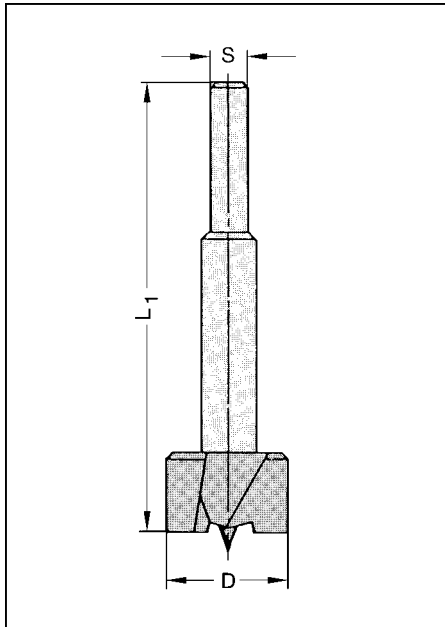


## 30070 parallel shank



D mm	L <sub>1</sub> mm	Shank mm	Part-No.	€ p.pc.
10	90	8 x 30	30070-1-10000-R ●	
12	90	8 x 30	30070-1-12000-R ●	
14	90	8 x 30	30070-1-14000-R ●	
15	90	8 x 30	30070-1-15000-R ●	
16	90	8 x 30	30070-1-16000-R ●	
18	90	8 x 30	30070-1-18000-R ●	
20	90	8 x 30	30070-1-20000-R ●	
22	90	8 x 30	30070-1-22000-R ●	
24	90	8 x 30	30070-1-24000-R ●	
25	90	8 x 30	30070-1-25000-R ●	
26	90	8 x 30	30070-1-26000-R ●	
28	90	8 x 30	30070-1-28000-R ●	
30	90	8 x 30	30070-1-30000-R ●	
32	90	10 x 30	30070-1-32000-R ●	
34	90	10 x 30	30070-1-34000-R ●	
35	90	10 x 30	30070-1-35000-R ●	
40	90	10 x 30	30070-1-40000-R ●	
45	90	10 x 30	30070-1-45000-R ●	

Other dimensions available on request.

### Technical details:

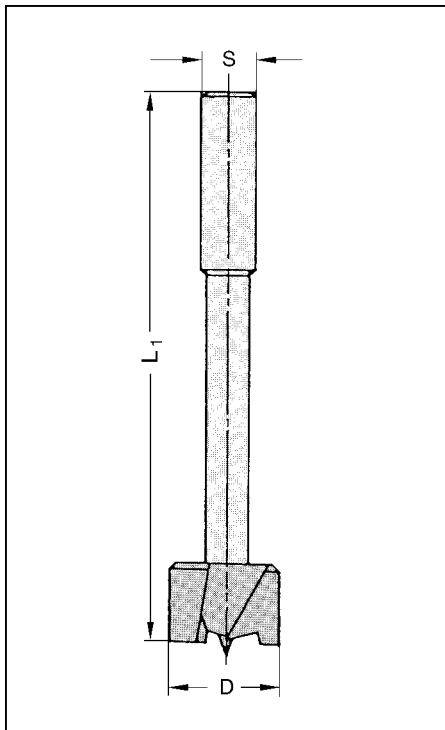
Two bottom and two periphery cutting edges. Centre point. Right-hand rotation.

### Application:

For drilling clean and accurate blind-holes with straight bottom in softwood. Can also be used for freehand drilling.

# Forstner Boring Bit SP

## 30080 parallel shank



D mm	L <sub>1</sub> mm	Shank mm	Part-No.	€ p.pc.
15	120	13 x 50	30080-1-15000-R ●	
20	120	13 x 50	30080-1-20000-R ●	
25	125	13 x 50	30080-1-25000-R ●	
30	135	13 x 50	30080-1-30000-R ●	
35	140	16 x 50	30080-1-35000-R ●	
40	145	16 x 50	30080-1-40000-R ●	

Other dimensions available on request.

