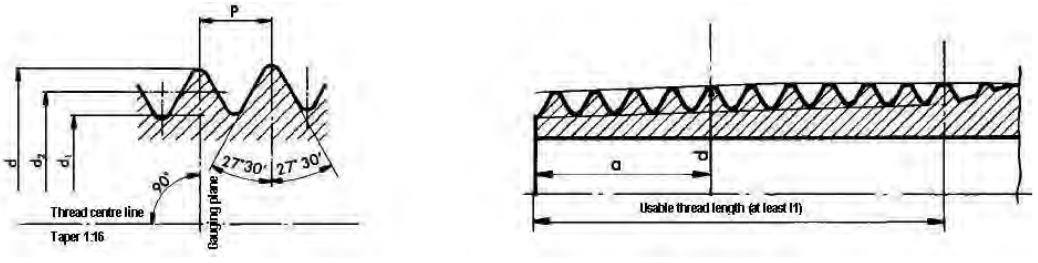
Metric-fine tapered external screw thread is intended to be used for liquid-/gas- tight joints such as pipe plugs as per DIN 906, lubricating nipples, etc. Up to and including M26 no sealing medium is required for oils, other liquids and gases; for sizes above M26 a sealing medium is recommended on the thread. The tapered external thread is normally combined with parallel internal thread as per DIN 158. The metric-fine tapered external thread is designated by the basic diameter, preceded by the profile letter M and followed by the pitch, separated by an “x”. E.g.: M 20x1.5.

3.10.1 Limit dimensions for tapered external screw thread, short type

The table below is based on DIN 158-1 (1997). Dimensions in mm.

Basic diameter x P	Major diameter		Pitch diameter		Minor diameter		Gauge length	Useful Thread length
	$d_{max.}$	$d_{min.}$	$d_{2max.}$	$d_{2min.}$	$d_{1max.}$	$d_{1min.}$	b	l_1
M 8x1	8,093	8,033	7,443	7,383	6,866	6,806	3	4
M 10x1	10,093	10,033	9,443	9,383	8,866	8,806	3	4
M 12x1,5	12,235	12,141	11,261	11,167	10,395	10,301	5,5	7,5
M 14x1,5	14,235	14,141	13,261	13,167	12,395	12,301	5,5	7,5
M 16x1,5	16,235	16,141	15,261	15,167	14,395	14,301	5,5	7,5
M 18x1,5	18,235	18,141	17,261	17,167	16,395	16,301	5,5	7,5
M 20x1,5	20,235	20,141	19,261	19,167	18,395	18,301	5,5	7,5
M 22x1,5	22,235	22,141	21,261	21,167	20,395	20,301	5,5	7,5
M 24x1,5	24,235	24,141	23,261	23,167	22,395	22,301	5,5	7,5
M 30x1,5	30,235	30,141	29,261	29,167	28,395	28,301	5,5	7,5
M 36x1,5	36,282	36,141	35,308	35,182	34,442	34,316	6,9	9
M 42x1,5	42,282	42,156	41,308	41,182	40,442	40,316	6,9	9

3.11 Whitworth tapered external pipe thread R – DIN 3858



3.11.1 Nominal sizes for tapered external thread with tolerance 2, short type a

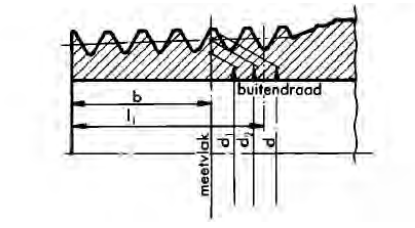
The table below is based on DIN 3858 (2005). Dimensions in mm.

Designation	Number of threads N	Pitch P	external thread				
			Major diameter d	Pitch diameter d_2	Minor diameter d_1	Gauge length a	Useful thread length l_1
R⅛	28	0,907	9,728	9,147	8,566	3	5,5
R¼	19	1,337	13,157	12,301	11,445	4,5	8,2
R⅜	19	1,337	16,662	15,806	14,950	4,5	8,2
R½	14	1,814	20,955	19,793	18,631	5	10,0
R¾	14	1,814	26,441	25,279	24,117	6	11,0
R1	11	2,309	33,249	31,770	30,291	7	13,4
R1¼	11	2,309	41,910	40,431	38,952	7,5	13,9
R1½	11	2,309	47,803	46,324	44,845	7,5	13,9

The Whitworth tapered external pipe thread is designated by the profile letter R, followed by the basic diameter in inches, e.g.: R1/8.

3.12 Parallel pipe thread G – ISO 228-1

The bold line is the basic profile.



P = pitch
N = number of threads per inch

External thread	Internal thread
d = major diameter	D = major diameter
d_1 = minor diameter	D_1 = minor diameter
d_2 = pitch diameter	D_2 = pitch diameter

Whitworth parallel pipe thread - G is intended to be used for mechanical pressure-tight joints for fittings, valves, cocks, etc. where the seal is not made on the thread. This screw thread is designated by the profile letter G, followed by the basic diameter in inches and, for external thread, followed by the capital A or B of the tolerance class. E.g.: for external thread G1/2A and for internal thread G1/2.

3.12.1 Limit dimensions for parallel pipe thread - G

The table below is based on ISO 228-1 (2000). Dimensions in mm.

external thread, tolerance class A							internal thread						
Desig-nation	Number of threads	Major diameter		Pitch diameter		Minor diame-ter	Desig-nation	Number of threads	Major diame-ter	Pitch diameter		Minor diameter	
	N	$d_{max.}$	$d_{min.}$	$d_{2max.}$	$d_{2min.}$	$d_{1nom.}$		N	D_{Basic}	$D_{2max.}$	$D_{2min.}$	$D_{1max.}$	$D_{1min.}$
G1/8A	28	9,728	9,514	9,147	9,040	8,566	G1/8	28	9,728	9,254	9,147	8,848	8,566
G1/4A	19	13,157	12,907	12,301	12,176	11,445	G1/4	19	13,157	12,426	12,301	11,890	11,445
G3/8A	19	16,662	16,412	15,806	15,681	14,950	G3/8	19	16,662	15,931	15,806	15,395	14,950
G1/2A	14	20,955	20,671	19,793	19,651	18,631	G1/2	14	20,995	19,935	19,793	19,172	18,631
G5/8A	14	22,911	22,627	21,749	21,607	20,587	G5/8	14	22,911	21,891	21,749	21,128	20,587
G3/4A	14	26,441	26,157	25,279	25,137	24,117	G3/4	14	26,441	25,421	25,279	24,658	24,117
G7/8A	14	30,201	29,917	29,039	28,897	27,877	G7/8	14	30,201	29,181	29,039	29,418	27,877
G1A	11	33,249	32,889	31,770	31,590	30,291	G1	11	33,249	31,950	31,770	30,931	30,291
G1 1/8A	11	37,897	37,537	36,418	36,238	34,939	G1 1/8	11	37,897	36,598	36,418	35,579	34,939
G1 1/4A	11	41,910	41,550	40,431	40,251	38,952	G1 1/4	11	41,910	40,611	40,431	39,592	38,952
G1 1/2A	11	47,803	47,443	46,324	46,144	44,845	G1 1/2	11	47,803	46,504	46,324	45,485	44,845

4 Basic standards

4.1 Drilling sizes for tapping screws and bolts

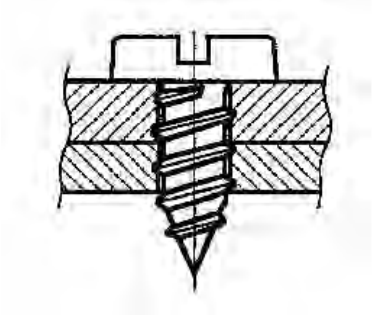
4.1.1 Application guidelines

The essential characteristic of tapping screw thread is its ability to form a chipless internal thread in a core hole made in the materials to be joined. These core hole data, which are theoretically calculated and based on actual tests, apply to fasteners with tapping screw thread as per ISO 1478 and only for application in metals with the tensile strengths indicated in the tables. They do not apply for use in plastics for which several modified tapping screw threads have been developed. They also do not apply for use in stainless steel. It is not possible to provide general recommendations and a determination must be made on a case by case basis of the conditions under which such joints are possible. This also applies to stainless steel tapping screws. Surface coatings can have such an influence on coefficients of friction when driving in screws that the core hole size must be amended.
In sheet thickness up to 2 mm, the holes are usually punched, not drilled. Due to the cold work hardening of the hole wall, the holes must be made 0,1 to 0,3 mm larger, depending on material and sheet thickness. Ensure that the screw is inserted in the punch direction and not from the other side.

- Tapping screws with point type C and type R (see previous chapter) are most commonly used, especially through multiple sheets where the pilot point enables the holes to be aligned.
- Tapping screws with tap type F (see previous chapter) are preferred for use where protruding sharp points may cause problems e.g. injuries.

4.1.2 Application possibilities

Sheet thicknesses not thinner than the pitch of the screw thread.

	
Both sheets are drilled or punched with core hole diameter d_b	Only the lower sheet is drilled or punched with a core hole diameter d_b The upper sheet has a clearance hole with diameter d_D

Thinner sheet thicknesses

			
Core hole Pierced	Core hole Extruded	Presshole joint (special tool required)	Speed nut joint With clearance holes

4.1.3 Guidelines for core hole diameters d_b[1]

The tables below are based on DIN 7975 (1989). Dimensions in mm.

Core hole diameters for tapping screw thread ST2,2										Core hole diameters for tapping screw thread ST2,9									
sheet thickness[2]	tensile strength material R_m in N/mm²									sheet thickness[2]	tensile strength material R_m in N/mm²								
	100	150	200	250	300	350	400	450	500		100	150	200	250	300	350	400	450	500
0,8	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,1	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,3
0,9	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,3
1,0	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,8	1,3	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,3	2,3
1,1	1,7	1,7	1,7	1,7	1,7	1,7	1,7	1,8	1,8	1,4	2,2	2,2	2,2	2,2	2,2	2,2	2,3	2,3	2,4
1,2	1,7	1,7	1,7	1,7	1,7	1,7	1,8	1,8	1,8	1,5	2,2	2,2	2,2	2,2	2,2	2,3	2,3	2,4	2,4
1,3	1,7	1,7	1,7	1,7	1,7	1,8	1,8	1,8	1,8	1,6	2,2	2,2	2,2	2,2	2,3	2,3	2,4	2,4	2,4
1,4	1,7	1,7	1,7	1,7	1,7	1,8	1,8	1,8	1,9	1,7	2,2	2,2	2,2	2,2	2,3	2,4	2,4	2,4	2,4
1,5	1,7	1,7	1,7	1,7	1,8	1,8	1,8	1,9	1,9	1,8	2,2	2,2	2,2	2,3	2,3	2,4	2,4	2,4	2,5
1,6	1,7	1,7	1,7	1,8	1,8	1,8	1,9	1,9	1,9	1,9	2,2	2,2	2,2	2,3	2,4	2,4	2,4	2,5	2,5
1,7	1,7	1,7	1,7	1,8	1,8	1,9	1,9	1,9	1,9	2,0	2,2	2,2	2,3	2,3	2,4	2,4	2,5	2,5	2,5
1,8	1,7	1,7	1,8	1,8	1,8	1,9	1,9	1,9	1,9	2,2	2,2	2,2	2,3	2,4	2,4	2,5	2,5	2,5	2,5

Core hole diameters for tapping screw thread ST3,5										Core hole diameters for tapping screw thread ST3,9									
sheet thickness[2]	tensile strength material R_m in N/mm²									sheet thickness[2]	tensile strength material R_m in N/mm²								
	100	150	200	250	300	350	400	450	500		100	150	200	250	300	350	400	450	500
1,3	2,6	2,6	2,6	2,6	2,6	2,6	2,7	2,7	2,8	1,3	2,9	2,9	2,9	2,9	2,9	2,9	3,0	3,0	3,1
1,4	2,7	2,7	2,7	2,7	2,7	2,7	2,7	2,8	2,8	1,4	2,9	2,9	2,9	2,9	2,9	3,0	3,1	3,1	3,1
1,5	2,7	2,7	2,7	2,7	2,7	2,7	2,8	2,8	2,9	1,5	3,0	3,0	3,0	3,0	3,0	3,0	3,1	3,1	3,2
1,6	2,7	2,7	2,7	2,7	2,7	2,7	2,8	2,9	2,9	1,6	3,0	3,0	3,0	3,0	3,0	3,1	3,1	3,2	3,2
1,7	2,7	2,7	2,7	2,7	2,7	2,8	2,8	2,9	2,9	1,7	3,0	3,0	3,0	3,0	3,1	3,1	3,2	3,2	3,3
1,8	2,7	2,7	2,7	2,7	2,8	2,8	2,9	2,9	2,9	1,8	3,0	3,0	3,0	3,0	3,1	3,2	3,2	3,3	3,3
1,9	2,7	2,7	2,7	2,7	2,8	2,9	2,9	2,9	3,0	1,9	3,0	3,0	3,0	3,1	3,2	3,2	3,3	3,3	3,3
2,0	2,7	2,7	2,7	2,8	2,9	2,9	2,9	3,0	3,0	2,0	3,0	3,0	3,0	3,1	3,2	3,2	3,3	3,3	3,3
2,2	2,7	2,7	2,8	2,8	2,9	3,0	3,0	3,0	3,0	2,2	3,0	3,0	3,1	3,2	3,2	3,3	3,3	3,3	3,4
2,5	2,7	2,7	2,9	2,9	3,0	3,0	3,0	3,1	3,1	2,5	3,0	3,0	3,2	3,3	3,3	3,3	3,4	3,4	3,4
2,8	2,7	2,8	2,9	3,0	3,0	3,0	3,1	3,1	3,1	2,8	3,0	3,2	3,3	3,3	3,4	3,4	3,4	3,4	3,4
										3,0	3,0	3,2	3,3	3,3	3,4	3,4	3,4	3,4	3,5

