

P H M S K

HSC & GENERAL MILLING

**High speed & general
milling applications**

2 Flute	P 26-33	Corner Rad	P 40-45
3 Flute	P 34-35	6 & 8 Flute	P 46-51
4 Flute	P 36-39	Ball Nose	P 52-61

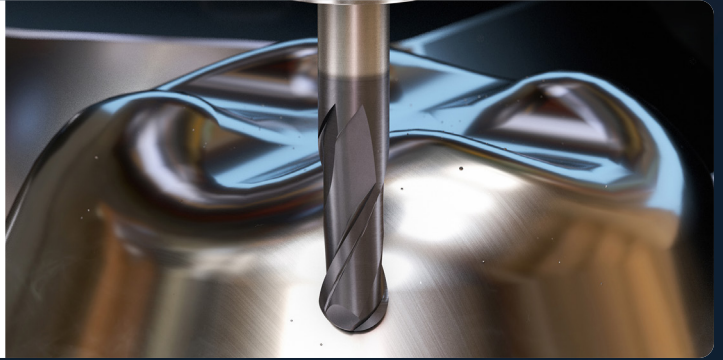
- ✓ 2, 3, 4, 6 & 8 flute milling cutters
- ✓ Extensive range of diameters, corner radius, lengths & reach to suit almost any application
- ✓ Geometries are available for general purpose milling or high speed cutting of steel, high hardened steels <HRC70, stainless steel, titanium, inconel & cast iron

HSC MILLING HIGHLIGHTS

WIG 4G MILLS

4G Mills deliver performance, tool life and precision, the perfect upgrade from general purpose carbide.

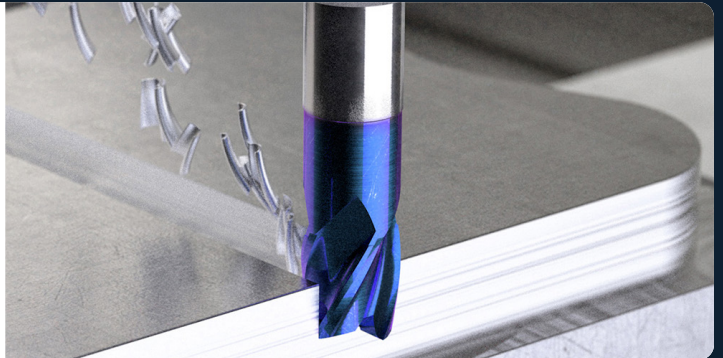
P H M K



WIG X5070

Hardened steel machining is transformed with the accuracy and durability delivered by X5070.

P H M K



WIG JET-POWER

Stainless & heat resistant alloys machine cleanly and predictably with the advanced performance of Jet Power.

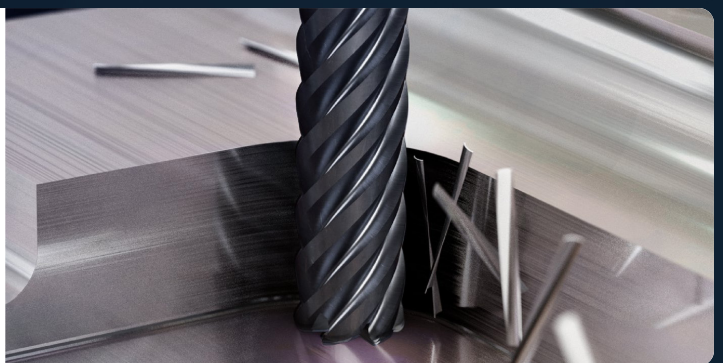
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WIG V7^{plus} 6 FLUTE TRP

High-velocity milling stays stable and efficient with the smooth-cutting performance of V7+.

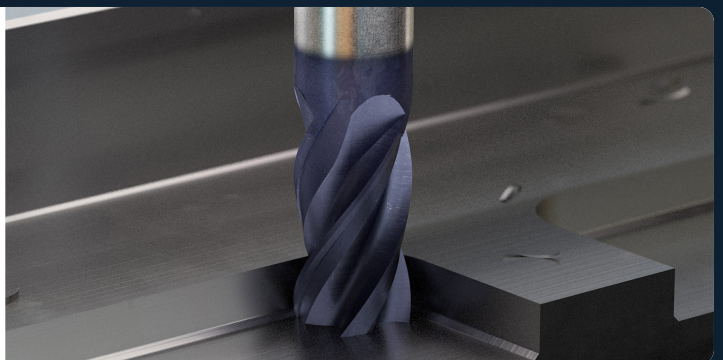
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WIG K-2

General machining stays consistent and predictable with the reliability of K2 Coated Carbide.

P H M K



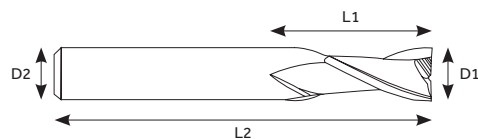


General Purpose

2 FLUTE K2 COATED CARBIDE SLOT DRILL

General Purpose Milling of Steel <HRC45, Stainless Steel & Cast Iron

- K2 coated micrograin carbide, 1st choice for general machining where the best quality is required
- Suitable for dry milling applications at high temperatures (steel only)



Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30~40	Hardened Steels HRC40~45	Stainless Steel	Cast Iron
●	●	○	○	○

D1	D2	L1	L2	Order Code
1	4	3	50	G9424010
1.5	4	4	50	G9424015
2	4	6	50	G9424020
2.5	4	8	50	G9424025
3	3	8	50	G9424030
3	3	20	60	G9452903
3.5	4	10	50	G9424035
4	4	10	50	G9424040
4	4	20	60	G9452904
4.5	4.5	12	50	G9424045
5	5	13	50	G9424050
5	5	25	75	G9452905
5.5	5.5	15	50	G9424055
6	6	15	50	G9424060
6	6	30	75	G9452906
7	7	20	60	G9424070
8	8	20	60	G9424080
8	8	30	75	G9452908
9	9	20	60	G9424090
10	10	25	75	G9424100
10	10	40	100	G9452910
12	12	30	75	G9424120
12	12	45	100	G9452912
14	14	40	100	G9424140
14	14	45	100	G9452914
16	16	40	100	G9424160
16	16	45	100	G9452916
18	18	45	100	G9452918
20	20	40	100	G9424200
20	20	45	100	G9452920

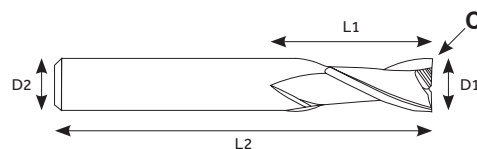


General Purpose

2 FLUTE K2 COATED CARBIDE CHAMFER PREP SLOT DRILL

General Purpose Milling of Steel <HRC45, Stainless Steel & Cast Iron

- K2 coated micrograin carbide, 1st choice for general machining where the best quality is required
- Suitable for dry milling applications at high temperatures (steel only)
- Chamfer edge preparation, ideal to protect cutting edge against vibration



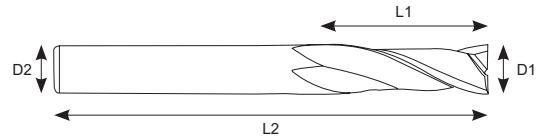
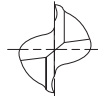
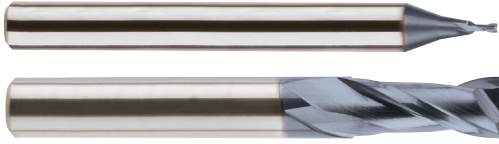
Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30~40	Hardened Steels HRC40~45	Stainless Steel	Cast Iron
●	●	○	○	○

D1	D2	L1	L2	C	Order Code
3	3	8	50		G9G44030
4	4	10	50	0.1	G9G44040
5	5	13	50		G9G44050
6	6	15	50		G9G44060
8	8	20	60		G9G44080
10	10	25	75	0.13	G9G44100
12	12	30	75		G9G44120
14	14	40	100	0.18	G9G44140
16	16	40	100		G9G44160
20	20	40	100	0.23	G9G44200

4G MILLS**High Performance****2 FLUTE COATED CARBIDE SLOT DRILL**

Dry or Wet Cutting all Steel, Stainless Steel, Cast Iron & Hardened Steel <HRC55

- Ultimate high performance, high precision all-rounder for steel, stainless, cast iron and hardened steel milling
- HSC = High speed cutting
- Temperature resistant 1200°C with outstanding wear resistance
- High accuracy, tolerance 0--0.012mm $\leq \phi 6$, 0--0.015mm $> \phi 6$
- Huge choice of lengths and diameters



Carbon & Alloy Steels ~HB325	Pre Hard. Steels HRC30-40	Hardened Steels HRC40-45	Hardened Steels HRC45-55	Stainless Steel	Cast Iron
●	●	●	●	●	●

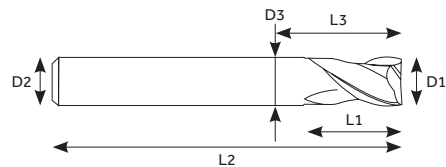
D1	D2	L1	L2	Order Code
0.03	4	0.04	40	SEME350003E
0.04	4	0.06	40	SEME350004E
0.1	4	0.2	40	SEME35001E
0.15	4	0.3	40	SEME350015E
0.2	4	0.4	40	SEME35002E
0.25	4	0.5	40	SEME350025E
0.3	4	0.6	40	SEME35003E
0.35	4	0.7	40	SEME350035E
0.4	4	0.8	40	SEME35004E
0.45	4	0.9	40	SEME350045E
0.5	4	1	40	SEME35005E
0.55	4	1.1	40	SEME350055E
0.6	4	1.2	40	SEME35006E
0.65	4	1.3	40	SEME350065E
0.7	4	1.4	40	SEME35007E
0.75	4	1.5	40	SEME350075E
0.8	4	1.6	40	SEME35008E
0.85	4	1.7	40	SEME350085E
0.9	4	1.8	40	SEME35009E
1	6	3	60	SEME7001003E
		6	60	SEME7001006E
		8	60	SEME7001008E
		10	60	SEME7001010E
1.2	6	3	50	SEME35012E
1.5	6	4	50	SEME35015E
		8	60	SEME7001508E
		10	60	SEME7001510E
		12	60	SEME7001512E
2	6	16	60	SEME7001516E
		6	50	SEME35020E
		8	60	SEME7002008E
		12	60	SEME7002012E
2.5	6	16	60	SEME7002016E
		7	50	SEME35025E
		16	60	SEME7002516E
		8	50	SEME35030E
3	6	12	70	SEME7003012E
		20	70	SEME7003020E
		26	70	SEME7003026E
		10	50	SEME35035E
3.5	6	10	50	SEME35040E
		12	70	SEME7004012E
		20	70	SEME7004020E
		30	70	SEME7004030E
4	6	14	50	SEME35045E
		15	60	SEME35050E
		20	70	SEME7005020E
		20	70	SEME7005020E

D1	D2	L1	L2	Order Code
5	6	30	80	SEME7005030E
5	6	40	100	SEME7005040E
5.5	6	15	60	SEME35055E
6	6	15	60	SEME35060E
6	6	20	70	SEME7006020E
6	6	35	90	SEME7006035E
6	6	30	100	SEME7006030100E
6	6	45	150	SEME7006045E
6.5	8	18	60	SEME35065E
7	8	20	60	SEME35070E
7.5	8	20	60	SEME35075E
8	8	20	70	SEME35080E
8	8	30	80	SEME7008030E
8	8	40	90	SEME7008040E
8	8	50	100	SEME7008050E
8	8	40	120	SEME7008040120E
8.5	10	22	70	SEME35085E
9	10	22	70	SEME35090E
9.5	10	24	70	SEME35095E
10	10	25	75	SEME35100E
10	10	35	100	SEME7010035E
10	10	50	100	SEME7010050E
10	10	60	110	SEME7010060E
10	10	40	120	SEME7010040120E
10.5	12	26	75	SEME35105E
11	12	30	75	SEME35110E
11.5	12	30	80	SEME35115E
12	12	30	80	SEME35120E
12	12	35	90	SEME7012035E
12	12	40	100	SEME7012040E
12	12	40	120	SEME7012040120E
12	12	60	150	SEME7012060150E
13	12	35	100	SEME35130E
14	14	35	100	SEME35140145E
15	16	30	100	SEME35150E
16	16	40	100	SEME35160E
16	16	40	150	SEME7016040E
17	16	42	100	SEME35170E
18	18	45	100	SEME35180185E
19	20	45	100	SEME35190E
20	20	45	100	SEME35200E
20	20	90	200	SEME7020090200E
20	20	110	200	SEME70200110E
25	25	50	120	SEME35250E

X5070**High Performance****2 FLUTE COATED NANOGRAIN CARBIDE SLOT DRILL**

Highest Performance Machining of Hardened Steel <HRC70

- X5070 blue coated nanograin carbide
- HSC = High speed cutting (dry)
- Excellent workpiece finish
- Designed for high precision milling operations, tolerance $0 \sim -0.012\text{mm} \leq \varnothing 6$, $0 \sim -0.015\text{mm} > \varnothing 6$
- Silicon based coating with ultra high heat and wear-resistance



Pre Hard. Steels	Hardened Steels		High Hard. Steels
HRC30-40	HRC40-45	HRC45-55	HRC55-70
○	○	●	●

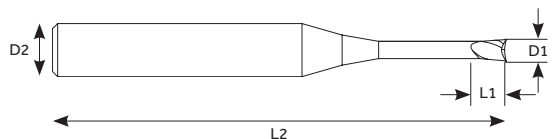
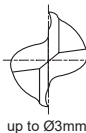
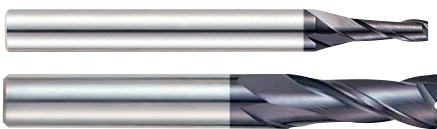


D1	D2	D3	L1	L2	L3	Order Code
0.1	4	-	0.2	40	-	G8A01001
0.2	4	-	0.4	40	-	G8A01002
0.3	4	-	0.6	40	-	G8A01003
0.4	4	-	0.8	40	-	G8A01004
0.5	4	-	1	40	-	G8A01005
0.6	4	-	1.2	40	-	G8A01006
0.7	4	-	1.4	40	-	G8A01007
0.8	4	-	1.6	40	-	G8A01008
0.9	4	-	2	40	-	G8A01009
1	6	0.95	1.5	50	3	G8A01010
1.5	6	1.45	1.7	50	4	G8A01015
2	6	1.95	2	50	5	G8A01020
2.5	6	2.4	2.5	55	6	G8A01025
3	6	2.85	3	55	8	G8A01030
3.5	6	3.35	3.5	55	9	G8A01035
4	6	3.85	4	55	10	G8A01040
5	6	4.85	5	55	13	G8A01050
6	6	5.85	6	55	15	G8A01060
8	8	7.7	8	65	20	G8A01080
10	10	9.7	10	75	25	G8A01100
12	12	11.7	12	85	28	G8A01120
16	16	15.7	16	90	32	G8A01160
20	20	19.7	20	105	40	G8A01200

X-POWER PRO**High Performance****2 FLUTE COATED ULTRAFINE CARBIDE SLOT DRILL**

High Speed Machining of Medium-High Hardness Steel <HRC55 & Cast Iron

- Y coated ultrafine micrograin carbide
- HSC = Suitable for high speed machining
- High precision milling in medical, optical, aerospace, electronics, mould & die industries
- Suitable for dry cutting on steel & hardened steel



Alloy Steels	Pre Hard. Steels	Hardened Steels
HB225-325	HRC30-40	HRC40-60
●	●	●



D1	D2	L1	L2	Order Code
0.4	3	0.8	40	GM810004
0.5	3	1	40	GM810005
0.6	3	1.2	40	GM810006
0.7	3	1.4	40	GM810007
0.8	3	1.6	40	GM810008
0.9	3	2	40	GM810009
1	4	2.5	40	GM810010
1	6	2.5	40	GM810901
1.2	4	4	40	GM810012
1.4	4	4	40	GM810014
1.5	4	4	40	GM810015
1.5	6	4	40	GM810902
2	4	6	40	GM810020
2	6	6	40	GM810903
3	6	8	45	GM810030

D1	D2	L1	L2	Order Code
3.5	6	10	45	GM810035
4	6	11	45	GM810040
5	6	13	50	GM810050
6	6	13	50	GM810060
7	8	16	60	GM810070
8	8	19	60	GM810080
9	10	19	70	GM810090
10	10	22	70	GM810100
11	12	22	75	GM810110
12	12	26	75	GM810120
14	14	26	85	GM810140
16	16	32	100	GM810160
18	18	32	100	GM810180
20	20	38	105	GM810200

