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Quality Tooling



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➔ **PCD (Diamond) NEW!**

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(Diamond)
Sharpening
NOW ALSO
DONE
IN-HOUSE**

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Router Bits

Spiral Bits

Planer Blades

HSS Saw Blades

Chisels

Groovers

Lathe Tools

Cutter Blocks

Feeder Wheels

Re-Tipping of Saw Blades

Cutter Block Designs

Draughting Services

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Profiling of Knives

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Tool Testing Services

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Aluminium**



**Routers for
Composites**



**Routers for
Plastics**



**Diamond
Routers**



**Solid Carbide
Drills**



**Circular Saw
Blades**



**Cutter Heads &
Braze Cutters**



**Drilling, Routing
& CNC Tools**



**Knives, Spare Parts
& Accessories**



**Professional
Saw Blades**



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Cutting Materials

In the wood industry, there are 3 main types of cutting materials when processing wood:

- HSS (High-Speed Steel)
- Carbide
- PCD (PolyCrystalline Diamond)

Each of these have their own benefits.

What is HSS?

Typically, high-speed steel consist of carbon steel alloyed with tungsten or molybdenum, together with percentages of chromium, vanadium and cobalt. The alloying elements raise the temperature at which tempering occurs, allowing HSS to be used at temperatures up to about 650°C. This increases its wear resistance, as well as its resistance to heat. It is a great steel to make tools from as it is very affordable and is easy to shape and sharpen into really effective cutting tools.

The Benefits of HSS Tools:

- Has a high working hardness with excellent toughness
- Cost less than Carbide tools
- Is a good solution in 'high-mix, low-volume' applications

What is Carbide?

Carbide is an essential element that is often combined with another natural element, such as boron, silicon, metal or steel. The most prominent combination used for tooling purposes is tungsten carbide.

Carbide was designed to be much more resistant to heat and wear than HSS, which is why it is used in heavy machining today. Unlike steel, carbide comes in the form of a grey powder, which is then pressed into a mould and placed in a sintering furnace and heated at a temperature of about 1400°C. It is then given an additional coating, usually of titanium nitrate.

The Benefits of Carbide Tools:

- Is ultra cost effective due to its longevity
- Can be worked at higher speeds as compared to HSS tools, approximately 6 to 8 times higher speeds
- Has an exceptional resistance to abrasion
- Has a high wear resistance, enabling the user to use the tool at higher speeds and longer durations as compared to other materials like HSS
- Are durable and can endure high-temperatures, turning at a very high-speed – this type of exposure wears other types of tooling metals down
- Provides a higher value for money than their steel counterparts
- Are very durable and are resilient to cracking

What is PCD?

Polycrystalline Diamond (PCD for short) is composed of diamond particles that are sintered with a metallic binder at extreme high temperatures and pressures, creating the hardest, and one of the most abrasion resistant materials used in cutting tools today. It is now used in a wide range of machining applications including sawing, routing, drilling and profiling, to maximize tool life and reduce overall production cost

PCD has been used in the wood/composites industry for over 40 years due to its abrasion resistant properties and hardness. Ideal material applications include cutting chipboard, MDF, particle board, HDF, and many composite materials including solid surface, cement fibre board, fiberglass and phenolic.

The Benefits of PCD Tools:

- Yields longer tool life and more consistent results
- Is designed to work for months, which means less downtime
- Can run up to 10 times faster than solid carbide tools at their peak efficiency and effectiveness
- Is more accurate and can hold their cutting edge and form much longer than carbide and HSS tooling
- Can be used in a variety of applications, including aluminium, composites and abrasive plastics
- Can deliver a high-quality surface finish without the need for a secondary operation
- Manufacturers save time and money while maintaining the same quality standard

Guidelines for Good Use of Routers

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

- For large stock removals, consider more passes.
- Try to use shorter cutters to avoid vibration.
- Inspect your machine regularly, making sure that there is no eccentricity problems.
- On CNC centers this could save the replacement of expensive motors.
- Respect the minimum fixing length of the shank (Fig. 1). Not adhering to the correct depth will result in:
 - Breakages
 - Eccentricity problems
 - Damage of the machine
 - Snapping of the tool
- **ALWAYS** attempt to clamp the workpiece on a solid and stable surface.
- Do not exceed the maximum RPM limit marked on the tool. With too high cutting rate, or an excessive cutting depth, there is the possibility of breakage (especially solid carbide spirals).
- To avoid cracking solid carbide routers, inspect the collet and the router bit for cleanliness and for any imperfections. Always remember that carbide lasts longer, but is more brittle.
- Make sure that the collet used are clean and do not have small burs on. This will crack the carbide and once work commence the cutter will simply snap off.
- To avoid dangerous kick backs, we suggest fixing a spare piece of material (previously processed moulding) at the end and/or the start in the case of small parts or end grain processing.
- When using an overhead CNC router, it is fundamental to fix the workpiece properly, especially in the case of PCD and carbide routers. Vibrations in the workpiece will cause tooling failures.

Recommended
clamping depth



Fig. 1

Icon Index

Materials



Use on Abrasive
Material



Cuts Acrylics



Cuts all aluminium



Chipboard



Cuts most composites



Cuts all hardwood



Cuts most laminates



MDF / Supawood



Use on plastics



Cuts all plywood



Use on Plexiglass



Cuts all softwood



Use on woods



Use on Corian

Other



Use multiple passes when
removing large quantities
of material:
P1 = Pass 1
P2 = Pass 2
P3 = Pass 3

Machines



Can use product with CNC
and other automatic routers



Can use product with hand
held router



Can use product with table
mounted portable router



Drilling

Finishes



Finishing operation



Rough cutting

Features and Benefits: Freud Routers

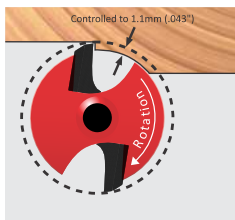


Fig. 1

freud.

Kickback-Reducing Design Promotes Safety

Kickbacks are one of the most dangerous hazards in woodworking. This happens so quickly that it can be impossible to react before injury occurs. Freud's kickback-reducing shoulder design restricts the tooth bite, reducing the effects of kickback from overfeeding. This design contributes to a safer working environment (Fig. 1).

Standard Router Bit Designs (Fig. 2)

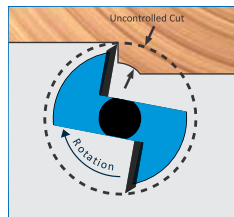


Fig. 2

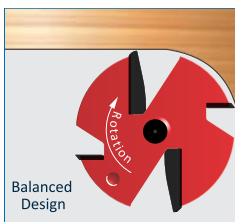


Fig. 3

freud.

Balanced Router Prevents Chattering and Vibration (Fig. 3)

Unbalanced Router Bits (Fig. 4)

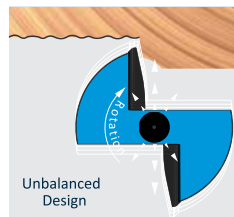


Fig. 4

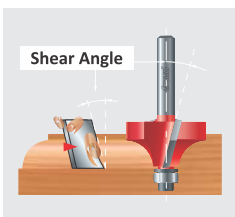


Fig. 5

freud.

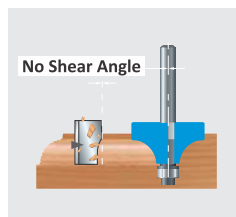


Fig. 6

Shear Angle Design Produces Superior Finish (Fig. 5 and 6)

Unique Carbide Formulations

Maximised finish and lifetime in each application
Using the correct carbide formulation for each application is extremely important when it comes to maximising a router bit's performance. For example, an extremely hard carbide formulation is required to maintain a sharp edge when cutting laminate. Alternatively, a softer carbide or impact resistant carbide is ideal for large profile cutting such as Panel Bits (Fig. 7).

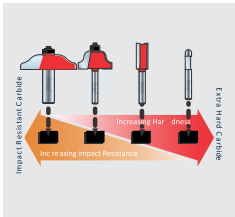


Fig. 7

freud.

Superior TiCo Hi-Density Carbide Provides Longer Cutting Life

Freud's premium quality TiCo hi-density carbide allows for a sharper edge that gives a better finish with a dramatically longer cutting life. And, since the grains are much smaller and more dense, there is not as dramatic loss to the cutting edge, so wear occurs much more slowly (Fig. 8).



Fig. 8

freud.

SASB™

Custom Produced and Selected Routers

SASB brand (SA SawBlades) is a selection of premier routers designed for specific applications that is not commonly found in the market. All SASB marked items are sourced from EU countries.

Interesting Design Information

Anti-Kickback Limiter

This limits the tooth bite in order to avoid a kickback. This enhances safety, as well as the life of the tool.

Gullet

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

Hook Angle

The angle that the face of the tip projects radially from the center of the shank. The greater the hook angle, the more aggressive the cut.

Relief Angle

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

Shear Angle

Shear angle is measured parallel between the cutting edge and the shank. A negative shear angle forces the fibres down, while a positive shear angle cut the fibres up when cutting.

Shank/Shaft

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

Solid Carbide Bit

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

Flush Trim Bits

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

Spiral Bits

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

Compression Bits

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

Raised Panel Bits

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

Rail and Stile Bits

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

Common Router Bit Terminology

Profiles made in wood by several common router bits.



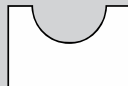
Chamfer



V-Groove



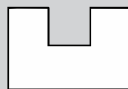
Cove



Round Nose



Rabbeting
(Rebate)



Dado
(Grooving / Box Joint)



Round Over



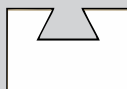
Bullnose
(half-round)



Roman Ogee



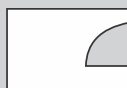
Ogee



Dovetail



Beading



Finger Grip



Raised Panel



Rail & Stile Set

SUGGESTED ROUTER SPEEDS

CUTTING DIAMETER (D)

MAXIMUM R.P.M.

1mm up to 25.4 mm 24000

25.4 mm up to 31.75 mm 18000

31.75 mm up to 57.12 mm 16000

57.12 mm up to 88.9 mm 12000

IMPORTANT NOTICE:

These speeds are only guidelines. We cannot be held liable for conditions outside of our control. Do not exceed the maximum speed marked on the tool.



Technical Information

ROUTERS

	PRO	CON	Materials
PCD (Diamond)	Extremely long life	Higher price level	Design dependant Various materials
Solid Carbide	Less vibration Better cutting quality	Very brittle	Plastics Aluminium Non-Ferrous Materials Wood Wood Derived Products
Brazed Routers	Quality cut vs. price level Many shapes on market	Shorter job runs	Plastics Aluminium Non-Ferrous Materials Wood Wood Derived Products

SPIRAL ROUTERS

	PRO	CON	Suggested Materials
Single Flute	Large stock removal Good for plastics Good for aluminium Less heat build-up	Slower feed speeds Reduced edge quality	Plastics Aluminium Non-Ferrous Materials
Double Flute	Better edge quality Faster feed rates	Requires more extraction	Wood Wood derived panels
Triple Flute + more	Better edge quality Better for composite materials	Need correct fV^* vs RPM** Requires very good dust extraction	Wood derived panels Composite Materials
Upcut	Improve chip flow Less likely to show burn marks	Lift small work pieces Tearing on top surface	See above
Downcut	Assist to hold small work pieces down	Very bad chip flow Easily shows burn marks	See above
Compression	Double face laminated materials Clean cutting edge on top and bottom	Worst chip flow Burn at point where up and down meets	Mainly double-faced laminated materials

* f = feed rate, V = Cutting Speed

** RPM = Revolutions per minute

Aluminium Spiral Routers

PRODUCT TYPE	PAGE
101 Standard Range for Aluminium	12
101WD Short Range for Aluminium Window and Door Production	12
102WD Long Range for Aluminium Window and Door Production	13
101D Aluminium Composite Range for Dibond-Type Materials	13
103DS Folding Router for Composite Materials	13

PCD (Diamond) Routers

PRODUCT TYPE	PAGE
PCD Spiral	14
PCD Straight	14

Carbide Spirals for Wood

PRODUCT TYPE	PAGE
201BB Spiral Router 2-flute with Ball Bearing	15
406BB Spiral Router 4-flute with Ball Bearing	15
802BB Compression (Up/Down) Router 2+2 with Ball Bearing	16
807BB Compression (Up/Down) Router 2+4 with Ball Bearing	16
004 Engraving Cutters (1 Flute)	17
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Shape Finder Pages

Aluminium Spiral Routers

ROUTER BITS FOR ALUMINIUM



101 Standard Range

12

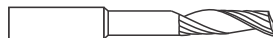
ROUTER FOR ALUMINIUM WINDOW & DOOR PRODUCTION



101WD Short Range

12

ROUTER FOR ALUMINIUM WINDOW & DOOR PRODUCTION



102WD Long Range

13

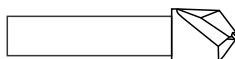
ROUTER BITS FOR DIBOND-TYPE MATERIALS



101D Alu Composite Range

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ROUTER FOR FOLDING OF COMPOSITE MATERIALS



103DS Folding Router

13

PCD (Diamond) Routers

PCD ROUTER CUTTERS



PCD Spiral

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STRAIGHT PCD CUTTERS



PCD Straight Cutter

14

Carbide Spirals for Wood

SPIRAL ROUTER 2-FLUTE WITH BALL BEARING



201BB

15

SPIRAL ROUTER 4-FLUTE WITH BALL BEARING



406BBXB Chip Breaker

15

SPIRAL ROUTER 2+2 WITH BALL BEARING



802BB Up/down Spiral

16

SPIRAL ROUTER 2+4 WITH BALL BEARING



807BBXB Up/down Spiral

16

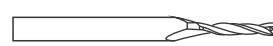
ROUTER 1-FLUTE



004 Engraving Routers

17

SPIRAL ROUTERS 2-FLUTE



011 Small Diameter Spirals

17

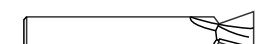
ROUTER 2-FLUTE



050 Decorative Panels

18

DOVETAIL ROUTERS 2-FLUTE



051 Dovetail Jigs & Machines

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SPIRAL ROUTERS 1-FLUTE



101 Large Stock Removal

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SPIRAL ROUTERS 2-FLUTE FOR DECORATIVE PANELING



201 Straight Double Flutes

21

ROUGH CUTTING SPIRAL 2-FLUTE



203 Straight Roughing Spirals

21

SPIRAL ROUTERS 3-FLUTE



302 Straight Chip Breakers

22

Shape Finder Pages

Carbide Spirals for Wood

ROUGH CUTTING SPIRAL 3-FLUTE



303 Straight Roughing Spirals 22

DOOR LOCKS ROUTER 3-FLUTE



501 Long Length Cutters 23

RADIUS ROUTER 2-FLUTE



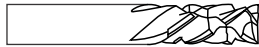
701 Ball End Spirals 23

TAPER ROUTER 2-FLUTE



703 Carving Router 23

COMPRESSION ROUTER 2+2-FLUTE



802 Carving Routers 24

COMPRESSION ROUTER 3+3-FLUTE



803 Carving Routers 24

COMPRESSION ROUTER 2+4 FLUTE



807XB Carving Routers 25

MODELING ROUTER 3D



903-3D Pattern Makers Routers 25

Key

D = Diameter

d = Diameter 2

L = Total Length (Spirals)

H = Total Length (Routers)

L1 = Cutting Length

h = Cutting Length (Routers)

L2 = Second Cutting Length

L3 = Third Cutting Length

R = Radius

S = Shaft Diameter (Spirals)

A = Shaft Diameter (Routers)

C = Bearing Size

V° = Angle

Z = Cutting Edges



Aluminium Routers

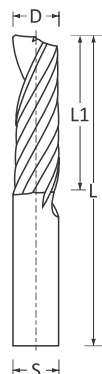
101 Standard Range

ROUTER BITS FOR ALUMINIUM



1 Helix flute

D	L1	L	S	Z	Code: RH Upcut Spirals
3	12	50	3	1	SP101.A.3x12.U.Z1.L50
4	14	50	4	1	SP101.A.4x14.U.Z1.L50
5	18	55	5	1	SP101.A.5x18.U.Z1.L55
6	20	65	6	1	SP101.A.6x20.U.Z1.L65
6	25	70	6	1	SP101.A.6x25.U.Z1.L70
8	25	70	8	1	SP101.A.8x25.U.Z1.L70
8	35	80	8	1	SP101.A.8x35.U.Z1.L80
10	35	80	10	1	SP101.A.10x35.U.Z1.L80
10	45	90	10	1	SP101.A.10x45.U.Z1.L90
12	35	80	12	1	SP101.A.12x35.U.Z1.L80
12	45	90	12	1	SP101.A.12x45.U.Z1.L90



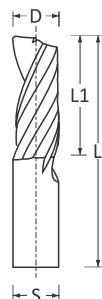
101WD Short Range

ROUTER BITS FOR ALUMINIUM WINDOW & DOOR FRAMES



1 Helix flute

D	L1	L	S	Z	Code: RH Upcut Spirals
5	12	60	8	1	SP101WD.A.5x12.U.S8.Z1.L60
6	12	60	8	1	SP101WD.A.6x12.U.S8.Z1.L60
8	12	70	8	1	SP101WD.A.8x12.U.S8.Z1.L70



Short design for faster feed speeds and less risk of tool snapping.
Designed to cut profiles on one side.

102WD Long Range

ROUTER BITS FOR ALUMINIUM WINDOW & DOOR FRAMES

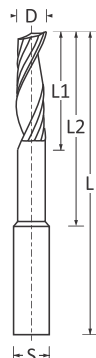


1 Helix flute

D	L1-L2	L	S	Z	Code: RH Upcut Spirals
5	15-30	60	8	1	SP102WD.A.5x15-30.U.S8.Z1.L60
6	15-35	60	8	1	SP102WD.A.6x15-35.U.S8.Z1.L60
8	12-50	70	8	1	SP102WD.A.8x12-50.U.S8.Z1.L70

Long with reduced centre body to avoid rubbing and reduce sound.

Designed to cut profiles on both ends from one side



101D Aluminium Composite

DIBOND ROUTER BITS



1 Helix flute

D	L1	L	S	Z	Code: RH Upcut Spirals
3	8	50	6	1	SP101D.AC.3x8.U.S6.Z1.L50
3	8	50	6.35	1	SP101D.AC.3x8.U.S6.35.Z1.L50
4	8	50	6	1	SP101D.AC.4x8.U.S6.Z1.L50
5	10	50	6	1	SP101D.AC.5x10.U.S6.Z1.L50
6	10	50	6	1	SP101D.AC.6x10.U.S6.Z1.L50
6	10	50	6.35	1	SP101D.AC.6x10.U.S6.35.Z1.L50
8	10	50	6	1	SP101D.AC.8x10.U.S6.Z1.L50

Router bits for Dibond, Alucubond, Stacbond, Globalbond, Plabond, Etylbond & Qbond



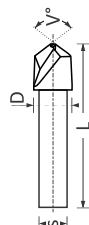
103DS Folding Router

COMPOSITE MATERIALS



D	B	L	V°	S	Z	Code: RH Spirals
12	2.2	60	90°	12	2	SP103DS.AC.12.Z2.L60
14	2.2	60	108°	12	2	SP103DS.AC.14.Z2.L60

Router bits for Dibond, Alucubond, Stacbond, Globalbond, Plabond, Etylbond & Qbond



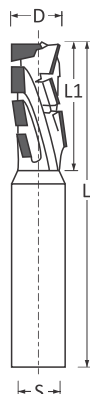
PCD (Diamond Routers)

PCD Spiral

ROUTERS FOR LAMINATED MATERIALS



D	L1	L	S	Z	Code: PCD Spiral
10	22	65	12	Z1+1	PCD.10PP.10x22.Z1+1.L65
12	26	75	12	Z1+1	PCD.10PP.12x26.Z1+1.L75
16	34	100	16	Z1+1	PCD.10PP.16x34.Z1+1.L100
16	43	110	16	Z1+1	PCD.10PP.16x46.Z1+1.L110
12	18	70	12	Z3+3	PCD.93PP.12x18.Z3+3.L70
12	24	70	12	Z3+3	PCD.93PP.12x24.Z3+3.L70
16	38	100	16	Z3+3	PCD.93PP.16x38.Z3+3.L100
18	26	90	18	Z3+3	PCD.93PP.18x26.Z3+3.L90



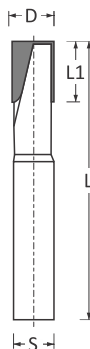
PCD polycrystalline diamond has a hardness of around 3 to 5 times that of carbide. Often used in high performance equipment.

