

CARBIDE



Being the best through innovation



CRX S

CRX S FRÄSER

- DLC Coated Carbide End Mills for Copper
- DLC beschichtete VHM Fräser für die Kuper - und Kupferlegierungen zu bearbeiten

SELECTION GUIDE

ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	
SGED27		CARBIDE, 2 FLUTE BALL NOSE DLC COATING with EXTENDED NECK VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS DLC BESCHICHTUNG mit ABGESETZTEM SCHAFTTETL	R0.25	R6.0	986
SGED28		CARBIDE, 2 FLUTE BALL NOSE DLC COATING VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS DLC BESCHICHTUNG	R0.5	R6.0	988
SGED29		CARBIDE, 2 FLUTE CORNER RADIUS DLC COATING with EXTENDED NECK VOLLHARTMETALL, 2 SCHNEIDEN ECKENRADIUS DLC BESCHICHTUNG mit ABGESETZTEM SCHAFTTETL	D1.0	D12.0	989
SGED30		CARBIDE, 2 FLUTE DLC COATING with EXTENDED NECK VOLLHARTMETALL, 2 SCHNEIDEN DLC BESCHICHTUNG mit ABGESETZTEM SCHAFTTETL	D0.5	D12.0	991
SGED31		CARBIDE, 2 FLUTE DLC COATING VOLLHARTMETALL, 2 SCHNEIDEN DLC BESCHICHTUNG	D1.0	D12.0	993
RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDKONDITIONEN					994

CRX S END MILLS

◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel	Acrylic	CFRP
~HB225	HB225~325	HRC30~40	HRC40~45	HRC45~55	HRC55~70									
						◎			○					
						◎			○					
						◎			○					
						◎			○					
						◎			○					



SGED27 SERIES

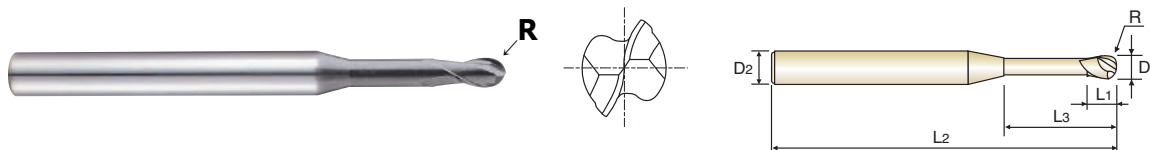
PLAIN SHANK
GLATTER ZYLINDERSCHAFT

CARBIDE, 2 FLUTE BALL NOSE DLC COATING with EXTENDED NECK

VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS DLC BESCHICHTUNG mit ABGESETZTEM SCHAFTTETL

- ▶ Designed for copper, copper alloys soft graphites, reinforced plastics and the materials affiliated with non-ferrous metals.
- ▶ Tight radius tolerance is applied ($\pm 0.005\text{mm}$ tolerance under R3).
- ▶ Excellent surface roughness thanks to Mirror Face of cutting edges
- ▶ High strength and minimized vibration are available due to two step taper neck(under R0.5).

- ▶ Entwickelt für die Bearbeitung von Kupfer, Kupferlegierungen, sowie faserverstärkten Kunststoffen, NE- Metallen
- ▶ Hochgenaue Raduistoleranz ($\pm 0.005\text{mm}$ Toleranz unter R3mm)
- ▶ Sehr gute Oberflächenrauigkeit wird durch die besonders behandelte Schneide erreicht
- ▶ Hohe Zähigkeit und verminderte Vibrationen werden durch den besonderen kegelförmigen Hals erreicht, (unter R 0,5mm)