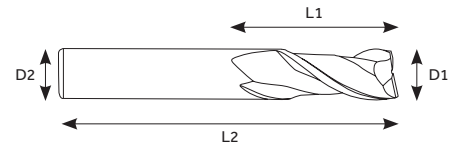
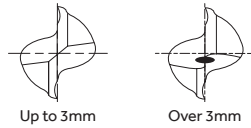
JG JET-POWER

Advanced Performance

2 FLUTE COATED CARBIDE SLOT DRILL

Dedicated Geometry for Medium to High Performance Stainless Steel & Titanium Slotting

- Specific geometry and coating for best tool life and surface finish in stainless steel & titanium slotting
- HSC = Suitable for high speed machining
- Reinforced cutting edge reduces chipping of corner edges
- Also suitable for low hardness steels (under HRC45)



Alloy Steels	Pre Hard. Steels	Stainless Steel	Titanium
HB225~325	HRC30~40		
☐	☐	☒	☒

D1	D2	L1	L2	Order Code
1	4	2.5	40	EH911010
1	6	2.5	40	EH911901
1.5	4	4	40	EH911015
1.5	6	4	40	EH911902
2	4	6	40	EH911020
2	6	6	40	EH911903
2.5	4	8	40	EH911025
2.5	6	8	40	EH911904
3	6	8	45	EH911030
3.5	6	10	45	EH911035
4	6	11	45	EH911040
4.5	6	11	45	EH911045
5	6	13	50	EH911050
5.5	6	13	50	EH911055
6	6	13	50	EH911060
6.5	8	16	60	EH911065
7	8	16	60	EH911070
7.5	8	16	60	EH911075
8	8	19	60	EH911080
8.5	10	19	70	EH911085
9	10	19	70	EH911090
9.5	10	19	70	EH911095
10	10	22	70	EH911100
11	12	22	75	EH911110
12	12	26	75	EH911120
14	16	26	85	EH911140
16	16	32	100	EH911160
18	16	32	100	EH911180
20	20	38	105	EH911200
22	20	38	105	EH911220
25	25	45	120	EH911250

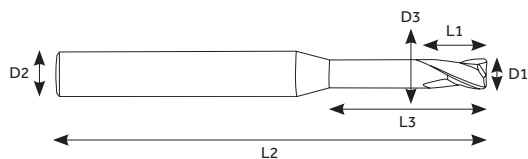
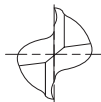


General Purpose

2 FLUTE COATED CARBIDE RIB PROCESSING SLOT DRILL

General Purpose Milling of Steel <HRC40

- K2 coated micrograin carbide, 1st choice for general machining
- Suitable for dry milling applications at high temperatures (steel only)
- Long neck for deep pocket milling



Carbon & Alloy Steels ~HB325	Pre Hard. Steels HRC30-40	Stainless Steel	Cast Iron
●	●	○	○

D1	D2	D3	L1	L2	L3	Order Code
0.4	4	0.37	0.7	50	2	G9B80004
					4	G9B80901
0.5	4	0.45	0.75	50	2	G9B80005
				50	4	G9B80902
				50	6	G9B80903
0.6	4	0.55	0.9	50	2	G9B80006
				50	4	G9B80904
				50	6	G9B80905
0.7	4	0.65	1.1	50	4	G9B80007
				50	6	G9B80906
				50	8	G9B80008
0.8	4	0.75	1.2	50	6	G9B80907
				50	8	G9B80908
				50	10	G9B80009
0.9	4	0.85	1.4	50	8	G9B80909
				50	10	G9B80910
				50	12	G9B80010
1	4	0.95	1.5	50	8	G9B80911
				50	10	G9B80912
				50	12	G9B80913
1.2	4	1.15	1.8	50	6	G9B80012
				50	8	G9B80914
				50	10	G9B80915
1.5	4	1.45	2.3	50	12	G9B80916
				50	14	G9B80015
				50	16	G9B80917
2	4	1.95	3	50	10	G9B80918
				50	12	G9B80919
				50	14	G9B80920
2.5	4	2.40	3.7	50	16	G9B80921
				50	18	G9B80922
				50	20	G9B80923
3	6	2.85	4.5	50	8	G9B80020
				50	12	G9B80924
				50	16	G9B80925
4	6	3.85	6	50	10	G9B80926
				50	12	G9B80927
				50	14	G9B80928
5	6	4.85	7.5	50	16	G9B80929
				50	18	G9B80930
				50	20	G9B80931
6	6	5.85	9	50	8	G9B80025
				50	12	G9B80932
				50	16	G9B80933
8	6	7.85	12	50	20	G9B80934
				50	25	G9B80935
				50	30	G9B80936
10	6	9.85	15	50	25	G9B80937
				50	30	G9B80938
				50	35	G9B80939
12	6	11.85	18	50	30	G9B80940
				50	35	G9B80941
				50	40	G9B80942



High Performance

2 FLUTE COATED CARBIDE RIB PROCESSING SLOT DRILL

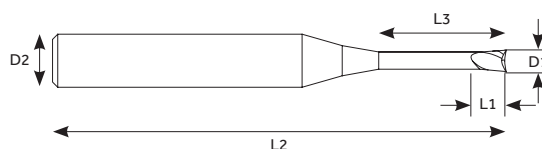
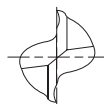
Excellent Performance on Dry or Wet Cutting all Steel, Stainless, Cast Iron & Hardened Steel <HRC55

- YG-1's Y1200 coating & premium micrograin carbide substrate
- HSC = High speed cutting
- Due to new coating and tool geometry, 4G Mills can machine up to 1200°C with outstanding wear resistance
- Wide range of neck lengths for rib processing/pocket milling operations

Up to Ø5mm



Over Ø5mm



Carbon & Alloy Steels ~HB325	Pre Hard. Steels HRC30-40	Hardened Steels		Stainless Steel	Cast Iron
		HRC40-45	HRC45-55		
●	●	●	●	●	●

D1	D2	L1	L2	L3	Order Code
0.5	4	0.7	45	6	SEM84500506E
			45	10	SEM84500510E
0.6	4	0.9	45	2	SEM84500602E
			45	4	SEM84500604E
			45	6	SEM84500606E
0.7	4	1.2	45	10	SEM84500610E
			45	2	SEM84500702E
			45	4	SEM84500704E
0.8	4	1.2	45	6	SEM84500706E
			45	8	SEM84500708E
			45	12	SEM84500712E
0.9	4	1.3	45	2	SEM84500802E
			45	4	SEM84500804E
			45	6	SEM84500806E
1	4	1.5	45	10	SEM84500810E
			45	6	SEM84500906E
			45	10	SEM84500910E
1.2	4	1.8	50	2	SEM84501002E
			50	4	SEM84501004E
			50	6	SEM84501006E
			50	8	SEM84501008E
			50	10	SEM84501010E
			50	16	SEM84501016E
			50	20	SEM84501020E
1.4	4	2.1	70	30	SEM84501030E
			50	4	SEM84501204E
			50	10	SEM84501210E
			50	16	SEM84501216E
1.5	4	2.3	60	26	SEM84501226E
			50	8	SEM84501408E
			50	10	SEM84501410E
			50	16	SEM84501416E
1.6	4	2.3	50	8	SEM84501608E
			50	12	SEM84501612E
			50	20	SEM84501620E
			50	8	SEM84501808E
			50	20	SEM84501820E
1.8	4	2.7	50	6	SEM84502006E
			50	12	SEM84502012E
			50	16	SEM84502016E
			50	20	SEM84502020E
			70	30	SEM84502030E
			80	40	SEM84502040E
2	4	3	110	60	SEM84502060E
			50	8	SEM84502508E
			50	12	SEM84502512E
			50	16	SEM84502516E
			50	20	SEM84502520E
2.5	4	4	61	16	SEM84503016E
			63	20	SEM84503020E
			65	26	SEM84503026E
			70	35	SEM84503035E
			100	60	SEM84503060E
3	6	4.5	50	12	SEM84504012E
			60	20	SEM84504020E
			70	30	SEM84504030E
			70	35	SEM84504035E
			100	50	SEM84504050E
4	6	6	100	60	SEM84504060E
			60	12	SEM84505012E
			60	20	SEM84505020E
			70	30	SEM84505030E
			80	40	SEM84505040E
5	6	8	90	50	SEM84505050E
			60	15	SEM84506015E
			60	20	SEM84506020E
			70	30	SEM84506030E
6	6	9	80	30	SEM84508030E
			100	42	SEM84508042E
			75	30	SEM84510030E
8	8	12	80	35	SEM84510035E
			75	30	SEM84510030E
10	10	15	75	30	SEM84510030E
			80	35	SEM84510035E

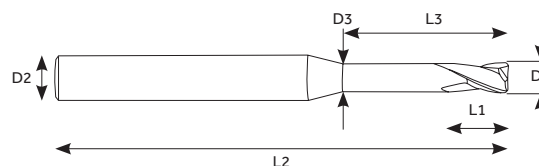
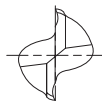
D1	D2	L1	L2	L3	Order Code
1.6	4	2.3	50	8	SEM84501608E
			50	12	SEM84501612E
			50	20	SEM84501620E
1.8	4	2.7	50	8	SEM84501808E
			50	20	SEM84501820E
			50	6	SEM84502006E
2	4	3	50	12	SEM84502012E
			50	16	SEM84502016E
			50	20	SEM84502020E
			70	30	SEM84502030E
			80	40	SEM84502040E
			110	60	SEM84502060E
2.5	4	4	50	8	SEM84502508E
			50	12	SEM84502512E
			50	16	SEM84502516E
			50	20	SEM84502520E
3	6	4.5	61	16	SEM84503016E
			63	20	SEM84503020E
			65	26	SEM84503026E
			70	35	SEM84503035E
			100	60	SEM84503060E
4	6	6	50	12	SEM84504012E
			60	20	SEM84504020E
			70	30	SEM84504030E
			70	35	SEM84504035E
			100	50	SEM84504050E
5	6	8	100	60	SEM84504060E
			60	20	SEM84505020E
			70	30	SEM84505030E
			80	40	SEM84505040E
			90	50	SEM84505050E
6	6	9	60	15	SEM84506015E
			60	20	SEM84506020E
			70	30	SEM84506030E
8	8	12	80	30	SEM84508030E
			100	42	SEM84508042E
			75	30	SEM84510030E
10	10	15	80	35	SEM84510035E
			75	30	SEM84510030E

HSC & GENERAL MILLING

IG X5070**High Performance****2 FLUTE COATED NANOGRAIN CARBIDE RIB PROCESSING SLOT DRILL**

Highest Performance Machining of Hardened Steel <HRC70

- X5070 blue coated nanograin carbide
- HSC = High speed cutting (dry)
- Excellent workpiece finish
- Designed for high precision milling operation
- Silicone based coating with ultra high heat and wear-resistance



Pre Hard. Steels	Hardened Steels		High Hard. Steels
HRC30-40	HRC40-45	HRC45-55	HRC55-70
○	○	●	●

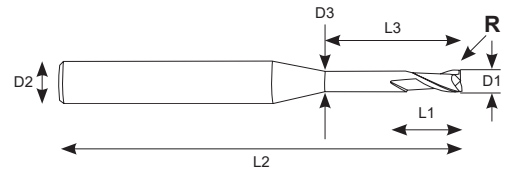
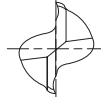
D1	D2	D3	L1	L2	L3	Order Code
0.1	4	0.085	0.15	45	0.3	G8A45863
					0.5	G8A45864
0.2	4	0.17	0.3	45	0.5	G8A45002
					1	G8A45815
					1.5	G8A45816
					1	G8A45003
0.3	4	0.27	0.45	45	1.5	G8A45844
					2	G8A45817
					3	G8A45818
					4	G8A45842
0.4	4	0.37	0.6	45	1	G8A45843
					2	G8A45004
					3	G8A45984
					4	G8A45985
0.5	4	0.45	0.7	45	5	G8A45986
					2	G8A45005
					2.5	G8A45861
					4	G8A45988
0.6	4	0.55	0.9	45	6	G8A45989
					8	G8A45990
					2	G8A45006
					3	G8A45860
0.8	4	0.75	1.2	45	4	G8A45991
					6	G8A45992
					8	G8A45993
					10	G8A45819
1	4	0.95	1.5	45	2	G8A45862
					4	G8A45008
					6	G8A45908
					8	G8A45909
					10	G8A45994
					12	G8A45995
					45	G8A45996
					45	G8A45010
					45	G8A45912
					45	G8A45913
					45	G8A45914
					50	G8A45997
					55	G8A45998
					20	G8A45998

D1	D2	D3	L1	L2	L3	Order Code
1.2	4	1.15	1.8	45	6	G8A45012
				45	8	G8A45915
				45	10	G8A45916
				45	12	G8A45917
1.5	4	1.45	2.3	50	16	G8A45999
				45	6	G8A45015
				45	8	G8A45923
				45	10	G8A45924
2	4	1.95	3	45	12	G8A45925
				50	14	G8A45926
				50	16	G8A45927
				55	18	G8A45928
3	6	2.85	4.5	55	20	G8A45810
				45	6	G8A45958
				45	8	G8A45020
				45	10	G8A45959
4	6	3.85	6	45	12	G8A45960
				50	14	G8A45961
				50	16	G8A45962
				55	18	G8A45963
				55	20	G8A45964
				60	25	G8A45966
				70	30	G8A45814
				45	10	G8A45975
				45	12	G8A45976
				50	14	G8A45977
				55	16	G8A45978
				55	18	G8A45979
				60	20	G8A45980
				65	25	G8A45981
				70	30	G8A45832
				80	35	G8A45833
				90	40	G8A45983
				50	12	G8A45040
				60	16	G8A45801
				60	20	G8A45802
				70	25	G8A45803
				70	30	G8A45834
				80	35	G8A45835
				90	40	G8A45836
				90	45	G8A45837
				100	50	G8A45838

MG X-POWER^{PRO}**High Performance****2 FLUTE COATED NANOGRAIN CARBIDE RIB PROCESSING SLOT DRILL**

High Speed Machining of Medium-High Hardness Steel <HRC55 & Cast Iron

- Y coated ultrafine micrograin carbide
- HSC = Suitable for high speed machining
- Tool has reduced neck diameter to prevent interference in pocket milling
- Wide range of reach lengths (L3) from short to long
- Suitable for dry cutting on steel & hardened steel



Alloy Steels	Pre Hard. Steels	Hardened Steels
HB225-325	HRC30-40	HRC40-60
●	●	●

D1	R	D2	D3	L1	L2	L3	Order Code
1	0.1	4	0.95	1.5	45	6	GM8A1010
						8	GM8A1920
						10	GM8A1921
1.2	0.2	4	1.15	1.8	45	6	GM8A1012
					45	6	GM8A1015
					45	8	GM8A1937
1.5	0.2	4	1.45	2.3	45	10	GM8A1938
					45	12	GM8A1939
					50	16	GM8A1941
1.8	0.2	4	1.75	2.7	45	6	GM8A1018
					45	6	GM8A1960
					45	8	GM8A1020
2	0.2	4	1.95	3	45	12	GM8A1962
					45	10	GM8A1961
					50	16	GM8A1964
					55	20	GM8A1966
					60	25	GM8A1967
2.5	0.2	4	2.4	3.7	45	12	GM8A1969
					55	16	GM8A1981
					60	20	GM8A1983
					65	25	GM8A1984
					70	30	GM8A1976
3	0.3	6	2.85	4.5	90	40	GM8A1985
					50	12	GM8A1040
					60	16	GM8A1986
					60	20	GM8A1987
4	0.3	6	3.85	6	80	20	GM8A1060
					100	40	GM8A1802

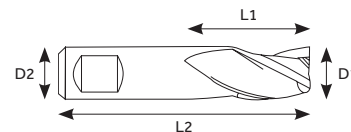
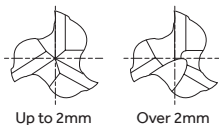


General Purpose

3 FLUTE COATED CARBIDE THROWAWAY SLOT DRILL

General Purpose Milling of Steel <HRC45, Stainless Steel & Cast Iron

- K2 coated micrograin carbide, 1st choice for general machining
- Suitable for dry milling applications at high temperatures (steel only)
- Centre cutting
- Short length throwaway style



Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30-40	Hardened Steels HRC40-45	Stainless Steel	Cast Iron
●	●	○	○	○

