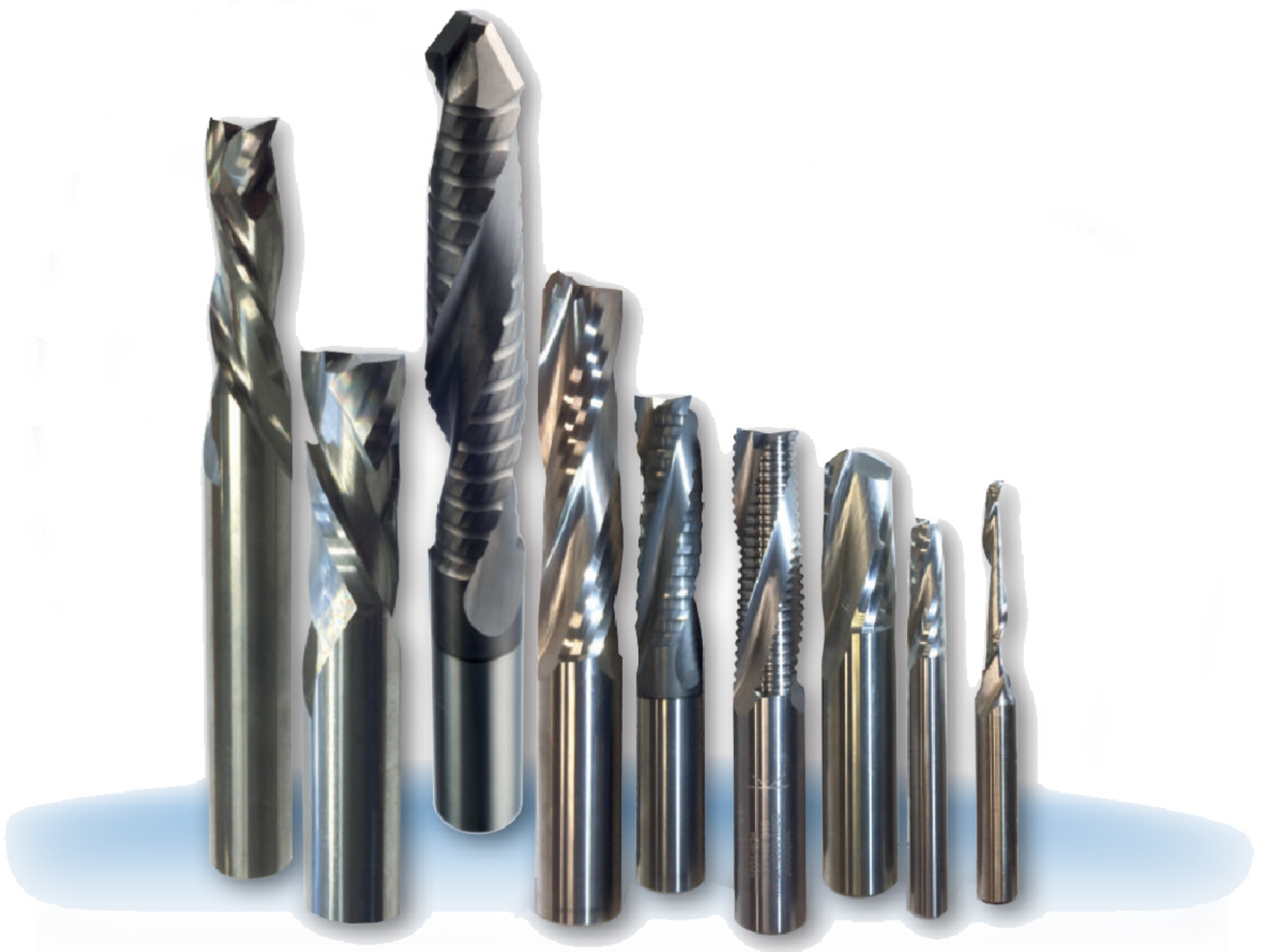
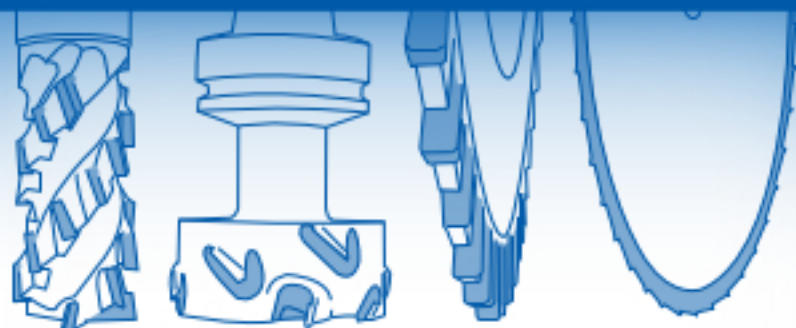


**Catalogue**  
*Innovation is our impetus*



**The detail makes the difference**  
Latest technology for highest precision.





# *Shank type cutters*



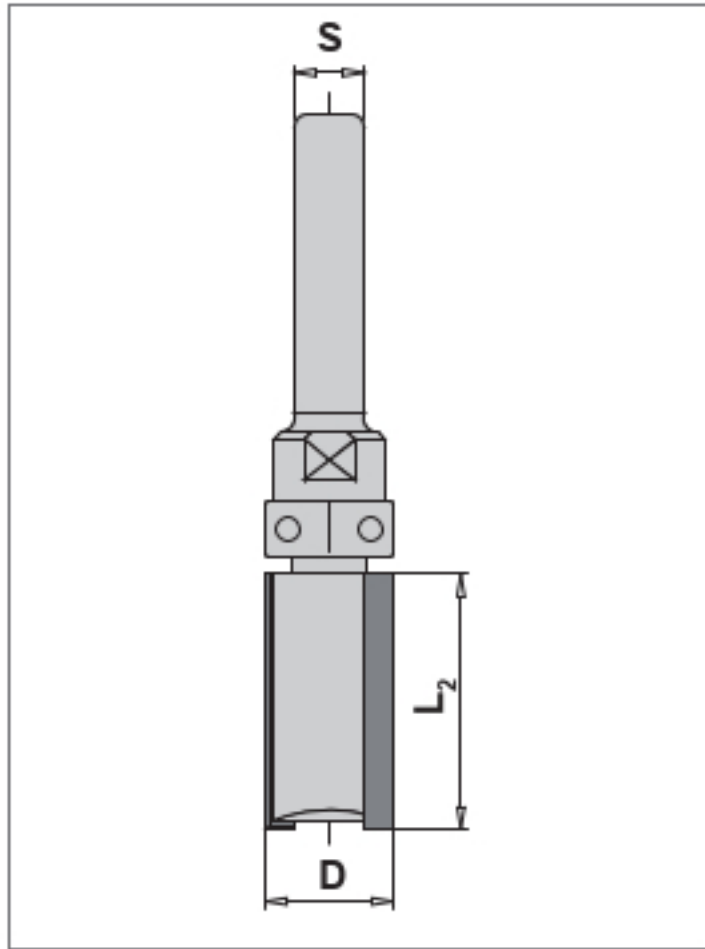
## Content *Shank type cutters*

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## Cutter for trimming and copy milling Z2

Ball bearing guide on shank-side, removable shank



### 43010

**APPLICATION:**

For copy-trimming with template and trimming of plastic/ veneer laminations; sizing and rebating

**DESIGN:**

Periphery and side cutting, exchangeable shank, exchangeable ball bearing

**MACHINE:**

Router

**FEED:**

MAN

D mm	L2 mm	Shank mm	Order No.
12,7	25	6	10110789
12,7	25	8	10019815
19,0	50	12	40013372

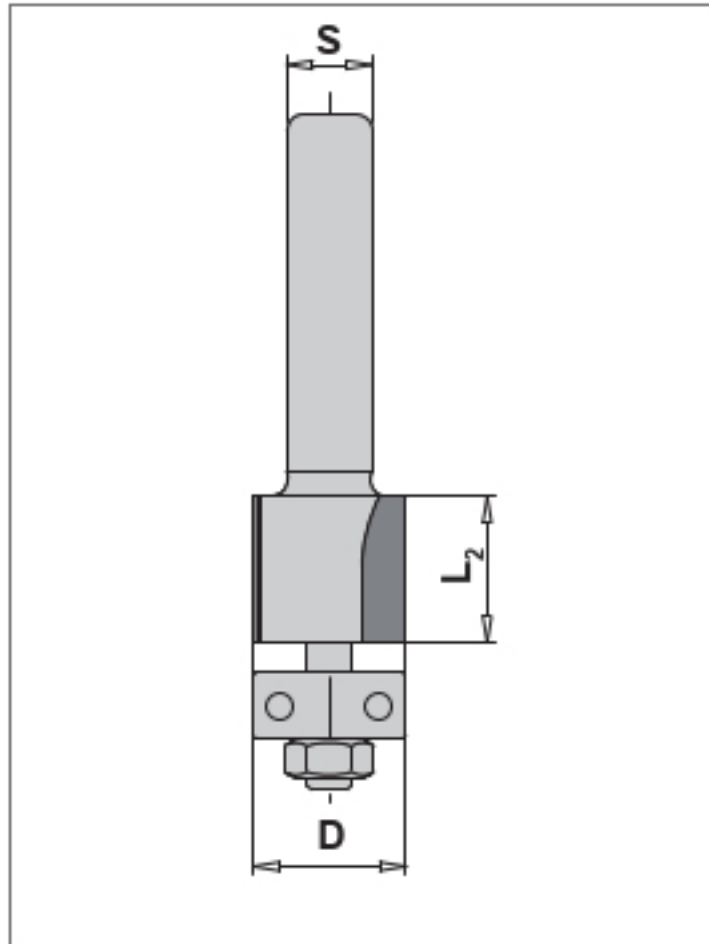
### Spare parts

Denomination	Dimension mm	Order No.
Ball bearing	D=12,7, d=6,35	10018087
Ball bearing	D=19, d=8,0	40013515



## HW Trimming Cutter Z2

Ball bearing guide on face-side



**43010**

<b>APPLICATION:</b>	For trimming of plastic or veneer edges
<b>DESIGN:</b>	Periphery and side cutting, exchangeable ball bearing
<b>MACHINE:</b>	Router
<b>FEED:</b>	MAN

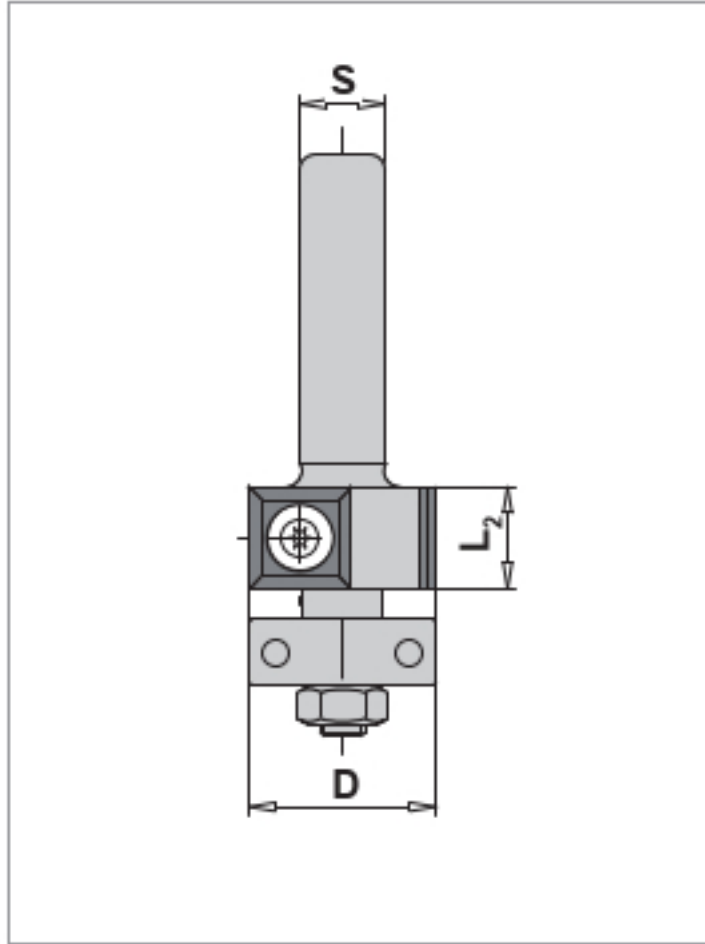
D mm	L2 mm	Shank mm	Order No.
12,7	12	6	10003447
12,7	12	8	10003452
12,7	25	6	10003448
12,7	25	8	10003453
22,0	16	8	10003454

### Spare parts

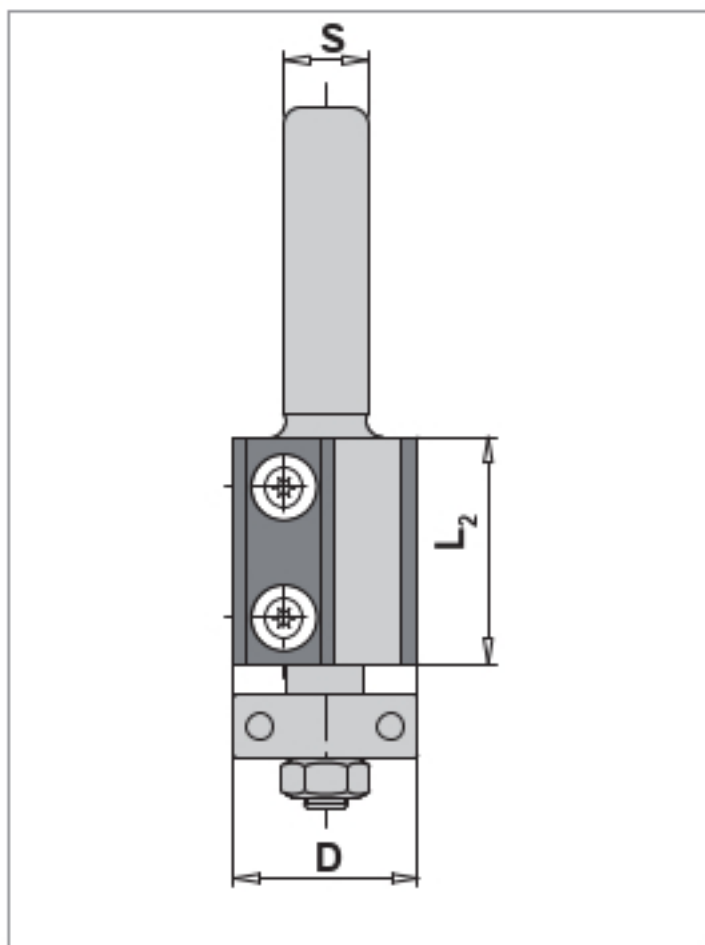
Denomination	Dimension mm	Order No.
Ball bearing	D=12,7, d=4,76	10005990
Ball bearing	D=22, d=8,0	10006001
Hex. nut	M4, for D=12,7	40013542
Hex. nut	M6, for D=22,0	40013544

## TOK Trimming Cutter

Ball bearing guide on face-side



### 43010


**APPLICATION:**

For square trimming of plastic laminated or veneered edges

**DESIGN:**

TOK knives with replaceable ball bearing on the face-side

**MACHINE:**

Router

**FEED:**

MAN

D mm	L2 mm	Shank mm	Order No.
19	30	8	10003050
19	30	12	10003055
19	50	12	40015794
22	12	8	10003051
22	20	6	10003047
22	20	8	10003052

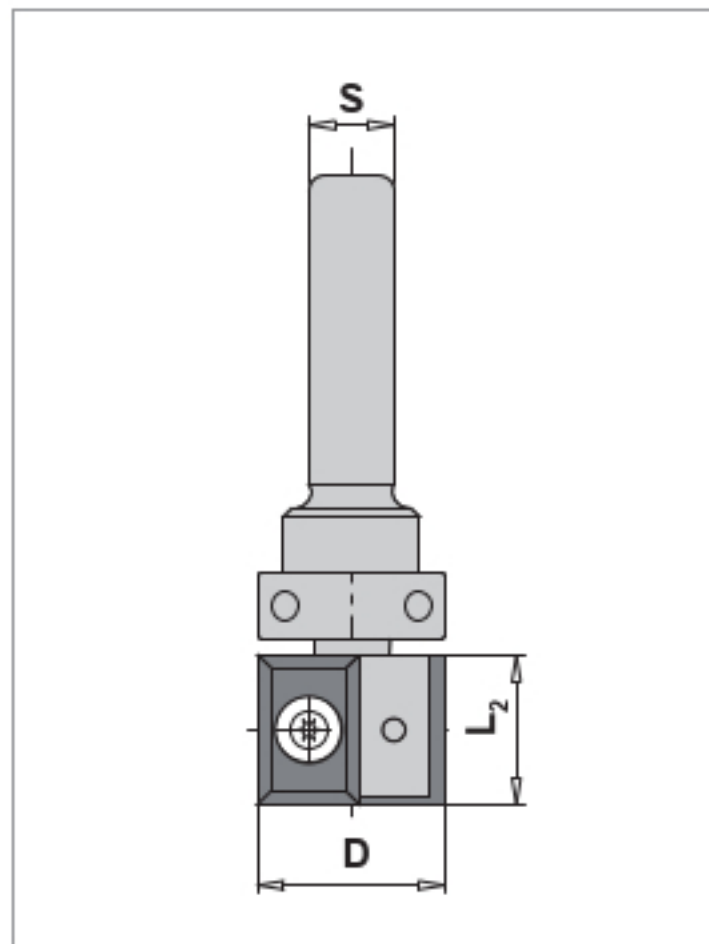
### Spare parts

Denomination	Dimension mm	Order No.
Reversible knife	12x12x1,5, Z4	10009450
Reversible knife	20x12x1,5, Z2	10009457
Reversible knife	30x12x1,5, Z2	10009464
Reversible knife	50x12x1,7, Z4, 3-hole design	10009526
Ball bearing	D=19, d=6,35	10005995
Ball bearing	D=22, d=7,0	10006000
Torx screw	M4x5,9, extra-large head, T15	10006039

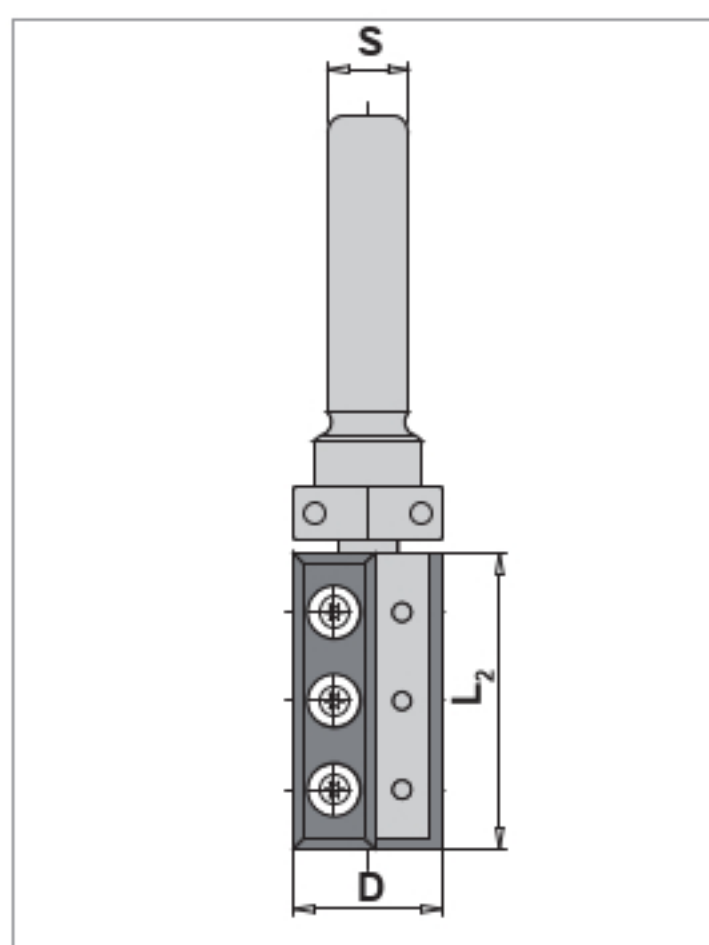


# TOK Trimming and Rebating Cutter

Ball bearing guide on shank-side



**43010**



<b>APPLICATION:</b>	Copying with template. For square trimming of plastic laminated or veneered edges, sizing, rebating
<b>DESIGN:</b>	TOK with replaceable ball bearing on shank-side
<b>MASCHINE:</b>	Router
<b>FEED:</b>	MAN

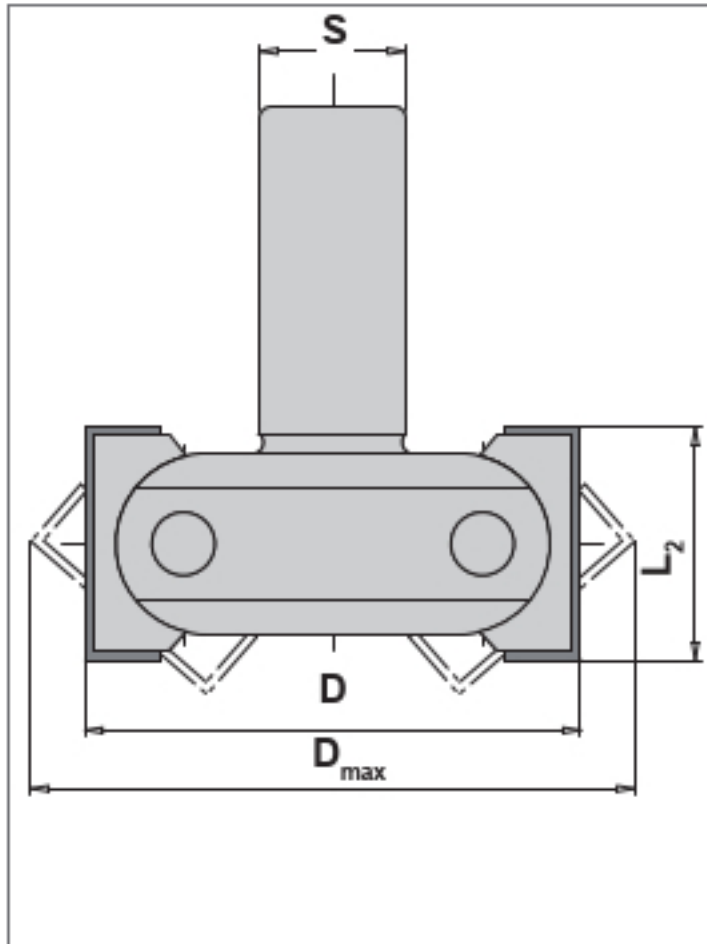
D mm	L2 mm	Shank mm	Order No.
22	20	6	10003031
22	20	8	10003033
22	30	12	10003034
22	50	12	10003035

## Spare parts

Denomination	Dimension mm	Order No.
Reversible knife	20x12x1,5, Z4	10009521
Reversible knife	30x12x1,5, Z4	10009523
Reversible knife	50x12x1,7, Z4, 3-hole design	10009526
Ball bearing	D=22, d=8,0	10006001
Torx screw	M4x5,9, extra-large head, T15	10006039

## TOK Swivelling cutterhead

Steplessly adjustable



### 43010

**APPLICATION:**

For jointing, rebating and bevelling

**DESIGN:**

TOK in swivellable tip retainers. Cutting on periphery and on both sides. Swivelling range towards top 0 - 45°, towards bottom 0 - 90°, variable adjustment according to precise scale, with steps of 7,5°.

**MACHINE:**

Stationary machines with and without tool changer

**FEED:**

MEC

D mm	D max mm	L2 mm	Shank mm	rhs/lhs	Order No.
85	102	40	20x55	rhs	10002726
85	102	40	25x55	rhs	10002727
85	102	40	25x55	lhs	40010067
110	134	50	20x55	rhs	10156537
110	134	50	25x55	rhs	10156538
110	134	50	25x55	lhs	10156539

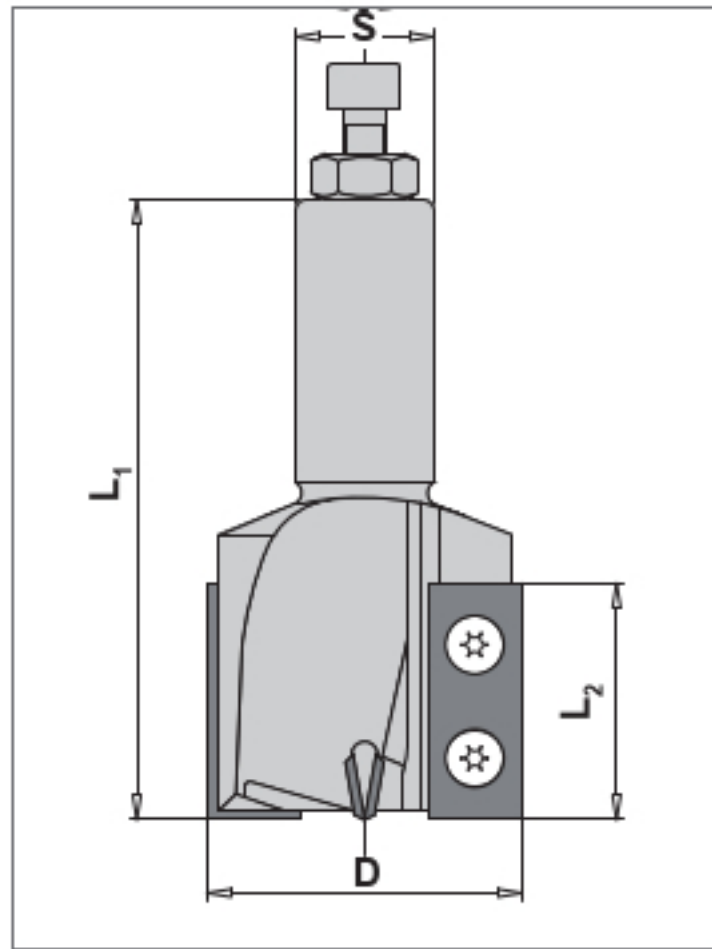
### Spare parts

Denomination	Dimension mm	Order No.
TOK	40x12x1,5 Z4	10009524
TOK	50x12x1,5 Z4	10009525
Threaded pin DIN 912	M5x16 DIN 912	10030678
Threaded pin DIN 912	M6x8 DIN 915	10015777

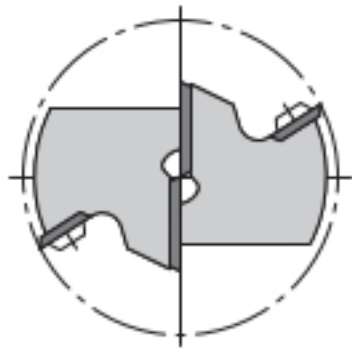


# TOK Grooving / planing cutter Z2+2

With boring tip



**43010**



**APPLICATION:** Grooving, rebating, jointing and planing.  
For axial plunge cutting operations exceeding a depth of 10 mm, the speed should be reduced to 12.000 rpm

**DESIGN:** HW TOK. Cutting on periphery and drilling.  
Large chip clearance area for optimum chip clearance while plunging. Right-hand rotation.

**MACHINE:** Stationary machines with and without tool changer

**FEED:** MEC

D mm	L2 mm	L1 mm	Shank mm	Order No.
40	30	90	20x55	10018589
40	30	90	25x55	10028291
60	30	105	20x55	40013294
60	30	105	25x55	10021796
80	12	78	25x55	10017875

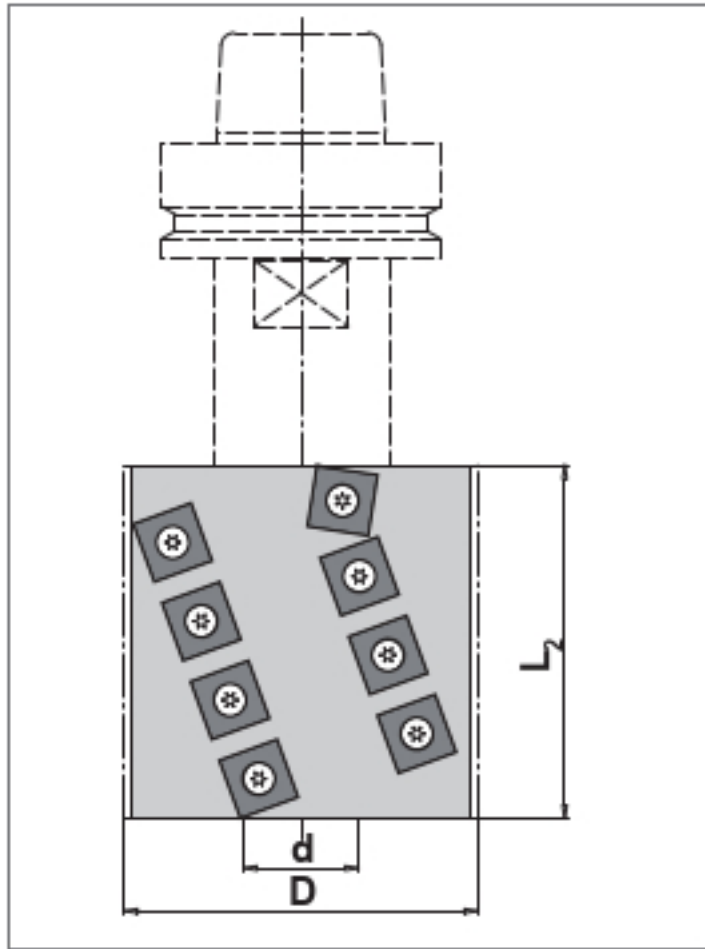
## Spare parts

Denomination	Dimension mm	Order No.
TOK	12x12x1,5 Z4, for D=80, UMS / D=35/40, BOS	10009450
TOK	20x12x1,5 Z2, for D=60, BOS	10009457
TOK	30x12x1,5 Z2, for D=80, BOS	10009464
TOK	30x12x1,5 Z4, for D=35/40/60, UMS	10009523

UMS = peripheral knife  
BOS = boring tip

## TOK helical cutterhead Z2+2+V2

To be mounted on the arbour



### 43010

<b>APPLICATION:</b>	Pre-cutting and copy milling
<b>DESIGN:</b>	Tool body of high-quality light metal with hard-anodized surface and specially convex ground reversible HW tips. Helically positioned tips. With two reversible HW spurs on bottom. Recessed on one side to take the end retaining screw. Right-hand rotation
<b>MACHINE:</b>	Stationary machines with and without tool changer
<b>FEED:</b>	MEC

D mm	L2 mm	d mm	KN	Z/AS mm	Order No.
80	80	30	8x2	2/16	40012334

#### Special advantages:

- Perfect finish, through convex shaped tips, precisely positioned on the tool body
- the individual knives do not leave any marks on the surface
- Reduced noise level due to compact tool body
- Especially suitable for pre-cutting of arches in window production or curved stringboard in stair production

#### Spare parts

Denomination	Dimension mm	Order No.
TOK	15x15x2,5	10102511
Spur	14x14x2,0	10009453
Intermediate ring	50x10,0x30 DKN	40013594
Intermediate ring	50x10,0x30 DKN	40013591
Torx-screw	M5x15,5 T20 (for Reversible knife)	40012392
Torx-screw	M5x12 T20 (for Raker)	10111291

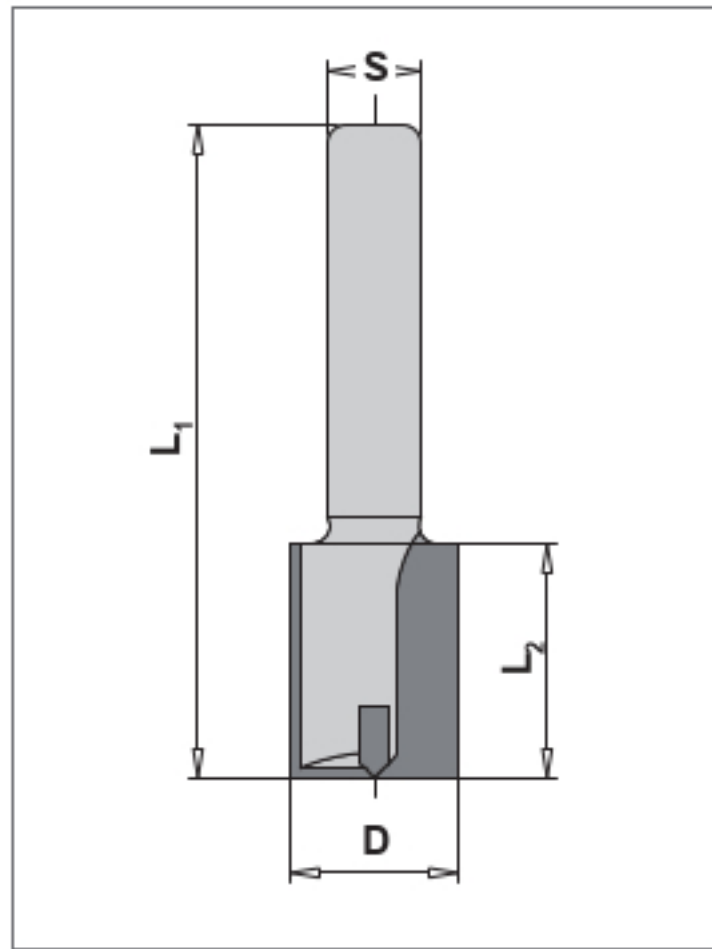
Delivery without arbor (for arbors see page 297 and 308).

The total length and the measure A are determined by the arbor.