Core hole diameters for tapping screw thread ST4,2										Core hole diameters for tapping screw thread ST4,8									
sheet thickness[2]	tensile strength material R_m in N/mm²									sheet thickness[2]	tensile strength material R_m in N/mm²								
	100	150	200	250	300	350	400	450	500		100	150	200	250	300	350	400	450	500
1,4	3,1	3,1	3,1	3,1	3,1	3,1	3,2	3,3	3,4	1,6	3,6	3,6	3,6	3,6	3,6	3,7	3,8	3,9	3,9
1,5	3,2	3,2	3,2	3,2	3,2	3,2	3,2	3,3	3,4	1,7	3,6	3,6	3,6	3,6	3,7	3,8	3,9	3,9	4,0
1,6	3,2	3,2	3,2	3,2	3,2	3,2	3,3	3,4	3,4	1,8	3,6	3,6	3,6	3,6	3,8	3,8	3,9	4,0	4,0
1,7	3,2	3,2	3,2	3,2	3,2	3,3	3,3	3,4	3,4	1,9	3,6	3,6	3,6	3,7	3,8	3,9	3,9	4,0	4,0
1,8	3,2	3,2	3,2	3,2	3,3	3,3	3,4	3,4	3,5	2,0	3,6	3,6	3,6	3,8	3,9	3,9	4,0	4,0	4,1
1,9	3,2	3,2	3,2	3,2	3,3	3,4	3,4	3,4	3,5	2,2	3,6	3,6	3,7	3,9	3,9	4,0	4,0	4,1	4,1
2,0	3,2	3,2	3,2	3,3	3,4	3,4	3,5	3,5	3,5	2,5	3,6	3,7	3,9	4,0	4,0	4,1	4,1	4,1	4,2
2,2	3,2	3,2	3,2	3,3	3,4	3,5	3,5	3,5	3,6	2,8	3,6	3,8	4,0	4,0	4,1	4,1	4,2	4,2	4,2
2,5	3,2	3,2	3,4	3,4	3,5	3,5	3,6	3,6	3,6	3,0	3,7	3,9	4,0	4,1	4,1	4,2	4,2	4,2	4,2
2,8	3,2	3,3	3,4	3,5	3,6	3,6	3,6	3,6	3,6	3,5	3,8	4,0	4,1	4,2	4,2	4,2	4,2	4,2	4,3
3,0	3,2	3,4	3,5	3,5	3,6	3,6	3,6	3,6	3,7	4,0	4,0	4,1	4,2	4,2	4,2	4,2	4,3	4,3	4,3
3,5	3,3	3,5	3,6	3,6	3,6	3,7	3,7	3,7	3,7										

Core hole diameters for tapping screw thread ST5,5										Core hole diameters for tapping screw thread ST6,3									
sheet thickness[2]	tensile strength material R_m in N/mm²									sheet thickness[2]	tensile strength material R_m in N/mm²								
	100	150	200	250	300	350	400	450	500		100	150	200	250	300	350	400	450	500
1,8	4,2	4,2	4,2	4,2	4,3	4,4	4,5	4,6	4,6	1,8	4,9	4,9	4,9	4,9	5,0	5,2	5,3	5,3	5,4
1,9	4,2	4,2	4,2	4,2	4,4	4,5	4,6	4,6	4,7	1,9	4,9	4,9	4,9	5,0	5,1	5,2	5,3	5,4	5,4
2,0	4,2	4,2	4,2	4,3	4,4	4,5	4,6	4,6	4,7	2,0	4,9	4,9	4,9	5,1	5,2	5,3	5,4	5,4	5,5
2,2	4,2	4,2	4,3	4,4	4,5	4,6	4,7	4,7	4,8	2,2	4,9	4,9	5,0	5,2	5,3	5,4	5,5	5,5	5,6
2,5	4,2	4,2	4,4	4,6	4,7	4,7	4,8	4,8	4,8	2,5	4,9	5,0	5,2	5,4	5,4	5,5	5,6	5,6	5,6
2,8	4,2	4,4	4,6	4,7	4,7	4,8	4,8	4,8	4,9	2,8	4,9	5,2	5,3	5,5	5,5	5,6	5,6	5,7	5,7
3,0	4,2	4,5	4,6	4,7	4,8	4,8	4,8	4,9	4,9	3,0	4,9	5,3	5,4	5,5	5,6	5,6	5,7	5,7	5,7
3,5	4,4	4,6	4,7	4,8	4,8	4,9	4,9	4,9	4,9	3,5	5,2	5,4	5,5	5,6	5,7	5,7	5,7	5,7	5,8
4,0	4,6	4,7	4,8	4,9	4,9	4,9	4,9	4,9	5,0	4,0	5,3	5,5	5,6	5,7	5,7	5,7	5,8	5,8	5,8
4,5	4,7	4,8	4,9	4,9	4,9	4,9	5,0	5,0	5,0	4,5	5,5	5,6	5,7	5,7	5,8	5,8	5,8	5,8	5,8
										5,0	5,5	5,7	5,7	5,8	5,8	5,8	5,8	5,8	5,8

Core hole diameters for tapping screw thread ST8									
sheet thickness[2]	tensile strength material R_m in N/mm²								
	100	150	200	250	300	350	400	450	500
2,1	6,3	6,3	6,3	6,3	6,5	6,6	6,7	6,8	6,9
2,2	6,3	6,3	6,3	6,5	6,6	6,8	6,8	6,9	7,0
2,5	6,3	6,3	6,5	6,7	6,8	6,9	7,0	7,0	7,1
2,8	6,3	6,4	6,7	6,8	6,9	7,0	7,1	7,1	7,2
3,0	6,3	6,5	6,8	6,9	7,0	7,1	7,1	7,2	7,2
3,5	6,4	6,8	7,0	7,1	7,1	7,2	7,2	7,3	7,3
4,0	6,7	6,9	7,1	7,2	7,2	7,3	7,3	7,3	7,3
4,5	6,8	7,1	7,2	7,2	7,3	7,3	7,3	7,3	7,4
5,0	7,0	7,1	7,2	7,3	7,3	7,3	7,4	7,4	7,4
5,5	7,1	7,2	7,3	7,3	7,3	7,4	7,4	7,4	7,4
6,0	7,1	7,2	7,3	7,3	7,4	7,4	7,4	7,4	7,4
6,5	7,2	7,3	7,3	7,4	7,4	7,4	7,4	7,4	7,4

[1] These core hole diameter values apply for a simple tapping screw joint with a clearance hole in the upper sheet and a drilled hole in the lower sheet and for uncoated tapping screws.

[2] The minimum sheet thickness has been chosen in such a way that the drive-in torque will not exceed 50 % of the minimum breaking torque according to ISO 2702. This upper limit is about 0,8 of the nominal diameter of the screw e.g. ST4,2 can be used in sheet that is no more than 0,8 x 4,2 = 3,5 mm thick.

Guidelines for the diameter of clearance holes:

The minimum diameter of clearance holes can be calculated using the formula:

$$d_D = d_1 + 1/3(d_1-d_b) \text{ mm}$$

where: d_D = diameter clearance hole
d_1 = nominal diameter of tapping screw thread
d_b = core hole diameter

Example:
The minimum diameter of the clearance hole for a tapping screw with an ST6,3 screw thread in material that is 4 mm thick and that has a tensile strength of 350 N/mm² will be d_D = 6,3 + 1/3(6,3-5,7) = 6,5 mm.

4.2 Core holes for thread forming screws in metals (Taptite 2000®)

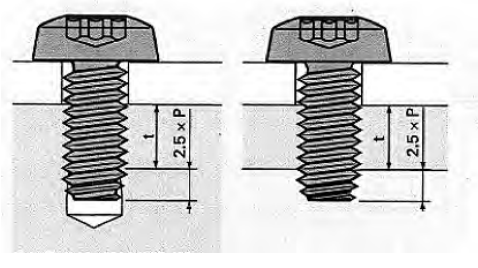
4.2.1 Recommendations for drilled and punched holes in materials in the hardness range up to 150 HB, 500 N/mm²

The core hole diameters (the preffered zone is marked with a color) in below table are determined experimentally by manufacturers and users, dependent on the various types of material, material thicknesses or drive-in depths. These values are **for guidance only.**
Manufacturing processes (e.g. punching) that cause cold work hardening of the pilot hole wall, require a somewhat larger diameter. This may also apply to cast holes (harder casting scale).
Recommended tolerance class for the core holes: H11.

Especially for mass production purposes, it is recommended to perform tests in order to achieve an optimum result with respect to the combination of mechanical properties of the screw, the drive-in depth and the mechanical properties of the material in which the screws are to be mounted. It is recommended to start testing with the smallest advised diameter.

<table>
<tr><th>d</th><th>M2.5</th><th>M3</th><th>M3.5</th><th>M4</th><th>M5</th><th>M6</th><th>M8</th><th>d</th></tr>
<tr><th>Material thickness or drive depth</th><th colspan="6">Hole diameter D_h [mm]</th><th>Material thickness or drive depth</th></tr>
<tr><td>0,8</td><td rowspan="2"></td><td rowspan="2"></td><td rowspan="2"></td><td rowspan="2"></td><td rowspan="3"></td><td rowspan="4"></td><td rowspan="8"></td><td>0,8</td></tr>
<tr><td>0,9</td><td>0,9</td></tr>
<tr><td>1</td><td>2,20</td><td rowspan="3">2,65</td><td rowspan="3">3,15</td><td rowspan="3">3,60</td><td>1</td></tr>
<tr><td>1,2</td><td rowspan="4">2,20
to
2,25</td><td>1,2</td></tr>
<tr><td>1,5</td><td>1,5</td></tr>
<tr><td>1,6</td><td rowspan="3">2,65
to
2,70</td><td rowspan="3">3,15
to
3,20</td><td rowspan="5">3,60
to
3,70</td><td rowspan="3">4,45
to
4,50</td><td>1,6</td></tr>
<tr><td>1,7</td><td>1,7</td></tr>
<tr><td>1,8</td><td rowspan="2">5,25
to
5,30</td><td>1,8</td></tr>
<tr><td>2</td><td rowspan="4">2,25
to
2,30</td><td>2</td></tr>
<tr><td>2,2</td><td>2,2</td></tr>
<tr><td>2,5</td><td rowspan="3">4,50
to
4,55</td><td rowspan="2">5,30
to
5,40</td><td rowspan="2">7,10
to
7,20</td><td>2,5</td></tr>
<tr><td>3</td><td>3</td></tr>
<tr><td>3,2</td><td rowspan="3">2,70
to
2,75</td><td rowspan="3">3,20
to
3,25</td><td rowspan="3">5,40
to
5,45</td><td>3,2</td></tr>
<tr><td>3,5</td><td>3,5</td></tr>
<tr><td>4</td><td rowspan="3">2,25
to
2,30</td><td rowspan="3">7,20
to
7,30</td><td>4</td></tr>
<tr><td>5</td><td rowspan="4">3,65
to
3,70</td><td>5</td></tr>
<tr><td>5,5</td><td rowspan="3">4,55
to
4,65</td><td>5,5</td></tr>
<tr><td>6</td><td rowspan="4"></td><td rowspan="4"></td><td rowspan="4"></td><td rowspan="3">5,45
to
5,65</td><td rowspan="3">7,30
to
7,35</td><td>6</td></tr>
<tr><td>6,5</td><td>6,5</td></tr>
<tr><td>7</td><td>7</td></tr>
<tr><td>7,5</td><td rowspan="3"></td><td rowspan="3"></td><td rowspan="3"></td><td>7,5</td></tr>
<tr><td>8</td><td>8</td></tr>
<tr><td>10</td><td rowspan="2"></td><td rowspan="2"></td><td rowspan="2">10</td></tr>
<tr><td>12</td><td>12</td></tr>
<tr><td>>12-16</td><td rowspan="2"></td><td rowspan="2"></td><td rowspan="2"></td><td rowspan="2"></td><td rowspan="2"></td><td rowspan="2">7,35
to
7,45</td><td>>12-16</td></tr>
<tr><td>>16-20</td><td>>16-20</td></tr>
</table>

Guideline for dimensioning the insertion depth.



Guide values for insertion depths

Steel = 1,5 x d
Aluminium = 2 x d
Zinc = 2 x d
Magnesium = 2,5 x d

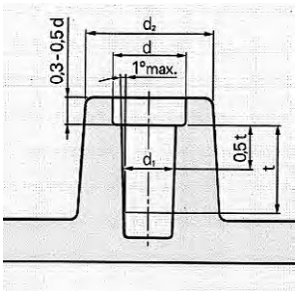
Important note:
The load-bearing thread length is reduced by the length of the tip

For castings, e.g. tapered, cast blind and through holes specific information is available on request.

4.3 Core holes for thread forming screws in plastics (Remform®)

4.3.1 Recommendations for the geometry of holes and bosses for Remform® screws

In principle, the geometry of the boss must conform to below picture.



d nominal srew diameter
d_1 bore diameter
d_2 tube external diameter
t insertion depth

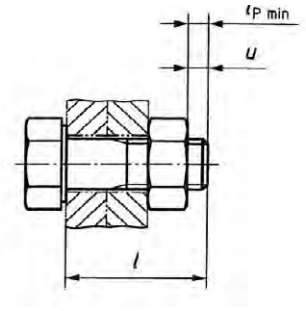
These core hole diameters are determined experimentally using various types of plastics. These values are for guidance only and, especially in mass production, it is recommended that one's own tests be carried out in order to achieve an optimum result with respect to the different mechanical properties (e.g. temperature, load, time, speed).

