

## Nexus Series Router Bits

### Upcut Spirals



All measurements are in inches unless otherwise specified.

#### Technical Information

Nexus Series solid carbide router bits are 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°

## Two Flute "O" Upcut Low Helix

For cutting soft and hard plastics



All measurements are in inches unless otherwise specified.

### 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.	Hole 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°

## One Flute "O" Upcut Spirals (Metric) For cutting hard plastics



All measurements are in inches unless otherwise specified.

### Material: Feed Rates

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

### End Point: Finish Quality

- End Point Style: Crescent
- Optimized for excellent bottom finish

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	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°

## One Flute "O" Upcut Spirals For cutting hard plastics



All measurements are in inches unless otherwise specified.

### Material: Feed Rates

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

### End Point: Finish Quality

- End Point Style: Crescent
- 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°



## One Flute "O" Upcut Spirals (Metric)

For cutting soft and hard plastics



All measurements are in inches unless otherwise specified.

### 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: Crescent
- Optimized for excellent bottom finish

Part No.	Hole Diameter	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°

## One Flute "O" Upcut Spirals For cutting soft and hard plastics



All measurements are in inches unless otherwise specified.

### 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: Crescent
- 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°

## Nexus Series Router Bits

### Downcut Spiral



All measurements are in inches unless otherwise specified.

#### Technical Information

Nexus Series solid carbide router bits are 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°

## Two Flute "O" Downcut Low Helix For cutting soft and hard plastics



All measurements are in inches unless otherwise specified.

### Material: Feed Rates

- Solid 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°

## One Flute "O" Straight Cut

For cutting softwoods, soft and 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: Crescent
- Optimized for good top & bottom finish

All measurements are in inches unless otherwise specified.

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

# One Flute "O" Downcut Spirals (Metric)

For cutting hard plastics



All measurements are in inches unless otherwise specified.

#### Material: Feed Rates

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

#### End Point: Finish Quality

- End Point Style: Crescent
- 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°

## One Flute "O" Downcut Spirals For cutting hard plastics



### Material: Feed Rates

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

### End Point: Finish Quality

- End Point Style: Crescent
- Optimized for excellent top finish

All measurements are in inches unless otherwise specified.

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°

## One Flute "O" Downcut Spirals (Metric) For cutting soft and hard plastics



All measurements are in inches unless otherwise specified.

### 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: Crescent
- Optimized for excellent top finish

Part No.	Hole 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°
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°



## One Flute "O" Downcut Spirals

### For cutting soft and hard plastics



All measurements are in inches unless otherwise specified.

#### 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: Crescent
- Optimized for excellent top finish

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°

## Two Flute "O" Straight Cut For cutting 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 top & bottom finish

All measurements are in inches unless otherwise specified.

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

## Two Flute "O" Straight Cut For cutting soft and hard plastics



### Material: Feed Rates

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

### End Point: Finish Quality

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

All measurements are in inches unless otherwise specified.

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



Drills its own hole with the plunge point. Single flute carbide tip used for cutting. The round base contacts the surface to follow either the inside edge or a template. Use 1 flute for higher feed rates and where rough cuts are acceptable. Excellent for machining cutouts for windows, doors, etc. Rough cutout operations. Used in the R.V. and trailer manufacturing industry.

### 1 Flute 1/4" Shank with Plunge Point Pilot Router Bit

Part No.	Cutting Diameter	Cut Edge Length	Overall Length	Shank Length
RC558	1/4	3/4	2-5/8	1-1/4

### 3/8" Shank with Plunge Point Pilot Router Bit

Part No.	Cutting Diameter	Cut Edge Length	Overall Length	Shank Length
RC561	3/8	1	3-1/4	1-1/4

### 1/2" Shank with Plunge Point Pilot Router Bit

Part No.	Cutting Diameter	Cut Edge Length	Overall Length	Shank Length
RC564	1/2	1-1/4	4	1-1/4

# 1 Flute Router Bits Staggered Tooth & Point Pilot



Staggered tooth arrangement reduces cutting pressures and horsepower requirements. Free cutting. Plunge endpoint for fast entry into the material. Has the balance of a 2 flute design, maximum material removal and cutting thick hard to cut material. Use in applications when cutting material that has a tendency to labor the motor.

## 1 Flute 1/2" Shank Staggered Tooth Router Bits

Part No.	Cutting Diameter	Cut Edge Length	Overall Length	Shank Length
RC363	3/8	1-1/2	3-1/8	1-3/8
RC366	1/2	1-1/2	3-1/8	1-3/8
RC369	1/2	2-1/8	4	1-5/8

# 1 & 2 Flute Straight Cut Router Bits



1 Flute Right-Hand Bit



Finish ground on the face and outside diameter which provides a sharp cutting edge. Relief angles provide stability and strength as well as a free cutting bit. A versatile router bit excellent for various types of cuts such as dados, rabbet joints, plunge routing, mortise cuts, edging, trimming, sizing, etc. Recommended for use on pin and CNC routers. Can be used with hand routers provided a fixture, jig or template are utilized.

## 1/4" Shank

Part No.	Cutting Diameter	Cut Edge Length	Overall Length	Shank Length
RC119	1/4	3/4	2-1/4	1-1/4
RC123	1/4	1	2-1/2	1
RC126	1/4	1	3-1/8	1-3/4
RC129	9/32	3/4	2-1/4	1-1/4

## 3/8" Shank

Part No.	Cutting Diameter	Cut Edge Length	Overall Length	Shank Length
RC211	3/8	1	2-5/8	1

## 1/2" Shank

Part No.	Cutting Diameter	Cut Edge Length	Overall Length	Shank Length
RC214	3/8	1	2-5/8	1-3/8
RC215	3/8	1-1/4	2-7/8	1-3/8
RC216	1/2	1-1/4	2-7/8	1-3/8
RC219	1/2	1-1/2	3-1/8	1-3/8
RC222	1/2	2	4-1/8	1-7/8
RC225	1/2	2-1/2	4-3/8	1-7/8

## One Flute Mortise Compression



All measurements are in inches unless otherwise specified.

### 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.

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°

## One Flute Compression Router Bits



All measurements are in inches unless otherwise specified.

### Material: Feed Rates

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

### Finish Quality

- Optimized for excellent finish on top & bottom.

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°



## One Flute Upcut Router Bits



All measurements are in inches unless otherwise specified.

### 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.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS299	1/8	1/2	1/4	2	30°
RS315	3/16	3/4	1/4	2	30°
RS318	1/4	7/8	1/4	2-1/2	30°
RS319	1/4	1	1/4	2-1/2	30°
RS321	5/16	1-1/8	5/16	3	30°
RS322	3/8	1-1/8	3/8	3	30°
RS323	1/2	1-1/8	1/2	3	30°

## One Flute Upcut Router Bits For cutting 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.	Hole 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°
RS688	7/16	1	1/2	3	30°
RS689	1/2	1	1/2	3	30°

# Flush Trim Laminate Router Bits



Used on kitchen counter tops and display case goods where the edge of a laminate must be trimmed flush to the edge or top of the material. Can be used on both plastic laminates and solid wood veneers. Use the 3 flute for even better finishes and on materials that tend to chip.

## 2 Flute - Bottom Bearing

Part No.	Cutting Diameter	Cut Edge Length	Shank Diameter	Overall Length
RC719	3/8	1	1/4	2-5/8
RC723	3/8	1/2	1/4	2-1/8
RC726	1/2	1	1/4	2-11/16
RC729	1/2	1/2	1/4	2-3/16
RC735	1/2	1	1/2	3-1/4
RC738	1/2	1/2	1/2	2-3/4
RC741	1/2	1-1/2	1/2	3-5/8
RC744	1/2	2	1/2	4-1/4

Use a B1 Bearing for Router Bits RC719 to RC723

## 3 Flute - Bottom Bearing

Part No.	Cutting Diameter	Cut Edge Length	Shank Diameter	Overall Length
RC747	1/2	1	1/4	2-9/16
RC749	1/2	1/2	1/4	2-1/8
RC753	1/2	1	1/2	3-1/4
RC756	1/2	1/2	1/2	2-3/4
RC759	1/2	1-1/2	1/2	3-5/8
RC760	1/2	2	1/2	4

All router bits use a B3 Bearing

# 2 Flute Roundover & Template Router Bits



Ideal for rounding sharp corners and softening edges of furniture. Add a decorative touch by increasing the depth of cut until the shoulder produces a clean corner on the material. By changing the bearing you can convert a roundover bit to a beading bit.

## Corner Round

Part No.	Cutting Radius	Large Diameter	Shank Diameter	Carbide Height
RC612	1/16	5/8	1/4	1/2
RC613	1/8	3/4	1/4	1/2
RC614	3/16	7/8	1/4	1/2
RC615	1/4	1	1/4	1/2
RC618	5/16	1-1/8	1/4	9/16
RC621	3/8	1-1/4	1/4	5/8
RC624	1/2	1-1/2	1/4	3/4
RC625	3/16	7/8	1/2	1/2
RC627	1/4	1	1/2	13/16
RC629	5/16	1-1/8"	1/2	1/2
RC633	3/8	1-1/4	1/2	5/8
RC636	1/2	1-1/2	1/2	13/16
RC639	5/8	1-3/4	1/2	1
RC642	3/4	2	1/2	1
RC645	7/8	2-1/4	1/2	1-1/8
RC648	1	2-1/2	1/2	1-5/16
RC651	1-1/8	3	1/2	1-1/2
RC654	1-1/4	3-1/4	1/2	1-3/4
RC657	1-3/8	3-1/2	1/2	1-3/4
RC659	1-1/2	3-3/4	1/2	1-7/8

Replacement Bearings: Use a B3 Bearing for RC612 - RC648. Use a B4 Bearing for RC651 - RC659



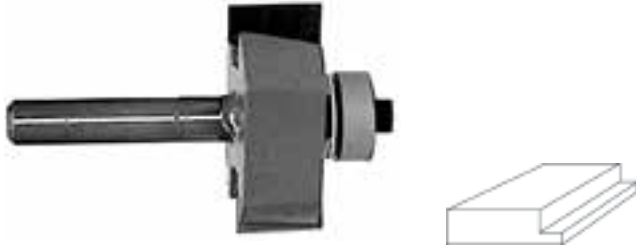
Engineered with a bearing above the cutting flutes. Designed so that a template or jig can be placed on top of the workpiece. Allows easy visibility of the workpiece. Top bearing follows the template for accurate 1:1 duplication.

## Top Bearing Template

Part No.	Cutting Diameter	Cut Edge Length	Shank Diameter	Overall Length
RC778	1/2	1/4	1/4	1-7/8
RC780	1/2	3/4	1/4	2-1/4
RC781	1/2	1	1/4	2-1/2
RC782	1-1/8	1-1/2	1/2	3-1/2

Use a B9 Bearing for Router Bits RC778 to RC782

# 2 Flute Chamfering & Rabbeting Router Bits



Change the depth by changing the bearing.

Use Bearing #B2 To produce a 7/16" Rabbet

Use Bearing #B7 To produce a 5/16" Rabbet

Use Bearing #B8 To produce a 1/4" Rabbet

Produces a "step" cut more commonly called a rabbet for joinery. Used in furniture and cabinet cuts for recessing backs, etc.

## 1/4" Shank Rabbeting

Part No.	Large Diameter	Rabbet Depth	Cut Edge Length	Shank Length
RC599	1-1/4	3/8	1/2	2-1/8

Uses a B3 Bearing

## 1/2" Shank

Part No.	Large Diameter	Rabbet Depth	Cut Edge Length	Shank Length
RC611	1-1/4	3/8	1/2	2-1/4

# 2 Flute Chamfering & Rabbeting Router Bits



Breaks the sharp corners of an edge and strengthens the corner. By adjusting the cutting height of the bit an endless variety of chamfers can be created. Use to produce decorative pieces and break the corners in timber.

## Chamfer with Bearing

Part No.	Degree of Angle	Carbide Length	Shank Diameter	Overall Length
RC711	15°	1/2	1/4	2
RC712	25°	1/2	1/4	2
RC713	45°	17/32	1/4	2-1/8
RC714	45°	17/32	1/2	2-7/16
RC715	45°	1	1/2	2-1/2

All Router Bits use a B3 Bearing

# 2 Flute Beading & Roman Ogee Router Bits



A common decorative edge used to increase the attractiveness of an edge. Popular on table tops and tables. By changing the bearing size, the bead depth can be reduced to allow for a different look of the profile.

## Roman Ogee with Bearing

Part No.	Cutting Radius	Large Diameter	Shank Diameter	Carbide Height
RC689	5/32	1-1/8	1/4	15/32
RC699	1/4	1-1/2	1/4	23/32
RC693	5/32	1-1/8	1/2	15/32
RC696	1/4	1-1/2	1/2	23/32
RC697	3/8	2	1/2	1

All Router Bits use a B3 Bearing

# 2 Flute Beading & Roman Ogee Router Bits



Provides an inset bead along the lower edge of the workpiece. By changing the cutting depth, a step can be employed on both the top and the bottom of the bead. Great for decorative cuts and adding details to workpiece edges.