# HW Grooving Cutter Z2

Short design, shank 6 mm and 8 mm



**APPLICATION:** For rebating, grooving, jointing

**DESIGN:** HW boring tip, rh rotation

**MACHINE:** Router, stationary machines with and without tool changer

**FEED:** MAN / MEC

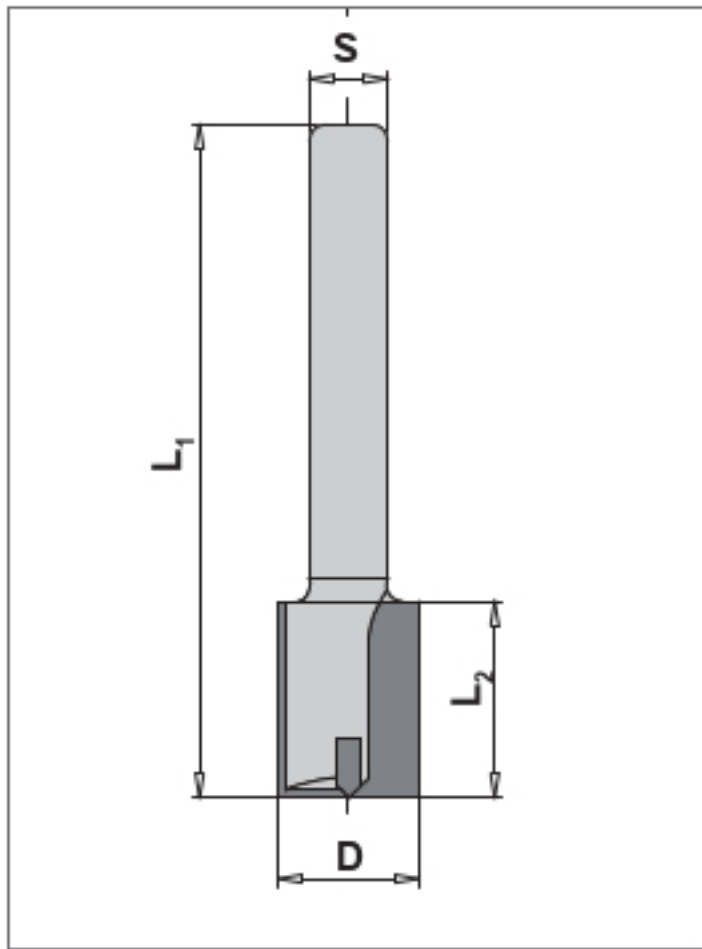
**43010**



D mm	L2 mm	L1 mm	Shank mm	Order No.
3	8	37	6	10003643
3	8	37	8	10003732
4	10	40	6	10003644
4	10	40	8	10003733
5	12	45	6	10003645
5	12	45	8	10003734
6	16	45	6	10003646
6	16	45	8	10003735
8	20	48	6	10003648
8	20	48	8	10003736
8	30	58	6	10003649
8	30	58	8	10003737
10	20	48	6	10003650
10	20	48	8	10003738
10	30	58	6	10003651
10	30	58	8	10003739
12	20	48	6	10003653
12	20	48	8	10003740
12	30	58	8	10003741
14	20	48	6	10003656
14	20	48	8	10003742
15	20	48	8	10003743
15	30	58	8	10003744
16	20	48	6	10003659
16	20	48	8	10003745
16	30	58	8	10017418
18	20	48	8	10003746
18	30	58	8	10003747
20	20	48	8	10003748

## HW grooving cutter Z2

Long design, shank 8 mm



### 43010



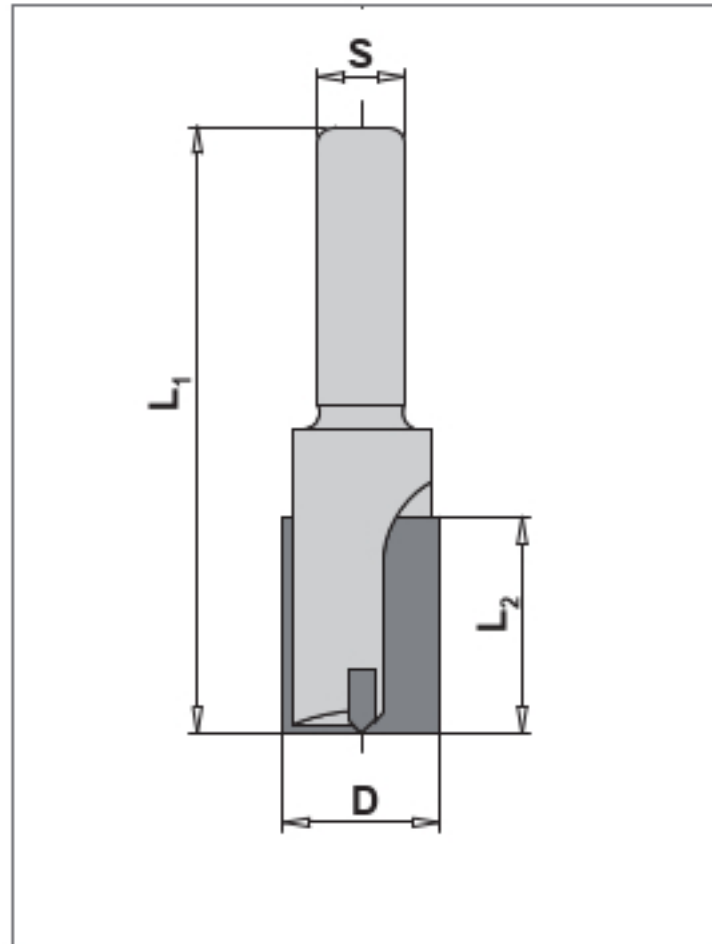
<b>APPLICATION:</b>	Grooving, jointing, rebating
<b>DESIGN:</b>	HW boring tip, rh rotation
<b>MACHINE:</b>	Router, stationary machines with and without tool changer
<b>FEED:</b>	MAN / MEC

D mm	L2 mm	L1 mm	Shank mm	Order No.
2	6	55	8	40013381
3	8	55	8	10003816
4	10	55	8	10003817
5	12	55	8	10003818
6	14	55	8	10003819
6	25	60	8	10110794
7	15	55	8	10003820
8	20	55	8	10003821
8	30	90	8	10003822
9	20	55	8	10003823
10	20	60	8	10003824
10	30	90	8	10003825
11	20	60	8	10003826
12	30	90	8	10003828
13	20	60	8	10003829
14	20	60	8	10003830
14	30	90	8	10003831
15	20	70	8	10003832
16	20	70	8	10003833
16	30	90	8	10003834
17	20	70	8	40015815
18	20	70	8	10003835
19	20	70	8	10003836
20	20	70	8	10003837
22	16	70	8	10003838
24	16	70	8	10003839
25	16	70	8	10003840
30	16	70	8	10003843



## HW grooving cutter Z2

Shank 10 x 35 mm



**43010**



<b>APPLICATION:</b>	Grooving, jointing, rebating
<b>DESIGN:</b>	HW boring tip, rh rotation
<b>MACHINE:</b>	Router, stationary machines with and without tool changer
<b>FEED:</b>	MAN / MEC

### Standard length

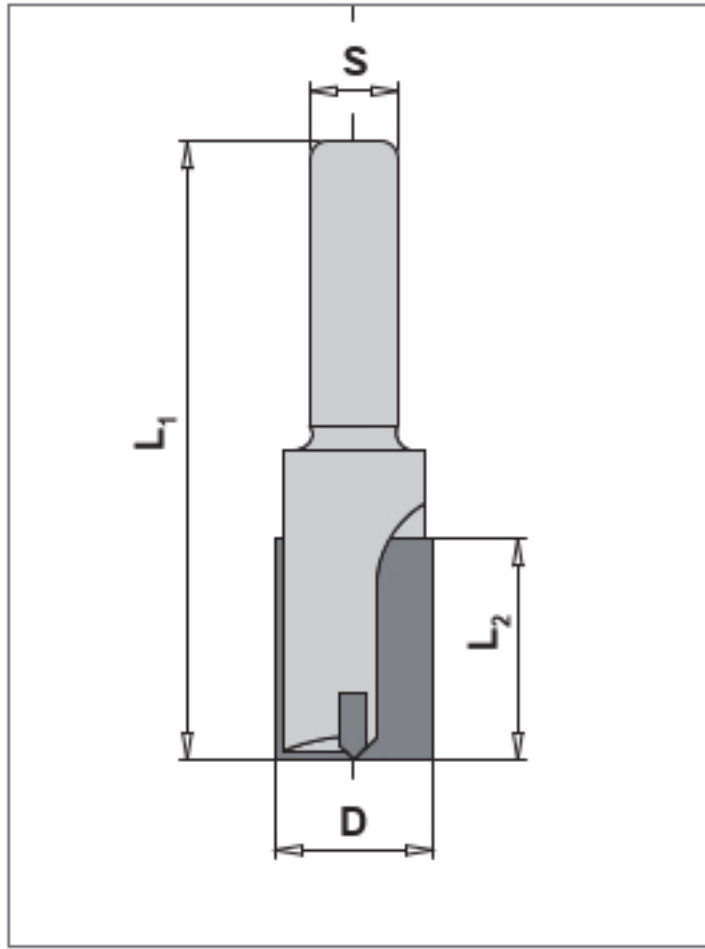
D mm	L2 mm	L1 mm	Shank mm	Order No.
4	10	49	10x35	10003766
5	12	49	10x35	10003767
6	14	53	10x35	10003768
7	15	55	10x35	10003769
8	20	60	10x35	10003770
9	20	60	10x35	10003771
10	23	70	10x35	10003772

### Excess length

D mm	L2 mm	L1 mm	Shank mm	Order No.
10	40	97	10x35	10003773
12	40	97	10x35	10003775
14	40	97	10x35	10003777
20	45	97	10x35	10003784

## HW grooving cutter Z2

Shank 12 mm



**43010**



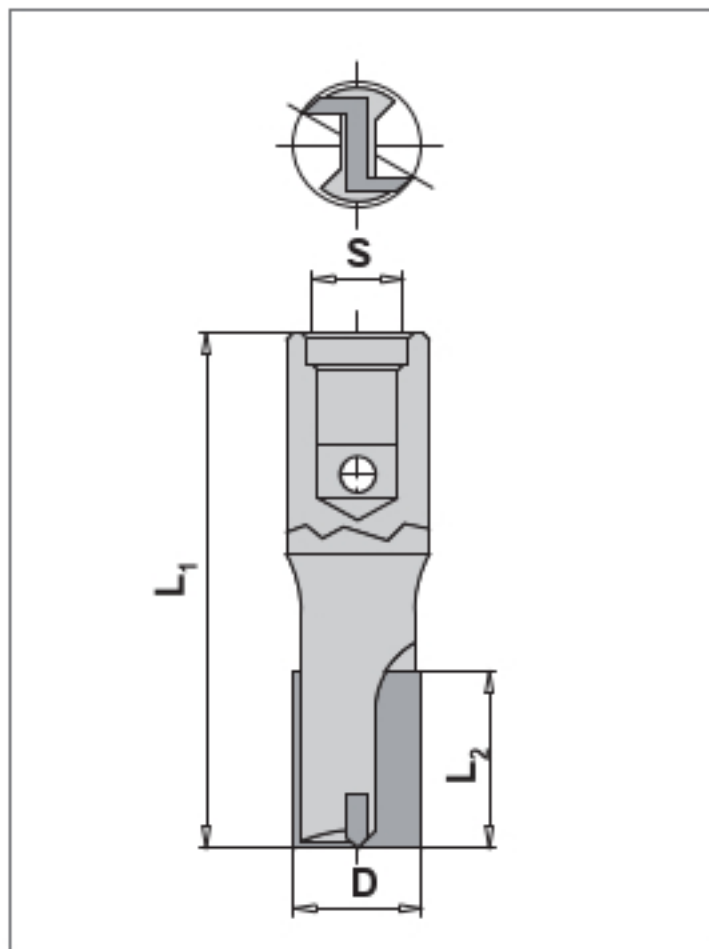
<b>APPLICATION:</b>	For grooving, jointing, rebating
<b>DESIGN:</b>	HW boring tip, rh rotation
<b>MACHINE:</b>	Router, stationary machines with and without tool changer
<b>FEED:</b>	MAN / MEC

D mm	L2 mm	L1 mm	Shank mm	Order No.
10	22	60	12x30	10004771
10	35	90	12x50	10003850
12	26	72	12x40	10002198
12	35	90	12x50	10003851
12	45	90	12x40	10003852
14	30	80	12x40	10002200
14	35	90	12x50	10003853
14	50	100	12x40	10002222
15	35	90	12x50	10003854
16	35	90	12x50	10003855
16	60	100	12x40	10003856
18	35	90	12x50	10003857
18	45	90	12x40	10003858
20	35	90	12x50	10003859
20	38	88	12x40	10002206
20	45	90	12x40	10003860
22	35	90	12x50	10003861
22	40	92	12x40	10002207
24	35	90	12x50	10003862
25	40	92	12x40	10002209
30	35	90	12x50	10003863
30	42	94	12x40	10002211



## HW grooving cutter Z2

With internal screw thread M10 IG



**43010**

<b>APPLICATION:</b>	For grooving, jointing, rebating
<b>DESIGN:</b>	HW boring tip, rh rotation
<b>MACHINE:</b>	Router
<b>FEED:</b>	MAN

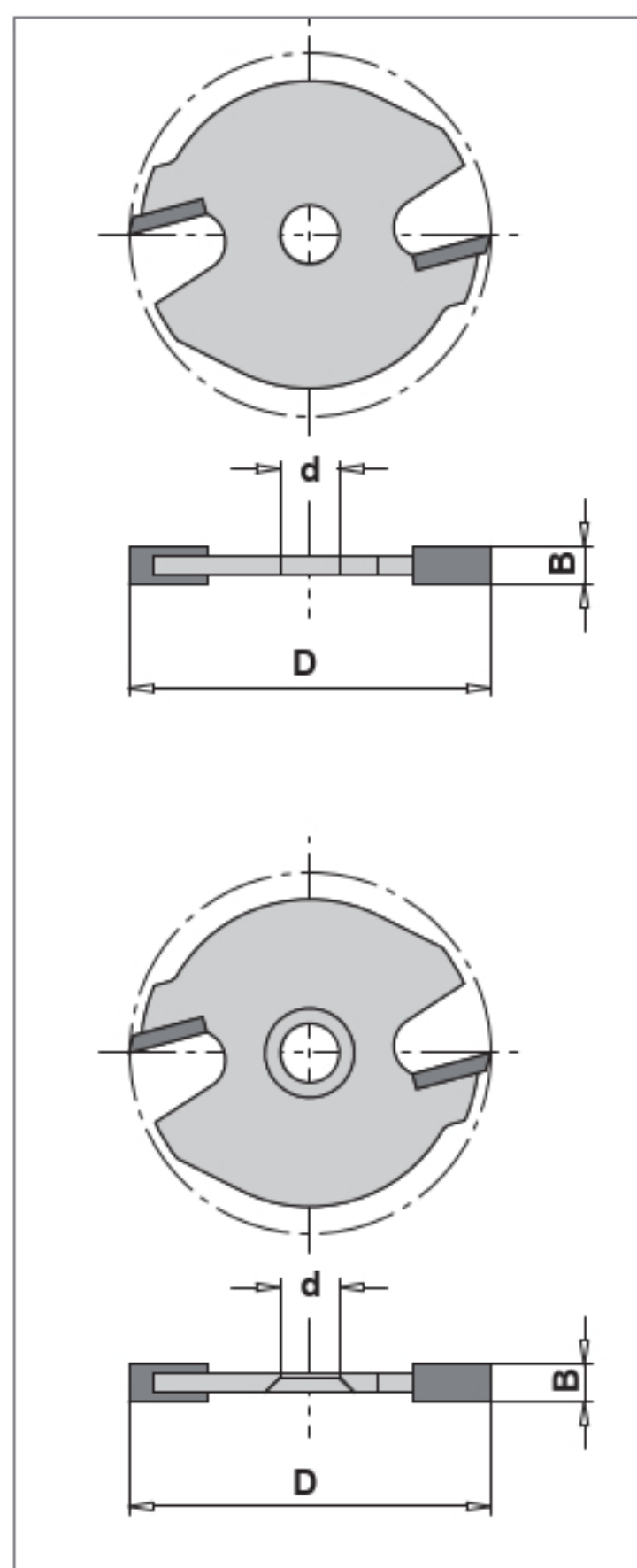
### Standard length

D mm	L2 mm	L1 mm	Shank mm	Order No.
3	8	47	M10	10004961
4	10	49	M10	10004962
5	12	50	M10	10004963
6	14	55	M10	10004964
8	20	55	M10	10004966
10	23	55	M10	10004969
12	23	55	M10	10004972
16	25	55	M10	10004977
18	25	55	M10	10004979
20	25	55	M10	10004981
25	25	55	M10	10004987

### Excess length

D mm	L2 mm	L1 mm	Shank mm	Order No.
8	35	67	M10	10004967
10	35	65	M10	10004970
12	35	67	M10	10004973
14	35	67	M10	10004975
16	45	75	M10	10004978
18	45	75	M10	10004980
20	45	75	M10	10004982
22	45	75	M10	10004984
24	45	75	M10	10004986

## HW disc-type grooving cutter



### 33010

<b>APPLICATION:</b>	For grooving, applied on spindle
<b>DESIGN:</b>	HW tips, periphery and side cutting, with deflector
<b>MACHINE:</b>	Router, stationary machines with and without tool changer
<b>FEED:</b>	MAN / MEC

D mm	B mm	d mm	Order No.
40	1,5	6	10003506
40	1,5	8	10003533
40	1,6	8	10003534
40	1,8	6	10003508
40	2,0	6	10003509
40	2,0	8	10003536
40	2,2	6	10003510
40	2,2	8	10003538
40	2,5	6	10003511
40	2,5	8	10003539
40	2,8	6	10003512
40	2,8	8	10003541
40	3,0	6	10003513
40	3,0	8	10003542
40	3,5	6	10003514
40	3,5	8	10003544
40	4,0	6	10003515
40	4,0	8	10003546
40	5,0	6	10003516
40	5,0	8	10003548
40	6,0	6	10003517
40	6,0	8	10003550
50	2,5	6	10003518
50	2,5	8	10003551

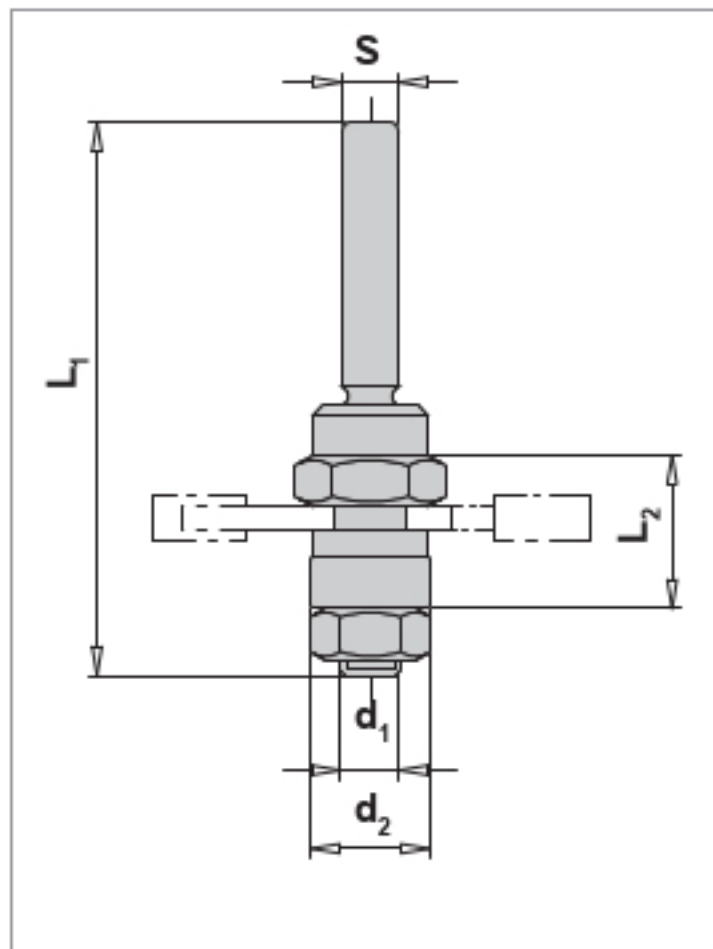
### With countersunk bore

D mm	B mm	d mm	Order No.
40	2,0	8	10003537
40	2,5	8	10003540
40	2,8	8	40013378
40	3,0	8	10003543
40	3,5	8	10003545
40	4,0	8	10003547
40	5,0	8	10003549



## Adaptor

### Replaceable shank design with ball bearing guide



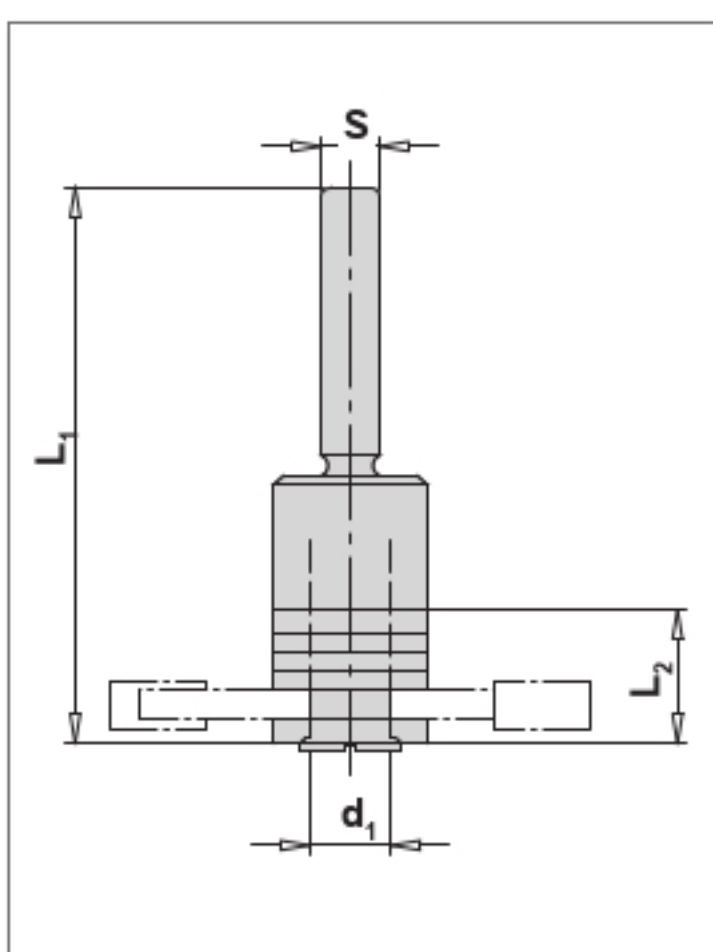
**81000**

<b>APPLICATION:</b>	Holding fixture for grooving saw blades.
<b>DESIGN:</b>	Replaceable shank. With ball bearing guide.
<b>MACHINE:</b>	Router, stationary machines with and without tool changer
<b>FEED:</b>	MAN

d1 mm	d2 mm	L2 mm	L1 mm	Shank mm	Order No.
6	16	12	57,5	6	10003566
6	16	12	62,5	8	10003572
8	16	12	59,5	6	10003568
8	16	12	64,5	8	10003574
8	16	12	64,5	12	10003580

## Adaptor

### Replaceable shank design without ball bearing guide

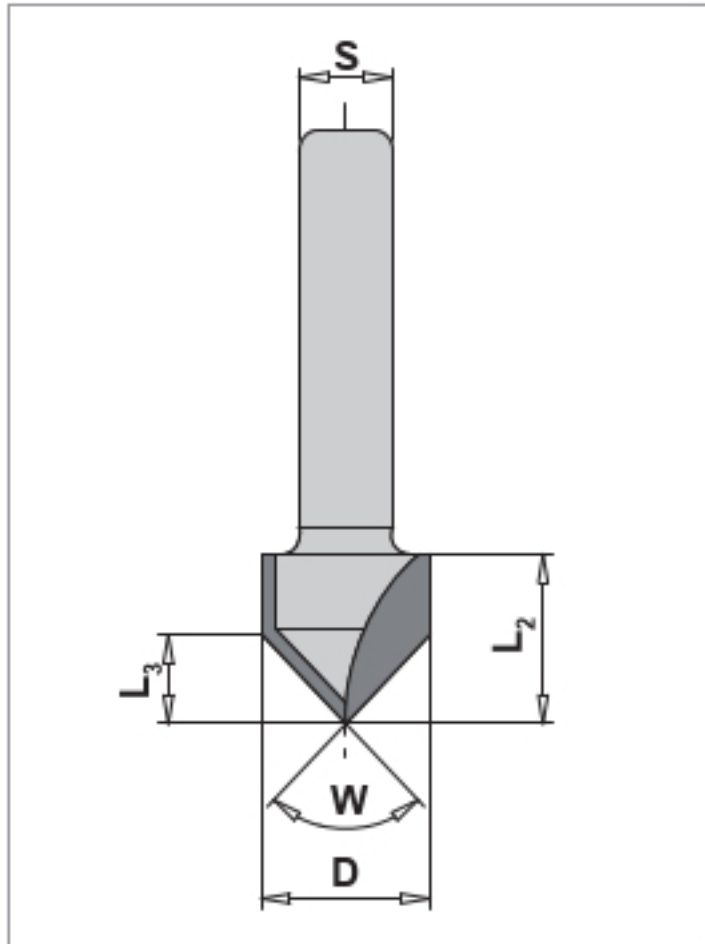


**81000**

<b>APPLICATION:</b>	Holding fixture for grooving saw blades with countersunk bore.
<b>DESIGN:</b>	Replaceable shank design. Delivery without ball bearing ring.
<b>MACHINE:</b>	Router, stationary machines with and without tool changer
<b>FEED:</b>	MAN

d1 mm	L2 mm	L1 mm	Shank mm	Order No.
8	15	50	6	10003592
8	15	55	8	10003598

## HW V-groove and engraving cutter Z2



### 43010

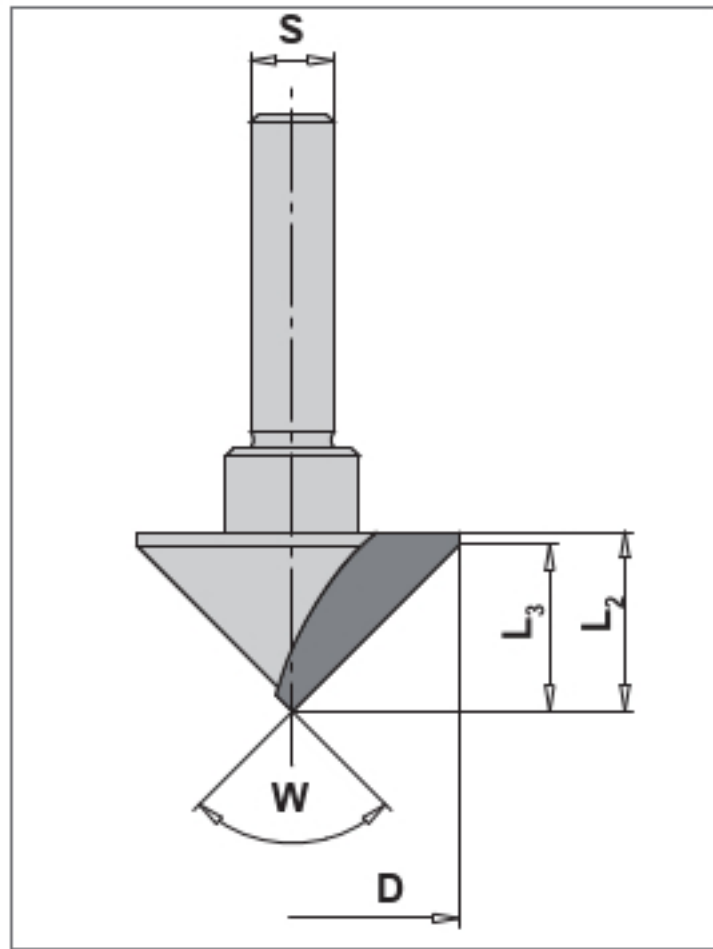
<b>APPLICATION:</b>	For V-grooves, decorative grooves
<b>DESIGN:</b>	HW-tipped, rh rotation
<b>MACHINE:</b>	Router, stationary machines with and without tool changer
<b>FEED:</b>	MAN / MEC

D mm	L2 mm	L3 mm	Shank mm	Angle	Order No.
14	13,5	7	6	90°	10003873
14	13,5	7	8	90°	10003882



## HW V-groove and engraving cutter Z1

Replaceable shank design



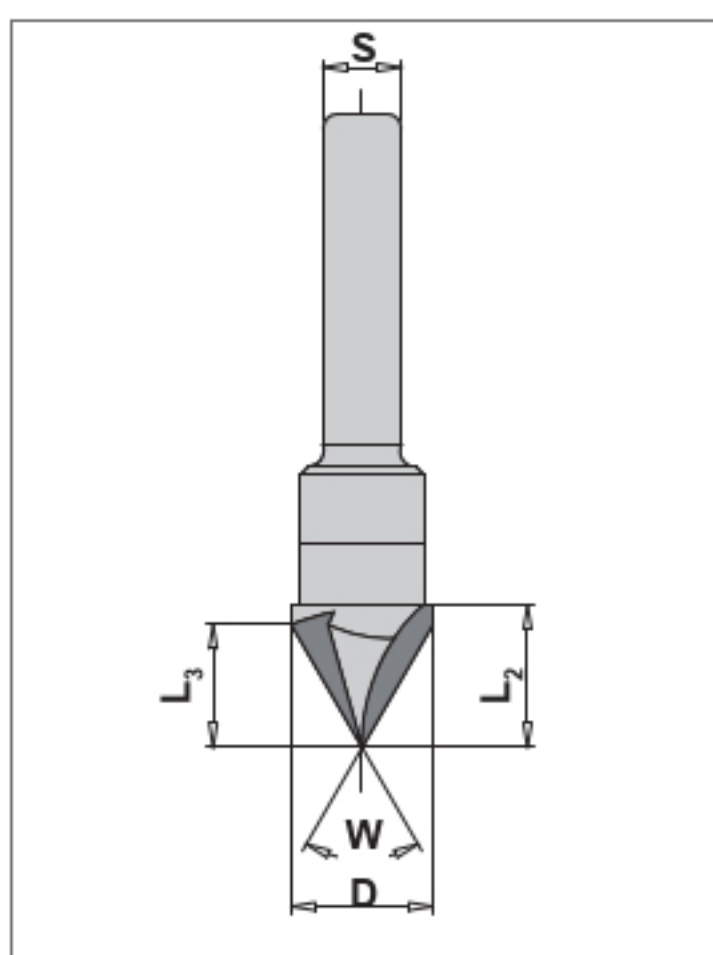
**43010**

<b>APPLICATION:</b>	For V-grooves, decorative grooves, suitable for folding
<b>DESIGN:</b>	HW-tipped, rh rotation
<b>MACHINE:</b>	Router, stationary machines with and without tool changer
<b>FEED:</b>	MAN / MEC

D mm	L2 mm	L3 mm	Shank mm	Angle	Order No.
40	21,5	20	8	90°	10003883
40	21,5	20	10	90°	10003884
40	21,5	20	12	90°	10003885

