

RECOMMENDED CUTTING CONDITIONS

Work Material	P				M		P	M
	Structural steel		Carbon steel Ck55		Stainless steel X20Cr13		Stainless steel X5CrNi1810 Tool steel X210Cr12 (Low-hardness materials) Heat-treated steel X40CrMoV51 (-40HRC)	
Cutting speed	40m/min		30m/min		20m/min			
Drill Dia. DC (mm)	Revolution (min ⁻¹)	Feed rate (mm/rev)	Revolution (min ⁻¹)	Feed rate (mm/rev)	Revolution (min ⁻¹)	Feed rate (mm/rev)	Revolution (min ⁻¹)	Feed rate (mm/rev)
0.5	15000	0.01	11250	0.01	7500	0.01	5620	0.01
1.0	10000	0.02	7500	0.02	5000	0.02	3750	0.02
1.5	8200	0.03	6150	0.03	4100	0.03	2800	0.03
2.0	6370	0.05	4780	0.05	3180	0.05	2200	0.04
3.0	4250	0.10	3180	0.10	2120	0.07	1400	0.06
4.0	3180	0.13	2390	0.13	1590	0.09	1100	0.08
5.0	2550	0.15	1910	0.15	1270	0.11	860	0.10
6.0	2120	0.18	1590	0.18	1060	0.13	720	0.11
7.0	1820	0.20	1360	0.20	910	0.14	610	0.12
8.0	1590	0.22	1190	0.21	800	0.15	540	0.13
9.0	1420	0.24	1060	0.22	710	0.17	480	0.14
10.0	1270	0.26	960	0.23	640	0.18	430	0.15
11.0	1160	0.28	870	0.24	580	0.19	390	0.16
12.0	1060	0.30	800	0.25	530	0.20	360	0.17
13.0	980	0.30	730	0.26	490	0.20	330	0.17

Note 1) Please reduce the revolutions when the workpiece clamping lacks rigidity.

Note 2) The above-mentioned cutting conditions are standard when using water-soluble cutting fluid.

Please reduce the revolutions when using non-water-soluble cutting fluid.