D1	D2	L1	L2	Order Code
0.5	3 ▶	1.5	38	G9553005
0.6	3 ▶	1.5	38	G9553006
0.8	3 ▶	2	38	G9553008
1	3 ▶	2	38	G9553010
1.2	3 ▶	2	38	G9553012
1.5	3 ▶	2	38	G9553015
2	6	4	35	G9410020
2.5	6	5	36	G9410025
3	6	5	36	G9410030
3.5	6	6	37	G9410035
4	6	7	38	G9410040
4.5	6	8	38	G9410045
5	6	8	39	G9410050
5.5	6	8	39	G9410055
6	6	8	39	G9410060
7	8	10	42	G9410070
8	8	11	43	G9410080
9	10	11	48	G9410090
10	10	13	50	G9410100
12	12	15	55	G9410120
14	14	15	58	G9410140
16	16	18	62	G9410160
18	18	20	70	G9410180
20	20	22	75	G9410200

▶ Plain Shank only

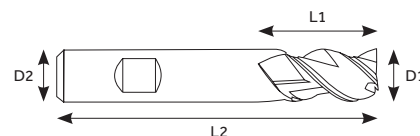


General Purpose

3 FLUTE 45° HELIX COATED CARBIDE SLOT DRILL

General Purpose Milling of Steel <HRC45, Stainless Steel, Cast Iron, Copper & Aluminium

- K2 coated micrograin carbide, 1st choice for general machining
- Suitable for dry milling applications at high temperatures (steel only)
- 45° helix and deep flute pockets improve chip control on sticky stainless steel, soft steels, aluminium & copper
- Centre cutting



Carbon Steels ~HB225	Alloy Steels HB225-325	Pre Hard. Steels HRC30-40	Hardened Steels HRC40-45	Stainless Steel	Cast Iron	Copper	Aluminium
●	●	●	○	○	○	○	○

D1	D2	L1	L2	Order Code
3	6	7	57	G9447030
3.5	6	7	57	G9447035
4	6	8	57	G9447040
5	6	10	57	G9447050
6	6	10	57	G9447060
8	8	16	63	G9447080
9	10	16	72	G9447090
10	10	19	72	G9447100
12	12	22	83	G9447120
14	14	22	83	G9447140
16	16	26	92	G9447160
18	18	26	92	G9447180
20	20	32	104	G9447200

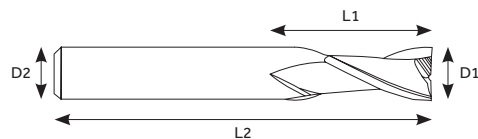
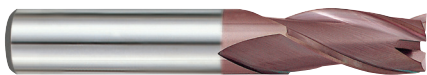


General Purpose

3 FLUTE COATED CARBIDE SLOT DRILL

General Purpose Milling of Steel <HRC45, Stainless Steel & Cast Iron

- K2 coated micrograin carbide, 1st choice for general machining where the best quality is required
- Suitable for dry milling applications at high temperatures (steel only)
- Centre cutting
- Plain shank



Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30-40	Hardened Steels HRC40-45	Stainless Steel	Cast Iron
●	●	○	○	○

D1	D2	L1	L2	Order Code
1	4	3	50	G9425010
1.5	4	4	50	G9425015
2	4	6	50	G9425020
2.5	4	8	50	G9425025
3	3	8	50	G9425030
3.5	4	10	50	G9425035
4	4	10	50	G9425040
4.5	4.5	12	50	G9425045
5	5	13	50	G9425050
5.5	5.5	15	50	G9425055
6	6	15	50	G9425060
7	7	20	60	G9425070
8	8	20	60	G9425080
9	9	20	60	G9425090
10	10	25	75	G9425100
12	12	30	75	G9425120
14	14	40	100	G9425140
16	16	40	100	G9425160
20	20	40	100	G9425200

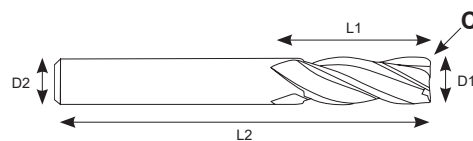


General Purpose

3 FLUTE COATED CARBIDE END MILL CHAMFER PREP

General Purpose Milling of Steel <HRC45, Stainless Steel & Cast Iron

- K2 coated micrograin carbide, 1st choice for general machining where the best quality is required
- Suitable for dry milling applications at high temperatures (steel only)
- Centre cutting with chamfer edge preparation, ideal to protect cutting edge against vibration
- Plain shank



Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30-40	Hardened Steels HRC40-45	Stainless Steel	Cast Iron
●	●	○	○	○

D1	D2	L1	L2	C	Order Code
3	3	8	50		G9G47030
4	4	10	50		G9G47040
5	5	13	50	0.1	G9G47050
6	6	15	50		G9G47060
8	8	20	60		G9G47080
10	10	25	75	0.13	G9G47100
12	12	30	75		G9G47120
14	14	40	100	0.18	G9G47140
16	16	40	100		G9G47160
20	20	40	100	0.23	G9G47200

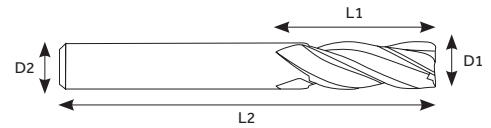


General Purpose

4 FLUTE COATED CARBIDE END MILL

General Purpose Milling of Steel <HRC45, Stainless Steel & Cast Iron

- K2 coated micrograin carbide, 1st choice for general machining where the best quality is required
- Suitable for dry milling applications at high temperatures (steel only)
- Centre cutting



Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30-40	Hardened Steels HRC40-45	Stainless Steel	Cast Iron
●	●	○	○	○

D1	D2	L1	L2	Order Code
1	4	3	50	G9432010
1.5	4	4	50	G9432015
2	4	6	50	G9432020
2.5	4	8	50	G9432025
3	3	8	50	G9432030
3	3	20	60	G9453903
3.5	4	10	50	G9432035
4	4	10	50	G9432040
4	4	20	60	G9453904
4.5	4.5	12	50	G9432045
5	5	13	50	G9432050
5	5	25	75	G9453905
5.5	5.5	15	50	G9432055
6	6	15	50	G9432060
6	6	30	75	G9453906
7	7	20	60	G9432070
8	8	20	60	G9432080
8	8	30	75	G9453908
9	9	20	60	G9432090
10	10	25	75	G9432100
10	10	40	100	G9453910
12	12	30	75	G9432120
12	12	45	100	G9453912
14	14	40	100	G9432140
14	14	45	100	G9453914
16	16	40	100	G9432160
16	16	45	100	G9453916
18	18	45	100	G9453918
20	20	40	100	G9432200
20	20	45	100	G9453920

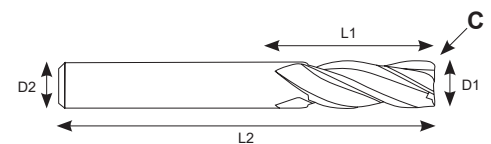


General Purpose

4 FLUTE COATED CARBIDE END MILL CHAMFER PREP

General Purpose Milling of Steel <HRC45, Stainless Steel & Cast Iron

- K2 coated micrograin carbide, 1st choice for general machining where the best quality is required
- Suitable for dry milling applications at high temperatures (steel only)
- Centre cutting with chamfer edge preparation, ideal to protect cutting edge against vibration
- Plain shank



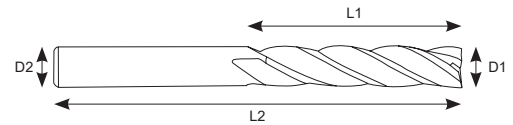
Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30-40	Hardened Steels HRC40-45	Stainless Steel	Cast Iron
●	●	○	○	○

D1	D2	L1	L2	C	Order Code
3	3	8	50		G9G50030
4	4	10	50		G9G50040
5	5	13	50	0.1	G9G50050
6	6	15	50		G9G50060
8	8	20	60		G9G50080
10	10	25	75	0.13	G9G50100
12	12	30	75		G9G50120
14	14	40	100	0.18	G9G50140
16	16	40	100		G9G50160
20	20	40	100	0.23	G9G50200

MG 4G MILLS**High Performance****4 FLUTE COATED CARBIDE END MILL FINISHER**

Dry or Wet Cutting all Steel, Stainless Steel, Cast Iron & Hardened Steel <HRC55

- Exceptional performance in finishing applications for steel, stainless, cast iron and hardened steel milling
- Temperature resistant 1200°C with outstanding wear resistance
- High accuracy, tolerance 0~-0.03mm
- Wide choice of lengths and diameters
- Centre cutting



Carbon & Alloy Steels ~HB325	Pre Hard. Steels HRC30~40	Hardened Steels HRC40~45 HRC45~55		Stainless Steel	Cast Iron
●	●	●	●	○	●

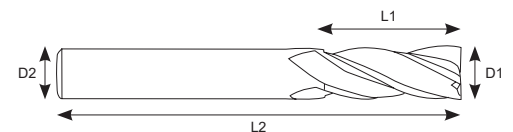
D1	D2	L1	L2	Order Code
1	6	4	60	SEME7201004E
		6		SEME7201006E
1.5	6	6	60	SEME7201506E
		8		SEME7202008E
2	6	12	60	SEME7202012E
		14		SEME7202014E
2.5	6	10	60	SEME7202510E
		12		SEME7202512E
		10		SEME7203010E
		12		SEME7203012E
3	6	20	70	SEME7203020E
		30		SEME7203030E
		12		SEME7204012E
4	6	16	70	SEME7204016E
		20		SEME7204020E
		30		SEME7204030E
		20	70	SEME7205020E
		25	70	SEME7205025E
5	6	30	80	SEME7205030E
		40	100	SEME7205040E
		20	70	SEME7206020E
6	6	30	80	SEME7206030E
		35	90	SEME7206035E

D1	D2	L1	L2	Order Code
		40	90	SEME7206040E
6	6	30	100	SEME7206030100E
		45	150	SEME7206045E
		30	80	SEME7208030E
		40	90	SEME7208040E
8	8	50	100	SEME7208050E
		50	150	SEME7208050150E
		30	80	SEME7210030E
10	10	50	100	SEME7210050E
		50	200	SEME7210050200E
		35	90	SEME7212035E
		40	100	SEME7212040E
		60	110	SEME7212060E
12	12	45	130	SEME7212045E
		60	150	SEME7212060150E
		60	200	SEME7212060200E
14	16	50	110	SEME7214050E
		50	110	SEME7216050E
16	16	60	120	SEME7216060E
		70	150	SEME7216070150E
		60	130	SEME7220060E
20	20	90	200	SEME7220090200E
		120	250	SEME72200120E

MG 4G MILLS**High Performance****4 FLUTE COATED CARBIDE END MILL MULTIPLE HELIX HEAVY CUTTING**

Dry or Wet Cutting all Steel, Stainless Steel, Cast Iron & Hardened Steel <HRC55

- Multiple helix geometry for heavy cutting steel, stainless, cast iron and hardened steel milling
- Temperature resistant 1200°C with outstanding wear resistance
- Anti-vibration geometry
- Wide choice of lengths and diameters
- Centre cutting



Carbon & Alloy Steels ~HB325	Pre Hard. Steels HRC30~40	Hardened Steels HRC40~45 HRC45~55		Stainless Steel	Cast Iron
●	●	●	●	○	●

D1	D2	L1	L2	Order Code
1	6	2	40	SEME7101002E
		3	50	SEME7101003E
		6	50	SEME7101006E
		4	50	SEME71015E
1.5	6	8	50	SEME7101508E
		10	50	SEME7101510E
		2	40	SEME7102002E
2	6	6	50	SEME71020E
		12	50	SEME7102012E
		7	50	SEME71025E
2.5	6	12	50	SEME7102512E
		6	40	SEME7103006E
3	6	12	50	SEME7103012E
		8	40	SEME7104008E
4	6	12	50	SEME7104012E
		16	50	SEME7104016E
5	6	10	50	SEME7105010E

D1	D2	L1	L2	Order Code
5	6	15	60	SEME71050E
		20	60	SEME7105020E
		12	50	SEME7106012E
6	6	15	60	SEME71060E
		25	60	SEME7106025E
		16	60	SEME7108016E
8	8	20	70	SEME71080E
		30	70	SEME7108030E
		22	65	SEME7110022E
10	10	25	75	SEME71100E
		35	75	SEME7110035E
12	12	30	80	SEME71120E
		40	80	SEME7112040E
14	16	35	100	SEME71140E
16	16	32	100	SEME7116032E
		40	100	SEME71160E
20	20	45	100	SEME71200E

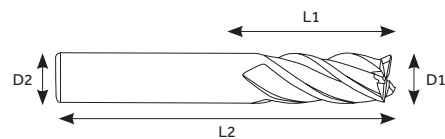
JG JET-POWER

Advanced Performance

4 FLUTE 35° HELIX COATED CARBIDE SLOT DRILL

High Performance Machining of Stainless Steel & Titanium

- Specific geometry and coating for best tool life and surface finish in stainless steel & titanium milling
- HSC = Suitable for high speed machining
- Reinforced cutting edge reduces chipping of corner edges
- Also suitable for low hardness steels (under HRC45)

MG
SC

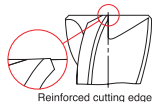
4

35°

PLAIN

TIAIN
850

HSC



Reinforced cutting edge

Alloy Steels	Pre Hard. Steels	Stainless Steel	Titanium
HB225-325	HRC30-40		
○	○	●	●

D1	D2	L1	L2	Order Code
2	4	6	40	EH913020
2	6	6	40	EH913901
2.5	4	8	40	EH913025
2.5	6	8	40	EH913902
3	6	8	45	EH913030
3.5	6	10	45	EH913035
4	6	11	45	EH913040
4.5	6	11	45	EH913045
5	6	13	50	EH913050
5.5	6	13	50	EH913055
6	6	13	50	EH913060
6.5	8	16	60	EH913065
7	8	16	60	EH913070
7.5	8	16	60	EH913075
8	8	19	60	EH913080
8.5	10	19	70	EH913085
9	10	19	70	EH913090
9.5	10	19	70	EH913095
10	10	22	70	EH913100
11	12	22	75	EH913110
12	12	26	75	EH913120
14	16	26	85	EH913140
16	16	32	100	EH913160
18	16	32	100	EH913180
20	20	38	105	EH913200
22	20	38	105	EH913220
25	25	45	120	EH913250

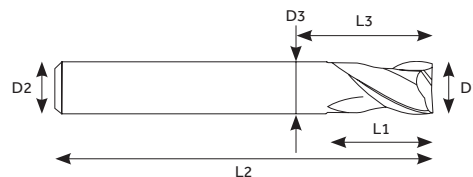
YG X5070

High Performance

4 FLUTE COATED NANOGRAIN CARBIDE NECKED END MILL

Highest Performance Machining of Hardened Steel <HRC70

- X5070 blue coated nanograin carbide
- HSC = High speed cutting (dry)
- Excellent workpiece finish
- Designed for high precision milling operation, tolerance $0 \sim -0.012\text{mm} \leq \varnothing 6$, $0 \sim -0.015\text{mm} > \varnothing 6$
- Silicon based coating with ultra high heat and wear-resistance



Pre Hard. Steels HRC30-40	Hardened Steels HRC40-45	Hardened Steels HRC45-55	High Hard. Steels HRC55-70
○	○	●	●

D1	D2	D3	L1	L2	L3	Order Code
1	6	0.95	1.5	50	3	G8A02010
2	6	1.95	2	50	5	G8A02020
3	6	2.85	3	55	8	G8A02030
4	6	3.85	4	55	10	G8A02040
5	6	4.85	5	55	13	G8A02050
6	6	5.85	6	55	15	G8A02060
8	8	7.7	8	65	20	G8A02080
10	10	9.7	10	75	25	G8A02100
12	12	11.7	12	85	28	G8A02120
16	16	15.7	16	90	32	G8A02160
20	20	19.7	20	105	40	G8A02200

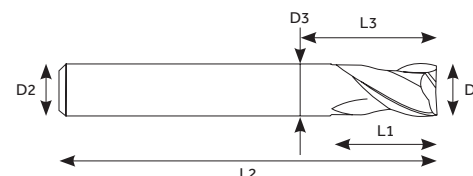
YG 4G MILLS

High Performance

4 FLUTE COATED CARBIDE NECKED END MILL

Excellent Performance on Dry or Wet Cutting all Steel, Stainless, Cast Iron & Hardened Steel <HRC55

- YG-1's Y1200 coating & premium micrograin carbide substrate
- HSC = High speed cutting
- Due to new coating and tool geometry, 4G Mills can machine up to 1200°C with outstanding wear resistance
- Wide range of neck lengths for rib processing/pocket milling operations



Carbon & Alloy Steels ~HB325	Pre Hard. Steels HRC30-40	Hardened Steels HRC40-45	Hardened Steels HRC45-55	Stainless Steel	Cast Iron
●	●	●	●	●	●