PCD Straight

PCD GROOVING CUTTERS



D	L1	L	S	Z	Code: RH
5	8	55	10	1 Neg	PCD.09PP.5x8.Z1N.L55
6	12	70	10	1 Neg	PCD.09PP.6x12.Z1N.L70
7	12	70	10	1 Neg	PCD.09PP.7x12.Z1N.L70
8	15	70	10	2 Neg	PCD.09PP.8x15.Z1N.L70
9	15	70	10	2 Neg	PCD.09PP.9x15.Z1N.L70
10	15	70	10	2 Neg	PCD.09PP.10x15.Z1N.L70
12	25	70	12	2 Neg	PCD.09PP.12x25.Z1N.L70



Diamond groovers are very popular in the door industry for multiple grooves on plywood. PCD has a hardness of around 3 times that of carbide. Often used in high performance equipment.

Solid Carbide Routers

SERIES

201BB

SPIRAL ROUTER 2-FLUTE WITH BALL BEARING



D	L1	L	S	Z	Code: D = Downcut; U = Upcut
6.35 (1/4")	15.8 (3/8")	76.2 (3")	6.35 (1/4")	2	SP201BB.W.6,35x16. D .Z2.L76 SP201BB.W.6,35x16. U .Z2.L76
6.35 (1/4")	25.4 (1")	82.5 (3 1/4")	6.35 (1/4")	2	SP201BB.W.6,35x25. D .Z2.L82 SP201BB.W.6,35x25. U .Z2.L82
12.7 (1/2")	32 (1 1/4")	88.9 (3 1/2")	12.7 (1/2")	2	SP201BB.W.12,7x32. D .Z2.L89 SP201BB.W.12,7x32. U .Z2.L89
12.7 (1/2")	50.8 (2")	120.7 (4 3/4")	12.7 (1/2")	2	SP201BB.W.12,7x51. D .Z2.L120 SP201BB.W.12,7x51. U .Z2.L120

Spiral routers have a far less aggressive cut compared to conventional routers.

Spirals with bearings have been designed for the more advanced wood worker requiring a better finish.

These products should be in every artisan's workshop.



406BB.XB

SPIRAL ROUTER 4-FLUTE WITH BALL BEARING

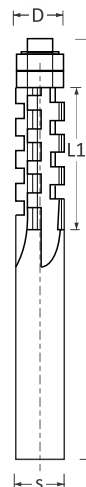


D	L1	L	S	Z	Code:
12.7 (1/2")	32 (1 1/4")	95.7 (3 3/4")	12.7 (1/2")	4	SP406BB.W.12,7x32.Z4.L96.XB
12.7 (1/2")	50.8 (2")	120 (4 3/4")	12.7 (1/2")	4	SP406BB.W.12,7x51.Z4.L120.XB

Chip breaker spiral routers have an even less aggressive cut compared to conventional spirals.

Spirals with bearings have been designed for the more advanced wood worker requiring a better finish.

These two spirals are coated to achieve an even more resistant cutting edge.



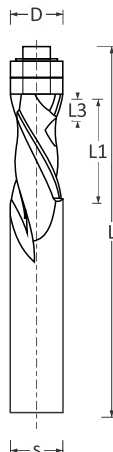
802BB

UP-DOWN ROUTER 2 + 2 WITH BALL BEARING



D	L1	L3	L	s	Z	Code:
6.35 (1/4")	15.8 (3/8")	4	76.2 (3")	6.35 (1/4")	2	SP802BB.W.6,35x16.Z2+2.L76
6.35 (1/4")	25.4 (1")	10	82.5 (3 1/4")	6.35 (1/4")	2	SP802BB.W.6,35x25.Z2+2.L82
12.7 (1/2")	32 (1 1/4")	10	95.7 (3 3/4")	12.7 (1/2")	2	SP802BB.W.12,7x32.Z2+2.L96
12.7 (1/2")	50.8 (2")	10	120 (4 3/4")	12.7 (1/2")	2	SP802BB.W.12,7x51.Z2+2.L120

Up-down spiral routers are designed to have a chip free surface on both sides of the material.
Ideal product for template makers and shaping of laminated materials.



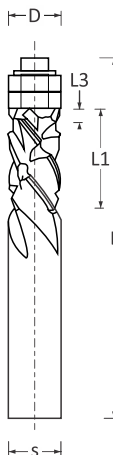
807BB.XB

UP-DOWN ROUTER 2 + 4 WITH BALL BEARING



D	L1	L3	L	s	Z	Code:
6.35 (1/4")	25.4 (1")	10	82.5 (3 1/4")	6.35 (1/4")	2+4	SP807BB.W.6,35x25.Z2+4.L82.XB
12.7 (1/2")	32 (1 1/4")	10	95.7 (3 3/4")	12.7 (1/2")	2+4	SP807BB.W.12,7x35.Z2+4.L96.XB
12.7 (1/2")	50.8 (2")	10	120 (4 3/4")	12.7 (1/2")	2+4	SP807BB.W.12,7x51.Z2+4.L120.XB

This up-down spiral routers is designed for composite materials, i.e. fiberglass.
Ideal product for boat makers and model makers.



Solid Carbide Routers

Series

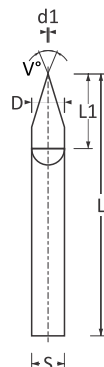
004 Engraving Cutters

ENGRAVING ROUTER 1-FLUTE



D	d1	L2	L1	S	V°	Code: RH V Groove
4	0.1	10	45	4	30°	SP004.W.4x10.Z1.L45
4	0.1	10	45	4	45°	SP004.W.4x10.Z1.L45
4	0.1	10	45	4	60°	SP004.W.4x10.Z1.L45
4	0.1	10	45	4	90°	SP004.W.4x10.Z1.L45
6	0.2	12	50	6	30°	SP004.W.6x12.Z1.L50
6	0.2	10	50	6	45°	SP004.W.6x10.Z1.L50
6	0.2	10	50	6	60°	SP004.W.6x10.Z1.L50
6	0.2	10	50	6	90°	SP004.W.6x10.Z1.L50

Router bits with 1 straight cutting edge.



011 Small Diameter Spirals

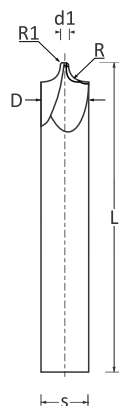
ROUTERS 2-FLUTE



D	L1	L	S	Z	Code: D = Downcut; U = Upcut
2	6	50	6.35 (1/4")	2	SP011.W.2x6. D .S6,35.Z2.L50 SP001.W.2x6. U .S6,35.Z2.L50
2.5	6	50	6.35 (1/4")	2	SP011.W.2,5x6. D .S6,35.Z2.L50 SP011.W.2,5x6. U .S6,35.Z2.L50
3	12	50	6.35 (1/4")	2	SP011.W.3x12. D .S6,35.Z2.L50 SP011.W.3x12. U .S6,35.Z2.L50
4	15	50	6.35 (1/4")	2	SP011.W.4x15. D .S6,35.Z2.L50 SP011.W.4x15. U .S6,35.Z2.L50
5	20	60	6.35 (1/4")	2	SP011.W.5x20. D .S6,35.Z2.L60 SP011.W.5x20. U .S6,35.Z2.L60
6.35	25.4	63.5	6.35 (1/4")	2	SP011.W.6,35x25,4. D .S6,35.Z2.L63,5 SP011.W.6,35x25,4. U .S6,35.Z2.L63,5



050 Decorative Panelling

ENGRAVING ROUTER
2-FLUTE

D	d1	R1	R	L	S	Z	Code:
8	1.2	0.6	2	60	8	2	SP050.W.8.R2.Z2.L60
10	1.5	0.7	3	60	10	2	SP050.W.10.R3.Z2.L60
12	1.5	0.7	4	60	10	2	SP050.W.12.R4.Z2.L60
16	1.8	0.9	5	60	16	2	SP050.W.16.R5.Z2.L60

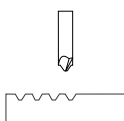
V3D 3D Panels

MILLING CUTTERS

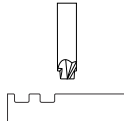


D	L1	L	S	Z	Code:
10	4.5	65	12	2	SPV3D.1.W.10.S12.Z2.L65.XB
10	4.5	65	12	2	SPV3D.2.W.10.S12.Z2.L65.XB
10	4.5	65	12	2	SPV3D.3.W.10.S12.Z2.L65.XB
12	4.5	65	12	2	SPV3D.5.W.12.S12.Z2.L65.XB
16	4.0	65	16	2	SPV3D.4.W.16.S16.Z2.L65.XB
18	4.5	65	18	2	SPV3D.4.W.18.S18.Z2.L65.XB
20	5.0	65	20	2	SPV3D.4.W.20.S20.Z2.L65.XB
20	4.0	65	20	2	SPV3D.6.W.20.S20.Z2.L65.XB
25	4.5	65	20	2	SPV3D.6.W.25.S20.Z2.L65.XB

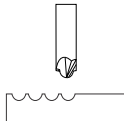
V3D.1



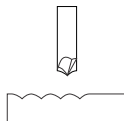
V3D.2



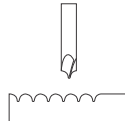
V3D.3



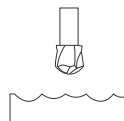
V3D.4



V3D.5



V3D.6

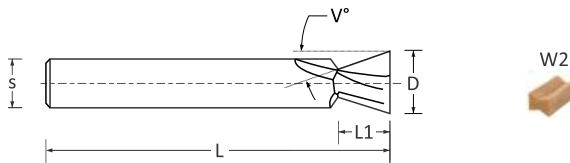


051 Dovetail Routers

2-FLUTE



D	V°	L1	L	S	Z	Code:	System
5.5	17	4	43	6	2	SP051.W.5,5.S6.Z2.L43	W1 Hoffmann
5.5	17	4	43	6.35	2	SP051.W.5,5.S6,35.Z2.L43	W1 Hoffmann
8	18	6	43	6	2	SP051.W.8.S6.Z2.L43	W2 Hoffmann
8	18	6	43	6.35	2	SP051.W.8.S6,35.Z2.L43	W2 Hoffmann
9.5	19	7.3	43	6	2	SP051.W.9,5.S6.Z2.L43	W3 Hoffmann
9.5	19	7.3	43	6.35	2	SP051.W.9,5.S6,35.Z2.L43	W3 Hoffmann
10	7	10	60	10	2	SP051.W.10.S10.Z2.L60	
12	7	12	60	12	2	SP051.W.12.S12.Z2.L60	
12	10	12	60	14	2	SP051.W.12.S14.Z2.L60	OMEC - Spiral
14	10	14	60	14	2	SP051.W.14.S14.Z2.L60	OMEC - Spiral
16	7	16	60	12	2	SP051.W.16.S12.Z2.L60	
16	14	18	60	12	2	SP051.W.16.S12.Z2.L60	



Solid carbide dovetail routers are designed for multiple processing.
With every tool change accuracy could be lost.

Spiral Routers

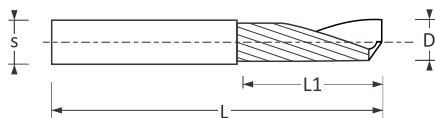
101 Single Flute

SPIRAL ROUTER 1-FLUTE



D	L1	L	S	Z	Code: RH Upcut	Code: RH Downcut
2	8	50	2	1	SP101.W.2x8.U.Z1.L50	SP101.W.2x8.DU.Z1.L50
3	14	50	3	1	SP101.W.3x14.U.Z1.L50	SP101.W.3x14.D.Z1.L50
3.17	12.7	50.8	3.17	1	SP101.W.3,17x12,7.U.Z1.L51	SP101.W.3,17x12,7.D.Z1.L1
4	14	50	4	1	SP101.W.4x14.U.Z1.L50	SP101.W.4x14.D.Z1.L50
4	20	50	4	1	SP101.W.4x20.U.Z1.L50	SP101.W.4x20.D.Z1.L50
4.75	12.7	50.8	4.75	1	SP101.W.4,75x12,7.U.Z1.L51	SP101.W.4,75x12,7.D.Z1.L51
5	17	50	5	1	SP101.W.5x17.U.Z1.L50	SP101.W.5x17.D.Z1.L50
5	22	60	5	1	SP101.W.5x22.U.Z1.L60	SP101.W.5x22.D.Z1.L60
6	22	60	6	1	SP101.W.6x22.U.Z1.L60	SP101.W.6x22.D.Z1.L60
6	27	70	6	1	SP101.W.6x27.U.Z1.L70	SP101.W.6x27.D.Z1.L70
6.35	25.4	63.5	6.35	1	SP101.W.6,35x25,4.U.Z1.L63	SP101.W.6,35x25,4.D.Z1.L63
8	22	70	8	1	SP101.W.8x22.U.Z1.L70	SP101.W.8x22.D.Z1.L70
8	32	80	8	1	SP101.W.8x32.U.Z1.L80	SP101.W.8x32.D.Z1.L80
9.52	25.4	76.2	9.52	1	SP101.W.9,52x25,4.U.Z1.L76	SP101.W.9,52x25,4.D.Z1.L76
10	32	80	10	1	SP101.W.10x32.U.Z1.L80	SP101.W.10x32.D.Z1.L80
10	42	90	10	1	SP101.W.10x42.U.Z1.L90	SP101.W.10x42.D.Z1.L90
12	32	80	12	1	SP101.W.12x32.U.Z1.L80	SP101.W.12x32.D.Z1.L80
12	42	90	12	1	SP101.W.12x42.U.Z1.L90	SP101.W.12x42.D.Z1.L90

Router bits with 1 straight cutting edge.



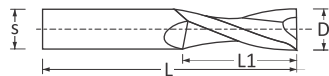
201 Double Flute

SPIRAL ROUTER 2-FLUTE



D	L1	L	S	Z	Code: RH Upcut	Code: RH Downcut
2	8	50	2	2	SP201.W.2x8.U.Z2.L50	SP201.W.2x8.D.Z2.L50
3	12	50	3	2	SP201.W.3x12.U.Z2.L50	SP201.W.3x12.D.Z2.L50
4	12	50	4	2	SP201.W.4x12.U.Z2.L50	SP201.W.4x12.D.Z2.L50
5	17	70	5	2	SP201.W.5x17.U.Z2.L70	SP201.W.5x17.D.Z2.L70
6	22	70	6	2	SP201.W.6x22.U.Z2.L70	SP201.W.6x22.D.Z2.L70
8	22	70	8	2	SP201.W.8x22.U.Z2.L70	SP201.W.8x22.D.Z2.L70
8	32	80	8	2	SP201.W.8x32.U.Z2.L80	SP201.W.8x32.D.Z2.L80
10	32	80	10	2	SP201.W.10x32.U.Z2.L80	SP201.W.10x32.D.Z2.L80
10	42	90	10	2	SP201.W.10x42.U.Z2.L90	SP201.W.10x42.D.Z2.L90
10	52	100	10	2	SP201.W.10x52.U.Z2.L100	SP201.W.10x52.D.Z2.L100
12	32	80	12	2	SP201.W.12x32.U.Z2.L80	SP201.W.12x32.D.Z2.L80
12	42	90	12	2	SP201.W.12x42.U.Z2.L90	SP201.W.12x42.D.Z2.L90
12	52	100	12	2	SP201.W.12x52.U.Z2.L100	SP201.W.12x52.D.Z2.L100
10	52	100	10	2	SP201.W.14x52.U.Z2.L100	SP201.W.14x52.D.Z2.L100
12	32	80	12	2	SP201.W.16x62.U.Z2.L110	SP201.W.16x62.D.Z2.L110

2-flute spiral router bit



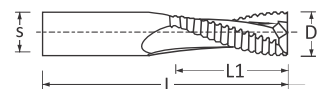
203 Roughing Spirals

2-FLUTE



D	L1	L	S	Z	Code: RH Upcut	Code: RH Downcut
6	22	70	6	2	SP203.W.6x22.U.Z2.L70	SP203.W.6x22.D.Z2.L70
8	22	70	8	2	SP203.W.8x22.U.Z2.L70	SP203.W.8x22.D.Z2.L70
8	32	80	8	2	SP203.W.8x32.U.Z2.L80	SP203.W.8x32.D.Z2.L80
10	32	80	10	2	SP203.W.10x32.U.Z2.L80	SP203.W.10x32.D.Z2.L80
10	42	90	10	2	SP203.W.10x42.U.Z2.L90	SP203.W.10x42.D.Z2.L90
10	52	100	10	2	SP203.W.10x52.U.Z2.L100	SP203.W.10x52.D.Z2.L100
12	32	80	12	2	SP203.W.12x32.U.Z2.L80	SP203.W.12x32.D.Z2.L80
12	42	90	12	2	SP203.W.12x42.U.Z2.L90	SP203.W.12x42.D.Z2.L90
12	52	100	12	2	SP203.W.12x52.U.Z2.L100	SP203.W.12x52.D.Z2.L100

2-flute spiral router bit



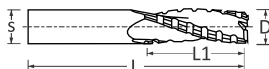
302 Chip Breaker Range

STRAIGHT ROUTER 3-FLUTE



D	L1	L	S	Z	Code: RH Upcut	Code: RH Downcut
8	32	80	8	3	SP302.W.8x32.U.Z3.L80	SP302.W.8x32.D.Z3.L80
10	32	80	10	3	SP302.W.10x32.U.Z3.L80	SP302.W.10x32.D.Z3.L80
10	52	100	10	3	SP302.W.10x52.U.Z3.L100	SP302.W.10x52.D.Z3.L100
12	52	100	12	3	SP302.W.12x52.U.Z3.L100	SP302.W.12x52.D.Z3.L100

Spiral router bit with chip breaker for harder material
3-flute

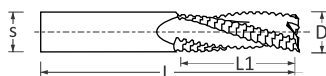


303 Roughing Spirals

BULK STOCK REMOVALS ON
HARDWOODS, 3-FLUTE

D	L1	L	S	Z	Code: RH Upcut	Code: RH Downcut
6	22	70	6	3	SP303.W.6x22.D.Z3.L70	SP303.W.6x22.D.Z3.L70
8	32	80	8	3	SP303.W.8x32.D.Z3.L80	SP303.W.8x32.D.Z3.L80
10	52	100	10	3	SP303.W.10x52.D.Z3.L100	SP303.W.10x52.D.Z3.L100
12	52	100	12	3	SP303.W.12x52.D.Z3.L100	SP303.W.12x52.D.Z3.L100
14	52	100	14	3	SP303.W.14x52.D.Z3.L100	SP303.W.14x52.D.Z3.L100
16	32	80	16	3	SP303.W.16x32.D.Z3.L80	SP303.W.16x32.D.Z3.L80
16	62	110	16	3	SP303.W.16x62.D.Z3.L110	SP303.W.16x62.D.Z3.L110
18	72	120	18	3	SP303.W.18x72.D.Z3.L120	SP303.W.18x72.D.Z3.L120
20	72	120	20	3	SP303.W.20x72.D.Z3.L120	SP303.W.20x72.D.Z3.L120
20	100	150	20	3	SP303.W.20x100.D.Z3.L150	SP303.W.20x100.D.Z3.L150

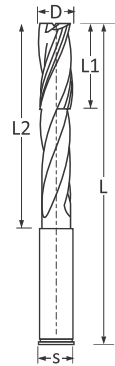
Roughing Spirals for End Grain Cutting



Series

501 Door Locks Router

3-FLUTE



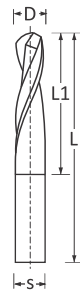
D	L1/L2	L	S	Z	Code: RH Upcut Spiral
12	40/95	150	12	3	SP501.W.12x40-95.U.Z3.L150
14	40/95	150	14	3	SP501.W.14x40-95.U.Z3.L150
16	40/105	150	16	3	SP501.W.16x40-105.U.Z3.L150

3-flute spiral router bit

Series

701 Ball End Router

RADIUS ROUTER 2-FLUTE



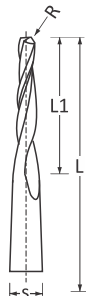
D	L1	L	S	Z	Code: RH Spiral
3	10	50	3	2	SP701W.3x10.U.Z2.L50
4	12	50	4	2	SP701W.4x12.U.Z2.L50
6	15	60	6	2	SP701W.6x15.U.Z2.L60
10	42	90	10	2	SP701W.10x42.U.Z2.L90
12	42	90	12	2	SP701W.12x42.U.Z2.L90

2-flute spiral router bit

Series

703 Tapered Carving Router

2-FLUTE



D/R	L1	L	S	Z	Code: RH Spiral
0.50-4	15	50	4	2	SP703.W.0,5-4x15.D.Z2.L50
0.75-6.35	30	70	6.35	2	SP703.W.0,75-6,35x30.D.Z2.L70
1-6	30	70	6	2	SP703.W.1-6x30.D.Z2.L70
1,5-8	45	90	8	2	SP703.W.1,5-8x45.D.Z2.L90
2-8	45	90	8	2	SP703.W.2-8x45.D.Z2.L90
2-12	60	120	12	2	SP703.W.2-45x60.D.Z2.L120

2-flute spiral router bit with taper ball nose end mills

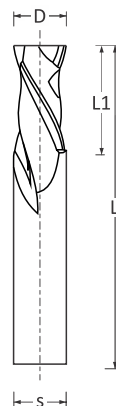


802 Compression Router

2+2-FLUTE



D	L1	L3	L	S	Z	RH Compression Spiral
6	25	5	70	6	2+2	SP802.W.6x25.Z2+2.L65
6	25	5	70	6	2+2	SP802.W.6,35x25,4.Z2+2.L63,5
8	25	5	70	8	2+2	SP802.W.8x25.Z2+2.L65
6	25	5	70	6	2+2	SP802.W.6x25.Z2+2.L70
6	25	5	70	6	2+2	SP802.W.8x25.Z2+2.L65
6	25	5	70	6	2+2	SP802.W.8x25.Z2+2.L70
8	25	5	70	8	2+2	SP802.W.9,52x25,4.Z2+2.L76
6	25	5	70	6	2+2	SP802.W.16x50.Z2+2.L100
8	25	5	70	8	2+2	SP802.W.8x25.Z2+2.L70
8	35	5	80	8	2+2	SP802.W.8x35.Z2+2.L80
10	25	7	80	10	2+2	SP802.W.10x25.Z2+2.L80
10	35	7	80	10	2+2	SP802.W.10x35.Z2+2.L80
12	25	7	80	12	2+2	SP802.W.12x25.Z2+2.L80
12	35	7	80	12	2+2	SP802.W.12x35.Z2+2.L80
12	42	7	90	12	2+2	SP802.W.12x42.Z2+2.L90



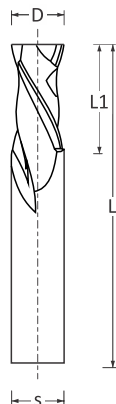
Compression router bits Z=2+2 for double faced boards.

