

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

Ball End / End Mill	RPM	1/4" (0.250")		1/2" (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"

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

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**: RPM x # of flutes x chip load

To find **Chip Load** = 
$$\frac{\text{Feed Rate}}{\text{RPM} \times \# \text{ of Flutes}}$$

**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%