Unit : mm

EDP No.	Radius of Ball Nose R	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Length Below Shank L3	Overall Length L2
SGED2700502	R0.25	0.5	4	0.5	2	45
SGED2700504	R0.25	0.5	4	0.5	4	45
SGED2700506	R0.25	0.5	4	0.5	6	45
SGED2700508	R0.25	0.5	4	0.5	8	45
SGED2700510	R0.25	0.5	4	0.5	10	45
SGED2700602	R0.3	0.6	4	0.6	2	45
SGED2700604	R0.3	0.6	4	0.6	4	45
SGED2700606	R0.3	0.6	4	0.6	6	45
SGED2700608	R0.3	0.6	4	0.6	8	45
SGED2700610	R0.3	0.6	4	0.6	10	45
SGED2700804	R0.4	0.8	4	0.8	4	45
SGED2700806	R0.4	0.8	4	0.8	6	45
SGED2700808	R0.4	0.8	4	0.8	8	45
SGED2700810	R0.4	0.8	4	0.8	10	45
SGED2700812	R0.4	0.8	4	0.8	12	45
SGED2701004	R0.5	1.0	4	1	4	45
SGED2701006	R0.5	1.0	4	1	6	45
SGED2701008	R0.5	1.0	4	1	8	45
SGED2701010	R0.5	1.0	4	1	10	45
SGED2701012	R0.5	1.0	4	1	12	45
SGED2701506	R0.75	1.5	4	1.5	6	45
SGED2701508	R0.75	1.5	4	1.5	8	45
SGED2701510	R0.75	1.5	4	1.5	10	45
SGED2701512	R0.75	1.5	4	1.5	12	45
SGED2701516	R0.75	1.5	4	1.5	16	50

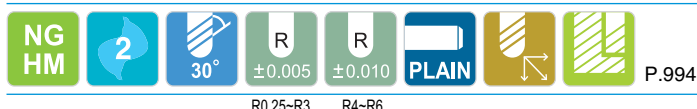
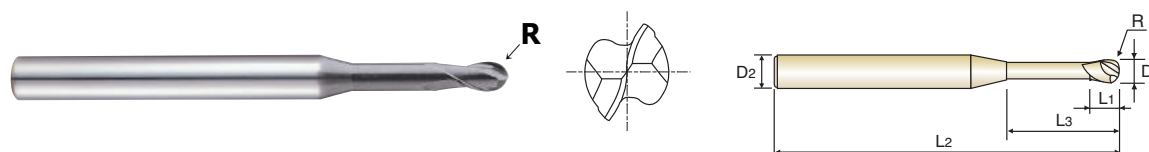
◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel	Acrylic	CFRP
~HB225	HB225~325	HRC30~40	HRC40~45	HRC45~55	HRC55~70									
						◎			○					

CARBIDE, 2 FLUTE BALL NOSE DLC COATING with EXTENDED NECK VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS DLC BESCHICHTUNG mit ABGESETZTEM SCHAFTTETTEL

- Designed to copper, copper alloys soft graphites, reinforced plastics and the materials affiliated with non-ferrous metals.
- Tight radius tolerance is applied ($\pm 0.005\text{mm}$ tolerance under R3).
- Excellent surface roughness thanks to Mirror Face of cutting edges
- High strength and minimized vibration are available due to two step taper neck(under R0.5).

- Entwickelt für die Bearbeitung von Kupfer, Kupferlegierungen, sowie faserverstärkten Kunststoffen, NE- Metallen
- Hochgenaue Raduistoleranz ($\pm 0.005\text{mm}$ Toleranz unter R3mm)
- Sehr gute Oberflächenrauigkeit wird durch die besonders behandelte Schneide erreicht
- Hohe Zähigkeit und verminderte Vibrationen werden durch den besonderen kegelförmigen Hals erreicht, (unter R 0,5mm)



R0.25~R3 R4~R6

Unit : mm

EDP No.	Radius of Ball Nose R	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Length Below Shank L3	Overall Length L2
SGED2702006	R1.0	2.0	4	3	6	45
SGED2702008	R1.0	2.0	4	3	8	45
SGED2702010	R1.0	2.0	4	3	10	45
SGED2702012	R1.0	2.0	4	3	12	45
SGED2702016	R1.0	2.0	4	3	16	50
SGED2703010	R1.5	3.0	6	4	10	50
SGED2703012	R1.5	3.0	6	4	12	50
SGED2703016	R1.5	3.0	6	4	16	60
SGED2703020	R1.5	3.0	6	4	20	60
SGED2704010	R2.0	4.0	6	5	10	50
SGED2704012	R2.0	4.0	6	5	12	50
SGED2704016	R2.0	4.0	6	5	16	60
SGED2704020	R2.0	4.0	6	5	20	60
SGED2704025	R2.0	4.0	6	5	25	60
SGED2706020	R3.0	6.0	6	8	20	60
SGED2706030	R3.0	6.0	6	8	30	90
SGED2708020	R4.0	8.0	8	10	20	70
SGED2710025	R5.0	10.0	10	12	25	80
SGED2712025	R6.0	12.0	12	14	25	80