803 Compression Router

3+3-FLUTE



D	L1	L3	L	S	Z	RH Compression Spiral X-Version
10	25	7	80	10	3+3	SP803.W.10x25.Z3+3.L80
10	35	7	80	10	3+3	SP803.W.10x35.Z3+3.L80
12	25	7	80	12	3+3	SP803.W.12x25.Z3+3.L80
12	35	7	80	12	3+3	SP803.W.12x35.Z3+3.L80
12	42	7	90	12	3+3	SP803.W.12x42.Z3+3.L90
16	35	8	80	16	3+3	SP803.W.16x35.Z3+3.L80
16	42	8	90	16	3+3	SP803.W.16x42.Z3+3.L90
16	52	8	100	16	3+3	SP803.W.16x52.Z3+3.L100



Compression router bits Z=3+3 for double faced boards.

Series

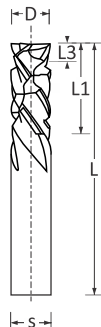
807XB

COMPRESSION ROUTER 2+4 FLUTE



D	L1	L3	L	S	Z	RH Compression Spiral X-Version
12	25	7	70	12	2+4	SP807.W.12x25.Z2+4.L70.XB

Compression spiral router bits Z=2+4 for very delicate double faced boards.



Series

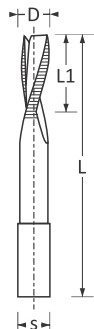
903-3D Pattern Makers Router

MODELING 3D



D	L1	L	S	Z	RH Extra Length Spiral Round Tip
6	20	120	6	2	SP903.W.6x20.U.Z2.L120
8	30	120	8	2	SP903.W.8x30.U.Z2.L120
10	30	140	10	2	SP903.W.10x30.U.Z2.L140
12	40	150	12	2	SP903.W.12x40.U.Z2.L150
12	40	150	12	3	SP903.W.12x40.U.Z3.L150
16	40	180	16	2	SP903.W.16x40.U.Z2.L180
16	40	180	16	3	SP903.W.16x40.U.Z3.L180
20	40	200	20	2	SP903.W.20x40.U.Z2.L200
20	40	200	20	3	SP903.W.20x40.U.Z3.L200
25	50	220	25	2	SP903.W.25x50.U.Z2.L220
25	50	220	25	3	SP903.W.25x50.U.Z3.L220
25	50	220	25	4	SP903.W.25x50.U.Z4.L220

2-flute spiral router bit with taper ball nose ends.





Router Bits

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Surfacing Routers

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NC12M

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Router Bits

Series

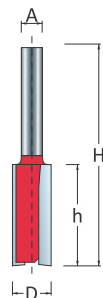
04-12-MM-

DOUBLE FLUTE STRAIGHT BITS

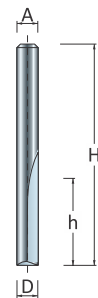


D mm	h mm	H mm	A in	Z	Max RPM 1/min.	Code
•1.6	6.4	44.5	1/4"	2	24,000	04-09625P
2	4	38.1	1/4"	2	24,000	04-50225P
•2.4	9.5	38.1	1/4"	2	24,000	04-09825P
3	8	44.5	1/4"	2	24,000	04-50825P
•3.2	9.5	44.5	1/4"	2	24,000	04-10025P
•4	15.8	38.1	1/4"	2	24,000	04-10125P
•4.8	12.7	49.2	1/4"	2	24,000	04-10225P
5	12	50.8	1/4"	2	24,000	04-51225P
•6.4	12.7	50.5	1/4"	2	24,000	04-10425P
•6.4	15.9	50.8	1/4"	2	24,000	04-10525P
6.4	19	38.1	1/2"	2	24,000	12-10050P
•6.4	19	57.1	1/4"	2	24,000	04-10625P
•6.4	22.2	57.1	1/4"	2	24,000	04-10725P
6.4	23	46	1/2"	2	24,000	12-10250P
6.4	25.4	63.5	1/4"	2	24,000	04-10825P
•6.4	25.4	76.2	1/4"	2	24,000	04-11025P
7.1	25.4	64.8	1/4"	2	24,000	04-11225P
7.9	25.4	70.4	1/4"	2	24,000	04-11825P
8	25.4	65.7	1/2"	2	24,000	12-10650P
9.5	22.2	58.2	1/4"	2	24,000	04-12025P
9.5	25.4	61.4	1/4"	2	24,000	04-12425P
9.5	25.4	76	1/2"	2	24,000	12-10850P
9.5	31.7	81	1/2"	2	24,000	12-11050P
9.5	31.8	67.7	1/4"	2	24,000	04-12625P
10	25.4	61.4	1/4"	2	24,000	MM-01025P
10	31.8	62.7	1/4"	2	24,000	04-52025P

• Solid Carbide Bit



Steel Body with Carbide Tip



Solid Carbide



D mm	h mm	H mm	A in	Z	Max RPM 1/min.	Code
10	31.8	74	1/2"	2	24,000	12-52050P
11.1	25.4	61.4	1/4"	2	24,000	04-12925P
12	31.8	62.7	1/4"	2	24,000	04-52825P
12	31.8	74	1/2"	2	24,000	12-53050P
12.7	19	54.5	1/4"	2	24,000	04-13025P
12.7	22.2	58.2	1/4"	2	24,000	04-13125P
12.7	25.4	61.4	1/4"	2	24,000	04-13225P
12.7	25.4	65.7	1/2"	2	24,000	12-11650P
12.7	31.8	69	1/4"	2	24,000	04-13325P
12.7	31.8	76	1/2"	2	24,000	12-11850P
12.7	38.1	79.4	1/2"	2	24,000	12-12250P
12.7	38.1	107	1/2"	2	24,000	12-12450P
12.7	50.8	97.9	1/2"	2	24,000	12-12850P
12.7	63.5	110	1/2"	2	24,000	12-13050P
15	31.8	66.7	1/4"	2	24,000	04-53625P
15.9	19	50	1/4"	2	24,000	04-13625P
15.9	25.4	62.4	1/2"	2	24,000	12-13650P
15.9	31.7	69	1/4"	2	24,000	04-13725P
15.9	31.8	70.7	1/2"	2	24,000	12-13850P
15.9	38.1	75.1	1/2"	2	24,000	12-14050P
15.9	50.8	102	1/2"	2	24,000	12-14250P
16	31.8	65.7	1/4"	2	24,000	04-54425P
16	31.8	68.8	1/2"	2	24,000	12-54450P
17.5	19	55	1/4"	2	24,000	04-13825P
18	19	50	1/4"	2	24,000	04-54825P
19	19	56	1/4"	2	24,000	04-14025P
19	25.4	67.4	1/2"	2	24,000	12-15250P
19	31.8	68.8	1/2"	2	24,000	12-15450P
19	38.1	75.1	1/2"	2	24,000	12-15650P
19	50.8	87.8	1/2"	2	24,000	12-15850P
20	19	50	1/4"	2	24,000	04-55225P
20.6	31.8	74.5	1/2"	2	24,000	12-16250P
22.2	19	54.5	1/4"	2	24,000	04-14825P
22.2	31.8	74.5	1/2"	2	24,000	12-16850P
25.4	19	54.5	1/4"	2	24,000	04-15225P
25.4	31.8	68.2	1/2"	2	24,000	12-17250P

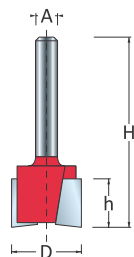
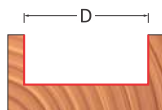
Series

16-

DOUBLE FLUTE SHORT STRAIGHT BITS



D mm	h mm	H mm	A in	Z	Max RPM 1/min.	Code
12.7	12.5	51	1/4"	2	24,000	16-10025P
12.7	12.5	60.5	1/2"	2	24,000	16-11050P
19	12.5	51	1/4"	2	24,000	16-10425P
31.8	21.1	56.1	1/2"	2	24,000	16-10850P



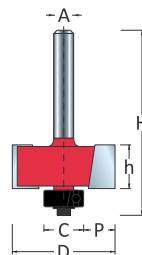
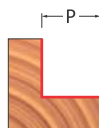
Series

32-

RABBETING BITS WITH OR WITHOUT BEARING SET



D mm	h mm	H mm	A in	C	P in	Z	Code
31.8	13.2	50.8	1/4"	12.7	9.5	2	32-10025P
31.8	12.7	50.8	1/2"	12.7	2	2	32-10250P
34.9	12.7	55.7	1/2"	12.7	9.5 - 12.7	2	32-52250P



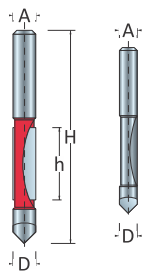
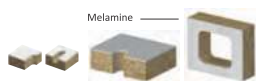
Series

26-28-

PANEL PILOT BITS



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



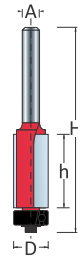
Series

42-

BEARING FLUSH TRIM BITS



D mm	h mm	H mm	A in	S mm	Z	Max RPM 1/min.	Code
9.5	25.4	67.9	1/4"	25.4	2	24.000	42-10025P
9.5	12.7	56	1/4"	12.7	2		42-10225P
12.7	25.4	67.9	1/4"	25.4	2	24.000	42-10425P
12.7	12.7	55.2	1/4"	12.7	2	24.000	42-10625P
12.7	25.4	77.5	1/2"	25.4	2	24.000	42-11050P
12.7	38.1	89.1	1/2"	38.1	2	24.000	42-11450P
12.7	50.8	107.5	1/2"	50.8	2	24.000	42-11650P



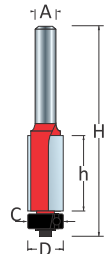
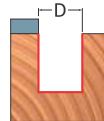
Series

44-

BOTTOM BEARING FLUSH TRIM BITS



D mm	h mm	H mm	A in	C mm	α	Z	Max RPM 1/min.	Code
12.7	38.1	89.1	1/2"	12.7		2	24.000	4-10850P



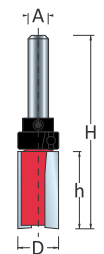
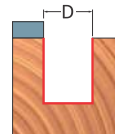
Series

50-

TOP BEARING FLUSH TRIM BITS



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



Series

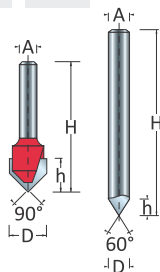
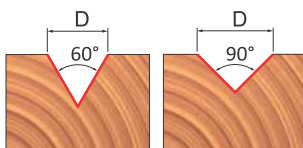
20-

"V" GROOVING BITS



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

• Solid Carbide Bit



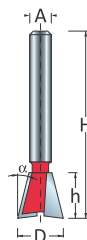
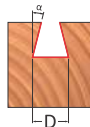
Series

22-

DOVETAIL BITS



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



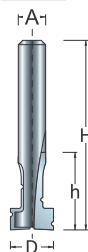
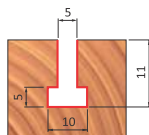
Series

70-

DOVETAIL BITS

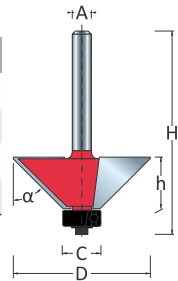
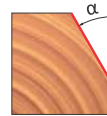


D mm	h mm	H mm	A in	Z	Max RPM 1/min.	Code
6.4	6.8	50.8	1/4"	1		70-10025P

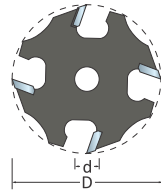




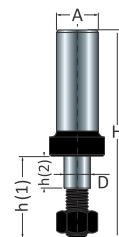
D mm	h mm	H mm	A in	C mm	α	Z	Max RPM 1/min.	Code
18.4	12.8	50.2	1/4"	15°		2	24.000	40-10025P
33	11.5	49	1/4"	45°		2	24.000	40-10425P
41.5	15.9	53.4	1/4"	45°		2	24.000	40-10625P
43	18	62	1/2"	45°		2	24.000	40-11450P



D mm	h mm	H mm	A in	C mm	α	Z	Max RPM 1/min.	Code
50.8	3.2	7.9	7.94			3	24.000	56-10831P
50.8	4	7.9	7.94			3	24.000	56-10931P
50.8	4.8	7.9	7.94			3	24.000	56-11031P
50.8	6.4	7.9	7.94			3	24.000	56-11231P
50.8	6.4	7.9	7.94			4	24.000	58-11231P



D mm	h mm	H mm	A in	C mm	α	Z	Max RPM 1/min.	Code
8.2	25.4	60.3	1/4"	12				60-10025P
8.2	25.4	60.3	1/2"	12°				60-10250P
Spare Parts				Dimensions mm		Code		
		Washer		17x8.4x1.6		60-10025P		
		Hex nut		7.94x6.75		60-10250P		



Series

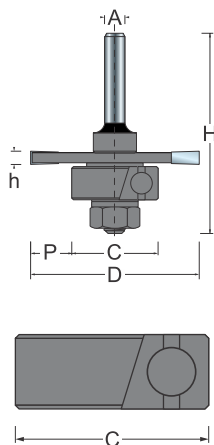
63-

BISCUIT JOINTER CUTTER



D mm	h mm	H mm	A in	C mm	Z	Code
50.8	4	60.3	1/4"	26-30-34	3	63-60925P
50.8	4	60.3	1/2"	26-30-34	3	63-60950P
Spare Parts			Dimensions mm		Code	
			Hex nut		7.94x6.75 2610M BB9	
			Washer		17x8.4x1.6 2617M AG9	
			Washer		14x8.4x1.6 2617M BG9	
			Reducer		26x22x110 RB62M 1249	
			Reducer		30x22x10 RB62M 1289	
			Reducer		34x22x10 RB62ME DA9	

P mm	C mm
8.4	Ø 26
10.4	Ø 30
12.4	Ø 34



Series

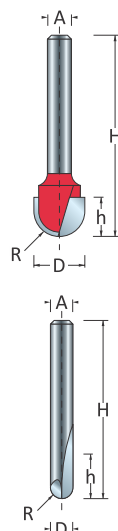
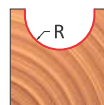
18-

ROUND NOSE BITS



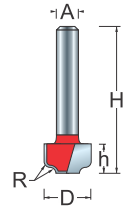
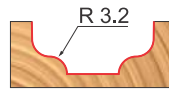
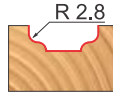
D mm	h mm	H mm	A in	Z	Max RPM 1/min.	Code
• 3.2	9.5	50.5	1/4"	2		18-10025P
• 4.8	6.4	50.5	1/4"	2		18-10225P
6.4	12.7	50.5	1/4"	2	24,000	18-10425P
• 9.5	9	43.7	1/4"	2	24,000	18-10625P
12.7	9	44	1/4"	2	24,000	18-10825P
15.9	11	46.5	1/4"	2		18-11025P
19	11	46.5	1/4"	2	24,000	18-11225P
6.4	12.7	38	1/2"	2		18-11450P
12.7	31.7	70.7	1/2"	2		18-11650P
19	31.7	70.5	1/2"	2	24,000	18-12250P

• Solid Carbide Bit

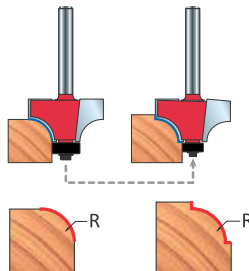
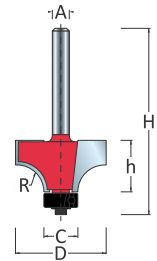




D mm	h mm	H mm	A in	R mm	Z	Max RPM 1/min.	Code
12.7	8	38.5	1/4"	2.8	2		39-15225P
22.2	10.7			3.2	2		39-15425P



D mm	h mm	H mm	A in	C mm	R mm	Z	Max RPM 1/min.	Code
15.9	13	50.2	1/4"	12.7	1.6	2	24.000	34-10025P
19	12.7	50.2	1/4"	12.7	3.2	2	24.000	34-10425P
22.2	13.2	64.9	1/4"	12.7	4.75	2	24.000	34-10825P
25.4	12.7	50.2	1/4"	12.7	6.4	2	24.000	34-11025P
25.4	12.7	56.2	1/2"	12.7	6.4	2	24.000	34-12050P
28.6	12.7	50.2	1/4"	12.7	8	2	24.000	34-11225P
31.8	18	55	1/4"	12.7	9.5	2	24.000	34-11425P
31.8	18	61	1/2"	12.7	9.5	2	24.000	34-12450P
38.1	19	56.5	1/4"	12.7	12.7	2	24.000	34-11625P
38.1	19	62.5	1/2"	12.7	12.7	2	24.000	34-12650P
44.5	22.2	65.7	1/2"	15.9	15.9	2	24.000	34-12750P
50.8	25.4	68.9	1/2"	12.7	19	2	24.000	34-12850P
63.5	31.8	74.7	1/2"	12.7	25.4	2	24.000	34-13250P



By simply ordering the
Ball bearing 3102M AA9P
(Ø 3/8") and the **Step washer**
FX07M AA9P you will be able
to obtain a different profile.