## Beading with Bearing

Part No.	Cutting Radius	Large Diameter	Shank Diameter	Carbide Height
RC666	1/4	1	1/4	1/2
RC669	5/16	1-1/8	1/4	1/2
RC672	3/8	1-1/4	1/4	5/8
RC675	1/2	1-1/2	1/4	13/16
RC678	1/4	1	1/2	1/2
RC681	3/8	1-1/4	1/2	11/16
RC684	1/2	1-1/2	1/2	13/16
RC687	3/4	2	1/2	1

All Router Bits use a B2 Bearing

# 2 Flute Cove Box & Keyhole Router Bits



The bit plunge cuts a round hole into the back of the item to be mounted. Then by moving the router horizontally the large diameter cuts a hole beneath the small diameter creating a recessed (stepped) area for the screw or nail to lock into. A fast and easy method of mounting plaques, picture frames and other items flush to a wall. The use of a plunge type hand router is recommended. Can also be used with a pin or CNC router.

## 2 Flute Keyhole Router Bits

Part No.	Cutting Diameter	Cut Edge Length	Overall Length	Shank Length
RC111	3/8	3/16	1/4	1-1/2



# 2 Flute Cove Box & Keyhole Router Bits



Select radii for use in numerous applications. Balanced 2 flute design for smooth cutting and excellent finishes. Adds a decorative touch to drawer fronts, furniture and cabinet doors. Can also be used for drop-leaf construction of table tops by matching the radius with our roundover bits.

## Cove Box with Bearing

Part No.	Cutting Radius	Large Diameter	Shank Size	Cut Edge Length
RC576	3/16	7/8	1/4	1/2
RC579	1/4	1	1/4	1/2
RC582	3/8	1-1/4	1/4	9/16
RC585	1/2	1-1/2	1/4	5/8
RC588	1/4	1	1/2	1/2
RC591	3/8	1-1/4	1/2	9/16
RC594	1/2	1-1/2	1/2	5/8
RC595	5/8	1-3/4	1/2	3/4
RC596	3/4	2	1/2	7/8
RC597	1	2-1/2	1/2	1

All Cove Bits Above Use a B3 Bearing

# 2 Flute Dovetail Router Bits



Available in popular 9 and 14 degree angles as well as left hand rotations. Produces the ultimate interlocking joinery for drawer fronts, case work, etc. Can be used in hand router applications and dovetail fixtures and template guide systems. Also use in the stair manufacturing industry. Some bits are compatible for use in Inkra™, OmniJig®, and JoinTech™ Systems.

## 1/4" Shank - Right-hand

Part No.	Degree Each Side	Large Diameter	Depth of Cut	Overall Length
1RC511	9°	3/8"	3/8	2
2RC512	14°	1/2	1/2	2

## 3/8" Shank - Right-hand

Part No.	Degree Each Side	Large Diameter	Depth of Cut	Overall Length
RC513	9°	3/8	3/8	2

## 1/2" Shank - Right-hand

Part No.	Degree Each Side	Large Diameter	Depth of Cut	Overall Length
RC516	9°	3/8	3/8	2-1/2
2RC519	14°	1/2	1/2	2-1/2
1RC522	7°	5/8	7/8	2-5/8
1RC525	7°	3/4	7/8	2-5/8
3RC528	7°	7/8	7/8	2-1/2
RC531	14°	1	7/8	2-1/2

## 1/2" Shank -Left-hand

Part No.	Degree Each Side	Large Diameter	Depth of Cut	Overall Length
RC546L	9°	3/8	3/8	2
2RC549L	14°	1/2	1/2	2-1/2
3RC555L	7°	7/8	7/8	2-1/2

# 2 Flute Half Round & "V" Groove Router Bits



Carbide flutes available in popular cutting radii for various projects. Corner softening. Used to produce a half round or bullnose on material. Common uses are stair treads, furniture arms, shelves, window sills, etc.

## Bullnose Half Round

Part No.	Cutting Radius	Shank Diameter	Opening of Cutter	Shank Length
RC453	3/32	1/4	3/16	13/16
RC456	1/8	1/4	1/4	13/16
RC459	3/16	1/4	3/8	1-1/4
RC462	1/4	1/4	1/2	1-1/2
RC465	3/32	1/2	3/16	1-1/2
RC468	1/8	1/2	1/4	1-1/2
RC471	3/16	1/2	3/8	1-3/8
RC474	1/4	1/2	1/2	1-3/4
RC477	3/8	1/2	3/4	1-3/4
RC479	1/2	1/2	1	15/16
RC483	5/8	1/2	1-1/4	15/16

# 2 Flute Round Nose Router Bits



Features Extra long carbide for deep cuts. Can plunge cut for accurate positioning and stock removal. Excellent choice for sign making applications. Also used for grooving and stock removal in raised letter signs and bowls. Also used for fluting and other architectural work.

## 1/4" Shank

Part No.	Cutting Diameter	Cutting Radius	Cut Edge Length	Overall Length
RS101	1/8	1/16	1/4	2
RS102	3/16	3/32	3/8	2
RS103	1/4	1/8	1/2	2
RC426	3/8	3/16	5/16	1-15/16
RC429	1/2	1/4	5/8	2-1/4
RC432	5/8	5/16	7/16	2-1/16
RC435	3/4	3/8	1/2	2-1/8

## 1/2" Shank

Part No.	Cutting Diameter	Cutting Radius	Cut Edge Length	Overall Length
RC438	3/8	3/16	1	2-5/8
RC441	1/2	1/4	1-1/4	2-7/8
RC444	5/8	5/16	1-1/4	2-7/8
RC447	3/4	3/8	1-1/4	2-3/4
RC449	1	1/2	1-1/4	2-3/4
RC450	1-1/4	5/8	1-1/4	3
RC451	1-1/2	3/4	1-1/4	3
RC452	1-3/4	7/8	1-3/4	3
RC454	2	1	1-1/4	3

# 2 Flute Pilot Router Bits



Drills its own hole with the plunge point. Single flute carbide tip used for cutting. The round base contacts the surface to follow either the inside edge or a template. Use 2 flute for lower feed rates and where better finishes are desired. Excellent for machining cutouts for windows, doors, etc. Finish cutout operations. Used in the R.V. and trailer manufacturing industry.

## 1/4" Shank with Plunge Point

Part No.	Cutting Diameter	Cut Edge Length	Overall Length	Shank Length
RC567	3/8	1	3-1/4	1-1/4

## 3/8" Shank with Plunge Point

Part No.	Cutting Diameter	Cut Edge Length	Overall Length	Shank Length
RC569	3/8	1	3	1-1/4

## 1/2" Shank with Plunge Point

Part No.	Cutting Diameter	Cut Edge Length	Overall Length	Shank Length
RC573	1/2	1-1/4	4	1-1/4

# 2 Flute Helix Mortising Router Bits



Down-Shear



Designed with a downward shear direction to provide clean splinter free edges on the material. Carbide tipped cutter is removable from the threaded shaft. Includes both the cutter and the threaded shank. Can be use to cut both mortise and tenons using the same router bit. Produces a flat bottom cut on the material. Various cutting diameters are available to match the radius found on door hinges. The cutting action of each bit is designed to produce a smooth flat bottom cuts.

## With Down Shear - (Screw on Type)

Part No.	Cutting Diameter	Cut Edge Length	Overall Length	Shank Length
RC393	1/2	5/8	7/8	1/4-28
RC396	33/64	5/8	7/8	1/4-28
RC397	5/8	5/8	7/8	1/4-28
RC399	41/64	5/8	7/8	1/4-28
RC411	11/16	5/8	7/8	1/4-28
RC412	3/4	5/8	7/8	1/4-28
RC413	49/64	5/8	7/8	1/4-28
RC414	13/16	5/8	7/8	1/4-28
RC415	7/8	5/8	7/8	1/4-28
RC417	1	1/2	1/2	1/4-28
RC419	1-1/8	1/2	1/2	1/4-28
RC423	1-1/4	1/2	1/2	1/4-28



Replacement Arbor for the Helix Mortise Bit

## Replacement Arbor

Part No.	Arbor Diameter	Overall Length	Thread Size
RP111	1/4	1-3/4	1/4-28
RP114	3/8	1-3/4	1/4-28

A

B

C

D

E

F

G

H

I

J

K

# 2 Flute Straight Cut & Mortise Router Bits



## 1/2" Shank (continued from previous page)

Part No.	Cutting Diameter	Cut Edge Length	Overall Length	Shank Length
RC321	1	2	3-3/4	1-3/8
RC324	1-1/8	1-1/2	3	1-3/8
RC327	1-1/4	1-1/2	3	1-3/8
RC329	1-3/8	1-1/4	3	1-3/8
RC333	1-1/2	1-1/4	3	1-3/8
RC336	1-3/4	1-1/4	3	1-3/8
RC339	2	1-1/4	3	1-3/8

Carbide tipped for maximum wear. Use 2 flute router bits when you require a good final cut and finish on the material. A versatile router bit excellent for various types of cuts such as dados, rabbets, plunge routing, mortise cuts, edging, trimming, sizing, etc. Recommended for natural woods, plastics, man-made material and aluminum.

## 3/4" Shank

Part No.	Cutting Diameter	Cut Edge Length	Overall Length	Shank Length
RC345	3/4	1-1/4	3	1-1/2
RC348	3/4	1-1/2	3-1/4	1-1/2
RC351	3/4	2	4	1-3/4
RC354	3/4	2-1/2	4-1/2	2-1/4

# 2 Flute Straight Cut Router Bits



A versatile router bit excellent for various types of cuts such as dados, rabbets, plunge routing, mortise cuts, edging, trimming, sizing, etc. Use 2 flute router bits when you require a good final cut and finish on the material. When using hand routers it is recommended that you use a template or a guide system to provide accurate cuts. Can also be used on pin and CNC routers. Use the smallest cutting edge length to reduce vibration and the susceptibility to router bit breakage.

## 1/4" Shank

Part No.	Cutting Diameter	Cut Edge Length	Overall Length	Shank Length
RC135	1/4	1/2	2	1-1/4
RC141	1/4	3/4	2-1/4	1-1/4
RC144	1/4	1	2-1/2	1-1/4
RC147L	1/4	1	2-1/2	1-1/4
RC149	1/4	1	3	1-3/4
RC151*	1/4	1	3-1/4	2-1/4
RC153	9/32	1	3	7/8
RC156	5/16	1	2-1/2	1-1/4
RC159	3/8	3/4	2-1/4	1-1/4
RC162	3/8	1	2-1/2	1-1/4
RC165	3/8	1-1/4	2-3/4	1-1/4
RC168	7/16	1	2-1/2	1-1/4
RC171	1/2	3/4	2-1/4	1-1/4
RC174	1/2	1	2-1/2	1-1/4
RC177	9/16	3/4	2-1/4	1
RC179	5/8	3/4	2-1/8	1
RC183	11/16	3/4	2-1/8	1-1/4
RC186	3/4	3/4	2-1/8	1
RC189	1	3/4	2-1/8	1-1/4

\* Widely Used on Air Routers

## 3/8" Shank

Part No.	Cutting Diameter	Cut Edge Length	Overall Length	Shank Length
RC212	3/8	1	2-5/8	1-3/8
RC213	3/8	1-1/4	3-5/8	2



# 1 & 2 Flute Straight Cut Router Bits



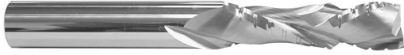
2 Flute Left-Hand Bit



## 3/4" Shank Left-hand

Part No.	Cutting Diameter	Cut Edge Length	Overall Length	Shank Length
RC357L	3/4	2	5	3
RC359L	3/4	2-1/2	5-1/2	3

## Two Flute Chipbreaker Router Bits Finisher Compression Spirals



All measurements are in inches unless otherwise specified.

### Material: Feed Rates

- Softwoods: 400-1500 IPM
- Hardwoods: 400-1200 IPM
- Softwood Plywood: 400-1400 IPM
- Hardwood Plywood: 400-1200 IPM

- Laminated Plywood: 400-1200 IPM
- Raw MDF & Particleboard: 400-1000 IPM
- Laminated Particleboard & MDF: 400-1400 IPM

### Finish Quality

- Optimized for excellent top finish

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°

# Two Flute Chipbreaker Router Bits Finisher Downcut Spirals - High Impact

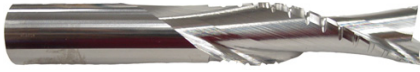


All measurements are in inches unless otherwise specified.

<b>Material: Feed Rates</b> <ul style="list-style-type: none"> <li>Softwoods: 400-1500 IPM</li> <li>Hardwoods: 400-1200 IPM</li> <li>Softwood Plywood: 400-1400 IPM</li> <li>Hardwood Plywood: 400-1200 IPM</li> <li>Raw MDF &amp; Particleboard: 400-1000 IPM</li> </ul>	<b>End Point: Finish Quality</b> <ul style="list-style-type: none"> <li>End Point Style: End Mill</li> <li>Optimized for good top finish</li> </ul>
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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°

## Two Flute Chipbreaker Router Bits Finisher Downcut Spirals



All measurements are in inches unless otherwise specified.

### 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
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°

## Two Flute Chipbreaker Router Bits Finisher Upcut Spirals - High Impact



All measurements are in inches unless otherwise specified.

### 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°

## Two Flute Chipbreaker Router Bits Finisher Upcut Spirals



All measurements are in inches unless otherwise specified.

### 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

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°

## Two Flute Compression Router Bits For Standard Cutting



All measurements are in inches unless otherwise specified.

