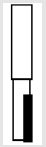
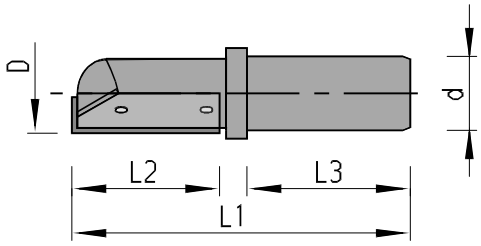


Shank-Type Cutters Page

For Conventional and CNC Routers

Shank-Type Cutters

For Portable Routers



For jointing, rabbeting and grooving on conventional and CNC routers

- in solid wood and panel materials
- cutting of openings and contours
- traveling plunge cut using Z and X or Y axis
- cutting edge parallel to cutter axis and face cutting

- cutting material HL Board 05

- clamping elements:
  hydro expansion chuck PS 2000-E
  draw-in collet chuck
  adapter

- Attention ! In case of high stress and small Ø 8, 10, 12 please use tool body made of tight heavy metal

128.415

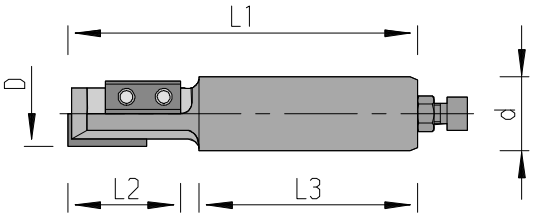
Ø D mm	L2 mm	Ø d mm	L3 mm	L1 mm	Z	Ident.-No. L	Ident.-No. R
8	20	9,5	30	60	1		175662
8	20	12	40	70	1		175669
10	25	9,5	30	60	1		175663
10	25	10	40	75	1		175678
10	25	12	40	75	1		175670
10	25	16	45	80	1		180797
12	30	12	40	80	1	175665 o	175664
14	30	12	40	80	1	175667 o	175666
16	50	12	40	100	1		175668

Tool body made of heavy metal

Ø D mm	L2 mm	Ø d mm	L3 mm	L1 mm	Z	Ident.-No.
8	20	12	40	80	1	180816
10	25	12	40	80	1	180817
12	30	12	40	90	1	180818

turnover knives	B mm	H mm	S mm	Art.-No.	Ident.-No.
for Ø 8	20	4,1	1,1	150535	173480
for Ø 10	25	5,5	1,1	150535	173793
for Ø 12 + 14	30	5,5	1,1	150535	173482
for Ø 16	50	5,5	1,1	150535	173483

spare parts	dimensions	for Ident.-No.	Art.-No.	Ident.-No.
clamping jaws	B = 20	175662 175669 180816	925500	175722 o
clamping jaws	B = 25	175663 175670 175678 180797 180817	925500	175724 o
clamping jaws	B = 30	175664 180818	925500	175726 o
clamping jaws	B = 30	175665	925500	175730 o
clamping jaws	B = 30	175666	925500	175728 o
clamping jaws	B = 30	175667	925500	175731 o
clamping jaws	B = 50	175668	925500	175729 o
Torx cap screw	M2,5x3 T8	175662 175669 180816	995115	168237
Torx cap screw	M2,5x4 T8	175663 175670 175678 180797 180817	995115	168238
Torx cap screw	M3x5,5 T8	175665 175664 180818 175667 175666	995115	168239
Torx cap screw	M3,5x5,5 T15	175668	995115	168236
Torx wrench	T8		985730	166499
Torx wrench	T15		985730	163161



For jointing, rabbeting and grooving on conventional and CNC routers

- in solid wood and panel materials
- cutting of openings and contours
- traveling plunge cut using Z and X or Y axis
- cutting edge parallel to cutter axis
- staggered cutting edges

- cutting material: HL Board 05

- clamping elements:
  hydro expansion chuck PS 2000-E
  draw-in collet chuck
  adapter

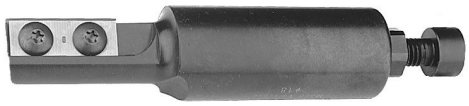
- with attachment screw
  (please order screw for PS 25 + PS 2000-E separately)

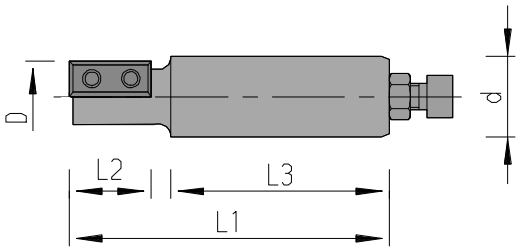
128.415

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	Ident.-No.
18	16	106	45	43	1 + 1	168612
18	25	107	45	55	1 + 1	168611
22	25	117	55	55	1 + 1	168613

turnover knives	B mm	H mm	S mm	Art.-No.	Ident.-No.
	29,5	12	1,5	150515	180825

spare parts and clamping tools	dimensions	for Ident.-No.			Art.-No.	Ident.-No.
Torx screw	M4x5,9 T15	168611	168612	168613	995195	167966
Torx wrench	T15				985730	163161





For jointing, rabbeting and grooving on conventional and CNC routers

- in solid wood and panel materials
- cutting of openings and contours
- traveling plunge cut using Z and X or Y axis
- cutting edge parallel to cutter axis
- customized direction of rotation (right or left) by installing the appropriate turnover knife
- cutting material HL Board 05
- clamping elements:
  hydro expansion chuck PS 2000-E
  draw-in collet chuck
  adapter

- with attachment screw
  (please order screw for PS 25 + PS 2000-E separately)

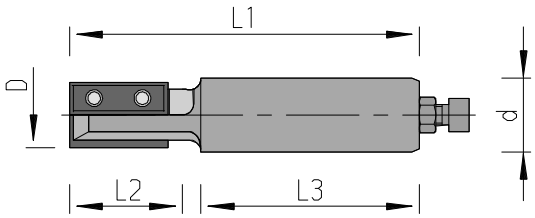
128.410

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	Ident.-No.
18	25	100	29	55	1 (L+R)	171071
18	25	120	50	55	1 (L+R)	171070

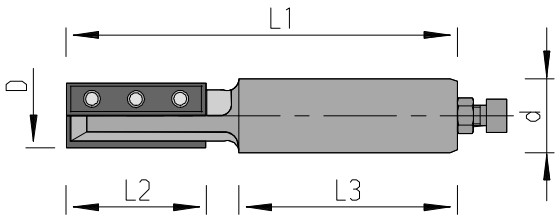
turnover knives	B mm	H mm	S mm	Art.-No.	Ident.-No.
	29,5	12	1,5	150515	180825
	50	12	1,7	150516	179994

spare parts and clamping tools	dimensions	for Ident.-No.	Art.-No.	Ident.-No.
clamping strip	B = 48	171070	925900	171069
clamping strip	B = 27	171071	925900	171068
Torx screw	M3,5x12 T15	171070 171071	995195	171067
Torx wrench	T15		985730	163161

type 1



type 2



For jointing, rabbeting and grooving on conventional and CNC routers

- in solid wood and panel materials
- milling of cut-outs and conturs
- traveling plunge cut using Z and X or Y axis
- 2 cutting edges parallel to cutter axis and circumference cutting and face cutting

- cutting material: HL Board 05
  for abrasive materials e.g. MDF HL Board 03

- clamping elements:
  hydro expansion chuck PS 2000-E
  draw-in collet chuck
  adapter

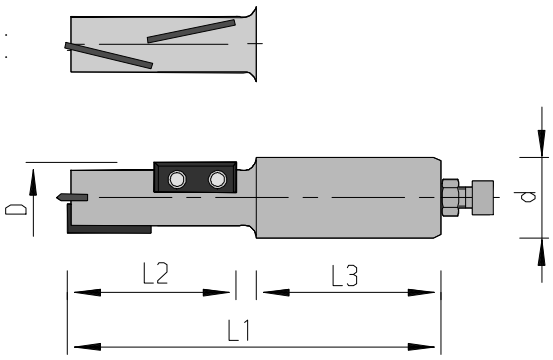
- with attachment screw
  (please order screw for PS 25 + PS 2000-E separately)

128.410

Ø D mm	L2 mm	Ø d mm	L3 mm	L1 mm	Z	type	Ident.-No.
16	30	25	55	100	2	1	180804 o
16	50	25	55	120	2	2	180805 o

turnover knives	B mm	H mm	S mm	LEUCODUR	Art.-No.	Ident.-No.
type 1	30	9	1,5	HL Board 05	150515	180821 o
type 1	30	9	1,5	HL Board 03	150513	180807
type 2	50	9	1,5	HL Board 03	150516	181982

spare parts and clamping tools	dimensions	Art.-No.	Ident.-No.
Torx screw	M3,5x4,8 T15	995195	180915
Torx wrench	T15	985730	163161



For jointing on CNC routers

- for chip -free cutting edges in coated panel materials
- milling of cut-outs and conturs
- traveling plunge cut using Z and X or Y axis
- alternating shear angle
- 2 edgelives by exchanging the upper and lower knife
- plunging insert:
  Ø 16 - Ø 20 HW-tipped
  Ø 30 HW-TOK

- cutting material: HW

- clamping elements:
  hydro expansion chuck PS 2000-E
  draw-in collet chuck
  MK2 directly in to the spindle

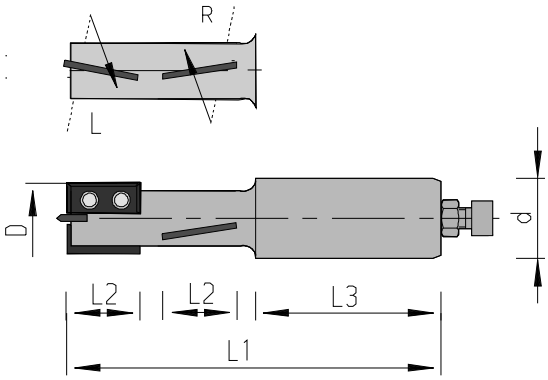
- with attachment screw
  (please order screw for PS 25 + PS 2000-E separately)

128.260

Ø D mm	L2 mm	Ø d mm	L3 mm	L1 mm	Z	Ident.-No.
16	30	25	55	110	1 + 1	R 180443 o
16	50	25	55	130	1 + 1	R 180444
18	50	25	55	130	1 + 1	R 180445 o
20	30	25	55	110	2 + 2	R 180446 o
20	30	25	55	110	2 + 2	L 180812 o
20	50	20	55	125	2 + 2	R 180447
20	50	25	55	125	2 + 2	R 180448
20	50	25	55	125	2 + 2	L 180813 o
30	75	25	55	145	2 + 2	R 180814 o

knives	B mm	H mm	S mm	Art.-No.	Ident.-No.
L2 = 30	16	7	1,5	150523	180262
L2 = 50	28	7	1,5	150523	180260
L2 = 75	40	9	1,5	150515	180815
boring bit for Ø30	7,5	12	1,5	150515	052543

spare parts and clamping tools	dimensions		Art.-No.	Ident.-No.
Torx screw	M3x4,4 T9	for Ø 16 - 20	995195	180449
Torx cap screw	M3,5x5,5 T15	for Ø 30	995115	168236
Torx screw	M4x5 T15	for boring bit	995115	180819 o
Screw driver	T9		985730	173796
Torx wrench	T15		985730	163161



For jointing, rabbeting and grooving on CNC routers

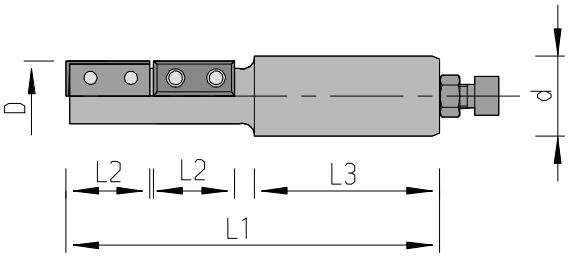
- in solid wood and panel materials
- cutting of openings and contours
- workpiece secured on clamping blocks
- lower part of the cutting edge can be made into left hand rotation by adjusting the Z axis and changing the direction of rotation. This allows optimum machining of frail edges utilizing only one spindle
- traveling plunge cut using Z and X or Y axis
- knives of RH resp. LH cutting parts with down-shear angle
- cutting material HW
- clamping elements:
  hydro expansion chuck PS 2000-E
  draw-in collet chuck
- with attachment screw
  (please order screw for PS 25 + PS 2000-E separately)

128.260

Ø D mm	L2 mm	Ø d mm	L3 mm	L1 mm	Z	Ident.-No.
20	28	25	55	130	2 + 2	N 180442 o

knives	B mm	H mm	S mm	Art.-No.	Ident.-No.
	28	7	1,5	150523	180260

spare parts and clamping tools	dimensions	Art.-No.	Ident.-No.
Torx screw	M3x4,4 T9	995195	180449
Screw driver	T9	985730	173796



For jointing, rabbeting and grooving on CNC routers

- in solid wood and panel materials
- cutting of openings and contours
- workpiece secured on clamping blocks
- lower part of the cutting edge can be made into left hand rotation by adjusting the Z axis and changing the direction of rotation. This allows optimum machining of frail edges utilizing only one spindle
- traveling plunge cut using Z and X or Y axis
- cutting edge parallel to cutter axis customized direction of rotation (right or left) by installing the appropriate turnover knife
- cutting material HL Board 05
- clamping elements:
  hydro expansion chuck PS 2000-E
  draw-in collet chuck

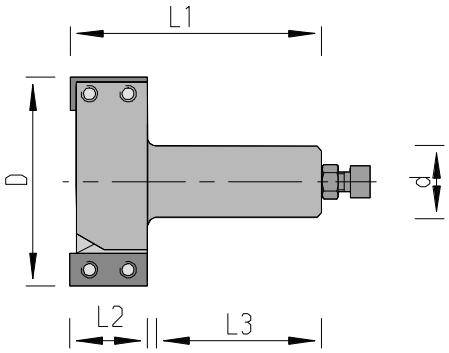
- with attachment screw
  (please order screw for PS 25 + PS 2000-E separately)
- Ident.-No. 180227 without attachment screw

128.410

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	Ident.-No.
18	25	132	29	55	1 L+1R	172269
40	25	158	40	55	2 L+2R	180227

turnover knives	B mm	H mm	S mm	Art.-No.	Ident.-No.
	29,5	12	1,5	150515	180825
	40	12	1,5	150515	164078

spare parts and clamping tools	dimensions	Art.-No.	Ident.-No.
clamping strip	B = 27	925900	171068
Torx screw	M3,5x12 T15	995195	171067
wrench with spinner handle	T15	985730	171188



For jointing, rabbeting and planing on CNC routers

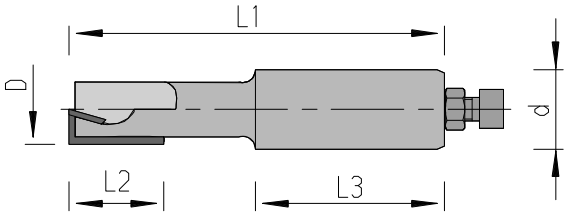
- in solid wood and panel materials
- cutting of contours
- for plane-cutting of machine tables
- cutting edge parallel to cutter axis and face cutting
- cutting material: HL Board 05
- clamping elements:
  hydro expansion chuck PS 2000-E
  draw-in collet chuck
- with attachment screw
  (please order screw for PS 25 + PS 2000-E separately)

128.210

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	Ident.-No.
80	25	89	30	55	2	168732

turnover knives	B mm	H mm	S mm	Art.-No.	Ident.-No.
	29,5	12	1,5	150515	180825

spare parts and clamping tools	dimensions	Art.-No.	Ident.-No.
magnetic adjusting gauge	1,0	997800	166094
Torx screw	M4x5,9 T15	995195	167966
Torx wrench	T15	985730	163161



For jointing, rabbeting and grooving on conventional and CNC routers

- in solid wood and panel materials
- cutting of openings and contours
- traveling plunge cut using Z and X or Y axis
- 1 cutting edge parallel to cutter axis and circumference cutting
- 1 plunging insert with shear angle

- cutting material: HL Board 05

- clamping elements:
  hydro expansion chuck PS 2000-E
  draw-in collet chuck
  adapter

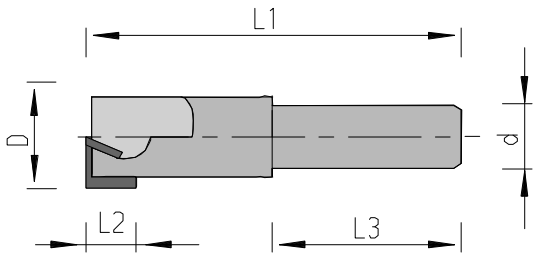
- with attachment screw
  (please order screw for PS 25 + PS 2000-E separately)

128.215

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	Ident.-No.
16	16	92	30	43	1 + 1	168682
20	16	96	30	43	1 + 1	168684
20	25	108	30	55	1 + 1	168685

turnover knives	B mm	H mm	S mm	Art.-No.	Ident.-No.
boring bit for Ø 16	7,5	12	1,5	150515	052543
boring bit for Ø 20	9	12	1,5	150515	167256
turnover knife	29,5	12	1,5	150515	180825

spare parts and clamping tools	dimensions	for Ident.-No.	Art.-No.	Ident.-No.
Torx cap screw	M3,5x3,8 T15	168682 168684 168685	995115	162645
Torx screw	M3,5x4 T15	168682 168684 168685	995195	168893
Torx wrench	T15		985730	163161



