



PLAIN SHANK  
GLATTER ZYLINDERSCHAFT

FLAT SHANK  
SEITLICHE MITNAHMEFLÄCHEN

## CARBIDE, 4 FLUTE LONG LENGTH BALL NOSE VOLLHARTMETALL, 4 SCHNEIDEN LANG STIRNRADIUS

- ▶ Special flute geometry eliminates vibrations
- ▶ Designed to mild steels, stainless steels, cast iron, tool steels, titanium alloys, prehardened steels and low hardness materials under HRc 40
- ▶ Excellent work piece finishes
- ▶ Higher speeds, deeper cuts and metal removal rates

- ▶ Spezielle Schneidengeometrie verhindert Vibrationen
- ▶ Geeignet für Baustähle, Rostfreie Stähle, Grauguss, Werkzeugstähle, Titanlegierungen, hochfeste Stähle und Werkstoffe unter 40 HRc
- ▶ Bessere Werkstückoberflächen.
- ▶ Höhere Schnittgeschwindigkeiten, größere Profiltiefe und größeres Zerspanungsvolumen



MG HM 4 ±0.02 PLAIN FLAT P.956

Unit : mm

EDP No.		Radius of Ball Nose R (±0.02)	Mill Diameter	Shank Diameter h6	Length of Cut	Overall Length
PLAIN	FLAT					
EMB74030	EMB75030	R1.5	3.0	6	8	57
EMB74040	EMB75040	R2.0	4.0	6	11	57
EMB74050	EMB75050	R2.5	5.0	6	13	57
EMB74060	EMB75060	R3.0	6.0	6	13	57
EMB74080	EMB75080	R4.0	8.0	8	19	63
EMB74100	EMB75100	R5.0	10.0	10	22	72
EMB74120	EMB75120	R6.0	12.0	12	26	83
EMB74160	EMB75160	R8.0	16.0	16	32	92
EMB74200	EMB75200	R10.0	20.0	20	38	104
EMB74250	EMB75250	R12.5	25.0	25	38	104

Mill Dia. Tolerance(mm)	Shank Dia. Tolerance
0~-0.03	h6

◎ : 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									
◎	○	○								◎	◎	○		

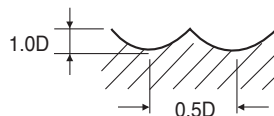


**RECOMMENDED CUTTING CONDITIONS**  
**EMFOHLENE SCHNEIDKONDITIONEN**

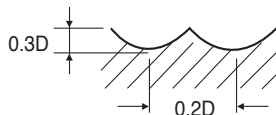
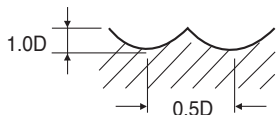
**CARBIDE, 4 FLUTE BALL NOSE**  
**VOLLHARTMETALL, 4 SCHNEIDEN STIRNRADIUS**

**EMB74, EMB75 SERIES**

MATERIAL	ALLOY STEELS CAST IRON				STAINLESS STEELS 300SERIES				STAINLESS STEELS 400SERIES			
HARDNESS	~HB230											
STRENGTH	~1000N/mm <sup>2</sup>											
DIAMETER	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
R1.5 × 3.0	14324	1430	135	0.025	8220	650	75	0.020	7420	440	70	0.015
R2.0 × 4.0	10740	1070	135	0.025	6160	490	75	0.020	5570	330	70	0.015
R2.5 × 5.0	8590	1030	135	0.030	4930	490	75	0.025	4450	440	70	0.025
R3.0 × 6.0	7460	1140	140	0.038	4110	670	75	0.041	3710	440	70	0.030
R4.0 × 8.0	5370	1280	135	0.060	3080	550	75	0.045	2780	440	70	0.040
R5.0 × 10.0	4290	1030	135	0.060	2460	490	75	0.050	2220	400	70	0.045
R6.0 × 12.0	3580	1000	135	0.070	2050	450	75	0.055	1850	370	70	0.050
R8.0 × 16.0	2680	800	135	0.075	1540	370	75	0.060	1390	300	70	0.054
R9.0 × 18.0	2380	760	135	0.080	1370	350	75	0.064	1230	290	70	0.059
R10.0 × 20.0	2140	770	135	0.090	1230	320	75	0.065	1110	260	70	0.059
R12.5 × 25.0	1710	680	135	0.099	980	270	75	0.069	890	210	70	0.059



MATERIAL	TITANIUM				INCONEL			
HARDNESS								
STRENGTH								
DIAMETER	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
R1.5 × 3.0	5830	280	55	0.012	3180	140	30	0.011
R2.0 × 4.0	4370	210	55	0.012	2380	100	30	0.011
R2.5 × 5.0	3500	210	55	0.015	1910	80	30	0.010
R3.0 × 6.0	2910	230	55	0.020	1590	100	30	0.016
R4.0 × 8.0	2180	260	55	0.030	1190	120	30	0.025
R5.0 × 10.0	1750	210	55	0.030	950	100	30	0.026
R6.0 × 12.0	1450	230	55	0.040	790	120	30	0.038
R8.0 × 16.0	1090	190	55	0.044	590	110	30	0.047
R9.0 × 18.0	970	190	55	0.049	530	110	30	0.052
R10.0 × 20.0	870	210	55	0.060	470	100	30	0.053
R12.5 × 25.0	700	190	55	0.068	380	80	30	0.053



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