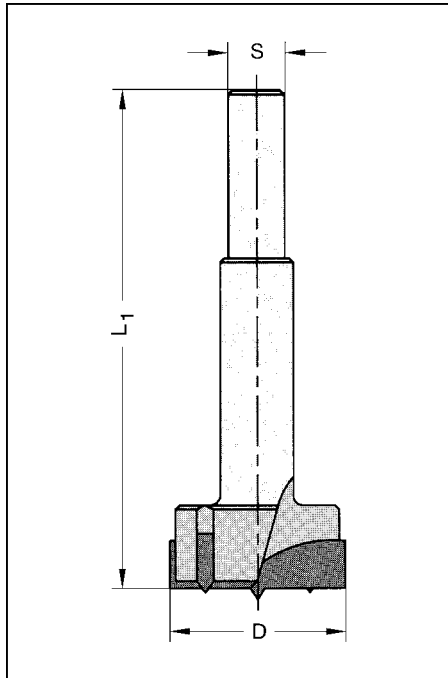
### Technical details:

Two bottom and two periphery cutting edges. Centre point. Right-hand rotation.

### Application:

For drilling clean and accurate blind-holes with straight bottom in softwood. Can also be used for freehand drilling.

## 30100-5 parallel shank



### Technical details:

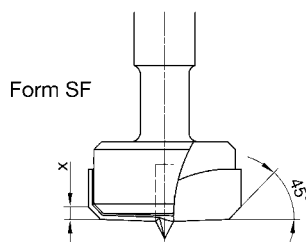
Two cutting edges and centre point.  
Up to Ø 13 mm with spurs on plunge tips,  
from Ø 14 mm with two inserted spurs. Parallel  
shank. Right-hand rotation.

### Application:

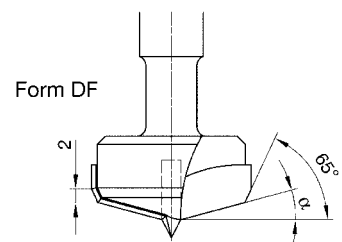
For drilling accurate holes in hardwood, various  
kinds of wood composites and boards,  
compressed wood, etc.

D mm	L <sub>1</sub> mm	Shank mm	Part-No.	€ p.pc.
10	90	10 x 62	30100-5-01000-R ●	
11	90	10 x 62	30100-5-01100-R ●	
12	90	10 x 62	30100-5-01200-R ●	
13	90	10 x 62	30100-5-01300-R ●	
14	90	10 x 62	30100-5-01400-R ●	
15	90	10 x 62	30100-5-01500-R ●	
16	90	10 x 62	30100-5-01600-R ●	
17	90	10 x 62	30100-5-01700-R ●	
18	90	10 x 62	30100-5-01800-R ●	
19	90	10 x 62	30100-5-01900-R ●	
20	90	10 x 62	30100-5-02000-R ●	
21	90	10 x 62	30100-5-02100-R ●	
22	90	10 x 62	30100-5-02200-R ●	
23	90	10 x 62	30100-5-02300-R ●	
24	90	10 x 74	30100-5-02400-R ●	
25	90	10 x 74	30100-5-02500-R ●	
26	90	10 x 74	30100-5-02600-R ●	
27	90	10 x 74	30100-5-02700-R ●	
28	90	10 x 74	30100-5-02800-R ●	
29	90	10 x 74	30100-5-02900-R ●	
30	90	10 x 74	30100-5-03000-R ●	
31	90	10 x 74	30100-5-03100-R ●	
32	90	10 x 74	30100-5-03200-R ●	
33	90	10 x 74	30100-5-03300-R ●	
34	90	10 x 74	30100-5-03400-R ●	
35	90	10 x 74	30100-5-03500-R ●	
36	90	10 x 30	30100-5-03600-R ●	
37	90	10 x 30	30100-5-03700-R ●	
38	90	10 x 30	30100-5-03800-R ●	
39	90	10 x 30	30100-5-03900-R ○	
40	90	10 x 30	30100-5-04000-R ●	
41	90	10 x 30	30100-5-04100-R ●	
42	90	10 x 30	30100-5-04200-R ●	
43	90	10 x 30	30100-5-04300-R ●	
44	90	10 x 30	30100-5-04400-R ●	
45	90	10 x 30	30100-5-04500-R ●	
46	90	10 x 30	30100-5-04600-R ●	
47	90	10 x 30	30100-5-04700-R ●	
48	90	10 x 30	30100-5-04800-R ●	
49	90	10 x 30	30100-5-04900-R ○	
50	90	10 x 30	30100-5-05000-R ●	
51	90	10 x 30	30100-5-05100-R ●	
52	90	10 x 30	30100-5-05200-R ●	
53	90	10 x 30	30100-5-05300-R ●	
54	90	10 x 30	30100-5-05400-R ●	
55	90	10 x 30	30100-5-05500-R ●	
56	90	10 x 30	30100-5-05600-R ●	
57	90	12 x 30	30100-5-05700-R ●	
58	90	12 x 30	30100-5-05800-R ●	
60	90	12 x 30	30100-5-06000-R ●	

