FS TOOL

**INDUSTRIAL** QUALITY

Cutting tools for all types of wood,
composites, plastics & aluminium

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QUALITY • SERVICE • PRIDE • TRADITION • INNOVATION


**FS TOOL CORPORATION**
71 Hobbs Gate • Markham, Ontario • L3R 9T9
**TEL** 1.800.387.9723 • **FAX** 905.475.0347

**FS TOOL CORPORATION**
210 South Eighth Street • P.O. Box 510 • Lewiston, NY 14092-0510
**TEL** 1.800.387.9723 • **FAX** 1.800.361.5010


## Celebrating 50 years!

Since 1973, FS Tool Corporation has been providing cost-effective, solution-driven approaches to unique tooling needs for various industries across the globe. FS Tool is recognized as an industry leader in providing quality carbide and diamond tooling solutions for composites, non-ferrous metals, plastics, and woodworking applications. Living by the motto – Engineered to Outperform – our innovative solutions have continued to evolve alongside new machinery and materials. We have partnered with valued customers and machinery producers around the world to ensure ultimate customer satisfaction and unsurpassed technical expertise. Here is to 50 more!

## Application Support and Product Knowledge

We are application driven. In addition to showcasing over 6000 products, we also offer custom tooling solutions and dedicated technical support for all your application needs. We offer training, inventory management programs, tooling consultations, and other educational support services as part of our partnership approach. FS Tool is there when you need us.

## Our Partnership Approach

FS Tool only partners with qualified distributors who are industry experts. Our distributors can provide you with the technical support and product knowledge when you need it the most. Our sales team and engineering advisors work closely with distributors to coordinate on-site customer training, troubleshooting advise, and ongoing research and development for our innovative solutions.

## Our Commitment

We are committed to providing you with premium products that are cost effective. If you have a unique tooling need outside of what is listed in the catalogue, please contact us at 1-800-387-9723. Our customer service team will be happy to assist you or put you in contact with a distributor in your area.

To learn more about FS Tool or to download the digital version of the catalog,
please visit our website: **www.fstoolcorp.com**

### Delivery and Availability

Tools offered from stock are subject to availability. Buyer agrees to partial deliveries which will be considered separate transactions. Cancellation or alteration of orders are subject to our written consent. Returns only upon approval. Tools made to special order are not returnable.

Delivery time is based on our present commitments and starts from the date of order confirmation. Although every effort will be made to maintain delivery times, we will not be liable for any loss or damage due to delays, however occasioned.

### Our Guarantee

All our tools are manufactured according to specifications described in this catalogue, which includes guarantee of quality and workmanship. Tools returned for inspection are to be sent shipping prepaid. We will replace only tools which prove, upon examination, to have been defective, and which have not been misused or carelessly handled. We decline any responsibility for mistakes caused by improper application, handling, or inappropriate sharpening/ service. Tools may be altered in design from provided illustrations due to improvements or changes in production methods.

**"They're like family. We don't give our tooling or sharpening a second thought. They keep us ahead of the curve with the best tools."**

- Mark Cacioppo

**"We consider FS an extension of our company. When we need something, they make it happen. And it's done right."**

- Aaron Jud

**"Our business is based on quality products. Working with FS, my production team has a partner they can rely on."**

- Marcus Aisley

**ENGINEERED** TO **OUTPERFORM**

We promise to provide you with custom tooling, product knowledge, and application support when you need it.

# WHAT'S NEW?

55DL SERIES

SEE PAGE E48

FINE DADO SETS WITH 4 WING CHIPPERS

SHRKFH-HSK63F

SEE PAGE FC1

SHRINKFIT TOOLHOLDERS

MD2010

SEE PAGE FC22

ADJUSTABLE MOUNTING DEVICES

RD2571

SEE PAGE FC79

V GROOVE INSERT ROUTER BITS

1TS02

1TS03

SEE PAGE D25

STILE AND RAIL TOOLHEAD SET

# WHAT'S NEW?

DRS01

SEE PAGE FC88

**PCD DIAMOND MDF DOOR TOOLING SET**

D41L (57.5MM)

D41M (70MM)

SEE PAGE G3

**HIGH PRECISION DOWEL DRILLS**

RSF01 - RSF04

SEE PAGE FC67 FC68

**HIGH POLISH O-FLUTE ROUTER BITS** (PLASTICS & ALUMINIUM)

D42L (57.5MM)

D42M (70MM)

SEE PAGE G4

**ROUND SPURS, PRECISION DOWEL DRILLS**

D30 (57MM)

SEE PAGE G27

**SOLID CARBIDE BORING DRILLS, 2 TEETH**

# CONTENT OVERVIEW

## DATA FOR ORDERING

### Standard Tools In Catalogue

Part number
Dimensions

### Custom Tools

Bore or shank size
Machine RPM and required feedrate
Direction of rotation
Drawing showing dimensions of cut or a workpiece sample giving orientation to machine table and fence
Type of material to be cut including wood species and moisture content if appropriate

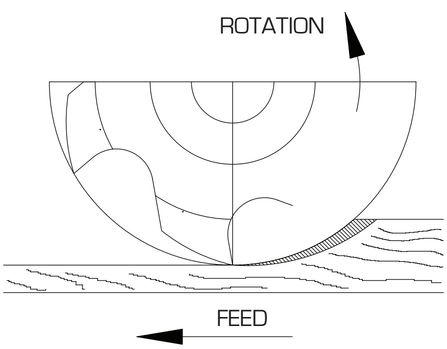
### Main Specifications

Tool diameter x width of cut x bore (or shank) diameter
Number of teeth
Direction of rotation
Maximum RPM (n max)
Keyway size
Tooth material: Tungsten Carbide, HSS, Stellite, or Diamond

## WORKING METHOD

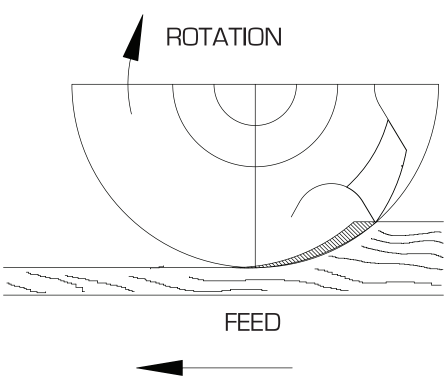
### Against Feed Direction (Up Cut)

The usual method of operation. The cutting motion of the tool and the feed direction work counter to one another. The cutting force exerted on the workpiece resists the direction of feed.
Only the 'Up Cut' method is suitable for hand feeding.




### With Feed Direction (Climb Cut)

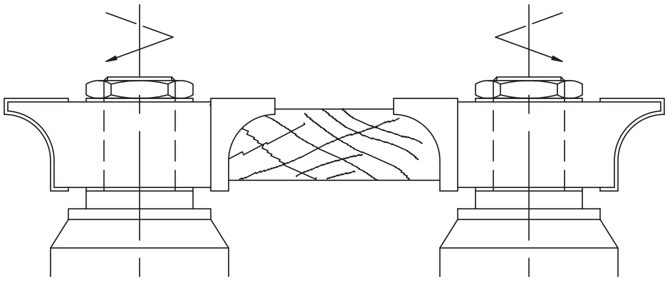
The cutting motion of the tool and the feed direction are in the same direction. The cutting force exerted on the workpiece works in the same direction as the feed. Only the 'Climb Cut' method is suitable for mechanical feed.



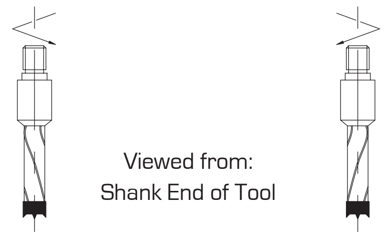

## DIRECTION OF ROTATION

**Left Hand Cutting** — **Right Hand Cutting**

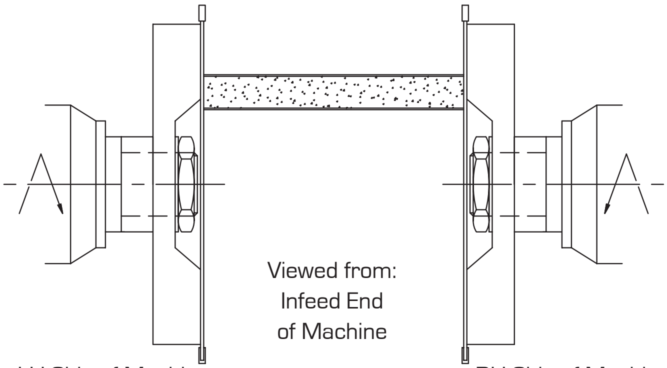
### Bore Mounted Tools




### Shank Mounted Tools

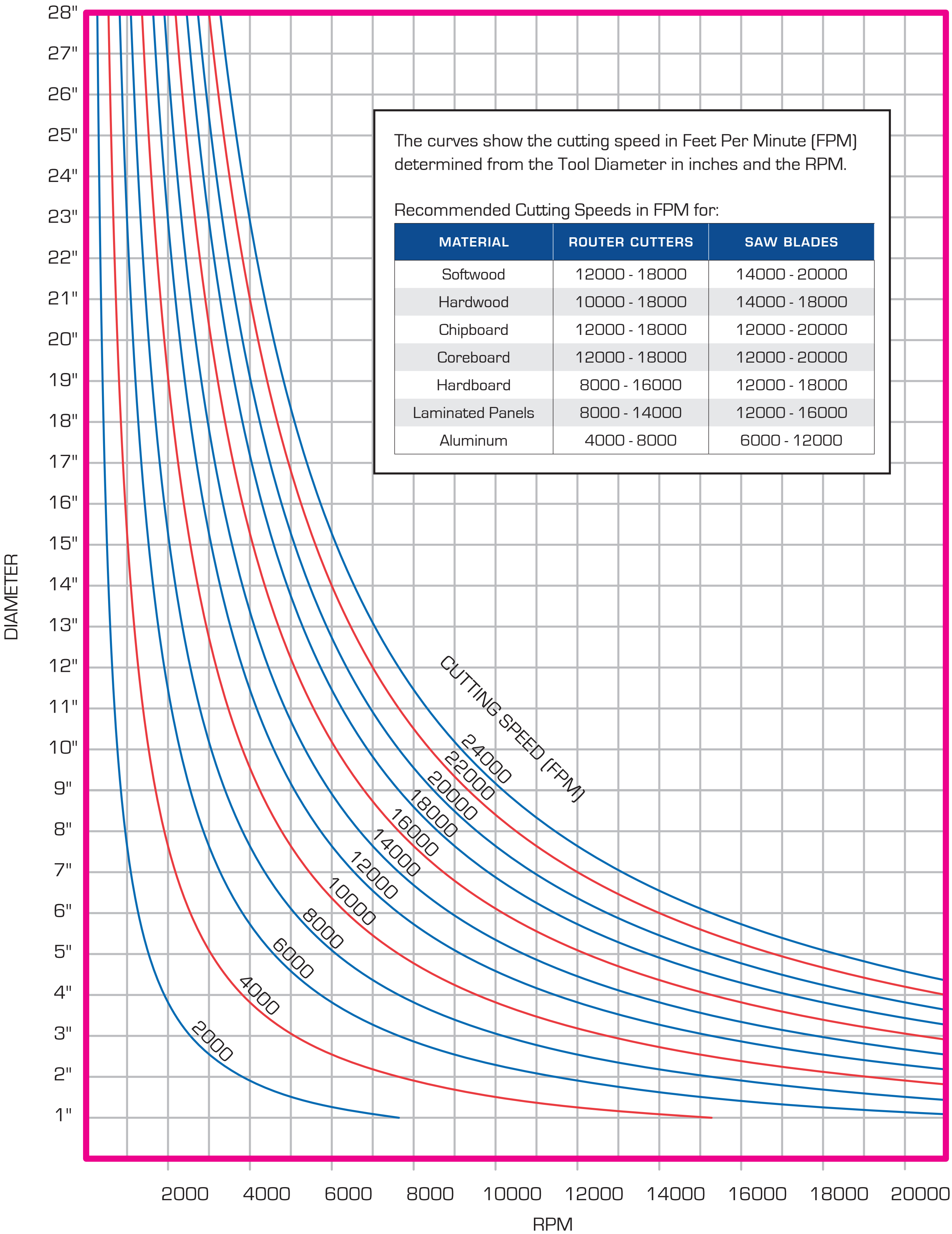



### Hogging Units



## DETERMINATION OF CUTTING SPEED

In relation to RPM and tool diameter



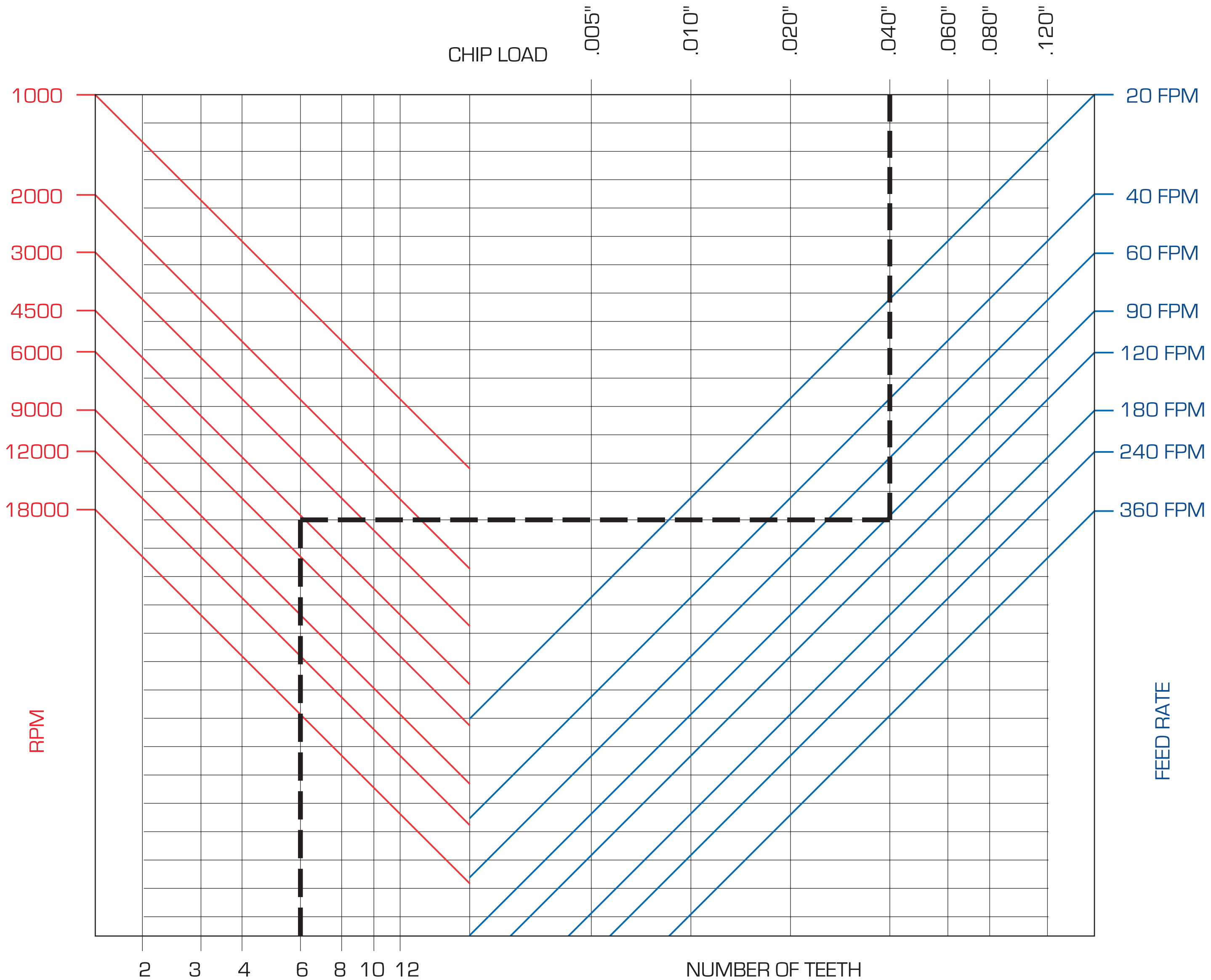

The curves show the cutting speed in Feet Per Minute (FPM) determined from the Tool Diameter in inches and the RPM.

Recommended Cutting Speeds in FPM for:

| MATERIAL | ROUTER CUTTERS | SAW BLADES |
|---|---|---|
| Softwood | 12000 - 18000 | 14000 - 20000 |
| Hardwood | 10000 - 18000 | 14000 - 18000 |
| Chipboard | 12000 - 18000 | 12000 - 20000 |
| Coreboard | 12000 - 18000 | 12000 - 20000 |
| Hardboard | 8000 - 16000 | 12000 - 18000 |
| Laminated Panels | 8000 - 14000 | 12000 - 16000 |
| Aluminum | 4000 - 8000 | 6000 - 12000 |

## DETERMINATION OF OPERATION PARAMETERS FOR CUTTERS

Chipload, Feed Rate, RPM, Number of Teeth




### RECOMMENDED CHIP LOADS (INCH/TOOTH)

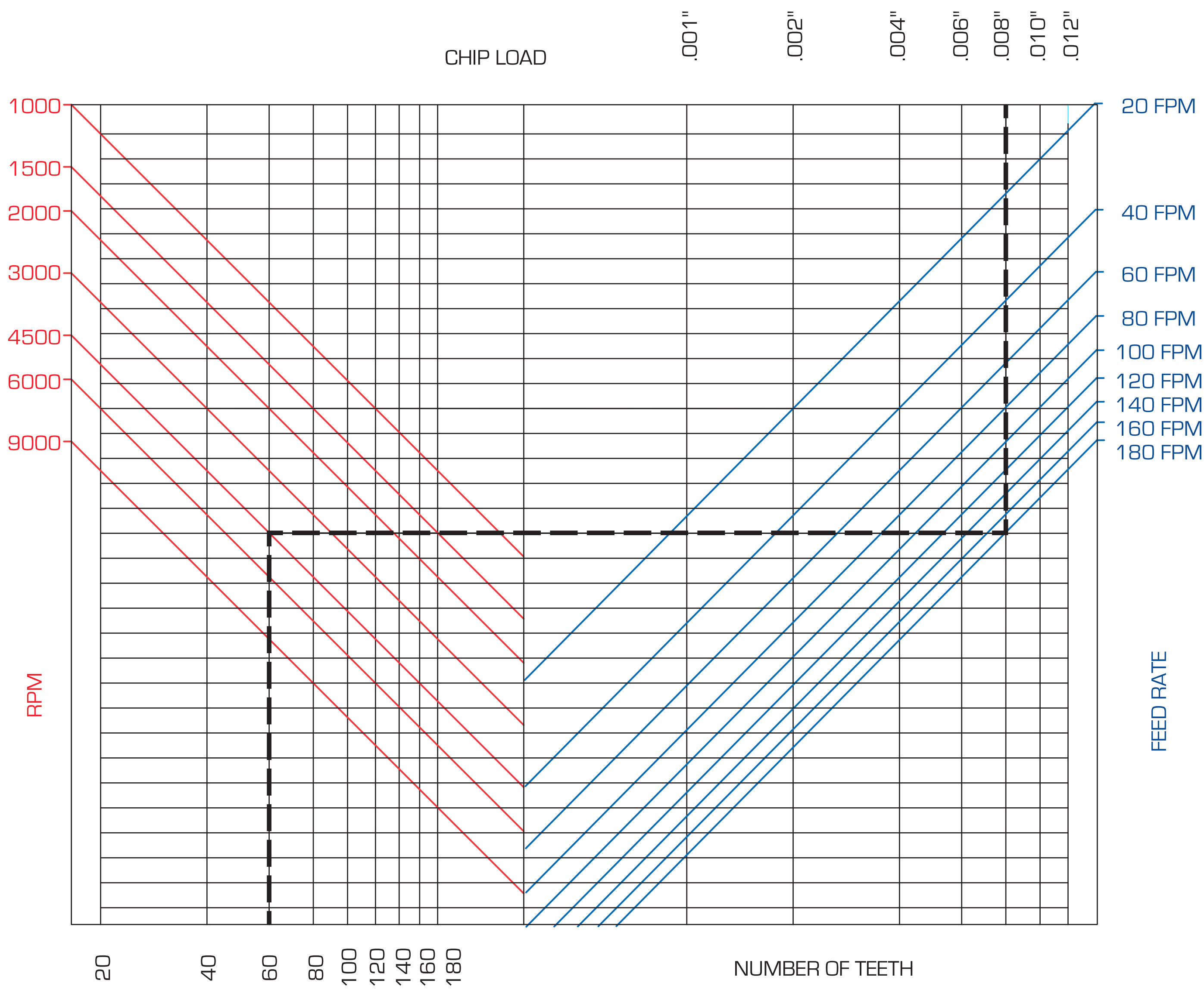
| | |
|---|---|
| **FINE FINISH** | .010" - .030" |
| **MEDIUM FINISH** | .030" - .100" |
| **COARSE FINISH** | .100" - .200" |

**Example** — — — —

6 tooth cutter, rotating at 4,500 RPM and feeding at 90 FPM, has a chip load of .040"/tooth

## DETERMINATION OF OPERATION PARAMETERS FOR CIRCULAR SAW BLADES

Chipload, Feed Rate, R.P.M., Number of Teeth




### RECOMMENDED CHIPLOADS (INCH / TOOTH)

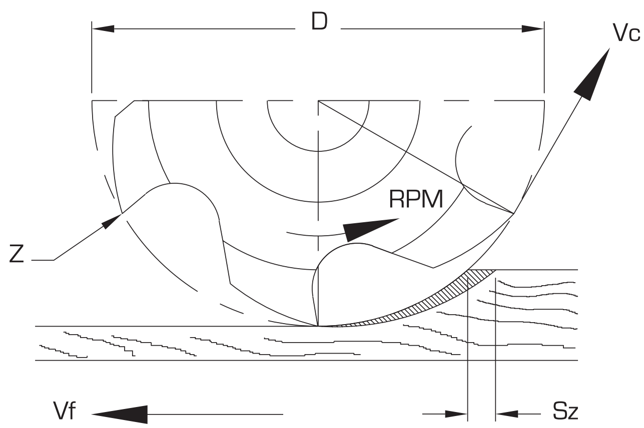
| | |
|---|---|
| **SOFTWOOD: ALONG GRAIN** | .008" - .035" |
| **SOFTWOOD: CROSS GRAIN** | .004" - .008" |
| **HARDWOOD** | .002" - .006" |
| **CHIPBOARD** | .004" - .010" |
| **VENEERED PANELS** | .001" - .004" |
| **PLASTIC LAMINATED PANELS** | .001" - .002" |
| **ALUMINUM** | .001" - .003" |

**Example** — — — —

60 tooth saw blade, rotating at 4,500 RPM and feeding at 180 FPM, has a chipload of .008"/tooth

## FORMULAS

For calculating chipload, cutter marks per inch, feed rate, and cutting speed




### Symbols

D = Diameter (inches)
Z = Number of Teeth
RPM = Spindle Speed
Vf = Feed Rate (FPM)
Vc = Cutting Speed (FPM)
Sz = Chipload (inch/tooth)
MPI = Cutter Marks per Inch

### Chipload

$$Sz = \frac{Vf \times 12}{RPM \times Z}$$

Example

Vf = 90 FPM
RPM = 4500
Z = 6

$$Sz = \frac{90 \times 12}{4500 \times 6}$$

= .040"/ tooth

### Cutter Marks Per Inch

$$MPI = \frac{1}{Sz}$$

Example

Sz = .040"/tooth

$$MPI = \frac{1}{.040}$$

= 25

### Feed Rate

$$Vf = \frac{Sz \times RPM \times Z}{12}$$

Example

Sz = .040"/ tooth
RPM = 4500
Z = 6

$$Vf = \frac{.040 \times 4500 \times 6}{12}$$

= 90 FPM

### Cutting Speed

$$Vc = \frac{D \times \pi \times RPM}{12}$$

Example

D = 6"
π = 3.14
RPM = 6000

$$Vc = \frac{6 \times 3.14 \times 6000}{12}$$

= 9420 FPM

## OPERATING INSTRUCTIONS

### Handling (Packing/Unpacking)

Use special care when unpacking and packing tools, as well as in handling (e.g. mounting onto the machine) due to the risk of injury from sharp cutting edges.

### Transport

Due to the risk of injury, transport tool only in suitable packing. Use the original packaging where possible.

### Use

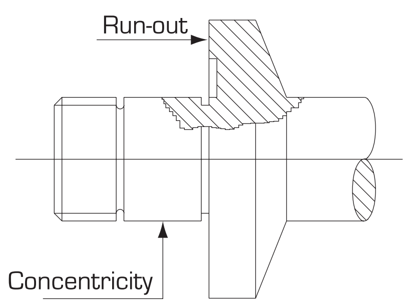
Exclusively for the cutting and machining of wood materials, laminates, plastics, and non-ferrous materials as described in the product pages of this catalogue.

### RPM

The maximum permissible speed (n max) stated on the tool must not be exceeded. This speed should not be adopted as the operating speed, as the optimum speed for the tool will be dependant upon the application of use.

### Machine

Secure the machine against accidental starting before mounting or changing the tool. Use appropriate lock-out procedures.
Ensure machine spindle speed does not exceed maximum permissible speed stated on the tool. Check direction of rotation.
Check spindle for concentricity and flange for run-out using a dial gauge.




Use only precision ground spacers and flanges, otherwise the spindle can become distorted.
Check that workpiece is securely clamped and that feed is correctly aligned to the spindle.

### Operation

All tools should be handled with care. Placing tools against each other or on hard surfaces such as machine tables may damage the cutting edges. Tools must be protected when not in use and when being moved to and from the machine.

Mount and secure the tool as specified by the machine manufacturers' instructions. Do not block the tool to assist in tightening the tool onto the machine spindle as this may cause damage to the tool. Similarly, do not jam material against the tool to assist in slowing down the tool when stopping the spindle.

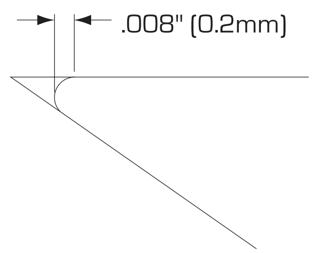
Observe all instructions and warnings included with the tool.
The tool may only be mounted by trained and qualified personnel.
Never operate the tool without appropriate guarding in place.
Always wear correct eye, ear, and breathing protection which complies with current standards. All machine specifications must be adhered to. Never leave a running machine unattended. All valid safety regulations must be adhered to. Incorrect use for purposes not intended is prohibited.

### Tool Maintenance

Proper care and maintenance of tooling is paramount to ensure long tool life and economic overall tool costs.
Never let any tool become blunt because its teeth could break if production continues. A good method of monitoring tool wear is to install an ammeter which will show the increase in power consumption on the machine as the tool wears.

Tools should be re-sharpened or knives changed when:

- Surface finish of workpiece is no longer acceptable
- Cutting edges become rounded more than .008"




- Machine power consumption becomes too high
- Cutting edges are chipped or broken

The servicing of tooling should be performed by competent personnel using suitable equipment. To ensure continued high performance of your tooling throughout its service life, tools must be maintained to the manufacturers' specifications. The people best able to do this are your local FS Tool Distributors who have been selected for their ability to provide a sharpening service which will maintain your tools to our specifications.

## CARBIDE TIPPED CIRCULAR SAW BLADES

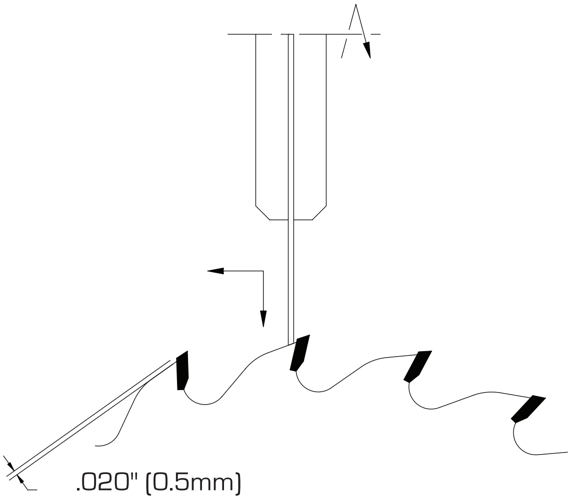
### Safety

Circular saw blades which are cracked or which have been deformed may not be used. Welding or soldering of cracked saw blades is not permissible. The saw blade should not be stopped with side pressure during run down. Use of loose rings or bushings to 'make-up' bore sizes is not permitted. Reduction of the bore may only be done by the using a fixed bushing (e.g. pressed or held by adhesive fixing). Saw blades where tips have been reduced to a minimum of .040" (1mm) will have reached the end of their regrind life and shall be taken out of service.

### Cleaning and Steel Relieving

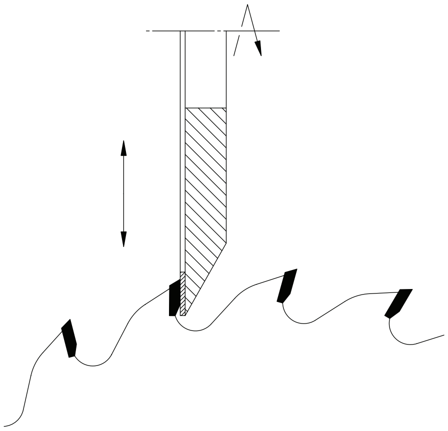
The saw blade should be cleaned to remove all build up of material (resin, gum, dust, etc.,) from the saw plate and sides of the carbide teeth. Effective cleaning of the saw blade will increase service life by minimizing friction of the saw plate and thereby preventing overheating and loss of saw plate tension. Cleaning the sides of the teeth will maintain the effectiveness of side clearances originally ground on the saw blade when it was manufactured. The sides of the teeth are not reground during resharpening but the face and top geometry is reground. Cleaning is best done using an ultrasonic cleaning tank or else a propriety cleaning solution. Do not scrape or use an abrasive wheel to clean the sides of the saw plate. Such action can affect the tension of the saw plate.

As the saw blade progresses through its regrind life it will periodically be necessary to relieve the steel body behind the top geometry of the teeth. This is necessary to ensure optimal chip clearance and to allow effective regrinding of the top geometry using diamond abrasive wheels.

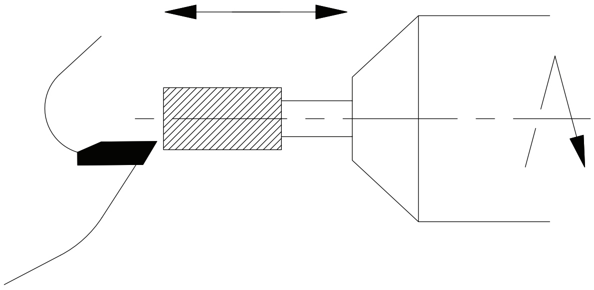



### Face Grinding

Align the face of the tooth to the grinding wheel linear axis. Adjust the tooth so that the face remains parallel during regrinding. If the tooth is not ground parallel then the radial side clearance and rake angle will be adversely affected. The amount to be removed from the face is dependent upon the wear on the tooth. Typically .008" (0.2mm) is removed. When top grinding is also to be performed then not all of the wear should be removed by face grinding as the remainder will be ground from the top geometry. Take care to ensure the tip thickness is equal on all teeth. Variations in tip thickness will cause variations in tip kerf which may lead to chipping of workpiece material.
We recommend the use of coolant when grinding with diamond abrasive wheels.



Hollow face tooth saw blades are resharpened on their face using a diamond abrasive rod operating at high speed. Particular care is required to make sure that the abrasive rod is centered accurately. Failure to center accurately will adversely affect tooth geometry and may lead to chipping of material being cut.



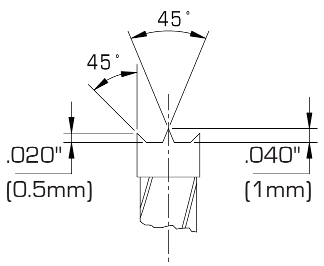
### Top Grinding

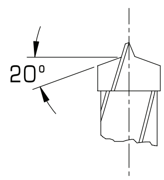
Top grinding is used to sharpen the periphery of the saw blade and regenerate the original tooth geometry.
Care must be taken to reproduce the original FS Tool tooth specifications.

## CARBIDE TIPPED DOWEL DRILLS

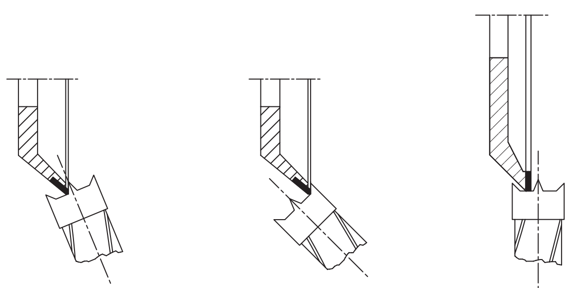
### Sharpening

Clamp drill bits in a holder or collet and check for concentricity. Sharpen spurs and brad point maintaining projection from rakers. To avoid chipping of spurs only grind with very light grinding pressure.

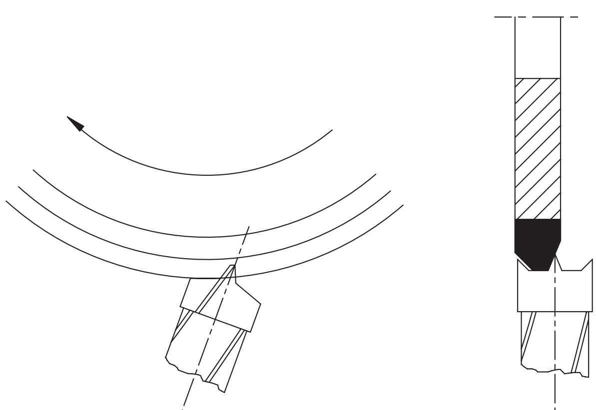



Small quantities can be sharpened using standard grinding wheels using three setups. The brad point and spurs are ground using the end face of a cup wheel as shown. Next the rakers are sharpened using the periphery of a suitable wheel.



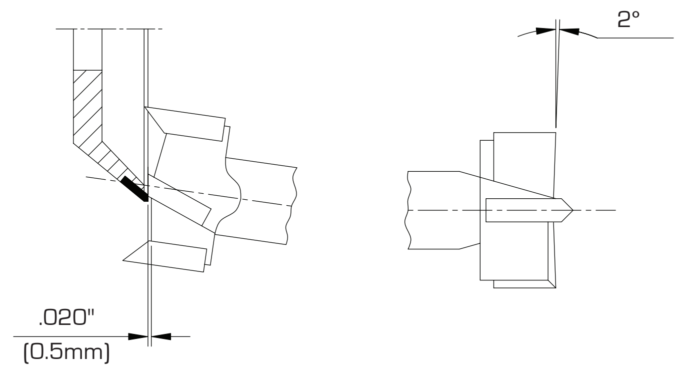
Larger quantities are best sharpened using a formed grinding wheel. With a 45 degree angle dressed on both sides of a suitable 1A1 style wheel the spur, brad point, and rakers can be sharpened in one setup. Different widths of rakers are accommodated by shifting sideways. After sharpening one cutting edge the bit is rotated and the process repeated.



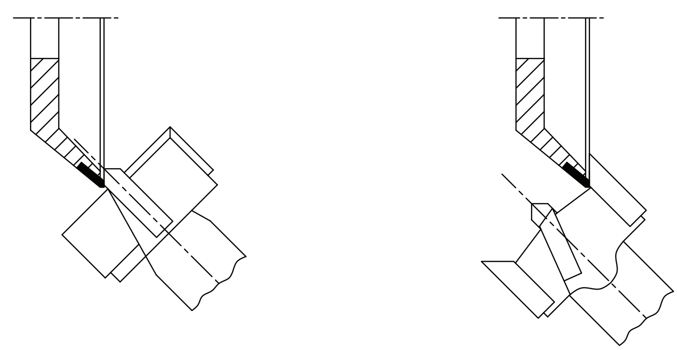
## CARBIDE TIPPED CYLINDER BORING BITS

### Sharpening

Clamp drill bits in a holder or collet and check for concentricity. Relieve steel body behind rakers to maintain .020" (0.5mm) protrusion of cutting edges above body. Sharpen rakers by regrinding end clearance. Maintain
2 degree end dish angle. If rakers are heavily worn then also grind rake face.




Sharpen spurs and brad point to maintain .012" to .020" (0.3 to 0.5mm) protrusion above rakers. Grind 45 degree angles on inside edge of spurs and on all edges of brad point. Spurs also require leading and trailing edges to be sharpened to ensure correct cutting action.



Always index tool using a precision dividing head or mechanical stop to make sure equal amounts are taken from cutting edges.

## CARBIDE TIPPED ROUTER BITS

### Safety

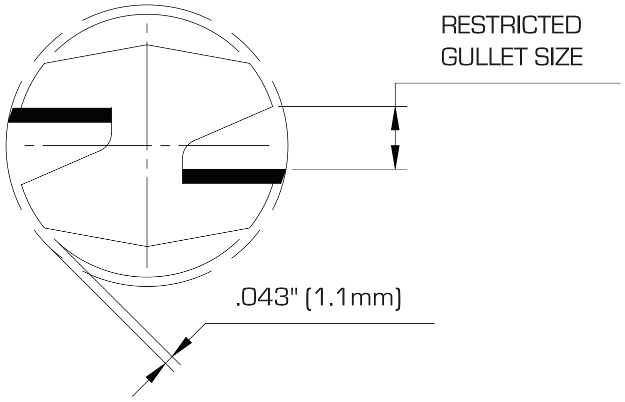
The most progressive safety standards for woodworking tooling exist in Europe, where a harmonized European Standard has been developed and adopted by all members of the EU. Here in North America, there are no similar safety standards; so, to promote the best safe working practices and tool design, FS Tool Corporation has utilized European Standard number EN 847-1 in the router bits we supply.

According to this standard there are two distinct methods of working with router bits. The first is working by hand, or **MAN**ual feed, where the workpiece is held or guided by hand. This also includes use of a hand operated carriage on which the workpiece is held manually or clamped and the use of a demountable power feed unit. The second is working with integrated feed where the feed mechanism for the workpiece or tool is integrated with the machine and where the workpiece or tool are held and controlled **MEC**hanically during the machining operation.

These two methods of working have lead to two different requirements for tool safety.

### MANual

With manual feed there is greater risk of injury to operators due to accidental kickback of the workpiece and contact with the tool.

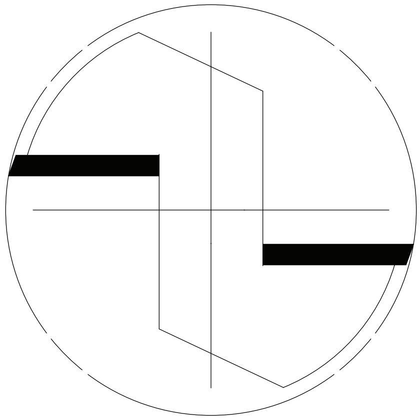



For this reason, tools for manual feed are designed with additional safety features. These include a limited projection of the cutting edges beyond the tool body and, for tools greater than 5/8" (16mm), a restricted gullet width.

Both of these safety features have the effect of minimizing the severity of kickback and injury caused by physical contact with a rotating tool.

### MEChanical

Fully automated machines, for example CNC routers, do not pose the same hazards to operators as manual fed machines. For this reason, restrictions of tip to body clearances and gullet sizes do not apply and allow greater flexibility in tool design.



### Sharpening

Router bits for jointing and rebating are to be resharpened on the face. If the teeth are excessively worn or chipped then they can also be ground on the outer cutting diameter.

Any router bits for **MAN**ual feed with chip thickness limiters will require reduction of the limiters as the router bit progresses through its regrind life. The teeth must protrude above the limiters by a maximum of .043" (1.1mm).

Profiled router bits are to be resharpened parallel to the face only.

## CARBIDE TIPPED CUTTERS

### Sharpening

Tools must be cleaned before sharpening to remove resin and dust. Inspect the cutting edges to determine the extent of wear and to identify any edges that are more heavily worn.

Cutters can be sharpened on either universal tool and cutter grinders or purpose built CNC cutter grinders using diamond grinding wheels.

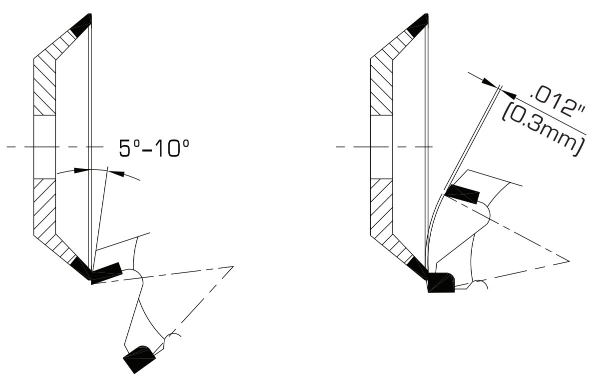
Sharpening should be performed using coolant to avoid overheating and possible damage to either the grinding wheel or the carbide teeth.

Sharpen all teeth by the same amount to remove all wear and to ensure good concentricity. Check concentricity using a dial gauge.

The sharpening method employed is dependant on the type of cutter as follows:

### Grooving Cutters With or Without Spurs

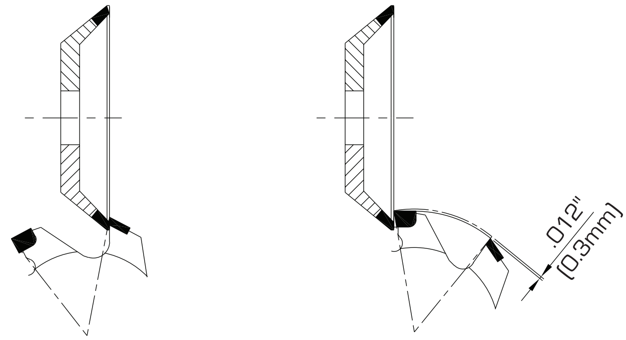
These tools are face tipped and therefore are to be sharpened on the top of the teeth. Spurs must protrude raker teeth by .012" (0.3mm) radially and .008" (0.2mm) laterally.




As the diameter of the cutter is reduced it may become necessary to relieve the steel body as shown. To relieve the steel increase the top clearance angle ground on the body by 5° to 10° using a carborundum or CBN grinding wheel.

### Rebating and Jointing Cutters

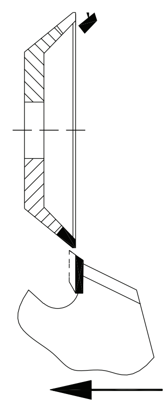
These tools are top tipped and therefore are to be sharpened on the face of the teeth. Spurs must
protrude raker teeth by .012" (0.3mm) radially and .008" (0.2mm) laterally.



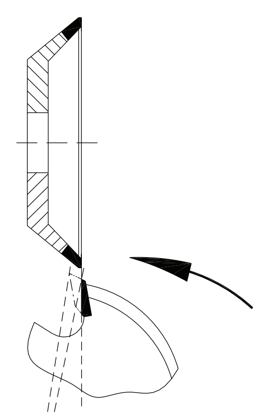

### Profile Cutters

There are two different methods to sharpen profile cutters dependant upon how the profile shape has been ground.

For profile cutters with straight back relief the cutting edges are sharpened by face grinding parallel to the original face.



For profile cutters with radial back relief the cutting edges are not sharpened parallel to the original face but by rotating the tool onto the grinding wheel. This will ensure that the original cutting angle of the tool and profile shape are maintained.

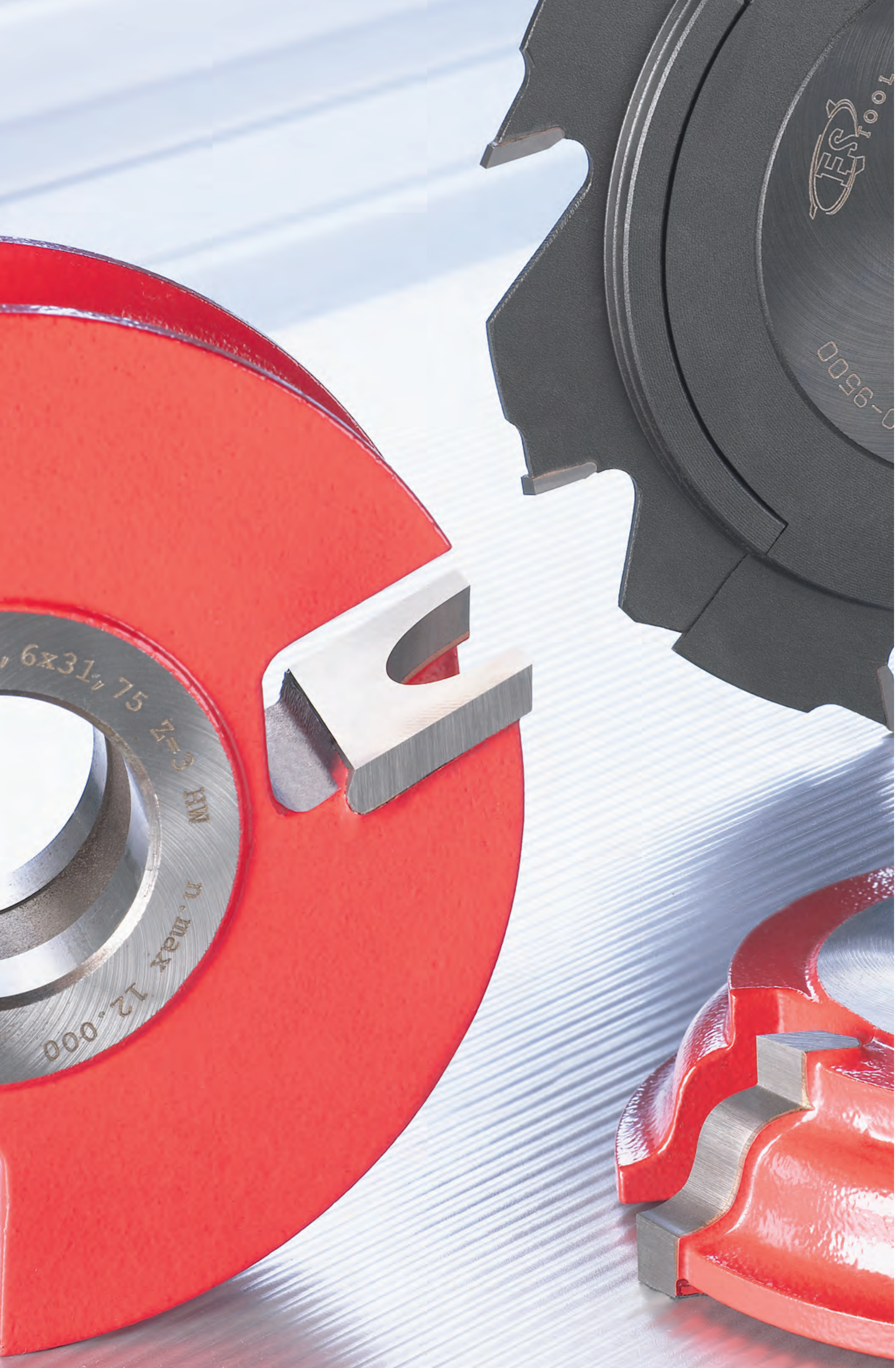


# CONVERSION OF MILLIMETERS TO INCHES

| MM | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | - | 3/64” | 5/64” | 1/8” | 5/32” | 13/64” | 15/64” | 9/32” | 5/16” | 23/64” |
| 10 | 25/64” | 7/16” | 15/32” | 33/64” | 35/64” | 19/32” | 5/8” | 43/64” | 45/64” | 3/4” |
| 20 | 25/32” | 53/64” | 55/64” | 29/32” | 15/16” | 63/64” | 1-1/32” | 1-1/16” | 1-7/64” | 1-9/64” |
| 30 | 1-3/16” | 1-7/32” | 1-17/64” | 1-19/64” | 1-11/32” | 1-3/8” | 1-27/64” | 1-29/64” | 1-1/2” | 1-17/32” |
| 40 | 1–37/64” | 1-39/64” | 1-21/32” | 1-11/16” | 1-47/64” | 1-49/64” | 1-13/16” | 1-27/32” | 1-57/64” | 1-59/64” |
| 50 | 1-31/32” | 2-1/64” | 2-3/64” | 2-3/32” | 2-1/8” | 2-11/64” | 2-13/64” | 2-1/4” | 2-9/32” | 2-21/64” |
| 60 | 2-23/64” | 2-13/32” | 2-7/16” | 2-31/64” | 2-33/64” | 2-9/16” | 2-19/32” | 2-41/64” | 2-43/64” | 2-23/32” |
| 70 | 2-3/4” | 2-51/64” | 2-53/64” | 2-7/8” | 2-29/32” | 2-61/64” | 2-63/64” | 3-1/32” | 3-5/64” | 3-7/64” |
| 80 | 3-5/32” | 3-3/16” | 3-15/64” | 3-17/64” | 3-5/16” | 3-11/32” | 3-25/64” | 3-27/64” | 3-15/32” | 3-1/2” |
| 90 | 3-35/64” | 3-37/64” | 3-5/8” | 3-21/32” | 3-45/64” | 3-47/64” | 3-25/32” | 3-13/16” | 3-55/64” | 3-57/64” |
| 100 | 3-15/16” | 3-31/32” | 4-1/64” | 4-1/16” | 4-3/32” | 4-9/64” | 4-11/64” | 4-7/32” | 4-1/4” | 4-19/64” |
| 110 | 4-21/64” | 4-3/8” | 4-13/32” | 4-29/64” | 4-31/64” | 4-17/32” | 4-9/16” | 4-39/64” | 4-41/64” | 4-11/16” |
| 120 | 4-23/32” | 4-49/64” | 4-51/64” | 4-27/32” | 4-7/8” | 4-59/64” | 4-61/64” | 5” | 5-3/64” | 5-5/64” |
| 130 | 5-1/8” | 5-5/32” | 5-13/64” | 5-15/64” | 5-9/32” | 5-5/16” | 5-23/64” | 5-25/64” | 5-7/16” | 5-15/32” |
| 140 | 5-33/64” | 5-35/64” | 5-19/32” | 5-5/8” | 5-43/64” | 5-45/64” | 5-3/4” | 5-25/32” | 5-53/64” | 5-55/64” |
| 150 | 5-29/32” | 5-15/16” | 5-63/64” | 6-1/32” | 6-1/16” | 6-7/64” | 6-9/64” | 6-3/16” | 6-7/32” | 6-17/64” |
| 160 | 6-19/64” | 6-11/32” | 6-3/8” | 6-27/64” | 6-29/64” | 6-1/2” | 6-17/32” | 6-37/64” | 6-39/64” | 6-21/32” |
| 170 | 6-11/16” | 6-47/64” | 6-49/64” | 6-13/16” | 6-27/32” | 6-57/64” | 6-59/64” | 6-31/32” | 7-1/64” | 7-3/64” |
| 180 | 7-3/32” | 7-1/8” | 7-11/64” | 7-13/64” | 7-1/4” | 7-9/32” | 7-21/64” | 7-23/64” | 7-13/32” | 7-7/16” |
| 190 | 7-31/64” | 7-33/64” | 7-9/16” | 7-19/32” | 7-41/64” | 7-43/64” | 7-23/32” | 7-3/4” | 7-51/64” | 7-53/64” |
| 200 | 7-7/8” | 7-29/32” | 7-61/64” | 7-63/64” | 8-1/32” | 8-5/64” | 8-7/64” | 8-5/32” | 8-3/16” | 8-15/64” |
| 210 | 8-17/64” | 8-5/16” | 8-11/32” | 8-25/64” | 8-27/64” | 8-15/32” | 8-1/2” | 8-35/64” | 8-37/64” | 8-5/8” |
| 220 | 8-21/32” | 8-45/64” | 8-47/64” | 8-25/32” | 8-13/16” | 8-55/64” | 8-57/64” | 8-15/16” | 8-31/32” | 9-1/64” |
| 230 | 9-1/16” | 9-3/32” | 9-9/64” | 9-11/64” | 9-7/32” | 9-1/4” | 9-19/64” | 9-21/64” | 9-3/8” | 9-13/32” |
| 240 | 9-29/64” | 9-31/64” | 9-17/32” | 9-9/16” | 9-39/64” | 9-41/64” | 9-11/16” | 9-23/32” | 9-49/64” | 9-51/64” |
| 250 | 9-27/32” | 9-7/8” | 9-59/64” | 9-61/64” | 10” | 10-3/64” | 10-5/64” | 10-1/8” | 10-5/32” | 10-13/64” |
| 260 | 10-15/64” | 10-9/32” | 10-5/16” | 10-23/64” | 10-25/64” | 10-7/16” | 10-15/32” | 10-33/64” | 10-35/64” | 10-19/32” |
| 270 | 10-5/8” | 10-43/64” | 10-45/64” | 10-3/4” | 10-25/32” | 10-53/64” | 10-55/64” | 10-29/32” | 10-15/16” | 10-63/64” |
| 280 | 11-1/32” | 11-1/16” | 11-7/64” | 11-9/64” | 11-3/16” | 11-7/32” | 11-17/64” | 11-19/64” | 11-11/32” | 11-3/8” |
| 290 | 11-27/64” | 11-29/64” | 11-1/2” | 11-17/32” | 11-37/64” | 11-39/64” | 11-21/32” | 11-11/16” | 11-47/64” | 11-49/64” |
| 300 | 11-13/16” | 11-27/64” | 11-57/64” | 11-59/64” | 11-31/32” | 12-1/64” | 12-3/64” | 12-3/32” | 12-1/8” | 12-11/64” |
| 310 | 12-13/64” | 12-1/4” | 12-9/32” | 12-21/64” | 12-23/64” | 12-13/32” | 12-7/16” | 12-31/64” | 12-33/64” | 12-9/16” |
| 320 | 12-19/32” | 12-41/64” | 12-43/64” | 12-23/32” | 12-3/4” | 12-51/64” | 12-53/64” | 12-7/8” | 12-29/32” | 12-61/64” |
| 330 | 12-63/64” | 13-1/32” | 13-5/64” | 13-7/64” | 13-5/32” | 13-3/16” | 13-15/64” | 12-7/8” | 13-5/16” | 13-11/32” |
| 340 | 13-25/64” | 13-27/64” | 13-15/32” | 13-1/2” | 13-35/64” | 13-37/64” | 13-5/8” | 13-21/32” | 13-45/64” | 13-47/64” |
| 350 | 13-25/32” | 13-13/16” | 13-55/64” | 13-57/64” | 13-15/16” | 13-31/32” | 14-1/64” | 14-1/16” | 14-3/32” | 14-9/64” |
| 360 | 14-11/64” | 14-7/32” | 14-1/4” | 14-19/64” | 14-21/64” | 14-3/8” | 14-13/32” | 14-29/64” | 14-7/8” | 14-17/32” |
| 370 | 14-9/16” | 14-39/64” | 14-41/64” | 14-11/16” | 14-23/32” | 14-49/64” | 14-51/64” | 14-27/32” | 14-7/8” | 14-59/64” |
| 380 | 14-61/64” | 15” | 15-3/64” | 15-5/64” | 15-1/8” | 15-5/32” | 15-13/64” | 15-15/64” | 15-9/32” | 15-5/16” |
| 390 | 15-23/64” | 15-25/64” | 15-7/16” | 15-15/32” | 15-33/64” | 15-35/64” | 15-19/32” | 15-5/8” | 15-43/64” | 15-45/64” |
| 400 | 15-3/4” | 15-25/32” | 15-53/64” | 15-55/64” | 15-29/32” | 15-15/16” | 15-63/64” | 16-1/32” | 16-1/16” | 16-7/64” |
| 410 | 16-9/64” | 16-3/16” | 16-7/32” | 16-17/64” | 16-19/64” | 16-11/32” | 16-3/8” | 16-27/64” | 16-29/64” | 16-1/2” |
| 420 | 16-17/32” | 16-37/64” | 16-39/64” | 16-21/32” | 16-11/16” | 16-47/64” | 16-49/64” | 16-13/16” | 16-27/32” | 16-57/64” |
| 430 | 16-59/64” | 16-31/32” | 17-1/64” | 17-3/64” | 17-3/32” | 17-1/8” | 17-11/64” | 17-13/64” | 17-1/4” | 17-9/32” |
| 440 | 17-21/64” | 17-23/64” | 17-13/32” | 17-7/16” | 17-31/64” | 17-33/64” | 17-9/16” | 17-19/32” | 17-41/64” | 17-43/64” |
| 450 | 17-23/32” | 17-3/4” | 17-51/64” | 17-53/64” | 17-7/8” | 17-29/32” | 17-61/64” | 17-63/64” | 18-1/32” | 18-5/64” |
| 460 | 18-7/64” | 18-5/32” | 18-3/16” | 18-15/64” | 18-17/64” | 18-5/16” | 18-11/32” | 18-25/64” | 18-27/64” | 18-15/32” |
| 470 | 18-1/2” | 18-35/64” | 18-37/64” | 18-5/8” | 18-21/32” | 18-45/64” | 18-47/64” | 18-25/32” | 18-13/16” | 18-55/64” |
| 480 | 18-57/64” | 18-15/16” | 18-31/32” | 19-1/64” | 19-1/16” | 19-3/32” | 19-9/64” | 19-11/64” | 19-7/32” | 19-1/4” |
| 490 | 19-19/64” | 19-21/64” | 19-3/8” | 19-14/32” | 19-29/64” | 19-31/64” | 19-17/32” | 19-9/16” | 19-39/64” | 19-41/64” |
| 500 | 19-11/16” | 19-23/32” | 19-49/64” | 19-51/64” | 19-27/32” | 19-7/8” | 19-59/64” | 19-61/64” | - | - |

# CONVERSION OF INCHES TO MILLIMETERS

| INCHES | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0.00 | 25.40 | 50.80 | 76.20 | 101.60 | 127.00 | 152.40 | 177.80 | 203.20 | 228.60 | 254.00 | 279.40 | 304.80 |
| 1/64 | 0.40 | 25.80 | 51.20 | 76.60 | 102.00 | 127.40 | 152.80 | 178.20 | 203.60 | 229.00 | 254.40 | 279.80 | 305.20 |
| 1/32 | 0.79 | 26.19 | 51.59 | 76.99 | 102.39 | 127.79 | 153.19 | 178.59 | 203.99 | 229.39 | 254.79 | 280.19 | 305.59 |
| 3/64 | 1.19 | 26.59 | 51.99 | 77.39 | 102.79 | 128.19 | 153.59 | 178.99 | 204.39 | 229.79 | 225.19 | 280.59 | 305.99 |
| 1/16 | 1.59 | 26.99 | 52.39 | 77.79 | 103.19 | 128.59 | 153.99 | 179.39 | 204.79 | 230.19 | 255.59 | 280.99 | 306.99 |
| 5/64 | 1.98 | 27.78 | 52.79 | 78.18 | 103.58 | 128.98 | 154.38 | 179.78 | 205.18 | 230.58 | 255.99 | 281.38 | 306.78 |
| 3/32 | 2.38 | 27.78 | 53.18 | 78.58 | 103.98 | 129.38 | 154.78 | 180.18 | 205.58 | 230.98 | 256.38 | 281.78 | 307.18 |
| 7/64 | 2.78 | 28.18 | 53.58 | 78.98 | 104.38 | 129.78 | 155.18 | 180.58 | 205.98 | 231.38 | 256.78 | 282.18 | 307.58 |
| 1/8 | 3.18 | 28.58 | 53.98 | 79.38 | 104.78 | 130.18 | 155.58 | 180.98 | 206.38 | 231.78 | 257.18 | 282.58 | 307.98 |
| 9/64 | 3.57 | 28.97 | 54.37 | 79.77 | 105.17 | 130.57 | 155.97 | 181.37 | 206.77 | 232.17 | 257.57 | 282.97 | 308.37 |
| 5/32 | 3.97 | 29.37 | 54.77 | 80.17 | 105.57 | 130.97 | 156.37 | 181.77 | 207.17 | 232.57 | 257.97 | 283.37 | 308.77 |
| 11/64 | 4.37 | 29.77 | 55.17 | 80.57 | 105.97 | 131.37 | 156.77 | 182.17 | 207.57 | 232.97 | 258.37 | 283.77 | 309.17 |
| 3/16 | 4.76 | 30.16 | 55.56 | 80.96 | 106.36 | 131.76 | 157.16 | 182.56 | 207.96 | 233.36 | 258.76 | 284.16 | 309.56 |
| 13/64 | 5.16 | 30.56 | 55.96 | 81.36 | 106.76 | 132.16 | 157.56 | 182.96 | 208.36 | 233.76 | 259.16 | 284.56 | 309.96 |
| 7/32 | 5.56 | 30.96 | 56.36 | 81.76 | 107.16 | 132.56 | 157.96 | 183.36 | 208.76 | 234.16 | 259.56 | 284.96 | 310.36 |
| 15/64 | 5.95 | 31.35 | 56.75 | 82.15 | 107.55 | 132.95 | 158.35 | 183.75 | 209.15 | 234.55 | 259.95 | 285.35 | 310.75 |
| 1/4 | 6.35 | 31.75 | 57.15 | 85.55 | 107.95 | 133.35 | 158.75 | 184.15 | 209.55 | 234.95 | 260.35 | 285.75 | 311.15 |
| 17/64 | 6.75 | 32.15 | 57.55 | 82.94 | 108.35 | 133.75 | 159.15 | 184.55 | 209.95 | 235.35 | 260.75 | 286.15 | 311.55 |
| 9/32 | 7.14 | 32.54 | 57.94 | 83.34 | 108.74 | 134.14 | 159.54 | 184.94 | 210.34 | 235.74 | 261.14 | 286.54 | 311.94 |
| 5/64 | 7.54 | 32.94 | 58.34 | 83.74 | 109.14 | 134.54 | 159.94 | 185.34 | 210.74 | 236.14 | 261.54 | 286.94 | 312.34 |
| 5/16 | 7.94 | 33.34 | 58.74 | 84.14 | 109.54 | 134.94 | 160.34 | 185.74 | 211.14 | 236.54 | 261.94 | 287.34 | 312.74 |
| 21/64 | 8.33 | 33.73 | 59.13 | 84.53 | 109.93 | 135.33 | 160.73 | 186.13 | 211.53 | 236.93 | 262.34 | 287.74 | 313.14 |
| 11/32 | 8.73 | 34.13 | 59.53 | 84.93 | 110.33 | 135.73 | 161.13 | 186.53 | 211.93 | 273.33 | 262.73 | 288.13 | 313.53 |
| 23/64 | 9.13 | 34.53 | 59.93 | 85.33 | 110.73 | 136.13 | 161.53 | 186.93 | 212.33 | 237.73 | 263.13 | 288.53 | 313.93 |
| 3/8 | 9.53 | 34.93 | 60.33 | 85.73 | 111.13 | 136.53 | 161.93 | 187.33 | 212.73 | 238.13 | 263.53 | 288.93 | 314.33 |
| 25/64 | 9.92 | 35.32 | 60.72 | 86.12 | 111.52 | 136.92 | 162.32 | 187.72 | 213.12 | 238.52 | 263.92 | 289.32 | 314.72 |
| 13/32 | 10.32 | 35.72 | 61.12 | 86.52 | 111.92 | 137.32 | 162.72 | 188.12 | 213.52 | 238.92 | 264.32 | 289.72 | 315.12 |
| 27/64 | 10.72 | 36.12 | 61.52 | 86.92 | 112.32 | 137.72 | 163.12 | 188.52 | 213.92 | 239.32 | 264.72 | 290.12 | 315.52 |
| 7/16 | 11.11 | 36.51 | 61.91 | 87.31 | 112.71 | 138.11 | 163.51 | 188.91 | 214.31 | 239.71 | 265.11 | 290.51 | 315.91 |
| 29/64 | 11.51 | 36.91 | 62.31 | 87.71 | 113.11 | 138.51 | 163.91 | 189.31 | 214.71 | 240.11 | 265.51 | 290.91 | 316.31 |
| 15/32 | 11.91 | 37.31 | 62.71 | 88.11 | 113.51 | 138.91 | 164.31 | 189.71 | 215.11 | 240.51 | 265.91 | 291.31 | 316.71 |
| 31/64 | 12.30 | 37.70 | 63.10 | 88.50 | 113.90 | 139.30 | 164.70 | 190.10 | 215.50 | 240.90 | 266.30 | 291.70 | 317.10 |
| 1/2 | 12.70 | 38.10 | 63.50 | 88.90 | 114.30 | 139.70 | 165.10 | 190.50 | 215.90 | 241.30 | 266.70 | 292.10 | 317.50 |
| 33/64 | 13.10 | 38.50 | 63.90 | 89.30 | 114.70 | 140.10 | 165.50 | 190.90 | 216.30 | 241.70 | 267.10 | 292.50 | 317.90 |
| 17/32 | 13.49 | 38.89 | 64.29 | 89.69 | 115.09 | 140.49 | 165.89 | 191.29 | 216.69 | 242.09 | 267.49 | 292.89 | 318.29 |
| 35/64 | 13.89 | 39.29 | 64.69 | 90.09 | 115.49 | 140.89 | 166.29 | 191.69 | 217.09 | 242.49 | 267.89 | 293.29 | 318.69 |
| 9/16 | 14.29 | 39.69 | 65.09 | 90.49 | 115.89 | 141.29 | 166.69 | 192.09 | 217.49 | 242.89 | 268.29 | 293.69 | 319.09 |
| 37/64 | 14.68 | 40.08 | 65.48 | 90.88 | 116.28 | 141.68 | 167.08 | 192.48 | 217.88 | 243.28 | 268.68 | 294.08 | 319.48 |
| 19/32 | 15.08 | 40.48 | 65.88 | 91.28 | 116.68 | 142.08 | 167.48 | 192.88 | 218.28 | 243.68 | 269.08 | 294.48 | 319.88 |
| 39/64 | 15.48 | 40.88 | 66.28 | 91.68 | 117.08 | 142.48 | 167.88 | 193.28 | 218.68 | 244.08 | 269.48 | 294.88 | 320.28 |
| 5/8 | 15.88 | 41.28 | 66.68 | 92.08 | 117.48 | 142.88 | 168.28 | 193.68 | 219.08 | 244.48 | 269.88 | 295.28 | 230.68 |
| 41/64 | 16.27 | 41.67 | 67.07 | 92.47 | 117.87 | 143.27 | 168.67 | 194.07 | 219.47 | 244.87 | 270.27 | 295.67 | 321.07 |
| 21/32 | 16.67 | 42.07 | 67.47 | 92.87 | 118.27 | 143.67 | 169.07 | 194.47 | 219.87 | 245.27 | 270.67 | 296.07 | 321.47 |
| 43/64 | 17.07 | 42.47 | 67.87 | 93.27 | 118.67 | 144.07 | 169.47 | 194.87 | 220.27 | 245.67 | 271.07 | 296.47 | 321.87 |
| 11/16 | 17.46 | 42.86 | 68.26 | 93.66 | 119.06 | 144.46 | 169.86 | 195.26 | 220.66 | 246.06 | 271.46 | 296.86 | 322.26 |
| 45/64 | 17.86 | 43.26 | 68.66 | 94.06 | 119.46 | 144.86 | 170.26 | 195.66 | 221.06 | 246.46 | 271.86 | 297.26 | 322.66 |
| 23/32 | 18.26 | 43.66 | 69.06 | 94.46 | 119.86 | 145.26 | 170.66 | 196.06 | 221.46 | 246.86 | 272.26 | 297.66 | 323.06 |
| 47/64 | 18.65 | 44.05 | 69.45 | 94.85 | 120.25 | 145.65 | 171.05 | 196.45 | 221.85 | 247.25 | 272.65 | 298.05 | 323.45 |
| 3/4 | 19.05 | 44.45 | 69.85 | 95.25 | 120.65 | 146.05 | 171.45 | 196.85 | 222.25 | 247.65 | 273.05 | 298.45 | 323.85 |
| 49/64 | 19.45 | 44.85 | 70.25 | 95.65 | 121.05 | 146.45 | 171.85 | 197.25 | 222.65 | 248.05 | 273.45 | 298.85 | 324.25 |
| 25/32 | 19.84 | 45.24 | 70.64 | 96.04 | 121.44 | 146.85 | 172.24 | 197.64 | 223.04 | 248.44 | 273.84 | 299.24 | 324.64 |
| 51/64 | 20.24 | 45.64 | 71.04 | 96.44 | 121.84 | 147.24 | 172.64 | 198.04 | 223.44 | 248.84 | 274.24 | 299.64 | 325.04 |
| 13/16 | 20.64 | 46.04 | 71.44 | 96.84 | 122.24 | 147.64 | 173.04 | 198.44 | 223.84 | 249.24 | 274.64 | 300.04 | 325.44 |
| 53/64 | 21.03 | 46.43 | 71.83 | 97.23 | 122.63 | 148.03 | 173.43 | 198.83 | 224.23 | 249.64 | 275.04 | 300.44 | 325.84 |
| 27/32 | 21.43 | 46.83 | 72.23 | 97.63 | 123.03 | 148.43 | 173.83 | 199.23 | 224.63 | 250.03 | 275.43 | 300.83 | 326.23 |
| 55/64 | 21.83 | 47.23 | 72.63 | 98.03 | 123.43 | 148.83 | 174.23 | 199.63 | 225.03 | 250.43 | 275.83 | 301.23 | 326.63 |
| 7/8 | 22.23 | 47.63 | 73.03 | 98.43 | 123.83 | 149.23 | 174.63 | 200.03 | 225.43 | 250.83 | 276.23 | 301.63 | 327.03 |
| 57/64 | 22.62 | 48.02 | 73.42 | 98.82 | 124.22 | 149.62 | 175.02 | 200.42 | 225.82 | 251.22 | 276.62 | 302.02 | 327.42 |
| 29/32 | 23.02 | 48.42 | 73.82 | 99.22 | 124.62 | 150.02 | 175.42 | 200.82 | 266.22 | 251.62 | 277.02 | 302.42 | 327.82 |
| 59/64 | 23.42 | 48.82 | 47.22 | 99.62 | 125.02 | 150.42 | 175.82 | 201.22 | 226.62 | 252.02 | 277.42 | 302.82 | 328.22 |
| 15/16 | 23.81 | 49.21 | 74.61 | 100.01 | 125.41 | 150.81 | 176.21 | 201.61 | 227.01 | 252.41 | 277.81 | 303.21 | 328.61 |
| 61/64 | 24.21 | 49.61 | 75.01 | 100.41 | 125.81 | 151.21 | 176.61 | 202.01 | 227.41 | 252.81 | 278.21 | 303.61 | 329.01 |
| 31/32 | 24.61 | 50.01 | 75.41 | 100.81 | 126.21 | 151.61 | 177.01 | 202.41 | 227.81 | 253.21 | 278.61 | 304.01 | 329.41 |
| 63/64 | 25.00 | 50.40 | 75.80 | 101.20 | 126.60 | 152.00 | 177.40 | 202.40 | 228.20 | 253.60 | 279.00 | 304.40 | 329.80 |




# B

## CUTTERS AND CUTTER COMBINATIONS

Carbide or Stellite Tipped

## MADE ACCORDING TO APPLICATION:

**STELLITE** (Stellite Tipped)
For softwood and hardwood without glue lines.

**T.C.T.** (Tungsten Carbide-Tipped)
For hardwood, plywood, chipboard, MDF, and other panel materials.

Our cutters are designed to conform with safety regulations and are dynamically balanced.

To determine min. diameter on profiled cutters, the calculation is:

**bore (B) + 60mm (2-3/8") + (2 x profile depth) (P)**

As per table below:

### METRIC SIZES

| BORE B MM | PROFILE DEPTH P MM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 |
| **30** | 100 | 110 | 120 | 130 | 140 | 150 | 160 | 170 |
| **35** | 105 | 115 | 125 | 135 | 145 | 155 | 165 | 175 |
| **40** | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| **50** | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 |
| **60** | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 |

**B = Bore Diameter** **P = Profile Depth**

### INCH SIZES

| BORE B | PROFILE DEPTH P | | | | |
|---|---|---|---|---|---|
| | 3/8" | 3/4" | 1" | 1-1/4" | 1-1/2" |
| **3/4"** | 3-7/8" | 4-5/8" | 5-1/8" | 5-5/8" | 6-1/8" |
| **1-1/4"** | 4-3/8" | 5-1/8" | 5-5/8" | 6-1/8" | 6-5/8" |
| **1-13/16"** | 4-7/8" | 5-7/16" | 5-11/16" | 5-15/16" | 6-3/16" |
| **2"** | 5-1/8" | 6-1/8" | 6-5/8" | 7-1/8" | 7-5/8" |

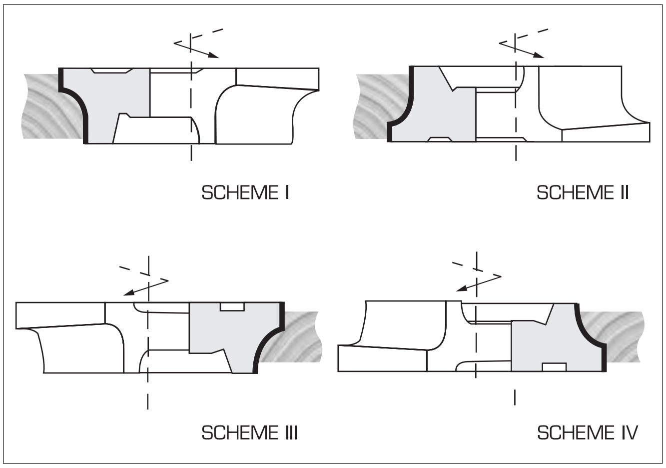
**B = Bore Diameter** **P = Profile Depth**

## WHEN ORDERING SPECIFY:

1. Type of cutter as numbered.
   For softwood and hardwood without glue lines.
2. Main dimensions in the following order:
   **(diameter) x (cutting width) x (bore) x (# of teeth)**
3. Cutting materials (STELLITE or T.C.T.).
4. RPM of machine and rate of feed.
   Material to be cut, if possible provide sample.
5. Type of cut: against feed direction or with feed direction.

## WHEN ORDERING CUTTERS WITH PROFILES:

Fully dimensioned sketches, CAD files, or samples of profiles must be supplied. Details of side to table, fence side, and direction of feed must also be given.



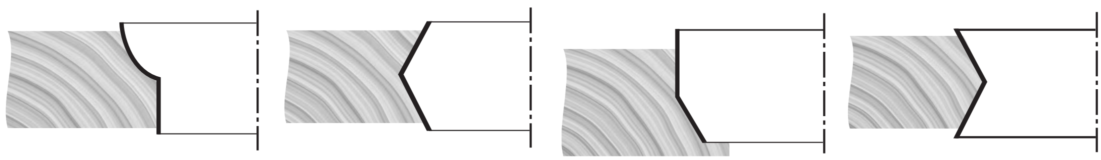

**Direction of Rotation**
Scheme I - II = Counter Clockwise (CCW)
Scheme III - IV = Counter Clockwise (CCW)

## PA — PROFILE CUTTERS
### SIMPLE PROFILES

**DESIGN:**
- With 2, 3, 4, or 6 cutting teeth, straight or with shear angle according to profile

**WHEN ORDERING SPECIFY:**
- Type of wood or material to be cut
- Rotation
- Details of profile to table, fence side
- RPM of machine
- Rate of feed
- Exact sketch of profile
- Possibly a wood sample or a DXF file
- Bore diameter
- Diameter of cutter

**Examples of Simple Profiles - PA**

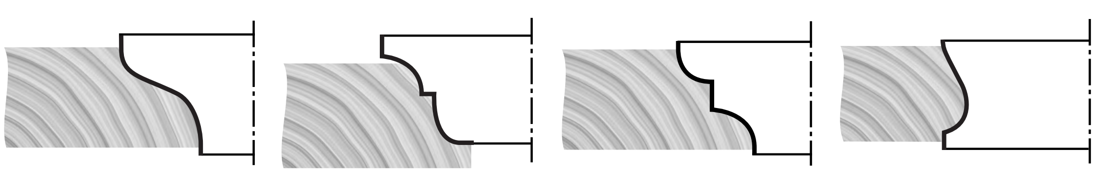


## PB — PROFILE CUTTERS
### COMPLEX PROFILES

**DESIGN:**
- With 2, 3, 4, or 6 cutting teeth, straight or with shear angle according to profile

**WHEN ORDERING SPECIFY:**
- Type of wood or material to be cut
- Rotation
- Details of profile to table, fence side
- RPM of machine
- Rate of feed
- Exact sketch of profile
- Possibly a wood sample or a DXF file
- Bore diameter
- Diameter of cutter

**Examples of Complex Profiles - PB**



## PROFILE CUTTERS
### VERY COMPLEX PROFILES

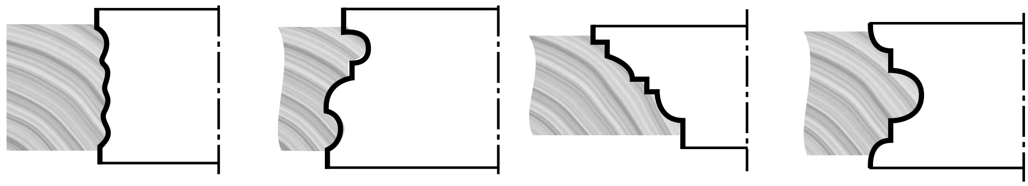
**DESIGN:**

» With 2, 3, 4, or 6 cutting teeth, straight or with shear angle according to profile

**WHEN ORDERING SPECIFY:**

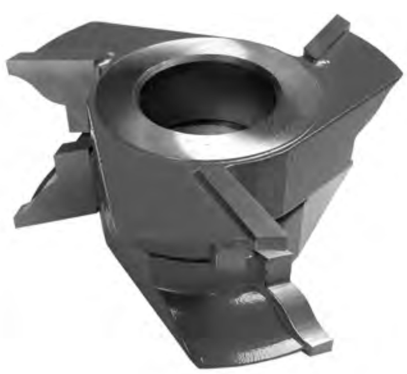
» Type of wood or material to be cut
» Rotation
» Details of profile to table, fence side
» RPM of machine
» Rate of feed
» Exact sketch of profile
» Possibly a wood sample or a DXF file
» Bore diameter
» Diameter of cutter

**Examples of Very Combined Profiles - PC**



PI

## PROFILE CUTTERS
### COMBINED PROFILES



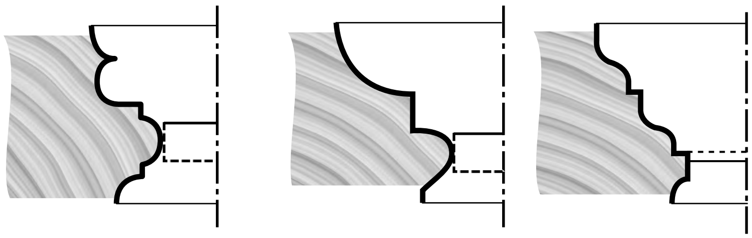
**DESIGN:**

» With 2, 3, or 4 teeth interlocked for staggered cut and spur action with shearing cut

**WHEN ORDERING SPECIFY:**

» Type of wood or material to be cut
» Rotation
» Details of profile to table, fence side
» RPM of machine
» Rate of feed
» Exact sketch of profile
» Possibly a wood sample or a DXF file
» Bore diameter
» Diameter of cutter

**Examples of Combined Profiles - PI**




## DESIGN:

- High tensile steel body
- 4 or 6 straight or bevelled teeth
- Tungsten carbide cutting edges

## APPLICATION:

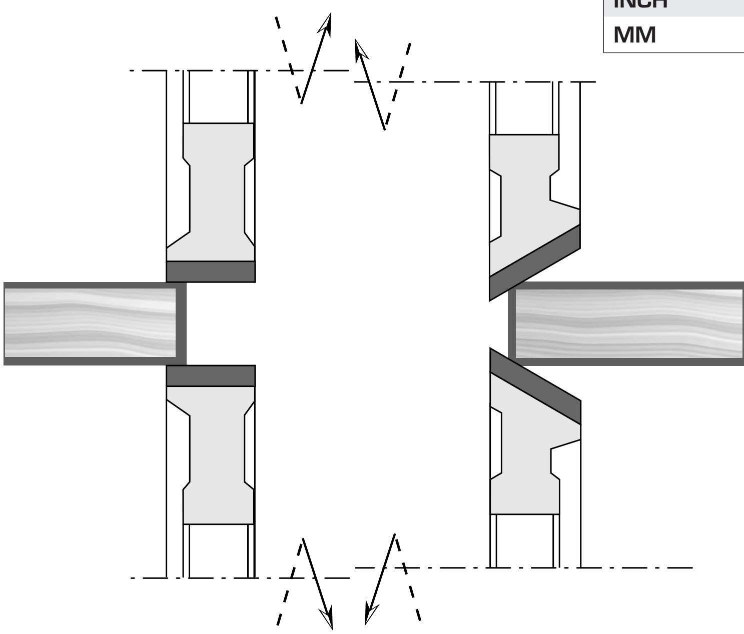
- On edgebanding cutters
- For flush trimming, chamfering, and profiling of wood veneer and plastic edge bands

## WHEN ORDERING SPECIFY:

- Machine
- If bevelled
- Cutting edge degrees required

## SPECIAL PRODUCTION

| UNIT OF MEASURE | DIAMETER | KERF | NO. TEETH |
|---|---|---|---|
| **INCH** | 2-3/4" to 4" | 5/8" to 1-3/8" | 4 or 6 |
| **MM** | 70 to 100 | 15 to 35 | 4 or 6 |



# STAGGERED TOOTH JOINTING CUTTERS

## DESIGN:

» High tensile steel body
» 8 or 12 rows of straight carbide teeth staggered on a spiral progression
» Tungsten carbide cutting edges

## APPLICATION:

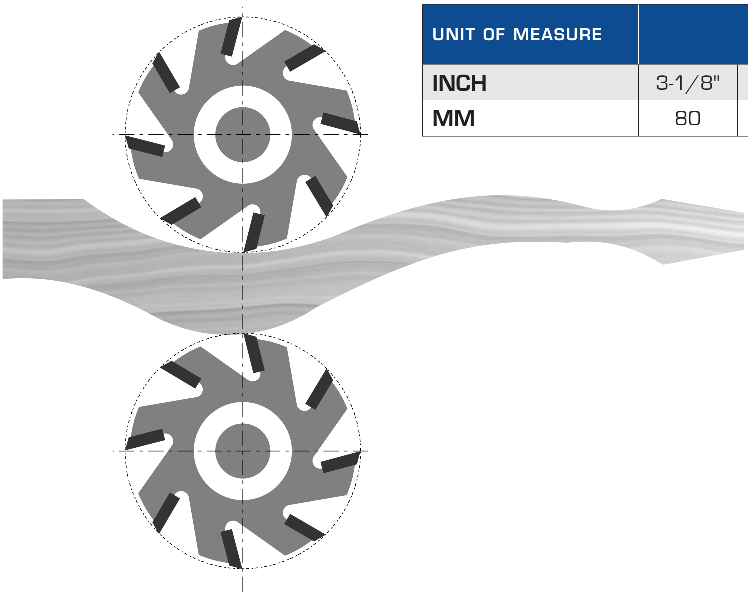
» Ideal for “easy chip flow” with fast feeding on solid wood and composite materials
» Mainly used for roughing-out furniture components
» On shapers and copying machines

## FOR MACHINES:

» Brandt, Egurco, Franke, Homag, Homburg, IDM, IMA, IMEF, Manea, Ocmac, Olympic, Raiman, Salgo, Stefani, and others

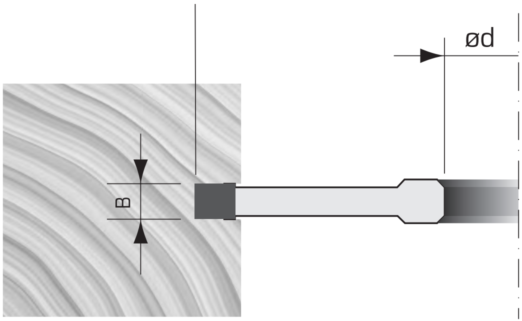
## WHEN ORDERING SPECIFY:

» Cutter diameter
» Bore diameter
» Number of teeth
» Type of wood to cut
» Usable length of spindle



## SPECIAL PRODUCTION

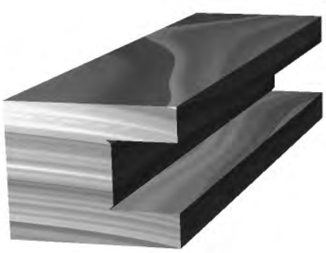
| UNIT OF MEASURE | DIAMETER | | | | KERF | NO. TEETH |
|---|---|---|---|---|---|---|
| **INCH** | 3-1/8" | 4" | 4-3/4" | 5-1/2" | 2-3/8" to 9" | 8 or 12 |
| **MM** | 80 | 100 | 120 | 140 | 60 to 230 | 8 or 12 |

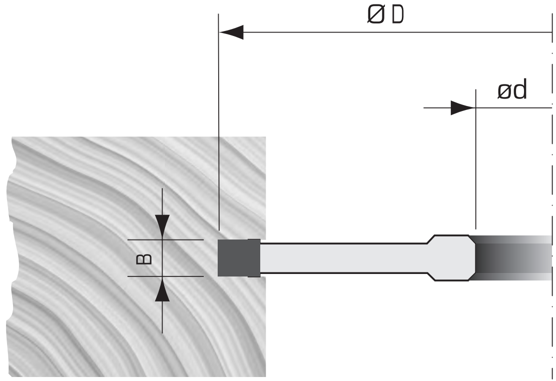



## DESIGN:
- High tensile steel body
- 6 straight teeth
- If required with alternating teeth or left-right + raker
- Tungsten carbide cutting edges

## APPLICATION:
- To make grooves in solid wood with the grain and in uncoated panels
- Can be used in laminated materials if cutting with feed

## MACHINES:
- On shapers, double-end tenoners, and moulders






## IMPERIAL

| DIAMETER ØD 4-3/4" | DIAMETER ØD 5-1/2" | DIAMETER ØD 6-1/4" | KERF B | NO. TEETH |
|---|---|---|---|---|
| PART NO. | PART NO. | PART NO. | | |
| 1121IC | 1127IC | 11213IC | 3/16" | 6 |
| 1122IC | 1128IC | 11214IC | 1/4" | 6 |
| 1123IC | 1129IC | 11215IC | 5/16" | 6 |
| 1124IC | 11210IC | 11216IC | 3/8" | 6 |
| 1125IC | 11211IC | 11217IC | 1/2" | 6 |
| 1126IC | 11212IC | 11218IC | 5/8" | 6 |

**ød Bore: 1-1/4"**
Bore can be opened or bushed to spindle size of your machine.
Maximum bore size: 50mm (2")

**Other sizes available upon request**

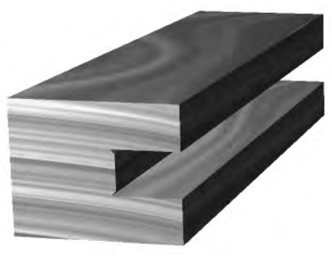
## METRIC

| DIAMETER ØD 120MM | DIAMETER ØD 140MM | DIAMETER ØD 160MM | KERF B MM | NO. TEETH |
|---|---|---|---|---|
| PART NO. | PART NO. | PART NO. | | |
| 1121MC | 1128MC | 11215MC | 5 | 6 |
| 1122MC | 1129MC | 11216MC | 6 | 6 |
| 1123MC | 11210MC | 11217MC | 8 | 6 |
| 1124MC | 11211MC | 11218MC | 10 | 6 |
| 1125MC | 11212MC | 11219MC | 12 | 6 |
| 1126MC | 11213MC | 11220MC | 14 | 6 |
| 1127MC | 11214MC | 11221MC | 16 | 6 |

**ød Bore: 30mm**
Bore can be opened or bushed to spindle size of your machine.
Maximum bore size: 50mm (2")

**Other sizes available upon request**

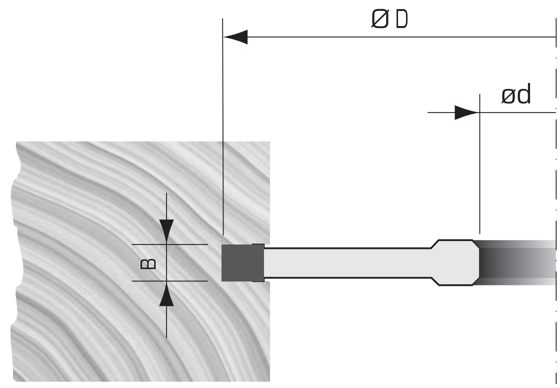
# 113 GROOVING CUTTERS WITH SPURS



**DESIGN:**
- High tensile steel body
- With 4 alternating spurs
- Tungsten carbide cutting edges

**APPLICATION:**
- For grooving solid wood, plywood, and laminated panels

**MACHINES:**
- On shapers, double-end tenoners, and moulders




## IMPERIAL

| DIAMETER ØD 4-3/4" PART NO. | DIAMETER ØD 5-1/2" PART NO. | DIAMETER ØD 6-1/4" PART NO. | KERF B | NO. TEETH + SPURS |
|---|---|---|---|---|
| 1131IC | 1137IC | 11313IC | 3/16" | 4+4 |
| 1132IC | 1138IC | 11314IC | 1/4" | 4+4 |
| 1133IC | 1139IC | 11315IC | 5/16" | 4+4 |
| 1134IC | 11310IC | 11316IC | 3/8" | 4+4 |
| 1135IC | 11311IC | 11317IC | 1/2" | 4+4 |
| 1136IC | 11312IC | 11318IC | 5/8" | 4+4 |

**ød Bore: 1-1/4"**
Bore can be opened or bushed to spindle size of your machine.
Maximum bore size: 50mm (2")

**Other sizes available upon request**

## METRIC

| DIAMETER ØD 120 MM PART NO. | DIAMETER ØD 140 MM PART NO. | DIAMETER ØD 160 MM PART NO. | KERF B MM | NO. TEETH + SPURS |
|---|---|---|---|---|
| 1131MC | 1138MC | 11315MC | 5 | 4+4 |
| 1132MC | 1139MC | 11316MC | 6 | 4+4 |
| 1133MC | 11310MC | 11317MC | 8 | 4+4 |
| 1134MC | 11311MC | 11318MC | 10 | 4+4 |
| 1135MC | 11312MC | 11319MC | 12 | 4+4 |
| 1136MC | 11313MC | 11320MC | 14 | 4+4 |
| 1137MC | 11314MC | 11321MC | 16 | 4+4 |

**ød Bore: 30mm**
Bore can be opened or bushed to spindle size of your machine.
Maximum bore size: 50mm (2")

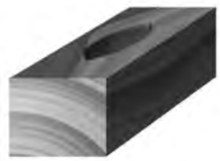
**Other sizes available upon request**

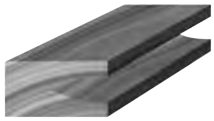
# 113B LAMELLO GROOVING CUTTERS

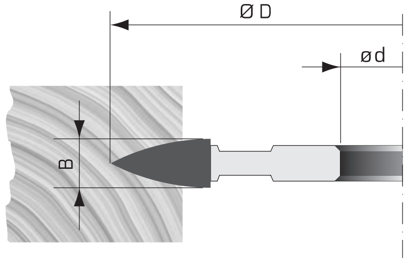
### DESIGN:
- High tensile steel body
- With 4 alternating shear angle teeth
- Tungsten carbide cutting edges

### APPLICATION:
- For cutting out defects in solid woods
- For patch sizes 1-4

### MACHINES:
- For use on mini-spot machines







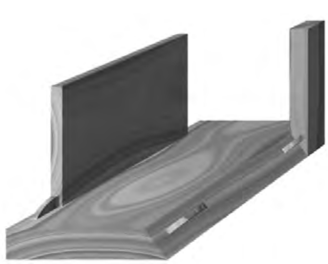

| PART NO. | DIAM. ØD MM | KERF B MM | BORE ød MM | NO. TEETH | RPM MIN-MAX |
|---|---|---|---|---|---|
| **113B** | 100 | 8 | 22 | 4 | 7600-13400 |

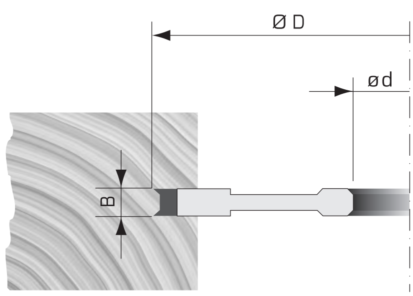
# 113L LAMELLO GROOVING CUTTERS

### DESIGN:
- High tensile steel body
- With 2 teeth and 4 spurs
- Tungsten carbide cutting edges

### APPLICATION:
- For chip free grooving of LAMELLO wood joints
- For solid woods with and against the grain

### MACHINES:
- On LAMELLO and ELU machines for biscuit joints






| PART NO. | DIAM. Ø MM | KERF B MM | BORE ød MM | NO. TEETH | NO. SPURS | RPM MIN-MAX |
|---|---|---|---|---|---|---|
| **113L** | 100 | 3.95 | 22 | 2 | 2+2 | 7600-13400 |

# 114 ADJUSTABLE GROOVING CUTTERS

## DESIGN:

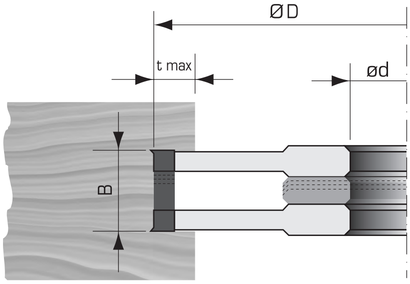
» High tensile steel body
» Set of cutters with 4 teeth + 4 spurs, each adjustable by a set of spacers
» Tungsten carbide cutting edges

## APPLICATION:

» For chip-free grooving of plywood, chipboard, and solid wood with and across the grain
» In uncoated and laminated panel materials with feed

## MACHINES:

» On shapers, moulders, and double-end tenoners

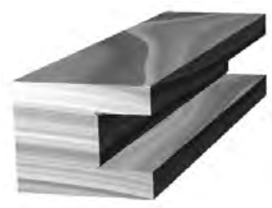



| PART NO. | DIAM. ØD | KERF MIN. B | KERF MAX. B | BORE ød | NO. TEETH | NO. SPURS | GROOVE DEPTH T MAX | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|---|
| **1141MC** | 140mm 5-1/2" | 1.8mm 5/64" | 3.4mm 9/64" | 31.75mm 1-1/4" | 4 | 4 | 15mm 19/32" | 5500-9500 |
| **1142MC** | 140mm 5-1/2" | 2.5mm 3/32" | 4.8mm 3/16" | 31.75mm 1-1/4" | 4 | 4 | 15mm 19/32" | 5500-9500 |
| **1143MC** | 160mm 6-1/4" | 4.0mm 5/32" | 7.5mm 19/64" | 31.75mm 1-1/4" | 4 | 4 | 35mm 1-3/8" | 5100-9000 |
| **1144MC** | 160mm 6-1/4" | 7.5mm 19/64" | 14mm 9/16" | 31.75mm 1-1/4" | 4 | 4 | 35mm 1-3/8" | 5100-9000 |
| **1145MC** | 160mm 6-1/4" | 10mm 13/32" | 19mm 3/4" | 31.75mm 1-1/4" | 4 | 4 | 40mm 1-9/16" | 4800-8300 |
| **1146MC** | 180mm 7-3/32" | 4.0mm 5/32" | 7.5mm 19/64" | 31.75mm 1-1/4" | 4 | 4 | 50mm 2" | 4200-7400 |
| **1147MC** | 180mm 7-3/32" | 7.5mm 19/64" | 14mm 9/16" | 31.75mm 1-1/4" | 4 | 4 | 50mm 2" | 4200-7400 |
| **1148MC** | 180mm 7-3/32" | 10mm 13/32" | 19mm 3/4" | 31.75mm 1-1/4" | 4 | 4 | 50mm 2" | 4200-7400 |

Bore can be opened or bushed to spindle size of your machine

Maximum bore size 50mm (2")

# 115 ADJUSTABLE GROOVING CUTTERS



## DESIGN:

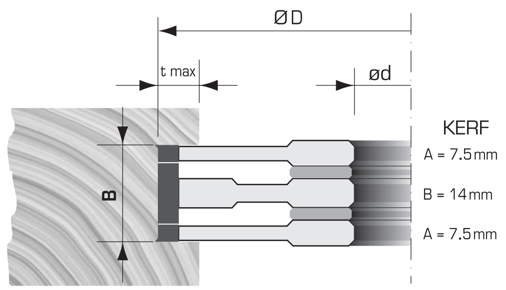
- High tensile steel body
- Set of 3 or 4 interlocked cutters adjustable by spacers and shims
- Outside cutters each with 2 raker teeth and 2 spurs on outside at negative rake
- Middle cutters with 4 raker teeth
- Chip limiter for manual feed
- Cuts grooves sharp and clean, no tear-outs
- Tungsten carbide cutting edges

## APPLICATION:

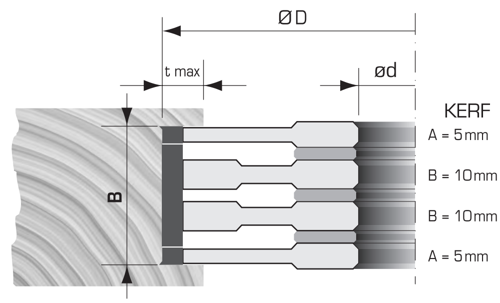
- For chip-free grooving of plywood, chipboard, and solid wood with and against the grain
- In uncoated and laminated panel materials with feed

## MACHINES:

- On shapers, moulders, and double-end tenoners




1151MC




1152MC

| PART NO. | DIAM. ØD | KERF MIN. B | KERF MAX. B | BORE ød MM | NO. TEETH | NO. SPURS | GROOVE DEPTH T MAX | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|---|
| **1151MC** | 150mm 6" | 7.5mm 19/64" | 28mm 1-7/64" | 31.75mm 1-1/4" | 4 | 4+4 | 30mm 1-3/16" | 5100-8900 |
| **1152MC** | 220mm 8-5/8" | 5mm 3/16" | 30mm 1-3/16" | 31.75mm 1-1/4" | 4 | 4+4 | 40mm 1-9/16" | 3500-6000 |

Bore can be opened or bushed to spindle size of your machine

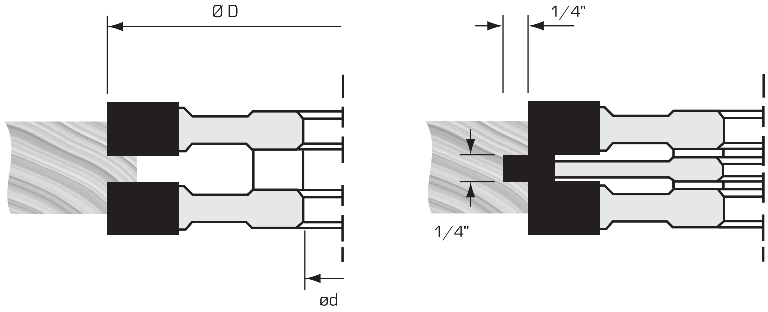
Maximum bore size 50mm (2")

# 139 TONGUE AND GROOVE SHAPER CUTTERS

**DESIGN:**
- High tensile steel body
- Set of 3 cutters (1 groover + 2 cutters)
- Each with 3 teeth and spacers to obtain profiles
- Tungsten carbide cutting edges

**APPLICATION:**
- For producing tongue and groove shapes on plywood and solid wood

**MACHINES:**
- On shapers




| PART NO. | DIAM. ØD | WOOD THICKNESS MIN. | WOOD THICKNESS MAX. | BORE ød | NO. TEETH |
|---|---|---|---|---|---|
| 139IC | 4" | 3/4" | 1-1/8" | 1-1/4" | 3+3+3 |

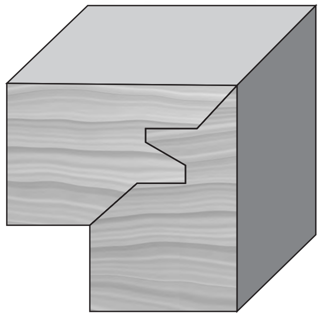
Bore can be opened or bushed to spindle size of your machine

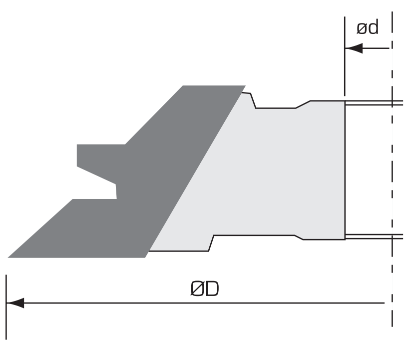
# 135 REVERSIBLE MITRE JOINT CUTTER

**DESIGN:**
- High tensile steel body
- With 3 straight teeth
- Tungsten carbide cutting edges

**APPLICATION:**
- For cutting mitre lock joints in solid wood and panel materials

**MACHINES:**
- On shapers

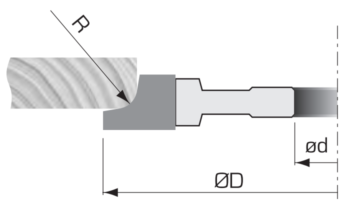





| PART NO. | DIAM. ØD | WOOD THICKNESS MIN. | WOOD THICKNESS MAX. | BORE ød | NO. TEETH |
|---|---|---|---|---|---|
| 135IC | 4-3/4" | 3/8" | 3/4" | 1-1/4" | 3 |

Bore can be opened or bushed to spindle size of your machine

# 149 QUARTER ROUND CUTTERS




## DESIGN:
- High tensile steel body
- With 3 teeth sheer cut for optimum quality of cut
- Tungsten carbide cutting edges

## APPLICATION:
- To cut quarter round shapes in solid wood and panel materials

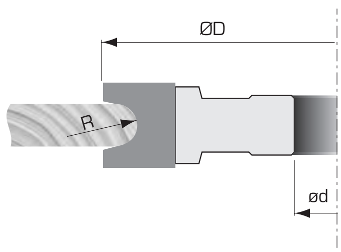
## MACHINES:
- On shapers

## SPECIAL PRODUCTION:
- For all other sizes see Cutters Special Profiles “PA” on page B2

| PART NO. | DIAM. ØD | RADIUS R | BORE ød | NO. TEETH |
|---|---|---|---|---|
| **1491IC** | 4" | 1/4" | 1-1/4" | 3 |
| **1492IC** | 4" | 3/8" | 1-1/4" | 3 |
| **1493IC** | 4" | 1/2" | 1-1/4" | 3 |
| **1494IC** | 4-3/4" | 3/4" | 1-1/4" | 3 |

Bore can be opened or bushed to spindle size of your machine

# 150 HALF ROUND CUTTERS




## DESIGN:
- High tensile steel body
- With 3 straight teeth
- Tungsten carbide cutting edges

## APPLICATION:
- To cut half round shapes in solid wood and panel materials

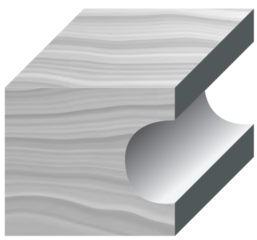
## MACHINES:
- On shapers

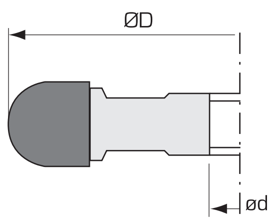
## SPECIAL PRODUCTION:
- For all other sizes see Cutters Special Profiles “PB” on page B2

| PART NO. | DIAM. ØD | RADIUS R | PROFILE HEIGHT | BORE ød | NO. TEETH |
|---|---|---|---|---|---|
| **1501IC** | 4" | 1/8" | 1/4" | 1-1/4" | 3 |
| **1502IC** | 4" | 1/4" | 1/2" | 1-1/4" | 3 |
| **1503IC** | 4-1/2" | 3/8" | 3/4" | 1-1/4" | 3 |
| **1504IC** | 4-1/2" | 1/2" | 1" | 1-1/4" | 3 |

Bore can be opened or bushed to spindle size of your machine

# 151 CONVEX RADIUS CUTTERS






**DESIGN:**
- » High tensile steel body
- » With 4 straight teeth
- » Tungsten carbide cutting edges

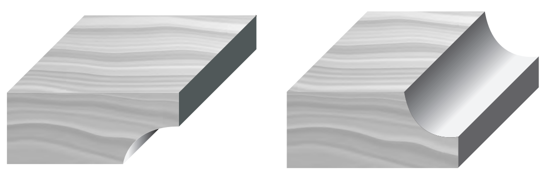
**APPLICATION:**
- » For cutting coves in solid wood and panel materials

**MACHINES:**
- » On shapers

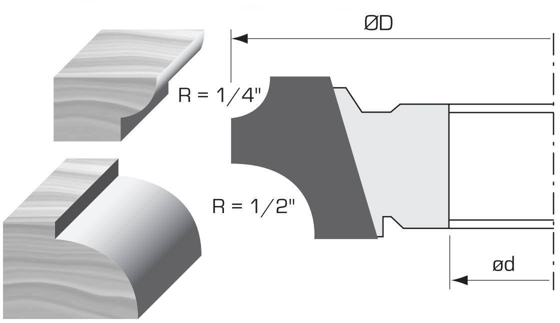
**SPECIAL PRODUCTION:**
- » For all other sizes see Cutters Special Profiles “PA” on page B2

| PART NO. | DIAM. ØD | RADIUS R | KERF B | BORE ød | NO. TEETH |
|---|---|---|---|---|---|
| **1516IC** | 4" | 3/8" | 3/4" | 1-1/4" | 4 |
| **1518IC** | 4" | 1/2" | 1" | 1-1/4" | 4 |

Bore can be opened or bushed to spindle size of your machine



# 154 DUAL QUARTER ROUND CUTTERS
## 1/4" AND 1/2" RADIUS




**DESIGN:**
- » High tensile steel body
- » With 3 teeth, straight
- » Tungsten carbide cutting edges

**APPLICATION:**
- » To make 1/4" or 1/2" quarter round shapes in solid wood and panel materials

**MACHINES:**
- » On shapers

**SPECIAL PRODUCTION:**
- » For all other sizes see Cutters Special Profiles “PB” on page B2

| PART NO. | DIAM. ØD | RADIUS R1 | RADIUS R2 | KERF B | BORE ød | NO. TEETH |
|---|---|---|---|---|---|---|
| **154IC** | 4" | 1/4" | 1/2" | 1" | 1-1/4" | 3 |

Bore can be opened or bushed to spindle size of your machine

# 177 STILE AND RAIL CUTTER SETS

**DESIGN:**
» High tensile steel body
» Set of 4 cutters and spacers
» With 3 teeth
» Tungsten carbide cutting edges

**APPLICATION:**
» To cut stile and rail for producing solid wood cabinet doors

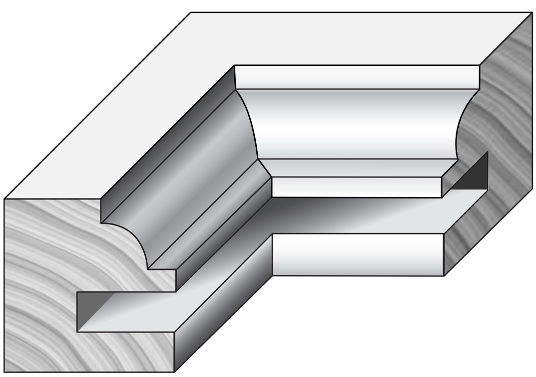
**MACHINES:**
» On shapers

**SPECIAL PRODUCTION:**
» For all other sizes see Cutters Special Profiles “PA” on page B2

| PART NO. | PROFILE | DIAM. ØD | WOOD THICKNESS | BORE ød | NO. TEETH |
|---|---|---|---|---|---|
| 177AI | A | 4" | 3/4" to 1" | 1-1/4" | 3+3 |
| 177BI | B | 4" | 3/4" to 1" | 1-1/4" | 3+3 |

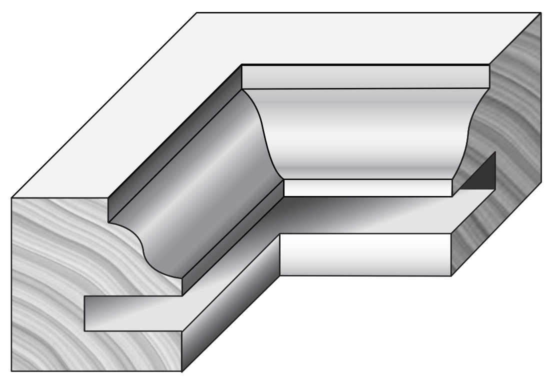
Bore can be opened or bushed to spindle size of your machine

## PROFILE A

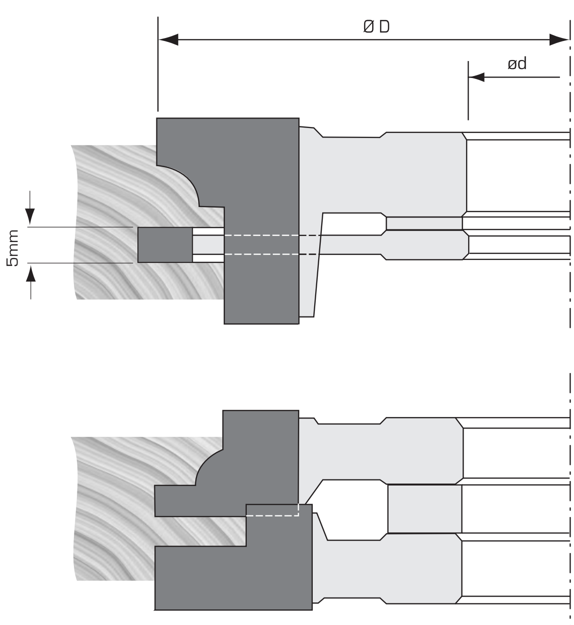


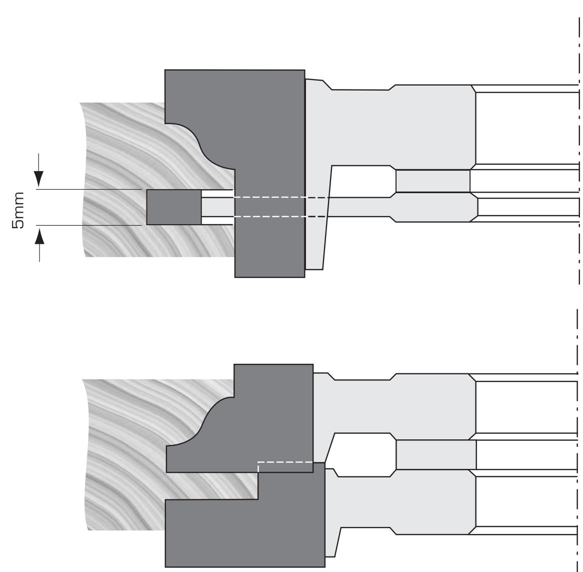
BEAD PROFILE

## PROFILE B



OGEE PROFILE



## DESIGN:
» High tensile steel body
» With 3 teeth and shear angle for optimum quality of cut
» Tungsten carbide cutting edges

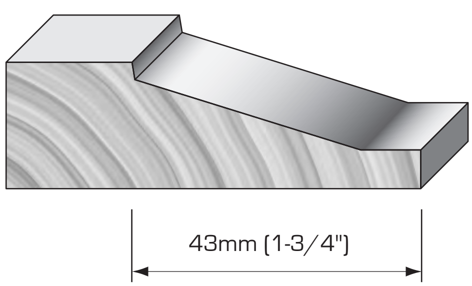
## APPLICATION:
» For raised panel cutting in solid wood and MDF panels

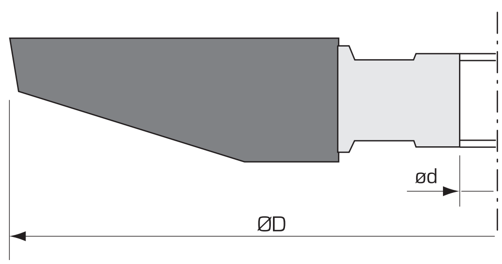
## MACHINES:
» On shapers

| PART NO. | PROFILE | DIAM. ØD | KERF B | BORE ød | NO. TEETH |
|---|---|---|---|---|---|
| **1681IC** | Profile No. 1 | 6" | 5/8" | 1-1/4" | 3 |
| **1682IC** | Profile No. 2 | 6" | 5/8" | 1-1/4" | 3 |
| **1693IC** | Profile No. 3 | 5-3/4" | 5/8" | 1-1/4" | 3 |
| **1694IC** | Profile No. 4 | 5-3/4" | 5/8" | 1-1/4" | 3 |
| **1695IC** | Profile No. 5 | 5-3/4" | 5/8" | 1-1/4" | 3 |
| **1696IC** | Profile No. 6 | 5-3/4" | 5/8" | 1-1/4" | 3 |

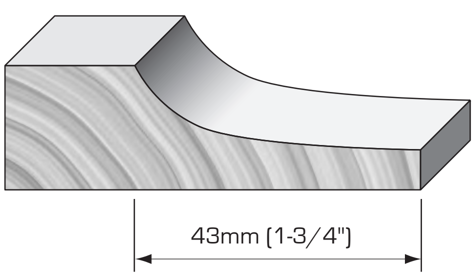
Bore can be opened or bushed to spindle size of your machine

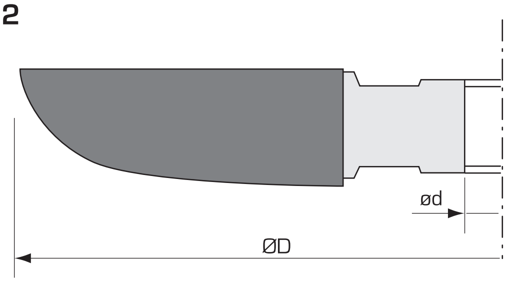
## PROFILE NO. 1



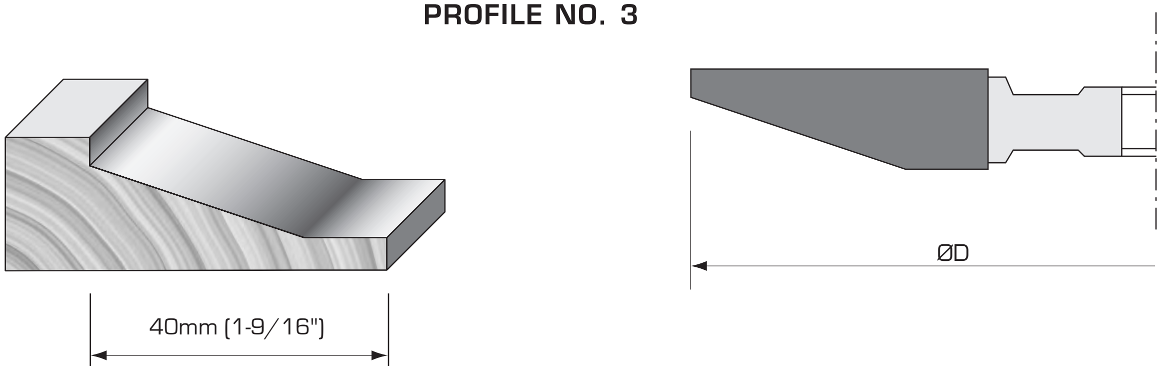

## PROFILE NO. 2




**SCALE 1:1**

### PROFILE NO. 3

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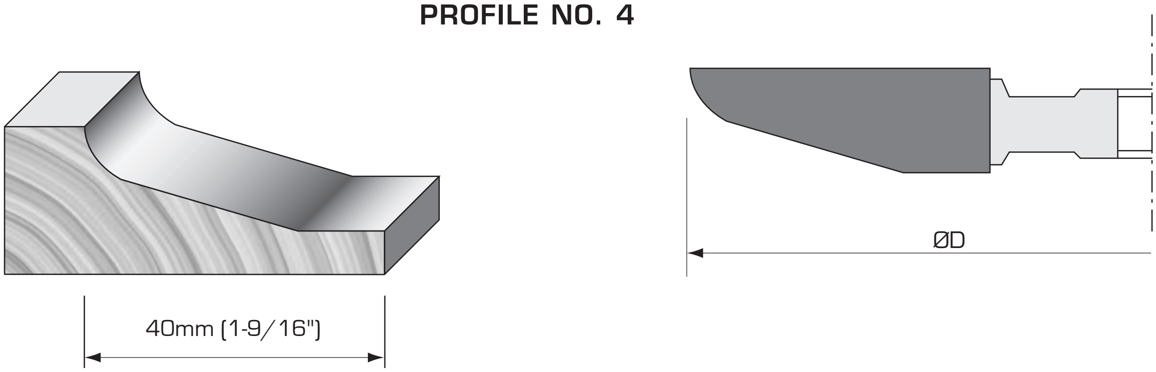
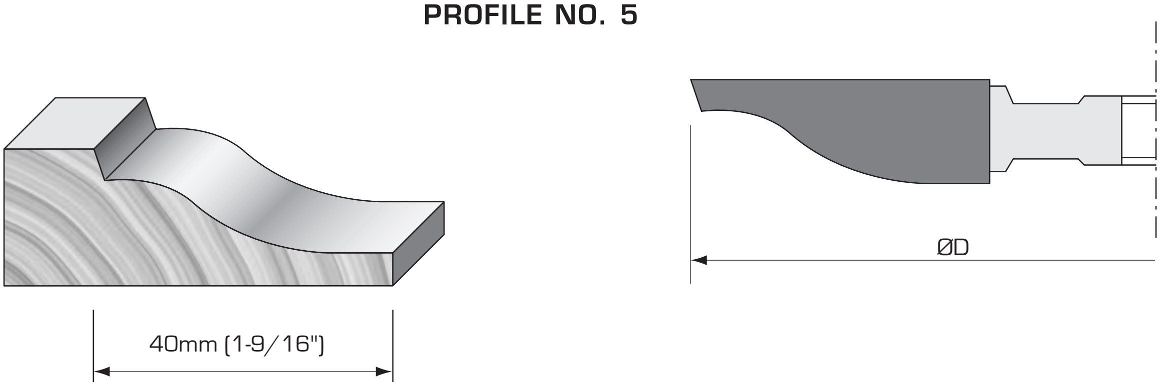
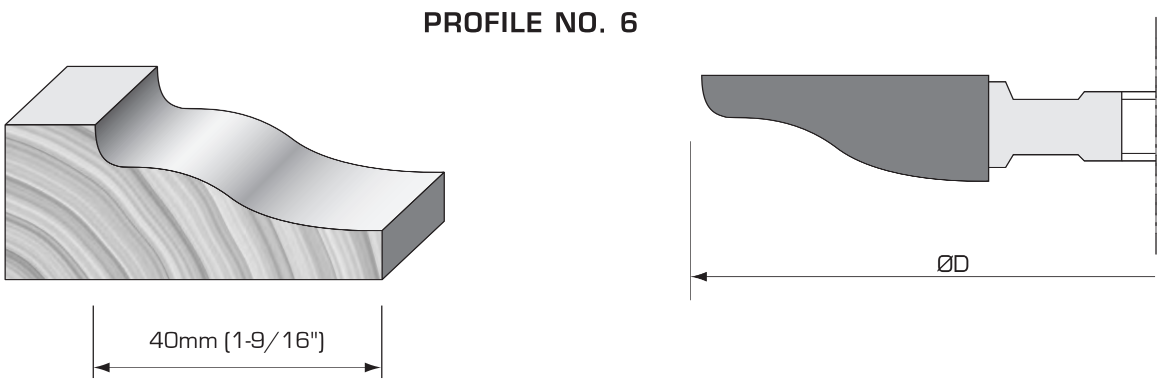



### PROFILE NO. 5




### PROFILE NO. 6




SCALE 1:1

# ENTRY AND PASSAGE DOOR CUTTER SET

## DESIGN:

- High tensile steel body
- Set of 5 cutters with 3 teeth interlocked and set of spacers
- Tungsten carbide cutting edges

## APPLICATION:

- To cut stile and rail in solid wood for producing entry and passage doors

## MACHINES:

- On shapers

## TYPE: 178

| PART NO. | PROFILE | DIAM. ØD | WOOD THICKNESS | TENON | BORE ød | NO. TEETH | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|
| 178AI | A | 4" | 1-3/8" | 1/4" | 1-1/4" | 3 | 7500-12500 |
| 178BI | B | 4" | 1-3/8" | 1/4" | 1-1/4" | 3 | 7500-12500 |
| 178CI | C | 4" | 1-3/8" | 1/4" | 1-1/4" | 3 | 7500-12500 |

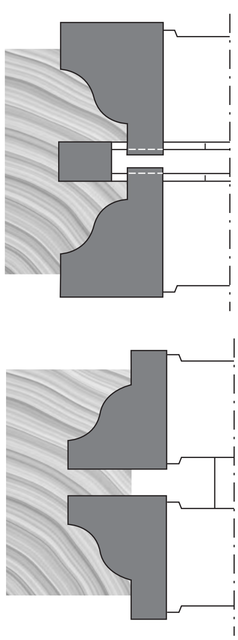
Bore can be opened or bushed to spindle size of your machine

## TYPE: 179

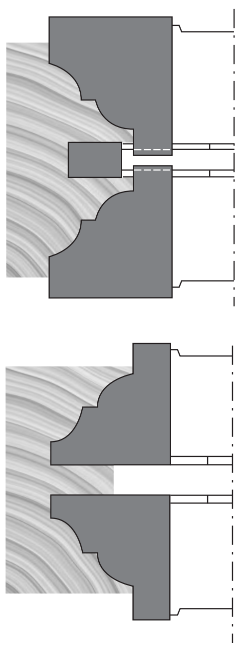
| PART NO. | PROFILE | DIAM. ØD | WOOD THICKNESS | TENON | BORE ød | NO. TEETH | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|
| 179AI | A | 4" | 1-3/4" | 3/8" | 1-1/4" | 3 | 7500-12500 |
| 179BI | B | 4" | 1-3/4" | 3/8" | 1-1/4" | 3 | 7500-12500 |
| 179CI | C | 4" | 1-3/4" | 3/8" | 1-1/4" | 3 | 7500-12500 |

Bore can be opened or bushed to spindle size of your machine

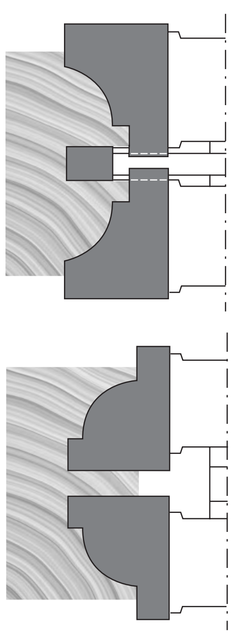
### PROFILE A



### PROFILE B



### PROFILE C



# CUT-ALL CUTTER SET


## DESIGN:

» High tensile steel body
» Each set consists of 4 cutters with 3 teeth and 3 spacers engraved with No. 1, No. 2, and No. 3
» Tungsten carbide cutting edges
» 4 different interlocking joints

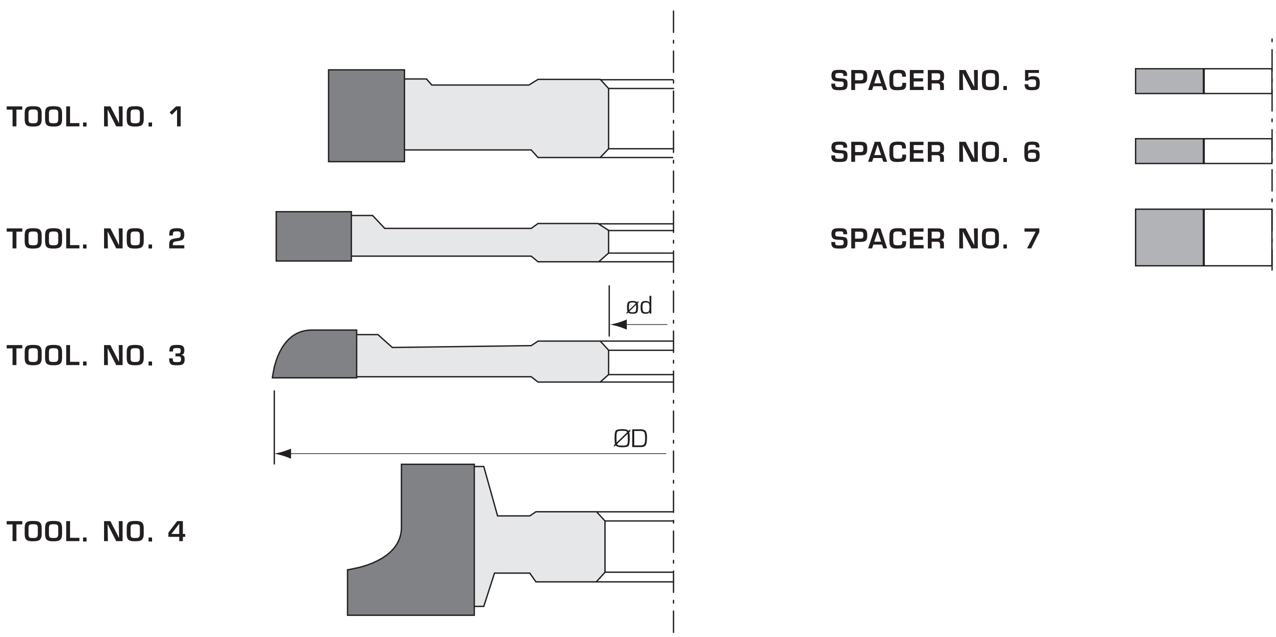
## APPLICATION:

» To cut all standard moulding profiles and anything else you can think of

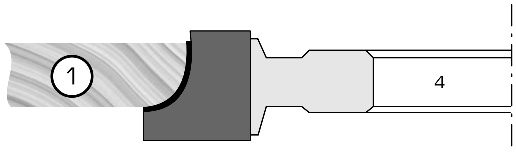
## MACHINES:

» On shapers

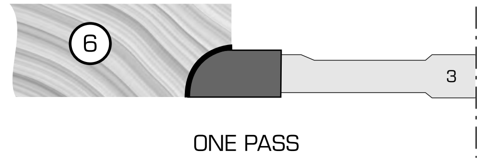
| PART NO. | TYPE | DIAM. ØD | BORE ØD | NO. TEETH |
|---|---|---|---|---|
| **1821IC** | Small Set | 4-1/8" | 3/4" | 3 |
| **1822IC** | Large Set | 5-1/2" | 1-1/4" | 3 |



# 182 CUT-ALL CUTTER SET




ONE PASS

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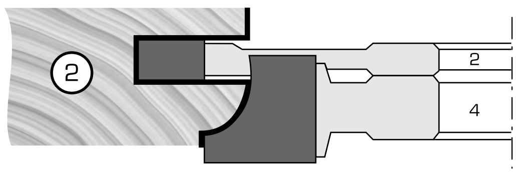


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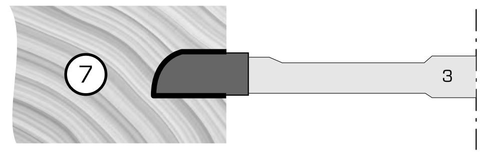


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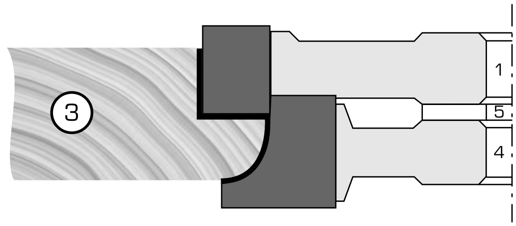


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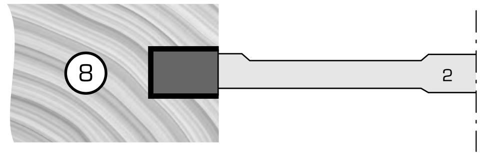


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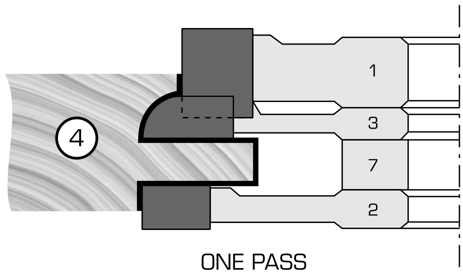


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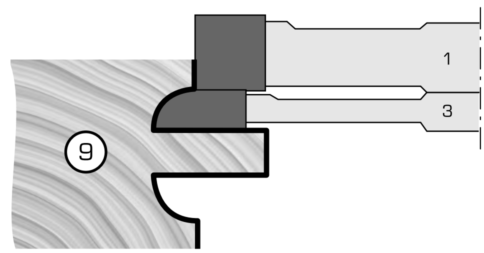
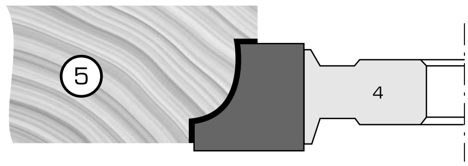



TWO PASSES TURN WOOD OVER

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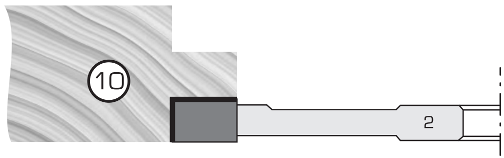

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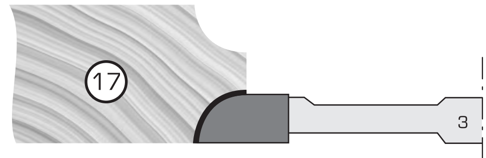

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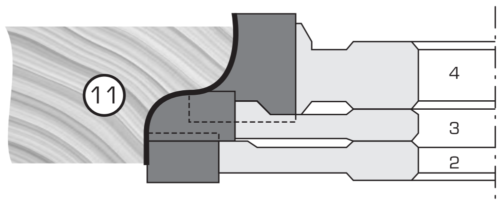

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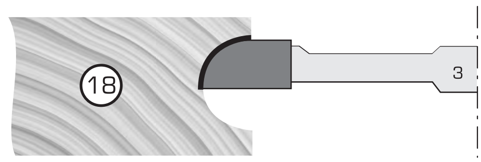

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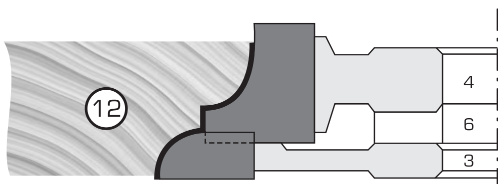

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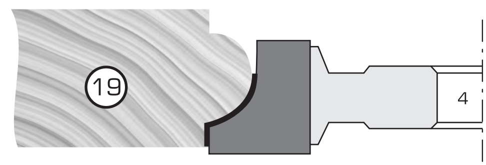

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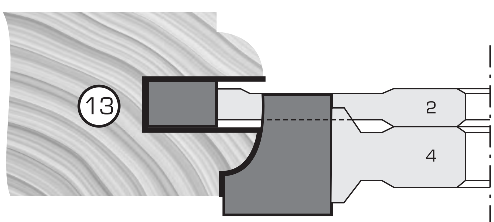

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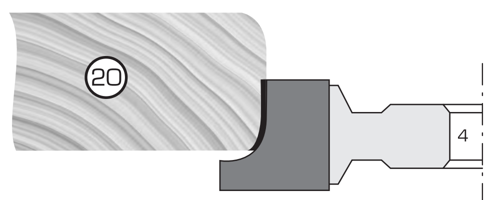

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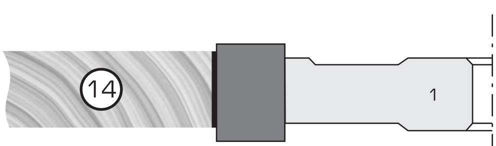

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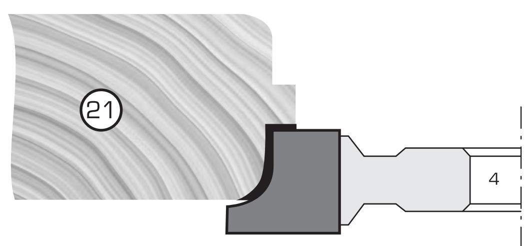
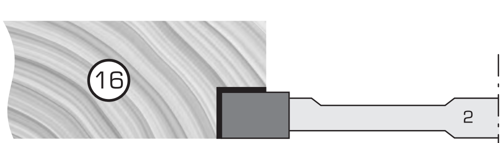


TWO PASSES TURN WOOD OVER

ONE PASS



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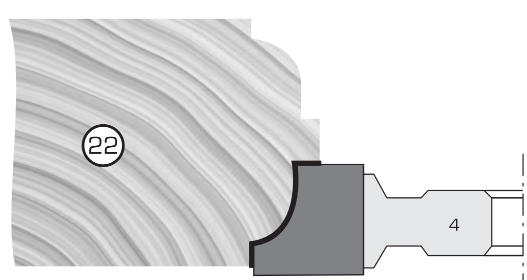

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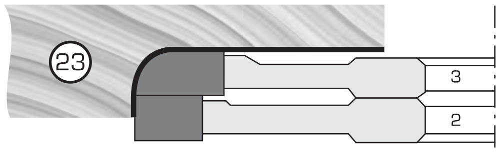


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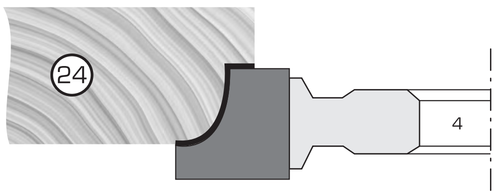


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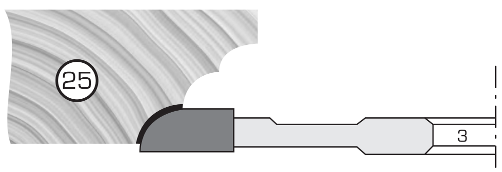
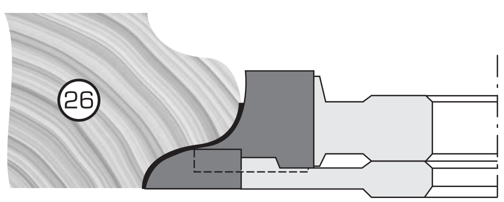
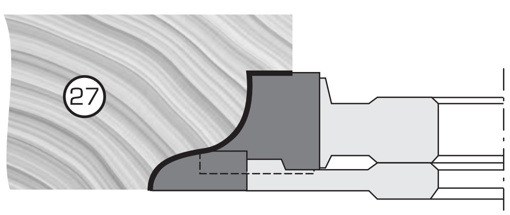



THREE PASSES




TWO PASSES TURN WOOD OVER

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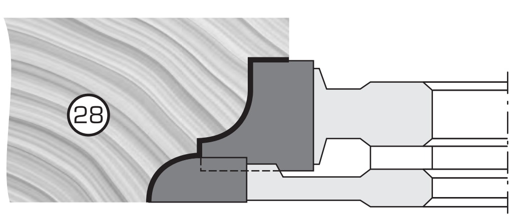


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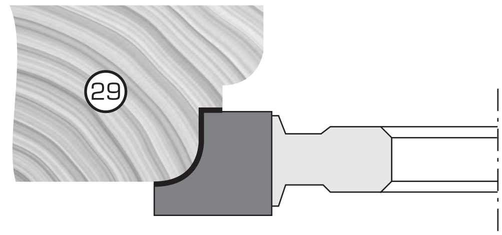
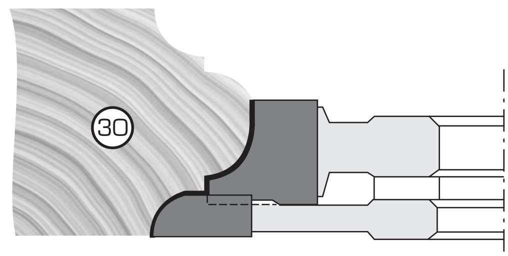
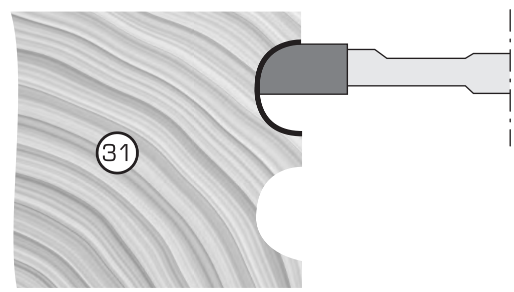


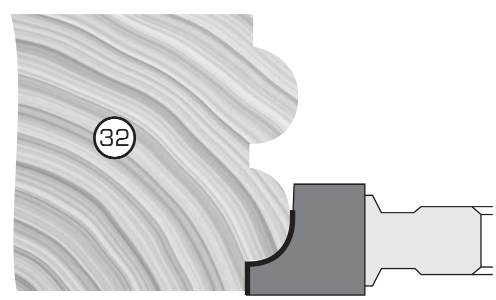

TWO PASSES



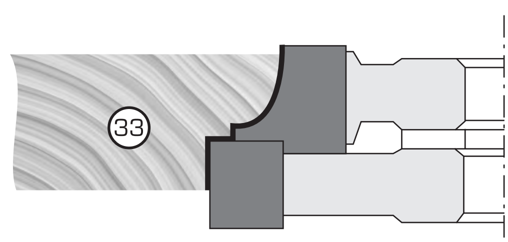

TWO PASSES TURN WOOD OVER




FOUR PASSES TURN WOOD OVER

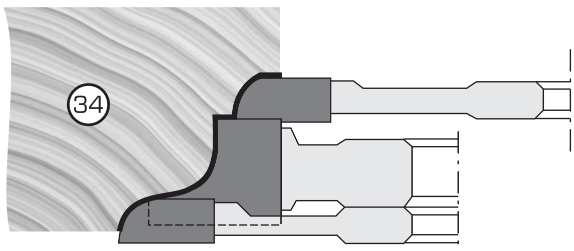



FOUR PASSES TURN WOOD OVER

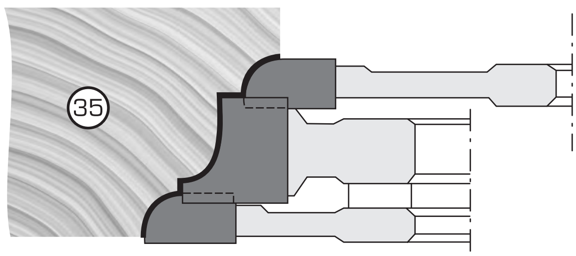



ONE PASS

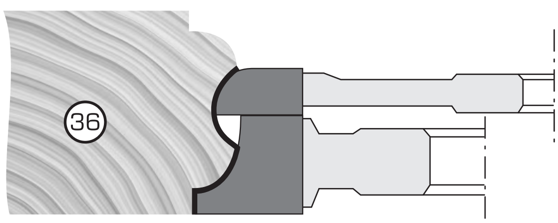
FS TOOL



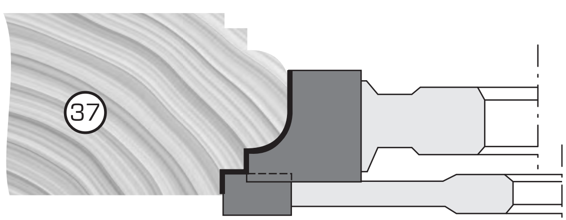

TWO PASSES



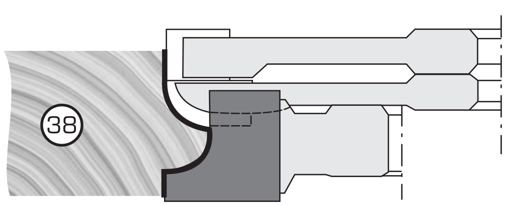

TWO PASSES



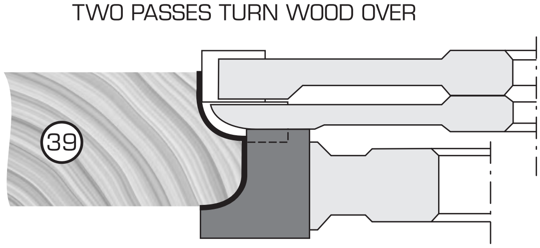

FOUR PASSES TURN WOOD OVER



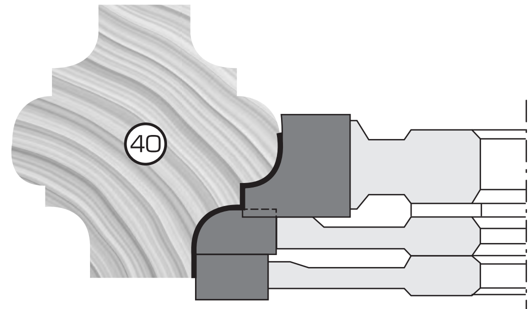

TWO PASSES TURN WOOD OVER



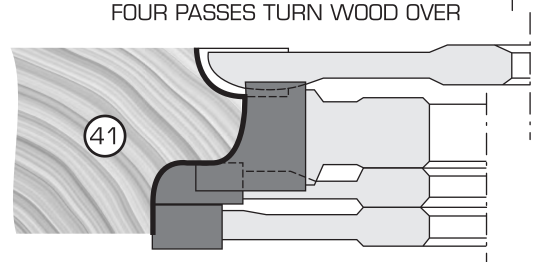

TWO PASSES TURN WOOD OVER



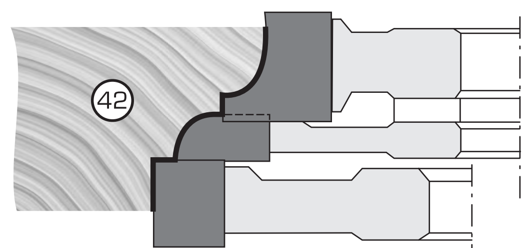

TWO PASSES TURN WOOD OVER



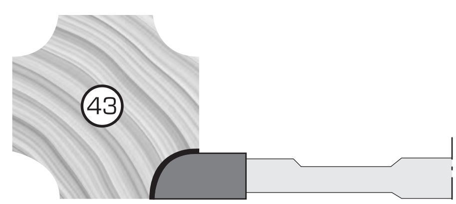

FOUR PASSES TURN WOOD OVER



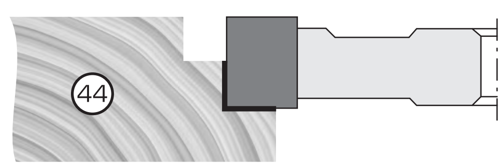

TWO PASSES TURN WOOD OVER



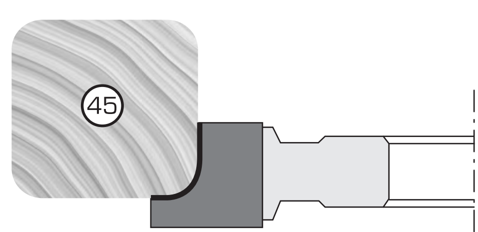

TWO PASSES



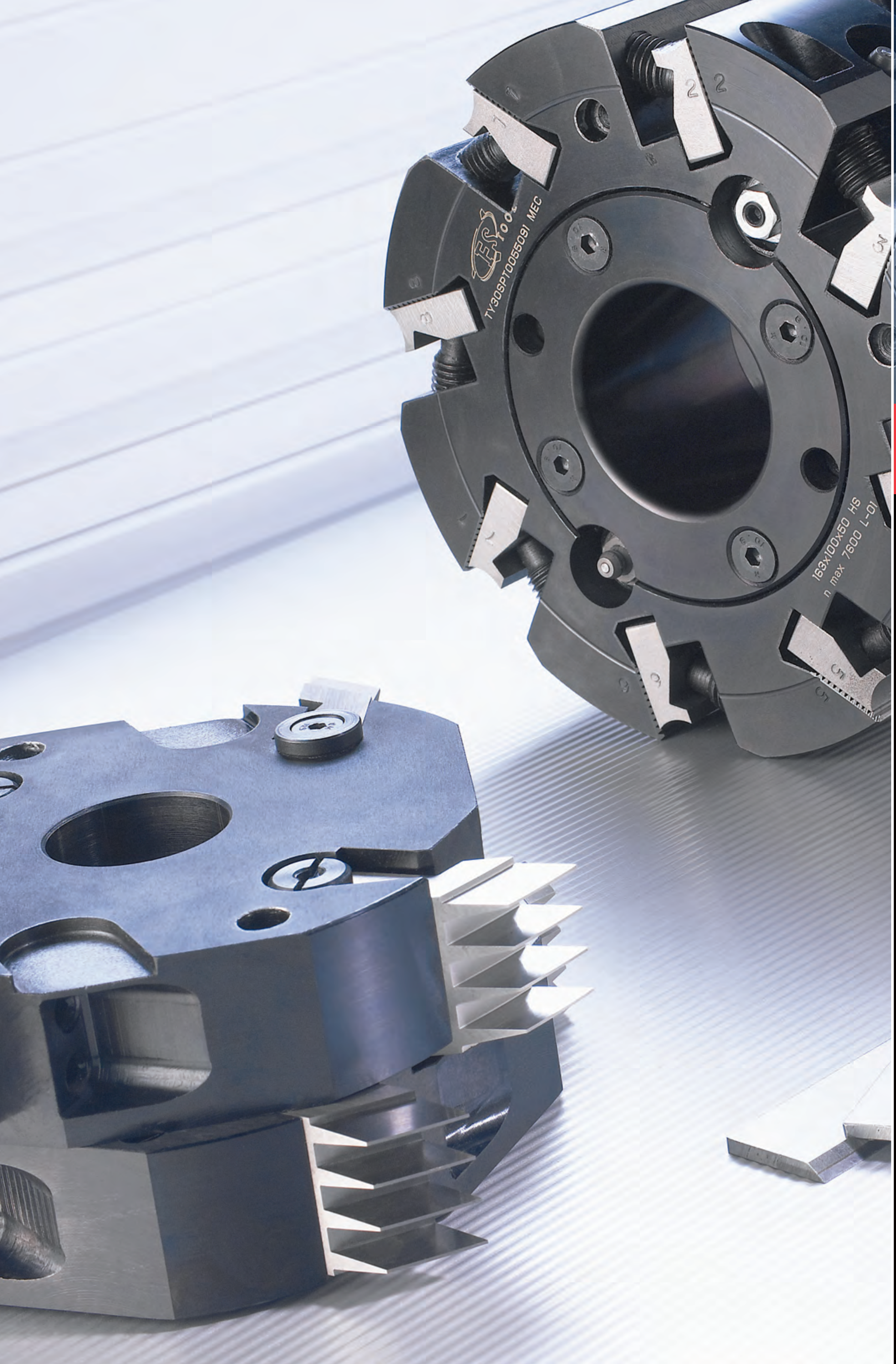

FOUR PASSES TURN WOOD OVER




TWO PASSES




FOUR PASSES TURN WOOD OVER




# C

## CUTTER BLOCKS
HSS Knives / Carbide Tipped

# 186 MULTI DOWEL CUTTER - SMOOTH

## TOOLHEADS & KNIVES

### DESIGN:

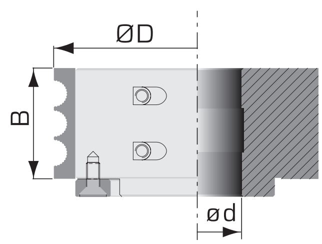
» High tensile steel body with 3 teeth
» The knife locking system is very precise due to the positioning ring mounted on each toolhead
» Solid HSS knives are resharpenable and replaceable
» For higher performance, knives with titanium nitride coating (tin) available on request

### APPLICATION:

» For producing smooth dowels from 6mm to 16mm diameter

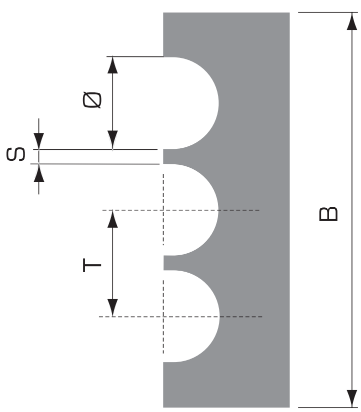
### MACHINE TYPE:

» On moulders




### TOOLHEADS: SPECIAL PRODUCTION

| DIAM. ØD MM | KERF B | MAX BORE ØD | NO. TEETH | MAX. RPM |
|---|---|---|---|---|
| 110mm | 50mm, 75mm, 100mm or 125mm | 50mm | 3 | 10000 |
| 4-3/8" | 2", 3", 4" or 5" | 2" | 3 | 10000 |



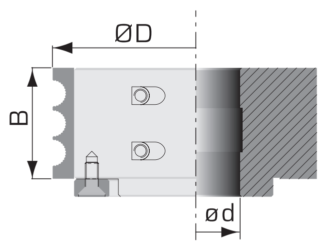

### KNIVES FOR SMOOTH DOWELS: SPECIAL PRODUCTION

| DOWEL DIAM. Ø MM | SPLITTER SIZE S MM | PITCH T MM | NO. OF DOWELS | KERF B MM | CUTTING DIAM. ØD MM |
|---|---|---|---|---|---|
| 6 | 1 | 7 | 6 | 50 | 138 |
| 8 | 1 | 9 | 4 | 50 | 138 |
| 10 | 1 | 11 | 3 | 50 | 138 |
| 12 | 1.5 | 13.5 | 3 | 50 | 148 |
| 14 | 1.5 | 15.5 | 2 | 50 | 148 |
| 16 | 1.5 | 17.5 | 2 | 50 | 148 |
| 6 | 1 | 7 | 9 | 75 | 138 |
| 8 | 1 | 9 | 7 | 75 | 138 |
| 10 | 1 | 11 | 5 | 75 | 138 |
| 12 | 1.5 | 13.5 | 5 | 75 | 148 |
| 14 | 1.5 | 15.5 | 4 | 75 | 148 |
| 16 | 1.5 | 17.5 | 3 | 75 | 148 |
| 6 | 1 | 7 | 12 | 100 | 138 |
| 8 | 1 | 9 | 10 | 100 | 138 |
| 10 | 1 | 11 | 8 | 100 | 138 |
| 12 | 1.5 | 13.5 | 6 | 100 | 148 |
| 14 | 1.5 | 15.5 | 5 | 100 | 148 |
| 16 | 1.5 | 17.5 | 5 | 100 | 148 |
| 6 | 1 | 7 | 16 | 125 | 138 |
| 8 | 1 | 9 | 13 | 125 | 138 |
| 10 | 1 | 11 | 10 | 125 | 138 |
| 12 | 1.5 | 13.5 | 8 | 125 | 148 |
| 14 | 1.5 | 15.5 | 7 | 125 | 148 |
| 16 | 1.5 | 17.5 | 6 | 125 | 148 |

## DESIGN:
- High tensile steel body with 3 teeth
- The knife locking system is very precise due to the positioning ring mounted on each toolhead
- Solid HSS knives are resharpenable and replaceable
- For higher performance, knives with titanium nitride coating (tin) available on request

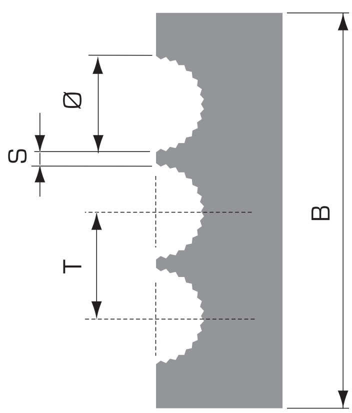
## APPLICATION:
- For producing serrated dowels from 6.2mm to 16.2mm diameter

## MACHINE TYPE:
- On moulders




## TOOLHEADS: SPECIAL PRODUCTION

| DIAM. ØD MM | KERF B | MAX BORE ØD | NO. TEETH | MAX.RPM |
|---|---|---|---|---|
| 110mm | 50mm, 75mm, 100mm or 125mm | 50mm | 3 | 10000 |
| 4-3/8" | 2", 3", 4" or 5" | 2" | 3 | 10000 |




## KNIVES FOR SMOOTH DOWELS: SPECIAL PRODUCTION

| DOWEL DIAM. Ø MM | SPLITTER SIZE S MM | PITCH T MM | NO. OF SERRATIONS | NO. OF DOWELS | KERF B MM | CUTTING DIAM. ØD MM |
|---|---|---|---|---|---|---|
| 6.2 | 1 | 7.2 | 16 | 6 | 50 | 138 |
| 8.2 | 1 | 9.2 | 20 | 4 | 50 | 138 |
| 10.2 | 1 | 11.2 | 22 | 3 | 50 | 138 |
| 12.2 | 1.5 | 13.7 | 22 | 3 | 50 | 148 |
| 14.2 | 1.5 | 15.7 | 22 | 2 | 50 | 148 |
| 16.2 | 1.5 | 17.7 | 22 | 2 | 50 | 148 |
| 6.2 | 1 | 7.2 | 16 | 9 | 75 | 138 |
| 8.2 | 1 | 9.2 | 20 | 7 | 75 | 138 |
| 10.2 | 1 | 11.2 | 22 | 5 | 75 | 138 |
| 12.2 | 1.5 | 13.7 | 22 | 5 | 75 | 148 |
| 14.2 | 1.5 | 15.7 | 22 | 4 | 75 | 148 |
| 16.2 | 1.5 | 17.7 | 22 | 3 | 75 | 148 |
| 6.2 | 1 | 7.2 | 16 | 12 | 100 | 138 |
| 8.2 | 1 | 9.2 | 20 | 10 | 100 | 138 |
| 10.2 | 1 | 11.2 | 22 | 8 | 100 | 138 |
| 12.2 | 1.5 | 13.7 | 22 | 6 | 100 | 148 |
| 14.2 | 1.5 | 15.7 | 22 | 5 | 100 | 148 |
| 16.2 | 1.5 | 17.7 | 22 | 5 | 100 | 148 |
| 6.2 | 1 | 7.2 | 16 | 16 | 125 | 138 |
| 8.2 | 1 | 9.2 | 20 | 13 | 125 | 138 |
| 10.2 | 1 | 11.2 | 22 | 10 | 125 | 138 |
| 12.2 | 1.5 | 13.7 | 22 | 8 | 125 | 148 |
| 14.2 | 1.5 | 15.7 | 22 | 7 | 125 | 148 |
| 16.2 | 1.5 | 17.7 | 22 | 6 | 125 | 148 |

## DESIGN:

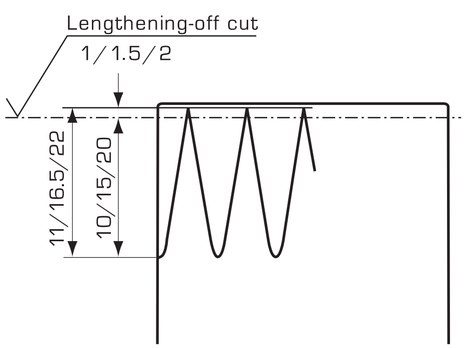
- High tensile steel body requires 4 knives, not included with toolhead
- Tools can be stacked based on the wood thickness to be cut
- Solid HSS knives are resharpenable and exchangeable
- Knives can be coated with a special PVD surface coating for longer tool life

## APPLICATION:

- For finger joints in solid wood
- When ordering, specify 'Interchangable Mini-Finger Joint Knives' and 'Bore Size'
- For machines with lengthening-off device (TrimSaw), finger length will be 11mm, 16.5mm or 22mm. By means of the lengthening-off device, the machined finger length may be between 10 and 11mm, 15 and 16.5mm or 20 and 22mm according to requirements for fitting and strength of joint
- If not stated otherwise, cutters will be supplied to suit machines without lengthening-off devices

## MACHINE TYPE:

- On finger jointing machines with or without lengthening-off device

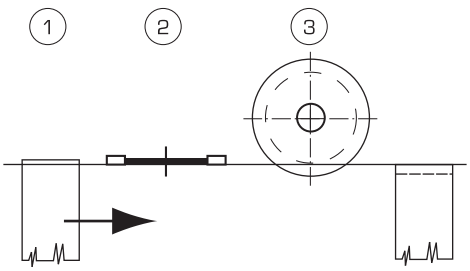



If not stated otherwise, cutters will be supplied to suit machines without lengthening-off device

| PART NO. | JOINT LENGTH MM | DIAM. ØD MM | KERF B MM | BORE ØD | NO. TEETH | MAX. RPM |
|---|---|---|---|---|---|---|
| **186A11** | 4 | 160 | 25.6 | 1-1/4" | 4 | 8000 |
| **186A12** | 10 | 160 | 30.4 | 1-1/4" | 4 | 8000 |
| **186A13** | 15 | 170 | 30.4 | 1-1/4" | 4 | 8000 |
| **186A14** | 20 | 180 | 37.2 | 1-1/4" | 4 | 7000 |

Max. bore size 50mm (2")

Other bore sizes and diameters available upon request

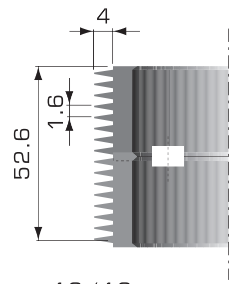



1. Timber
2. Lengthening-off device (Trim Saw)
3. Mini finger joint cutter

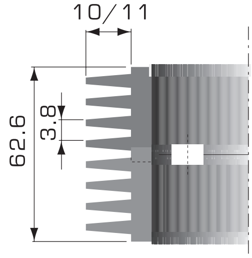
FS TOOL

**TOOLHEAD PART NO.**

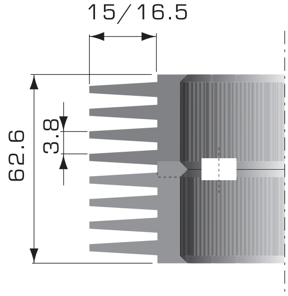
[186A50]



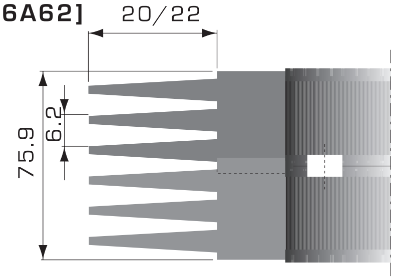

[186A52] 10/10
[186A54] 10/11



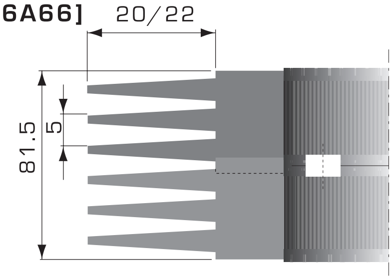

[186A56] 15/15
[186A58] 15/16.5




[186A60] 20/20
[186A62] 20/22




[186A64] 20/20
[186A66] 20/22




| PART NO. | JOINT LENGTH MM | LENGTHENING OFF DEVICE (A) | PITCH MM | KNIFE SIZE MM |
|---|---|---|---|---|
| **186A50** | 4 | No | 1.6 | 25.4 x 33 x 14 |
| **186A52** | 10-10 | No | 3.8 | 28.4 x 38.5 x 14 |
| **186A54** | 10-11 | Yes | 3.8 | 28.4 x 38.5 x 14 |
| **186A56** | 15-15 | No | 3.8 | 28.4 x 43.5 x 14 |
| **186A58** | 15-16.5 | Yes | 3.8 | 28.4 x 43.5 x 14 |
| **186A60** | 20-20 | No | 6.2 | 32.5 x 48.5 x 14 |
| **186A62** | 20-22 | Yes | 6.2 | 32.5 x 48.5 x 14 |
| **186A64** | 20-20 | No | 5.0 | 36.5 x 48.5 x 14 |
| **186A66** | 20-22 | Yes | 5.0 | 36.5 x 48.5 x 14 |

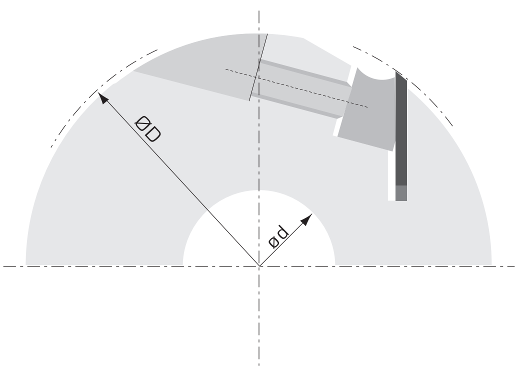
| JOINT LENGTH MM | | WOOD THICKNESS MM | NO. TOOLHEADS | TOTAL KERF MM |
|---|---|---|---|---|
| 4 | 1.6mm PITCH | 25.2 | 1 | 27.0 |
| 4 | | 50.8 | 2 | 52.6 |
| 4 | | 76.4 | 3 | 78.2 |
| 4 | | 102.0 | 4 | 103.8 |
| 4 | | 127.6 | 5 | 129.4 |
| 10 & 15 | 3.8mm PITCH | 29.8 | 1 | 32.2 |
| 10 & 15 | | 60.2 | 2 | 62.6 |
| 10 & 15 | | 90.6 | 3 | 93.0 |
| 10 & 15 | | 121.0 | 4 | 123.4 |
| 10 & 15 | | 151.4 | 5 | 153.8 |
| 20 | 6.2mm PITCH | 36.3 | 1 | 38.7 |
| 20 | | 73.5 | 2 | 75.9 |
| 20 | | 110.7 | 3 | 113.1 |
| 20 | | 147.9 | 4 | 150.3 |
| 20 | | 185.1 | 5 | 187.5 |
| 20 | 5mm PITCH | 37.4 | 1 | 41.5 |
| 20 | | 77.4 | 2 | 81.5 |
| 20 | | 117.4 | 3 | 121.5 |
| 20 | | 157.4 | 4 | 161.5 |
| 20 | | 197.6 | 5 | 201.5 |

# PLANING HEADS
STEEL BODY

## DESIGN:
- High tensile steel body with 4 teeth
- Supplied with T1 steel knives 30 x 3mm
- Positioning of knives requires use of appropriate gauge
- Can also be supplied with TCT knives (priced separately)

## APPLICATION:
- With HSS knives for planing solid woods without glue lines
- With tungsten carbide tipped knives for planing hardwoods, exotic woods and solid woods with glue lines

## MACHINE TYPE:
- On moulders and four sided planers



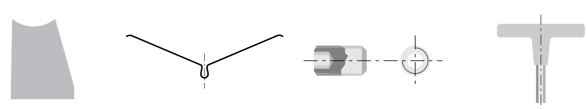

## SPECIAL PRODUCTION

| DIAM. ØD | KERF | MAX BORE ØD | NO. TEETH | MAX. RPM |
|---|---|---|---|---|
| 125mm 5" | 100mm 4" | 50mm 2" | 4 | 9000 |
| 125mm 5" | 120mm 4-3/4" | 50mm 2" | 4 | 9000 |
| 125mm 5" | 130mm 5-1/8" | 50mm 2" | 4 | 9000 |
| 125mm 5" | 150mm 6" | 50mm 2" | 4 | 9000 |
| 125mm 5" | 180mm 7" | 50mm 2" | 4 | 9000 |
| 125mm 5" | 210mm 8-1/4" | 50mm 2" | 4 | 9000 |
| 125mm 5" | 230mm 9" | 50mm 2" | 4 | 9000 |

Other sizes available upon request

For replacement knives, see HSS or TCT Planing Knives catalogue pages C25 - C30

## REPLACEMENT PARTS



| TOOLHEAD KERF | WEDGE PART NO. | SPRING PART NO. | WEDGE SCREW PART NO. | WRENCH PART NO. |
|---|---|---|---|---|
| 100mm 4" | W301109 | W501602 | W501309 | W400004 |
| 120mm 4-3/4" | W301111 | W501602 | W501309 | W400004 |
| 130mm 5-1/8" | W301112 | W501602 | W501309 | W400004 |
| 150mm 6" | W301114 | W501602 | W501309 | W400004 |
| 180mm 7" | W301117 | W501602 | W501309 | W400004 |
| 210mm 8-1/4" | W301120 | W501602 | W501309 | W400004 |
| 230mm 9" | W301122 | W501602 | W501309 | W400004 |

# 187 PLANING HEADS
## ALUMINUM BODY

**DESIGN:**

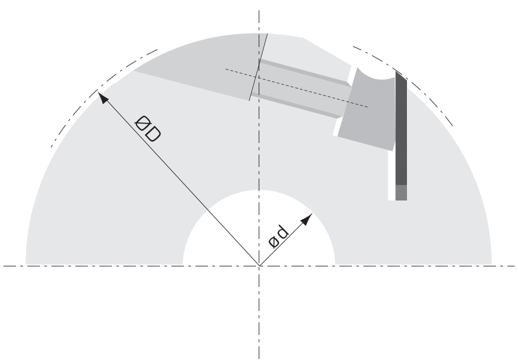
» Aluminum body with 4 teeth
» Supplied with T1 steel knives 30 x 3mm
» Positioning of knives requires use of appropriate gauge
» Can also be supplied with TCT knives (priced separately)

**APPLICATION:**

» With HSS knives for planing solid woods without glue lines
» With tungsten carbide tipped knives for planing hardwoods, exotic woods and solid woods with glue lines

**MACHINE TYPE:**

» On moulders and four sided planers



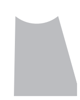
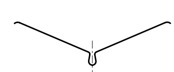
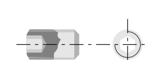

## SPECIAL PRODUCTION

| DIAM. ØD | KERF | MAX BORE ØD | NO. TEETH | MAX. RPM |
|---|---|---|---|---|
| 125mm<br>5" | 100mm<br>4" | 50mm<br>2" | 4 | 9000 |
| 125mm<br>5" | 120mm<br>4-3/4" | 50mm<br>2" | 4 | 9000 |
| 125mm<br>5" | 130mm<br>5-1/8" | 50mm<br>2" | 4 | 9000 |
| 125mm<br>5" | 150mm<br>6" | 50mm<br>2" | 4 | 9000 |
| 125mm<br>5" | 180mm<br>7" | 50mm<br>2" | 4 | 9000 |
| 125mm<br>5" | 210mm<br>8-1/4" | 50mm<br>2" | 4 | 9000 |
| 125mm<br>5" | 230mm<br>9" | 50mm<br>2" | 4 | 9000 |

Other sizes available upon request

For replacement knives see HSS or TCT Planing Knives; Catalogue pages C25 - C30

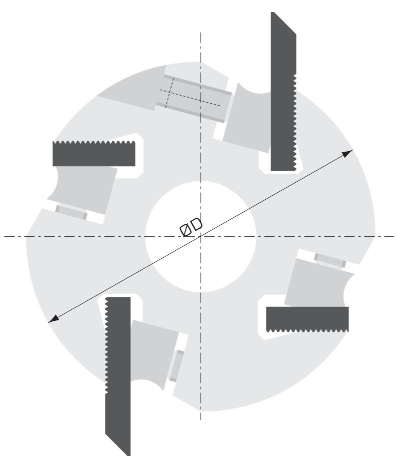
## REPLACEMENT PARTS

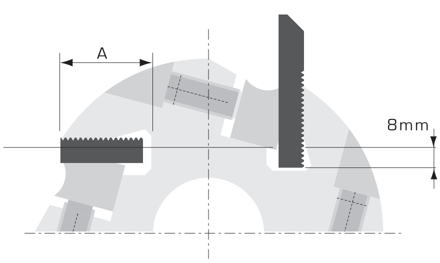




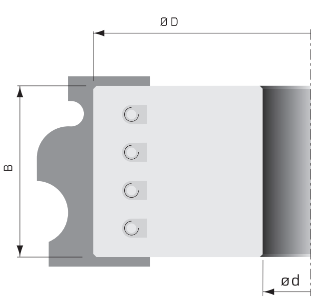

| TOOLHEAD KERF | WEDGE PART NO. | SPRING PART NO. | WEDGE SCREW PART NO. | WRENCH PART NO. |
|---|---|---|---|---|
| 100mm<br>4" | W301109 | W501602 | W501309 | W400004 |
| 120mm<br>4-3/4" | W301111 | W501602 | W501309 | W400004 |
| 130mm<br>5-1/8" | W301112 | W501602 | W501309 | W400004 |
| 150mm<br>6" | W301114 | W501602 | W501309 | W400004 |
| 180mm<br>7" | W301117 | W501602 | W501309 | W400004 |
| 210mm<br>8-1/4" | W301120 | W501602 | W501309 | W400004 |
| 230mm<br>9" | W301122 | W501602 | W501309 | W400004 |

FS TOOL

A = 25mm for 4” diam.
A = 28mm for 4-3/4” diam. and over




## DESIGN:

- High tensile steel body with 4 teeth
- Available in 22° or 12° hook angle
- Precise serration (60°, 1.6mm pitch) ensures tight and accurate positioning of knives

## APPLICATION:

- For profiling of solid woods using HSS knives (see pages C21 - C22)
- For profiling MDF and other abrasive materials carbide tipped knives are required (see pages C23 - C24)

## MACHINE TYPE:

- On moulders

| PART NO. 22° HOOK | PART NO. 12° HOOK | DIAM. ØD | KERF B | BORE ød | NO. TEETH | MAX. RPM |
|---|---|---|---|---|---|---|
| **18812** | - | 101.6mm 4" | 50mm 2" | 31.75mm 1-1/4" | 4 | 11000 |
| **18813** | - | 101.6mm 4" | 76.2mm 3" | 31.75mm 1-1/4" | 4 | 11000 |
| **18814** | - | 101.6mm 4" | 101.6mm 4" | 31.75mm 1-1/4" | 4 | 11000 |
| **18822** | **18822-12** | 122mm 4-3/4" | 50mm 2" | 38.1mm 1-1/2" | 4 | 9000 |
| **18823** | **18823-12** | 122mm 4-3/4" | 80mm 3-1/8" | 38.1mm 1-1/2" | 4 | 9000 |
| **18824** | **18824-12** | 122mm 4-3/4" | 100mm 4" | 38.1mm 1-1/2" | 4 | 9000 |
| **18825** | **18825-12** | 122mm 4-3/4" | 130mm 5-1/8" | 38.1mm 1-1/2" | 4 | 9000 |
| **18826** | **18826-12** | 122mm 4-3/4" | 150mm 6" | 38.1mm 1-1/2" | 4 | 9000 |
| **18828** | **18828-12** | 122mm 4-3/4" | 180mm 7" | 38.1mm 1-1/2" | 4 | 9000 |
| **18830** | **18830-12** | 122mm 4-3/4" | 230mm 9" | 38.1mm 1-1/2" | 4 | 9000 |
| **18832** | **18832-12** | 122mm 4-3/4" | 50mm 2" | 40mm 1.575" | 4 | 9000 |
| **18833** | **18833-12** | 122mm 4-3/4" | 80mm 3-1/8" | 40mm 1.575" | 4 | 9000 |
| **18834** | **18834-12** | 122mm 4-3/4" | 100mm 4" | 40mm 1.575" | 4 | 9000 |
| **18835** | **18835-12** | 122mm 4-3/4" | 130mm 5-1/8" | 40mm 1.575" | 4 | 9000 |
| **18836** | **18836-12** | 122mm 4-3/4" | 150mm 6" | 40mm 1.575" | 4 | 9000 |
| **18837** | **18837-12** | 122mm 4-3/4" | 180mm 7" | 40mm 1.575" | 4 | 9000 |
| **18839** | **18839-12** | 122mm 4-3/4" | 230mm 9" | 40mm 1.575" | 4 | 9000 |

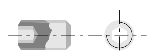
Continued to page C8...

...Continued from page C7

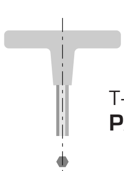
| PART NO. 22° HOOK | PART NO. 12° HOOK | DIAM. ØD | KERF B | BORE ød | NO. TEETH | MAX. RPM |
|---|---|---|---|---|---|---|
| 18842 | 18842-12 | 122mm 4-3/4 | 50mm 2" | 46.04mm 1-13/16" | 4 | 9000 |
| 18843 | 18843-12 | 122mm 4-3/4" | 80mm 3-1/8" | 46.04mm 1-13/16" | 4 | 9000 |
| 18844 | 18844-12 | 122mm 4-3/4" | 100mm 4" | 46.04mm 1-13/16" | 4 | 9000 |
| 18845 | 18845-12 | 122mm 4-3/4" | 130mm 5-1/8" | 46.04mm 1-13/16" | 4 | 9000 |
| 18846 | 18846-12 | 122mm 4-3/4" | 150mm 6" | 46.04mm 1-13/16" | 4 | 9000 |
| 18852 | 18852-12 | 137mm 5-3/8" | 50mm 2" | 46.04mm 1-13/16" | 4 | 8000 |
| 18853 | 18853-12 | 137mm 5-3/8" | 80mm 3-1/8" | 46.04mm 1-13/16" | 4 | 8000 |
| 18854 | 18854-12 | 137mm 5-3/8" | 100mm 4" | 46.04mm 1-13/16" | 4 | 8000 |
| 18855 | 18855-12 | 137mm 5-3/8" | 130mm 5-1/8" | 46.04mm 1-13/16" | 4 | 8000 |
| 18856 | 18856-12 | 137mm 5-3/8" | 150mm 6" | 46.04mm 1-13/16" | 4 | 8000 |
| 18857 | 18857-12 | 137mm 5-3/8" | 180mm 7" | 46.04mm 1-13/16" | 4 | 8000 |
| 18859 | 18859-12 | 137mm 5-3/8" | 230mm 9" | 46.04mm 1-13/16" | 4 | 8000 |
| 18862 | 18862-12 | 137mm 5-3/8" | 50mm 2" | 40mm 1.575" | 4 | 8000 |
| 18863 | 18863-12 | 137mm 5-3/8" | 80mm 3-1/8" | 40mm 1.575" | 4 | 8000 |
| 18864 | 18864-12 | 137mm 5-3/8" | 100mm 4" | 40mm 1.575" | 4 | 8000 |
| 18865 | 18865-12 | 137mm 5-3/8" | 130mm 5-1/8" | 40mm 1.575" | 4 | 8000 |
| 18866 | 18866-12 | 137mm 5-3/8" | 150mm 6" | 40mm 1.575" | 4 | 8000 |
| 18867 | 18867-12 | 137mm 5-3/8" | 180mm 7" | 40mm 1.575" | 4 | 8000 |
| 18869 | 18869-12 | 137mm 5-3/8" | 230mm 9" | 40mm 1.575" | 4 | 8000 |

## REPLACEMENT PARTS

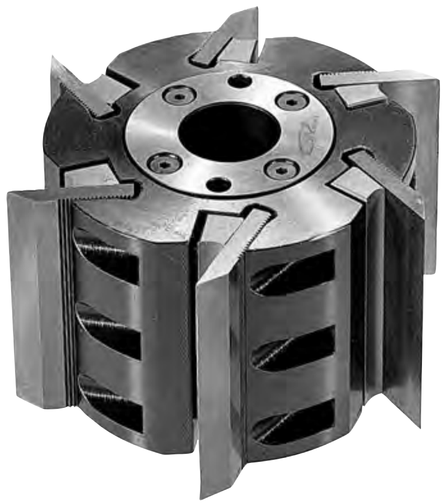




| TOOLHEAD KERF | WEDGE PART NO. | WEDGE SCREW PART NO. |
|---|---|---|
| 50mm 2" | W301104 | W501305 |
| 80mm 3-1/8" | W301107 | W501305 |
| 100mm 4" | W301109 | W501305 |
| 130mm 5-1/8" | W301112 | W501305 |
| 150mm 6" | W301114 | W501305 |
| 180mm 7" | W301117 | W501305 |
| 230mm 9" | W301122 | W501305 |



T-HANDLE ALLEN WRENCH
**PART NO. W400115** 5mm



## DESIGN:

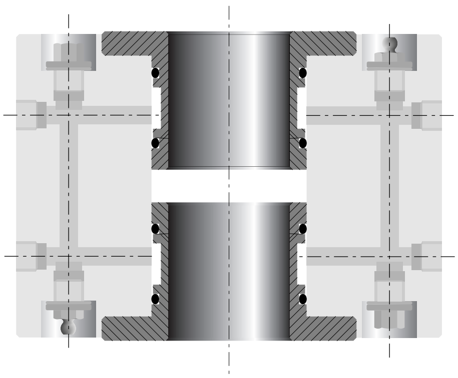
- High tensile steel body with 4, 6 or 8 teeth
- Available in 22° or 12° hook angle
- Precise serration (60°, 1.6mm pitch) ensure tight and accurate positioning of knives
- With dual-chamber hydro-clamping to ensure precise concentricity tolerance
- High radial running accuracy and low operating vibration

## APPLICATION:

- For profiling at high feed rates with superior surface finish
- Use HSS or Stellite tipped knives for solid woods (see pages C21 - C22)
- Use carbide tipped knives for exotic woods and MDF (see pages C23 - C24)

## MACHINE TYPE:

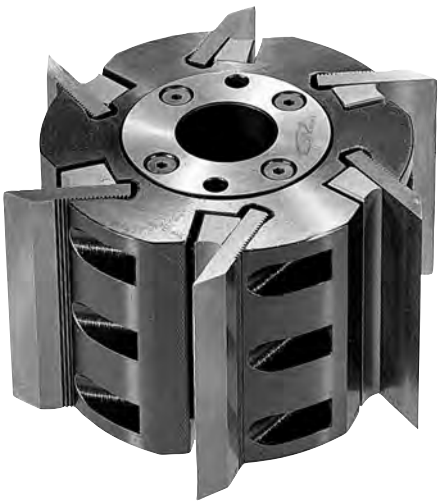
- On moulders



Grease fittings mounted on both ends of toolheads for easy access.

| PART NO. 22° HOOK | PART NO. 12° HOOK | DIAM. ØD | KERF B | BORE ØD | NO. TEETH | MAX. RPM |
|---|---|---|---|---|---|---|
| **1901022** | **1901012** | 137mm 5-3/8" | 60mm 2-3/8" | 1-1/2" 40mm | 4 | 8900 |
| **1901122** | **1901112** | 137mm 5-3/8" | 80mm 3-1/8" | | 4 | 8900 |
| **1901222** | **1901212** | 137mm 5-3/8" | 100mm 4" | | 4 | 8900 |
| **1901322** | **1901312** | 137mm 5-3/8" | 130mm 5-1/8" | | 4 | 8900 |
| **1901422** | **1901412** | 137mm 5-3/8" | 150mm 6" | | 4 | 8900 |
| **1901522** | **1901512** | 137mm 5-3/8" | 180mm 7" | | 4 | 8900 |
| **1901622** | **1901612** | 137mm 5-3/8" | 230mm 9" | | 4 | 8900 |
| **1902022** | **1902012** | 150mm 6" | 60mm 2-3/8" | 1-1/2", 1-13/16", 2-1/8" 40mm, 50mm | 4 | 8000 |
| **1902122** | **1902112** | 150mm 6" | 80mm 3-1/8" | | 4 | 8000 |
| **1902222** | **1902212** | 150mm 6" | 100mm 4" | | 4 | 8000 |
| **1902322** | **1902312** | 150mm 6" | 130mm 5-1/8" | | 4 | 8000 |
| **1902422** | **1902412** | 150mm 6" | 150mm 6" | | 4 | 8000 |
| **1902522** | **1902512** | 150mm 6" | 180mm 7" | | 4 | 8000 |
| **1902622** | **1902612** | 150mm 6" | 230mm 9" | | 4 | 8000 |

Continued to page C10...