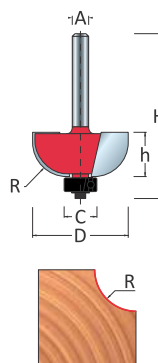
Series

30-

COVE BITS



D mm	h mm	H mm	A in	C mm	R mm	Z	Max RPM 1/min.	Code
22.2	12.7	50.2	1/4"	9.5	6.4	2	24.000	30-10225P
25.4	14.3	50.2	1/4"	9.5	7.9	2	24.000	30-10325P
31.8	12.7	50.2	1/4"	12.7	9.5	2	24.000	30-10525P
31.8	12.7		1/2"	12.7	9.5	2	24.000	30-11250P
38.1	16.4	53.9	1/4"	12.7	12.7	2	24.000	30-10625P
38.1	16.4		1/2"	12.7	12.7	2	24.000	30-11450P



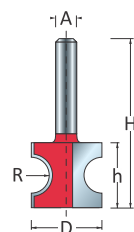
Series

82-

HALF ROUND BITS



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



Series

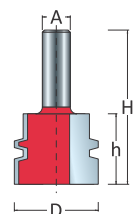
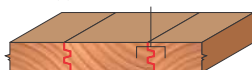
99-

REVERSIBLE GLUE JOINT BITS



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

Opposite vein direction



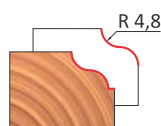
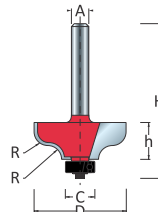
Series

38-99-

OGEE FILLET BITS



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



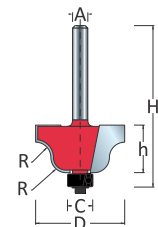
Series

38-99-

ROMAN OGEE BITS



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



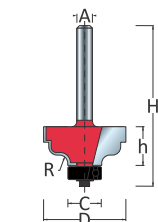
Series

38-

CLASSICAL ROMAN OGEE BITS



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



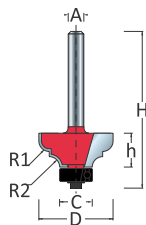
Series

38-99-

CLASSICAL OGEE BITS



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



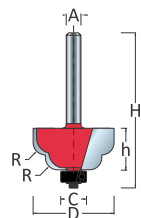
Series

38-

DOVE COVE BITS



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



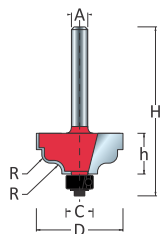
Series

38-

DOUBLE FILLET OGEE BITS



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



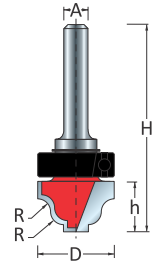
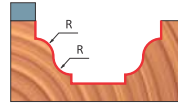
Series

39-

TOP BEARING FILLET OGEE GROOVE BITS



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



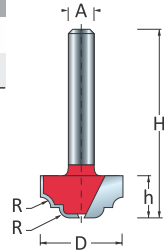
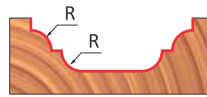
Series

39-

COVE & BEAD GROOVE BITS



D mm	h mm	H mm	A in	R mm	Z	Max RPM 1/min.	Code
19	9.5	40.3	1/4"	2.4	2	24.000	39-10025P
25.4	12.7	43.2	1/4"	3.2	2	24.000	39-10225P



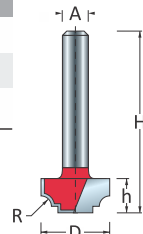
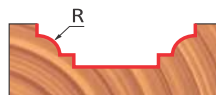
Series

39-

CLASSICAL BEADING GROOVE BITS



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



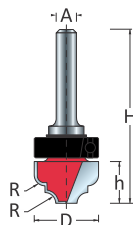
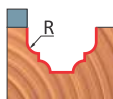
Series

39-

TOP BEARING COVE & BEAD GROOVE BITS



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



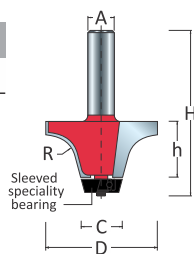
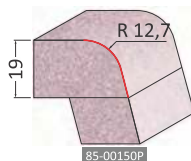
Series

85-

ROUND OVER BOWL BITS



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



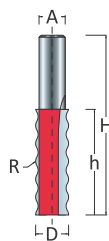
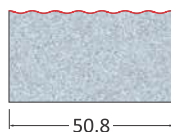
Series

85-

WAVY JOINT BITS



D mm	h mm	H mm	A in	R mm	Z	Max RPM 1/min.	Code
16	50.8	88	1/2"	4	2	24.000	85-03350P



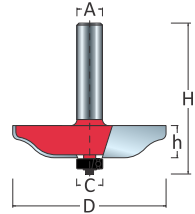
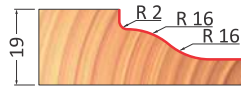
Series

99-

RAISED PANEL BITS



D mm	h mm	H mm	A in	C mm	R mm	R mm	Code
70	16	60	1/2"	12.7	14.2	3.2	99-51050P
89	16	60	1/2"	12.7	20.6	4	99-52050P



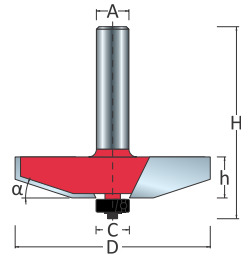
Series

99-

RAISED PANEL BITS



h mm	H mm	A in	C mm	Z	Max RPM 1/min.	Code
16	60	1/2"	12.5	2	22.000	99-51150P
13	57	1/2"	12.5	2		99-51650P
16.1	60	1/2"	12.5	2	18.000	99-51550P
Spare Parts				Dimensions mm		Code
			Screw	M3x7.6		2607M 001
			Ball bearing	12.7x4.8x5		3102M AB9
			Washer	12x1.1x4.8		FX07M AB9



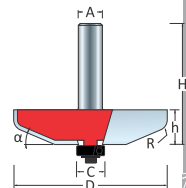
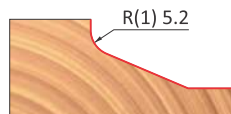
Series

99-

RAISED PANEL BITS



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



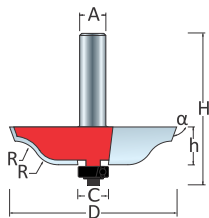
Series

85-

RAISED PANEL BITS



D mm	h mm	H mm	A in	C mm	α	Z	Max RPM 1/min.	Code
70	16	63.5	1/2"	12.7	70°	2	14.000	99-51350P
Spare Parts			Dimensions mm			Code		
			Hex nut			7.94x6.75		
			Spacer			18x0.1x8		
			Spacer			18x0.2x8		
			Spacer			18x0.5x8		
			Spacer			18x1x8		
			Spacer			18x0.15x8		



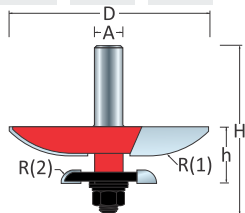
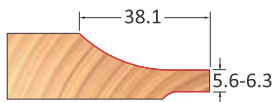
Series

99-

RAISED PANEL BITS



D mm	h mm	H mm	A in	Code
89	20	75	1/2"	99-56950P



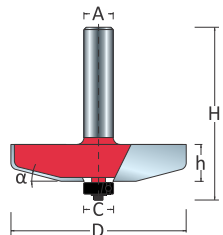
Series

99-

RAISED PANEL BITS

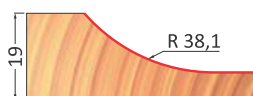
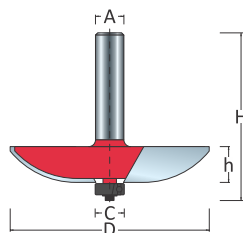


D mm	h mm	H mm	A in	C mm	α	Max RPM 1/min.	Code
89	19	76.2	1/2"	12.7	15°	28.000	99-56650P
Spare Parts			Dimensions mm			Code	
			Screw			M3x7.6	
			Ball bearing			12.7x4.8x5	
			Washer			12x1.1x4.8	

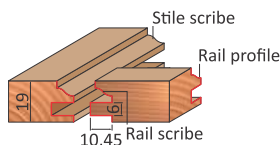
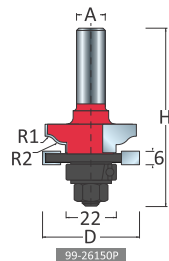
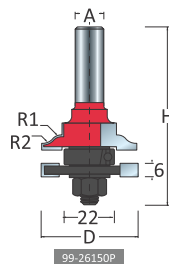




D mm	h mm	H mm	A in	C mm	Z	Code
89	16	64.7	1/2"	12.7	2	99-51850P
89	13	64.7	1/2"	12.7	4	99-51950P
Spare Parts			Dimensions mm		Code	
		Screw	M3x7.6		2607M 001	
		Ball bearing	12.7x4.8x5		3102M AB9	
		Washer	12x1.1x4.8		FX07M AB9	

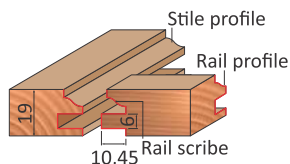
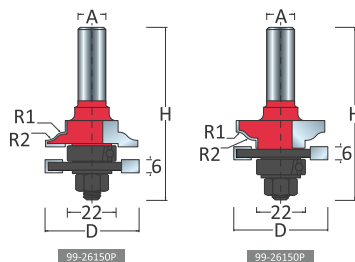


D mm	h mm	H mm	A in	R1 mm	R2 mm	Z	Max RPM 1/min.	Code
42.9	40.5	77	1/2"	5.5				99-26050P
42.9	19	77	1/2"	4.5	5.5	2	24.000	99-26150P
42.9	19	77	1/2"	7		2	24.000	99-26350P
Spare Parts			Dimensions mm		Code			
		Hex nut	7.94 x 6.75		2610M BB9			
		Spacer	18 x 0.1 x 8		AN01MP0019			
		Spacer	18 x 0.2 x 8		AN01MP0029			
		Spacer	18 x 0.5 x 8		AN01MP0059			
		Spacer	18 x 1 x 8		AN01MP0109			
		Ball Bearing	22.2 x 8 x 7.1		3102M AC9			





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

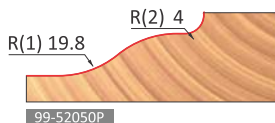


97-10450P

CABINET DOOR SET - 3 ROUTER BITS



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

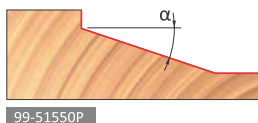


97-20050P

CABINET DOOR SET - 3 ROUTER BITS



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

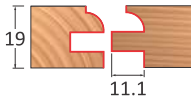


97-10050P

5-PIECE CABINET DOOR SET BITS



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



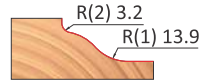
99-26050P



99-03150P



99-PK150P



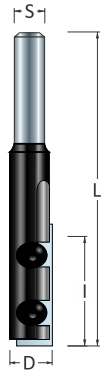
99-51050P

652

STRAIGHT ROUTER BITS WITH INSERT KNIVES



					SPARE PARTS		
D mm	L mm	L mm	S mm	Code			
12	29.5	79	8	652.120.11	790.295.09	990.072.00	991.061.00
12	39.5	90	8	652.122.11	790.395.09	990.072.00	991.061.00
12.7	29.5	89	12.7	652.627.11	790.295.09	990.072.00	991.061.00
14	50	96	12	652.141.11	790.500.09	990.072.00	991.061.00
16	50	96	12	652.161.11	790.500.09	990.072.00	991.061.00



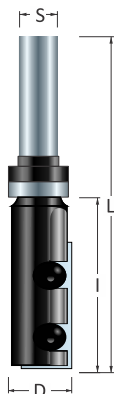


D mm	l mm	L mm	z	S Ømm	Code
19	49.5	100	1	12	652.690.11B
19	49.5	100	1	12.7	652.691.11B
28.6	49.5	100	2	12.7	652.787.11B

SPARE PARTS

790.295.09	990.072.00	791.011.00
790.395.09	990.072.00	791.011.00
790.295.09	990.076.00	791.027.00

991.061.00	541.002.00	991.056.00



SPARE PARTS

D mm	l mm	L mm	S Ømm	Code			
19	12	57	6	657.194.11	790.120.00	990.075.00	791.007.00
19	12	57	6.35	657.192.11	790.120.00	990.075.00	791.007.00
19	12	57	8	657.190.11	790.120.00	990.075.00	791.007.00
16	30	75	8	657.161.11	790.295.09	990.115.00	791.006.00
19	30	76	6	657.195.11	790.300.00	990.075.00	791.007.00
19	30	77	8	657.191.11	790.300.00	990.075.00	791.007.00
19	30	87	12.7	567.692.11	790.300.00	990.075.00	791.007.00
19	50	112	12	657.991.11	790.500.00	990.075.00	791.007.00
19	50	112	12.7	657.992.11	790.500.00	990.075.00	791.007.00

SPARE PARTS:

- 990.400.00 $\varnothing 3.2/\varnothing 7$ mm shield for M3 screw
- 990.410.00 $\varnothing 4.2/\varnothing 9$ mm shield for M4 screws
- 990.051.00 M3x6mm TCEI screws
- 990.052.00 M4x6mm TCEI screws
- 991.067.00 3mm hex key
- 541.514.00 $\varnothing 6.4$ mm shield

991.061.00





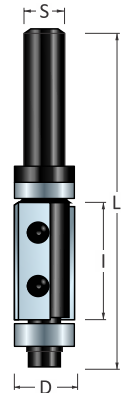
D mm	I mm	L mm	S Ømm	Code
19	30	90	8	657.191.11B
19	30	90	12.7	657.692.11B
19	50	110	12	657.993.11B
19	50	110	12.7	657.994.11B
19	60	120	12	657.995.11B
19	60	120	12.7	657.996.11B

SPARE PARTS

790.300.00	541.004.00	791.034.00
790.300.00	541.002.00	791.011.00
790.500.00	541.002.00	791.011.00
790.500.00	541.002.00	791.011.00
790.600.00	541.002.00	791.011.00
790.600.00	541.002.00	791.011.00

791.007.00	990.075.00	991.052.00

SPARE PARTS: 990.410.00 Ø4.2/Ø9mm shield for M4 screws
 991.067.00 3mm hex key
 991.061.00 T15 Torx key
 991.057.00 1.5mm hex key



Surfacing Routers

SERIES

NC12M

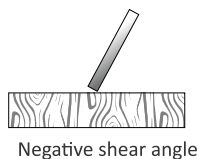
SPOILER BOARD SURFACING CUTTERS



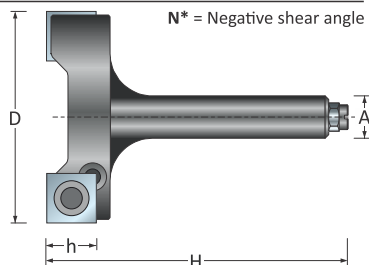
Spoilboard Surfacing Cutters

D in	h in	H in	A in	Z	Code
38mm	12mm	60mm	12mm	3	FTP054
2-1/2" (63.5mm)	1/2"	3"	1/2"	2	NC12M61
2-1/2" (63.5mm)	1/2"	3"	1/2"	2	NC12M61N*

D mm	h mm	H mm	A mm	Z	Code
80mm	13	80	20	3	NC12M80



Negative shear angle



	Spare Parts	Dimensions mm	Code
	Spur	14 x 14 x 2	RG01MAI3 10
	Screw	M5 x 8	VT05M AA9
	Hex nut	M4	2606M CE9
	Slotted cheese head screw	M4 x 10	2611 DB9
	Torx key	T20	CB03M CC9

Optional Square Disposable Spurs

L mm	H mm	S mm	QTY	Type HW	α	Code
14	14	2	1	H00XA	31°	NC12M80

• Solid Carbide Bit

Step Washer
FX07M AA9P
FX07M AB9P



Ball Bearing
2619M CA9P

Allen key
2619M CA9P



Screw
260M 001P



Spare Parts Also Available:

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

ROUTER BITS FOR PORTABLE ROUTERS

The router bits KLEIN® are high quality products which can satisfy the most important applications required by the market today. In order to maintain the high quality level achieved during these years, our production departments have been continually equipped with latest technology and machinery along with more versatile and modern management systems. Moreover we always put a constant attention in the choice of raw materials, such as the development of a special TCT in collaboration with our suppliers, which allow our straight router bits KLEIN® to be at the top of the market for performance, precision and cutting life, ensuring excellent results and even better than our competitors'. An important aspect is also the wideness and variety of our range of router bits. In the catalogue KLEIN®, in fact, there are more than a thousand different items which meet any particular requirements, whether in the industrial or handcrafted manufacture.



ANTI-STICK INDUSTRIAL BURNISHED COATING which ensures protection against rust, corrosion and build-up

TRI-METAL BRAZING OPERATION (alloy+copper+alloy) for best performance and maximum resistance to stress

CERTIFIED INDUSTRIAL CARBIDE to guarantee longer lifetime, sharp cutting edge and best finishing

SHEAR-ANGLE especially designed to obtain smoother cuts compared to competitors

ANTI-KICKBACK DESIGN that reduces the problem of the initial kickback of the piece of wood, ensuring maximum safety

LASER MARKING as a guarantee of the operator, a number of specifications are marked on the cutter shank

QUALITY CONTROL

At Klein in order to best ensure the performance and sharpness of each product, we use both a manual and camera Presetter inspection process to minimize the margin of error and ensure technical specifications.