## HW V-groove and engraving cutter Z3

Replaceable shank design

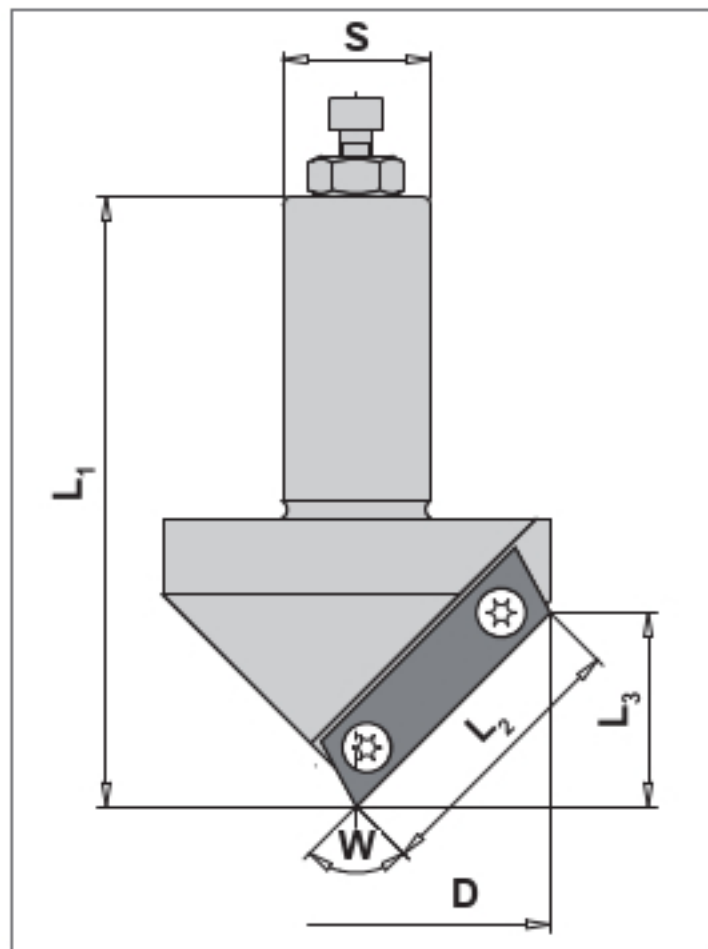


**43010**

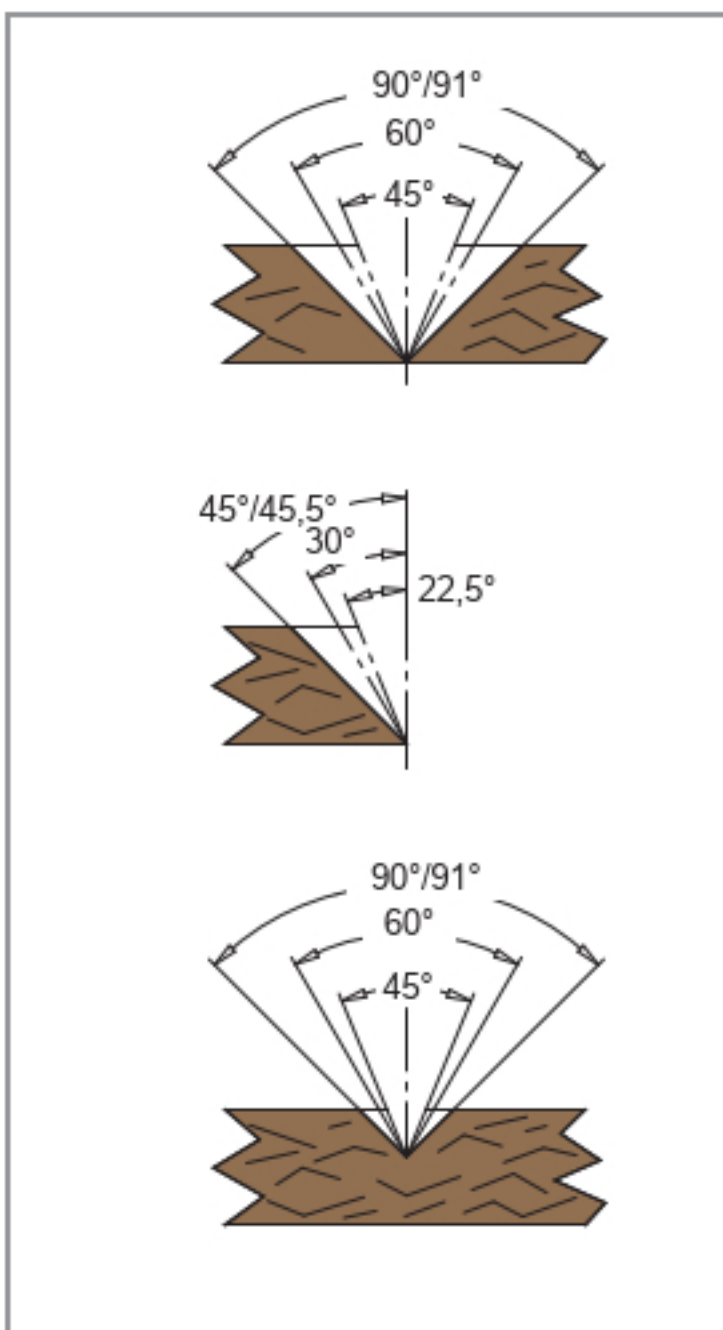
<b>APPLICATION:</b>	For V-grooves, decorative grooves
<b>DESIGN:</b>	HW-tipped, rh rotation
<b>MACHINE:</b>	Router, stationary machines with and without tool changer
<b>FEED:</b>	MAN / MEC

D mm	L2 mm	L3 mm	Shank mm	Angle	Order No.
14	12,5	7	8	90°	10004160
14	12,5	7	12	90°	10004162
14	16,5	12	8	60°	10004159
14	16,5	12	12	60°	10004161

## TOK bevel / folding cutter Z1



### 43010


**APPLICATION:**

For V-grooves, decorative grooving,  
suitable for folding

**DESIGN:**

HW TOK,  
rh rotation,  
HW01 = for MDF  
HW02 = for solid wood and wood-based material

**MACHINE:**

Stationary machines with and without tool changer

**FEED:**

MEC

D mm	L2 mm	L1 mm	L3 mm	Shank mm	Angle	Order No.
43	46,4	115	43	25x55	45°	10110998
43	46,4	115	43	20x55	45°	10110997
41,5	41,5	118	35	25x55	60°	10003024
50	36,4	93	25	20x55	90°	40013307
50	36,4	93	25	25x55	90°	40013308
50	36,4	93	25	20x55	91°	10020657
50	36,4	93	25	25x55	91°	10003025

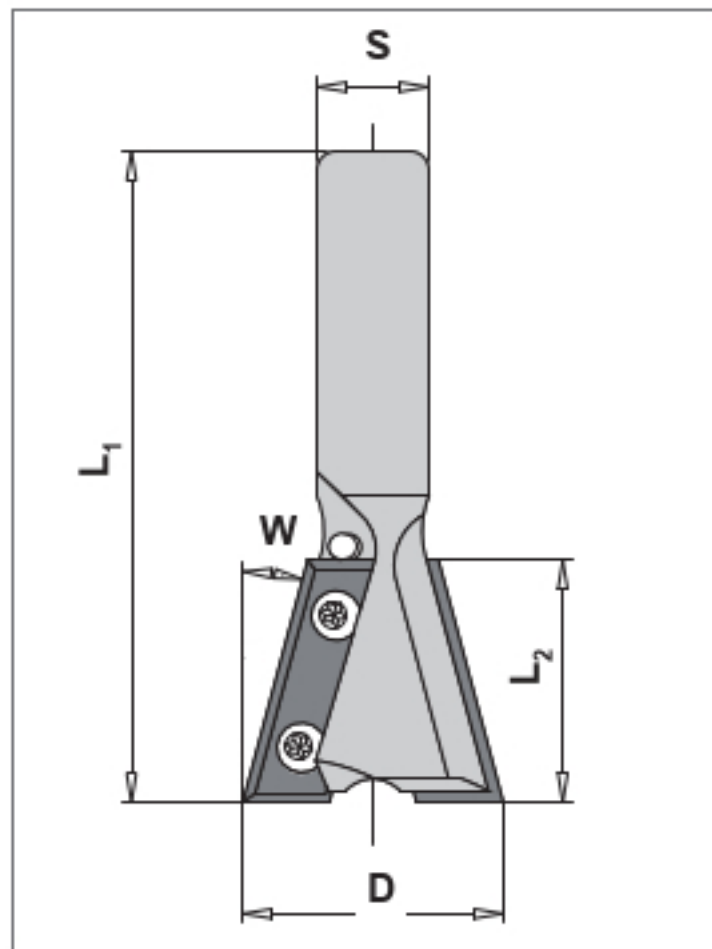
For folding cuts in chip boards use angle 91°, because of fibres possibly sticking out.

### Spare parts

Denomination	Dimension mm	Order No.
TOK	60x12x1,5, HW02, for 45°	10113001
TOK	50x12x1,5, HW02, for 60°	10006982
TOK	50x12x1,5, HW01, for 60°	40015875
TOK	40x12x1,5 HW02, for 90°+91°	10006981
TOK	40x12x1,5 HW01, for 90°+91°	10006980
Torx screw	M4x4 extra-large head, T15	10006040



## HW Dovetail cutter



**43010**

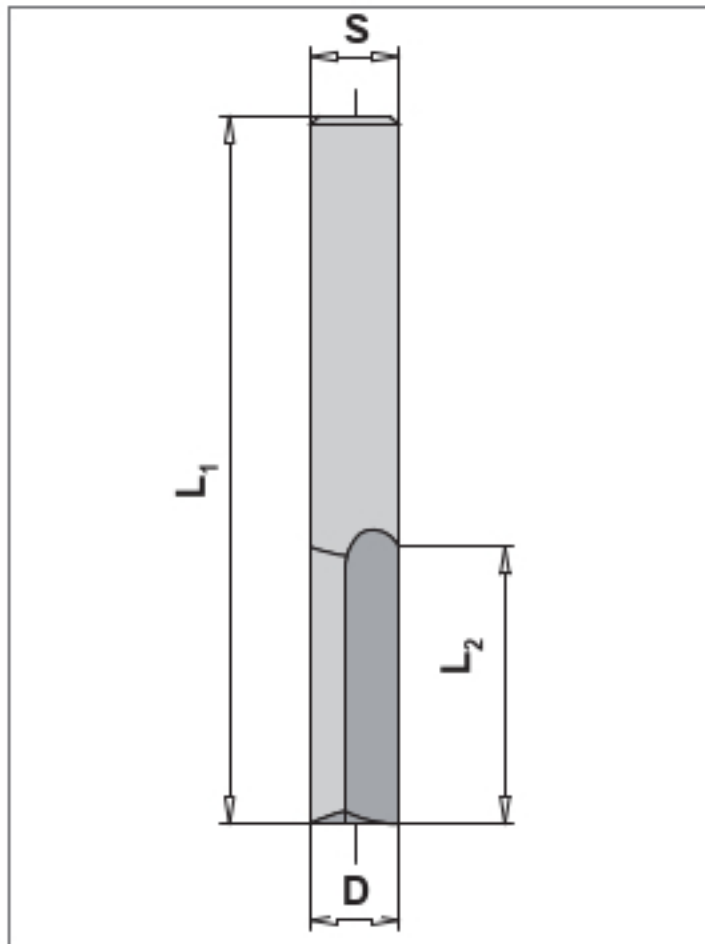
<b>APPLICATION:</b>	Dovetail joints
<b>DESIGN:</b>	HW TOK, rh rotation
<b>MATERIAL:</b>	Suitable for wood-based material and polymer plastic material (Corian).
<b>MACHINE:</b>	Router, stationary machines with and without tool changer
<b>FEED:</b>	MAN / MEC

D mm	L2 mm	L1 mm	Shank mm	Angle	Order No.
28	26	70	12x40	15°	40013368

### Spare parts

Denomination	Dimensions mm	Order No.
TOK	27x9x1,5 HW03	40013736
Torx screw	M3,5x4,8 T15	10006053

## Solid HW grooving cutter Z2

**APPLICATION:**

Grooving

**DESIGN:**

Solid carbide tool body with boring tip, rh rotation, full-length cylindrical

**MATERIAL:**

Particularly suitable for plastic material and aluminium. Suitable for wood-based material.

**MACHINE:**

Stationary machines with and without tool changer, router

**FEED:**

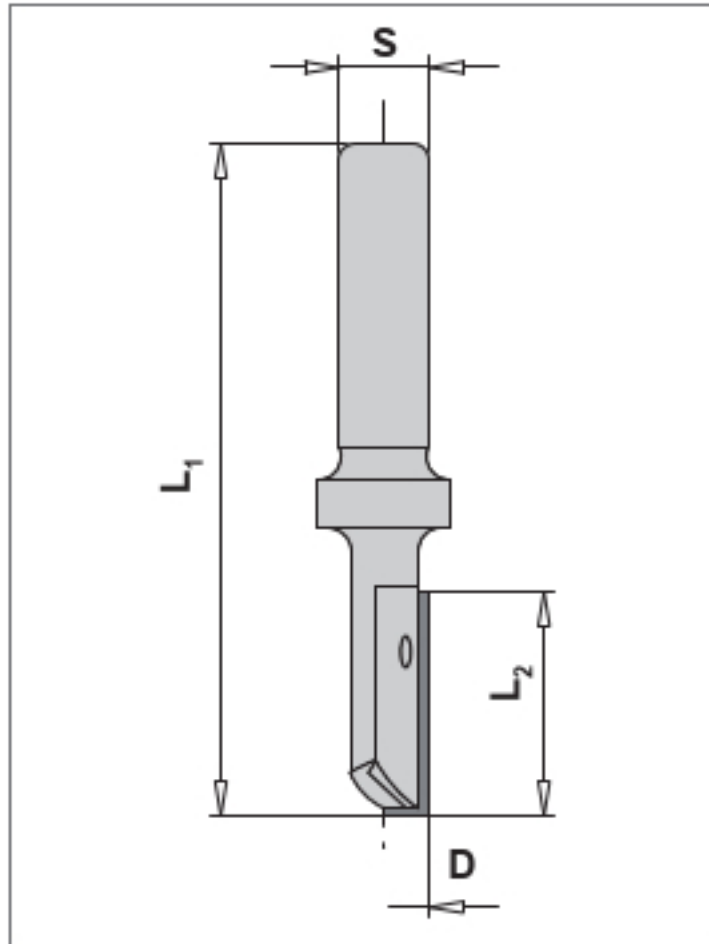
MAN / MEC

### 43070



D mm	L2 mm	L1 mm	Shank mm	Order No.
5	12	48	5	10002212
6	14	50	6	10002213
8	18	55	8	10002214
10	20	58	10	10002215
12	26	64	12	10002216

# TOK grooving cutter Z1



**43010**

<b>APPLICATION:</b>	Grooving and jointing
<b>DESIGN:</b>	Mini TOK with transverse groove to position the knives and secure against axial shifting of the knife. Ø 8 - 12.7 mm limited suitability for boring as well. Rh rotation.
<b>MATERIAL:</b>	Wood, wood-based material, panel material, plastic material
<b>MACHINE:</b>	Router, stationary machines with and without tool changer
<b>FEED:</b>	MAN / MEC

D mm	L2 mm	L1 mm	Shank mm	Order No.
8	20	60	8x30	10003152
8	20	70	10x40	10003159
8	20	70	12x40	10003165
9	20	70	10x40	10003160
10	20	60	8x30	10003153
10	25	75	10x40	10003161
10	25	75	12x40	10003167
12	20	60	8x30	10003154
12	30	80	10x40	10003162
12	30	80	12x40	10003170
14	30	70	8x30	10003155
14	30	80	12x40	10003172
16	50	100	12x40	10003173

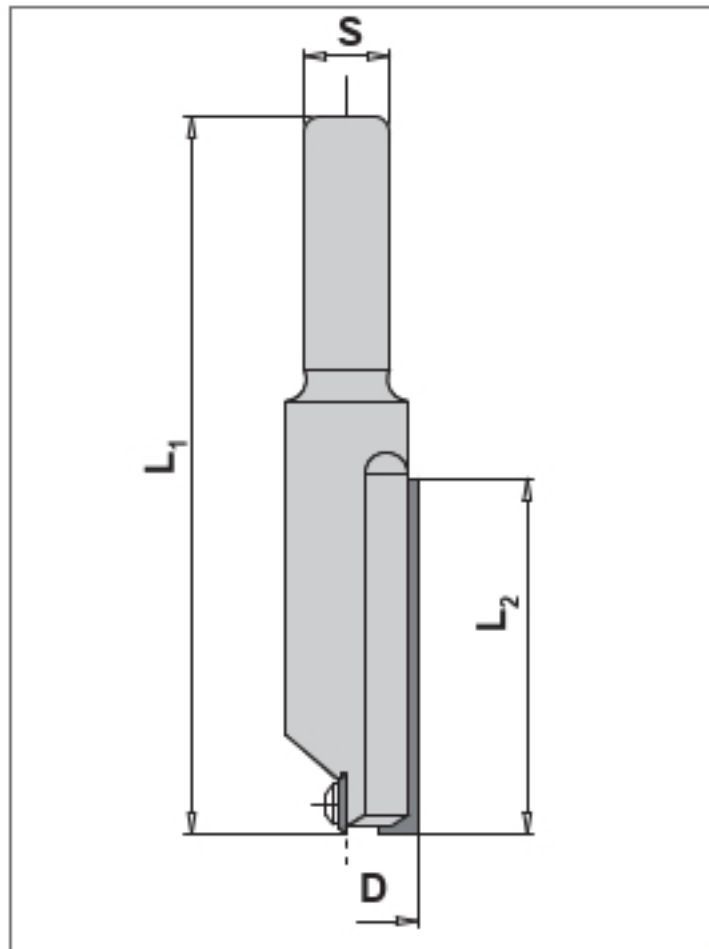
## Spare parts

Denomination	Dimension mm	Order No.
TOK	20x4,1x1,1, for D=8/9	10006964
TOK	20x5,5x1,1, for D=10/12	10006965
TOK	25x5,5x1,1, for D=10/11	10006966
TOK	30x5,5x1,1, for D=12-14	10006967
TOK	50x5,5x1,1, for D=16	10006968
Clamping wedges	D=8/9 x 20	10006192
Clamping wedges	D=10 x 20	10006193
Clamping wedges	D=10/11 x 25	10006194
Clamping wedges	D=12 x 20	10006195
Clamping wedges	D=12 x 30	10006196
Clamping wedges	D=14 x 30	10006198
Clamping wedges	D=16 x 50	10006199
Torx screw	M2,5x3,0, T8, for D=8	10006055
Torx screw	M2,5x4, T8, for D=9-11	10006056
Torx screw	M3x7,0, T8, for D=12-14	10006057
Torx screw	M3,5x5,5, T15, for D=16	10006058



## TOK grooving cutter Z1+1

With reversible boring tip



### 43010

**APPLICATION:**

Grooving and jointing

**DESIGN:**

Mini TOK with transverse groove to position the knives and secure against axial shifting of the knife. Suitable for boring. Rh rotation.

**MATERIAL:**

Wood, wood-based material, panel material, plastic material

**MACHINE:**

Router, stationary machines with and without tool changer

**FEED:**

MAN / MEC

D mm	L2 mm	L1 mm	Shank mm	Order No.
16	30	71	8x30	10003198
16	30	81	12x40	10003207
18	30	71	8x30	10003199
18	30	81	12x40	10003209
20	30	71	8x30	10003200
20	30	81	12x40	10003211
20	50	101	12x40	40013319
22	30	71	8x30	10003201
22	30	81	12x40	10003212

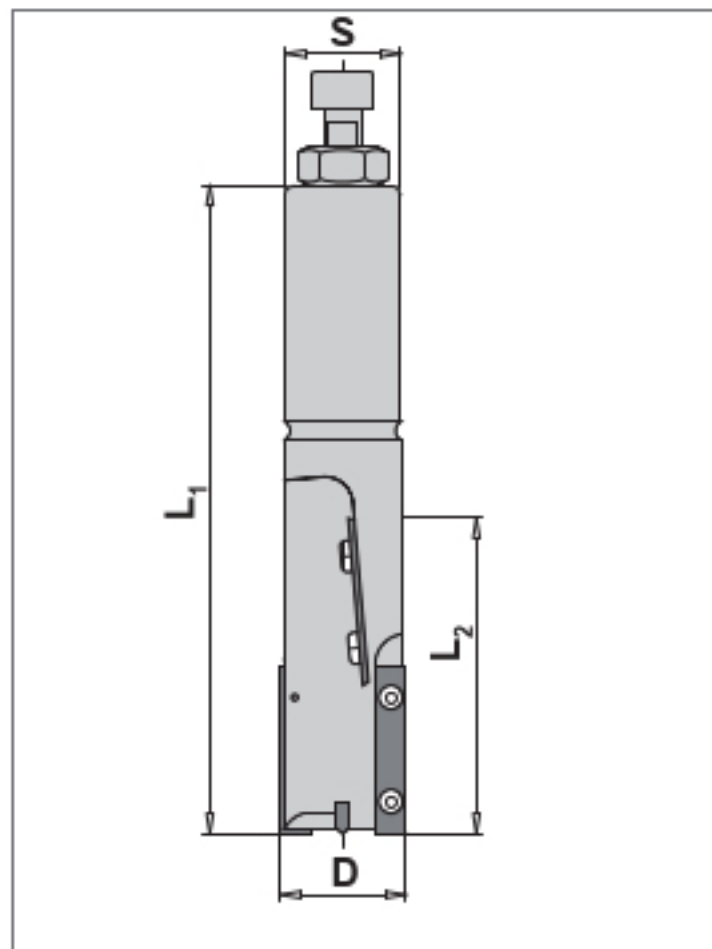
### Spare parts

Denomination	Dimension mm	Order No.
TOK	30x5,5x1,1	10006967
TOK	50x5,5x1,1	10006968
TOK	12x12x1,5 Z4 BOS	10009450
Clamping wedges	D=16 x 20	10111289
Clamping wedges	D=16 x 30	10006201
Clamping wedges	D=16 x 50	10006202
Clamping wedges	D=18 x 30	10006204
Clamping wedges	D=18 x 50	10006206
Clamping wedges	D=20 x 30	10006208
Clamping wedges	D=20 x 50	10006210
Clamping wedges	D=16 x 20	10111290
Clamping wedges	D=22 x 30	10006211
Torx screw	M3,5x5,5, T15, for D=16/18	10006058
Torx screw	M3,5x6,5, T15, for D=20/22	10006059
Torx screw	M4x5,9, big head T15, for D=16/18 Bore bit	10006039
Torx screw	M4x7, big head T15, for D=20/22 Bore bit	10032833

BOS = boring tip

## TOK sizing cutter Z2+2

With alternating axial angle, with HW boring tip



**43010**

<b>APPLICATION:</b>	For high-quality finish on double-sided laminated wood-based panels
<b>DESIGN:</b>	TOK HW-tipped boring tip
<b>MACHINE:</b>	Stationary machines with and without tool changer
<b>FEED:</b>	MEC

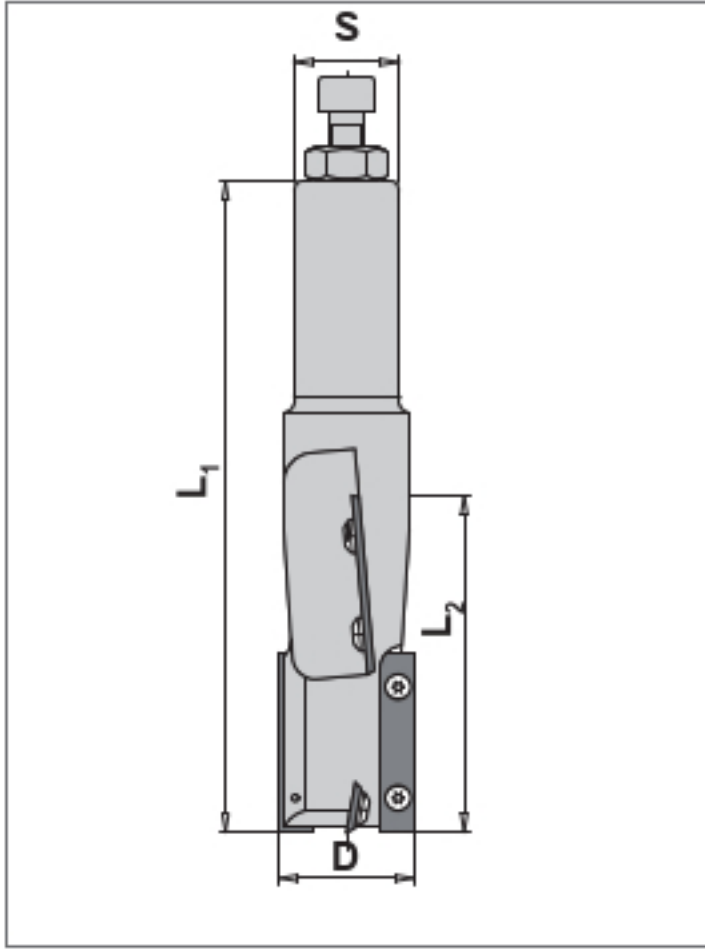
D mm	L2 mm	L1 mm	Shank mm	rhs/lhs	Order No.
20	30	110	25	rhs	10002694
20	30	110	25	lhs	10002693
20	33	110	20	rhs	10181396
20	50	125	20	rhs	10002696
20	50	125	20	lhs	40011292
20	50	125	25	rhs	10002698
20	50	125	25	lhs	10002697

### Spare parts

Denomination	Dimension mm	Order No.
TOK	16x7x1,5 (L2=30)	10007045
TOK	28x7x1,5 (L2=50)	10013916
Torx screw	M3x4, T9	10006060

## TOK sizing cutter Z2+2

With alternating axial angle, with TOK boring tip



### 43010

<b>APPLICATION:</b>	For high-quality finish on double-sided laminated wood-based panel
<b>DESIGN:</b>	TOK Reversible boring tip
<b>MACHINE:</b>	Stationary machines with and without tool changer
<b>FEED:</b>	MEC

D mm	L2 mm	L1 mm	Shank mm	rhs/lhs	Order No.
30	75	145	25x55	rhs	10002685

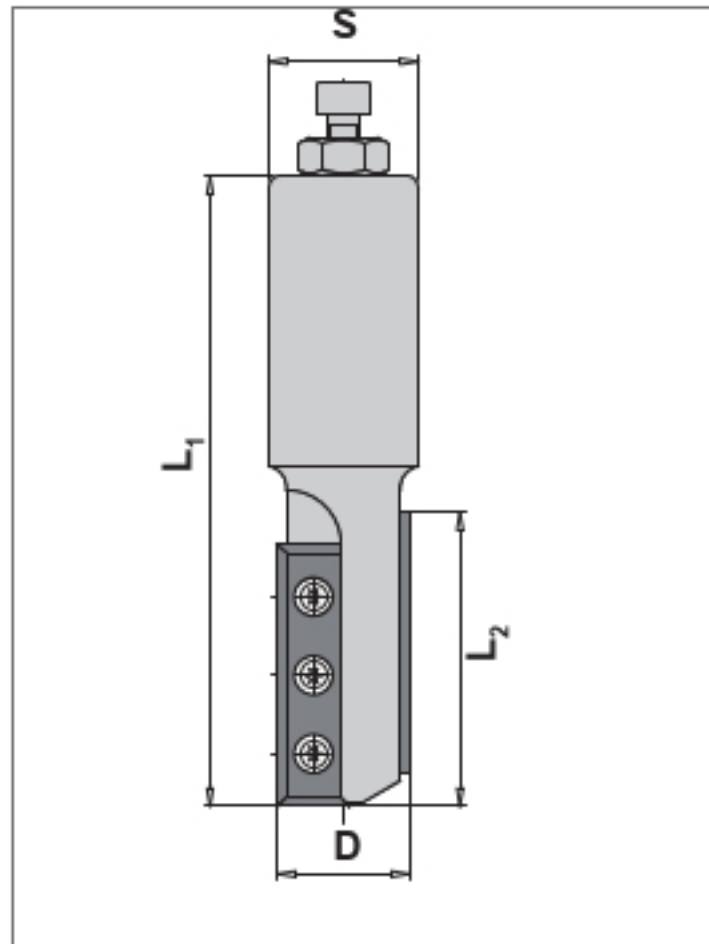
### Spare parts

Denomination	Dimension mm	Order No.
TOK	40x9x1,5 Z4	10025858
Reversible boring tip	7,5x12x1,5	10009449
Torx screw	M3,5x4, T15, for strobes	10006052
Torx screw	M4x5, T15, for boring tip	10006063



## TOK shank cutter Z2

With HW boring tip



**43010**

<b>APPLICATION:</b>	Grooving, jointing, sizing
<b>DESIGN:</b>	Staggered HW TOK, screw-fixed on the back
<b>MATERIAL:</b>	Wood, wood-based material, panel material and plastic material
<b>MACHINE:</b>	Stationary machines with and without tool changer
<b>FEED:</b>	MEC

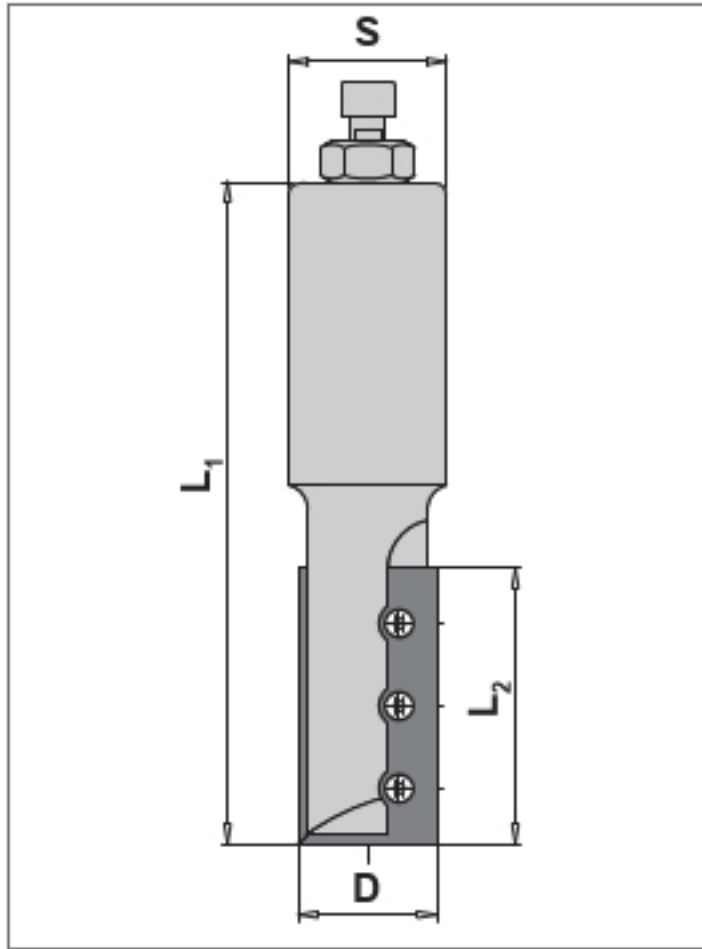
D mm	L2 mm	L1 mm	Shank mm	rhs/lhs	Order No.
18	55	125	20x55	rhs	40013292
18	55	125	20x55	lhs	40013291
18	55	125	25x55	rhs	10002708
18	55	125	25x55	lhs	10002707
20	55	125	20x55	rhs	40013293
20	55	125	25x55	rhs	10002711
20	55	125	25x55	lhs	10025187
22	55	125	25x55	rhs	10002713

### Spare parts

Denomination	Dimension mm	Order No.
TOK	30x12x1,5 Z4	10009523
TOK	50x12x1,7 Z4, 3-hole design	10009526
Torx screw	M4x5,9, extra-large head T15, for =16/18	10006039

## TOK shank cutter Z2

With HW boring tip



### 43010

<b>APPLICATION:</b>	Grooving, jointing, sizing
<b>DESIGN:</b>	HW TOK, 50 mm, 3-hole-design, tips front-fixed. Rh rotation
<b>MATERIAL:</b>	Wood, wood-based material, panel material, plastic material
<b>MACHINE:</b>	Router, stationary machines with and without tool changer
<b>FEED:</b>	MEC

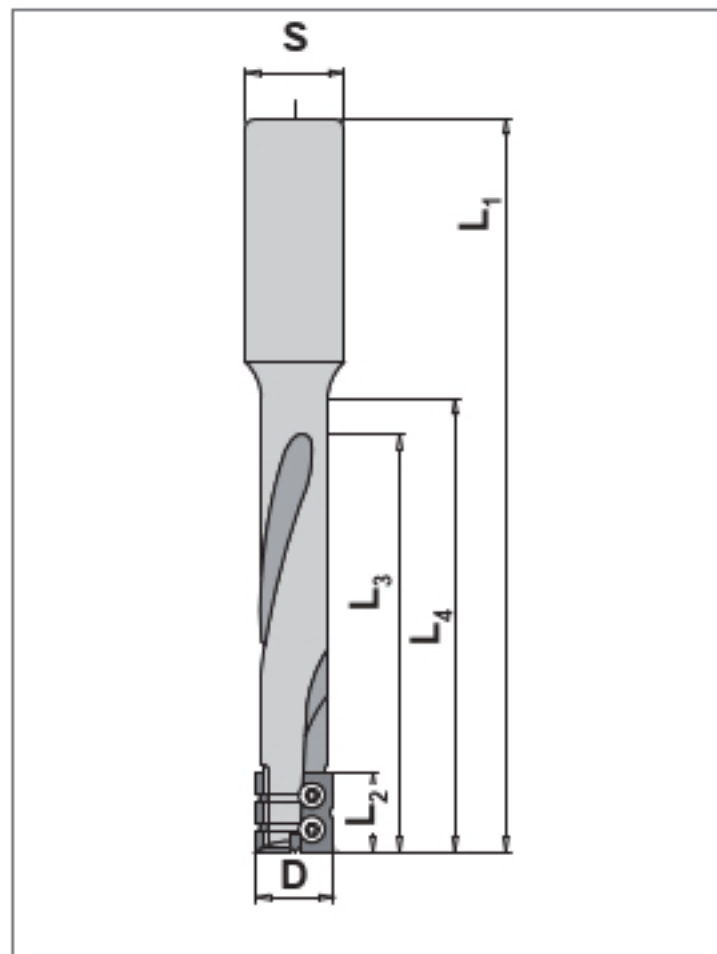
D mm	L2 mm	L1 mm	Shank mm	Order No.
25	50	119	25x55	40015768

### Spare parts

Denomination	Dimension mm	Order No.
TOK	50x12x1,7 Z4, 3-hole design	10009526
Torx screw	M4x6, T15, for D=24/25	10006064
Torx screw	M4x5,9, extra-large head T15, for D=30	10006039

## TOK lockset cutter Z2

With HW boring tip



**43010**

<b>APPLICATION:</b>	Lockset cutting
<b>DESIGN:</b>	HW TOK with chip breaking grooves. Tool body made of high-strength support material (heavy metal). Rh rotation.
<b>MATERIAL:</b>	Solid wood, wood-based material and panel material
<b>MACHINE:</b>	Stationary machines with and without tool changer and through-feed machines with lockset function
<b>FEED:</b>	MEC

D mm	L2 mm	L1 mm	Shank mm	L3 mm	L4 mm	Order No.
16	16	170	16x55	105	113	10024418
16	16	150	16x45	105	105	10031379
16	16	170	20x55	105	110	10024624
16	16	180	16x55	105	123	40013312
16	16	210	25x75	105	134	40013313
18	16	170	20x55	105	110	10025641

Solid HW lockset cutter see page 214.