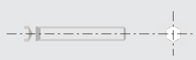
...Continued from page C9

| PART NO. 22° HOOK | PART NO. 12° HOOK | DIAM. ØD | KERF B | BORE ØD | NO. TEETH | MAX. RPM |
|---|---|---|---|---|---|---|
| 1903022 | 1903012 | 150mm 6" | 60mm 2-3/8" | 1-1/2", 1-13/16", 2-1/8" 40mm, 50mm | 6 | 8000 |
| 1903122 | 1903112 | 150mm 6" | 80mm 3-1/8" | | 6 | 8000 |
| 1903222 | 1903212 | 150mm 6" | 100mm 4" | | 6 | 8000 |
| 1903322 | 1903312 | 150mm 6" | 130mm 5-1/8" | | 6 | 8000 |
| 1903422 | 1903412 | 150mm 6" | 150mm 6" | | 6 | 8000 |
| 1903522 | 1903512 | 150mm 6" | 180mm 7" | | 6 | 8000 |
| 1903622 | 1903612 | 150mm 6" | 230mm 9" | | 6 | 8000 |
| 1904022 | 1904012 | 163mm 6-3/8" | 60mm 2-3/8" | 1-13/16", 2-1/8" 50mm | 6 | 7600 |
| 1904122 | 1904112 | 163mm 6-3/8" | 80mm 3-1/8" | | 6 | 7600 |
| 1904222 | 1904212 | 163mm 6-3/8" | 100mm 4" | | 6 | 7600 |
| 1904322 | 1904312 | 163mm 6-3/8" | 130mm 5-1/8" | | 6 | 7600 |
| 1904422 | 1904412 | 163mm 6-3/8" | 150mm 8" | | 6 | 7600 |
| 1904522 | 1904512 | 163mm 6-3/8" | 180mm 7" | | 6 | 7600 |
| 1904622 | 1904612 | 163mm 6-3/8" | 230mm 9" | | 6 | 7600 |
| 1905022 | 1905012 | 163mm 6-3/8" | 60mm 2-3/8" | | 8 | 7600 |
| 1905122 | 1905112 | 163mm 6-3/8" | 80mm 4 | | 8 | 7600 |
| 1905222 | 1905212 | 163mm 6-3/8" | 100mm 2-3/8" | | 8 | 7600 |
| 1905322 | 1905312 | 163mm 6-3/8" | 130mm 5-1/8" | | 8 | 7600 |
| 1905422 | 1905412 | 163mm 6-3/8" | 150mm 6" | | 8 | 7600 |
| 1905522 | 1905512 | 163mm 6-3/8" | 180mm 7" | | 8 | 7600 |
| 1905622 | 1905612 | 163mm 6-3/8" | 230mm 9" | | 8 | 7600 |

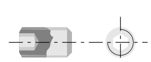
Other sizes available upon request.

When ordering, add bore size to part no.
(ie. 1921022-112 for 1-1/2" Bore)

## REPLACEMENT PARTS

| PART NO. | DESCRIPTION | PRODUCT |
|---|---|---|
| W500605 | Screw for flanges M6 x 16mm |  |
| W501810 | Grease Nipple |  |
| W501811 | Release Valve |  |
| 1T463HP | Grease Gun | |
| W400113 | Wrench 3mm |  |
| W400115 | Wrench 5mm | |





| TOOLHEAD KERF | WEDGE PART NO. | WEDGE SCREW PART NO. |
|---|---|---|
| 60mm (2-3/8") | W301805 | W501409 |
| 80mm (3-1/8") | W301807 | W501409 |
| 100mm (4") | W301809 | W501409 |
| 130mm (5-1/8") | W301812 | W501409 |
| 150mm (6") | W301814 | W501409 |
| 180mm (7") | W301817 | W501409 |
| 230mm (9") | W301822 | W501409 |

## DESIGN:

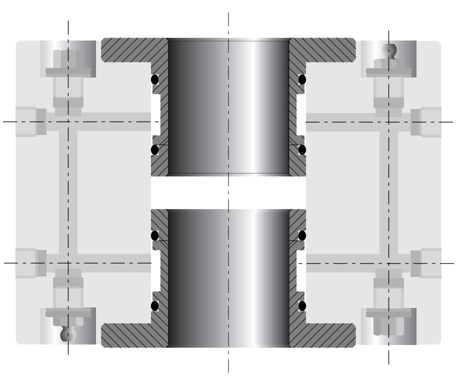
» High tensile steel body with 6, 8, 12 and 16 teeth
» Available hook angle between 23° and 27°
» With dual-chamber hydro-clamping to ensure precise concentricity tolerance
» High radial running accuracy and low operating vibration

## APPLICATION:

» With HSS knives for planing solid woods without glue lines
» With tungsten carbide tipped knives for planing hardwoods, exotic woods and solid woods with glue lines
» When ordering, specificy 'Bore Size' to 'Part No.' (i.e., 1925022-112 for 1-1/2" Bore)

## MACHINE TYPE:

» On moulders, conventional or high speed



Grease fittings mounted on both ends of toolheads for easy access.

| PART NO. | DIAM. ØD | KERF B | BORE ØD | NO. TEETH | MAX. RPM |
|---|---|---|---|---|---|
| 1921022 | 163mm 6-3/8" | 150mm 6" | 1-1/2", 1-13/16", 2-1/8" 40mm, 50mm | 6 | 9300 |
| 1921222 | 163mm 6-3/8" | 230mm 9" | | 6 | 9300 |
| 1921422 | 163mm 6-3/8" | 260mm 10-1/4" | | 6 | 9300 |
| 1921622 | 163mm 6-3/8" | 310mm 12-1/4" | | 6 | 9300 |
| 1922022 | 163mm 6-3/8" | 150mm 6" | 1-1/2", 1-13/16", 2-1/8" 40mm, 50mm | 8 | 9300 |
| 1922222 | 163mm 6-3/8" | 230mm 9" | | 8 | 9300 |
| 1922422 | 163mm 6-3/8" | 260mm 10-1/4" | | 8 | 9300 |
| 1922622 | 163mm 6-3/8" | 310mm 12-1/4" | | 8 | 9300 |
| 1923022 | 203mm 8" | 150mm 6" | 1-1/2", 1-13/16", 2-1/8" 40mm, 50mm, 60mm | 8 | 7500 |
| 1923222 | 203mm 8" | 230mm 9" | | 8 | 7500 |
| 1923422 | 203mm 8" | 260mm 10-1/4" | | 8 | 7500 |
| 1923622 | 203mm 8" | 310mm 12-1/4" | | 8 | 7500 |
| 1924022 | 203mm 8" | 150mm 6" | 1-1/2", 1-13/16", 2-1/8" 40 mm, 50 mm, 60mm | 12 | 7500 |
| 1924222 | 203mm 8" | 230mm 9" | | 12 | 7500 |
| 1924422 | 203mm 8" | 260mm 10-1/4" | | 12 | 7500 |
| 1924622 | 203mm 8" | 310mm 12-1/4" | | 12 | 7500 |

Continued to page C12...

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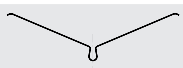
| PART NO. | DIAM. ØD | KERF B | BORE ØD | NO. TEETH | MAX. RPM |
|---|---|---|---|---|---|
| 1925022 | 203mm<br>8" | 150mm<br>6" | 1-1/2", 1-13/16", 2-1/8"<br>40mm, 50mm, 60mm | 16 | 7500 |
| 1925222 | 203mm<br>8" | 230mm<br>9" | | 16 | 7500 |
| 1925422 | 203mm<br>8" | 260mm<br>10-1/4" | | 16 | 7500 |
| 1925622 | 203mm<br>8" | 310mm<br>12-1/4" | | 16 | 7500 |

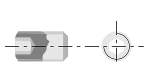
Other sizes available upon request.

When ordering, add bore size to part no.
(ie. 1921022-112 for 1-1/2" Bore)

## REPLACEMENT PARTS

| PART NO. | DESCRIPTION | PRODUCT |
|---|---|---|
| W500605 | Screw for flanges M6 x 16mm |  |
| W501810 | Grease Nipple |  |
| W501811 | Release Valve |  |
| 1T463HP | Grease Gun | |
| W501602 | Spring |  |
| W400113 | Wrench 3mm |  |
| W400115 | Wrench 5mm | |



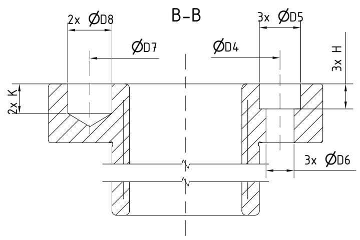


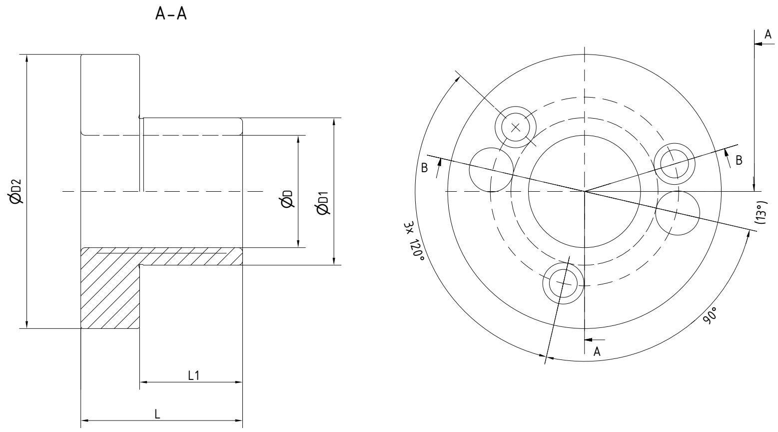
| TOOLHEAD KERF | WEDGE PART NO. | WEDGE SCREW M10 X 20MM FOR Z = 6,8 & 12 PART NO. | WEDGE SCREW M8 X 16MM FOR Z = 16 PART NO. |
|---|---|---|---|
| 150mm<br>6" | W302014 | W501409 | W501403 |
| 230mm<br>9" | W302022 | W501409 | W501403 |
| 260mm<br>10-1/4" | W302025 | W501409 | W501403 |
| 310mm<br>12-1/4" | W302030 | W501409 | W501403 |

# HYDRO-GRIP SLEEVES - PERMANENT
PRESSURIZED WITH GREASE PUMP

## DESIGN:
» High precision hydraulic sleeves
» Manufactured to a G6 spindle tolerance and a H7 bore tolerance
» Designed for light press fit against the tool
» Tool is bolted to the sleeve's collar
» When pressurized, the sleeve expands only against the spindle
» Sleeve pressurized with a grease pump

## APPLICATION:
» For permanent mounting of tools or tool assemblies




| PART NO. | | BORE ØD | DIAM. ØD1 MM | D2 MM | D4 MM | D5 MM | D6 MM | D7 MM | D8 MM | H MM | K MM | L MM | L1 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A-40/60-55 | | 40mm | 60 | 93 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 55 | 35 |
| A-45/60-55 | ■ | 45mm | 60 | 93 | 74 | 14 | 9 | 70 | M8 | 8.5 | – | 55 | 35 |
| A-45/60-75 | ■ | 45mm | 60 | 93 | 74 | 14 | 9 | 70 | M8 | 8.5 | – | 75 | 55 |
| A-50/60-55 | ■ | 50mm | 60 | 93 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 55 | 35 |
| A-50/60-75 | ■ | 50mm | 60 | 93 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 55 | 55 |
| A-60/70-55 | ▲ | 60mm | 70 | 105 | 85 | 14 | 9 | 85 | 15 | 9 | 10 | 55 | 35 |
| A-1 1/4"/40-55 | ● | 1-1/4" | 40 | 75 | 55 | 14 | 9 | 55 | 15 | 9 | 10 | 55 | 35 |
| A-1 13/16"/60-55 | | 1-13/16" | 60 | 93 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 55 | 35 |
| A-1 13/16"/65-55 | | 1-13/16" | 65 | 98 | 80 | 14 | 9 | 80 | 15 | 9 | 10 | 55 | 35 |
| A-2 1/8"/65-55 | | 2-1/8" | 65 | 98 | 80 | 14 | 9 | 80 | 15 | 9 | 10 | 55 | 35 |

■ Has two threaded M8-holes for carrier pegs, on a 70mm pitch diameter

▲ Has two threaded M8-holes for carrier pegs, on a 85mm pitch diameter

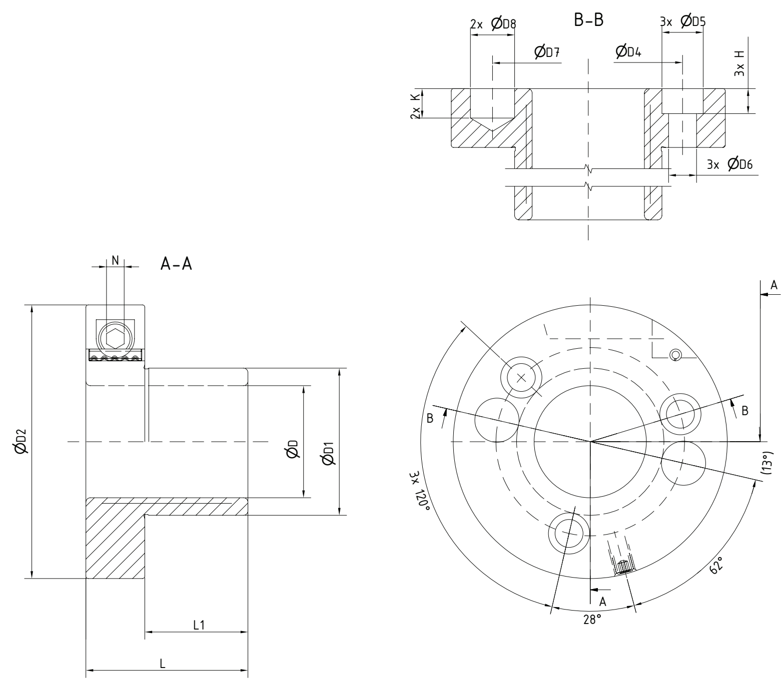
● Has two tool fastening holes

## DESIGN:

- High precision hydraulic sleeves
- Manufactured to a G6 spindle tolerance and a H7 bore tolerance
- Designed for light press fit against the tool
- Tool is bolted to the sleeve's collar
- When pressurized, the sleeve expands only against the spindle
- Sleeve pressurized with a T-handle allen wrench
- No grease pump required

## APPLICATION:

- For permanent mounting of tools or tool assemblies




| PART NO. | | BORE ØD | DIAM. ØD1 MM | D2 MM | D4 MM | D5 MM | D6 MM | D7 MM | D8 MM | H MM | K MM | L MM | L1 MM | N MM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AI-40/50-55 | | 40mm | 50 | 83 | 64 | 10 | 6 | 65 | 15 | 5.5 | 10 | 55 | 35 | 6 |
| AI-40/60-55 | | 40mm | 60 | 93 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 55 | 35 | 6 |
| AI-50/60-55 | ■ | 50mm | 60 | 93 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 55 | 35 | 6 |
| AI-50/60-75 | ■ | 50mm | 60 | 93 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 75 | 55 | 6 |
| AI-50/65-75 | ■ | 50mm | 65 | 98 | 80 | 14 | 9 | 80 | 15 | 8.5 | 10 | 75 | 55 | 6 |
| AI-1 1/4"/40-55 | ▲ | 1-1/4" | 40 | 83 | 55 | 14 | 9 | 55 | 15 | 9 | 10 | 55 | 35 | 6 |
| AI-1 1/2"/50-55 | | 1-1/2" | 50 | 93 | 65 | 14 | 9 | 65 | 15 | 8.5 | 10 | 55 | 35 | 6 |
| AI-1 13/16"/60-55 | | 1-13/16" | 60 | 93 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 55 | 35 | 6 |
| AI-2 1/8"/65-55 | | 2-1/8" | 65 | 98 | 80 | 14 | 9 | 80 | 15 | 8.5 | 10 | 55 | 35 | 6 |

■ Has two threaded M8 holes for carrier pegs on a 70mm pitch diameter

▲ Has two tool fastening holes

# HYDRO-GRIP SLEEVES - INTERCHANGEABLE

## PRESSURIZED WITH GREASE PUMP


### DESIGN:

- High precision hydraulic sleeves provided with threaded and knurled ring nut
- Manufactured to a G6 spindle tolerance and a H7 bore tolerance
- Sleeves can be easily interchanged between tools
- Tool is bolted to the sleeve's collar
- When pressurized, the outer sleeve expands against the tool and the inner sleeve against the spindle
- Sleeve pressurized by a grease pump

### APPLICATION:

- For interchangeable tools or tool assemblies

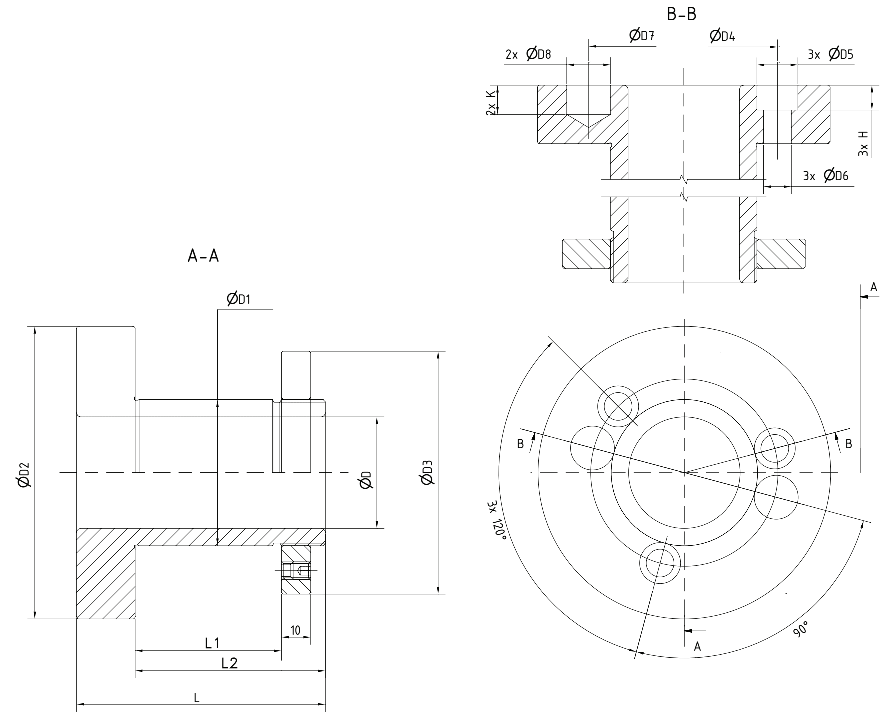
| PART NO. | | BORE ØD MM | DIAM. ØD1 MM | D2 MM | D3 MM | D4 MM | D5 MM | D6 MM | D7 MM | D8 MM | H MM | K MM | L MM | L1 MM | L2 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-40/50-75 | | 40 | 50 | 83 | 83 | 64 | 10 | 6 | 65 | 15 | 5.5 | 10 | 75 | 40 | 55 |
| B-40/50-115 | | 40 | 50 | 83 | 83 | 64 | 10 | 6 | 65 | 15 | 5.5 | 10 | 115 | 80 | 95 |
| B-40/60-75 | | 40 | 60 | 93 | 90 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 75 | 40 | 55 |
| B-40/60-95 | | 40 | 60 | 93 | 90 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 95 | 60 | 75 |
| B-40/60-115 | | 40 | 60 | 93 | 90 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 115 | 80 | 95 |
| B-40/60-165 | | 40 | 60 | 93 | 90 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 165 | 130 | 145 |
| B-40/60-215 | | 40 | 60 | 93 | 90 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 215 | 180 | 195 |
| B-45/60-75 | ■ | 45 | 60 | 93 | 90 | 74 | 14 | 9 | 70 | M8 | 8.5 | – | 75 | 40 | 55 |
| B-45/60-95 | ■ | 45 | 60 | 93 | 90 | 74 | 14 | 9 | 70 | M8 | 8.5 | – | 95 | 60 | 75 |
| B-45/60-115 | ■ | 45 | 60 | 93 | 90 | 74 | 14 | 9 | 70 | M8 | 8.5 | – | 115 | 80 | 95 |
| B-45/60-140 | ■ | 45 | 60 | 93 | 90 | 74 | 14 | 9 | 70 | M8 | 8.5 | – | 140 | 105 | 120 |
| B-45/60-190 | ■ | 45 | 60 | 93 | 90 | 74 | 14 | 9 | 70 | M8 | 8.5 | – | 190 | 155 | 170 |
| B-50/60-75 | ■ | 50 | 60 | 93 | 90 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 75 | 40 | 55 |
| B-50/60-95 | ■ | 50 | 60 | 93 | 90 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 95 | 60 | 7 |
| B-50/60-115 | ■ | 50 | 60 | 93 | 90 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 115 | 80 | 95 |
| B-50/60-140 | ■ | 50 | 60 | 93 | 90 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 140 | 105 | 120 |
| B-50/60-190 | ■ | 50 | 60 | 93 | 90 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 190 | 155 | 170 |
| B-50/60-240 | ■ | 50 | 60 | 93 | 90 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 240 | 205 | 220 |
| B-60/70-75 | ▲ | 60 | 70 | 105 | 105 | 86 | 14 | 9 | 85 | 15 | 8.5 | 10 | 75 | 40 | 55 |
| B-60/70-140 | ▲ | 60 | 70 | 105 | 105 | 86 | 14 | 9 | 85 | 15 | 8.5 | 10 | 140 | 105 | 120 |
| B-60/70-190 | ▲ | 60 | 70 | 105 | 105 | 86 | 14 | 9 | 85 | 15 | 8.5 | 10 | 190 | 155 | 170 |

■ Sleeve has two threaded M8-holes for carrier pegs on a 70mm pitch diameter

▲ Sleeve has two threaded M8-holes for carrier pegs on a 85mm pitch diameter

Continued to page C16...

# HYDRO-GRIP SLEEVES - INTERCHANGEABLE
## PRESSURIZED WITH GREASE PUMP

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| PART NO. | BORE ØD | DIAM. ØD1 MM | D2 MM | D3 MM | D4 MM | D5 MM | D6 MM | D7 MM | D8 MM | H MM | K MM | L MM | L1 MM | L2 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **B-1 1/2"/50-85** | 1-1/2" | 50 | 83 | 83 | 64 | 14 | 9 | 64 | 15 | 8.5 | 10 | 85 | 50 | 65 |
| **B-1 1/2"/50-135** | 1-1/2" | 50 | 83 | 83 | 64 | 14 | 9 | 64 | 15 | 8.5 | 10 | 135 | 100 | 115 |
| **B-1 1/2"/50-185** | 1-1/2" | 50 | 83 | 83 | 64 | 14 | 9 | 64 | 15 | 8.5 | 10 | 185 | 150 | 165 |
| **B-1 13/16"/60-75** | 1-13/16" | 60 | 93 | 90 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 75 | 40 | 55 |
| **B-1 13/16"/60-115** | 1-13/16" | 60 | 93 | 90 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 115 | 80 | 95 |
| **B-1 13/16"/60-190** | 1-13/16" | 60 | 93 | 90 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 190 | 155 | 170 |
| **B-1 13/16"/65-85** | 1-13/16" | 65 | 98 | 98 | 80 | 14 | 9 | 80 | 15 | 8.5 | 10 | 85 | 50 | 65 |
| **B-1 13/16"/65-135** | 1-13/16" | 65 | 98 | 98 | 80 | 14 | 9 | 80 | 15 | 8.5 | 10 | 135 | 100 | 115 |
| **B-1 13/16"/65-185** | 1-13/16" | 65 | 98 | 98 | 80 | 14 | 9 | 80 | 15 | 8.5 | 10 | 185 | 150 | 165 |
| **B-2 1/8"/65-85** | 2-1/8" | 65 | 98 | 98 | 80 | 14 | 9 | 80 | 15 | 8.5 | 10 | 85 | 50 | 65 |
| **B-2 1/8"/65-135** | 2-1/8" | 65 | 98 | 98 | 80 | 14 | 9 | 80 | 15 | 8.5 | 10 | 135 | 100 | 115 |
| **B-2 1/8"/65-185** | 2-1/8" | 65 | 98 | 98 | 80 | 14 | 9 | 80 | 15 | 8.5 | 10 | 185 | 150 | 165 |

# TYPE BI

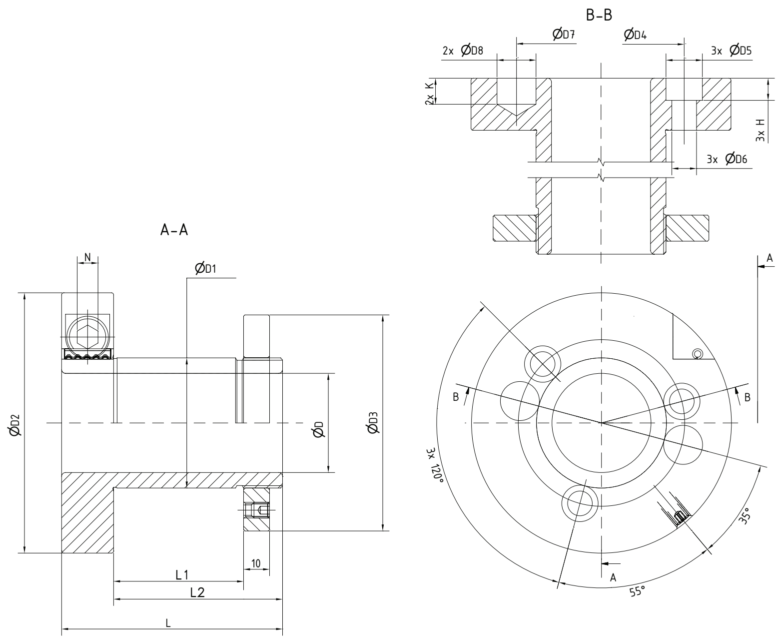
## HYDRO-GRIP SLEEVES - INTERCHANGEABLE
PRESSURIZED WITH ALLEN WRENCH

### DESIGN:

- High precision hydraulic sleeves provided with threaded and knurled ring nut
- Manufactured to a G6 spindle tolerance and a H7 bore tolerance
- Tool is bolted to the sleeve's collar
- Sleeves can be easily interchanged between tools
- When pressurized, the outer sleeve expands against the tool and the inner sleeve against the spindle
- Sleeve pressurized by tightening a pressure screw with a T-handle allen wrench
- No grease pump required

### APPLICATION:

- For interchangeable tools or tool assemblies



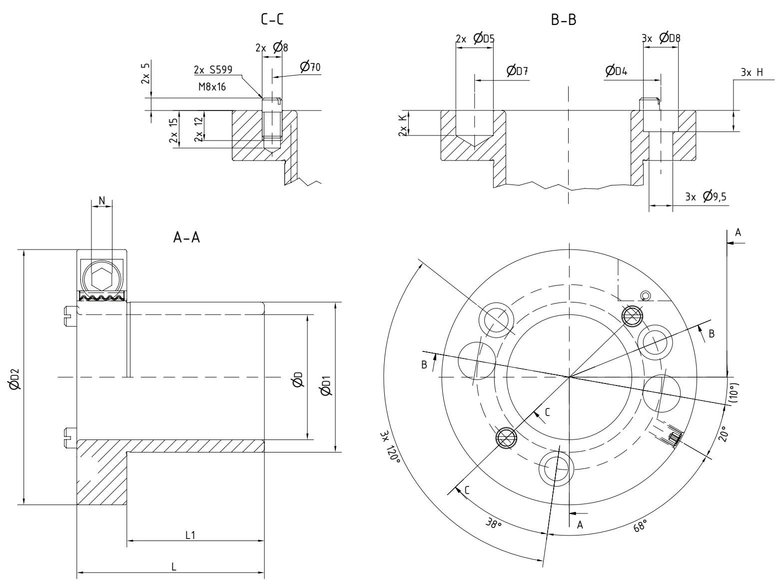

| PART NO. | BORE ØD | DIAM. ØD1 MM | D2 MM | D3 MM | D4 MM | D5 MM | D6 MM | D7 MM | D8 MM | H MM | K MM | L MM | L1 MM | L2 MM | N MM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BI-40/50-75 | 40mm | 50 | 100 | 83 | 64 | 14 | 9 | 65 | 15 | 8.5 | 10 | 75 | 40 | 55 | 8 |
| BI-40/60-75 | 40mm | 60 | 102 | 90 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 75 | 40 | 55 | 8 |
| BI-40/60-95 | 40mm | 60 | 108 | 90 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 95 | 60 | 75 | 8 |
| BI-40/60-115 | 40mm | 60 | 108 | 90 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 115 | 80 | 95 | 8 |
| BI-50/60-75 ■ | 50mm | 60 | 102 | 90 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 75 | 40 | 55 | 8 |
| BI-50/60-95 ■ | 50mm | 60 | 108 | 90 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 95 | 60 | 75 | 8 |
| BI-50/60-115 ■ | 50mm | 60 | 108 | 90 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 115 | 80 | 95 | 8 |
| BI-1 1/2"/50-85 | 1-1/2" | 50 | 106 | 83 | 64 | 14 | 9 | 65 | 15 | 8.5 | 10 | 85 | 50 | 65 | 8 |
| BI-1 1/2"/50-135 | 1-1/2" | 50 | 106 | 83 | 64 | 14 | 9 | 65 | 15 | 8.5 | 10 | 135 | 100 | 115 | 8 |
| BI-1 13/16"/60-75 | 1-13/16" | 60 | 102 | 90 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 75 | 40 | 55 | 8 |
| BI-1 13/16"/60-115 | 1-13/16" | 60 | 108 | 90 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 115 | 80 | 95 | 8 |
| BI-1 13/16"/60-140 | 1-13/16" | 60 | 108 | 90 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 140 | 105 | 120 | 8 |
| BI-1 13/16"/65-85 | 1-13/16" | 65 | 108 | 98 | 80 | 14 | 9 | 80 | 15 | 8.5 | 10 | 85 | 50 | 65 | 8 |
| BI-2 1/8"/65-85 | 2-1/8" | 65 | 108 | 98 | 80 | 14 | 9 | 80 | 15 | 8.5 | 10 | 85 | 50 | 65 | 8 |

■ BI Ø50 has two threaded M8-holes for carrier pegs on a 70mm pitch diameter

# HYDRO-GRIP SLEEVES - INTERCHANGEABLE
## PRESSURIZED WITH ALLEN WRENCH

### DESIGN:
- High precision hydraulic sleeves
- Manufactured to a G6 spindle tolerance and a H7 bore tolerance
- Tool is bolted to the sleeve's collar
- Sleeves can be easily interchanged between tools
- When pressurized, the outer sleeve expands against the tool and the inner sleeve against the spindle
- Sleeve pressurized by tightening a pressure screw with a T-handle allen wrench
- No grease pump required

### APPLICATION:
- For interchangeable tools or tool assemblies




| PART NO. | | BORE ØD MM | DIAM. ØD1 MM | D2 MM | D4 MM | D5 MM | D6 MM | D7 MM | D8 MM | H MM | K MM | L MM | L1 MM | N MM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CI-40/50-75 | | 40 | 50 | 100 | 64 | 14 | 9 | 65 | 15 | 8.5 | 10 | 75 | 55 | 8 |
| CI-40/60-75 | | 40 | 60 | 102 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 75 | 55 | 8 |
| CI-40/60-95 | | 40 | 60 | 108 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 95 | 75 | 8 |
| CI-40/60-115 | | 40 | 60 | 108 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 115 | 95 | 8 |
| CI-40/60-140 | ▲ | 40 | 60 | 114 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 140 | 115 | 10 |
| CI-50/60-75 | ■ | 50 | 60 | 102 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 75 | 55 | 8 |
| CI-50/60-95 | ■ | 50 | 60 | 108 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 95 | 75 | 8 |
| CI-50/60-115 | ■ | 50 | 60 | 108 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 115 | 95 | 8 |
| CI-50/60-140 | ▲ | 50 | 60 | 114 | 74 | 14 | 9 | 75 | 15 | 8.5 | 10 | 140 | 115 | 10 |

■ CI Ø50 has two threaded M8-holes for carrier pegs on a 70mm pitch diameter

▲ The sleeve has two threaded M8-holes for carrier pegs on a 68mm pitch diameter

# TYPE EI

## HYDRO-GRIP SLEEVES
PRESSURIZED WITH ALLEN WRENCH

EI-40/60-92


### DESIGN:

» High precision hydraulic sleeves
» Manufactured to a G6 spindle tolerance and a H7 bore tolerance
» Tool is bolted to the sleeve's collar
» Sleeve is supplied with an internal hexagonal insert in the collar
» Sleeves can be easily interchanged between tools
» When pressurized, the outer sleeve expands against the tool and the inner sleeve against the spindle
» Sleeve pressurized by tightening a pressure screw with a T-handle allen wrench
» No grease pump required

### MACHINE TYPE:

» For machines with hexagonal spindle profile

EI-40/80-92

EI2-40/60-96


EIS-40/60-92

## DESIGN:

- High precision hydraulic sleeves
- Manufactured to a G6 spindle tolerance and a H7 bore tolerance
- Tool is bolted to the sleeve's collar
- Sleeves can be easily interchanged between tools
- When pressurized, the outer sleeve expands against the tool and the inner sleeve against the spindle
- Sleeve pressurized by tightening a pressure screw with a T-handle allen wrench
- No grease pump required

## APPLICATION:

- For interchangeable tools or tool assemblies

## MACHINE TYPE:

- For machines with hexagonal spindle profile

# DX10/DX11 CORRUGATED BACK KNIVES
## D2 STEEL

**DESIGN:**
» Solid D2 high carbon, high chrome steel
» Precision ground serrations (60°, 1.6mm pitch) ensures tight and accurate positioning of knives onto toolheads

**APPLICATION:**
» Used primarily in softwood production and short runs in hardwoods

**ADVANTAGES:**
» Resistant to chipping and nicks
» Ideal for use where there is high moisture content
» Resists chemical erosion found in such woods as cedar and redwood

| PART NO. | LENGTH L | HEIGHT H | THICKNESS T |
|---|---|---|---|
| DX10114 | 25" | 1-1/4" | 1/4" |
| DX10112 | 25" | 1-1/2" | 1/4" |
| DX10134 | 25" | 1-3/4" | 1/4" |
| DX10200 | 25" | 2" | 1/4" |
| DX10214 | 25" | 2-1/4" | 1/4" |
| DX10212 | 25" | 2-1/2" | 1/4" |
| DX11112 | 25" | 1-1/2" | 5/16" |
| DX11134 | 25" | 1-3/4" | 5/16" |
| DX11200 | 25" | 2" | 5/16" |
| DX11214 | 25" | 2-1/4" | 5/16" |
| DX11212 | 25" | 2-1/2" | 5/16" |
| DX11234 | 25" | 2-3/4" | 5/16" |
| DX11300 | 25" | 3" | 5/16" |

# 2610/2611 CORRUGATED BACK KNIVES
## M2 STEEL

**DESIGN:**
» Solid M2 high speed steel with 6% tungsten content
» Precision ground serrations (60°, 1.6mm pitch) ensures tight and accurate positioning of knives onto toolheads

**APPLICATION:**
» Used for longer runs than D2 in softwoods and hardwoods

**ADVANTAGES:**
» Consistent hardness with high molybdenum content that allows for easy grinding
» Higher wear resistance in harder materials
» Retains edge in medium to long production runs

| PART NO. | LENGTH L | HEIGHT H | THICKNESS T |
|---|---|---|---|
| 2610114 | 25" | 1-1/4" | 1/4" |
| 2610112 | 25" | 1-1/2" | 1/4" |
| 2610134 | 25" | 1-3/4" | 1/4" |
| 2610200 | 25" | 2" | 1/4" |
| 2610214 | 25" | 2-1/4" | 1/4" |
| 2610212 | 25" | 2-1/2" | 1/4" |
| 2611112 | 25" | 1-1/2" | 5/16" |
| 2611134 | 25" | 1-3/4" | 5/16" |
| 2611200 | 25" | 2" | 5/16" |
| 2611214 | 25" | 2-1/4" | 5/16" |
| 2611212 | 25" | 2-1/2" | 5/16" |
| 2611234 | 25" | 2-3/4" | 5/16" |
| 2611300 | 25" | 3" | 5/16" |

## DESIGN:

» Solid T1 high speed steel with 18% tungsten content
» Precision ground serrations (60°, 1.6mm pitch) ensures tight and accurate positioning of knives onto toolheads

## APPLICATION:

» Used for longer runs than M2 in softwoods and hardwoods

**ADVANTAGES:**

» Higher wear resistance in harder materials due to increased tungsten content
» Retains edge in long production runs

| PART NO. | LENGTH L | HEIGHT H | THICKNESS T |
|---|---|---|---|
| 2710114 | 25" | 1-1/4" | 1/4" |
| 2710112 | 25" | 1-1/2" | 1/4" |
| 2710134 | 25" | 1-3/4" | 1/4" |
| 2710200 | 25" | 2" | 1/4" |
| 2711112 | 25" | 1-1/2" | 5/16" |
| 2711134 | 25" | 1-3/4" | 5/16" |
| 2711200 | 25" | 2" | 5/16" |
| 2711214 | 25" | 2-1/4" | 5/16" |
| 2711212 | 25" | 2-1/2" | 5/16" |
| 2711234 | 25" | 2-3/4" | 5/16" |
| 2711300 | 25" | 3" | 5/16" |

# ST-1 CORRUGATED BACK KNIVES
## SUPER TECH

## DESIGN:

» Solid M2 steel with special coating
» Precision ground serrations (60°, 1.6mm pitch) ensures tight and accurate positioning of knives onto toolheads

## APPLICATION:

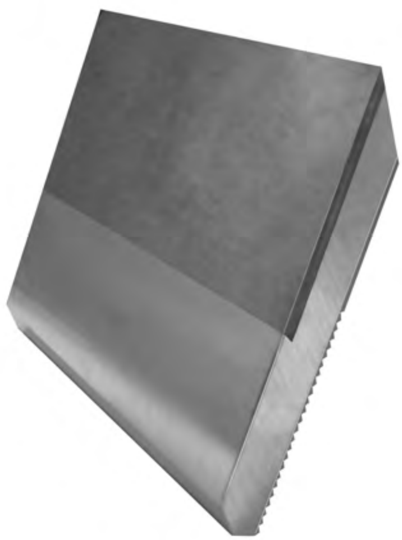
» For surface planing and profiling soft and hardwoods

| PART NO. | LENGTH L | HEIGHT H | THICKNESS T |
|---|---|---|---|
| 2611112ST | 25" | 1-1/2" | 5/16" |
| 2611134ST | 25" | 1-3/4" | 5/16" |
| 2611200ST | 25" | 2" | 5/16" |
| 2611214ST | 25" | 2-1/4" | 5/16" |
| 2611212ST | 25" | 2-1/2" | 5/16" |
| 2611234ST | 25" | 2-3/4" | 5/16" |

**ADVANTAGES:**

» Up to 10 times longer cutting life
» Superior surface finish
» Increased cutting life dramatically reduces downtime
» Cutting edge is more resistant to knots and exotic woods minimizing edge chipping
» Reduces noise levels due to lower cutting resistance
» Easy to grind using standard grinding wheels normally used for grinding HSS knives

# 3011 CORRUGATED BACK KNIVES
## CARBIDE TIPPED

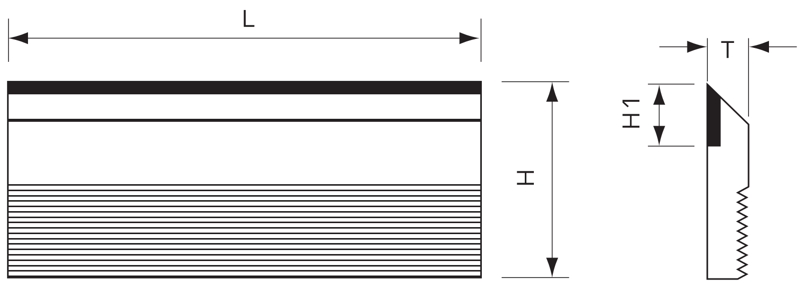


**DESIGN:**

» Solid HSS knives with brazed tungsten carbide inlay
» Precision ground serrations (60°, 1.6mm pitch) ensures tight and accurate positioning of knives onto toolheads

**APPLICATION:**

» For surface planing and profiling hardwoods, solid woods with glue lines, exotic woods and MDF




## SPECIAL PRODUCTION

| CARBIDE INLAY (H1) OF: 14MM, 20MM | | |
|---|---|---|
| L MM | H MM | T MM |
| 40 | 40 | 10 |
| 50 | 40 | 10 |
| 60 | 40 | 10 |
| 70 | 40 | 10 |
| 80 | 40 | 10 |
| 90 | 40 | 10 |
| 100 | 40 | 10 |
| 120 | 40 | 10 |
| 130 | 40 | 10 |
| 150 | 40 | 10 |
| 170 | 40 | 10 |
| 180 | 40 | 10 |
| 200 | 40 | 10 |
| 210 | 40 | 10 |
| 230 | 40 | 10 |
| 260 | 40 | 10 |
| 310 | 40 | 10 |

## SPECIAL PRODUCTION

| CARBIDE INLAY (H1) OF: 20MM, 25MM | | |
|---|---|---|
| L MM | H MM | T MM |
| 40 | 50 | 10 |
| 50 | 50 | 10 |
| 60 | 50 | 10 |
| 70 | 50 | 10 |
| 80 | 50 | 10 |
| 90 | 50 | 10 |
| 100 | 50 | 10 |
| 120 | 50 | 10 |
| 130 | 50 | 10 |
| 150 | 50 | 10 |
| 170 | 50 | 10 |
| 180 | 50 | 10 |
| 200 | 50 | 10 |
| 210 | 50 | 10 |
| 230 | 50 | 10 |
| 260 | 50 | 10 |
| 310 | 50 | 10 |

## SPECIAL PRODUCTION

| CARBIDE INLAY (H1) OF: 25MM, 30MM, 35MM | | |
|---|---|---|
| L MM | H MM | T MM |
| 40 | 60 | 10 |
| 50 | 60 | 10 |
| 60 | 60 | 10 |
| 70 | 60 | 10 |
| 80 | 60 | 10 |
| 90 | 60 | 10 |
| 100 | 60 | 10 |
| 120 | 60 | 10 |
| 130 | 60 | 10 |
| 150 | 60 | 10 |
| 170 | 60 | 10 |
| 180 | 60 | 10 |
| 200 | 60 | 10 |
| 210 | 60 | 10 |
| 230 | 60 | 10 |
| 260 | 60 | 10 |
| 310 | 60 | 10 |

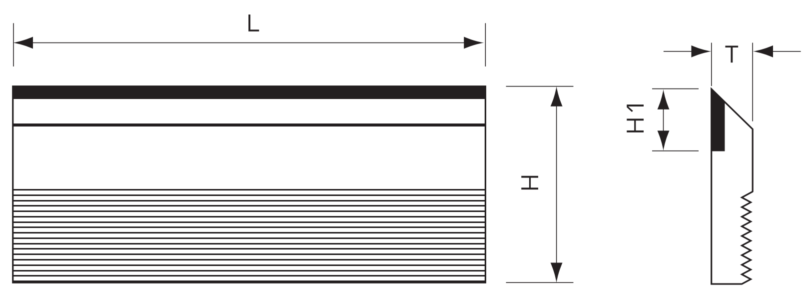
## SPECIAL PRODUCTION

| CARBIDE INLAY (H1) OF: 30MM, 35MM | | |
|---|---|---|
| L MM | H MM | T MM |
| 40 | 70 | 10 |
| 50 | 70 | 10 |
| 60 | 70 | 10 |
| 70 | 70 | 10 |
| 80 | 70 | 10 |
| 90 | 70 | 10 |
| 100 | 70 | 10 |
| 120 | 70 | 10 |
| 130 | 70 | 10 |
| 150 | 70 | 10 |
| 170 | 70 | 10 |
| 180 | 70 | 10 |
| 200 | 70 | 10 |
| 210 | 70 | 10 |
| 230 | 70 | 10 |
| 260 | 70 | 10 |
| 310 | 70 | 10 |

# CORRUGATED BACK KNIVES
## STELLITE TIPPED


### DESIGN:
- Solid HSS knives with brazed stellite inlay
- Precision ground serrations (60°, 1.6mm pitch) ensures tight and accurate positioning of knives onto toolheads

### APPLICATION:
- For surface planing and profiling hardwoods
- For solid wood with glue lines and exotic woods, see carbide inlay knives on page C23




### SPECIAL PRODUCTION

| L MM | H MM | T MM | H1 MM |
|---|---|---|---|
| 40 | 55 | 10 | 25 |
| 50 | 55 | 10 | 25 |
| 60 | 55 | 10 | 25 |
| 80 | 55 | 10 | 25 |
| 100 | 55 | 10 | 25 |
| 130 | 55 | 10 | 25 |
| 150 | 55 | 10 | 25 |
| 165 | 55 | 10 | 25 |
| 180 | 55 | 10 | 25 |
| 210 | 55 | 10 | 25 |
| 230 | 55 | 10 | 25 |
| 260 | 55 | 10 | 25 |
| 300 | 55 | 10 | 25 |
| 310 | 55 | 10 | 25 |
| 350 | 55 | 10 | 25 |

### SPECIAL PRODUCTION

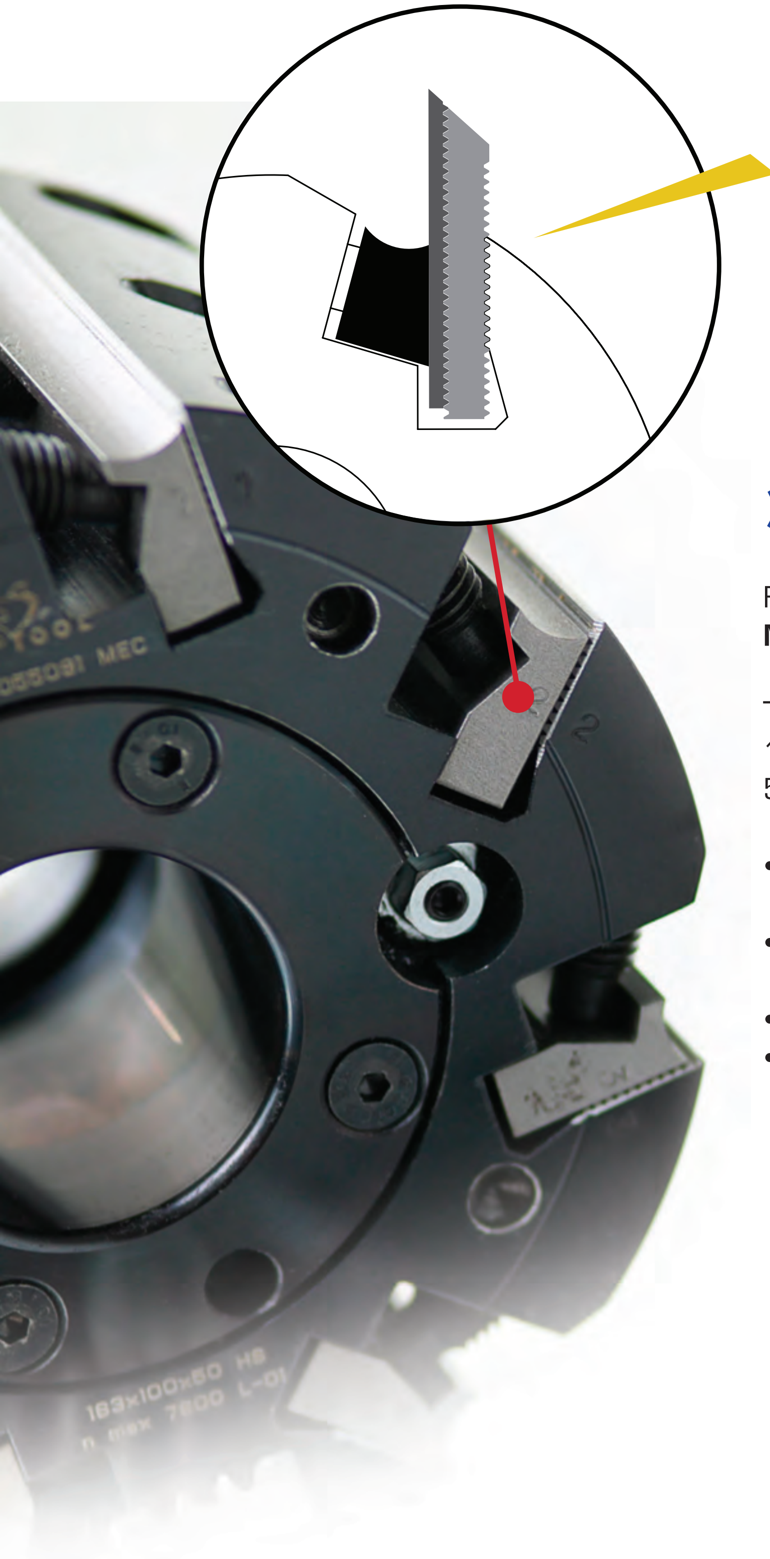
| L MM | H MM | T MM | H1 MM |
|---|---|---|---|
| 40 | 60 | 10 | 32 |
| 50 | 60 | 10 | 32 |
| 60 | 60 | 10 | 32 |
| 80 | 60 | 10 | 32 |
| 100 | 60 | 10 | 32 |
| 130 | 60 | 10 | 32 |
| 150 | 60 | 10 | 32 |
| 165 | 60 | 10 | 32 |
| 180 | 60 | 10 | 32 |
| 210 | 60 | 10 | 32 |
| 230 | 60 | 10 | 32 |
| 260 | 60 | 10 | 32 |
| 300 | 60 | 10 | 32 |
| 310 | 60 | 10 | 32 |
| 350 | 60 | 10 | 32 |

### SPECIAL PRODUCTION

| L MM | H MM | T MM | H1 MM |
|---|---|---|---|
| 40 | 70 | 10 | 45 |
| 50 | 70 | 10 | 45 |
| 60 | 70 | 10 | 45 |
| 80 | 70 | 10 | 45 |
| 100 | 70 | 10 | 45 |
| 130 | 70 | 10 | 45 |
| 150 | 70 | 10 | 45 |
| 165 | 70 | 10 | 45 |
| 180 | 70 | 10 | 45 |
| 210 | 70 | 10 | 45 |
| 230 | 70 | 10 | 45 |
| 260 | 70 | 10 | 45 |
| 300 | 70 | 10 | 45 |
| 310 | 70 | 10 | 45 |
| 350 | 70 | 10 | 45 |

# COMBI-CUT

PERCISION TOOLS



## » DESIGN

**Separate TC knife and steel backing plate allows for:**

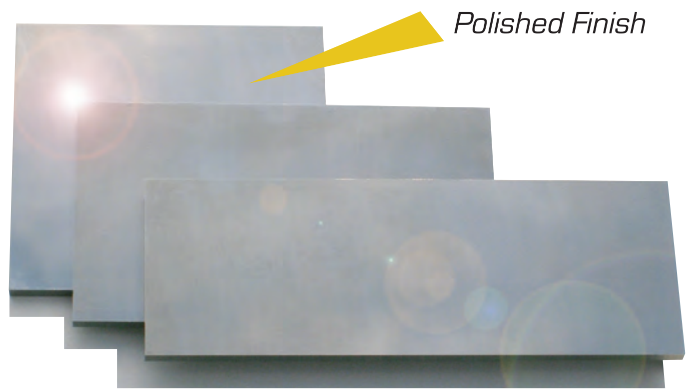
- Faster profiling/grinding process at reduced costs
- Sharper cutting edges and better finishes
- Longer tool life
- Greater design options

## » APPLICATION

For machining abrasive work piece materials on moulders:
**MDF, hardwoods, coated chipboards, and fibre materials.**

TC knives and backers available in 40, 50, 60, 80, 100, 120, 130, 150, 170, 180, 200, 210, 230mm length & 38, 50, 60mm knife height *Other sizes available upon request.*

- Knife blanks are face polished for maximum sharpness/ cutting edge quality
- Serrations on TC knives allow for constant diameter after grinding
- Backers do not need to get touched for sharpening
- Greater profile depths, depending on knife height




ES TOOL

*Part numbers and specifications on the back...*

| PART NO: SETS | L MM | H MM | T MM |
|---|---|---|---|
| 3030S04038 | 40 | 38 | 10 |
| 3030S05038 | 50 | 38 | 10 |
| 3030S06038 | 60 | 38 | 10 |
| 3030S08038 | 80 | 38 | 10 |
| 3030S10038 | 100 | 38 | 10 |
| 3030S12038 | 120 | 38 | 10 |
| 3030S13038 | 130 | 38 | 10 |
| 3030S15038 | 150 | 38 | 10 |
| 3030S17038 | 170 | 38 | 10 |
| 3030S18038 | 180 | 38 | 10 |
| 3030S20038 | 200 | 38 | 10 |
| 3030S21038 | 210 | 38 | 10 |
| 3030S23038 | 230 | 38 | 10 |
| | | | |
| 3030S04050 | 40 | 50 | 10 |
| 3030S05050 | 50 | 50 | 10 |
| 3030S06050 | 60 | 50 | 10 |
| 3030S08050 | 80 | 50 | 10 |
| 3030S10050 | 100 | 50 | 10 |
| 3030S12050 | 120 | 50 | 10 |
| 3030S13050 | 130 | 50 | 10 |
| 3030S15050 | 150 | 50 | 10 |
| 3030S17050 | 170 | 50 | 10 |
| 3030S18050 | 180 | 50 | 10 |
| 3030S20050 | 200 | 50 | 10 |
| 3030S21050 | 210 | 50 | 10 |
| 3030S23050 | 230 | 50 | 10 |
| | | | |
| 3030S04060 | 40 | 60 | 10 |
| 3030S05060 | 50 | 60 | 10 |
| 3030S06060 | 60 | 60 | 10 |
| 3030S08060 | 80 | 60 | 10 |
| 3030S10060 | 100 | 60 | 10 |
| 3030S12060 | 120 | 60 | 10 |
| 3030S13060 | 130 | 60 | 10 |
| 3030S15060 | 150 | 60 | 10 |
| 3030S17060 | 170 | 60 | 10 |
| 3030S18060 | 180 | 60 | 10 |
| 3030S20060 | 200 | 60 | 10 |
| 3030S21060 | 210 | 60 | 10 |
| 3030S23060 | 230 | 60 | 10 |

| PART NO: KNIVES ONLY | L MM | H MM | T MM |
|---|---|---|---|
| 3030C04038 | 40 | 38 | 3.2 |
| 3030C05038 | 50 | 38 | 3.2 |
| 3030C06038 | 60 | 38 | 3.2 |
| 3030C08038 | 80 | 38 | 3.2 |
| 3030C10038 | 100 | 38 | 3.2 |
| 3030C12038 | 120 | 38 | 3.2 |
| 3030C13038 | 130 | 38 | 3.2 |
| 3030C15038 | 150 | 38 | 3.2 |
| 3030C17038 | 170 | 38 | 3.2 |
| 3030C18038 | 180 | 38 | 3.2 |
| 3030C20038 | 200 | 38 | 3.2 |
| 3030C21038 | 210 | 38 | 3.2 |
| 3030C23038 | 230 | 38 | 3.2 |
| | | | |
| 3030C04050 | 40 | 50 | 3.2 |
| 3030C05050 | 50 | 50 | 3.2 |
| 3030C06050 | 60 | 50 | 3.2 |
| 3030C08050 | 80 | 50 | 3.2 |
| 3030C10050 | 100 | 50 | 3.2 |
| 3030C12050 | 120 | 50 | 3.2 |
| 3030C13050 | 130 | 50 | 3.2 |
| 3030C15050 | 150 | 50 | 3.2 |
| 3030C17050 | 170 | 50 | 3.2 |
| 3030C18050 | 180 | 50 | 3.2 |
| 3030C20050 | 200 | 50 | 3.2 |
| 3030C21050 | 210 | 50 | 3.2 |
| 3030C23050 | 230 | 50 | 3.2 |
| | | | |
| 3030C04060 | 40 | 60 | 3.2 |
| 3030C05060 | 50 | 60 | 3.2 |
| 3030C06060 | 60 | 60 | 3.2 |
| 3030C08060 | 80 | 60 | 3.2 |
| 3030C10060 | 100 | 60 | 3.2 |
| 3030C12060 | 120 | 60 | 3.2 |
| 3030C13060 | 130 | 60 | 3.2 |
| 3030C15060 | 150 | 60 | 3.2 |
| 3030C17060 | 170 | 60 | 3.2 |
| 3030C18060 | 180 | 60 | 3.2 |
| 3030C20060 | 200 | 60 | 3.2 |
| 3030C21060 | 210 | 60 | 3.2 |
| 3030C23060 | 230 | 60 | 3.2 |

| PART NO: BACKERS ONLY | L MM | H MM | T MM |
|---|---|---|---|
| 3030A04038 | 40 | 35 | 7.1 |
| 3030A05038 | 50 | 35 | 7.1 |
| 3030A06038 | 60 | 35 | 7.1 |
| 3030A08038 | 80 | 35 | 7.1 |
| 3030A10038 | 100 | 35 | 7.1 |
| 3030A12038 | 120 | 35 | 7.1 |
| 3030A13038 | 130 | 35 | 7.1 |
| 3030A15038 | 150 | 35 | 7.1 |
| 3030A17038 | 170 | 35 | 7.1 |
| 3030A18038 | 180 | 35 | 7.1 |
| 3030A20038 | 200 | 35 | 7.1 |
| 3030A21038 | 210 | 35 | 7.1 |
| 3030A23038 | 230 | 35 | 7.1 |
| | | | |
| 3030A04050 | 40 | 47 | 7.1 |
| 3030A05050 | 50 | 47 | 7.1 |
| 3030A06050 | 60 | 47 | 7.1 |
| 3030A08050 | 80 | 47 | 7.1 |
| 3030A10050 | 100 | 47 | 7.1 |
| 3030A12050 | 120 | 47 | 7.1 |
| 3030A13050 | 130 | 47 | 7.1 |
| 3030A15050 | 150 | 47 | 7.1 |
| 3030A17050 | 170 | 47 | 7.1 |
| 3030A18050 | 180 | 47 | 7.1 |
| 3030A20050 | 200 | 47 | 7.1 |
| 3030A21050 | 210 | 47 | 7.1 |
| 3030A23050 | 230 | 47 | 7.1 |
| | | | |
| 3030A04060 | 40 | 57 | 7.1 |
| 3030A05060 | 50 | 57 | 7.1 |
| 3030A06060 | 60 | 57 | 7.1 |
| 3030A08060 | 80 | 57 | 7.1 |
| 3030A10060 | 100 | 57 | 7.1 |
| 3030A12060 | 120 | 57 | 7.1 |
| 3030A13060 | 130 | 57 | 7.1 |
| 3030A15060 | 150 | 57 | 7.1 |
| 3030A17060 | 170 | 57 | 7.1 |
| 3030A18060 | 180 | 57 | 7.1 |
| 3030A20060 | 200 | 57 | 7.1 |
| 3030A21060 | 210 | 57 | 7.1 |
| 3030A23060 | 230 | 57 | 7.1 |

L = Length
H = Height
T = Thickness

# HSS PLANING KNIVES
T1 STEEL

## DESIGN:
» Solid T1 steel (18% w) knives
» Precision ground

## APPLICATION:
» For surface planing hardwoods
» For exotic woods or solid woods with glue lines use tungsten carbide inlaid knives on pages C28 - C31

## MACHINE TYPE:
» On surface planers, jointers, four sided planers and moulders

Thin Planing Knives
Precision ground and sharpened
**2501 HSS 18% W**
Standard Dimensions

Special dimensions
Single piece production

**2501 HSS 18% W**

Priced per meter
For Lengths from 200 to 1000mm (8" to 40")

» 30 x 3mm (1-3/16" x 1/8")
» 35 x 3mm (1-3/8" x 1/8")

Extra charges for other lengths on request.
Extra charges for knives with slots and holes on request.

| PART NO. | DIMENSIONS - L X H X T | |
|---|---|---|
| | INCH | MM |
| **25 120 303** | 4-3/4" x 1-3/16" x 1/8" | 120 x 30 x 3 |
| **25 130 303** | 5-1/8" x 1-3/16" x 1/8" | 130 x 30 x 3 |
| **25 150 303** | 6" x 1-3/16" x 1/8" | 150 x 30 x 3 |
| **25 160 303** | 6-1/4" x 1-3/16" x 1/8" | 160 x 30 x 3 |
| **25 170 303** | 6-3/4" x 1-3/16" x 1/8" | 170 x 30 x 3 |
| **25 180 303** | 7" x 1-3/16" x 1/8" | 180 x 30 x 3 |
| **25 210 303** | 8-1/4" x 1-3/16" x 1/8" | 210 x 30 x 3 |
| **25 230 303** | 9" x 1-3/16" x 1/8" | 230 x 30 x 3 |
| **25 260 303** | 10-1/4" x 1-3/16" x 1/8" | 260 x 30 x 3 |
| **25 410 303** | 16" x 1-3/16" x 1/8" | 410 x 30 x 3 |
| **25 510 303** | 20" x 1-3/16" x 1/8" | 510 x 30 x 3 |
| **25 610 303** | 24" x 1-3/16" x 1/8" | 610 x 30 x 3 |
| **25 640 303** | 25" x 1-3/16" x 1/8" | 640 x 30 x 3 |
| **251066303** | 39-1/2" x 1-3/16" x 1/8" | 1000 x 30 x 3 |
| **25 400 353** | 15-3/4" x 1-3/8" x 1/8" | 400 x 35 x 3 |
| **25 410 353** | 16" x 1-3/8" x 1/8" | 410 x 35 x 3 |
| **25 450 353** | 17-3/4" x 1-3/8" x 1/8" | 450 x 35 x 3 |
| **25 500 353** | 19-5/8" x 1-3/8" x 1/8" | 500 x 35 x 3 |
| **25 510 353** | 20" x 1-3/8" x 1/8" | 510 x 35 x 3 |
| **25 600 353** | 23-5/8" x 1-3/8" x 1/8" | 600 x 35 x 3 |
| **25 610 353** | 24" x 1-3/8" x 1/8" | 610 x 35 x 3 |
| **25 630 353** | 24-3/4" x 1-3/8" x 1/8" | 630 x 35 x 3 |
| **25 640 353** | 25" x 1-3/8" x 1/8" | 640 x 35 x 3 |
| **251066353** | 39-1/2" x 1-3/8" x 1/8" | 1000 x 35 x 3 |

## DESIGN:

- Solid M2 steel
- Precision ground

## APPLICATION:

- For surface planing soft and hardwoods
- For exotic woods or solid woods with glue lines, use tungsten carbide inlaid knives on pages C28 - C31

## MACHINE TYPE:

- On surface planers, jointers, four sided planers and moulders

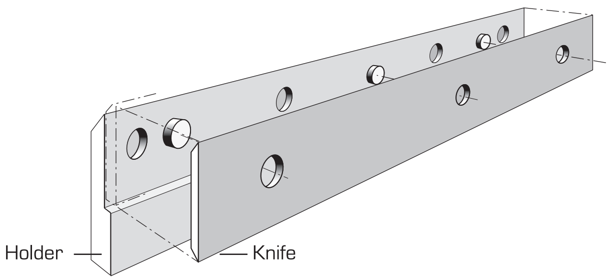
Thin Planing Knives
Precision ground and sharpened
**2602 HSS M2**
Standard Dimensions

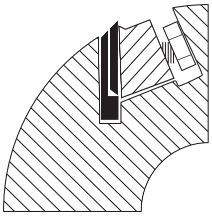
Special dimensions
Single piece production
**2602**
Priced per meter - For lengths from 200 to 1000mm (8" to 40")

- 30 x 3mm (1-3/16" x 1/8")
- 35 x 3mm (1-3/8" x 1/8")

| PART NO. | DIMENSIONS L X H X T (INCHES) |
|---|---|
| 26040051 | 4" x 5/8" x 1/8" |
| 26040071 | 4" x 7/8" x 1/8" |
| 26051061 | 5-1/16" x 3/4" x 1/8" |
| 26060051 | 6" x 5/8" x 1/8" |
| 26060071 | 6" x 7/8" x 1/8" |
| 26060101 | 6" x 1" x 1/8" |
| 26061061 | 6-1/16" x 3/4" x 1/8" |
| 26062051 | 6-1/8" x 3/4" x 1/8" |
| 26068101 | 6-1/2" x 1" x 1/8" |
| 26080051 | 8" x 5/8" x 1/8" |
| 26080061 | 8" x 3/4" x 1/8" |
| 26080071 | 8" x 7/8" x 1/8" |
| 26080101 | 8" x 1" x 1/8" |
| 26084121 | 8-1/4" x 1-1/4" x 1/8" |
| 26120051 | 12" x 5/8" x 1/8" |
| 26120061 | 12" x 3/4" x 1/8" |
| 26120071 | 12" x 7/8" x 1/8" |

| PART NO. | DIMENSIONS L X H X T (INCHES) |
|---|---|
| 26120101 | 12" x 1" x 1/8" |
| 26121051 | 12-1/4" x 5/8" x 1/8" |
| 26121061 | 12-1/4" x 3/4" x 1/8" |
| 26121101 | 12-1/4" x 1" x 1/8" |
| 26160101 | 16" x 1" x 1/8" |
| 26200101 | 20" x 1" x 1/8" |
| 26240115 | 24" x 1-1/8" x 5/32" |
| 26240145 | 24 x 1-1/2" x 5/32" |
| 26250051 | 25" x 5/8" x 1/8" |
| 26250061 | 25" x 3/4" x 1/8" |
| 26250121 | 25" x 1-1/4" x 1/8" |
| 26250125 | 25" x 1-1/4" x 5/32" |
| 26300141 | 30" x 1-1/2" x 1/8" |
| 26370111 | 37" x 1-1/8" x 1/8" |
| 26370125 | 37" x 1-1/4" x 5/32" |
| 26370131 | 37" x 1-3/8" x 1/8" |
| 26370135 | 37" x 1-3/8" x 5/32" |
| 26370145 | 37" x 1-1/2" x 5/32" |



## DESIGN:

» Precision made knife holder for easy and accurate knife positioning
» Precision ground reversible knives

## APPLICATION:

» For surface planing of solid wood
» Can be fitted into any planing toolheads and jointer heads
» On surface planers, jointers, four sided planers and moulders

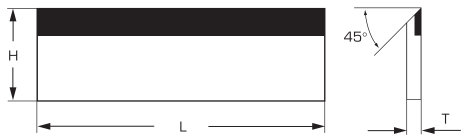
## FOR PLANING HEADS & JOINTING HEADS

Reduction of cost is one of the major features of our double-edged knife system. The price of double-edged knives is lower than reusable knives, and the knife holder is a non-recurrent investment easily amortised by the savings of knife cost.

Knife cost is cut to 80% and set-up is decreased by 400%.
More detailed instructions are available with separate brochure.

| KNIFE LENGTH | | KNIFE HOLDER 25x3mm / 1"x1/8" | DOUBLE EDGE KNIFE 18.6 x 1.0mm |
|---|---|---|---|
| MM | INCH | PART NO. | PART NO. |
| 60 | 2-3/8" | 29H060 | 299060 |
| 80 | 3-1/8" | 29H080 | 299080 |
| 100 | 4" | 29H100 | 299100 |
| 105 | - | 29H105 | 299105 |
| 120 | 4-3/4" | 29H120 | 299120 |
| 125 | - | 29H125 | 299125 |
| 130 | 5-1/8" | 29H130 | 299130 |
| 136 | - | 29H136 | 299136 |
| 140 | - | 29H140 | 299140 |
| 150 | 6" | 29H150 | 299150 |
| 150 (3/4" H) | 6" (3/4" H) | 29H150-19 | 299150 |
| 160 | 6" | 29H160 | 299160 |
| 170 | - | 29H170 | 299170 |
| 180 | 7" | 29H180 | 299180 |
| 180 (3/4" H) | 7" (3/4" H) | 29H180-19 | 299180 |
| 186 | - | 29H186 | 299186 |
| 190 | - | 29H190 | 299190 |
| 190 (3/4" H) | 7-1/2" (3/4" H) | 29H190-19 | 299190 |
| 200 | 8" | 29H200 | 299200 |
| 200 (3/4" H) | 8" (3/4" H) | 29H200-19 | 299200 |
| 210 | 8-1/4" | 29H210 | 299210 |
| 230 | 9" | 29H230 | 299230 |
| 240 | - | 29H240 | 299240 |
| 250 | 10" | 29H250 | 299250 |
| 260 | - | 29H260 | 299260 |

| KNIFE LENGTH | | KNIFE HOLDER 25x3mm / 1"x1/8" | DOUBLE EDGE KNIFE 18.6 x 1.0mm |
|---|---|---|---|
| MM | INCH | PART NO. | PART NO. |
| 300 | - | 29H300 | 299300 |
| 305 | 12" | 29H305 | 299305 |
| 310 | 12-1/4" | 29H310 | 299310 |
| 350 | 13-3/4" | 29H350 | 299350 |
| 360 | 14-1/8" | 29H360 | 299360 |
| 400 | 15-3/4" | 29H400 | 299400 |
| 410 | 16-1/4" | 29H410 | 299410 |
| 420 | - | 29H420 | 299420 |
| 430 | - | 29H430 | 299430 |
| 450 | - | 29H450 | 299450 |
| 460 | 18-1/8" | 29H460 | 299460 |
| 500 | - | 29H500 | 299500 |
| 510 | - | 29H510 | 299510 |
| 520 | - | 29H520 | 299520 |
| 530 | - | 29H530 | 299530 |
| 600 | - | 29H600 | 299600 |
| 610 | 24" | 29H610 | 299610 |
| 630 | - | 29H630 | 299630 |
| 640 | - | 29H640 | 299640 |
| 650 | - | 29H650 | 299650 |
| 660 | - | 29H660 | 299660 |
| 710 | - | 29H710 | 299710 |
| 740 | - | 29H740 | 299740 |
| 760 | - | 29H760 | 299760 |
| 810 | - | 29H810 | 299810 |




**DESIGN:**

- Brazed tungsten carbide inlay
- Tungsten carbide inlay ground to a polish surface finish

**APPLICATION:**

- For surface planing hardwoods, exotic woods and solid woods with glue lines

The knives are ground flat, sharpened and honed with fine grit diamond wheels.

Especially suitable for: all hardwoods (particularly exotics), pressed wood, layered wood, hard paper, hardweave, and all laminated materials.

## SPECIAL SIZES
## Single Piece Production
## Part No.: 3001 000 00

| | | |
|---|---|---|
| Length | (L) | 100 to 810mm or 4" to 32" |
| Height | (H) | 25, 30, 35mm or 1", 1-1/4", 1-1/8" |
| Thickness | (T) | 3mm (1/8") and 4mm (5/32") |

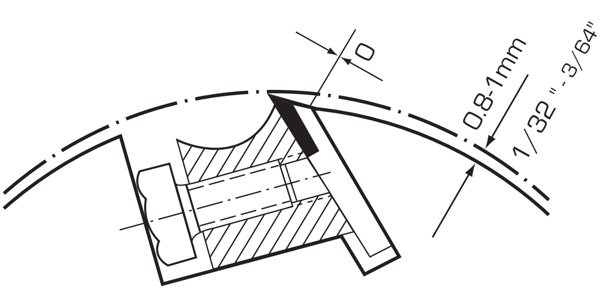
| | | | | | |
|---|---|---|---|---|---|
| Thickness of Knife | (T) | = | 2.8mm (7/64") | + | 5% Surcharge |
| Thickness of Knife | (T) | = | 2.5mm (3/32") | + | 10% Surcharge |
| Thickness of Knife | (T) | = | 4.0mm (5/32") | + | 10% Surcharge |
| Height of Knife | (H) | = | 40mm (1-1/2") | + | 10% Surcharge |
| Height of Knife | (H) | = | Less than 25mm (1") | + | 10% Surcharge |

## INSTRUCTIONS FOR SETTING CARBIDE TIPPED KNIVES ONTO PLANING AND JOINTING HEADS:

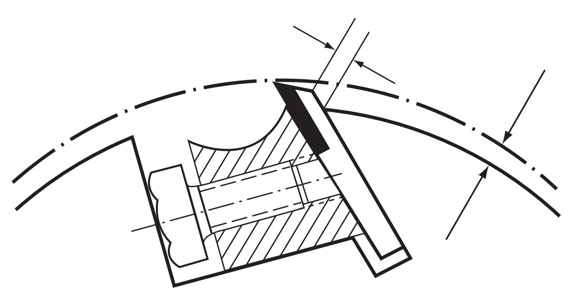
The cutting edge must not protrude more than 1.0mm, or 3/64", see sketches.

Correct setting: To protrude between 0.8 and 1.0mm (1/32" and 3/64").

**CORRECT SETTING**




**INCORRECT SETTING**



# 3001 PLANING KNIVES
## CARBIDE TIPPED


### DESIGN:
- Brazed tungsten carbide inlay
- Tungsten carbide inlay ground to a polished surface finish
- Depth of tungsten carbide inlay 11mm

### APPLICATION:
- For surface planing hardwoods, exotic woods and solid woods with glue lines
- The knives are ground flat, sharpened and honed with fine grit diamond wheels
- Especially suitable for: all hardwoods (particularly exotics), pressed wood, layered wood, hard paper, hardweave and all laminated materials

Height = 25MM

| PART NO. | DIMENSIONS L X H X T (MM) |
|---|---|
| 30 060 253 | 60 x 25 x 3 |
| 30 080 253 | 80 x 25 x 3 |
| 30 090 253 | 90 x 25 x 3 |
| 30 100 253 | 100 x 25 x 3 |
| 30 110 253 | 110 x 25 x 3 |
| 30 120 253 | 120 x 25 x 3 |
| 30 130 253 | 130 x 25 x 3 |
| 30 140 253 | 140 x 25 x 3 |
| 30 150 253 | 150 x 25 x 3 |
| 30 180 253 | 180 x 25 x 3 |
| 30 200 253 | 200 x 25 x 3 |
| 30 210 253 | 210 x 25 x 3 |
| 30 230 253 | 230 x 25 x 3 |
| 30 250 253 | 250 x 25 x 3 |
| 30 260 253 | 260 x 25 x 3 |
| 30 300 253 | 300 x 25 x 3 |
| 30 310 253 | 310 x 25 x 3 |
| 30 350 253 | 350 x 25 x 3 |
| 30 410 253 | 410 x 25 x 3 |
| 30 510 253 | 510 x 25 x 3 |

Height = 30MM

| PART NO. | DIMENSIONS L X H X T (MM) |
|---|---|
| 30 060 303 | 60 x 30 x 3 |
| 30 080 303 | 80 x 30 x 3 |
| 30 090 303 | 90 x 30 x 3 |
| 30 100 303 | 100 x 30 x 3 |
| 30 110 303 | 110 x 30 x 3 |
| 30 120 303 | 120 x 30 x 3 |
| 30 130 303 | 130 x 30 x 3 |
| 30 140 303 | 140 x 30 x 3 |
| 30 150 303 | 150 x 30 x 3 |
| 30 160 303 | 160 x 30 x 3 |
| 30 170 303 | 170 x 30 x 3 |
| 30 180 303 | 180 x 30 x 3 |
| 30 200 303 | 200 x 30 x 3 |
| 30 210 303 | 210 x 30 x 3 |
| 30 230 303 | 230 x 30 x 3 |
| 30 240 303 | 240 x 30 x 3 |
| 30 250 303 | 250 x 30 x 3 |
| 30 260 303 | 260 x 30 x 3 |
| 30 300 303 | 300 x 30 x 3 |
| 30 310 303 | 310 x 30 x 3 |
| 30 350 303 | 350 x 30 x 3 |
| 30 400 303 | 400 x 30 x 3 |
| 30 410 303 | 410 x 30 x 3 |
| 30 450 303 | 450 x 30 x 3 |
| 30 500 303 | 500 x 30 x 3 |
| 30 510 303 | 510 x 30 x 3 |
| 30 600 303 | 600 x 30 x 3 |
| 30 610 303 | 610 x 30 x 3 |
| 30 630 303 | 630 x 30 x 3 |
| 30 640 303 | 640 x 30 x 3 |
| 30 710 303 | 710 x 30 x 3 |
| 30 810 303 | 810 x 30 x 3 |

Height = 35MM

| PART NO. | DIMENSIONS L X H X T (MM) |
|---|---|
| 30 060 353 | 60 x 35 x 3 |
| 30 080 353 | 80 x 35 x 3 |
| 30 090 353 | 90 x 35 x 3 |
| 30 100 353 | 100 x 35 x 3 |
| 30 120 353 | 120 x 35 x 3 |
| 30 130 353 | 130 x 35 x 3 |
| 30 150 353 | 150 x 35 x 3 |
| 30 170 353 | 170 x 35 x 3 |
| 30 180 353 | 180 x 35 x 3 |
| 30 200 353 | 200 x 35 x 3 |
| 30 210 353 | 210 x 35 x 3 |
| 30 230 353 | 230 x 35 x 3 |
| 30 250 353 | 250 x 35 x 3 |
| 30 260 353 | 260 x 35 x 3 |
| 30 300 353 | 300 x 35 x 3 |
| 30 310 353 | 310 x 35 x 3 |
| 30 350 353 | 350 x 35 x 3 |
| 30 400 353 | 400 x 35 x 3 |
| 30 410 353 | 410 x 35 x 3 |
| 30 450 353 | 450 x 35 x 3 |
| 30 500 353 | 500 x 35 x 3 |
| 30 510 353 | 510 x 35 x 3 |
| 30 600 353 | 600 x 35 x 3 |
| 30 610 353 | 610 x 35 x 3 |
| 30 630 353 | 630 x 35 x 3 |
| 30 640 353 | 640 x 35 x 3 |
| 30 710 353 | 710 x 35 x 3 |
| 30 810 353 | 810 x 35 x 3 |

# 3001 PLANING KNIVES
## CARBIDE TIPPED


### DESIGN:

» Brazed tungsten carbide inlay
» Tungsten carbide inlay ground to a polished surface finish
» Depth of tungsten carbide inlay 7.5mm for knives 5/8 height, all others supplied with 11mm inlay

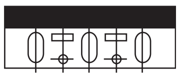
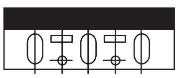
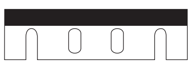
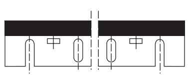
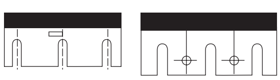
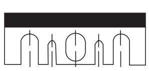
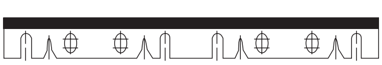
### APPLICATION:

» For surface planing hardwoods, exotic woods and solid woods with glue lines
» The knives are ground flat, sharpened and honed with fine grit diamond wheels
» Especially suitable for: all hardwoods (particularly exotics), pressed wood, layered wood, hard paper, hardweave and all laminated materials

| PART NO. | DIMENSIONS L X H X T (MM) |
|---|---|
| 30040051 | 4" x 5/8" x 1/8" |
| 30040071 | 4" x 7/8" x 1/8" |
| | |
| 30051061 | 5-1/16" x 3/4" x 1/8" |
| | |
| 30060051 | 6" x 5/8" x 1/8" |
| 30060061 | 6" x 3/4" x 1/8" |
| 30060071 | 6" x 7/8" x 1/8" |
| 30060101 | 6" x 1" x 1/8" |
| 30061061 | 6-1/16" x 3/4" x 1/8" |
| 30062071 | 6-1/8" x 3/4" x 1/8" |
| 30068101 | 6-1/2" x 1" x 1/8" |
| | |
| 30080051 | 8" x 5/8" x 1/8" |
| 30080061 | 8" x 3/4" x 1/8" |
| 30080071 | 8" x 7/8" x 1/8" |
| 30080101 | 8" x 1" x 1/8" |
| 30084121 | 8-1/4" x 1-1/4" x 1/8" |
| | |
| 30120051 | 12" x 5/8" x 1/8" |
| 30120061 | 12" x 3/4" x 1/8" |
| 30120071 | 12" x 7/8" x 1/8" |
| 30120101 | 12" x 1" x 1/8" |
| 30121051 | 12-1/4" x 5/8" x 1/8" |
| 30121061 | 12-1/4" x 3/4" x 1/8" |
| 30121101 | 12-1/4" x 1" x 1/8" |
| 30122071 | 12-1/2" x 15/16" x 1/8" |

| PART NO. | DIMENSIONS L X H X T (MM) |
|---|---|
| 30131065 | 13-1/8" x 1-1/16" x 5/32" |
| | |
| 30141061 | 14-1/8" x 3/4" x 1/8" |
| | |
| 30180115 | 18" x 1-1/8" x 5/32" |
| | |
| 30190061 | 19" x 1-1/16" x 1/8" |
| | |
| 30200101 | 20" x 1" x 1/8" |
| | |
| 30240115 | 24" x 1-1/8" x 5/32" |
| 30240145 | 24" x 1-1/2" x 5/32" |
| | |
| 30250051 | 25" x 5/8" x 1/8" |
| 30250061 | 25" x 3/4" x 1/8" |
| 30250121 | 25" x 1-1/4" x 1/8" |
| 30250125 | 25" x 1-1/4" x 5/32" |
| | |
| 30300141 | 30" x 1-1/2" x 1/8" |

# PLANING KNIVES FOR PORTABLE MACHINES
## HSS AND CARBIDE TIPPED

| MACHINE | SHAPE | MODEL | DIMENSIONS | L X W X T MM | CARBIDE PART NO. | HSS PART NO. |
|---|---|---|---|---|---|---|
| AEG |  | HTH 75 | | 76 x 20 x 3 | 3076203 | 2076203 |
| | | EH 82<br>H 822 | | 82 x 18 x 3 | 3082183 | 2082183 |
| BLACK & DECKER |  | | 3-1/4" x 1-1/8" x 1/8" | 82 x 29 x 3 | 3082293 | 2082293 |
| MAKITA |  | 1900 B<br>1923 B<br>1100<br>1125<br>1001 | 3-1/4" x 1-1/8" x 1/8" | 82 x 29 x 3 | 3M82293 | 2M82293 |
| |  | 1911 B | 4-3/8" x 1-1/8" x 1/8" | 110 x 29 x 3 | 3110293 | 2110293 |
| |  | 1805<br>1805 N<br>1805 B | 6-1/16" x 1-1/4" x 1/8" | 155 x 32 x 3 | 3155323 | 2155323 |
| | | 1806 B | 6-11/16" x 1-3/8" x 1/8" | 170 x 35 x 3 | 3170353 | 2170353 |
| SKIL |  | 60506 | 3" x 1-1/8" x 1/8" | 77 x 28.6 x 3.15 | 3077283 | 2077283 |
| | | 96 H | 3-1/4" x 1-1/8" x 1/8" | 82 x 29 x 3 | 3S82293 | 2S82293 |
| HITACHI |  | F20A<br>FU20<br>FP20 | 3-1/4" x 1-7/64" x 1/8" | 82 x 28 x 3 | 3082283 | 2082283 |
| |  | F30A | 3-5/8" x 1-3/16" x 1/8" | 92 x 30 x 3 | 3092303 | 2092303 |
| |  | F50A | 6-9/64" x 1-7/32" x 1/8" | 156 x 31 x 3 | 30156313 | 20156313 |
| |  | F1000A<br>P100F | 12-1/2" x 1-3/8" x 5/32" | 317 x 35 x 4 | 30317354 | 20317354 |
| |  | F1000 | 6-5/16" x 1-3/8" x 5/32" | 160 x 35 x 4 | 30160354 | 20160354 |


# D

## TOOLHEADS with DISPOSABLE CARBIDE KNIVES

Reversible inserts

# 1T13L GROOVING TOOLHEAD (LAMELLO)

### DESIGN:

- High tensile steel body
- Reversible tungsten carbide inserts with 4 cutting edges

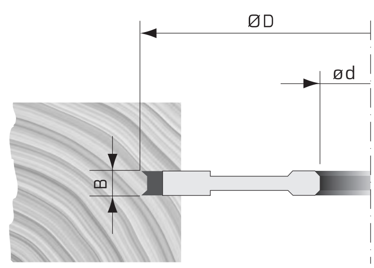
### APPLICATION:

- For chip-free grooving of lamello wood joints
- For solid wood with and against the grain and laminated panels

### MACHINES:

- On Lamello and ELU machines for biscuit joints

| PART NO. | DIAM. ØD MM | KERF B MM | BORE ød MM | NO. TEETH | NO. SPURS | RPM MIN-MAX |
|---|---|---|---|---|---|---|
| **1T13L** | 100 | 4 | 22 | 4 | 4 | 7700-13200 |



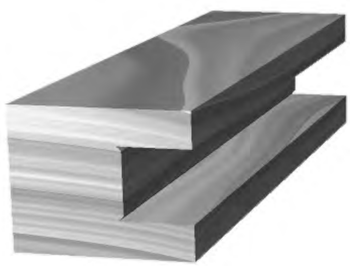

## REPLACEMENT PARTS

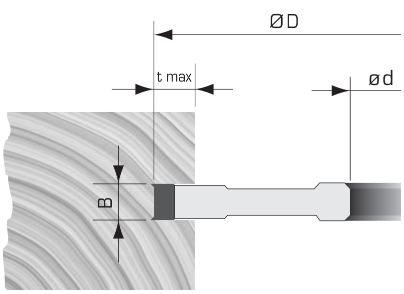
| DESCRIPTION | KNIFE | KNIFE SCREW | THREADED RING FOR KNIFE | SPUR | SPUR SCREW | THREADED RING FOR SPUR | WRENCH |
|---|---|---|---|---|---|---|---|
| **PART NO.** | **320301** | **W500401** | **W501101** | **301414** | **W500401** | **W501001** | **W400401** |
| DIMENSIONS | 18x18x1.95 | M4x3.2 | 12x1.7 | 14x14x1.2 | M4x3.2 | 10x1.65 | T9 Torx |

## DESIGN:
- High tensile steel body
- Reversible tungsten carbide inserts with 2 cutting edges for the teeth and 4 cutting edges for the spurs

## APPLICATION:
- For grooving solid wood, plywood, and laminated panels

## MACHINES:
- On shapers, double-end tenoners and moulders






## METRIC SIZES

| PART NO. | DIAM. ØD MM | KERF B MM | BORE ød MM | MAX BORE ød MM | NO. TEETH | NO. SPURS | T-MAX. MM | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|---|
| 1T5001M | 140 | 8 | 31.75 | 50 | 4 | 4 | 32 | 5500-9200 |
| 1T5002M | 140 | 10 | 31.75 | 50 | 4 | 4 | 32 | 5500-9200 |
| 1T5003M | 140 | 12 | 31.75 | 50 | 4 | 4 | 32 | 5500-9200 |
| 1T5004M | 180 | 8 | 31.75 | 60 | 4 | 4 | 45 | 4200-7200 |
| 1T5005M | 180 | 10 | 31.75 | 60 | 4 | 4 | 45 | 4200-7200 |
| 1T5006M | 180 | 12 | 31.75 | 60 | 4 | 4 | 45 | 4200-7200 |

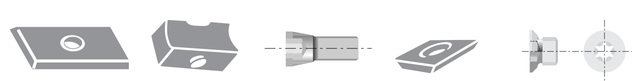
Other sizes available upon request

## IMPERIAL SIZES

| PART NO. | DIAM. ØD | KERF B | BORE ød | MAX BORE ød | NO. TEETH | NO. SPURS | T-MAX. | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|---|
| 1T5001I | 5-1/2" | 1/4" | 1-1/4" | 2" | 4 | 4 | 1-1/4" | 5500-9200 |
| 1T5002I | 5-1/2" | 3/8" | 1-1/4" | 2" | 4 | 4 | 1-1/4" | 5500-9200 |
| 1T5003I | 5-1/2" | 1/2" | 1-1/4" | 2" | 4 | 4 | 1-1/4" | 5500-9200 |
| 1T5004I | 7-3/32" | 1/4" | 1-1/4" | 2-3/8" | 4 | 4 | 1-3/4" | 4200-7200 |
| 1T5005I | 7-3/32" | 3/8" | 1-1/4" | 2-3/8" | 4 | 4 | 1-3/4" | 4200-7200 |
| 1T5006I | 7-3/32" | 1/2" | 1-1/4" | 2-3/8" | 4 | 4 | 1-3/4" | 4200-7200 |

Other sizes available upon request

## REPLACEMENT PARTS



| TOOL NO. | DESCRIPTION | KNIFE | WEDGE | WEDGE SCREW | SPUR | SPUR SCREW | WEDGE WRENCH | SPUR WRENCH |
|---|---|---|---|---|---|---|---|---|
| 1T5001M 1T5004M | PART NO. | 300800 | W350021 | W502403 | 301404 | W500002 | W400420 | W400405 |
| | DIMENSIONS | 7.65x12x1.5 | 6.8 | M5x18 | 14x14x2 | M5x7 | T20 Torx | T15 Torx |
| 1T5002M 1T5005M | PART NO. | 300960 | W350022 | W502403 | 301404 | W500002 | W400420 | W400405 |
| | DIMENSIONS | 9.6x12x1.5 | 7.6 | M5x18 | 14x14x2 | M5x7 | T20 Torx | T15 Torx |
| 1T5003M 1T5006M | PART NO. | 301160 | W350023 | W502403 | 301404 | W500002 | W400420 | W400405 |
| | DIMENSIONS | 11.6x12X1.5 | 9 | M5x18 | 14x14x2 | M5x7 | T20 Torx | T15 Torx |
| 1T5001I 1T5004I | PART NO. | 300600 | W302801 | W501313 | 301404 | W500002 | W400000 | W400405 |
| | DIMENSIONS | 6x12x1.5 | 5.2 | M4X16 | 14x14x2 | M5x5.1 | 2mm Hex | T15 Torx |
| 1T5002I 1T5005I | PART NO. | 300920 | W350022 | W502403 | 301404 | W500002 | W400420 | W400405 |
| | DIMENSIONS | 9.2x12x1.5 | 7.6 | M5x18 | 14x14x2 | M5x7 | T20 Torx | T15 Torx |
| 1T5003I 1T5006I | PART NO. | 301230 | W350023 | W502403 | 301404 | W500002 | W400420 | W400405 |
| | DIMENSIONS | 12.3x12x1.5 | 9 | M5x18 | 14x14x2 | M5x7 | T20 Torx | T15 Torx |

# 1T600 ADJUSTABLE GROOVING TOOLHEADS

## DESIGN:

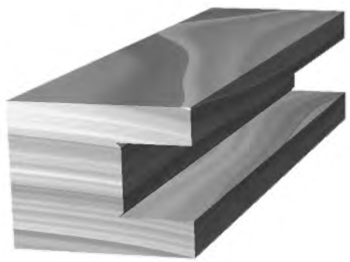
» High tensile steel body
» Toolheads and spacers secured with pins
» Cutting width adjustable with shims in 0.1mm (0.004") increments
» Reversible tungsten carbide inserts with 2 cutting edges for the teeth and 4 cutting edges for the spurs

## APPLICATION:

» For grooving solid woods, plywood, and laminated panels

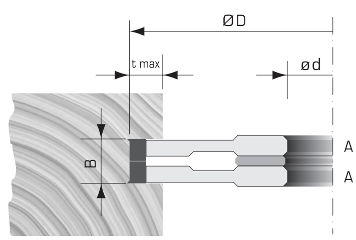
## MACHINES:

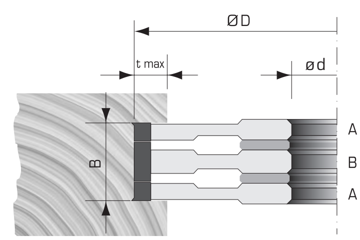
» On shapers, double-end tenoners, and moulders



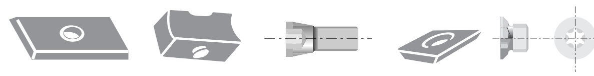
| PART NO. | CUTTER TYPE | DIAM. ØD MM | KERF B MM | BORE ød | MAX BORE ød MM | NO. TEETH | NO. SPURS | T-MAX. MM | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|---|---|
| **1T6001M** | A | 160 | 8-15 | 1-1/4" | 40 | 4 | 4 | 30 | 4800-7200 |
| **1T6007M** | B | 160 | 15 | 1-1/4" | 40 | 2 | - | 30 | 4800-7200 |
| **1T6006M** | A | 160 | 8-15 | 1-1/4" | 40 | 4 | 8 | 30 | 4800-7200 |
| **1T6008M** | A | 160 | 12.5-24 | 1-1/4" | 40 | 4 | 4 | 30 | 4800-7200 |
| **1T6002M** | A | 160 | 16-30 | 1-1/4" | 40 | 4 | 4 | 30 | 4800-7200 |
| **1T6003M** | A | 200 | 8-15 | 1-1/4" | 40 | 4 | 4 | 50 | 3800-5800 |
| **1T6009M** | B | 200 | 15 | 1-1/4" | 40 | 2 | - | 50 | 3800-5800 |
| **1T6004M** | A | 250 | 8-15 | 1-1/4" | 40 | 8 | 8 | 50 | 3100-4600 |

Other sizes available upon request




## REPLACEMENT PARTS



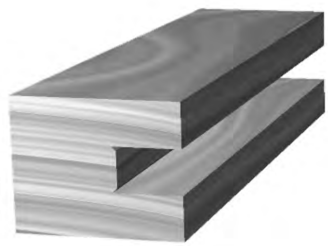
| TOOL NO. | DESCRIPTION | KNIFE | WEDGE | WEDGE SCREW | SPUR | SPUR SCREW | WEDGE WRENCH | SPUR WRENCH |
|---|---|---|---|---|---|---|---|---|
| **1T6001M** | **PART NO.** | **300800** | **W350021** | **W502403** | **301404** | **W500002** | **W400420** | **W400405** |
| | DIMENSIONS | 7.65x12x1.5 | 6.8 | M5x18 | 14x14x2 | M5x7 | T20 Torx | T15 Torx |
| **1T6002M** | **PART NO.** | **301500** | **W350004** | **W502402** | **301404** | **W500002** | **W400115** | **W400405** |
| | DIMENSIONS | 15x12x1.5 | 11 | M7x21 | 14x14x2 | M5x7 | 5mm Hex | T15 Torx |
| **1T6003M** | **PART NO.** | **300800** | **W350021** | **W502403** | **301404** | **W500002** | **W400420** | **W400405** |
| | DIMENSIONS | 7.65x12x1.5 | 6.8 | M5x18 | 14x14x2 | M5x7 | T20 Torx | T15 Torx |
| **1T6004M** | **PART NO.** | **300800** | **W350021** | **W502403** | **301404** | **W500002** | **W400420** | **W400405** |
| | DIMENSIONS | 7.65x12x1.5 | 6.8 | M5x18 | 14x14x2 | M5x7 | T20 Torx | T15 Torx |
| **1T6006M** | **PART NO.** | **300800** | **W350021** | **W502403** | **301404** | **W500002** | **W400420** | **W400405** |
| | DIMENSIONS | 7.65x12x1.5 | 6.8 | M5x18 | 14x14x2 | M5x7 | T20 Torx | T15 Torx |
| **1T6007M** | **PART NO.** | **301500** | **W350004** | **W502402** | – | – | **W400115** | – |
| | DIMENSIONS | 15x12x1.5 | 11 | M7x21 | – | – | 5mm Hex | – |
| **1T6008M** | **PART NO.** | **301200** | **W350023** | **W502403** | **301404** | **W500002** | **W400420** | **W400405** |
| | DIMENSIONS | 12x12x1.5 | 9 | M5x18 | 14x14x2 | M5x7 | T20 Torx | T15 Torx |
| **1T6009M** | **PART NO.** | **301500** | **W350004** | **W502402** | – | – | **W400115** | – |
| | DIMENSIONS | 15x12x1.5 | 11 | M7x21 | – | – | 5mm Hex | – |

# 1T620 ADJUSTABLE GROOVING TOOLHEADS
WITH SPACERS

## DESIGN:
- High tensile steel body
- Toolheads and spacers secured with pins
- Cutting width adjustable with shims in 0.1mm (0.004") increments
- Reversible tungsten carbide inserts with 4 cutting edges for the teeth and 4 cutting edges for the spurs

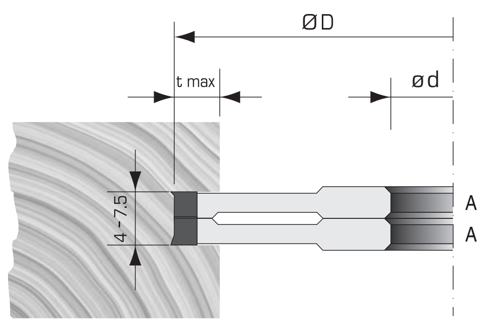
## APPLICATION:
- For grooving solid woods, plywood, and laminated panels

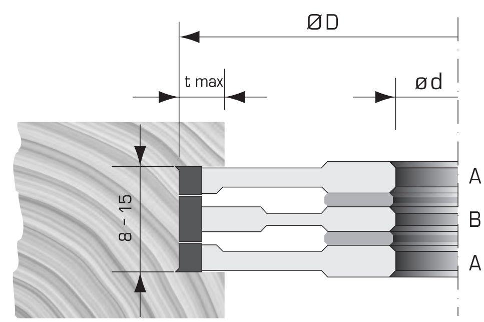
## MACHINES:
- On shapers and double-end tenoners



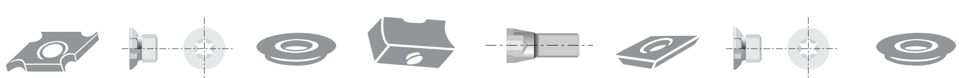
| PART NO. | CUTTER TYPE | DIAM. ØD MM | KERF B MM | BORE ød | MAX BORE ød MM | NO. TEETH | NO. SPURS | T-MAX. MM | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|---|---|
| **1T6201M** | A | 180 | 4-7.5 | 1-1/4" | 40 | 8 | 4 | 32 | 4200-7400 |
| **1T6204M** | B | 180 | 7.65 | 1-1/4" | 40 | 2 | - | 32 | 4200-7400 |

Other sizes available upon request



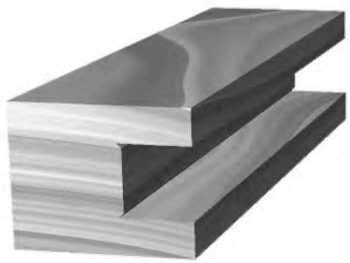




## REPLACEMENT PARTS



| TOOL NO. | DESCRIPTION | KNIFE | KNIFE SCREW | THREADED RING | WEDGE | WEDGE SCREW | SPUR | SPUR SCREW | THREADED RING | WRENCH |
|---|---|---|---|---|---|---|---|---|---|---|
| 1T6201M | PART NO. | 320301 | W500401 | W501101 | – | – | 301414 | W500401 | W501001 | W400401 |
| | DIMENSIONS | 18x18x1.95 | M4x3.2 | 12x1.7 | – | – | 14x14x1.2 | M4x3.2 | 10x1.65 | T9 Torx |
| 1T6204M | PART NO. | 300800 | – | – | W350021 | W502403 | – | – | – | W400420 |
| | DIMENSIONS | 7.65x12x1.5 | – | – | 6.8 | M5x18 | – | – | – | T20 Torx |

# ADJUSTABLE GROOVING TOOLHEAD
WITH DIAL GAUGE



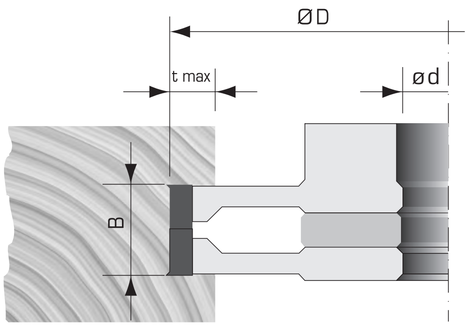
## DESIGN:
- High tensile steel body
- Cutting width adjustable with threaded flange
- Reversible tungsten carbide inserts with 4 cutting edges

## APPLICATION:
- For precision grooves in solid wood, plywood and laminated panels

## MACHINES:
- On shapers and double-end tenoners

| PART NO. | DIAM. ØD MM | KERF B MM | BORE ød | MAX BORE ød MM | NO. TEETH | NO. SPURS | T-MAX. MM | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|---|
| 1T6301M | 180 | 4.75 | 1-1/4" | 50 | 8 | 4 | 27 | 4700-7400 |

Other sizes available upon request




## REPLACEMENT PARTS

| DESCRIPTION | KNIFE | KNIFE SCREW | THREADED RING FOR KNIFE | SPUR | SPUR SCREW | THREADED RING FOR SPUR | TORX WRENCH |
|---|---|---|---|---|---|---|---|
| PART NO. | 320301 | W500401 | W501101 | 301414 | W500401 | W501001 | W400401 |
| DIMENSIONS | 18x18x1.95 | M4x3.2 | 12x1.7 | 14x14x1.2 | M4x3.2 | 10x1.65 | T9 Torx |

# RABBETING/GROOVING TOOLHEADS
ADJUSTABLE

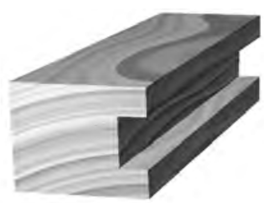
## DESIGN:
- High tensile steel body
- Toolheads secured together with pins
- Cutting width adjustable with shims in 0.1mm (0.004") increments
- Reversible tungsten carbide inserts with 2 cutting edges for the teeth and 4 cutting edges for the spurs

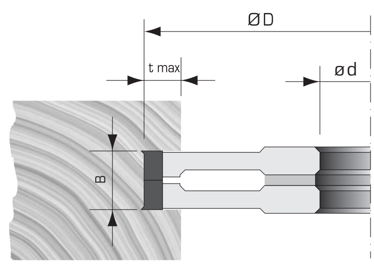
## APPLICATION:
- For grooving and rabbeting solid woods, plywood and laminated panels

## MACHINES:
- On shapers, double-end tenoners and moulders

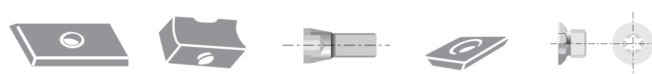
| PART NO. | DIAM. ØD MM | KERF B MM | BORE ød | MAX BORE ød MM | NO. TEETH | NO. SPURS | T-MAX. MM | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|---|
| **1T6401M** | 160 | 26-39 | 1-1/4" | 40 | 4 | 4 | 43 | 4800-8300 |
| **1T6403M** | 160 | 36-59 | 1-1/4" | 40 | 4 | 4 | 43 | 4800-8300 |
| **1T6405M** | 160 | 56-99 | 1-1/4" | 40 | 4 | 4 | 43 | 4800-8300 |

Other sizes available upon request



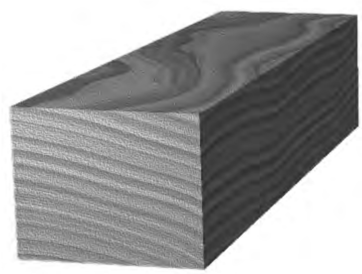


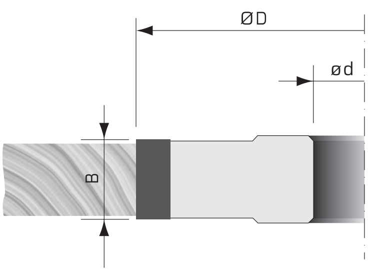

## REPLACEMENT PARTS



| TOOL NO. | DESCRIPTION | KNIFE | WEDGE | WEDGE SCREW | SPUR | SPUR SCREW | WEDGE WRENCH | SPUR WRENCH |
|---|---|---|---|---|---|---|---|---|
| 1T6401M | PART NO. | 302000 | W350005 | W502402 | 301404 | W500002 | W400115 | W400405 |
| | DIMENSIONS | 20x12x1.5 | 16 | M7x21 | 14x14x2 | M5x7 | 5mm Hex | T15 Torx |
| 1T6403M | PART NO. | 303000 | W350007 | W502402 | 301404 | W500002 | W400115 | W400405 |
| | DIMENSIONS | 30x12x1.5 | 26 | M7x21 | 14x14x2 | M5x7 | 5mm Hex | T15 Torx |
| 1T6405M | PART NO. | 305000 | W350009 | W502402 | 301404 | W500002 | W400115 | W400405 |
| | DIMENSIONS | 50x12x1.5 | 46 | M7x21 | 14x14x2 | M5x7 | 5mm Hex | T15 Torx |

# 1T471 PLANING AND JOINTING TOOLHEADS






## DESIGN:

- High tensile steel body
- Reversible tungsten carbide inserts with 2 cutting edges

## APPLICATION:

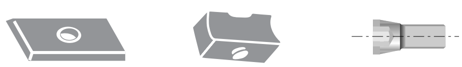
- For planing and jointing solid woods with the grain and in uncoated panels

## MACHINES:

- On shapers and double-end tenoners

| PART NO. | DIAM. ØD MM | KERF B MM | BORE ød | MAX BORE ød MM | NO. TEETH | RPM MIN.-MAX. |
|---|---|---|---|---|---|---|
| **1T4710M** | 85 | 100 | 1-1/4" | 30 | 2 | 9000-15700 |
| **1T4711M** | 100 | 50 | 1-1/4" | 35 | 2 | 7700-13300 |
| **1T4712M** | 125 | 30 | 1-1/4" | 50 | 2 | 6100-10700 |
| **1T4713M** | 125 | 50 | 1-1/4" | 50 | 2 | 6100-10700 |
| **1T4714M** | 125 | 50 | 1-1/4" | 50 | 4 | 6100-10700 |

## REPLACEMENT PARTS



| TOOL NO. | DESCRIPTION | KNIFE | WEDGE | WEDGE SCREW | WRENCH |
|---|---|---|---|---|---|
| 1T4710M | PART NO. | 310000 | W350018 | W502402 | W400115 |
| | DIMENSIONS | 100x13x2.2 | 94 | M7x21 | 5mm Hex |
| 1T4711M | PART NO. | 305000 | W350009 | W502402 | W400115 |
| | DIMENSIONS | 50x12x1.5 | 46 | M7x21 | 5mm Hex |
| 1T4712M | PART NO. | 303000 | W350007 | W502402 | W400115 |
| | DIMENSIONS | 30x12x1.5 | 26 | M7x21 | 5mm Hex |
| 1T4713M | PART NO. | 305000 | W350009 | W502402 | W400115 |
| | DIMENSIONS | 50x12x1.5 | 46 | M7x21 | 5mm Hex |
| 1T4714M | PART NO. | 305000 | W350009 | W502402 | W400115 |
| | DIMENSIONS | 50x12x1.5 | 46 | M7x21 | 5mm Hex |

# 1T472 RABBETING TOOLHEADS

## DESIGN:

- High tensile steel body
- Alternating shear angle with 4 wings and with 4 spurs
- Reversible tungsten carbide inserts with 2 cutting edges for the teeth and 4 cutting edges for the spurs

## APPLICATION:

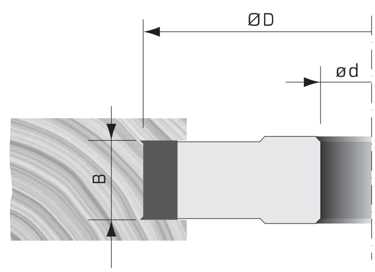
- For jointing and rabbeting solid woods with the grain and in uncoated panels

## MACHINES:

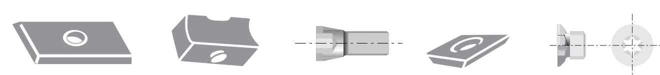
- On shapers, double-end tenoners, and moulders

| PART NO. | DIAM. ØD MM | KERF B MM | BORE ød | MAX BORE ød MM | NO. TEETH | NO. SPURS | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|
| **1T4721M** | 125 | 30 | 1-1/4" | 50 | 4 | 4 | 6100-10700 |
| **1T4723M** | 125 | 50 | 1-1/4" | 50 | 4 | 4 | 6100-10700 |
| **1T4724M** | 140 | 50 | 1-1/4" | 50 | 4 | 4 | 5500-9500 |
| **1T4726M** | 180 | 50 | 1-1/4" | 50 | 4 | 4 | 4300-7500 |

Other sizes available upon request




## REPLACEMENT PARTS



| TOOL NO. | DESCRIPTION | KNIFE | WEDGE | WEDGE SCREW | SPUR | SPUR SCREW | WEDGE WRENCH | SPUR WRENCH |
|---|---|---|---|---|---|---|---|---|
| 1T4721M | PART NO. | 303000 | W350007 | W502402 | 301404 | W500002 | W400115 | W400405 |
| | DIMENSIONS | 30x12x1.5 | 26 | M7x21 | 14x14x2 | M5x7 | 5mm Hex | T15 Torx |
| 1T4722M | PART NO. | 305000 | W350009 | W502402 | 301404 | W500002 | W400115 | W400405 |
| | DIMENSIONS | 50x12x1.5 | 46 | M7x21 | 14x14x2 | M5x7 | 5mm Hex | T15 Torx |
| 1T4723M | PART NO. | 305000 | W350009 | W502402 | 301404 | W500002 | W400115 | W400405 |
| | DIMENSIONS | 50x12x1.5 | 46 | M7x21 | 14x14x2 | M5x7 | 5mm Hex | T15 Torx |
| 1T4724M | PART NO. | 305000 | W350009 | W502402 | 301404 | W500002 | W400115 | W400405 |
| | DIMENSIONS | 50x12x1.5 | 46 | M7x21 | 14x14x2 | M5x7 | 5mm Hex | T15 Torx |
| 1T4726M | PART NO. | 305000 | W350009 | W502402 | 301404 | W500002 | W400115 | W400405 |
| | DIMENSIONS | 50x12x1.5 | 46 | M7x21 | 14x14x2 | M5x7 | 5mm Hex | T15 Torx |

# 1T480 COMPRESSION JOINTING TOOLHEADS

## DESIGN:

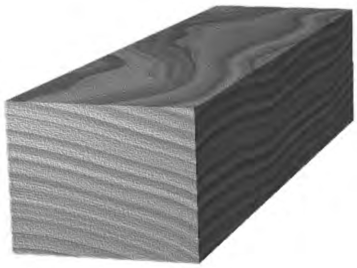
- High tensile steel body
- Teeth with opposing (compression) shear angle for chip-free edges
- Reversible tungsten carbide inserts with 2 cutting edges

## APPLICATION:

- For chip-free jointing of laminated panels

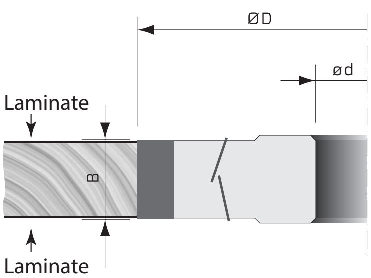
## MACHINES:

- On shapers, double-end tenoners



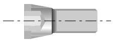
| PART NO. | DIAM. ØD MM | KERF B MM | BORE ød | MAX BORE ød MM | NO. TEETH | RPM MIN-MAX |
|---|---|---|---|---|---|---|
| **1T4801M** | 125 | 56 | 1-1/4" | 50 | 2+2 | 6100-10700 |
| **1T4803M** | 125 | 56 | 1-1/4" | 50 | 3+3 | 6100-10700 |
| **1T4805M** | 150 | 56 | 1-1/4" | 50 | 2+2 | 5000-9000 |
| **1T4807M** | 150 | 56 | 1-1/4" | 50 | 3+3 | 5000-9000 |
| **1T4809M** | 180 | 56 | 1-1/4" | 50 | 3+3 | 4200-7500 |

Other sizes available upon request



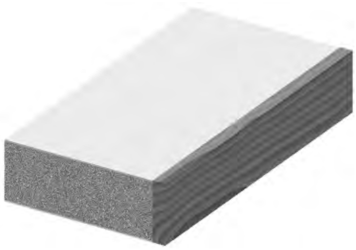

## REPLACEMENT PARTS





| MANUFACTURED DATE | DESCRIPTION | KNIFE | WEDGE | WEDGE SCREW | WRENCH |
|---|---|---|---|---|---|
| **2004 - 2009** | **PART NO.** | **303000** | **W350007** | **W502402** | **W400115** |
| | DIMENSIONS | 30x12x1.5 | 26 | M7x21 | 5mm Hex |
| **2009 - PRESENT** | **PART NO.** | **303000** | **W360019** | **W501403** | **W400114** |
| | DIMENSIONS | 30x12x1.5 | 26 | M8x16 | 4mm Hex |

# TOOLHEADS FOR EDGEBANDERS
ADJUSTABLE, STRAIGHT PROFILES

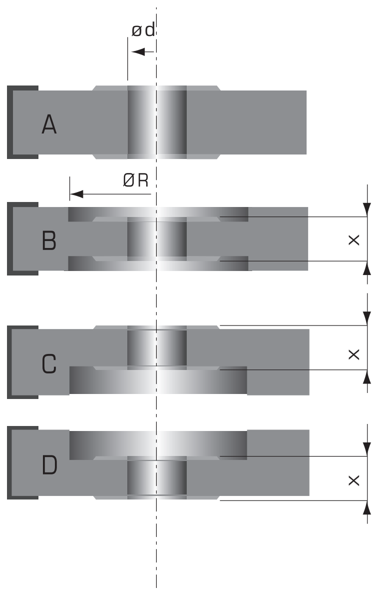


## DESIGN:
- High tensile steel body
- 4 or 6 straight teeth
- Reversible tungsten carbide inserts with 2 cutting edges

## APPLICATION:
- For flush trimming solid wood, veneer, and plastic edge bands

## MACHINES:
- On edgebanders

## WHEN ORDERING SPECIFY:
- Cutter type (A, B, C, or D)
- Cutting diameter ØD
- Kerf B
- Number of teeth
- Bore diameter ød
- Dimension X
- Hub height
- Recess diameter ØR
- Quantity and dimensions of keyways or pinholes



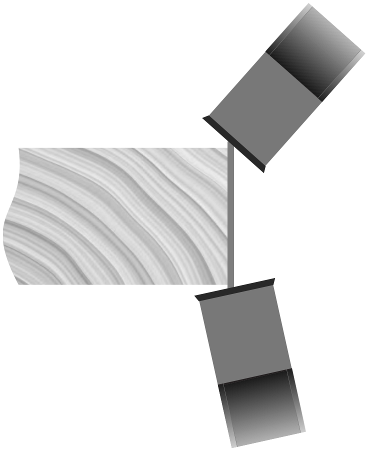

## SPECIAL PRODUCTION

| DIAM. RANGE ØD MM | KERF B MM | NO. TEETH |
|---|---|---|
| 50 to 70 | 15 | 4 |
| 50 to 70 | 20 | 4 |
| 50 to 70 | 30 | 4 |
| 71 to 80 | 15 | 4 |
| 71 to 80 | 20 | 4 |
| 71 to 80 | 30 | 4 |
| 81 to 100 | 15 | 4 |
| 81 to 100 | 20 | 4 |
| 81 to 100 | 30 | 4 |
| 50 to 70 | 15 | 6 |
| 50 to 70 | 20 | 6 |
| 50 to 70 | 30 | 6 |
| 71 to 80 | 15 | 6 |
| 71 to 80 | 20 | 6 |
| 71 to 80 | 30 | 6 |
| 81 to 100 | 15 | 6 |
| 81 to 100 | 20 | 6 |
| 81 to 100 | 30 | 6 |

## REPLACEMENT PARTS

| DESCRIPTION | KNIFE | KNIFE | KNIFE | WEDGE | WEDGE | WEDGE | WEDGE SCREW | WRENCH |
|---|---|---|---|---|---|---|---|---|
| **PART NO.** | **301500** | **302000** | **303000** | **W300203** | **W300204** | **W300205** | **W501301** | **W400113** |
| DIMENSIONS | 15x12x1.5 | 20x12x1.5 | 30x12x1.5 | 13 | 18 | 28 | M6x12 | 3mm Hex |

# TOOLHEADS FOR EDGEBANDERS
## STRAIGHT PROFILES

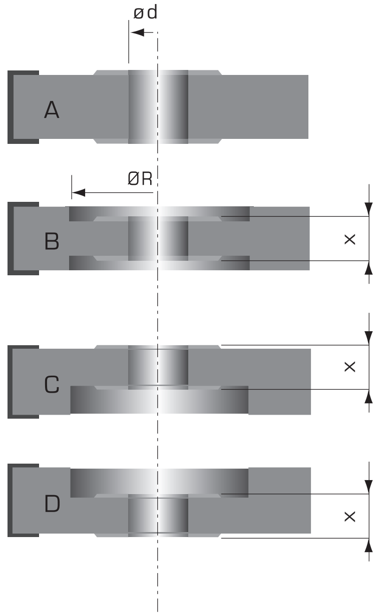


### DESIGN:
- High tensile steel body
- 4 straight cutting edges
- Reversible tungsten carbide inserts with 4 cutting edges
- Available in HSK 25R connection type

### APPLICATION:
- For flush trimming solid wood, veneer, and plastic edge bands

### MACHINES:
- On edgebanders

### WHEN ORDERING SPECIFY:
- Cutter type (A, B, C, or D)
- Bore diameter ød or connection type HSK 25R
- If bore, then also specify:
  - Dimension X
  - Hub height
  - Recess diameter ØR
  - Quantity and dimensions of keyways or pinholes




## SPECIAL PRODUCTION

| DIAM. ØD MM | KERF B MM | MAX BORE ød MM | NO. TEETH |
|---|---|---|---|
| 70 | 14 | 22 | 4 |

## REPLACEMENT PARTS

| DESCRIPTION | SPUR | SPUR SCREW | WRENCH |
|---|---|---|---|
| **PART NO.** | **301404** | **W500002** | **W400405** |
| DIMENSIONS | 14x14x2 | M5x7 | T15 Torx |

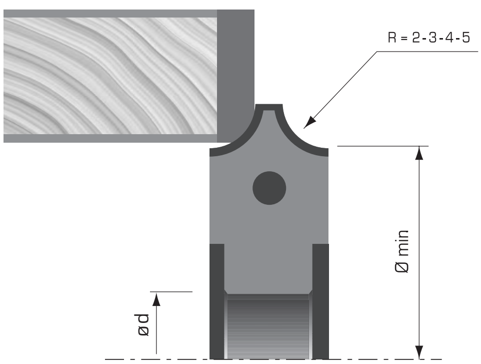
# TOOLHEADS FOR EDGEBANDERS
## RADIUS PROFILES

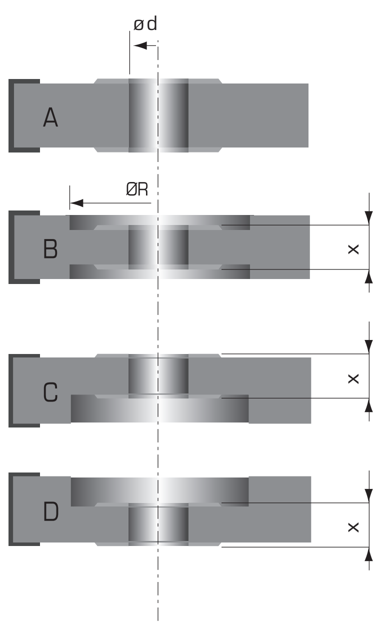
### DESIGN:
» High tensile steel body
» 3 profiled cutting edges
» Disposable tungsten carbide inserts
» For right and left hand rotation

### APPLICATION:
» For rounding of edge bands in solid wood and plastic edges

### MACHINES:
» On edgebanders

### WHEN ORDERING SPECIFY:
» Cutter type (A,B,C or D)
» Cutting diameter ØD
» Radius R
» Bore diameter ød
» Dimension X
» Hub height
» Recess diameter ØR
» Quantity and dimensions of keyways or pinholes



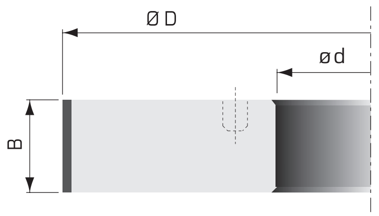

## SPECIAL PRODUCTION

| MAX DIAM. ØD MM | MIN DIAM. ØD MM | KERF B MM | MAX BORE ød MM | NO. TEETH |
|---|---|---|---|---|
| 73 | 61 | 16 | 22 | 3 |
| 83 | 70 | 16 | 25 | 3 |

## REPLACEMENT PARTS

| DESCRIPTION | WEDGE | KNIFE R2 | KNIFE R3 | KNIFE R4 | KNIFE R5 | WEDGE SCREW | WRENCH |
|---|---|---|---|---|---|---|---|
| **PART NO.** | **W302503** | **401002** | **401003** | **401004** | **401005** | **W501301** | **W400113** |
| DIMENSIONS | 15 | 16x17.5x2 | 16x17.5x2 | 16x17.5x2 | 16x17.5x2 | M6x12 | 3mm Hex |

# SHAPING AND PLANING TOOLHEADS
STACKABLE




## DESIGN:
- High tensile steel body
- 3 straight teeth
- Toolheads can be stacked to cut various wood thickness
- Stacked cutters pinned together
- Reversible tungsten carbide inserts with 2 cutting edges

## APPLICATION:
- For jointing and shaping solid wood components

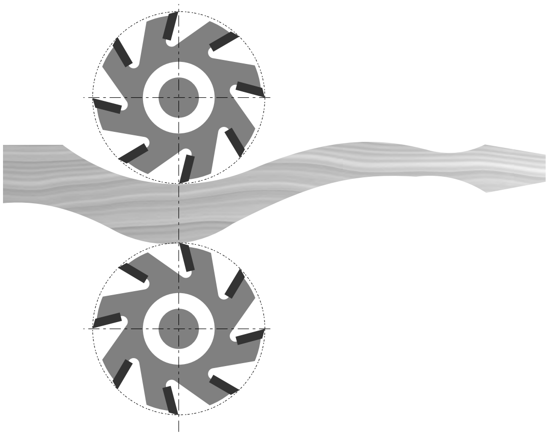
## MACHINES:
- On shapers and CNC machines

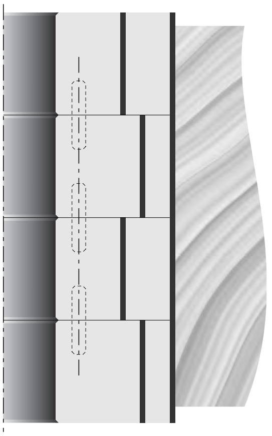
| PART NO. | DIAM. ØD MM | KERF B MM | BORE ød | MAX BORE ød | NO. TEETH | RPM MIN-MAX |
|---|---|---|---|---|---|---|
| **1T4101M** | 90 | 30 | 1-1/4" | 1-1/4" | 3 | 8500-17000 |
| **1T4102M** | 100 | 30 | 1-1/4" | 35mm | 3 | 7500-15000 |

Other sizes available upon request

## REPLACEMENT PARTS

| DESCRIPTION | KNIFE | WEDGE | WEDGE SCREW | WRENCH |
|---|---|---|---|---|
| **PART NO.** | **303000** | **W300205** | **W501303** | **W400114** |
| DIMENSIONS | 30x12x1.5 | 28 | M8x10 | 4mm Hex |



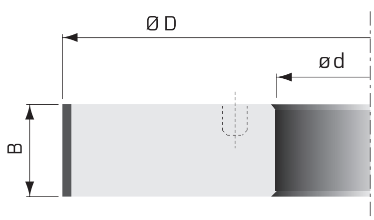


# 1T411 SHAPING AND PLANING TOOLHEADS
## STACKABLE WITH CHIPBREAKERS


### DESIGN:
- High tensile steel body
- 4 straight teeth with chipbreakers
- Chipbreaker allows for heavier stock removal
- Toolheads can be stacked to cut various wood thickness
- Stacked cutters pinned together
- Reversible tungsten carbide inserts with 4 cutting edges

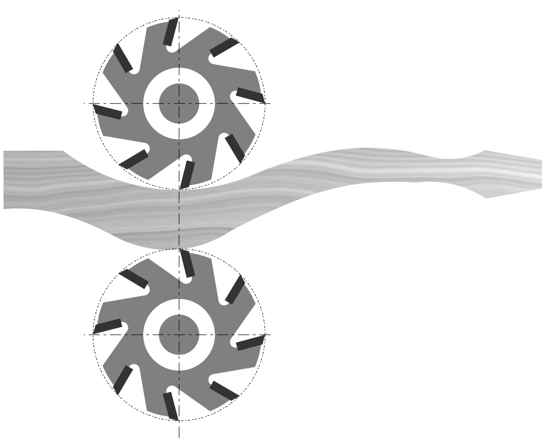
### APPLICATION:
- For jointing and shaping solid wood components

### MACHINES:
- On shapers and CNC machines




| PART NO. | DIAM. ØD MM | KERF B MM | BORE ød | MAX BORE ød MM | NO. TEETH | RPM MIN-MAX |
|---|---|---|---|---|---|---|
| **1T411M** | 100 | 15 | 1-1/4" | 35 | 4 | 7500-13000 |

Other sizes available upon request



### REPLACEMENT PARTS

| DESCRIPTION | KNIFE | WEDGE | WEDGE SCREW | WRENCH |
|---|---|---|---|---|
| **PART NO.** | **301505** | **W300701** | **W501302** | **W400113** |
| DIMENSIONS | 15x15x2 | 14.5 | M6x16 | 3mm Hex |

# HELICAL TOOLHEADS
STEEL BODY

**DESIGN:**
- High tensile steel body
- 4 helical wings
- Tungsten carbide reversible inserts with 4 cutting edges
- Staggered teeth and helical design provide for greater stock removal and superior surface finish
- Toolheads can be stacked to cut various wood thickness

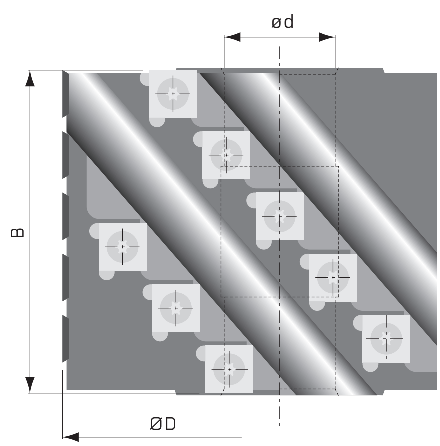
**APPLICATION:**
- For jointing and shaping solid wood components

**MACHINES:**
- On shapers

**WHEN ORDERING SPECIFY:**
- If ball bearing guide and flange sleeve is required (sold separately)

| PART NO. | DIAM. ØD MM | KERF B MM | BORE ød | MAX BORE ød MM | NO. WINGS | TOTAL NO. KNIVES | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|
| 1T4121M | 80 | 81.5 | 1-1/4" | 35 | 4 | 14 | 9500-15000 |
| 1T4123M | 80 | 126.5 | 1-1/4" | 35 | 4 | 20 | 9500-15000 |

Other sizes available upon request

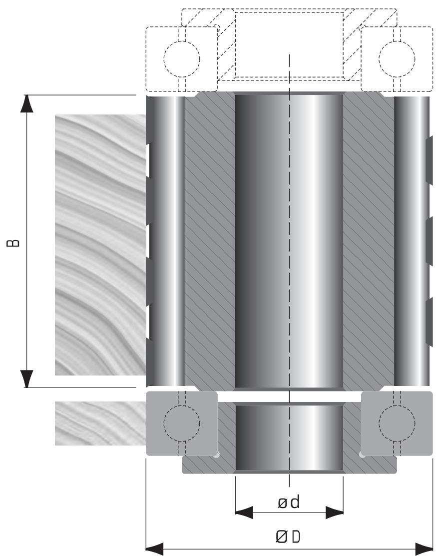



## BEARING GUIDE

| PART NO. | DIAM. ØD MM | BORE ød MM |
|---|---|---|
| W057114-80 | 80 | 40 |

## FLANGE SLEEVE

| PART NO. | O.D. ØD MM | I.D. ØD |
|---|---|---|
| 054-40-3175 | 40 | 1-1/4" |




## REPLACEMENT PARTS


| DESCRIPTION | KNIFE | KNIFE SCREW | WRENCH |
|---|---|---|---|
| PART NO. | 301404 | W500003 | W400420 |
| DIMENSIONS | 14x14x2 | M5x14 | T20 Torx |

# 1T200 MULTI-ANGLE TOOLHEADS

## DESIGN:
» High tensile steel body
» 2 teeth progressively adjustable from 0° to 70°
» Tungsten carbide reversible inserts with 2 cutting edges

## APPLICATION:
» For jointing and chamfering solid wood and veneered or laminated panel materials

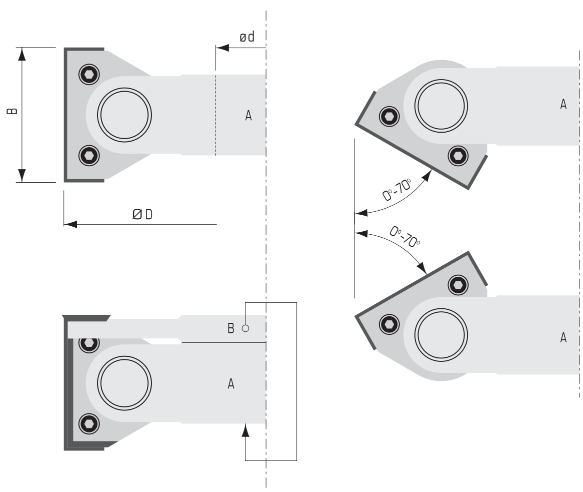
## MACHINES:
» On shapers, double-end tenoners and moulders

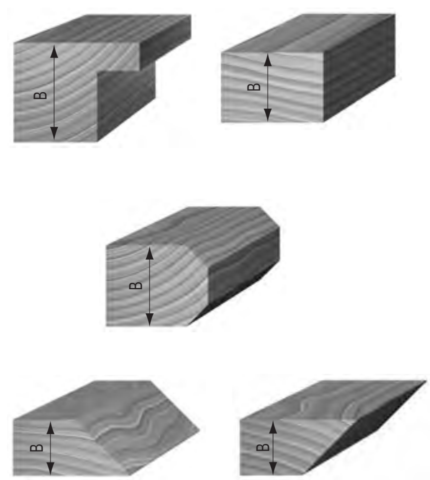
## WHEN ORDERING SPECIFY:
» If additional interlocking cutter for rabbet cuts is required (sold separately)
» For rabbet cuts, toolhead must be set to the 0° position

| PART NO. | CUTTER TYPE | DIAM. ØD MM | KERF B MM | BORE ød | MAX BORE ød MM | NO. TEETH | NO. SPURS | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|---|
| 1T2001M | A | 160 | 50 | 1-1/4" | 40 | 2 | | 5000-7500 |
| 1T2002M | B | 160 | 8 | 1-1/4" | 40 | | 2 | 5000-7500 |
| 1T2004M | A | 170 | 50 | 50mm | 50 | 2 | | 4700-7000 |
| 1T2005M | B | 170 | 8 | 50mm | 50 | | 2 | 4700-7000 |

Other sizes available upon request

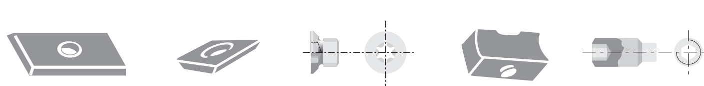
## PROFILE TYPE:




| MAX THICKNESS B |
|---|
| 0° - B max = 48 |
| 5° - B max = 48 |
| 10° - B max = 47 |
| 15° - B max = 46 |
| 20° - B max = 45 |
| 25° - B max = 43 |
| 30° - B max = 41 |
| 35° - B max = 39 |
| 45° - B max = 33 |
| 50° - B max = 30 |
| 55° - B max = 26 |
| 60° - B max = 23 |
| 65° - B max = 19 |
| 70° - B max = 15 |

## REPLACEMENT PARTS



| TOOL NO. | DESCRIPTION | KNIFE | SPUR | SPUR SCREW | WEDGE | WEDGE SCREW | WEDGE WRENCH | SPUR WRENCH |
|---|---|---|---|---|---|---|---|---|
| 1T2001M | PART NO. | 305000 | – | – | W302602 | W501401 | W400007 | – |
| | DIMENSIONS | 50x12x1.5 | – | – | 47 | M6x12 | 8mm Hex | – |
| 1T2002M | PART NO. | – | 301404 | W500002 | – | – | – | W400405 |
| | DIMENSIONS | – | 14x14x2.0 | M5x7 | – | – | – | T15 Torx |
| 1T2004M | PART NO. | 305000 | – | – | W302602 | W501401 | W400007 | – |
| | DIMENSIONS | 50x12x1.5 | – | – | 47 | M6x12 | 8mm Hex | – |
| 1T2005M | PART NO. | – | 301404 | W500002 | – | – | – | W400405 |
| | DIMENSIONS | – | 14x14x2.0 | M5x7 | – | – | – | T15 Torx |

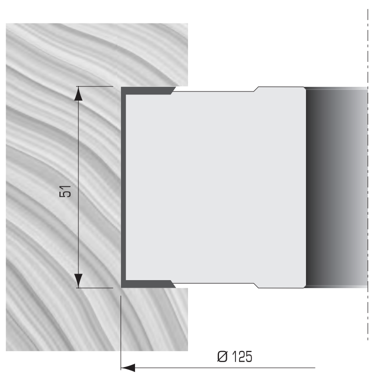
# 1T511 CORNER ROUNDING/CHAMFERING
## TOOLHEAD SET

### DESIGN:
- High tensile steel body
- 2 teeth with alternating shear angle
- Reversible tungsten carbide inserts
- Adjustable for various wood thicknesses
- Toolhead supplied in a wooden box complete with set of tungsten carbide knives for chamfering, corner rounding, jointing, and rabbeting

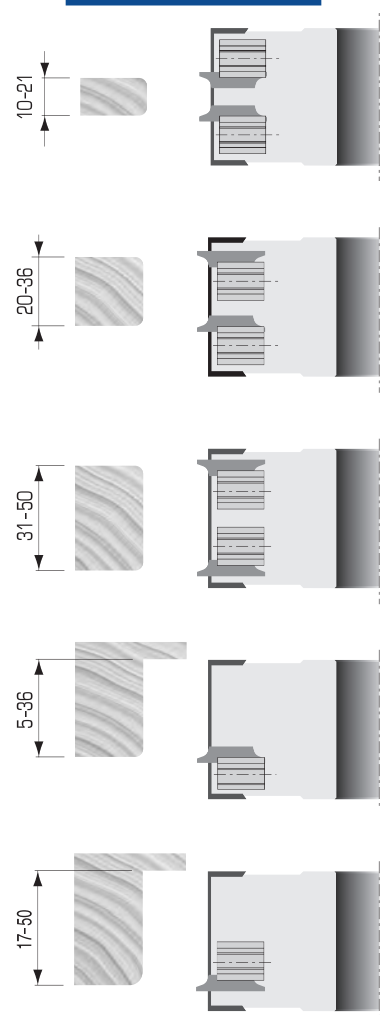
### APPLICATION:
- For chamfering, corner rounding, jointing and rabbeting solid wood, MDF, particle board, and plywood materials

### MACHINES:
- On shapers, double-end tenoners, and moulders

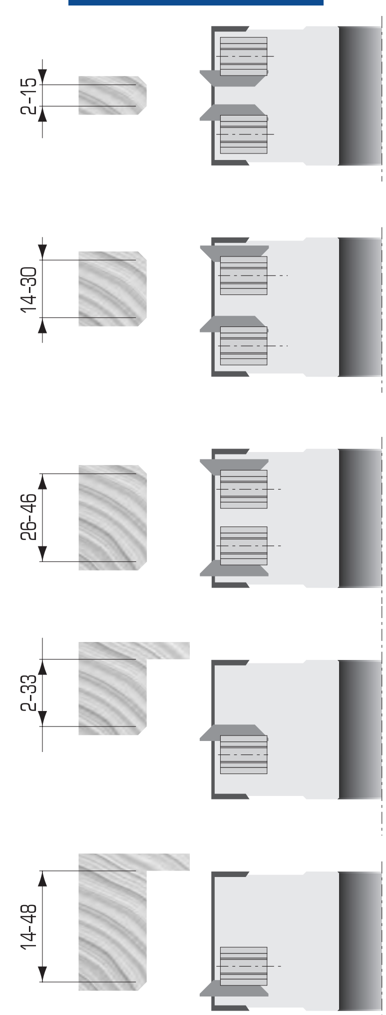
| PART NO. | DIAM. ØD MM | KERF B MM | BORE ød | MAX BORE ød MM | NO. TEETH | NO. SPURS | NO. CHAMFER INSERTS | NO. RADIUS INSERTS | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|---|---|
| **1T511** | 125 | 51 | 1-1/4" | 50 | 2 | 4 | 4 | 4 | 6000-10500 |

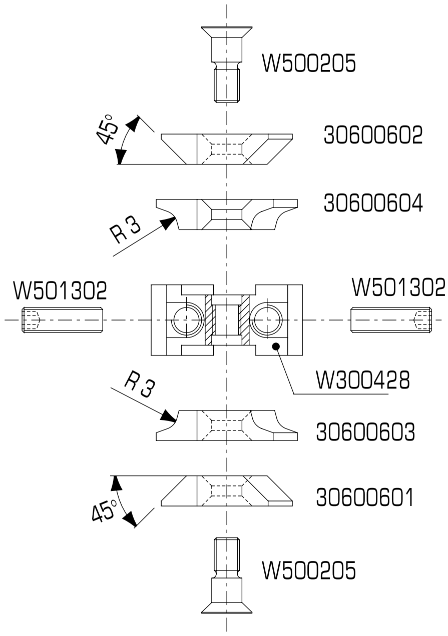


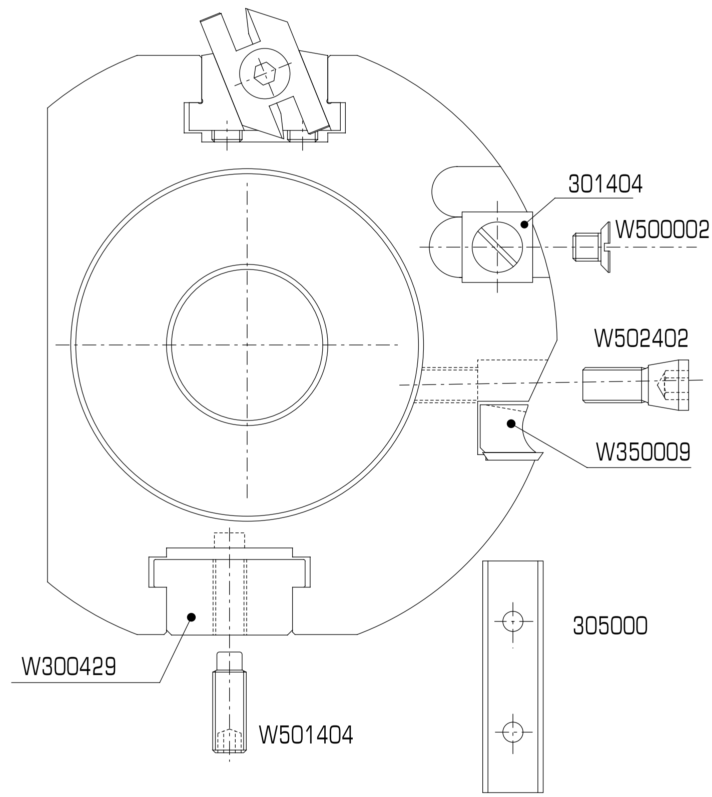

### R=3 PROFILES



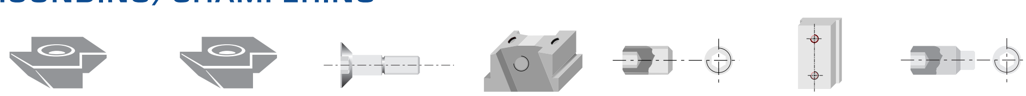

### 45° PROFILES





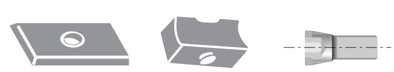




## REPLACEMENT PARTS - ROUNDING/CHAMFERING



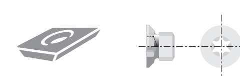
| ROTATION | DESCRIPTION | CHAMFER KNIFE (45°) | ROUNDING KNIFE R=3 | ROUNDING KNIFE SCREW | INSERT CARRIER | CARRIER SCREW | FILLER BLOCKS | FILLER BLOCK SCREW |
|---|---|---|---|---|---|---|---|---|
| LEFT-HAND | PART NO. | 30600601 | 30600603 | W500205 | W300428 | W501302 | W300429 | W501404 |
| RIGHT-HAND | PART NO. | 30600602 | 30600604 | | | | | |
| | DIMENSIONS | 27x6x16 | 27x6x16 | M6x15 | 14x30x16.5 | M6x16 | 48x30x15 | M8x20 |

## REPLACEMENT PARTS - KERF



| DESCRIPTION | KNIFE | WEDGE | WEDGE SCREW |
|---|---|---|---|
| PART NO. | 305000 | W350009 | W502402 |
| DIMENSIONS | 50x12x1.5 | 46 | M7x21 |

## REPLACEMENT PARTS - SPURS



| DESCRIPTION | SPUR | SPUR SCREW |
|---|---|---|
| PART NO. | 301404 | W500002 |
| DIMENSIONS | 14x14x2 | M5x7 |

## REPLACEMENT PARTS - WRENCHES

| PART NO. | DESCRIPTION | SCREW TYPE |
|---|---|---|
| W400114 | 4mm Hex | KNIFE |
| W400113 | 3mm Hex | CARRIER |
| W400114 | 4mm Hex | FILLER BLOCK |
| W400115 | 5mm Hex | WEDGE |
| W400405 | T15 Torx | TORX |

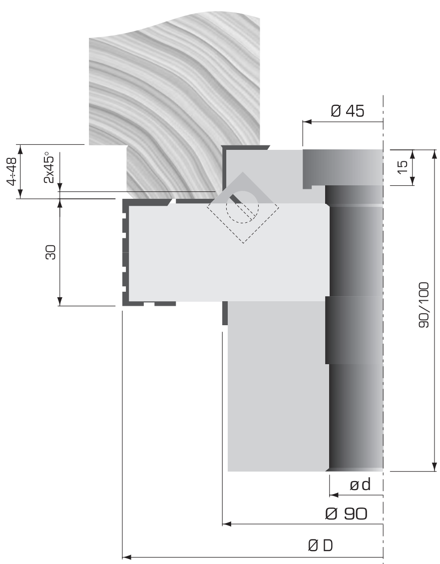
# TOOLHEADS FOR TENONING MACHINES
ADJUSTABLE

## DESIGN:
» High tensile steel body
» 6+4 teeth and 2+4 spurs
» Adjustable for producing bevelled tenons from 4 to 48mm long
» Reversible tungsten carbide inserts

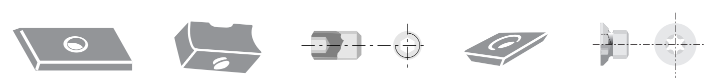
## APPLICATION:
» For producing tenons in solid wood

## MACHINES:
» On tenoning machines
  » For BALESTRINI machines use Part No. **1T5201M**
  » For BACCI, or PADE machines use Part No. **1T5202M**

| PART NO. | MACHINES | DIAM. ØD MM | KERF B MM | BORE ød MM | MAX BORE ød MM | NO. TEETH | NO. SPURS | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|---|
| **1T5201M** | BALESTRINI | 145 | 90 | 30 | 35 | 6+4 | 2+4 | 5000-9000 |
| **1T5202M** | BACCI, PADE | 145 | 100 | 30 | 35 | 6+4 | 2+4 | 5000-9000 |

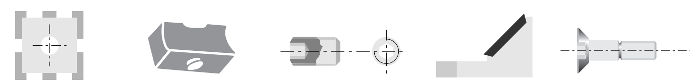



## REPLACEMENT PARTS - TOP TOOLHEAD



| DESCRIPTION | KNIFE | WEDGE | WEDGE SCREW | SPUR | SPUR SCREW |
|---|---|---|---|---|---|
| **PART NO.** | **305000** | **W300206** | **W501301** | **301404** | **W500002** |
| DIMENSIONS | 50x12x1.5 | 48 | M6x12 | 14x14x2 | M5x7 |

## REPLACEMENT PARTS - BOTTOM TOOLHEAD



| DESCRIPTION | KNIFE | WEDGE | WEDGE SCREW | SPUR | SPUR SCREW |
|---|---|---|---|---|---|
| **PART NO.** | **301505** | **W300702** | **W501302** | **W300406** | **W501702** |
| DIMENSIONS | 15x15x2 | 27.4 | M6x16 | 24x15x15 | M5x16 |

Two knives per wing required for PART NO. 301505

## WRENCHES

| PART NO. | DESCRIPTION | SCREW TYPE |
|---|---|---|
| **W400114** | 4mm Hex | WEDGE - TOP |
| **W400405** | T15 Torx | SPUR - TOP |
| **W400114** | 4mm Hex | WEDGE - BOTTOM |
| **W400405** | T15 Torx | SPUR - BOTTOM |

# TOOLHEADS FOR TENONING MACHINES
ADJUSTABLE

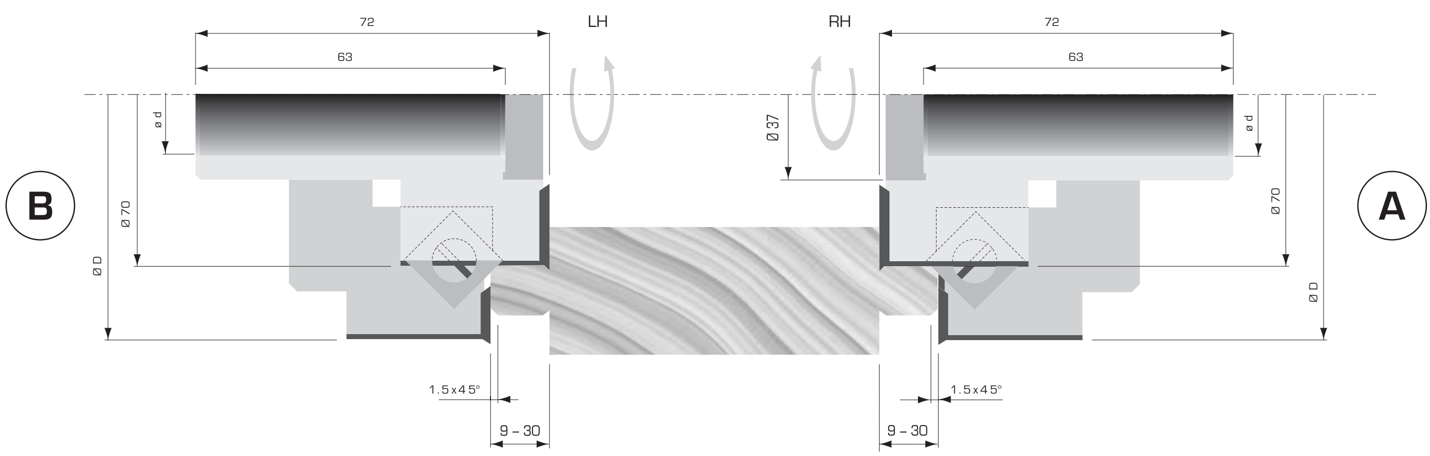
## DESIGN:
- High tensile steel body
- 4+2 teeth and 2+4 spurs
- Adjustable for producing bevelled tenons from 9 to 30mm long
- Reversible tungsten carbide inserts with 2 and 4 cutting edges

## APPLICATION:
- For producing tenons in solid wood

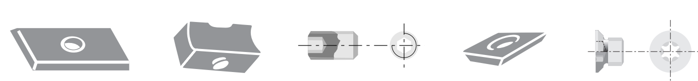
## MACHINES:
- On tenoning machines

| PART NO. | CUTTER TYPE | DIAM. ØD MM | KERF B MM | BORE ød MM | MAX BORE ød MM | NO. TEETH | NO. SPURS | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|---|
| **1T5221M** | B | 100 | 72 | 25 | 25 | 4+2 | 2+4 | 7500-12000 |
| **1T5222M** | A | 100 | 72 | 25 | 25 | 4+2 | 2+4 | 7500-12000 |

Other sizes available upon request




## REPLACEMENT PARTS



| TOOL NO. | DESCRIPTION | KNIFE | WEDGE | WEDGE SCREW | SPUR | SPUR SCREW | WEDGE WRENCH | SPUR WRENCH |
|---|---|---|---|---|---|---|---|---|
| 1T5221M | PART NO. | 1T522A | W300205 | W501301 | 301404 | W500002 | W400113 | W400405 |
| | DIMENSIONS | 30x12x1.5 | 28 | M6x12 | 14x14x2 | M5x7 | 3mm Hex | T15 Torx |
| 1T5222M | PART NO. | 1T522B | W300205 | W501301 | 301404 | W500002 | W400113 | W400405 |
| | DIMENSIONS | 30x12x1.5 | 28 | M6x12 | 14x14x2 | M5x7 | 3mm Hex | T15 Torx |

# MITRE JOINT TOOLHEAD 45°

STRAIGHT WING

## DESIGN:

- High tensile steel body
- 2 single straight teeth
- Produces 45° lock mitre joints
- Disposable tungsten carbide inserts

## APPLICATION:

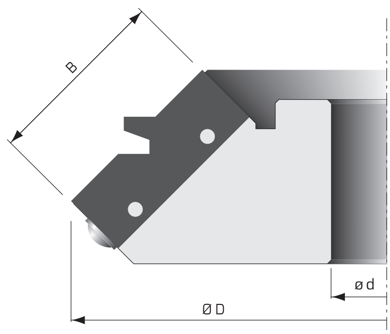
- For cutting 45° lock mitre joints in solid wood and panel materials in two steps: First with the workpiece in horizontal position and then with workpiece in vertical position
- Suitable for various material thickness from 5/8" to 1-3/8"

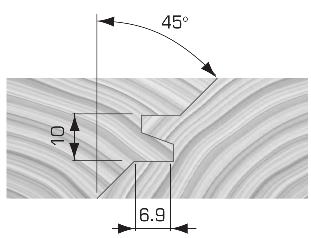
## MACHINES:

- On shapers

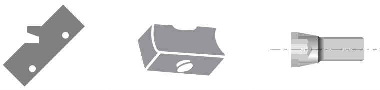
| PART NO. | DIAM. ØD MM | KERF B MM | BORE ød | MAX BORE ød MM | NO. TEETH | RPM MIN-MAX |
|---|---|---|---|---|---|---|
| **1T5301M** | 170 | 50 | 1-1/4" | 40 | 2 | 4500-7800 |

Other sizes available upon request

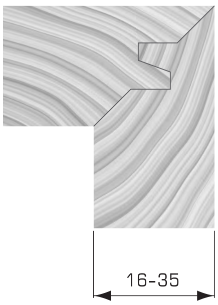


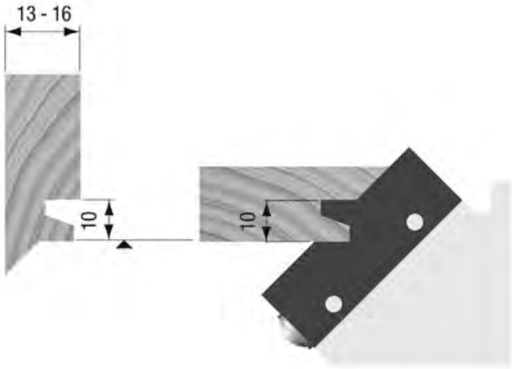




## REPLACEMENT PARTS



| DESCRIPTION | KNIFE | WEDGE | WEDGE SCREW | WRENCH |
|---|---|---|---|---|
| **PART NO.** | **1T530A** | **W350009** | **W502402** | **W400115** |
| DIMENSIONS | 50x25x2 | 46 | M7x21 | 5mm Hex |



# CORNER ROUNDING TOOLHEADS
## WITH SHEAR ANGLE

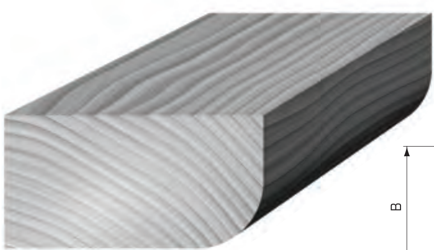
### DESIGN:
» High tensile steel body
» 3 teeth on a shear angle
» Disposable tungsten carbide insert knives

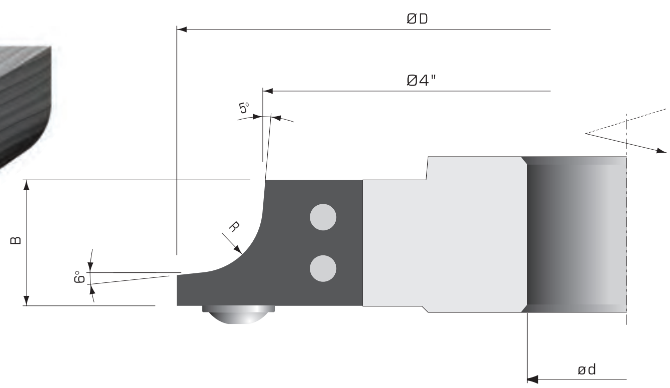
### APPLICATION:
» For producing quarter round edges in solid wood and panel materials

### MACHINE:
» On shapers and double-end tenoners

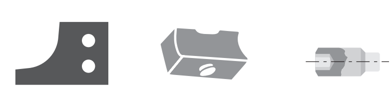
| PART NO. | DIAM. ØD MM | KERF B MM | RADIUS R | BORE ød | MAX BORE ød MM | NO. TEETH | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|
| **1T5601M** | 124 | 20 | 1/4" | 1-1/4" | 50 | 3 | 6100-10600 |
| **1T5603M** | 124 | 20 | 3/8" | 1-1/4" | 50 | 3 | 6100-10600 |
| **1T5605M** | 143 | 30 | 1/2" | 1-1/4" | 50 | 3 | 5300-9100 |
| **1T5607M** | 143 | 30 | 5/8" | 1-1/4" | 50 | 3 | 5300-9100 |
| **1T5608M** | 143 | 30 | 3/4" | 1-1/4" | 50 | 3 | 5300-9100 |

Other sizes available upon request






## REPLACEMENT PARTS



| TOOL NO. | DESCRIPTION | KNIFE | WEDGE | WEDGE SCREW | WRENCH |
|---|---|---|---|---|---|
| **1T5601M** | **PART NO.** | **1T560A** | **W070761** | **W501404** | **W400114** |
| | DIMENSIONS | 15x25x2 | 17.6x11x9.5 | M8x20 | 4mm Hex |
| **1T5603M** | **PART NO.** | **1T560B** | **W070761** | **W501404** | **W400114** |
| | DIMENSIONS | 20x25x2 | 17.6x11x9.5 | M8x20 | 4mm Hex |
| **1T5605M** | **PART NO.** | **1T560C** | **W049971** | **W501316** | **W400113** |
| | DIMENSIONS | 30x25x2 | 27x11x9.5 | M6x20 | 3mm Hex |
| **1T5607M** | **PART NO.** | **1T560D** | **W049971** | **W501316** | **W400113** |
| | DIMENSIONS | 30x30x2 | 27x11x9.5 | M6x20 | 3mm Hex |
| **1T5608M** | **PART NO.** | **1T560E** | **W049971** | **W501316** | **W400113** |
| | DIMENSIONS | 30x35x2 | 27x11x9.5 | M6x20 | 3mm Hex |

# BEAD & COVE TOOLHEADS
WITH STRAIGHT TEETH

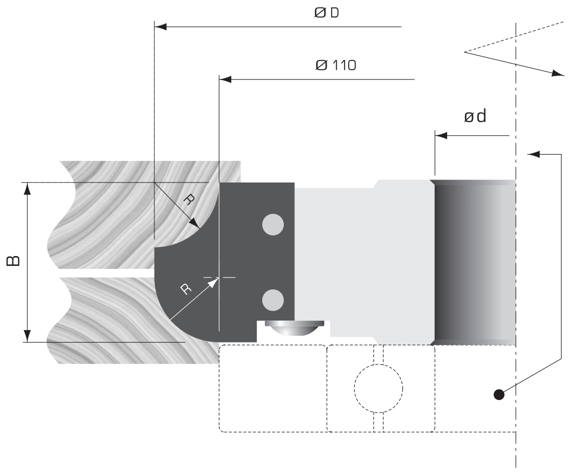
## DESIGN:
» High tensile steel body
» 3 straight teeth
» Disposable tungsten carbide insert knives

## APPLICATION:
» For producing bead and cove edges in solid wood and panel materials

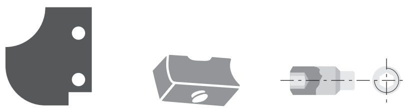
## MACHINES:
» On shapers and double-end tenoners

| PART NO. | DIAM. ØD MM | KERF B MM | RADIUS R | BORE ød | MAX BORE ød MM | NO. TEETH | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|
| 1T5651M | 114 | 20 | 1/4" | 1-1/4" | 50 | 3 | 6600-11500 |
| 1T5653M | 121 | 25 | 3/8" | 1-1/4" | 50 | 3 | 6100-10600 |
| 1T5655M | 127 | 30 | 1/2" | 1-1/4" | 50 | 3 | 5800-10200 |
| 1T5657M | 133 | 35 | 5/8" | 1-1/4" | 50 | 3 | 5700-9800 |
| 1T5658M | 140 | 50 | 3/4" | 1-1/4" | 50 | 3 | 5500-9400 |

Other sizes available upon request




## REPLACEMENT PARTS



| TOOL NO. | DESCRIPTION | KNIFE | WEDGE | WEDGE SCREW | WRENCH |
|---|---|---|---|---|---|
| 1T5651M | PART NO. | 1T565A | W340006 | W501404 | W400114 |
| | DIMENSIONS | 20x25x2 | 15 | M8x20 | 4mm Hex |
| 1T5653M | PART NO. | 1T565B | W049801 | W501404 | W400114 |
| | DIMENSIONS | 25x25x2 | 20 | M8x20 | 4mm Hex |
| 1T5655M | PART NO. | 1T565C | W340026 | W501316 | W400113 |
| | DIMENSIONS | 30x30x2 | 26 | M6x20 | 3mm Hex |
| 1T5657M | PART NO. | 1T565D | W340027 | W501316 | W400113 |
| | DIMENSIONS | 35x30x2 | 31 | M6x20 | 3mm Hex |
| 1T5658M | PART NO. | 1T565E | W049771 | W501404 | W400113 |
| | DIMENSIONS | 50x35x2 | 46 | M8x20 | 3mm Hex |

# 1T570 HALF ROUND TOOLHEADS
## WITH STRAIGHT TEETH

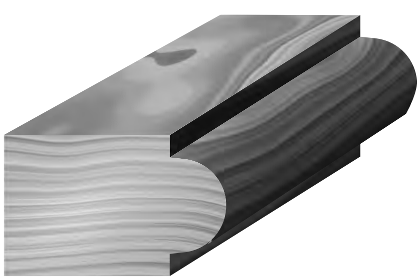
**DESIGN:**
- High tensile steel body
- 3 straight teeth
- Disposable tungsten carbide insert knives

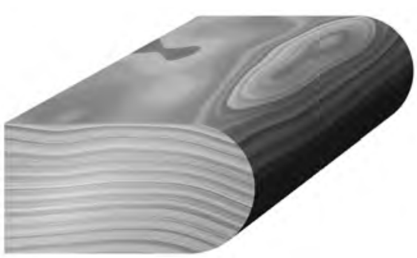
**APPLICATION:**
- For producing half round edges in solid wood and panel materials

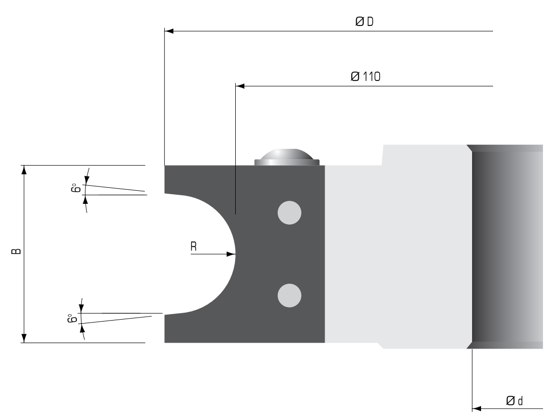
**MACHINES:**
- On shapers, double-end tenoners, and moulders

| PART NO. | DIAM. ØD MM | KERF B MM | RADIUS R | CUTTER OPENING MM | BORE ød | MAX BORE ød MM | NO. TEETH | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|---|
| 1T5701M | 122 | 20 | 1/4" | 13.0 | 1-1/4" | 50 | 3 | 6100-10600 |
| 1T5703M | 126 | 30 | 3/8" | 19.5 | 1-1/4" | 50 | 3 | 5800-10200 |
| 1T5705M | 133 | 35 | 1/2" | 26.0 | 1-1/4" | 50 | 3 | 5700-9800 |
| 1T5707M | 137 | 40 | 5/8" | 32.3 | 1-1/4" | 50 | 3 | 5500-9400 |
| 1T5708M | 142 | 50 | 3/4" | 38.5 | 1-1/4" | 50 | 3 | 5300-9100 |

Other sizes available upon request








## REPLACEMENT PARTS

| TOOL NO. | DESCRIPTION | KNIFE | WEDGE | WEDGE SCREW | WRENCH |
|---|---|---|---|---|---|
| 1T5701M | PART NO. | 1T570A | W049801 | W501404 | W400114 |
| | DIMENSIONS | 25x25x2 | 20 | M8x20 | 4mm Hex |
| 1T5703M | PART NO. | 1T570B | W340026 | W501316 | W400113 |
| | DIMENSIONS | 30x25x2 | 26 | M6x20 | 3mm Hex |
| 1T5705M | PART NO. | 1T570C | W0081201 | W501404 | W400114 |
| | DIMENSIONS | 35x30x2 | 32x11x9.5 | M8x20 | 4mm Hex |
| 1T5707M | PART NO. | 1T570D | W049631 | W501404 | W400114 |
| | DIMENSIONS | 40x30x2 | 36x11x9.5 | M8x20 | 4mm Hex |
| 1T5708M | PART NO. | 1T570E | W049771 | W501404 | W400114 |
| | DIMENSIONS | 50x35x2 | 46 | M8x20 | 4mm Hex |

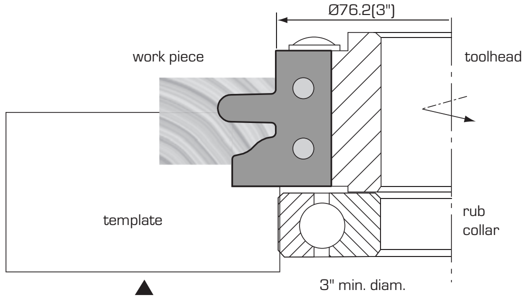
# STILE AND RAIL TOOLHEAD SET
WITH 4 PROFILES, 1/2" TONGUE

## DESIGN:
- High tensile steel body
- 3 straight teeth
- 4 different profiles
- 1/2" round and flat tongue profiles
- Sets contain 2 toolheads and 24 tungsten carbide insert knives
- Ball bearing guide is optional and sold separately

## APPLICATION:
- To produce stile and rails in solid wood and panel materials

## MACHINES:
- Shapers

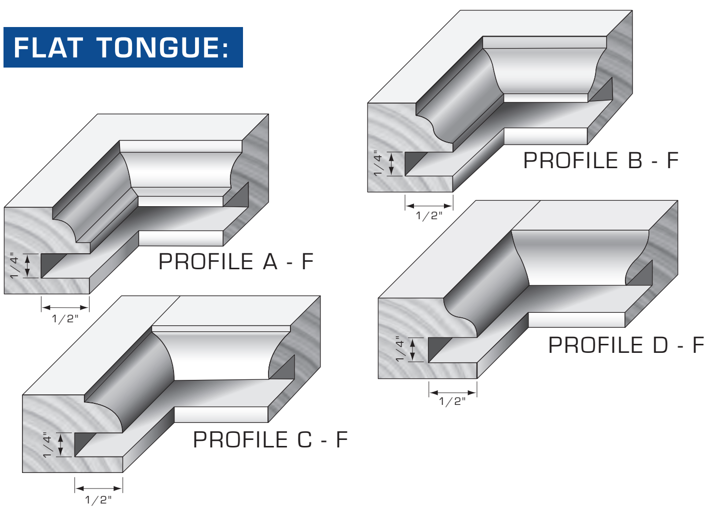
| PART NO. | TONGUE TYPE | DIAM. ØD MM | KERF B MM | BORE ød | MAX BORE ød | NO. TEETH | MAX RPM |
|---|---|---|---|---|---|---|---|
| **1TS02F** | FLAT | 101.85 | 30 | 1-1/4" | 1-1/4" | 3 | 13600 |
| **1TS02R** | ROUND | 101.85 | 30 | 1-1/4" | 1-1/4" | 3 | 13600 |



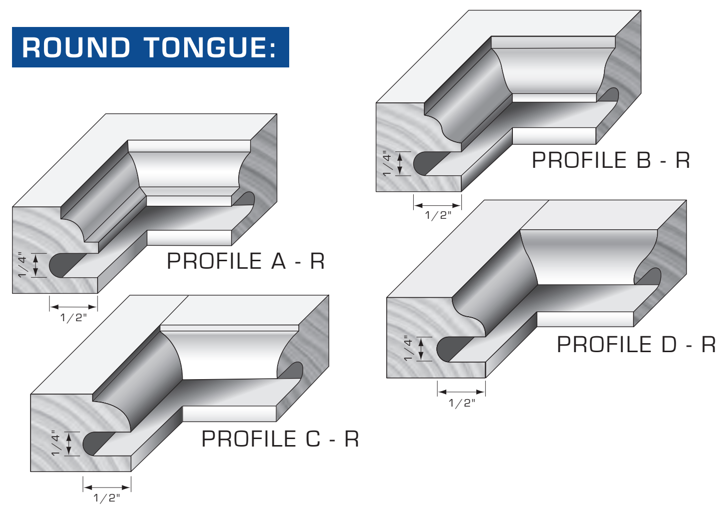

## REPLACEMENT PARTS

| DESCRIPTION | RUB COLLAR | WEDGE | SCREW | WRENCH |
|---|---|---|---|---|
| **PART NO.** | **W057114-3** | **W360045** | **W501301** | **W400113** |
| DIMENSIONS | 3" DIAM. | 28mm | M6x12 | 3mm Hex |

## FLAT TONGUE:




## ROUND TONGUE:




## REPLACEMENT KNIVES

| PROFILE | DESCRIPTION | ROUND STILE KNIFE | ROUND RAIL KNIFE | FLAT STILE KNIFE | FLAT RAIL KNIFE |
|---|---|---|---|---|---|
| **A** | **PART NO.** | **1TS02A1R** | **1TS02A2R** | **1TS02A1F** | **1TS02A2F** |
| | DIMENSIONS | 30x30x2 | 30x30x2 | 30x30x2 | 30x30x2 |
| **B** | **PART NO.** | **1TS02B1R** | **1TS02B2R** | **1TS02B1F** | **1TS02B2F** |
| | DIMENSIONS | 30x30x2 | 30x30x2 | 30x30x2 | 30x30x2 |
| **C** | **PART NO.** | **1TS02C1R** | **1TS02C2R** | **1TS02C1F** | **1TS02C2F** |
| | DIMENSIONS | 30x30x2 | 30x30x2 | 30x30x2 | 30x30x2 |
| **D** | **PART NO.** | **1TS02D1R** | **1TS02D2R** | **1TS02D1F** | **1TS02D2F** |
| | DIMENSIONS | 30x30x2 | 30x30x2 | 30x30x2 | 30x30x2 |

## REDUCING SLEEVES

| PART NO. | BORE |
|---|---|
| **054-3175-34** | 3/4" |
| **054-3175-1** | 1" |

2 pcs per cutter recommended
(refer to "Flanged Sleeves" table on page H2)

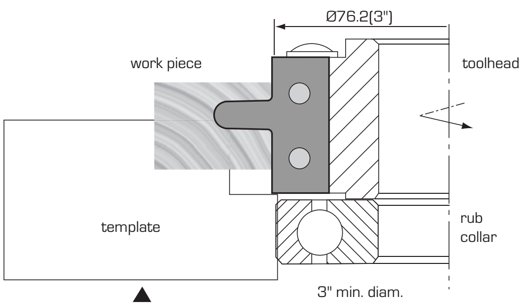
# 1TS03 STILE AND RAIL TOOLHEAD SET
## WITH SHAKER PROFILE, 1/2" TONGUE

**DESIGN:**
- High tensile steel body
- 3 straight teeth
- Classic shaker profile
- 1/2" round and flat tongue profiles
- Set contains 2 toolheads and 12 tungsten carbide insert knives
- Ball bearing guide is optional and sold separately

**APPLICATION:**
- To produce stile and rails in solid wood and panel materials

**MACHINES:**
- Shapers

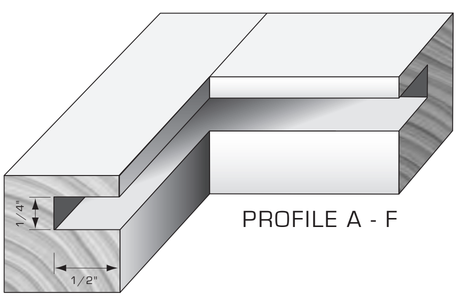
| PART NO. | DIAM. ØD MM | KERF B MM | BORE ød | MAX BORE ød | NO. TEETH | MAX RPM |
|---|---|---|---|---|---|---|
| **1TS03** | 101.85 | 30 | 1-1/4" | 1-1/4" | 3 | 13600 |



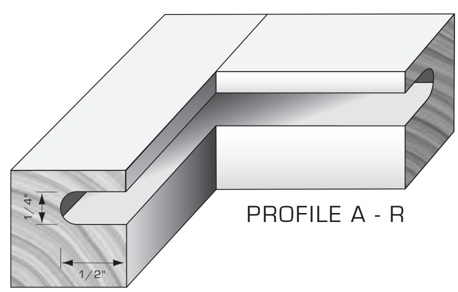

## REPLACEMENT PARTS

| DESCRIPTION | RUB COLLAR | WEDGE | SCREW | WRENCH |
|---|---|---|---|---|
| **PART NO.** | **W057114-3** | **W360045** | **W501301** | **W400113** |
| DIMENSIONS | 3" DIAM. | 28mm | M6x12 | 3mm Hex |

## FLAT TONGUE:




## ROUND TONGUE:




## REPLACEMENT KNIVES

| PROFILE | DESCRIPTION | ROUND STILE KNIFE | ROUND RAIL KNIFE | FLAT STILE KNIFE | FLAT RAIL KNIFE |
|---|---|---|---|---|---|
| A | **PART NO.** | **1TS03A1R** | **1TS03A2R** | **1TS03A1F** | **1TS03A2F** |
| | DIMENSIONS | 30x30x2 | 30x30x2 | 30x30x2 | 30x30x2 |

## REDUCING SLEEVES

| PART NO. | BORE |
|---|---|
| **054-3175-34** | 3/4" |
| **054-3175-1** | 1" |

2 pcs per cutter recommended
(refer to "Flanged Sleeves" table on page H2)

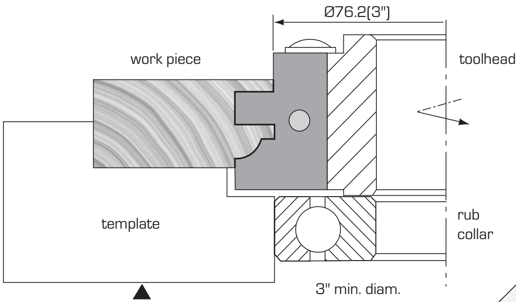
# STILE AND RAIL TOOLHEAD SET
## WITH 4 PROFILES,3/8" TONGUE

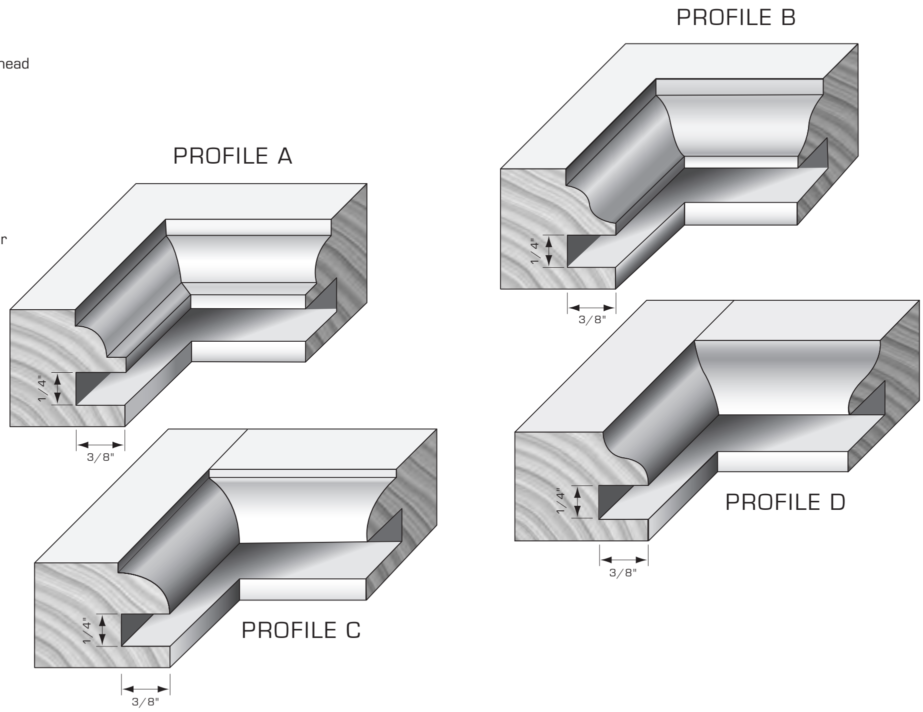
**DESIGN:**
- High tensile steel body
- 3 straight teeth
- 4 different profiles
- 3/8" flat tongue profile
- Set contains 2 toolheads and 24 tungsten carbide insert knives
- Packed in wooden box complete with wrenches
- Ball bearing guide is optional and sold separately

**APPLICATION:**
- To produce stile and rails in solid wood and panel materials

**MACHINES:**
- Shapers

| PART NO. | DIAM. ØD MM | KERF B MM | BORE ød | MAX BORE ød | NO. TEETH | RPM MIN.-MAX |
|---|---|---|---|---|---|---|
| 1TS06 | 95 | 30 | 1-1/4" | 1-1/4" | 3 | 7500-12000 |




## REPLACEMENT PARTS

| DESCRIPTION | RUB COLLAR | WEDGE | WEDGE SCREW | WRENCH |
|---|---|---|---|---|
| PART NO. | W057114-3 | W042581 | W501301 | W400113 |
| DIMENSIONS | 3" DIAM. | 28 | M6x12 | 3mm Hex |

## REPLACEMENT KNIVES

| PROFILE | DESCRIPTION | RAIL KNIFE | STILE KNIFE |
|---|---|---|---|
| A | PART NO. | 1TS06A1 | 1TS06A2 |
| | DIMENSIONS | 30x25x2.0 | 30x25x2.0 |
| B | PART NO. | 1TS06B1 | 1TS06B2 |
| | DIMENSIONS | 30x25x2.0 | 30x25x2.0 |
| C | PART NO. | 1TS06C1 | 1TS06C2 |
| | DIMENSIONS | 30x25x2.0 | 30x25x2.0 |
| D | PART NO. | 1TS06D1 | 1TS06D2 |
| | DIMENSIONS | 30x25x2.0 | 30x25x2.0 |

## REDUCING SLEEVES

| PART NO. | BORE |
|---|---|
| 054-3175-34 | 3/4" |
| 054-3175-1 | 1" |

2 pcs per cutter recommended
(refer to "Flanged Sleeves" table on page H2)

# PANEL RAISING TOOLHEAD SET
WITH 5 PROFILES

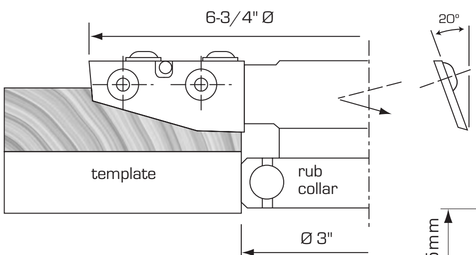
## DESIGN:
- High tensile steel body
- 3 teeth on a shear angle
- 5 different profiles
- Set contains a single toolhead and 15 tungsten carbide insert knives
- Packed in wooden box complete with wrenches
- Ball bearing guide is optional and sold separately

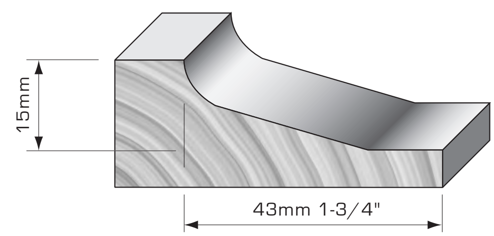
## APPLICATION:
- To produce raised panels in solid wood and panel materials

## MACHINES:
- Shapers

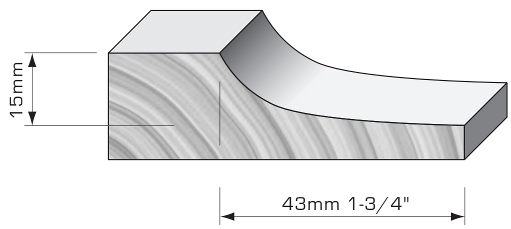
| PART NO. | DIAM. ØD MM | KERF B MM | BORE ød | MAX BORE ød MM | NO. TEETH | RPM MIN-MAX |
|---|---|---|---|---|---|---|
| **1TS08** | 172 | 22 | 1-1/4" | 35 | 3 | 4500-7500 |

Other sizes available upon request

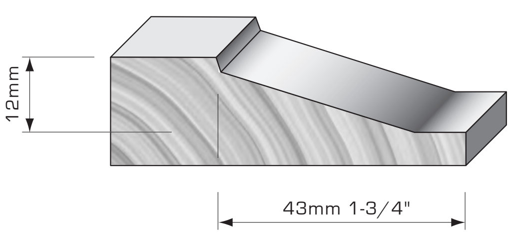


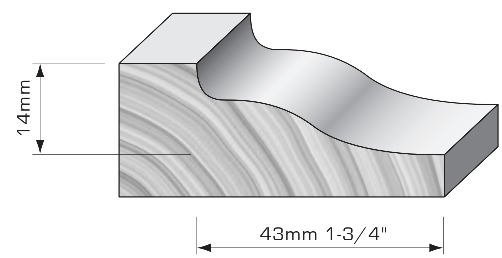
PROFILE C



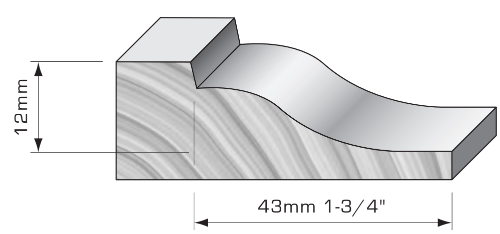
PROFILE B



PROFILE A



PROFILE E



PROFILE D

## REPLACEMENT PARTS

| DESCRIPTION | KNIFE SCREW | WASHER FOR LOCKING SCREW | POSITIONING SCREW | RUB COLLAR | WRENCH |
|---|---|---|---|---|---|
| **PART NO.** | **W501203** | **W300460** | **W502601** | **W057114-3** | **W400405** |
| DIMENSIONS | M5x10 | 10x5.3 | M5x10 | 3" DIAM. | T15 Torx |

## REPLACEMENT KNIVES

| PROFILE | DESCRIPTION | KNIFE |
|---|---|---|
| **A** | **PART NO.** | **1TS08A** |
| | DIMENSIONS | 50x25x2.0 |
| **B** | **PART NO.** | **1TS08B** |
| | DIMENSIONS | 50x25x2.0 |
| **C** | **PART NO.** | **1TS08C** |
| | DIMENSIONS | 50x25x2.0 |
| **D** | **PART NO.** | **1TS08D** |
| | DIMENSIONS | 50x25x2.0 |
| **E** | **PART NO.** | **1TS08E** |
| | DIMENSIONS | 50x25x2.0 |

# ENTRY AND PASSAGE DOOR TOOLHEAD SET
WITH 4 PROFILES

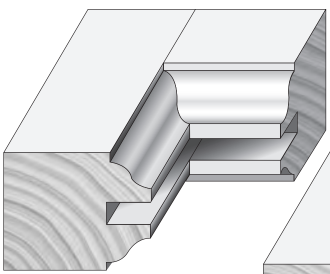
**DESIGN:**
- High tensile steel body
- 2 straight teeth with spurs
- Set of 2 toolheads and 24 tungsten carbide insert knives to produce 4 different profiles "A – D"
- Packed in wooden box complete with wrenches
- Ball bearing guide is optional and sold separately

**APPLICATION:**
- To produce stile and rails in solid wood

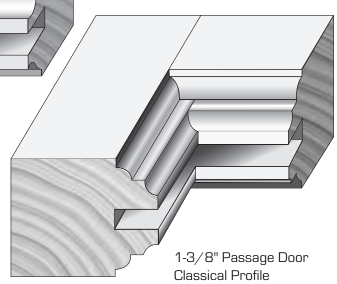
**MACHINES:**
- Shapers

| PART NO. | DIAM. ØD MM | KERF B MM | BORE ød | MAX BORE ød MM | NO. TEETH | NO. SPURS | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|
| **1TS09** | 127 | see drawing | 1-1/4" | 32 | 2 | 2 | 6000-10000 |

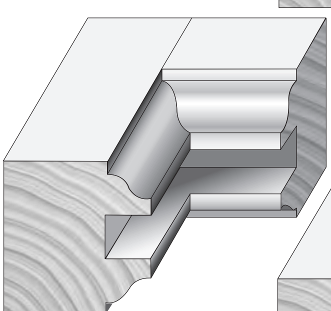
Other sizes available upon request



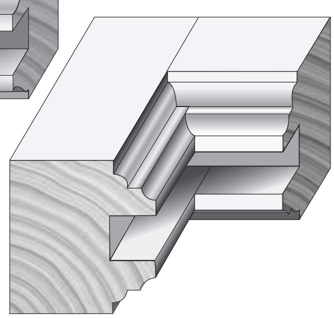
1-3/8" Passage Door
Ogee Profile



1-3/8" Passage Door
Classical Profile

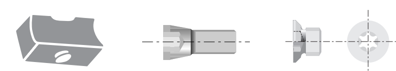


1-3/4" Passage Door
Ogee Profile



1-3/4" Passage Door
Classical Profile

## REPLACEMENT PARTS



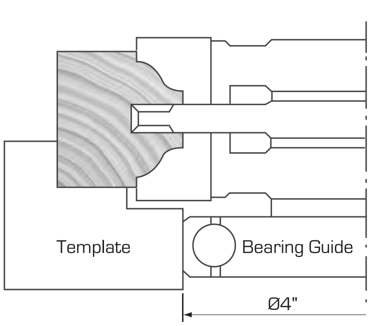
| TOOL NO. | DESCRIPTION | WEDGE | WEDGE SCREW | SPUR SCREW |
|---|---|---|---|---|
| 1 | **PART NO.** | **W46961** | **W502402** | - |
| | DIMENSIONS | 13x11x9.5 | M7x21 | - |
| 2 | **PART NO.** | **W46951** | **W502402** | - |
| | DIMENSIONS | 13x11x9.5 | M7x21 | - |
| 3 | **PART NO.** | **W32641** | **W501313** | **W500004** |
| | DIMENSIONS | 5x10x8 | M4x16 | M5x5.1 |
| 4 | **PART NO.** | **W350023** | **W502403** | **W500002** |
| | DIMENSIONS | 9 | M5x18 | M5x7 |
| 5 | **PART NO.** | **W350054** | **W502402** | **W500002** |
| | DIMENSIONS | 26x11x9.5 | M7x21 | M5x7 |

## REPLACEMENT KNIVES

| TOOL NO. | PROFILE | KNIFE PART NO. |
|---|---|---|
| 1 | 1A | **1TS091A** |
| | 1B | **1TS091B** |
| | 1C | **1TS091C** |
| | 1D | **1TS091D** |
| 2 | 2A | **1TS092A** |
| | 2B | **1TS092B** |
| | 2C | **1TS092C** |
| | 2D | **1TS092D** |
| 3 | STRAIGHT | **1TS0914** |
| | SPUR | **301404** |
| 4 | STRAIGHT | **301230** |
| | SPUR | **301404** |
| 5 | STRAIGHT | **303000** |
| | SPUR | **301404** |

## WRENCHES

| TYPE | WRENCH PART NO. |
|---|---|
| **WEDGE** M4 | **W400000** 2mm Hex |
| **WEDGE** M5 | **W400420** T20 Torx |
| **WEDGE** M7 | **W400115** 5mm Hex |
| **SPUR** M4 | **W400405** T15 Torx |
| **SPUR** M5 | **W400405** T15 Torx |



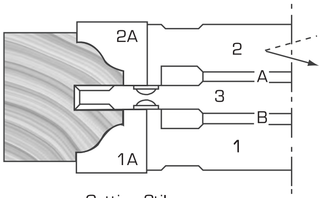

## SPACERS

| SPACER | SPACER PART NO. |
|---|---|
| A | **1TS09A** |
| B | **1TS09B** |
| C | **1TS09C** |
| D | **1TS09D** |
| E | **1TS09E** |
| F | **1TS09F** |

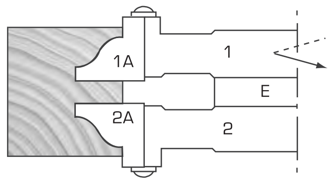
Continued on page D30...