THE PACKAGING

Eco-friendly packaging with 100% recyclable plastic and paper. The internal card displays technical drawing, features and more

MAINTENANCE

A correct cutter care is essential in order to preserve cutter performance and prolong its life. Keeping in mind our advices will guarantee the maximum tool protection, increasing its productive efficiency. Read and download our guide online here





Klein® Router Bits - "B" 1/4" Shaft

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Klein® Router Bits - "B" 1/4" Shaft

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KL.B169 - LEAF-FLUTING	74
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Klein® Router Bits - "G" 1/2" Shaft

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Shape Finder Pages

Klein® Routers - "B" 1/4" Shaft

BEVEL TRIM



B107

60

DOVETAIL



B108

60

V-GROOVE & SIGN MAKING BITS



B109

61

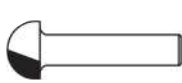
V-GROOVE & SIGN MAKING BITS



B110

61

CORE BOX BITS



B111

61

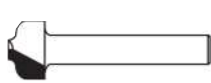
PLUNGING ROUND-OVER



B112

62

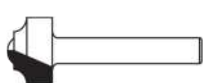
PLUNGE TYPE OGEE



B113

62

PLUNGE TYPE CLASSICAL



B115

62

BULL NOSE RADIUS



B116

62

TRIMMING BITS WITH BALL BEARING



B119

63

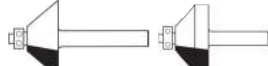
TRIMMING BITS WITH BALL BEARING



B120

63

BEVEL TRIM WITH BALL BEARINGS



B122

63

CORNER ROUNDING BITS WITH BALL BEARING



B123

64

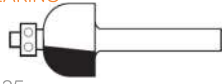
BEADING BITS WITH BALL BEARING



B124

64

COVE BITS WITH BALL BEARING



B125

65

DOUBLE FILLET COVE BITS WITH BALL BEARING



B126

65

DOUBLE FILLET COVE BITS WITH BALL BEARING



B128

66

OGEE BITS WITH BALL BEARING



B129

66

OGEE BITS WITH BALL BEARING



B131

66

OGEE BITS WITH BALL BEARING



B133

67

CLASSIC MOULDING BITS WITH BALL BEARING



B135

67

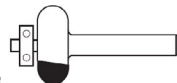
CORNER BEADING BITS WITH BALL BEARING



B137

68

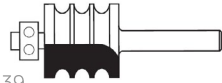
EDGE FLUTING BITS WITH BALL BEARING



B138

68

MULTI-BEADING BITS WITH BALL BEARING



B139

69

Klein® Routers - "B" 1/4" Shaft

FLUSH TRIM "V"-GROOVE BITS
WITH BALL BEARING



B141

69

FLAT ROUNDING OVER BITS
WITH BALL BEARING



B142

69

FLAT ROUNDING OVER BITS
WITH BALL BEARING



B143

70

PROFILE BITS WITH BALL
BEARING



B144

70

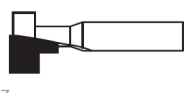
OGEE BITS WITH BALL BEARING



B147

71

KEYHOLE BITS



B153

71

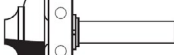
FLUSH TRIM BITS WITH UPPER
BALL BEARING



B160

71

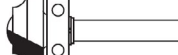
FLUSH TRIM BITS WITH UPPER
BALL BEARING



B161

72

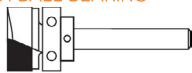
FLUSH TRIM BITS WITH UPPER
BALL BEARING



B162

72

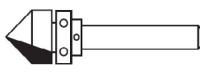
FLUSH TRIM "V"-GROOVE BITS
WITH BALL BEARING



B163

72

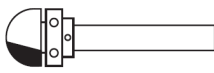
FLAT ROUNDING OVER BITS
WITH BALL BEARING



B164

73

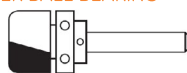
CORE BOX BITS WITH UPPER
BALL BEARING



B165

73

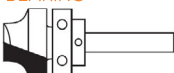
BOWL AND TRAY BITS WITH
UPPER BALL BEARING



B166

73

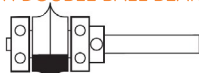
FLUSH TRIM BITS WITH UPPER
BALL BEARING



B167

74

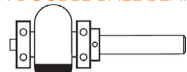
LEAF-EDGE BEADING BITS
WITH DOUBLE BALL BEARINGS



B168

74

EDGE-FLUTING BEADING BITS
WITH DOUBLE BALL BEARINGS



B169

74

DOUBLE DIAMETER BITS



B180

75

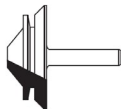
DOUBLE DIAMETER BITS



B186

75

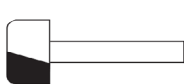
45 DEGREE LOCK MITRE JOINT
BITS



B195

75

BOWL AND TRAY BITS



B196

76

Klein® Routers - "G" 1/2" Shaft

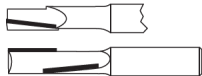
STRAIGHT BITS



G101

77

STRAIGHT BITS



G104

77

PLUNGE TYPE OGEE BITS



G106

77

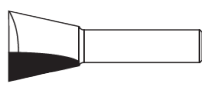
PLUNGE TYPE OGEE BITS



G107

78

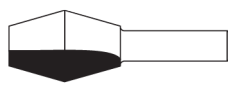
DOVETAIL BITS



G108

78

14° BUTTERFLY SPLINE BITS



G109

78

"V" GROOVE BITS



G110

79

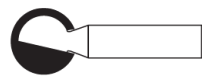
CORE BOX BITS



G111

79

BALL AND PLUNGE BITS



G112

79

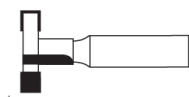
PLUNGING ROUND OVER BITS



G113

80

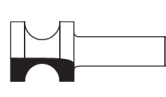
T-SLOT ROUTER BITS



G114

80

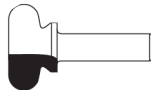
BULL NOSE RADIUS BITS



G115

80

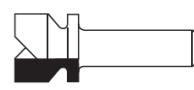
FINGER GRIP BITS



G116

81

FINGER GRIP BITS



G118

81

45° LOCK MITER BITS



G120

81

GLUE JOINT BITS



G121

81

WEDGE TONGUE AND GROOVE BITS



G122

82

WEDGE TONGUE AND GROOVE BITS



G123

82

PROFILE BITS



G124

82

CROWN MOULDING BITS



G125

82

CROWN MOULDING BITS



G127

83

PROFILE BITS



G128

83

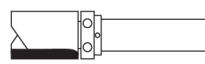
PROFILE BITS



G129

83

FLUSH TRIM BITS WITH UPPER BALL BEARING

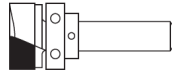


G130

83

Klein® Routers - "G" 1/2" Shaft

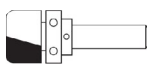
PLUNGE BITS WITH UPPER BALL BEARING



G131

84

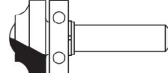
BOWL AND TRAY BITS WITH UPPER BALL BEARING



G132

84

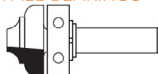
CLASSICAL PLUNGE BITS WITH UPPER BALL BEARINGS



G134

85

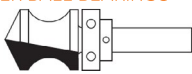
CLASSICAL PLUNGE BITS WITH UPPER ALL BEARINGS



G135

85

HAND GRIP PLUNGE BITS WITH UPPER BALL BEARINGS



G136

85

WINDOW SILL EDGE BITS



G137

86

RAISED PANEL BITS



G138

86

DOUBLE RADIUS BITS



G139

86

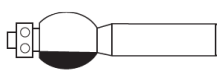
COVE BITS



G140

87

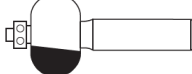
SUNK BEAD BITS



G142

87

SUNK BEAD BITS



G143

87

FLAT ROUNDING-OVER BITS



G144

88

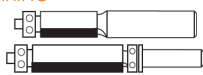
SUNK BEAD BITS



G145

88

FLUSH TRIM BITS WITH BALL BEARING



G146

89

COVE BITS WITH BALL BEARING



G147

89

ROMAN OGEE BITS WITH BALL BEARING



G148

90

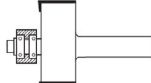
CLASSICAL OGEE BITS WITH BALL BEARING



G149

90

RABBETING BITS WITH BALL BEARING



G150

91

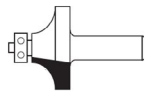
BEVEL TRIM BITS WITH BALL BEARING



G151

91

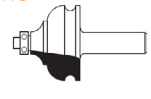
CORNER ROUNDING BITS WITH BALL BEARING



G152

92

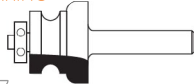
MOULDING BITS WITH BALL BEARING



G156

92

MOULDING BITS WITH BALL BEARING



G157

93

MOULDING BITS WITH BALL BEARING



G158

93

DRAWING LINE BITS WITH BALL BEARING



G161

93

Klein® Routers - "G" 1/2" Shaft

ARCHITECTURAL MouldING BITS
WITH BALL BEARING



G162

94

ARCHITECTURAL MouldING BITS
WITH BALL BEARING



G163

49

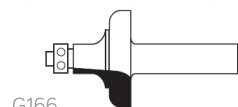
MULTIPLE PROFILE BITS



G165

95

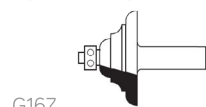
MULTIPLE PROFILE BITS



G166

95

MULTIPLE PROFILE BITS



G167

95

MULTIPLE PROFILE BITS



G168

96

CLASSICAL MULTI-FORM BITS
WITH BALL BEARING



G169

96

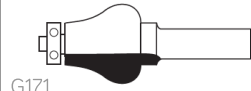
HANDRAIL BITS WITH BALL
BEARING



G170

96

HANDRAIL BITS WITH BALL
BEARING



G171

97

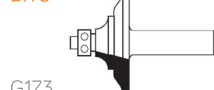
EDGE BEADING BITS



G172

97

HANDRAIL AND TABLE EDGE
BITS



G173

98

HANDRAIL AND TABLE EDGE
BITS



G174

98

RAISED PANEL BITS WITH BALL
BEARING



G175

98

HANDRAIL-TABLE EDGE BITS
WITH BALL BEARING



G176

99

RAISED PANEL BITS WITH BALL
BEARING



G178

99

RAISED PANEL BITS WITH BALL
BEARING



G179

100

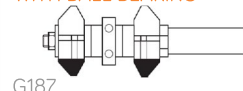
DOUBLE CORNER ROUND
ASSEMBLY WITH BALL BEARING



G186

101

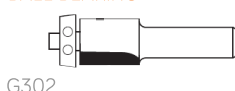
DOUBLE CHAMFER ASSEMBLY
WITH BALL BEARING



G187

101

STRAIGHT PLUNGE BITS WITH
BALL BEARING



G302

102

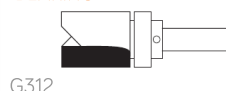
FLUSH TRIM BITS WITH BALL
BEARING



G310

102

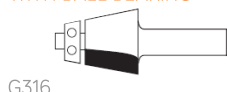
FLUSH TRIM BITS WITH BALL
BEARING



G312

102

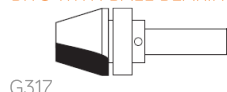
BEVEL UNDERMOUNT BITS
WITH BALL BEARING



G316

103

TOPMOUNT COUNTERTOP
BITS WITH BALL BEARING



G317

13

ROUND OVER BITS WITH BALL
BEARING

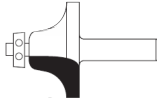


G325

103

Klein® Routers “G” 1/2" Shaft

OGEE BITS WITH BALL BEARING



G326

104

COUNTERTOP BITS WITH BALL BEARING



G330

104

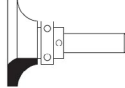
CORNER ROUNDING BITS WITH BALL BEARING



G334

104

ROUNDING-UNDER BITS WITH UPPER BALL BEARING



G335

105

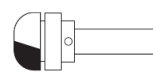
CORNER-ROUNDING BITS WITH BALL BEARING



G336

105

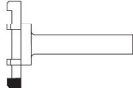
COVE BITS WITH UPPER BALL BEARING



G342

105

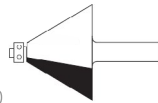
BOWL AND COUNTERTOP TRIM BITS



G350

106

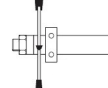
BEVEL BITS WITH BALL BEARING



G380

106

ROUTER BITS FOR SINK REPAIRING



G382

106

Klein® Routers: Economy Range - “HB” 1/4" Shaft

STRAIGHT BITS



HB101

107

“V” GROOVING BITS



HB110

107

BEVEL TRIMMING BITS WITH BALL BEARING



HB122

107

BEADING BITS WITH BALL BEARING



HB124

108

CLASSICAL BITS WITH BALL BEARING



HB128

108

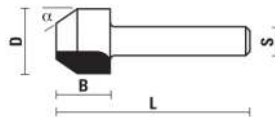


Klein® Routers - "B" 1/4" Shaft

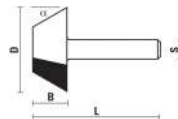
Series

KL.B107

BEVEL TRIM



S in	D mm	α	B mm	L mm	Z	Code
1/4"	12.7	30°	12.7	41	2	B107.030.R
1/4"	12.7	45°	12.7	41	2	B107.045.R

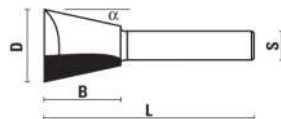


S in	D mm	α	B mm	L mm	Z	Code
1/4"	12.7	15°	13	51	2	B107.127.R
1/4"	14.3	10°	16	45	2	B107.143.R
1/4"	22.2	23°	10	38	2	B107.222.R
1/4"	25.4	30°	10	38	2	B107.254.R
1/4"	35	45°	10	38	2	B107.350.R

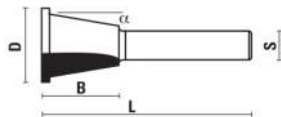
Series

KL.B108

DOVETAIL



S in	D mm	α	B mm	L mm	Z	Code
1/4"	6.4	7°	8	63	2	B108.064.R
1/4"	8	9°	9.5	63	2	B108.080.R
1/4"	9.5	9°	9.5	42	2	B108.095.R
1/4"	12.7	14°	13	45	2	B108.127.R
1/4"	16	7°	16	45	2	B108.160.R
1/4"	19	7°	19	65	2	B108.190.R

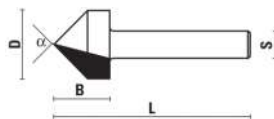


S in	D mm	α	B mm	L mm	Z	Code
1/4"	14.3	13°	13.5	55	2	B108.143.R

Series

KL.B109

V-GROOVE AND SIGN MAKING BITS

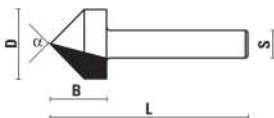


S in	D mm	α	B mm	L mm	Z	Code
1/4"	9.5	90°	11	45	2	B109.095.R
1/4"	25.4	90°	19	48	2	B109.254.R

Series

KL.B110

V-GROOVE AND SIGN MAKING BITS

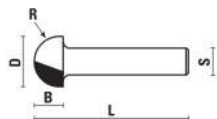


S in	D mm	α	B mm	L mm	Z	Code
1/4"	14	60°	22	57	3	B110.140.R

Series

KL.B111

CORE BOX BITS

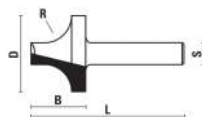


S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	18	9	19	47	2	B111.180.R

Series

KL.B112

PLUNGING ROUND-OVER

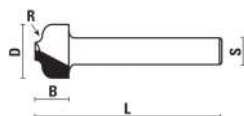


S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	19	6.4	13	41	2	B112.190.R
1/4"	25.4	9.5	16	44	2	B112.254.R

Series

KL.B113

PLUNGE TYPE OGEE

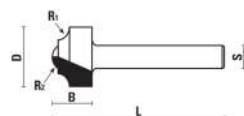


S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	19	3.5	13	54	2	B113.190.R

Series

KL.B115

PLUNGE TYPE CLASSICAL

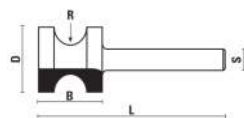


S in	D mm	R ₁ mm	R ₂ mm	B mm	L mm	Z	Code
1/4"	12.7	2.5	3.5	10	51	2	B115.127.R
1/4"	19	3.7	4	13	54	2	B115.190.R

Series

KL.B116

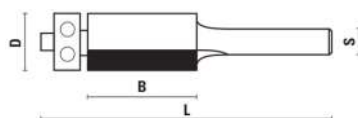
BULL NOSE RADIUS



S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	13.5	2	13	41	2	B116.135.R
1/4"	16.7	3.6	19	48	2	B116.167.R
1/4"	22.2	5.2	19	48	2	B116.222.R

KL.B119

TRIMMING BITS WITH BALL BEARING

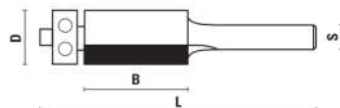


S in	D mm	B mm	L mm	Z	Code
1/4"	6.4	13	53	2	B119.064.R
1/4"	12.7	13	60	2	B119.127.R

Spare Parts	Code	Part For
Screw	Z051.006.N	B119.064.R
Ball bearing	Z050.017.N	B119.064.R
Screw	Z051.002.R	B119.127.R
Ball bearing	Z050.002.N	B119.127.R
Washer	Z053.002.N	B119.127.R
Spring Washer	Z054.002.N	B119.127.R

KL.B120

TRIMMING BITS WITH BALL BEARING

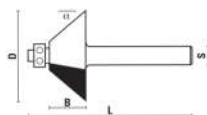


S in	D mm	B mm	L mm	Z	Code
1/4"	6.4	25	67	2	B120.064.R

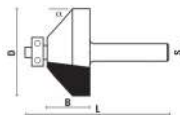
Spare Parts	Code	Part For
Screw	Z051.006.N	B120.064.R
Ball bearing	Z050.017.N	B120.064.R

KL.B122

BEVEL TRIM WITH BALL BEARINGS GUIDE



S in	D mm	α	B mm	L mm	Z	Code	Spare Parts	Code
1/4"	17.5	10°	10	49	3	B122.010.R	Screw	Z051.002.R
1/4"	19	15°	10	49	3	B122.015.R	Ball bearing	Z050.004.N
1/4"	22	25°	10	49	3	B122.025.R	Washer	Z053.004.N
1/4"	30	45°	10	49	3	B122.045R	Spring Washer	Z054.002.N



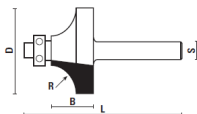
S in	D mm	α	B mm	L mm	Z	Code
1/4"	35	45°	18	57	2	B122.350.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.003.N
Washer	Z053.003.N
Spring Washer	Z054.002.N

Serie

KL.B123

CORNER ROUNDING BITS WITH BALL BEARING



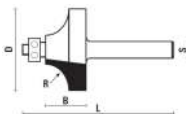
S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	16.7	2	8	47	2	B123.167.R
1/4"	20.7	4	10	49	2	B123.207.R
1/4"	22.2	4.8	13	51	2	B123.222.R
1/4"	35.4	11	17	57	2	B123.354.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.003.N
Washer	Z053.003.N
Spring Washer	Z054.002.N

Serie

KL.B124

BEADING BITS WITH BALL BEARING



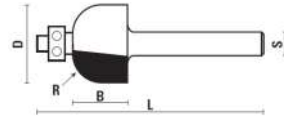
S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	16	1.6	8	46	2	B124.160.R
1/4"	20.7	4	10	49	2	B124.207.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.002.N
Washer	Z053.002.N
Spring Washer	Z054.002.N

Series

KL.B125

COVE BITS WITH BALL BEARING



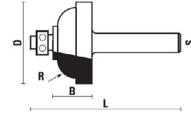
S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	16	3.2	13	51	2	B125.160.R
1/4"	19	4.8	14	51	2	B125.190.R
1/4"	22.2	6.4	14	51	2	B125.222.R
1/4"	25.4	8	14	51	2	B125.254.R

Spare Parts	Code
Screw	Z051.001.R
Ball bearing	Z050.001.N
Washer	Z053.001.N
Spring Washer	Z054.001.N

Series

KL.B126

DOUBLE FILLET COVE BITS WITH BALL BEARING



S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	28.6	4.8	13	51	2	B126.286.R
1/4"	35	8	16	54	2	B126.350.R

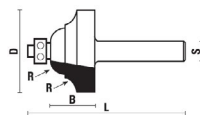
Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.003.N
Washer	Z053.003.N
Spring Washer	Z054.002.N



Series

KL.B128

DOUBLE FILLET COVE BITS WITH BALL BEARING



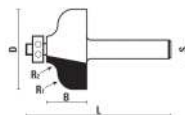
S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	25.4	4	16	53	2	B128.254.R
1/4"	35	6.4	18	57	2	B128.350.R

Spare Parts	Code
Screw	Z051.001.R
Ball bearing	Z050.001.N
Washer	Z053.001.N
Spring Washer	Z054.001.N

Series

KL.B129

OGEE BITS WITH BALL BEARING



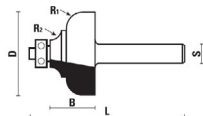
S in	D mm	R ₁ mm	R ₂ mm	B mm	L mm	Z	Code
1/4"	28.6	4.5	4	13	51	2	B129.286.R
1/4"	35	6	5	18	55	2	B129.350.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.003.N
Washer	Z053.003.N
Spring Washer	Z054.002.N

Series

KL.B131

OGEE BITS WITH BALL BEARING



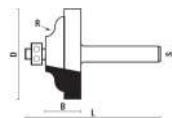
S in	D mm	R ₁ mm	R ₂ mm	B mm	L mm	Z	Code
1/4"	35	6.4	4.8	18	56	2	B131.350.R

Spare Parts	Code
 Screw	Z051.002.R
 Ball bearing	Z050.003.N
 Washer	Z053.003.N
 Spring Washer	Z054.002.N

Series

KL.B133

OGEE BITS WITH BALL BEARING



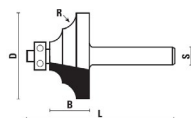
S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	35	4	14	52	2	B133.350.R

Spare Parts	Code
 Screw	Z051.002.R
 Ball bearing	Z050.002.N
 Washer	Z053.002.N
 Spring Washer	Z054.002.N

Series

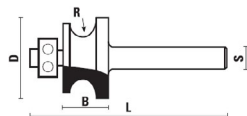
KL.B135

CLASSICAL MOULDING BITS WITH BALL BEARING



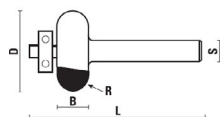
S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	28.6	4	13	51	2	B135.286.R
1/4"	35	5.5	18	60	2	B135.350.R

Spare Parts	Code
 Screw	Z051.002.R
 Ball bearing	Z050.003.N
 Washer	Z053.003.N
 Spring Washer	Z054.002.N



S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	22	3.2	14	54	2	B137.220.R
1/4"	28	4.8	16	57	2	B137.280.R
1/4"	32	6.4	19	58	2	B137.320.R