### Spare parts

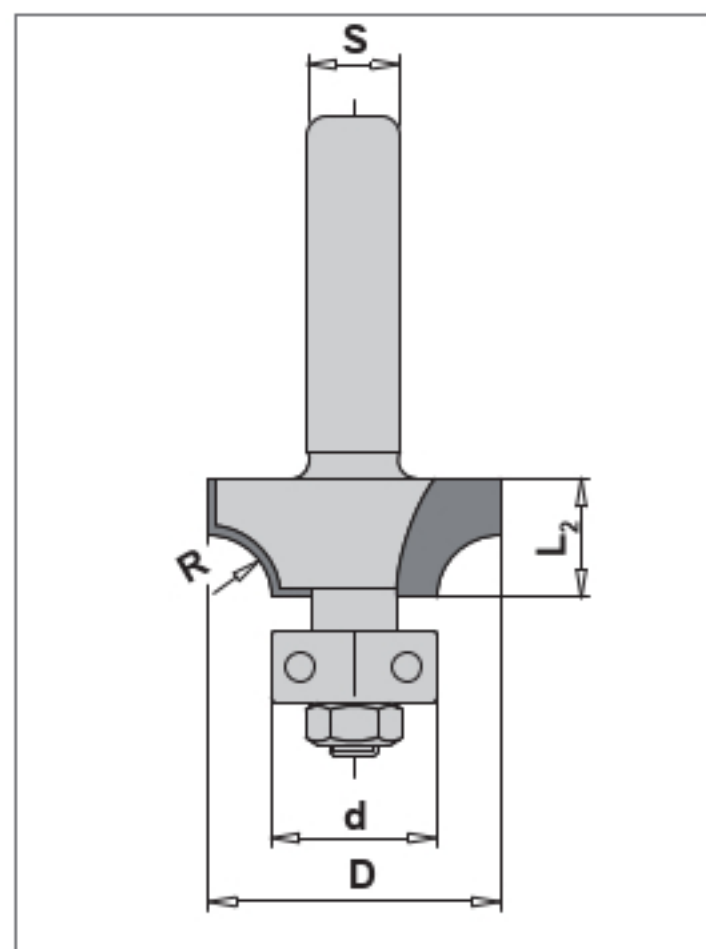
Denomination	Dimension mm	Order No.
TOK	16x7x1,5 (1 groove)	10102639
TOK	16x7x1,5 (2 grooves)	10102640
Torx screw	M3x4, T9	10006060
Handle key	T9	10006045

**Please note:** Weldon clamping surfaces can be applied on demand. Please advise the machine type or aggregate type



## HW rounding cutter

With exchangeable ball bearing



### 45010

<b>APPLICATION:</b>	Cutting radii
<b>DESIGN:</b>	HW-tipped, exchangeable ball bearing guide on the front side.
<b>MATERIAL:</b>	Wood and panel material
<b>MACHINE:</b>	Router
<b>FEED:</b>	MAN

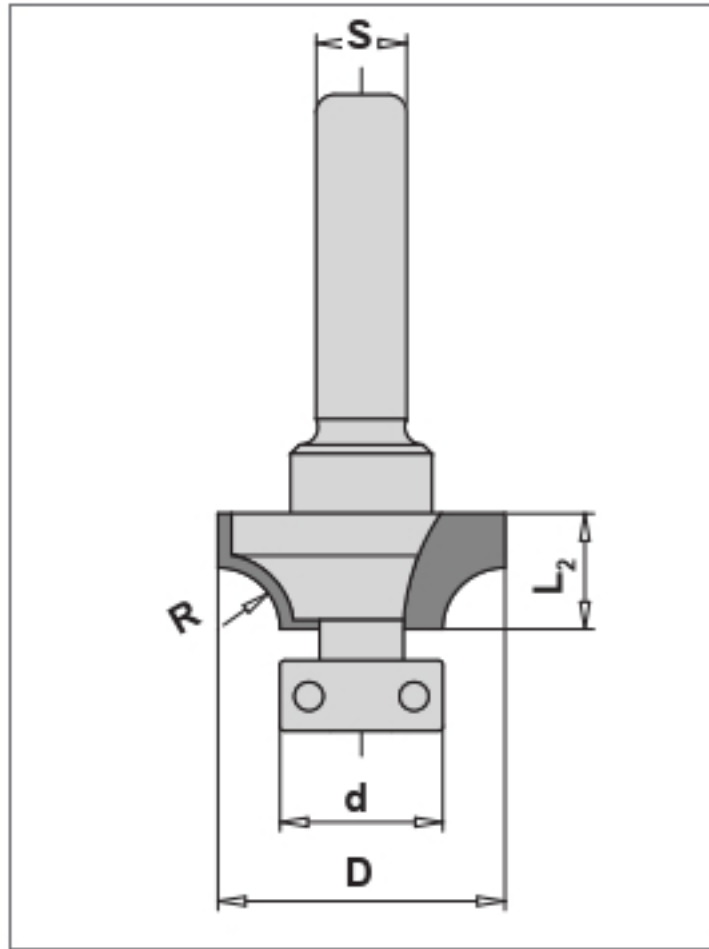
D mm	L2 mm	R mm	d mm	Shank mm	Order No.
18,7	8,0	3,0	12,7	6	10004017
18,7	8,0	3,0	12,7	8	10004045
20,7	9,0	4,0	12,7	6	10004018
20,7	9,0	4,0	12,7	8	10004046
22,7	10,0	5,0	12,7	6	10004019
22,7	10,0	5,0	12,7	8	10004047
25,4	11,3	6,35	12,7	8	10004048
28,7	14,0	8,0	12,7	8	10004049
31,7	15,5	9,5	12,7	8	10004050
38,1	18,7	12,7	12,7	8	10004051
53,0	27,0	20,0	12,0	12	10004052
63,0	32,0	25,0	12,0	12	10004053

### Spare parts

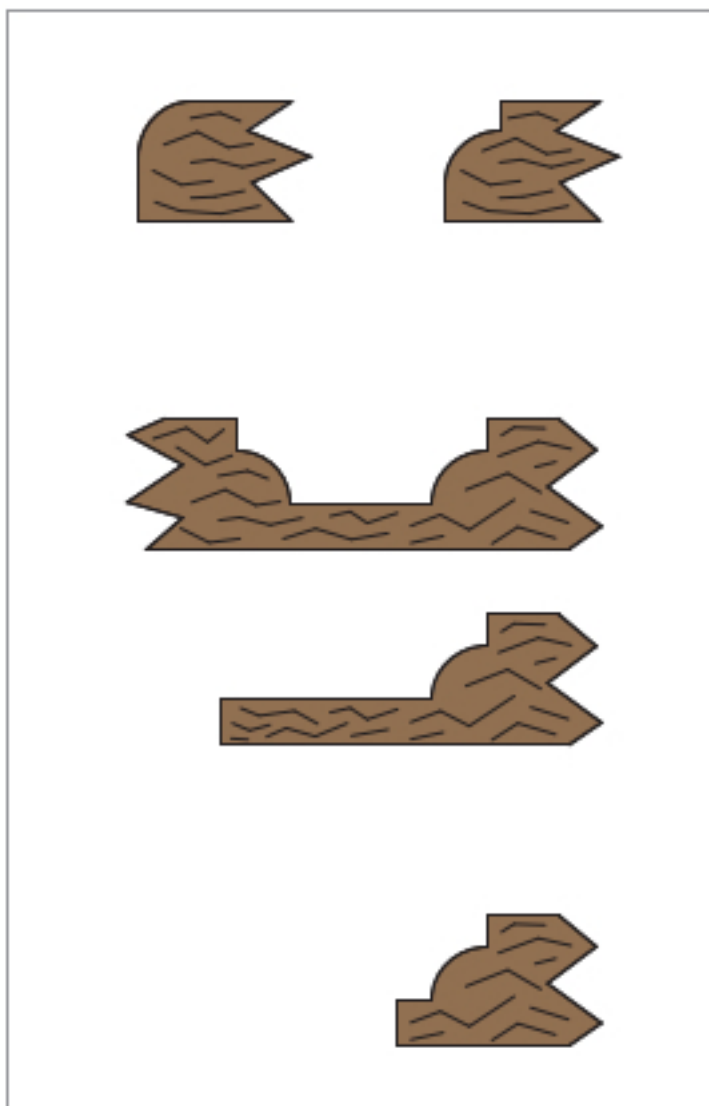
Denomination	Dimension mm	Order No.
Ring set	D=12, complete	10006026
Ball - bearing	D=12,7, d=4,76	10005990
Ball - bearing	D=15,9, d=6,35	10005992
Hex. nut	M4, for d=12,7/15,9	40013542

# HW rounding cutter

With ball bearing and replaceable shaft



**45010**



**APPLICATION:** Cutting radii

**DESIGN:** HW-tipped.  
Replaceable shaft and exchangeable ball bearing on the front side.

**MATERIAL:** Wood and panel material

**MACHINE:** Router

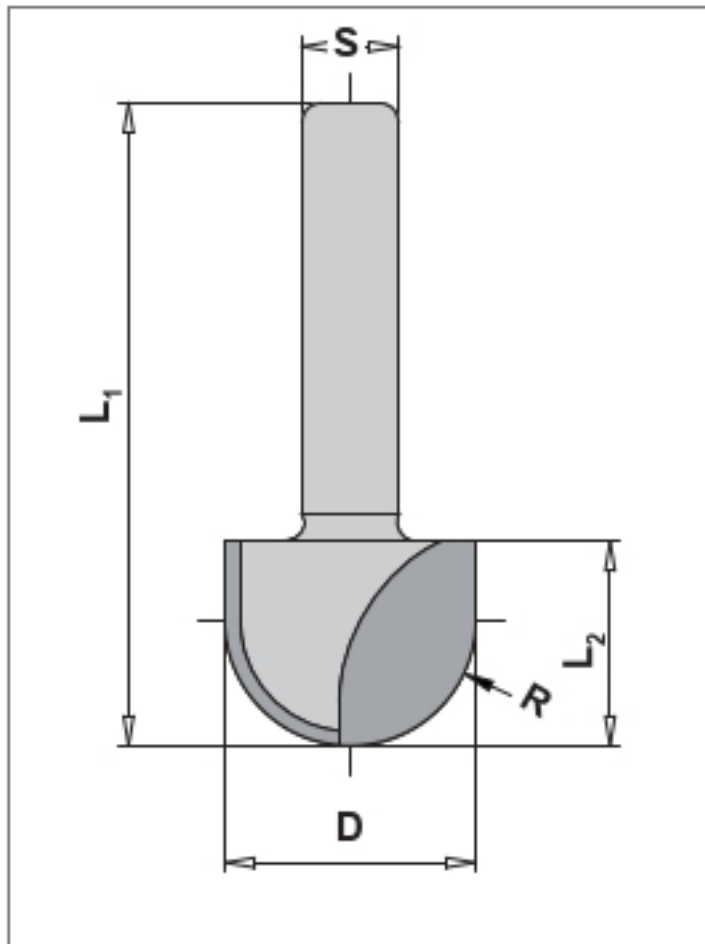
**FEED:** MAN

D mm	L2 mm	R mm	d mm	Shank mm	Order No.
16,0	7	2,0	12	6	10004478
16,0	7	2,0	12	8	10004502
18,0	8	3,0	12	6	10004479
18,0	8	3,0	12	8	10004503
20,0	9	4,0	12	6	10004480
20,0	9	4,0	12	8	10004504
22,0	10	5,0	12	6	10004481
22,0	10	5,0	12	8	10004505
24,6	11	6,35	12	6	10004482
24,6	11	6,35	12	8	10004506
30,0	14	8,0	14	6	10004483
30,0	14	8,0	14	8	10004507
33,0	15	9,5	14	6	10004484
33,0	15	9,5	14	8	10004508
39,4	18	12,7	14	6	10004485
39,4	18	12,7	14	8	10004509
44,0	21	15,0	14	8	10004510

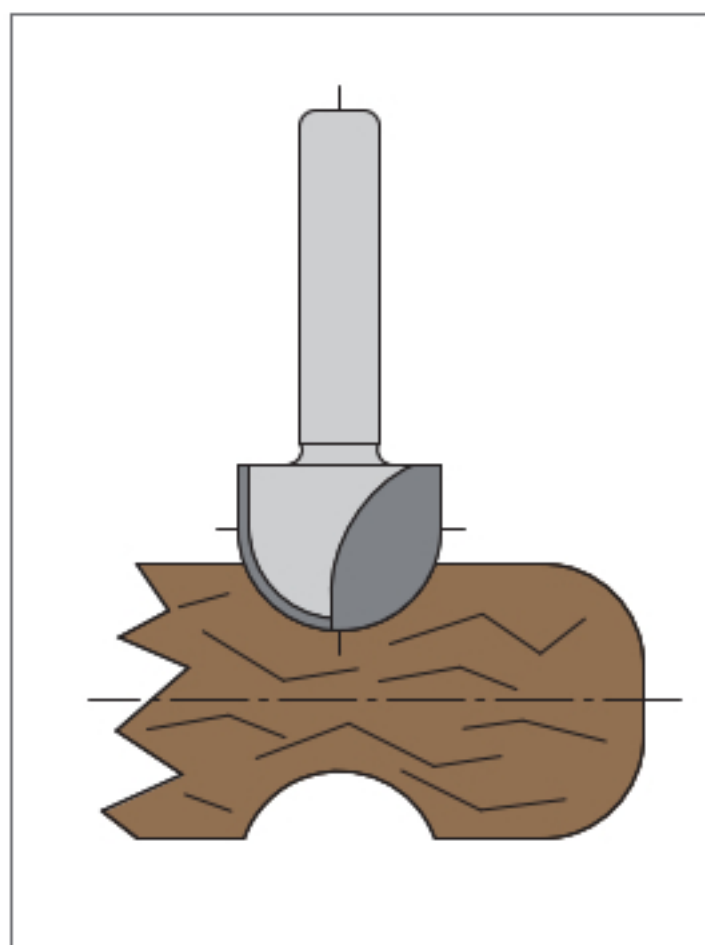
## Spare parts

Denomination	Dimension mm	Order No.
Ring set	D=9, complete	10006025
Ring set	D=12, complete	10006026
Ring set	D=14, complete	10006027
Cover pin	M3,5x6,0	10006006

## HW-tipped cove cutter



### 45010


**APPLICATION:**

Cutting coves

**DESIGN:**

HW-tipped

**MATERIAL:**

Wood and wood-based panel material

**MACHINE:**

Router, stationary machines with and without tool changer

**FEED:**

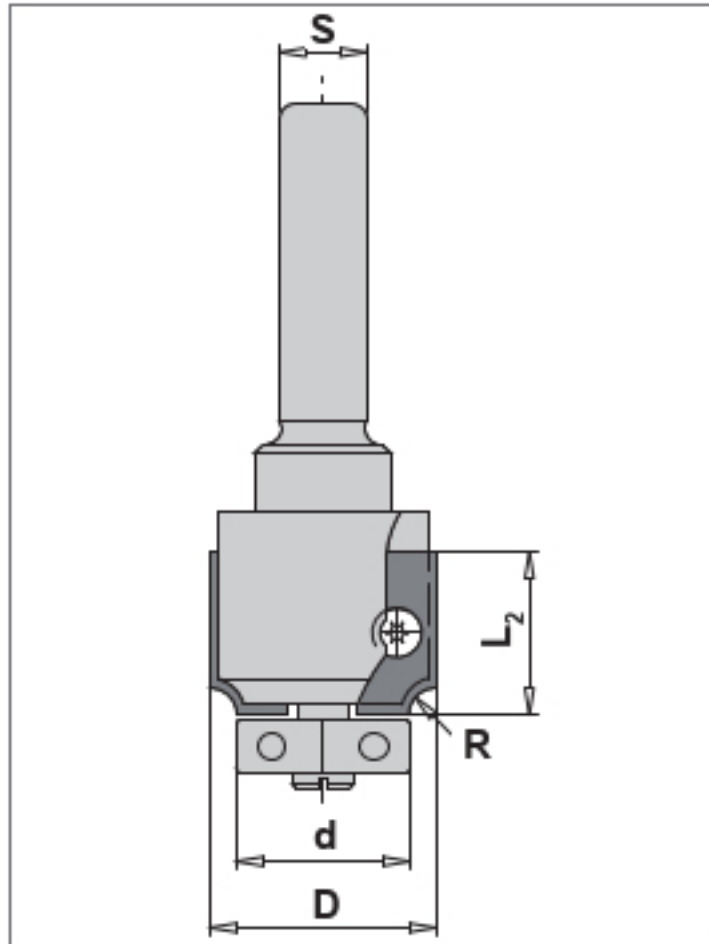
MAN / MEC

D mm	L2 mm	L1 mm	R mm	Shank mm	Order No.
8,0	5,5	36	4,0	6	10003939
8,0	5,5	60	4,0	8	10003967
9,5	6,3	60	4,75	8	10003968
11,0	8,0	60	5,5	8	10003969
12,7	9,5	40	6,35	6	10003942
12,7	9,5	60	6,35	8	10003970
30,0	20,0	60	15,0	12	10003971
40,0	25,0	65	20,0	12	10003972

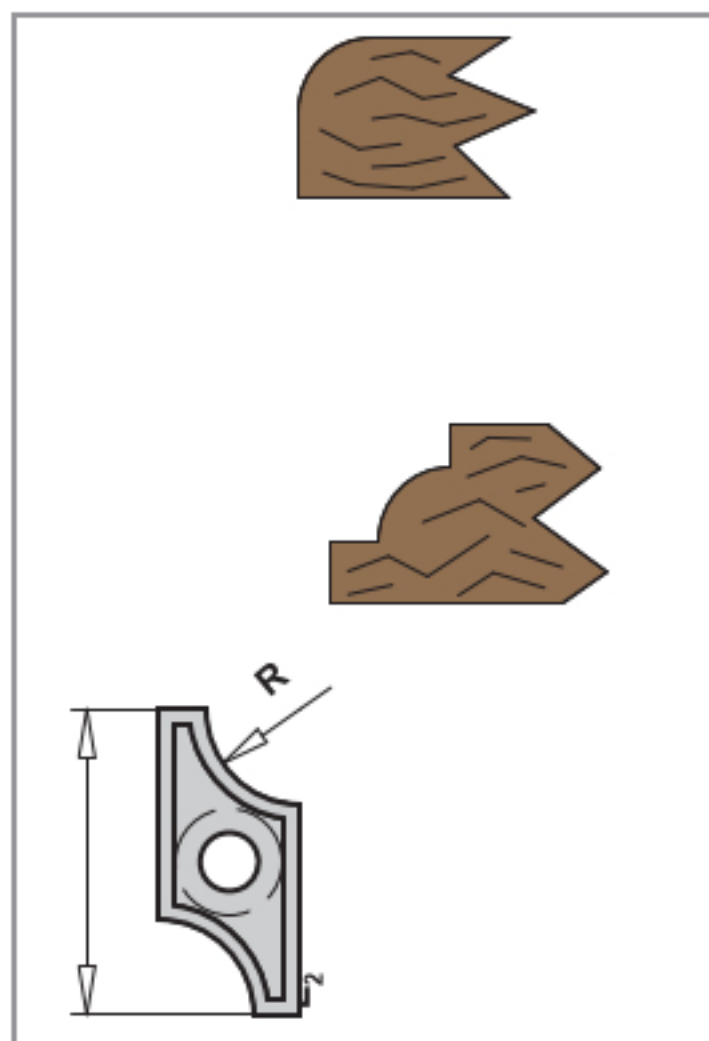


# TOK rounding cutter

With ball bearing guide and replaceable shaft



**45010**



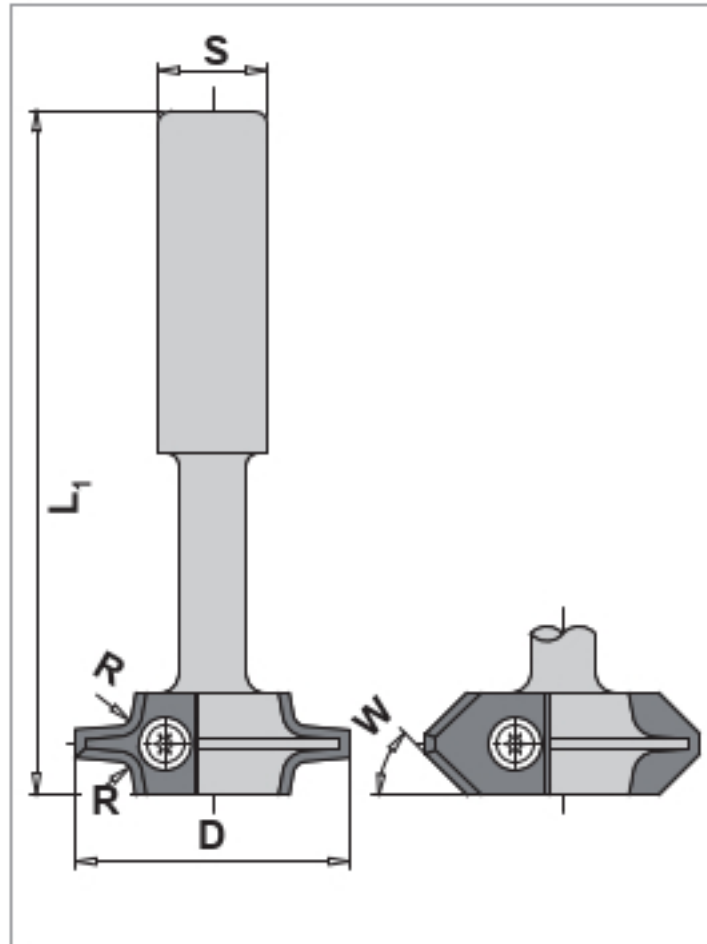
<b>APPLICATION:</b>	Cutting radii
<b>DESIGN:</b>	TOK With replaceable shaft and exchangeable ball bearing guide on the front side.
<b>MATERIAL:</b>	Wood and wood-based panel material
<b>MACHINE:</b>	Router
<b>FEED:</b>	MAN

D mm	L2 mm	R mm	d mm	Shank mm	Order No.
26	19,5	2	22	8	10002918
26	19,5	3	20/18	8	10002919
26	19,5	4	18/14	8	10002920
26	19,5	5	16/12	8	10002921
32	26	6	20/16	8	10002926
32	26	8	16/12	8	10002927
36	30	10	16/12	8	10002930

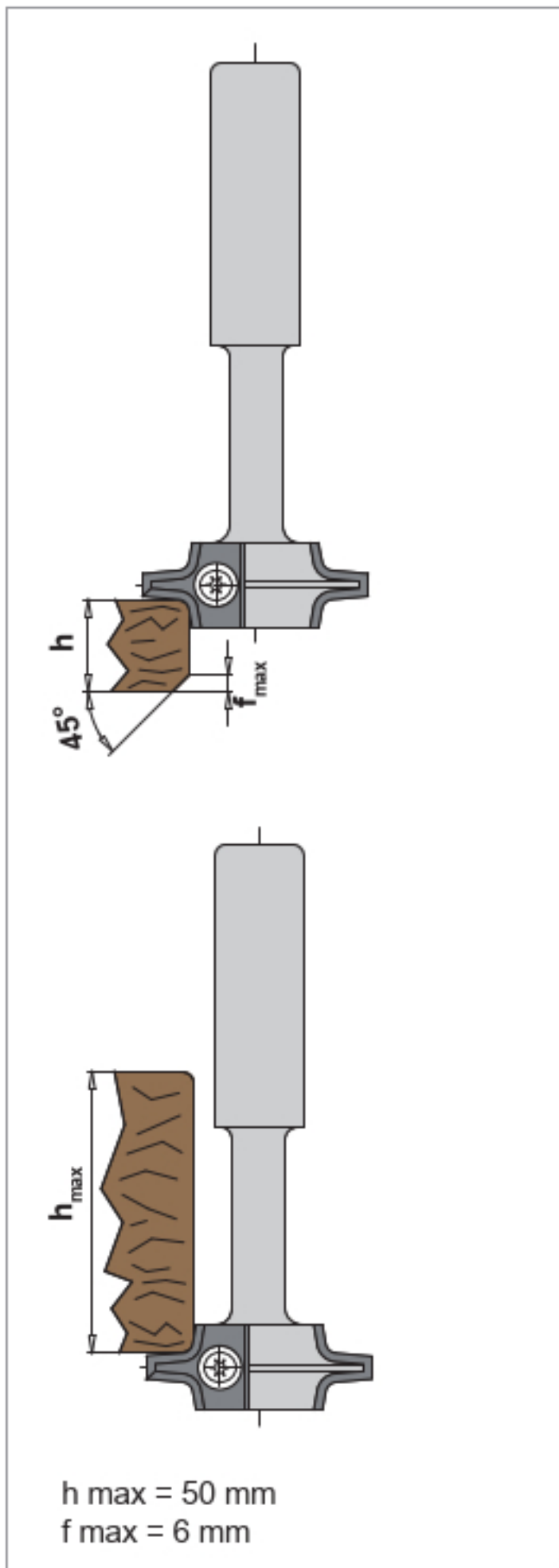
## Spare parts

Denomination	Dimension mm	Order No.
Ovolo knife	19,4x9x1,5, R=2	10007047
Ovolo knife	19,4x9x1,5, R=3	10007048
Ovolo knife	19,4x9x1,5, R=4	10007049
Ovolo knife	19,4x9x1,5, R=5	10007050
Ovolo knife	26x12,5x1,5, R=6	10007051
Ovolo knife	26x12,5x1,5, R=8	10007052
Ovolo knife	30x14,5x1,5, R=10	10007053
Ring set	D=12, complete	10006026
Ring set	D=14, complete	10006027
Ring set	D=16, complete	10006028
Ring set	D=18, complete	10006029
Ring set	D=20, complete	10006030
Ring set	D=22, complete	10006031
Torx screw	M4x6, T15, for D=26	10006064
Torx screw	M4x5,9, extra-large head T15	10006039
Cover pin	M3,5	10006006

## TOK rounding and bevel cutter



### 45010


**APPLICATION:**

Rounding or bevelling

**DESIGN:**

HW TOK.

In the same tool body rounding knives of different radii or 45° bevelling tips can be applied. Rh rotation.

**MATERIAL:**

Wood and wood-based panel material

**MACHINE:**

Stationary machines with and without tool changer

**FEED:**

MEC

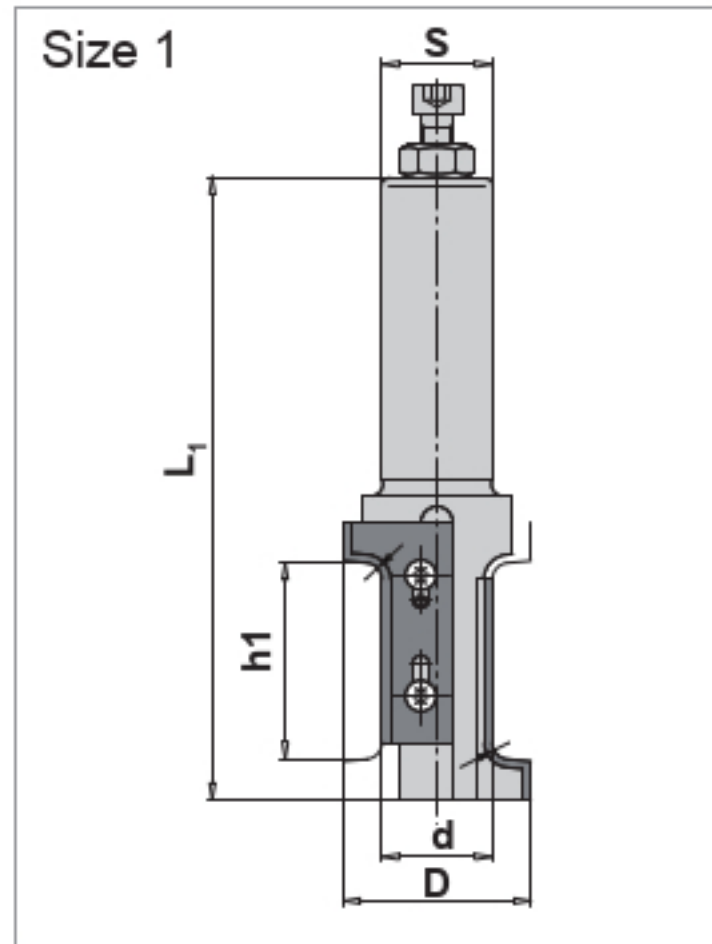
D mm	L1 mm	R mm	Angle	Shank mm	Order No.
40	100	2		16	10003017
40	100	3		16	10003018
40	100	4		16	10003019
40	100	5		16	10003021
40	100		45°	16	10003020

### Spare parts

Denomination	Dimension mm	Order No.
Tool body	without knife	10003016
Rounding knife	15x18x2, R2	10007421
Rounding knife	15x18x2, R3	10014922
Rounding knife	15x18x2, R4	10007422
Rounding knife	15x18x2, R5	40011755
Rounding knife	15x18x2, 45°	10018580
Torx screw	M4x5, T15	10006063



# TOK rounding and bevel cutter



**45010**

**APPLICATION:** Rounding or bevelling on both sides

**DESIGN:** Tool body with two exchangeable HW knives, movable towards each other, optionally for rounding or bevelling applications. In the same tool body, size 1 or size 2, either rounding knives or 45° bevelling knives can be used alternatively.

**MATERIAL:** Wood and wood-based panel material

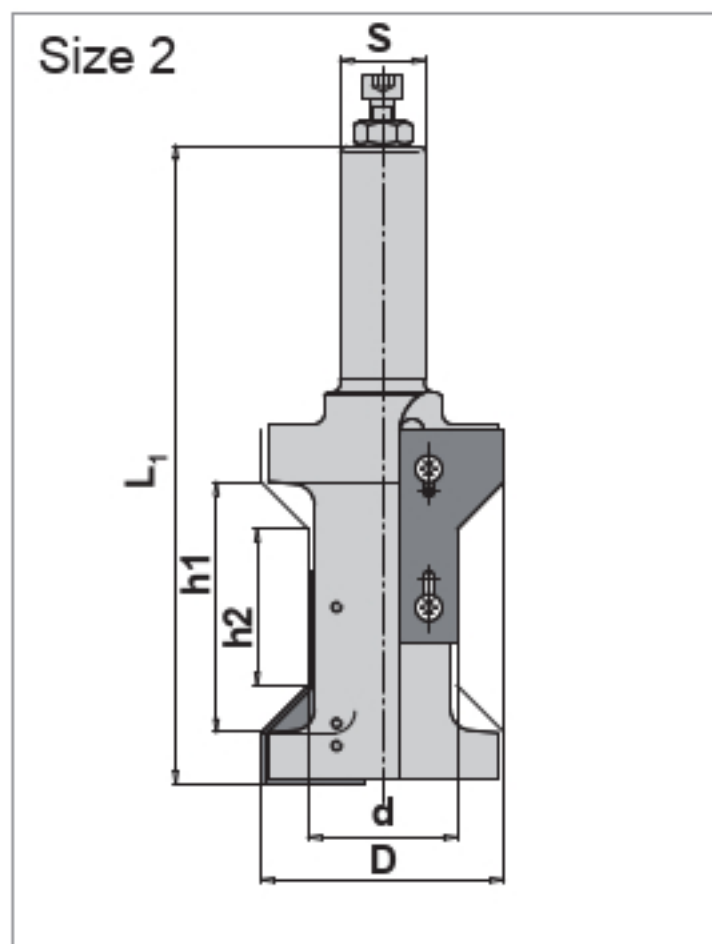
**MACHINE:** Stationary machines with and without tool changer

**FEED:** MEC

D mm	L1 mm	Shank mm	d mm	rhs/lhs	Size	Order No.
34	113	20x55	20	rhs	1	10003260
34	113	25x55	20	rhs	1	10021751
57	150	25x55	35	rhs	2	40013331

Size 1: h1 = bevelling max. 42 mm; h2 = rounding max. 19-34 mm  
 Size 2: h1 = bevelling max. 56 mm; h2 = rounding max. 22-43 mm

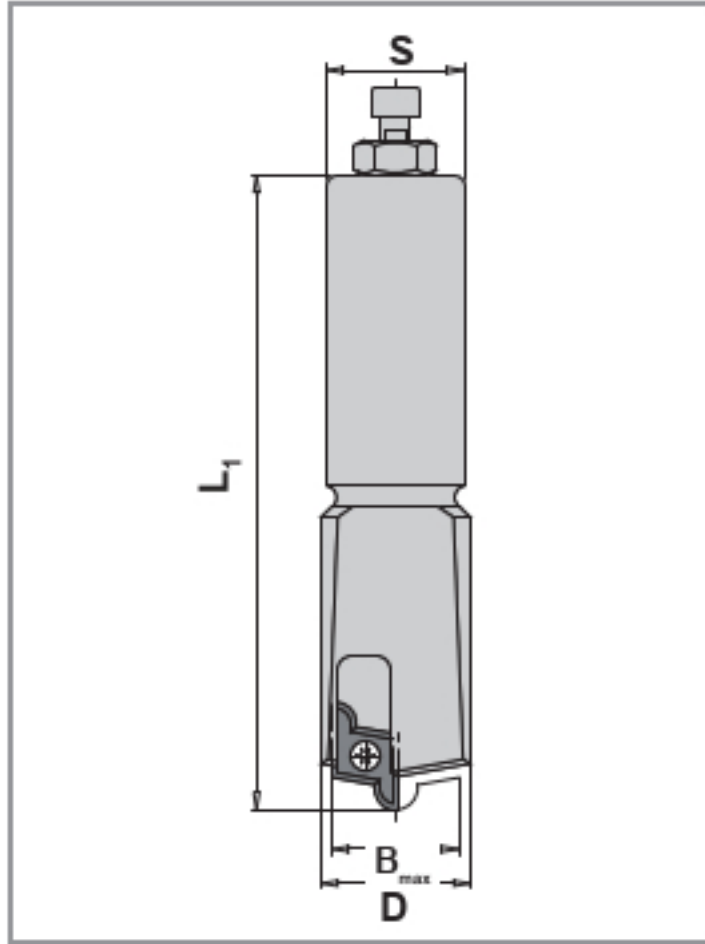
## HW TOK



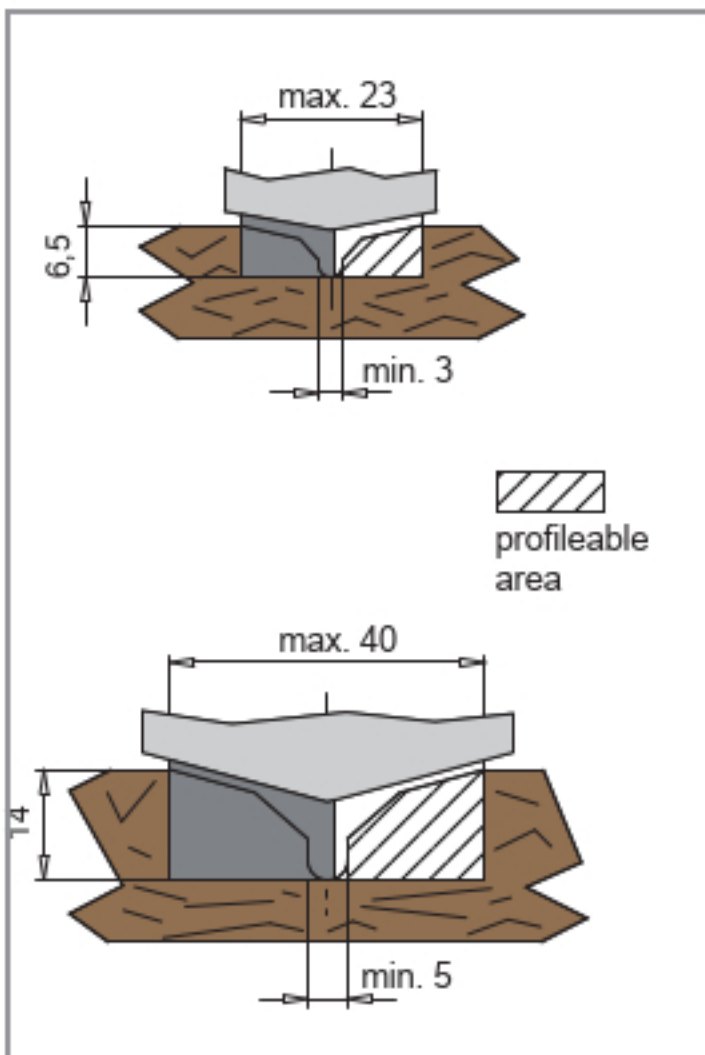
Dimension mm	R	Angle		for Size	Order No.
<b>Rounding knife - h1=19-34 mm</b>					
40x17,2x2,2	3		top	1	10007513
40x17,2x2,2	3		bottom	1	10007514
40x18,2x2,2	4		top	1	10007515
40x18,2x2,2	4		bottom	1	10007516
40x19,2x2,2	5		top	1	10007517
40x19,2x2,2	5		bottom	1	10007518
40x20,2x2,2	6		top	1	10007519
40x20,2x2,2	6		bottom	1	10007520
<b>Bevelling knife h2=13-29 mm</b>					
40x20,2x2,2		45°	top	1	10007521
40x20,2x2,2		45°	bottom	1	10007522
<b>Rounding knife h1=35-56 mm</b>					
50x20,3x2,2	6		top	2	10007526
50x20,3x2,2	6		bottom	2	10007527
50x22,3x2,2	8		top	2	10007528
50x22,3x2,2	8		bottom	2	10007529
50x24,3x2,2	10		top	2	10007530
50x24,3x2,2	10		bottom	2	10007531
<b>Bevelling knife h2=22-43 mm</b>					
50x24,3x2,2		45°	top	2	10007532
50x24,3x2,2		45°	bottom	2	10007533



## Cutter head for HW profile TOK



### 45010


**APPLICATION:**

Cutting profiled grooves, rosettes, etc.

