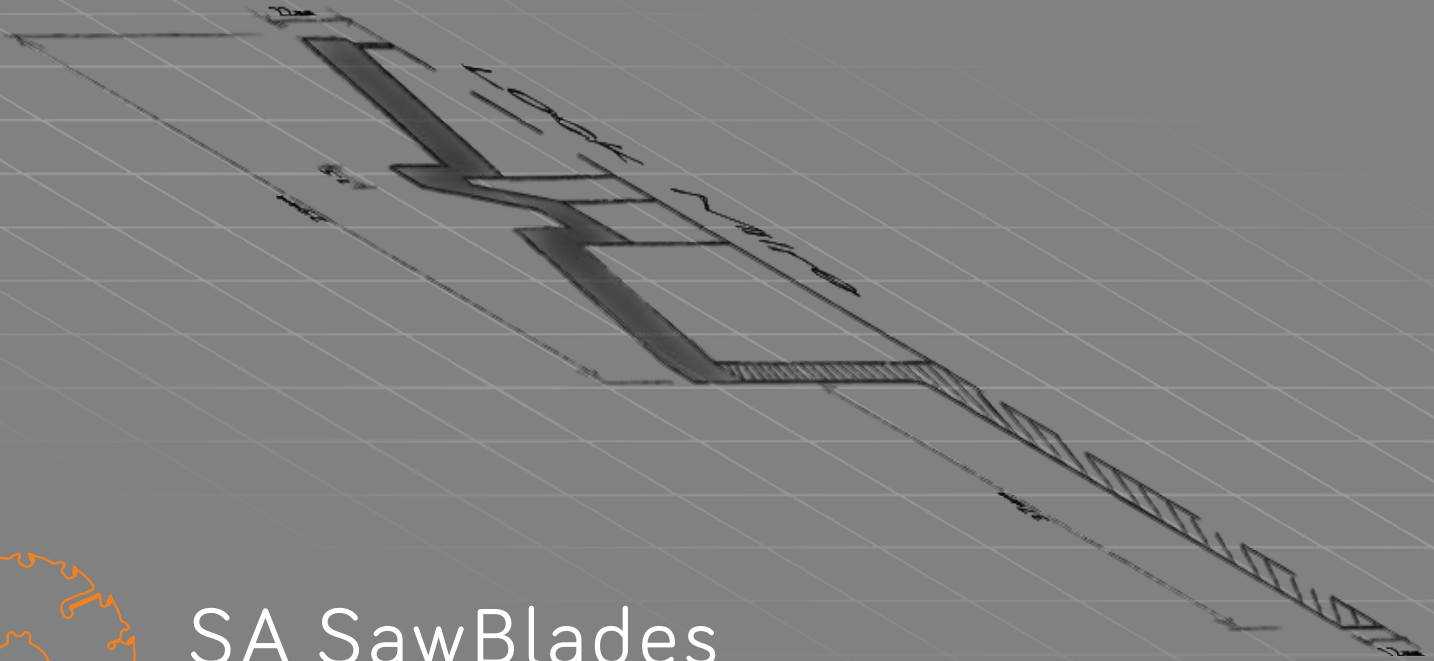


# freud Router Bit Catalogue

SASB Private Label Router Bits



## SA SawBlades

Quality Tooling | Service Centre

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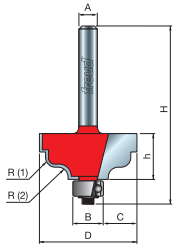
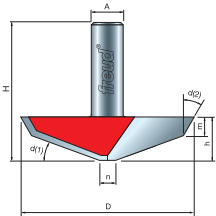
# Technical Information

## Anti-Kickback Limiter

The projection at the front of the gullet which limits the maximum tooth bite to the safe limit for the bit design reducing the effects of kickback

## Brazing

The method used to attach the carbide tips to the blade body. Both the blade and the body are heated above the melting point of the brazing compound, which then flows, by capillary action into the joint, forming a bond between the parts.



## Gullet

The cut out area in the body in front of each carbide tip for chip removal.

## Hook Angle

The angle the face of the carbide tip makes with a line projecting radially from the center of the shank.

## Relief Angle

The angle the tip of the carbide tooth makes away from the cutting edge to a line tangent to the bit circumference.

## Shear Angle

The angle that the cutting edge makes with a line parallel to the shank of the bit.

## Shank

The precision ground, cylindrical part of the bit that is held in the router collet.

## Solid Carbide Bit

A router bit formed entirely of carbide, including the shank, body and cutting edge. Found primarily in small diameter and spiral router bits.

## Pilot Bearing

The part of the bit designed to guide the bit and control the depth of cut. Often used to rout the edges of irregularly shaped objects and for following templates.

## Round Nose (Core Box) Bits

End cutting bits that will plunge cut and produce decorative, fluted grooves.

## Flush Trim (Pattern) Bits

Straight cutting bits that include a pilot bearing that is the same diameter as the cutter. Often used for laminate work and template routing.

## Spiral Bits

Special straight cutting bits that are formed with helical flutes for more efficient chip ejection. The helical shape of the flutes also results in shear angles that produce a smoother surface finish.

## Compression Bits

Straight cutting bits that combine both down shear angles and up shear angles for excellent finish on both the top and bottom of the cut.

## Raised Panel Bits

Produce a decorative profile on the edge of a wood panel while reducing the edge thickness to fit into the groove of a stile and rail frame.

## Back Cutters

Secondary cutters used in combination with raised panel bits to create double-sided panels that are in the same plane with both the front and back of the stile and rail frame.

## Rail And Stile Bits

Used to produce frames for panel doors. The stile or stick refers to the profiled inner edge of the frame and either a groove to accept a panel or a rebate for glass. The rail or cope cut is the mating glue joint produced on the ends of the rails.

CUTTING DIAMETER (D)	SUGGESTED ROUTER SPEEDS	
		MAXIMUM R.P.M.
UP	To 1" (25.4 mm)	2400
1" (25.4 mm)	To 1-1/4" (31.75 mm)	1800
1-1/4" (31.75 mm)	To 2-1/4" (57.15 mm)	1600
2-1/4" (57.15 mm)	To 3-1/2" (88.9 mm)	1200

**IMPORTANT NOTE:** Do not exceed the maximum speed marked on the tool



# Cutting Quality

## Performance Testing:

A router bit's performance depends on two main factors; it is cutting quality and it is life span.

We performed comparison tests on freud router bits, with particular focus on cutting life and finish.

Straight router bits with identical dimensions (cutting diameter 1/2", shank diameter 1/2", 2 flute) were mounted on a CNC router.

We then routed a number of 1/4" deep grooves on a chipboard/melamine coated panel.

The final evaluation was based on the number of chips on the melamine coating and averaging the first and the last 33 routed feet.

Initially, all router bits performed in a similar way but as the number of routed feet increased, freud router bit performed superior to the other bits (please refer to the graphically represented test results below for more details and information).

freud has a complete range of bits that offer high quality, long working life and less friction when cutting.

## Perma-SHIELD Coating

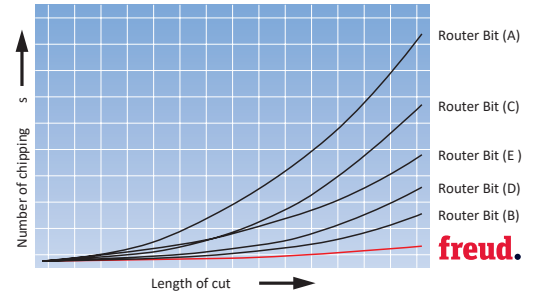
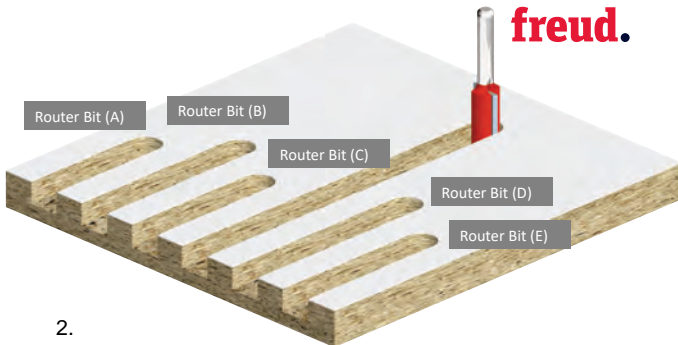
Each bit features high grade steel, TiCo Hi-Density Carbide Tips, and the exclusive red Perma-SHIELD coating. Perma-SHIELD coating reduces friction and heat build up, helps prevent the adhesion of resins, and protects the bit from corrosion.



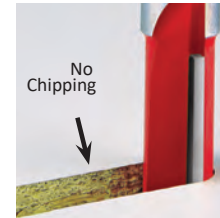
## Computer Designed

Hook Angles

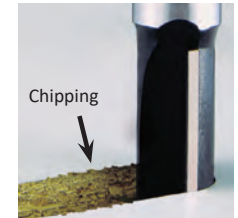
The accuracy of the hook angle ensures that the bit provides a premium top cutting finish and the inclination of the clearance angle on the tip's bottom allows easy and precise boring.



freud.



