



INDUSTRIAL

Solid Carbide CNC High Performance 90° 'V' Spiral Drills with AlTiN Coating Router Bit / End Mill Recommendations

Material Group	Speed SFM*	Chip Load Per Tooth			
		Ø1/8"	Ø1/4"	Ø3/8"	Ø1/2"
Steel	130-150	0.002 - 0.004	0.003 - 0.005	0.004 - 0.006	0.005 - 0.007
Stainless Steel	80-120	0.002 - 0.004	0.003 - 0.005	0.004 - 0.006	0.005 - 0.007
Cast Irons	115-145	0.003 - 0.005	0.004 - 0.006	0.005 - 0.007	0.006 - 0.008
Titanium	75-90	0.002 - 0.004	0.003 - 0.005	0.004 - 0.006	0.005 - 0.007
Composites	200-300	0.003 - 0.005	0.004 - 0.006	0.005 - 0.007	0.006 - 0.008
Plastics	350-500	0.003 - 0.006	0.005 - 0.007	0.007 - 0.009	0.008 - 0.010

SFM* Surface feet per minute

Replace or Resharpen drills at first sign of dulling or rounding.

Simple Machining Calculations:

To find **RPM**: (SFM x 3.82) / diameter of tool

To find **SFM**: 0.262 x diameter of tool x RPM

To find **Feed Rate IPM**: RPM x # of flutes x chip load

To find **Chip Load**: Feed Rate IPM / (RPM x # of Flutes)

Depth of Cut: 1 x D Use recommended chip load
 2 x D Reduce chip load by 25%
 3 x D Reduce chip load by 50%

Disclaimer: These values are based on test results. Your results may vary.
 It is important to understand that these values are only recommendations.