D1	D2	L1	L2	L3	Order Code
1	4	1.5	50	4	SEME7301004E
			50	5	SEME7301005E
			50	6	SEME7301006E
			50	8	SEME7301008E
			50	12	SEME7301012E
			50	16	SEME7301016E
			50	20	SEME7301020E
			70	30	SEME7301030E
1.5	4	2.3	50	8	SEME7301508E
			50	10	SEME7301510E
			50	12	SEME7301512E
			50	16	SEME7301516E
			60	22	SEME7301522E
			70	30	SEME7301530E
			50	8	SEME7302008E
			50	10	SEME7302010E
2	4	3	50	12	SEME7302012E
			50	14	SEME7302014E
			50	16	SEME7302016E
			50	20	SEME7302020E
			60	26	SEME7302026E
			70	35	SEME7302035E
			90	45	SEME7302045E

D1	D2	L1	L2	L3	Order Code
3	6	4.5	50	10	SEME7303010E
			60	16	SEME7303016E
			65	22	SEME7303022E
			70	30	SEME7303030E
			80	40	SEME7303040E
			100	60	SEME7303060E
4	6	6	60	16	SEME7304016E
			60	20	SEME7304020E
			65	26	SEME7304026E
			70	35	SEME7304035E
			80	40	SEME7304040E
			100	60	SEME7304060E
5	6	8	60	20	SEME7305020E
			75	35	SEME7305035E
			100	60	SEME7305060E
6	6	9	60	15	SEME7306015E
			70	30	SEME7306030E
8	8	12	70	25	SEME7308025E
			100	42	SEME7308042E
10	10	15	75	30	SEME7310030E
			100	45	SEME7310045E
12	12	20	80	35	SEME7312035E
			110	50	SEME7312050E

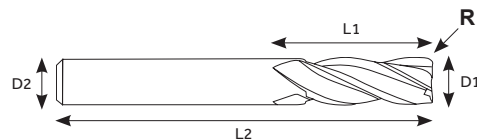


General Purpose

2 FLUTE COATED CARBIDE SLOT DRILLS, CORNER RADIUS

General Purpose Milling of Steel <HRC45, Stainless Steel & Cast Iron

- K2 coated micrograin carbide, 1st choice for general machining
- Suitable for dry milling applications at high temperatures (steel only)
- Designed for milling of radius bottom slots, fillets and special contours



Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30-40	Hardened Steels HRC40-45	Stainless Steel	Cast Iron
●	●	○	○	○

D1	R	D2	L1	L2	Order Code
2	0.2	4	4	50	G9B82020
	0.3				G9B82901
	0.5				G9B82902
2.5	0.2	4	5	50	G9B82025
	0.3				G9B82903
	0.5				G9B82904
3	0.2	4	6	50	G9B82030
	0.3				G9B82905
	0.5				G9B82906
	1	4	6	75	G9B82907
	0.5				G9B83030
4	1	4	8	50	G9B83901
	0.2				G9B82040
	0.3				G9B82908
	0.5	4	8	75	G9B82909
	1				G9B82910
5	0.2	6	10	50	G9B83040
	0.3				G9B83902
	0.5				G9B82050
	1	6	10	75	G9B82911
	0.5				G9B82912
6	0.2	6	12	50	G9B82913
	0.3				G9B83050
	0.5				G9B83903
	1	6	12	75	G9B82060
	0.5				G9B82914
6	0.2	6	12	75	G9B82915
	0.3				G9B82916
	0.5				G9B83060
1	1	6	12	75	G9B83904

D1	R	D2	L1	L2	Order Code
8	0.5	8	16	60	G9B82080
	1				G9B82917
	1.5				G9B82918
	2				G9B82919
	2.5				G9B82920
10	0.5	10	20	75	G9B83080
	1				G9B83905
	1.5				G9B83906
	2				G9B83907
	2.5				G9B83908
12	0.5	12	24	100	G9B82100
	1				G9B82921
	1.5				G9B82922
	2				G9B82923
	2.5				G9B82924
12	0.5	12	24	100	G9B83100
	1				G9B83909
	1.5				G9B83910
	2				G9B83911
	2.5				G9B83912
12	0.5	12	24	100	G9B82120
	1				G9B82925
	1.5				G9B82926
	2				G9B82927
	2.5				G9B82928
12	0.5	12	24	100	G9B83120
	1				G9B83913
	1.5				G9B83914
	2				G9B83915
	2.5				G9B83916

HSC & GENERAL MILLING

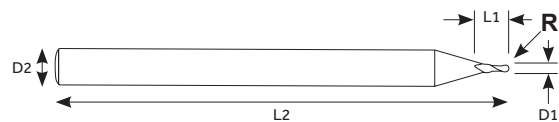
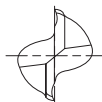
WG X5070

High Performance

2 FLUTE COATED NANOGRAIN CARBIDE, MINIATURE, CORNER RADIUS

Highest Performance Machining of Hardened Steel <HRC70

- X5070 blue coated nanograin carbide
- HSC = High speed cutting (dry)
- Excellent workpiece finish
- Deep slotting is possible with reduced neck
- Silicon based coating with ultra high heat and wear-resistance



Pre Hard. Steels HRC30-40	Hardened Steels HRC40-45	High Hard. Steels HRC45-55	HRC55-70
○	○	●	●

D1	R	D2	L1	L2	Order Code
0.3	-	6	0.45	50	G8A50003
0.4	-		0.6		G8A50004
0.5	0.05		0.7		G8A50005
0.6	0.05		0.9		G8A50006
0.8	0.05		1.2		G8A50008
1	0.1	6	1.5	50	G8A50010
1.2	0.1		1.8		G8A50012
1.5	0.15		2.2		G8A50015
2	0.15		2.2		G8A50020

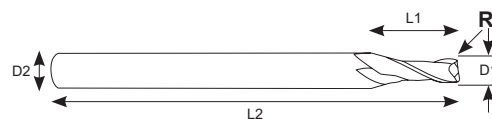


High Performance

2 FLUTE COATED CARBIDE SLOT DRILLS, CORNER RADIUS

Excellent Performance on Dry or Wet Cutting all Steel, Stainless Steel, Cast Iron & Hardened Steel <HRC55

- YG-1's Y1200 coating & premium micrograin carbide substrate
- HSC = High speed cutting
- Due to special coating and tool geometry, 4G Mills can machine up to 1200°C with outstanding wear resistance
- Available with various corner radius from R0.02mm to R5.0mm



Carbon & Alloy Steels ~HB325	Pre Hard. Steels HRC30~40	Hardened Steels HRC40~45 HRC45~55		Stainless Steel	Cast Iron
●	●	●	●	●	●

D1	R	D2	L1	L2	Order Code
0.3	0.02	4	0.6	40	SEMD99003002E
	0.05				SEMD99003005E
0.4	0.05	4	0.8	40	SEMD99004005E
	0.1				SEMD9900401E
0.5	0.05	4	1	40	SEMD99005005E
	0.1				SEMD9900501E
1	0.05	6	2.5	50	SEMD99010005E
	0.1				SEMD9901001E
	0.2				SEMD9901002E
	0.3				SEMD9901003E
1.5	0.05	6	4	50	SEMD99015005E
	0.1				SEMD9901501E
	0.2				SEMD9901502E
	0.3				SEMD9901503E
2	0.1	6	6	50	SEMD9901505E
	0.2				SEMD9902001E
	0.3				SEMD9902002E
	0.5				SEMD9902003E
2.5	0.1	6	7	60	SEMD9902005E
	0.2				SEMD9902501E
	0.3				SEMD9902502E
	0.5				SEMD9902503E
3	0.1	6	8	60	SEMD9902505E
	0.2				SEMD9903001E
	0.3				SEMD9903002E
	0.5				SEMD9903003E
4	0.1	4	10	70	SEMD9903005E
	0.2				SEMD9903010E
	0.3				SEMD99040014SE
	0.5				SEMD99040024SE
5	0.1	6	13	90	SEMD99040034SE
	0.2				SEMD99040054SE
	0.3				SEMD99040104SE
	0.5				SEMD99040011004SE
6	0.1	6	15	90	SEMD99040021004SE
	0.2				SEMD99040031004SE
	0.3				SEMD99040051004SE
	0.5				SEMD99040101004SE
8	0.1	6	2.5	50	SEMD9905001E
	0.2				SEMD9905002E
	0.3				SEMD9905003E
	0.5				SEMD9905005E
10	0.1	6	4	50	SEMD9905010E
	0.2				SEMD9906002060E
	0.3				SEMD9906003060E
	0.5				SEMD9906005060E
12	0.1	6	6	60	SEMD9906010060E
	0.2				SEMD9906001E
	0.3				SEMD9906002E
	0.5				SEMD9906003E
14	0.1	6	8	60	SEMD9906005E
	0.2				SEMD9906010E
	0.3				SEMD9906015E
	0.5				SEMD9906020E
16	0.1	6	10	70	SEMD9906005E
	0.2				SEMD9906010E
	0.3				SEMD9906015E
	0.5				SEMD9906020E
20	0.1	6	15	130	SEMD9906005E
	0.2				SEMD9906010E
	0.3				SEMD9906015E
	0.5				SEMD9906020E

D1	R	D2	L1	L2	Order Code
0.3	0.02	4	0.6	40	SEMD99003002E
	0.05				SEMD99003005E
0.4	0.05	4	0.8	40	SEMD99004005E
	0.1				SEMD9900401E
0.5	0.05	4	1	40	SEMD99005005E
	0.1				SEMD9900501E
1	0.05	6	2.5	50	SEMD99010005E
	0.1				SEMD9901001E
	0.2				SEMD9901002E
	0.3				SEMD9901003E
1.5	0.05	6	4	50	SEMD99015005E
	0.1				SEMD9901501E
	0.2				SEMD9901502E
	0.3				SEMD9901503E
2	0.1	6	6	50	SEMD9901505E
	0.2				SEMD9902001E
	0.3				SEMD9902002E
	0.5				SEMD9902003E
2.5	0.1	6	7	60	SEMD9902005E
	0.2				SEMD9902501E
	0.3				SEMD9902502E
	0.5				SEMD9902503E
3	0.1	6	8	60	SEMD9902505E
	0.2				SEMD9903001E
	0.3				SEMD9903002E
	0.5				SEMD9903003E
4	0.1	4	10	70	SEMD9903005E
	0.2				SEMD9903010E
	0.3				SEMD99040014SE
	0.5				SEMD99040024SE
5	0.1	6	13	90	SEMD99040034SE
	0.2				SEMD99040054SE
	0.3				SEMD99040104SE
	0.5				SEMD99040011004SE
6	0.1	6	15	90	SEMD99040021004SE
	0.2				SEMD99040031004SE
	0.3				SEMD99040051004SE
	0.5				SEMD99040101004SE
8	0.1	6	2.5	50	SEMD9905001E
	0.2				SEMD9905002E
	0.3				SEMD9905003E
	0.5				SEMD9905005E
10	0.1	6	4	50	SEMD9905010E
	0.2				SEMD9906002060E
	0.3				SEMD9906003060E
	0.5				SEMD9906005060E
12	0.1	6	6	60	SEMD9906010060E
	0.2				SEMD9906001E
	0.3				SEMD9906002E
	0.5				SEMD9906003E
14	0.1	6	8	60	SEMD9906005E
	0.2				SEMD9906010E
	0.3				SEMD9906015E
	0.5				SEMD9906020E
16	0.1	6	10	70	SEMD9906005E
	0.2				SEMD9906010E
	0.3				SEMD9906015E
	0.5				SEMD9906020E
20	0.1	6	15	130	SEMD9906005E
	0.2				SEMD9906010E
	0.3				SEMD9906015E
	0.5				SEMD9906020E

HSC & GENERAL MILLING

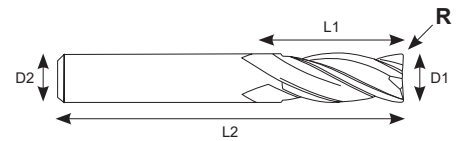


General Purpose

4 FLUTE COATED CARBIDE END MILLS, CORNER RADIUS

General Purpose Milling of Steel <HRC45, Stainless Steel & Cast Iron

- K2 coated micrograin carbide, 1st choice for general machining
- Suitable for dry milling applications at high temperatures (steel only)
- Designed for milling of radius bottom slots, fillets and special contours



Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30~40	Hardened Steels HRC40~45	Stainless Steel	Cast Iron
●	●	○	○	○

D1	R	D2	L1	L2	Order Code
2	0.2	4	4	50	G9B84020
	0.3				G9B84901
	0.5				G9B84902
2.5	0.2	4	5	50	G9B84025
	0.3				G9B84903
	0.5				G9B84904
3	0.2	4	6	50	G9B84030
	0.3				G9B84905
	0.5				G9B84906
	1	4	6	75	G9B84907
	0.5				G9B85030
	1				G9B85901
4	0.2	4	8	50	G9B84040
	0.3				G9B84908
	0.5				G9B84909
	1	4	8	75	G9B84910
	0.5				G9B85040
	1				G9B85902
5	0.2	6	10	50	G9B84050
	0.3				G9B84911
	0.5				G9B84912
	1	6	10	75	G9B84913
	0.5				G9B85050
	1				G9B85903
6	0.2	6	12	50	G9B84060
	0.3				G9B84914
	0.5				G9B84915
	1	6	12	75	G9B84916
	0.5				G9B85060
	1				G9B85904
	0.5	8	16	60	G9B84080
	1				G9B84917
	1.5				G9B84918
	2				G9B84919
8	2.5	8	16	100	G9B84920
	0.5				G9B85080
	1				G9B85905
	1.5				G9B85906
	2				G9B85907
	2.5				G9B85908
10	0.5	10	20	75	G9B84100
	1				G9B84921
	1.5				G9B84922
	2				G9B84923
	2.5	10	20	100	G9B84924
	0.5				G9B85100
	1				G9B85909
	1.5				G9B85910
12	2	12	24	75	G9B85911
	2.5				G9B85912
	0.5				G9B84120
	1				G9B84925
	1.5				G9B84926
	2				G9B84927
	2.5	12	24	100	G9B84928
	0.5				G9B85120
	1				G9B85913
	1.5				G9B85914
	2				G9B85915
	2.5				G9B85916

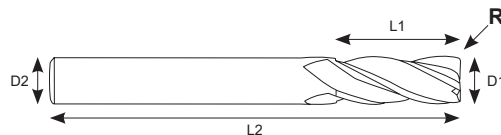


High Performance

4 FLUTE COATED CARBIDE END MILLS, CORNER RADIUS, MULTIPLE HELIX

Excellent Performance on Dry or Wet Cutting all Steel, Stainless Steel, Cast Iron & Hardened Steel <HRC55

- YG-1's Y1200 coating & premium micrograin carbide substrate
- HSC = High speed cutting
- Vibration is minimised due to Multiple Helix geometry (3mm+ diameter only)
- Due to new coating and tool geometry, 4G Mills can machine up to 1200°C with outstanding wear resistance
- Available with various corner radius from R0.02mm to R5.0mm

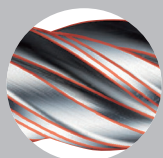


Carbon & Alloy Steels ~HB325	Pre Hard. Steels HRC30~40	Hardened Steels HRC40~45	HRC45~55	Stainless Steel	Cast Iron
●	●	●	●	●	●

D1	R	D2	L1	L2	Order Code
1	0.05	6	2.5	50	SEME01010005E
	0.1				SEME0101001E
	0.2				SEME0101002E
	0.3				SEME0101003E
1.5	0.05	6	4	50	SEME01015005E
	0.1				SEME0101501E
	0.2				SEME0101502E
	0.3				SEME0101503E
2	0.5	6	6	50	SEME0101505E
	0.1				SEME0102001E
	0.2				SEME0102002E
	0.3				SEME0102003E
2.5	0.5	6	7	60	SEME0102005E
	0.1				SEME0102501E
	0.2				SEME0102502E
	0.3				SEME0102503E
3	0.5	6	8	60	SEME0102505E
	0.1				SEME0103001E
	0.2				SEME0103002E
	0.3				SEME0103003E
4	0.5	6	10	70	SEME0103005E
	1				SEME0103010E
	0.1				SEME01040014SE
	0.2				SEME01040024SE
4.5	0.3	6	11	80	SEME01040034SE
	0.5				SEME01040054SE
	1				SEME01040104SE
	0.1				SEME01040011004SE
5	0.2	6	13	90	SEME01040021004SE
	0.3				SEME01040031004SE
	0.5				SEME01040051004SE
	1				SEME01040101004SE
6	0.2	6	15	90	SEME01040502E
	0.3				SEME0104503E
	0.5				SEME0104505E
	1				SEME0105002E
6	0.3	6	15	90	SEME0105003E
	0.5				SEME0105005E
	1				SEME0105010E
	0.1				SEME0106001060E
6	0.2	6	15	90	SEME0106002060E
	0.3				SEME0106002E
	0.5				SEME0106003E
	1				SEME0106005E
6	1.5	6	15	90	SEME0106010E
	2				SEME0106015E
	0.5				SEME0106020E
	1				SEME0106005130E
6	1	6	15	130	SEME0106010130E
	1				SEME0106010130E

