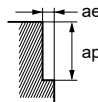


RECOMMENDED CUTTING CONDITIONS

■ Side milling

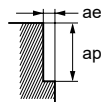
Work material	P								M	S			
	Carbon steel, Cast iron, Alloy steel (–30HRC) AISI 1050, AISI No 35 B, AISI P20				Alloy steel, Tool steel, Pre-hardened steel AISI H13, AISI W1-10, AISI P21				Austenitic stainless steel, Titanium alloy AISI 304, AISI 306, Ti-6Al-4V				
Dia. DC (mm)	Revolution (min ⁻¹)	Feed rate (mm/min)	Depth of Cut ap (mm)	Width of Cut ae (mm)	Revolution (min ⁻¹)	Feed rate (mm/min)	Depth of Cut ap (mm)	Width of Cut ae (mm)	Revolution (min ⁻¹)	Feed rate (mm/min)	Depth of Cut ap (mm)	Width of Cut ae (mm)	
3	10000	720	3	0.6	7000	480	3	0.6	6000	360	3	0.6	
4	7500	720	4	0.6	5200	480	4	0.6	4500	360	4	0.6	
5	6000	720	5	0.6	4200	480	5	0.6	3600	360	5	0.6	
6	5000	720	6	0.6	3500	480	6	0.6	3000	360	6	0.6	
7	4500	670	7	0.6	3200	440	7	0.6	2700	340	7	0.6	
8	4000	620	8	0.6	2800	420	8	0.6	2400	310	8	0.6	
9	3500	580	9	0.6	2500	380	9	0.6	2100	290	9	0.6	
10	3200	540	10	0.6	2200	360	10	0.6	1900	280	10	0.6	
12	2700	490	12	0.6	1900	320	12	0.6	1600	250	12	0.6	

Depth of cut



Work material	H				N			
	Hardened steel (45–55HRC) AISI H13				Copper, Copper Alloy			
Dia. DC (mm)	Revolution (min ⁻¹)	Feed rate (mm/min)	Depth of Cut ap (mm)	Width of Cut ae (mm)	Revolution (min ⁻¹)	Feed rate (mm/min)	Depth of Cut ap (mm)	Width of Cut ae (mm)
3	5000	140	3	0.2	13000	940	3	0.6
4	4000	140	4	0.2	9500	910	4	0.6
5	3200	140	5	0.2	7600	910	5	0.6
6	2700	140	6	0.2	6400	920	6	0.6
7	2300	130	7	0.2	5500	820	7	0.6
8	2000	130	8	0.2	4800	740	8	0.6
9	1800	130	9	0.2	4200	700	9	0.6
10	1600	120	10	0.2	3800	640	10	0.6
12	1300	120	12	0.2	3200	580	12	0.6

Depth of cut



Note 1) When cutting austenitic stainless steels, the use of water-soluble cutting fluid is effective.

Note 2) If the depth of cut is shallow, the revolution and feed rate can be increased.

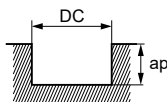
Note 3) When drilling, please set the feed rate at 1/3 or below the values above.

Note 4) 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.

■ Slotting

Work material	P						M	S	
	Carbon steel, Cast iron, Alloy steel (–30HRC) AISI 1050, AISI No 35 B, AISI P20			Alloy steel, Tool steel, Pre-hardened steel AISI H13, AISI W1-10, AISI P21			Austenitic stainless steel, Titanium alloy AISI 304, AISI 306, Ti-6Al-4V		
Dia. DC (mm)	Revolution (min ⁻¹)	Feed rate (mm/min)	Depth of Cut ap (mm)	Revolution (min ⁻¹)	Feed rate (mm/min)	Depth of Cut ap (mm)	Revolution (min ⁻¹)	Feed rate (mm/min)	Depth of Cut ap (mm)
3	10000	720	0.6	7000	480	0.6	6000	360	0.6
4	7500	720	0.6	5200	480	0.6	4500	360	0.6
5	6000	720	0.6	4200	480	0.6	3600	360	0.6
6	5000	720	0.6	3500	480	0.6	3000	360	0.6
7	4500	670	0.6	3200	440	0.6	2700	340	0.6
8	4000	620	0.6	2800	420	0.6	2400	310	0.6
9	3500	580	0.6	2500	380	0.6	2100	290	0.6
10	3200	540	0.6	2200	360	0.6	1900	280	0.6
12	2700	490	0.6	1900	320	0.6	1600	250	0.6

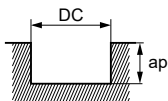
Depth of cut



DC: Dia.

Work material	H			N		
	Hardened steel (45–55HRC) AISI H13			Copper, Copper Alloy		
Dia. DC (mm)	Revolution (min ⁻¹)	Feed rate (mm/min)	Depth of Cut ap (mm)	Revolution (min ⁻¹)	Feed rate (mm/min)	Depth of Cut ap (mm)
3	5000	140	0.2	13000	940	0.6
4	4000	140	0.2	9500	910	0.6
5	3200	140	0.2	7600	910	0.6
6	2700	140	0.2	6400	920	0.6
7	2300	130	0.2	5500	820	0.6
8	2000	130	0.2	4800	740	0.6
9	1800	130	0.2	4200	700	0.6
10	1600	120	0.2	3800	640	0.6
12	1300	120	0.2	3200	580	0.6

Depth of cut



DC: Dia.

Note 1) When cutting austenitic stainless steels, the use of water-soluble cutting fluid is effective.

Note 2) If the depth of cut is shallow, the revolution and feed rate can be increased.

Note 3) When drilling, please set the feed rate at 1/3 or below the values above.

Note 4) 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.