

Recommended RPM / FEED Rates for Solide Carbide Spiral Router Bits

Tool Diameter	Feed Rate INCH Per MINUTE		Feed Rate INCH Per MINUTE		Feed Rate METERS Per MINUTE		Feed Rate METERS Per MINUTE	
	Hard Wood		Hard Wood		Hard Wood		Hard Wood	
	Single Flute bit		Single Flute bit		Single Flute bit		Single Flute bit	
	10000 RPM		20000 RPM		10000 RPM		20000 RPM	
1/8"	30	50	60	100	0.75	1.25	1.5	2.5
1/4"	90	110	180	220	2.25	2.75	4.5	5.5
3/8"	150	180	300	360	3.75	4.5	7.5	9
1/2" & up	190	210	380	420	4.75	5.25	9.5	10.5

Tool Diameter	Feed Rate INCH Per MINUTE		Feed Rate INCH Per MINUTE		Feed Rate METERS Per MINUTE		Feed Rate METERS Per MINUTE	
	Hard Wood		Hard Wood		Hard Wood		Hard Wood	
	2 Flutes bit		2 Flutes bit		2 Flutes bit		2 Flutes bit	
	10000 RPM		20000 RPM		10000 RPM		20000 RPM	
1/8"	60	100	120	200	1.5	2.5	3	5
1/4"	180	220	360	440	4.5	5.5	9	11
3/8"	300	360	600	720	7.5	9	15	18
1/2" & up	380	420	760	840	9.5	10.5	19	21

Tool Diameter	Feed Rate INCH Per MINUTE		Feed Rate INCH Per MINUTE		Feed Rate METERS Per MINUTE		Feed Rate METERS Per MINUTE	
	Hard Wood		Hard Wood		Hard Wood		Hard Wood	
	3 Flutes bit		3 Flutes bit		3 Flutes bit		3 Flutes bit	
	10000 RPM		20000 RPM		10000 RPM		20000 RPM	
1/8"	90	150	180	300	2.25	3.75	4.5	7.5
1/4"	270	330	540	660	6.75	8.25	13.5	16.5
3/8"	450	540	900	1080	11.25	13.5	22.5	27
1/2" & up	570	630	1140	1260	14.25	15.75	28.5	31.5

Tool Diameter	Feed Rate INCH Per MINUTE		Feed Rate INCH Per MINUTE		Feed Rate METERS Per MINUTE		Feed Rate METERS Per MINUTE	
	Softwood / Plywood		Softwood / Plywood		Softwood / Plywood		Softwood / Plywood	
	Single Flute bit		Single Flute bit		Single Flute bit		Single Flute bit	
	10000 RPM		20000 RPM		10000 RPM		20000 RPM	
1/8"	40	60	80	120	1	1.5	2	3
1/4"	110	130	220	260	2.75	3.25	5.5	6.5
3/8"	170	200	340	400	4.25	5	8.5	10
1/2" & up	210	230	420	460	5.25	5.75	10.5	11.5

Tool Diameter	Feed Rate INCH Per MINUTE		Feed Rate INCH Per MINUTE		Feed Rate METERS Per MINUTE		Feed Rate METERS Per MINUTE	
	Softwood / Plywood		Softwood / Plywood		Softwood / Plywood		Softwood / Plywood	
	2 Flutes bit		2 Flutes bit		2 Flutes bit		2 Flutes bit	
	10000 RPM		20000 RPM		10000 RPM		20000 RPM	
1/8"	80	120	160	240	2	3	4	6
1/4"	220	260	440	520	5.5	6.5	11	13
3/8"	340	400	680	800	8.5	10	17	20
1/2" & up	420	460	840	920	10.5	11.5	21	23