Other



# Tips for Correct Use of Tools

To reduce vibrations from the router cutter, which can compromise the finish and cause damage to both the tool and the workpiece, it is necessary to respect the following conditions:

- For large removals, carry out more passes or proceed with an advancement and RPM rate in proportion to the depth of cut (Fig. 1).
- A router bit with a shorter cutting height vibrates less than a router bit with the same diameter but with a longer cutting height.
- Control your machine regularly, making sure that there are no eccentricity problems, so as to avoid the arbor from vibrating hazardously.
- Respect the minimum fixing length of the shank (Fig. 2) with a preference to short chucks, with the aim of reducing eccentricity errors. For the same reason the use of extensions are generally avoided.
- Accurately block the workpiece to the work table surface (Fig. 3).
- To identify eccentricity defects in a router bit or a chuck: rotate the router bit by 90° in the chuck, carry out a moulding and observe the marks on the left on the workpiece. If they are in-variant with respect to the previous moulding, then the tool is defective, if instead the marks vary, then it is possible that the error lies in the chuck.
- Do not exceed the maximum RPM limit marked on the tool. With too high an advancement rate, or an excessive cutting depth, there is the possibility that the tool may break (especially spiral router bits).
- To avoid damaging router bits, we suggest controlling if the fixing surface of the chuck and the router bit are clean and that there are no imperfections.
- Always choose router bits with the appropriate dimensions for the kind of work to carry out.
- To avoid dangerous kick backs, we suggest fixing a spare piece of material and moulding small parts of waste which have accumulated during the working process, by carrying out more passes (Fig. 4 - 5).
- Make sure that the workpiece is properly fixed to a support with adequate dimensions. In the case of all router bits, but especially those with tips in PCD for overhead CNC router machines, it is necessary to fix the piece properly, preparing an abundant space when blocking by means of vacuum.

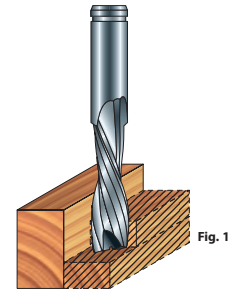


Fig. 1

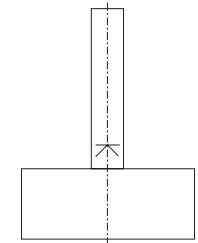


Fig. 2

Marking of the maximum free shank length

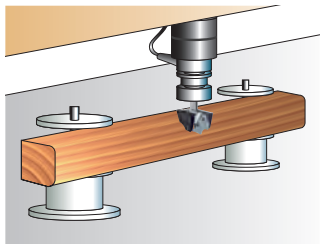


Fig. 3

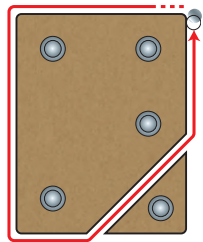


Fig. 4

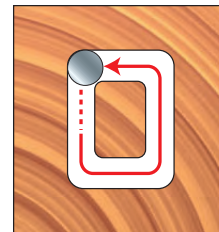


Fig. 5a

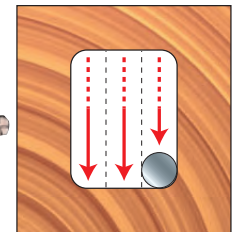


Fig. 5b

# Features and Benefits

## Unique Carbide Formulations

Maximized finish and lifetime in each application

Using the correct carbide formulation for each application is extremely important when it comes to maximising a router bit's performance. For example, an extremely hard carbide formulation is required to maintain a sharp edge when cutting laminate. Alternately, a softer carbide or impact resistant carbide is ideal for large profile cutting such as Panel Bits (Fig. 1).

## Others Use the Same Carbide

For all Applications

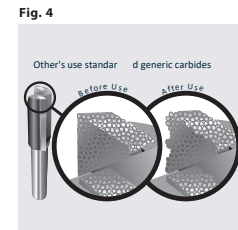
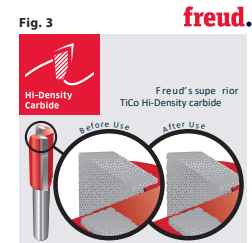
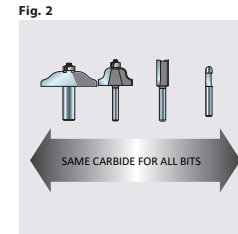
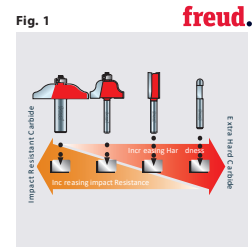
Most manufacturers create router bits with standard off-the-shelf carbide, which is not specifically designed for wood cutting applications. These carbides will not be able to maintain the proper tooth geometry or sharp edge. After a few hours of use, these standard carbides might not show imperfections; however, without the proper carbide formulation, material finish and cutting life will suffer (Fig. 2).

## Superior TiCo Hi-Density Carbide Provides Longer Cutting Life

freud's premium quality TiCo hi-density carbide allows for a sharper edge that gives a better finish with a dramatically longer cutting life. And, since the grains are much smaller and more dense there is not as dramatic a loss to the cutting edge, so wear occurs much more slowly (Fig. 3).

## Standard Off The Shelf Carbide

Most manufacturers create router bits with standard off-the-shelf carbide, which is normally formulated for metal cutting. These carbides will not be able to maintain the proper sharp edge. After a few cuts, these standard carbides might not show imperfections; however, without the proper carbide formulation, material finish and cutting life will suffer (Fig. 4).



# Features and Benefits

## Kickback-Reducing Design Promotes Safety

Kickbacks are one of the most dangerous hazards in woodworking. This happens so quickly that it can be impossible to react before injury occurs. freud's kickback-reducing shoulder design restricts the tooth bite to 1.1 mm, reducing the effects of kickback from overfeeding. This design contributes to a safer working environment.

## Standard Router Bit Designs

**Prone to Dangerous Kick-Backs** Standard router bit designs do not include a kickback reducing shoulder. The bits do not have extra support behind the cutting flute. This limitation allows the bit to take large bites out of the material and produces uncontrolled, rough cuts particularly when operating at lower speeds.

## Computer Balancing Prevents Chattering and Vibration

All freud router bits are computer balanced to ensure vibration free cuts. The balancing takes place on special computer controlled equipment that determines the exact location where material needs to be removed. After material removal, the equipment re-checks the router bit to ensure the bit is perfectly balanced.

## Unbalanced Router Bits

**Cause Chattering and Vibration**

A router bit that is even slightly out of balance will vibrate and chatter while cutting, and it can be extremely dangerous if it is far out of balance. An unbalanced router bit can also create unnecessary rework costing quality of work, time and money.

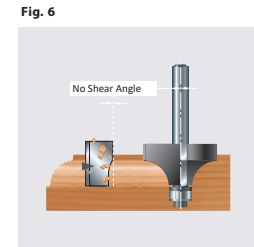
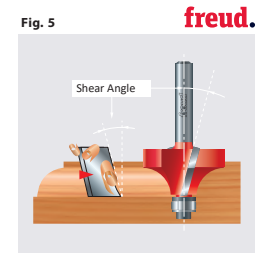
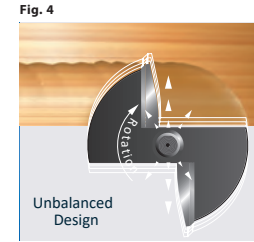
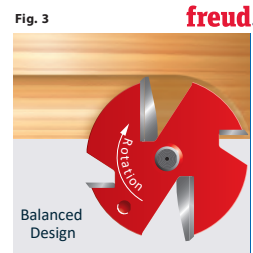
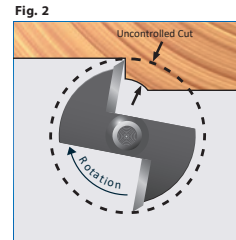
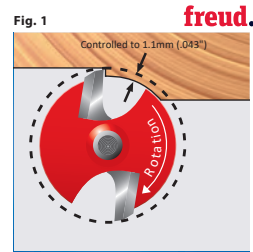
## Shear Angle Design Produces Superior Finish

The shear angle is the angle that the cutting edge makes with the shank of the bit. freud carbide tips are angled to slice through the wood fibers similar in principle to using a hand plane at an angle to the direction of the motion. This slicing action becomes even more important when cutting across the grain. freud's high shear angle bits leave a cross grain cut that requires virtually no sanding.

## Standard Router Bits

**Have Little or No Shear Angle**

Bits without shear or with too little shear chop the wood and are more likely to produce tear out and chatter marks. In addition, not having the proper shear angle causes premature wearing of the carbide and puts more strain on the router.