# ENTRY AND PASSAGE DOOR TOOLHEAD SET

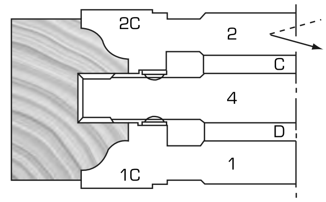
## PROFILE COMBINATIONS



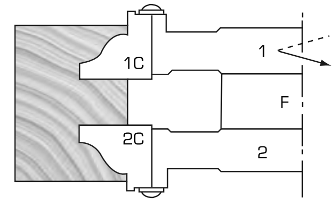
Cutting Stile



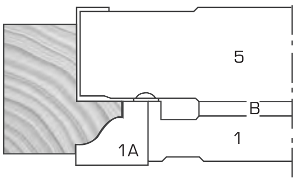
Cutting Rail



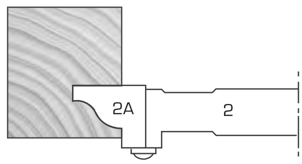
Cutting Stile



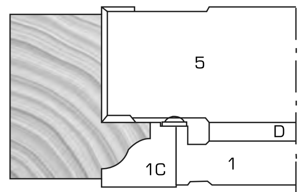
Cutting Rail



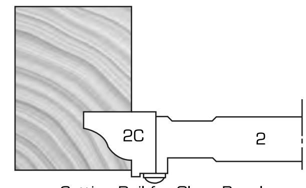
Cutting Stile for Glass Panels



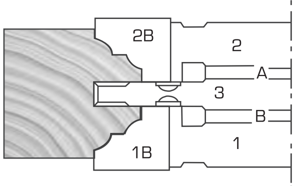
Cutting Rail for Glass Panels



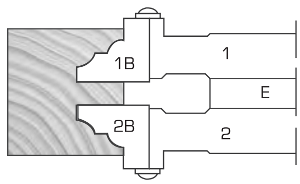
Cutting Stile for Glass Panels



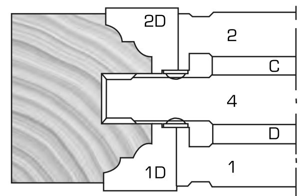
Cutting Rail for Glass Panels



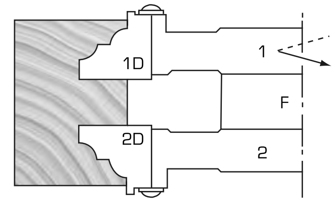
Cutting Stile



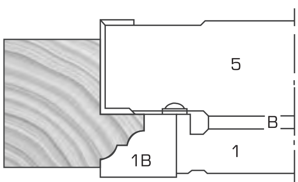
Cutting Rail



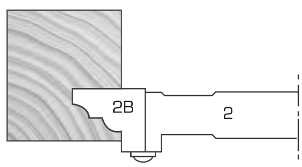
Cutting Stile



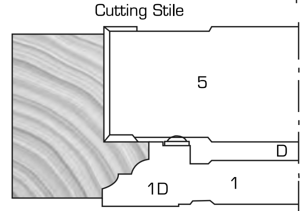
Cutting Rail



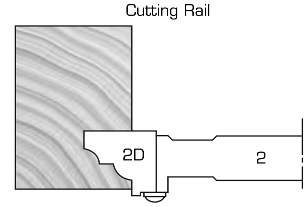
Cutting Stile for Glass Panels



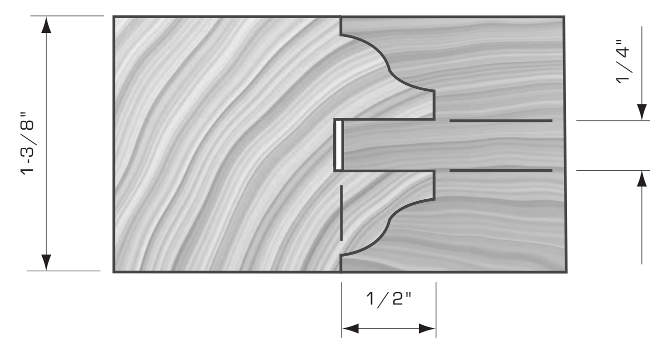
Cutting Rail for Glass Panels

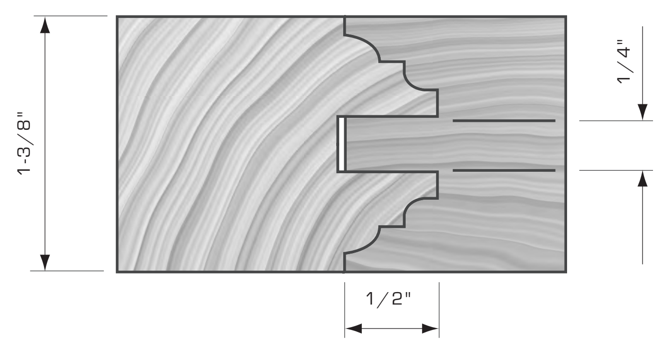


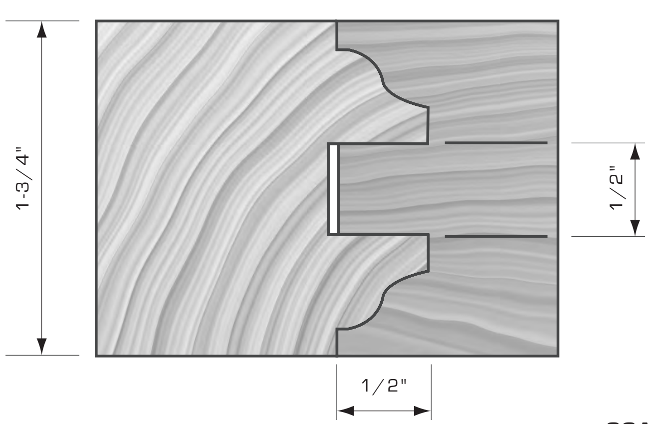
Cutting Stile for Glass Panels

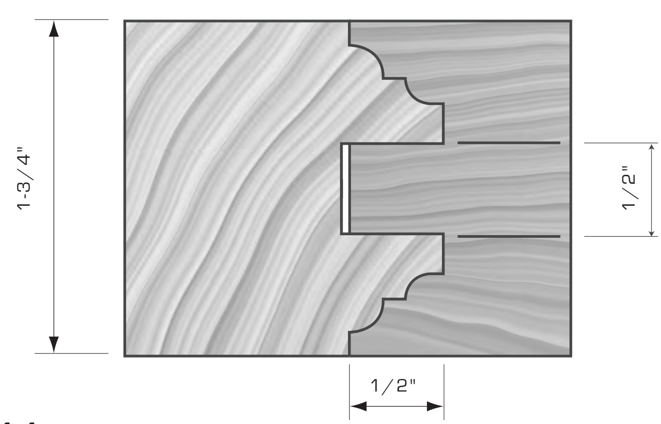


Cutting Rail for Glass Panels




**SCALE 1:1**

# ROUNDING & CAMFERING TOOLHEAD
ADJUSTABLE

## DESIGN:

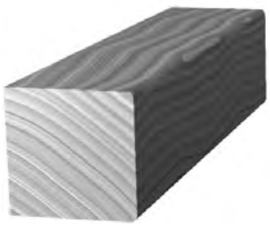
- High tensile steel body
- 3 teeth on a shear angle
- Set of 3 interlocking toolheads with set of spacers, adjustable for various wood thicknesses
- Knives for toolheads "A" and "C" are sold separately
- Toolhead "B" is supplied with 1 set of knives
- Tungsten carbide insert knives

## APPLICATION:

- For jointing, corner rounding, and chamfering in solid wood and panel materials

## MACHINES:

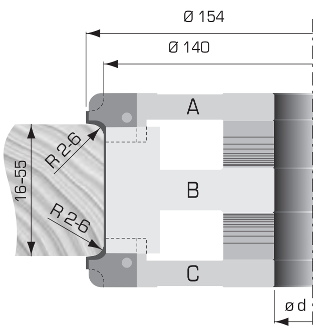
- On shapers, double-end tenoners, and moulders



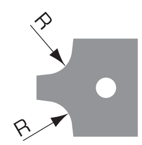
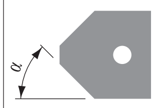
| PART NO. | DIAM. ØD MM | KERF B MM | BORE ød | MAX BORE ød MM | NO. TEETH | CUTTER TYPE | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|
| **1T580** COMPLETE SET | 154 | 20 | 1-1/4" | 50 | 3 | A | 5600-9500 |
| | 140 | 50 | 1-1/4" | 50 | 3 | B | 5600-9500 |
| | 154 | 20 | 1-1/4" | 50 | 3 | C | 5600-9500 |

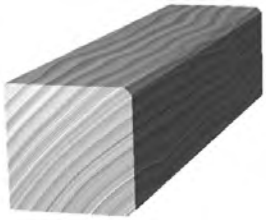
Cutters A and C do not include knifes

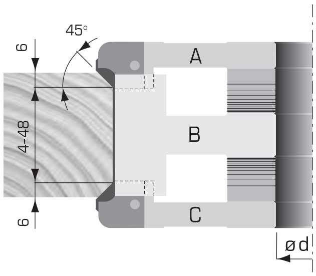
Other sizes available upon request




## PROFILE KNIVES

| KNIFE | KNIFE PART NO. | RADIUS | DIMENSIONS |
|---|---|---|---|
|  | **402002** | 2 | 20x20.5x2 |
| | **402003** | 3 | 20x20.5x2 |
| | **402004** | 4 | 20x20.5x2 |
| | **402005** | 5 | 20x20.5x2 |
| | **402006** | 6 | 20x20.5x2 |
|  | **402020** | α = 45° | 20x20.5x2 |






## REPLACEMENT PARTS

| CUTTER TYPE | DESCRIPTION | KNIFE | WEDGE | WEDGE SCREW | WRENCH |
|---|---|---|---|---|---|
| **A** | **PART NO.** | **SEE TABLE** | **W350055** | **W502402** | **W400115** |
| | DIMENSIONS | 20x20.5x2 | 16 | M7x21 | 5mm Hex |
| **B** | **PART NO.** | **305000** | **W350009** | **W502402** | **W400115** |
| | DIMENSIONS | 50x12x1.5 | 46 | M7x21 | 5mm Hex |
| **C** | **PART NO.** | **SEE TABLE** | **W350053** | **W502402** | **W400115** |
| | DIMENSIONS | 20x20.5x2 | 16 | M7x21 | 5mm Hex |

# 1T585 MULTI-PROFILE TOOLHEADS

11MM MAX. PROFILE DEPTH

## DESIGN:

- High tensile steel body
- 3 straight teeth
- Backing plates 4mm thick
- Tungsten carbide insert knives 2mm thick
- Knives and backing plates can be profiled for various shapes

## APPLICATION:

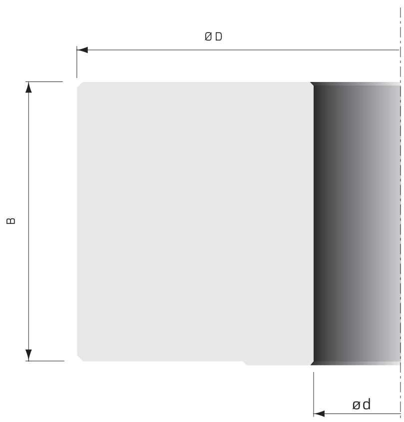
- For profiling in solid wood and panel materials

## MACHINES:

- On shapers, double-end tenoners, and moulders

## WHEN ORDERING SPECIFY:

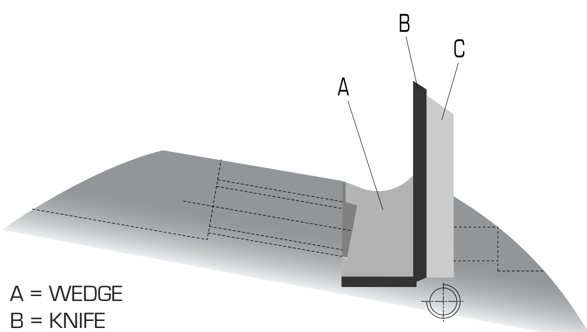
- Knives and backing plates (items not included with toolhead)



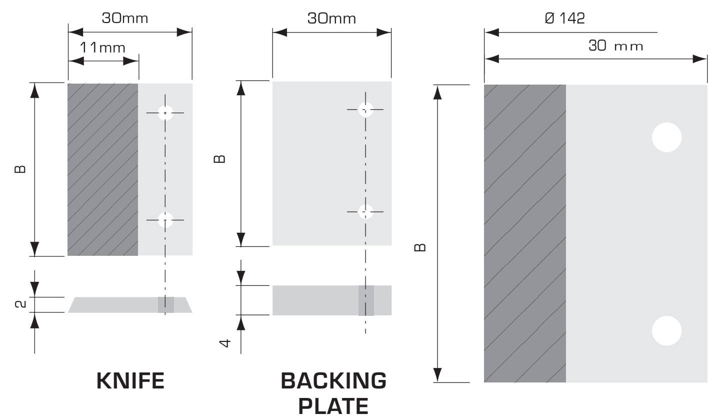

| PART NO. | BODY ØD MM | KERF B MM | BORE ød | MAX BORE ød MM | NO. TEETH | MAX. RPM |
|---|---|---|---|---|---|---|
| 1T5851M | 116 | 40 | 1-1/4" | 50 | 3 | 10500 |
| 1T5852M | 116 | 50 | 1-1/4" | 50 | 3 | 10500 |
| 1T5853M | 116 | 60 | 1-1/4" | 50 | 3 | 10500 |

Cutter excluding knives and backing plates

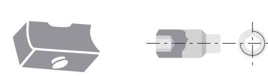
Other sizes available upon request




A = WEDGE
B = KNIFE
C = BACKING PLATE




## REPLACEMENT PARTS



| TOOL NO. | DESCRIPTION | WEDGE | WEDGE SCREW | WRENCH |
|---|---|---|---|---|
| 1T5851M | PART NO. | W303001 | W501404 | W400114 |
| | DIMENSIONS | 38 | M8x20 | 4mm Hex |
| 1T5852M | PART NO. | W303002 | W501404 | W400114 |
| | DIMENSIONS | 48 | M8x20 | 4mm Hex |
| 1T5853M | PART NO. | W303003 | W501404 | W400114 |
| | DIMENSIONS | 58 | M8x20 | 4mm Hex |

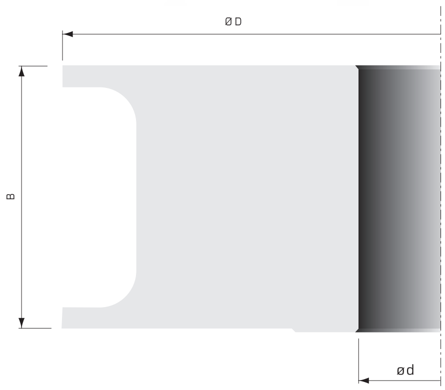
# 1T587 MULTI-PROFILE TOOLHEADS
## 15MM & 20MM MAX. PROFILE DEPTH

### DESIGN:
- High tensile steel body
- 3 straight teeth
- Backing plates 4mm thick
- Tungsten carbide insert knives 2mm thick
- Knives and backing plates can be profiled for various shapes

### APPLICATION:
- For profiling in solid wood and panel materials

### MACHINES:
- On shapers, double-end tenoners, and moulders

### WHEN ORDERING SPECIFY:
- Knives and backing plates (items not included with toolhead)

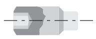



| PART NO. | BODY ØD MM | KERF B MM | BORE ød | MAX BORE ød MM | NO. TEETH | MAX. RPM |
|---|---|---|---|---|---|---|
| **1T5871M** | 147 | 40 | 1-1/4" | 50 | 3 | 9500 |
| **1T5872M** | 147 | 50 | 1-1/4" | 50 | 3 | 9500 |
| **1T5873M** | 147 | 60 | 1-1/4" | 50 | 3 | 9500 |

Cutter excluding knives and backing plates

Other sizes available upon request

## REPLACEMENT PARTS

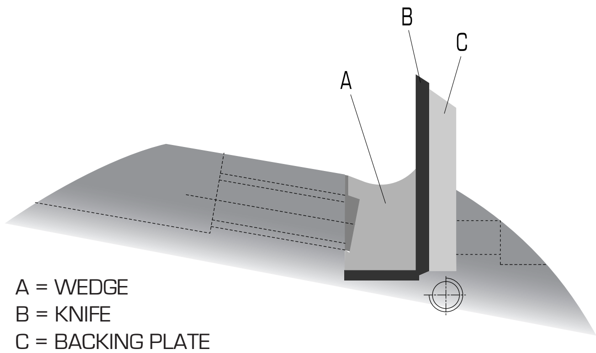


| TOOL NO. | DESCRIPTION | WEDGE | WEDGE SCREW | WRENCH |
|---|---|---|---|---|
| **1T5871M** | **PART NO.** | **W303001** | **W501404** | **W400114** |
| | DIMENSIONS | 38 | M8x20 | 4mm Hex |
| **1T5872M** | **PART NO.** | **W303002** | **W501404** | **W400114** |
| | DIMENSIONS | 48 | M8x20 | 4mm Hex |
| **1T5873M** | **PART NO.** | **W303003** | **W501404** | **W400114** |
| | DIMENSIONS | 58 | M8x20 | 4mm Hex |

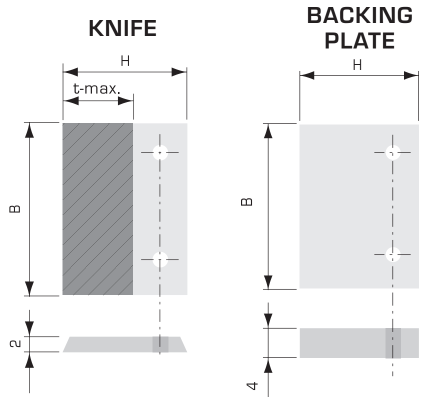
Continued on page D34...

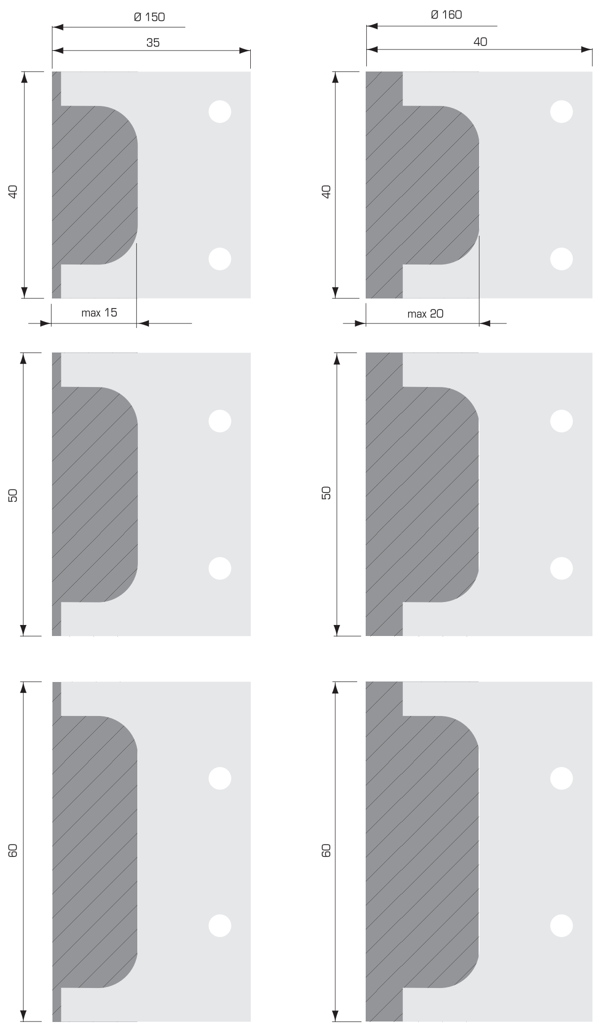
# MULTI-PROFILE TOOLHEADS

## 15MM MAX. PROFILE DEPTH




A = WEDGE
B = KNIFE
C = BACKING PLATE




| CARBIDE KNIVES | STEEL BACKING PLATES | MAXIMUM PROFILE DEPTH t-max MM |
|---|---|---|
| DIMENSIONS B x H x T | DIMENSIONS B x H x T | |
| 40 x 35 x2 | 39 x 33 x 4 | 15 |
| 40 x 40 x 2 | 39 x 38 x 4 | 20 |
| 50 x 35 x 2 | 49 x 33 x 4 | 15 |
| 50 x 40 x 2 | 49 x 38 x 4 | 20 |
| 60 x 35 x 2 | 59 x 33 x 4 | 15 |
| 60 x 40 x 2 | 59 x 38 x 4 | 20 |

# 1T589 MULTI-PROFILE TOOLHEADS
## 11MM & 15MM MAX. PROFILE DEPTH

### DESIGN:
» High tensile steel body
» 3 straight teeth
» Backing plates 4mm thick
» Tungsten carbide insert knives 2mm thick
» Knives and backing plates can be profiled for various shapes
» Knives and backing plates not included with toolhead

### APPLICATION:
» For profiling in solid wood and panel materials

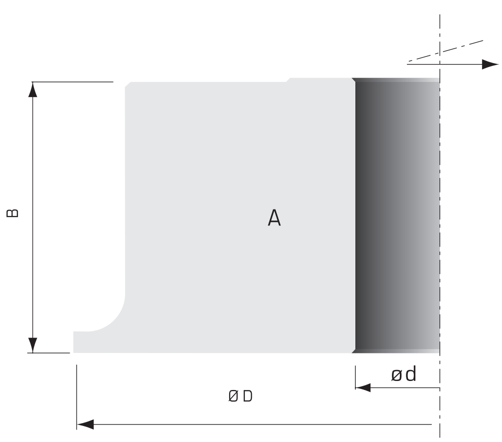
### MACHINES:
» On shapers, double-end tenoners and moulders

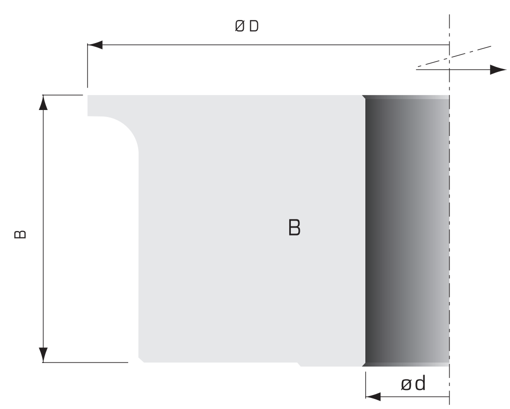
### WHEN ORDERING SPECIFY:
» Knives and backing plates. Items not included with toolhead.

| PART NO. | CUTTER TYPE | DIAM. ØD MM | KERF B MM | BORE ød | MAX BORE ød MM | NO. TEETH | MAX. RPM |
|---|---|---|---|---|---|---|---|
| **1T5891M** | A | 137 | 40 | 1-1/4" | 50 | 3 | 10000 |
| **1T5892M** | A | 137 | 50 | 1-1/4" | 50 | 3 | 10000 |
| **1T5893M** | A | 137 | 60 | 1-1/4" | 50 | 3 | 10000 |
| **1T5894M** | B | 137 | 40 | 1-1/4" | 50 | 3 | 10000 |
| **1T5895M** | B | 137 | 50 | 1-1/4" | 50 | 3 | 10000 |
| **1T5896M** | B | 137 | 60 | 1-1/4" | 50 | 3 | 10000 |

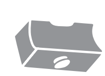
Cutters excluding knives and backing plates

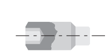
Other sizes available upon request




### REPLACEMENT PARTS

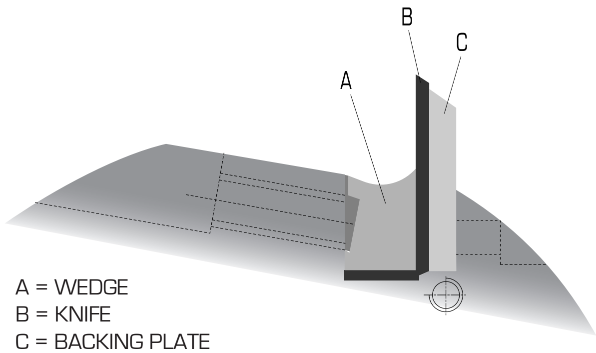




| TOOL NO. | DESCRIPTION | WEDGE | WEDGE SCREW | WRENCH |
|---|---|---|---|---|
| 1T5891M 1T5894M | **PART NO.** | **W303001** | **W501404** | **W400114** |
| | DIMENSIONS | 38 | M8x20 | 4mm Hex |
| 1T5892M 1T5895M | **PART NO.** | **W303002** | **W501404** | **W400114** |
| | DIMENSIONS | 48 | M8x20 | 4mm Hex |
| 1T5893M 1T5896M | **PART NO.** | **W303003** | **W501404** | **W400114** |
| | DIMENSIONS | 58 | M8x20 | 4mm Hex |

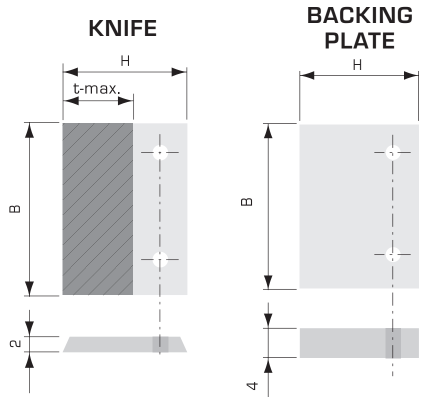
Continued on page D36...

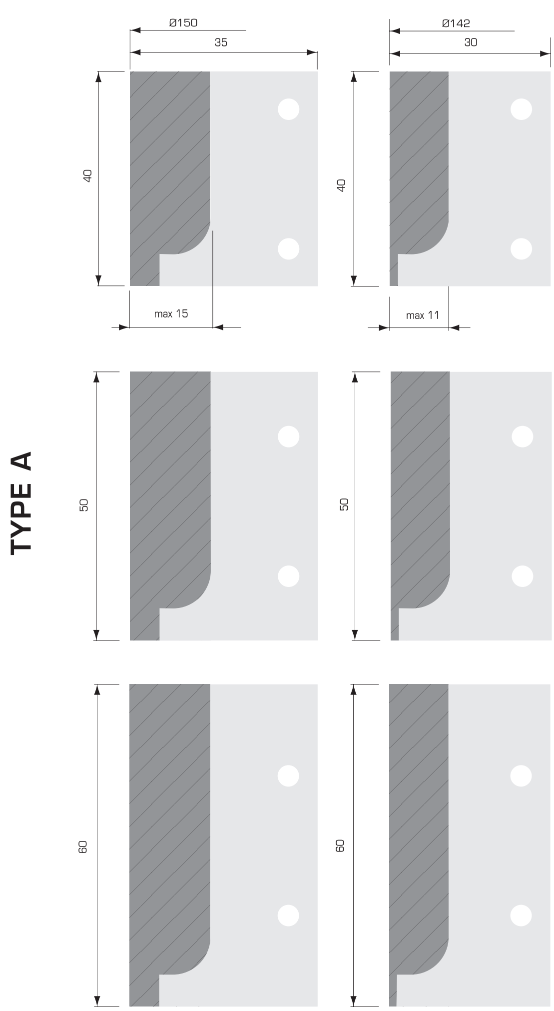
# MULTI-PROFILE TOOLHEADS
## 11MM AND 15MM MAX. PROFILE DEPTH

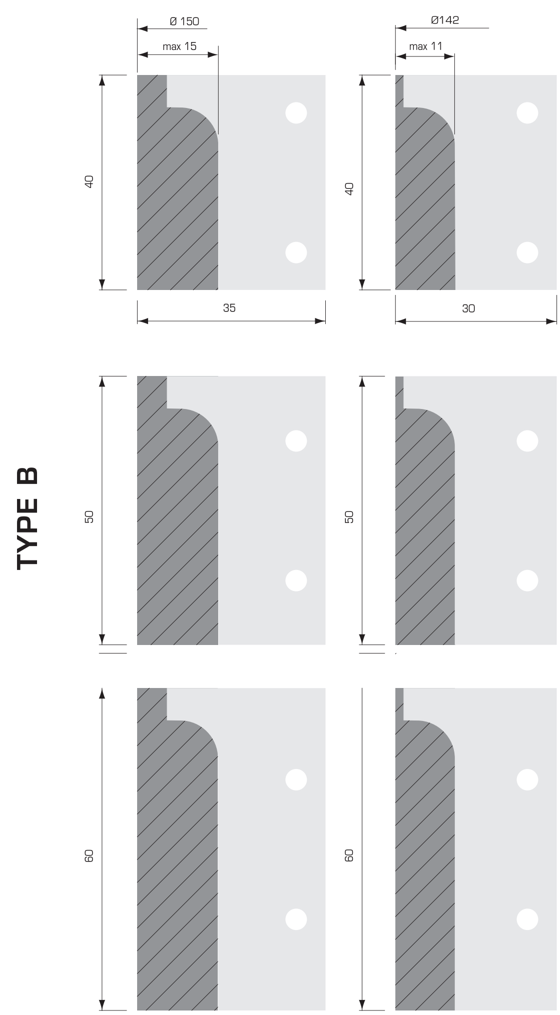



A = WEDGE
B = KNIFE
C = BACKING PLATE

| CARBIDE KNIVES | BACKING PLATES | MAXIMUM PROFILE DEPTH t-max MM |
|---|---|---|
| DIMENSIONS B x H x T | DIMENSIONS B x H x T | |
| 40 x 30 x 2 | 39 x 28 x 4 | 11 |
| 40 x 35 x 2 | 39 x 33 x 4 | 15 |
| 50 x 30 x 2 | 49 x 28 x 4 | 11 |
| 50 x 35 x 2 | 49 x 33 x 4 | 15 |
| 60 x 30 x 2 | 59 x 28 x 4 | 11 |
| 60 x 35 x 2 | 59 x 33 x 4 | 15 |



## DESIGN:

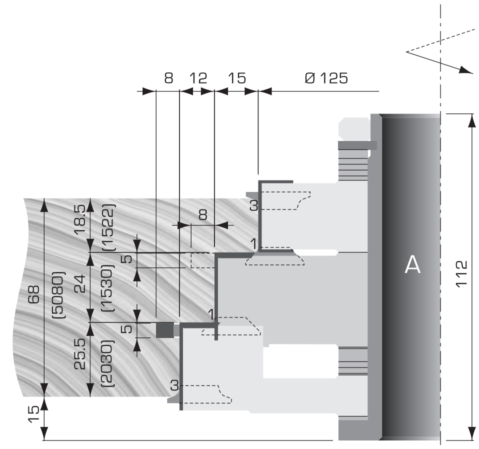
- High tensile steel body
- Tungsten carbide insert knives
- Tools custom manufactured to customer's specifications

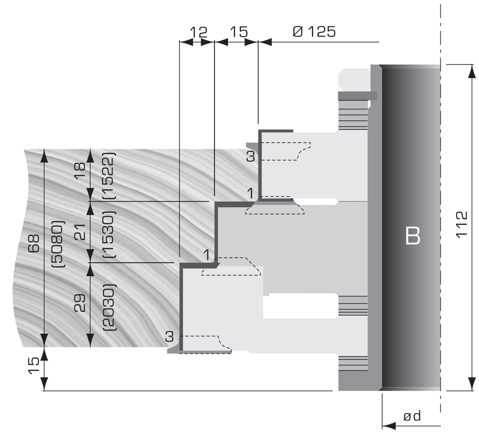
## APPLICATION:

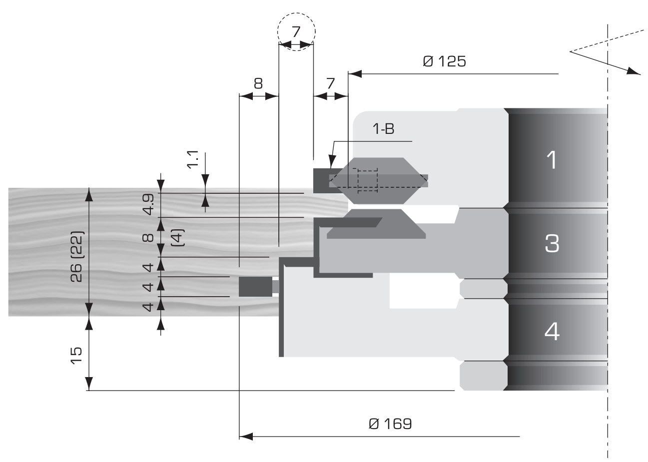
- For producing window components in solid wood

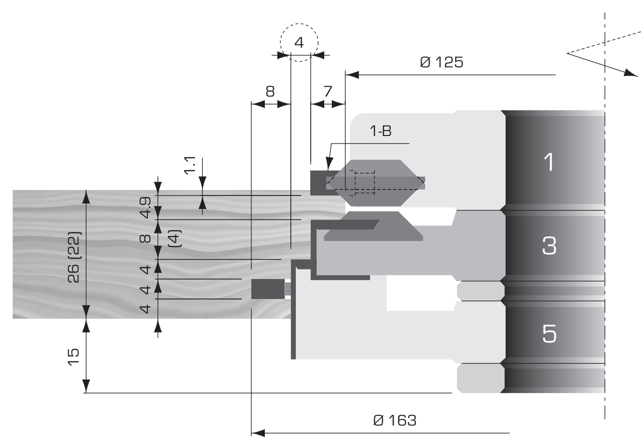
## MACHINES:

- On single and double-end tenoners



## DESIGN:

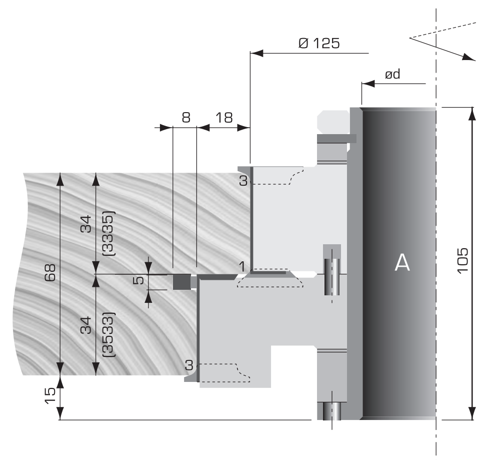
- High tensile steel body
- Tungsten carbide insert knives
- Tools custom manufactured to customer's specifications

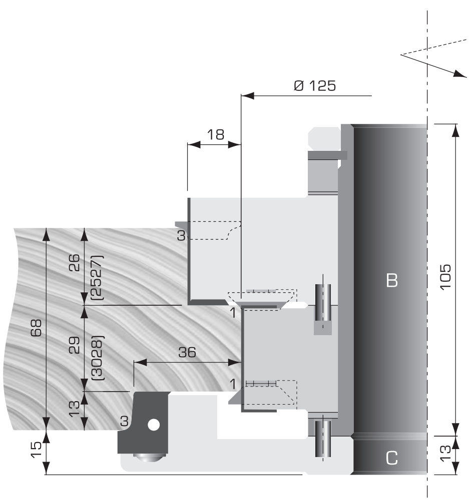
## APPLICATION:

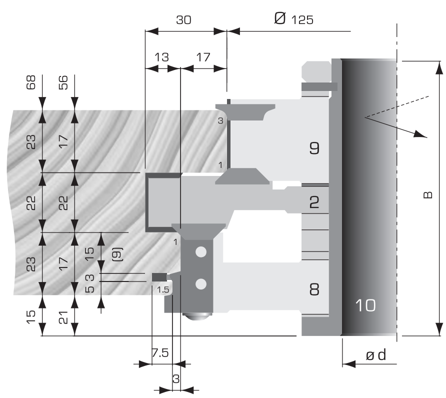
- For producing window components in solid wood

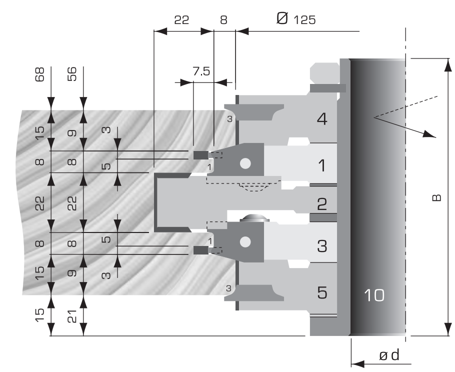
## MACHINES:

- On moulders



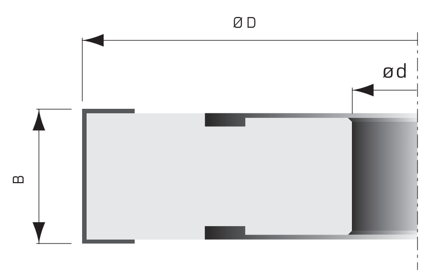
## DESIGN:
- High tensile steel body
- 4 straight teeth
- Toolheads interlock and can be stacked to required cutting width
- When stacked, the insert knives overlap each other
- Reversible tungsten carbide insert knives with 2 cutting edges

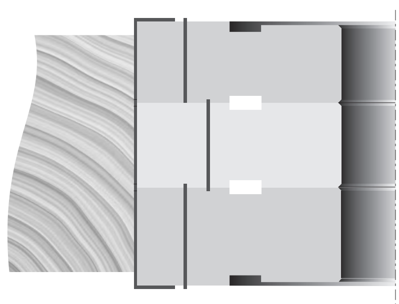
## APPLICATION:
- For surface planing, jointing, and preplaning on the first bottom spindle

## MACHINES:
- On moulders and four-sided planers

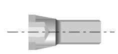
| PART NO. | DIAM. ØD MM | KERF B MM | BORE ød MM | MAX BORE ød MM | NO. TEETH | RPM MIN-MAX |
|---|---|---|---|---|---|---|
| **1T4742M** | 125 | 30 | 40 | 50 | 4 | 6000-11500 |
| **1T4745M** | 125 | 50 | 40 | 50 | 4 | 6000-11500 |

Other sizes available upon request



## REPLACEMENT PARTS



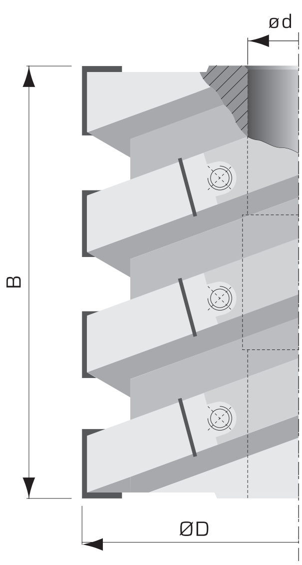
| TOOL NO. | DESCRIPTION | KNIFE | WEDGE | WEDGE SCREW | WRENCH |
|---|---|---|---|---|---|
| **1T4742M** | **PART NO.** | **303000** | **W350007** | **W502402** | **W400115** |
| | DIMENSIONS | 30x12x1.5 | 26 | M7x21 | 5mm Hex |
| **1T4745M** | **PART NO.** | **305000** | **W350009** | **W502402** | **W400115** |
| | DIMENSIONS | 50x12x1.5 | 46 | M7x21 | 5mm Hex |

# SPIRAL TOOLHEADS
STAGGERED TOOTH

## DESIGN:
» High tensile steel body
» Staggered knives on a shear angle and spiral progression
» Toolheads supplied with type "A" reversible inserts, type "B" knives for superior surface finish are available upon request
» Reversible tungsten carbide insert knives with 2 cutting edges
» Design of toolhead reduces noise levels

## APPLICATION:
» For surface planing, jointing, and preplaning on 1st bottom spindle
» Ideal for machining curved furniture components

## MACHINES:
» On shapers, moulders, and four-sided planers

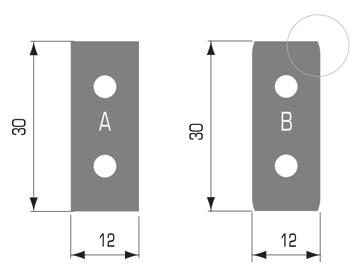



| PART NO. | DIAM. ØD | KERF B | BORE ød | MAX BORE ød MM | NO. TEETH | RPM MIN-MAX |
|---|---|---|---|---|---|---|
| 1T4751I | 4" | 3-7/8" | 1-1/4" | 35 | 12 | 7500-13000 |
| 1T4752I | 4" | 4-51/64" | 1-1/4" | 35 | 15 | 7500-13000 |
| 1T4751M | 125mm | 99mm | 40mm | 50 | 12 | 6000-11000 |
| 1T4752M | 125mm | 122mm | 40mm | 50 | 15 | 6000-11000 |
| 1T4753M | 125mm | 145mm | 40mm | 50 | 18 | 6000-11000 |
| 1T4754M | 125mm | 191mm | 40mm | 50 | 24 | 6000-11000 |
| 1T4755M | 125mm | 228mm | 40mm | 50 | 30 | 6000-11000 |

Other sizes available upon request

Available in aluminum body, quoted upon request

Type "B" with radius corner available on request




## REPLACEMENT PARTS

| DESCRIPTION | KNIFE TYPE A | KNIFE TYPE B | WEDGE | WEDGE SCREW | WRENCH |
|---|---|---|---|---|---|
| PART NO. | 303000 | 303000R | W350063 | W502402 | W400115 |
| DIMENSIONS | 30x12x1.5 | 30x12x1.5 | 26 | M7x21 | 5mm Hex |

# HELICAL STAGGERED TOOTH TOOLHEADS
ROUGHING

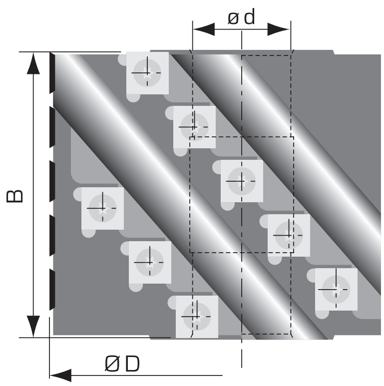
### DESIGN:
- Surface treated steel or aluminum body
- Helical toolhead with 4, 6, or 8 helices
- Spiral and staggered design enables heavy stock removal with or against the wood grain
- Toolheads can be custom made with spurs on one or both sides for tenoning and rabbet cuts (quoted upon request)
- Reversible tungsten carbide inserts with 4 cutting edges

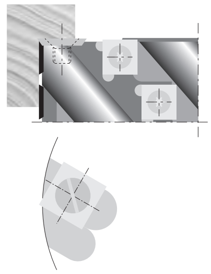
### APPLICATION:
- For surface planing, jointing, and preplaning in solid wood on the 1st bottom spindle
- Ideal for machining curved furniture components

### MACHINES:
- On shapers, double-end tenoners, surface planers, and moulders

| STEEL BODY PART NO. | ALUMINUM BODY PART NO. | DIAM. ØD MM | KERF B MM | BORE ød | MAX BORE ød MM | NO. HELICES | NO. INSERT KNIVES | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|---|
| 1T47601 | 1T47701 | 80 | 89 | 1-1/4" | 35 | 4 | 14 | 9500-16000 |
| 1T47603 | 1T47703 | 100 | 102 | 1-1/4" | 40 | 4 | 16 | 7500-13000 |
| 1T47605 | 1T47705 | 125 | 102 | 40mm | 60 | 4 | 16 | 6000-10000 |
| 1T47606 | 1T47706 | 125 | 127 | 40mm | 60 | 4 | 20 | 6000-10000 |
| 1T47607 | 1T47707 | 125 | 151.5 | 40mm | 60 | 4 | 24 | 6000-10000 |
| 1T47608 | 1T47708 | 125 | 177 | 40mm | 60 | 4 | 28 | 6000-10000 |
| 1T47609 | 1T47709 | 125 | 227 | 40mm | 60 | 4 | 36 | 6000-10000 |
| 1T47610 | 1T47710 | 125 | 102 | 40mm | 60 | 6 | 27 | 6000-10000 |
| 1T47611 | 1T47711 | 125 | 127 | 40mm | 60 | 6 | 30 | 6000-10000 |
| 1T47612 | 1T47712 | 125 | 151.5 | 40mm | 60 | 6 | 36 | 6000-10000 |
| 1T47613 | 1T47713 | 125 | 177 | 40mm | 60 | 6 | 42 | 6000-10000 |
| 1T47614 | 1T47714 | 125 | 227 | 40mm | 60 | 6 | 54 | 6000-10000 |
| 1T47615 | 1T47715 | 140 | 102 | 40mm | 60 | 6 | 27 | 5500-9500 |
| 1T47616 | 1T47716 | 140 | 127 | 40mm | 60 | 6 | 30 | 5500-9500 |
| 1T47617 | 1T47717 | 140 | 151.5 | 40mm | 60 | 6 | 36 | 5500-9500 |
| 1T47618 | 1T47718 | 140 | 177 | 40mm | 60 | 6 | 42 | 5500-9500 |
| 1T47619 | 1T47719 | 140 | 227 | 40mm | 60 | 6 | 54 | 5500-9500 |
| 1T47620 | 1T47720 | 140 | 102 | 40mm | 60 | 8 | 32 | 5500-9500 |
| 1T47621 | 1T47721 | 140 | 127 | 40mm | 60 | 8 | 40 | 5500-9500 |
| 1T47622 | 1T47722 | 140 | 151.5 | 40mm | 60 | 8 | 48 | 5500-9500 |
| 1T47623 | 1T47723 | 140 | 177 | 40mm | 60 | 8 | 56 | 5500-9500 |
| 1T47624 | 1T47724 | 140 | 227 | 40mm | 60 | 8 | 72 | 5500-9500 |

Other sizes available upon request up to a maximum diameter of 300mm and 4, 6, 8, or 10 helices



## REPLACEMENT PARTS

| DESCRIPTION | KNIFE | KNIFE SCREW | WRENCH |
|---|---|---|---|
| PART NO. | 301404 | W500003 | W400420 |
| DIMENSIONS | 14x14x2.0 | M5x14 | T20 Torx |

# HELICAL STAGGERED TOOTH TOOLHEADS
FINISHING

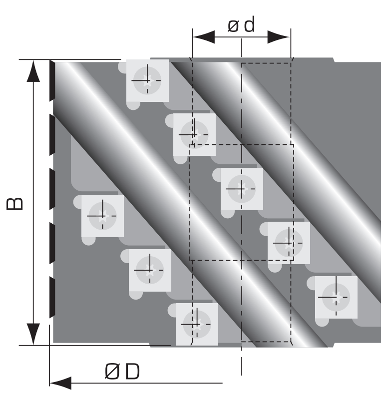
## DESIGN:
- Surface treated steel or aluminum body
- Helical toolhead with 4, 6, or 8 helices
- Spiral and staggered design along with rounded corner reversible inserts provide superior surface finish
- Toolheads can be custom made with spurs on one or both sides for tenoning and rabbet cuts (quoted upon request)
- Reversible tungsten carbide inserts with 4 rounded edges and 4 radiused corners (see drawing)

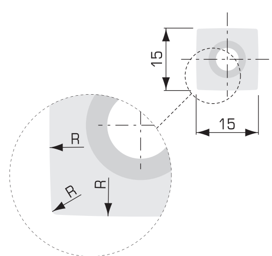
## APPLICATION:
- For surface planing, jointing, and preplaning in solid wood

## MACHINES:
- On shapers, double-end tenoners, surface planers, and moulders

| STEEL BODY PART NO. | ALUMINUM BODY PART NO. | DIAM. ØD MM | KERF B MM | BORE ød | MAX BORE ød MM | NO. HELICES | NO. INSERT KNIVES | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|---|
| 1T48001 | 1T48101 | 80 | 83 | 1-1/4" | 35 | 4 | 18 | 9500-16000 |
| 1T48003 | 1T48103 | 100 | 102 | 1-1/4" | 40 | 4 | 20 | 7500-13000 |
| 1T48005 | 1T48105 | 125 | 102 | 40mm | 60 | 4 | 20 | 6000-10000 |
| 1T48006 | 1T48106 | 125 | 131 | 40mm | 60 | 4 | 26 | 6000-10000 |
| 1T48007 | 1T48107 | 125 | 150 | 40mm | 60 | 4 | 30 | 6000-10000 |
| 1T48008 | 1T48108 | 125 | 179 | 40mm | 60 | 4 | 36 | 6000-10000 |
| 1T48009 | 1T48109 | 125 | 227 | 40mm | 60 | 4 | 46 | 6000-10000 |
| 1T48010 | 1T48110 | 125 | 102 | 40mm | 60 | 6 | 30 | 6000-10000 |
| 1T48011 | 1T48111 | 125 | 131 | 40mm | 60 | 6 | 39 | 6000-10000 |
| 1T48012 | 1T48112 | 125 | 150 | 40mm | 60 | 6 | 45 | 6000-10000 |
| 1T48013 | 1T48113 | 125 | 179 | 40mm | 60 | 6 | 54 | 6000-10000 |
| 1T48014 | 1T48114 | 125 | 227 | 40mm | 60 | 6 | 69 | 6000-10000 |
| 1T48015 | 1T48115 | 140 | 102 | 40mm | 60 | 6 | 30 | 5500-9500 |
| 1T48016 | 1T48116 | 140 | 131 | 40mm | 60 | 6 | 39 | 5500-9500 |
| 1T48017 | 1T48117 | 140 | 150 | 40mm | 60 | 6 | 45 | 5500-9500 |
| 1T48018 | 1T48118 | 140 | 179 | 40mm | 60 | 6 | 54 | 5500-9500 |
| 1T48019 | 1T48119 | 140 | 227 | 40mm | 60 | 6 | 69 | 5500-9500 |
| 1T48020 | 1T48120 | 140 | 102 | 40mm | 60 | 8 | 40 | 5500-9500 |
| 1T48021 | 1T48121 | 140 | 131 | 40mm | 60 | 8 | 52 | 5500-9500 |
| 1T48022 | 1T48122 | 140 | 150 | 40mm | 60 | 8 | 60 | 5500-9500 |
| 1T48023 | 1T48123 | 140 | 179 | 40mm | 60 | 8 | 72 | 5500-9500 |
| 1T48024 | 1T48124 | 140 | 227 | 40mm | 60 | 8 | 92 | 5500-9500 |

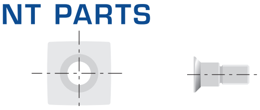
Other sizes available upon request up to a maximum diameter of 300mm and 4, 6, 8, or 10 helices




RADIUS INSERT

## REPLACEMENT PARTS



| DESCRIPTION | KNIFE | KNIFE SCREW | WRENCH |
|---|---|---|---|
| PART NO. | 301525 | W500003 | W400420 |
| DIMENSIONS | 15x15x2.0 | M5x14 | T20 Torx |

# HELICAL STAGGERED TOOTH TOOLHEADS

## FINISHING - WITH SHEAR ANGLE

### DESIGN:

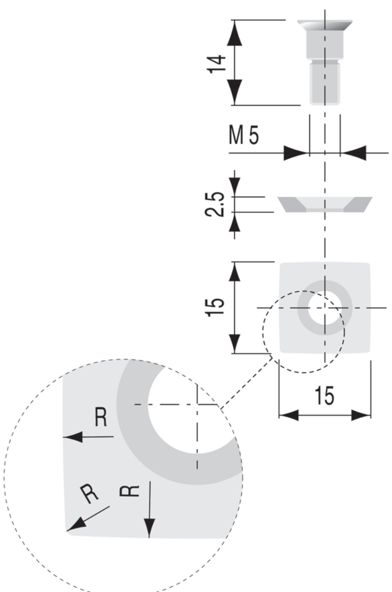
- Aluminum body (steel body quoted on request)
- Helical toolhead with 4, 6, or 8 helices
- Spiral and staggered design along with rounded corner reversible inserts provide superior surface finish
- Axial alignment of the knvies for reduced cutting pressure
- Suitable for high feed rates

### APPLICATION:

- For surface planing, jointing, and preplaning in solid wood

### MACHINES:

- On shapers, double-end tenoners, surface planers, and moulders



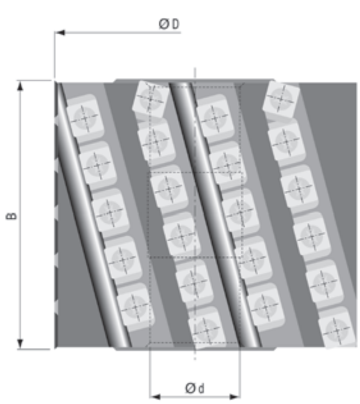

| ALUMINUM BODY PART NO. | DIAM. ØD MM | KERF B MM | BORE ød | NO. HELICES | NO. INSERT KNIVES | MAX RPM |
|---|---|---|---|---|---|---|
| **1T49001** | 70 | 80 | 25 | 4 | 14 | 19000 |
| **1T49003** | 80 | 80 | 30 (-35) | 4 | 14 | 16700 |
| **1T49005** | 100 | 100 | 30 (-40) | 4 | 18 | 13300 |
| **1T49007** | 125 | 100 | 40 (-60) | 4 | 18 | 10600 |
| **1T49008** | 125 | 130 | 40 (-60) | 4 | 26 | 10600 |
| **1T49009** | 125 | 180 | 40 (-60) | 4 | 32 | 10600 |
| **1T49010** | 125 | 230 | 40 (-60) | 4 | 40 | 10600 |
| **1T49011** | 125 | 100 | 40 (-60) | 6 | 27 | 10600 |
| **1T49012** | 125 | 130 | 40 (-60) | 6 | 33 | 10600 |
| **1T49013** | 125 | 180 | 40 (-60) | 6 | 48 | 10600 |
| **1T49014** | 125 | 230 | 40 (-60) | 6 | 60 | 10600 |
| **1T49015** | 140 | 100 | 40 (-60) | 6 | 27 | 9500 |
| **1T49016** | 140 | 130 | 40 (-60) | 6 | 33 | 9500 |
| **1T49017** | 140 | 180 | 40 (-60) | 6 | 48 | 9500 |
| **1T49018** | 140 | 230 | 40 (-60) | 6 | 60 | 9500 |
| **1T49019** | 140 | 100 | 40 (-60) | 8 | 36 | 9500 |
| **1T49020** | 140 | 130 | 40 (-60) | 8 | 44 | 9500 |
| **1T49021** | 140 | 180 | 40 (-60) | 8 | 64 | 9500 |
| **1T49022** | 140 | 230 | 40 (-60) | 8 | 80 | 9500 |

Other sizes available upon request up to a maximum diameter of 300mm

Other sizes available upon request up to a maximum length of 300mm

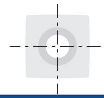
Other sizes available upon request of 4, 6, 8, or 10 helices

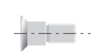
Specify bore diameter when ordering




**SUITABLE FOR CNC MACHINES**

### REPLACEMENT PARTS





| DESCRIPTION | KNIFE | KNIFE SCREW | WRENCH |
|---|---|---|---|
| **PART NO.** | **301525** | **W500003** | **W400420** |
| DIMENSIONS | 15x15x2.5 | M5x14 | T20 Torx |

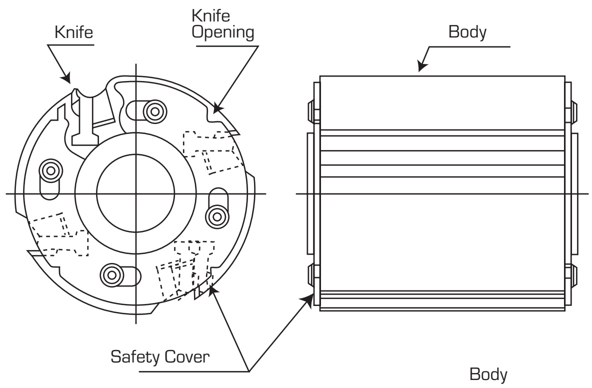
# PLANING TOOLHEADS
"CENTRA SYSTEM"

## DESIGN:

- High tensile steel body (aluminum body quoted on requested)
- 4 straight teeth
- Unique centrifugal self locking system accurately locks knives in place
- The reversible double edged knives with unique chipbreaker design and polished edges provide an ultra smooth surface finish
- Toolhead supplied without knives
- Knives available in surface treated HSS and in micro-grain mirror-finish solid carbide

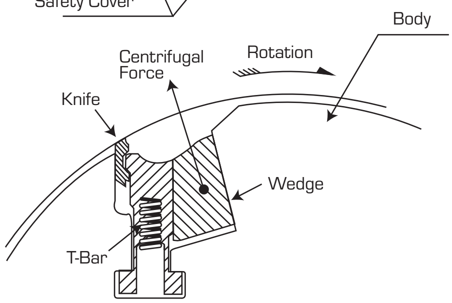
## APPLICATION:

- For surface planing and jointing in solid wood, panel materials, plastics, and cellulose




| PART NO. | DIAM. ØD MM | KERF B MM | BORE ød | NO. TEETH | RPM MIN-MAX |
|---|---|---|---|---|---|
| 1T46622 | 125 | 80 | 40mm | 4 | 6000-8000 |
| 1T46624 | 125 | 100 | 40mm | 4 | 6000-8000 |
| 1T46626 | 125 | 130 | 40mm | 4 | 6000-8000 |
| 1T46628 | 125 | 150 | 40mm | 4 | 6000-8000 |
| 1T46630 | 125 | 180 | 40mm | 4 | 6000-8000 |
| 1T46632 | 125 | 230 | 40mm | 4 | 6000-8000 |
| 1T46642 | 140 | 80 | 1-13/16" | 4 | 5500-7000 |
| 1T46644 | 140 | 100 | 1-13/16" | 4 | 5500-7000 |
| 1T46646 | 140 | 130 | 1-13/16" | 4 | 5500-7000 |
| 1T46648 | 140 | 150 | 1-13/16" | 4 | 5500-7000 |
| 1T46650 | 140 | 180 | 1-13/16" | 4 | 5500-7000 |
| 1T46652 | 140 | 230 | 1-13/16" | 4 | 5500-7000 |

Other sizes available upon request




## REPLACEMENT KNIVES

| CARBIDE KNIFE PART NO. | HSS KNIFE PART NO. | CUTTING LENGTH MM | WIDTH MM | THICKNESS MM | NO. OF KNIVES PER PACKAGE |
|---|---|---|---|---|---|
| 1T466C080 | 1T466H080 | 80 | 8 | 2 | 12 |
| 1T466C100 | 1T466H100 | 100 | 8 | 2 | 12 |
| 1T466C130 | 1T466H130 | 130 | 8 | 2 | 12 |
| 1T466C150 | 1T466H150 | 150 | 8 | 2 | 12 |
| 1T466C180 | 1T466H180 | 180 | 8 | 2 | 12 |
| 1T466C230 | 1T466H230 | 230 | 8 | 2 | 12 |

## REPLACEMENT PARTS

| Ø125MM TOOL NO. | Ø140MM TOOL NO. | DESCRIPTION | WEDGE | T-BAR | END PLATE SCREW | GIB RELEASE PUNCH | WRENCH 3MM ALLEN |
|---|---|---|---|---|---|---|---|
| 1T46622 | 1T46642 | PART NO. | W800100 | W800120 | W800140 | W800142 | W400002 |
| 1T46624 | 1T46644 | PART NO. | W800102 | W800122 | W800140 | W800142 | W400002 |
| 1T46626 | 1T46646 | PART NO. | W800104 | W800124 | W800140 | W800142 | W400002 |
| 1T46628 | 1T46648 | PART NO. | W800106 | W800126 | W800140 | W800142 | W400002 |
| 1T46630 | 1T46650 | PART NO. | W800108 | W800128 | W800140 | W800142 | W400002 |
| 1T46632 | 1T46652 | PART NO. | W800110 | W800130 | W800140 | W800142 | W400002 |

## DESIGN:

- High tensile steel body
- 2 straight teeth and 2 spurs
- Reversible tungsten carbide inserts with 2 cutting edges on the straight knives and 4 cutting edges on the spurs

## APPLICATION:

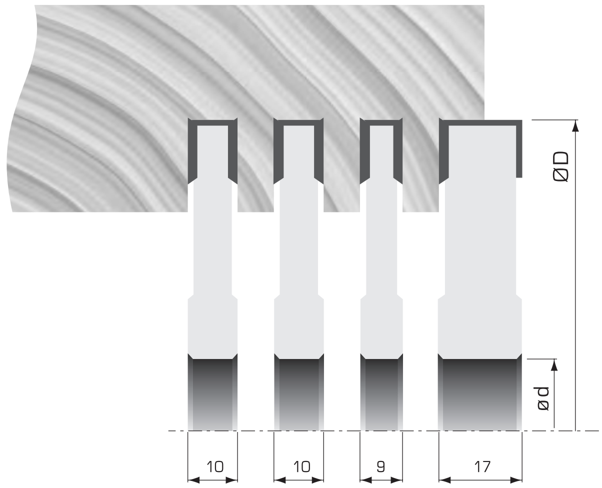
- For cutting guide grooves in solid wood

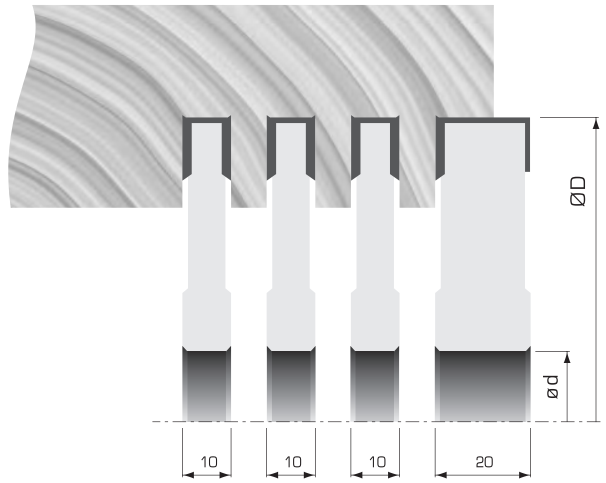
## MACHINES:

- On moulders with grooved machine bed

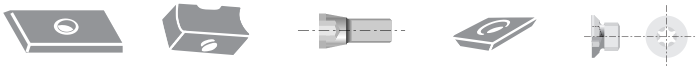
| PART NO. | DIAM. ØD MM | KERF B MM | BORE ød MM | MAX BORE ød MM | NO. TEETH | NO. SPURS | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|
| **1T4901M** | 125 | 9 | 40 | 50 | 2 | 2 | 6000-11500 |
| **1T4902M** | 125 | 10 | 40 | 50 | 2 | 2 | 6000-11500 |
| **1T4903M** | 125 | 17 | 40 | 50 | 2 | 2 | 6000-11500 |
| **1T4904M** | 125 | 20 | 40 | 50 | 2 | 2 | 6000-11500 |

Other sizes available upon request




## REPLACEMENT PARTS



| TOOL NO. | DESCRIPTION | KNIFE | WEDGE | WEDGE SCREW | SPUR | SPUR SCREW | WEDGE WRENCH | SPUR WRENCH |
|---|---|---|---|---|---|---|---|---|
| 1T4901M | **PART NO.** | **300860** | **W350021** | **W502403** | **301404** | **W500002** | **W400420** | **W400405** |
| | DIMENSIONS | 8.6x12x1.5 | 6.8 | M5x18 | 14x14x2 | M5x7 | T20 Torx | T15 Torx |
| 1T4902M | **PART NO.** | **300960** | **W350022** | **W502403** | **301404** | **W500002** | **W400420** | **W400405** |
| | DIMENSIONS | 9.6x12x1.5 | 7.6 | M5x18 | 14x14x2 | M5x7 | T20 Torx | T15 Torx |
| 1T4903M | **PART NO.** | **301700** | **W350017** | **W502403** | **301404** | **W500002** | **W400420** | **W400405** |
| | DIMENSIONS | 11.6x12x1.5 | 14 | M5x18 | 14x14x2 | M5x7 | T20 Torx | T15 Torx |
| 1T4904M | **PART NO.** | **302000** | **W350005** | **W502402** | **301404** | **W500002** | **W400115** | **W400405** |
| | DIMENSIONS | 20x12x1.5 | 16 | M7x21 | 14x14x2 | M5x7 | 5mm Hex | T15 Torx |

# TONGUE AND GROOVE TOOLHEADS
ADJUSTABLE

## DESIGN:
- High tensile steel body
- 2 or 4 teeth and 2 or 4 spurs
- Set of cutters mounted on sleeves and adjustable by spacers and shims to produce a variety of tongue and groove profiles. See details on pages D48-D49
- Toolheads sold individually, for profile selection refer to pages D48-D49
- Tungsten carbide inserts with 2 or 4 cutting edges

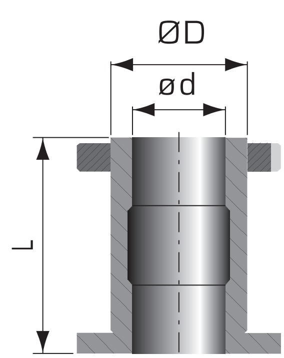
## APPLICATION:
- For producing various tongue and groove profiles in solid wood and panel materials

## MACHINES:
- On moulders

## For profile selection, see pages D48-D49

| PART NO. | TOOL TYPE | DIAM. ØD MM | KERF B MM | BORE ØD MM | NO. TEETH | NO. SPURS | NO. GROOVING INSERTS | NO. CHAMFERING INSERTS | RPM MIN-MAX |
|---|---|---|---|---|---|---|---|---|---|
| 1T2511M | 1 | 140 | 15 | 50 | 4 | 2 | – | – | 5500-10000 |
| 1T2512M | 2 | 140 | 15 | 50 | 4 | 2 | – | – | 5500-10000 |
| 1T2513M | 3 | 127 | 12 | 50 | 2 | – | – | 2 | 5800-10000 |
| 1T2514M | 4 | 155 | 20 | 50 | 4 | – | 2 | – | 4900-10000 |
| 1T2515M | 5 | 155 | 20 | 50 | 4 | – | 2 | – | 4900-10000 |
| 1T2516M | 6 | 139 | 15 | 50 | 4 | 2 | – | – | 5500-10000 |
| 1T2517M | 7 | 175 | 15 | 50 | 4 | 2 | – | – | 4400-8000 |
| 1T2518M | 8 | 155 | 20 | 50 | 4 | – | 2 | – | 4900-9000 |
| 1T2519M | 9 | 160 | 15 | 50 | 4 | 2 | – | – | 4800-9000 |
| 1T25110M | 10 | 155 | 20 | 50 | 4 | – | 2 | – | 4900-9000 |
| 1T25111M | 11 | 168 | 20 | 50 | 4 | – | 2 | – | 4500-9500 |
| 1T25112M | 12 | 149 | 15 | 50 | 4 | 2 | – | – | 5100-9500 |
| 1T25113M | 13 | 168 | 20 | 50 | 4 | – | 2 | – | 4500-8500 |
| 1T25114M | 14 | 168 | 20 | 50 | 4 | – | 2 | – | 4500-8500 |
| 1T25115M | 15 | 154 | 12 | 50 | 2 | – | – | – | 4900-9000 |
| 1T25116M | 16 | 154 | 12 | 50 | 2 | – | – | – | 4900-9000 |

Other sizes available upon request

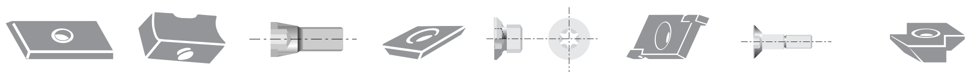



## MECHANICAL SLEEVES

| ROTATION | | PART NO. | ØD x L x ød |
|---|---|---|---|
| RH | | W05950105114R | 50mm x 105 x 1-1/4" |
| | | W05950105112R | 50mm x 105 x 1-1/2" |
| | | W05950105040R | 50mm x 105 x 40mm |
| LH | | W05950105114L | 50mm x 105 x 1-1/4" |
| | | W05950105112L | 50mm x 105 x 1-1/2" |
| | | W05950105040L | 50mm x 105 x 40mm |

FS TOOL

## REPLACEMENT PARTS



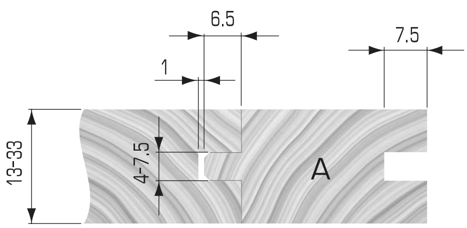
| TOOL TYPE | DESCRIPTION | KNIFE | WEDGE | WEDGE SCREW | SPUR | SPUR SCREW | GROOVING INSERT | GROOVING/ CHAMFER SCREW | CHAMFER INSERT RH / LH |
|---|---|---|---|---|---|---|---|---|---|
| 1, 2, 6 | PART NO. | 301500 | W350004 | W502404 | 301404 | W500002 | – | – | – |
| | DIMENSIONS | 15x12x1.5 | 11 | M7x19 | 14x14x2 | M5x7 | – | – | – |
| 7, 9, 12 | PART NO. | 301500 | W350004 | W502402 | 301404 | W500002 | – | – | – |
| | DIMENSIONS | 15x12x1.5 | 11 | M7x21 | 14x14x2 | M5x7 | – | – | – |
| 3 | PART NO. | 301200 | W350023 | W502403 | – | – | – | W500201 | 30600601 (RH)<br>30600602 (LH) |
| | DIMENSIONS | 12x12x1.5 | 9 | M5x18 | – | – | – | M6x12 | 27x6x14 |
| 4 • | PART NO. | 302000 | W350005 | W502402 | – | – | 307806 | W500205 | – |
| | DIMENSIONS | 20x12x1.5 | 16 | M7x21 | – | – | 37x4x16 | M6x15 | – |
| 5, 8, 10 ∆ | PART NO. | 302000 | W350005 | W502402 | – | – | 307806 | W500205 | – |
| | DIMENSIONS | 20x12x1.5 | 16 | M7x21 | – | – | 37x4x16 | M6x15 | – |
| 13, 14 | PART NO. | 302000 | W350005 | W502402 | – | – | 307810 | W500205 | – |
| | DIMENSIONS | 20x12x1.5 | 16 | M7x21 | – | – | 48x4x16 | M6x15 | – |
| 11 | PART NO. | 302000 | W350005 | W502402 | – | – | 307831 | W500205 | – |
| | DIMENSIONS | 20x12x1.5 | 16 | M7x21 | – | – | 60x4x16 | M6x15 | – |
| 15, 16 | PART NO. | 301200 | W350023 | W502403 | – | – | – | – | – |
| | DIMENSIONS | 12x12x1.5 | 9 | M5x18 | – | – | – | – | – |

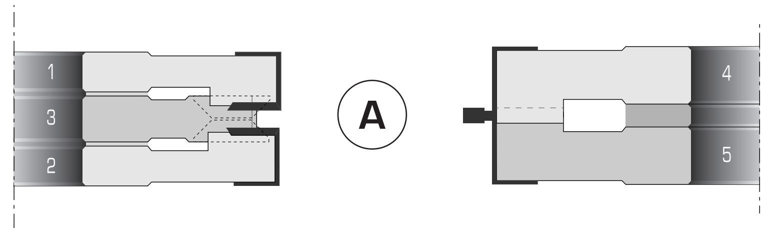
• Tool Type 4 manufactured prior to 2015 requires grooving insert 307809 (dimensions: 48x4x16)

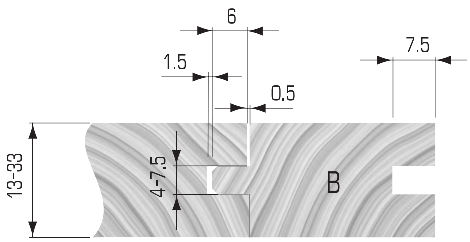
∆ Tool Type 5, 8, and 10 manufactured prior to 2015 requires grooving insert 307810 (dimensions: 48x4x16)

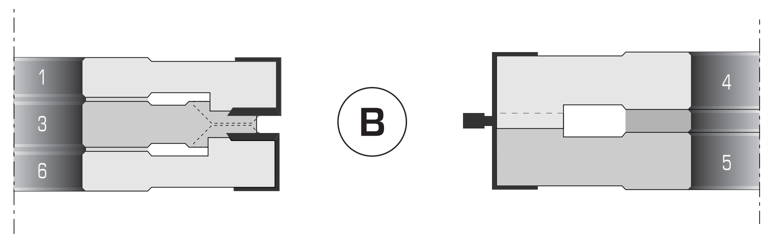
## SCREWS AND WRENCHES

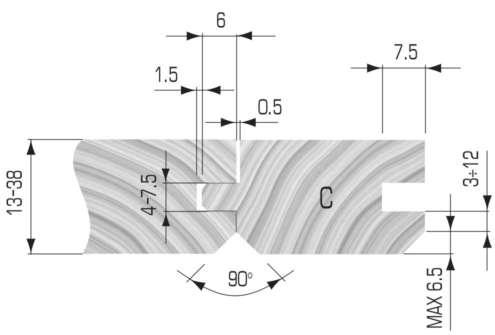
| COMPONENT TYPE | COMPONENT PART NO. | DESCRIPTION | WRENCH |
|---|---|---|---|
| WEDGE | W350004 | PART NO. | W400115 |
| | | DIMENSIONS | 5mm Hex |
| | W350005 | PART NO. | W400115 |
| | | DIMENSIONS | 5mm Hex |
| | W350023 | PART NO. | W400420 |
| | | DIMENSIONS | T20 Torx |
| SPUR SCREW | W500002 | PART NO. | W400405 |
| | | DIMENSIONS | T15 Torx |
| GROOVING SCREW | W500201 | PART NO. | W400114 |
| | | DIMENSIONS | 4mm Hex |
| | W500205 | PART NO. | W400114 |
| | | DIMENSIONS | 4mm Hex |
| CHAMFER SCREW | W500201 | PART NO. | W400114 |
| | | DIMENSIONS | 4mm Hex |

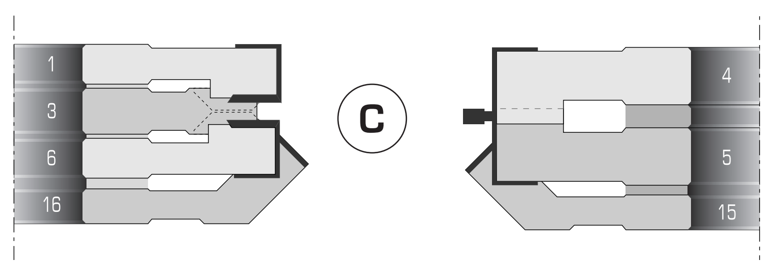

6.5
7.5
1
13-33
4-7.5
A

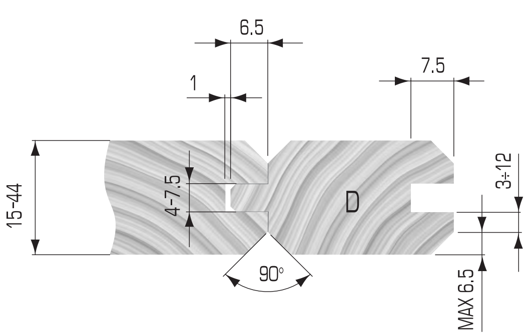

1
3
2
A
4
5

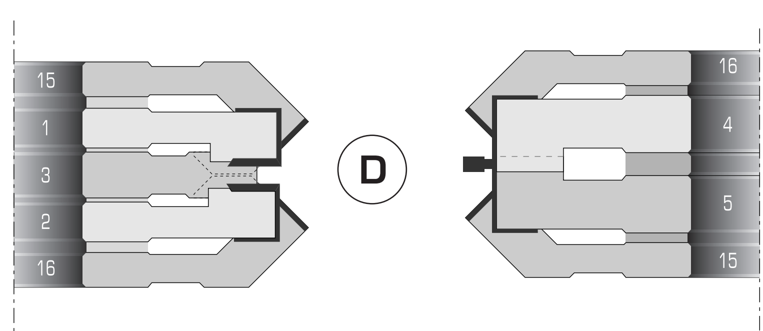

6
7.5
1.5
0.5
13-33
4-7.5
B

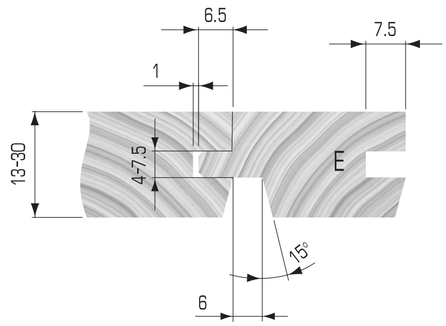

1
3
6
B
4
5

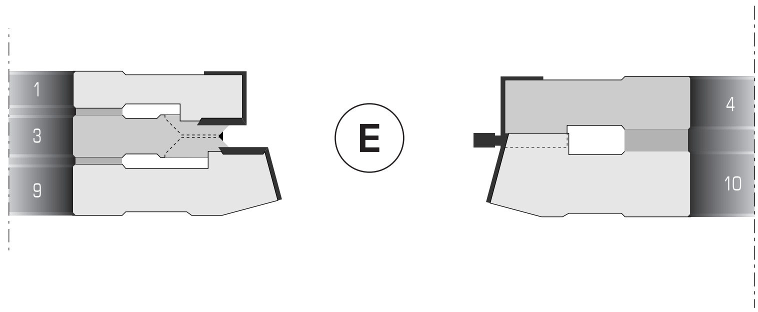

6
7.5
1.5
0.5
13-38
4-7.5
C
3÷12
90°
MAX 6.5

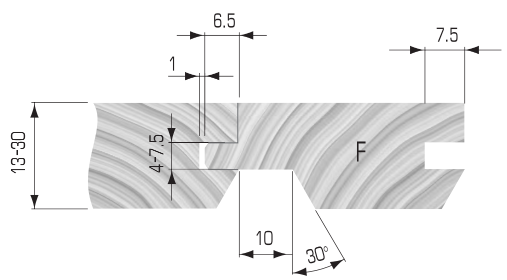

1
3
6
16
C
4
5
15

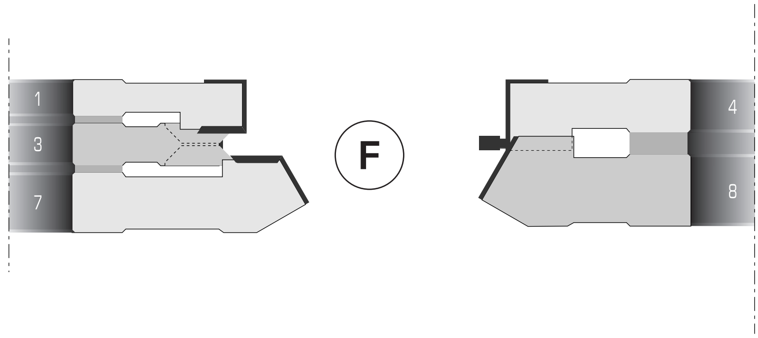

6.5
7.5
1
15-44
4-7.5
D
3÷12
90°
MAX 6.5

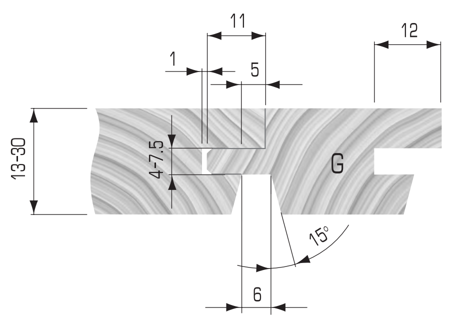

15
1
3
2
16
D
16
4
5
15

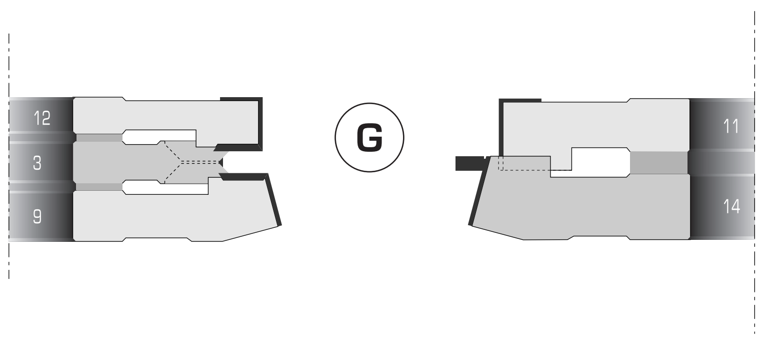

6.5
7.5
1
13-30
4-7.5
E
15°
6


1
3
9
E
4
10


6.5
7.5
1
13-30
4-7.5
F
10
30°


1
3
7
F
4
8


11
12
1
5
13-30
4-7.5
G
15°
6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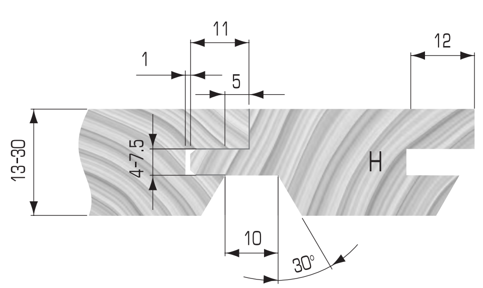
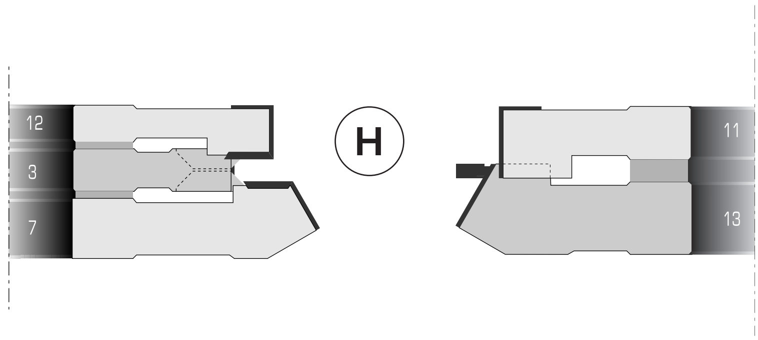
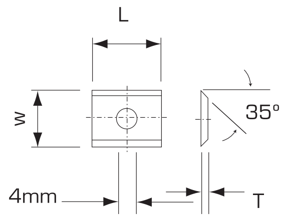
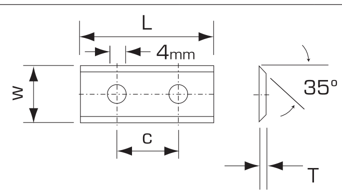
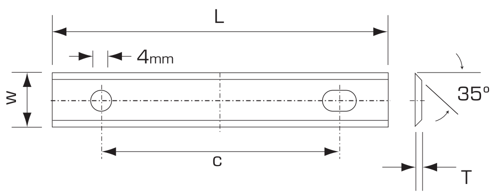
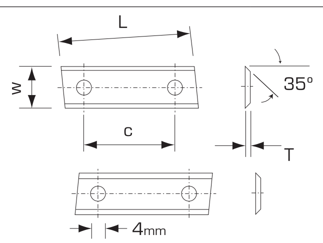
3
9
G
11
14


11
12
1
5
13-30
4-7.5
H
10
30°

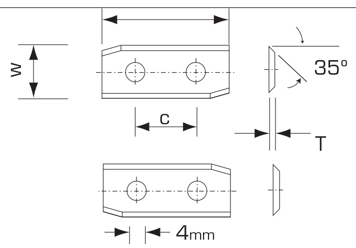

12
3
7
H
11
13

## 35° BACK ANGLE - 2 CUTTING EDGES

| DRAWING | K05 GRADE PART NO. | XL4000 GRADE EXTENDED LIFE PART NO. | SCREW HOLE ø MM | LENGTH L MM | WIDTH W MM | THICKNESS T MM | DIMENSION C MM |
|---|---|---|---|---|---|---|---|
|  | 300600 | – | 2.5 | 6.0 | 12 | 1.5 | – |
| | 300800 | – | 4 | 7.5 | 12 | 1.5 | – |
| | 300860 | – | 4 | 8.6 | 12 | 1.5 | – |
| | 300920 | – | 4 | 9.2 | 12 | 1.5 | – |
| | 300960 | – | 4 | 9.6 | 12 | 1.5 | – |
| | 301050 | – | 4 | 10.5 | 12 | 1.5 | – |
| | 301100 | – | 4 | 11.0 | 12 | 1.5 | – |
| | 301160 | – | 4 | 11.6 | 12 | 1.5 | – |
| | 301230 | – | 4 | 12.3 | 12 | 1.5 | – |
| | 301300 | – | 4 | 13.0 | 12 | 1.5 | – |
| | 301500 | – | 4 | 15.0 | 12 | 1.5 | – |
| | 301570 | – | 4 | 15.7 | 12 | 1.5 | – |
| | 301700 | – | 4 | 17.0 | 12 | 1.5 | – |
| | 301800 | – | 4 | 18.0 | 12 | 1.5 | – |
| | 301900 | – | 4 | 19.0 | 12 | 1.5 | – |
| | 302000 | 302000XL | 4 | 20.0 | 12 | 1.5 | – |
| | 302500 | – | 4 | 25.0 | 12 | 1.5 | – |
|  | 302501 | – | 4 | 25.0 | 12 | 1.5 | 14 |
| | 303000 | 303000XL | 4 | 30.0 | 12 | 1.5 | 14 |
| | 304000 | – | 4 | 40.0 | 12 | 1.5 | 26 |
| | 305000 | 305000XL | 4 | 50.0 | 12 | 1.5 | 26 |
| | 306000 | – | 4 | 60.0 | 12 | 1.5 | 26 |
|  | 308000 | – | 4 | 80.0 | 13 | 2.2 | 60 |
| | 310000 | – | 4 | 100.0 | 13 | 2.2 | 60 |
| | 312000 | – | 4 | 120.0 | 13 | 2.2 | 60 |

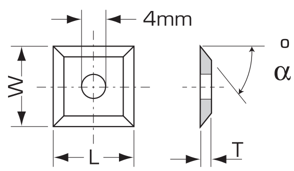
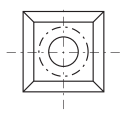
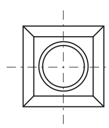
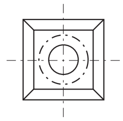
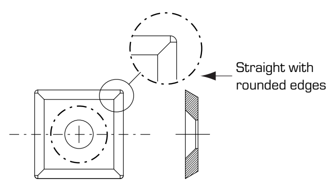
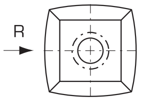
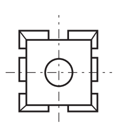


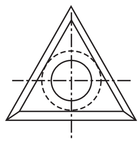
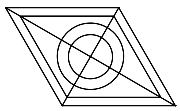
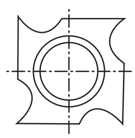
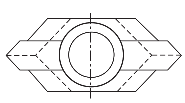
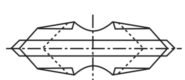
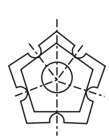
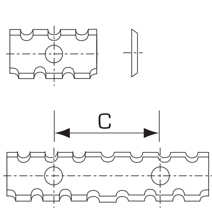

| LEFT-HAND | RIGHT-HAND | XL4000 GRADE EXTENDED LIFE PART NO. | SCREW HOLE ø MM | LENGTH L MM | WIDTH W MM | THICKNESS T MM | DIMENSION C MM |
|---|---|---|---|---|---|---|---|
| 303020 | 303021 | – | 4 | 29.5 | 12 | 1.5 | 14 |
| 305020 | 305021 | – | 4 | 49.5 | 12 | 1.5 | 26 |

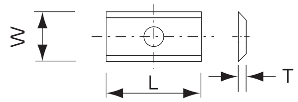
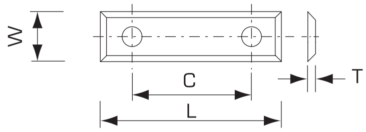
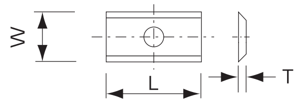
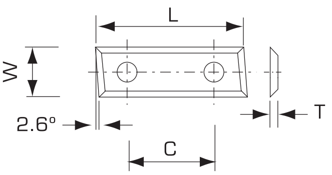
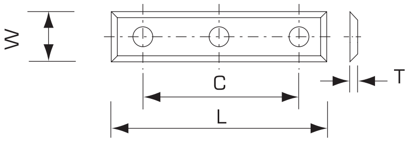
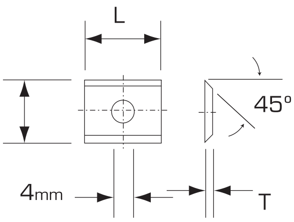
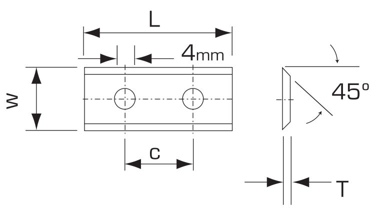



| LEFT-HAND | RIGHT-HAND | XL4000 GRADE EXTENDED LIFE PART NO. | SCREW HOLE ø MM | LENGTH L MM | WIDTH W MM | THICKNESS T MM | DIMENSION C MM |
|---|---|---|---|---|---|---|---|
| 303030 | 303031 | – | 4 | 29.5 | 12 | 1.5 | 14 |
| 305030 | 305031 | – | 4 | 49.5 | 12 | 1.5 | 26 |

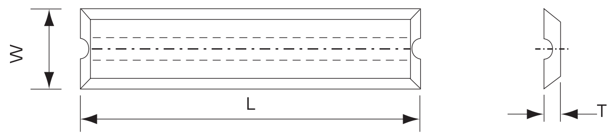
## 4 CUTTING EDGES

| DRAWING | K05 GRADE PART NO. | XL4000 GRADE EXTENDED LIFE PART NO. | SCREW HOLE ø MM | LENGTH L MM | WIDTH W MM | THICKNESS T MM | BACK ANGLE α |
|---|---|---|---|---|---|---|---|
|   | 301051 | – | 4 | 10.5 | 10.5 | 1.5 | 35° |
| | 301200 | 301200XL | 4 | 12.0 | 12.0 | 1.5 | 35° |
| | 301301 | – | 4 | 13.0 | 13.0 | 2.5 | 35° |
| | 301701 | – | 4 | 17.0 | 17.0 | 2.0 | 35° |
| | 301901 | – | 4 | 19.0 | 19.0 | 2.0 | 35° |
|  | 301052 | – | – | 10.5 | 10.5 | 1.5 | 35° |
| | 301360 | – | – | 13.6 | 13.6 | 2.0 | 30° |
| | 301361 | – | – | 13.6 | 13.6 | 2.0 | 45° |
| | 301414 | – | – | 14.0 | 14.0 | 1.2 | 30° |
| | 301424 | – | – | 14.0 | 14.0 | 1.7 | 30° |
| | 301404 | 301404XL | – | 14.0 | 14.0 | 2.0 | 30° |
|  For Holz-Her system | 301414-H | – | – | 14.0 | 14.0 | 1.2 | 30° |
|  | 301430 | – | – | 14.3 | 14.3 | 2.5 | 35° |
| | 301460 | – | – | 14.6 | 14.6 | 2.5 | 30° |
| | 301515 | – | – | 15.0 | 15.0 | 2.5 | 30° |
|   | 301405 | – | – | 14.0 | 14.0 | 2.0 | 30° |
| | 301520 | – | – | 15.0 | 15.0 | 2.5 | 30° |
|   R= 150mm | 301525 | – | – | 15.0 | 15.0 | 2.5 | 30° |
|  | 301505 | – | – | 15.0 | 15.0 | 2.0 | 35° |

| DRAWING | K05 GRADE PART NO. | LENGTH L MM | WIDTH W MM | THICKNESS T MM | DIMENSION C MM | BACK ANGLE α |
|---|---|---|---|---|---|---|
|  | **320201** | 22.0 | 19.0 | 2.0 | – | 30° |
|  | **320101** | 28 | 16 | 2.0 | – | 30° |
|  | **320301** | 18.0 | 18.0 | 1.95 | – | – |
| | **320302** | 18.0 | 18.0 | 2.45 | – | – |
| | **320303** | 18.0 | 18.0 | 2.95 | – | – |
| | **320305** | 18.0 | 18.0 | 3.70 | – | – |
|  | **320401** | 18.9 | 7.9 | 4.0 | – | – |
|  | **320501** | 18.0 | 6.0 | 3.5 | – | – |
|  | **320601** | 33.5 | 3.0 | – | – | – |
|  | **320701** | 18.5 | – | 3..25 | – | 30° |
|  | **320802** | 20.0 | 12.0 | 1.5 | – | – |
| | **320803** | 30.0 | 12.0 | 1.5 | 14.0 | – |
| | **320805** | 50.0 | 12.0 | 1.5 | 26.0 | – |

| DRAWING | K05 GRADE PART NO. | NO. CUTTING EDGES | LENGTH L MM | WIDTH W MM | THICKNESS T MM | DIMENSION C MM | BACK ANGLE α |
|---|---|---|---|---|---|---|---|
|  | 302010 | 2 | 20.0 | 9.0 | 1.5 | – | – |
| | 302012 | 2 | 19.50 | 12.0 | 1.5 | – | – |
|  | 302810 | 4 | 28.0 | 7.0 | 1.5 | 14 | – |
| | 303010 | 4 | 29.5 | 9.0 | 1.5 | 14 | – |
| | 303012 | 4 | 29.5 | 12.0 | 1.5 | 14 | – |
| | 304010 | 4 | 39.5 | 9.0 | 1.5 | 26 | – |
| | 304012 | 4 | 39.5 | 12.0 | 1.5 | 26 | – |
| | 305010 | 4 | 49.5 | 9.0 | 1.5 | 26 | – |
| | 305012 | 4 | 49.5 | 12.0 | 1.5 | 26 | – |
| | 306012 | 4 | 59.5 | 12.0 | 1.5 | 26 | – |
|  | 300906 | 2 | 10.0 | 9.5 | 1.5 | – | – |
| | 301006 | 2 | 10.0 | 10.5 | 1.5 | – | – |
|  | 303009 | 4 | 29.5 | 9.0 | 1.5 | 14 | – |
| | 303022 | 4 | 29.5 | 12.0 | 1.5 | 14 | – |
| | 304009 | 4 | 39.5 | 9.0 | 1.5 | 26 | – |
| | 304022 | 4 | 39.5 | 12.0 | 1.5 | 26 | – |
| | 305009 | 4 | 49.5 | 9.0 | 1.5 | 26 | – |
| | 305022 | 4 | 49.5 | 12.0 | 1.5 | 26 | – |
|  | 305025 | 4 | 50.0 | 12.0 | 1.7 | 37 | – |
|  | 307545 | 2 | 7.5 | 12.0 | 1.5 | – | 45° |
| | 309645 | 2 | 9.6 | 12.0 | 1.5 | – | 45° |
| | 301545 | 2 | 15.0 | 12.0 | 1.5 | – | 45° |
| | 302045 | 2 | 20.0 | 12.0 | 1.5 | – | 45° |
|  | 303045 | 2 | 30.0 | 12.0 | 1.5 | 14 | 45° |
| | 304045 | 2 | 40.0 | 12.0 | 1.5 | 26 | 45° |
| | 305045 | 2 | 50.0 | 12.0 | 1.5 | 26 | 45° |
| | 306045 | 2 | 60.0 | 12.0 | 1.5 | 26 | 45° |
| | 301245 | 4 | 12.0 | 12.0 | 1.5 | – | 45° |

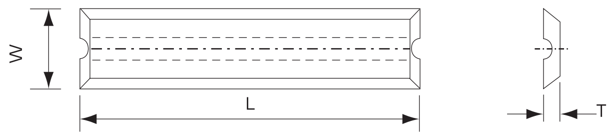
## C4 GRADE MICRO GRAIN MIRROR FINISH




4 CUTTING EDGES
FACE GROOVE

| PART NO. | LENGTH L MM | WIDTH W MM | THICKNESS T MM |
|---|---|---|---|
| 300911M | 9.0 | 9.0 | 1.5 |
| 301211M | 12.0 | 5.5 | 1.1 |
| 301511M | 15.0 | 5.5 | 1.1 |
| 302011M | 20.0 | 5.5 | 1.1 |
| 302511M | 25.0 | 5.5 | 1.1 |
| 303011M | 30.0 | 5.5 | 1.1 |
| 303511M | 35.0 | 5.5 | 1.1 |
| 304011M | 40.0 | 5.5 | 1.1 |
| 304511M | 45.0 | 5.5 | 1.1 |
| 305011M | 50.0 | 5.5 | 1.1 |
| 306011M | 60.0 | 5.5 | 1.1 |

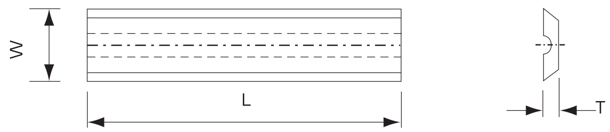
## K05 GRADE STANDARD FINISH




4 CUTTING EDGES
FACE GROOVE

| PART NO. | LENGTH L MM | WIDTH W MM | THICKNESS T MM |
|---|---|---|---|
| 303011S | 30.0 | 5.5 | 1.1 |
| 303511S | 35.0 | 5.5 | 1.1 |
| 304011S | 40.0 | 5.5 | 1.1 |
| 304511S | 45.0 | 5.5 | 1.1 |
| 305011S | 50.0 | 5.5 | 1.1 |
| 306011S | 60.0 | 5.5 | 1.1 |

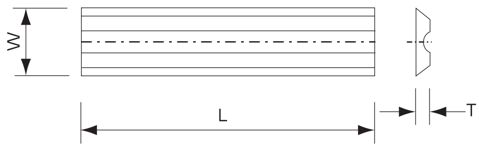
## K05 GRADE STANDARD FINISH




2 CUTTING EDGES
FACE GROOVE

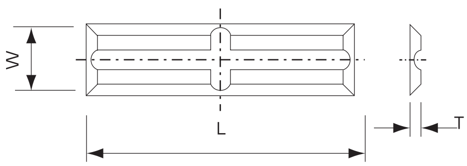
| PART NO. | LENGTH L MM | WIDTH W MM | THICKNESS T MM |
|---|---|---|---|
| 301211 | 12.0 | 5.5 | 1.1 |
| 301511 | 15.0 | 5.5 | 1.1 |
| 302011 | 20.0 | 5.5 | 1.1 |
| 303011 | 30.0 | 5.5 | 1.1 |
| 304011 | 40.0 | 5.5 | 1.1 |
| 305011 | 50.0 | 5.5 | 1.1 |
| 306011 | 60.0 | 5.5 | 1.1 |

## K05 GRADE STANDARD FINISH




2 CUTTING EDGES
BACK GROOVE

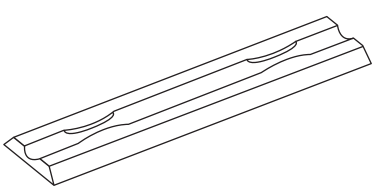
| PART NO. | LENGTH L MM | WIDTH W MM | THICKNESS T MM |
|---|---|---|---|
| **341211** | 12.0 | 5.5 | 1.1 |
| **342011** | 20.0 | 5.5 | 1.1 |
| **343011** | 30.0 | 5.5 | 1.1 |
| **345011** | 50.0 | 5.5 | 1.1 |




4 CUTTING EDGES
BACK AND CROSS-GROOVE

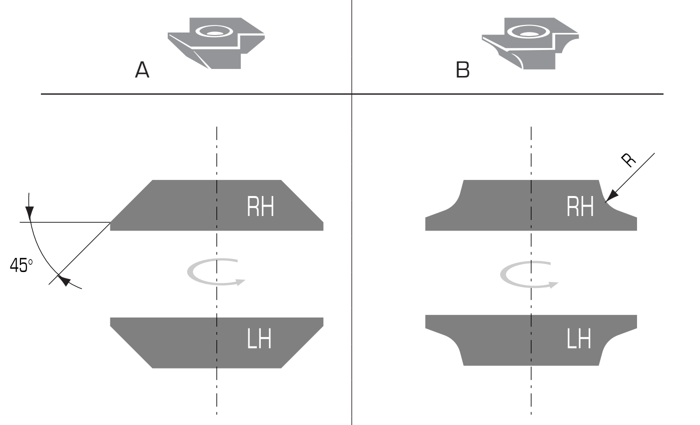
| PART NO. | LENGTH L MM | WIDTH W MM | THICKNESS T MM |
|---|---|---|---|
| **352010** | 20.0 | 4.1 | 1.1 |
| **352011** | 20.0 | 5.5 | 1.1 |
| **352511** | 25.0 | 5.5 | 1.1 |
| **353011** | 30.0 | 5.5 | 1.1 |
| **354011** | 40.0 | 5.5 | 1.1 |
| **355011** | 50.0 | 5.5 | 1.1 |

## REVERSIBLE KNIVES FOR PORTABLE HAND-PLANERS



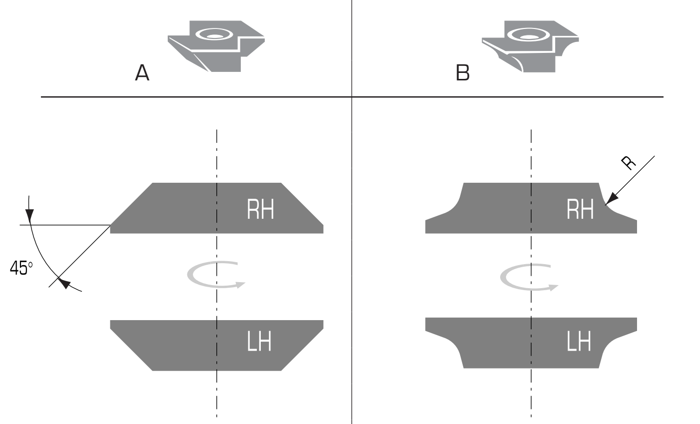
| PART NO. | LENGTH L MM | WIDTH W MM | THICKNESS T MM | MACHINES |
|---|---|---|---|---|
| **305600** | 56.0 | 5.5 | 1.1 | ADLER |
| **306001** | 60.0 | 5.5 | 1.1 | WEGOMA |
| **307500** | 75.5 | 5.5 | 1.1 | AEG, BOSCH, FESTO HAFFNER, KRESS, MAFELL, METABO SCHEER, SKIL HOLZ-HER |
| **307570** | 75.7 | 5.5 | 1.2 | B & D |
| **307800** | 78.0 | 5.5 | 1.1 | VIRUTEX |
| **318000** | 80.5 | 5.9 | 1.2 | ELU |
| **308052** | 80.5 | 5.5 | 1.1 | ELU |
| **308200** | 82.0 | 5.5 | 1.1 | AEG, B & D, BOSCH ALU, FEIN, FELISATTI HAFFNER, HITACHI HOLZ-HER, MAFELL MAKITA, METABO, PEUGOT, RYOBI, SKIL |
| **308270** | 82.7 | 5.5 | 1.2 | B & D |
| **309200** | 92.0 | 5.5 | 1.1 | AEG, HITACHI RYOBI |
| **301020** | 102.0 | 5.5 | 1.1 | AEG |

## CHAMFERING AND CORNER ROUNDING




| PART NO. | DIMENSIONS MM | TYPE | ROTATION |
|---|---|---|---|
| 30600601 | 27 x 14 x 6 | A | R.H. |
| 30600602 | 27 x 14 x 6 | A | L.H. |
| 30600605 | R=1.5 | B | R.H. |
| 30600613 | R=2.0 | B | R.H. |
| 30600603 | R=3.0 | B | R.H. |
| 30600606 | R=1.5 | B | L.H. |
| 30600614 | R=2.0 | B | L.H. |
| 30600604 | R=3.0 | B | L.H. |

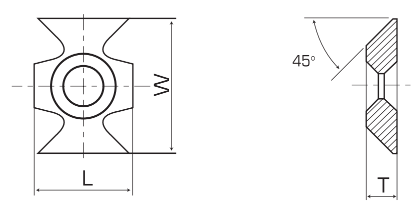
## CHAMFERING AND CORNER ROUNDING (BG TEST)



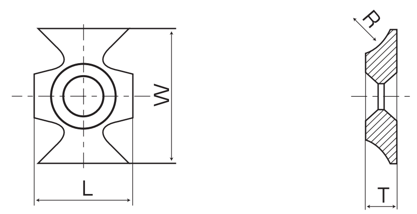

| PART NO. | DIMENSIONS MM | TYPE | ROTATION |
|---|---|---|---|
| 30600607 | 27 x 16 x 6 | A | R.H. |
| 30600608 | 27 x 16 x 6 | A | L.H. |
| 30600617 | R=1.5 | B | R.H. |
| 30600611 | R=2.0 | B | R.H. |
| 30600609 | R=3.0 | B | R.H. |
| 30600618 | R=1.5 | B | L.H. |
| 30600612 | R=2.0 | B | L.H. |
| 30600610 | R=3.0 | B | L.H. |

## CHAMFERING AND CORNER ROUNDING (BG TEST)

**TYPE: A**

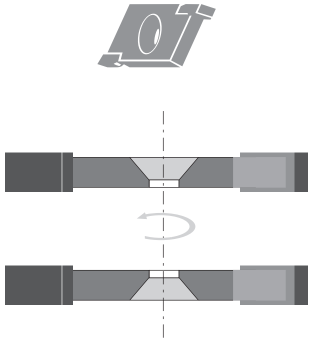



**TYPE: B**



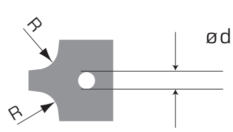

| PART NO. | DIMENSIONS MM | TYPE | RADIUS R MM |
|---|---|---|---|
| 30700501 | 16 x 22 x 5 | A | - |
| 30700503 | 16 x 22 x 5 | B | 1.5 |
| 30700504 | 16 x 22 x 5 | B | 2.0 |
| 30700505 | 16 x 22 x 5 | B | 2.5 |
| 30700506 | 16 x 22 x 5 | B | 3.0 |
| 30700507 | 16 x 22 x 5 | B | 4.0 |
| 30700508 | 16 x 22 x 5 | B | 5.0 |
| 30700509 | 16 x 22 x 5 | B | 6.0 |

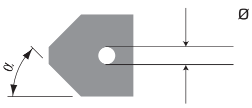
## REVERSIBLE GROOVING INSERTS - CARBIDE TIPPED




| PART NO. | DIMENSIONS MM | ROTATION |
|---|---|---|
| **307807** | 48 x 3.0 x 16 | L.H. |
| **307808** | 48 x 3.0 x 16 | R.H. |
| **307809** | 48 x 4.0 x 16 | L.H. |
| **307810** | 48 x 4.0 x 16 | R.H. |
| **307813** | 48 x 5.0 x 16 | L.H. |
| **307814** | 48 x 5.0 x 16 | R.H. |
| **307817** | 48 x 6.35 x 16 | L.H. |
| **307818** | 48 x 6.35 x 16 | R.H. |
| | | |
| **307831** | 60 x 4.0 x 16 | L.H. |
| **307832** | 60 x 4.0 x 16 | R.H. |
| **307835** | 60 x 5.0 x 16 | L.H. |
| **307836** | 60 x 5.0 x 16 | R.H. |

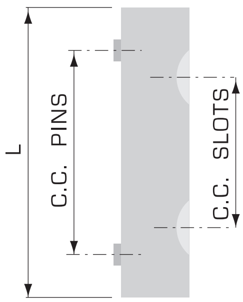
## REVERSIBLE GROOVING INSERTS - CARBIDE TIPPED



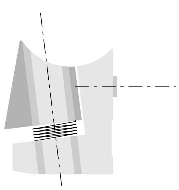

| PART NO. | DIMENSIONS MM | RADIUS (R) MM |
|---|---|---|
| **401002** | 16 x 17.5 x 2.0 | 2 |
| **401003** | 16 x 17.5 x 2.0 | 3 |
| **401004** | 16 x 17.5 x 2.0 | 4 |
| **401005** | 16 x 17.5 x 2.0 | 5 |
| | | |
| **402002** | 20 x 20.5 x 2.0 | 2 |
| **402003** | 20 x 20.5 x 2.0 | 3 |
| **402004** | 20 x 20.5 x 2.0 | 4 |
| **402005** | 20 x 20.5 x 2.0 | 5 |
| **402006** | 20 x 20.5 x 2.0 | 6 |
| | | |
| | | |
| **402020** | 20 x 20.5 x 2.0 | α = 5° |
| | | |
| | | |

## WEDGES



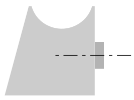

| PART NO. | LENGTH MM | NO. PINS | C.C. PINS MM | NO. SLOTS | C.C. SLOTS MM |
|---|---|---|---|---|---|
| W350021 | 6.8 | 1 | 0 | 1 | 0 |
| W350022 | 7.6 | 1 | 0 | 1 | 0 |
| W350023 | 9.0 | 1 | 0 | 1 | 0 |
| W350004 | 11.0 | 1 | 0 | 1 | 0 |
| W350017 | 14.0 | 1 | 0 | 1 | 0 |
| W350005 | 16.0 | 1 | 0 | 1 | 0 |
| W350006 | 21.0 | 1 | 0 | 1 | 0 |
| W350014 | 26.0 | 1 | 0 | 1 | 0 |
| W350007 | 26.0 | 2 | 14 | 1 | 0 |
| W350008 | 36.0 | 2 | 26 | 2 | 18 |
| W350009 | 46.0 | 2 | 26 | 2 | 24 |
| W350056 | 55.0 | 2 | 26 | 2 | 30 |
| W350011 | 74.0 | 2 | 60 | 2 | 44 |
| W350018 | 94.0 | 2 | 60 | 4 | 25 |

## WEDGES



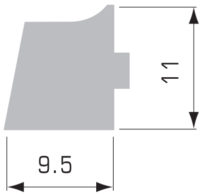
| PART NO. | LENGTH MM | NO. PINS | C.C. PINS MM |
|---|---|---|---|
| W300004 | 18 | 1 | 0 |
| W300037 | 26 | 1 | 0 |
| W300023 | 46 | 2 | 26 |
| W300024 | 56 | 2 | 26 |

## WEDGES



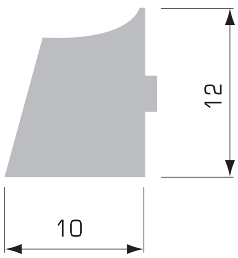
| PART NO. | LENGTH MM | NO. PINS | C.C. PINS MM |
|---|---|---|---|
| W300203 | 13 | 1 | 0 |
| W300204 | 18 | 1 | 0 |
| W300205 | 28 | 2 | 14 |
| W300206 | 48 | 2 | 26 |

## WEDGES



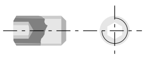

| PART NO. | LENGTH MM | NO. PINS | C.C. PINS MM |
|---|---|---|---|
| W340006 | 15 | 1 | 0 |
| W340026 | 26 | 2 | 14 |
| W340027 | 31 | 2 | 18 |

## WEDGES



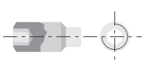

| PART NO. | LENGTH MM | NO. PINS | C.C. PINS MM |
|---|---|---|---|
| W300701 | 14.5 | 1 | 0 |
| W300702 | 27.4 | 2 | 15.3 |

## WEDGE SCREWS



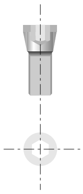
| PART NO. | DIMENSIONS MM |
|---|---|
| W501313 | M4x16 |
| W501307 | M5x8 |
| W501301 | M6x12 |
| W501302 | M6x16 |
| W501316 | M6x20 |
| W501303 | M8x10 |
| W501312 | M10x12 |
| W501305 | M10x20 |
| W501309 | M10x25 |

## WEDGE SCREWS



| PART NO. | DIMENSIONS MM |
|---|---|
| W501415 | M5x8 |
| W501402 | M6x10 |
| W501401 | M6x12 |
| W501404 | M8x20 |
| W501410 | M8x25 |
| W501409 | M10x20 |

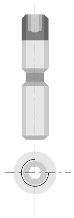
## WEDGE SCREWS



| PART NO. | DIMENSIONS MM |
|---|---|
| W502403* | M5x18 |
| W502405 | M7x17 |
| W502404 | M7x19 |
| W502402 | M7x21 |
| W502401 | M7x26 |

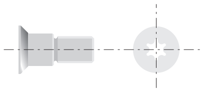
* T20 TORX

## WEDGE SCREWS



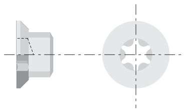
| PART NO. | DIMENSIONS MM |
|---|---|
| W500901 | M6x15 |
| W500902 | M6x20 |
| W500903 | M8x22 |

## TORX SCREWS



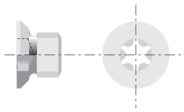
| PART NO. | DIMENSIONS MM |
|---|---|
| W500003 | M5x14 |

## TORX SCREWS



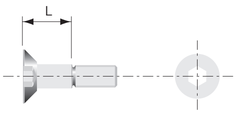
| PART NO. | DIMENSIONS MM |
|---|---|
| W500002 | M5x7 |
| W500004 | M5x5.1 |

## TORX SCREWS



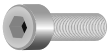
| PART NO. | DIMENSIONS MM |
|---|---|
| W500401 | M4x3.2 |
| W500402 | M4x4.0 |

## HEX SCREWS



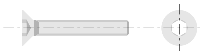

| PART NO. | DIMENSIONS MM | L MM |
|---|---|---|
| W500205 | M6x15 | 7.0 |
| W500206 | M6x19 | 11.0 |

## HEX SCREWS



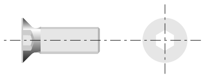
| PART NO. | DIMENSIONS MM |
|---|---|
| W501702 | M5x16 |

## HEX SCREWS



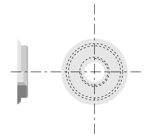
| PART NO. | DIMENSIONS MM |
|---|---|
| W500605 | M6x16 |
| W500601 | M8x50 |

# W500201 REPLACEMENT PARTS



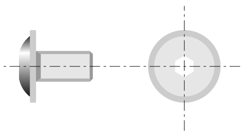
## HEX SCREWS

| PART NO. | DIMENSIONS MM |
|---|---|
| W500201 | M6x12 |
| W500312 | M16x19 |



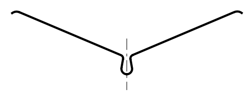
## THREADED RINGS FOR SPURS

| PART NO. | DIMENSIONS MM |
|---|---|
| W501001 | 10x1.65 |
| W501101 | 12x1.7 |



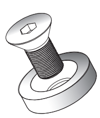
## POSITIONING SCREWS

| PART NO. | DIMENSIONS MM |
|---|---|
| W502601 | M5x10 |



## PLANING TOOLHEAD SPRINGS

| PART NO. | DIMENSIONS MM |
|---|---|
| W501601 | 25x52 |
| W501602 | 36x95 |

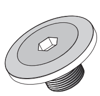


## POSITIONING SCREWS

| PART NO. | DIMENSIONS MM |
|---|---|
| W500604 | M5x10 |
| W500303 | 16mmx3.5 |

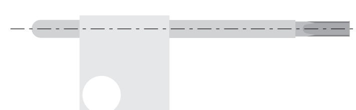
## WRENCHES

| PART NO. | DIMENSIONS MM |
|---|---|
| W400501 | 55 |
| W400502 | 65 |



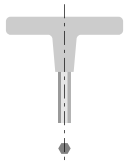
## POSITIONING SCREWS

| PART NO. | DIMENSIONS MM |
|---|---|
| W502604 | M5x5 |



## KEY TYPE TORX WRENCHES

| PART NO. | DIMENSIONS MM |
|---|---|
| W400406 | T8 |
| W400401 | T9 |
| W400405 | T15 |

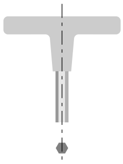


## T-HANDLE TORX WRENCHES

| PART NO. | DIMENSIONS MM |
|---|---|
| W400420 | T20 |
| W400430 | T30 |

## L-SHAPE HEX WRENCHES

| PART NO. | DIMENSIONS MM |
|---|---|
| W400001 | 2.5 |
| W400002 | 3 |
| W400003 | 4 |
| W400004 | 5 |
| W400005 | 6 |
| W400006 | 7 |
| W400007 | 8 |
| W400008 | 10 |



## T-HANDLE HEX WRENCHES

| PART NO. | DIMENSIONS MM |
|---|---|
| W400101 | 2.5 |
| W400113 | 3 |
| W400114 | 4 |
| W400115 | 5 |
| W400116 | 6 |
| W400117 | 8 |
| W400108 | 10 |

E

# CIRCULAR SAW BLADES

Dado Sets / Grooving Saw Blades / Hogging Units

# XL4000

**Extended Life Saw Blades**

A revolutionary technology

Over 40 years of continuous development has refined every aspect of our saw blade manufacturing, materials and geometries. Today we offer nearly 1,500 models all derived from the same engineering resources compiled over three decades of application experience. From plate to finished saw blade, each is manufactured using the latest technology. Once the plate has been transformed into the most formidable TCT saw blade on the market, it undergoes a nearly artisan, manual tensioning process.

Renowned as the premier saw blade available throughout our industry, the *XL4000* series with Submicron Corrosion Resistant Carbide Tips will provid measurable cost savings by Increased blade life, reduced machine downtime and by increasing your production's efficiency and quality of cut.

FS TOOL

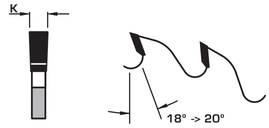
## Did you know?

XL4000 TCT Saw Blades will reduce your machine's downtime & increase your production's efficiency by consistently providing an accurate, quality cut that lasts substantially longer and can be serviced more times.


QUALITY • SERVICE • PRIDE • TRADITION • INNOVATION

# S21 HEAVY DUTY RIP SAW BLADES
*XL4000*


**TOOTH CONFIG:** Flat Top




## APPLICATION:
» Ripping

## MATERIAL:
» Dry softwoods and hardwoods

## MACHINE TYPE:
» Table saws
» Straight line rip saws
» Gang rip saws

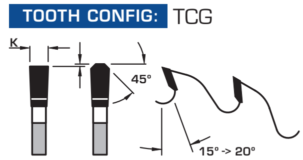
**CUTTING MATERIAL:** *XL4000* Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | PIN HOLES | KEYWAYS | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S21250 | 10" | .142" | .095" | 5/8" | 24 | – | – | – | 7,500 | 20˚ | Flat Top |
| S18300 | 12" | .160" | .110" | 1" | 24 | – | – | – | 6,250 | 20˚ | Flat Top |
| S21300 | 12" | .160" | .110" | 1" | 30 | – | – | – | 6,250 | 18˚ | Flat Top |
| S21300-80 • | 300mm | 3.4mm | 2.2mm | 80mm | 28 | 4/6.4/95 + 2/12.9/100 | DKN 18.6 x 4 | Raimann | 6,250 | 20˚ | Flat Top |
| S21350 | 14" | .170" | .118" | 1" | 30 | – | – | – | 5,000 | 20˚ | Flat Top |

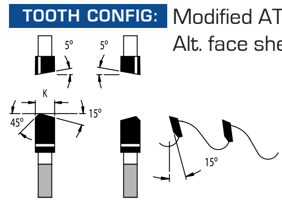
• 4 Cooling Slots

# S22 GLUE LINE RIP SAW BLADES
*XL4000*


**TOOTH CONFIG:** TCG




**TOOTH CONFIG:** Modified ATB + Alt. face shear




## APPLICATION:
» Ripping
» Extra smooth cut for gluing applications

## MATERIAL:
» Dry softwoods and hardwoods

## MACHINE TYPE:
» Table saws
» Straight line rip saws
» Gang rip saws

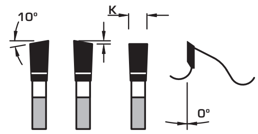
**CUTTING MATERIAL:** *XL4000* Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | PIN HOLES | KEYWAYS | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S22250 | 10" | .142" | .095" | 5/8" | 24 | – | – | – | 7,500 | 20˚ | TCG |
| S22252 | 10" | .126" | .087" | 3-1/8" | 42 | – | – | Mereen - Johnson | 7,500 | 15˚ | TCG |
| S22307-80 | 300mm | 4.1mm | 2.8mm | 80mm | 36 | 2/12.9/100 + 4/6.4/95 | DKN 18.6 x 4 | Raimann | 6,250 | 15˚ | TCG |
| S22300-80 | 300mm | 2.85mm | 2.0mm | 80mm | 48 | 2/12.9/100 + 4/6.4/95 | DKN 18.6 x 4 | Raimann | 6,250 | 15˚ | Modified ATB + Alt. face shear |
| S22302 | 12" | .126" | .083" | 1" | 36 | – | – | – | 6,250 | 20˚ | TCG |
| S22306 | 12" | .160" | .110" | 1" | 36 | – | – | – | 6,250 | 15˚ | TCG |
| S22306-2 | 12" | .160" | .110" | 2" | 36 | 1/(9/16")/5" | – | Diehl | 6,250 | 15˚ | TCG |
| S22302-318 | 12" | .126" | .083" | 3-1/8" | 36 | – | – | Mereen - Johnson | 6,250 | 20˚ | TCG |
| S22306-318 | 12" | .160" | .110" | 3-1/8" | 36 | – | – | Mereen - Johnson | 6,250 | 15˚ | TCG |
| S22306-70 | 12" | .160" | .110" | 70mm | 36 | – | DKN 20 x 5 | SCM | 6,250 | 15˚ | TCG |
| S22350 | 14" | .169" | .118" | 1" | 36 | – | – | – | 5,350 | 18˚ | TCG |
| S22350-2 | 14" | .169" | .118" | 2" | 36 | 1/(9/16")/5" | – | Diehl | 5,350 | 18˚ | TCG |
| S22350-318 | 14" | .169" | .118" | 3-1/8" | 36 | – | – | Mereen - Johnson | 5,350 | 18˚ | TCG |
| S22350-312 | 14" | .169" | .118" | 3-1/2" | 36 | – | – | Mereen - Johnson | 5,350 | 18˚ | TCG |
| S22350-70 | 14" | .169" | .118" | 70mm | 36 | – | DKN 20 x 5 | SCM | 5,350 | 18˚ | TCG |

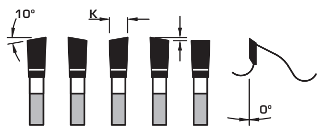
## S07 RADIAL ARM SAW BLADES
### *XL4000*


**CUTTING MATERIAL:** *XL4000* Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged
**ADDITIONAL INFO:** 0° hook angle reduces the blade's tendency of grabbing the material

**TOOTH CONFIG:** 2 ATB + 1 Raker




**TOOTH CONFIG:** 4 ATB + 1 Raker




**APPLICATION:**
- Ripping
- General sizing cuts
- Cross-cutting

**MATERIAL:**
- Dry softwoods and hardwoods
- Plywood, OSB panel materials
- Wood veneered panel materials
- TFL Melamine, HPL panel materials
- MDF, HDF, Composite panel materials

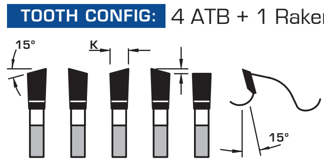
**MACHINE TYPE:**
- Radial arm saws
- Other saws where the blade is above the work piece

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| **S07250** | 10" | .135" | .095" | 5/8" | 24 | 7,500 | 0° | 2 ATB + 1 Raker |
| **S07300** | 12" | .150" | .110" | 1" | 36 | 6,250 | 0° | 2 ATB + 1 Raker |
| **S07350** | 14" | .165" | .118" | 1" | 40 | 5,350 | 0° | 4 ATB + 1 Raker |

## S55 COMBINATION SAW BLADES
### *XL4000*


**CUTTING MATERIAL:** *XL4000* Tungsten Carbide
**EXPANSION SLOTS:** None
**ADDITIONAL INFO:** Design allows for deeper cuts and improved chip flow

**TOOTH CONFIG:** 4 ATB + 1 Raker




**APPLICATION:**
- Ripping
- Sizing cuts
- Cross-cutting
- Trimming

**MATERIAL:**
- Dry softwoods and hardwoods
- Plywood, OSB panel materials
- Wood veneered panel materials
- TFL Melamine panel materials
- MDF, HDF, Composite panel materials

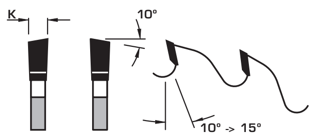
**MACHINE TYPE:**
- Table saws, Sliding table saws
- Cross-cut saws

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| **S55225** | 9" | .125" | .087" | 5/8" | 40 | 8,000 | 15° | 4 ATB + 1 Raker |
| **S55250** | 10" | .138" | .095" | 5/8" | 50 | 7,500 | 15° | 4 ATB + 1 Raker |
| **S55300** | 12" | .155" | .110" | 1" | 60 | 6,250 | 15° | 4 ATB + 1 Raker |
| **S55350** | 14" | .165" | .118" | 1" | 70 | 5,350 | 15° | 4 ATB + 1 Raker |

# S03/S09 CROSS-CUT SAW BLADES
*XL4000*

**CUTTING MATERIAL:** *XL4000* Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

**TOOTH CONFIG:** ATB




## APPLICATION:
» Ripping
» General sizing cuts
» Cross-cutting

## MATERIAL:
» Dry softwoods and hardwoods
» Plywood, OSB panel materials
» Wood veneered panel materials

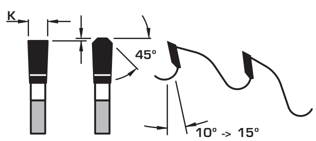
## MACHINE TYPE:
» Table saws, Sliding table saws
» Vertical panel sizing saws
» Cross-cut saws

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| S03250 | 10" | .126" | .087" | 5/8" | 40 | 7,500 | 15° | ATB |
| S03300 | 12" | .135" | .095" | 1" | 48 | 6,250 | 15° | ATB |
| S09300 | 12" | .135" | .095" | 1" | 60 | 6,250 | 10° | ATB |
| S03350 | 14" | .155" | .110" | 1" | 60 | 5,350 | 10° | ATB |
| S03400 | 16" | .155" | .110" | 1" | 60 | 4,500 | 10° | ATB |
| S09400 | 16" | .155" | .110" | 1" | 80 | 4,500 | 10° | ATB |

# S19 CROSS-CUT SAW BLADES
*XL4000*

**CUTTING MATERIAL:** *XL4000* Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

**TOOTH CONFIG:** TCG




## APPLICATION:
» Ripping
» General sizing cuts
» Cross-cutting
» Chip-free cuts on double-sided or bottom faced materials using a pre-scoring unit

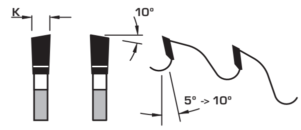
## MATERIAL:
» TFL Melamine, HPL panel materials
» MDF, HDF, Composite panel materials
» Other hard, or laminated materials

## MACHINE TYPE:
» Table saws, Sliding table saws
» Vertical panel sizing saws
» Cross-cut saws

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| S19250 | 10" | .126" | .087" | 5/8" | 40 | 7,500 | 15° | TCG |
| S19300 | 12" | .135" | .095" | 1" | 60 | 6,250 | 10° | TCG |
| S19350 | 14" | .155" | .110" | 1" | 60 | 5,350 | 10° | TCG |
| S19400 | 16" | .155" | .110" | 1" | 80 | 4,500 | 10° | TCG |

# S04 STANDARD CROSS-CUT SAW BLADES
*XL4000*


**TOOTH CONFIG:** ATB




**CUTTING MATERIAL:** *XL4000* Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

## APPLICATION:
» General sizing cuts
» Cross-cutting
» Trimming

## MATERIAL:
» Dry softwoods and hardwoods
» Plywood, OSB panel materials
» Wood veneered panel materials

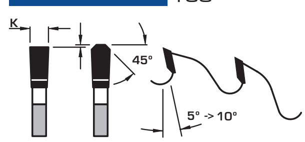
## MACHINE TYPE:
» Table saws, Sliding table saws
» Vertical panel sizing saws
» Cross-cut saws

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | PIN HOLES | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|
| S04225 | 9" | .126" | .087" | 5/8" | 60 | – | – | 8,000 | 5° | ATB |
| S04250 | 10" | .126" | .087" | 5/8" | 60 | – | – | 7,500 | 10° | ATB |
| S04302 | 300mm | 3.4mm | 2.4mm | 30mm | 72 | Universal | ▲ See footnote | 6,250 | 5° | ATB |
| S04300 | 12" | .135" | .095" | 1" | 80 | – | – | 6,250 | 5° | ATB |
| S04350 | 14" | .150" | .110" | 1" | 80 | – | – | 5,350 | 10° | ATB |
| S04400 | 16" | .160" | .118" | 1" | 100 | – | – | 4,500 | 5° | ATB |

▲ Suitable for Altendorf, Felder, Holz-Her, Omga, SCMI, and Striebig machines

# S23 STANDARD CROSS-CUT SAW BLADES
*XL4000*


**TOOTH CONFIG:** TCG




**CUTTING MATERIAL:** *XL4000* Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

## APPLICATION:
» General sizing cuts
» Cross-cutting
» Trimming
» Chip-free cuts on double-sided or bottom faced materials using a pre-scoring unit

## MATERIAL:
» TFL Melamine, HPL panel materials
» MDF, HDF, Composite panel materials
» Other hard, or laminated materials

## MACHINE TYPE:
» Table saws, Sliding table saws
» Vertical panel sizing saws
» Cross-cut saws

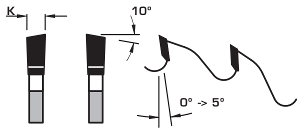
| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | PIN HOLES | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|
| S23225 | 9" | .126" | .087" | 5/8" | 60 | – | – | 8,000 | 5° | TCG |
| S23250 | 10" | .126" | .087" | 5/8" | 60 | – | – | 7,500 | 10° | TCG |
| S23302 | 300mm | 3.4mm | 2.4mm | 30mm | 72 | Universal | ▲ See footnote | 6,250 | 5° | TCG |
| S23300 | 12" | .135" | .095" | 1" | 80 | – | – | 6,250 | 5° | TCG |
| S23350 | 14" | .150" | .110" | 1" | 80 | – | – | 5,350 | 10° | TCG |
| S23352 | 350mm | 3.5mm | 2.5mm | 30mm | 80 | 2/10/60 | – | 5,350 | 10° | TCG |
| S23400 | 16" | .160" | .118" | 1" | 100 | – | – | 4,500 | 5° | TCG |

▲ Suitable for Altendorf, Felder, Holz-Her, Omga, SCMI, and Striebig machines

## S06 FINE CROSS-CUT SAW BLADES
*XL4000*


**CUTTING MATERIAL:** *XL4000* Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

**TOOTH CONFIG:** ATB




### APPLICATION:
» Fine sizing cuts
» Fine cross-cutting
» Finishing trimming

### MATERIAL:
» Dry softwoods and hardwoods
» Plywood, OSB panel materials
» Wood veneered panel materials

### MACHINE TYPE:
» Table saws, Sliding table saws
» Vertical panel sizing saws
» Cross-cut saws

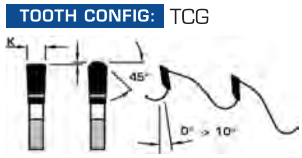
| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| **S06200** | 8" | .126" | .087" | 5/8" | 60 | 9,000 | 5° | ATB |
| **S06250** | 10" | .126" | .087" | 5/8" | 80 | 7,500 | 5° | ATB |
| **S06300** | 12" | .135" | .095" | 1" | 100 | 6,250 | 5° | ATB |
| **S06350** | 14" | .150" | .110" | 1" | 100 | 5,350 | 5° | ATB |
| **S06400CT** • | 16" | .160" | .118" | 1" | 120 | 4,500 | 0° | ATB |

• Specifically designed for cutting kitchen counter tops

## S10 FINE CROSS-CUT SAW BLADES
*XL4000*


**CUTTING MATERIAL:** *XL4000* Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

**TOOTH CONFIG:** TCG




### APPLICATION:
» Fine sizing cuts
» Fine cross-cutting
» Finished trimming cuts
» Chip-free cuts on double-sided or bottom faced materials using a pre-scoring unit

### MATERIAL:
» TFL Melamine, HPL panel materials
» MDF, HDF, Composite panel materials
» Other hard or laminated materials

### MACHINE TYPE:
» Table saws, Sliding table saws
» Vertical panel sizing saws
» Cross-cut saws

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | PIN HOLES | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|
| **S10200** | 8" | .126" | .087" | 5/8" | 60 | – | – | 9,000 | 5° | TCG |
| **S10220-H** | 220mm | 3.2mm | 2.2mm | 30mm | 64 | Universal | ▲ See footnote | 8,800 | 10° | TCG |
| **S10250** | 10" | .126" | .087" | 5/8" | 80 | – | – | 7,500 | 5° | TCG |
| **S10300** | 12" | .135" | .095" | 1" | 100 | – | – | 6,250 | 5° | TCG |
| **S10306** | 300mm | 3.4mm | 2.4mm | 30mm | 96 | Universal | ▲ See footnote | 6,250 | 5° | TCG |
| **S10350** | 14" | .150" | .110" | 1" | 100 | – | – | 5,350 | 5° | TCG |
| **S10358** | 350mm | 3.4mm | 2.4mm | 30mm | 108 | 2/10/60 | – | 5,350 | 10° | TCG |
| **S10400CT** • | 16" | .160" | .118" | 1" | 120 | – | – | 4,500 | 0° | TCG |

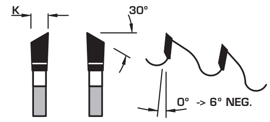
▲ Suitable for Altendorf, Felder, Holz-Her, Omga, SCMI, and Striebig machines

• Specifically designed for cutting kitchen counter tops

# SM6 30° CHIP-FREE MELAMINE TRIM BLADES
*XL4000*


**CUTTING MATERIAL:** ***XL4000*** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

**TOOTH CONFIG:** High ATB 30°




## APPLICATION:
» Chip-free sizing cuts (on both sides) without the need for pre-scoring unit
» Extra fine cross-cutting
» Extra fine trimming cuts

## MATERIAL:
» TFL Melamine panel materials
» Plywood, OSB panel materials
» Wood veneered panel materials

## MACHINE TYPE:
» Table saws, Sliding table saws
» Vertical panel sizing saws

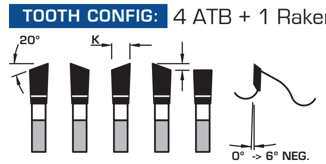
| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | PIN HOLES | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|
| **SM6201** | 8" | .118" | .087" | 5/8" | 60 | – | – | 9,000 | 0˚ | High ATB 30° |
| **SM6221-H** | 220mm | 3.2mm | 2.4mm | 30mm | 64 | Universal | ▲ See footnote | 8,000 | 2˚Neg. | High ATB 30° |
| **SM6251** | 10" | .118" | .087" | 5/8" | 80 | – | – | 7,500 | 2˚Neg. | High ATB 30° |
| **SM6251-30** | 250mm | 3.0mm | 2.2mm | 30mm | 80 | 2/7/42 | Holz-Her | 7,500 | 2˚Neg. | High ATB 30° |
| **SM6301-30** | 300mm | 3.2mm | 2.4mm | 30mm | 100 | Universal | ▲ See footnote | 6,250 | 6˚Neg. | High ATB 30° |
| **SM6301** | 12" | .126" | .095" | 1" | 100 | – | – | 6,250 | 6˚Neg. | High ATB 30° |
| **SM6352** | 14" | .150" | .118" | 1" | 100 | – | – | 5,350 | 2˚Neg. | High ATB 30° |
| **SM6401** | 16" | .157" | .118" | 1" | 120 | – | – | 4,500 | 0˚ | High ATB 30° |

▲ Suitable for Altendorf, Felder, Holz-Her, Omga, SCMI, and Striebig machines

# SM6 MITRE JOINT SAW BLADES
*XL4000*


**CUTTING MATERIAL:** ***XL4000*** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged
**ADDITIONAL INFO:** For aluminum cuts see L1A, L1B & L1C series on page E38 and E39

**TOOTH CONFIG:** 4 ATB + 1 Raker




## APPLICATION:
» Mitre joint cuts

## MATERIAL:
» Dry softwoods and hardwoods
» Painted mouldings
» High-gloss and pre-finished picture frames and furniture mouldings
» PVC substrates
» TFL Melamine panel materials

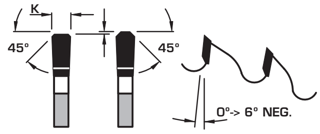
## MACHINE TYPE:
» Single or double mitre machines
» Radial arm saws

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|
| **SM6250** | 10" | .112" | .087" | 5/8" | 80 | – | 7,500 | 2˚Neg. | 4 ATB + 1 Raker |
| **SM6300** | 12" | .120" | .095" | 1" | 100 | – | 6,250 | 6˚Neg. | 4 ATB + 1 Raker |
| **SM6308** | 12" | .135" | .110" | 5/8" | 100 | Pistorius, CTD | 6,250 | 0˚ | 4 ATB + 1 Raker |

# SS1 SOLID SURFACE SAW BLADES
*XL4000*


**CUTTING MATERIAL:** *XL4000* Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

**TOOTH CONFIG:** TC2




## APPLICATION:
» Fine sizing cuts
» Chip-free cuts on double-sided or bottom faced materials using a pre-scoring unit

## MATERIAL:
» Solid surface materials such as Wilsonart®; Gibraltar®; SSV®; Corian®; Surell®; Avonite®; Fountainhead®; etc.
» TFL Melamine, HPL panel materials
» Other hard composite materials
» Plexiglass

## MACHINE TYPE:
» Table saws, Sliding table saws
» Radial arm saws
» Vertical panel sizing saws

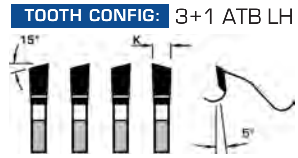
| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | PIN HOLES | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|
| **SS1200** | 8" | .126" | .087" | 5/8" | 60 | – | – | 9,000 | 0° | TC2 |
| **SS1220** | 220mm | 3.4mm | 2.4mm | 30mm | 64 | Universal | ▲ See footnote | 8,000 | 2°Neg. | TC2 |
| **SS1249** | 10" | .126" | .087" | 5/8" | 60 | – | – | 7,500 | 2°Neg. | TC2 |
| **SS1250** | 10" | .126" | .087" | 5/8" | 80 | – | – | 7,500 | 2°Neg. | TC2 |
| **SS1299-30** | 300mm | 3.4mm | 2.4mm | 30mm | 80 | Universal | ▲ See footnote | 6,250 | 2°Neg. | TC2 |
| **SS1300-30** | 300mm | 3.4mm | 2.4mm | 30mm | 100 | Universal | ▲ See footnote | 6,250 | 6°Neg. | TC2 |
| **SS1299** | 12" | .135" | .095" | 1" | 80 | – | – | 6,250 | 2°Neg. | TC2 |
| **SS1300** | 12" | .135" | .095" | 1" | 100 | – | – | 6,250 | 6°Neg. | TC2 |
| **SS1350** | 14" | .158" | .118" | 1" | 100 | – | – | 5,350 | 2°Neg. | TC2 |
| **SS1400** | 16" | .160" | .118" | 1" | 120 | – | – | 4,500 | 0° | TC2 |
| **SS1450** | 18" | .185" | .138" | 1" | 120 | – | – | 4,500 | 2°Neg. | TC2 |

▲ Suitable for Altendorf, Felder, Holz-Her, Omga, SCMI, and Striebig machines

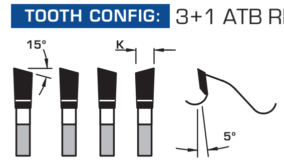
# S4D/S6D DOUBLE CUT-OFF SAW BLADES
*XL4000*


**CUTTING MATERIAL:** *XL4000* Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged
**ADDITIONAL INFO:** Used in pairs 1 LH & 1 RH

**TOOTH CONFIG:** 3+1 ATB LH




**TOOTH CONFIG:** 3+1 ATB RH




## APPLICATION:
» Fine cut-off
» Mitre cuts
» Trimming

## MATERIAL:
» Dry softwoods and hardwoods
» Plywood, OSB panel materials
» Wood veneered and laminated panels

## MACHINE TYPE:
» Double cut-off machines
» Single or double end tenoners

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| **S4D250-LH** | 10" | .165" | .118" | 5/8" | 60 | 7,500 | 5° | 3+1 ATB LH |
| **S4D250-RH** | 10" | .165" | .118" | 5/8" | 60 | 7,500 | 5° | 3+1 ATB RH |
| **S4D300-LH** | 12" | .160" | .118" | 1" | 80 | 6,350 | 5° | 3+1 ATB LH |
| **S4D300-RH** | 12" | .160" | .118" | 1" | 80 | 6,350 | 5° | 3+1 ATB RH |
| **S6D350-LH** | 14" | .181" | .138" | 1" | 100 | 5,000 | 5° | 3+1 ATB LH |
| **S6D350-RH** | 14" | .181" | .138" | 1" | 100 | 5,000 | 5° | 3+1 ATB RH |

## A SAW BLADE FOR EVERY INDUSTRIAL WOODWORKING APPLICATION

FS Tool's offering of industrial saw blades represents the state-of-the-art answers for todays woodworking cutting applications on North American and European machinery.

Our product offering is the largest of its kind. Each saw blade has been developed to fulfill a specific cutting application.

Each model has been developed with its own grades of materials (carbide and saw plate), its own cutting geometry (grind, hook angle, kerf), and its own operational enhancements (copper noise reducing plugs, cooling slots).

There is a perfect FS Tool industrial saw blade for every industrial woodworking cutting application.

### COMMITMENT TO DEVELOPMENT

Our commitment to development is that each product must meet the challenge of today's applications and materials. New materials such as melamine require the development of saw blades that preserve the efficiencies of large volume cutting of the new material.

### COMMITMENT TO QUALITY

Our commitment to quality is founded on the critical manufacturing element; personal checking of saw blades at each step in our highly-automated manufacturing process. And final checking before they are packaged for shipment.

### COMMITMENT TO VALUE

Our large volume manufacturing and material purchasing keep our costs in line without compromising quality. We will always be competitive in a demanding and dynamic industrial marketplace.

# L13 GANG RIP SAW BLADES
## WITH 2 RAKERS

**TOOTH CONFIG:** Flat Top


### APPLICATION:
» Ripping

### MATERIAL:
» Softwoods and hardwoods, dry up to 15% wood moisture

### MACHINE TYPE:
» Gang rip saws with one or two shafts

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged
**ADDITIONAL INFO:** Includes two Tungsten Carbide rakers

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | PIN HOLES | KEYWAYS | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|
| L13250 | 10" | .125" | .083" | 2-3/8" | 10+2 | – | KN 9.53 x 7.6 | 7,500 | 25˚ | Flat Top |
| L13300 • | 12" | .125" | .083" | 2-15/16" | 12+2 | – | DKN 3/8 x 3/8" + KN 1/2" x 1/2" | 6,250 | 25˚ | Flat Top |
| L13302 • | 12" | .150" | .109" | 2-15/16" | 12+2 | – | DKN 3/8 x 3/8" + KN 1/2" x 1/2" | 6,250 | 25˚ | Flat Top |
| L13350 • | 14" | .160" | .120" | 2-1/2" | 14+2 | – | DKN 3/8 x 3/8" + KN 1/2" x 1/2" | 5,350 | 30˚ | Flat Top |
| L13352 | 14" | .125" | .083" | 4" | 16+2 | 1/(7/16")/5 | – | 5,350 | 30˚ | Flat Top |

• Rounded keyway(s)

Other sizes available on request

# L14 GANG RIP SAW BLADES
## WITH 2+2 RAKERS

**TOOTH CONFIG:** Flat Top


### APPLICATION:
» Ripping

### MATERIAL:
» Softwoods and hardwoods, wet or frozen

### MACHINE TYPE:
» Single and gang rip saws with one or two shafts

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged
**ADDITIONAL INFO:** Two Tungsten Carbide rakers and two Tungsten Carbide wiper slots

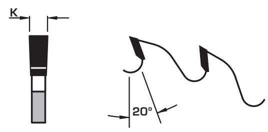
| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | PIN HOLES | KEYWAYS | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|
| L14250 | 10" | .174" | .110" | 2-3/8" | 18+2+2 | – | KN 3/8" x 3/8" | 7,500 | 25˚ | Flat Top |
| L14300 • | 12" | .197" | .125" | 2-15/16" | 20+2+2 | – | DKN 3/8 x 3/8" + KN 1/2" x 1/2" | 6,250 | 25˚ | Flat Top |
| L14350 • | 14" | .197" | .125" | 2-1/2" | 24+2+2 | – | DKN 3/8 x 3/8" + KN 1/2" x 1/2" | 5,350 | 25˚ | Flat Top |
| L14352 | 14" | .197" | .125" | 4" | 24+2+2 | 1/(7/16")/5" | – | 5,350 | 25˚ | Flat Top |

• Rounded keyway(s)

Other sizes available on request

# L21TK RIP SAW BLADES
THIN KERF

**TOOTH CONFIG:** Flat Top




**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

## APPLICATION:
» Ripping

## MATERIAL:
» Dry softwoods and hardwoods

## MACHINE TYPE:
» Table saws
» Gang rip saws

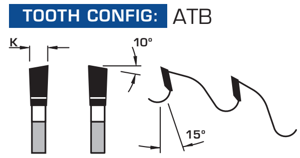
| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| L21250TK | 10" | .098" | .071" | 5/8" | 24 | 7,500 | 20˚ | Flat Top |
| L21251TK | 10" | .134" | .087" | 5/8" | 24 | 7,500 | 20˚ | Flat Top |

## EXTRA THIN KERF SAW BLADES
All custom manufactured for your specific application

» Glue-joint rip saw blades
» Gang rip saw blades
» Thin rim splitting saw blades (with double hub) for moulders

# L03TK CROSS-CUT SAW BLADES
THIN KERF

**TOOTH CONFIG:** ATB




**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged
**ADDITIONAL INFO:** Stabilizer flanges highly recommended when cutting stock over 3/4"

## APPLICATION:
» Cross cutting
» Ripping

## MATERIAL:
» Dry softwoods and hardwoods
» Plywood
» Veneered plywoods

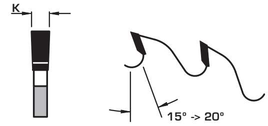
## MACHINE TYPE:
» Table saws
» Gang rip saws

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| L03200TK | 8" | .087" | .063" | 5/8" | 34 | 9,000 | 15˚ | ATB |
| L03250TK | 10" | .087" | .063" | 5/8" | 40 | 7,500 | 15˚ | ATB |
| L03300TK | 12" | .087" | .063" | 1" | 48 | 6,250 | 15˚ | ATB |
| L03350TK | 14" | .087" | .063" | 1" | 54 | 5,350 | 15˚ | ATB |

# L18 RIP SAW BLADES
## HEAVY DUTY

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

**TOOTH CONFIG:** Flat Top




### APPLICATION:
» Ripping

### MATERIAL:
» Dry softwoods and hardwoods

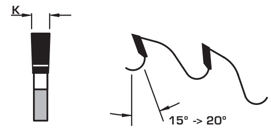
### MACHINE TYPE:
» Table saws
» Gang rip saws with one or two shafts

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| L18250 | 10" | .126" | .087" | 5/8" | 18 | 7,500 | 18˚ | Flat Top |
| L18300 | 12" | 160" | .110" | 1" | 24 | 6,250 | 20˚ | Flat Top |
| L18350 | 14" | .170" | .118" | 1" | 24 | 5,350 | 20˚ | Flat Top |
| L18400 | 16" | .174" | .118" | 1" | 30 | 4,500 | 18˚ | Flat Top |
| L18450 | 18" | .193" | .138" | 1" | 40 | 4,000 | 15˚ | Flat Top |

# L21 RIP SAW BLADES
## STANDARD

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

**TOOTH CONFIG:** Flat Top




### APPLICATION:
» Ripping

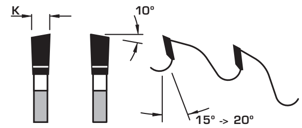
### MATERIAL:
» Dry softwoods and hardwoods

### MACHINE TYPE:
» Table saws
» Gang rip saws with one or two shafts

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | KEYWAYS | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|
| L21200 | 8" | .130" | .087" | 5/8" | 24 | – | – | 9,000 | 15˚ | Flat Top |
| L21225 | 9" | .130" | .087" | 5/8" | 24 | – | – | 8,000 | 15˚ | Flat Top |
| L21250 | 10" | .142" | .095" | 5/8" | 24 | – | – | 7,500 | 20˚ | Flat Top |
| L21300 | 12" | .160" | .110" | 1" | 30 | – | – | 6,250 | 18˚ | Flat Top |
| L21300-70 | 12" | .160" | .110" | 70mm | 30 | DKN 20 x 5 | SCM | 6,250 | 18˚ | Flat Top |
| L21350 | 14" | .170" | .118" | 1" | 30 | – | – | 5,350 | 18˚ | Flat Top |
| L21350-70 | 14" | .170" | .118" | 70mm | 30 | DKN 20 x 5 | SCM | 5,350 | 18˚ | Flat Top |
| L21400 | 16" | .170" | .118" | 1" | 36 | – | – | 4,500 | 18˚ | Flat Top |

# L2A GLUE LINE RIP SAW BLADES
ATB

**TOOTH CONFIG:** ATB




## APPLICATION:
» Glue line ripping

## MATERIAL:
» Dry softwoods and hardwoods

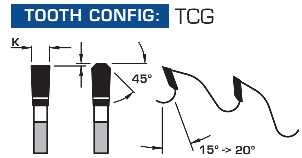
## MACHINE TYPE:
» Table saws

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged
**ADDITIONAL INFO:** Extra smooth cut for gluing applications

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| **L2A200** | 8" | .130" | .087" | 5/8" | 24 | 9,000 | 15˚ | ATB |
| **L2A225** | 9" | .135" | .087" | 5/8" | 24 | 8,000 | 15˚ | ATB |
| **L2A250** | 10" | .138" | .095" | 5/8" | 24 | 7,500 | 20˚ | ATB |

# L22 GLUE LINE RIP SAW BLADES
TCG

**TOOTH CONFIG:** TCG




## APPLICATION:
» Glue line ripping

## MATERIAL:
» Dry softwoods and hardwoods

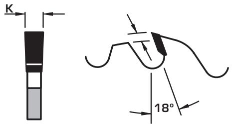
## MACHINE TYPE:
» Straight line rip saws
» Table saws
» Gang rip saws

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged
**ADDITIONAL INFO:** Extra smooth cut for gluing applications

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | PIN HOLES | KEYWAYS | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **L22250** | 10" | .142" | .095" | 5/8" | 24 | – | – | – | 7,500 | 20˚ | TCG |
| **L22306** | 12" | .160" | .110" | 1" | 36 | – | – | – | 6,250 | 15˚ | TCG |
| **L22306-2** | 12" | .160" | .110" | 2" | 36 | 1/[9/16"]/5" | – | Diehl | 6,250 | 15˚ | TCG |
| **L22306-318** | 12" | .160" | .110" | 3-1/8" | 36 | – | – | Mereen-Johnson | 6,250 | 15˚ | TCG |
| **L22306-70** | 12" | .160" | .110" | 70mm | 36 | – | DKN 20 x 5 | SCM | 6,250 | 15˚ | TCG |
| **L22350** | 14" | .170" | .118" | 1" | 36 | – | – | – | 5,350 | 18˚ | TCG |
| **L22350-2** | 14" | .169" | .118" | 2" | 36 | 1/[9/16"]/5" | – | Diehl | 5,350 | 18˚ | TCG |
| **L22350-318** | 14" | .169" | .118" | 3-1/8" | 36 | – | – | Mereen-Johnson | 5,350 | 18˚ | TCG |
| **L22350-312** | 14" | .169" | .118" | 3-1/2" | 36 | – | – | Mereen-Johnson | 5,350 | 18˚ | TCG |
| **L22350-70** | 14" | .169" | .118" | 70mm | 36 | – | DKN 20 x 5 | SCM | 5,350 | 18˚ | TCG |
| **L22400** | 16" | .174" | .118" | 1" | 36 | – | – | – | 4,500 | 18˚ | TCG |

# L12 GANG RIP SAW BLADES
## WITH CHIP LIMITERS

**TOOTH CONFIG:** Flat Top




**APPLICATION:**
» Ripping

**MATERIAL:**
» Dry softwoods and hardwoods

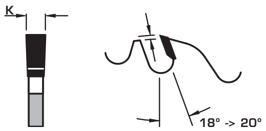
**MACHINE TYPE:**
» Gang rip saws

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged
**ADDITIONAL INFO:** Saw body with chip thickness limiters
Plate thickness = 2.2mm

| PART NO. | DIAM. MM | KERF MM | PLATE MM | BORE MM | TEETH | KEYWAYS | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|
| **L12250** | 250 | 3.2 | 2.2 | 70 | 24 | DKN 20 x 5 | 7,500 | 18˚ | Flat Top |
| **L12300** | 300 | 3.2 | 2.2 | 70 | 28 | DKN 20 x 5 | 6,250 | 18˚ | Flat Top |
| **L12350** | 350 | 3.2 | 2.2 | 70 | 24 | DKN 20 x 5 | 5,350 | 18˚ | Flat Top |

# L02 RIP SAW BLADES
## WITH CHIP LIMITERS

**TOOTH CONFIG:** Flat Top




**APPLICATION:**
» Ripping

**MATERIAL:**
» Dry softwoods and hardwoods

**MACHINE TYPE:**
» Table saws
» Sliding table saws
» Ideal for hand-fed operations

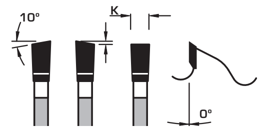
**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged
**ADDITIONAL INFO:** Saw body with chip thickness limiters

| PART NO. | DIAM. MM | KERF MM | PLATE MM | BORE | TEETH | MAX RPM. | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| **L02250** | 250 | 3.2 | 2.2 | 5/8" | 24 | 7,500 | 18˚ | Flat Top |
| **L02300** | 300 | 3.4 | 2.4 | 1" | 28 | 6,250 | 18˚ | Flat Top |
| **L02350** | 350 | 3.8 | 2.8 | 1" | 32 | 5,350 | 18˚ | Flat Top |
| **L02400** | 400 | 3.8 | 2.8 | 1" | 36 | 4,500 | 20˚ | Flat Top |
| **L02450** | 450 | 4.0 | 2.8 | 1" | 40 | 4,000 | 18˚ | Flat Top |
| **L02500** | 500 | 4.2 | 3.0 | 1" | 44 | 3,500 | 20˚ | Flat Top |

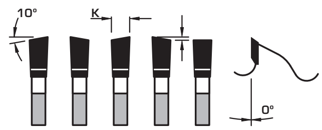
## L07 RADIAL ARM SAW BLADES

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged
**ADDITIONAL INFO:** 0° hook angle reduces the tendency of the blade grabbing the material

**TOOTH CONFIG:** 2 ATB + 1 Raker




**TOOTH CONFIG:** 4 ATB + 1 Raker




### APPLICATION:
» Cross cutting
» General sizing cuts
» Ripping

### MATERIAL:
» Dry softwoods and hardwoods

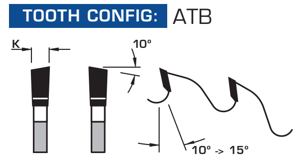
### MACHINE TYPE:
» Radial arm saws
» Other saws where the blade is above the work piece

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| L07250 | 10" | .135" | .095" | 5/8" | 24 | 7,500 | 0˚ | 2 ATB + 1 Raker |
| L07300 | 12" | .150" | .110" | 1" | 36 | 6,250 | 0˚ | 2 ATB + 1 Raker |
| L07350 | 14" | .165" | .118" | 1" | 40 | 5,350 | 0˚ | 4 ATB + 1 Raker |
| L07400 | 16" | .165" | .118" | 1" | 40 | 4,500 | 0˚ | 4 ATB + 1 Raker |

## L03 CROSS-CUT SAW BLADES

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

**TOOTH CONFIG:** ATB




### APPLICATION:
» Cross-cutting
» Ripping

### MATERIAL:
» Dry softwoods and hardwoods
» Plywoods
» Masonite
» Raw MDF materials

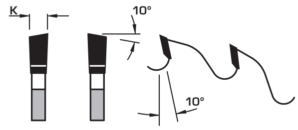
### MACHINE TYPE:
» Table saws
» Sliding table saws
» Cut-off saws

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| L03150 | 6" | .125" | .087" | 5/8" | 30 | 12,000 | 10˚ | ATB |
| L03180 | 7" | .125" | .087" | 5/8" | 30 | 10,000 | 10˚ | ATB |
| L03200 | 8" | .125" | .087" | 5/8" | 40 | 9,000 | 10˚ | ATB |
| L03225 | 9" | .125" | .087" | 5/8" | 40 | 8,000 | 10˚ | ATB |
| L03250 | 10" | .125" | .087" | 5/8" | 40 | 7,500 | 15˚ | ATB |
| L03300 | 12" | .135" | .095" | 1" | 48 | 6,250 | 15˚ | ATB |
| L03350 | 14" | .155" | .110" | 1" | 60 | 5,350 | 10˚ | ATB |
| L03400 | 16" | .155" | .110" | 1" | 60 | 4,500 | 10˚ | ATB |
| L03450 | 18" | .185" | .138" | 1" | 60 | 4,000 | 10˚ | ATB |
| L03500 | 20" | .185" | .138" | 1" | 80 | 3,500 | 10˚ | ATB |

# L09 CROSS-CUT SAW BLADES

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

**TOOTH CONFIG:** ATB




## APPLICATION:
» Cross-cutting
» Ripping

## MATERIAL:
» Softwoods and hardwoods
» Plywood
» Masonite
» Raw MDF panels

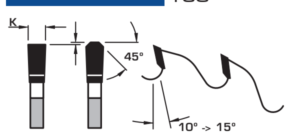
## MACHINE TYPE:
» Table saws
» Sliding table saws
» Cut-off saws

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| L09300 | 12" | .135" | .095" | 1" | 60 | 6,250 | 10˚ | ATB |
| L09400 | 16" | .155" | .110" | 1" | 80 | 4,500 | 10˚ | ATB |
| L09450 | 18" | .185" | .138" | 1" | 80 | 4,000 | 10˚ | ATB |
| L09500 | 20" | .185" | .138" | 1" | 100 | 3,500 | 10˚ | ATB |

# L19 CROSS-CUT SAW BLADES

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

**TOOTH CONFIG:** TCG




## APPLICATION:
» Cross-cutting
» Ripping

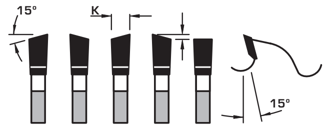
## MATERIAL:
» Softwoods and hardwoods
» Composite materials plastic laminated single-sided

## MACHINE TYPE:
» Table saws
» Sliding table saws
» Cut-off saws

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| L19225 | 9" | .126" | .087" | 5/8" | 40 | 8,000 | 10˚ | TCG |
| L19250 | 10" | .126" | .087" | 5/8" | 40 | 7,500 | 15˚ | TCG |
| L19301 | 12" | .134" | .095" | 1" | 48 | 6,250 | 15˚ | TCG |
| L19300 | 12" | .135" | .095" | 1" | 60 | 6,250 | 10˚ | TCG |
| L19350 | 14" | .155" | .110" | 1" | 60 | 5,350 | 10˚ | TCG |
| L19400 | 16" | .155" | .110" | 1" | 80 | 4,500 | 10˚ | TCG |
| L19450 | 18" | .185" | .138" | 1" | 80 | 4,000 | 10˚ | TCG |
| L19500 | 20" | .185" | .138" | 1" | 100 | 3,500 | 10˚ | TCG |

# L55 COMBINATION SAW BLADES

**TOOTH CONFIG:** 4 ATB + 1 Raker




**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** None
**ADDITIONAL INFO:** Design allows for deeper cuts and improved chip flow

## APPLICATION:
- Cross-cutting
- Ripping
- Sizing cuts
- Trimming

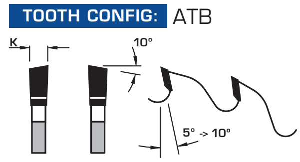
## MATERIAL:
- Dry softwoods and hardwoods
- Plywood
- Particleboard

## MACHINE TYPE:
- Table saws
- Sliding table saws
- Cut-off saws

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| L55180 | 7" | .125" | .087" | 5/8" | 40 | 10,000 | 15˚ | 4 ATB + 1 Raker |
| L55200 | 8" | .125" | .087" | 5/8" | 40 | 9,000 | 15˚ | 4 ATB + 1 Raker |
| L55225 | 9" | .125" | .087" | 5/8" | 40 | 8,000 | 15˚ | 4 ATB + 1 Raker |
| L55250 | 10" | .138" | .095" | 5/8" | 50 | 7,500 | 15˚ | 4 ATB + 1 Raker |
| L55300 | 12" | .155" | .110" | 1" | 60 | 6,250 | 15˚ | 4 ATB + 1 Raker |
| L55350 | 14" | .165" | .118" | 1" | 70 | 5,350 | 15˚ | 4 ATB + 1 Raker |
| L55400 | 16" | .165" | .118" | 1" | 80 | 4,500 | 15˚ | 4 ATB + 1 Raker |

# L04 STANDARD CROSS-CUT SAW BLADES

**TOOTH CONFIG:** ATB




**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

## APPLICATION:
- General cut-off
- Trimming

## MATERIAL:
- Softwoods and hardwoods
- Plywood and composite panel materials
- Wood veneered single-sided, or double-sided using a pre-scoring unit

## MACHINE TYPE:
- Table saws
- Sliding table saws
- Cut-off saws

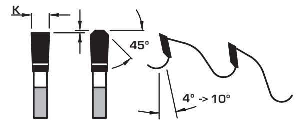
| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | PIN HOLES | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|
| L04180 | 7" | .125" | .087" | 5/8" | 40 | – | – | 10,000 | 10˚ | ATB |
| L04200 | 8" | .125" | .087" | 5/8" | 48 | – | – | 9,000 | 10˚ | ATB |
| L04225 | 9" | .126" | .087" | 5/8" | 60 | – | – | 8,000 | 5˚ | ATB |
| L04250 | 10" | .126" | .087" | 5/8 | 60 | – | – | 7,500 | 10˚ | ATB |
| L04302 | 300mm | 3.4mm | 2.4mm | 30mm | 72 | Universal | ▲ See footnote | 6,250 | 5˚ | ATB |
| L04300 | 12" | .135" | .095" | 1" | 80 | – | – | 6,250 | 5˚ | ATB |
| L04350 | 14" | .150" | .110" | 1" | 80 | – | – | 5,350 | 10˚ | ATB |
| L04400 | 16" | .160" | .118" | 1" | 100 | – | – | 4,500 | 5˚ | ATB |
| L04450 | 18" | .185" | .138" | 1" | 100 | – | – | 4,000 | 10˚ | ATB |
| L04500 | 20" | .185" | .138" | 1" | 120 | – | – | 3,500 | 10˚ | ATB |

▲ Suitable for Altendorf, Felder, Holz-Her, Omga, SCMI, and Striebig machines

## L23 STANDARD CROSS-CUT SAW BLADES

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

**TOOTH CONFIG:** TCG




### APPLICATION:
- General cut-off
- Trimming

### MATERIAL:
- Plastic laminated materials single-sided, or double-sided using a pre-scoring unit

### MACHINE TYPE:
- Table saws
- Sliding table saws
- Cut-off saws

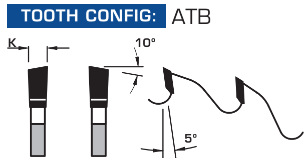
| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | PIN HOLES | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|
| L23158 | 6-1/4" | .110" | .080" | 2-11/16" | 40 | – | Modulus 2000 | 12,000 | 4° | TCG |
| L23200 | 8" | .126" | .087" | 5/8" | 48 | – | – | 9,000 | 10° | TCG |
| L23225 | 9" | .126" | .087" | 5/8" | 60 | – | – | 8,000 | 5° | TCG |
| L23250 | 10" | .126" | .087" | 5/8" | 60 | – | – | 7,500 | 10° | TCG |
| L23302 | 300mm | 3.4mm | 2.4mm | 30mm | 72 | Universal | ▲ See footnote | 6,250 | 5° | TCG |
| L23300 | 12" | .135" | .095" | 1" | 80 | – | – | 6,250 | 5° | TCG |
| L23350 | 14" | .150" | .110" | 1" | 80 | – | – | 5,350 | 10° | TCG |
| L23400 | 16" | .160" | .118" | 1" | 100 | – | – | 4,500 | 5° | TCG |
| L23408 | 16" | .187" | .134" | 1" | 100 | – | Midwest Automation | 4,500 | 5° | TCG |
| L23450 | 18" | .185" | .138" | 1" | 100 | – | – | 4,000 | 10° | TCG |
| L23500 | 20" | .185" | .138" | 1" | 120 | – | – | 3,500 | 10° | TCG |

▲ Suitable for Altendorf, Felder, Holz-Her, Omga, SCMI, and Striebig machines

## L06 FINE CROSS-CUT SAW BLADES

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

**TOOTH CONFIG:** ATB




### APPLICATION:
- Fine sizing cuts
- Fine cross-cutting
- Finishing, trimming

### MATERIAL:
- Softwoods and hardwoods
- Plywood
- Wood veneered and plastic laminated panel materials

### MACHINE TYPE:
- Table saws
- Sliding table saws
- Cut-off saws

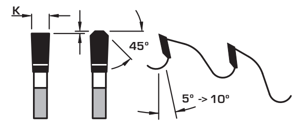
| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | PIN HOLES | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|
| L06150 | 6" | .126" | .087" | 5/8" | 40 | – | – | 12,000 | 5° | ATB |
| L06180 | 7" | .126" | .087" | 5/8" | 60 | – | – | 10,000 | 5° | ATB |
| L06200 | 8" | .126" | .087" | 5/8" | 60 | – | – | 9,000 | 5° | ATB |
| L06250 | 10" | .126" | .087" | 5/8" | 80 | – | – | 7,500 | 5° | ATB |
| L06306 | 300mm | 3.4mm | 2.4mm | 30mm | 96 | Universal | ▲ See footnote | 6,250 | 5° | ATB |
| L06300 | 12" | .135" | .095" | 1" | 100 | – | – | 6,250 | 5° | ATB |
| L06350 | 14" | .150" | .110" | 1" | 100 | – | – | 5,350 | 5° | ATB |
| L06400 | 16" | .160" | .118" | 1" | 120 | – | – | 4,500 | 5° | ATB |
| L06450 | 18" | .185" | .138" | 1" | 120 | – | – | 4,000 | 5° | ATB |

▲ Suitable for Altendorf, Felder, Holz-Her, Omga, SCMI, and Striebig machines

# L10 FINE CROSS-CUT SAW BLADES

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

**TOOTH CONFIG:** TCG




## APPLICATION:
- Fine sizing cuts
- Chip-free cuts on double-sided or bottom faced materials using a pre-scoring unit

## MATERIAL:
- Single-sided or double-sided melamine panels
- MDF
- OSB
- HDF panels

## MACHINE TYPE:
- Table saws
- Sliding table saws
- Vertical panel sizing saws

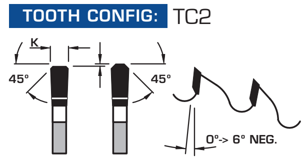
| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | PIN HOLES | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|
| L10150 | 6" | .126" | .087" | 5/8" | 40 | – | – | 12,000 | 5° | TCG |
| L10180 | 7" | .126" | .087" | 5/8" | 60 | – | – | 10,000 | 5° | TCG |
| L10200 | 8" | .126" | .087" | 5/8" | 60 | – | – | 9,000 | 5° | TCG |
| L10220-H | 220mm | 3.2mm | 2.2mm | 30mm | 64 | Universal | ▲ See footnote | 8,800 | 10° | TCG |
| L10250 | 10" | .126" | .087" | 5/8" | 80 | – | – | 7,500 | 5° | TCG |
| L10254 | 10" | 4.0mm | .087" | 5/8" | 80 | – | – | 7,500 | 5° | TCG |
| L10251 | 10" | .126" | .087" | 5/8" | 100 | – | – | 7,500 | 5° | TCG |
| L10306 | 300mm | 3.4mm | 2.4mm | 30mm | 96 | Universal | ▲ See footnote | 6,250 | 5° | TCG |
| L10300 | 12" | .135" | .095" | 1" | 100 | – | – | 6,250 | 5° | TCG |
| L10350 | 14" | .150" | .110" | 1" | 100 | – | – | 5,350 | 5° | TCG |
| L10400 | 16" | .160" | .118" | 1" | 120 | – | – | 4,500 | 5° | TCG |
| L10450 | 18" | .185" | .138" | 1" | 120 | – | – | 4,000 | 5° | TCG |

▲ Suitable for Altendorf, Felder, Holz-Her, Omga, SCMI, and Striebig machines

# L01 FINE CROSS-CUT SAW BLADES
## FOR PLASTIC

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

**TOOTH CONFIG:** TC2




## APPLICATION:
- Fine sizing cuts
- "Non-melt" saw blades see LNM series on page E22

## MATERIAL:
- Single- sided or double-sided laminated panels
- Plexiglass
- Solid surface materials such as Wilsonart®; Gibraltar®; SSV®; Corian®; Surell®; Avonite®; Fountainhead®; etc.