**DESIGN:**

Designed to take one HW TOK, profiled on both sides, with axial angle. Can be reground several times (depending on profile depth).

**MATERIAL:**

Wood and wood-based panel material

**MACHINE:**

Stationary machines with and without tool changer

**FEED:**

MEC

D mm	B max mm	L1 mm	Shank mm	rhs/lhs	Size	Order No.
27	23	69	12x40	rhs	1	10003231

Profile width and depth as per the following figure.

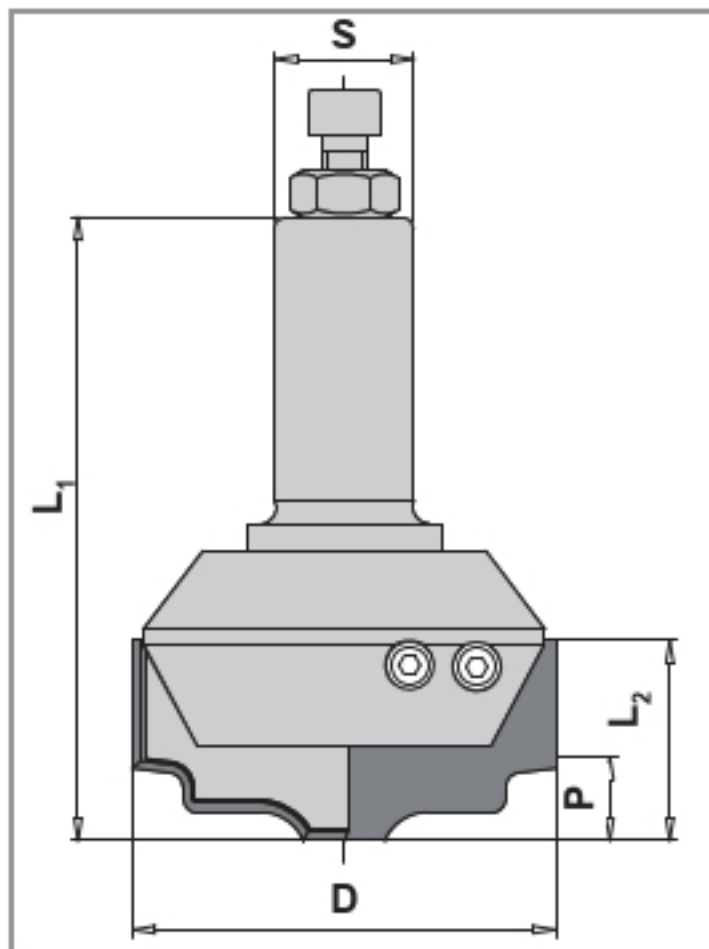
### HW TOK

Dimensions mm	Design	for size	Order No.
20x12x1,5	unprofiled	1	10009457
36x21x2	unprofiled	2	10007433

### Spare parts

Denomination	Dimension mm	Order No.
Torx screw	M4x6, T15, for size 1	10006064
Torx screw	M4x5,9, extra-large head T15, for size 2	10006039
Handle key	T15	10006050
Flag-type-key	T15	10006049

# TOK profile cutter for bottom cutting Z 2



**45010**

**APPLICATION:** Cutting profiled grooves, rosettes, etc

**DESIGN:** Tool body for single-profiled HW TOK with support plate. Rh rotation.

**MATERIAL:** Wood and wood-based panel material

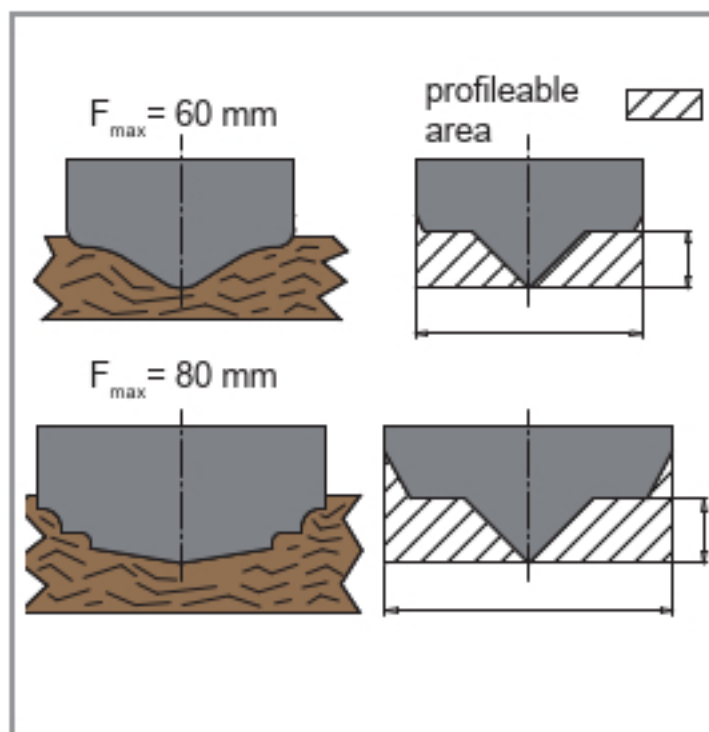
**MACHINE:** Stationary machines with and without tool changer

**FEED:** MEC

D mm	L2 mm	L1 mm	Shank mm	rhs/lhs	P	Order No.
60	34	105	20x55	rhs	15	40002572
76	35	112	25x55	rhs	17	10003246

For D = 60 mm tipping consists of two identical knives and support plates each.

For D = 76 mm tipping consists of:  
 - 1 pc each of TOK type A and B,  
 - 2 pcs support plates



## HW TOK and support plates

Dimensions mm	for D=mm	Design	Type	Order No.
<b>HW TOK</b>				
30x35x2	60	unprofiled		10017307
40x36x2	76	unprofiled	A	10007465
40x36x2	76	unprofiled	B	10007466
<b>Support plates 4,2 mm thickness</b>				
30x35x2		unprofiled		10017288
40x36x2		unprofiled		10007487

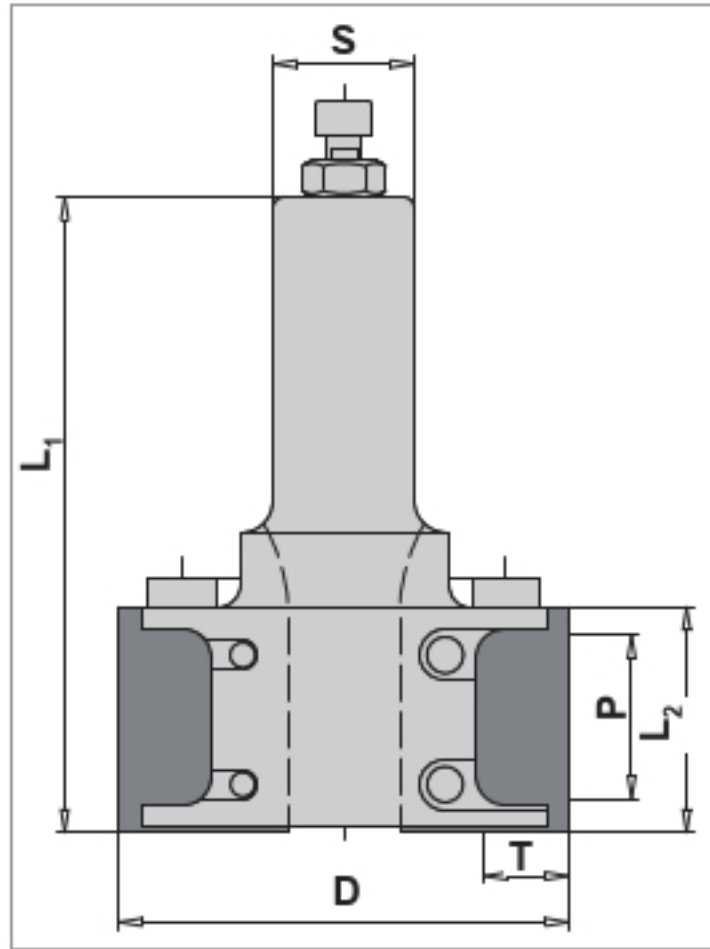
## Spare parts

Denomination	Dimension mm	Order No.
Clamping wedge	28, rhs	40013574
Clamping wedge	35, rhs	10006184
Ball pressure screw	M8x12, for D=76	10006035
Ball pressure screw	M6x10, for D=60	40013521
Sliding bar key	SW 4	10006096



## TOK profile cutter

Without axial angle



### 45010

**APPLICATION:**

For profiling

**DESIGN:**

Steel tool body designed to hold special HW profile knives with support plate, profile design according to customer requirements. Interlocking knife clamping.

**MATERIAL:**

Wood and wood-based panel material

**MACHINE:**

Stationary machines with and without tool changer

**FEED:**

MEC

D mm	L2 mm	L1 mm	Shank mm	Z	P	T	rhs/lhs	Order No.
80	40	113	25	2	29	15	rhs	10016300
80	40	113	25	2	29	15	lhs	10020007
100	40	100	25	2	29	19	rhs	10015043
100	40	100	25	2	29	19	lhs	10016470
110	60	120	25	2	51	24	rhs	10015044
110	60	120	25	2	51	24	lhs	10015303

Knives and support plates are profiled according to customer requirements. A profile drawing or material sample is necessary.

**Spare parts for 10016300, 10020007**

Denomination	Dimension mm	Order No.
Blank	40x30x2,0 Z1	10015786
Clamping wedge	38	10016489
Threaded pin	M8x12	40002007
Support plate		10023991
Stop ring	69,5	10020020

**Spare parts for 10015043, 10016470**

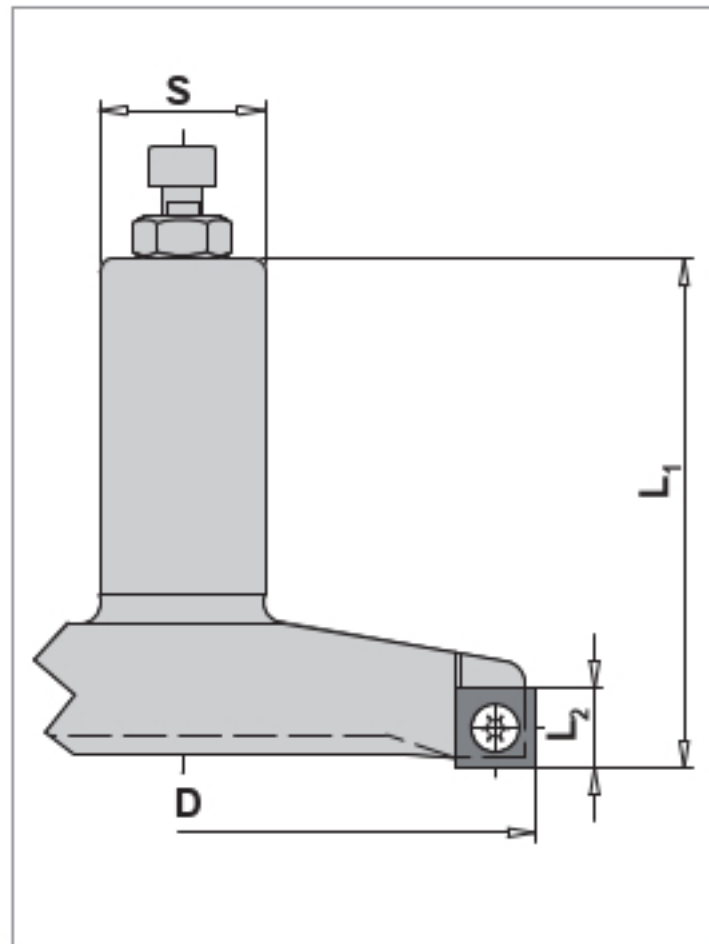
Denomination	Dimension mm	Order No.
Blank	40x35x2,0 Z1	33009263
Clamping wedge	38	10016489
Threaded pin	M6x16	40001998
Support plate		10019297
Stop ring	56	10017984

**Spare parts for 10015044, 10015303**

Denomination	Dimensions mm	Order No.
Blank	60x40x2,0 Z1	10014340
Clamping wedge	58	10016488
Threaded pin	M8x12	40003228
Support plate		10023992
Stop ring	56	10017984



# TOK planing cutter Z 3



**45010**

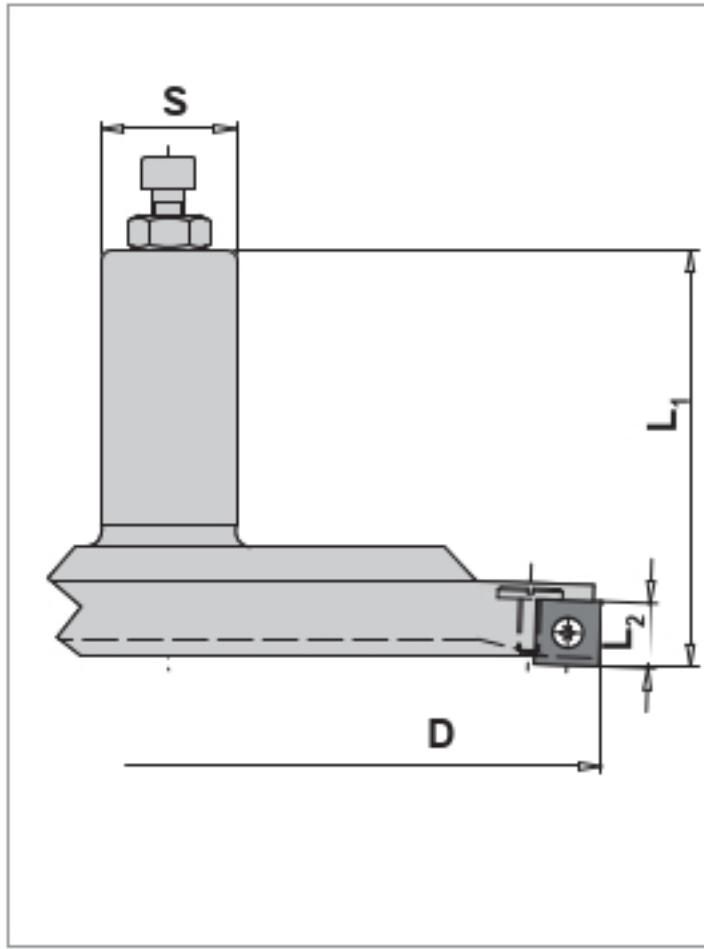
<b>APPLICATION:</b>	Cutting work tops on CNC machines, cutting wide edge bands flush, suitable for large rebating depths with low height.
<b>DESIGN:</b>	Tool body with 3 HW TOK working from the outside to the centre with 4 cutting edges. Rh rotation.
<b>MATERIAL:</b>	Wood-based panels with or without coating
<b>MACHINE:</b>	Stationary machines with and without tool changer
<b>FEED:</b>	MEC

D mm	L2 mm	L1 mm	Shank mm	Z	Order No.
80	14	85	25x55	3	40015806

## Spare parts

Denomination	Dimension mm	Order No.
TOK	14x14x2,0 Z4	10009453
Torx countersunk screw	M5x7, T 15	10106762

## TOK planing cutter Z 5



# 43010

<b>APPLICATION:</b>	Cutting work tops on CNC machine
<b>DESIGN:</b>	Steel cutter head with HW TOK 12 x 12 x 1,5; 4-fold usable.
<b>MATERIAL:</b>	Wood-based panels with and without coating
<b>MACHINE:</b>	Stationary machines with and without tool changer
<b>FEED:</b>	MEC

D mm	L2 mm	L1 mm	Shank mm	Z	max rpm	Order No.
160	12	80	25	5	7.000	10110290

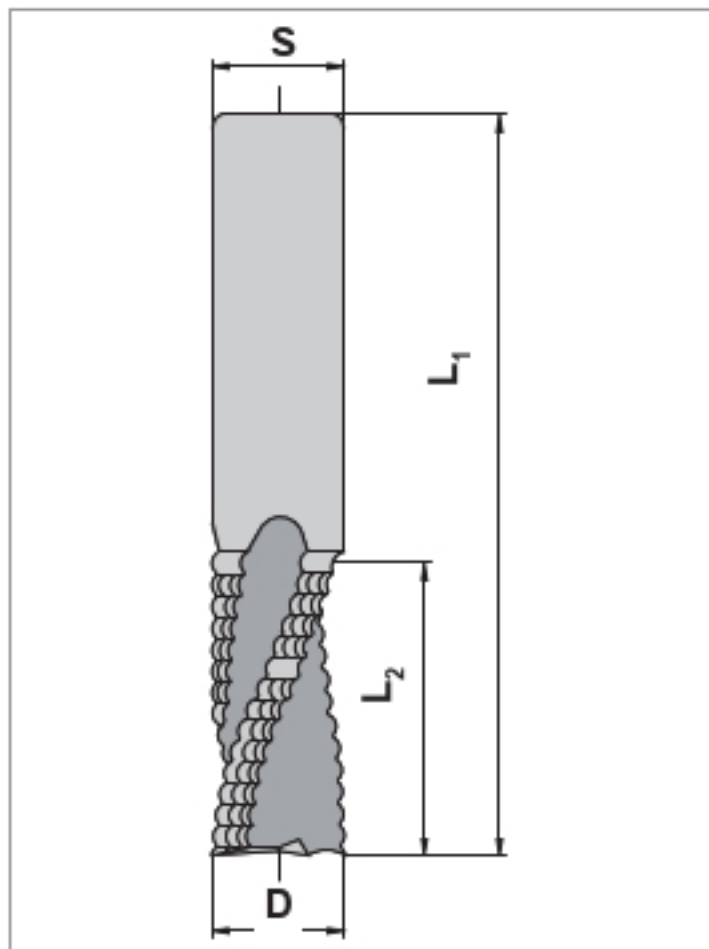
### Spare parts

Denomination	Dimension mm	Order No.
HW TOK	12x12x1,5 Z4	10009450
Torx countersunk screw	M4x9 extra-large head	40004987

# Solid HW roughing cutter

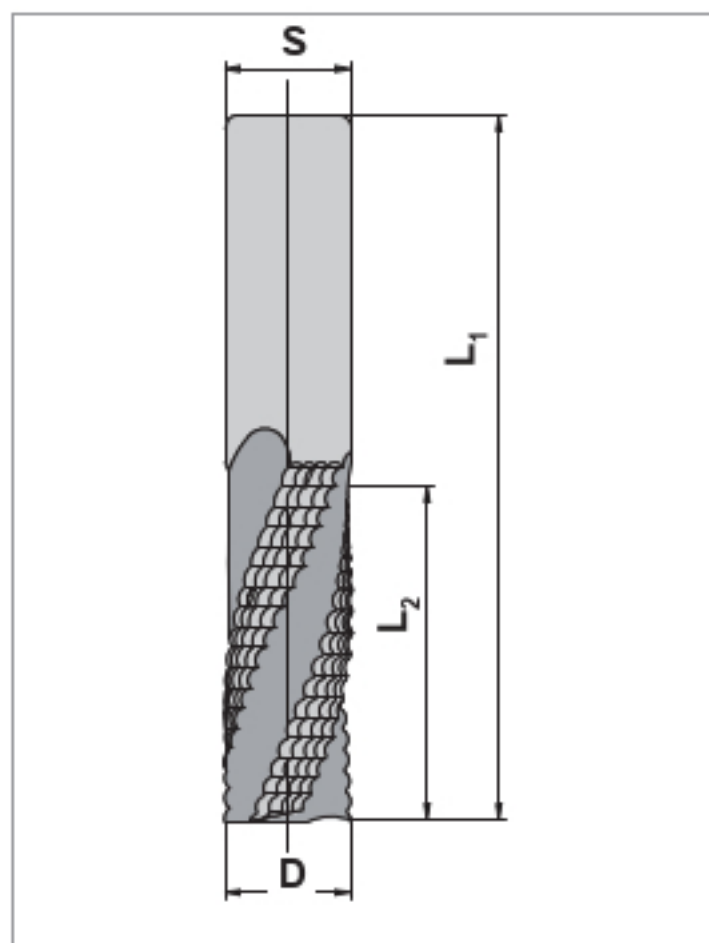
<b>APPLICATION:</b>	For pre-cuts
<b>DESIGN:</b>	Solid HW roughing cutter with spiral knives and serrated knife design.
<b>MATERIAL:</b>	Wood and wood-based panel material
<b>MACHINE:</b>	Stationary machines with and without tool changer
<b>FEED:</b>	MEC

## 43070



### Right-hand rotation / positive spiral - Z 2

D mm	L2 mm	L1 mm	Shank mm	Z	Order No.
6	20	60	6	2	10107183
8	25	80	8	2	10018734
10	30	75	10	2	10014613
12	42	90	12	2	10014614
14	35	80	14	2	10014615
16	35	90	16	2	10014616
16	55	110	16	2	10014617
18	55	115	18	2	10014618
20	55	115	20	2	10014619



### Right-hand rotation / positive spiral - Z 3

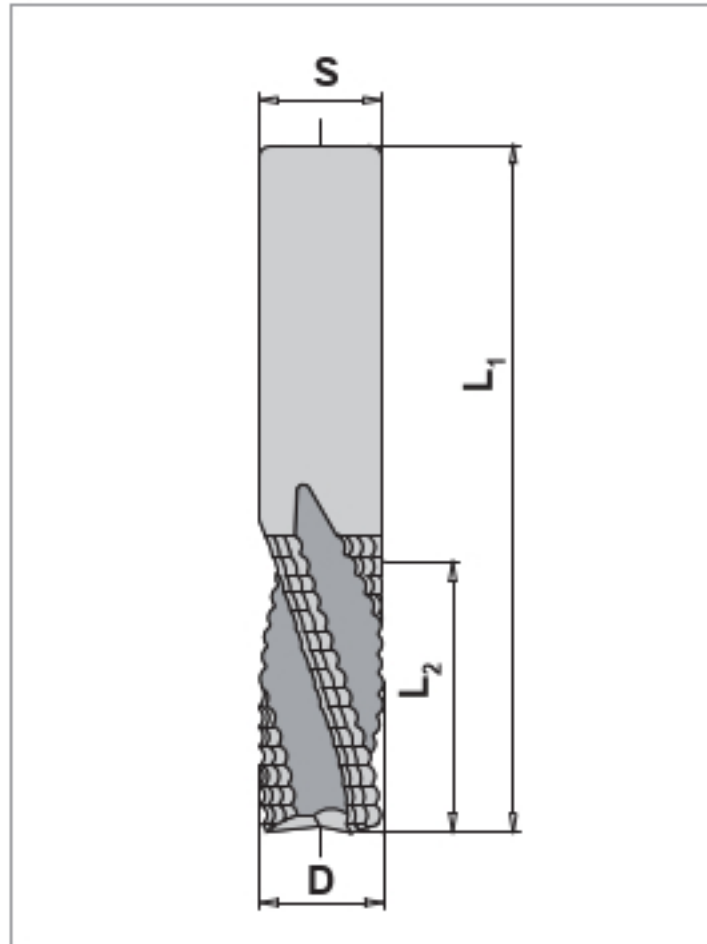
D mm	L2 mm	L1 mm	Shank mm	Z	Order No.
12	42	90	12	3	10014620
14	35	90	14	3	10014621
14	55	110	14	3	10014622
16	35	90	16	3	10014623
16	55	110	16	3	10014624
18	55	115	18	3	10014625
18	55	135	25	3	10014630*
20	55	115	20	3	10014626
20	60	120	20	3	10014628
20	75	135	20	3	10014627
20	90	155	20	3	10014631
25	100	155	25	3	10014686*

\* with brazed shank

Further dimensions and special design, e.g. face-radius on request.



## Roughing cutter solid HW



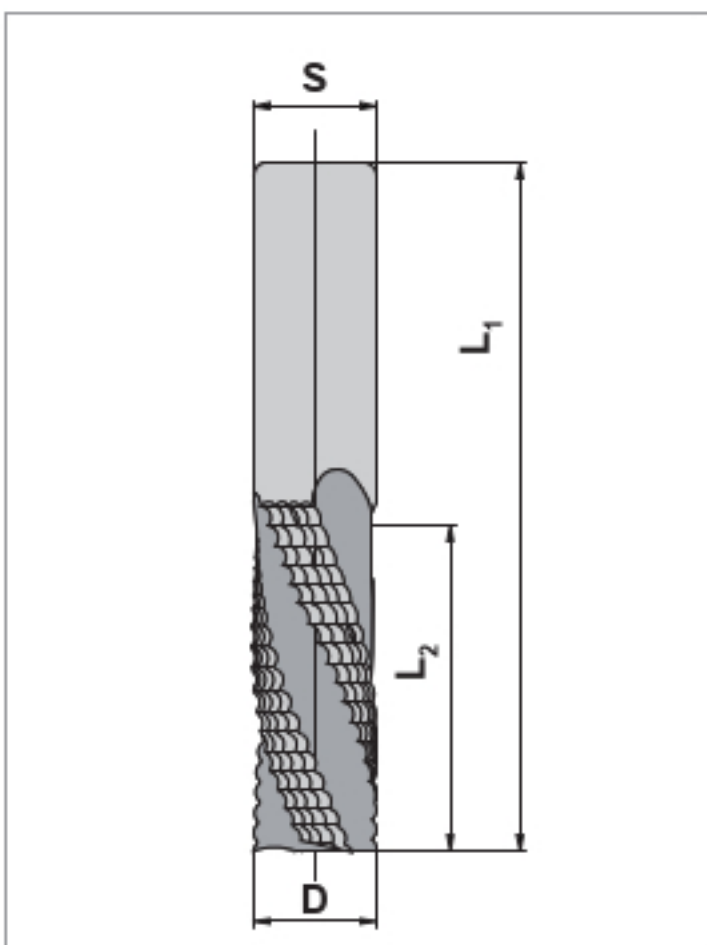
**43070**

### Right-hand rotation / negative spiral - Z 2

D mm	L2 mm	L1 mm	Shank mm	Z	Order No.
10	30	75	10	2	10014632
16	55	110	16	2	10014633

### Right-hand rotation / negative spiral - Z 3

D mm	L2 mm	L1 mm	Shank mm	Z	Order No.
12	42	90	12	3	10014635
14	35	90	14	3	10014636
16	35	90	16	3	10014638
16	55	110	16	3	10014639
18	55	115	18	3	10014640
20	55	115	20	3	10014641



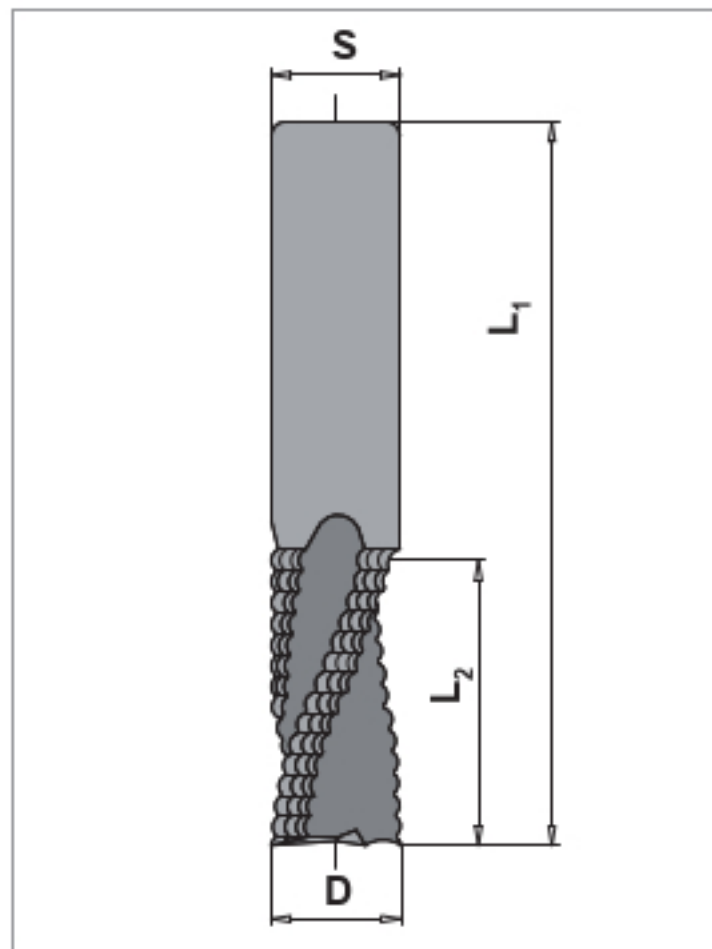
### Left-hand rotation / negative spiral - Z 3

D mm	L2 mm	L1 mm	Shank mm	Z	Order No.
20	55	115	20	3	10017301

Further dimensions on request.

