5th AXIS® Speeds and Feeds

1.791" Dia. Dovetail is equipped with 5 indexable carbide inserts, PVD coated with Titanium Nitride

MATERIAL	SFM
Aluminum	
6061	1000-3000
7075	1000-3000
Brass	850-2000
Steel	
1020	400-700
1045	400-700
1060	400-700
4140	350-500
4340	350-500
Stainless Steel	
304	300-600
316	300-600
410	300-600
430	300-600
17-4	125-350
Hastelloy	100-200
Titanium	
Ti-6Al-4V alloy	100-200
Ti-10V-2Fe-3Al	100-200
Inconel	
625	60-90
718	60-90

Speed Calculation: $\frac{3.82 * SFM}{Cutter\ Diameter\ (inches)} = RPM$

Speed For Dovetail Cutter: $\frac{3.82 * SFM}{1.791\ in.} = RPM$

***RPM* = Revolutions Per Minute**

***SFM* = Surface Feet per Minute**

***IPM* = Inches Per Minute**

***IPT* = Inches Per Tooth (usually ~.001"-.010")**

Feed Rate Calculation:

$$RPM * IPT * \#\ of\ inserts\ or\ flutes = Feed\ Rate\ IPM$$

Feed For Dovetail Cutter:

$$RPM * .005\ in. * 5 = Feed\ Rate\ IPM$$

NOTE: *Speeds and feeds 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 reduction in speeds and feeds or dramatic increases. Please be conservative when initiating your first test runs.*