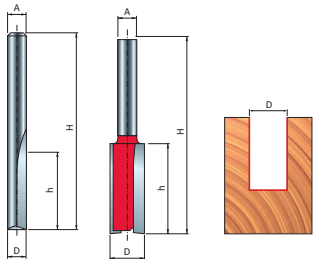
Series  
**04- 12- MM-**

- Solid Carbide Bit

## Double flute straight bits

Cuts all composites, plywood, hardwood and softwood. Use on CNC and other automatic routers as well as hand held or table mounted portable router machines.

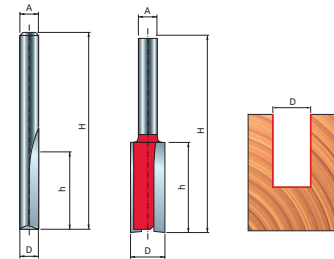
Use multiple passes when removing large quantities of material.



6.

D	h	H	A	Z	Max RPM	Code
mm	mm	mm	in		1/min.	
● 1.6	6.4	44.5	1/4"	2	24.000	04-09625P
2	4	38.1	1/4"	2	24.000	04-50225P
● 2.4	9.5	38.1	1/4"	2	24.000	04-09825P
3	8	44.5	1/4"	2	24.000	04-50825P
● 3.2	9.5	44.5	1/4"	2	24.000	04-10025P
● 4	15.8	38.1	1/4"	2	24.000	04-10125P
● 4.8	12.7	49.2	1/4"	2	24.000	04-10225P
5	12	50.8	1/4"	2	24.000	04-51225P
● 6.4	12.7	50.5	1/4"	2	24.000	04-10425P
● 6.4	15.9	50.8	1/4"	2	24.000	04-10525P
6.4	19	38.1	1/2"	2	24.000	12-10050P
● 6.4	19	57.1	1/4"	2	24.000	04-10625P
● 6.4	22.2	57.1	1/4"	2	24.000	04-10725P
6.4	23	46	1/2"	2	24.000	12-10250P
6.4	25.4	63.5	1/4"	2	24.000	04-10825P
● 6.4	25.4	76.2	1/4"	2	24.000	04-11025P
7.1	25.4	64.8	1/4"	2	24.000	04-11225P
7.9	25.4	70.4	1/4"	2	24.000	04-11825P
8	25.4	65.7	1/2"	2	24.000	12-10650P
9.5	22.2	58.2	1/4"	2	24.000	04-12025P
9.5	25.4	61.4	1/4"	2	24.000	04-12425P
9.5	25.4	76	1/2"	2	24.000	12-10850P
9.5	31.7	81	1/2"	2	24.000	12-11050P
9.5	31.8	67.7	1/4"	2	24.000	04-12625P
10	25.4	61.4	1/4"	2	24.000	MM-01025P
10	31.8	62.7	1/4"	2	24.000	04-52025P
10	31.8	74	1/2"	2	24.000	12-52050P
11.1	25.4	61.4	1/4"	2	24.000	04-12925P
12	31.8	62.7	1/4"	2	24.000	04-52825P
12	31.8	74	1/2"	2	24.000	12-53050P
12.7	19	54.5	1/4"	2	24.000	04-13025P
12.7	22.2	58.2	1/4"	2	24.000	04-13125P
12.7	25.4	61.4	1/4"	2	24.000	04-13225P
12.7	25.4	65.7	1/2"	2	24.000	12-11650P
12.7	31.8	69	1/4"	2	24.000	04-13325P
12.7	31.8	76	1/2"	2	24.000	12-11850P
12.7	38.1	79.4	1/2"	2	24.000	12-12250P
12.7	38.1	107	1/2"	2	24.000	12-12450P
12.7	50.8	97.3	1/2"	2	24.000	12-12850P
12.7	63.5	110	1/2"	2	24.000	12-13050P
15	31.8	66.7	1/4"	2	24.000	04-53625P
15.9	19	50	1/4"	2	24.000	04-13625P

D	h	H	A	Z	Max RPM	Code
mm	mm	mm	in		1/min.	
15.9	25.4	62.4	1/2"	2	24.000	12-13650P
15.9	31.7	69	1/4"	2	24.000	04-13725P
15.9	31.8	70.7	1/2"	2	24.000	12-13850P
15.9	38.1	75.1	1/2"	2	24.000	12-14050P
15.9	50.8	102	1/2"	2	24.000	12-14250P
16	31.8	65.7	1/4"	2	24.000	04-54425P
16	31.8	68.8	1/2"	2	24.000	12-54450P
17.5	19	55	1/4"	2	24.000	04-13825P
18	19	50	1/4"	2	24.000	04-54825P
19	19	56	1/4"	2	24.000	04-14025P
19	25.4	67.4	1/2"	2	24.000	12-15250P
19	31.8	68.8	1/2"	2	24.000	12-15450P
19	38.1	75.1	1/2"	2	24.000	12-15650P
19	50.8	87.8	1/2"	2	24.000	12-15850P
20	19	50	1/4"	2	24.000	04-55225P
20.6	31.8	74.5	1/2"	2	24.000	12-16250P
22.2	19	54.5	1/4"	2	24.000	04-14825P
22.2	31.8	74.5	1/2"	2	24.000	12-16850P
25.4	19	54.5	1/4"	2	24.000	04-15225P
25.4	31.8	68.2	1/2"	2	24.000	12-17250P





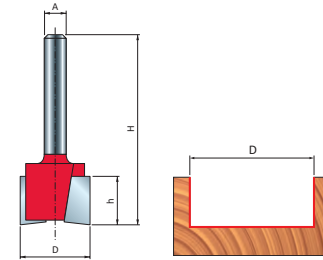
Series  
**16-**

### Mortising bits

Cuts all composites, plywood, hardwood and softwood. Use on CNC and other automatic routers as well as hand held and table mounted portable router machines.

Use multiple passes when removing large quantities of material.

D mm	h mm	H mm	A in	Z	Max RPM 1/min.	Code
12.7	12.5	51	1/4"	2	24,000	16-10025P
12.7	12.5	60.5	1/2"	2	24,000	16-11050P
19	12.5	51	1/4"	2	24,000	16-10425P
31.8	12.1	56.2	1/2"	2	24,000	16-10850P



Series  
**32-**

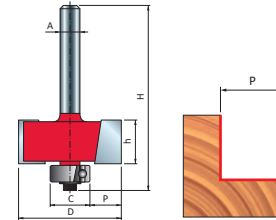
### Rabbeting bits with or without bearing set

Cuts all composition materials, plywood, hardwood and softwood.

Use on hand held or table mounted portable router machines.

Use multiple passes when removing large quantities of material.

D mm	h mm	H mm	A in	P mm	Z	Max RPM 1/min.	Code
31.8	13.2	50.8	1/4"	9.5	2		32-10025P
31.8	12.7	50.8	1/2"	2	2		32-10250P
34.9	12.7	55.7	1/2"	7.9-9.5- 11.1-12.7	2		32-52250P



Series  
**26-28-**

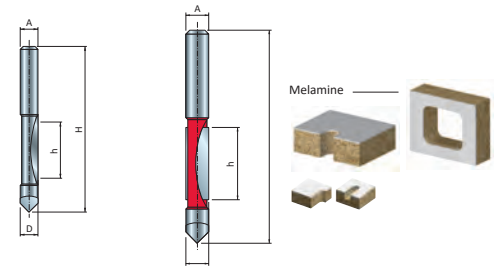
### Panel pilot bits

Application: Cuts all composites, plywood, hardwood and softwood.

Use on hand held portable router machines for template work.

Use multiple passes when removing large quantities of material.

D mm	h mm	H mm	A in	C mm	$\alpha$	Z	Max RPM 1/min.	Code
6.4	19	57	1/4"			1		26-10025P
12.7	31.8	101.2	1/2"			2	24,000	28-10450P

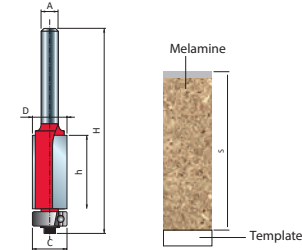


Series  
**42-**

**Bearing flush trim bits**

Cuts all composites, laminates, plywood, hardwood and softwood. Use on hand held or table mounted portable router machines. Use multiple passes when removing large quantities of material.

D	h	H	A	C	S	Z	Max RPM	Code
mm	mm	mm	in	mm	mm		1/min.	
9.5	25.4	67.9	1/4"	9.5	25.4	2	24.000	42-10025P
9.5	12.7	56	1/4"	9.5	12.7	2		42-10225P
12.7	25.4	67.9	1/4"	12.7	25.4	2	24.000	42-10425P
12.7	12.7	55.2	1/4"	12.7	12.7	2	24.000	42-10625P
12.7	25.4	77.5	1/2"	12.7	25.4	2	24.000	42-11050P
12.7	38.1	89.1	1/2"	12.7	38.1	2	24.000	42-11450P
12.7	50.8	107.8	1/2"	12.7	50.8	2	24.000	42-11650P

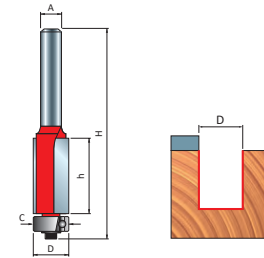


Series  
**44-**

**Bottom bearing flush trim bit**

Cuts all composites, plywood, hardwood and softwood. Use on hand held portable router machines for template work. Use multiple passes when removing large quantities of material.

