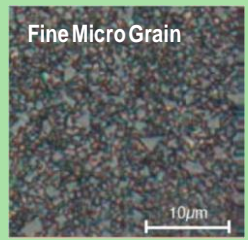
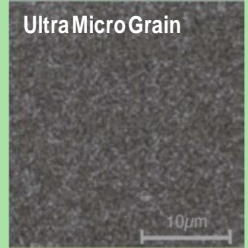


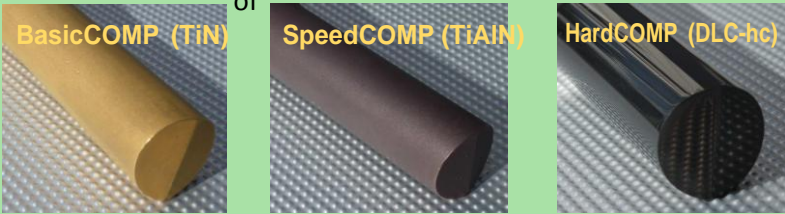
For the production of cutters intended for working solid wood we use the best material Fine Micro Grain, which has all the best features such as hardness and strength / flexibility for processing materials such as solid wood, plywood, MDF or chipboard. An additional possibility is the coating of tools PVD coatings.



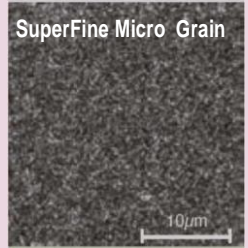
For the production of cutters intended for difficult machining of hard materials such as MDF or chipboard especially in the "nesting" We use the best material Ultra Nano Grain material is very hard and has exceptional resistance to abrasion but its flexibility is somewhat less by what is not always suitable for processing materials such as solid wood. An additional possibility is the coating



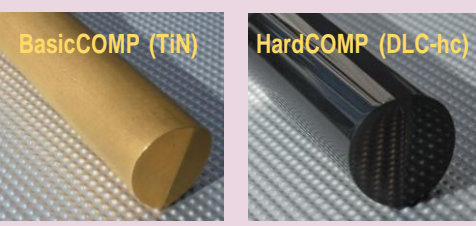
of tools PVD coatings.



For the production of cutters intended for working Plexiglass, plastics and alloys Alu - we use a special material Super Fine Micro Grain, which has the appropriate characteristics as hardness and toughness for machining these materials. In combination with suitably chosen geometry and spiral blades provides the best performance and processing.



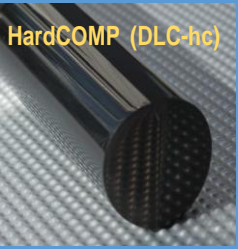
An additional possibility is the coating of tools PVD coatings.



For the production of cutters intended for working difficult-fiber-reinforced composite material type GRP, CFRP and AFK, the materials we use special material tested Ultra Fine Micro Grain, which has the appropriate characteristics as hardness and toughness for machining these materials. Practically All cutters are covered HardCOMP hardest coating (DLC-hc)



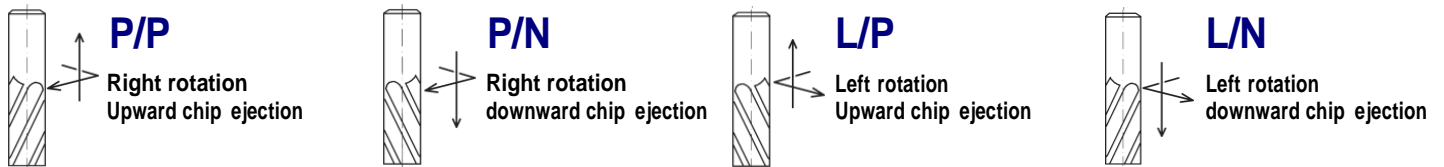
Specially selected blade geometry and increased the number of spiral provides the best performance and service life of these tools in the machining of composite materials.



DLC - hc PVD coating diamond exceptional quality and coating ensures a long life thanks the tools they become even more durable. Have a minimum coefficient of friction which gives excellent smoothness and reduce friction and increase the operating temperature. HC DLC-coating with a thickness of only 1-3 microns are the best option for tools for working graphite and composite materials as CRFP or GRFP

The direction of rotation and the ejection chip - sign for orders

All cutters marked in the catalog tables are right rotary cutters standard upward spiral type P / P. If you want a different cutter rotation and blade system is a part number, please put an extra label eg .; V201.100.032.080. P / N (right rotating spiral downwards)



Service and sharpening carbide tools

Besides producing tools also provide full service sharpening carbide tools. Tools for sharpening are subjected to a preliminary assessment as to their continued service. All tools are subjected to cleaning in an ultra-sonic bath or sandblasted depending on the coating. Tools such as broken .. broken do not need to be immediately discarded after consultation with the client, we can shorten them and make them new blade. The sharpening process involves a complete renewal of the blade geometry for a new milling cutters, if necessary, even after sharpening can impose coating. All the cutters are described with new dimensions. The entire course is sharpening on the numerical automatic production machines latest generation of such a process guarantee only the highest quality sharpening and maintenance of all the parameters of the tool. Accepted for sharpening tools from other manufacturers and geometry, and we sharpening all the tools with diameters ranging from 4.00 to 30.00 mm with HSS and carbide



Geometries used blades

GL	Excelent finishing cutters solid carbide router bit Z1, Z2, Z3, Z4	
LW	Finishing cutters solid carbide body router bit with chipbreaker Z2 i Z3.	
ZG	Roughing cutters solid carbide Z2, Z3, Z4	
GLW	Finishing cutters solid carbide body router bit, with 2 cutting blades finishing + 2 cutting blades chipbreaker Z4.	
ZGGL	Finishing cutters solid carbide body router bit, with 2 cutting blades finishing + 2 cutting blades roughing Z4.	

Working parameters for router bits

All parameters are examples only approximate ***

Working parameters for finishing router bit diameter D-12 to 20 mm Z=3

Vf -Feed rate for 18 000 RPM

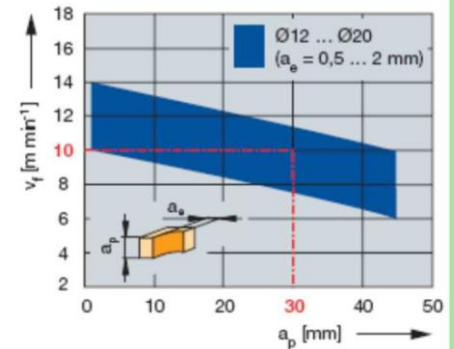
Cutting length „Ap” is dependent from tool diameter

Ae = 0,5 to 2,0 mm

Corrections for feed rate

Hardwood **x 0,8**

Transverse to wood fibers **x 0,65**



Working parameters for roughing router bit diameter D-8 to 10 mm Z=3

Vf -Feed rate for 18 000 RPM

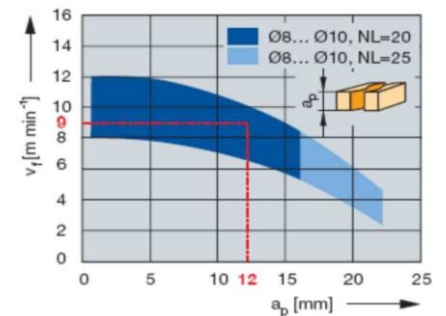
Cutting length „Ap” is dependent from tool diameter

Corrections for feed rate

Hardwood **x 0,8**

Plywood **x 0,9**

Transverse to hardwood fibers **x 0,7**, Chipboard **x 1,2**



Working parameters for roughing router bit diameter D-16 to 20 mm Z=3

Vf -Feed rate for 18 000 RPM

Cutting length „Ap” is dependent from tool diameter

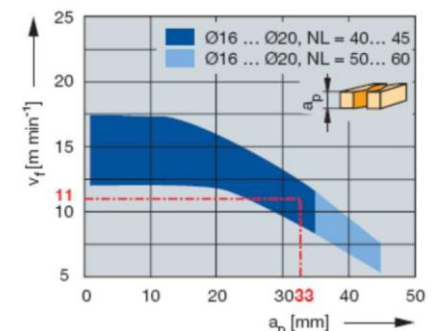
Corrections for feed rate

Hardwood **x 0,8**

Plywood **x 0,9**

Transverse to hardwood fibers **x 0,7**

Chipboard **x 1,2**



Working parameters for **compression** router bit diameter D-10 to 12 mm Z=2+2

Parameter for chipboard

Vf -Feed rate for 20 000 RPM

Cutting length „Ap” is dependent from tool diameter

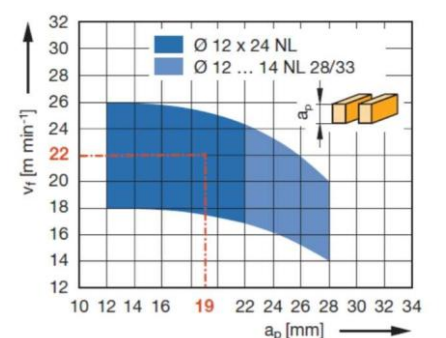
Corrections for feed rate

Plywood **x 0,9**







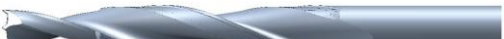



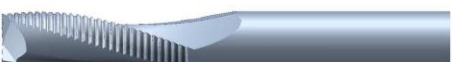







Corrections for feed rate for **compression** router „HP+” 3+3

Plywood **x 1,2**

Chipboard **x 1,4**



production offer

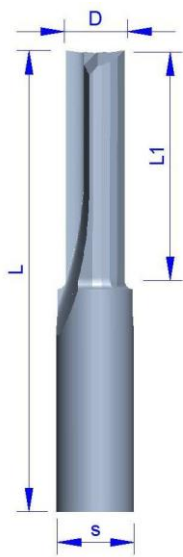
Strona	Art.Nr	Opis	
10	V001	Solid carbide stright router bits shank d-6	
10	V002	Solid carbide stright router bits shank d-8	
10	V003	Solid carbide stright router bits Z=3 shank d-12	
11	V004	Solid carbide engraving bits <60, 90	
11	V005	Solid carbide profile router	
12	V006	Drills VHM	
12	V007	Drills VHM VHM typ Anuba	
13	V101	Router bits Z=1	
14	V201	Router bits Z= 2 GL finishing	
15	V202	Router bits Z= 2 LW finishing with chipbreaker	
16	V203	Router bits Z= 2 ZG roughing	
17	V301	Router bits Z= 3 GL finishing	
18	V302	Router bits Z= 3 LW finishing with chipbreaker	
19	V303	Router bits Z= 3 ZG roughing	
20	V401	Router bits Z= 4 GL finishing	
21	V402	Router bits Z= 4 GLW finishing + chipbreaker	
22	V403	Router bits Z= 4 ZG roughing	
23	V404	Router bits Z= 4 ZGGL finishing + roughing	

