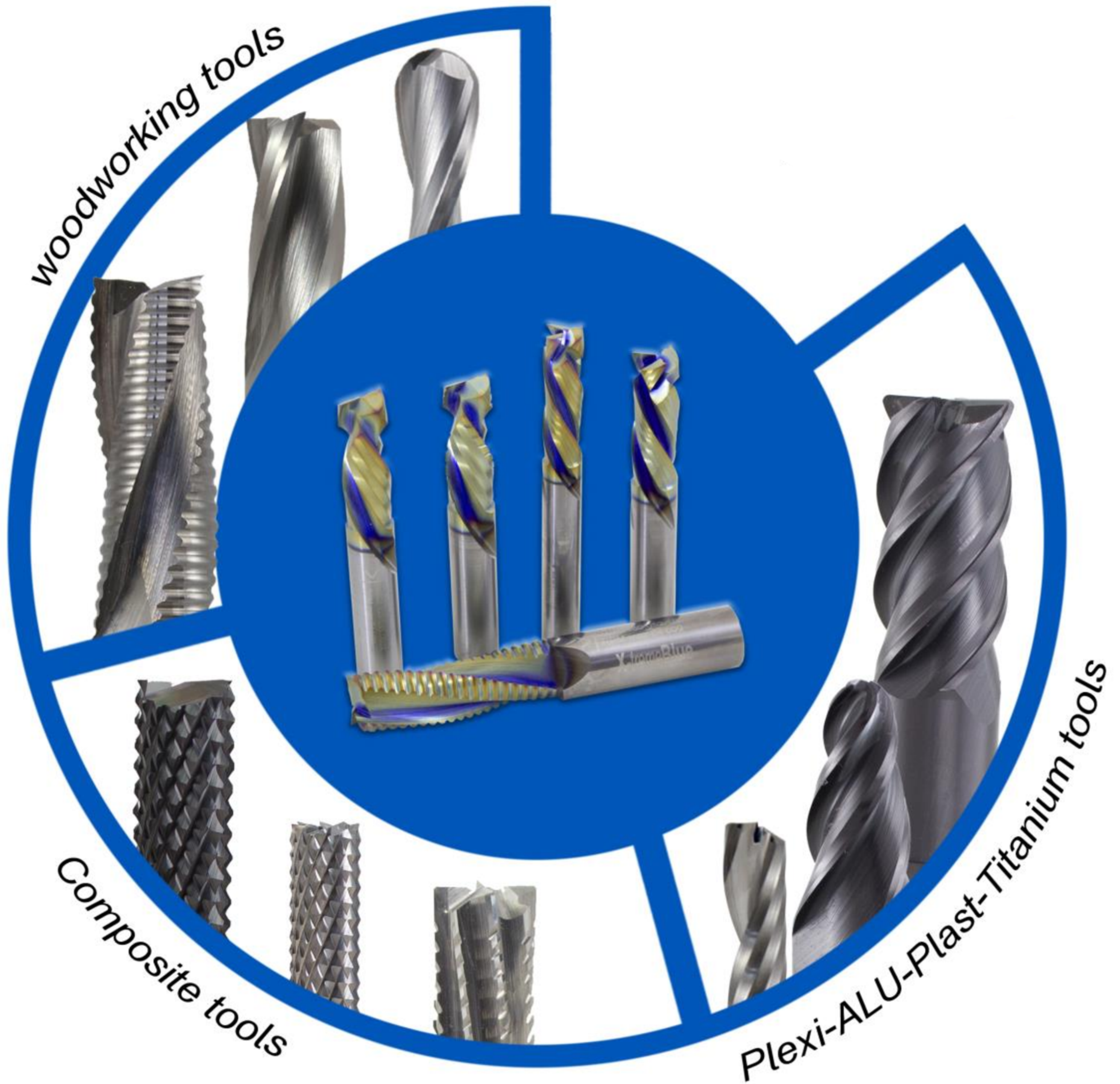


# ACUTE



*always one step ahead ...*

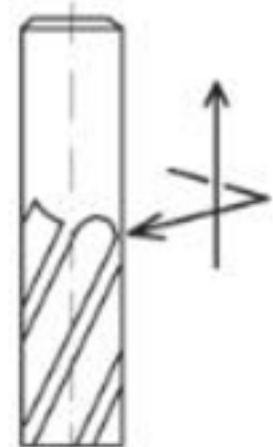




## The direction of rotation and the chip ejection - marking for orders

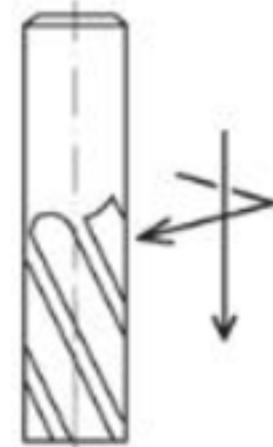
The **standard cutters** marking in the catalogue tables are right rotary routers type **P/P**. If the mills should have a different direction of rotation and blade system please mark it behind the catalog number.; **V201.100.032.080. P/N** (right rotation, spiral downwards).

### P / P



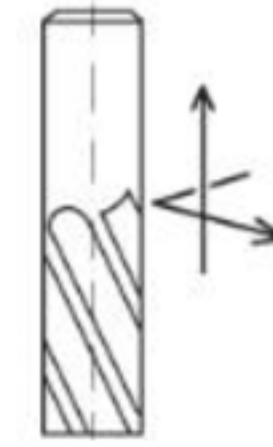
Right rotation **RH** / Upward chip ejection **P** (up cut)

### P / N



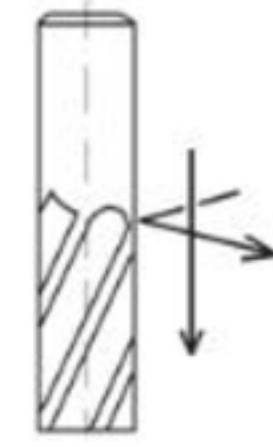
Right rotation **RH** / Downward chip ejection **N** (down cut)

### L / P



Left rotation **LH** / Upward chip ejection **P** (up cut)

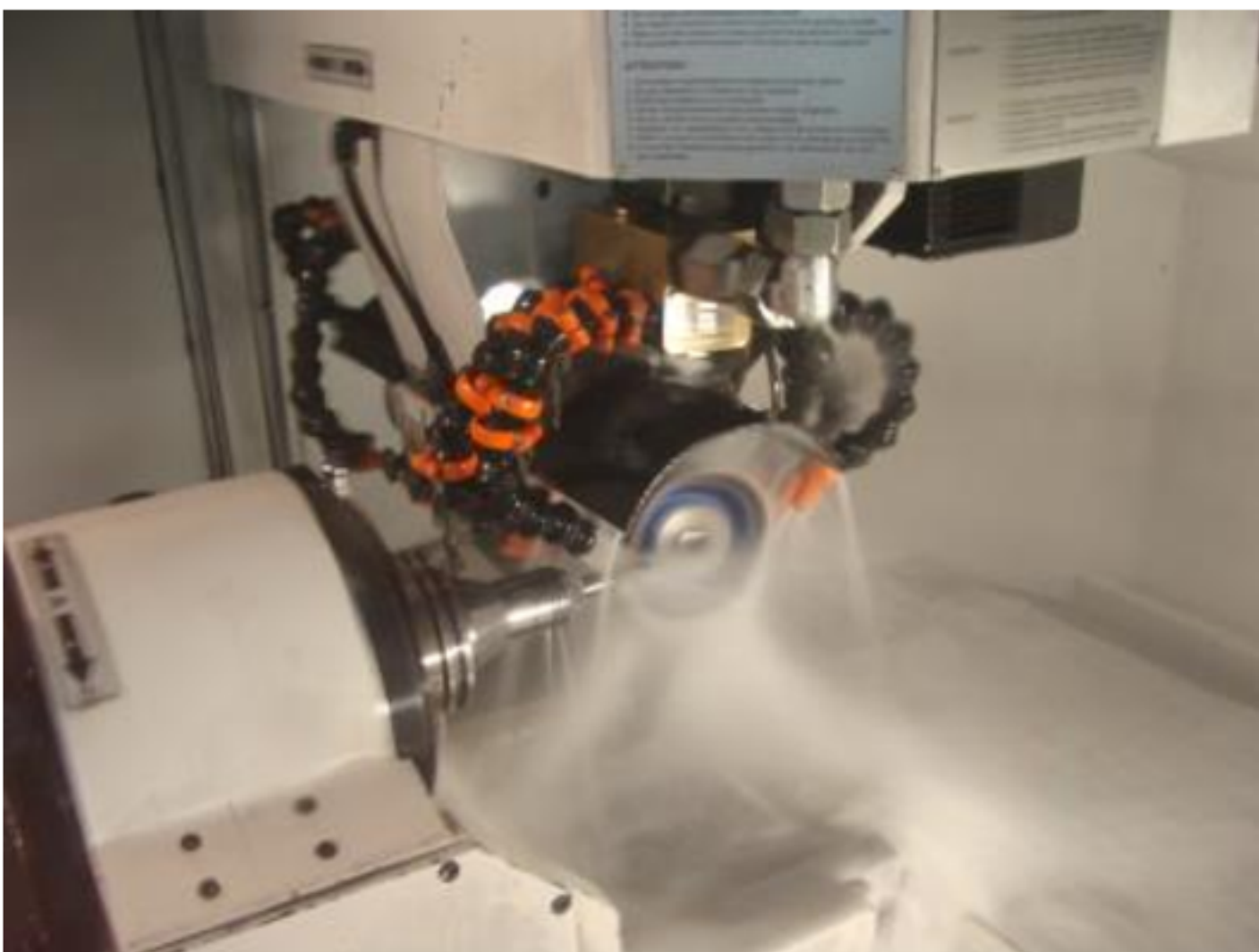
### L / N



Left rotation **LH** / Downward chip ejection **L** (down cut)

## Service and sharpening tools

In addition to the production of tools we also provide a full service for sharpening VHM tools. The sharpening process is based on complete renewal of the blade geometry like at new milling routers, if necessary also after sharpening we can apply a coating on tools. The sharpening process is automatic using the latest machinery.

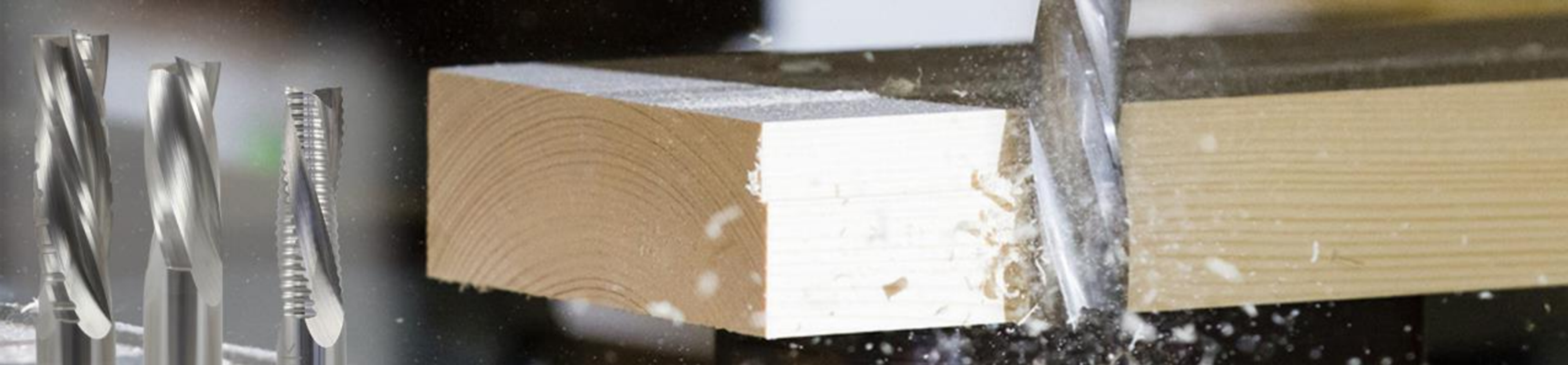


## Raw material to procesing of tools

For the production of solid wood milling router bits we use the best **K10 Micro Grain Premium** material. We use the best material **K01 Nano Grain Premium** for the production of milling cutters for processing hard materials such as MDF or chipboard. We use the best material **K39 Nano Grain Premium** for the production of composite material cutters CFK, GFK.







## Working parameters

All the parameters are just examples, not guidelines

Operating parameters for the router bits

**Vf** - feed rate for / 18 000 RPM/min

**Ap** - It is depend on diameter of tool

**Ae** = 0,5 do 2,0 mm

**corrections feed**

x 0,80 - Hardwood

x 0,65 - Wood fiber transversely

Typ V301 - D-12 to D-20 mm

Operating parameters for the router bits

**Vf** - feed rate for / 18 000 RPM/min

**Ap** - It is depend on diameter of tool

**corrections feed**

x 0,80 - Hardwood

x 0,70 - Wood fiber transversely

x 0,90 - plywood

Typ V303 - D-8 to D-12 mm

Working parameters for the router bits

**Vf** - feed rate for - 18 000 RPM/min

**Ap** - It depends on diameter of the tool

**feed correction**

x 0,80 - Hardwood

x 0,70 - Wood fiber transversely

x 0,90 - plywood

x 1,20 - raw chipboard

Typ V303 - D-16 to D-20 mm

Working parameters for the router bits

**Vf** - feed rate for - 18 000 RPM/min

**Ap** - It depends on diameter of thr tool

**Z=2+2 / feed correction**

x 0,90 - plywood

x 1,20 - raw chipboard

**Z=3+3 / feed correction**

x 1,20 - plywood

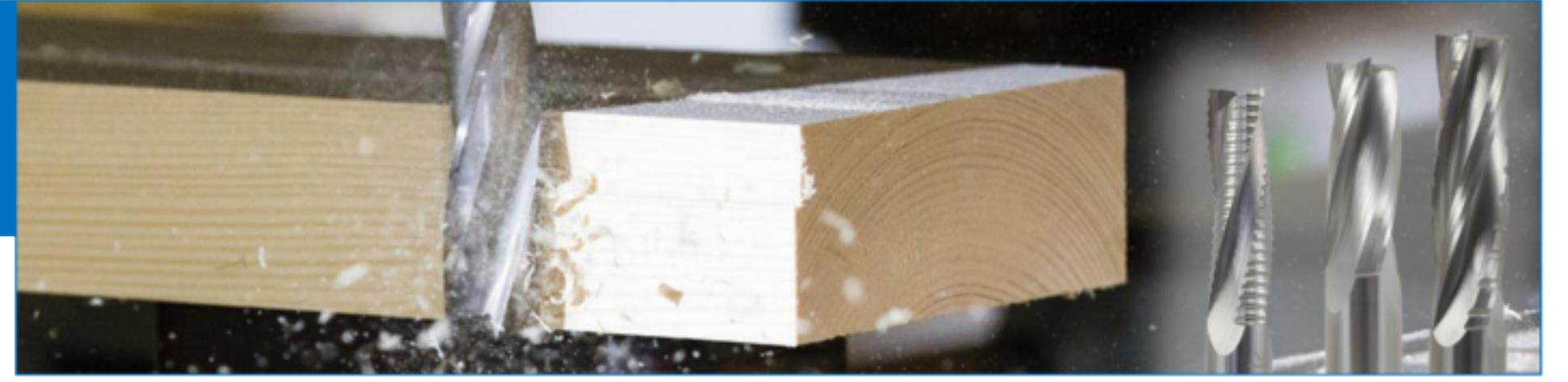
x 1,40 - raw chipboard

Typ V802 - D-10 to D-12 mm



## Application to materials

### Router for wood



**SW**

Solid wood

**MDF**

MDF

**PW**

chipboard

**PY**

Plywood

The milling routers are monolithic and specially designed for efficient cutting of wood and wood-based materials.

The innovative approach at the tool design stage has enabled us to achieve the highest efficiency, quality and safety of the machining process. That is why we provide a dedicated material for each tool.

### Router for composite



**GFRP**

Glass fiber

**CFRP**

Carbon Fiber

**HC**

Honeycomb

**AR**

Aramid ARFP / Kevlar®

**GF**

Grafit

**HR**

Hard Rubby

The machining of composite materials requires different blade geometries.

For each material, we specify the best possible type of tool geometry for machining. To achieve the highest possible machining quality and productivity.

### Router for Plast / ALU/ PLEX / TITANIUM

**PX**

Plexi

**PL**

Plast

**ALU**

ALU

**TI**

Titanium

**CU**

Cuper

**FM**

Foam



The machining of plastics, Plexiglas, light alloys or titanium requires very specific and varied geometries and the number of blades in the tools to achieve the required effect.

Therefore, each cutter is assigned to the material to be machined in order to achieve the highest quality of machining and productivity.



## Coating application



### XG – coating dedicated for hard wood procesing

During the initial development phase of the cutter design, great emphasis is placed on the relative balance between machining quality and tool life. The milling cutters have been tested for performance. Then we compared the same cutters with the "XG" coating. The "XG" coating proved to be the most suitable and versatile for hardwood tools. In particular, for the toughest and most exotic types of wood, the "XG" coating has significantly slower using tool wear and extends tool life.



### X-tremeBlue

### XB – coating dedicated for MDF, chipboard and plywood processing

Milling routers for processing wood-based materials are the quality of machining and the longest tool life. Our special "X-tremeBlue" coating is the answer. The "XB" coating is the latest achievement in nanotechnology dedicated to the processing of all the hardest materials. The "XB" coating allows for significant reduction of tool wear and multiple extensions of its life.



### XT – coating dedicated for composite processing

The most demanding issue refer to the composite tools is the life service of the tool. We used the DLC coating base in combination with the nano technology of coating, the result is a very hard "X-treme" coating with a hardness above 5000 HV. The "XT" coating is the best solution for processing all composite materials. The "XT" coating reduces the tool's operating costs and extends its service life.



### XS – coating dedicated for ALU, Titanium

Already at the design preparation stage, light alloys and titanium milling cutters were tested with and without coating. The "XS" cover proved to be the most suitable and universal for tools dedicated to machining aluminium and titanium alloys. Especially in aluminium alloys with a higher silicon content, the "xs" coating allowed to reduce technical tools wear and showed features that protect tools against sticking with soft chips during processing.



# X-tremeBlue®





# X-tremeBlue®

**It's a new protective coating and it's much better than DLC**

"X-TremeBLUE®" is an additional protection for solid carbide tools which gives them a long life time.

-X-TremeBLUE is a new coating application based on the latest NANO structure technologies.

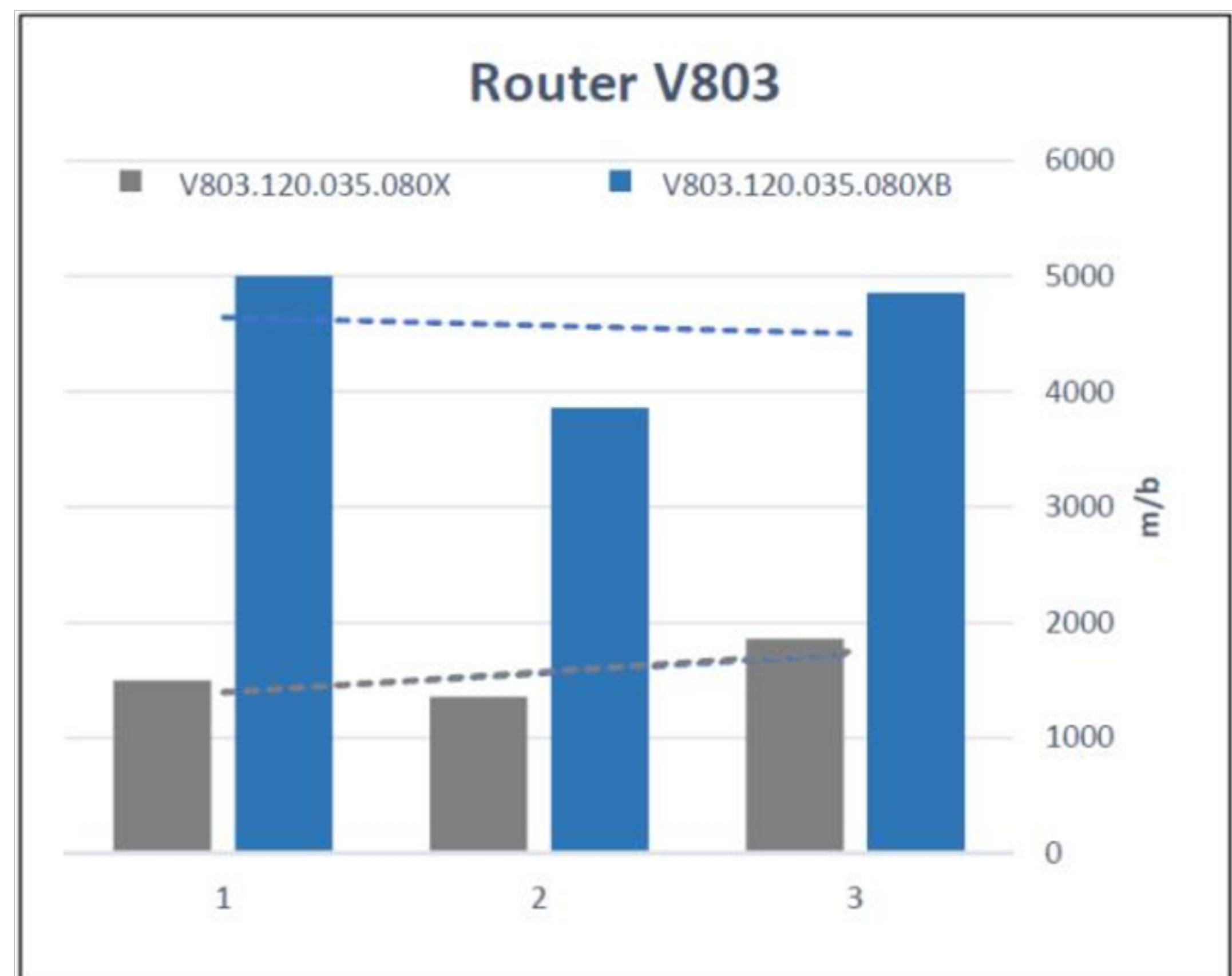
- The X-TremeBLUE® is a micro finishing coating that allows the blade to remain sharp and lubricated eliminates sticking with the blade chip. This ensures a long service life and gives cutting results at the highest level.

- The coating protects against high temperature and oxidation, which has a negative effect on performance of the cutting tool . Compared to DLC coating, it has twice the temperature resistance during operation, which gives it a great advantage over previous versions of DLC.

- Multicoloured tones, are an additional advantage , while the coating remains fully effective.

- The X-tremeBLUE® offers the highest hardness on the tools surface, over 200% compared to uncoated milling cutters and over **50% compared to the tools with DLC** .

## Router typ V803 .. XB



In 3 independent testing, router bits with X-tremeBlue coating V803 were almost 2 times more efficient than the uncoated version in each case.



SW

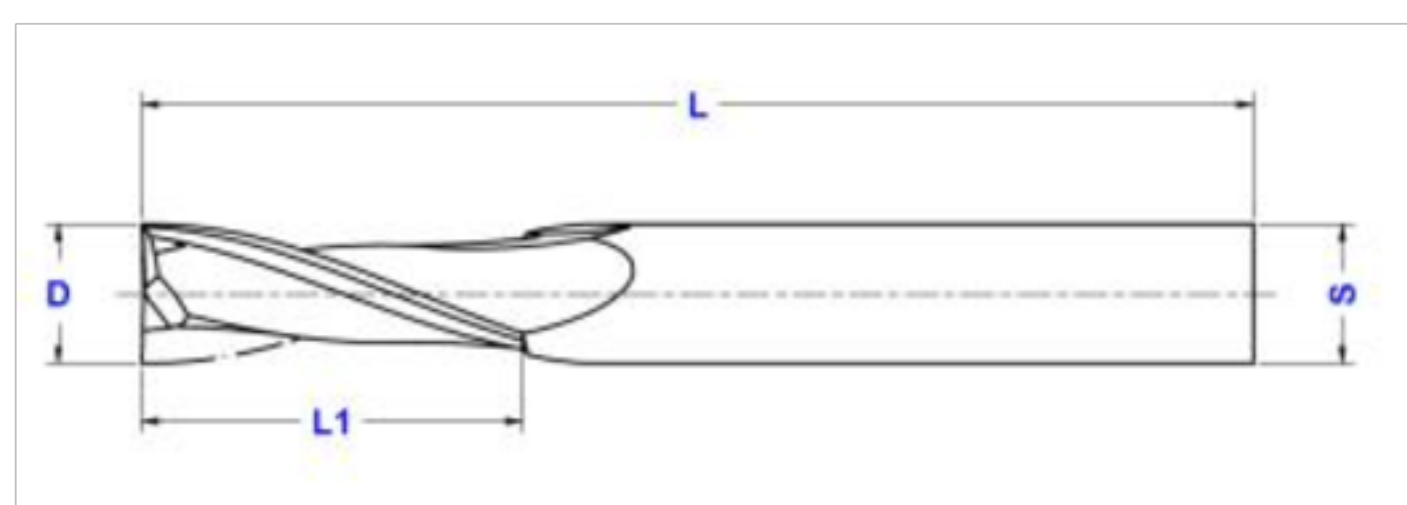
MDF

PW

PY



- Spiral router with **X-tremeBlue** coating.
  - Premium carbide microgain
- Router bits with 2-flutes, with XB coating for more tool long life. For CNC machines and for portable routers. For wood and plastic materials.  
Feed rate: 3-12 m/min of 18 000 - 24 000 RPM.  
**Finishing operation.**



Z=2



D	L <sub>1</sub>	L	s	Z
6	22	70	6	2
8	22	70	8	2
8	32	80	8	2
10	32	80	10	2
10	42	90	10	2
10	52	100	10	2
12	32	80	12	2
12	42	90	12	2
12	52	100	12	2
16	32	80	16	2
16	42	90	16	2
16	52	100	16	2
16	62	110	16	2
16	72	120	16	2
20	52	100	20	2
20	72	120	20	2
20	85	130	20	2
20	100	150	20	2



- Spiral router with X-tremeBlue coating.

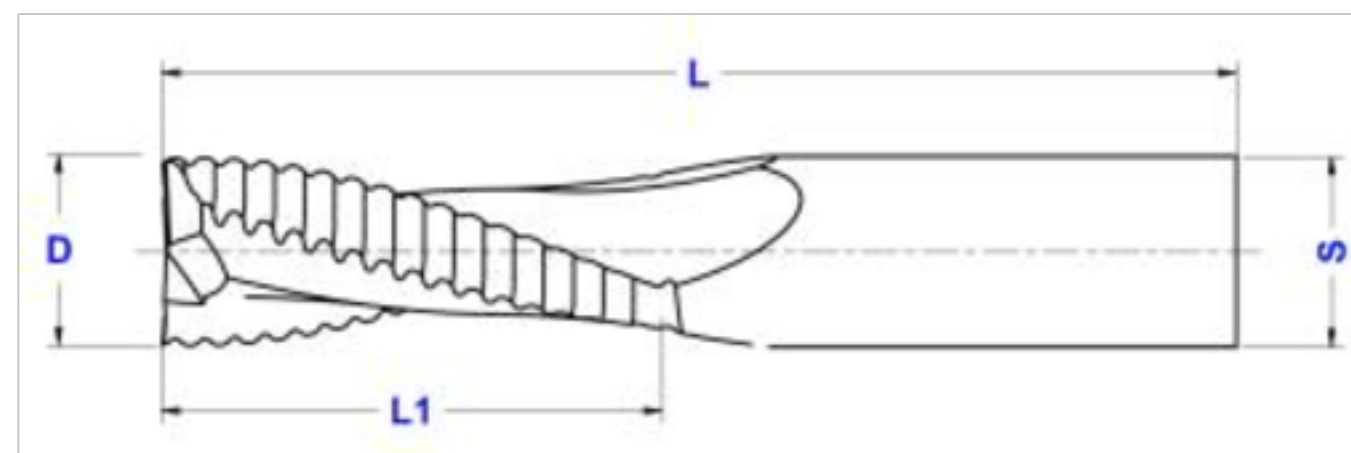
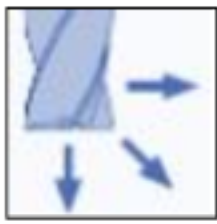
- Premium carbide microgain

Router bits with 2-flutes, with XB coating for more tool long life. For CNC machines and for portable routers. For wood and plastic materials.

Feed rate: 3-15 m/min of 18 000 - 24 000 RPM.

Roughing operation.

Z=2



SW

MDF

PW

PY

D	L1	L	s	Z
6	22	70	6	2
8	22	70	8	2
8	32	80	8	2
10	32	80	10	2
10	42	90	10	2
10	52	100	10	2
12	32	80	12	2
12	42	90	12	2
12	52	100	12	2
16	32	80	16	2
16	42	90	16	2
16	52	100	16	2
16	62	110	16	2
16	72	120	16	2
20	52	100	20	2
20	72	120	20	2
20	85	130	20	2
20	100	150	20	2



SW

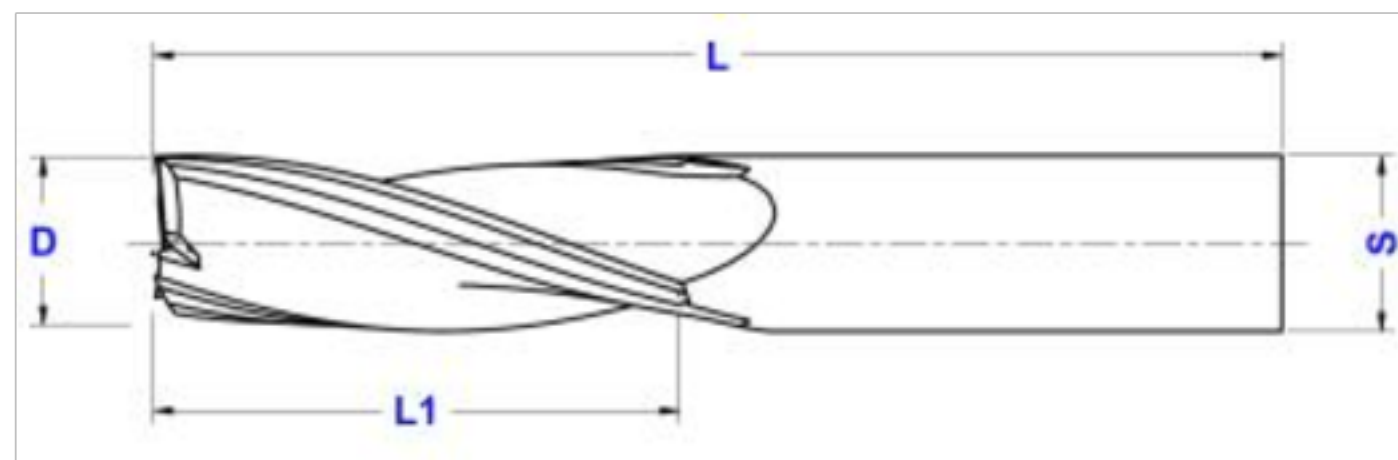
MDF

PW

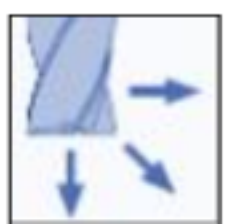
PY



- Spiral routers with X-tremeBlue coating.
  - Premium carbide microgain
- Router bits with 3-flutes, with XB coating for more tool long life. For CNC machines and for portable routers. For wood and plastic materials.  
Feed rate: 4-12 m/min of 18 000 - 24 000 RPM.  
**Finishing operation.**



Z=3



D	L1	L	s	Z
6	22	70	6	3
8	22	70	8	3
8	32	80	8	3
10	32	80	10	3
10	42	90	10	3
10	52	100	10	3
12	32	80	12	3
12	42	90	12	3
12	52	100	12	3
16	32	80	16	3
16	42	90	16	3
16	52	100	16	3
16	62	110	16	3
16	72	120	16	3
20	52	100	20	3
20	72	120	20	3
20	85	130	20	3
20	100	150	20	3



- Spiral router with X-tremeBlue coating.

- Premium carbide microgain

Router bits with 2-flutes, with XB coating for more tool long life. For CNC machines and for portable routers. For wood and plastic materials.

Feed rate: 3-15m/min of 18 000 - 24 000 RPM.

Roughing operation.