D	h	H	A	C	$\alpha$	Z	Max RPM	Code
mm	mm	mm	in	mm			1/min.	
12.7	38.1	89.1	1/2"	12.7		3	24.000	44-10850P

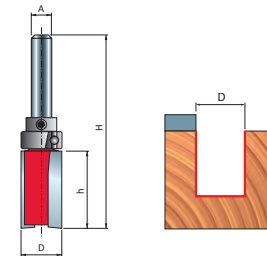


Series  
**50-**

**Top bearing flush trim bits**

Cuts all composites, plywood, hardwood and softwood. Use on hand held portable router machines for template work. Use multiple passes when removing large quantities of material.

D	h	H	A	C	$\alpha$	Z	Max RPM	Code
mm	mm	mm	in	mm			1/min.	
12.7	25.4	64.4	1/4"	12.7		2	24.000	50-10225P
15.9	25.4	64.4	1/4"	15.9		2	24.000	50-10425P
19	25.4	66.5	1/4"	19.0		2		50-10625P



Series

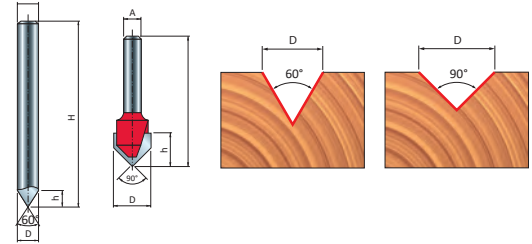
20-

• Solid Carbide Bit

### “V” grooving bits

Cuts all composites, laminates, plywood, hardwood and softwood. Use on hand held or table mounted portable router machines. Use multiple passes when removing large quantities of material.

D mm	h mm	H mm	A in	$\alpha$	Z	Max RPM 1/min.	Code
12.7	12.7	47.5	1/4"	60°	2	24.000	20-15225P
9.5	10	41.6	1/4"	90°	1	24.000	20-10225P
12.7	10	41.6	1/4"	90°	2	24.000	20-10425P
12.7	12.7	51.9	1/2"	90°	2	24.000	20-10950P
19	12.5	53.7	1/2"	90°	1	24.000	20-10850P



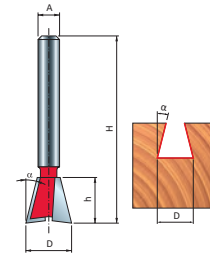
Series

22-

### Dovetail bits

Cuts all composites, laminates, plywood, hardwood and softwood. Use on hand held or table mounted portable router machines. Use multiple passes when removing large quantities of material.

D mm	h mm	H mm	A in	C mm	$\alpha$	Z	Max RPM 1/min.	Code
9.5	9.9	43.4	1/4"		9°	2		22-10225P
12.7	12.7	49.7	1/4"		14°	2		22-10425P
12.7	12.7	58.7	1/2"		14°	2		22-11250P



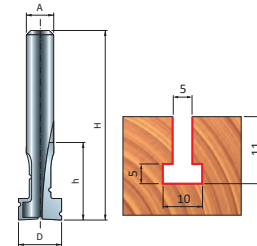
Series

70-

### Keyhole cutter

Cuts all composites, plywood, hardwood and softwood. Use on hand held or table mounted portable router machines

D mm	h mm	H mm	A in	Z	Max RPM 1/min.	Code
6.4	6.8	50.8	1/4"	1		70-10025P



Series

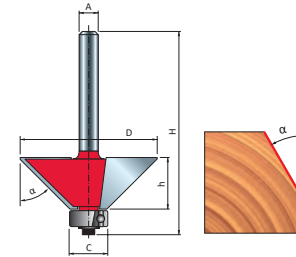
40-

**Chamfer bits**

Cuts all composites, plywood, hardwood and softwood. Use on hand held or table mounted portable router machines.

Use multiple passes when removing large quantities of material.

D mm	h mm	H mm	A in	C mm	$\alpha$	Z	Max RPM 1/min.	Code
18.4	12.8	50.2	1/4"	12.7	15°	2	24.000	40-10025P
33	11.5	49	1/4"	12.7	45°	2	24.000	40-10425P
41.5	15.9	53.4	1/4"	12.7	45°	2	24.000	40-10625P
43	18	62	1/2"	12.7	45°	2	24.000	40-11450P



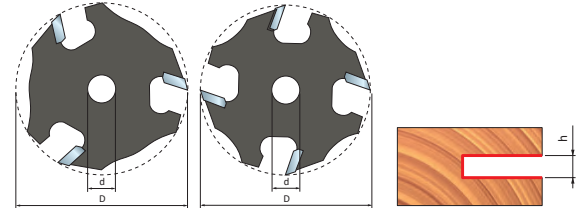
Series

56-58-

**Slotting Cutters**

Cuts all composites, plywood, hardwood and softwood. Use on hand held or table mounted portable router machines.

D mm	h mm	d mm	A mm	C mm	$\alpha$	Z	Max RPM 1/min.	Code
50.8	3.2	7.9	7.94			3		56-10831P
50.8	4	7.9	7.94			3		56-10931P
50.8	4.8	7.9	7.94			3		56-11031P
50.8	6.4	7.9	7.94			3		56-11231P
50.8	6.4	7.9	7.94			4		58-11231P





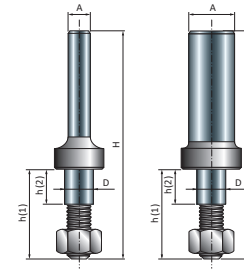
Series

60-

**Slot cutter arbors**

Use on hand held or table mounted portable router machines.







D mm	h mm	H mm	A in	C mm	$\alpha$	Z	Max RPM 1/min.	Code
8.2	25.4	60.3	1/4"	12				60-10025P
8.2	25.4	60.3	1/2"	12				60-10250P
Spare parts				Dimensions		Code		
				mm				
				Washer		17x8.4x1.6		2617M AG9
				Hex nut		7.94x6.75		2610M BB9

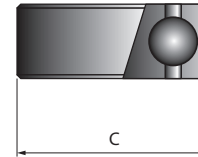


Series  
**63-**

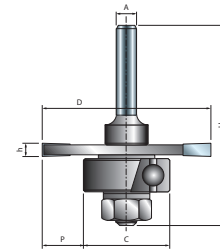
### Biscuit jointer cutter

Cuts all composites, plywood, hardwood and softwood. Use on hand held or table mounted portable router machines.  
Use multiple passes when removing large quantities of material.

D mm	h mm	H mm	A in	C mm	Z	Max RPM 1/min.	Code
50.8	4	60.3	1/4"	26-30-34	3	24.000	63-60925P
50.8	4	60.3	1/2"	26-30-34	3	24.000	63-60950P
Spare parts			Dimensions mm		Code		
			Hex nut		7.94 x 6.75		2610M BB9
			Washer		17 x 8.4 x 1.6		2617M AG9
			Washer		14 x 8.4 x 1.6		2617M BG9
			Reducer		26 x 22 x 10		RB62M 1249
			Reducer		30 x 22 x 10		RB62M 1289
			Reducer		34 x 22 x 10		RB62ME DA9



P mm	C mm
8,4	Ø 26
10,4	Ø 30
12,4	Ø 34

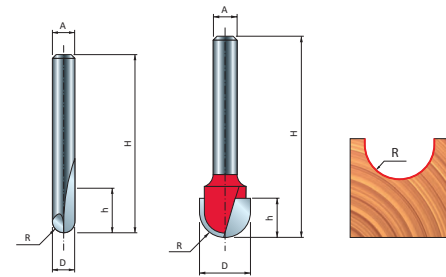


Series  
**18-**

### Round nose bits

Cuts all composites, plywood, hardwood and softwood. Use on CNC and other automatic routers as well as hand held or table mounted portable router machines. Use multiple passes when removing large quantities of material.

D mm	h mm	H mm	A in	H mm	Z	Max RPM 1/min.	Code
● 3.2	9.5	50.5	1/4"	1/16"	2		18-10025P
● 4.8	6.4	50.5	1/4"	1/8"	2		18-10225P
	6.4	50.5	1/4"	1/8"	2	24.000	18-10425P
● 9.5	9	43.7	1/4"	3/16"	2	24.000	18-10625P
	12.7	9	1/4"	1/4"	2	24.000	18-10825P
	15.9	11	1/4"	5/16"	2		18-11025P
	19	11	1/4"	3/8"	2	24.000	18-11225P
	6.4	12.7	3/8"	1/2"	2		18-11450P
	12.7	31.7	1/2"	1/4"	2		18-11650P
	19	31.7	1/2"	3/4"	2	24.000	18-12250P



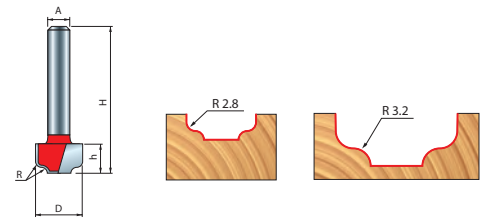
Solid Carbide Bit

Series  
**39-**

**Ogee Groove Bits**

Cuts all composites, plywood, hardwood and softwood. Use on hand held or table mounted portable router machines. Use multiple passes when removing large quantities of material.