### Material: Feed Rates

- Softwoods: 400-1200 IPM
- Hardwoods: 400-1000 IPM
- Softwood Plywood: 400-1200 IPM
- Hardwood Plywood: 400-1000 IPM

- Laminated Plywood: 400-1000 IPM
- 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
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°

## Two Flute Compression Router Bits For High Wear Cutting

### 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°

## Two Flute Upcut Router Bits

For cutting 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.

All measurements are in inches unless otherwise specified.

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS780	1/8	1/2	1/4	2	30°
RS781	5/32	9/16	1/4	2	30°
RS782	3/16	5/8	1/4	2	30°
RS783L	3/16	5/8	1/4	2	30°
RS784	7/32	5/8	1/4	2-1/2	30°
RS383	1/4	3/4	1/4	2-1/2	30°
RS788L	1/4	3/4	1/4	2-1/2	30°
RS785	9/32	3/4	3/8	2-1/2	30°
RS786	5/16	13/16	3/8	2-1/2	30°
RS386	3/8	7/8	3/8	2-1/2	30°
RS787	7/16	1	1/2	3	30°
RS389	1/2	1	1/2	3	30°



## Two Flute Upcut Router Bits

For high impact cutting



**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.

All measurements are in inches unless otherwise specified.

Part No.	Hole Diameter	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°

## Two Flute Upcut Router Bits



All measurements are in inches unless otherwise specified.

### 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
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°
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°

### 3 Flute Rougher Downcut Spiral



#### High impact

All measurements are in inches unless otherwise specified.

#### 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°

## 3 Flute High Helix Downcut Rougher



All measurements are in inches unless otherwise specified.

### 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

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°
<b>Metric Sizes</b>					
RS751	12mm	25mm	12mm	76mm	30°
RS756	16mm	55mm	16mm	120mm	30°
RS757	18mm	60mm	18mm	120mm	30°

### 3 Flute Low Helix Downcut Rougher



All measurements are in inches unless otherwise specified.

#### 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

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°
<b>Metric Sizes</b>					
RS288	16mm	55mm	16mm	120mm	10°

### 3 Flute Rougher Upcut Spiral



#### High impact

All measurements are in inches unless otherwise specified.

#### 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°

## 3 Flute Low Helix Upcut Rougher



All measurements are in inches unless otherwise specified.

### 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°
<b>Metric Sizes</b>					
RS733	16mm	55mm	16mm	120mm	10°

## 3 Flute High Helix Upcut Rougher



All measurements are in inches unless otherwise specified.

### 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°
<b>Metric Sizes</b>					
RS741	12mm	25mm	12mm	76mm	30°
RS746	16mm	55mm	16mm	120mm	30°
RS747	18mm	60mm	18mm	120mm	30°



## Three Flute Chipbreaker Router Bits Finisher Downcut Spirals



All measurements are in inches unless otherwise specified.

### 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
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	3/4	6	30°

## Three Flute Chipbreaker Router Bits Finisher Upcut Spirals



All measurements are in inches unless otherwise specified.

### 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°

## Three Flute Mortise Compression



All measurements are in inches unless otherwise specified.

### Material: Feed Rates

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

- Laminated Plywood: 700-1600 IPM
- 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	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°

## Three Flute Mortise Compression For Cutting High Wear Materials

### 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°

## Three Flute Downcut Router Bits Low Helix Finisher Spirals



All measurements are in inches unless otherwise specified.

### Material: Feed Rates

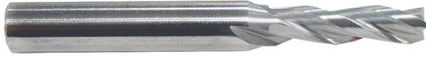
- Softwoods: 200-600 IPM
- Hardwoods: 200-500 IPM
- Solid Surface: 100-300 IPM
- Hard Birttle Plastics: 300 IPM
- Raw MDF & Particleboard: 200-500 IPM

### End Point: Finish Quality

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

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°

# Three Flute Downcut Router Bits



<b>Material: Feed Rates</b> <ul style="list-style-type: none"> <li>Fiber Reinforced Plastics: 150 IPM</li> </ul>	<b>End Point: Finish Quality</b> <ul style="list-style-type: none"> <li>End Point Style: End Mill</li> <li>Optimized for excellent top finish</li> </ul>
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All measurements are in inches unless otherwise specified.

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

# Three Flute Compression Router Bits



All measurements are in inches unless otherwise specified.

<p><b>Material: Feed Rates</b></p> <ul style="list-style-type: none"> <li>• Softwoods: 500-1600 IPM</li> <li>• Hardwoods: 500-1500 IPM</li> <li>• Softwood Plywood: 700-1800 IPM</li> <li>• Hardwood Plywood: 700-1600 IPM</li> </ul> <p><b>Finish Quality</b></p> <ul style="list-style-type: none"> <li>• Optimized for excellent finish on top &amp; bottom.</li> </ul>	<ul style="list-style-type: none"> <li>• Laminated Plywood: 700-1600 IPM</li> <li>• Raw MDF &amp; Particleboard: 600-1200 IPM</li> <li>• Laminated Particleboard &amp; MDF: 700-1800 IPM</li> </ul>
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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°

## Three Flute Upcut Router Bits

### Low Helix Finisher Spirals



All measurements are in inches unless otherwise specified.

#### 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 bottom finish

Part No.	Hole Diameter	Edge Length	Shank Size	Overall Length	Helix Angle
RS760	1/4	3/8	1/4	3	10°
RS761	1/4	7/8	1/4	3	10°
RS762	3/8	5/8	3/8	3	10°
RS268	3/8	1-1/8	3/8	3	10°
RS261	1/2	1-1/8	1/2	3-1/2	10°
RS271	1/2	1-5/8	1/2	4	10°
RS766	1/2	2-1/8	1/2	4-1/2	10°
RS263	3/4	1-5/8	3/4	4	10°
RS768	3/4	2-1/8	3/4	5	10°

## Three Flute Upcut Router Bits

For cutting fiber reinforced plastics



All measurements are in inches unless otherwise specified.

### 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°

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## Four Flute Hybrid Router Bits Rougher/Finisher Compression Spirals



All measurements are in inches unless otherwise specified.

### Material: Feed Rates

- Softwoods: 1000-1800 IPM
- Hardwoods: 1000-1800 IPM
- Softwood Plywood: 1200-3000 IPM
- Hardwood Plywood: 1200-2800 IPM

- Laminated Plywood: 1200-2800 IPM
- Raw MDF & Particleboard: 1000-2000 IPM
- Laminated Particleboard & MDF: 1200-3000 IPM

### Finish Quality

- Optimized for excellent top & bottom finish

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).

## Four Flute Hybrid Router Bits Rougher/Finisher Downcut Spirals



All measurements are in inches unless otherwise specified.

### 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 = flutes with chipbreaker design (180°apart) and 2 flutes with a standard (straight) design (180°apart).

## Four Flute Hybrid Router Bits

### Rougher/Finisher Upcut Spirals



All measurements are in inches unless otherwise specified.

#### 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

#### 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
RS900	1/2	1-1/8	1/2	3-1/2	30°
RS901	1/2	1-5/8	1/2	4	30°
RS902	1/2	2-1/8	1/2	4-1/2	30°
RS903	5/8	2-1/8	5/8	5	30°
RS904	3/4	2-1/8	3/4	5	30°

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

# Four Flute Mortise Compression



All measurements are in inches unless otherwise specified.

**Material: Feed Rates**

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

**Finish Quality**

- Optimized for excellent finish on top & bottom.

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°

# Four Flute Downcut Router Bits



<b>Material: Feed Rates</b> <ul style="list-style-type: none"> <li>• Fiber Reinforced Plastics: 150 IPM</li> </ul>	<b>End Point: Finish Quality</b> <ul style="list-style-type: none"> <li>• End Point Style: End Mill</li> <li>• Optimized for excellent top finish</li> </ul>
--	--

All measurements are in inches unless otherwise specified.

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°

## Four Flute Compression Router Bits



All measurements are in inches unless otherwise specified.

### Material: Feed Rates

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

### Finish Quality

- Optimized for excellent finish on top & bottom.

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°

# Four Flute Upcut Router Bits

## For cutting fiber reinforced plastics



All measurements are in inches unless otherwise specified.

**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
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°

# Dedicated Insert Router Bits

## Applications

- Designed for use on C.N.C. router machines.
- Can also be used on stationary overhead routers.
- Use with mechanical feed operations.
- CNC router must have excellent hold downs to ensure the least possibility of part movement.
- To profile edges on decorative panels, doors, frames, etc.

- Requires no backing plates or clamping wedges.
- Insert is mechanically fastened by the use of face mounted screws.
- Insert router bit is manufactured in right-hand rotation.
- Maximum RPM for 45mm dia. = 18,000, 55/65mm dia. = 12,000

## Technical Information

- Shank style cutter body design uses non-turnable profiled carbide inserts.
- Cutter body is profiled to match the carbide insert.

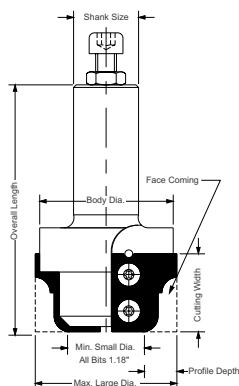
## Advantages

- Reduced set-up time because of fewer parts and a constant cutting circle.
- Extended tool life over brazed tooling due to insert

Part No.	Max. Cutting Width		Shank Size and Dimensions		Max. Large Diameter		Body Diameter		Uses Insert No.
	mm	in.	Dia.	Length	mm	in.	mm	in.	
ND111	30	1.18"	1/2"	1.57"	45	1.77"	42	1.65"	6711 / 6741
ND114	30	1.18"	3/4"	2.17"	45	1.77"	42	1.65"	6711 / 6741
ND114	30	1.18"	3/4"	2.17"	55	2.17"	52	2.05"	6714 / 6744
ND114	30	1.18"	3/4"	2.17"	65	2.56"	52	2.05"	6717 / 6747
ND117	40	1.57"	1/2"	1.57"	45	1.77"	42	1.65"	6719 / 6749
ND119	40	1.57"	3/4"	2.17"	45	1.77"	42	1.65"	6719 / 6749
ND119	40	1.57"	3/4"	2.17"	55	2.17"	52	2.05"	6723 / 6753
ND119	40	1.57"	3/4"	2.17"	65	2.56"	52	2.05"	6726 / 6756
ND123	50	1.97"	1/2"	1.57"	45	1.77"	42	1.65"	6729 / 6759
ND126	50	1.97"	3/4"	2.17"	45	1.77"	42	1.65"	6729 / 6759
ND126	50	1.97"	3/4"	2.17"	55	2.17"	52	2.05"	6732 / 6762
ND126	50	1.97"	3/4"	2.17"	65	2.56"	52	2.05"	6735 / 6765

## Spare Parts

Part No.	Description
NP123	Torx Screw M4x5.9 large head T15
NP126	Torx Wrench T15





# Dedicated Insert Router Bits

## Applications

- Designed for use on C.N.C. router machines.
- Can also be used on stationary overhead routers.
- Use with mechanical feed operations.
- CNC router must have excellent hold downs to ensure the least possibility of part movement.
- To profile edges on decorative panels, doors, frames, etc.

- Insert is mechanically fastened by the use of back mounted screws.
- Mèche à plaquette fabriquée pour une rotation vers la droite.
- Maximum RPM for 34mm dia. = 18,000, 44/54mm dia. = 12,000
- Ramp plunging is possible with this tool.

## Technical Information

- Shank style cutter body design uses non-turnable profiled carbide inserts.
- Cutter body is profiled to match the carbide insert.
- Requires no backing plates or clamping wedges.

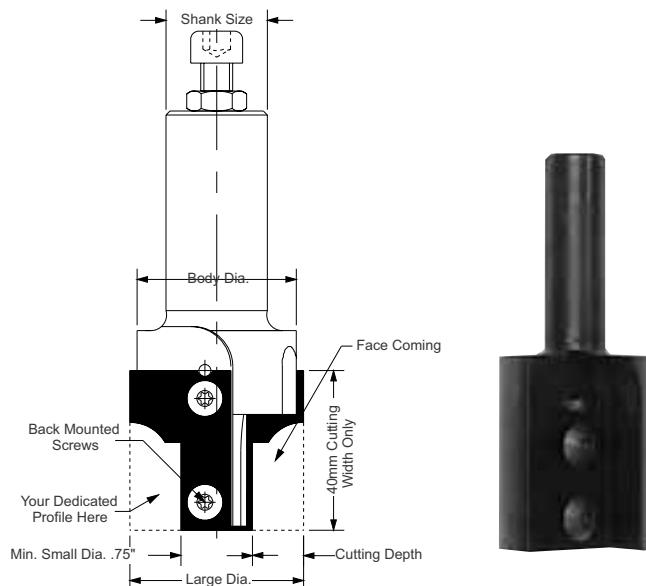
## Advantages

- Reduced set-up time because of fewer parts and a constant cutting circle.
- Extended tool life over brazed tooling due to insert accuracy and superior carbide grades.