# Roughing cutter solid HW

PLT coating



**43070**

<b>APPLICATION:</b>	For pre-cuts
<b>DESIGN:</b>	Solid HW roughing cutter with spiral knives and serrated knife design. Special PLT coating for prolonged tool service life.
<b>MATERIAL:</b>	Wood and wood-based panel material
<b>MACHINE:</b>	Stationary machines with and without tool changer
<b>FEED:</b>	MEC

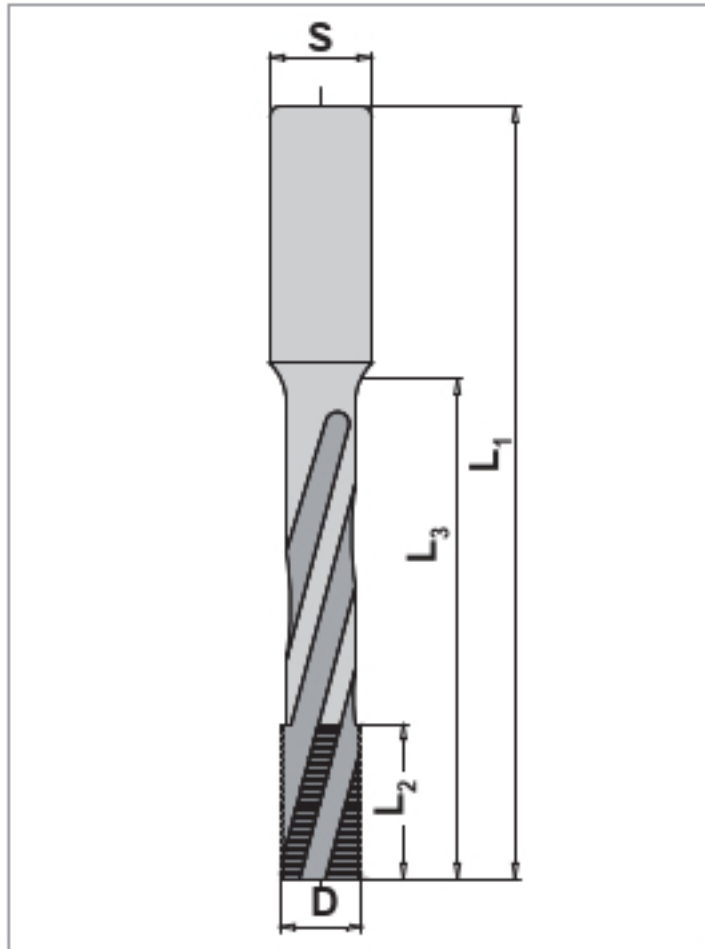
### Right-hand rotation / positive spiral - Z 2

D mm	L2 mm	L1 mm	Shank mm	Z	Order No.
8	25	80	8	2	10153902

### Right-hand rotation / positive spiral - Z 3

D mm	L2 mm	L1 mm	Shank mm	Z	Order No.
12	42	90	12	3	10153911
14	55	110	14	3	10153912
16	55	110	16	3	10153913
20	60	120	20	3	10153914

## Lockset Cutter - solid HW



### 43070

<b>APPLICATION:</b>	For lock-cases
<b>DESIGN:</b>	Solid carbide roughing cutter with stepped shank. Roughing design ensures smooth cutting, the spiral gullet provides maximum chip removal.
<b>MATERIAL:</b>	Solid wood, wood-based material
<b>MACHINE:</b>	Stationary machines with and without tool changer
<b>FEED:</b>	MEC

D mm	L2 mm	L3 mm	L1 mm	Shank mm	Z	Order No.
14	15	110	155	14	2	10014558
16	25	130	175	16	2	10014559
18	25	130	175	18	2	10014560
16	30	115	170	16	3	10014561
16	30	115	175	20	3	10014562
18	30	120	170	20	3	10014563

TOK lock-set cutter, see page 199.

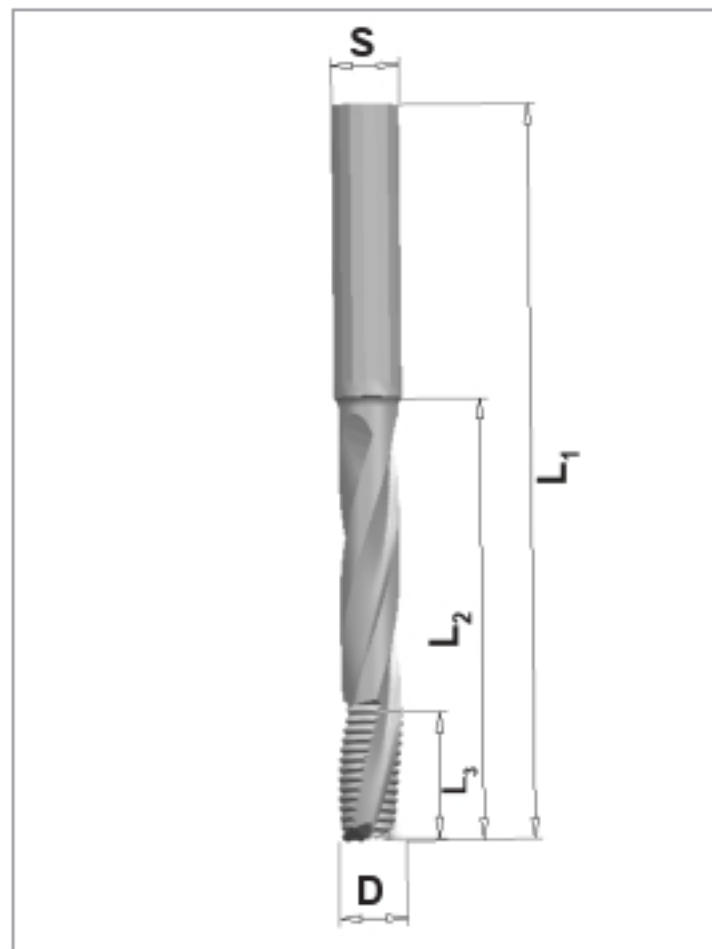
Solid wood: adjustable at up to 8 mm / stroke.  
 Chip board: adjustable at up to 15 mm / stroke.  
 Vf 10 - 18 m/min

**Please note:** Weldon clamping surfaces can be applied on demand.  
 Please advise the machine type or aggregate type.



## Solid carbide roughing and smoothing cutter - *smartline*

For lock case cutting, PLT coating



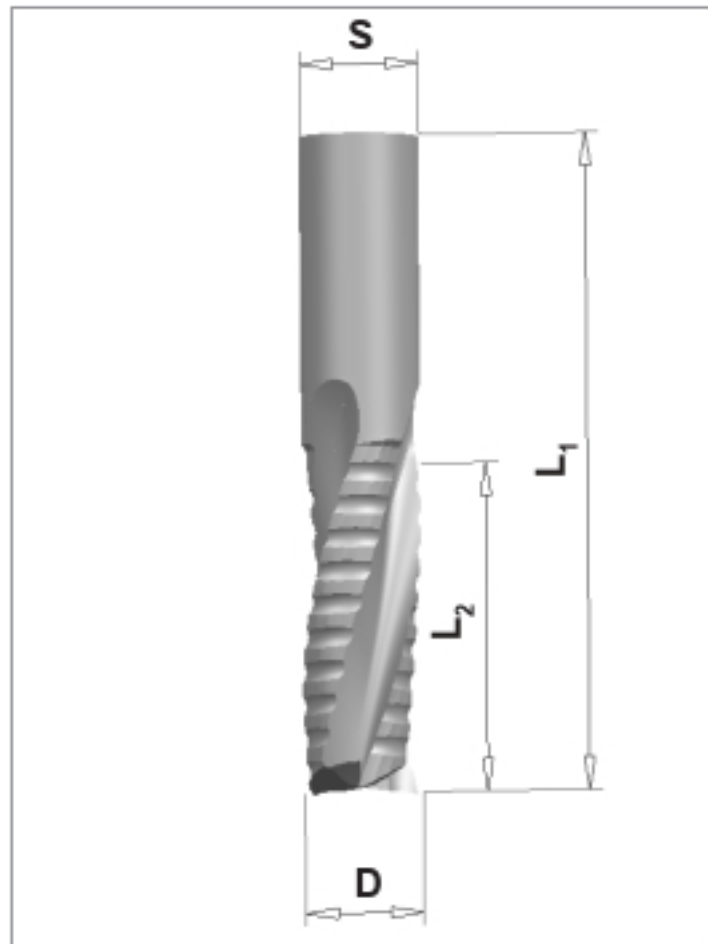
**43070**

<b>APPLICATION:</b>	Production of lock cases
<b>DESIGN:</b>	Solid carbide cutter with new roughing-smoothing tooth design and PLT coating. The new tooth design reduces the cutting pressure considerably if compared to the conventional smoothing cutter geometry. On the other hand there will be hardly any marks compared to the roughing cutter tooth design. Thanks to the PLT coating the service life is much longer and the friction at the same time minimized. The feed rate as well as overall performance can thus be clearly increased.
<b>MATERIAL:</b>	Solid wood, wood-based material, plastic material
<b>MACHINE:</b>	Stationary machines with and without tool changer
<b>FEED:</b>	MEC

D mm	L3 mm	L2 mm	L1 mm	Shank mm	Z	DT	Order No.
16	30	95	170	16x50	3	◇	10190167
16	30	115	175	16x50	3		10190168
16	30	115	175	20x50	3	◇	10190169

## Solid carbide roughing and smoothing cutter - *smartline*

For door handle hole and lock barrel, PLT coating



### 43070

**APPLICATION:**

Cut-off and sizing cutter

**DESIGN:**

Solid carbide cutter with new roughing-smoothing tooth design and PLT coating. The new tooth design reduces the cutting pressure considerably if compared to the conventional smoothing cutter geometry. On the other hand there will be hardly any marks compared to the roughing cutter tooth design. Thanks to the PLT coating the service life is much longer and the friction at the same time minimized. The feed rate as well as overall performance can thus be clearly increased.

**MATERIAL:**

Solid wood, wood-based material, plastic material

**MACHINE:**

Stationary machines with and without tool changer

**FEED:**

MEC

### Short version

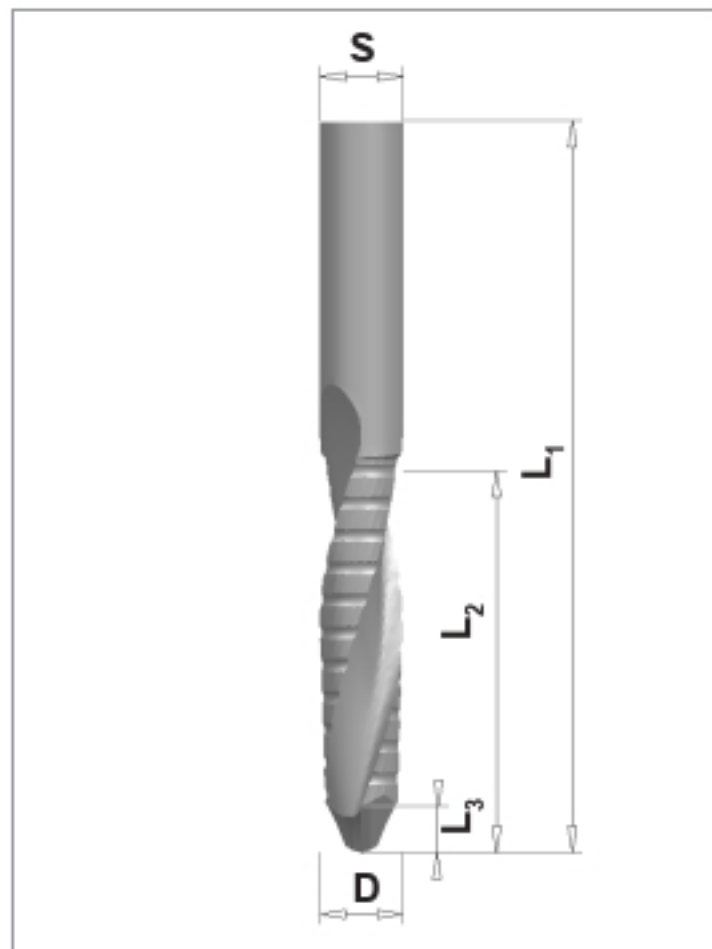
D mm	L2 mm	L1 mm	Shank mm	Z	DT	Order No.
10	25	70	10x40	2	◇	10190153
12	25	70	12x40	2	◇	10190154
12	25	70	12x40	3		10190155
18	50	115	18x50	3	◇	10190156
20	50	115	20x50	3	◇	10190157

### Long version

D mm	L2 mm	L1 mm	Shank mm	Z	DT	Order No.
8	25	80	8x40	2	◇	10190163
12	42	90	12x40	3	◇	10190164
16	55	115	16x50	3		10190165
20	75	135	20x50	3		10190166

## Solid carbide roughing and smoothing cutter - *smartline*

For door handle hole and spyhole, PLT coating



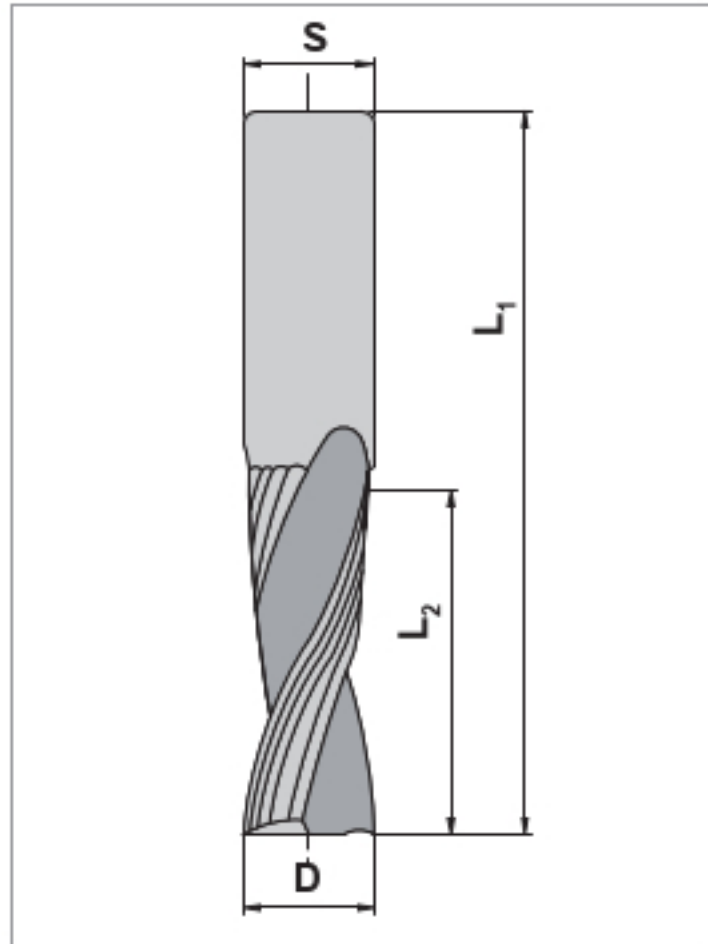
**43070**

<b>APPLICATION:</b>	Production of door handle hole and spyhole
<b>DESIGN:</b>	Solid carbide cutter with new roughing-smoothing tooth design and PLT coating. The new tooth design reduces the cutting pressure considerably if compared to the conventional smoothing cutter geometry. On the other hand there will be hardly any marks compared to the roughing cutter tooth design. Thanks to the PLT coating the service life is much longer and the friction at the same time minimized. The feed rate as well as overall performance can thus be clearly increased.
<b>MATERIAL:</b>	Solid wood, wood-based material, plastic material
<b>MACHINE:</b>	Stationary machines with and without tool changer
<b>FEED:</b>	MEC

D mm	L3 mm	L2 mm	L1 mm	Shank mm	Z	DT	Order No.
12	4	75	120	12x40	2	◇	10190171
16	9	73	140	16x50	2	◇	10190172
16	9	105	170	16x50	2	◇	10190173



## Solid HW finishing cutter



### 43070

**APPLICATION:**

For high performance finishing cuts (smoothing)

**DESIGN:**

Solid HW finishing cutter with spiral knives

**MATERIAL:**

Wood and wood-based panel material

**MACHINE:**

CNC machines

**FEED:**

MEC

### Right-hand rotation / positive spiral - Z 2

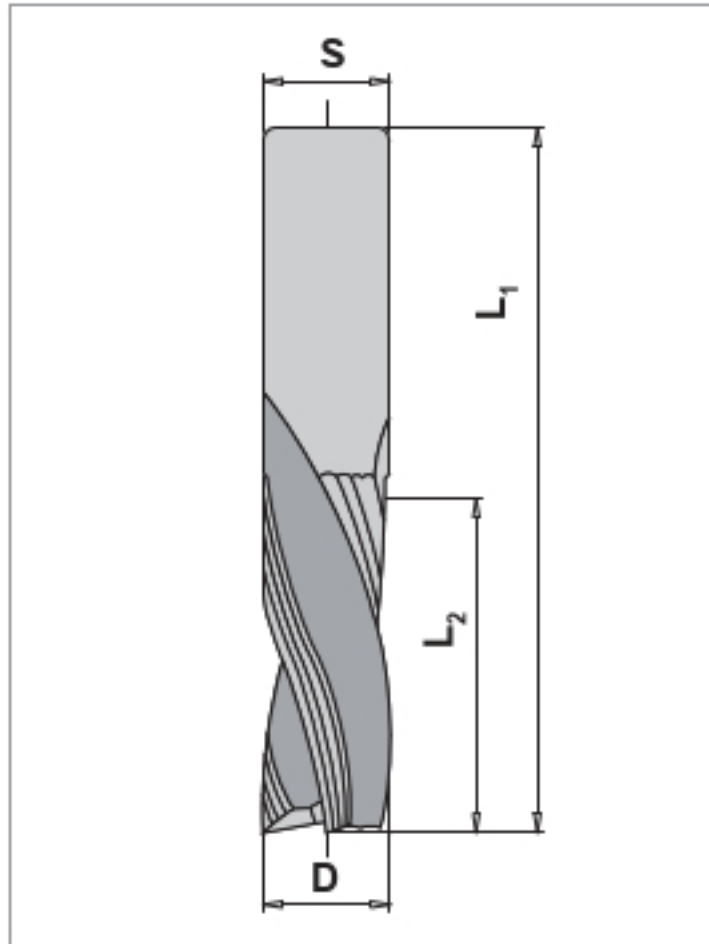
D mm	L2 mm	L1 mm	Shank mm	Z	Order No.
5	18	50	5	2	10015649
6	20	60	6	2	10014978
8	25	80	8	2	10014579
8	32	80	8	2	10014580
10	30	75	10	2	10014581
12	42	90	12	2	10014582
14	35	80	14	2	10014583
14	50	100	14	2	10014584
16	35	90	16	2	10014585
16	55	110	16	2	10014586
18	55	115	18	2	10014587
20	55	115	20	2	10014588

### Right-Hand rotation / positive spiral - Z 3

D mm	L2 mm	L1 mm	Shank mm	Z	Order No.
12	42	90	12	3	10014589
14	35	90	14	3	10014590
14	55	110	14	3	10014591
16	35	90	16	3	10014592
16	55	110	16	3	10014593
18	55	115	18	3	10014594
20	55	115	20	3	10014595
20	60	120	20	3	10014597
20	75	135	20	3	10014596
20	90	155	20	3	10014598

Other dimensions, e.g. with face radius available on request.

## Solid HW finishing cutter



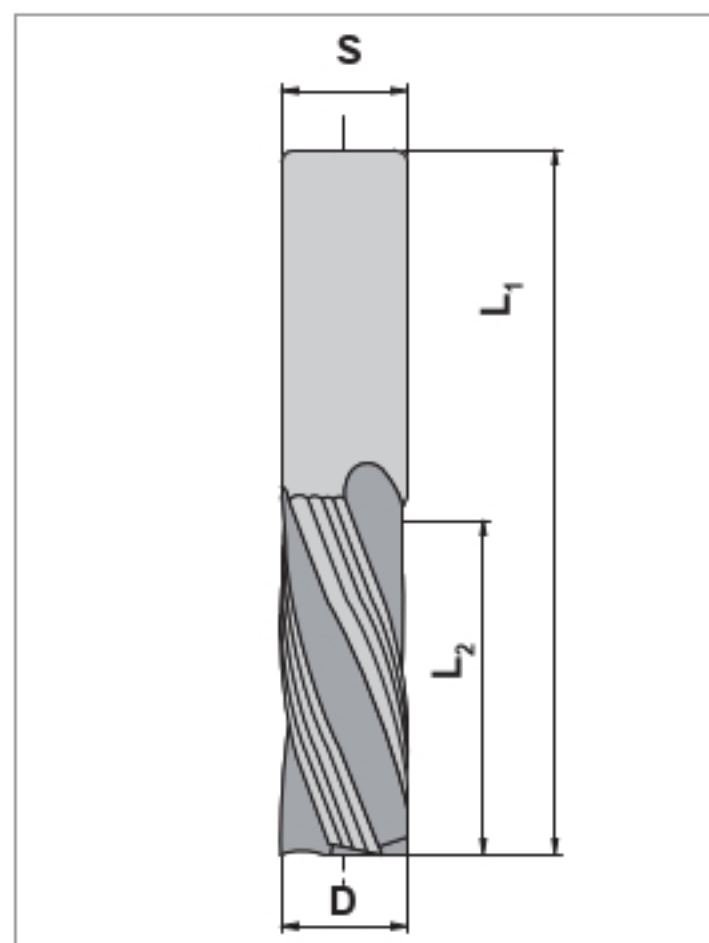
**43070**

### Right-hand rotation/ negative spiral - Z 2

D mm	L2 mm	L1 mm	Shank mm	Z	Order No.
8	25	80	8	2	10014599
10	30	75	10	2	10014600
12	42	90	12	2	10014601
16	55	110	16	2	10014602
20	50	100	20	2	10014604

### Right-hand rotation / negative spiral - Z 3

D mm	L2 mm	L1 mm	Shank mm	Z	Order No.
12	42	90	12	3	10014605
14	35	80	14	3	10014606
14	55	100	14	3	10014607
16	35	90	16	3	10014608
16	55	110	16	3	10014609
18	35	80	18	3	10014610
18	55	115	18	3	10014611
20	55	115	20	3	10014612



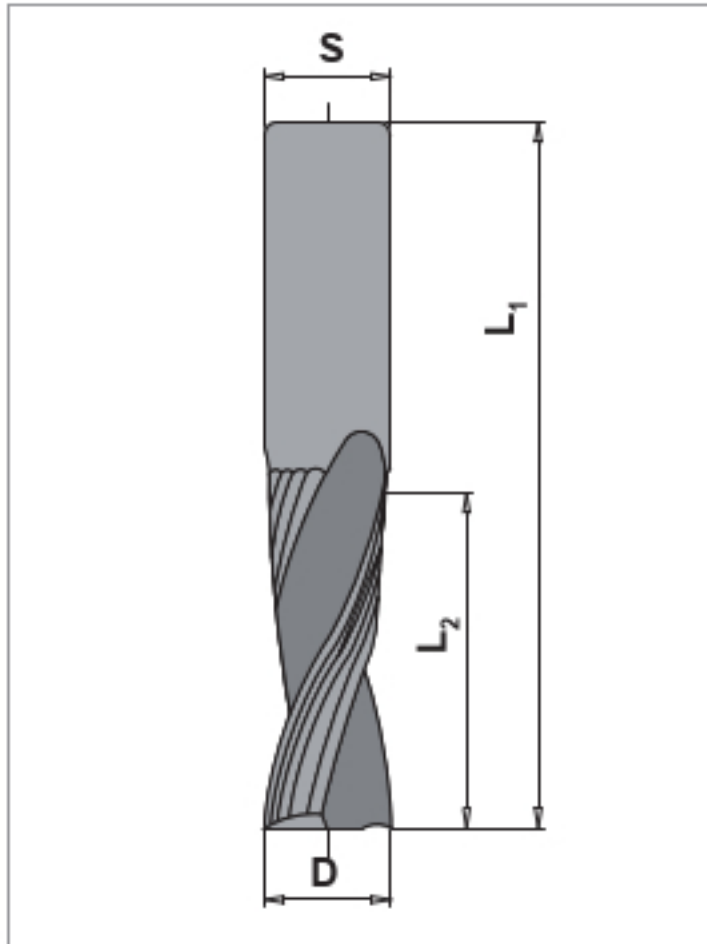
### Left-Hand rotation / negative spiral - Z 3

D mm	L2 mm	L1 mm	Shank mm	Z	Order No.
20	55	115	20	3	10014866

Further dimensions on request.

## Solid HW finishing cutter

PLT coating



### 43070

<b>APPLICATION:</b>	For high performance finishing cuts (smoothing)
<b>DESIGN:</b>	Solid HW finishing cutter with spiral knives Special PLT coating for a longer tool service life
<b>MATERIAL:</b>	Wood and wood-based panel material
<b>MACHINE:</b>	Stationary machines with and without tool changer
<b>FEED:</b>	MEC

### Right-hand rotation / positive spiral - Z 2

D mm	L2 mm	L1 mm	Shank mm	Z	Order No.
8	32	80	8	2	10153916
10	30	75	10	2	10153917

### Right-Hand rotation / positive spiral - Z 3

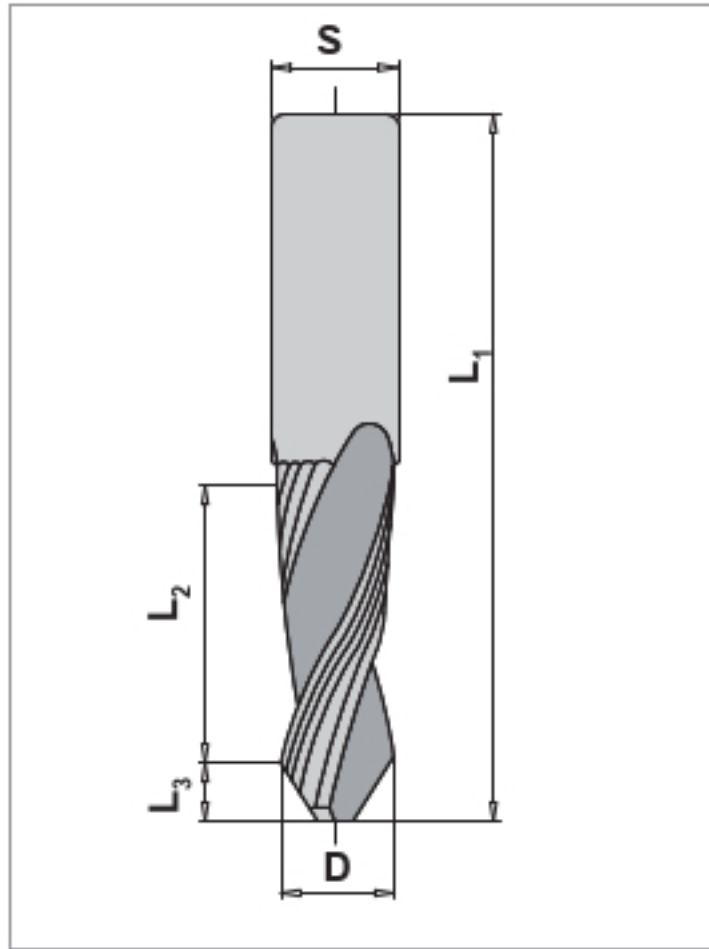
D mm	L2 mm	L1 mm	Shank mm	Z	Order No.
16	55	110	16	3	10153918
20	60	120	20	3	10153920

Further dimensions on request.



## Solid HW roughing cutter

For door handle holes and spy holes



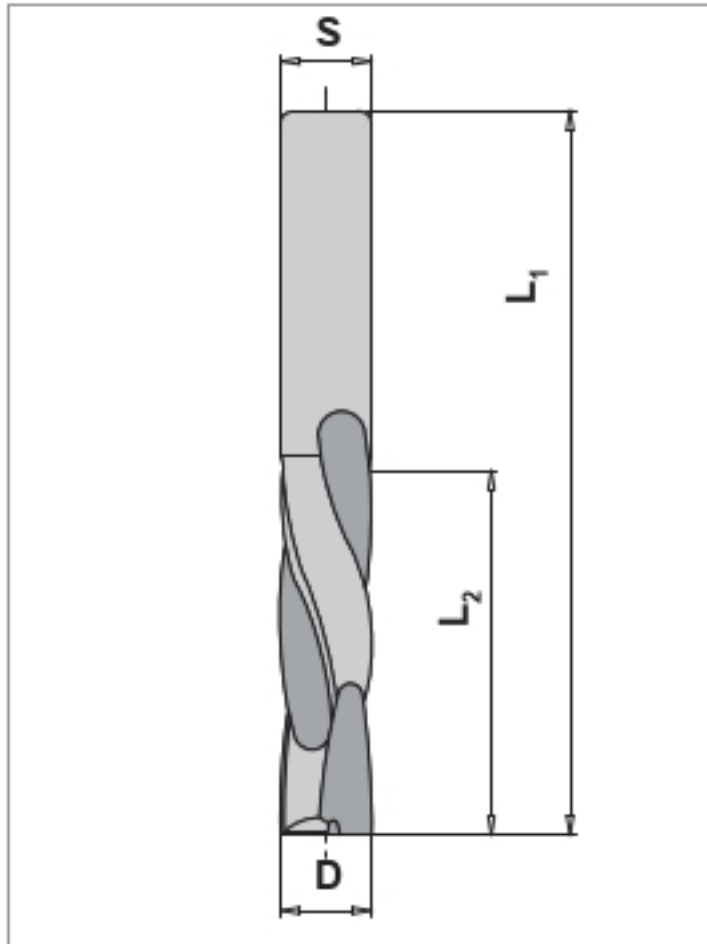
**43070**

<b>APPLICATION:</b>	For spy holes and door handle holes, to be produced by drilling and spirale plunging.
<b>DESIGN:</b>	Solid HW finishing cutter with converted-V tip
<b>MATERIAL:</b>	Wood-based panel material with and without coating, thermosetting plastic
<b>MACHINE:</b>	Stationary machines with and without tool changer
<b>FEED:</b>	MEC

D mm	L3 mm	L2 mm	L1 mm	Shank mm	Z	Order No.
12	9	47	110	12	2	10027500
14	8	42	100	14	2	10014564
16	9	51	120	16	2	10014565
16	9	73	140	16	2	10014566

## Solid HW finishing cutter

With alternating spiral, rh rotation



### 43070

**APPLICATION:**

For high-quality sizing/ jointing cuts and finishing of workpiece edges, visible on both sides.

**DESIGN:**

Solid HW finishing cutter with alternating spiral.

**MATERIAL:**

Wood and wood-based panel material with and without coating

**MACHINE:**

Stationary machines with and without tool changer

**FEED:**

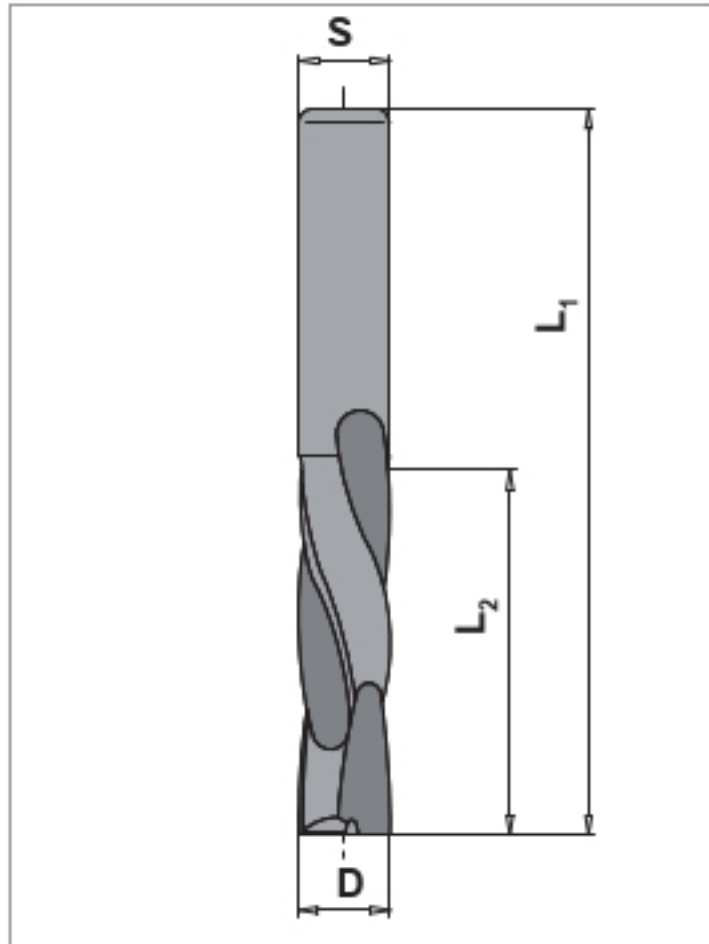
MEC

D mm	L2 mm	L1 mm	Shank mm	Z	Order No.
8	22	80	8	2+2	10014570
10	32	80	10	2+2	10014571
12	42	100	12	2+2	10014572
14	52	110	14	2+2	10022674
16	42	105	16	2+2	10022676
16	52	115	16	2+2	10022678
18	52	125	18	2+2	10022680
20	52	125	20	2+2	10022681
20	72	145	20	2+2	10022683

Further dimensions on request.

## Solid HW finishing cutter

With alternating spiral, rh rotation, PLT coating



**43070**

<b>APPLICATION:</b>	For high-quality sizing/ jointing cuts and finishing of workpiece edges, visible on both sides.
<b>DESIGN:</b>	Solid HW finishing cutter with alternating spiral knives. Special PLT coating for a longer tool service life.
<b>MATERIAL:</b>	Wood and wood-based panel material with and without coating
<b>MACHINE:</b>	Stationary machines with and without tool changer
<b>FEED:</b>	MEC

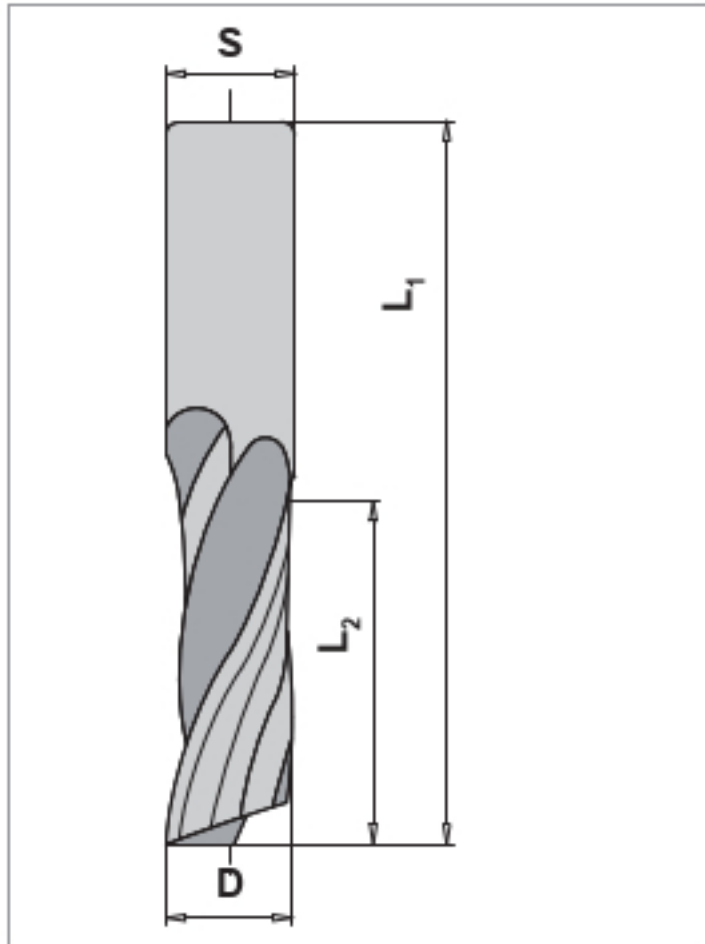
D mm	L2 mm	L1 mm	Shank mm	Z	Order No.
8	22	80	8	2+2	10153921
10	32	80	10	2+2	10153922
12	42	100	12	2+2	10153923

Further dimensions on request.