Tool Diameter	Feed Rate INCH Per MINUTE		Feed Rate INCH Per MINUTE		Feed Rate METERS Per MINUTE		Feed Rate METERS Per MINUTE	
	Softwood / Plywood		Softwood / Plywood		Softwood / Plywood		Softwood / Plywood	
	3 Flutes bit		3 Flutes bit		3 Flutes bit		3 Flutes bit	
	10000 RPM		20000 RPM		10000 RPM		20000 RPM	
1/8"	120	180	240	360	3	4.5	6	9
1/4"	330	390	660	780	8.25	9.75	16.5	19.5
3/8"	510	600	1020	1200	12.75	15	25.5	30
1/2" & up	630	690	1260	1380	15.75	17.25	31.5	34.5

Tool Diameter	Feed Rate INCH Per MINUTE		Feed Rate INCH Per MINUTE		Feed Rate METERS Per MINUTE		Feed Rate METERS Per MINUTE	
	MDF / Particle Board		MDF / Particle Board		MDF / Particle Board		MDF / Particle Board	
	Single Flute bit		Single Flute bit		Single Flute bit		Single Flute bit	
	10000 RPM		20000 RPM		10000 RPM		20000 RPM	
1/8"	40	70	80	140	1	1.75	2	3.5
1/4"	130	160	260	320	3.25	4	6.5	8
3/8"	200	230	400	460	5	5.75	10	11.5
1/2" & up	250	270	500	540	6.25	6.75	12.5	13.5

Tool Diameter	Feed Rate INCH Per MINUTE		Feed Rate INCH Per MINUTE		Feed Rate METERS Per MINUTE		Feed Rate METERS Per MINUTE	
	MDF / Particle Board		MDF / Particle Board		MDF / Particle Board		MDF / Particle Board	
	2 Flutes bit		2 Flutes bit		2 Flutes bit		2 Flutes bit	
	10000 RPM		20000 RPM		10000 RPM		20000 RPM	
1/8"	80	140	160	280	2	3.5	4	7
1/4"	260	320	520	640	6.5	8	13	16
3/8"	400	460	800	920	10	11.5	20	23
1/2" & up	500	540	1000	1080	12.5	13.5	25	27

Tool Diameter	Feed Rate INCH Per MINUTE		Feed Rate INCH Per MINUTE		Feed Rate METERS Per MINUTE		Feed Rate METERS Per MINUTE	
	MDF / Particle Board		MDF / Particle Board		MDF / Particle Board		MDF / Particle Board	
	3 Flutes bit		3 Flutes bit		3 Flutes bit		3 Flutes bit	
	10000 RPM		20000 RPM		10000 RPM		20000 RPM	
1/8"	120	210	240	420	3	5.25	6	10.5
1/4"	390	480	780	960	9.75	12	19.5	24
3/8"	600	690	1200	1380	15	17.25	30	34.5
1/2" & up	750	810	1500	1620	18.75	20.25	37.5	40.5

Tool Diameter	Feed Rate INCH Per MINUTE			Feed Rate METERS Per MINUTE		
	High Pressure Laminate			High Pressure Laminate		
	Single Flute bit			Single Flute bit		
	10000 RPM			10000 RPM		
1/8"	30	50		0.75	1.25	
1/4"	90	120		2.25	3	
3/8"	150	180		3.75	4.5	
1/2" & up	230	250		5.75	6.25	

Tool Diameter	Feed Rate INCH Per MINUTE			Feed Rate METERS Per MINUTE		
	High Pressure Laminate			High Pressure Laminate		
	2 Flutes bit			2 Flutes bit		
	10000 RPM			10000 RPM		
1/8"	60	100		1.5	2.5	
1/4"	180	240		4.5	6	
3/8"	300	360		7.5	9	
1/2" & up	460	500		11.5	12.5	

Tool Diameter	Feed Rate INCH Per MINUTE			Feed Rate METERS Per MINUTE		
	High Pressure Laminate			High Pressure Laminate		
	3 Flutes bit			3 Flutes bit		
	10000 RPM			10000 RPM		
1/8"	90	150		2.25	3.75	
1/4"	270	360		6.75	9	
3/8"	450	540		11.25	13.5	
1/2" & up	690	750		17.25	18.75	