Part No.	Max. Cutting Width		Max. Profile Cutting Depth		Shank Size Inches	Min. Small Diameter		Max. Large Diameter		Body Diameter		Uses Insert No.
	mm	in.	mm	in.		mm	in.	mm	in.	mm	in.	
ND129	30	1.18"	7	.28"	1/2"	19	.75"	34	1.34"	28	1.10"	6711/6741
ND132	30	1.18"	7	.28"	3/4"	19	.75"	34	1.34"	28	1.10"	6711/6741

## Spare Parts

Part No.	Description
NP123	Torx Screw M4x5.9 large head T15
NP126	Torx Wrench T15



# Dedicated Insert Router Bits

## Applications

- Designed for use on C.N.C. router machines.
- Can also be used on stationary overhead routers.
- Use with mechanical feed operations.
- CNC router must have excellent hold downs to ensure the least possibility of part movement.
- To profile edges on decorative panels, doors, frames, etc.

- Insert is mechanically fastened by the use of 3 back mounted screws for additional protection.
- Insert router bit is manufactured in right-hand rotation.
- Maximum RPM for 34mm dia. = 18,000, 44/54mm dia. = 12,000
- Ramp plunging is possible with this tool.

## Technical Information

- Shank style cutter body design uses non-turnable profiled carbide inserts.
- Cutter body is profiled to match the carbide insert.
- Requires no backing plates or clamping wedges.

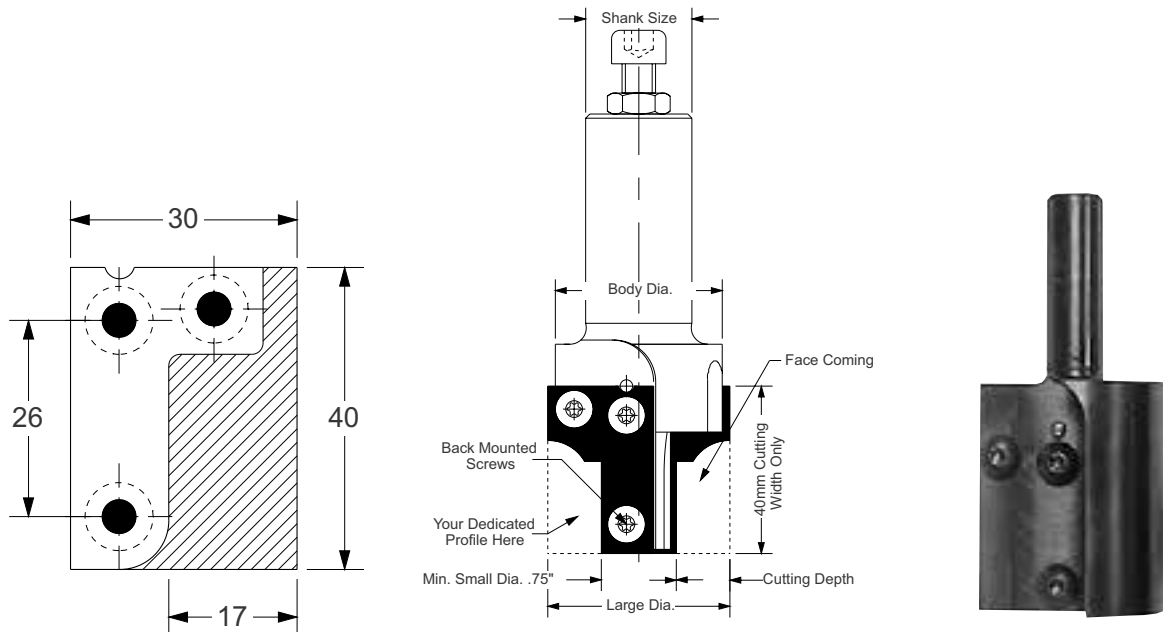
## Advantages

- Reduced set-up time because of fewer parts and a constant cutting circle.
- Extended tool life over brazed tooling due to insert accuracy and superior carbide grades.

Part No.	Max. Cutting Width		Max. Profile Cutting Depth		Shank Size Inches	Min. Small Diameter		Max. Large Diameter		Body Diameter		Uses Insert No.
	mm	in.	mm	in.		mm	in.	mm	in.	mm	in.	
ND135	40	1.58"	17	.67"	1/2"	19	.75"	54	2.13"	41	1.61"	6728/6758
ND138	40	1.58"	17	.67"	3/4"	19	.75"	54	2.13"	41	1.61"	6728/6758

## Spare Parts

Part No.	Description
NP123	Torx Screw M4x5.9 large head T15
NP126	Torx Wrench T15



# Dedicated Insert Router Bits

## Applications

- Designed for use on C.N.C. router machines.
- Can also be used on stationary overhead routers.
- Use with mechanical feed operations.
- CNC router must have excellent hold downs to ensure the least possibility of part movement.
- To profile edges on decorative panels, doors, frames, etc.

- Requires no backing plates or clamping wedges.
- Insert is mechanically fastened by the use of back mounted screws.
- Insert router bit is manufactured in right-hand rotation.
- Maximum RPM 18,000
- Ramp plunging is possible with this tool.

## Technical Information

- Shank style cutter body design uses non-turnable profiled carbide inserts.
- Cutter body is profiled to match the carbide insert.

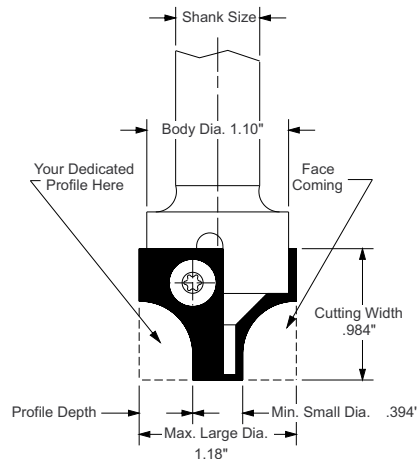
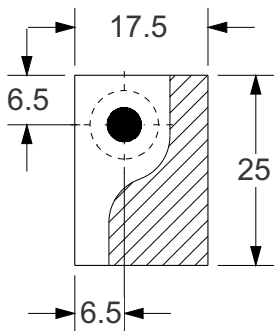
## Advantages

- Reduced set-up time because of fewer parts and a constant cutting circle.
- Extended tool life over brazed tooling due to insert accuracy and superior carbide grades.

Part No.	Max. Cutting Width		Max. Profile Cutting Depth		Shank Size Inches	Min. Small Diameter		Max. Large Diameter		Body Diameter		Uses Insert No.
	mm	in.	mm	in		mm	in.	mm	in.	mm	in.	
ND141	25	.98"	See Drawing		1/2"	10	.39"	30	1.18"	28	1.10"	6738
ND144	25	.98"	See Drawing		3/4"	10	.39"	30	1.18"	28	1.10"	6738

## Spare Parts

Part No.	Description
NP123	Torx Screw M4x5.9 large head T15
NP126	Torx Wrench T15



# Dedicated Insert Router Bits

## Applications

- Designed for use on C.N.C. router machines.
- Can also be used on stationary overhead routers.
- Use with mechanical feed operations.
- CNC router must have excellent hold downs to ensure the least possibility of part movement.
- To profile edges on decorative panels, doors, frames, etc.

- Requires no backing plates or clamping wedges.
- Insert is mechanically fastened by the use of back mounted screws.
- Insert router bit is manufactured in right-hand rotation.
- Maximum RPM 12,000

## Technical Information

- Shank style cutter body design uses non-turnable profiled carbide inserts.
- Cutter body is profiled to match the carbide insert.

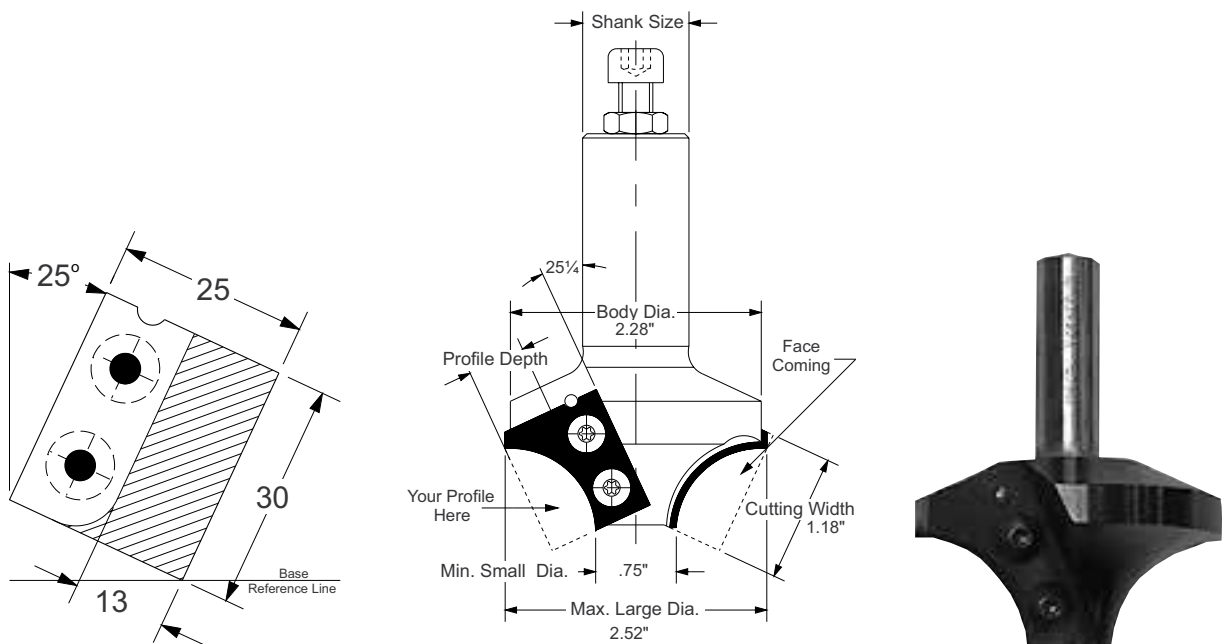
## Advantages

- Reduced set-up time because of fewer parts and a constant cutting circle.
- Extended tool life over brazed tooling due to insert accuracy and superior carbide grades.

Part No.	Max. Cutting Width		Max. Profile Cutting Depth		Shank Size Inches	Min. Small Diameter		Max. Large Diameter		Body Diameter		Uses Insert No.
	mm	in.	mm	in.		mm	in.	mm	in.	mm	in.	
ND147	30	1.18"	See Drawing		1/2"	19	.75"	64	2.52"	58	2.28"	6714/6744
ND149	30	1.18"	See Drawing		3/4"	19	.75"	64	2.52"	58	2.28"	6714/6744

## Spare Parts

Part No.	Description
NP123	Torx Screw M4x5.9 large head T15
NP126	Torx Wrench T15



# Dedicated Insert Router Bits

## Applications

- Designed for use on C.N.C. router machines.
- Can also be used on stationary overhead routers.
- Use with mechanical feed operations.
- CNC router must have excellent hold downs to ensure the least possibility of part movement.
- To profile edges on decorative panels, doors, frames, etc.

## Technical Information

- Shank style cutter body design uses non-turnable profiled carbide inserts.
- Cutter body is profiled to match the carbide insert.

- Requires no backing plates or clamping wedges.
- Insert is mechanically fastened by the use of back mounted screws.
- Insert router bit is manufactured in right-hand rotation.
- Maximum RPM 12,000

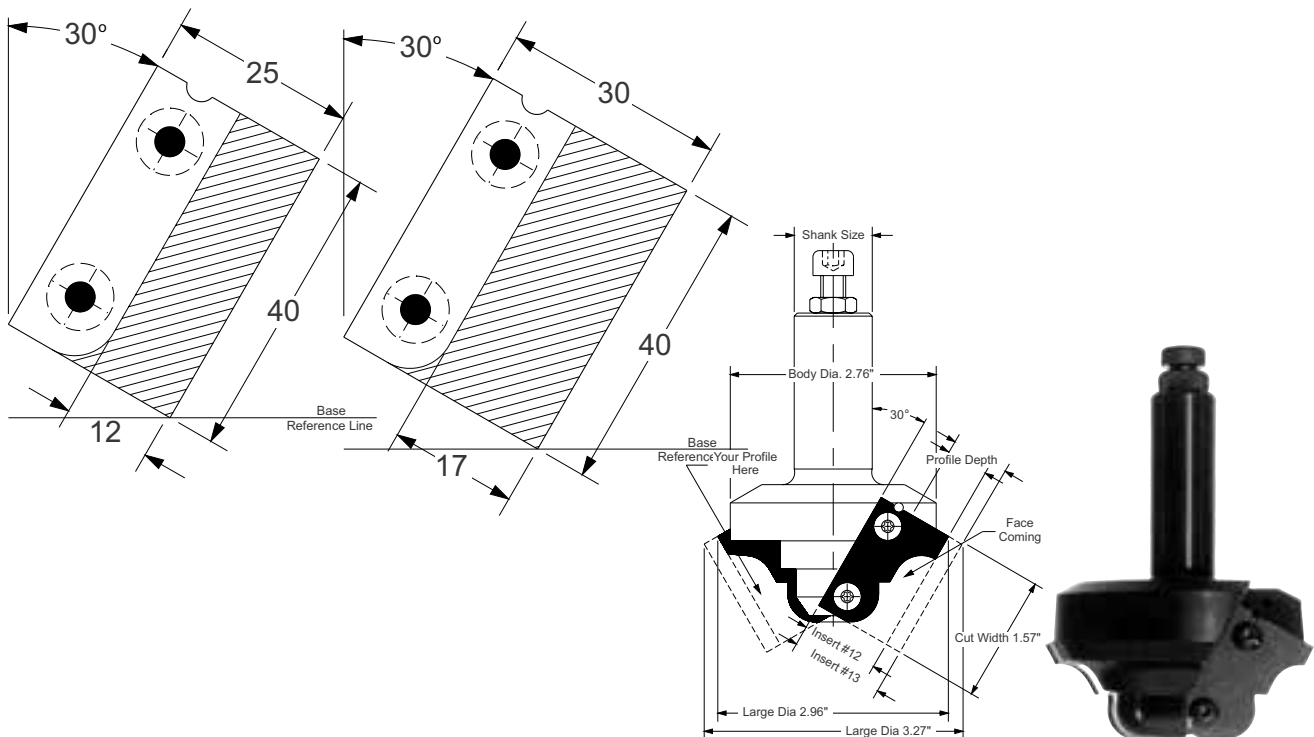
## Advantages

- Reduced set-up time because of fewer parts and a constant cutting circle.
- Extended tool life over brazed tooling due to insert accuracy and superior carbide grades.

