

RECOMMENDED CUTTING CONDITIONS

Work material	Carbon steel, Cast iron, Alloy steel (–30HRC)			Alloy steel, Tool steel, Pre-hardened steel			Austenitic stainless steel, Titanium alloy			Hardened steel (45–55HRC)		
	AISI 1050, AISI 35, AISI P20 etc.			AISI H13, AISI W1-10, AISI P21 etc.			AISI 304, AISI 306, Ti-6Al-4V etc.			AISI H13 etc.		
DC (mm)	Revolution (min ⁻¹)	Table feed		Revolution (min ⁻¹)	Table feed		Revolution (min ⁻¹)	Table feed		Revolution (min ⁻¹)	Table feed	
		(mm/min)	(IPM)		(mm/min)	(IPM)		(mm/min)	(IPM)		(mm/min)	(IPM)
3	10000	600	23.6	7000	400	15.7	6000	300	11.8	5000	120	4.7
4	7500	600	23.6	5200	400	15.7	4500	300	11.8	4000	120	4.7
5	6000	600	23.6	4200	400	15.7	3600	300	11.8	3200	120	4.7
6	5000	600	23.6	3500	400	15.7	3000	300	11.8	2700	120	4.7
7	4500	560	22.0	3000	360	14.2	2700	280	11.0	2300	110	4.3
8	4000	520	20.5	2800	350	13.8	2400	260	10.2	2000	110	4.3
10	3200	450	17.7	2200	300	11.8	1900	230	9.1	1600	100	3.9
12	2700	410	16.1	1900	270	10.6	1600	210	8.3	1300	100	3.9

Depth of cut	Carbon steel, Cast iron, Alloy steel (–30HRC)		Alloy steel, Tool steel, Pre-hardened steel		Austenitic stainless steel, Titanium alloy		Hardened steel (45–55HRC)	
	DC	≤0.2DC	DC	≤0.2DC	DC	≤0.05DC	DC	≤0.1DC

- 1) When cutting austenitic stainless steels, the use of water-soluble cutting fluid is especially effective.
- 2) If the depth of cut is smaller than this table, feed rate can be increased.
- 3) When drilling, please set the feed rate at 1/3 or below of the above value.
- 4) If the rigidity of the machine or the workpiece installation is very low, or chattering is generated, please reduce the revolution and the feed rate proportionately.