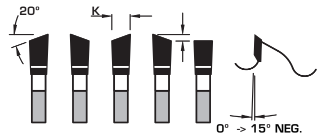
## MACHINE TYPE:
- Table saws
- Sliding table saws
- Radial arm saws
- Vertical panel sizing saws

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| L01200 | 8" | .126" | .087" | 5/8" | 60 | 9,000 | 0° | TC2 |
| L01250 | 10" | .126" | .087" | 5/8" | 80 | 7,500 | 2°Neg. | TC2 |
| L01300 | 12" | .135" | .095" | 1" | 100 | 6,250 | 6°Neg. | TC2 |
| L01350 | 14" | .158" | .118" | 1" | 100 | 5,350 | 2°Neg. | TC2 |
| L01400 | 16" | .160" | .118" | 1" | 120 | 4,500 | 0° | TC2 |
| L01450 | 18" | .185" | .138" | 1" | 120 | 4,000 | 2°Neg. | TC2 |

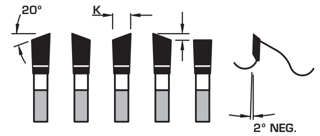
# LM4/LM6 MITRE JOINT SAW BLADES

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

**TOOTH CONFIG:** 4 ATB + 1 Raker




**TOOTH CONFIG:** 8 ATB + 1 Raker




## APPLICATION:
- Mitre joint cuts

## MATERIAL:
- Softwoods and hardwoods
- Painted mouldings
- Gesso and other high-gloss and pre-finished picture frames and furniture mouldings
- PVC Substrates
- For aluminum cuts see L1A, L1B and L1C series on page E38 and E39

## MACHINE TYPE:
- Single or double cut-off mitre machines
- Radial arm saws

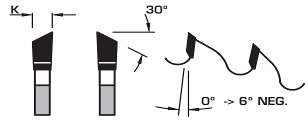
| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | PIN HOLES | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|
| **LM6200** | 8" | .112" | .087" | 5/8" | 60 | – | – | 9,000 | 0˚ | 4 ATB + 1 Raker |
| **LM4216** | 8-1/2" | .110" | .071" | 5/8" | 24 | 2/7/112 | Elu, Hitachi | 8,000 | 15˚Neg. | 10º ATB |
| **LM6216** | 8-1/2" | .110" | .071" | 5/8" | 48 | 2/7/112 | Elu, Hitachi | 8,800 | 15˚Neg. | 10º ATB |
| **LM4225** | 9" | .112" | .087" | 5/8" | 60 | – | – | 8,000 | 2˚Neg. | 4 ATB + 1 Raker |
| **LM6225** | 9" | .112" | .087" | 5/8" | 72 | – | – | 8,000 | 2˚Neg. | 8 ATB + 1 Raker |
| **LM4250** | 10" | .116" | .087" | 5/8" | 60 | – | – | 7,500 | 2˚Neg. | 4 ATB + 1 Raker |
| **LM6250** | 10" | .112" | .087" | 5/8" | 80 | – | – | 7,500 | 2˚Neg. | 4 ATB + 1 Raker |
| **LM4300** | 12" | .122" | .095" | 1" | 80 | – | – | 6,250 | 2˚Neg. | 4 ATB + 1 Raker |
| **LM4308** | 12" | .122" | .110" | 5/8" | 80 | – | Pistorius, CTD | 6,250 | 2˚Neg. | 4 ATB + 1 Raker |
| **LM6300** | 12" | .120" | .095" | 1" | 100 | – | – | 6,250 | 6˚Neg. | 4 ATB + 1 Raker |
| **LM6308** | 12" | .134" | .110" | 5/8" | 100 | – | Pistorius, CTD | 6,250 | 0˚ | 4 ATB + 1 Raker |
| **LM6330** | 330mm | 3.3mm | 2.5mm | 20mm | 100 | – | Wegoma, Haffner, Salvarani | 5,750 | 2˚Neg. | 4 ATB + 1 Raker |
| **LM6351** | 350mm | 3.1mm | 2.5mm | 25mm | 100 | – | Makita | 5,350 | 2˚Neg. | 4 ATB + 1 Raker |
| **LM6350** | 14" | .142" | .118" | 1" | 100 | – | – | 5,350 | 2˚Neg. | 4 ATB + 1 Raker |
| **LM6350-LS02 •** | 14" | .142" | .118" | 1" | 100 | – | – | 5,350 | 2˚Neg. | 4 ATB + 1 Raker |
| **LM6350-32** | 355mm | 3.6mm | 3.0mm | 32mm | 100 | 4/12/92 | Brevetti (355 Diam.) | 5,350 | 2˚Neg. | 4 ATB + 1 Raker |
| **LM6353** | 350mm | 3.2mm | 2.6mm | 32mm | 108 | 2/11/63 | Brevetti | 5,350 | 6˚Neg. | 8 ATB + 1 Raker |
| **LM6358** | 14" | .150" | .118" | 5/8" | 100 | – | Pistorius, CTD | 5,350 | 2˚Neg. | 4 ATB + 1 Raker |
| **LM6380** | 15" | .120" | .098" | 1" | 100 | – | Hitachi | 5,000 | 2˚Neg. | 4 ATB + 1 Raker |

• Noise reduction laser slits

# LM6 30° CHIP-FREE MELAMINE TRIM BLADES

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

**TOOTH CONFIG:** High ATB 30°




## APPLICATION:
» Chip-free sizing cuts (on both sides) without the need for pre-scoring unit
» Fine cross-cuts

## MATERIAL:
» Melamine
» Wood veneered panels
» Solid woods

## MACHINE TYPE:
» Table saws
» Sliding table saws
» Vertical panel sizing saws
» Cut-off saws

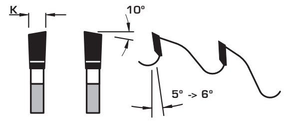
| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | PIN HOLES | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|
| LM6201 | 8" | .118" | .087" | 5/8" | 60 | – | – | 9,000 | 0° | High ATB 30° |
| LM6221-H | 220mm | 3.2mm | 2.4mm | 30mm | 64 | Universal | ▲ See footnote | 8,000 | 2° Neg. | High ATB 30° |
| LM6251 | 10" | .118" | .087" | 5/8" | 80 | – | – | 7,500 | 2° Neg. | High ATB 30° |
| LM6251-30 | 250mm | 3.0mm | 2.2mm | 30mm | 80 | 2/7/42 | Holz-Her, Striebig | 7,500 | 2° Neg. | High ATB 30° |
| LM6301-30 | 300mm | 3.2mm | 2.4mm | 30mm | 100 | Universal | ▲ See footnote | 6,250 | 6° Neg. | High ATB 30° |
| LM6301 | 12" | .126" | .095" | 1" | 100 | – | – | 6,250 | 6° Neg. | High ATB 30° |
| LM6352 | 14" | .150" | .118" | 1" | 100 | – | – | 5,350 | 2° Neg. | High ATB 30° |
| LM6401 | 16" | .157" | .118" | 1" | 120 | – | – | 4,500 | 0° | High ATB 30° |

▲ Suitable for Altendorf, Felder, Holz-Her, Omga, SCMI, and Striebig machines

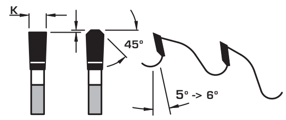
# LO5 THIN KERF SAW BLADES

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged
**ADDITIONAL INFO:** Very stable body minimizes run-out

**TOOTH CONFIG:** ATB




**TOOTH CONFIG:** TCG




## APPLICATION:
» Fine cross cuts

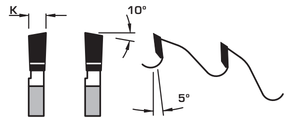
## MATERIAL:
» Veneered panels
» Expensive woods and sheets
» Thin plexiglass
» Masonite
» Plastics

## MACHINE TYPE:
» Table saws
» Sliding table saws
» Vertical panel sizing saws

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| LO5150 | 6" | .080" | .055" | 5/8" | 48 | 12,000 | 6° | ATB |
| LO5180 | 7" | .080" | .055" | 5/8" | 56 | 10,000 | 6° | ATB |
| LO5200 | 8" | .080" | .055" | 5/8" | 64 | 9,000 | 5° | ATB |
| LO5201 | 8" | .080" | .055" | 5/8" | 64 | 9,000 | 5° | TCG |
| LO5250 | 10" | .083" | .062" | 5/8" | 80 | 7,500 | 6° | ATB |
| LO5251 | 10" | .087" | .062" | 5/8" | 100 | 7,500 | 6° | ATB |
| LO5252 | 10" | .083" | .062" | 5/8" | 80 | 7,500 | 6° | TCG |
| LO5300 | 12" | .087" | .062" | 1" | 96 | 6,250 | 6° | ATB |
| LO5302 | 12" | .087" | .062" | 1" | 96 | 6,250 | 6° | TCG |
| LO5350 | 14" | .095" | .070" | 1" | 108 | 5,350 | 6° | ATB |
| LO5400 | 16" | .110" | .070" | 1" | 120 | 4,500 | 6° | ATB |

# L15 THIN RIM SAW BLADES

**TOOTH CONFIG:** ATB




**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged
**ADDITIONAL INFO:** Collar width: 2"

Thin rimmed body (on left side) allows for thin kerf at teeth and stability during cutting operation

## APPLICATION:
» Fine cross cuts

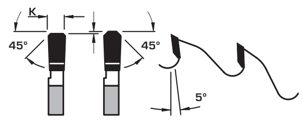
## MATERIAL:
» Veneered panels
» Expensive woods and sheets
» Thin plexiglass
» Masonite
» Plastics

## MACHINE TYPE:
» Table saws
» Sliding table saws

| PART NO. | DIAM. | KERF | RIM | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|
| **L15200** | 8" | .092" | .063" | .095" | 5/8" | 60 | 9,000 | 5° | ATB |
| **L15225** | 9" | .092" | .063" | .095" | 5/8" | 60 | 8,000 | 5° | ATB |
| **L15250** | 10" | .092" | .063" | .095" | 5/8" | 80 | 6,500 | 5° | ATB |
| **L15300** | 12" | .092" | .063" | .095" | 1" | 100 | 6,000 | 5° | ATB |

# L16 THIN RIM SAW BLADES

**TOOTH CONFIG:** TC2




**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged
**ADDITIONAL INFO:** Collar width 2"

Thin rimmed body (on left side) allows for thin kerf at teeth and stability during cutting operation

## APPLICATION:
» Fine cross cuts

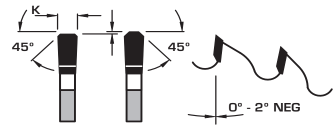
## MATERIAL:
» Acrylic sheets
» Thin plexiglass
» Masonite
» Plastics

## MACHINE TYPE:
» Table saws
» Sliding table saws

| PART NO. | DIAM. | KERF | RIM | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|
| **L16200** | 8" | .092" | .063" | .095" | 5/8" | 60 | 9,000 | 5° | TC2 |
| **L16225** | 9" | .092" | .063" | .095" | 5/8" | 60 | 8,000 | 5° | TC2 |
| **L16250** | 10" | .092" | .063" | .095" | 5/8" | 80 | 6,500 | 5° | TC2 |
| **L16300** | 12" | .092" | .063" | .095" | 1" | 100 | 6,000 | 5° | TC2 |

## NON-MELT SAW BLADES

**TOOTH CONFIG:** TC2




**APPLICATION:**
» "Non-melt" fine cuts

**MATERIAL:**
» Acrylic sheets
» Selrins
» ABS (cycolac)
» Styrenes
» PVC

**MACHINE TYPE:**
» Table saws
» Sliding table saws
» Vertical panel sizing saws

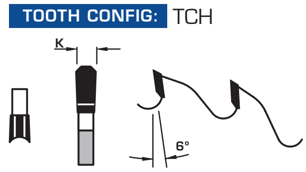
**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged
**ADDITIONAL INFO:** Tooth geometry designed to minimize "melting" of material

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | PIN HOLES | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|
| LNM200 | 8" | .100" | .071" | 5/8" | 60 | – | – | 9,000 | 0° | TC2 |
| LNM220 | 220mm | 3.2mm | 2.4mm | 30mm | 64 | Universal | ▲ See footnote | 8,000 | 2° Neg. | TC2 |
| LNM250A | 10" | .118" | .087" | 5/8" | 60 | – | – | 7,500 | 2° Neg. | TC2 |
| LNM250 | 10" | .100" | .071" | 5/8" | 80 | – | – | 7,500 | 0° | TC2 |
| LNM300A | 12" | .125" | .095" | 1" | 80 | – | – | 6,250 | 2° Neg. | TC2 |
| LNM300 | 12" | .125" | .095" | 1" | 100 | – | – | 6,250 | 0° | TC2 |
| LNM350A | 14" | .145" | .118" | 1" | 90 | – | – | 5,350 | 2° Neg. | TC2 |
| LNM350 | 14" | .145" | .118" | 1" | 100 | – | – | 5,350 | 2° Neg. | TC2 |
| LNM350-32 | 14" | .145" | .118" | 32mm | 100 | 4/12/92 | – | 5,350 | 2° Neg. | TC2 |

▲ Suitable for Altendorf, Felder, Holz-Her, Omga, SCMI, and Striebig machines

## L41 HOLLOW FACE SAW BLADES

**TOOTH CONFIG:** TCH




**APPLICATION:**
» For exceptionally smooth cuts (on both sides) without the need for pre-scoring

**MATERIAL:**
» Melamine
» Laminated panels

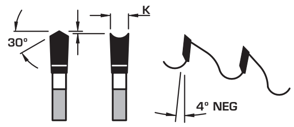
**MACHINE TYPE:**
» Table saws
» Sliding table saws
» Vertical panel sizing saws

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged
**ADDITIONAL INFO:** Face hollow-ground tooth configuration

| PART NO. | DIAM. MM | KERF MM | PLATE MM | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| L41200 | 200 | 2.9 | 2.0 | 5/8" | 48 | 9,000 | 6° | TCH |
| L41250 | 250 | 2.9 | 2.0 | 5/8" | 60 | 7,500 | 6° | TCH |
| L41300 | 300 | 2.9 | 2.0 | 1" | 72 | 6,250 | 6° | TCH |
| L41350 | 350 | 2.9 | 2.0 | 1" | 84 | 5,350 | 6° | TCH |

# L42 HOLLOW FACE SAW BLADES

**TOOTH CONFIG:** Inverted "V"




**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged
**ADDITIONAL INFO:** Inverted "V" (face hollow-ground) tooth configuration

## APPLICATION:
- » For exceptionally smooth cuts (on both sides) without the need for pre-scoring
- » Mitre cuts

## MATERIAL:
- » Melamine
- » Laminated panels
- » Wrapped styrene picture frames (mitre cuts)

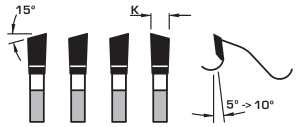
## MACHINE TYPE:
- » Table saws
- » Sliding table saws
- » Vertical panel sizing saws
- » Mitre saws

| PART NO. | DIAM. MM | KERF MM | PLATE MM | BORE | TEETH | PIN HOLES | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|
| L42220-H | 220 | 3.2 | 2.2 | 30mm | 42 | Universal | ▲ See footnote | 8,000 | 4˚Neg. | Inverted "V" |
| L42250 | 250 | 3.2 | 2.2 | 5/8" | 48 | – | – | 7,500 | 4˚Neg. | Inverted "V" |
| L42251 | 250 | 3.2 | 2.2 | 30mm | 48 | 2/7/42 | Holz-Her, Striebig | 7,500 | 4˚Neg. | Inverted "V" |
| L42300-58 | 300 | 3.2 | 2.2 | 5/8" | 60 | – | Pistorius | 6,250 | 4˚Neg. | Inverted "V" |
| L42300 | 300 | 3.2 | 2.2 | 1" | 60 | – | – | 6,250 | 4˚Neg. | Inverted "V" |
| L42350 | 350 | 3.2 | 2.2 | 1" | 72 | – | – | 5,350 | 4˚Neg. | Inverted "V" |

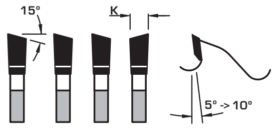
▲ Suitable for Altendorf, Felder, Holz-Her, Omga, SCMI, and Striebig machines

# L4D/L6D DOUBLE CUT-OFF SAW BLADES

**TOOTH CONFIG:** 3+1 ATB LH




**TOOTH CONFIG:** 3+1 ATB RH




**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged
**ADDITIONAL INFO:** Used in pairs 1 LH & 1 RH
Extra heavy plate for added stability

## APPLICATION:
- » Fine cut-off
- » Mitre cuts
- » Trimming

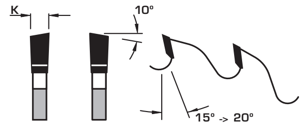
## MATERIAL:
- » Softwoods and hardwoods
- » Plywood
- » Wood veneered and plastic laminated panels single-sided, or double-sided using a pre-scoring unit

## MACHINE TYPE:
- » Double cut-off machines
- » Single or double end tenoners

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| L4D300-LH | 12" | .160" | .118" | 1" | 80 | 6,250 | 5˚ | 3+1 ATB LH |
| L4D300-RH | 12" | .160" | .118" | 1" | 80 | 6,250 | 5˚ | 3+1 ATB RH |
| L4D350-LH | 14" | .180" | .138" | 1" | 80 | 5,350 | 10˚ | 3+1 ATB LH |
| L4D350-RH | 14" | .180" | .138" | 1" | 80 | 5,350 | 10˚ | 3+1 ATB RH |
| L6D350-LH | 14" | .180" | .138" | 1" | 100 | 5,350 | 5˚ | 3+1 ATB LH |
| L6D350-RH | 14" | .180" | .138" | 1" | 100 | 5,350 | 5˚ | 3+1 ATB RH |
| L6D400-LH | 16" | .180" | .138" | 1" | 100 | 4,500 | 5˚ | 3+1 ATB LH |
| L6D400-RH | 16" | .180" | .138" | 1" | 100 | 4,500 | 5˚ | 3+1 ATB RH |

# PANEL SIZING SAW BLADES
*XL4000*


**TOOTH CONFIG:** ATB




**CUTTING MATERIAL:** *XL4000* Tungsten Carbide

**EXPANSION SLOTS:** Cu plugged

## APPLICATION:
» Sizing cuts

## MATERIAL:
» Veneered particleboard
» Hard fiberboard
» Raw MDF panels
» High-density plywood

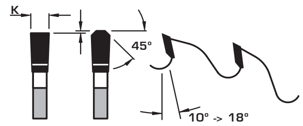
## MACHINE TYPE:
» Panel sizing saws (beam saws)

| PART NO. | DIAM. MM | KERF MM | PLATE MM | BORE MM | TEETH | PIN HOLES | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|
| L5030048-30 | 305 | 4.4 | 3.0 | 30 | 48 | – | Mayer, Panhans | 6,250 | 15° | ATB |
| L5030272-30 | 300 | 4.55 | 3.2 | 30 | 72 | – | Schelling Postforming FX-H430 | 6,250 | 15° | ATB |
| L5035054-30 | 355 | 4.4 | 3.0 | 30 | 54 | 2/10/60 | SCM, Panhans, Mayer | 5,350 | 15° | ATB |
| L5035154-30 | 350 | 3.6 | 2.5 | 30 | 54 | – | Holz-Her | 5,350 | 15° | ATB |
| L5035054-75 | 355 | 4.4 | 3.0 | 75 | 54 | – | Giben Trend | 5,350 | 15° | ATB |
| L5035072-30 | 355 | 4.4 | 3.0 | 30 | 72 | – | SCM, Panhans, Mayer, Schelling | 5,350 | 15° | ATB |
| L5035072-75 | 355 | 4.4 | 3.0 | 75 | 72 | – | Giben | 5,350 | 15° | ATB |
| L5035072-80 | 350 | 4.4 | 3.0 | 80 | 72 | 4/9/100 + 2/8/110 | Gabbiani Casadei | 5,350 | 15° | ATB |
| L5040060-30 | 400 | 4.4 | 3.2 | 30 | 60 | – | Schelling, Mayer, Irion | 4,500 | 15° | ATB |
| L5040060-75 | 400 | 4.4 | 3.2 | 75 | 60 | – | Giben | 4,500 | 15° | ATB |
| L5040060-80 | 400 | 4.4 | 3.2 | 80 | 60 | 4/9/100 + 2/8/110 | Gabbiani | 4,500 | 15° | ATB |
| L5040072-60 | 400 | 4.4 | 3.2 | 60 | 72 | – | Anthon Holzma | 4,500 | 15° | ATB |
| L5040072-75 | 400 | 4.4 | 3.2 | 75 | 72 | – | Giben | 4,500 | 15° | ATB |
| L5040072-80 | 400 | 4.4 | 3.2 | 80 | 72 | 4/9/100 + 2/8/110 | Gabbiani | 4,500 | 15° | ATB |
| L5043072-30 | 430 | 4.4 | 3.2 | 30 | 72 | – | – | 4,000 | 15° | ATB |
| L5043072-80 | 430 | 4.4 | 3.2 | 80 | 72 | 4/19/120 + 2/9/130 | Selco | 4,000 | 15° | ATB |
| L5045072-30 | 450 | 4.4 | 3.2 | 30 | 72 | 2/10/60 | Irion, Panhans, Schelling | 4,000 | 15° | ATB |
| L5045072-60 | 450 | 4.4 | 3.2 | 60 | 72 | – | Holzma | 4,000 | 15° | ATB |
| L5045072-80 | 450 | 4.4 | 3.2 | 80 | 72 | 4/19/120 + 2/9/130 | Selco | 4,000 | 15° | ATB |
| L5067060-40 | 670 | 6.2 | 4.2 | 40 | 60 | 2/12/120 | Schelling | 2,850 | 20° | ATB |

# PANEL SIZING SAW BLADES

*XL4000*


**TOOTH CONFIG:** TCG




**CUTTING MATERIAL:** *XL4000* Tungsten Carbide

**EXPANSION SLOTS:** Cu plugged

## APPLICATION:
» Sizing cuts

## MATERIAL:
» Plastic laminated panels
» Plywood

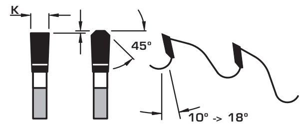
## MACHINE TYPE:
» Panel sizing saws (beam saws)

| PART NO. | DIAM. MM | KERF MM | PLATE MM | BORE | TEETH | PIN HOLES | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|
| L5224054-30 | 240 | 3.2 | 2.2 | 30mm | 54 | 2/6.8/42 | Scheer FM10 | 8,000 | 15° | TCG |
| L5225072-30 | 250 | 3.2 | 2.2 | 30mm | 72 | 2/7/42 | Casadei Linea | 7,500 | 15° | TCG |
| L5230160-30 | 305 | 3.4 | 2.4 | 30mm | 60 | – | Scheer FM16 | 6,250 | 10° | TCG |
| L5230048-30 | 305 | 4.4 | 3.0 | 30mm | 48 | – | Mayer, Panhans | 6,250 | 15° | TCG |
| L5230060-30 | 305 | 4.4 | 3.0 | 30mm | 60 | – | Mayer, Panhans | 6,250 | 15° | TCG |
| L5230060-65 | 300 | 4.4 | 3.2 | 65mm | 60 | 2/9/110 | Selco EB70 | 6,250 | 15° | TCG |
| L5230060-75 | 305 | 4.4 | 3.0 | 75mm | 60 | | Giben Junior | 6,250 | 15° | TCG |
| L5230072-80 | 300 | 4.4 | 3.0 | 80mm | 72 | 2/14/110 | SCM Sigma 65 | 6,250 | 15° | TCG |
| L5232072-50 | 320 | 4.4 | 3.2 | 50mm | 72 | 3/12.5/80 + 4/12.5/80 | Giben Smart 75 | 5,700 | 15° | TCG |
| L5232060-75 | 320 | 4.6 | 3.2 | 75mm | 60 | 3/13/95 | Giben | 5,700 | 15° | TCG |
| L5235054-30 | 355 | 4.4 | 3.0 | 30mm | 54 | 2/10/60 | SCM, Panhans, Mayer | 5,350 | 15° | TCG |
| L5235054-75 | 355 | 4.4 | 3.0 | 75mm | 54 | – | Giben Trend | 5,350 | 15° | TCG |
| L5235072-30 | 355 | 4.4 | 3.0 | 30mm | 72 | – | SCM, Panhans, Mayer, Schelling | 5,350 | 15° | TCG |
| L5235072-75 | 355 | 4.4 | 3.0 | 75mm | 72 | – | Giben | 5,350 | 15° | TCG |
| L5235072-114 | 350 | 4.4 | 3.0 | 1-1/4" | 72 | – | SCMI | 5,350 | 15° | TCG |
| L5235072-60 | 350 | 4.4 | 3.0 | 60mm | 72 | 2/14/100 | Holzma HPP350 | 5,350 | 15° | TCG |
| L5235072-80 | 350 | 4.4 | 3.0 | 80mm | 72 | 4/9/100 + 2/8/110 | Gabbiani Casadei | 5,350 | 15° | TCG |
| L5235172-80 | 350 | 4.4 | 3.0 | 80mm | 72 | 4/9/100 + 2/14/110 | SCM Sigma 90 | 5,350 | 15° | TCG |
| L5235272-30 | 350 | 4.4 | 3.2 | 30mm | 72 | 2/10/60 + 2/13/94 | Schelling FX-H430 | 5,350 | 15° | TCG |
| L5235272-80 | 355 | 4.4 | 3.0 | 80mm | 72 | 2/7/110 + 2/8.5/130 | Selco EB90 | 5,350 | 15° | TCG |
| L5236072-50 | 360 | 4.4 | 3.2 | 50mm | 72 | 4/13/80 | Giben Smart 105 SPT | 5,350 | 15° | TCG |
| L5236072-65 | 360 | 4.4 | 3.2 | 65mm | 72 | 2/9/110 | Selco EB100 | 5,350 | 15° | TCG |
| L5237072-30 | 370 | 4.4 | 3.2 | 30mm | 72 | – | Schelling | 5,350 | 15° | TCG |
| L5238060-60 | 380 | 4.4 | 3.2 | 60mm | 60 | – | Holzma | 5,000 | 15° | TCG |
| L5238072-50 | 380 | 4.4 | 3.2 | 50mm | 72 | 4/12.5/80 | Giben Icon 2 | 5,000 | 15° | TCG |
| L5238072-60 | 380 | 4.4 | 3.2 | 60mm | 72 | 2/14/100 | Holzma | 5,000 | 15° | TCG |
| L5238872-50 | 380 | 4.8 | 3.5 | 50mm | 72 | 4/12.5/80 | Giben Icon 2 | 5,000 | 15° | TCG |
| L5238872-60 | 380 | 4.8 | 3.5 | 60mm | 72 | 2/14/100 | Holzma Series 82 | 5,000 | 15° | TCG |
| L5239072-50 | 390 | 4.4 | 3.2 | 50mm | 72 | 4/12.5/80 | Giben Onix H105 | 4,000 | 15° | TCG |
| L5239072-75 | 390 | 4.4 | 3.2 | 75mm | 72 | 2/7/110 | Giben Icon 1 | 4,900 | 15° | TCG |
| L5240060-30 | 400 | 4.4 | 3.2 | 30mm | 60 | – | Schelling, Mayer, Irion | 4,500 | 15° | TCG |
| L5240060-75 | 400 | 4.4 | 3.2 | 75mm | 60 | – | Giben | 4,500 | 15° | TCG |
| L5240060-80 | 400 | 4.4 | 3.2 | 80mm | 60 | 4/9/100 + 2/8/110 | Gabbiani | 4,500 | 15° | TCG |
| L5240072-30 | 400 | 4.4 | 3.2 | 30mm | 72 | – | Schelling, Mayer, Irion | 4,500 | 15° | TCG |

Continued to page E26...

# PANEL SIZING SAW BLADES
*XL4000*


**TOOTH CONFIG:** TCG




**CUTTING MATERIAL:** *XL4000* Tungsten Carbide

**EXPANSION SLOTS:** Cu plugged

## APPLICATION:
» Sizing cuts

## MATERIAL:
» Plastic laminated panels
» Plywood

## MACHINE TYPE:
» Panel sizing saws (beam saws)

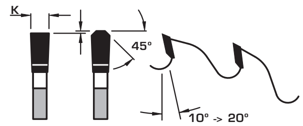
...Continued from page E25

| PART NO. | DIAM. MM | KERF MM | PLATE MM | BORE MM | TEETH | PIN HOLES | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|
| L5240072-60 | 400 | 4.4 | 3.2 | 60mm | 72 | – | Anthon Holzma | 4,500 | 15˚ | TCG |
| L5240072-75 | 400 | 4.4 | 3.2 | 75 | 72 | – | Giben | 4,500 | 15˚ | TCG |
| L5240172-75 | 400 | 4.4 | 3.2 | 75 | 72 | 4/15/105 | Giben Prismatic-1 | 4,500 | 15˚ | TCG |
| L5240072-80 | 400 | 4.4 | 3.2 | 80 | 72 | 4/9/100 + 2/8/110 | Gabbiani | 4,500 | 15˚ | TCG |
| L5240272-80 | 400 | 4.4 | 3.2 | 80 | 72 | 4/8.5/100 + 2/14/110 | SCM Sigma 115 | 4,500 | 15˚ | TCG |
| L5240172-80 | 400 | 4.4 | 3.2 | 80 | 72 | 4/19/120 + 2/9/130 | Selco | 4,500 | 15˚ | TCG |
| L5240860-75 | 400 | 4.8 | 3.5 | 75 | 60 | – | Giben | 4,500 | 15˚ | TCG |
| L5241072-80 | 410 | 4.6 | 3.2 | 80 | 72 | 4/9.2/100 | Gabbiani | 4,500 | 15˚ | TCG |
| L5242072-60 | 420 | 4.4 | 3.2 | 60 | 72 | – | Holzma | 4,000 | 15˚ | TCG |
| L5242672-60 | 420 | 4.6 | 3.2 | 60 | 72 | – | Holzma | 4,000 | 15˚ | TCG |
| L5242860-60 | 420 | 4.8 | 3.5 | 60 | 60 | 2/10/80 + 2/14/125 | Holzma | 4,000 | 15˚ | TCG |
| L5242872-60 | 420 | 4.8 | 3.5 | 60 | 72 | 2/10/80 + 2/14/125 | Holzma | 4,000 | 15˚ | TCG |
| L5243072-30 | 430 | 4.4 | 3.2 | 30 | 72 | – | – | 4,000 | 15˚ | TCG |
| L5243072-60 | 430 | 4.4 | 3.2 | 60 | 72 | 4/16/105 | Anthon | 4,000 | 15˚ | TCG |
| L5243072-65 | 430 | 4.4 | 3.2 | 65 | 72 | 2/9/110 | Selco WNT 6 | 4,000 | 15˚ | TCG |
| L5243072-75 | 430 | 4.4 | 3.2 | 75 | 72 | 4/15/105 | Giben Prismatic-2 | 4,000 | 15˚ | TCG |
| L5243096-75 | 430 | 4.4 | 3.2 | 75 | 96 | 4/15/105 | Giben Prismatic-2 | 4,000 | 15˚ | TCG |
| L5243072-80 | 430 | 4.4 | 3.2 | 80 | 72 | 4/19/120 + 2/9/130 | Selco | 4,000 | 15˚ | TCG |
| L5245072-30 | 450 | 4.4 | 3.2 | 30 | 72 | 2/10/60 | Panhans, Irion, Schelling | 4,000 | 15˚ | TCG |
| L5245072-60 | 450 | 4.4 | 3.2 | 60 | 72 | – | Holzma | 4,000 | 15˚ | TCG |
| L5245072-80 | 450 | 4.4 | 3.2 | 80 | 72 | 4/19/120 + 2/9/130 | Selco | 4,000 | 15˚ | TCG |
| L5245172-80 | 450 | 4.4 | 3.2 | 80 | 72 | 2/14/110 | Gabbiani | 4,000 | 15˚ | TCG |
| L5245672-80 | 450 | 4.6 | 3.2 | 80 | 72 | 4/19/120 + 2/9/130 | Selco | 4,000 | 15˚ | TCG |
| L5245872-60 | 450 | 4.8 | 3.5 | 60 | 72 | 2/14/125 | Holzma | 4,000 | 15˚ | TCG |
| L5245872-80 | 450 | 4.8 | 3.5 | 80 | 72 | 4/19/120 + 2/9/130 | Selco | 4,000 | 15˚ | TCG |
| L5246060-30 | 460 | 4.4 | 3.2 | 30 | 60 | 2/13/94 | Schelling | 4,000 | 15˚ | TCG |
| L5246072-30 | 460 | 4.4 | 3.2 | 30 | 72 | 2/13/94 | Schelling | 4,000 | 15˚ | TCG |
| L5247072-30 | 470 | 4.4 | 3.2 | 30 | 72 | – | Schelling | 4,000 | 15˚ | TCG |
| L5247096-75 | 470 | 4.4 | 3.2 | 75 | 96 | 4/15/105 | Giben Prismatic-3 | 4,000 | 15˚ | TCG |
| L5248072-30 | 480 | 4.4 | 3.2 | 30 | 72 | 2/13/94 | Schelling | 4,000 | 15˚ | TCG |
| L5248872-30 | 480 | 4.8 | 3.5 | 30 | 72 | 2/13/94 | Schelling fh6 | 4,000 | 15˚ | TCG |
| L5248072-80 | 480 | 4.4 | 3.2 | 80 | 72 | 4/19/120 + 2/9/130 | Selco | 4,000 | 15˚ | TCG |

Continued to page E27...

# PANEL SIZING SAW BLADES
## *XL4000*


**TOOTH CONFIG:** TCG




**CUTTING MATERIAL:** *XL4000* Tungsten Carbide

**EXPANSION SLOTS:** Cu plugged

### APPLICATION:
» Sizing cuts

### MATERIAL:
» Plastic laminated panels
» Plywood

### MACHINE TYPE:
» Panel sizing saws (beam saws)

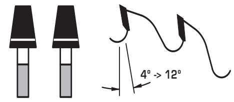
...Continued from page E26

| PART NO. | DIAM. MM | KERF MM | PLATE MM | BORE MM | TEETH | PIN HOLES | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|
| L5250060-30 | 500 | 4.4 | 3.2 | 30 | 60 | – | Schelling, Irion | 3.500 | 15° | TCG |
| L5250060-75 | 500 | 4.4 | 3.2 | 75 | 60 | – | Giben | 3.500 | 15° | TCG |
| L5250072-60 | 500 | 4.4 | 3.2 | 60 | 72 | – | Holzma | 3.500 | 15° | TCG |
| L5250072-75 | 500 | 4.4 | 3.2 | 75 | 72 | – | Giben | 3.500 | 15° | TCG |
| L5250860-60 | 500 | 4.8 | 3.5 | 60 | 60 | – | Holzma Type 21 | 3.500 | 15° | TCG |
| L5250860-75 | 500 | 4.8 | 3.5 | 75 | 60 | – | Giben | 3.500 | 15° | TCG |
| L5250872-60 | 500 | 4.8 | 3.5 | 60 | 72 | 2/11/115 | Holzma Type 22 | 3.500 | 15° | TCG |
| L5250872-75 | 500 | 4.8 | 3.5 | 75 | 72 | – | Giben | 3.500 | 15° | TCG |
| L5250872-80 | 500 | 4.8 | 3.5 | 80 | 72 | 2/8.2/110 | Gabbiani | 3.500 | 15° | TCG |
| L5250572-60 | 500 | 5.0 | 3.5 | 60 | 72 | 2/11/115 | Holzma Type 22 | 3.500 | 15° | TCG |
| L5252060-60 | 520 | 4.8 | 3.5 | 60 | 60 | – | Holzma | 3,250 | 15° | TCG |
| L5252072-60 | 520 | 4.8 | 3.5 | 60 | 72 | – | Holzma | 3,250 | 15° | TCG |
| L5253060-30 | 530 | 5.0 | 3.5 | 30 | 60 | – | Schelling | 3,250 | 15° | TCG |
| L5253060-60 | 530 | 5.8 | 4.0 | 60 | 60 | 2/11/85 | Anthon | 3,250 | 15° | TCG |
| L5253072-75 | 530 | 4.8 | 3.5 | 75 | 72 | 2/7/110 | Giben | 3,250 | 10° | TCG |
| L5254060-60 | 540 | 4.8 | 3.5 | 60 | 60 | 2/11/115 + 2/20/120 | Holzma | 3,250 | 15° | TCG |
| L5254084-60 | 540 | 4.8 | 3.5 | 60 | 84 | 2/11/115 + 2/20/120 | Holzma | 3,250 | 15° | TCG |
| L5255060-40 | 550 | 5.0 | 3.5 | 40 | 60 | 2/12/90 | Schelling | 3,250 | 15° | TCG |
| L5255060-80 | 550 | 5.0 | 3.5 | 80 | 60 | – | Teutomatic | 3,250 | 12° | TCG |
| L5255272-100 | 550 | 5.2 | 3.5 | 100 | 72 | – | Giben | 3,250 | 15° | TCG |
| L5256560-100 | 565 | 5.0 | 3.5 | 100 | 60 | – | Giben | 3,250 | 18° | TCG |
| L5256572-100 | 565 | 5.0 | 3.5 | 100 | 72 | – | Giben | 3,250 | 18° | TCG |
| L5257060-60 | 570 | 4.8 | 3.5 | 60 | 60 | 2/11/115 + 2/19.5/120 | Holzma | 3,250 | 15° | TCG |
| L5257072-60 | 570 | 4.8 | 3.5 | 60 | 72 | 2/11/115 + 2/19.5/120 | Holzma | 3,250 | 15° | TCG |
| L5257860-60 | 570 | 5.8 | 4.3 | 60 | 60 | 2/19/120 | Holzma | 3,250 | 15° | TCG |
| L5258060-40 | 580 | 5.5 | 4.0 | 40 | 60 | 2/12.5/122 | Schelling | 3,250 | 15° | TCG |
| L5260060-60 | 600 | 5.8 | 4.2 | 60 | 60 | 2/11/115 + 2/19.5/120 | Holzma | 3,000 | 15° | TCG |
| L5260072-60 | 600 | 5.8 | 4.2 | 60 | 72 | 2/11/115 + 2/19.5/120 | Holzma | 3,000 | 15° | TCG |
| L5263060-40 | 630 | 6.2 | 4.2 | 40 | 60 | – | Schelling | 3,000 | 18° | TCG |
| L5265060-100 | 650 | 6.0 | 4.2 | 100 | 60 | 2/10/150 | Giben | 2,850 | 18° | TCG |
| L5267060-40 | 670 | 6.2 | 4.2 | 40 | 60 | 2/17/140 | Schelling | 2,850 | 20° | TCG |
| L5267060-60 | 670 | 6.0 | 4.0 | 60 | 60 | 2/12/120 | Holzma | 2,850 | 15° | TCG |
| L5267072-60 | 670 | 6.0 | 4.0 | 60 | 72 | – | Holzma Type 61 | 2,850 | 15° | TCG |
| L5268060-40 | 680 | 6.2 | 4.2 | 40 | 60 | 2/12.5/140 + 2/18/140 | Schelling | 2,850 | 18° | TCG |
| L5268072-40 | 680 | 6.2 | 4.2 | 40 | 72 | 2/17/140 | Schelling | 2,850 | 20° | TCG |

# CONIC SCORING SAW BLADES

## *XL4000*


**TOOTH CONFIG:** Conic




**CUTTING MATERIAL:** *XL4000* Tungsten Carbide

**EXPANSION SLOTS:** Cu plugged

### APPLICATION:
» Pre-scoring

### MATERIAL:
» Plastic laminated sheets

### MACHINE TYPE:
» Panel sizing saws with pre-scoring units
» Sliding table saws with pre-scoring units

| PART NO. | | DIAM. MM | KERF MM | PLATE MM | BORE | TEETH | PIN HOLES | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **52705401** | Δ | 54 | 2.85/3.6 | 2.0 | 1" | 14 | – | For Modulus 2000 | 18,000 | 4° | Conic |
| **52708001** | Δ | 80 | 3.1/4.1 | 2.2 | 20mm | 20 | – | For 10" Main | 18,000 | 12° | Conic |
| **52710000** | Δ | 100 | 3.1/4.1 | 2.4 | 1" | 24 | – | For 10" Main | 18,000 | 8° | Conic |
| **52710001** | Δ | 100 | 3.4/4.4 | 2.4 | 20mm | 24 | – | For 12" Main | 18,000 | 8° | Conic |
| **52710002** | Δ | 100 | 3.8/4.8 | 2.8 | 20mm | 24 | – | For 14"-16" Main | 18,000 | 8° | Conic |
| **52711001** | Δ | 110 | 3.4/4.4 | 2.4 | 20mm | 24 | – | For 12" Main | 16,000 | 8° | Conic |
| **52711002** | Δ | 110 | 3.8/4.8 | 2.8 | 20mm | 24 | – | For 14"-16" Main | 16,000 | 8° | Conic |
| **52711501** | Δ | 115 | 3.4/4.4 | 2.4 | 20mm | 24 | – | For 12" Main | 16,000 | 12° | Conic |
| **52711502** | Δ | 115 | 3.8/4.8 | 2.8 | 20mm | 24 | – | For 14"-16" Main | 16,000 | 12° | Conic |
| **52712001** | Δ | 120 | 3.4/4.4 | 2.4 | 20mm | 24 | – | For 12" Main | 16,000 | 12° | Conic |
| **52712001-34** | Δ | 120 | 3.4/4.4 | 2.4 | 3/4" | 24 | – | For 12" Main | 16,000 | 12° | Conic |
| **52712002** | Δ | 120 | 3.8/4.8 | 2.8 | 20mm | 24 | – | For 14"-16" Main | 16,000 | 12° | Conic |
| **52712002-34** | Δ | 120 | 3.8/4.8 | 2.8 | 3/4" | 24 | – | For 14"-16" Main | 16,000 | 12° | Conic |
| **52712500** | Δ | 125 | 3.2/4.2 | 2.4 | 20mm | 24 | – | Casadei Linea | 16,000 | 8° | Conic |
| **52712501-34** | Δ | 125 | 3.4/4.4 | 2.4 | 3/4" | 24 | – | For 12" Main | 16,000 | 8° | Conic |
| **52712501** | Δ | 125 | 3.4/4.4 | 2.4 | 20mm | 24 | – | For 12" Main | 16,000 | 8° | Conic |
| **52712501-22** | Δ | 125 | 3.4/4.4 | 2.4 | 22mm | 24 | – | For 12" Main | 16,000 | 8° | Conic |
| **52712502** | Δ | 125 | 3.8/4.8 | 2.8 | 20mm | 24 | – | For 14"-16" Main | 16,000 | 5° | Conic |
| **52712503** | Δ | 125 | 4.4/5.4 | 3.2 | 45mm | 24 | – | Giben | 16,000 | 5° | Conic |
| **52712503-22** | Δ | 125 | 4.4/5.4 | 3.2 | 22mm | 24 | – | Martin | 16,000 | 5° | Conic |
| **52712504** | Δ | 125 | 4.8/5.8 | 3.5 | 45mm | 24 | – | Giben | 16,000 | 5° | Conic |
| **52712701** | Δ | 127 | 4.4/5.4 | 3.2 | 45mm | 24 | – | Giben | 16,000 | 5° | Conic |
| **52714001** | Δ | 140 | 3.2/4.2 | 2.4 | 16mm | 32 | – | Scheer | 13,500 | 5° | Conic |
| **52714002** | Δ | 140 | 4.4/5.4 | 3.0 | 45mm | 24 | – | Euromac | 13,500 | 5° | Conic |
| **52715001** | Δ | 150 | 3.4/4.4 | 2.4 | 20mm | 24 | – | For 12" Main | 12,000 | 5° | Conic |
| **52715002** | Δ | 150 | 3.8/4.8 | 3.0 | 20mm | 24 | – | For 14"-16" Main | 12,000 | 12° | Conic |
| **52715003-20** | | 150 | 4.4/5.4 | 3.0 | 20mm | 24 | – | Schelling | 12,000 | 8° | Conic |
| **52715003** | | 150 | 4.4/5.4 | 3.0 | 30mm | 24 | – | Irion, Mayer | 12,000 | 8° | Conic |
| **52715003-114** | | 150 | 4.4/5.4 | 3.0 | 1-1/4" | 24 | – | SCMI | 12,000 | 8° | Conic |
| **52715005** | | 150 | 4.4/5.4 | 3.0 | 55mm | 36 | 3/8.5/72 | Gabbiani | 12,000 | 5° | Conic |
| **52716003** | | 160 | 4.4/5.4 | 3.2 | 45mm | 28 | 3/11/70 | Giben Prismatic | 12,000 | 5° | Conic |
| **52716005** | | 160 | 4.4/5.4 | 3.0 | 55mm | 36 | 3/8/66 + 3/8.5/72 | Gabbiani, SCM | 12,000 | 5° | Conic |
| **52716006** | | 160 | 4.8/5.8 | 3.5 | 55mm | 36 | 3/8/66 | Gabbiani | 12,000 | 5° | Conic |
| **52717501** | | 175 | 4.4/5.4 | 3.0 | 45mm | 28 | – | Holzma | 10,000 | 5° | Conic |
| **52717502** | | 175 | 4.8/5.8 | 3.0 | 45mm | 28 | – | Holzma | 10,000 | 5° | Conic |
| **52718001-20** | | 180 | 4.4/5.4 | 3.0 | 20mm | 28 | – | Schelling, Anthon | 10,000 | 5° | Conic |
| **52718001-30** | | 180 | 4.4/5.4 | 3.0 | 30mm | 28 | – | Panhans | 10,000 | 5° | Conic |
| **52718001-45** | | 180 | 4.4/5.4 | 3.0 | 45mm | 28 | – | Holzma | 10,000 | 5° | Conic |

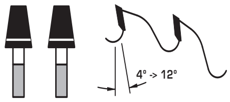
Δ Industrial Quality Saw Blades

Continued to page E29...

# CONIC SCORING SAW BLADES

*XL4000*

**TOOTH CONFIG:** Conic




**CUTTING MATERIAL:** *XL4000* Tungsten Carbide

**EXPANSION SLOTS:** Cu plugged

## APPLICATION:
» Pre-scoring

## MATERIAL:
» Plastic laminated sheets

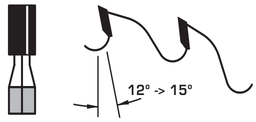
## MACHINE TYPE:
» Panel sizing saws with pre-scoring units

...Continued from page E28

| PART NO. | DIAM. MM | KERF MM | PLATE MM | BORE MM | TEETH | PIN HOLES | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|
| **52718001-50** | 180 | 4.4/5.4 | 3.2 | 50 | 36 | 3/12.5/80 | Giben Smart 75, Onix H105 | 10,000 | 5° | Conic |
| **52718002** | 180 | 4.8/5.8 | 3.5 | 45 | 36 | – | Holzma Series 82 | 10,000 | 5° | Conic |
| **52718002-55** | 180 | 5.2/6.2 | 3.5 | 55 | 30 | – | Giben | 10,000 | 5° | Conic |
| **52718003** | 180 | 5.8/6.8 | 4.0 | 20 | 30 | – | Anthon | 10,000 | 5° | Conic |
| **52718004** | 180 | 6.2/7.2 | 4.4 | 20 | 30 | – | Anthon | 10,000 | 5° | Conic |
| **52718005** | 180 | 4.5/5.4 | 3.2 | 50 | 44 | 4/12.5/80 | Giben Smart 105 SPT | 10,000 | 5° | Conic |
| **52718501** | 185 | 4.8/5.8 | 3.4 | 45 | 30 | – | Holzma | 10,000 | 5° | Conic |
| **52719001-50** | 190 | 4.45/5.45 | 3.2 | 50 | 32 | 2/7/80 | Giben Icon 1 | 10,000 | 8° | Conic - 5°ATB |
| **52720004** | 200 | 3.3/4.3 | 2.2 | 30 | 60 | – | Scheer | 9,000 | 5° | Conic |
| **52720000-20** | 200 | 4.4/5.4 | 3.2 | 20 | 24 | – | Schelling | 9,000 | 5° | Conic |
| **52720001-20** | 200 | 4.4/5.4 | 3.0 | 20 | 34 | – | Schelling | 9,000 | 5° | Conic |
| **52720001-30** | 200 | 4.4/5.4 | 3.0 | 30 | 34 | – | Panhans, Scheer | 9,000 | 5° | Conic |
| **52720001-45** | 200 | 4.4/5.4 | 3.0 | 45 | 34 | – | Holzma | 9,000 | 5° | Conic |
| **52720001-65** | 200 | 4.4/5.4 | 3.2 | 65 | 34 | 2/9/110 | Selco | 9,000 | 5° | Conic |
| **52720001-80** | 200 | 4.4/5.4 | 3.0 | 80 | 34 | 2/14/110 | SCM Sigma | 9,000 | 5° | Conic |
| **52720005-65** | 200 | 4.4/5.4 | 3.5 | 65 | 34 | 2/9/100 | Selco EB100/EB70 | 9,000 | 5° | Conic |
| **52720006** | 200 | 4.6/5.6 | 3.5 | 45 | 34 | – | Holzma | 9,000 | 5° | Conic |
| **52720006-50** | 200 | 4.6/5.6 | 3.6 | 50 | 44 | 3/13/80 | Giben | 9,000 | 5° | Conic |
| **52720006-65** | 200 | 4.6/5.6 | 3.5 | 65 | 34 | 2/9/110 | Selco | 9,000 | 5° | Conic |
| **52720002** | 200 | 4.8/5.8 | 3.5 | 45 | 34 | – | Holzma | 9,000 | 5° | Conic |
| **52720002-20** | 200 | 4.8/5.8 | 3.5 | 20 | 34 | – | Schelling fh6 | 9,000 | 5° | Conic |
| **52720002-65** | 200 | 4.8/5.8 | 3.5 | 65 | 34 | 2/9/110 | Selco | 9,000 | 5° | Conic |
| **52720003** | 200 | 5.0/6.0 | 3.5 | 20 | 34 | – | Schelling | 9,000 | 5° | Conic |
| **52720005** | 200 | 5.5/6.5 | 4.0 | 20 | 36 | – | Schelling | 9,000 | 5° | Conic |
| **52720007** | 200 | 5.8/6.8 | 4.2 | 45 | 24 | – | Holzma | 9,000 | 5° | Conic |
| **52720008** | 200 | 5.8/6.8 | 4.2 | 45 | 34 | – | Holzma | 9,000 | 5° | Conic |
| **52720008-50** | 200 | 4.8/5.8 | 3.5 | 50 | 44 | 3/13.2/80 | Giben Icon 2 | 9,000 | 5° | Conic |
| **52720009** | 200 | 6.2/7.2 | 4.2 | 20 | 34 | – | Schelling | 9,000 | 5° | Conic |
| **52721501** | 215 | 4.4/5.4 | 3.2 | 50 | 42 | 3/15.2/80 | Giben Prismatic | 8,800 | 5° | Conic |
| **52721508** | 215 | 4.8/5.8 | 3.5 | 50 | 42 | 2/7/80 | Giben | 8,800 | 10° | Conic |
| **52725001** | 250 | 4.4/5.4 | 3.2 | 50 | 40 | 3/12.5/80 | Giben Icon 2 | 7,500 | 5° | Conic |
| **52728002** | 280 | 4.8/5.8 | 3.5 | 45 | 72 | – | Holzma | 7,500 | 5° | Conic |
| **52729001** | 290 | 4.4/5.4 | 2.8 | 45 | 42 | – | Holzma | 6,250 | 5° | Conic |
| **52729002** | 290 | 4.8/5.8 | 2.8 | 45 | 42 | – | Holzma | 6,250 | 5° | Conic |
| **52730001-30** | 300 | 4.4/5.4 | 3.2 | 30 | 48 | 2/11/73<br>2/13/94 | Schelling | 6,250 | 8° | Conic |
| **52730001** | 300 | 4.4/5.4 | 3.2 | 50 | 48 | 3/15/80 | Giben Prismatic | 6,250 | 5° | Conic |
| **52730002** | 300 | 4.4/5.4 | 3.2 | 65 | 48 | 2/9/110 | Selco | 6,250 | 5° | Conic |
| **52732001** | 320 | 4.4/5.4 | 3.5 | 45 | 48 | – | Holzma | 5,700 | 5° | Conic |
| **52732002** | 320 | 4.8/5.8 | 3.5 | 45 | 48 | – | Holzma | 5,700 | 5° | Conic |

# 528 SPLIT SCORING SAW BLADES

**TOOTH CONFIG:** Flat Top




**CUTTING MATERIAL:** Tungsten Carbide

**ADDITIONAL INFO:** Two piece unit adjustable to the kerf of the main saw blade with the use of shims

## APPLICATION:
» Pre-scoring

## MATERIAL:
» Plastic laminated sheets

## MACHINE TYPE:
» Table saws
» Sliding table saws
» Panel sizing saws with controllable pre-scoring units

| PART NO. | DIAM. MM | KERF MM | PLATE MM | BORE | TEETH | PIN HOLES | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|
| 528080001-20 | 80 | 2.8/3.6 | 2.0 | 20mm | 2x10 | 2/5/34 | EMA Casadei, Minimax | 18,000 | 12° | Flat Top |
| 52810001-34 | 100 | 2.8/3.6 | 2.0 | 3/4" | 2x12 | 2/5/34 | SCMI, Delta | 18,000 | 12° | Flat Top |
| 52810001-20 | 100 | 2.8/3.6 | 2.0 | 20mm | 2x12 | 2/5/34 | Schelling | 16,000 | 12° | Flat Top |
| 52810001-22 | 100 | 2.8/3.6 | 2.0 | 22mm | 2x12 | 2/5/34 | Altendorf, Martin, Panhans | 16,000 | 12° | Flat Top |
| 52810001-1 | 100 | 2.8/3.6 | 2.0 | 1" | 2x12 | 2/5/42 | Delta | 18,000 | 12° | Flat Top |
| 52810501-20 | 105 | 2.8/3.6 | 2.0 | 20mm | 2x12 | 2/5/34 | Wadkin-CP320 | 18,000 | 12° | Flat Top |
| 52812001-34 | 120 | 2.8/3.6 | 2.0 | 3/4" | 2x12 | 2/5/34 | SCMI | 16,000 | 12° | Flat Top |
| 52812001-20 | 120 | 2.8/3.6 | 2.0 | 20mm | 2x12 | 2/5/34 | SCM, Holz-Her | 16,000 | 12° | Flat Top |
| 52812001-22 | 120 | 2.8/3.6 | 2.0 | 22mm | 2x12 | 2/5/34 | Altendorf, Martin, Panhans | 16,000 | 12° | Flat Top |
| 52812001-50 • ∆ | 120 | 2.8/3.6 | 2.2 | 50mm | 2x12 | 4-C/Sinks | Altendorf - Rapido | 16,000 | 12° | Flat Top |
| 52812001-1300 • ∆ | 120 | 2.8/3.6 | 2.2 | 50mm | 2x12 | 4-C/Sinks | Casolin - Rapido | 16,000 | 12° | Flat Top |
| 52812501-22 | 125 | 2.8/3.6 | 2.0 | 22mm | 2x12 | 2/5/34 | Holz-Her | 16,000 | 12° | Flat Top |
| 52812501 | 125 | 2.8/3.6 | 2.0 | 30mm | 2x12 | 2/5/34 | Steton | 16,000 | 12° | Flat Top |
| 52815001-45 | 150 | 3.9/5.2 | 2.2 | 45mm | 2x20 | 2/5/60 | – | 12,000 | 12° | Flat Top |
| 52817501 | 175 | 4.4/5.0 | 2.0 | 45mm | 2x20 | – | Holzma | 12,000 | 12° | Flat Top |
| 52818001-30 | 180 | 4.4/5.0 | 2.0 | 30mm | 2x18 | 2/5/42 | Koelle | 10,000 | 12° | Flat Top |
| 52818001 | 180 | 4.4/5.2 | 2.0 | 45mm | 2x20 | – | Holzma | 10,000 | 12° | Flat Top |
| 52818002 | 180 | 4.8/5.4 | 2.0 | 45mm | 2x20 | 2/5/60 | Holzma | 10,000 | 12° | Flat Top |
| 52822001-20 | 220 | 4.4/5.6 | 2.2 | 20mm | 2x24 | 2/4/42 | Schelling | 8,000 | 15° | Flat Top |
| 52829001 | 290 | 4.4/5.6 | 2.8 | 45mm | 2x24 | – | Holzma (postforming) | 6,250 | 12° | Flat Top |
| 52832001 | 320 | 4.4/5.6 | 3.5 | 45mm | 2x24 | 2/5/60 | Holzma (postforming) | 5,700 | 12° | Flat Top |
| 52834001 | 340 | 4.4/5.6 | 3.5 | 45mm | 2x24 | 2/5/60 | Holzma (postforming) | 5,500 | 12° | Flat Top |

• Pin holes are countersunk for rapido system

∆ For machines with adjustable flange; no shims required

FS TOOL

| | MAIN SAW | | | | | | SCORING SAW | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MACHINE | PART NO. | DIAM. MM | KERF MM | BORE | TEETH | TOOTH CONFIG | PART NO. | DIAM. MM | KERF MM | BORE MM | TEETH | TOOTH CONFIG |
| **ANTHON** -> MODEL | | | | | | | | | | | | |
| LNA | L5240072-60 | 400 | 4.4 | 60mm | 72 | TCG | 52718001-20 | 180 | 4.4/5.4 | 20 | 28 | Conic |
| LNA | L5040072-60 | 400 | 4.4 | 60mm | 72 | ATB | 52718001-20 | 180 | 4.4/5.4 | 20 | 28 | Conic |
| CP | L5243072-60 | 430 | 4.4 | 60mm | 72 | TCG | 52718001-20 | 180 | 4.4/5.4 | 20 | 28 | Conic |
| LNB | L5253060-60 | 530 | 5.8 | 60mm | 60 | TCG | 52718003 | 180 | 5.8/6.8 | 20 | 30 | Conic |
| LNC | L5270060-80 | 700 | 6.2 | 80mm | 60 | TCG | 52718004 | 180 | 6.2/7.2 | 20 | 30 | Conic |
| **CASADEI** -> MODEL | | | | | | | | | | | | |
| LINEA | L5225072-30 | 250 | 3.2 | 30mm | 72 | TCG | 52712500 | 125 | 3.2/4.2 | 20 | 24 | Conic |
| **GABBIANI** -> MODEL | | | | | | | | | | | | |
| | L5235072-80 | 350 | 4.4 | 80mm | 72 | TCG | 52716005 | 160 | 4.4/5.4 | 55 | 36 | Conic |
| | L5035072-80 | 350 | 4.4 | 80mm | 72 | ATB | 52716005 | 160 | 4.4/5.4 | 55 | 36 | Conic |
| | L5240060-80 | 400 | 4.4 | 80mm | 60 | TCG | 52716005 | 160 | 4.4/5.4 | 55 | 36 | Conic |
| | L5040060-80 | 400 | 4.4 | 80mm | 60 | ATB | 52716005 | 160 | 4.4/5.4 | 55 | 36 | Conic |
| | L5240072-80 | 400 | 4.4 | 80mm | 72 | TCG | 52716005 | 160 | 4.4/5.4 | 55 | 36 | Conic |
| | L5040072-80 | 400 | 4.4 | 80mm | 72 | ATB | 52716005 | 160 | 4.4/5.4 | 55 | 36 | Conic |
| GALAXY | L5245172-80 | 450 | 4.4 | 80mm | 72 | TCG | 52720001-80 | 200 | 4.4/5.4 | 80 | 34 | Conic |
| ELITE | L52451-72-80 | 450 | 4.4 | 80mm | 72 | TCG | 52720001-80 | 200 | 4.4/5.4 | 80 | 34 | Conic |
| | L5250060-80 | 500 | 4.4 | 80mm | 60 | TCG | 52716005 | 160 | 4.4/5.4 | 55 | 36 | Conic |
| | L5250872-80 | 500 | 4.8 | 80mm | 72 | TCG | 52716006 | 160 | 4.8/5.8 | 55 | 36 | Conic |
| **GIBEN** -> MODEL | | | | | | | | | | | | |
| JUNIOR | L5230060-75 | 305 | 4.4 | 75mm | 60 | TCG | 52712503 | 125 | 4.4/5.4 | 45 | 24 | Conic |
| SMART 75 | L5232072-50 | 320 | 4.4 | 50mm | 72 | TCG | 52718001-50 | 180 | 4.4/5.4 | 50 | 36 | Conic |
| SMART 75 | L5232060-75 | 320 | 4.6 | 75mm | 60 | TCG | 52720006-50 | 200 | 4.6/5.6 | 50 | 44 | Conic |
| TREND | L5235054-75 | 355 | 4.4 | 75mm | 54 | TCG | 52712503 | 125 | 4.4/5.4 | 45 | 24 | Conic |
| TREND | L5035054-75 | 355 | 4.4 | 75mm | 54 | ATB | 52712503 | 125 | 4.4/5.4 | 45 | 24 | Conic |
| | L5235072-75 | 355 | 4.4 | 75mm | 72 | TCG | 52712503 | 125 | 4.4/5.4 | 45 | 24 | Conic |
| | L5035072-75 | 355 | 4.4 | 75mm | 72 | ATB | 52712503 | 125 | 4.4/5.4 | 45 | 24 | Conic |
| SMART 105SPT | L5236072-50 | 360 | 4.4 | 50mm | 72 | TCG | 52718005 | 180 | 4.4/5.4 | 50 | 44 | Conic |
| ICON 2 | L5238072-50 | 380 | 4.4 | 50mm | 72 | TCG | 52725001 | 250 | 4.4/5.4 | 50 | 40 | Conic |
| ICON 2 | L5638872-50 | 380 | 4.8 | 50mm | 72 | TCG | 52720008-50 | 200 | 4.8/5.8 | 50 | 34 | Conic |
| ONIX H105 | L5239072-50 | 390 | 4.4 | 50mm | 72 | TCG | 52718001-50 | 180 | 4.4/5.4 | 50 | 36 | Conic |
| ICON 1 | L5239072-75 | 390 | 4.4 | 75mm | 72 | TCG | 52719001-50 | 190 | 4.4/5.4 | 50 | 32 | Conic |
| | L5240060-75 | 400 | 4.4 | 75mm | 60 | TCG | 52712503 | 125 | 4.4/5.4 | 45 | 24 | Conic |
| | L5040060-75 | 400 | 4.4 | 75mm | 60 | ATB | 52712503 | 125 | 4.4/5.4 | 45 | 24 | Conic |
| | L5240860-75 | 400 | 4.8 | 75mm | 60 | TCG | 52712504 | 125 | 4.8/5.8 | 45 | 24 | Conic |
| | L5240072-75 | 400 | 4.4 | 75mm | 72 | TCG | 52712503 | 125 | 4.4/5.4 | 45 | 24 | Conic |
| | L5040072-75 | 400 | 4.4 | 75mm | 72 | ATB | 52712503 | 125 | 4.4/5.4 | 45 | 24 | Conic |
| PRISMATIC-1 | L5240172-75 | 400 | 4.4 | 75mm | 72 | TCG | 52716003 | 160 | 4.4/5.4 | 45 | 28 | Conic |
| PRISMATIC-2 | L5243072-75 | 430 | 4.4 | 75mm | 72 | TCG | 52721501 | 215 | 4.4/5.4 | 50 | 42 | Conic |
| PRISMATIC-2 | L5243096-75 | 430 | 4.4 | 75mm | 96 | TCG | 52721501 | 215 | 4.4/5.4 | 50 | 42 | Conic |
| PRISMATIC-3 | L5247096-75 | 470 | 4.4 | 75mm | 96 | TCG | 52721501 | 215 | 4.4/5.4 | 50 | 42 | Conic |
| | L5250060-75 | 500 | 4.4 | 75mm | 60 | TCG | 52712503 | 125 | 4.4/5.4 | 45 | 24 | Conic |
| | L5250072-75 | 500 | 4.4 | 75mm | 72 | TCG | 52712701 | 127 | 4.4/5.4 | 45 | 24 | Conic |
| | L5250860-75 | 500 | 4.8 | 75mm | 60 | TCG | 52712504 | 125 | 4.8/5.8 | 45 | 24 | Conic |
| | L5250872-75 | 500 | 4.8 | 75mm | 72 | TCG | 52712504 | 125 | 4.8/5.8 | 45 | 24 | Conic |
| | L5253072-75 | 530 | 4.8 | 75mm | 72 | TCG | 52721508 | 215 | 4.5/5.8 | 50 | 42 | Conic |

Continued on page E32...

...Continued from page E31

| | MAIN SAW | | | | | | SCORING SAW | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MACHINE | PART NO. | DIAM. MM | KERF MM | BORE | TEETH | TOOTH CONFIG | PART NO. | DIAM. MM | KERF MM | BORE MM | TEETH | TOOTH CONFIG |
| **GIBEN** -> MODEL | | | | | | | | | | | | |
| MATIC | L5255272-100 | 550 | 5.2 | 100mm | 72 | TCG | 52718002-55 | 180 | 5.2/6.2 | 55 | 30 | Conic |
| MATIC | L5256560-100 | 565 | 5.0 | 100mm | 60 | TCG | 52718002-55 | 180 | 5.2/6.2 | 55 | 30 | Conic |
| MATIC | L5256572-100 | 565 | 5.0 | 100mm | 72 | TCG | 52718002-55 | 180 | 5.2/6.2 | 55 | 30 | Conic |
| **HOLZ-HER** -> MODEL | | | | | | | | | | | | |
| | L5035154-30 | 350 | 3.6 | 30mm | 54 | ATB | 52812501-22 | 125 | 2.8/3.6 | 22 | 2x20 | Split |
| **HOLZMA** -> MODEL | | | | | | | | | | | | |
| HPP350 | L5235072-60 | 350 | 4.4 | 60mm | 72 | TCG | 52718001-45 | 180 | 4.4/5.4 | 45 | 28 | Conic |
| | L5238060-60 | 380 | 4.4 | 60mm | 60 | TCG | 52720001-45 | 200 | 4.4/5.4 | 45 | 34 | Conic |
| | L5238072-60 | 380 | 4.4 | 60mm | 72 | TCG | 52720001-45 | 200 | 4.4/5.4 | 45 | 34 | Conic |
| | L5238872-60 | 380 | 4.8 | 60mm | 72 | TCG | 52718002 | 180 | 4.8/5.8 | 45 | 36 | Conic |
| | L5240072-60 | 400 | 4.4 | 60mm | 72 | TCG | 52720001-45 | 200 | 4.4/5.4 | 45 | 34 | Conic |
| | L5040072-60 | 400 | 4.4 | 60mm | 72 | ATB | 52720001-45 | 200 | 4.4/5.4 | 45 | 34 | Conic |
| | L5242072-60 | 420 | 4.4 | 60mm | 72 | TCG | 52720001-45 | 200 | 4.4/5.4 | 45 | 34 | Conic |
| | L5242672-60 | 420 | 4.6 | 60mm | 72 | TCG | 52720006 | 200 | 4.6/5.6 | 45 | 34 | Conic |
| | L5242860-60 | 420 | 4.8 | 60mm | 60 | TCG | 52720002 | 200 | 4.8/5.8 | 45 | 34 | Conic |
| | L5242872-60 | 420 | 4.8 | 60mm | 72 | TCG | 52720002 | 200 | 4.8/5.8 | 45 | 34 | Conic |
| | L5245072-60 | 450 | 4.4 | 60mm | 72 | TCG | 52720001-45 | 200 | 4.4/5.4 | 45 | 34 | Conic |
| | L5045072-60 | 450 | 4.4 | 60mm | 72 | ATB | 52720001-45 | 200 | 4.4/5.4 | 45 | 34 | Conic |
| | L5245872-60 | 450 | 4.8 | 60mm | 72 | TCG | 52720002 | 200 | 4.8/5.8 | 45 | 34 | Conic |
| | L5245872-60 | 450 | 4.8 | 60mm | 72 | TCG | 52718002 | 180 | 4.8/5.8 | 45 | 36 | Conic |
| | L5250072-60 | 500 | 4.4 | 60mm | 72 | TCG | 52720001-45 | 200 | 4.4/5.4 | 45 | 34 | Conic |
| | L5250860-60 | 500 | 4.8 | 60mm | 60 | TCG | 52720002 | 200 | 4.8/5.8 | 45 | 34 | Conic |
| | L5250872-60 | 500 | 4.8 | 60mm | 72 | TCG | 52720002 | 200 | 4.8/5.8 | 45 | 34 | Conic |
| | L5250572-60 | 500 | 5.0 | 60mm | 72 | TCG | 52720002 | 200 | 4.8/5.8 | 45 | 34 | Conic |
| | L5252060-60 | 520 | 4.8 | 60mm | 60 | TCG | 52720002 | 200 | 4.8/5.8 | 45 | 34 | Conic |
| | L5252072-60 | 520 | 4.8 | 60mm | 72 | TCG | 52720002 | 200 | 4.8/5.8 | 45 | 34 | Conic |
| | L5254060-60 | 540 | 4.8 | 60mm | 60 | TCG | 52720002 | 200 | 4.8/5.8 | 45 | 34 | Conic |
| | L5254084-60 | 540 | 4.8 | 60mm | 84 | TCG | 52720002 | 200 | 4.8/5.8 | 45 | 34 | Conic |
| | L5257860-60 | 570 | 5.8 | 60mm | 60 | TCG | 52720008 | 200 | 5.8/6.8 | 45 | 34 | Conic |
| | L5260060-60 | 600 | 5.8 | 60mm | 60 | TCG | 52720008 | 200 | 5.8/6.8 | 45 | 34 | Conic |
| | L5260072-60 | 600 | 5.8 | 60mm | 72 | TCG | 52720008 | 200 | 5.8/6.8 | 45 | 34 | Conic |
| | L5267060-60 | 670 | 6.0 | 60mm | 60 | TCG | 52720008 | 200 | 5.8/6.8 | 45 | 34 | Conic |
| | L5267072-60 | 670 | 6.0 | 60mm | 72 | TCG | 52720008 | 200 | 5.8/6.8 | 45 | 34 | Conic |
| **SCHELLING** -> MODEL | | | | | | | | | | | | |
| | L5235072-30 | 355 | 4.4 | 30mm | 72 | TCG | 52720001-20 | 200 | 4.4/5.4 | 20 | 34 | Conic |
| FX H430 | L5235272-30 | 350 | 4.4 | 30mm | 72 | TCG | L5030272-30 | 300 | 4.55 | 30 | 72 | ATB |
| | L5237072-30 | 370 | 4.4 | 30mm | 72 | TCG | 52720001-20 | 200 | 4.4/5.4 | 20 | 34 | Conic |
| | L5240060-30 | 400 | 4.4 | 30mm | 60 | TCG | 52720001-20 | 200 | 4.4/5.4 | 20 | 34 | Conic |
| | L5040060-30 | 400 | 4.4 | 30mm | 60 | ATB | 52720001-20 | 200 | 4.4/5.4 | 20 | 34 | Conic |
| | L5240072-30 | 400 | 4.4 | 30mm | 72 | TCG | 52720001-20 | 200 | 4.4/5.4 | 20 | 34 | Conic |
| | L5240072-30 | 400 | 4.4 | 30mm | 72 | TCG | 52715003-20 | 150 | 4.4/5.4 | 20 | 24 | Conic |
| | L5245072-30 | 450 | 4.4 | 30mm | 72 | TCG | 52720001-20 | 200 | 4.4/5.4 | 20 | 34 | Conic |

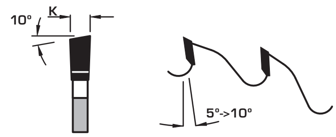
Continued on page E33...

...Continued from page E32

| | MAIN SAW | | | | | | SCORING SAW | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MACHINE | PART NO. | DIAM. MM | KERF MM | BORE | TEETH | TOOTH CONFIG | PART NO. | DIAM. MM | KERF MM | BORE | TEETH | TOOTH CONFIG |
| **SCHELLING** -> MODELS (CONT'D) | | | | | | | | | | | | |
| | **L5045072-30** | 450 | 4.4 | 30mm | 72 | ATB | **52720001-20** | 200 | 4.4/5.4 | 20mm | 34 | Conic |
| | **L5246060-30** | 460 | 4.4 | 30mm | 60 | TCG | **52720001-20** | 200 | 4.4/5.4 | 20mm | 34 | Conic |
| | **L5246072-30** | 460 | 4.4 | 30mm | 72 | TCG | **52720001-20** | 200 | 4.4/5.4 | 20mm | 34 | Conic |
| | **L5247072-30** | 470 | 4.4 | 30mm | 72 | TCG | **52720001-20** | 200 | 4.4/5.4 | 20mm | 34 | Conic |
| | **L5248072-30** | 480 | 4.4 | 30mm | 72 | TCG | **52720001-20** | 200 | 4.4/5.4 | 20mm | 34 | Conic |
| | **L5248872-30** | 480 | 4.8 | 30mm | 72 | TCG | **52720002-20** | 200 | 4.8/5.8 | 20mm | 34 | Conic |
| | **L5250060-30** | 500 | 4.4 | 30mm | 60 | TCG | **52718001-20** | 180 | 4.4/5.4 | 20mm | 28 | Conic |
| | **L5253060-30** | 530 | 5.0 | 30mm | 60 | TCG | **52720003** | 200 | 5.0/6.0 | 20mm | 34 | Conic |
| | **L5255060-40** | 550 | 5.0 | 40mm | 60 | TCG | **52720003** | 200 | 5.0/6.0 | 20mm | 34 | Conic |
| | **L5258060-40** | 580 | 5.5 | 40mm | 60 | TCG | **52720005**<br>**52822001-20** | 200<br>220 | 5.5/6.5<br>4.4/5.6 | 20mm<br>20mm | 36<br>2x24 | Conic<br>Split |
| | **L5263060-40** | 630 | 6.2 | 40mm | 60 | TCG | **52720009** | 200 | 6.2/7.2 | 20mm | 34 | Conic |
| | **L5267060-40** | 670 | 6.2 | 40mm | 60 | TCG | **52720009** | 200 | 6.2/7.2 | 20mm | 34 | Conic |
| | **L5067060-40** | 670 | 6.2 | 40mm | 60 | ATB | **52720009** | 200 | 6.2/7.2 | 20mm | 34 | Conic |
| | **L5268060-40** | 680 | 6.2 | 40mm | 60 | TCG | **52720009** | 200 | 6.2/7.2 | 20mm | 34 | Conic |
| | **L5268072-40** | 680 | 6.2 | 40mm | 72 | TCG | **52720009** | 200 | 6.2/7.2 | 20mm | 34 | Conic |
| **SCHEER** -> MODEL | | | | | | | | | | | | |
| | **L5224054-30** | 240 | 3.2 | 30mm | 54 | TCG | **52714001** | 140 | 3.2/4.2 | 16mm | 32 | Conic |
| | **L5230160-30** | 305 | 3.4 | 30mm | 60 | TCG | **52720004** | 200 | 3.3/4.3 | 30mm | 60 | Conic |
| **SCM** -> MODEL | | | | | | | | | | | | |
| | **L5235054-30** | 355 | 4.4 | 30mm | 54 | TCG | **52716005** | 160 | 4.4/5.4 | 55mm | 36 | Conic |
| | **L5035054-30** | 355 | 4.4 | 30mm | 54 | ATB | **52716005** | 160 | 4.4/5.4 | 55mm | 36 | Conic |
| | **L5235072-30** | 355 | 4.4 | 30mm | 72 | TCG | **52716005** | 160 | 4.4/5.4 | 55mm | 36 | Conic |
| | **L5035072-30** | 355 | 4.4 | 30mm | 72 | ATB | **52716005** | 160 | 4.4/5.4 | 55mm | 36 | Conic |
| | **L5235072-114** | 350 | 4.4 | 1-1/4" | 72 | TCG | **52715003-114** | 150 | 4.4/5.4 | 1-1/4" | 24 | Conic |
| SIGMA 65 | **L5230072-80** | 300 | 4.4 | 80mm | 72 | TCG | **52716005** | 160 | 4.4/5.4 | 55mm | 36 | Conic |
| SIGMA 65 NEW | **L5230072-80** | 300 | 4.4 | 80mm | 72 | TCG | **52720001-80** | 200 | 4.4/5.4 | 80mm | 34 | Conic |
| SIGMA 90 | **L5235172-80** | 350 | 4.4 | 80mm | 72 | TCG | **52716005** | 160 | 4.4/5.4 | 55mm | 36 | Conic |
| SIGMA 90 NEW | **L5235172-80** | 350 | 4.4 | 80mm | 72 | TCG | **52720001-80** | 200 | 4.4/5.4 | 80mm | 34 | Conic |
| SIGMA 115 | **L5240272-80** | 400 | 4.4 | 80mm | 72 | TCG | **52720001-80** | 200 | 4.4/5.4 | 80mm | 34 | Conic |
| **SELCO** -> MODEL | | | | | | | | | | | | |
| EB70 | **L5230060-65** | 300 | 4.4 | 65mm | 60 | TCG | **52720005-65** | 200 | 4.4/5.4 | 65mm | 34 | Conic |
| EB90 | **L5235272-80** | 355 | 4.4 | 80mm | 72 | TCG | **52720001-65** | 200 | 4.4/5.4 | 65mm | 34 | Conic |
| EB100 | **L5236072-65** | 360 | 4.4 | 65mm | 72 | TCG | **52720005-65** | 200 | 4.4/5.4 | 65mm | 34 | Conic |
| | **L5240172-80** | 400 | 4.4 | 80mm | 72 | TCG | **52720001-65** | 200 | 4.4/5.4 | 65mm | 34 | Conic |
| WNT 6 | **L5243072-65** | 430 | 4.4 | 65mm | 72 | TCG | **52720001-65** | 200 | 4.4/5.4 | 65mm | 34 | Conic |
| | **L5243072-80** | 430 | 4.4 | 80mm | 72 | TCG | **52720001-65** | 200 | 4.4/5.4 | 65mm | 34 | Conic |
| | **L5043072-80** | 430 | 4.4 | 80mm | 72 | ATB | **52720001-65** | 200 | 4.4/5.4 | 65mm | 34 | Conic |
| | **L5245072-80** | 450 | 4.4 | 80mm | 72 | TCG | **52720001-65** | 200 | 4.4/5.4 | 65mm | 34 | Conic |
| | **L5045072-80** | 450 | 4.4 | 80mm | 72 | ATB | **52720001-65** | 200 | 4.4/5.4 | 65mm | 34 | Conic |
| | **L5245672-80** | 450 | 4.6 | 80mm | 72 | TCG | **52720006-65** | 200 | 4.6/5.6 | 65mm | 34 | Conic |
| | **L5245872-80** | 450 | 4.8 | 80mm | 72 | TCG | **52720002-65** | 200 | 4.8/5.8 | 65mm | 34 | Conic |
| | **L5248072-80** | 480 | 4.4 | 80mm | 72 | TCG | **52720001-65** | 200 | 4.4/5.4 | 65mm | 34 | Conic |
| | **L5248872-80** | 480 | 4.8 | 80mm | 72 | TCG | **52720002-65** | 200 | 4.8/5.8 | 65mm | 34 | Conic |

## LEFT-HAND SCORING SAW BLADES

**TOOTH CONFIG:** Bevel Left-Hand




### APPLICATION:
» Pre-scoring

### MATERIAL:
» Solid wood
» Veneered and plastic laminated sheets

### MACHINE TYPE:
» Single or double end tenoners with pre-scoring units, in combination with hogging units

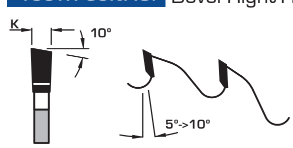
**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged
**ADDITIONAL INFO:** Bore size modified according to flange or spindle size of machine

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| 529150 | 6" | .126" | .087" | 5/8" | 30 | 12,000 | 10˚ | Bevel Left-Hand |
| 529154 | 6" | .126" | .087" | 5/8" | 40 | 12,000 | 5˚ | Bevel Left-Hand |
| 529180 | 7" | .126" | .087" | 5/8" | 30 | 10,000 | 10˚ | Bevel Left-Hand |
| 529184 | 7" | .126" | .087" | 5/8" | 40 | 10,000 | 10˚ | Bevel Left-Hand |
| 529186 | 7" | .126" | .087" | 5/8" | 60 | 10,000 | 5˚ | Bevel Left-Hand |
| 529200 | 8" | .126" | .087" | 5/8" | 40 | 9,000 | 10˚ | Bevel Left-Hand |
| 529206 | 8" | .126" | .087" | 5/8" | 60 | 9,000 | 5˚ | Bevel Left-Hand |

530

## RIGHT-HAND SCORING SAW BLADES

**TOOTH CONFIG:** Bevel Right-Hand




### APPLICATION:
» Pre-scoring

### MATERIAL:
» Solid wood
» Veneered and plastic laminated sheets

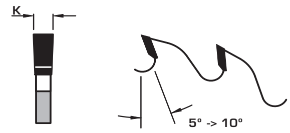
### MACHINE TYPE:
» Single or double end tenoners with pre-scoring units, in combination with hogging units

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged
**ADDITIONAL INFO:** Bore size modified according to flange or spindle size of machine

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| 530150 | 6" | .126" | .087" | 5/8" | 30 | 12,000 | 10˚ | Bevel Right-Hand |
| 530154 | 6" | .126" | .087" | 5/8" | 40 | 12,000 | 5˚ | Bevel Right-Hand |
| 530180 | 7" | .126" | .087" | 5/8" | 30 | 10,000 | 10˚ | Bevel Right-Hand |
| 530184 | 7" | .126" | .087" | 5/8" | 40 | 10,000 | 10˚ | Bevel Right-Hand |
| 530186 | 7" | .126" | .087" | 5/8" | 60 | 10,000 | 5˚ | Bevel Right-Hand |
| 530200 | 8" | .126" | .087" | 5/8" | 40 | 9,000 | 10˚ | Bevel Right-Hand |
| 530206 | 8" | .126" | .087" | 5/8" | 60 | 9,000 | 5˚ | Bevel Right-Hand |

# FLAT TOP SCORING SAW BLADES

**TOOTH CONFIG:** Flat Top




## APPLICATION:
» Pre-scoring

## MATERIAL:
» Plastic laminated sheets

## MACHINE TYPE:
» Single or double end tenoners with pre-scoring units, in combination with hogging units

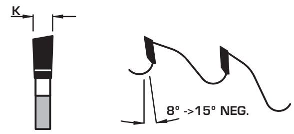
**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged
**ADDITIONAL INFO:** Bore size modified according to flange or spindle size of machine

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| **531150** | 6" | .126" | .087" | 5/8" | 30 | 12,000 | 10˚ | Flat Top |
| **531154** | 6" | .126" | .087" | 5/8" | 40 | 12,000 | 5˚ | Flat Top |
| **531180** | 7" | .126" | .087" | 5/8" | 30 | 10,000 | 10˚ | Flat Top |
| **531184** | 7" | .126" | .087" | 5/8" | 40 | 10,000 | 10˚ | Flat Top |
| **531186** | 7" | .126" | .087" | 5/8" | 60 | 10,000 | 5˚ | Flat Top |
| **531200** | 8" | .126" | .087" | 5/8" | 40 | 9,000 | 10˚ | Flat Top |
| **531206** | 8" | .126" | .087" | 5/8" | 60 | 9,000 | 5˚ | Flat Top |

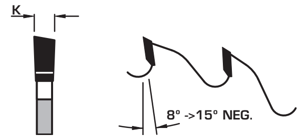
# EDGE BANDING SAW BLADES
## LEFT-HAND AND RIGHT-HAND

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

**TOOTH CONFIG:** Bevel Left-Hand




**TOOTH CONFIG:** Bevel Right-Hand




### APPLICATION:
» Trimming projecting edge bandings

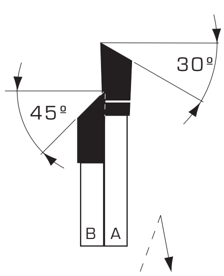
### MATERIAL:
» Solid wood
» Wood veneer
» Plastics

### MACHINE TYPE:
» Single-sided and double-sided edge-banding machines

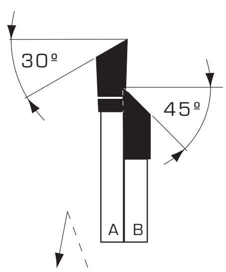
| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | DIAM. MM | KERF MM | PLATE MM | BORE MM | TEETH | PIN HOLES | MAX. RPM | HOOK | BEV. | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 560100L | 560100R | 100 | 3.0 | 2.0 | 32 | 20 | – | 18,000 | 5° | 20° | One Side Bevel |
| 560100L-32 | 560100R-32 | 100 | 3.2 | 2.2 | 32 | 20 | – | 18,000 | 6°Neg. | 30° | One Side Bevel |
| 560101L | 560101R | 100 | 3.0 | 2.0 | 32 | 20 | – | 18,000 | 15°Neg. | 30° | One Side Bevel |
| 560194L • | 560194R • | 100/92 | 5.6 | 2.5 | 32 | 20 | 2/3.8/44 | 15,000 | 15°Neg. | 30° | Trimming Bevel Set |
| 560195L • | 560195R • | 110/102 | 5.7 | 2.2 | 40 | 20 | 2/3.7/52 + 4/5.6/52 | 13,500 | 8° | 30° | Trimming Bevel Set |
| 560125L | 560125R | 125 | 3.2 | 2.2 | 20 | 40 | – | 16,000 | 5° | 15° | One Side Bevel |
| 560150L | 560150R | 150 | 3.5 | 2.3 | 22 | 30 | – | 12,000 | 5° | 15° | One Side Bevel |
| 560151L | 560151R | 150 | 3.5 | 2.3 | 22 | 30 | – | 12,000 | 15°Neg. | 30° | One Side Bevel |
| 560154L | 560154R | 150 | 3.5 | 2.3 | 20 | 36 | – | 12,000 | 5° | 15° | One Side Bevel |
| 570170L | 570170R | 170 | 3.2 | 2.2 | 20 | 48 | – | 10,000 | 5° | 10° | One Side Bevel |
| 570170L-30 | 570170R-30 | 170 | 3.2 | 2.2 | 30 | 48 | – | 10,000 | 5° | 10° | One Side Bevel |

• Pin holes are countersunk

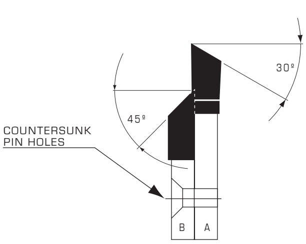
## TRIMMING BEVEL SETS



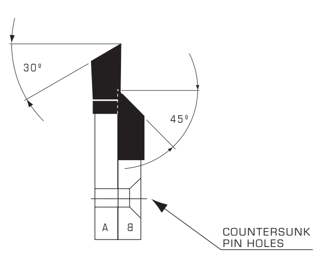

**560194L**
LEFT HAND SET




**560194R**
RIGHT HAND SET




**560195L**
LEFT HAND SET



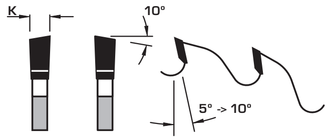

**560195R**
RIGHT HAND SET

# EDGE BANDING SAW BLADES

## ALTERNATING TOP BEVEL

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged

**TOOTH CONFIG:** ATB




### APPLICATION:
» Trimming projecting edge bandings

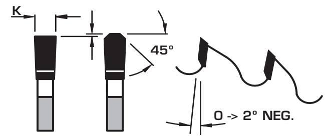
### MATERIAL:
» Solid wood
» Wood veneer
» Plastics

### MACHINE TYPE:
» Single-sided and double-sided edge-banding machines

| PART NO. | DIAM. MM | KERF MM | PLATE MM | BORE MM | TEETH | PIN HOLES | MAX. RPM | HOOK | BEV. | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|
| 560 090 A | 90 | 3.0 | 2.0 | 30 | 24 | – | 18,000 | 12° | 10° | ATB |
| 560 100 A | 100 | 3.6 | 2.6 | 32 | 20 | – | 18,000 | 12° | 15° | ATB |
| 560 110 A | 110 | 3.6 | 2.6 | 32 | 20 | – | 16,000 | 10° | 15° | ATB |
| 560 110 A-22 | 110 | 3.6 | 2.6 | 22 | 20 | – | 16,000 | 10° | 15° | ATB |
| 560 120 A | 120 | 3.2 | 2.2 | 20 | 24 | – | 16,000 | 10° | 20° | ATB |
| 560 150 A | 150 | 3.5 | 2.3 | 22 | 48 | – | 12,000 | 10° | 10° | ATB |
| 560 160 A | 160 | 2.8 | 2.0 | 30 | 24 | 2/7/42 | 10,000 | 10° | 10° | ATB |
| 560 160 B | 160 | 3.2 | 2.2 | 20 | 48 | – | 10,000 | 5° | 15° | ATB |

# L1A SAW BLADES FOR NON-FERROUS METALS

**TOOTH CONFIG:** TCG




**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged
**ADDITIONAL INFO:** Material to be cut must be firmly clamped.
Use of spray lubrication recommended.

## APPLICATION:
- Splitting
- Mitre jointing

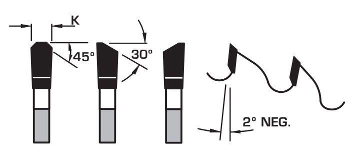
## MATERIAL:
- Non-ferrous extrusions, sheets and light bars

## MACHINE TYPE:
- Mitre jointers
- Splitters
- Trimmers
- Double cross-cutting machines
- Sizing machines

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| L1A180 | 7" | .112" | .087" | 5/8" | 44 | 10,000 | 2˚Neg. | TCG |
| L1A200 | 8" | .112" | .087" | 5/8" | 48 | 9,000 | 2˚Neg. | TCG |
| L1A225 | 9" | .112" | .087" | 5/8" | 60 | 8,000 | 2˚Neg. | TCG |
| L1A250 | 10" | .112" | .087" | 5/8" | 60 | 7,500 | 2˚Neg. | TCG |
| L1A252 | 10" | .126" | .102" | 5/8" | 60 | 7,500 | 2˚Neg. | TCG |
| L1A308 | 12" | .124" | .110" | 5/8" | 80 | 6,250 | 0˚ | TCG |
| L1A300 | 12" | .122" | .095" | 1" | 80 | 6,250 | 2˚Neg. | TCG |
| L1A350 | 14" | .145" | .118" | 1" | 90 | 5,350 | 2˚Neg. | TCG |
| L1A400 | 16" | .145" | .118" | 1" | 100 | 4,500 | 2˚Neg. | TCG |
| L1A450 | 18" | .174" | .138" | 1" | 100 | 4,000 | 2˚Neg. | TCG |
| L1A500 | 20" | .174" | .138" | 1" | 100 | 3,500 | 2˚Neg. | TCG |

# L1C SAW BLADES FOR NON-FERROUS METALS

**TOOTH CONFIG:** TCGM




**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged
**ADDITIONAL INFO:** Material to be cut must be firmly clamped.
Use of spray lubrication recommended.

## APPLICATION:
- Splitting
- Mitre jointing

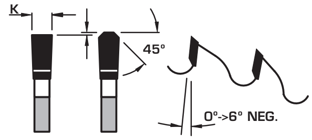
## MATERIAL:
- Non-ferrous extrusions, thin sheets and light non-ferrous bars

## MACHINE TYPE:
- Mitre jointers
- Splitters
- Trimmers
- Double cross-cutters
- Sizers

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| L1C250 | 10" | .118" | .095" | 5/8" | 72 | 6,500 | 2˚Neg. | TCGM |
| L1C300 | 12" | .126" | .102" | 1" | 90 | 6,000 | 2˚Neg. | TCGM |
| L1C308 | 12" | .126" | .102" | 5/8" | 90 | 6,000 | 2˚Neg. | TCGM |

# L1B SAW BLADES FOR NON-FERROUS METALS

**TOOTH CONFIG:** TCG




**CUTTING MATERIAL:** Tungsten Carbide

**EXPANSION SLOTS:** Cu plugged

**ADDITIONAL INFO:** Material to be cut must be firmly clamped.
Use of spray lubrication recommended.

## APPLICATION:

- Splitting
- Mitre jointing

## MATERIAL:

- Non-ferrous extrusions, thin sheets and light non-ferrous bars

## MACHINE TYPE:

- Mitre jointers
- Splitters
- Trimmers
- Double cross-cutters
- Sizers

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | PIN HOLES | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|---|
| **L1B200** | 8" | .112" | .087" | 5/8" | 60 | – | – | 9,000 | 0° | TCG |
| **L1B250** | 10" | .112" | .087" | 5/8" | 80 | – | – | 7,500 | 2°Neg. | TCG |
| **L1B252** | 10" | .126" | .102" | 5/8" | 80 | – | – | 7,500 | 2°Neg. | TCG |
| **L1B251** | 10" | .112" | .087" | 5/8" | 100 | – | – | 7,500 | 2°Neg. | TCG |
| **L1B306-30** | 300mm | 3.2mm | 2.6mm | 30mm | 96 | 2/10/60 | – | 6,250 | 6°Neg. | TCG |
| **L1B308** | 12" | .134" | .110" | 5/8" | 100 | – | Pistorius Mitre Saw | 6,250 | 0° | TCG |
| **L1B300** | 12" | .120" | .095" | 1" | 100 | – | – | 6,250 | 6°Neg. | TCG |
| **L1B301** | 12" | .126" | .102" | 1" | 100 | – | – | 6,250 | 6°Neg. | TCG |
| **L1B330-32** | 330mm | 3.2mm | 2.5mm | 32mm | 100 | 2/10/92 | – | 5,700 | 2°Neg. | TCG |
| **L1B351** | 350mm | 3.1mm | 2.5mm | 25mm | 100 | – | Makita Mitre Saw (with 25mm arbor) | 5,350 | 2°Neg. | TCG |
| **L1B350** | 14" | .145" | .118" | 1" | 100 | – | – | 5,350 | 2°Neg. | TCG |
| **L1B353** | 350mm | 3.3mm | 2.6mm | 32mm | 108 | – | – | 5,350 | 6°Neg. | TCG |
| **L1B358** | 14" | .146" | .118" | 5/8" | 100 | – | Pistorius Mitre Saw | 5,350 | 2°Neg. | TCG |
| **L1B380** | 15" | .120" | .098" | 1" | 100 | – | Hitachi Mitre Saw | 5,000 | 2°Neg. | TCG |
| **L1B400** | 16" | .145" | .118" | 1" | 120 | – | – | 4,500 | 2°Neg. | TCG |
| **L1B500** | 20" | .174" | .138" | 1" | 120 | – | – | 3,500 | 2°Neg. | TCG |
| **L1B501** | 500mm | 4.4mm | 3.8mm | 30mm | 120 | – | – | 3,500 | 2°Neg. | TCG |

FS Tool's wide range of Pro-Line Saw Blades have been specifically designed for portable machines and stationary table saws. Our Pro-Line Saw Blades are manufactured using the same state of the art machinery used to manufacture our famous high quality industrial and ***XL4000*** extended life saw blades.

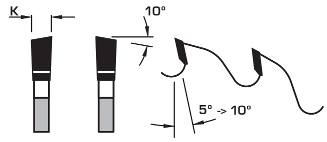
## FEATURES:

» Hardened, surface ground and roll-tensioned steel body
» Induction brazed tungsten carbide tips
» Precision ground
» Laser cut expansion slots, self-plugged for noise reduction
» Skill knockout where indicated

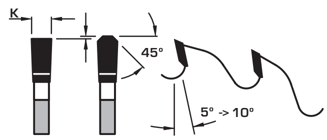
# LHCS SAW BLADES FOR CORDLESS MACHINES

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** None

**TOOTH CONFIG:** ATB




**TOOTH CONFIG:** TCG




## APPLICATION:
» Cross cutting

## MATERIAL:
» Solid wood
» Veneered and plastic laminated sheets

## MACHINE TYPE:
» Portable machines

| PART NO. | | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|
| LH424 | • | 4-3/8" | .115" | .070" | 20mm | 24 | 16,000 | 10˚ | ATB |
| LH426 | • | 4-3/8" | .115" | .070" | 20mm | 24 | 16,000 | 10˚ | TCG |
| LH440 | • | 4-3/8" | .115" | .070" | 20mm | 40 | 16,000 | 5˚ | ATB |
| LH442 | • | 4-3/8" | .115" | .070" | 20mm | 40 | 16,000 | 5˚ | TCG |
| LH530 | Δ | 5-1/2" | .115" | .070" | 5/8" | 40 | 13,500 | 5˚ | TCG |

• For Porter cable, Makita, supplied with reducing bushing for 3/8" arbor

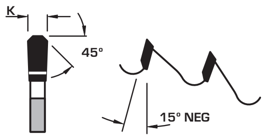
Δ For Makita and others, supplied with reducing bushing for 1/2" and 10mm arbors

# LHRS DEMOLITION
## FIREMAN'S SAW BLADES

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** None
**ADDITIONAL INFO:** Full-sized, elongated shoulders provides maximum impact resistance and stability in extreme applications.

Important! Due to the rough applications for which these blades may be used, they are not guaranteed.

**TOOTH CONFIG:** TCGN




## APPLICATION:
» Demolition

## MATERIAL:
» All materials

## MACHINE TYPE:
» Gasoline powered machines

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| LHR1212 | 12" | .165" | .093" | 20mm | 12 | 6,250 | 15˚Neg. | TCGN |
| LHR1224 | 12" | .165" | .093" | 20mm | 24 | 6,250 | 15˚Neg. | TCGN |
| LHR1212-78 | 12" | .165" | .093" | 7/8" | 12 | 6,250 | 15˚Neg. | TCGN |
| LHR1212-1 | 12" | .165" | .093" | 1" | 12 | 6,250 | 15˚Neg. | TCGN |
| LHR1224-1 | 12" | .165" | .093" | 1" | 24 | 6,250 | 15˚Neg. | TCGN |

# LHGA GENERAL APPLICATION SAW BLADES

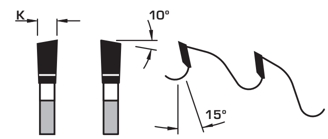
**APPLICATION:**
- » Ripping
- » General cross cutting

**MATERIAL:**
- » Dry solid woods

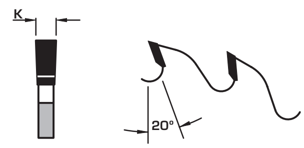
**MACHINE TYPE:**
- » Portable machines
- » Table saws

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Laser, self-plugged

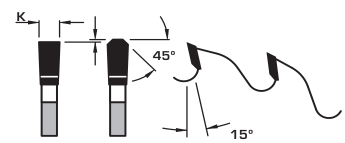
**TOOTH CONFIG:** ATB




**TOOTH CONFIG:** Flat Top




**TOOTH CONFIG:** TCG

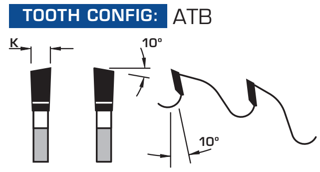



| PART NO. | | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|
| LH624 | ♦ | 6-1/2" | .115" | .070" | 5/8" | 24 | 12,000 | 15˚ | ATB |
| LH708 | ♦ | 7-1/4" | .115" | .070" | 5/8" | 8 | 10,000 | 20˚ | Flat Top |
| LH712 | ♦ | 7-1/4" | .115" | .070" | 5/8" | 12 | 10,000 | 20˚ | Flat Top |
| LH724 | ♦ | 7-1/4" | .115" | .070" | 5/8" | 24 | 10,000 | 15˚ | ATB |
| LH726 | ♦ | 7-1/4" | .115" | .070" | 5/8" | 24 | 10,000 | 15˚ | TCG |
| LH824 | ♦ | 8" | .115" | .070" | 5/8" | 24 | 9,000 | 15˚ | ATB |
| LH924 | | 9" | .125" | .080" | 5/8" | 24 | 8,000 | 15˚ | ATB |
| LH112 | | 10" | .125" | .080" | 5/8" | 12 | 7,500 | 20˚ | Flat Top |
| LH118 | | 10" | .125" | .080" | 5/8" | 18 | 7,500 | 20˚ | Flat Top |
| LH130 | | 10" | .125" | .080" | 5/8" | 30 | 7,500 | 15˚ | ATB |
| LH1224 | | 12" | .125" | .087" | 1" | 24 | 6,250 | 20˚ | Flat Top |
| LH1436 | | 14" | .140" | .095" | 1" | 36 | 5,350 | 20˚ | Flat Top |

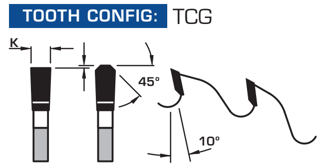
♦ Diamond arbor knockout

# LHSC STANDARD CROSS-CUT SAW BLADES

**TOOTH CONFIG:** ATB




**TOOTH CONFIG:** TCG




**APPLICATION:**
- » Cut-off
- » Trimming

**MATERIAL:**
- » Solid wood
- » Plywood
- » Plastic laminated sheets

**MACHINE TYPE:**
- » Portable machines
- » Table saws

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Laser, self-plugged

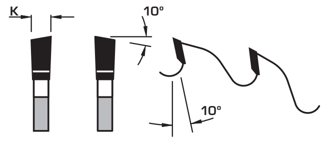
| PART NO. | | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|
| LH640 | ♦ | 6-1/2" | .115" | .070" | 5/8" | 40 | 12,000 | 10˚ | ATB |
| LH740 | ♦ | 7-1/4" | .115" | .070" | 5/8" | 40 | 10,000 | 10˚ | ATB |
| LH742 | ♦ | 7-1/4" | .115" | .070" | 5/8" | 40 | 10,000 | 10˚ | TCG |
| LH840 | ♦ | 8" | .115" | .070" | 5/8" | 40 | 9,000 | 10˚ | ATB |
| LH842 | ♦ | 8" | .115" | .070" | 5/8" | 40 | 9,000 | 10˚ | TCG |

♦ Diamond arbor knockout

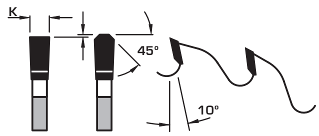
# LHSC STANDARD CROSS-CUT SAW BLADES

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Laser, self-plugged

**TOOTH CONFIG:** ATB




**TOOTH CONFIG:** TCG




## APPLICATION:
- Cut-off
- Trimming

## MATERIAL:
- Solid wood
- Plywood
- Plastic laminated sheets

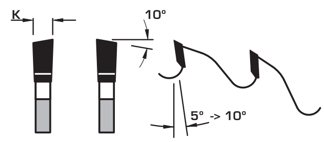
## MACHINE TYPE:
- Portable machines
- Table saws

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| LH940 | 9" | .125" | .080" | 5/8" | 40 | 8,000 | 10° | ATB |
| LH140 | 10" | .125" | .080" | 5/8" | 40 | 7,500 | 10° | ATB |
| LH160 | 10" | .125" | .080" | 5/8" | 60 | 7,500 | 10° | ATB |
| LH161 | 10" | .125" | .080" | 5/8" | 60 | 7,500 | 10° | TCG |
| LH1272 | 12" | .125" | .087" | 1" | 72 | 6,250 | 10° | ATB |
| LH1274 | 12" | .125" | .087" | 1" | 72 | 6,250 | 10° | TCG |
| LH1484 | 14" | .140" | .098" | 1" | 84 | 5,350 | 10° | ATB |
| LH1486 | 14" | .140" | .098" | 1" | 84 | 5,350 | 10° | TCG |

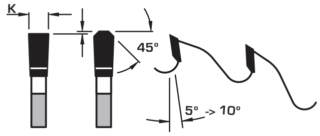
# LHFC FINE CROSS-CUT SAW BLADES

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Laser, self-plugged

**TOOTH CONFIG:** ATB




**TOOTH CONFIG:** TCG




## APPLICATION:
- Fine cut-off
- Trimming

## MATERIAL:
- Plywood
- Wood veneered panels
- Plastic laminated panel materials

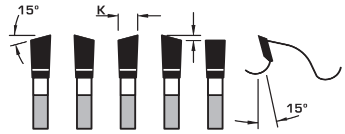
## MACHINE TYPE:
- Portable machines
- Table saws

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| LH860 ♦ | 8" | .115" | .070" | 5/8" | 60 | 9,000 | 5° | ATB |
| LH862 ♦ | 8" | .115" | .070" | 5/8" | 60 | 9,000 | 5° | TCG |
| LH960 | 9" | .125" | .080" | 5/8" | 60 | 8,000 | 10° | ATB |
| LH962 | 9" | .125" | .080" | 5/8" | 60 | 8,000 | 10° | TCG |
| LH180 | 10" | .125" | .080" | 5/8" | 80 | 7,500 | 5° | ATB |
| LH181 | 10" | .125" | .080" | 5/8" | 80 | 7,500 | 5° | TCG |
| LH12096 | 12" | .125" | .087" | 1" | 96 | 6,250 | 10° | ATB |
| LH12097 | 12" | .125" | .087" | 1" | 96 | 6,250 | 10° | TCG |
| LH14108 | 14" | .140" | .098" | 1" | 108 | 5,350 | 5° | ATB |
| LH14109 | 14" | .140" | .098" | 1" | 108 | 5,350 | 5° | TCG |

♦ Diamond arbor knockout

# LHCP COMBINATION/PLANER SAW BLADES

**TOOTH CONFIG:** 4 ATB + 1 Raker




**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** None
**ADDITIONAL INFO:** 4 ATB teeth and 1 Raker with deep gullet allow for deeper cuts and improved chip flow

### APPLICATION:
» Cross cutting
» Ripping

### MATERIAL:
» Dry softwoods and hardwoods
» Plywood
» Particleboard

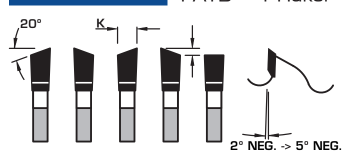
### MACHINE TYPE:
» Portable machines
» Table saws

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| LH407 ♦ | 7-1/4" | .120" | .070" | 5/8" | 40 | 10,000 | 15˚ | 4 ATB + 1 Raker |
| LH408 ♦ | 8" | .120" | .070" | 5/8" | 40 | 9,000 | 15˚ | 4 ATB + 1 Raker |
| LH409 | 9" | .125" | .080" | 5/8" | 40 | 8,000 | 15˚ | 4 ATB + 1 Raker |
| LH501 | 10" | .135" | .087" | 5/8" | 50 | 7,500 | 15˚ | 4 ATB + 1 Raker |
| LH502 | 12" | .135" | .087" | 1" | 60 | 6,250 | 15˚ | 4 ATB + 1 Raker |

♦ Diamond arbor knockout

# LHMJ MITRE JOINT SAW BLADES

**TOOTH CONFIG:** 4 ATB + 1 Raker




**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Laser, self-plugged

### APPLICATION:
» Mitre joint cuts

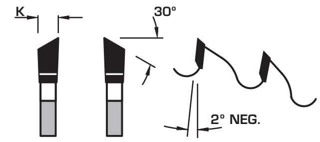
### MATERIAL:
» Softwood and hardwood picture frames
» Softwood and hardwood furniture mouldings

### MACHINE TYPE:
» Cut-off mitre machines
» Compound mitre machines
» Radial arm saws
» Table saws

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|
| LH864 | 8-1/4" | .100" | .070" | 5/8" | 60 | Black & Decker Mitre, Delta Compound Mitre, Ryobi Radial Arm | 8,800 | 5˚Neg. | 4 ATB + 1 Raker |
| LH863 | 8-1/2" | .100" | .070" | 5/8" | 60 | Elu Mitre, Hitachi Mitre | 8,800 | 5˚Neg. | 4 ATB + 1 Raker |
| LH162 | 10" | .110" | .080" | 5/8" | 60 | – | 7,500 | 2˚Neg. | 4 ATB + 1 Raker |
| LH182 | 10" | .110" | .080" | 5/8" | 80 | – | 7,500 | 2˚Neg. | 4 ATB + 1 Raker |

## LHCF CHIP-FREE MELAMINE TRIM BLADES

**TOOTH CONFIG:** High ATB 30°




**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Laser, self-plugged

### APPLICATION:
» Chip-free sizing cuts (on both sides), without the need for pre-scoring
» Fine cross-cuts (solid wood)

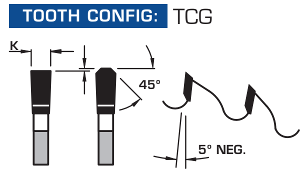
### MATERIAL:
» Solid wood
» Melamine
» Wood veneered panels

### MACHINE TYPE:
» Table saws
» Sliding table saws
» Vertical panel sizing saws
» Cut-off saws

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| **LH184** | 10" | .112" | .080" | 5/8" | 80 | 7,500 | 2˚Neg. | High ATB 30˚ |
| **LH1210** | 12" | .125" | .087" | 1" | 100 | 6,250 | 2˚Neg. | High ATB 30˚ |
| **LH3096** | 300mm | 3.2mm | 2.2mm | 30mm | 96 | 6,250 | 2˚Neg. | High ATB 30˚ |

## LHNF SAW BLADES FOR NON-FERROUS METALS

**TOOTH CONFIG:** TCG




**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Laser, self-plugged
**ADDITIONAL INFO:** Material being cut must be clamped firmly
Use of spray lubrication recommended

### APPLICATION:
» Splitting
» Mitre jointing

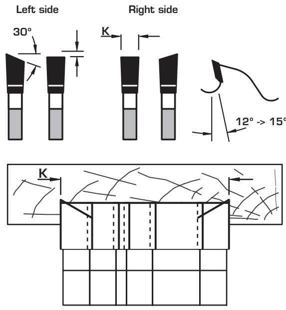
### MATERIAL:
» Non-ferrous extrusions, thin sheets and light non-ferrous bars

### MACHINE TYPE:
» Mitre saws
» Compound mitre saws

| PART NO. | DIAM. | KERF | PLATE | BORE | TEETH | MACHINE | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|
| **LH743** ♦ | 7-1/4" | .100" | .070" | 5/8" | 40 | – | 10,000 | 5˚Neg. | TCG |
| **LH866** | 8-1/4" | .100" | .070" | 5/8" | 60 | Black & Decker Mitre, Delta Compound Mitre, Ryobi Radial Arm | 8,800 | 5˚Neg. | TCG |
| **LH868** | 8-1/2" | .100" | .070" | 5/8" | 60 | Elu Mitre, Hitachi Mitre | 8,800 | 5˚Neg. | TCG |

♦ Diamond arbor knockout

**TOOTH CONFIG:** 5 Bevel + 1 Raker




**CUTTING MATERIAL:** Tungsten Carbide

**EXPANSION SLOTS:** None

**ADDITIONAL INFO:** Standard set: two outside saw blades 1/8" kerf, one 1/4" chipper, two 1/8" chippers and one 1/16" chipper

## APPLICATION:

» Cutting grooves and dados
» Groove widths adjustable from 1/4" to 13/16"; maximum width in 1/16" increments. Wider grooves can be achieved by adding spare chippers

## MATERIAL:

» Softwoods and hardwoods
» Plywood
» Veneered panels

## MACHINE TYPE:

» Table saws
» Sliding table saws
» Single or double end tenoners

| PART NO. | DIAM. | MAX. KERF | BORE | TEETH | MAX. RPM | HOOK |
|---|---|---|---|---|---|---|
| 53DL06 | 6" | 13/16" | 5/8" | 24 | 6,500 | 12° |
| 53DL08 | 8" | 13/16" | 5/8" | 24 | 6,500 | 15° |
| 53DL08-1 | 8" | 13/16" | 1" | 24 | 6,500 | 15° |
| 53DL10 | 10" | 13/16" | 5/8" | 24 | 6,500 | 12° |
| 53DL10-1 | 10" | 13/16" | 1" | 24 | 6,500 | 12° |
| 53DL12 | 12" | 13/16" | 1" | 24 | 6,500 | 12° |
| 53DL14 • | 14" | 13/16" | 1" | 40 | 5,350 | 12° |

• 4 Bevel + 1 Raker

Refer to "Dado Shims" on page E48 for shim sets for fine adjustment

## OUTSIDE SAW BLADES ONLY

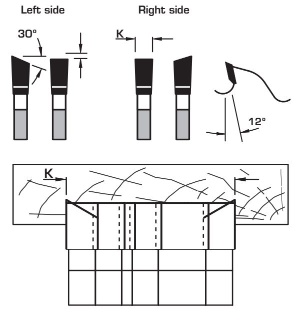
| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | DIAM. | KERF | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| 53DL06-LH | 53DL06-RH | 6" | 1/8" | 5/8" | 24 | 6,500 | 12° | 5 Bevel + 1 Raker |
| 53DL08-LH | 53DL08-RH | 8" | 1/8" | 5/8" | 24 | 6,500 | 15° | 5 Bevel + 1 Raker |
| 53DL08-1-LH | 53DL08-1-RH | 8" | 1/8" | 1" | 24 | 6,500 | 15° | 5 Bevel + 1 Raker |
| 53DL10-LH | 53DL10-RH | 10" | 1/8" | 5/8" | 24 | 6,500 | 12° | 5 Bevel + 1 Raker |
| 53DL10-1-LH | 53DL10-1-RH | 10" | 1/8" | 1" | 24 | 6,500 | 12° | 5 Bevel + 1 Raker |
| 53DL12-LH | 53DL12-RH | 12" | 1/8" | 1" | 24 | 6,500 | 12° | 5 Bevel + 1 Raker |
| 53DL14-LH | 53DL14-RH | 14" | 1/8" | 1" | 40 | 5,350 | 12° | 4 Bevel + 1 Raker |

## SPARE CHIPPERS

| PART NO. | KERF | PART NO. | KERF | PART NO. | KERF | DIAM. | BORE | TEETH |
|---|---|---|---|---|---|---|---|---|
| 5306-16 | 1/16" | 5306-18 | 1/8" | 5306-14 | 1/4" | 6" | 5/8" | 2 |
| 5308-16 | 1/16" | 5308-18 | 1/8" | 5308-14 | 1/4" | 8" | 5/8" | 2 |
| 5308-16-1 | 1/16" | 5308-18-1 | 1/8" | 5308-14-1 | 1/4" | 8" | 1" | 2 |
| 5310-16 | 1/16" | 5310-18 | 1/8" | 5310-14 | 1/4" | 10" | 5/8" | 2 |
| 5310-16-1 | 1/16" | 5310-18-1 | 1/8" | 5310-14-1 | 1/4" | 10" | 1" | 2 |
| 5312-16 | 1/16" | 5312-18 | 1/8" | 5312-14 | 1/4" | 12" | 1" | 2 |
| 5314-16 | 1/16" | 5314-18 | 1/8" | 5314-14 | 1/4" | 14" | 1" | 2 |

# 53DLS SAFETY DADO SETS "ANTI-KICKBACK" DESIGN

**TOOTH CONFIG:** 5 Bevel + 1 Raker




**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Laser, self-plugged
**ADDITIONAL INFO:** Standard set: two outside saw blades 1/8" kerf, one 1/4" chipper, two 1/8" chippers and one 1/16" chipper

## APPLICATION:
- Cutting grooves and dados
- "Anti-kickback" design reduces the risk of kickback
- Groove widths adjustable from 1/4" to 13/16"; maximum width in 1/16" increments. Wider grooves can be obtained by adding spare chippers

## MATERIAL:
- Softwoods and hardwoods
- Plywood
- Veneered panels
- Laminated panels

## MACHINE TYPE:
- Table saws
- Sliding table saws

| PART NO. | DIAM. | MAX. KERF | BORE | TEETH |
|---|---|---|---|---|
| 53DL08S | 8" | 13/16" | 5/8" | 24 |

## OUTSIDE SAW BLADES ONLY

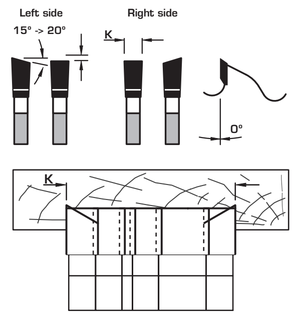
| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | DIAM. | KERF | BORE | TEETH |
|---|---|---|---|---|---|
| 53DL08S-LH | 53DL08S-RH | 8" | 1/8" | 5/8" | 24 |

## SPARE CHIPPERS 2-TEETH

| PART NO. | KERF | PART NO. | KERF | PART NO. | KERF | DIAM. | BORE |
|---|---|---|---|---|---|---|---|
| 5308-16S | 1/16" | 5308-18S | 1/8" | 5308-14S | 1/4" | 8" | 5/8" |

# 54DL FINE DADO SETS

**TOOTH CONFIG:** 4 Bevel + 1 Raker




**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Cu plugged
**ADDITIONAL INFO:** Standard set: two outside saw blades 1/8" kerf, one 1/4" chipper, two 1/8" chippers and one 1/16" chipper

## APPLICATION:
- Cutting grooves and dados
- 0˚hook results in finer cuts and a superior finish
- Groove widths adjustable from 1/4" to 13/16" maximum width in 1/16" increments. Wider grooves can be obtained by adding spare chippers

## MATERIAL:
- Softwoods and hardwoods
- Plywood
- Veneered panels
- Laminated panels

## MACHINE TYPE:
- Table saws
- Sliding table saws
- Single or double end tenoners

| PART NO. | DIAM. | MAX. KERF | BORE | TEETH |
|---|---|---|---|---|
| 54DL08 | 8" | 13/16" | 5/8" | 40 |
| 54DL08-1 | 8" | 13/16" | 1" | 40 |
| 54DL10 | 10" | 13/16" | 5/8" | 60 |
| 54DL10-1 | 10" | 13/16" | 1" | 60 |

Refer to "Dado Shims" on page E48 for shim sets for fine adjustment

## OUTSIDE SAW BLADES ONLY

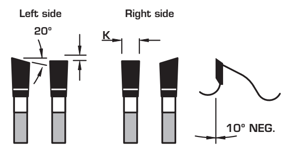
| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | DIAM. | KERF | BORE | TEETH |
|---|---|---|---|---|---|
| 54DL08-LH | 54DL08-RH | 8" | 1/8" | 5/8" | 40 |
| 54DL08-1-LH | 54DL08-1-RH | 8" | 1/8" | 1" | 40 |
| 54DL10-LH | 54DL10-RH | 10" | 1/8" | 5/8" | 60 |
| 54DL10-1-LH | 54DL10-1-RH | 10" | 1/8" | 1" | 60 |

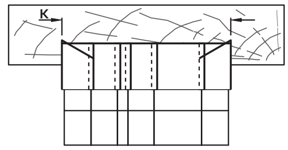
## SPARE CHIPPERS

Refer to "Spare Chippers" table on page E46

# 55DL FINE DADO SETS
## WITH 4 WING CHIPPERS

**TOOTH CONFIG:** 5 Bevel + 1 Raker




**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Laser, self-plugged
**ADDITIONAL INFO:** Standard set: two outside saw blades 1/8" kerf, one 1/16" chipper, one 3/32" chipper, and four 1/8" chippers (four wing chippers)

### APPLICATION:
» Cutting grooves and dados
» Neg 10˚ hook on outside blades and chippers provide superior chip-free finish
» Groove widths adjustable from 1/4" to 29/32" in 1/32" increments, wider grooves can be obtained by adding spare chippers

### MATERIAL:
» Softwoods and hardwoods
» Plywood
» Veneered panels
» Laminated panels

### MACHINE TYPE:
» Table saws
» Sliding table saws
» Single or double end tenoners

| PART NO. | DIAM. | MAX. KERF | BORE | TEETH | MAX. RPM | HOOK |
|---|---|---|---|---|---|---|
| **55DL08** | 8" | 29/32" | 5/8" | 24 | 6,250 | 10˚ Neg. |
| **55DL10** | 10" | 29/32" | 5/8" | 24 | 6,250 | 10˚ Neg. |
| **55DL10-1** | 10" | 29/32" | 1" | 24 | 6,250 | 10˚ Neg. |

Refer to "Dado Shims" on page E48 for shim sets for fine adjustment

## OUTSIDE SAW BLADES ONLY

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | DIAM. | KERF | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|
| **55DL08-LH** | **55DL08-RH** | 8" | 1/8" | 5/8" | 24 | 6,250 | 10˚ Neg. | 5 Bevel + 1 Raker |
| **55DL10-LH** | **55DL10-RH** | 10" | 1/8" | 5/8" | 24 | 6,250 | 10˚ Neg. | 5 Bevel + 1 Raker |
| **55DL10-1-LH** | **55DL10-1-RH** | 10" | 1/8" | 1" | 24 | 6,250 | 10˚ Neg. | 5 Bevel + 1 Raker |

## SPARE CHIPPERS - 4 WING

| PART NO. | KERF | PART NO. | KERF | PART NO. | DIAM. | KERF | BORE | TEETH |
|---|---|---|---|---|---|---|---|---|
| **5508-063** | 1/16" | **5508-094** | 3/32" | **5508-125** | 8" | 1/8" | 5/8" | 4 |
| **5510-063** | 1/16" | **5510-094** | 3/32" | **5510-125** | 10" | 1/8" | 5/8" | 4 |
| **5510-1-063** | 1/16" | **5510-1-094** | 3/32" | **5510-1-125** | 10" | 1/8" | 1" | 4 |

# 53DSS DADO SHIMS

### APPLICATION:
» Set of 14 dado shims. Made from durable plastic
» Shims are coloured coded according to thickness
» Outside diameter is 3"

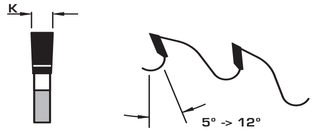
| PART NO. | SET INCLUDES: |
|---|---|
| **53DSS14 (BORE SIZE 5/8")** | 4 Shims .05mm - Silver |
| | 2 Shims .10mm - Yellow |
| | 4 Shims .20mm - Clear |
| | 4 Shims .40mm - White |

| PART NO. | SET INCLUDES: |
|---|---|
| **53DSS14-1 (BORE SIZE 1")** | 6 Shims .05mm - Silver |
| | 4 Shims .10mm - Clear |
| | 4 Shims .20mm - White |
| | 6 Shims .30mm - Clear |

# GROOVING SAW BLADES
## IMPERIAL SIZES

| | |
|---|---|
| **CUTTING MATERIAL:** | Tungsten Carbide |
| **EXPANSION SLOTS:** | Laser, self-plugged |

**TOOTH CONFIG:** Flat Top




### APPLICATION:
» Cutting grooves

### MATERIAL:
» Solid wood
» Plywood
» Veneered panels
» Laminated panels

### MACHINE TYPE:
» Table saws
» Sliding table saws
» Single or double end tenoners
» CNC routers

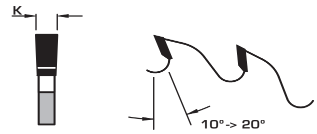
| PART NO. | DIAM. | KERF | RIM | PLATE | BORE | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|
| **5G6116** | 6" | 1/16" | .040" | .087" | 5/8" | 12 | 12,500 | 5° | Flat Top |
| **5G6332** | 6" | 3/32" | .065" | .087" | 5/8" | 12 | 12,500 | 10° | Flat Top |
| **5G6018** | 6" | 1/8" | – | .087" | 5/8" | 12 | 12,000 | 10° | Flat Top |
| **5G6316** | 6" | 3/16" | – | .134" | 5/8" | 12 | 12,500 | 12° | Flat Top |
| **5G6014** | 6" | 1/4" | – | .180" | 5/8" | 12 | 12,500 | 12° | Flat Top |
| **5G6516** | 6" | 5/16" | – | .180" | 5/8" | 12 | 12,500 | 12° | Flat Top |
| **5G6038** | 6" | 3/8" | – | .250" | 5/8" | 12 | 12,500 | 12° | Flat Top |
| **5G7332** | 7" | 3/32" | .065" | .087" | 5/8" | 18 | 10,000 | 12° | Flat Top |
| **5G7316** | 7" | 3/16" | – | .134" | 5/8" | 18 | 10,000 | 12° | Flat Top |
| **5G7014** | 7" | 1/4" | – | .180" | 5/8" | 18 | 10,000 | 12° | Flat Top |
| **5G7516** | 7" | 5/16" | – | .180" | 5/8" | 18 | 10,000 | 12° | Flat Top |
| **5G7038** | 7" | 3/8" | – | .250" | 5/8" | 18 | 10,000 | 12° | Flat Top |
| **5G8316** | 8" | 3/16" | – | .134" | 5/8" | 24 | 8,000 | 12° | Flat Top |
| **5G8014** | 8" | 1/4" | – | .180" | 5/8" | 24 | 8,000 | 12° | Flat Top |
| **5G8516** | 8" | 5/16" | – | .180" | 5/8" | 24 | 8,000 | 12° | Flat Top |
| **5G8038** | 8" | 3/8" | – | .250" | 5/8" | 24 | 8,000 | 12° | Flat Top |
| **5G0316** | 10" | 3/16" | – | .134" | 5/8" | 24 | 6,500 | 12° | Flat Top |
| **5G0014** | 10" | 1/4" | – | .180" | 5/8" | 24 | 6,500 | 12° | Flat Top |
| **5G0516** | 10" | 5/16" | – | .180" | 5/8" | 24 | 6,500 | 12° | Flat Top |
| **5G0038** | 10" | 3/8" | | .250" | 5/8" | 24 | 6,500 | 12° | Flat Top |

Other sizes manufactured to customer specifications

# GROOVING SAW BLADES
## METRIC SIZES

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** Laser, self-plugged

**TOOTH CONFIG:** Flat Top




### APPLICATION:
» Cutting grooves

### MATERIAL:
» Solid wood
» Plywood
» Veneered panels
» Laminated panels

### MACHINE TYPE:
» Table saws
» Sliding table saws
» Single or double end tenoners
» CNC routers

| PART NO. | DIAM. MM | KERF MM | RIM MM | PLATE MM | BORE MM | TEETH | MAX. RPM | HOOK | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|---|---|
| 5G4M32 | 100 | 3.2 | – | 2.2 | 20 | 20 | 18,000 | 20° | Flat Top |
| 5G6M18 | 150 | 1.8 | 1.0 | 2.2 | 30 | 12 | 12,500 | 12° | Flat Top |
| 5G6M25 | 150 | 2.5 | 1.6 | 2.2 | 30 | 12 | 12,500 | 12° | Flat Top |
| 5G6M35 | 150 | 3.5 | – | 2.4 | 30 | 12 | 12,500 | 12° | Flat Top |
| 5G6M50 | 150 | 5.0 | – | 3.8 | 30 | 12 | 12,500 | 12° | Flat Top |
| 5G6M60 | 150 | 6.0 | – | 4.6 | 30 | 12 | 12,500 | 12° | Flat Top |
| 5G6M70 | 150 | 7.0 | – | 4.6 | 30 | 12 | 12,500 | 12° | Flat Top |
| 5G6M80 | 150 | 8.0 | – | 4.6 | 30 | 12 | 12,500 | 12° | Flat Top |
| 5G7M25 | 180 | 2.5 | 1.6 | 2.2 | 30 | 18 | 10,000 | 12° | Flat Top |
| 5G7M50 | 180 | 5.0 | – | 3.8 | 30 | 18 | 10,000 | 12° | Flat Top |
| 5G7M60 | 180 | 6.0 | – | 4.6 | 30 | 18 | 10,000 | 12° | Flat Top |
| 5G7M70 | 180 | 7.0 | – | 4.6 | 30 | 18 | 10,000 | 12° | Flat Top |
| 5G7M80 | 180 | 8.0 | – | 4.6 | 30 | 18 | 10,000 | 12° | Flat Top |
| 5G8M50 | 200 | 5.0 | – | 3.8 | 30 | 24 | 8,000 | 10° | Flat Top |
| 5G8M60 | 200 | 6.0 | – | 4.6 | 30 | 24 | 8,000 | 12° | Flat Top |
| 5G8M70 | 200 | 7.0 | – | 4.6 | 30 | 24 | 8,000 | 12° | Flat Top |
| 5G8M80 | 200 | 8.0 | – | 4.6 | 30 | 24 | 8,000 | 12° | Flat Top |
| 5G0M50 | 250 | 5.0 | – | 3.8 | 30 | 24 | 6,500 | 12° | Flat Top |
| 5G0M60 | 250 | 6.0 | – | 4.6 | 30 | 24 | 6,500 | 12° | Flat Top |
| 5G0M70 | 250 | 7.0 | – | 4.6 | 30 | 24 | 6,500 | 12° | Flat Top |
| 5G0M80 | 250 | 8.0 | – | 4.6 | 30 | 24 | 6,500 | 12° | Flat Top |
| 5G0M01 | 250 | 10.0 | – | 6.35 | 30 | 24 | 9,500 | 12° | Flat Top |

Other sizes manufactured to customer specifications

# 1TL SEGMENTED HOGGING UNITS

| | |
|---|---|
| **CUTTING MATERIAL:** | Tungsten Carbide |
| **EXPANSION SLOTS:** | None |
| **ADDITIONAL INFO:** | Hogger body made of light alloy equipped with 4 or 6 segments and 1 saw blade (all TC tipped; replaceable and resharpenable) |

| PART NO. | ROTATION | DIAM. MM | KERF MM | BORE MM | NO. TEETH SAWS | NO. TEETH SEGMENTS |
|---|---|---|---|---|---|---|
| 1TL504 | LH | 255 | 30 | 60 | 40 | 4 x 8 |
| 1TL514 | RH | 255 | 30 | 60 | 40 | 4 x 8 |
| 1TL506 | LH | 255 | 30 | 60 | 60 | 4 x 8 |
| 1TL516 | RH | 255 | 30 | 60 | 60 | 4 x 8 |
| 1TL524 | LH | 255 | 30 | 80 | 40 | 4 x 8 |
| 1TL534 | RH | 255 | 30 | 80 | 40 | 4 x 8 |
| 1TL526 | LH | 255 | 30 | 80 | 60 | 4 x 8 |
| 1TL536 | RH | 255 | 30 | 80 | 60 | 4 x 8 |
| 1TL804 | LH | 300 | 30 | 60 | 48 | 6 x 7 |
| 1TL814 | RH | 300 | 30 | 60 | 48 | 6 x 7 |
| 1TL806 | LH | 300 | 30 | 60 | 72 | 6 x 7 |
| 1TL816 | RH | 300 | 30 | 60 | 72 | 6 x 7 |
| 1TL824 | LH | 300 | 30 | 80 | 48 | 6 x 7 |
| 1TL834 | RH | 300 | 30 | 80 | 48 | 6 x 7 |
| 1TL826 | LH | 300 | 30 | 80 | 72 | 6 x 7 |
| 1TL836 | RH | 300 | 30 | 80 | 72 | 6 x 7 |
| 1TL906 | LH | 350 | 30 | 60 | 84 | 6 x 8 |
| 1TL916 | RH | 350 | 30 | 60 | 84 | 6 x 8 |
| 1TL926 | LH | 350 | 30 | 80 | 84 | 6 x 8 |
| 1TL936 | RH | 350 | 30 | 80 | 84 | 6 x 8 |

## APPLICATION:

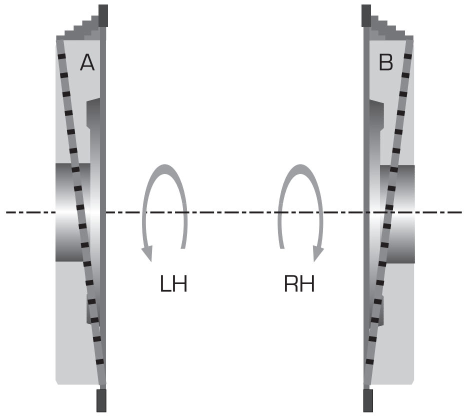
- Chip-free sizing when used with pre-scoring unit
- Standard chipping width 30mm, wider chipping widths by ordering and assembling multiple hogging units

## MATERIAL:

- Panel materials

## MACHINE TYPE:

- Double-end tenoners
- Trimming machines




## REPLACEMENT PARTS

### SAW BLADES

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | DIAM. MM | KERF MM | BORE MM | NO. TEETH | TOOTH CONFIG |
|---|---|---|---|---|---|---|
| 525240 | 525340 | 255 | 4.2 | 155 | 40 | One Side Bevel |
| 525260 | 525360 | 255 | 4.2 | 155 | 60 | One Side Bevel |
| 530248 | 530348 | 300 | 4.2 | 155 | 48 | One Side Bevel |
| 530272 | 530372 | 300 | 4.2 | 155 | 72 | One Side Bevel |
| 535084 | 535384 | 350 | 4.2 | 200 | 84 | One Side Bevel |

### SAW SEGMENTS

| PART NO | DIAM. MM | NO. TEETH | TOOTH CONFIG |
|---|---|---|---|
| 525008 | 245 | 8 | Flat Top |
| 530008 | 295 | 7 | Flat Top |
| 535008 | 345 | 8 | Flat Top |

### SCREWS

| DESCRIPTION | SCREW SAW BLADE | SCREW SEGMENTS |
|---|---|---|
| PART NO. | W500605 | W500701 |
| DIMENSIONS | M6x16mm | M8x20mm |

**CUTTING MATERIAL:** Tungsten Carbide
**EXPANSION SLOTS:** None

## APPLICATION:
- Chip-free sizing when used with pre-scoring units
- High tensile strength steel body with tungsten carbide reversible inserts
- Inserts have 4 cutting edges with chipbreaker
- Hogger set consists of elements which can be of three different diameters (234, 242 and 250mm). This allows for different profile solutions as per drawing examples
- Chipping width available from 19.2mm and wider (in increments of 15mm)

## MATERIAL:
- Panel materials

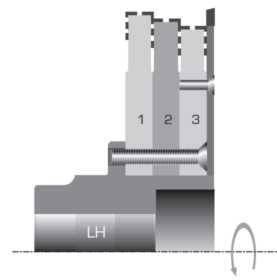
## MACHINE TYPE:
- Double-end tenoners
- Trimming machines

## HOGGER ASSEMBLY
Components purchased separately

### SAW BLADES

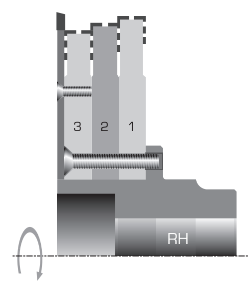
| PART NO. | ROTATION | DIAM. MM | KERF MM | BORE MM | NO. TEETH | PIN HOLES | TOOTH CONFIG |
|---|---|---|---|---|---|---|---|
| **1TL255LH** | LH | 255 | 4.2 | 80 | 56 | 8/8.3/195 | LH Bevel + CB Cutters |
| **1TL255RH** | RH | 255 | 4.2 | 80 | 56 | 8/8.3/195 | RH Bevel + CB Cutters |

Pin holes are countersunk



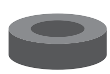

### CUTTERS

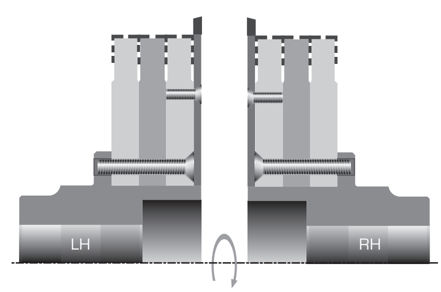
| PART NO. | HOGGER NO. | ROTATION | DIAM. MM | KERF MM | BORE MM | NO. TEETH |
|---|---|---|---|---|---|---|
| **1TL250LH** | 1 | LH | 250 | 15 | 80 | 8 |
| **1TL250RH** | 1 | RH | 250 | 15 | 80 | 8 |
| **1TL242LH** | 2 | LH | 242 | 15 | 80 | 8 |
| **1TL242RH** | 2 | RH | 242 | 15 | 80 | 8 |
| **1TL234LH** | 3 | LH | 234 | 15 | 80 | 8 |
| **1TL234RH** | 3 | RH | 234 | 15 | 80 | 8 |




### SPACER

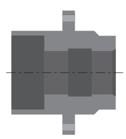
| PART NO. | DIAM. MM | THICKNESS MM | BORE MM |
|---|---|---|---|
| **1TL116** | 115 | 14 | 80 |



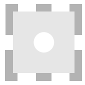
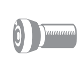



### MECHANICAL SLEEVES

| PART NO. | DIAM. MM | LENGTH MM | BORE MM | KEYWAY (ONE) |
|---|---|---|---|---|
| **1TL115-35** | 115 | 92 | 35 | 10 x 4 |
| **1TL115-40** | 115 | 92 | 40 | 12 x 5 |



### REPLACEMENT PARTS

| DESCRIPTION | INSERT WITH CHIPBREAKER | MOUNTING BOLT - HOGGER BODY | MOUNTING BOLT - SAW BLADE | GIB - LH HOGGER BODY | GIB - RH HOGGER BODY | BOLT FOR GIBS |
|---|---|---|---|---|---|---|
| **PART NO.** | **301505** | **W500601** | **W500605** | **W350064** | **W350065** | **W502402** |
| DIMENSIONS | 15x15x2mm | M8x50mm | M6x16mm | 11mm Conic | 11mm Conic | M7x21mm |


F

# ROUTER BITS

Standard & Solid surface / Insert router bits

STRAIGHT BITS

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STRAIGHT BITS

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MORTISING BITS

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RABBETING BITS

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RABBETING BITS

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TRIMMING BITS

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TRIMMING BITS

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GROOVING/ENGRAVING BITS

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SPECIALITY VEINING/SLOTTING/GROOVING BITS

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ROUND NOSE BITS

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T-SLOTTING BITS

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SLOTTING CUTTERS

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FINGER JOINT CUTTERS

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TONGUE AND GROOVE BITS

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TONGUE AND GROOVE BITS

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GLUE JOINT/LOCK MITRE BITS

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DOVETAIL BITS

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PROFILING BITS - PLUNGE TYPE

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...Continued

**PROFILING BITS - PLUNGE TYPE**





**PROFILING BITS - BALL BEARING GUIDE**





...Continued

**PROFILING BALL BEARING BITS**







...Continued

**PROFILING BALL BEARING BITS**





**VERTICAL RAISED PANEL BITS**



**RAISED PANEL BITS**





...Continued
**RAISED PANEL BITS**

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**STILE AND RAIL BITS**

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**STILE AND RAIL BITS**

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CHAMFERING/ROUNDING OVER BITS



BULLNOSE BITS



HALF ROUND BITS



BEADING/FLUTING BITS



...Continued
BEADING/FLUTING BITS





EDGE MOULDING BITS



...Continued
EDGE MOULDING BITS





...Continued
EDGE MOULDING BITS







...Continued
EDGE MOULDING BITS

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SOLID SURFACE BITS

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SOLID SURFACE BITS

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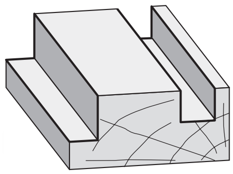
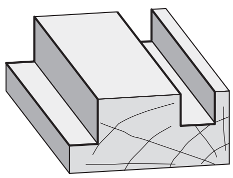
# R1000 STRAIGHT ROUTER BITS, Z1
SOLID CARBIDE

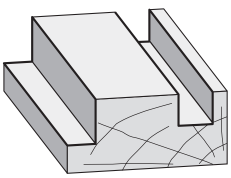
| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R1000 | 1/8" | 3/8" | 1/4" | 1" | 1-1/2" | 1 |
| R1008 | 7/32" | 3/4" | 1/4" | 1" | 2" | 1 |

# R1100 STRAIGHT ROUTER BITS, Z2
SOLID CARBIDE

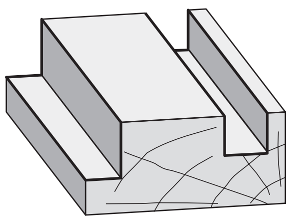
| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R1100 | 1/8" | 3/8" | 1/4" | 1" | 1-1/2" | 2 |
| R1104 | 5/32" | 5/8" | 1/4" | 7/8" | 1-1/2" | 2 |
| R1106 | 3/16" | 5/8" | 1/4" | 1-1/4" | 2" | 2 |
| R1108 | 7/32" | 3/4" | 1/4" | 1-1/4" | 2" | 2 |
| R1110 | 1/4" | 3/4" | 1/4" | 1-1/4" | 2" | 2 |
| R1112 | 1/4" | 1" | 1/4" | 1-1/4" | 2-1/2" | 2 |
| R1302 | 3/8" | 1" | 3/8" | 1-3/4" | 3" | 2 |
| R1304 | 1/4" | 3/4" | 1/2" | 1-1/4" | 3" | 2 |
| R1306 | 1/4" | 1" | 1/2" | 2" | 3" | 2 |
| R1308 | 5/16" | 1" | 1/2" | 2" | 3" | 2 |
| R1310 | 1/2" | 1-1/4" | 1/2" | 1-1/2" | 3" | 2 |

# R2000 STRAIGHT ROUTER BITS, Z1
1/4" SHANK

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R2000 | 1/8" | 7/16" | 1/4" | 1-1/4" | 2" | 1 |
| R2000-1 | 5/32" | 7/16" | 1/4" | 1-5/16" | 2" | 1 |
| R2001 • | 3/16" | 7/16" | 1/4" | 1-1/4" | 2" | 1 |
| R2003 | 1/4" | 1/2" | 1/4" | 1-5/16" | 2" | 1 |
| R2004 | 1/4" | 3/4" | 1/4" | 1-1/4" | 2" | 1 |
| R2005 • | 1/4" | 1" | 1/4" | 1-1/4" | 2-1/4" | 1 |
| R2006 | 9/32" | 3/4" | 1/4" | 1" | 2" | 1 |
| R2008 | 5/16" | 1" | 1/4" | 1" | 2-1/4" | 1 |
| R2008-1 | 3/8" | 3/4" | 1/4" | 1" | 1-15/16" | 1 |
| R2008-3 | 1/2" | 3/4" | 1/4" | 1" | 1-3/4" | 1 |
| R2008-4 | 1/2" | 1" | 1/4" | 1" | 2-1/8" | 1 |
| R2008-5 | 5/8" | 3/4" | 1/4" | 1" | 1-15/16" | 1 |
| R2008-6 | 3/4" | 3/4" | 1/4" | 1" | 1-3/4" | 1 |

- Not guaranteed due to extreme length and / or fragility



## METRIC SIZES - 1/4" SHANK

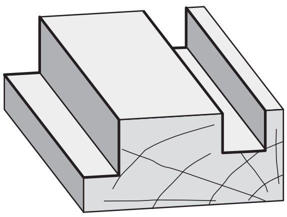
| PART NO. | CUTTING DIAM. | CUTTING LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|
| RM100 | 3mm | 5/16" | 1-9/16" | 2 |
| RM101 | 4mm | 7/16" | 2" | 2 |
| RM102 | 5mm | 7/16" | 2" | 2 |
| RM103 | 6mm | 3/4" | 2" | 2 |
| RM104 | 7mm | 3/4" | 2" | 2 |
| RM105 | 8mm | 1" | 2" | 2 |
| RM106 | 8mm | 3/4" | 2-1/4" | 2 |
| RM107 | 9mm | 3/4" | 2" | 2 |
| RM108 | 10mm | 3/4" | 2" | 2 |
| RM109 | 11mm | 3/4" | 2" | 2 |
| RM110 | 12mm | 3/4" | 2" | 2 |
| RM111 | 13mm | 3/4" | 2" | 2 |
| RM112 | 14mm | 3/4" | 2" | 2 |
| RM113 | 15mm | 3/4" | 2" | 2 |
| RM114 | 16mm | 3/4" | 2" | 2 |
| RM115 | 16mm | 1-1/4" | 2-1/4" | 2 |
| RM116 | 17mm | 3/4" | 2" | 2 |
| RM117 | 18mm | 3/4" | 2" | 2 |
| RM118 | 19mm | 3/4" | 2" | 2 |
| RM119 | 20mm | 3/4" | 2" | 2 |
| RM121 | 22mm | 3/4" | 2" | 2 |
| RM122 | 25mm | 3/4" | 2" | 2 |

## INCH SIZES - 1/4" SHANK

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| R2009-1 • | 1/16" | 3/16" | 1-3/8" | 1-7/8" | 2 |
| R2009-2 | 3/32" | 1/4" | 1-5/8" | 1-7/8" | 2 |
| R2010 | 1/8" | 7/16" | 1-1/4" | 2" | 2 |
| R2010-1 | 5/32" | 7/16" | 1-5/16" | 2" | 2 |
| R2011 | 3/16" | 7/16" | 1-1/4" | 2" | 2 |
| R2011-1 | 3/16" | 5/8" | 1-1/8" | 2-1/8" | 2 |
| R2011-2 | 7/32" | 3/4" | 1-1/8" | 1-7/8" | 2 |
| R2012 | 1/4" | 1/2" | 1-1/4" | 2" | 2 |
| R2013 | 1/4" | 3/4" | 1-1/4" | 2" | 2 |
| R2014 • | 1/4" | 1" | 1-1/4" | 2-1/4" | 2 |
| R2017 | 9/32" | 3/4" | 1-1/4" | 2" | 2 |
| R2017-1 | 9/32" | 1" | 1-1/8" | 2-1/4" | 2 |
| R2018 | 5/16" | 3/4" | 1-1/8" | 2" | 2 |
| R2019 | 5/16" | 1" | 1-1/4" | 2-1/4" | 2 |
| R2021 | 3/8" | 3/4" | 1-1/4" | 2" | 2 |
| R2022 | 3/8" | 1" | 1-1/4" | 2-1/4" | 2 |
| R2023 | 3/8" | 1-1/4" | 1-1/4" | 2-1/2" | 2 |
| R2024 | 7/16" | 1" | 1-1/8" | 2-1/4" | 2 |
| R2025 | 1/2" | 3/4" | 1-1/4" | 2" | 2 |
| R2026 | 1/2" | 1" | 1" | 2-1/4" | 2 |
| R2026-1 | 1/2" | 1-1/4" | 1-1/8" | 2-1/2" | 2 |
| R2027 | 9/16" | 3/4" | 1-1/4" | 2-1/8" | 2 |
| R2028 | 5/8" | 3/4" | 1-1/4" | 2" | 2 |
| R2028-1 | 5/8" | 1" | 1-1/8" | 2-1/4" | 2 |
| R2029 | 11/16" | 3/4" | 1-1/4" | 2" | 2 |
| R2029-1 | 11/16" | 1" | 1-1/8" | 2-1/4" | 2 |
| R2030 | 3/4" | 3/4" | 1" | 2" | 2 |
| R2030-1 | 3/4" | 1" | 1-1/8" | 2-1/4" | 2 |
| R2031 | 13/16" | 3/4" | 1-1/4" | 2" | 2 |
| R2032 | 7/8" | 3/4" | 1-1/4" | 2" | 2 |
| R2033 | 1" | 3/4" | 1-1/4" | 2" | 2 |

• Not guaranteed due to extreme length and/or fragility

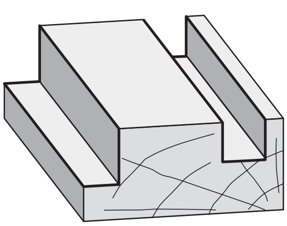
## R2034 STRAIGHT ROUTER BITS, Z1
3/8" SHANK



### 3/8" SHANK

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R2034 | 1/4" | 3/4" | 3/8" | 1-1/4" | 2-1/4" | 1 |
| R2034-1 | 3/8" | 1" | 3/8" | 1-1/4" | 2-11/16" | 1 |
| R2034-2 | 3/8" | 1-1/4" | 3/8" | 1-1/4" | 2-5/8" | 1 |

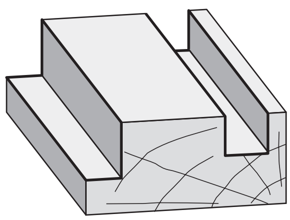
## R2035 STRAIGHT ROUTER BITS
3/8" SHANK



| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R2035 | 1/8" | 7/16" | 3/8" | 1-1/4" | 2" | 2 |
| R2035-1 | 5/32" | 7/16" | 3/8" | 1-1/4" | 2" | 2 |
| R2037 | 1/4" | 3/4" | 3/8" | 1-3/8" | 2-1/4" | 2 |
| R2038 | 5/16" | 1" | 3/8" | 1-3/8" | 2-1/2" | 2 |
| R2038-1 | 3/8" | 3/4" | 3/8" | 1-1/2" | 2-1/4" | 2 |
| R2039 | 3/8" | 1" | 3/8" | 1-3/8" | 2-1/2" | 2 |
| R2040 | 3/8" | 1-1/4" | 3/8" | 1-3/8" | 2-3/4" | 2 |
| R2042 | 7/16" | 1" | 3/8" | 1-1/4" | 2-1/2" | 2 |
| R2043 | 1/2" | 1" | 3/8" | 1-1/4" | 2-1/2" | 2 |
| R2043-1 | 1/2" | 1-1/4" | 3/8" | 1-1/4" | 2-1/2" | 2 |
| R2043-3 | 5/8" | 3/4" | 3/8" | 1-1/4" | 2-1/4" | 2 |
| R2043-5 | 13/16" | 3/4" | 3/8" | 1-1/4" | 2-1/4" | 2 |
| R2043-6 | 7/8" | 3/4" | 3/8" | 1-1/4" | 2-1/4" | 2 |
| R2043-7 | 1" | 3/4" | 3/8" | 1-1/4" | 2-1/4" | 2 |

## R2044 STRAIGHT ROUTER BITS, Z1

INCH SIZES, 1/2" SHANK

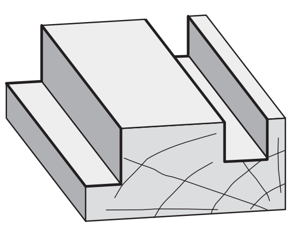


| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R2044 • | 1/4" | 3/4" | 1/2" | 1-3/8" | 2-1/2" | 1 |
| R2045 • | 1/4" | 1" | 1/2" | 1-1/4" | 2-1/2" | 1 |
| R2047 | 5/16" | 1" | 1/2" | 1-1/2" | 2-3/4" | 1 |
| R2049 | 3/8" | 1" | 1/2" | 1-3/8" | 2-1/2" | 1 |
| R2050 • | 3/8" | 1-1/4" | 1/2" | 1-3/8" | 2-3/4" | 1 |
| R2051 | 1/2" | 1" | 1/2" | 1-1/4" | 2-1/2" | 1 |
| R2052 | 1/2" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 1 |
| R2054 | 1/2" | 1-1/2" | 1/2" | 1-3/8" | 3-1/8" | 1 |
| R2055 | 1/2" | 2" | 1/2" | 1-7/8" | 4-1/4" | 1 |
| R2056 | 9/16" | 1-1/4" | 1/2" | 1-1/4" | 2-7/8" | 1 |

• Not guaranteed due to extreme length and/or fragility

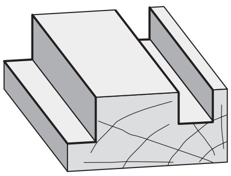
## RM130 STRAIGHT ROUTER BITS

METRIC SIZES, 1/2" SHANK



| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| RM130 | 6mm | 3/4" | 1/2" | 2-1/2" | 2 |
| RM131 | 8mm | 1" | 1/2" | 2-5/8" | 2 |
| RM132 | 10mm | 1" | 1/2" | 2-1/2" | 2 |
| RM133 | 10mm | 1-1/4" | 1/2" | 3" | 2 |
| RM134 | 12mm | 1" | 1/2" | 2-5/8" | 2 |
| RM135 | 12mm | 1-1/4" | 1/2" | 2-7/8" | 2 |
| RM136 | 12mm | 1-1/2" | 1/2" | 3" | 2 |
| RM137 | 12mm | 2" | 1/2" | 4-1/4" | 2 |
| RM138 | 14mm | 1" | 1/2" | 2-5/8" | 2 |
| RM140 | 16mm | 1" | 1/2" | 2-5/8" | 2 |
| RM141 | 16mm | 1-1/4" | 1/2" | 2-7/8" | 2 |
| RM142 | 16mm | 1-1/2" | 1/2" | 3-1/8" | 2 |
| RM143 | 18mm | 1-1/4" | 1/2" | 2-7/8" | 2 |
| RM144 | 19mm | 1" | 1/2" | 2-5/8" | 2 |
| RM145 | 19mm | 1-1/4" | 1/2" | 2-7/8" | 2 |
| RM146 | 19mm | 1-1/2" | 1/2" | 3-1/8"" | 2 |
| RM147 | 20mm | 1" | 1/2" | 2-5/8" | 2 |
| RM148 | 20mm | 1-1/4" | 1/2" | 2-7/8" | 2 |
| RM149 | 22mm | 1" | 1/2" | 2-5/8" | 2 |
| RM150 | 25mm | 1-1/4" | 1/2" | 2-7/8" | 2 |
| RM152 | 27mm | 1-1/4" | 1/2" | 2-7/8" | 2 |
| RM153 | 30mm | 1" | 1/2" | 2-5/8" | 2 |
| RM155 | 40mm | 1-1/4" | 1/2" | 2-7/8" | 2 |
| RM156 | 51mm | 1-1/4" | 1/2" | 2-7/8" | 2 |

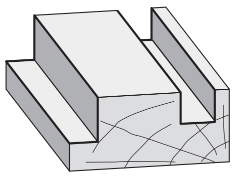
# STRAIGHT ROUTER BITS
INCH SIZES, 1/2" SHANK



| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R2057-0 | 15/64" | 3/4" | 1/2" | 1-3/8" | 2-1/2" | 2 |
| R2057-1 • | 1/4" | 1/2" | 1/2" | 1-3/8" | 2" | 2 |
| R2058 • | 1/4" | 3/4" | 1/2" | 1-3/8" | 2-1/2" | 2 |
| R2058-1 • | 1/4" | 1" | 1/2" | 1-3/8" | 2-1/2" | 2 |
| R2059 | 5/16" | 3/4" | 1/2" | 1-3/8" | 2-1/2" | 2 |
| R2060 • | 5/16" | 1" | 1/2" | 1-3/8" | 2-1/2" | 2 |
| R2061 | 3/8" | 3/4" | 1/2" | 1-3/8" | 2-1/2" | 2 |
| R2062 | 3/8" | 1" | 1/2" | 1-3/8" | 2-1/2" | 2 |
| R2063 • | 3/8" | 1-1/4" | 1/2" | 1-3/8" | 2-3/4" | 2 |
| R2063A | 13/32" | 1" | 1/2" | 1-3/8" | 2-3/4" | 2 |
| R2064 | 7/16" | 1" | 1/2" | 1-1/4" | 2-5/8" | 2 |
| R2065 | 7/16" | 1-1/4" | 1/2" | 1-3/8" | 2-3/4" | 2 |
| R2065-1 | 31/64" | 1" | 1/2" | 1-3/8" | 2-5/8" | 2 |
| R2066 | 1/2" | 1" | 1/2" | 1-3/8" | 2-5/8" | 2 |
| R2067 | 1/2" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2069 | 1/2" | 1-1/2" | 1/2" | 1-3/8" | 3" | 2 |
| R2070 | 1/2" | 1-1/2" | 1/2" | 2-1/2" | 4-1/4" | 2 |
| R2071 • | 1/2" | 2" | 1/2" | 1-7/8" | 4-1/4" | 2 |
| R2072 • | 1/2" | 2-1/2" | 1/2" | 1-7/8" | 4-1/2" | 2 |
| R2074 | 17/32" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2075 | 9/16" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2076 | 5/8" | 1" | 1/2" | 1-3/8" | 2-5/8" | 2 |
| R2077 | 5/8" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2078 | 5/8" | 1-1/2" | 1/2" | 1-3/8" | 3" | 2 |
| R2079 | 5/8" | 2" | 1/2" | 1-1/4" | 3-5/8" | 2 |
| R2081 | 21/32" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2083 | 11/16" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2083-1 | 23/32" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2084 | 3/4" | 1" | 1/2" | 1-3/8" | 2-5/8" | 2 |
| R2085 | 3/4" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2086 | 3/4" | 1-1/2" | 1/2" | 1-3/8" | 3" | 2 |
| R2087 | 3/4" | 2" | 1/2" | 1-3/8" | 3-5/8" | 2 |
| R2088 | 25/32" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2090 | 13/16" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2090-1 | 7/8" | 1" | 1/2" | 1-3/8" | 2-5/8" | 2 |
| R2091 | 7/8" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2092-1 | 1" | 1" | 1/2" | 1-3/8" | 3" | 2 |
| R2093 | 1" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2093-1 | 1" | 1-1/2" | 1/2" | 1-1/4" | 3" | 2 |
| R2093-2 | 1" | 2" | 1/2" | 1-3/8" | 3-5/8" | 2 |
| R2094 | 1-1/16" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2096 | 1-1/8" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2097 | 1-1/4" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2098 | 1-3/8" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2099 | 1-1/2" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2099-1 | 1-5/8" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2100 | 1-3/4" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2100-1 | 1-7/8" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2101 | 2" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |

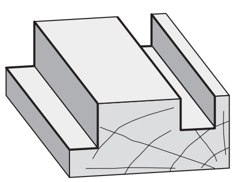
• Not guaranteed due to extreme length and/or fragility

## R2210 LEFT-HAND ROUTER BITS
1/2" SHANK



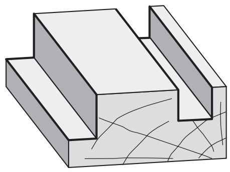
| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R2211 | 5/16" | 1" | 1/2" | 1-3/8" | 2-3/4" | 2 |
| R2212 | 3/8" | 1" | 1/2" | 1-3/8" | 2-3/4" | 2 |
| R2214 | 1/2" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2215 | 1/2" | 1-1/2" | 1/2" | 1-3/8" | 3" | 2 |
| R2216 | 1/2" | 2" | 1/2" | 1-7/8" | 4-1/4" | 2 |
| R2218 | 5/8" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2219 | 3/4" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2220 | 3/4" | 2" | 1/2" | 1-3/8" | 3-5/8" | 2 |
| R2221 | 13/16" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2222 | 7/8" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2223 | 1" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |

## R2150 STRAIGHT ROUTER BITS
3/4" SHANK



| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R2150 | 3/4" | 1-1/4" | 3/4" | 1-1/2" | 3" | 2 |
| R2151 | 3/4" | 1-1/2" | 3/4" | 1-1/2" | 3-1/4" | 2 |
| R2152 | 3/4" | 2" | 3/4" | 1-3/4" | 4" | 2 |
| R2153 | 3/4" | 2-1/2" | 3/4" | 2" | 4-1/2" | 2 |
| R2158 | 1" | 1-1/2" | 3/4" | 1-1/2" | 3-1/4" | 2 |
| R2160 | 1" | 2" | 3/4" | 2" | 4-1/4" | 2 |

## D1E STRAIGHT INSERT ROUTER BITS
WITH TWO WINGS

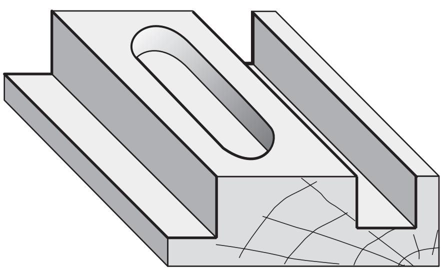


| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. WINGS |
|---|---|---|---|---|---|
| D1E | 19mm | 12mm | 6mm | 45mm | 2 |
| D1EA | 19mm | 12mm | 1/4" | 1-3/4" | 2 |

### REPLACEMENT PARTS

| INSERT | INSERT SCREW |
|---|---|
| 301200 | D1V |

# STRAIGHT INSERT ROUTER BITS, Z1
WITH REVERSIBLE KNIVES



| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. WINGS |
|---|---|---|---|---|---|
| **RD2062** | 3/8" | 1" | 1/2" | 3-1/8" | 1 |
| **RD2066** | 1/2" | 1" | 1/2" | 3-3/8" | 1 |
| **RD2067** | 1/2" | 1-1/4" | 1/2" | 3-1/2" | 1 |
| **RD2067S ▲** | 1/2" | 1-1/4" | 1/2" | 3-1/2" | 1 |
| **RD2068 •** | 1/2" | 1-1/4" | 1/2" | 3-1/2" | 1 |
| **RD2069** | 1/2" | 1-1/2" | 1/2" | 4" | 1 |
| **RD2069S ▲** | 1/2" | 1-1/2" | 1/2" | 4" | 1 |
| **RD2070 •** | 1/2" | 1-1/2" | 1/2" | 4" | 1 |
| **RD2071** | 1/2" | 2" | 1/2" | 4-1/8" | 1 |
| **RD2077** | 5/8" | 1-1/4" | 1/2" | 3-1/2" | 1 |
| **RD2080 •** | 5/8" | 2" | 5/8" | 4-3/8" | 1 |
| **RD2084** | 3/4" | 1" | 1/2" | 3-3/8" | 1 |
| **RD2086 •** | 3/4" | 1-1/2" | 3/4" | 4" | 1 |
| **RD2087 •** | 3/4" | 2" | 3/4" | 4-3/8" | 1 |

• With carbide plunge point

▲ Standard type without reinforcing ring

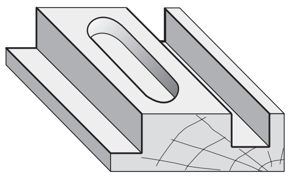
## LEFT-HAND ROTATION

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. WINGS |
|---|---|---|---|---|---|
| **RD2067L** | 1/2" | 1-1/4" | 1/2" | 3-1/2" | 1 |
| **RD2069L** | 1/2" | 1-1/2" | 1/2" | 4" | 1 |

## REPLACEMENT PARTS

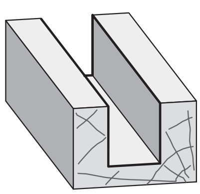
| TOOL NO. | KNIFE | WEDGE | SET SCREW | WRENCH | LOOSENING JIG |
|---|---|---|---|---|---|
| **RD2062** | 303511M | W2062 | WM303 | WT015 | W0001 |
| **RD2066** | 303011M | W2066 | WM303 | WT015 | W0001 |
| **RD2067** | 303511M | W2062 | WM303 | WT015 | W0001 |
| **RD2067L** | 303511M | W2062L | WM303 | WT015 | W0001 |
| **RD2068** | 303511M | W2068 | WM303 | WT015 | W0001 |
| **RD2069** | 304511M | W2069 | WM303 | WT015 | W0001 |
| **RD2069L** | 304511M | W2069L | WM303 | WT015 | W0001 |
| **RD2070** | 304511M | W2070 | WM303 | WT015 | W0001 |
| **RD2071** | 306011M | W2071 | WM303 | WT015 | W0001 |
| **RD2077** | 303511M | W2077 | WM306 | WT025 | - |
| **RD2080** | 306011M | W2087 | WM308 | WT025 | - |
| **RD2084** | 303011M | W2084 | WM308 | WT025 | - |
| **RD2086** | 304511M | W2086 | WM308 | WT025 | - |
| **RD2087** | 306011M | W2087 | WM308 | WT025 | - |

## R2110 DOWNSHEAR ROUTER BITS
1/2" SHANK



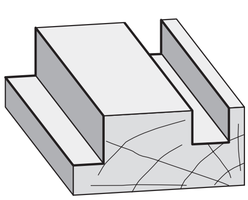
| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **R2110** | 3/8" | 1" | 1/2" | 1-1/2" | 2-3/4" | 2 |
| **R2111** | 1/2" | 1-1/4" | 1/2" | 1-1/4" | 2-7/8" | 2 |
| **R2112** | 1/2" | 1-1/2" | 1/2" | 1-3/8" | 3-1/8" | 2 |
| **R2113** | 1/2" | 2" | 1/2" | 2" | 4-1/4" | 2 |

## R2200 STAGGER TOOTH STRAIGHT ROUTER BITS, Z1+1
WITH NO SHEAR



| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **R2200S** | 1/4" | 1" | 1/4" | 1-1/2" | 2-1/4" | 1+1 |
| **R2200** | 3/8" | 1-3/8" | 3/8" | 1-1/4" | 3" | 1+1 |
| **R2201** | 3/8" | 1-1/2" | 1/2" | 1-3/8" | 3-1/8" | 1+1 |
| **R2202** | 1/2" | 1-1/2" | 1/2" | 1-3/8" | 3-1/8" | 1+1 |
| **R2203** | 1/2" | 2" | 1/2" | 1-5/8" | 4-1/4" | 1+1 |
| **R2203-1** | 1/2" | 2-1/8" | 1/2" | 1-5/8" | 4-1/4" | 1+1 |

## D1A STAGGERED TOOTH INSERT ROUTER BITS, Z1+1
WITH PLUNGE POINT



| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH | NO. OF WINGS |
|---|---|---|---|---|---|---|
| **D1A15A** | 15mm | 20mm | 1/4" | 30mm | 2" | 1+1 |
| **D1A16A** | 16mm | 20mm | 1/4" | 30mm | 2" | 1+1 |
| **D1A18A** | 18mm | 20mm | 1/4" | 30mm | 2" | 1+1 |
| **D1A20A** | 20mm | 20mm | 1/4" | 30mm | 2" | 1+1 |
| **D1A22A** | 22mm | 20mm | 1/4" | 30mm | 2" | 1+1 |

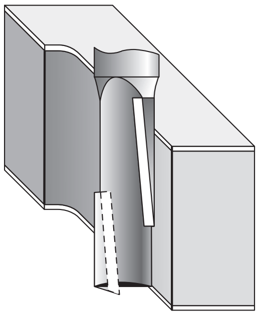
### REPLACEMENT PARTS

| INSERT | INSERT SCREW |
|---|---|
| 301200 | D1V |

## R2206 STAGGER TOOTH STRAIGHT ROUTER BITS, Z1+1
WITH COMPRESSION SHEAR

FS TOOL

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R2206 | 1/2" | 1-1/2" | 1/2" | 1-5/8" | 3-1/8" | 1+1 |
| R2207 | 1/2" | 2" | 1/2" | 2" | 4-1/4" | 1+1 |

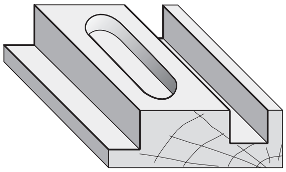


## R2232 PLUNGE POINT ROUTER BITS
WITH TWO FLUTES

### 1/4" SHANK

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R2232 | 3/8" | 1" | 1/4" | 1-1/8" | 2-1/4" | 2 |
| R2233 | 1/2" | 3/4" | 1/4" | 1-1/8" | 2" | 2 |
| R2234 | 1/2" | 1" | 1/4" | 1-1/8" | 2-1/8" | 2 |
| R2235 | 5/8" | 3/4" | 1/4" | 1-3/8" | 2-1/8" | 2 |
| R2236 | 7/8" | 3/4" | 1/4" | 1-1/8" | 2" | 2 |

All above bits supplied with bottom carbide for plunging operations

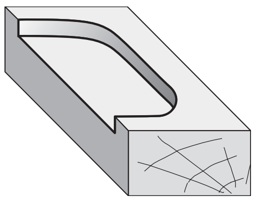


### 1/2" SHANK

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R2240 | 5/16" | 3/4" | 1/2" | 1-3/8" | 2-1/2" | 2 |
| R2241 | 3/8" | 1-1/4" | 1/2" | 1-1/2" | 3" | 2 |
| R2243 | 1/2" | 1" | 1/2" | 1-3/8" | 2-5/8" | 2 |
| R2244 | 1/2" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2245 | 1/2" | 1-1/2" | 1/2" | 1-3/8" | 3-1/8" | 2 |
| R2246 | 1/2" | 2" | 1/2" | 1-7/8" | 4-1/4" | 2 |
| R2247 | 5/8" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2248 | 5/8" | 2" | 1/2" | 1-7/8" | 3-3/4" | 2 |
| R2249 | 3/4" | 1" | 1/2" | 1-3/8" | 2-5/8" | 2 |
| R2250 | 7/8" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2251 | 1" | 1" | 1/2" | 1-3/8" | 2-5/8" | 2 |
| R2252 | 1-5/8" | 1" | 1/2" | 1-3/8" | 2-5/8" | 2 |
| R2253 | 1-3/4" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |
| R2254 | 1-7/8" | 1-1/4" | 1/2" | 1-3/8" | 2-7/8" | 2 |

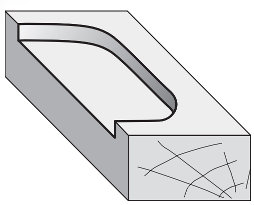
All above bits supplied with bottom carbide for plunging operations

# R2300 MORTISING ROUTER BITS
## BOTTOM CUTTING



| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R2300 | 1/2" | 3/4" | 1/4" | 1-1/4" | 2" | 2 |
| R2301 | 5/8" | 3/4" | 1/4" | 1-1/4" | 2" | 2 |
| R2302 | 3/4" | 3/4" | 1/4" | 1-1/4" | 2" | 2 |
| R2303 | 1" | 3/4" | 1/4" | 1-1/8" | 2" | 2 |
| R2304 | 1-1/4" | 1/2" | 1/4" | 1-1/4" | 1-3/4" | 2 |
| R2305 | 1-1/4" | 1-1/4" | 1/2" | 1-1/4" | 2-7/8" | 2 |

# R2310 MORTISING CUTTERS ONLY
## SCREW TYPE



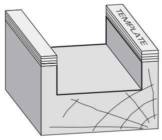
| PART NO. | CUTTING DIAM. | TYPE OF THREAD | CUTTING LENGTH | NO. FLUTES |
|---|---|---|---|---|
| R2310 | 3/4" | 1/4-28 | 1/2" | 2 |
| R2311 | 7/8" | 1/4-28 | 1/2" | 2 |
| R2312 | 1" | 1/4-28 | 1/2" | 2 |
| R2313 | 1-1/8" | 1/4-28 | 9/16" | 2 |
| R2314 | 1-1/4" | 1/4-28 | 5/8" | 2 |

# AR12MB THREADED ARBOR
## FOR MORTISING BITS

| PART NO. | SHANK DIAM. | TYPE OF THREAD | OVERALL LENGTH |
|---|---|---|---|
| AR12MB | 1/2" | 1/4-28 | 2-3/8" |
| AR14MB | 1/4" | 1/4-28 | 1-3/4" |

Fits R2310 to R2314 mortising bits (screw type)

# R2450 BOTTOM CLEANING ROUTER BITS
WITH UPPER BALL BEARING

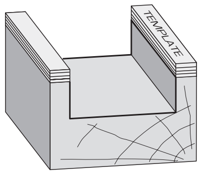



| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| R2450 | 3/4" | 7/16" | 1/4" | 2-3/16" | 2 |
| R2451 | 1" | 7/16" | 1/2" | 2-1/2" | 2 |
| R2452 | 1-1/2" | 5/8" | 1/2" | 2-3/4" | 2 |

## REPLACEMENT PARTS

| TOOL NO. | BALL BEARING | LOCK RING | SCREW |
|---|---|---|---|
| R2450 | B4 | W01 | WNC525 |
| R2451 | B6-1A | W04 | WNC518 |
| R2452 | B10 | W03 | WNC518 |

# R2320 STRAIGHT PLUNGE ROUTER BITS
WITH UPPER BALL BEARING GUIDE



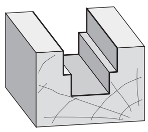

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| R2320A | 1/2" | 1/4" | 1/4" | 2" | 2 |
| R2320 | 1/2" | 1" | 1/4" | 2-1/2" | 2 |
| R2320-1 | 1/2" | 1-1/4" | 1/4" | 2-3/4" | 2 |
| R2320-2 | 1/2" | 1/2" | 1/4" | 2-1/4" | 2 |
| R2321 | 5/8" | 1" | 1/4" | 2-1/2" | 2 |
| R2322 | 3/4" | 1" | 1/4" | 2-1/2" | 2 |
| R2322-1 | 3/4" | 1" | 1/2" | 3" | 2 |
| R2322-2 | 3/4" | 2" | 1/2" | 3-5/8" | 2 |
| R2323 | 1" | 1" | 3/8" | 2-3/4" | 2 |
| R2324 | 1" | 1-3/4" | 1/2" | 3-3/4" | 2 |
| R2325 | 1-1/8" | 1-1/2" | 1/2" | 3-5/8" | 2 |
| R2326 | 1-1/4" | 1-3/4" | 1/2" | 3-1/4" | 2 |

## REPLACEMENT PARTS

| TOOL NO. | BALL BEARING | LOCK RING | SCREW |
|---|---|---|---|
| R2320A | B3-1 | W01 | WNC525 |
| R2320 | B3-1 | W01 | WNC525 |
| R2320-1 | B3-1 | W01 | WNC525 |
| R2320-2 | B3-1 | W01 | WNC525 |
| R2321 | B3-3 | W01 | WNC525 |
| R2322 | B4 | W01 | WNC525 |
| R2322-1 | B4-1A | W04 | WNC518 |
| R2322-2 | B4-1A | W04 | WNC518 |
| R2323 | B6-1 | W02 | WNC525 |
| R2324 | B6-1A | W04 | WNC518 |
| R2325 | B6-4 | W03 | WNC518 |
| R2326 | B6-5 | W03 | WNC518 |

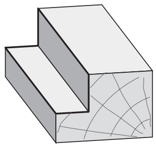
# FRB01-2 STEPPED RABBETING ROUTER BITS
WITH 1/4" SHANK

| PART NO. | LARGE DIAM. | SMALL DIAM. | RABBET DEPTH | CUTTING LENGTH | SHANK DIAM. | NO. FLUTES |
|---|---|---|---|---|---|---|
| FRB01-2 | 3/4" | 3/8" | 1/2" | 3/4" | 1/4" | 2 |



# R2900 RABBETING ROUTER BITS
WITH 1/2" DIAMETER BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | RABBET DEPTH | CARBIDE HEIGHT | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R2900 | 1-1/4" | 3/8" | 1/2" | 1/4" | 2" | 2 |
| R2901 | 1-1/4" | 3/8" | 1/2" | 1/2" | 2-3/8" | 2 |
| R2902 | 1-3/8" | 7/16" | 1/2" | 1/4" | 2" | 2 |
| R2903 | 1-3/8" | 7/16" | 1/2" | 1/2" | 2-3/8" | 2 |

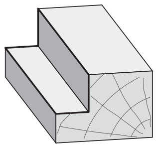


## REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

# R2905 RABBETING ROUTER BITS
WITH 3/8" DIAMETER BALL BEARING GUIDE

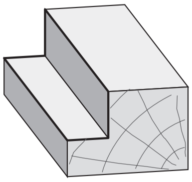
| PART NO. | LARGE DIAM. | RABBET DEPTH | CARBIDE HEIGHT | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R2905 | 1-1/4" | 7/16" | 1/2" | 1/4" | 2" | 2 |
| R2906 | 1-1/4" | 7/16" | 1/2" | 1/2" | 2-3/8" | 2 |
| R2907 | 1-3/8" | 1/2" | 1/2" | 1/4" | 2" | 2 |
| R2908 | 1-3/8" | 1/2" | 1/2" | 1/2" | 2-3/8" | 2 |



## REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B2 | WFS500 | WFS506 | WNC538 |

# 4 RABBETING DEPTH ROUTER BIT SETS
WITH BALL BEARING GUIDES



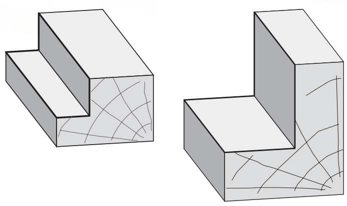
## COMPLETE SET

| PART NO. | CUTTING DIAM. | CARBIDE HEIGHT | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| R2950 | 1-3/8" | 1/2" | 1/4" | 2" | 2 |
| R2951 | 1-3/8" | 1/2" | 1/2" | 2-3/8" | 2 |

## TYPICAL ASSEMBLY

| RABBET DEPTH | PART NO. | DESCRIPTION |
|---|---|---|
| 1/2" | WFS500 | Flat Washer 5/16" - 3/16" |
| | B2 | Ball Bearing 3/8" - 3/16" |
| | WFS506 | Spring Washer 1/4" - 1/8" |
| | WNC512 | Screw NC5 - 1/2" |
| 7/16" | WR58 | Raised Washer 1/2" - 3/16" |
| | B3 | Ball Bearing 1/2" - 3/16" |
| | WFS506 | Spring Washer 1/4" - 1/8" |
| | WNC512 | Screw NC5 - 1/2" |
| 3/8" | WR59 | Raised Washer 16mm - 5mm |
| | B3-2 | Ball Bearing 5/8" - 3/16" |
| | WFS506 | Spring Washer 1/4" - 1/8" |
| | WNC512 | Screw NC5 - 1/2" |
| 5/16" | WR59 | Raised Washer 16mm - 5mm |
| | B3-5 | Ball Bearing 3/4" - 3/16" |
| | WFS506 | Spring Washer 1/4" - 1/8" |
| | WNC512 | Screw NC5 - 1/2" |

# 7 RABBETING DEPTH ROUTER BIT SETS
WITH BALL BEARING GUIDES



## COMPLETE SET

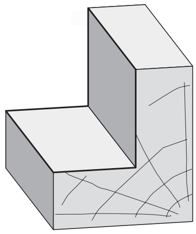
| PART NO. | CUTTING DIAM. | CARBIDE HEIGHT | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| R2960 | 1-3/8" | 1/2" | 1/4" | 2" | 2 |
| R2961 | 1-3/8" | 1/2" | 1/2" | 2-3/8" | 2 |

## TYPICAL ASSEMBLY

| RABBET DEPTH | PART NO. | DESCRIPTION |
|---|---|---|
| 1/2" | WFS500 | Flat Washer 5/16" - 3/16" |
| | B2 | Ball Bearing 3/8" - 3/16" |
| | WFS506 | Spring Washer 1/4" - 1/8" |
| | WNC512 | Screw NC5 - 1/2" |
| 7/16" | WR58 | Raised Washer 1/2" - 3/16" |
| | B3 | Ball Bearing 1/2" - 3/16" |
| | WFS506 | Spring Washer 1/4" - 1/8" |
| | WNC512 | Screw NC5 - 1/2" |
| 3/8" | WR59 | Raised Washer 16mm - 5mm |
| | B3-2 | Ball Bearing 5/8" - 3/16" |
| | WFS506 | Spring Washer 1/4" - 1/8" |
| | WNC512 | Screw NC5 - 1/2" |
| 5/16" | WR59 | Raised Washer 16mm - 5mm |
| | B3-5 | Ball Bearing 3/4" - 3/16" |
| | WFS506 | Spring Washer 1/4" - 1/8" |
| | WNC512 | Screw NC5 - 1/2" |
| 1/4" | WR59 | Raised Washer 16mm - 5mm |
| | B6 | Ball Bearing 7/8" - 3/16" |
| | WFS506 | Spring Washer 1/4" - 1/8" |
| | WNC512 | Screw NC5 - 1/2" |
| 1/8" | WR59 | Raised Washer 16mm - 5mm |
| | B6-2 | Ball Bearing 1-1/8" - 3/16" |
| | WFS506 | Spring Washer 1/4" - 1/8" |
| | WNC512 | Screw NC5 - 1/2" |
| FLUSH | WR59 | Raised Washer 16mm - 5mm |
| | B8 | Ball Bearing 1-3/8" - 3/16" |
| | WFS506 | Spring Washer 1/4" - 1/8" |
| | WNC512 | Screw NC5 - 1/2" |

# MULTI-RABBETING ROUTER BIT SETS
## WITH BALL BEARING GUIDE AND COLLARS

| PART NO. | NO. PIECES | RABBET DEPTHS | CUTTING DIAM. | CARBIDE HEIGHT | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| R2970 | 6 | 1/8" 1/4" 3/8"<br>1/2" 5/8" 3/4" | 2" | 7/8" | 1/2" | 3-5/64" | 2 |
| R2971 | 12 | 1/16" 1/8" 3/16"<br>1/4" 5/16" 3/8"<br>7/16" 1/2" 9/16"<br>5/8" 11/16" 3/4" | 2" | 7/8" | 1/2" | 3-5/64" | 2 |
| R2972 | 17 | 1/16" 1/8" 3/16"<br>15/64" 1/4" 5/16"<br>23/64" 3/8" 7/16"<br>15/32" 1/2" 9/16"<br>19/32" 5/8" 11/16"<br>23/32" 3/4" | 2" | 7/8" | 1/2" | 3-5/64" | 2 |



### MULTI-RABBETING ROUTER BIT SET
This set produces rabbet cuts from 1/16" through 3/4" in 1/16" increments, plus five rabbet depths for undersized panels in 1/64" and 1/32" increments.