Screw size Ød	soft																		hard
	Tube geometry	PP	PE-LD/HD	PS	PA6/PA6.6	PBT	PET	ASA/SAN	ABS	POM	ABS/PC	PA6-GF3-	PMMA	PC*	PPE*	PC-GF30*	PBT-GF30*	PET-GF30*
Ø2,0	d1	1,45	1,45	1,45	1,45	1,5	1,5	1,5	1,5	1,5	1,6	1,6	1,6	1,6	1,7	1,7	1,7	1,7
	d2	4,4	4,4	4,4	4,4	4,2	4,2	4,2	4,2	4,2	4,0	4,0	4,0	4,4	4,4	4,4	3,8	3,8
	t	5,0	5,0	5,0	5,0	5,0	5,0	4,5	4,5	4,5	4,5	4,5	4,5	4,0	4,0	4,0	4,0	4,0
Ø2,2	d1	1,6	1,6	1,6	1,6	1,7	1,7	1,7	1,7	1,7	1,8	1,8	1,8	1,8	1,9	1,9	1,9	1,9
	d2	4,9	4,9	4,9	4,9	4,7	4,7	4,7	4,7	4,7	4,4	4,4	4,4	4,9	4,9	4,9	4,2	4,2
	t	5,5	5,5	5,5	5,5	5,5	5,5	5,0	5,0	5,0	5,0	5,0	5,0	4,5	4,5	4,5	4,5	4,5
Ø2,5	d1	1,8	1,8	1,8	1,8	1,9	1,9	1,9	1,9	1,9	2,0	2,0	2,0	2,0	2,1	2,1	2,1	2,1
	d2	5,5	5,5	5,5	5,5	5,3	5,3	5,3	5,3	5,3	5,0	5,0	5,5	5,5	5,5	5,8	4,8	4,8
	t	6,0	6,0	6,0	6,0	6,0	6,0	5,5	5,5	5,5	5,5	5,5	5,5	5,0	5,0	5,0	5,0	5,0
Ø3,0	d1	2,25	2,25	2,25	2,25	2,3	2,3	2,3	2,3	2,3	2,4	2,4	2,4	2,4	2,6	2,6	2,6	2,6
	d2	6,6	6,6	6,6	6,6	6,3	6,3	6,3	6,3	6,3	6,0	6,0	6,0	6,6	6,6	6,6	5,7	5,7
	t	7,0	7,0	7,0	7,0	7,0	7,0	6,5	6,5	6,5	6,5	6,5	6,5	6,0	6,0	6,0	6,0	6,0
Ø3,5	d1	2,6	2,6	2,6	2,6	2,7	2,7	2,7	2,7	2,7	2,8	2,8	2,8	2,8	3,0	3,0	3,0	3,0
	d2	7,8	7,8	7,8	7,8	7,4	7,4	7,4	7,4	7,4	7,0	7,0	7,0	7,8	7,8	7,8	6,7	6,7
	t	8,0	8,0	8,0	8,0	8,0	8,0	7,5	7,5	7,5	7,5	7,5	7,5	7,0	7,0	7,0	7,0	7,0
Ø4,0	d1	2,9	2,9	2,9	2,9	3,0	3,0	3,0	3,0	3,0	3,2	3,2	3,2	3,2	3,4	3,4	3,4	3,4
	d2	9,0	9,0	9,0	9,0	8,5	8,5	8,5	8,5	8,5	8,0	8,0	8,0	9,0	9,0	9,0	7,5	7,5
	t	9,0	9,0	9,0	9,0	9,0	9,0	8,5	8,5	8,5	8,5	8,5	8,5	8,0	8,0	8,0	8,0	8,0
Ø5,0	d1	3,7	3,7	3,7	3,7	3,8	3,8	3,8	3,8	3,8	4,0	4,0	4,0	4,0	4,2	4,2	4,2	4,2
	d2	11,0	11,0	11,0	11,0	10,5	10,5	10,5	10,5	10,5	10,0	10,0	10,0	11,0	11,0	11,0	9,5	9,5
	t	11,0	11,0	11,0	11,0	11,0	11,0	10,5	10,5	10,5	10,5	10,5	10,5	10,0	10,0	10,0	10,0	10,0
Ø6,0	d1	4,3	4,3	4,3	4,3	4,5	4,5	4,5	4,5	4,5	4,8	4,8	4,8	4,8	5,1	5,1	5,1	5,1
	d2	13,5	13,5	13,5	13,5	12,5	12,5	12,5	12,5	12,5	12,0	12,0	12,0	13,5	13,5	13,5	11,5	11,5
	t	13,5	13,5	13,5	13,5	13,5	13,5	13,0	13,0	13,0	13,0	13,0	13,0	12,0	12,0	12,0	12,0	12,0
Ø8,0	d1	5,7	5,7	5,7	5,7	6,0	6,0	6,0	6,0	6,0	6,4	6,4	6,4	6,4	6,8	6,8	6,8	6,8
	d2	17,5	17,5	17,5	17,5	16,5	16,5	16,5	16,5	16,5	16,0	16,0	16,0	17,5	17,5	17,5	15,5	15,5
	t	18,0	18,0	18,0	18,0	18,0	18,0	17,0	17,0	17,0	17,0	17,0	17,0	16,0	16,0	16,0	16,0	16,0

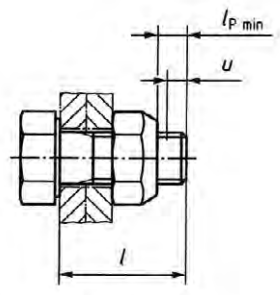
Dimensions in mm. tolerance acc. DIN 16901 *Plastics sensitive for stress cracking

4.4 Length of protrusion of bolt ends (l_p)

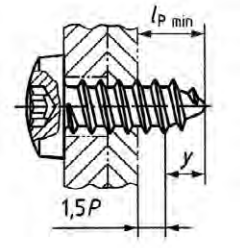
Hexagon nut



Prev. torque nut



Tapping screw



Length of protrusion of the bolt end (l_p) is based on DIN 78 (2013)
For hexagon nuts: $l_{p\ min}$ = 2P + (ISO 4753(2011): u ≥2P)
For prevailing torque nuts: $l_{p\ min}$ = 3P + (ISO 4753(2011): u ≥2P)
The nominal length of bolts, L, is calculated from the clamping length plus the total nut height and the minimum bolt end, $l_{p\ min}$.The calculated values must be rounded off to the next (longer) standardized length.
Length of protrusion for hexagon slotted nuts, see DIN 34803

y according DIN-EN-ISO 1478 (1999)

	Type	ST2,2	ST2,9	ST3,5	ST3,9	ST4,2	ST4,8	ST5,5	ST6,3
y	C	2,0	2,3	3,2	3,5	3,7	4,3	5,0	6,0
	F	1,6	1,8	2,5	2,7	2,8	3,2	3,6	3,6
	R	--	--	2,7	3,0	3,2	3,6	4,3	5,0

4.5 Drill sizes before tapping screw threads

4.5.1 General notes

These drill sizes are guide values for core hole diameters for tapping screw thread.
The tolerance limits of the screw thread must not be exceeded. Depending on material, tools and manufacturing method it may be necessary to deviate from these guide values and to determine the actual drill size experimentally. For metric and unified screw threads (ISO–profile), in principle the following formula applies: drill size = nominal screw thread size - pitch, if necessary rounded off.

4.5.2 Drill sizes Metric (ISO) screw thread - coarse - M

Based on ISO 2306 (1972). Dimensions in mm.

screw thread size	drill size
M1	0,75
M1,1	0,85
M1.2	0,95
M1.4	1,1
M1.6	1,25
M1,8	1,45
M2	1,6

screw thread size	drill size
M2,2	1,75
M2.5	2,05
M3	2,5
M3.5	2,9
M4	3,3
M4,5	3,7
M5	4,2

screw thread size	drill size
M6	5
M7	6
M8	6,8
M9	7,8
M10	8,5
M11	9,5
M12	10,2

screw thread size	drill size
M14	12
M16	14
M18	15,5
M20	17,5
M22	19,5
M24	21
M27	24

screw thread size	drill size
M30	26,5
M33	29,5
M36	32
M39	35
M42	37,5
M45	40,5
M48	43

screw thread size	drill size
M52	47
M56	50,5
M60	54,5
M64	58
M68	62

4.5.3 Drill sizes Metric (ISO) screw thread - fine - MF

Based on ISO 2306 (1972). Dimensions in mm.

thread size x pitch	drill size
M3 x 0,35	2,65
M3,5 x 0,35	3,15
M4 x 0,5	3,5
M4,5 x 0,5	4

thread size x pitch	drill size
M5 x 0,5	4,5
M6 x 0,75	5,2
M8 x 1	7
M10 x 1	9

thread size x pitch	drill size
M10 x 1,25	8,8
M12 x 1	11
M12 x 1,25	10,8
M12 x 1,5	10,5

thread size x pitch	drill size
M14 x 1,5	12,5
M16 x 1,5	14,5
M18 x 1,5	16,5
M18 x 2	16

thread size x pitch	drill size
M20 x 1,5	18,5
M20 x 2	18
M22 x 1,5	20,5
M22 x 2	20

thread size x pitch	drill size
M24 x 1,5	22,5
M24 x 2	22
M27 x 1,5	25,5
M27 x 2	25

4.5.4 Drill sizes Whitworth parallel pipe thread – G

Based on ISO 2306 (1972). Dimensions in mm.

screw thread size x threads/inch	drill size
G⅛ x 28	8,8
G¼ x 19	11,8
G⅜ x 19	15,25
G½ x 14	19

screw thread size x threads/inch	drill size
G⅝ x 14	21
G¾ x 14	24,5
G⅞ x 14	28,25
G1 x 11	30,75

screw thread size x threads/inch	drill size
G1⅛ x 11	35,3
G1¼ x 11	39,5
G1½ x 11	45
G1¾ x 11	51

4.6 Width across flats according to ISO

The width across flats of some ISO-standardized hexagon nuts and bolts have changed compared to the obsolete DIN-standards. This only concerns fasteners with thread diameter M10, M12, M14 and M22.

Comparison of DIN and ISO widths across flats in the table below is based on ISO 272 (1982).

Dimensions in mm.

Basic diameter	M10	M12	M14	M22
Width across flats according to DIN	17	19	22	32
Width across flats according to ISO 272	16	18	21	34

5 Surface coatings for fasteners

5.1 Introduction

According to DIN 50900-1, corrosion of a metal is a reaction of this material with its environment that results in a measurable change of the metal and which can lead to a lower performance of the metal part or a complete system.

Several types of corrosion exist.
Some types of corrosion appear without the effect of a mechanical load on the product: surface corrosion, pitting, crevice corrosion, galvanic corrosion, chemical corrosion.
Others are initiated due to a combination with mechanical load: stress corrosion cracking, erosion.

The corrosion resistance of a coating is often expressed in a number of hours until white (zinc corrosion) or red (base metal corrosion) corrosion in a salt spray test acc. ISO 9227. Salt spray testing is a method to check wether the comparative quality of a corrosion protection is maintained. There is however seldom a direct relation between resistance to the action of salt spray and resistance to corrosion in other media, because several factors influencing the progress of corrosion vary greatly with the conditions encountered. Therefore the performance of different coating types during such corrosion test should not be taken as a direct guide to the corrosion resistance in service.

Several measures can be taken to prevent or delay corrosion of fasteners, such as proper design of the fastening, proper choice of materials, application of a suitable coating system.
In the table section of this manual, one can find a Contact corrosion table and a Chemical corrosion table which can be a first help to determine an acceptable material type in a corrosive environment.

This chapter only handles surface coatings which are suitable for fasteners.

5.1.1 Overview of coating systems

Coatings can be divided into metallic and non-metallic systems.

Metallic (inorganic) coatings:
- Electrolytical applied coatings (acc. ISO 4042) such as zinc, zinc-iron, nickel, ...
- Chemical (electroless) plating: chemical nickel plating
- Hot dip galvanized (ISO 10684): thick coating of zinc, applied by dipping in melted zinc
- Diffusion coatings: metal powder applied at elevated temperature (sherardizing, chromating)
- Mechanical plating (ISO 12683): zinc powder mechanically applied
- Dispersion coatings(ISO 10683): zincflakes applied in a dispersive solution

Non-metallic coatings:
- Oil: generally applied on plain fasteners to reduce risk of corrosion during storage
- Black oxidized: not a real coating, conversion of the steel surface to iron oxide by immersion in a hot alkaline liquid
- Phosphating (ISO 3892): chemically applied zinc- of manganesephosphate coating, normally combined with oil to give some corrosion protection
- Chromate passivation (EN12329): supplementary coating on e.g. zinc to further improve its corrosion resistance
- Thin lacquer coatings: several coatings such as PTFE, Teflon, KTL

Most often applied on fasteners are “active” coatings. Such coatings (e.g. zinc) provide “cathodical” protection, which means that the coating will sacrifice in favour of the metal to be protected. The advantage of active coatings is that even with small damages they will delay severe base metal corrosion.

“Passive” coatings are those that seal the material from the environment, e.g. Teflon. Such coatings have the disadvantage that corrosion wll proceed rapidly once the coating is damaged.

Sometimes a combination of coatings is applied, often called “duplex coating”.

5.1.2 Coating thickness limits

The degree of protection against corrosion is generally proportional to the thickness of the applied coating. For threaded fasteners the maximum layer thickness that can be applied depends on the allowance between the maximum size of the external thread and the minimum size of the internal thread. To prevent the nut/bolt thread seizing during assembly, the maximum nominal layer thickness should not exceed ¼ of this allowance.

The table below (acc ISO 4042) provides the allowance and maximum layer thickness for each pitch.
Most coatings have a thickness that may vary depending on the location on the fastener. For electroplated coatings, ISO 4042 has defined the relationship between length/diameter ratio and the maximum coating thickness.

External thread						
Pitch P	Nominal thread diameter d[1]	Tolerance position g				
		Fundamental allowance	Nominal maximum layer thickness			
			[2]	[3]		
			All nominal lengths	Nominal length L		
				L≤5d	5d<L≤10d	10d<L≤15d
	mm	µm	µm	µm	µm	µm
0,2		-17	3	3	3	3
0,25	1; 1,2	-18	3	3	3	3
0,3	1,4	-18	3	3	3	3
0,35	1,6 (1,8)	-19	3	3	3	3
0,4	2	-19	3	3	3	3
0,45	2,5 (2,2)	-20	5	5	3	3
0,5	3	-20	5	5	3	3
0,6	3,5	-21	5	5	3	3
0,7	4	-22	5	5	3	3
0,75	4,5	-22	5	5	3	3
0,8	5	-24	5	5	3	3
1	6 (7)	-26	5	5	3	3
1,25	8	-28	5	5	5	3
1,5	10	-32	8	8	5	5
1,75	12	-34	8	8	5	5
2	16 (14)	-38	8	8	5	5
2,5	20 (18; 22)	-42	10	10	8	8
3	24 (27)	-48	12	12	8	8
3,5	30 (33)	-53	12	12	10	8
4	36 (30)	-60	15	15	12	10
4,5	42 (45)	-63	15	15	12	10
5	48 (52)	-71	15	15	12	10
5,5	56 (60)	-75	15	15	15	12
6	64	-80	20	20	15	12

[1] This information concerning coarse screw threads is only provided for reasons of convenience. The pitch is normative.

[2] Maximum nominal layer thicknesses for local measurement.

[3] Maximum nominal layer thicknesses if a measurement based on the average layer thickness of a batch is agreed in accordance with the method shown in ISO 4042, annex B.

5.1.3 Hydrogen embrittlement

When atomic hydrogen enters steel, it can cause catastrophic brittle cracking at applied stresses well below the yield strength. This phenomenon is often referred to as hydrogen induced delayed brittle failure or hydrogen embrittlement. Typical is that failure due to hydrogen embrittlement occurs a few hours or days after assembly.
Hydrogen can be introduced during several treatments such as cleaning, pickling, electroplating...but also in the service environment as a result of cathodic protection reactions or corrosion reactions.

Hydrogen embrittlement is most likely to occur in products:

- With tensile strength ≥ 1000 N/mm^2
- With a hardness ≥ 320 HV
- That are case hardened.

