

GARR TOOL High Performance Drilling Guide for Mini Drills

(Series 1550H,1250H,1850H)

TECHNICAL

| | ISO Material | HRC | SFM (Vc) | CHIPLOAD PER TOOTH (Fz) | | |
|--|---|----------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| | | | | .0312" - .0390" | .0394" - .0787" | .0791" - .1250" |
| S | COBALT BASE ALLOYS | | | | | |
| | Haynes 25/188, Stellite 21, Cobalt Chrome | < 40 > 40 | 70 - 100 50 - 85 | .0002" - .0004" .0002" - .0004" | .0004" - .0007" .0003" - .0006" | .0006" - .0010" .0005" - .0009" |
| | NICKEL BASE ALLOYS | | | | | |
| | Inconel-625/718, Waspaloy, Invar, Rene, Hastelloy, Monel | < 40 > 40 | 70 - 100 50 - 85 | .0002" - .0004" .0002" - .0004" | .0004" - .0007" .0003" - .0006" | .0006" - .0010" .0005" - .0009" |
| | IRON BASE ALLOYS | | | | | |
| | A286, Discaloy, Haynes 556, Carpenter 22, Greek Ascology | < 40 > 40 | 70 - 100 50 - 85 | .0002" - .0004" .0002" - .0004" | .0004" - .0007" .0003" - .0006" | .0006" - .0010" .0005" - .0009" |
| | TITANIUM ALLOYS | | | | | |
| Commercially Pure, 6Al-4V, Astm 1/2/3, 6Al-25N-4Zr-2Mo-Si | | 90 - 130 | .0003" - .0006" | .0004" - .0008" | .0006" - .0012" | |
| 5553 / Beta Titanium | | 75 - 115 | .0002" - .0004" | .0003" - .0006" | .0005" - .0010" | |
| M | STAINLESS STEELS | | | | | |
| | 13/8, 15/5, 17-4, pH Types | < 40 > 40 | 95 - 135 80 - 125 | .0002" - .0004" .0002" - .0004" | .0004" - .0007" .0003" - .0006" | .0006" - .0010" .0005" - .0009" |
| | 300 Series, 304L, Nitronic 50, Duplex, Super-Austenitic | < 40 > 40 | 90 - 125 80 - 115 | .0002" - .0004" .0002" - .0004" | .0004" - .0007" .0003" - .0006" | .0006" - .0010" .0005" - .0009" |
| | 400 Series - 403, 405, 420, 455 | < 40 > 40 | 100 - 150 80 - 125 | .0002" - .0004" .0002" - .0004" | .0004" - .0007" .0003" - .0006" | .0006" - .0010" .0005" - .0009" |
| | HIGH STRENGTH TOOL STEELS | | | | | |
| A2, D2, P20, H13, S7, O1 | < 40 > 40 | 100 - 175 60 - 80 | .0003" - .0006" .0002" - .0004" | .0004" - .0008" .0003" - .0006" | .0006" - .0012" .0005" - .0010" | |
| P | MEDIUM ALLOY TOOL STEELS | | | | | |
| | 4140, 4340, 52100, 6150, 8620 | < 40 > 40 | 125 - 175 80 - 125 | .0004" - .0008" .0003" - .0005" | .0006" - .0012" .0004" - .0008" | .0008" - .0015" .0006" - .0012" |
| | CARBON STEELS | | | | | |
| 1000's - 1018, 1020, 12L14 | < 40 | 125 - 175 | .0004" - .0008" | .0006" - .0012" | .0008" - .0015" | |
| K | CAST MATERIAL | | | | | |
| | Ductile Iron | | 100 - 200 | .0004" - .0008" | .0006" - .0012" | .0008" - .0015" |
| | Gray Iron | | 80 - 175 | .0004" - .0008" | .0006" - .0012" | .0008" - .0015" |
| N | NON-FERROUS | | | | | |
| | Aluminum 2014, 2024, 6061-(T1-T6), 7075, Extruded | | 125 - 300 | .0004" - .0008" | .0006" - .0012" | .0008" - .0015" |
| | Magnesium | | 125 - 250 | .0004" - .0008" | .0006" - .0012" | .0008" - .0015" |
| | Copper | | 125 - 250 | .0004" - .0008" | .0006" - .0012" | .0008" - .0015" |
| | Brass | | 100 - 250 | .0003" - .0008" | .0004" - .0012" | .0006" - .0015" |
| | Bronze | | 80 - 250 | .0003" - .0008" | .0004" - .0012" | .0006" - .0015" |

NOTE - ABOVE ARE STARTING PARAMETERS ONLY. HIGHER RESULTS MAY BE ACHIEVED WITH OPTIMUM CONDITIONS.