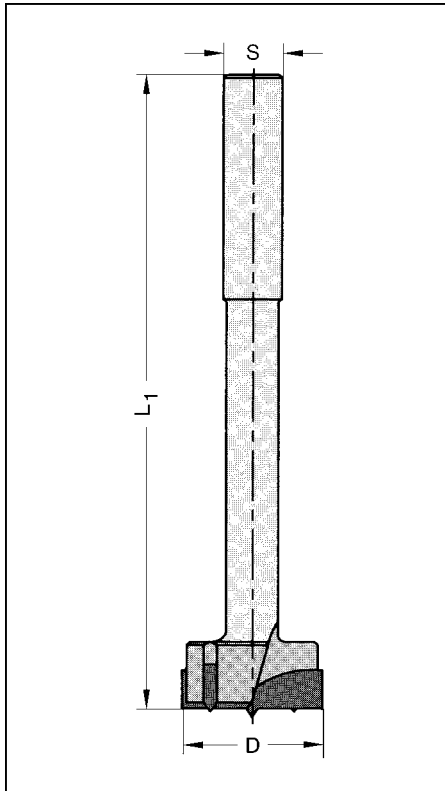
For accurate holes in hard,  
brittle coatings, spurs will be removed  
and raker teeth ground to bevel 45°  
At extra costs.



For through-holes, all T.C. tipped hinge boring bits  
up to D = 50 mm can be modified to double bevelled  
design as shown in sketch below.  
At extra costs.



## 30110-5 parallel shank



**Technical details:**

Two cutting edges, two inserted spurs, centre point. Parallel shank. Right-hand rotation.

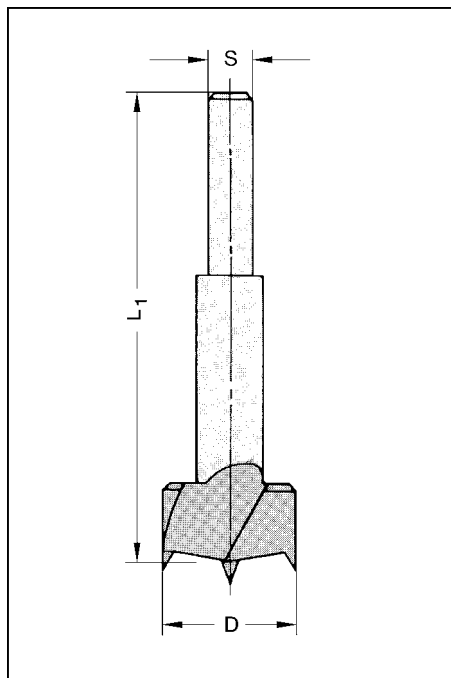
**Application:**

For drilling accurate holes in hardwood, various kinds of wood composites and boards, compressed wood etc.

