# **Solid Carbide Router Bits**



# NAPGLADU Delivering Productivity

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### **Router Bit Reference Guide**

Refer to the reference guide below to ensure maximum peformance for your specific applications.

### **Flute Geometry**

#### Single Flute Router Bits

• Designed for faster feed rates in soft material. Use for acceptable finishes.

#### Multiple Flute (2+) Router Bits

• Designed for harder materials. Produces an excellent finish.

### **Cutting Edge Geometry**

#### Straight Flute Router Bits

 Use for plastic and soft material. Excellent choice for hand feed operations.

#### Spiral Flute Router Bits

• Use on automatic feed operations only

### **Types of End Points Available**



**Crescent Point** 

Standard end point for single flute router bits. Used for easy plunge routing and flat bottom cuts.

### **Plunge Point**

Used for a majority of woodworking router bits where a strong aggressive plunge point is desired. Can be used in ramp plunge applications as well.

#### **End Mill Point**

Used predominately in the plastic cutting industry to ensure smooth flat bottom cuts. Also found on 3 and 4 flute router bits. Best results can be obtained using ramp plunge applications.

### Upcut Spiral Router Bits

- Produces best finish on bottom of material. Evacuates chips in upward direction.
- Must have good hold down or vacuum table to secure part.

### **Downcut Spiral Router Bits**

- Produces the best finish on the top of the material. Downward direction of chip flow.
- Good choice for small parts and moderate to poor hold down or vacuum table.

### Compression Spiral Router Bits

 Best choice for application's where double laminated material needs a flawless edge or where a excellent top and bottom finish is desired. Sideward chip flow direction.

# **Cutting Tool Selection Guide**

Instructions		U	pcut	Spir	al Bi	ts			Do	ownc	ut Sp	iral B	Bits		Con	npress	sion S	piral	Bits	Moi	rtise Spi	Com <sub>l</sub> iral B		sion		Chi		aker iral E		her			Helix sher
1. Locate the material that you are cutting from the left-hand column.																																	
2. Move over horizontally to the ✓ that best corresponds with the router bit that fits your needs.  3. Follow the page number listed for your router bit to find the right bit for your machine.  4. Use the "Tool Number" that meets your needs based on shank diameter, cutting edge length, etc. from this page.	Flute Upcut Spiral (pg. 6)	Flute Upcut Spiral (Hard Plastics and Aluminum) (pg. 6)	Flute Upcut Spiral (pg. 7-8)	Flute Upcut Spiral (Hard Plastics and Aluminum) (pg. 8)	Flute Upcut Spiral (High Impact) (pg. 9, 39)	Flute Upcut Spiral (Fiber Reinforced Plastics) (pg. 9)	Flute Upcut Spiral (Fiber Reinforced Plastics) (pg. 9)	Flute Downcut Spiral (pg. 10)	Flute Downcut Spiral (Fiber Reinforced Plastics & Aluminum) (pg. 10)	Flute Downcut Spiral (pg. 11-12)	Flute Downcut Spiral (Hard Plastics and Aluminum) (pg. 12)	Flute Downcut Spiral (High Impact) (pg. 13, 39)	Flute Downcut Spiral (Fiber Reinforced Plastics) (pg. 13)	Flute Downcut Spiral (Fiber Reinforced Plastics) (pg. 13)	Flute Compression Spiral (pg. 14)	Flute Compression Spiral (pg. 14, 40)	Flute Compression Spiral (High Wear) (pg. 15)	Flute Compression Spiral (pg. 15, 40)	4 Flute Compression Spiral (pg. 15)	Flute Mortise Compression Spiral (pg. 16)	Flute Mortise Compression Spiral (pg. 16, 40)	Flute Mortise Compression Spiral (pg. 17, 40)	Flute Mortise Compression Spiral (High Wear) (pg. 17)	Flute Mortise Compression Spiral (pg. 17)	Flute Chipbreaker Finisher Upcut Spiral (pg. 18)	Flute Chipbreaker Finisher Upcut Spiral (High Impact) (pg. 18)	2 Flute Chipbreaker Finisher Downcut Spiral (High Impact) (pg. 18)	Flute Chipbreaker Finisher Downcut Spiral (pg. 19)	2 Flute Chipbreaker Finisher Compression Spiral (pg. 19)	Flute Chipbreaker Finisher Upcut Spiral (pg. 20, 39)	Flute Chipbreaker Finisher Downcut Spiral (pg. 20, 39)	Flute Low Helix Finisher Upcut (pg. 21)	Flute Low Helix Finisher Downcut (pg. 21)
	-	<u>_</u>	N	2 F	2	3.5	4 F	-	+	N	2 F	N	3.5	4 F	-	2 F	2 F	m	١.	-	2	3 F	3 F	4 F	2 F	2 F		2 F		3 F	3 F	3.5	3.5
Softwoods	<b>V</b>		<b>√</b>		<b>√</b>			<b>√</b>		<b>√</b>		<b>√</b>			<b>√</b>	<b>√</b>		<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		<b>√</b>	<b>V</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
Hardwoods	✓		✓		<b>√</b>			<b>√</b>		✓		<b>√</b>			<b>√</b>	<b>√</b>		<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		<b>√</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
Softwood Plywood															<b>√</b>	<b>√</b>		<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		<b>√</b>		<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Hardwood Plywood															<b>√</b>	✓		<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>		
Raw MDF & Particle Board	✓		✓		<b>√</b>			<b>√</b>		<b>√</b>		<b>√</b>			<b>√</b>	✓	✓	✓	<b>√</b>	<b>√</b>	✓	<b>√</b>	<b>√</b>	✓	<b>√</b>	<b>√</b>	✓	<b>√</b>	✓	✓	✓	✓	<b>√</b>
Laminated Particle Board & MDF															✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					✓				
Laminated Plywood															✓	✓		✓	✓	✓	✓	✓		✓					✓				
Soft Ductile Plastics  -ABS + HDPE -Polypropylene -PVC -Acryfic - Polycarbonate Extruded - UHMW -Polystyrene -Polyethylene			<b>√</b>							<b>√</b>																							
Hard Brittle Plastics  - Acrylic-cast • Vinyl  - PVC • Nylon  - Melamine																																✓	<b>✓</b>
Fiber Reinforced Plastics Fiberglass Phenolics Acetal Aramid Fiber		<b>√</b>		<b>√</b>		<b>√</b>	<b>√</b>		✓		<b>√</b>		<b>√</b>	<b>✓</b>																			
Solid Surface Materials  • Corian® • Veritek®  • Fountainhead® • Avonite®  • Swanstone® • Cast Polymers			<b>√</b>	<b>✓</b>						<b>√</b>	<b>√</b>																					<b>✓</b>	<b>√</b>
Plastic Laminated Materials • Formica® Brand • Wilsonart®																																	
Aluminum		<b>√</b>		<b>√</b>					<b>√</b>		<b>√</b>																						

Note: All recommended feed rates in this catalog are based on 18,000 RPM spindle speed. If your spindle speed is different please adjust accordingly. (i.e.- 20,000 RPM increase feed rate by 10%)



# **Tool Selection Guide**

Instructions				Rou	ıgher	Bits									"(	)" Flu	ute B	its						Strai	ght Cu	t Bits	Sp	ecial	ty Spi	ral B	its
1. Locate the material that you are cutting from the left-hand column.																															
2. Move over horizontally to the ✓ that best corresponds with the router bit that fits your needs.								2)	ig. 25)												2)										
3. Follow the page number listed for your router bit to find the right bit for your machine.							eed) (pg. 24)	Speed) (pg. 2	High Speed) (p	40)	og. 27)			30)	;) (pg. 30-31)		32)		cs) (pg. 34)	tics) (pg. 34)	lastics) (pg. 35)		36)				. 41)	tics) (pg. 41)	es) (pg. 41)	41)	-
4. Use the "Tool Number" that meets your needs based on shank diameter, cutting edge length, etc. from this page.	Flute Low Helix Rougher Upcut Spiral (pg. 22)	Flute High Helix Rougher Upcut Spiral (pg. 22)	Flute Low Helix Rougher Downcut Spiral (pg. 23)	Flute High Helix Rougher Downcut Spiral (pg. 23)	Flute Rougher Upcut Spiral (High Impact) (pg. 24)	Flute Rougher Downcut Spiral (High Impact) (pg. 24)	Flute Rougher/Finisher Hybrid Upcut Spiral (High Speed) (pg. 24)	Flute Rougher/Finisher Hybrid Downcut Spiral (High Speed) (pg. 25)	Flute Rougher/Finisher Hybrid Compression Spiral (High Speed) (pg.	Flute "O" Upcut Spiral (Soft & Hard Plastics) (pg. 26,	Flute "O" Upcut Spiral (Soft & Hard Plastics-metric) (pg.	Flute "O" Upcut Spiral (Hard Plastics) (pg. 28)	Flute "O" Upcut Spiral (Hard Plastics-metric) (pg. 29)	Flute "O" Downcut Spiral (Soft & Hard Plastics) (pg. 30)	Flute "O" Downcut Spiral (Soft & Hard Plastics-metric) (pg.	Flute "O" Downcut Spiral (Hard Plastics) (pg. 31)	Flute "O" Downcut Spiral (Hard Plastics-metric) (pg.	Flute "O" Straight Cut (Soft & Hard Plastics) (pg. 33)	Flute "O" Straight Cut (Softwoods, Soft & Hard Plastics)	Flute "O" Upcut Spiral Low Helix (Soft and Hard Plastics) (pg. 34)	Flute "O" Downcut Spiral Low Helix (Soft and Hard Plastics)	Flute "O" Straight Cut (Hard Plastics) (pg. 35)	Flute "O" Straight Cut (Soft and Hard Plastics) (pg.	Flute Straight Cut "V" Flute (pg. 37)	Flute Straight Cut (Hard Plastics) (pg. 37)	Flute Straight Cut (pg. 38)	Diamond Burr – Fiberglass Finisher (Hard Plastics) (pg. 41)	2 Flute Diamond Burr – Fiberglass Finisher (Hard Plastics) (pg.	2 Flute Compression Finisher (Aramid Fiber Composites) (pg.	Flush Trim Laminate Trimmer (Plastic Laminates) (pg. 41)	7° Bevel Laminate Trimmer (Plastic Laminates) (pg. 41)
Softwoods	<u>ო</u>	ო ✓	<b>ო</b>	ω		€	4	<b>√</b> 4	4	-	-	-	-	-	-	-	-	-	<b>-</b>	2	2	2	2	<b>←</b>	2	✓		CA	CA		
Hardwoods	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>															<b>√</b>		<b>✓</b>					
Softwood Plywood	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>															<b>√</b>		<b>✓</b>					
Hardwood Plywood	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>															<b>√</b>		<b>√</b>					
Raw MDF & Particleboard	<b>√</b>	✓	<b>√</b>	✓	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>															<b>√</b>		<b>✓</b>					
Laminated Particle Board & MDF									<b>√</b>																						
Laminated Plywood									<b>√</b>																						
Soft Ductile Plastics  -ABS  -Polypropylene  -Acrylic- Extruded  -Polystyrene  -Polystyrene  -Polystyrene  -Polystyrene										<b>✓</b>	<b>✓</b>			<b>✓</b>	✓	<b>✓</b>		<b>√</b>	✓	<b>√</b>	<b>✓</b>		✓								
+Acrylic-cast +Vinyl +PVC +Nylon +Melamine										<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓	<b>√</b>	<b>√</b>	<b>√</b>	✓		<b>√</b>						
Fiber Reinforced Plastics Fiberglass Phenolics Acetal Aramid Fiber																						✓			✓		✓	✓	✓	✓	<b>√</b>
Solid Surface Materials  Corian®										<b>✓</b>	✓	<b>✓</b>	<b>√</b>	<b>√</b>	✓	✓	<b>✓</b>			✓	✓	✓									
Plastic Laminated Materials •Formica® Brand •Wilsonart®																															
Aluminum																															

