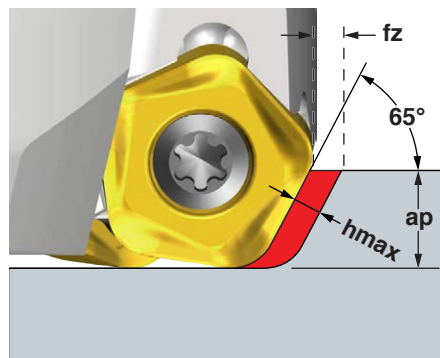


DIPOSPENTA™ 05 OPERATING GUIDELINES (65°)

Chip Thinning



* Chip Thinning Calculator is recommended to ensure hmax is greater than .003".

| Materials | | | | Vc Cutting Speed SFM | fz* Feed/Tooth (inch) | ap Recommended Axial Depth of Cut (inch) | Harder Tougher | | | Coolant |
|-----------|--------------------------|--|------------------------------------|----------------------------|-----------------------------|---|----------------------|--------|--------|------------------------------------|
| ISO | Mat'l Group #VDI 3323 | Type | Examples | | | | IN2505 | IN2530 | IN2036 | |
| P | 1 thru 5 | Non-alloy Steel | 1018, A36, 1045, A572, 1070 | 400-1000 | .004-.008 | .040-.120 | 2 | 1 | | No |
| | 6 thru 9 | Low-alloy Steel | 4140, 4340, P20, 8620, 300M | 350-700 | | | | | | |
| | 10, 11 | High-alloy Steel | H13, A2, D2, M2, T1 | 300-600 | | | | | | |
| M | 12 - 13 | Stainless Steel (ferritic & martensitic) | 410, 416, 440 | 350-600 | .004-.007 | .040-.120 | 3 | 2 | 1 | Yes |
| | 14 | Stainless Steel (austenitic) | 303, 304, 316, 15-5, 17-4 | 300-550 | | | | | | May not be required at high speeds |
| K | 15 thru 16 | Gray Cast Iron | CLS. 20, 30, 45 | 500-1000 | .004-.008 | .040-.120 | 1 | 2 | | No |
| | 17 thru 20 | Nodular Cast Iron | 60-40-18, 100-70-03 | 400-800 | | | | | | |
| S | 31 - 35 | High-Temp Alloys | Inconel, Hastelloy, Nimonic, Monel | 65-120 | .004-.007 | .040-.120 | 2 | 3 | 1 | Yes |
| | 36 - 37 | Titanium Alloys | 6Al-4V, 5Al-5Mo-5V-3Cr | 85-130 | | | 3 | 2 | 1 | |

Note: Feed and speed recommendations are starting operating parameters. They are only guidelines from which further optimization should take place. Operating parameters are influenced by many machining variables. These variables may cause for reductions in feeds and speed or dramatic increases. Additionally, DOC and WOC may need to be revised to optimize the tools performance.