Part No.	Max. Cutting Width		Max. Profile Cutting Depth		Shank Size	Max. Large Diameter		Body Diameter		Uses Insert No.
	mm	in.	mm	in.		mm	in.	mm	in.	
ND153	40	1.57"	See Drawing		3/4"	74	2.91"	70	2.76"	6723 / 6753
ND153	40	1.57"	See Drawing		3/4"	83	3.27"	70	2.76"	6726 / 6756

## Spare Parts

Part No.	Description
NP123	Torx Screw M4x5.9 large head T15
NP126	Torx Wrench T15



# Dedicated Insert Router Bits

## Applications

- Designed for use on C.N.C. router machines.
- Can also be used on stationary overhead routers.
- Use with mechanical feed operations.
- CNC router must have excellent hold downs to ensure the least possibility of part movement.
- To profile edges on decorative panels, doors, frames, etc.

- Insert is mechanically fastened by the use of back mounted screws.
- Insert router bit is manufactured in right-hand rotation with a combination up-shear/down-shear configuration which eliminates tearout on larger profiles.
- Maximum RPM 12,000

## Technical Information

- Shank style cutter body design of high alloy steel uses 2+2 non-turnable profiled carbide inserts.
- Cutter body is profiled to match the carbide insert.
- Requires no backing plates or clamping wedges.

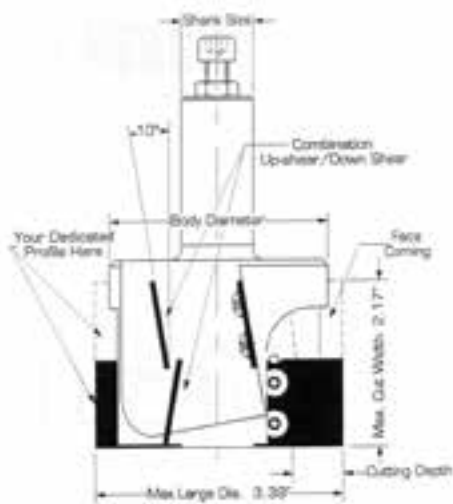
## Advantages

- Reduced set-up time because of fewer parts and a constant cutting circle.
- Extended tool life over brazed tooling due to insert accuracy and superior carbide grades.

Part No.	Max. Cutting Width		Max. Profile Cutting Depth		Shank Size	Max. Large Diameter		Body Diameter		Uses Insert No.
	mm	in.	mm	in.		mm	in.	mm	in.	
ND156	55	2.17"	See Drawing		3/4"	86	3.39"	75	2.95"	6717 / 6747

## Spare Parts

Part No.	Description
NP123	Torx Screw M4x5.9 large head T15
NP126	Torx Wrench T15



# Dedicated Insert Router Bits

## Applications

- Designed for use on C.N.C. router machines.
- Can also be used on stationary overhead routers.
- Use with mechanical and hand feed operations.
- CNC router must have excellent hold downs to ensure the least possibility of part movement.
- Use for machining operations such as jointing, rabbeting, beveling and chamfering in both natural and man-made material.

## Technical Information

- Shank style cutter body design made from high tensile steel and tempered for long life and wear resistance.

- Swivel range from top 0°-45°, bottom 0°-90°.
- Small indexable standard carbide inserts are easily removed with the use of the wrench provided
- 2 inserts on the cutting edge.
- Accuracy maintained even when changing the inserts.
- Maximum RPM 9,400 - 12,000

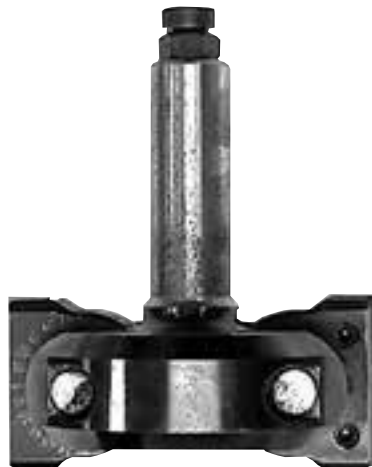
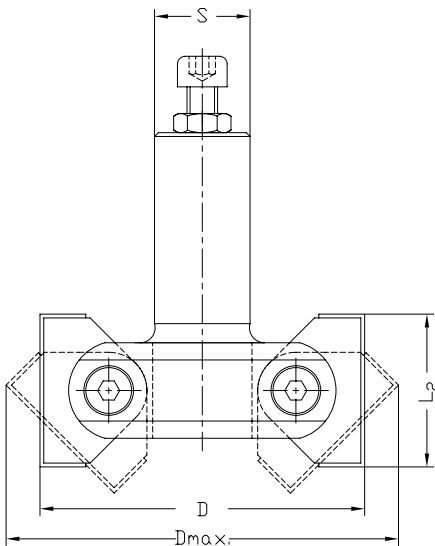
## Advantages

- Extended tool life over brazed tooling due to insert accuracy and superior carbide grades.
- Reduced sharpening costs due to small cost of inserts over standard brazed router bits.

Part No.	Cutting Edge Diameter		Cutting Edge Length		Shank Size In.	Overall Length mm	No. of Flutes	No. of Inserts Required	Uses Insert No.
	in.	mm	mm	in.					
ND237	4.02" mx	40	40	1.57"	3/4"	92	2	2	TJ123

## Spare Parts

Part No.	Description
NP244	Clamping Screw M5x16 Din 912
	Allen Screw M6x8
TJ123	40x12x1.5 Page TCI1-1
NP119	Wrench "T" handle SW4
NP197	Wrench "T" handle SW3
NP132	Allen Wrench SW3



# Dedicated Insert Router Bits

## Applications

- Designed for use on C.N.C. router machines.
- Can also be used on stationary overhead routers.
- Use with mechanical feed operations.
- CNC router must have excellent hold downs to ensure the least possibility of part movement.
- To shape raised panels used in door applications.

## Technical Information

- Shank style cutter body design uses 2 non-turnable profiled carbide inserts.
- Cutter body is profiled to match the carbide insert.

- Requires no backing plates or clamping wedges.
- Insert is mechanically fastened by the use of face mounted screws.
- Optional center router bit can be used to machine the edges of the panel.
- Maximum RPM 12,000

## Advantages

- Reduced set-up time because of fewer parts and a constant cutting circle.
- Extended tool life over brazed tooling due to insert accuracy and superior carbide grades.

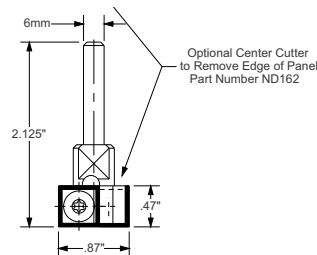
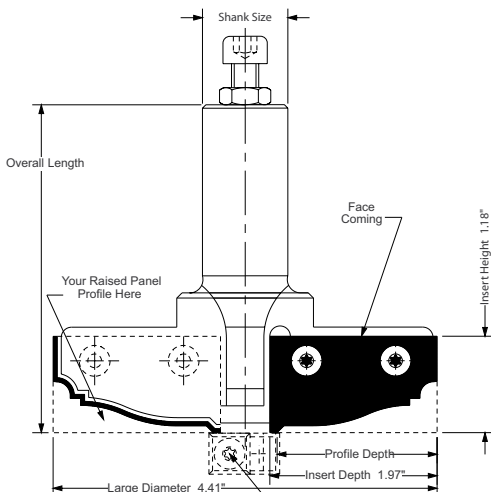
Part No.	Profile Cut Width		Cutting Depth		Shank Size in	Small Diameter		Large Diameter		Uses Insert No.
	mm	in	mm	in		mm	in	mm	in	
ND159	30	1.18"	46	1.81"	3/4"	22	.87"	112	4.41"	6735 / 6765

## Spare Parts

Part No.	Description
NP123	Torx Screw M4x5.9 large head T15
NP126	Torx Wrench T15

## Spare Parts for Optional Center Cutter

Part No.	Description
ND162	Optional Center Cutter .87" Dia.x47"
NP129	Screw M4x25 for RB #NP162
TJ156	Std. Insert 12x12x1.5mm





# Dedicated Insert Router Bits

## Applications

- Designed for use on C.N.C. router machines.
- Can also be used on stationary overhead routers.
- Use with mechanical feed operations.
- CNC router must have excellent hold downs to ensure the least possibility of part movement.
- To shape raised panels used in door applications.

- Requires no backing plates or clamping wedges.
- Insert is mechanically fastened by the use of face mounted screws.
- Optional center router bit can be used to machine the edges of the panel.
- Maximum RPM 12,000

## Technical Information

- Shank style cutter body design uses 2 non-turnable profiled carbide inserts.
- Cutter body is profiled to match the carbide insert.

## Advantages

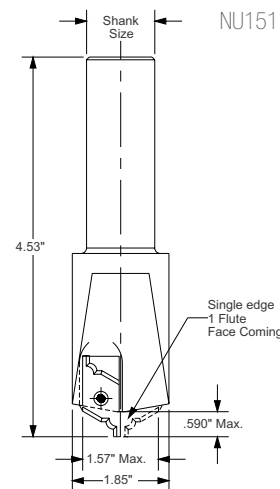
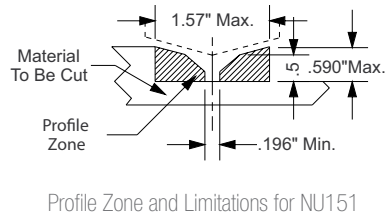
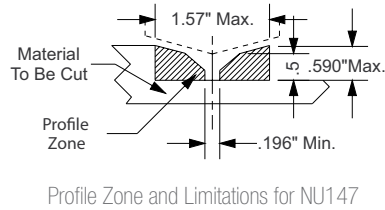
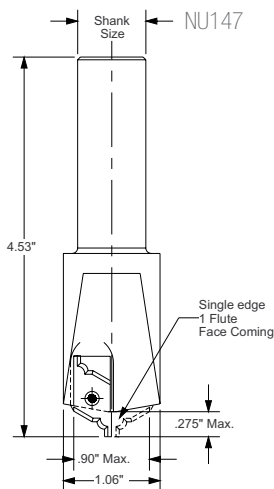
- Reduced set-up time because of fewer parts and a constant cutting circle.
- Extended tool life over brazed tooling due to insert accuracy and superior carbide grades.

Part No.	Profile Cut Width mm in	Cutting Depth mm in	Shank Size in	Small Diameter mm in	Large Diameter mm in	Uses Insert No.
ND159	30 1.18"	46 1.81"	3/4"	22 .87"	112 4.41"	6735 / 6765

See page 297 for inserts.

## Spare Parts

Part No.	Description
NP249	Torx Clamping Screw M4x6
NP123	Torx Clamping Screw M4x5.9
NP171	Torx Wrench "T" Handle T15
6778	Carbide Insert 20x12x2
6781	Carbide Insert 36x21x2i



# Standard Insert Router Bits

## Applications

- Designed for use on C.N.C. router machines.
- Can also be used on stationary overhead routers.
- Use with mechanical and hand feed operations.
- CNC router must have excellent hold downs to ensure the least possibility of part movement.
- Use for jointing, coping, parting, rabbeting, ramp plunge, vertical ramp plunging, boring, cutout routing etc.

## Technical Information

- Shank style cutter body design made from high tensile steel for long life and durability.
- Use a single flute for higher feed rates and faster material removal.