For jointing, rabbeting and grooving on conventional and CNC routers

- in solid wood and panel materials
- cutting of openings and contours
- traveling plunge cut using Z and X or Y axis
- 1 cutting edge parallel to cutter axis and circumference cutting
- 1 plunging insert with shear angle

- cutting material: HL Board 05

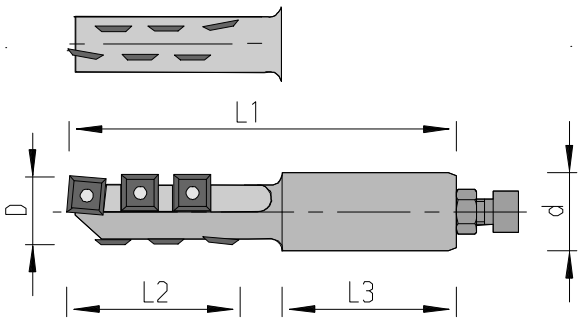
- clamping elements:
  hydro expansion chuck PS 2000-E
  draw-in collet chuck
  adapter

128.215

Ø D mm	L2 mm	Ø d mm	L3 mm	L1 mm	Z	Ident.-No.
16	12	12	30	70	1 + 1	180809 o
18	12	12	30	70	1 + 1	180810 o
20	12	12	30	70	1 + 1	180811 o

turnover knives	B mm	H mm	S mm	Art.-No.	Ident.-No.
boring bit for Ø 16+18	7,5	12	1,5	150515	052543
boring bit for Ø 20	9	12	1,5	150515	167256
turnover knife	12	12	1,5	150515	003080

spare parts and clamping tools	dimensions	for Ident.-No.	Art.-No.	Ident.-No.
Torx screw	M3,5x4 T15	180809 180810	995195	168893
Torx screw	M4x5 T15	for boring bit	995115	180819 o
Torx screw	M4x5,9 T15	180811	995195	167966
Torx wrench	T15		985730	163161



For pre-cutting and finish cutting on routers and CNC-machines

- high hogging performance
- chip-free cutting edges in coated panel materials
- traveling plunge cut using Z and X or Y axis
- upper and lower TOK with shear angle

- cutting material: HL Board 05
  for abrasive materials e.g. MDF HLBoard 03

- clamping element:
  hydro expansion chuck PS 2000-E
  draw-in collet chuck

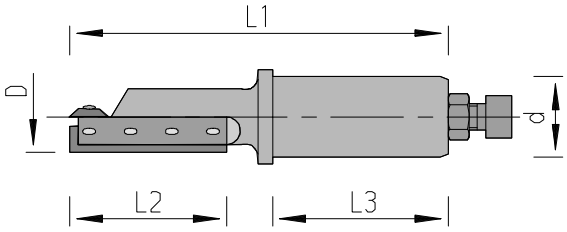
- with attachment screw
  (please order screw for PS 25 + PS 2000-E
  separately)

128.210

Ø D mm	L2 mm	Ø d mm	L3 mm	L1 mm	Z	Ident.-No.
22	42	25	55	115	1 + 1	180802 o
22	60	25	55	131	1 + 1	180803 o

turnover knives	B mm	H mm	S mm	LEUCODUR	Art.-No.	Ident.-No.
	12	12	1,5	HL Board 05	150515	003080
	12	12	1,5	HL Board 03	150513	180820

spare parts and clamping tools	dimensions	Art.-No.	Ident.-No.
Torx screw	M4x5,9 T15	995195	167966
Torx wrench	T15	985730	163161



For jointing, rabbeting and grooving on conventional and CNC routers

- in solid wood and panel materials
- cutting of openings and contours
- traveling plunge cut using Z and X or Y axis
- 1 cutting edge parallel to cutter axis
- 1 plunging insert

- cutting material: HL Board 05

- clamping elements:
  hydro expansion chuck PS 2000-E
  draw-in collet chuck
  adapter

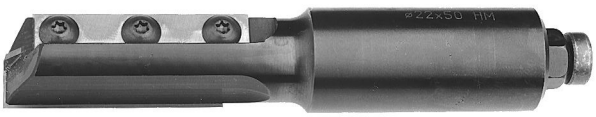
- with attachment screw
  (please order screw for PS 25 + PS 2000-E separately)

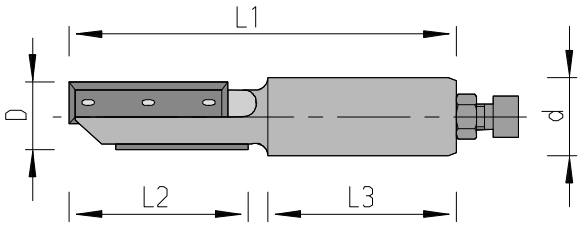
128.415

Ø D mm	L2 mm	Ø d mm	L3 mm	L1 mm	Z	Ident.-No.
16	30	12	40	81	1 + 1	L 175706 o
16	30	12	40	81	1 + 1	R 175705
16	30	16	45	91	1 + 1	L 175713 o
16	30	16	45	91	1 + 1	R 175712
16	50	16	45	106	1 + 1	R 175714
16	50	25	55	116	1 + 1	R 175715
18	30	12	40	81	1 + 1	R 175707 o
18	50	16	45	106	1 + 1	R 180798
18	50	25	55	116	1 + 1	L 175717
18	50	25	55	116	1 + 1	R 175716
19,05	50	19,05	50	110	1 + 1	R 175720 o
20	30	12	40	81	1 + 1	L 175710 o
20	30	12	40	81	1 + 1	R 175709 o
20	50	25	55	116	1 + 1	R 175718 o
22	30	12	40	81	1 + 1	R 175711 o

turnover knives	B mm	H mm	S mm	Art.-No.	Ident.-No.
turnover knife	12	12	1,5	150515	003080
mini-turnover knife	30	5,5	1,1	150535	173482
mini-turnover knife	50	5,5	1,1	150535	173483

spare parts and clamping tools	dimensions	for Ident.-No.	Art.-No.	Ident.-No.
clamping jaws	B = 30	171706 175713	925500	171117 o
clamping jaws	B = 30	175705 175712	925500	169280 o
clamping jaws	B = 30	175707	925500	169281 o
clamping jaws	B = 30	175710	925500	171119 o
clamping jaws	B = 30	175709	925500	169282 o
clamping jaws	B = 50	175714 175715	925500	171111 o
clamping jaws	B = 50	175717	925500	171114 o
clamping jaws	B = 50	175716 175720 180798	925500	171113 o
clamping jaws	B = 50	175718	925500	171115 o
clamping jaws	B = 30	175711	925500	169283 o
Torx cap screw	M3,5x5,5 T15	for D = Ø 16/18/19.05	995115	168236
Torx cap screw	M3,5x6,5 T15	for D = Ø 20	995115	163223
Torx screw	M4x5,9 T15	for boring bit	995195	167966
Torx wrench	T15		985730	163161





For jointing, rabbeting and grooving on conventional and CNC routers

- in solid wood and panel materials
- cutting of openings and contours
- traveling plunge cut using Z and X or Y axis
- 2 staggered cutting edges parallel to cutter axis
  (Ident.-No. 180799 without offset cutting edges)
  1 plunging insert

- cutting material: HL Board 05

- clamping elements:
  hydro expansion chuck PS 2000-E
  draw-in collet chuck
  MK2 directly into the spindle

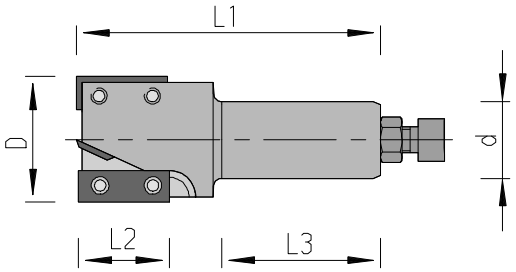
- with attachment screw
  (please order screw for PS 25 + PS 2000-E separately)

128.215

Ø D mm	L2 mm	Ø d mm	L3 mm	L1 mm	Z	Ident.-No. L	Ident.-No. R
18	55	25	55	125	2	180906	177156
20	55	25	55	125	2		177157
20	55	MK 2	55	153	2		177159 o
22	55	25	55	125	2		177158 o
25	50	25	55	119	2		180799

turnover knives	B mm	H mm	S mm	Art.-No.	Ident.-No.
	50	12	1,7	150516	179994

spare parts and clamping tools	dimensions	for Ident.-No.	Art.-No.	Ident.-No.
wrench with spinner handle	T15x80		985730	171188
Torx wrench	T15		985730	163161
Torx screw	M4x5,9 T15		995195	167966
Torx screw	M4x6 T15	180799	995195	180989 o



For jointing, rabbeting and grooving on conventional and CNC routers

- in solid wood and panel materials
- cutting of openings and contours
- traveling plunge cut using Z and X or Y axis
- 2 cutting edges parallel to cutter axis
- 1 plunging insert with shear angle

- cutting material: HL Board 05

- clamping elements:
  hydro expansion chuck PS 2000-E
  draw-in collet chuck
  MK2 directly into the spindle

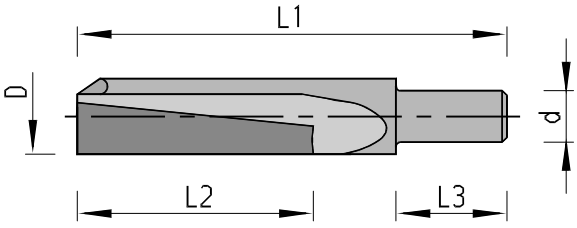
- with attachment screw
  (please order screw for PS 25 + PS 2000-E separately)

128.410

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	Ident.-No. L	Ident.-No. R
40	16	91	30	43	2 + 1		168731
40	25	106	30	55	2 + 1	170815 s	168730

turnover knives	B mm	H mm	S mm	Art.-No.	Ident.-No.
turnover knife	12	12	1,5	150515	003080
boring bit	29,5	12	1,5	150515	180825

spare parts and clamping tools	dimensions	for Ident.-No.	Art.-No.	Ident.-No.
magnetic adjusting gauge	1,0		997800	166094
Torx screw	M4x5,9 T15	170814 168713 170815 168730	995195	167966
Torx wrench	T15		985730	163161

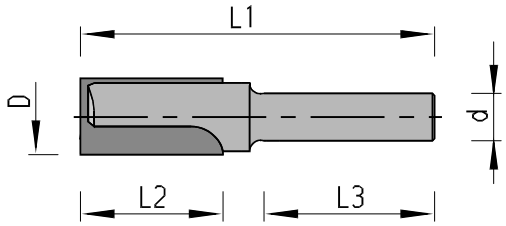


For jointing, rabbeting, grooving, plunge-cutting and copying on routers

- in hardwoods and exotic woods
- cutting of openings and contours
- design of cutting tip allows plunge-cuts
- optimum hook angle ensures high quality of cut
- adjustment in the eccentric chuck results in consistent cutting circles after sharpenings
- to Ø 9 mm solid carbide cutting edge from Ø 9.5 mm HW tipped cutting edge
- clamping elements: eccentric clamping chuck with shank MK2 with draw-in thread Art.-No. 9-33.250
- clamping chuck determination and adjustment see section Clamping Systems Art.-No. 9-33.260

129.415

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	Ident.-No.
3	9,5	34	5	20	1	006243
9,5	9,5	60	27	20	1	006274
4	9,5	42	12	20	1	160235
4	9,5	36	6	20	1	006245 o
4,5	9,5	38	6	20	1	006246 o
5	9,5	46	14	20	1	160237
5	9,5	39	7	20	1	006247 o
6	9,5	55	22	20	1	160239
6,5	9,5	55	22	20	1	160240 o
6,5	9,5	42	9	20	1	006250 o
7	9,5	55	22	20	1	160241
8	9,5	46	14	20	1	006253 o
8	9,5	57	22	20	1	006272
8,5	9,5	48	16	20	1	006254 o
9	9,5	57	25	20	1	006273 o
10	9,5	54	20	20	1	006257
10	9,5	60	27	20	1	006275
12	12	70	32	20	1	006276
12	9,5	60	26	20	1	006259 o

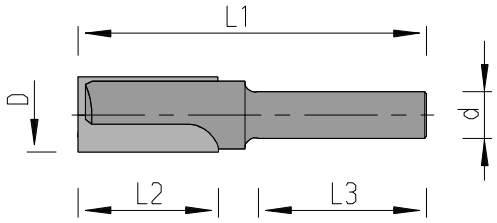


For jointing, rabbeting, grooving and copying on routers

- in hardwoods and exotic woods
- in panel materials
- design of cutting tip allows plunge-cuts
- cutting edges parallel to cutter axis
- clamping elements:
  centric clamping chuck

129.415

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	Ident.-No.
6,5	9,5	42	9	20	2	160311 o
10	9,5	52	20	20	2	006227
11	9,5	52	24	20	2	006228
10	10	70	23	35	2	160336
12	10	70	23	35	2	160337
14	10	70	23	35	2	160338
15	10	70	23	35	2	160339 o
16	10	70	23	35	2	160340
18	10	70	23	35	2	160341 o
20	10	70	23	35	2	160342
12	12	72	26	40	2	006229
13	12	72	26	40	2	006230
14	12	76	28	40	2	006231
15	12	80	30	40	2	006232
16	12	90	35	40	2	180775
18	12	90	35	40	2	180776
20	12	90	35	40	2	180777
22	12	90	45	40	2	180778
25	12	92	41	40	2	006240
30	12	94	42	40	2	006242



For jointing, rabbeting, grooving and copying on routers

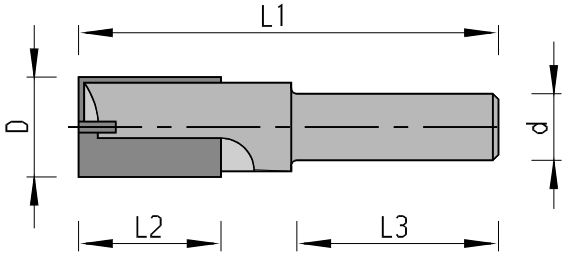
- in hardwoods and exotic woods
- in panel materials
- design of cutting tip allows plunge-cuts
- cutting edges parallel to cutter axis
- clamping elements:
  centric clamping chuck

129.460

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	Ident.-No.
3	9,5	34	5	20	2	006219
4	9,5	37	6	20	2	006220
5	9,5	39	7	20	2	006221
6	9,5	41	8	20	2	006223
7	9,5	43	10	20	2	006224
8	9,5	48	14	20	2	006225
9	9,5	52	18	20	2	006226
4	10	49	10	35	2	160332
5	10	49	12	35	2	160333
6	10	53	14	35	2	160334
8	10	60	20	35	2	160335

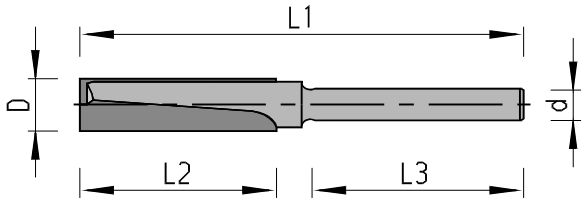
For jointing, rabbeting, grooving and copying on routers and CNC machines

- in hardwoods and exotic woods
- in panel materials
- design of cutting tip allows plunge cuts
- cutting edges parallel to cutter axis
- clamping elements:
  draw-in collet chuck

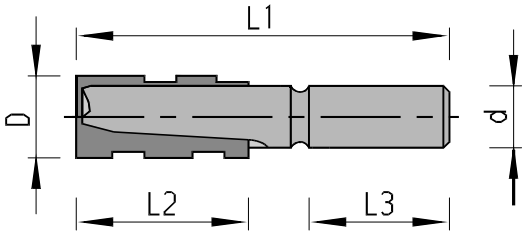


129.415

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	Ident.-No.
10	12	90	35	50	2	177160
12	12	90	35	50	2	177161
12	12	90	45	50	2	177162
14	12	90	35	50	2	177163
16	12	90	35	50	2	177164 o
18	12	90	35	50	2	177165 o
20	12	90	35	50	2	177166 o
22	12	90	35	50	2	177167 o
24	12	90	35	50	2	177168 o



type 1



type 2

For cutting of openings in doors, countertops and furniture parts

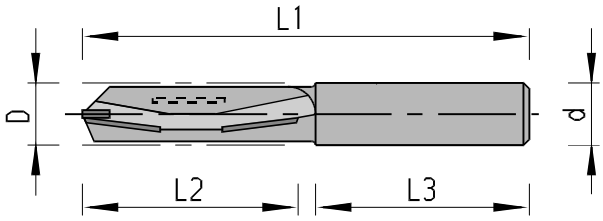
- in hardwoods and exotic woods
- in panel materials
- design of cutting tip allows plunge-cuts
- application on stationary routers and CNC routers
- type 1 cutting edges parallel to cutter axis
- type 2 cutting edges parallel to cutter axis with chip breakers to reduce cutting pressure
- clamping elements:
  draw-in collet chuck
  centric clamping chuck

type 1 — 129.815

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	Ident.-No.
14	12	80	50	20	2	006218
14	14	100	50	40	2	058244

type 2

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	Ident.-No.
14	12	80	50	20	2	167728 s
14	14	100	50	40	2	170733 o