Spare Parts	Code	Part for
Screw	Z051.002.R	B137.220.R
Ball bearing	Z050.003.N	B137.220.R
Washer	Z053.003.N	B137.220.R
Spring Washer	Z054.002.N	B137.220.R
Screw	Z051.002.R	B137.280.R / B137.320.R
Ball bearing	Z050.004.N	B137.280.R / B137.320.R
Washer	Z053.004.N	B137.280.R / B137.320.R
Spring Washer	Z054.002.N	B137.280.R / B137.320.R



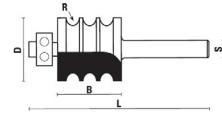
S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	21	4	8	47	2	B138.210.R
1/4"	23	5	10	49	2	B138.230.R
1/4"	25	6	12	51	2	B138.250.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.003.N
Washer	Z053.003.N
Spring Washer	Z054.002.N

Series

KL.B139

MULTI-BEADING BITS WITH BALL BEARING



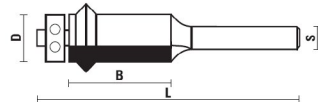
S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	22	3	25	65	2	B139.220.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.004.N
Washer	Z053.004.N
Spring Washer	Z054.002.N

Series

KL.B141

FLUSH-TRIM "V" GROOVE BITS WITH BALL BEARING



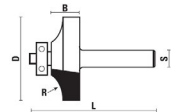
S in	D mm	B mm	L mm	Z	Code
1/4"	12.7	25.4	67	2	B141.127.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.003.N
Washer	Z053.003.N
Spring Washer	Z054.002.N

Series

KL.B142

FLAT ROUNDOING OVER BITS WITH BALL BEARING



S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	30	12	10	48	2	B142.300.R

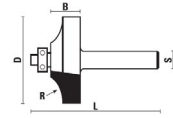


	Spare Parts	Code
	Screw	Z051.002.R
	Ball bearing	Z050.003.N
	Washer	Z053.003.N
	Spring Washer	Z054.002.N

Series

KL.B143

FLAT ROUNDING OVER BITS WITH BALL BEARING



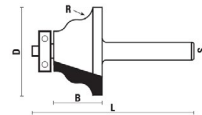
S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	30	12	10	48	2	B143.300.R

	Spare Parts	Code
	Screw	Z051.002.R
	Ball bearing	Z050.002.N
	Washer	Z053.002.N
	Spring Washer	Z054.002.N

Series

KL.B144

PROFILE BITS WITH BALL BEARING



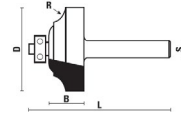
S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	31.8	4	17.5	57	2	B144.318.R

	Spare Parts	Code
	Screw	Z051.002.R
	Ball bearing	Z050.003.N
	Washer	Z053.003.N
	Spring Washer	Z054.002.N

Series

KL.B147

OGEE BITS WITH BALL BEARING



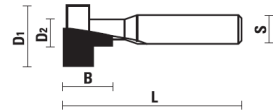
S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	38	6	16	54	2	B147.380.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.003.N
Washer	Z053.003.N
Spring Washer	Z054.002.N

Series

KL.B153

KEYHOLE BITS

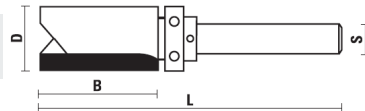


S in	D ₁ mm	D ₂ mm	B mm	L mm	Z	Code
1/4"	9.8	5	9.8	38.1	2	B153.098.R
1/4"	12.7	8	9.8	38.1	2	B153.127.R

Series

KL.B160

FLUSH TRIM BITS WITH UPPER BALL BEARING



S in	D mm	B mm	L mm	Z	Code
1/4"	12.7	13	55	2	B160.125.R
1/4"	12.7	19	55	2	B160.126.R
1/4"	12.7	32	69	2	B160.128.R

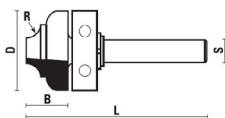
Spare Parts	Code
Screw	Z051.005.R
Ball bearing	Z050.007.N
Allen Key	Z052.005.N



Series

KL.B161

FLUSH TRIM BITS WITH UPPER BALL BEARING

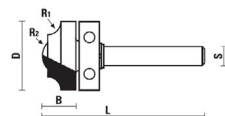


S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	22	3.5	11	51	2	B161.220.R

Series

KL.B162

FLUSH TRIM BITS WITH UPPER BALL BEARING



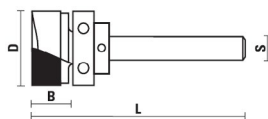
S in	D mm	R ₁ mm	R ₂ mm	B mm	L mm	Z	Code
1/4"	22	4	5.5	12	51	2	B162.220.R

Spare Parts	Code
Ball Bearing	Z050.008.R
Circlip	DIN 471-15

Series

KL.B163

FLUSH TRIM "V"-GROOVE BITS WITH BALL BEARING

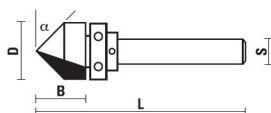


S in	D mm	B mm	L mm	Z	Code
1/4"	19	11	56	2	B163.190.R

Spare Parts	Code
Screw	Z051.005.R
Ball bearing	Z050.005.N
Washers	Z058.001.N

KL.B164

FLAT ROUNDING OVER BITS WITH BALL BEARING

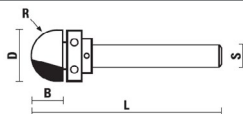


S in	D mm	α	B mm	L mm	Z	Code
1/4"	12.7	45°	13	51	2	B164.127.R

Spare Parts	Code
Screw	Z051.005.R
Ball bearing	Z050.007.N
Washers	Z058.001.N
Allen Key	Z052.005.N

KL.B165

CORE BOX BITS WITH UPPER BALL BEARING

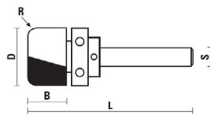


S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	12.7	6.4	9.5	51	2	B165.127.R

Spare Parts	Code
Screw	Z051.005.R
Ball bearing	Z050.007.N
Washers	Z058.001.N

KL.B166

BOWL AND TRAY BITS WITH UPPER BALL BEARING



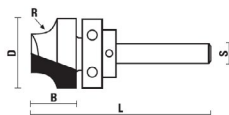
S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	12.7	3.2	13	54	2	B166.127.R
1/4"	1	6.4	16	59	2	B166.190.R

Spare Parts	Code
Screw	Z051.005.R
Ball bearing	Z050.005.N
Ball bearing	Z050.007.N
Washers	Z058.001.N

Series

KL.B167

FLUSH TRIM BITS WITH UPPER BALL BEARING



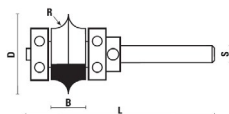
S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	12.7	3	9.5	48	2	B167.127.R
1/4"	22	5	12	55	2	B167.220.R

Spare Parts	Code
Screw	Z051.005.R
Ball bearing	Z050.008.N
Ball bearing	Z050.007.N
Washers	Z058.001.N

Series

KL.B168

LEAF-EDGE BEADING BITS WITH DOUBLE BALL BEARING



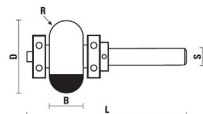
S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	25.4	4.8	13	66	2	B168.254.R

Spare Parts	Code
Screw	Z051.004.R
Screw	Z051.005.N
Ball bearing	Z050.011.N
Washers	Z058.001.N
Washer	Z053.002.N

Series

KL.B169

"EDGE-FLUTING" BEADING BITS WITH DOUBLE BALL BEARING



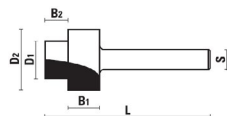
S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	23	5	10	61	2	B169.230.R

Spare Parts		Code
	Screw	Z051.002.R
	Screw	Z051.005.N
	Ball bearing	Z050.007.N superiore
	Ball bearing	Z050.003.N inferiore
	Spring Washer	Z054.002.R
	Washers	Z058.001.N
	Washer	Z053.003.N

Series

KL.B180

DOUBLE DIAMETER BITS

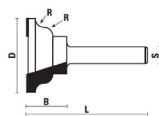


S in	D ₁ mm	D ₂ mm	B ₁ mm	B ₂ mm	L mm	Z	Code
1/4"	12.7	19	9.5	6.4	51	2	B180.127.R

Series

KL.B186

DOUBLE DIAMETER BITS

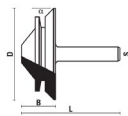


S in	D mm	D ₁ mm	R mm	B mm	L mm	Z	Code
1/4"	25	12	3.2	13	42	2	B186.250.R

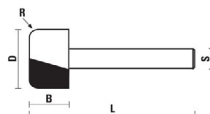
Series

KL.B195

45 DEGREE LOCK MITRE JOINT BITS



S in	D mm	α	B mm	L mm	Z	Code
1/4"	42	45°	16	45	2	B195.420.R



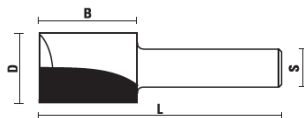
S in	D mm	R mm	B mm	L mm	Z	Code
1/4"	19	6.4	16	60	2	B196.190.R

Klein® Routers - "G" 1/2" Shaft

Series

KL.G101

STRAIGHT BITS

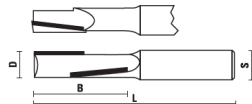


S in	D mm	B mm	L mm	Z	Code
1/2"	6	19	63	2	G101.060.R
1/2"	6.4	19	63	2	G101.064.R
1/2"	14.3	32	73	2	G101.143.R

Series

KL.G104

STRAIGHT BITS



S in	D mm	B mm	L mm	Z	Code
1/2"	12.7	38	79	2	G104.127.R
1/2"	12.7	54	108	2	G104.128.R

Series

KL.G106

PLUGE TYPE OGEE BITS



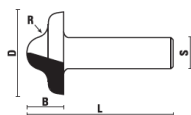
S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	19	3.5	13	68	2	G106.190.R
1/2"	25.4	3.2	9.5	50	2	G106.254.R
1/2"	35	3.2	9.5	59	2	G106.350.R



Series

KL.G107

PLUGE TYPE OGEE BITS

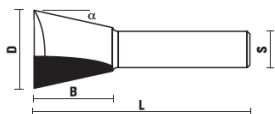


S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	27	6	12	57	2	G107.270.R

Series

KL.G108

DOVETAIL BITS

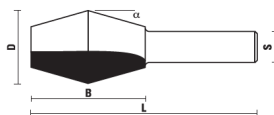


S in	D mm	α	B mm	L mm	Z	Code
1/2"	16	7°	22	65	2	G108.161.R
1/2"	19	14°	19	65	2	G108.190.R
1/2"	19	7°	22	65	2	G108.191.R
1/2"	22	14°	22	67	2	G108.220.R
1/2"	22	7°	22	60	2	G108.221.R
1/2"	25.4	14°	25.4	70	2	G108.254.R

Series

KL.G109

14° BUTTERFLY SPLINE BITS

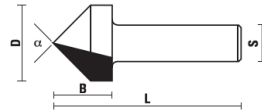


S in	D mm	α	B mm	L mm	Z	Code
1/2"	28	14°	46	84	2	G109.280.R

Series

KL.G110

V-GROOVE BITS

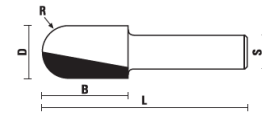


S in	D mm	α	B mm	L mm	Z	Code
1/2"	12.7	90°	13	54	2	G110.127.R
1/2"	16	90°	13	51	2	G110.160.R
1/2"	19	90°	16	54	2	G110.190.R
1/2"	25.4	90°	19	57	2	G110.254.R
1/2"	32	90°	25	64	2	G110.320.R
1/2"	38.1	90°	32	70	2	G110.381.R
1/2"	51	90°	44	83	2	G110.501.R

Series

KL.G111

CORE BOX BITS

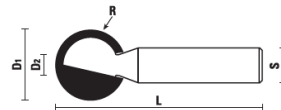


S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	12.7	6.4	32	73	2	G111.127.R
1/2"	16	8	32	70	2	G111.160.R
1/2"	19	9.5	32	70	2	G111.190.R
1/2"	22	11	32	70	2	G111.220.R
1/2"	25.4	12.7	32	70	2	G111.254.R
1/2"	32	16	32	70	2	G111.317.R
1/2"	38	19	32	70	2	G111.380.R
1/2"	50	25	32	70	2	G111.500.R

Series

KL.G112

BALL AND PLUNGE BITS



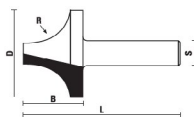
S in	D ₁ mm	D ₂ mm	R mm	L mm	Z	Code
1/2"	12.7	6.5	6.4	57	2	G112.127.R
1/2"	16	7.5	8	60	2	G112.160.R
1/2"	19	8.5	9.5	64	2	G112.190.R
1/2"	25.4	9	12.7	70	2	G112.254.R
1/2"	32	12.7	16	73	2	G112.320.R



Series

KL.G113

PLUNGING ROUND-OVER BITS

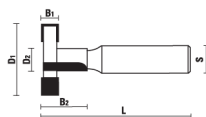


S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	16	5	11	49	2	G113.160.R
1/2"	19	6.4	13	51	2	G113.190.R
1/2"	22	8	14	52	2	G113.220.R
1/2"	25.4	9.5	16	54	2	G113.254.R
1/2"	34.9	12.7	25.4	63.5	2	G113.349.R
1/2"	44.5	16	31.8	70	2	G113.445.R
1/2"	51	19	36	75	2	G113.510.R

Series

KL.G114

T-SLOT ROUTER BITS

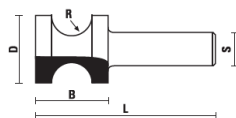


S in	D ₁ mm	D ₂ mm	B ₁ mm	B ₂ mm	L mm	Z	Code
1/2"	28	9.5	8	21	65	2	G114.280.R
1/2"	35	13	9.5	22	65	2	G114.350.R

Series

KL.G115

BULL NOSE RADIUS BITS

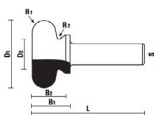


S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	22	5	19	57	2	G115.220.R
1/2"	26	6.8	25	63	2	G115.260.R
1/2"	28	8	25	64	2	G115.280.R
1/2"	33.3	9.5	35	73	2	G115.333.R
1/2"	42.9	12.7	40	78	2	G115.429.R
1/2"	51	16	50	88	2	G115.510.R
1/2"	60	19	50	88	2	G115.600.R

Series

KL.G116

FINGER GRIP BITS

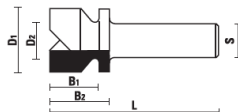


S in	D ₁ mm	D ₂ mm	R ₁ mm	R ₂ mm	B ₁ mm	B ₂ mm	L mm	Z	Code
1/2"	19	10	4.8	2.5	19	14	57	2	G116.190.R
1/2"	38.1	17	6	2	21	18	59	2	G116.381.R
1/2"	44.5	17	8	2	25	22	63	2	G116.445.R

Series

KL.G118

FINGER GRIP BITS

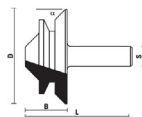


S in	D ₁ mm	D ₂ mm	B ₁ mm	B ₂ mm	L mm	Z	Code
1/2"	22	13	17	21	59	2	G118.220.R

Series

KL.G120

45° LOCK MITER BITS

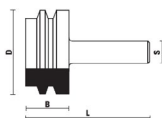


S in	D mm	α	B mm	L mm	Z	Code
1/2"	44.5	45°	20	58	2	G120.445.R
1/2"	68	45°	29.5	68	2	G120.680.R

Series

KL.G121

GLUE JOINT BITS



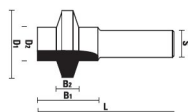
S in	D mm	B mm	L mm	Z	Code
1/2"	47	28	66	2	G121.470.R



Series

KL.G122

WEDGE TONGUE AND GROOVE BITS

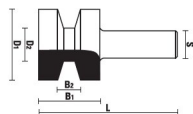


S in	D ₁ mm	D ₂ mm	α	B ₁ mm	B ₂ mm	L mm	Z	Code
1/2"	32	14	15°	32	11	70	2	G122.320.R

Series

KL.G123

WEDGE TONGUE AND GROOVE BITS

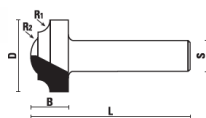


S in	D ₁ mm	D ₂ mm	α	B ₁ mm	B ₂ mm	L mm	Z	Code
1/2"	32	14	15°	32	11	70	2	G123.320.R

Series

KL.G124

PROFILE BITS

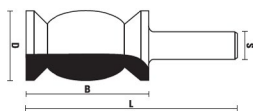


S in	D mm	R ₁ mm	R ₂ mm	B mm	L mm	Z	Code
1/2"	19	3.6	4	13	70	2	G124.190.R
1/2"	25.4	5	6.4	17.5	73	2	G124.254.R

Series

KL.G125

CROWN MOULDING BITS

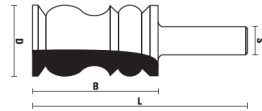


S in	D mm	B mm	L mm	Z	Code
1/2"	32	58	96	2	G125.320.R

Series

KL.G127

CROWN MOULDING BITS

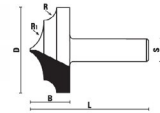


S in	D mm	B mm	L mm	Z	Code
1/2"	32	58	96	2	G127.320.R

Series

KL.G128

PROFILE BITS

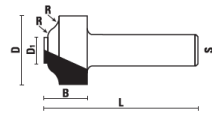


S in	D mm	R ₁ mm	R ₂ mm	B mm	L mm	Z	Code
1/2"	41	6.4	15	18	56	2	G128.410.R

Series

KL.G129

PROFILE BITS

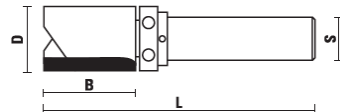


S in	D mm	D ₁ mm	R mm	B mm	L mm	Z	Code
1/2"	25.4	9.5	4.8	15	53	2	G129.254.R
1/2"	30	12	6	15	53	2	G129.300.R

Series

KL.G130

FLUSH TRIM BITS WITH UPPER BALL BEARING



S in	D mm	B mm	L mm	Z	Code
1/2"	19	25.4	77	2	G130.190.R
1/2"	19	51	92	2	G130.191R
1/2"	25.4	45	95	2	G130.254.R

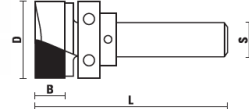


Spare Parts	Code
 Screw	Z051.005.N
 Ball bearing	Z050.012.N
 Ball bearing	Z050.009.N 
 Washers	Z058.002.N

Saw type

KL.G131

PLUNGE BITS WITH UPPER BALL BEARING



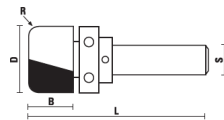
S in	D mm	B mm	L mm	Z	Code
1/2"	19	11	64	2	G131.190.R 
1/2"	25.4	11	64	2	G131.254.R 
1/2"	38	16	69	2	G131.380.R 

Spare Parts	Code
 Screw	Z051.005.N   
 Ball bearing	Z050.012.N 
 Ball bearing	Z050.009.N 
 Ball bearing	Z050.013.N 
 Washers	Z058.002.N  
 Washers	Z058.003.N 

Saw type

KL.G132

BOWL AND TRAY BITS WITH UPPER BALL BEARING

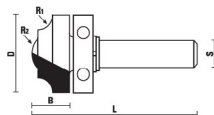


S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	19	6.4	16	67	2	G132.190.R 
1/2"	28.6	6.4	16	67	2	G132.286.R 

Spare Parts	Code
 Screw	Z051.005.N  
 Ball bearing	Z050.012.N 
 Ball bearing	Z050.015.N 
 Washers	Z058.002.N 
 Washers	Z058.003.N 

