



**Solid Carbide Spiral Plunge  
2 & 3 Flute Router Bits**  
Operating RPM: 18,000

Diameter	(Chip Load Per Tooth)	
	Softwood/Hardwood/ Plywood	Laminate/MDF
2 Flute		
1/32" (0.031)	0.001" - 0.003"	0.002" - 0.004"
3/64" (0.046875)	0.001" - 0.003"	0.002" - 0.004"
1/16" (0.0625)	0.002" - 0.004"	0.004" - 0.006"
3/32" (0.09375)	0.002" - 0.004"	0.004" - 0.006"
1/8" (0.125)	0.003" - 0.005"	0.005" - 0.007"
5/32" (0.15625)	0.003" - 0.005"	0.005" - 0.007"
3/16" (0.1875)	0.004" - 0.006"	0.006" - 0.008"
7/32" (0.21875)	0.004" - 0.006"	0.006" - 0.008"
1/4" (0.25)	0.005" - 0.007"	0.006" - 0.008"
9/32" (0.28125)	0.005" - 0.007"	0.006" - 0.008"
5/16" (0.3125)	0.005" - 0.007"	0.006" - 0.008"
3/8" (0.375)	0.006" - 0.008"	0.007" - 0.009"
7/16" (0.4375)	0.006" - 0.008"	0.007" - 0.009"
1/2" (0.50)	0.007" - 0.009"	0.008" - 0.010"
5/8" (0.625)	0.008" - 0.010"	0.010" - 0.012"
3 Flute		
3/8" (0.375)	0.005" - 0.007"	0.006" - 0.008"
1/2" (0.50)	0.007" - 0.009"	0.008" - 0.010"

**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%

Tool Reference #'s		
Up-Cut	Down-Cut	Dia.
2 Flute		
46100	46200	1/8"
46101	46201	3/16"
46102	46202	1/4"
46103	46203	3/8"
46104	46204	3/8"
46106	46206	1/2"
46107	46207	1/2"
46108	46208	5/8"
46117	46217	9/32"
46119	46219	5/16"
46121	—	5/8"
46125	46225	1/8"
46127	46227	1/8"
—	46229	1/32"
—	46231	3/64"
—	46237	1/16"
—	46239	3/32"
46131	46331	3/16"
46210	—	1/2"
46310	46410	5/32"
46314	46414	7/32"
46315	46415	1/4"
46316	46416	1/4"
46317	46417	9/32"
46318	—	5/16"
46320	46420	3/8"
46321	46421	1/4"
—	46422	5/16"
46323	46423	3/8"
46325	—	5/16"
46329	46429	1/2"
46333	—	1/8"
46335	46435	7/16"
46336	46436	1/2"
46337	46437	1/4"
46338	46438	1/4"
46339	46439	3/8"
—	46447	1/2"
3 Flute		
46114	46214	3/8"
46116	46216	1/2"
46118	46218	1/2"

**Disclaimer:** These values are based on test results using 18,000 RPM. Your results may vary.  
It is important to understand that these values are only recommendations.