

# IMPACT MIRACLE END MILLS

CARBIDE

## VF2MD

End mill, Medium cut length, 2 flute, For hardened materials

### RECOMMENDED CUTTING CONDITIONS

Work material	Alloy steel, Tool steel, Pre-hardened steel			Hardened steel (45—55HRC)			Hardened steel (55—62HRC)		
	AISI H13, AISI W1-10, AISI P21			AISI H13			AISI D2		
Dia. DC (mm)	Revolution (min <sup>-1</sup> )	Feed rate (mm/min)	Depth of cut (mm)	Revolution (min <sup>-1</sup> )	Feed rate (mm/min)	Depth of cut (mm)	Revolution (min <sup>-1</sup> )	Feed rate (mm/min)	Depth of cut (mm)
<b>0.5</b>	40000	1000	0.015	40000	960	0.015	30000	600	0.01
<b>1</b>	40000	2000	0.06	32000	1600	0.06	16000	550	0.05
<b>1.5</b>	40000	3000	0.12	32000	1900	0.08	10600	500	0.08
<b>2</b>	30000	3000	0.18	24000	1900	0.10	8100	400	0.1
<b>2.5</b>	24000	2600	0.25	19000	1600	0.13	6400	350	0.13
<b>3</b>	20000	2300	0.30	16000	1400	0.15	5400	300	0.15
<b>4</b>	15000	2000	0.40	12000	1200	0.20	4000	240	0.2
<b>5</b>	12000	1600	0.50	9000	900	0.25	3200	190	0.2
<b>6</b>	10000	1400	0.60	7000	700	0.30	2700	160	0.2

Depth of cut

≤Please refer to the list above for depth of cut.

DC: Dia.

- 1) If the depth of cut is shallow, the revolution and feed rate can be increased.
- 2) When drilling, please set the feed rate at 1/3 or below the values above.
- 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