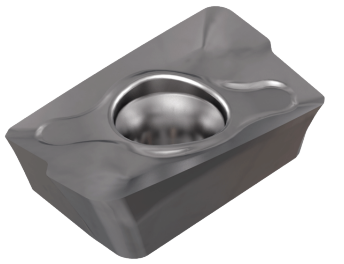
**Cutting recommendations for the ADKR 1505...PDR-HP complete line**

- The table below defines initial feed rates
- For initial cutting speeds refer to ISCAR's recommendations for carbide grades



Calculating cutting feed rate:
**$f_z = f_{z0} \times K_{ef} \times K_s$,** where
$f_{z0}$ - Basic feed (Table 1),
Kef - Engagement factor ( Table 2),
Ks - Stability factor (Table 3)

**Table 1 - Basic feed, $f_{z0}$, mm/tooth**

| ISO | Material | | Condition | Tensile Strength [N/mm²] | Hardness HB | Material No. (1) | $f_{z0}$ for Insert SIze/Geometry |
|---|---|---|---|---|---|---|---|
| P | Non-alloy steel and cast steel, free cutting steel | < 0.25 %C | Annealed | 420 | 125 | 1 | - |
| | | >= 0.25 %C | Annealed | 650 | 190 | 2 | |
| | | < 0.55 %C | Quenched and tempered | 850 | 250 | 3 | |
| | | >= 0.55 %C | Annealed | 750 | 220 | 4 | |
| | | | Quenched and tempered | 1000 | 300 | 5 | |
| | Low alloy steel and cast steel | | Annealed | 600 | 200 | 6 | - |
| | (less than 5% of alloying elements) | | Quenched and tempered | 930 | 275 | 7 | |
| | | | | 1000 | 300 | 8 | |
| | | | | 1200 | 350 | 9 | - |
| | High alloyed steel, cast steel, and tool steel | | Annealed | 680 | 200 | 10 | - |
| | | | Quenched and tempered | 1100 | 325 | 11 | |
| | Stainless steel and cast steel | | Ferritic/martensitic | 680 | 200 | 12 | - |
| | | | Martensitic | 820 | 240 | 13 | |
| M | Stainless steel and cast steel | | Austenitic | 600 | 180 | 14 | 0.12 |
| K | Grey cast iron (GG) | | Ferritic/pearlitic | | 180 | 15 | - |
| | | | Pearlitic | | 260 | 16 | |
| | Cast iron nodular (GGG) | | Ferritic | | 160 | 17 | - |
| | | | Pearlitic | | 250 | 18 | |
| | Malleable cast iron | | Ferritic | | 130 | 19 | |
| | | | Pearlitic | | 230 | 20 | |
| S | High temp. alloys | Fe based | Annealed | | 200 | 31 | 0.10 |
| | | | Cured | | 280 | 32 | |
| | | Ni or Co based | Annealed | | 250 | 33 | |
| | | | Cured | | 350 | 34 | |
| | | | Cast | | 320 | 35 | |
| | Titanium alloys | | Pure | Rm = 400 (2) | | 36 | 0.10 |
| | | | Alpha+beta alloys cured | Rm = 1050 | | 37 | |
| H | Hardened steel | | Hardened | | 55 HRC | 38 | - |
| | | | | | 60 HRC | 39 | - |
| | Chilled cast iron | | Cast | | 400 | 40 | - |
| | Cast iron | | Hardened | | 55 HRC | 41 | - |

(1) in accordance with VDI3323 standard
(2) Rm - ultimate tensile strength, MPa

**Table 2 - Engagement factor Kef**

| AE/D | 0.5…1 | 0.25 up to 0.5 | less than 0.25 |
|---|---|---|---|
| Kef | 1 | 1.1 | 1.3 |

**Table 3 - Stability factor Ks**

| Stability | High | Moderate |
|---|---|---|
| Ks | 1 | 0.9 |

AE - Width of cut
D - Cutting diameter