D mm	h mm	H mm	A in	R mm	Z	Max RPM 1/min.	Code
12.7	8	38.5	1/4"	2.8	2		39-15225P
22.2	10.7			3.2	2		39-15425P

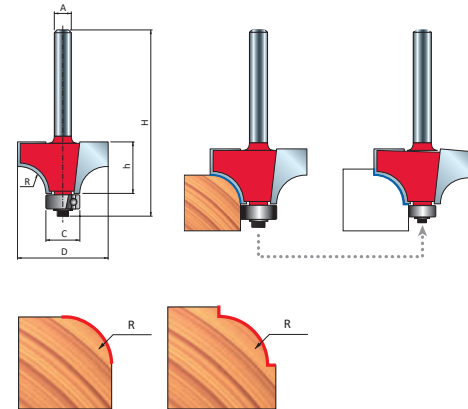


Series  
**34-**

**Rounding over bits**

Cuts all composites, plywood, hardwood and softwood. Use on hand held or table mounted portable router machines. Use multiple passes when removing large quantities of material.

D mm	h mm	H mm	A in	C mm	R mm	Z	Max RPM 1/min.	Code
15.9	13	50.2	1/4"	12.7	1.6	2	24.000	34-10025P
19	12.7	50.2	1/4"	12.7	3.2	2	24.000	34-10425P
22.2	13.2	54.9	1/4"	12.7	4.75	2	24.000	34-10825P
25.4	12.7	50.2	1/4"	12.7	6.4	2	24.000	34-11025P
25.4	12.7	56.2	1/2"	12.7	6.4	2	24.000	34-12050P
28.6	12.7	50.2	1/4"	12.7	8	2	24.000	34-11225P
31.8	18	55	1/4"	12.7	9.5	2	24.000	34-11425P
31.8	18	61	1/2"	12.7	9.5	2	24.000	34-12450P
38.1	19	56.5	1/4"	12.7	12.7	2	24.000	34-11625P
38.1	19	62.5	1/2"	12.7	12.7	2	24.000	34-12650P
44.5	22.2	65.7	1/2"	15.9	15.9	2	24.000	34-12750P
50.8	25.4	68.9	1/2"	12.7	19	2	18.000	34-12850P
63.5	31.8	74.7	1/2"	12.7	25.4	2	16.000	34-13250P

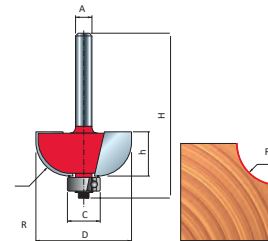


Series  
**30-**

**Cove bits**

Cuts all composites, plywood, hardwood and softwood. Use on hand held or table mounted portable router machines. Use multiple passes when removing large quantities of material.

D mm	h mm	H mm	A in	C mm	R mm	Z	Max RPM 1/min.	Code
22.2	12.7	50.2	1/4"	9.5	6.4	2	24.000	30-10225P
25.4	14.3	50.2	1/4"	9.5	7.9	2	24.000	30-10325P
31.8	12.7	50.2	1/4"	12.7	9.5	2	24.000	30-10425P
31.8	12.7		1/2"	12.7	9.5	2	24.000	30-11250P
38.1	16.4	53.9	1/4"	12.7	12.7	2	24.000	30-10625P
38.1	16.4		1/2"	12.7	12.7	2	24.000	30-11450P



Series

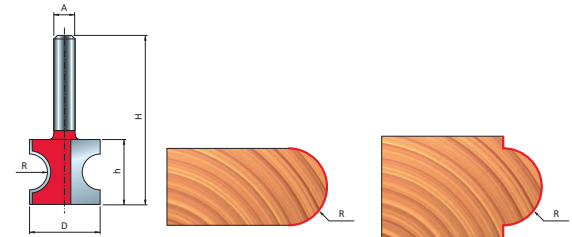
82-

**Half round bit**

Cuts all composites, plywood, hardwood and softwood. Use on CNC and other automatic routers as well as hand held or table mounted portable router machines for larger diameter router bits.

Use multiple passes when removing large quantities of material.

D mm	h mm	H mm	A in	R mm	Z	Max RPM 1/min.	Code
22	19.5	51.5	1/4"	4.8	2	24.000	82-10425P



Series

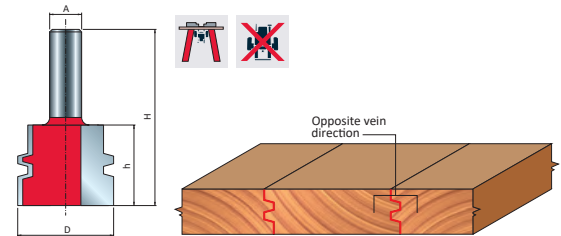
99-

**Reversible glue joint bit**

Cuts all composites, plywood, hardwood and softwood. Use only on table mounted portable router machines.

Use multiple passes when removing large quantities of material.

D mm	h mm	H mm	A in	$\alpha$	Z	Max RPM 1/min.	Code
38	32	70	1/2"	30°	2		99-03150P



Series

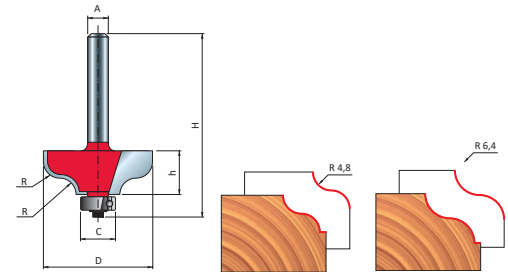
38-99-

**Ogee fillet bits**

Cuts all composites, plywood, hardwood and softwood. Use on hand held or table mounted portable router machines.

Use multiple passes when removing large quantities of material.

D mm	h mm	H mm	A in	C mm	R mm	Z	Max RPM 1/min.	Code
31.8	12.7	49.7	1/4"	12.7	4.8	2		38-15225P
31.8	12.7	49.7	1/4"	9.5	4.8	2	24.000	38-20225P
38.1	16.2	53.2	1/4"	9.5	6.4	2	22.000	38-20425P
38.1	16.5	60	1/2"	12.7	6.4	2		99-00650P



SA SawBlades  
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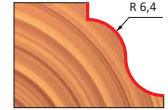
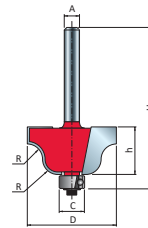
Series  
**38-**

**Roman ogee bits**

Cuts all composites, plywood, hardwood and softwood. Use on hand held or table mounted portable router machines.

Use multiple passes when removing large quantities of material.

D	h	H	A	C	R	Z	Max RPM	Code
mm	mm	mm	in	mm	mm	mm	1/min.	
27	13.3	50.8	1/4"	9.5	4	2	24.000	38-10025P
35	18.5	56	1/4"	9.5	6.4	2	20.000	38-10225P
35	18.5	62	1/2"	9.5	6.4	2	24.000	38-10650P



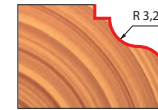
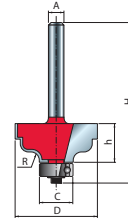
Series  
**38-**

**Classical roman ogee bit**

Cuts all composites, plywood, hardwood and softwood. Use on hand held or table mounted portable router machines.

Use multiple passes when removing large quantities of material.

D	h	H	A	C	R	Z	Max RPM	Code
mm	mm	mm	in	mm	mm	mm	1/min.	
31.8	15	52	1/4"	12.7	3.2	2	24.000	38-40225P



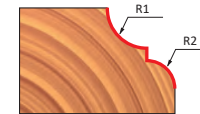
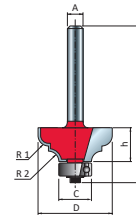
Series  
**38-99**

**Classical ogee bits**

Cuts all composites, plywood, hardwood and softwood. Use on hand held or table mounted portable router machines.

Use multiple passes when removing large quantities of material.

D	h	H	A	C	R1	R2	Max RPM	Code
mm	mm	mm	in	mm	mm	mm	1/min.	
28.6	12.7	50.2	1/4"	12.7	4	4	24.000	38-60225P
34.9	14.3		1/2"	9.5	5.2	2	24.000	99-00950P
34.9	17.5	61	1/2"	12.7	6.4	4.6	20.000	38-61450P



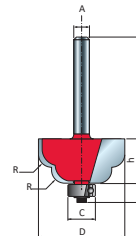
Series  
**38-**

**Double Cove Bits**

Cuts all composites, plywood, hardwood and softwood. Use on hand held or table mounted portable router machines.