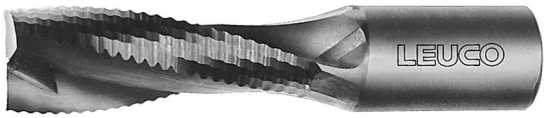


For cutting of openings in doors, countertops and furniture parts

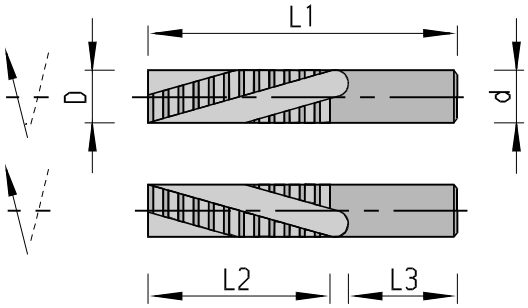
- in hardwoods and exotic woods
- in panel materials
- design of cutting tip allows plunge cuts
- application on stationary routers and CNC routers
- cutting edges with shear angle for optimum quality of cut on veneered and plastic laminated parts
- clamping elements:
  draw-in collet chuck
  centric clamping chuck

129.860

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	Ident.-No.
14	14	100	50	40	2 + 1	167662



type1



type 2

For rough cutting with high hogging volume on CNC routers

- for solid wood and plywood
- for uncoated panel materials
- for cutting of profiles and openings
- slightly rough cutting surface due to fine cut division
- traveling plunge cut using Z and X or Y axis
- positive spiral: for tightly clamped workpieces face side down and optimal chip evacuation towards top
- negative spiral: for smaller and hard to clamp workpieces face side up -- cutting pressure and chip evacuation towards the bottom
- solid carbide design (SHW) withstands high cutting pressures
- clamping elements: hydro clamping chuck PS 2000-E with reducing sleeves Art.-No. 933.280 draw-in collet chuck
- type 1: negative spiral
- type 2: positive spiral
- n max 30 000 min-1

129.460

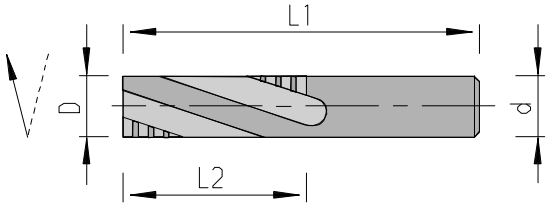
Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	spiral	Ident.-No.
10	10	75	30	40	2	positive	R 178301
10	10	75	30	40	2	negative	R 178300
12	12	90	42	45	2	positive	R 178302
12	12	90	42	45	3	positive	R 178303
12	12	90	42	45	3	negative	R 178304
14	14	90	35	45	3	positive	R 178305
14	14	90	35	45	3	negative	R 178306
14	14	110	55	45	3	positive	R 178307
14	14	110	55	45	3	negative	R 178308 o
16	16	90	35	48	2	positive	R 178309
16	16	90	35	48	3	positive	R 178310
16	16	90	35	48	3	negative	R 178311
16	16	110	55	48	2	positive	R 178313
16	16	110	55	48	3	positive	R 178314
16	16	110	55	48	3	negative	R 178312
18	18	115	55	48	2	positive	R 178315

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	spiral	Ident.-No.
18	18	115	55	48	3	positive	R 178316
18	18	115	55	48	3	negative	R 178317
20	20	115	55	50	2	positive	R 178318
20	20	115	55	50	3	positive	R 178319
20	20	115	55	50	3	negative	R 178320
20	20	135	75	50	2	positive	R 178321
20	20	135	75	50	3	positive	R 178322
20	20	135	75	50	3	negative	R 178323
25	25	115	55	50	4	positive	R 178324

For cutting of solid wood and panel materials on CNC routers

- high cutting performance and cutting quality
- cutting edge:optimum lower cutting edge of the workpiece
- roughing knife leads to roughness height of max 0,1 mm
- Z = 4 (2 roughing and 2 finishing knives)
- positive spiral direction leads to upward chip ejection

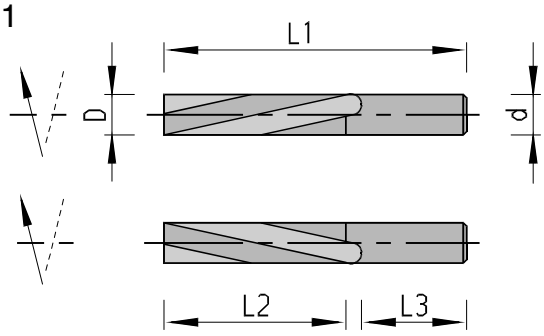
- cutting material: HW
- n max 30 000 min-1



129.460

Ø D mm	Ø d mm	L1 mm	L2 mm	Z	Ident.-No.
12	12	90	42	4	180875
14	14	110	50	4	180876
16	16	110	55	4	180877
16	16	90	35	4	180878 #
18	18	110	55	4	180879
20	20	120	60	4	180880 #
20	20	120	70	4	180881

type 1



type 2

For finish cutting on solid wood and plastic on CNC routers

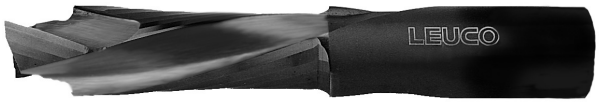
- for cutting of profiles and openings
- high quality of cut
- traveling plunge cut using Z and X or Y axis
- positive spiral:
  for tightly clamped workpieces face side down and optimal upward chip evacuation
- negative spiral:
  for smaller and hard to clamp workpieces face side up -- cutting pressure and chip evacuation towards the bottom
- solid carbide design (SHW) withstands high cutting pressures
- clamping elements:
  hydro - clamping chuck PS 2000-E with reducing sleeves Art.-No. 933.280
  draw-in collet chuck
- type 1: negative spiral
- type 2: postive spiral

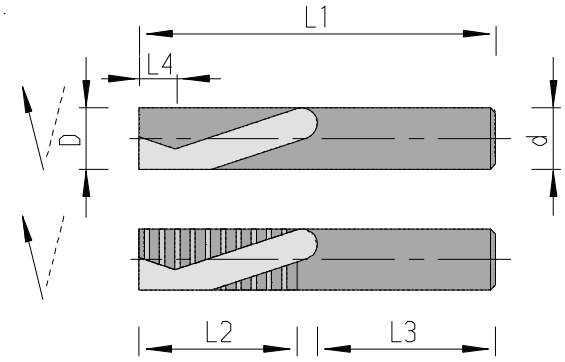
- n max 30 000 min-1

129.460

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	spiral	Ident.-No.
4	4	60	15	28	2	negative	R 178326
6	6	60	15	36	2	positive	R 178328
6	6	60	15	36	2	negative	R 178327
8	8	75	30	36	2	positive	R 178329
8	8	75	30	36	2	negative	R 178330
10	10	75	30	40	2	positive	R 178331
10	10	75	30	40	2	negative	R 178332
12	12	90	42	45	2	positive	R 178333
12	12	90	42	45	2	negative	R 178335
12	12	90	42	45	3	positive	R 178334
12	12	90	42	45	3	negative	R 178336
14	14	90	35	45	2	negative	R 178338 o
14	14	90	35	45	3	positive	R 178337
14	14	110	55	45	3	positive	R 178339

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	spiral	Ident.-No.
16	16	90	35	48	2	positive	R 178340
16	16	90	35	48	2	negative	R 178342
16	16	90	35	48	3	positive	R 178341
16	16	90	35	48	3	negative	R 178343
16	16	110	55	48	2	positive	R 178344
16	16	110	55	48	2	negative	R 178346
16	16	110	55	48	3	positive	R 178345
16	16	110	55	48	3	negative	R 178347
16	16	110	55	48	3	positive left	R 178348
16	16	110	55	48	3	negative left	R 178349
18	18	115	55	48	2	positive	R 178350
18	18	115	55	48	3	positive	R 178351
20	20	115	55	50	2	positive	R 178352
20	20	115	55	50	3	positive	R 178353
20	20	115	55	50	3	negative	R 178354
20	20	135	75	50	3	positive	R 178355
20	20	135	75	50	3	negative	R 178356





For finish and rough cutting of solid wood and plastics on CNC routers

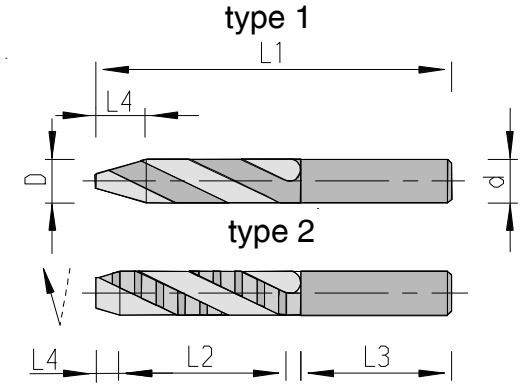
- for cutting of contours and openings
- two-sided shear angle ensures optimum quality of cut in laminated wood materials
- traveling plunge cut using Z and X or Y axis
- solid carbide design (SHW) withstands high cutting pressures
- clamping elements:
  hydro clamping chuck PS 2000-E
  with reducing sleeves Art.-No. 933.280
  draw-in collet chuck

- n max 30 000 min-1

129.460

Ø D mm	L2 mm	Ø d mm	L3 mm	L1 mm	L4 mm	Z	qual. of cut	Ident.-No.
16	55	16	38	100	10	2 + 2	finishing	178357
20	55	20	50	115	17	2 + 2	roughing	178358

Ø D mm	L2 mm	Ø d mm	L1 mm	L4 mm	Z	qual. of cut	Ident.-No.
8	32	8	80	7	2 + 2	finishing	180870
10	32	10	80	7	2 + 2	finishing	180871
12	42	12	90	7	2 + 2	finishing	180872
16	55	16	110	24	2 + 2	finishing	180873
18	55	18	110	30	2 + 2	finishing	180874



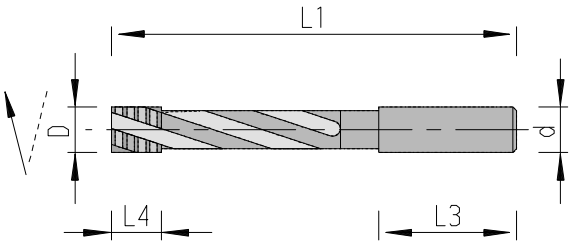
For plunge-cutting and cutting of latchholes and keyholes

- for door manufacturing on CNC machining centers
- type 1 for boring of the peephole and for through-holes
- type 2 for cutting of latchholes and keyholes
- solid carbide design (SHW) withstands high cutting pressures
- clamping elements:
  hydro - clamping chuck PS 2000-E with reducing sleeves Art.-No. 933.280
  draw-in collet chuck

- n max 30 000 min-1

129.460

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	L4 mm	Z	spiral	type	Ident.-No.
12	12	110	47	53	10	2	positive	1	179189
12	12	130	70	50	10	2	positive	1	179190
14	14	110	47	45	10	2	positive	1	178359
16	16	130	52	60	11	2	positive	1	178360
16	16	130	65	60	5	2	positive	2	178362
20	20	135	70	60	5	3	positive	2	179191



For cutting of lock-cases and face-plates in doors

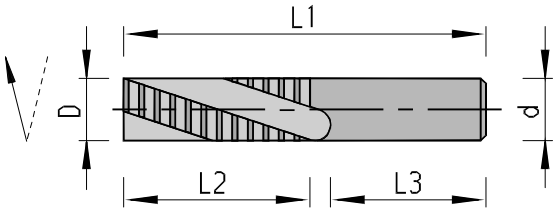
- on CNC machining centers
- positive spiral for optimum chip evacuation
- cutting edges with chip breakers for high balance quality
- solid carbide design (SHW) withstands high cutting pressures
  Z = 2 serrated cutting edge with chip breakers for door hardware cutouts
  Z = 3 roughing cutter only for lock cases
- clamping elements:
  hydro - clamping chuck PS 2000-E
  with reducing sleeves Art.-No. 933.280
  draw-in collet chuck

- n max 18 000 min-1

- for attachment in horizontal-boring-cutting aggregat (Homag, Weeke) side clamping surfaces are necessary. See technical Information.

129.460

Ø D mm	Ø d mm	L1 mm	L3 mm	L4 mm	Z	spiral	Ident.-No.
14	14	155	50	25	2	positive	178843
16	16	175	50	25	2	positive	178958
18	18	175	50	25	2	positive	178959
14	14	155	50	25	3	positive	178839
16	16	175	50	25	3	positive	178840
18	18	175	50	25	3	positive	178841
18	20	175	50	25	3	positive	178842

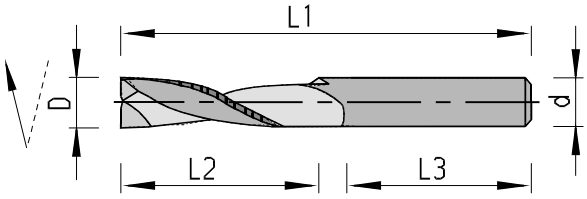


For cutting of openings in countertops and furniture parts

- in hardwoods and exotic woods
- in panel materials
- application on heavy-duty portable routers
- positive spiral for optimum chip evacuation
- rough cutting for high hogging volume
- solid carbide design (SHW) withstands high cutting pressures

129.460

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	spiral	Ident.-No.
12	12	90	45	35	2	positive	178325



shank type 1

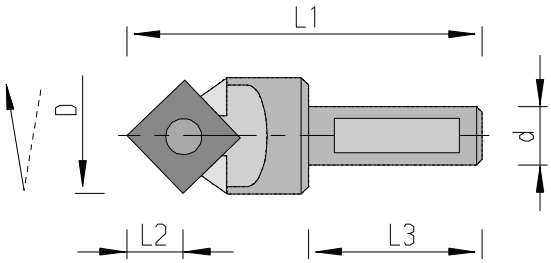
For finish cutting with high hogging volume on CNC routers

- in solid wood, plywood and compressed laminated woods
- cutting surface can be glued
- for grooving, copying and plunge-cutting
- in construction of stairways for copying of the stairs (Ø 20) and cutting of the stringers (Ø 16)
- for machining of aluminum e.g. for construction and automotive use
- cutting edges with positive spiral and chip breakers for precise tool balancing
- clamping elements: spacer sleeves according to DIN 6359 also called Weldon chuck or special clamping chuck by MAKA

- shank type see Technical Appendix

129.460

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	shank type	Ident.-No.
16	16	110	40	48	2	1	173354



cutting of ornamental grooves, inscriptions and engravings on CNC machines

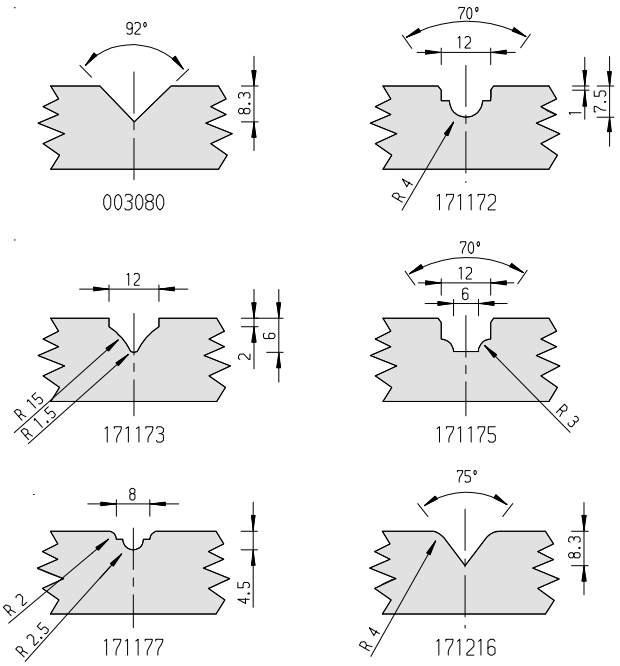
- in solid wood and panel materials
- combination with other shank-type tools allows 2 processes on one spindle
- negative shear angle ensures chip-free cutting of laminated panel materials
- clamping elements:
  hydro-clamping chuck PS 2000-E with adapter
  draw-in collet chuck and/or
  for combination with cutter heads as tool set
- included in delivery:
  - Ident.-No. 171169 SP16 cutter assy. with TOK Ident.-No. 003080
  -Ident.-No. 171217 set see profile drawings

128.415

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	drawing foil	Ident.-No.
17	10	48	8,3	21	1	SP 16	171169
						Set	171217 &

turnover knife	B mm	H mm	S mm	drawing foil	Art.-No.	Ident.-No.
	12	12	1,5	SP 16	150515	003080

spare parts and clamping tools	dimensions	for Ident.-No.	Art.-No.	Ident.-No.
Torx cap screw	M3,5x6,5 T15	171169	995115	163223
Torx wrench	T15	171169	985730	163161