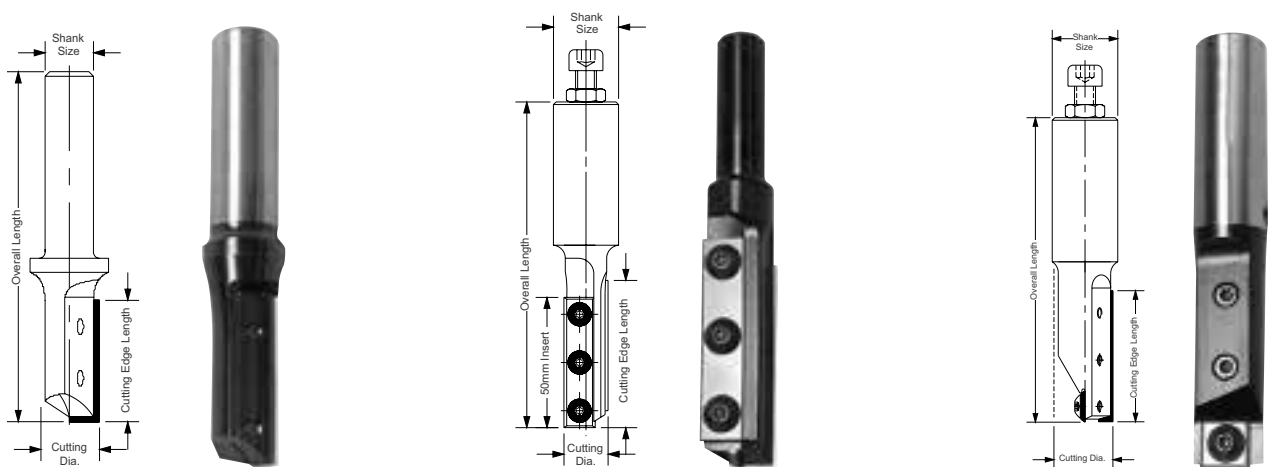
- Use a double flute for smoother finishes and high quality cuts.
- Indexable standard carbide inserts are easily removed with the use of the torx wrench provided.
- Requires no special set-up fixtures to set knives.
- Maximum RPM 24,000

## Advantages

- Extended tool life over brazed tooling due to insert accuracy and superior carbide grades.
- Excellent for high production runs.
- Reduced sharpening costs due to small cost of inserts over standard brazed router bits.

Part No.	Cutting Edge Diameter		Cutting Edge Length		Shank Size		Overall Length		No. of Flutes	No. of Inserts Required	Uses Insert No.
	in.	mm	in.	mm	In.	mm	in.	mm			
ND189	1/2"	30	1.18"	30	1/2"	80	3.15"	80	1	1	TJ235
ND192	3/4"	50.5	1.99"	50.5	3/4"	110	4.33"	110	1	2	TJ241/TJ156
ND193	3/4"	50.5	1.99"	50.5	1/2"	110	4.33"	110	1	2	TJ241/TJ156
ND195	3/4"	56	2.20"	56	1/2"	110	4.33"	110	2	2	TJ129

Standard inserts begin on page 321.



# Standard Insert Router Bits

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## Spare Parts for ND189

Part No.	Description
NP215	Torx Screw M3x7.0 T8
NP176	Clamping Wedge 30mm RH

## Spare Parts for ND195

Part No.	Description
NP123	Torx Screw M4x5.9 T15
NP171	Torx Wrench T15

## Spare Parts for ND192 & ND193

Part No.	Description
NP123	Torx Screw M4x5.9 T15 (for plunge point)
NP258	Clamp Screw for Wedge M3.5x5.5 T15
NP171	Torx Wrench T15
NP224	Clamping Wedge for ND192 RH

# Standard Insert Router Bits

## Applications

- Designed for use on C.N.C. router machines.
- Can also be used on stationary overhead routers.
- Use with mechanical and hand feed operations.
- CNC router must have excellent hold downs to ensure the least possibility of part movement.
- Use for jointing, coping, parting, rabbeting, ramp plunge, vertical ramp plunging, boring, cutout routing etc.

- Top and bottom inserts have down and up shear to eliminate tearout on material surfaces.
- Can be used for plunge cutting.
- Designed for high removal rates in either natural or man-made material. Excellent for double face laminates.
- Requires no special set-up fixtures to set knives.
- Maximum RPM 18,000

## Technical Information

- Shank style cutter body design made from high tensile steel for long life and durability.
- Uses standard turnover inserts to reduce cutting pressures.

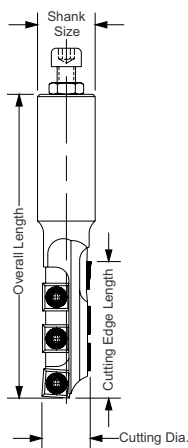
## Advantages

- Extended tool life over brazed tooling due to insert accuracy and superior carbide grades.
- Excellent for high production runs.
- Reduced sharpening costs due to small cost of inserts over standard brazed router bits.

Part No.	Cutting Edge Diameter		Cutting Edge Length		Shank Size In.	Overall Length		No. of Flutes	No. of Inserts Required	Uses Insert No.
	mm	in.	mm	in.		mm	in.			
ND221	22	.866"	42	1.65"	3/4"	115	4.53"	1+1	4	TJ156
ND224	22	.866"	60	2.36"	3/4"	131	5.16"	1+1	6	TJ156

## Spare Parts

Part No.	Description
NP123	Torx Screw M4 Extra Large Head T15
NP171	Torx Wrench T15



# Standard Insert Router Bits

## Applications

- Designed for use on C.N.C. router machines.
- Can also be used on stationary overhead routers.
- Use with mechanical and hand feed operations.
- CNC router must have excellent hold downs to ensure the least possibility of part movement.
- Use for machining double laminated material where chipping and "lifting" of presents a problem with straight style router bits.

## Technical Information

- Shank style cutter body design made from high tensile steel for long life and durability.

- Small indexable standard carbide inserts are easily removed with the use of the wrench provided.
- Requires no special set-up fixtures to set knives.
- Maximum RPM 18,000

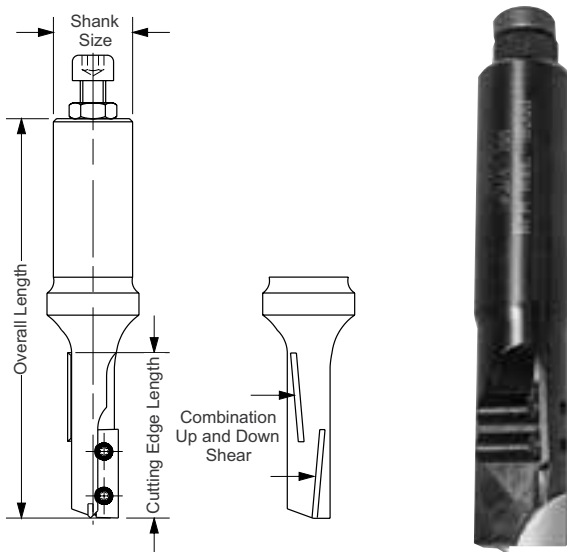
## Advantages

- Extended tool life over brazed tooling due to insert accuracy and superior carbide grades.
- Excellent for high production runs.
- Reduced sharpening costs due to small cost of inserts over standard brazed router bits.

Part No.	Cutting Edge Diameter		Cutting Edge Length		Shank Size		Overall Length		No. of Inserts Required	Uses Insert No.
	in.	mm	in.	mm	In.	mm	in.	No. of Flutes		
ND198	3/4"	30	1.18"	30	3/4"	95	3.74"	1	2	TJ389
ND197LH	3/4"	30	1.18"	30	3/4"	95	3.74"	1	2	TJ389

## Spare Parts

Part No.	Description
NP123	Torx Screw M4 Extra Large Head T15
NP126	Torx Wrench T15
TJ389	Standard Turnover insert 16x7x1.5



# Standard Insert Router Bits

## Applications

- Designed for use on C.N.C. router machines.
- Can also be used on stationary overhead routers.
- Use with mechanical and hand feed operations.
- CNC router must have excellent hold downs to ensure the least possibility of part movement.
- Use for machining operations such as jointing, rabbeting, contour cutting, cut-outs in both natural and man-made material.

## Technical Information

- Shank style cutter body design made from high tensile steel for long life and durability.

- Indexable standard carbide inserts are easily removed with the use of the torx wrench provided.
- Requires no special set-up fixtures to set knives.
- Maximum RPM 18,000

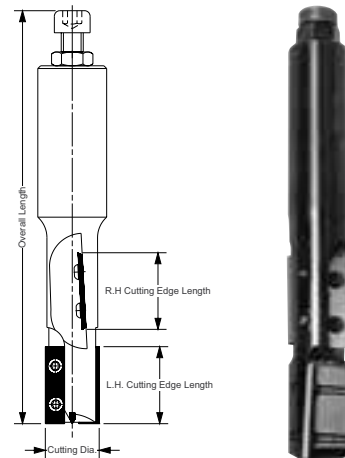
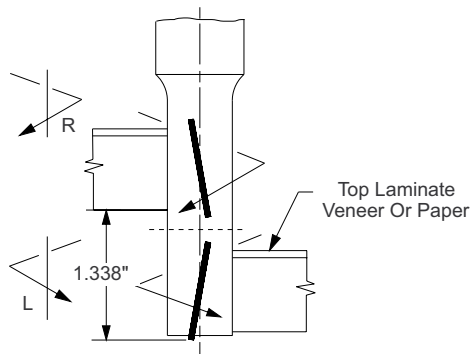
## Advantages

- Extended tool life over brazed tooling due to insert accuracy and superior carbide grades.
- Excellent for high production runs.
- Reduced sharpening costs due to small cost of inserts over standard brazed router bits.

Part No.	Cutting Edge Diameter		Cutting Edge Length		Shank Size In.	Overall Length		No. of Flutes	No. of Inserts Required	Uses Insert No.
	in.	mm	in.	mm		mm	in.			
ND227	20	28+28	1.10+1.10"	3/4"	130	5.12"	2+2	4	TJ381	

## Spare Parts

Part No.	Description
NP231	Clamping Screw M3x4.4 T9
NP159	Torx Wrench "T" Handle T9
TJ381	Standard Insert 28x7x1.5



# Standard Insert Router Bits

## Applications

- Designed for use on C.N.C. router machines.
- Can also be used on stationary overhead routers.
- Use with mechanical and hand feed operations.
- CNC router must have excellent hold downs to ensure the least possibility of part movement.
- Use for machining operations such as jointing, rabbeting, contour cutting, cut-outs in both natural and man-made material.

## Technical Information

- Shank style cutter body design made from high tensile steel for long life and durability.
- Single flute design using one insert on the top and one insert on the bottom.

- 1 Plunge point center insert.
- Small indexable standard carbide inserts are easily removed with the use of the wrench provided.
- Requires no special set-up fixtures to set knives.
- Maximum RPM 18,000

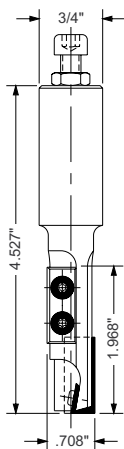
## Advantages

- Extended tool life over brazed tooling due to insert accuracy and superior carbide grades.
- Excellent for high production runs.
- Reduced sharpening costs due to small cost of inserts over standard brazed router bits.

Part No.	Cutting Edge Diameter		Cutting Edge Length		Shank Size		Overall Length		No. of Flutes	No. of Inserts Required	Uses Insert No.
	in.	mm	in.	mm	In.	mm	in.				
ND241	18	50	1.97"	50	3/4"	115	4.53"	1	2+1	TJ384/TJ111	

## Spare Parts

Part No.	Description
NP252	Torx Screw Extra Large M4x4 T15
NP171	Torx Wrench T15
TJ384	Standard Turnover Insert 30x12x1.5
TJ111	Plunge Point Insert 7.5x12x1.5



# Standard Insert Router Bits

## Applications

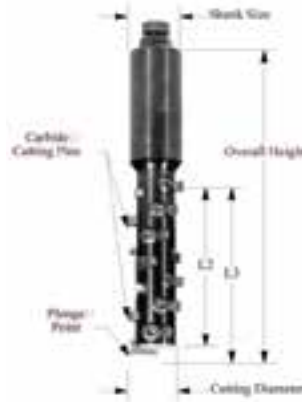
- Designed for use on C.N.C. router machines.
- Can also be used on stationary overhead routers.
- Use with mechanical and hand feed operations.
- CNC router must have excellent hold downs to ensure the least possibility of part movement.
- Use for jointing, coping, parting, rabbeting, ramp plunging, vertical plunging, boring, cutout routing etc.

## Technical Information

- Shank style cutter body design with 3 cutting rows and a single carbide plunge point insert at the bottom.
- Small indexable carbide inserts (pins) are easily removed with the use of the torx wrench, inserts on pages 74-77.
- Reduced cutting pressure due to up-spiral design.
- Requires no special set-up fixtures to set knives.
- Maximum RPM 18,000

## Advantages

- Outstanding cutting performance due to reduced cutting pressures (designed for rough cut applications only).
- Extended tool life over brazed tooling due to insert accuracy and superior carbide grades.
- Excellent for high production runs requiring thick materials to be machined.
- Reduced sharpening costs due to small cost of inserts over standard brazed router bits.



Part No.	Cutting Edge Diameter	Shank Size	Cutting Edge L2 Length w/o Plunge Insert	Cutting Edge L3 Length with Plunge Insert	Overall with Plunge Insert Length	No. of Spiral Rows	No. of Carbide Pins Required
ND179	24mm	24mm	3.27"	3.54"	6.02"	3	18
ND183	3/4"	3/4"	1.65"	1.89"	4.13"	3	9
ND186	3/4"	3/4"	2.20"	2.44"	4.69"	3	12
ND187LH	3/4"	3/4"	1.65"	1.89"	4.13"	3	9
ND188LH	3/4"	3/4"	2.20"	2.44"	4.69"	3	12

## Spare Parts For ND179

Part No.	Description
TJ374	Size 2 Straight Inserts (box of 20)
TJ377	Plunge Point Insert (sold individually)
NP149	Torx Clamping Screw M4x6.7 T15
NP126	Torx Wrench T15

## Spare Parts for ND183 & ND186

Part No.	Description
TJ379	Size 1 Straight Inserts (box of 20)
TJ383	Plunge Point Insert (sold individually)
NP156	Torx Clamping Screw M3x5.5 T9
NP159	Torx Wrench T9
NP162	Torx Clamping Screws for (plunge pt) T9



# Standard Insert Router Bits

## Applications

- Designed for use on C.N.C. router machines.
- Can also be used on stationary overhead routers.
- Use with mechanical feed operations.
- CNC router must have excellent hold downs to ensure the least possibility of part movement.
- To round or bevel edges on decorative parts, panels, etc.