Use multiple passes when removing large quantities of material.

D	h	H	A	C	R	Z	Max RPM	Code
mm	mm	mm	in	mm	mm	mm	1/min.	
29.4	13.5	61.5	1/2"	9.5	4	2	24.000	38-31250P
38.9	18.8	55.8	1/4"	9.5	6.4	2		38-30425P





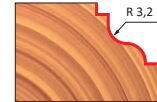
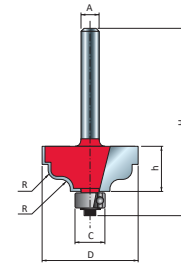
Series  
**38-**

### Double fillet ogee bit

Cuts all composites, plywood, hardwood and softwood. Use on hand held or table mounted portable router machines.

Use multiple passes when removing large quantities of material.

D	h	H	A	C	R	Z	Max RPM	Code
mm	mm	mm	in	mm	mm		1/min.	
31.8	15	52	1/4"	9.5	3.2	2	24.000	38-45225P



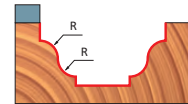
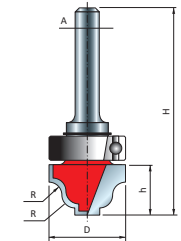
Series  
**39-**

### Top bearing fillet ogee groove bits

Cuts all composites, plywood, hardwood and softwood. Use on hand held or table mounted portable router machines.

Use multiple passes when removing large quantities of material.

D	h	H	A	C	R	Z	Max RPM	Code
mm	mm	mm	in	mm	mm		1/min.	
19	12.5	53.9	1/4"	19	3.2	2	24.000	39-52225P
12.7	8	38.5	1/4"		2.8	2		39-15225P
22.2	10.7	40.9	1/4"		3.2	2		39-15425P

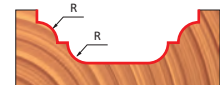
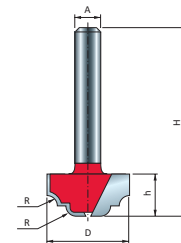


Series  
**39-**

### Cove & bead groove bits

Cuts all composites, plywood, hardwood and softwood. Use on CNC and other automatic routers as well as hand held or table mounted portable router machines. Use multiple passes when removing large quantities of material.

D	h	H	A	R	Z	Max RPM	Code
mm	mm	mm	in	mm		1/min.	
19	9.8	40.3	1/4"	2.4	2	24.000	39-10025P
25.4	12.7	43.2	1/4"	3.2	2	24.000	39-10225P

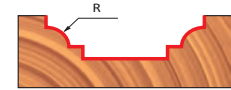
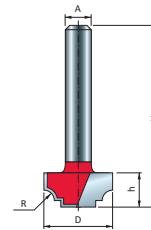


Series  
**39-**

### Classical beading groove bits

Cuts all composites, plywood, hardwood and softwood. Use on CNC and other automatic routers as well as hand held or table mounted portable router machines. Use multiple passes when removing large quantities of material.

D mm	h mm	H mm	A in	R mm	Z	Max RPM 1/min.	Code
12.7	9.5	40	1/4"	1.2	2	24.000	39-30225P
15.9	9.5	40	1/4"	2.4	2	24.000	39-30425P
22.2	12.1	42.7	1/4"	3.2	2	24.000	39-30625P

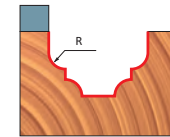
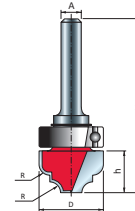


Series  
**39-**

### Top bearing cove & bead groove bit

Cuts all composites, plywood, hardwood and softwood. Use on hand held or table mounted portable router machines. Use multiple passes when removing large quantities of material.

D mm	h mm	H mm	A in	C mm	R mm	Z	Max RPM 1/min.	Code
19	12.7	53.9	1/4"	19	3.2	2	24.000	39-53225P

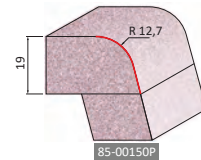
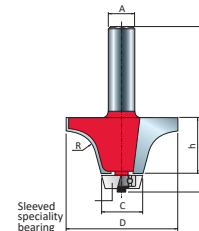


Series  
**85-**

### Round over bowl bits

Cuts all solid surface materials, solid surfaces, hardwood and composition materials. Use on hand held or table mounted portable router machines. Use multiple passes when removing large quantities of material.

D mm	h mm	H mm	A in	C mm	Z	Max RPM 1/min.	Code
50.8	25.4	68.9	1/2"	22.2	2		85-00150P

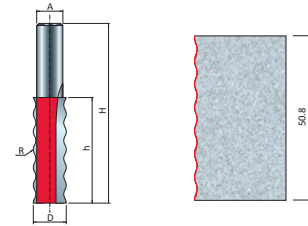


Series  
**85-**

**Wavy joint bit**

Cuts all solid surface materials, solid surfaces, hardwood and composition materials. Use on hand held or table mounted portable router machines. Use multiple passes when removing large quantities of material.

D mm	h mm	H mm	A in	R mm	Z	Max RPM 1/min.	Code
16	50,8	88	1/2"	4	2	24.000	85-03350P

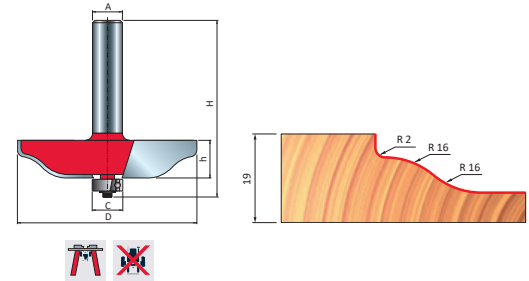


Series  
**99-**

**Raised panel bits**

Cuts all composites, plywood, hardwood and softwood. Use only on table mounted portable router machines. Use multiple passes when removing large quantities of material.

D mm	h mm	H mm	A in	C mm	R1 mm	R2 mm	Max RPM 1/min.	Code
70	16	60	1/2"	12.7	14.2	3.2		99-51050P
89	16	60	1/2"	12.7	20.6	4		99-52050P



Series  
**99-**

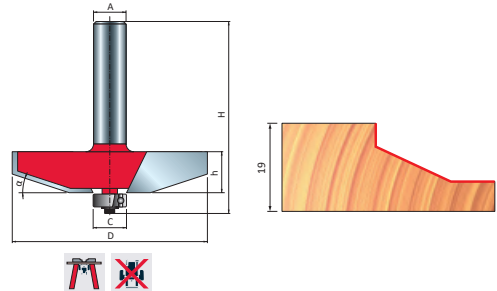
**Raised panel bits**

Cuts all composites, plywood, hardwood and softwood. Use only on table mounted portable router machines. Use multiple passes when removing large quantities of material.

D mm	h mm	H mm	A in	C mm	$\alpha$	Z	Max RPM 1/min.	Code
70	16	60	1/2"	12.5	25.5°	2	22.000	99-51150P
88	13	57	1/2"	12.5	17.3°	2		99-51650P
89	16.1	60	1/2"	12.5	18.3°	2	18.000	99-51550P

Spare parts		Dimensions mm	Code
	Screw	M3 x 7.6	2607M 001
	Ball bearing	12.7 x 4.8 x 5	3102M AB9
	Washer	12 x 1.1 x 4.8	FX07M AB9









Series

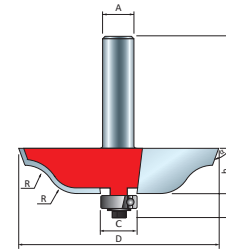
85-

**Raised panel bit**

Cuts all composites, plywood, hardwood and softwood. Use only on table mounted portable router machines.

Use multiple passes when removing large quantities of material.

D	h	H	R	A	C	$\alpha$	Z	Max RPM	Code
mm	mm	mm	mm	in	mm	mm		1/min.	
70	16	63.5	11.1	1/2"	12.7	70°	2	14.000	99-51350P
Spare parts			Dimensions		Code				
			mm						
	Hex nut		7.94 x 6.75		2610M BB9				
	Spacer		18 x 0.1 x 8		AN01MP0019				
	Spacer		18 x 0.2 x 8		AN01MP0029				
	Spacer		18 x 0.5 x 8		AN01MP0059				
	Spacer		18 x 1 x 8		AN01MP0109				
	Spacer		18 x 0.15 x 8		AN01MPAA99				



Series

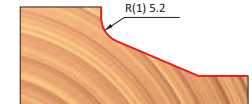
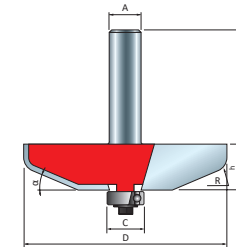
99-

**Raised panel bit**

Cuts all composites, plywood, hardwood and softwood. Use only on table mounted portable router machines.