**High Impact:** Designed for extreme routing conditions. Use for rapid plunging, slotting and peripheral routing. Free cutting. High Wear: Utilizes a carbide grade with superior wear resistance. Use on Melamine products with MDF and particleboard substrates only. High Speed: Recommended for those applications that have excellent hold down and dust evacuation where extreme feed rates are desired.



**Material: Feed Rates** 

Softwoods: 150-300 IPM Hardwoods: 150-300 IPM Raw MDF & Particleboard: 150-300 IPM **End Point: Finish Quality** 

End Point Style: End Mill Optimized for excellent bottom finish.

# 1 Flute Upcut Spiral

Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
1/8	1/2	1/4	2	30°
3/16	3/4	1/4	2	30°
1/4	7/8	1/4	2-1/2	30°
1/4	1	1/4	2-1/2	30°
5/16	1-1/8	5/16	3	30°
3/8	1-1/8	3/8	3	30°
1/2	1-1/8	1/2	3	30°
	1/8 3/16 1/4 1/4 5/16 3/8	Diameter         Edge Length           1/8         1/2           3/16         3/4           1/4         7/8           1/4         1           5/16         1-1/8           3/8         1-1/8	Diameter         Edge Length         Shank Size           1/8         1/2         1/4           3/16         3/4         1/4           1/4         7/8         1/4           1/4         1         1/4           5/16         1-1/8         5/16           3/8         1-1/8         3/8	Diameter         Edge Length         Shank Size         Overall Length           1/8         1/2         1/4         2           3/16         3/4         1/4         2           1/4         7/8         1/4         2-1/2           1/4         1         1/4         2-1/2           5/16         1-1/8         5/16         3           3/8         1-1/8         3/8         3

All measurements are in inches unless otherwise specified. Metric size tools are available.

Hole

1 Flute Upcut Spiral

RS688

RS689

Hard Plastics and Aluminum

**Material: Feed Rates** 

Fiber Reinforced Plastics: 100 IPM Aluminum: 150 IPM

**End Point: Finish Quality** 

End Point Style: End Mill Optimized for excellent bottom finish.

Part No.	Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS680	1/8	1/2	1/4	2	30°
RS681	5/32	9/16	1/4	2	30°
RS682	3/16	5/8	1/4	2	30°
RS683	7/32	5/8	1/4	2-1/2	30°
RS684	1/4	3/4	1/4	2-1/2	30°
RS685	9/32	3/4	3/8	2-1/2	30°
RS686	5/16	13/16	3/8	2-1/2	30°
RS687	3/8	7/8	3/8	2-1/2	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.

7/16

1/2

All router bits are backed by our 30 Day, Satisfaction Guarantee.

30°

1/2

1/2

3



**Material: Feed Rates** 

Softwoods: 200-450 IPM Solid Surface: 150-200 IPM Soft Ductile Plastics: 200 IPM Raw MDF & Particleboard: 200-450 IPM **End Point: Finish Quality** 

End Point Style: Plunge Point Optimized for excellent bottom finish.

# 2 Flute Upcut Spiral

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS112	1/8	1/2	1/4	2	30°
RS113L	1/8	1/2	1/4	2	30°
RS116	5/32	1/2	1/4	2-1/2	30°
RS115	5/32	5/8	1/4	2	30°
RS117	3/16	3/4	1/4	2	30°
RS118L	3/16	3/4	1/4	2	30°
RS121	3/16	3/4	1/4	2-1/2	30°
RS119	7/32	3/4	1/4	2-1/2	30°
RS122	7/32	1	1/4	2-1/2	30°
RS123	1/4	7/8	1/4	2-1/2	30°
RS126	1/4	1	1/4	2-1/2	30°
RS127L	1/4	1	1/4	2-1/2	30°
RS129	1/4	1-1/8	1/4	3	30°
RS131	9/32	1	5/16	2-1/2	30°
RS132	5/16	1-1/8	5/16	3	30°
RS135	5/16	1-1/4	5/16	3	30°
RS138	5/16	1-1/8	1/2	3	30°
RS133L	5/16	1-1/8	1/2	3	30°
RS139	3/8	1	3/8	3	30°
RS141	3/8	1-1/8	3/8	3	30°
RS144	3/8	1-1/4	3/8	3	30°
RS143L	3/8	1-1/4	3/8	3	30°
RS147	3/8	1-1/4	1/2	3	30°
RS145	7/16	1	1/2	3	30°
RS146	1/2	1-1/8	1/2	3	30°
RS149	1/2	1-1/4	1/2	3-1/2	30°
RS153	1/2	1-5/8	1/2	3-1/2	30°
RS154L	1/2	1-5/8	1/2	3-1/2	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.

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# 2 Flute Upcut Spiral (continued)

**Material: Feed Rates** 

Softwoods: 200-450 IPM Solid Surface: 150-200 IPM Soft Ductile Plastics: 200 IPM

Raw MDF & Particleboard: 200-450 IPM

**End Point: Finish Quality** 

End Point Style: Plunge Point Optimized for excellent

bottom finish.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS156	1/2	2-1/8	1/2	4	30°
RS157	17/32	1-1/8	1/2	3	30°
RS159	5/8	1-5/8	5/8	3-1/2	30°
RS162	5/8	2-1/8	5/8	4	30°
RS163L	5/8	2-1/8	5/8	4	30°
RS165	3/4	1-5/8	3/4	4	30°
RS168	3/4	2-1/8	3/4	4	30°
RS169L	3/4	2-1/8	3/4	4	30°
RS171	1	3	1	5	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.

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# 2 Flute Upcut Spiral Hard Plastics and Aluminum

Material: Feed Rates

Fiber Reinforced Plastics: 150 IPM Solid Surface: 150-200 IPM Aluminum: 150 IPM **End Point: Finish Quality** 

End Point Style: End Mill Optimized for excellent bottom finish.

Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
1/8	1/2	1/4	2	30°
5/32	9/16	1/4	2	30°
3/16	5/8	1/4	2	30°
3/16	5/8	1/4	2	30°
7/32	5/8	1/4	2-1/2	30°
1/4	3/4	1/4	2-1/2	30°
1/4	3/4	1/4	2-1/2	30°
9/32	3/4	3/8	2-1/2	30°
5/16	13/16	3/8	2-1/2	30°
3/8	7/8	3/8	2-1/2	30°
7/16	1	1/2	3	30°
1/2	1	1/2	3	30°
	1/8 5/32 3/16 3/16 7/32 1/4 1/4 9/32 5/16 3/8 7/16	Diameter         Edge Length           1/8         1/2           5/32         9/16           3/16         5/8           3/16         5/8           7/32         5/8           1/4         3/4           1/4         3/4           9/32         3/4           5/16         13/16           3/8         7/8           7/16         1	Diameter         Edge Length         Shank Size           1/8         1/2         1/4           5/32         9/16         1/4           3/16         5/8         1/4           3/16         5/8         1/4           7/32         5/8         1/4           1/4         3/4         1/4           1/4         3/4         1/4           9/32         3/4         3/8           5/16         13/16         3/8           3/8         7/8         3/8           7/16         1         1/2	Diameter         Edge Length         Shank Size         Overall Length           1/8         1/2         1/4         2           5/32         9/16         1/4         2           3/16         5/8         1/4         2           3/16         5/8         1/4         2           7/32         5/8         1/4         2-1/2           1/4         3/4         1/4         2-1/2           1/4         3/4         1/4         2-1/2           9/32         3/4         3/8         2-1/2           5/16         13/16         3/8         2-1/2           3/8         7/8         3/8         2-1/2           7/16         1         1/2         3

All measurements are in inches unless otherwise specified. Metric size tools are available.



2 Flute Upcut Spiral

High Impact

#### **Material: Feed Rates**

Softwoods: 200-450 IPM Hardwoods: 200-400 IPM

Raw MDF & Particleboard: 200-450 IPM

#### **End Point: Finish Quality**

End Point Style: Plunge Point Optimized for excellent

bottom finish.

 Part No.	Hole Diameter I	Edge Length	Shank Size	Overall Length	Helix Angle
RS941	1/4	7/8	1/4	2-1/2	30°
RS943	3/8	1-1/8	3/8	3	30°
RS945	3/8	1-1/4	3/8	3	30°
RS947	1/2	1-1/4	1/2	3	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.

# 3 Flute Upcut Spiral

Fiber Reinforced Plastics

### **Material: Feed Rates**

Fiber Reinforced Plastics: 150 IPM

### **End Point: Finish Quality** End Point Style: End Mill

Optimized for excellent bottom finish.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS430	1/8	1/2	1/4	2	30°
RS431	3/16	5/8	1/4	2	30°
RS432	1/4	3/4	1/4	2-1/2	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.



# 4 Flute Upcut Spiral

Fiber Reinforced Plastics

### **Material: Feed Rates**

Fiber Reinforced Plastics: 100-300 IPM

#### **End Point: Finish Quality**

End Point Style: End Mill Optimized for excellent bottom finish.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS433	1/8	1/2	1/4	2	15°
RS434	5/32	9/16	1/4	2	15°
RS435	3/16	5/8	1/4	2	15°
RS436	1/4	3/4	1/4	2-1/2	15°

All measurements are in inches unless otherwise specified. Metric size tools are available.