## Technical Information

- Shank style cutter body design uses 2 non-turnable profiled carbide inserts.
- Cutter body is profiled to match the carbide insert.

- Requires no backing plates or clamping wedges.
- Insert is mechanically fastened by the use of face mounted screws.
- Maximum RPM 18,000

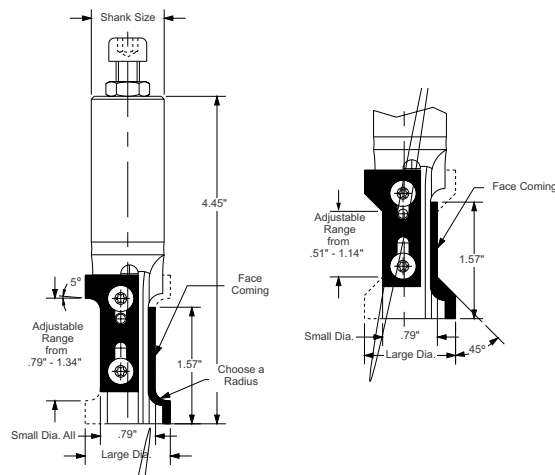
## Advantages

- Reduced set-up time because of fewer parts and a constant cutting circle.
- Extended tool life over brazed tooling due to insert accuracy and superior carbide grades.
- One cutter body is capable of producing all of the radii and bevels by simply changing the inserts.

Part No.	Required Insert Profile	Adjustable Range		Large Diameter		Shank Size	Uses Insert No.	
		in.	in.	mm	in.		Top	Bottom
ND165	45°	.51"	1.14"	34	1.34"	3/4"	TJ317	TJ319
ND165	1/8"	.75"	1.34"	28	1.10"	3/4"	TJ323	TJ326
ND165	5/32"	.75"	1.34"	30	1.18"	3/4"	TJ329	TJ332
ND165	13/64"	.75"	1.34"	32	1.26"	3/4"	TJ335	TJ338
ND165	15/64"	.75"	1.34"	34	1.34"	3/4"	TJ341	TJ344
ND166	45°	.87"	1.69"	57	2.24"	3/4"	TJ444	TJ447
ND166	1/4"	1.38"	2.20"	49	1.93"	3/4"	TJ451	TJ454
ND166	21/64"	1.38"	2.20"	53	2.09"	3/4"	TJ457	TJ461
ND166	13/32"	1.38"	2.20"	57	2.24"	3/4"	TJ464	TJ467

## Spare Parts

Part No.	Description
NP123	Torx Screw M4x5.9 large head T15
NP171	Torx Wrench T15



A

B

C

D

E

F

G

H

I

J

K

# Standard Insert Router Bits

## Applications

- Designed for use on hand router machines.
- For square trimming of plastic or veneered laminated surfaces.
- Also designed for copy routing with the template attached on the bottom side of the workpiece.

## Technical Information

- Shank style cutter body design made from high tensile steel for long life and wear resistance.
- Small indexable standard carbide inserts are easily removed with the use of the wrench provided.

- Utilizes 2 standard 4 sided inserts on the cutting edge.
- Accuracy maintained even when changing the inserts.
- Ball bearing is replaceable from the shank side.
- Maximum RPM 24,000

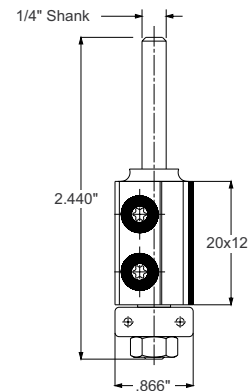
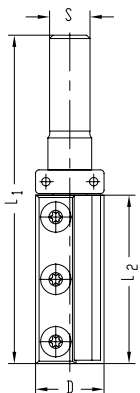
## Advantages

- Extended tool life over brazed tooling due to insert accuracy and superior carbides grades.
- Reduced sharpening costs due to small cost of inserts over standard brazed router bits.

Part No.	Cutting Edge Diameter		Cutting Edge Length		Shank Size In.	Overall Length		No. of Flutes	No. of Inserts Required	Uses Insert No.
	in.	mm	in.	mm		mm	in.			
ND199	.87"	12	.47"		1/4"	54		2	2	TJ156
ND212	.87"	20	.79"		1/4"	82	2.44"	2	2	TJ117
ND254	.87"	20	.79"		1/4"	62	2.44"	2	2	TJ115
ND257	.87"	50	1.97"		1/2"	113	4.44"	2	2	TJ129
ND258	.87"	30	1.18"		1/2"	86		2	2	TJ384

## Spare Parts

Part No.	Description
TJ115	Std. Carbide Insert 20x12x1.5
TJ117	Std. Carbide Insert 20x12x1.5
TJ129	Std. Carbide Insert 50x12x1.5
TJ384	Std. Carbide Insert
TJ156	Std. Carbide Insert 12x12x1.5
NP219	Ball Bering 22x8
NP123	Torx Clamping Screw M4 T15
NP171	Torx Wrench "T" Handle T15



# Universal Insert Router Bits

## Applications

- Designed for use on C.N.C. router machines.
- Can also be used on stationary overhead routers.
- Use with mechanical feed operations.
- CNC router must have excellent hold downs to ensure the least possibility of part movement.
- To produce profiles that have a large depth of cut.
- Use on edges of decorative panels, doors, furniture, etc.

## Technical Information

- Shank style cutter body design made of aluminum alloy is at a 45° angle and uses 2 non-turnable profiled carbide inserts.
- Available in a 2-wing (flute) design only.
- Requires the use of backing plates to support the profiled cutting region.

- Standard hook angle is 10° positive.
- Comes complete with cutter body, wedges, screws and allen wrench.
- Insert router bit is manufactured in right-hand rotation.
- Maximum RPM for 110mm Dia. = 12,000, 148mm Dia. = 6,000

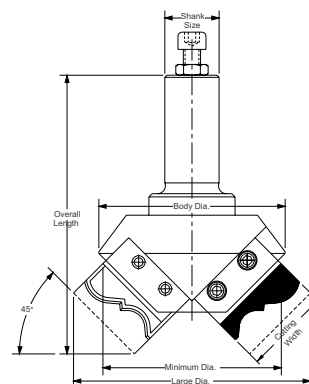
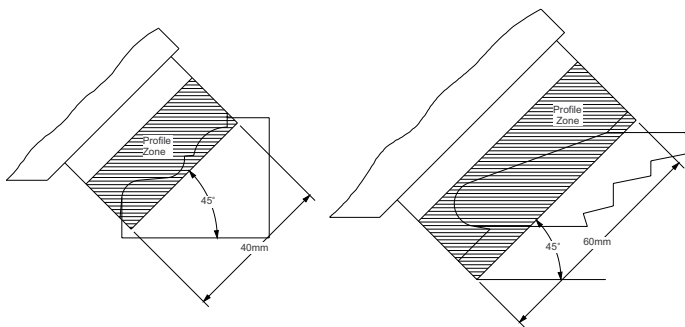
## Advantages

- Cutterhead is able to produce numerous profiles by simply changing the insert.
- Extended tool life over brazed tooling due to insert accuracy and superior carbide grades.
- Produces a constant cutting circle so setup and machine adjustments are reduced to a minimum.
- Lower tooling costs due to decreased down time required for tooling changes.

Part No.	Max. Cutting Width		Max. Profile Cutting Depth		Shank Size	Overall Length		Cutting Circle Dia.		Uses Insert No.	Backing Plate No.
	mm	in.	mm	in.		mm	in.	mm	in.		
NU135	40	1.57"	17	.67"	3/4"	123	4.84"	110	4.33"	6650	NB123
NU136	60	2.36"	22	.87"	3/4"	142	5.59"	148	5.83"	6660	NB122
NU137	40	1.57"	17	.67"	1"	123	4.84"	110	4.33"	6650	NB123
NU141	60	2.36"	22	.87"	1"	142	5.59"	148	5.83"	6660	NB122

## Spare Parts

Part No.	Description
NP111	Clamping Wedge for 40mm Inserts
NP114	Clamping Wedge for 60mm Inserts
NP117	Wedge Screw M8x12 for II Cutters
NP119	Allen Wrench SW4 for Screws
NB122	60mm x 41mm Backing Plate
NB123	40mm x 36mm Backing Plate



# Universal Insert Router Bits

## Applications

- Designed for use on C.N.C. router machines.
- Can also be used on stationary overhead routers.
- Use with mechanical feed operations.
- CNC router must have excellent hold downs to ensure the least possibility of part movement.
- To profile edges on decorative panels, doors, frames, etc.

- Comes complete with cutter body, wedges, screws and allen wrench.
- Insert router bit is manufactured in right-hand rotation.
- Maximum RPM for 3/4" Shank = 10,000, 1" Shank = 12,000

## Technical Information

- Shank style cutter body design uses 2 non-turnable profiled carbide inserts.
- Available in a 2-wing (flute) design only.
- Requires the use of backing plates to support the profiled cutting region.
- Standard hook angle is 10° positive.

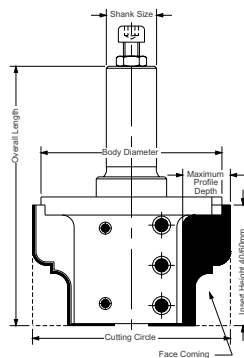
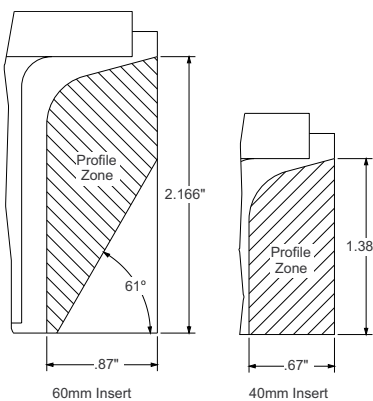
## Advantages

- Cutterhead is able to produce numerous profiles by simply changing the insert.
- Extended tool life over brazed tooling due to insert accuracy and superior carbide grades.
- Produces a constant cutting circle so setup and machine adjustments are reduced to a minimum.
- Lower tooling costs due to decreased down time required for tooling changes.

Part No.	Max. Cutting Width		Max. Profile Cutting Depth		Shank Size	Overall Length		Cutting Circle Dia.		Uses Insert No.	Backing Plate No.
	mm	in.	mm	in.		mm	in.	mm	in.		
NU111	35	1.38"	17	.67"	3/4"	109	4.29"	90	3.54"	6650	NB123
NU114	55	2.17"	22	.87"	3/4"	129	5.08"	100	3.94"	6660	NB122
NU117	35	1.38"	17	.67"	1"	109	4.29"	90	3.54"	6650	NB123
NU119	55	2.17"	22	.87"	1"	129	5.08"	100	3.94"	6660	NB122

## Spare Parts

Part No.	Description
NP111	Clamping Wedge for 40mm Inserts
NP114	Clamping Wedge for 60mm Inserts
NP117	Wedge Screw M8x12 for all Cutters
NP119	Allen Wrench SW4 for Screws
NB122	60mm x 41mm Backing Plate
NB123	40mm x 36mm Backing Plate



# Universal Insert Router Bits

## Applications

- Designed for use on C.N.C. router machines.
- Can also be used on stationary overhead routers.
- Use with mechanical feed operations.
- CNC router must have excellent hold downs to ensure the least possibility of part movement.
- To profile edges on decorative panels, doors, frames, etc.

## Technical Information

- Shank style cutter body design uses 2 non-turnable profiled carbide inserts.
- Available in a 2-wing (flute) design only.
- Requires the use of backing plates to support the profiled cutting region.
- Standard hook angle is 10° positive.

- Comes complete with cutter body, wedges, screws and allen wrench.
- Insert router bit is manufactured in right-hand rotation.
- Maximum RPM for 3/4" Shank = 10,000, 1" Shank = 12,000

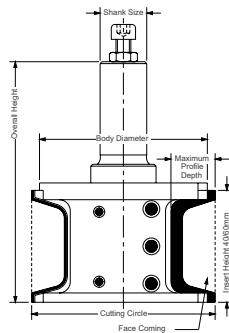
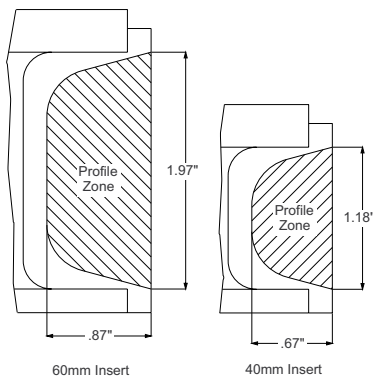
## Advantages

- Cutter head is able to produce numerous profiles by simply changing the insert.
- Extended tool life over brazed tooling due to insert accuracy and superior carbide grades.
- Produces a constant cutting circle so setup and machine adjustments are reduced to a minimum.
- Lower tooling costs due to decreased down time required for tooling changes.