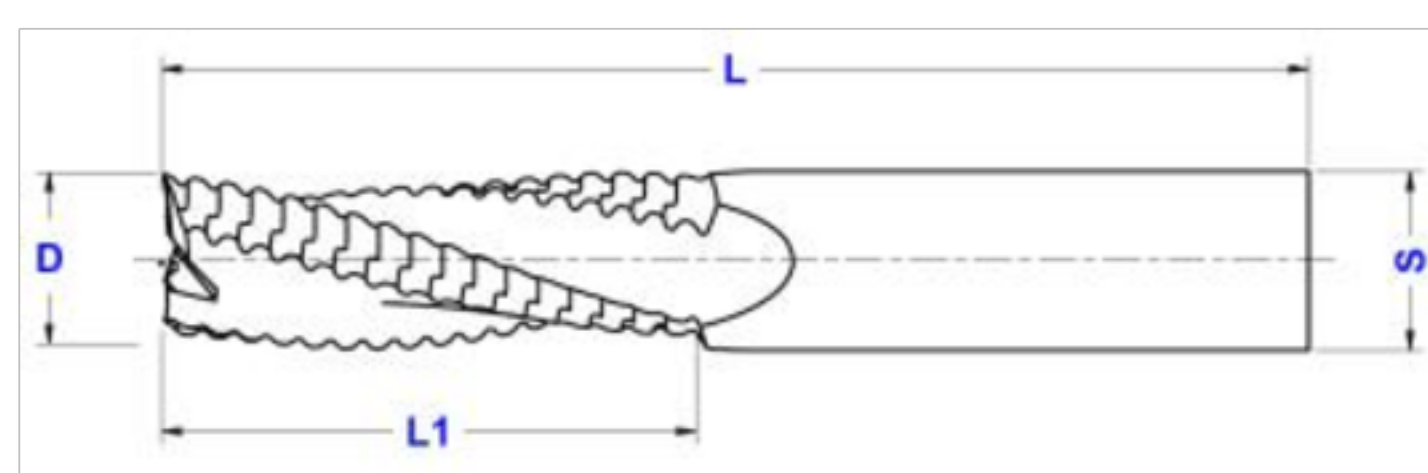
SW

MDF

PW

PY

Z=3



D	L1	L	s	Z
6	22	70	6	3
8	22	70	8	3
8	32	80	8	3
10	32	80	10	3
10	42	90	10	3
10	52	100	10	3
12	32	80	12	3
12	42	90	12	3
12	52	100	12	3
16	32	80	16	3
16	42	90	16	3
16	52	100	16	3
16	62	110	16	3
16	72	120	16	3
20	52	100	20	3
20	72	120	20	3
20	85	130	20	3
20	100	150	20	3



SW

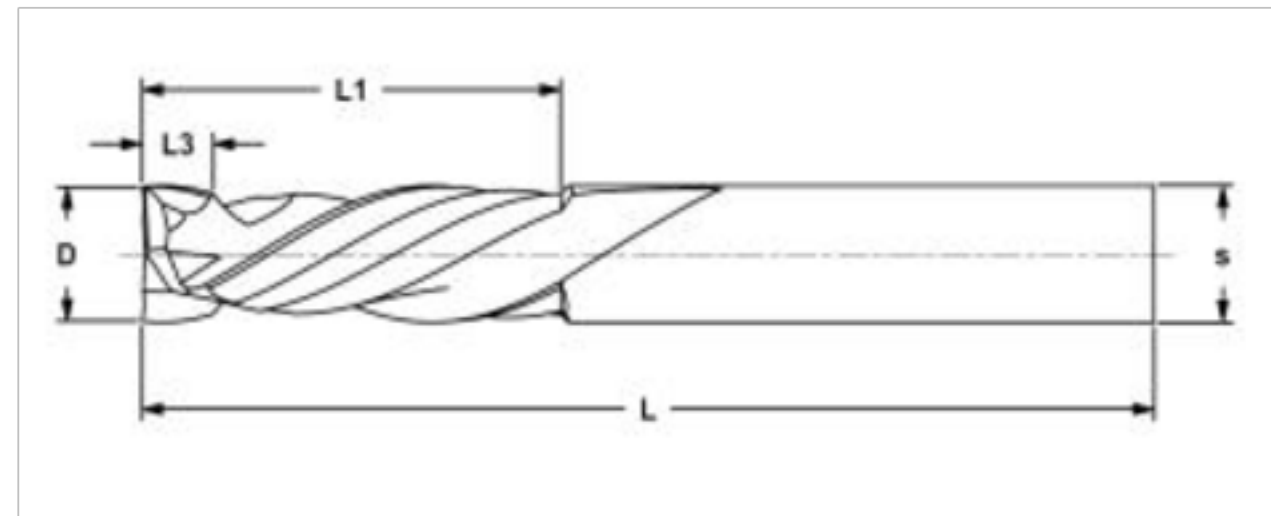
MDF

PW

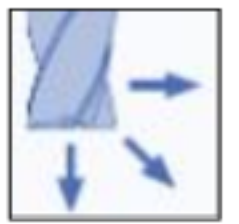
PY



- Spiral router with **X-tremeBlue** coating.
  - Premium carbide X
- Compression router bits with 2+2 flutes, with XB coating for more tool long life. For CNC machines and for portable routers. For wood and plastic materials.  
 Feed rate: 10-25 m/min of 18 000 - 24 000 RPM.  
**Finishing operation.**



Z=2+2

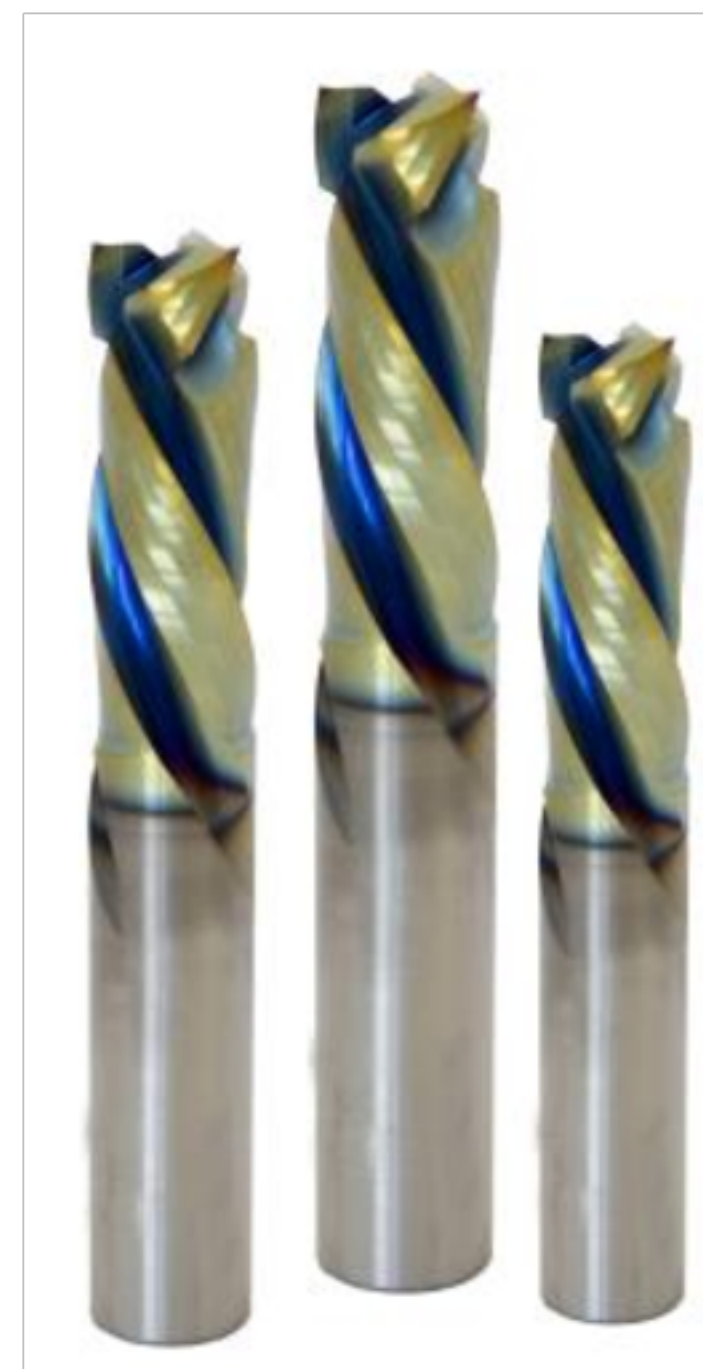
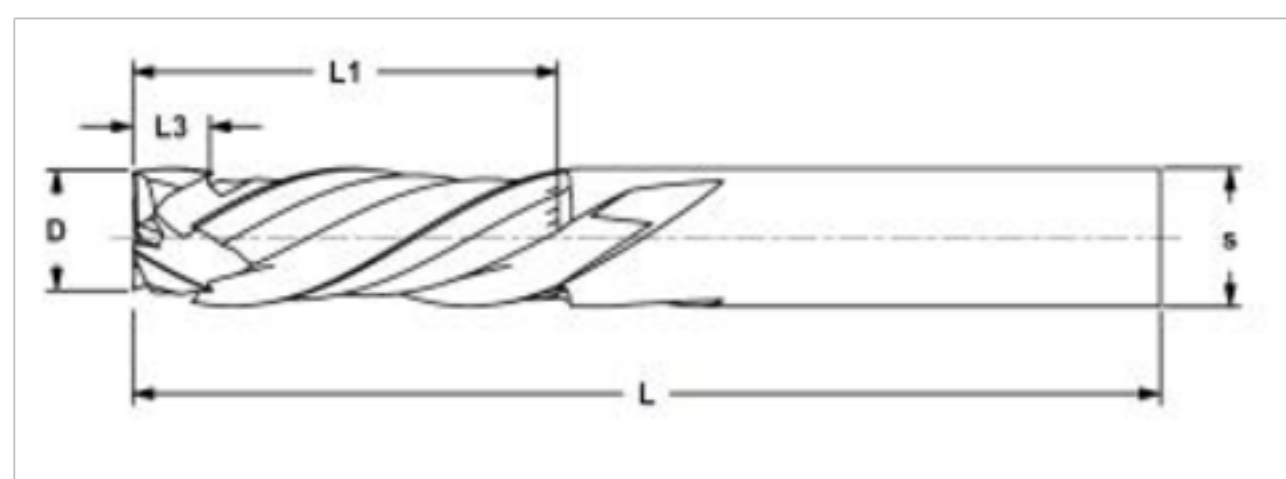


	D	L1	L3	L	s	Z
<b>NEW</b>	6	25	5	65	6	2+2
<b>NEW</b>	8	25	6	65	8	2+2
	8	35	6	80	8	2+2
	10	25	7	80	10	2+2
	10	35	7	80	10	2+2
	12	25	8	80	12	2+2
	12	35	8	80	12	2+2
	12	42	8	90	12	2+2
	16	35	9	80	16	2+2
	16	42	9	90	16	2+2
	16	52	9	100	16	2+2



- Spiral router with X-tremeBlue coating.
  - Premium carbide X
- Compression router bits with 3+3 flutes, with XB coating for more tool long life. For CNC machines and for portable routers. For wood and plastic materials.  
 Feed rate: 10-35 m/min of 18 000 - 24 000 RPM.  
**Finishing operation.**

Z=3+3



SW

MDF

PW

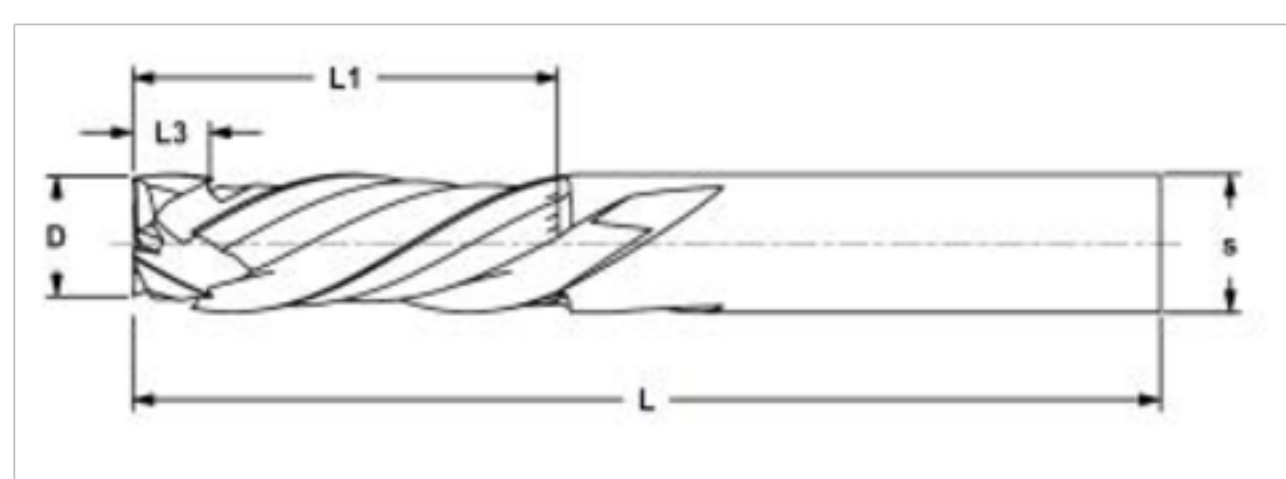
PY

D	L1	L3	L	s	Z
10	25	7	80	10	3+3
10	35	7	80	10	3+3
12	25	8	80	12	3+3
12	35	8	80	12	3+3
12	42	8	90	12	3+3
16	35	9	80	16	3+3
16	42	9	90	16	3+3
16	52	9	100	16	3+3



- Spiral router with X-tremeBlue coating.
  - Premium carbide X
- Compression router bits with 3+3 flutes, with XB coating for more tool long life. For CNC machines and for portable routers. For wood and plastic materials.  
 Feed rate: 10-35 m/min of 18 000 - 24 000 RPM.  
**Finishing operation.**

Z=3+3



SW

MDF

PW

PY

D	L1	L3	L	s	Z
10	25	7	80	10	3+3
10	35	7	80	10	3+3
12	25	8	80	12	3+3
12	35	8	80	12	3+3
12	42	8	90	12	3+3
16	35	9	80	16	3+3
16	42	9	90	16	3+3
16	52	9	100	16	3+3



SW

MDF

PW

PY



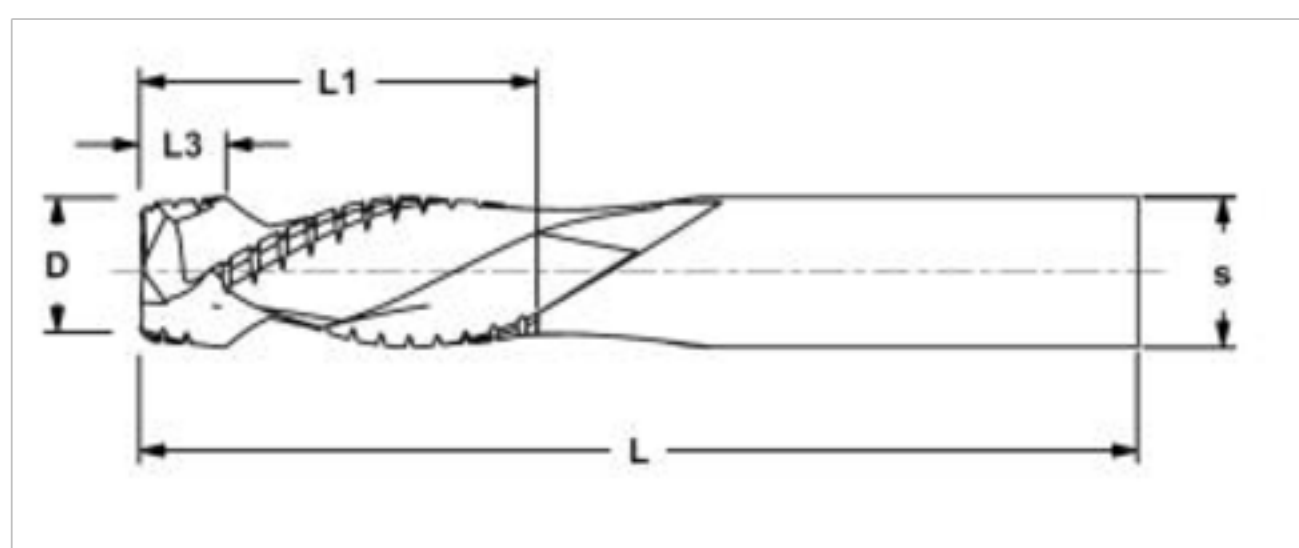
- Spiral router with X-tremeBlue coating.

- Premium carbide X

Compression router bits with 2+2 flutes and chipbreakers, with XB coating for more tool life. For CNC machines and for portable routers. For wood and plastic materials.

Feed rate: 12-30 m/min of 18 000 - 24 000 RPM.

**Semi-finishing operation.**



Z=2+2



	D	L1	L3	L	s	Z
<b>NEW</b>	8	25	6	65	8	2+2
	8	35	6	80	8	2+2
	10	25	7	80	10	2+2
	10	35	7	80	10	2+2
	12	25	8	80	12	2+2
	12	35	8	80	12	2+2
	12	42	8	90	12	2+2
	16	35	9	80	16	2+2
	16	42	9	90	16	2+2
	16	52	9	100	16	2+2



SW

MDF

PW

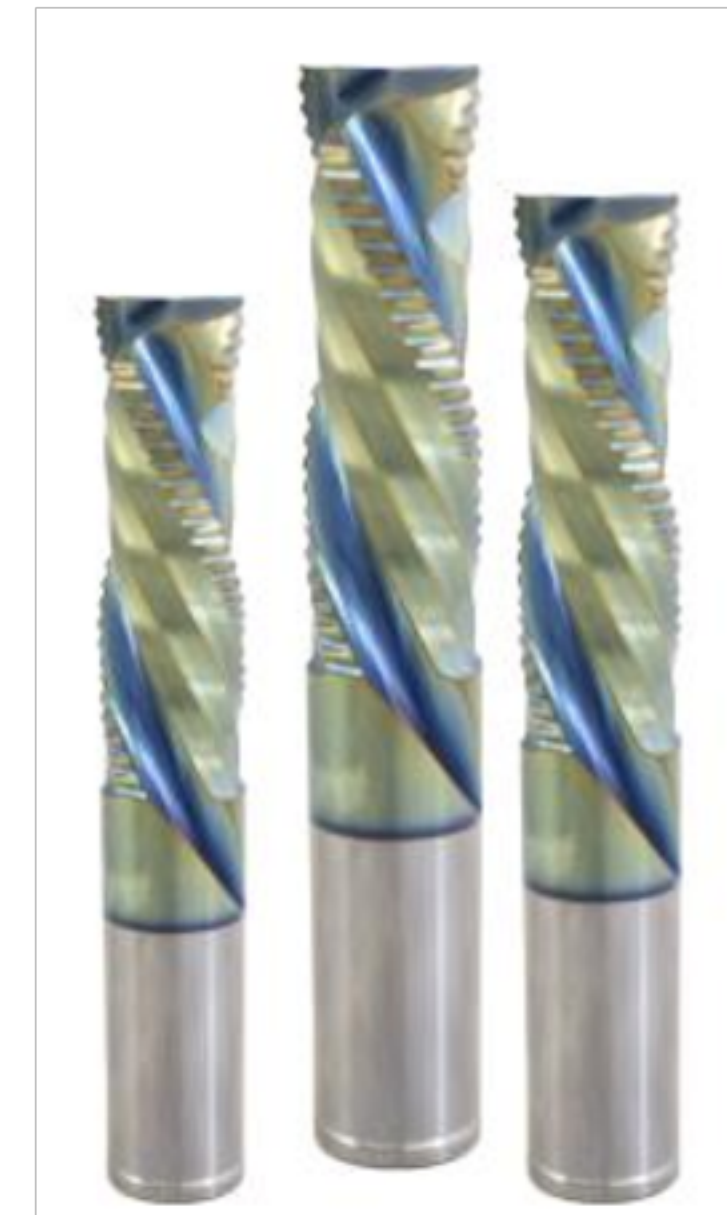
PY

- Spiral router with X-tremeBlue coating.
- Premium carbide X

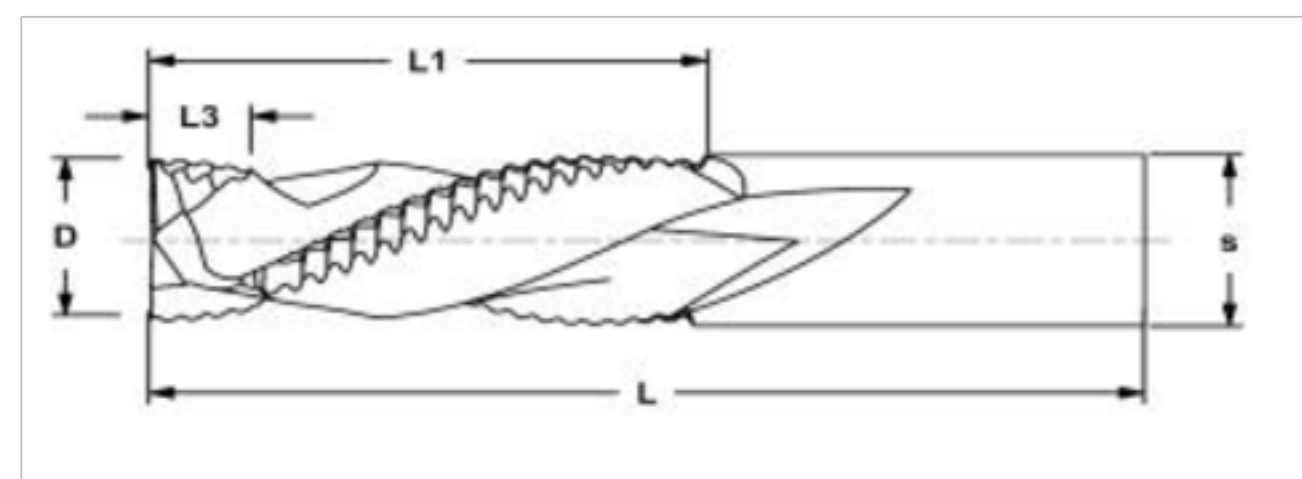
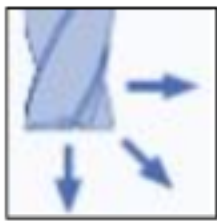
Compression router bits with 2+2 flutes roughing, with XB coating for more tool life. For CNC machines and for portable routers. For wood and plastic materials.

Feed rate: 15-35 m/min of 18 000 - 24 000 RPM.

Roughing operation.



Z=2



D	L3	L1	L	s	Z
10	7	25	80	10	2+2
10	7	35	80	10	2+2
12	8	25	80	12	2+2
12	8	35	80	12	2+2
16	9	42	90	16	2+2
16	9	52	100	16	2+2



SW

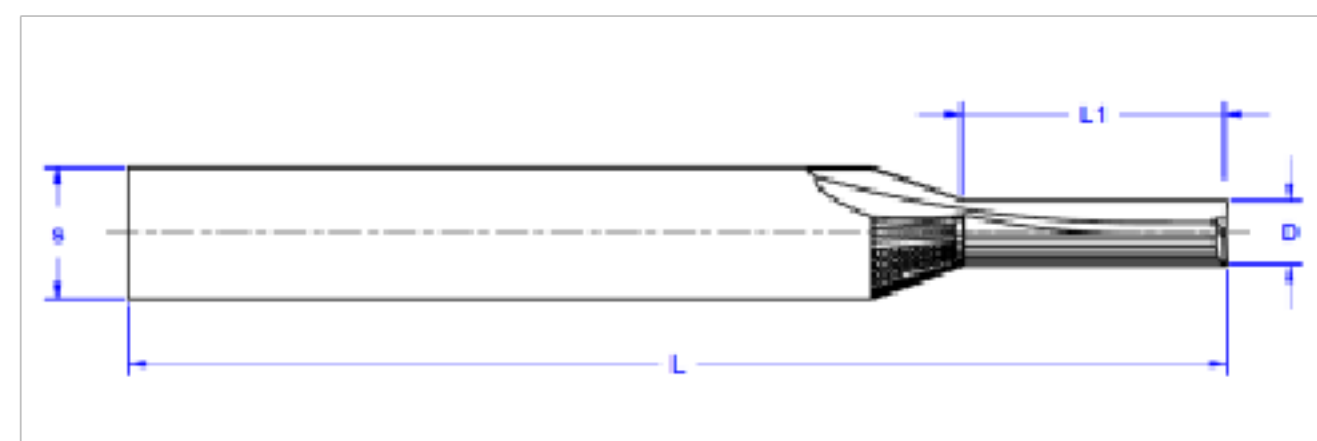
MDF

PW

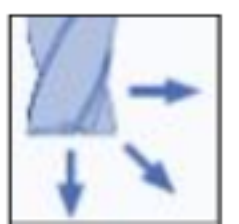
PY



- Premium carbide microgain
- Router bits with 2-straight cutting edges, shank s=6 mm.  
For CNC machines and for portable routers. For wood and plastic materials.  
Feed rate: 2 - 8 m/min of 18 000 - 24 000 RPM.  
**Finishing operation.**



Z=2



D	L1	L	s	Z
2	6	50	6	2
2,5	6	50	6	2
3	10	50	6	2
3,17 (1/8")	12,7 (1/2")	50,8 (2")	6,35 (1/4")	2
3,5	12	50	6	2
4	15	50	6	2
4,75 (3/16")	12,7 (1/2")	50,8 (2")	6,35 (1/4")	2
5	15	50	6	2
5	20	60	6	2
6	20	60	6	2
6	25	65	6	2
6,35 (1/4")	25,4 (1")	63,5 (2 1/2")	6,35 (1/4")	2

Przy zamówieniu frezów z powłoką prosimy podać kod produktu np.: V101.100.32.080.XT



- Premium carbide microgain

Router bits with 2-straight cutting edges, shank s=8 mm.  
For CNC machines and for portable routers. For wood and plastic materials.

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

Finishing operation.



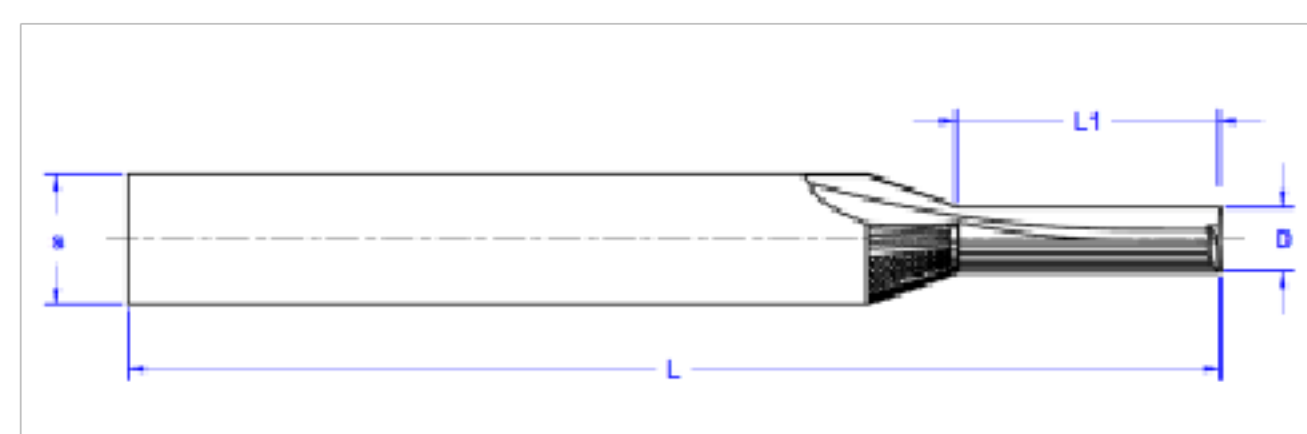
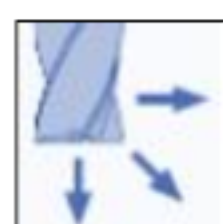
SW

MDF

PW

PY

Z=2



D	L1	L	s	Z
2	6	50	8	2
2,5	6	50	8	2
3	10	50	8	2
3,2	10	50	8	2
3,17 (1/8")	12,7 (1/2")	50,8 (2")	7,95 (5/6")	2
3,5	12	50	8	2
4	15	60	8	2
4,5	15	60	8	2
4,75 (3/16")	12,7 (1/2")	50,8 (2")	7,95 (5/6")	2
5	15	60	8	2
5	20	60	8	2
6	20	60	8	2
6	25	65	8	2
6,35 (1/4")	25,4 (1")	76,2 (2 1/2")	7,95 (5/6")	2
7	25	65	8	2
7,95 (5/6")	25,4 (1")	76,2 (2 1/2")	7,95 (5/6")	2
8	25	65	8	2
8	30	70	8	2

Przy zamówieniu frezów z powłoką prosimy podać kod produktu np.: V101.100.32.080.XT



SW

MDF

PW

PY

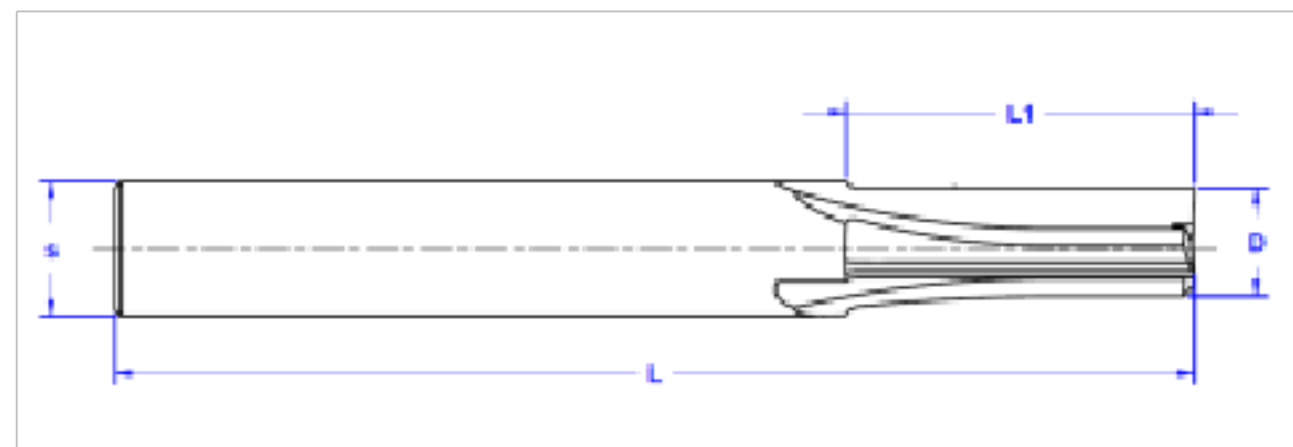


- Premium carbide microgain

Router bits with 3-straight cutting edges. For CNC machines and for portable routers. For wood and plastic materials.

Feed rate: 4 - 12 m/min of 18 000 - 24 000 RPM.

**Finishing operation.**



Z=3



	D	L1	L	s	Z
<b>NEW</b>	6	22	65	6	3
<b>NEW</b>	6,35 (1/4")	25,4 (1")	63,5 (2 1/2")	6,35 (1/4")	3
<b>NEW</b>	6	24	65	8	3
<b>NEW</b>	8	25	65	8	3
<b>NEW</b>	8	35	70	8	3
<b>NEW</b>	9,50 (3/8")	25,4 (1")	76,2 (3 ")	12,70 (1/2")	3
<b>NEW</b>	10	25	65	10	3
<b>NEW</b>	10	35	70	10	3
<b>NEW</b>	10	40	80	10	3
	12	25	70	12	3
	12	35	80	12	3
	12	45	80	12	3
	12,70 (1/2")	25,4 (1")	76,2 (3 ")	12,70 (1/2")	3
	12,70 (1/2")	44,4 (1 3/4")	88,9 (3 1/2")	12,70 (1/2")	3

Przy zamówieniu frezów z powłoką prosimy podać kod produktu np.: V101.100.32.080.XT



- Premium carbide microgain

Router bits with 1-straight cutting edges.

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

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

Finishing operation.



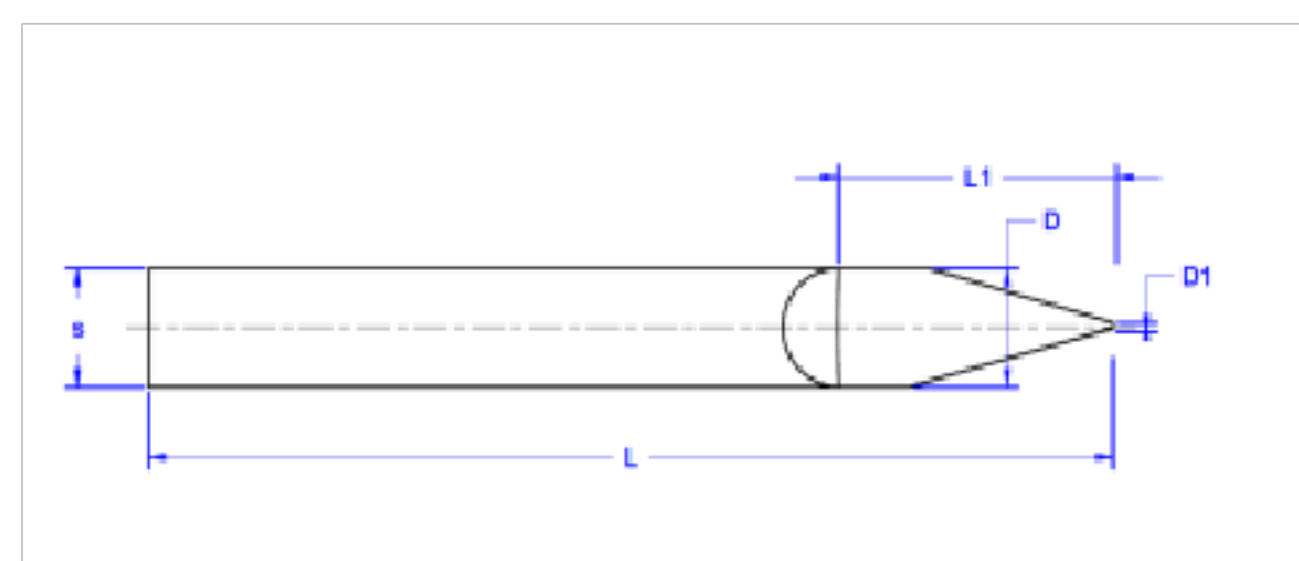
SW

MDF

PW

PY

Z=1



D	d1	L <sub>2</sub>	L <sub>1</sub>	s	V°
4	0,1	10	45	4	30°
4	0,1	10	45	4	45°
4	0,1	10	45	4	60°
4	0,1	10	45	4	90°
6	0,2	12	50	6	30°
6	0,2	10	50	6	45°
6	0,2	10	50	6	60°
6	0,2	10	50	6	90°
8	0,2	12	55	8	45°
8	0,2	10	55	8	60°
8	0,2	10	55	8	90°

Przy zamówieniu frezów z powłoką prosimy podać kod produktu np.: V101.100.32.080.XT



SW

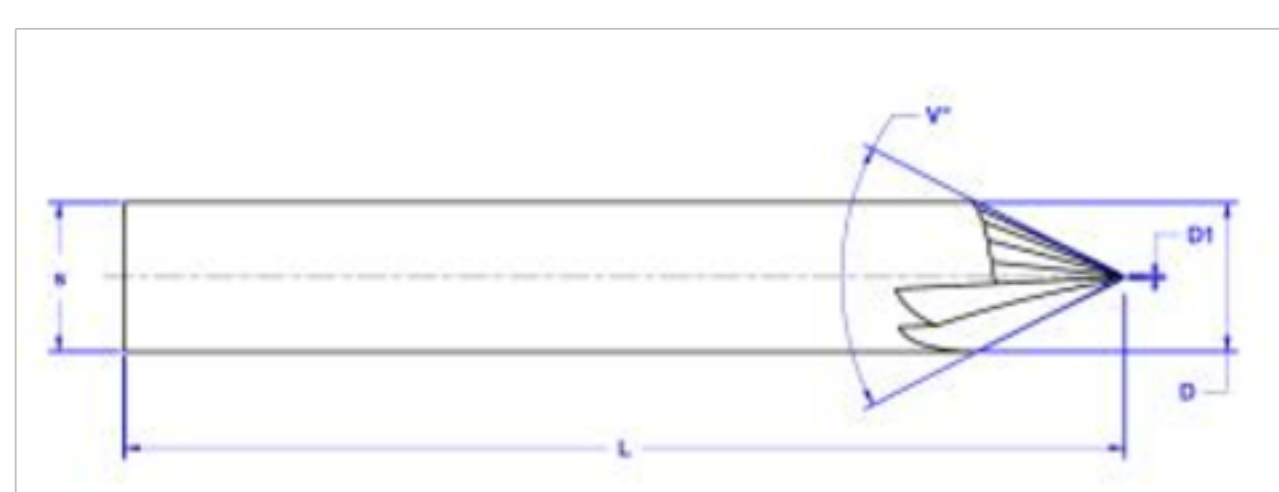
MDF

PW

PY



Router bits with 2-straight cutting edges.  
For CNC machines and for portable routers. For wood and plastic materials.  
Feed rate: 2 - 8 m/min of 18 000 - 24 000 RPM.  
**Finishing operation.**



Z=2



D	D1	L	s	V °
6	0,2	50	6	30°
6	0,2	50	6	45°
6	0,2	50	6	60°
6	0,2	50	6	90°
8	0,2	55	8	45°
8	0,2	55	8	60°
8	0,2	55	8	90°
10	0,2	60	10	45°
10	0,2	60	10	60°
10	0,2	60	10	90°
12	0,2	60	12	45°
12	0,2	60	12	60°
12	0,2	60	12	90°