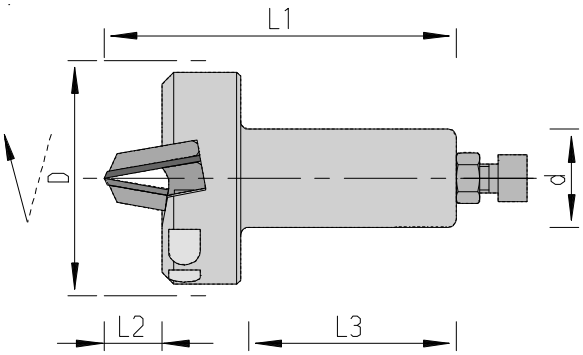


cutting of ornamental grooves, inscriptions and engravings on CNC machines

- included in delivery; set Ident.-No. 171217 :
  -1 piece ornamental groove cutter with shank 128.415 - 171169
  -1 piece turnover knife 12x12x1.5 150.514 - 003080
  -2 pieces each double-sided profile knives 151.521 - Ident.- No. and drawing as shown

150.514 / 151.521

profile turnover knives	B mm	S mm	H mm	LEUCODUR	drawing foil	Art.-No.	Ident.-No.
	12	12	1,5	HL Board 05	SP 16	150515	003080
	11	12	1,5	HL Board 05		151545	171172
	11	12	1,5	HL Board 05		151545	171173
	11	12	1,5	HL Board 05		151545	171175
	12	12	1,5	HL Board 05		151545	171177
	12	12	1,5	HL Board 05		151545	171216



For cutting of ornamental grooves, outside and inside profiles on

- in solid wood and panel materials
- cutting edges with positive shear angle
- cutting material of the single-sided profile knives:
  HL Board 06 for panel materials and hardwoods
  HL Solid 60 for softwoods
- for optimum quality of cut also available in TOPLINE design
- profile knife can be profiled per customer specifications
- clamping elements:
  hydro-clamping chuck PS 2000-E with adapter
  draw-in collet chuck

- MEC
- n max 18.000 min-1

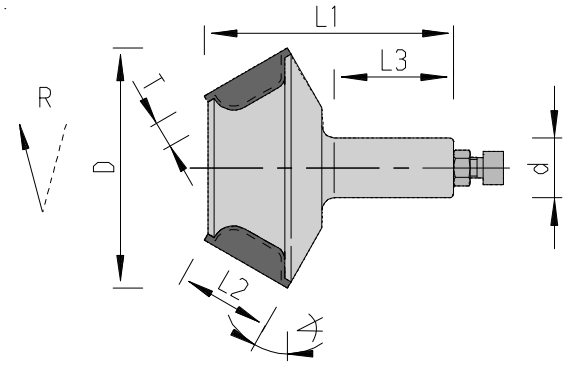
- included in delivery:
  cutter head body with clamping elements without profile knives and support plates

128.612

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	drawing foil	Ident.-No.
59	25	97	13	62	2	SP 17	173268

blanks	B mm	H mm	LEUCODUR	drawing foil	Art.-No.	Ident.-No.
SP-blank	30,6	25,5	HL Board 06	SP 17	152526	179114
SP-blank	30,6	25,5	HL Solid 60	SP 17	152529	177369
support plate				SP 17	925402	178017

spare parts and clamping tools	dimensions	for Ident.-No.	Art.-No.	Ident.-No.
clamping strip	B = 24	173268	925300	173276
setscrew	DIN 915 M6x10	173268	995161	180002
hex head wrench	SW 3x100	173268	985730	166090



For profiling of outside and inside profiles on CNC routers

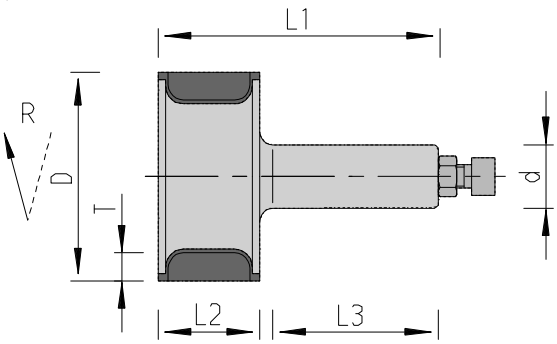
- in solid wood and panel materials
- cranked body for deep profiles
- profiling from the top
- cutting edges parallel to cutter axis
- cutting materials of the single-sided profile knives:
  HL Board 06 for panel materials and hardwoods
  HL Solid 60 for softwoods
- for optimum quality of cut also available in TOPLINE design
- profile knife can be profiled per customer specifications
- clamping elements:
  hydro-clamping chuck PS 2000-E
  draw-in collet chuck
  MK2 directly into the spindle
- MEC
- n max 12.000 for D=Ø100 and Ø110
- n max 8.000 für D=Ø125
- included in delivery:
  cutter head body with clamping elements without profile knives and support plates

128.612

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	T mm	Z	angle in degr.	drawing foil	Ident.-No. R
100	25	119	40	55	11	2	30	SP 18	168184
110	25	120	40	55	11	2	45	SP 27	176235
125	25	140	60	55	13	2	30	SP 28	176237

blanks	B mm	H mm	LEUCODUR	drawing foil	Art.-No.	Ident.-No.
SP-blank	40,6	28,2	HL Board 06	SP 18 + SP 27	152526	179112
SP-blank	40,6	28,2	HL Solid 60	SP 18 + SP 27	152529	177367
SP-blank	60,8	30,2	HL Board 06	SP 28	152526	179113
SP-blank	60,8	30,2	HL Solid 60	SP 28	152529	177368
support plate	40,0	28		SP 18 + SP 27	925402	178007
support plate	60,0	30		SP 28	925402	178008

spare parts and clamping tools	dimensions	for Ident.-No.			Art.-No.	Ident.-No.
clamping strip	B = 36	168184	176235	176239	925300	166737
clamping strip	B = 58	176237			925300	166738
setscrew	DIN 915 M8x16				995161	164422
hex head wrench	SW 4x100				985730	166091



For profiling of outside and inside profiles on CNC routers

- in solid wood and panel materials
- cutter body closed at top and bottom
- cutting edges parallel to cutter axis
- cutting materials of the single-sided profile knives:
  HL Board 06 for panel materials and hardwoods
  HL Solid 60 for softwoods
- for optimum quality of cut also available in TOPLINE design
- profile knife can be profiled per customer specifications
- clamping elements:
  hydro-clamping chuck PS 2000-E
  draw-in collet chuck
  MK2 directly into the spindle

- MEC
- n max see table

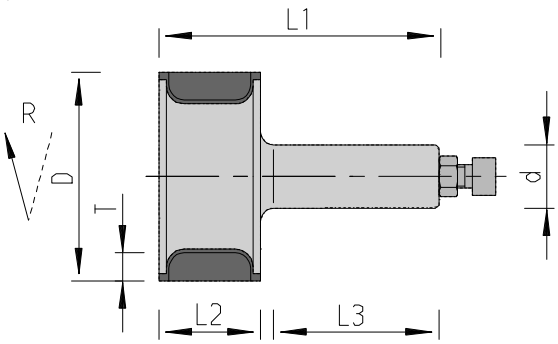
- included in delivery:
  cutter head body with clamping elements without profile knives and support plates

128.612

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	T mm	Z	n max min-1	drawing foil	Ident.-No. L	Ident.-No. R
82	20	110	40	55	11	2	12.000	SP 19		167479
82	25	110	40	55	11	2	18.000	SP 19	167835	167834
82	MK2	127	40	55	11	2	18.000	SP 19		167483 s
86	25	130	60	55	13	2	10.000	SP 31		176241

blanks	B mm	H mm	LEUCODUR	drawing foil	Art.-No.	Ident.-No.
SP-blank	40,6	28,2	HL Board 06	SP 19	152526	179112
SP-blank	40,6	28,2	HL Solid 60	SP 19	152529	177367
SP-blank	60,8	30,2	HL Board 06	SP 31	152526	179113
SP-blank	60,8	30,2	HL Solid 60	SP 31	152529	177368
support plate	40,0	28		SP 19	925402	178007
support plate	60,0	30		SP 31	925402	178008

spare parts and clamping tools	dimensions	type	for Ident.-No.			Art.-No.	Ident.-No.
clamping strip	B = 36	B	167484	167835		925300	166736
clamping strip	B = 36	A	167834	167479	167483	925300	166737
clamping strip	B = 58	A	176241			925300	166738
setscrew	DIN 915 M8					995161	164422
hex head wrench	SW 4x100					985730	166091



For profiling of outside and inside contours on CNC machining centers

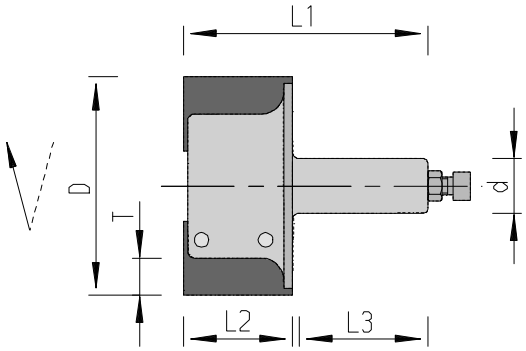
- in solid wood and wood materials
- cutting edges parallel to cutting axis
- cutting materials of the profile knives:
  - HL Board 06 for panel materials and solid woods
- for optimum cutting quality also available in TOPLINE design
- hooh angle 25 degree especially suitable for solid wood
- profile knife can be profiled per customer specifications
- clamping elements: hydro-clamping chuck
  PS 2000-E
  draw-in collet chuck
- MEC
- included in delivery:cutter head body with clamping-elements
- profile knives and support plates profiled per customer specifications. Price on request.

128.612

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	T mm	n max min-1	drawing foil	Ident.-No. R
86	20	97	41	55	2	12,5	16000	PPS 4102	180235
95	25	132	61	55	2	14	14000	PPS 6102	180236

blanks	B mm	H mm	LEUCODUR	Art.-No.	Ident.-No.
	41,0	32,5	HL Board 06	152536	180197
	61,0	34	HL Board 06	152536	180198
	40,0	31		925402	180243
	60,0	28,5		925402	180244

spare parts and clamping tools	dimensions	Art.-No.	Ident.-No.
clamping strip	B = 40	925300	180247
clamping strip	B = 60	925300	180248
setscrew	DIN 915 M8x16	995161	164422
special screw	M5x10,8	995190	179977
hex head wrench	SW 4x100	985730	166091
Torx wrench	T20x100	985730	166092



For profiling of outside and inside profiles on CNC routers

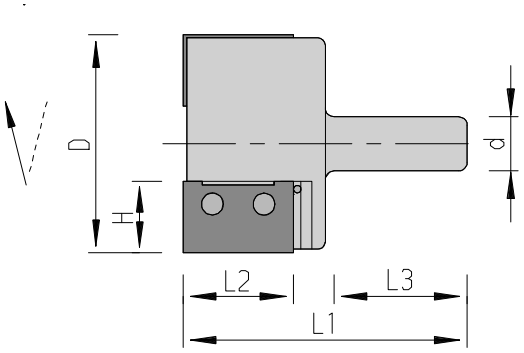
- in solid wood and panel materials
- for profiles requiring a cutter body which is open on one side
- cutting edges parallel to cutter axis
- cutting materials of the single-sided profile knives:
  HL Board 06 for panel materials and hardwoods
  HL Solid 60 for softwoods
- for optimum quality of cut also available in TOPLINE design
- profile knife can be profiled per customer specifications
- clamping elements:
  hydro-clamping chuck PS 2000-E
  draw-in collet chuck
- MEC
- n max see table
- included in delivery:
  cutter head body with clamping elements without profile knives and support plates

128.612

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	T mm	Z	n max min-1	drawing foil	Ident.-No. R
60	16	89,6	30	43	11	2	12.000	SP 23	171033
100	25	112	50	55	16	2	9500	SP 21	171143
120	25	109	50	55	22	2	6.500	SP 20	173271
120	25	118	60	55	22	2	6.000	SP 22	173270

blanks	B mm	H mm	LEUCODUR	drawing foil	Art.-No.	Ident.-No.
SP-blank	30,6	25,5	HL Board 06	SP 23	152526	179114
SP-blank	30,6	25,5	HL Solid 60	SP 23	152529	177369
SP-blank	49,3	33,7	HL Board 06	SP 21	152526	180199
SP-blank	49,4	44,5	HL Board 06	SP 20	152526	180218
SP-blank	60,6	45,6	HL Board 06	SP 22	152526	179999
SP-blank	60,6	45,6	HL Solid 60	SP 22	152529	178845
support plate	30,0	25		SP 23	925402	178016
support plate	50,0	34		SP 21	925402	178015
support plate	50,0	45		SP 20	925402	178014
support plate	60,0	45		SP 22	925402	178010

spare parts and clamping tools	dimensions	for Ident.-No.	Art.-No.	Ident.-No.
clamping strip	B = 28	171033	925300	171035
clamping strip	B = 48	171143	925300	171147
clamping strip	B = 47	173271	925300	171140
clamping strip	B = 56	173270	925300	167055
setscrew	DIN 915 M6x10	171033	995161	180002
setscrew	DIN 915 M8x16	171143 173271 173270	995161	164422
hex head wrench	SW 3x100	171033	985730	166090
hex head wrench	SW 4x100	171143 173271 173270	985730	166091

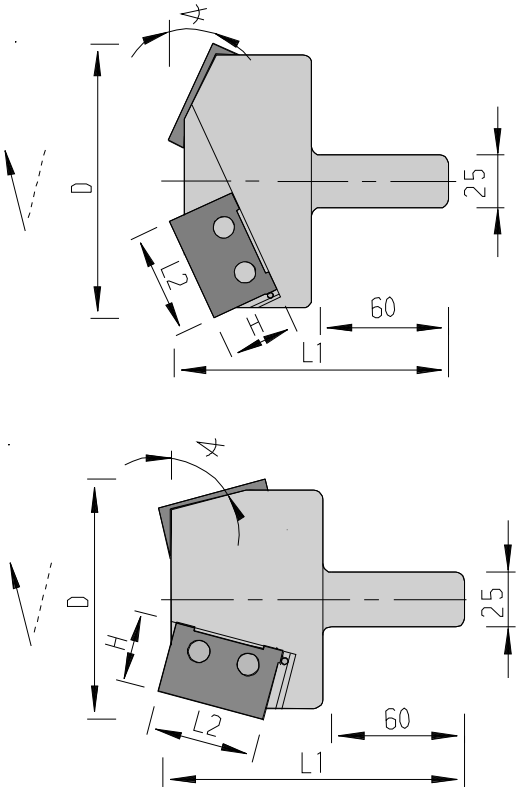


For profiling of wood materials and solid woods on CNC routers

- cutter head body is custom profiled within a short lead time
- profiling of the cutter head body included in the price
- cutting materials of the double-sided profile knives:
  -HL Board 06 for wood materials and solid woods
  -HL Solid 60 for softwoods
  ensure long tool life
- secure clamping (BG proved) with special screws ensure optimum quality of cut
- shank with inside thread M8 for attachment screw
  attachment screw please order separately
- prices for profile knives and special cutter heads see Special Price List
- profiling area see drawing and/or foil

128.613

Ø D mm	Ø d mm	L2 mm	H mm	L1 mm	L3 mm	Z	n max min-1	drawing foil	Ident.-No.-not profiled L	R
52	25	40	20	117	60	2	18000	EP 377	178592 s	178377 s
52	25	50	20	127	60	2	16000	EP 379	178593 s	178379 s
62	25	30	25	107	60	2	18000	EP 375	178594 s	178375 s
62	25	40	20	119	60	2	16000	EP 383	178595 s	178383 s
62	25	50	20	127	60	2	16000	EP 385	178596 s	178385 s
71	25	30	25	107	60	2	17000	EP 381	178599 s	178381 s
71	25	30	30	107	60	2	16000	EP 376	178597 s	178376 s
71	25	40	30	117	60	2	14000	EP 378	178598 s	178378 s
75	25	41	32,5	118	60	2	12300	EP 478	180332 s	180328 s
75	25	50	33	127	60	2	12000	EP 380	178600 s	178380 s
81	25	30	30	107	60	2	14000	EP 382	178601 s	178382 s
81	25	40	30	117	60	2	12000	EP 384	178602 s	178384 s
85	25	41	32,5	118	60	2	11000	EP 484	180333 s	180329 s
85	25	50	33	127	60	2	12000	EP 386	178603 s	178386 s
85	25	61	34	137	60	2	10000	EP 405	181247 s	181246 s

