

MIRACLE END MILL FOR DIFFICULT TO CUT MATERIALS

CARBIDE

VCMH

End mill, Medium cut length, 3—4 flute, High helix angle

RECOMMENDED CUTTING CONDITIONS

Work material	Carbon steel, Cast iron, Alloy steel, Pre-hardened steel		Austenitic stainless steel, Titanium alloy		Hardened steel (45—55HRC)		Heat resistant alloys	
	AISI 1050, AISI No 35 B, AISI P20, AISI P21		AISI 304, AISI 306, Ti-6Al-4V		AISI H13		Inconel718	
Dia, DC (mm)	Revolution (min ⁻¹)	Feed rate (mm/min)	Revolution (min ⁻¹)	Feed rate (mm/min)	Revolution (min ⁻¹)	Feed rate (mm/min)	Revolution (min ⁻¹)	Feed rate (mm/min)
3	5300	130	4400	100	2400	50	1500	25
4	4400	220	3700	160	2000	80	1300	40
5	3600	260	3000	190	1700	100	1100	50
6	3200	280	2700	200	1500	100	1000	50
8	2400	300	2000	210	1200	110	800	45
10	1900	290	1600	210	960	115	640	45
12	1600	250	1300	170	800	95	530	40
16	1200	180	1000	130	600	70	400	30
18	1100	170	900	120	530	65	350	25
20	960	190	800	140	480	75	320	25
25	760	150	640	110	380	60	260	20

Depth of cut	Side Milling		Slotting	

DC: Dia.

- 1) If the depth of cut is shallow, the revolution and feed rate can be increased.
- 2) The above table shows cutting conditions for side milling. For slotting, please set the revolution at 80—100% and the feed rate at 60—80% of the table figure. Please set the revolution rate at 60% and the feed rate at 40% when slotting austenitic stainless steels.
- 3) If the rigidity of the machine or the work materials installation is very low, or chattering and noise are generated, reduce the revolution and feed rate proportionately.

SOLID END MILLS