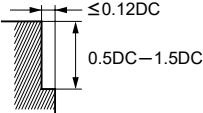
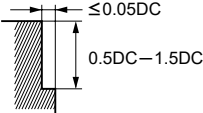



# RECOMMENDED CUTTING CONDITIONS

## ■ Side milling

Work material	P		M	S	N		S	
	Alloy steel, Tool steel, Pre-hardened steel X40CrMoV51		Austenitic Stainless Steel ( $\leq 200\text{HB}$ ), Titanium Alloy X5CrNi189, X5CrNiMo1810, Ti-6Al-4V		Copper, Copper alloy		Heat Resistant Alloys Inconel 718	
Dia. DC (mm)	Revolution ( $\text{min}^{-1}$ )	Feed rate (mm/min)	Revolution ( $\text{min}^{-1}$ )	Feed rate (mm/min)	Revolution ( $\text{min}^{-1}$ )	Feed rate (mm/min)	Revolution ( $\text{min}^{-1}$ )	Feed rate (mm/min)
10	—	—	4800	2000	—	—	1300	260
12	—	—	4000	2000	—	—	1100	230
16	4000	2200	3000	1600	2400	1400	800	180
20	3200	1900	2400	1400	1900	1100	640	150
Depth of Cut								

DC: Dia.

## ■ Trochoidal slotting

Work material	P		M	S
	Alloy steel, Tool steel, Pre-hardened steel X40CrMoV51		Austenitic stainless steel ( $\leq 200\text{HB}$ ), Titanium alloy X5CrNi189, X5CrNiMo1810, Ti-6Al-4V	
Dia. DC (mm)	Revolution ( $\text{min}^{-1}$ )	Feed rate (mm/min)	Revolution ( $\text{min}^{-1}$ )	Feed rate (mm/min)
10	—	—	4800	1400
12	—	—	4000	1200
16	4000	1600	3000	1100
20	3200	1400	2400	900
Depth of cut				

DC: Dia.

Note 1) If the depth of cut is shallow, the revolution and feed rate can be increased.

Note 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 very low, then vibration can occur.

In this case, please reduce the revolution and feed rate proportionately.