In order to reduce the risk of failure by hydrogen embrittlement, susceptible parts shall be baked within 4 hours after electroplating and before passivation to a part temperature of 200°C to 230°C. Nevertheless a guarantee cannot be given that parts are free of brittleness after such baking treatment.
Especially for very high tensile screws, such as class 12.9, it is strongly desencouraged to apply coatings that carry a risk for H-embrittlement (e.g. electroplating).
Standard coatings that are generally with low risk for H-embrittlement: zinc flake coatings, hot dip galvanized.

5.1.4 European directives RoHS and ELV

RoHS or RoHS II: Restriction on the use of Hazardous Substances (European Directive 2011/65/EU).
ELV: End of Live Vechicles (European Directive 2000/53/EC).
Both directives restrict the use of lead (Pb), mercury (Hg), cadmium (Cd) and hexavalent chromium (Cr^{6+}).
RoHS II restricts also on Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDF). RoHS is applicable to electric and electronic equipment, while ELV affects passenger cars.

Particularly the restriction on Cr^{6+} is of importance for fastener coatings, as popular passivation layers such as yellow and black passivation, but also the zincflake coating Dacromet, contain an unacceptable high level of this substance. It is expected that in the near future Cr^{6+} coatings will be banned in Europe.

As for standard stock parts, Fabory has a broad assortment of Cr^{6+}-free coated fasteners mainly

- Electrozinc plated, white passivated (Cr^{3+})
- Zinc flake coating flZn/nc/L/600h

On demand also many other Cr^{6+}-free coatings are available.

Care is to be taken for the use of lead (Pb) in some types of steel and brass, depending if the exemptions granted in the RoHS legislation will be continued after their expiration mid 2016.

5.2 Electroplating

An electroplated coating is a metallic layer that is deposited onto the surface of metal parts by immersing them in a solution containing an electrolyte and through which an electric current is passed.

The requirements for electroplated coatings on fasteners are defined in ISO 4042:1999. This edition of the ISO standard does not take into account the restrictions by various EU legislations. A new edition of ISO 4042 is being prepared, which will define also electroplated coatings that are free of hazardous substances as defined in e.g. RoHS.
A coding system can be used to define the coating metal, its thickness and the passivation layer.
The code consists of two capitals and a number in between.

- Code letter for the coating metal
- Code number for the minimum layer thickness
- Code letter for the type of passivation on top of the coating metal.

Code letter for the coating metal:

code letter	coating metal	chemical symbol
A	Zinc	Zn
B	Cadmium	Cd
C	Copper	Cu
D	Brass	CuZn
E	Nickel	Ni
F	Nickel–Chromium[1]	NiCr
G	Copper-Nickel	CuNi
H	Copper-Nickel–Chromium[1]	CuNiCr
J	Tin	Sn
K	Copper–Tin	CuSn
L	Silver	Ag
N	Copper–Silver	CuAg
P	Zinc-nickel	ZnNi
Q	Zinc-cobalt	ZnCo
R	Zinc-iron	ZnFe

[1]Thickness of chrome layer ≈ 0.3µm.

Code number for the coating thickness:

code number	minimum layer thickness (coating structure) in µm	
	1 coating metal	2 coating metals
0 [2]	-	-
1	3	-
2	5	2+3
3	8	3+5
4	12	4+8
5	15	5+10
6	20	8+12
7 [3]	25	10+15
8 [3]	30	12+18
[2] Code number 0 applies to screw threads below M1.6 where no specific layer thickness can be specified.		
[3] Does not apply to threaded components.		

Code letter for the chromate passivation layer:

code letter	finish	colour of the chromate passivation
A	dull	no colour
B		bluish to bluish iridescent [1]
C		yellowish to yellowish-brown, iridescent
D		olive green to olive brown
E	semi-bright	no colour
F		bluish to bluish iridescent [1]
G		yellowish to yellowish-brown, iridescent
H		olive green to olive brown
J	bright	no colour
K		bluish to bluish iridescent [1]
L		yellowish to yellowish-brown, iridescent
M		olive green to olive brown
N	high bright	no colour
P	optional	like method B, C or D
R	dull	brownish black to black
S	semi-bright	
T	bright	
[1] Applies to Zn coating only		

Example of coding: A3L

"A" means zinc-plated
"3" indicates the layer thickness of at least 8 µm
"L" refers to yellow chromatizing with a degree of gloss equal to "bright"

Example of designation: hexagon bolt ISO 4014 – M16 x 60 – 8.8 – A3L.

As a result of RoHS/ELV legislation and the high requirements of automotive industry for the corrosion resistance of Cr^{6+}-free coatings, other passivation coatings and seals have been developed that are not yet standardized. More information can be requested at Fabory.

5.3 Hot dip galvanizing

Hot dip galvanized is defined as a protective zinc layer deposited onto the surface of steel parts, by immersing them in liquid zinc. Threaded parts generally need a spinning process immediately after the dip process. ISO 10684 (formerly DIN 267-10) specifies the material, process, dimensional and performance requirements for hot dip galvanized coatings applied to coarse thread steel fasteners from M8 up to M64.
Due to its high corrosion resistance in outdoor environment, hot dip galvanizing is the most applied coating system for fasteners in steel construction and building industry.

Internal thread is normally cut after the hot dip galvanizing process and is thus normally not coated. After assembly the internal thread is protected against corrosion by the hot dip galvanized external thread of the mating bolt.
The hot dip galvanizing of fasteners property class 10.9 involves specific procedures in order to prevent hydrogen embrittlement and microcracks in bolts ≥ M27.

Coating thickness: minimum 40 µm.
Due to the thickness of the coating, being more than the normal allowance between 6g and 6H thread tolerance class, special measures must be taken:

1. “Oversize thread” system:
   Standard bolts with thread tolerance class 6g are hot dip galvanized and become “oversize” thread. These bolts have to be combined with nuts that have been tapped “oversize” (about 0.3 mm larger) after galvanizing. Therefore, they are not the usual thread fit. These bolts and nuts must be used as a set. This combination is usually employed and is recommended.

2. ISO-thread system:
   For the second method, in accordance with ISO 10684, the thread size after hot dip galvanizing complies with ISO 965-1 class 6h/6H. Before hot dip galvanizing the external thread must therefore be thinner than the normal tolerance class 6g (undersized thread). This means that the bolts after hot dip galvanizing have to meet the tolerance position 6h. These ”ISO metric” hot dip galvanized bolts must be mated with nuts that have been normally tapped after galvanizing and so must meet the go-gauge with tolerance position 6H. This method creates the usual thread fit and can therefore be used with nuts or in tapped holes that have the standard ISO metric thread.

Important remarks:
Care must be taken not to mix bolts and nuts of the “oversize thread “system with “ISO-thread” system, as failure of the fastening is inevitable!
Attention is drawn to the fact that the proof loads of oversize tapped nuts and the proof loads of undersized threaded bolts and screws can be reduced as compared to the values specified in ISO 898-2 and ISO 898-1 respectively.

5.4 Zinc flake coatings

A zinc flake coating (acc. ISO 10683) is a non-electrolytically applied coating which is produced by applying to the surface of a fastener a zinc flake dispersion, possibly with the addition of aluminum flakes. A suitable medium generates a bonding amongst the flakes and also between flakes and steel through heat curing. The thus formed inorganic surface coating is electrically conducting and ensures cathodic protection.

Compared to most electro zinc coatings, these zinc flake treatments offer a much higher corrosion resistance, without risk for hydrogen embrittlement.

ISO 10683 defines zinc flake coatings both with or without Cr^{6+}. The standard assortment of Fabory is the chromium-free type of zinc flake coating. This is indicated in the ISO-standard as flZn/nc (fl = flake, Zn = Zinc, nc = no chrome).

The corrosion resistance of zinc flake coatings overperform conventional electro zinc plating by a multiple, with a comparable coating thickness. For its standard assortment, Fabory has chosen for a corrosion resistance of 480 hours for smaller thread diameters and 600 hours for the bigger sizes (>M8). The latter is specified in the ISO-standard as flZn/nc/600h.

Often neglected when specifying a coating, is the coefficient of friction. In most applications threaded fasteners must be tightened until a minimum clamping force is reached, without overloading nor the clamped parts, nor the fasteners themselves. Often this tightening process is controlled by a specified torque. Fabory has decided to choose for a lubricated zinc flake coating, with a coefficient of friction that is close to that of plain and normal zinc plated fasteners: μ_{tot} = 0,12 – 0.18. The application of a lubricant is indicated with “L”.

The zinc flake coatings selected for the standard Fabory assortment are specified compliant to ISO 10683 as “flZn/nc/L/480h” for fasteners up to M8 and as “flZn/nc/L/600h” for bigger sizes.

6 Inspection documents for fasteners

6.1 Test reports and certificates EN 10204

Originally inspection documents (certificate types) were specified in standard DIN 50049. The definitions of material testing and certificate types in DIN 50049 were the basis for European standard EN 10204, which was first published in 1991.
Both DIN 50049 and EN 10204 defined the certificate types 2.1, 2.2, 2.3, 3.1A, 3.1B, 3.1C and 3.2.

EN 10204 was last revised in 2004 with a simplified range of inspection documents (certificate types).
These now only include types 2.1, 2.2, 3.1 and 3.2.
Type 2.3 has been deleted.
Type 3.1 replaces 3.1B
Type 3.2 replaces 3.1A, 3.1C and 3.2 of the previous edition.

The table below shows the full range of current (C= edition 2004) and withdrawn (W=edition 1995) EN 10204 certificate types, with some interpretation of what they cover.

Certificate type	Title	Status	Summary of EN10204 requirements	Notes
2.1	Declaration of compliance with the order	C	Statement of compliance with the order by the manufacturer.	No test results shown.
2.2	Test report	C	Statement of compliance with the order by the manufacturer based on non-specific inspections (tests) by the manufacturer.	Sample test results from another lot number, manufactured by the same process route, can be used.
2.3	Specific test report	W	With mention of test results from specific inspection and testing	Test results of the supplied lot number are needed on the certificate. Certificate issued and signed by manufacturer's representative, who does not need to be independent of the manufacturing department.
3.1	Inspection certificate	C	Statement of compliance with the order by the manufacturer with results of specific inspection	Replaces 3.1B. Common certificate type issued for the supplied lot number. Cert. issued and signed by manufacturer's representative, who must be independent of the manufacturing department. E.g. Inspection department manager/supervisor.
3.1A	Inspection certificate 3.1A	W	With mention of test results from specific inspection and testing	Test results for supplied lot number. Cert. issued by independent inspector required by releasing authority (eg TUV for German pressure vessels). Replaced by 3.2 in 2004
3.1B	Inspection certificate 3.1B	W	With mention of test results from specific inspection and testing	Test results for supplied lot number. Cert. issued and signed by manufacturer's representative. Replaced by 3.1 in 2004
3.1C	Inspection certificate 3.1C	W	With mention of test results from specific inspection and testing	Test results for supplied lot number. Cert. issued by independent inspector appointed by customer (eg Lloyds, accredited laboratory). Replaced by 3.2 in 2004
3.2	Inspection certificate	C	Statement of compliance with order with indication of results of specific inspection	Test results for supplied lot number. Cert. issued by both manufacturer's representative and an independent inspector appointed either by the customer (cf withdrawn 3.1C) or an inspector designated by official regulations (cf withdrawn 3.1A). ie 3.2 now covers scope of both 3.1A and 3.1C of previous edition.

The laboratory of Fabory is accredited according ISO/IEC 17025 as an independent testing laboratory for mechanical testing of fasteners, including chemical analyses. Inspection certificates issued by the laboratory are according EN 10204 (1995) type 3.1.C.

ACCREDITED
Testing Laboratory Certificate No.: 931.01

6.2 PPAP documents

PPAP is an acronym for “Production Part Approval Process” and is usually pronounced “pee-pap”.
The primary purpose of PPAP quality related documentation is to verify a manufacturer’s ability to produce and to consistently provide an automotive part that fully complies with purchase order requirements.

The PPAP system is unique to the automotive industry, however some other industries also are making use of it. The large amount of documentation is necessary to reduce the likelihood of an automotive part failure, which can reduce vehicle safety, vehicle reliability and customer satisfaction as well as interrupt new vehicle production.

Several PPAP Submission Levels are defined in the PPAP manual, published by the Automotive Industry Action Group (AIAG).
Five PPAP Submission Levels exist:
Level 1: Part Submission Warrant (PSW) only.
Level 2: PSW with product samples and limited supporting data.
Level 3: PSW with procuct samples and complete supporting data.
Level 4: PSW and other requirements as defined by the customer.
Level 5: PSW with product samples and complete supporting data available for review at the manufacturing location.

Generally a “Level 3” is required, for which the manufacturer must address an extensive list of topics:

- Design records
- Engineering changes
- Engineering approvals
- Design Failure Mode and Effects Analyses (DFMEA)
- Process flow diagrams
- Process Failure Mode and Effects Analysis (PFMEA)
- Control plan
- Measurement system analysis studies
- Dimensional results
- Material performance test results
- Initial process studies
- Qualified laboratory documentation
- Appearance Approval Report (if applicable)
- Sample product
- Records of compliance with customer-specific requirements
- Part Submission Warrant (PSW)

For (ISO, DIN, ...) standardized parts and in agreement with the customer, often the number of topics can be reduced significantly. Although generally PPAP documents must be set up by the manufacturer – by specific order - a customer can agree with Fabory to create a reduced PPAP by its accredited laboratory.

PPAP submissions generally are valid until a design or process change is made to a part by the manufacturer.

6.3 CE-certification

A large number of industrial products must be produced by a CE-certified manufacturer or given a CE mark. In the course of time, the number of products that require CE marking will be extended further.

The CE mark indicates that the product satisfies the European fundamental health and safety requirements required to bring the product to the market. These minimum requirements are listed in the European Guidelines. The Guidelines do not contain the detailed technical specifications of the products. These technical specifications have been included in – mostly European - standards for many products.

Fasteners for which CE-marking is required:

Due to Machinery directive (2006/42/EC):
DIN 580 resp. DIN 582: Lifting eye bolts and -nuts if used as lifting equipment.

Due to Construction Products Directive (89/106/EEC):
EN 14399: High-strength structural bolting assemblies for preloading.
EN 15048: Non-preloaded structural bolting assemblies.

For fasteners according to this Directive a Declaration of Performance (DoP) and a certificate according EN 10204 type 3.1 are available.

7 Directions for the design and assembly of fastenings

In order to ensure that threaded fastenings fulfil their function and do not work loose or fail, carefull selection of the fasteners and the assembly method must be made for each individual application.
Below information is based on the guideline VDI 2230:2003 “Systematic calculation of high duty bolted joints”. Depending on the real assembly situation, it may be necessary to further investigate on the design and assembly directions.