D mm	L <sub>1</sub> mm	Shank mm	Part-No.	€ p.pc.
15	140	13 x 108	30110-5-01500-R	●
16	140	13 x 108	30110-5-01600-R	●
18	140	13 x 107	30110-5-01800-R	●
20	140	13 x 105	30110-5-02000-R	●
22	140	13 x 105	30110-5-02200-R	●
24	140	13 x 105	30110-5-02400-R	●
25	140	13 x 103	30110-5-02500-R	●
26	140	13 x 103	30110-5-02600-R	●
28	140	13 x 103	30110-5-02800-R	●
30	140	13 x 103	30110-5-03000-R	●
32	140	16 x 103	30110-5-03200-R	●
34	140	16 x 103	30110-5-03400-R	●
35	140	16 x 103	30110-5-03500-R	●
38	140	16 x 103	30110-5-03800-R	●
40	140	16 x 103	30110-5-04000-R	●
42	140	16 x 120	30110-5-04200-R	●
44	140	16 x 120	30110-5-04400-R	●
45	140	16 x 120	30110-5-04500-R	●
46	140	16 x 120	30110-5-04600-R	●
48	140	16 x 120	30110-5-04800-R	●
50	140	16 x 118	30110-5-05000-R	●
52	140	16 x 118	30110-5-05200-R	●
54	140	16 x 118	30110-5-05400-R	●
55	140	16 x 118	30110-5-05500-R	●
56	140	16 x 118	30110-5-05600-R	●
58	140	16 x 118	30110-5-05800-R	●
60	140	16 x 50	30110-5-06000-R	●
63	140	16 x 50	30110-5-06300-R	●
65	140	16 x 50	30110-5-06500-R	●
68	140	16 x 50	30110-5-06800-R	●
70	140	16 x 50	30110-5-07000-R	●
75	140	20 x 115	30110-5-07500-R	●
80	140	20 x 115	30110-5-08000-R	●
90	140	20 x 115	30110-5-09000-R	●

Special peak design for through-holes on page 9.2

## 30100-1 parallel shank



D mm	L <sub>1</sub> mm	Shank mm	Part-No.	€ p.pc.
10	90	10 x 30	30100-1-01000-R ●	
12	90	10 x 30	30100-1-01200-R ●	
14	90	10 x 30	30100-1-01400-R ●	
15	90	10 x 30	30100-1-01500-R ●	
16	90	10 x 30	30100-1-01600-R ●	
18	90	10 x 30	30100-1-01800-R ●	
20	90	10 x 30	30100-1-02000-R ●	
22	90	10 x 30	30100-1-02200-R ●	
24	90	10 x 30	30100-1-02400-R ●	
25	90	10 x 30	30100-1-02500-R ●	
26	90	10 x 30	30100-1-02600-R ●	
28	90	10 x 30	30100-1-02800-R ●	
30	90	10 x 30	30100-1-03000-R ●	
32	90	10 x 30	30100-1-03200-R ◻	
34	90	10 x 30	30100-1-03400-R ●	
35	90	10 x 30	30100-1-03500-R ●	
40	90	10 x 30	30100-1-04000-R ●	
45	90	10 x 30	30100-1-04500-R ●	
50	90	10 x 30	30100-1-05000-R ●	