Series

KL.G134 CLASSICAL PLUNGE BITS WITH UPPER BALL BEARING

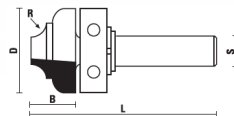


S in	D mm	R ₁ mm	R ₂ mm	B mm	L mm	Z	Code
1/2"	35	6.4	10	15	68	2	G134.350.R

Spare Parts	Code
Ball Bearing	Z050.014.N
Circlip	DIN 471-15

Series

KL.G135 CLASSICAL PLUNGE BITS WITH UPPER BALL BEARING

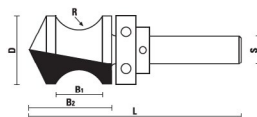


S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	35	5	14	67	2	G135.350.R

Spare Parts	Code
Ball Bearing	Z050.014.N
Circlip	DIN 471-15

Series

KL.G136 HAND GRIP PLUNGE BITS WITH UPPER BALL BEARING



S in	D mm	R mm	B ₁ mm	B ₂ mm	L mm	Z	Code
1/2"	28.6	13	22	40	92	2	G136.286.R

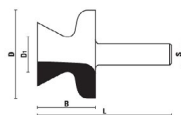
Spare Parts	Code
Screw	Z051.005.N
Ball bearing	Z050.015.N
Washers	Z058.003.N



Series

KL.G137

WINDOW SILL EDGE BITS

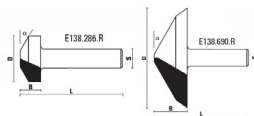


S in	D mm	D ₁ mm	B mm	L mm	Z	Code
1/2"	51	19	32	70	2	G137.510.R

Series

KL.G138

RAISED PANEL BITS

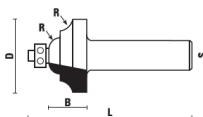


S in	D mm	α	B mm	L mm	Z	Code
1/2"	28.6	30°	13	70	2	G138.286.R
1/2"	69	25°	19	57	2	G138.690.R

Series

KL.G139

DOUBLE RADIUS BITS



S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	25.4	4	16	63	2	G139.254.R
1/2"	35	6.4	20	67	2	G139.350.R

Spare Parts

Code



Screw

Z051.001.R



Ball bearing

Z050.001.N



Washer

Z053.001.N



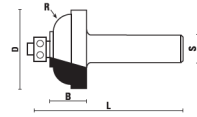
Spring Washer

Z054.001.N

Series

KL.G140

COVE BITS



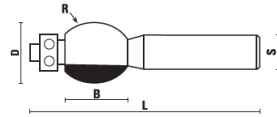
S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	28.6	4.8	13	31	2	G140.286.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.003.N
Washer	Z053.003.N
Spring Washer	Z054.002.N

Series

KL.G142

SUNK BEAD BITS



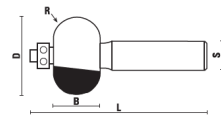
S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	19	8	13	70	2	G142.190.R
1/2"	22	12	19	78	2	G142.220.R
1/2"	25.4	32	38	98	2	G142.254.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.003.N
Washer	Z053.003.N
Spring Washer	Z054.002.N

Series

KL.G143

SUNK BEAD BITS



S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	33	10	20	75	2	G143.330.R

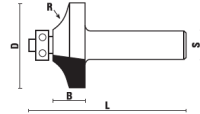


Spare Parts		Code
	Screw	Z051.002.R
	Ball bearing	Z050.003.N
	Washer	Z053.003.N
	Spring Washer	Z054.002.N

Series

KL.G144

FLAT ROUNDING-OVER BITS



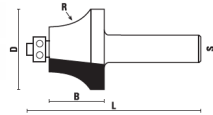
S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	30	12	10	57	2	G144.300.R

Spare Parts		Code
	Screw	Z051.002.R
	Ball bearing	Z050.003.N
	Washer	Z053.003.N
	Spring Washer	Z054.002.N

Series

KL.G145

SUNK BEAD BITS

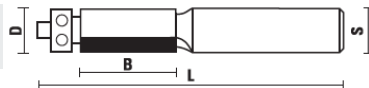


S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	27	17	17	67	2	G145.270.R

Spare Parts		Code
	Screw	Z051.002.R
	Ball bearing	Z050.003.N
	Washer	Z053.003.N
	Spring Washer	Z054.002.N

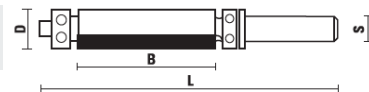
KL.G146

FLUSH TRIM BITS WITH BALL BEARING



S in	D mm	B mm	L mm	Z	Code
1/2"	12.7	13	71	2	G146.126.R
1/2"	12.7	25	84	2	G146.127.R
1/2"	12.7	51	106	2	G146.129.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.003.N
Washer	Z053.003.N
Spring Washer	Z054.002.N

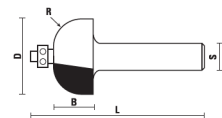


S in	D mm	B mm	L mm	Z	Code
1/2"	19	51	108	2	G146.592.R

Spare Parts	Code
Screw	Z051.004.R
Ball bearing	Z050.005.N (upper)
Ball bearing	Z050.012.N (lower)
Washer	Z053.002.N
Washers	Z058.002.N
Spring Washer	Z054.002.N

KL.G147

COVE BITS WITH BALL BEARING



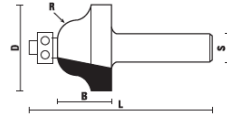
S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	22.2	6.4	14	60	2	G147.222.R
1/2"	25.4	8	14	60	2	G147.254.R
1/2"	41	16	18	65	2	G147.410.R

Spare Parts		Code
	Screw	Z051.001.R
	Ball bearing	Z050.001.N
	Washer	Z053.001.N
	Spring Washer	Z054.001.N

Series

KL.G148

ROMAN OGEE BITS WITH BALL BEARING



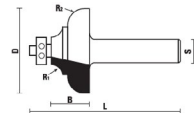
S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	25.4	4	16	63	2	G148.254.R

Spare Parts		Code
	Screw	Z051.001.R
	Ball bearing	Z050.001.N
	Washer	Z053.001.N
	Spring Washer	Z054.001.N

Series

KL.G149

CLASSICAL OGEE BITS WITH BALL BEARING

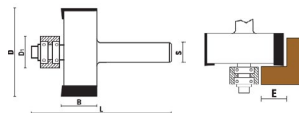


S in	D mm	R ₁ mm	R ₂ mm	B mm	L mm	Z	Code
1/2"	28.6	4	4	13	60	2	G149.286.R
1/2"	51	9.5	9.5	23	72	2	G149.510.R

Spare Parts		Code
	Screw	Z051.002.R
	Ball bearing	Z050.003.N
	Washer	Z053.003.N
	Spring Washer	Z054.002.N

KL.G150

RABBETING BITS WITH BALL BEARING

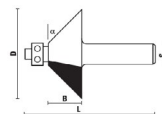


S in	D mm	D ₁ mm	B mm	E mm	L mm	Z	Code
1/2"	51	19	22.5	16	78	2	G150.350.R

Spare Parts	Code
Screw	Z051.008.R
Ball bearing	Z050.007.N
Washers	Z057.010.N

KL.G151

BEVEL TRIM BITS WITH BALL BEARING



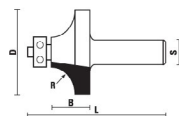
S in	D mm	α	B mm	L mm	Z	Code
1/2"	35	60°	20.6	60	2	G151.351.R
1/2"	50.8	45°	19	68	2	G151.508.R
1/2"	60.5	45°	25	74	2	G151.635.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.003.N
Washer	Z053.003.N
Spring Washer	Z054.002.N

Series

KL.G152

CORNER ROUNDING BITS WITH BALL BEARING



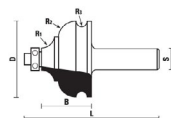
S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	19.1	3.2	9.5	59	2	G152.191.R
1/2"	20.7	4	10	59	2	G152.207.R
1/2"	22	5	13	62	2	G152.220.R
1/2"	28.6	8	14	62	2	G152.286.R
1/2"	41	14	20	70	2	G152.410.R
1/2"	44.5	16	22.2	71	2	G152.445.R
1/2"	57	22	29	78	2	G152.570.R
1/2"	63.5	25	32	81	2	G152.635.R
1/2"	70	28	35	84	2	G152.700.R
1/2"	76	32	38	87	2	G152.760.R
1/2"	89	38	45	94	2	G152.890.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.003.N
Washer	Z053.003.N
Spring Washer	Z054.002.N

Series

KL.G156

MOULDING BITS WITH BALL BEARING

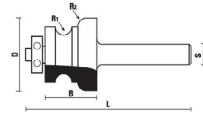


S in	D mm	R ₁ mm	R ₂ mm	R ₃ mm	B mm	L mm	Z	Code
1/2"	41.3	6.4	9.5	3.2	28.5	75.5	2	G156.413.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.003.N
Washer	Z053.003.N
Spring Washer	Z054.002.N

KL.G157

MOULDING BITS WITH BALL BEARING

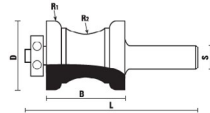


S in	D mm	R ₁ mm	R ₂ mm	B mm	L mm	Z	Code
1/2"	40	5.5	6	30	78	2	G157.400.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.004.N
Washer	Z053.004.N
Spring Washer	Z054.002.N

KL.G158

MOULDING BITS WITH BALL BEARING

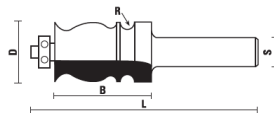


S in	D mm	R ₁ mm	R ₂ mm	B mm	L mm	Z	Code
1/2"	35	5	13	40	88	2	G158.350.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.003.N
Washer	Z053.003.N
Spring Washer	Z054.002.N

KL.G161

DRAWING LINE BITS WITH BALL BEARING



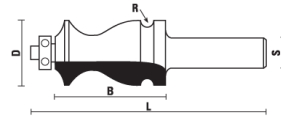
S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	25	3.5	45	94	2	G161.254.R

Spare Parts		Code
	Screw	Z051.002.R
	Ball bearing	Z050.003.N
	Washer	Z053.003.N
	Spring Washer	Z054.002.N

Series

KL.G162

ARCHITECTURAL MOULDING BITS WITH BALL BEARING



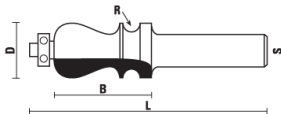
S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	27	3	45	94	2	G162.270.R

Spare Parts		Code
	Screw	Z051.002.R
	Ball bearing	Z050.003.N
	Washer	Z053.003.N
	Spring Washer	Z054.002.N

Series

KL.G163

ARCHITECTURAL MOULDING BITS WITH BALL BEARING



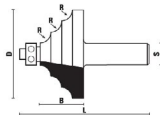
S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	22	4	38	87	2	G163.220.R

Spare Parts		Code
	Screw	Z051.002.R
	Ball bearing	Z050.003.N
	Washer	Z053.003.N
	Spring Washer	Z054.002.N

Series

KL.G165

MULTI RADIUS BITS



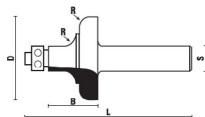
S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	47	6	24	73	2	G165.470.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.003.N
Washer	Z053.003.N
Spring Washer	Z054.002.N

Series

KL.G166

MULTIPLE PROFILE BITS



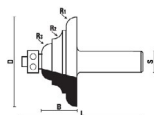
S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	51	8.5	31	80	2	G166.510.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.003.N
Washer	Z053.003.N
Spring Washer	Z054.002.N

Series

KL.G167

MULTIPLE PROFILE BITS



S in	D mm	R ₁ mm	R ₂ mm	R ₃ mm	B mm	L mm	Z	Code
1/2"	59	6.5	6.5	7.5	22	70	2	G167.590.R

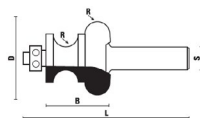
Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.003.N
Washer	Z053.003.N
Spring Washer	Z054.002.N



Series

KL.G168

MULTIPLE PROFILE BITS



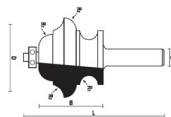
S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	51	6.4	32	80	2	G168.510.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.004.N
Washer	Z053.004.N
Spring Washer	Z054.002.N

Series

KL.G169

CLASSICAL MULTI-FORM BITS WITH BALL BEARING



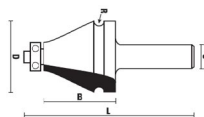
S in	D mm	R ₁ mm	R ₂ mm	R ₃ mm	B mm	L mm	Z	Code
1/2"	54	9	8.5	6.4	47	96	2	G169.540.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.003.N
Washer	Z053.003.N
Spring Washer	Z054.002.N

Series

KL.G170

HANDRAIL BITS WITH BALL BEARING



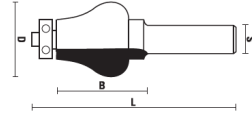
S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	35	3.2	37	86	2	G170.350.R

Spare Parts	Code
 Screw	Z051.002.R
 Ball bearing	Z050.003.N
 Washer	Z053.003.N
 Spring Washer	Z054.002.N

Series

KL.G171

HANDRAIL BITS WITH BALL BEARING



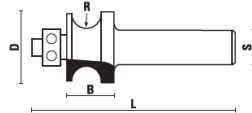
S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	32	38	87		2	G171.320.R

Spare Parts	Code
 Screw	Z051.002.R
 Ball bearing	Z050.003.N
 Washer	Z053.003.N
 Spring Washer	Z054.002.N

Series

KL.G172

EDGE BEADING BITS



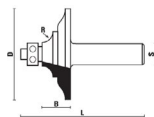
S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	22	3.2	14	63	2	G172.220.R
1/2"	28	4.8	16	66	2	G172.280.R
1/2"	32	6.4	19	67	2	G172.320.R
1/2"	38	9.5	25	74	2	G172.380.R

Spare Parts	Code
 Screw	Z051.002.R
 Ball bearing	Z050.004.N
 Washer	Z053.004.N
 Spring Washer	Z054.002.N

Series

KL.G173

HANDRAIL AND TABLE EDGE BITS



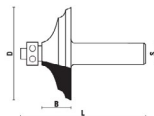
S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	64	6.5	20	69	2	G173.640.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.003.N
Washer	Z053.003.N
Spring Washer	Z054.002.N

Series

KL.G174

HANDRAIL AND TABLE EDGE BITS



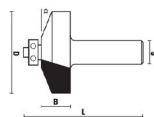
S in	D mm	B mm	L mm	Z	Code
1/2"	66	20	69	2	G174.660.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.003.N
Washer	Z053.003.N
Spring Washer	Z054.002.N

Series

KL.G175

RAISED PANEL BITS WITH BALL BEARING



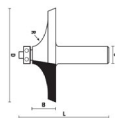
S in	D mm	α	B mm	L mm	Z	Code
1/2"	42	25°	13	62	2	G175.420.R

Spare Parts	Code
 Screw	Z051.002.R
 Ball bearing	Z050.003.N
 Washer	Z053.003.N
 Spring Washer	Z054.002.N

Series

KL.G176

HANDRAIL-TABLE EDGE BITS WITH BALL BEARING



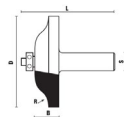
S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	69	43	16	64	2	G176.690.R

Spare Parts	Code
 Screw	Z051.002.R
 Ball bearing	Z050.003.N
 Washer	Z053.003.N
 Spring Washer	Z054.002.N

Series

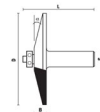
KL.G178

RAISED PANEL BITS WITH BALL BEARING



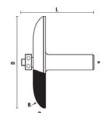
S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	57	19	17	65	2	G178.670.R
1/2"	86	22	16	65	2	G178.860.R

Spare Parts	Code
 Screw	Z051.002.R
 Ball bearing	Z050.003.N
 Washer	Z053.003.N
 Spring Washer	Z054.002.N



S in	D mm	R	B mm	L mm	Z	Code
1/2"	86	15°	13	61	2	G178.861.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.003.N
Washer	Z053.003.N
Spring Washer	Z054.002.N



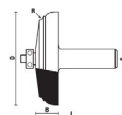
S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	86	40	13	61	2	G178.862.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.003.N
Washer	Z053.003.N
Spring Washer	Z054.002.N

Series

KL.G179

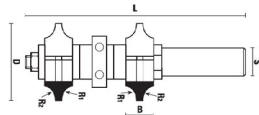
RAISED PANEL BITS WITH BALL BEARING



S in	D mm	R mm	B mm	L mm	Z	Code
1/2"	64	3	13	62	2	G179.640.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.003.N
Washer	Z053.003.N
Spring Washer	Z054.002.N

KL.G186 DOUBLE CORNER ROUND ASSEMBLY WITH BALL BEARING



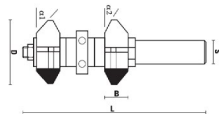
S in	D mm	R ₁ mm	R ₂ mm	B mm	L mm	Z	Code
1/2"	35	6.4	4.8	14	108	2	G186.350.R

Spare Parts		Code
Arbor (1/2")		G117.121.R
Top Cutter		C186.500.R
Bottom Cutter		C186.501.R
	Ball bearing	Z050.008.R (1pcs)
	Washers	Z057.002.N (2pcs)
	Washers	Z057.005.N (2pcs)
	Washers	Z057.006.N (2pcs)
	Washer	Z057.003.N (1pcs)
	Washers	Z057.004.N (4pcs)



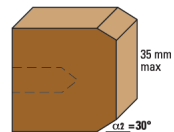
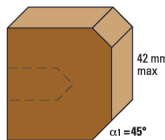
- R2 = 4,8 mm (working height 9,5 to 35 mm)
- R1 = 6,4 mm (working height 12,7 to 38 mm)

KL.G187 DOUBLE CHAMFER ASSEMBLY WITH BALL BEARING



S in	D mm	B mm	α_1	α_2	L mm	Z	Code
1/2"	35	14	45°	30°	108	2	G187.350.R

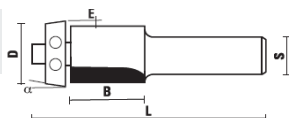
Spare Parts		Code
Arbor (1/2")		G117.121.R
Top Cutter		C186.500.R
Bottom Cutter		C186.501.R
	Ball bearing	Z050.008.R (1pcs)
	Washers	Z057.002.N (2pcs)
	Washers	Z057.005.N (2pcs)
	Washers	Z057.006.N (2pcs)
	Washer	Z057.003.N (1pcs)
	Washers	Z057.004.N (4pcs)



Series

KL.G302

STRAIGHT PLUNGE BITS WITH BALL BEARING

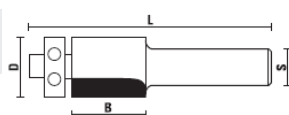


S in	D mm	B mm	L mm	α	E mm	Z	Code
1/2"	19	25	82.5	4°	1.6	2	G302.190.R

Series

KL.G310

FLUSH TRIM BITS WITH BALL BEARING



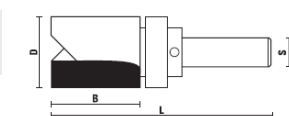
S in	D mm	B mm	L mm	Z	Code
1/2"	19	25	82	2	G310.190.R

Spare Parts	Code
Screw	Z051.004.R
Ball bearing	Z050.101.N
Washer	Z053.002.N

Series

KL.G312

FLUSH TRIM BITS WITH BALL BEARING



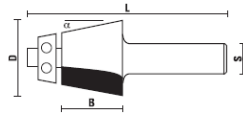
S in	D mm	B mm	L mm	Z	Code
1/2"	28.6	38	92	2	G312.286.R

Spare Parts	Code
Screw	Z051.005.R
Ball bearing	Z050.015.N
Washer	Z058.003.N

Series

KL.G316

BEVEL UNDERMOUNT BITS WITH BALL BEARING



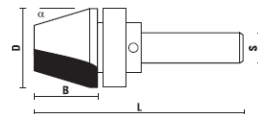
S in	D mm	B mm	L mm	α	Z	Code
1/2"	32	25	81	12°	2	G316.320.R
1/2"	39	32	78	12°	2	G316.390.R

Spare Parts	Code
Screw	Z051.007.R
Ball bearing	Z050.106.N
Washer	Z053.002.N

Series

KL.G317

TOPMOUNT COUNTERTOP BITS WITH UPPER BALL BEARING



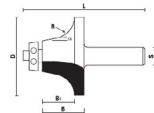
S in	D mm	B mm	L mm	α	Z	Code
1/2"	28.6	25	78	12°	2	G317.286.R