Use multiple passes when removing large quantities of material.

D	h	H	A	C	$\alpha$	R	Max RPM	Code
mm	mm	mm	in	mm	mm	mm	1/min.	
69.9	16.3	60	1/2"	12.7	15°	5.2		99-51250P



Series

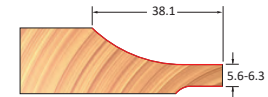
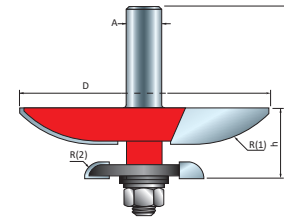
99-

**Raised panel bits**

Cuts all composites, plywood, hardwood and softwood. Use only on table mounted portable router machines.

Use multiple passes when removing large quantities of material.

D	h	H	A	C	R	Z	Max RPM	Code
mm	mm	mm	in	mm	mm		1/min.	
89	20	75	1/2"					99-56950P






Series  
**99-**

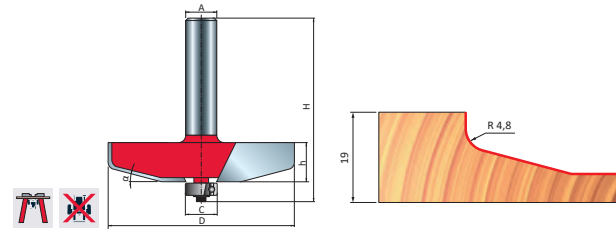
### Raised panel bit

Cuts all composites, plywood, hardwood and softwood. Use only on table mounted portable router machines.

Use multiple passes when removing large quantities of material.

D	h	H	A	C	$\alpha$	Max RPM	Code
mm	mm	mm	mm	mm	mm	1/min.	
89	19	76.2	1/2"	12.7	15°	18.000	99-56650P

Spare parts		Dimensions	Code
		mm	
	Screw	M3 x 7.6	2607M 001
	Ball bearing	12.7 x 4.8 x 5	3102M AB9
	Washer	12 x 1.1 x 4.8	FX07M AB9






Series  
**99-**

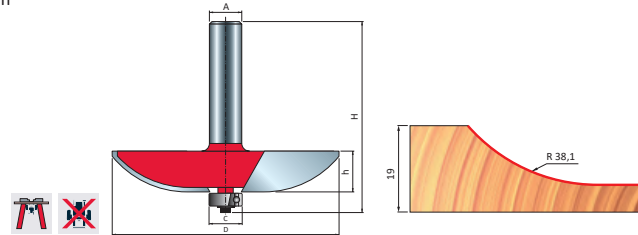
### Raised panel bits

Cuts all composites, plywood, hardwood and softwood. Use only on table mounted portable router machines.

Use multiple passes when removing large quantities of material.

D	h	H	A	C	R	Z	Max RPM	Code
mm	mm	mm	mm	mm	mm	mm	1/min.	
89	16	64.7	1/2"	12.7	38.1	2		99-51850P
89	13	64.7	1/2"	12.7	38.1	4		99-51950P

Spare parts		Dimensions	Code
		mm	
	Screw	M3 x 7.6	2607M 001
	Ball bearing	12.7 x 4.8 x 5	3102M AB9
	Washer	12 x 1.1 x 4.8	FX07M AB9









Series  
**99-**

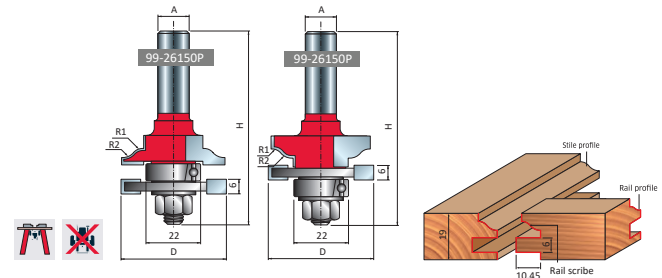
### Matched profile and scribe bits

Cuts all composites, plywood, hardwood, and softwood. Use only on table mounted portable router machines.

Use multiple passes when removing large quantities of material

D	h	H	A	R1	R2	Z	Max RPM	Code
mm	mm	mm	mm	mm	mm	mm	1/min.	
42.9	40.5	77	1/2"	5.5				99-26050P
42.9	19	77	1/2"	4.5	5.5	2	24.000	99-26150P
42.9	19	77	1/2"	7		2	24.000	99-26350P

Spare parts		Dimensions	Code
		mm	
	Hex nut	7.94 x 6.75	2610M BB9
	Spacer	18 x 0.1 x 8	AN01MP0019
	Spacer	18 x 0.2 x 8	AN01MP0029
	Spacer	18 x 0.5 x 8	AN01MP0059
	Spacer	18 x 1 x 8	AN01MP0109
	Ball bearing	22.2 x 8 x 7.1	3102M AC9







Series

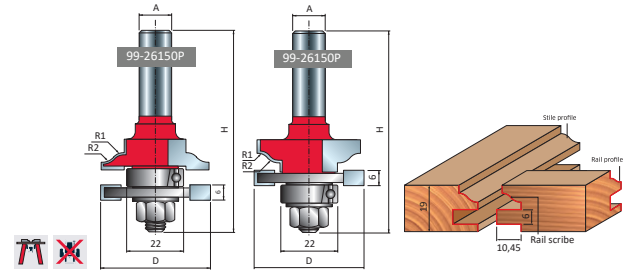
99-

**Matched profile and scribe bits**

Cuts all composites, plywood, hardwood and softwood. Use only on table mounted portable router machines.

Use multiple passes when removing large quantities of material.

D mm	h mm	H mm	A mm	R1 mm	R2 mm	Z	Max RPM 1/min.	Code
50.4	32.7	77	1/2"	5.5		2	24.000	99-29050P
50.4	32.7	104	1/2"	7		2	14.000	99-29350P
Spare parts				Dimensions mm		Code		
		Hex nut		7.94 x 6.75		2610M BB9		
		Retaining ring		15 x 13.8		2621ME 015		
		Ball bearing		32 x 15 x 9		3102M AN9		
		Spacer		18 x 1 x 8		AN01MP0109		

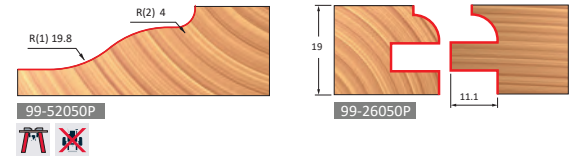


97-10450P

**Cabinet Door Set - 3 Router Bits**

Cuts all composites, plywood, hardwood and softwood. Use only on table mounted portable router machines.

Bit type	Page	Code
Raised Panel Bit	53	99-52050P
Rail & Stile Bit Set	57	99-26050P

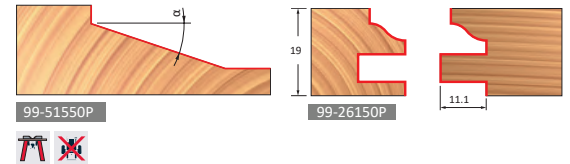


97-20050P

**Cabinet Door Set - 3 Router Bits**

Cuts all composites, plywood, hardwood and softwood. Use only on table mounted portable router machines.

Bit type	Page	Code
Raised Panel Bit	54	99-51550P
Rail & Stile Bit Set	56	99-26150P

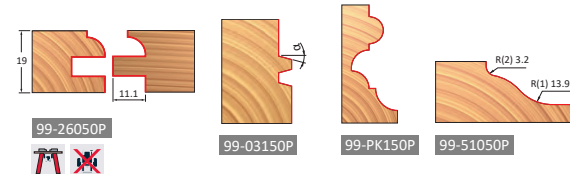


95-10050P

**Five Piece Cabinet Door Set**

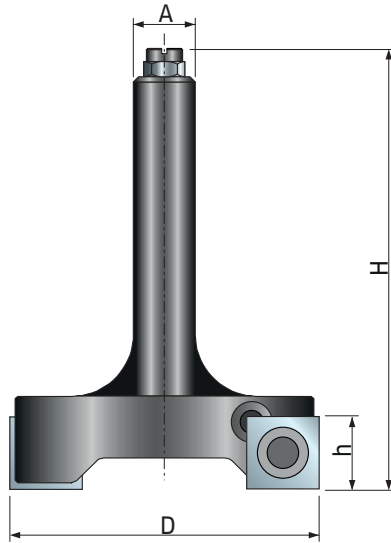
Cuts all composites, plywood, hardwood and softwood. Use only on table mounted portable router machines.