Size	Radius Tolerance (mm)	Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
up to R3	± 0.005	0~-0.012	h6
over R3	± 0.010	0~-0.015	

◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel	Acrylic	CFRP
~HB225	HB225~325	HRc30~40	HRc40~45 HRc45~55	HRc55~70									
					◎			○					



SGED28 SERIES

PLAIN SHANK
GLATTER ZYLINDERSCHAFT

CARBIDE, 2 FLUTE BALL NOSE DLC COATING VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS DLC BESCHICHTUNG

- ▶ Designed to copper, copper alloys soft graphites, reinforced plastics and the materials affiliated with non-ferrous metals.
- ▶ Tight radius tolerance is applied ($\pm 0.005\text{mm}$ tolerance under R3).
- ▶ Excellent surface roughness thanks to Mirror Face of cutting edges

- ▶ Entwickelt für die Bearbeitung von Kupfer, Kupferlegierungen, sowie faserverstärkten Kunststoffen, NE- Metallen
- ▶ Hochgenaue Raduistoleranz ($\pm 0.005\text{mm}$ Toleranz unter R3mm)
- ▶ Sehr gute Oberflächenrauigkeit wird durch die besonders behandelte Schneide erreicht



Unit : mm

EDP No.	Radius of Ball Nose R (± 0.005)	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
SGED28010	R0.5	1.0	6	2.5	50
SGED28015	R0.75	1.5	6	4	50
SGED28020	R1.0	2.0	6	5	50
SGED28030	R1.5	3.0	6	8	60
SGED28040	R2.0	4.0	6	8	70
SGED28050	R2.5	5.0	6	12	90
SGED28060	R3.0	6.0	6	12	90
SGED28080	R4.0	8.0	8	16	100
SGED28100	R5.0	10.0	10	20	100
SGED28120	R6.0	12.0	12	25	110

Size	Radius Tolerance (mm)	Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
up to R3	± 0.005	0~-0.012	h6
over R3		0~-0.015	

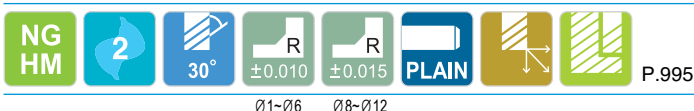
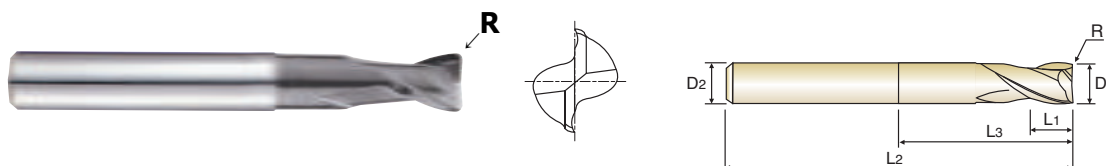
◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel	Acrylic	CFRP
~HB225	HB225~325	HRC30~40	HRc40~45	HRc45~55	HRc55~70									
						◎			○					

CARBIDE, 2 FLUTE CORNER RADIUS DLC COATING with EXTENDED NECK VOLLHARTMETALL, 2 SCHNEIDEN ECKENRADIUS DLC BESCHICHTUNG mit ABGESETZTEM SCHAFTTETTEL

- Designed to copper, copper alloys soft graphites, reinforced plastics and the materials affiliated with non-ferrous metals.
- Suitable for various cutting application like roughing, semi-finishing and finishing thanks to application

- Entwickelt für die Bearbeitung von Kupfer, Kupferlegierungen, sowie faserverstärkten Kunststoffen, NE- Metallen
- Ausgelegt für verschiedene Anwendungen, z.B. schrappen, schrappschlichten und zur schlicht Bearbeitung, aufgrund der neuartigen Geometrie



