

PLAIN SHANK  
GLATTER ZYLINDERSCHAFT

FLAT SHANK  
SEITLICHE MITNAHMEFLÄCHEN

## CARBIDE, 4 FLUTE LONG LENGTH CORNER RADIUS VOLLHARTMETALL, 4 SCHNEIDEN LANG ECKENRADIUS

- ▶ Designed to machine tool steel, alloy steel, mold steel and other high hardened materials.
- ▶ 4 flute allows for better workpiece finishes.
- ▶ Increased production.

- ▶ Zur Bearbeitung: Werkzeugstählen, Legierten Stählen, Stahlguß und gehärteten Stählen.
- ▶ 4 Schneiden erlauben bessere Oberflächengüte des Werkstücks.
- ▶ Gesteigerte Produktivität.



Unit : mm

EDP No.		Corner Radius R	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
PLAIN	FLAT					
EM819030	EM829030	RO.3	3.0	6	12	50
EM819040	EM829040	RO.3	4.0	6	15	50
EM819911	EM829911	RO.5	4.0	6	15	50
EM819050	EM829050	RO.3	5.0	6	20	60
EM819912	EM829912	RO.5	5.0	6	20	60
EM819913	EM829913	RO.3	6.0	6	20	60
EM819060	EM829060	RO.5	6.0	6	20	60
EM819901	EM829901	R1.0	6.0	6	20	70
EM819914	EM829914	RO.3	8.0	8	25	70
EM819080	EM829080	RO.5	8.0	8	25	70
EM819902	EM829902	R1.0	8.0	8	25	70
EM819903	EM829903	R1.5	8.0	8	25	70
EM819904	EM829904	R2.0	8.0	8	25	70
EM819915	EM829915	RO.3	10.0	10	30	90
EM819100	EM829100	RO.5	10.0	10	30	90
EM819905	EM829905	R1.0	10.0	10	30	90
EM819906	EM829906	R1.5	10.0	10	30	90
EM819907	EM829907	R2.0	10.0	10	30	90
EM819120	EM829120	RO.5	12.0	12	30	90
EM819908	EM829908	R1.0	12.0	12	30	90
EM819909	EM829909	R1.5	12.0	12	30	90
EM819910	EM829910	R2.0	12.0	12	30	90
EM819160	EM829160	RO.5	16.0	16	50	110
EM819916	EM829916	R1.0	16.0	16	50	110
EM819917	EM829917	R1.5	16.0	16	50	110
EM819918	EM829918	R2.0	16.0	16	50	110
EM819200	EM829200	RO.5	20.0	20	55	110
EM819919	EM829919	R1.0	20.0	20	55	110
EM819920	EM829920	R1.5	20.0	20	55	110
EM819921	EM829921	R2.0	20.0	20	55	110

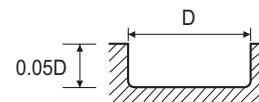
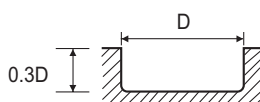
Mill Dia. Tolerance(mm)	Shank Dia. Tolerance
0~-0.03	h6

◎ : Excellent ○ : Good

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

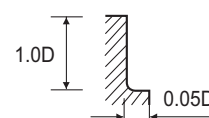
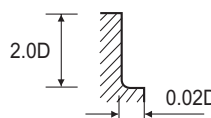
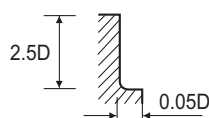
**CARBIDE, 2 FLUTE LONG CORNER RADIUS - SLOTTING**  
**VOLLHARTMETALL, 2 SCHNEIDEN LANG ECKENRADIUS - NUTENFRÄSEN**
**EM818, EM828 SERIES**

MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc45		HRc45 ~ HRc55		HRc55 ~ HRc65	
STRENGTH	~ 1000N/mm <sup>2</sup>		1000 ~ 1500N/mm <sup>2</sup>		1500 ~ 2000N/mm <sup>2</sup>		2000N/mm <sup>2</sup> ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
3.0	6620	140	4280	70	2640	35	1870	18
4.0	5360	170	3410	85	2150	40	1470	20
5.0	4580	210	2900	100	1900	50	1260	25
6.0	3950	250	2520	125	1640	60	1160	35
8.0	3000	270	1900	125	1260	60	840	35
10.0	2520	270	1640	125	1010	60	670	35
12.0	2060	210	1390	115	840	50	550	25
16.0	1740	190	1070	90	670	40	440	20
20.0	1260	140	820	60	500	30	340	15


 RPM = rev./min.  
 FEED = mm/min.

**CARBIDE, 4 FLUTE LONG CORNER RADIUS - SIDE CUTTING**  
**VOLLHARTMETALL, 4 SCHNEIDEN LANG ECKENRADIUS - SEITENFRÄSEN**
**EM819, EM829 SERIES**

MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRc30		HRc30 ~ HRc45		HRc45 ~ HRc55		HRc55 ~ HRc65	
STRENGTH	~ 1000N/mm <sup>2</sup>		1000 ~ 1500N/mm <sup>2</sup>		1500 ~ 2000N/mm <sup>2</sup>		2000N/mm <sup>2</sup> ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
3.0	6620	170	4280	130	2640	65	1870	30
4.0	5360	210	3410	150	2150	70	1470	35
5.0	4580	215	2900	180	1900	85	1260	40
6.0	3950	215	2520	180	1640	85	1160	50
8.0	3000	230	1900	180	1260	85	840	50
10.0	2520	230	1640	180	1010	85	670	50
12.0	2060	180	1390	160	840	70	550	40
16.0	1740	160	1070	125	670	60	440	35
20.0	1260	115	820	90	500	45	340	25


 RPM = rev./min.  
 FEED = mm/min.