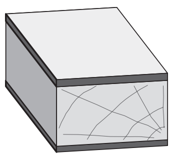
## REPLACEMENT PARTS

| PART NO. | DESCRIPTION |
|---|---|
| R2973 | Rabbeting bit with two 1/2" bearings |
| B3-1 | Ball Bearing |
| WFS506 | Spring Washer |
| WRS220 | Spacer 2.2mm |
| WNC512 | Screw |

## REPLACEMENT PARTS

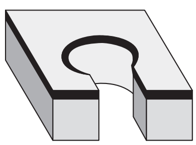
| PART NO. | DESCRIPTION | DEPTH OF RABBET |
|---|---|---|
| WRC476 | Collar 47.6mm Diam. | 1/16" |
| WRC444 | Collar 44.4mm Diam. | 1/8" |
| WRC413 | Collar 41.3mm Diam. | 3/16" |
| WRC399 | Collar 39.9mm Diam. | 15/64" |
| WRC381 | Collar 38.1mm Diam. | 1/4" |
| WRC349 | Collar 34.9mm Diam. | 5/16" |
| WRC325 | Collar 32.5mm Diam. | 23/64" |
| WRC317 | Collar 31.7mm Diam. | 3/8" |
| WRC286 | Collar 28.6mm Diam. | 7/16" |
| WRC270 | Collar 27.0mm Diam. | 15/32" |
| WRC254 | Collar 25.4mm Diam. | 1/2" |
| WRC222 | Collar 22.2mm Diam. | 9/16" |
| WRC206 | Collar 20.6mm Diam. | 19/32" |
| WRC190 | Collar 19.0mm Diam. | 5/8" |
| WRC159 | Collar 15.9mm Diam. | 11/16" |
| WRC143 | Collar 14.3mm Diam. | 23/32" |
| B3-1 | Bearing 1/2" Diam. | 3/4" |

## R5000 FLUSH TRIM BITS
SOLID CARBIDE

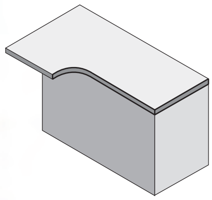
| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | TYPE OF CUT | NO. FLUTES |
|---|---|---|---|---|---|---|
| R5000 | 1/4" | 3/8" | 1/4" | 1-1/2" | Flush | 1 |
| R5000-1 | 1/4" | 1/4" | 1/4" | 1-1/2" | Flush | 1 |

## R5003 FLUSH TRIM WITH PLUNGE POINT BITS
SOLID CARBIDE

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| R5003 | 1/4" | 1/4" | 1/4" | 1-1/2" | 1 |
| R5003-1 | 1/4" | 3/8" | 1/4" | 1-1/2" | 1 |

## R3510 FLUSH TRIM BITS
WITH DOUBLE BALL BEARING GUIDE

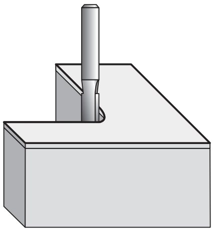



| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| R3510 | 1/2" | 1-1/2" | 1/2" | 4-1/16" | 2 |
| R3511 | 1/2" | 2" | 1/2" | 4-1/2" | 2 |
| R3512 | 1/2" | 1-1/2" | 1/2" | 4-1/16" | 3 |

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | NYLON LOCK NUT |
|---|---|---|---|
| B3 | WR58 | WFS508 | WN1024 |

# R3400 FLUSH TRIM BITS
WITH BALL BEARING GUIDE



### TWO FLUTES

| PART NO. | TOOL TYPE | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R3400-1 | E | 1/4" | 1/2" | 1/4" | 2" | 2 |
| R3400-2 | E | 1/4" | 1" | 1/4" | 2-1/2" | 2 |
| R3400 | A | 3/8" | 1" | 1/4" | 2-5/8" | 2 |
| R3401 | A | 3/8" | 1/2" | 1/4" | 2-1/4" | 2 |
| R3402 | B | 1/2" | 1" | 1/4" | 2-5/8" | 2 |
| R3403 | B | 1/2" | 1/2" | 1/4" | 2-1/4" | 2 |
| R3403-1 | C | 5/8" | 5/8" | 1/4" | 2-1/4" | 2 |
| R3404 | B | 1/2" | 1" | 3/8" | 2-3/4" | 2 |
| R3404-1 | B | 1/2" | 1/2" | 1/2" | 2-3/4" | 2 |
| R3405 | B | 1/2" | 1" | 1/2" | 3-1/4" | 2 |
| R3407 | B | 1/2" | 1-1/2" | 1/2" | 3-7/8" | 2 |
| R3408 | B | 1/2" | 2" | 1/2" | 4-1/4" | 2 |
| R3409 | F | 3/4" | 1" | 1/2" | 3" | 2 |

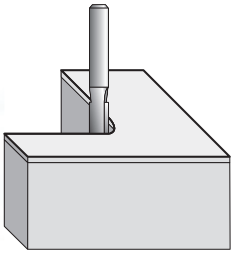
### REPLACEMENT PARTS

| TOOL TYPE | BALL BEARING |
|---|---|
| A | B2 |
| B | B3 |
| C | B3-4 |
| D | B4-1 |
| E | B01 |
| F | B4 |

### THREE FLUTES

| PART NO. | TOOL TYPE | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R3500 | B | 1/2" | 1" | 1/4" | 2-5/8" | 3 |
| R3501 | B | 1/2" | 1/2" | 1/4" | 2-1/4" | 3 |
| R3502 | B | 1/2" | 1" | 1/2" | 3-1/4" | 3 |
| R3503 | B | 1/2" | 1/2" | 1/2" | 2-3/4" | 3 |
| R3504 | B | 1/2" | 1-1/2" | 1/2" | 3-7/8" | 3 |

# D1C FLUSH TRIM INSERT ROUTER BITS
WITH BALL BEARING GUIDE

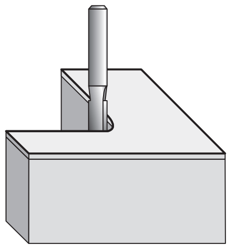


| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. WINGS |
|---|---|---|---|---|---|
| D1C | 19mm | 12mm | 6mm | 55mm | 1+1 |
| D1CA | 19mm | 12mm | 1/4" | 2-3/16" | 1+1 |

### REPLACEMENT PARTS

| INSERT | INSERT SCREW | BALL BEARING | SCREW FOR BEARING |
|---|---|---|---|
| 301200 | D1V | B3-6 | D1V5 |

## RD3400 FLUSH TRIM INSERT ROUTER BITS
WITH BALL BEARING GUIDE



| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. WINGS |
|---|---|---|---|---|---|
| RD3400 | 3/8" | 1" | 1/4" | 2-5/8" | 1 |
| RD3401 | 3/8" | 1/2" | 1/4" | 2-1/8" | 1 |
| RD3402 | 1/2" | 1" | 1/4" | 2-5/8" | 1 |
| RD3403 | 1/2" | 1-1/2" | 1/4" | 2-1/8" | 1 |
| RD3405 | 1/2" | 1" | 1/2" | 2-3/4" | 1 |
| RD3407 | 1/2" | 1-1/2" | 1/2" | 3-5/8" | 1 |
| RD3408 | 1/2" | 1" | 1/2" | 4-1/4" | 1 |

### REPLACEMENT PARTS

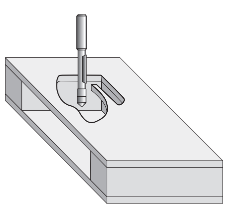
| TOOL NO. | KNIFE | WEDGE | BALL BEARING | SNAP RING | SET SCREW | WRENCH | LOOSENING JIG |
|---|---|---|---|---|---|---|---|
| RD3400 | 302511M | W3400 | BD2 | WC050 | WM303 | WT015 | - |
| RD3401 | 301211M | W3401 | BD2 | WC050 | WM303 | WT015 | W0001 |
| RD3402 | 302511M | W3400 | BD3 | WC060 | WM303 | WT015 | W0001 |
| RD3403 | 304011M | W3403 | BD3 | WC060 | WM303 | WT015 | W0001 |
| RD3405 | 302511M | W3400 | BD3 | WC060 | WM303 | WT015 | W0001 |
| RD3407 | 304011M | W3403 | BD3 | WC060 | WM303 | WT015 | W0001 |
| RD3408 | 305011M | W3408 | BD3 | WC060 | WM303 | WT015 | W0001 |

## R2700 PANEL PILOT AND TRIM BITS
WITH PLUNGE POINT

### ONE FLUTE

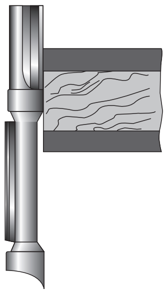
| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| R2700 | 1/4" | 3/4" | 1/4" | 2-1/2" | 1 |
| R2701 | 3/8" | 1" | 3/8" | 3" | 1 |
| R2702 | 1/2" | 1-3/16" | 1/2" | 3-1/2" | 1 |
| R2703 | 1/2" | 2" | 1/2" | 4-1/2" | 1 |

### TWO FLUTES



| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| R2704 | 3/8" | 1" | 1/4" | 3" | 2 |
| R2705 | 3/8" | 1" | 3/8" | 3" | 2 |
| R2706 | 1/2" | 1-1/4" | 1/2" | 3-3/4" | 2 |
| R2707 | 1/2" | 2" | 1/2" | 4-1/2" | 2 |

## RD2203 STAGGERED TOOTH INSERT FLUSH TRIM BITS
WITH CENTER BALL BEARING GUIDE



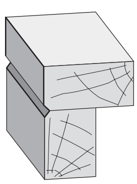
| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. WINGS |
|---|---|---|---|---|---|
| RD2203 | 1/2" | 3/4"+3/4" | 1/2" | 3-7/8" | 1+1 |
| RD2204 • | 1/2" | 3/4"+3/4" | 1/2" | 3-7/8" | 1+1 |

• With carbide plunge point

### REPLACEMENT PARTS

| TOOL NO. | KNIFE | UPPER WEDGE | LOWER WEDGE | BALL BEARING | SET SCREW | WRENCH | LOOSENING JIG |
|---|---|---|---|---|---|---|---|
| RD2203 | 302011M | W2200 | W2203 | BD4 | WM303 | WT015 | W0001 |
| RD2204 | 302011M | W2200 | W2204 | BD4 | WM303 | WT015 | W0001 |

## R3520 FLUSH TRIM "V" GROOVE BITS
WITH BALL BEARING GUIDE

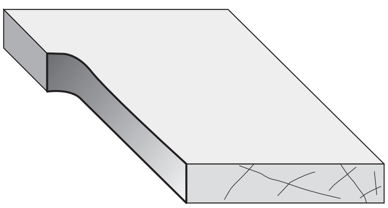


| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| R3520 | 5/8" | 1" | 1/4" | 2-1/2" | 2 |
| R3521 | 5/8" | 1" | 1/2" | 3" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

## R3700 HELIX LAMINATE TRIM BITS
WITH BALL BEARING GUIDE



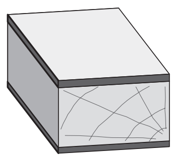
| PART NO. | TOOL TYPE | CUTTING DIAM. | TYPE OF CUT | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| R3700-1 | A | 5/8" | Flush | 5/8" | 1/4" | 2-3/16" | 2 |
| R3700 | B | 3/4" | Flush | 5/8" | 1/4" | 2-3/8" | 2 |
| R3700-2 | B | 3/4" | Flush | 1" | 1/4" | 2-7/8" | 2 |
| R3701 | B | 3/4" | Flush | 5/8" | 1/2" | 2-1/2" | 2 |
| R3703 | B | 3/4" | 15° | 3/8" | 1/2" | 2-1/4" | 2 |

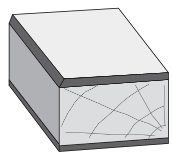
### REPLACEMENT PARTS

| TOOL TYPE | BALL BEARING | WASHER | SCREW |
|---|---|---|---|
| A | B3-3 | - | W103214 |
| B | B4 | WFS500 | WNF1012 |

## R5002 FLUSH AND BEVEL COMBINATION TRIM BIT
SOLID CARBIDE

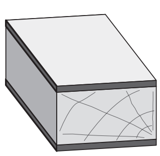
| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | DEGREE OF BEVEL | NO. FLUTES |
|---|---|---|---|---|---|---|
| R5002 | 1/4" | 3/8" | 1/4" | 1-1/2" | 7° | 1 |





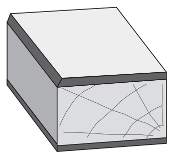
## R3800 FLUSH AND BEVEL COMBINATION TRIM BIT
1/4" SHANK

| PART NO. | CUTTING DIAM. | CARBIDE LENGTH | DEGREE BEVEL | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R3801 | 3/8" | 1/2" | 23° | 1/4" | 1-5/8" | 2 |
| R3802 | 1/2" | 1/2" | 23° | 1/4" | 1-5/8" | 2 |
| R3803 | 1/2" | 1/2" | 30° | 1/4" | 1-5/8" | 2 |
| R3804 | 1/2" | 1/2" | 35° | 1/4" | 1-5/8" | 2 |
| R3805 | 1/2" | 1/2" | 45° | 1/4" | 1-5/8" | 2 |

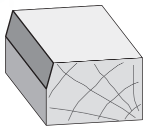


## R5001 BEVEL TRIM BIT
SOLID CARBIDE

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | DEGREE OF BEVEL | NO. FLUTES |
|---|---|---|---|---|---|---|
| R5001 | 1/4" | 1/4" | 1/4" | 1-1/2" | 7° | 1 |

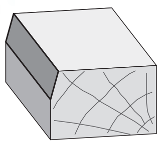


## R3840 BEVEL TRIM BITS
WITH TWO FLUTES

| PART NO. | DEGREE BEVEL | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| **R3840** | 7° | 1/2" | 1/4" | 2" | 2 |
| **R3841** | 15° | 1/2" | 1/4" | 2" | 2 |
| **R3842** | 15° | 1/2" | 1/2" | 2" | 2 |
| **R3843** | 25° | 1/2" | 1/4" | 2" | 2 |
| **R3844** | 25° | 1/2" | 1/2" | 2" | 2 |

## D1B BEVEL TRIM INSERT ROUTER BITS
WITHOUT GUIDE

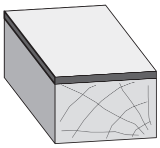
| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | DEGREE OF CUT | OVERALL LENGTH | NO. WINGS |
|---|---|---|---|---|---|---|
| **D1B22** | 24mm | 12mm | 6mm | 22° | 45mm | 2 |
| **D1B22A** | 24mm | 12mm | 1/4" | 22° | 1-3/4" | 2 |
| **D1B30** | 26mm | 12mm | 6mm | 30° | 45mm | 2 |
| **D1B30A** | 26mm | 12mm | 1/4" | 30° | 1-3/4" | 2 |
| **D1B45** | 29mm | 12mm | 6mm | 45° | 45mm | 2 |
| **D1B45A** | 29mm | 12mm | 1/4" | 45° | 1-3/4" | 2 |

### REPLACEMENT PARTS

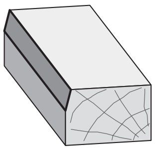
| INSERT | INSERT SCREW |
|---|---|
| 301200 | D1V |

## R3320 BEVEL TRIM BITS, Z2
WITH BALL BEARING GUIDE

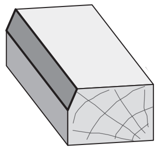
| PART NO. | TOOL TYPE | CUTTING DIAM. | CARBIDE HEIGHT | DEGREE BEVEL | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| **R3320** | A | 1/2" | 1/4" | 0° | 1/4" | 2-1/8" | 2 |
| **R3321** | A | 5/8" | 1/4" | 15° | 1/4" | 2-1/8" | 2 |
| **R3322** | A | 3/4" | 1/4" | 25° | 1/4" | 2-1/8" | 2 |
| **R3323** | A | 1" | 1/4" | 45° | 1/4" | 2-1/8" | 2 |
| **R3324** | B | 1" | 3/8" | 15° | 1/4" | 2" | 2 |
| **R3325** | C | 5/8" | 1/2" | 15° | 1/4" | 2" | 2 |



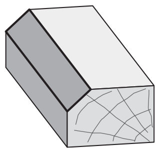
**R3320**



**R3321**
**R3324**
**R3325**



**R3322**



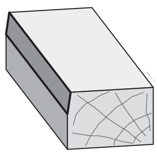
**R3323**

### REPLACEMENT PARTS

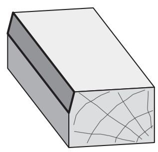
| TOOL TYPE | BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|---|
| **A** | B3 | WR58 | WFS506 | WNC538 |
| **B** | B4 | - | WFS508 | WNF1012 |
| **C** | B1 | WR12 | WFS504 | WNC338 |

## R3310 BEVEL TRIM BITS, Z3
WITH BALL BEARING GUIDE

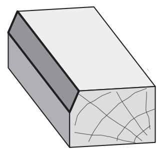
| PART NO. | CUTTING DIAM. | CARBIDE HEIGHT | DEGREE BEVEL | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **R3310** | 3/4" | 3/8" | 10° | 1/4" | 1-7/8" | 3 |
| **R3311** | 13/16" | 3/8" | 15° | 1/4" | 1-7/8" | 3 |
| **R3312** | 15/16" | 3/8" | 25° | 1/4" | 1-7/8" | 3 |
| **R3313** | 1-7/16" | 3/8" | 45° | 1/4" | 1-7/8" | 3 |



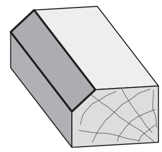
R3310



R3311



R3312



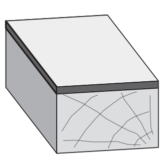
R3313

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3-4 | WR59 | WFS506 | WNC538 |

## R3600 TRIM CUTTER ASSEMBLIES, Z4
WITH BALL BEARING GUIDE

| PART NO. | CUTTING DIAMETER | CARBIDE HEIGHT | TYPE OF CUT | SHANK DIAM. | NO. WINGS |
|---|---|---|---|---|---|
| **R3600** | 7/8" | 1/4" | Flush | 1/4" | 4 |
| **R3602** | 7/8" | 1/4" | Flush | 1/2" | 4 |
| **R3603** | 1" | 1/4" | 15° | 1/4" | 4 |
| **R3605** | 1" | 1/4" | 15° | 1/2" | 4 |
| **R3606** | 1-1/16" | 1/4" | 25° | 1/4" | 4 |
| **R3608** | 1-1/16" | 1/4" | 25° | 1/2" | 4 |

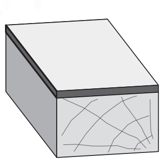


### REPLACEMENT PARTS

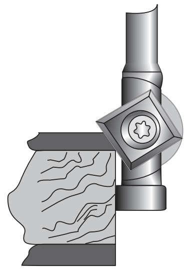
| BALL BEARING | ARBOR 1/4" SHANK | ARBOR 3/8" SHANK | ARBOR 1/2" SHANK | SPRING WASHER | NUT |
|---|---|---|---|---|---|
| B5 | AR14 | AR13 | AR12 | WF608 | WNF516 |

## R3609 TRIM CUTTER, Z4
CUTTER ONLY

| PART NO. | CUTTING DIAMETER | CARBIDE HEIGHT | TYPE OF CUT | NO. WINGS |
|---|---|---|---|---|
| **R3609** | 7/8" | 1/4" | Flush | 4 |
| **R3610** | 1" | 1/4" | 15° | 4 |
| **R3611** | 1-1/16" | 1/4" | 25° | 4 |



# RD3300 BEVEL TRIM INSERT BITS
BALL BEARING GUIDE

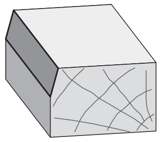


| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | DEG. BEVEL | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **RD3300** | 3/8" | 3/8" | 1/4" | 15° | 2-1/8" | 1 |
| **RD3302** | 3/8" | 3/8" | 1/4" | 45° | 2-1/8" | 1 |

## REPLACEMENT PARTS

| KNIFE | BALL BEARING | SNAP RING | SET SCREW | WRENCH |
|---|---|---|---|---|
| 300911M | BD2 | WC050 | WM306 | W400401 |

# D1D BEVEL TRIM INSERT ROUTER BITS
WITH BALL BEARING GUIDE

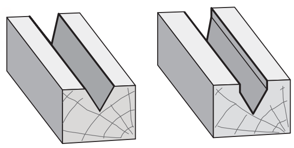


| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | ANGLE | OVERALL LENGTH | NO. WINGS |
|---|---|---|---|---|---|---|
| **D1D22** | 24mm | 12mm | 6mm | 22° | 55mm | 2 |
| **D1D22A** | 24mm | 12mm | 1/4" | 22° | 2-3/16" | 2 |
| **D1D30** | 26mm | 12mm | 6mm | 30° | 55mm | 2 |
| **D1D30A** | 26mm | 12mm | 1/4" | 30° | 2-3/16" | 2 |
| **D1D45** | 29mm | 12mm | 6mm | 45° | 55mm | 2 |
| **D1D45A** | 29mm | 12mm | 1/4" | 45° | 2-3/16" | 2 |

## REPLACEMENT PARTS

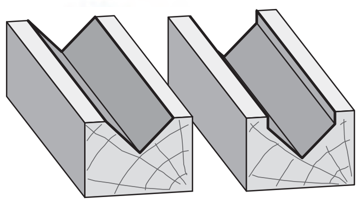
| INSERT | INSERT SCREW | BALL BEARING | SCREW FOR BEARING |
|---|---|---|---|
| 301200 | D1V | B3-6 | D1V5 |

# R2550 "V" GROOVING BITS
60° INCLUDED ANGLE



| PART NO. | CUTTING DIAM. | INCLUDED ANGLE | CARBIDE HEIGHT | V-POINT DEPTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| **R2550** | 1/2" | 60° | 5/8" | 13/32" | 1/4" | 1-3/4" | 2 |

# R2541 "V" GROOVING BITS
## 90° INCLUDED ANGLE

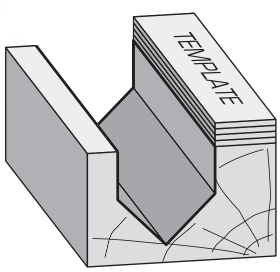


| PART NO. | CUTTING DIAM. | INCLUDED ANGLE | CARBIDE HEIGHT | V-POINT DEPTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| R2541 | 3/8" | 90° | 3/8" | 3/16" | 1/4" | 1-3/4" | 2 |
| R2541-1 | 3/8" | 90° | 15/32" | 1/4" | 1/2" | 1-3/4" | 2 |
| R2542 | 1/2" | 90° | 7/16" | 1/4" | 1/4" | 1-3/4" | 2 |
| R2542-1 | 1/2" | 90° | 7/16" | 5/16" | 1/4" | 2-1/8" | 2 |
| R2543 | 5/8" | 90° | 15/32" | 5/16" | 1/4" | 1-3/4" | 2 |
| R2543-1 | 5/8" | 90° | 1/2" | 3/8" | 1/2" | 2-1/8" | 2 |
| R2543-2 | 3/4" | 90° | 5/8" | 3/8" | 1/4" | 1-3/4" | 2 |
| R2544 | 3/4" | 90° | 5/8" | 7/16" | 1/2" | 2-1/4" | 2 |
| R2544-1 | 7/8" | 90° | 23/32" | 7/16" | 1/4" | 2" | 2 |
| R2544-2 | 7/8" | 90° | 23/32" | 1/2" | 1/2" | 2-1/4" | 2 |
| R2545 | 1" | 90° | 5/8" | 1/2" | 1/4" | 1-3/4" | 2 |
| R2545-1 | 1" | 90° | 3/4" | 5/8" | 1/2" | 2-3/8" | 2 |
| R2546 | 1-1/4" | 90° | 1" | 3/4" | 1/2" | 2-1/2" | 2 |
| R2547 | 1-1/2" | 90° | 1-1/4" | 7/8" | 1/2" | 2-7/8" | 2 |
| R2548 | 1-3/4" | 90° | 1-1/2" | 1" | 1/2" | 3" | 2 |
| R2549 | 2" | 90° | 1-3/4" | 1/4" | 1/2" | 3" | 2 |

# R2560 "V" GROOVING BITS
## 90° INCLUDED ANGLE WITH BEARING GUIDE

| PART NO. | CUTTING DIAM. | INCLUDED ANGLE | CARBIDE HEIGHT | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R2560 | 1/2" | 90° | 1/2" | 1/4" | 2" | 2 |

SCALE 1:1

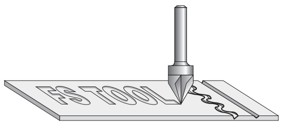



### REPLACEMENT PARTS

| BALL BEARING | LOCK RING | SCREW |
|---|---|---|
| B3-1 | W01 | WNC525 |

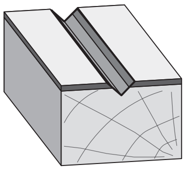
# R2710 SOLID CARBIDE ENGRAVING BITS
## 60° INCLUDED ANGLE

| PART NO. | CUTTING DIAM. | INCLUDED ANGLE | CUTTING DEPTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R2710 | 9/16" | 60° | 7/8" | 1/4" | 2-1/4" | 3 |



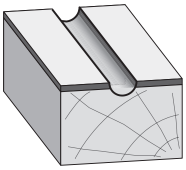
## R6005 "V" GROOVING VEINING BIT
SOLID CARBIDE

| PART NO. | CUTTING DIAM. | INCLUDED ANGLE | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| R6005 | 1/4" | 90° | 1/4" | 1-1/2" | 1 |



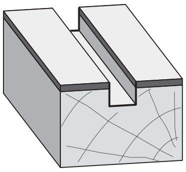
## R6007 ROUND BOTTOM VEINING BITS
SOLID CARBIDE

| PART NO. | CUTTING DIAM. | RADIUS | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| R6007 | 1/8" | 1/16" | 1/4" | 2" | 2 |
| R6008 | 3/16" | 3/32" | 1/4" | 2" | 2 |
| R6009 | 1/4" | 1/8" | 1/4" | 2" | 2 |



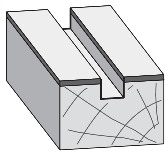
## R5004 RIP AND SLOTTING BIT
SOLID CARBIDE

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| R5004 | 1/4" | 3/8" | 1/4" | 1-1/2" | 1 |



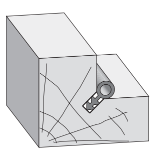
## R6001 FLAT BOTTOM VEINING BITS
SOLID CARBIDE

| PART NO. | CUTTING DIAMETER | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| R6001 | 1/8" | 1/4" | 1/4" | 2" | 2 |
| R6002 | 3/16" | 3/8" | 1/4" | 2" | 2 |
| R6003 | 1/4" | 1/2" | 1/4" | 2" | 2 |



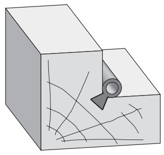
## R2630 TEE/BUMPER MOULDING GROOVING BIT
SOLID CARBIDE

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| R2630 | 1/8" | 5/16" | 1/4" | 2-3/16" | 2 |



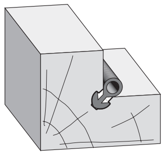
## R2631 TEE/BUMPER MOULDING GROOVING BIT
SOLID CARBIDE

| PART NO. | LARGE DIAM. | DEGREES EA. SIDE | DEPTH OF CUT | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R2631 | 13/64" | 25° | 5/32" | 1/4" | 2-3/8" | 2 |



## R2632 TEE/BUMPER MOULDING GROOVING BIT
TWO FLUTES

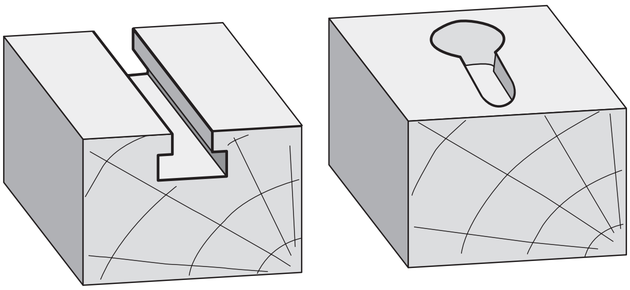
| PART NO. | LARGE DIAM. | SMALL DIAM. | DEGREES EA. SIDE | DEPTH OF CUT | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| R2632 | 7/32" | 5/64" | 38° | 5/16" | 1/4" | 2-9/16" | 2 |



## FRB66-5 KEYHOLE BIT
ONE FLUTE

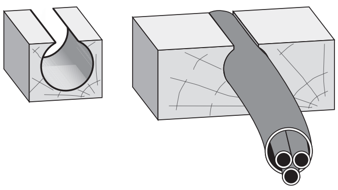
| PART NO. | LARGE DIAM. | SMALL DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| FRB66-5 | 3/8" | 3/16" | 3/8" | 1/4" | 1-1/2" | 1 |

SCALE 1:1

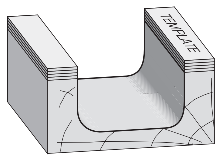


## R2455 BALL GROOVING BITS
TWO FLUTES

| PART NO. | LARGE DIAM. | SMALL DIAM. | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| R2455 | 1/2" | 1/4" | 1/2" | 2-1/4" | 2 |
| R2456 | 5/8" | 9/32" | 1/2" | 2-7/16" | 2 |
| R2457 | 3/4" | 5/16" | 1/2" | 2-1/2" | 2 |
| R2459 | 1" | 11/32" | 1/2" | 2-3/4" | 2 |
| R2460 | 1-1/8" | 13/32" | 1/2" | 2-7/8" | 2 |
| R2461 | 1-1/4" | 7/16" | 1/2" | 3" | 2 |



## R2420 BOWL AND TRAY BITS
WITH UPPER BALL BEARING




| PART NO. | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **R2420** | 1/2" | 1/8" | 1/2" | 1/4" | 2-1/8" | 2 |
| **R2421** | 3/4" | 1/4" | 5/8" | 1/4" | 2-5/16" | 2 |
| **R2422** | 3/4" | 1/4" | 5/8" | 1/2" | 2-5/16" | 2 |
| **R2423** | 1-1/8" | 1/4" | 5/8" | 1/2" | 2-5/8" | 2 |

### REPLACEMENT PARTS

| TOOL NO. | BALL BEARING | LOCK RING | SCREW |
|---|---|---|---|
| **R2420** | B3-1 | W01 | WNC525 |
| **R2421** | B4 | W01 | WNC525 |
| **R2422** | B4-1A | W04 | WNC518 |
| **R2423** | B6-4 | W03 | WNC518 |

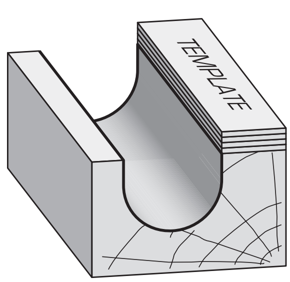
## R2406-9 CORE BOX BIT
WITH BEARING GUIDE

| PART NO. | CUTTING DIAM. | RADIUS | CUTTING DEPTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **R2406-9** | 1/2" | 1/4" | 1/2" | 1/4" | 2" | 2 |

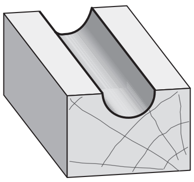
### REPLACEMENT PARTS

| TOOL NO. | BALL BEARING | LOCK RING | SCREW |
|---|---|---|---|
| **R2406-9** | B3-1 | W01 | WNC525 |

SCALE 1:1



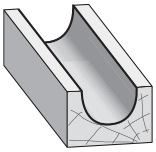
# R2400 ROUND NOSE BITS
## SHALLOW PROFILE

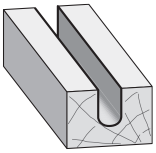


| PART NO. | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R2400 | 1/8" | 1/16" | 3/8" | 1/4" | 1-3/4" | 2 |
| R2401 | 3/16" | 3/32" | 1/2" | 1/4" | 1-3/4" | 2 |
| R2402 | 1/4" | 1/8" | 1/2" | 1/4" | 1-3/4" | 2 |
| R2402-1 | 5/16" | 5/32" | 1/2" | 1/4" | 1-1/2" | 2 |
| R2403 | 3/8" | 3/16" | 1/4" | 1/4" | 1-1/2" | 2 |
| R2403-1 | 3/8" | 3/16" | 1/4" | 1/2" | 1-7/8" | 2 |
| R2403-2 | 7/16" | 7/32" | 5/8" | 1/4" | 1-3/4" | 2 |
| R2403-3 | 7/16" | 7/32" | 5/8" | 1/2" | 2-3/8" | 2 |
| R2404 | 1/2" | 1/4" | 5/16" | 1/4" | 1-1/2" | 2 |
| R2404-1 | 1/2" | 1/4" | 5/16" | 1/2" | 2" | 2 |
| R2405 | 5/8" | 5/16" | 3/8" | 1/4" | 1-1/2" | 2 |
| R2405-1 | 5/8" | 5/16" | 3/8" | 1/2" | 2" | 2 |
| R2406 | 3/4" | 3/8" | 1/2" | 1/4" | 1-1/2" | 2 |
| R2406-1 | 3/4" | 3/8" | 1/2" | 1/2" | 2" | 2 |
| R2406-2 | 7/8" | 7/16" | 5/8" | 1/4" | 1-3/4" | 2 |
| R2406-3 | 7/8" | 7/16" | 5/8" | 1/2" | 2" | 2 |
| R2406-4 | 1" | 1/2" | 5/8" | 1/4" | 1-3/4" | 2 |
| R2406-5 | 1" | 1/2" | 5/8" | 1/2" | 2-3/16" | 2 |
| R2406-6 | 1-1/4" | 5/8" | 3/4" | 1/2" | 2-3/16" | 2 |

# R2407 ROUND NOSE BITS
## DEEP PROFILE

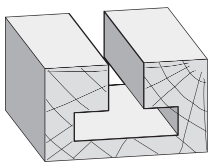
| PART NO. | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R2407 | 3/8" | 3/16" | 1" | 1/2" | 2-3/4" | 2 |
| R2408 | 1/2" | 1/4" | 1-1/4" | 1/2" | 2-3/4" | 2 |
| R2409 | 9/16" | 9/32" | 1-1/4" | 1/2" | 2-3/4" | 2 |
| R2410 | 5/8" | 5/16" | 1-1/4" | 1/2" | 2-3/4" | 2 |
| R2411 | 3/4" | 3/8" | 1-1/4" | 1/2" | 2-3/4" | 2 |
| R2412 | 7/8" | 7/16" | 1-1/4" | 1/2" | 2-3/4" | 2 |
| R2413 | 1" | 1/2" | 1-1/4" | 1/2" | 2-3/4" | 2 |
| R2414 | 1-1/4" | 5/8" | 1-1/4" | 1/2" | 2-3/4" | 2 |
| R2415 | 1-1/2" | 3/4" | 1-1/4" | 1/2" | 2-3/4" | 2 |
| R2416 | 2" | 1" | 1-1/4" | 1/2" | 2-3/4" | 2 |





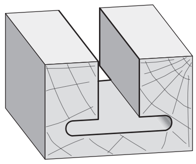
## FRB177 T-SLOT BITS
### TWO WINGS PLUS TWO SLOTTING WINGS

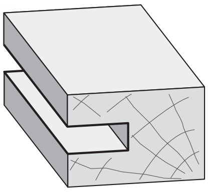
| PART NO. | LARGE DIAM. | SMALL DIAM. | GROOVE HEIGHT | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| **FRB177** | 1-3/32" | 3/8" | 5/16" | 13/16" | 1/2" | 2-5/8" | 2 |
| **FRB178** | 1-3/32" | 3/8" | 5/16" | 13/16" | 3/8" | 2-3/8" | 2 |
| **FRB179** | 1-3/8" | 1/2" | 3/8" | 7/8" | 1/2" | 2-9/16" | 2 |



## FRB174 RADIUS T-SLOT BITS
### TWO WINGS PLUS ONE SLOTTING WING

| PART NO. | LARGE DIAM. | SMALL DIAM. | GROOVE HEIGHT | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|---|
| **FRB174** | 1-1/8" | 7/16" | 5/32" | 5/64" | 13/16" | 3/8" | 2-1/16" | 2 |
| **FRB175** | 1-1/8" | 7/16" | 5/32" | 5/64" | 13/16" | 1/2" | 2-5/32" | 2 |
| **FRB176** | 1-39/64" | 3/8" | 5/32" | 5/64" | 13/16" | 3/8" | 2-1/16" | 2 |





## 2 WING CUTTERS

| PART NO. | CUTTING DIAM. | KERF | KERF MM | BORE DIAM. | NO. WINGS |
|---|---|---|---|---|---|
| R3900 | 1-7/8" | 1/16" | 1.6 | 5/16" | 2 |
| R3900-3 | 1-7/8" | .075" | 1.9 | 5/16" | 2 |
| R3901 | 1-7/8" | 5/64" | 1.98 | 5/16" | 2 |
| R3902 | 1-7/8" | 3/32" | 2.4 | 5/16" | 2 |
| R3902-1 | 1-7/8" | .110" | 2.8 | 5/16" | 2 |
| R3903 | 1-7/8" | 1/8" | 3.2 | 5/16" | 2 |
| R3903-1 | 1-7/8" | 5/32" | 4.0 | 5/16" | 2 |
| R3903-2 | 1-7/8" | 3/16" | 4.8 | 5/16" | 2 |
| R3904 | 1-7/8" | 1/4" | 6.35 | 5/16" | 2 |

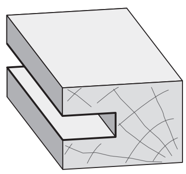
## 3 WING CUTTERS

| PART NO. | CUTTING DIAM. | KERF | KERF MM | BORE DIAM. | NO. WINGS |
|---|---|---|---|---|---|
| R4000A | 1-7/8" | .055" | 1.4 | 5/16" | 3 |
| R4000 | 1-7/8" | 1/16" | 1.6 | 5/16" | 3 |
| R4001 | 1-7/8" | .070" | 1.8 | 5/16" | 3 |
| R4001-1 | 1-7/8" | .075" | 1.9 | 5/16" | 3 |
| R4002 | 1-7/8" | 5/64" | 1.98 | 5/16" | 3 |
| R4002-1 | 1-7/8" | .085" | 2.16 | 5/16" | 3 |
| R4003 | 1-7/8" | 3/32" | 2.4 | 5/16" | 3 |
| R4003-1 | 1-7/8" | .110" | 2.8 | 5/16" | 3 |
| R4005 | 1-7/8" | 1/8" | 3.2 | 5/16" | 3 |
| R4005-A | 1-7/8" | .140" | 3.6 | 5/16" | 3 |
| R4005-1 | 1-7/8" | 5/32" | 4.0 | 5/16" | 3 |
| R4006 | 1-7/8" | 3/16" | 4.8 | 5/16" | 3 |
| R4007 | 1-7/8" | 1/4" | 6.35 | 5/16" | 3 |

## 4 WING CUTTERS

| PART NO. | CUTTING DIAM. | KERF | KERF MM | BORE DIAM. | NO. WINGS |
|---|---|---|---|---|---|
| R4100 | 1-7/8" | 1/16" | 1.6 | 5/16" | 4 |
| R4101 | 1-7/8" | .070" | 1.8 | 5/16" | 4 |
| R4102 | 1-7/8" | .080" | 2.0 | 5/16" | 4 |
| R4103 | 1-7/8" | 3/32" | 2.4 | 5/16" | 4 |
| R4104 | 1-7/8" | 1/8" | 3.2 | 5/16" | 4 |
| R4105 | 1-7/8" | 3/16" | 4.8 | 5/16" | 4 |
| R4106 | 1-7/8" | 1/4" | 6.35 | 5/16" | 4 |

# SLOTTING CUTTER ASSEMBLY
1-7/8" DIAMETER



## 2 WING ASSEMBLIES

| 1/4" SHANK PART NO. | 3/8" SHANK PART NO. | 1/2" SHANK PART NO. | CUTTING DIAM. | KERF (MM) | KERF (INCH) | BORE DIAM. | NO. WINGS |
|---|---|---|---|---|---|---|---|
| R4120-14 | R4120-13 | R4120-12 | 1-7/8" | 1/16" | 1.6 | 5/16" | 2 |
| R4121-14 | R4121-13 | R4121-12 | 1-7/8" | .065" | 1.65 | 5/16" | 2 |
| R4121-2-14 | R4121-2-13 | R4121-2-12 | 1-7/8" | .075" | 1.9 | 5/16" | 2 |
| R4122-14 | R4122-13 | R4122-12 | 1-7/8" | 5/64" | 1.98 | 5/16" | 2 |
| R4124-14 | R4124-13 | R4124-12 | 1-7/8" | 3/32" | 2.4 | 5/16" | 2 |
| R4125-14 | R4125-13 | R4125-12 | 1-7/8" | .110" | 2.8 | 5/16" | 2 |
| R4126-14 | R4126-13 | R4126-12 | 1-7/8" | 1/8" | 3.2 | 5/16" | 2 |
| R4128-14 | R4128-13 | R4128-12 | 1-7/8" | 5/32" | 4.0 | 5/16" | 2 |
| R4130-14 | R4130-13 | R4130-12 | 1-7/8" | 3/16" | 4.8 | 5/16" | 2 |
| R4132-14 | R4132-13 | R4132-12 | 1-7/8" | 1/4" | 6.35 | 5/16" | 2 |

## 3 WING ASSEMBLIES

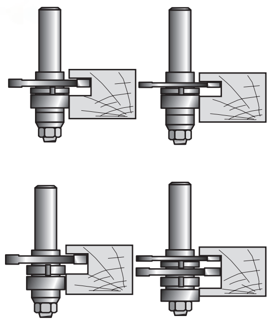
| 1/4" SHANK PART NO. | 3/8" SHANK PART NO. | 1/2" SHANK PART NO. | CUTTING DIAM. | KERF (MM) | KERF (INCH) | BORE DIAM. | NO. WINGS |
|---|---|---|---|---|---|---|---|
| R4140-14 | R4140-13 | R4140-12 | 1-7/8" | 1/16" | 1.6 | 5/16" | 3 |
| R4141-14 | R4141-13 | R4141-12 | 1-7/8" | .065" | 1.65 | 5/16" | 3 |
| R4141-1-14 | R4141-1-13 | R4141-1-12 | 1-7/8" | .070" | 1.8 | 5/16" | 3 |
| R4141-2-14 | R4141-2-13 | R4141-2-12 | 1-7/8" | .075" | 1.9 | 5/16" | 3 |
| R4142-14 | R4142-13 | R4142-12 | 1-7/8" | 5/64" | 1.98 | 5/16" | 3 |
| R4143-14 | R4143-13 | R4143-12 | 1-7/8" | .085" | 2.16 | 5/16" | 3 |
| R4144-14 | R4144-13 | R4144-12 | 1-7/8" | 3/32" | 2.4 | 5/16" | 3 |
| R4145-14 | R4145-13 | R4145-12 | 1-7/8" | .110" | 2.8 | 5/16" | 3 |
| R4146-14 | R4146-13 | R4146-12 | 1-7/8" | 1/8" | 3.2 | 5/16" | 3 |
| R4147-14 | R4147-13 | R4147-12 | 1-7/8" | .140" | 3.6 | 5/16" | 3 |
| R4148-14 | R4148-13 | R4148-12 | 1-7/8" | 5/32" | 4.0 | 5/16" | 3 |
| R4150-14 | R4150-13 | R4150-12 | 1-7/8" | 3/16" | 4.8 | 5/16" | 3 |
| R4152-14 | R4152-13 | R4152-12 | 1-7/8" | 1/4" | 6.35 | 5/16" | 3 |

## R4162 MULTI-PURPOSE SLOTTING CUTTER SET
COMPLETE ASSEMBLY

| PART NO. | CUTTING DIAM. | MIN. WOOD THICKNESS | MAX. WOOD THICKNESS | SHANK DIAM. | NO. OF TEETH |
|---|---|---|---|---|---|
| R4162 | 1-7/8" | 1/8" | 23/32" | 1/2" | 2 |

Multi-purpose cutter set with four cutters and bearing guide enables you to cut grooves and dados from 1/8" to 23/32" wide, in increments of 0.1mm (0.004")

Tongue and groove can also be achieved with proper set-up



### STANDARD SET CONTENTS:

**FOUR SINGLE CUTTERS MARKED:**

| | |
|---|---|
| A - width 1/8" (3.2mm) | R3903 |
| B - width 5/32" (4.0mm) | R3903-1 |
| C - width 3/16" (4.8mm) | R3903-2 |
| D - width 1/4" (6.35mm) | R3904 |
| Arbor with nut (1 piece) | AR11 |
| Ball bearing | B5 |

**SPACERS, WASHERS AND SHIMS:**

| | |
|---|---|
| Spacer 6.0mm (3 pieces) | WF618 |
| Spacer 1.0mm (5 pieces) | WF608 |
| Shim 0.5mm (4 pieces) | WF606 |
| Shim 0.1mm (10 pieces) | WF604 |

» All washers and shims are 5/8" diam. x 5/16" bore
» A full 3/4" cut can be achieved using one additional cutter 5/32" width (cutter B) R3903-1 (sold separately)

## R4164 "BOX JOINT" SLOTTING CUTTER SET
COMPLETE ASSEMBLY

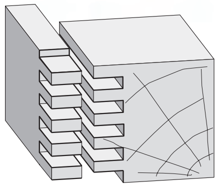
| PART NO. | CUTTING DIAM. | GROOVE WIDTH | SHANK DIAM. | NO. OF TEETH |
|---|---|---|---|---|
| R4164 | 1-7/8" | 5/32" | 1/2" | 3 |

New "Box Joint" cutter set is ideally suited for producing instrument cases, jewelry boxes, drawers, etc.,

Maximum material width 1-9/16"

Three ball bearing guides offer alternative cutting depths

Each set is supplied with an instruction sheet



### STANDARD SET CONTENTS

| | |
|---|---|
| Cutters (5 pieces) | R4005-1 |
| Arbor with nut (1 piece) | AR20 |
| Washer (1 piece) | WR59 |
| Spacer 5.5mm (4 pieces) | WF616 |
| Spacer 1.0mm (1 piece) | WF608 |
| Shim 0.5mm (1 piece) | WF606 |
| Super glide bearing 28mm (1 piece) | B28 |
| Super glide bearing 29mm (1 piece) | B32 |
| Super glide bearing 34mm (1 piece) | B34 |

## R4160 FINGER JOINT ROUTER CUTTER SET
COMPLETE ASSEMBLY

| PART NO. | CUTTING DIAM. | MAX. WOOD THICKNESS | SHANK DIAM. | NO. OF TEETH |
|---|---|---|---|---|
| **R4160** | 1-9/16" | 1-3/8" | 1/2" | 2 |

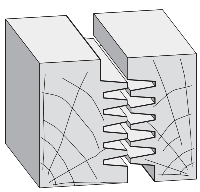
Cutter assembly allows you to cut from one-finger to five-fingers in one pass and above five-fingers in multiple passes

Both cuts are performed with same router setting. Simply turn over the counter-cut for a perfect fit (see diagram)

Cutters feature style "4 Miters" allowing for a safer cut

### STANDARD SET CONTENTS:

| | |
|---|---|
| Arbor with nut (1 piece) | AR20 |
| Ball bearing (1 piece) | B6-3 |
| Finger joint cutter (5 pieces) | R4160-1 |
| Straight cutter (1 piece) | R4160-2 |
| Spacer 3.4mm (6 pieces) | WF612 |
| Washer 1.0mm (2 pieces) | WF608 |
| Shim 0.5mm (1 piece) | WF606 |
| Shim 0.1mm (10 pieces) | WF604 |



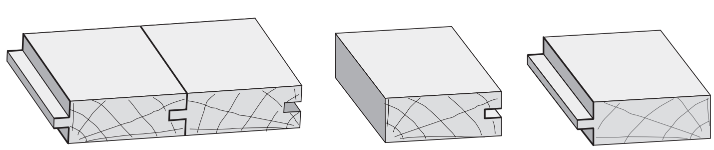
## FRB31-7 TONGUE AND GROOVE CUTTER SET
COMPLETE ASSEMBLY

| PART NO. | CUTTING DIAM. | GROOVE WIDTH | GROOVE DEPTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **FRB31-7** | 1-7/8" | 5/64" | 1/8" | 1/2" | 3" | 3 |

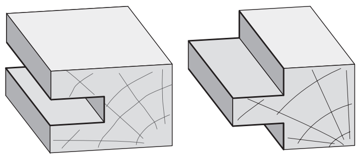
Maximum wood thickness 3/8"

### STANDARD SET CONSISTS OF:

| | |
|---|---|
| Arbor and nut (1 piece) | AR11 |
| Groover 5/64" (1 piece) | R4005-1 |
| Rabbeting Cutter 5.32" (2 pieces) | R4002 |
| Super Glide Bearing 40.8mm | B36 |
| Super Glide Bearing 43mm | B38 |
| Spacer 6.0mm (1 piece) | WF618 |
| Spacer 3.15mm (1 piece) | WF611 |
| Spacer 1.0mm (2 pieces) | WF608 |
| Shim 0.1mm (1 piece) | WF604 |
| Shim 0.05mm (1 piece) | WF600 |



# ANGULAR TONGUE AND GROOVE CUTTER SET
COMPLETE ASSEMBLY



| PART NO. | LARGE DIAM. | MAX. WOOD THICKNESS | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB31-6 | 1-5/8" | 3/4" | 1/2" | 3" | 2 |

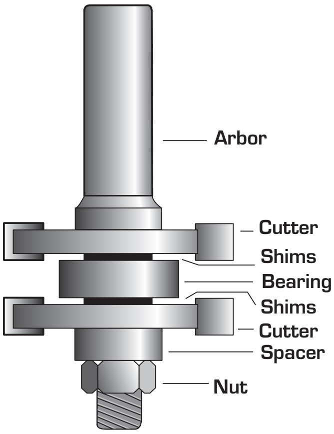
## STANDARD SET CONSISTS OF:

| | |
|---|---|
| Arbor and nut | AR11 |
| Ball Bearing | B5 |
| Spacers 6.0mm (2 pieces) | WF618 |
| Washer 1.0mm (1 piece) | WF608 |
| Shims 0.5mm (2 pieces) | WF606 |
| Shims 0.1mm (4 pieces) | WF604 |
| Cutters 1-5/8" diam. | |
| 1/4" kerf x 2 teeth (2 pieces) | FRB28G |

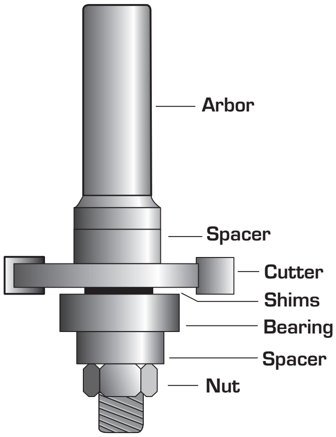
## ANGULAR TONGUE AND GROOVE CUTTER SET

This Tongue and Groove Cutter enables perfect results in stock up to 18mm (apx. 3/4"). The groove is of 1/4" (6.35mm) in width and of 3/8" (9.5mm) in depth.
When changing over from assembly (A) to assembly (B), according to the drawings below, the centre of the groove is automatically adjusted and there is no need to raise or lower the router. With the aid of the supplied shims, there is always the possibility to achieve the required tightness of the joint, even after resharpening groovers.

Typical Assembly (tongue)




Typical Assembly (groove)



# FRB170 TONGUE AND GROOVE CUTTER SET
"V" PANEL PROFILE

| PART NO. | LARGE DIAM. | DEG. BEVEL | GROOVE WIDTH | GROOVE DEPTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| **FRB170** | 1-13/16" | 45° | 5/32" | 1/4" | 1/2" | 3" | 2 |

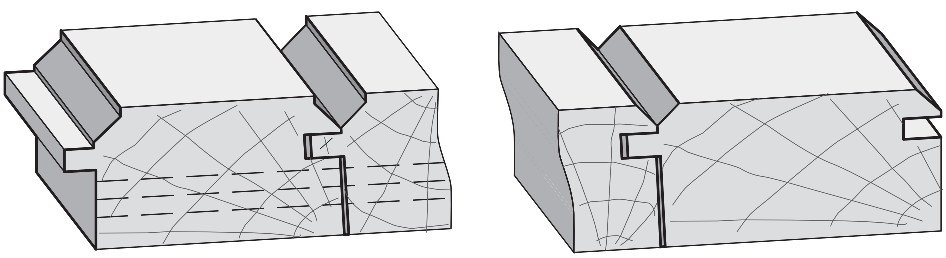
Minimum wood thickness 1/2"

Maximum wood thickness 1"

## STANDARD SET CONTENTS:

| | |
|---|---|
| Arbor with nut (1 piece) | AR21 |
| Ball bearing (1 piece) | B5 |
| Ball bearing (1 piece) | B6-6 |
| Profile cutter (1 piece) | FRB170PC |
| Rabeting cutter (1 piece) | FRB170RC |
| Grooving cutter (1 piece) | FRB170GC |
| Spacer 3.0mm (3 pieces) | WF610 |
| Spacer 1.0mm (3 pieces) | WF608 |
| Shim 0.5mm (1 piece) | WF606 |
| Shim 0.4mm (1 piece) | WF605 |
| Shim 0.1mm (3 pieces) | WF604 |
| Shim 0.05mm (1 piece) | WF600 |

**SCALE 1:1**



# TONGUE AND GROOVE SET

## RADIUS PANEL PROFILE

| PART NO. | LARGE DIAM. | RADIUS | GROOVE WIDTH | GROOVE DEPTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| **FRB171** | 1-13/16" | 15/64" | 5/32" | 1/4" | 1/2" | 3" | 2 |

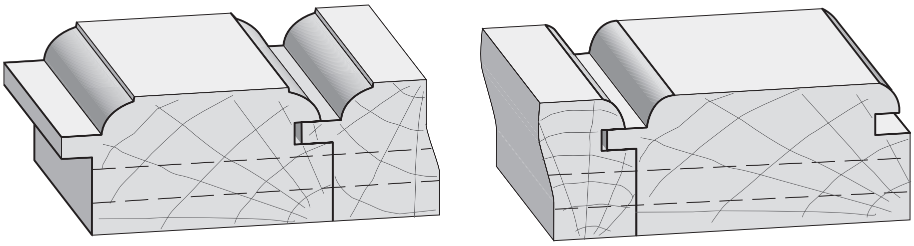
Minimum wood thickness 1/2"

Maximum wood thickness 1"

### STANDARD SET CONTENTS:

| | |
|---|---|
| Arbor with nut (1 piece) | AR21 |
| Ball bearing (1 piece) | B5 |
| Ball bearing (1 piece) | B6-6 |
| Profile cutter (1 piece) | FRB171PC |
| Rabeting cutter (1 piece) | FRB170RC |
| Grooving cutter (1 piece) | FRB171GC |
| Spacer 3.0mm (3 pieces) | WF610 |
| Spacer 1.0mm (3 pieces) | WF608 |
| Shim 0.5mm (1 piece) | WF606 |
| Shim 0.4mm (1 piece) | WF605 |
| Shim 0.1mm (3 pieces) | WF604 |
| Shim 0.05mm (1 piece) | WF600 |

**SCALE 1:1**



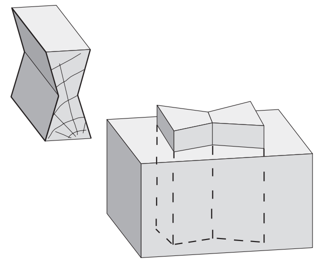
## R4165 SPLINE GLUE JOINT BITS
TWO FLUTES

R4165

R2609-1

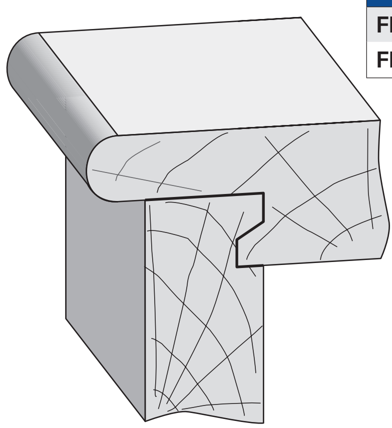
| PART NO. | CUTTING DIAM. | CUTTING LENGTH | DEGREE EA. SIDE | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **R4165** • | 1-7/64" | 1-13/16" | 14° | 1/2" | 3-5/16" | 2 |
| **R2609-1** | 7/8" | 7/8" | 14° | 1/2" | 2-5/8" | 2 |

- Above bit can be used with other Dovetail bits R2602, R2606, R2608-1, R2610 (page F40)



## FRB72-1 DRAWER LOCK BITS
TWO FLUTES

SCALE 1:1

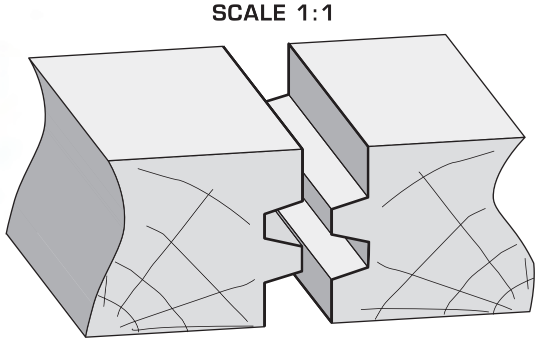


| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| **FRB72-1** | 3/4" | 1/2" | 1/4" | 1-7/8" | 2 |
| **FRB72-3** | 1" | 1/2" | 1/2" | 1-7/8" | 2 |

## FRB72 GLUE JOINT BITS
TWO FLUTES

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| **FRB72** | 1-29/64" | 1-1/8" | 1/2" | 2-5/8" | 2 |

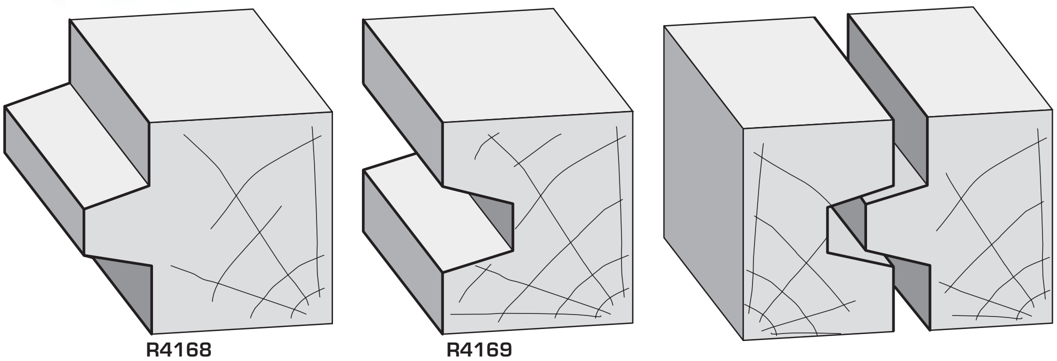
SCALE 1:1



## R4167 BEVEL GLUE JOINT BITS
TWO FLUTES

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | DEGREE EA. SIDE | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **R4167** | Complete Set (2 Bits) | | | | | |
| **R4168** | 1-1/4" | 1-1/4" | 15° | 1/2" | 2-3/4" | 2 |
| **R4169** | 1-1/4" | 1-1/4" | 15° | 1/2" | 2-3/4" | 2 |

**SCALE 1:1**

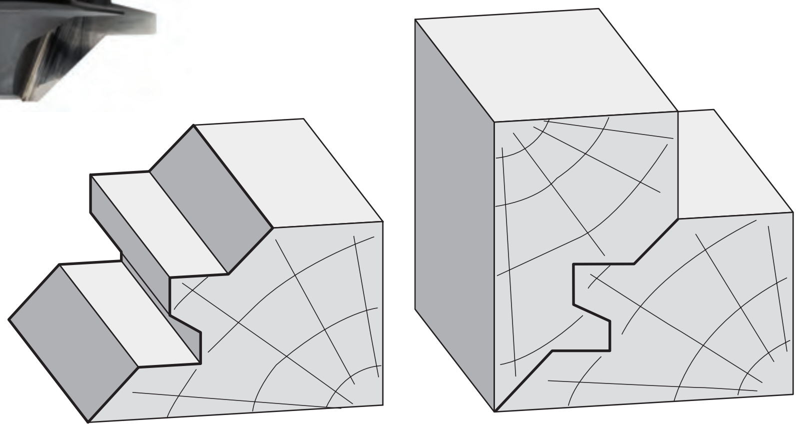



## FRB73 LOCK MITER BITS
90° CORNER

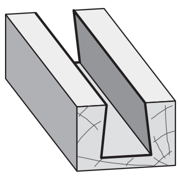
| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| **FRB73-2** | 1-3/4" | 3/4" | 1/2" | 2-1/4" | 2 |
| **FRB73** | 2-23/32" | 1-3/16" | 1/2" | 2-11/16" | 2 |

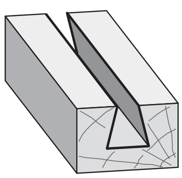
Max. RPM: 18,000

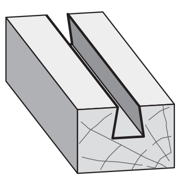
**SCALE 1:1**



# R2600 DOVETAIL BITS
## WITHOUT GUIDE







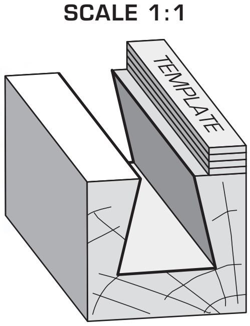
| PART NO. | DEGREE EA. SIDE | LARGE DIAM. | DEPTH OF CUT | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R2600 | 9° | 5/16" | 3/8" | 1/4" | 2-1/2" | 2 |
| R2600-1 | 25° | 13/64" | 5/32" | 1/4" | 2-3/8" | 2 |
| R2600-2 | 7.5° | 1/4" | 5/16" | 1/4" | 2-1/2" | 2 |
| R2601 | 9° | 3/8" | 3/8" | 1/4" | 1-5/8" | 2 |
| R2602 | 14° | 1/2" | 1/2" | 1/4" | 1-3/4" | 2 |
| R2602-1 | 14° | 17/32" | 1/2" | 1/4" | 1-3/4" | 2 |
| R2603 | 9° | 3/8" | 3/8" | 3/8" | 2" | 2 |
| R2604 | 7° | 1/2" | 1/2" | 3/8" | 2" | 2 |
| R2604-1 | 9° | 5/16" | 3/8" | 1/2" | 2-1/2" | 2 |
| R2605 | 9° | 3/8" | 3/8" | 1/2" | 1-5/8" | 2 |
| R2606 | 14° | 1/2" | 1/2" | 1/2" | 2-3/16" | 2 |
| R2607 | 7° | 5/8" | 7/8" | 1/2" | 2-1/16" | 2 |
| R2608 | 7° | 3/4" | 7/8" | 1/2" | 2-1/2" | 2 |
| R2608-1 | 14° | 3/4" | 3/4" | 1/2" | 2-1/2" | 2 |
| R2609 | 7° | 7/8" | 7/8" | 1/2" | 2-3/8" | 2 |
| R2609-1 | 14° | 7/8" | 7/8" | 1/2" | 2-5/8" | 2 |
| R2610 | 14° | 1" | 1" | 1/2" | 2-5/8" | 2 |
| R2610-1 | 7° | 1-1/8" | 3/4" | 1/2" | 2-3/8" | 2 |
| R2611 | 14° | 1-1/4" | 1" | 1/2" | 2-5/16" | 2 |

### LEFT-HAND DOVETAIL BITS

| PART NO. | DEGREE EA. SIDE | LARGE DIAM. | DEPTH OF CUT | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R2600L | 9° | 5/16" | 3/8" | 1/4" | 2-1/2" | 2 |
| R2605L | 9° | 3/8" | 3/8" | 1/2" | 1-5/8" | 2 |
| R2606L | 14° | 1/2" | 1/2" | 1/2" | 2-1/4" | 2 |
| R2607L | 7° | 5/8" | 7/8" | 1/2" | 2-1/16" | 2 |
| R2608L | 7° | 3/4" | 7/8" | 1/2" | 2-1/2" | 2 |
| R2609L | 7° | 7/8" | 7/8" | 1/2" | 2-5/8" | 2 |
| R2609-1L | 14° | 7/8" | 7/8" | 1/2" | 2-5/8" | 2 |
| R2610L | 14° | 1" | 1" | 1/2" | 2-5/8" | 2 |

# R2620 DOVETAIL BIT
## WITH BEARING GUIDE

SCALE 1:1




| PART NO. | DEGREE EA. SIDE | CUTTING DIAM. | CUTTING DEPTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R2620 | 14° | 1/2" | 1/2" | 1/4" | 2-1/4" | 2 |

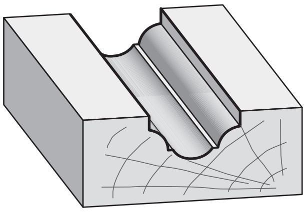
### REPLACEMENT PARTS

| BALL BEARING | LOCK RING | SCREW |
|---|---|---|
| B3-1 | W01 | WNC525 |

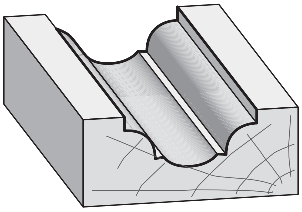
## FRB10 BEAD PROFILE WITH ROUND NOSE BOTTOM
PLUNGE TYPE

| PART NO. | LARGE DIAM. | CARBIDE HEIGHT | SHANK DIAM. | NO. FLUTES |
|---|---|---|---|---|
| FRB10 | 1/2" | 3/8" | 1/4" | 2 |
| FRB11 | 3/4" | 1/2" | 1/4" | 2 |
| FRB12 | 3/4" | 1/2" | 1/2" | 2 |
| FRB13 | 1" | 5/8" | 1/2" | 2 |

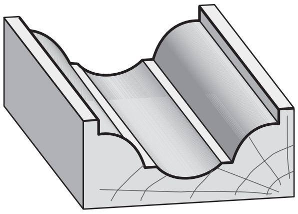
SCALE 1:1



FRB10



FRB11
FRB12

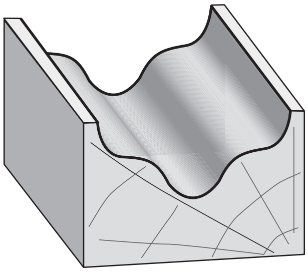


FRB13

## FRB23-1 OGEE PROFILE WITH ROUND NOSE BOTTOM
PLUNGE TYPE

| PART NO. | LARGE DIAM. | RADIUS | CARBIDE HEIGHT | SHANK DIAM. | NO. FLUTES |
|---|---|---|---|---|---|
| FRB23-1 | 1-1/16" | 15/64" | 7/16" | 1/4" | 2 |
| FRB23-2 | 1-1/16" | 15/64" | 7/16" | 1/2" | 2 |

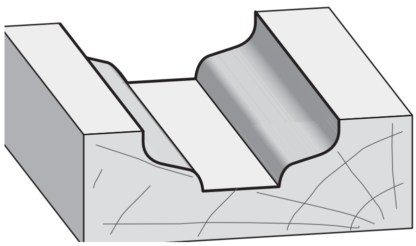
SCALE 1:1



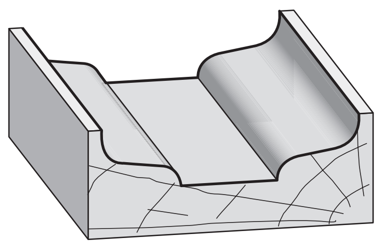
# FRB66-1 ELLIPSE OGEE PROFILE WITH FLAT BOTTOM
PLUNGE TYPE

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | RADIUS | SHANK DIAM. | OVERALL LENGTH |
|---|---|---|---|---|---|
| **FRB66-1** | 1" | 3/8" | 1/8" | 1/4" | 2" |
| **FRB66-2** | 1-3/8" | 3/8" | 1/8" | 1/2" | 2-1/4" |

**SCALE 1:1**



FRB66-1

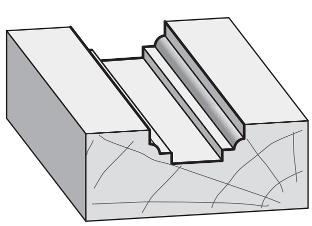


FRB66-2

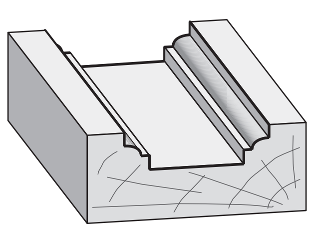
# FRB02 BEAD PROFILE WITH FLAT BOTTOM
PLUNGE TYPE

| PART NO. | LARGE DIAM. | RADIUS | CARBIDE HEIGHT | SHANK DIAM. | NO. FLUTES |
|---|---|---|---|---|---|
| **FRB02** | 1/2" | 3/64" | 3/8" | 1/4" | 2 |
| **FRB03** | 3/4" | 1/16" | 7/16" | 1/4" | 2 |
| **FRB04** | 3/4" | 1/16" | 7/16" | 1/2" | 2 |

**SCALE 1:1**



FRB02

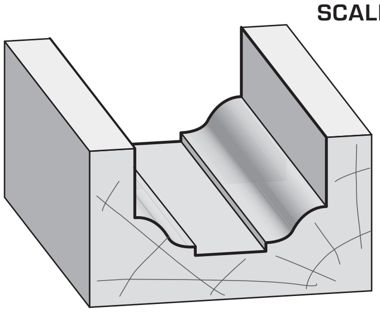


FRB03
FRB04

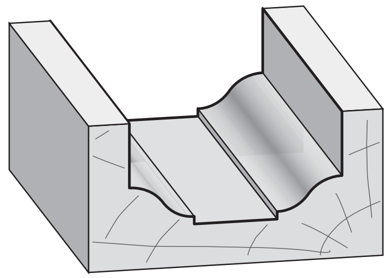
# FRB01-5 OGEE PROFILE WITH FLAT BOTTOM
PLUNGE TYPE

| PART NO. | LARGE DIAM. | SMALL DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **FRB01-5** | 1" | 3/8" | 19/32" | 1/2" | 2-3/32" | 2 |
| **FRB01-6** | 1-3/16" | 15/32" | 19/32" | 1/2" | 2-3/32" | 2 |

**SCALE 1:1**



FRB01-5

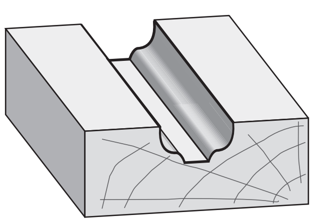


FRB01-6

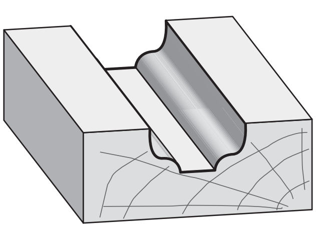
# FRB06 TALL OGEE PROFILE WITH FLAT BOTTOM
PLUNGE TYPE

| PART NO. | LARGE DIAM. | RADIUS | CARBIDE HEIGHT | SHANK DIAM. | NO. FLUTES |
|---|---|---|---|---|---|
| **FRB06** | 3/8" | 1/16" | 5/16" | 1/4" | 2 |
| **FRB07** | 1/2" | 5/64" | 3/8" | 1/4" | 2 |
| **FRB08** | 3/4" | 1/8" | 7/16" | 1/4" | 2 |
| **FRB09** | 3/4" | 1/8" | 7/16" | 1/2" | 2 |

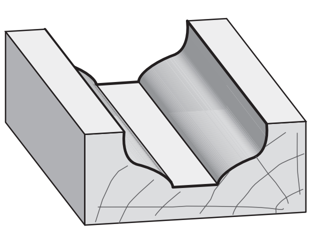
**SCALE 1:1**



FRB06



FRB07

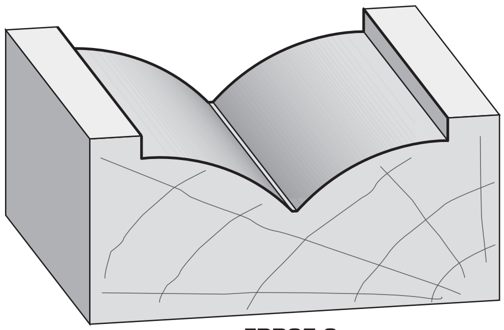


FRB08
FRB09

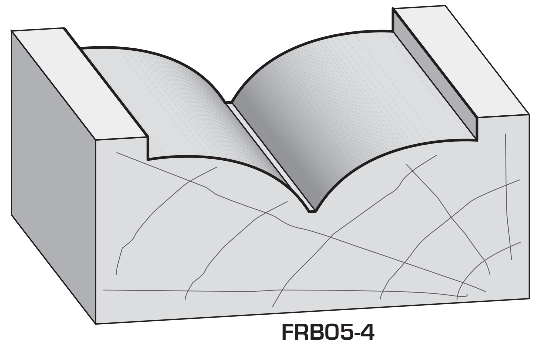
# FRB05-3 ROUNDING OVER PROFILE
PLUNGE TYPE

| PART NO. | LARGE DIAM. | RADIUS | CARBIDE HEIGHT | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **FRB05-3** | 1-3/4" | 23/32" | 23/32" | 1/2" | 2-7/32" | 2 |
| **FRB05-4** | 1-5/8" | 1" | 23/32" | 1/2" | 2-7/32" | 2 |

**SCALE 1:1**



FRB05-3

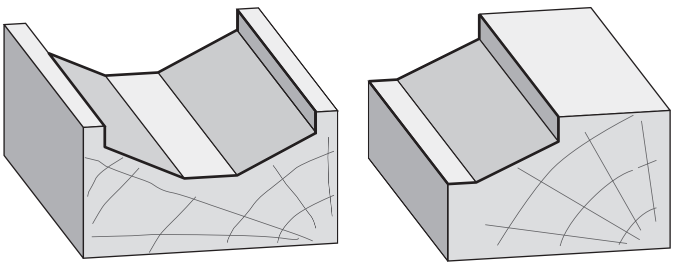


FRB05-4

## FRB05 PROVINCIAL PROFILE
### PLUNGE TYPE WITH RAISED PANEL

| PART NO. | LARGE DIAM. | CARBIDE HEIGHT | SHANK DIAM. | DEGREE BEVEL | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **FRB05** | 1-1/8" | 1/2" | 1/2" | 30° | 2-3/4" | 2 |

**SCALE 1:1**

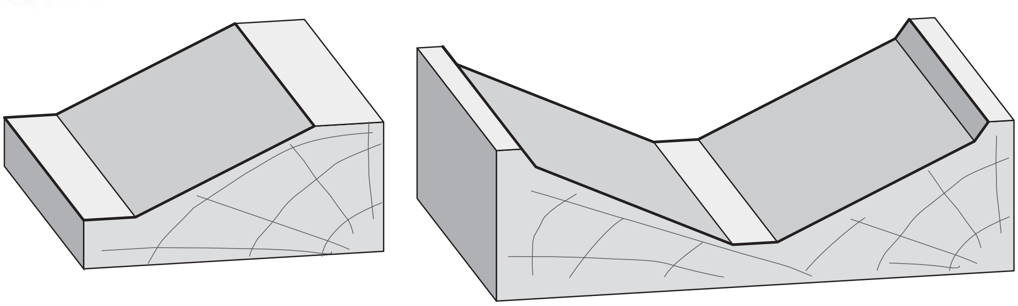


## FRB25-4 PROVINCIAL PROFILE
### PLUNGE TYPE WITH RAISED PANEL

| PART NO. | CUTTING DIAM. | CARBIDE HEIGHT | SHANK DIAM. | DEGREE BEVEL | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **FRB25-4** • | 2-3/4" | 3/4" | 1/2" | 25° | 2-1/4" | 2 |

• Max. RPM: 18,000

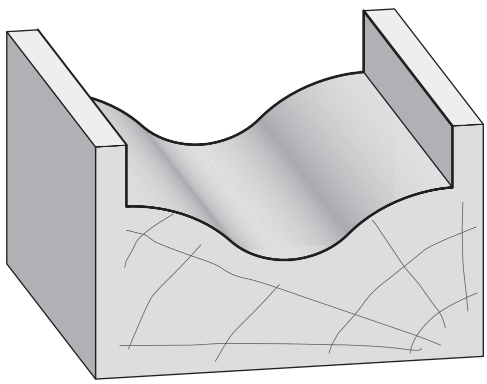
**SCALE 1:1**



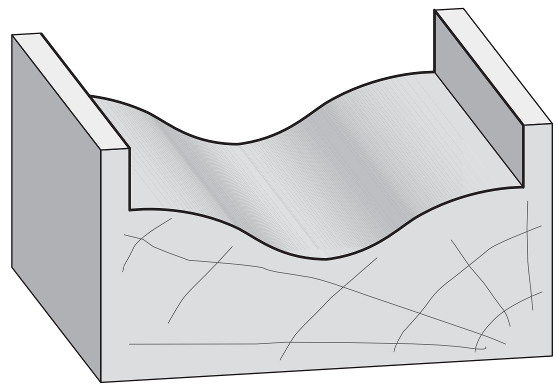
# FRB01-7 THUMBNAIL PROFILE
PLUNGE TYPE

| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB01-7 | 1-5/8" | 23/32" | 1/2" | 2-13/64" | 2 |
| FRB01-8 | 1-31/32" | 23/32" | 1/2" | 2-13/64" | 2 |

SCALE 1:1



FRB01-7

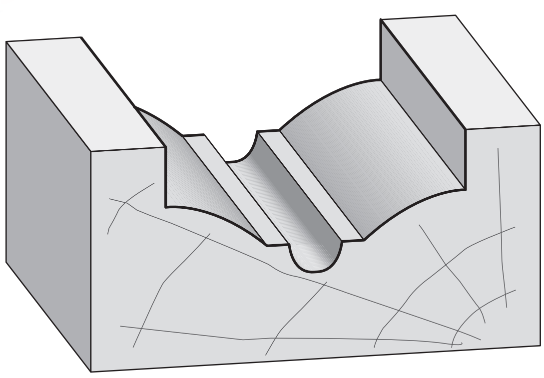


FRB01-8

# FRB05-1 THUMBNAIL PROFILE WITH ROUND NOSE BOTTOM
PROFILE TYPE

| PART NO. | LARGE DIAM. | CARBIDE HEIGHT | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB05-1 | 1-9/16" | 25/32" | 1/2" | 2-9/32" | 2 |

SCALE 1:1



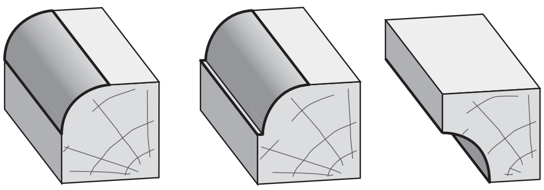
# MATCHING QUARTER ROUND AND COVE PROFILES
## WITH UPPER AND LOWER BALL BEARING GUIDES

### APPLICATION:

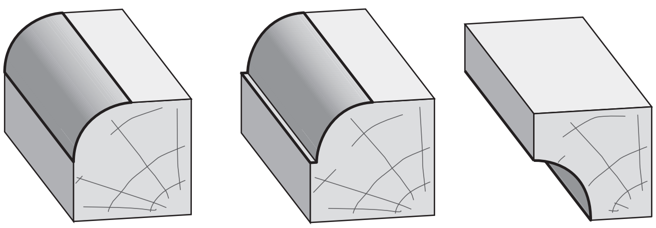
» This unique router bit with two flutes and double ball bearing guides performs two machining cuts; rounding over and cove
» To achieve beading cuts, use additional Ball Bearing part No.B3-1B

| PART NO. | LARGE DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **FRB200** | 1-1/8" | 1/4" | 35/64" | 1/4" | 2-19/32" | 2 |
| **FRB201** | 1-1/4" | 5/16" | 43/64" | 1/4" | 2-23/32" | 2 |
| **FRB202** | 1-3/8" | 3/8" | 51/64" | 1/4" | 2-27/32" | 2 |

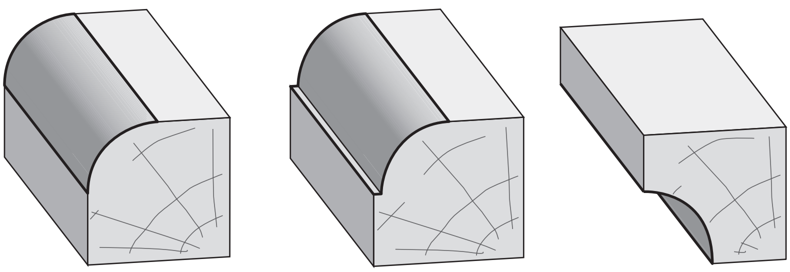
**SCALE 1:1**



FRB200



FRB201



FRB202

## REPLACEMENT PARTS

| BALL BEARING | EXTERNAL CIRCLIP | SCREW | WASHER |
|---|---|---|---|
| B3-4A | WC01 | WNF1012 | WFS500 |

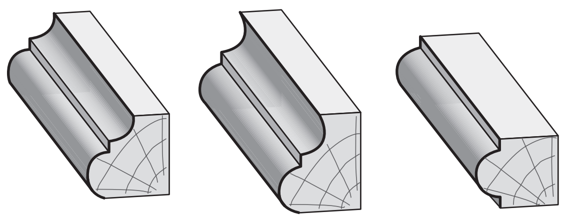
# FRB160 MATCHING COVE AND BEAD PROFILES
WITH BALL BEARING GUIDE

| PART NO. | TOOL TYPE | LARGE DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| FRB160 | A | 1" | 1/8" | 5/8" | 1/4" | 2-1/4" | 2 |
| FRB161 | A | 1" | 1/8" | 5/8" | 1/2" | 2-5/8" | 2 |
| FRB162 | A | 1-1/4" | 3/16" | 1" | 1/4" | 2-5/8" | 2 |
| FRB163 | A | 1-1/4" | 3/16" | 1" | 1/2" | 2-7/8" | 2 |
| FRB164 | B | 2" | 1/4" | 1-1/4" | 1/2" | 3-1/8" | 2 |

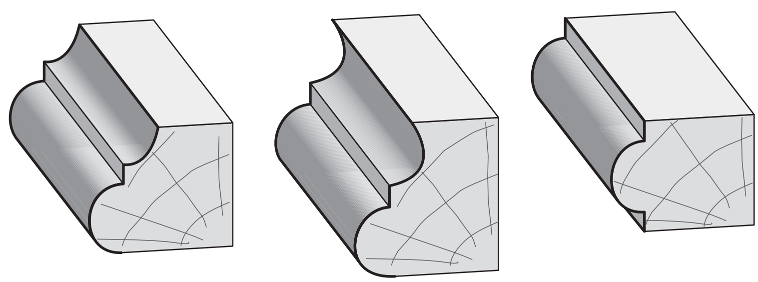
## REPLACEMENT PARTS

| TOOL TYPE | BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|---|
| A | B3 | WR58 | WFS506 | WNC538 |
| B | B3-4 | WR59 | WFS506 | WNC538 |

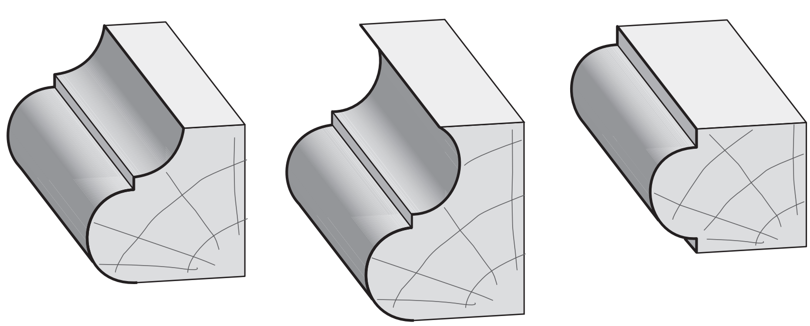
SCALE 1:1



FRB160
FRB161



FRB162
FRB163

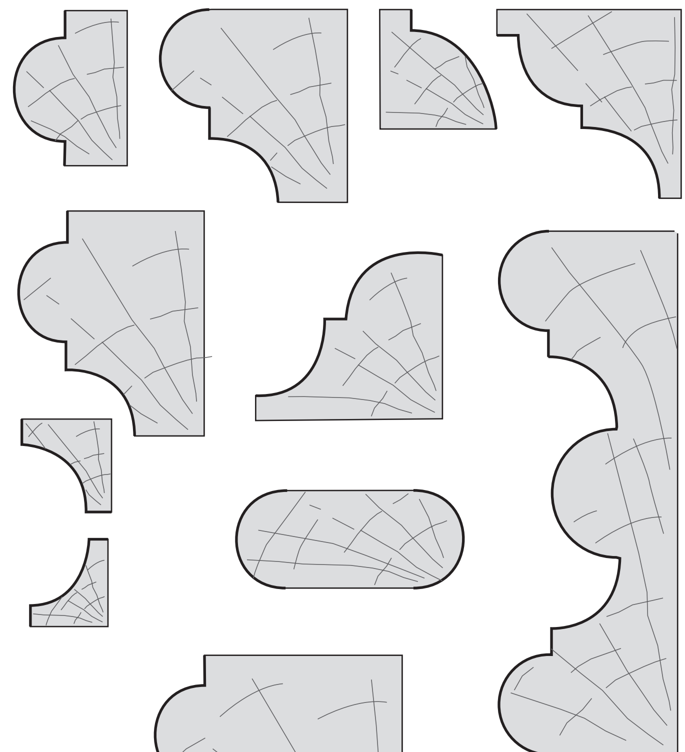


FRB164

# FRB195 MULTI-PROFILE BIT
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| **FRB195** | 2-1/8" | 1-7/8" | 1/2" | 3-3/4" | 2 |

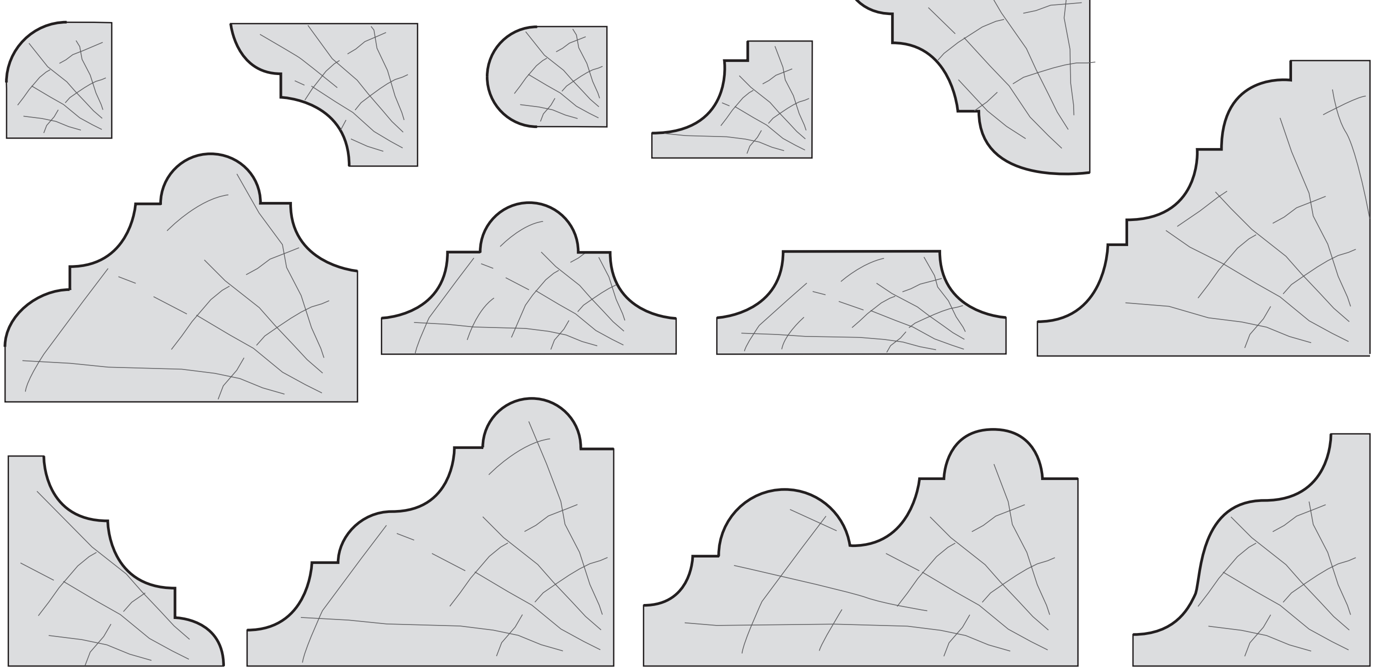
Max. RPM: 18,000



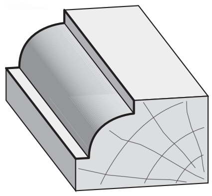
## REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

**SCALE 1:1**



# R3100 BEAD PROFILE
WITH BALL BEARING GUIDE



| PART NO. | LARGE DIAM. | RADIUS | CARBIDE HEIGHT | SHANK DIAM. | NO. FLUTES |
|---|---|---|---|---|---|
| **R3100-1** | 5/8" | 1/16" | 5/16" | 1/4" | 2 |
| **R3100-2** | 3/4" | 1/8" | 3/8" | 1/4" | 2 |
| **R3100-3** | 3/4" | 5/32" | 3/8" | 1/4" | 2 |
| **R3100** | 7/8" | 3/16" | 1/2" | 1/4" | 2 |
| **R3101** | 1" | 1/4" | 1/2" | 1/4" | 2 |
| **R3102** | 1-1/8" | 5/16" | 1/2" | 1/4" | 2 |
| **R3103** | 1-1/4" | 3/8" | 5/8" | 1/4" | 2 |
| **R3104** | 1-1/2" | 1/2" | 3/4" | 1/4" | 2 |
| **R3105-1** | 5/8" | 1/16" | 5/16" | 1/2" | 2 |
| **R3105-2** | 3/4" | 1/8" | 3/8" | 1/2" | 2 |
| **R3105-3** | 3/4" | 5/32" | 3/8" | 1/2" | 2 |
| **R3105** | 7/8" | 3/16" | 1/2" | 1/2" | 2 |
| **R3106** | 1" | 1/4" | 1/2" | 1/2" | 2 |
| **R3107** | 1-1/8" | 5/16" | 1/2" | 1/2" | 2 |
| **R3108** | 1-1/4" | 3/8" | 5/8" | 1/2" | 2 |
| **R3109** | 1-1/2" | 1/2" | 3/4" | 1/2" | 2 |
| **R3109-1** | 1-3/4" | 5/8" | 7/8" | 1/2" | 2 |
| **R3110** | 2" | 3/4" | 1" | 1/2" | 2 |
| **R3111** | 2-1/4" | 7/8" | 1-1/4" | 1/2" | 2 |
| **R3112** | 2-1/2" | 1" | 1-1/4" | 1/2" | 2 |
| **R3112-1 ▲** | 2-3/4" | 1-1/8" | 1-3/8" | 1/2" | 2 |
| **R3113 ▲** | 3" | 1-1/4" | 1-1/2" | 1/2" | 2 |
| **R3113-1 •** | 3-1/4" | 1-3/8" | 1-9/16" | 1/2" | 2 |
| **R3114 •** | 3-1/2" | 1-1/2" | 1-3/4" | 1/2" | 2 |

• Max RPM: 16,000

▲ Max RPM: 18,000

## REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B2 | WFS500 | WFS506 | WNC538 |

## FRB45 DOUBLE ROUND OVER/BEAD PROFILE
WITH BALL BEARING GUIDE

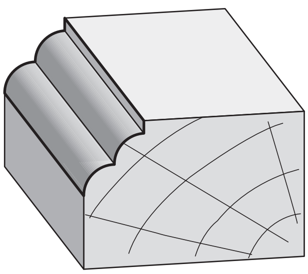
| PART NO. | LARGE DIAM. | RADIUS | CARBIDE HEIGHT | SHANK DIAM. | NO. FLUTES |
|---|---|---|---|---|---|
| FRB45 | 1-1/8" | 5/32" | 1/2" | 1/4" | 2 |
| FRB46 | 1-1/8" | 5/32" | 1/2" | 1/2" | 2 |
| FRB47 | 1-3/8" | 1/4" | 11/16" | 1/4" | 2 |
| FRB48 | 1-3/8" | 1/4" | 11/16" | 1/2" | 2 |

### REPLACEMENT PARTS

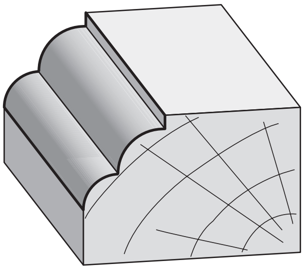
| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

**ADDITIONAL PROFILES:** Bottom Fillet added to profile using 3/8" Ball Bearing (Part No. B2) and Washer (WFS500)

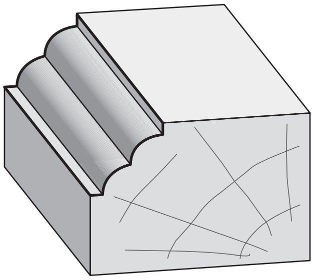
**SCALE 1:1**

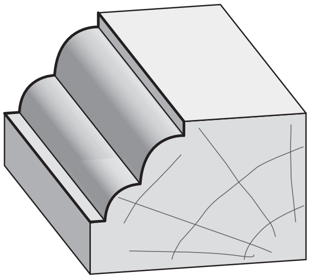


FRB45
FRB46



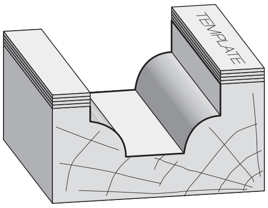
FRB47
FRB48





## R3030 BEAD PROFILE
PLUNGE TYPE WITH UPPER BALL BEARING

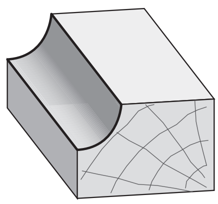
| PART NO. | LARGE DIAM. | RADIUS | SMALL DIAM. | CARBIDE HEIGHT | SHANK DIAM. | NO. FLUTES |
|---|---|---|---|---|---|---|
| R3030 | 1/2" | 1/8" | 1/4" | 3/8" | 1/4" | 2 |
| R3032 | 3/4" | 1/8" | 1/2" | 3/8" | 1/4" | 2 |
| R3034 | 7/8" | 5/16" | 1/2" | 1/2" | 1/4" | 2 |
| R3036 | 1-1/8" | 5/16" | 1/2" | 9/16" | 1/2" | 2 |




### REPLACEMENT PARTS

| TOOL NO. | BALL BEARING | LOCK RING | SCREW |
|---|---|---|---|
| R3030 | B3-1 | W01 | WNC525 |
| R3032 | B4 | W01 | WNC525 |
| R3034 | B5 | W01 | WNC525 |
| R3036 | B6-4 | W03 | WNC518 |

## R2800 COVE PROFILE WITHOUT FILLET
### WITH BALL BEARING GUIDE



| PART NO. | TOOL TYPE | LARGE DIAM. | RADIUS | CARBIDE HEIGHT | SHANK DIAM. | NO. FLUTES |
|---|---|---|---|---|---|---|
| R2800-1 | A | 1/2" | 1/16" | 1/2" | 1/4" | 2 |
| R2800-2 | A | 1/2" | 1/16" | 1/2" | 1/2" | 2 |
| R2800-3 | A | 5/8" | 1/8" | 1/2" | 1/4" | 2 |
| R2800-4 | A | 5/8" | 1/8" | 1/2" | 1/2" | 2 |
| R2800-A | A | 3/4" | 3/16" | 9/16" | 1/4" | 2 |
| R2803-A | A | 3/4" | 3/16" | 9/16" | 1/2" | 2 |
| R2800 | A | 7/8" | 1/4" | 9/16" | 1/4" | 2 |
| R2803 | A | 7/8" | 1/4" | 9/16" | 1/2" | 2 |
| R2803-1 | A | 1" | 5/16" | 9/16" | 1/4" | 2 |
| R2803-2 | A | 1" | 5/16" | 9/16" | 1/2" | 2 |
| R2801 | A | 1-1/8" | 3/8" | 9/16" | 1/4" | 2 |
| R2804 | A | 1-1/8" | 3/8" | 9/16" | 1/2" | 2 |
| R2802 | A | 1-3/8" | 1/2" | 3/4" | 1/4" | 2 |
| R2805 | A | 1-3/8" | 1/2" | 3/4" | 1/2" | 2 |
| R2806 | A | 1-5/8" | 5/8" | 3/4" | 1/2" | 2 |
| R2807 | B | 1-7/8" | 3/4" | 1" | 1/2" | 2 |
| R2808 | B | 2-3/8" | 7/8" | 1-1/4" | 1/2" | 2 |
| R2809 | B | 2-3/8" | 1" | 1-1/4" | 1/2" | 2 |
| R2810 • | B | 3" | 1-1/4" | 1-1/2" | 1/2" | 2 |

• Max. RPM: 18,000

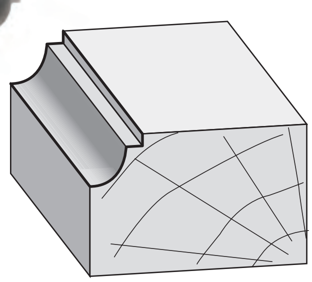
### REPLACEMENT PARTS

| TOOL TYPE | BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|---|
| **A** | B1 | WR12 | WFS504 | WNC338 |
| **B** | B3 | WR58 | WFS506 | WNC538 |

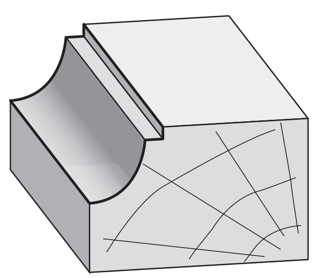
## FRB53 COVE PROFILE
### WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | RADIUS | CARBIDE HEIGHT | SHANK DIAM. | NO. FLUTES |
|---|---|---|---|---|---|
| FRB53 | 1-1/8" | 3/16" | 1/2" | 1/4" | 2 |
| FRB54 | 1-1/8" | 3/16" | 1/2" | 1/2" | 2 |
| FRB55 | 1-3/8" | 5/16" | 5/8" | 1/4" | 2 |
| FRB56 | 1-3/8" | 5/16" | 5/8" | 1/2" | 2 |

SCALE 1:1



FRB53
FRB54



FRB55
FRB56

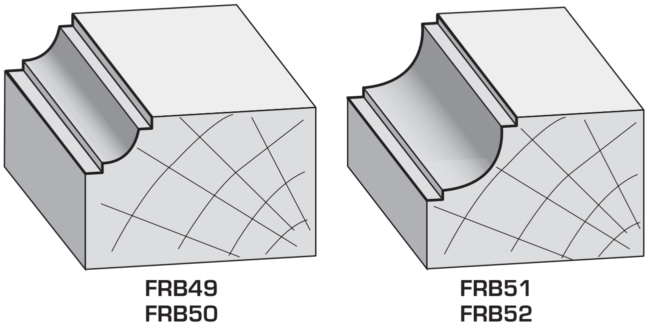
### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

# FRB49 COVE PROFILE WITH TOP AND BOTTOM FILLET
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | RADIUS | CARBIDE HEIGHT | SHANK DIAM. | NO. FLUTES |
|---|---|---|---|---|---|
| **FRB49** | 1-1/8" | 3/16" | 1/2" | 1/4" | 2 |
| **FRB50** | 1-1/8" | 3/16" | 1/2" | 1/2" | 2 |
| **FRB51** | 1-3/8" | 5/16" | 5/8" | 1/4" | 2 |
| **FRB52** | 1-3/8" | 5/16" | 5/8" | 1/2" | 2 |

SCALE 1:1



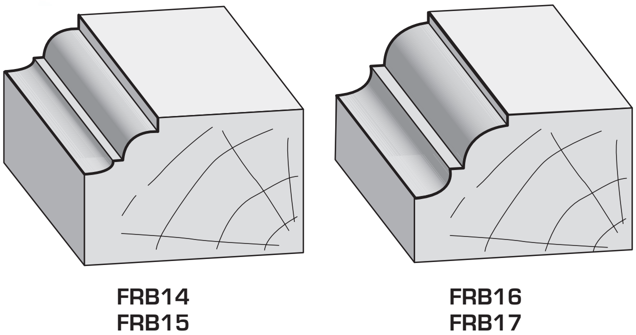

## REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

# FRB14 BEAD AND COVE PROFILE
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | RADIUS R1 | RADIUS R2 | CARBIDE HEIGHT | SHANK DIAM. | NO. FLUTES |
|---|---|---|---|---|---|---|
| **FRB14** | 1-1/4" | 3/16" | 1/16" | 1/2" | 1/4" | 2 |
| **FRB15** | 1-1/4" | 3/16" | 1/16" | 1/2" | 1/2" | 2 |
| **FRB16** | 1-1/2" | 15/64" | 9/64" | 5/8" | 1/4" | 2 |
| **FRB17** | 1-1/2" | 15/64" | 9/64" | 5/8" | 1/2" | 2 |

SCALE 1:1




## REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

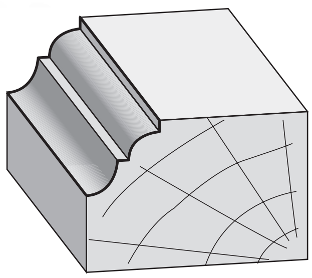
## FRB37 BEAD AND COVE PROFILE
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | RADIUS | CARBIDE HEIGHT | SHANK DIAM. | NO. FLUTES |
|---|---|---|---|---|---|
| FRB37 | 1" | 5/32" | 5/8" | 1/4" | 2 |
| FRB38 | 1" | 5/32" | 5/8" | 1/2" | 2 |
| FRB39 | 1-3/8" | 1/4" | 3/4" | 1/4" | 2 |
| FRB40 | 1-3/8" | 1/4" | 3/4" | 1/2" | 2 |

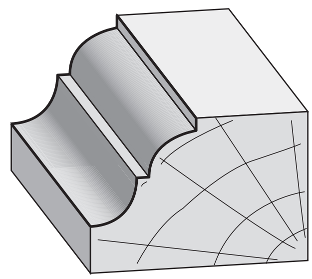
### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B1 | WR12 | WFS504 | WNC538 |

SCALE 1:1



FRB37
FRB38



FRB39
FRB40

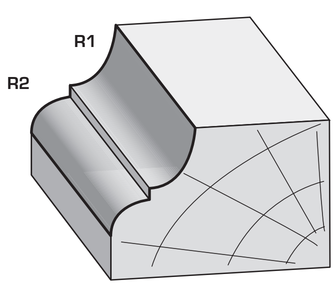
## FRB33 COVE AND BEAD PROFILE WITHOUT FILLET
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | RADIUS R1 | RADIUS R2 | CARBIDE HEIGHT | SHANK DIAM. | NO. FLUTES |
|---|---|---|---|---|---|---|
| FRB33 | 1-1/8" | 5/32" | 5/32" | 1/2" | 1/4" | 2 |
| FRB34 | 1-1/8" | 5/32" | 5/32" | 1/2" | 1/2" | 2 |
| FRB35 | 1-3/8" | 1/4" | 3/16" | 11/16" | 1/4" | 2 |
| FRB36 | 1-3/8" | 1/4" | 3/16" | 11/16" | 1/2" | 2 |

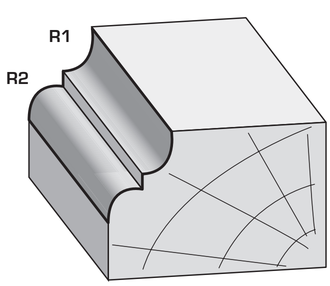
### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

SCALE 1:1

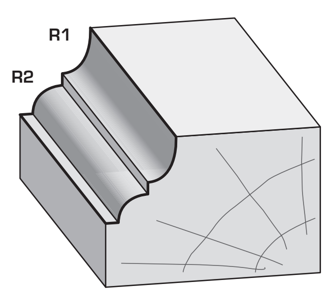



FRB33
FRB34

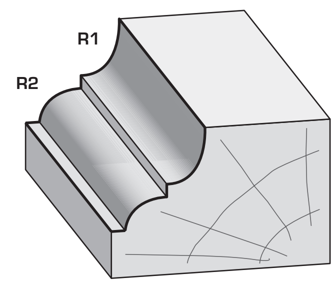



FRB35
FRB36

**ADDITIONAL PROFILES:** Bottom Fillet added to profile using 3/8" Ball Bearing (Part No. B2) and Washer (WFS500)



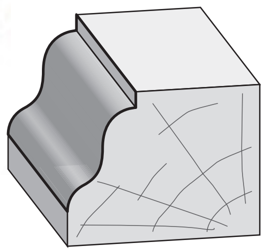

FRB33
FRB34




FRB35
FRB36

## FRB40-1 WAVY EDGE BIT
WITH BALL BEARING GUIDE

SCALE 1:1



| PART NO. | LARGE DIAM. | RADIUS | CARBIDE HEIGHT | SHANK DIAM. | NO. FLUTES |
|---|---|---|---|---|---|
| FRB40-1 | 1-1/4" | 5/32" | 11/16" | 1/4" | 2 |
| FRB40-2 | 1-1/4" | 5/32" | 11/16" | 1/2" | 2 |

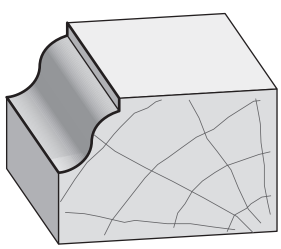
### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS504 | WNC538 |

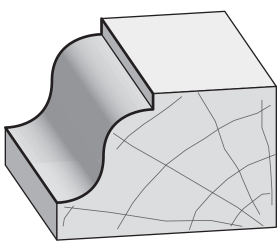
## R3200 ROMAN OGEE PROFILE
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | RADIUS | CARBIDE HEIGHT | SHANK DIAM. | NO. FLUTES |
|---|---|---|---|---|---|
| R3200 | 1" | 5/32" | 5/8" | 1/4" | 2 |
| R3201 | 1-3/8" | 1/4" | 3/4" | 1/4" | 2 |
| R3202 | 1" | 5/32" | 5/8" | 1/2" | 2 |
| R3203 | 1-3/8" | 1/4" | 3/4" | 1/2" | 2 |

SCALE 1:1



R3200
R3202



R3201
R3203

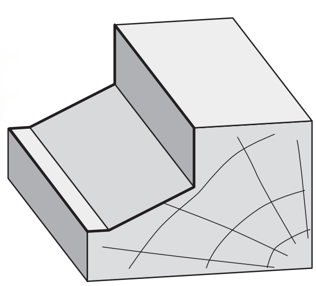
### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B1 | WR12 | WFS504 | WNC538 |

## FRB25 PROVINCIAL PROFILE
WITH BALL BEARING GUIDE

| PART NO. | CUTTING DIAM. | CARBIDE HEIGHT | SHANK DIAM. | OVERALL LENGTH | DEGREE BEVEL | NO. FLUTES |
|---|---|---|---|---|---|---|
| FRB25 | 1-5/8" | 1/2" | 1/2" | 2-1/2" | 25° | 2 |

SCALE 1:1



### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

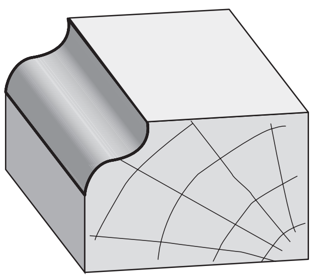
## FRB41 OGEE PROFILE WITHOUT FILLET
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | RADIUS | CARBIDE HEIGHT | SHANK DIAM. | NO. FLUTES |
|---|---|---|---|---|---|
| FRB41 | 1-1/8" | 5/32" | 1/2" | 1/4" | 2 |
| FRB42 | 1-1/8" | 5/32" | 1/2" | 1/2" | 2 |
| FRB43 | 1-3/8" | 1/4" | 11/16" | 1/4" | 2 |
| FRB44 | 1-3/8" | 1/4" | 11/16" | 1/2" | 2 |

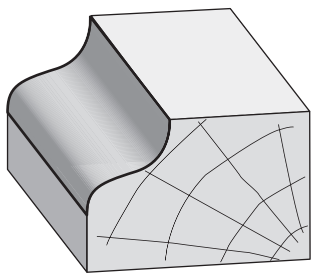
### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

SCALE 1:1

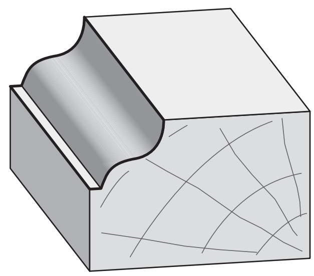


FRB41
FRB42

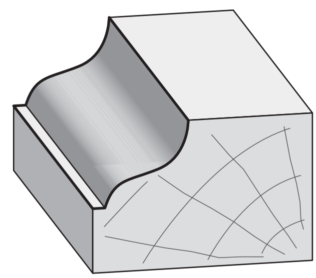


FRB43
FRB44

**ADDITIONAL PROFILES:** Bottom Fillet added to profile using 3/8" Ball Bearing (Part No. B2) and Washer (WFS500)



FRB41
FRB42



FRB43
FRB44

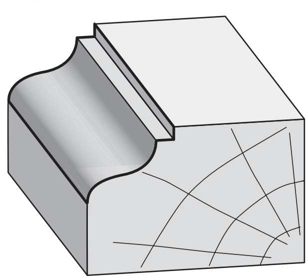
## FRB18 ELLIPSE OGEE PROFILE
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | RADIUS | CARBIDE HEIGHT | SHANK DIAM. | NO. FLUTES |
|---|---|---|---|---|---|
| FRB18 | 1-3/8" | 5/32" | 9/16" | 1/4" | 2 |
| FRB19 | 1-3/8" | 5/32" | 9/16" | 1/2" | 2 |
| FRB20 | 1-5/8" | 1/4" | 3/4" | 1/2" | 2 |

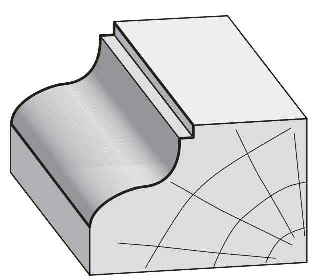
### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

SCALE 1:1



FRB18
FRB19

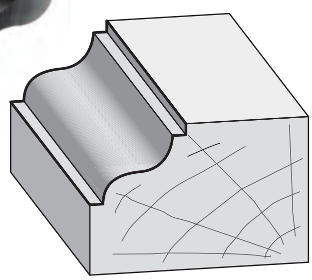


FRB20

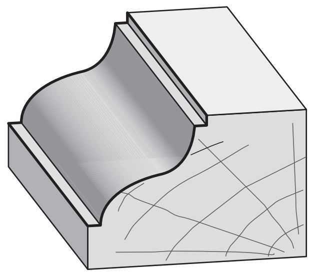
## FRB21 OGEE PROFILE WITH TOP AND BOTTOM FILLET
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | RADIUS | CARBIDE HEIGHT | SHANK DIAM. | NO. FLUTES |
|---|---|---|---|---|---|
| **FRB21** | 1-3/8" | 5/32" | 9/16" | 1/4" | 2 |
| **FRB22** | 1-3/8" | 5/32" | 9/16" | 1/2" | 2 |
| **FRB23** | 1-5/8" | 1/4" | 3/4" | 1/2" | 2 |

SCALE 1:1



FRB21
FRB22



FRB23

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B2 | WFS500 | WFS506 | WNC538 |

## FRB67 THUMBNAIL PROFILE
WITH BALL BEARING GUIDE

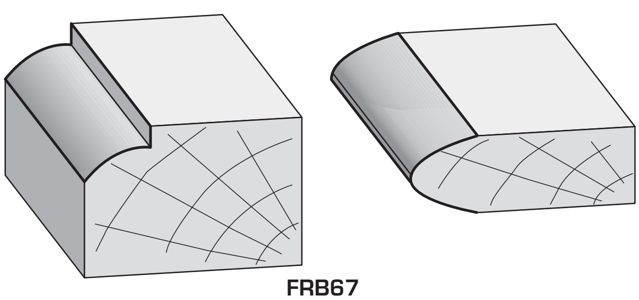
| PART NO. | CUTTING DIAM. | RADIUS | CUTTING HEIGHT | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **FRB67** | 1-3/16" | 15/32" | 3/8" | 1/4" | 2-1/16" | 2 |
| **FRB68** | 1-3/16" | 15/32" | 3/8" | 1/2" | 2-1/16" | 2 |
| **FRB69** • | 2-3/4" | 1-7/8" | 11/16" | 1/2" | 2-1/2" | 2 |

• Max. RPM: 18,000

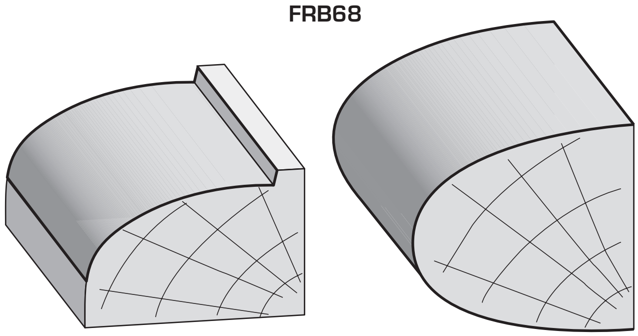
### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

SCALE 1:1

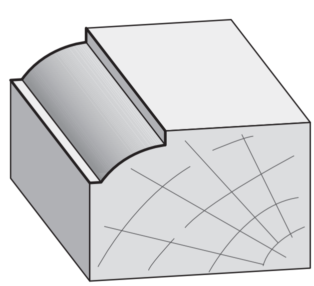


FRB67
FRB68

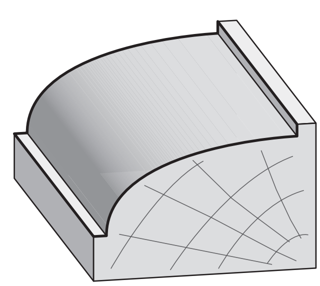


FRB69

**ADDITIONAL PROFILES:** Bottom Fillet added to profile using 3/8" Ball Bearing (Part No. B2) and Washer (WFS500)



FRB67
FRB68



FRB69

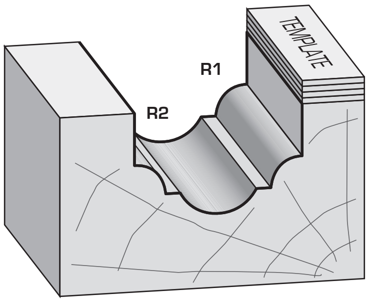
# FRB63 BEAD PROFILE WITH ROUND NOSE BOTTOM
WITH UPPER BALL BEARING GUIDE

| PART NO. | CUTTING DIAM. | RADIUS R1 | RADIUS R2 | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| FRB63 | 7/8" | 5/32" | 7/32" | 1/2" | 1/4" | 2" | 2 |
| FRB64 | 1-3/8" | 1/4" | 13/32" | 9/16" | 1/2" | 2-5/8" | 2 |

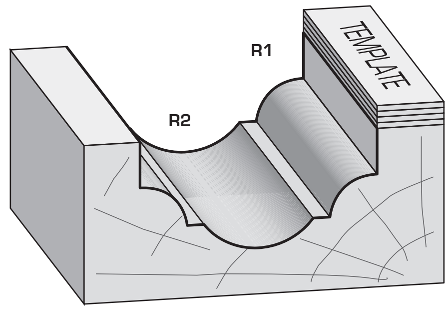
## REPLACEMENT PARTS

| TOOL NO. | BALL BEARING | EXTERNAL CIRCLIP |
|---|---|---|
| FRB63 | B5 | WC01 |
| FRB64 | B7 | WC02 |

SCALE 1:1




FRB63




FRB64

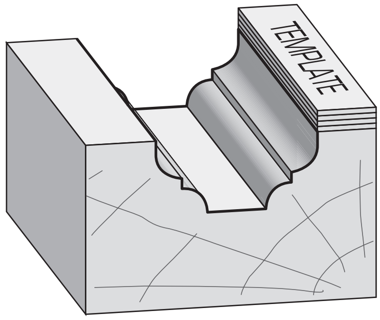
# FRB65 COVE AND BEAD PROFILE WITH FLAT BOTTOM
PLUNGE TYPE WITH UPPER BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | SMALL DIAM. | RADIUS R | CARBIDE HEIGHT | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| FRB65 | 7/8" | 0.319" | 9/64" | 3/8" | 1/4" | 2" | 2 |
| FRB66 | 1-3/8" | 0.522" | 13/64" | 9/16" | 1/2" | 2-5/8" | 2 |

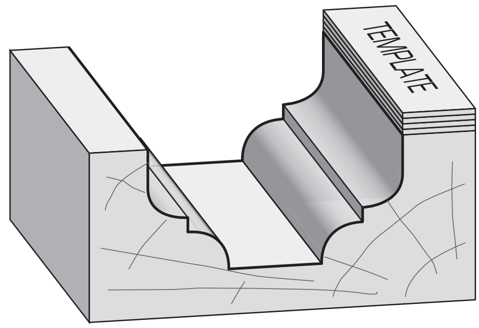
## REPLACEMENT PARTS

| TOOL NO. | BALL BEARING | EXTERNAL CIRCLIP |
|---|---|---|
| FRB65 | B5 | WC01 |
| FRB66 | B7 | WC02 |

SCALE 1:1

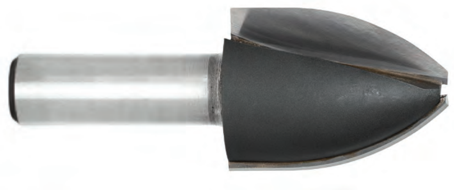



FRB65



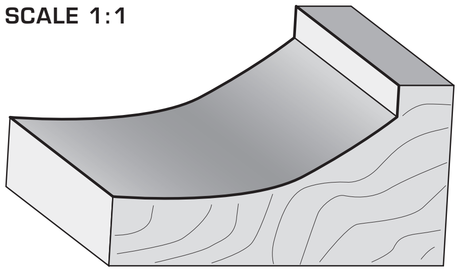

FRB66

## FRB25-7 COVE PROFILE FOR RAISED PANELS
FOR VERTICAL OR 5-AXIS USE



| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB25-7 | 1-1/8" | 1-1/2" | 1/2" | 2-7/8" | 2 |

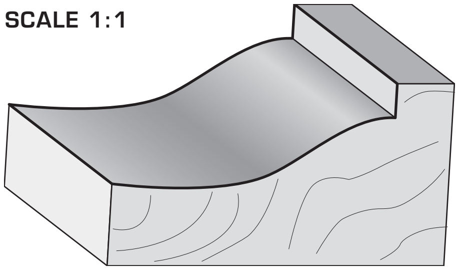
SCALE 1:1



## FRB25-8 OGEE PROFILE FOR RAISED PANELS
FOR VERTICAL OR 5-AXIS USE

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB25-8 | 1-3/16" | 1-1/2" | 1/2" | 2-7/8" | 2 |

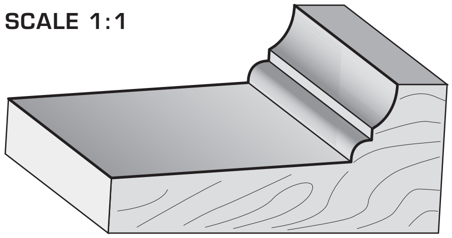
SCALE 1:1



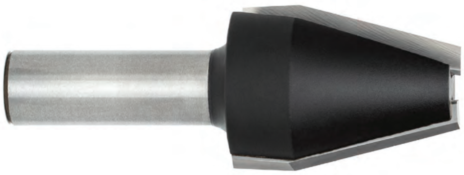
## FRB25-5 PROVINCIAL PROFILE FOR RAISED PANELS
FOR VERTICAL OR 5-AXIS USE

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB25-5 | 1" | 1-1/2" | 1/2" | 2-7/8" | 2 |

SCALE 1:1

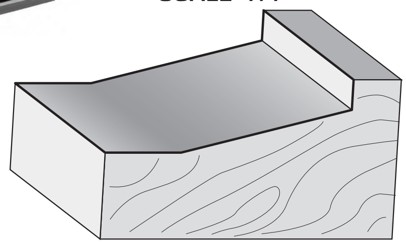


## FRB25-6 PROVINCIAL PROFILE FOR RAISED PANELS
FOR VERTICAL OR 5-AXIS USE



| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB25-6 | 1-1/8" | 1-1/2" | 1/2" | 2-7/8" | 2 |

SCALE 1:1

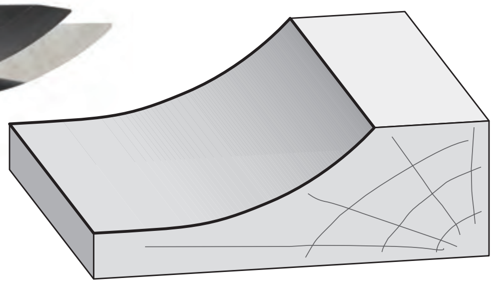


## FRB25-2 COVE PROFILE FOR RAISED PANELS
WITH BALL BEARING GUIDE

| PART NO. | CUTTING DIAM. | CARBIDE HEIGHT | SHANK DIAM. | OVERALL LENGTH | RADIUS | NO. FLUTES |
|---|---|---|---|---|---|---|
| FRB25-2 | 3-3/8" | 1/2" | 1/2" | 2-3/8" | 1-9/16" | 2 |

Max. RPM: 16,000

SCALE 1:1

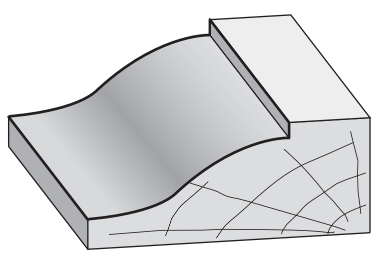


### REPLACEMENT PARTS

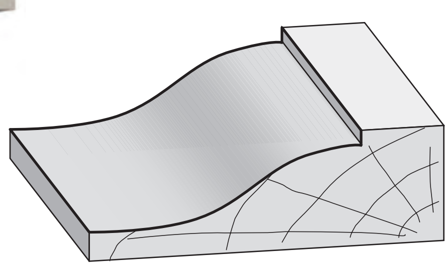
| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

## FRB24 OGEE PROFILE FOR RAISED PANELS
WITH BALL BEARING GUIDE

SCALE 1:1



FRB24



FRB24-1

| PART NO. | CUTTING DIAM. | CARBIDE HEIGHT | SHANK DIAM. | NO. FLUTES |
|---|---|---|---|---|
| FRB24 | 2-5/8 | 11/16" | 1/2" | 2 |
| FRB24-1 | 3-3/8" | 5/8" | 1/2" | 2 |

Max. RPM: 16,000

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

# FRB25-3 PROVINCIAL PROFILE FOR RAISED PANELS
WITH BALL BEARING GUIDE

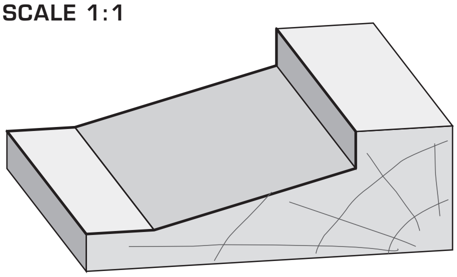
| PART NO. | CUTTING DIAM. | CARBIDE HEIGHT | SHANK DIAM. | OVERALL LENGTH | DEGREE BEVEL | NO. FLUTES |
|---|---|---|---|---|---|---|
| **FRB25-3** | 3-3/8" | 1/2" | 1/2" | 2-3/8" | 15° | 2 |

Max. RPM: 16,000

## REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

**SCALE 1:1**



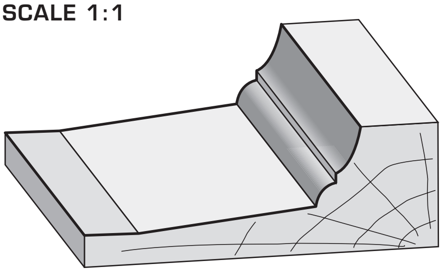
# FRB25-1 COVE AND BEAD PROFILE FOR RAISED PANELS
WITH BALL BEARING GUIDE

| PART NO. | CUTTING DIAM. | CARBIDE HEIGHT | SHANK DIAM. | OVERALL LENGTH | RADIUS | NO. FLUTES |
|---|---|---|---|---|---|---|
| **FRB25-1** | 2-1/2" | 1/2" | 1/2" | 2-3/8" | 1/4" | 2 |

## REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

**SCALE 1:1**



# COVE PROFILE FOR RAISED PANELS
WITH BACK CUTTER

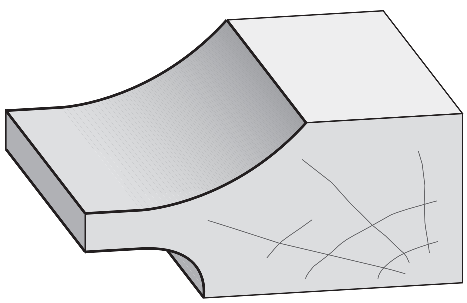
| PART NO. | LARGE DIAM. | MAX. WOOD THICKNESS | SHANK DIAM. | OVERALL LENGTH |
|---|---|---|---|---|
| **FRB23-7** | 3-3/8" | 1-1/16" | 1/2" | 2-15/16" |

Max. RPM 12,000

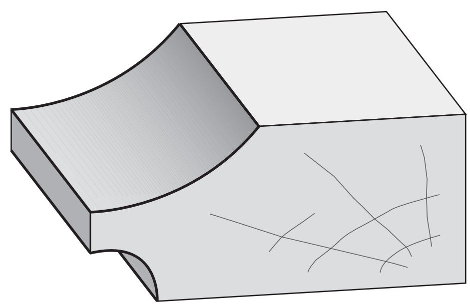
## STANDARD SET CONSISTS OF:

| | |
|---|---|
| Raised Panel Bit | FRB23-7RP |
| Back Cutter | FRB23-5BC |
| Ball Bearing 16 x 8 x 5mm | B3-4A |
| Ball Bearing 1-1/4" x 8 x 5mm | B6-5A |
| Washer 12 x 8 x 1.0mm | WF510 |
| Shim 12 x 8 x 0.1mm (2 pieces) | WF501 |
| Shim 12 x 8 x 0.2mm (2 pieces) | WF502 |
| Lock Washer | WFS510 |
| Nut NF5/16 | WNF516 |

**SCALE 1:1**



**Use Ball Bearing**
**B3-4A**



**Use Ball Bearing**
**B6-5A**

# FRB23-5 OGEE PROFILE FOR RAISED PANELS
## WITH BACK CUTTER

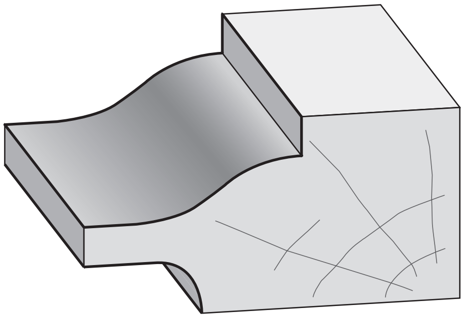
| PART NO. | LARGE DIAM. | MAX. WOOD THICKNESS | SHANK DIAM. | OVERALL LENGTH |
|---|---|---|---|---|
| **FRB23-5** | 3-3/8" | 1-3/16" | 1/2" | 3-1/16" |

Max. RPM: 12,000

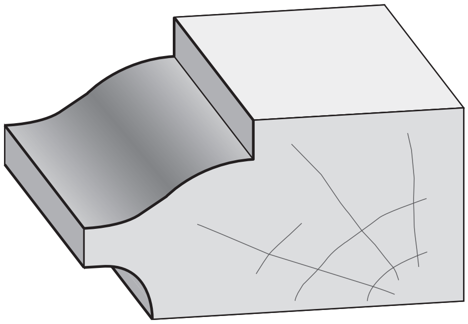
### STANDARD SET CONSISTS OF:

| | |
|---|---|
| Raised Panel Bit | FRB23-5RP |
| Back Cutter | FRB23-5BC |
| Ball Bearing 16 x 8 x 5mm | B3-4A |
| Ball Bearing 1-1/4" x 8 x 5mm | B6-5A |
| Washer 12 x 8 x 1.0mm | WF510 |
| Shim 12 x 8 x 0.1mm (2 pieces) | WF501 |
| Shim 12 x 8 x 0.2mm (2 pieces) | WF502 |
| Lock Washer | WFS510 |
| Nut NF5/16 | WNF516 |

**SCALE 1:1**



**Use Ball Bearing B3-4A**



**Use Ball Bearing B6-5A**

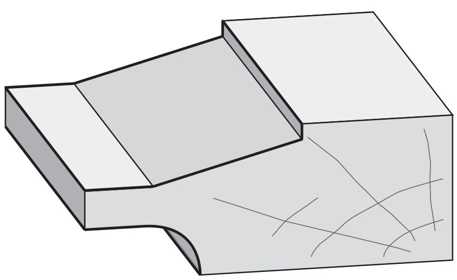
| PART NO. | LARGE DIAM. | MAX. WOOD THICKNESS | SHANK DIAM. | OVERALL LENGTH |
|---|---|---|---|---|
| **FRB23-6** | 3-3/8" | 1-1/16" | 1/2" | 2-15/16" |

Max. RPM: 12,000

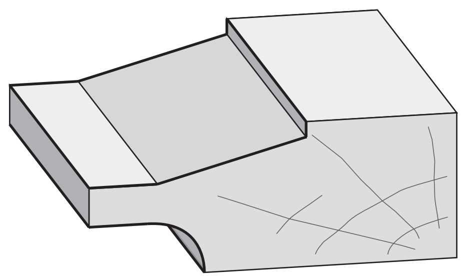
## STANDARD SET CONSISTS OF:

| | |
|---|---|
| Raised Panel Bit | FRB23-6RP |
| Back Cutter | FRB23-5BC |
| Ball Bearing 16 x 8 x 5mm | B3-4A |
| Ball Bearing 1-1/4" x 8 x 5mm | B6-5A |
| Washer 12 x 8 x 1.0mm | WF510 |
| Shim 12 x 8 x 0.1mm (2 pieces) | WF501 |
| Shim 12 x 8 x 0.2mm (2 pieces) | WF502 |
| Lock Washer | WFS510 |
| Nut NF5/16 | WNF516 |

**SCALE 1:1**



**Use Ball Bearing
B3-4A**



**Use Ball Bearing
B6-5A**

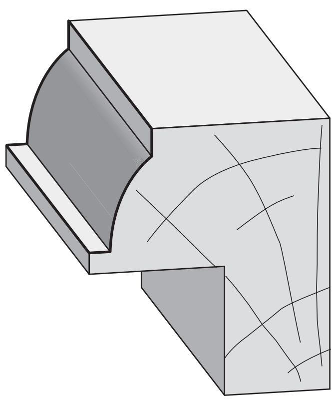
# FRB214 BEAD STILE AND RAIL
WITH BALL BEARING GUIDE

| PART NO. | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **FRB214** | 1-1/16" | 43/64" | 43/64" | 1/4" | 2-1/4" | 2 |
| **FRB215** | 1-5/16" | 11/32" | 19/32" | 1/4" | 2-1/4" | 2 |
| **FRB216** | 1-3/16" | 43/64" | 5/8" | 1/4" | 2-1/16" | 2 |
| **FRB217** | 1-7/16" | 11/32" | 15/32" | 1/4" | 2-1/16" | 2 |

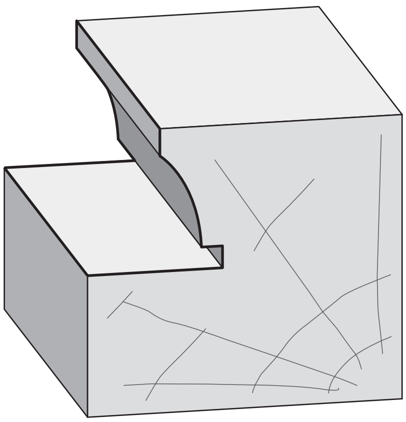
## REPLACEMENT PARTS

| TOOL NO. | BALL BEARING | WASHER | SPRING WASHER | LOCK RING | SCREW |
|---|---|---|---|---|---|
| **FRB214** | B2 | WFS500 | WFS506 | - | WNC538 |
| **FRB215** | B2 | WFS500 | WFS506 | - | WNC538 |
| **FRB216** | B3-1 | - | - | W01 | WNC525 |
| **FRB217** | B3-1 | - | - | W01 | WNC525 |

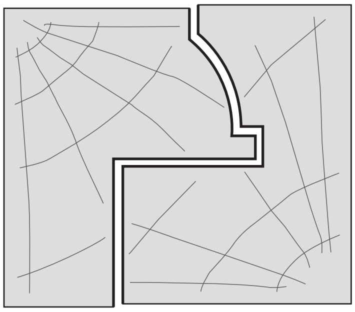
**SCALE 1:1**



**FRB214**
**FRB215**



**FRB216**
**FRB217**



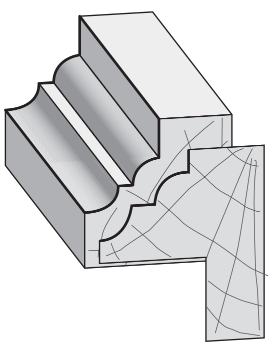
# FRB218 BEAD AND COVE STILE AND RAIL
## WITH BALL BEARING GUIDE, 2PC SET

| PART NO. | TOOL TYPE | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| **FRB218** | Complete Set (2 bits) | | | | | | |
| **FRB219** | A | 1-5/64" | 9/64" | 1/2" | 1/4" | 2" | 2 |
| **FRB220** | B | 1-13/64" | 9/64" | 23/64" | 1/4" | 2" | 2 |
| **FRB221** | Complete Set (2 bits) | | | | | | |
| **FRB222** | A | 1-5/16" | 11/64" | 5/8" | 1/4" | 2" | 2 |
| **FRB223** | B | 1-7/16" | 11/64" | 15/32" | 1/4" | 2" | 2 |

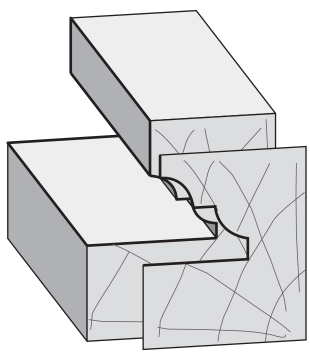
## REPLACEMENT PARTS

| TOOL TYPE | BALL BEARING | WASHER | SPRING WASHER | LOCK RING | SCREW |
|---|---|---|---|---|---|
| **A** | B2 | WFS500 | WFS506 | - | WNC538 |
| **B** | B3-1 | - | - | W01 | WNC525 |

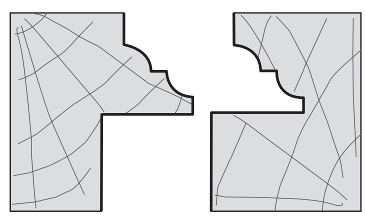
**SCALE 1:1**



FRB219
FRB222



FRB220
FRB223



FRB218
FRB221 (SETS)

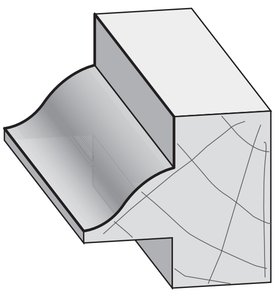
# FRB224 OGEE STILE AND RAIL
WITH BALL BEARING GUIDE, 2PC SET

| PART NO. | TOOL TYPE | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| FRB224 | Complete Set (2 bits) | | | | | | |
| FRB225 | A | 1-5/16" | 21/64" | 35/64" | 1/4" | 2-3/64" | 2 |
| FRB226 | B | 1-7/16" | 21/64" | 25/64" | 1/4" | 2" | 2 |
| FRB227 | Complete Set (2 bits) | | | | | | |
| FRB228 | A | 1-15/16" | 21/64" | 35/64" | 1/4" | 2-3/64" | 2 |
| FRB229 | B | 1-39/64" | 21/64" | 7/16" | 1/4" | 2" | 2 |

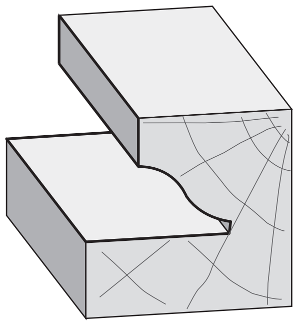
## REPLACEMENT PARTS

| TOOL TYPE | BALL BEARING | WASHER | SPRING WASHER | LOCK RING | SCREW |
|---|---|---|---|---|---|
| A | B2 | WFS500 | WFS506 | - | WNC538 |
| B | B3-1 | - | - | W01 | WNC525 |

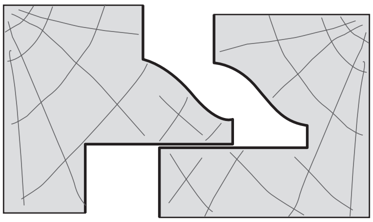
SCALE 1:1



FRB225
FRB228



FRB226
FRB229



FRB224
FRB227 (SETS)

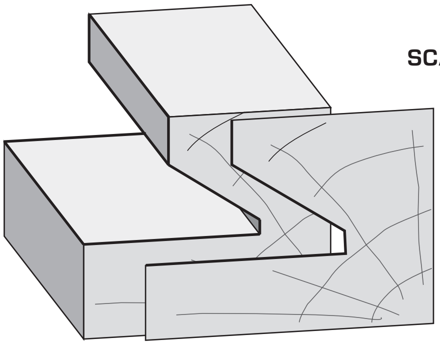
# FRB230 PROVINCIAL STILE AND RAIL
WITH BALL BEARING GUIDE, 2PC SET

| PART NO. | TOOL TYPE | LARGE DIAM. | DEGREE BEVEL | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| FRB230 | Complete Set (2 bits) | | | | | |
| FRB231 | A | 1-5/16" | 33° | 35/64" | 1/4" | 2-1/16" |
| FRB232 | B | 1-7/16" | 33° | 25/64" | 1/4" | 2" |
| FRB233 | Complete Set (2 bits) | | | | | |
| FRB234 | A | 1-9/16" | 32° | 43/64" | 1/4" | 2-1/8" |
| FRB235 | B | 1-11/16" | 32° | 31/64" | 1/4" | 2" |

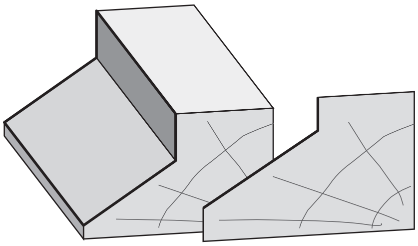
## REPLACEMENT PARTS

| TOOL TYPE | BALL BEARING | WASHER | SPRING WASHER | LOCK RING | SCREW |
|---|---|---|---|---|---|
| A | B2 | WFS500 | WFS506 | - | WNC538 |
| B | B3-1 | - | - | W01 | WNC525 |

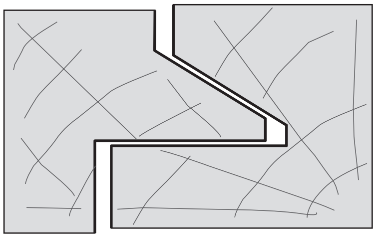
SCALE 1:1



FRB232
FRB235



FRB231
FRB234



FRB230
FRB233 (SETS)

# FRB30 SHALLOW BEAD AND COVE STILE AND RAIL

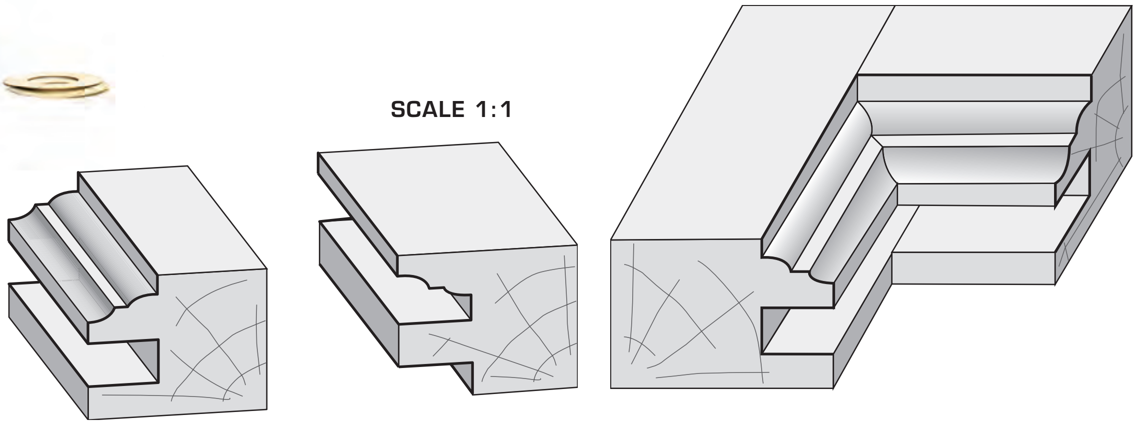
REVERSIBLE COPE AND STICK, 1PC SET

| PART NO. | LARGE DIAM. | WOOD THICKNESS | SHANK DIAM. | GROOVE WIDTH | GROOVE DEPTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| **FRB30** | 1-5/8" | 3/4" to 7/8" | 1/2" | 1/4" | 3/8" | 3" | 2 |

## REPLACEMENT PARTS

| PROFILE CUTTER ONLY | GROOVER ONLY | ARBOR AND NUT | NUT ONLY | BALL BEARING | WASHER | SPACER 0.05 MM | SPACER 0.01 MM |
|---|---|---|---|---|---|---|---|
| FRB30P | FRB28G | AR11 | WNF516 | B5 | WF608 | WF600 | WF604 |

SCALE 1:1



# FRB31 BEAD AND COVE STILE AND RAIL

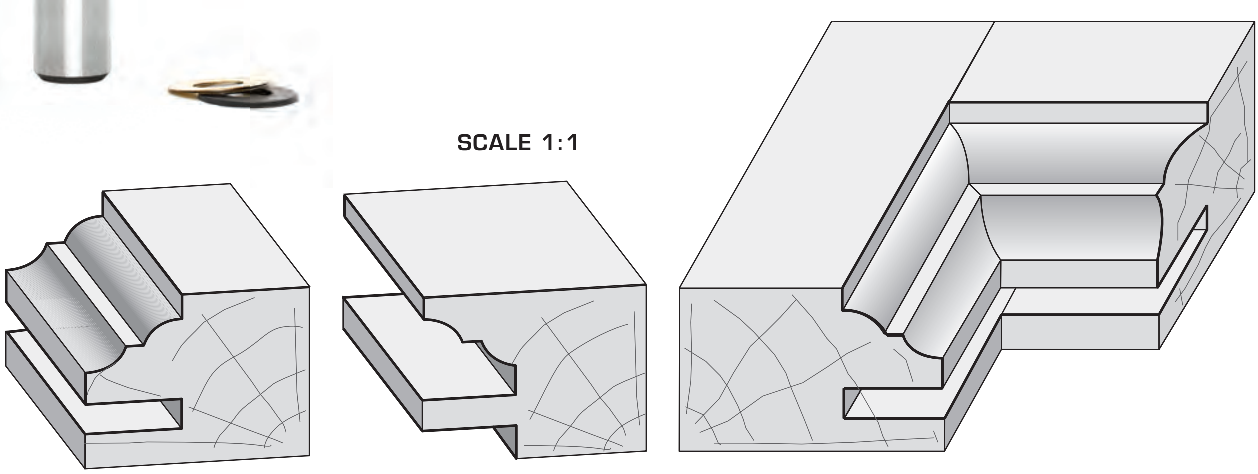
REVERSIBLE COPE AND STICK, 1PC SET

| PART NO. | LARGE DIAM. | WOOD THICKNESS | SHANK DIAM. | GROOVE WIDTH | GROOVE DEPTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| **FRB31** | 1-13/16" | 3/4" to 7/8" | 1/2" | 5/32" | 1/2" | 3" | 2 |

## REPLACEMENT PARTS

| PROFILE CUTTER ONLY | GROOVER ONLY | ARBOR AND NUT | NUT ONLY | BALL BEARING | WASHER | SPACER 0.05 MM | SPACER 0.01 MM |
|---|---|---|---|---|---|---|---|
| FRB31P | FRB27G | AR11 | WNF516 | B5 | WF608 | WF600 | WF604 |

SCALE 1:1



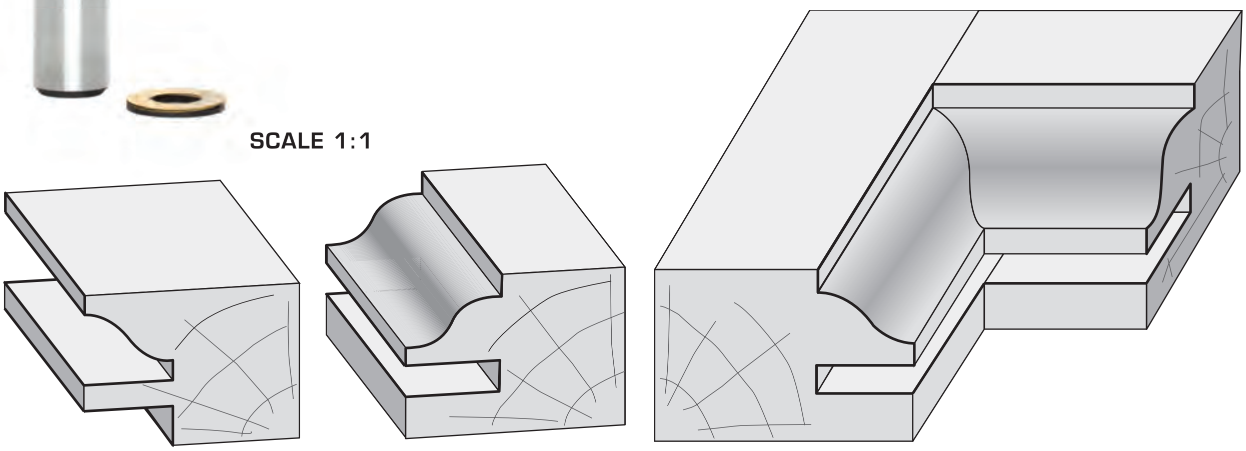
# FRB27 OGEE STILE AND RAIL
## 1/2" GROOVE REVERSIBLE COPE AND STICK, 1PC SET

| PART NO. | LARGE DIAM. | WOOD THICKNESS | OVERALL LENGTH | SHANK DIAM. | GROOVE WIDTH | GROOVE DEPTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| **FRB27** | 1-13/16" | 3/4" to 7/8" | 3" | 1/2" | 5/32" | 1/2" | 2 |

### REPLACEMENT PARTS

| PROFILE CUTTER ONLY | GROOVER ONLY | ARBOR AND NUT | NUT ONLY | BALL BEARING | WASHER | SPACER 0.05MM | SPACER 0.01MM |
|---|---|---|---|---|---|---|---|
| FRB27P | FRB27G | AR11 | WNF516 | B5 | WF608 | WF600 | WF604 |

SCALE 1:1



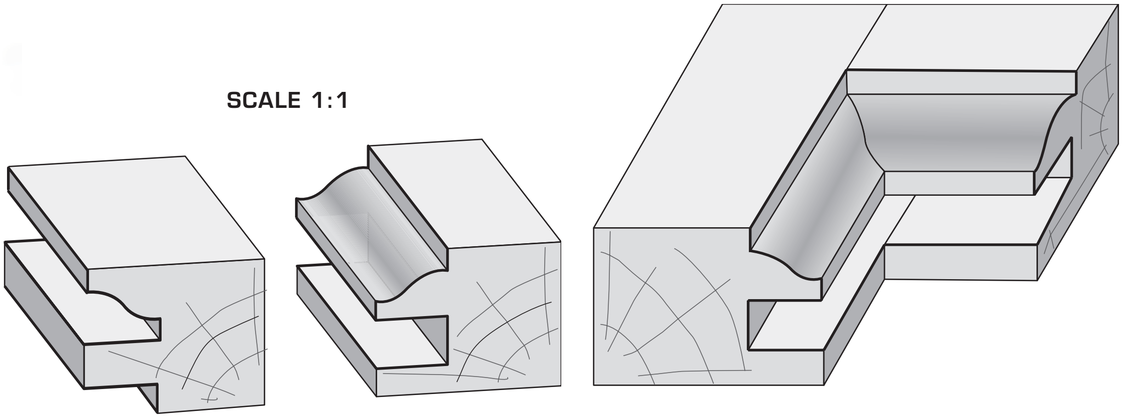
# FRB28 OGEE STILE AND RAIL
## 3/8" GROOVE REVERSIBLE COPE AND STICK, 1PC SET

| PART NO. | LARGE DIAM. | WOOD THICKNESS | SHANK DIAM. | GROOVE WIDTH | GROOVE DEPTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| **FRB28** | 1-5/8" | 3/4" to 7/8" | 1/2" | 1/4" | 3/8" | 3" | 2 |

### REPLACEMENT PARTS

| PROFILE CUTTER ONLY | GROOVER ONLY | ARBOR AND NUT | NUT ONLY | BALL BEARING | WASHER | SPACER 0.05MM | SPACER 0.01MM |
|---|---|---|---|---|---|---|---|
| FRB28P | FRB28G | AR11 | WNF516 | B5 | WF608 | WF600 | WF604 |

SCALE 1:1



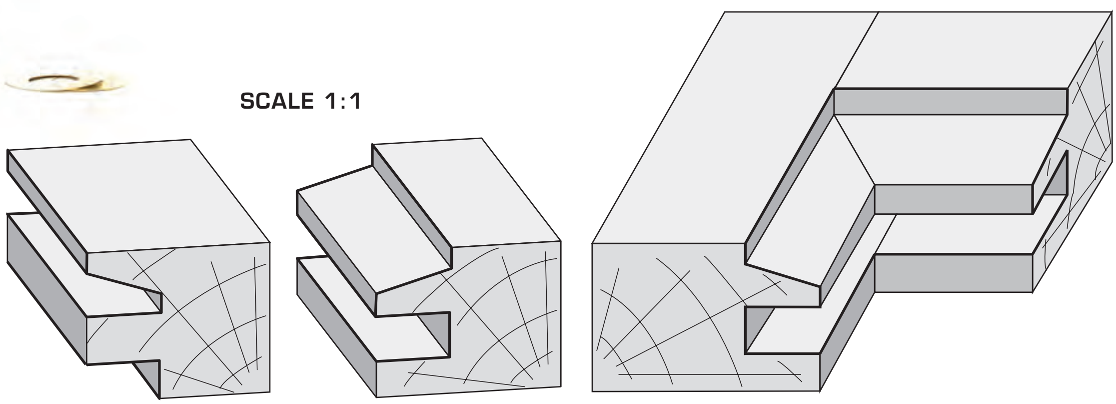
# FRB31-1 PROVINCIAL STILE AND RAIL
## REVERSIBLE COPE AND STICK, 1PC SET

| PART NO. | LARGE DIAM. | WOOD THICKNESS | SHANK DIAM. | GROOVE WIDTH | GROOVE DEPTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| **FRB31-1** | 1-5/8" | 3/4" to 7/8" | 1/2" | 1/4" | 3/8" | 3" | 2 |

### REPLACEMENT PARTS

| PROFILE CUTTER ONLY | GROOVER ONLY | ARBOR AND NUT | NUT ONLY | BALL BEARING | WASHER | SPACER 0.05MM | SPACER 0.01MM |
|---|---|---|---|---|---|---|---|
| FRB31-1P | FRB28G | AR11 | WNF516 | B5 | WF608 | WF600 | WF604 |

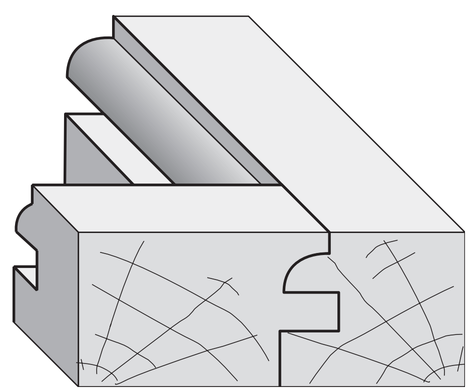
**SCALE 1:1**



# FRB31-3 ROUND OVER STILE AND RAIL
## COPE AND STICK, 2PC SET

| PART NO. | LARGE DIAM. | WOOD THICKNESS | SHANK DIAM. | GROOVE WIDTH | GROOVE DEPTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| **FRB31-3** | 1-5/8" | 3/4" to 1" | 1/2" | 1/4" | 3/8" | 3-5/16" | 2 |

**SCALE 1:1**



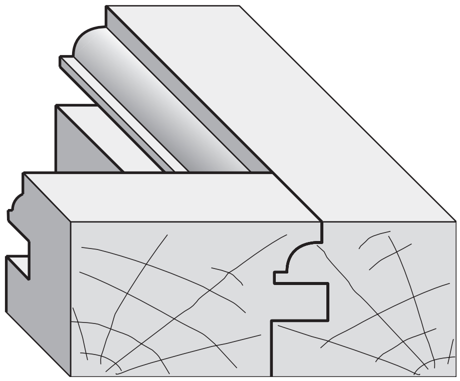
### REPLACEMENT PARTS

| DESCRIPTION | PROFILE CUTTER | GROOVER/ RABBETING CUTTER | STRAIGHT CUTTER | ARBOR AND NUT | NUT ONLY | BALL BEARING | SPACERS 1.0 MM | SHIMS 0.1 MM | SHIMS 0.05 MM |
|---|---|---|---|---|---|---|---|---|---|
| **STILE** | **FRB31-3P** | **FRB28G** | **FRB31-2C** | **AR23** | **WNF516** | **B5** | **WF608** | **WF604** | **WF600** |
| QUANTITY | 1pc | 1pc | 1pc | 1pc | 1pc | 1pc | 2pcs | 3pcs | 1pc |
| **RAIL** | **FRB31-3PR** | **FRB31-2R** | **FRB31-2CR** | **AR23** | **WNF516** | **B5** | **WF608** | **WF604** | **WF600** |
| QUANTITY | 1pc | 1pc | 1pc | 1pc | 1pc | 1pc | 4pcs | 2pcs | 2pcs |

# FRB31-4 BEAD STILE AND RAIL
COPE AND STICK,2PC SET

| PART NO. | LARGE DIAM. | WOOD THICKNESS | SHANK DIAM. | GROOVE WIDTH | GROOVE DEPTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| FRB31-4 | 1-5/8" | 3/4" to 1" | 1/2" | 1/4" | 3/8" | 3-5/16" | 2 |

SCALE 1:1



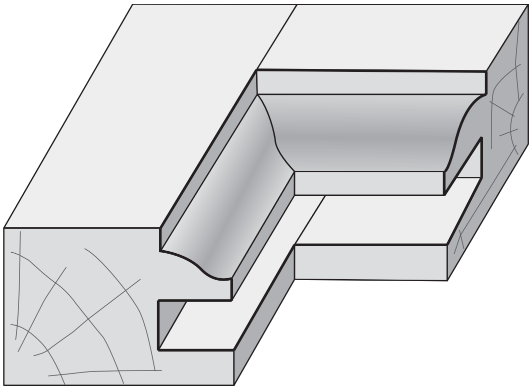
## REPLACEMENT PARTS

| DESCRIPTION | PROFILE CUTTER | GROOVER/ RABBETING CUTTER | STRAIGHT CUTTER | ARBOR AND NUT | NUT ONLY | BALL BEARING | SPACERS 1.0 MM | SHIMS 0.1 MM | SHIMS 0.05 MM |
|---|---|---|---|---|---|---|---|---|---|
| STILE | FRB31-4P | FRB28G | FRB31-2C | AR23 | WNF516 | B5 | WF608 | WF604 | WF600 |
| QUANTITY | 1pc | 1pc | 1pc | 1pc | 1pc | 1pc | 2pcs | 3pcs | 1pc |
| RAIL | FRB31-4PR | FRB31-2R | FRB31-2CR | AR23 | WNF516 | B5 | WF608 | WF604 | WF600 |
| QUANTITY | 1pc | 1pc | 1pc | 1pc | 1pc | 1pc | 4pcs | 2pcs | 2pcs |

# FRB31-2 OGEE STILE AND RAIL
COPE AND STICK,2PC SET

| PART NO. | LARGE DIAM. | WOOD THICKNESS | SHANK DIAM. | GROOVE WIDTH | GROOVE DEPTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| FRB31-2 | 1-5/8" | 3/4" to 1" | 1/2" | 1/4" | 3/8" | 3-5/16" | 2 |

SCALE 1:1



## REPLACEMENT PARTS

| DESCRIPTION | PROFILE CUTTER | GROOVER/ RABBETING CUTTER | STRAIGHT CUTTER | ARBOR AND NUT | NUT ONLY | BALL BEARING | SPACERS 1.0 MM | SHIMS 0.1 MM | SHIMS 0.05 MM |
|---|---|---|---|---|---|---|---|---|---|
| STILE | FRB28P | FRB28G | FRB31-2C | AR23 | WNF516 | B5 | WF608 | WF604 | WF600 |
| QUANTITY | 1pc | 1pc | 1pc | 1pc | 1pc | 1pc | 2pcs | 3pcs | 1pc |
| RAIL | FRB31-2PR | FRB31-2R | FRB31-2CR | AR23 | WNF516 | B5 | WF608 | WF604 | WF600 |
| QUANTITY | 1pc | 1pc | 1pc | 1pc | 1pc | 1pc | 4pcs | 2pcs | 2pcs |

# FRB31-5 ROMAN OGEE WINDOW SASH ASSEMBLY
REVERSIBLE WITH BACK CUTTER, 1PC SET

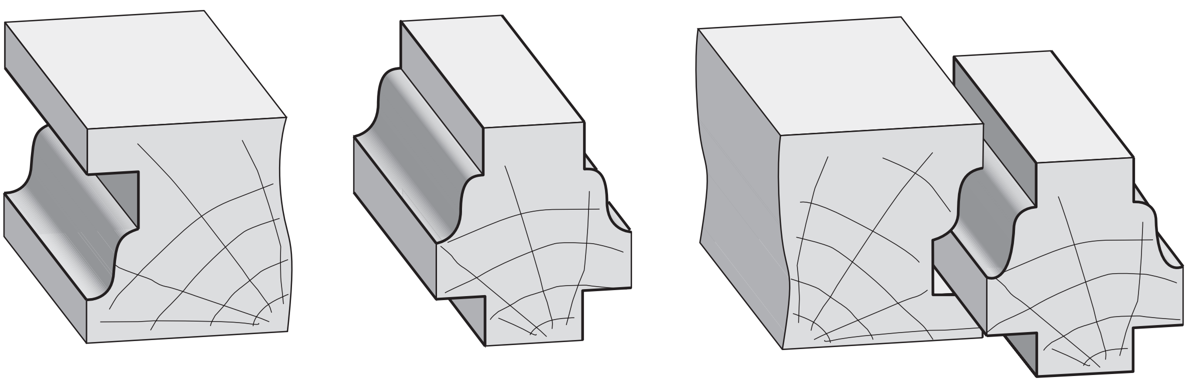
| PART NO. | LARGE DIAM. D1 | WOOD THICKNESS | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB31-5 | 1-3/8" | 1-1/8" to 1-3/4" | 1/2" | 3-3/4" | 2 |

## REPLACEMENT PARTS

| DESCRIPTION | PROFILE CUTTER | RABBETING CUTTER | ARBOR AND NUT | NUT ONLY | BALL BEARING |
|---|---|---|---|---|---|
| PART NO. | FRB31-5C | FRB31-5R | AR20 | WNF516 | B5 |
| QUANTITY | 1pc | 1pc | 1pc | 1pc | 1pc |

| DESCRIPTION | SPACERS 6.0 MM | SPACER 3.0 MM | SPACER 1.0 MM | SPACERS 0.5 MM | SPACERS 0.1 MM |
|---|---|---|---|---|---|
| PART NO. | WF618 | WF610 | WF608 | WF606 | WF604 |
| QUANTITY | 3pcs | 1pc | 1pc | 2pcs | 3pcs |

SCALE 1:1



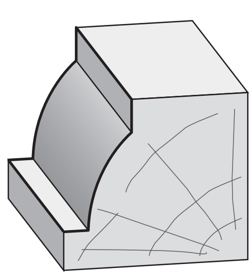
# FRB210 SASH BAR JOINT BITS
TWO FLUTES

| PART NO. | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| FRB210 | 1-1/16" | 43/64" | 11/16" | 1/4" | 2-1/4" | 2 |
| FRB211 | 1-1/16" | 43/64" | 11/16" | 1/2" | 2-5/8" | 2 |
| FRB212 | 1-7/64" | 43/64" | 27/32" | 1/4" | 2-1/16" | 2 |
| FRB213 | 1-7/64" | 43/64" | 27/32" | 1/2" | 2-5/16" | 2 |

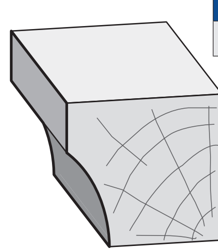
## REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B2 | WFS500 | WFS506 | WNC538 |

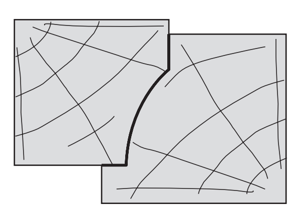
SCALE 1:1



FRB210
FRB211



FRB212
FRB213

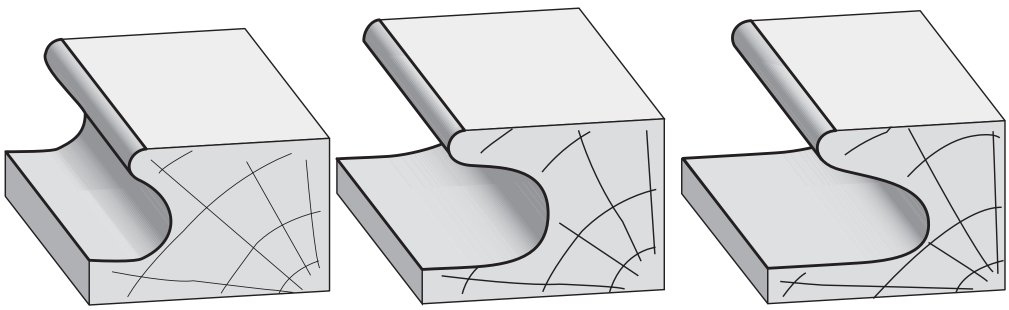


# FRB60

## FINGER GRIP BIT
TWO FLUTES

| PART NO. | CUTTING DIAM. | RADIUS R1 | RADIUS R2 | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| FRB60 | 3/4" | 3/32" | 3/16" | 3/4" | 1/2" | 2-1/4" | 2 |
| FRB61 | 1-1/2" | 5/64" | 15/64" | 13/16" | 1/2" | 2-5/16" | 2 |
| FRB62 | 1-3/4" | 3/32" | 3/16" | 13/16" | 1/2" | 2-5/16" | 2 |

