

CARBIDE, MULTI FLUTE 20° HELIX SHORT LENGTH ROUGHING - FINE

VOLLHARTMETALL, MULTI SCHNEIDEN 20° RECHTSSPIRALE KURZ SCHRUPPFRÄSER - FEIN

- Designed to machine tool steel, alloy steel, mold steel and other high hardened materials.
- High velocity milling of hardened steels.
- For dry and wet milling.
- Fast chip ejection.

- Zur Bearbeitung: Werkzeugstählen, Legierten Stählen, Stahlguß und gehärteten Stählen.
- Hochgeschwindigkeitsfräsen von gehärteten Stählen.
- Für Trocken - und Naßfräsen.
- Schnelle Spanausfuhr.



Unit : mm

EDP No.		Mill Diameter h10	Shank Diameter h6	Length of Cut	Overall Length	No. of Flute
PLAIN	FLAT					
EM832060	EM842060	6.0	6	7	54	3
EM832070	EM842070	7.0	8	8	58	3
EM832080	EM842080	8.0	8	9	58	3
EM832090	EM842090	9.0	10	13	66	4
EM832100	EM842100	10.0	10	14	66	4
EM832120	EM842120	12.0	12	16	73	4
EM832140	EM842140	14.0	14	18	75	4
EM832160	EM842160	16.0	16	22	82	4
EM832180	EM842180	18.0	18	24	84	4
EM832200	EM842200	20.0	20	26	92	4
EM832250	EM842250	25.0	25	25	110	5

Tolerances according to DIN 7160 & 7161

Toleranzen nach DIN 7160 & 7161

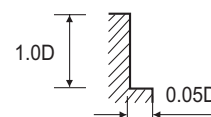
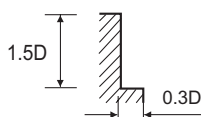
Tolerance range in μm / Toleranzwerte in μm					
Nominal-Diameter in mm / Nennmaßbereich in mm					
	from 1 to 3 von 1 bis 3	over 3 to 6 über 3 bis 6	over 6 to 10 über 6 bis 10	over 10 to 18 über 10 bis 18	over 18 to 30 über 18 bis 30
h10	0 — 40	0 — 48	0 — 58	0 — 70	0 — 84
h6	0 — 6	0 — 8	0 — 9	0 — 11	0 — 13

◎ : 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, MULTI FLUTE 20° HELIX ROUGHING - SIDE CUTTING
VOLLHARTMETALL, MULTI SCHNEIDEN 20° RECHTSSPIRALE SCHRUPPFRÄSER - SEITENFRÄSEN**
EM832, EM842, EM814, EM824 SERIES

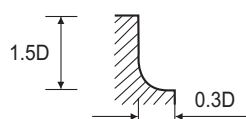
MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		STAINLESS STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRC30		HRC30 ~ HRC38		HRC38 ~ HRC45		HRC45 ~ HRC55		HRC55 ~ HRC65	
STRENGTH	~ 1000N/mm ²		1000 ~ 1200N/mm ²		1200 ~ 1400N/mm ²		1400 ~ 2000N/mm ²		2000N/mm ² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
6.0	15600	2320	12400	840	8400	570	3400	260	2400	190
8.0	11600	2320	9200	840	6300	570	2400	240	1800	180
10.0	9200	2320	7600	840	5100	570	2000	290	1300	190
12.0	8000	2400	6000	800	4200	570	1680	260	1200	190
14.0	6800	2400	5200	840	3600	570	1400	200	900	130
16.0	6000	2400	4800	760	3300	510	1200	160	800	110
18.0	5200	2320	4400	720	2700	420	1100	150	700	100
20.0	4800	2160	3600	560	2400	360	1000	150	660	100
25.0	4300	2150	3200	620	2160	410	900	160	600	100



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

**CARBIDE, 3&4 FLUTE 20° HELIX ROUGHING BALL NOSE - SIDE CUTTING
VOLLHARTMETALL, 3&4 SCHNEIDEN 20° RECHTSSPIRALE SCHRUPPFRÄSER STIRNRADIUS - SEITENFRÄSEN**
EM833, EM843 SERIES

MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRC30		HRC30 ~ HRC38		HRC38 ~ HRC45		HRC45 ~ HRC55		HRC55 ~ HRC65	
STRENGTH	~ 1000N/mm ²		1000 ~ 1200N/mm ²		1200 ~ 1400N/mm ²		1400 ~ 2000N/mm ²		2000N/mm ² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
R3.0 × 6.0	15600	2320	12400	840	8400	570	3400	260	2400	190
R4.0 × 8.0	11600	2320	9200	840	6300	570	2400	240	1800	180
R5.0 × 10.0	9200	2320	7600	840	5100	570	2000	290	1300	190
R6.0 × 12.0	8000	2400	6000	800	4200	570	1680	260	1200	190
R7.0 × 14.0	6800	2400	5200	840	3600	570	1400	200	900	130
R8.0 × 16.0	6000	2400	4800	760	3300	510	1200	160	800	110
R9.0 × 18.0	5200	2320	4400	720	2700	420	1100	150	700	100
R10.0 × 20.0	4800	2160	3600	560	2400	360	1000	150	660	100



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