**Material: Feed Rates** 

Softwoods: 150-300 IPM Hardwoods: 150-300 IPM

Raw MDF & Particleboard: 150-300 IPM

**End Point: Finish Quality** 

End Point Style: End Mill Optimized for excellent

top finish.

## 1 Flute Downcut Spiral

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS380	1/8	1/2	1/4	2	30°
RS324	3/16	3/4	1/4	2	30°
RS325	1/4	7/8	1/4	2-1/2	30°
RS326	1/4	1	1/4	2-1/2	30°
RS328	5/16	1-1/8	5/16	3	30°
RS327	3/8	1-1/8	3/8	3	30°
RS329	1/2	1-1/8	1/2	3	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.

1 Flute Downcut Spiral

Fiber Reinforced Plastics & Aluminum

**Material: Feed Rates** 

Aluminum: 150 IPM Fiber Reinforced Plastics: 100 IPM **End Point: Finish Quality** 

End Point Style: End Mill Optimized for excellent

top finish.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS440	1/8	1/2	1/4	2	30°
RS441	1/4	3/4	1/4	2-1/2	30°
RS442	5/16	13/16	3/8	2-1/2	30°
RS443	3/8	7/8	3/8	2-1/2	30°



### Material: Feed Rates

Softwoods: 200-450 IPM Hardwoods: 200-400 IPM Solid Surface: 150-200 IPM Soft Ductile Plastics: 200 IPM

Raw MDF & Particleboard: 200-450 IPM

### **End Point: Finish Quality**

End Point Style: Plunge Point Optimized for excellent top finish.

2	Flute	Downcut	Spiral
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Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS179Q	1/8	1/2	1/4	2	30°
RS181L	1/8	1/2	1/4	2	30°
RS180	1/8	1/2	1/8	2	30°
RS182	5/32	1/2	1/4	2-1/2	30°
RS183	5/32	5/8	1/4	2	30°
RS184	3/16	3/4	3/16	2	30°
RS186	3/16	3/4	1/4	2	30°
RS187L	3/16	3/4	1/4	2	30°
RS188	3/16	3/4	1/4	2-1/2	30°
RS189	7/32	3/4	1/4	2-1/2	30°
RS191	7/32	1	1/4	2-1/2	30°
RS192	1/4	7/8	1/4	2-1/2	30°
RS195	1/4	1	1/4	2-12	30°
RS196L	1/4	1	1/4	2-1/2	30°
RS198	1/4	1-1/8	1/4	3	30°
RS199	9/32	1	5/16	2-1/2	30°
RS211	5/16	1-1/8	5/16	3	30°
RS214	5/16	1-1/4	5/16	3	30°
RS217	5/16	1-1/8	1/2	3	30°
RS216L	5/16	1-1/8	1/2	3	30°
RS218	3/8	1	3/8	3	30°
RS219	3/8	1-1/8	3/8	3	30°
RS223	3/8	1-1/4	3/8	3	30°
RS224L	3/8	1-1/4	3/8	3	30°
RS226	3/8	1-1/4	1/2	3	30°
RS227	7/16	1	1/2	3	30°
RS228	1/2	1-1/8	1/2	3	30°
RS229	1/2	1-1/4	1/2	3-1/2	30°
RS232	1/2	1-5/8	1/2	3-1/2	30°
RS233L	1/2	1-5/8	1/2	3-1/2	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.

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### 2 Flute Downcut Spiral (continued)

#### **Material: Feed Rates**

Softwoods: 200-450 IPM Hardwoods: 200-400 IPM Solid Surface: 150-200 IPM Soft Ductile Plastics: 200 IPM

Raw MDF & Particleboard: 200-450 IPM

### **End Point: Finish Quality**

End Point Style: Plunge Point Optimized for excellent top finish.

2 Hate bownear spiral (continuea)								
Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle			
RS235	1/2	2-1/8	1/2	4	30°			
RS236	17/32	1-1/8	1/2	3	30°			
RS238	5/8	1-5/8	5/8	3-1/2	30°			
RS241	5/8	2-1/8	5/8	4	30°			
RS242L	5/8	2-1/8	5/8	4	30°			
RS244	3/4	1-5/8	3/4	4	30°			
RS247	3/4	2-1/8	3/4	4	30°			
RS248L	3/4	2-1/8	3/4	4	30°			
RS249	1	3	1	6	30°			

All measurements are in inches unless otherwise specified. Metric size tools are available.



# 2 Flute Downcut Spiral Hard Plastics and Aluminum

**Material: Feed Rates** 

Aluminum: 150 IPM Soild Surface: 150-200 IPM Fiber Reinforced Plastics: 150 IPM **End Point: Finish Quality** 

End Point Style: End Mill Optimized for excellent top finish.

Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
1/8	1/2	1/4	2	30°
5/32	9/16	1/4	2	30°
3/16	5/8	1/4	2	30°
7/32	5/8	1/4	2-1/2	30°
1/4	3/4	1/4	2-1/2	30°
9/32	3/4	3/8	2-1/2	30°
5/16	13/16	3/8	2-1/2	30°
3/8	7/8	3/8	2-1/2	30°
7/16	1	1/2	3	30°
1/2	1	1/2	3	30°
	1/8 5/32 3/16 7/32 1/4 9/32 5/16 3/8 7/16	Diameter         Edge Length           1/8         1/2           5/32         9/16           3/16         5/8           7/32         5/8           1/4         3/4           9/32         3/4           5/16         13/16           3/8         7/8           7/16         1	Diameter         Edge Length         Shank Size           1/8         1/2         1/4           5/32         9/16         1/4           3/16         5/8         1/4           7/32         5/8         1/4           1/4         3/4         1/4           9/32         3/4         3/8           5/16         13/16         3/8           3/8         7/8         3/8           7/16         1         1/2	Diameter         Edge Length         Shank Size         Overall Length           1/8         1/2         1/4         2           5/32         9/16         1/4         2           3/16         5/8         1/4         2           7/32         5/8         1/4         2-1/2           1/4         3/4         1/4         2-1/2           9/32         3/4         3/8         2-1/2           5/16         13/16         3/8         2-1/2           3/8         7/8         3/8         2-1/2           7/16         1         1/2         3

L = Left-Hand Rotation. All router bits are backed by our 30 Day, Satisfaction Guarantee.



# 2 Flute Downcut Spiral

High Impact

Material: Feed Rates

Softwoods: 200-450 IPM Hardwoods: 200-400 IPM

Raw MDF & Particleboard: 200-450 IPM

**End Point: Finish Quality** 

End Point Style: Plunge Point Optimized for excellent top

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS949	1/4	7/8	1/4	2-1/2	30°
RS951	3/8	7/8	3/8	3	30°
RS953	3/8	1-1/8	3/8	3	30°
RS955	3/8	1-1/4	3/8	3	30°
RS957	1/2	1-1/4	1/2	3	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.



### 3 Flute Downcut Spiral

Fiber Reinforced Plastics

Material: Feed Rates

Fiber Reinforced Plastics: 150 IPM

**End Point: Finish Quality** 

End Point Style: End Mill Optimized for excellent top finish.

Hole **Overall Length** Part No. **Diameter Edge Length Shank Size Helix Angle** 1/4 2 RS470 1/8 1/2 30° RS471 3/16 5/8 1/4 2 30° RS472 1/4 3/4 1/4 2-1/2 30°

All measurements are in inches unless otherwise specified. Metric size tools are available.



### 4 Flute Downcut Spiral

Fiber Reinforced Plastics

**Material: Feed Rates** Fiber Reinforced Plastics: 150 IPM **End Point: Finish Quality** End Point Style: End Mill

Optimized for excellent top finish.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS473	1/8	1/2	1/4	2	30°
RS474	5/32	9/16	1/4	2	30°
RS475	3/16	5/8	1/4	2	30°
RS476	1/4	3/4	1/4	2-1/2	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.

# Compression Spiral Solid Carbide Router Bits

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#### Material: Feed Rates

Softwoods: 100-600 IPM Hardwoods: 100-600 IPM Softwood Plywood: 100-600 IPM Hardwood Plywood: 100-600 IPM Raw MDF & Particleboard: 100-500 IPM Laminated Plywood: 100-600 IPM

Laminated Particleboard: 100-600 IPM

#### **Finish Quality**

Optimized for excellent finish on top & bottom.

# 1 Flute Compression Spiral

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS500	1/8	3/8	1/4	2-1/2	30°
RS501	3/16	5/8	1/4	2-1/2	30°
RS279	1/4	7/8	1/4	2-1/2	30°
RS283	3/8	1-1/8	3/8	3	30°
RS504	1/2	1	1/2	3	30°
RS506	1/2	1-1/8	1/2	3	30°
RS286	1/2	1-3/8	1/2	3-1/2	30°
RS289	1/2	1-5/8	1/2	3-1/2	30°
RS339L	1/2	1-5/8	1/2	3-1/2	30°
RS508	5/8	2-1/4	5/8	4	30°
RS509	3/4	2	3/4	4	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.

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### Material: Feed Rates

Softwoods: 400-1200 IPM
Hardwoods: 400-1000 IPM
Softwood Plywood: 400-1200 IPM
Hardwood Plywood: 400-1000 IPM
Raw MDF & Particleboard: 400-800 IPM
Laminated Plywood: 400-1000 IPM
Laminated Particleboard & MDF: 400-1200 IPM

### Finish Quality

Optimized for excellent finish on top & bottom.

# 2 Flute Compression Spiral

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS260	1/4	7/8	1/4	2-1/2	30°
RS291	3/8	1-1/8	3/8	3	30°
RS212	3/8	1-1/4	3/8	3	30°
RS290	1/2	1	1/2	3	30°
RS293	1/2	1-1/8	1/2	3	30°
RS213	1/2	1-5/16	1/2	3	30°
RS292	1/2	1-3/8	1/2	3-1/2	30°
RS295	1/2	1-5/8	1/2	4	30°
RS298	5/8	1-5/8	5/8	4	30°
RS294	5/8	2-1/4	5/8	5	30°
RS297	3/4	1-7/8	3/4	4	30°
RS215	3/4	2	3/4	4	30°
RS270	3/4	2-1/2	3/4	5	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.