D1	R	D2	L1	L2	Order Code
8	0.3	8	20	70	SEME0108003070E
	0.5				SEME0108005070E
	1				SEME0108010070E
	0.2				SEME0108002E
8	0.3	8	20	100	SEME0108003E
	0.5				SEME0108005E
	1				SEME0108010E
	1.5				SEME0108015E
8	2	8	20	100	SEME0108020E
	2.5				SEME0108025E
	3				SEME0108030E
	0.5				SEME0108005150E
8	1	8	20	150	SEME0108010150E
	0.3				SEME0110003075E
	0.5				SEME0110005075E
	1				SEME0110010075E
10	0.2	10	25	100	SEME0110002E
	0.3				SEME0110003E
	0.5				SEME0110005E
	1				SEME0110010E
10	1.5	10	25	100	SEME0110015E
	2				SEME0110020E
	2.5				SEME0110025E
	3				SEME0110030E
10	4	10	22	150	SEME0110040E
	0.5				SEME0110005150E
	1				SEME0110010150E
	0.3				SEME0112003080E
12	0.5	12	30	80	SEME0112005080E
	1				SEME0112010080E
	0.2				SEME0112002E
	0.3				SEME0112003E
12	0.5	12	30	110	SEME0112005E
	1				SEME0112010E
	1.5				SEME0112015E
	2				SEME0112020E
12	2.5	12	30	110	SEME0112025E
	3				SEME0112030E
	4				SEME0112040E
	5				SEME0112050E
16	0.5	12	30	150	SEME0112005150E
	1				SEME0112010150E
	0.5				SEME0116005E
	1				SEME0116010E
16	1.5	16	32	150	SEME0116015E
	2				SEME0116020E
	1				SEME0120010E
	1.5				SEME0120015E
20	2	20	38	150	SEME0120020E
	2				SEME0120020E

HSC & GENERAL MILLING



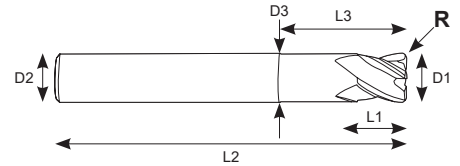
MULTIPLE HELIX DESIGN

The multiple helix design gives the end mill extra strength in both semi-roughing and finishing conditions, enabling heavier cutting and reducing vibration. The reduced vibration increases tool life and improves surface finish.

YG 4G MILLS**High Performance****4 FLUTE COATED CARBIDE, NECKED, CORNER RADIUS, MULTIPLE HELIX**

Excellent Performance on Dry or Wet Cutting all Steel, Stainless, Cast Iron & Hardened Steel <HRC55

- YG-1's Y1200 coating & premium micrograin carbide substrate
- HSC = High speed cutting
- Due to new coating and tool geometry, 4G Mills can machine up to 1200°C with outstanding wear resistance
- Vibration is minimised due to Multiple Helix geometry (3mm+ diameter only)



Carbon & Alloy Steels ~HB325	Pre Hard. Steels HRC30~40	Hardened Steels HRC40~45 HRC45~55		Stainless Steel	Cast Iron
●	●	●	●	●	●

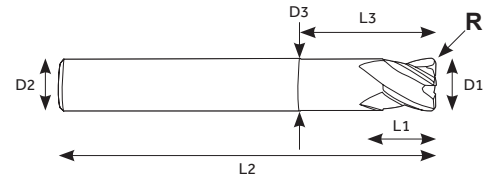
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1	0.1	4	1.5	50	4	SEME640100104E
					8	SEME640100108E
	0.2	4	1.5	50	4	SEME640100204E
					8	SEME640100208E
	0.3	4	1.5	50	4	SEME640100304E
					8	SEME640100308E
1.5	0.1	4	2.3	50	6	SEME640150106E
					12	SEME640150112E
	0.2	4	2.3	50	6	SEME640150206E
					12	SEME640150212E
	0.3	4	2.3	50	6	SEME640150306E
					12	SEME640150312E
2	0.1	4	3	50	6	SEME640200106E
					12	SEME640200112E
	0.2	4	3	50	6	SEME640200206E
					12	SEME640200212E
	0.3	4	3	50	6	SEME640200306E
					12	SEME640200312E
3	0.1	4	3	50	6	SEME640200506E
					12	SEME640200512E
	0.2	6	4.5	50	10	SEME640300210E
					12	SEME640300212E
	0.2	6	4.5	60	16	SEME640300216E
					20	SEME640300220E
4	0.2	6	4.5	50	8	SEME640300308E
					10	SEME640300310E
	0.3	6	4.5	50	10	SEME640300310E
					12	SEME640300312E
	0.3	6	4.5	60	16	SEME640300316E
					20	SEME640300320E
5	0.2	6	4.5	50	8	SEME640300508E
					10	SEME640300510E
	0.3	6	4.5	50	10	SEME640300510E
					12	SEME640300512E
	0.3	6	4.5	60	16	SEME640300516E
					20	SEME640300520E
6	0.2	6	4.5	50	8	SEME640300508E
					10	SEME640300510E
	0.3	6	4.5	50	10	SEME640300510E
					12	SEME640300512E
	0.3	6	4.5	60	16	SEME640300516E
					20	SEME640300520E
7	0.2	6	4.5	50	8	SEME640300508E
					10	SEME640300510E
	0.3	6	4.5	50	10	SEME640300510E
					12	SEME640300512E
	0.3	6	4.5	60	16	SEME640300516E
					20	SEME640300520E
8	0.2	6	4.5	50	8	SEME640300508E
					10	SEME640300510E
	0.3	6	4.5	50	10	SEME640300510E
					12	SEME640300512E
	0.3	6	4.5	60	16	SEME640300516E
					20	SEME640300520E
9	0.2	6	4.5	50	8	SEME640300508E
					10	SEME640300510E
	0.3	6	4.5	50	10	SEME640300510E
					12	SEME640300512E
	0.3	6	4.5	60	16	SEME640300516E
					20	SEME640300520E
10	0.2	6	4.5	50	8	SEME640300508E
					10	SEME640300510E
	0.3	6	4.5	50	10	SEME640300510E
					12	SEME640300512E
	0.3	6	4.5	60	16	SEME640300516E
					20	SEME640300520E
11	0.2	6	4.5	50	8	SEME640300508E
					10	SEME640300510E
	0.3	6	4.5	50	10	SEME640300510E
					12	SEME640300512E
	0.3	6	4.5	60	16	SEME640300516E
					20	SEME640300520E
12	0.2	6	4.5	50	8	SEME640300508E
					10	SEME640300510E
	0.3	6	4.5	50	10	SEME640300510E
					12	SEME640300512E
	0.3	6	4.5	60	16	SEME640300516E
					20	SEME640300520E
13	0.2	6	4.5	50	8	SEME640300508E
					10	SEME640300510E
	0.3	6	4.5	50	10	SEME640300510E
					12	SEME640300512E
	0.3	6	4.5	60	16	SEME640300516E
					20	SEME640300520E
14	0.2	6	4.5	50	8	SEME640300508E
					10	SEME640300510E
	0.3	6	4.5	50	10	SEME640300510E
					12	SEME640300512E
	0.3	6	4.5	60	16	SEME640300516E
					20	SEME640300520E
15	0.2	6	4.5	50	8	SEME640300508E
					10	SEME640300510E
	0.3	6	4.5	50	10	SEME640300510E
					12	SEME640300512E
	0.3	6	4.5	60	16	SEME640300516E
					20	SEME640300520E
16	0.2	6	4.5	50	8	SEME640300508E
					10	SEME640300510E
	0.3	6	4.5	50	10	SEME640300510E
					12	SEME640300512E
	0.3	6	4.5	60	16	SEME640300516E
					20	SEME640300520E
17	0.2	6	4.5	50	8	SEME640300508E
					10	SEME640300510E
	0.3	6	4.5	50	10	SEME640300510E
					12	SEME640300512E
	0.3	6	4.5	60	16	SEME640300516E
					20	SEME640300520E
18	0.2	6	4.5	50	8	SEME640300508E
					10	SEME640300510E
	0.3	6	4.5	50	10	SEME640300510E
					12	SEME640300512E
	0.3	6	4.5	60	16	SEME640300516E
					20	SEME640300520E
19	0.2	6	4.5	50	8	SEME640300508E
					10	SEME640300510E
	0.3	6	4.5	50	10	SEME640300510E
					12	SEME640300512E
	0.3	6	4.5	60	16	SEME640300516E
					20	SEME640300520E
20	0.2	6	4.5	50	8	SEME640300508E
					10	SEME640300510E
	0.3	6	4.5	50	10	SEME640300510E
					12	SEME640300512E
	0.3	6	4.5	60	16	SEME640300516E
					20	SEME640300520E

D1	R	D2	L1	L2	L3	Order Code
4	0.2	6	6	50	10	SEME640400210E
				60	16	SEME640400216E
				65	26	SEME640400226E
	0.3	6	6	50	12	SEME640400312E
				60	16	SEME640400316E
				65	26	SEME640400326E
	0.5	6	6	50	10	SEME640400510E
				60	16	SEME640400516E
				60	20	SEME640400520E
	1	6	6	50	10	SEME640401010E
				60	16	SEME640401016E
				65	26	SEME640401026E
6	0.3	6	9	60	20	SEME6406003E
	0.5			60	20	SEME6406005E
	1			60	20	SEME6406010E
				90	30	SEME6406010090E
8	0.2	8	12	70	25	SEME6408002E
	0.3					SEME6408003E
	0.5					SEME6408005E
	1					SEME6408010E
	1.5					SEME6408015E
	2					SEME6408020E
10	0.3	10	15	75	30	SEME6410003E
	0.5					SEME6410005E
	1					SEME6410010E
	1.5					SEME6410015E
12	2	12	18	80	32	SEME6410020E
	0.3					SEME6412003E
	0.5					SEME6412005E
	1					SEME6412010E
	1.5					SEME6412015E
	2					SEME6412020E
16	0.5	16	20	100	35	SEME6416005E
	1					SEME6416010E
20	0.5	20	35	100	40	SEME6420005E
	1					SEME6420010E
	0.5					20
1	SEME6420010150E					

X5070**High Performance****4 FLUTE COATED NANOGRAIN CARBIDE, NECKED, CORNER RADIUS**

Highest Performance Machining of Hardened Steel <HRC70

- X5070 blue coated nanograin carbide
- HSC = High speed cutting (dry)
- Excellent workpiece finish
- Deep slotting is possible with reduced neck
- Silicon based coating with ultra high heat and wear-resistance



Pre Hard. Steels	Hardened Steels	High Hard. Steels
HRC30-40	HRC40-45	HRC45-55
HRC55-70		
○	○	●

D1	R	D2	D3	L1	L2	L3	Order Code
1	0.1	3	-	1.5	40	-	G8A37010
	0.1	6	-	1.5	40	-	G8A37901
1.5	0.1	3	-	2.2	40	-	G8A37015
	0.1	6	-	2.2	40	-	G8A37902
2	0.1	3	1.95	3	40	6	G8A37020
	0.1	6	1.95	3	40	6	G8A37903
2.5	0.1	3	2.4	4	40	6	G8A37025
	0.1	6	2.4	4	40	6	G8A37904
3	0.1	6	2.85	4	45	7	G8A37030
	0.3			4	55	12	G8A47916
	0.3			4	55	16	G8A47917
	0.3			4	55	20	G8A47918
	0.5			4	55	10	G8A47030
	0.5			4	55	16	G8A47901
3.5	0.5			4	55	20	G8A47902
	0.1	6	3.35	5	45	9	G8A37035
4	0.1	6	3.85	5	45	9	G8A37040
	0.3			5	55	12	G8A47919
	0.3			5	55	16	G8A47920
	0.3			5	55	20	G8A47921
	0.5			5	55	12	G8A47040
	0.5			5	55	16	G8A47903
	0.5			5	55	20	G8A47904
	1			5	55	12	G8A47922
4.5	0.1	6	4.35	6	45	10	G8A37045
5	0.2	6	4.85	6	50	11	G8A37050
6	0.2	6	5.85	7	50	14	G8A37060
	0.5			7	60	20	G8A47060
	0.5			9	90	20	G8B0806005090
	1			7	60	20	G8A47905
	1			9	90	20	G8B0806010090
	1.5			7	60	20	G8A47906
8	0.2	8	7.7	9	60	18	G8A37080
	0.5			9	60	25	G8A47910
	0.5			12	100	25	G8B0808005100
	1			9	60	25	G8A47080
	1			12	100	25	G8B0808010100
	1.5			9	60	25	G8A47907
10	2	10	9.7	9	60	25	G8A47913
	0.2			12	75	25	G8A37100
	0.5			11	70	32	G8A47911
	0.5			15	100	32	G8B0810005100
	1			11	70	32	G8A47100
	1			15	100	32	G8B0810010100
12	1.5	12	11.7	11	70	32	G8A47908
	2			11	70	32	G8A47914
	2			15	100	32	G8B0810020100
	0.3			15	75	30	G8A37120
	0.5			12	80	38	G8A47912
	0.5			18	110	38	G8B0812005110
16	1	16	15.7	12	80	38	G8A47120
	1			18	110	38	G8B0812010110
	1.5			12	80	38	G8A47909
	2			12	80	38	G8A47915
	2			18	110	38	G8B0812020110
	0.3			18	90	38	G8A37160
20	0.3	20	19.7	24	100	45	G8A37200

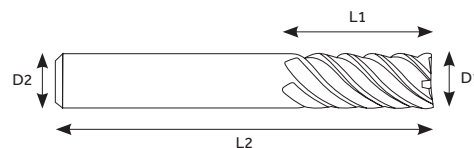
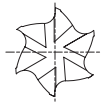


General Purpose

6 FLUTE CARBIDE END MILL 45° HELIX

For General Purpose Milling of Steels <HRC45 & Cast Iron

- K2 coated micrograin carbide, 1st choice for general machining
- Suitable for dry milling applications at high temperatures (steel only)
- Suitable for machining at high feed rates for finishing operations
- Exceptional performance in finishing operations due to 45° helix and sharp cutting edges



Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30-45	Stainless Steel	Cast Iron
●	●	○	●

D1	D2	L1	L2	Order Code
5	6	13	50	G9F45050
6	6	16	50	G9F45060
8	8	19	60	G9F45080
10	10	22	75	G9F45100
12	12	26	75	G9F45120
		50	100	G9F46120
14	14	30	90	G9F45140
16	16	32	100	G9F45160
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18	18	38	100	G9F45180
20	20	38	100	G9F45200
		75	150	G9F46200

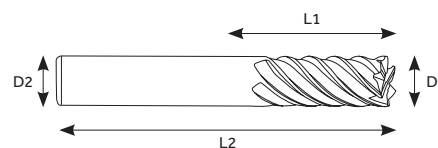
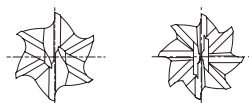
WG JET-POWER

High Performance

6-8 FLUTE ULTRAFINE CARBIDE END MILL 45° HELIX POSITIVE RAKE

For Supreme Finish Milling on Stainless Steel, Titanium & Inconel

- The Jet Power 45° helix end mill features a sharp cutting edge and positive rake angle, specifically designed for finishing applications on stainless steel and heat resistant metals
- TiAlN coated ultrafine micrograin carbide
- HSC = Suitable for high speed machining
- Reinforced cutting edge reduces chipping of corner edges
- Ideal for lower power or older machines where high performance cutting is not possible



Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30-40	Stainless Steel	Titanium	HRSA's e.g. Inconel
○	○	●	●	●

D1	D2	L1	L2	No. of Flutes	Order Code
6	6	13	57	6	EH915060
7	8	16	63		EH915070
8	8	19	63		EH915080
9	10	19	72		EH915090
10	10	22	72		EH915100
12	12	26	83		EH915120
14	14	26	83		EH915140
16	16	32	92		EH915160
18	18	32	92	8	EH915180
20	20	38	104		EH915200
25	25	44	104		EH915250

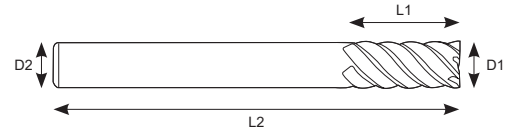
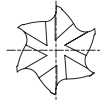


High Performance

6 FLUTE CARBIDE END MILL 45° HELIX

Exceptional Performance on Steel & Hardened Steel <HRC55, Stainless Steel & Cast Iron