Part No.	Max. Cutting Width		Max. Profile Cutting Depth		Shank Size	Overall Length		Cutting Circle Dia.		Uses Insert No.	Backing Plate No.
	mm	in.	mm	in.		mm	in.	mm	in.		
NU123	30	1.18"	17	.67"	3/4"	109	4.29"	90	3.54"	6650	NB123
NU126	50	1.97"	22	.87"	3/4"	129	5.08"	100	3.94"	6660	NB122
NU129	30	1.18"	17	.67"	1"	109	4.29"	90	3.54"	6650	NB123
NU132	50	1.97"	22	.87"	1"	129	5.08"	100	3.94"	6660	NB122

## Spare Parts

Part No.	Description
NP111	Clamping Wedge for 40mm Inserts
NP114	Clamping Wedge for 60mm Inserts
NP117	Wedge Screw M8x12 for all Cutters
NP119	Allen Wrench SW4 for Screws
NB122	60mm x 41mm Backing Plate
NB123	40mm x 36mm Backing Plate



# Universal Insert Router Bits

## Applications

- Designed for use on C.N.C. router machines.
- Can also be used on stationary overhead routers.
- Use with mechanical and hand feed operations.
- CNC router must have excellent hold downs to ensure the least possibility of part movement.
- Use for machining operations such as grooving, lettering and engraving in both natural and man-made material.
- Insert can be profiled on one cutting edge only to provide small decorative cuts.

## Technical Information

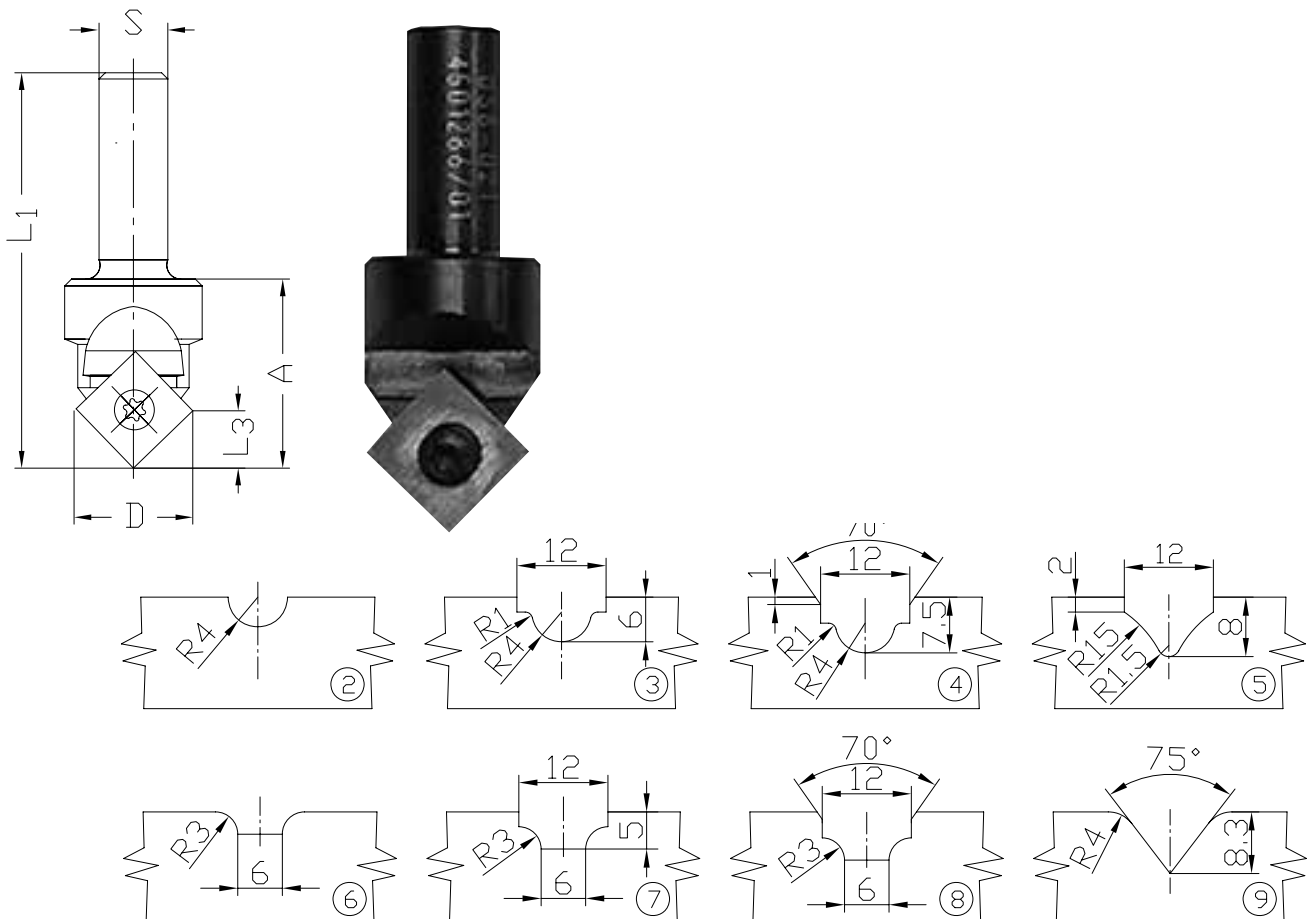
- Shank style cutter body design made from high tensile steel and tempered for long life and wear resistance.
- Small indexable standard carbide insert is easily removed with the use of the wrench provided.
- 1 cutting edge utilized/profiled per insert.
- Accuracy maintained even when changing the insert.
- Maximum RPM 24,000

## Advantages

- Extended tool life over brazed tooling due to insert accuracy and superior carbide grades.
- Reduced sharpening costs due to small cost of inserts

Part No.	Cutting Edge Diameter		Cutting Edge Length		Shank Size in.	Overall Length in.	No. of Flutes	No. of Inserts Required	Uses Insert No.
	in.	mm	in.	mm					
ND259	.69"	8.5	.34"	1/2"	48	1.89"	1	1	TJ156N

See page 297 for inserts.



# Universal Insert Router Bits

## Applications

- Designed for use on C.N.C. router machines.
- Can also be used on stationary overhead routers.
- Use with mechanical feed operations.
- CNC router must have excellent hold downs to ensure the least possibility of part movement.
- To profile wide profiles and grooves, some rosettes that do not have a center button.
- Can also be used to cut raised panel sections and deep flat profiles.

## Technical Information

- Shank style cutter body design uses 2 non-turnable profiled carbide inserts.
- Available in a 2-wing (flute) design only.
- Requires the use of backing plates to support the profiled cutting region.

- Standard hook angle is 10° positive.
- Comes complete with cutter body, wedges, screws and allen wrench.
- Insert router bit is manufactured in right-hand rotation.
- Maximum RPM for 3/4" Shank = 10,000, 1" Shank = 12,000

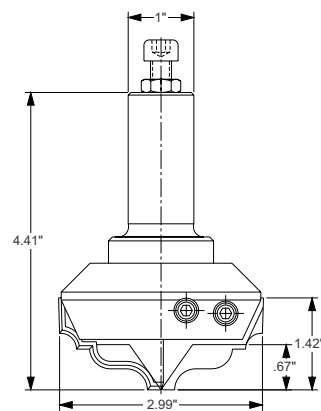
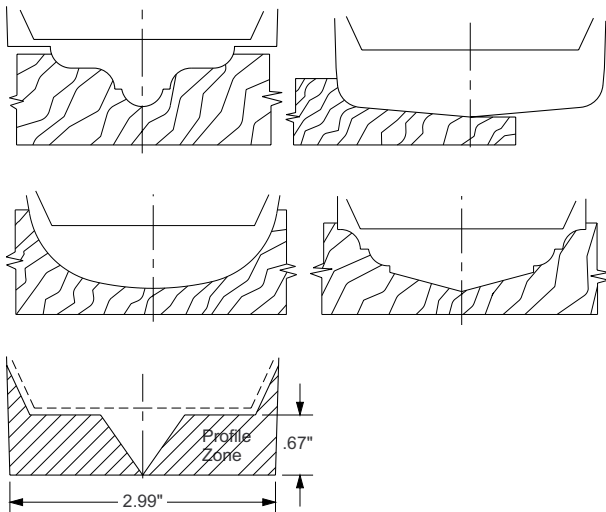
## Advantages

- Cutterhead is able to produce numerous profiles by simply changing the inserts and backing plates.
- Extended tool life over brazed tooling due to insert accuracy and superior carbide grades.
- Produces a constant cutting circle so setup and machine adjustments are reduced to a minimum.
- Lower tooling costs due to decreased down time required for tooling changes.

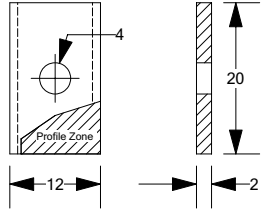
U.S. Part No.	Max. Cutting Width		Max. Profile Cutting Depth		Shank Size In.	Overall Length		Cutting Circle Dia.		Uses Insert No.	Backing Plate No.
	mm	in.	mm	in.		mm	in.	mm	in.		
NU138	76	2.99"	17	.67"	3/4"	112	4.41"	38	1.5"	6771/6774	NB123
NU144	76	2.99"	17	.67"	1"	112	4.41"	38	1.5"	6771/6774	NB123

## Spare Parts

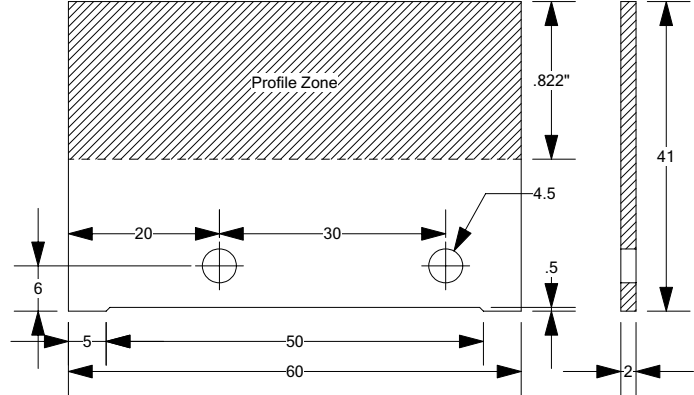
Part No.	Description
NP111	Clamping Wedge for 40mm inserts
NP117	Wedge Screw M8 x 12 for all Cutters
NP119	Allen Wrench SW4 for Screws
NP123	40mm x 36mm Backing Plate



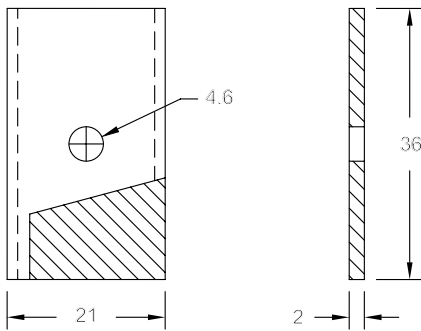
# Universal Inserts



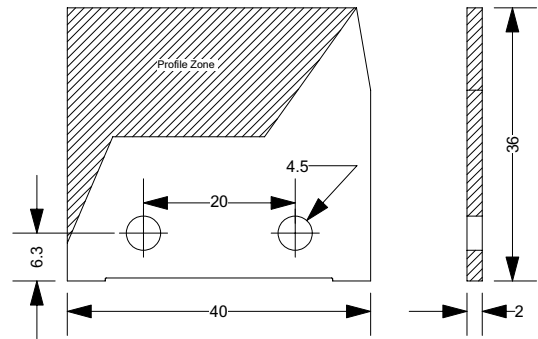
Part No.	Dim. WxHxT	Carbide Grade	Sold in Quantities
6778	20x12x1.5	GP	Ea.



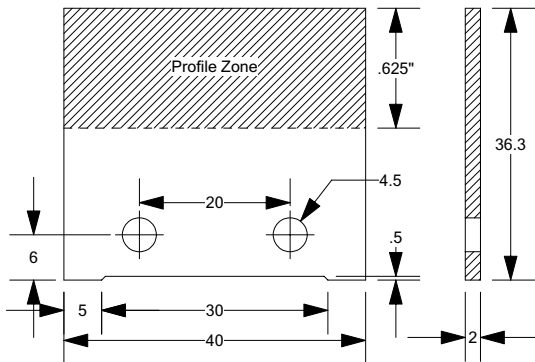
Part No.	Dim. WxHxT	Carbide Grade	Sold in Quantities
6660	60x42x2	GP	Ea.



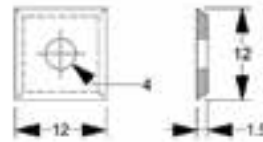
Part No.	Dim. WxHxT	Carbide Grade	Sold in Quantities
6781	36x21x2	GP	Ea.



Part No.	Dim. WxHxT	Carbide Grade	Sold in Quantities
6771	40x36x2	GP	Ea.
6774	40x36x2	GP	Ea.



Part No.	Dim. WxHxT	Carbide Grade	Sold in Quantities
6650	40x36.3x2	GP	Ea.



Part No.	Dim. WxHxT	Carbide Grade	Sold in Quantities
TJ156	12x12x1.5	GP	10