SCALE 1:1

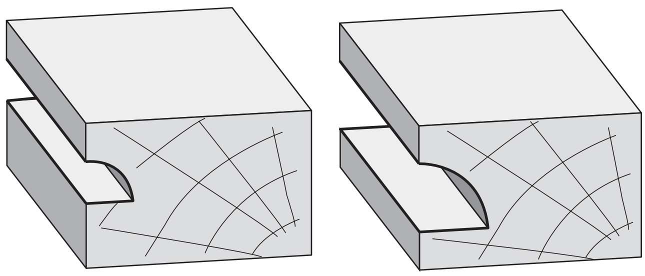


FRB60 FRB61 FRB62

## FRB57 COVE STYLE FINGER GRIP BITS
TWO FLUTES

| PART NO. | CUTTING DIAM. | RADIUS | CARBIDE HEIGHT | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| FRB57 | 3/4" | 1/4" | 1/4" | 1/4" | 1-3/4" | 2 |
| FRB58 | 1" | 3/8" | 3/8" | 1/4" | 1-3/4" | 2 |

SCALE 1:1

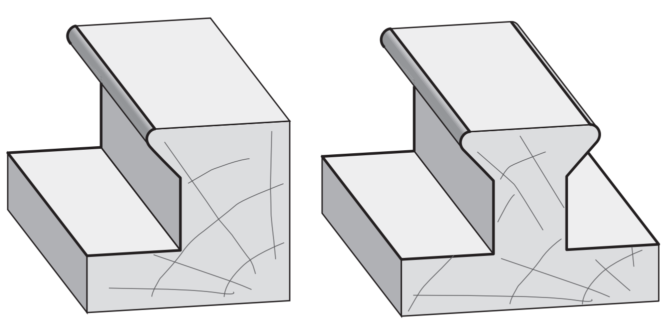


FRB57 FRB58

## FRB59 CHAMFER STYLE FINGER GRIP BIT
TWO FLUTES

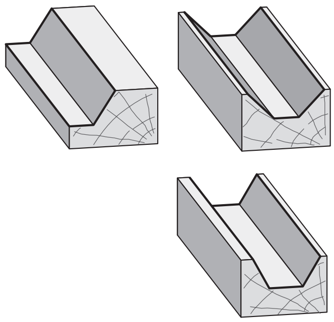
| PART NO. | CUTTING DIAM. | RADIUS | CARBIDE HEIGHT | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| FRB59 | 7/8" | 1/16" | 13/16" | 1/2" | 2-5/16" | 2 |

SCALE 1:1



## R3330-1 BEVEL BITS
PLUNGE TYPE

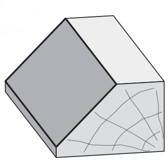
| PART NO. | CUTTING DIAM. | CARBIDE HEIGHT | SHANK DIAM. | DEGREE BEVEL | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R3330-1 | 9/16" | 5/8" | 1/4" | 10° | 1-3/4" | 2 |
| R3330-2 | 1/2" | 1/2" | 1/4" | 15° | 2" | 2 |
| R3330 | 7/8" | 3/8" | 1/4" | 23° | 1-5/8" | 2 |
| R3331 | 1" | 3/8" | 1/4" | 30° | 1-5/8" | 2 |
| R3332 | 1-3/8" | 3/8" | 1/4" | 45° | 1-5/8" | 2 |



## R3300 BEVEL BITS
WITH BALL BEARING GUIDE

| PART NO. | TOOL TYPE | CUTTING DIAM. | DEGREE BEVEL | CARBIDE HEIGHT | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| R3300 | A | 1/2" | 15° | 1/4" | 1/4" | 1-3/4" | 2 |
| R3300-1 | A | 17/32" | 15° | 1/2" | 1/4" | 2-1/16" | 2 |
| R3301 | A | 27/32" | 25° | 1/2" | 1/4" | 2" | 2 |
| R3302 | B | 1-1/2" | 45° | 1/2" | 1/4" | 2-1/8" | 2 |
| R3302-1 | C | 1-1/4" | 45° | 1/2" | 1/4" | 2" | 2 |
| R3303 | B | 3/4" | 15° | 1/2" | 1/2" | 2-3/8" | 2 |
| R3304 | B | 1" | 25° | 1/2" | 1/2" | 2-3/8" | 2 |
| R3304-1 | C | 1-1/4" | 45° | 1/2" | 1/2" | 2-3/8" | 2 |
| R3305 | B | 1-1/2" | 45° | 1/2" | 1/2" | 2-3/8" | 2 |
| R3305-1 | B | 2" | 45° | 3/4" | 1/2" | 2-5/8" | 2 |
| R3306 | B | 2-1/2" | 45° | 1" | 1/2" | 2-13/16" | 2 |
| R3307 • | B | 3-1/64" | 45° | 1-1/4" | 1/2" | 3-1/8" | 2 |

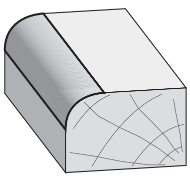
• Max. RPM: 13,500

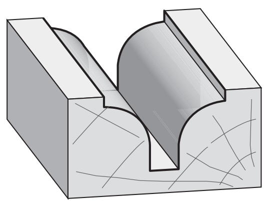


### REPLACEMENT PARTS

| TOOL TYPE | BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|---|
| A | B2 | WFS500 | WFS506 | WM308 |
| B | B3 | WR58 | WFS506 | WNC538 |
| C | B1 | WR58 | WFS506 | WNC338 |

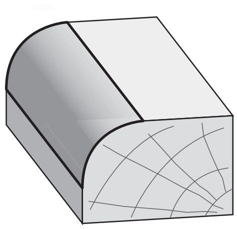
## R3020 ROUNDING OVER BITS
### PLUNGE TYPE





| PART NO. | LARGE DIAM. | RADIUS | SMALL DIAM. | CARBIDE HEIGHT | SHANK DIAM. | NO. FLUTES |
|---|---|---|---|---|---|---|
| R3020-1 | 3/8" | 1/8" | 1/8" | 5/16" | 1/4" | 2 |
| R3020 | 5/8" | 3/16" | 1/4" | 5/16" | 1/2" | 2 |
| R3021 | 3/4" | 1/4" | 1/4" | 1/2" | 1/4" | 2 |
| R3022 | 3/4" | 1/4" | 1/4" | 1/2" | 1/2" | 2 |
| R3023 | 7/8" | 5/16" | 1/4" | 9/16" | 1/4" | 2 |
| R3024 | 7/8" | 5/16" | 1/4" | 9/16" | 1/2" | 2 |
| R3025 | 1" | 3/8" | 1/4" | 5/8" | 1/4" | 2 |
| R3026 | 1" | 3/8" | 1/4" | 5/8" | 1/2" | 2 |
| R3027 | 1-3/8" | 1/2" | 3/8" | 1" | 1/2" | 2 |
| R3028 | 1-3/4" | 5/8" | 1/2" | 1-1/4" | 1/2" | 2 |
| R3029 | 2" | 3/4" | 1/2" | 1-7/16" | 1/2" | 2 |

## R3000 ROUNDING OVER BITS
### WITH BALL BEARING GUIDE



| PART NO. | LARGE DIAM. | RADIUS | CARBIDE HEIGHT | SHANK DIAM. | NO. FLUTES |
|---|---|---|---|---|---|
| R3000-1 | 5/8" | 1/16" | 5/16" | 1/4" | 2 |
| R3000-2 | 3/4" | 1/8" | 3/8" | 1/4" | 2 |
| R3000-3 | 3/4" | 5/32" | 3/8" | 1/4" | 2 |
| R3000 | 7/8" | 3/16" | 1/2" | 1/4" | 2 |
| R3001 | 1" | 1/4" | 1/2" | 1/4" | 2 |
| R3002 | 1-1/8" | 5/16" | 1/2" | 1/4" | 2 |
| R3003 | 1-1/4" | 3/8" | 5/8" | 1/4" | 2 |
| R3004 | 1-1/2" | 1/2" | 3/4" | 1/4" | 2 |
| R3004-1 | 1-3/4" | 5/8" | 7/8" | 1/4" | 2 |
| R3005-1 | 5/8" | 1/16" | 5/16" | 1/2" | 2 |
| R3005-2 | 3/4" | 1/8" | 3/8" | 1/2" | 2 |
| R3005-3 | 3/4" | 5/32" | 3/8" | 1/2" | 2 |
| R3005 | 7/8" | 3/16" | 1/2" | 1/2" | 2 |
| R3006 | 1" | 1/4" | 1/2" | 1/2" | 2 |
| R3007 | 1-1/8" | 5/16" | 1/2" | 1/2" | 2 |
| R3008 | 1-1/4" | 3/8" | 5/8" | 1/2" | 2 |
| R3009 | 1-1/2" | 1/2" | 3/4" | 1/2" | 2 |
| R3009-1 | 1-3/4" | 5/8" | 7/8" | 1/2" | 2 |
| R3010 | 2" | 3/4" | 1" | 1/2" | 2 |
| R3010-1 | 2-1/4" | 7/8" | 1-1/4" | 1/2" | 2 |
| R3011 | 2-1/2" | 1" | 1-1/4" | 1/2" | 2 |
| R3011-1 • | 2-3/4" | 1-1/8" | 1-3/8" | 1/2" | 2 |
| R3012 • | 3" | 1-1/4" | 1-1/2" | 1/2" | 2 |
| R3012-1 ▲ | 3-1/4" | 1-3/8" | 1-9/16" | 1/2" | 2 |
| R3013 ▲ | 3-1/2" | 1-1/2" | 1-3/4" | 1/2" | 2 |

• Max RPM: 18,000

▲ Max RPM: 16,000

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

# ADJUSTABLE ROUNDING OVER SET
THREE WINGS

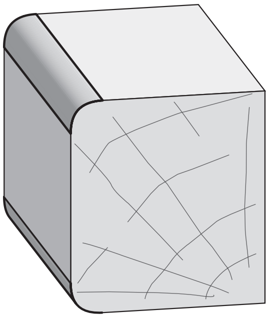
| PART NO. | LARGE DIAM. | RADIUS | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| **R2525** | 1-1/2" | 3/16" | 1/2" | 3-5/8" | 2 |
| **R2526** | 1-5/8" | 1/4" | 1/2" | 3-5/8" | 2 |
| **R2527** | 1-7/8" | 3/8" | 1/2" | 3-5/8" | 2 |

Fully adjustable set for corner rounding top and bottom in just one pass

R 3/16" Adjustable from 3/8" to 1-1/4" material thickness

R 1/4" Adjustable from 1/2" to 1-1/4" material thickness

R 3/8" Adjustable from 3/4" to 1-1/4" material thickness



## REPLACEMENT PARTS

| TOOL NO. | DESCRIPTION | TOP CUTTER | BOTTOM CUTTER |
|---|---|---|---|
| **R2525** | **PART NO.** | **R2525CR** | **R2525CL** |
| | DIMENSIONS | R = 3/16” | R = 3/16” |
| **R2526** | **PART NO.** | **R2526CR** | **R2526CL** |
| | DIMENSIONS | R = 1/4” | R = 1/4” |
| **R2527** | **PART NO.** | **R2527CR** | **R2527CL** |
| | DIMENSIONS | R = 3/8” | R = 3/8” |

| DESCRIPTION | BALL BEARING | ARBOR & NUT | NUT ONLY | SPACER A | SPACER B | SPACER C | SPACER D | SPACER E |
|---|---|---|---|---|---|---|---|---|
| **PART NO.** | **B6-3** | **AR20** | **WNF516** | **WF618** | **WF610** | **WF608** | **WF606** | **WF604** |
| DESCRIPTION | - | - | - | 6.0mm | 3.0mm | 1.0mm | 0.5mm | 0.1mm |
| QUANTITY | - | - | - | 2pcs | 1pc | 2pcs | 2pcs | 6pcs |

## R2535 ADJUSTABLE 3-WING CHAMFERING SET
DOUBLE ANGLE

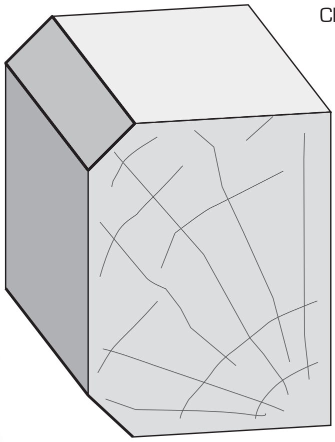
| PART NO. | LARGE DIAM. | DEGREES BEVEL-1 | DEGREES BEVEL-2 | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **R2535** | 1-3/8" | 30° | 45° | 1/2" | 4-1/4" | 2 |

Fully adjustable set for corner chamfer top and bottom in just one pass

Chamfer 30° Adjustable from 3/8" to 1-3/8" material thickness

Chamfer 45° Adjustable from 1/2" to 1-5/8" material thickness

**SCALE 1:1**



**Profile:**
**45° chamfer**
**1-1/2" material thickness**

### REPLACEMENT PARTS

| TOOL NO. | TOP CUTTER | BOTTOM CUTTER |
|---|---|---|
| **R2535** | R2535CR | R2535CL |

| DESCRIPTION | BALL BEARING | ARBOR & NUT | NUT ONLY | SPACER A | SPACER B | SPACER C | SPACER D | SPACER E |
|---|---|---|---|---|---|---|---|---|
| **PART NO.** | **B5** | **AR22** | **WNF516** | **WF618** | **WF610** | **WF608** | **WF606** | **WF604** |
| DESCRIPTION | - | - | - | 6.0mm | 3.0mm | 1.0mm | 0.5mm | 0.1mm |
| QUANTITY | - | - | - | 2pcs | 2pcs | 3pcs | 1pcs | 4pcs |

## R2530 ADJUSTABLE ROUNDING OVER SET
3 WINGS DOUBLE RADIUS

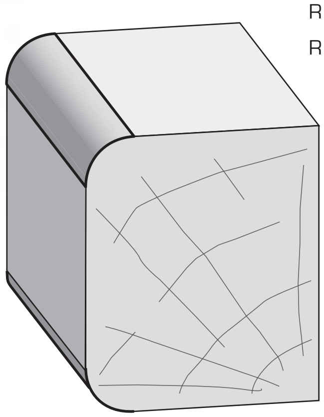
| PART NO. | LARGE DIAM. | RADIUS R1 | RADIUS R2 | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **R2530** | 1-3/8" | 1/4" | 3/16" | 1/2" | 4-1/4" | 2 |

Fully adjustable set for corner rounding top and bottom in just one pass

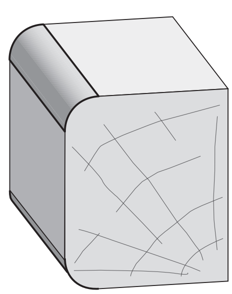
R 3/16" Adjustable from 3/8" to 1-3/8" wood thickness

R 1/4" Adjustable from 1/2" to 1-1/2" wood thickness

**SCALE 1:1**



RADIUS 1/4"



RADIUS 3/16"

### REPLACEMENT PARTS

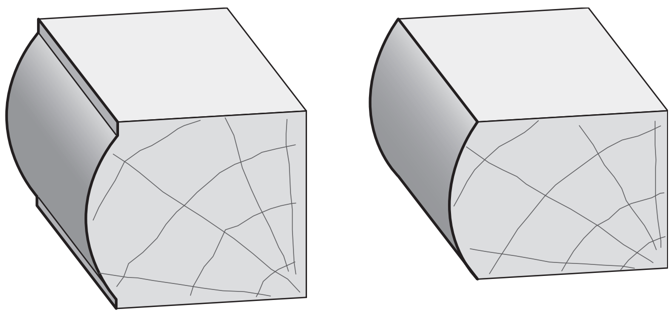
| TOOL NO. | TOP CUTTER | BOTTOM CUTTER |
|---|---|---|
| **R2530** | R2530CR | R2530CL |

| DESCRIPTION | BALL BEARING | ARBOR & NUT | NUT ONLY | SPACER A | SPACER B | SPACER C | SPACER D | SPACER E |
|---|---|---|---|---|---|---|---|---|
| **PART NO.** | **B5** | **AR22** | **WNF516** | **WF618** | **WF610** | **WF608** | **WF606** | **WF604** |
| DESCRIPTION | - | - | - | 6.0mm | 3.0mm | 1.0mm | 0.5mm | 0.1mm |
| QUANTITY | - | - | - | 2pcs | 2pcs | 3pcs | 1pcs | 4pcs |

# R2520 TRUE BULL NOSE BITS
## TWO FLUTES

| PART NO. | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **R2520** | 13/16" | 23/32" | 1-1/4" | 1/4" | 2-1/2" | 2 |
| **R2521** | 13/16" | 23/32" | 1-1/4" | 1/2" | 2-3/4" | 2 |

**SCALE 1:1**



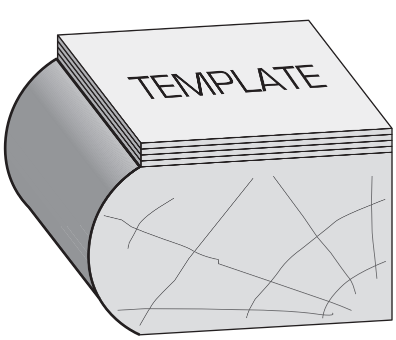
# R2519 TRUE BULL NOSE BIT
## WITH UPPER BEARING - PLUNGE TYPE

| PART NO. | LARGE DIAM. | RADIUS | CUTTER OPENING | CARBIDE HEIGHT | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| **R2519** | 1-1/8" | 1/2" | 7/8" | 1-9/16" | 1/2" | 3-5/8" | 2 |

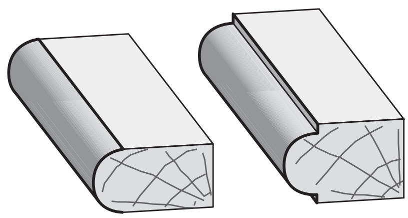
### REPLACEMENT PARTS

| BALL BEARING | LOCK RING | SCREW |
|---|---|---|
| B6-4 | W03 | WNC518 |

**SCALE 1:1**



# R2500 HALF ROUND BITS
## BULL NOSE



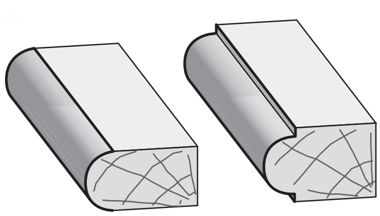
| PART NO. | LARGE DIAM. | RADIUS | CUTTER OPENING | CARBIDE HEIGHT | SHANK DIAM. | NO. FLUTES |
|---|---|---|---|---|---|---|
| R2500-1 | 17/32" | 5/64" | 5/32" | 1/2" | 1/4" | 2 |
| R2500-2 | 17/32" | 5/64" | 5/32" | 1/2" | 1/2" | 2 |
| R2500 | 19/32" | 7/64" | 7/32" | 1/2" | 1/4" | 2 |
| R2501 | 21/32" | 9/64" | 9/32" | 3/4" | 1/4" | 2 |
| R2502 | 7/8" | 13/64" | 13/32" | 3/4" | 1/4" | 2 |
| R2503 | 1-1/32" | 17/64" | 35/64" | 1" | 1/4" | 2 |
| R2504 | 19/32" | 7/64" | 7/32" | 1/2" | 1/2" | 2 |
| R2505 | 21/32" | 9/64" | 9/32" | 3/4" | 1/2" | 2 |
| R2506 | 7/8" | 13/64" | 13/32" | 3/4" | 1/2" | 2 |
| R2507 | 1-1/32" | 17/64" | 35/64" | 1" | 1/2" | 2 |
| R2507-1 | 1-1/16" | 5/16" | 5/8" | 1-1/8" | 1/2" | 2 |
| R2508 | 1-5/16" | 3/8" | 3/4" | 1-3/8" | 1/2" | 2 |
| R2509 | 1-11/16" | 1/2" | 1" | 1-9/16" | 1/2" | 2 |
| R2510 | 2" | 5/8" | 1-1/4" | 2" | 1/2" | 2 |
| R2511 | 2-3/8" | 3/4" | 1-1/2" | 2" | 1/2" | 2 |
| R2511-1 • | 2-3/8" | 3/4" | 1-1/2" | 2" | 1/2" | 3 |

- Max. RPM: 16,000
- 3 flutes and is suitable for cutting solid surface materials and composite materials

# R2514 HALF ROUND BITS
## BULLNOSE WITH BALL BEARING GUIDE

| PART NO. | TOOL TYPE | LARGE DIAM. | RADIUS | CUTTER OPENING | CARBIDE HEIGHT | SHANK DIAM. | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| R2514 | A | 1-1/32" | 17/64" | 35/64" | 1" | 1/2" | 2 |
| R2515 | B | 1-3/8" | 3/8" | 3/4" | 1-1/4" | 1/2" | 2 |
| R2516 | C | 1-3/4" | 1/2" | 1" | 1-9/16" | 1/2" | 2 |
| R2517 | C | 2" | 5/8" | 1-1/4" | 2" | 1/2" | 2 |

| TOOL TYPE | BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|---|
| A | B3 | WR58 | WFS506 | WNC538 |
| B | B3-4 | WR59 | WFS506 | WNC512 |
| C | B4 | WR59 | WFS508 | WNF1012 |

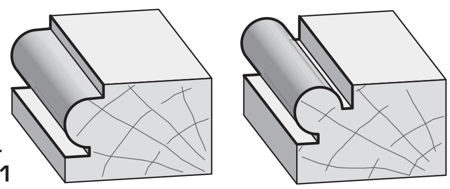


# FRB74 CORNER BEADING PROFILE

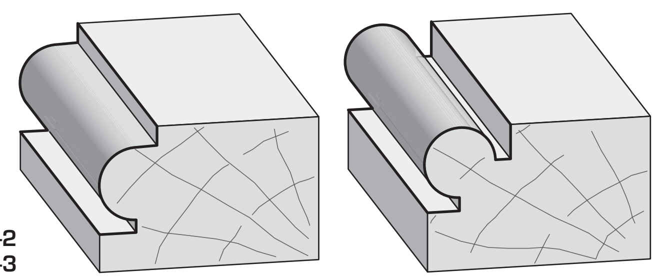
WITH BALL BEARING GUIDE

| PART NO. | TOOL TYPE | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| FRB74 | A | 7/8" | 1/8" | 9/16" | 1/4" | 2-1/8" | 2 |
| FRB74-1 | A | 7/8" | 1/8" | 9/16" | 1/2" | 2-1/2" | 2 |
| FRB74-2 | B | 1-1/16" | 3/16" | 5/8" | 1/4" | 2-1/4" | 2 |
| FRB74-3 | B | 1-1/16" | 3/16" | 5/8" | 1/2" | 2-5/8" | 2 |
| FRB74-4 | B | 1-1/4" | 1/4" | 3/4" | 1/4" | 2-3/8" | 2 |
| FRB74-5 | B | 1-1/4" | 1/4" | 3/4" | 1/2" | 2-5/8" | 2 |
| FRB74-6 | B | 1-1/2" | 3/8" | 1" | 1/2" | 3" | 2 |

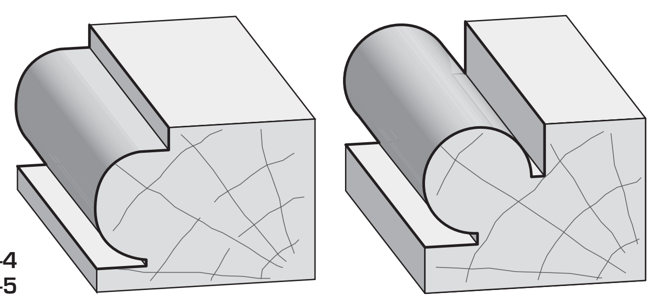
SCALE 1:1



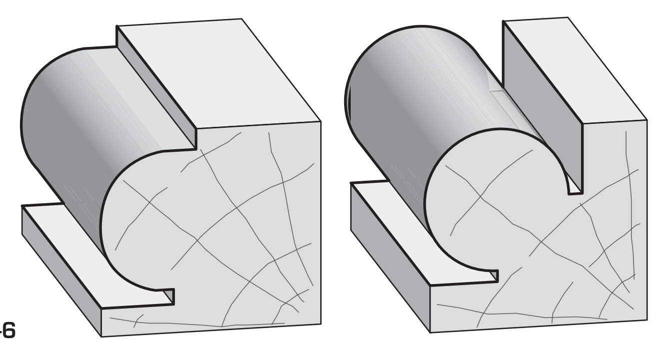
FRB74
FRB74-1



FRB74-2
FRB74-3



FRB74-4
FRB74-5



FRB74-6

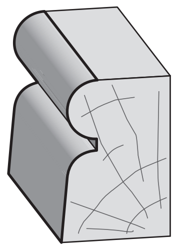
## REPLACEMENT PARTS

| TOOL TYPE | BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|---|
| A | B3 | WR58 | WFS506 | WNC538 |
| B | B3-4 | WR59 | WFS506 | WNC538 |

## FRB76-9 EDGE BEADING PROFILE
TWO FLUTES

| PART NO. | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| FRB76-9 | 7/8" | 5/32" | 1-1/32" | 1/4" | 2-5/16" | 2 |
| FRB77 | 7/8" | 5/32" | 1-1/32" | 1/2" | 2-1/2" | 2 |

SCALE 1:1



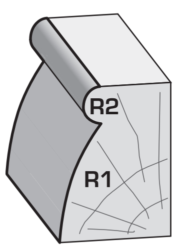
## FRB77-1 DRAWING LINE BEADING PROFILE
WITH BALL BEARING GUIDE

| PART NO. | CUTTING DIAM. | RADIUS R1 | RADIUS R2 | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| FRB77-1 | 1" | 1" | 3/32" | 7/8" | 1/2" | 2-3/4" | 2 |
| FRB77-4 | 1" | 3/8" | 3/16" | 7/8" | 1/2" | 2-3/4" | 2 |

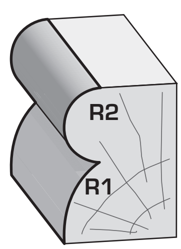
### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3-4 | WR59 | WFS506 | WNC538 |

SCALE 1:1



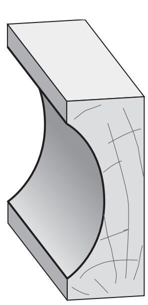

FRB77-1




FRB77-4

## R2430 CONVEX BEADING BITS
WITH BEARING GUIDE

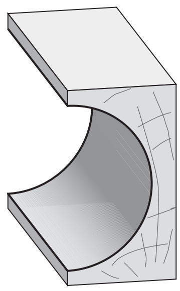
| PART NO. | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| R2430 | 3/4" | 3/16" | 3/8" | 1/2" | 2-5/8" | 2 |
| R2431 | 3/4" | 5/16" | 1/2" | 1/2" | 2-3/4" | 2 |
| R2432 | 7/8" | 15/32" | 3/4" | 1/2" | 3-1/16" | 2 |
| R2433 | 7/8" | 3/4" | 1" | 1/2" | 3-3/8" | 2 |
| R2434 | 1" | 1-1/4" | 1-1/2" | 1/2" | 3-7/8" | 2 |



### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

## R2440 CONVEX BEADING BITS
WITH BALL BEARING GUIDE,

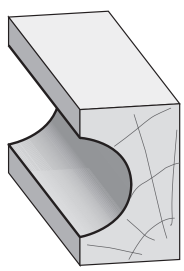


| PART NO. | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **R2440** | 13/16" | 5/32" | 5/16" | 1/4" | 1-7/8" | 2 |
| **R2441** | 7/8" | 3/16" | 3/8" | 1/4" | 2" | 2 |
| **R2442** | 31/32" | 15/64" | 15/32" | 1/4" | 2" | 2 |
| **R2444** | 1-1/4" | 25/64" | 25/32" | 1/2" | 3" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

## R2436 CONVEX BEADING BITS
WITH UPPER AND LOWER BALL BEARINGS



| PART NO. | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **R2436** | 3/4" | 1/8" | 1/4" | 1/4" | 2-1/4" | 2 |
| **R2437** | 7/8" | 13/64" | 25/64" | 1/4" | 2-3/8" | 2 |

### REPLACEMENT PARTS

| LOCK RING | WASHER | SPRING WASHER | CENTRE BALL BEARING | LOWER BALL BEARING | SCREW FOR BEARING |
|---|---|---|---|---|---|
| W01 | WR58 | WFS506 | B3-1 | B3 | WNC538 |

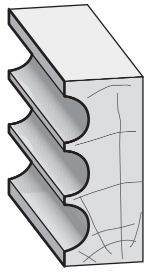
## FRB76-7 TRIPLE FLUTE CONVEX PROFILE BIT
R=1/8" WITH BALL BEARING GUIDE

| PART NO. | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **FRB76-7** | 7/8" | 1/8" | 1" | 1/4" | 2-1/2" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3-4 | WR59 | WFS506 | WNC538 |

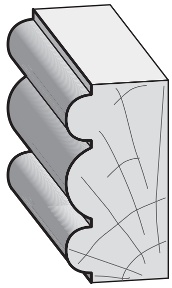
SCALE 1:1



## FRB76-4 TRIPLE BEADING PROFILE BIT
R=1/4",R=5/64",R=1/4"

| PART NO. | CUTTING DIAM. | RADIUS R1 | RADIUS R2 | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| **FRB76-4** | 3/4" | 5/64" | 1/4" | 1" | 1/4" | 2-1/8" | 2 |

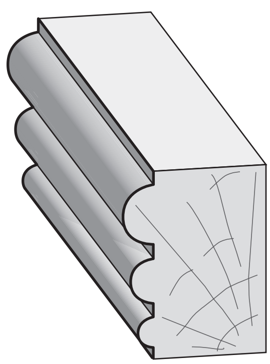
SCALE 1:1



## FRB76-5 VARIED BEAD PROFILE BIT
R=5/32",R=1/8",R=5/64"

| PART NO. | CUTTING DIAM. | RADIUS R1 | RADIUS R2 | RADIUS R3 | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|---|
| **FRB76-5** | 7/8" | 5/32" | 1/8" | 5/64" | 1-1/8 | 1/4" | 2-1/4" | 2 |

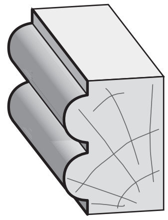
SCALE 1:1



## FRB77-9 DOUBLE BEADING PROFILE BIT
R=1/8" WITH BALL BEARING GUIDE

| PART NO. | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **FRB77-9** | 7/8" | 1/8" | 3/4" | 1/2" | 2-5/8" | 2 |

SCALE 1:1



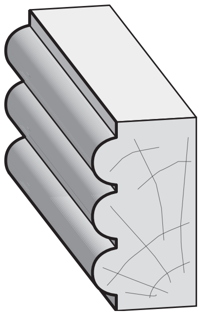
### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3-4 | WR59 | WFS506 | WNC538 |

# FRB77-5 TRIPLE BEADING PROFILE BITS
R=1/8" WITH BALL BEARING GUIDE

| PART NO. | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| FRB77-5 | 7/8" | 1/8" | 1" | 1/4" | 2-1/2" | 2 |

SCALE 1:1



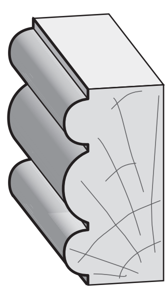
## REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3-4 | WR59 | WFS506 | WNC538 |

# FRB77-7 TRIPLE BEADING PROFILE BITS
R=1/8",R=3/16",R=1/8" WITH BALL BEARING GUIDE

| PART NO. | CUTTING DIAM. | RADIUS R1 | RADIUS R2 | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| FRB77-7 | 1" | 1/8" | 3/16" | 1" | 1/4" | 2-1/4" | 2 |
| FRB77-8 | 1" | 1/8" | 3/16" | 1" | 1/2" | 2-1/4" | 2 |

SCALE 1:1



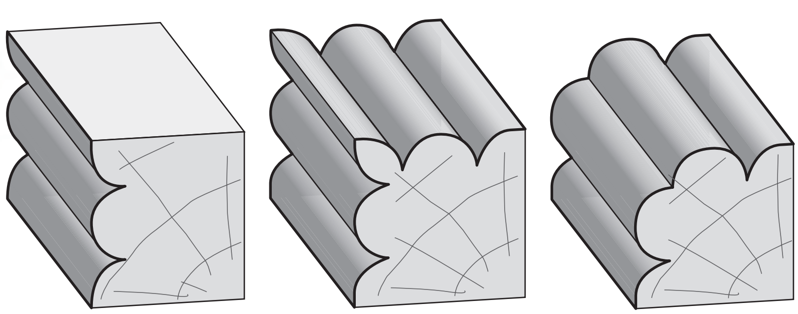
## REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B4 | WFS500 | WFS506 | WNC538 |

# FRB76-3 DOUBLE LEAF-EDGE BEADING PROFILE BIT
WITH BALL BEARING GUIDES

| PART NO. | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| FRB76-3 | 1" | 3/16" | 7/8" | 1/4" | 3" | 2 |

SCALE 1:1



## REPLACEMENT PARTS

| BALL BEARING | LOCK RING | SCREW |
|---|---|---|
| B3-3 | W01 | WNF1012 |

# LEAF-EDGE BEADING PROFILE BITS
## WITH BALL BEARING GUIDES

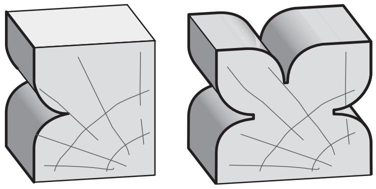
| PART NO. | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **FRB76** | 1" | 3/16" | 1/2" | 1/4" | 2-1/2" | 2 |
| **FRB76-1** | 1-1/8" | 1/4" | 5/8" | 1/4" | 2-5/8" | 2 |
| **FRB76-2** | 1-3/8" | 3/8" | 7/8" | 1/4" | 2-7/8" | 2 |

## REPLACEMENT PARTS

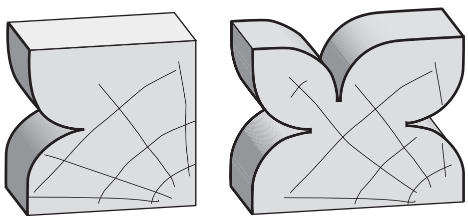
| BALL BEARING | LOCK RING | LOCK RING SCREW | SCREW |
|---|---|---|---|
| B3-3 | W01 | WNC525 | WNF1012 |

**SCALE 1:1**

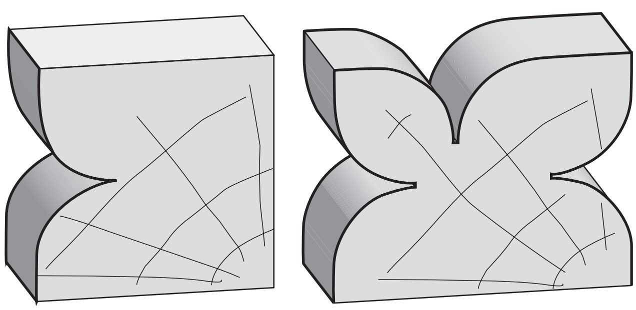
**FRB76**



**FRB76-1**

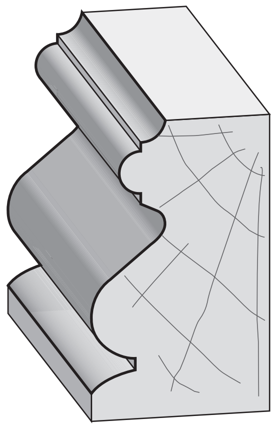


**FRB76-2**



## FRB101 TRADITIONAL BEAD & COVE EDGE MOULDING BIT
WITH BALL BEARING GUIDE

SCALE 1:1



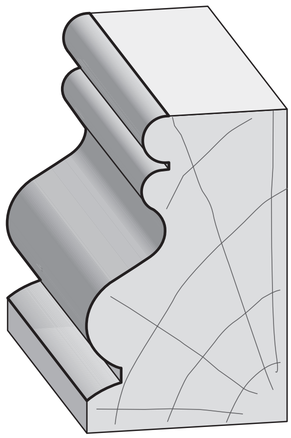
| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB101 | 1-3/8" | 1-5/8" | 1/2" | 3-1/2" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

## FRB100 TRADITIONAL BIT DOUBLE BEAD EDGE MOULDING BIT
WITH BALL BEARING GUIDE

SCALE 1:1



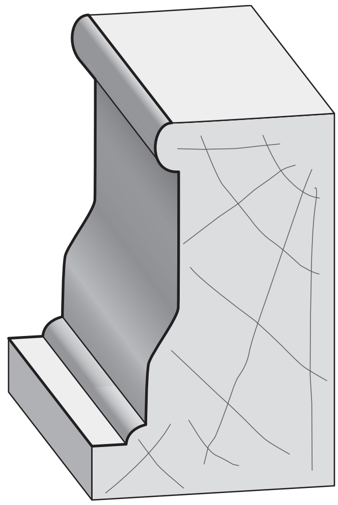
| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB100 | 1-3/8" | 1-5/8" | 1/2" | 3-1/2" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

## FRB102 BEADED EDGE MOULDING BIT
WITH BALL BEARING GUIDE

SCALE 1:1



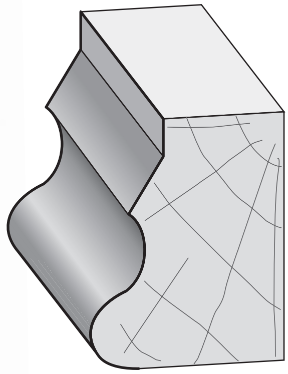
| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB102 | 1-3/8" | 1-3/4" | 1/2" | 3-5/8" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

## FRB104 OGEE WITH SPLAY EDGE MOULDING BIT
WITH BALL BEARING GUIDE

SCALE 1:1



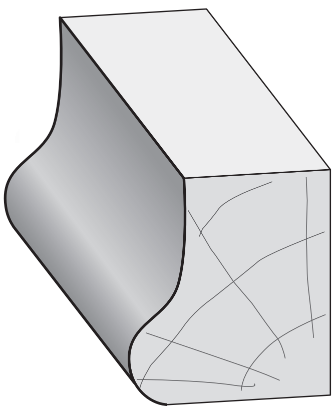
| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| **FRB104** | 1-3/8" | 1-1/2" | 1/2" | 3-3/8" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3-4 | WR59 | WFS506 | WNC538 |

## FRB106 OGEE EDGE MOULDING BIT
WITH BALL BEARING GUIDE

SCALE 1:1



| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| **FRB106** | 1-3/16" | 1-3/8" | 1/2" | 3-1/4" | 2 |

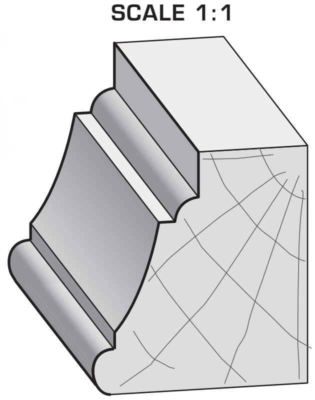
### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3-4 | WR59 | WFS506 | WNC538 |

## FRB107 BEADED CAVETTO EDGE MOULDING BIT
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| **FRB107** | 1-3/4" | 1-1/2" | 1/2" | 3-7/16" | 2 |

SCALE 1:1

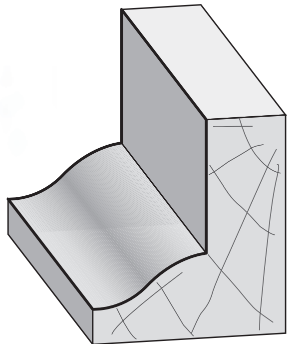


### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3-4 | WR59 | WFS506 | WNC538 |

## FRB108 OGEE EDGE MOULDING BIT
WITH BALL BEARING GUIDE

SCALE 1:1



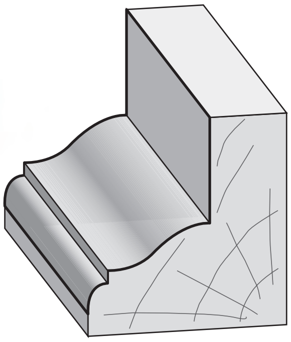
| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB108 | 1-3/4" | 1" | 1/2" | 3" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3-2 | WR59 | WFS506 | WNC538 |

## FRB109 OGEE WITH BEAD EDGE MOULDING BIT
WITH BALL BEARING GUIDE

SCALE 1:1



| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB109 | 1-3/4" | 1" | 1/2" | 3" | 2 |

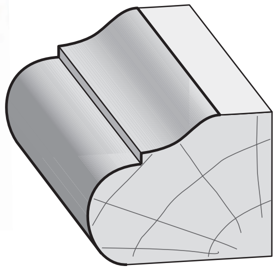
### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

## FRB111 BEAD WITH ELLIPSE OGEE MOULDING BIT
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB111 | 2" | 1" | 1/2" | 2-7/8" | 2 |

SCALE 1:1



### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

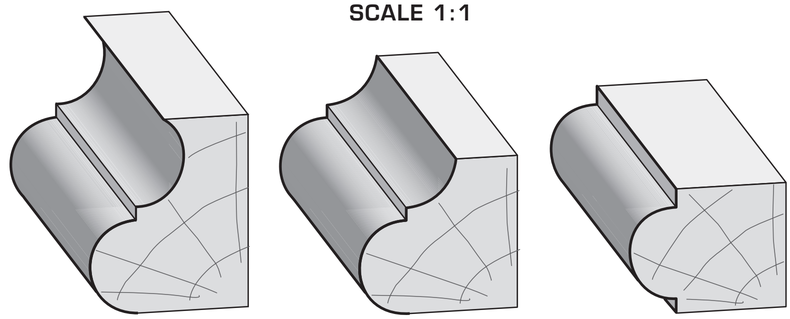
## FRB105 BEAD AND COVE EDGE MOULDING BIT
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | CUTTING LENGTH | RADIUS | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| FRB105 | 2" | 1-1/4" | 1/4" | 1/2" | 3-1/8" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3-4 | WR59 | WFS506 | WNC538 |

SCALE 1:1



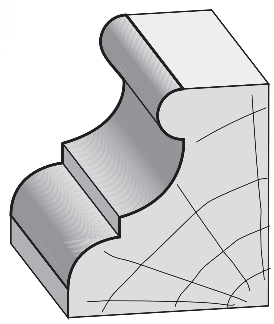
## FRB110 BEAD AND COVE WITH TOP BEAD MOULDING BIT
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB110 | 1-5/8" | 1-1/8" | 1/2" | 3" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

SCALE 1:1



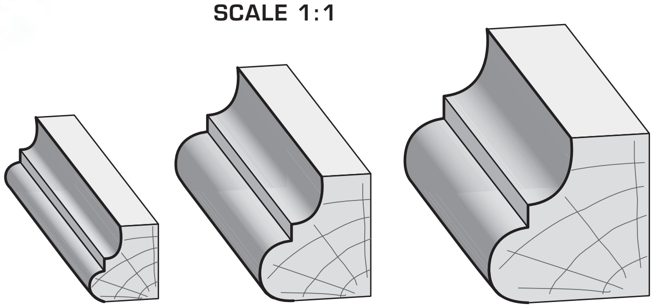
## FRB113 BEAD AND COVE MOULDING BITS
WITH BALL BEARING GUIDE

| PART NO. | CUTTING DIAM. | RADIUS R1 | RADIUS R2 | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| **FRB113** | 13/16" | 5/64" | 5/64" | 19/32" | 1/2" | 2-1/2" | 2 |
| **FRB113-1** | 1-1/4" | 5/32" | 5/32" | 7/8" | 1/2" | 2-3/4" | 2 |
| **FRB113-2** | 1-9/16" | 7/32" | 3/16" | 1-3/16" | 1/2" | 3-1/16" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3-4 | WR59 | WFS506 | WNC538 |

SCALE 1:1



FRB113 FRB113-1 FRB113-2

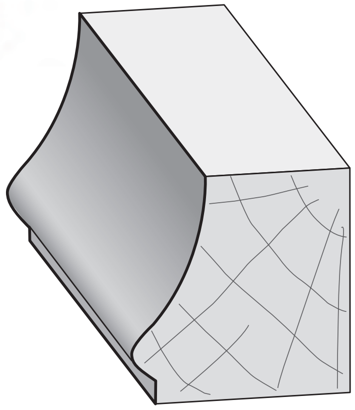
## FRB114 ECHINUS MOULDING BIT
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| **FRB114** | 1-1/2" | 1-3/16" | 1/2" | 3-1/4" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | SPRING WASHER | SCREW |
|---|---|---|
| B4 | WFS500 | WNF1012 |

SCALE 1:1



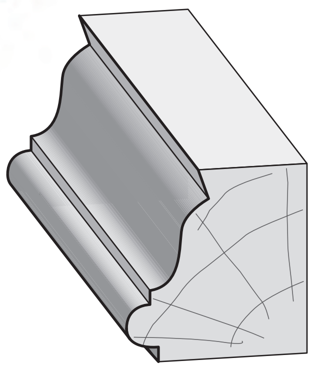
## FRB116 ROMAN OGEE WITH BEAD MOULDING BIT
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB116 | 1-1/2" | 1-3/16" | 1/2" | 3-1/8" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3-4 | WR59 | WFS506 | WNC538 |

SCALE 1:1



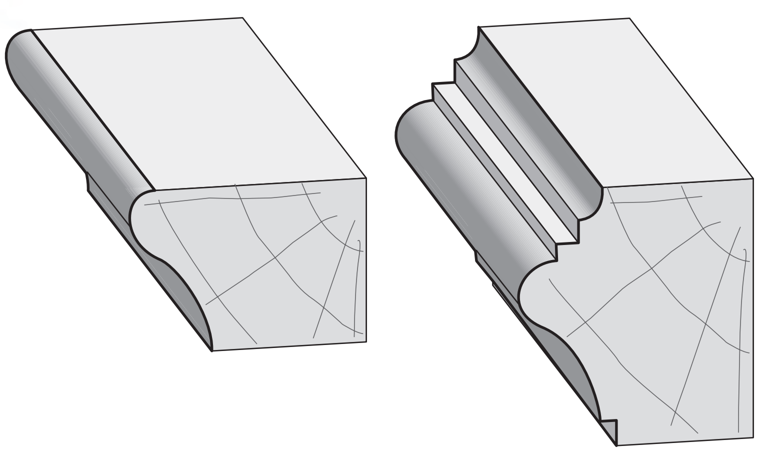
## FRB115 ECHINUS WITH COVE MOULDING BIT
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB115 | 1-21/32" | 1-9/16" | 1/2" | 3-1/2" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3-4 | WR59 | WFS506 | WNC538 |

SCALE 1:1



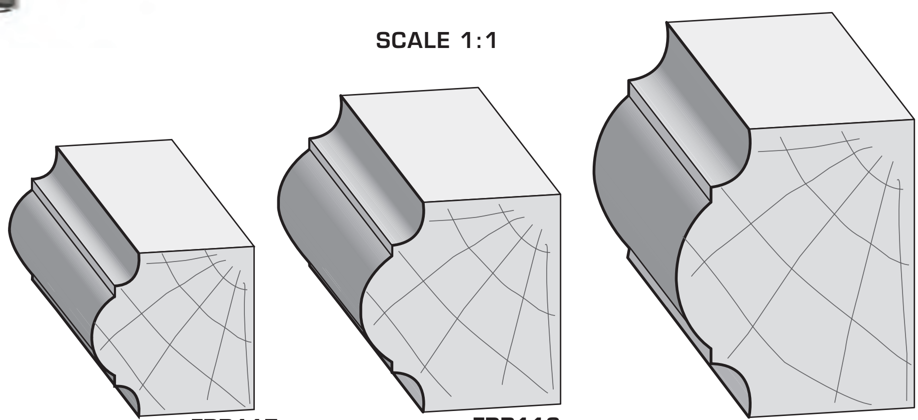
# FRB117 COVED ASTRAGAL MOULDING BITS
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| FRB117 | 1-1/8" | 15/64" | 1" | 1/2" | 2-7/8" | 2 |
| FRB118 | 1-1/4" | 5/16" | 1-3/16" | 1/2" | 3-1/8" | 2 |
| FRB119 | 1-3/8" | 33/64" | 1-9/16" | 1/2" | 3-1/2" | 2 |

## REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3-4 | WR59 | WFS506 | WNC538 |

SCALE 1:1



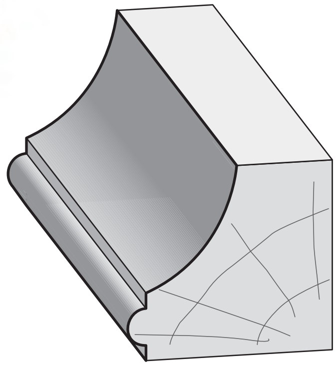

# FRB120 CAVETTO WITH BEAD MOULDING BIT
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB120 | 1-3/4" | 1-3/16" | 1/2" | 3-1/8" | 2 |

## REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3-4 | WR59 | WFS506 | WNC538 |

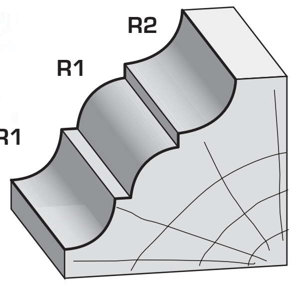
SCALE 1:1



## FRB124 COVE AND BEAD WITH TOP COVE MOULDING BIT
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | RADIUS R1 | RADIUS R2 | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| FRB124 | 2-5/16" | 1/4" | 19/64" | 7/8" | 1/2" | 2-3/4" | 2 |

SCALE 1:1



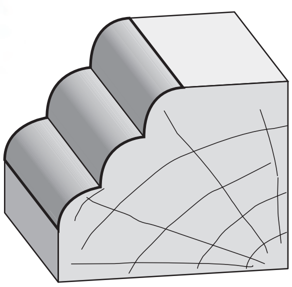

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

## FRB123 TRIPLE BEAD MOULDING BIT
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| FRB123 | 1-7/8" | 15/64" | 15/16" | 1/2" | 2-7/8" | 2 |

SCALE 1:1



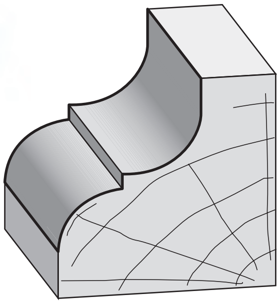
### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

## FRB122 CLASSICAL OGEE MOULDING BIT
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| FRB122 | 2" | 21/64" | 1-7/32" | 1/2" | 3-1/8" | 2 |

SCALE 1:1



### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

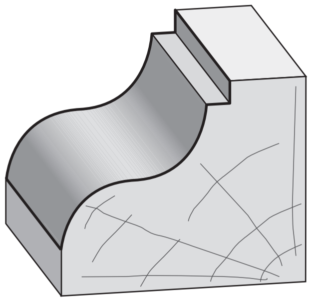
## FRB121 OGEE WITH FILLET MOULDING BIT
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB121 | 2-1/4" | 1" | 1/2" | 2-7/8" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

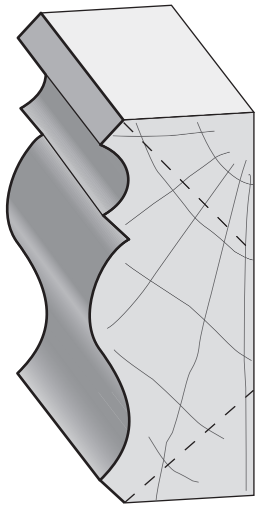
SCALE 1:1



## FRB150 FLUTED OGEE WITH BEAK CROWN MOULDING BIT
TWO FLUTES

| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB150 | 1-1/4" | 2-1/4" | 1/2" | 3-3/4" | 2 |

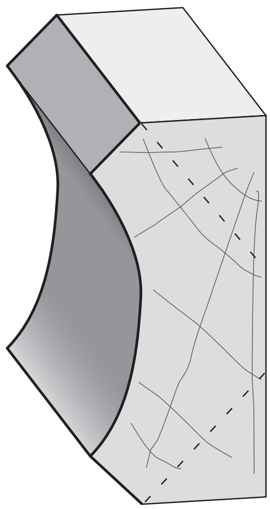
SCALE 1:1



## FRB151 SPLAYED CAVETTO CROWN MOULDING BIT
TWO FLUTES

| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB151 | 1-1/4" | 2-1/4" | 1/2" | 3-3/4" | 2 |

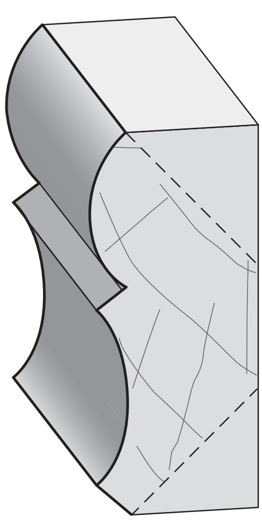
SCALE 1:1



## FRB152 OVOLO CAVETTO WITH BEAK CROWN MOULDING BIT
TWO FLUTES

| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB152 | 1-1/4" | 2-1/4" | 1/2" | 3-3/4" | 2 |

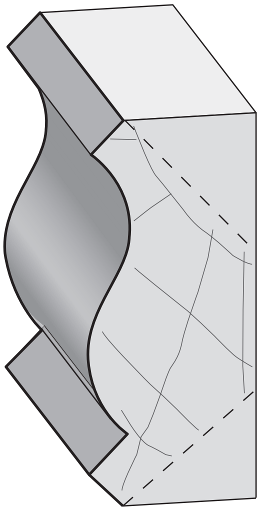
SCALE 1:1



## FRB153 OGEE WITH BEAK CROWN MOULDING BIT
TWO FLUTES

| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB153 | 1-1/4" | 2-1/4" | 1/2" | 3-3/4" | 2 |

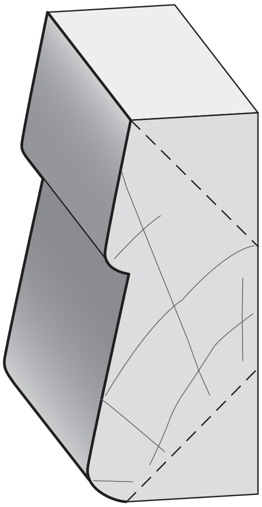
SCALE 1:1



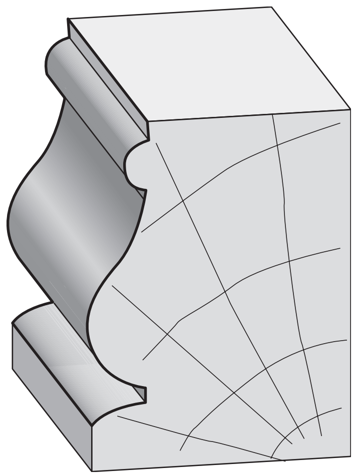
## FRB154 DOUBLE ECHINUS CROWN MOULDING BIT
TWO FLUTES

| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB154 | 1-1/4" | 2-1/4" | 1/2" | 3-3/4" | 2 |

SCALE 1:1



## FRB78-1 BEADED VASE ARCHITECTURAL MOULDING BIT
WITH BALL BEARING GUIDE

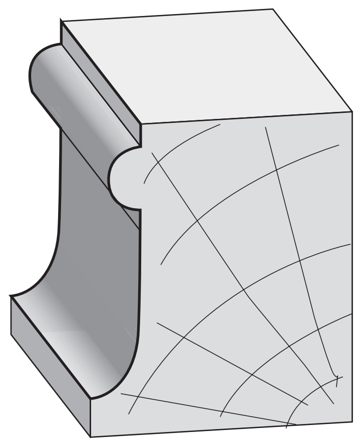



| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB78-1 | 1-1/16" | 1-3/4" | 1/2" | 3-3/4" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

## FRB78-2 BEADED CONGE ARCHITECTURAL MOULDING BIT
WITH BALL BEARING GUIDE

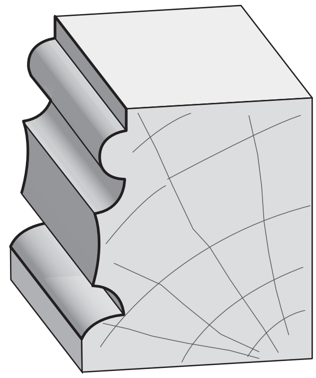



| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB78-2 | 1" | 1-1/2" | 1/2" | 3-3/8" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

## FRB78-3 BEADED CAVETTO WITH BEAK ARCHITECTURAL BIT
WITH BALL BEARING GUIDE



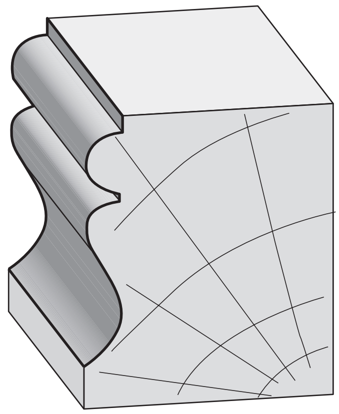

| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB78-3 | 1" | 1-1/2" | 1/2" | 3-1/2" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

## FRB78-4 BEADED SCOTIA ARCHITECTURAL MOULDING BIT
WITH BALL BEARING GUIDE

SCALE 1:1



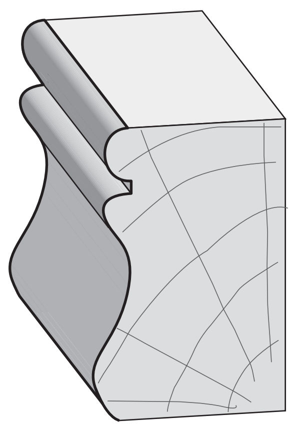
| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB78-4 | 7/8" | 1-1/2" | 1/2" | 3-3/8" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

## FRB78-5 BEADED VASE ARCHITECTURAL MOULDING BIT
WITH BALL BEARING GUIDE

SCALE 1:1



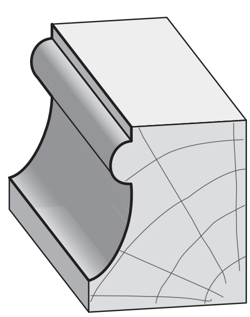
| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB78-5 | 1" | 1-3/4" | 1/2" | 3-3/4" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

## FRB78-6 BEADED CAVETTO ARCHITECTURAL MOULDING BIT
WITH BALL BEARING GUIDE

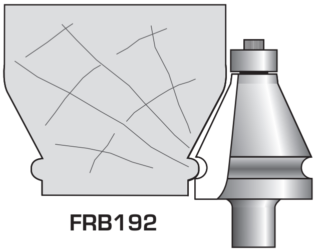
SCALE 1:1



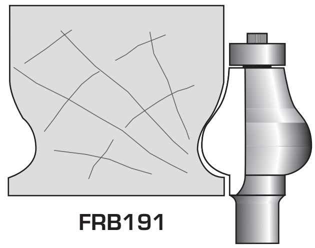
| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB78-6 | 1" | 1" | 1/2" | 2-7/8" | 2 |

### REPLACEMENT PARTS

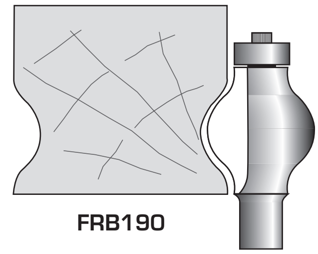
| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |



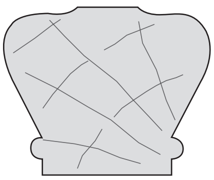
FRB192



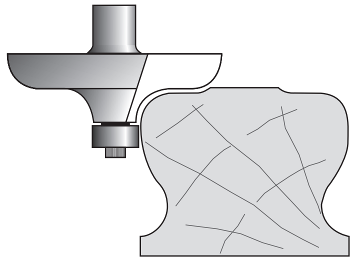
FRB191



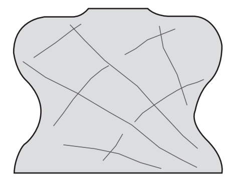
FRB190



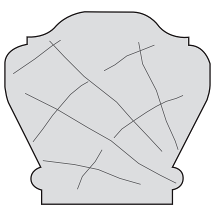
FRB183
FRB192



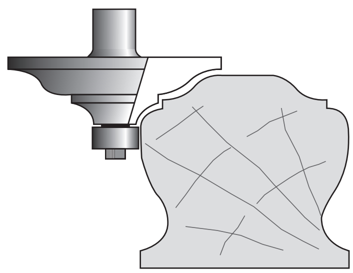
FRB183
FRB191



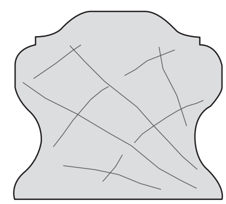
FRB183
FRB190



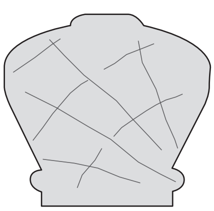
FRB181
FRB192



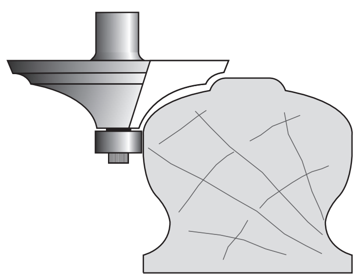
FRB181
FRB191



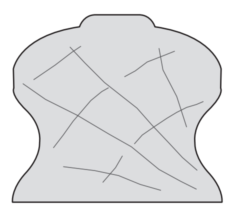
FRB181
FRB190



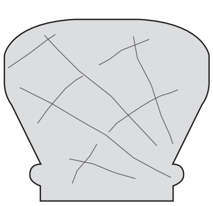
FRB182
FRB192



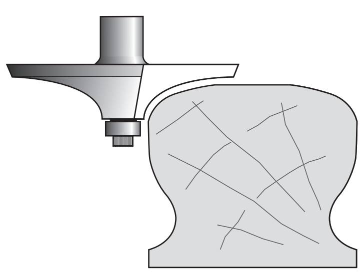
FRB182
FRB191



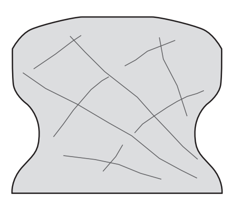
FRB182
FRB190



FRB180
FRB192



FRB180
FRB191



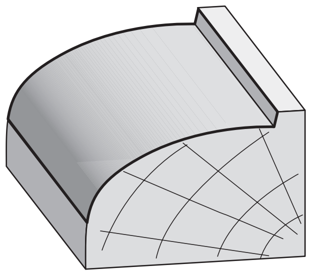
FRB180
FRB190

## FRB180 THUMBNAIL HANDRAIL BIT
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO FLUTES |
|---|---|---|---|---|---|
| **FRB180** • | 2-3/4" | 11/16" | 1/2" | 2-1/2" | 2 |

• Max. RPM: 18,000

SCALE 1:1



### REPLACEMENT PARTS

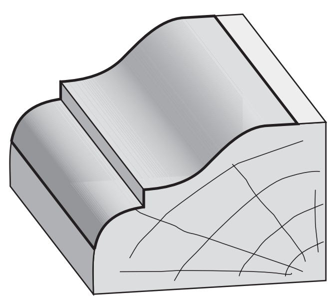
| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

## FRB181 QUARTER ROUND WITH OGEE HANDRAIL BIT
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO FLUTES |
|---|---|---|---|---|---|
| **FRB181** • | 2-1/2" | 25/32" | 1/2" | 2-3/4" | 2 |

• Max. RPM: 18,000

SCALE 1:1



### REPLACEMENT PARTS

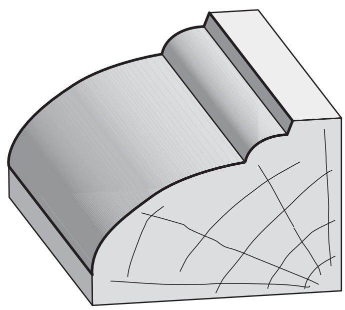
| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

## FRB182 THUMBNAIL WITH QUARTER ROUND HANDRAIL BIT
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO FLUTES |
|---|---|---|---|---|---|
| **FRB182** • | 2-5/8" | 3/4" | 1/2" | 2-5/8" | 2 |

• Max. RPM: 18,000

SCALE 1:1



### REPLACEMENT PARTS

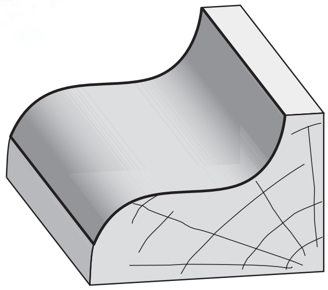
| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

# FRB183 ROUND OVER WITH CAVETTO HANDRAIL BIT
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO FLUTES |
|---|---|---|---|---|---|
| FRB183 • | 2-1/2" | 25/32" | 1/2" | 2-3/4" | 2 |

- Max. RPM: 18,000

SCALE 1:1



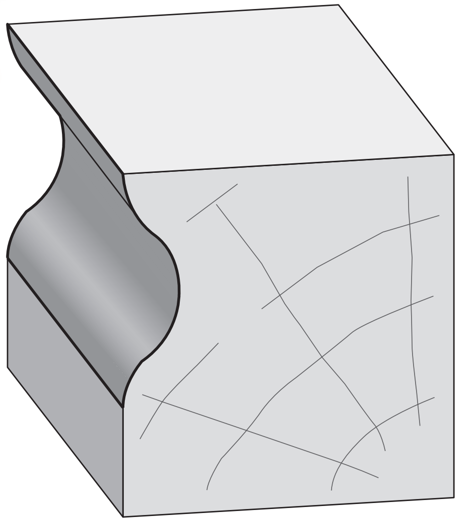
## REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

# FRB190 CAVETTO HANDRAIL BIT
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB190 | 1-1/4" | 1-1/2" | 1/2" | 3-3/8" | 2 |

SCALE 1:1



## REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3-4 | WR59 | WFS506 | WNC538 |

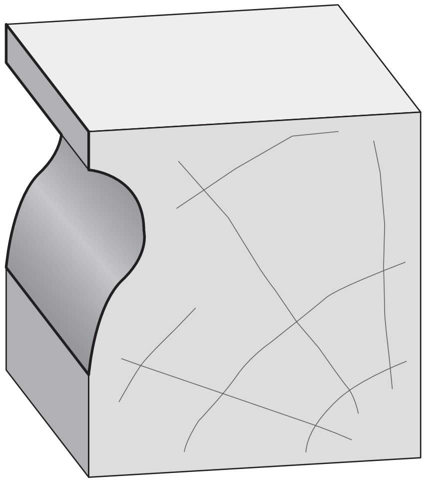
## FRB191 SCOTIA WITH FILLET HANDRAIL BIT
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB191 | 1-1/4" | 1-1/2" | 1/2" | 3-3/8" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3-4 | WR59 | WFS506 | WNC538 |

SCALE 1:1



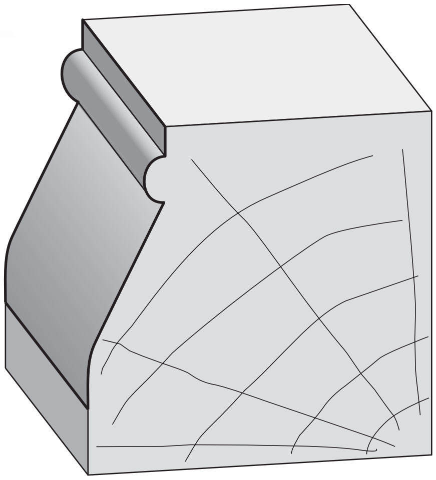
## FRB192 BEADED SPLAY HANDRAIL BIT
WITH BALL BEARING GUIDE

| PART NO. | LARGE DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB192 | 1-3/8" | 1-1/2" | 1/2" | 3-3/8" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SPRING WASHER | SCREW |
|---|---|---|---|
| B3 | WR58 | WFS506 | WNC538 |

SCALE 1:1

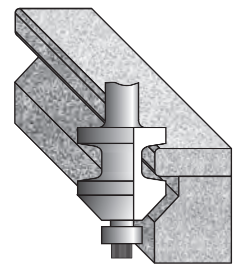


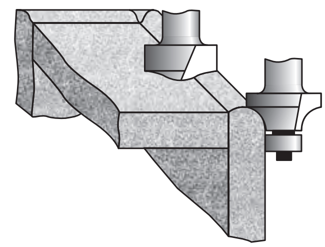
SPECIAL ROUTER BITS FOR FABRICATING

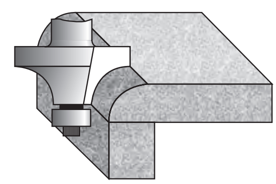
**SOLID SURFACE MATERIALS**

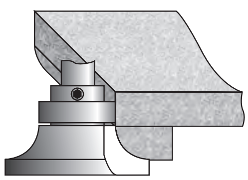
WILSONART® GIBRALTAR®, SSV®; CORIAN®;

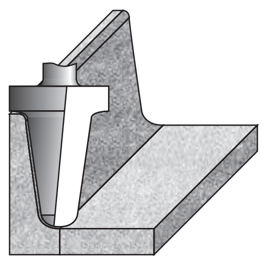
SURELL®; AVONITE®; FOUNTAINHEAD®, etc.

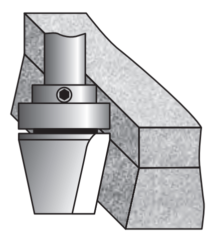


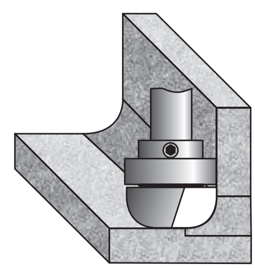








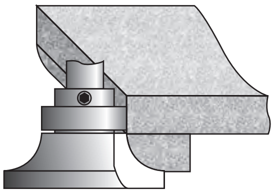




**FS Tool Router Bits** have been specifically engineered for the fabrication of **solid surface materials**. Tough carbide grades and specific tool geometry ensures extended tool life. Ball bearing guides, where possible, have a nylon shield to prevent marking of the workpiece. See page E7 for solid surface circular saw blades.

## FRB407 INVERTED ROUNDING OVER BITS
### WITH "NO MARK" BALL BEARING GUIDE

| PART NO. | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| FRB407 | 2-1/8" | 1/2" | 3/4" | 1/2" | 2-7/8" | 2 |
| FRB408 | 2-5/8" | 3/4" | 1" | 1/2" | 3" | 2 |

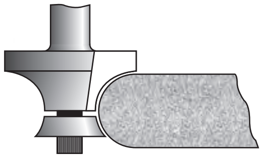


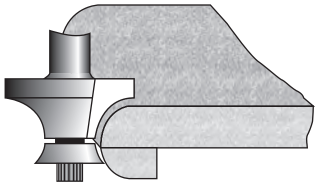
### REPLACEMENT PARTS

| BALL BEARING | LOCK RING | SCREW |
|---|---|---|
| B30 | W03 | WNC518 |

## FRB430 CORNER ROUNDING BITS
### WITH RADIUS "NO MARK" BALL BEARING

| PART NO. | LARGE DIAM. | SMALL DIAM | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| FRB430 | 1-5/8" | 5/8" | 1/2" | 47/64" | 1/2" | 2-1/16" | 2 |
| FRB431 | 2-1/8" | 5/8" | 3/4" | 63/64" | 1/2" | 2-15/16" | 2 |
| FRB432 | 2-5/8" | 5/8" | 1" | 1-15/64" | 1/2" | 3-3/16" | 2 |





### REPLACEMENT PARTS

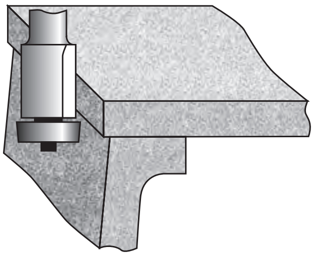
| TOOL NO. | BALL BEARING | WASHER | SCREW |
|---|---|---|---|
| FRB430 | B80 | WFS500 | WNF1012 |
| FRB431 | B82 | WFS500 | WNF1012 |
| FRB432 | B84 | WFS500 | WNF1012 |

## FRB418 1/16" OVERHANG ROUGH-OUT BIT
### "NO-DRIP" DESIGN WITH 5° "NO MARK" BALL BEARING GUIDE

**APPLICATION:**

» Using a template, this tool will "rough-out" the sink cut-out
» A second tool (flush trim FRB424) will finish the cut flush

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB418 | 3/4" | 1" | 1/2" | 3-1/4" | 2 |

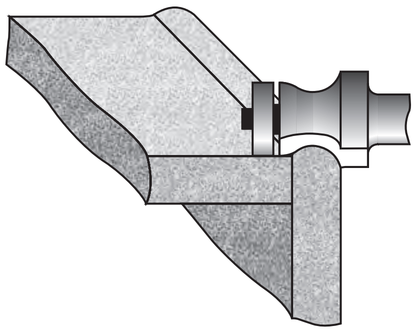


### REPLACEMENT PARTS

| BALL BEARING | SCREW |
|---|---|
| B26 | WNF1012 |

## FRB400 COUNTERTOP BITS
WITH "NO MARK" BALL BEARING GUIDE

| PART NO. | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| FRB400 | 1" | 5/16" | 7/8" | 1/2" | 2-7/8" | 2 |
| FRB401 | 1" | 5/16" | 1-1/8" | 1/2" | 3-1/16" | 2 |

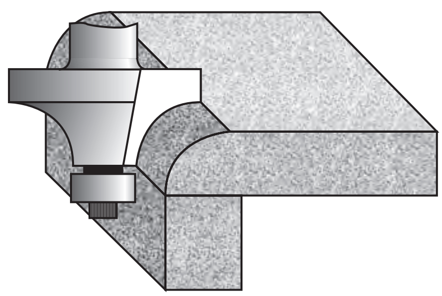


### REPLACEMENT PARTS

| BALL BEARING | SPRING WASHER | SCREW |
|---|---|---|
| B22 | WFS508 | WNF1012 |

## FRB410 ROUNDING OVER BITS
WITH "NO MARK" BALL BEARING GUIDE

| PART NO. | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| FRB410 | 1-1/8" | 5/16" | 1/2" | 1/2" | 2-5/16" | 2 |
| FRB411 | 1-1/4" | 3/8" | 5/8" | 1/2" | 2-7/16" | 2 |
| FRB412 | 1-1/2" | 1/2" | 3/4" | 1/2" | 2-9/16" | 2 |
| FRB413 | 2" | 3/4" | 1" | 1/2" | 2-3/4" | 2 |

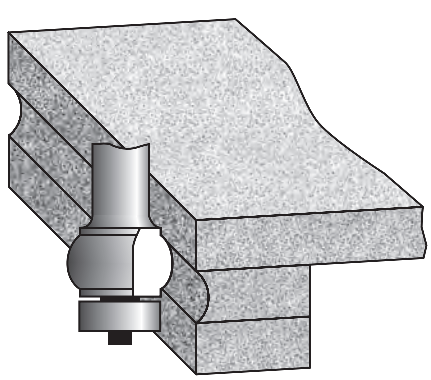


### REPLACEMENT PARTS

| BALL BEARING | SPRING WASHER | SCREW |
|---|---|---|
| B20 | WFS500 | WNC538 |

## FRB426 EDGE COVE TRIMMING BIT
WITH "NO MARK" BALL BEARING GUIDE

| PART NO. | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| FRB426 | 1" | 5/16" | 5/8" | 1/2" | 2-5/8" | 2 |

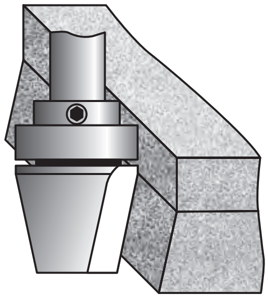


### REPLACEMENT PARTS

| BALL BEARING | SCREW |
|---|---|
| B22 | WNF1012 |

## FRB420 EDGE BEVEL COUNTERTOP BIT
WITH BALL BEARING GUIDE

| PART NO. | CUTTING DIAM. | DEG. BEVEL | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| FRB420 | 1-1/8" | 12° | 1" | 1/2" | 3-1/8" | 2 |

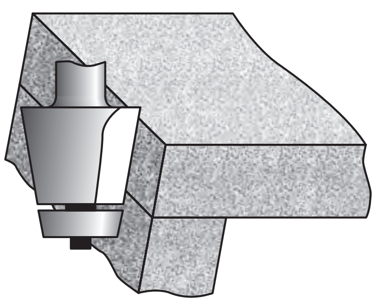


### REPLACEMENT PARTS

| BALL BEARING | LOCK RING | SCREW |
|---|---|---|
| B6-4 | W03 | WNC518 |

## FRB402 BEVEL UNDERMOUNT BOWL BITS
WITH "NO MARK" BALL BEARING GUIDE

| PART NO. | CUTTING DIAM. | DEG. BEVEL | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| FRB402 | 1-1/4" | 12° | 1" | 1/2" | 3-3/16" | 2 |

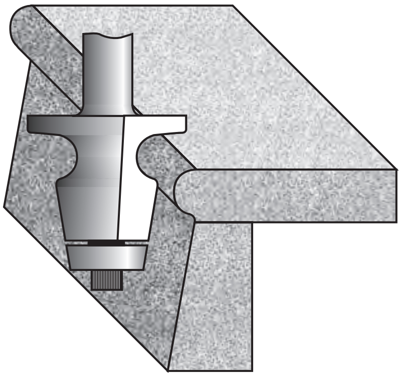


### REPLACEMENT PARTS

| BALL BEARING | SPRING WASHER | SCREW |
|---|---|---|
| B24 | WFS508 | WNF1012 |

## FRB438 UNDERMOUNT PROFILE BOWL BITS
WITH "NO MARK" BALL BEARING GUIDE

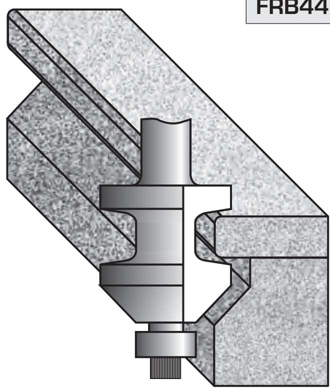
| PART NO. | LARGE DIAM. | SMALL DIAM. | DEG. BEVEL | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|---|
| FRB438 | 1-21/32" | 7/8" | 10° | 15/64" | 1-5/16" | 1/2" | 3-5/16" | 2 |



### REPLACEMENT PARTS

| BALL BEARING | WASHER | SCREW |
|---|---|---|
| B24 | WFS500 | WNF1012 |

## FRB448 BEVEL HOB BITS
TWO FLUTES

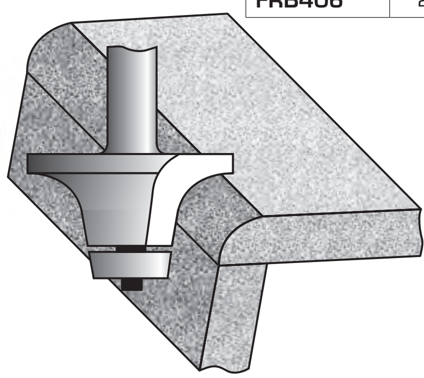


| PART NO. | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| FRB448 | 1-3/8" | 1/8" | 1-7/16" | 1/2" | 2-7/8" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SCREW |
|---|---|---|
| B3-3 | WFS502 | WNF1012 |

## FRB405 ROUNDING OVER UNDERMOUNT BOWL BITS
WITH “NO MARK” BALL BEARING GUIDE

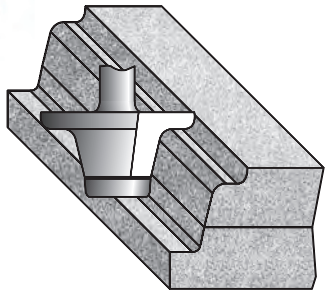


| PART NO. | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| FRB405 | 2-1/8" | 1/2" | 1" | 1/2" | 3-1/8" | 2 |
| FRB406 | 2-1/4" | 9/16" | 1-1/4" | 1/2" | 3-1/4" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | SPRING WASHER | SCREW |
|---|---|---|
| B24 | WFS508 | WNF1012 |

## FRB436 UNDERMOUNT BOWL BITS
WITH “NO MARK” BALL BEARING GUIDE

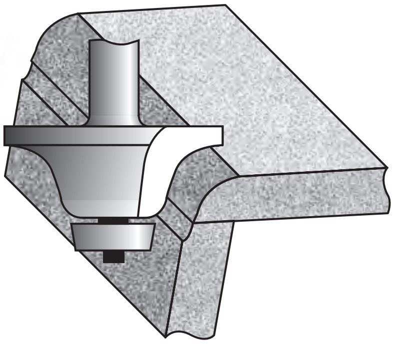


| PART NO. | LARGE DIAM. | RADIUS R1 | RADIUS R2 | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| FRB436 | 2-1/4" | 13/64" | 5/32" | 15/16" | 1/2" | 2-3/4" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | WASHER | SCREW |
|---|---|---|
| B21 | WFS500 | W103214 |

## FRB403 ROMAN OGEE UNDERMOUNT BOWL BITS
WITH "NO MARK" BALL BEARING GUIDE

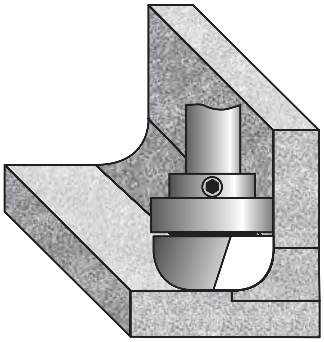


| PART NO. | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **FRB403** | 2-1/8" | 1/2" | 1" | 1/2" | 3" | 2 |
| **FRB404** | 2-3/8" | 9/16" | 1-1/4" | 1/2" | 3-3/8" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | SPRING WASHER | SCREW |
|---|---|---|
| B24 | WFS508 | WNF1012 |

## FRB440 CORNER COVE BIT
WITH CENTRE "NO MARK" BALL BEARING GUIDE



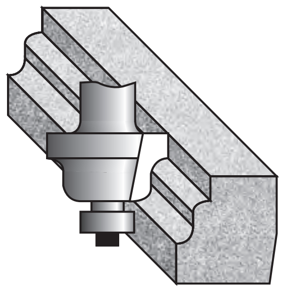
| PART NO. | CUTTING DIAM. | RADIUS | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **FRB440** | 1-1/8" | 25/64" | 1/2" | 1/2" | 2-7/8" | 2 |

### REPLACEMENT PARTS

| BALL BEARING | LOCK RING | SCREW |
|---|---|---|
| B30 | W03 | WNC518 |

# FRB442 ROMAN OGEE BIT
WITH "NO MARK" BALL BEARING GUIDE

| PART NO. | CUTTING DIAM. | RADIUS R1 | RADIUS R2 | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| **FRB442** | 1-1/8" | 1/8" | 5/32" | 5/8" | 1/2" | 2-9/16" | 2 |

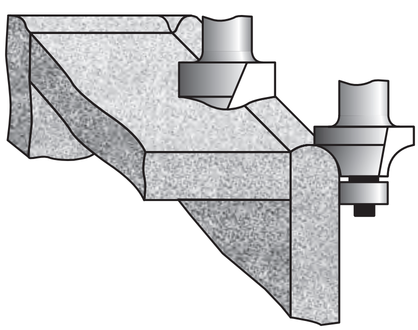


## REPLACEMENT PARTS

| BALL BEARING | WASHER | SCREW |
|---|---|---|
| B20 | WFS500 | WNC538 |

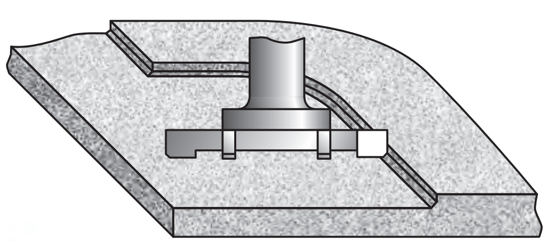
# FRB416 COUNTERTOP EDGE BIT
"NO-DRIP" DESIGN

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| **FRB416** | 1" | 1/2" | 1/2" | 2-1/8" | 2 |



# FRB470 BOWL AND COUNTERTOP TRIM BIT
SIX WING FACE CUTTING

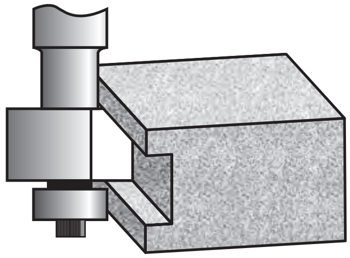
| PART NO. | CUTTING DIAM. | CARBIDE HEIGHT | SHANK DIAM. | OVERALL LENGTH | NO. WINGS |
|---|---|---|---|---|---|
| **FRB470** | 2-1/16" | 1/4" | 1/2" | 3-5/16" | 6 |



## FRB460 FACE INLAY BITS
WITH BALL BEARING GUIDE

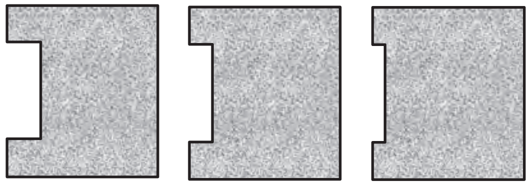
| PART NO. | TOOL TYPE | CUTTING DIAM. | CUTTING HEIGHT | DEPTH OF INLAY | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| FRB460 | A | 7/8" | 1/4" | 1/16" | 1/2" | 3" | 2 |
| FRB461 | B | 7/8" | 1/4" | 1/8" | 1/2" | 3" | 2 |
| FRB462 | C | 7/8" | 1/4" | 3/16" | 1/2" | 3" | 2 |
| FRB463 | A | 7/8" | 1/2" | 1/16" | 1/2" | 3-1/2" | 2 |
| FRB464 | B | 7/8" | 1/2" | 1/8" | 1/2" | 3-1/2" | 2 |
| FRB466 | A | 7/8" | 3/4" | 1/16" | 1/2" | 3-1/2" | 2 |
| FRB467 | B | 7/8" | 3/4" | 1/8" | 1/2" | 3-1/2" | 2 |
| FRB468 | C | 7/8" | 3/4" | 3/16" | 1/2" | 3-1/2" | 2 |

SCALE 1:1



### REPLACEMENT PARTS

| TOOL TYPE | BALL BEARING | WASHER | SCREW |
|---|---|---|---|
| A | B4 | WFS500 | WNF1012 |
| B | B3-3 | WFS500 | WNF1012 |
| C | B3-1 | WFS500 | WNF1012 |



3/16" Depth of Inlay

1/8" Depth of Inlay

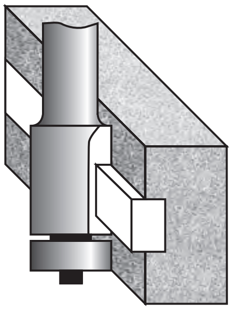
1/16" Depth of Inlay

## FRB424 INLAY FLUSH TRIMMING BITS
WITH “NO MARK” BALL BEARING GUIDE

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| FRB424 | 3/4" | 1" | 1/2" | 3-1/4" | 2 |

### REPLACEMENT PARTS

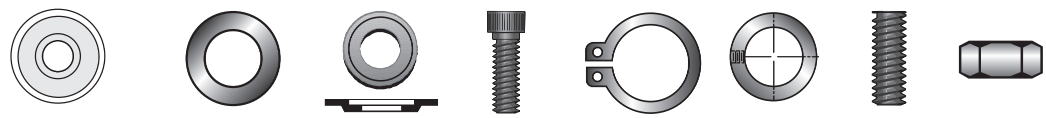
| BALL BEARING | SCREW |
|---|---|
| B22 | WNF1012 |



| ROUTER BIT PART NO. | CAT. PAGE | BALL BEARING(S) | FLAT/SPRING WASHER | RAISED WASHER | SCREW | EXTERNAL CIRCLIP | LOCK RING | LOCK RING SCREW | HEX NUT |
|---|---|---|---|---|---|---|---|---|---|
| FRB14 TO FRB17 | F53 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| FRB18 TO FRB20 | F56 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| FRB21 TO FRB23 | F57 | B2 | WFS500, WFS506 | - | WNC538 | - | - | - | - |
| FRB23-5 | F63 | see page F63 | - | - | - | - | - | - | - |
| FRB23-6 | F64 | see page F64 | - | - | - | - | - | - | - |
| FRB23-7 | F62 | see page F62 | - | - | - | - | - | - | - |
| FRB24 TO FRB24-1 | F60 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| FRB25 | F55 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| FRB25-3 | F61 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| FRB27 TO FRB28 | F69 | see page F69 | - | - | - | - | - | - | - |
| FRB30 TO FRB31 | F68 | see page F68 | - | - | - | - | - | - | - |
| FRB31-1, FRB31-3 | F70 | see page F70 | - | - | - | - | - | - | - |
| FRB31-2, FRB31-4 | F71 | see page F71 | - | - | - | - | - | - | - |
| FRB31-5 | F72 | B5 | - | - | - | - | - | - | WNF516 |
| FRB31-6 | F35 | see page F35 | - | - | - | - | - | - | WNF516 |
| FRB31-7 | F34 | see page F34 | - | - | - | - | - | - | WNF516 |
| FRB33 TO FRB36 | F54 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| FRB37 TO FRB40 | F54 | B1 | WFS504 | WR12 | WNC538 | - | - | - | - |
| FRB40-1 TO FRB40-2 | F55 | B3 | WFS504 | WR58 | WNC538 | - | - | - | - |
| FRB41 TO FRB44 | F56 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| FRB49 TO FRB52 | F53 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| FRB63 | F58 | B5 | - | - | - | WC01 | - | - | - |
| FRB64 | F58 | B7 | - | - | - | WC02 | - | - | - |
| FRB65 | F58 | B5 | - | - | - | WC01 | - | - | - |
| FRB66 | F58 | B7 | - | - | - | WC02 | - | - | - |
| FRB67 TO FRB69 | F57 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| FRB74 TO FRB74-1 | F81 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| FRB74-2 TO FRB74-6 | F81 | B3-4 | WFS506 | WR59 | WNC538 | - | - | - | - |
| FRB76 TO FRB76-2 | F86 | B3-3 | - | - | WNF1012 | - | W01 | WNC525 | - |
| FRB76-3 | F85 | B3-3 | - | - | WNF1012 | - | W01 | WNC525 | - |
| FRB76-7 | F83 | B3-4 | WFS506 | WR59 | WNC538 | - | - | - | - |
| FRB77-1 TO FRB77-4 | F82 | B3-4 | WFS506 | WR59 | WNC538 | - | - | - | - |
| FRB77-5 TO FRB77-6 | F85 | B3-4 | WFS506 | WR59 | WNC538 | - | - | - | - |
| FRB77-7 TO FRB77-8 | F85 | B4 | WFS500, WFS506 | - | WNC538 | - | - | - | - |
| FRB77-9 | F84 | B3-4 | WFS506 | WR59 | WNC538 | - | - | - | - |
| FRB78-1 TO FRB78-3 | F98 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| FRB78-4 TO FRB78-6 | F99 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| FRB100 | F87 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| FRB101 TO FRB102 | F87 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| FRB104 | F88 | B3-4 | WFS506 | WR59 | WNC538 | - | - | - | - |
| FRB106 TO FRB107 | F88 | B3-4 | WFS506 | WR59 | WNC538 | - | - | - | - |
| FRB105 | F90 | B3-4 | WFS506 | WR59 | WNC538 | - | - | - | - |
| FRB108 | F89 | B3-2 | WFS506 | WR59 | WNC512 | - | - | - | - |
| FRB109 | F89 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| FRB110 | F90 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| FRB111 | F89 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| FRB113 TO FRB113-2 | F91 | B3-4 | WFS506 | WR59 | WNC538 | - | - | - | - |
| FRB114 | F91 | B4 | WFS500 | - | WNF1012 | - | - | - | - |
| FRB115 TO FRB116 | F92 | B3-4 | WFS506 | WR59 | WNC538 | - | - | - | - |
| FRB117 TO FRB120 | F93 | B3-4 | WFS506 | WR59 | WNC538 | - | - | - | - |
| FRB121 | F95 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| FRB122 TO FRB124 | F94 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| FRB160 TO FRB163 | F48 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| FRB164 | F48 | B3-4 | WFS506 | WR59 | WNC538 | - | - | - | - |
| FRB170 | F36 | see page F36 | - | - | - | - | - | - | - |
| FRB171 | F37 | see page F37 | - | - | - | - | - | - | - |
| FRB180 TO FRB182 | F101 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| FRB183 | F102 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| FRB190 | F102 | B3-4 | WFS506 | WR59 | WNC538 | - | - | - | - |
| FRB191 | F103 | B3-4 | WFS506 | WR59 | WNC538 | - | - | - | - |
| FRB192 | F103 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| FRB195 | F49 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |

FS TOOL

| ROUTER BIT PART NO. | CAT. PAGE | BALL BEARING(S) | FLAT/SPRING WASHER | RAISED WASHER | SCREW | EXTERNAL CIRCLIP | LOCK RING | LOCK RING SCREW | HEX NUT |
|---|---|---|---|---|---|---|---|---|---|
| FRB200 TO FRB202 | F47 | see page F47 | - | - | - | - | - | - | - |
| FRB210 TO FRB213 | F72 | B2 | WFS500, WFS506 | - | WNC538 | - | - | - | - |
| FRB214 TO FRB215 | F65 | B2 | WFS500, WFS506 | - | - | - | - | WNC538 | - |
| FRB216 TO FRB217 | F65 | B3-1 | - | - | - | - | W01 | WNC525 | - |
| FRB219, FRB222 | F66 | B2 | WFS500, WFS506 | - | WNC538 | - | - | - | - |
| FRB220, FRB223 | F66 | B3-1 | - | - | - | - | W01 | WNC525 | - |
| FRB225, FRB228 | F67 | B2 | WFS500, WFS506 | - | WNC538 | - | - | - | - |
| FRB226, FRB229 | F67 | B3-1 | - | - | - | - | W01 | WNC525 | - |
| FRB231, FRB234 | F67 | B2 | WFS500, WFS506 | - | WNC538 | - | - | - | - |
| FRB232, FRB235 | F67 | B3-1 | - | - | - | - | W01 | WNC525 | - |
| FRB237 | F66 | B2 | WFS500, WFS506 | - | WNC538 | - | - | - | - |
| FRB238 | F66 | B3-1 | - | - | - | - | W01 | WNC525 | - |
| FRB400 TO FRB401 | F106 | B22 | WFS508 | - | WNF1012 | - | - | - | - |
| FRB402 | F107 | B24 | WFS508 | - | WNF1012 | - | - | - | - |
| FRB403 TO FRB404 | F109 | B24 | WFS508 | - | WNF1012 | - | - | - | - |
| FRB405 TO FRB406 | F108 | B24 | WFS508 | - | WNF1012 | - | - | - | - |
| FRB407 TO FRB408 | F105 | B30 | - | - | - | - | W03 | WNC518 | - |
| FRB410 TO FRB413 | F106 | B20 | WFS500 | - | WNC538 | - | - | - | - |
| FRB418 | F105 | B26 | - | - | WNF1012 | - | - | - | - |
| FRB420 | F107 | B6-4 | - | - | - | - | W03 | WNC518 | - |
| FRB424 | F111 | B22 | - | - | WNF1012 | - | - | - | - |
| FRB426 | F106 | B22 | - | - | WNF1012 | - | - | - | - |
| FRB430 | F105 | B80 | WFS500 | - | WNF1012 | - | - | - | - |
| FRB431 | F105 | B82 | WFS500 | - | WNF1012 | - | - | - | - |
| FRB432 | F105 | B84 | WFS500 | - | WNF1012 | - | - | - | - |
| FRB436 | F108 | B21 | WFS500 | - | W103214 | - | - | - | - |
| FRB438 | F107 | B24 | WFS500 | - | WNF1012 | - | - | - | - |
| FRB440 | F109 | B30 | - | - | - | - | W03 | WNC518 | - |
| FRB442 | F110 | B20 | WFS500 | - | WNC538 | - | - | - | - |
| FRB448 | F108 | B3-3 | WFS502 | - | WNF1012 | - | - | - | - |
| FRB460 | F111 | B4 | WFS500 | - | WNF1012 | - | - | - | - |
| FRB461 | F111 | B3-3 | WFS500 | - | WNF1012 | - | - | - | - |
| FRB462, FRB468 | F111 | B3-1 | WFS500 | - | WNF1012 | - | - | - | - |
| FRB463 | F111 | B4 | WFS500 | - | WNF1012 | - | - | - | - |
| FRB464 | F111 | B3-3 | WFS500 | - | WNF1012 | - | - | - | - |
| FRB466 | F111 | B4 | WFS500 | - | WNF1012 | - | - | - | - |
| FRB467 | F111 | B3-3 | WFS500 | - | WNF1012 | - | - | - | - |
| R2320 TO R2320 -2 | F11 | B3-1 | - | - | - | - | W01 | WNC525 | - |
| R2321 | F11 | B3-3 | - | - | - | - | W01 | WNC525 | - |
| R2322 | F11 | B4 | - | - | - | - | W01 | WNC525 | - |
| R2322-1 TO R2322-2 | F11 | B4-1A | - | - | - | - | W04 | WNC518 | - |
| R2323 | F11 | B6-1 | - | - | - | - | W02 | WNC525 | - |
| R2324 | F11 | B6-1A | - | - | - | - | W04 | WNC518 | - |
| R2325 | F11 | B6-4 | - | - | - | - | W03 | WNC518 | - |
| R2326 | F11 | B6-5 | - | - | - | - | W03 | WNC518 | - |
| R2406-9 | F28 | B3-1 | - | - | - | - | W01 | WNC525 | - |
| R2420 | F28 | B3-1 | - | - | - | - | W01 | WNC525 | - |
| R2421 | F28 | B4 | - | - | - | - | W01 | WNC525 | - |
| R2422 | F28 | B4-1A | - | - | - | - | W04 | WNC518 | - |
| R2423 | F28 | B6-4 | - | - | - | - | W03 | WNC518 | - |
| R2430 TO R2434 | F82 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| R2436 TO R2437 | F83 | B3-1 / B3 | WFS506 | WR58 | WNC538 | - | W01 | WNC525 | - |
| R2440 TO R2444 | F83 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| R2450 | F11 | B4 | - | - | - | - | W01 | WNC525 | - |
| R2451 | F11 | B6-1A | - | - | - | - | W04 | WNC518 | - |
| R2452 | F11 | B10 | - | - | - | - | W03 | WNC518 | - |
| R2514 | F80 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| R2515 | F80 | B3-4 | WFS506 | WR59 | WNC512 | - | - | - | - |
| R2516 TO R2517 | F80 | B4 | WFS508 | WR59 | WNF1012 | - | - | - | - |



| ROUTER BIT PART NO. | CAT. PAGE | BALL BEARING(S) | FLAT/SPRING WASHER | RAISED WASHER | SCREW | EXTERNAL CIRCLIP | LOCK RING | LOCK RING SCREW | HEX NUT |
|---|---|---|---|---|---|---|---|---|---|
| R2519 | F79 | B6-4 | - | - | - | - | W03 | WNC518 | - |
| R2525 TO R2527 | F77 | B6-3 | - | - | - | - | - | - | WNF516 |
| R2530 | F78 | B5 | - | - | - | - | - | - | WNF516 |
| R2535 | F78 | B5 | - | - | - | - | - | - | WNF516 |
| R2560 | F24 | B3-1 | - | - | - | - | W01 | WNC525 | - |
| R2620 | F40 | B3-1 | - | - | - | - | W01 | WNC525 | - |
| R2800-1 TO R2806 | F52 | B1 | WFS504 | WR12 | WNC338 | - | - | - | - |
| R2807 TO R2810 | F52 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| R2900 TO R2903 | F12 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| R2905 TO R2908 | F12 | B2 | WFS500, WFS506 | - | WNC538 | - | - | - | - |
| R2950 TO R2951 | F13 | see page F13 | - | - | - | - | - | - | - |
| R2960 TO R2961 | F14 | see page F14 | - | - | - | - | - | - | - |
| R2970 TO R2972 | F15 | see page F15 | - | - | - | - | - | - | - |
| R3000 TO R3013 | F76 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| R3030 | F51 | B3-1 | - | - | - | - | W01 | WNC525 | - |
| R3032 | F51 | B4 | - | - | - | - | W01 | WNC525 | - |
| R3034 | F51 | B5 | - | - | - | - | W01 | WNC525 | - |
| R3036 | F51 | B6-4 | - | - | - | - | W03 | WNC518 | - |
| R3100 TO R3114 | F50 | B2 | WFS500, WFS506 | - | WNC538 | - | - | - | - |
| R3200 TO R3203 | F55 | B1 | WFS504 | WR12 | WNC338 | - | - | - | - |
| R3300 TO R3301 | F75 | B2 | WFS500, WFS506 | - | WM308 | - | - | - | - |
| R3302 | F75 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| R3302-1 | F75 | B1 | WFS506 | WR58 | WNC338 | - | - | - | - |
| R3303 TO R3304 | F75 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| R3304-1 | F75 | B1 | WFS506 | WR58 | WNC338 | - | - | - | - |
| R3305 TO R3307 | F75 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| R3310 TO R3313 | F22 | B3-4 | WFS506 | WR59 | WNC538 | - | - | - | - |
| R3320 TO R3323 | F21 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| R3324 | F21 | B4 | WFS508 | - | WNF1012 | - | - | - | - |
| R3325 | F21 | B1 | WFS504 | WR12 | WNC338 | - | - | - | - |
| R3400-1 TO R3400-2 | F17 | B01 | - | - | WNC2732 | - | - | - | - |
| R3400 TO R3401 | F17 | B2 | WFS500, WFS506 | - | WNC538 | - | - | - | - |
| R3402 TO R3403 | F17 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| R3403-1 | F17 | B3-4 | WFS506 | WR59 | WNC538 | - | - | - | - |
| R3404 TO R3408 | F17 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| R3409 | F17 | B4 | WFS508 | - | WNF1012 | - | - | - | - |
| R3500 TO R3504 | F17 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| R3510 TO R3512 | F16 | B3 (2 pieces) | WFS508 | WR58 | - | - | - | - | WN1024 |
| R3520 TO R3521 | F19 | B3 | WFS506 | WR58 | WNC538 | - | - | - | - |
| R3600 TO R3608 | F22 | B5 | WF608 | - | - | - | - | - | WNF516 |
| R3700 -1 | F19 | B3-3 | - | - | W103214 | - | - | - | - |
| R3700 TO R3703 | F19 | B4 | WFS500 | - | WNF1012 | - | - | - | - |
| R4120 TO R4152 | F32 | see page F32 | - | - | - | - | - | - | - |
| R4160 TO R4162 | F34 | see page F34 | - | - | - | - | - | - | WNF516 |
| R4164 | F33 | see page F33 | - | - | - | - | - | - | WNF516 |

## B01 BALL BEARING GUIDES

| PART NO. | OUTSIDE DIAM. | INSIDE DIAM. | THICKNESS |
|---|---|---|---|
| B01 | 1/4" | 1/8" | 7/64" |
| B1 | 3/8" | 1/8" | 5/32" |
| B2 | 3/8" | 3/16" | 1/8" |
| B2-1 | 1/2" | 1/8" | 11/64" |
| B3 | 1/2" | 3/16" | 5.0mm |
| B3-1 | 1/2" | 1/4" | 3/16" |
| B3-1A | 14mm | 7.0mm | 5.0mm |
| B3-1B | 14mm | 8.0mm | 4.0mm |
| B3-2 | 5/8" | 3/16" | 5.0mm |
| B3-3 | 5/8" | 1/4" | 5.0mm |
| B3-4 | 16mm | 5.0mm | 5.0mm |
| B3-4A | 16mm | 8.0mm | 5.0mm |
| B3-5 | 3/4" | 3/16" | 3/16" |
| B3-6 | 19mm | 6.0mm | 6.0mm |
| B4 | 3/4" | 1/4" | 9/32" |
| B4-1A | 3/4" | 1/2" | 5/32" |

| PART NO. | OUTSIDE DIAM. | INSIDE DIAM. | THICKNESS |
|---|---|---|---|
| B4-1 | 22mm | 7.0mm | 7.0mm |
| B5 | 7/8" | 5/16" | 7.0mm |
| B6 | 7/8" | 3/16" | 6.6mm |
| B6-1 | 26mm | 10mm | 8.0mm |
| B6-1A | 1" | 15mm | 5.5mm |
| B6-2 | 1-1/8" | 3/16" | 6.6mm |
| B6-3 | 28mm | 8.0mm | 9.0mm |
| B6-4 | 1-1/8" | 1/2" | 5/16" |
| B6-4A | 1-7/32" | 5/16" | 8.6mm |
| B6-5 | 1-1/4" | 15mm | 8.5mm |
| B6-5A | 1-1/4" | 8.0mm | 5.0mm |
| B6-6 | 1-5/16" | 5/16" | 8.6mm |
| B7 | 35mm | 15mm | 11.0mm |
| B8 | 1-3/8" | 3/16" | 6.6mm |
| B10 | 1-1/2" | 15mm | 8.5mm |
| B12 | 2" | 15mm | 12.5mm |

## B20 SUPER-GLIDE BALL "NO MARK" BEARING GUIDES

| PART NO. | OUTSIDE DIAM. | INSIDE DIAM. | DEGREE OF TAPER |
|---|---|---|---|
| B20 | 1/2" | 3/16" | 0° |
| B21 | 25mm | 1/4" | 5° |
| B22 | 3/4" | 1/4" | 0° |
| B24 | 7/8" | 1/4" | 10° |
| B26 | 7/8" | 1/4" | 5° |
| B27 | 27mm | 1/4" | 0° |
| B28 | 28mm | 5/16" (8mm) | 0° |
| B30 | 1-1/8" | 15mm | 0° |
| B32 | 29mm | 5/16" (8mm) | 0° |
| B34 | 34mm | 5/16" (8mm) | 0° |
| B36 | 40.8mm | 5/16" (8mm) | 0° |
| B38 | 43mm | 5/16" (8mm) | 0° |

## B80 SUPER-GLIDE RADIUS BALL "NO MARK" BEARING GUIDES

| PART NO. | OUTSIDE DIAM. | INSIDE DIAM. | THICKNESS | RADIUS |
|---|---|---|---|---|
| B80 | 27/32" | 1/4" | 1/4" | 1/2" |
| B82 | 3/4" | 1/4" | 1/4" | 3/4" |
| B84 | 3/4" | 1/4" | 1/4" | 1" |

# WNC SCREWS

HEAD TYPE:
**SOCKET CAP**

HEAD TYPE:
**HEADLESS**

| PART NO. | SCREW TYPE | SCREW DIAM. | THREADS PER IN. | OVERALL LENGTH | HEAD TYPE |
|---|---|---|---|---|---|
| **WNC2732** | NC2 | 11/128" | 56 | 7/32" | Socket Cap |
| **WNC518** | NC5 | 1/8" | 40 | 1/8" | Headless |
| **WNC525** | NC5 | 1/8" | 40 | 2.5mm | Headless |
| **WNC338** | NC3 | 0.099" | 48 | 3/8" | Socket Cap |
| **WNC538** | NC5 | 1/8" | 40 | 3/8" | Socket Cap |
| **WNC512** | NC5 | 1/8" | 40 | 1/2" | Socket Cap |
| **WNF1012** | NF10 | 3/16" | 32 | 1/2" | Socket Cap |
| **W103214** | 10/32 | 3/16" | 32 | 1/4" | Socket Cap |

# WN1024 NYLON INSERT LOCKNUT

| PART NO. | TYPE |
|---|---|
| **WN1024** | 10-24 |

# WNF516 HEX NUTS FOR ROUTER ARBORS

| PART NO. | THREAD TYPE | APPLICATION |
|---|---|---|
| **WNF516** | 5/16-24 NF | All arbors with 5/16-24 NF Thread |

# WR12 RAISED WASHERS (DUST SHIELDS)

**SIDE PROFILE:**

| PART NO. | OUTSIDE DIAM. | INSIDE DIAM. | THICKNESS |
|---|---|---|---|
| **WR12** | 3/8" | 1/8" | 0.7mm |
| **WR58** | 1/2" | 3/16" | 0.7mm |
| **WR59** | 16mm | 5mm | 0.8mm |

# WFS500 FLAT/SPRING WASHERS

| PART NO. | OUTSIDE DIAM. | INSIDE DIAM. | THICKNESS |
|---|---|---|---|
| **WFS500** | 5/16" | 3/16" | 1.2mm |
| **WFS502** | 3/8" | 1/4" | 1.4mm |
| **WFS504** | 3/16" | 7/64" | 1/64" |
| **WFS506** | 1/4" | 1/8" | 1/64" |
| **WFS508** | 3/8" | 3/16" | 1mm |
| **WFS510** | 12mm | 5/16" | 1mm |

## W01 LOCK RINGS

| PART NO. | OUTSIDE DIAM. | INSIDE DIAM. | SCREW PART NO. |
|---|---|---|---|
| W01 | 11mm | 1/4" | WNC525 |
| W02 | 16mm | 3/8" | WNC518 |
| W03 | 21mm | 1/2" | WNC518 |
| W04 | 18mm | 1/2" | WNC518 |

## WF501 SPACERS - FLAT SHIMS

| PART NO. | OUTSIDE DIAM. | INSIDE DIAM. | THICKNESS |
|---|---|---|---|
| WF501 | 12mm | 8mm | 0.1mm |
| WF502 | 12mm | 8mm | 0.2mm |
| WF510 | 12mm | 8mm | 1.0mm |
| WF600 | 5/8" | 5/16" | 0.05mm |
| WF604 | 5/8" | 5/16" | 0.1mm |
| WF605 | 5/8" | 5/16" | 0.4mm |
| WF606 | 5/8" | 5/16" | 0.5mm |
| WF608 | 5/8" | 5/16" | 1.0mm |
| WF610 | 5/8" | 5/16" | 3.0mm |
| WF611 | 5/8" | 5/16" | 3.15mm |
| WF612 | 16mm | 5/16" | 3.4mm |
| WF614 | 1/2" | 1/4" | 5.0mm |
| WF616 | 5/8" | 5/16" | 5.5mm |
| WF618 | 5/8" | 5/16" | 6.0mm |

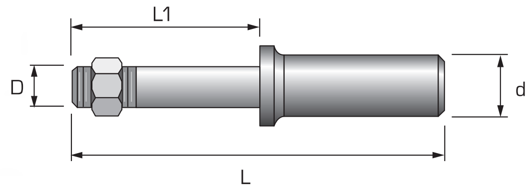
## WC01 EXTERNAL CIRCLIP

| PART NO. | INSIDE DIAM. | THICKNESS |
|---|---|---|
| WC01 | 9/32" | 0.8mm |
| WC02 | 1/2" | 1.0mm |

## WA3814 ROUTER BIT ADAPTORS

| PART NO. | OUTSIDE DIAM. MACHINE COLLET | INSIDE DIAM. ROUTER SHANK | LENGTH |
|---|---|---|---|
| WA3814 | 3/8" | 1/4" | 1" |
| WA1238 | 1/2" | 3/8" | 1" |
| WA1214 | 1/2" | 1/4" | 1" |

## AR14 ARBORS FOR ROUTER CUTTERS
### ARBORS WITH NUT AND WASHER




| PART NO. | SPINDLE DIAM. (D) | SHANK DIAM. (D) | LENGTH (L1) | OVERALL LENGTH (L) |
|---|---|---|---|---|
| **AR14** | 5/16" | 1/4" | 7/8" | 2-3/8" |
| **AR13** | 5/16" | 3/8" | 1-7/16" | 3" |
| **AR12** | 5/16" | 1/2" | 1" | 2-3/8" |
| **AR11** | 5/16" | 1/2" | 1-3/8" | 3" |
| **AR20** | 5/16" | 1/2" | 2-1/8" | 3-3/4" |
| **AR21** | 5/16" | 1/2" | 1-1/2" | 3-1/8" |
| **AR22** | 5/16" | 1/2" | 2-5/8" | 4-1/4" |
| **AR23** | 5/16" | 1/2" | 1-3/4" | 3-5/16" |

## AR12MB THREADED ARBOR
### FOR MORTISING BITS

| PART NO. | SHANK DIAM. | TYPE OF THREAD | OVERALL LENGTH |
|---|---|---|---|
| **AR12MB** | 1/2" | 1/4-28 | 2-3/8" |
| **AR14MB** | 1/4" | 1/4-28 | 1-3/4" |

Fits R2310 to R2314 mortising bits (screw type)

## ARCNC ARBOR FOR CNC ROUTERS

| PART NO. | SPINDLE DIAM. | SHANK DIAM. | OVERALL LENGTH |
|---|---|---|---|
| **ARCNC** | 5/16" | 1/2" | 2" |

### ARBOR INCLUDES:

| | |
|---|---|
| Washers 1.0mm (2 pieces) | WF608 |
| Washer 0.5mm (1 piece) | WF606 |
| Screw WNF1012 (1 piece) | WNF1012 |
| Raised Washer (1 piece) | WR59 |


# PRECISION TOOLING FOR CNC MACHINES

Spiral bits / Insert bits / Tool holders

FC

**SHRKFH-HSK63F** FC1

Shrinkfit Toolholders - High Precision Clamping System

**AER-11** FC2

Aerotech System®

Aerotech System Body HSK63F

**AER-59** FC3

Aerotech System®

Aerotech Universal Hydro Body - HSK63F

**ETPHGC** FC4

HSK63F Hydro-Grip® Compact

**ETPHGS** FC5

HSK63F Hydro-Grip® Slender

**RCBB-HSK63F** FC6

Collet Chucks with Ball Bearing Collet Nut

**RC-HSK63F** FC6

Collet Chucks without Ball Bearing Collet Nut

**RCTH-HSK63F** FC7

Thermwood Collet Chucks without Ball Bearing Collet Nuts

**SHRKFH-ISO30** FC8

Shrinkfit Toolholders - High Precision Clamping System

**AER-56** FC9

Aerotech System®

Aerotech Universal Hydro Body - ISO30 & BT30 Spindles

**ETPHGS** FC10

Hydro-Grip® Slender. Hydraulic Toolholder for ISO30 & BT30 Spindles

**RCBB-ISO30** FC11

Collet Chucks with Ball Bearing Collet Nut

**RC-ISO30** FC11

Collet Chucks without Ball Bearning Collet Nut

**RCBBM-ISO30** FC12

SCM/Mordbidelli Collet Chucks with Ball Bearing Nut

**RCM-ISO30** FC12

SCM/Mordbidelli Collet Chucks without Ball Bearing Nut

**RCTH-ISO30** FC13

Thermwood Collet Chucks without Ball Bearing Collet Nut

**WRTRQ** FC23

Adjustable Torque Wrench & Adapters

**ETP-RSI** FC24

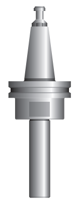
Reduction Sleeves for ETP Hydro Holders, Imperial Clamping Sizes

**ETP-RSM** FC25

Reduction Sleeves for ETP Hydro Holders, Metric Clamping Sizes

**ARI-HSK63F** FC26

Cutter Arbors



**ARM-ISO30** FC27

Cutter Arbors, Metric Sizes

**ETP-GE2** FC28

HSK63F Hydro-Grip® Cutter Arbors

**ARS-HSK63F** FC29

Saw Blade Toolholder for CNC Routers

**AF-UD2** Aerotech System® FC30

Aerotech Finishing Compression, Z=2+2

**AF-UD3** Aerotech System® FC31

Aerotech Finishing Compression, Z=3+3

**AFU-UD2** Aerotech Universal® FC32

Finishing Compression Z=2+2

**AFU-UD3** Aerotech Universal® FC33

Finishing Compression Z=3+3

XLC

**RSF-U2** FC34

Finishing Upcut, Z=2

XLC

**RSF-D2** FC35

Finishing Downcut, Z=2

**RSF-U3** FC36

Finishing Upcut, Z=3

**RSF-D3** FC37

Finishing Downcut, Z=3

**RSFL-U3** FC38

Finishing Low Helix Upcut

**RSFL-D3** FC39

Finishing Low Helix Downcut

**RSF-UD1**
FC40
Finishing Compression, Z=1+1

XLC


**RSF-UD2**
FC42
Finishing Compression, Z=2+2

XLC


**RSFW-UD2**
FC44
Finishing SpeedMaster Compression, Z=2+2

XLC


**RSF-UD3**
FC45
Finishing Compression, Z=3+3

XLC


**RSFL-UD2**
FC46
Finishing Low Helix Comperssion, Z=2+2

**RPCD-UD1**
FC47
Polycrystalline Diamond Compression with Plunge Point

**RPCD-T**
FC48
Polycrystalline Diamond T-Slot, Z=2+1

**RSC21-U2**
FC49
Chipbreaker Upcut, Z=2

**RSC21-D2**
FC49
Chipbreaker Downcut, Z=2

**RSC21-U3**
FC50
Chipbreaker Upcut, Z=3

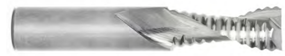
**RSC21-D3**
FC50
Chipbreaker Downcut, Z=3

XLC


**RSC21-UD2**
FC51
Chipbreaker Compression, Z=2+2

XLC


**RSC21-UD3**
FC52
Chipbreaker Compression, Z=3+3



**RSC20-U2**
FC53
Roughing Upcut, Z=2

**RSC20-D2**
FC54
Roughing Downcut, Z=2

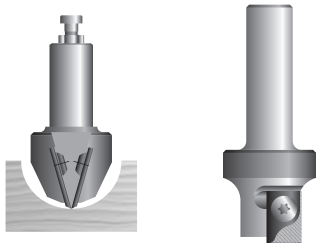
XLC


**RSC20-U3**
FC55
Roughing Upcut, Z=3

XLC


**RSC20-D3**
FC56
Roughing Downcut, Z=3

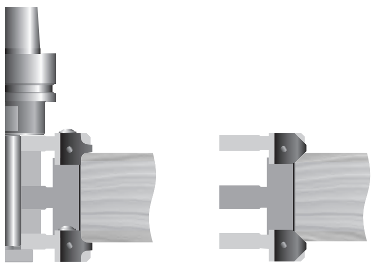
**RSCL-U3**
FC57
Roughing Low Helix Upcut, Z=3



**RD**

Router Cutters,
Custom Insert Profile

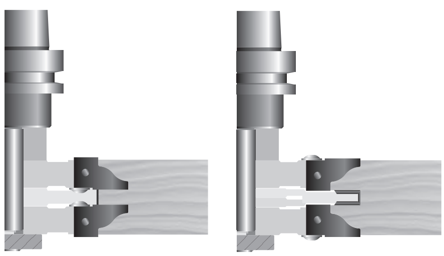
FC89
FC90



**RD2770**

Insert Router Cutters,
Adjustable Corner Rounding & Chamfering

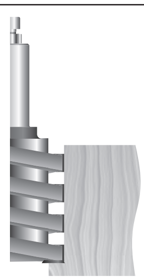
FC91



**RD**

Insert Router Cutters,
Stile and Rail

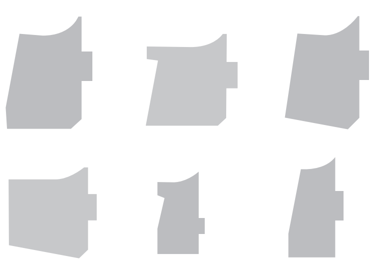
FC92



**RD2810**

Insert Router Cutters,
Staggered Tooth

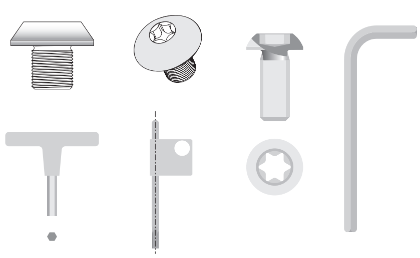
FC93



**W302411**

Replacement Parts,
Wedges

FC94



**WM350**

Replacement Parts,
Screws & Wrenches

FC94
FC95

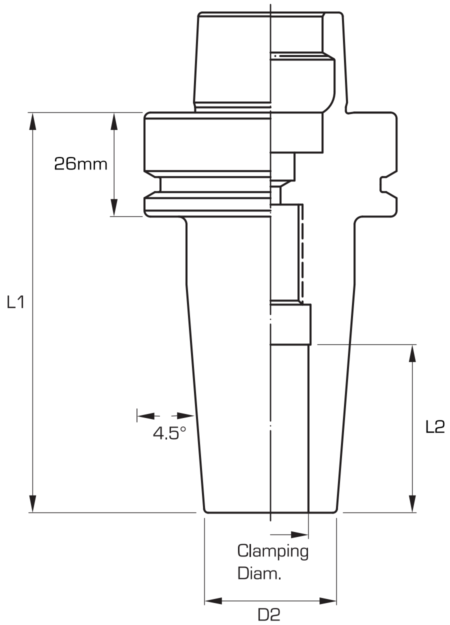
# SHRKFH-HSK63F

## HSK63F SHRINKFIT TOOLHOLDERS
HIGH PRECISION CLAMPING SYSTEM

### DESIGN:
» HSK63F spindle connection type
» Durable high quality steel
» Precision ground interface
» Capable of a high number of tool change cycles
» Tools must be inserted and removed using a shrinkfit machine
» Requires minimum h7 shank tolerance

### APPLICATION:
» For precision mounting of carbide, densimet, and steel shank tools
» Where additional tool rigidity is required
» Ideal for PCD and Insert tooling, such as profiled tools and surfacing cutters

### BENEFITS:
» Provides highest achievable rigidity and accuracy
» Minimizes run-out on long tool projections
» Superior cut quality and blending of profiles
» Exceptionally fast tool changes




### IMPERIAL SIZES

| PART NO. | CLAMPING DIAM. | D2 | L1 | L2 |
|---|---|---|---|---|
| **RC3302** | 1/4" | .83" | 3.15" | 1.42" |
| **RC3304** | 3/8" | .94" | 3.74" | 1.65" |
| **RC3306** | 1/2" | .94" | 3.74" | 1.85" |
| **RC3307** | 5/8" | 1.06" | 3.74" | 1.97" |
| **RC3308** | 3/4" | 1.42" | 3.94" | 2.05" |
| **RC3310** | 1" | 1.42" | 4.53" | 2.28" |

Other sizes available upon request

### METRIC SIZES

| PART NO. | CLAMPING DIAM. MM | D2 MM | L1 MM | L2 MM |
|---|---|---|---|---|
| **RC3504** | 8 | 22 | 75 | 37 |
| **RC3505** | 10 | 25 | 75 | 40 |
| **RC3506** | 12 | 28 | 75 | 45 |
| **RC3507** | 16 | 28 | 75 | 48 |
| **RC3509** | 20 | 36 | 75 | 50 |
| **RC3510** | 25 | 36 | 75 | 55 |

Other sizes available upon request

# AEROTECH SYSTEM BODY
## HSK63F CONNECTION


PART NO:
AER-11F-HOLDER

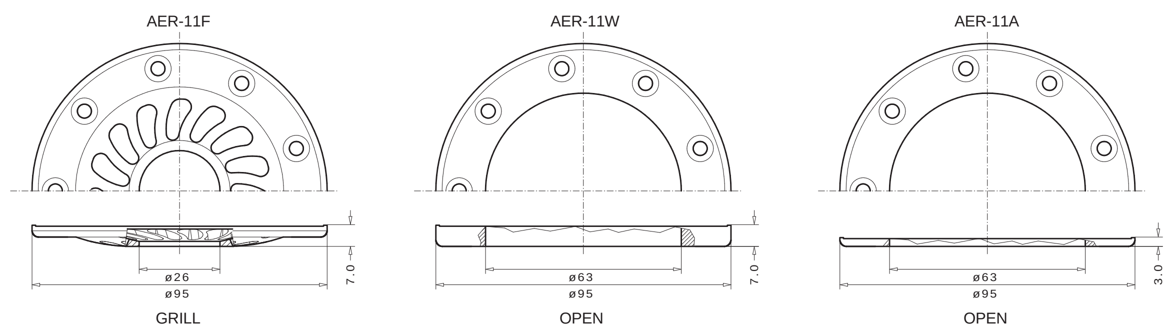
### DESIGN:
- Hardened 58 HRC steel body
- Award winning Centrifugal design with arched fan blades provides safe dust extraction without the risk of debris being 'thrown'
- Proprietary HSK20C router bit connection
- Shrinkfit and monoblock tool bodies provide unmatched tool rigidity and increased tool life
- Proper mounting of tool requires tightening to the specified torque settings

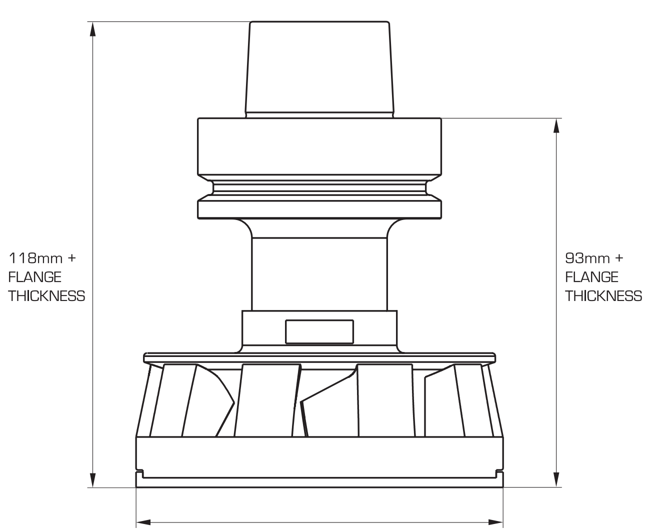
### APPLICATION:
- Reduce combustible environmental dust during routing operations
- Increase production throughput by reducing or eliminating clean-up time between cuts and end of the shift
- Longer tool life due to HSK20C connection's increased tool rigidity
- Improved heat disipation provided by enhanced airflow within the cutting path

### MATERIALS:
- MDF
- TFL and HPL Laminated panels
- Plywood, OSB, and Veneered Panels (requires Flange Type: GRILL on Aerotech)
- Composite materials: CFRP, Kevlar composites, Solid Surface, etc.

## AEROTECH BODY

| PART NO. | FLANGE TYPE | TYPE OF TOOLING | SPINDLE CONNECTION | LARGE DIAM. | ROUTER BIT CONNECTION | OVERALL LENGTH | FLANGE THICKNESS | TORQUE SETTING |
|---|---|---|---|---|---|---|---|---|
| **AER-11A-HOLDER** | OPEN | PCD only | HSK63F | 95mm | HSK20C | 125mm | 3mm | 25 Nm |
| **AER-11F-HOLDER** | GRILL | Carbide, PCD | HSK63F | 95mm | HSK20C | 125mm | 7mm | 25 Nm |
| **AER-11W-HOLDER** | OPEN | Carbide, PCD | HSK63F | 95mm | HSK20C | 125mm | 7mm | 25 Nm |




## AEROTECH HSK20 MOUNTING KIT

| PART NO. | PART DESCRIPTION |
|---|---|
| **AER-KIT-FP** | AEROTECH HSK20C MOUNTING KIT<br>INCLUDES: MOUNTING PLATE, BI-SCREW POSITIONER (DEPTH GAUGE), T-HANDLE 5MM HEX WRENCH |

# AEROTECH UNIVERSAL HYDRO BODY
## HSK63F CONNECTION

PART NO:
AER-59F-HOLDER

PART NO:
AER-59W-HOLDER

Aerotech Universal®

### DESIGN:

- Extended Extraction Flanges provide even more extraction power
- Hardened 58 HRC steel body reduces wear
- Award winning Centrifugal design with arched fan blades provides safe dust extraction without the risk of debris being 'thrown'
- Hydraulic clamping chamber provides exceptional clamping power and significantly reduced run-out
- Universal clamping of standard cylindrical shank tools
- 3/4" clamping diameter can be reduced with precision sleeves to accept smaller h6 shank diameters
- Thermwood machines require a standard HSK63F toolholder gripper fork to be installed.
- Proper clamping of tool shanks requires tightening to the specified torque settings

### APPLICATION:

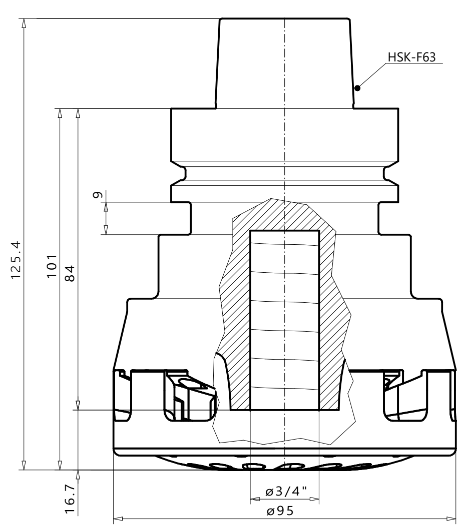
- Reduce combustible environmental dust during routing operations
- Increase production throughput by reducing or eliminating clean-up time between cuts and end of the shift
- Fast tool changes
- Longer tool life due to increased tool rigidity
- Improved heat dissipation provided by enhanced airflow within the cutting path

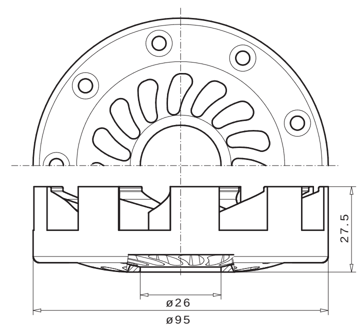
### MATERIALS:

- MDF
- TFL and HPL Laminated panels
- Plywood, OSB, and Veneered Panels (requires Flange Type: GRILL on Aerotech)
- Composite materials: CFRP, Kevlar composites, Solid Surface, etc.

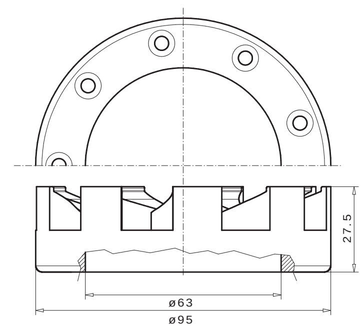
## AEROTECH BODY

| PART NO. | FLANGE TYPE | SPINDLE CONNECTION | LARGE DIAM. | CLAMPING DIAM. | OVERALL LENGTH | TORQUE SETTING |
|---|---|---|---|---|---|---|
| **AER-59F-HOLDER** | Extended GRILL | HSK63F | 95mm | 3/4" | 125.4mm | 10 Nm |
| **AER-59W-HOLDER** | Extended OPEN | HSK63F | 95mm | 3/4" | 125.4mm | 10 Nm |




Extended GRILL




Extended OPEN

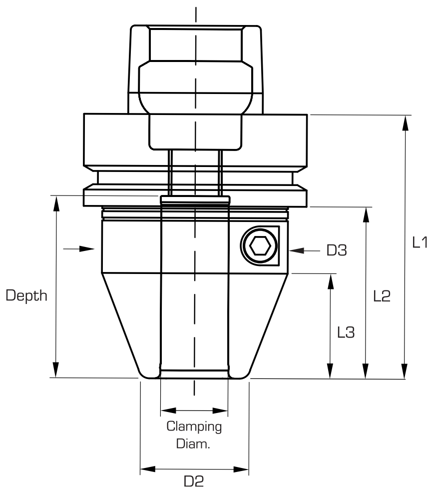
## REPLACEMENT PARTS

| PART NO. | DESCRIPTION |
|---|---|
| **AER-TW-10NM** | 10 Nm Torque Wrench<br>5mm Hex Drive |

## REDUCTION SLEEVES

| PART NO. | OUTSIDE DIAMETER | CLAMPING DIAM. | OVERALL LENGTH |
|---|---|---|---|
| **AERC-RS3/4-1/8** | 3/4" | 1/8" | 50.5mm |
| **AERC-RS3/4-1/4** | 3/4" | 1/4" | 50.5mm |
| **AERC-RS3/4-3/8** | 3/4" | 3/8" | 50.5mm |
| **AERC-RS3/4-1/2** | 3/4" | 1/2" | 50.5mm |
| **AERC-RS3/4-5/8** | 3/4" | 5/8" | 50.5mm |

# HSK63F HYDRO-GRIP® COMPACT
## HYDRAULIC TOOLHOLDER




## DESIGN:
- HSK63F spindle connection type
- Durable high quality steel
- Precision ground interfaces
- Clamping activated with 5mm Hex Wrench
- Requires minimum h7 shank tolerance
- Compact design with reduced gauge length
- Proper clamping of tool shanks requires tightening to the specified torque settings
- Dynamically balanced G 2.5 at 25,000 RPM

## APPLICATION:
- Provides the fastest tool change process
- For precision mounting of carbide, densimet, and steel shank tools
- Where additional tool rigidity is required

## IDEAL FOR:
- High use tools, such as compression bits
- Profiled tools
- Tools used in challenging cutting applications such as solid woods or HPL

## BENEFITS:
- Provides exceptional rigidity and accuracy
- Minimizes run-out on long tool projections
- Superior cut quality and blending of profiles
- Exceptionally fast tool changes without the need for specialized equipment
- Extends tool life

## IMPERIAL SIZES

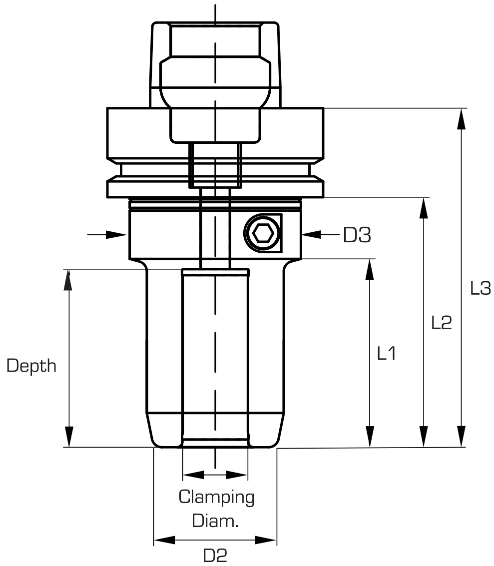
| PART NO. | CLAMPING DIAM. ø | D2 | D3 | L1 | L2 | L3 | DEPTH | TORQUE SETTING |
|---|---|---|---|---|---|---|---|---|
| ETPHGC1/2HSK63F | 1/2" | 0.866" | 1.713" | 2.953" | 1.929" | 0.709" | 1.575" | 6 Nm |
| ETPHGC5/8HSK63F | 5/8" | 1.024" | 1.890" | 2.953" | 1.929" | 1.102" | 1.969" | 6 Nm |
| ETPHGC3/4HSK63F • | 3/4" | 1.181" | 2.047" | 2.953" | 1.929" | 1.181" | 2.047" | 6 Nm |

• Clamping diameter may be reduced using an ETP reduction sleeve (see page FC24 & FC25)

## METRIC SIZES

| PART NO. | CLAMPING DIAM. ø MM | D2 MM | D3 MM | L1 MM | L2 MM | L3 MM | DEPTH MM | TORQUE SETTING |
|---|---|---|---|---|---|---|---|---|
| ETPHGC012/HSK63F | 12 | 22 | 43.5 | 75 | 49 | 18 | 40 | 6 Nm |
| ETPHGC016/HSK63F | 16 | 26 | 48 | 75 | 49 | 28 | 50 | 6 Nm |
| ETPHGC020/HSK63F • | 20 | 30 | 52 | 75 | 49 | 30 | 52 | 6 Nm |

• Clamping diameter may be reduced using an ETP reduction sleeve (see page FC24 & FC25)




## DESIGN:

- HSK63F spindle connection type
- Durable high quality steel
- Precision ground interfaces
- Clamping activated with 5mm Hex Wrench
- Requires minimum h7 shank tolerance
- Renowned design
- Proper clamping of tool shanks requires tightening to the specified torque settings
- Dynamically balanced G 2.5 at 25,000 RPM

## APPLICATION:

- Provides the fastest tool change process
- For precision mounting of carbide, densimet, and steel shank tools
- Where additional tool rigidity is required

## IDEAL FOR:

- High use tools, such as compression bits
- Profiled tools
- Tools used in challenging cutting applications such as solid woods or HPL

## BENEFITS:

- Provides exceptional rigidity and accuracy
- Minimizes run-out on long tool projections
- Superior cut quality and blending of profiles
- Exceptionally fast tool changes without the need for specialized equipment

## IMPERIAL SIZES

| PART NO. | | CLAMPING DIAM. ø | D2 MM | D3 MM | L1 MM | L2 MM | L3 MM | DEPTH MM | TORQUE SETTING |
|---|---|---|---|---|---|---|---|---|---|
| ETPHGS1/2HSK63F | | 1/2" | 32 | 40 | 43 | 61 | 87 | 40 | 6 Nm |
| ETPHGS5/8HSK63F | | 5/8" | 38 | 40 | 43 | 61 | 87 | 40 | 6 Nm |
| ETPHGS3/4HSK63F | • | 3/4" | 40 | 50 | 55 | 73 | 99 | 52 | 6 Nm |
| ETPHGS100HSK63F | • | 1" | 45 | 50 | 59 | 77 | 103 | 56 | 6 Nm |

• Clamping diameter may be reduced using an ETP reduction sleeve (see page FC24 & FC25)

## METRIC SIZES

| PART NO. | | CLAMPING DIAM. ø MM | D2 MM | D3 MM | L1 MM | L2 MM | L3 MM | DEPTH MM | TORQUE SETTING |
|---|---|---|---|---|---|---|---|---|---|
| ETPHGS012HSK63F | | 12 | 32 | 40 | 43 | 61 | 87 | 40 | 6 Nm |
| ETPHGS016HSK63F | | 16 | 38 | 40 | 43 | 61 | 87 | 40 | 6 Nm |
| ETPHGS020HSK63F | • | 20 | 40 | 50 | 55 | 73 | 99 | 52 | 6 Nm |
| ETPHGS025HSK63F | • | 25 | 45 | 50 | 59 | 77 | 103 | 56 | 6 Nm |

• Clamping diameter may be reduced using an ETP reduction sleeve (see page FC24 & FC25)

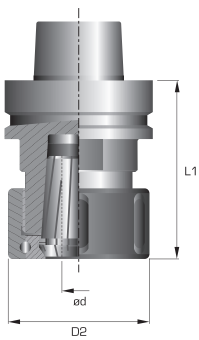
# RCBB-HSK63F

## HSK63F COLLET CHUCKS
WITH BALL BEARING COLLET NUT

### DESIGN:
» Collet chucks with hollow taper shank HSK63F
» Ball bearing collet nut for increased clamping pressure and improved concentricity
» Balanced tool body and collet nut
» Suitable for both left and right hand rotation
» Optimal concentricity, collet life, and proper clamping of tool shanks requires tightening to the specified torque setting

### APPLICATION:
» Precision collet chuck for clamping shank type tools

### PLEASE SPECIFY WHEN ORDERING:
» If your CNC Router requires holes in the HSK Taper




| STANDARD PART NO. | STAINLESS STEEL PART NO. | COLLET TYPE | DIN TYPE | CLAMPING RANGE ød MM | D2 MM | L1 MM | ROTATION | TORQUE SETTING |
|---|---|---|---|---|---|---|---|---|
| **RC2080** | **RC2080S** | ER32 | 6499 | 2-20 | 50 | 70 | RH/LH | 100 ft-lbs |
| **RC2082** | **RC2082S** | ER40 | 6499 | 3-26 | 63 | 76 | RH/LH | 130 ft-lbs |
| **RC2084** | **RC2084S** | OZ25 | 6388 | 3-25.4 | 60 | 76 | RH/LH | 90 ft-lbs |

Spring collets not included (see pages FC18 - FC21)

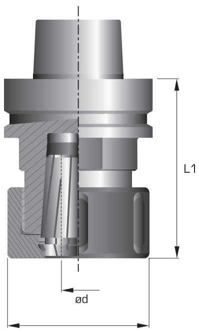
# RC-HSK63F

## HSK63F COLLET CHUCKS
WITHOUT BALL BEARING COLLET NUT

### DESIGN:
» Collet chucks with hollow taper shank HSK63F
» Balanced tool body and collet nut
» Right hand rotation (left hand available upon request)
» Optimal concentricity, collet life, and proper clamping of tool shanks requires tightening to the specified torque setting

### APPLICATION:
» Precision collet chuck for clamping shank type tools

### PLEASE SPECIFY WHEN ORDERING:
» If your CNC Router requires holes in the HSK Taper




| PART NO. | COLLET TYPE | DIN TYPE | CLAMPING RANGE ød MM | D2 MM | L1 MM | ROTATION | TORQUE SETTING |
|---|---|---|---|---|---|---|---|
| **RC2090** | ER32 | 6499 | 2-20 | 50 | 70 | RH | 100 ft-lbs |
| **RC2092** | ER40 | 6499 | 3-26 | 63 | 75 | RH | 130 ft-lbs |

Spring collets not included (see pages FC18 - FC21)

# RCTH-HSK63F

## THERMWOOD HSK63F COLLET CHUCKS
WITHOUT BALL BEARING COLLET NUT

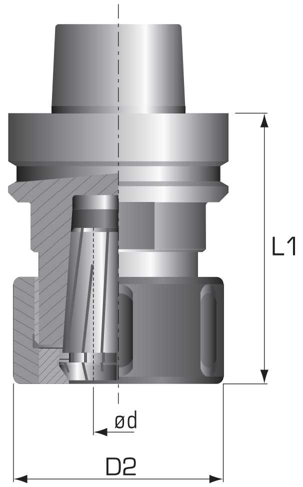
### DESIGN:
- Collet chucks with hollow taper shank HSK63F
- Balanced tool body and collet nut
- Optimal concentricty, collet life, and proper clamping of tool shanks requires tightening to the specified torque setting

### APPLICATION:
- Precision collet chuck for clamping shank type tools
- For Thermwood CNC routers with automatic tool changers

### IMPORTANT:
- Part number RC2092TH and RC2094TH are not compatible with Thermwood's "Typewriter" style tool changer

| PART NO. | COLLET TYPE | CLAMPING RANGE ød MM | D2 MM | L1 MM | ROTATION | TORQUE SETTING |
|---|---|---|---|---|---|---|
| **RC2090TH** | ER32 | 2-20 | 50 | 72.5 | RH | 100 ft-lbs |
| **RC2092TH** | ER40 | 3-26 | 63 | 76.5 | RH | 130 ft-lbs |
| **RC2094TH** | OZ25 | 3-25.4 | 60 | 76.5 | RH | 90 ft-lbs |

Spring collets not included (see pages FC18 - FC21)



# SHRKFH-ISO30

## ISO30 shrinkfit toolholders
HIGH PRECISION CLAMPING SYSTEM

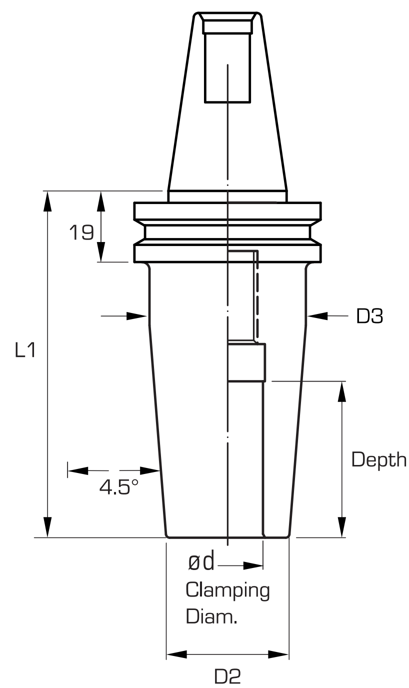

### DESIGN:
- ISO30 spindle connection type
- Durable high quality steel
- Precision ground interface
- Capable of a high number of tool change cycles
- Tools must be inserted and removed using a shrinkfit machine
- Requires minimum h7 shank tolerance

### APPLICATION:
- For precision mounting of carbide, densimet, and steel shank tools
- Where additional tool rigidity is required
- Ideal for PCD and Insert tooling, such as profiled tools and surfacing cutters
- On CNC routers with manual or automatic tool changers

### BENEFITS:
- Provides highest achievable rigidity and accuracy
- Minimizes run-out on long tool projections
- Superior cut quality and blending of profiles
- Exceptionally fast tool changes

| PART NO. | CLAMPING DIAM. ød | D2 MM | D3 MM | L1 | DEPTH MM |
|---|---|---|---|---|---|
| **RC3602** | 1/4" | 21 | 27 | 80mm | 39 |
| **RC3604** | 3/8" | 24 | 32 | 80mm | 42 |
| **RC3606** | 1/2" | 28 | 32 | 80mm | 47 |
| **RC3607** | 5/8" | 28 | 32 | 80mm | 50 |
| **RC3608** | 3/4" | 33 | 42 | 80mm | 52 |
| **RC3610** | 1" | 46 | 53 | 4" | 58 |

Other sizes available upon request

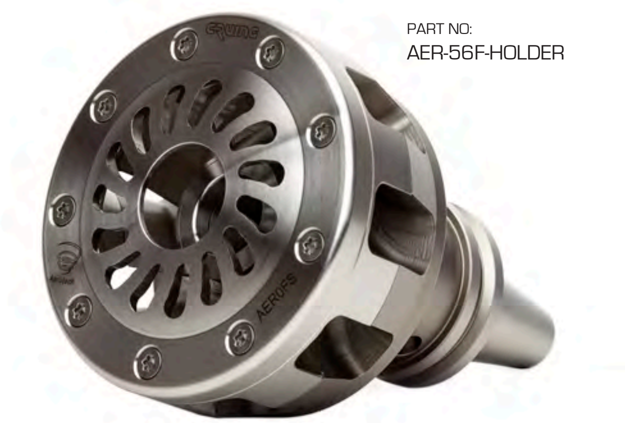



### THERMWOOD MACHINES ONLY

| PART NO. | CLAMPING DIAM. ød | D2 MM | L1 MM | DEPTH MM |
|---|---|---|---|---|
| **RC3606TH** | 1/2" | 28 | 80 | 47 |
| **RC3608TH** | 3/4" | 33 | 80 | 52 |

Other sizes available upon request

# AEROTECH UNIVERSAL HYDRO BODY
## SK30 TAPER - ISO30 / BT30 CONNECTIONS



PART NO:
AER-56F-HOLDER

Aerotech Universal®

### DESIGN:

- Hardened 58 HRC steel body reduces wear
- Award winning Centrifugal design with arched fan blades provides safe dust extraction without the risk of debris being 'thrown'
- Hydraulic clamping chamber provides exceptional clamping power and significantly reduced run-out
- Universal clamping of standard cylindrical shank tools
- 20mm clamping diameter can be reduced with precision sleeves to accept smaller h6 shank diameters
- SK30 taper is usable on ISO30 and BT30 spindle type machines. Thermwood machines require a standard ISO30 toolholder gripper fork to be installed.
- Proper clamping of tool shanks requires tightening to the specified torque settings

### APPLICATION:

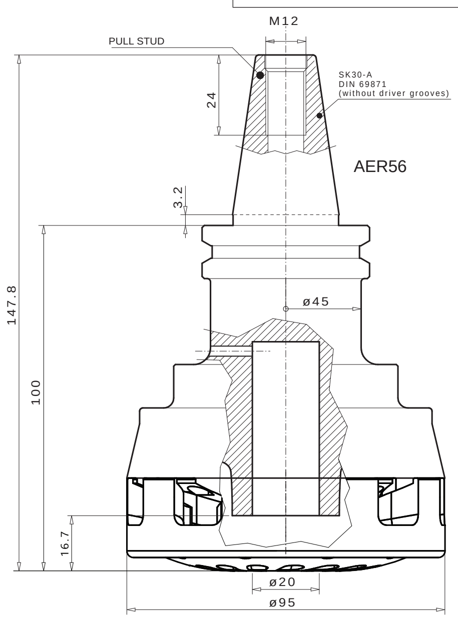
- Reduce combustible environmental dust during routing operations
- Increase production throughput by reducing or eliminating clean-up time between cuts and end of the shift
- Fast tool changes
- Longer tool life due to increased tool rigidity
- Improved heat disipation provided by enhanced airflow within the cutting path

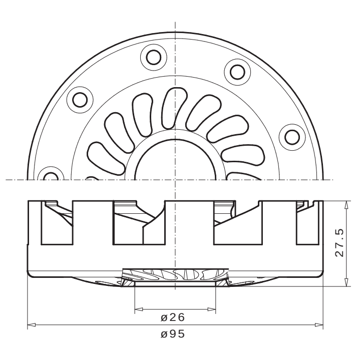
### MATERIAL:

- MDF
- TFL and HPL Laminated panels
- Plywood, OSB, and Veneered Panels (requires Flange Type: GRILL on Aerotech)
- Composite materials: CFRP, Kevlar composites, Solid Surface, etc.

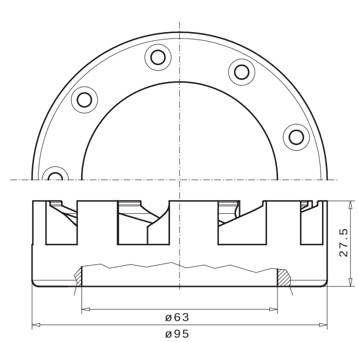
## AEROTECH BODY

| PART NO. | FLANGE TYPE | SPINDLE CONNECTION | LARGE DIAM. | CLAMPING DIAM. | OVERALL LENGTH | TORQUE SETTING |
|---|---|---|---|---|---|---|
| **AER-56F-HOLDER** | Extended GRILL | SK30 (ISO/BT) | 95mm | 20mm | 125mm | 10 Nm |
| **AER-56W-HOLDER** | Extended OPEN | SK30 (ISO/BT) | 95mm | 20mm | 125mm | 10 Nm |



Extended GRILL



Extended OPEN

## REDUCTION SLEEVES

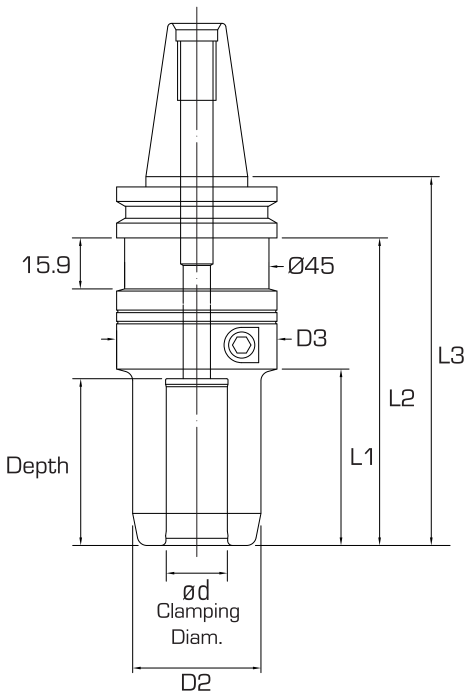
| PART NO. | OUTSIDE DIAMETER | CLAMPING DIAM. | OVERALL LENGTH |
|---|---|---|---|
| **AERC-RS20MM-3/8** | 20mm | 3/8" | 50.5mm |
| **AERC-RS20MM-1/2** | 20mm | 1/2" | 50.5mm |

## REPLACEMENT PARTS

| PART NO. | DESCRIPTION |
|---|---|
| **AER-TW-10NM** | 10 Nm Torque Wrench<br>4mm Hex Drive |

# SK30 HYDRO-GRIP® SLENDER

## HYDRAULIC TOOLHOLDER FOR ISO30 & BT30 SPINDLES




### DESIGN:

- ISO30 spindle connection type
- Durable high quality steel
- High precision ground interfaces
- Clamping activated with 5mm Hex Wrench
- Requires minimum h7 shank tolerance
- Renowned design
- Proper clamping of tool shanks requires tighten to the specified torque setting
- Dynamically balanced G 2.5 at 25,000 RPM

### APPLICATION:

- Provides the fastest tool change process
- For precision mounting of carbide, densimet, and steel shank tools
- Where additional tool rigidity is required

### IDEAL FOR:

- High use tools such as compression bits
- Profiled tools
- Tools used in challenging cutting applications such as solid woods or HPL

### BENEFITS:

- Provides exceptional rigidity and accuracy
- Minimizes run-out on long tool projections
- Superior cut quality and blending of profiles
- Exceptionally fast tool changes without the need for specialized equipment

### IMPERIAL SIZES

| PART NO. | CLAMPING DIAM. ød | D2 MM | D3 MM | L1 MM | L2 MM | L3 MM | DEPTH MM | TORQUE SETTING |
|---|---|---|---|---|---|---|---|---|
| ETPHGS1/2SK30 | 1/2" | 32 | 40 | 43 | 60.9 | 80 | 40 | 5 Nm |
| ETPHGS3/4SK30 • | 3/4" | 40 | 50 | 55 | 95.9 | 115 | 52 | 5 Nm |
| ETPHGS100SK30 • | 1" | 45 | 50 | 59 | 99.9 | 119 | 56 | 5 Nm |

• Clamping diameter may be reduced using a reduction sleeve (see page FC24 & FC25)

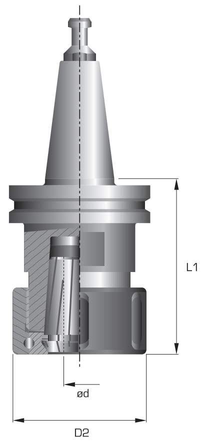
### METRIC SIZES

| PART NO. | CLAMPING DIAM. ød MM | D2 MM | D3 MM | L1 MM | L2 MM | L3 MM | DEPTH MM | TORQUE SETTING |
|---|---|---|---|---|---|---|---|---|
| ETPHGS012SK30 | 12 | 32 | 40 | 43 | 60.9 | 80 | 40 | 5 Nm |
| ETPHGS016SK30 | 16 | 38 | 40 | 43 | 60.9 | 80 | 40 | 5 Nm |
| ETPHGS020SK30 • | 20 | 40 | 50 | 55 | 95.9 | 115 | 52 | 5 Nm |
| ETPHGS025SK30 • | 25 | 45 | 50 | 59 | 99.9 | 119 | 56 | 5 Nm |

• Clamping diameter may be reduced using a reduction sleeve (see page FC24 & FC25)

# RCBB-ISO30 | ISO30 COLLET CHUCKS
## WITH BALL BEARING COLLET NUT

FS TOOL




### DESIGN:
» Collet chucks with steep taper DIN 69871, without grooves or notches
» Ball bearing collet nut for increased clamping pressure and increased concentricity
» Balanced tool body and collet nut
» Suitable for both left and right hand rotation
» Optimal concentricty, collet life, and proper clamping of tool shanks requires tightening to the specified torque setting

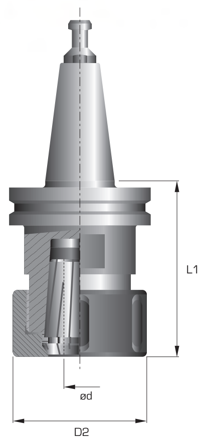
### APPLICATION:
» Precision collet chuck for clamping shank type tools

| PART NO. | COLLET TYPE | DIN TYPE | CLAMPING DIAM. ød MM | D2 MM | L1 MM | ROTATION | TORQUE SETTING |
|---|---|---|---|---|---|---|---|
| **RC2000** | ER32 | 6499 | 2-20 | 50 | 45 | RH/LH | 100 ft-lbs |
| **RC2002** | ER32 | 6499 | 2-20 | 50 | 55 | RH/LH | 100 ft-lbs |
| **RC2004** | ER40 | 6499 | 3-26 | 63 | 57 | RH/LH | 130 ft-lbs |
| **RC2006** | OZ25 | 6388 | 3-25.4 | 60 | 70 | RH/LH | 90 ft-lbs |

When ordering, specify pull stud type (see page FC14)

Spring collets not included (see pages FC18 - FC21)

# RC-ISO30 | ISO30 COLLET CHUCKS
## WITHOUT BALL BEARING COLLET NUT




### DESIGN:
» Collet chucks with steep taper DIN 69871, without grooves or notches
» Suitable for spring collets manufactured to DIN 6388 or DIN 6499
» Balanced tool body and collet nut
» Right hand rotation (left hand available upon request)
» Optimal concentricty, collet life, and proper clamping of tool shanks requires tightening to the specified torque setting

### APPLICATION:
» Precision collet chuck for clamping shank type tools

| PART NO. | COLLET TYPE | DIN TYPE | CLAMPING RANGE ød MM | D2 MM | L1 MM | ROTATION | TORQUE SETTING |
|---|---|---|---|---|---|---|---|
| **RC2010** | ER32 | 6499 | 2-20 | 50 | 45 | RH | 100 ft-lbs |
| **RC2012** | ER32 | 6499 | 2-20 | 50 | 58 | RH | 100 ft-lbs |
| **RC2014** | ER40 | 6499 | 3-26 | 63 | 55 | RH | 130 ft-lbs |
| **RC2016** | OZ25 | 6388 | 3-25.4 | 60 | 70 | RH | 90 ft-lbs |

When ordering, specify pull stud type (see page FC14)

Spring collets not included (see pages FC18 - FC21)

## RCBBM-ISO30

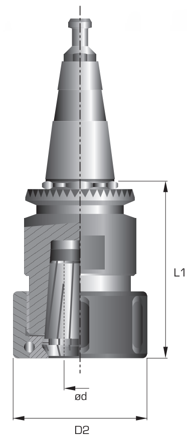
### ISO30 COLLET CHUCKS
SCM/MORBIDELLI WITH BALL BEARING NUT

**DESIGN:**

- Collet chucks with steep taper and serrated flange
- Suitable for spring collets manufactured to DIN 6388 or DIN 6499
- Ball bearing collet nut for increased clamping pressure and increased concentricity
- Balanced tool body and collet nut
- Suitable for both left and right hand rotation
- Optimal concentricty, collet life, and proper clamping of tool shanks requires tightening to the specified torque setting

**APPLICATION:**

- Precision collet chuck for clamping shank type tools
- On CNC routers with automatic tool change for SCM and Morbidelli




| PART NO. | COLLET TYPE | CLAMPING RANGE ød MM | D2 MM | L1 MM | ROTATION | TORQUE SETTING |
|---|---|---|---|---|---|---|
| **RC2020** | ER32 | 2-20 | 50 | 55 | RH/LH | 100 ft-lbs |
| **RC2022** | ER40 | 3-26 | 63 | 70 | RH/LH | 130 ft-lbs |
| **RC2024** | OZ25 | 3-25.4 | 60 | 72 | RH/LH | 90 ft-lbs |

When ordering, specify pull stud type (see page FC14)

Spring collets not included (see pages FC18 - FC21)

## RCM-ISO30

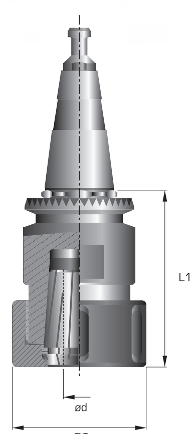
### ISO30 COLLET CHUCKS
SCM/MORBIDELLI WITHOUT BALL BEARING NUT

**DESIGN:**

- Collet chucks with steep taper and toolhead flange
- Suitable for spring collets manufactured to DIN 6388 or DIN 6499
- Balanced tool body and collet nut
- Right hand rotation (left hand available upon request)
- Optimal concentricty, collet life, and proper clamping of tool shanks requires tightening to the specified torque setting

**APPLICATION:**

- Precision collet chuck for clamping shank type tools
- On CNC routers with automatic tool change for SCM and Morbidelli

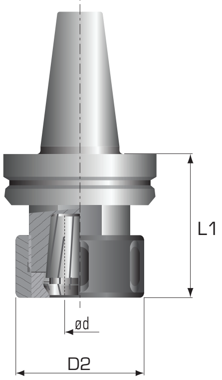



| PART NO. | COLLET TYPE | CLAMPING RANGE ød MM | D2 MM | L1 MM | ROTATION | TORQUE SETTING |
|---|---|---|---|---|---|---|
| **RC2030** | ER32 | 2-20 | 50 | 55 | RH | 100 ft-lbs |
| **RC2032** | ER32 | 2-20 | 50 | 55 | LH | 100 ft-lbs |
| **RC2034** | ER40 | 3-26 | 63 | 70 | RH | 130 ft-lbs |
| **RC2036** | ER40 | 3-26 | 63 | 70 | LH | 130 ft-lbs |
| **RC2038** | OZ25 | 3-25.4 | 60 | 72 | RH | 90 ft-lbs |
| **RC2039** | OZ25 | 2-25.4 | 60 | 72 | LH | 90 ft-lbs |

When ordering, specify pull stud type (see page FC14)

Spring collets not included (see pages FC18 - FC21)

## RCTH-ISO30 THERMWOOD ISO30 COLLET CHUCKS
WITHOUT BALL BEARING COLLET NUT




### DESIGN:
» Collet chucks with steep taper, without grooves or notches
» Specifically for Therwood CNC Routers
» Suitable for left-hand and right-hand rotation
» Balanced tool body and collet nut
» Optimal concentricty, collet life, and proper clamping of tool shanks requires tightening to the specified torque setting

### APPLICATION:
» Precision collet chuck for clamping shank type tools
» Thermwood CNC routers with automatic tool changers

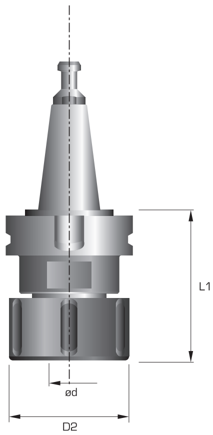
### IMPORTANT:
» RC2014TH is not compatible with Thermwood's "Typewriter" style tool changer

| PART NO. | COLLET TYPE | DIN TYPE | CLAMPING RANGE ød MM | D2 MM | L1 MM | ROTATION | TORQUE SETTING |
|---|---|---|---|---|---|---|---|
| **RC2012TH** | ER32 | 6499 | 2-20 | 50 | 57.5 | RH | 100 ft-lbs |
| **RC2012THL** | ER32 | 6499 | 2-20 | 50 | 57.5 | LH | 100 ft-lbs |
| **RC2014TH** | ER40 | 6499 | 3-26 | 63 | 67.5 | RH | 130 ft-lbs |

When ordering, specify pull stud type (see page FC14)

Spring collets not included (see pages FC18 - FC21)

## RC-BT BT20-BT40 COLLET CHUCKS




### DESIGN:
» Collet chucks with steep taper DIN 69871, with grooves/notches
» Suitable for spring collets manufactured to DIN 6388 or DIN 6499
» Balanced tool body and collet nut
» Right hand rotation (left hand available upon request)
» Optimal concentricty, collet life, and proper clamping of tool shanks requires tightening to the specified torque setting

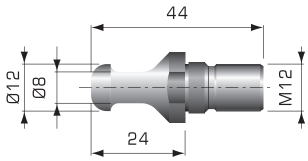
### APPLICATION:
» Precision collet chuck for clamping shank type tools

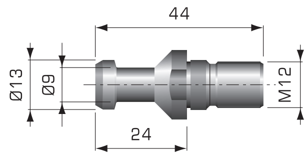
| PART NO. | TAPER SIZE | COLLET TYPE | DIN TYPE | CLAMPING RANGE ød MM | D2 MM | L1 MM | ROTATION | TORQUE SETTING |
|---|---|---|---|---|---|---|---|---|
| **RC2040** | BT20 | ER20 | 6499 | 2-13 | 35 | 45 | RH | 24 ft-lbs |
| **RC2042** | BT20 | ER25 | 6499 | 2-16 | 42 | 45 | RH | 77 ft-lbs |
| **RC2044** | BT30 | ER25 | 6499 | 2-16 | 42 | 60 | RH | 77 ft-lbs |
| **RC2046** | BT30 | ER32 | 6499 | 2-20 | 50 | 60 | RH | 100 ft-lbs |
| **RC2047** • | BT30 | ER32 | 6499 | 2-20 | 50 | 60 | RH | 100 ft-lbs |
| **RC2048** | BT30 | ER40 | 6499 | 3-26 | 63 | 70 | RH | 130 ft-lbs |
| **RC2050** | BT35 | ER25 | 6499 | 2-16 | 42 | 65 | RH | 77 ft-lbs |
| **RC2052** | BT35 | ER32 | 6499 | 2-20 | 50 | 65 | RH | 100 ft-lbs |
| **RC2054** | BT35 | ER40 | 6499 | 3-26 | 63 | 55 | RH | 130 ft-lbs |
| **RC2056** | BT40 | ER25 | 6499 | 2-16 | 42 | 65 | RH | 77 ft-lbs |
| **RC2058** | BT40 | ER32 | 6499 | 2-20 | 50 | 65 | RH | 100 ft-lbs |
| **RC2059** | BT40 | ER40 | 6499 | 3-26 | 63 | 70 | RH | 130 ft-lbs |

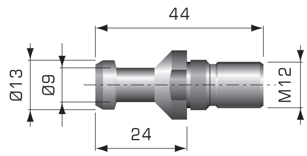
When ordering, specify pull stud type (see page FC14)

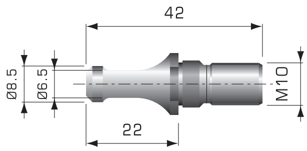
Spring collets not included (see pages FC18 - FC21)

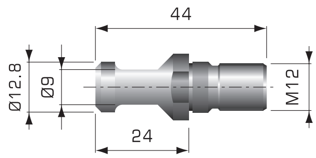
• Special "No Knotch" Collet Chuck for Komo CNC Routers, use pull stud type PS1090

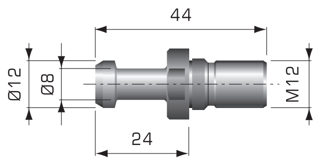


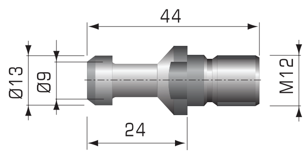



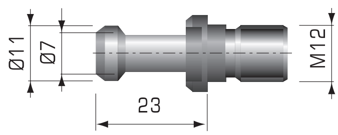



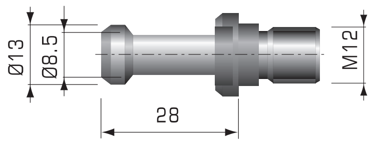



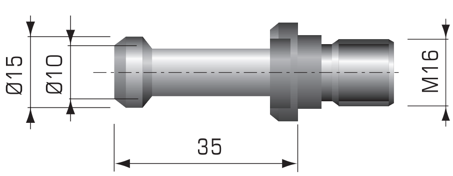



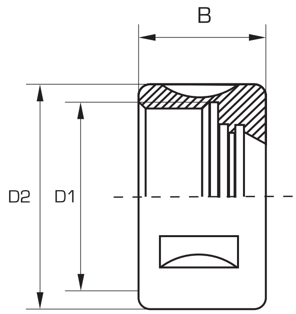



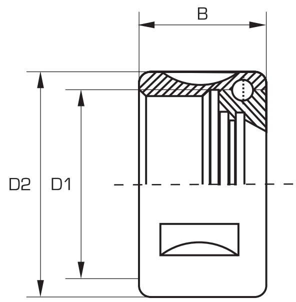




| PART NO. | TOOLHOLDER TYPE | MACHINE |
|---|---|---|
| **PS1020** | ISO30 | BIESSE (After 1992)<br>MASTERWOOD |
| **PS1030** | ISO30 | ALBERTI |
| **PS1040** | ISO30 / BT30 | IMA, MAKA, WEEKE,<br>BUSELLATO, BULLERI, COSMEC<br>RICHENBACHER |
| **PS1060** | ISO30 | SCM - MORBIDELLI |
| **PS1070** | ISO30 | CMS |
| **PS1080** | ISO30 | THERMWOOD, ESSETEAM |
| **PS1090** | BT30 | KOMO |
| **PS1100** | BT30 | SHODA |
| **PS1110** | BT35 | HEIAN |
| **PS1120** | BT40 | SHODA |



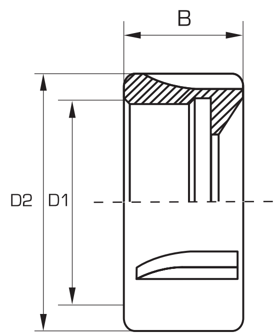

## SLOTTED COLLET NUTS WITHOUT BALL BEARING

| PART NO. | COLLET TYPE | DIN # | DIAM. D2 MM | THICKNESS B MM | DIAM. D1 | ROTATION | TORQUE SETTING |
|---|---|---|---|---|---|---|---|
| CN41916 | ER16 | 6499 | 32 | 18 | M22 x 1.5 | RH | 42 ft-lbs |
| CN41920 | ER20 | 6499 | 35 | 19.5 | M25 x 1.5 | RH | 59 ft-lbs |
| CN41925 | ER25 | 6499 | 42 | 21 | M32 x 1.5 | RH | 77 ft-lbs |
| CN1010 | ER32 | 6499 | 50 | 23 | M40 x 1.5 | RH | 100 ft-lbs |
| CN1020 | ER40 | 6499 | 63 | 25 | M50 x 1.5 | RH | 130 ft-lbs |
| CN1030 | OZ25 | 6388 | 60 | 30 | M48 x 2.0 | RH | 90 ft-lbs |
| CN1040 | ER32 | 6499 | 50 | 23 | M40 x 1.5 | LH | 100 ft-lbs |
| CN1050 | ER40 | 6499 | 63 | 25 | M50 x 1.5 | LH | 130 ft-lbs |
| CN1060 | OZ25 | 6388 | 60 | 30 | M48 x 2.0 | LH | 90 ft-lbs |



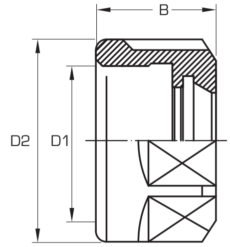

## SLOTTED COLLET NUTS WITH BALL BEARING

| PART NO. | COLLET TYPE | DIN # | DIAM. D2 MM | THICKNESS B MM | DIAM. D1 | ROTATION | TORQUE SETTING |
|---|---|---|---|---|---|---|---|
| CN1110 | ER32 | 6499 | 50 | 23 | M40 x 1.5 | RH | 100 ft-lbs |
| CN1120 | ER40 | 6499 | 63 | 29 | M50 x 1.5 | RH | 130 ft-lbs |
| CN1130 | OZ25 | 6388 | 60 | 30 | M48 x 2.0 | RH | 90 ft-lbs |
| CN1140 | ER32 | 6499 | 50 | 23 | M40 x 1.5 | LH | 100 ft-lbs |
| CN1150 | ER40 | 6499 | 63 | 29 | M50 x 1.5 | LH | 130 ft-lbs |
| CN1160 | OZ25 | 6388 | 60 | 30 | M48 x 2.0 | LH | 90 ft-lbs |




## MINI SLOTTED COLLET NUTS WITHOUT BALL BEARING

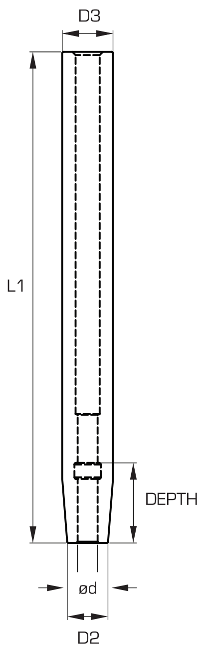
| PART NO. | COLLET TYPE | DIN # | DIAM. D2 MM | THICKNESS B MM | DIAM. D1 | ROTATION | TORQUE SETTING |
|---|---|---|---|---|---|---|---|
| CN23111 | ER11 | 6499 | 16 | 12 | M13 x 0.75 | RH | 12 ft-lbs |
| CN23116 | ER16 | 6499 | 22 | 18 | M19 x 1.0 | RH | 20 ft-lbs |
| CN23120 | ER20 | 6499 | 28 | 19.5 | M24 x 1.0 | RH | 22 ft-lbs |
| CN23125 | ER25 | 6499 | 35 | 21 | M30 x 1.0 | RH | 28 ft-lbs |




## HEX COLLET NUTS WITHOUT BALL BEARING

| PART NO. | COLLET TYPE | DIN # | DIAM. D2 MM | THICKNESS B MM | DIAM. D1 | ROTATION | TORQUE SETTING |
|---|---|---|---|---|---|---|---|
| CN41111 | ER11 | 6499 | 19 | 12 | M14 x 0.75 | RH | 17 ft-lbs |
| CN41116 | ER16 | 6499 | 27.5 | 18 | M22 x 1.5 | RH | 42 ft-lbs |
| CN41120 | ER20 | 6499 | 34 | 19 | M25 x 1.5 | RH | 59 ft-lbs |

# RCEXT-SHF | TOOLHOLDER EXTENSIONS
## SHRINKFIT TYPE




### DESIGN:

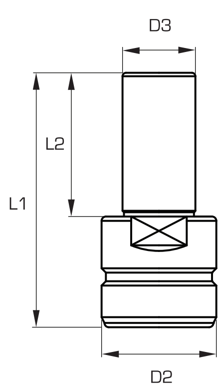
» Extension with shrinkfit interface provides the smallest nose diameter
» Small diameter provides greatest access to confined cuts
» Durable high quality steel
» Precision ground interfaces
» Capable of many accurate tool change cycles
» Provides superior rigidity and accuracy
» Tools must be inserted and removed using a shrinkfit machine
» Requires minimum h7 shank tolerance
» Set screw for consistent depth between tool changes

### APPLICATION:

» Enables greater reach of the cutting tool
» Reduced tool projection achieves superior cutting performance and tool life
» For precision mounting of carbide, densimet, and steel shank tools
» Where additional tool rigidity is required

| PART NO. | CLAMPING DIAM. ød | NOSE DIAM. D2 | SHANK DIAM. D3 | OVERALL LENGTH L1 | DEPTH | SET SCREW |
|---|---|---|---|---|---|---|
| **RCEXT86062** | 1/8" | 0.394" | 5/8" | 6.3" | 0.79" | - |
| **RCEXT86064** | 3/16" | 0.394" | 5/8" | 6.3" | 0.79" | - |
| **RCEXT86066** | 1/4" | 0.394" | 5/8" | 6.3" | 0.79" | M6 x 1.0 |
| **RCEXT86076** | 1/4" | 0.551" | 3/4" | 6.3" | 1.42" | M6 x 1.0 |
| **RCEXT86080** | 3/8" | 0.551" | 3/4" | 6.3" | 1.65" | M8 x 1.25 |
| **RCEXT86090** | 3/8" | 0.79" | 1" | 6.3" | 1.65" | M8 x 1.25 |
| **RCEXT86092** | 1/2" | 0.79" | 1" | 6.3" | 1.85" | M10 x 1.5 |
| **RCEXT86094** | 5/8" | 0.87" | 1" | 6.3" | 1.97" | M12 x 1.75 |

# RCEXT-CER DIN 6499 | TOOLHOLDER EXTENSIONS
## STANDARD ER NUT


### DESIGN:

» Precision ground surfaces
» Collet design allows for fast, easy tool changes of different shank diameters
» Optimal concentricty, collet life, and proper clamping of tool shanks requires tightening to the specified torque setting
» Tightens using standard collet nut wrench

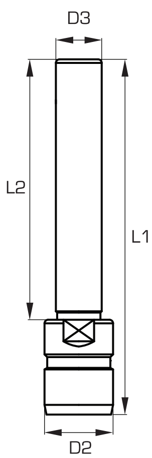
### APPLICATION:

» Enables greater reach of the cutting tool
» Using an extension with smaller collet nut allows access to confined cuts
» Reduced tool projection achieves superior cutting performance and tool life

| PART NO. | COLLET TYPE | CLAMPING RANGE ød MM | SHANK DIAM. D3 MM | NUT DIAM. D2 | OVERALL LENGTH L1 MM | SHANK LENGTH L2 MM | TORQUE SETTING | WRENCH PART NO. |
|---|---|---|---|---|---|---|---|---|
| **RCEXT04837** | ER25 | 2-16 | 1" | 42 | 101 | 50 | 77 ft-lbs | WR04615 |
| **RCEXT04817** | ER32 | 2-20 | 20mm | 50 | 97.1 | 50 | 100 ft-lbs | WR04616 |
| **RCEXT04818** | ER32 | 2-20 | 20mm | 50 | 146.5 | 100 | 100 ft-lbs | WR04616 |
| **RCEXT04818–150** | ER32 | 2-20 | 20mm | 50 | 196.5 | 150 | 100 ft-lbs | WR04616 |
| **RCEXT04839** | ER32 | 2-20 | 1" | 50 | 101.5 | 50 | 100 ft-lbs | WR04616 |
| **RCEXT04839–140** | ER32 | 2-20 | 1" | 50 | 191.5 | 140 | 100 ft-lbs | WR04616 |
| **RCEXT04841** | ER40 | 3-26 | 1" | 63 | 115 | 50 | 130 ft-lbs | WR04617 |