Attention: For constructions that are covered by EN 1090, structural bolting (preloaded or non-preloaded) is to be assembled according to the methods described in the national editions of the European standards EN 1090 or EN 1993. Depending on the country, supplementary requirements may be applicable.

7.1 Tightening torque tables for steel bolted joints

7.1.1 Assembly preload / tightening torques - coarse pitch

The table on the next page applies to shank bolts with metric thread according to ISO 262, head dimensions of hexagon bolts as per ISO 4014 – 4018 respectively hexagon (hexalobular) socket screws as per ISO 4762, and in clearance holes “medium” according EN 20273.
Recommendations for tightening torqueses for other products different from the above mentioned standards and conditions (e.g. similar looking DIN specified products) **can not** be taken from this table and are available on request.

Nom. diameter	Property class	Assembly preload in N for μ_G =							Tightening torques M_A in Nm for $\mu_K = \mu_G$ =						
		0,08	0,10	0,12	0,14	0,16	0,20	0,24	0,08	0,10	0,12	0,14	0,16	0,20	0,24
M4	8.8	4 600	4 500	4 400	4 300	4 200	3 900	3 700	2,3	2,6	3,0	3,3	3,6	4,1	4,5
	10.9	6 800	6 700	6 500	6 300	6 100	5 700	5 400	3,3	3,9	4,6	4,8	5,3	6,0	6,6
	12.9	8 000	7 800	7 600	7 400	7 100	6 700	6 300	3,9	4,5	5,1	5,6	6,2	7,0	7,8
M5	8.8	7 600	7 400	7 200	7 000	6 800	6 400	6 000	4,4	5,2	5,9	6,5	7,1	8,1	9,0
	10.9	11 100	10 800	10 600	10 300	10 000	9 400	8 800	6,5	7,6	8,6	9,5	10,4	11,9	13,2
	12.9	13 000	12 700	12 400	12 000	11 700	11 000	10 300	7,6	8,9	10,0	11,2	12,2	14,0	15,5
M6	8.8	10 700	10 400	10 200	9 900	9 600	9 000	8 400	7,7	9,0	10,1	11,3	12,3	14,1	15,6
	10.9	15 700	15 300	14 900	14 500	14 100	13 200	12 400	11,3	13,2	14,9	16,5	18,0	20,7	22,9
	12.9	18 400	17 900	17 500	17 000	16 500	15 500	14 500	13,2	15,4	17,4	19,3	21,3	24,2	26,8
M7	8.8	15 500	15 100	14 800	14 400	14 000	13 100	12 300	12,6	14,8	16,8	18,7	20,5	23,6	26,2
	10.9	22 700	22 500	21 700	21 100	20 500	19 300	18 100	18,5	21,7	24,7	27,5	30,1	34,7	38,5
	12.9	26 600	26 000	25 400	24 700	24 000	22 600	21 200	21,6	25,4	28,9	32,2	35,2	40,6	45,1
M8	8.8	19 500	19 100	18 600	18 100	17 600	16 500	15 500	18,5	21,6	24,6	27,3	29,8	34,3	38,0
	10.9	28 700	28 000	27 300	26 600	25 800	24 300	22 700	27,2	31,8	36,1	40,1	43,8	50,3	55,8
	12.9	33 600	32 800	32 000	31 100	30 200	28 400	26 600	31,8	37,2	42,2	46,9	51,2	58,9	65,3
M10	8.8	31 000	30 300	29 600	28 800	27 900	26 300	24 700	36	43	48	54	59	68	75
	10.9	45 600	44 500	43 400	42 200	41 000	38 600	36 200	53	63	71	79	87	100	110
	12.9	53 300	52 100	50 800	49 400	48 000	45 200	42 400	62	73	83	93	101	116	129
M12	8.8	45 200	44 100	43 000	41 900	40 700	38 300	35 900	63	73	84	93	102	117	130
	10.9	66 300	64 800	63 200	61 500	59 800	56 300	52 800	92	108	123	137	149	172	191
	12.9	77 600	75 900	74 000	72 000	70 000	65 800	61 800	108	126	144	160	175	201	223
M14	8.8	62 000	60 600	59 100	57 500	55 900	52 600	49 300	100	117	133	148	162	187	207
	10.9	91 000	88 900	86 700	84 400	82 100	77 200	72 500	146	172	195	218	238	274	304
	12.9	106 500	104 100	101 500	98 800	96 000	90 400	84 800	171	201	229	255	279	321	356
M16	8.8	84 700	82 900	80 900	78 800	76 600	72 200	67 800	153	180	206	230	252	291	325
	10.9	124 400	121 700	118 800	115 700	112 600	106 100	99 600	224	264	302	338	370	428	477
	12.9	145 500	142 400	139 000	135 400	131 700	124 100	116 600	262	309	354	395	433	501	558
M18	8.8	107 000	104 000	102 000	99 000	96 000	91 000	85 000	220	259	295	329	360	415	462
	10.9	152 000	149 000	145 000	141 000	137 000	129 000	121 000	314	369	421	469	513	592	657
	12.9	178 000	174 000	170 000	165 000	160 000	151 000	142 000	367	432	492	549	601	692	769
M20	8.8	136 000	134 000	130 000	127 000	123 000	116 000	109 000	308	363	415	464	509	588	655
	10.9	194 000	190 000	186 000	181 000	176 000	166 000	156 000	438	517	592	661	725	838	933
	12.9	227 000	223 000	217 000	212 000	206 000	194 000	182 000	513	605	692	773	848	980	1092
M22	8.8	170 000	166 000	162 000	158 000	154 000	145 000	137 000	417	495	567	634	697	808	901
	10.9	242 000	237 000	231 000	225 000	219 000	207 000	194 000	595	704	807	904	993	1 151	1 284
	12.9	283 000	277 000	271 000	264 000	257 000	242 000	228 000	696	824	945	1057	1 162	1 347	1 502
M24	8.8	196 000	192 000	188 000	183 000	178 000	168 000	157 000	529	625	714	798	875	1 011	1 126
	10.9	280 000	274 000	267 000	260 000	253 000	239 000	224 000	754	890	1 017	1 136	1 246	1 440	1 604
	12.9	327 000	320 000	313 000	305 000	296 000	279 000	262 000	882	1 041	1 190	1 329	1 458	1 685	1 877
M27	8.8	257 000	252 000	246 000	240 000	234 000	220 000	207 000	772	915	1 050	1 176	1 292	1 498	1 672
	10.9	367 000	359 000	351 000	342 000	333 000	314 000	295 000	1 100	1 304	1 496	1 674	1 840	2 134	2 381
	12.9	429 000	420 000	410 000	400 000	389 000	367 000	345 000	1 287	1 526	1 750	1 959	2 153	2 497	2 787
M30	8.8	313 000	307 000	300 000	292 000	284 000	268 000	252 000	1 053	1 246	1 428	1 597	1 754	2 931	2 265
	10.9	446 000	437 000	427 000	416 000	405 000	382 000	359 000	1 500	1 775	2 033	2 274	2 498	2 893	3 226
	12.9	522 000	511 000	499 000	487 000	474 000	447 000	420 000	1 755	2 077	2 380	2 662	2 923	3 386	3 775
M33	8.8	389 000	381 000	373 000	363 000	354 000	334 000	314 000	1 415	1 679	1 928	2 161	2 377	2 759	3 081
	10.9	554 000	543 000	531 000	517 000	504 000	475 000	447 000	2 015	2 392	2 747	3 078	3 385	3 930	4 388
	12.9	649 000	635 000	621 000	605 000	589 000	556 000	523 000	2 358	2 799	3 214	3 601	3 961	4 598	5 135
M36	8.8	458 000	448 000	438 000	427 000	415 000	392 000	368 000	1 825	2 164	2 482	2 778	3 054	3 541	3 951
	10.9	652 000	638 000	623 000	608 000	591 000	558 000	524 000	2 600	3 082	3 535	3 957	4 349	5 043	5 627
	12.9	763 000	747 000	729 000	711 000	692 000	653 000	614 000	3 042	3 607	4 136	4 631	5 089	5 902	6 585
M39	8.8	548 000	537 000	525 000	512 000	498 000	470 000	443 000	2 348	2 791	3 208	3 597	3 958	4 598	5 137
	10.9	781 000	765 000	748 000	729 000	710 000	670 000	630 000	3 345	3 975	4 569	5 123	5 637	6 549	7 317
	12.9	914 000	895 000	875 000	853 000	831 000	784 000	738 000	3 914	4 652	5 346	5 994	6 596	7 664	8 562

7.1.2 Assembly preload / tightening torques - fine pitch

The table below applies to shank bolts with fine metric thread according to ISO 262, head dimensions of hexagon bolts as per ISO 4014 – 4018 respectively hexagon (hexalobular) socket screws as per ISO 4762, and in clearance holes “medium” according EN 20273. Recommendations for tightening torqueses for other products different from the above mentioned standards and conditions (e.g. similar looking DIN specified products) **can not** be taken from this table and are available on request.

Nom. diameter	Property class	Assembly preload F_M in N for μ_G =							Tightening torques M_A in Nm for $\mu_K = \mu_G$ =						
		0,08	0,10	0,12	0,14	0,16	0,20	0,24	0,08	0,10	0,12	0,14	0,16	0,20	0,24
M8x1	8.8	21 200	20 700	20 200	19 700	19 200	18 100	17 000	19,3	22,8	26,1	29,2	32,0	37,0	41,2
	10.9	31 100	30 400	29 700	28 900	28 100	26 500	24 900	28,4	33,5	38,3	42,8	47,0	54,3	60,5
	12.9	36 400	35 600	34 700	33 900	32 900	31 000	29 100	33,2	39,2	44,9	50,1	55,0	63,6	70,8
M9x1	8.8	27 700	27 200	26 500	25 900	25 200	23 700	22 300	28,0	33,2	38,1	42,6	46,9	54,4	60,7
	10.9	40 700	39 900	39 000	38 000	37 000	34 900	32 800	41,1	48,8	55,9	62,6	68,8	79,8	89,1
	12.9	47 700	46 700	45 600	44 400	43 300	40 800	38 400	48,1	57,0	65,4	73,3	80,6	93,4	104,3
M10x1	8.8	35 200	34 500	33 700	32 900	32 000	30 200	28 400	39	46	53	60	66	76	85
	10.9	51 700	50 600	49 500	48 300	47 000	44 400	41 700	57	68	78	88	97	112	125
	12.9	60 400	59 200	57 900	56 500	55 000	51 900	48 800	67	80	91	103	113	131	147
M10x1,25	8.8	33 100	32 400	31 600	30 800	29 900	28 200	26 500	38	44	51	57	62	72	80
	10.9	48 600	47 500	46 400	45 200	44 000	41 400	38 900	55	65	75	83	92	106	118
	12.9	56 800	55 600	54 300	52 900	51 400	48 500	45 500	65	76	87	98	107	124	138
M12x1,25	8.8	50 100	49 100	48 000	46 800	45 600	43 000	40 400	66	79	90	101	111	129	145
	10.9	73 600	72 100	70 500	68 700	66 900	63 200	59 400	97	116	133	149	164	190	212
	12.9	86 200	84 400	82 500	80 400	78 300	73 900	69 500	114	135	155	174	192	222	249
M12x1,5	8.8	47 600	46 600	45 500	44 300	43 100	40 600	38 200	64	76	87	97	107	123	137
	10.9	70 000	68 500	66 800	65 100	63 300	59 700	56 000	95	112	128	143	157	181	202
	12.9	81 900	80 100	78 200	76 200	74 100	69 800	65 600	111	131	150	167	183	212	236
M14x1,5	8.8	67 800	66 400	64 800	63 200	61 500	58 100	54 600	104	124	142	159	175	203	227
	10.9	99 500	97 500	95 200	92 900	90 400	85 300	80 200	153	182	209	234	257	299	333
	12.9	116 500	114 100	111 400	108 700	105 800	99 800	93 900	179	213	244	274	301	349	390
M16x1,5	8.8	91 400	89 600	87 600	85 500	83 200	78 600	74 000	159	189	218	244	269	314	351
	10.9	134 200	131 600	128 700	125 500	122 300	155 500	108 700	233	278	320	359	396	461	515
	12.9	157 100	154 000	150 600	146 900	143 100	135 100	127 200	273	325	374	420	463	539	603
M18x1,5	8.8	122 000	120 000	117 000	115 000	112 000	105 000	99 000	237	283	327	368	406	473	530
	10.9	174 000	171 000	167 000	163 000	159 000	150 000	141 000	337	403	465	523	578	674	755
	12.9	204 000	200 000	196 000	191 000	186 000	176 000	166 000	394	472	544	613	676	789	884
M18x2	8.8	114 000	112 000	109 000	107 000	104 000	98 000	92 000	229	271	311	348	383	444	495
	10.9	163 000	160 000	156 000	152 000	148 000	139 000	131 000	326	386	443	496	545	632	706
	12.9	191 000	187 000	182 000	178 000	173 000	163 000	153 000	381	452	519	581	638	740	826
M20x1,5	8.8	154 000	151 000	148 000	144 000	141 000	133 000	125 000	327	392	454	511	565	660	741
	10.9	219 000	215 000	211 000	206 000	200 000	190 000	179 000	466	558	646	728	804	940	1055
	12.9	257 000	252 000	246 000	241 000	234 000	222 000	209 000	545	653	756	852	941	1100	1234
M22x1,5	8.8	189 000	186 000	182 000	178 000	173 000	164 000	154 000	440	529	613	692	765	896	1006
	10.9	269 000	264 000	259 000	253 000	247 000	233 000	220 000	627	754	873	985	1090	1276	1433
	12.9	315 000	309 000	303 000	296 000	289 000	273 000	257 000	734	882	1022	1153	1275	1493	1677
M24x1,5	8.8	228 000	224 000	219 000	214 000	209 000	198 000	187 000	570	686	796	899	995	1166	1311
	10.9	325 000	319 000	312 000	305 000	298 000	282 000	266 000	811	977	1133	1280	1417	1661	1867
	12.9	380 000	373 000	366 000	357 000	347 000	330 000	311 000	949	1143	1326	1498	1658	1943	2185
M24x2	8.8	217 000	213 000	209 000	204 000	198 000	187 000	177 000	557	666	769	865	955	1114	1248
	10.9	310 000	304 000	297 000	290 000	282 000	267 000	251 000	793	949	1095	1232	1360	1586	1777
	12.9	362 000	355 000	348 000	339 000	331 000	312 000	294 000	928	1110	1282	1442	1591	1856	2080
M27x1,5	8.8	293 000	288 000	282 000	276 000	269 000	255 000	240 000	822	992	1153	1304	1445	1697	1910
	10.9	418 000	410 000	402 000	393 000	383 000	363 000	342 000	1171	1413	1643	1858	2059	2417	2720
	12.9	489 000	480 000	470 000	460 000	448 000	425 000	401 000	1370	1654	1922	2174	2409	2828	3183
M27x2	8.8	281 000	276 000	270 000	264 000	257 000	243 000	229 000	806	967	1119	1262	1394	1630	1829
	10.9	400 000	393 000	384 000	375 000	366 000	346 000	326 000	1149	1378	1594	1797	1986	2322	2605
	12.9	468 000	460 000	450 000	439 000	428 000	405 000	382 000	1344	1612	1866	2103	2324	2717	3049
M30x2	8.8	353 000	347 000	339 000	331 000	323 000	306 000	288 000	1116	1343	1556	1756	1943	2276	2557
	10.9	503 000	494 000	483 000	472 000	460 000	436 000	411 000	1590	1912	2216	2502	2767	3241	3641
	12.9	588 000	578 000	565 000	552 000	539 000	510 000	481 000	1861	2238	2594	2927	3238	3793	4261
M33x2	8.8	433 000	425 000	416 000	407 000	397 000	376 000	354 000	1489	1794	2082	2352	2605	3054	3435
	10.9	617 000	606 000	593 000	580 000	565 000	535 000	505 000	2120	2555	2965	3350	3710	4350	4892
	12.9	722 000	709 000	694 000	678 000	662 000	626 000	591 000	2481	2989	3470	3921	4341	5090	5725
M36x2	8.8	521 000	512 000	502 000	490 000	478 000	453 000	427 000	1943	2345	2725	3082	3415	4010	4513
	10.9	742 000	729 000	714 000	698 000	681 000	645 000	609 000	2767	3340	3882	4390	4864	5711	6428
	12.9	869 000	853 000	836 000	817 000	797 000	755 000	712 000	3238	3908	4542	5137	5692	6683	7522
M39x2	8.8	618 000	607 000	595 000	581 000	567 000	537 000	507 000	2483	3002	3493	3953	4383	5151	5801
	10.9	880 000	864 000	847 000	828 000	808 000	765 000	722 000	3537	4267	4974	5631	6243	7336	8263
	12.9	1030 000	1011 000	991 000	969 000	945 000	896 000	845 000	4139	5003	5821	6589	7306	8585	9669