# Compression Spiral Solid Carbide Router Bits



# 2 Flute Compression Spiral High Wear

#### **Material: Feed Rates**

Raw MDF & Particleboard: 400-800 IPM Laminated Particleboard & MDF: 400-1200 IPM

#### **Finish Quality**

Optimized for excellent finish on top & bottom.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS911*	3/8	7/8	3/8	3	30°
RS915*	1/2	7/8	1/2	3	30°
RS917	1/2	1-1/4	1/2	3	30°
RS919	1/2	1-3/8	1/2	3-1/2	30°
RS921	1/2	1-5/8	1/2	3-1/2	30°

Material: Feed Rates

Softwoods: 500-1600 IPM

Hardwoods: 500-1500 IPM

Softwood Plywood: 700-1800 IPM Hardwood Plywood: 700-1600 IPM Raw MDF & Particleboard: 600-1200 IPM Laminated Plywood: 700-1600 IPM

Laminated Particleboard & MDF: 700-1800 IPM

Optimized for excellent finish on top & bottom.

**Finish Quality** 



Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS510	3/8	1-1/8	3/8	3	30°
RS511	1/2	1-1/8	1/2	3	30°
RS512	1/2	1-5/8	1/2	3-1/2	30°
RS513	3/4	2	3/4	4	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.

Optimized for excellent finish on top & bottom.

**Finish Quality** 



### Material: Feed Rates

Softwoods: 500-1600 IPM Hardwoods: 500-1500 IPM Softwood Plywood: 700-2400 IPM Hardwood Plywood: 700-2200 IPM Raw MDF & Particleboard: 600-1600 IPM Laminated Plywood: 700-2200 IPM Laminated Particleboard & MDF: 700-2400 IPM

### 4 Flute Compression Spiral

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS975	1/2	1	1/2	3	30°
RS977	1/2	1-1/8	1/2	3	30°
RS979	1/2	1-3/8	1/2	3-1/2	30°
RS981	1/2	1-5/8	1/2	4	30°
RS983	5/8	2-1/4	5/8	5	30°
RS985	3/4	1-7/8	3/4	4	30°
RS987	3/4	2-1/2	3/4	5	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.

<sup>\*</sup> indicates mortise compression bits. Metric size tools are available.

# Mortise Compression Spiral Solid Carbide Bits

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#### **Material: Feed Rates**

Softwoods: 100-600 IPM Hardwoods: 100-600 IPM Softwood Plywood: 100-600 IPM Hardwood Plywood: 100-600 IPM Raw MDF & Particleboard: 100-500 IPM Laminated Plywood: 100-600 IPM

Laminated Particleboard: 100-600 IPM

### **Finish Quality**

Optimized for excellent finish on top & bottom.

## 1 Flute Mortise Compression Spiral

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Part No.	Hole Diameter	Edge Length	Upcut Edge Length	Shank Size	Overall Length	Helix Angle
RS520	1/4	7/8	.175	1/4	2-1/2	30°
RS411	3/8	7/8	.188	3/8	3	30°
RS413	1/2	7/8	.200	1/2	3	30°
RS412L	1/2	7/8	.200	1/2	3	30°
RS521	1/2	1-5/8	.200	1/2	3-1/2	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.

### **Material: Feed Rates**

Softwoods: 400-1200 IPM
Hardwoods: 400-1000 IPM
Softwood Plywood: 400-1200 IPM
Hardwood Plywood: 400-1000 IPM
Raw MDF & Particleboard: 400-800 IPM
Laminated Plywood: 400-1000 IPM

Laminated Particleboard & MDF: 400-1200 IPM

#### **Finish Quality**

Optimized for excellent finish on top & bottom.

# 2 Flute Mortise Compression Spiral

Part No.	Hole Diameter	Edge Length	Upcut Edge Length	Shank Size	Overall Length	Helix Angle
RS414	1/4	7/8	.188	1/4	2-1/2	30°
RS522	3/8	7/8	.188	3/8	3	30°
RS415	3/8	1-1/8	.188	3/8	3	30°
RS523	1/2	7/8	.200	1/2	3	30°
RS524	1/2	1-3/8	.200	1/2	3-1/2	30°

All measurements are in inches unless otherwise specified. Metric size tools are available. L= Left-Hand Rotation. All router bits are backed by our 30 Day, Satisfaction Guarantee.



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# Mortise Compression Spiral Solid Carbide Bits



#### Material: Feed Rates

Softwoods: 500-1600 IPM Hardwoods: 500-1500 IPM Softwood Plywood: 700-1800 IPM Hardwood Plywood: 700-1600 IPM Raw MDF & Particleboard: 600-1200 IPM Laminated Plywood: 700-1600 IPM

Laminated Particleboard & MDF: 700-1800 IPM

#### **Finish Quality**

Optimized for excellent finish on top & bottom.

### 3 Flute Mortise Compression Spiral

Part No.	Hole Diameter	Edge Length	Upcut Edge Length	Shank Size	Overall Length	Helix Angle
RS525	3/8	7/8	.200	3/8	3	30°
RS526	1/2	7/8	.200	1/2	3	30°
RS527	1/2	1-3/8	.200	1/2	3-1/2	30°
RS528	3/4	2	.200	3/4	4	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.

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# 3 Flute Mortise Compression Spiral High Wear

**Material: Feed Rates** 

Raw MDF & Particleboard: 600-1200 IPM Laminated Particleboard & MDF: 700-1800 IPM

### Finish Quality

Optimized for excellent finish on top & bottom.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS913	3/8	7/8	3/8	3	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.



### Material: Feed Rates

Softwoods: 500-1600 IPM
Hardwoods: 500-1500 IPM
Softwood Plywood: 700-2400 IPM
Hardwood Plywood: 700-2200 IPM
Raw MDF & Particleboard: 600-1600 IPM
Laminated Plywood: 700-2200 IPM
Laminated Particleboard & MDF: 700-2400 IPM

### **Finish Quality**

Optimized for excellent finish on top & bottom.

### 4 Flute Mortise Compression Spiral

Part No.	Hole Diameter	Edge Length	Upcut Edge Length	Shank Size	Overall Length	Helix Angle
RS529	1/2	7/8	.200	1/2	3	30°
RS538	1/2	1-3/8	.200	1/2	3-1/2	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.

L = Left-Hand Rotation. All router bits are backed by our 30 Day, Satisfaction Guarantee.

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# Chipbreaker Finisher Solid Carbide Router Bits

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# 2 Flute Chipbreaker Finisher Upcut Spiral

Material: Feed Rates

Softwoods: 400-1500 IPM Hardwoods: 400-1200 IPM Hardwood Plywood: 400-1200 IPM Raw MDF & Particleboard: 400-1000 IPM **End Point: Finish Quality** 

End Point Style: End Mill Optimized for excellent bottom finish.

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Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS331	3/8	1-1/8	3/8	3	30°
RS332	1/2	1-1/8	1/2	3	30°
RS335	1/2	1-5/8	1/2	3-1/2	30°
RS338	1/2	2-1/8	1/2	4	30°
RS340	1/2	1-7/8	1/2	3-1/2	30°
RS341	5/8	2-1/8	5/8	4	30°
RS344	3/4	2-1/8	3/4	4	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.

Material: Feed Rates

Softwoods: 400-1500 IPM Hardwoods: 400-1200 IPM Hardwood Plywood: 400-1200 IPM Softwood Plywood: 400-1400 IPM Raw MDF & Particleboard: 400-1000 IPM **End Point: Finish Quality** 

End Point Style: End Mill Optimized for excellent bottom finish.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS959	3/8	1-1/8	3/8	3	30°
RS961	1/2	1-1/8	1/2	3	30°
RS963	1/2	1-5/8	1/2	3-1/2	30°
RS965	1/2	2-1/8	1/2	4	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.



2 Flute Chipbreaker Finisher

**Upcut Spiral** 

High Impact

# 2 Flute Chipbreaker Finisher Downcut Spiral

High Impact

#### **Material: Feed Rates**

Softwoods: 400-1500 IPM Hardwoods: 400-1200 IPM Softwood Plywood: 400-1400 IPM Hardwood Plywood: 400-1200 IPM Raw MDF & Particleboard: 400-1000 IPM

#### **End Point: Finish Quality**

End Point Style: End Mill Optimized for good top

finish.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS967A	3/8	1-1/8	3/8	3	30°
RS969	1/2	1-1/8	1/2	3	30°
RS971	1/2	1-5/8	1/2	3-1/2	30°
RS973	1/2	2-1/8	1/2	4	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.

# Chipbreaker Finisher Solid Carbide Router Bits



# 2 Flute Chipbreaker Finisher **Downcut Spiral**

#### **Material: Feed Rates**

Softwoods: 400-1500 IPM Hardwoods: 400-1200 IPM Softwood Plywood: 400-1400 IPM Hardwood Plywood: 400-1200 IPM Raw MDF & Particleboard: 400-1000 IPM

### **End Point: Finish Quality**

End Point Style: End Mill Optimized for good top finish.

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Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS346	3/8	1-1/8	3/8	3	30°
RS347	1/2	1-1/8	1/2	3	30°
RS349	1/2	1-5/8	1/2	3-1/2	30°
RS350	1/2	1-7/8	1/2	3-1/2	30°
RS353	1/2	2-1/8	1/2	4	30°
RS356	5/8	2-1/8	5/8	4	30°
RS359	3/4	2-1/8	3/4	4	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.

## **Finish Quality**

Optimized for excellent finish on top & bottom.



# 2 Flute Chipbreaker Finisher **Compression Spiral**

#### Material: Feed Rates

Softwoods: 400-1500 IPM Hardwoods: 400-1200 IPM Softwood Plywood: 400-1400 IPM Hardwood Plywood: 400-1200 IPM Raw MDF & Particleboard: 400-1000 IPM Laminated Plywood: 400-1200 IPM

Laminated Particleboard & MDF: 400-1400 IPM

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS539	3/8	7/8	3/8	3	30°
RS540	3/8	1-1/8	3/8	3	30°
RS549	1/2	1-7/8	1/2	3	30°
RS541	1/2	1	1/2	3	30°
RS542	1/2	1-1/8	1/2	3	30°
RS543	1/2	1-3/8	1/2	3-1/2	30°
RS544	1/2	1-5/8	1/2	4	30°
RS545	5/8	2-1/4	5/8	5	30°
RS546	3/4	1-7/8	3/4	4	30°

# Chipbreaker Finisher Solid Carbide Router Bits



# 3 Flute Chipbreaker Finisher **Upcut Spiral**

**Material: Feed Rates** 

Softwoods: 500-1600 IPM Hardwoods: 500-1500 IPM Softwood Plywood: 700-1800 IPM Hardwood Plywood: 700-1600 IPM

Raw MDF & Particleboard: 600-1200 IPM

**End Point: Finish Quality** 

End Point Style: End Mill Optimized for excellent bottom finish.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS361	3/8	1-1/8	3/8	3	30°
RS362	1/2	1-1/8	1/2	3	30°
RS360	1/2	1-3/8	1/2	3	30°
RS363	1/2	1-5/8	1/2	3-1/2	30°
RS364	5/8	1-5/8	5/8	4	30°
RS366	3/4	1-5/8	3/4	4	30°
RS365	3/4	2-1/4	3/4	4	30°
RS370	3/4	3-1/8	3/4	6	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.



