

CUTTING CONDITIONS

Drilling | Indexables | Cutting conditions

PZAG

| Work Material | | Tensile Strength/ Hardness | Vc (m/min) | Feed Rate (mm/rev) | | | | |
|---------------|--|-------------------------------|---------------|--------------------|-----------------|-----------------|----------------|----------------|
| | | | | ø14~ø17.5 | ø20~ø23 | ø26~ø48 | ø54~ø72 | ø76~ø82 |
| P | Mild Steel-Carbon Steel (S5400-S10C) | ~180HB | 160 (100~200) | 0.14(0.08~0.2) | 0.18(0.1~0.25) | 0.2(0.12~0.3) | 0.4(0.2~0.6) | 0.4(0.2~0.6) |
| | Carbon Steel-Alloy Steel (S50C-SCM440) | ~280HB | 150 (100~220) | 0.14(0.08~0.2) | 0.18(0.1~0.25) | 0.2(0.12~0.3) | 0.4(0.2~0.6) | 0.4(0.2~0.6) |
| | Die Steel (SKD11-SKD61) | ~280HB | 120 (80~180) | 0.12(0.08~0.15) | 0.14(0.1~0.2) | 0.18(0.12~0.25) | 0.4(0.2~0.5) | 0.4(0.2~0.5) |
| M | Stainless Steel (Dry) (SUS304-SUS420) | ~250HB | 130 (80~180) | 0.1(0.08~0.15) | 0.12(0.1~0.2) | 0.16(0.12~0.25) | 0.35(0.2~0.5) | 0.35(0.2~0.5) |
| K | Cast Iron (FC250) | ~350N/mm ² | 200 (150~280) | 0.16(0.08~0.25) | 0.2(0.1~0.3) | 0.3(0.15~0.4) | 0.6(0.3~0.8) | 0.6(0.3~0.8) |
| | Ductile Cast Iron (FCD400) | ~800N/mm ² | 160 (100~220) | 0.14(0.08~0.2) | 0.18(0.1~0.25) | 0.2(0.15~0.3) | 0.4(0.3~0.6) | 0.4(0.3~0.6) |
| N | Alluminium Alloy | ~13%Si | 200 (100~800) | 0.16(0.08~0.25) | 0.2(0.1~0.3) | 0.3(0.15~0.4) | 0.6(0.3~0.8) | 0.6(0.3~0.8) |
| S | Heat Resistant Alloy (Wet) (Inconel 718) | — | 50 (30~60) | 0.08(0.05~0.14) | 0.08(0.06~0.14) | 0.12(0.08~0.2) | 0.25(0.16~0.4) | 0.25(0.16~0.4) |
| | Titanium Alloy (Wet) (Ti-6Al-4V) | — | 60 (30~100) | 0.08(0.05~0.14) | 0.1(0.06~0.16) | 0.14(0.08~0.2) | 0.3(0.16~0.5) | 0.3(0.16~0.5) |
| H | Pre-hardened Steel NAK80 | 40~43HRC | 100 (60~120) | 0.08(0.05~0.14) | 0.1(0.06~0.16) | 0.14(0.08~0.2) | 0.3(0.16~0.5) | 0.3(0.16~0.5) |
| | Hardened Steel SKD11 | 50~55HRC | 60 (40~80) | 0.08(0.05~0.14) | 0.08(0.05~0.14) | 0.12(0.08~0.2) | 0.25(0.16~0.4) | 0.25(0.16~0.4) |