7.2 Tightening torque tables for stainless steel bolted joints

7.2.1 Assembly preload / tightening torques

The values below apply to austenitic stainless steel hexagon bolts ISO 4014 – 4018 respectively hexagon (hexalobular) socket screws as per ISO 4762. The torqueses are theoretically calculated values depending on the chosen friction coefficient and based on a preload, utilizing 90% of the minimum yield strength during assembly. Recommendations for tightening torques for other products different from the above mentioned standards and conditions (e.g. similar looking DIN specified products) **can not** be taken from this table and are available on request.

Friction coefficient		Assembly preload F_M in kN for μ_G=								Tightening torque M_A in Nm for μ_K= μ_G=							
Basic diameter	class	0,10	0,12	0,14	0,16	0,18	0,20	0,30	0,40	0,10	0,12	0,14	0,16	0,18	0,20	0,30	0,40
M4	50	1,46	1,41	1,37	1,32	1,28	1,24	1,04	0,88	0,83	0,94	1,04	1,12	1,20	1,28	1,55	1,72
	70	3,12	3,03	2,93	2,84	2,74	2,65	2,22	1,88	1,79	2,01	2,22	2,41	2,58	2,73	3,32	3,68
	80	4,16	4,04	3,91	3,78	3,65	3,53	2,96	2,51	2,38	2,68	2,96	3,21	3,44	3,64	4,42	4,91
M5	50	2,38	2,32	2,25	2,17	2,10	2,03	1,71	1,45	1,65	1,86	2,06	2,24	2,41	2,55	3,12	3,47
	70	5,11	4,96	4,81	4,66	4,51	4,36	3,67	3,11	3,54	4,00	4,42	4,80	5,15	5,47	6,68	7,43
	80	6,81	6,62	6,41	6,21	6,01	5,81	4,89	4,15	4,72	5,33	5,89	6,40	6,87	7,30	8,91	9,90
M6	50	3,36	3,26	3,16	3,06	2,96	2,86	2,40	2,04	2,86	3,23	3,57	3,88	4,16	4,42	5,38	5,98
	70	7,20	6,99	6,77	6,56	6,34	6,13	5,15	4,37	6,14	6,92	7,65	8,31	8,91	9,46	11,53	12,81
	80	9,60	9,32	9,03	8,74	8,45	8,17	6,87	5,83	8,18	9,23	10,20	11,08	11,88	12,62	15,37	17,08
M8	50	6,2	6,0	5,8	5,6	5,5	5,3	4,4	3,8	7,0	7,9	8,7	9,5	10,2	10,8	13,3	14,8
	70	13,2	12,8	12,5	12,1	11,7	11,3	9,5	8,1	14,9	16,9	18,7	20,3	21,8	23,2	28,4	31,6
	80	17,6	17,1	16,6	16,1	15,6	15,1	12,7	10,8	19,9	22,5	24,9	27,1	29,1	30,9	37,9	42,2
M10	50	9,8	9,5	9,3	9,0	8,7	8,4	7,1	6,0	13,7	15,6	17,2	18,8	20,2	21,5	26,4	29,4
	70	21,0	20,5	19,9	19,2	18,6	18,0	15,2	12,9	29,4	33,3	37,0	40,3	43,3	46,1	56,5	63,0
	80	28,1	27,3	26,5	25,7	24,8	24,0	20,3	17,2	39,2	44,5	49,3	53,7	57,7	61,4	75,4	84,0
M12	50	14,3	13,9	13,5	13,1	12,7	12,3	10,4	8,8	23,7	26,9	29,8	32,5	35,0	37,2	45,8	51,1
	70	30,7	29,8	29,0	28,1	27,2	26,3	22,2	18,9	50,8	57,7	63,9	69,7	75,0	79,8	98,1	109,4
	80	40,9	39,8	38,6	37,4	36,2	35,1	29,6	25,2	67,8	76,9	85,3	93,0	100,0	106,4	130,8	145,9
M14	50	19,6	19,0	18,5	17,9	17,4	16,8	14,2	12,1	38,2	43,4	48,2	52,6	56,6	60,3	74,2	82,9
	70	41,9	40,8	39,6	38,4	37,2	36,0	30,4	25,9	81,9	93,0	103,3	112,7	121,3	129,2	159,0	177,6
	80	55,9	54,4	52,8	51,2	49,6	48,0	40,6	34,5	109,3	124,1	137,7	150,3	161,8	172,3	212,0	236,7
M16	50	27,0	26,3	25,6	24,8	24,1	23,3	19,8	16,8	58,3	66,4	74,0	80,9	87,3	93,1	115,3	129,2
	70	57,8	56,4	54,8	53,2	51,6	49,9	42,4	36,1	124,8	142,3	158,5	173,4	187,1	199,6	247,1	276,8
	80	77,1	75,1	73,1	70,9	68,8	66,6	56,5	48,1	166,4	189,8	211,4	231,2	249,5	266,1	329,5	369,1
M18	50	32,9	32,0	31,1	30,2	29,3	28,3	24,0	20,4	81,7	92,8	103,1	112,6	121,2	129,1	159,2	177,9
	70	70,6	68,7	66,7	64,7	62,7	60,7	51,4	43,7	175,0	198,9	220,9	241,2	259,8	276,7	341,1	381,2
	80	94,1	91,6	89,0	86,3	83,6	80,9	68,5	58,3	233,3	265,2	294,6	321,6	346,4	369,0	454,8	508,3
M20	50	42,1	41,1	39,9	38,8	37,6	36,4	30,9	26,3	114,0	130,0	144,8	158,5	171,0	182,4	226,0	253,2
	70	90,3	88,0	85,5	83,0	80,5	78,0	66,2	56,4	244,4	278,6	310,4	339,6	366,4	390,9	484,3	542,6
	80	120,4	117,3	114,1	110,7	107,4	104,0	88,2	75,2	325,8	371,5	413,8	452,8	488,6	521,2	645,7	723,5
M22	50	52,4	51,1	49,8	48,3	46,9	45,5	38,6	33,0	153,0	174,9	195,2	214,0	231,2	247,0	307,2	344,9
	70	112,4	109,6	106,6	103,6	100,5	97,4	82,8	70,6	327,8	374,8	418,4	458,6	495,5	529,3	658,3	739,1
	80	149,8	146,1	142,2	138,1	134,0	129,9	110,4	94,1	437,1	499,7	557,8	611,4	660,7	705,7	877,8	985,5
M24	50	61	59	58	56	54	52	45	38	197	224	250	273	295	314	389	436
	70	130	127	123	120	116	112	95	81	421	480	535	585	632	674	835	935
	80	173	169	164	160	155	150	127	108	562	640	713	781	842	898	1113	1247
M27	50	80	78	76	73	71	69	59	50	289	331	369	405	438	468	583	655
	70	170	166	162	157	153	148	126	107	619	708	791	868	938	1003	1249	1403
M30	50	97	95	92	89	87	84	71	61	394	450	502	550	594	635	789	886
	70	208	203	197	191	186	180	153	130	843	964	1076	1179	1273	1360	1691	1898
M33	50	121	118	115	111	108	105	89	76	531	609	681	747	808	864	1079	1213
M36	50	142	138	134	131	127	123	105	89	684	782	874	959	1036	1108	1380	1551
M39	50	170	166	161	157	152	148	126	108	883	1013	1133	1245	1347	1441	1802	2028

7.3 Coefficients of friction μ_G and μ_K

Table below gives guidance for the choice of friction coefficients μ_G and μ_K
(μ_G = coefficient of friction of screw thread / μ_K= coefficient of friction of bolt head or nut bearing surface).
Depending on the detailed specification of the applied materials and lubricants, the friction coefficient can vary significantly.

Typical examples		Friction coefficient μ_G and μ_K
Material / surface	**Lubricant**	
Metallically bright Black oxide Phosphated Galvanic coatings such as: Zn, Zn/Fe, Zn/Ni Zincflake coatings	Solid lubricants, such as: MoS_2, graphite, PTFE, PA, PE, PI in lubricating varnishes as top coating or in pastes; Liquefied wax Wax dispersions	0,04 to 0,10
Metallically bright Black oxide Phosphated Galvanic coatings such as: Zn, Zn/Fe, Zn/Ni Zincflake coatings Al and Mg alloys	Solid lubricants, such as: MoS_2, graphite, PTFE, PA, PE, PI in lubricating varnishes as top coating or in pastes; Liquefied wax Wax dispersions, greases; Oils; delivery state	0,08 to 0,16
Hot- galvanized	MoS_2, graphite; Wax dispersions	
Organic coatings	With integrated solid lubricant or wax dispersion	
Austenitic steel	Solid lubricants or waxes; pastes	
Austenitic steel	Wax dispersion, pastes	0,14 to 0,24
Metallically bright Phosphated	Delivery state (light oiled)	
Galvanic coatings such as: Zn, Zn/Fe, Zn/Ni Zincflake coatings adhesive	none	
Austenitic steel	oil	0,20 to 0,35
Galvanic coatings such as: Zn, Zn/Fe; Hot- galvanized	none	
Galvanic coatings such as: Zn/Fe, Zn/Ni; Austenitic steel Al and Mg alloys	none	≥ 0,30

Note: If the coefficients of frictions are not experimentally determined, application of the smallest friction values from this table will reduce the risk of overtightening. **(Fabory Technology dept. is able to do frictional test on special request and for critical applications.)**

7.4 Tightening torque tables for steel inch threaded bolts

As for metric threaded fasteners, also the determination of the assembly torque for inch threaded bolts is based on a number of factors, of which the coefficient of friction is very important. The American approach, according SAE J1701, is quite different from the European.
Below tables are based upon the emperical torque/tension formula T = K x d x W

Where T = Torque
K = Coefficient of Friction factor
d = Nominal thread diameter (inches)
W = Tension (clamp load or preload) induced in fastener (lbs)

The value of “K” can range from over 0,30 for a rusted assembly to 0,10 or less for a clean assembly well lubricated with a teflon of MoS_2 based lubricant. The above formula proves the high importance of the value of the K-factor as a 0,10 to 0,30 range causes an extremely wide variation of the torque.

For assemblies of medium critical level the following K-values are often used:

Mating parts	K-factor
Dry, clean with thin film of oil	0,15 – 0,20
Additional lubricating coatings of oil, wax, or dissimilar plating or hard washer	0,10 – 0,15
Thread and head bearing surfaces Covered with high-performance Lubricants or with anti-seize Components	can be as low as 0,05
Combinations of certain materials such as Austenite stainless steel screws/bolts and parts not lubricated or coated	can be as high as 0,35

Especially for critical joints, the only way to determine the correct torque is through testing under actual joint and assembly conditions, using a calibrated torque wrench and a load indicating tester such as a Skidmore-Wilhelm device or a more sophisticated strain gauge based transducer.

7.4.1 Assembly preload / tightening torques – UNC (coarse thread)

Below table provides the tightening torque for UNC Hex Bolts according to ASME B18.2.1., for general applications. These assembly torques are offered as a general guide only as torque is a very indirect indication of tension and there are many factors such as friction, lubrication, surface texture, corrosion, etc. that affect the outcome.