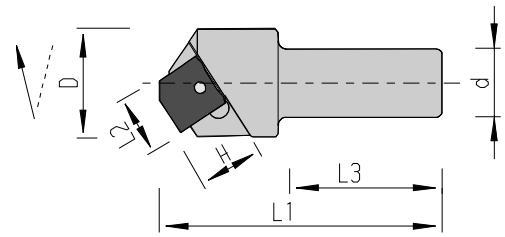


For profiling of wood materials and solid woods on CNC routers

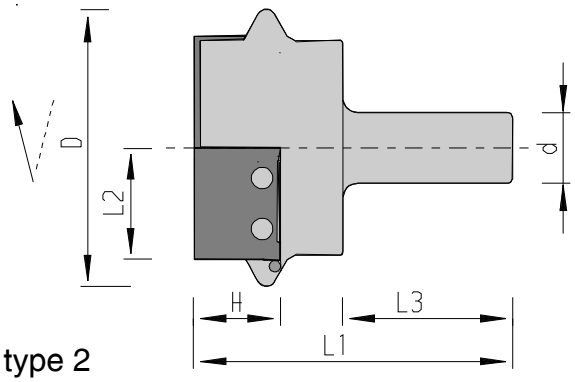
- cutter head body is custom profiled within a short lead time
- profiling of the cutter head body included in the price
- shear angle for optimum quality of cut even when cutting across the grain of solid woods, virtually eliminates sanding
- cutting materials of the double-sided profile knives:
  -HL Board 06 for wood materials and solid woods
  -HL Solid 60 for softwoods
  ensure long tool life
- secure clamping (BG proved) with special screws ensure optimum quality of cut
- shank with inside thread M8 for attachment screw
  attachment screw please order separately
- prices for profile knives and special cutter heads see Special Price List
- profiling area see drawing and/or foil

128.663

Ø D mm	angle in degr.	L2 mm	H mm	L1 mm	Z	n max min-1	drawing foil	Ident.-No.-unprofiliert L	R
140	25	61	34	137	2	10000	EP 410	181249 s	181248 s
95	45	30	25	104	2	10000	EP 393	178610 s	178393 s
100	45	40	20	110	2	13000	EP 395	178612 s	178395 s
100	45	30	30	107	2	9000	EP 394	178611 s	178394 s
110	45	40	30	113	2	9000	EP 396	178613 s	178396 s
115	45	41	32,5	115	2	11000	EP 496	180335 s	180331 s
125	45	50	20	114	2	10000	EP 397	178614 s	178397 s
125	45	50	33	121	2	7500	EP 398	178615 s	178398 s
145	45	61	34	132	2	10000	EP 408	181251 s	181250 s
95	60	40	20	110	2	13000	EP 389	178605 s	178389 s
95	60	30	25	104	2	11000	EP 387	178604 s	178387 s
100	60	50	20	119	2	11000	EP 391	178607 s	178391 s
100	60	30	30	107	2	9500	EP 388	178606 s	178388 s
105	60	40	30	114	2	9600	EP 390	178608 s	178390 s
110	60	41	32,5	115	2	11400	EP 490	180334 s	180330 s
125	60	50	33	127	2	7500	EP 392	178609 s	178392 s
130	60	61	34	137	2	10000	EP 407	181253 s	181252 s
110	75	61	34	133	2	10000	EP 406	181255 s	181254 s



type 1



type 2

For profiling of wood materials and solid woods on CNC routers

- cutter head body is custom profiled within a short lead time
- profiling of the cutter head body included in the price
- shear angle for optimum quality of cut even when cutting across the grain of solid woods, virtually eliminates sanding
- cutting materials of the double-sided profile knives:
  -HL Board 06 for wood materials and solid woods
  -HL Solid 60 for softwoods
  ensure long tool life

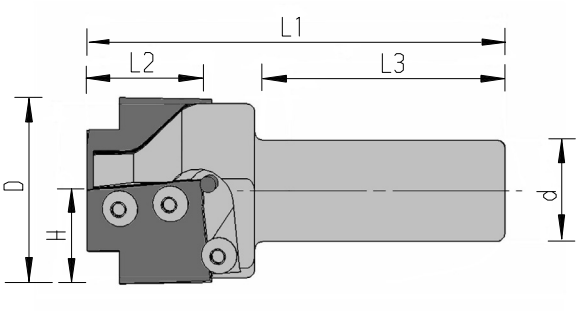
- secure clamping (BG proved) with special screws ensure optimum quality of cut
- shank with inside thread M8 for attachment
  attachment screw
  attachment screw please order separately
- prices for profile knives and special cutter heads see Special Price List
- profiling area see drawing and/or foil

type 1 — 128.663

Ø D mm	Ø d mm	L2 mm	H mm	L1 mm	L3 mm	Z	n max min-1	drawing foil	Ident.-No.-not profiled R
35	25	20	20	98,5	60	1	24.000	EP 400	180539 s

type 2

Ø D mm	Ø d mm	L2 mm	H mm	L1 mm	L3 mm	Z	n max min-1	drawing foil	Ident.-No.-not profiled L	R
76	25	30	25	101	60	2	18.000	EP 401	180298 s	180299 s
76	25	30	30	109	60	2	18.000	EP 403	180296 s	180297 s
100	25	40	30	112	60	2	14.000	EP 402	178401 s	178402 s
120	25	50	33	122	60	2	9.000	EP 404	178403 s	178404 s
143	25	61	34	122	60	2	12.000	EP 409	181257 s	181256 s



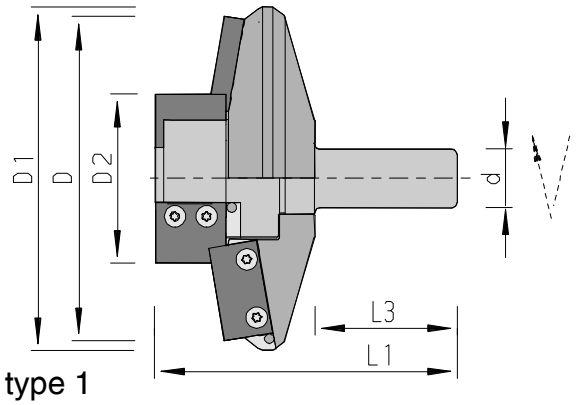
For profiling wood materials and solid wood on CNC Shapers

- tool body will be profiled within short time according to customer specification
- profiling of tool body included in price
- cutting material of the profile knives:
  -HL Board 06 for wood materials and solid wood
  -HL Solid 60 for soft wood
  guarantee long edge lives
- shank with internal screw M8 for mounting of a stop screw.
  Please order stop screw separately.
- prices for profile knife and special cutterheads see special price list
- profilable area see drawing or foil

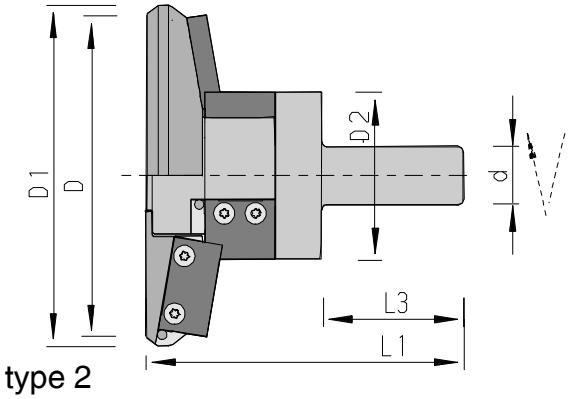
128.663

Ø D mm	Ø d mm	L2 mm	H mm	L1 mm	L3 mm	Z mm	n max min-1	drawing foil	Ident.-No.-not profiled L	R
44	25	28	25	103,5	60	2	24000	EP 399	181839 s	181838 s

spare parts and clamping tools	dimensions	Art.-No.	Ident.-No.
3 P Blank	30,2x25,5 HL Board 06	152586	178527
3 P Blank	30,2x25,5 HL Solid 60	152589	179527
Torx screw	M4x5,9	995195	167966
wrench with spinner handle	T15x80	985730	171188



type 1



type 2

For profiling of wood materials and solid woods on CNC routers

- cutter head body is custom profiled within a short lead time
- profiling of the cutter head body is included in the price (profile knives not included)
- tool geometry for optimum quality of cut even when machining solid woods across the grain-no sanding required
- cutting materials for the the profile knives:
  -HL Board 06 for wood materials and solid woods
  -HL Solid 60 for softwoods
  long tool lives ensured

- sequre clamping (BG proved) with special screws for optimum cutting speed
- shank with inside thread M8 for attachment
  attachment screw
  attachment screw please order separately
- for pofile knife prices see special price list
- profilable area see drawing and/or foil

type 1 128.913

Ø D1 mm	Ø D2 mm	Ø D mm	Ø d mm	L1 mm	L3 mm	Z	n max min-1	drawing foil	Ident.-No.not profiled L	R
140	82	150	25	122	60	2+ 2	7600	EP 751 (EP 754+757)	179369 s	178751 s
145	71,6	137	25	122	60	2+ 2	11500	EP 752 (EP 755+758)	179370 s	178752 s
145	71,2	137	25	127	60	2+ 2	11500	EP 753 (EP 756+758)	179371 s	178753 s
144	82	142	25	123	60	2+ 2	10000	EP 849 (EP 754+855)	179372 s	178849 s

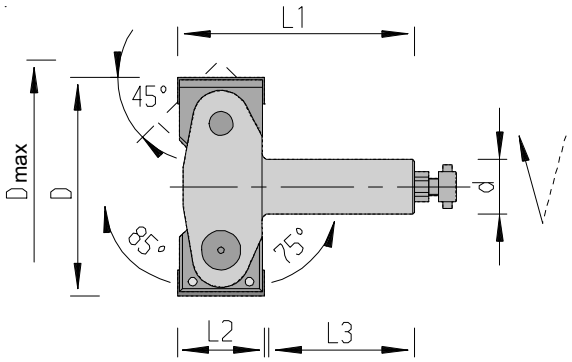
type 2

Ø D1 mm	Ø D2 mm	Ø D mm	Ø d mm	L1 mm	L3 mm	Z	n max min-1	drawing foil	Ident.-No.not profiled L	R
144	82	142	25	143	60	2+ 2	10000	EP 853 (EP 854+855)	178853 s	179373 s
140	82	150	25	143	60	2+ 2	7600	EP 848 (EP 854+757)	178848 s	179374 s

151.486 / 151.489 / 152.786 / 152.789

blanks for Head Ident.-No.		B mm	H mm	drawing foil		HL Board 06 L	HL Board 06 R	HL Solid 60 L	HL Solid 60 R
180539		20,3	20,5	EP 400	standard		178517		179517
					Topline	179563&	179564&	179637&	179638&
178375	178594	30,2	25,5	EP 375	standard		178527		179527
178381	178599			EP 381	Topline	179583&	179584&	179657&	179658&
178387	178604			EP 387					
178393	178610			EP 393					
178753				EP 756					
181839	181838			EP 399					
180298	180299			EP 401					
178376	178597	30,2	30,4	EP 376	standard		178528		179528
178382	178601			EP 382	Topline	179585&	179586&	179659&	179660&
178388	178606			EP 388					
178394	178611			EP 394					
178751	178849			EP 754					
178752				EP 755					
180296	180297			EP 403					
178853	179373			EP 854					
178848	179374								
178377	178592	40,1	20,9	EP 377	standard		178533		179533
178383	178595			EP 383	Topline	179595&	179596&	179669&	179670&
178389	178605			EP 389					
178395	178612			EP 395					
178752	178753			EP 758					
180332	180328	41,0	32,5	EP 478	standard		180197		.
180333	180329			EP 484					
180335	180331			EP 496					
180334	180330			EP 490					
178378	178598	40,1	30,4	EP 378	standard		178534		179534
178384	178602			EP 384	Topline	179597&	179598&	179671&	179672&
178390	178608			EP 390					
178396	178613			EP 396					
178401	178402			EP 402					
178751	178848			EP 757					
178379	178593	49,9	20,9	EP 379	standard		178539		179539
178385	178596			EP 385	Topline	179607&	179608&	179681&	179682&
178391	178607			EP 391					
178397	178614			EP 397					
178849	178853			EP 855					
179372	179373								
178380	178600	49,9	33	EP 380	standard		178540		179540
178386	178603			EP 386	Topline	179609&	179610&	179683&	179684&
178392	178609			EP 392					
178398	178615			EP 398					
178403	178404			EP 404					
181246	181247	61,0	34	EP 405	standard		180198		.
181254	181255			EP 406	Topline	181259	181258		
181252	181253			EP 407					.
181250	181251			EP 408					
181256	181257			EP 409					
181248	181249			EP 410					

spare parts and clamping tools	dimensions	for Ident.-No.		Art.-No.	Ident.-No.
Retaining bolt	M8x25			997870	172113
Retaining bolt	M8x19			997870	172921
Torx special screw	M4,5x4,6x9 T15			995195	178239
Torx screw	M4x5,9	181838	181839	995195	167966
wrench with spinner handle	T15x80			985730	171188



For chamfering and panel raising with adjustable chamfer angle on

- jointing, chamfering and panel raising possible
- in solid wood and panel materials
- rabbeting with the turnover knife Ident.-No. 171149
- cutting edges parallel to cutter axis
- chamfer angle adjustable from 0-85 degrees on high-precision scale
- the cutting edge carriers can be located without affecting the chamfer angle setting
- for manual feed on routers
- clamping elements:
  hydro-clamping chuck PS 2000-E
  draw-in collet chuck
  MK2 directly into the spindle

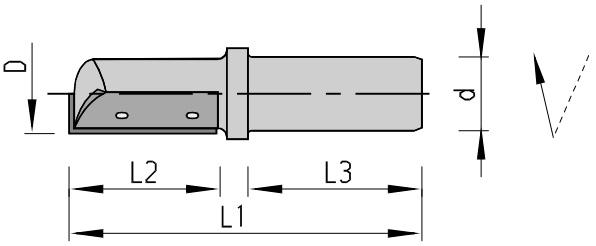
- n max. 12.000 min-1

128.715

Ø D mm	D max mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	Art.-No.	Ident.-No.
100	117	25	110	40	55	2	128715	172271
100	117	MK2	125	40		2	128715	172429 s

turnover knives	B mm	H mm	S mm	Art.-No.	Ident.-No.
	40,0	12	1,5	150515	164078
TOK for rabbeting	39,5	12	1,5	150515	171149

spare parts and clamping tools	dimensions	Art.-No.	Ident.-No.
clamping strip	B = 38	925300	172272
PS screw	M8x25	997870	172113
PS 2000-E screw	M8x19	997870	172921
setscrew	DIN 915 M6x12	995161	180214
hex head wrench	SW 3x100	985730	166090
hex socket head wrench	DIN 911 SW 8	985730	009677
bolt	18x59,5	995321	173449
nut	M8x11,5	995290	173450



For jointing, rabbeting and grooving with portable routers

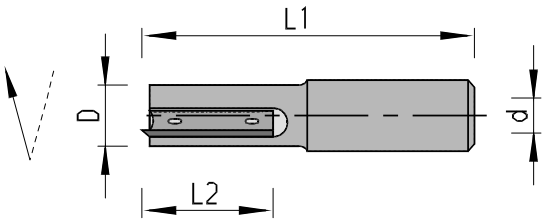
- in solid wood and panel materials
- design of cutting tip allows plunge-cuts to Ø 12.7 mm
- cutting edges parallel to cutter axis
- clamping elements: draw-in collet chuck

128.415

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	Ident.-No.
8	8	60	20	30	1	175673
10	8	60	20	30	1	175674 o
12	8	60	20	30	1	175675 o
14	8	70	30	30	1	175676 o
9,52	9,52	65	20	30	1	175671 o
10	10	75	25	40	1	175678
12	10	80	30	40	1	175679
12,7	12,7	80	30	40	1	175672 o
14	10	80	30	40	1	175680 o

turnover knives	B mm	H mm	S mm	Art.-No.	Ident.-No.
for Ø D 8 / 9,52	20	4,1	1,1	150535	173480
	20	5,5	1,1	150535	173481
	25	5,5	1,1	150535	173793
	30	5,5	1,1	150535	173482

spare parts and clamping tools	dimensions	for Ident.-No.			Art.-No.	Ident.-No.
clamping jaws	B = 20	175673	175677	175671	925500	175722 o
clamping jaws	B = 20	175674			925500	175723 o
clamping jaws	B = 25	175678			925500	175724 o
clamping jaws	B = 20	175675			925500	175725 o
clamping jaws	B = 30	175672			925500	175727 o
clamping jaws	B = 30	175679			925500	175726 o
clamping jaws	B = 30	175676	175680		925500	175728 o
Torx cap screw	M2,5x3 T8	175673	175677		995115	168237
Torx cap screw	M2,5x4 T8	175671	175674	175678	995115	168238
Torx cap screw	M3x5,5 T8	175675 175676	175679 175680	175672	995115	168239
Torx wrench	T 8				985730	166499



For jointing, rabbeting, grooving with portable routers

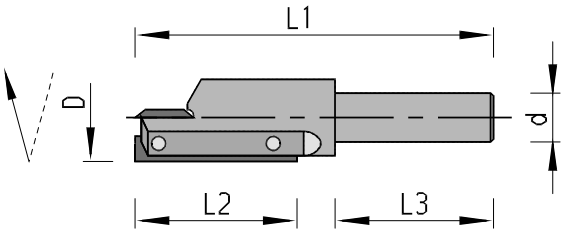
- in solid wood and panel materials
- design of cutting tip allows plunge-cuts up to Ø 12.7 mm
- cutting edges parallel to cutter axis
- internal thread allows direct attachment on the spindle