Ø1~Ø6 Ø8~Ø12

Unit : mm

EDP No.	Corner Radius R	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Length Below Shank L3	Overall Length L2
SGED290100104	RO.1	1.0	4	1.5	4	45
SGED290100106	RO.1	1.0	4	1.5	6	45
SGED290100108	RO.1	1.0	4	1.5	8	45
SGED290100204	RO.2	1.0	4	1.5	4	45
SGED290100206	RO.2	1.0	4	1.5	6	45
SGED290100208	RO.2	1.0	4	1.5	8	45
SGED290150106	RO.1	1.5	4	2.3	6	45
SGED290150108	RO.1	1.5	4	2.3	8	45
SGED290150110	RO.1	1.5	4	2.3	10	45
SGED290150206	RO.2	1.5	4	2.3	6	45
SGED290150208	RO.2	1.5	4	2.3	8	45
SGED290150210	RO.2	1.5	4	2.3	10	45
SGED290200208	RO.2	2.0	4	3	8	45
SGED290200210	RO.2	2.0	4	3	10	45
SGED290200212	RO.2	2.0	4	3	12	45
SGED290200508	RO.5	2.0	4	3	8	45
SGED290200510	RO.5	2.0	4	3	10	45
SGED290200512	RO.5	2.0	4	3	12	45
SGED290300210	RO.2	3.0	6	4.5	10	50
SGED290300212	RO.2	3.0	6	4.5	12	50
SGED290300216	RO.2	3.0	6	4.5	16	60
SGED290300310	RO.3	3.0	6	4.5	10	50
SGED290300312	RO.3	3.0	6	4.5	12	50
SGED290300316	RO.3	3.0	6	4.5	16	60

◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel	Acrylic	CFRP
~HB225	HB225~325	HRc30~40	HRc40~45 HRc45~55	HRc55~70	◎			○					



SGED29 SERIES

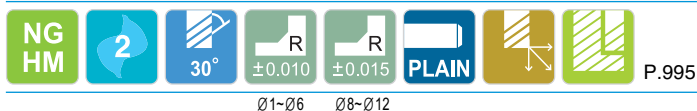
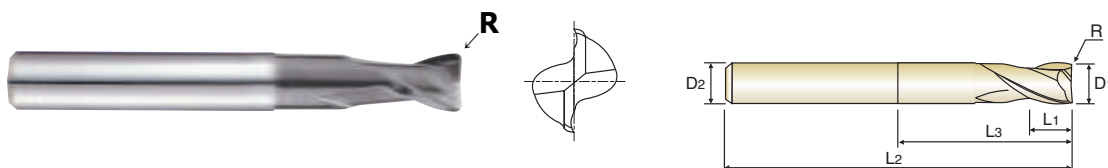
PLAIN SHANK
GLATTER ZYLINDERSCHAFT

CARBIDE, 2 FLUTE CORNER RADIUS DLC COATING with EXTENDED NECK

VOLLHARTMETALL, 2 SCHNEIDEN ECKENRADIUS DLC BESCHICHTUNG mit ABGESETZTEM SCHAFTTETEL

- ▶ Designed to copper, copper alloys soft graphites, reinforced plastics and the materials affiliated with non-ferrous metals.
- ▶ Suitable for various cutting application like roughing, semi-finishing and finishing thanks to application

- ▶ Entwickelt für die Bearbeitung von Kupfer, Kupferlegierungen, sowie faserverstärkten Kunststoffen, NE- Metallen
- ▶ Ausgelegt für verschiedene Anwendungen, z.B. schrappen, schrappschlichten und zur schlicht Bearbeitung, aufgrund der neuartigen Geometrie



Ø1~Ø6 Ø8~Ø12

Unit : mm

EDP No.	Corner Radius R	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Length Below Shank L3	Overall Length L2
SGED290400212	R0.2	4.0	6	6	12	50
SGED290400216	R0.2	4.0	6	6	16	60
SGED290400220	R0.2	4.0	6	6	20	60
SGED290400512	R0.5	4.0	6	6	12	50
SGED290400516	R0.5	4.0	6	6	16	60
SGED290400520	R0.5	4.0	6	6	20	60
SGED290600320	R0.3	6.0	6	9	20	60
SGED290600520	R0.5	6.0	6	9	20	60
SGED290601020	R1.0	6.0	6	9	20	60
SGED290800325	R0.3	8.0	8	12	25	65
SGED290800525	R0.5	8.0	8	12	25	65
SGED290801025	R1.0	8.0	8	12	25	65
SGED291000530	R0.5	10.0	10	15	30	70
SGED291001030	R1.0	10.0	10	15	30	70
SGED291200532	R0.5	12.0	12	18	32	80
SGED291201032	R1.0	12.0	12	18	32	80

Size	Corner Radius Tolerance (mm)	Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
up to Ø6	±0.010	0~-0.012	h6
over Ø6	±0.015	0~-0.015	