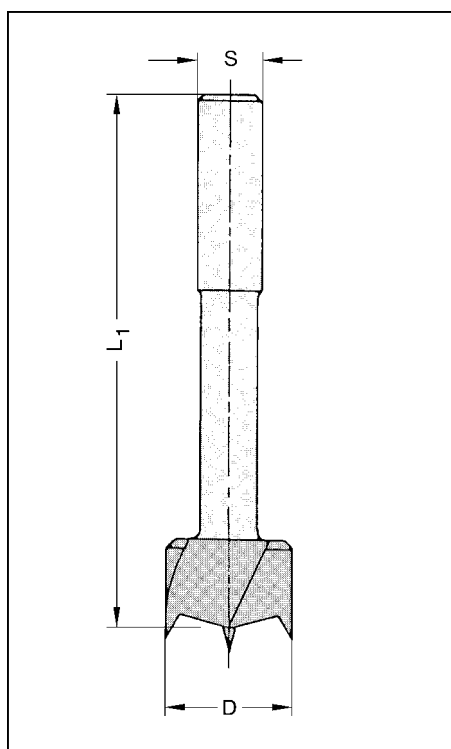
### Technical details:

Two raker edges, two spurs, centre point. Parallel shank. Right-hand rotation.

### Application:

For drilling accurate blind-holes in softwood.

## 30110-1 parallel shank



D mm	L <sub>1</sub> mm	Shank mm	Part-No.	€ p.pc.
12	125	13 x 50	30110-1-01200-R ●	
14	125	13 x 50	30110-1-01400-R ●	
15	125	13 x 50	30110-1-01500-R ●	
16	125	13 x 50	30110-1-01600-R ●	
18	125	13 x 50	30110-1-01800-R ●	
20	130	13 x 50	30110-1-02000-R ●	
22	130	13 x 50	30110-1-02200-R ●	
24	135	13 x 50	30110-1-02400-R ●	
25	135	13 x 50	30110-1-02500-R ●	
26	135	13 x 50	30110-1-02600-R ●	
28	140	13 x 50	30110-1-02800-R ●	
30	140	13 x 50	30110-1-03000-R ●	
32	140	16 x 50	30110-1-03200-R ◻	
35	140	16 x 50	30110-1-03500-R ●	
38	140	16 x 50	30110-1-03800-R ●	
40	140	16 x 50	30110-1-04000-R ●	
42	140	16 x 50	30110-1-04200-R ●	
45	140	16 x 50	30110-1-04500-R ●	
50	140	16 x 50	30110-1-05000-R ●	
55	140	16 x 50	30110-1-05500-R ●	
60	140	16 x 50	30110-1-06000-R ●	
65	140	16 x 50	30110-1-06500-R ●	
70	140	16 x 50	30110-1-07000-R ●	
80	140	20 x 50	30110-1-08000-R ●	

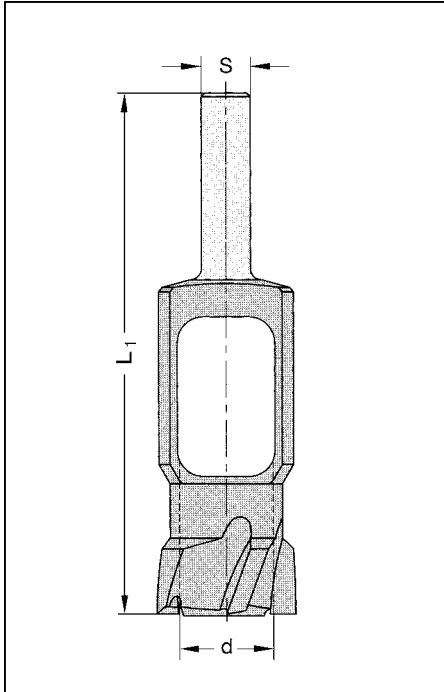
### Technical details:

Two raker edges, two spurs, centre point. Right-hand rotation.

### Application:

For drilling accurate blind-holes in softwood.