## Solid HW copy cutter Z1

For aluminium and plastic processing



### 43070

**APPLICATION:**

Cutting grooves, slots and clippings in aluminium and plastic material using copy routers such as, e.g. Elumatec, Haffner, Rotox, Striffler, Wegoma, etc.

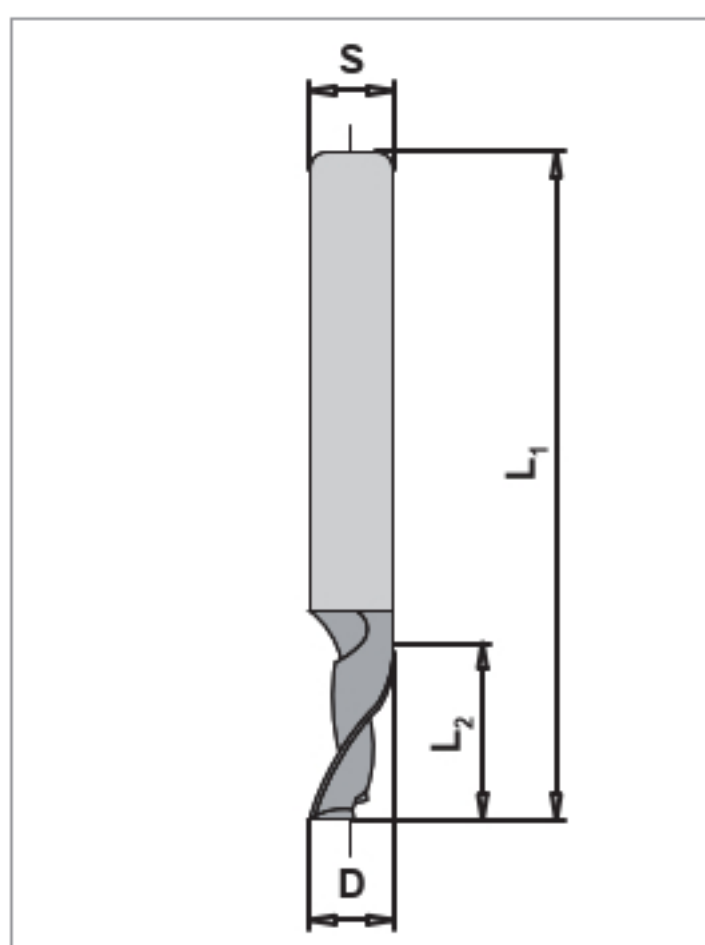
**DESIGN:**

One spiral knife, solid HW.  
Spiral knife (HS).  
Centre drill and side cutting. Rh rotation.

**FEED:**

MEC

D mm	L2 mm	L1 mm	Shank mm	Order No.
3	12	50	6	10004878
4	12	60	6	10004879
5	16	80	8	10111279
5	20	90	8	10111280
5	45	100	8	10111281
6	17	60	6	10004881
6	27	60	6	10111282
6	40	80	6	10111284
8	22	80	8	10111285
8	32	80	8	10111286
8	40	80	8	10111287
10	32	80	10	10109844



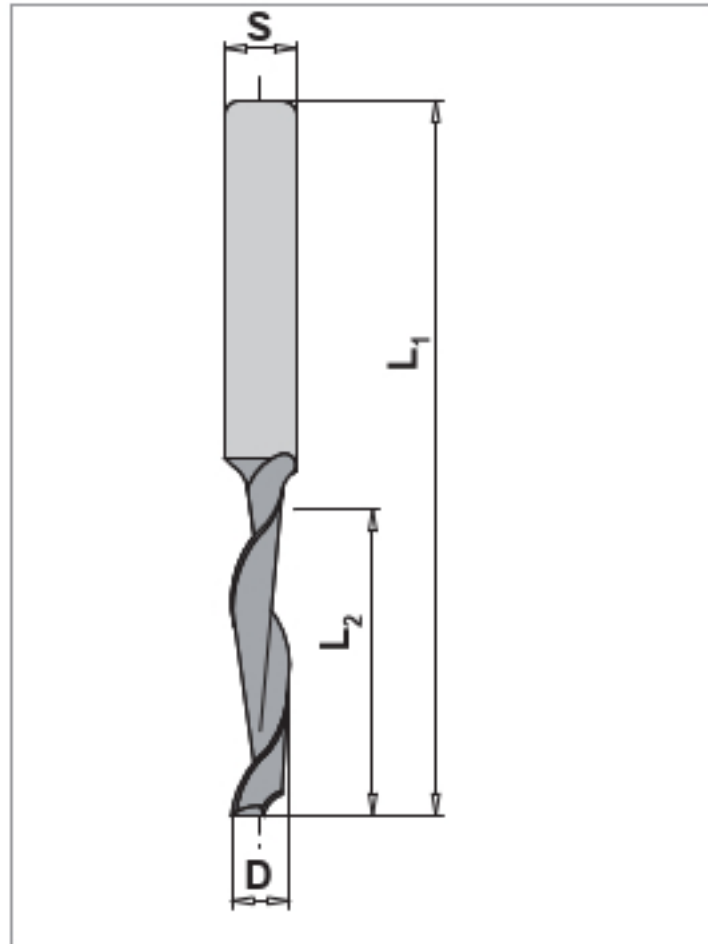
### 43030

**HS copy cutter - one-piece design**

D mm	L2 mm	L3 mm	L1 mm	Shank mm	Order No.
5	12		60	8	10004857
5	14		120	8	10004860

# HS water slot cutter

## Spiral design



**APPLICATION:** Used on copy routers or water slot cutting machines

**DESIGN:** Spiral design, single-edged and double-edged.  
Rh rotation.

**FEED:** MEC

**43030**

D mm	L2 mm	L1 mm	Shank mm	Z	Order No.
5	35	80	8	1	10004888
5	40	100	8	1	10004889

## DP shank cutter - *blackline*

Z1, with DP boring tip



**43020**

**APPLICATION:**

For sizing, grooving, jointing, rebating.  
To be applied with collet chuck.

**MATERIAL:**

Panel material with and without coating.  
Thermosetting plastic.

**MACHINE:**

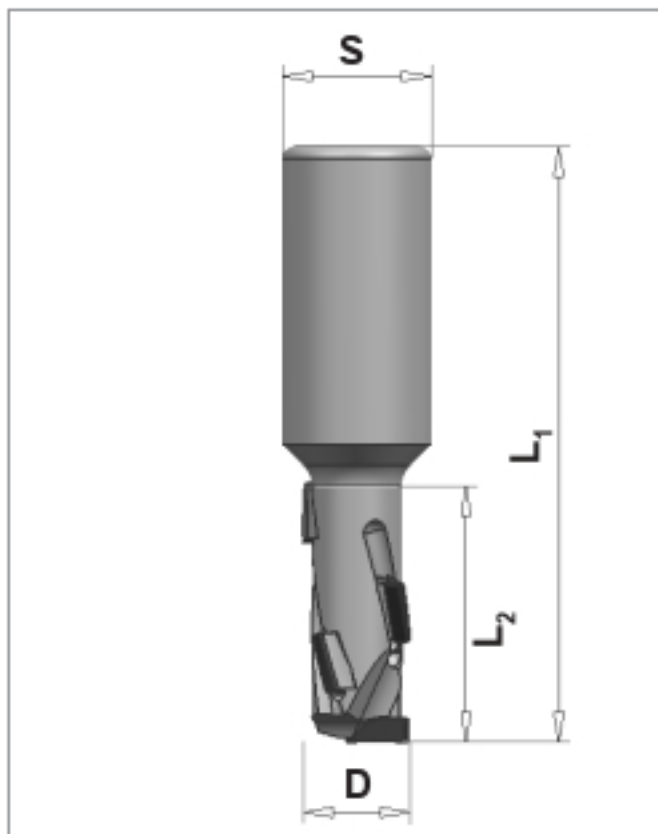
Stationary machines with and without tool changer

**DESIGN:**

DP knives with axial angle and divided cut;  
shank 16 and 25 with internal thread.

**TOOTH:**

DP, Ø 8- 12 mm 2,5 mm; from Ø 16 mm tip height 3 mm



D mm	L2 mm	L1 mm	Shank mm	Z	rhs/lhs	Order No.
8	25	70	12	1+1	rhs	10182747
8	25	70	12	1+1	lhs	10182748
10	25	70	12	1+1	rhs	10182749
12	28	75	12	1+1	rhs	10182646
12	28	75	12	1+1	lhs	10182750
16	28	90	16	1+1	rhs	10182751
16	28	90	16	1+1	lhs	10182752
16	34	95	16	1+1	lhs	10182753
16	34	95	16	1+1	rhs	10182647
18	28	90	25	1+1	rhs	10182754
18	28	90	25	1+1	lhs	10182755
18	34	95	25	1+1	rhs	10182756
18	34	95	25	1+1	lhs	10182757
18	43	100	25	1+1	rhs	10182648
18	43	100	25	1+1	lhs	10182758
20	28	90	25	1+1	rhs	10182759
20	52	110	25	1+1	rhs	10182760

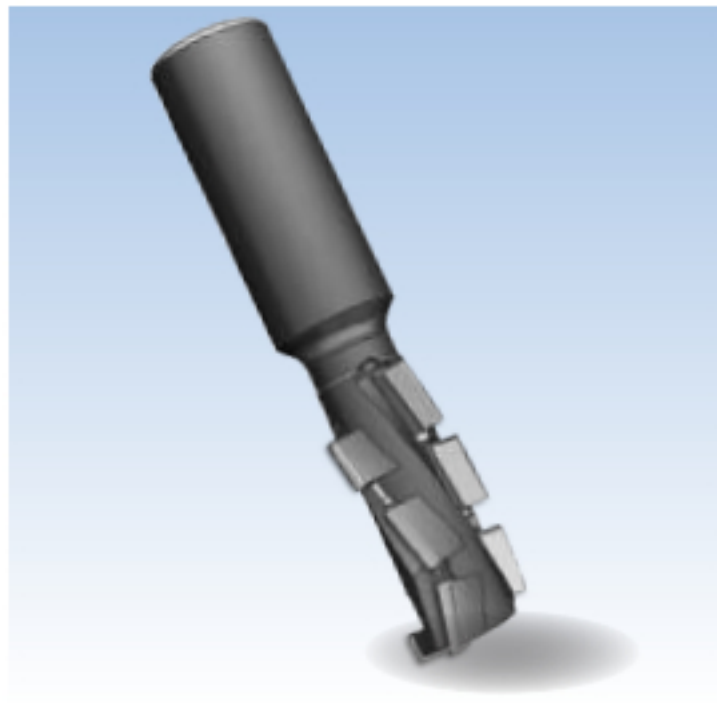
### Your advantages with *blackline*.

- DP - boring tip for added tool life with grooving and drilling
- Larger DP tip height for more cutting meters and one additional re-grinding cycle
- More rigid tool body already from small diameters of 8 mm, thus very break-proof



## DP shank cutter - *blackline*

Z2, with DP boring tip



**43020**

**APPLICATION:**

For sizing, grooving, jointing, rebating.  
Very precise shank tolerances, suitable for shrink clamping.

**MATERIAL:**

Panel material with and without coating.  
Thermosetting plastic.

**MACHINE:**

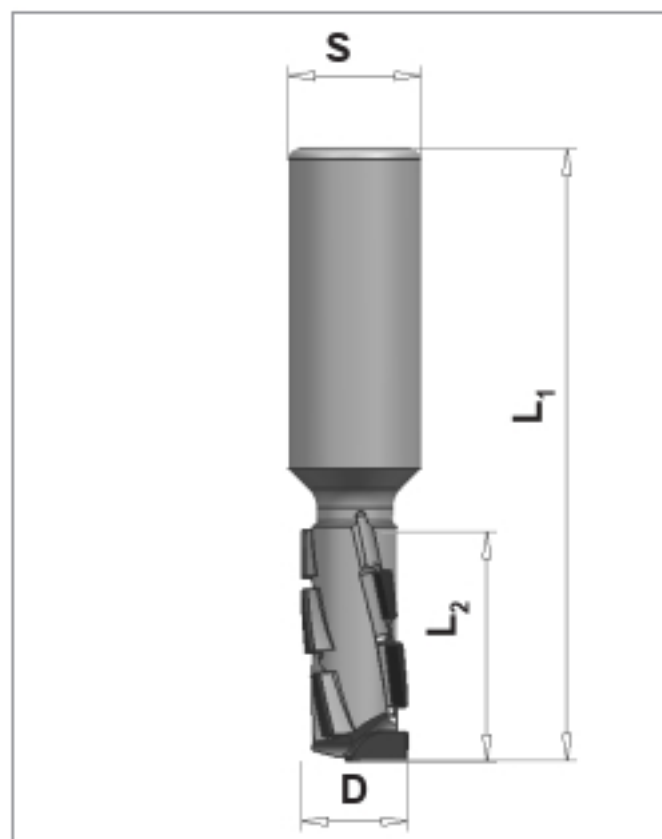
Stationary machines with and without tool changer.

**DESIGN:**

DP knives with axial angle and divided cut;  
shank with internal thread.

**TOOTH:**

DP, tip height 3 mm



D mm	L2 mm	L1 mm	Shank mm	Z	rhs/lhs	Order No.
16	28	100	25	2+1	rhs	10182761
16	28	100	25	2+1	lhs	10182762
16	34	105	25	2+1	rhs	10182763
16	34	105	25	2+1	lhs	10182764
20	28	100	25	2+1	rhs	10182765
20	28	100	25	2+1	lhs	10182766
20	34	105	25	2+1	rhs	10182767
20	34	105	25	2+1	lhs	10182768
20	43	115	25	2+1	rhs	10182769
20	43	115	25	2+1	lhs	10182770
20	52	125	25	2+1	rhs	10182771
20	52	125	25	2+1	lhs	10182772

### Your advantages with *blackline*.

- DP - boring tip for added tool life with grooving and drilling
- Larger DP tip height for more cutting meters and one additional re-grinding cycle
- More rigid tool body, thus very break-proof

## DP shank cutter Z1 and Z2 Harmony

### Cutting 2.0


**APPLICATION:**

For sizing, grooving and jointing of wood-based panel material, both with and without coating.  
Especially suitable for chip board with low density and front-end processing of solid wood.  
Very precise shank tolerances; thus suitable for shrink clamping (recommended) suitable for plunge cutting and circular (helix) drilling.

**MATERIAL:**

Panel material with and without coating.

**MACHINE:**

Stationary machines with and without tool changer

**DESIGN:**

Ø 6 - 12,7 mm tool body of solid carbide  
Ø 16 - 25 mm tool body of steel

**TOOTH:**

DP  
L3\* = Up-Cut

DP knives with extremely large axial angle with Up-cut and Down-Cut design; for the production of tear-free jointing edges.  
Asymmetrically positioned knives suitable for rabates of up to 5 mm height.

D mm	L1 mm	L2 mm	L3* mm	Shank mm	rhs/lhs	Z	DT	Order No.
6	64	11	3,6	8	rhs	1	◇	10201796
6	64	15	4,1	8	rhs	1		10201768
6	64	17	4,1	8	rhs	1	◇	10201797
8	70	11	2,5	10	rhs	1	◇	10201767
8	70	17	4,0	10	rhs	1		10201794
8	70	27	4,0	10	rhs	1		10201795
10	80	11	3,7	12	rhs	1	◇	10201765
10	80	17	3,0	12	rhs	1		10201793
10	80	33	4,8	12	rhs	1		10201766
12	80	11	1,8	12	rhs	1	◇	10201761
12	80	17	4,0	12	rhs	1		10201762
12	80	27	4,0	12	rhs	1	◇	10201763
12	80	37	4,0	12	rhs	1		10201764
12	80	11	2,2	12	rhs	2	◇	10201754
12	80	17	2,2	12	rhs	2		10201792
12	80	27	2,2	12	rhs	2	◇	10201755
12	80	37	2,2	12	rhs	2		10201756
12,7	80	11	2,3	12,7	rhs	2	◇	10201757
12,7	80	17	2,2	12,7	rhs	2	◇	10201758
12,7	80	27	2,2	12,7	rhs	2	◇	10201759
12,7	80	37	2,2	12,7	rhs	2	◇	10201760

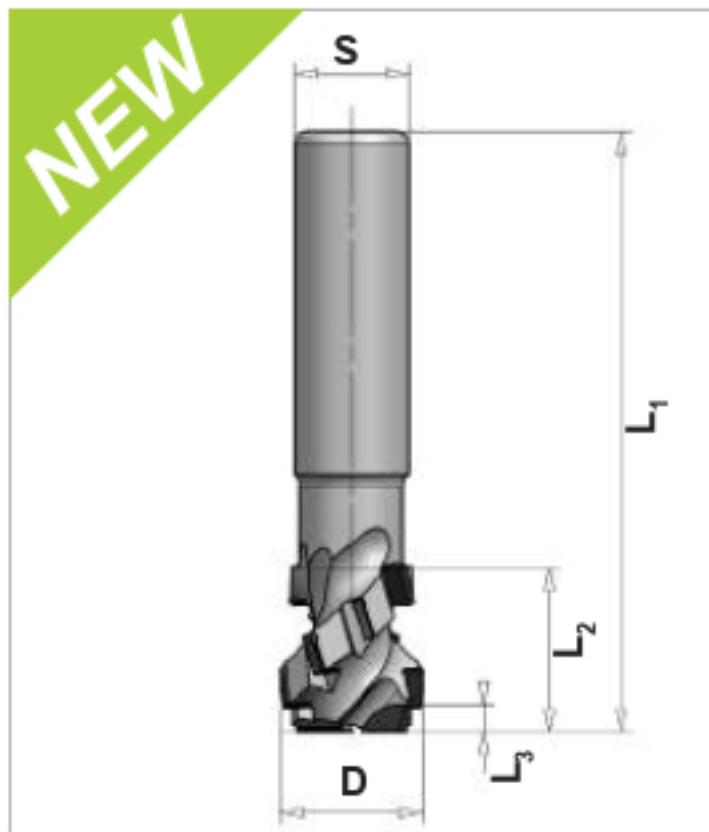
### Your advantages with Harmony in Cutting 2.0.

- Tear-free edges on the top coating
- No tearing with transverse edge banding
- Ideally suitable for zero joint gaps and laser edge banding technology
- No multiple machining
- Extremely long tool life
- Large variety of materials



## DP shank cutter Z2

### Cutting 2.0



**APPLICATION:**

For sizing, grooving, jointing, rebating.  
Very precise shank tolerances, therefore suitable for shrink clamping (recommended).

**MATERIAL:**

Panel material with and without coating.

**MACHINE:**

Stationary machines with and without tool changer

**DESIGN:**

DP knives with axial angle and divided cut;  
shank 20 and 25 with internal thread.

**TOOTH:**

DP, Ø 20 mm with tip height 4 mm up to 10 times re-sharpenable  
Ø 25 mm with tip height 5 mm up to 14 times re-sharpenable  
L3\* = Up-Cut

D mm	L1 mm	L2 mm	L3* mm	Shank mm	rhs/lhs	th mm	Z	DT	Order No.
16	105	28,7	4,1	20	rhs	4,0	2		10205259
16	105	28,7	4,1	20	lhs	4,0	2	◇	10205260
16	110	34,7	4,1	20	rhs	4,0	2	◇	10205261
16	110	34,7	4,1	20	lhs	4,0	2	◇	10205262
18	105	28,7	4,1	20	rhs	4,0	2		10201721
18	105	28,7	4,1	20	lhs	4,0	2	◇	10201722
18	125	46,7	4,1	20	rhs	4,0	2		10201725
18	125	46,7	4,1	20	lhs	4,0	2	◇	10201726
20	105	28,7	4,1	20	rhs	4,0	2		10201727
20	105	28,7	4,1	20	lhs	4,0	2	◇	10201728
20	110	34,7	4,1	20	rhs	4,0	2	◇	10201729
20	110	34,7	4,1	20	lhs	4,0	2	◇	10201730
20	125	46,7	4,1	20	rhs	4,0	2		10201732
20	125	46,7	4,1	20	lhs	4,0	2	◇	10201733
25	105	28,7	4,1	20	rhs	5,0	2		10201734
25	105	28,7	4,1	20	lhs	5,0	2	◇	10201735
25	125	46,7	4,1	20	rhs	5,0	2		10201736
25	125	46,7	4,1	20	lhs	5,0	2	◇	10201737
16	105	28,7	4,1	25	rhs	4,0	2		10205263
16	105	28,7	4,1	25	lhs	4,0	2	◇	10205264
16	110	34,7	4,1	25	rhs	4,0	2	◇	10205265
16	110	34,7	4,1	25	lhs	4,0	2	◇	10205266
18	105	28,7	4,1	25	rhs	4,0	2		10201723
18	105	28,7	4,1	25	lhs	4,0	2	◇	10201724
18	125	46,7	4,1	25	rhs	4,0	2		10201738
18	125	46,7	4,1	25	lhs	4,0	2	◇	10201739
20	105	28,7	4,1	25	rhs	4,0	2		10201740
20	105	28,7	4,1	25	lhs	4,0	2	◇	10201741
20	110	34,7	4,1	25	rhs	4,0	2		10205257
20	110	34,7	4,1	25	lhs	4,0	2	◇	10205258
20	125	46,7	4,1	25	rhs	4,0	2		10201742
20	125	46,7	4,1	25	lhs	4,0	2	◇	10201743
25	105	28,7	4,1	25	rhs	5,0	2		10201744
25	105	28,7	4,1	25	lhs	5,0	2	◇	10201745
25	110	34,7	4,1	25	rhs	5,0	2		10201746
25	110	34,7	4,1	25	lhs	5,0	2	◇	10201747
25	125	46,7	4,1	25	rhs	5,0	2		10201748
25	125	46,7	4,1	25	lhs	5,0	2	◇	10201749
25	125	52,7	4,1	25	rhs	5,0	2	◇	10201750
25	125	52,7	4,1	25	lhs	5,0	2	◇	10201751

### Now **NEW** Cutting 2.0

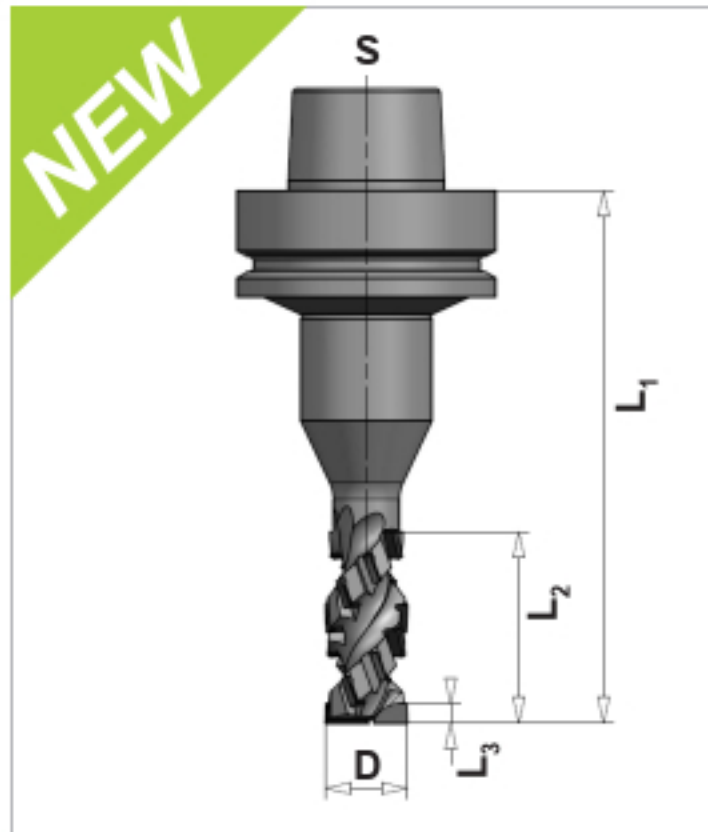
#### Your advantage:

- No multiple machining
- Extremely long tool life
- Large variety of materials



## DP shank cutter Z2

### Cutting 2.0


**APPLICATION:**

For sizing, grooving, jointing, rebating.  
Very high concentricity thanks HSK Plus.

**MATERIAL:**

Panel material with and without coating.

**MACHINE:**

Stationary machines with and without tool changer

**DESIGN:**

DP knives with axial angle and divided cut;  
shank 20 and 25 with internal thread.

**TOOTH:**

DP, Ø 20 mm with tip height 4 mm up to 10 times re-sharpenable  
Ø 25 mm with tip height 5 mm up to 14 times re-sharpenable  
L3\* = Up-Cut

D mm	L1 mm	L2 mm	L3* mm	rhs/ lhs	Z	DT	Order No. cutter	Order No. with HSK Plus holder 10033898
<b>Tip height 4 mm</b>								
20	80	28,7	4,1	lhs	2	o	10203927	10203941
20	80	28,7	4,1	rhs	2	o	10203926	10203940
20	85	34,7	4,1	lhs	2	o	10203929	10203943
20	85	34,7	4,1	rhs	2	o	10203928	10203942
20	100	46,7	4,1	lhs	2	o	10203931	10203945
20	100	46,7	4,1	rhs	2	o	10203930	10203944
<b>Tip height 5 mm</b>								
25	80	28,7	4,1	lhs	2	o	10203933	10203948
25	80	28,7	4,1	rhs	2	o	10203932	10203947
25	85	34,7	4,1	lhs	2	o	10203935	10203951
25	85	34,7	4,1	rhs	2	o	10203934	10203950
25	100	46,7	4,1	lhs	2	o	10203937	10203953
25	100	46,7	4,1	rhs	2	o	10203936	10203952
25	105	52,7	4,1	lhs	2	o	10203939	10203955
25	105	52,7	4,1	rhs	2	o	10203938	10203954

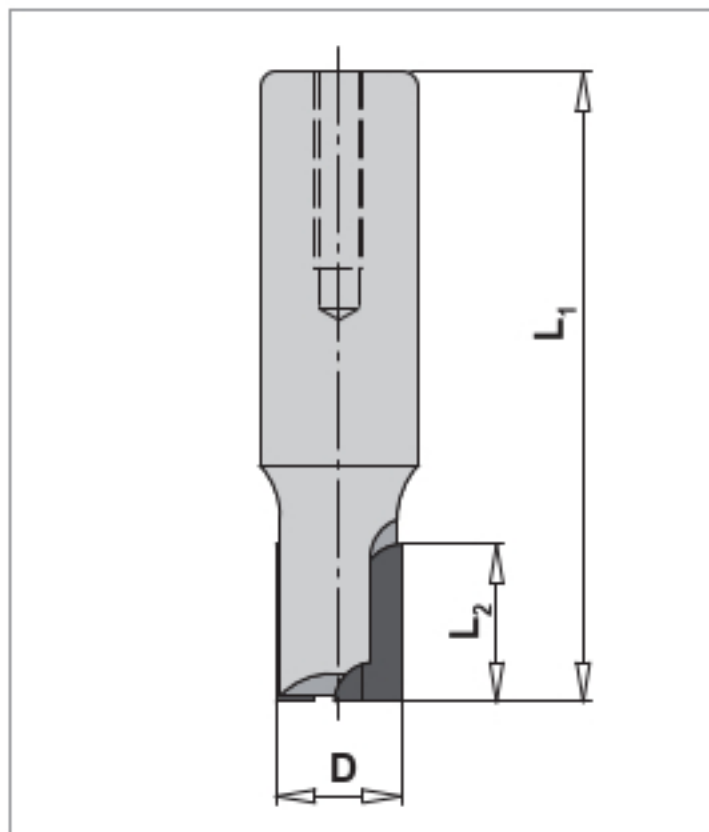
### Now **NEW** Cutting 2.0

#### Your advantage:

- No multiple machining
- Extremely long tool life
- Large variety of materials

## DP shank - type cutter

Z2, with DP boring tip



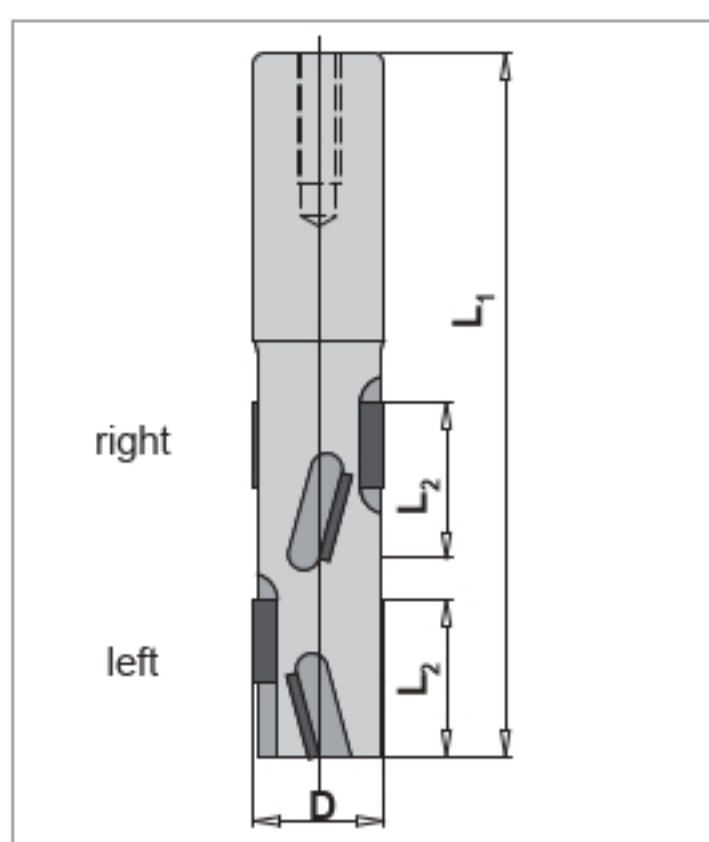
**43020**

<b>APPLICATION:</b>	For sizing, grooving, jointing, rebating
<b>MATERIAL:</b>	Flat laminate (e.g. HPL), polymer plastic material (e.g. Corian), MDF
<b>MACHINE:</b>	Stationary machines with and without tool changer.
<b>DESIGN:</b>	Cutter with alternating axial angle. Particularly recommended for processing laminated material (e.g. HPL). Full-length DP knives and thus a cutting edge without marks as could happen in case of divided knives.
<b>TOOTH:</b>	DP, tip height 5 mm, re-grindable up to 14 times

D mm	L2 mm	L1 mm	Shank mm	rhs/lhs	th mm	Z	Order No.
16	20	80	20x50	rhs	5,0	2+1	10110196

## DP shank - type cutter

Z2+2, rh - lh rotation



**43020**

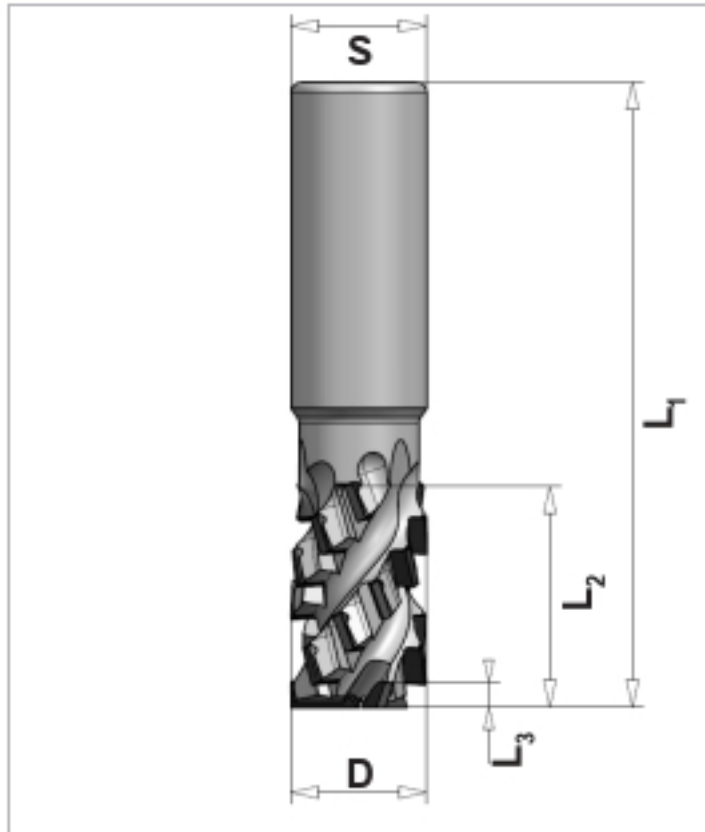
<b>APPLICATION:</b>	For sizing and jointing of work top corner joints. Ideal for avoiding damage to visible edges by means of cutting both ways against the rotating direction.
<b>MATERIAL:</b>	Panel material with and without coating
<b>MACHINE:</b>	Stationary machines with and without tool changer
<b>DESIGN:</b>	DP knives with axial angle and positioned over 4 gullets; rh - lh rotation.
<b>TOOTH:</b>	DP, tip height 5 mm, re-grindable up to 14 times

D mm	L2 mm	L1 mm	Shank mm	th mm	Z	Order No.
25	30	135	25x55	5,0	2+2	10127176



## DP spiral shank cutter Z3

### Cutting 2.0


**APPLICATION:**

For sizing, grooving, jointing, rebating.  
Very precise shank tolerances; for free plunging and circular drilling (helix); also suitable for shrink clamping.

