

### 3- Flute Diamond Grit Alloy Steel End Mill Coated with Electro-Plated Diamonds

#### Down-Cut Router Bits

Depth of Cut: 1 x Tool Diameter †

Materials	Diameter	IPM at 10,000 RPM (Inches Per Minute)
Carbon Fiber, Carbon Fiber Reinforced Polymer (CFRP) Composites, Fiberglass, Fiberglass PCB Board Metal Matrix Composites (MMC)	1/4" (0.250) - 3/8" (0.375)	40"

Tool Reference #'s	
Tool No.	Dia.
44110	1/4"
44112	1/4"
44114	3/8"

† **Depth of Cut:** 1 x D Use recommended feed rate  
 2 x D Reduce feed rate by 25%  
 3 x D Reduce feed rate by 50%

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)

To find **Ramp Down:** Feed Rate IPM / # of flutes

**Disclaimer:** It is important to understand that these values are only recommendations.

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