

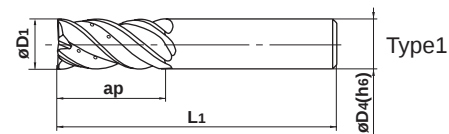
IMPACT MIRACLE END MILLS

VFMHVCH

End mill, Medium cut length, 4 flute, Irregular helix flutes, with multiple internal through coolant holes



Carbon Steel, Alloy Steel, Cast Iron (≤30HRC)	Tool Steel, Pre-Hardened Steel, Hardened Steel (≤45HRC)	Hardened Steel (≤55HRC)	Hardened Steel (>55HRC)	Austenitic Stainless Steel	Titanium Alloy, Heat Resistant Alloy	Copper Alloy	Aluminium Alloy
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CoolStar
END MILLS

	16 ≤ D1 ≤ 20				
	0 - 0.03				
	D4=16	D4=20			
	0 - 0.011	0 - 0.013			

- Vibration control end mill with multiple internal through coolant holes ensures stable machining on difficult-to-cut materials and applications requiring long overhangs.

Unit : mm

Order Number	D1	ap	L1	D4	Flutes	Stock	Type
VFMHVCHD1600	16	35	90	16	4	●	1
D2000	20	45	110	20	4	●	1

RECOMMENDED CUTTING CONDITIONS

Shoulder milling

Work material	Austenitic stainless steel, Titanium alloy X5CrNi1810, X5CrNiMo17-12-2, Ti6Al4V				Heat resistant alloys Inconel718	
Dia. (mm)	Revolution (min ⁻¹)	Feed rate (mm/min)	Revolution (min ⁻¹)	Feed rate (mm/min)		
16	2000	560	800	110		
20	1600	510	600	100		
Depth of cut	 ≤0.1D 0.5D-1.5D		 ≤0.05D 0.5D-1.5D			

D:Dia.

Slotting

Work material	Austenitic stainless steel, Titanium alloy X5CrNi1810, X5CrNiMo17-12-2, Ti6Al4V		
Dia. (mm)	Revolution (min ⁻¹)	Feed rate (mm/min)	
16	1400	170	
20	1100	130	
Depth of cut	 D 0.5D-1.5D		

D:Dia.

- 1) If the depth of cut is shallow, the revolution and feed rate can be increased.
- 2) The irregular helix flute end mill has a larger effect on controlling vibration when compared to standard end mills. However, if the rigidity of the machine or the workpiece installation is poor, vibration or abnormal sound can occur. In this case, please reduce the revolution and feed rate proportionately, or set a lower depth of cut.

● : Inventory maintained.