# RCEXT-CM DIN 6499

## TOOLHOLDER EXTENSIONS
SLOTTED ER MINI-NUT



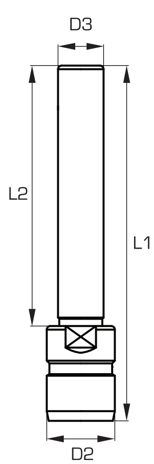

### DESIGN:
- Slotted mini-nut collet provides smaller nut diameters for improved access to more confined cuts
- Precision ground surfaces
- Collet design allows for fast, easy tool changes of different shank diameters
- Optimal concentricty, collet life, and proper clamping of tool shanks requires tighten to the specified torque setting
- Requires ER Mini-Nut collet wrench to tighten

### APPLICATION:
- Enables greater reach of the cutting tool
- Using an extension with smaller collet nut allows access to confined cuts
- Reduced tool projection achieves superior cutting performance and tool life

| PART NO. | COLLET TYPE | CLAMPING RANGE ød MM | SHANK DIAM. D3 | NUT DIAMETER D2 MM | OVERALL LENGTH L1 MM | SHANK LENGTH L2 MM | TORQUE SETTING | WRENCH PART NO. |
|---|---|---|---|---|---|---|---|---|
| **RCEXT04891** | ER11 | 0.5-7 | 1/2" | 16 | 166.5 | 140 | 14 ft-lbs | WR04621 |
| **RCEXT04893** | ER11 | 0.5-7 | 5/8" | 16 | 158.5 | 140 | 14 ft-lbs | WR04621 |
| **RCEXT04895** | ER16 | 1-10 | 1/2" | 22 | 177 | 140 | 22 ft-lbs | WR04622 |
| **RCEXT04896** | ER16 | 1-10 | 3/4" | 22 | 165 | 140 | 22 ft-lbs | WR04622 |
| **RCEXT04892** | ER20 | 2-13 | 1/2" | 28 | 180 | 140 | 25 ft-lbs | WR04623 |
| **RCEXT04894** | ER20 | 2-13 | 3/4" | 28 | 180 | 140 | 25 ft-lbs | WR04623 |
| **RCEXT04881** | ER20 | 2-13 | 20mm | 28 | 220 | 180 | 25 ft-lbs | WR04623 |
| **RCEXT04897** | ER20 | 2-13 | 1" | 28 | 168 | 140 | 25 ft-lbs | WR04623 |
| **RCEXT04898** | ER25 | 2-16 | 3/4" | 35 | 149 | 100 | 29 ft-lbs | WR04624 |
| **RCEXT04888** | ER25 | 2-16 | 1" | 35 | 190 | 140 | 29 ft-lbs | WR04624 |

# RCEXT-CHX DIN 6499

## TOOLHOLDER EXTENSIONS
ER HEX NUT



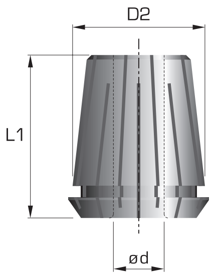

### DESIGN:
- Precision ground surfaces
- Collet design allows for fast, easy tool changes of different shank diameters
- Optimal concentricty, collet life, and proper clamping of tool shanks requires tightening to the specified torque setting
- Requires wrench to tighten hex nuts

### APPLICATION:
- Enables greater reach of the cutting tool
- Using an extension with smaller collet nut allows access to confined cuts
- Reduced tool projection achieves superior cutting performance and tool life

| PART NO. | COLLET TYPE | CLAMPING RANGE ød MM | SHANK DIAM. D3 | NUT DIAMETER D2 MM | OVERALL LENGTH L1 MM | SHANK LENGTH L2 MM | TORQUE SETTING | WRENCH PART NO. |
|---|---|---|---|---|---|---|---|---|
| **RCEXT04855** | ER11 | 0.5-7 | 1/2" | 19 | 174.5 | 140 | 20 ft-lbs | WR04608 |
| **RCEXT04854** | ER11 | 0.5-7 | 5/8" | 19 | 174.5 | 140 | 50 ft-lbs | WR04608 |
| **RCEXT04832** | ER16 | 1-10 | 5/8" | 28 | 95.1 | 60 | 50 ft-lbs | WR04609 |
| **RCEXT04834** | ER16 | 1-10 | 3/4" | 28 | 85.1 | 50 | 50 ft-lbs | WR04609 |
| **RCEXT04835** | ER16 | 1-10 | 3/4" | 28 | 135.1 | 100 | 50 ft-lbs | WR04609 |
| **RCEXT04856** | ER16 | 1-10 | 3/4" | 28 | 175.1 | 140 | 50 ft-lbs | WR04609 |
| **RCEXT04858** | ER20 | 2-13 | 3/4" | 34 | 180.5 | 140 | 75 ft-lbs | WR04610 |

# ER11 DIN 6499

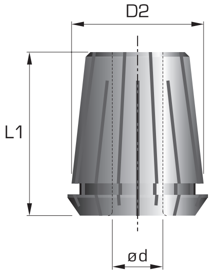
## ER11 PRECISION COLLETS
SPRING COLLETS




| PART NO. | DIAM. ød | CLAMPING RANGE ød | DIAM. D2 MM | LENGTH L1 MM |
|---|---|---|---|---|
| RCER11010 | 1.0mm | 1-0.5mm | 11.5 | 18 |
| RCER11015 | 1.5mm | 1.5-1mm | 11.5 | 18 |
| RCER11020 | 2mm | 2-1.5mm | 11.5 | 18 |
| RCER11025 | 2.5mm | 2.5-2mm | 11.5 | 18 |
| RCER11030 | 3mm | 3-2.5mm | 11.5 | 18 |
| RCER11–18 | 1/8" | 1/8" | 11.5 | 18 |
| RCER11035 | 3.5mm | 3.5-3mm | 11.5 | 18 |
| RCER11040 | 4mm | 4-3.5mm | 11.5 | 18 |
| RCER11045 | 4.5mm | 4.5-4mm | 11.5 | 18 |
| RCER11–316 | 3/16" | 3/16" | 11.5 | 18 |
| RCER11050 | 5mm | 5-4.5mm | 11.5 | 18 |
| RCER11055 | 5.5mm | 5.5-5mm | 11.5 | 18 |
| RCER11060 | 6mm | 6-5.5mm | 11.5 | 18 |
| RCER11–14 | 1/4" | 1/4" | 11.5 | 18 |
| RCER11065 | 6.5mm | 6.5-6mm | 11.5 | 18 |
| RCER11070 | 7mm | 7-6.5mm | 11.5 | 18 |

# ER16 DIN 6499

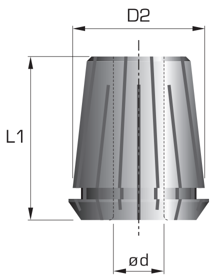
## ER16 PRECISION COLLETS
SPRING COLLETS




| PART NO. | DIAM. ød | CLAMPING RANGE ød | DIAM. D2 MM | LENGTH L1 MM |
|---|---|---|---|---|
| RCER16–16 | 1/16" | 1/16" | 17 | 28 |
| RCER1602 | 2mm | 2-1mm | 17 | 28 |
| RCER1603 | 3mm | 3-2mm | 17 | 28 |
| RCER16–18 | 1/8" | 1/8" | 17 | 28 |
| RCER1604 | 4mm | 4-3mm | 17 | 28 |
| RCER1605 | 5mm | 5-4mm | 17 | 28 |
| RCER1606 | 6mm | 6-5mm | 17 | 28 |
| RCER16–14 | 1/4" | 1/4" | 17 | 28 |
| RCER1607 | 7mm | 7-6mm | 17 | 28 |
| RCER1608 | 8mm | 8-7mm | 17 | 28 |
| RCER1609 | 9mm | 9-8mm | 17 | 28 |
| RCER16–38 | 3/8" | 3/8" | 17 | 28 |
| RCER1610 | 10mm | 10-9mm | 17 | 28 |

# ER20 DIN 6499

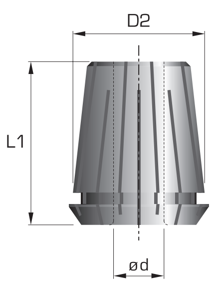
## ER20 PRECISION COLLETS
SPRING COLLETS




| PART NO. | DIAM. ød | CLAMPING RANGE ød | DIAM. D2 MM | LENGTH L1 MM |
|---|---|---|---|---|
| RCER2003 | 3mm | 3-2mm | 21 | 32 |
| RCER20–18 | 1/8" | 1/8" | 21 | 32 |
| RCER2004 | 4mm | 4-3mm | 21 | 32 |
| RCER2005 | 5mm | 5-4mm | 21 | 32 |
| RCER2006 | 6mm | 6-5mm | 21 | 32 |
| RCER20–14 | 1/4" | 1/4" | 21 | 32 |
| RCER2007 | 7mm | 7-6mm | 21 | 32 |
| RCER2008 | 8mm | 8-7mm | 21 | 32 |
| RCER2009 | 9mm | 9-8mm | 21 | 32 |
| RCER20–38 | 3/8" | 3/8" | 21 | 32 |
| RCER2010 | 10mm | 10-9mm | 21 | 32 |
| RCER2011 | 11mm | 11-10mm | 21 | 32 |
| RCER2012 | 12mm | 12-11mm | 21 | 32 |
| RCER20–12 | 1/2" | 1/2" | 21 | 32 |
| RCER2013 | 13mm | 13-12mm | 21 | 32 |

# ER25 DIN 6499

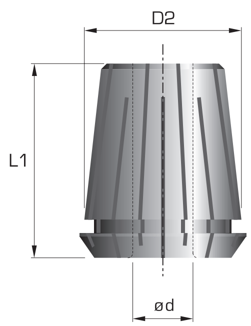
## ER25 PRECISION COLLETS
SPRING COLLETS




| PART NO. | DIAM. ød | CLAMPING RANGE ød | DIAM. D2 MM | LENGTH L1 MM |
|---|---|---|---|---|
| RCER2503 | 3mm | 3-2mm | 26 | 34 |
| RCER25–18 | 1/8" | 1/8" | 26 | 34 |
| RCER2504 | 4mm | 4-3mm | 26 | 34 |
| RCER2505 | 5mm | 5-4mm | 26 | 34 |
| RCER2506 | 6mm | 6-5mm | 26 | 34 |
| RCER25–14 | 1/4" | 1/4" | 26 | 34 |
| RCER2507 | 7mm | 7-6mm | 26 | 34 |
| RCER25–516 | 5/16" | 5/16" | 26 | 34 |
| RCER2508 | 8mm | 8-7mm | 26 | 34 |
| RCER2509 | 9mm | 9-8mm | 26 | 34 |
| RCER25–38 | 3/8" | 3/8" | 26 | 34 |
| RCER2510 | 10mm | 10-9mm | 26 | 34 |
| RCER2511 | 11mm | 11-10mm | 26 | 34 |
| RCER2512 | 12mm | 12-11mm | 26 | 34 |
| RCER25–12 | 1/2" | 1/2" | 26 | 34 |
| RCER2513 | 13mm | 13-12mm | 26 | 34 |
| RCER2514 | 14mm | 14-13mm | 26 | 34 |
| RCER2515 | 15mm | 15-14mm | 26 | 34 |
| RCER25–58 | 5/8" | 5/8" | 26 | 34 |
| RCER2516 | 16mm | 16-15mm | 26 | 34 |

# ER32 PRECISION COLLETS

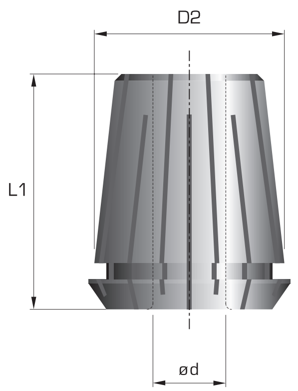
## SPRING COLLETS




| PART NO. | DIAM. ød | CLAMPING RANGE ød | DIAM. D2 MM | LENGTH L1 MM |
|---|---|---|---|---|
| RCER3203 | 3mm | 3-2mm | 32.8 | 40 |
| RCER32–18 | 1/8" | 1/8" | 32.8 | 40 |
| RCER3204 | 4mm | 4-3mm | 32.8 | 40 |
| RCER32–316 | 3/16" | 3/16" | 32.8 | 40 |
| RCER3205 | 5mm | 5-4mm | 32.8 | 40 |
| RCER3206 | 6mm | 6-5mm | 32.8 | 40 |
| RCER32–14 | 1/4" | 1/4" | 32.8 | 40 |
| RCER3207 | 7mm | 7-6mm | 32.8 | 40 |
| RCER3208 | 8mm | 8-7mm | 32.8 | 40 |
| RCER3209 | 9mm | 9-8mm | 32.8 | 40 |
| RCER32–38 | 3/8" | 3/8" | 32.8 | 40 |
| RCER3210 | 10mm | 10-9mm | 32.8 | 40 |
| RCER3211 | 11mm | 11-10mm | 32.8 | 40 |
| RCER3212 | 12mm | 12-11mm | 32.8 | 40 |
| RCER32–12 | 1/2" | 1/2" | 32.8 | 40 |
| RCER3213 | 13mm | 13-12mm | 32.8 | 40 |
| RCER3214 | 14mm | 14-13mm | 32.8 | 40 |
| RCER3215 | 15mm | 15-14mm | 32.8 | 40 |
| RCER3216 | 16 (5/8") | 16-15mm | 32.8 | 40 |
| RCER3217 | 17mm | 17-16mm | 32.8 | 40 |
| RCER3218 | 18mm | 18-17mm | 32.8 | 40 |
| RCER3219 | 19mm | 19-18mm | 32.8 | 40 |
| RCER32–34 | 3/4" | 3/4" | 32.8 | 40 |
| RCER3220 | 20mm | 20-19mm | 32.8 | 40 |

# ER40 PRECISION COLLETS
SPRING COLLETS

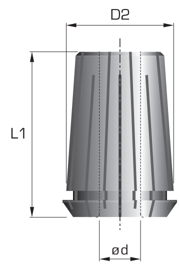
FS TOOL




| PART NO. | DIAM. ød | CLAMPING RANGE ød | DIAM. D2 MM | LENGTH L1 MM |
|---|---|---|---|---|
| RCER40–18 | 1/8" | 1/8" | 40.8 | 46 |
| RCER4004 | 4mm | 4-3mm | 40.8 | 46 |
| RCER40–316 | 3/16" | 3/16" | 40.8 | 46 |
| RCER4005 | 5mm | 5-4mm | 40.8 | 46 |
| RCER4006 | 6mm | 6-5mm | 40.8 | 46 |
| RCER40–14 | 1/4" | 1/4" | 40.8 | 46 |
| RCER4007 | 7mm | 7-6mm | 40.8 | 46 |
| RCER4008 | 8mm | 8-7mm | 40.8 | 46 |
| RCER4009 | 9mm | 9-8mm | 40.8 | 46 |
| RCER40–38 | 3/8" | 3/8" | 40.8 | 46 |
| RCER4010 | 10mm | 10-9mm | 40.8 | 46 |
| RCER4011 | 11mm | 11-10mm | 40.8 | 46 |
| RCER4012 | 12mm | 12-11mm | 40.8 | 46 |
| RCER40–12 | 1/2" | 1/2" | 40.8 | 46 |
| RCER4013 | 13mm | 13-12mm | 40.8 | 46 |
| RCER4014 | 14mm | 14-13mm | 40.8 | 46 |
| RCER4015 | 15mm | 15-14mm | 40.8 | 46 |
| RCER4016 | 16 (5/8") | 16-15mm | 40.8 | 46 |
| RCER4017 | 17mm | 17-16mm | 40.8 | 46 |
| RCER4018 | 18mm | 18-17mm | 40.8 | 46 |
| RCER4019 | 19mm | 19-18mm | 40.8 | 46 |
| RCER40–34 | 3/4" | 3/4" | 40.8 | 46 |
| RCER4020 | 20mm | 20-19mm | 40.8 | 46 |
| RCER4025 | 25mm | 25-24mm | 40.8 | 46 |
| RCER40–1 | 1" | 1" | 40.8 | 46 |
| RCER4026 | 26mm | 26-25mm | 40.8 | 46 |

OZ25
DIN 6388

# SYOZ25 PRECISION COLLETS
SPRING COLLETS




| PART NO. | DIAM. ød | CLAMPING RANGE ød | DIAM. D2 MM | LENGTH L1 MM |
|---|---|---|---|---|
| RCOZ2504 | 4mm | 4-3mm | 35 | 52 |
| RCOZ2506 | 6mm | 6-5mm | 35 | 52 |
| RCOZ25–14 | 1/4" | 1/4" | 35 | 52 |
| RCOZ2507 | 7mm | 7-6mm | 35 | 52 |
| RCOZ25–38 | 3/8" | 3/8" | 35 | 52 |
| RCOZ2510 | 10mm | 10mm | 35 | 52 |
| RCOZ25–12 | 1/2" | 1/2" | 35 | 52 |
| RCOZ2513 | 13mm | 13-12mm | 35 | 52 |
| RCOZ2516 | 16mm | 16-15mm | 35 | 52 |
| RCOZ2519 | 19mm | 19-18mm | 35 | 52 |
| RCOZ25–34 | 3/4" | 3/4" | 35 | 52 |
| RCOZ2520 | 20mm | 20-19mm | 35 | 52 |
| RCOZ2525 | 25mm | 25-24mm | 35 | 52 |
| RCOZ25–1 | 1" | 1" | 35 | 52 |

# MD2010 ADJUSTABLE MOUNTING DEVICE FOR TOOLHOLDERS

**DESIGN:**

- Durable steel construction
- Anodized light alloy base
- Four holes in base for easy mounting near machinery
- Auto-locking roller bearing design for fast tool changes and no slippage
- Adjustable from 0° to 90°

**APPLICATION:**

- For safe assembly and disassembly of shank type tools into toolholders or bore type tools onto cutter arbors
- Best used with a torque wrench for accurate tightening
- Essential for operations using CNC routers
- Wide range of tightening stand/locking devices available for HSK50, HSK63, ISO30/SK30 and ISO40 spindles including those for Thermwood machines



| PART NO. | ød MM | TOOLHOLDER TYPE |
|---|---|---|
| **MD2010** | 50 | ISO30 / SK30 / HSK50 |
| **MD2020** | 63.5 | ISO40 |
| **MD2030** | 63 | HSK63F |
| **MD2060** | 58 | ISO30 ELTE/ESSETEAM THERMWOOD |

# WR1010 WRENCHES FOR TOOLHOLDERS

TYPE:
DIN 6388

TYPE:
DIN 6499

PART NO:
ETP-TW-6NM
AER-TW-10NM

PART NO:
CRW100

## DIN 6388

| PART NO. | COLLET NUT ød MM | SPRING COLLET TYPE |
|---|---|---|
| **WR1010** | 50 | ER32 |
| **WR1020** | 63/60 | ER40/OZ25 |

For collet nut specs, see page FC15

## DIN 6499

| PART NO. | COLLET NUT ød MM | SPRING COLLET TYPE |
|---|---|---|
| **WR1030** | 50 | ER32 |
| **WR1040** | 63 | ER40 |

For collet nut specs, see page FC15

## FIXED TORQUE WRENCHES

| PART NO. | DRIVE TYPE | TORQUE SETTING TYPE | TORQUE VALUE | APPLICATION |
|---|---|---|---|---|
| **ETP-TW-6NM** | 5mm Hex | Fixed | 6 Nm | ETP Hydro-Grip Sleeves |
| **AER-TW-10NM** | 5mm Hex | Fixed | 10 Nm | AEROTECH Hydro Body |
| **CWR100** | 1/4" Square | Fixed | 100 in-lbs | CONSTANT PCD Tools |
| **CSBT25-1/4** | T25 Socket with 1/4" drive bit for use with above CWR100 | | | |

# ADJUSTABLE TORQUE WRENCH & ADAPTERS
FOR TOOLHOLDERS

## DESIGN:
- Durable industrial construction
- Factory calibrated and certified accuracy +/- 3%
- Easy read dial for fast adjustments to torque value

## APPLICATION:
- For safe and accurate assembly of collet type toolholders

## BENEFITS:
- Improves tool and collet life
- Improves accuracy by reducing run-out
- Reduces risk of tool breakage from improper clamping or damaged collets

## ADJUSTABLE TORQUE WRENCH

| PART NO. | ADAPTER TYPE | LENGTH | SPIGOT TYPE | TORQUE SETTING TYPE | TORQUE RANGE ft-lbs | TORQUE RANGE Nm |
|---|---|---|---|---|---|---|
| WR050TH | Mini | 12.5" | 16mm round | Adjustable | 7.5 - 37.5 ft-lbs | 10.1 - 50.8 Nm |
| WR200TH | Slotted, Hook, Hex | 16.5" | 16mm round | Adjustable | 30 - 150 ft-lbs | 40.6 - 203.3 Nm |

Type:
Slotted

Type:
Hook

Type:
Mini Slotted

Type:
Hex

Type:
Pull Stud Socket Drive

Type:
Right Angle Drive

## PULL STUD SOCKET DRIVES

| PART NO. | TOOLHOLDER TYPE | DRIVE SIZE | WRENCH PART NO. | TORQUE SETTING |
|---|---|---|---|---|
| WRDPSS-30ISO | ISO30 | 3/8" | WR200TH | 36 ft-lbs |
| WRDPSS-30BT | BT30 | 3/8" | WR200TH | 36 ft-lbs |

Requires right angle drive (Part no. 29828)

## RIGHT ANGLE DRIVE

| PART NO. | DRIVE SIZE | WRENCH PART NO. |
|---|---|---|
| WRD29828 | 3/8" | WR050TH, WR200TH |

## SLOTTED COLLET KEY ADAPTERS

| PART NO. | COLLET NUT TYPE | ADAPTER TYPE | WRENCH PART NO. | TORQUE SETTING |
|---|---|---|---|---|
| WRA04580-16 | ER16 Slotted | Slotted | WR200TH | 42 ft-lbs |
| WRA04580-20 | ER20 Slotted | Slotted | WR200TH | 59 ft-lbs |
| WRA04603-25 | ER25 Slotted | Slotted | WR200TH | 77 ft-lbs |
| WRA04604-32 | ER32 Slotted | Slotted | WR200TH | 100 ft-lbs |
| WRA04605-40 | ER40 Slotted | Slotted | WR200TH | 130 ft-lbs |

## HOOK COLLET KEY ADAPTER

| PART NO. | COLLET NUT TYPE | ADAPTER TYPE | WRENCH PART NO. | TORQUE SETTING |
|---|---|---|---|---|
| WRA03690-25 | OZ25 | Hook | WR200TH | 90 ft-lbs |

## HEX COLLET KEY ADAPTERS

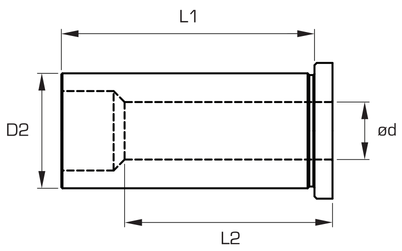
| PART NO. | COLLET NUT TYPE | ADAPTER TYPE | WRENCH PART NO. | TORQUE SETTING |
|---|---|---|---|---|
| WRA04581 | ER11 Hex | Hex | WR200TH | 12 ft-lbs |
| WRA04601-16 | ER16 Hex | Hex | WR200TH | 42 ft-lbs |
| WRA04602-20 | ER20 Hex | Hex | WR200TH | 59 ft-lbs |

## MINI COLLET KEY ADAPTERS

| PART NO. | COLLET NUT TYPE | ADAPTER TYPE | WRENCH PART NO. | TORQUE SETTING |
|---|---|---|---|---|
| WRA04576 | ER11 Mini | Mini | WR050TH | 12 ft-lbs |
| WRA04577 | ER16 Mini | Mini | WR050TH | 20 ft-lbs |
| WRA04578 | ER20 Mini | Mini | WR050TH | 22 ft-lbs |
| WRA04587 | ER25 Mini | Mini | WR050TH | 28 ft-lbs |

# REDUCTION SLEEVES FOR ETP HYDRO HOLDERS

IMPERIAL CLAMPING SIZES




## REDUCTION SLEEVES

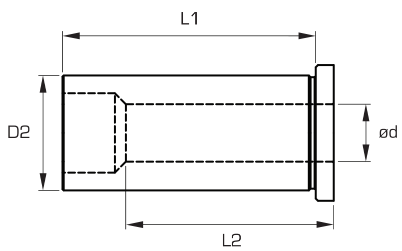
| PART NO. | OUTSIDE DIAMETER D2 | CLAMPING DIAMETER ød | L1 MM | L2 MM |
|---|---|---|---|---|
| ETPR1919-03182 | 3/4" | 1/8" | 50 | 28 |
| ETPR1919-04762 | 3/4" | 3/16" | 50 | 28 |
| ETPR1919-06352 | 3/4" | 1/4" | 50 | 36 |
| ETPR1919-07942 | 3/4" | 5/16" | 50 | 37 |
| ETPR1919-09522 | 3/4" | 3/8" | 50 | 36 |
| ETPR1919-11112 | 3/4" | 7/16" | 50 | 40 |
| ETPR1919-12702 | 3/4" | 1/2" | 50 | 45 |
| ETPR1919-14292 | 3/4" | 9/16" | 50 | 45 |
| ETPR1919-15882 | 3/4" | 5/8" | 50 | 48 |

## REDUCTION SLEEVES

| PART NO. | OUTSIDE DIAMETER D2 MM | CLAMPING DIAMETER ød | L1 MM | L2 MM |
|---|---|---|---|---|
| ETPR1920-03181 | 20 | 1/8" | 50 | 28 |
| ETPR1920-04761 | 20 | 3/16" | 50 | 28 |
| ETPR1920-06351 | 20 | 1/4" | 50 | 36 |
| ETPR1920-07941 | 20 | 5/16" | 50 | 37 |
| ETPR1920-09521 | 20 | 3/8" | 50 | 36 |
| ETPR1920-11111 | 20 | 7/16" | 50 | 40 |
| ETPR1920-12701 | 20 | 1/2" | 50 | 45 |
| ETPR1920-14291 | 20 | 9/16" | 50 | 45 |
| ETPR1920-15881 | 20 | 5/8" | 50 | 48 |

## REDUCTION SLEEVES

| PART NO. | OUTSIDE DIAMETER D2 | CLAMPING DIAMETER ød | L1 MM | L2 MM |
|---|---|---|---|---|
| ETPR1926-03182 | 1" | 1/8" | 56 | 29 |
| ETPR1926-04762 | 1" | 3/16" | 56 | 29 |
| ETPR1926-06352 | 1" | 1/4" | 56 | 37 |
| ETPR1926-07942 | 1" | 5/16" | 56 | 37 |
| ETPR1926-09522 | 1" | 3/8" | 56 | 38 |
| ETPR1926-11112 | 1" | 7/16" | 56 | 40 |
| ETPR1926-12702 | 1" | 1/2" | 56 | 46 |
| ETPR1926-14292 | 1" | 9/16" | 56 | 47 |
| ETPR1926-15882 | 1" | 5/8" | 56 | 48 |
| ETPR1926-17462 | 1" | 11/16" | 56 | 48 |
| ETPR1926-19052 | 1" | 3/4" | 56 | 48 |


## REDUCTION SLEEVES

| PART NO. | OUTSIDE DIAMETER D2 MM | CLAMPING DIAMETER ød MM | L1 MM | L2 MM |
|---|---|---|---|---|
| ETPR1920-03000 | 20 | 3 | 50 | 28 |
| ETPR1920-04000 | 20 | 4 | 50 | 28 |
| ETPR1920-05000 | 20 | 5 | 50 | 28 |
| ETPR1920-06000 | 20 | 6 | 50 | 36 |
| ETPR1920-07000 | 20 | 7 | 50 | 38 |
| ETPR1920-08000 | 20 | 8 | 50 | 37 |
| ETPR1920-09000 | 20 | 9 | 50 | 38 |
| ETPR1920-10000 | 20 | 10 | 50 | 40 |
| ETPR1920-11000 | 20 | 11 | 50 | 40 |
| ETPR1920-12000 | 20 | 12 | 50 | 45 |
| ETPR1920-13000 | 20 | 13 | 50 | 45 |
| ETPR1920-14000 | 20 | 14 | 50 | 45 |
| ETPR1920-15000 | 20 | 15 | 50 | 45 |
| ETPR1920-16000 | 20 | 16 | 50 | 48 |
| ETPR1920-18000 | 20 | 18 | 50 | 48 |

## REDUCTION SLEEVES

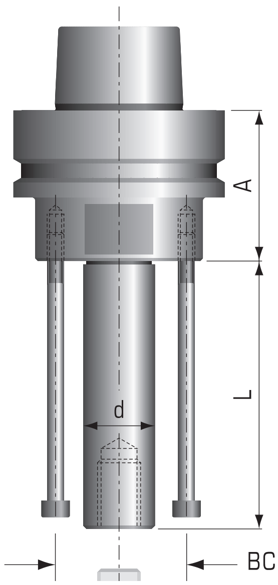
| PART NO. | OUTSIDE DIAMETER D2 MM | CLAMPING DIAMETER ød MM | L1 MM | L2 MM |
|---|---|---|---|---|
| ETPR1925-03000 | 25 | 3 | 56 | 29 |
| ETPR1925-04000 | 25 | 4 | 56 | 29 |
| ETPR1925-05000 | 25 | 5 | 56 | 29 |
| ETPR1925-06000 | 25 | 6 | 56 | 37 |
| ETPR1925-07000 | 25 | 7 | 56 | 37 |
| ETPR1925-08000 | 25 | 8 | 56 | 37 |
| ETPR1925-09000 | 25 | 9 | 56 | 38 |
| ETPR1925-10000 | 25 | 10 | 56 | 40 |
| ETPR1925-12000 | 25 | 12 | 56 | 46 |
| ETPR1925-14000 | 25 | 14 | 56 | 47 |
| ETPR1925-16000 | 25 | 16 | 56 | 48 |
| ETPR1925-18000 | 25 | 18 | 56 | 48 |
| ETPR1925-20000 | 25 | 20 | 56 | 50 |

## REDUCTION SLEEVE EXTRACTORS

| PART NO. | SLEEVE OUTSIDE DIAMETER | HEAD WIDTH MM | LENGTH MM |
|---|---|---|---|
| ETPE7321-20000 | 3/4" to 20mm | 38 | 160 |
| ETPE7321-25000 | 25mm to 1" | 51 | 180 |

Not for use with Aerotech holders

# HSK63F CUTTER ARBORS




## DESIGN:

- Toolholder with hollow taper VDIN 69893-6 FORM F
- Balanced for high speed machining
- Cutters are mounted onto the arbor and secured with bolts

## APPLICATION:

- For mounting bore type tools
- For CNC routers with automatic tool changers

## IMPERIAL SIZES

| PART NO. | ARBOR DIAM. ød | ARBOR LENGTH L MM | A MM | BOLT CIRCLE BC MM |
|---|---|---|---|---|
| **RC3200** | 1-1/4" | 55 | 45 | 41 |
| **RC3201** | 1-1/4" | 55 | 33 | 41 |
| **RC3202** | 1-1/4" | 80 | 33 | 41 |

Other shaft sizes available upon request

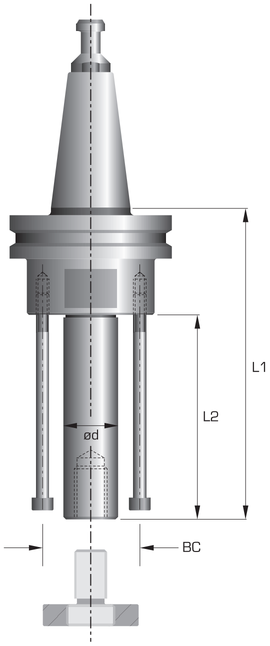
## METRIC SIZES

| PART NO. | ARBOR DIAM. ød MM | ARBOR LENGTH L MM | A MM | BOLT CIRCLE BC MM |
|---|---|---|---|---|
| **RC3100** | 20 | 40 | 80 | 32 |
| **RC3102** | 20 | 70 | 45 | 32 |
| **RC3104** | 20 | 70 | 80 | 32 |
| **RC3106** | 30 | 40 | 80 | 48 |
| **RC3108** | 30 | 80 | 45 | 48 |
| **RC3109** | 30 | 80 | 80 | 48 |

Other shaft sizes available upon request

Bolts not included

# ISO30 CUTTER ARBORS
## METRIC SIZES




## DESIGN:

- Cutter arbor with steep taper DIN 69871, without grooves or notches
- Balanced for high speed machining
- Cutters are mounted onto the arbor and secured with bolts

## APPLICATION:

- For mounting bore type tools
- On CNC routers with automatic tool changers

| PART NO. | SHAFT DIAM. ød MM | SHAFT LENGTH L2 MM | L1 MM | BOLT CIRCLE BC MM |
|---|---|---|---|---|
| **RC3050** | 20 | 55 | 97 | 32 |
| **RC3052** | 20 | 70 | 112 | 32 |
| **RC3054** | 30 | 55 | 97 | 48 |
| **RC3056** | 30 | 80 | 122 | 48 |
| **RC3050L** | 20 | 55 | 118 | 32 |
| **RC3052L** | 20 | 70 | 133 | 32 |
| **RC3054L** | 30 | 55 | 118 | 48 |
| **RC3056L** | 30 | 80 | 143 | 48 |

When ordering, specify pull stud type (see page FC14)

Other shaft sizes available upon request

Bolts not included

# HSK63F HYDRO-GRIP® CUTTER ARBORS

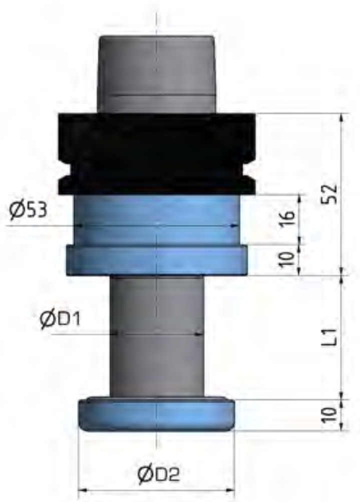
TYPE: GE2

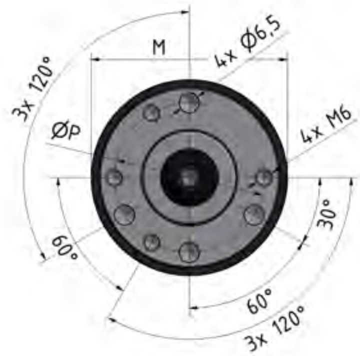

## DESIGN:

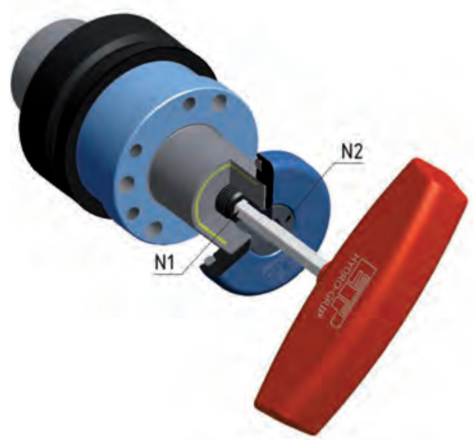
- Precision GE2 hydraulic chucks are available in HSK63F only
- Balanced for high speed machining
- Hydraulic clamping ensures exact radial running accuracy for optimum quality of cut and extended tool life
- Designed with safety ring in light metal
- Adapted for 3 wing cutters
- Suitable for both left and right hand rotation

## APPLICATION:

- Quick and simple tool changing reduces downtime
- For precision mounting of bore type tools
- On CNC routers with manual or automatic tool change




## METRIC SIZES

| PART NO. | D1 MM | L1 MM | D2 MM | M MM | ØP MM | N1 MM | N2 MM |
|---|---|---|---|---|---|---|---|
| ETPGE2-20040HSK63F | 20 | 40 | 50 | 53 | 32 | 6 | 8 |
| ETPGE2-25055HSK63F | 25 | 55 | 50 | 53 | 40 | 6 | 8 |
| ETPGE2-30040HSK63F | 30 | 40 | 50 | 58 | 48 | 6 | 8 |
| ETPGE2-30055HSK63F | 30 | 55 | 50 | 58 | 48 | 6 | 8 |
| ETPGE2-30080HSK63F | 30 | 80 | 50 | 58 | 48 | 6 | 8 |
| ETPGE2-30100HSK63F | 30 | 100 | 50 | 58 | 48 | 6 | 8 |

## IMPERIAL SIZES

| PART NO. | D1 | L1 MM | D2 MM | M MM | ØP MM | N1 MM | N2 MM |
|---|---|---|---|---|---|---|---|
| ETPGE2-10040HSK63F | 1" | 40 | 50 | 53 | 40 | 6 | 8 |
| ETPGE2-10055HSK63F | 1" | 55 | 50 | 53 | 40 | 6 | 8 |
| ETPGE2-10080HSK63F | 1" | 80 | 50 | 53 | 40 | 6 | 8 |
| ETPGE2-11440HSK63F | 1-1/4" | 40 | 50 | 58 | 48 | 6 | 8 |
| ETPGE2-11455HSK63F | 1-1/4" | 55 | 50 | 58 | 48 | 6 | 8 |

# HSK63F SAW BLADE TOOLHOLDER
FOR CNC ROUTERS

TYPE:
ARBOR ONLY

## DESIGN:
- Balanced for high speed machining
- Large diameter supportive flange ensures accuracy for optimum quality of cut and extended tool life
- Standard 30mm bore can be changed with adaptors
- 8 screws provide excellent stability over conventional 4 screw mounts
- Optional Safety Flange provides increased security in challenging applications
- Suitable for both CW and CCW hand rotation

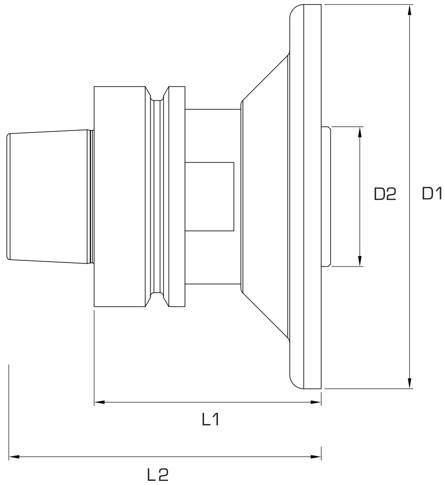
## APPLICATION:
- For precise and rigid mounting of saw blades
- On CNC routers with manual or automatic tool change

## MACHINES:
- 5-axis CNC routers

## SPECIAL CONSIDERATIONS:
- Select an arbor length and saw blade diameter that projects far enough away from the CNC router's spindle housing so that it will not come in to contact with the workpiece

TYPE:
WITHOUT SAFETY FLANGE

TYPE:
WITH SAFETY FLANGE




## TOOLHOLDERS ONLY

| PART NO. | TOOL TYPE | FLANGE ØD1 MM | LENGTH L1 MM | LENGTH L2 MM | PIN HOLE CONF. MM |
|---|---|---|---|---|---|
| ARS085040 | A | 85 | 40 | 65 | 8/6/70 |
| ARS085065 | A | 85 | 65 | 90 | 8/6/70 |
| ARS085100 | A | 85 | 100 | 125 | 8/6/70 |
| ARS085120 | A | 85 | 120 | 145 | 8/6/70 |
| ARS110040 | B | 110 | 40 | 65 | 8/6/90 |
| ARS110065 | B | 110 | 65 | 90 | 8/6/90 |
| ARS110100 | B | 110 | 100 | 125 | 8/6/90 |
| ARS110120 | B | 110 | 120 | 145 | 8/6/90 |
| ARS110160 | B | 110 | 160 | 185 | 8/6/90 |

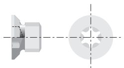
## SAFETY FLANGES

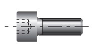
| PART NO. | TOOL TYPE | FLANGE ØD MM | THICKNESS MM | PIN HOLE CONF. MM |
|---|---|---|---|---|
| ARSF08510 | A | 85 | 10 | 8/6/70 |
| ARSF11010 | B | 110 | 10 | 8/6/90 |

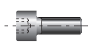
## SAW BLADE ADAPTERS

| PART NO. | TOOL TYPE | ARBOR ØD | ARBOR LENGTH MM |
|---|---|---|---|
| ARSA030 | A | 30mm | 4 |
| ARSA114 | A | 1-1/4" | 4 |
| ARSA032 | A | 32mm | 4 |
| ARSA035 | A | 35mm | 4 |
| ARSA040 | A | 40mm | 4 |
| ARSB030 | B | 30mm | 4 |
| ARSB114 | B | 1-1/4" | 4 |
| ARSB032 | B | 32mm | 4 |
| ARSB035 | B | 35mm | 4 |
| ARSB040 | B | 40mm | 4 |

## REPLACEMENT PARTS







| DESCRIPTION | SCREW FOR ARBOR ONLY | SCREW FOR BORE ADAPTOR | SCREW FOR SAFETY FLANGE |
|---|---|---|---|
| PART NO. | W500006 | W501701 | W501703 |
| DIMENSIONS | M6X12 Torx | M5X12 Hex | M6X20 Hex |
| QUANTITY | 8pcs | 4pcs | 8pcs |
| WRENCH | W400430 | W400114 | W400115 |

# AEROTECH FINISHING COMPRESSION

Z=2+2 FOR AEROTECH SYSTEM

Aerotech System®

TYPE:
HIGH UPCUT

## IMPORTANT:

- Dust (Chips) must remain moderately loose and unpacked in the cut to achieve optimal dust extraction
- High Upcut design is recommended for maximum dust extraction

## MATERIAL:

Excellent finish on:

- Laminated panels
- Chipboard

Good finish on:

- Softwoods and Hardwoods
- MDF
- Plywood, OSB
  (requires Aerotech Flange type: GRILL)

## DESIGN:

- Optimized for Aerotech System only (see page FC2)
- Router bits are shrinkfitted into reusable HSK20C holders
- 2 precision ground cutting edges
- Unmatched rigidity and near zero runout acheived by the shrinkfit connection
- Excellent chipflow and lower heat retention is achieved by the semi-polished flutes
- Increased cutting edge durability from special submicron, extended life carbide
- 30° helix design with bottom cutting capability

## APPLICATION:

- For exceptionally smooth finishing cuts
- Increased cutting edge life when frequently accelerating/decelerating or performing multiple passes
- Eliminates chipping, fuzzing, and tear-out when the end of the upcut and downcut cutting edges are more than 1/16" from the top and bottom surfaces
- When cutting rebates, dados, or pockets, use an upcut length that is at least 1/16" shorter than the shallowest cut
- If part movement is a concern, use an upcut length of 4.8mm (0.188") or shorter

## HIGH UPCUT

| PART NO. | CUTTING DIAM. | MAX. DEPTH OF CUT | UPCUT LENGTH MM | SHANK TYPE | NO. FLUTES |
|---|---|---|---|---|---|
| AF2059W-HUD2-12.9BH | 3/8" | 1/2" | 9.5 | HSK20C | 2+2 |
| AF2059W-HUD2-16BH | 3/8" | 5/8" | 12.0 | HSK20C | 2+2 |
| AF2059W-HUD2-19.25BH | 3/8" | 3/4" | 14.5 | HSK20C | 2+2 |
| AF2059W-HUD2-22.2BH | 3/8" | 7/8" | 16.5 | HSK20C | 2+2 |
| AF2059W-HUD2-25.6BH | 3/8" | 1" | 19.0 | HSK20C | 2+2 |
| AF2061-HUD2-12.9BH | 1/2" | 1/2" | 8.0 | HSK20C | 2+2 |
| AF2061-HUD2-16BH | 1/2" | 5/8" | 10.0 | HSK20C | 2+2 |
| AF2061-HUD2-19.25BH | 1/2" | 3/4" | 12.0 | HSK20C | 2+2 |
| AF2061-HUD2-22.2BH | 1/2" | 7/8" | 14.0 | HSK20C | 2+2 |
| AF2061-HUD2-25.6BH | 1/2" | 1" | 16.0 | HSK20C | 2+2 |
| AF2061-HUD2-31.95BH | 1/2" | 1-1/4" | 20.0 | HSK20C | 2+2 |
| AF2064-HUD2-19.25BH | 5/8" | 3/4" | 12.0 | HSK20C | 2+2 |
| AF2066-HUD2-19.25BH | 3/4" | 3/4" | 12.0 | HSK20C | 2+2 |

## MORTISE UPCUT

| PART NO. | CUTTING DIAM. | MAX. DEPTH OF CUT | UPCUT LENGTH MM | SHANK TYPE | NO. FLUTES |
|---|---|---|---|---|---|
| AF2059W-UD2-12.9BH | 3/8" | 1/2" | 4.8 | HSK20C | 2+2 |
| AF2059W-UD2-16BH | 3/8" | 5/8" | 4.8 | HSK20C | 2+2 |
| AF2059W-UD2-19.25BH | 3/8" | 3/4" | 4.8 | HSK20C | 2+2 |
| AF2059W-UD2-22.2BH | 3/8" | 7/8" | 4.8 | HSK20C | 2+2 |
| AF2059W-UD2-25.6BH | 3/8" | 1" | 4.8 | HSK20C | 2+2 |
| AF2061-UD2-12.9BH | 1/2" | 1/2" | 4.8 | HSK20C | 2+2 |
| AF2061-UD2-16BH | 1/2" | 5/8" | 4.8 | HSK20C | 2+2 |
| AF2061-UD2-19.25BH | 1/2" | 3/4" | 4.8 | HSK20C | 2+2 |
| AF2061-UD2-22.2BH | 1/2" | 7/8" | 4.8 | HSK20C | 2+2 |
| AF2061-UD2-25.6BH | 1/2" | 1" | 4.8 | HSK20C | 2+2 |
| AF2061-UD2-31.95BH | 1/2" | 1-1/4" | 4.8 | HSK20C | 2+2 |
| AF2064-UD2-19.25BH | 5/8" | 3/4" | 4.8 | HSK20C | 2+2 |
| AF2066-UD2-19.25BH | 3/4" | 3/4" | 4.8 | HSK20C | 2+2 |

# AF-UD3 AEROTECH FINISHING COMPRESSION

Z=3+3 FOR AEROTECH SYSTEM

Aerotech System®

TYPE:
HIGH UPCUT

## DESIGN:

» Optimized for Aerotech System only (see page FC2)
» Router bits are shrinkfitted into reusable HSK20C holders
» 3 precision ground cutting edges
» Unmatched rigidity and near zero runout acheived by the shrinkfit connection
» Good chipflow and low heat retention is achieved by the three semi-polished flutes
» Increased cutting edge durability from special submicron, extended life carbide
» 30° helix design with bottom cutting capability

## APPLICATION:

» For exceptionally smooth finishing cuts
» Reduced run-out in parting cuts as 2 cutting edges are engaged at all times
» Increased number of bite marks per inch reduce chip size and provide a smooth finish, important when edge-banding without pre-miling
» Eliminates chipping, fuzzing, and tear-out when the end of the upcut and downcut cutting edges are more than 1/16" from the top and bottom surfaces
» When cutting rebates, dados, or pockets, use an upcut length that is at least 1/16" shorter than the shallowest cut
» If part movement is a concern, use an upcut length of 4.8mm (0.188") or shorter

## IMPORTANT:

» Dust (chips) must remain moderately loose and unpacked in the cut to achieve optimal dust extraction
» High Upcut design is recommended for maximum dust extraction

## MATERIAL:

Excellent finish on:

» Laminated panels
» Chipboard

Good finish on:

» Softwoods and Hardwoods
» MDF
» Plywood, OSB
(requires Aerotech flange Type: GRILL)

## HIGH UPCUT

| PART NO. | CUTTING DIAM. | MAX. DEPTH OF CUT | UPCUT LENGTH MM | SHANK TYPE | NO. FLUTES |
|---|---|---|---|---|---|
| AF2059A-HUD3-12.9BH | 3/8" | 1/2" | 9.5 | HSK20C | 3+3 |
| AF2059A-HUD3-16BH | 3/8" | 5/8" | 12.0 | HSK20C | 3+3 |
| AF2059A-HUD3-19.25BH | 3/8" | 3/4" | 14.5 | HSK20C | 3+3 |
| AF2059A-HUD3-25.6BH | 3/8" | 1" | 19.0 | HSK20C | 3+3 |
| AF2061-HUD3-12.9BH | 1/2" | 1/2" | 8.0 | HSK20C | 3+3 |
| AF2061-HUD3-16BH | 1/2" | 5/8" | 10.0 | HSK20C | 3+3 |
| AF2061-HUD3-19.25BH | 1/2" | 3/4" | 12.0 | HSK20C | 3+3 |
| AF2061-HUD3-25.6BH | 1/2" | 1" | 16.0 | HSK20C | 3+3 |

## MORTISE UPCUT

| PART NO. | CUTTING DIAM. | MAX. DEPTH OF CUT | UPCUT LENGTH MM | SHANK TYPE | NO. FLUTES |
|---|---|---|---|---|---|
| AF2059A-UD3-12.9BH | 3/8" | 1/2" | 4.8 | HSK20C | 3+3 |
| AF2059A-UD3-16BH | 3/8" | 5/8" | 4.8 | HSK20C | 3+3 |
| AF2059A-UD3-19.25BH | 3/8" | 3/4" | 4.8 | HSK20C | 3+3 |
| AF2059A-UD3-25.6BH | 3/8" | 1" | 4.8 | HSK20C | 3+3 |
| AF2061-UD3-12.9BH | 1/2" | 1/2" | 4.8 | HSK20C | 3+3 |
| AF2061-UD3-16BH | 1/2" | 5/8" | 4.8 | HSK20C | 3+3 |
| AF2061-UD3-19.25BH | 1/2" | 3/4" | 4.8 | HSK20C | 3+3 |
| AF2061-UD3-25.6BH | 1/2" | 1" | 4.8 | HSK20C | 3+3 |

# AFU-UD2 AEROTECH FINISHING COMPRESSION

Z=2+2, FOR AEROTECH UNIVERSAL

Aerotech Universal®

TYPE:
HIGH UPCUT

TYPE:
MORTISE UPCUT

## DESIGN:

» Optimized for high-speed, dust-free cutting with the Aerotech Universal Hydro (see pages FC3, FC9)
» 2 precision ground cutting edges
» Excellent chipflow and lower heat retention is achieved by semi-polished flutes
» Increased cutting edge durability from special submicron, extended life carbide
» 30° helix design with bottom cutting capability

## HIGH UPCUT

| PART NO. | CUTTING DIAM. | MAX. DEPTH OF CUT | UPCUT LENGTH MM | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| RSF2059W-HUD2-12.9 | 3/8" | 1/2" | 9.5 | 3/8" | 3" | 2+2 |
| RSF2059W-HUD2-16 | 3/8" | 5/8" | 12.0 | 3/8" | 3" | 2+2 |
| RSF2059W-HUD2-19.25 | 3/8" | 3/4" | 14.5 | 3/8" | 3" | 2+2 |
| RSF2059W-HUD2-22.2 | 3/8" | 7/8" | 16.5 | 3/8" | 3" | 2+2 |
| RSF2059W-HUD2-25.6 | 3/8" | 1" | 19.0 | 3/8" | 3" | 2+2 |
| RSF2061-HUD2-12.9 | 1/2" | 1/2" | 8.0 | 1/2" | 3" | 2+2 |
| RSF2061-HUD2-16 | 1/2" | 5/8" | 10.0 | 1/2" | 3" | 2+2 |
| RSF2061-HUD2-19.25 | 1/2" | 3/4" | 12.0 | 1/2" | 3" | 2+2 |
| RSF2061-HUD2-22.2 | 1/2" | 7/8" | 14.0 | 1/2" | 3" | 2+2 |
| RSF2061-HUD2-25.6 | 1/2" | 1" | 16.0 | 1/2" | 3" | 2+2 |
| RSF2061-HUD2-31.95 | 1/2" | 1-1/4" | 20.0 | 1/2" | 3-1/2" | 2+2 |
| RSF2061-HUD2-38.3 | 1/2" | 1-1/2" | 24.0 | 1/2" | 3-1/2" | 2+2 |
| RSF2064-HUD2-19.25 | 5/8" | 3/4" | 12.0 | 5/8" | 3" | 2+2 |
| RSF2066-HUD2-19.25 | 3/4" | 3/4" | 12.0 | 3/4" | 3" | 2+2 |

## IMPORTANT:

» Dust (chips) must remain moderately loose and unpacked in the cut to achieve optimal dust extraction
» High Upcut design is recommended for maximum dust extraction

## APPLICATION:

» For exceptionally smooth finishing cuts
» Increased cutting edge life when frequently accelerating/decelerating or performing multiple passes
» Eliminates chipping, fuzzing, and tear-out when the end of the upcut and downcut cutting edges are more than 1/16" from the top and bottom surfaces
» When cutting rebates, dados, or pockets, use an upcut length that is at least 1/16" shorter than the shallowest cut
» If part movement is a concern, use an upcut length of 4.8mm (0.188") or shorter

## MATERIAL:

Excellent finish on:

» Laminated panels
» Chipboard

Good finish on:

» Softwoods and hardwoods
» MDF
» Plywood, OSB
(requires Aerotech Flange type: GRILL)

## MORTISE UPCUT

| PART NO. | CUTTING DIAM. | MAX. DEPTH OF CUT | UPCUT LENGTH MM | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| RSF2059W-UD2-12.9 | 3/8" | 1/2" | 4.8 | 3/8" | 3" | 2+2 |
| RSF2059W-UD2-16 | 3/8" | 5/8" | 4.8 | 3/8" | 3" | 2+2 |
| RSF2059W-UD2-19.25 | 3/8" | 3/4" | 4.8 | 3/8" | 3" | 2+2 |
| RSF2059W-UD2-25.6 | 3/8" | 1" | 4.8 | 3/8" | 3" | 2+2 |
| RSF2061-UD2-12.9 | 1/2" | 1/2" | 4.8 | 1/2" | 3" | 2+2 |
| RSF2061-UD2-16 | 1/2" | 5/8" | 4.8 | 1/2" | 3" | 2+2 |
| RSF2061-UD2-19.25 | 1/2" | 3/4" | 4.8 | 1/2" | 3" | 2+2 |
| RSF2061-UD2-25.6 | 1/2" | 1" | 4.8 | 1/2" | 3" | 2+2 |
| RSF2061-UD2-31.95 | 1/2" | 1-1/4" | 4.8 | 1/2" | 3-1/2" | 2+2 |
| RSF2061-UD2-38.3 | 1/2" | 1-1/2" | 4.8 | 1/2" | 3-1/2" | 2+2 |
| RSF2064-UD2-19.25 | 5/8" | 3/4" | 4.8 | 5/8" | 3" | 2+2 |
| RSF2066-UD2-19.25 | 3/4" | 3/4" | 4.8 | 3/4" | 3" | 2+2 |

# AFU-UD3

## AEROTECH FINISHING COMPRESSION
Z=3+3, FOR AEROTECH UNIVERSAL

Aerotech Universal®

TYPE:
HIGH UPCUT

TYPE:
MORTISE UPCUT

### IMPORTANT:
- Dust (chips) must remain moderately loose and unpacked in the cut to achieve optimal dust extraction
- High Upcut design is recommended for maximum dust extraction

### APPLICATION:
- For exceptionally smooth finishing cuts
- Reduced run-out in parting cuts as 2 cutting edges are engaged at all times
- Increased number of bite marks per inch reduce chip size and provide a smooth finish, important when edge-banding without pre-miling
- Eliminates chipping, fuzzing, and tear-out when the end of the upcut and downcut cutting edges are more than 1/16" from the top and bottom surfaces
- When cutting rebates, dados, or pockets, use an upcut length that is at least 1/16" shorter than the shallowest cut
- If part movement is a concern, use an upcut length of 4.8mm (0.188") or shorter

### MATERIAL:
Excellent finish on:
- Laminated panels
- Chipboard

Good finish on:
- Softwoods and hardwoods
- MDF
- Plywood, OSB
  (requires Aerotech Flange type: GRILL)

### DESIGN:
- Optimized for high-speed, dust-free cutting with the Aerotech Universal Hydro (see pages FC3, FC9)
- 3 precision ground cutting edges
- Good chipflow and low heat retention is achieved by 3 semi-polished flutes
- Increased cutting edge durability from special submicron, extended life carbide
- 30° helix design with bottom cutting capability

## HIGH UPCUT

| PART NO. | CUTTING DIAM. | MAX. DEPTH OF CUT | UPCUT LENGTH MM | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| RSF2059A-HUD3-12.9 | 3/8" | 1/2" | 9.5 | 3/8" | 3" | 3+3 |
| RSF2059A-HUD3-16 | 3/8" | 5/8" | 12.0 | 3/8" | 3" | 3+3 |
| RSF2059A-HUD3-19.25 | 3/8" | 3/4" | 14.5 | 3/8" | 3" | 3+3 |
| RSF2059A-HUD3-25.6 | 3/8" | 1" | 19.0 | 3/8" | 3" | 3+3 |
| RSF2061-HUD3-12.9 | 1/2" | 1/2" | 8.0 | 1/2" | 3" | 3+3 |
| RSF2061-HUD3-16 | 1/2" | 5/8" | 10.0 | 1/2" | 3" | 3+3 |
| RSF2061-HUD3-19.25 | 1/2" | 3/4" | 12.0 | 1/2" | 3" | 3+3 |
| RSF2061-HUD3-25.6 | 1/2" | 1" | 16.0 | 1/2" | 3" | 3+3 |

## MORTISE UPCUT

| PART NO. | CUTTING DIAM. | MAX. DEPTH OF CUT | UPCUT LENGTH MM | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| RSF2059A-UD3-12.9 | 3/8" | 1/2" | 4.8 | 3/8" | 3" | 3+3 |
| RSF2059A-UD3-16 | 3/8" | 5/8" | 4.8 | 3/8" | 3" | 3+3 |
| RSF2059A-UD3-19.25 | 3/8" | 3/4" | 4.8 | 3/8" | 3" | 3+3 |
| RSF2059A-UD3-25.6 | 3/8" | 1" | 4.8 | 3/8" | 3" | 3+3 |
| RSF2061-UD3-12.9 | 1/2" | 1/2" | 4.8 | 1/2" | 3" | 3+3 |
| RSF2061-UD3-16 | 1/2" | 5/8" | 4.8 | 1/2" | 3" | 3+3 |
| RSF2061-UD3-19.25 | 1/2" | 3/4" | 4.8 | 1/2" | 3" | 3+3 |
| RSF2061-UD3-25.6 | 1/2" | 1" | 4.8 | 1/2" | 3" | 3+3 |

FS TOOL

TYPE:
*UNCOATED*

TYPE:
*LINEAGE XLC*

## DESIGN:

- 2 precision ground cutting edges
- Excellent chipflow and lower heat retention is achieved by the semi-polished flutes
- Increased cutting edge durability from special submicron, extended life carbide
- 30° helix design with bottom cutting capability

## APPLICATION:

- For exceptionally smooth finishing cuts
- Eliminates chipping, fuzzing, and tear-out along the bottom surface of the board
- Upward cutting action provides excellent chip ejection from the cutting path
- For improved dust extraction use with an Aerotech (see pages FC3, FC9)

## MATERIAL:

Excellent finish on:

- Laminated panels
- Chipboard

Good finish on:

- Softwoods and hardwoods
- Plywood, OSB
- MDF
- Solid surface

**XLC**

**LINEAGE XLC**
EXTENDED LIFE RESHARPENABLE COATING

| | |
|---|---|
| COATING THICKNESS (MICRONS) | 2 µm |
| ADHESION TO CUTTING EDGE (WOODWORKING) | |
| COATING HARDNESS (GPa) | 31 |
| COATING COEFFICIENT OF FRICTION | 0.30 |
| RESISTANCE TO RESIN BUILD-UP | |
| RESHARPENABILITY | 2-4 |
| TOTAL LIFECYCLE (LINEAR INCHES CUT) | |

Favorable
Less More

| | PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| | RSFM03012-U2 | 3mm | 12mm | 3mm | 50mm | 2 |
| | RSF2000A-U2 | 1/8" | 1/2" | 1/8" | 2-1/2" | 2 |
| | RSF2000-U2 | 1/8" | 1/2" | 1/4" | 2" | 2 |
| | RSF2002-U2 | 5/32" | 1/2" | 1/4" | 2" | 2 |
| | RSFM04012-U2 | 4mm | 12mm | 4mm | 50mm | 2 |
| | RSF2004-U2 | 3/16" | 3/4" | 1/4" | 2" | 2 |
| | RSF2005-U2 | 3/16" | 3/4" | 1/4" | 2-1/2" | 2 |
| | RSFM05017-U2 | 5mm | 17mm | 5mm | 50mm | 2 |
| | RSFM06027-U2 | 6mm | 27mm | 6mm | 70mm | 2 |
| | RSF2006-U2 | 1/4" | 3/4" | 1/4" | 2-1/2" | 2 |
| | RSF2008-U2 | 1/4" | 1" | 1/4" | 2-1/2" | 2 |
| XLC | RSF2008XLC-U2 | 1/4" | 1" | 1/4" | 2-1/2" | 2 |
| | RSF2009-U2 | 1/4" | 1" | 1/4" | 3" | 2 |
| | RSF2010-U2 | 5/16" | 1" | 5/16" | 2-1/2" | 2 |
| | RSFM08035-U2 | 8mm | 35mm | 8mm | 80mm | 2 |
| | RSF2012-U2 | 3/8" | 3/4" | 3/8" | 2-1/2" | 2 |
| | RSF2014-U2 | 3/8" | 1" | 3/8" | 2-1/2" | 2 |
| XLC | RSF2014XLC-U2 | 3/8" | 1" | 3/8" | 2-1/2" | 2 |
| | RSF2015-U2 | 3/8" | 1-1/4" | 3/8" | 3" | 2 |
| | RSF2016-U2 | 3/8" | 1-1/4" | 1/2" | 3" | 2 |
| | RSFM10035-U2 | 10mm | 35mm | 10mm | 80mm | 2 |
| | RSFM12035-U2 | 12mm | 35mm | 12mm | 80mm | 2 |
| | RSF2019S-U2 | 1/2" | 5/8" | 1/2" | 3" | 2 |
| | RSF2020S-U2 | 1/2" | 7/8" | 1/2" | 3" | 2 |
| | RSF2020-U2 | 1/2" | 1-1/4" | 1/2" | 3" | 2 |
| XLC | RSF2020XLC-U2 | 1/2" | 1-1/4" | 1/2" | 3" | 2 |
| | RSF2024-U2 | 1/2" | 1-1/2" | 1/2" | 3-1/2" | 2 |
| | RSF2028-U2 | 1/2" | 2" | 1/2" | 4" | 2 |
| | RSF2032-U2 | 1/2" | 2-1/4" | 1/2" | 4-1/2" | 2 |
| | RSF2034-U2 | 1/2" | 2-1/2" | 1/2" | 5-1/2" | 2 |
| | RSFM14055-U2 | 14mm | 55mm | 14mm | 100mm | 2 |
| | RSF2036-U2 | 5/8" | 1-1/2" | 5/8" | 4" | 2 |
| | RSF2038-U2 | 5/8" | 2" | 5/8" | 4" | 2 |
| | RSFM16055-U2 | 16mm | 55mm | 16mm | 100mm | 2 |
| | RSFM18055-U2 | 18mm | 55mm | 18mm | 100mm | 2 |
| | RSF2042-U2 | 3/4" | 1-1/2" | 3/4" | 4" | 2 |
| | RSF2044-U2 | 3/4" | 2" | 3/4" | 4" | 2 |
| | RSF2048-U2 | 3/4" | 2-1/2" | 3/4" | 5" | 2 |
| | RSF2052-U2 | 3/4" | 3-1/2" | 3/4" | 6" | 2 |
| | RSFM20055-U2 | 20mm | 55mm | 20mm | 127mm | 2 |

# RSF-D2 FINISHING DOWNCUT

Z=2

TYPE:
*UNCOATED*

TYPE:
*LINEAGE XLC*

## DESIGN:

- 2 precision ground cutting edges
- Excellent chipflow and lower heat retention is achieved by the semi-polished flutes
- Increased cutting edge durability from special submicron, extended life carbide
- 30° helix design with bottom cutting capability

## APPLICATION:

- For exceptionally smooth finishing cuts
- Eliminates chipping, fuzzing, and tear-out along the top surface of the board
- Smooth finish along the top edge produced by down (negative) shear
- Downward cutting action helps hold down material and reduces the likelihood of part movement
- Commonly used for rebating, dadoes/grooving, and pocketing operations

## MATERIAL:

Excellent finish on:

- Laminated panels
- Chipboard

Good finish on:

- Softwoods and hardwoods
- Plywood, OSB
- MDF
- Solid surface

| | PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| | RSFM03012-D2 | 3mm | 12mm | 3mm | 50mm | 2 |
| | RSF2000A-D2 | 1/8" | 1/2" | 1/8" | 2-1/2" | 2 |
| | RSF2000-D2 | 1/8" | 1/2" | 1/4" | 2" | 2 |
| | RSF2002-D2 | 5/32" | 1/2" | 1/4" | 2" | 2 |
| | RSFM04012-D2 | 4mm | 12mm | 4mm | 50mm | 2 |
| | RSF2004-D2 | 3/16" | 3/4" | 1/4" | 2" | 2 |
| | RSF2005-D2 | 3/16" | 3/4" | 1/4" | 2-1/2" | 2 |
| | RSFM05017-D2 | 5mm | 17mm | 5mm | 50mm | 2 |
| | RSFM06027-D2 | 6mm | 27mm | 6mm | 70mm | 2 |
| | RSF2006-D2 | 1/4" | 3/4" | 1/4" | 2-1/2" | 2 |
| | RSF2008-D2 | 1/4" | 1" | 1/4" | 2-1/2" | 2 |
| XLC | RSF2008XLC-D2 | 1/4" | 1" | 1/4" | 2-1/2" | 2 |
| | RSF2009-D2 | 1/4" | 1" | 1/4" | 3" | 2 |
| | RSF2010-D2 | 5/16" | 1" | 5/16" | 2-1/2" | 2 |
| | RSFM08035-D2 | 8mm | 35mm | 8mm | 80mm | 2 |
| | RSF2012-D2 | 3/8" | 3/4" | 3/8" | 2-1/2" | 2 |
| | RSF2014-D2 | 3/8" | 1" | 3/8" | 2-1/2" | 2 |
| XLC | RSF2014XLC-D2 | 3/8" | 1" | 3/8" | 2-1/2" | 2 |
| | RSF2015-D2 | 3/8" | 1-1/4" | 3/8" | 3" | 2 |
| | RSF2016-D2 | 3/8" | 1-1/4" | 1/2" | 3" | 2 |
| | RSFM10035-D2 | 10mm | 35mm | 10mm | 80mm | 2 |
| | RSFM12035-D2 | 12mm | 35mm | 12mm | 80mm | 2 |
| | RSF2019S-D2 | 1/2" | 5/8" | 1/2" | 3" | 2 |
| | RSF2020S-D2 | 1/2" | 7/8" | 1/2" | 3" | 2 |
| | RSF2020-D2 | 1/2" | 1-1/4" | 1/2" | 3" | 2 |
| XLC | RSF2020XLC-D2 | 1/2" | 1-1/4" | 1/2" | 3" | 2 |
| | RSF2024-D2 | 1/2" | 1-1/2" | 1/2" | 3-1/2" | 2 |
| | RSF2028-D2 | 1/2" | 2" | 1/2" | 4" | 2 |
| | RSF2032-D2 | 1/2" | 2-1/4" | 1/2" | 4-1/2" | 2 |
| | RSF2034-D2 | 1/2" | 2-1/2" | 1/2" | 5-1/2" | 2 |
| | RSFM14055-D2 | 14mm | 55mm | 14mm | 100mm | 2 |
| | RSF2036-D2 | 5/8" | 1-1/2" | 5/8" | 4" | 2 |
| | RSF2038-D2 | 5/8" | 2" | 5/8" | 4" | 2 |
| | RSFM16055-D2 | 16mm | 55mm | 16mm | 100mm | 2 |
| | RSFM18055-D2 | 18mm | 55mm | 18mm | 100mm | 2 |
| | RSF2042-D2 | 3/4" | 1-1/2" | 3/4" | 4" | 2 |
| | RSF2044-D2 | 3/4" | 2" | 3/4" | 4" | 2 |
| | RSF2048-D2 | 3/4" | 2-1/2" | 3/4" | 5" | 2 |
| | RSF2052-D2 | 3/4" | 3-1/2" | 3/4" | 6" | 2 |
| | RSFM20055-D2 | 20mm | 55mm | 20mm | 127mm | 2 |

**XLC**

**LINEAGE XLC**
EXTENDED LIFE RESHARPENABLE COATING

| | |
|---|---|
| COATING THICKNESS (MICRONS) | 2 µm |
| ADHESION TO CUTTING EDGE (WOODWORKING) | |
| COATING HARDNESS (GPa) | 31 |
| COATING COEFFICIENT OF FRICTION | 0.30 |
| RESISTANCE TO RESIN BUILD-UP | |
| RESHARPENABILITY | 2-4 |
| TOTAL LIFECYCLE (LINEAR INCHES CUT) | |

Favorable
Less More

# FINISHING UPCUT

Z=3

## DESIGN:

» 3 precision ground cutting edges
» Good chipflow and low heat retention is achieved by the 3 semi-polished flutes
» Increased cutting edge durability from special submicron, extended life carbide
» 30° helix design with bottom cutting capability

## APPLICATION:

» For exceptionally smooth finishing cuts
» Reduced run-out in parting cuts as 2 cutting edges are engaged at all times
» 3 cutting edges provide faster feed rates at low spindle speeds
» Ideal for robust spindles as more power is required to drive 3 cutting edges
» Eliminates chipping, fuzzing, and tear-out along the bottom surface of the board
» Upward cutting action provides excellent chip ejection from the cutting path
» For improved dust extraction use with an Aerotech (see pages FC3, FC9)

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| RSFM08035-U3 | 8mm | 35mm | 8mm | 80mm | 3 |
| RSF2011S-U3 | 3/8" | 5/8" | 3/8" | 2-1/2" | 3 |
| RSF2013S-U3 | 3/8" | 7/8" | 3/8" | 2-1/2" | 3 |
| RSF2018-U3 | 3/8" | 1-1/4" | 1/2" | 3" | 3 |
| RSFM10035-U3 | 10mm | 35mm | 10mm | 80mm | 3 |
| RSFM12035-U3 | 12mm | 35mm | 12mm | 80mm | 3 |
| RSF2019S-U3 | 1/2" | 5/8" | 1/2" | 3" | 3 |
| RSF2020S-U3 | 1/2" | 7/8" | 1/2" | 3" | 3 |
| RSF2022-U3 | 1/2" | 1-1/4" | 1/2" | 3" | 3 |
| RSF2026-U3 | 1/2" | 1-1/2" | 1/2" | 3-1/2" | 3 |
| RSF2030-U3 | 1/2" | 2" | 1/2" | 4" | 3 |
| RSFM14055-U3 | 14mm | 55mm | 14mm | 100mm | 3 |
| RSF2040-U3 | 5/8" | 2" | 5/8" | 4" | 3 |
| RSFM16055-U3 | 16mm | 55mm | 16mm | 100mm | 3 |
| RSFM18055-U3 | 18mm | 55mm | 18mm | 100mm | 3 |
| RSF2046-U3 | 3/4" | 2" | 3/4" | 4" | 3 |
| RSF2050-U3 | 3/4" | 2-1/2" | 3/4" | 5" | 3 |
| RSFM20055-U3 | 20mm | 55mm | 20mm | 127mm | 3 |

## MATERIAL:

Excellent finish on:

» Laminated panels
» Chipboard

Good finish on:

» Softwoods and hardwoods
» Plywood
» OSB
» MDF
» Solid surface

# FINISHING DOWNCUT

Z=3

## DESIGN:

- 3 precision ground cutting edges
- Good chipflow and low heat retention is achieved by the 3 semi-polished flutes
- Increased cutting edge durability from special submicron, extended life carbide
- 30° helix design with bottom cutting capability

## APPLICATION:

- For exceptionally smooth finishing cuts
- Reduced run-out in parting cuts as 2 cutting edges are engaged at all times
- 3 cutting edges provide faster feed rates at low spindle speeds
- Ideal for robust spindles as more power is required to drive 3 cutting edges
- Eliminates chipping, fuzzing, and tear-out along the top surface of the board
- Smooth finish along the top edge produced by down (negative) shear
- Downward cutting action helps hold down material and reduces the likelihood of part movement

## MATERIAL:

Excellent finish on:

- Laminated panels
- Chipboard

Good finish on:

- Softwoods and hardwoods
- Plywood
- OSB
- MDF
- Solid surface

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| **RSFM08035-D3** | 8mm | 35mm | 8mm | 80mm | 3 |
| **RSF2011S-D3** | 3/8" | 5/8" | 3/8" | 2-1/2" | 3 |
| **RSF2013S-D3** | 3/8" | 7/8" | 3/8" | 2-1/2" | 3 |
| **RSF2018-D3** | 3/8" | 1-1/4" | 1/2" | 3" | 3 |
| **RSFM10035-D3** | 10mm | 35mm | 10mm | 80mm | 3 |
| **RSFM12035-D3** | 12mm | 35mm | 12mm | 80mm | 3 |
| **RSF2019S-D3** | 1/2" | 5/8" | 1/2" | 3" | 3 |
| **RSF2020S-D3** | 1/2" | 7/8" | 1/2" | 3" | 3 |
| **RSF2022-D3** | 1/2" | 1-1/4" | 1/2" | 3" | 3 |
| **RSF2026-D3** | 1/2" | 1-1/2" | 1/2" | 3-1/2" | 3 |
| **RSF2030-D3** | 1/2" | 2" | 1/2" | 4" | 3 |
| **RSFM14055-D3** | 14mm | 55mm | 14mm | 100mm | 3 |
| **RSF2040-D3** | 5/8" | 2" | 5/8" | 4" | 3 |
| **RSFM16055-D3** | 16mm | 55mm | 16mm | 100mm | 3 |
| **RSFM18055-D3** | 18mm | 55mm | 18mm | 100mm | 3 |
| **RSF2046-D3** | 3/4" | 2" | 3/4" | 4" | 3 |
| **RSF2050-D3** | 3/4" | 2-1/2" | 3/4" | 5 | 3 |
| **RSFM20055-D3** | 20mm | 55mm | 20mm | 127mm | 3 |

# FINISHING LOW HELIX UPCUT
Z=3

## DESIGN:
» 3 precision ground cutting edges
» Excellent chipflow and lower heat retention is achieved by the semi-polished flutes
» Increased cutting edge durability from special submicron, extended life carbide
» 10° helix design with bottom cutting capability
» Low helix upshear design reduces deflection in hard materials and lifting forces

## APPLICATION:
» For exceptionally smooth finishing cuts
» Reduced run-out in parting cuts as 2 cutting edges are engaged at all times
» Ideal for robust spindles as more power is required to drive 3 cutting edges
» Improved cutting edge life when cutting hard materials
» Reduces noise levels during cutting operations of hard materials
» 3 cutting edges provide faster feed rates at low spindle speeds
» Eliminates chipping, fuzzing, and tear-out along the bottom surface of the board
» Upward cutting action provides good chip ejection from the cutting path
» For improved dust extraction use with an Aerotech (see pages FC3, FC9)

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| **RSFL2006-U3** | 1/4" | 3/4" | 1/4" | 3" | 3 |
| **RSFL2010-U3** | 5/16" | 1" | 5/16" | 3" | 3 |
| **RSFL2018-U3** | 3/8" | 1-1/4" | 1/2" | 4" | 3 |
| **RSFL2022-U3** | 1/2" | 1-1/4" | 1/2" | 4" | 3 |
| **RSFL2030-U3** | 1/2" | 2-1/8" | 1/2" | 4-1/2" | 3 |
| **RSFL2046-U3** | 3/4" | 2" | 3/4" | 5" | 3 |
| **RSFL2052-U3** | 3/4" | 2-1/2" | 3/4" | 5-1/4" | 3 |

## MATERIAL:
Excellent finish on:
» Softwoods and hardwoods
» Plywood
» OSB
» MDF
» Solid surface
» Phenolic

# FINISHING LOW HELIX DOWNCUT

Z=3

## DESIGN:

» 3 precision ground cutting edges
» Excellent chipflow and lower heat retention is achieved by the semi-polished flutes
» Increased cutting edge durability from special submicron, extended life carbide
» 10° helix design with bottom cutting capability
» Low helix design reduces deflection in hard materials

## APPLICATION:

» For exceptionally smooth finishing cuts
» Reduced run-out in parting cuts as 2 cutting edges are engaged at all times
» Ideal for robust spindles as more power is required to drive 3 cutting edges
» Improved cutting edge life when cutting hard materials
» Reduces noise levels during cutting operations of hard materials
» 3 cutting edges provide faster feed rates at low spindle speeds
» Eliminates chipping, fuzzing, and tear-out along the top surface of the board
» Smooth finish along the top edge produced by down (negative) shear
» Downward cutting action helps hold down material and reduces the likelihood of part movement

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| **RSFL2006-D3** | 1/4" | 3/4" | 1/4" | 3" | 3 |
| **RSFL2010-D3** | 5/16" | 1" | 5/16" | 3" | 3 |
| **RSFL2018-D3** | 3/8" | 1-1/4" | 1/2" | 4" | 3 |
| **RSFL2022-D3** | 1/2" | 1-1/4" | 1/2" | 4" | 3 |
| **RSFL2030-D3** | 1/2" | 2-1/8" | 1/2" | 4-1/2" | 3 |
| **RSFL2046-D3** | 3/4" | 2" | 3/4" | 5" | 3 |
| **RSFL2052-D3** | 3/4" | 2-1/2" | 3/4" | 5-1/4" | 3 |

## MATERIAL:

Excellent finish on:

» Softwoods and hardwoods
» Plywood
» OSB
» MDF
» Solid surface
» Phenolic

# FINISHING COMPRESSION

Z=1+1

## DESIGN:

- 1 precision ground cutting edge
- Excellent chipflow and lower heat retention is achieved by the semi-polished flutes
- Increased cutting edge durability from special submicron, extended life carbide
- 30° helix design with bottom cutting capability

## APPLICATION:

- For exceptionally smooth finishing cuts
- Ideal multi-purpose tool for light duty CNC routers
- Increased cutting edge life when frequently accelerating/decelerating or performing multiple passes
- Eliminates chipping, fuzzing, and tear-out when the end of the upcut and downcut cutting edges are more than 1/16" from the top and bottom surfaces
- When cutting rebates, dados, or pockets, use an upcut length that is at least 1/16" shorter than the shallowest cut
- If part movement is a concern, use an upcut length of 4.8mm (0.188") or shorter
- When possible, select a router bit with a longer upcut length to improve chip ejection from cutting path
- For improved dust extraction use with an Aerotech (see pages FC3, FC9)

## MATERIAL:

Excellent finish on:

- Laminated panels
- Chipboard

Good finish on:

- Softwoods and hardwoods
- Plywood
- OSB
- MDF
- Solid surface

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | UPCUT LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **RSF2058-UD1** | 1/4" | 7/8" | 1/4" | 8.4mm | 2-1/2" | 1+1 |
| **RSF2060-UD1** | 3/8" | 1-1/8" | 3/8" | 10mm | 3" | 1+1 |
| **RSF2061-UD1** | 1/2" | 1-1/4" | 1/2" | 9.8mm | 3" | 1+1 |
| **RSF2062-UD1** | 1/2" | 1-1/2" | 1/2" | 9.8mm | 3-1/2" | 1+1 |
| **RSF2063-UD1** | 1/2" | 2" | 1/2" | 9.8mm | 4" | 1+1 |
| **RSF2064-UD1** | 5/8" | 1-1/2" | 5/8" | 11.7mm | 4" | 1+1 |
| **RSF2066-UD1** | 3/4" | 2" | 3/4" | 15.9mm | 5-1/4" | 1+1 |

# Understanding Tool Coatings

Coatings used by wood industry cutting tool manufacturers

○ Less ● More
Favorable

| | DLC | TiAlN | XLC | nACo | TiCo |
|---|---|---|---|---|---|
| COATING THICKNESS (MICRONS) | ◕ 1 µm | ◔ 3 µm | ◑ 2 µm | ○ 4 µm | ◔ 3 µm |
| ADHESION TO CUTTING EDGE (WOODWORKING) | ○ | ◔ | ● | ● | ● |
| COATING HARDNESS (GPa) | ◑ 25 | ◑ 23 | ◕ 31 | ● 45 | ◕ 38 |
| COATING COEFFICIENT OF FRICTION | ◕ 0.15 | ○ 0.60 | ◑ 0.30 | ◔ 0.40 | ◕ 0.25 |
| RESISTANCE TO RESIN BUILD-UP | ● | ○ | ◕ | ◕ | ◕ |
| RESHARPENABILITY | ○ 0 | ○ 0 | ● 2-4 | ○ 0 | ○ 0 |
| TOTAL LIFECYCLE (LINEAR INCHES CUT) | ○ | ◔ | ● | ◕ | ◑ |

Resharpening your tools without negatively affecting the coating's performance

High-wear laminates benefit most from coatings that protect the carbide substrate without distorting the cutting edge's geometry (rake and clearance).

This is why we invented XLC - the only tool coating to mimic the edge geometry on a single plane, maintaining its performance after sharpening and maximizing tool life. **Nothing provides better ROI.**

# FINISHING COMPRESSION
Z=2+2

TYPE: *UNCOATED*

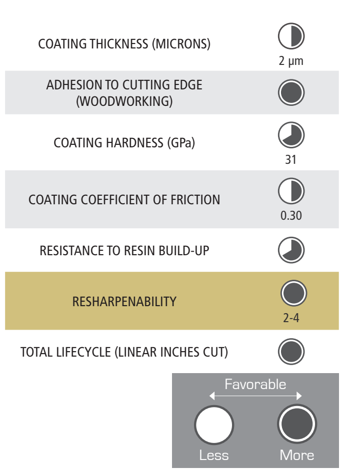
TYPE: *LINEAGE XLC*

## MATERIALS:
Excellent finish on:
- Laminated panels
- HPL (XLC recommended)
- Chipboard
- MDF

Good finish on:
- Softwoods and hardwoods
- Plywood
- OSB
- Solid surface

**XLC**

**LINEAGE XLC**
EXTENDED LIFE RESHARPENABLE COATING




## DESIGN:
» 2 precision ground cutting edges
» Excellent chipflow and lower heat retention is achieved by the semi-polished flutes
» Increased cutting edge durability from special submicron, extended life carbide
» 30° Helix design with bottom cutting capability

## APPLICATION:
» For exceptionally smooth finishing cuts
» Increased cutting edge life when frequently accelerating/decelerating or performing multiple passes
» Eliminates chipping, fuzzing, and tear-out when the end of the upcut and downcut cutting edges are more than 1/16" from the top and bottom surfaces
» When cutting rebates, dados, or pockets, use an upcut length that is at least 1/16" shorter than the shallowest cut
» If part movement is a concern, use an upcut length of 0.200" or 5mm or shorter
» When possible, select a router bit with a longer upcut length to improve chip ejection
» For improved dust extraction use with an Aerotech (see pages FC3, FC9)

| | PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | UPCUT LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| | RSF2058M-UD2 | 1/4" | 7/8" | 1/4" | 4.8mm | 2-1/2" | 2+2 |
| XLC | RSF2058MXLC-UD2 | 1/4" | 7/8" | 1/4" | 4.8mm | 2-1/2" | 2+2 |
| | RSF2059MS-UD2 | 3/8" | 7/8" | 3/8" | 4.8mm | 3" | 2+2 |
| | RSF2060-UD2 | 3/8" | 1-1/8" | 3/8" | 7.4mm | 3" | 2+2 |
| | RSF2059M-UD2 | 3/8" | 1-1/4" | 3/8" | 4.8mm | 3" | 2+2 |
| | RSF2059-UD2 | 3/8" | 1-1/4" | 3/8" | 7.0mm | 3" | 2+2 |
| XLC | RSF2059XLC-UD2 | 3/8" | 1-1/4" | 3/8" | 7.0mm | 3" | 2+2 |
| | RSF2061MS-UD2 | 1/2" | 7/8" | 1/2" | 4.8mm | 3" | 2+2 |
| | RSF2061M-UD2 | 1/2" | 1-1/4" | 1/2" | 4.8mm | 3" | 2+2 |
| | RSF2061-UD2 | 1/2" | 1-1/4" | 1/2" | 9.8mm | 3" | 2+2 |
| XLC | RSF2061XLC-UD2 | 1/2" | 1-1/4" | 1/2" | 9.8mm | 3" | 2+2 |
| | RSF2061-UD2-312 | 1/2" | 1-1/4" | 1/2" | 9.8mm | 3-1/2" | 2+2 |
| | RSF2061A-UD2 | 1/2" | 1-3/8" | 1/2" | 9.8mm | 3-1/2" | 2+2 |
| | RSF2062M-UD2 | 1/2" | 1-5/8" | 1/2" | 4.8mm | 3-1/2" | 2+2 |
| | RSF2062-UD2 | 1/2" | 1-5/8" | 1/2" | 14.3mm | 3-1/2" | 2+2 |
| XLC | RSF2062XLC-UD2 | 1/2" | 1-5/8" | 1/2" | 14.3mm | 3-1/2" | 2+2 |
| | RSF2063-UD2 | 1/2" | 2" | 1/2" | 16.4mm | 4" | 2+2 |
| | RSF2064-UD2 | 5/8" | 1-1/2" | 5/8" | 16.2mm | 4" | 2+2 |
| | RSF2065-UD2 | 5/8" | 2" | 5/8" | 16.2mm | 4" | 2+2 |
| XLC | RSF2065XLC-UD2 | 5/8" | 2" | 5/8" | 16.2mm | 4" | 2+2 |
| | RSF2066M-UD2 | 3/4" | 2" | 3/4" | 4.8mm | 5-1/4" | 2+2 |
| | RSF2066-UD2 | 3/4" | 2" | 3/4" | 16.2mm | 5-1/4" | 2+2 |
| | RSF2068-UD2 | 3/4" | 2-1/2" | 3/4" | 16.2mm | 5-1/4" | 2+2 |

## LEFT-HAND ROTATION

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | UPCUT LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| RSF2058M-UD2L | 1/4" | 7/8" | 1/4" | 4.8mm | 2-1/2" | 2+2 |
| RSF2059-UD2L | 3/8" | 1-1/4" | 3/8" | 7.0mm | 3" | 2+2 |
| RSF2061-UD2L | 1/2" | 1-1/4" | 1/2" | 9.8mm | 3" | 2+2 |
| RSF2061A-UD2L | 1/2" | 1-3/8" | 1/2" | 9.8mm | 3-1/2" | 2+2 |
| RSF2062-UD2L | 1/2" | 1-5/8" | 1/2" | 14.3mm | 3-1/2" | 2+2 |
| RSF2063-UD2L | 1/2" | 2" | 1/2" | 16.4mm | 4" | 2+2 |
| RSF2065-UD2L | 5/8" | 2" | 5/8" | 16.2mm | 4" | 2+2 |
| RSF2066-UD2L | 3/4" | 2" | 3/4" | 16.2mm | 5-1/4" | 2+2 |

# SPEEDMASTER

Extreme Highspeed Compression Router Bit

Capture more
**PRODUCTION**
every hour.


**50** metres /min

**NESTING & ROUTING**

## Why bother?

Your CNC router is designed for feed-rates and production volumes that cannot be achieved with conventional tooling. Only with the unique geometries, cutting edge materials and core tensile strength of our SpeedMaster Series can you begin to realize your lost potential and maximize production throughout!

## What to expect?

Serviced once or six times, the performance of our SpeedMaster Series continues to provide production feed-rates more than double what you currently experience when cutting engineered wood products such as MDF, Plywood, Particleboard and HPL, all the while never sacrificing cut quality or tool life.

## TRUE HIGHSPEED

More than G-Code, RPM and feed-rate parameters represent the most determining factors in your tooling's performance and product quality. We maximize your parameters based on several key factors such as material, # of expected service cycles, and your required quality of cut.

**A little research goes a long way.**
We take the time to do it right because our passion is high performance tooling.

FS TOOL

TYPE: *UNCOATED*   TYPE: *LINEAGE XLC*

## DESIGN:

- Unmatched high speed capability achieved by the unique cutting geometry
- Fast feed rates are possible due to the high performance tool geometry
- 2 precision ground cutting edges
- Excellent chipflow and lower heat retention is provided by the semi-polished 2 flute design
- Large clearance areas enable chips to quickly move away from cutting edges
- Increased cutting edge durability from special submicron, extended life carbide
- 30° Helix design with bottom cutting capability

## APPLICATION:

- For exceptionally smooth finishing cuts
- For maximizing production with the highest feed-rates and longest tool life
- Increased cutting edge life when frequently accelerating/decelerating or performing multiple passes
- Eliminates chipping, fuzzing, and tear-out when the end of the upcut and downcut cutting edges are more than 1/16" from the top and bottom surfaces
- When cutting rebates, dados, or pockets, use an upcut length that is at least 1/16" shorter than the shallowest cut
- If part movement is a concern, use an upcut length of 4.8mm (0.188") or shorter
- When possible, select a router bit with a longer upcut length to improve chip ejection from cutting path
- For improved dust extraction use with an Aerotech (see pages FC3, FC9)

## MATERIALS:

Excellent finish on:

- Laminated panels
- HPL
- Chipboard
- MDF

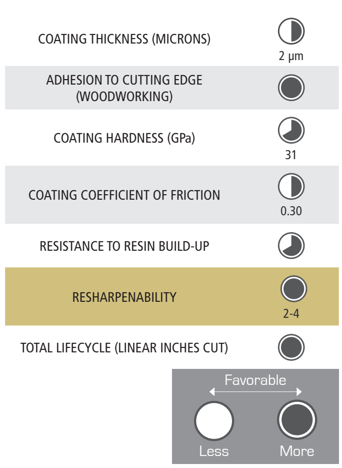
Good finish on:

- Softwoods and hardwoods
- Plywood
- OSB

| | PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | UPCUT LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| | RSF2059W-UD2 | 3/8" | 1" | 3/8" | 4.7mm | 2-1/2" | 2+2 |
| XLC | RSF2059WXLC-UD2 | 3/8" | 1" | 3/8" | 4.7mm | 2-1/2" | 2+2 |
| | RSF2059W-UD2-3 | 3/8" | 1" | 3/8" | 4.7mm | 3" | 2+2 |
| XLC | RSF2059WXLC-UD2-3 | 3/8" | 1" | 3/8" | 4.7mm | 3" | 2+2 |
| | RSF2060W-UD2 | 3/8" | 1-1/4" | 3/8" | 4.7mm | 3" | 2+2 |
| | RSFM2061W-UD2 | 12mm | 35mm | 12mm | 4.8mm | 80mm | 2+2 |
| | RSF2061WS-UD2 | 1/2" | 7/8" | 1/2" | 4.8mm | 3" | 2+2 |
| XLC | RSF2061WSXLC-UD2 | 1/2" | 7/8" | 1/2" | 4.8mm | 3" | 2+2 |
| | RSF2061W-UD2 | 1/2" | 1-3/8" | 1/2" | 4.8mm | 3-1/2" | 2+2 |
| XLC | RSF2061WXLC-UD2 | 1/2" | 1-3/8" | 1/2" | 4.8mm | 3-1/2" | 2+2 |
| | RSF2061WP-UD2 | 1/2" | 1-3/8" | 1/2" | 12.7mm | 3-1/2" | 2+2 |
| | RSF2064W-UD2 | 5/8" | 1-3/8" | 5/8" | 4.8mm | 4" | 2+2 |
| | RSF2066W-UD2 | 3/4" | 2" | 3/4" | 4.8mm | 5-1/4" | 2+2 |

**XLC**

**LINEAGE XLC**
EXTENDED LIFE RESHARPENABLE COATING



# RSF-UD3

## FINISHING COMPRESSION
Z=3+3

TYPE:
*UNCOATED*

TYPE:
*LINEAGE XLC*

## DESIGN:
» 3 precision ground cutting edges
» Good chipflow and low heat retention is achieved by the three semi-polished flutes
» Increased cutting edge durability from special submicron, extended life carbide
» 30° helix design with bottom cutting capability

## APPLICATION:
» For exceptionally smooth finishing cuts
» Increased number of bite marks per inch reduce chip size and provide a smooth finish, important when edge-banding without pre-miling
» Reduced run-out in parting cuts as 2 cutting edges are engaged at all times
» 3 cutting edges provide faster feed rates at low spindle speeds
» Ideal for robust spindles as more power is required to drive three cutting edges
» Eliminates chipping, fuzzing, and tear-out when the end of the upcut and downcut cutting edges are more than 1/16" from the top and bottom surfaces
» When cutting rebates, dados, or pockets, use an upcut length that is at least 1/16" shorter than the shallowest cut
» If part movement is a concern, use an upcut length of 4.8mm (0.188") or shorter
» When possible, select a router bit with a longer upcut length to improve chip ejection from cutting path
» For improved dust extraction use with an Aerotech (see pages FC3, FC9)

## MATERIALS:
Excellent finish on:
» Laminated panels
» Chipboard

Good finish on:
» Softwoods and hardwoods
» Plywood
» OSB
» MDF
» HPL
» Solid surface

| | PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | UPCUT LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| | RSF2059AS-UD3 | 3/8" | 7/8" | 3/8" | 4.8mm | 2-1/2" | 3+3 |
| | RSF2059MS-UD3 | 3/8" | 7/8" | 3/8" | 4.8mm | 3" | 3+3 |
| XLC | RSF2059MSXLC-UD3 | 3/8" | 7/8" | 3/8" | 4.8mm | 3" | 3+3 |
| | RSF2059S-UD3 | 3/8" | 1" | 3/8" | 7.0mm | 2-1/2" | 3+3 |
| | RSF2059A-UD3 | 3/8" | 1" | 3/8" | 6.2mm | 2-1/2" | 3+3 |
| XLC | RSF2059AXLC-UD3 | 3/8" | 1" | 3/8" | 6.2mm | 2-1/2" | 3+3 |
| | RSF2059M-UD3 | 3/8" | 1-1/4" | 3/8" | 4.8mm | 3" | 3+3 |
| | RSF2059-UD3 | 3/8" | 1-1/4" | 3/8" | 7.0mm | 3" | 3+3 |
| | RSF2061MS-UD3 | 1/2" | 7/8" | 1/2" | 4.8mm | 3" | 3+3 |
| | RSF2061-UD3 | 1/2" | 1-1/4" | 1/2" | 4.8mm | 3" | 3+3 |
| XLC | RSF2061XLC-UD3 | 1/2" | 1-1/4" | 1/2" | 4.8mm | 3" | 3+3 |
| | RSF2061WS-UD3 Δ | 1/2" | 1" | 1/2" | 4.8mm | 3" | 3+3 |
| XLC | RSF2061WSXLC-UD3 Δ | 1/2" | 1" | 1/2" | 4.8mm | 3" | 3+3 |
| | RSF2061W-UD3 Δ | 1/2" | 1-1/4" | 1/2" | 4.8mm | 3" | 3+3 |
| XLC | RSF2061WXLC-UD3 Δ | 1/2" | 1-1/4" | 1/2" | 4.8mm | 3" | 3+3 |
| | RSF2062-UD3 | 1/2" | 1-5/8" | 1/2" | 9.6mm | 3-1/2" | 3+3 |
| | RSF2062M-UD3 | 1/2" | 1-5/8" | 1/2" | 4.8mm | 3-1/2" | 3+3 |
| | RSF2065-UD3 | 5/8" | 2" | 5/8" | 15.9mm | 4" | 3+3 |
| | RSF2066-UD3 | 3/4" | 2" | 3/4" | 15.9mm | 4" | 3+3 |

Δ Speedmaster series

**XLC**

**LINEAGE XLC**
EXTENDED LIFE RESHARPENABLE COATING

| | |
|---|---|
| COATING THICKNESS (MICRONS) | 2 µm |
| ADHESION TO CUTTING EDGE (WOODWORKING) | |
| COATING HARDNESS (GPa) | 31 |
| COATING COEFFICIENT OF FRICTION | 0.30 |
| RESISTANCE TO RESIN BUILD-UP | |
| RESHARPENABILITY | 2-4 |
| TOTAL LIFECYCLE (LINEAR INCHES CUT) | |

Favorable
Less More

# FINISHING LOW HELIX COMPRESSION
Z=2+2

TYPE: *UNCOATED*

TYPE: *LINEAGE XLC*

## DESIGN:

» 2 precision ground cutting edges
» Excellent chipflow and lower heat retention is achieved by the semi-polished flutes
» Increased cutting edge durability from special submicron, extended life carbide
» 10° helix design with bottom cutting capability
» Low helix design reduces deflection in hard materials and lifting forces

## APPLICATION:

» For exceptionally smooth finishing cuts
» Increased cutting edge life when frequently accelerating/decelerating or performing multiple passes
» Improved cutting edge life when cutting hard materials
» Reduces noise levels during cutting operations of hard materials
» Ideal for plywood panels
» Eliminates chipping, fuzzing, and tear-out when the end of the upcut and downcut cutting edges are more than 1/16" from the top and bottom surfaces
» When cutting rebates, dados, or pockets, use an upcut length that is at least 1/16" shorter than the shallowest cut
» If part movement is a concern, use an upcut length of 4.8mm (0.188") or shorter
» When possible, select a router bit with a longer upcut length to improve chip ejection from cutting path
» For improved dust extraction use with an Aerotech (see pages FC3, FC9)

| | PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | UPCUT LENGTH | OVERALL LENGTH | NO. WINGS |
|---|---|---|---|---|---|---|---|
| | RSFL2060M-UD2 | 3/8" | 1" | 3/8" | 4.7mm | 3-1/2" | 2+2 |
| XLC | RSFL2060MXLC-UD2 | 3/8" | 1" | 3/8" | 4.7mm | 3-1/2" | 2+2 |
| | RSFL2061M-UD2 | 1/2" | 1-1/4" | 1/2" | 4.7mm | 4" | 2+2 |
| XLC | RSFL2061MXLC-UD2 | 1/2" | 1-1/4" | 1/2" | 4.7mm | 4" | 2+2 |
| | RSFL2062-UD2 | 1/2" | 1-5/8" | 1/2" | 14.4mm | 4" | 2+2 |
| XLC | RSFL2062XLC-UD2 | 1/2" | 1-5/8" | 1/2" | 14.4mm | 4" | 2+2 |

## MATERIAL:

Excellent finish on:

» Softwoods and hardwoods
» Plywood
» OSB
» MDF
» HPL
» Solid surface
» Phenolic

**XLC**

**LINEAGE XLC**
EXTENDED LIFE RESHARPENABLE COATING

| | |
|---|---|
| COATING THICKNESS (MICRONS) | 2 µm |
| ADHESION TO CUTTING EDGE (WOODWORKING) | |
| COATING HARDNESS (GPa) | 31 |
| COATING COEFFICIENT OF FRICTION | 0.30 |
| RESISTANCE TO RESIN BUILD-UP | |
| RESHARPENABILITY | 2-4 |
| TOTAL LIFECYCLE (LINEAR INCHES CUT) | |

Favorable
Less More

# POLYCRYSTALLINE DIAMOND
## COMPRESSION WITH PLUNGE POINT


## DESIGN:

» Excellent surface finish and exceptionally long run-time are provided by the Microfinish erosion process of each PCD diamond cutting edge
» Excellent chipflow and low heat retention is provided by the staggered 1+1 tooth configuration
» Carbide Plunge Point provides clean entry cuts
» Re-sharpenable

## APPLICATION:

» For smooth finishing cuts
» PCD Diamond tools are recommended for operations that require maximum tool life and consistency of cut
» Eliminates chipping, fuzzing, and tear-out when the end of the upcut and downcut cutting edges are more than 1/16" from the top and bottom surfaces
» When possible, select a router bit with a longer upcut length to improve chip ejection from cutting path
» For improved dust extraction use with an Aerotech (see pages FC3, FC9)

## MATERIALS:

Good finish on:

» Laminated panels
» Chipboard
» MDF
» HPL
» Solid surface

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | UPCUT LENGTH | OVERALL LENGTH | NO. TEETH |
|---|---|---|---|---|---|---|
| **RPCD2066** | 1/2" | 1" | 1/2" | 0.375" | 3-3/8" | 1+1 |
| **RPCD2068** | 1/2" | 1-3/8" | 1/2" | 0.375" | 3-3/8" | 1+1 |
| **RPCD2070** | 1/2" | 1-5/8" | 1/2" | 0.375" | 4" | 1+1 |
| **RPCD2076** | 5/8" | 1" | 5/8" | 0.375" | 3-3/8" | 1+1+1 |
| **RPCD2148** | 3/4" | 1" | 3/4" | 0.375" | 3-3/8" | 1+1+1 |
| **RPCD2150** | 3/4" | 1-3/8" | 3/4" | 0.375" | 3-3/4" | 1+1+1 |
| **RPCD2152** | 3/4" | 1-5/8" | 3/4" | 0.375" | 4" | 1+1+1 |
| **RPCD2160** | 3/4" | 2-1/16" | 3/4" | 0.375" | 4-1/2" | 1+1+1 |

## ADDITIONAL SIZES/DESIGNS

PCD Diamond router bits are available in a variety of dimensions and cutting angles beyond those listed here.

For more information on a PCD Diamond router bit that matches your application, please contact your FS Tool representative.

# POLYCRYSTALLINE DIAMOND T-SLOT

Z=2+1

## DESIGN:

» Excellent surface finish and exceptionally long run-time are provided by the Microfinish erosion process of each PCD diamond cutting edge
» Re-sharpenable

## APPLICATION:

» For smooth finishing T-Slot cuts
» PCD Diamond tools are recommended for operations that require maximum tool life and consistency of cut

| PART NO. | CUTTING DIAM. | KERF | SHANK DIAM. | MAX. DEPTH OF CUT | OVERALL LENGTH | NO. TEETH |
|---|---|---|---|---|---|---|
| **RPCD138** | 1-3/8" | 1/4" | 1/2" | 3/4" | 2-3/8" | 2+1 |
| **RPCD138-LH** • | 1-3/8" | 1/4" | 1/2" | 3/4" | 2-3/8" | 2+1 |

• Left-hand rotation

## MATERIALS:

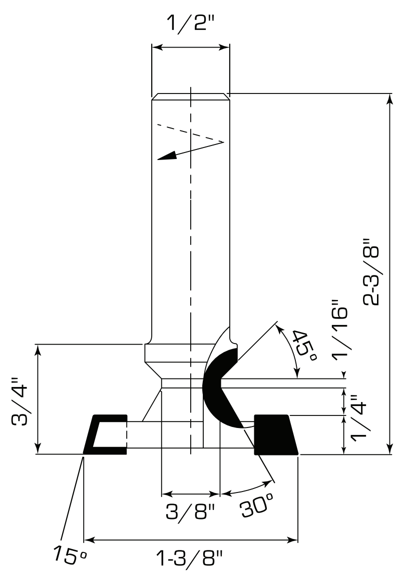
Good finish on:

» Laminated panels
» Chipboard
» MDF
» HPL
» Solid surface

## ADDITIONAL SIZES/DESIGNS

PCD Diamond router bits are available in a variety of dimensions and cutting angles beyond those listed here.

For more information on a PCD Diamond router bit that matches your application, please contact your FS Tool representative.



# RSC21-U2 | CHIPBREAKER UPCUT

Z=2

**DESIGN:**

» 2 precision ground cutting edges with notch style chipbreakers
» Excellent chipflow and lower heat retention is achieved by the semi-polished flutes
» Increased cutting edge durability from special submicron, extended life carbide
» 30° helix design with bottom cutting capability

**APPLICATION:**

» Chipbreakers reduce tear-out and improve chipflow by reducing the size of chips
» Chipbreakers lower noise levels and cutting pressure
» Eliminates chipping, fuzzing, and tear-out along the bottom surface of the board
» Upward cutting action provides excellent chip ejection from the cutting path
» For improved dust extraction use with an Aerotech (see pages FC3, FC9)

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| **RSC2116-U2** | 3/8" | 1-1/4" | 3/8" | 3" | 2 |
| **RSC2120-U2** | 1/2" | 1-1/4" | 1/2" | 3" | 2 |
| **RSC2124-U2** | 1/2" | 1-5/8" | 1/2" | 3-1/2" | 2 |
| **RSC2130-U2** | 1/2" | 2-1/8" | 1/2" | 4" | 2 |
| **RSC2138-U2** | 5/8" | 2-1/4" | 5/8" | 4" | 2 |
| **RSC2144-U2** | 3/4" | 2-1/4" | 3/4" | 4" | 2 |

**MATERIALS:**

Good finish on:

» Softwoods and hardwoods
» Plywood
» OSB
» Unfaced chipboard

# RSC21-D2 | CHIPBREAKER DOWNCUT

Z=2

**DESIGN:**

» 2 precision ground cutting edges with notch style chipbreakers
» Excellent chipflow and lower heat retention is achieved by the semi-polished flutes
» Increased cutting edge durability from special submicron, extended life carbide
» 30° helix design with bottom cutting capability

**APPLICATION:**

» Chipbreakers reduce tear-out and improve chipflow by reducing the size of chips
» Chipbreakers lower noise levels and cutting pressure
» Eliminates chipping, fuzzing, and tear-out along the top surface of the board
» Downward cutting action helps hold down material and reduces the likelihood of part movement
» Commonly used for rebating, dadoes/grooving, and pocketing operations

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| **RSC2116-D2** | 3/8" | 1-1/4" | 3/8" | 3" | 2 |
| **RSC2120-D2** | 1/2" | 1-1/4" | 1/2" | 3" | 2 |
| **RSC2124-D2** | 1/2" | 1-5/8" | 1/2" | 3-1/2" | 2 |
| **RSC2130-D2** | 1/2" | 2-1/8" | 1/2" | 4" | 2 |
| **RSC2138-D2** | 5/8" | 2-1/4" | 5/8" | 4" | 2 |
| **RSC2144-D2** | 3/4" | 2-1/4" | 3/4" | 4" | 2 |

**MATERIALS:**

Good finish on:

» Softwoods and hardwoods
» Plywood
» OSB
» Unfaced chipboard

# RSC21-U3

## CHIPBREAKER UPCUT
Z=3

### DESIGN:
» 3 precision ground cutting edges with notch style chipbreakers
» Good chipflow and low heat retention is achieved by the three semi-polished flutes
» Increased cutting edge durability from special submicron, extended life carbide
» 30° helix design with bottom cutting capability

### APPLICATION:
» Chipbreakers reduce tear-out and improve chipflow by reducing the size of chips
» Chipbreakers lower noise levels and cutting pressure
» Reduced run-out in parting cuts as 2 cutting edges are engaged at all times
» 3 cutting edges provide faster feed rates at low spindle speeds
» Ideal for robust spindles as more power is required to drive three cutting edges
» Eliminates chipping, fuzzing, and tear-out along the bottom surface of the board
» Upward cutting action provides excellent chip ejection from the cutting path
» For improved dust extraction use with an Aerotech (see pages FC3. FC9)

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| **RSC2118-U3** | 1/2" | 1-1/8" | 1/2" | 3" | 3 |
| **RSC2146-U3** | 3/4" | 2-1/4" | 3/4" | 4" | 3 |

### MATERIALS:
Good finish on:
» Softwoods and hardwoods
» Plywood
» OSB
» Unfaced chipboard

# RSC21-D3

## CHIPBREAKER DOWNCUT
Z=3

### DESIGN:
» 3 precision ground cutting edges with notch style chipbreakers
» Good chipflow and low heat retention is achieved by the three semi-polished flutes
» Increased cutting edge durability from special submicron, extended life carbide
» 30° helix design with bottom cutting capability

### APPLICATION:
» Chipbreakers reduce tear-out and improve chipflow by reducing the size of chips
» Chipbreakers lower noise levels and cutting pressure
» Reduced run-out in parting cuts as 2 cutting edges are engaged at all times
» 3 cutting edges provide faster feed rates at low spindle speeds
» Ideal for robust spindles as more power is required to drive three cutting edges
» Eliminates chipping, fuzzing, and tear-out along the top surface of the board
» Downward cutting action helps hold down material and reduces the likelihood of part movement

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| **RSC2118-D3** | 1/2" | 1-1/8" | 1/2" | 3" | 3 |
| **RSC2146-D3** | 3/4" | 2-1/4" | 3/4" | 4" | 3 |

### MATERIALS:
Good finish on:
» Softwoods and hardwoods
» Plywood
» OSB
» Unfaced chipboard

# RSC21-UD2 CHIPBREAKER COMPRESSION

Z=2+2

TYPE:
*UNCOATED*

TYPE:
*LINEAGE XLC*

## DESIGN:

» 2 precision ground cutting edges with chipbreakers
» Excellent chipflow and lower heat retention is provided by the semi-polished 2 flute design
» Fast feed rates are possible due to the high performance tool geometry
» Submicron, corrosion resistant, extended life carbide provides increased durability
» 30° helix design with bottom cutting capability

## APPLICATION:

» Chipbreakers reduce tear-out and improve chipflow by reducing the size of chips
» Chipbreakers lower noise levels and cutting pressure
» Increased cutting edge life when frequently accelerating/decelerating or performing multiple passes
» Eliminates chipping, fuzzing, and tear-out when the end of the upcut and downcut cutting edges are more than 1/16" from the top and bottom surfaces
» When cutting rebates, dados, or pockets, use an upcut length that is at least 1/16" shorter than the shallowest cut
» If part movement is a concern, use an upcut length of 4.8mm (0.188") or shorter
» When possible, select a router bit with a longer upcut length to improve chip ejection from cutting path
» For improved dust extraction use with an Aerotech (see pages FC3, FC9)

## MATERIALS:

Good finish on:

» Softwoods and hardwoods
» Plywood
» OSB
» Unfaced chipboard

| | PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | UPCUT LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| | **RSC2159W-UD2** | 3/8" | 1" | 3/8" | 4.7mm | 2-1/2" | 2+2 |
| | **RSC2159-UD2** | 3/8" | 1-1/4" | 3/8" | 7.0mm | 3" | 2+2 |
| XLC | **RSC2159XLC-UD2** | 3/8" | 1-1/4" | 3/8" | 7.0mm | 3" | 2+2 |
| | **RSC2161WS-UD2** | 1/2" | 7/8" | 1/2" | 4.8mm | 3" | 2+2 |
| | **RSC2161W-UD2** | 1/2" | 1-3/8" | 1/2" | 4.8mm | 3-1/2" | 2+2 |
| XLC | **RSC2161WXLC-UD2** | 1/2" | 1-3/8" | 1/2" | 4.8mm | 3-1/2" | 2+2 |
| | **RSC2161M-UD2** | 1/2" | 1-1/4" | 1/2" | 4.8mm | 3" | 2+2 |
| XLC | **RSC2161MXLC-UD2** | 1/2" | 1-1/4" | 1/2" | 4.8mm | 3" | 2+2 |
| | **RSC2161-UD2** | 1/2" | 1-1/4" | 1/2" | 9.9mm | 3" | 2+2 |
| XLC | **RSC2161XLC-UD2** | 1/2" | 1-1/4" | 1/2" | 9.9mm | 3" | 2+2 |
| | **RSC2162-UD2** | 1/2" | 1-5/8" | 1/2" | 14.4mm | 3-1/2" | 2+2 |
| | **RSC2164-UD2** | 5/8" | 1-5/8" | 5/8" | 15.8mm | 4" | 2+2 |
| | **RSC2166-UD2** | 3/4" | 2-1/4" | 3/4" | 15.8mm | 5-1/4" | 2+2 |

*XLC*

**LINEAGE XLC**
EXTENDED LIFE RESHARPENABLE COATING

| | |
|---|---|
| COATING THICKNESS (MICRONS) | 2 µm |
| ADHESION TO CUTTING EDGE (WOODWORKING) | |
| COATING HARDNESS (GPa) | 31 |
| COATING COEFFICIENT OF FRICTION | 0.30 |
| RESISTANCE TO RESIN BUILD-UP | |
| RESHARPENABILITY | 2-4 |
| TOTAL LIFECYCLE (LINEAR INCHES CUT) | |

Favorable
Less More

# CHIPBREAKER COMPRESSION

Z=3+3

TYPE:
*UNCOATED*

TYPE:
*LINEAGE XLC*

## DESIGN:

- 3 precision ground cutting edges with chipbreakers
- Good chipflow and lower heat retention is provided by the semi-polished 3 flute design
- Submicron, corrosion resistant, extended life carbide provides increased durability
- 30° helix design with bottom cutting capability

## APPLICATION:

- Chipbreakers reduce tear-out and improve chipflow by reducing the size of chips
- Chipbreakers lower noise levels and cutting pressure
- Reduced run-out in parting cuts as 2 cutting edges are engaged at all times
- 3 cutting edges provide faster feed rates at low spindle speeds
- Ideal for robust spindles as more power is required to drive three cutting edges
- Eliminates chipping, fuzzing, and tear-out when the end of the upcut and downcut cutting edges are more than 1/16" from the top and bottom surfaces
- When cutting rebates, dados, or pockets, use an upcut length that is at least 1/16" shorter than the shallowest cut
- If part movement is a concern, use an upcut length of 4.8mm (0.188") or shorter
- When possible, select a router bit with a longer upcut length to improve chip ejection from cutting path
- For improved dust extraction use with an Aerotech (see pages FC3, FC9)

## MATERIALS:

Good finish on:

- Softwoods and hardwoods
- Plywood
- OSB
- Unfaced chipboard

| | PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | UPCUT LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| | **RSC2159A-UD3** | 3/8" | 1" | 3/8" | 4.8mm | 2-1/2" | 3+3 |
| | **RSC2161-UD3** | 1/2" | 1-1/4" | 1/2" | 4.8mm | 3" | 3+3 |
| *XLC* | **RSC2161XLC-UD3** | 1/2" | 1-1/4" | 1/2" | 4.8mm | 3" | 3+3 |
| | **RSC2162-UD3** | 1/2" | 1-5/8" | 1/2" | 13.4mm | 3-1/2" | 3+3 |

***XLC***

**LINEAGE XLC**

EXTENDED LIFE RESHARPENABLE COATING

| | |
|---|---|
| COATING THICKNESS (MICRONS) | 2 µm |
| ADHESION TO CUTTING EDGE (WOODWORKING) | |
| COATING HARDNESS (GPa) | 31 |
| COATING COEFFICIENT OF FRICTION | 0.30 |
| RESISTANCE TO RESIN BUILD-UP | |
| RESHARPENABILITY | 2-4 |
| TOTAL LIFECYCLE (LINEAR INCHES CUT) | |

Favorable

Less More

# RSC20-U2 | ROUGHING UPCUT
Z=2

## DESIGN:
- » 2 precision ground scalloped cutting edges
- » Excellent chipflow and lower heat retention is provided by the semi-polished 2 flute design
- » Submicron, corrosion resistant, extended life carbide provides increased durability
- » 30° helix design with bottom cutting capability

## APPLICATION:
- » Clean but uneven surface finish is produced by the aggressive scalloped cutting edge design
- » Scalloped edges produce smaller chips, allowing higher feed rates with less cutting pressure in hard materials and roughing applications
- » Improved cutting edge life when cutting hard and fibrous materials
- » Eliminates chipping, fuzzing, and tear-out along the bottom surface of the board
- » Upward cutting action provides excellent chip ejection from the cutting path

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| **RSCM0835-U2** | 8mm | 35mm | 8mm | 80mm | 2 |
| **RSC2015-U2** | 3/8" | 1-1/4" | 3/8" | 3" | 2 |
| **RSC2016-U2** | 3/8" | 1-1/4" | 1/2" | 3" | 2 |
| **RSCM1035-U2** | 10mm | 35mm | 10mm | 80mm | 2 |
| **RSCM1235-U2** | 12mm | 35mm | 12mm | 80mm | 2 |
| **RSC2020-U2** | 1/2" | 1-1/4" | 1/2" | 3" | 2 |
| **RSC2024-U2** | 1/2" | 1-1/2" | 1/2" | 3-1/2" | 2 |
| **RSC2028-U2** | 1/2" | 2' | 1/2" | 4" | 2 |
| **RSC2036-U2** | 5/8" | 1-1/2" | 5/8" | 4" | 2 |
| **RSC2038-U2** | 5/8" | 2" | 5/8" | 4" | 2 |
| **RSC2042-U2** | 3/4" | 1-1/2" | 3/4" | 4" | 2 |
| **RSC2044-U2** | 3/4" | 2" | 3/4" | 4" | 2 |

## MATERIALS:
- » Softwoods and hardwoods
- » Plywood
- » OSB

# ROUGHING DOWNCUT
Z=2

## DESIGN:
» 2 precision ground scalloped cutting edges
» Excellent chipflow and lower heat retention is provided by the semi-polished 2 flute design
» Submicron, corrosion resistant, extended life carbide provides increased durability
» 30° helix design with bottom cutting capability

## APPLICATION:
» Clean but uneven surface finish is produced by the aggressive scalloped cutting edge design
» Scalloped edges produce smaller chips, allowing higher feed rates with less cutting pressure in hard materials and roughing applications
» Improved cutting edge life when cutting hard and fibrous materials
» Eliminates chipping, fuzzing, and tear-out along the top surface of the board
» Downward cutting action helps hold down material and reduces the likelihood of part movement

## MATERIALS:
» Softwoods and hardwoods
» Plywood
» OSB

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| **RSCM0835-D2** | 8mm | 35mm | 8mm | 80mm | 2 |
| **RSC2015-D2** | 3/8" | 1-1/4" | 3/8" | 3" | 2 |
| **RSC2016-D2** | 3/8" | 1-1/4" | 1/2" | 3" | 2 |
| **RSCM1035-D2** | 10mm | 35mm | 10mm | 80mm | 2 |
| **RSCM1235-D2** | 12mm | 35mm | 12mm | 80mm | 2 |
| **RSC2020-D2** | 1/2" | 1-1/4" | 1/2" | 3" | 2 |
| **RSC2024-D2** | 1/2" | 1-1/2" | 1/2" | 3-1/2" | 2 |
| **RSC2028-D2** | 1/2" | 2' | 1/2" | 4" | 2 |
| **RSC2036-D2** | 5/8" | 1-1/2" | 5/8" | 4" | 2 |
| **RSC2038-D2** | 5/8" | 2" | 5/8" | 4" | 2 |
| **RSC2042-D2** | 3/4" | 1-1/2" | 3/4" | 4" | 2 |
| **RSC2044-D2** | 3/4" | 2" | 3/4" | 4" | 2 |

# ROUGHING UPCUT
Z=3

TYPE: *UNCOATED*

TYPE: *LINEAGE XLC*

## DESIGN:

» 3 precision ground scalloped cutting edges
» Good chipflow and low heat retention is achieved by the 3 semi-polished flutes
» Submicron, corrosion resistant, extended life carbide provides increased durability
» 30° helix design with bottom cutting capability

## APPLICATION:

» Clean but uneven surface finish is produced by the aggressive scalloped cutting edge design
» Scalloped edges produce smaller chips, allowing higher feed rates with less cutting pressure in hard materials and roughing applications
» Improved cutting edge life when cutting hard and fibrous materials
» Reduced run-out in parting cuts as 2 cutting edges are engaged at all times
» 3 cutting edges provide faster feed rates at low spindle speeds
» Ideal for robust spindles as more power is required to drive 3 cutting edges
» Eliminates chipping, fuzzing, and tear-out along the bottom surface of the board
» Upward cutting action provides excellent chip ejection from the cutting path

## MATERIALS:

» Softwoods and hardwoods
» Plywood
» OSB

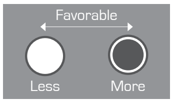
| | PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| | RSCM0835-U3 | 8mm | 35mm | 8mm | 80mm | 3 |
| | RSC2016-U3 Δ | 3/8" | 1" | 3/8" | 2-1/2" | 3 |
| XLC | RSC2016XLC-U3 Δ | 3/8" | 1" | 3/8" | 2-1/2" | 3 |
| | RSC2017-U3 | 3/8" | 1-1/4" | 3/8" | 3" | 3 |
| XLC | RSC2017XLC-U3 | 3/8" | 1-1/4" | 3/8" | 3" | 3 |
| | RSC2018-U3 | 3/8" | 1-1/4" | 1/2" | 3" | 3 |
| | RSCM1035-U3 | 10mm | 35mm | 10mm | 80mm | 3 |
| | RSCM1235-U3 | 12mm | 35mm | 12mm | 80mm | 3 |
| | RSC2022-U3 | 1/2" | 1-1/4" | 1/2" | 3" | 3 |
| XLC | RSC2022XLC-U3 | 1/2" | 1-1/4" | 1/2" | 3" | 3 |
| | RSC2026-U3 | 1/2" | 1-1/2" | 1/2" | 3-1/2" | 3 |
| | RSC2030-U3 | 1/2" | 2" | 1/2" | 4" | 3 |
| | RSCM1455-U3 | 14mm | 55mm | 14mm | 100mm | 3 |
| | RSC2040-U3 | 5/8" | 2" | 5/8" | 4" | 3 |
| XLC | RSC2040XLC-U3 | 5/8" | 2" | 5/8" | 4" | 3 |
| | RSCM1655-U3 | 16mm | 55mm | 16mm | 100mm | 3 |
| | RSCM1855-U3 | 18mm | 55mm | 18mm | 100mm | 3 |
| | RSC2046-U3 | 3/4" | 2" | 3/4" | 4" | 3 |
| | RSCM2055-U3 | 20mm | 55mm | 20mm | 100mm | 3 |

Δ For Castle machine

**XLC**

**LINEAGE XLC**
EXTENDED LIFE RESHARPENABLE COATING

| | |
|---|---|
| COATING THICKNESS (MICRONS) | 2 µm |
| ADHESION TO CUTTING EDGE (WOODWORKING) | |
| COATING HARDNESS (GPa) | 31 |
| COATING COEFFICIENT OF FRICTION | 0.30 |
| RESISTANCE TO RESIN BUILD-UP | |
| RESHARPENABILITY | 2-4 |
| TOTAL LIFECYCLE (LINEAR INCHES CUT) | |



TYPE: *UNCOATED*　　TYPE: *LINEAGE XLC*

## DESIGN:

- 3 precision ground scalloped cutting edges
- Good chipflow and low heat retention is achieved by the 3 semi-polished flutes
- Submicron, corrosion resistant, extended life carbide provides increased durability
- 30° helix design with bottom cutting capability

## APPLICATION:

- Clean but uneven surface finish is produced by the aggressive scalloped cutting edge design
- Scalloped edges produce smaller chips, allowing higher feed rates with less cutting pressure in hard materials and roughing applications
- Improved cutting edge life when cutting hard and fibrous materials
- Reduced run-out in parting cuts as 2 cutting edges are engaged at all times
- 3 cutting edges provide faster feed rates at low spindle speeds
- Ideal for robust spindles as more power is required to drive 3 cutting edges
- Eliminates chipping, fuzzing, and tear-out along the top surface of the board
- Downward cutting action helps hold down material and reduces the likelihood of part movement

## MATERIALS:

- Softwoods and hardwoods
- Plywood
- OSB

| | PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| | RSCM0835-D3 | 8mm | 35mm | 8mm | 80mm | 3 |
| | RSC2016-D3 Δ | 3/8" | 1" | 3/8" | 2-1/2" | 3 |
| XLC | RSC2016XLC-D3 Δ | 3/8" | 1" | 3/8" | 2-1/2" | 3 |
| | RSC2017-D3 | 3/8" | 1-1/4" | 3/8" | 3" | 3 |
| XLC | RSC2017XLC-D3 | 3/8" | 1-1/4" | 3/8" | 3" | 3 |
| | RSC2018-D3 | 3/8" | 1-1/4" | 1/2" | 3" | 3 |
| | RSCM1035-D3 | 10mm | 35mm | 10mm | 80mm | 3 |
| | RSCM1235-D3 | 12mm | 35mm | 12mm | 80mm | 3 |
| | RSC2022-D3 | 1/2" | 1-1/4" | 1/2" | 3" | 3 |
| XLC | RSC2022XLC-D3 | 1/2" | 1-1/4" | 1/2" | 3" | 3 |
| | RSC2026-D3 | 1/2" | 1-1/2" | 1/2" | 3-1/2" | 3 |
| | RSC2030-D3 | 1/2" | 2' | 1/2" | 4" | 3 |
| | RSCM1455-D3 | 14mm | 55mm | 14mm | 100mm | 3 |
| | RSC2040-D3 | 5/8" | 2" | 5/8" | 4" | 3 |
| XLC | RSC2040XLC-D3 | 5/8" | 2" | 5/8" | 4" | 3 |
| | RSCM1655-D3 | 16mm | 55mm | 16mm | 100mm | 3 |
| | RSCM1855-D3 | 18mm | 55mm | 18mm | 100mm | 3 |
| | RSC2046-D3 | 3/4" | 2" | 3/4" | 4" | 3 |
| | RSCM2055-D3 | 20mm | 55mm | 20mm | 100mm | 3 |

Δ For Castle machine

**XLC**

**LINEAGE XLC**
EXTENDED LIFE RESHARPENABLE COATING

| | |
|---|---|
| COATING THICKNESS (MICRONS) | 2 µm |
| ADHESION TO CUTTING EDGE (WOODWORKING) | |
| COATING HARDNESS (GPa) | 31 |
| COATING COEFFICIENT OF FRICTION | 0.30 |
| RESISTANCE TO RESIN BUILD-UP | |
| RESHARPENABILITY | 2-4 |
| TOTAL LIFECYCLE (LINEAR INCHES CUT) | |

Favorable
Less　More

# ROUGHING LOW HELIX UPCUT

Z=3

## DESIGN:

» 3 precision ground scalloped cutting edges
» Excellent chipflow and lower heat retention is achieved by the semi-polished flutes
» Submicron, corrosion resistant, extended life carbide provides increased durability
» 10° helix design with bottom cutting capability
» Low helix upshear design reduces deflection and lifting forces in hard materials

## APPLICATION:

» Clean but uneven surface finish is produced by the aggressive scalloped cutting edge design
» Scalloped edges produce small chips, allowing higher feed rates with less cutting pressure in hard materials and roughing applications
» Reduced run-out in parting cuts as 2 cutting edges are engaged at all times
» Increased tool life and performance in hard materials and roughing/hogging applications
» Reduces noise levels during cutting operations of hard materials
» 3 cutting edges provide faster feed rates at low spindle speeds
» Ideal for robust spindles as more power is required to drive three cutting edges
» Upward cutting action provides good chip ejection from the cutting path
» Eliminates chipping, fuzzing, and tear-out along the bottom surface of the board

## MATERIALS:

Recommended for:

» Softwoods and hardwoods
» Plywood
» OSB

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| RSCL2018-U3 | 3/8" | 1-1/4" | 3/8" | 4" | 3 |
| RSCL2026-U3 | 1/2" | 1-1/2" | 1/2" | 4" | 3 |
| RSCL2030-U3 | 1/2" | 2" | 1/2" | 4-1/2" | 3 |
| RSCL2040-U3 | 5/8" | 2" | 5/8" | 5" | 3 |
| RSCL2046-U3 | 3/4" | 2" | 3/4" | 5" | 3 |

# RSCL-D3 ROUGHING LOW HELIX DOWNCUT
Z=3

## DESIGN:
- 3 precision ground scalloped cutting edges
- Excellent chipflow and lower heat retention is achieved by the semi-polished flutes
- Submicron, corrosion resistant, extended life carbide provides increased durability
- 10° helix design with bottom cutting capability
- Low helix downshear design reduces deflection and lifting forces in hard materials

## APPLICATION:
- Clean but uneven surface finish is produced by the aggressive scalloped cutting edge design
- Scalloped edges produce small chips, allowing higher feed rates with less cutting pressure in hard materials and roughing applications
- Reduced run-out in parting cuts as 2 cutting edges are engaged at all times
- Increased tool life and performance in hard materials and roughing/hogging applications
- Reduces noise levels during cutting operations of hard materials
- 3 cutting edges provide faster feed rates at low spindle speeds
- Ideal for robust spindles as more power is required to drive three cutting edges
- Downward cutting action helps hold down material and reduces the likelihood of part movement
- Eliminates chipping, fuzzing, and tear-out along the top surface of the board

## MATERIALS:
Recommended for:
- Softwoods and hardwoods
- Plywood
- OSB

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| **RSCL2018-D3** | 3/8" | 1-1/4" | 3/8" | 4" | 3 |
| **RSCL2026-D3** | 1/2" | 1-1/2" | 1/2" | 4" | 3 |
| **RSCL2030-D3** | 1/2" | 2" | 1/2" | 4-1/2" | 3 |
| **RSCL2040-D3** | 5/8" | 2" | 5/8" | 5" | 3 |
| **RSCL2046-D3** | 3/4" | 2" | 3/4" | 5" | 3 |

# ROUGHING HOGGER

Z=3

## DESIGN:

- 3 precision ground cutting edges with specialized chipbreakers
- Excellent chipflow and lower heat retention is achieved by the semi-polished flutes
- Submicron, corrosion resistant, extended life carbide provides increased durability

## APPLICATION:

- Chipbreakers cutting edges produce small chips, allowing higher feed rates with less cutting pressure in hard materials and roughing applications
- Reduced run-out in parting cuts as 2 cutting edges are engaged at all times
- 3 cutting edges provide faster feed rates at low spindle speeds
- Ideal for robust spindles as more power is required to drive three cutting edges
- Reduces noise levels during cutting operations of hard materials
- Increased core diameter and shoulder mass to improve rigidity in harder materials
- Recommended for entry doors, stairways, and other deep cuts in hard materials
- Upward cutting action provides excellent chip ejection from the cutting path
- Eliminates chipping, fuzzing, and tear-out along the bottom surface of the board with the upcut design and along top surface of the board with the downcut design

| PART NO. | SHEAR DIRECTION | CUTTING DIAM. | MAX. DEPTH OF CUT | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| **RSCH2046-U3** | UPCUT | 1" | 4" | 1" | 2" | 7" | 3 |
| **RSCH2046-D3** | DOWNCUT | 1" | 4" | 1" | 2" | 7" | 3 |

## ADDITIONAL SIZES

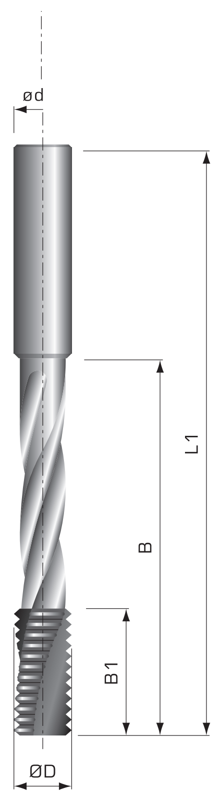
Roughing Hogger bits are available in a variety of dimensions and cutting angles beyond those listed here.

For more information on a Roughing Hogger router bit that matches your application, please contact your FS Tool representative.

## MATERIALS:

Recommended for:

- Softwoods and hardwoods
- Plywood
- OSB




» Any of our in-stock solid carbide spiral router bits can be ordered in a Pass By/Deep Pocket Mortise style. To request information about a Pass-By/Deep Pocket Mortise modification or custom router bit, please provide the information below.

## DESIGN:

» Excellent chipflow and lower heat retention is achieved by semi-polished flutes
» Increased cutting edge durability from special submicron, extended life carbide

## APPLICATION:

» Improved cutting edge life when making deep cuts
» Recommended for deep cuts such as those made for door hardware

## ORDER DETAILS

| DESCRIPTION | PLEASE SUBMIT THESE DIMENSIONS |
|---|---|
| PART # TO MODIFY* | |
| MATERIAL TYPE: | |
| QUANTITY TO ORDER | |
| CUTTING DIAMETER: ØD | |
| MAXIMUM DEPTH OF CHANNEL: B | |
| MAXIMUM DEPTH OF CUT: B1 | |
| REDUCED DIAMETER* | |
| SHANK DIAMETER: Ød | |
| SHANK LENGTH* | |
| # OF FLUTES (CUTTING EDGES)* | |
| HELIX ANGLE* | ☐ STANDARD ☐ LOW |
| OVERALL LENGTH: *L1 | |

*Optional

# RSFDL-U2 10° SPIRAL DOVETAIL UPCUT ROUTER BITS
Z=2

### DESIGN:
» Excellent chipflow and lower heat retention is achieved by the semi-polished flutes
» Submicron, corrosion resistant, extended life carbide provides increased durability
» Features whistle notch flat on shank

### APPLICATION:
» For exceptionally smooth finishing cuts
» Reduces fuzzing and tear-out along the top surface
» Cutting action provides good chip ejection from the tool path

### MACHINE:
» For OMEC machines

### WHEN ORDERING SPECIFY:
» If your machines has an Eccentric Spindle, router bits will be custom manufactured

### MATERIALS:
Recommended for:
» Softwoods and hardwoods
» Plywood

| PART NO. RIGHT HAND | DOVETAIL ANGLE | CUTTING DIAM. | DOVETAIL LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| RSFDLM1014/8-U2 | 10° | 10mm | 8mm | 14mm | 60mm | 2 |
| RSFDLM1014/9-U2 | 10° | 14mm | 9mm | 14mm | 60mm | 2 |
| RSFDLM1014/10-U2 | 10° | 14mm | 10mm | 14mm | 60mm | 2 |
| RSFDL1014/450-U2 | 10° | 14mm | 0.450" | 14mm | 60mm | 2 |
| RSFDL1014/622-U2 | 10° | 14mm | 0.622" | 14mm | 60mm | 2 |

| PART NO. LEFT HAND | DOVETAIL ANGLE | CUTTING DIAM. | DOVETAIL LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| RSFDLM1014/8-U2L | 10° | 10mm | 8mm | 14mm | 60mm | 2 |
| RSFDLM1014/9-U2L | 10° | 14mm | 9mm | 14mm | 60mm | 2 |
| RSFDLM1014/10-U2L | 10° | 14mm | 10mm | 14mm | 60mm | 2 |
| RSFDL1014/450-U2L | 10° | 14mm | 0.450" | 14mm | 60mm | 2 |
| RSFDL1014/622-U2L | 10° | 14mm | 0.622" | 14mm | 60mm | 2 |

# RSFDL-D2 10° SPIRAL DOVETAIL DOWNCUT ROUTER BITS
Z=2

### APPLICATION:
» For exceptionally smooth finishing cuts
» Reduces fuzzing and tear-out along the top surface

### MACHINE:
» For OMEC machines

### WHEN ORDERING SPECIFY:
» If your machines has an Eccentric Spindle, router bits will be custom manufactured

### MATERIALS:
Recommended for:
» Softwoods and hardwoods
» Plywood

| PART NO. RIGHT HAND | DOVETAIL ANGLE | CUTTING DIAM. | DOVETAIL LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| RSFDLM1014/8-D2 | 10° | 10mm | 8mm | 14mm | 60mm | 2 |
| RSFDLM1014/9-D2 | 10° | 14mm | 9mm | 14mm | 60mm | 2 |
| RSFDLM1014/10-D2 | 10° | 14mm | 10mm | 14mm | 60mm | 2 |
| RSFDL1014/450-D2 | 10° | 14mm | 0.450" | 14mm | 60mm | 2 |
| RSFDL1014/622-D2 | 10° | 14mm | 0.622" | 14mm | 60mm | 2 |

| PART NO. LEFT HAND | DOVETAIL ANGLE | CUTTING DIAM. | DOVETAIL LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| RSFDLM1014/8-D2L | 10° | 10mm | 8mm | 14mm | 60mm | 2 |
| RSFDLM1014/9-D2L | 10° | 14mm | 9mm | 14mm | 60mm | 2 |
| RSFDLM1014/10-D2L | 10° | 14mm | 10mm | 14mm | 60mm | 2 |
| RSFDL1014/450-D2L | 10° | 14mm | 0.450" | 14mm | 60mm | 2 |
| RSFDL1014/622-D2L | 10° | 14mm | 0.622" | 14mm | 60mm | 2 |

# RSFD-U2

## 10° SPIRAL DOVETAIL UPCUT ROUTER BITS
Z=2

### DESIGN:
» Excellent chipflow and lower heat retention is achieved by the semi-polished flutes
» Submicron, corrosion resistant, extended life carbide provides increased durability
» Features whistle notch on shank

### APPLICATION:
» For exceptionally smooth finishing cuts
» Reduces fuzzing and tear-out along the bottom surface
» Significantly increases tool life and cut quaility in comparison to brazed dovetail router bits
» For use on standard CNC routers
» Upward cutting action provides good chip ejection from the tool path

### WHEN ORDERING SPECIFY:
» If your machines has an Eccentric Spindle, router bits will be custom manufactured

| PART NO. RIGHT HAND | DOVETAIL ANGLE | CUTTING DIAM. | DOVETAIL LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **RSFD1012/625-U2** | 10° | 1/2" | 0.625" | 14mm | 2-1/2" | 2 |
| **RSFDM1014/450-U2** | 10° | 14mm | 0.450" | 14mm | 60mm | 2 |

### MATERIALS:
Recommended for:
» Softwoods and hardwoods
» Plywood

| PART NO. LEFT HAND | DOVETAIL ANGLE | CUTTING DIAM. | DOVETAIL LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **RSFD1012/625-U2L** | 10° | 1/2" | 0.625" | 14mm | 2-1/2" | 2 |
| **RSFDM1014/450-U2L** | 10° | 14mm | 0.450" | 14mm | 60mm | 2 |

# RSFD-D2

## 10° SPIRAL DOVETAIL DOWNCUT ROUTER BITS
Z=2

### DESIGN:
» Excellent chipflow and lower heat retention is achieved by the semi-polished flutes
» Submicron, corrosion resistant, extended life carbide provides increased durability
» Features whistle notch on shank

### APPLICATION:
» For exceptionally smooth finishing cuts
» Reduces fuzzing and tear-out along the top surface
» Significantly increases tool life and cut quaility in comparison to brazed dovetail router bits
» For use on standard CNC routers

### WHEN ORDERING SPECIFY:
» If your machines has an Eccentric Spindle, router bits will be custom manufactured

| PART NO. RIGHT HAND | DOVETAIL ANGLE | CUTTING DIAM. | DOVETAIL LENGTH | SHANK DIAM. | OVERALL LENGTH | NO.. FLUTES |
|---|---|---|---|---|---|---|
| **RSFD1012/625-D2** | 10° | 1/2" | 0.625" | 14mm | 2-1/2" | 2 |
| **RSFDM1014/450-D2** | 10° | 14mm | 0.450" | 14mm | 60mm | 2 |

### MATERIALS:
Recommended for:
» Softwoods and hardwoods
» Plywood

| PART NO. LEFT HAND | DOVETAIL ANGLE | CUTTING DIAM. | DOVETAIL LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **RSFD1012/625-D2L** | 10° | 1/2" | 0.625" | 14mm | 2-1/2" | 2 |
| **RSFDM1014/450-D2L** | 10° | 14mm | 0.450" | 14mm | 60mm | 2 |

# ROUGHING BALLNOSE UPCUT ROUTER BITS

Z=3

## DESIGN:

- 3 precision ground cutting edges
- Good chipflow and low heat retention is achieved by the three semi-polished flutes
- Submicron, corrosion resistant, extended life carbide provides increased durability
- 30° helix design with bottom cutting capability

## APPLICATION:

- For an exceptionally smooth finish on 3 dimensional machining operations
- Clean but uneven surface finish is produced by the aggressive scalloped cutting edge design
- Reduced run-out in parting cuts as 2 cutting edges are engaged at all times
- Improved cutting edge life when cutting hard and fibrous materials
- 3 cutting edges provide faster feed rates at low spindle speeds
- Upward cutting action provides excellent chip ejection from the cutting path

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| **RSCBN2018-U3** | 3/8" | 1-1/4" | 3/8" | 4" | 3 |
| **RSCBN2030-U3** | 1/2" | 2-1/4" | 1/2" | 4" | 3 |
| **RSCBN2040-U3** | 5/8" | 2-1/4" | 5/8" | 4" | 3 |
| **RSCBN2050-U3** | 3/4" | 3-1/2" | 3/4" | 6" | 3 |

## ADDITIONAL SIZES

Spiral Ballnose bits are available in a variety of dimensions and cutting angles beyond those listed here.
For more information on a Ballnose router bit that matches your application, please contact your FS Tool representative.

## MATERIALS:

Good for:

- Softwoods and hardwoods
- Plywood
- Chipboard
- MDF
- Solid surface

# FINISHING BALLNOSE ROUTER BITS
UPCUT, Z=2 & Z=3

## DESIGN:
- 2 or 3 precision ground cutting edges
- Excellent chipflow and lower heat retention is achieved by the semi-polished flutes
- Large clearance areas enable chips to quickly move away from cutting edges
- Increased cutting edge durability from special submicron, extended life carbide
- 30° helix design with bottom cutting capability

## APPLICATION:
- For exceptionally smooth finishing cuts
- Commonly used for cleaning corners of MDF Doors
- For an exceptionally smooth finish on 3 dimensional machining operations
- Upward cutting action provides excellent chip ejection from the cutting path

## MATERIALS:
Recommended for:
- Softwoods and hardwoods
- Plywood
- Chipboard
- MDF
- Solid surface
- Hard plastics
- Soft plastics

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| RSFBN2000A-U2 | 1/8" | 1/2" | 1/8" | 2-1/2" | 2 |
| RSFBN2000-U2 | 1/8" | 1/2" | 1/4" | 2" | 2 |
| RSFBN2004-U2 | 3/16" | 3/4" | 1/4" | 2" | 2 |
| RSFBN2006-U2 | 1/4" | 7/8" | 1/4" | 2-1/2" | 2 |
| RSFBN2009-U2 | 1/4" | 1-1/2" | 1/4" | 3" | 2 |
| RSFBN2018-U3 | 3/8" | 1-1/4" | 3/8" | 4" | 3 |
| RSFBN2019-U2 | 1/2" | 1/2" | 1/2" | 3" | 2 |
| RSFBN2020-U2 | 1/2" | 1-1/4" | 1/2" | 3" | 2 |
| RSFBN2030-U3 | 1/2" | 2-1/4" | 1/2" | 4" | 3 |
| RSFBN2040-U3 | 5/8" | 2-1/4" | 5/8" | 4" | 3 |
| RSFBN2046-U3 | 3/4" | 1-1/2" | 3/4" | 4" | 3 |
| RSFBN2050-U3 | 3/4" | 3-1/2" | 3/4" | 6" | 3 |

## ADDITIONAL SIZES
Spiral Ballnose bits are available in a variety of dimensions and cutting angles beyond those listed here.
For more information on a Ballnose router bit that matches your application, please contact your FS Tool representative.

## DESIGN:

» 2 or 3 precision ground cutting edges
» Tapered design provides increased strength and rigidity for small ballnose diameters and long cutting lengths
» Good chipflow and low heat retention is achieved by the three semi-polished flutes
» Large clearance areas enable chips to quickly move away from cutting edges
» Submicron, corrosion resistant, extended life carbide provides increased durability
» 30° Helix design with bottom cutting capability

## APPLICATION:

» For exceptionally smooth finishing cuts
» Reduced run-out in parting cuts as 2 cutting edges are engaged at all times
» 3 cutting edges provide faster feed rates at low spindle speeds
» Commonly used for cleaning corners of MDF Doors
» For an exceptionally smooth finish on 3 dimensional machining operations
» Upward cutting action provides excellent chip ejection from the cutting path

| PART NO. | BALLNOSE DIAM. | TAPER INCL. ANGLE | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| **RSFBNT1160514/1-U2** | 1/16" | 5° | 1" | 1/4" | 2-1/2" | 2 |
| **RSFBNT1160314/34-U3** | 1/16" | 3° | 3/4" | 1/4" | 3" | 3 |
| **RSFBNT180514/34-U3** | 1/8" | 5° | 3/4" | 1/4" | 3" | 3 |
| **RSFBNT180114/112-U3** | 1/8" | 1° | 1-1/2" | 1/4" | 3" | 3 |
| **RSFBNT140512/138-U3** | 1/4" | 5° | 1-3/8" | 1/2" | 4" | 3 |
| **RSFBNT380512/112-U3** | 3/8" | 5° | 1-1/2" | 1/2" | 4" | 3 |

## MATERIALS:

Recommended for:
» Softwoods and hardwoods
» Plywood
» Chipboard
» MDF
» Solid surface
» Hard plastics
» Soft plastics

# RSFV60 60° V-POINT SOLID CARBIDE ROUTER BITS
Z=2

## DESIGN:
- 2 precision ground cutting edges
- Excellent chipflow and lower heat retention is achieved by the semi-polished flutes
- Good chipflow is provided by the low upshear design with steep back clearances
- Special secondary chamfered clearance improves chipflow
- Submicron, corrosion resistant, extended life carbide provides increased durability

## APPLICATION:
- For smooth finishing V-Groove, Bevel, or Chamfer cuts
- Commonly used for cleaning corners of MDF Doors

## MATERIALS:
Recommended for:
- Softwoods and hardwoods
- Plywood
- Chipboard
- MDF
- Solid surface
- Hard plastics
- Soft plastics

## 60°V-POINT BITS

| PART NO. | TIP ANGLE | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| RSFV6014/78 | 60° | 1/4" | 7/8" | 1/4" | 3" | 2 |
| RSFV6038/1 | 60° | 3/8" | 1" | 3/8" | 3" | 2 |
| RSFV6012/114 | 60° | 1/2" | 1-1/4" | 1/2" | 3" | 2 |

## ADDITIONAL SIZES
V-Point bits are available in a variety of dimensions and cutting angles beyond those listed here.

For more information on a V-Point router bit that matches your application, please contact your FS Tool representative.

# RSFV90 90° V-POINT SOLID CARBIDE ROUTER BITS
Z=2

## DESIGN:
- 2 precision ground cutting edges
- Excellent chipflow and lower heat retention is achieved by the semi-polished flutes
- Special secondary chamfered clearance improves chipflow
- Submicron, corrosion resistant, extended life carbide provides increased durability

## APPLICATION:
- For smooth finishing V-Groove, Bevel, or Chamfer cuts
- Commonly used for cleaning corners of MDF Doors

## MATERIALS:
Recommended for:
- Softwoods and hardwoods
- Plywood
- Chipboard
- MDF
- Solid surface
- Hard plastics
- Soft plastics

## 90°V-POINT BITS

| PART NO. | TIP ANGLE | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| RSFV9014/78 | 90° | 1/4" | 7/8" | 1/4" | 3" | 2 |
| RSFV9038/1 | 90° | 3/8" | 1" | 3/8" | 3" | 2 |
| RSFV9012/114 | 90° | 1/2" | 1-1/4" | 1/2" | 3" | 2 |

## ADDITIONAL SIZES
V-Point bits are available in a variety of dimensions and cutting angles beyond those listed here.

For more information on a V-Point router bit that matches your application, please contact your FS Tool representative.

# RSFO-U1 HIGH POLISH O-FLUTE ROUTER BITS
UPCUT, Z=1

**DESIGN:**
- Single flute high polish, precision ground cutting edge
- Superior chipflow and lower heat retention is provided by the highly polished flute and primary land (back of cutting edge)
- Submicron, corrosion resistant, extended life carbide provides increased durability
- 25° helix design with bottom cutting capability

**APPLICATION:**
- For exceptionally smooth, near mirror finish cuts
- Ideal for cutting materials that build-up on the tool or reweld to the material
- Upward cutting action provides excellent chip ejection from the tool path

Unmatched cutting edge strength and integrity provided by proprietary grinding process enables our O-Flutes to outperform across a broad range of materials and applications without the need for different tools for Hard and Soft plastics.

**MATERIALS:**
Recommended for:
- Soft plastics
- Hard plastics
- Acrylic
- Plexiglass
- Trespa
- Solid surface
- MDF
- Aluminum
- ACM (Aluminum Composite Material)

## INCH SIZES

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| RSFO1999-U1 | 1/16" | 1/4" | 1/4" | 2" | 1 |
| RSFO2000-U1 | 1/8" | 1/2" | 1/4" | 2" | 1 |
| RSFO2001-U1 | 1/8" | 1/2" | 1/8" | 2" | 1 |
| RSFO2002-U1 | 1/8" | 3/4" | 1/8" | 2" | 1 |
| RSFO2003-U1 | 3/16" | 5/8" | 3/16" | 2" | 1 |
| RSFO2004-U1 | 3/16" | 5/8" | 1/4" | 2" | 1 |
| RSFO2005-U1 | 3/16" | 1-1/4" | 1/4" | 3" | 1 |
| RSFO2006-U1 | 1/4" | 3/4" | 1/4" | 2-1/2" | 1 |
| RSFO2007-U1 | 1/4" | 3/4" | 1/4" | 2" | 1 |
| RSFO2009-U1 | 1/4" | 1-1/2" | 1/4" | 3" | 1 |
| RSFO2015-U1 | 3/8" | 1-1/4" | 3/8" | 3" | 1 |

## METRIC SIZES

| PART NO. | CUTTING DIAM. MM | CUTTING LENGTH MM | SHANK DIAM. MM | OVERALL LENGTH MM | NO. FLUTES |
|---|---|---|---|---|---|
| RSFO3000-U1 | 2 | 8 | 6 | 50 | 1 |
| RSFO3001-U1 | 3 | 12 | 6 | 50 | 1 |
| RSFO3002-U1 | 4 | 12 | 6 | 50 | 1 |
| RSFO3004-U1 | 4 | 20 | 6 | 60 | 1 |
| RSFO3005-U1 | 5 | 12 | 6 | 60 | 1 |
| RSFO3006-U1 | 5 | 22 | 6 | 60 | 1 |
| RSFO3008-U1 | 6 | 22 | 6 | 60 | 1 |
| RSFO3012-U1 | 8 | 22 | 8 | 60 | 1 |
| RSFO3016-U1 | 8 | 38 | 8 | 80 | 1 |

# RSFO-D1 HIGH POLISH O-FLUTE ROUTER BITS
DOWNCUT, Z=1

**APPLICATION:**
- For exceptionally smooth finishing cuts
- Optimized for soft and hard plastics
- Ideal for cutting materials that have a tendancy to build-up on the tool or rewelded to the material
- Downward cutting action provides excellent chip finish along the top of materials
- Helps reduces part movement but increases risk of rewelding chips and build up of debris

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| RSFO2006-D1 | 1/4" | 3/4" | 1/4" | 2-1/2" | 1 |

*Other sizes available upon request

# RSF04-U1

## O-FLUTES OPTIMIZED FOR ALUMINUM
UPCUT, Z=1

TYPE:
***UNCOATED***

TYPE:
***DLC** COATED*

With it's prepared edge and highly polished flute, rake face, and primary land - the RSF04's optimized **Power Edge**™ provides enhanced finish and durability when cutting aluminum materials.