128.425

Ø D mm	Ø d mm	L1 mm	L2 mm	Z	Ident.-No.
8	M10	60	20	1	175681 o
10	M10	65	25	1	175682 o
12	M10	72	30	1	175683 o
14	M10	72	30	1	175684 o
8	M12 x 1	60	20	1	175685 o
10	M12 x 1	65	25	1	175686 o
12	M12 x 1	72	30	1	175687 o
14	M12 x 1	72	30	1	175688 o

turnover knives	B mm	H mm	S mm	Art.-No.	Ident.-No.
for Ø 8	20	4,1	1,1	150535	173480
for Ø 10	25	5,5	1,1	150535	173793
for Ø 12 + 14	30	5,5	1,1	150535	173482

spare parts and clamping tools	dimensions	for Ident.-No.	Art.-No.	Ident.-No.
clamping jaws	B = 20	175685 175681	925500	175722 o
clamping jaws	B = 25	175686 175682	925500	175724 o
clamping jaws	B = 30	175687 175683	925500	175726 o
clamping jaws	B = 30	175688 175684	925500	175728 o
Torx cap screw	M2,5x3 T8	175685 175681	995115	168237
Torx cap screw	M2,5x4 T8	175686 175682	995115	168238
Torx cap screw	M3x5,5 T8	175687 175683 175688 175684	995115	168239
Torx wrench	T 8		985730	166499



For jointing, rabbeting, grooving with portable routers

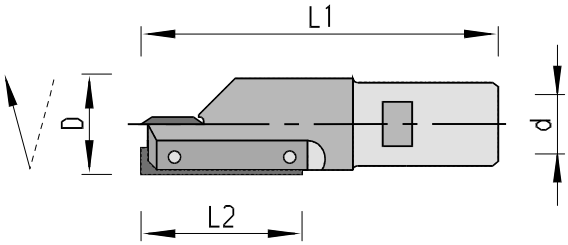
- in solid wood and panel materials
- design of cutting tip allows plunge-cuts
- cutting edges parallel to cutter axis
- clamping elements: draw-in collet chuck

128.415

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	Ident.-No.
16	8	71	30	30	1 + 1	175689 o
18	8	71	30	30	1 + 1	175690 o
20	8	71	30	30	1 + 1	175691 o
22	8	71	30	30	1 + 1	175692 o
16	10	71	30	30	1 + 1	175693 o
18	10	71	30	30	1 + 1	175694 o
20	10	71	30	30	1 + 1	175695 o
22	10	71	30	30	1 + 1	175696 o

turnover knives	B mm	H mm	S mm	Art.-No.	Ident.-No.
turnover knife	12	12	1,5	150515	003080
mini-turnover knife	30	5,5	1,1	150535	173482

spare parts and clamping tools	dimensions	for Ident.-No.	Art.-No.	Ident.-No.
clamping jaws	B = 30	175689 175693	925500	169280 o
clamping jaws	B = 30	175690 175694	925500	169281 o
clamping jaws	B = 30	175691 175695	925500	169282 o
clamping jaws	B = 30	175696 175692	925500	169283 o
Torx cap screw	M3,5x5,5 T15	175689 175690 175693 175694	995115	168236
Torx cap screw	M3,5x6,5 T15	175691 175692 175695 175696	995115	163223
Torx screw	M4x5,9 T15	for boring bit	995195	167966
Torx wrench	T15		985730	163161



For jointing, rabbeting, grooving with portable routers

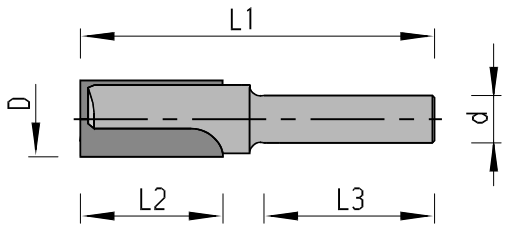
- in solid wood and panel materials
- design of cutting tip allows plunge-cuts
- cutting edges parallel to cutter axis
- internal thread allows direct attachment on the spindle

128.425

Ø D mm	Ø d mm	L1 mm	L2 mm	Z	Ident.-No.
16	M10	65	30	1 + 1	175697 o
18	M10	65	30	1 + 1	175698 o
20	M10	65	30	1 + 1	175699 o
22	M10	65	30	1 + 1	175700 o
16	M12 x 1	65	30	1 + 1	175701
18	M12 x 1	65	30	1 + 1	175702 o
20	M12 x 1	65	30	1 + 1	175703
22	M12 x 1	65	30	1 + 1	175704 o

turnover knives	B mm	H mm	S mm	Art.-No.	Ident.-No.
turnover knife	12	12	1,5	150515	003080
mini-turnover knife	30	5,5	1,1	150535	173482

spare parts and clamping tools	dimensions	for Ident.-No.		Art.-No.	Ident.-No.
clamping jaws	B = 30	175701	175697	925500	169280 o
clamping jaws	B = 30	175702	175698	925500	169281 o
clamping jaws	B = 30	175703	175699	925500	169282 o
clamping jaws	B = 30	175704	175700	925500	169283 o
Torx cap screw	M3,5x5,5 T15	175701 175702	175697 175698	995115	168236
Torx cap screw	M3,5x6,5 T15	175703 175704	175699 175700	995115	163223
Torx screw	M4x5,9 T15	for boring bit		995195	167966
Torx wrench	T15			985730	163161

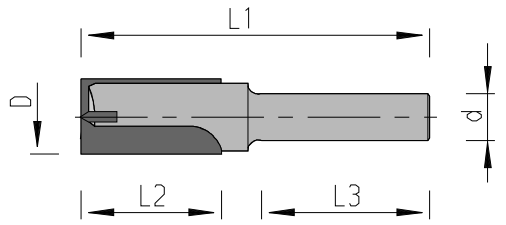


For jointing, rabbeting, grooving with portable routers

- in solid wood
- design of cutting tip allows plunge-cuts
- cutting edges parallel to cutter axis
- clamping elements: draw-in collet chuck

129.415

Ø D mm	L2 mm	Ø d mm	L1 mm	Z	Ident.-No.
3	6	6	39	2	172430 o
4	8	6	40	2	164193 o
4	8	8	40	2	172431 o
5	12	6	42	2	164194 o
5	12	8	42	2	172432
6	14	6	49	2	160364
6	16	8	46	2	167521
8	20	6	50	2	160365
8	20	8	48	2	167522
10	20	6	50	2	160366
10	20	8	48	2	167523
12	20	8	48	2	167524
13	20	6	48	2	167490 o
14	20	6	48	2	160368 o
14	20	8	48	2	167525
15	20	6	48	2	167492 o
16	20	6	48	2	160370 o
16	20	8	48	2	167526
18	20	6	48	2	160371 s
18	20	8	48	2	167527 o
20	20	6	48	2	160372 o
20	20	8	48	2	167528

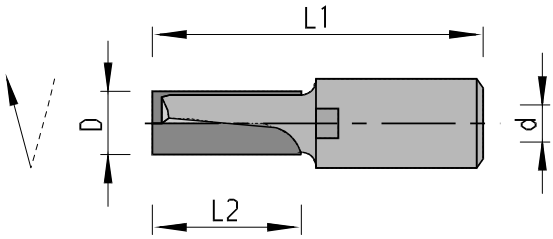


For jointing, rabbeting, grooving with portable routers

- in solid wood
- with HW-tipped plunging insert
- cutting edges parallel to cutter axis
- clamping elements: draw-in collet chuck

129.415

Ø D mm	L2 mm	Ø d mm	L1 mm	Z	Ident.-No.
3	8	8	55	2	167529
4	10	8	55	2	167530
5	12	8	55	2	167531
6	14	8	55	2	167532
8	20	8	55	2	167533
8	30	8	90	2	180823
9	20	8	55	2	167534 o
10	20	8	60	2	167535
10	40	10	97	2	167552
12	20	6	48	2	160367 o
12	20	8	60	2	167536
12	40	10	97	2	167553
14	20	8	60	2	167537 o
14	40	10	97	2	167554 o
16	20	8	70	2	167538 o
16	45	10	97	2	167555 o
18	20	8	70	2	167539
18	45	10	97	2	167556 o
20	45	10	97	2	167557 o
22	16	8	70	2	167540 o
22	45	10	90	2	172433 o
24	16	8	70	2	172434 o
25	16	8	70	2	172435 o
26	16	8	70	2	172436 o
28	16	8	70	2	172437 o
30	16	8	70	2	172438 o



For jointing, rabbeting, grooving with portable routers

- in solid wood
- design of cutting tip allows plunge-cuts
- cutting edges parallel to cutter axis
- internal thread allows direct attachment on the spindle

129.425

Ø D mm	Ø d mm	L1 mm	L2 mm	Z	mach.	Ident.-No.
8	M10	55	20	2	Scheer	006414 o
10	M10	55	22	2	Scheer	006415 o
16	M10	55	25	2	Scheer	006417 o
16	M10	75	45	2	Scheer	161204
20	M10	55	25	2	Scheer	006418 o
20	M10	75	45	2	Scheer	161205
8	M12 x 1	60	20	2	Elu, Striffler	167558 o
10	M12 x 1	60	23	2	Elu, Striffler	167559 o
10	M12 x 1	67	35	2	Elu, Striffler	161200
12	M12 x 1	60	23	2	Elu, Striffler	006423 o
14	M12 x 1	60	23	2	Elu, Striffler	167560 o
14	M12 x 1	67	35	2	Elu, Striffler	167569 o
15	M12 x 1	60	25	2	Elu, Striffler	167561 o
16	M12 x 1	60	25	2	Elu, Striffler	006424
16	M12 x 1	77	45	2	Elu, Striffler	161201
18	M12 x 1	60	25	2	Elu, Striffler	167563 o
18	M12 x 1	75	45	2	Elu, Striffler	167571 o
18	M12 x 1	92	60	2	Elu, Striffler	178968

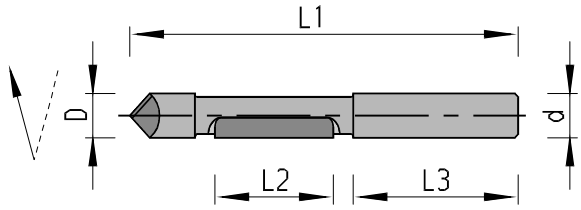
Ø D mm	Ø d mm	L1 mm	L2 mm	Z	mach.	Ident.-No.
20	M12 x 1	60	25	2	Elu, Striffler	006425
20	M12 x 1	77	45	2	Elu, Striffler	161202
22	M12 x 1	60	25	2	Elu, Striffler	167564 o
24	M12 x 1	60	25	2	Elu, Striffler	167565 o
25	M12 x 1	60	25	2	Elu, Striffler	167566 o

For cutting of openings with portable routers

- in solid wood
- design of cutting tip allows plunge-cuts
- cutting edges parallel to cutter axis
- clamping elements: draw-in collet chuck

- Art.-No. 129.417 HW tipped

- Art.-No. 329.417 HS tipped

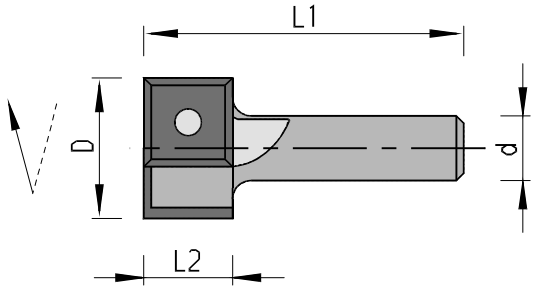


129.417

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	Ident.-No.
6	6	65	19	25	1+ 1	006453
6,35	6,35	63	20	25	1+ 1	167661 o

329.417

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	Ident.-No.
6,4	6	56	15	25	1+ 1	170757
6,4	6	70	15	25	1+ 1	170758



For jointing and rabbeting with portable routers

- in solid wood and panel materials
- design of cutting tip allows rabbeting
- cutting edges parallel to cutter axis
- clamping elements: draw-in collet chuck

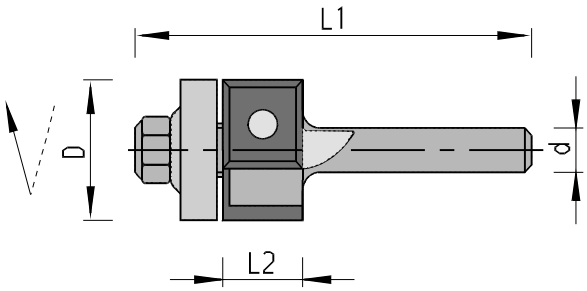
- n = 27.000 min-1

128.215

Ø D mm	L2 mm	Ø d mm	L1 mm	Z	mach.	Ident.-No. L	Ident.-No. R
19	12	6	42	2			164897 o
19	12	6,35	42	2			164901 o
19	12	8	46	2	Brandt	833907 s	164905 o

turnover knives	B mm	H mm	S mm	Art.-No.	Ident.-No.
	12	12	1,5	150515	003080

spare parts and clamping tools	dimensions	Art.-No.	Ident.-No.
Torx screw	M4x5,9 T15	995195	167966
Torx wrench	T15	985730	163161



For flush cutting of edge bands and for copying with portable routers

- in solid wood and panel materials
- flush cutting with ball-bearing mounted rub collar
- copying with template
- 2 cutting edges parallel to cutter axis
- clamping elements: draw-in collet chuck

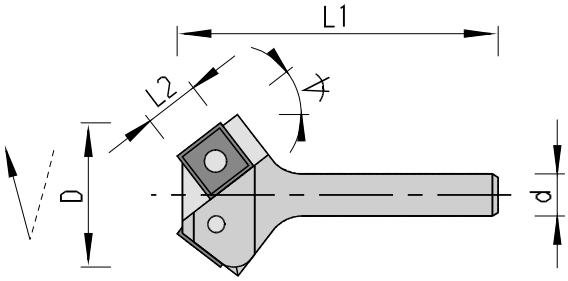
128.216

Ø D mm	L2 mm	Ø d mm	L1 mm	Z	Ident.-No.
19	12	6,35	56	2	164912 o
19	12	8	56	2	164916

turnover knives	B mm	H mm	S mm	Art.-No.	Ident.-No.
	12	12	1,5	150515	003080

spare parts and clamping tools	dimensions	Art.-No.	Ident.-No.
ball bearing	19x6x6	997500	164922
Torx screw	M4x5,9 T15	995195	167966
Torx wrench	T15	985730	163161

LEUCO Edge Trimming Cutter with HW TOK



For chamfering with portable routers

- in solid wood and panel materials
- 2 cutting edges parallel to cutter axis
- clamping elements: draw-in collet chuck

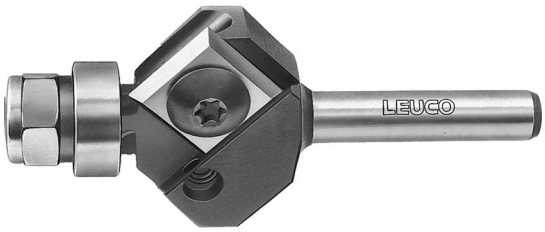
128.315

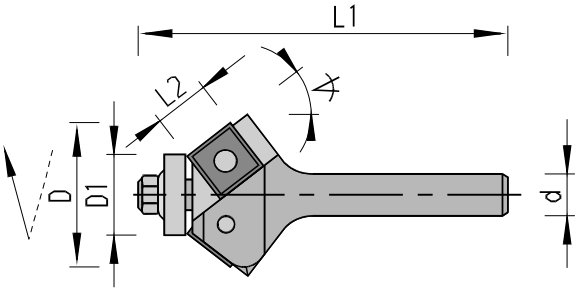
Ø D mm	Ø d mm	L1 mm	L2 mm	Z	angle in degr.	Ident.-No.		
21,96	8	45	10,5	2	15	Brandt	777160 H	773158 s
24	6	45	12	2	22			164898 o
24	6,35	45	12	2	22			164902 o
25	6	45	12	2	30			164899 o
25	6,35	45	12	2	30			164903 o
25	8	54	12	2	30			164906 o
29	6	45	12	2	45			164900 o
29	6,35	45	12	2	45			164904 o
29	8	54	12	2	45			164907 o

turnover knives	B mm	H mm	S mm	Art.-No.	Ident.-No.
	10,5	10,5	1,5	150518	162316
	12	12	1,5	150515	003080

spare parts and clamping tools	dimensions	Art.-No.	Ident.-No.
Torx screw	M4x5,9 T15	995195	167966
Torx wrench	T15	985730	163161

LEUCO Edge Trimming Cutter with HW TOK





For flush cutting of edge bands and for copying with portable routers

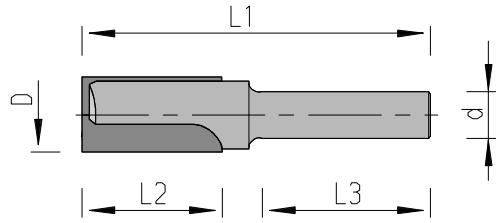
- in solid wood and panel materials
- flush cutting with ball-bearing mounted rub collar
- template copying with chamfer
- 2 cutting edges parallel to cutter axis
- clamping elements: draw-in collet chuck