## 30060 parallel shank



d mm	L <sub>1</sub> mm	Z	Shank mm	Part-No.	€ p.pc.
8	140	4	13 x 50	30060-1-08000-R ●	
10	140	4	13 x 50	30060-1-10000-R ●	
12	140	4	13 x 50	30060-1-12000-R ●	
15	140	4	13 x 50	30060-1-15000-R ●	
20	140	4	13 x 50	30060-1-20000-R ●	
25	140	5	13 x 50	30060-1-25000-R ●	
30	140	5	13 x 50	30060-1-30000-R ●	
35	140	6	16 x 50	30060-1-35000-R ●	
40	140	6	16 x 50	30060-1-40000-R ●	

### Technical details:

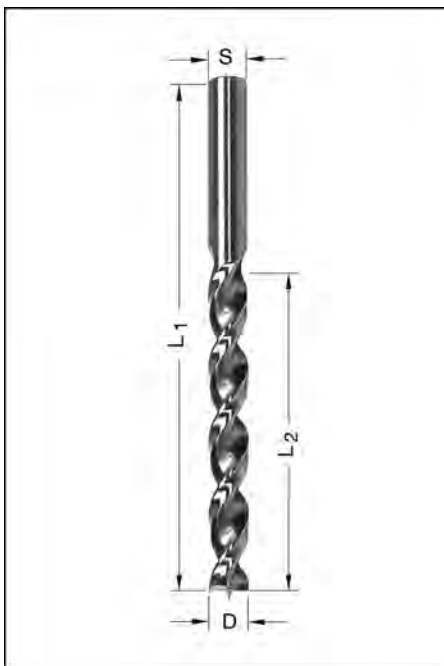
Four to six helical raker edges and periphery edges. Right-hand rotation.

### Application:

For cutting plugs, tenons, etc. in softwood.

# Twist Drill HS

## 30130/30132 common shank and drilling diameter



D mm	L <sub>2</sub> mm	L <sub>1</sub> mm	Part-No.	€ p.pc.	Part-No.	€ p.pc.
			Left-hand rotation		Right-hand rotation	
2	22	49	30130-4-02000-L ●		30130-4-02000-R ●	
2,5	25	57	30130-4-02500-L ●		30130-4-02500-R ●	
3	33	60	30130-4-03000-L ●		30130-4-03000-R ●	
3,5	39	70	30130-4-03500-L ●		30130-4-03500-R ●	
4	43	75	30130-4-04000-L ●		30130-4-04000-R ●	
4,5	47	80	30130-4-04500-L ●		30130-4-04500-R ●	
5	52	85	30130-4-05000-L ●		30130-4-05000-R ●	
5,5	57	92	30130-4-05500-L ●		30130-4-05500-R ●	
6	57	92	30130-4-06000-L ●		30130-4-06000-R ●	
6,5	63	100	30130-4-06500-L ○		30130-4-06500-R ●	
7	69	108	30130-4-07000-L ○		30130-4-07000-R ●	
7,5	69	108	-		30130-4-07500-R ●	
8	75	115	30130-4-08000-L ●		30130-4-08000-R ●	
8,5	75	115	-		30130-4-08500-R ●	
9	80	125	30130-4-09000-L ○		30130-4-09000-R ●	
10	87	130	-		30130-4-10000-R ●	
<b>Extra length</b>						
4	100	150	-		30132-4-04000-R ●	
5	100	150	-		30132-4-05000-R ●	
6	100	150	-		30132-4-06000-R ●	
8	100	150	-		30132-4-08000-R ●	
10	100	150	-		30132-4-10000-R ●	

### Technical details:

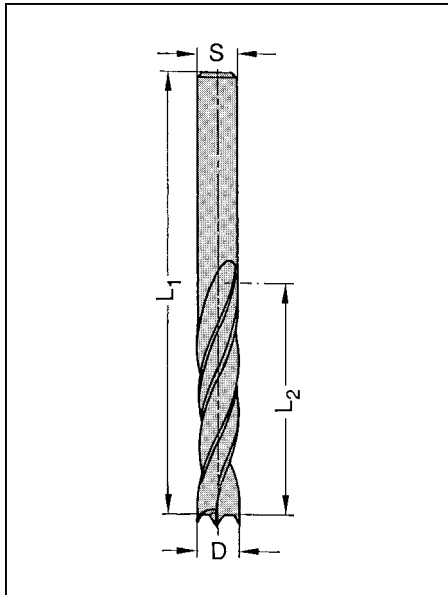
With centre point and spurs. Particularly large flutes for better chip removal. Special coating for improved life time and against rust.