# 3 Flute Chipbreaker Finisher **Downcut Spiral**

**Material: Feed Rates** 

Softwoods: 500-1600 IPM Hardwoods: 500-1500 IPM Softwood Plywood: 700-1800 IPM Hardwood Plywood: 700-1600 IPM Raw MDF & Particleboard: 600-1200 IPM **End Point: Finish Quality** 

End Point Style: End Mill Optimized for excellent top finish.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS367	3/8	1-1/8	3/8	3	30°
RS368	1/2	1-1/8	1/2	3	30°
RS376	1/2	1-3/8	1/2	3	30°
RS369	1/2	1-5/8	1/2	3-1/2	30°
RS372	5/8	1-5/8	5/8	4	30°
RS373	3/4	1-5/8	3/4	4	30°
RS371	3/4	2-1/4	3/4	5	30°
RS375	3/4	3	34	6	30°

# Low Helix Finisher Solid Carbide Router Bits

**Edge Length** 

3/8

7/8

5/8

1-1/8

1-1/8

1-5/8

2-1/8

1-5/8

2-1/8



## 3 Flute Low Helix Upcut Finisher

Part No.

RS760

RS761

RS762

RS268

RS261

RS271

RS766

RS263

RS768

Hole

**Diameter** 

1/4

1/4

3/8

3/8

1/2

1/2

1/2

3/4

3/4

All measurements are in inches unless otherwise specified. Metric size tools are available.

#### **Material: Feed Rates**

Softwoods: 200-600 IPM Hardwoods: 200-500 IPM Solid Surface: 100-300 IPM Hard Birttle Plastics: 300 IPM

Raw MDF & Particleboard: 200-500 IPM

**Shank Size** 

1/4

1/4

3/8

3/8

1/2

1/2

1/2

3/4

3/4

### **End Point: Finish Quality**

End Point Style: End Mill Optimized for excellent bottom finish.

Overall Length	Helix Angle
3	10°
3	10°
3	10°
3	10°
3-1/2	10°
4	10°

10°

10°

10°

# **Material: Feed Rates**

Softwoods: 200-600 IPM Hardwoods: 200-500 IPM Solid Surface: 100-300 IPM Hard Birttle Plastics: 300 IPM

Raw MDF & Particleboard: 200-500 IPM

### **End Point: Finish Quality**

End Point Style: End Mill Optimized for excellent top finish.

4-1/2

4

5



### 3 Flute Low Helix Downcut Finisher

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS770	1/4	3/8	1/4	3	10°
RS771	1/4	7/8	1/4	3	10°
RS772	3/8	5/8	3/8	3	10°
RS269	3/8	1-1/8	3/8	3	10°
RS266	1/2	1-1/8	1/2	3-1/2	10°
RS272	1/2	1-5/8	1/2	4	10°
RS776	1/2	2-1/8	1/2	4-1/2	10°
RS267	3/4	1-5/8	3/4	4	10°
RS778	3/4	2-1/8	3/4	5	10°

All measurements are in inches unless otherwise specified. Metric size tools are available.



## 3 Flute Low Helix Upcut Rougher

**Material: Feed Rates** 

Softwoods: 700-1200 IPM Hardwoods: 700-1200 IPM Softwood Plywood: 700-1500 IPM Hardwood Plywood: 700-1500 IPM Raw MDF & Particleboard: 600-1500 IPM **End Point: Finish Quality** 

End Point Style: End Mill Optimized for excellent bottom finish.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS274	3/8	1-1/8	3/8	3-1/2	10°
RS273	1/2	1-1/8	1/2	3-1/2	10°
RS277	1/2	1-5/8	1/2	4	10°
RS730	5/8	1-5/8	5/8	4	10°
RS731	5/8	2-1/8	5/8	5	10°
RS276	3/4	1-5/8	3/4	4	10°
RS732	3/4	2-1/8	3/4	5	10°
Metric Sizes					
RS733	16mm	55mm	16mm	120mm	10°

All measurements are in inches unless otherwise specified. Metric size tools are available.



# 3 Flute High Helix Upcut Rougher

**Material: Feed Rates** 

Softwoods: 700-1200 IPM Hardwoods: 700-1200 IPM Softwood Plywood: 700-1500 IPM Hardwood Plywood: 700-1500 IPM Raw MDF & Particleboard: 600-1500 IPM **End Point: Finish Quality** 

End Point Style: End Mill Optimized for excellent bottom finish.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS740	3/8	1-1/8	3/8	3-1/2	30°
RS742	1/2	1-1/8	1/2	3-1/2	30°
RS743	1/2	1-5/8	1/2	4	30°
RS744	5/8	1-5/8	5/8	4	30°
RS745	5/8	2-1/2	5/8	5	30°
RS748	3/4	1-5/8	3/4	4	30°
RS749	3/4	2-1/8	3/4	5	30°
Metric Sizes					
RS741	12mm	25mm	12mm	76mm	30°
RS746	16mm	55mm	16mm	120mm	30°
RS747	18mm	60mm	18mm	120mm	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.



#### **Material: Feed Rates**

Softwoods: 600-1000 IPM Hardwoods: 600-1000 IPM Softwood Plywood: 600-1200 IPM Hardwood Plywood: 600-1200 IPM Raw MDF & Particleboard: 500-1000 IPM

### **End Point: Finish Quality**

End Point Style: End Mill Optimized for excellent top finish.

## 3 Flute Low Helix Downcut Rougher

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS275	3/8	1-1/8	3/8	3-1/2	10°
RS281	1/2	1-1/8	1/2	3-1/2	10°
RS278	1/2	1-5/8	1/2	4	10°
RS284	5/8	1-5/8	5/8	4	10°
RS285	5/8	2-1/8	5/8	5	10°
RS282	3/4	1-5/8	3/4	4	10°
RS287	3/4	2-1/8	3/4	5	10°
Metric Sizes					
RS288	16mm	55mm	16mm	120mm	10°

All measurements are in inches unless otherwise specified. Metric size tools are available.



#### Material: Feed Rates

Softwoods: 700-1200 IPM Hardwoods: 700-1200 IPM Softwood Plywood: 700-1500 IPM Hardwood Plywood: 700-1500 IPM

Raw MDF & Particleboard: 600-1500 IPM

### **End Point: Finish Quality**

End Point Style: End Mill Optimized for excellent top finish.

# 3 Flute High Helix Downcut Rougher

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS750	3/8	1-1/8	3/8	3-1/2	30°
RS752	1/2	1-1/8	1/2	3-1/2	30°
RS753	1/2	1-5/8	1/2	4	30°
RS754	5/8	1-5/8	5/8	4	30°
RS755	5/8	2-1/8	5/8	5	30°
RS758A	3/4	1-5/8	3/4	4	30°
RS759	3/4	2-1/8	3/4	5	30°
Metric Sizes					
RS751	12mm	25mm	12mm	76mm	30°
RS756	16mm	55mm	16mm	120mm	30°
RS757	18mm	60mm	18mm	120mm	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.



3 Flute Rougher Upcut Spiral High Impact

**Material: Feed Rates** 

Softwoods: 700-1200 IPM Hardwoods: 700-1200 IPM Softwood Plywood: 700-1500 IPM Hardwood Plywood: 700-1500 IPM Raw MDF & Particleboard: 600-1500 IPM **End Point: Finish Quality** 

End Point Style: End Mill Optimized for good bottom

finish.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS925	3/8	1-1/8	3/8	3	30°
RS927	1/2	1-1/8	1/2	3	30°
RS929	1/2	1-5/8	1/2	3-1/2	30°
RS931	1/2	2-1/8	1/2	4	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.



3 Flute Rougher Downcut Spiral High Impact

**Material: Feed Rates** 

Softwoods: 700-1200 IPM

Hardwoods: 700-1200 IPM Softwood Plywood: 700-1500 IPM Hardwood Plywood: 700-1500 IPM Raw MDF & Particleboard: 600-1500 IPM **End Point: Finish Quality** 

End Point Style: Plunge Point Optimized for good top

finish.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS933	3/8	1-1/8	3/8	3	30°
RS935	1/2	1-1/8	1/2	3	30°
RS937	1/2	1-5/8	1/2	3-1/2	30°
RS939	1/2	2-1/8	1/2	4	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.



# 4 Flute Rougher/Finisher Hybrid **Upcut Spiral**

High Speed

Mate	rial:	Feed	Rates

Softwoods: 1000-1800 IPM Hardwoods: 1000-1800 IPM Softwood Plywood: 1200-3000 IPM Hardwood Plywood: 1200-2800 IPM Raw MDF & Particleboard: 1000-2000 IPM

### **End Point: Finish Quality**

End Point Style: End Mill Optimized for excellent bottom finish.

Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
1/2	1-1/8	1/2	3-1/2	30°
1/2	1-5/8	1/2	4	30°
1/2	2-1/8	1/2	4-1/2	30°
5/8	2-1/8	5/8	5	30°
3/4	2-1/8	3/4	5	30°
	1/2 1/2 1/2 1/2 5/8	Diameter         Edge Length           1/2         1-1/8           1/2         1-5/8           1/2         2-1/8           5/8         2-1/8	Diameter         Edge Length         Shank Size           1/2         1-1/8         1/2           1/2         1-5/8         1/2           1/2         2-1/8         1/2           5/8         2-1/8         5/8	Diameter         Edge Length         Shank Size         Overall Length           1/2         1-1/8         1/2         3-1/2           1/2         1-5/8         1/2         4           1/2         2-1/8         1/2         4-1/2           5/8         2-1/8         5/8         5

Rougher/Finisher Hybrid = 2 flutes with chipbreaker design (180°apart) and 2 flutes with a standard (straight) design (180°apart). All measurements are in inches unless otherwise specified. Metric size tools are available.