- The 4G Mill geometry offers exceptional performance on steels & hardened steels <55 rockwell, as well as good performance in stainless steel and cast iron applications
- YG-1's Y1200 coating & premium micrograin carbide substrate
- HSC = High speed cutting
- Due to new coating and tool geometry, 4G Mills can machine up to 1200°C with outstanding wear resistance
- Exceptional surface finish in profiling operations
- Available with flute lengths <8xD



Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30-40	Hardened Steels HRC40-70	Stainless Steel	Cast Iron
●	●	●	○	●

D1	D2	L1	L2	Order Code
6	6	15	60	SEME75060E
		20	70	SEME7506020E
		30	80	SEME7506030E
		30	110	SEME7506030110E
8	8	20	70	SEME75080E
		30	80	SEME7508030E
		35	90	SEME7508035E
		40	90	SEME7508040E
10	10	40	130	SEME7508040130E
		25	75	SEME75100E
		30	80	SEME7510030E
		40	90	SEME7510040E
12	12	50	100	SEME7510050E
		50	150	SEME7510050150E
		30	80	SEME75120E
		50	100	SEME7512050E
16	16	60	110	SEME7512060E
		60	150	SEME7512060150E
		40	100	SEME75160E
		50	110	SEME7516050E
20	20	60	120	SEME7516060E
		90	150	SEME7516090E
		110	200	SEME75160110E
		110	250	SEME75160110250E
		45	100	SEME75200E
		60	120	SEME7520060E
		70	130	SEME7520070E
		110	200	SEME75200110E
		110	250	SEME75200110250E
		110	300	SEME75200110300E

HSC & GENERAL MILLING

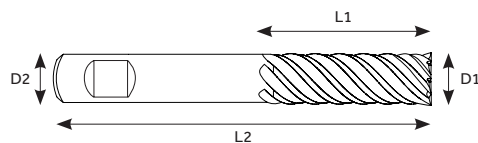


High Performance

6 FLUTE ULTRAFINE CARBIDE END MILL 45° HELIX

High Performance All-Rounder for Stainless Steel, HRSA's, Cast Iron & Steels <HRC40

- Y1200 coated ultrafine micrograin carbide
- The V7+ geometry of the variable pitch reduces chatter for high speed and trochoidal milling
- Can be used for finishing or high feed roughing
- Recommended for use with high performance tool holders



Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30-40	Stainless Steel	Titanium	HRSA's e.g. Inconel	Cast Iron
●	●	●	●	●	●

D1	D2	L1	L2	Order Code	
				Plain Shank	Weldon Shank
6	6	13	57	GMG12060	GMG13060
		24	75	GMG14060	GMG15060
8	8	19	63	GMG12080	GMG13080
		32	75	GMG14080	GMG15080
10	10	22	72	GMG12100	GMG13100
		40	100	GMG14100	GMG15100
12	12	26	83	GMG12120	GMG13120
		48	120	GMG14120	GMG15120
16	16	32	92	GMG12160	GMG13160
		64	140	GMG14160	GMG15160
20	20	38	104	GMG12200	GMG13200
		80	150	GMG14200	GMG15200
25	25	44	104	GMG12250	GMG13250
		100	170	GMG14250	GMG15250

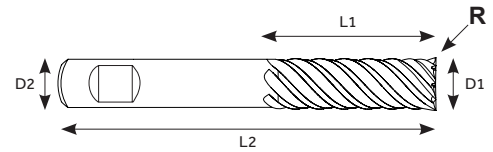


High Performance

6 FLUTE ULTRAFINE CARBIDE 45° HELIX CORNER RADIUS

High Performance All-Rounder for Stainless Steel, HRSA's, Cast Iron & Steels <HRC40

- Y1200 coated ultrafine micrograin carbide
- The V7+ geometry of the variable pitch reduces chatter for high speed and trochoidal milling
- Can be used for finishing or high feed roughing
- Recommended for use with high performance tool holders



Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30-40	Stainless Steel	Titanium	HRSA's e.g. Inconel	Cast Iron
●	●	●	●	●	●

D1	R	D2	L1	L2	Order Code	
					Plain Shank	Weldon Shank
6	0.5	6	13	57	GMG16060	GMG17060
	1				GMG16901	GMG17901
	0.5	6	24	75	GMG18060	GMG19060
	1				GMG18901	GMG19901
8	0.5	8	32	75	GMG18080	GMG19080
	1				GMG18902	GMG19902
	2	8	19	63	GMG18903	GMG19903
	0.5				GMG16080	GMG17080
10	1	10	40	100	GMG16902	GMG17902
	1.5				GMG18100	GMG19100
	2				GMG18904	GMG19904
	0.5				GMG18905	GMG19905
	1	10	22	72	GMG18906	GMG19906
	1.5				GMG16100	GMG17100
	2				GMG16903	GMG17903
	0.5				GMG16904	GMG17904
12	1	12	26	83	GMG16905	GMG17905
	1.5				GMG16120	GMG17120
	2				GMG16906	GMG17906
	3				GMG16907	GMG17907
	0.5				GMG16908	GMG17908
	1				GMG16909	GMG17909
	1.5	12	48	120	GMG18120	GMG19120
	2				GMG18907	GMG19907
	3				GMG18908	GMG19908
	0.5				GMG18909	GMG19909
	1				GMG18910	GMG19910
	1.5				GMG16160	GMG17160
16	2	16	32	92	GMG16910	GMG17910
	3				GMG16911	GMG17911
	0.5				GMG16912	GMG17912
	1				GMG18160	GMG19160
	1.5	16	64	140	GMG18911	GMG19911
	2				GMG18912	GMG19912
	3				GMG18913	GMG19913
	0.5				GMG16200	GMG17200
20	1	20	38	104	GMG16913	GMG17913
	1.5				GMG16914	GMG17914
	2				GMG16915	GMG17915
	3				GMG18200	GMG19200
	0.5	20	80	150	GMG18914	GMG19914
	1				GMG18915	GMG19915
	1.5				GMG18916	GMG19916
	2				GMG18917	GMG19917
25	3	25	44	104	GMG18918	GMG19918
	0.5				GMG16250	GMG17250
	1				GMG16916	GMG17916
	1.5				GMG16917	GMG17917
	2				GMG16918	GMG17918

HSC & GENERAL MILLING

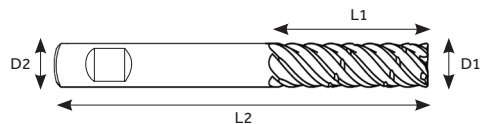


High Performance

6 FLUTE ULTRAFINE CARBIDE END MILL 45° HELIX, CHIP SPLITTER

High Performance All-Rounder for Stainless Steel, HRSA's, Cast Iron & Steels <HRC40

- Y1200 coated ultrafine micrograin carbide
- The V7+ geometry of the variable pitch reduces chatter for high speed and trochoidal milling
- Can be used for finishing or high feed roughing
- Recommended for use with high performance tool holders



Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30-40	Stainless Steel	Titanium	HRSA's e.g. Inconel	Cast Iron
●	●	●	●	●	●

D1	D2	L1	L2	Order Code	
				Plain Shank	Weldon Shank
6	6	24	75	GMH56060	GMH57060
8	8	32	75	GMH56080	GMH57080
10	10	40	100	GMH56100	GMH57100
12	12	48	120	GMH56120	GMH57120
16	16	64	140	GMH56160	GMH57160
20	20	80	150	GMH56200	GMH57200
25	25	100	170	GMH56250	GMH57250

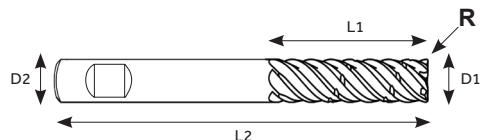


High Performance

6 FLUTE ULTRAFINE CARBIDE END MILL 45° HELIX CORNER RADIUS, CHIP SPLITTER

High Performance All-Rounder for Stainless Steel, HRSA's, Cast Iron & Steels <HRC40

- Y1200 coated ultrafine micrograin carbide
- The V7+ geometry of the variable pitch reduces chatter for high speed and trochoidal milling
- Can be used for finishing or high feed roughing
- Recommended for use with high performance tool holders



Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30-40	Stainless Steel	Titanium	HRSA's e.g. Inconel	Cast Iron
●	●	●	●	●	●

D1	R	D2	L1	L2	Order Code	
					Plain Shank	Weldon Shank
6	0.5	6	24	75	GMH58060	GMH59060
	1				GMH58901	GMH59901
8	0.5	8	32	75	GMH58080	GMH59080
	1				GMH58902	GMH59902
	2				GMH58903	GMH59903
10	0.5	10	40	100	GMH58100	GMH59100
	1				GMH58904	GMH59904
	1.5				GMH58905	GMH59905
	2				GMH58906	GMH59906
12	0.5	12	48	120	GMH58120	GMH59120
	1				GMH58907	GMH59907
	1.5				GMH58908	GMH59908
	2				GMH58909	GMH59909
	3				GMH58910	GMH59910
16	1	16	64	140	GMH58160	GMH59160
	1.5				GMH58911	GMH59911
	2				GMH58912	GMH59912
	3				GMH58913	GMH59913
20	1	20	80	150	GMH58200	GMH59200
	1.5				GMH58914	GMH59914
	2				GMH58915	GMH59915

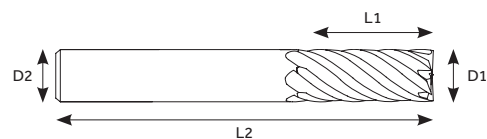
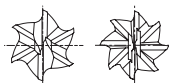
WG X5070

High Performance

6 & 8 FLUTE NANOGRAIN CARBIDE 45° HELIX

Highest Performance Machining of Hardened Steel <HRC70

- X5070 blue coated nanograin carbide + Silicon based coating with ultra high heat and wear-resistance
- HSC = High speed cutting (dry)
- Designed for high abrasion resistance thanks to negative rake angle
- Excellent performance side-cutting for mirror finish machining



Pre Hard. Steels	Hardened Steels
HRC30~40	HRC40~70
●	●

D1	D2	L1	L2	No. of Flutes	Order Code
6	6	13	57	6	G8D63060
		26	70		G8D64060
8	8	19	63		G8D63080
		36	90		G8D64080
10	10	22	72		G8D63100
		46	100		G8D64100
12	12	26	83		G8D63120
		56	110		G8D64120
14	14	26	83		G8D63140
		32	92		G8D63160
16	16	66	130		G8D64160
18	18	32	92	8	G8D63180
		38	104		G8D63200
20	20	76	140		G8D64200
		44	104		G8D63250
25	25	92	180		G8D64250

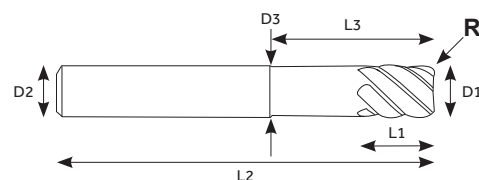
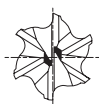
WG X5070

High Performance

6 FLUTE NANOGRAIN CARBIDE 45° HELIX CORNER RADIUS

Highest Performance Machining of Hardened Steel <HRC70

- X5070 blue coated nanograin carbide + Silicon based coating with ultra high heat and wear-resistance
- HSC = High speed cutting (dry)
- Designed for high abrasion resistance thanks to negative rake angle
- Excellent performance side-cutting for mirror finish machining



Pre Hard. Steels	Hardened Steels
HRC30~40	HRC40~70
●	●

D1	R	D2	D3	L1	L2	L3	Order Code
6	0.25	6	5.85	6	50	14	G8A39916
	0.5		5.85	6	50	14	G8A39060
	0.5		-	13	70	-	G8A39901
	0.5		-	26	70	-	G8A39910
8	0.5	8	7.7	8	60	24	G8A39080
	-		-	19	90	-	G8A39902
	-		-	36	90	-	G8A39911
	-		-	22	100	-	G8A39903
10	0.5	10	9.7	10	70	30	G8A39100
	1		-	22	100	-	G8A39904
	1		-	46	100	-	G8A39912
	-		-	26	110	-	G8A39905
12	0.5	12	11.7	12	75	30	G8A39120
	1		-	26	110	-	G8A39906
	1		-	56	110	-	G8A39913
	-		-	32	130	-	G8A39160
16	1	16	-	32	130	-	G8A39907
	1.5		-	66	130	-	G8A39914
	-		-	38	140	-	G8A39200
	-		-	38	140	-	G8A39908
20	1	20	-	38	140	-	G8A39909
	1.5		-	76	140	-	G8A39915
	2		-	-	-	-	-
	2		-	-	-	-	-

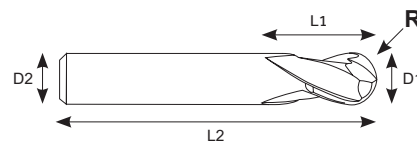


General Purpose

2 FLUTE BALL NOSE COATED CARBIDE

General Purpose Milling of Steel <HRC45, Stainless Steel & Cast Iron

- K2 coated micrograin carbide, 1st choice for general machining
- Suitable for dry milling applications at high temperatures (steel only)
- Designed for milling of radius bottom slots, fillets and special contours
- Ball nosed



Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30~40	Hardened Steels HRC40~45	Stainless Steel	Cast Iron
●	●	○	○	○

D1	R	D2	L1	L2	Order Code
2	1	6	4	48	G9624020
		6	4	48	G9624030
3	1.5	3	20	60	G9455903
		3	5	75	G9454030
4	2	6	6	50	G9624040
		4	20	60	G9455904
		4	8	75	G9454040
5	2.5	6	7	51	G9624050
		5	25	75	G9455905
		5	9	75	G9454050
6	3	6	7	51	G9624060
		6	30	75	G9455906
		6	10	100	G9454060
8	4	8	9	59	G9624080
		8	30	75	G9455908
		8	12	100	G9454080
10	5	10	10	60	G9624100
		10	40	100	G9455910
		10	14	100	G9454100
12	6	12	14	71	G9624120
		12	45	100	G9455912
		12	16	100	G9454120
14	7	14	14	71	G9624140
		14	45	100	G9455914
		14	18	100	G9454140
16	8	16	16	76	G9624160
		16	45	100	G9455916
		16	22	150	G9454160
18	9	18	18	76	G9624180
		18	45	100	G9455918
20	10	20	20	82	G9624200
		20	45	100	G9455920
		20	26	150	G9454200

HSC & GENERAL MILLING

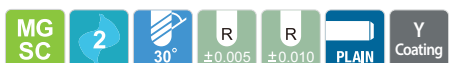
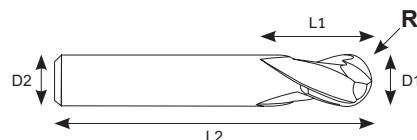


High Performance

2 FLUTE Y-COATED ULTRAFINE CARBIDE BALL NOSE

Economic High Performance Machining of Steels <HRC40, Stainless Steel, HRSA's, Cast Iron

- For precision finishing applications providing higher accuracy than 3 & 4 flute ball nose tools
- Wide flutes allow for smooth chip evacuation
- Suitable for steel <HRC40, stainless steel, exotics and cast iron



Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30~40	Stainless Steel	Titanium	HRSA's e.g. Inconel	Cast Iron
●	●	●	●	●	●

D1	R	D2	L1	L2	Order Code
2	1	6	4.5	38	GMK57020
3	1.5	6	5.5	38	GMK57030
4	2	6	7.5	43	GMK57040
5	2.5	6	9	43	GMK57050
6	3	6	9	43	GMK57060
8	4	8	12	50	GMK57080
10	5	10	14	55	GMK57100
12	6	12	16.5	60	GMK57120

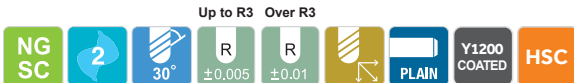
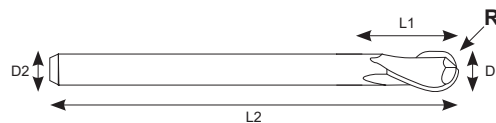


High Performance

2 FLUTE NANOGRAIN COATED CARBIDE BALL NOSE

Excellent Performance in Dry or Wet Cutting of all Steel, Cast Iron & Hardened Steel <HRC55

- YG-1's Y1200 coating & premium nanograin carbide substrate
- HSC = High speed cutting
- Due to new coating and tool geometry, 4G Mills can machine up to 1200°C with outstanding wear resistance
- Due to unique ball nose geometry and cutting edges, exceptional surface finish can be achieved



Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30-40	Hardened Steels HRC40-70	Stainless Steel	Cast Iron
●	●	●	●	●

