



EM810 SERIES

PLAIN SHANK
GLATTER ZYLINDERSCHAFT

CARBIDE, 2 FLUTE MINIATURE
VOLLHARTMETALL, 2 SCHNEIDEN MINI

- ▶ High precision milling in medical, optical, electronics and aero space industries.
- ▶ Excellent performance on high hardened steel

- ▶ Hochpräzises Fräsen für Medizintechnik, Optik, Elektronik und Raumfahrt.
- ▶ Ausgezeichnete Leistung bei der Bearbeitung von gehärtetem Stahl.



MG HM 2 30° PLAIN P.656

Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
PLAIN				
EM810004	0.4	3	0.8	40
EM810005	0.5	3	1	40
EM810006	0.6	3	1.2	40
EM810007	0.7	3	1.4	40
EM810008	0.8	3	1.6	40
EM810009	0.9	3	2	40
EM810010	1.0	4	2.5	40
EM810011	1.1	4	2.5	40
EM810012	1.2	4	4	40
EM810013	1.3	4	4	40
EM810014	1.4	4	4	40
EM810015	1.5	4	4	40

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

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							
○	◎	◎	◎	○				○				

◎ : Excellent ○ : Good

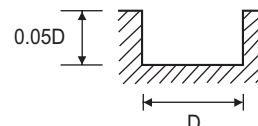
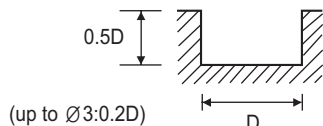


RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

CARBIDE, 2 FLUTE SHORT - SLOTTING
VOLLHARTMETALL, 2 SCHNEIDEN KURZ - NUTENFRÄSEN

EM810, EM820 SERIES

MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		STAINLESS STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRC30		HRC30 ~ HRC45				HRC45 ~ HRC55		HRC55 ~ HRC65	
STRENGTH	~ 1000N/mm ²		1000 ~ 1500N/mm ²				1500 ~ 2000N/mm ²		2000N/mm ² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	9250	190	6050	120	5050	90	4030	35		
3.0	7150	210	4450	140	3700	120	2690	40	1900	40
4.0	6050	300	3700	180	3100	150	2350	40	1480	40
5.0	5050	320	3020	190	2530	160	1860	50	1260	40
6.0	4450	350	2690	220	2270	180	1600	55	1100	40
8.0	3360	380	2020	200	1680	180	1350	75	840	40
10.0	2600	330	1600	160	1350	160	1090	60	680	35
12.0	2200	280	1350	130	1090	130	930	55	560	35
16.0	1760	220	1090	110	850	110	720	40	440	20
20.0	1350	170	850	80	670	80	550	30	320	20
25.0	1090	130	670	70	550	60	430	20	260	15



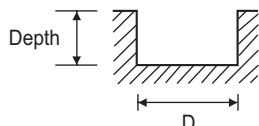
RPM = rev./min.
FEED = mm/min.

CARBIDE, 2 FLUTE MINIATURE - SLOTTING
VOLLHARTMETALL, 2 SCHNEIDEN MINI - NUTENFRÄSEN

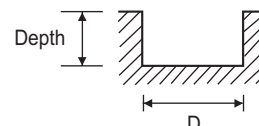
EM810 SERIES

MATERIAL	ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS	
HARDNESS	HRC30 ~ HRC45		HRC45 ~ HRC55	
STRENGTH	1000 ~ 1500N/mm ²		1500 ~ 2000N/mm ²	
DIAMETER	RPM	FEED	RPM	FEED
0.4	30000	90	23000	50
0.8	24000	150	18000	65
1.0	20000	160	15000	75
1.2	16000	160	12000	75
1.5	12000	150	9000	70

D < 1
Depth=0.15 × D
D > 1
Depth=0.25 × D



D < 1
Depth=0.02 × D
D > 1
Depth=0.05 × D



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