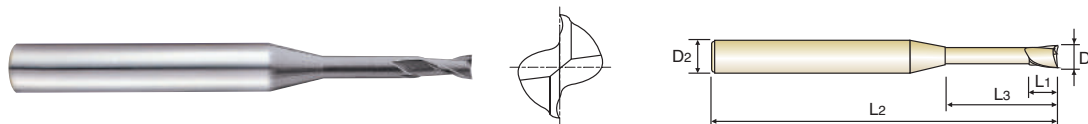
◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel	Acrylic	CFRP
~HB225	HB225~325	HRC30~40	HRc40~45	HRc45~55	HRc55~70									
						◎			○					

CARBIDE, 2 FLUTE DLC COATING with EXTENDED NECK VOLLHARTMETALL, 2 SCHNEIDEN DLC BESCHICHTUNG mit ABGESETZTEM SCHAFTTETL

- Designed to copper, copper alloys soft graphites, reinforced plastics and the materials affiliated with non-ferrous metals.
- High toughness and minimized vibration are available due to two step taper neck(under dia. 1.0mm)
- Excellent surface roughness due to special flute geometry for removing burrs

- Entwickelt für die Bearbeitung von Kupfer, Kupferlegierungen, sowie faserverstärkten Kunststoffen, NE- Metallen
- Hohe Zähigkeit und verminderte Vibrationen werden durch den besonderen kegelförmigen Hals erreicht, (unter Ø 1mm)
- Hervorragende Oberflächenrauheit durch speziell behandelte Nutengeometrie



Unit : mm

EDP No.	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Length Below Shank L3	Overall Length L2
SGED3000502	0.5	4	0.7	2	45
SGED3000504	0.5	4	0.7	4	45
SGED3000506	0.5	4	0.7	6	45
SGED3000508	0.5	4	0.7	8	45
SGED3000510	0.5	4	0.7	10	45
SGED3000602	0.6	4	0.9	2	45
SGED3000604	0.6	4	0.9	4	45
SGED3000606	0.6	4	0.9	6	45
SGED3000608	0.6	4	0.9	8	45
SGED3000610	0.6	4	0.9	10	45
SGED3000804	0.8	4	1.2	4	45
SGED3000806	0.8	4	1.2	6	45
SGED3000808	0.8	4	1.2	8	45
SGED3000810	0.8	4	1.2	10	45
SGED3000812	0.8	4	1.2	12	45
SGED3001004	1.0	4	1.5	4	45
SGED3001006	1.0	4	1.5	6	45
SGED3001008	1.0	4	1.5	8	45
SGED3001010	1.0	4	1.5	10	45
SGED3001012	1.0	4	1.5	12	45
SGED3001506	1.5	4	2.3	6	45
SGED3001508	1.5	4	2.3	8	45
SGED3001510	1.5	4	2.3	10	45
SGED3001512	1.5	4	2.3	12	45
SGED3001516	1.5	4	2.3	16	50

◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel	Acrylic	CFRP
~HB225	HB225~325	HRC30~40	HRc40~45 HRc45~55	HRc55~70									
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SGED30 SERIES

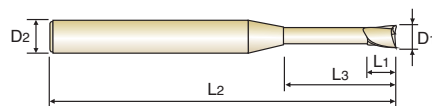
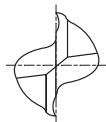
PLAIN SHANK
GLATTER ZYLINDERSCHAFT

CARBIDE, 2 FLUTE DLC COATING with EXTENDED NECK

VOLLHARTMETALL, 2 SCHNEIDEN DLC BESCHICHTUNG mit ABGESETZTEM SCHAFTTETL

- Designed to copper, copper alloys soft graphites, reinforced plastics and the materials affiliated with non-ferrous metals.
- High toughness and minimized vibration are available due to two step taper neck (under dia. 1.0mm)
- Excellent surface roughness due to special flute geometry for removing burrs

- Entwickelt für die Bearbeitung von Kupfer, Kupferlegierungen, sowie faserverstärkten Kunststoffen, NE- Metallen
- Hohe Zähigkeit und verminderte Vibrationen werden durch den besonderen kegelförmigen Hals erreicht, (unter Ø 1mm)
- Hervorragende Oberflächenrauheit durch speziell behandelte Nutengeometrie



