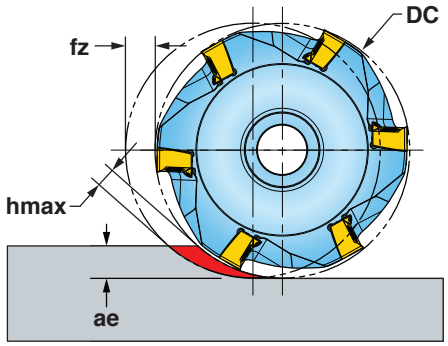
# DIPOSTRIO™ 04 OPERATING GUIDELINES

### Chip Thinning




* When ae is less than 25% DC, recommend use of Chip Thinning Calculator to ensure hmax falls within fz range.

| Materials | | | | Vc Cutting Speed SFM | fz* Feed/Tooth (inch) | Harder <----------> Tougher | | | | | | Coolant |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ISO | Mat'l Group #VDI 3323 | Type | Examples | | | IN2504 | IN10K | IN2505 | IN4030 IN2530 | IN2035 IN6535 | IN6537 | |
| P | 1 - 5 | Non-alloy Steel | 1018, A36, 1045, A572, 1070 | 400-1000 | .003-.005 | 4 | | 3 | 2 | | 1 | No |
| | 6 - 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 | .003-.005 | | | 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 - 16 | Gray Cast Iron | CLS. 20, 30, 45 | 500-1000 | .003-.006 | 1 | | 2 | 3 | | 4 | No |
| | 17 - 20 | Nodular Cast Iron | 60-40-18, 100-70-03 | 400-800 | | | | | | | | |
| N | 21 - 30 | Aluminum | 7075, 6061 | 1000-3000 | .003-.007 | | 1 | | | | | Yes |
| S | 31 - 35 | High-Temp Alloys | Inconel, Hastelloy, Nimonic, Monel | 65-150 | .003-.005 | | | 2 | 3 | 1 | | Yes |
| | 36 - 37 | Titanium Alloys | 6Al-4V, 5Al-5Mo-5V-3Cr | 85-200 | | | | 3 | 2 | 1 | | |
| H | 38 - 39 | Hardened Steel >48 | A2, O1, D2 | 130-250 | .003-.004 | 1 | | 2 | | | | No |

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.