

OPERATING GUIDELINES - SERIES 12J1G, 12L1G, 2J1G & 2L1G

Chip Thinning DC hmax

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

| | | V _C | fz | Harder < | | | | | > Tougher | | | | | | |
|-----|--------------------------|---|---------------------------------------|-------------------------|--------------------------|-------|--------|--------|-----------|--------|------------------|----------------------------|------------------|--------|------------------------------------|
| ISO | Mat'l Group #VDI 3323 | Туре | Examples | Cutting Speed SFM | Feed/ Tooth (inch) | IN90D | IN2504 | IN2540 | IN10K | IN2510 | IN2505 IN2005 | IN4030 IN2530 IN1030 | IN7035 IN2035 | IN6537 | Coolant |
| P | 1 thru 5 | Non-alloy Steel | 1018, A36, 1045, A572, 1070 | 400-1000 | .003008 | | 5 | 4 | | | 3 | 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 thru 13 | Stainless Steel (Ferritic & Martensitic) | 410, 416, 440 | 350-600 | .003007 | | | 4 | | | 3 | 2 | 1 | | YES |
| | 14 | Stainless Steel (Austenitic) | 303, 304, 316, 15-5, 17-4 | 300-550 | | | | 4 | | | 3 | | | | May not be required at high speeds |
| K | 15 thru 16 | Gray Cast Iron | CLS. 20, 30, 45 | 500-1000 | .003008 | | 2 | | | 1 | 3 | | | | NO |
| | 17 thru 20 | Nodular Cast Iron | 60-40-18, 100-70-03 | 400-800 | | | | | | | | | | | |
| N | 21 thru 30 | Aluminum | 7075, 6061 | 1000-3000 | .003009 | 1 | | | 1 | | | | | | YES |
| S | 31 thru 35 | High-Temp Alloys | Inconel, Hastelloy, Nimonic, Monel | 65-150 | .003006 | | | | | | 2 | 3 | 1 | | YES |
| | 36 thru 37 | Titanium Alloys | 6AL-4V, 5Al-5Mo-5V-3Cr | 85-200 | | | | | | | 3 | 2 | 1 | | |
| Н | 38 thru 39 | Hardened Steel >48 | A2, 01, D2 | 130-250 | .003004 | | 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.