P.996

Unit : mm

EDP No.	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Length Below Shank L3	Overall Length L2
SGED3002008	2.0	4	3	8	45
SGED3002010	2.0	4	3	10	45
SGED3002012	2.0	4	3	12	45
SGED3002016	2.0	4	3	16	50
SGED3003008	3.0	6	4.5	8	50
SGED3003010	3.0	6	4.5	10	50
SGED3003012	3.0	6	4.5	12	50
SGED3003016	3.0	6	4.5	16	60
SGED3003020	3.0	6	4.5	20	60
SGED3004010	4.0	6	6	10	50
SGED3004012	4.0	6	6	12	50
SGED3004016	4.0	6	6	16	60
SGED3004020	4.0	6	6	20	60
SGED3004025	4.0	6	6	25	60
SGED3006020	6.0	6	8	20	60
SGED3006030	6.0	6	8	30	90
SGED3008020	8.0	8	12	20	70
SGED3010025	10.0	10	15	25	80
SGED3012025	12.0	12	18	25	80

Size	Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
up to Ø6	0~-0.012	h6
over Ø6	0~-0.015	

◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel	Acrylic	CFRP
~HB225	HB225~325	HRC30~40	HRC40~45	HRC45~55	HRC55~70									
						◎			○					

CARBIDE, 2 FLUTE DLC COATING

VOLLHARTMETALL, 2 SCHNEIDEN DLC BESCHICHTUNG

- Designed to copper, copper alloys soft graphites, reinforced plastics and the materials affiliated with non-ferrous metals.
- Excellent surface roughness thanks to special flute geometry for reduced burr

- Entwickelt für die Bearbeitung von Kupfer, Kupferlegierungen, sowie faserverstärkten Kunststoffen, NE- Metallen
- Hervorragende Oberflächenrauheit durch speziell behandelte Nutengeometrie was zur verminderten Gratabbildung führt



P.996

Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
SGED31010	1.0	6	2.5	50
SGED31015	1.5	6	4	50
SGED31020	2.0	6	6	50
SGED31025	2.5	6	8	50
SGED31030	3.0	6	10	50
SGED31040	4.0	6	12	50
SGED31050	5.0	6	15	60
SGED31060	6.0	6	15	60
SGED31080	8.0	8	20	65
SGED31100	10.0	10	25	70
SGED31120	12.0	12	30	80

Size	Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
up to Ø6	0~-0.012	h6
over Ø6	0~-0.015	

◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel	Acrylic	CFRP
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70									
						◎			○					

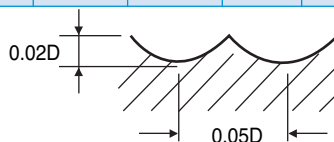


RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDKONDITIONEN

CARBIDE, 2 FLUTE BALL NOSE DLC COATING with EXTENDED NECK VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS DLC BESCHICHTUNG mit ABGESETZTEM SCHAFTTETL

SGED27 SERIES

MATERIAL	WROUGHT ALUMINIUM				UNALLOYED COPPER				THERMOPLASTICS			
DIAMETER	RPM	FEED	Vc	Fz	RPM	FEED	Vc	Fz	RPM	FEED	Vc	Fz
R0.25 × 0.5	50000	500	80	0.005	50000	500	80	0.005	50000	380	80	0.004
R0.3 × 0.6	50000	700	95	0.007	50000	650	95	0.007	50000	450	95	0.005
R0.4 × 0.8	50000	850	125	0.009	44000	770	110	0.009	50000	600	125	0.006
R0.5 × 1.0	50000	1000	155	0.010	35000	770	110	0.011	50000	630	155	0.006
R1.0 × 2.0	39600	1716	250	0.022	19800	780	125	0.020	50000	1250	315	0.013
R1.5 × 3.0	26000	1584	245	0.030	13000	720	125	0.028	39000	1512	370	0.019
R2.0 × 4.0	19000	1606	240	0.042	9500	730	120	0.038	28500	1533	360	0.027
R2.5 × 5.0	15400	1606	240	0.052	7700	730	120	0.047	23100	1533	365	0.033
R3.0 × 6.0	13000	1584	245	0.061	6500	720	125	0.055	19500	1512	370	0.039
R4.0 × 8.0	10000	1584	250	0.079	5000	720	125	0.072	15000	1512	375	0.050
R5.0 × 10.0	8000	1606	250	0.100	4000	730	125	0.091	12000	1533	375	0.064
R6.0 × 12.0	6600	1606	250	0.122	3300	730	125	0.111	9900	1533	375	0.077