production offer

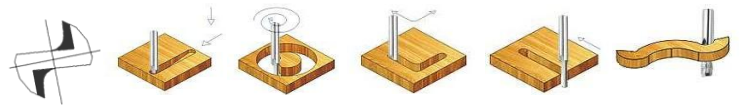
	Opis	Art. Nr	Strona
	Spiral router bits Z-3/for door-locks	V502	24
	Spiral router bits Z-3 drainage system	V503	25
	Router bits Z=2 GL agregatu	V504	25
	Spiral router bits Z-3 with 60° V-point-locksets	V601	26
	Spiral router bits Z-3 with 60° V-point-locksets roughing	V602	26
	Spiral router bits Z-2 with Radius	V701	27
	Spiral router bits Z-3 with Radius	V702	27
	Spiral router bits Z-2 with taper radius	V703	28
	Spiral router bits Z-2 with corner radius	V704	28
	Spiral router bits Z-1+1 compression	V801	29
	Spiral router bits Z-2+2 compression and „HP+“	V802	29
	Spiral router bits Z-3+3 compression and „HP+“	V803	30
	Spiral router bits Z-2+2 compression roughing and „HP+ nesting“	V806	31
	Router bits Z=2 GL for modelbuilding 3D	V901	32
	Router bits Z=2 GL with corner radius for modelbuilding 3D	V902	32
	Router bits Z=2 GL For modelbuilding 3D	V903	33
	Router bits Z=2 GL For modelbuilding 3D	V904	33
	Router bits - special	V999	34

Typ V001

Solid carbide straight router bits d=6

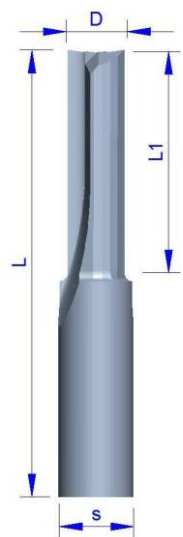


D	L1	L	s	Z	Art.. Nr P	Net Euro
2	6	50	6	2	V001.020.006.050	19,65 €
3	10	50	6	2	V001.030.010.050	19,65 €
4	15	55	6	2	V001.040.015.055	20,65 €
5	15	55	6	2	V001.050.015.055	20,65 €
5	20	60	6	2	V001.050.020.060	21,64 €
6	15	55	6	2	V001.060.015.055	20,65 €
6	20	60	6	2	V001.060.020.060	21,64 €
6	25	65	6	2	V001.060.025.065	22,10 €

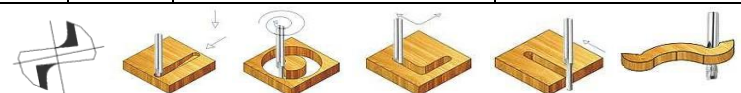


Typ V002

Solid carbide straight router bits d=8

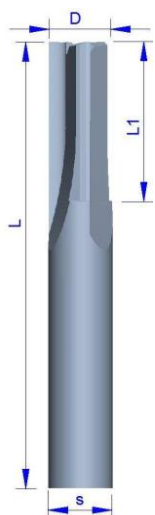


D	L1	L	s	Z	Art.. Nr P	Net Euro
2	6	50	8	2	V002.020.006.050	26,04 €
3	10	50	8	2	V002.030.010.050	26,04 €
4	15	55	8	2	V002.040.015.055	27,03 €
5	15	55	8	2	V002.050.015.055	27,03 €
5	20	60	8	2	V002.050.020.060	27,53 €
6	15	50	8	2	V002.060.015.050	27,03 €
6	20	60	8	2	V002.060.020.060	31,93 €
6	25	70	8	2	V002.060.025.070	33,42 €
8	25	70	8	2	V002.080.025.070	33,42 €
8	30	75	8	2	V002.080.030.075	34,41 €

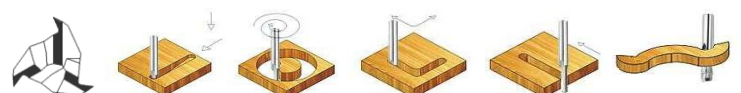


Typ V003

Solid carbide straight router bits d=12



D	L1	L	s	Z	Art.. Nr P	Net Euro
10	25	70	12	3	V003.010.025.070	56,51 €
10	35	80	12	3	V003.010.035.080	58,96 €
10	40	85	12	3	V003.010.040.085	61,44 €
12	25	70	12	3	V003.012.025.070	58,96 €
12	35	80	12	3	V003.012.035.080	61,44 €
12	45	90	12	3	V003.012.045.090	63,89 €



Solid carbide engraving bits 60° and 90°

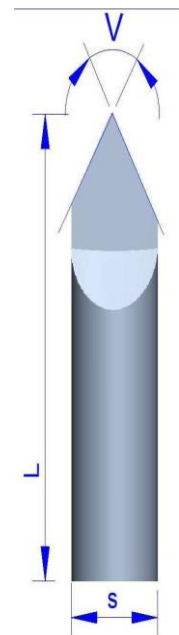
D	L	s	V °	Art. nr	Net Euro
4	50	4	60°	V004.040.060.050	24,80 €
4	50	4	90°	V004.040.090.050	24,80 €
6	50	6	60°	V006.060.060.050	27,90 €
6	50	6	90°	V006.060.090.050	27,90 €
8	60	8	60°	V006.080.060.060	31,00 €
8	60	8	90°	V006.080.090.060	31,00 €

Zastosowanie frezy VHM pełnowęglkowe Z-1 przeznaczone do grawerowania na powierzchniach drewna, sklejk, płyty MDF, wiórowej czy tworzyw sztucznych Plexi i innych komponentów.

Przeznaczone do prac na maszynach numerycznych CNC lub frezarkach górnoprzeczionowych.

Posuwy od 2 do 6 m/min w zależności od średnicy narzędzia i rodzaju obrabianego materiału.

Typ V004

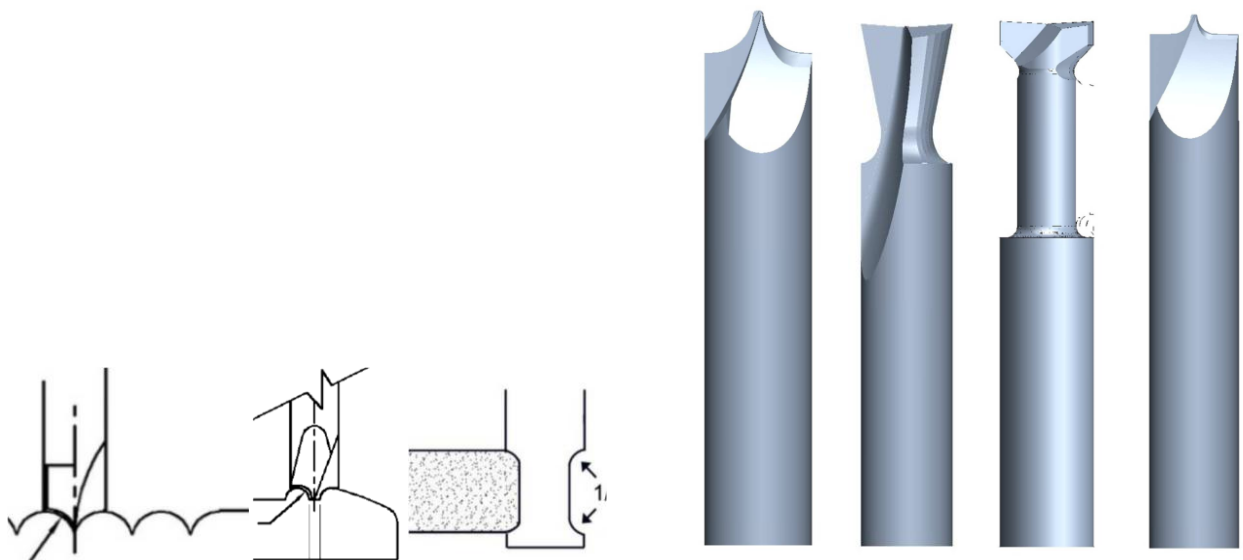


Solid carbide profile router; round covers/Vpoint

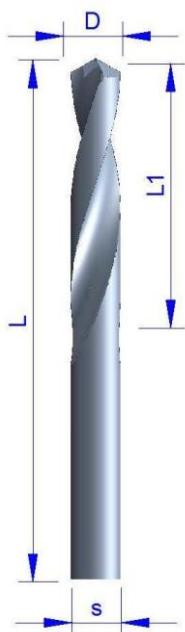
Typ V005

Technical information:

These half round engraving tools offer a wide range of tip sizes and angles to accommodate many engraving styles.



Typ V007



Solid Carbide Drills

D	L1	L	s	Art.. Nr	Art.. nr	Net Euro
2	15	50	2	V007.020.015.050.R	V007.020.015.050.L	9,30 €
2,5	15	50	2,5	V007.025.015.050.R	V007.025.015.050.L	9,30 €
3	17	50	3	V007.030.017.050.R	V007.030.017.050.L	10,54 €
3,5	20	50	3,5	V007.035.015.050.R	V007.035.015.050.L	10,85 €
4	30	60	4	V007.040.030.060.R	V007.040.030.060.L	12,09 €
5	30	60	5	V007.050.030.060.R	V007.050.030.060.L	13,95 €

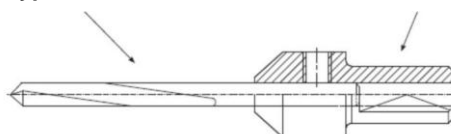
Application:

Used on boring machines alone or with adaptor bushings for drilling blind holes in solid wood, wood composites, or plastic laminated materials.

