

| Material | Tensile Strength | Hardness | Reamer Diameter | Depth of Cut | | Surface Speed m/min | | Feed mm/rev | | Coolant |
|------------------|-------------------|----------|-----------------|--------------|-------------|---------------------|---------|-------------|-------------|-------------------------------|
| | N/mm ² | Brinell | | HSS/TiN | Carbide | HSS/TiN | Carbide | HSS/TiN | Carbide | |
| Steels | - 700 | | - 5 | - 0.10 | | | | | - 0.15 | Soluble or cutting oil |
| | | | 5 - 10 | 0.10 - 0.20 | - 0.10 | 10 | 10 | - 0.15 | 0.15 - 0.25 | |
| | | | 10 - 20 | 0.20 - 0.30 | 0.10 - 0.15 | - | - | 0.15 - 0.20 | 0.25 - 0.40 | |
| | | | 20 - 30 | 0.30 - 0.40 | 0.15 - 0.20 | 13 | 15 | 0.20 - 0.40 | 0.40 - 0.60 | |
| Steels | 700 - 1000 | | - 5 | - 0.10 | | | | | - 0.10 | Soluble or cutting oil |
| | | | 5 - 10 | 0.10 - 0.20 | - 0.10 | 7 | 8 | - 0.10 | 0.10 - 0.20 | |
| | | | 10 - 20 | 0.20 - 0.30 | 0.10 - 0.15 | - | - | 0.10 - 0.20 | 0.20 - 0.40 | |
| | | | 20 - 30 | 0.30 - 0.40 | 0.15 - 0.20 | 10 | 12 | 0.20 - 0.30 | 0.40 - 0.50 | |
| Steels | 1000 | | - 5 | - 0.10 | | | | | - 0.10 | Soluble or cutting oil |
| | | | 5 - 10 | 0.10 - 0.20 | - 0.10 | 3 | 6 | - 0.10 | 0.10 - 0.20 | |
| | | | 10 - 20 | 0.20 - 0.30 | 0.10 - 0.15 | - | - | 0.10 - 0.15 | 0.20 - 0.30 | |
| | | | 20 - 30 | 0.30 - 0.40 | 0.15 - 0.20 | 5 | 10 | 0.15 - 0.20 | 0.30 - 0.40 | |
| Stainless steels | | | - 5 | - 0.10 | | | | | - 0.10 | Soluble or cutting oil |
| | | | 5 - 10 | 0.10 - 0.20 | - 0.10 | 3 | 8 | - 0.10 | - 0.20 | |
| | | | 10 - 20 | 0.20 - 0.30 | 0.10 - 0.15 | - | - | 0.10 - 0.20 | 0.20 - 0.30 | |
| | | | 20 - 30 | 0.30 - 0.40 | 0.15 - 0.20 | 5 | 15 | 0.20 - 0.30 | 0.30 - 0.50 | |
| Cast steel | 400 - 500 | | - 5 | - 0.10 | | | | | - 0.10 | Soluble or cutting oil |
| | | | 5 - 10 | 0.10 - 0.20 | - 0.10 | 6 | 8 | - 0.10 | - 0.20 | |
| | | | 10 - 20 | 0.20 - 0.30 | 0.10 - 0.15 | - | - | 0.10 - 0.20 | 0.20 - 0.30 | |
| | | | 20 - 30 | 0.30 - 0.40 | 0.15 - 0.20 | 10 | 12 | 0.20 - 0.30 | 0.30 - 0.50 | |
| Cast steel | 500 - 700 | | - 5 | - 0.10 | | | | | - 0.10 | Soluble or cutting oil |
| | | | 5 - 10 | 0.10 - 0.20 | - 0.10 | 5 | 6 | - 0.10 | - 0.20 | |
| | | | 10 - 20 | 0.20 - 0.30 | 0.10 - 0.15 | - | - | 0.10 - 0.15 | 0.15 - 0.25 | |
| | | | 20 - 30 | 0.30 - 0.40 | 0.15 - 0.20 | 8 | 10 | 0.15 - 0.20 | 0.25 - 0.35 | |
| Cast iron | | - 220 HB | - 5 | - 0.10 | | | | | - 0.20 | Soluble or cutting oil |
| | | | 5 - 10 | 0.10 - 0.20 | - 0.10 | 7 | 8 | 0.20 - 0.30 | 0.20 - 0.30 | |
