

**YG X-SPEED ROUGHER
END MILLS**

G9D77 SERIES

PLAIN SHANK
GLATTER ZYLINDERSCHAFT

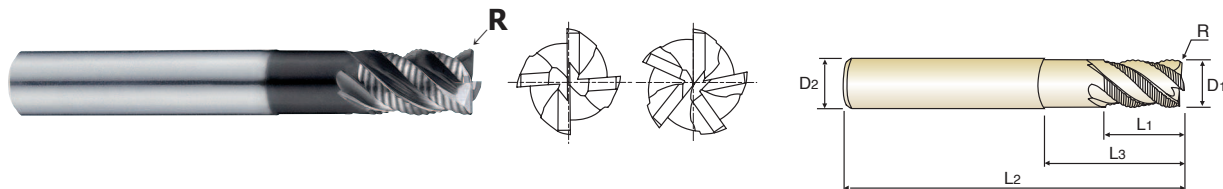
G9D69 SERIES

FLAT SHANK
SEITLICHE MITNAHMEFLÄCHEN

**CARBIDE, 4&5 FLUTE MULTIPLE HELIX LONG REACH CORNER RADIUS
VOLLHARTMETALL, 4&5 SCHNEIDEN MEHRSPIRAL FRÄSER GROÙE REICHWEITE ECKENRADIUS**

- ▶ Unique flute design for excellent chip evacuation and vibration reduction.
- ▶ Optimal roughing tooth profile to reduce cutting forces.
- ▶ Special tool geometry for high feed rate and heavy cutting.
- ▶ Strong end tooth design for plunge and pocket milling.
- ▶ Custom engineered coating to allow long tool life and excellent chip evacuation.

- ▶ einzigartige Nutengeometrie für hervorragenden Spänentransport und Vibrationsreduzierung
- ▶ neuartiges Schruppprofil zur Reduzierung der Schnittkräfte
- ▶ Spezielle Werkzeuggeometrie für Hochvorschub- und Schwerzerspannung geeignet
- ▶ speziell entwickelte Schneidengeometrie für Tauch- und Taschenfräsen
- ▶ YG-1 eigene Beschichtung um lange Lebensdauer und sehr guten Spänentransport zu gewährleisten



P.826

Unit : mm

EDP No.		Corner Radius	Mill Diameter	Shank Diameter	Length of Cut	Length Below Shank	Overall Length	No. of Flute
PLAIN	FLAT	R	D1	D2	L1	L3	L2	
G9D77060	G9D69060	R0.5	6.0	6	9	18	57	4
G9D77080	G9D69080	R0.5	8.0	8	12	24	63	4
G9D77100	G9D69100	R0.5	10.0	10	15	30	72	4
G9D77120	G9D69120	R0.5	12.0	12	18	36	83	4
G9D77160	G9D69160	R1.0	16.0	16	24	48	100	5
G9D77200	G9D69200	R1.0	20.0	20	30	60	110	5

Mill Dia. Tolerance(mm)	Shank Dia. Tolerance
0~-0.05	h6

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									
◎	◎	◎	○			○		◎		○				

◎ : Excellent ○ : Good



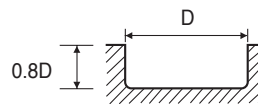
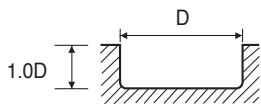
**X-SPEED ROUGHER
END MILLS**

**RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN**

**CARBIDE, 4&5 FLUTE MULTIPLE HELIX CORNER RADIUS - SLOTTING
VOLLHARTMETALL, 4&5 SCHNEIDEN MEHRSPIRAL FRÄSER ECKENRADIUS - NUTENFRÄSEN**

G9D75, G9D67, G9D76, G9D68, G9D77, G9D69 SERIES

MATERIAL	ALLOYED STEELS, CARBON STEELS TOOL STEELS, CAST IRON				ALLOYED STEELS, CARBON STEELS TOOL STEELS, CAST IRON PREHARDENED STEELS			
	~ HRc 25				HRc 25 ~ HRc 40			
HARDNESS	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
DIAMETER								
6.0	12000	1550	225	0.032	10600	1100	200	0.026
8.0	9000	1650	225	0.046	8100	1180	205	0.036
10.0	7200	1650	225	0.057	6400	1180	200	0.046
12.0	6000	1540	225	0.064	5400	1140	205	0.053
16.0	4500	1500	225	0.067	4100	1050	205	0.051
20.0	3600	1330	225	0.074	3200	900	200	0.056

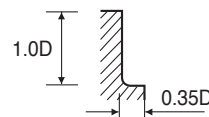
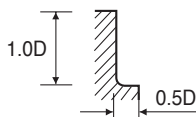


RPM = rev./min.
FEED = mm/min.
Vc = m/min.
fz = mm/t

**CARBIDE, 4&5 FLUTE MULTIPLE HELIX CORNER RADIUS - SIDE CUTTING
VOLLHARTMETALL, 4&5 SCHNEIDEN MEHRSPIRAL FRÄSER ECKENRADIUS - SEITENFRÄSEN**

G9D75, G9D67, G9D76, G9D68, G9D77, G9D69 SERIES

MATERIAL	ALLOYED STEELS, CARBON STEELS TOOL STEELS, CAST IRON				ALLOYED STEELS, CARBON STEELS TOOL STEELS, CAST IRON PREHARDENED STEELS			
	~ HRc 25				HRc 25 ~ HRc 40			
HARDNESS	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
DIAMETER								
6.0	15800	2570	300	0.041	14300	1850	270	0.032
8.0	11900	2700	300	0.057	10700	1950	270	0.046
10.0	9500	2700	300	0.071	8500	1950	265	0.057
12.0	8000	2570	300	0.080	7100	1850	270	0.065
16.0	6000	2450	300	0.082	5400	1750	270	0.065
20.0	4800	2140	300	0.089	4300	1500	270	0.070



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