

High Speed Steel (HSS) Plastic Cutting Straight 'O' Flute Router Bits

Tool No. / Diameter	Max RPM	Chip Load Per Tooth
Single Flute		
HSS 1500 / 1/8" (0.125)	18,000	0.004" - 0.006"
HSS 1501 / 1/8" (0.125)	12,500	0.004" - 0.006"
HSS 1502 / 3/16" (0.1875)	18,000	0.006" - 0.008"
HSS 1503 / 3/16" (0.1875)	12,500	0.006" - 0.008"
HSS 1504 / 1/4" (0.250)	18,000	0.006" - 0.008"
HSS 1505 / 1/4" (0.250)	12,500	0.006" - 0.008"
HSS 1506 / 1/4" (0.250)	18,000	0.006" - 0.008"
HSS 1507 / 3/8" (0.375)	18,000	0.007" - 0.009"
2 Flute		
HSS 1600 / 3/16" (0.1875)	18,000	0.002" - 0.004"
HSS 1601 / 1/4" (0.250)	18,000	0.002" - 0.004"
HSS 1602 / 1/4" (0.250)	12,500	0.002" - 0.004"
HSS 1603 / 1/4" (0.250)	12,500	0.002" - 0.004"
HSS 1604 / 1/4" (0.250)	18,000	0.002" - 0.004"
HSS 1605 / 1/4" (0.250)	12,500	0.002" - 0.004"
HSS 1606 / 3/8" (0.375)	18,000	0.003" - 0.005"
HSS 1607 / 3/8" (0.375)	12,500	0.003" - 0.005"

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**: 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%