Przy zamówieniu frezów z powłoką prosimy podać kod produktu np.: V101.100.32.080.XT



Router bits with 3-straight cutting edges and radius.  
 For CNC machines and for portable routers. For wood and plastic materials.  
 Feed rate: 2 - 8 m/min of 18 000 - 24 000 RPM.  
**Finishing operation.**

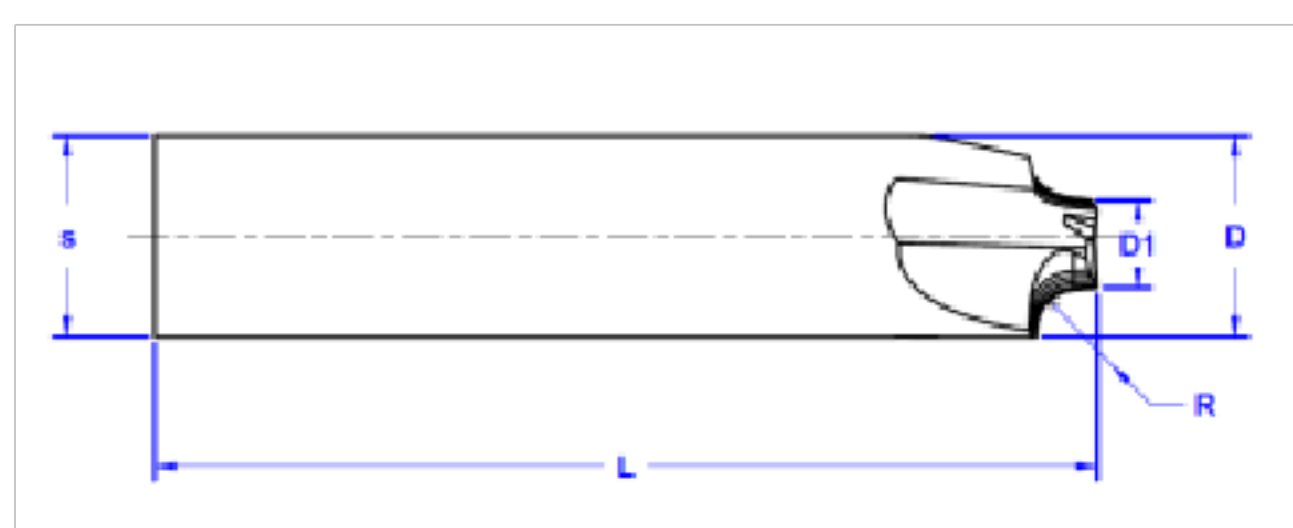
SW

MDF

PW

PY

Z=3



D	d1	R	L	s	Z
6	4,0	1	60	6	3
8	4,0	2	60	8	3
10	4,0	3	60	10	3
12	4,0	4	60	12	3
16	6,0	5	60	16	3
16	4,0	6	60	16	3



SW

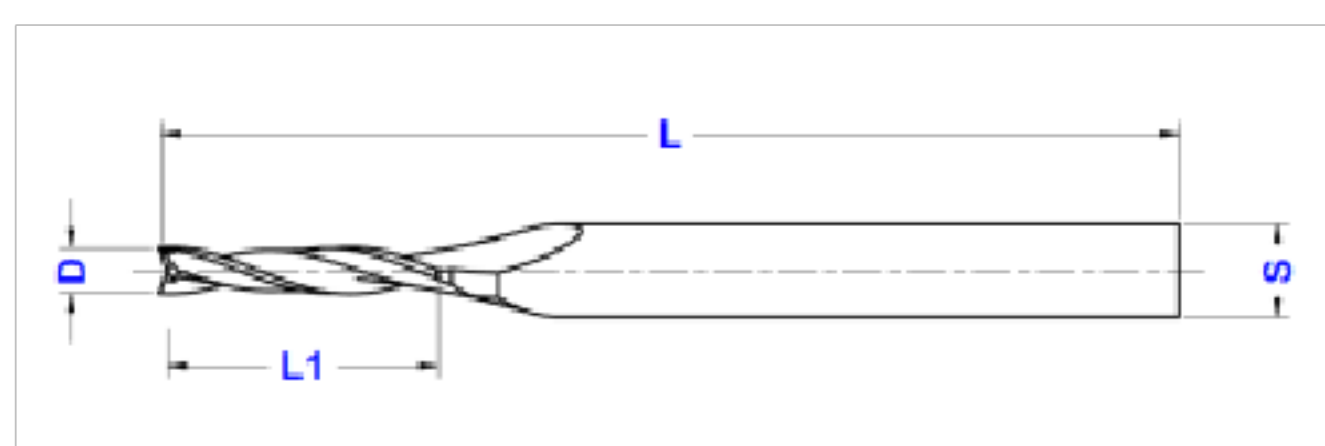
MDF

PW

PY



Router bits with 2-straight cutting edges, shank s=6 mm.  
 For CNC machines and for portable routers. For wood and plastic materials.  
 Feed rate: 2-8 m/min of 18 000 - 24 000 RPM.  
**Finishing operation.**



Z=2

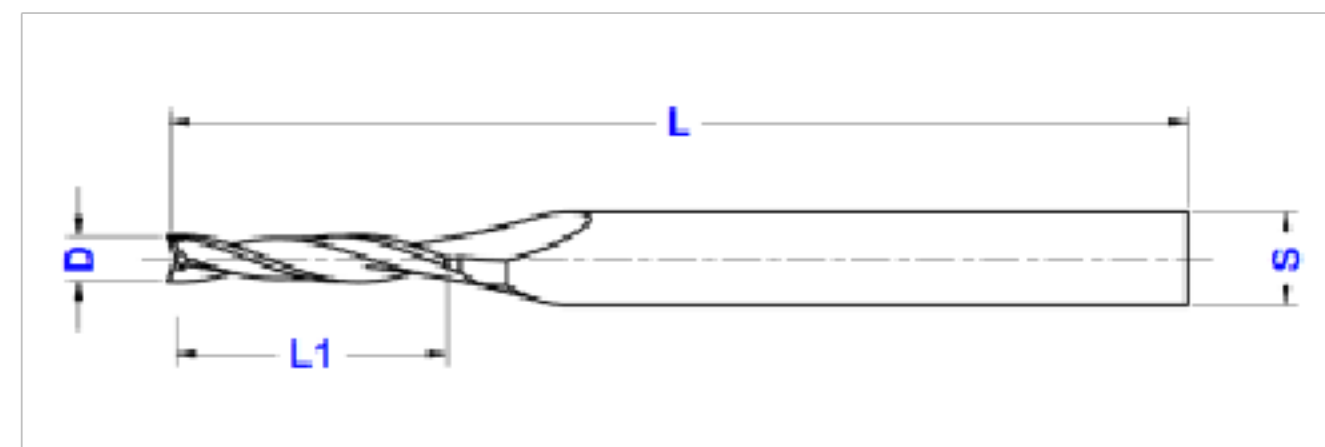


D	L1	L	s	Z
2	6	50	6	2
2,5	6	50	6	2
3	10	50	6	2
3,17 (1/8")	12,7 (1/2")	50,8 (2")	6,35 (1/4")	2
3,5	12	50	6	2
4	15	50	6	2
4,75 (3/16")	12,7 (1/2")	50,8 (2")	6,35 (1/4")	2
5	20	60	6	2
6,35 (1/4")	25,4 (1")	63,5 (2 1/2")	6,35 (1/4")	2



Router bits with 2-straight cutting edges, shank s=8 mm.  
For CNC machines and for portable routers. For wood and plastic materials.  
Feed rate: 2-8 m/min of 18 000 - 24 000 RPM.  
Finishing operation.

Z=2



SW

MDF

PW

PY

D	L1	L	s	Z
2	6	50	8	2
2,5	6	50	8	2
3	10	50	8	2
3,17 (1/8")	12,7 (1/2")	50,8 (2")	7,95 (5/6")	2
3,5	12	50	8	2
4	15	60	8	2
4,75 (3/16")	12,7 (1/2")	50,8 (2")	7,95 (5/6")	2
5	17	60	8	2
5	20	65	8	2
6	17	60	8	2
6	22	65	8	2
6,35 (1/4")	25,4 (1")	76,2 (2 1/2")	7,95 (5/6")	2
7	22	65	8	2
7,95 (5/6")	25,4 (1")	76,2 (2 1/2")	7,95 (5/6")	2



SW

MDF

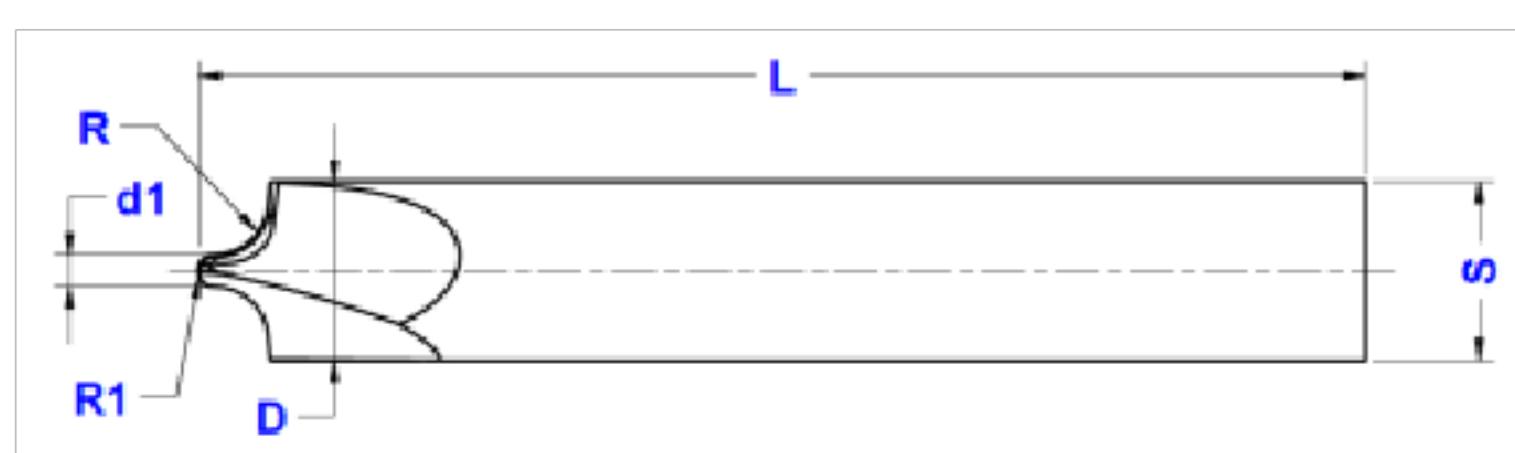
PW

PY



- Premium carbide microgain
- Router bits with radius for engraving.  
For CNC machines and portable routers. For wood and plastic materials.  
Feed rates: 4-8 m/min of 18 000 - 30 000 RPM.

**Finishing operations**



Z=2



D	d1	R	R <sub>1</sub>	L	s	Z
8	1,2	2	0,6	60	8	2
10	1,5	3	0,7	60	10	2
12	1,5	4	0,7	60	12	2
16	1,8	5	0,9	60	16	2
16	1,8	6	0,9	60	16	2

- Premium carbide microgain

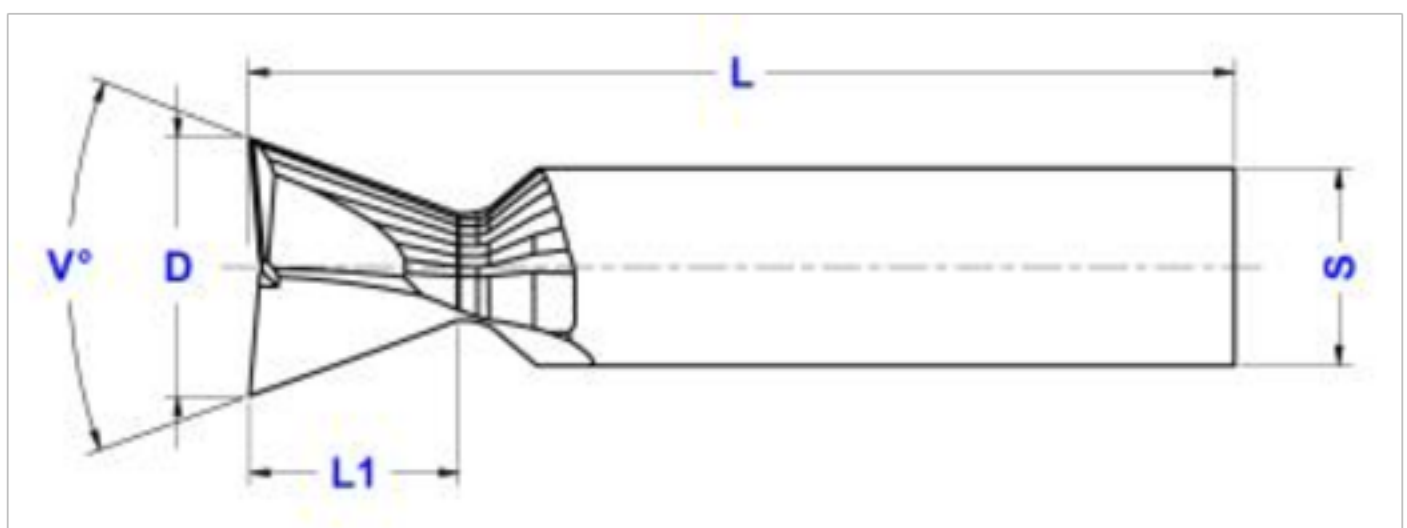
Solid carbide Dovetail router bits with straight blades.  
 For CNC machines and portable routers.  
 For wood and plastic materials.  
 Feed rates: 4–12 m/min of 18 000 - 24 000 RPM.



- SW
- MDF
- PW
- PY



Z=2



D	>	L1	L	s	Z
7,8	18°	6,8	60	8	2
10	7°	10	60	10	2
12	7°	10	60	12	2
16	7°	16	60	12	2
16	14°	18	65	12	2
20	7°	18	65	12	2
20	14°	22	70	12	2



SW

MDF

PW

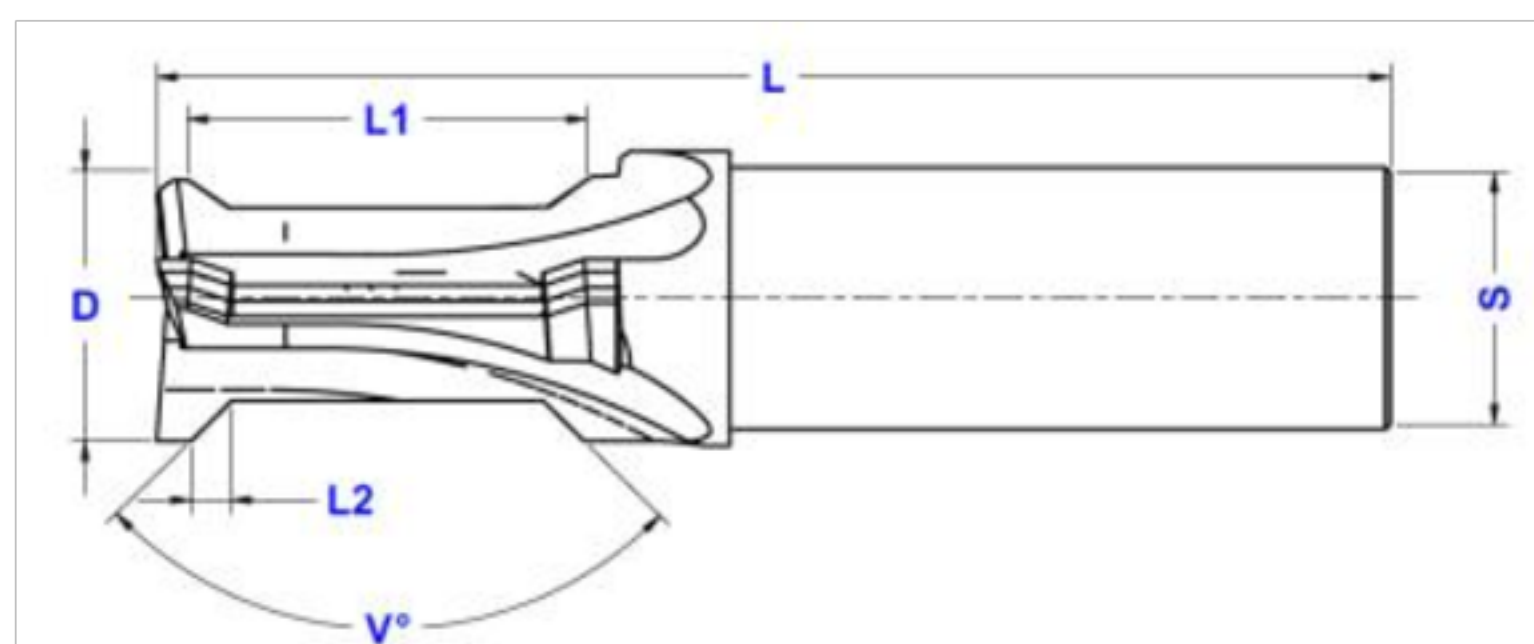
PY



Solid carbide profil router with 3 - straight blades for chamfer. For CNC machines.

For wood, plastic materials.

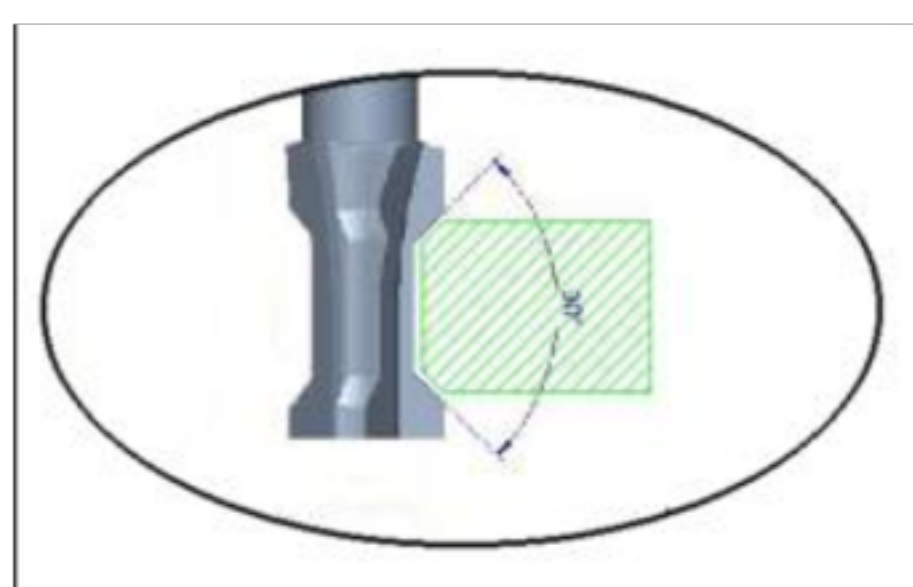
Feed rates: 4-12 m/min of 16 000 - 20 000 RPM.



Z=3



D	L1	L2	V	L	s	Z
16	12	2	90°	70	16	3
16	16	3	90°	70	16	3
16	20	3	90°	70	16	3
18	16	3	90°	70	18	3
18	20	3	90°	70	18	3
18	24	3	90°	70	18	3
20	28	4	90°	80	20	3



Solid carbide profil router bits with 3 - straight blades for side rounding. For CNC machines.

For wood and plastic materials.

Feed rates: 4-12 m/min of 16 000 - 20 000 RPM.



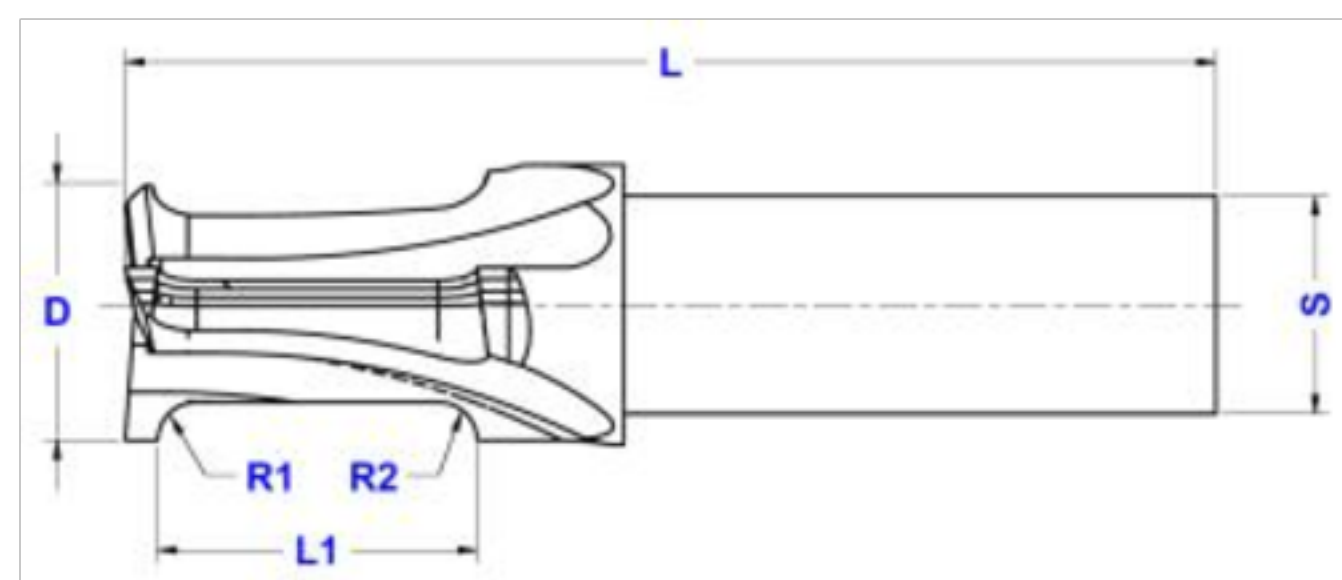
SW

MDF

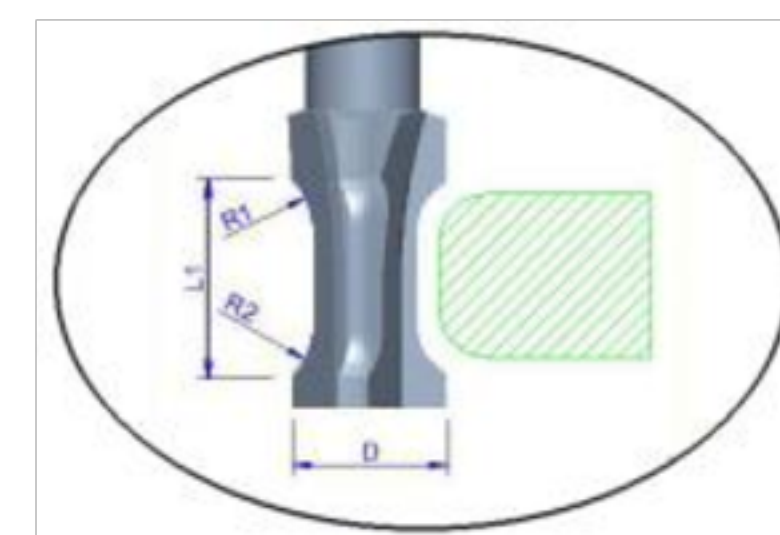
PW

PY

Z=3



D	L1	R1	R2	L	s	Z
16	12	2	2	70	16	3
16	16	3	3	70	16	3
16	20	3	3	70	16	3
18	16	3	3	70	18	3
18	20	3	3	70	18	3
18	24	3	3	70	18	3
20	28	4	4	80	20	3





SW

MDF

PW

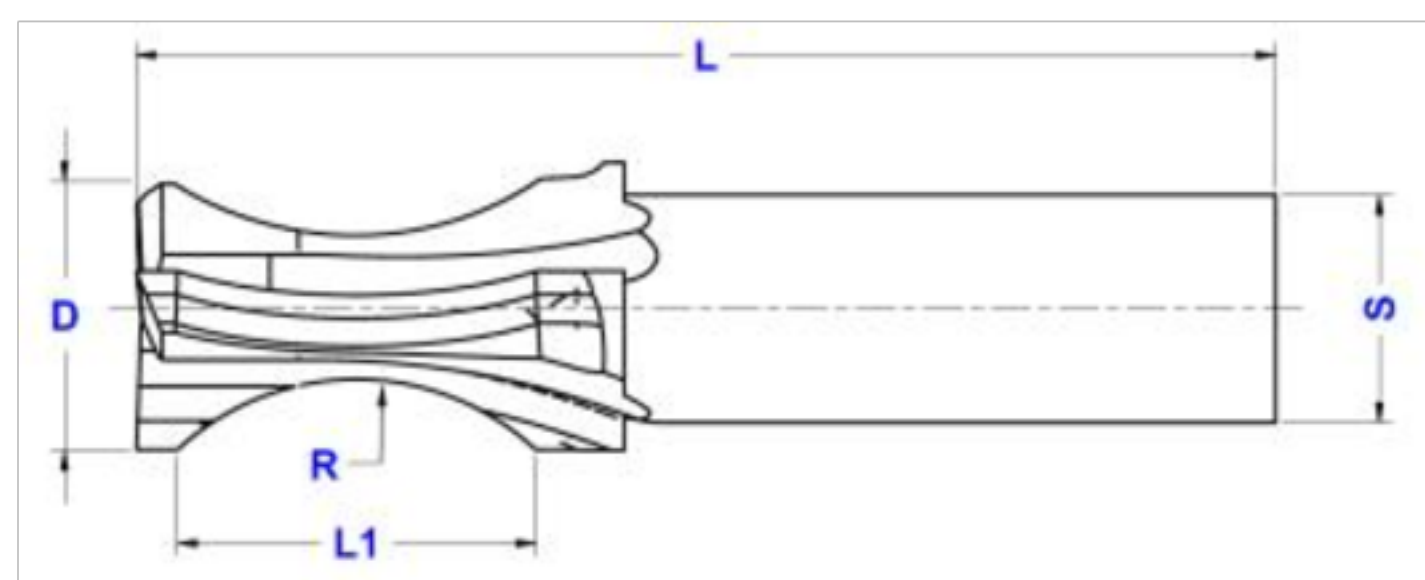
PY



Solid carbide profil router bits with 3 - straight blade for side rounding.

For CNC machines. For wood and plastic materials.

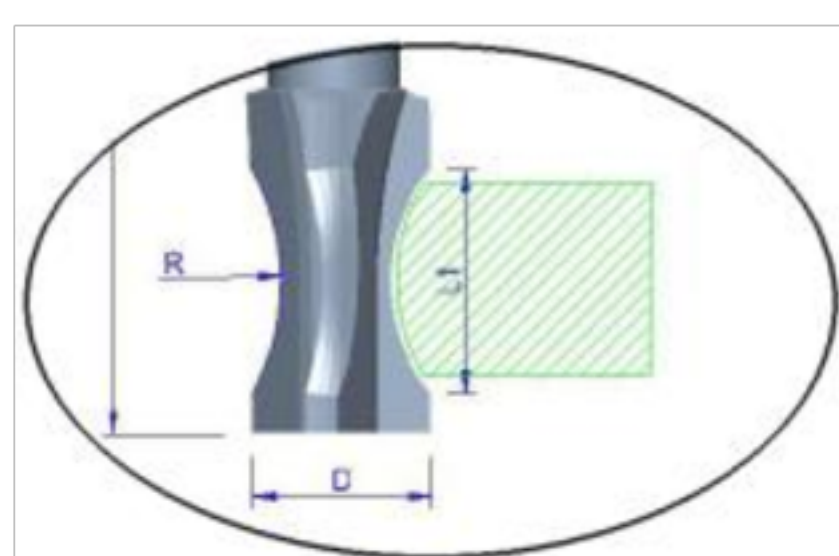
Feed rates: 4-12 m/min of 16 000 - 20 000 RPM.



Z=3



D	L1	R	L	s	Z
16	12	12	70	16	3
16	16	16	70	16	3
16	20	18	70	16	3
18	16	16	70	18	3
18	20	18	70	18	3
18	24	20	70	18	3
20	28	20	80	20	3



Solid carbide profil router bits with 3 - straight blades for chamfer.

For CNC machines. For wood, plastic materials.

Feed rates: 4-12 m/min of 16 000 - 20 000 RPM.

SW

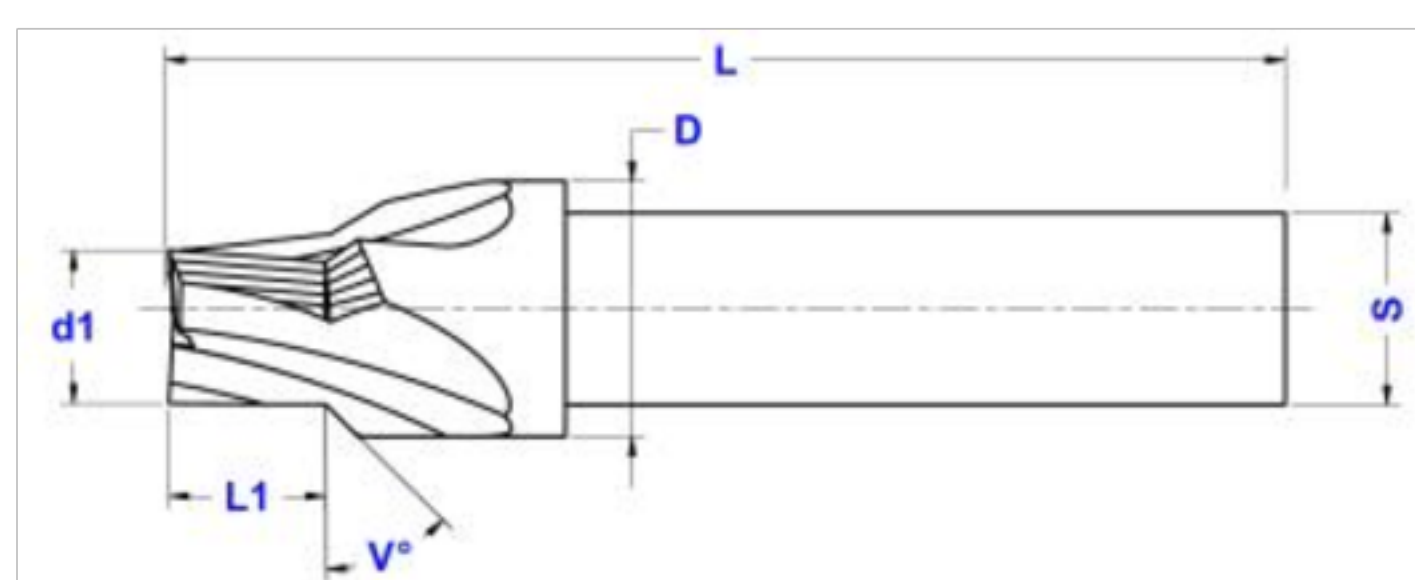
MDF

PW

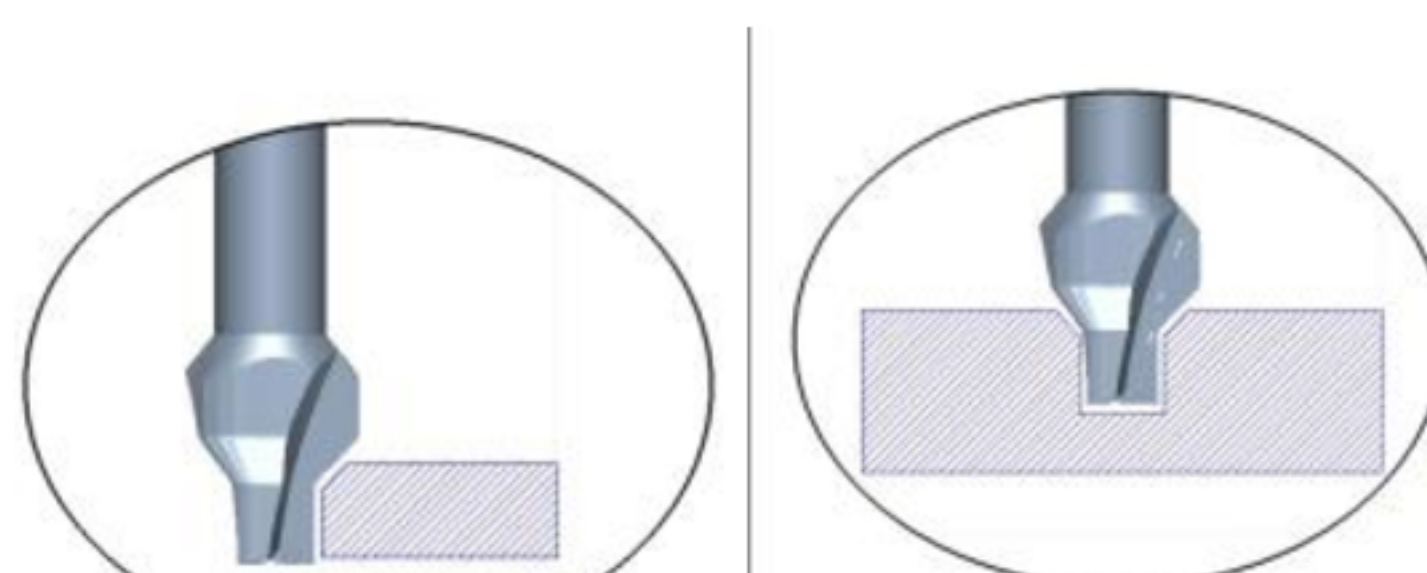
PY

Z=2

Z=3



D	d1	L1	V°	L	s	Z
8	5	12	45°	65	8	2
8	5	20	45°	70	8	2
12	6	20	45°	70	12	2
12	6	25	45°	80	12	2
16	10	8	45°	65	16	3
16	10	12	45°	70	16	3
16	10	16	45°	70	16	3
18	10	10	45°	70	18	3
18	10	14	45°	70	18	3
18	10	18	45°	70	18	3
20	10	20	45°	80	20	3





SW

MDF

PW

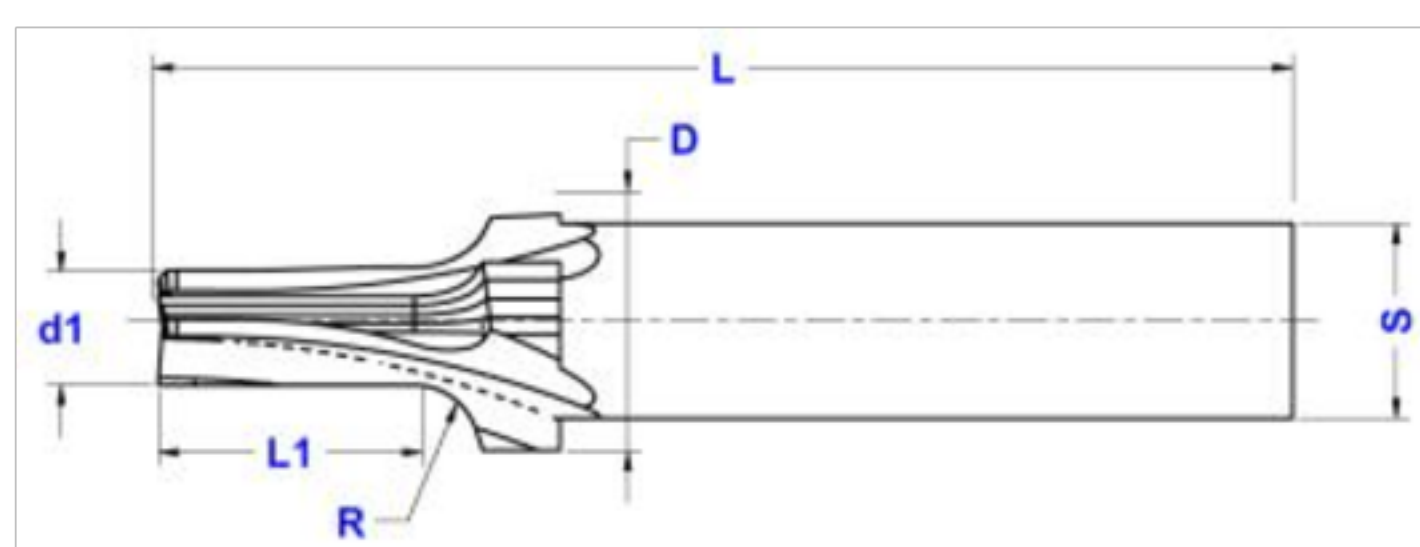
PY



Solid carbide profil router bit with 3 - straight blade for side rounding.