| | | | 10 - 20 | 0.20 - 0.30 | 0.10 - 0.15 | - | - | 0.30 - 0.40 | 0.30 - 0.40 | |
| | | | 20 - 30 | 0.30 - 0.40 | 0.15 - 0.20 | 10 | 12 | 0.40 - 0.50 | 0.40 - 0.60 | |
| Cast iron | | 220 HB + | - 5 | - 0.10 | | | | | - 0.10 | Soluble or cutting oil |
| | | | 5 - 10 | 0.10 - 0.20 | - 0.10 | 4 | 6 | - 0.10 | - 0.20 | |
| | | | 10 - 20 | 0.20 - 0.30 | 0.10 - 0.15 | - | - | 0.10 - 0.20 | 0.20 - 0.35 | |
| | | | 20 - 30 | 0.30 - 0.40 | 0.15 - 0.20 | 6 | 10 | 0.20 - 0.30 | 0.35 - 0.50 | |
| SG cast iron | | | - 5 | - 0.10 | | | | | - 0.10 | Soluble or cutting oil or dry |
| | | | 5 - 10 | 0.10 - 0.20 | - 0.10 | 7 | 8 | - 0.10 | - 0.20 | |
| | | | 10 - 20 | 0.20 - 0.30 | 0.10 - 0.15 | - | - | 0.10 - 0.20 | 0.20 - 0.30 | |
| | | | 20 - 30 | 0.30 - 0.40 | 0.15 - 0.20 | 10 | 12 | 0.20 - 0.30 | 0.30 - 0.50 | |
| Copper | | | - 5 | 0.10 - 0.20 | | | | | - 0.15 | Soluble or cutting oil |
| | | | 5 - 10 | 0.20 - 0.30 | - 0.10 | 8 | 20 | 0.15 - 0.20 | 0.20 - 0.50 | |
| | | | 10 - 20 | 0.20 - 0.40 | 0.10 - 0.15 | - | - | 0.20 - 0.30 | 0.50 - 0.80 | |
| | | | 20 - 30 | 0.30 - 0.50 | 0.15 - 0.20 | 16 | 30 | 0.30 - 0.60 | 0.80 - 1.00 | |
| Brass | | | - 5 | - 0.10 | | | | | - 0.15 | Soluble or cutting oil |
| | | | 5 - 10 | 0.10 - 0.20 | - 0.10 | 10 | 10 | 0.15 - 0.25 | 0.20 - 0.30 | |
| | | | 10 - 20 | 0.20 - 0.30 | 0.10 - 0.15 | - | - | 0.25 - 0.30 | 0.30 - 0.50 | |
| | | | 20 - 30 | 0.30 - 0.40 | 0.15 - 0.20 | 20 | 20 | 0.30 - 0.40 | 0.50 - 0.70 | |
| Cast bronze | | | - 5 | - 0.10 | | | | | - 0.20 | Soluble or cutting oil |
| | | | 5 - 10 | 0.10 - 0.20 | - 0.10 | 10 | 12 | 0.20 - 0.30 | 0.15 - 0.30 | |
| | | | 10 - 20 | 0.20 - 0.30 | 0.10 - 0.15 | - | - | 0.30 - 0.40 | 0.30 - 0.40 | |
| | | | 20 - 30 | 0.30 - 0.40 | 0.15 - 0.20 | 20 | 25 | 0.40 - 0.50 | 0.40 - 0.60 | |
| Aluminium alloys | | | - 5 | 0.10 - 0.20 | | | | | - 0.15 | Soluble oil or Paraffin |
| | | | 5 - 10 | 0.20 - 0.30 | - 0.10 | 15 | 15 | - 0.10 | 0.15 - 0.20 | |
| | | | 10 - 20 | 0.20 - 0.40 | 0.10 - 0.15 | - | - | 0.10 - 0.20 | 0.20 - 0.40 | |
| | | | 20 - 30 | 0.30 - 0.50 | 0.15 - 0.20 | 30 | 30 | 0.20 - 0.30 | 0.40 - 0.60 | |
| Plastics | | | - 5 | 0.10 - 0.20 | | | | | - 0.20 | Dry or air cooled |
| | | | 5 - 10 | 0.20 - 0.30 | - 0.10 | 4 | 10 | 0.20 - 0.30 | 0.30 - 0.50 | |
| | | | 10 - 20 | 0.20 - 0.40 | 0.10 - 0.15 | - | - | 0.30 - 0.40 | 0.50 - 0.80 | |
| | | | 20 - 30 | 0.30 - 0.50 | 0.15 - 0.20 | 10 | 30 | 0.40 - 0.50 | 0.60 - 1.00 | |

AcuRea = Multi-layer Chrome Nano coating

AcuRea reamers with high pressure coolant – increase surface speed by 100%