### MATERIALS:
Recommended and optimized for:
» Aluminium
» ACM (Aluminium Composite Material)
» Solid surface

**DLC**

**DIAMOND-LIKE CARBON DLC**
AMORPHOUS CARBON TOOL COATING

| | |
|---|---|
| COATING THICKNESS (MICRONS) | 1 µm |
| ADHESION TO CUTTING EDGE (O-FLUTE RSF04 SERIES) | |
| COATING HARDNESS (GPa) | 25 |
| COATING COEFFICIENT OF FRICTION | 0.15 |
| RESISTANCE TO BUILD-UP | |

Favorable
Less More

### DESIGN:
» **Power Edge**™ cutting point for optimal cutting of aluminum
» Single flute high polish, precision ground cutting edge
» Outstanding surface finish is produced by the precision ground cutting edge
» Superior chipflow and lower heat retention is provided by the highly polished flute and primary land (back of cutting edge)
» Submicron, corrosion resistant, extended life carbide provides increased durability
» 25° helix design with bottom cutting capability

### APPLICATION:
» For exceptionally smooth finishing cuts
» Ideal for cutting aluminum materials that build-up on the tool or reweld to the material
» Upward cutting action provides excellent chip ejection from the tool path

| | PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| | RSF0400A-U1 | 1/8" | 5/16" | 1/4" | 1-1/2" | 1 |
| DLC | RSF0400ADLC-U1 | 1/8" | 5/16" | 1/4" | 1-1/2" | 1 |
| | RSF0400B-U1 | 1/8" | 1/2" | 1/4" | 1-1/2" | 1 |
| DLC | RSF0400BDLC-U1 | 1/8" | 1/2" | 1/4" | 1-1/2" | 1 |
| | RSF04000-U1 | 1/8" | 1/2" | 1/4" | 2" | 1 |
| DLC | RSF04000DLC-U1 | 1/8" | 1/2" | 1/4" | 2" | 1 |
| | RSF04002-U1 | 3/16" | 1/2" | 3/16" | 2" | 1 |
| DLC | RSF04002DLC-U1 | 3/16" | 1/2" | 3/16" | 2" | 1 |
| | RSF04003-U1 | 3/16" | 1/2" | 1/4" | 2" | 1 |
| DLC | RSF04003DLC-U1 | 3/16" | 1/2" | 1/4" | 2" | 1 |
| | RSF04004-U1 | 3/16" | 5/8" | 1/4" | 2" | 1 |
| DLC | RSF04004DLC-U1 | 3/16" | 5/8" | 1/4" | 2" | 1 |
| | RSF04005-U1 | 3/16" | 1-1/4" | 1/4" | 3" | 1 |
| DLC | RSF04005DLC-U1 | 3/16" | 1-1/4" | 1/4" | 3" | 1 |
| | RSF04006-U1 | 1/4" | 5/8" | 1/4" | 2" | 1 |
| DLC | RSF04006DLC-U1 | 1/4" | 5/8" | 1/4" | 2" | 1 |
| | RSF04007-U1 | 1/4" | 3/4" | 1/4" | 2" | 1 |
| DLC | RSF04007DLC-U1 | 1/4" | 3/4" | 1/4" | 2" | 1 |
| | RSF04009-U1 | 1/4" | 1-1/2" | 1/4" | 3" | 1 |
| DLC | RSF04009DLC-U1 | 1/4" | 1-1/2" | 1/4" | 3" | 1 |

# RSF04-D1

## O-FLUTES OPTIMIZED FOR ALUMINUM
DOWNCUT, Z=1

### APPLICATION:
» For exceptionally smooth finishing cuts
» Ideal for cutting aluminum materials that build-up on the tool or reweld to the material
» Downward cutting action provides excellent chip finish along the top of materials
» Helps reduces part movement but increases risk of rewelding chips and build up of debris

| | PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|---|
| | RSF04000-D1 | 1/8" | 1/2" | 1/4" | 2" | 1 |
| DLC | RSF04000DLC-D1 | 1/8" | 1/2" | 1/4" | 2" | 1 |
| | RSF04004-D1 | 3/16" | 5/8" | 1/4" | 2" | 1 |
| DLC | RSF04004DLC-D1 | 3/16" | 5/8" | 1/4" | 2" | 1 |

*Other sizes available upon request

# RSCP-U3 ROUGHING FOR PHENOLIC/COMPOSITE
UPCUT, Z=3

## DESIGN:
» 3 precision ground cutting edges
» Special chipbreakers for phenolic reduce cutting pressure and noise levels
» Excellent chipflow and lower heat retention is achieved by the semi-polished flutes
» Submicron, corrosion resistant, extended life carbide provides increased durability
» 10° helix design with bottom cutting capability

## APPLICATION:
» Improved cutting edge life and feed speeds when sizing/rough cutting phenolic
» Chipbreakers specifically designed to provide increased tool life, and lower noise levels when cutting phenolic
» Reduced run-out in parting cuts as 2 cutting edges are engaged at all times
» Ideal for robust spindles as more power is required to drive 3 cutting edges
» 3 cutting edges provide faster feed rates at low spindle speeds
» Eliminates chipping, fuzzing, and tear-out along the bottom surface of the panel
» Upward cutting action provides good chip ejection from the tool path

## MATERIALS:
Recommended and optimized for:
» Phenolic

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| RSCP2108-U3 | 1/4" | 5/8" | 1/4" | 2-1/2" | 3 |
| RSCP2118-U3 | 3/8" | 7/8" | 3/8" | 3" | 3 |
| RSCP2121-U3 | 1/2" | 7/8" | 1/2" | 3" | 3 |
| RSCP2122-U3 | 1/2" | 1-1/4" | 1/2" | 3" | 3 |
| RSCP2131-U3 | 1/2" | 2-1/8" | 1/2" | 4-1/2" | 3 |

# RSCP-D3 ROUGHING FOR PHENOLIC/COMPOSITE
DOWNCUT, Z=3

## DESIGN:
» 3 precision ground cutting edges
» Special chipbreakers for phenolic reduce cutting pressure and noise levels
» Excellent chipflow and lower heat retention is achieved by the semi-polished flutes
» Submicron, corrosion resistant, extended life carbide provides increased durability
» 10° helix design with bottom cutting capability

## APPLICATION:
» Improved cutting edge life and feed speeds when sizing/rough cutting phenolic
» Chipbreakers specifically designed to provide increased tool life, and lower noise levels when cutting phenolic
» Reduced run-out in parting cuts as 2 cutting edges are engaged at all times
» Ideal for robust spindles as more power is required to drive 3 cutting edges
» 3 cutting edges provide faster feed rates at low spindle speeds
» Eliminates chipping, fuzzing, and tear-out along the top surface of the panel
» Downward cutting action helps hold down material and reduces the likelihood of part movement

## MATERIALS
Recommended and optimized for:
» Phenolic

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| RSCP2108-D3 | 1/4" | 5/8" | 1/4" | 2-1/2" | 3 |
| RSCP2118-D3 | 3/8" | 7/8" | 3/8" | 3" | 3 |
| RSCP2121-D3 | 1/2" | 7/8" | 1/2" | 3" | 3 |
| RSCP2122-D3 | 1/2" | 1-1/4" | 1/2" | 3-1/2" | 3 |
| RSCP2131-D3 | 1/2" | 2-1/8" | 1/2" | 4-1/2" | 3 |

# RSF-S1 FINISHING STRAIGHT
Z=1

## DESIGN:
» 1 precision ground cutting edge
» Good chipflow and lower heat retention is achieved by the single flute design at low speeds
» Straight edge with bottom cutting capability

## APPLICATION:
» For exceptionally smooth finishing cuts
» Excellent for glue-line cuts on solid surface and unlaminated composite materials

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| **R1000** | 1/8" | 3/8" | 1/4" | 1-1/2" | 1 |
| **R1008** | 7/32" | 3/4" | 1/4" | 2" | 1 |

## MATERIALS:
Recommended for:
» MDF
» Solid surface
» Hardwoods
» Softwoods

# RSF-S2 FINISHING STRAIGHT
Z=2

## DESIGN:
» 2 precision ground cutting edges
» Good chipflow and lower heat retention is achieved by the 2 flute design at moderate feed rates
» Straight edge with bottom cutting capability

## APPLICATION:
» For smooth finishing cuts
» Excellent for glue-line cuts on solid surface and unlaminated composite materials

| PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | OVERALL LENGTH | NO. FLUTES |
|---|---|---|---|---|---|
| **R1100** | 1/8" | 3/8" | 1/4" | 1-1/2" | 2 |
| **R1104** | 5/32" | 5/8" | 1/4" | 1-1/2" | 2 |
| **R1106** | 3/16" | 5/8" | 1/4" | 2" | 2 |
| **R1108** | 7/32" | 3/4" | 1/4" | 2" | 2 |
| **R1110** | 1/4" | 3/4" | 1/4" | 2" | 2 |
| **R1112** | 1/4" | 1" | 1/4" | 2-1/2" | 2 |
| **R1304** | 1/4" | 3/4" | 1/2" | 3" | 2 |
| **R1306** | 1/4" | 1" | 1/2" | 3" | 2 |
| **R1308** | 5/16" | 1" | 1/2" | 3" | 2 |
| **R1302** | 3/8" | 1" | 3/8" | 3" | 2 |
| **R1310** | 1/2" | 1-1/4" | 1/2" | 3" | 2 |

## MATERIALS:
Recommended for:
» MDF
» Solid surface
» Hardwoods
» Softwoods

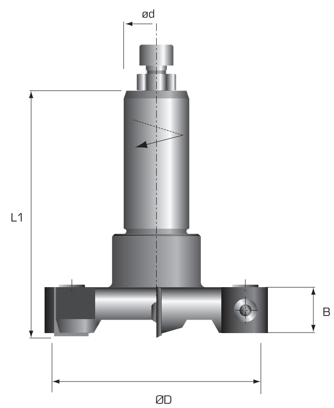
# RD2562 SURFACING INSERT ROUTER BIT
0° SHEAR

## DESIGN:
- » High tensile steel body
- » 0° shear provides smooth cutting on MDF
- » Reversible tungsten carbide inserts with 4 cutting edges

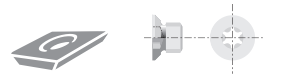
## APPLICATION:
- » MDF Spoilboard cutter for preparing nesting tables
- » For surface cutting in workpieces with large areas
- » For producing large rabbeting cuts with a single pass

| PART NO. | CUTTING DIAM. ØD MM | SHEAR ANGLE | CUTTING LENGTH B MM | SHANK DIAM. ød | OVERALL LENGTH L1 MM | MAX. RPM | NO. TEETH |
|---|---|---|---|---|---|---|---|
| **RD2562** | 80 | 0° | 14 | 1/2" | 90 | 14000 | 3 |
| **RD2565** | 100 | 0° | 14 | 3/4" | 90 | 12000 | 3 |

Other sizes available upon request




## REPLACEMENT PARTS



| DESCRIPTION | KNIFE | SCREW FOR KNIFE | WRENCH |
|---|---|---|---|
| **PART NO.** | **301404** | **W500002** | **W400405** |
| DIMENSIONS | 14x14x2.0 | M5x7 | T15 Torx |

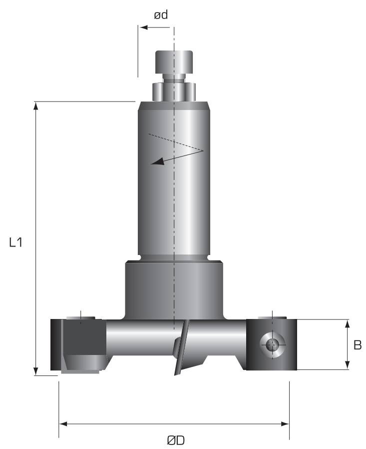
# RD2560 SURFACING INSERT ROUTER BIT
10° SHEAR

## DESIGN:
- » High tensile steel body
- » 10° shear provides smooth cutting on a variety of materials including solid wood
- » Reversible tungsten carbide inserts with 4 cutting edges

## APPLICATION:
- » MDF Spoilboard cutter for preparing nesting tables
- » For surface cutting in workpieces with large areas
- » For producing large rabbeting cuts with a single pass

| PART NO. | CUTTING DIAM. ØD | SHEAR ANGLE | CUTTING LENGTH B MM | SHANK DIAM. ød | OVERALL LENGTH L1 MM | MAX. RPM | NO. TEETH |
|---|---|---|---|---|---|---|---|
| **RD2560** | 80mm | 10° | 12 | 3/4" | 90 | 14000 | 3 |
| **RD2567** | 4-1/2" | 10° | 12 | 3/4" | 90 | 10000 | 4 |

Other sizes available upon request




## REPLACEMENT PARTS

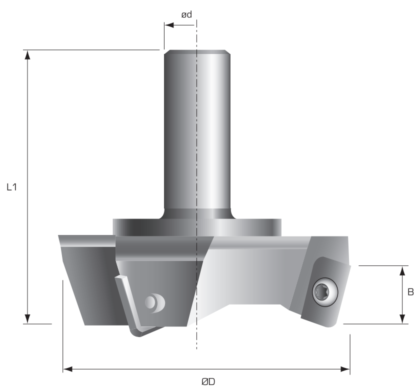
| DESCRIPTION | KNIFE | SCREW FOR KNIFE | WRENCH |
|---|---|---|---|
| **PART NO.** | **301200** | **WM350-PL** | **W400405** |
| DIMENSIONS | 12x12x1.5 | M3.5x6 | T15 Torx |

# RD2570 SURFACING INSERT ROUTER BIT
## 5° SHEAR WITH RADIUS CORNERS

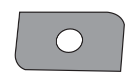
**DESIGN:**
- High tensile steel body
- Radius on cutting edges provides blending for smoothest surface finish
- 5° shear provides smooth cutting on a variety of materials including solid wood
- Reversible tungsten carbide insert with 2 cutting edges

**APPLICATION:**
- MDF Spoilboard cutter for preparing nesting tables
- Ideal for high speed processing of nesting tables
- For surface cutting in workpieces with large areas
- Improves surface finish on spindles that are not in optimal condition

| PART NO. | CUTTING DIAM. ØD MM | SHEAR ANGLE | CUTTING LENGTH B MM | SHANK DIAM. ød | OVERALL LENGTH L1 MM | MAX. RPM | NO. TEETH |
|---|---|---|---|---|---|---|---|
| **RD2570** | 90 | 5° | 19 | 3/4" | 82 | 12000 | 3 |




## REPLACEMENT PARTS




| DESCRIPTION | KNIFE | SCREW FOR KNIFE | WRENCH |
|---|---|---|---|
| **PART NO.** | **RD2570A** | **WM350-P** | **W400405** |
| DIMENSIONS | 19x12x1.5 | M3.5x7.5 | T15 Torx |

**DESIGN:**
- High tensile steel body
- 1 straight reversible tungsten carbide insert with 4 cutting edges

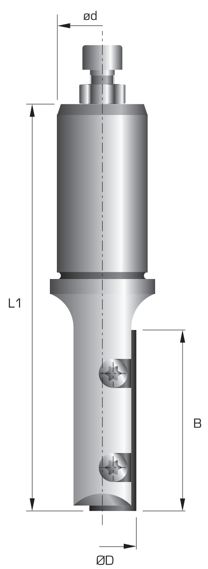
**APPLICATION:**
- For jointing, rabbeting, and grooving in solid wood and panel materials
- Suitable for ramp-in plunge cuts using Z and X or Y axis
- On stationary and CNC routers

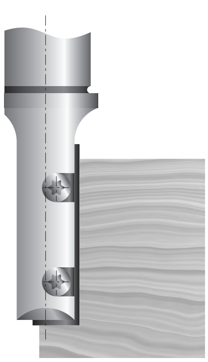
| PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH B MM | SHANK DIAM. ød | OVERALL LENGTH L1 | MAX. RPM | NO. FLUTES |
|---|---|---|---|---|---|---|
| **RD2167** | 1/2" | 30 | 1/2" | 3-1/8" | 24000 | 1 |
| **RD2177** | 5/8" | 30 | 5/8" | 3-1/8" | 24000 | 1 |
| **RD2180** | 5/8" | 50 | 5/8" | 4-3/4" | 20000 | 1 |
| **RD2185** | 3/4" | 30 | 3/4" | 3-1/8" | 24000 | 1 |
| **RD2187** | 3/4" | 50 | 3/4" | 4-3/4" | 20000 | 1 |

Other sizes available upon request

## REPLACEMENT PARTS

| TOOL NO. | DESCRIPTION | KNIFE | GIB | SCREW FOR KNIFE | WRENCH |
|---|---|---|---|---|---|
| **RD2167** | **PART NO.** | **303011S** | **W300803** | **W501314** | **W40000A** |
| | DIMENSIONS | 30x5.5x1.1 | 28x5x2 | M3x4 | 1.5 Hex |
| **RD2177** | **PART NO.** | **303009** | – | **WM350-PL** | **W400405** |
| | DIMENSIONS | 30x9x1.5 | | M3.5x6 | T15 Torx |
| **RD2180** | **PART NO.** | **305022** | – | **WM350-PL** | **W400405** |
| | DIMENSIONS | 50x12x1.5 | | M3.5x6 | T15 Torx |
| **RD2185** | **PART NO.** | **303022** | – | **WM350-PL** | **W400405** |
| | DIMENSIONS | 30x12x1.5 | | M3.5x6 | T15 Torx |
| **RD2187** | **PART NO.** | **305022** | – | **WM350-PL** | **W400405** |
| | DIMENSIONS | 50x12x1.5 | | M3.5x6 | T15 Torx |



## DESIGN:

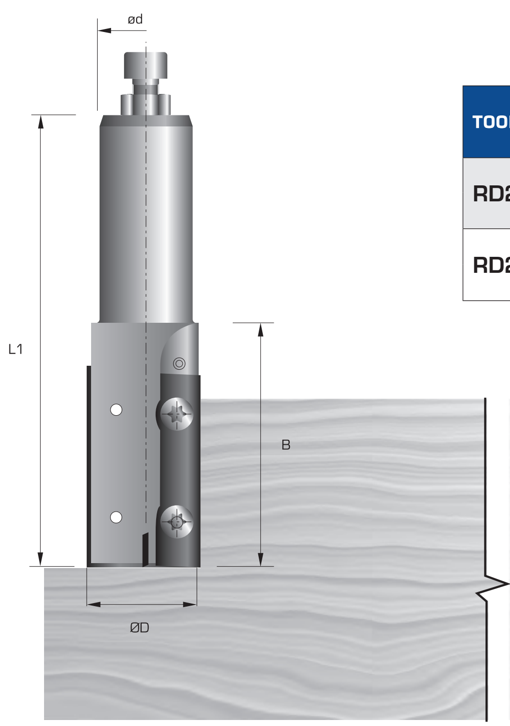
- High tensile steel body
- 2 straight and 1 plunge reversible tungsten carbide insert

## APPLICATION:

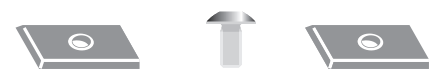
- For jointing, rabbeting, and grooving in solid wood and panel materials
- Suitable for ramp-in plunge cuts
- On stationary and CNC routers

| PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH B MM | SHANK DIAM. ød | OVERALL LENGTH L1 | MAX. RPM | NO. FLUTES |
|---|---|---|---|---|---|---|
| RD2520 | 1" | 30 | 3/4" | 3-1/2" | 20000 | 2+1 |
| RD2522 | 1-3/8" | 30 | 3/4" | 3-1/2" | 20000 | 2+1 |

Other sizes available upon request




## REPLACEMENT PARTS



| TOOL NO. | DESCRIPTION | KNIFE | SCREW FOR KNIFE | PLUNGE KNIFE | SCREW FOR PLUNGE TIP |
|---|---|---|---|---|---|
| RD2520 | PART NO. | 303009 | WM356 | 302415 | W500406 |
| | DIMENSIONS | 30x9x1.5 | M3.5X6 | 24x10x1.5 | M4X6 |
| RD2522 | PART NO. | 303022 | WM356 | 303315 | W500406 |
| | DIMENSIONS | 30x12x1.5 | M3.5X6 | 33.6x10x1.5 | M4X6 |

## WRENCHES

| DESCRIPTION | WRENCH FOR KNIFE | WRENCH FOR PLUNGE KNIFE |
|---|---|---|
| PART NO. | W400405 | W400101 |
| DIMENSIONS | T15 Torx | 2.5 Hex |

## DESIGN:

- High tensile steel body
- Compression shear provided by 1+1 reversible tungsten carbide inserts
- 1 plunge reversible tungsten carbide insert

## APPLICATION:

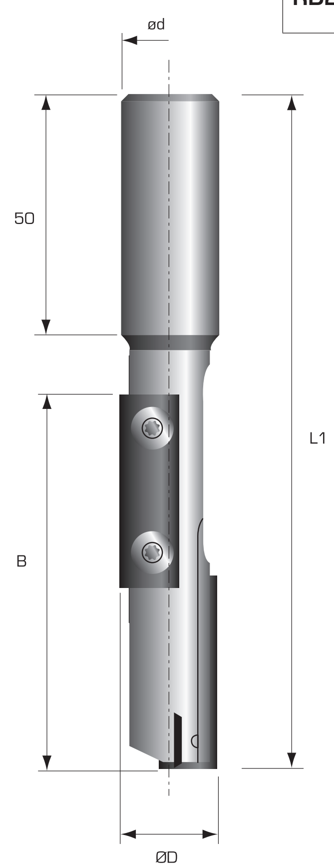
- For machining double sided laminated panels, solid wood, and wood composites
- Suitable for straight down plunge cuts and ramp-in plunge cuts
- On stationary and CNC routers

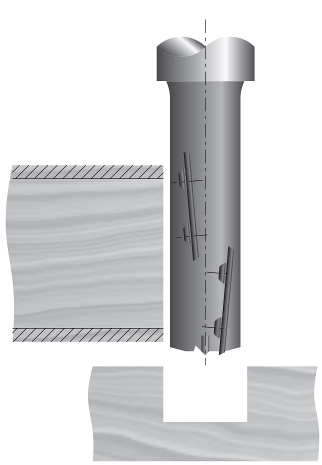
| PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH B MM | SHANK DIAM. ød | OVERALL LENGTH L1 MM | MAX. RPM | NO. FLUTES |
|---|---|---|---|---|---|---|
| **RD2535** | 3/4" | 58 | 3/4" | 120 | 20000 | 1+1+1 |
| **RD2537** | 3/4" | 78 | 3/4" | 140 | 20000 | 1+1+1 |

Other sizes available upon request

## REPLACEMENT PARTS

| TOOL NO. | DESCRIPTION | TOP KNIFE | BOTTOM KNIFE | PLUNGE KNIFE | SCREW FOR KNIFE & PLUNGE | WRENCH |
|---|---|---|---|---|---|---|
| **RD2535** | **PART NO.** | **303000** | **303022** | **300960** | **WM356** | **W400405** |
| | DIMENSIONS | 30x12x1.5 | 30x12x1.5 | 9.6x12x1.5 | M3.5X6 | T15 Torx |
| **RD2537** | **PART NO.** | **304000** | **304022** | **300960** | **WM356** | **W400405** |
| | DIMENSIONS | 40x12x1.5 | 40x12x1.5 | 9.6x12x1.5 | M3.5X6 | T15 Torx |



## DESIGN:

» High tensile steel body
» 2+2 reversible tungsten carbide inserts in opposing shear angle and 1 brazed carbide plunge point

## APPLICATION:

» For machining double sided laminated panels, solid wood, and wood composites
» Suitable for ramp-in plunge cuts
» On stationary and CNC routers

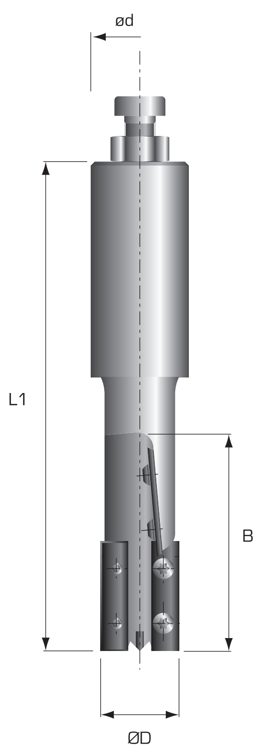
| PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH B MM | SHANK DIAM. ød MM | OVERALL LENGTH L1 MM | ROTATION | MAX. RPM | NO. FLUTES |
|---|---|---|---|---|---|---|---|
| **RD2530** | 20 | 53 | 20 | 125 | Right Hand | 20000 | 2+2+1 |
| **RD2532** | 20 | 53 | 20 | 125 | Left Hand | 20000 | 2+2+1 |

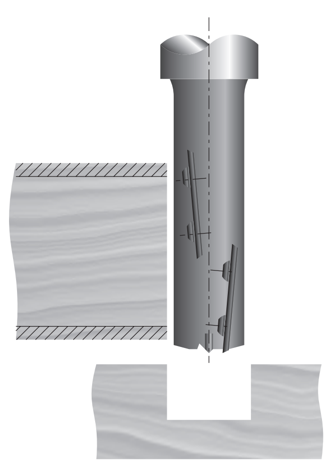
Other sizes available upon request

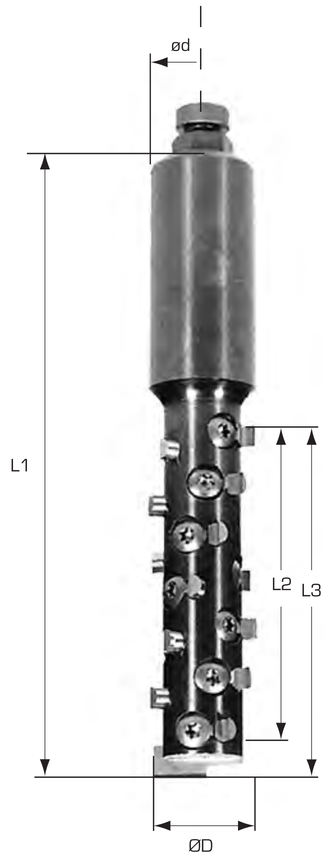
Supplied with brazed plunge point

## REPLACEMENT PARTS

| DESCRIPTION | KNIFE | SCREW FOR KNIFE | WRENCH |
|---|---|---|---|
| **PART NO.** | **302810** | **W502331** | **W400401** |
| DIMENSIONS | 28x7x1.5 | M3x4 | T9 Torx |






## DESIGN:

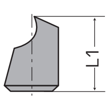
- » High tensile steel body
- » 3 wings of solid tungsten carbide cutting pins
- » 1 tungsten carbide plunge point insert
- » Standard version with straight cutting pins, optional with shear angle cutting pins, upshear or downshear can be inserted at any height
- » High quality of cut achieved by helically positioned cutting pins
- » Fast exchange of cutting pins without adjustment through the patented pin clamping system

## APPLICATION:

- » For shaping, panel sizing, rabbeting, and nesting applications
- » Ideal for solid wood and panel materials
- » Suitable for straight or ramp-in plunge cuts
- » On stationary and CNC routers

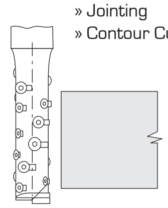
| PART NO. | DIAM. ØD | CUTTING LENGTH L2 MM | CUTTING LENGTH L3 MM | SHANK DIAM. ød | OVERALL LENGTH L1 MM | MAX. RPM | NO. PINS | NO. OF WINGS |
|---|---|---|---|---|---|---|---|---|
| **RD2540** | 16mm | 42 | 48 | 14mm | 110 | 24000 | 27 | 3 |
| **RD2542** | 16mm | 56 | 62 | 14mm | 125 | 24000 | 36 | 3 |
| **RD2543** | 3/4" | 42 | 48 | 3/4" | 105 | 24000 | 27 | 3 |
| **RD2544** | 3/4" | 56 | 62 | 3/4" | 119 | 24000 | 36 | 3 |

Other sizes available upon request

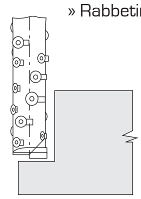



Interchangeable
Solid Carbide Cutting Pins

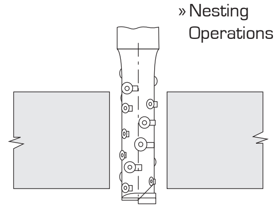
L1 = 5.5 mm



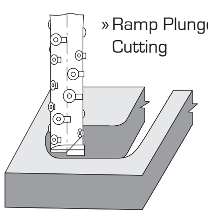
» Jointing
» Contour Cutting



» Rabbeting



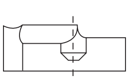
» Nesting
Operations



» Ramp Plunge
Cutting

## REPLACEMENT PARTS



| TOOL NO. | DESCRIPTION | STRAIGHT PIN | DOWNSHEAR PIN | UPSHEAR PIN | PLUNGING INSERT KNIFE | SCREW FOR PIN | SCREW FOR PLUNGE INSERT | WRENCH |
|---|---|---|---|---|---|---|---|---|
| **RD2540 RD2542** | **PART NO.** | **RD2540S** | **RD2540D** | **RD2540U** | **RD2540P** | **WM355** | **WM380** | **W400401** |
| | DIMENSIONS | 5.5mm | 5.5mm | 5.5mm | 14mm | M3x5.5 | M3x8 | T9 Torx |
| **RD2543 RD2544** | **PART NO.** | **RD2540S** | **RD2540D** | **RD2540U** | **RD2544P** | **WM355** | **WM380** | **W400401** |
| | DIMENSIONS | 5.5mm | 5.5mm | 5.5mm | 17mm | M3x5.5 | M3x8 | T9 Torx |

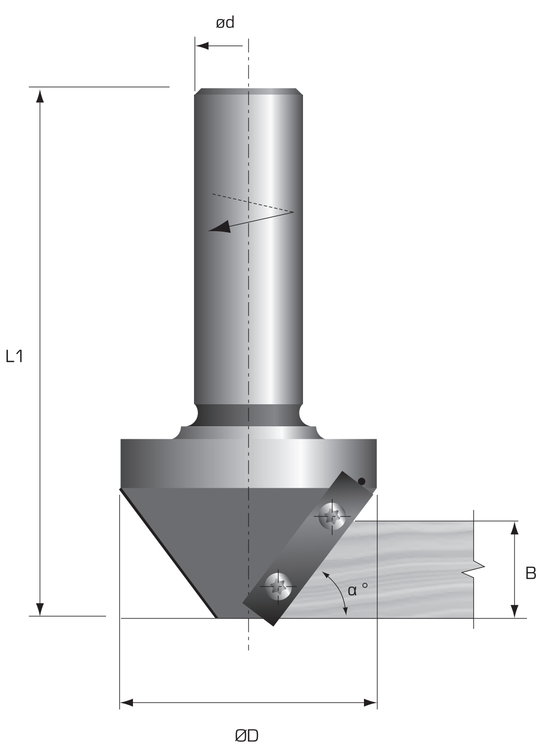
## DESIGN:

- High tensile steel body
- 2 reversible tungsten carbide insert knives
- Tool body with positioning pins for easy and accurate replacement of inserts

## APPLICATION:

- For beveling or chamfering solid wood and panel materials
- On stationary and CNC routers

| PART NO. | ANGLE OF CUT α° | CUTTING DIAM. ØD MM | CUTTING DEPTH B MM | SHANK DIAM. ød | OVERALL LENGTH L1 MM | MAX. RPM | NO. TEETH |
|---|---|---|---|---|---|---|---|
| **RD2590** | 60° | 60 | 23 | 3/4" | 95 | 18000 | 2 |
| **RD2592** | 45° | 60 | 19 | 3/4" | 95 | 18000 | 2 |
| **RD2594** | 30° | 70 | 13 | 3/4" | 90 | 18000 | 2 |
| **RD2595** | 60° | 70 | 40 | 3/4" | 115 | 14000 | 2 |
| **RD2596** | 45° | 90 | 33 | 3/4" | 110 | 14000 | 2 |
| **RD2598** | 30° | 100 | 23 | 3/4" | 100 | 12000 | 2 |




## REPLACEMENT PARTS

| TOOL NO. | DESCRIPTION | KNIFE | SCREW FOR KNIFE | WRENCH |
|---|---|---|---|---|
| **RD2590 RD2592 RD2594** | PART NO. | **303000** | **WM350-PL** | **W400405** |
| | DIMENSIONS | 30x12x1.5 | M3.5x6 | T15 Torx |
| **RD2595 RD2596 RD2598** | PART NO. | **305000** | **WM350-PL** | **W400405** |
| | DIMENSIONS | 50x12x1.5 | M3.5x6 | T15 Torx |

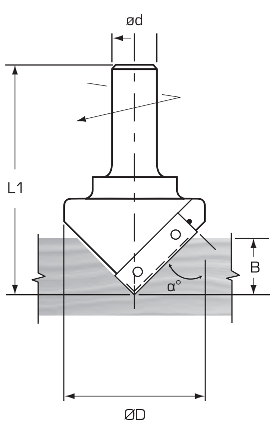
## DESIGN:

- High tensile steel body with no shear
- Precise center point on bottom

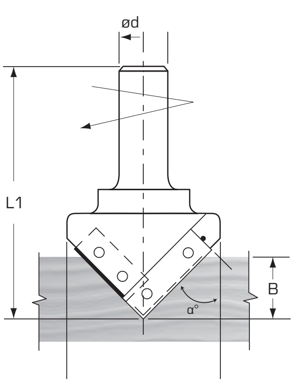
## APPLICATION:

- For chamfering, bevels, decorative grooving, and mitre folds in solid wood and panel materials
- For Glue Folds, a 44.5° angle of cut (91° included angle) is recommended to allow for the addition of glue
- Suitable for ramp-in plunge cuts or side entry
- On stationary and CNC routers

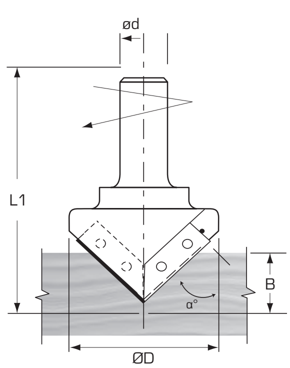
**WING CONFIGURATION:** Z = 1




**WING CONFIGURATION:** Z = 1+1

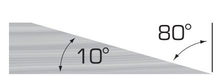



**WING CONFIGURATION:** Z = 2

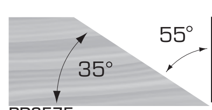



| PART NO. | ANGLE OF CUT α° | CUTTING DIAM. ØD | CUTTING DEPTH B | SHANK DIAM. ød | OVERALL LENGTH L1 | MAX. RPM | NO. TEETH Z |
|---|---|---|---|---|---|---|---|
| **RD2571A** | 22.5° | 13/16" | 1" | 1/2" | 2-3/8" | 18000 | 1 |
| **RD2571B** | 25° | 7/8" | 31/32" | 1/2" | 2-9/16" | 18000 | 1 |
| **RD2571** | 30° | 1" | 15/16" | 1/2" | 2-3/8" | 18000 | 1 |
| **RD2572** | 35° | 1-1/4" | 7/8" | 1/2" | 2-9/16" | 18000 | 1 |
| **RD2573** | 45.5° | 1-1/2" | 3/4" | 1/2" | 3" | 18000 | 1 |
| **RD2574** | 50° | 1-5/8" | 11/16" | 1/2" | 3-1/4" | 18000 | 1 |
| **RD2575** | 55° | 1-3/4" | 5/8" | 1/2" | 3-1/4" | 18000 | 1 |
| **RD2576** | 60° | 2-1/32" | 19/32" | 1/2" | 3" | 18000 | 2 |
| **RD2577** | 65° | 2-1/8" | 1/2" | 1/2" | 3" | 18000 | 2 |
| **RD2578** | 75° | 2-1/4" | 19/64" | 1/2" | 2-15/16" | 18000 | 2 |
| **RD2579** | 80° | 2-5/16" | 3/16" | 1/2" | 2-3/4" | 18000 | 2 |
| **RD2580** | 45° | 48mm | 18mm | 3/4" | 95mm | 18000 | 1+1 |
| **RD2582** | 45° | 60mm | 25mm | 3/4" | 100mm | 18000 | 1+1 |
| **RD2584** | 45° | 75mm | 32mm | 3/4" | 110mm | 14000 | 1+1 |
| **RD2585** | 30° | 52.6mm | 44.6mm | 20mm | 111mm | 18000 | 1 |
| **RD2586A** | 45° | 66mm | 33mm | 20mm | 97mm | 18000 | 1 |
| **RD2586** | 45.5° | 67mm | 33mm | 20mm | 97mm | 18000 | 1 |
| **RD2587** | 60° | 86.6mm | 25mm | 20mm | 97.5mm | 18000 | 2 |
| **RD2588** | 65° | 90.6mm | 20.8mm | 20mm | 98mm | 18000 | 2 |
| **RD2589** | 75° | 96.6mm | 13mm | 20mm | 90.3mm | 18000 | 2 |

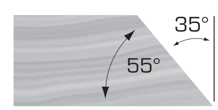
**ANGLE OF CUT α°**



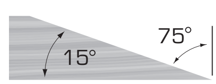

RD2579



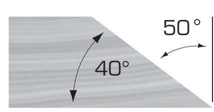

RD2575



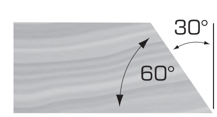

RD2572



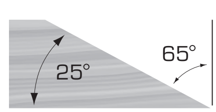

RD2578, RD2589



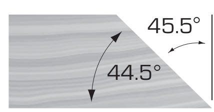

RD2574



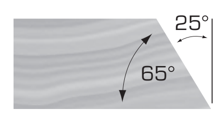

RD2571, RD2585



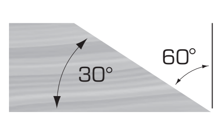

RD2577, RD2588



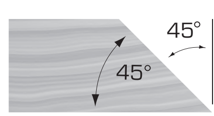

RD2573, RD2586



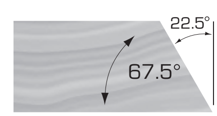

RD2571B




RD2576, RD2587




RD2580, RD2582, RD2584, RD2586A




RD2571A

## REPLACEMENT PARTS

| TOOL NO. | ANGLE OF CUT α° | DESCRIPTION | KNIFE | KNIFE | SCREW FOR KNIFE | WRENCH |
|---|---|---|---|---|---|---|
| RD2571A | 22.5° | PART NO. | 302709V | – | WM350 | W400405 |
| | | DIMENSIONS | 27X9X1.5 | | M3.5X6 | T15 |
| RD2571B | 25° | PART NO. | 302709V | – | WM350 | W400405 |
| | | DIMENSIONS | 27X9X1.5 | | M3.5X6 | T15 |
| RD2571 | 30° | PART NO. | 302709V | – | WM350 | W400405 |
| | | DIMENSIONS | 27X9X1.5 | | M3.5X6 | T15 |
| RD2572 | 35° | PART NO. | 302709V | – | WM350 | W400405 |
| | | DIMENSIONS | 27X9X1.5 | | M3.5X6 | T15 |
| RD2573 | 45.5° | PART NO. | 302812V | – | WM350 | W400405 |
| | | DIMENSIONS | 28X12X1.5 | | M3.5X6 | T15 |
| RD2574 | 50° | PART NO. | 302812V | – | WM350 | W400405 |
| | | DIMENSIONS | 28X12X1.5 | | M3.5X6 | T15 |
| RD2575 | 55° | PART NO. | 302812V | – | WM350 | W400405 |
| | | DIMENSIONS | 28X12X1.5 | | M3.5X6 | T15 |
| RD2576 | 60° | PART NO. | 303012V | 303012V | WM407 | W400405 |
| | | DIMENSIONS | 29.8X12X1.5 | 29.8X12X1.5 | M4X8 ★ | T15 |
| RD2577 | 65° | PART NO. | 303012V | 303012V | WM407 | W400405 |
| | | DIMENSIONS | 29.8X12X1.5 | 29.8X12X1.5 | M4X8 ★ | T15 |
| RD2578 | 75° | PART NO. | 303112V | 303112V | WM408 | W400405 |
| | | DIMENSIONS | 29.8X12X1.5 | 29.8X12X1.5 | M4X8 ■ | T15 |
| RD2579 | 80° | PART NO. | 303112V | 303112V | WM408 | W400405 |
| | | DIMENSIONS | 29.8X12X1.5 | 29.8X12X1.5 | M4X8 ■ | T15 |
| RD2580 | 45° | PART NO. | 302000 | 303023 | WM350-PL | W400405 |
| | | DIMENSIONS | 20X12X1.5 | 30X12X1.5 | M3.5X6 | T15 |
| RD2582 | 45° | PART NO. | 303000 | 304023 | WM350-PL | W400405 |
| | | DIMENSIONS | 30X12X1.5 | 40X12X1.5 | M3.5X6 | T15 |
| RD2584 | 45° | PART NO. | 304000 | 305023 | WM350-PL | W400405 |
| | | DIMENSIONS | 40X12X1.5 | 50X12X1.5 | M3.5X6 | T15 |
| RD2585 | 30° | PART NO. | 306012V | – | WM409 | W400405 |
| | | DIMENSIONS | 59.7X12x1.5 | | M4X8 ● | T15 |
| RD2586A | 45° | PART NO. | 304812V | – | WM409 | W400405 |
| | | DIMENSIONS | 48x12x1.5 | | M4X8 ● | T15 |
| RD2586 | 45.5° | PART NO. | 304812V | – | WM409 | W400405 |
| | | DIMENSIONS | 48x12x1.5 | | M4X8 ● | T15 |
| RD2587 | 60° | PART NO. | 305012V | 305012V | WM408 | W400405 |
| | | DIMENSIONS | 50x12x1.5 | 50x12x1.5 | M4X8 ■ | T15 |
| RD2588 | 60° | PART NO. | 305012V | 305012V | WM408 | W400405 |
| | | DIMENSIONS | 50x12x1.5 | 50x12x1.5 | M4X8 ■ | T15 |
| RD2589 | 75° | PART NO. | 305012V | 305012V | WM408 | W400405 |
| | | DIMENSIONS | 50x12x1.5 | 50x12x1.5 | M4X8 ■ | T15 |

★ Head Diameter - 7.0mm
■ Head Diameter - 8.0mm
● Head Diameter - 9.0mm

## DESIGN:

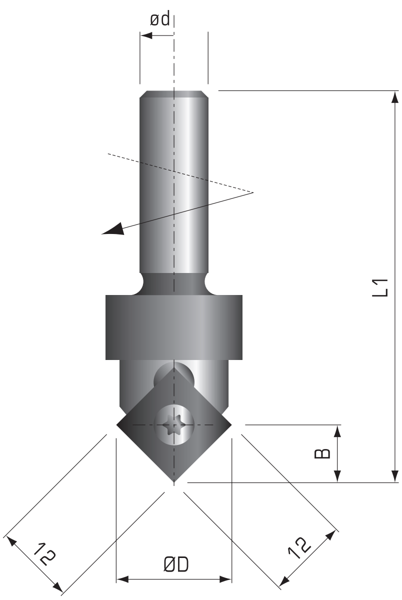
- High tensile steel body with 1 insert knife
- Tungsten carbide insert knife
- Tool body supplied with square insert for profile A. For other profiles, knives ordered separately (refer to chart at the bottom of this page)

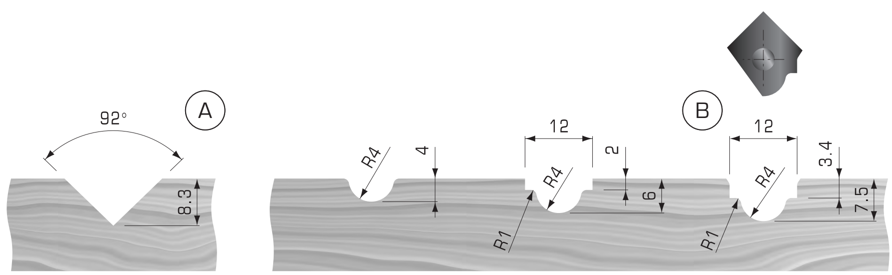
## APPLICATION:

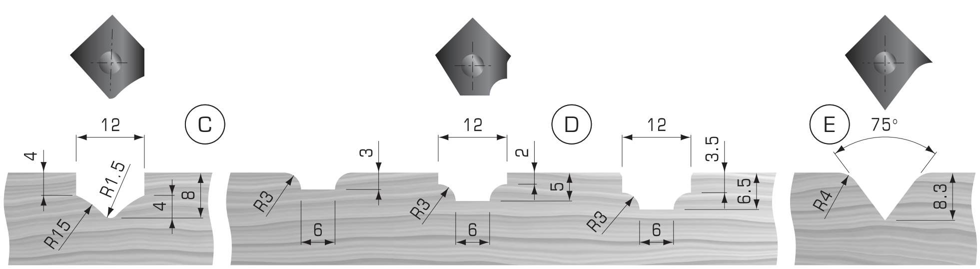
- For decorative routing in solid wood and panel materials
- On stationary and CNC routers

| PART NO. | CUTTING DIAM. ØD MM | CUTTING DEPTH B MM | SHANK DIAM. ød | OVERALL LENGTH L1 MM | MAX. RPM | NO. TEETH |
|---|---|---|---|---|---|---|
| **RD2600** | 17 | 8.5 | 1/2" | 58 | 20000 | 1 |

Other profiles available upon request




## REPLACEMENT PARTS

| TOOL NO. | DESCRIPTION | KNIFE A | KNIFE B | KNIFE C | KNIFE D | KNIFE E | SCREW FOR KNIFE | WRENCH |
|---|---|---|---|---|---|---|---|---|
| **RD2600** | **PART NO.** | **301200** | **RD2600B** | **RD2600C** | **RD2600D** | **RD2600E** | **WM350** | **W400405** |
| | DIMENSIONS | 12x12x1.5 | 12x12x1.5 | 12x12x1.5 | 12x12x1.5 | 12x12x1.5 | M3.5x4.8 | T15 Torx |

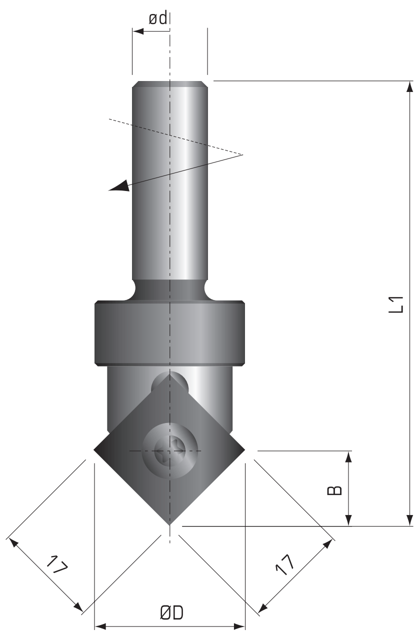
# RD2610 INSERT ROUTER BIT
MULTI PROFILE

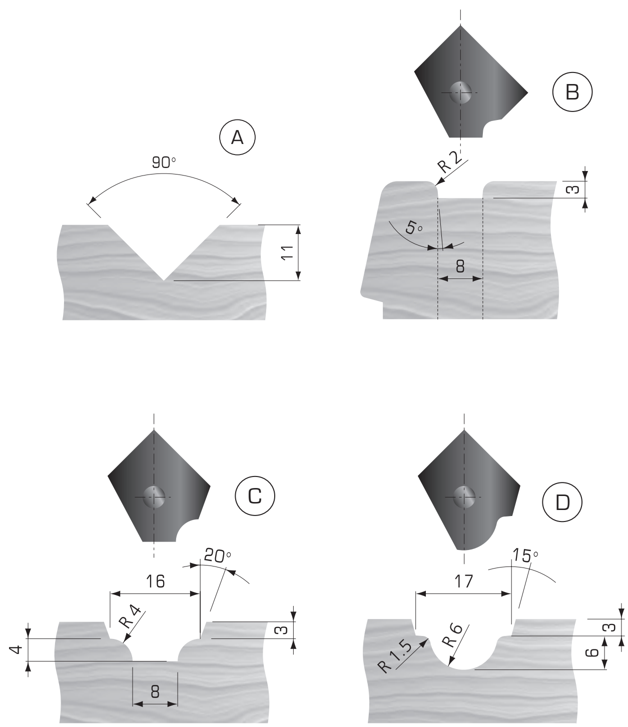
### DESIGN:
- High tensile steel body with 1 tungsten carbide insert knife
- Tool body supplied with square insert for profile A. For other profiles, knives ordered separately (refer to chart at the bottom of this page)

### APPLICATION:
- For decorative routing in solid wood and panel materials
- On stationary and CNC routers

| PART NO. | CUTTING DIAM. ØD MM | CUTTING DEPTH B MM | SHANK DIAM. ød | OVERALL LENGTH L1 MM | MAX. RPM | NO. TEETH |
|---|---|---|---|---|---|---|
| **RD2610** | 24 | 12 | 1/2" | 76 | 20000 | 1 |

Other profiles available upon request




## REPLACEMENT PARTS

| TOOL NO. | DESCRIPTION | KNIFE A | KNIFE B | KNIFE C | KNIFE D | SCREW FOR KNIFE | WRENCH |
|---|---|---|---|---|---|---|---|
| **RD2610** | **PART NO.** | **301701** | **RD2610B** | **RD2610C** | **RD2610D** | **W502306** | **W400405** |
| | DIMENSIONS | 17x17x2 | 17x17x2 | 17x17x2 | 17x17x2 | M4x6 | T15 Torx |

# INSERT ROUTER BIT SET
FOR MDF DOORS


**DESIGN:**

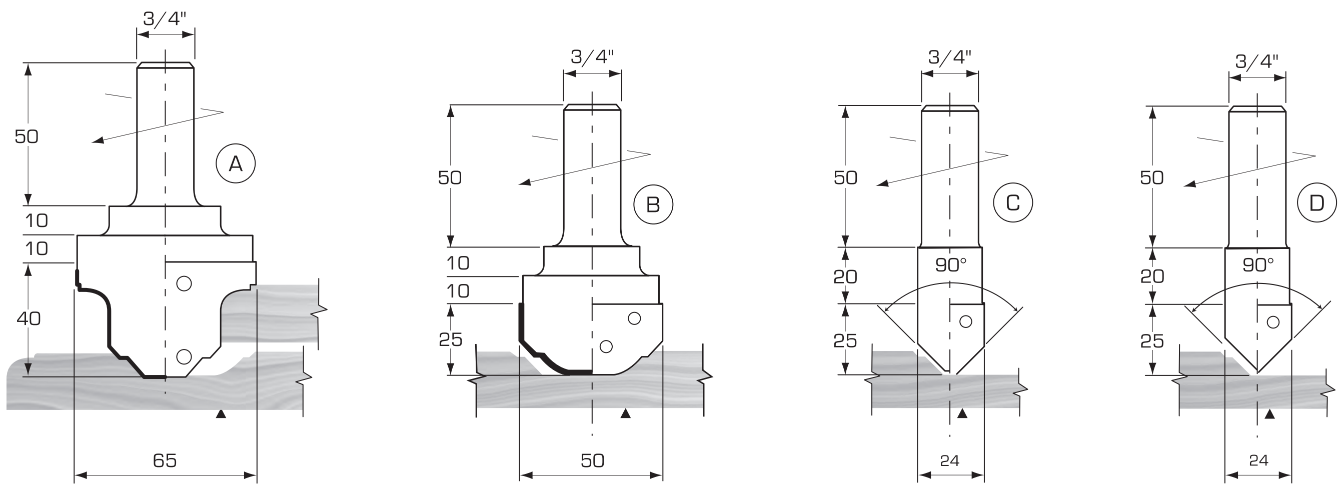
- High tensile steel body with 1 or 2 insert knives
- Tool body supplied with positioning pins for easy and accurate replacement of inserts
- Profiled tungsten carbide inserts with 1 cutting edge

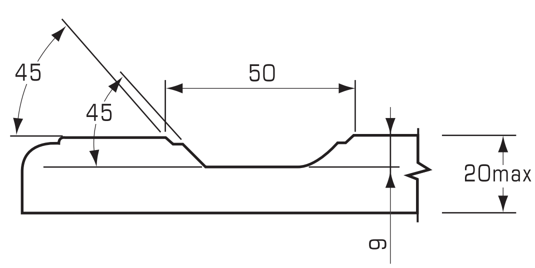
**APPLICATION:**

- For machining MDF cabinet doors
- On CNC routers

| PART NO. | TOOL NO. | CUTTING DIAM. ØD MM | CUTTING DEPTH B MM | SHANK DIAM. ød | MAX. RPM | NO. TEETH |
|---|---|---|---|---|---|---|
| **RD2620** | A | 65 | 40 | 3/4" | 16000 | 2 |
| **RD2622** | B | 50 | 25 | 3/4" | 18000 | 2 |
| **RD2624** | C | 24 | 25 | 3/4" | 20000 | 1 |
| **RD2626** | D | 24 | 25 | 3/4" | 20000 | 1 |

Other profiles available upon request

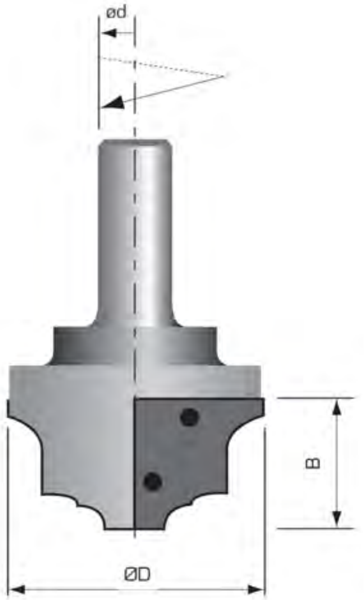



## REPLACEMENT PARTS

| TOOL NO. | DESCRIPTION | KNIFE | SCREW FOR KNIFE | WRENCH |
|---|---|---|---|---|
| **RD2620** | **PART NO.** | **RD2620A** | **WM350-PL** | **W400405** |
| | DIMENSIONS | 40x35x2.0 | M3.5x5L | T15 Torx |
| **RD2622** | **PART NO.** | **RD2622B** | **WM350-PL** | **W400405** |
| | DIMENSIONS | 30x25x2.0 | M3.5x5L | T15 Torx |
| **RD2624** | **PART NO.** | **RD2624C** | **WM350-PL** | **W400405** |
| | DIMENSIONS | 25x12x1.5 | M3.5x5L | T15 Torx |
| **RD2626** | **PART NO.** | **RD2626D** | **WM350-PL** | **W400405** |
| | DIMENSIONS | 25x12x1.5 | M3.5x5L | T15 Torx |

# RD2630 INSERT ROUTER BIT SET
FOR MDF DOORS

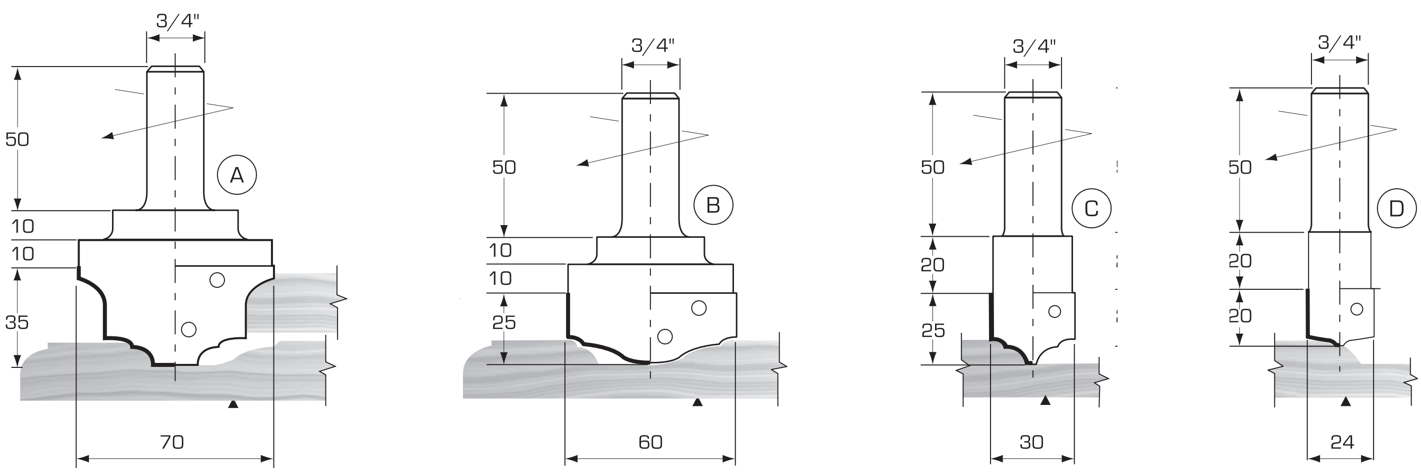


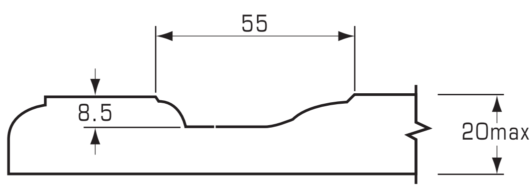

## DESIGN:
- High tensile steel body with 2 insert knives
- Tool body pvositioning pins for easy and accurate replacement of inserts
- Profiled tungsten carbide inserts with 1 cutting edge

## APPLICATION:
- For machining MDF cabinet doors
- On CNC routers

| PART NO. | TOOL NO. | CUTTING DIAM. ØD MM | CUTTING DEPTH B MM | SHANK DIAM. ød | MAX. RPM | NO. TEETH |
|---|---|---|---|---|---|---|
| **RD2630** | A | 70 | 35 | 3/4" | 16000 | 2 |
| **RD2632** | B | 60 | 25 | 3/4" | 18000 | 2 |
| **RD2634** | C | 30 | 25 | 3/4" | 20000 | 2 |
| **RD2636** | D | 24 | 20 | 3/4" | 20000 | 2 |

Other profiles available upon request



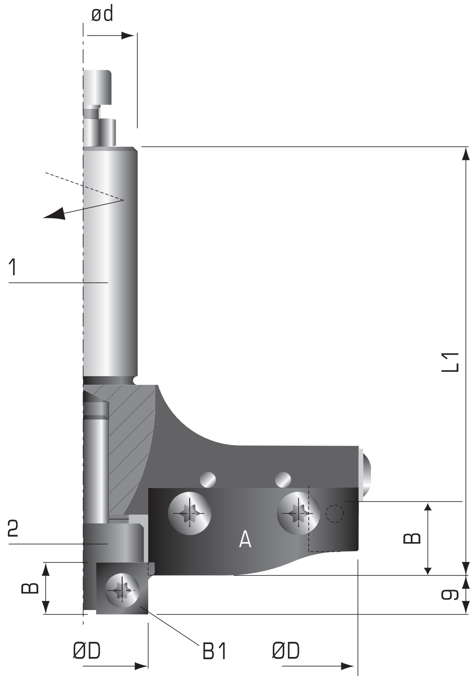




## REPLACEMENT PARTS

| TOOL NO. | DESCRIPTION | KNIFE | SCREW FOR KNIFE | WRENCH |
|---|---|---|---|---|
| **RD2630** | **PART NO.** | **RD2630A** | **WM350-PL** | **W400405** |
| | DIMENSIONS | 35x35x2.0 | M3.5x5L | T15 Torx |
| **RD2632** | **PART NO.** | **RD2632B** | **WM350-PL** | **W400405** |
| | DIMENSIONS | 30x25x2.0 | M3.5x5L | T15 Torx |
| **RD2634** | **PART NO.** | **RD2634C** | **WM350-PL** | **W400405** |
| | DIMENSIONS | 25x25x2.0 | M3.5x5L | T15 Torx |
| **RD2636** | **PART NO.** | **RD2636D** | **WM350-PL** | **W400405** |
| | DIMENSIONS | 20x20x2.0 | M3.5x5L | T15 Torx |

# RD2720

## INSERT ROUTER CUTTER
PANEL RAISING



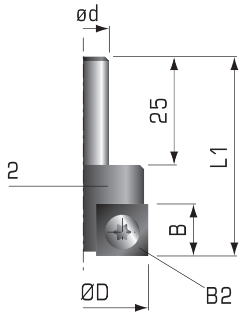

**DESIGN:**

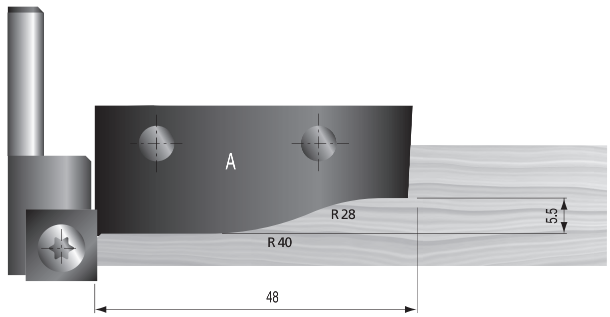
- High tensile steel body
- 2 profiled tungsten carbide insert knives with upshear angle
- 2 straight reversible tungsten carbide insert knives on the jointing cutter
- Two piece design allows for optional use of jointing cutter
- Tool body with positioning pins for easy and accurate replacement of inserts

**APPLICATION:**

- For panel raising in solid wood and panel materials
- On stationary and CNC routers

| PART NO. | CUTTING DIAM. ØD MM | CUTTING DEPTH B MM | SHANK DIAM. ød | OVERALL LENGTH L1 MM | MAX. RPM | NO. TEETH |
|---|---|---|---|---|---|---|
| **RD2720** | 129 | 16 | 3/4" | 99 | 12000 | 2 |
| **RD2722** | 30 | 12 | 10mm | 46 | 12000 | 2 |




## REPLACEMENT PARTS

| TOOL NO. | DESCRIPTION | PROFILED INSERT | STRAIGHT INSERT | STOP SCREW | SCREW FOR INSERTS | WASHER FOR SCREW | WRENCH |
|---|---|---|---|---|---|---|---|
| **RD2720** | **PART NO.** | **RD2720A** | **–** | **W502601** | **W501203** | **W300460** | **W400113** |
| | DIMENSIONS | 50x21.5x2.0 | – | M5X10 | M5x10 | 10X5.3 | 3mm Hex |
| **RD2722** | **PART NO.** | **RD2722B1** | **301200 (B2)** | **–** | **W502306** | **W300460** | **W400405** |
| | DIMENSIONS | 12x13x1.5 | 12x12x1.5 | – | M4x6 | 10X5.3 | T15 Torx |

Custom profiles available upon request

## DESIGN:

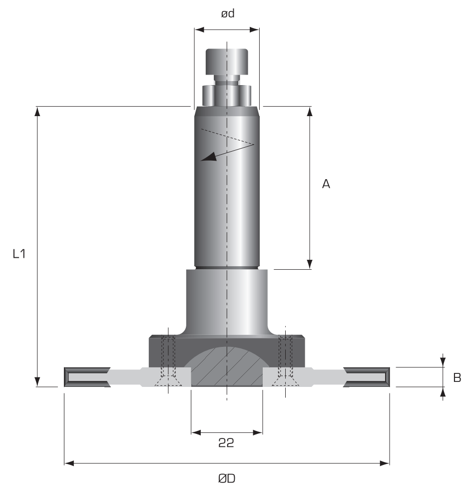
» High tensile steel body
» 4 reversible tungsten carbide teeth + 4 reversible tungsten carbide spurs with 4 cutting edges

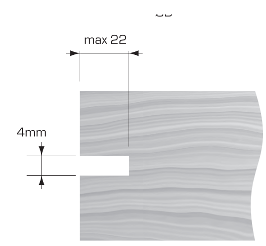
## APPLICATION:

» For grooving in solid wood and panel materials
» On stationary and CNC routers

| PART NO. | CUTTING DIAM. ØD MM | KERF B MM | SHANK DIAM. ød | OVERALL LENGTH L1 MM | MAX. RPM | NO. SPURS | NO. TEETH |
|---|---|---|---|---|---|---|---|
| **RD2760** | 100 | 4 | 3/4" | 84 | 13200 | 4 | 4 |

Other profiles available upon request



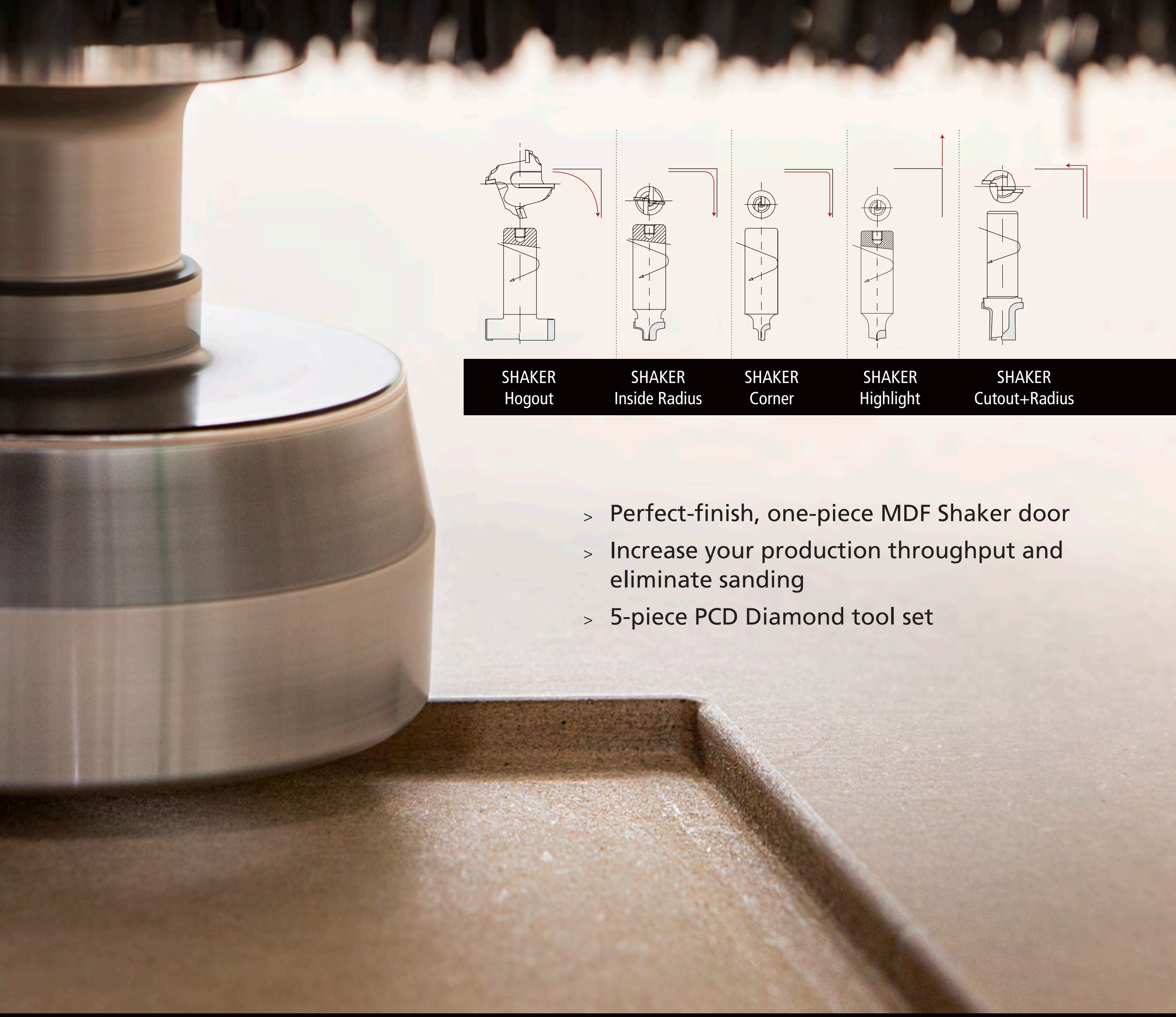




## REPLACEMENT PARTS

| DESCRIPTION | GROOVER | MOUNTING SCREW FOR GROOVER | KNIFE | KNIFE SCREW | THREADED RING FOR KNIFE | SPUR KNIFE | SPUR SCREW | THREADED RING FOR SPUR | WRENCH |
|---|---|---|---|---|---|---|---|---|---|
| **PART NO.** | **1T13L** | **W500603** | **320301** | **W500401** | **W501101** | **301414** | **W500401** | **W501001** | **W400401** |
| DIMENSIONS | 100x4x22 | M4x12 | 18x18x1.95 | M4x3.2 | 12x1.7 | 14x14x1.2 | M4x3.2 | 10x1.65 | T9 Torx |
| QUANTITY | 1pc | 4pcs | 4pcs | 4pcs | 8pcs | 4pcs | 4pcs | 8pcs | 1pc |

# SHAKER

## MDF DOOR TOOLING



| SHAKER Hogout | SHAKER Inside Radius | SHAKER Corner | SHAKER Highlight | SHAKER Cutout+Radius |
|---|---|---|---|---|

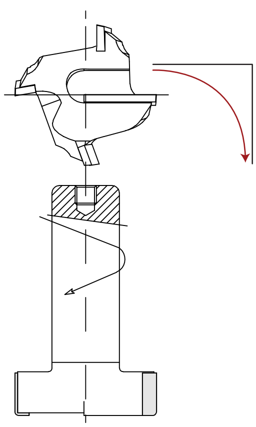
- Perfect-finish, one-piece MDF Shaker door
- Increase your production throughput and eliminate sanding
- 5-piece PCD Diamond tool set

## DESIGN:

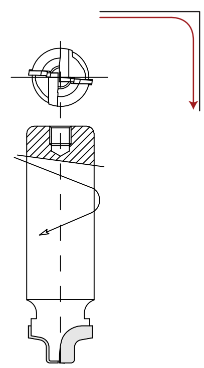
- Resharpenable PCD cutting edges
- Profiles are designed to blend seamlessly
- Nickel plated to resist erosion of the cutter body
- 5-piece PCD Diamond tool set
- Tools sold individually

## APPLICATION:

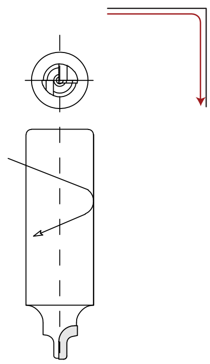
- For producing perfect paint ready, one-piece MDF Shaker doors
- Shaker - Hogout: Removes material from the pocket and leaves a smooth, clean surface
- Shaker - Inside Radius: Removes material from the perimeter of the pocket
- Shaker - Corner: Refines the inner corners of the pocket
- Shaker - Highlight: Cuts the fine line that gives the appearance of a traditional 5-piece cabinet door
- Shaker - Cutout + Radius: Cuts the overall outside shape of the door, leaving a clean outside edge with a small top radius



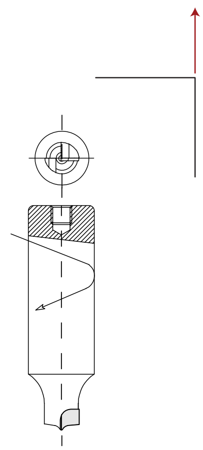
SHAKER - HOGOUT
**PART NO. DRS01-D01**



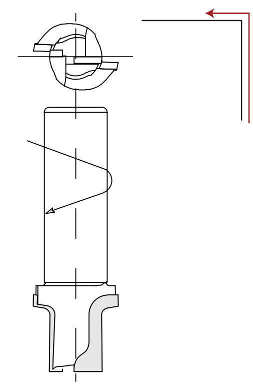
SHAKER - INSIDE RADIUS
**PART NO. DRS01-D02**



SHAKER - CORNER
**PART NO. DRS01-D03**



SHAKER - HIGHLIGHT
**PART NO. DRS01-D04**



SHAKER - CUTOUT + RADIUS
**PART NO. DRS01-D05**

| PART NO. | DESCRIPTION | LARGE CUTTING DIAM. | SMALL CUTTING DIAM. | RADIUS MM | CUTTING DEPTH MM | SHANK DIAM. ød | NO. TEETH | OVERALL LENGTH |
|---|---|---|---|---|---|---|---|---|
| **DRS01-D01** | Hogout | 40.0mm | - | - | 8.5 | 3/4" | 3+1 | 65mm |
| **DRS01-D02** | Inside Radius | 18.0mm | 8.0mm | 2.0 | 6.5 | 3/4" | 2 | 67mm |
| **DRS01-D03** | Corner | 10.0mm | 4.0mm | 2.0 | 6.5 | 3/4" | 1 | 65mm |
| **DRS01-D04** | Highlight | 10.4mm | 0.5mm | 2.0 | 1.3 | 3/4" | 1 | 65mm |
| **DRS01-D05** | Cutout + Radius | 26.0mm | 16.0mm | 2.0 | 19.25 | 3/4" | 2 | 80mm |

PART NO:
AER-59W-HOLDER

Aerotech Universal®

## ENHANCED DUST EXTRACTION:

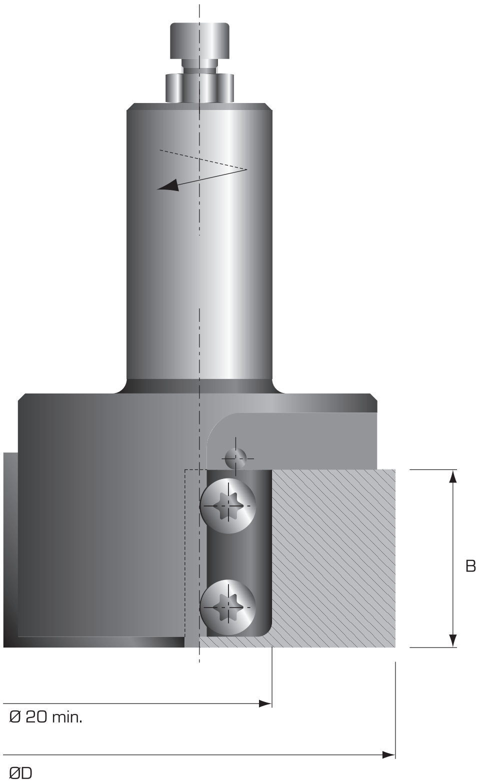
- Use with the Aeroech Universal Hydro + extended fan with open mouth design for unparrelled dust extraction and cut quality (see page FC3, FC9)
- Enhanced dust removal reduces tool wear and re-cutting of dust, leaving parts clean and your work area ready for the next cycle
- Use with DRS01-D01 and DRS01-D05 for exceptional dust extraction

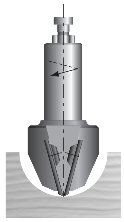
## DESIGN:

- High tensile steel body with 2 inserts, up-shear angle
- Profiles produced to customer's specifications
- Light shaded section of insert indicates profiling area
- Tungsten carbide insert knives

## APPLICATION:

- To produce decorative profiles for furniture and cabinet door production
- On stationary and CNC routers



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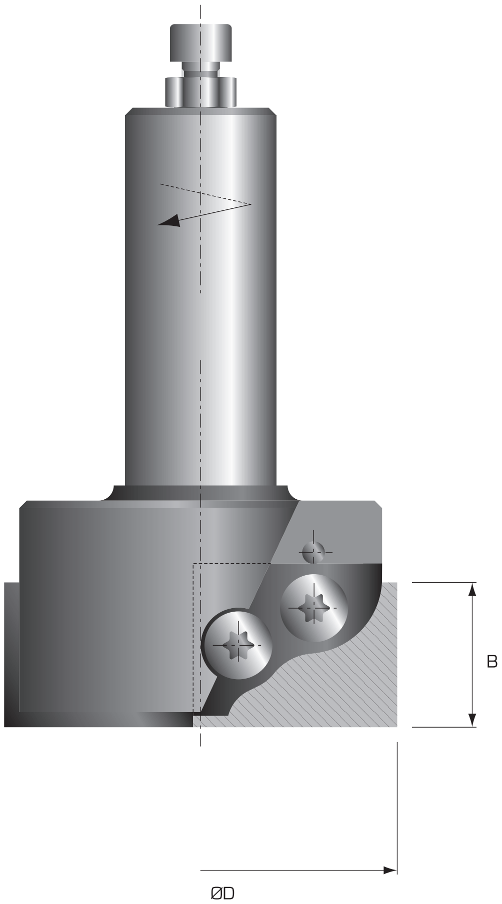
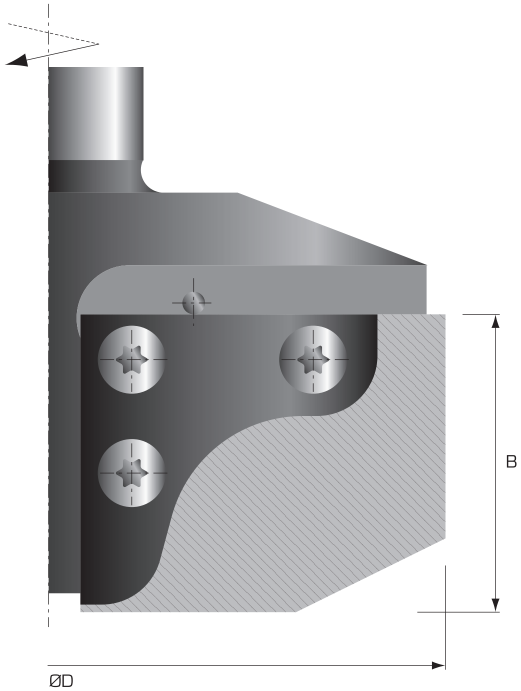
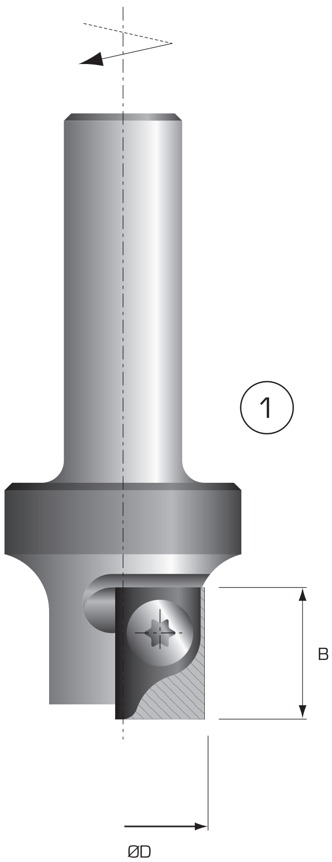


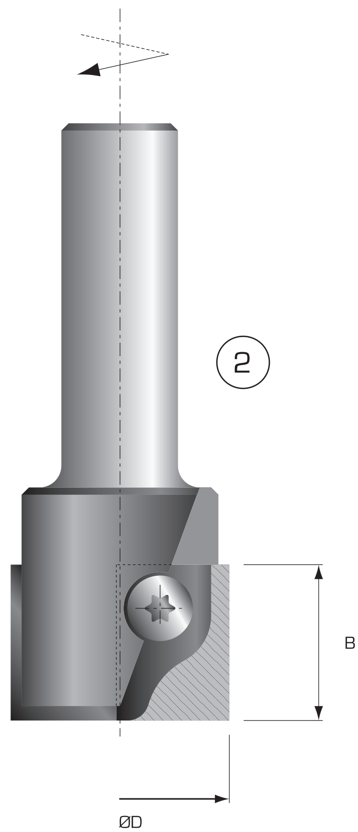


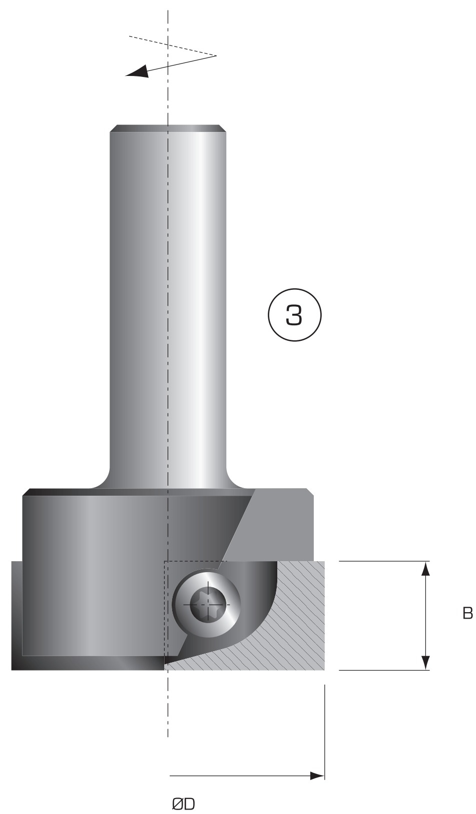

## DESIGN:

- High tensile steel body with 1 or 2 profiled inserts, up-shear angle
- Profiles produced to customer's specifications
- Light shaded section of insert indicates profiling area
- Tungsten carbide insert knives

## APPLICATION:

- To produce decorative profiles for furniture and cabinet door production
- On stationary and CNC routers

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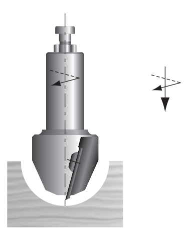

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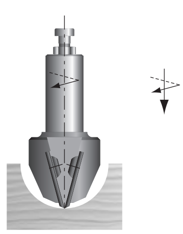
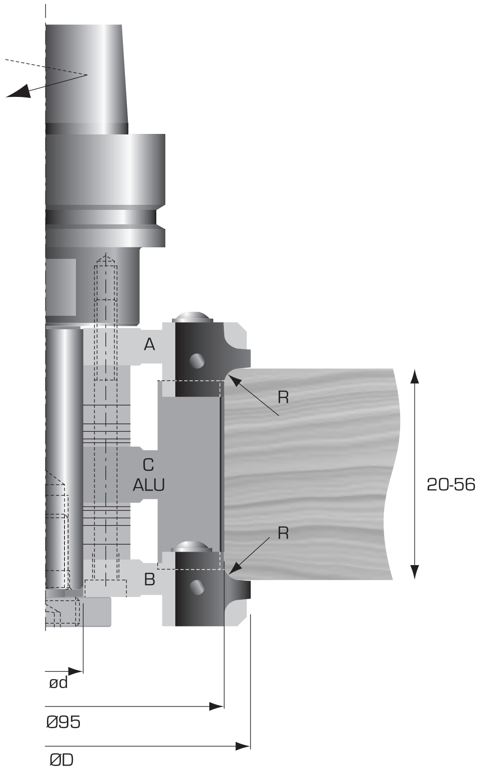





## DESIGN:

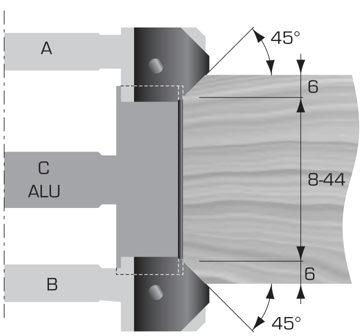
- High tensile steel body with 2 teeth, for cutter A & B
- Aluminum body with 2 teeth, for cutter C
- Cutter set supplied with toolholder as indicated
- Cutters adjustable with spacers and shims
- Tungsten carbide insert knives

## APPLICATION:

- For corner rounding and chamfering in solid wood and panel materials
- On stationary and CNC routers

| PART NO. | DIAM. ØD MM | KERF B MM | ARBOR ød MM | TOOL HOLDER TYPE | MAX. RPM | NO. TEETH |
|---|---|---|---|---|---|---|
| **RD2770** | 109 | 20 | 20 | ISO30 | 10000 | 2 |
| **RD2772** | 109 | 20 | 20 | BT30 | 10000 | 2 |
| **RD2774** | 109 | 20 | 20 | HSK63F | 10000 | 2 |

Cutter type A and B do not include knives

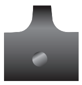



## REPLACEMENT CUTTERS

| PART NO. | CUTTER TYPE | ØD MM | B MM | ød MM | NO. TEETH |
|---|---|---|---|---|---|
| **RD2770A** | A | 109 | 20 | 20 | 2 |
| **RD2770C** | C | 95 | 50 | 20 | 2 |
| **RD2770B** | B | 109 | 20 | 20 | 2 |

Cutter type A and B do not include knives

## REPLACEMENT KNIVES



| PART NO. | CUTTER TYPE | RADIUS CHAMFER R MM | DIMENSIONS MM |
|---|---|---|---|
| **RD2770R2** | A-B | 2 | 20x21x2 |
| **RD2770R3** | A-B | 3 | 20x21x2 |
| **RD2770R4** | A-B | 4 | 20x21x2 |
| **RD2770R5** | A-B | 5 | 20x21x2 |
| **RD2770R6** | A-B | 6 | 20x21x2 |
| **RD2770-45** | A-B | 45° | 20x21x2 |
| **305000** | C | - | 50x12x1.5 |

## REPLACEMENT PARTS

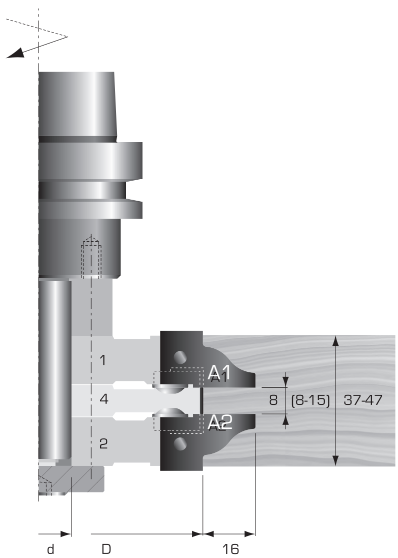
| TOOL NO. | DESCRIPTION | GIB | SCREW FOR GIB | WRENCH |
|---|---|---|---|---|
| **RD2770A RD2770B** | **PART NO.** | **W341001** | **W501403** | **W400114** |
| | DIMENSIONS | 16 | M8x16 | 4mm Hex |
| **RD2770C** | **PART NO.** | **W341002** | **W501403** | **W400114** |
| | DIMENSIONS | 46 | M8x16 | 4mm Hex |

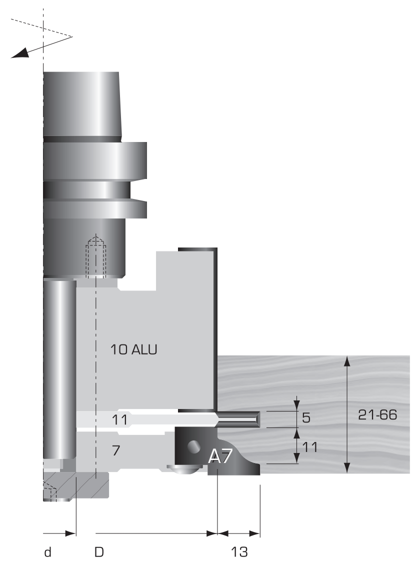
## DESIGN:

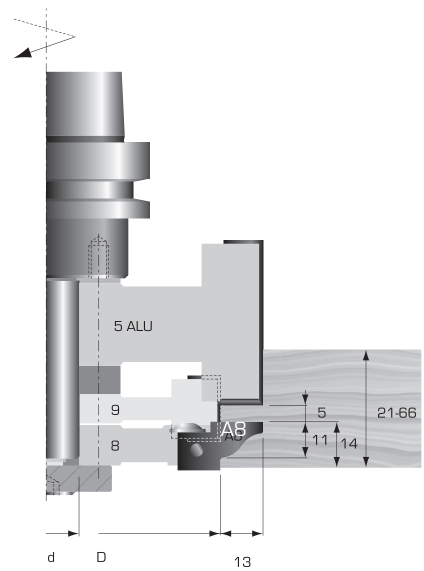
» Router cutters custom manufactured to customer's specifications
» Tungsten carbide inserts

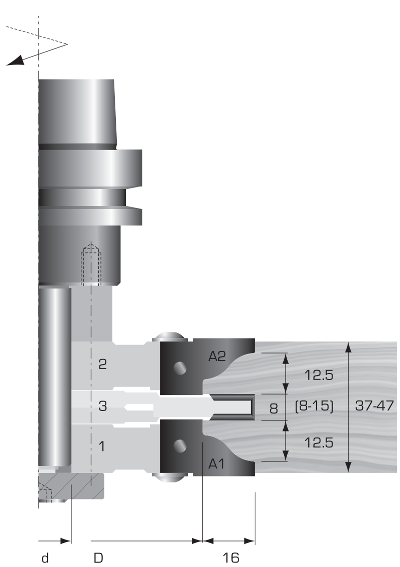
## APPLICATION:

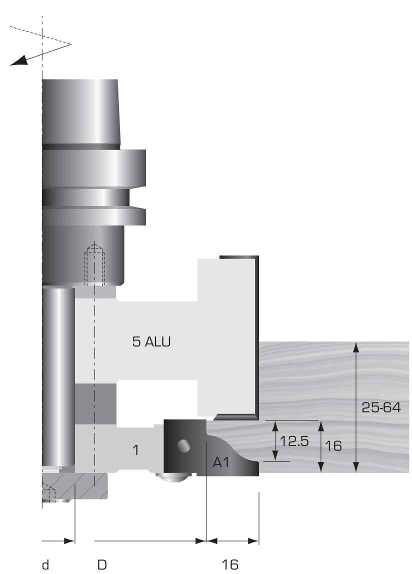
» To produce stile and rails in solid wood
» On stationary and CNC routers

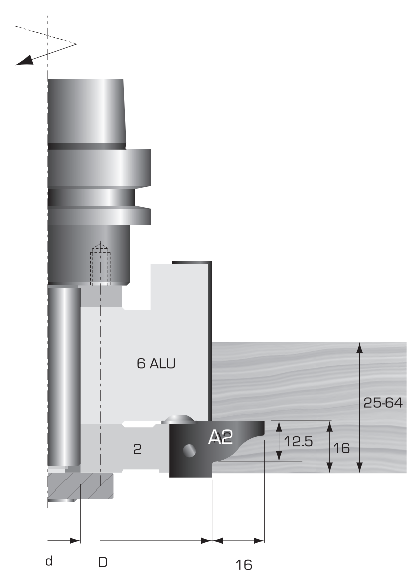


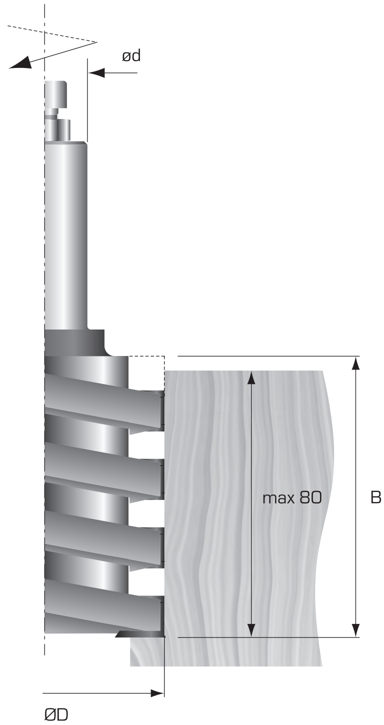






## DESIGN:

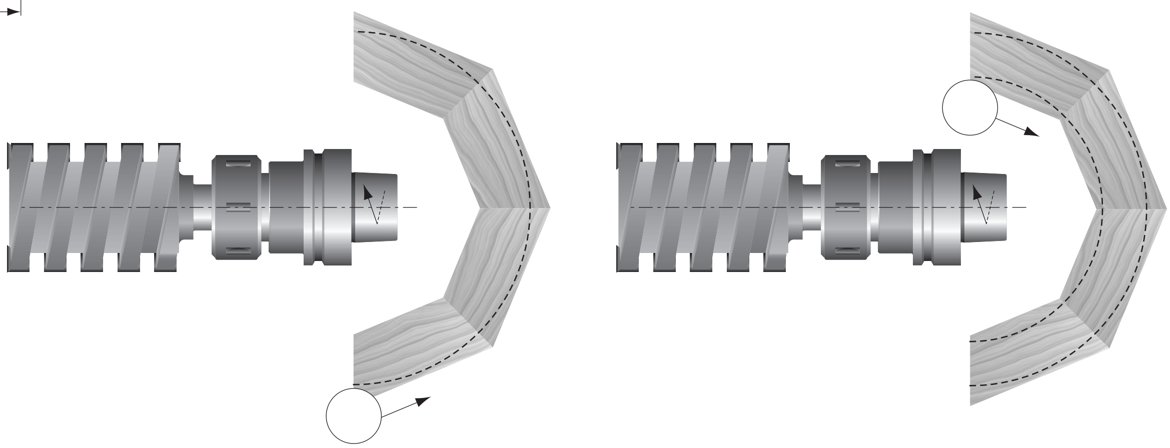
- High tensile steel body
- Spiral and staggered tooth design with reversible tungsten carbide inserts with 4 cutting edges
- 2 reversible tungsten carbide spurs

## APPLICATION:

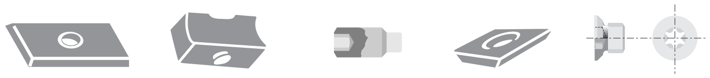
- For jointing and shaping solid wood components
- Ideal for arched window frame manufacturing
- On stationary and CNC routers

| PART NO. | CUTTING DIAM. ØD MM | CUTTING LENGTH B MM | SHANK DIAM. ød | OVERALL LENGTH MM | MAX. RPM | NO. SPURS | NO. TEETH |
|---|---|---|---|---|---|---|---|
| **RD2810** | 70 | 82 | 3/4" | 140 | 14000 | 2 | 4/16 |

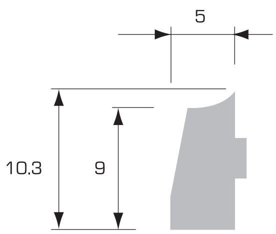
Other sizes available upon request



## REPLACEMENT PARTS

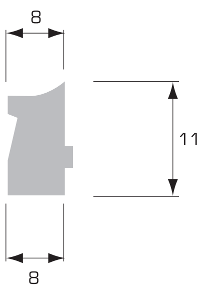


| DESCRIPTION | KNIFE | WEDGE | WEDGE SCREW | SPUR | SPUR SCREW | WRENCH FOR WEDGE SCREW | WRENCH FOR SPUR SCREW |
|---|---|---|---|---|---|---|---|
| **PART NO.** | **301200** | **W340033** | **W501414** | **301404** | **W500002** | **W400113** | **W400405** |
| DIMENSIONS | 12x12x1.5 | 9 | M6x8 | 14x14x2 | M5x6.5 | 3mm Hex | T15 Torx |



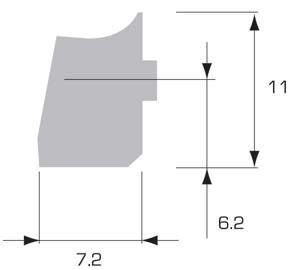

## WEDGES

| PART NO. | LENGTH MM |
|---|---|
| W302411 | 32 |
| W302410 | 54 |



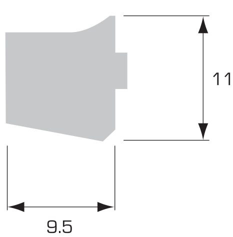

## WEDGES

| PART NO. | LENGTH MM |
|---|---|
| W303017 | 37 |
| W303016 | 47 |
| W303015 | 57 |



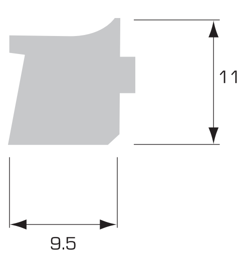

## WEDGES

| PART NO. | LENGTH MM |
|---|---|
| W340033 | 9 |
| W340034 | 27 |



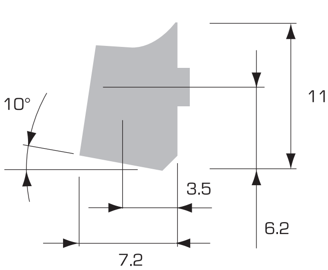

## WEDGES

| PART NO. | LENGTH MM |
|---|---|
| W340032 | 42 |
| W340035 | 47 |



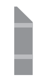

## WEDGES

| PART NO. | LENGTH MM |
|---|---|
| W341001 | 16 |
| W341099 | 38 |
| W341002 | 46 |



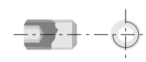

## WEDGES

| PART NO. | LENGTH MM |
|---|---|
| W340037 | 9 |



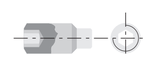
## WEDGES

| PART NO. | DIMENSIONS MM |
|---|---|
| W300803 | 28x12x5 |
| W300805 | 26x9.5x2.5 |
| W300806 | 46x9.5x2.5 |
| W300905 | 26x9.5x3.5 |
| W300906 | 46x9.5x3.5 |



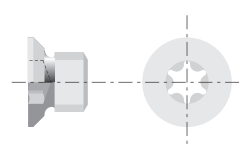
## WEDGE SCREWS

| PART NO. | DIMENSIONS MM |
|---|---|
| W501306 | M6x10 |



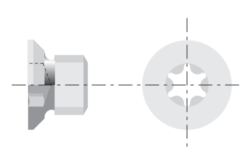
## WEDGE SCREWS

| PART NO. | DIMENSIONS MM |
|---|---|
| W501314 | M3x4 |
| W501414 | M6x8 |
| W501402 | M6x10 |
| W501412 | M8x14 |
| W501403 | M8x16 |



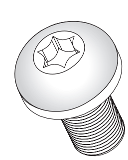
## TORX SCREWS

| PART NO. | DIMENSIONS MM |
|---|---|
| W500002 | M5x7 |



## TORX SCREWS

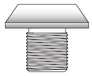
| PART NO. | DIMENSIONS MM |
|---|---|
| W500401 | M4x3.2 |



## TORX SCREWS

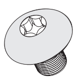
| PART NO. | DIMENSIONS MM |
|---|---|
| WM350-P | M3.5x7.5 |
| WM336 | M6x10 |

## TORX SCREWS



| PART NO. | DIMENSIONS MM |
|---|---|
| WM350 | 3.5x6.0 |

## TORX SCREWS

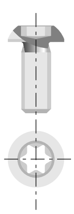


| PART NO. | DIMENSIONS MM |
|---|---|
| WM350-PL | 3.5x6.0 |

## TORX SCREWS

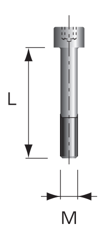
| PART NO. | DIMENSIONS MM |
|---|---|
| WM355 | M3x5.5 |
| WM356 | M3.5x6.0 |
| WM380 | M3x8.0 |
| WM420 | M4x2.0 |

## TORX SCREWS



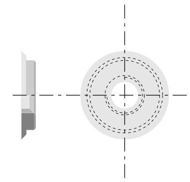
| PART NO. | DIMENSIONS MM |
|---|---|
| W502301 | M4x6.0 |
| W502302 | M4x10 |
| W502303 | M4x12 |
| W502306 | M4x6 |
| W502310 | M3.5x4.8 |
| W502315 | M5x8 |
| W502331 | M3x4 |

## HEX SCREWS



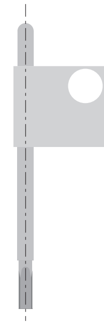

| PART NO. | DIMENSIONS MM |
|---|---|
| W501731 | M6x75 |

## THREADED RINGS



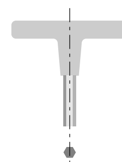
| PART NO. | DIMENSIONS MM |
|---|---|
| W501001 | 10x1.65 |
| W501101 | 12x1.7 |

## TORX WRENCHES



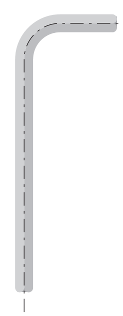
| PART NO. | DIMENSIONS MM |
|---|---|
| W400406 | T8 |
| W400401 | T9 |
| W400405 | T15 |

## T-HANDLE TORX WRENCHES



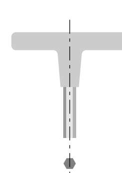
| PART NO. | DIMENSIONS MM |
|---|---|
| W400420 | T20 |
| W400430 | T30 |

## ALLEN WRENCHES



| PART NO. | DIMENSIONS MM |
|---|---|
| W40000A | 1.5 |
| W400000 | 2 |
| W400002 | 3 |
| W400003 | 4 |

## T-HANDLE ALLEN WRENCHES

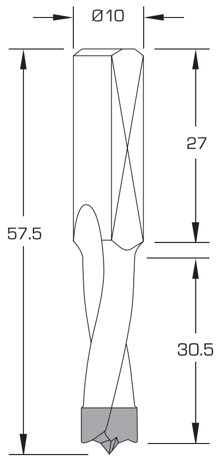


| PART NO. | DIMENSIONS MM |
|---|---|
| W400101 | 2.5 |
| W400113 | 3 |
| W400111 | 4 (LONG) |
| W400114 | 4 |
| W400115 | 5 |

# DRILL BITS / HINGE BORING BITS
Drill Bit Adaptors / Mortise Bits

G

# D40L 57.5MM HIGH PRECISION DOWEL DRILLS
## 10MM DIAM. X 27MM LONG SHANK

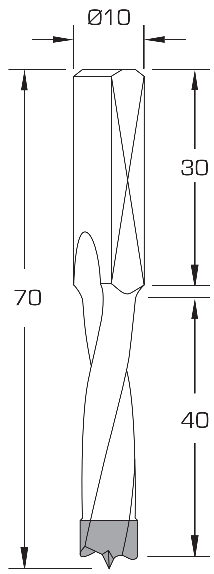



**APPLICATION:**
- Used in high wear applications
- Tool life increased up to 10 times compared to traditional dowel drills
- For blind flat bottom holes

**DESIGN:**
- Precision ground diameter
- Rigid body reduces deflection

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D40L05L | D40L05R | 5 | 30.5 | 10 | 27 | 57.5 |
| D40L06L | D40L06R | 6 | 30.5 | 10 | 27 | 57.5 |
| D40L08L | D40L08R | 8 | 30.5 | 10 | 27 | 57.5 |
| D40L10L | D40L10R | 10 | 37.5 | 10 | 20 | 57.5 |

# D40M 70MM HIGH PRECISION DOWEL DRILLS
## 10MM DIAM. X 30MM LONG SHANK

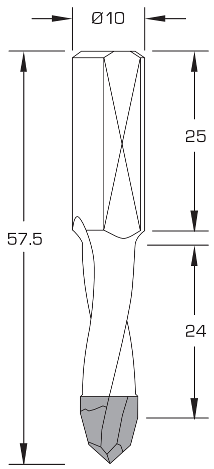



**APPLICATION:**
- Used in high wear applications
- Tool life increased up to 10 times compared to traditional dowel drills
- For blind flat bottom holes

**DESIGN:**
- Precision ground diameter
- Rigid body reduces deflection

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D40M05L | D40M05R | 5 | 40 | 10 | 30 | 70 |
| D40M06L | D40M06R | 6 | 40 | 10 | 30 | 70 |
| D40M08L | D40M08R | 8 | 40 | 10 | 30 | 70 |
| D40M10L | D40M10R | 10 | 40 | 10 | 30 | 70 |

# D40N 57.5MM HIGH PRECISION THROUGH HOLE DRILLS
## 10MM DIAM. X 25MM LONG SHANK




**APPLICATION:**

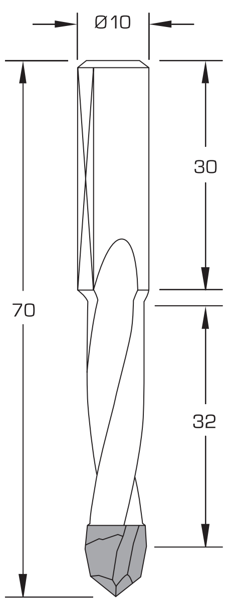
» Used in high wear applications
» Tool life increased up to 10 times compared to traditional through hole drills
» For clean pass-through holes

**DESIGN:**

» Precision ground diameter
» Rigid body reduces deflection

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D40N05L | D40N05R | 5 | 24 | 10 | 25 | 57.5 |
| D40N06L | D40N06R | 6 | 24 | 10 | 25 | 57.5 |
| D40N08L | D40N08R | 8 | 24 | 10 | 25 | 57.5 |
| D40N10L | D40N10R | 10 | 24 | 10 | 25 | 57.5 |

# D40Y 70MM HIGH PRECISION THROUGH HOLE DRILLS
## 10MM DIAM. X 30MM LONG SHANK




**APPLICATION:**

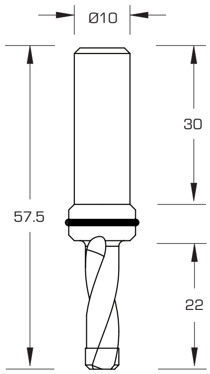
» Used in high wear applications
» Tool life increased up to 10 times compared to traditional through hole drills
» For clean pass-through holes

**DESIGN:**

» Precision ground diameter
» Rigid body reduces deflection

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D40Y05L | D40Y05R | 5 | 32 | 10 | 30 | 70 |
| D40Y06L | D40Y06R | 6 | 32 | 10 | 30 | 70 |
| D40Y08L | D40Y08R | 8 | 32 | 10 | 30 | 70 |
| D40Y10L | D40Y10R | 10 | 32 | 10 | 30 | 70 |

# D41L 57.5MM HIGH PRECISION DOWEL DRILLS
## 10MM DIAM. X 25MM LONG SHANK

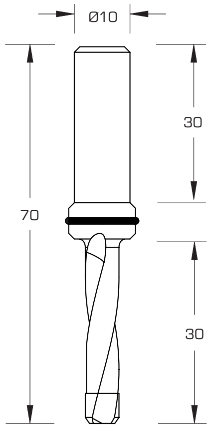



### APPLICATION:
- » Used in high wear applications
- » Chip free clean holes
- » For clean flat bottom holes
- » Ideal for drilling thinner panels without center point/spurs projection on bottom of panel

### DESIGN:
- » Solid carbide precision ground diamter with 2 wings and 2 radius spurs with minimal spur projection
- » Rigid body reduces deflection
- » Tool life increased dramatically

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D41L04L | D41L04R | 4 | 22 | 10 | 30 | 57.5 |
| D41L05L | D41L05R | 5 | 22 | 10 | 30 | 57.5 |
| D41L055L | D41L055R | 5.5 | 22 | 10 | 30 | 57.5 |
| D41L06L | D41L06R | 6 | 22 | 10 | 30 | 57.5 |
| D41L1/4L | D41L1/4R | 1/4" | 22 | 10 | 30 | 57.5 |
| D41L07L | D41L07R | 7 | 22 | 10 | 30 | 57.5 |
| D41L08L | D41L08R | 8 | 22 | 10 | 30 | 57.5 |

# D41M 70MM HIGH PRECISION DOWEL DRILLS
## 10MM DIAM. X 30MM LONG SHANK



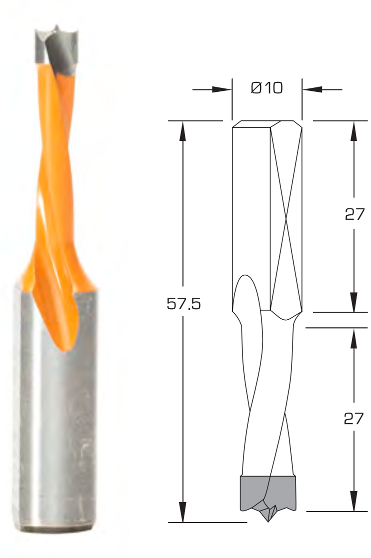

### APPLICATION:
- » Used in high wear applications
- » Chip free clean holes
- » For clean flat bottom holes
- » Ideal for drilling thinner panels without center point/spurs projection on bottom of panel

### DESIGN:
- » Solid carbide precision ground diamter with 2 wings and 2 radius spurs with minimal spur projection
- » Rigid body reduces deflection
- » Tool life increased dramatically

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D41M04L | D41M04R | 4 | 30 | 10 | 30 | 70 |
| D41M05L | D41M05R | 5 | 30 | 10 | 30 | 70 |
| D41M055L | D41M055R | 5.5 | 30 | 10 | 30 | 70 |
| D41M06L | D41M06R | 6 | 30 | 10 | 30 | 70 |
| D41M1/4L | D41M1/4R | 1/4" | 30 | 10 | 30 | 70 |
| D41M07L | D41M07R | 7 | 30 | 10 | 30 | 70 |
| D41M08L | D41M08R | 8 | 30 | 10 | 30 | 70 |

# D42L 57.5MM PRECISION DOWEL DRILLS

## 10MM DIAM. X 27MM LONG SHANK




**APPLICATION:**

» Used in high wear applications
» Extended life compared to traditional dowel drills
» For blind flat bottom holes

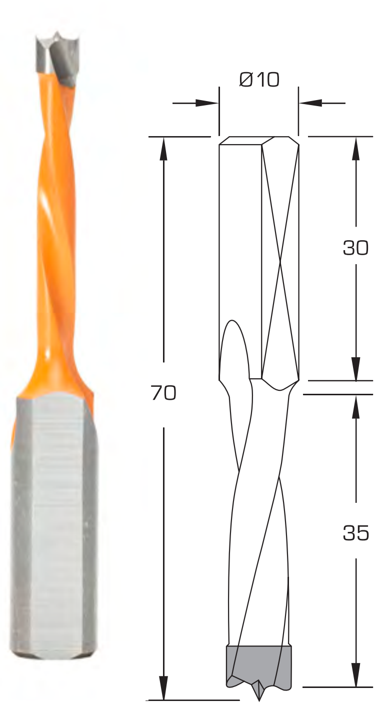
**DESIGN:**

» Precision ground diameter
» Round spurs to ensure chip-free drilling

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D42L04L | D42L04R | 4 | 27 | 10 | 27 | 57.5 |
| D42L05L | D42L05R | 5 | 27 | 10 | 27 | 57.5 |
| D42L06L | D42L06R | 6 | 27 | 10 | 27 | 57.5 |
| D42L07L | D42L07R | 7 | 27 | 10 | 27 | 57.5 |
| D42L08L | D42L08R | 8 | 27 | 10 | 27 | 57.5 |
| D42L09L | D42L09R | 9 | 27 | 10 | 27 | 57.5 |
| D42L10L | D42L10R | 10 | 27 | 10 | 27 | 57.5 |
| D42L12L | D42L12R | 12 | 27 | 10 | 27 | 57.5 |

# D42M 70MM PRECISION DOWEL DRILLS

## 10MM DIAM. X 30MM LONG SHANK




**APPLICATION:**

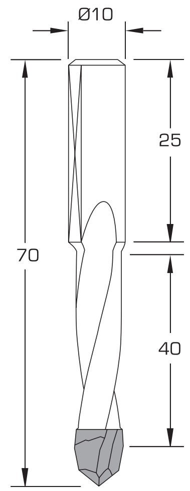
» Used in high wear applications
» Extended life compared to traditional dowel drills
» For blind flat bottom holes

**DESIGN:**

» Precision ground diameter
» Round spurs to ensure chip-free drilling

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D42M04L | D42M04R | 4 | 35 | 10 | 30 | 70 |
| D42M05L | D42M05R | 5 | 35 | 10 | 30 | 70 |
| D42M06L | D42M06R | 6 | 35 | 10 | 30 | 70 |
| D42M07L | D42M07R | 7 | 35 | 10 | 30 | 70 |
| D42M08L | D42M08R | 8 | 35 | 10 | 30 | 70 |
| D42M09L | D42M09R | 9 | 35 | 10 | 30 | 70 |
| D42M10L | D42M10R | 10 | 35 | 10 | 30 | 70 |
| D42M12L | D42M12R | 12 | 35 | 10 | 30 | 70 |

# D42Y 70MM PRECISION THROUGH HOLE DRILLS
10MM DIAM. X 25MM LONG SHANK

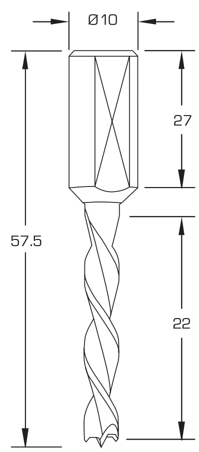



**APPLICATION:**
» Used in high wear applications
» Extended life compared to traditional through hole drills
» For clean pass-through holes

**DESIGN:**
» Precision ground diameter
» Finishing edges to ensure chip-free drilling

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D42Y05L | D42Y05R | 5 | 40 | 10 | 25 | 70 |
| D42Y06L | D42Y06R | 6 | 40 | 10 | 25 | 70 |
| D42Y07L | D42Y07R | 7 | 40 | 10 | 25 | 70 |
| D42Y08L | D42Y08R | 8 | 40 | 10 | 25 | 70 |
| D42Y10L | D42Y10R | 10 | 40 | 10 | 25 | 70 |

# D45L 57.5MM SOLID CARBIDE DOWEL DRILLS
10MM DIAM. X 27MM LONG SHANK



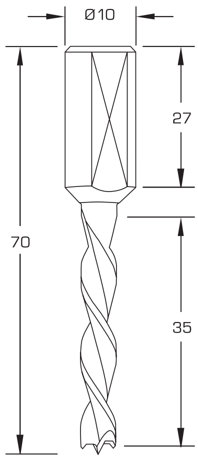

**APPLICATION:**
» Improved precision on hard materials
» Increased tool life due to solid carbide body
» For blind flat bottom holes

**DESIGN:**
» Precision ground diameter
» Rigid solid carbide body resists deflection

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D45L03L | D45L03R | 3 | 22 | 10 | 27 | 57.5 |
| D45L04L | D45L04R | 4 | 22 | 10 | 27 | 57.5 |
| D45L05L | D45L05R | 5 | 22 | 10 | 27 | 57.5 |
| D45L06L | D45L06R | 6 | 22 | 10 | 27 | 57.5 |
| D45L08L | D45L08R | 8 | 22 | 10 | 27 | 57.5 |
| D45L10L | D45L10R | 10 | 22 | 10 | 27 | 57.5 |

# D45M 70MM SOLID CARBIDE DOWEL DRILLS

## 10MM DIAM. X 27MM LONG SHANK




### APPLICATION:

» Improved precision on hard materials
» Increased tool life due to solid carbide body
» For blind flat bottom holes

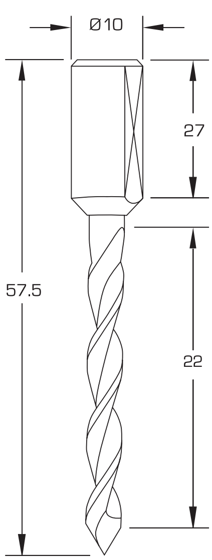
### DESIGN:

» Precision ground diameter
» Rigid solid carbide body resists deflection

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D45M03L | D45M03R | 3 | 35 | 10 | 30 | 70 |
| D45M04L | D45M04R | 4 | 35 | 10 | 27 | 70 |
| D45M05L | D45M05R | 5 | 35 | 10 | 27 | 70 |
| D45M06L | D45M06R | 6 | 35 | 10 | 27 | 70 |
| D45M08L | D45M08R | 8 | 35 | 10 | 27 | 70 |
| D45M10L | D45M10R | 10 | 35 | 10 | 27 | 70 |

# D45N 57.5MM SOLID CARBIDE THROUGH HOLE DRILLS

## 10MM DIAM. X 27MM LONG SHANK




### APPLICATION:

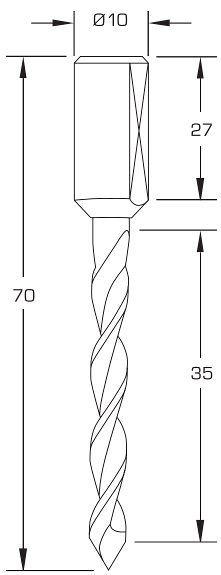
» Improved precision on hard materials
» Increased tool life due to solid carbide body
» For clean pass-through holes

### DESIGN:

» Precision ground diameter
» Rigid solid carbide body resists deflection

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D45N03L | D45N03R | 3 | 22 | 10 | 27 | 57.5 |
| D45N04L | D45N04R | 4 | 22 | 10 | 27 | 57.5 |
| D45N05L | D45N05R | 5 | 22 | 10 | 27 | 57.5 |
| D45N06L | D45N06R | 6 | 22 | 10 | 27 | 57.5 |
| D45N08L | D45N08R | 8 | 22 | 10 | 27 | 57.5 |
| D45N10L | D45N10R | 10 | 22 | 10 | 27 | 57.5 |

# D45Y 70MM SOLID CARBIDE THROUGH HOLE DRILLS
10MM DIAM. X 27MM LONG SHANK




## APPLICATION:

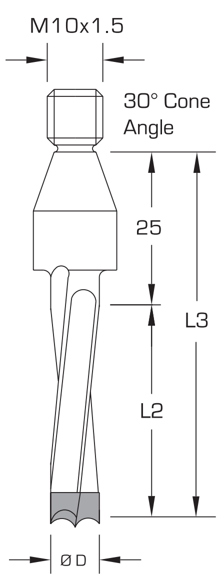
» Improved precision on hard materials
» Increased tool life due to solid carbide body
» For clean pass-through holes

## DESIGN:

» Precision ground diameter
» Rigid solid carbide body resists deflection

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| **D45Y03L** | **D45Y03R** | 3 | 35 | 10 | 27 | 70 |
| **D45Y04L** | **D45Y04R** | 4 | 35 | 10 | 27 | 70 |
| **D45Y05L** | **D45Y05R** | 5 | 35 | 10 | 27 | 70 |
| **D45Y06L** | **D45Y06R** | 6 | 35 | 10 | 27 | 70 |
| **D45Y08L** | **D45Y08R** | 8 | 35 | 10 | 27 | 70 |
| **D45Y10L** | **D45Y10R** | 10 | 35 | 10 | 27 | 70 |

# D50P THREADED SHANK DOWEL DRILLS
M10 X 1.5 X 25MM LONG SHANK




## APPLICATION:

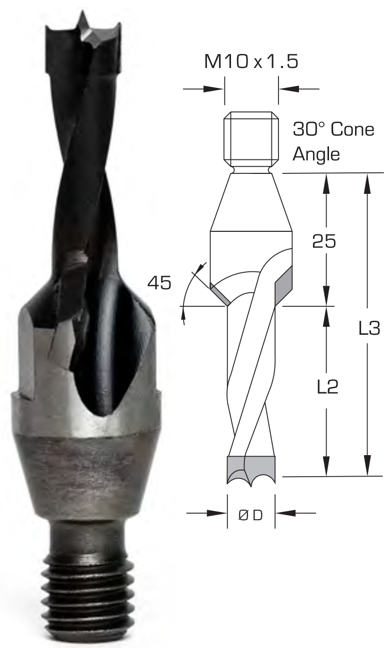
» For blind flat bottom holes

## DESIGN:

» Carbide-tipped bradpoint drill end

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH L2 | LENGTH L3 | SHANK LENGTH | THREAD |
|---|---|---|---|---|---|---|
| **D50P05L** | **D50P05R** | 5 | 40 | 65 | 25 | M10 x 1.5 |
| **D50P06L** | **D50P06R** | 6 | 40 | 65 | 25 | M10 x 1.5 |
| **D50P08L** | **D50P08R** | 8 | 40 | 65 | 25 | M10 x 1.5 |
| **D50P10L** | **D50P10R** | 10 | 40 | 65 | 25 | M10 x 1.5 |
| **D50P12L** | **D50P12R** | 12 | 40 | 65 | 25 | M10 x 1.5 |

# D50PS THREADED SHANK COUNTERSINK DOWEL DRILLS
## M10 X 1.5 SHANK

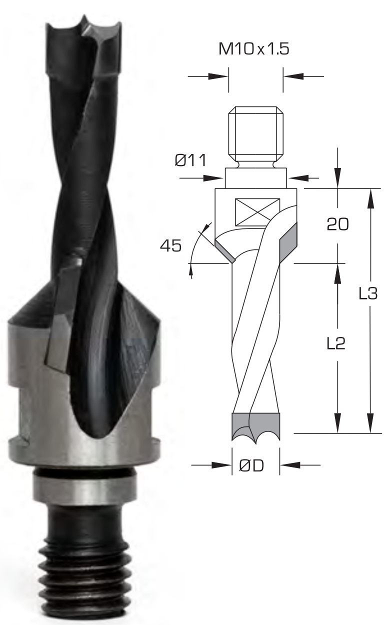



### APPLICATION:
» Provides clean 45° countersink cuts
» For blind flat bottom holes

### DESIGN:
» Carbide-tipped bradpoint drill end
» Integrated monoblock countersink

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH L2 | LENGTH L3 | COUNTERSINK ANGLE | CONNECTION TYPE | THREAD |
|---|---|---|---|---|---|---|---|
| **D50PS05L** | **D50PS05R** | 5 | 25 | 50 | 45° | Tapered | M10 x 1.5 |
| **D50PS06L** | **D50PS06R** | 6 | 25 | 50 | 45° | Tapered | M10 x 1.5 |
| **D50PS08L** | **D50PS08R** | 8 | 25 | 50 | 45° | Tapered | M10 x 1.5 |
| **D50PS10L** | **D50PS10R** | 10 | 25 | 50 | 45° | Tapered | M10 x 1.5 |
| **D50PS12L** | **D50PS12R** | 12 | 25 | 50 | 45° | Tapered | M10 x 1.5 |

# D50RS THREADED SHANK COUNTERSINK DOWEL DRILLS
## M10 X 1.5 SHANK

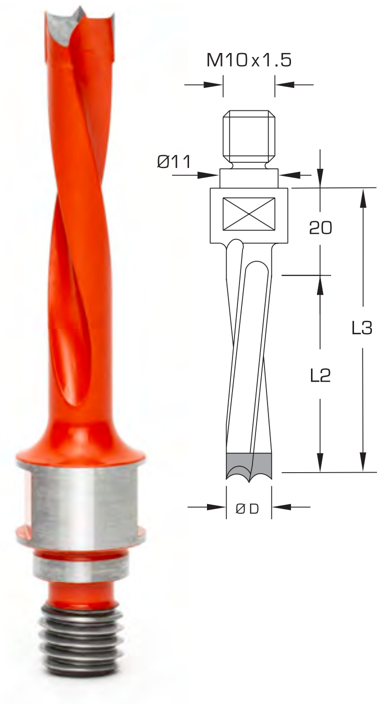



### APPLICATION:
» Provides clean 45° countersink cuts
» For blind flat bottom holes

### DESIGN:
» Carbide-tipped bradpoint drill end
» Integrated monoblock countersink

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH L2 | LENGTH L3 | COUNTERSINK ANGLE | COLLAR SIZE | THREAD |
|---|---|---|---|---|---|---|---|
| **D50RS05L** | **D50RS05R** | 5 | 25 | 45 | 45° | 11 | M10 x 1.5 |
| **D50RS06L** | **D50RS06R** | 6 | 25 | 45 | 45° | 11 | M10 x 1.5 |
| **D50RS08L** | **D50RS08R** | 8 | 25 | 45 | 45° | 11 | M10 x 1.5 |
| **D50RS10L** | **D50RS10R** | 10 | 25 | 45 | 45° | 11 | M10 x 1.5 |
| **D50RS12L** | **D50RS12R** | 12 | 25 | 45 | 45° | 11 | M10 x 1.5 |

# D50R THREADED SHANK DOWEL DRILLS
## M8 X 1.5 X 20MM LONG SHANK

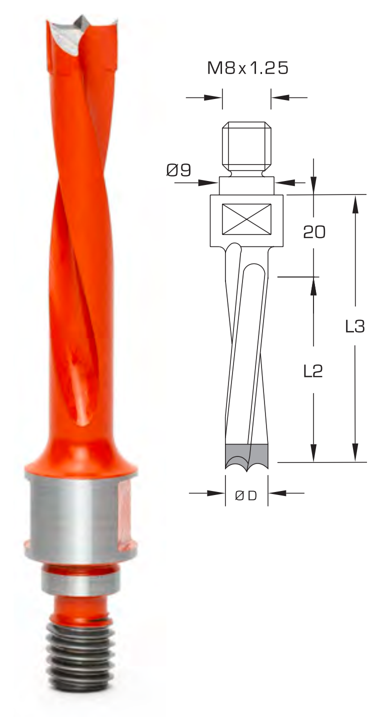



**APPLICATION:**
» For blind flat bottom holes

**DESIGN:**
» Carbide-tipped bradpoint drill end

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH L2 | LENGTH L3 | COLLAR SIZE | THREAD |
|---|---|---|---|---|---|---|
| **D50R05L** | **D50R05R** | 5 | 40 | 60 | 11 | M10 x 1.5 |
| **D50R06L** | **D50R06R** | 6 | 40 | 60 | 11 | M10 x 1.5 |
| **D50R08L** | **D50R08R** | 8 | 40 | 60 | 11 | M10 x 1.5 |
| **D50R10L** | **D50R10R** | 10 | 40 | 60 | 11 | M10 x 1.5 |
| **D50R12L** | **D50R12R** | 12 | 40 | 60 | 11 | M10 x 1.5 |

# D50RM THREADED SHANK DOWEL DRILLS
## M8 X 1.5 X 20MM LONG SHANK

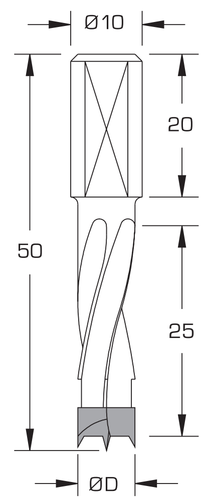



**APPLICATION:**
» For blind flat bottom holes

**DESIGN:**
» Carbide-tipped bradpoint drill end

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH L2 | LENGTH L3 | COLLAR SIZE | THREAD |
|---|---|---|---|---|---|---|
| **D50RM04L** | **D50RM04R** | 4 | 40 | 60 | 9 | M8 x 1.25 |
| **D50RM05L** | **D50RM05R** | 5 | 40 | 60 | 9 | M8 x 1.25 |
| **D50RM06L** | **D50RM06R** | 6 | 40 | 60 | 9 | M8 x 1.25 |
| **D50RM08L** | **D50RM08R** | 8 | 40 | 60 | 9 | M8 x 1.25 |
| **D50RM10L** | **D50RM10R** | 10 | 40 | 60 | 9 | M8 x 1.25 |
| **D50RM12L** | **D50RM12R** | 12 | 40 | 60 | 9 | M8 x 1.25 |

# D50E 50MM DOWEL DRILLS
10MM DIAM. X 20MM LONG SHANK




**APPLICATION:**

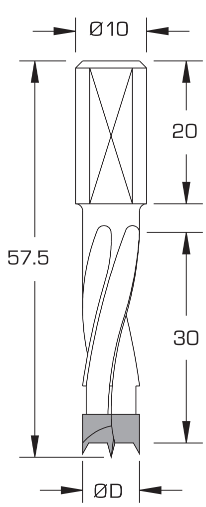
» For blind flat bottom holes

**DESIGN:**

» Carbide-tipped bradpoint drill end

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D50E05L | D50E05R | 5 | 25 | 10 | 20 | 50 |
| D50E06L | D50E06R | 6 | 25 | 10 | 20 | 50 |
| D50E07L | D50E07R | 7 | 25 | 10 | 20 | 50 |
| D50E08L | D50E08R | 8 | 25 | 10 | 20 | 50 |
| D50E09L | D50E09R | 9 | 25 | 10 | 20 | 50 |
| D50E10L | D50E10R | 10 | 25 | 10 | 20 | 50 |
| D50E11L | D50E11R | 11 | 25 | 10 | 20 | 50 |
| D50E12L | D50E12R | 12 | 25 | 10 | 20 | 50 |
| D50E14L | D50E14R | 14 | 25 | 10 | 20 | 50 |
| D50E1/4L | D50E1/4R | 1/4" | 25 | 10 | 20 | 50 |
| D50E3/8L | D50E3/8R | 3/8" | 25 | 10 | 20 | 50 |
| D50E1/2L | D50E1/2R | 1/2" | 25 | 10 | 20 | 50 |

# D50F 57.5MM DOWEL DRILLS
10MM DIAM. X 20MM LONG SHANK




**APPLICATION:**

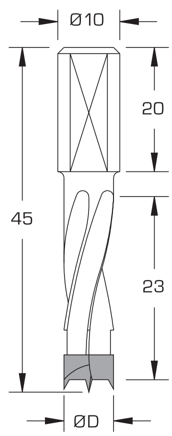
» For blind flat bottom holes

**DESIGN:**

» Carbide-tipped bradpoint drill end

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D50F04L | D50F04R | 4 | 30 | 10 | 20 | 57.5 |
| D50F05L | D50F05R | 5 | 30 | 10 | 20 | 57.5 |
| D50F052L | D50F052R | 5.2 | 30 | 10 | 20 | 57.5 |
| D50F055L | D50F055R | 5.5 | 30 | 10 | 20 | 57.5 |
| D50F06L | D50F06R | 6 | 30 | 10 | 20 | 57.5 |
| D50F065L | D50F065R | 6.5 | 30 | 10 | 20 | 57.5 |
| D50F067L | D50F067R | 6.7 | 30 | 10 | 20 | 57.5 |
| D50F07L | D50F07R | 7 | 30 | 10 | 20 | 57.5 |
| D50F08L | D50F08R | 8 | 30 | 10 | 20 | 57.5 |
| D50F082L | D50F082R | 8.2 | 30 | 10 | 20 | 57.5 |
| D50F09L | D50F09R | 9 | 30 | 10 | 20 | 57.5 |
| D50F10L | D50F10R | 10 | 30 | 10 | 20 | 57.5 |
| D50F11L | D50F11R | 11 | 30 | 10 | 20 | 57.5 |
| D50F12L | D50F12R | 12 | 30 | 10 | 20 | 57.5 |
| D50F14L | D50F14R | 14 | 30 | 10 | 20 | 57.5 |
| D50F15L | D50F15R | 15 | 30 | 10 | 20 | 57.5 |
| D50F16L | D50F16R | 16 | 30 | 10 | 20 | 57.5 |
| D50F3/16L | D50F3/16R | 3/16" | 30 | 10 | 20 | 57.5 |
| D50F1/4L | D50F1/4R | 1/4" | 30 | 10 | 20 | 57.5 |
| D50F3/8L | D50F3/8R | 3/8" | 30 | 10 | 20 | 57.5 |
| D50F1/2L | D50F1/2R | 1/2" | 30 | 10 | 20 | 57.5 |
| D50F5/8L | D50F5/8R | 5/8" | 30 | 10 | 20 | 57.5 |

# D50F-H 45MM HOLZ-HER DOWEL DRILLS
## 10MM DIAM. X 20MM LONG SHANK




**APPLICATION:**

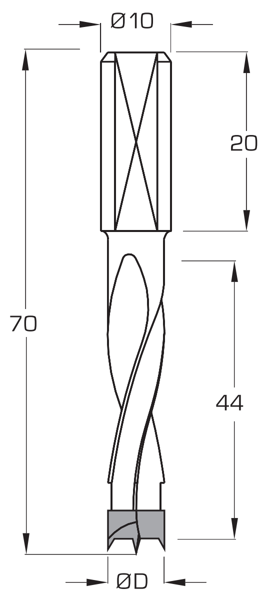
» 45mm length for Holz-Her machines
» For blind flat bottom holes

**DESIGN:**

» Carbide-tipped bradpoint drill end

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D50F08L-H | D50F08R-H | 8 | 23 | 10 | 20 | 45 |

# D50G 70MM DOWEL DRILLS
## 10MM DIAM. X 20MM LONG SHANK




**APPLICATION:**

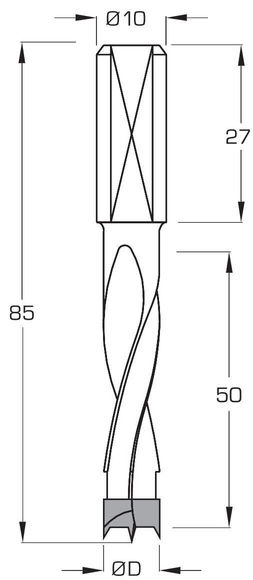
» For blind flat bottom holes

**DESIGN:**

» Carbide-tipped bradpoint drill end

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D50G04L | D50G04R | 4 | 44 | 10 | 20 | 70 |
| D50G05L | D50G05R | 5 | 44 | 10 | 20 | 70 |
| D50G052L | D50G052R | 5.2 | 44 | 10 | 20 | 70 |
| D50G055L | D50G055R | 5.5 | 44 | 10 | 20 | 70 |
| D50G06L | D50G06R | 6 | 44 | 10 | 20 | 70 |
| D50G065L | D50G065R | 6.5 | 44 | 10 | 20 | 70 |
| D50G067L | D50G067R | 6.7 | 44 | 10 | 20 | 70 |
| D50G07L | D50G07R | 7 | 44 | 10 | 20 | 70 |
| D50G075L | D50G075R | 7.5 | 44 | 10 | 20 | 70 |
| D50G079L | D50G079R | 7.9 | 44 | 10 | 20 | 70 |
| D50G08L | D50G08R | 8 | 44 | 10 | 20 | 70 |
| D50G09L | D50G09R | 9 | 44 | 10 | 20 | 70 |
| D50G10L | D50G10R | 10 | 44 | 10 | 20 | 70 |
| D50G11L | D50G11R | 11 | 44 | 10 | 20 | 70 |
| D50G12L | D50G12R | 12 | 44 | 10 | 20 | 70 |
| D50G13L | D50G13R | 13 | 44 | 10 | 20 | 70 |
| D50G14L | D50G14R | 14 | 44 | 10 | 20 | 70 |
| D50G15L | D50G15R | 15 | 44 | 10 | 20 | 70 |
| D50G16L | D50G16R | 16 | 44 | 10 | 20 | 70 |
| D50G17L | D50G17R | 17 | 44 | 10 | 20 | 70 |
| D50G3/16L | D50G3/16R | 3/16" | 44 | 10 | 20 | 70 |
| D50G1/4L | D50G1/4R | 1/4" | 44 | 10 | 20 | 70 |
| D50G3/8L | D50G3/8R | 3/8" | 44 | 10 | 20 | 70 |
| D50G7/16L | D50G7/16R | 7/16" | 44 | 10 | 20 | 70 |
| D50G1/2L | D50G1/2R | 1/2" | 44 | 10 | 20 | 70 |
| D50G5/8L | D50G5/8R | 5/8" | 44 | 10 | 20 | 70 |

# D50GL 85MM DOWEL DRILLS
## 10MM DIAM. X 27MM LONG SHANK




**APPLICATION:**

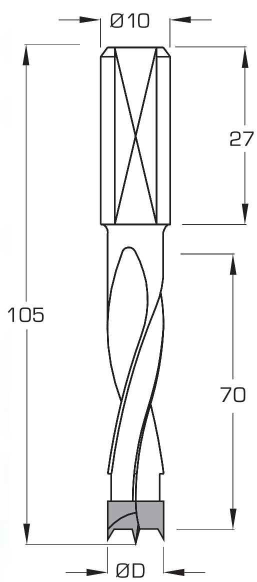
» For blind flat bottom holes

**DESIGN:**

» Carbide-tipped bradpoint drill end

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D50GL05L | D50GL05R | 5 | 50 | 10 | 27 | 85 |
| D50GL06L | D50GL06R | 6 | 50 | 10 | 27 | 85 |
| D50GL08L | D50GL08R | 8 | 50 | 10 | 27 | 85 |
| D50GL10L | D50GL10R | 10 | 50 | 10 | 27 | 85 |
| D50GL12L | D50GL12R | 12 | 50 | 10 | 27 | 85 |

# D50GX 105MM DOWEL DRILLS
## 10MM DIAM. X 27MM LONG SHANK




**APPLICATION:**

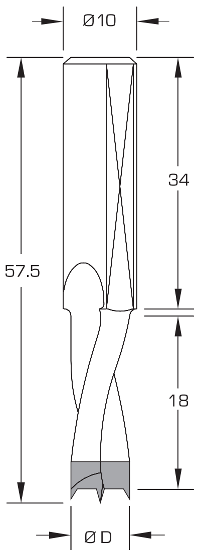
» For blind flat bottom holes

**DESIGN:**

» Carbide-tipped bradpoint drill end

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D50GX05L | D50GX05R | 5 | 70 | 10 | 27 | 105 |
| D50GX06L | D50GX06R | 6 | 70 | 10 | 27 | 105 |
| D50GX08L | D50GX08R | 8 | 70 | 10 | 27 | 105 |
| D50GX10L | D50GX10R | 10 | 70 | 10 | 27 | 105 |
| D50GX12L | D50GX12R | 12 | 70 | 10 | 27 | 105 |

# D50I 57.5MM DOWEL DRILLS
10MM DIAM. X 34MM LONG SHANK

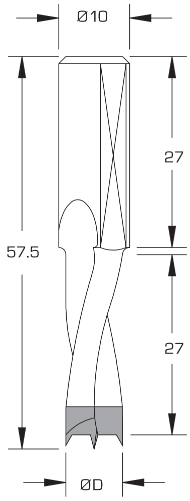



**APPLICATION:**
» For blind flat bottom holes

**DESIGN:**
» Carbide-tipped bradpoint drill end

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D50I05L | D50I05R | 5 | 18 | 10 | 34 | 57.5 |
| D50I06L | D50I06R | 6 | 18 | 10 | 34 | 57.5 |
| D50I08L | D50I08R | 8 | 18 | 10 | 34 | 57.5 |
| D50I10L | D50I10R | 10 | 18 | 10 | 34 | 57.5 |

# D50L 57.5MM DOWEL DRILLS
10MM DIAM. X 27MM LONG SHANK

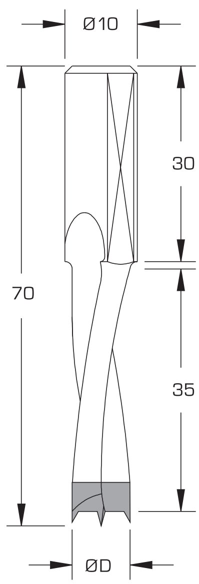



**APPLICATION:**
» For blind flat bottom holes

**DESIGN:**
» Carbide-tipped bradpoint drill end

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D50L04L | D50L04R | 4 | 27 | 10 | 27 | 57.5 |
| D50L05L | D50L05R | 5 | 27 | 10 | 27 | 57.5 |
| D50L052L | D50L052R | 5.2 | 27 | 10 | 27 | 57.5 |
| D50L055L | D50L055R | 5.5 | 27 | 10 | 27 | 57.5 |
| D50L06L | D50L06R | 6 | 27 | 10 | 27 | 57.5 |
| D50L07L | D50L07R | 7 | 27 | 10 | 27 | 57.5 |
| D50L08L | D50L08R | 8 | 27 | 10 | 27 | 57.5 |
| D50L082L | D50L082R | 8.2 | 27 | 10 | 27 | 57.5 |
| D50L09L | D50L09R | 9 | 27 | 10 | 27 | 57.5 |
| D50L10L | D50L10R | 10 | 27 | 10 | 27 | 57.5 |
| D50L11L | D50L11R | 11 | 27 | 10 | 27 | 57.5 |
| D50L12L | D50L12R | 12 | 27 | 10 | 27 | 57.5 |
| D50L13L | D50L13R | 13 | 27 | 10 | 27 | 57.5 |
| D50L14L | D50L14R | 14 | 27 | 10 | 27 | 57.5 |
| D50L15L | D50L15R | 15 | 27 | 10 | 27 | 57.5 |
| D50L16L | D50L16R | 16 | 27 | 10 | 27 | 57.5 |
| D50L1/4L | D50L1/4R | 1/4" | 27 | 10 | 27 | 57.5 |
| D50L3/8L | D50L3/8R | 3/8" | 27 | 10 | 27 | 57.5 |
| D50L1/2L | D50L1/2R | 1/2" | 27 | 10 | 27 | 57.5 |
| D50L5/8L | D50L5/8R | 5/8" | 27 | 10 | 27 | 57.5 |

# D50M 70MM DOWEL DRILLS
10MM DIAM. X 30MM LONG SHANK

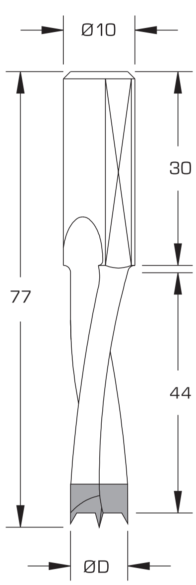



**APPLICATION:**
» For blind flat bottom holes

**DESIGN:**
» Carbide-tipped bradpoint drill end

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D50M04L | D50M04R | 4 | 35 | 10 | 30 | 70 |
| D50M05L | D50M05R | 5 | 35 | 10 | 30 | 70 |
| D50M055L | D50M055R | 5.5 | 35 | 10 | 30 | 70 |
| D50M06L | D50M06R | 6 | 35 | 10 | 30 | 70 |
| D50M07L | D50M07R | 7 | 35 | 10 | 30 | 70 |
| D50M08L | D50M08R | 8 | 35 | 10 | 30 | 70 |
| D50M082L | D50M082R | 8.2 | 35 | 10 | 30 | 70 |
| D50M09L | D50M09R | 9 | 35 | 10 | 30 | 70 |
| D50M10L | D50M10R | 10 | 35 | 10 | 30 | 70 |
| D50M11L | D50M11R | 11 | 35 | 10 | 30 | 70 |
| D50M12L | D50L12R | 12 | 35 | 10 | 30 | 70 |
| D50M13L | D50M13R | 13 | 35 | 10 | 30 | 70 |
| D50M14L | D50M14R | 14 | 35 | 10 | 30 | 70 |
| D50M15L | D50M15R | 15 | 35 | 10 | 30 | 70 |
| D50M16L | D50M16R | 16 | 35 | 10 | 30 | 70 |
| D50M1/4L | D50M1/4R | 1/4" | 35 | 10 | 30 | 70 |
| D50M3/8L | D50M3/8R | 3/8" | 35 | 10 | 30 | 70 |
| D50M1/2L | D50M1/2R | 1/2" | 35 | 10 | 30 | 70 |
| D50M5/8L | D50M5/8R | 5/8" | 35 | 10 | 30 | 70 |

# D50W 77MM DOWEL DRILLS
10MM DIAM. X 30MM LONG SHANK



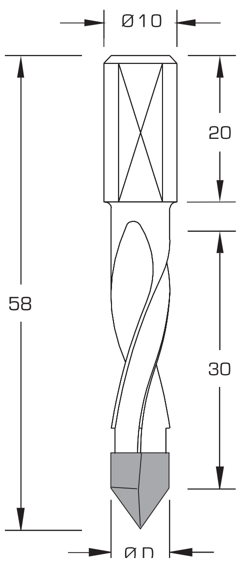

**APPLICATION:**
» For blind flat bottom holes

**DESIGN:**
» Carbide-tipped bradpoint drill end

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D50W04L | D50W04R | 4 | 44 | 10 | 30 | 77 |
| D50W05L | D50W05R | 5 | 44 | 10 | 30 | 77 |
| D50W06L | D50W06R | 6 | 44 | 10 | 30 | 77 |
| D50W07L | D50W07R | 7 | 44 | 10 | 30 | 77 |
| D50W08L | D50W08R | 8 | 44 | 10 | 30 | 77 |
| D50W09L | D50W09R | 9 | 44 | 10 | 30 | 77 |
| D50W10L | D50W10R | 10 | 44 | 10 | 30 | 77 |
| D50W11L | D50W11R | 11 | 44 | 10 | 30 | 77 |
| D50W12L | D50W12R | 12 | 44 | 10 | 30 | 77 |

# D50H 58MM THROUGH HOLE DRILLS

## 10MM DIAM. X 20MM LONG SHANK




**APPLICATION:**

» For clean pass-through holes

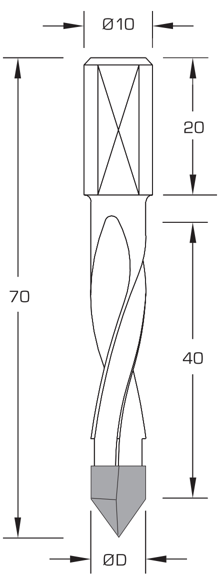
**DESIGN:**

» Carbide-tipped V-point drill point

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D50H04L | D50H04R | 4 | 30 | 10 | 20 | 58 |
| D50H05L | D50H05R | 5 | 30 | 10 | 20 | 58 |
| D50H06L | D50H06R | 6 | 30 | 10 | 20 | 58 |
| D50H07L | D50H07R | 7 | 30 | 10 | 20 | 58 |
| D50H08L | D50H08R | 8 | 30 | 10 | 20 | 58 |
| D50H09L | D50H09R | 9 | 30 | 10 | 20 | 58 |
| D50H10L | D50H10R | 10 | 30 | 10 | 20 | 58 |
| D50H12L | D50H12R | 12 | 30 | 10 | 20 | 58 |
| D50H1/4L | D50H1/4R | 1/4" | 30 | 10 | 20 | 58 |
| D50H3/8L | D50H3/8R | 3/8" | 30 | 10 | 20 | 58 |
| D50H7/16L | D50H7/16R | 7/16" | 30 | 10 | 20 | 58 |

# D50K 70MM THROUGH HOLE DRILLS

## 10MM DIAM. X 20MM LONG SHANK




**APPLICATION:**

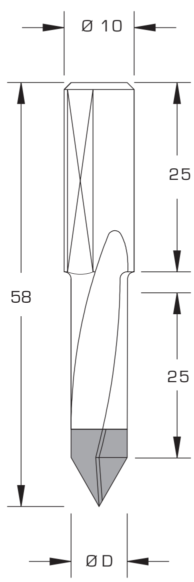
» For clean pass-through holes

**DESIGN:**

» Carbide-tipped V-point drill point

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D50K04L | D50K04R | 4 | 40 | 10 | 20 | 70 |
| D50K045L | D50K045R | 4.5 | 40 | 10 | 20 | 70 |
| D50K0483L | D50K0483R | 4.83 | 40 | 10 | 20 | 70 |
| D50K05L | D50K05R | 5 | 40 | 10 | 20 | 70 |
| D50K055L | D50K055R | 5.5 | 40 | 10 | 20 | 70 |
| D50K06L | D50K06R | 6 | 40 | 10 | 20 | 70 |
| D50K065L | D50K065R | 6.5 | 40 | 10 | 20 | 70 |
| D50K07L | D50K07R | 7 | 40 | 10 | 20 | 70 |
| D50K08L | D50K08R | 8 | 40 | 10 | 20 | 70 |
| D50K09L | D50K09R | 9 | 40 | 10 | 20 | 70 |
| D50K10L | D50K10R | 10 | 40 | 10 | 20 | 70 |
| D50K11L | D50K11R | 11 | 40 | 10 | 20 | 70 |
| D50K12L | D50K12R | 12 | 40 | 10 | 20 | 70 |
| D50K1/4L | D50K1/4R | 1/4" | 40 | 10 | 20 | 70 |
| D50K3/8L | D50K3/8R | 3/8" | 40 | 10 | 20 | 70 |
| D50K7/16L | D50K7/16R | 7/16" | 40 | 10 | 20 | 70 |
| D50K1/2L | D50K1/2R | 1/2" | 40 | 10 | 20 | 70 |

# 57.5MM THROUGH HOLE DRILLS
10MM DIAM. X 25MM LONG SHANK

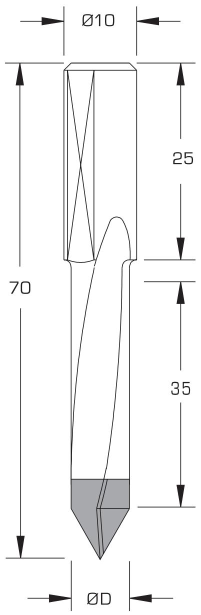



## APPLICATION:
» For clean pass-through holes

## DESIGN:
» Carbide-tipped V-point drill point

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D50N04L | D50N04R | 4 | 25 | 10 | 25 | 58 |
| D50N05L | D50N05R | 5 | 25 | 10 | 25 | 58 |
| D50N06L | D50N06R | 6 | 25 | 10 | 25 | 58 |
| D50N07L | D50N07R | 7 | 25 | 10 | 25 | 58 |
| D50N08L | D50N08R | 8 | 25 | 10 | 25 | 58 |
| D50N10L | D50N10R | 10 | 25 | 10 | 25 | 58 |
| D50N12L | D50N12R | 12 | 25 | 10 | 25 | 58 |

## D50Y 70MM THROUGH HOLE DRILLS
10MM DIAM. X 25MM LONG SHANK




**APPLICATION:**

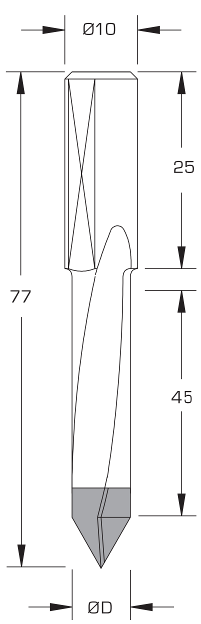
» For clean pass-through holes

**DESIGN:**

» Carbide-tipped V-point drill point

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D50Y04L | D50Y04R | 4 | 35 | 10 | 25 | 70 |
| D50Y05L | D50Y05R | 5 | 35 | 10 | 25 | 70 |
| D50Y06L | D50Y06R | 6 | 35 | 10 | 25 | 70 |
| D50Y07L | D50Y07R | 7 | 35 | 10 | 25 | 70 |
| D50Y08L | D50Y08R | 8 | 35 | 10 | 25 | 70 |
| D50Y09L | D50Y09R | 9 | 35 | 10 | 25 | 70 |
| D50Y10L | D50Y10R | 10 | 35 | 10 | 25 | 70 |
| D50Y11L | D50Y11R | 11 | 35 | 10 | 25 | 70 |
| D50Y12L | D50Y12R | 12 | 35 | 10 | 25 | 70 |

## D50Z 77MM THROUGH HOLE DRILLS
10MM DIAM. X 25MM LONG SHANK




**APPLICATION:**

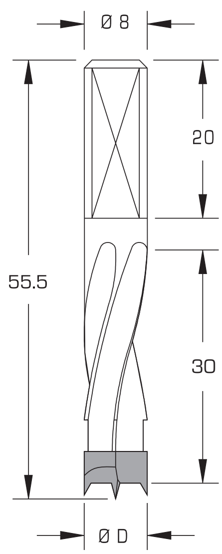
» For clean pass-through holes

**DESIGN:**

» Carbide-tipped V-point drill point

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D50Z05L | D50Z05R | 5 | 45 | 10 | 25 | 77 |
| D50Z052L | D50Z052R | 5.2 | 45 | 10 | 25 | 77 |
| D50Z06L | D50Z06R | 6 | 45 | 10 | 25 | 77 |
| D50Z08L | D50Z08R | 8 | 45 | 10 | 25 | 77 |
| D50Z10L | D50Z10R | 10 | 45 | 10 | 25 | 77 |
| D50Z12L | D50Z12R | 12 | 45 | 10 | 25 | 77 |

# D50A 55.5MM DOWEL DRILLS
## 8MM DIAM. X 20MM LONG SHANK




**APPLICATION:**

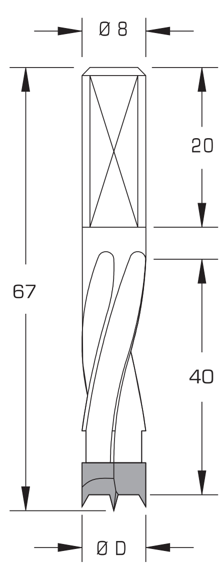
» For blind flat bottom holes

**DESIGN:**

» Carbide-tipped bradpoint drill end

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D50A05L | D50A05R | 5 | 30 | 8 | 20 | 55.5 |
| D50A06L | D50A06R | 6 | 30 | 8 | 20 | 55.5 |
| D50A07L | D50A07R | 7 | 30 | 8 | 20 | 55.5 |
| D50A08L | D50A08R | 8 | 30 | 8 | 20 | 55.5 |
| D50A09L | D50A09R | 9 | 30 | 8 | 20 | 55.5 |
| D50A10L | D50A10R | 10 | 30 | 8 | 20 | 55.5 |
| D50A11L | D50A11R | 11 | 30 | 8 | 20 | 55.5 |
| D50A12L | D50A12R | 12 | 30 | 8 | 20 | 55.5 |

# D50B 67MM DOWEL DRILLS
## 8MM DIAM. X 20MM LONG SHANK




**APPLICATION:**

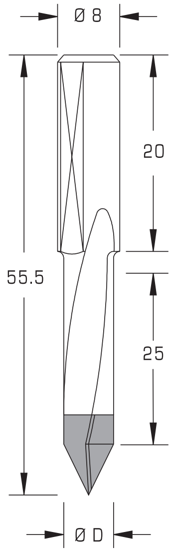
» For blind flat bottom holes

**DESIGN:**

» Carbide-tipped bradpoint drill end

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D50B05L | D50B05R | 5 | 40 | 8 | 20 | 67 |
| D50B06L | D50B06R | 6 | 40 | 8 | 20 | 67 |
| D50B07L | D50B07R | 7 | 40 | 8 | 20 | 67 |
| D50B08L | D50B08R | 8 | 40 | 8 | 20 | 67 |
| D50B09L | D50B09R | 9 | 40 | 8 | 20 | 67 |
| D50B10L | D50B10R | 10 | 40 | 8 | 20 | 67 |
| D50B11L | D50B11R | 11 | 40 | 8 | 20 | 67 |
| D50B12L | D50B12R | 12 | 40 | 8 | 20 | 67 |

# D50C 55.5MM THROUGH HOLE DRILLS
8MM DIAM. X 20MM LONG SHANK

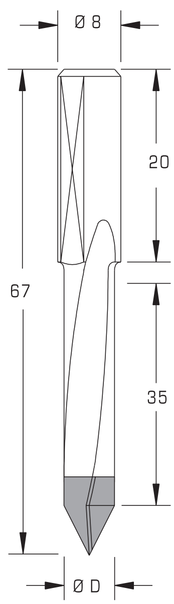



**APPLICATION:**
» For clean pass-through holes

**DESIGN:**
» Carbide-tipped V-point drill point

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| **D50C05L** | **D50C05R** | 5 | 25 | 8 | 20 | 55.5 |
| **D50C08L** | **D50C08R** | 8 | 25 | 8 | 20 | 55.5 |

# D50D 67MM THROUGH HOLE DRILLS
8MM DIAM. X 20MM LONG SHANK

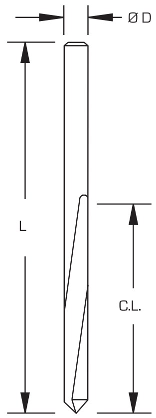



**APPLICATION:**
» For clean pass-through holes

**DESIGN:**
» Carbide-tipped V-point drill point

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| **D50D05L** | **D50D05R** | 5 | 35 | 8 | 20 | 67 |
| **D50D08L** | **D50D08R** | 8 | 35 | 8 | 20 | 67 |

# D50HS HIGH PRECISION THROUGH HOLE DRILLS
SOLID CARBIDE


**APPLICATION:**

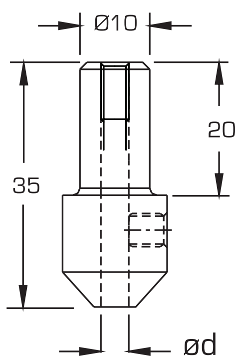
» Used to make accurate small diameter holes
» Recommended for high wear applications
» For CNC boring centers, use with D0020 drill adaptor

**DESIGN:**

» Precision ground diameter and shank
» Can be used with D0020 Drill Adaptors

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | CUTTING LENGTH | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D50HS20L | D50HS20R | 2 | 20 | 2 | 29 | 49 |
| D50HS25L | D50HS25R | 2.5 | 25 | 2.5 | 30 | 55 |
| D50HS30L | D50HS30R | 3 | 25 | 3 | 30 | 55 |
| D50HS32L | D50HS32R | 3.2 | 25 | 3.2 | 30 | 55 |
| D50HS35L | D50HS35R | 3.5 | 25 | 3.5 | 30 | 55 |
| D50HS40L | D50HS40R | 4 | 25 | 4 | 30 | 55 |

# D0020 DRILL ADAPTORS
WITH RETAINING SCREW


**APPLICATION:**

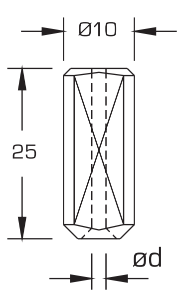
» For adapting small diameter round shanks to standard 10mm shank type
» Can be used with additional adaptors to match boring center connection type

**DESIGN:**

» Precision ground bore
» Retaining screw used to secure round and notched shank types

| PART NO. | BORE DIAM. ød | SHANK DIAM. | SHANK LENGTH | OVERALL LENGTH |
|---|---|---|---|---|
| D0020 | 2 | 10 | 20 | 35 |
| D0025 | 2.5 | 10 | 20 | 35 |
| D0030 | 3 | 10 | 20 | 35 |
| D0032 | 3.2 | 10 | 20 | 35 |
| D0035 | 3.5 | 10 | 20 | 35 |
| D0040 | 4 | 10 | 20 | 35 |

# D00520 DRILL BUSHING
SPLIT TYPE


**APPLICATION:**

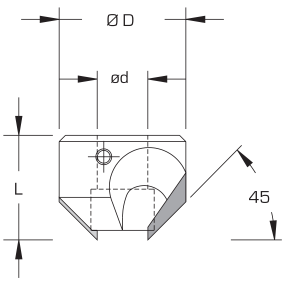
» For enlarging small diameter round shanks to standard 10mm shank type

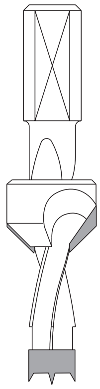
**DESIGN:**

» Split design allows for bushing to collapse onto shank

| PART NO. | BORE DIAM. ød | OUTSIDE DIAM. ØD | OVERALL LENGTH |
|---|---|---|---|
| D00520 | 2 | 10 | 25 |
| D00525 | 2.5 | 10 | 25 |
| D00530 | 3 | 10 | 25 |
| D00532 | 3.2 | 10 | 25 |
| D00535 | 3.5 | 10 | 25 |
| D00540 | 4 | 10 | 25 |

# 45° COUNTERSINK
## FLUTE MOUNTED



**APPLICATION:**

» Provides clean 45° countersink cuts

**DESIGN:**

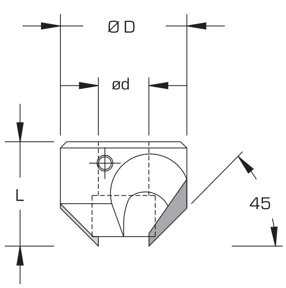
» Drill diameter specific
» Mounts onto the drill twist
» Compatible with the following drill types:

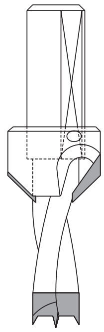
D50A D50E D50GX
D50B D50F D50H
D50C D50G D50K
D50D D50GL

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | DRILL DIAM. ød | CUTTING DIAM. ØD | COUNTERSINK ANGLE | OVERALL LENGTH L |
|---|---|---|---|---|---|
| **D50S04L** | **D50S04R** | 4 | 14 | 45° | 12 |
| **D50S05L** | **D50S05R** | 5 | 14 | 45° | 12 |
| **D50S06L** | **D50S06R** | 6 | 16 | 45° | 14 |
| **D50S07L** | **D50S07R** | 7 | 16 | 45° | 14 |
| **D50S08L** | **D50S08R** | 8 | 16 | 45° | 16 |
| **D50S09L** | **D50S09R** | 9 | 18 | 45° | 16 |
| **D50S10L** | **D50S10R** | 10 | 20 | 45° | 18 |
| **D50S11L** | **D50S11R** | 11 | 20 | 45° | 18 |
| **D50S12L** | **D50S12R** | 12 | 20 | 45° | 18 |
| **D50S1/4L** | **D50S1/4R** | 1/4" | 16 | 45° | 14 |

D50T:U

# 45° COUNTERSINK
## SHANK MOUNTED



**APPLICATION:**

» Provides clean 45° countersink cuts with standard shank drills

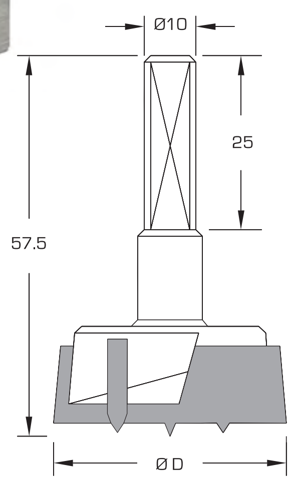
**DESIGN:**

» Mounts onto drill shanks 25mm, 27mm, 30mm, and 34mm long
» Compatible with the following drill types:

D50I D50N D50Z
D50L D50W
D50M D50Y

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | MIN. DRILL DIAM. | MAX. DRILL DIAM. | CUTTING DIAM. ØD | COUNTERSINK ANGLE | OVERALL LENGTH L |
|---|---|---|---|---|---|---|
| **D50TL** | **D50TR** | 4 | 10 | 20 | 45° | 15 |
| **D50UL** | **D50UR** | 11 | 12 | 22 | 45° | 16 |

# D14A 57.5MM BORING DRILLS, 2T+2 SPURS
10MM DIAM. X 25MM LONG SHANK

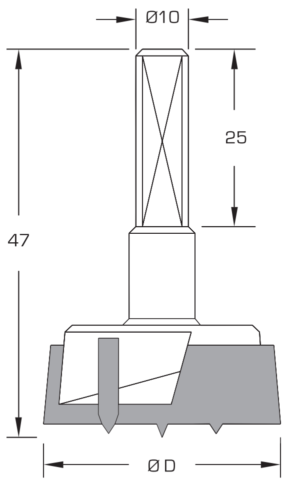



**APPLICATION:**
» For blind flat bottom holes

**DESIGN:**
» Wear resistant carbide teeth and spurs
» Center point reduces deflection

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | SHANK DIAM. | SHANK LENGTH | NO. OF CUTTING EDGES | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D14A15L | D14A15R | 15 | 10 | 25 | 2+2 | 57.5 |
| D14A16L | D14A16R | 16 | 10 | 25 | 2+2 | 57.5 |
| D14A18L | D14A18R | 18 | 10 | 25 | 2+2 | 57.5 |
| D14A20L | D14A20R | 20 | 10 | 25 | 2+2 | 57.5 |
| D14A22L | D14A22R | 22 | 10 | 25 | 2+2 | 57.5 |
| D14A24L | D14A24R | 24 | 10 | 25 | 2+2 | 57.5 |
| D14A25L | D14A25R | 25 | 10 | 25 | 2+2 | 57.5 |
| D14A26L | D14A26R | 26 | 10 | 25 | 2+2 | 57.5 |
| D14A28L | D14A28R | 28 | 10 | 25 | 2+2 | 57.5 |
| D14A30L | D14A30R | 30 | 10 | 25 | 2+2 | 57.5 |
| D14A32L | D14A32R | 32 | 10 | 25 | 2+2 | 57.5 |
| D14A34L | D14A34R | 34 | 10 | 25 | 2+2 | 57.5 |
| D14A35L | D14A35R | 35 | 10 | 25 | 2+2 | 57.5 |
| D14A36L | D14A36R | 36 | 10 | 25 | 2+2 | 57.5 |
| D14A38L | D14A38R | 38 | 10 | 25 | 2+2 | 57.5 |
| D14A40L | D14A40R | 40 | 10 | 25 | 2+2 | 57.5 |
| D14A5/8L | D14A5/8R | 5/8" | 10 | 25 | 2+2 | 57.5 |
| D14A3/4L | D14A3/4R | 3/4" | 10 | 25 | 2+2 | 57.5 |
| D14A7/8L | D14A7/8R | 7/8" | 10 | 25 | 2+2 | 57.5 |

# D14A-H 47MM HOLZ-HER BORING DRILLS, 2T+2 SPURS
10MM DIAM. X 25MM LONG SHANK




**APPLICATION:**
» 45mm length for Holz-Her machines
» For blind flat bottom holes

**DESIGN:**
» Wear resistant carbide teeth and spurs
» Center point reduces deflection

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | SHANK DIAM. | SHANK LENGTH | NO. OF CUTTING EDGES | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D14A30L-H | D14A30R-H | 30 | 10 | 25 | 2+2 | 47 |
| D14A35L-H | D14A35R-H | 35 | 10 | 25 | 2+2 | 47 |

# D14B 57.5MM BORING DRILLS, 3T+3 SPURS

10MM DIAM. X 25MM LONG SHANK

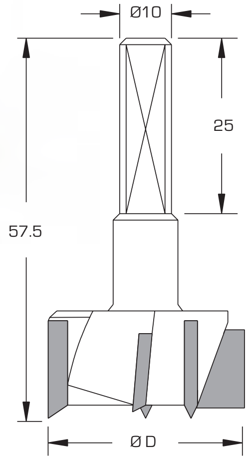
### APPLICATION:

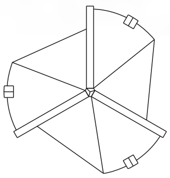
» Used in high speed applications
» Can reduce chipping or tear-out in delicate materials

### DESIGN:

» Wear resistant carbide teeth and spurs
» Center point reduces deflection

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | SHANK DIAM. | SHANK LENGTH | NO. OF CUTTING EDGES | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| **D14B25L** | **D14B25R** | 25 | 10 | 25 | 3+3 | 57.5 |
| **D14B30L** | **D14B30R** | 30 | 10 | 25 | 3+3 | 57.5 |
| **D14B35L** | **D14B35R** | 35 | 10 | 25 | 3+3 | 57.5 |
| **D14B40L** | **D14B40R** | 40 | 10 | 25 | 3+3 | 57.5 |



**WITH** CENTER POINT

# D14H 57.5MM NO CENTER POINT BORING DRILLS, 3T+3 SPURS

10MM DIAM. X 25MM LONG SHANK

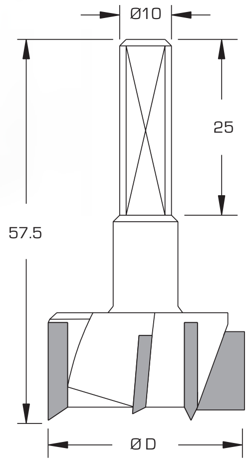
### APPLICATION:

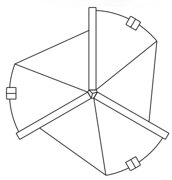
» Used in high speed applications
» Can reduce chipping or tear-out in delicate materials

### DESIGN:

» Wear resistant carbide teeth and spurs
» No center point for flat bottom boring

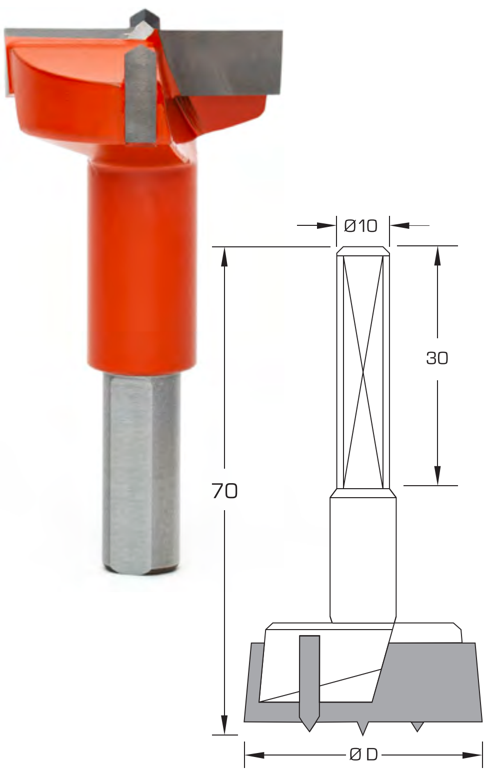
| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | SHANK DIAM. | SHANK LENGTH | NO. OF CUTTING EDGES | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| **D14H25L** | **D14H25R** | 25 | 10 | 25 | 3+3 | 57.5 |
| **D14H30L** | **D14H30R** | 30 | 10 | 25 | 3+3 | 57.5 |
| **D14H35L** | **D14H35R** | 35 | 10 | 25 | 3+3 | 57.5 |
| **D14H40L** | **D14H40R** | 40 | 10 | 25 | 3+3 | 57.5 |



**WITHOUT** CENTER POINT

# D15A 70MM BORING DRILLS, 2T+2 SPURS
## 10MM DIAM. X 30MM LONG SHANK

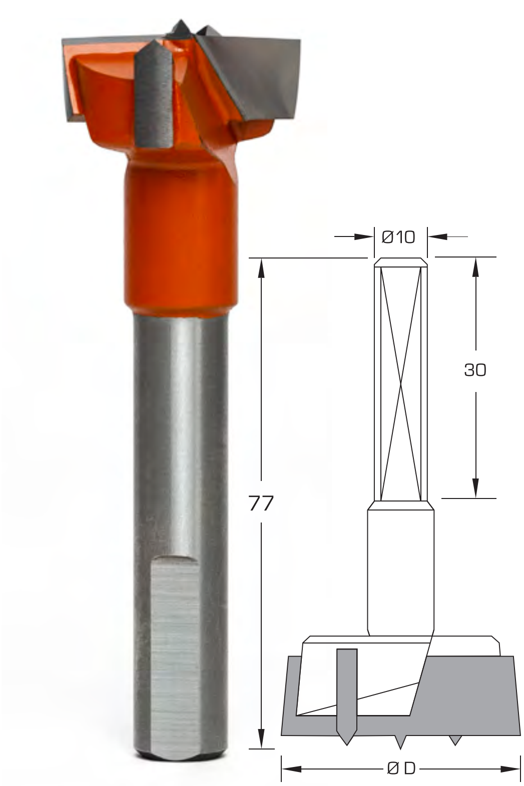



### APPLICATION:
» For blind flat bottom holes

### DESIGN:
» Wear resistant carbide teeth and spurs
» Center point reduces deflection

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | SHANK DIAM. | SHANK LENGTH | NO. OF CUTTING EDGES | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D15A15L | D15A15R | 15 | 10 | 30 | 2+2 | 70 |
| D15A20L | D15A20R | 20 | 10 | 30 | 2+2 | 70 |
| D15A25L | D15A25R | 25 | 10 | 30 | 2+2 | 70 |
| D15A26L | D15A26R | 26 | 10 | 30 | 2+2 | 70 |
| D15A30L | D15A30R | 30 | 10 | 30 | 2+2 | 70 |
| D15A35L | D15A35R | 35 | 10 | 30 | 2+2 | 70 |
| D15A9/16L | D15A9/16R | 9/16" | 10 | 30 | 2+2 | 70 |
| D15A3/4L | D15A3/4R | 3/4" | 10 | 30 | 2+2 | 70 |

# D16A 77MM BORING DRILLS, 2T+2 SPURS
## 10MM DIAM. X 30MM LONG SHANK




### APPLICATION:
» For blind flat bottom holes

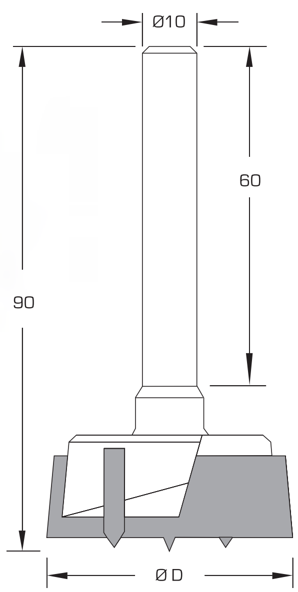
### DESIGN:
» Wear resistant carbide teeth and spurs
» Center point reduces deflection

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | SHANK DIAM. | SHANK LENGTH | NO. OF CUTTING EDGES | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| D16A15L | D16A15R | 15 | 10 | 30 | 2+2 | 77 |
| D16A20L | D16A20R | 20 | 10 | 30 | 2+2 | 77 |
| D16A25L | D16A25R | 25 | 10 | 30 | 2+2 | 77 |
| D16A26L | D16A26R | 26 | 10 | 30 | 2+2 | 77 |
| D16A30L | D16A30R | 30 | 10 | 30 | 2+2 | 77 |
| D16A35L | D16A35R | 35 | 10 | 30 | 2+2 | 77 |

# 90MM BORING DRILLS, 2T+2 SPURS
10MM DIAM. X 60MM LONG SHANK

## APPLICATION:
» For through hole boring

## DESIGN:
» Cylindrical shank (no flat on shank)
» Two teeth + two spurs
» Wear resistant carbide wings




| RIGHT-HAND PART NO. | CUTTING DIAM. ØD | SHANK DIAM. | SHANK LENGTH | NO. OF CUTTING EDGES | OVERALL LENGTH |
|---|---|---|---|---|---|
| **D14D15** | 15 | 10 | 60 | 2+2 | 90 |
| **D14D16** | 16 | 10 | 60 | 2+2 | 90 |
| **D14D18** | 18 | 10 | 60 | 2+2 | 90 |
| **D14D20** | 20 | 10 | 60 | 2+2 | 90 |
| **D14D22** | 22 | 10 | 60 | 2+2 | 90 |
| **D14D24** | 24 | 10 | 60 | 2+2 | 90 |
| **D14D25** | 25 | 10 | 60 | 2+2 | 90 |
| **D14D26** | 26 | 10 | 60 | 2+2 | 90 |
| **D14D28** | 28 | 10 | 60 | 2+2 | 90 |
| **D14D30** | 30 | 10 | 60 | 2+2 | 90 |
| **D14D32** | 32 | 10 | 60 | 2+2 | 90 |
| **D14D34** | 34 | 10 | 60 | 2+2 | 90 |
| **D14D35** | 35 | 10 | 60 | 2+2 | 90 |
| **D14D35L •** | 35 | 10 | 60 | 2+2 | 90 |
| **D14D36** | 36 | 10 | 60 | 2+2 | 90 |
| **D14D38** | 38 | 10 | 60 | 2+2 | 90 |
| **D14D40** | 40 | 10 | 60 | 2+2 | 90 |
| **D14D5/8** | 5/8" | 10 | 60 | 2+2 | 90 |
| **D14D3/4** | 3/4" | 10 | 60 | 2+2 | 90 |

• Left-hand rotation

# 57.5MM INSERT BORING DRILLS, 2T+2 SPURS

10MM DIAM. X 25MM LONG SHANK

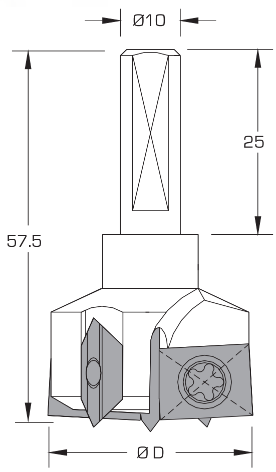
## APPLICATION:

» For high production applications where cut quality is critical
» Ideal for abrasive applications such as HPL
» Precision ground inserts provide accurate cuts
» Carbide insert spurs provide clean cuts in delicate materials such as high gloss laminates

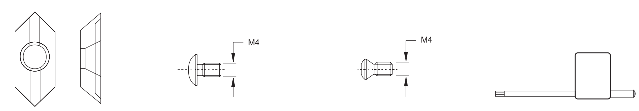
## DESIGN:

» Extremely wear resistant carbide inserts
» Precision ground pockets allow for fast, accurate mounting of inserts

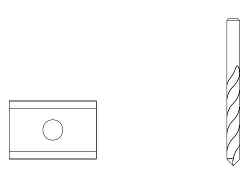
| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | SHANK DIAM. | SHANK LENGTH | NO. OF CUTTING EDGES | OVERALL LENGTH |
|---|---|---|---|---|---|---|
| **D14E25L** | **D14E25R** | 25 | 10 | 25 | 2+2 | 57.5 |
| **D14E26L** | **D14E26R** | 26 | 10 | 25 | 2+2 | 57.5 |
| **D14E30L** | **D14E30R** | 30 | 10 | 25 | 2+2 | 57.5 |
| **D14E35L** | **D14E35R** | 35 | 10 | 25 | 2+2 | 57.5 |
| **D14E40L** | **D14E40R** | 40 | 10 | 25 | 2+2 | 57.5 |



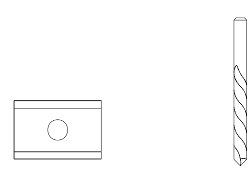

## REPLACEMENT PARTS




| SPUR | INSERT SCREW | SPUR SCREW | WRENCH |
|---|---|---|---|
| D14E40B | D14EM4F | D14EM4T | W400405 |

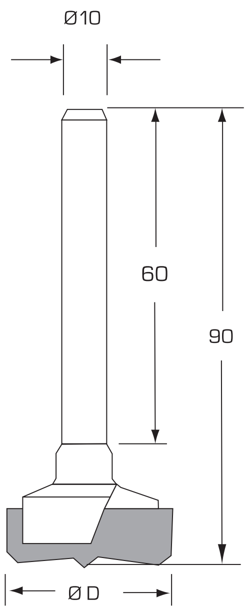


| LEFT-HAND PART NO. | INSERT | LEFT-HAND CENTER POINT |
|---|---|---|
| **D14E25L** | D14E25A | D14E40CL |
| **D14E26L** | D14E26A | D14E40CL |
| **D14E30L** | D14E30A | D14E40CL |
| **D14E35L** | D14E35A | D14E40CL |
| **D14E40L** | D14E40A | D14E40CL |



| RIGHT-HAND PART NO. | INSERT | RIGHT-HAND CENTER POINT |
|---|---|---|
| **D14E25R** | D14E25A | D14E40CR |
| **D14E26R** | D14E26A | D14E40CR |
| **D14E30R** | D14E30A | D14E40CR |
| **D14E35R** | D14E35A | D14E40CR |
| **D14E40R** | D14E40A | D14E40CR |

# D14C 90MM THROUGH HOLE BORING DRILLS, 2 TEETH
## 10MM DIAM. X 60MM LONG SHANK




**APPLICATION:**

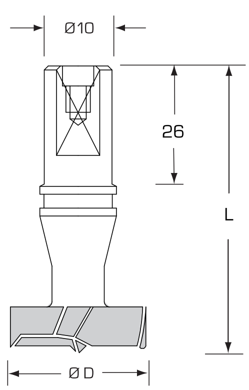
» For through hole boring with clean edges

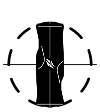
**DESIGN:**

» Cylindrical shank (no flat on shank)
» Two teeth (without spurs)
» Long reach for thick materials
» Wear resistant carbide wings

| RIGHT-HAND PART NO. | CUTTING DIAM. ØD | SHANK DIAM. | SHANK LENGTH | NO.OF CUTTING EDGES | OVERALL LENGTH |
|---|---|---|---|---|---|
| D14C15 | 15 | 10 | 60 | 2 | 90 |
| D14C20 | 20 | 10 | 60 | 2 | 90 |
| D14C25 | 25 | 10 | 60 | 2 | 90 |
| D14C28 | 28 | 10 | 60 | 2 | 90 |
| D14C30 | 30 | 10 | 60 | 2 | 90 |
| D14C35 | 35 | 10 | 60 | 2 | 90 |
| D14C38 | 38 | 10 | 60 | 2 | 90 |
| D14C40 | 40 | 10 | 60 | 2 | 90 |

# D30A 57MM SOLID CARBIDE BORING DRILLS, 2 TEETH
## 10MM DIAM. X 26MM SHANK



**APPLICATION:**

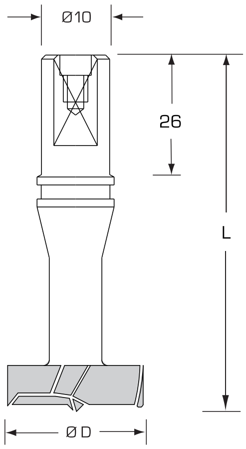
» For blind flat bottom holes

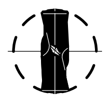
**DESIGN:**

» High performance micrograin solid carbide tips with high tensile strength steel shanks
» Rounded spurs provide expectional finish
» For high precision boring

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | SHANK DIAM. | SHANK LENGTH | NO.OF CUTTING EDGES | OVERALL LENGTH L |
|---|---|---|---|---|---|---|
| D30A15L | D30A15R | 15 | 10 | 26 | 2 | 57 |
| D30A20L | D30A20R | 20 | 10 | 26 | 2 | 57 |
| D30A25L | D30A25R | 25 | 10 | 26 | 2 | 57 |
| D30A30L | D30A30R | 30 | 10 | 26 | 2 | 57 |
| D30A35L | D30A35R | 35 | 10 | 26 | 2 | 57 |

# D35A 70MM SOLID CARBIDE BORING DRILLS, 2 TEETH
## 10MM DIAM. X 26MM SHANK



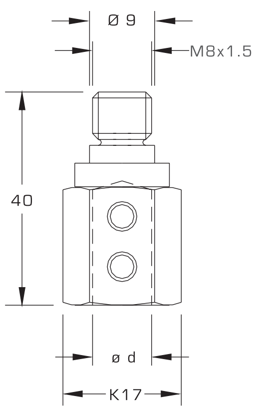



**APPLICATION:**
» For blind flat bottom holes

**DESIGN:**
» High performance micrograin solid carbide tips with high tensile strength steel shanks
» Rounded spurs provide expectional finish
» For high precision boring

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CUTTING DIAM. ØD | SHANK DIAM. | SHANK LENGTH | NO.OF CUTTING EDGES | OVERALL LENGTH L |
|---|---|---|---|---|---|---|
| D35A15L | D35A15R | 15 | 10 | 26 | 2 | 70 |
| D35A20L | D35A20R | 20 | 10 | 26 | 2 | 70 |
| D35A25L | D35A25R | 25 | 10 | 26 | 2 | 70 |
| D35A30L | D35A30R | 30 | 10 | 26 | 2 | 70 |
| D35A35L | D35A35R | 35 | 10 | 26 | 2 | 70 |

# D0012 THREADED DRILL ADAPTORS
## M8 X 1.5 SHANK

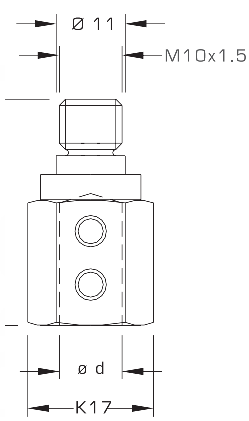



**APPLICATION:**
» Conversion adaptor to use standard shank types

**DESIGN:**
» Rotation and shank diameter specific

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CLAMPING DIAM. ød | COLLAR DIAM. | THREAD | OVERALL LENGTH |
|---|---|---|---|---|---|
| D001208L | D001208R | 8 | 9 | M8 x 1.5 | 40 |
| D001210L | D001210R | 10 | 9 | M8 x 1.5 | 40 |

# D0013 THREADED DRILL ADAPTORS
## M10 X 1.5 SHANK

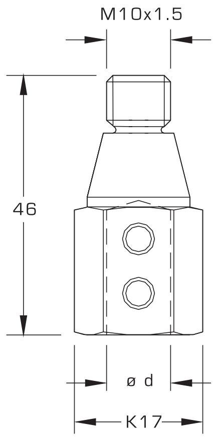



**APPLICATION:**
» Conversion adaptor to use standard shank types

**DESIGN:**
» Rotation and shank diameter specific

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CLAMPING DIAM. ød | COLLAR DIAM. | OVERALL LENGTH | THREAD |
|---|---|---|---|---|---|
| D001308L | D001308R | 8 | 11 | 40 | M10 x 1.5 |
| D0013L | D0013R | 10 | 11 | 40 | M10 x 1.5 |

# D0014 TAPERED THREADED DRILL ADAPTORS
M10 X 1.5 SHANK




**APPLICATION:**
» Conversion adaptor to use standard shank types

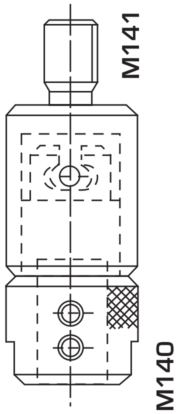
**DESIGN:**
» Rotation and shank diameter specific

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CLAMPING DIAM. ød | OVERALL LENGTH | THREAD |
|---|---|---|---|---|
| **D001408L** | **D001408R** | 8 | 46 | M10 x 1.5 |
| **D0014L** | **D0014R** | 10 | 46 | M10 x 1.5 |

# M140 QUICK CHANGE DRILL ADAPTORS
FOR MACHINES REQUIRING THREADED SHANKS


M141 Threaded Unit

**ASSEMBLY**





M140 Drill Holder

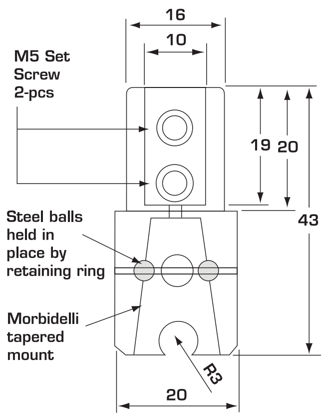
**APPLICATION:**
» Used to minimize downtime of tool changes of threaded drills

**DESIGN:**
» Assembly requires 1pc M141 and 1pc M140
» M141 adaptor is rotation specific
» M140 adaptor mounts to standard 10mm shank types

| LEFT-HAND PART NO. | RIGHT-HAND PART NO. | CLAMPING UNIT | THREAD | OVERALL LENGTH |
|---|---|---|---|---|
| **M141L** | **M141R** | M140 | M10 x 1.5 | 40 |

| PART NO. | CLAMPING DIAM. | DIAM. | OVERALL LENGTH |
|---|---|---|---|
| **M140** | 10 | 20 | 43 |

# M160 MORBIDELLI QUICK CHANGE DRILL ADAPTORS
TRACK STYLE

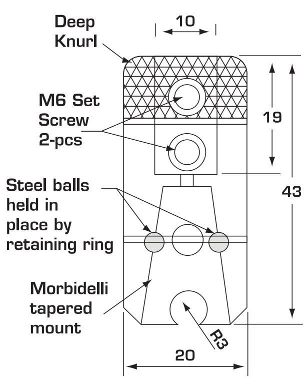



**APPLICATION:**
» Used to minimize downtime of tool changes on track style drilling centers

**DESIGN:**
» Suitable for both LH and RH rotations

| PART NO. | CLAMPING DIAM. | DIAM. | OVERALL LENGTH |
|---|---|---|---|
| M160 | 10 | 20 | 43 |

# M165 MORBIDELLI QUICK CHANGE DRILL ADAPTORS
STANDARD STYLE

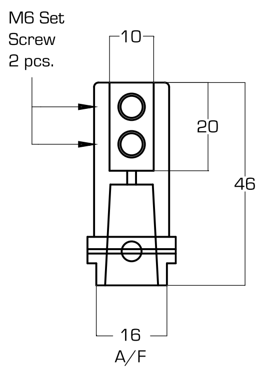


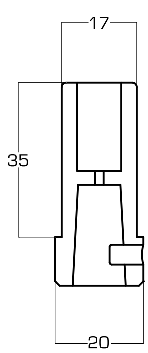

**APPLICATION:**
» Used to minimize downtime of tool changes on Morbidelli drilling centers

**DESIGN:**
» Suitable for both LH and RH rotations
» Adaptor mounts to standard 10mm shank types

| PART NO. | CLAMPING DIAM. | DIAM. | OVERALL LENGTH |
|---|---|---|---|
| M165 | 10 | 20 | 43 |

# M170 QUICK CHANGE DRILL ADAPTOR
FOR HOMAG THROUGHFEED DRILLING MACHINES



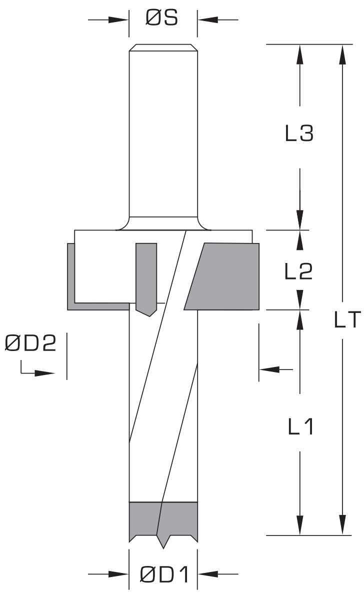




**APPLICATION:**
» Used to minimize downtime of tool changes on throughfeed drilling machines

**DESIGN:**
» Suitable for both LH and RH rotations

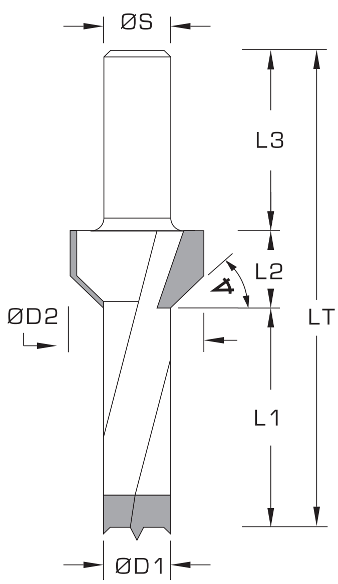
| PART NO. | CLAMPING DIAM. | DIAM. | OVERALL LENGTH |
|---|---|---|---|
| M170 | 10 | 20 | 46 |

## D60F1 CUSTOM COUNTERBORE BIT
### WITH BRADPOINT DRILL



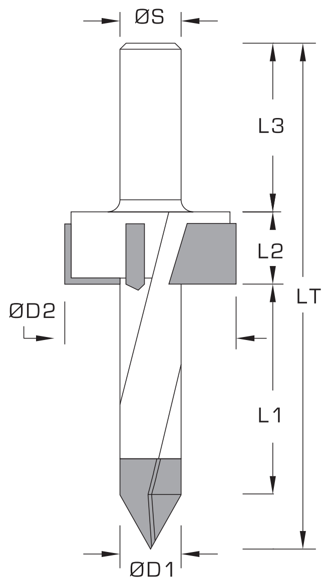

| | |
|---|---|
| ØS | |
| ØD1 | |
| ØD2 | |
| L1 | |
| L2 | |
| L3 | |
| LT | |

## D60F2 CUSTOM COUNTERSINK BIT
### WITH BRADPOINT DRILL



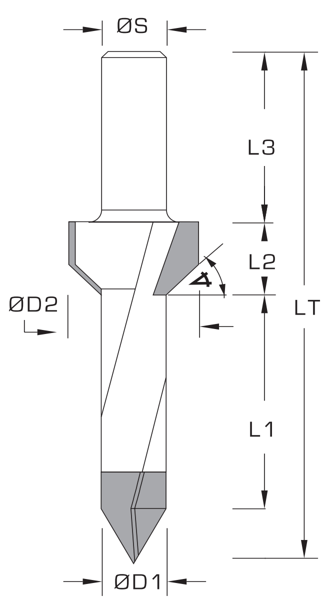

| | |
|---|---|
| ØS | |
| ØD1 | |
| ØD2 | |
| L1 | |
| L2 | |
| L3 | |
| LT | |
| ∢ | |

# D60N1 CUSTOM COUNTERBORE BIT
WITH THROUGH HOLE DRILL




| | |
|---|---|
| ØS | |
| ØD1 | |
| ØD2 | |
| L1 | |
| L2 | |
| L3 | |
| LT | |

# D60N2 CUSTOM COUNTERSINK BIT
WITH THROUGH HOLE DRILL




| | |
|---|---|
| ØS | |
| ØD1 | |
| ØD2 | |
| L1 | |
| L2 | |
| L3 | |
| LT | |
| ∢ | |


# H

# ACCESSORIES

# ACCESSORIES - TABLE OF CONTENTS



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# ACCESSORIES - ALPHA-NUMERIC INDEX

# 053 SPACERS

### METRIC I.D.

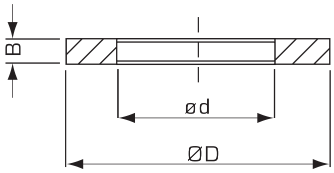
| OUTSIDE DIAM. ØD MM | INSIDE DIAM. ød |
|---|---|
| 50 | 30 |
| 55 | 35 |
| 60 | 40 |
| 70 | 50 |

### IMPERIAL I.D.

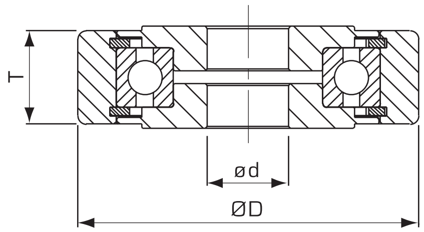
| OUTSIDE DIAM. ØD MM | INSIDE DIAM. ød |
|---|---|
| 50 | 1-1/4" |
| 55 | 1-3/8" |
| 60 | 1-9/16" |
| 70 | 1-13/16" |

### THICKNESS

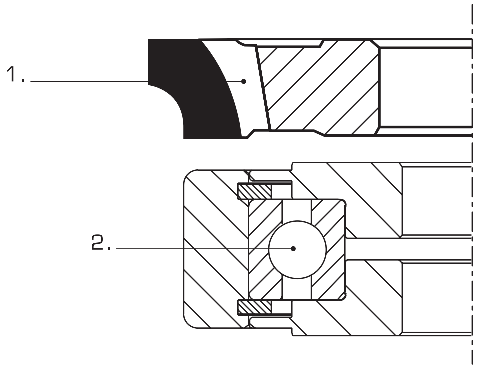
| THICKNESS B MM | THICKNESS B INCH |
|---|---|
| 0.1 - 0.2-0.5 - 1.0 | .004" - .008" -.020" - .040" |
| 2.0 | .040" |
| 5.0 | 3/16" |
| 10.0 | 25/64" |
| 8.1-20 | 5/16"-3/4" |
| 20.1-30 | 53/64"-1-3/16" |
| 30.1-40 | 1-3/16"-1-9/16" |
| 40.1-50 | 1-9/16"-2" |




# 057 BALL BEARING GUIDES

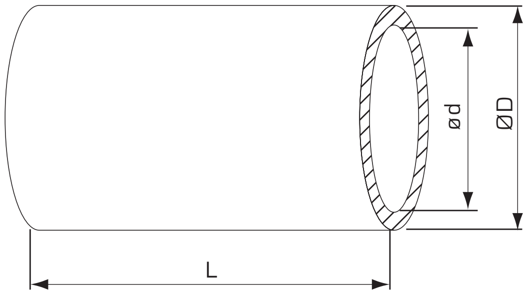



| PART NO. | OUTER DIAM. ØD | INNER DIAM. ød | THICKNESS T |
|---|---|---|---|
| **W057114-3** | 3" | 1-1/4" | 7/8" |
| **W057114-4** | 4" | 1-1/4" | 7/8" |
| **W057114-80** | 80mm | 40mm | 18mm |




1 = CUTTER
2 = BALL BEARING GUIDE

# 035 SLEEVES




### IMPERIAL I.D.

| OUTSIDE DIAM. ØD | INSIDE DIAM. ød |
|---|---|
| 1-1/4" | 3/4" |
| 1-13/16" | 1-1/4" |

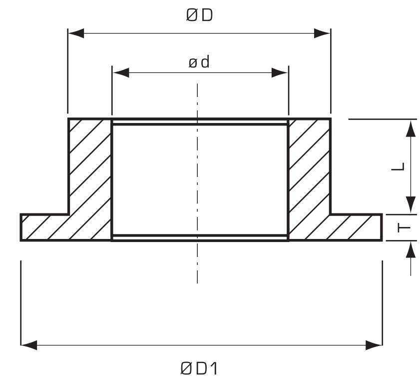
### METRIC I.D.

| OUTSIDE DIAM. ØD MM | INSIDE DIAM. ød MM |
|---|---|
| 35 | 30 |
| 40 | 30-35 |
| 50 | 30-40 |

### LENGTH

| L MM | L INCH |
|---|---|
| 2 | 5/64" |
| 5 | 3/16" |
| 10 | 3/8" |
| 15 | 5/8" |
| 20 | 3/4" |
| 30 | 1-3/16" |

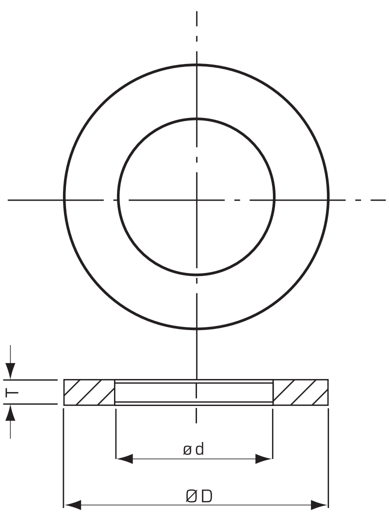
# 054 FLANGED SLEEVES




| PART NO. | OUTER DIAM. ØD | INNER DIAM. ød | FLANGE DIAM. ØD1 MM | FLANGE THICK. T MM | LENGTH L MM |
|---|---|---|---|---|---|
| **054-3175-1905** | 1-1/4" | 3/4" | 52 | 5 | 20 |
| **054-3175-34** | 1-1/4" | 3/4" | 45 | 3 | 15 |
| **054-3175-254** | 1-1/4" | 1" | 52 | 5 | 20 |
| **054-3175-1** | 1-1/4" | 1" | 45 | 3 | 15 |
| **054-40-3175** | 40mm | 1-1/4" | 60 | 5 | 20 |

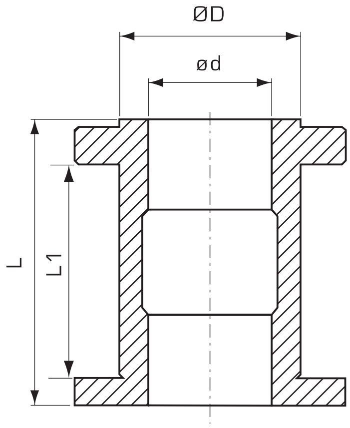
Other sizes available upon request

# 058 BUSHINGS FOR SAW BLADES




| PART NO. | OUTER DIAM. ØD | INNER DIAM. ød | THICKNESS T MM |
|---|---|---|---|
| **058-114001** | 1-1/4" | 1" | 2.1 |
| **058-114034** | 1-1/4" | 3/4" | 2.1 |
| **058-114058** | 1-1/4" | 5/8" | 2.1 |
| **058-118001** | 1-1/8" | 1" | 2.1 |
| **058-001034** | 1" | 3/4" | 2.1 |
| **058-001058** | 1" | 5/8" | 2.1 |
| **058-020038** | 20mm | 3/8" | 2.1 |
| **058-020058** | 20mm | 5/8" | 2.1 |
| **058-022020** | 22mm | 20mm | 2.1 |
| **058-022034** | 22mm | 3/4" | 2.1 |
| **058-022058** | 22mm | 5/8" | 2.1 |
| **058-034058** | 3/4" | 5/8" | 2.1 |
| **058-030001** | 30mm | 1" | 2.1 |
| **058-030034** | 30mm | 3/4" | 2.1 |
| **058-030058** | 30mm | 5/8" | 2.1 |
| **058-032020** | 32mm | 20mm | 2.1 |
| **058-040114** | 40mm | 1-1/4" | 2.1 |
| **058-040138** | 40mm | 1-3/8" | 2.1 |

# 059 MECHANICAL SLEEVES

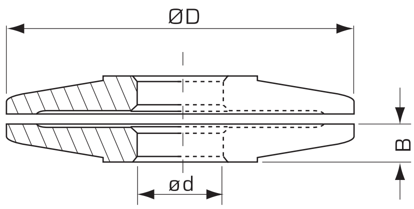



## SPECIAL PRODUCTION

| OUTER DIAM. ØD MM | INNER DIAM. ød | USABLE LENGTH L1 MM | OVERALL LENGTH L MM | ROTATION |
|---|---|---|---|---|
| 50 | 1-1/4" | 70 | 90 | RH/LH |
| 50 | 1-1/4" | 85 | 105 | RH/LH |
| 50 | 1-1/2" | 85 | 105 | RH/LH |
| 50 | 40mm | 70 | 90 | RH/LH |
| 50 | 40mm | 90 | 112 | RH/LH |
| 60 | 1-1/4" | 85 | 105 | RH/LH |
| 60 | 1-1/2" | 85 | 105 | RH/LH |
| 60 | 40mm | 90 | 112 | RH/LH |

Other sizes available upon request

# 05020 FLANGES FOR CIRCULAR SAW BLADES




| ØD MM | ød MM | ØD INCH | ød INCH |
|---|---|---|---|
| 60 | 30 | 2-3/8" | 5/8" - 1" |
| 80 | 30 | 3-1/8" | 5/8" - 1" |
| 100 | 30 | 4" | 5/8" - 1" |
| 125 | 30 | 5" | 5/8" - 1" |
| 150 | 30 | 6" | 5/8" - 1" |