Nom. diameter		Threads/in	Grade	Clamp load W (*)		Tightening torque for K =					
				lbs	N	0.10		0.15		0.20	
Fractions	Decimals					lbs.ft	Nm	lbs.ft	Nm	lbs.ft	Nm
¼	0,250	20	Grade 2	1 313	5 839	3	4	4	6	5	7
			Grade 5	2 029	9 023	4	6	6	9	8	11
			Grade 8	2 864	12 739	6	8	9	12	12	16
5⁄16	0,3125	18	Grade 2	2 163	9 620	6	8	8	11	11	15
			Grade 5	3 342	14 868	9	12	13	18	17	24
			Grade 8	4 719	20 990	12	17	18	25	25	33
⅜	0,375	16	Grade 2	3 196	14 219	10	14	15	20	20	27
			Grade 5	4 940	21 974	15	21	23	31	31	42
			Grade 8	6 974	31 022	22	30	33	44	44	59
7⁄16	0,4375	14	Grade 2	4 385	19 505	16	22	24	33	32	43
			Grade 5	6 777	30 144	25	33	37	50	49	67
			Grade 8	9 567	42 556	35	47	52	71	70	95
½	0,500	13	Grade 2	5 853	26 037	24	33	37	50	49	66
			Grade 5	9 046	40 239	38	51	57	77	75	102
			Grade 8	12 771	56 808	53	72	80	108	106	144
9⁄16	0,5625	12	Grade 2	7 503	33 377	35	48	53	72	70	95
			Grade 5	11 596	51 582	54	74	82	111	109	147
			Grade 8	16 371	72 821	77	104	115	156	153	208
⅝	0,625	11	Grade 2	9 323	41 468	49	66	73	99	97	132
			Grade 5	14 408	64 087	75	102	113	153	150	203
			Grade 8	20 340	90 476	106	144	159	215	212	287
¾	0,750	10	Grade 2	13 796	61 369	86	117	129	175	172	234
			Grade 5	21 322	94 844	133	181	200	271	267	361
			Grade 8	30 101	133 897	188	255	282	383	376	510
⅞	0,875	9	Grade 2	11 427	50 830	83	113	125	169	167	226
			Grade 5	19 045	84 717	139	188	208	282	278	377
			Grade 8	41 553	184 836	303	411	454	616	606	822
1	1,000	8	Grade 2	14 992	66 688	125	169	187	254	250	339
			Grade 5	38 616	171 771	322	436	483	654	644	873
			Grade 8	54 517	242 501	454	616	681	924	909	1 232
1⅛	1,125	7	Grade 2	18 892	84 034	177	240	266	360	354	480
			Grade 5	42 363	188 440	397	538	596	808	794	1 077
			Grade 8	68 697	305 578	644	873	966	1 310	1 288	1 746
1¼	1,250	7	Grade 2	23 985	106 691	250	339	375	508	500	677
			Grade 5	53 785	239 247	560	760	840	1 139	1 120	1 519
			Grade 8	87 219	387 968	909	1 232	1 363	1 848	1 817	2 464
1⅜	1,375	6	Grade 2	28 584	127 146	328	444	491	666	655	888
			Grade 5	64 097	285 116	734	996	1 102	1 494	1 469	1 991
			Grade 8	103 941	462 350	1 191	1 615	1 786	2 422	2 382	3 229
1½	1,500	6	Grade 2	34 781	154 714	435	589	652	884	870	1 179
			Grade 5	77 994	346 934	975	1 322	1 462	1 983	1 950	2 644
			Grade 8	126 477	562 595	1 581	2 143	2 371	3 215	3 162	4 287

Conversion of torque values: 1 lbs in = 0,11298 Nm 1 lbs ft = 1,35581 Nm ;
1 Nm = 8,85074 lbs in 1 Nm = 0,73756 lbs ft

(*) Clamp load (pre-load) W in this table has been calculated by assuming that usable bolt strength is 75% of bolt proof-load times the proof stress area of the thread. Depending on the application, the clamp- load may by chosen lower (e.g. because clamped materials are soft) or higher (e.g. if the assembly conditions are very accurate, the K-factor was tested for this application and if the clamp-load should be as high as possible to reduce the risk of failure by fatigue)

7.4.2 Assembly preload / tightening torques – UNF (fine thread)

Below table provides the tightening torque for UNF Hex Bolts according to ASME B18.2.1., for general applications. These assembly torques are offered as a general guide only as torque is a very indirect indication of tension and there are many factors such as friction, lubrication, surface texture, corrosion, etc. that affect the outcome.

Nom. diameter		Threads/in	Grade	Clamp load W (*)		Tightening torque for K =					
				lbs	N	0.10		0.15		0.20	
Fractions	Decimals					lbs.ft	Nm	lbs.ft	Nm	lbs.ft	Nm
¼	0,250	28	Grade 2	1 502	6 679	3	4	5	6	6	8
			Grade 5	2 321	10 322	5	7	7	10	10	13
			Grade 8	3 276	14 572	7	9	10	14	14	19
5⁄16	0,3125	24	Grade 2	2 397	10 661	6	8	9	13	12	17
			Grade 5	3 704	16 476	10	13	14	20	19	26
			Grade 8	5 229	23 260	14	18	20	28	27	37
⅜	0,375	24	Grade 2	3 622	16 110	11	15	17	23	23	31
			Grade 5	5 597	24 898	17	24	26	36	35	47
			Grade 8	7 902	35 150	25	33	37	50	49	67
7⁄16	0,4375	20	Grade 2	4 896	21 780	18	24	27	36	36	48
			Grade 5	7 567	33 660	28	37	41	56	55	75
			Grade 8	10 683	47 520	39	53	58	79	78	106
½	0,500	20	Grade 2	6 600	29 358	27	37	41	56	55	75
			Grade 5	10 200	45 372	42	58	64	86	85	115
			Grade 8	14 400	64 054	60	81	90	122	120	163
9⁄16	0,5625	18	Grade 2	8 374	37 248	39	53	59	80	79	106
			Grade 5	12 941	57 565	61	82	91	123	121	164
			Grade 8	18 270	81 269	86	116	128	174	171	232
⅝	0,625	18	Grade 2	10 560	46 973	55	75	82	112	110	149
			Grade 5	16 320	72 595	85	115	127	173	170	230
			Grade 8	23 040	102 487	120	163	180	244	240	325
¾	0,750	16	Grade 2	15 386	68 441	96	130	144	196	192	261
			Grade 5	23 779	105 773	149	201	223	302	297	403
			Grade 8	33 570	149 326	210	284	315	427	420	569
⅞	0,875	14	Grade 2	12 610	56 092	92	125	138	187	184	249
			Grade 5	21 017	93 487	153	208	230	312	306	416
			Grade 8	45 855	203 972	334	453	502	680	669	907
1	1,000	12	Grade 2	16 409	72 992	137	185	205	278	273	371
			Grade 5	42 266	188 009	352	478	528	716	704	955
			Grade 8	59 670	265 424	497	674	746	1 011	994	1 348
1⅛	1,125	12	Grade 2	21 179	94 207	199	269	298	404	397	538
			Grade 5	47 491	211 251	445	604	668	905	890	1 207
			Grade 8	77 013	342 569	722	979	1 083	1 468	1 444	1 958
1¼	1,250	12	Grade 2	26 554	118 119	277	375	415	563	553	750
			Grade 5	59 546	264 872	620	841	930	1 261	1 240	1 682
			Grade 8	96 561	429 523	1 006	1 364	1 509	2 046	2 012	2 727
1⅜	1,375	12	Grade 2	32 539	144 739	373	505	559	758	746	1 011
			Grade 5	72 966	324 567	836	1 134	1 254	1 700	1 672	2 267
			Grade 8	118 323	526 324	1 356	1 838	2 034	2 757	2 711	3 676
1½	1,500	12	Grade 2	39 130	174 057	489	663	734	995	978	1 326
			Grade 5	87 746	390 310	1 097	1 487	1 645	2 231	2 194	2 974
			Grade 8	142 290	632 934	1 779	2 411	2 668	3 617	3 557	4 823

Conversion of torque values: 1 lbs in = 0,11298 Nm 1 lbs ft = 1,35581 Nm ;
1 Nm = 8,85074 lbs in 1 Nm = 0,73756 lbs ft

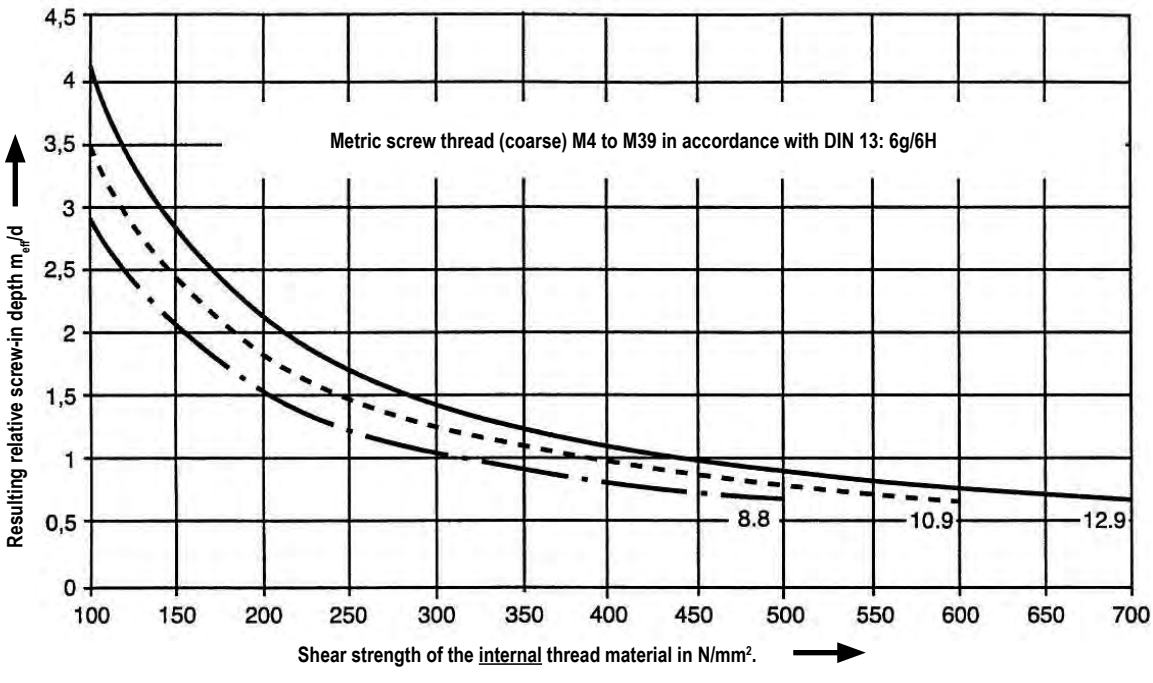
(*) Clamp load (pre-load) W in this table has been calculated by assuming that usable bolt strength is 75% of bolt proof-load times the proof stress area of the thread. Depending on the application, the clamp- load may by chosen lower (e.g. because clamped materials are soft) or higher (e.g. if the assembly conditions are very accurate, the K-factor was tested for this application and if the clamp-load should be as high as possible to reduce the risk of failure by fatigue)

7.5 Galling (seizing) of stainless steel

The high ductility of austenitic stainless steel means that it is in general more susceptible to galling than normal steels. To avoid galling, the product must be clean, free of burs, foreign matter, chips, sand, etc. and one-sided clamping due to damage to the screw thread or crooked assembly must be avoided. Rigid joints perform better than elastic ones.
It is advisable to torque as uniformly as possible at low speed and not to use impact wrenches. It is noted that to induce a certain preload, it is not only the coefficients of friction that are important, but also the accuracy of the method used to tighten the bolts. The combination of two different grades of stainless steel (e.g. A2 and A4) is not advantageous as far as galling is concerned. In special circumstances and for special requirements a suitable (anti galling) lubricant / paste or pre-applied dry coating should be used. e.g.:, lubricant/paste; chloride-paraffin, molykote lacquer, high pressure oil, corrosion-resistant grease or dry coating; Metalform and Combiflon, etc.

7.6 Screw-in depths for blind holes

The figure below shows the recommended minimum screw-in depths for blind holes in combination with various property classes, related to the shear strength of the material in which the bolt is attached.



m_{eff} = effective screw-in depth.
d = nominal diameter

7.7 Ratio of shear strength to tensile strength

The table below is based on VDI 2230 (2003)

Property class	4.6	5.6	8.8	10.9	12.9
t_B / R_m	0,70	0,70	0,65	0,62	0,60

7.8 Clamping length table for preloaded bolts HV according to EN 14399-4

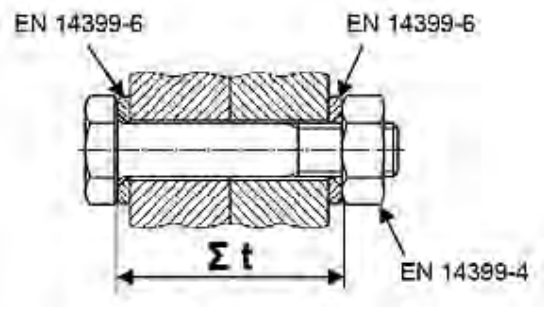


Table below is based on EN 14399-4:2015.
(EN 14399-4 and EN 14399-6 series replace the obsolete standard for HV fasteners DIN 6914, 6915, 6916.)

d	M12		M16		M20		M22		M24		M27		M30		M36	
L	$\Sigma t_{min.}$ and $\Sigma t_{max.}$															
nom.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
35	16	21														
40	21	26	17	22												
45	26	31	22	27	18	23										
50	31	36	27	32	23	28	22	27								
55	36	41	32	37	28	33	27	32								
60	41	46	37	42	33	38	32	37	29	34						
65	46	51	42	47	38	43	37	42	34	39						
70	51	56	47	52	43	48	42	47	39	44	36	41				
75	56	61	52	57	48	53	47	52	44	49	41	46	39	44		
80	61	66	57	62	53	58	52	57	49	54	46	51	44	49		
85	66	71	62	67	58	63	57	62	54	59	51	56	49	54	43	48
90	71	76	67	72	63	68	62	67	59	64	56	61	54	59	48	53
95	76	81	72	77	68	73	67	72	64	69	61	66	59	64	53	58
100			77	82	73	78	72	77	69	74	66	71	64	69	58	63
105			82	87	78	83	77	82	74	79	71	76	69	74	63	68
110			87	92	83	88	82	87	79	84	76	81	74	79	68	73
115			92	97	88	93	87	92	84	89	81	86	79	84	73	78
120			97	102	93	98	92	97	89	94	86	91	84	89	78	83
125			102	107	98	103	97	102	94	99	91	96	89	94	83	88
130			107	112	103	108	102	107	99	104	96	101	94	99	88	93
135					108	113	107	112	104	109	101	106	99	104	93	98
140					113	118	112	117	109	114	106	111	104	109	98	103
145					118	123	117	122	114	119	111	116	109	114	103	108
150					123	128	122	127	119	124	116	121	114	119	108	113
155					128	133	127	132	124	129	121	126	119	124	113	118
160							132	137	129	134	126	131	124	129	118	123
165							137	142	134	139	131	136	129	134	123	128
170									139	144	136	141	134	139	128	133
175									144	149	141	146	139	144	133	138
180									149	154	146	151	144	149	138	143
185									154	159	151	156	149	154	143	148
190									159	164	156	161	154	159	148	153
195									164	169	161	166	159	164	153	158
200											166	171	164	169	158	163

7.9 Locking

Correctly designed bolted joints, if correctly assembled, will not come loose. However, it is not always possible to design a joint so that it can optimally resist all causes of loosening.
Additional articles such as spring washers or serrated washers can compensate loss of preload or prevent loosening.