RPM: n = 3000 - 6000 min-1

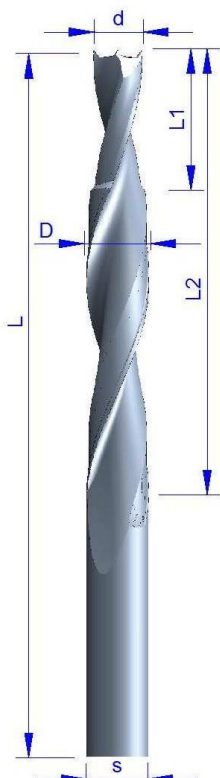
adaptor for twist drills art nr V007
Part in HW Drills in catalogue

drills Type V007

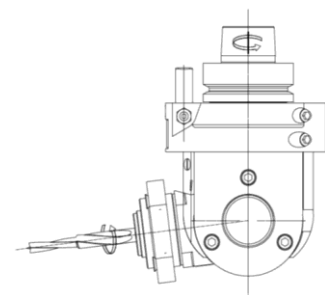
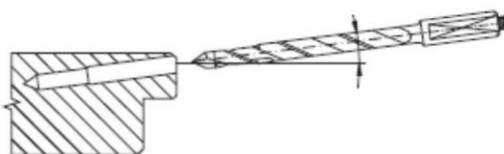


Typ V008

Solid Carbide step drills type ANUBA



d	D	L1	L2	L	s	Anuba	Art. nr	Net Euro
3,8	5	20	40	75	10	9	V008.01	40,30 €
4,2	5,7	20	45	80	10	11	V008.02	43,40 €
5,2	6,5	15	50	85	10	13	V008.03	43,40 €
5,5	7	15	55	90	10	14	V008.04	46,50 €
6	7,7	15	60	95	10	16	V008.05	46,50 €
6,6	8,2	20	70	105	10	18	V008.06	46,50 €
7,2	8,7	20	80	115	10	20	V008.07	46,50 €



Another dimensions on questions,

router bits GL Z=1

Typ V101

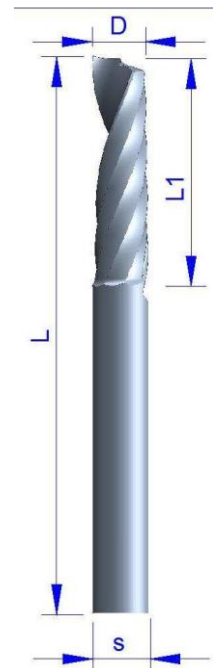
D	L1	L	s	Z	Art.. nr	Net Euro
3	14	50	3	1	V101.030.014.050	15,84 €
4	14	50	4	1	V101.040.014.050	18,23 €
4	20	50	4	1	V101.040.020.050	18,72 €
5	17	50	5	1	V101.050.017.050	20,62 €
5	22	60	5	1	V101.050.022.060	21,58 €
6	22	60	6	1	V101.060.022.060	25,92 €
6	27	70	6	1	V101.060.027.070	26,88 €
8	22	70	8	1	V101.080.022.070	33,57 €
8	32	80	8	1	V101.080.032.080	34,53 €
10	32	80	10	1	V101.100.032.080	43,18 €
10	42	90	10	1	V101.100.042.090	45,11 €
12	32	80	12	1	V101.120.032.080	57,57 €
12	42	90	12	1	V101.120.042.090	62,37 €

Application: Router cutter for grooving plastic and aluminium profiles. Ideal for cutting drainage grooves in plastic window profiles.

Machine: Overhead routers with CNC control, machining centres, special routers with spindles for mounting shank tools.

RPM: n = 18000 - 24000 min⁻¹

Specials offer for router to PLEXIGL ASS. Plastics and ALU on pages 34-52



router bits – long GL Z=1

Typ V101

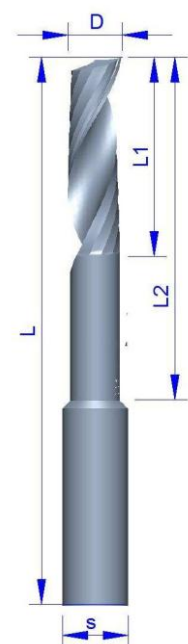
D	L1	L2	L	s	Z	Art.. nr	Net Euro
5	15	30	80	8	1	V102.050.15-30.080	31,62 €
5	25	40	90	8	1	V102.050.25-40.090	37,20 €
5	25	40	100	8	1	V102.050.25-40.100	43,09 €
6	15	30	80	8	1	V102.060.25-30.080	31,62 €
6	25	40	90	8	1	V102.060.15-40.090	37,20 €
6	25	40	100	8	1	V102.060.25-40.100	43,09 €
7	25	40	90	8	1	V102.070.25-40.090	37,20 €
7	25	40	100	8	1	V102.070.25-40.100	43,09 €
8	25	40	90	8	1	V102.080.25-40.090	37,20 €
8	35	45	100	8	1	V102.080.35-45.100	43,09 €

Application: Router cutter for grooving plastic and aluminium profiles. Ideal for cutting drainage grooves in plastic window profiles.

Machine: Overhead routers with CNC control, machining centres, special routers with spindles for mounting shank tools.

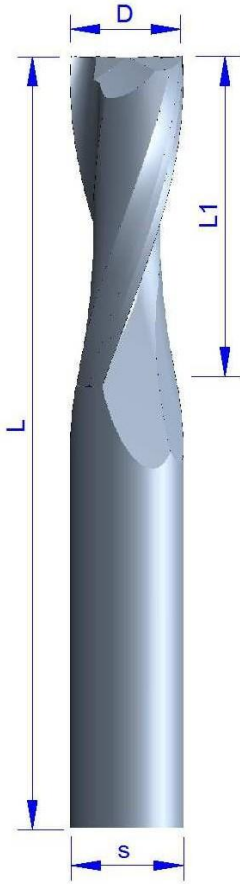
RPM: n = 18000 - 24000 min⁻¹

Specials offer for router to PLEXIGL ASS. Plastics and ALU on pages 34-52



Typ V201

Spiral finishing router bits GL Z=2



D	L ₁	L	s	Z	Art. nr	Net Euro
3	12	50	3	2	V201.030.012.050	15,35 €
4	12	50	4	2	V201.040.012.050	17,76 €
5	17	70	5	2	V201.050.017.070	20,62 €
6	22	70	6	2	V201.060.022.070	27,34 €
8	22	70	8	2	V201.080.022.070	31,19 €
8	32	80	8	2	V201.080.032.080	34,07 €
10	32	80	10	2	V201.100.032.080	44,14 €
10	42	90	10	2	V201.100.042.090	49,91 €
10	52	100	10	2	V201.100.052.100	54,81 €
12	32	80	12	2	V201.120.032.080	47,71 €
12	42	90	12	2	V201.120.042.090	54,81 €
12	52	100	12	2	V201.120.052.100	67,55 €
14	42	90	14	2	V201.140.042.090	69,91 €
14	52	100	14	2	V201.140.052.100	77,93 €
16	32	80	16	2	V201.160.032.080	74,15 €
16	42	90	16	2	V201.160.042.090	78,90 €
16	52	100	16	2	V201.160.052.100	86,46 €
16	62	110	16	2	V201.160.062.110	93,06 €
16	72	120	16	2	V201.160.072.120	100,63 €
18	52	100	18	2	V201.180.052.100	110,55 €
18	72	120	18	2	V201.180.072.120	129,89 €
20	52	100	20	2	V201.200.052.100	134,63 €
20	72	120	20	2	V201.200.072.120	159,19 €
20	82	130	20	2	V201.200.082.130	168,18 €
20	100	150	20	2	V201.200.100.150	193,19 €

Technical information:

- premium quality HWM
- 2 spiral cutting edges (Z2)
Upward chip ejection R/P
- Option
Right rotation/negtiv R/N
left rotation/positiv L/P
left rotation/positiv L/N



Application: Router cutter for sizing, grooving and finish cutting to high cutting quality.

Machine: Overhead routers with CNC control, machining centres, special routers with spindles for mounting shank tools.

Workpiece material: Softwood and hardwood, chipboard, MDF, plywood, duromers, plastomers, mineral materials (Corian, etc.).

Technical information: Ideally used after roughing cutters, finish cut allowance approx. 1-2 mm. Check twist direction for good top layer quality. Short design for increased stability and low vibration.

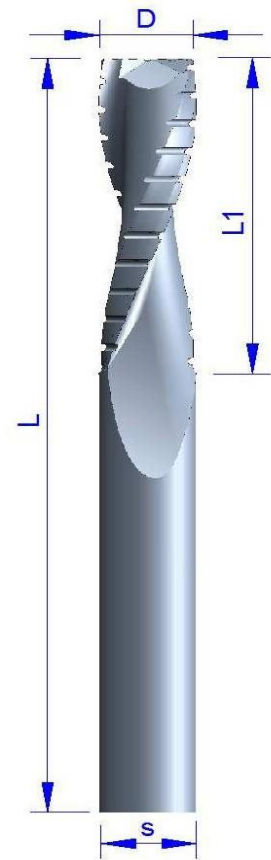
Long design for larger material thickness at *reduced feed speeds*.

RPM: n = 18000 - 24000 min⁻¹

Spiral finishing router bits with chipbreaker Z=2

Typ V202

D	L1	L	s	Z	Art. nr	Net Euro
6	22	70	6	2	V202.060.022.070	29,76 €
8	22	70	8	2	V202.080.022.070	33,57 €
8	32	80	8	2	V202.080.032.080	36,95 €
10	32	80	10	2	V202.100.032.080	47,49 €
10	42	90	10	2	V202.100.042.090	53,72 €
10	52	100	10	2	V202.100.052.100	59,99 €
12	32	80	12	2	V202.120.032.080	51,80 €
12	42	90	12	2	V202.120.042.090	59,99 €
12	52	100	12	2	V202.120.052.100	72,26 €
14	42	90	14	2	V202.140.042.090	74,65 €
14	52	100	14	2	V202.140.052.100	84,57 €
16	32	80	16	2	V202.160.032.080	80,29 €
16	42	90	16	2	V202.160.042.090	85,03 €
16	52	100	16	2	V202.160.052.100	92,60 €
16	62	110	16	2	V202.160.062.110	100,63 €
16	72	120	16	2	V202.160.072.120	108,66 €
18	52	100	18	2	V202.180.052.100	119,04 €
18	72	120	18	2	V202.180.072.120	140,31 €
20	52	100	20	2	V202.200.052.100	145,48 €
20	72	120	20	2	V202.200.072.120	171,96 €
20	82	130	20	2	V202.200.082.130	175,24 €
20	100	150	20	2	V202.200.100.150	196,97 €



Application: Router cutter for sizing, grooving and finish cutting to high cutting quality.

Machine: Overhead routers with CNC control, machining centres, special routers with spindles for mounting shank tools.

Workpiece material: Softwood and hardwood, chipboard, MDF, plywood, duromers, plastomers, mineral materials (Corian, etc.).

Technical information: Ideally used after roughing cutters, finish cut allowance approx. 1-2 mm. Check twist direction for good top layer quality. Short design for increased stability and low vibration.

Long design for larger material thickness at *reduced feed speeds*.

