

# COOL STAR END MILL SERIES

## VF6MHVCH

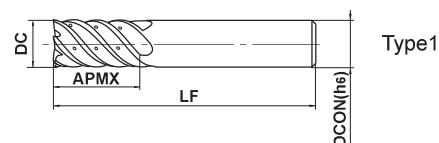
End mill, Medium cut length, Irregular helix flutes, with multiple internal through coolant holes



CARBIDE

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
				○	○		

**CoolStar**  
END MILLS



SQUARE

DC	DC ≤ 12	DC > 12		
	$0$ - 0.020	$0$ - 0.030		
h6	DCON=10	DCON=12	DCON=16	DCON=20
	$0$ - 0.009	$0$ - 0.011	$0$ - 0.011	$0$ - 0.013

BALL

● 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	DC	APMX	LF	DCON	No. of Flutes	Stock	Type
VF6MHVCHD1000	10	22	70	10	6	●	1
VF6MHVCHD1200	12	26	75	12	6	●	1
VF6MHVCHD1600	16	32	90	16	6	●	1
VF6MHVCHD2000	20	38	100	20	6	●	1

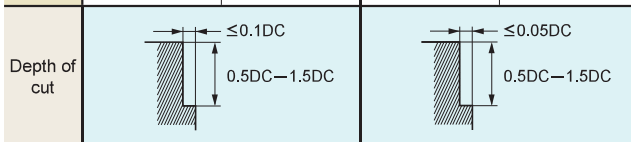
RADIUS

TAPER

### RECOMMENDED CUTTING CONDITIONS

#### Side milling

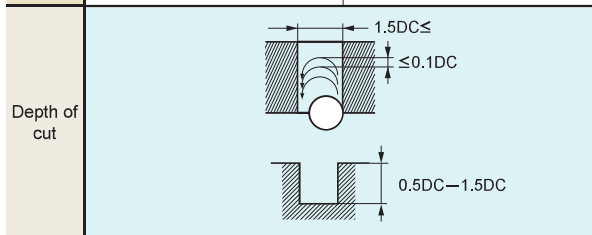
Work material	Austenitic stainless steel, Titanium alloy		Heat resistant alloys	
	AISI 304, AISI 306, Ti-6Al-4V		Inconel718	
Dia. DC (mm)	Revolution (min <sup>-1</sup> )	Feed rate (mm/min)	Revolution (min <sup>-1</sup> )	Feed rate (mm/min)
10	4800	2000	1300	260
12	4000	2000	1100	230
16	3000	1600	800	180
20	2400	1400	640	150



DC: Dia.

#### Trochoidal slotting

Work material	Austenitic stainless steel, Titanium alloy	
	AISI 304, AISI 306, Ti-6Al-4V	
Dia. DC (mm)	Revolution (min <sup>-1</sup> )	Feed rate (mm/min)
10	4800	1400
12	4000	1200
16	3000	1100
20	2400	900



DC: 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 in Japan.