Spare Parts	Code
Screw	Z051.005.R
Ball bearing	Z050.015.N
Washer	Z058.003.N

Series

KL.G325

ROUNDROVER BITS WITH BALL BEARING



S in	D mm	B mm	B ₁ mm	L mm	R mm	α	Z	Code
1/2"	57	32	25	83	14	18°	2	G325.570.R

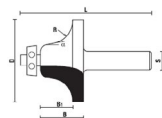
Spare Parts	Code
Screw	Z051.004.R
Ball bearing	Z050.102.N
Washer	Z053.002.N



Series

KL.G326

OGEE BITS WITH BALL BEARING



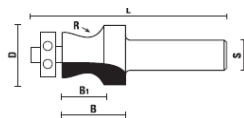
S in	D mm	B mm	B ₁ mm	L mm	R mm	α	Z	Code
1/2"	55	25	19	75	12.7	15°	2	G326.550.R

Spare Parts	Code
Screw	Z051.004.R
Ball bearing	Z050.102.N
Washer	Z053.002.N

Series

KL.G330

COUNTER-TOP BITS WITH UPPER BALL BEARING



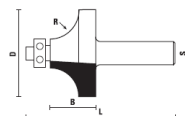
S in	D mm	B mm	B ₁ mm	L mm	R mm	Z	Code
1/2"	25	22	16	79	8	2	G330.220.R
1/2"	25	29	24	85	8	2	G330.290.R

Spare Parts	Code
Screw	Z051.004.R
Ball bearing	Z050.101.N
Washer	Z053.002.N

Series

KL.G334

CORNER ROUNDING BITS WITH BALL BEARING



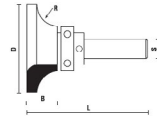
S in	D mm	B mm	L mm	R mm	Z	Code
1/2"	28.6	13.5	61	8	2	G334.286.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.100.N
Washer	Z053.002.N

Series

KL.G335

ROUNDING-UNDER BITS WITH BALL BEARING



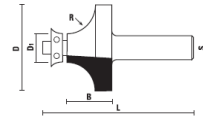
S in	D mm	B mm	L mm	R mm	Z	Code
1/2"	54	20	73	12.7	2	G335.540.R
1/2"	67	25	77	19	2	G335.670.R

Spare Parts	Code
Screw	Z051.005.R
Ball bearing	Z050.105.N
Washer	Z058.003.N

Series

KL.G336

CORNER ROUNDING BITS WITH BALL BEARING



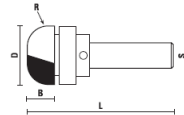
S in	D mm	D1 mm	R mm	B mm	L mm	Z	Code
1/2"	41	16	13	19	68	2	G336.410.R
1/2"	54	16	19	25	74	2	G336.540.R

Spare Parts	Code
Screw	Z051.004.R
Ball bearing	Z050.113.N
Washer	Z053.002.N

Series

KL.G342

ROUNDING-UNDER BITS WITH BALL BEARING



S in	D mm	B mm	L mm	R mm	Z	Code
1/2"	28.6	13	73	10	2	G342.286.R

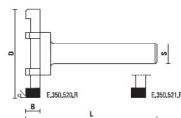
Spare Parts	Code
Screw	Z051.005.R
Ball bearing	Z050.104.N
Washer	Z058.003.N



Series

KL.G350

BOWL AND COUNTERTOP TRIM BITS

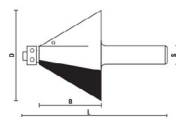


S in	D mm	B mm	L mm	α	Z	Code
1/2"	52	6.5	83	0.5x45°	6	G350.520.R
1/2"	52	6.5	83	0°	6	G350.521.R

Series

KL.G380

BEVEL BITS WITH BALL BEARING



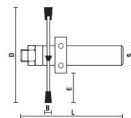
S in	D mm	B mm	L mm	α	Z	Code
1/2"	51	19	67	45°	2	G380.510.R
1/2"	64	44	93	30°	2	G380.640.R

Spare Parts	Code
Screw	Z051.002.R
Ball bearing	Z050.100.N
Washer	Z053.002.N

Series

KL.G382

ROUTER BITS FOR SINK REPAIRING



S in	D mm	E mm	B mm	L mm	Z	Code
1/2"	80	25.7	6	96	4	G382.670.R

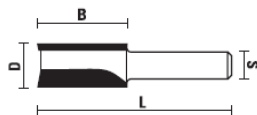
Spare Parts	Code
Arbor	G117.120.R
Cutter	C118.980.R
Ball bearing	Z050.012.R

Klein® Routers: Economy - "HB" 1/4" Sha

Series

KL.HB101

STRAIGHT BITS

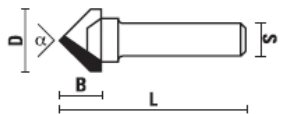


S in	D mm	B mm	L mm	Z	Code
1/4"	6	20	48	2	HB101.060.R
1/4"	14	20	48	2	HB101.140.R

Series

KL.HB110

"V"-GROOVING BITS

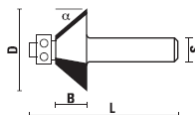


S in	D mm	B mm	α	L mm	Z	Code
1/4"	9.5	10	60°	42	2	HB110.095.R

Series

KL.HB122

BEVEL TRIMMING BITS WITH BALL BEARING

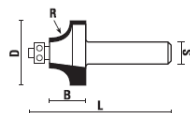


S in	D mm	B mm	α	L mm	Z	Code
1/4"	16	6.5	25°	47	2	HB122.160.R

Series

KL.HB124

BEADING BITS WITH BALL BEARING

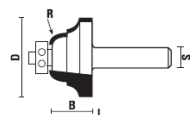


S in	D mm	B mm	R mm	L mm	Z	Code
1/4"	15.8	10	3.2	44	2	HB124.158.R
1/4"	22	13	6.3	46	2	HB124.220.R
1/4"	25	15	8	49	2	HB124.250.R
1/4"	28.6	17	9.5	50	2	HB124.286.R

Series

KL.HB128

CLASSICAL BITS WITH BALL BEARING



S in	D mm	B mm	R mm	L mm	Z	Code
1/4"	25	16	4	50	2	HB128.250.R

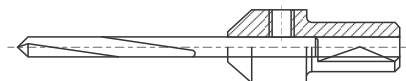
Solid Carbide Drills

PRODUCTS	PAGE
W001	107
W009	107
P050	108-109
P053	109-110
P057	111
P060	111-112
P062	112-113
P067	113
P070	114
P134 / P136	114-115
P140	115
P414	115

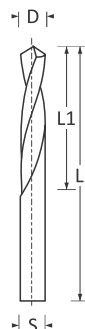




D	L1	L	S	RH Compression Spiral X-Version
3	17	50	3	SPNP.W0.3x17.L.NL50
3,5	20	50	4	SPNP.W0.3,5x20.L.NL50
4	30	60	4	SPNP.W0.4x30.L.NL60
5	30	60	5	SPNP.W0.5x30.L.NL60

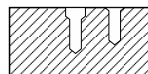
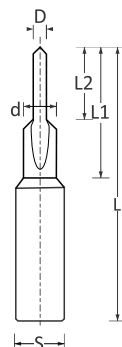


Reduction for drill bits for W001
Special dimension on request.



D	L1	L2	L	S	RH Compression Spiral X-Version
4	15	25	70	10	SPNP.W0.4x15.U.NL70
5	20	45	70	10	SPNP.W0.5x20.U.NL70
8	25	45	70	10	SPNP.W0.8x25.U.NL70

Two-step solid carbide drills with countersink straight
cutting edges.



Dowel Drills

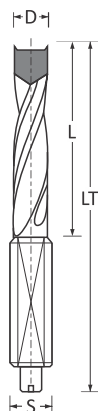
Series

P050

DOWEL DRILLS WITH NEGATIVE SPURS



D	L	LT	Left Code	Right Code
4	27	57.5	P050M004057L	P050M004057R
4.5	27	57.5	P050M004557L	P050M004557R
5	30	57.5	P050M005057L	P050M005057R
6	30	57.5	P050M006057L	P050M006057R
7	30	57.5	P050M007057L	P050M007057R
8	30	57.5	P050M008057L	P050M008057R
8.5	30	57.5	P050M008557L	P050M008557R
9	30	57.5	P050M009057L	P050M009057R
10	30	57.5	P050M010057L	P050M010057R
12	30	57.5	P050M012057L	P050M012057R
14	30	57.5	P050M014057L	P050M014057R
15	30	57.5	P050M015057L	P050M015057R
16	30	57.5	P050M016057L	P050M016057R
4	40	70	P050M004070L	P050M004070R
4.5	40	70	P050M004570L	P050M004570R
5	43	70	P050M005070L	P050M005070R
6	43	70	P050M006070L	P050M006070R
7	43	70	P050M007070L	P050M007070R
8	43	70	P050M008070L	P050M008070R
8.5	43	70	P050M008570L	P050M008570R
9	43	70	P050M009070L	P050M009070R
10	43	70	P050M010070L	P050M010070R
12	43	70	P050M012070L	P050M012070R
14	43	70	P050M014070L	P050M014070R
15	43	70	P050M015070L	P050M015070R
16	43	70	P050M016070L	P050M016070R



2 teeth, 2 spurs, centre point, 4 spirals

Black colour: right rotation drills; Red colour: left rotation drills



LONG SPIRAL

D	L	LT	Left Code	Right Code
5	50	85	P050M005085L	P050M005085R
6	50	85	P050M006085L	P050M006085R
8	50	85	P050M008085L	P050M008085R
10	50	85	P050M010085L	P050M010085R
12	50	85	P050M012085L	P050M012085R
5	65	105	P050M005105L	P050M005105R
6	65	105	P050M006105L	P050M006105R
8	65	105	P050M008105L	P050M008105R
10	65	105	P050M010105L	P050M010105R
12	65	105	P050M012105L	P050M012105R

SPARE PARTS

	Type	Dimensions	Code
	Screw	M5X10	WV510
	Screw	M5X17	WV072

P053

DOWEL DRILLS WITH NEGATIVE SPURS

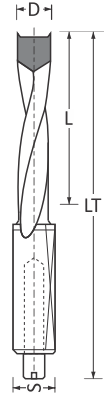


D	L	LT	Left Code	Right Code
4	27	57.5	P053M004057L	P053M004057R
5	27	57.5	P053M005057L	P053M005057R
6	27	57.5	P053M006057L	P053M006057R
4.35	27	57.5	P053M635057L	P053M635057R
7	27	57.5	P053M007057L	P053M007057R
8	27	57.5	P053M008057L	P053M008057R
9	27	57.5	P053M009057L	P053M009057R
9.53	27	57.5	P053M953057L	P053M953057R
10	27	57.5	P053M010057L	P053M010057R
11	27	57.5	P053M011057L	P053M011057R
12	27	57.5	P053M012057L	P053M012057R
12.7	27	57.5	P053M127057L	P053M127057R
14	27	57.5	P053M014057L	P053M014057R
15	27	57.5	P053M015057L	P053M015057R
16	27	57.5	P053M016057L	P053M016057R

2 teeth, 2 spurs, centre point, 4 spirals

Black: right rotation drills; Red: left rotation drills

D	L	LT	Left Code	Right Code
4	30	70	P053M004070L	P053M004070R
5	35	70	P053M005070L	P053M005070R
6	35	70	P053M006070L	P053M006070R
4.35	35	70	P053M635070L	P053M635070R
7	35	70	P053M007070L	P053M007070R
8	35	70	P053M008070L	P053M008070R
9	35	70	P053M009070L	P053M009070R
9.53	35	70	P053M953070L	P053M953070R
10	35	70	P053M010070L	P053M010070R
11	35	70	P053M011070L	P053M011070R
12	35	70	P053M012070L	P053M012070R
12.7	35	70	P053M127070L	P053M127070R
14	35	70	P053M014070L	P053M014070R
15	35	70	P053M015070L	P053M015070R
16	35	70	P053M016070L	P053M016070R



SPARE PARTS

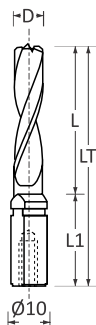
	Type	Dimensions	Code
	Screw	M5X10	WV510
	Screw	M5X17	WV072

P057 High Performance Carbide Drills



2 teeth, 2 round spurs, centre point, 2 spirals

D	L	L1	LT	Left Code	Right Code
3	18	33	57.5	P057M003057L	P057M003057R
4	22	27	57.5	P057M004057L	P057M004057R
5	22	27	57.5	P057M005057L	P057M005057R
6	22	27	57.5	P057M006057L	P057M006057R
8	22	27	57.5	P057M008057L	P057M008057R
10	22	27	57.5	P057M010057L	P057M010057R
3	22	40	70	P057M003070L	P057M003070R
4	27	35	70	P057M004070L	P057M004070R
5	35	27	70	P057M005070L	P057M005070R
6	35	27	70	P057M006070L	P057M006070R
8	35	27	70	P057M008070L	P057M008070R
10	35	27	70	P057M010070L	P057M010070R



SPARE PARTS

	Type	Dimensions	Code
	Screw	M5X10	WV510
	Screw	M5X17	WV072

P060 Through-Hole Dowel Drills



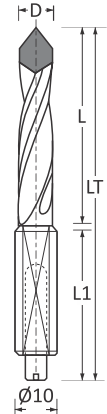
2 teeth, 4 spirals, carbide tip

D	L	L1	LT	Left Code	Right Code
4.5	22	20	57.5	P060M004557L	P060M004557R
5	22	20	57.5	P060M005057L	P060M005057R
6	22	20	57.5	P060M006057L	P060M006057R
7	22	20	57.5	P060M007057L	P060M007057R
8	22	20	57.5	P060M008057L	P060M008057R
8.5	22	20	57.5	P060M008557L	P060M008557R
10	22	20	57.5	P060M010057L	P060M010057R
12	22	20	57.5	P060M012057L	P060M012057R

D	L	L1	LT	Left Code	Right Code
4.5	40	20	70	P060M004570L	P060M004570R
5	40	20	70	P060M005070L	P060M005070R
6	40	20	70	P060M006070L	P060M006070R
7	40	20	70	P060M007070L	P060M007070R
8	40	20	70	P060M008070L	P060M008070R
8.5	40	20	70	P060M008570L	P060M008570R
10	40	20	70	P060M010070L	P060M010070R
12	40	20	70	P060M012070L	P060M012070R

SPARE PARTS

	Type	Dimensions	Code
	Screw	M5X10	WV510
	Screw	M5X17	WV072

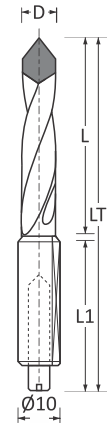


P062

THROUGH-HOLE DOWEL DRILLS



D	L	L1	LT	Left Code	Right Code
4	22	25	57.5	P062M004058L	P062M004058R
5	22	25	57.5	P062M005058L	P062M005058R
6	22	25	57.5	P062M006058L	P062M006058R
7	22	25	57.5	P062M007058L	P062M007058R
8	22	25	57.5	P062M008058L	P062M008058R
10	22	25	57.5	P062M010058L	P062M010058R
12	22	25	57.5	P062M012058L	P062M012058R
4	27	25	70	P062M004058L	P062M004058R
5	35	25	70	P062M005070L	P062M005070R
6	35	25	70	P062M006070L	P062M006070R
7	35	25	70	P062M007070L	P062M007070R
8	35	25	70	P062M008070L	P062M008070R
10	35	25	70	P062M010077L	P062M010077R
12	35	25	70	P062M012077L	P062M012077R



2 teeth, 4 spirals

Black colour: right rotation drills; Red colour: left rotation drills



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D	L	L1	LT	Left Code	Right Code
5	40	25	77	P062M005077L	P062M005077R
6	40	25	77	P062M006077L	P062M006077R
8	40	25	77	P062M008077L	P062M008077R
10	40	25	77	P062M010077L	P062M010077R
12	40	25	77	P062M012077L	P062M012077R

SPARE PARTS

	Type	Dimensions	Code
	Screw	M5X10	WV510
	Screw	M5X17	WV072

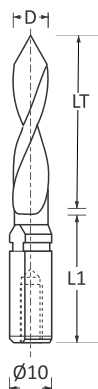
P067 High Performance Carbide Drills



D	L	L1	LT	Left Code	Right Code
3	18	33	57.5	P067M003057L	P067M003057R
4	20	27	57.5	P067M004057L	P067M004057R
5	20	27	57.5	P067M005057L	P067M005057R
6	20	27	57.5	P067M006057L	P067M006057R
8	20	27	57.5	P067M008057L	P067M008057R
10	20	27	57.5	P067M010057L	P067M010057R
3	20	40	70	P067M003070L	P067M003070R
4	25	35	70	P067M004070L	P067M004070R
5	33	27	70	P067M005070L	P067M005070R
6	33	27	70	P067M006070L	P067M006070R
8	33	27	70	P067M008070L	P067M008070R
10	33	27	70	P067M010070L	P067M010070R

SPARE PARTS

	Type	Dimensions	Code
	Screw	M5X10	WV510
	Screw	M5X17	WV072



2 teeth, 2 spirals, special V-point geometry

Black colour: right rotation drills; Red colour: left rotation drills



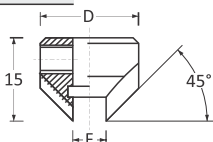
D	F	L	Left Code	Right Code
5	16	15	P070M05AAAAL	P070M05AAAAR
6	16	15	P070M06AAAAL	P070M06AAAAR
8	18	15	P070M08AAAAL	P070M08AAAAR
10	20	15	P070M10AAAAL	P070M10AAAAR

SPARE PARTS

Type	Dimensions	Code
Screw (D.4-10)	M5X5	WVGR5
Screw (D.12-14)	M6X6	WVGR6

2 carbide teeth. Sharpenable.

Fixing by means of a screw. To mount on dowel drills and through hole dowel drills P050, P060 and P414.



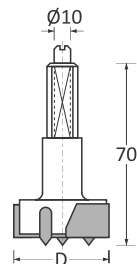
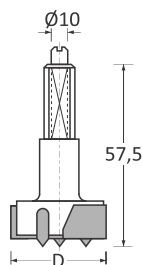
D	Z	L	Left Code	Right Code
15	2+2	57.5	P134M15AAAAL	P134M15AAAAR
20	2+2	57.5	P134M20AAAAL	P134M20AAAAR
22	2+2	57.5	P134M22AAAAL	P134M22AAAAR
25	2+2	57.5	P134M25AAAAL	P134M25AAAAR
30	2+2	57.5	P134M30AAAAL	P134M30AAAAR
35	2+2	57.5	P134M35AAAAL	P134M35AAAAR

D	Z	L	Left Code	Right Code
15	2+2	70	P136M15AAAAL	P136M15AAAAR
20	2+2	70	P136M20AAAAL	P136M20AAAAR
22	2+2	70	P136M22AAAAL	P136M22AAAAR
25	2+2	70	P136M25AAAAL	P136M25AAAAR
30	2+2	70	P136M30AAAAL	P136M30AAAAR
35	2+2	70	P136M35AAAAL	P136M35AAAAR

2 teeth, 2 spurs. Sharpenable.

Length: 57.5 (P134) & 70 (P136)

Black: right; Red: left



SPARE PARTS

Type	Dimensions	Code
Screw	M5X10	WV510
Screw	M5X17	WV072

Series

P140

CYLINDER BORING BITS Z3+3

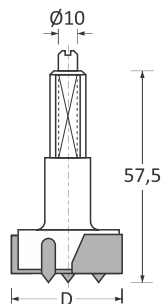


D	Left Code	Right Code
35	P140M35AAAAAL	P140M35AAAAAR

3 teeth, 3 spurs

Length: 57.5

Black colour: right rotation drills; Red colour: left rotation drills



Series

P414

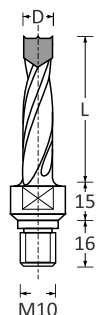
THREADED DOWEL DRILLS



D	L	Left Code	Right Code
5	40	P414M0540AAL	P414M0540AAL
6	40	P414M0640AAL	P414M0640AAR
8	40	P414M0840AAL	P414M0840AAR
8	50	P414M0850AAL	P414M0850AAR

2 teeth, 2 spurs, centre point, 4 spirals

Black colour: right rotation drills; Red colour: left rotation drills





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