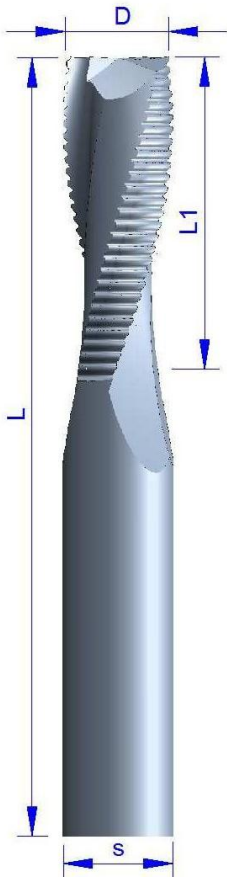
RPM: n = 18000 - 24000 min⁻¹

Technical information:

- premium quality HWM
- 2 spiral cutting edges (Z2)
Upward chip ejection R/P
- Option
Right rotation/negativ R/N
left rotation/positiv L/P
left rotation/positiv L/N

Typ V203

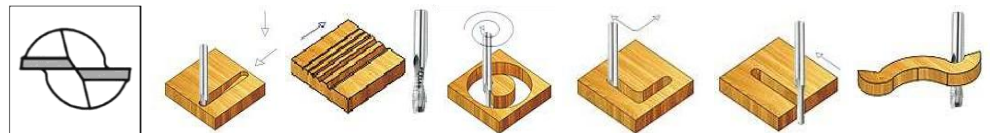
Spiral router bits **roughing** Z=2



D	L1	L	s	Z	Art. nr	Net Euro
6	20	70	6	2	V203.060.020.070	31,65 €
8	22	70	8	2	V203.080.022.070	34,07 €
8	32	80	8	2	V203.080.032.080	37,91 €
10	32	80	10	2	V203.100.032.080	49,91 €
10	42	90	10	2	V203.100.042.090	56,61 €
10	52	100	10	2	V203.100.052.100	62,84 €
12	32	80	12	2	V203.120.032.080	55,18 €
12	42	90	12	2	V203.120.042.090	62,37 €
12	52	100	12	2	V203.120.052.100	71,33 €
14	42	90	14	2	V203.140.042.090	82,18 €
14	52	100	14	2	V203.140.052.100	89,75 €
16	32	80	16	2	V203.160.032.080	84,57 €
16	42	90	16	2	V203.160.042.090	90,71 €
16	52	100	16	2	V203.160.052.100	101,09 €
16	62	110	16	2	V203.160.062.110	114,33 €
16	72	120	16	2	V203.160.072.120	120,47 €
18	52	100	18	2	V203.180.052.100	127,07 €
18	72	120	18	2	V203.180.072.120	152,12 €
20	52	100	20	2	V203.200.052.100	156,83 €
20	72	120	20	2	V203.200.072.120	179,03 €
20	85	130	20	2	V203.200.085.130	188,02 €
20	100	150	20	2	V203.200.100.150	205,96 €

Technical information:

- premium quality HWM
- 2 spiral cutting edges (Z2)
Upward chip ejection R/P
- Option
Right rotation/negtiv R/N
left rotation/positiv L/P
left rotation/positiv L/N



Application: Router cutter for sizing, grooving and finish cutting to high cutting quality.

Machine: Overhead routers with CNC control, machining centres, special routers with spindles for mounting shank tools.

Workpiece material: Softwood and hardwood, chipboard, MDF, plywood, duromers, plastomers, mineral materials (Corian, etc.).

Technical information: Ideally used after roughing cutters, finish cut allowance approx. 1-2 mm. Check twist direction for good top layer quality. Short design for increased stability and low vibration.

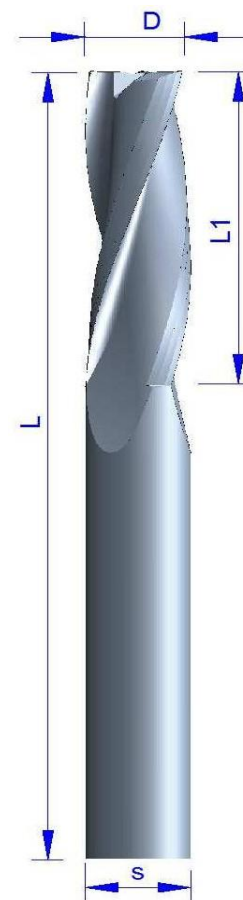
Long design for larger material thickness at *reduced feed speeds*.

RPM: n = 18000 - 24000 min⁻¹

Spiral finishing router bits GL Z=3

Typ V301

D	L1	L	s	Z	Art. nr	Net Euro
6	20	70	6	3	V301.060.020.070	28,80 €
8	22	70	8	3	V301.080.022.070	31,19 €
8	32	80	8	3	V301.080.032.080	35,50 €
10	32	80	10	3	V301.100.032.080	42,22 €
10	42	90	10	3	V301.100.042.090	49,91 €
10	52	100	10	3	V301.100.052.100	54,68 €
12	32	80	12	3	V301.120.032.080	54,68 €
12	42	90	12	3	V301.120.042.090	61,41 €
12	52	100	12	3	V301.120.052.100	67,08 €
14	42	90	14	3	V301.140.042.090	79,36 €
14	52	100	14	3	V301.140.052.100	87,39 €
16	32	80	16	3	V301.160.032.080	79,36 €
16	42	90	16	3	V301.160.042.090	88,35 €
16	52	100	16	3	V301.160.052.100	99,67 €
16	62	110	16	3	V301.160.062.110	108,66 €
16	72	120	16	3	V301.160.072.120	117,61 €
18	52	100	18	3	V301.180.052.100	119,04 €
18	72	120	18	3	V301.180.072.120	142,66 €
20	52	100	20	3	V301.200.052.100	139,81 €
20	72	120	20	3	V301.200.072.120	168,18 €
20	85	130	20	3	V301.200.085.130	181,88 €
20	100	150	20	3	V301.200.100.150	197,47 €
25	100	150	25	3	V301.250.100.150	337,28 €



Application: Router cutter for sizing, grooving and finish cutting to high cutting quality.

Machine: Overhead routers with CNC control, machining centres, special routers with spindles for mounting shank tools.

Workpiece material: Softwood and hardwood, chipboard, MDF, plywood, duromers, plastomers, mineral materials (Corian, etc.).

Technical information: Ideally used after roughing cutters, finish cut allowance approx. 1-2 mm. Check twist direction for good top layer quality. Short design for increased stability and low vibration. Long design for larger material thickness at *reduced feed speeds*.

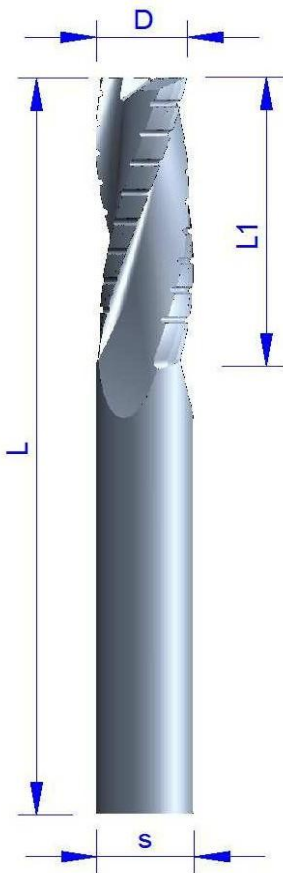
RPM: n = 18000 - 24000 min⁻¹

Technical information:

- premium quality HWM
- 3 spiral cutting edges (Z3)
Upward chip ejection R/P
- Option
Right rotation/negativ R/N
left rotation/positiv L/P
left rotation/positiv L/N

Typ V302

Spiral finishing router bits with chipbreaker Z=3



D	L1	L	s	Z	Art. nr	Net Euro
6	20	70	6	3	V302.060.020.070	29,76 €
8	22	70	8	3	V302.080.022.070	32,61 €
8	32	80	8	3	V302.080.032.080	37,42 €
10	32	80	10	3	V302.100.032.080	43,18 €
10	42	90	10	3	V302.100.042.090	51,80 €
10	52	100	10	3	V302.100.052.100	57,10 €
12	32	80	12	3	V302.120.032.080	57,10 €
12	42	90	12	3	V302.120.042.090	63,33 €
12	52	100	12	3	V302.120.052.100	68,98 €
14	42	90	14	3	V302.140.042.090	82,18 €
14	52	100	14	3	V302.140.052.100	89,28 €
16	32	80	16	3	V302.160.032.080	80,29 €
16	42	90	16	3	V302.160.042.090	90,21 €
16	52	100	16	3	V302.160.052.100	101,56 €
16	62	110	16	3	V302.160.062.110	111,48 €
16	72	120	16	3	V302.160.072.120	119,97 €
18	52	100	18	3	V302.180.052.100	120,93 €
18	72	120	18	3	V302.180.072.120	144,09 €
20	52	100	20	3	V302.200.052.100	141,24 €
20	72	120	20	3	V302.200.072.120	170,07 €
20	85	130	20	3	V302.200.085.130	183,77 €
20	100	150	20	3	V302.200.100.150	201,72 €
25	100	150	25	3	V302.250.100.150	341,99 €

Technical information:

- premium quality HWM
- 3 spiral cutting edges (Z3)
Upward chip ejection R/P
- Option
Right rotation/negativ R/N
left rotation/positiv L/P
left rotation/positiv L/N



Application: Router cutter for sizing, grooving and finish cutting to high cutting quality.

Machine: Overhead routers with CNC control, machining centres, special routers with spindles for mounting shank tools.

Workpiece material: Softwood and hardwood, chipboard, MDF, plywood, duromers, plastomers, mineral materials (Corian, etc.).

Technical information: Ideally used after roughing cutters, finish cut allowance approx. 1-2 mm. Check twist direction for good top layer quality. Short design for increased stability and low vibration.

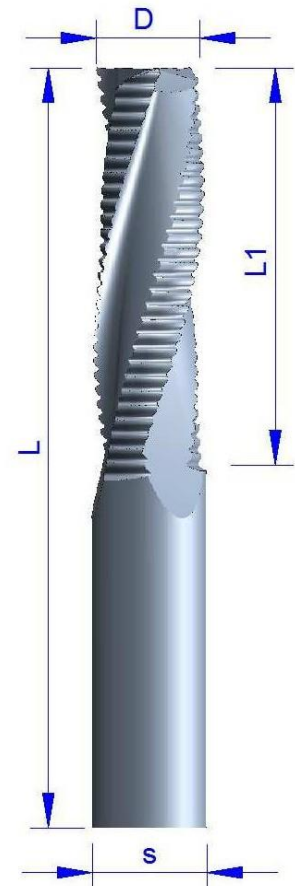
Long design for larger material thickness at *reduced feed speeds*.