7.9.1 Loss of preload

Loss of preload occurs through:

- Loosening due to change of length resulting from relaxation (embedment) and creep.
- Spontaneous loosening as a result of relative movement between the contact faces of the joint from dynamic load or load components acting transversely to the axis of the bolt. The joint then appears to become free of friction due to the elimination of the self-locking effect.

7.9.2 Classification of locking systems

Because of the various causes of loss of preload, a distinction is made in:

Securing against embedding & creep; add elements to compensate for embedment and creep.
Securing against loss: add elements to ensure that the joint does not fall apart if the preload is lost.
Securing against rotating loose: add elements to prevent spontaneous loosening by blocking the internal loosening moment.

The overview below gives, in addition to the classification of the three main groups mentioned above, a sub classification dependent on the function of the locking system.
The mentioned examples are no guarantee for optimum effect, because many other parameters will have influence on the joint behaviour.

Cause of loss of preload	Classification of locking systems with respect to:		Examples	Reference[2)]
	Objective	Function		
Loosening due to embedment / creep	Securing against embedding	Elastic elements clamped in the joint	Spring lock washers Disc springs Conical spring washers	DIN 127/128/137 DIN 2093 DIN 6796 / 6908
Loosening due to internal loosening moment and transverse displacement	Securing against loss	Locking elements	Castle nuts Locking plates Locking wire Products with a split pin hole	DIN 935 DIN 93/432/463 ---- DIN 962
		Clamping elements	Locking nuts with plastic washer[1)] All metal nuts with prevailing torque features Bolts with plastic patch[1)] Self tapping screws	DIN 982/985/6926 DIN 980 --- Driloc Plastic DIN 7500
	Securing against rotating loose	Blocking elements	Toothed flange bolts Toothed flange nuts Locking washers Locking rings	E.g. Ripp. E.g. Ripp. --- E.g. Nord-Lock.
		Locking agent	Micro-encapsulated bolts[1)] Anaerobic locking agent[1)]	E.g. Dri-loc 2015. E.g. Loctite.

[1)] Temperature dependent
[2)] contains obsolete standards

For more specific information on this subject a brochure is available on request.

In order to determine the effectiveness of a certain locking system, use is often made of a generally accepted test, the “Junker machine”. This machine subjects the products to dynamic transverse forces and graphically records the loss of preload, depending on the number of alternating loads. Fabory has the ability to perform these tests.

7.9.3 Some practical suggestions for an optimum bolted joint

- Applying a high preload will limit critical displacements on the contact faces significantly. (Take into account the surface pressure of the clamped material).
- Controlled tightening.
- The greatest possible clamping length/diameter ratio, preferably L_k / d > 5.
- Prevent displacement of construction elements by using e.g. dowels and clamping bushes, etc.
- Increase the friction between contact faces by applying friction coatings or by roughening the surface by blasting.
- Make the contact faces smooth and parallel.
- When there is only static axial load and the assembly is correct, there is no need for locking mechanisms.
- The improper use of embedment and retention systems is more likely to make the reliability of the joint worse than better. Do not use them for dynamic transverse loads.

Note:
Locking systems must be used under both the bolt head and the nut. A locking washer assembled on a flat washer is useless.

8 Tables

8.1 SI units

In the following table a selection is given of those measuring units that are commonly used in fastening engineering.

Name	Symbol	Unit of	Replaces	Mutual conversion (rounded off)	
newton	N	force	kgf, kp	1N ≈ 0,1 kgf ≈ kp	1 kgf ≈ 1 kp ≈ 10N
joule	J	energy, work, heat	kcal, cal, kgf.m or kgm Btu (British thermal unit)	1J ≈ 1Nm ≈ 0,1 kgf.m 1J = 0,739 cal	1 kgf.m ≈ 10J ≈ 10Nm 1 cal = 4,187J
bar	bar	pressure of liquids and gases	at, kgf/cm^2 of kg/cm^2	1 bar ≈ 1 at ≈ 1kgf/cm^2 ≈ kg/cm^2	1 at = 1 bar
kelvin	K	temperature	partly the °C	Tk-273,15+T °C	T °C =Tk-273,15
metre	m	length	-		
second	s	time	-		
kilogram	kg	mass (quantity)	unit of weight	1 kg (mass) = 10 N (weight) on earth	
volt	V	electrical voltage	-		
ampère	A	electrical current	-		
watt	W	power (not only electrical)	pk, hp and kcal/h	1 kW = 1.359 pk 1 kW = 1.341 hp 1 kW = 959.845 kcal/h	1 pk = 0.7355 kW 1 hp = 0.7457 kW 1 kcal/h=0.001163 kW
Pascal	N/m^2	pressure, stress	m^{-1}·kg·s^{-2}	1 Pa 1MPa	1 N/m^2 1 N/mm^2
Newton metre	Nm	torque	Kgf.m	1 Nm = 0,1 kgf.m	1kgf.m = 10 Nm

8.2 Conversion of tensile strength, Vickers, Brinell and Rockwell hardnesses

The table below is for information only and based on the standard ISO 18265:2013 for which the following considerations should be taken into account:

- The tensile strength according to ISO 6892-1, Vickers hardness according to ISO 6507-1, Brinell hardness according to ISO 6506-1, the Rockwell hardness according to ISO 6508-1 and applies for unalloyed and low alloyed steels. Considerable deviations can usually be expected with high alloy and/ or cold-worked steels.
- ISO 18265 provides several conversion tables, which are applicable to more specific types of steel and their heat treatment condition (e.g. quenched and tempered), or other metals, and which are to be consulted if a more accurate conversion is required.
- In principle, every conversion of hardness results in a certain degree of inaccuracy and may only be used when a measuring method cannot be carried out. Conversion cannot lead to rejection, unless a certain measurement method has been agreed at the time of ordering.
- A conversion between tensile strength and hardness will result in an even greater deviation and therefore can only be used as an indicative value. This can never replace the tensile strength determined by tensile testing.

Tensile strength	Vickers Hardness	Brinell Hardness	Rockwell Hardness							
N/mm²	HV10	HB	HRB	HRF	HRC	HRA	HRD	HR15N	HR30N	HR45N
255	80	76,0								
285	90	85,5	48,0	82,6						
320	100	95,0	56,2	87,0						
350	110	105	62,3	90,5						
385	120	114	66,7	93,6						
415	130	124	71,2	96,4						
450	140	133	75,0	99,0						
480	150	143	78,7	101,4						
510	160	152	81,7	103,6						
545	170	162	85,0	105,5						
575	180	171	87,1	107,2						
610	190	181	89,5	108,7						
640	200	190	91,5	110,1						
675	210	199	93,5	111,3						
705	220	209	95,0	112,4						
740	230	219	96,7	113,4						
770	240	228	98,1	114,3	20,3	60,7	40,3	69,6	41,7	19,9
800	250	238	99,5	115,1	22,2	61,6	41,7	70,6	43,4	22,2
835	260	247	(101)		24,0	62,4	43,1	71,6	45,0	24,3
865	270	257	(102)		25,6	63,1	44,3	72,6	46,4	26,2
900	280	266	(104)		27,1	63,8	45,3	73,4	47,8	27,9
930	290	276	(105)		28,5	64,5	46,5	74,2	49,0	29,5
965	300	285			29,8	65,2	47,5	74,9	50,2	31,1
995	310	295			31,0	65,8	48,4	75,6	51,3	32,5
1030	320	304			32,2	66,4	49,4	76,2	52,3	33,9
1060	330	314			33,3	67,0	50,2	76,8	53,6	35,2
1095	340	323			34,4	67,6	51,1	77,4	54,4	36,5
1125	350	333			35,5	68,1	51,9	78,0	55,4	37,8
1155	360	342			36,6	68,7	52,8	78,6	56,4	39,1
1190	370	352			37,7	69,2	53,6	79,2	57,4	40,4
1220	380	361			38,8	69,8	54,4	79,8	58,4	41,7
1255	390	371			39,8	70,3	55,3	80,3	59,3	42,9
1290	400	380			40,8	70,8	56,0	80,8	60,2	44,1
1320	410	390			41,8	71,4	56,8	81,4	61,1	45,3
1350	420	399			42,7	71,8	57,5	81,8	61,9	46,4
1385	430	409			43,6	72,3	58,2	82,3	62,7	47,4
1420	440	418			44,5	72,8	58,8	82,8	63,5	48,4
1455	450	428			45,3	73,3	59,4	83,2	64,3	49,4
1485	460	437			46,1	73,6	60,1	83,6	64,9	50,4
1520	470	447			46,9	74,1	60,7	83,9	65,7	51,3
1555	480	(456)			47,7	74,5	61,3	84,3	66,4	52,2

8.3 Contact and chemical corrosion tables

8.3.1 Contact corrosion table

S	**= severe corrosion of the metal, shown in the row**
G	**= no or limited corrosion of the metal, shown in the row**
M	**= moderate corrosion (in an extremely damp atmosphere) of the metal, shown in the row.**

Metal	Surface *	Magnesium alloys	Zinc	Hot dip galvanized steel	Aluminium alloys	Cadmium layers	Mild steel	Low alloyed steel	Cast steel	Chromium steel	Lead	Tin	Copper	Stainless steel
Magnesium alloy	small		S	S	S	S	S	S	S	S	S	S	S	S
	large		M	M	M	M	S	S	S	S	S	S	S	S
Zinc	small	M		G	S	S	S	S	S	S	S	S	S	S
	large	G		G	G	G	G	G	G	G	G	G	G	G
Hot dip galvanized steel	small	M	G		M	M	S	S	S	S	S	S	S	S
	large	G	G		G	G	G	G	G	G	G	G	G	G
Aluminium alloy	small	M	G	G		G	S		S		S		S	S
	large	G	G	M		G	G	G	M	M	S	S	S	S
Cadmium layers	small	G	G	G	G		S	S	S	S	S	S	S	S
	large	M	G	M	G		G	G	G	G	G	G	G	G
Mild steel	small	G	G	G	G	G		M	S	S	S	S	S	S
	large	G	G	G	G	G		G	G	G	G	G	G	G
Low alloyed steel	small	G	G	G	G	G	G		G	S	S	S	S	S
	large	G	G	G	G	G	G		G	G	G	G	G	G
Cast steel	small	G	G	G	G	G	G	M		S	S	S	S	S
	large	G	G	G	G	G	G	G		G	G	G		
Chromium steel	small	G	G	G	G	G	G	G			M	M	S	S
	large	G	G	G	G	G	G	G			G	G		G
Lead	small	G	G	G	G	G	G	G	G	G		G	G	
	large	G	G	G	G	G	G	G	M	G		G		G
Tin	small	G	G	G	G	G	G	G		G		G		
	large	G	G	G	G	G	G	G	G	M		G		
Copper	small	G	G	G	G	G	G	G		M	M	S		
	large	G	G	G	G	G	G	G	G		G	M		G
Stainless steel	small	G	G	G	G	G		G	G		G	G		
	large	G	G	M	G	G	G	G	G	M	M	M	G	

* Relative relationship of this metal surface area with respect to the areas of the metals shown in the columns shown at the side.

8.3.2 Chemical corrosion table

CHEMICAL AGENT	Hot dip galvanized steel	Stainless steel		Brass	Aluminium Sopral	Plastic PA 6.6
		A2	A4			
Acetates		0-1	0	1-2	0	2-3
Acetone		0	0	0	0	0
Acetylene		0	0	3	0	
Alcohols	3	0	0	0	0-1	0
Alum		2	1	2	0	2
Ammonia gas		0	0	3	0	1
Ammonia	3	0	0	3	1	1
Benzene/Toluene/Xylene	0	0	0	0	0	0
Chlorine gas		1	1	1	3	3
Chlorine solution (in water)		1	1			
Hydrochloric acid		2-3	2-3	3	3	3
Chlorides						
– Sodium/ potassium chloride	0	1	1	2	2-3	0
– Ammonium- / zinc chloride		2	1	2	3	2
– Iron chloride		3	3	3	3	3
Citric acid		1	0	2	1	1
Phosphoric acid		2-3	0-1	3	2-3	2-3
Phosphates	0	1	0	2	2-3	1-2
Glycol		0	0	1	1	1
Glycerine	0	0	0	0-1	0	1
Resins	2-3	1	1	2-3	0-1	0
Hydrocarbons						
– Butane, Petrol, Tar	0	0	0	0-1	0	0
Chlorinated hydrocarbons						
– Trichloroethylene	0	0	0	0-1	0	0-1
– Tetrachloride	0	0	0	0-1	0	0-1
Carbonic acid		0	0	2	0	0
Sodium carbonate (soda)		0	0	1-2	0	0
Lacquers	0	0	0	1	0	1
Formic acid		1	0	2	3	3
Oil fuel/ vegetable	1	0	0	0	0	0
Palmitine / Stearin acid		1	0	2	0	0
Nitric acid		1	0-1	3	2	3
– Sodium/ Ammonia nitrate		0	0	2-3	0	2
Water						
– drinking water		0	0	2	0	0
– acid water	1-2			3	2	1
– salt water	0	1	1	2	1	0
Sulphur dioxide dry		0	0	0-1	1	1
Sulphur dioxide wet		1	0	3	2	2
Sulphuric acid	3	3	2-3	3	3	3
– Sodium/ Ammonia sulphate	1	0	0	1	0-1	0
– Nickel / Copper sulphate		0-1	0	2-3	2-3	2-3
Hydrogen Sulphide		0-1	0	2	0	1

0 = good resistance 1 = reasonable resistance 2 = poor resistance 3 = no resistance


The satisfaction of successfully completing your projects, that's what it's all about! Delivering flawless work requires know-how and the right, top quality materials. Because only the very best is good enough for experienced professionals.You expect quality because you deliver quality!
MaxxFast is a high quality no-nonsense brand in the hardware market. MaxxFast offers a wide range of fasteners, tools and industrial supplies. No matter what product you choose, quality is guaranteed. And it comes at a competitive price! MaxxFast gives you everything you need for the trouble-free completion of your project, so you can start with confidence on your next challenge.
Even though quality always comes first, a good price is just as important to achieve success. MaxxFast works closely with solid partners and aims for a streamlined production process with large-scale production to keep costs down. The bottom line is that this means a competitive retail price. That's good business for you and for your customers. Success guaranteed!
• Top quality
• A wide range of products
• Quality at a competitive price
JOB DONE, ON TO THE NEXT
Revolutionary woodscrews
High performance self drilling screws
A great range of quality anchors
Proven quality chemical anchors
Leading hose clamps
New cable ties
Screw bits the right fit
Holesaws the sharp edge
Quality assortments
www.maxxfast.com
MAXXFAST
PROFESSIONAL HARDWARE