# 4 Flute Rougher/Finisher Hybrid **Downcut Spiral**

High Speed

#### Material: Feed Rates

Softwoods: 1000-1800 IPM Hardwoods: 1000-1800 IPM Softwood Plywood: 1200-3000 IPM Hardwood Plywood: 700-2200 IPM Raw MDF & Particleboard: 1200-2800 IPM

### **End Point: Finish Quality**

End Point Style: End Mill Optimized for excellent top finish.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS905	1/2	1-1/8	1/2	3-1/2	30°
RS906	1/2	1-5/8	1/2	4	30°
RS907	1/2	2-1/8	1/2	4-1/2	30°
RS908	5/8	2-1/8	5/8	5	30°
RS909	3/4	2-1/8	3/4	5	30°

 $Rougher/Finisher\ Hybrid=2\ flutes\ with\ chipbreaker\ design\ (180^{\circ}apart)\ and\ 2\ flutes\ with\ a\ standard\ (straight)\ design\ (180^{\circ}apart).$ 

All measurements are in inches unless otherwise specified. Metric size tools are available.



# 4 Flute Rougher/Finisher Hybrid **Compression Spiral**

High Speed

#### **Material: Feed Rates**

Softwoods: 1000-1800 IPM Hardwoods: 1000-1800 IPM Softwood Plywood: 1200-3000 IPM Hardwood Plywood: 1200-2800 IPM Raw MDF & Particleboard: 1000-2000 IPM Laminated Plywood: 1200-2800 IPM

Laminated Particleboard & MDF: 1200-3000 IPM

### **Finish Quality**

Optimized for excellent finish on top & bottom.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS989	1/2	1	1/2	3	30°
RS991	1/2	1-1/8	1/2	3	30°
RS993	1/2	1-3/8	1/2	3-1/2	30°
RS995	1/2	1-5/8	1/2	4	30°
RS997	5/8	2-1/4	5/8	5	30°
RS998	3/4	1-7/8	3/4	4	30°
RS999	3/4	2-1/2	3/4	5	30°

Rougher/Finisher Hybrid = flutes with chipbreaker design (180°apart) and 2 flutes with a standard (straight) design (180°apart).

All measurements are in inches unless otherwise specified. Metric size tools are available.

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# 1 Flute "O" Upcut Spiral Soft & Hard Plastics

**Material: Feed Rates** 

Soft Ductile Plastics: 150 IPM Hard Brittle Plastics: 150 IPM Solid Surface: 100-180 IPM **End Point: Finish Quality** 

End Point Style: Cresent Optimized for excellent bottom finish.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS715	1/16	1/4	1/8	2	21°
RS700	1/16	1/4	1/4	2	21°
RS716	1/8	1/4	1/8	2	21°
RS701	1/8	1/4	1/4	2	21°
RS717	1/8	1/2	1/8	2	21°
RS702	1/8	1/2	1/4	2	21°
RS718	3/16	3/8	3/16	2	21°
RS703	3/16	3/8	1/4	2	21°
RS719	3/16	5/8	3/16	2	21°
RS704	3/16	5/8	1/4	2	21°
RS705	1/4	3/4	1/4	2-1/2	21°
RS727	1/4	3/8	1/4	2	21°
RS706	1/4	1-1/4	1/4	3	21°
RS707	3/8	1-1/8	3/8	3	21°
N3/U/	3/8	1-1/8	3/8	ა 	21



# 1 Flute "O" Upcut Spiral

### **Material: Feed Rates**

Soft Ductile Plastics: 150 IPM Hard Brittle Plastics: 150 IPM Solid Surface: 100-180 IPM

### **End Point: Finish Quality**

End Point Style: Cresent Optimized for excellent bottom finish.

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oft and Hard Pla	stics (Metric)				
Part No.	<b>Hole Diameter</b>	Edge Length	Shank Size	Overall Length	Helix Angle
RS824	2mm	8mm	2mm	50mm	21°
RS825	2mm	8mm	6mm	64mm	21°
RS826	2.5mm	8mm	2.5mm	50mm	21°
RS827	2.5mm	8mm	6mm	64mm	21°
RS828	3mm	8mm	3mm	50mm	21°
RS829	3mm	8mm	6mm	64mm	21°
RS830	3mm	12mm	3mm	64mm	21°
RS831	3mm	12mm	6mm	64mm	21°
RS832	4mm	8mm	4mm	64mm	21°
RS833	4mm	12mm	4mm	64mm	21°
RS834	4mm	20mm	4mm	64mm	21°
RS835	4mm	20mm	6mm	64mm	21°
RS836	4mm	30mm	4mm	64mm	21°
RS837	5mm	16mm	5mm	64mm	21°
RS838	5mm	16mm	6mm	64mm	21°
RS839	5mm	30mm	5mm	64mm	21°
RS840	6mm	8mm	6mm	64mm	21°
RS841	6mm	12mm	6mm	64mm	21°
RS842	6mm	20mm	6mm	64mm	21°
RS843	6mm	30mm	6mm	76mm	21°
RS844	6mm	38mm	6mm	76mm	21°
RS845	8mm	25mm	8mm	64mm	21°
RS846	8mm	38mm	8mm	76mm	21°
RS847	10mm	30mm	10mm	76mm	21°



1 Flute "O" Upcut Spiral Hard Plastics

**Material: Feed Rates** 

Hard Brittle Plastics: 2000 IPM Solid Surface: 100-180 IPM

**End Point: Finish Quality** 

End Point Style: Cresent Optimized for excellent bottom finish.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS677	1/16	1/4	1/8	2	21°
RS690	1/16	1/4	1/4	2	21°
RS678	1/8	1/4	1/8	2	21°
RS691	1/8	1/4	1/4	2	21°
RS679	1/8	1/2	1/8	2	21°
RS692	1/8	1/2	1/4	2	21°
RS693	5/32	9/16	1/4	2	21°
RS657	3/16	3/8	3/16	2	21°
RS694	3/16	3/8	1/4	2	21°
RS695	3/16	5/8	1/4	2	21°
RS696	7/32	3/4	1/4	2-1/2	21°
RS697	1/4	3/4	1/4	2-1/2	21°
RS698	1/4	1-1/4	1/4	3	21°
RS658	1/4	3/8	1/4	2	21°
RS699	3/8	1-1/8	3/8	3	21°



## 1 Flute "O" Upcut Spiral Hard Plastics (Metric)

Material: Feed Rates

Hard Brittle Plastics: 200 IPM Solid Surface: 100-180 IPM

**End Point: Finish Quality** 

End Point Style: Cresent Optimized for excellent bottom finish.

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Part No.	Hole Diameter	<b>Edge Length</b>	Shank Size	<b>Overall Length</b>	Helix Angle
RS800	2mm	8mm	2mm	50mm	30°
RS801	2mm	8mm	6mm	64mm	30°
RS802	2.5mm	8mm	2.5mm	50mm	30°
RS803	2.5mm	8mm	6mm	64mm	30°
RS804	3mm	8mm	3mm	50mm	30°
RS822	8mm	38mm	8mm	76mm	30°
RS823	10mm	30mm	10mm	76mm	30°
RS805	3mm	8mm	6mm	64mm	30°
RS806	3mm	12mm	3mm	64mm	30°
RS807	3mm	12mm	6mm	64mm	30°
RS808	4mm	8mm	4mm	64mm	30°
RS809	4mm	12mm	4mm	64mm	30°
RS810	4mm	20mm	4mm	64mm	30°
RS811	4mm	20mm	6mm	64mm	30°
RS812	4mm	30mm	4mm	64mm	30°
RS813	5mm	16mm	5mm	64mm	30°
RS814	5mm	16mm	6mm	64mm	30°
RS815	5mm	30mm	5mm	64mm	30°
RS816	6mm	8mm	6mm	64mm	30°
RS817	6mm	12mm	6mm	64mm	30°
RS818	6mm	20mm	6mm	64mm	30°
RS819	6mm	30mm	6mm	76mm	30°
RS820	6mm	38mm	6mm	76mm	30°
RS821	8mm	25mm	8mm	64mm	30°
RS822	8mm	38mm	8mm	76mm	30°
RS823	10mm	30mm	10mm	76mm	30°



1 Flute "O" Downcut Spiral Soft and Hard Plastics

**Material: Feed Rates** 

Soft Ductile Plastics: 150 IPM Hard Brittle Plastics: 150 IPM Solid Surface: 100-180 IPM

**End Point: Finish Quality** 

End Point Style: Cresent Optimized for excellent top finish.

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Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS728	1/8	1/2	1/8	2	21°
RS710	1/8	1/2	1/4	2	21°
RS729	3/16	5/8	3/16	2	21°
RS711	3/16	5/8	1/4	2	21°
RS712	1/4	3/4	1/4	2-1/2	21°
RS713	1/4	1-1/4	1/4	3	21°
RS714	3/8	1-1/8	3/8	3	21°

All measurements are in inches unless otherwise specified. Metric size tools are available.

Hole

**Material: Feed Rates** 

Soft Ductile Plastics: 150 IPM Hard Brittle Plastics: 150 IPM Solid Surface: 100-180 IPM

**End Point: Finish Quality** 

End Point Style: Cresent Optimized for excellent top finish.

# 1 Flute "O" Downcut Spiral Soft and Hard Plastics (Metric)

Part No.	Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS848	2mm	8mm	3mm	50mm	22°
RS849	2mm	8mm	6mm	64mm	22°
RS850	2.5mm	8mm	2.5mm	50mm	22°
RS851	2.5mm	8mm	6mm	64mm	22°
RS852	3mm	8mm	3mm	50mm	22°
RS853	3mm	8mm	6mm	64mm	22°
RS854	3mm	12mm	3mm	64mm	22°
RS855	3mm	12mm	6mm	64mm	22°
RS856	4mm	8mm	4mm	64mm	22°
RS857	4mm	12mm	4mm	64mm	22°
RS858	4mm	20mm	4mm	64mm	22°
RS859	4mm	20mm	6mm	64mm	22°

All measurements are in inches unless otherwise specified. Metric size tools are available.



## 1 Flute "O" Downcut Spiral (Continued) Soft and Hard Plastics (Metric)

#### **Material: Feed Rates**

Soft Ductile Plastics: 150 IPM Hard Brittle Plastics: 150 IPM Solid Surface: 100-180 IPM

### **End Point: Finish Quality**

End Point Style: Cresent Optimized for excellent top finish.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS860	4mm	30mm	4mm	64mm	22°
RS861	5mm	16mm	5mm	64mm	22°
RS862	5mm	16mm	6mm	64mm	22°
RS863	5mm	30mm	5mm	64mm	22°
RS864	6mm	8mm	6mm	64mm	22°
RS865	6mm	12mm	6mm	64mm	22°
RS866	6mm	20mm	6mm	64mm	22°
RS867	6mm	30mm	6mm	76mm	22°
RS868	6mm	38mm	6mm	76mm	22°
RS869	8mm	25mm	8mm	64mm	22°
RS870	8mm	38mm	8mm	76mm	22°
RS871	10mm	30mm	10mm	76mm	22°

All measurements are in inches unless otherwise specified. Metric size tools are available.