RPM: n = 18000 - 24000 min⁻¹

Spiral router bits **roughing** Z=3

Typ V303

D	L1	L	s	Z	Art. nr	Net Euro
8	22	70	8	3	V303.080.022.070	35,03 €
8	32	80	8	3	V303.080.032.080	39,84 €
10	32	80	10	3	V303.100.032.080	47,03 €
10	42	90	10	3	V303.100.042.090	55,65 €
10	52	100	10	3	V303.100.052.100	61,41 €
12	32	80	12	3	V303.120.032.080	61,41 €
12	42	90	12	3	V303.120.042.090	68,60 €
12	52	100	12	3	V303.120.052.100	76,29 €
14	42	90	14	3	V303.140.042.090	88,82 €
14	52	100	14	3	V303.140.052.100	97,77 €
16	32	80	16	3	V303.160.032.080	88,82 €
16	42	90	16	3	V303.160.042.090	99,20 €
16	52	100	16	3	V303.160.052.100	111,48 €
16	62	110	16	3	V303.160.062.110	121,40 €
16	72	120	16	3	V303.160.072.120	131,78 €
18	52	100	18	3	V303.180.052.100	133,21 €
18	72	120	18	3	V303.180.072.120	160,15 €
20	52	100	20	3	V303.200.052.100	157,29 €
20	72	120	20	3	V303.200.072.120	188,02 €
20	85	130	20	3	V303.200.085.130	212,10 €
20	100	150	20	3	V303.200.100.150	244,68 €
25	100	150	25	3	V303.250.100.150	430,34 €



Application: Router cutter for sizing, grooving and finish cutting to high cutting quality.

Machine: Overhead routers with CNC control, machining centres, special routers with spindles for mounting shank tools.

Workpiece material: Softwood and hardwood, chipboard, MDF, plywood, duromers, plasters, mineral materials (Corian, etc.).

Technical information: Ideally used after roughing cutters, finish cut allowance approx. 1-2 mm. Check twist direction for good top layer quality. Short design for increased stability and low vibration.

Long design for larger material thickness at *reduced feed speeds*.

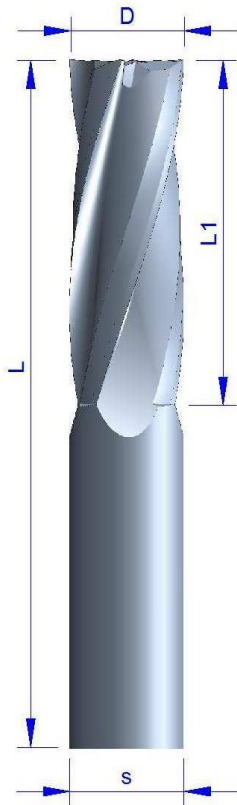
RPM: n = 18000 - 24000 min⁻¹

Technical information:

- premium quality HWM
- 3 spiral cutting edges (Z3)
Upward chip ejection R/P
- Option
Right rotation/negtiv R/N
left rotation/positiv L/P
left rotation/positiv L/N

Typ V401

Spiral finishing router bits GL Z=4



D	L1	L	s	Z	Art. nr	Cena netto
14	42	90	14	4	V401.140.042.090	85,41 €
14	52	100	14	4	V401.140.052.100	95,48 €
16	32	80	16	4	V401.160.032.080	87,79 €
16	42	90	16	4	V401.160.042.090	95,48 €
16	52	100	16	4	V401.160.052.100	105,06 €
16	62	110	16	4	V401.160.062.110	117,06 €
16	72	120	16	4	V401.160.072.120	124,25 €
18	52	100	18	4	V401.180.052.100	131,94 €
18	72	120	18	4	V401.180.072.120	153,51 €
20	52	100	20	4	V401.200.052.100	158,26 €
20	72	120	20	4	V401.200.072.120	187,05 €
20	85	130	20	4	V401.200.085.130	216,35 €
20	100	150	20	4	V401.200.100.150	252,25 €
25	100	150	25	4	V401.250.100.150	432,23 €



Technical information:

- premium quality HWM
- 4 spiral cutting edges (Z4)
Upward chip ejection R/P
- Option
Right rotation/negativ R/N
left rotation/positiv L/P
left rotation/positiv L/N

Application: Router cutter for sizing, grooving and finish cutting to high cutting quality.

Machine: Overhead routers with CNC control, machining centres, special routers with spindles for mounting shank tools.

Workpiece material: Softwood and hardwood, chipboard, MDF, plywood, duromers, plastomers, mineral materials (Corian, etc.).

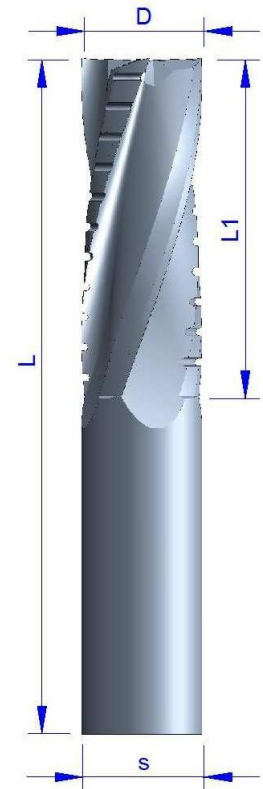
Technical information: Ideally used after roughing cutters, finish cut allowance approx. 1-2 mm. Check twist direction for good top layer quality. Short design for increased stability and low vibration. Long design for larger material thickness at *reduced feed speeds*.

RPM: n = 18000 - 24000 min⁻¹

Spiral finishing router bits with 2-spiral chipbreaker Z=4

Typ V402

D	L1	L	s	Z	Art. nr	Net Euro
14	42	90	14	4	V402.140.042.090	89,71 €
14	52	100	14	4	V402.140.052.100	99,79 €
16	32	80	16	4	V402.160.032.080	92,10 €
16	42	90	16	4	V402.160.042.090	99,79 €
16	52	100	16	4	V402.160.052.100	110,36 €
16	62	110	16	4	V402.160.062.110	123,29 €
16	72	120	16	4	V402.160.072.120	130,98 €
18	52	100	18	4	V402.180.052.100	138,17 €
18	72	120	18	4	V402.180.072.120	161,54 €
20	52	100	20	4	V402.200.052.100	166,28 €
20	72	120	20	4	V402.200.072.120	196,51 €
20	85	130	20	4	V402.200.085.130	227,23 €
20	100	150	20	4	V402.200.100.150	265,02 €
25	100	150	25	4	V402.250.100.150	447,83 €



Application: Router cutter for sizing, grooving and finish cutting to high cutting quality.

Machine: Overhead routers with CNC control, machining centres, special routers with spindles for mounting shank tools.

Workpiece material: Softwood and hardwood, chipboard, MDF, plywood, duromers, plastomers, mineral materials (Corian, etc.).

Technical information: Ideally used after roughing cutters, finish cut allowance approx. 1-2 mm. Check twist direction for good top layer quality. Short design for increased stability and low vibration. Long design for larger material thickness at *reduced feed speeds*.

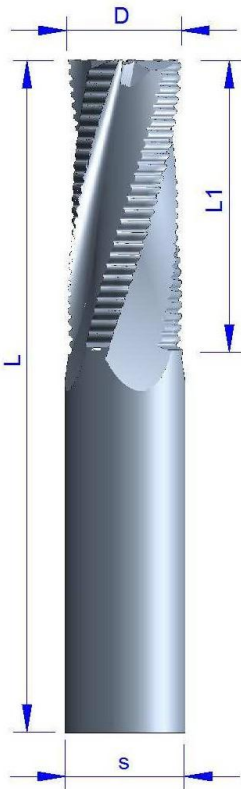
RPM: n = 18000 - 24000 min⁻¹

Technical information:

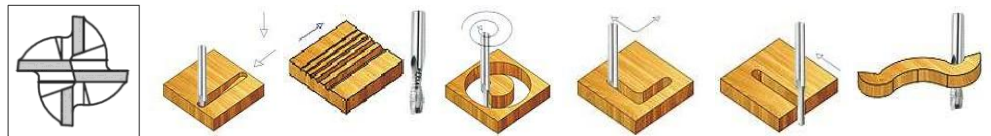
- premium quality HWM
- 4 spiral cutting edges (Z4)
Upward chipejection R/P
- Option
Right rotation/negtiv R/N
left rotation/positiv L/P
left rotation/positiv L/N

Typ V403

Spiral roughing router bits Z=4



D	L1	L	s	Z	Art. nr	Net Euro
14	42	90	14	4	V403.140.042.090	94,02 €
14	52	100	14	4	V403.140.052.100	105,06 €
16	32	80	16	4	V403.160.032.080	96,44 €
16	42	90	16	4	V403.160.042.090	105,06 €
16	52	100	16	4	V403.160.052.100	115,13 €
16	62	110	16	4	V403.160.062.110	129,05 €
16	72	120	16	4	V403.160.072.120	136,74 €
18	52	100	18	4	V403.180.052.100	144,89 €
18	72	120	18	4	V403.180.072.120	169,11 €
20	52	100	20	4	V403.200.052.100	174,31 €
20	72	120	20	4	V403.200.072.120	205,96 €
20	85	130	20	4	V403.200.085.130	238,08 €
20	100	150	20	4	V403.200.100.150	277,30 €
25	100	150	25	4	V403.250.100.150	475,23 €



Technical information:

- premium quality HWM
- 4 spiral cutting edges (Z4)
Upward chip ejection R/P
- Option
Right rotation/negtiv R/N
left rotation/positiv L/P
left rotation/positiv L/N

Application: Router cutter for sizing, grooving and finish cutting to high cutting quality.

Machine: Overhead routers with CNC control, machining centres, special routers with spindles for mounting shank tools.

Workpiece material: Softwood and hardwood, chipboard, MDF, plywood, duromers, plastomers, mineral materials (Corian, etc.).

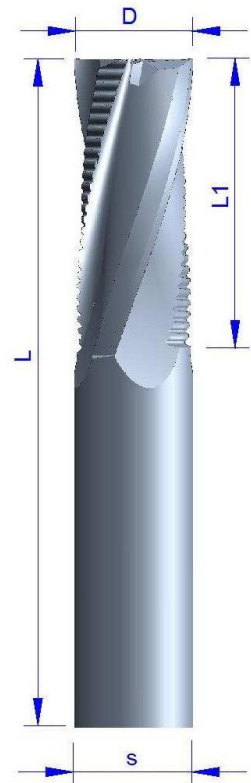
Technical information: Ideally used after roughing cutters, finish cut allowance approx. 1-2 mm. Check twist direction for good top layer quality. Short design for increased stability and low vibration. Long design for larger material thickness at *reduced feed speeds*.

