



4 Flute TiN Coated CNC HSS Foam Cutting Ball End and End Mill Router Bits

Depth of Cut: 1 x Tool Diameter †

Ball End / End Mill	RPM	1/4" (0.250") 1/2" (0.500")		2" (0.500")	3/4"(0.750")		
		Feed Rate	Chip Load Per Tooth	Feed Rate	Chip Load Per Tooth	Feed Rate	Chip Load Per Tooth
Foam	6,000	100" - 140"	0.004" - 0.006"	120" - 170"	0.005" - 0.007"	170" - 220"	0.007" - 0.009"
Aluminum Alloys, Plastics, Wood	6,000	40"	0.002"	50"	0.002"	30"	0.001"

† 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.

Tool Reference #'s						
Ball End	End Mill	Diameter				
HSS1200	HSS1210	1/4"				
HSS1202	HSS1212	1/4"				
HSS1204	HSS1214	1/2"				
HSS1205		1/2"				
	HSS1215	1/2"				
	HSS1216	3/4"				
—	HSS1217	1/2"				