## 1 Flute "O" Downcut Spiral Hard Plastics

**Material: Feed Rates** 

Hard Brittle Plastics: 200 IPM Solid Surface: 100-180 IPM

**End Point: Finish Quality** 

End Point Style: Cresent Optimized for excellent top finish.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS734	1/8	1/2	1/8	2	21°
RS720	1/8	1/2	1/4	2	21°
RS721	5/32	9/16	1/4	2	21°
RS735	3/16	5/8	3/16	2	21°
RS722	3/16	5/8	1/4	2	21°
RS723	7/32	3/4	1/4	2-1/2	21°
RS724	1/4	3/4	1/4	2-1/2	21°
RS725	1/4	1-1/4	1/4	3	21°
RS726	3/8	1-1/8	3/8	3	21°

All measurements are in inches unless otherwise specified. Metric size tools are available.

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1 Flute "O" Downcut Spiral Hard Plastics (Metric)

Material: Feed Rates

Hard Brittle Plastics: 200 IPM Solid Surface: 100-180 IP **End Point: Finish Quality** 

End Point Style: Cresent Optimized for excellent top finish.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS872	2mm	8mm	2mm	50mm	22°
RS873	2mm	8mm	6mm	64mm	22°
RS874	2.5mm	8mm	2.5mm	50mm	22°
RS875	2.5mm	8mm	6mm	64mm	22°
RS876	3mm	8mm	3mm	50mm	22°
RS877	3mm	8mm	6mm	64mm	22°
RS878	3mm	12mm	3mm	64mm	22°
RS879	3mm	12mm	6mm	64mm	22°
RS880	4mm	8mm	4mm	64mm	22°
RS881	4mm	12mm	4mm	64mm	22°
RS882	4mm	20mm	4mm	64mm	22°
RS883	4mm	20mm	6mm	64mm	22°
RS884	4mm	30mm	4mm	64mm	22°
RS885	5mm	16mm	5mm	64mm	22°
RS886	5mm	16mm	6mm	64mm	22°
RS887	5mm	30mm	5mm	64mm	22°
RS888	6mm	12mm	6mm	64mm	22°
RS889	6mm	12mm	6mm	64mm	22°
RS890	6mm	20mm	6mm	64mm	22°
RS891	6mm	30mm	6mm	76mm	22°
RS892	6mm	38mm	6mm	76mm	22°
RS893	8mm	25mm	8mm	64mm	22°
RS894	8mm	38mm	8mm	76mm	22°
RS895	10mm	30mm	10mm	76mm	22°

All measurements are in inches unless otherwise specified. Metric size tools are available.





# 1 Flute "O" Straight Cut

**Material: Feed Rates** Soft Ductile Plastics: 350 IPM Hard Brittle Plastics:300 IPM

**End Point: Finish Quality** End Point Style: Cresent

Optimized for good finish on top & bottom.

# Soft and Hard Plastics

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length
RS620	1/8	5/16	1/4	2
RS621	1/8	1/2	1/4	2
RS622L	1/8	1/2	1/4	2
RS623	1/8	5/8	1/4	4
RS641	1/8	1/2	1/8	2
RS642	1/8	5/8	1/8	3
RS643	3/16	5/8	3/16	2-1/2
RS644	1/4	1-1/4	1/4	4
RS624	5/32	9/16	1/4	2
RS625	3/16	3/8	1/4	2
RS626	3/16	5/8	1/4	2
RS627L	3/16	5/8	1/4	2
RS628	3/16	1	1/4	4
RS629	7/32	5/8	1/4	2-1/2
RS630	1/4	3/8	1/4	2-1/2
RS314	1/4	3/4	1/4	2-1/2
RS631L	1/4	3/4	1/4	2-1/2
RS632	1/4	3/4	1/4	3-1/4
RS633L	1/4	3/4	1/4	3-1/4
RS634	1/4	1	1/4	3-1/4
RS636	3/8	5/8	3/8	2-1/2
RS637	3/8	7/8	3/8	2-1/2
RS638	3/8	1-5/8	3/8	6
RS317	1/2	1	1/2	3
RS639	1/2	1-5/8	1/2	4
RS640	1/2	2-1/8	1/2	6

All measurements are in inches unless otherwise specified. Metric size tools are available.

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1 Flute "O" Straight Cut Softwoods, Soft & Hard Plastics

#### Material: Feed Rates

Softwoods: 100-300 IPM Soft Ductile Plastics: 350 IPM Hard Brittle Plastics: 300 IPM **End Point: Finish Quality** 

End Point Style: Cresent Optimized for good finish on top & bottom.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length
RS312	1/8	1/2	1/4	2
RS650	5/32	9/16	1/4	2
RS313	3/16	5/8	1/4	2
RS651	7/32	5/8	1/4	2-1/2
RS652	1/4	3/4	1/4	2-1/2
RS653	9/32	3/4	3/8	2-1/2
RS654	5/16	13/16	3/8	2-1/2
RS316	3/8	7/8	3/8	2-1/2
RS655	7/16	1	1/2	3
RS656	1/2	1	1/2	3

All measurements are in inches unless otherwise specified. Metric size tools are available.



2 Flute "O" Upcut Spiral Low Helix Soft and Hard Plastics

### **Material: Feed Rates**

Soft Ductile Plastics: 275 IPM Hard Brittle Plastics: 250 IPM Solid Surface: 150 IPM **End Point: Finish Quality** 

End Point Style: End Mill Optimized for excellent bottom finish.

Part No.	Cuttingl Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS420	1/4	3/8	1/4	2-1/2	11°
RS421	1/4	3/4	1/4	2-1/2	11°
RS422	3/8	1	3/8	3	11°
RS423	1/2	1-1/8	1/2	3-1/2	11°

All measurements are in inches unless otherwise specified. Metric size tools are available.



## 2 Flute "O" Downcut Spiral Low Helix Soft and Hard Plastics

### Material: Feed Rates

Soild Surface: 150 IPM Hard Brittle Plastics: 275 IPM Soft Ductile Plastics: 300 IPM

### **End Point: Finish Quality**

End Point Style: End Mill Optimized for excellent top finish.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS460	1/4	3/8	1/4	2-1/2	11°
RS461	1/4	3/4	1/4	2-1/2	11°
RS462	3/8	1	3/8	3	11°
RS463	1/2	1-1/8	1/2	3-1/2	11°

All measurements are in inches unless otherwise specified. Metric size tools are available.



# 2 Flute "O" Straight Cut Hard Plastics

**Material: Feed Rates** 

Hard Brittle Plastics: 250 IPM Soild Surface: 150-200 IPM Fiber Reinforced Plastics: 150 IPM **End Point: Finish Quality** 

End Point Style: End Mill Optimized for excellent finish on top & bottom.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length
RS570	1/8	1/4	1/4	2
RS571	3/16	3/8	1/4	2
RS572	3/16	5/8	1/4	2
RS573L	3/16	5/8	1/4	2
RS574	3/16	5/8	1/4	4
RS575	1/4	3/8	1/4	2-1/2
RS576	1/4	3/4	1/4	2-1/2
RS577L	1/4	3/4	1/4	2-1/2
RS578	1/4	1-1/4	1/4	4
RS579	3/8	5/8	3/8	2-1/2
RS580	3/8	7/8	3/8	2-1/2
RS581L	3/8	7/8	3/8	2-1/2
RS582	3/8	1-5/8	3/8	6
RS583	1/2	1	1/2	3
RS584L	1/2	1	1/2	3
RS585	1/2	2-1/8	1/2	6

All measurements are in inches unless otherwise specified. Metric size tools are available.



2 Flute "O" Straight Cut Soft and Hard Plastics

Material: Feed Rates

Soft Ductile Plastics: 300 IPM Hard Brittle Plastics: 275 IPM

**End Point: Finish Quality** 

End Point Style: Plung Point Optimized for excellent finish on top & bottom.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length
RS660	1/8	5/16	1/4	2
RS661	1/8	1/2	1/4	2
RS662	1/8	5/8	1/4	4
RS663	3/16	3/8	1/4	2
RS664	3/16	5/8	1/4	2
RS665	3/16	1	1/4	4
RS666	1/4	3/8	1/4	2-1/2
RS667	1/4	1	1/4	2-1/2
RS668L	1/4	1	1/4	2-1/2
RS669	1/4	1	1/4	3-1/4
RS670	1/4	1-1/4	1/4	4
RS671	3/8	7/8	3/8	2-1/2
RS672	3/8	1	3/8	4
RS673	1/2	1	1/2	3
RS674	1/2	1	1/2	4
RS675	1/2	1-3/4	1/2	4
RS676	1/2	2-1/8	1/2	6



# Straight Cut Solid Carbide Router Bits



#### **Material: Feed Rates**

Softwoods: 100-300 IPM Hardwoods: 100-250 IPM Softwood Plywood: 100-250 IPM Hardwood Plywood: 100-200 IPM Raw MDF & Particleboard: 100-250 IPM

### **End Point: Finish Quality**

End Point Style: Cresent Optimized for good finish on top & bottom.

## 1 Flute Straight Cut "V" Flute

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length
RS550	1/8	1/2	1/4	2
RS551	3/16	3/4	1/4	2
RS552	1/4	7/8	1/4	2-1/2
RS262	1/4	1	1/4	2-1/2
RS553	5/16	1-1/8	5/16	3
RS264	3/8	1-1/8	3/8	3
RS265	1/2	1-1/8	1/2	3

All measurements are in inches unless otherwise specified. Metric size tools are available.

**Hole Diameter** 

### **Material: Feed Rates**

Hard Brittle Plastics: 250 IPM Fiber Reinforced Plastics: 150 IPM

**Shank Size** 

3/8

1/2

1/2

### **End Point: Finish Quality**

End Point Style: End Mill Optimized for good finish on top & bottom.

**Overall Length** 

2-1/2

3

3

### 2 Flute Straight Cut Hard Plastics

Part No.