RPM: n = 18000 - 24000 min⁻¹

Spiral finishing router bits with 2-spiral roughing Z=4

Typ V404

D	L1	L	s	Z	Art. nr	Net Euro
14	42	90	14	4	V404.140.042.090	97,87 €
14	52	100	14	4	V404.140.052.100	109,40 €
16	32	80	16	4	V404.160.032.080	101,22 €
16	42	90	16	4	V404.160.042.090	109,40 €
16	52	100	16	4	V404.160.052.100	120,90 €
16	62	110	16	4	V404.160.062.110	134,32 €
16	72	120	16	4	V404.160.072.120	142,97 €
18	52	100	18	4	V404.180.052.100	151,13 €
18	72	120	18	4	V404.180.072.120	176,67 €
20	52	100	20	4	V404.200.052.100	182,34 €
20	72	120	20	4	V404.200.072.120	215,42 €
20	85	130	20	4	V404.200.085.130	248,47 €
20	100	150	20	4	V404.200.100.150	290,04 €
25	100	150	25	4	V404.250.100.150	493,18 €



Application: Router cutter for sizing, grooving and finish cutting to high cutting quality.

Machine: Overhead routers with CNC control, machining centres, special routers with spindles for mounting shank tools.

Workpiece material: Softwood and hardwood, chipboard, MDF, plywood, duromers, plastomers, mineral materials (Corian, etc.).

Technical information: Ideally used after roughing cutters, finish cut allowance approx. 1-2 mm. Check twist direction for good top layer quality. Short design for increased stability and low vibration. Long design for larger material thickness at *reduced feed speeds*.

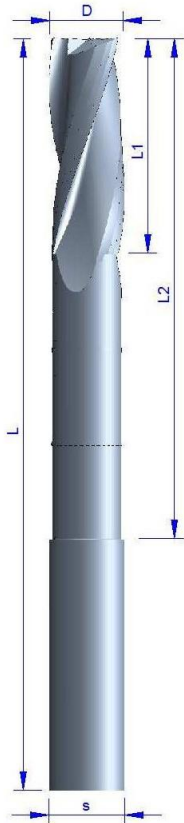
RPM: n = 18000 - 24000 min⁻¹

Technical information:

- premium quality HWM
- 4 spiral cutting edges (Z4)
Upward chip ejection R/P
- Option
Right rotation/negativ R/N
left rotation/positiv L/P
left rotation/positiv L/N

Typ V501

Spiral router bits for door-locks Z=3



D	L1	L	s	Z	Art. nr	Net Euro
14	40/95	150	14	3	V501.140.040.150	35,29
14	40/105	170	14	3	V501.140.040.170	38,23
16	40/95	150	16	3	V501.160.040.150	41,17
16	40/105	170	16	3	V501.160.040.170	44,11
18	40/95	150	18	3	V501.180.040.150	51,54
18	40/105	170	18	3	V501.180.040.170	54,48
20	40/95	150	20	3	V501.200.040.150	60,36
20	40/105	170	20	3	V501.200.040.170	64,69

Application: Router cutter for sizing, grooving and finish cutting to high cutting quality.

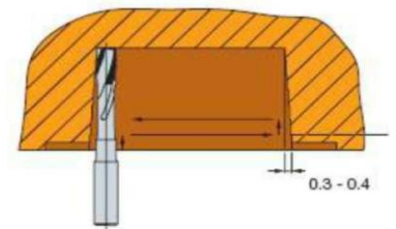
Machine: Overhead routers with CNC control, machining centres, special routers with spindles for mounting shank tools.

Workpiece material: Softwood and hardwood, chipboard, MDF, plywood, duromers, plastomers, mineral materials (Corian, etc.).

Technical information: Ideally used after roughing cutters, finish cut allowance approx. 1-2 mm. Check twist direction for good top layer quality. Short design for increased stability and low vibration.

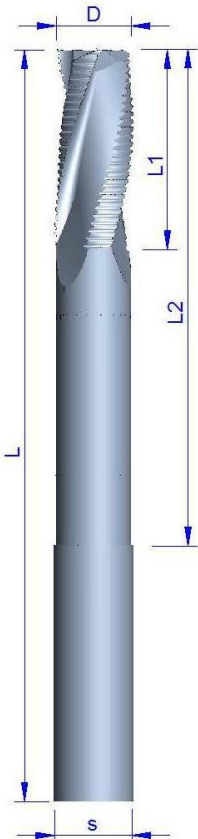
Long design for larger material thickness at *reduced feed speeds*.

RPM: n = 18000 - 24000 min⁻¹



Typ V502

Spiral router bits for door-locks roughing Z=3



D	L1	L	s	Z	Art. nr	Net Euro
14	40/95	150	14	3	V502.140.040.150	€ 36,83
14	40/105	170	14	3	V502.140.040.170	€ 39,77
16	40/95	150	16	3	V502.160.040.150	€ 42,71
16	40/105	170	16	3	V502.160.040.170	€ 45,65
18	40/95	150	18	3	V502.180.040.150	€ 52,93
18	40/105	170	18	3	V502.180.040.170	€ 55,87
20	40/95	150	20	3	V502.200.040.150	€ 63,30
20	40/105	170	20	3	V502.200.040.170	€ 67,63

Application: Router cutter for sizing, grooving and finish cutting to high cutting quality.

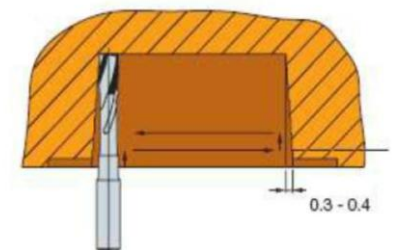
Machine: Overhead routers with CNC control, machining centres, special routers with spindles for mounting shank tools.

Workpiece material: Softwood and hardwood, chipboard, MDF, plywood, duromers, plastomers, mineral materials (Corian, etc.).

Technical information: Ideally used after roughing cutters, finish cut allowance approx. 1-2 mm. Check twist direction for good top layer quality. Short design for increased stability and low vibration.

Long design for larger material thickness at *reduced feed speeds*.

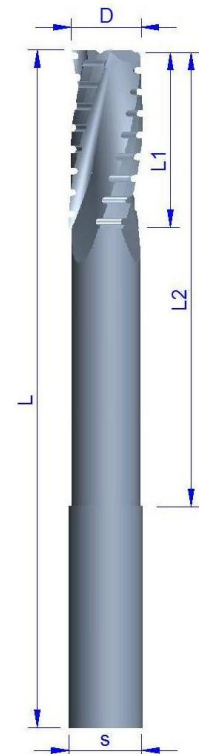
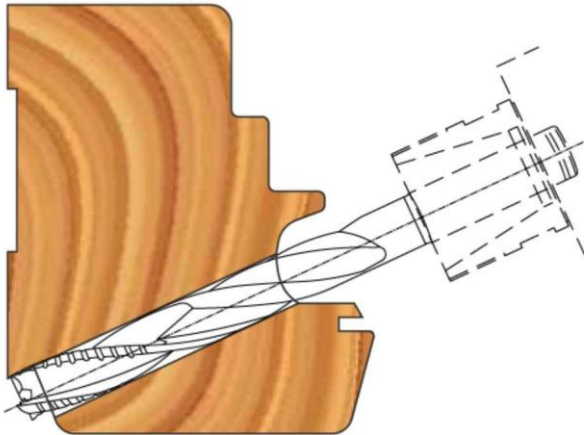
RPM: n = 18000 - 24000 min⁻¹



Spiral router bits **drainage system Z=3**

Typ V503

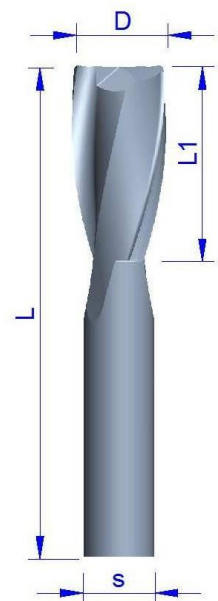
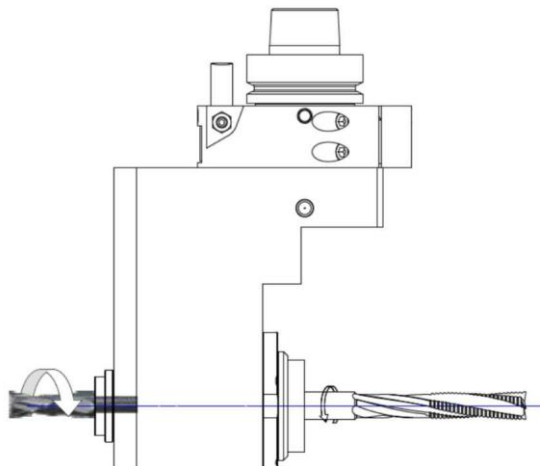
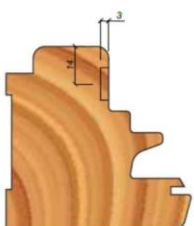
D	L1	L	s	Z	Art. nr	Net Euro
8	30/80	115	8	3	V503.080.030.115	42,22 €
8	30/95	130	8	3	V503.080.030.130	45,11 €
10	30/80	115	10	3	V503.100.030.115	64,29 €
10	30/95	130	10	3	V503.100.030.130	71,49 €



Spiral router bits **Z=2 for CNC aggregate Z=2**

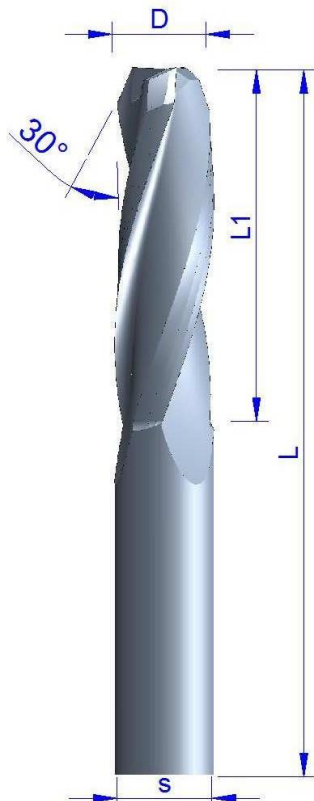
Typ V504

D	L1	L	s	Z	Art. nr	Net Euro
10	30	80	10	2	V504.100.030.080	46,53 €
12	30	80	10	2	V504.120.030.080	56,14 €
14	30	80	10	2	V504.140.030.080	70,53 €



Typ V601

Spiral router bits with 30° V-point-locksets GL Z=3



D	L1	L	s	Z	Art. nr	Net Euro
14	60	110	14	3	V601.140.060.110	105,56 €
16	60	110	16	3	V601.160.060.110	120,90 €
18	60	110	18	3	V601.180.060.110	141,52 €

Application: Router cutter for sizing, grooving and finish cutting to high cutting quality.