For CNC machines. For wood and plastic materials.

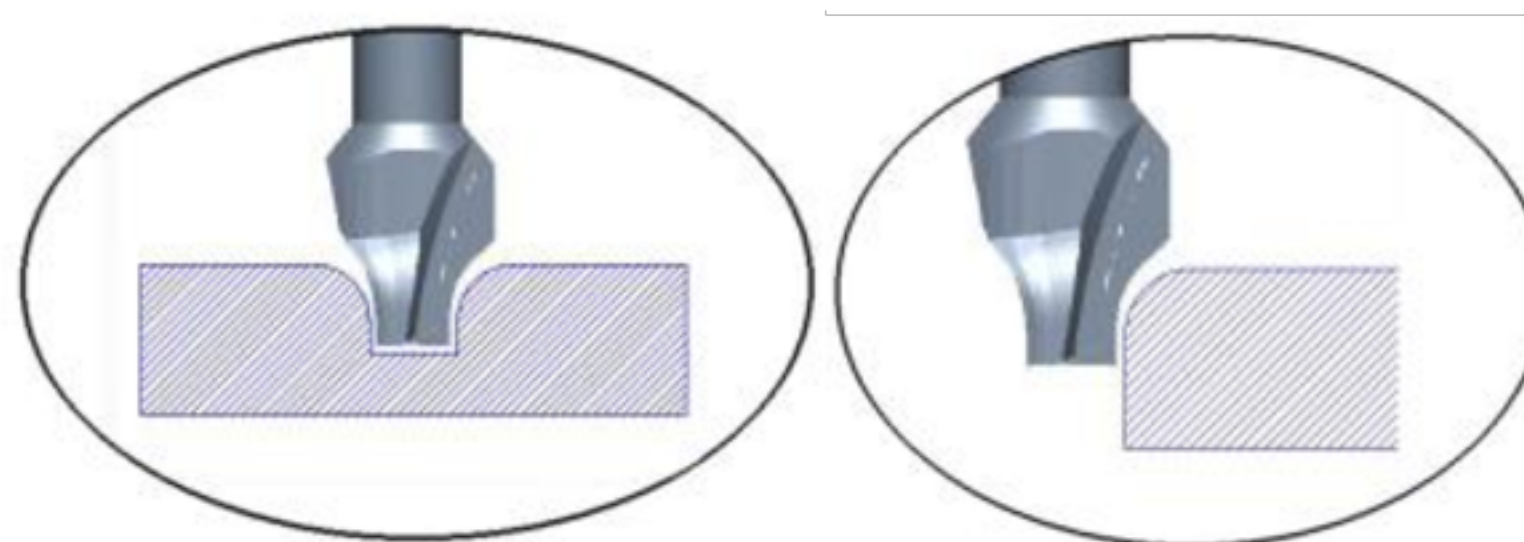
Feed rates: 4-12 m/min of 16 000 - 20 000 RPM.



Z=3



	D	d1	L1	R	L	s	Z
<b>NEW</b>	12	8	8	2	65	12	3
<b>NEW</b>	12	8	12	2	65	12	3
	16	10	8	2	65	16	3
	16	9	12	3	70	16	3
	16	8	16	4	70	16	3
	18	12	10	3	70	18	3
	18	10	14	4	70	18	3
	18	8	18	5	70	18	3
	20	8	20	6	80	20	3



1 flute spiral router .

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

Feed rate: 2-6 m/min of 18 000 - 24 000 RPM.

Finishing operation.

SW

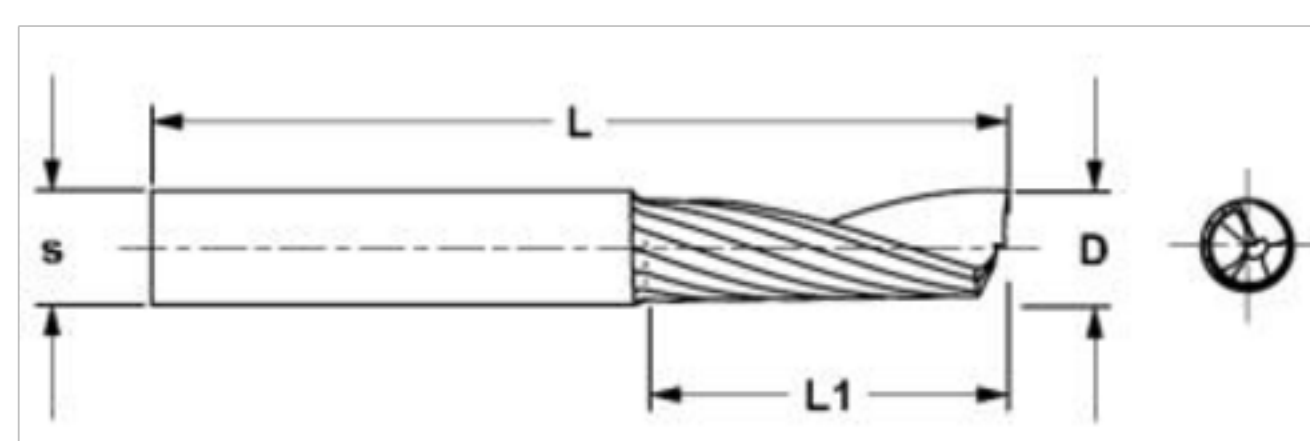
MDF

PW

PY



Z=1



D	L1	L	s	Z
2	8	50	3	1
3	14	50	3	1
3,17 (1/8")	12,7 (1/2")	50,8 (2")	3,17 (1/8")	1
4	14	50	4	1
4	20	50	4	1
4,75 (3/16")	12,7 (1/2")	50,8 (2")	6,35 (1/4")	1
5	17	50	5	1
5	22	60	5	1
6	22	60	6	1
6	27	70	6	1
6,35 (1/4")	25,4 (1")	63,5 (2 1/2")	6,35 (1/4")	1
8	22	70	8	1
8	32	80	8	1
9,52 (3/8")	25,4 (1")	76,2 (3")	9,52 (3/8")	1
10	32	80	10	1
10	42	90	10	1
12	32	80	12	1
12	42	90	12	1





SW

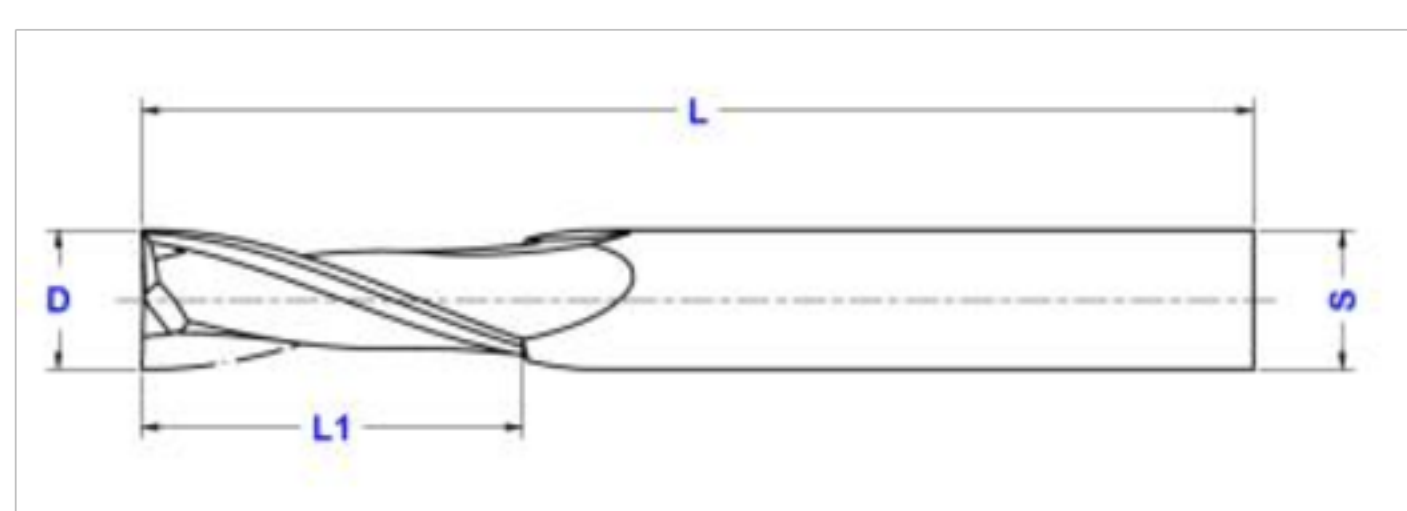
MDF

PW

PY



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



Z=2



D	L <sub>1</sub>	L	s	Z
2	8	50	3	2
3	12	50	3	2
4	12	50	4	2
5	17	70	5	2
6	22	70	6	2
8	22	70	8	2
8	32	80	8	2
10	32	80	10	2
10	42	90	10	2
10	52	100	10	2
12	32	80	12	2
12	42	90	12	2
12	52	100	12	2
14	42	90	14	2
14	52	100	14	2
16	32	80	16	2
16	42	90	16	2
16	52	100	16	2
16	62	110	16	2
16	72	120	16	2
18	52	100	18	2
18	72	120	18	2
20	52	100	20	2
20	72	120	20	2
20	82	130	20	2
20	100	150	20	2

2 flute spiral router bits with chipbreaker.

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

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

Finishing operation.



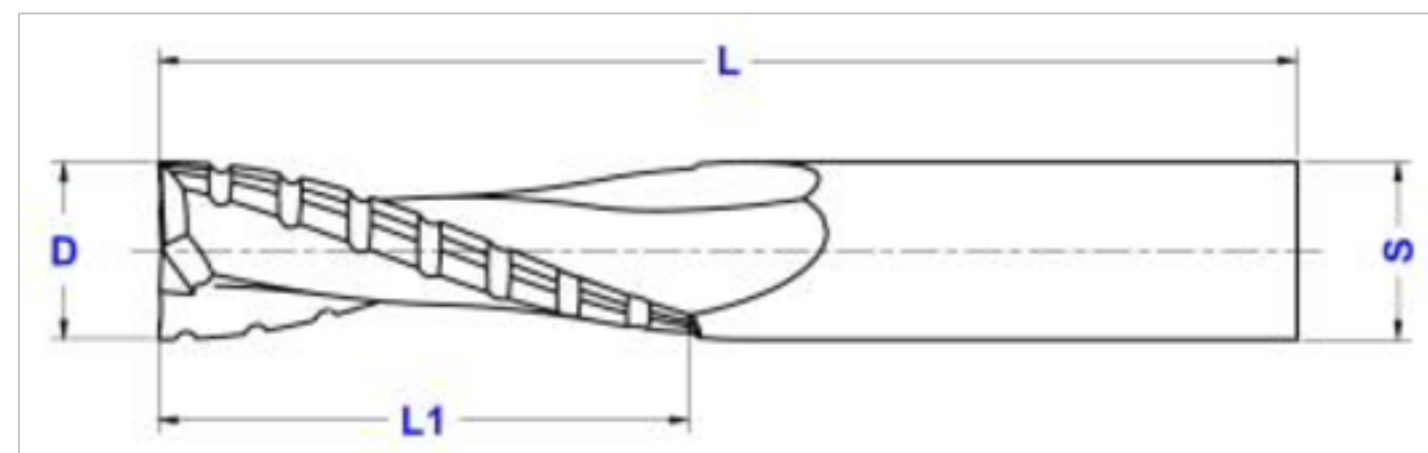
SW

MDF

PW

PY

Z=2



D	L1	L	s	Z
6	22	70	6	2
8	22	70	8	2
8	32	80	8	2
10	32	80	10	2
10	42	90	10	2
10	52	100	10	2
12	32	80	12	2
12	42	90	12	2
12	52	100	12	2
14	42	90	14	2
14	52	100	14	2
16	32	80	16	2
16	42	90	16	2
16	52	100	16	2
16	62	110	16	2
16	72	120	16	2
18	52	100	18	2
18	72	120	18	2
20	52	100	20	2
20	72	120	20	2
20	82	130	20	2
20	100	150	20	2

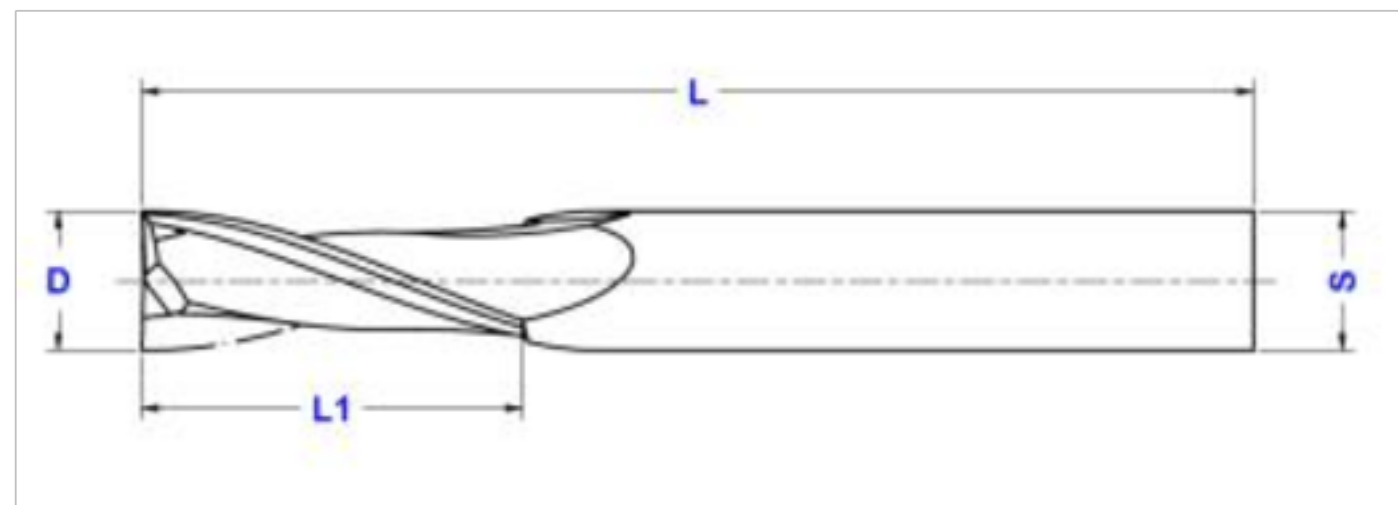


SW

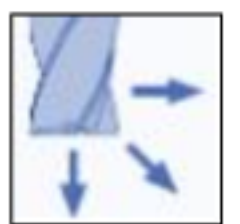


2 flute spiral router bit.  
 For CNC machines and for portable routers.  
 For soft wood.  
 Feed rate: 2-10 m/min of 18 000 - 24 000 RPM.  
**Finishing operation.**

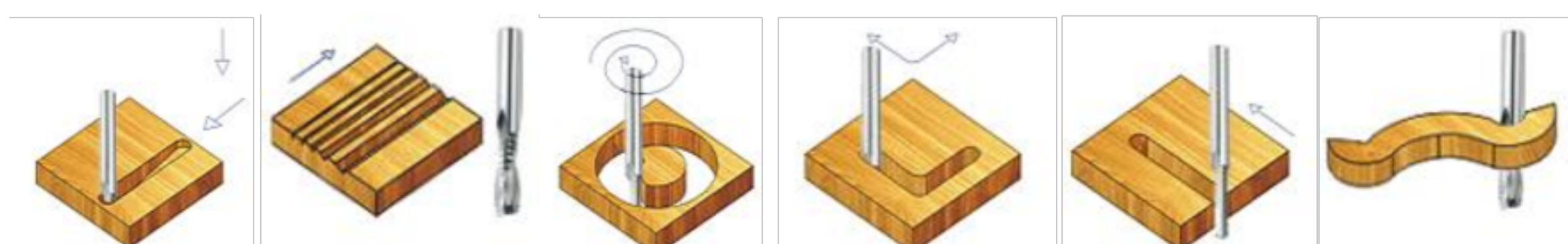
### For soft wood



Z=2



D	L <sub>1</sub>	L	s	Z
3	12	50	3	2
4	12	50	4	2
5	17	70	5	2
6	22	70	6	2
8	22	70	8	2
8	32	80	8	2
10	32	80	10	2
10	42	90	10	2
10	52	100	10	2
12	32	80	12	2
12	42	90	12	2
12	52	100	12	2
14	42	90	14	2
14	52	100	14	2
16	32	80	16	2
16	42	90	16	2
16	52	100	16	2
16	62	110	16	2
16	72	120	16	2
18	52	100	18	2
18	72	120	18	2
20	52	100	20	2
20	72	120	20	2
20	82	130	20	2
20	100	150	20	2



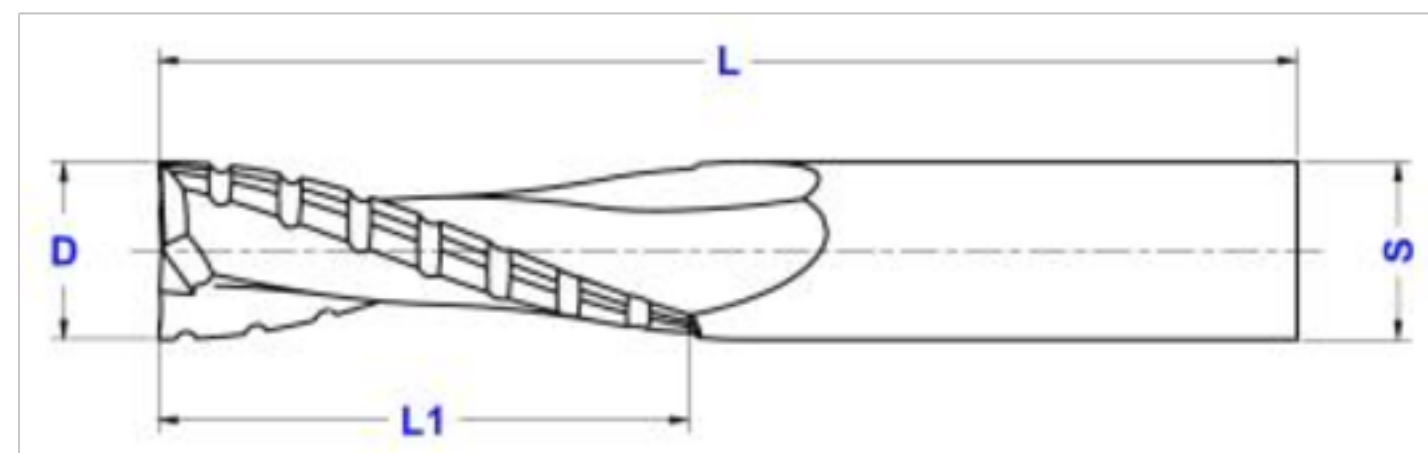
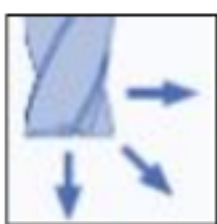
2 flute spiral router bits with chipbreaker.  
 For CNC machines and portable routers.  
 For soft wood.  
 Feed rate: 2-10 m/min of 18 000 - 24 000 RPM.  
**Finishing operation.**

SW

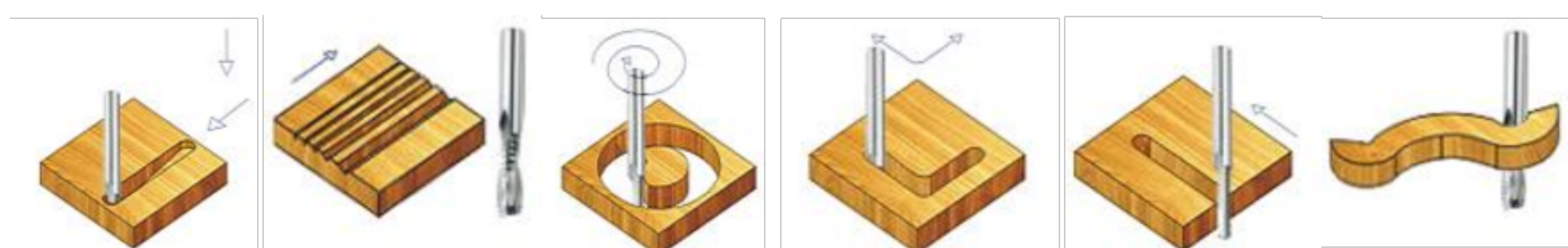


**For soft wood**

Z=2



D	L1	L	s	Z
6	22	70	6	2
8	22	70	8	2
8	32	80	8	2
10	32	80	10	2
10	42	90	10	2
10	52	100	10	2
12	32	80	12	2
12	42	90	12	2
12	52	100	12	2
14	42	90	14	2
14	52	100	14	2
16	32	80	16	2
16	42	90	16	2
16	52	100	16	2
16	62	110	16	2
16	72	120	16	2
18	52	100	18	2
18	72	120	18	2
20	52	100	20	2
20	72	120	20	2
20	82	130	20	2
20	100	150	20	2





SW

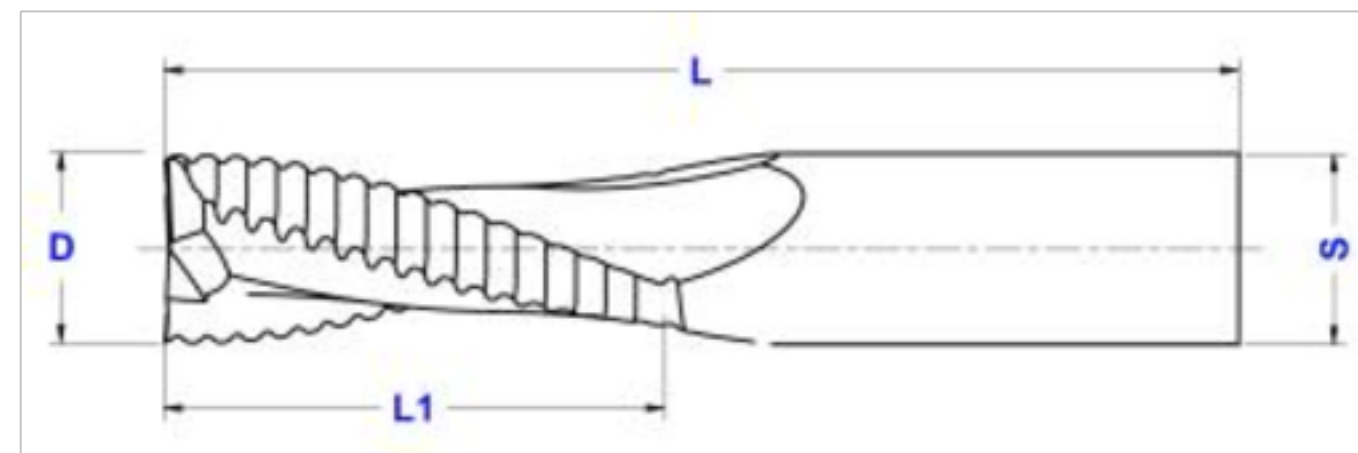
MDF

PW

PY



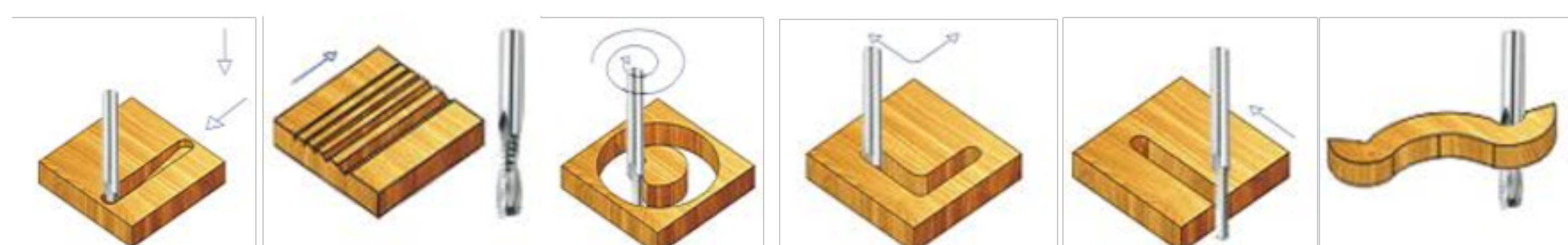
2 flute spiral router bit.  
For CNC machines and for portable routers. For wood, plastic materials.  
Feed rates 2-10 m/min of 18 000 - 24 000 RPM.  
**Roughing operations.**



Z=2



D	L1	L	s	Z
6	22	70	6	2
8	22	70	8	2
8	32	80	8	2
10	32	80	10	2
10	42	90	10	2
10	52	100	10	2
12	32	80	12	2
12	42	90	12	2
12	52	100	12	2
14	42	90	14	2
14	52	100	14	2
16	32	80	16	2
16	42	90	16	2
16	52	100	16	2
16	62	110	16	2
16	72	120	16	2
18	52	100	18	2
18	72	120	18	2
20	52	100	20	2
20	72	120	20	2
20	85	130	20	2
20	100	150	20	2



3 flute spiral router.

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

Feed rate 2-16 m/min of 18 000 - 24 000 RPM.

Finishing operation.

SW

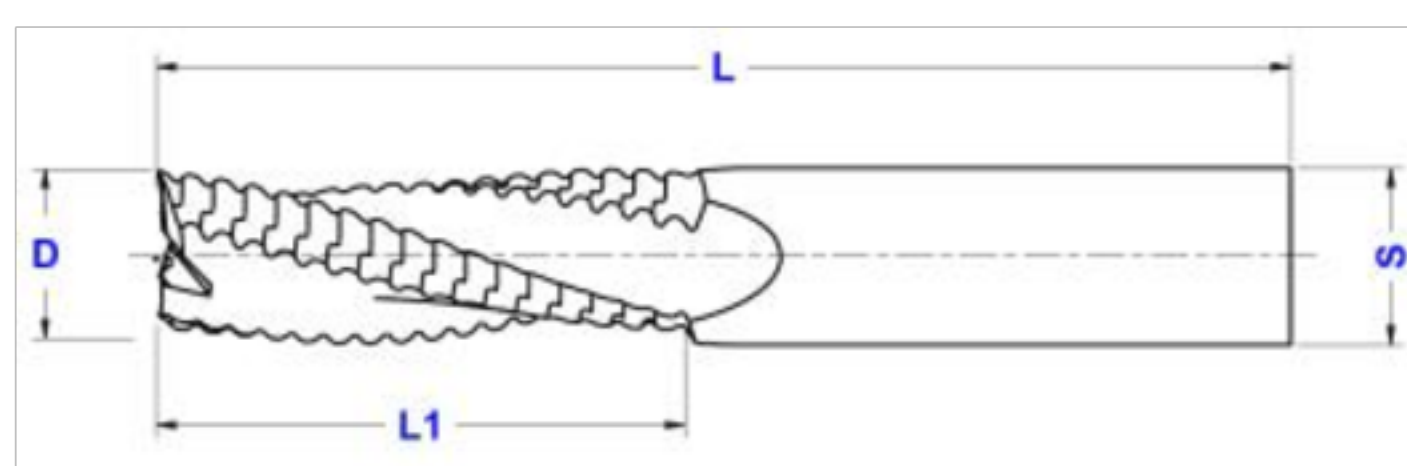
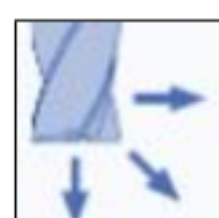
MDF

PW

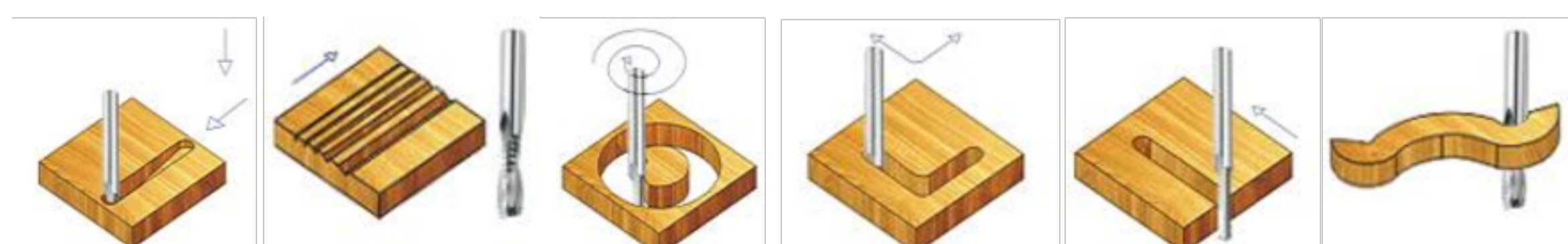
PY



Z=3



D	L1	L	s	Z
6	22	70	6	3
8	22	70	8	3
8	32	80	8	3
10	32	80	10	3
10	42	90	10	3
10	52	100	10	3
12	32	80	12	3
12	42	90	12	3
12	52	100	12	3
14	42	90	14	3
14	52	100	14	3
16	32	80	16	3
16	42	90	16	3
16	52	100	16	3
16	62	110	16	3
16	72	120	16	3
18	52	100	18	3
18	72	120	18	3
20	52	100	20	3
20	72	120	20	3
20	85	130	20	3
20	100	150	20	3
25	100	150	25	3



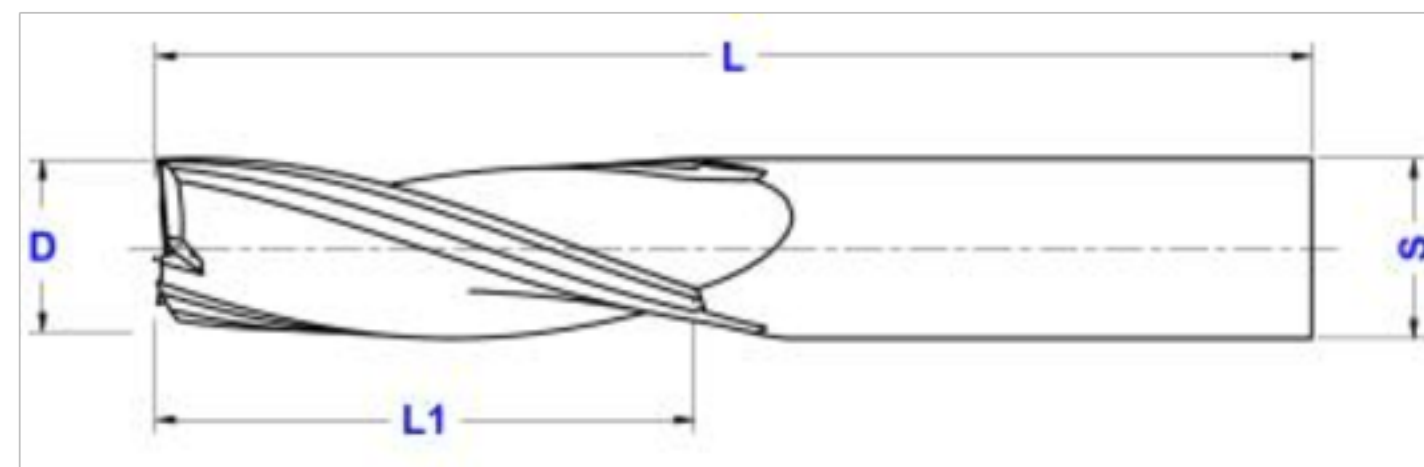


SW



3-flute spiral router bit.  
 For CNC machines and for portable routers. For soft wood,  
 plastic materials.  
 Feed rate 2-10 m/min of 18 000 - 24 000 RPM.  
**Finishing operation.**

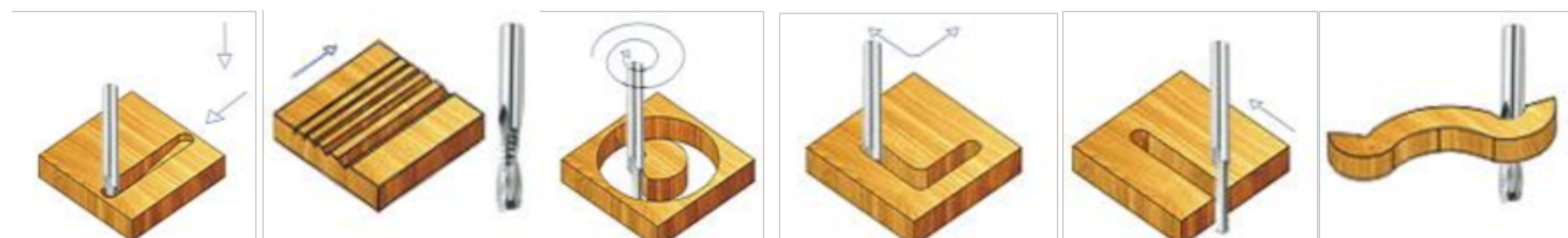
### For soft wood



Z=3



D	L1	L	s	Z
6	22	70	6	3
8	22	70	8	3
8	32	80	8	3
10	32	80	10	3
10	42	90	10	3
10	52	100	10	3
12	32	80	12	3
12	42	90	12	3
12	52	100	12	3
14	42	90	14	3
14	52	100	14	3
16	32	80	16	3
16	42	90	16	3
16	52	100	16	3
16	62	110	16	3
16	72	120	16	3
18	52	100	18	3
18	72	120	18	3
20	52	100	20	3
20	72	120	20	3
20	85	130	20	3
20	100	150	20	3
25	100	150	25	3



3 flute spiral router bit with chipbreaker for soft wood materials.