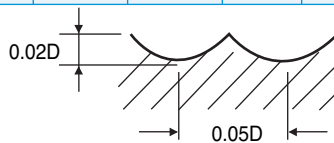


RPM = rev./min.
FEED = mm/min.
Vc = m/min.
fz = mm/t

CARBIDE, 2 FLUTE BALL NOSE DLC COATING VOLLHARTMETALL, 2 SCHNEIDEN STIRNRADIUS DLC BESCHICHTUNG

SGED28 SERIES

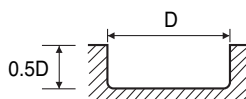
MATERIAL	WROUGHT ALUMINIUM				UNALLOYED COPPER				THERMOPLASTICS			
DIAMETER	RPM	FEED	Vc	Fz	RPM	FEED	Vc	Fz	RPM	FEED	Vc	Fz
R0.5 × 1.0	50000	1000	155	0.010	42000	930	130	0.011	50000	750	155	0.008
R1.0 × 2.0	47520	2068	300	0.022	24000	940	150	0.020	50000	1500	315	0.015
R1.5 × 3.0	31200	1914	295	0.031	15800	870	150	0.028	47400	1800	445	0.019
R2.0 × 4.0	22800	1936	285	0.042	11500	880	145	0.038	34500	1825	435	0.026
R2.5 × 5.0	18500	1936	290	0.052	9300	880	145	0.047	28000	1825	440	0.033
R3.0 × 6.0	15600	1892	295	0.061	7800	860	145	0.055	23500	1800	445	0.038
R4.0 × 8.0	12000	1892	300	0.079	6000	860	150	0.072	18000	1800	450	0.050
R5.0 × 10.0	9600	1936	300	0.101	4800	880	150	0.092	14500	1825	455	0.063
R6.0 × 12.0	8000	1914	300	0.120	4000	870	150	0.109	12000	1825	450	0.076



RPM = rev./min.
FEED = mm/min.
Vc = m/min.
fz = mm/t

CARBIDE, 2 FLUTE CORNER RADIUS DLC COATING with EXTENDED NECK - SLOTING
VOLLHARTMETALL, 2 SCHNEIDEN ECKENRADIUS DLC BESCHICHTUNG mit ABGESETZTEM SCHAFTTETL- NUTENFRÄSEN
SGED29 SERIES

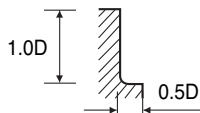
MATERIAL	WROUGHT ALUMINIUM				UNALLOYED COPPER				THERMOPLASTICS			
DIAMETER	RPM	FEED	Vc	Fz	RPM	FEED	Vc	Fz	RPM	FEED	Vc	Fz
1.0	50000	1000	155	0.010	50000	1000	155	0.010	50000	700	155	0.007
2.0	50000	1800	315	0.018	50000	1700	315	0.017	50000	1400	315	0.014
3.0	50000	2600	470	0.026	44500	2350	420	0.026	50000	2100	470	0.021
4.0	50000	3680	630	0.037	33400	2100	420	0.031	50000	2600	630	0.026
5.0	50000	4300	785	0.043	27000	2100	425	0.039	50000	3400	785	0.034
6.0	44500	4670	840	0.052	22300	2100	420	0.047	50000	4200	940	0.042
8.0	33400	4560	840	0.068	16700	2100	420	0.063	50000	5700	1255	0.057
10.0	26700	4770	840	0.089	13370	2100	420	0.079	40000	5500	1255	0.069
12.0	22200	4660	835	0.105	11100	2100	420	0.095	33500	5600	1265	0.084



RPM = rev./min.
FEED = mm/min.
Vc = m/min.
fz = mm/t

CARBIDE, 2 FLUTE CORNER RADIUS DLC COATING with EXTENDED NECK - SIDE CUTTING
VOLLHARTMETALL, 2 SCHNEIDEN ECKENRADIUS DLC BESCHICHTUNG mit ABGESETZTEM SCHAFTTETL- SEITENFRÄSEN
SGED29 SERIES