Bit type	Page	Code
Multi-Profile Bit		99-PK150P
Reversible Glue Joint Bit	47	99-03150P
Raised Panel Bit	53	99-51050P
Rail & Stile Bit Set	57	99-26050P



## Spoilboard surfacing cutters

Positive shear angle:  
solid wood and other board materials



**NC12M**

### Spoilboard surfacing cutters

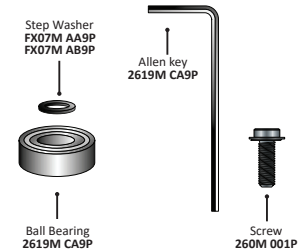
D mm	h mm	H mm	A mm	Z	Code
80	13	80	20	3	<b>NC12M80</b>

D inch	h inch	H inch	A inch	Z	Code
2-1/2"	1/2"	3"	1/2"	2	<b>NC12M61</b>
2-1/2"	1/2"	3"	1/2"	2	<b>NC12M61N</b>

## Spare parts also available

By replacing the 1/2 diameter ball bearing with the 3/8 diameter ball bearing you will convert the rounding over bit into a beading bit, thus achieving two profiles with the same router bit

### • Solid Carbide Bit



Spare parts	Dimensions mm	Code
	14 x 14 x 2	<b>RG01MAI3 10</b>
	M5 x 8	<b>VT05M AA9</b>
	M4	<b>2606M CE9</b>
	M4 x 10	<b>2611M DB9</b>
	T20	<b>CB03M CC9</b>

### Optional square disposable spurs

L mm	H mm	S mm	QTY	Type HW	$\alpha$	Code
14	14	2	1	H00XA	31°	<b>RG01MAH3 10</b>

# Engraving router 1-flute

Router bits with 1-straight cutting edge. For CNC machines and for portable routers. For wood and plastic materials.

Feed rate: 2 - 8 m/min of 18 000 - 24 000 RPM.



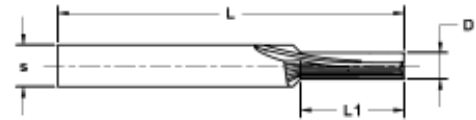
D	d1	L2	L1	S	V °	RH V Groove
4	0,1	10	45	4	30°	<b>V004.040.030.045</b>
4	0,1	10	45	4	45°	<b>V004.040.045.045</b>
4	0,1	10	45	4	60°	<b>V004.040.060.045</b>
4	0,1	10	45	4	90°	<b>V004.040.090.045</b>
6	0,2	12	50	6	30°	<b>V004.060.030.050</b>
6	0,2	10	50	6	45°	<b>V004.060.045.050</b>
6	0,2	10	50	6	60°	<b>V004.060.060.050</b>
6	0,2	10	50	6	90°	<b>V004.060.090.050</b>



## 2-flute Spiral Routers

Router bits with 2-straight cutting edges. For CNC machines and for portable routers. For wood and plastic materials.

Feed rate: 2 - 8 m/min of 18 000 - 24 000 RPM.



D	L1	L	S	Z	RH Profile Router
2	6	50	6 or 1/4"	2	<b>V011.020.006.050</b>
2,5	6	50	6 or 1/4"	2	<b>V011.025.006.050</b>
3	10	50	6 or 1/4"	2	<b>V011.030.010.050</b>
3,5	12	50	6 or 1/4"	2	<b>V011.035.012.050</b>
4	15	50	6 or 1/4"	2	<b>V011.040.015.050</b>
5	20	60	6 or 1/4"	2	<b>V011.050.020.060</b>
6,35 (1/4")	25,4 (1")	63,5 (2)	6,35 (1/4")	2	<b>V011.063.025.064</b>

## 2 flutes Spiral Router

2 Flute spiral router bit.  
 For CNC machines and for portable routers.  
 For wood and plastic materials.  
 Feed rate: 2 - 10 m/min of 18 000 - 24 000 RPM



D	L1	L	S	Z	RH Upcut	RH
2	8	50	3	2	<b>V201.020.008.050</b>	<b>V201.020.008.050N</b>
3	12	50	3	2	<b>V201.030.012.050</b>	<b>V201.030.012.055N</b>
4	12	50	4	2	<b>V201.040.012.050</b>	<b>V201.040.012.055N</b>
5	17	70	5	2	<b>V201.050.017.070</b>	<b>V201.050.017.075N</b>
6	22	70	6	2	<b>V201.060.022.070</b>	<b>V201.060.022.075N</b>
8	22	70	8	2	<b>V201.080.022.070</b>	<b>V201.080.022.075N</b>
8	32	80	8	2	<b>V201.080.032.080</b>	<b>V201.080.032.085N</b>
10	32	80	10	2	<b>V201.100.032.080</b>	<b>V201.100.032.085N</b>
10	42	90	10	2	<b>V201.100.042.090</b>	<b>V201.100.042.100N</b>
10	52	100	10	2	<b>V201.100.052.100</b>	<b>V201.100.052.110N</b>
12	32	80	12	2	<b>V201.120.032.080</b>	<b>V201.120.032.090N</b>
12	42	90	12	2	<b>V201.120.042.090</b>	<b>V201.120.042.100N</b>
12	52	100	12	2	<b>V201.120.052.100</b>	<b>V201.120.052.110N</b>

## 2 flute Rough Cutting Spiral

2 Flute spiral router bit, rough cutting.

For CNC machines and for portable routers. For wood and plastic materials.

Feed rate: 2 - 10 m/min of 18 000 - 24 000 RPM.

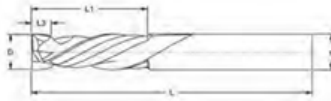


D	L1	L	S	Z	RH Upcut	RH Downcut
6	22	70	6	2	V203.060.022.070	V203.060.022.075N
8	22	70	8	2	V203.080.022.070	V203.080.022.075N
8	32	80	8	2	V203.080.032.080	V203.080.032.085N
10	32	80	10	2	V203.100.032.080	V203.100.032.090N
10	42	90	10	2	V203.100.042.090	V203.100.042.100N
10	52	100	10	2	V203.100.052.100	V203.100.052.110N
12	32	80	12	2	V203.120.032.080	V203.120.032.090N
12	42	90	12	2	V203.120.042.090	V203.120.042.100N
12	52	100	12	2	V203.120.052.100	V203.120.052.110N

# Compression Router 2+2 flute

Compression spiral router bits Z= 2+2. For CNC machines. For wood, plastic materials.

Feed rate: 6 - 16 m/min of 18 000 - 24 000 RPM

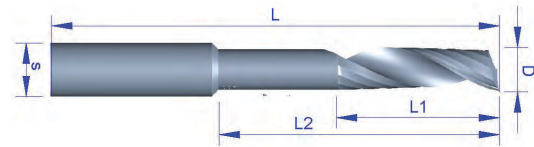


D	L1	L3	L	S	Z	RH Compression Spiral
6	25	5	70	6	2+2	V802.060.025.070
8	25	5	70	8	2+2	V802.080.025.070
8	35	5	80	8	2+2	V802.080.035.080
10	25	7	80	10	2+2	V802.100.025.080
10	35	7	80	10	2+2	V802.100.035.080
12	25	7	80	12	2+2	V802.120.025.080
12	35	7	80	12	2+2	V802.120.035.080
12	42	7	90	12	2+2	V802.120.042.090

# Alluminium Router bits

Router bits for ALU.

1 Helix flute, long with reduced body.



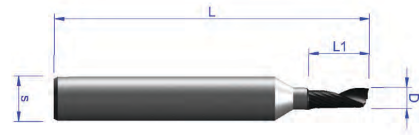
D	L1	L2	L	S	Z	Art.. nr
5	15	30	80	8	1	AL102.050.15-30.080
6	15	30	80	8	1	AL102.060.15-30.080
8	25	40	90	8	1	AL102.080.25-40.090
8	35	50	100	8	1	AL102.080.35-50.100

# Dibond Router bits

Router Bits for Dibond.

These Router bits were designed for the dibond application and made out of solid carbide for longer life.

1 Helix flute shank 6mm



D	L1	L	S	Z	Art.. Nr P/P
3	8	50	6	1	<b>AL101D.030.080.050</b>
4	8	50	6	1	<b>AL101D.040.080.050</b>
5	10	50	6	1	<b>AL101D.050.010.050</b>
6	10	50	6	1	<b>AL101D.060.010.050</b>
8	10	50	8	1	<b>AL101D.080.010.050</b>

# PCD Router Cutters

\*



PCD Polycrystalline Diamond has a hardness of around 3 times than that of carbide.

Often used in high performance equipment.

D	L1	L	S	Z	PCD Spiral
* 8	15	70	10	Z2 Neg	PP09D081510R
* 10	15	70	10	Z2 Neg	PP09D101510R
10	22	65	12	Z1+1	PP10D102612R
12	26	75	12	Z1+1	PP10D12612R
16	34	100	16	Z1+1	PP10D163416R
16	43	110	16	Z1+1	PP10D164316R
12	18	70	12	Z3+3	DP5023000
12	24	70	12	Z3+3	DP5023001
16	38	100	16	Z3+3	DP50100016
18	26	90	18	Z3+3	DP50230018

**Not all options listed, please enquire for more.**



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