

Chip Load Charts

These charts are base on VERY conservative values

CHIP LOAD BASED ON 2 FLUTE TOOLS

| FEED RATE | SPINDLE RPM'S IN THOUSANDS | | | | | | | | | |
|-----------|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 10000 | 11000 | 12000 | 13000 | 14000 | 15000 | 16000 | 17000 | 18000 | 19000 |
| 50 | 0.003 | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 | 0.001 | 0.001 | 0.001 |
| 100 | 0.005 | 0.005 | 0.004 | 0.004 | 0.004 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 |
| 150 | 0.008 | 0.007 | 0.006 | 0.006 | 0.005 | 0.005 | 0.005 | 0.004 | 0.004 | 0.004 |
| 200 | 0.010 | 0.009 | 0.008 | 0.008 | 0.007 | 0.007 | 0.006 | 0.006 | 0.006 | 0.005 |
| 250 | 0.013 | 0.011 | 0.010 | 0.010 | 0.009 | 0.008 | 0.008 | 0.007 | 0.007 | 0.007 |
| 300 | 0.015 | 0.014 | 0.013 | 0.012 | 0.011 | 0.010 | 0.009 | 0.009 | 0.008 | 0.008 |
| 350 | 0.018 | 0.016 | 0.015 | 0.013 | 0.013 | 0.012 | 0.011 | 0.010 | 0.010 | 0.009 |
| 400 | 0.020 | 0.018 | 0.017 | 0.015 | 0.014 | 0.013 | 0.013 | 0.012 | 0.011 | 0.011 |
| 450 | 0.023 | 0.020 | 0.019 | 0.017 | 0.016 | 0.015 | 0.014 | 0.013 | 0.013 | 0.013 |
| 500 | 0.025 | 0.023 | 0.021 | 0.019 | 0.018 | 0.017 | 0.016 | 0.015 | 0.014 | 0.014 |
| 550 | 0.028 | 0.025 | 0.023 | 0.021 | 0.020 | 0.018 | 0.017 | 0.016 | 0.015 | 0.015 |
| 600 | 0.030 | 0.027 | 0.025 | 0.023 | 0.021 | 0.020 | 0.019 | 0.018 | 0.017 | 0.017 |

Inches per min.

CONSERVATIVE VALUES IN THE GRAY

CHIP LOAD BASED ON 3 FLUTE TOOLS

| FEED RATE | SPINDLE RPM'S IN THOUSANDS | | | | | | | | | |
|-----------|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 12000 | 13000 | 14000 | 14500 | 15000 | 16000 | 17000 | 18000 | 18500 | 19000 |
| 100 | 0.003 | 0.003 | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |
| 150 | 0.004 | 0.004 | 0.004 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 |
| 200 | 0.006 | 0.005 | 0.005 | 0.005 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 |
| 250 | 0.007 | 0.006 | 0.006 | 0.006 | 0.006 | 0.005 | 0.005 | 0.005 | 0.005 | 0.004 |
| 300 | 0.008 | 0.008 | 0.007 | 0.007 | 0.007 | 0.006 | 0.006 | 0.006 | 0.005 | 0.005 |
| 350 | 0.010 | 0.009 | 0.008 | 0.008 | 0.008 | 0.007 | 0.007 | 0.006 | 0.006 | 0.006 |
| 400 | 0.011 | 0.010 | 0.010 | 0.009 | 0.009 | 0.008 | 0.008 | 0.007 | 0.007 | 0.007 |
| 450 | 0.013 | 0.012 | 0.011 | 0.010 | 0.010 | 0.009 | 0.009 | 0.008 | 0.008 | 0.008 |
| 500 | 0.014 | 0.013 | 0.012 | 0.011 | 0.011 | 0.010 | 0.010 | 0.009 | 0.009 | 0.009 |
| 550 | 0.015 | 0.014 | 0.013 | 0.013 | 0.012 | 0.011 | 0.011 | 0.010 | 0.010 | 0.010 |
| 600 | 0.017 | 0.015 | 0.014 | 0.014 | 0.013 | 0.013 | 0.012 | 0.011 | 0.011 | 0.011 |
| 650 | 0.018 | 0.017 | 0.015 | 0.015 | 0.014 | 0.014 | 0.013 | 0.012 | 0.012 | 0.012 |
| 700 | 0.019 | 0.018 | 0.017 | 0.016 | 0.016 | 0.015 | 0.014 | 0.013 | 0.013 | 0.013 |

Inches per min.

CONSERVATIVE VALUES IN THE GRAY

A RANGE OF .007 TO .012 CHIP LOAD IS IDEAL
 TO LITTLE CHIP LOAD AND YOU BURN UP THE TOOL
 TO HIGH A CHIP LOAD AND YOU BREAK THE TOOL

It is very likely that you will have good results up to 0.017 chip load.

If you would like to calculate your chip load use this formula: Feed Rate in inches per minute divided by RPM's divided by number of cutting edges. Example: Feed Rate of 500in/min divided by 18,000 RPM's divided by 2 (2 flute tool) equals 0.014 chip load.

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