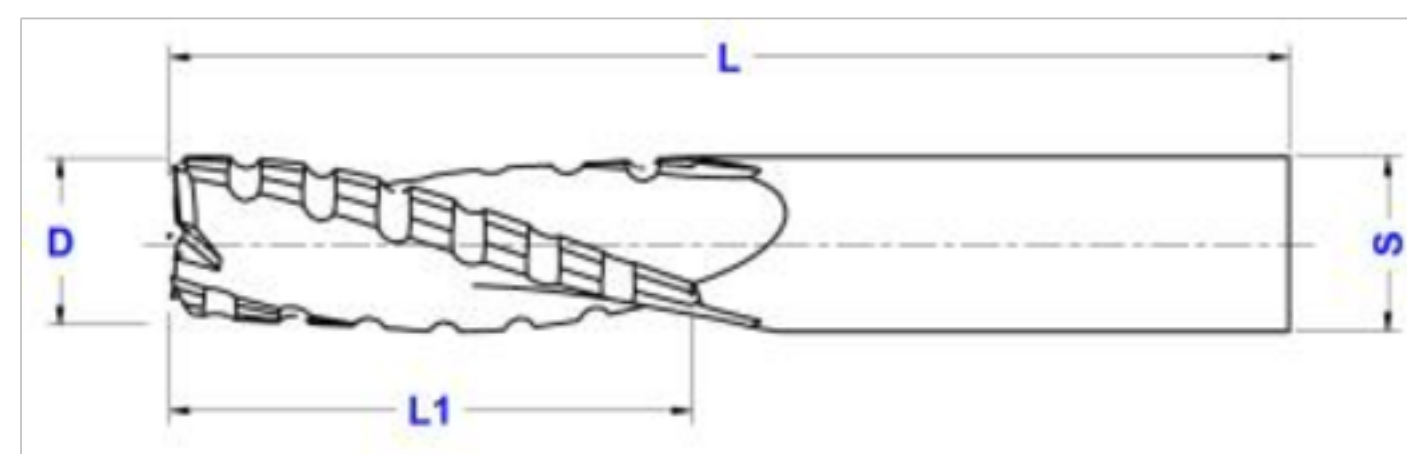
For CNC machines and for portable routers. For soft wood, Feed rate 2-16 m/min of 18 000 - 24 000 RPM.

Finishing operation.

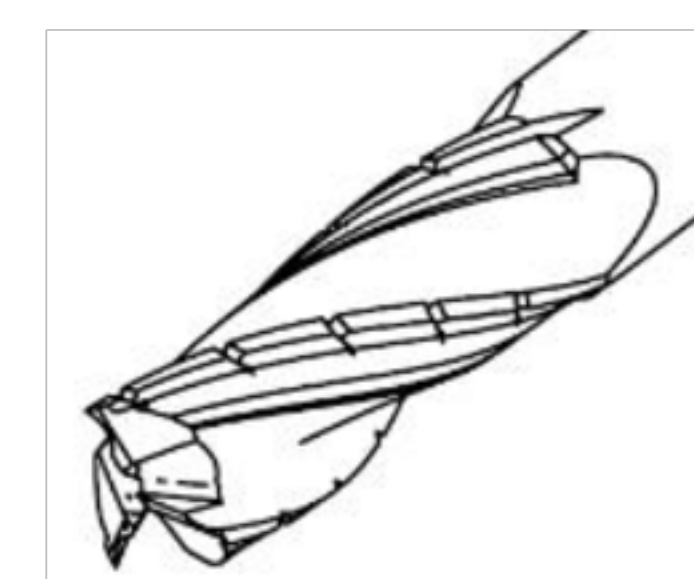
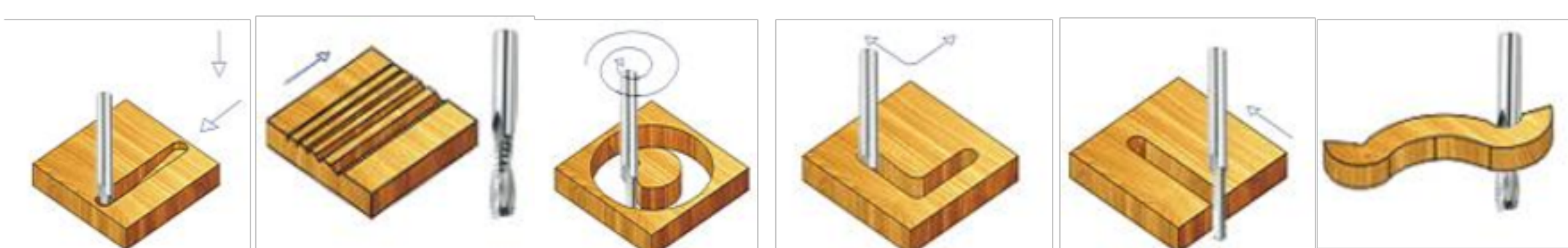
SW

**For soft wood**

Z=3



D	L1	L	s	Z
6	22	70	6	3
8	22	70	8	3
8	32	80	8	3
10	32	80	10	3
10	42	90	10	3
10	52	100	10	3
12	32	80	12	3
12	42	90	12	3
12	52	100	12	3
14	42	90	14	3
14	52	100	14	3
16	32	80	16	3
16	42	90	16	3
16	52	100	16	3
16	62	110	16	3
16	72	120	16	3
18	52	100	18	3
18	72	120	18	3
20	52	100	20	3
20	72	120	20	3
20	85	130	20	3
20	100	150	20	3
25	100	150	25	3





SW

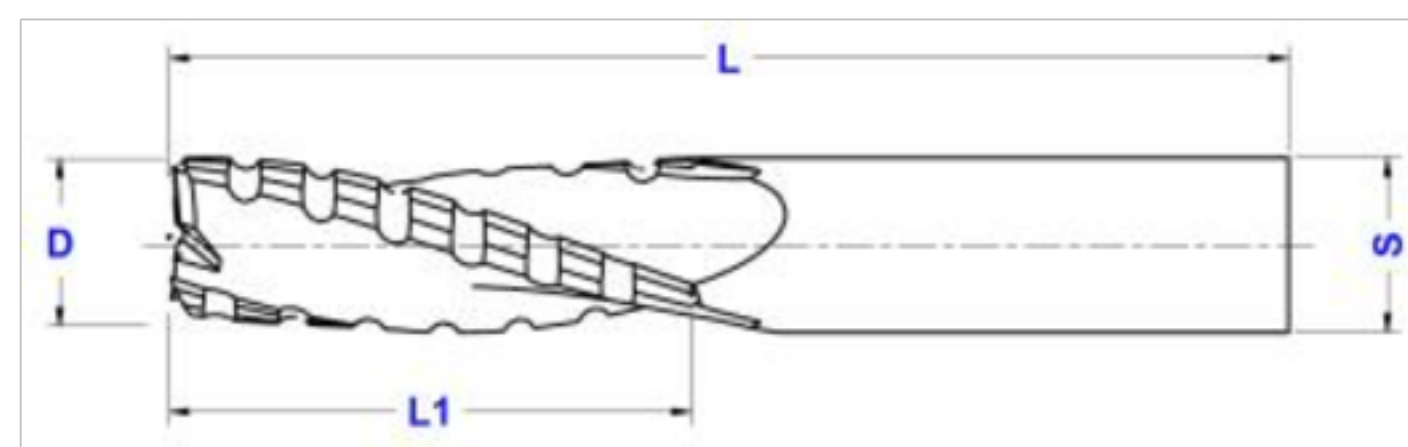
MDF

PW

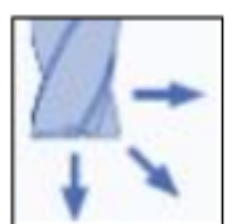
PY



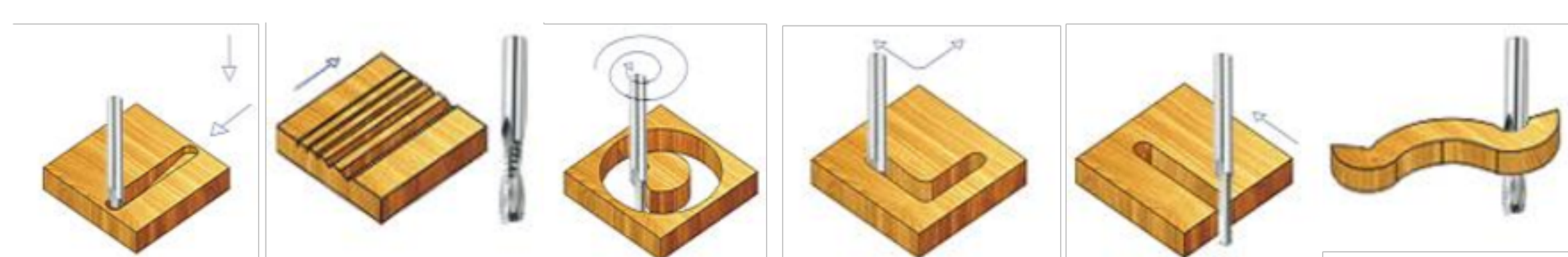
3 flute spiral router bit with chipbeaker.  
 For CNC machines and for portable routers. For wood,  
 plastic materials.  
 Feed rate 2-10 m/min of 18 000 - 24 000 RPM.  
**Finishing operations.**



Z=3



D	L1	L	s	Z
6	22	70	6	3
8	22	70	8	3
8	32	80	8	3
10	32	80	10	3
10	42	90	10	3
10	52	100	10	3
12	32	80	12	3
12	42	90	12	3
12	52	100	12	3
14	42	90	14	3
14	52	100	14	3
16	32	80	16	3
16	42	90	16	3
16	52	100	16	3
16	62	110	16	3
16	72	120	16	3
18	52	100	18	3
18	72	120	18	3
20	52	100	20	3
20	72	120	20	3
20	85	130	20	3
20	100	150	20	3
25	100	150	25	3



**Roughing 3-flute spiral router**

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

Feed rates from 2-16 m/min of 18 000 - 24 000 RPM.

**Roughing operations.**

SW

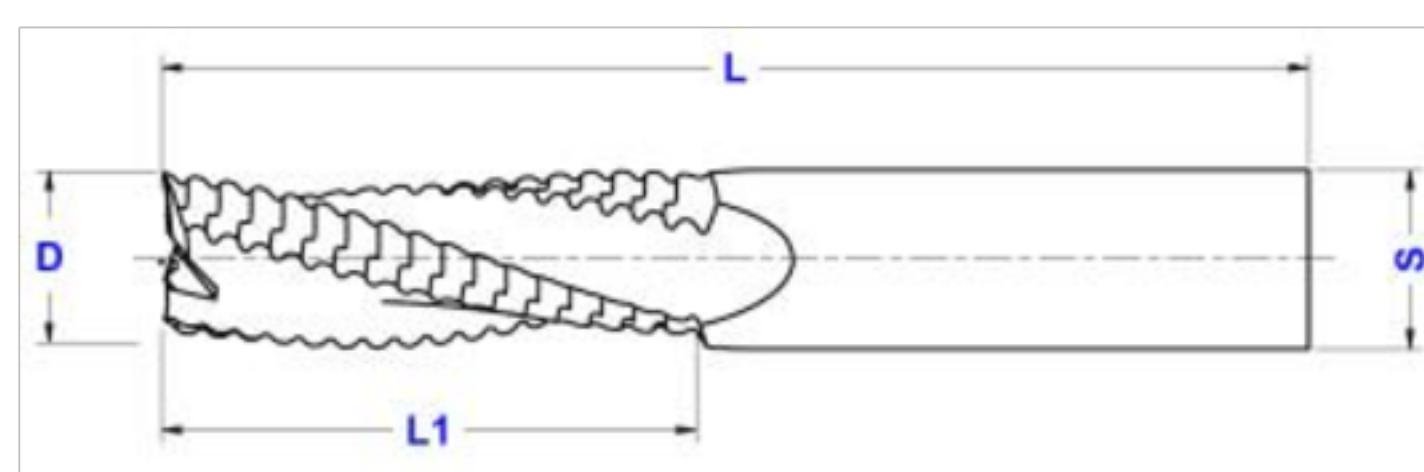
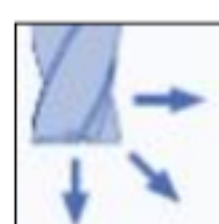
MDF

PW

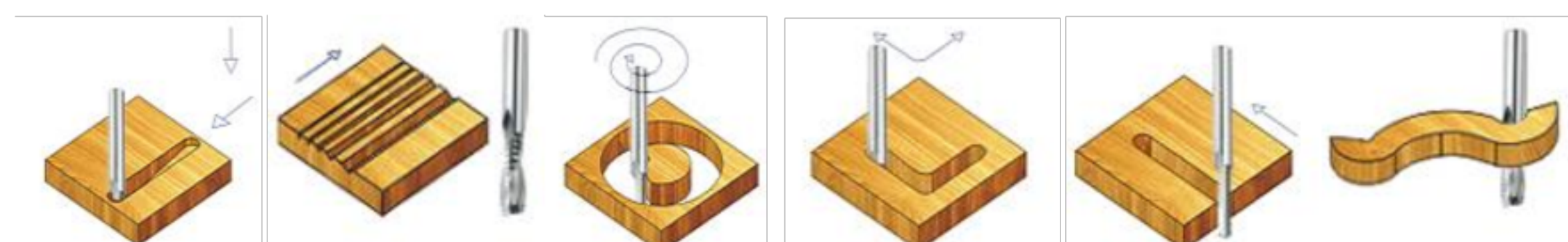
PY



Z=3



D	L1	L	s	Z
6	22	70	6	3
8	22	70	8	3
8	32	80	8	3
10	32	80	10	3
10	42	90	10	3
10	52	100	10	3
12	32	80	12	3
12	42	90	12	3
12	52	100	12	3
14	42	90	14	3
14	52	100	14	3
16	32	80	16	3
16	42	90	16	3
16	52	100	16	3
16	62	110	16	3
16	72	120	16	3
18	52	100	18	3
18	72	120	18	3
20	52	100	20	3
20	72	120	20	3
20	85	130	20	3
20	100	150	20	3
25	100	150	25	3





SW

MDF

PW

PY

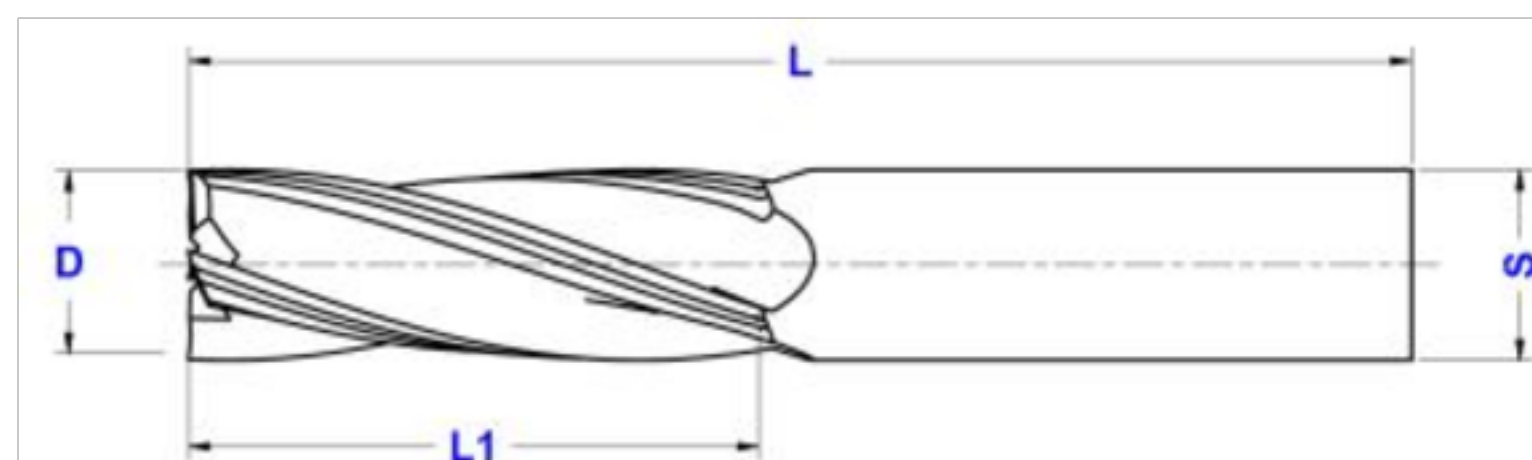


4 flute spiral router bit.

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

Feed rate 2-16 m/min of  
18 000 - 24 000 RPM.

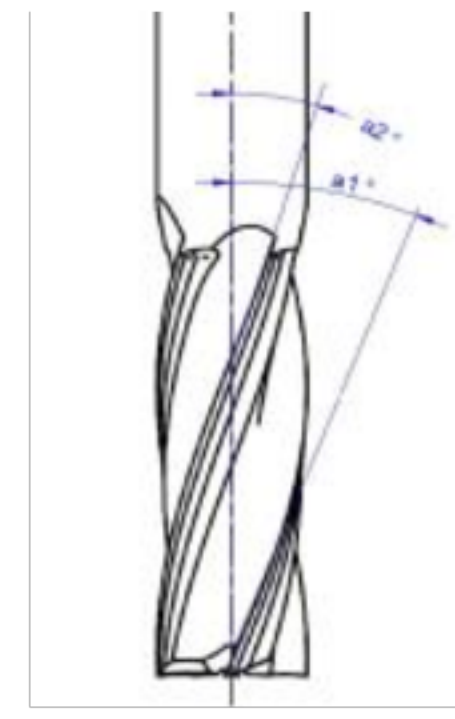
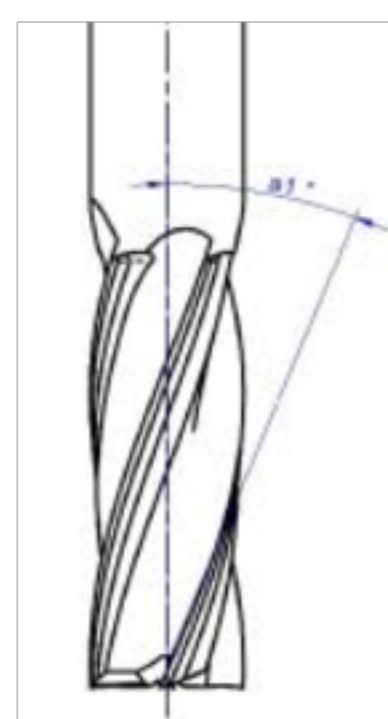
Finishing operations.



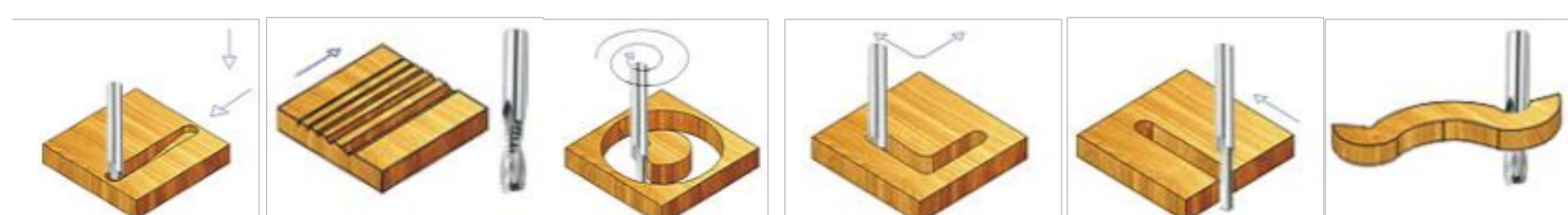
Z=4



D	L1	L	s	Z
10	32	80	10	4
10	42	90	10	4
12	32	80	12	4
12	42	90	12	4
12	52	100	12	4
14	42	90	14	4
14	52	100	14	4
16	32	80	16	4
16	42	90	16	4
16	52	100	16	4
16	62	110	16	4
16	72	120	16	4
18	52	100	18	4
18	72	120	18	4
20	52	100	20	4
20	72	120	20	4
20	85	130	20	4
20	100	150	20	4
25	100	150	25	4



Router with variable spiral.  
Very high processing quality and silent operation without vibration.



# Spiral router 4-flute

# V402

4 flute spiral router (2 blade finishing + 2 blade with chipbreaker).

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

Feed rate 2-16 m/min of 18 000 - 24 000 RPM.

Finishing operations.

SW

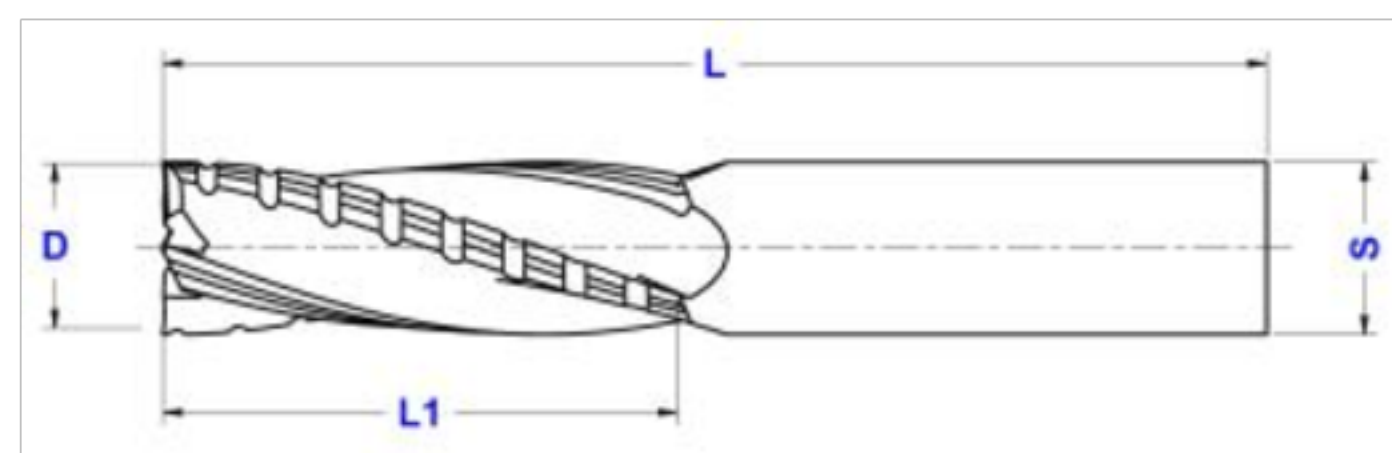
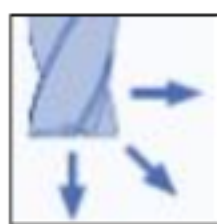
MDF

PW

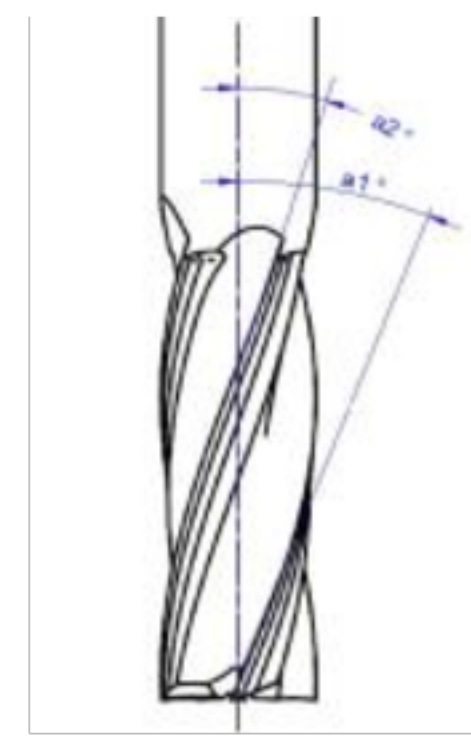
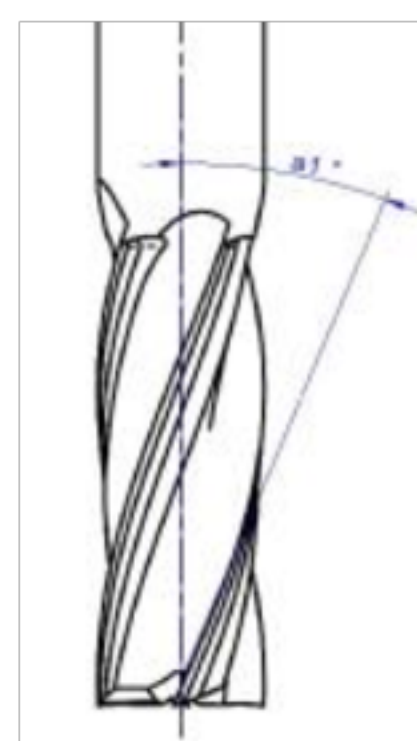
PY



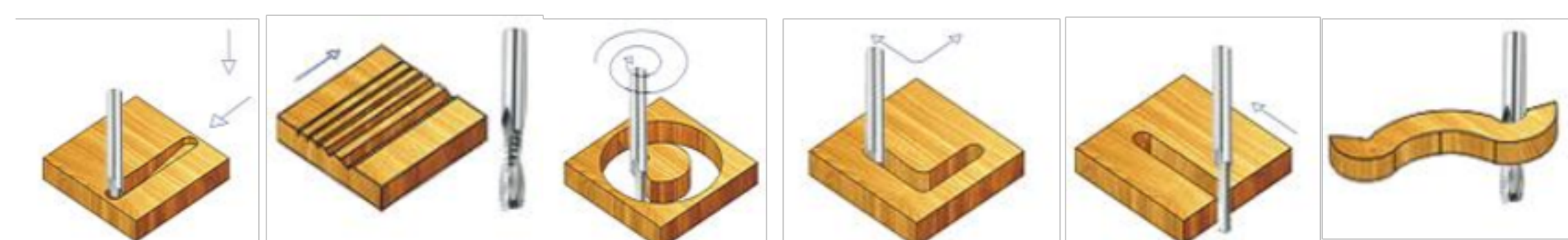
Z=4



D	L1	L	s	Z
10	32	80	10	4
10	42	90	10	4
12	32	80	12	4
12	42	90	12	4
12	52	100	12	4
14	42	90	14	4
14	52	100	14	4
16	32	80	16	4
16	42	90	16	4
16	52	100	16	4
16	62	110	16	4
16	72	120	16	4
18	52	100	18	4
18	72	120	18	4
20	52	100	20	4
20	72	120	20	4
20	85	130	20	4
20	100	150	20	4
25	100	150	25	4



Very high processing quality and silent operation without vibration.



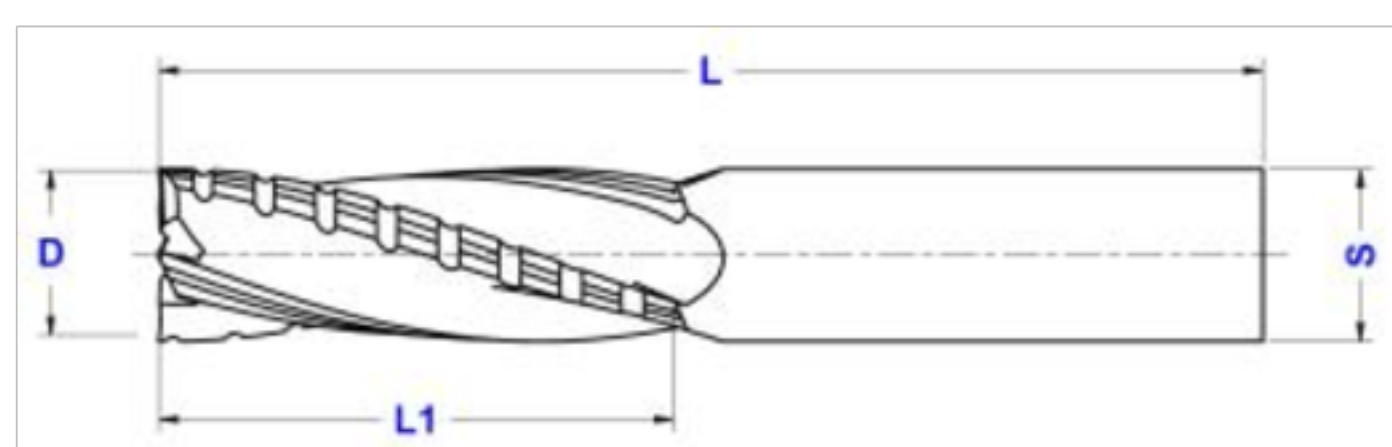


4 flute spiral router (2 blade finishing + 2 blade with chipbreaker).  
 For CNC machines and for portable routers. For wood and plastic materials.  
 Feed rate 2-16 m/min of 18 000 - 24 000 RPM.  
 Finishing operations.

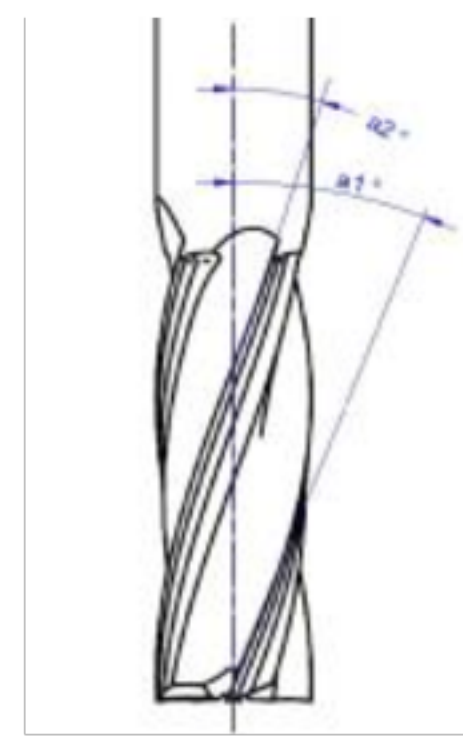
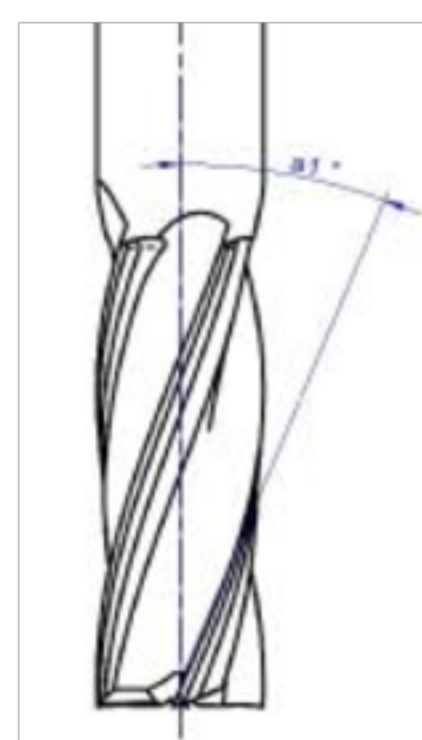


- SW
- MDF
- PW
- PY

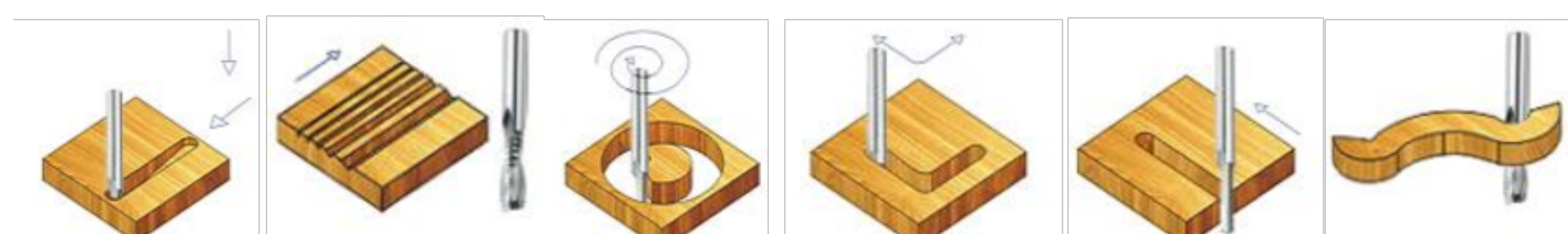
Z=4



D	L1	L	s	Z
10	32	80	10	4
10	42	90	10	4
12	32	80	12	4
12	42	90	12	4
12	52	100	12	4
14	42	90	14	4
14	52	100	14	4
16	32	80	16	4
16	42	90	16	4
16	52	100	16	4
16	62	110	16	4
16	72	120	16	4
18	52	100	18	4
18	72	120	18	4
20	52	100	20	4
20	72	120	20	4
20	85	130	20	4
20	100	150	20	4
25	100	150	25	4



Very high processing quality and silent operation without vibration.



SW

MDF

PW

PY

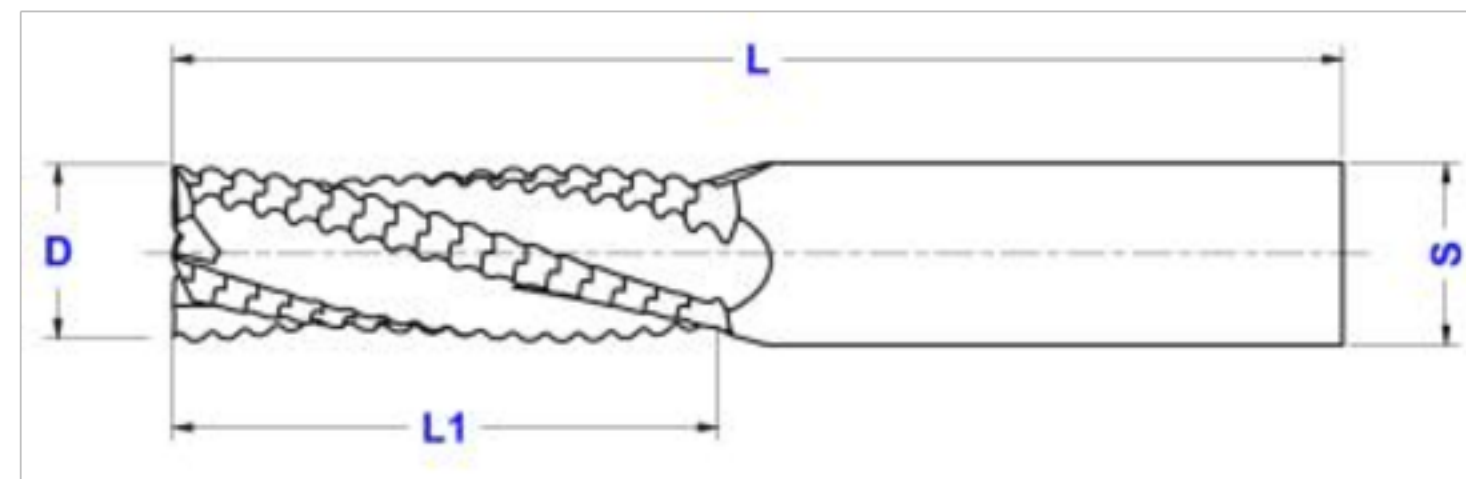


4 flute spiral router bit.

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

Feed rate 2-16 m/min of 18 000 - 24 000 RPM.