D1	R	D2	L1	L2	Order Code
0.1	0.05	4	0.1	40	SEMD98001SE
		4	0.2	40	SEMD98001E
		3	0.2	40	SEMD980013SE
0.15	0.075	4	0.15	40	SEMD980015SE
		4	0.3	40	SEMD980015E
		3	0.3	40	SEMD9800153SE
0.2	0.1	4	0.2	40	SEMD98002SE
		4	0.4	40	SEMD98002E
		3	0.4	40	SEMD980023SE
0.3	0.15	4	0.3	40	SEMD98003SE
		4	0.6	40	SEMD98003E
		3	0.6	40	SEMD980033SE
0.4	0.2	4	0.4	40	SEMD98004SE
		4	0.8	40	SEMD98004E
		3	0.8	40	SEMD980043SE
0.5	0.25	4	0.5	40	SEMD98005SE
		4	1.0	40	SEMD98005E
		3	1.0	40	SEMD980053SE
0.6	0.3	4	0.6	40	SEMD98006SE
		4	1.2	40	SEMD98006E
		3	1.2	40	SEMD980063SE
0.7	0.35	4	0.7	40	SEMD98007SE
		4	1.4	40	SEMD98007E
		3	1.4	40	SEMD980073SE
0.8	0.4	4	0.8	40	SEMD98008SE
		4	1.6	40	SEMD98008E
		3	1.6	40	SEMD980083SE
0.9	0.45	4	0.9	40	SEMD98009SE
		4	1.8	40	SEMD98009E
		3	1.8	40	SEMD980093SE
1	0.5	6	1.5	40	SEMD98010040E
		3	2.5	50	SEMD980103SE
		4	2.5	50	SEMD980104SE
		6	2.5	50	SEMD98010E
		6	2.5	70	SEMD98010070E
		6	2.5	100	SEMD98010100E
1.2	0.6	6	2	40	SEMD98012040E
		3	3	50	SEMD980123SE
		6	3	70	SEMD98012070E
		6	3	100	SEMD98012100E
1.5	0.75	6	2.5	40	SEMD98015040E
		3	4	50	SEMD980153SE
		6	4	50	SEMD98015E
		6	4	70	SEMD98015070E
2	1	6	4	100	SEMD98015100E
		6	3	40	SEMD98020040E
		3	5	50	SEMD980203SE
		6	5	50	SEMD98020E
2.5	1.25	6	5	80	SEMD98020080E
		6	5	100	SEMD98020100E
		6	4	40	SEMD98025040E
		3	6	60	SEMD980253SE
3	1.5	6	6	60	SEMD98025E
		6	6	80	SEMD98025080E
		6	6	100	SEMD98025100E
		6	4.5	40	SEMD98030040E
		3	6	60	SEMD980303SE
		4	6	60	SEMD980304SE
		6	6	60	SEMD98030E
		6	6	80	SEMD98030080E
		6	6	100	SEMD98030100E

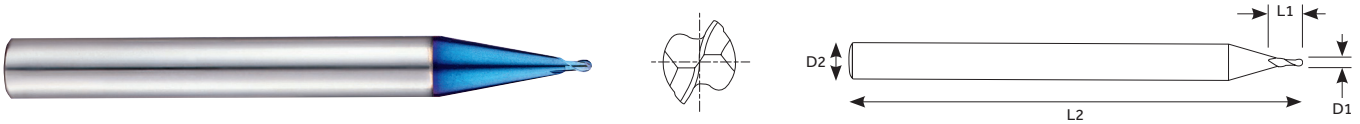
D1	R	D2	L1	L2	Order Code
3.5	1.75	6	8	70	SEMD98035E
4	2	6	6	50	SEMD98040050E
		4	8	70	SEMD980404SE
		6	8	70	SEMD98040E
		4	8	100	SEMD980401004SE
		4	8	120	SEMD980401204SE
4.5	2.25	6	9	80	SEMD98045E
5	2.5	6	7.5	60	SEMD98050060E
		6	10	80	SEMD98050E
		5	10	80	SEMD980505SE
5.5	2.75	6	11	90	SEMD98055E
6	3	6	9	50	SEMD98060050E
		6	9	60	SEMD98060060E
		6	9	80	SEMD98060080E
		6	12	90	SEMD98060E
		6	12	110	SEMD98060110E
		6	12	130	SEMD98060130E
		6	12	150	SEMD98060150E
		6.5	3.25	8	13
7	3.5	8	14	90	SEMD98070E
8	4	8	12	50	SEMD98080050E
		8	12	60	SEMD98080060E
		8	12	80	SEMD98080080E
		8	12	90	SEMD98080090E
		8	14	100	SEMD98080E
		8	14	130	SEMD98080130E
		8	14	150	SEMD98080150E
8.5	4.25	10	16	100	SEMD98085E
9	4.5	10	18	100	SEMD98090E
10	5	10	15	50	SEMD98100050E
		10	15	60	SEMD98100060E
		10	15	80	SEMD98100080E
		10	15	90	SEMD98100090E
		10	18	100	SEMD98100E
		10	18	130	SEMD98100130E
		10	18	150	SEMD98100150E
		10	18	180	SEMD98100180E
		10	18	200	SEMD98100200E
11	5.5	12	20	100	SEMD98110E
12	6	12	18	60	SEMD98120060E
		12	18	80	SEMD98120080E
		12	18	100	SEMD98120100E
		12	22	110	SEMD98120E
		12	22	130	SEMD98120130E
		12	22	150	SEMD98120150E
13	6.5	12	22	180	SEMD98120180E
		12	24	100	SEMD98130E
		12	26	100	SEMD98140E
14	7	14	26	100	SEMD9814014SE
		16	26	100	SEMD9814016SE
		15	7.5	16	28
16	8	16	24	100	SEMD98160100E
		16	24	130	SEMD98160130E
		16	30	180	SEMD98160180E
		16	30	200	SEMD98160200E
		16	34	150	SEMD98180E
18	9	18	34	150	SEMD9818018SE
		20	30	100	SEMD98200100E
		20	30	130	SEMD98200130E
20	10	20	38	150	SEMD98200E
		20	38	200	SEMD98200200E

HSC & GENERAL MILLING

IG X5070**High Performance****2 FLUTE COATED NANOGRAIN CARBIDE MINIATURE BALL NOSE**

Highest Performance Machining of Hardened Steel <HRC70

- X5070 blue coated nanograin carbide
- HSC = High speed cutting (dry)
- Excellent workpiece finish
- Designed for high precision milling operation
- Silicon based coating with ultra high heat and wear-resistance



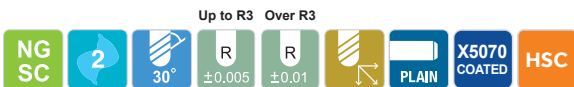
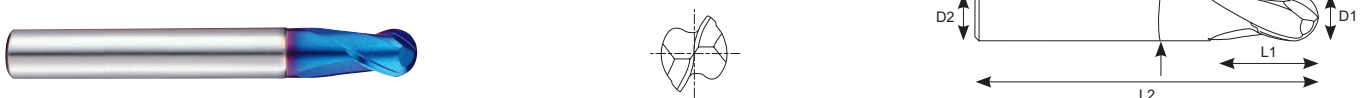
Pre Hard. Steels HRC30-40	Hardened Steels		High Hard. Steels HRC55-70
	HRC40-45	HRC45-55	HRC55-70
○	○	●	●

D1	R	D2	L1	L2	Order Code
0.4	0.2	6	0.4	50	G8A53004
0.5	0.25		0.5		G8A53005
0.6	0.3		0.6		G8A53006
0.8	0.4		0.8		G8A53008
1	0.5		1.0		G8A53010
1.2	0.6		1.2		G8A53012
1.5	0.75		1.5		G8A53015
2	1.0		2.0		G8A53020

IG X5070**High Performance****2 FLUTE COATED NANOGRAIN CARBIDE BALL NOSE**

Highest Performance Machining of Hardened Steel <HRC70

- X5070 blue coated nanograin carbide
- HSC = High speed cutting (dry)
- Excellent workpiece finish
- Designed for high precision milling operation
- Silicon based coating with ultra high heat and wear-resistance



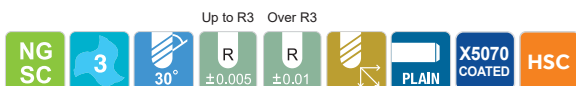
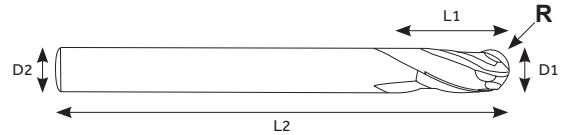
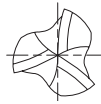
Pre Hard. Steels HRC30-40	Hardened Steels		High Hard. Steels HRC55-70
	HRC40-45	HRC45-55	HRC55-70
○	○	●	●

D1	R	D2	D3	L1	L2	L3	Order Code	D1	R	D2	D3	L1	L2	L3	Order Code
0.1	0.05	4	-	0.2	40	-	G8A28001	5	2.5	6	4.85	5	80	10	G8A38050
0.2	0.1	4	-	0.3	40	-	G8A28002	5	2.5	6	4.85	6	60	12	G8A28050
0.3	0.15	4	-	0.5	40	-	G8A28003	5.5	2.75	6	5.35	6.5	60	12	G8A28055
0.4	0.2	4	-	0.6	40	-	G8A28004	6	3	6	5.85	6	90	12	G8A38060
0.5	0.25	4	-	0.7	40	-	G8A28005	6	3	6	5.85	7	60	15	G8A28060
0.6	0.3	4	-	0.9	40	-	G8A28006	6	3	6	5.85	9	90	30	G8A28903
0.7	0.35	4	-	1.1	40	-	G8A28007	7	3.5	8	6.7	7	90	14	G8A38070
0.8	0.4	4	-	1.2	40	-	G8A28008	8	4	8	7.7	8	100	16	G8A38080
0.9	0.45	4	-	1.4	40	-	G8A28009	8	4	8	7.7	9	60	15	G8A28901
1	0.5	4	0.95	1	50	2.2	G8A38010	8	4	8	7.7	9	80	15	G8A28080
1	0.5	6	0.95	1.5	50	3	G8A28010	8	4	8	7.7	12	100	30	G8A28904
1.2	0.6	4	1.15	1.2	50	2.6	G8A38012	9	4.5	10	8.7	9	100	18	G8A38090
1.5	0.75	4	1.45	1.5	50	3	G8A38015	10	5	10	9.7	10	100	20	G8A38100
1.5	0.75	6	1.45	2	50	4	G8A28015	10	5	10	9.7	11	60	25	G8A28902
2	1	6	1.95	2	50	4	G8A38020	10	5	10	9.7	11	80	25	G8A28100
2	1	6	1.95	2.5	50	5	G8A28020	10	5	10	9.7	15	100	30	G8A28905
2.5	1.25	6	2.4	3	50	7	G8A28025	12	6	12	11.7	12	110	24	G8A38120
3	1.5	6	2.85	3	60	6	G8A38030	12	6	12	11.7	14	80	25	G8A28120
3	1.5	6	2.85	4	60	10	G8A28030	14	7	14	13.7	14	110	28	G8A38140
3.5	1.75	6	3.35	4.5	60	10	G8A28035	16	8	16	15.7	16	140	32	G8A38160
4	2	6	3.85	4	70	8	G8A38040	18	9	18	17.7	18	140	36	G8A38180
4	2	6	3.85	5	60	10	G8A28040	20	10	20	19.7	20	160	40	G8A38200
4.5	2.25	6	4.35	5.5	60	10	G8A28045	25	12.5	25	24.7	25	180	50	G8A38250

WG X5070**High Performance****3 FLUTE COATED NANOGRAIN CARBIDE BALL NOSE**

Highest Performance Machining of Hardened Steel <HRC70

- X5070 blue coated nanograin carbide
- HSC = High speed cutting (dry)
- Excellent workpiece finish
- Designed for high precision milling operation
- Silicon based coating with ultra high heat and wear-resistance



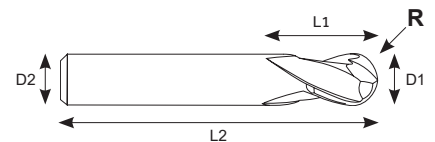
Pre Hard. Steels HRC30~40	Hardened Steels		High Hard. Steels HRC55~70
	HRC40~45	HRC45~55	HRC55~70
○	○	●	●

D1	R	D2	L1	L2	Order Code
3	1.5	6	8	60	G8A59030
4	2	6	8	70	G8A59040
5	2.5	6	10	80	G8A59050
6	3	6	12	90	G8A59060
8	4	8	14	100	G8A59080
10	5	10	18	100	G8A59100
12	6	12	22	110	G8A59120
16	8	16	30	140	G8A59160
20	10	20	38	160	G8A59200

WG EV MILLS**High Performance****3 FLUTE Y-COATED ULTRAFINE CARBIDE BALL NOSE**

Economic High Performance Machining of Steels <HRC40, Stainless Steel, HRSA's, Cast Iron

- For roughing and semi-finishing applications having one edge to centre
- Smooth cutting action, unequal flute geometry and variable multiple helix eliminate vibrations
- Suitable for steel <HRC40, stainless steel, exotics and cast iron



Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30~40	Stainless Steel	Titanium	HRSA's e.g. Inconel	Cast Iron
●	●	●	●	●	●

D1	R	D2	L1	L2	Order Code
2	1	6	4.5	38	GMK62020
3	1.5	6	5.5	38	GMK62030
4	2	6	7.5	38	GMK62040
5	2.5	6	9	38	GMK62050
6	3	6	9	38	GMK62060
8	4	8	12	43	GMK62080
10	5	10	14	50	GMK62100
12	6	12	16.5	55	GMK62120

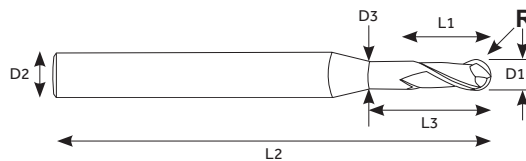
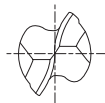


General Purpose

2 FLUTE COATED CARBIDE BALL NOSE RIB PROCESSING

General Purpose Milling of Steel <HRC45, Stainless Steel & Cast Iron

- K2 coated micrograin carbide, 1st choice for general machining
- Suitable for dry milling applications at high temperatures (steel only)
- Long neck ball nosed for deep pocket milling



Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30~40	Hardened Steels HRC40~45	Stainless Steel	Cast Iron
●	●	○	○	○

D1	R	D2	D3	L1	L2	L3	Order Code
0.4	0.2	4	0.37	0.7	50	2	G9B81004
						2	G9B81005
0.5	0.25	4	0.45	0.75	50	4	G9B81901
						6	G9B81902
0.6	0.3	4	0.55	0.9	50	2	G9B81006
						4	G9B81903
						6	G9B81904
0.8	0.4	4	0.75	1.2	50	4	G9B81008
						6	G9B81905
						8	G9B81906
1	0.5	4	0.95	1.5	50	6	G9B81010
						8	G9B81907
						10	G9B81908
						12	G9B81909
1.2	0.6	4	1.15	1.8	50	8	G9B81012
						12	G9B81910
1.5	0.75	4	1.45	2.3	50	6	G9B81015
						8	G9B81911
						10	G9B81912
						12	G9B81913
						16	G9B81914
						20	G9B81915
1.6	0.8	4	1.55	2.4	50	8	G9B81016
						12	G9B81916
						16	G9B81917
2	1	4	1.95	3	50	8	G9B81020
						10	G9B81919
						12	G9B81920
						16	G9B81922
						20	G9B81923
3	1.5	6	2.85	4.5	50	10	G9B81030
					50	12	G9B81924
					60	16	G9B81925
					60	20	G9B81926
					75	25	G9B81927
4	2	6	3.85	6	50	12	G9B81040
					60	16	G9B81928
					75	20	G9B81929
					75	25	G9B81930
					75	30	G9B81931

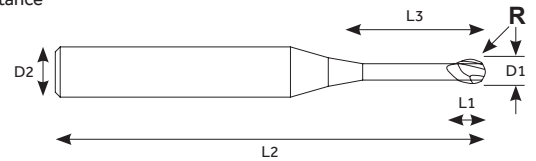


High Performance

2 FLUTE COATED CARBIDE BALL NOSE RIB PROCESSING

Excellent Performance on Dry or Wet Cutting all Steel, Cast Iron & Hardened Steel <HRC55

- YG-1's Y1200 coating & premium nanograin carbide substrate
- HSC = High speed cutting
- Due to new coating and tool geometry, 4G Mills can machine up to 1200°C with outstanding wear resistance
- Due to unique ball nose geometry and cutting edges, exceptional surface finish can be achieved



Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30-40	Hardened Steels HRC40-70	Stainless Steel	Cast Iron
●	●	●	●	●

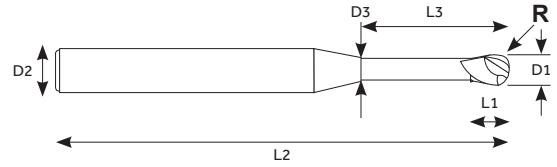
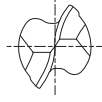
D1	R	D2	L1	L2	L3	Order Code
0.1	0.05	4	0.1	40	0.2	SEM846001002E
					0.3	SEM846001003E
					0.5	SEM846001005E
					1	SEM84600101E
0.2	0.1	4	0.2	40	0.5	SEM846002005E
					1	SEM84600201E
					1.5	SEM846002015E
					2	SEM84600202E
0.3	0.15	4	0.3	40	3	SEM84600203E
					1	SEM84600301E
					2	SEM84600302E
					3	SEM84600303E
0.4	0.2	4	0.4	40	5	SEM84600305E
					1	SEM84600401E
					3	SEM84600403E
					5	SEM84600405E
0.5	0.25	4	0.5	45	8	SEM84600408E
					10	SEM84600410E
					1	SEM84600501E
					3	SEM84600503E
0.6	0.3	4	0.6	45	5	SEM84600505E
					8	SEM84600508E
					12	SEM84600512E
					16	SEM84600516E
0.7	0.35	4	0.7	45	1	SEM84600601E
					3	SEM84600603E
					5	SEM84600605E
					8	SEM84600608E
0.9	0.45	4	0.9	45	12	SEM84600612E
					16	SEM84600616E
					2	SEM84600702E
					6	SEM84600706E
1	0.5	4	1	50	10	SEM84600710E
					12	SEM84600712E
					4	SEM84600904E
					6	SEM84600906E
1.2	0.6	4	1.2	50	8	SEM84600908E
					10	SEM84600910E
					2	SEM84601002E
					4	SEM84601004E
1.4	0.7	4	1.4	50	8	SEM84601008E
					10	SEM84601010E
					14	SEM84601014E
					20	SEM84601020E
1.5	0.75	4	1.5	50	22	SEM84601022E
					26	SEM84601026E
					30	SEM84601030E
					50	SEM84601050E
1.2	0.6	4	1.2	50	4	SEM84601204E
					8	SEM84601208E
					12	SEM84601212E
					16	SEM84601216E
1.4	0.7	4	1.4	50	20	SEM84601220E
					6	SEM84601406E
					10	SEM84601410E
					16	SEM84601416E
1.5	0.75	4	1.5	50	3	SEM84601503E
					4	SEM84601504E
					6	SEM84601506E
					8	SEM84601508E
1.2	0.6	4	1.2	50	12	SEM84601512E
					16	SEM84601516E
					20	SEM84601520E
					30	SEM84601530E
1.5	0.75	4	1.5	50	40	SEM84601540E
					80	SEM84601540E

D1	R	D2	L1	L2	L3	Order Code
1.6	0.8	4	1.6	50	4	SEM84601604E
					8	SEM84601608E
					12	SEM84601612E
					20	SEM84601620E
1.8	0.9	4	1.8	50	4	SEM84601804E
					8	SEM84601808E
					12	SEM84601812E
					20	SEM84601820E
2	1	4	2	50	4	SEM84602004E
					8	SEM84602008E
					12	SEM84602012E
					16	SEM84602016E
2.5	1.25	4	2.5	50	20	SEM84602020E
					30	SEM84602030E
					35	SEM84602035E
					40	SEM84602040E
3	1.5	6	3	50	60	SEM84602060E
					8	SEM84602508E
					12	SEM84602512E
					20	SEM84602520E
4	2	6	4	50	30	SEM84602530E
					35	SEM84602535E
					40	SEM84602540E
					50	SEM84602550E
5	2.5	6	5	60	6	SEM84603006E
					8	SEM84603008E
					12	SEM84603012E
					14	SEM84603014E
6	3	6	6	60	20	SEM84603020E
					22	SEM84603022E
					26	SEM84603026E
					40	SEM84603040E
8	4	8	8	70	45	SEM84603045E
					50	SEM84603050E
					60	SEM84603060E
					8	SEM84604008E
10	5	10	10	80	12	SEM84604012E
					14	SEM84604014E
					20	SEM84604020E
					30	SEM84604030E
12	6	12	12	90	40	SEM84604040E
					45	SEM84604045E
					15	SEM84605015E
					20	SEM84605020E
15	7.5	15	15	100	30	SEM84605030E
					35	SEM84605035E
					40	SEM84605040E
					50	SEM84605050E
18	9	18	18	110	60	SEM84605060E
					20	SEM84606020E
					30	SEM84606030E
					20	SEM84606020090E
20	10	20	20	120	30	SEM84606030090E
					25	SEM84608025E
					35	SEM84608035E
					25	SEM84608025100E
22	11	22	22	130	35	SEM84608035100E
					30	SEM84610030E
					40	SEM84610040E
					30	SEM84610030100E
25	12.5	25	25	140	40	SEM84610040100E
					32	SEM84612032E
					45	SEM84612045E
					32	SEM84612032110E
28	14	28	28	150	45	SEM84612045110E
					110	SEM84612045110E

X5070**High Performance****2 FLUTE COATED NANOGRAIN CARBIDE BALL NOSE RIB PROCESSING**

Highest Performance Machining of Hardened Steel <HRC70

- X5070 blue coated nanograin carbide
- HSC = High speed cutting (dry)
- Excellent workpiece finish
- Designed for high precision milling operation
- Silicon based coating with ultra high heat and wear-resistance



Pre Hard. Steels	Hardened Steels		High Hard. Steels
HRC30-40	HRC40-45	HRC45-55	HRC55-70
○	○	●	●

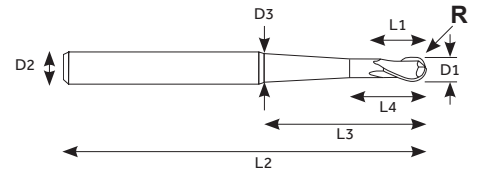
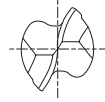
D1	R	D2	D3	L1	L2	L3	Order Code
0.1	0.05	4	0.085	0.1	45	0.3	G8A46805
						0.5	G8A46806
0.2	0.1	4	0.17	0.2	45	0.5	G8A46002
						1	G8A46977
						1.5	G8A46958
0.3	0.15	4	0.27	0.3	45	1	G8A46003
						2	G8A46959
						3	G8A46986
0.4	0.2	4	0.37	0.4	45	1	G8A46004
						2	G8A46960
						3	G8A46961
						4	G8A46981
						5	G8A46987
0.5	0.25	4	0.45	0.4	45	2	G8A46005
						2.5	G8A46804
						4	G8A46962
						6	G8A46963
						8	G8A46964
						1.5	G8A54005
						3.3	G8A54901
0.6	0.3	4	0.55	0.5	45	2	G8A46957
						3	G8A46988
						4	G8A46915
						5	G8A46989
						6	G8A46916
						8	G8A46917
						10	G8A46990
						2	G8A54006
0.8	0.4	4	0.75	0.6	45	2	G8A46918
						4	G8A46919
						6	G8A46008
						8	G8A46901
						10	G8A46965
						2.5	G8A54008
						5.5	G8A54903
1	0.5	4	0.95	0.8	45	3	G8A46920
						5	G8A46923
						6	G8A46010
						8	G8A46902
						10	G8A46903
						12	G8A46904
						14	G8A46926

D1	R	D2	D3	L1	L2	L3	Order Code
1	0.5	4	0.95	0.8	50	16	G8A46927
						20	G8A46966
						3.3	G8A54010
						6.7	G8A54904
						12	G8A54905
1.2	0.6	4	1.15	1	45	6	G8A46982
						8	G8A46012
						10	G8A46983
						12	G8A46905
						4.4	G8A54012
1.5	0.75	4	1.45	1.2	50	8	G8A54906
						6	G8A46930
						8	G8A46015
						10	G8A46931
						12	G8A46906
						14	G8A46992
						16	G8A46907
2	1	4	1.95	1.2	55	20	G8A46932
						5	G8A54015
						9.7	G8A54907
						15	G8A54908
				1.6	45	4	G8A46939
						6	G8A46940
						10	G8A46941
						14	G8A46943
						16	G8A46909
						20	G8A46910
						25	G8A46945
						30	G8A46967
						6	G8A54020
						13	G8A54909
3	1.5	6	2.85	2	60	20	G8A54910
						25	G8A46948
						35	G8A46030
						12	G8A46911
						20	G8A46912
4	2	6	3.85	3.2	70	30	G8A46971
						40	G8A46973
						45	G8A46974
						50	G8A46975
						100	G8A46975

MG X-POWER^{PRO}**High Performance****2 FLUTE BALL NOSE COATED CARBIDE HIGH PRECISION, TAPER NECK**

For High Speed Machining of Medium to High Hardness Steel <HRC55

- Y coated ultrafine micrograin carbide
- HSC = Suitable for high speed machining
- Taper neck for strength and rigidity in deep pocket milling
- Radius tolerance $\pm 0.01\text{mm}$ for high precision machining
- Suitable for dry cutting on steel & hardened steel



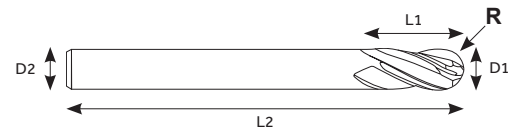
Alloy Steels	Pre Hard. Steels	Hardened Steels
HB225-325	HRC30-40	HRC40-60
●	●	●

D1	R	D2	D3	L1	L2	L3	L4	Neck Taper Angle	Order Code
1	0.5	6	2	4	60	23	2	1° 30'	GM902010
					60	23	4.3	5°	GM902901
					80	42	5	3°	GM902902
2	1	6	4	6	60	23	2.9	1° 30'	GM902020
					60	23	5	5°	GM902903
					80	41	5.7	3°	GM902904
3	1.5	6	6	8	70	32	5.6	3°	GM902030
					90	52	5.3	1° 30'	GM902905
					70	28	5.9	3°	GM902040
4	2	6	8	10	90	49	6	1° 30'	GM902906
					90	34	8	3°	GM902060
6	3	8	12	15	110	53	8	1° 30'	GM902908
					100	36	10	3°	GM902080
8	4	10	14	17	120	55	10	1° 30'	GM902909

MG X-POWER^{PRO}**High Performance****4 FLUTE BALL NOSE COATED CARBIDE, LONG NECK**

For High Speed Machining of Medium to High Hardness Steel <HRC55 and Cast Iron

- Y coated ultrafine micrograin carbide
- HSC = Suitable for high speed machining
- 4 flutes for higher feed rates
- Radius tolerance $\pm 0.02\text{mm}$
- Suitable for dry cutting on steel & hardened steel



Alloy Steels	Pre Hard. Steels	Hardened Steels
HB225-325	HRC30-40	HRC40-60
●	●	●

D1	R	D2	L1	L2	Order Code
2	1	6	5	50	GM815020
3	1.5	6	8	60	GM815030
4	2	6	8	70	GM815040
5	2.5	6	10	80	GM815050
6	3	6	12	90	GM815060
8	4	8	14	100	GM815080
10	5	10	18	100	GM815100
12	6	12	22	110	GM815120
16	8	16	30	140	GM815160

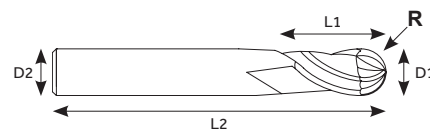


General Purpose

4 FLUTE BALL NOSE COATED CARBIDE

General Purpose Milling of Steel <HRC45, Stainless Steel, Cast Iron, Copper & Aluminium

- K2 coated micrograin carbide, 1st choice for general machining
- Suitable for dry milling applications at high temperatures (steel only)
- Designed for milling of radius bottom slots, fillets and special contours



Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30~40	Hardened Steels HRC40~45	Stainless Steel	Cast Iron
●	●	○	○	○

D1	R	D2	L1	L2	Order Code
2	1	6	4	48	G9634020
3	1.5	6	4	48	G9634030
4	2	6	6	50	G9634040
5	2.5	6	7	51	G9634050
6	3	6	7	51	G9634060
8	4	8	9	59	G9634080
10	5	10	10	60	G9634100
12	6	12	14	71	G9634120
14	7	14	14	71	G9634140
16	8	16	16	76	G9634160
18	9	18	18	76	G9634180
20	10	20	20	82	G9634200

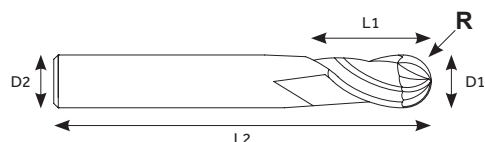
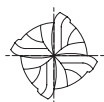
WG X5070

High Performance

4 FLUTE COATED NANOGRAIN CARBIDE BALL NOSE, CENTRE MATCH

Highest Performance Machining of Hardened Steel <HRC70

- X5070 blue coated nanograin carbide
- HSC = High speed cutting (dry)
- Excellent workpiece finish
- Designed for high precision milling operation
- Silicon based coating with ultra high heat and wear-resistance



Pre Hard. Steels HRC30~40	Hardened Steels HRC40~45	High Hard. Steels HRC55~70
○	○	●

D1	R	D2	L1	L2	Order Code
3	1.5	6	8	60	G8D62030
4	2	6	8	70	G8D62040
5	2.5	6	10	80	G8D62050
6	3	6	12	90	G8D62060
8	4	8	14	100	G8D62080
10	5	10	18	100	G8D62100
12	6	12	22	110	G8D62120
16	8	16	30	140	G8D62160
20	10	20	38	160	G8D62200

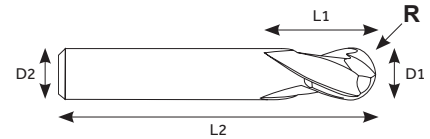


High Performance

4 FLUTE Y-COATED ULTRAFINE CARBIDE BALL NOSE

Economic High Performance Machining of Steels <HRC40, Stainless Steel, HRSA's, Cast Iron

- For roughing and finishing applications having two edges to centre
- Smooth cutting action, unequal flute geometry and variable multiple helix eliminate vibrations
- Suitable for steel <HRC40, stainless steel, exotics and cast iron



Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30~40	Stainless Steel	Titanium	HRSA's e.g. Inconel	Cast Iron
●	●	●	●	●	●

D1	R	D2	L1	L2	Order Code
2	1	6	4.5	38	GMK65020
3	1.5	6	5.5	38	GMK65030
4	2	6	7.5	38	GMK65040
5	2.5	6	9	38	GMK65050
6	3	6	9	38	GMK65060
8	4	8	12	43	GMK65080
10	5	10	14	50	GMK65100
12	6	12	16.5	55	GMK65120

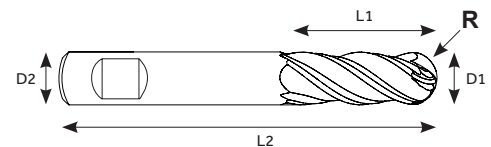
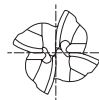


High Performance

4 FLUTE COATED CARBIDE BALL NOSE MULTIPLE HELIX

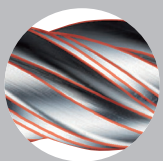
Excellent on Stainless Steel, HRSA's, Cast Iron & Mild Steel <HRC40

- Y1200 coated ultrafine micrograin carbide
- Multiple helix design for large cut depths and aggressive feed rates
- HPC = High performance cutting
- Special flute geometry and multiple helix eliminates vibration



Carbon & Alloy Steels <HB325	Pre Hard. Steels HRC30~40	Stainless Steel	Titanium	HRSA's e.g. Inconel	Cast Iron
●	●	●	●	●	●

D1	R	D2	L1	L2	Order Code	
					Plain Shank	Weldon Shank
3	1.5	6	8	57	GMG55030	GMG56030
4	2	6	11	57	GMG55040	GMG56040
5	2.5	6	13	57	GMG55050	GMG56050
6	3	6	13	57	GMG55060	GMG56060
8	4	8	19	63	GMG55080	GMG56080
10	5	10	22	72	GMG55100	GMG56100
12	6	12	26	83	GMG55120	GMG56120
16	8	16	32	92	GMG55160	GMG56160
20	10	20	38	104	GMG55200	GMG56200
25	12.5	25	38	104	GMG55250	GMG56250



MULTIPLE HELIX DESIGN

The multiple helix design gives the end mill extra strength in both semi-roughing and finishing conditions, enabling heavier cutting and reducing vibration. The reduced vibration increases tool life and improves surface finish.