128.316

Ø D mm	L2 mm	Ø D1 mm	Ø d mm	L1 mm	Z	angle in degr.	Ident.-No.
22	12	19	6	48	2	10	164909 o
22	12	19	6,35	48	2	10	164913 o
22	12	19	8	56	2	10	164917 o
29	12	12,7	6	56	2	45	164911
29	12	12,7	8	64	2	45	164918

turnover knives	B mm	H mm	S mm	Art.-No.	Ident.-No.
	12	12	1,5	150515	003080

spare parts and clamping tools	dimensions	Art.-No.	Ident.-No.
Torx screw	M4x5,9 T15	995195	167966
Torx wrench	T15	985730	163161
ball bearing	12,7x5x4,76	997500	164920
ball bearing	19x6x6	997500	164922



For flush cutting of edge bands

- in solid wood, veneer and plastic edge bands
- HW knives parallel to cutter axis
- cuttind on periphery
- clamping elements: draw-in collet chuck
- n max 27.000 min-1
- MEC

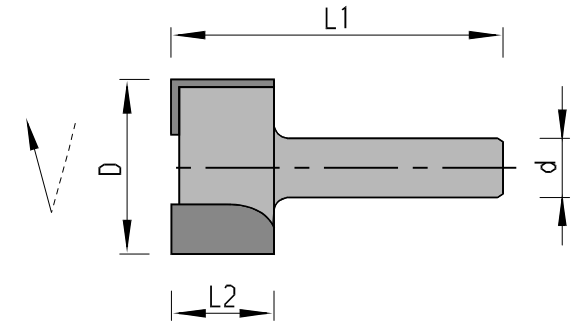
- for use on
  - IMA-softforming machines
  - copy shapers
  - 08.462
  - 08.472
  - 08.48 FKM

129.110

Ø D mm	Ø d mm	L1 mm	L2 mm	L3 mm	Z	mach.	Ident.-No. L	R
7	8	52	20	25	2	IMA	819207 s	819208 s
14	8	52	20	25	2	IMA	819209 s	819210 s
20	8	52	20	25	3	IMA	819205 s	819206 s

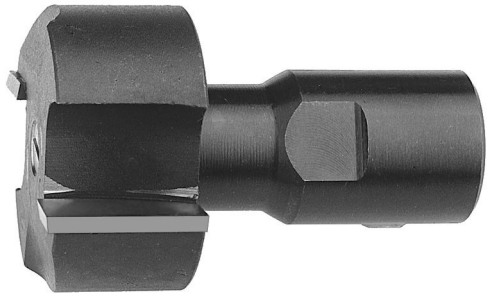
For jointing and rabbeting with portable routers

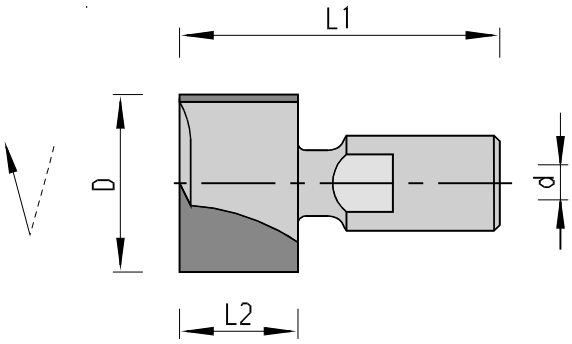
- in solid wood and panel materials
- 2 cutting edges parallel to cutter axis brazed
- face cutting
- clamping elements: draw-in collet chuck



129.215

Ø D mm	Ø d mm	L1 mm	L2 mm	Z	Ident.-No.
18	6	37	12	2	164307 o
20	6	41	16	2	006146 o
24	6	41	16	2	167573 o
31	6	41	16	2	167574 o
18	8	37	12	2	164308 o
20	8	41	16	2	160357 o
24	8	41	16	2	167575 o
31	8	41	16	2	167576 o
24	10	41	16	2	167577 o
31	10	41	16	2	167578 o
24	12	41	16	2	167579 o
31	12	41	16	2	167580 o



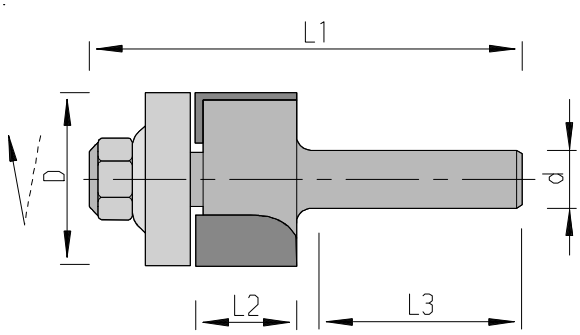


For jointing and rabbeting with portable routers

- in solid wood and panel materials
- 2 cutting edges parallel to cutter axis brazed
- face cutting
- shank with internal thread

129.225

Ø D mm	Ø d mm	L1 mm	L2 mm	Z	Ident.-No.
24	M10	41	16	2	167581 o
31	M10	41	16	2	167582 o
24	M12 x 1	41	16	2	167583 o
31	M12 x 1	41	16	2	167584 o



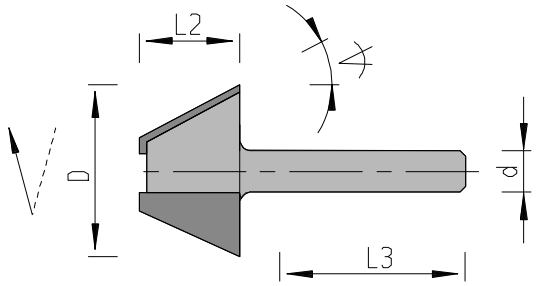
For flush cutting of edge bands and for copying with portable routers

- in solid wood and panel materials
- flush cutting with ball-bearing mounted rub collar
- template copying with chamfer
- 2 cutting edges parallel to cutter axis brazed
- clamping elements: draw-in collet chuck

129.216

Ø D mm	L2 mm	Ø d mm	L3 mm	L1 mm	Z	Ident.-No.
12,7	25	8	25	58	2	180822
22	16	6	25	58	2	006152
22	16	6,35	25	58	2	167585 o
22	16	8	25	58	2	164215

spare parts and clamping tools	dimensions	Art.-No.	Ident.-No.
ball bearing	12,7x5x4,76	997500	164920
ball bearing with thrust ring	22x7,5x6,35	997500	164228
ball bearing	22x7,5x8	997500	180838
hex nut	DIN 934 M4	995210	009631
hex nut	DIN 934 M6	995210	009633



For chamfering and flush cutting of edge bands

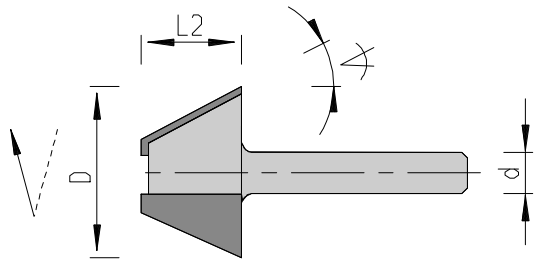
- in solid wood, veneer and plastic edge bands
- HW knives parallel to cutter axis
- cutting on periphery
- clamping elements: draw-in collet chuck

- n max 27.000 min-1
- MEC

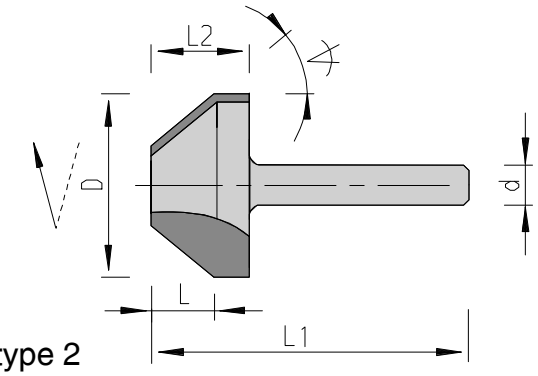
- for use on
  - IMA-softforming machines
  - copy shapers
  - 08.462
  - 08.472
  - 08.48 FKM

129.310

Ø D mm	Ø d mm	L2 mm	L3 mm	Z	Mach.	Ident.-No. L	Ident.-No. R
15	8	10	25	4	IMA	819203 s	819204 s
15	8	10	25	4	IMA	819201 s	819202 s
21	8	15	25	4	IMA	627516 s	627517 s
25	8	20	25	4	IMA	621837 s	621838 s



type 1



type 2

For chamfering with portable routers

- in solid wood and panel materials
- 2 cutting edges parallel to cutter axis brazed with chamfer angle
- clamping elements: draw-in collet chuck

- Ident.-No. 167589 - 167593 design enables the shank to be exchanged

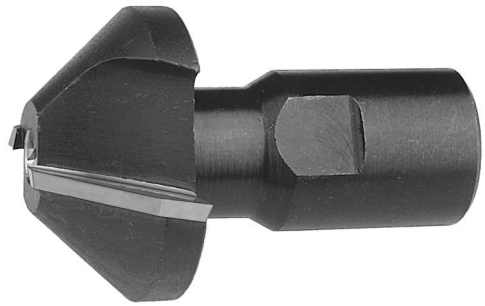
type 1

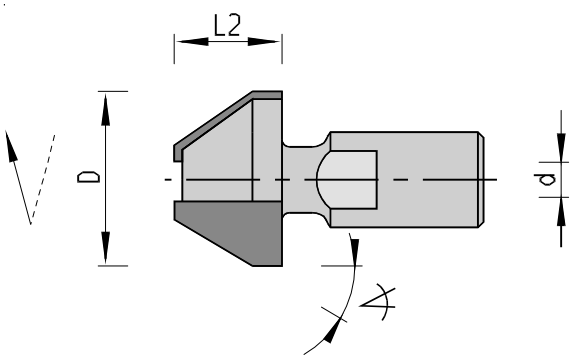
129.315

Ø D mm	L2 mm	Ø d mm	Z	angle in degr.	Ident.-No.
24	12	6	2	15	006160 o
24	12	6,35	2	15	167586 o
24	12	8	2	15	164220 o
24	12	6,35	2	22	167587 o
24	12	6	2	30	006161 o
24	12	6,35	2	30	167588 o
24	12	8	2	30	164221 o

type 2 design enables the shank to be exchanged

Ø D mm	L2 mm	mm	Ø d mm	Z	angle in degr.	Ident.-No.
31	15	10	6	2	45	167589 o
31	15	10	6,35	2	45	167590 o
31	15	10	8	2	45	167591 o
31	15	10	10	2	45	167592 o
31	15	10	12	2	45	167593 o



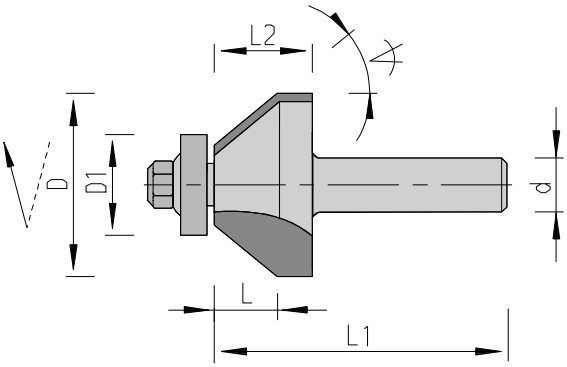


For chamfering with portable routers

- in solid wood and panel materials
- 2 cutting edges parallel to cutter axis brazed with chamfer angle
- shank with internal thread

129.325

Ø D mm	Ø d mm	L2 mm	Z	angle in degr.	Ident.-No.
31	M10	15	2	45	167594 o
31	M12	15	2	45	167595 o



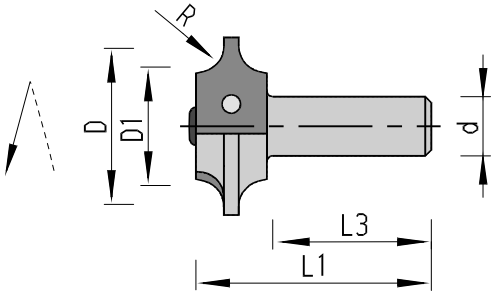
For flush cutting of edge bands and for copying with portable routers

- in solid wood and panel materials
- flush cutting with ball-bearing mounted rub collar
- template copying with chamfer
- 2 cutting edges parallel to cutter axis brazed
- clamping elements: draw-in collet chuck

129.316

Ø D mm	L2 mm	L mm	Ø D1 mm	Ø d mm	L1 mm	Z	angle in degr.	Ident.-No.
25	12	6	15,9	6	37	2	45	160361
25	12	6	15,9	8	37	2	45	167597
26	12	12	15,9	6	37	2	30	160360 o
26	12	12	15,9	8	37	2	30	167596 o

spare parts and clamping tools	dimensions	for Ident.-No.	Art.-No.	Ident.-No.
ball bearing	15,9x5x6,35	167596 160360 167597 160361	997500	164921
hex nut	DIN 934 M6		995210	009633



For rounding and chamfering of edge bands

- on HOLZ-HER edgebanders
- for solid wood and plastic edges
- high balance quality
- cutting edges parallel to cutter axis

- chamfering and profile knife grade HL Board 05
- n max 30.000 min-1

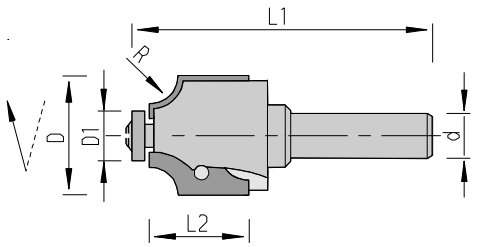
- same cutter head body for radius 2-5 mm and chamfer

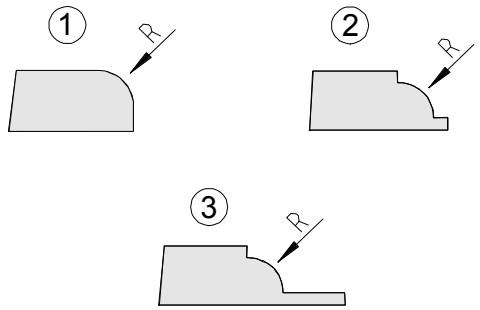
128.310

R mm	Ø D mm	Ø D1 mm	Ø d mm	L1 mm	L3 mm	Z	Ident.-No. L	Ident.-No. R
2	30,8	18,85	8	43	22	2	170315	170316
3	30,8	18,85	8	43	22	2	170317	170318
4	30,8	18,85	8	43	22	2		170320 &
5	30,8	18,85	8	43	22	2		170322 &

profile knives	R mm	B mm	H mm	S mm	Art.-No.	Ident.-No.
	2	16	17,5	2	151545	163489
	3	16	17,5	2	151545	163490
	4	16	17,5	2	151545	163491
	5	16	17,5	2	151545	163492

spare parts	dimensions	Art.-No.	Ident.-No.
Torx screw	M4x5,9 T15	995195	167966
Torx wrench	T15	985730	163161





Rounding and quarter round cutting with spacer ring for

- in solid wood and panel materials
- with ball bearing spacer ring
- two HW-turnover knives profiled on both sides
- peripheral and bottom cutting
- all tools with clockwise rotation

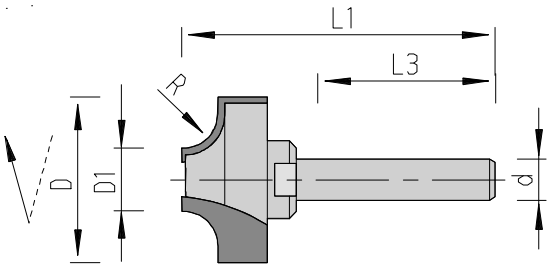
- delivery:
  - Ident.-No. 180947 1 ball bearing set
  - all others 2 ball bearing sets (vgl.D1)
- exchangeable ball bearing sets:
  1. with big spacer set
  2. with small spacer set
  3. without spacer set

128.616

R mm	Ø D mm	Ø D1 mm	L2 mm	Ø d mm	L1 mm	Z	Ident.-No.
2	26	22	19,5	8	70	2	180947 o
3	26	20/18	19,5	8	70	2	180948 o
4	26	18/14	19,5	8	70	2	180949 o
5	26	16/12	19,5	8	70	2	180950 o
6	32	20/16	26	8	76	2	180951 o
8	32	16/12	26	8	76	2	180952 o
10	36	16/12	30	8	80	2	180953 o

profile knives	R mm	B mm	H mm	S mm	Art.-No.	Ident.-No.
	2	19,5	9	1,5	151555	180991 o
	3	19,5	9	1,5	151555	180992 o
	4	19,5	9	1,5	151555	180993 o
	5	19,5	9	1,5	151555	180994 o
	6	26	12,5	1,5	151555	180995 o
	8	26	12,5	1,5	151555	180996 o
	10	30	14,5	1,5	151555	180997 o

spare parts	dimensions	Art.-No.	Ident.-No.
ball bearing thrust ring assy.	Ø 12	997500	167923
ball bearing thrust ring assy.	Ø 14	997500	169314
ball bearing thrust ring assy.	Ø 16	997500	180985 o
ball bearing thrust ring assy.	Ø 18	997500	180986 o
ball bearing thrust ring assy.	Ø 20	997500	180987 o
ball bearing thrust ring assy.	Ø 22	997500	180988 o
Torx screw	M4x6 T15	995195	180989 o
Torx screw	M4x5,9 T15	995195	167966
cover screw	M3,5	995195	180990 o
Torx wrench	T15	985730	163161