MATERIAL	WROUGHT ALUMINIUM				UNALLOYED COPPER				THERMOPLASTICS			
DIAMETER	RPM	FEED	Vc	Fz	RPM	FEED	Vc	Fz	RPM	FEED	Vc	Fz
1.0	50000	1400	155	0.014	50000	1200	155	0.012	50000	1200	155	0.012
2.0	50000	2800	315	0.028	50000	2500	315	0.025	50000	2500	315	0.025
3.0	50000	4200	470	0.042	50000	3700	470	0.037	50000	3700	470	0.037
4.0	50000	5300	630	0.053	50000	4700	630	0.047	50000	5000	630	0.050
5.0	50000	6500	785	0.065	40000	4800	630	0.060	50000	6500	785	0.065
6.0	50000	7850	940	0.079	33400	4900	630	0.073	50000	7500	940	0.075
8.0	37500	7850	940	0.105	25000	4700	630	0.094	50000	8400	1255	0.084
10.0	30000	7850	940	0.131	20000	4800	630	0.120	40000	8400	1255	0.105
12.0	25000	7850	940	0.157	16700	4700	630	0.141	33500	8400	1265	0.125



RPM = rev./min.
FEED = mm/min.
Vc = m/min.
fz = mm/t

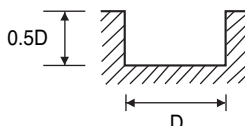


RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDKONDITIONEN

CARBIDE, 2 FLUTE DLC COATING - SLOTTING VOLLHARTMETALL, 2 SCHNEIDEN DLC BESCHICHTUNG-NUTENFRÄSEN

SGED30, SGED31 SERIES

MATERIAL	WROUGHT ALUMINIUM				UNALLOYED COPPER				THERMOPLASTICS			
DIAMETER	RPM	FEED	Vc	Fz	RPM	FEED	Vc	Fz	RPM	FEED	Vc	Fz
0.5	50000	480	80	0.005	50000	480	80	0.005	50000	140	80	0.001
0.6	50000	600	95	0.006	50000	570	95	0.006	50000	170	95	0.002
0.8	50000	780	125	0.008	43000	675	105	0.008	50000	220	125	0.002
1.0	50000	990	155	0.010	35000	690	110	0.010	50000	280	155	0.003
2.0	50000	990	315	0.010	25400	495	160	0.010	50000	429	315	0.004
3.0	35200	1590	330	0.023	17400	795	165	0.023	50000	689	470	0.007
4.0	26000	1680	325	0.032	13000	840	160	0.032	39000	728	490	0.009
6.0	17400	1680	325	0.048	8700	840	165	0.048	26100	728	490	0.014
8.0	13200	1680	330	0.064	6600	840	165	0.064	19800	728	500	0.018
10.0	10400	1680	325	0.081	5200	840	160	0.081	15600	728	490	0.023
12.0	8800	1710	330	0.097	4400	855	165	0.097	13200	741	495	0.028

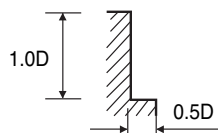


RPM = rev./min.
FEED = mm/min.
Vc = m/min.
fz = mm/t

CARBIDE, 2 FLUTE DLC COATING - SIDE CUTTING VOLLHARTMETALL, 2 SCHNEIDEN DLC BESCHICHTUNG-SEITENFRÄSEN

SGED30, SGED31 SERIES

MATERIAL	WROUGHT ALUMINIUM				UNALLOYED COPPER				THERMOPLASTICS			
DIAMETER	RPM	FEED	Vc	Fz	RPM	FEED	Vc	Fz	RPM	FEED	Vc	Fz
0.5	50000	510	80	0.005	50000	480	80	0.005	50000	390	80	0.004
0.6	50000	630	95	0.006	45000	525	85	0.006	50000	480	95	0.005
0.8	50000	840	125	0.008	34000	510	85	0.008	50000	630	125	0.006
1.0	41250	864	130	0.010	27500	540	85	0.010	50000	789	155	0.008
2.0	41100	864	260	0.011	27400	540	170	0.010	50000	864	315	0.009
3.0	27900	1368	260	0.025	18600	855	175	0.023	37200	1368	350	0.018
4.0	21000	1440	265	0.034	14000	900	175	0.032	28000	1440	350	0.026
6.0	14400	1536	270	0.053	9600	960	180	0.050	19200	1536	360	0.040
8.0	10500	1440	265	0.069	7000	900	175	0.064	14000	1440	350	0.051
10.0	8400	1440	265	0.086	5600	900	175	0.080	11200	1440	350	0.064
12.0	7200	1536	270	0.107	4800	960	180	0.100	9600	1536	360	0.080



RPM = rev./min.
FEED = mm/min.
Vc = m/min.
fz = mm/t