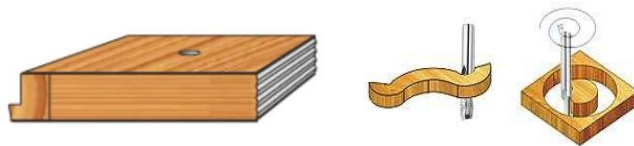
Machine: Overhead routers with CNC control, machining centres, special routers with spindles for mounting shank tools.

Workpiece material: Softwood and hardwood, chipboard, MDF, plywood, duromers, plastomers, mineral materials (Corian, etc.).

Technical information: Ideally used after roughing cutters, finish cut allowance approx. 1-2 mm. Check twist direction for good top layer quality. Short design for increased stability and low vibration.

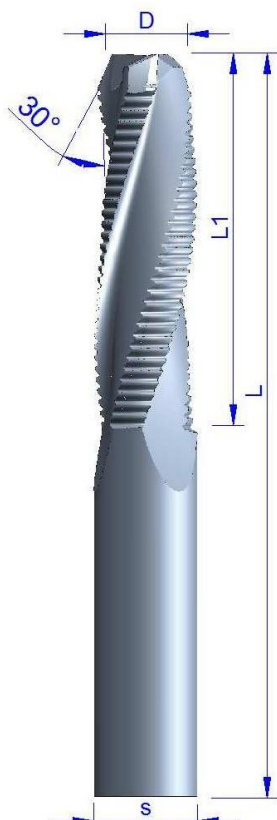
Long design for larger material thickness at *reduced feed speeds*.

RPM: n = 18000 - 24000 min⁻¹



Typ V602

Spiral router bits with 30° V-point-locksets ZG Z=3



D	L1	L	s	Z	Art. nr	Net Euro
14	60	110	14	3	V602.140.060.110	114,17 €
16	60	110	16	3	V602.160.060.110	141,52 €
18	60	110	18	3	V602.180.060.110	161,67 €

Application: Router cutter for sizing, grooving and finish cutting to high cutting quality.

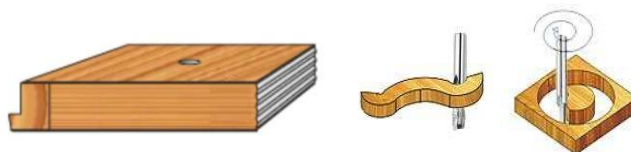
Machine: Overhead routers with CNC control, machining centres, special routers with spindles for mounting shank tools.

Workpiece material: Softwood and hardwood, chipboard, MDF, plywood, duromers, plastomers, mineral materials (Corian, etc.).

Technical information: Ideally used after roughing cutters, finish cut allowance approx. 1-2 mm. Check twist direction for good top layer quality. Short design for increased stability and low vibration.

Long design for larger material thickness at *reduced feed speeds*.

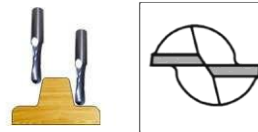
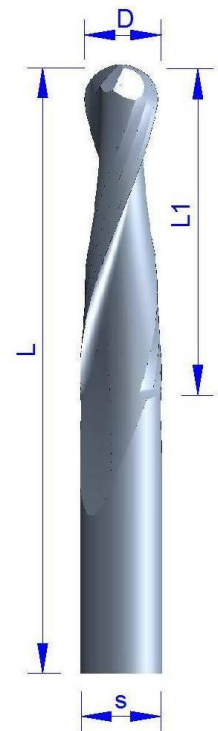
RPM: n = 18000 - 24000 min⁻¹



Spiral router bits with Radius Z=2

Typ V701

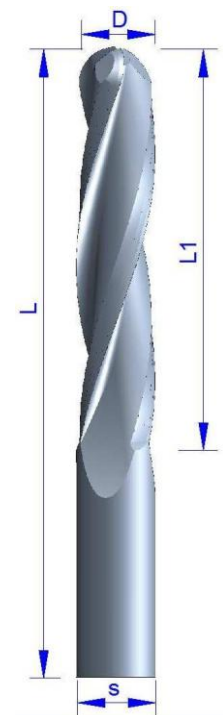
D	L1	L	s	Z	Art. nr	Net Euro
3	10	50	3	2	V701.030.010.050	19,69 €
4	12	50	4	2	V701.040.012.050	23,03 €
5	15	60	5	2	V701.050.015.060	25,92 €
6	15	60	6	2	V701.060.015.060	31,65 €
6	22	70	6	2	V701.060.022.070	32,61 €
8	22	70	8	2	V701.080.022.070	37,91 €
10	32	80	10	2	V701.100.032.080	52,76 €
10	42	100	10	2	V701.100.042.100	68,60 €
12	32	80	12	2	V701.120.032.080	55,27 €
12	42	100	12	2	V701.120.042.100	75,11 €
14	42	100	14	2	V701.140.042.100	93,06 €
16	42	100	16	2	V701.160.042.100	107,69 €
16	52	100	16	2	V701.160.052.100	122,36 €
18	52	100	18	2	V701.180.052.100	132,28 €
20	50	100	20	2	V701.200.050.100	152,12 €
20	100	160	20	2	V701.200.100.160	239,97 €
25	50	100	25	2	V701.250.050.100	347,67 €
25	70	130	25	2	V701.250.070.130	465,31 €



Spiral router bits with Radius Z=3

Typ V702

D	L1	L	s	Z	Art. nr	Net Euro
10	32	80	10	3	V702.100.032.080	62,37 €
10	42	100	10	3	V702.100.042.100	79,64 €
12	32	80	12	3	V702.120.032.080	71,95 €
12	42	100	12	3	V702.120.042.100	89,71 €
14	42	100	14	3	V702.140.042.100	109,40 €
16	42	100	16	3	V702.160.042.100	124,25 €
16	52	100	16	3	V702.160.052.100	146,82 €
18	52	100	18	3	V702.180.052.100	159,28 €
20	52	100	20	3	V702.200.052.100	171,46 €
20	100	160	20	3	V702.200.100.160	215,42 €
25	52	100	25	3	V702.250.052.100	411,43 €
25	72	130	25	3	V702.250.072.130	519,62 €



Application: Routers to cut radius profiles in panels for furniture and interior construction.

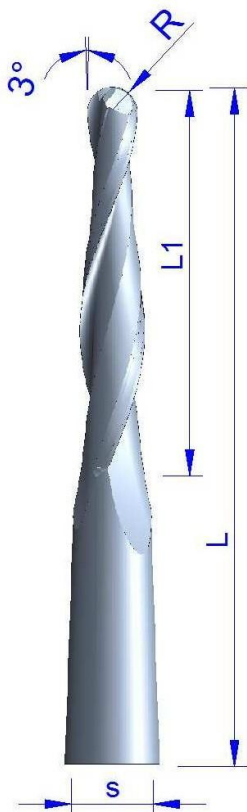
Machine: Overhead routers with CNC control, machining centres, special routers with spindles to mount shank tools.

Workpiece material: Softwood and hardwood, chipboard, MDF, plywood, duromers, plastomers, mineral materials (Corian, etc.).

RPM: n = 18000 - 24000 min⁻¹

Typ V703

Spiral router bits with Radius taper Z=2



R	L1	L	s	Z	Art. nr	Net Euro
2	16	80	6	2	V703.02.016.080D6	41,73 €
3	22	80	8	2	V703.03.022.080D8	47,03 €
3	32	90	8	2	V703.03.032.090D8	55,18 €
3	42	100	8	2	V703.03.042.100D8	62,84 €
4	52	100	12	2	V703.04.052.100D12	102,18 €
4	62	120	12	2	V703.04.062.120D12	120,44 €
5	52	120	16	2	V703.05.052.120D16	157,36 €
5	72	150	16	2	V703.05.072.150D16	204,38 €

Application: Routers to cut radius profiles in panels for furniture and interior construction.

Machine: Overhead routers with CNC control, machining centres, special routers with spindles to mount shank tools.

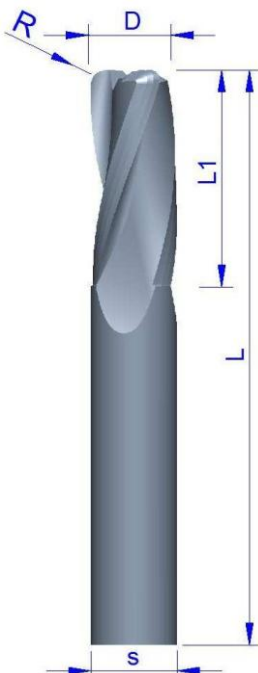
Workpiece material: Softwood and hardwood, chipboard, MDF, plywood, duromers, plastomers, mineral materials (Corian, etc.).

RPM: n = 18000 - 24000 min⁻¹



Typ V704

Spiral router bits with Corner Radius Z=3



D	R	L1	L	s	Z	Art. nr	Net Euro
10	2	16	80	10	2	V704.100.016.080.R2	62,84 €
12	2	22	80	12	3	V704.120.022.080.R2	78,68 €
14	2	32	90	14	3	V704.140.032.090.R2	115,13 €
16	2	42	100	16	3	V704.160.042.100.R2	128,59 €
16	3	52	100	16	3	V704.160.052.100.R3	149,20 €
18	2	62	120	18	3	V704.180.062.120.R2	178,00 €
18	3	52	120	18	3	V704.180.052.120.R3	178,00 €
20	3	70	120	20	3	V704.200.070.120.R3	199,11 €
20	5	70	120	20	3	V704.200.070.120.R5	196,04 €



Application: Routers to cut radius profiles in panels for furniture and interior construction.

Machine: Overhead routers with CNC control, machining centres, special routers with spindles to mount shank tools.

Workpiece material: Softwood and hardwood, chipboard, MDF, plywood, duromers, plastomers, mineral materials (Corian, etc.).