For profiling and flush cutting of edge bands

- in solid wood, veneer and plastic edge bands
- HW knives parallel to cutter axis
- cutting on periphery
- clamping elements: draw-in collet chuck

- n max 27.000 min-1
- MEC

- for use on
  - IMA-softforming machines
  - copy shapers
  - 08.462
  - 08.472
  - 08.48 FKM

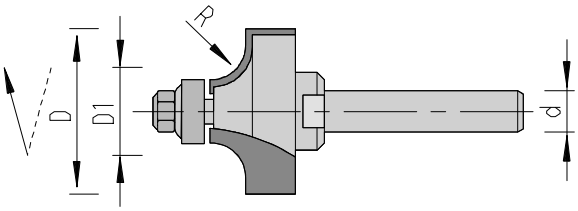
- for use on EBM machines

IMA 129.610

R mm	Ø D mm	Ø D1 mm	Ø d mm	L3 mm	Z	Ident.-No. L	Ident.-No. R
2	30	20	8	25	4	631661 s	631660 s
2,5	30	20	8	25	4	815217 s	815216 s
3	30	20	8	25	4	623763 s	623762 s
4	30	20	8	25	4	644197 s	644196 s
5	30	20	8	25	4	644195 s	644194 s

EBM 129.610

R mm	Ø D mm	Ø D1 mm	Ø d mm	L1 mm	L3 mm	Z	Ident.-No.
2	28	16	8	38	25	2	818640 s
2,5	28	16	8	38	25	2	816710 s
3	28	16	8	38	25	2	816711 s
4	26	16	8	38	25	2	832386 s
5	28	16	8	38	25	2	832387 s



For edge rounding and copying with portable routers

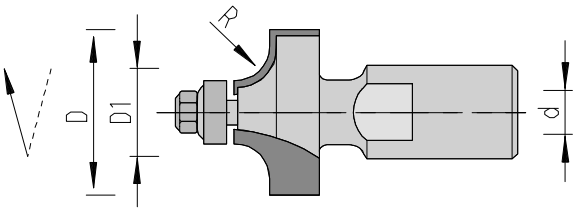
- in solid wood and panel materials
- rounding with ball-bearing mounted rub collar
- template copying with radius
- 2 cutting edges parallel to cutter axis brazed
- clamping elements: draw-in collet chuck

129.616

R mm	Ø D mm	Ø D1 mm	Ø d mm	Z	mach.	Ident.-No.
2	16	12	8	2		180824
2	18	12	6	2	EBM	816995
3	18	12	6	2		167598
3	18	12	6,35	2		167599 o
3	18	12	8	2		167600
3	20	12	6	2	EBM	816994
4	20	12	6	2		167601
4	20	12	6,35	2		167602 o
4	20	12	8	2		167603
5	22	12	6	2		167604
5	22	12	6,35	2		167605 o
5	22	12	8	2		167606
6,3	24	12	6,35	2		167608 o
6,3	24,6	12	6	2		167607 o
6,3	24,6	12	8	2		167609
8	30	14	6	2		167610 o
8	30	14	6,35	2		167611 o
8	30	14	8	2		167612
9,5	33	14	6	2		167613 o

R mm	Ø D mm	Ø D1 mm	Ø d mm	Z	Ident.-No.
9,5	33	14	6,35	2	167614 o
9,5	33	14	8	2	167615
12,7	39,4	14	6	2	167616 o
12,7	39,4	14	6,35	2	167617 o
12,7	39,4	14	8	2	167618

spare parts and clamping tools	dimensions	Art.-No.	Ident.-No.
ball bearing thrust ring assy.	Ø 12	997500	167923
ball bearing thrust ring assy.	Ø 14	997500	169314



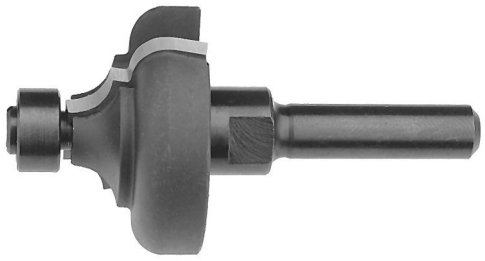
For rounding of edge bands and copying with portable routers

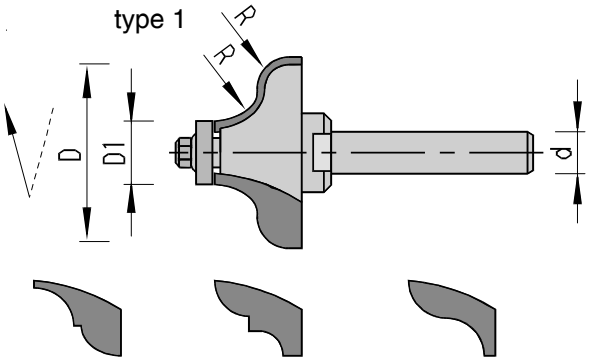
- in solid wood and panel materials
- edge rounding with ball-bearing mounted rub collar
- template copying with radius
- 2 cutting edges parallel to cutter axis brazed
- shank with internal thread

129.626

R mm	Ø D mm	Ø D1 mm	Ø d mm	Z	Ident.-No.
3	18	12	M10	2	167619 o
3	18	12	M12 x 1	2	167620 o
4	20	12	M10	2	167621 o
4	20	12	M12 x 1	2	167622 o
5	22	12	M10	2	167623 o
5	22	12	M12 x 1	2	167624 o
6,3	24,6	12	M10	2	167625 o
6,3	24,6	12	M12 x 1	2	167626 o
8	30	14	M10	2	167627 o
8	30	14	M12 x 1	2	167628 o
9,5	33	14	M10	2	167629 o
9,5	33	14	M12 x 1	2	167630 o
12,7	39,4	14	M10	2	167631 o
12,7	39,4	14	M12 x 1	2	167632 o

spare parts and clamping tools	dimensions	Art.-No.	Ident.-No.
ball bearing thrust ring assy.	Ø 12	997500	167923
ball bearing thrust ring assy.	Ø 14	997500	169314





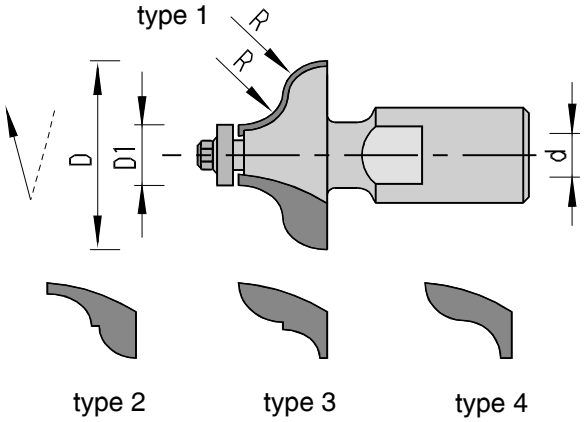
type 2 type 3 type 4

For profiling of edges and copying with portable routers

- in solid wood
- profiling with ball-bearing mounted rub collar
- template copying with profile
- 2 cutting edges parallel to cutter axis brazed
- clamping elements: collet chuck

129.616

R mm	Ø D mm	Ø D1 mm	Ø d mm	Z	type	Ident.-No.
7,2 / 7,2	37,4	12	6	2	1	167646 o
7,2 / 7,2	37,4	12	6,35	2	1	167647 o
7,2 / 7,2	37,4	12	8	2	1	167648 o
6,3 / 6,3	37,2	12	6	2	2	167651 o
6,3 / 6,3	37,2	12	6,35	2	2	167652 o
6,3 / 6,3	37,2	12	8	2	2	167653 o
6,3 / 6,3	41,2	12	8	2	3	167658 o
4/4	31	12	6	2	4	167636 o
4/4	31	12	6,35	2	4	167637 o
4/4	31	12	8	2	4	167638 o
6,3/6,3	37	12	6	2	4	167639 o
6,3/6,3	37	12	6,35	2	4	167640 o
6,3/6,3	37	12	8	2	4	167641 o

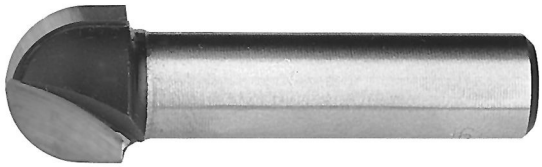


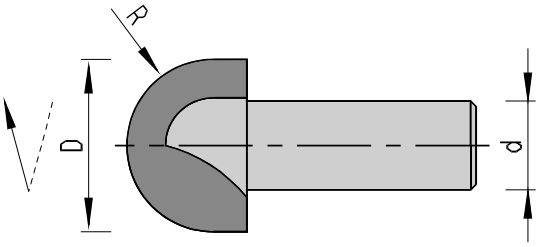
For profiling of edges and copying with portable routers

- in solid wood
- profiling with ball-bearing mounted rub collar
- template copying with profile
- 2 cutting edges parallel to cutter axis brazed
- shank with internal thread

129.626

R mm	Ø D mm	Ø D1 mm	Ø d mm	Z	type	Ident.-No.
7,2 /7,2	37,4	12	M10	2	1	167649 o
7,2/7,2	37,4	12	M12 x 1	2	1	167650 o
6,3/6,3	37,2	12	M10	2	2	167654 o
6,3/6,3	37,2	12	M12 x 1	2	2	167655 o
6,3/6,3	41,9	12	M10	2	3	167659 o
6,3/6,3	41,9	12	M12 x 1	2	3	167660 o
4/4	31	12	M10	2	4	167642 o
4/4	31	12	M12 x 1	2	4	167643 o
6,3/6,3	37	12	M10	2	4	167644 o
6,3/6,3	37	12	M12 x 1	2	4	167645 o





For cutting of coves and semi-coves with portable routers

- in solid wood and panel materials
- 2 cutting edges parallel to cutter axis brazed
- clamping elements: collet chuck

129.615

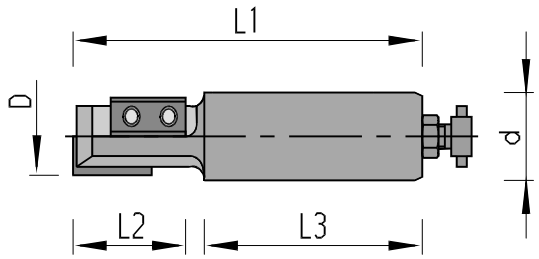
R mm	Ø D mm	Ø d mm	Z	Ident.-No.
4,75	9,5	8	2	167633 o
5,5	11	8	2	167634 o
6,35	12,7	8	2	167635 o

Leuco offers the right shank-type tools for CNC routers, conventional routers and portable routers.

The cutting material is determined by material to be cut, volume to be cut and efficiency.

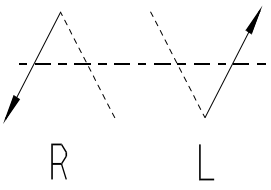
Cutting material options are LEUCODIA, tungsten carbide and high-speed steel.

✧ Technical information



➔ dimensions

- L_1 = total length
- L_2 = cutting length
- L_3 = shank length
- D = cutting diameter
- d = shank diameter



- R = right hand rotation
- L = left hand rotation

➔ no indication = right hand rotation

✧ **Technical information**

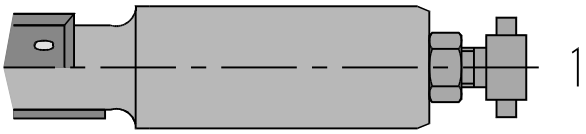
⇨ **Figure 1:**

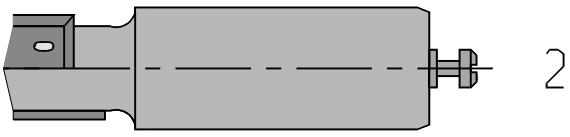
shank-type tools with shank Ø 25 mm are delivered with adjusting screw, Ident.-No. 172113, for PS system.

⇨ **Figure 2:**

If these tools are used in the PS 2000-E, the above mentioned adjusting screw must be replaced with the adjusting screw, Ident.-No. 172921 (axial locking of the tool).

⇒ **Warning:** Do not use stop screws for draw-in collet chucks to prevent radial running malfunction.





✧ **Shank-type design for finishing cutters with chip breakers Art.-No. 1-29.460**

⇨ **type 1:**

cylindrical shank without cutting faces

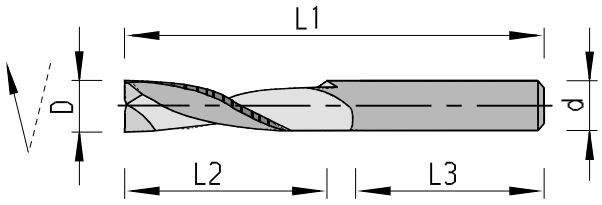
⇨ **types 2 and 4:**

for clamping in collet chucks to DIN 1835 T2 – also known as Weldon chuck

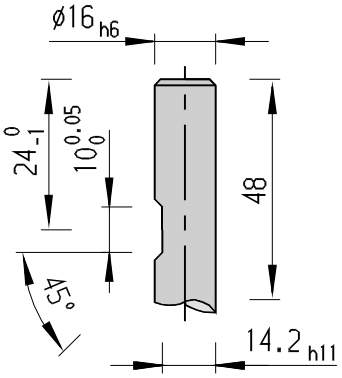
⇨ **type 3:**

clamping in special collet chucks by Maka

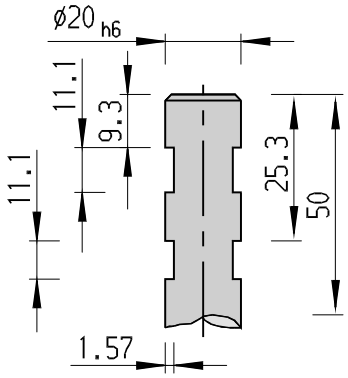
shank type 1



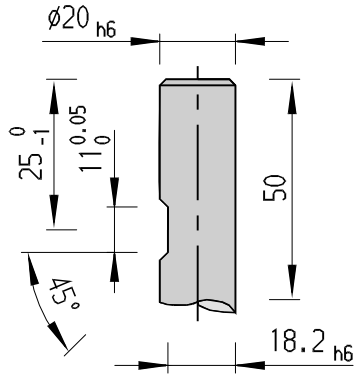
shank type 2



shank type 3

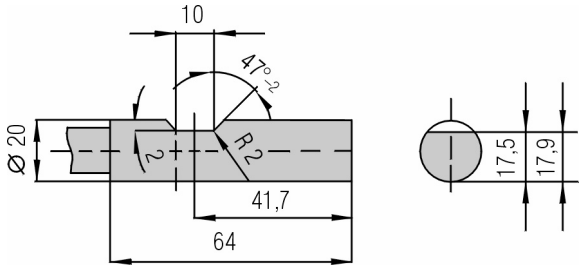


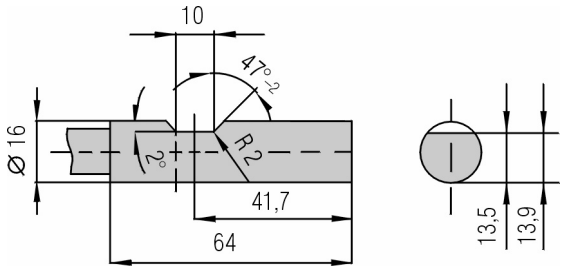
shank type 4



Clamping Surface on Shank-Type Cutters

Especially for VHM – lock case cutter for attachment in
horizontal – boring- / cutting aggregat of Homag and Weeke.





The customer requirement:

Fast and timely manufacturing of individual profiles !

The solution:

LEUCO super profilers

A LEUCO super profiler consists of a body with clamping wedges for attachment of custom profiled carbide profile knives and support plates in various profile variations.

Different shapes and dimensions of the body allow the use on:

- ✧ table saws
- ✧ molders
- ✧ double-end tenoners
- ✧ CNC routers

The profile options shown on the appropriate catalog pages facilitate the selection of the body and the profile knives.

LEUCO delivers custom profiled knives within 10 working days in the following carbide grades

- ✧ **HL Board 06** for panel materials and for solid woods - hard
- ✧ **HL Solid 60** for solid woods - soft

Assembly of the cutting insert (from right to left)**:**

- ✧ support plate
  (number = number of teeth on the body)
  ⇨ required only for new profiles
- ✧ profile knife
- ✧ clamping wegde
  (included in the delivery of the body)

The following data is required upon ordering a complete super profiler and/or profile knife:

① profile drawing with dimension or workpiece sample

② body Ident.-No.

③ desired carbide grade of the profile knife (HL Board 06 or HL Solid 60)

④ numer of profile knives (6 piece min.)

⑤ number of support plates (only for new profiles)

For repeat orders only the Ident.-No. lasered on to the profile knife is required.