**MATERIAL:**

Panel material with and without coating.

**MACHINE:**

Stationary machines with and without tool changer

**DESIGN:**

DP knives with axial angle and dividing cut;  
shank 20 and 25 with internal thread.

**TOOTH:**

DP, Ø 20 with tip height 4 mm, re-grindable up to 10 times  
Ø 25 with tip height 5 mm, re-grindable up to 14 times  
L3\* = Up-Cut

D mm	L1 mm	L2 mm	L3* mm	Shank mm	Z	rhs/lhs	DT	Order No.	
<b>Tip height 4 mm</b>									
20	105	28,7	4,1	20	3+3	rhs		10190087	
20	105	28,7	4,1	20	3+3	lhs	◇	10190089	
20	110	34,7	4,1	20	3+3	rhs		10194944	
20	110	34,7	4,1	20	3+3	lhs	◇	10194957	
20	115	40,7	4,1	20	3+3	rhs		10190090	
20	115	40,7	4,1	20	3+3	lhs	◇	10190091	
20	125	46,7	4,1	20	3+3	rhs		10190092	
20	125	46,7	4,1	20	3+3	lhs	◇	10190093	
NEW	20	105	28,7	4,1	25	3+3	rhs		10206293
NEW	20	105	28,7	4,1	25	3+3	lhs	◇	10206294
NEW	20	110	34,7	4,1	25	3+3	rhs		10206295
NEW	20	110	34,7	4,1	25	3+3	lhs	◇	10206296
NEW	20	115	40,7	4,1	25	3+3	rhs	◇	10206297
NEW	20	115	40,7	4,1	25	3+3	lhs	◇	10206298
NEW	20	125	46,7	4,1	25	3+3	rhs		10206299
NEW	20	125	46,7	4,1	25	3+3	lhs	◇	10206300

### Now **NEW** Cutting 2.0

#### Your advantage:

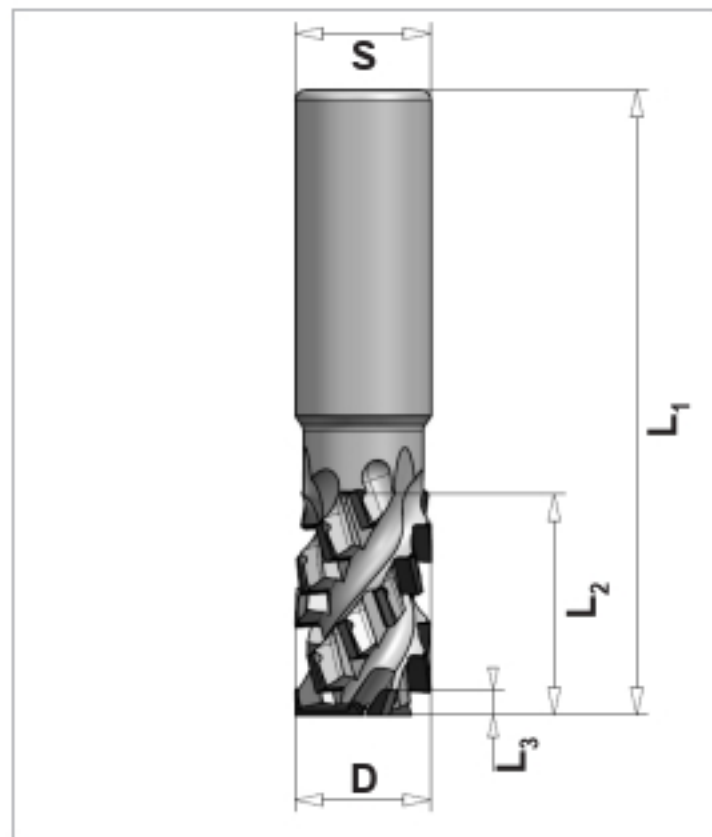
- No multiple machining
- Extremely long tool life
- Large variety of materials

Continued next page.



# DP spiral shank cutter Z3

## Cutting 2.0



Continued from previous page.

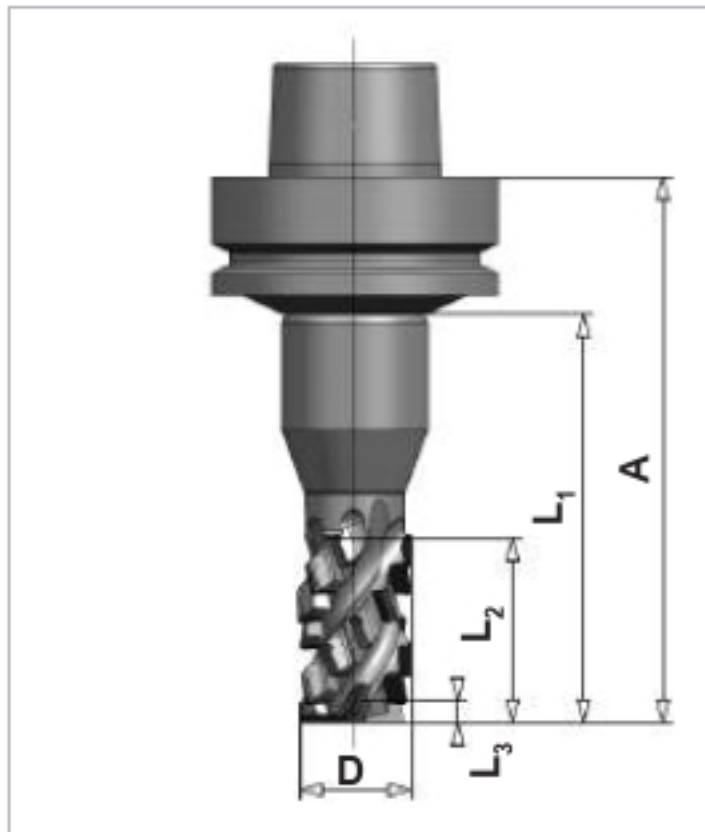
<b>APPLICATION:</b>	For sizing, grooving, jointing, rebating. Very precise shank tolerances; for free plunging and circular drilling (helix); also suitable for shrink clamping.
<b>MATERIAL:</b>	Panel material with and without coating.
<b>MACHINE:</b>	Stationary machines with and without tool changer
<b>DESIGN:</b>	DP knives with axial angle and dividing cut; shank 20 and 25 with internal thread.
<b>TOOTH:</b>	DP, Ø 20 with tip height 4 mm, re-grindable up to 10 times Ø 25 with tip height 5 mm, re-grindable up to 14 times L3* = Up-Cut

	D mm	L1 mm	L2 mm	L3* mm	Shank mm	Z	rhs/lhs	DT	Order No.
<b>Tip height 5 mm</b>									
NEW	25	105	28,7	4,1	20	3+3	rhs		10206301
NEW	25	105	28,7	4,1	20	3+3	lhs	◇	10206302
NEW	25	110	34,7	4,1	20	3+3	rhs	◇	10206303
NEW	25	110	34,7	4,1	20	3+3	lhs	◇	10206304
NEW	25	115	40,7	4,1	20	3+3	rhs		10206305
NEW	25	115	40,7	4,1	20	3+3	lhs	◇	10206306
NEW	25	125	46,7	4,1	20	3+3	rhs		10206307
NEW	25	125	46,7	4,1	20	3+3	lhs		10206308
NEW	25	125	52,7	4,1	20	3+3	rhs	◇	10206309
NEW	25	125	52,7	4,1	20	3+3	lhs	◇	10206310
NEW	25	135	58,7	4,1	20	3+3	rhs		10206311
NEW	25	135	58,7	4,1	20	3+3	lhs	◇	10206312
NEW	25	145	70,7	4,1	20	3+3	rhs		10206313
NEW	25	145	70,7	4,1	20	3+3	lhs	◇	10206314
	25	105	28,7	4,1	25	3+3	rhs		10190094
	25	105	28,7	4,1	25	3+3	lhs	◇	10190095
	25	110	34,7	4,1	25	3+3	rhs		10194942
	25	110	34,7	4,1	25	3+3	lhs	◇	10194943
	25	115	40,7	4,1	25	3+3	rhs		10190096
	25	115	40,7	4,1	25	3+3	lhs	◇	10190097
	25	125	46,7	4,1	25	3+3	rhs		10190098
	25	125	46,7	4,1	25	3+3	lhs		10190099
	25	125	52,7	4,1	25	3+3	rhs	◇	10190105
	25	125	52,7	4,1	25	3+3	lhs	◇	10190106
	25	135	58,7	4,1	25	3+3	rhs		10190100
	25	135	58,7	4,1	25	3+3	lhs	◇	10190101
	25	145	70,7	4,1	25	3+3	rhs		10190102
	25	145	70,7	4,1	25	3+3	lhs	◇	10190104



## DP spiral shank cutter HSK Plus Z3

### Cutting 2.0



# 43020

**APPLICATION:**

For sizing, grooving, jointing, rebating with high feed rates of up to 30 m/min; for free plunging and circular drilling (helix).

**MATERIAL:**

Panel material with and without coating.

**MACHINE:**

Stationary machines with and without tool changer

**DESIGN:**

High rigidity due to HSK Plus interface for high demand. DP knives with axial angle and spiral knife positioning over 3 gullets. Therefore real Z 3 over the complete tip length. Large gullet depth for high hogging performance.

**TOOTH:**

DP, tip height 5 mm re-grindable up to 14 times  
L3\* = Up-Cut

D mm	L1 mm	L2 mm	L3* mm	A mm	Z	rhs/ lhs	DT	Order No. cutter	Order No. with HSK Plus holder 10033898
<b>Tip height 4 mm</b>									
20	80	28,7	4,1	110	3+3	rhs	o	10190138	10190142
20	80	28,7	4,1	110	3+3	lhs	o	10190141	10190145
20	85	34,7	4,1	115	3+3	rhs	o	10194947	10194951
20	85	34,7	4,1	115	3+3	lhs	o	10194948	10194952
20	90	40,7	4,1	120	3+3	rhs	o	10190139	10190143
20	90	40,7	4,1	120	3+3	lhs	o	10194858	10194865
20	100	46,7	4,1	130	3+3	rhs	o	10190140	10190144
20	100	46,7	4,1	130	3+3	lhs	o	10194859	10194866
<b>Tip height 5 mm</b>									
25	80	28,7	4,1	110	3+3	rhs	o	10190123	10190131
25	80	28,7	4,1	110	3+3	lhs	o	10190122	10190130
25	85	34,7	4,1	115	3+3	rhs	o	10194945	10194949
25	85	34,7	4,1	115	3+3	lhs	o	10194946	10194950
25	90	40,7	4,1	120	3+3	rhs	o	10190125	10190133
25	90	40,7	4,1	120	3+3	lhs	o	10190124	10190132
25	100	46,7	4,1	130	3+3	rhs	o	10190127	10190135
25	100	46,7	4,1	130	3+3	lhs	o	10190126	10190134
25	105	52,7	4,1	135	3+3	rhs	o	10190108	10194863
25	105	52,7	4,1	135	3+3	lhs	o	10190107	10194861
25	110	58,7	4,1	140	3+3	rhs	o	10190129	10190137
25	110	58,7	4,1	140	3+3	lhs	o	10190128	10190136
25	120	70,7	4,1	150	3+3	rhs	o	10194789	10194864
25	120	70,7	4,1	150	3+3	lhs	o	10194790	10194862

## Now **NEW** Cutting 2.0

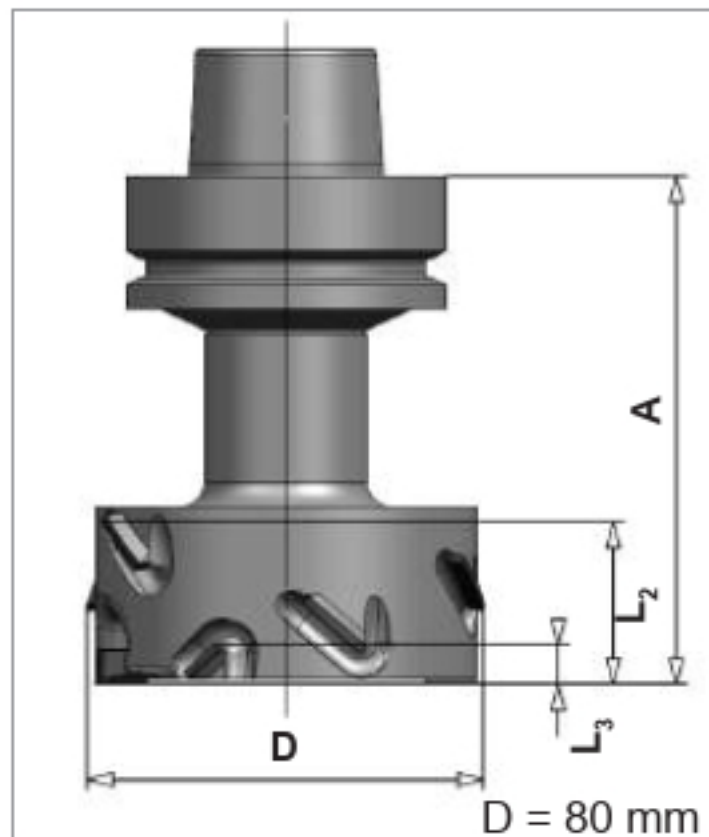
### Your advantage:

- No multiple machining
- Extremely long tool life
- Large variety of materials



## DP shank cutter *Harmony*

With DP boring tip



**43020**

**APPLICATION:**

For sizing and jointing of wood-based panels with and without coating. Particularly suitable for chip boards with low density and front-end processing of solid wood.

**MATERIAL:**

Chip board, MDF, Multiplex, hard wood and soft wood, longitudinal and on the face. Wood-based material, honeycomb panels and light constructional panels.

**MACHINE:**

Stationary machines with and without tool changer

**DESIGN:**

Shank cutter with extremely large alternating axial angle for the production of jointing edges without splintering. Ideal for zero joint gaps and laser edge banding technology. The monolithic HSK Plus design guarantees the best possible run-out and thus a consistent, optimal surface quality. Ø 80 mm with V-line gullet.

**TOOTH:**

DP, tip height 3 mm, re-grindable up to 4 times.  
tip height 5 mm, re-grindable up to 14 times.  
L3\* = Up-Cut

**For HSK Plus holder or SK30/40-Plus holder**

D mm	L2 mm	L1 mm	L3* mm	Shank	th mm	Z	max. wood thickness	DT	Order No.
80	30	73	8,3	HSK 63 F	5,0	3+3	27		10190116

**With HSK Plus holder, HSK 63 F**

D mm	L2 mm	L3* mm	A mm	Shank	th mm	Z	max. wood thickness	DT	Order No.
80	30	8,3	100	HSK 63 F	5,0	3+3	27		10190121

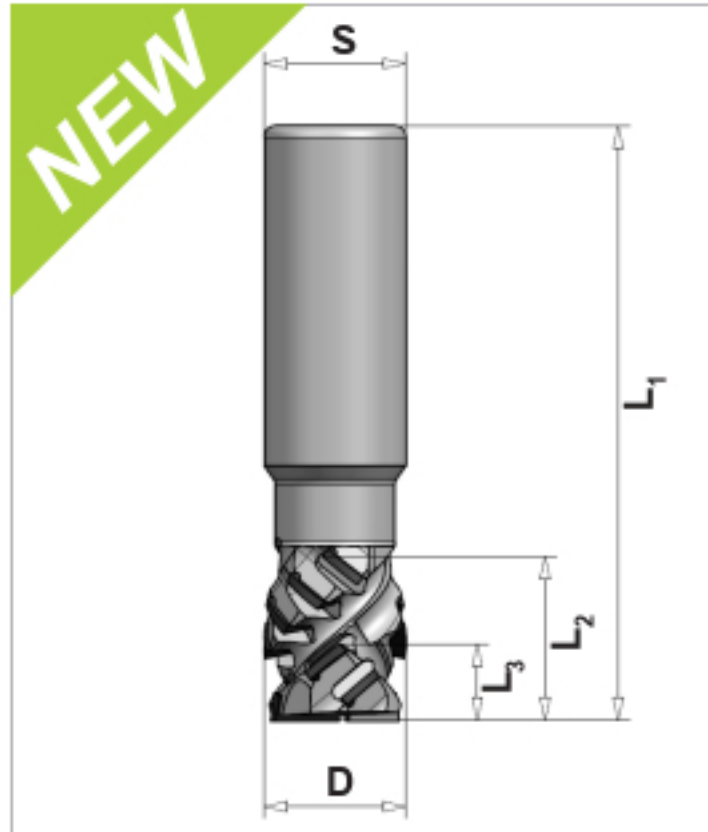
### Your advantages with: *Harmony.*

- Tear-free edges on the top coating
- Long service life
- No tearing with transverse edge banding
- For standard and delicate types of material
- Ideally suitable for zero joint gaps and laser edge banding technology
- Particularly suitable for processing of solid wood.



## DP shank cutter Z2 and Z3 Harmony

### Cutting 2.0


**APPLICATION:**

For sizing, grooving and jointing of wood-based panel material, both with and without coating.  
Especially suitable for chip board with low density and front-end processing of solid wood.  
Very precise shank tolerances; thus suitable for shrink clamping (recommended) suitable for plunge cutting and circular (helix) drilling.

**MATERIAL:**

Panel material with and without coating.

**MACHINE:**

Stationary machines with and without tool changer

**DESIGN:**

Ø 16 - 25 mm tool body of steel

DP knives with extremely large axial angle with Up-cut and Down-Cut design; for the production of tear-free jointing edges.  
Asymmetrically positioned knives suitable for rabates of up to 12 mm height.

**TOOTH:**

DP  
L3\* = Up-Cut

D mm	Shank	L1 mm	L2 mm	L3* mm	Z	rhs/lhs	DT	Order No.
16	25	105	28	11	2	rhs		10206247
16	25	105	34	11	2	rhs		10206248
16	25	120	43	11	2	rhs	◇	10206249
18	20	120	43	11	2	rhs		10206250
18	25	120	43	11	2	rhs	◇	10206251
20	20	105	28	11	2	rhs		10206252
20	20	105	34	11	2	rhs	◇	10206253
20	20	120	43	11	2	rhs		10206254
20	20	120	52	11	2	rhs	◇	10206255
20	25	105	28	11	2	rhs		10206256
20	25	105	34	11	2	rhs	◇	10195138
20	25	120	43	11	2	rhs		10206258
20	25	120	52	11	2	rhs	◇	10196738
25	20	105	28	11	2	rhs		10206260
25	20	105	34	11	2	rhs	◇	10206262
25	20	120	43	11	2	rhs		10206263
25	20	120	52	11	2	rhs		10206264
25	25	105	28	11	2	rhs		10196587
25	25	105	34	11	2	rhs	◇	10206265
25	25	120	43	11	2	rhs		10206266
25	25	120	52	11	2	rhs	◇	10206267
25	20	105	28	11	3	rhs		10206268
25	20	105	34	11	3	rhs	◇	10206269
25	20	120	43	11	3	rhs		10206270
25	20	120	52	11	3	rhs	◇	10206271
25	25	105	28	11	3	rhs		10194725
25	25	105	34	11	3	rhs	◇	10206272
25	25	120	43	11	3	rhs		10206273
25	25	120	52	11	3	rhs	◇	10206274

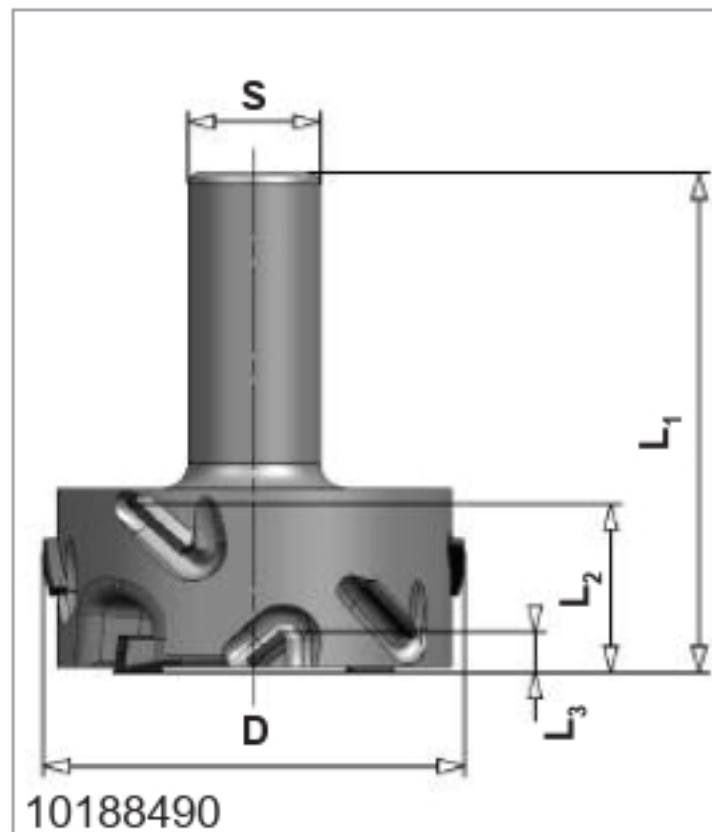
### Your advantages with Harmony in Cutting 2.0.

- Tear-free edges on the top coating
- No tearing with transverse edge banding
- Ideally suitable for zero joint gaps and laser edge banding technology
- No multiple machining
- Extremely long tool life
- Large variety of materials

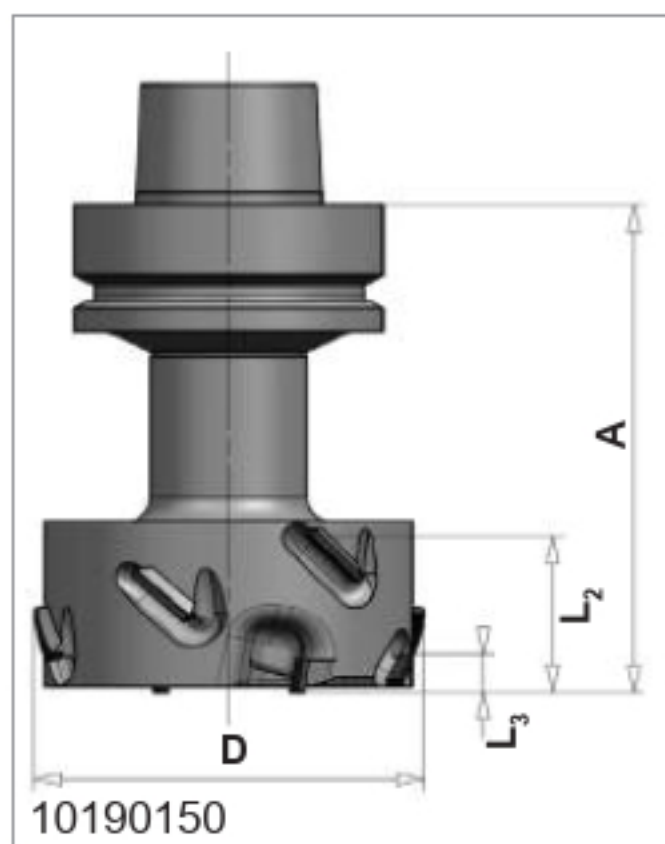


# DP jointing-rebating cutter *Harmony*

Cutting 2.0



**43020**



**APPLICATION:** For rebating and jointing of wooden material and solid wood. Especially suitable for materials with delicate top layers.

**MATERIAL:** Chip board; MDF; Multiplex; hard wood and soft wood, longitudinal and cross cuts as well as wood-based panels.

**MACHINE:** Stationary machines with and without tool changer

**DESIGN:** Jointing – rebating cutter with large alternating axial angle and newly developed rebating knife. With V-line gullet. Almost tear-free rebating and jointing, including cross cuts.

**TOOTH:** DP, tip height 3 mm, re-grindable up to 4 times.  
L3\* = Up-Cut

### DP shank cutter Harmony with cylindrical shank

D mm	L2 mm	L1 mm	L3* mm	Shank	th mm	Z	DT	Order No.
80	32	95	7,7	25	3,0	2+2	◇	10188490

### DP jointing-rebating cutter Harmony with HSK Plus holder

D mm	L2 mm	L3* mm	A mm	Shank	th mm	Z	DT	Order No.
80	32	7,7	100	HSK 63 F	3,0	2+2	◇	10190150

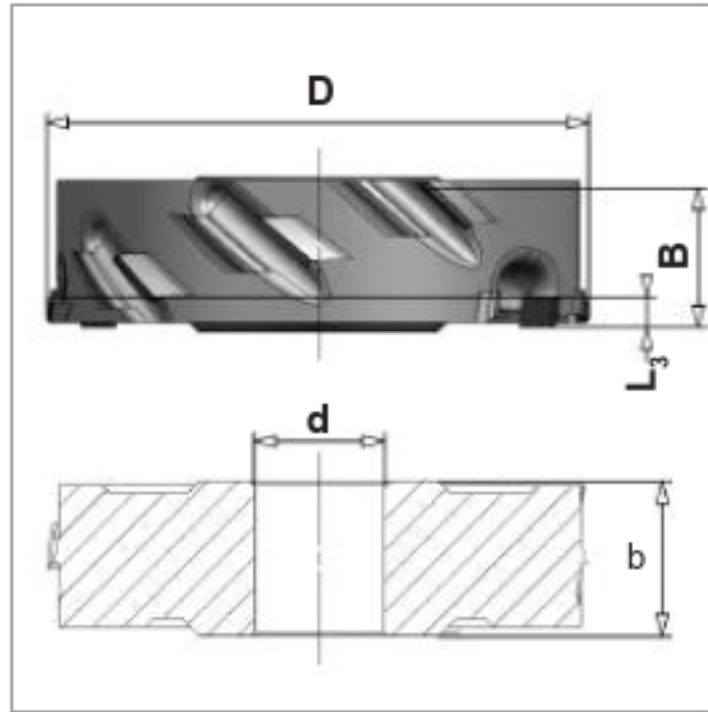
### DP jointing-rebating cutter Harmony for HSK Plus holder

D mm	L2 mm	L3* mm	A mm	Shank	th mm	Z	DT	Order No.
80	32	7,7	70	HSK 63 F	3,0	2+2	◇	10190149

## Your advantages with *Harmony* in **Cutting 2.0**.

- Tear-free edges on the top coating
- No tearing with transverse edge banding
- Ideally suitable for zero joint gaps and laser edge banding technology
- Particularly suitable for processing of solid wood
- No multiple machining
- Extremely long tool life
- No clogging of gullets even with long chips
- Large variety of materials

## DP jointing-rebating cutter *Harmony*



### 33020

**APPLICATION:**

For rebating and jointing of wooden material and solid wood. Especially suitable for materials with delicate top layers.

**MATERIAL:**

Chip board, MDF, Multiplex, hard wood and soft wood, longitudinal and cross cuts as well as wood-based panels.

**MACHINE:**

Bench-type milling machines with manual feed, edge banding machine

**DESIGN:**

Jointing-rebating cutter with large alternating axial angle and newly developed rebating knife. Special gullets with Streamline-design ensure that the chip removal is trouble-free without multiple chipping – even with materials with big chips. Almost tear-free rebating and jointing, including cross cuts

**TOOTH:**

DP, tip height 3 mm, re-grindable up to 4 times  
L3\* = Up-Cut

D mm	B mm	b mm	d mm	L3* mm	Z	th mm	rhs/lhs	DT	Order No.
125	32	35,5	30	7,1	2+2	3,0	rhs		10181618
150	32	35,5	50	7,1	2+2	3,0	rhs	◇	10188529
150	50	53,5	30	7,1	2+2	3,0	rhs	◇	10189503
150	50	53,5	50	7,1	2+2	3,0	rhs	◇	10190752

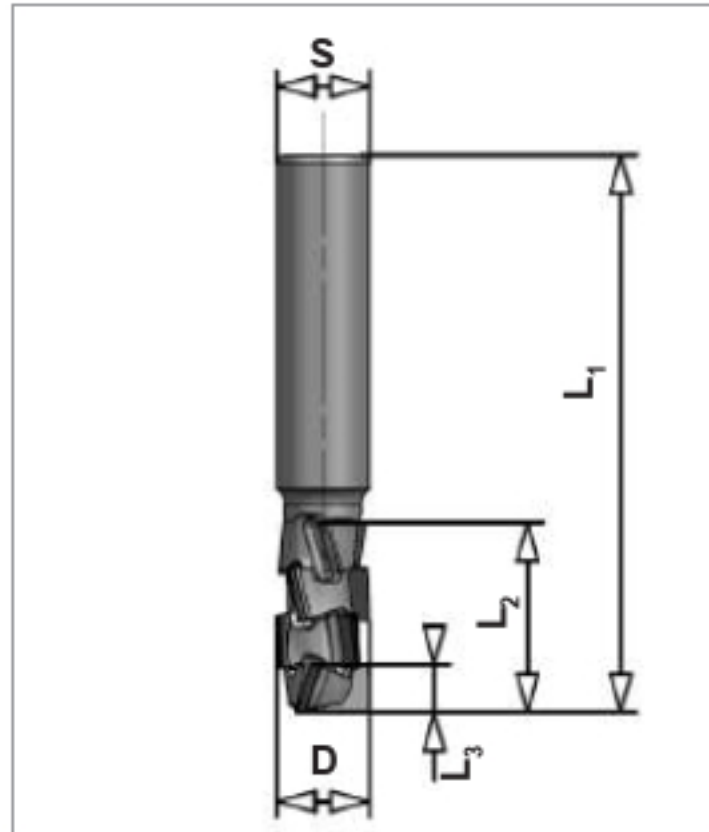
### Your advantages with *Harmony*.

- Processing a huge variety of materials in joineries
- Improved surface quality compared to TOK systems
- Favourable purchase price and low service cost
- Jointing knives for perfect edges, both at the beginning and the end
- 2 additional rebating knives for tear-free, smooth rebates
- No fraying when cutting against the glued edge



## DP Nesting cutter

With DP boring tip



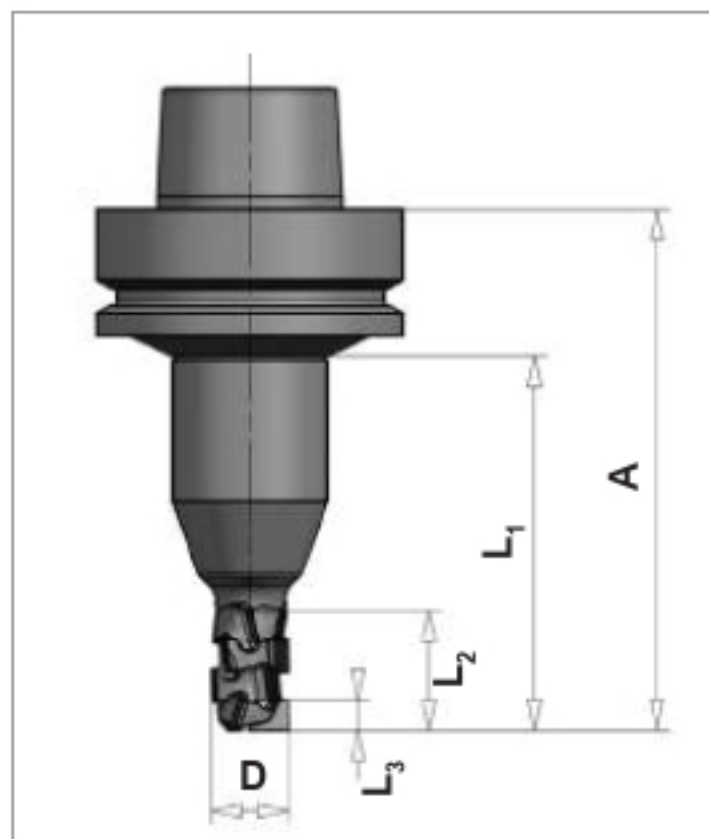
**43020**

<b>APPLICATION:</b>	High performance shank cutter for Nesting application
<b>MATERIAL:</b>	Chip board, MDF, Multiplex wood-based panel material with and without coating.
<b>MACHINE:</b>	Stationary machine
<b>DESIGN:</b>	With extremely rigid tool body made of heavy duty steel. With alternating axial angle and gullets for optimal chip ejection. Suitable for high cutting performance. Feed rates depending on the material and diameter up to 30 m/min.
<b>TOOTH:</b>	DP, tip height 2,5 mm, re-grindable up to 3 times L3* = Up-Cut

D mm	L2 mm	L1 mm	L3* mm	Shank mm	th mm	Z	Order No.
12	24,5	69	8,2	12	2,5	3	10170464
16	24,5	77	8,2	16	2,5	3	10173288

### For HSK Plus holder, HSK 63 F

D mm	L2 mm	L1 mm	L3* mm	A mm	th mm	Z	Order No.
16	24,5	77	6,2	107	2,5	3	10174356



### With HSK Plus holder, HSK 63 F

D mm	L2 mm	L3* mm	A mm	th mm	Z	Order No.
16	24,5	6,2	107	2,5	3	10174368

## Your advantages with *AKE Nesting.*

- No tool breach due to high-performance steel
- Increased feed speed
- Higher economic efficiency
- Longer service life

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