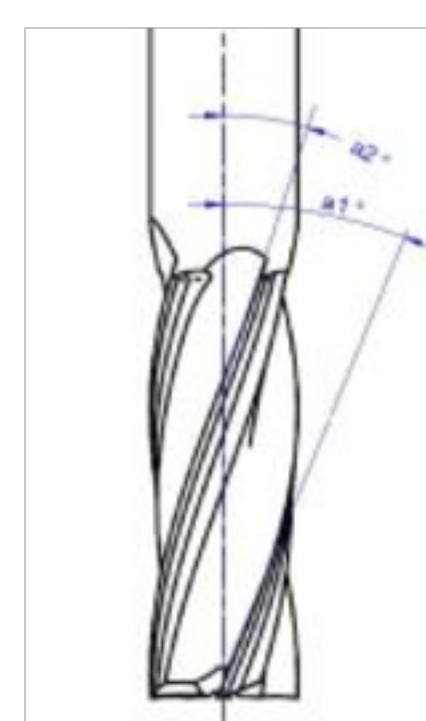
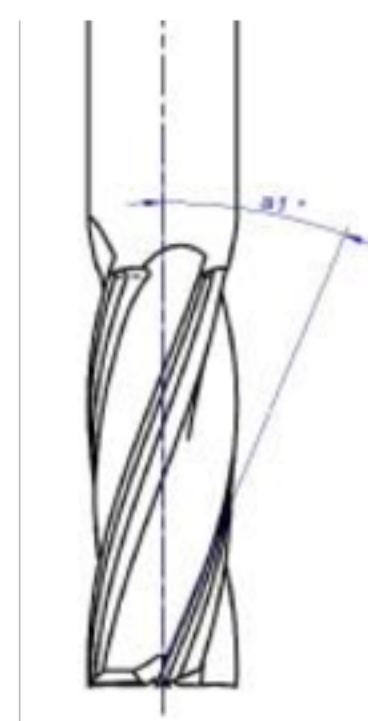
Roughing operations.



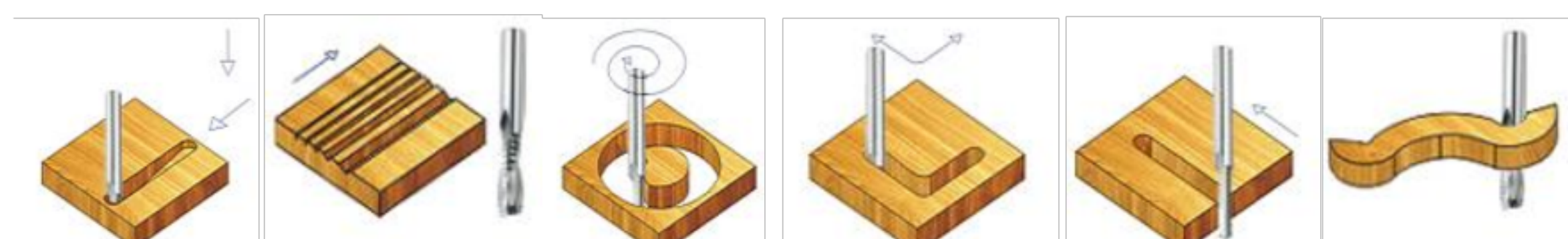
Z=4



D	L1	L	s	Z
10	32	80	10	4
10	42	90	10	4
12	32	80	12	4
12	42	90	12	4
12	52	100	12	4
14	42	90	14	4
14	52	100	14	4
16	32	80	16	4
16	42	90	16	4
16	52	100	16	4
16	62	110	16	4
16	72	120	16	4
18	52	100	18	4
18	72	120	18	4
20	52	100	20	4
20	72	120	20	4
20	85	130	20	4
20	100	150	20	4
25	100	150	25	4



Very high processing quality and silent operation without vibration.





# Spiral router 4-flute

# V404

4 flute spiral router (2 blade finishing + 2 blade with chipbreaker).  
 For CNC machines and for portable routers. For wood, plastic materials.  
 Feed rate 2-16 m/min of 18 000 - 24 000 RPM.  
**Finishing operation.**



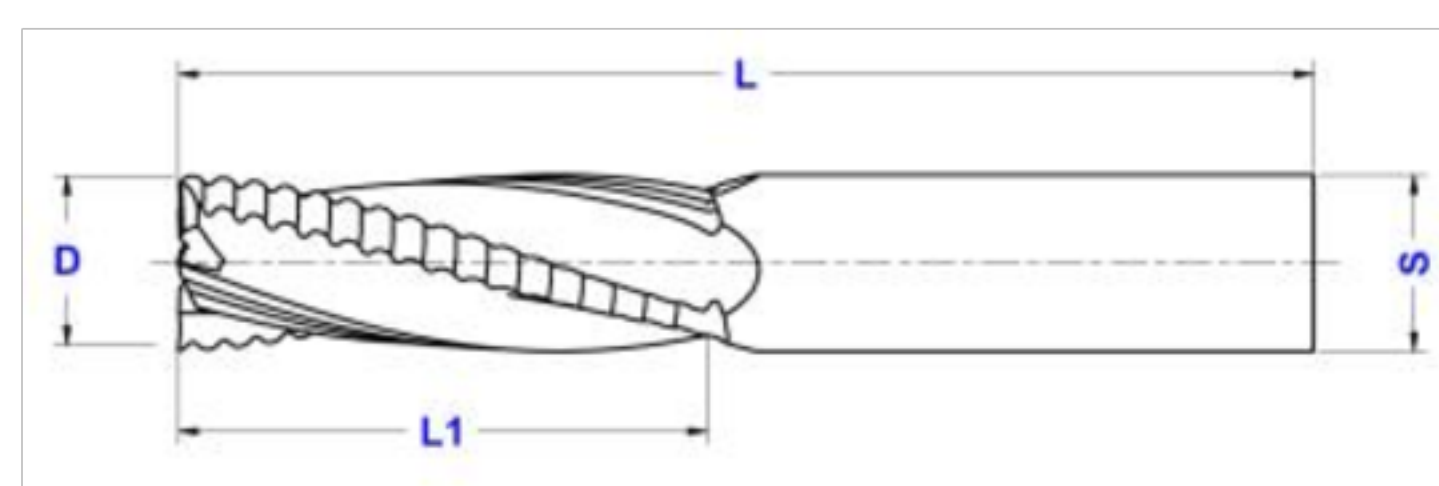
SW

MDF

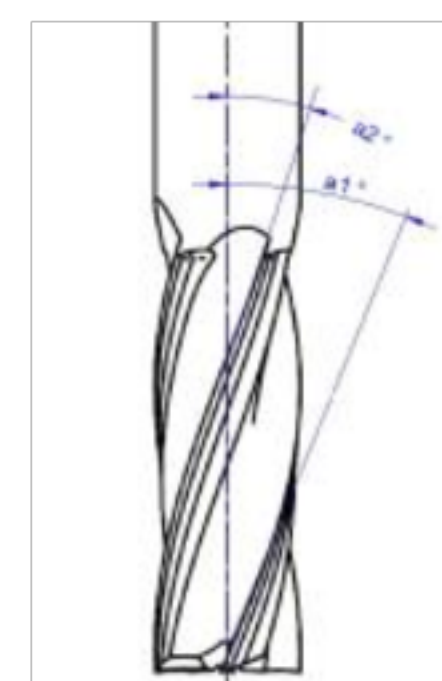
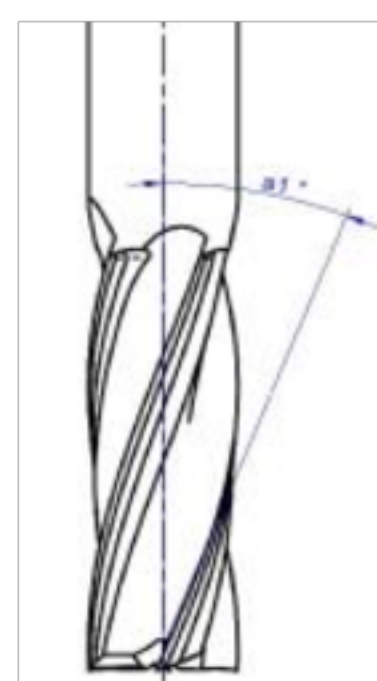
PW

PY

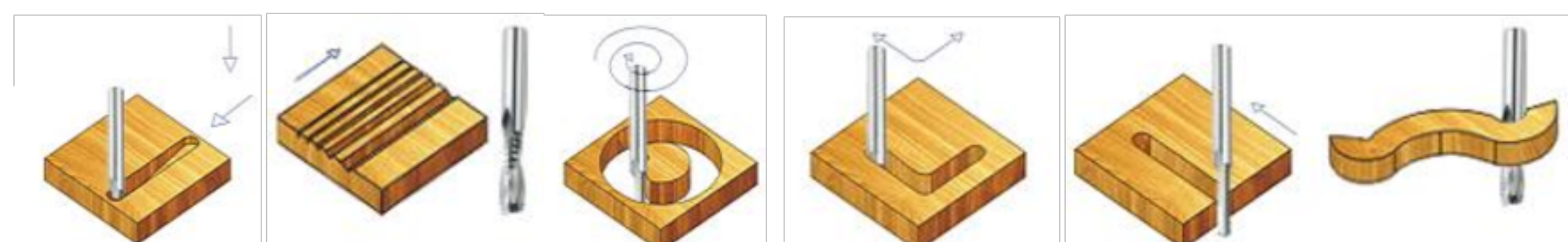
Z=4



D	L1	L	s	Z
10	32	80	10	4
10	42	90	10	4
12	32	80	12	4
12	42	90	12	4
12	52	100	12	4
14	42	90	14	4
14	52	100	14	4
16	32	80	16	4
16	42	90	16	4
16	52	100	16	4
16	62	110	16	4
16	72	120	16	4
18	52	100	18	4
18	72	120	18	4
20	52	100	20	4
20	72	120	20	4
20	85	130	20	4
20	100	150	20	4
25	100	150	25	4



Very high processing quality and silent operation without vibration.



# V501 – 501W

Door locks router 3-flute

SW

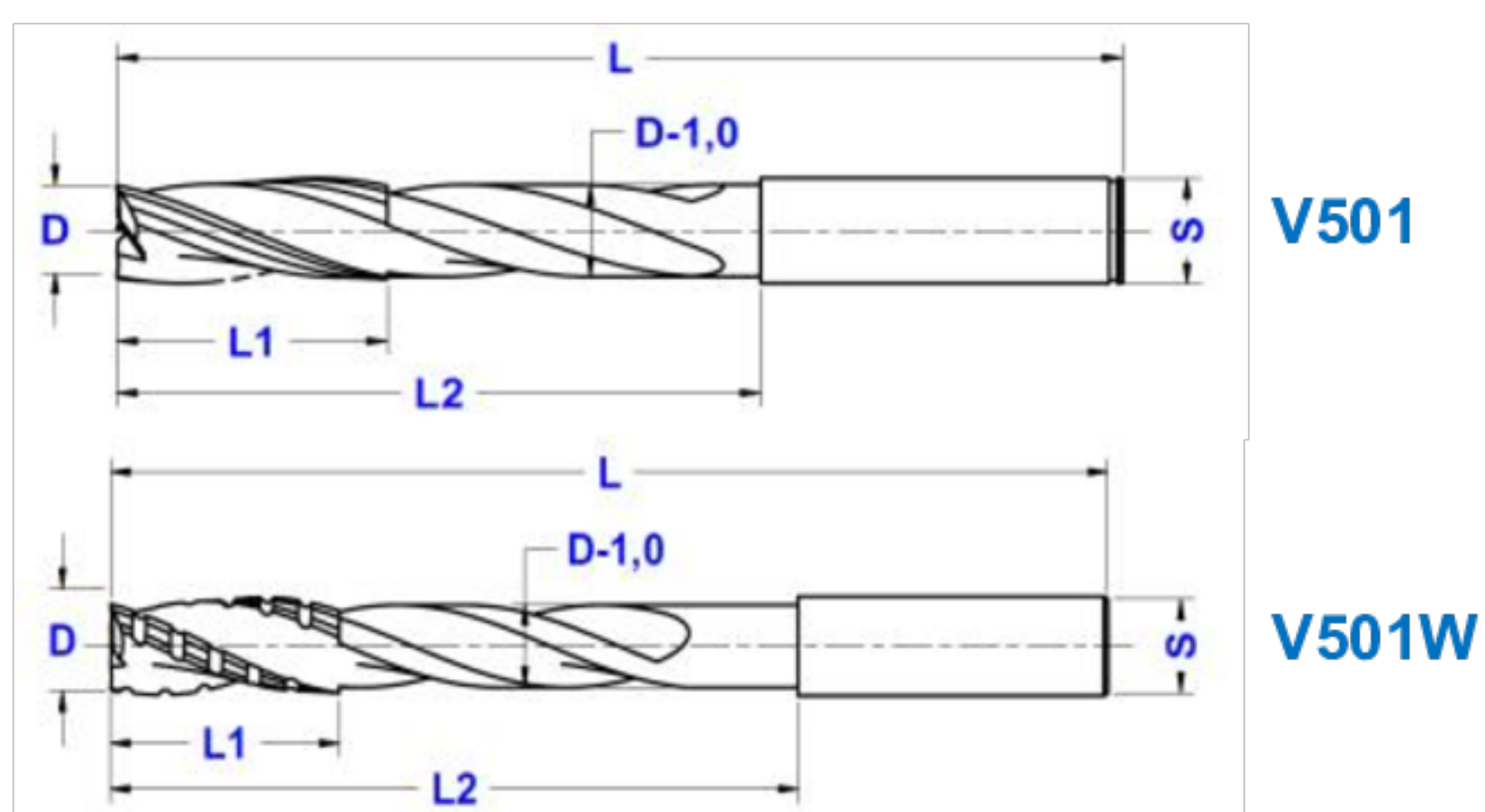
MDF

PW

PY



3 flute spiral router bit for door locks.  
For CNC machines. For wood materials.  
Feed rate 4-10 m/min of 18 000 - 24 000 RPM.  
Finishing operations.



Z=3



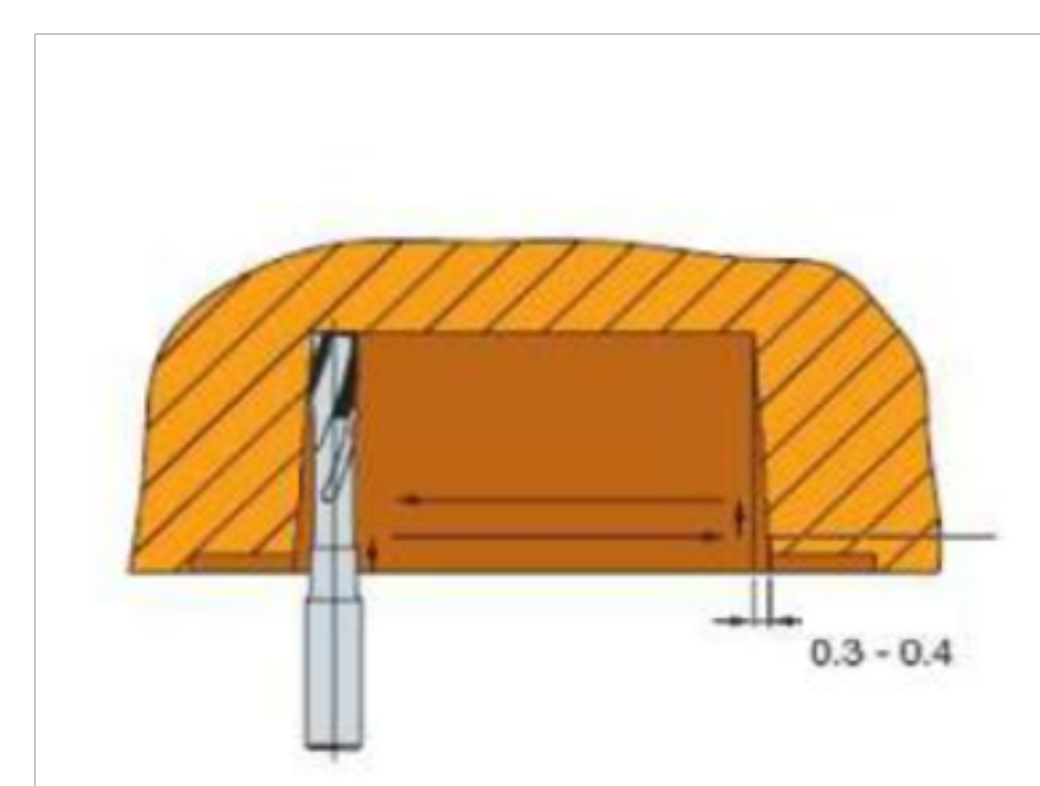
D	L1/L2	L	s	Z
12	40/95	150	12	3
14	40/95	150	14	3
14	40/105	170	14	3
16	40/95	150	16	3
16	40/105	170	16	3
18	40/95	150	18	3
18	40/105	170	18	3
20	40/95	150	20	3
20	40/105	170	20	3

D	L1/L2	L	s	Z
12	40/95	150	12	3
14	40/95	150	14	3
14	40/105	170	14	3
16	40/95	150	16	3
16	40/105	170	16	3
18	40/95	150	18	3
18	40/105	170	18	3
20	40/95	150	20	3
20	40/105	170	20	3



## V501 ... CHB

additional chipbreaker on the top of tool improves the drilling work.





3 flute spiral router bit for door-locks.  
 For CNC machines for door-locks. For wood materials.  
 Feed rate 4-10 m/min of 18 000 - 24 000 RPM.  
**Roughing operations.**



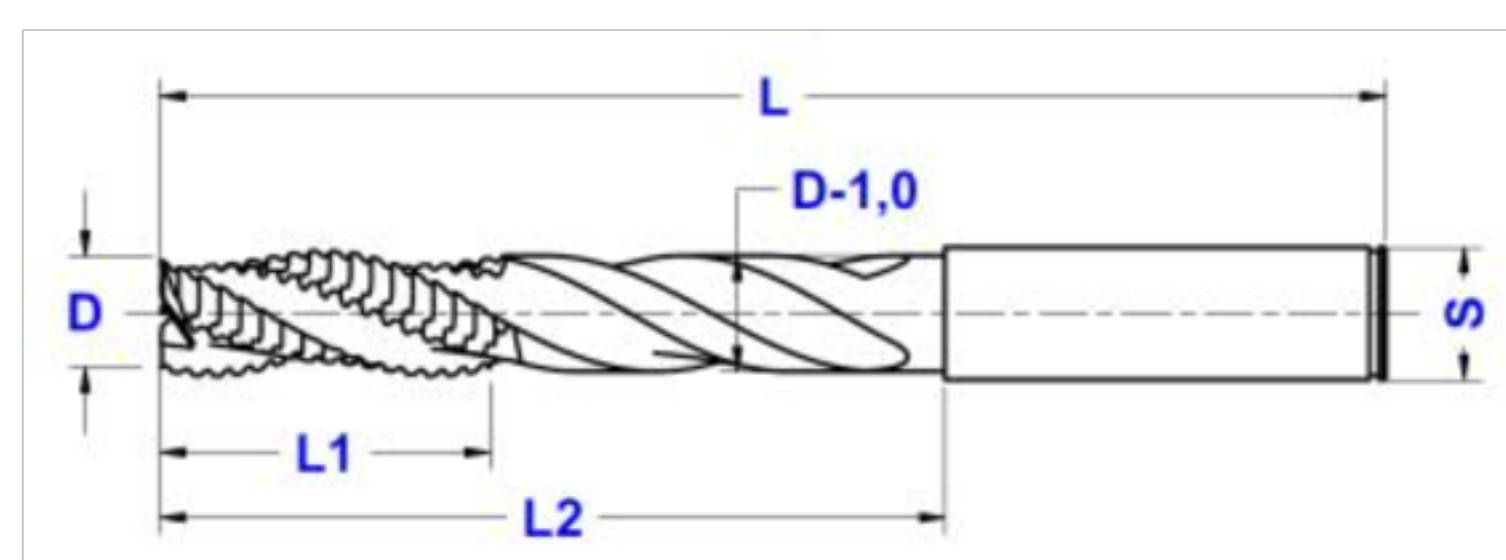
SW

MDF

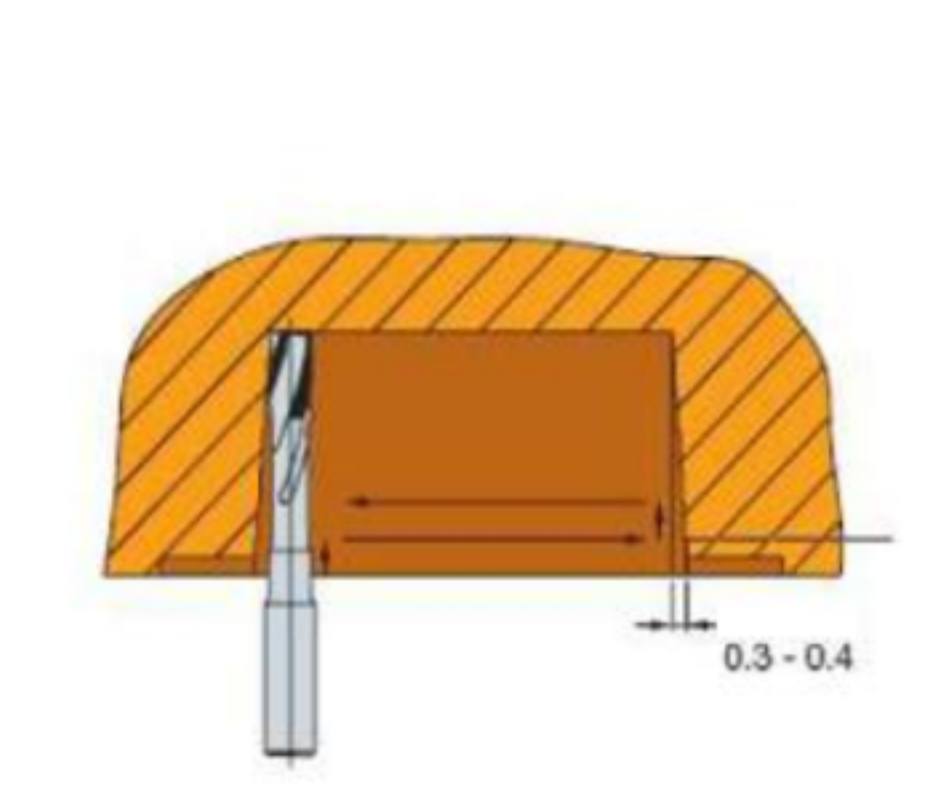
PW

PY

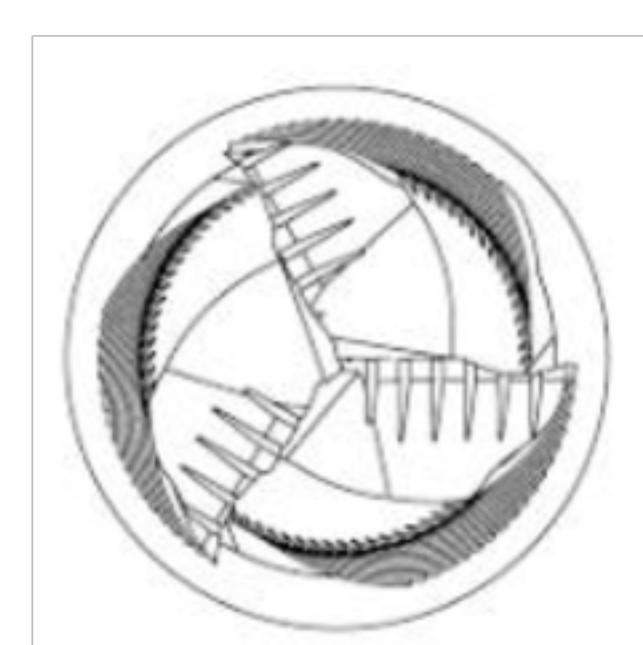
Z=3



D	L1/L2	L	s	Z
12	40/95	150	12	3
14	40/95	150	14	3
14	40/105	170	14	3
16	40/95	150	16	3
16	40/105	170	16	3
18	40/95	150	18	3
18	40/105	170	18	3
20	40/95	150	20	3
20	40/105	170	20	3



V502 ... GL



V502 ... CHB

6 mm length of finishing blade from top.

additional chipbreaker on the top of tool improves the drilling work.

SW

MDF

PW

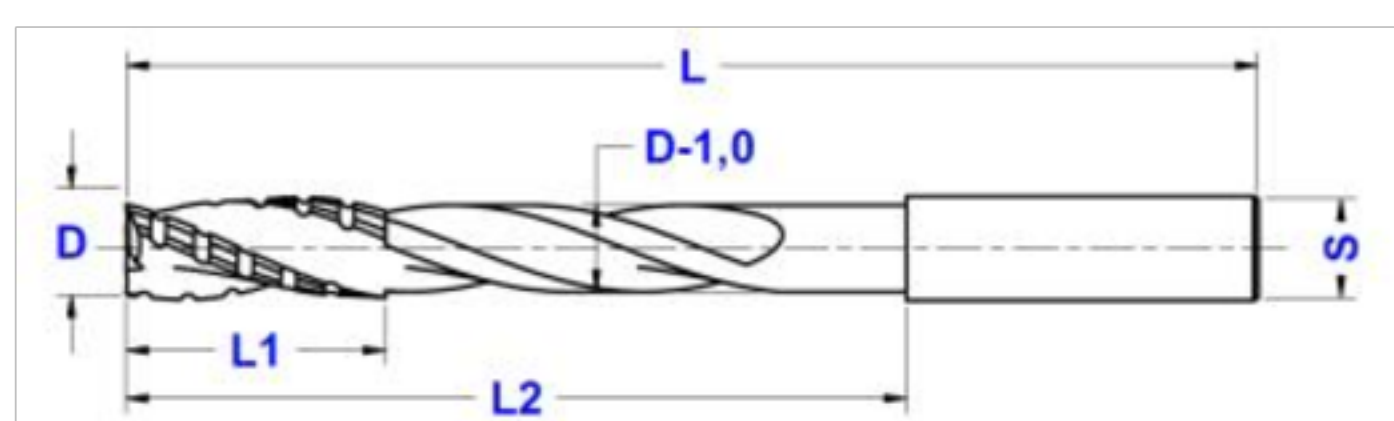
PY

3 flute spiral router.

For CNC machines for door-locks. For wood material.

Feed rate 4-10 m/min of 18 000 - 24 000 RPM.

Finishing operation.



Z=3

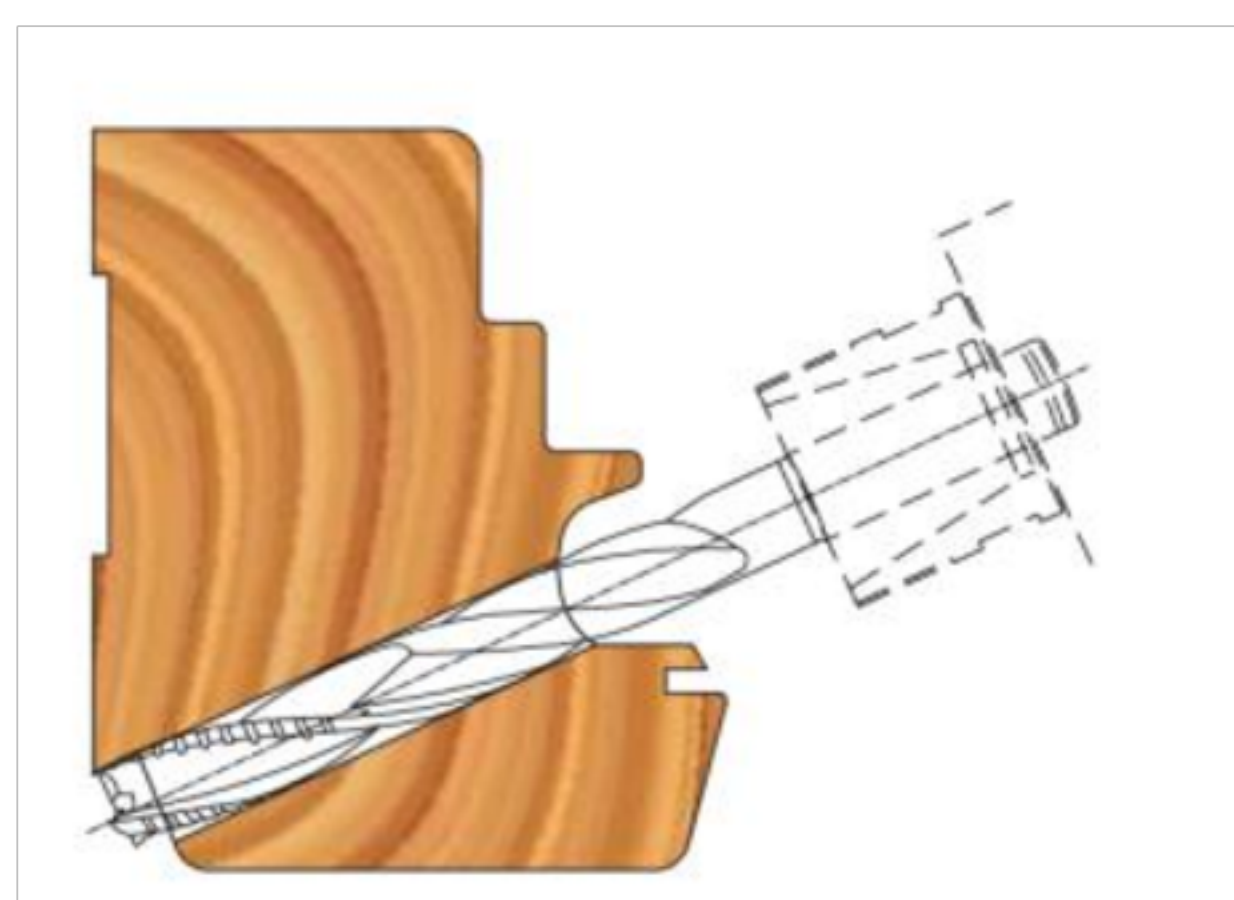


D	L1	L	s	Z
8	30/80	115	8	3
8	30/95	130	8	3
10	30/80	115	10	3
10	30/95	130	10	3
12	30/80	115	12	3
12	30/95	130	12	3



Special dimension on request

Router bits in **INCH** dimension on request





2 flute spiral router bit for door.  
 For CNC machines. For wood material.  
 Feed rate 4 – 10 m/min of 18 000 - 24 000 RPM.  
 Finishing operation.