RPM: n = 18000 - 24000 min⁻¹

Spiral router bits **compression** Z=1+1

Typ V801

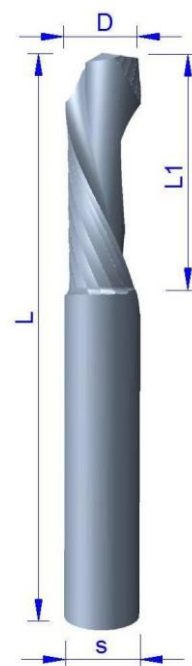
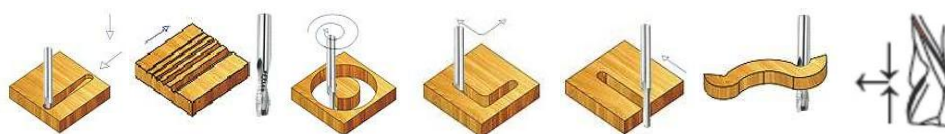
D	L1	L	s	Z	Art. nr	Net Euro
6	17	70	6	1+1	V801.060.017.070	27,34 €
8	22	80	8	1+1	V801.080.022.080	35,50 €
10	22	80	10	1+1	V801.100.022.080	49,91 €
10	32	90	10	1+1	V801.100.032.090	53,72 €
12	22	80	12	1+1	V801.120.022.080	58,06 €
12	32	90	12	1+1	V801.120.032.090	63,80 €

Application: Router cutter for sizing, grooving and finish cutting to high cutting quality. For tear free cut edges on both sides.

Machine: Overhead routers with CNC control, machining centres, special routers with spindles to mount shank tools.

Workpiece material: Softwood, hardwood. Chipboard, plywood

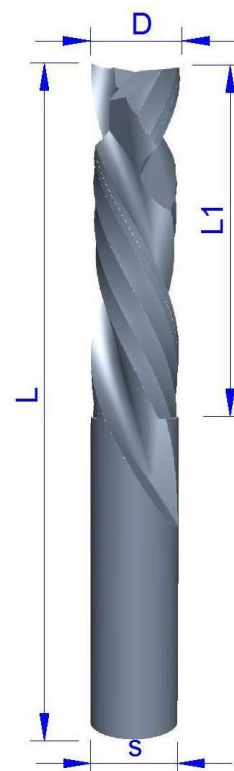
RPM: n = 18000 - 24000 min⁻¹



Spiral router bits **compression** Z=2+2

Typ V802

D	L1	L	s	Z	Art. nr	Net Euro
8	22	80	8	2+2	V802.080.022.080	42,22 €
8	32	90	8	2+2	V802.080.032.090	46,07 €
10	22	80	10	2+2	V802.100.022.080	50,38 €
10	32	90	10	2+2	V802.100.032.090	57,10 €
12	22	80	12	2+2	V802.120.022.080	68,60 €
12	32	90	12	2+2	V802.120.032.090	72,45 €
12	42	100	12	2+2	V802.120.042.100	76,29 €
14	32	90	14	2+2	V802.140.032.090	99,79 €
14	42	100	14	2+2	V802.140.042.100	106,30 €
14	52	110	14	2+2	V802.140.052.110	112,44 €
16	32	90	16	2+2	V802.160.032.090	121,40 €
16	42	100	16	2+2	V802.160.042.100	127,53 €
16	52	110	16	2+2	V802.160.052.110	135,10 €



Application: Router cutter for sizing, grooving and finish cutting to high cutting quality. For tear free cut edges on both sides.

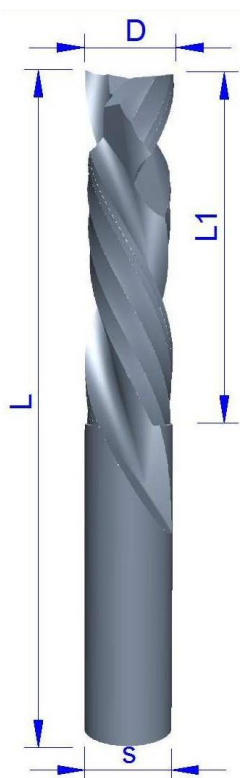
Machine: Overhead routers with CNC control, machining centres, special routers with spindles to mount shank tools.

Workpiece material: Softwood, hardwood. Chipboard, plywood

RPM: n = 18000 - 24000 min⁻¹

Typ V802HP

Spiral router bits **compression HP+Z=2+2** „nesting”

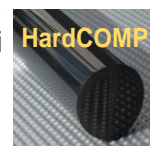


D	L1	L	s	Z	Art. nr	Net Euro
8	22	80	8	2+2	V802.080.022.080.HP	48,45 €
8	32	90	8	2+2	V802.080.032.090.HP	52,76 €
10	22	80	10	2+2	V802.100.022.080.HP	58,06 €
10	32	90	10	2+2	V802.100.032.090.HP	65,72 €
12	22	80	12	2+2	V802.120.022.080.HP	78,68 €
12	32	90	12	2+2	V802.120.032.090.HP	83,48 €
12	42	100	12	2+2	V802.120.042.100.HP	87,79 €
14	32	90	14	2+2	V802.140.032.090.HP	114,67 €
14	42	100	14	2+2	V802.140.042.100.HP	122,36 €
14	52	110	14	2+2	V802.140.052.110.HP	129,43 €
16	32	90	16	2+2	V802.160.032.090.HP	139,81 €
16	42	100	16	2+2	V802.160.042.100.HP	146,91 €
16	52	110	16	2+2	V802.160.052.110.HP	155,40 €



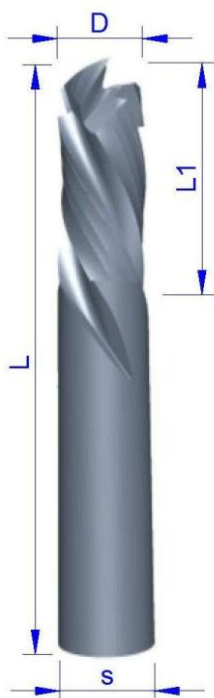
Zastosowanie frezy spiralne pełnowęglkowe Z-2+2 GL z układem ostrzy skośnych pozytywno negatywnych. Do frezowania drewna, sklejki, płyty MDF, wiórowej. **Przeznaczone** do prac na maszynach numerycznych CNC. **Posuwy** od 10 do 20 m/min w zależności od średnicy narzędzia i rodzaju obrabianego materiału

[Możliwość pokrywania powłoką typ DLC \(hardComp\)](#)



Typ V803

Spiral router bits **compression Z=3+3**



D	L1	L	s	Z	Art. nr	Net Euro
10	25	80	10	3+3	V803.100.025.080	64,76 €
10	32	90	10	3+3	V803.100.032.090	73,41 €
12	25	80	12	3+3	V803.120.025.080	82,99 €
12	32	90	12	3+3	V803.120.032.090	87,33 €
12	42	100	12	3+3	V803.120.042.100	92,10 €
14	32	90	14	3+3	V803.140.032.090	120,90 €
14	42	100	14	3+3	V803.140.042.100	130,98 €
14	52	110	14	3+3	V803.140.052.110	137,70 €
16	32	90	16	3+3	V803.160.032.090	165,32 €
16	42	100	16	3+3	V803.160.042.100	173,85 €
16	52	110	16	3+3	V803.160.052.110	184,70 €



Zastosowanie frezy spiralne pełnowęglkowe Z-3+3 GL z układem ostrzy skośnych pozytywno negatywnych. Do frezowania, drewna, sklejki, płyty MDF, wiórowej.

Przeznaczone do prac na maszynach numerycznych CNC

Posuwy od 6 do 12 m/min w zależności od średnicy narzędzia i rodzaju obrabianego materiału

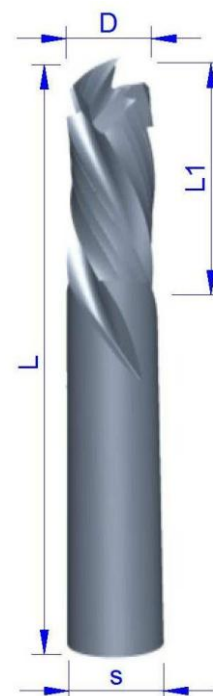
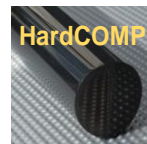
Spiral router bits **compression HP+** Z=3+3 „nesting” Typ V803HP

D	L1	L	s	Z	Art. nr	Net Euro
10	25	80	10	3+3	V803.100.025.080.HP	73,41 €
10	32	90	10	3+3	V803.100.032.090.HP	82,52 €
12	25	80	12	3+3	V803.120.025.080.HP	93,56 €
12	32	90	12	3+3	V803.120.032.090.HP	98,83 €
12	42	100	12	3+3	V803.120.042.100.HP	104,10 €
14	32	90	14	3+3	V803.140.032.090.HP	136,74 €
14	42	100	14	3+3	V803.140.042.100.HP	147,78 €
14	52	110	14	3+3	V803.140.052.110.HP	155,43 €
16	32	90	16	3+3	V803.160.032.090.HP	187,05 €
16	42	100	16	3+3	V803.160.042.100.HP	196,04 €
16	52	110	16	3+3	V803.160.052.110.HP	208,79 €



Zastosowanie frezy spiralne pełnowęglkowe Z-3+3 GL HP+ z układem ostrzy skośnych pozytywno negatywnych. Do frezowania drewna, sklejki, płyty MDF, wiórowej. **Przeznaczone** do prac na maszynach numerycznych CNC **Posuwy** od 10 do 25 m/min w zależności od średnicy narzędzia i rodzaju obrabianego materiału

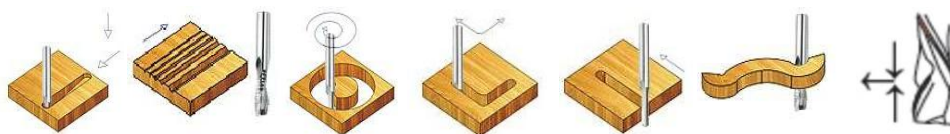
[Możliwość pokrywania powłoką typ DLC \(hardComp\)](#)



Spiral router bits **compression HP+** Z=2+2 ZG „nesting” Typ V806

Typ V806

D	L1	L	s	Z	Art. nr	Net Euro
10	25	80	10	2+2	V806.100.025.080HP	62,84 €
10	35	90	10	2+2	V806.100.032.090HP	71,49 €
12	25	80	12	2+2	V806.120.025.080HP	85,41 €
12	35	90	12	2+2	V806.120.032.090HP	90,68 €
14	42	100	14	2+2	V806.140.042.100HP	134,82 €
16	42	100	16	2+2	V806.160.042.100HP	161,67 €
16	52	110	16	2+2	V806.160.052.110HP	171,28 €



Zastosowanie frezy spiralne pełnowęglkowe Z-3+3 GL HP+ z układem ostrzy skośnych pozytywno negatywnych. Do frezowania drewna, sklejki, płyty MDF, wiórowej. **Przeznaczone** do prac na maszynach numerycznych CNC **Posuwy** od 6 do 20 m/min w zależności od średnicy narzędzia i rodzaju obrabianego materiału.

[Możliwość pokrywania powłoką typ DLC \(hardComp\)](#)