#### RS250 1/8 1/2 1/4 2 RS560 5/32 9/16 1/4 2 2 RS251 3/16 5/8 1/4 RS258 7/32 5/8 1/4 2-1/2 RS561 1/4 3/4 1/4 2-1/2 RS252 1/4 3/4 1/4 3-1/4 RS562 9/32 3/4 3/8 2-1/2 RS563 5/16 1-13/16 3/8 2-1/2

7/8

1

1

**Edge Length** 

All measurements are in inches unless otherwise specified. Metric size tools are available.

3/8

7/16

1/2

All router bits are backed by our 30 Day, Satisfaction Guarantee.

RS257

RS564

RS565

# Straight Cut Solid Carbide Router Bits

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В

### 2 Flute Straight Cut

### **Material: Feed Rates**

Softwoods: 200-400 IPM Hardwoods: 200-400 IPM Softwood Plywood: 200-400 IPM Hardwood Plywood: 200-400 IPM Raw MDF & Particleboard: 200-400 IPM

### **End Point: Finish Quality**

End Point Style: Plunge Point Optimized for excellent finish on top & bottom.

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Part No.	Part No. Canada	Hole Diameter	Edge Length	Shank Size	Overall Lengt
RS253	MAS811-1101	1/8	1/2	1/4	2
RS254	MAS811-1102	5/32	5/8	1/4	2
RS255	MAS811-1103	3/16	3/4	1/4	2
RS590	MAS811-1104	7/32	3/4	1/4	2-1/2
RS591	MAS811-1105	1/4	7/8	1/4	2-1/2
RS256	MAS811-1107	1/4	1	1/4	2-1/2
RS593	MAS811-1108	1/4	1-1/8	1/4	3
RS594	MAS811-1109	9/32	1	5/16	2-1/2
RS595	MAS811-1110	5/16	1-1/8	5/16	3
RS596	MAS811-1111	5/16	1-1/8	1/2	3
RS597	MAS811-1112	3/8	1-1/8	3/8	3
RS599	MAS811-1114	3/8	1-1/4	3/8	3
RS600	MAS811-1115	3/8	1-1/4	1/2	3
RS601	MAS811-1116	7/16	1	1/2	3
RS602	MAS811-1117	1/2	1-1/8	1/2	3
RS259	MAS811-1119	1/2	1-1/4	1/2	3-1/2
RS604	MAS811-1120	1/2	1-5/8	1/2	3-1/2
RS606	MAS811-1122	17/32	1-1/8	1/2	3
RS607	MAS811-1123	5/8	2-1/8	5/8	4
RS608	MAS811-1124	3/4	1-5/8	3/4	4
RS609	MAS811-1125	3/4	2-1/8	3/4	4



# Nexus Series Solid Carbide Router Bits

Brand new tool geometry and proprietary micrograin carbide place the Nexus Series on the cutting edge of CNC spiral router technology. Nexus Series router bits provide longer run times and higher feed rates for optimal edge life and outstanding performance. Standard dimensions are in stock for immediate delivery. Custom designs are available.





## **Upcut Spiral**

Designed to rout wood and wood composites where upward chip removal, long life and quality finish are desired. Use for routing wood, wood composites and plastics.

Part No.	Flutes	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
530-2A00	Two Flute	1/4	1	1/4	2-1/2	30°
530-2A01	Two Flute	1/4	7/8	1/4	2-1/2	30°
530-2A02	Two Flute	1/4	1-1/8	1/4	3	30°
530-2A03	Two Flute	3/8	1-1/8	3/8	3	30°
530-2A04	Two Flute	3/8	1-1/4	3/8	3	30°
530-2A05	Two Flute	1/2	1-1/8	1/2	3	30°
530-2A06	Two Flute	1/2	1-1/4	1/2	3-1/2	30°
530-2A07	Two Flute	1/2	1- 5/8	1/2	3-1/2	30°
530-2A08	Two Flute	1/2	2-1/8	1/2	4	30°
531-3500	Three Flute - Chipbreaker	3/4	3-1/8	3/4	6	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.



### **Downcut Spiral**

Designed to rout wood and wood composites where downward chip removal, long life and quality finish are desired. Use for routing wood, wood composites and plastics.

	••					
Part No.	Flutes	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
540-2A00	Two Flute	1/8	1/2	1/4	2	30°
540-2A01	Two Flute	1/4	7/8	1/4	2 1/2	30°
540-2A02	Two Flute	1/4	1	1/4	2 1/2	30°
540-2A03	Two Flute	1/4	1-1/8	1/4	3	30°
540-2A04	Two Flute	3/8	1-1/8	3/8	3	30°
540-2A05	Two Flute	3/8	1-1/4	3/8	3	30°
540-2A06	Two Flute	1/2	1-1/8	1/2	3	30°
540-2A07	Two Flute	1/2	1- 1/4	1/'2	3-1/2	30°
540-2A08	Two Flute	1/2	1- 5/8	1/2	3 -1/2	30°
540-2A09	Two Flute	1/2	2-1/8	1/2	4	30°
541-3500	Three Flute - Chipbreaker	3/4	2-1/4	3/4	5	30°
541-3501	Three Flute - Chipbreaker	3/4	3-1/8	3/4	6	30°
541-3502	Three Flute - Chipbreaker	3/4	1-5/8	3/4	4	30°

All measurements are in inches unless otherwise specified. Metric size tools are available. All router bits are backed by our 30 Day, Satisfaction Guarantee.

# Nexus Series Solid Carbide Router Bits

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Compression Spiral

Designed for fast feed rates and optimum edge finishes on both sides of laminated material. Use for routing double sided laminated materials, hardwoods and wood composites

Part No.	Flutes	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
551-2900	Two Flute	1/4	7/8	1/4	2-1/2	30°
551-2901	Two Flute	3/8	1-1/8	3/8	3	30°
551-2902	Two Flute	1/2	1-3/8	1/2	3-1/2	30°
551-2903	Two Flute	1/2	1- 5/8	1/2	4	30°
551-2904	Two Flute - LH	1/2	1-5/8	1/2	4	30°
551-2905	Two Flute	5/8	2-1/2	5/8	5	30°
551-2906	Two Flute	3/4	2-1/2	3/4	6	30°
551-2907	Two Flute	1/2	1-1/8	1/2	3	30°
551-3600	Three Flute	3/8	1-1/8	3/8	3	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.



Mortise Compression Spiral

Designed for fast feed rates with an excellent finish. The short upcut allows a mortise cut with downcut action. Best for mortising and routing of double sided laminates and hardwoods.

Part No.	Flutes	Hole Diameter	Edge Length	Upcut Length	Shank Size	Overall Length	Helix Angle
551-2A00	Two Flute	1/4	7/8	.200"	1/4	2-1/2	30°
551-2A01	Two Flute	3/8	7/8	.200"	3/8	3	30°
551-2A02	Two Flute	1/2	7/8	.200"	1/2	3	30°
551-2A03	Two Flute	1/2	1-3/8	.200"	1/2	3-1/2	30°
551-2A04	Two Flute-LH	1/2	1-3/8	.200"	1/2	3 -1/2	30°
551-2A05	Two Flute	3/8	1-1/4	.200"	1/2	3	30°
551-2A06	Two Flute	1/2	1-1/8	.200"	1/2	3-1/2	30°
551-3700	Three Flute	3/8	7/8	.200"	3/8	3	30°
551-3701	Three Flute	1/2	7/8	.200"	1/2	3	30°
551-3702	Three Flute	1/2	1-3/8	.200"	1/2	3-1/2	30°
551-3703	Three Flute	1/2	1-1/8	.200"	1/2	3	30°

All measurements are in inches unless otherwise specified. Metric size tools are available.



"O" Upcut Spiral

Designed to provide smooth finish in rigid plastics with upward chip removal. Best for routing hard, rigid plastics, but can be used for soft, flexible plastics as well.

Part No.	Flutes	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
530-0900	One Flute - "O"	1/8	1/2	1/4	2	21°
530-0901	One Flute - "O"	3/16	5/8	1/4	2	21°
530-0902	One Flute - "O"	1/4	3/4	1/4	2-1/2	21°
530-0903	One Flute - "O"	1/4	1-1/4	1/4	3	21°

# **Specialty Solid Carbide Router Bits**



### Diamond Burr - Fiberglass Finisher Hard Plastics

Material: Feed Rates

Fiber Reinforced Plastics: 125 IPM

**End Point** 

End Point Style: Drill End

Part Number	Hole Diameter	Edge Length	Shank Size	Overall Length
RS790	1/4	3/4	1/4	2-1/2
RS374	1/4	1	1/4	3
RS793	3/8	7/8	3/8	2-1/2
RS796	1/2	1	1/2	3

**Edge Length** 

3/4

7/8

1

All measurements are in inches unless otherwise specified. Metric size tools are available.



## 2 Flute Diamond Burr – Fiberglass Finisher **Hard Plastics**

**Material: Feed Rates** 

**Material: Feed Rates** 

Fiber Reinforced Plastics: 125 IPM

Fiber Reinforced Plastics: 125 IPM

**Shank Size** 

1/4

3/8

1/2

**End Point** 

End Point Style: Drill End

**Overall Length** 2-1/2 2-1/2

3

All measurements are in inches unless otherwise specified. Metric size tools are available.

**Hole Diameter** 

1/4

3/8

1/2



# 2 Flute Compression Finisher

**Aramid Fiber Composites** 

**Part Number** 

RS791

RS794

RS797

1					
Part Number	<b>Hole Diameter</b>	<b>Edge Length</b>	Shank Size	Overall Length	
RS792*	1/4	3/4	1/4	2-1/2	
RS795*	3/8	7/8	3/8	2-1/2	
DC700*	1/0	1	1/2	2	

All measurements are in inches unless otherwise specified. Metric size tools are available.



### Flush Trim - Laminate Trimmer

Plastic Laminates

Part Number	<b>Hole Diameter</b>	Edge Length	Shank Size	Overall Length
RS111	1/4	3/8	1/4	1-1/2

All measurements are in inches unless otherwise specified. Metric size tools are available.



### 7° Bevel – Laminate Trimmer

Plastic Laminates

Part Number	<b>Hole Diameter</b>	Edge Length	Shank Size	Overall Length
RS114	1/4	1/4	1/4	1-1/2

All measurements are in inches unless otherwise specified. Metric size tools are available.

**Finish Quality** 

End Point Style: End Mill Optimized for excellent finish on top & bottom.

Material: Feed Rates

**Material: Feed Rates** 

Fiber Reinforced Plastics: Hand Feed

Fiber Reinforced Plastics: Hand Feed