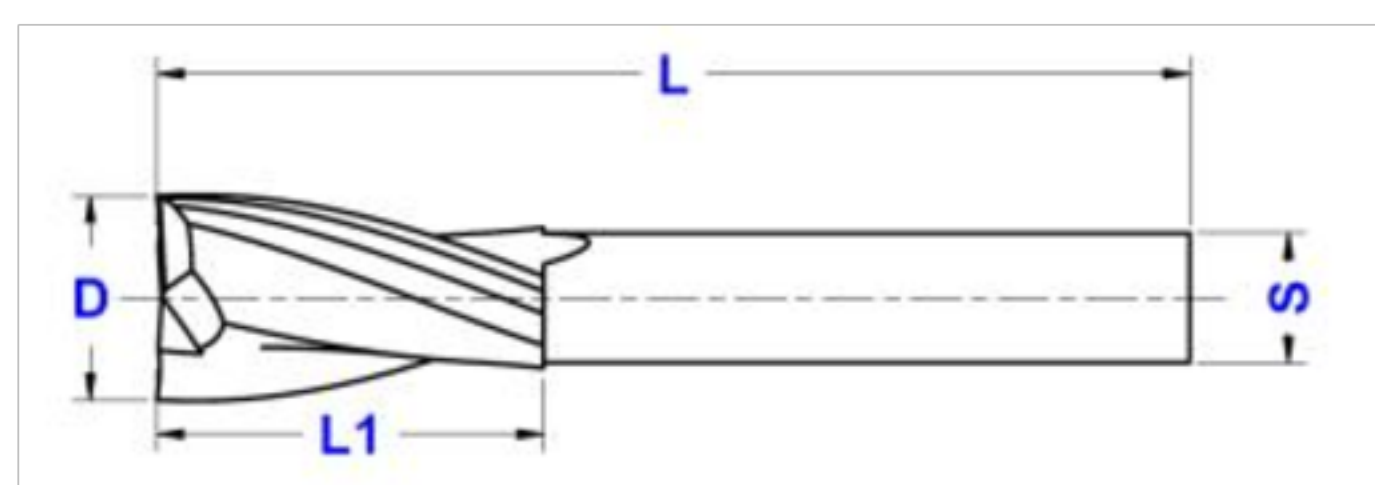
SW

MDF

PW

PY

Router for wood



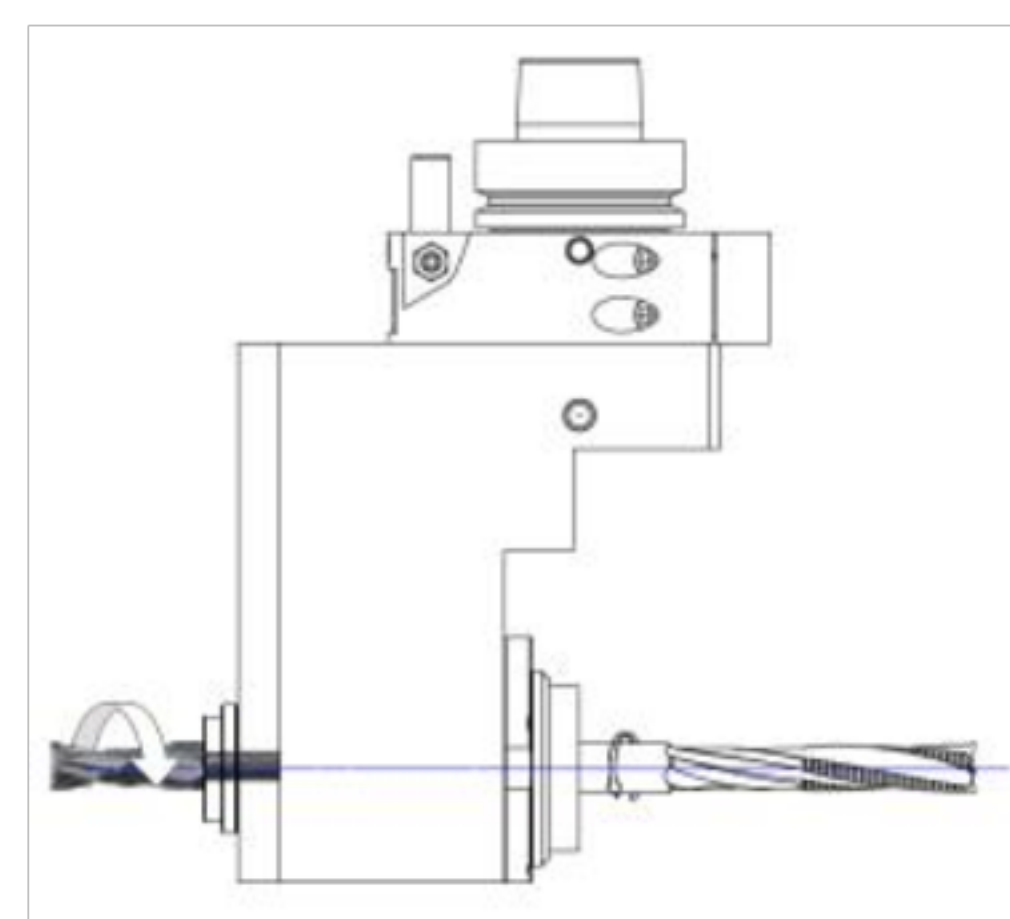
Z=2



D	L1	L	s	Z
10	30	80	10	2
12	30	80	10	2
14	30	80	10	2

Special dimension on request

Router bits in **INCH** dimension on request

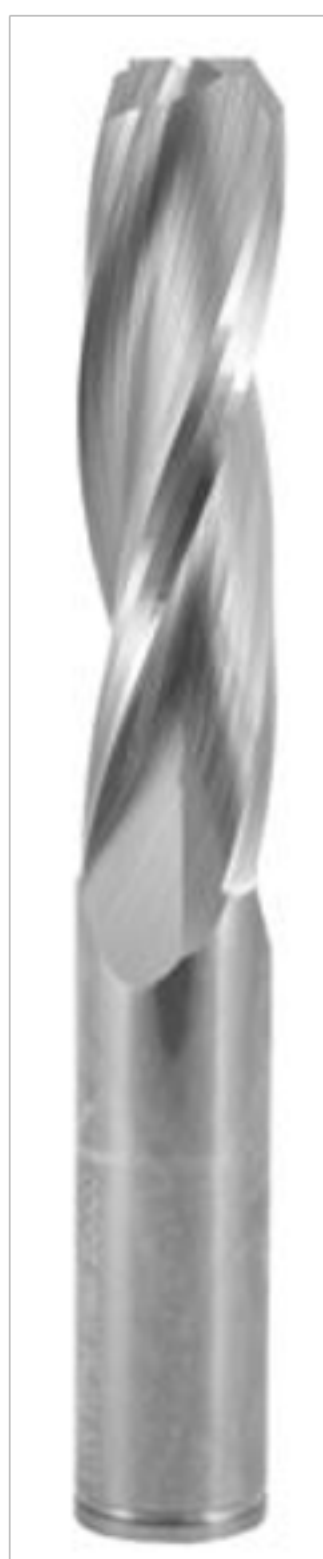


SW

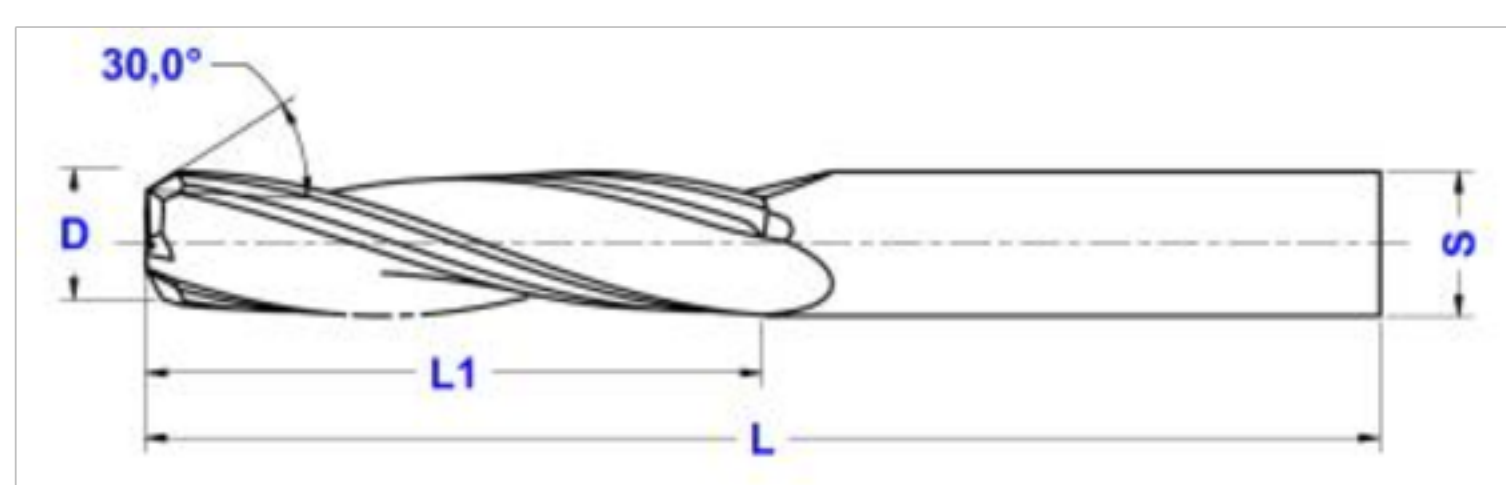
MDF

PW

PY



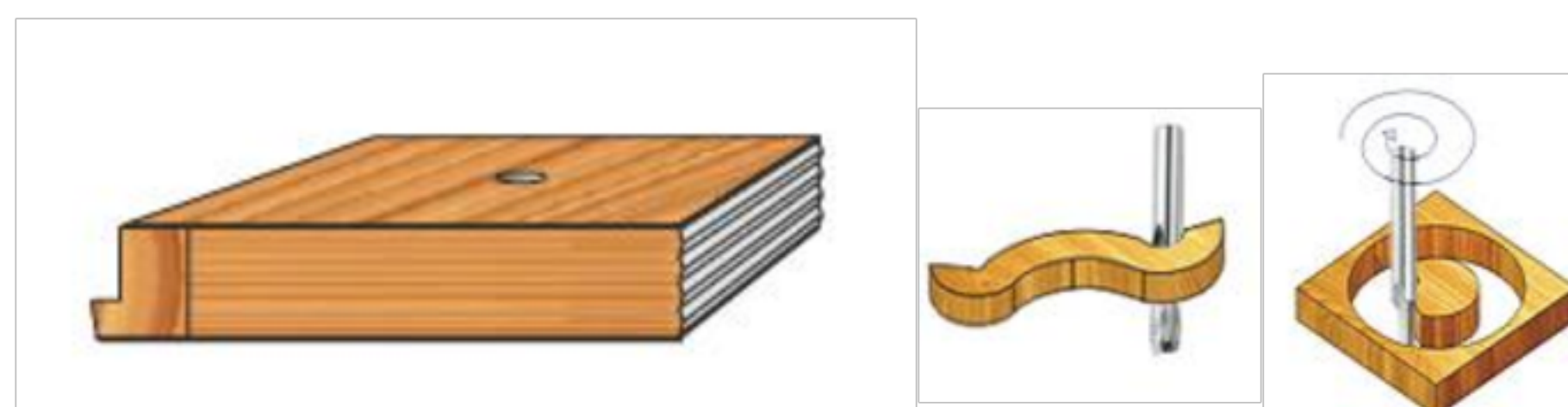
3 flute spiral router bit for V-point door locksets.  
For CNC machines. For wood material.  
Feed rate 4-10 m/min of 18 000 - 24 000 RPM.  
Finishing operations.



Z=3



D	L1	L	s	Z
14	60	110	14	3
14	65	120	14	3
16	60	110	16	3
16	65	120	16	3
18	60	110	18	3
18	65	120	18	3



Special dimension on request

Router bits in **INCH** dimension on request



3 flute spiral router bit for V-point door locksets.  
 For CNC machines. For wood material.  
 Feed rate 4-10 m/min of 18 000 - 24 000 RPM.  
**Roughing operations.**



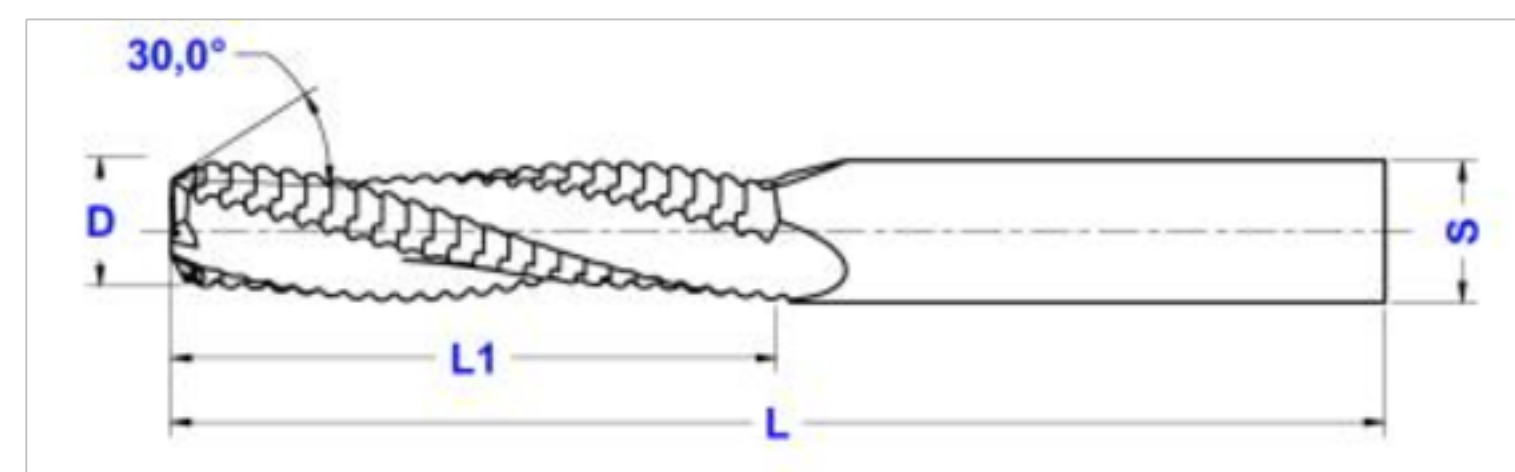
SW

MDF

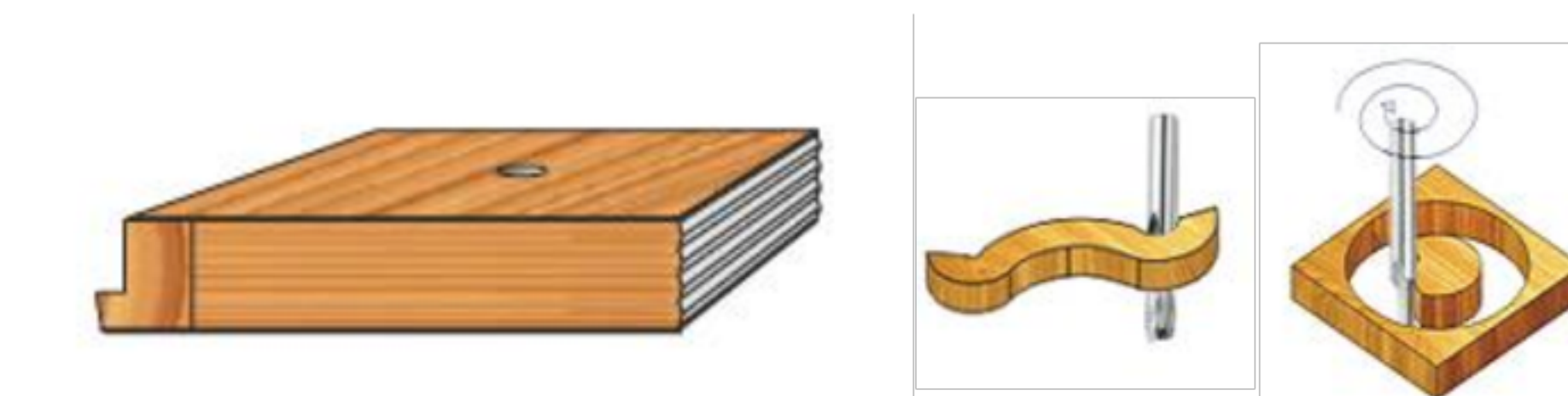
PW

PY

Z=3



D	L1	L	s	Z
14	60	110	14	3
14	65	120	14	3
16	60	110	16	3
16	65	120	16	3
18	60	110	18	3
18	65	120	18	3



Special dimension on request

Router bits in **INCH** dimension on request

SW

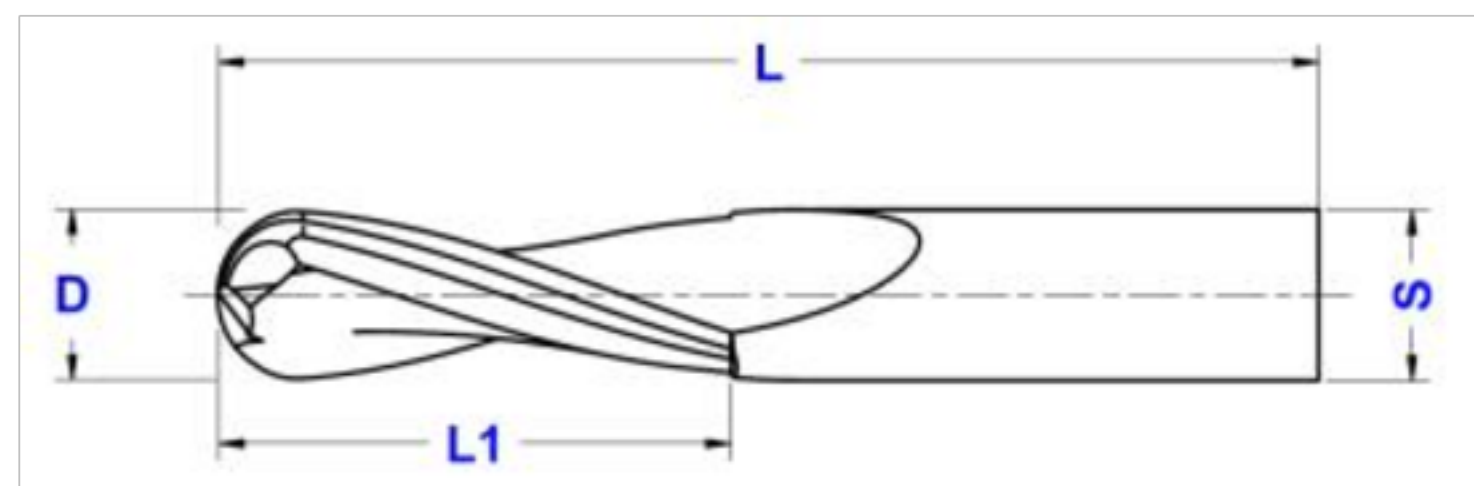
MDF

PW

PY



2 flutes spiral router bit with radius.  
 For CNC machines. For wood, plastic materials.  
 Feed rate 2 – 10 m/min of 18000 - 24000 RPM.  
**Finishing operations.**



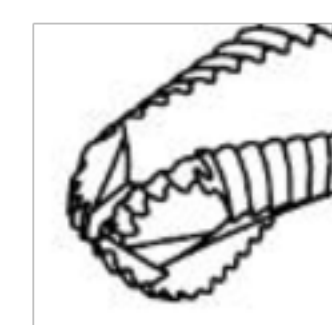
Z=2



D	L1	L	s	Z
3	10	50	3	2
4	12	50	4	2
5	15	60	5	2
6	15	60	6	2
6	22	70	6	2
8	22	70	8	2
10	32	80	10	2
10	42	90	10	2
12	32	80	12	2
12	42	90	12	2
14	42	90	14	2
16	42	90	16	2
16	52	100	16	2
18	52	100	18	2
20	50	100	20	2
20	100	160	20	2
25	50	100	25	2
25	70	130	25	2



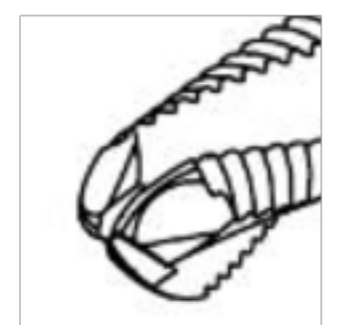
ZG



LW



GL



Special dimension on request

Router bits in **INCH** dimension on request

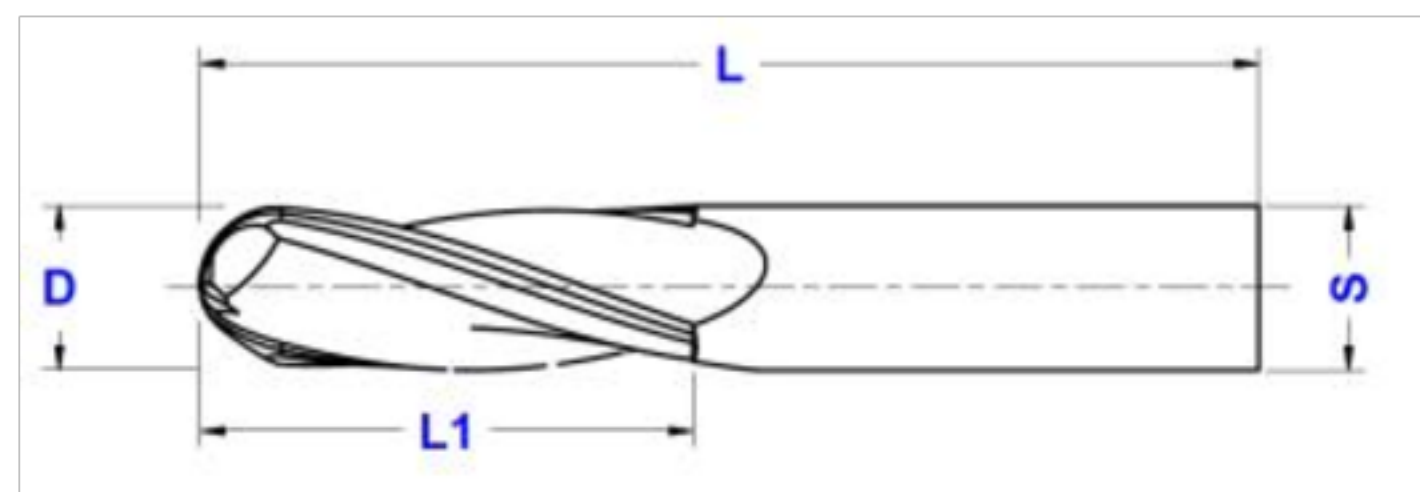


3 flutes spiral router bit with radius.  
 For CNC machines.  
 For wood, plastic materials.  
 Feed rate 2-10 m/min of 18 000 - 24 000 RPM.  
**Finishing operations.**



- SW
- MDF
- PW
- PY

Z=3



D	L1	L	s	Z
10	32	80	10	3
10	42	90	10	3
12	32	80	12	3
12	42	90	12	3
14	42	90	14	3
16	42	90	16	3
16	52	100	16	3
18	52	100	18	3
20	52	100	20	3
20	100	160	20	3
25	52	100	25	3
25	72	130	25	3



Special dimension on request

Router bits in **INCH** dimension on request

SW

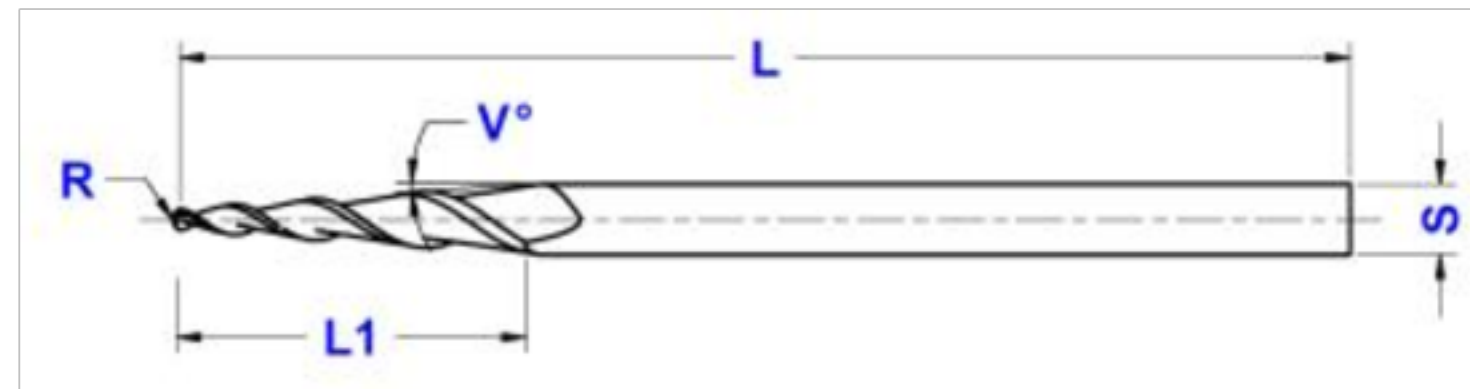
MDF

PW

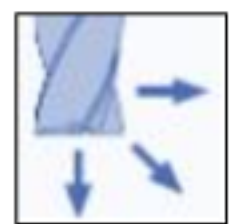
PY



2 flute spiral router bit *taper ball nose end mills*.  
 For CNC machines. For wood, plastic materials.  
 Feed rate 2-10 m/min of 18 000 - 24 000 RPM.  
**Finishing operations.**



Z=2



R	L1	L	D=s	Z
1	14	80	6	2
2	16	80	6	2
3	22	80	8	2
3	32	90	8	2
3	42	100	8	2
4	52	100	12	2
4	62	120	12	2
5	52	120	16	2
5	72	150	16	2



Special dimension on request

Router bits in **INCH** dimension on request



Spiral router bit 2- or 3-flute with torus.  
 For CNC machines.  
 For wood, plastic materials.  
 Feed rates from 2-10 m/min of 18 000 - 24 000 RPM.  
**Finishing operations.**

Z=2

Z=3



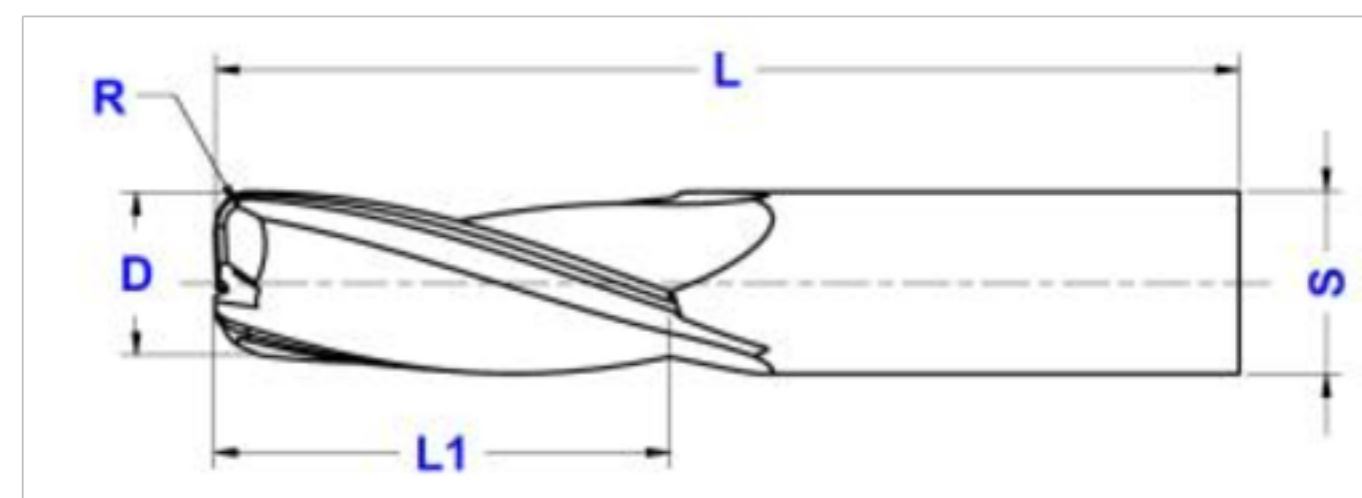
SW

MDF

PW

PY

Router for wood



D	R	L1	L	s	Z
10	2	16	80	10	2
12	2	22	80	12	3
14	2	32	90	14	3
16	2	42	90	16	3
16	3	52	100	16	3
18	2	62	110	18	3
18	3	52	100	18	3
20	3	70	120	20	3
20	5	70	120	20	3

Special dimension on request

Router bits in **INCH** dimension on request

SW

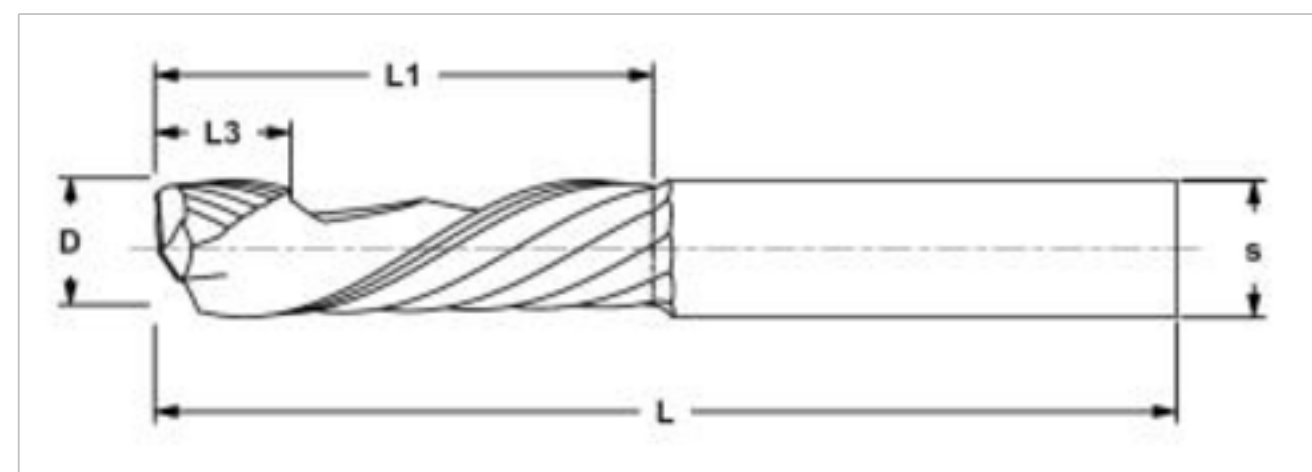
MDF

PW

PY



Compression spiral router bits Z=1+1.  
 For CNC machines.  
 For wood, plastic materials.  
 Feed rate 2-12 m/min of 18 000 - 24 000 RPM.  
**Finishing operations.**



Z=1+1

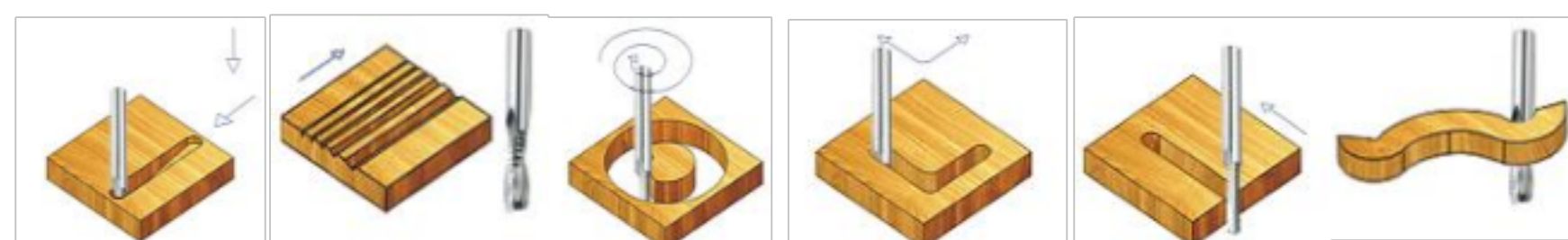


**NEW**  
**NEW**

D	L1	L3	L	s	Z
3	12	4	50	3	1+1
4	12	4	50	4	1+1
5	17	4	60	5	1+1
6	25	5	65	6	1+1
8	25	6	65	8	1+1
10	25	7	80	10	1+1
10	35	7	80	10	1+1

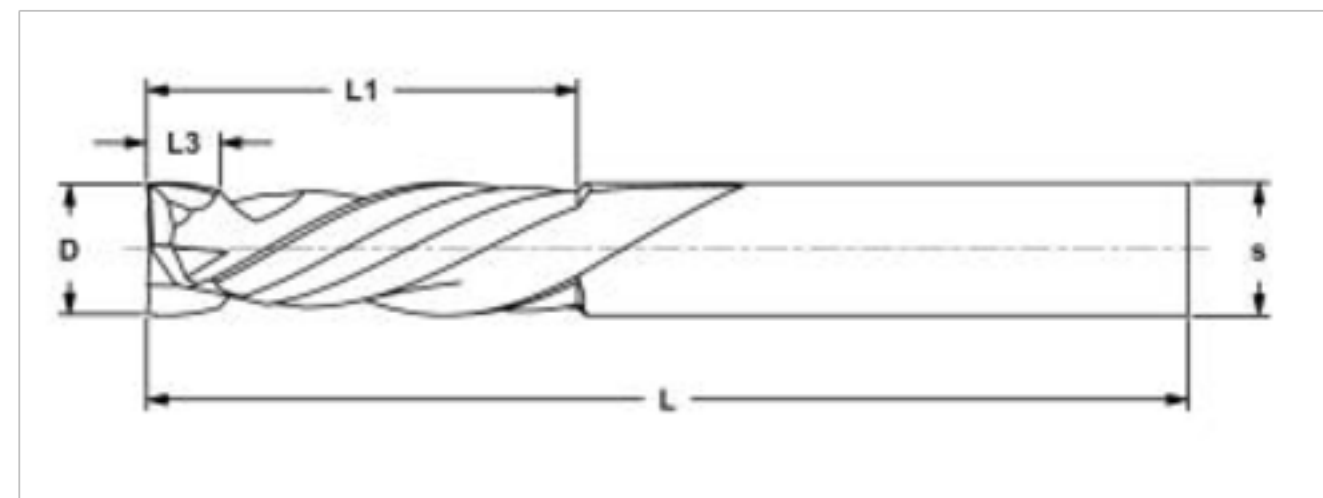


Router bits in **INCH** dimension on request





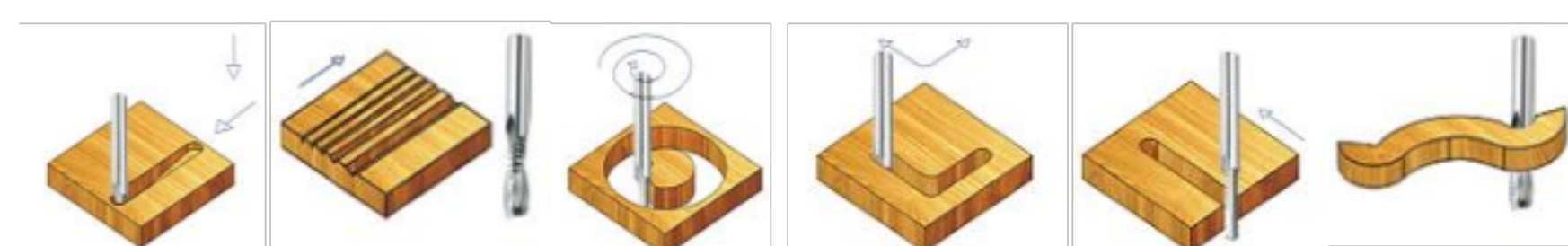
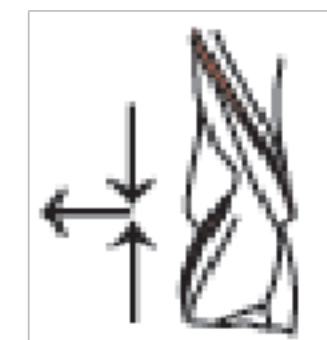
Compression spiral router bits Z=2+2.  
 For CNC machines.  
 For wood, plastic materials.  
 Feed rate 6-16 m/min of 18 000 - 24 000 RPM.  
**Finishing operations.**



- SW
- MDF
- PW
- PY

	D	L1	L3	L	s	Z
<b>NEW</b>	6	25	5	65	6	2+2
<b>NEW</b>	8	25	6	65	8	2+2
	8	35	6	80	8	2+2
	10	25	7	80	10	2+2
	10	35	7	80	10	2+2
	12	25	7	80	12	2+2
	12	35	7	80	12	2+2
	12	42	7	90	12	2+2
	14	35	7	80	14	2+2
	14	42	7	90	14	2+2
	14	50	7	100	14	2+2
	16	35	8	80	16	2+2
	16	42	8	90	16	2+2
	16	50	8	100	16	2+2
	20	35	9	80	20	2+2
	20	42	9	90	20	2+2
	20	50	9	100	20	2+2

Special dimension on request  
 Router bits in **INCH** dimension on request



Auf Wunsch andere Abmessungen

Router bits in **INCH** dimension on request

SW

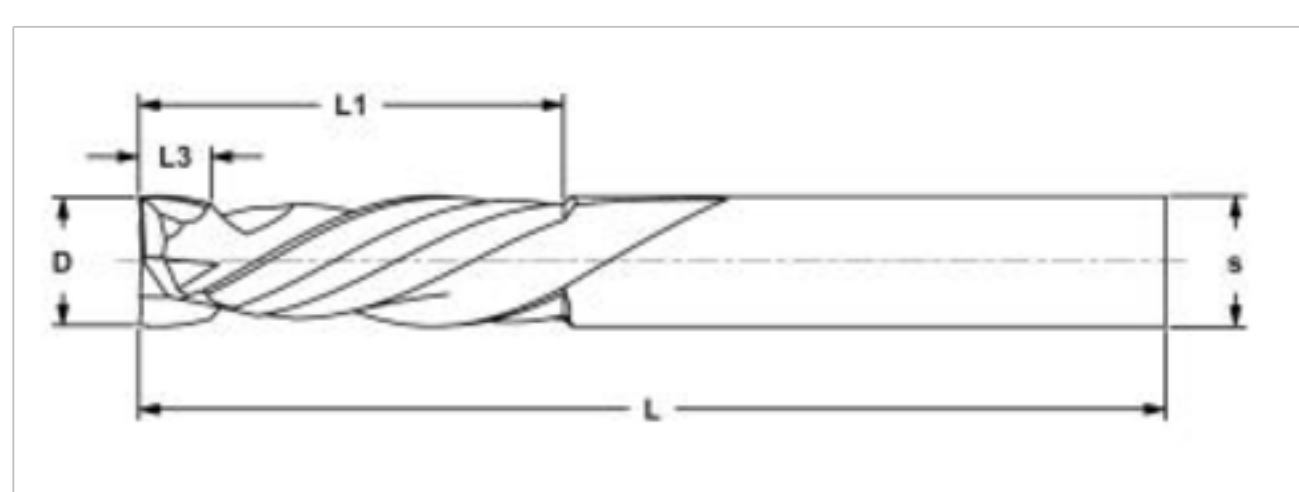
MDF

PW

PY



Compression spiral router bits Z=2+2.  
 For CNC machines.  
 For wood, plastic materials.  
 Feed rate 10 - 20 m/min of 18 000 - 24 000 RPM.  
**Finishing operations.**



Z=2+2



	D	L1	L3	L	s	Z
<b>NEW</b>	6	25	5	65	6	2+2
<b>NEW</b>	8	25	6	65	8	2+2
	8	35	6	80	8	2+2
	10	25	7	80	10	2+2
	10	35	7	80	10	2+2
	12	25	7	80	12	2+2
	12	35	7	80	12	2+2
	12	42	7	90	12	2+2
	16	35	8	80	16	2+2
	16	42	8	90	16	2+2
	16	50	8	100	16	2+2



