

## INTERNAL GROOVING

### RECOMMENDED CUTTING CONDITIONS

| Work Material                 | Hardness  | Grade          | Cutting Speed (m/min) | Feed (mm/rev)    |                  |                  |                  |
|-------------------------------|-----------|----------------|-----------------------|------------------|------------------|------------------|------------------|
|                               |           |                |                       | 1.2, 1.5mm       | 2.0mm            | 3.0mm            | 4.0mm            |
| P Carbon Steel<br>Alloy Steel | 180–280HB | UP20M • UTi20T | 90 (60–120)           | 0.05 (0.02–0.08) | 0.05 (0.02–0.08) | 0.05 (0.02–0.08) | 0.05 (0.02–0.08) |
|                               | 280–350HB | UP20M • UTi20T | 80 (50–100)           | 0.03 (0.02–0.04) | 0.03 (0.02–0.04) | 0.03 (0.02–0.04) | 0.03 (0.02–0.04) |

## INTERNAL THREADING

### RECOMMENDED CUTTING CONDITIONS

| Work Material               | Hardness  | Grade  | Cutting Speed (m/min) | Work Material     | Hardness                    | Grade  | Cutting Speed (m/min) |
|-----------------------------|-----------|--------|-----------------------|-------------------|-----------------------------|--------|-----------------------|
| P Mild Steel                | ≤180HB    | UP20M  | 140 (100–180)         | M Stainless Steel | ≤200HB                      | UP20M  | 120 (80–150)          |
|                             |           | UTi20T | 120 (100–150)         |                   |                             | UTi20T | 100 (70–130)          |
| Carbon Steel<br>Alloy Steel | 180–280HB | UP20M  | 120 (100–150)         | K Gray Cast Iron  | Tensile Strength<br>≤350MPa | UP20M  | 80 (60–100)           |
|                             |           | UTi20T | 100 (70–120)          |                   |                             | UTi20T | 80 (60–100)           |