

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 No 35 B, AISI P20 | | AISI H13, AISI W1-10, AISI P21 | | AISI 304, AISI 306, Ti-6Al-4V | | AISI H13 | |
| Dia. DC (mm) | Revolution (min ⁻¹) | Feed rate (mm/min) | Revolution (min ⁻¹) | Feed rate (mm/min) | Revolution (min ⁻¹) | Feed rate (mm/min) | Revolution (min ⁻¹) | Feed rate (mm/min) |
| 3 | 10000 | 600 | 7000 | 400 | 6000 | 300 | 5000 | 120 |
| 4 | 7500 | 600 | 5200 | 400 | 4500 | 300 | 4000 | 120 |
| 5 | 6000 | 600 | 4200 | 400 | 3600 | 300 | 3200 | 120 |
| 6 | 5000 | 600 | 3500 | 400 | 3000 | 300 | 2700 | 120 |
| 7 | 4500 | 560 | 3000 | 360 | 2700 | 280 | 2300 | 110 |
| 8 | 4000 | 520 | 2800 | 350 | 2400 | 260 | 2000 | 110 |
| 10 | 3200 | 450 | 2200 | 300 | 1900 | 230 | 1600 | 100 |
| 12 | 2700 | 410 | 1900 | 270 | 1600 | 210 | 1300 | 100 |

| 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: Dia.

- 1) When cutting austenitic stainless steels, the use of water-soluble cutting fluid is effective.
- 2) If the depth of cut is shallow, the revolution and feed rate can be increased.
- 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.