Special dimension on request

Router bits in **INCH** dimension on request

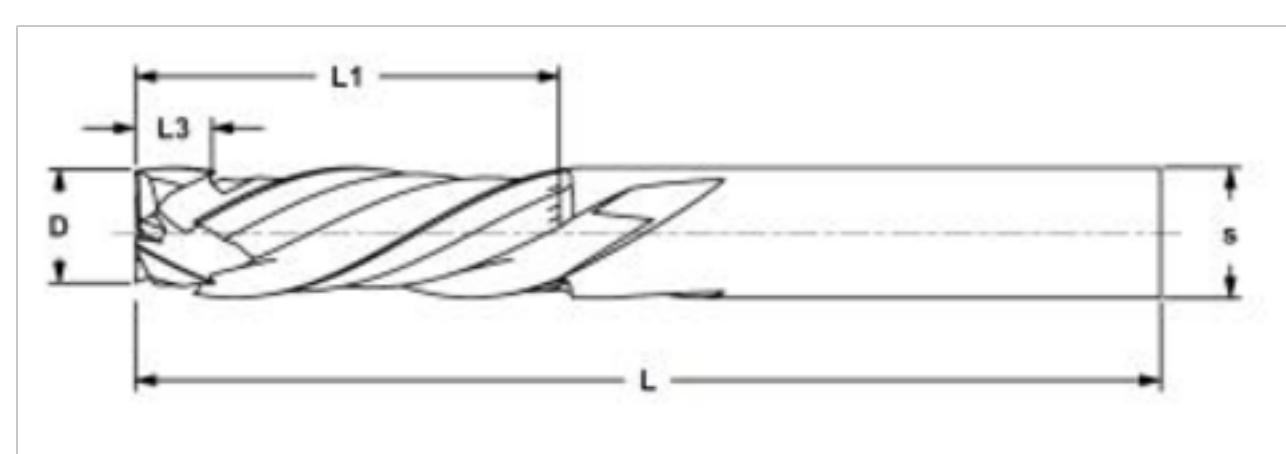


Compression spiral router bits Z=3+3.  
 For CNC machines.  
 For wood, plastic materials.  
 Feed rate 10-25 m/min of 18 000 - 24 000 RPM.  
**Finishing operations.**



- SW
- MDF
- PW
- PY

Z=3+3



D	L1	L3	L	s	Z
10	25	7	80	10	3+3
10	35	7	80	10	3+3
12	25	7	80	12	3+3
12	35	7	80	12	3+3
12	42	7	90	12	3+3
16	35	8	80	16	3+3
16	42	8	90	16	3+3
16	50	8	100	16	3+3

*Auf Wunsch andere Abmessungen*

*Router bits in **INCH** dimension on request*



SW

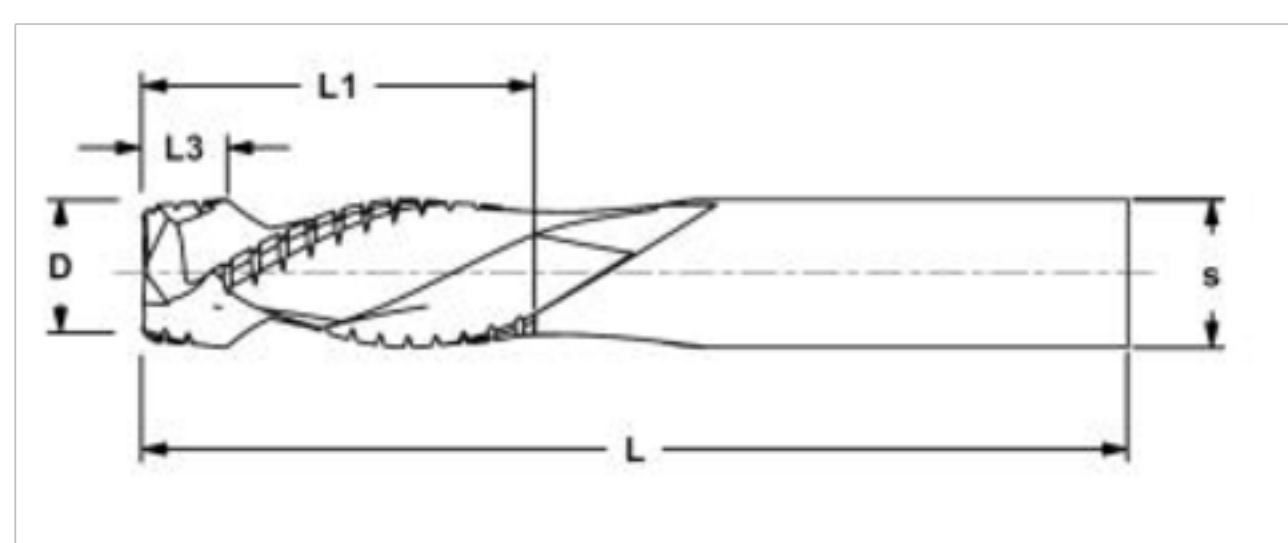
MDF

PW

PY



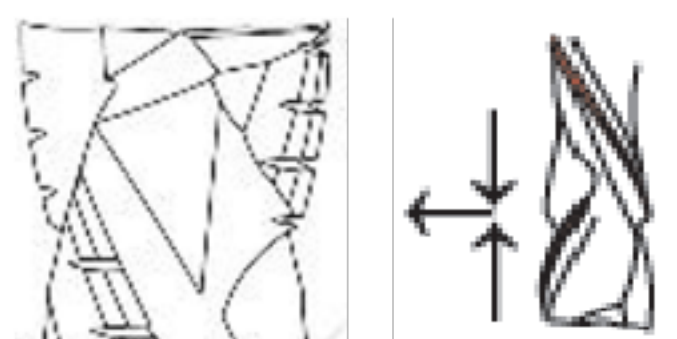
Compression spiral router bits Z=2+2 with chipbreaker.  
 For CNC machines. For wood, plastic materials.  
 Feed rate 10-25 m/min of 18 000 - 24 000 RPM.  
 Semi-finishing operations.



Z=2+2



D	L1	L3	L	s	Z
8	25	6	65	8	2+2
8	35	6	80	8	2+2
10	25	7	80	10	2+2
10	35	7	80	10	2+2
12	25	7	80	12	2+2
12	35	7	80	12	2+2
12	42	7	90	12	2+2
16	35	8	80	16	2+2
16	42	8	90	16	2+2
16	50	8	100	16	2+2



Special dimension on request

Router bits in **INCH** dimension on request

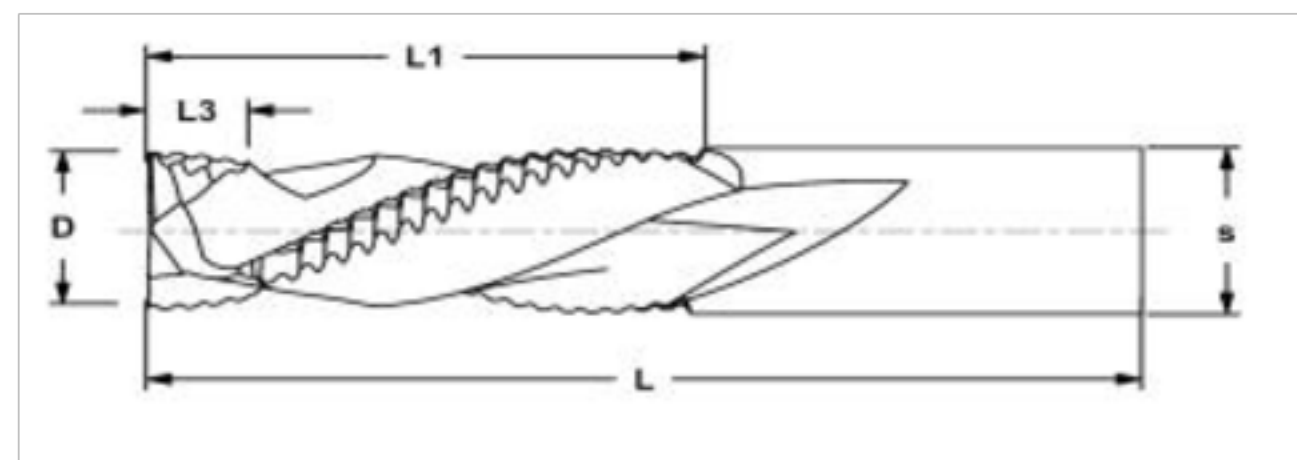
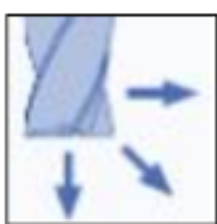


Compression spiral router bits Z=2+2 roughing.  
 For CNC machines.  
 For wood, plastic materials.  
 Feed rates from 10-30 m/min of 18 000 - 24 000 RPM.  
 Roughing operations.



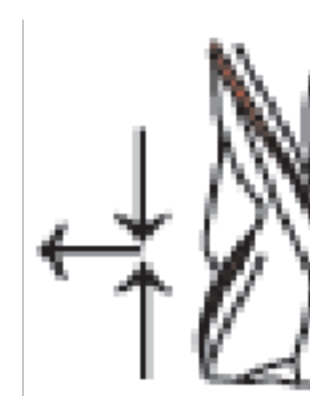
- SW
- MDF
- PW
- PY

Z=2+2



D	L1	L3	L	s	Z
10	25	7	80	10	2+2
10	35	7	80	10	2+2
12	25	7	80	12	2+2
12	35	7	80	12	2+2
16	42	8	90	16	2+2
16	50	8	100	16	2+2

Special dimension on request  
 Router bits in **INCH** dimension on request



SW

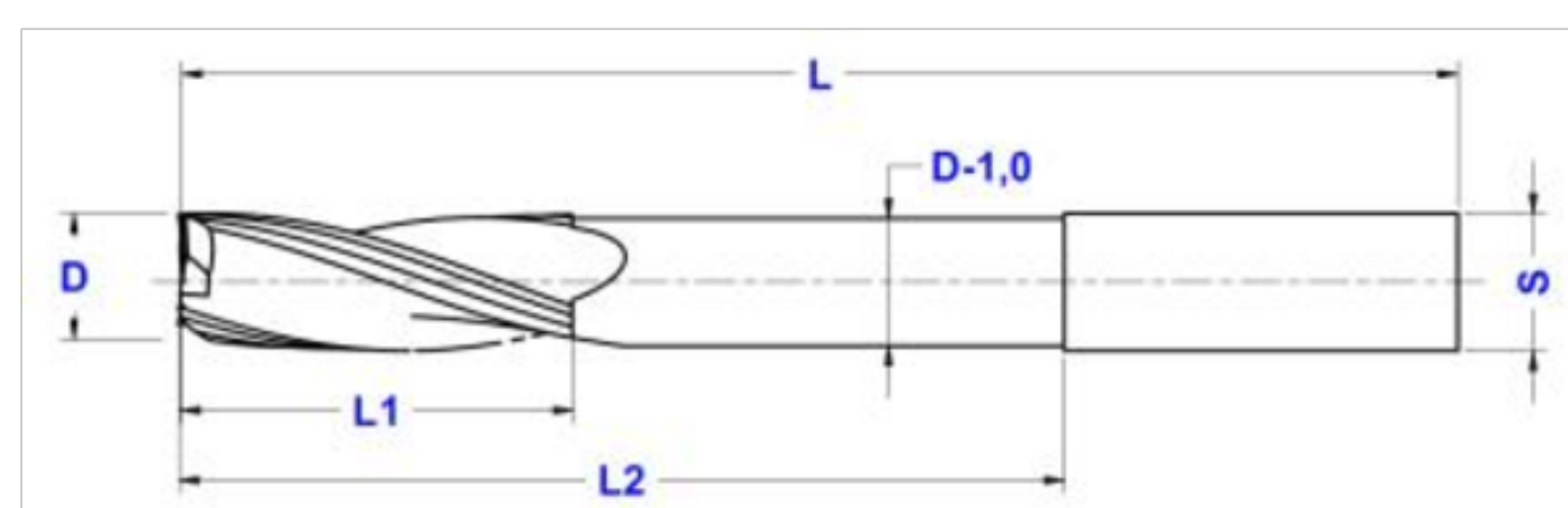
MDF

PW

PY



Extra long router bits for working for 3D.  
For CNC machines.  
For wood, plastic material.  
Feed rate 2-10 m/min of 16 000 - 20 000 RPM.  
**Finishing operations.**



Z=2

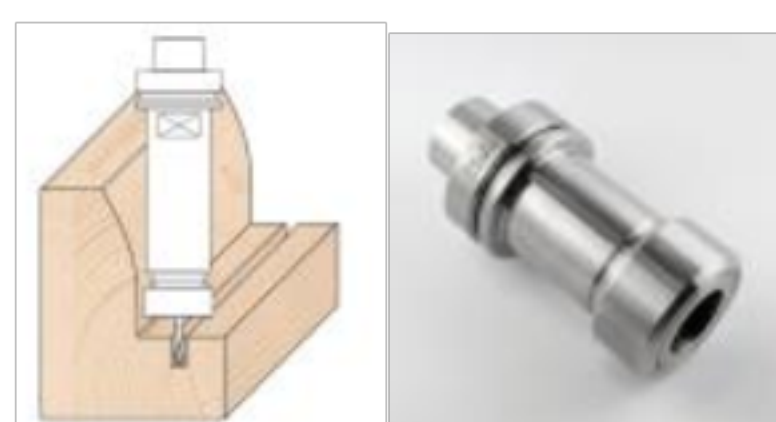
Z=3

Z=4



**NEW**

D	L1	L2	L	s	Z
6	20	85	120	6	2
8	30	85	120	8	2
10	30	100	140	10	2
12	40	110	150	12	2
12	40	110	150	12	3
16	40	130	180	16	2
16	40	130	180	16	3
20	40	150	200	20	2
20	40	150	200	20	3
25	50	160	220	25	2
25	50	160	220	25	3
25	50	160	220	25	4



We offer special extended tool holders for CNC machines

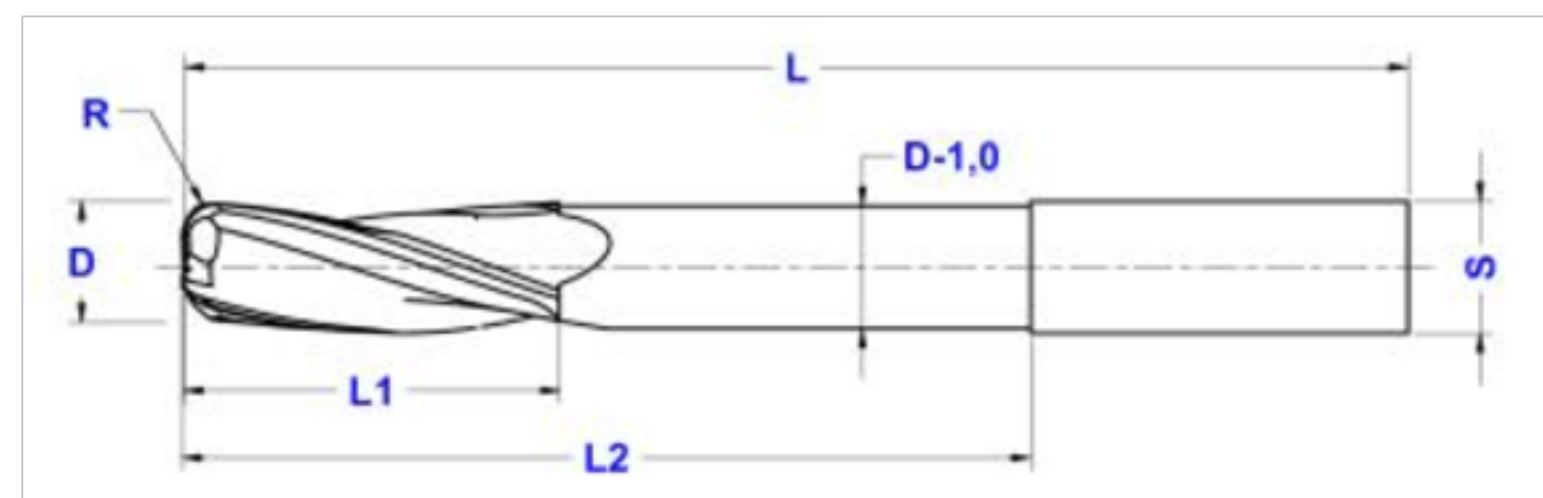


Extra long router bits for working for 3D with radius on top.  
 For CNC machines.  
 For wood, plastic material.  
 Feed rate 2-10 m/min of 16 000 - 20 000 RPM.  
**Finishing operations.**



- SW
- MDF
- PW
- PY

- Z=2
- Z=3
- Z=4
- 



	D	R	L1	L2	L	s	Z
<b>NEW</b>	6	1	20	85	120	6	2
	8	2	30	85	120	8	2
	10	2	30	100	140	10	2
	12	3	40	110	150	12	2
	12	3	40	110	150	12	3
	16	3	40	130	180	16	2
	16	3	40	130	180	16	3
	20	3	40	150	200	20	2
	20	3	40	150	200	20	3
	25	3	50	160	220	25	2
	25	3	50	160	220	25	3
	25	3	50	160	220	25	4

Special dimension on request

Router bits in **INCH** dimension on request



SW

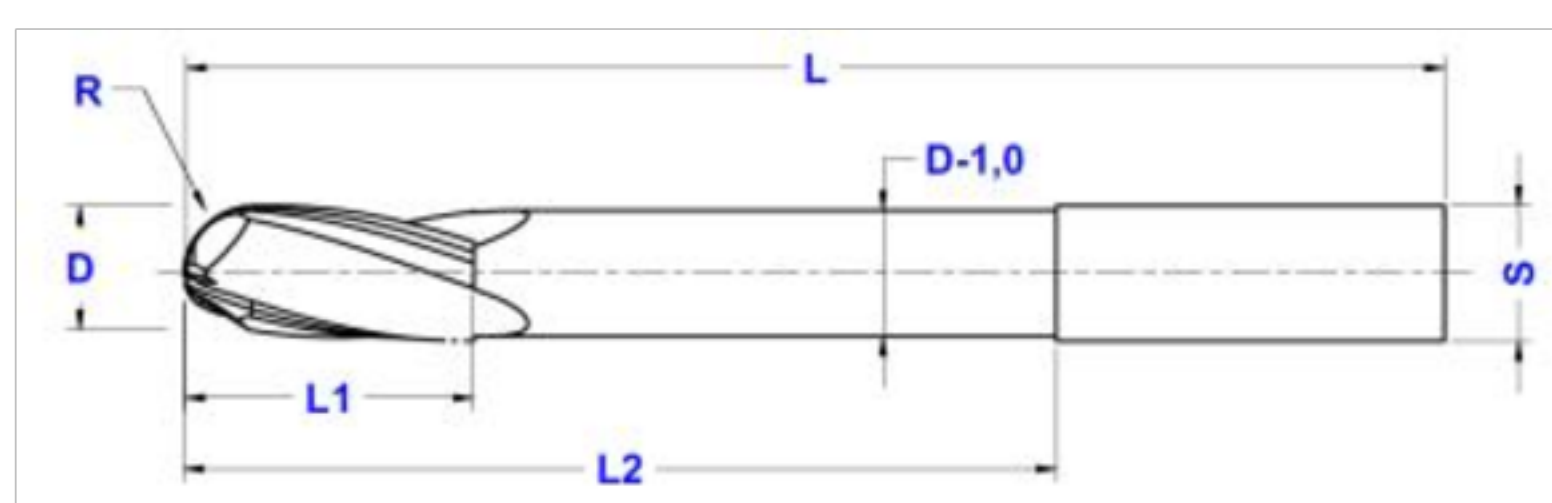
MDF

PW

PY



Extra long router bits for 3D with radius.  
For CNC machines.  
For wood, plastic material.  
Feed rate 2-10 m/min of 16 000 - 20 000 RPM.  
**Finishing operations.**



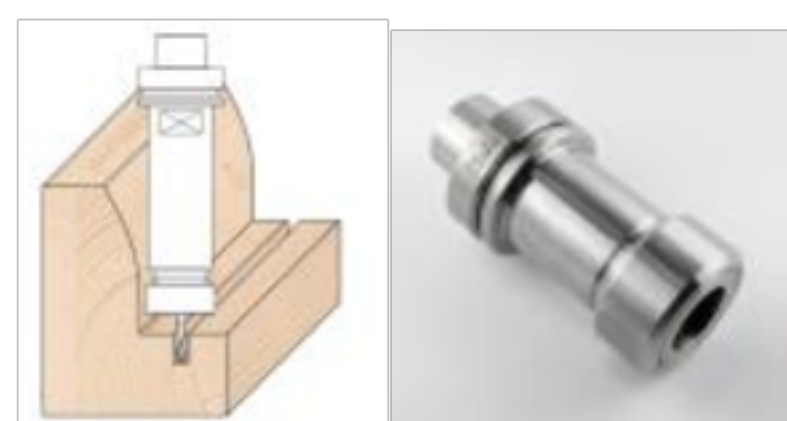
Z=2

Z=3

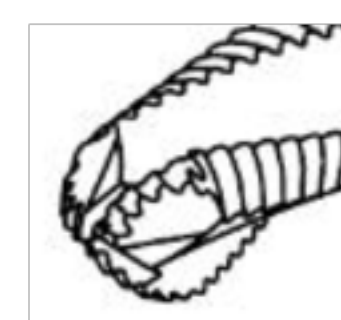
Z=4



D	L1	L2	L	s	Z
6	20	85	120	6	2
8	30	85	120	8	2
10	30	100	140	10	2
12	40	110	150	12	2
12	40	110	150	12	3
16	40	130	180	16	2
16	40	130	180	16	3
20	40	150	200	20	2
20	40	150	200	20	3
25	50	160	220	25	2
25	50	160	220	25	3
25	50	160	220	25	4



We offer special extended tool holders for CNC machines



czoło LW



czoło GL





Extra long router bits for 3D.  
 For CNC machines.  
 For wood, plastic material.  
 Feed rate from 2–10 m/min of 16 000 - 20 000 RPM.  
**Roughing operations.**

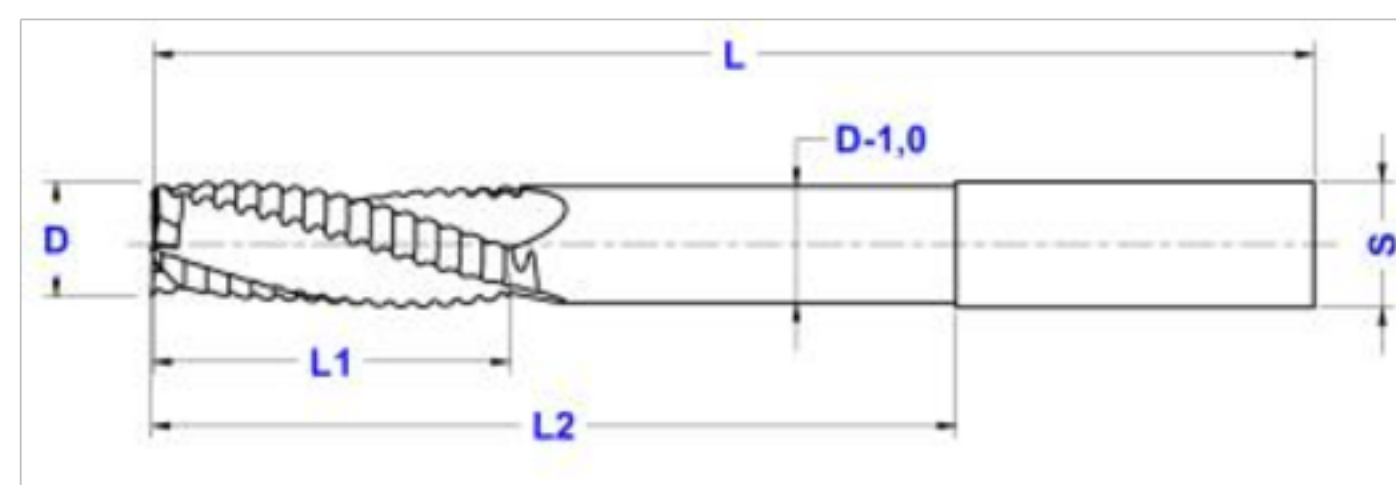
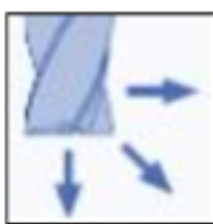


- SW
- MDF
- PW
- PY

Z=2

Z=3

Z=4

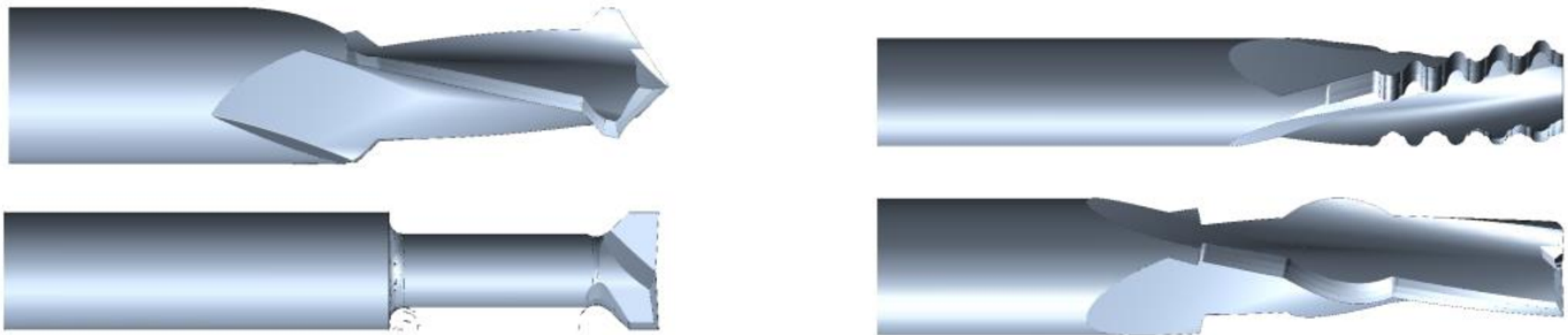


	D	L1	L2	L	s	Z
<b>NEW</b>	6	20	85	120	6	2
	8	30	85	120	8	2
	10	30	100	140	10	2
	12	40	110	150	12	2
	12	40	110	150	12	3
	16	40	130	180	16	2
	16	40	130	180	16	3
	20	40	150	200	20	2
	20	40	150	200	20	3
	25	50	160	220	25	2
	25	50	160	220	25	3
	25	50	160	220	25	4

Special dimension on request  
 Router bits in **INCH** dimension on request



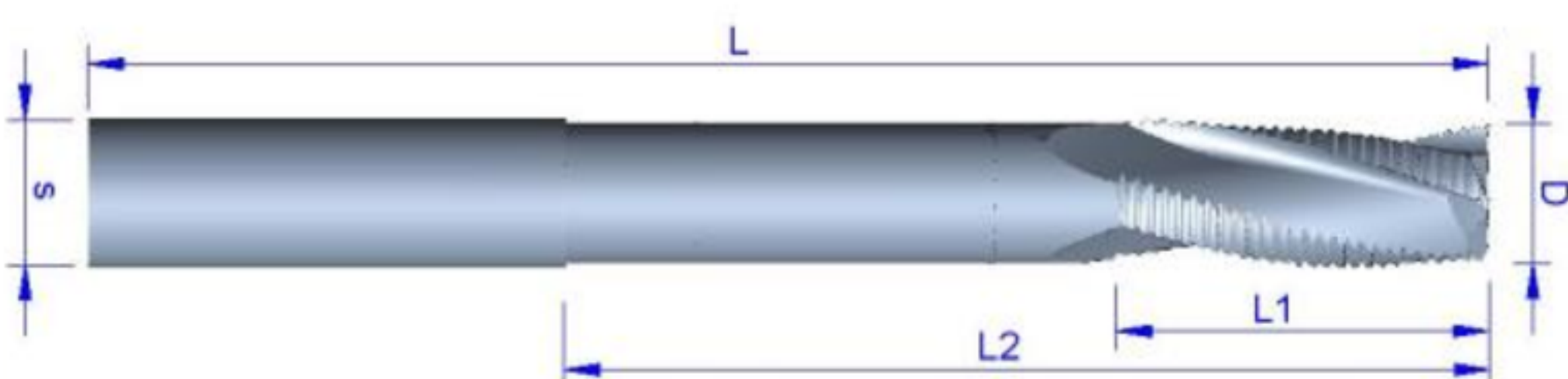
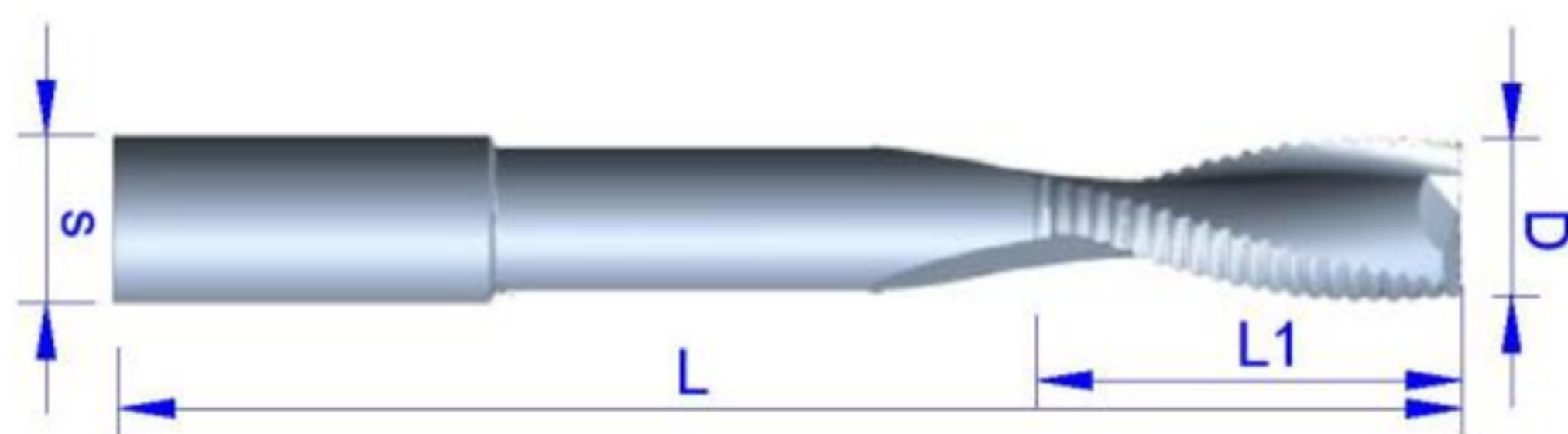
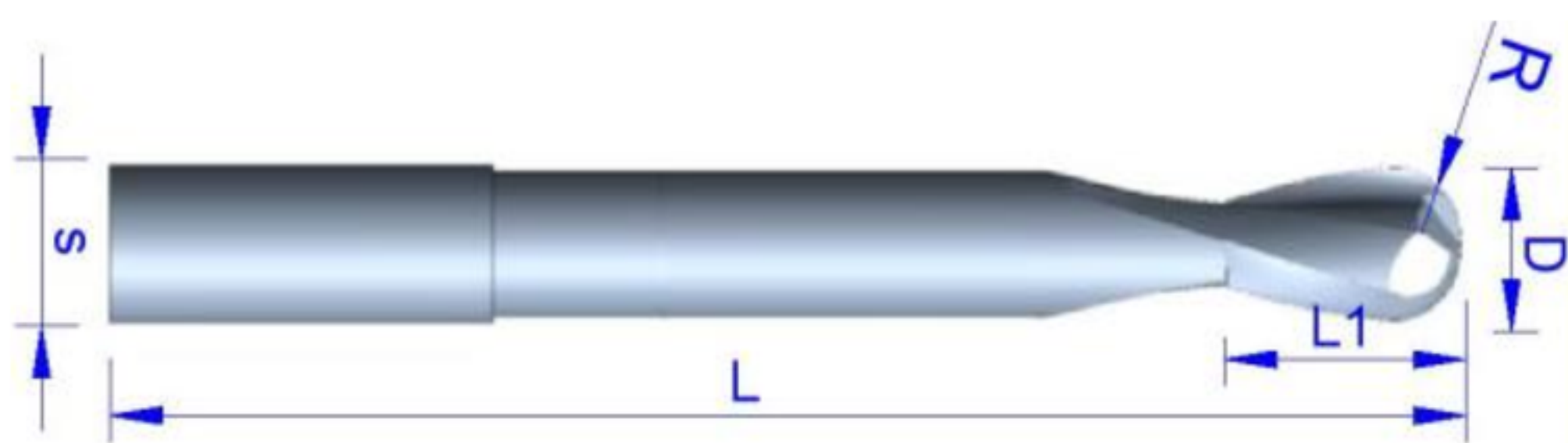
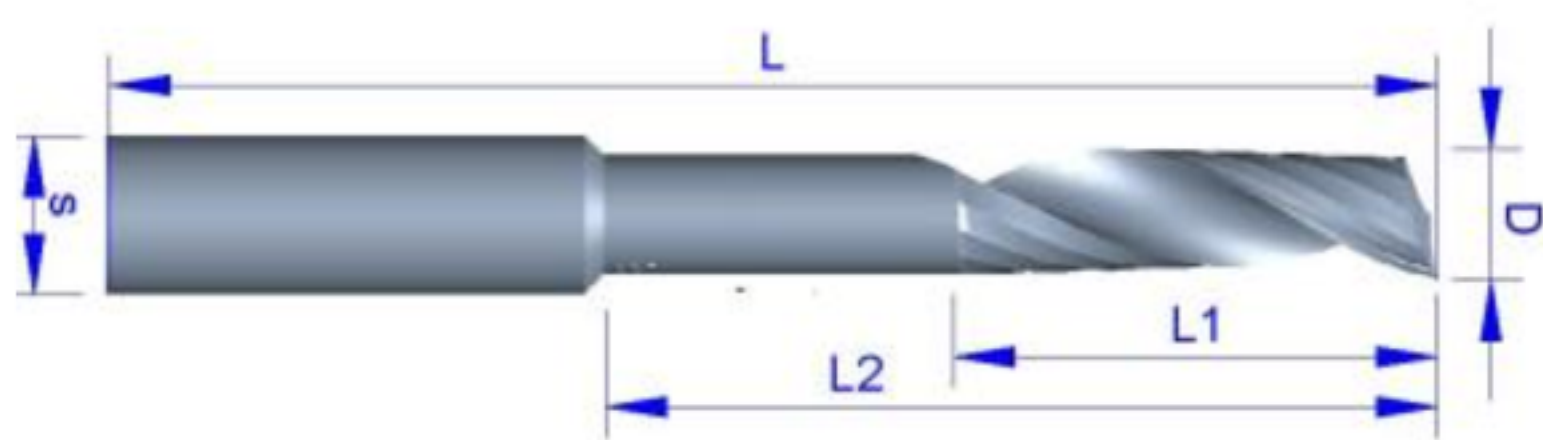
Solid carbide profile router bits on order. Special profile router bit according to drawings for working with wood MDF and plastic.



Typ V999

VHM

Router bits for order



**Order of special tools:**

When ordering please specify cutters;

- all possible dimensions.
- turning direction
- the type of workpiece.
- the number of units for each type

**Individuelle Bestellung VHM Fräser:**

Bitte bei der Bestellung angeben Schneider;

- alle möglichen Dimensionen.
- Drehrichtungs
- die Art des Werkstücks .
- die Anzahl von Einheiten für jede Art