## **RECOMMENDED CUTTING CONDITIONS**

Work	Carbon steel, Cast iron, Alloy steel, Pre-hardened steel			Hardened steel (45-55HRC)		
material	Cf53, GG25			X40CrMoV51		
Dia. (mm)	Revolution (min <sup>-1</sup> )	Feed rate (mm/min)	Depth of cut (mm)	Revolution (min <sup>-1</sup> )	Feed rate (mm/min)	Depth of cut (mm)
1	40000	2000	0.06	32000	1600	0.06
1.5	40000	3000	0.12	32000	1900	0.08
2	30000	3000	0.18	24000	1900	0.10
2.5	24000	2600	0.25	19000	1600	0.13
3	20000	2300	0.30	16000	1400	0.15
4	15000	2000	0.40	12000	1200	0.20
5	12000	1600	0.50	9000	900	0.25
6	10000	1400	0.60	7000	700	0.30
8	8000	1000	0.80	5600	550	0.40
10	6400	900	1.00	4500	500	0.50
12	5400	820	1.00	3800	450	0.50
Depth of cut	≤Please refer to the list above for depth of cut.  D  SPlease refer to the list above for depth of cut.  D:Dia.					

- 1) If the depth of cut is shallow, the revolution and feed rate can be increased. 2) When slotting with end mills with  $\phi 3$  or larger, reduce the revolution to 50–70% and the feed rate to 40–60%.
- 3) When drilling, please set the feed rate at 1/3 or below the values above.
- 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.