### Application:

For drilling accurate blind-holes and through-holes in soft and hardwood.

Solid tungsten carbide design see No. 30120-6 (page 8.5).

## 30140-4 common shank and drilling diameter



D mm	L <sub>2</sub> mm	L <sub>1</sub> mm	Part-No.	€ p.pc.
5	60	90	30140-4-05000-R ●	
5,5	65	100	30140-4-05500-R ●	
6	65	100	30140-4-06000-R ●	
7	70	110	30140-4-07000-R ●	
8	75	120	30140-4-08000-R ●	
9	80	130	30140-4-09000-R ●	
10	90	140	30140-4-10000-R ●	
11	95	150	30140-4-11000-R ●	
12	100	155	30140-4-12000-R ●	

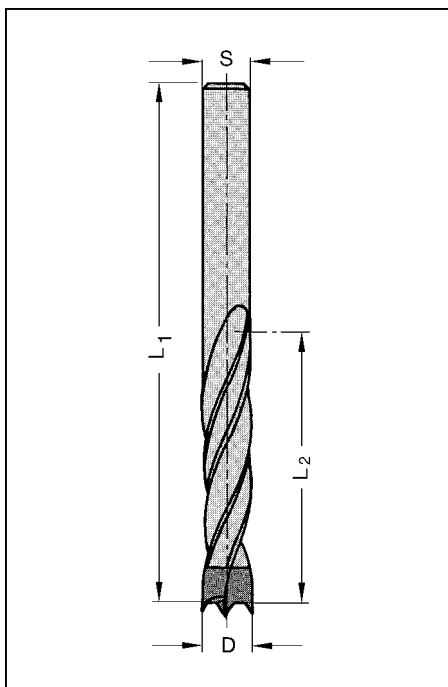
For diameter greater than 12 mm, see No. 30155 (page 9.8) or No. 30150 (page 9.7).

### Technical details:

Two raker edges, two spurs, centre point. Spiral portion with landed flute.  
Common shank and drilling diameter.

# Twist Drill T.C.T.

## 30140-5 common shank and drilling diameter



D mm	L <sub>2</sub> mm	L <sub>1</sub> mm	Part-No.	€ p.pc.	Part-No.	€ p.pc.
			Left-hand rotation		Right-hand rotation	
5	35	70	30140-5-05035-L ●		30140-5-05035-R ●	
6	35	70	-		30140-5-06035-R ●	
7	35	70	-		30140-5-07035-R ●	
8	35	70	30140-5-08035-L ○		30140-5-08035-R ●	
10	35	70	30140-5-10035-L ●		30140-5-10035-R ●	
12	35	70	-		30140-5-12035-R ●	
<b>Extra length</b>						
4	55	80	-		30140-5-04055-R ●	
4,5	60	85	-		30140-5-04560-R ●	
5	60	90	-		30140-5-05060-R ●	
5,5	65	100	-		30140-5-05565-R ●	
6	65	100	-		30140-5-06065-R ●	
6,5	70	110	-		30140-5-06570-R ●	
7	70	110	-		30140-5-07070-R ●	
8	75	120	-		30140-5-08075-R ●	
8,5	80	130	-		30140-5-08580-R ●	
9	80	130	-		30140-5-09080-R ●	
10	90	140	-		30140-5-10090-R ●	
11	95	150	-		30140-5-11095-R ●	
12	100	155	-		30140-5-12100-R ●	

Please also see No. 30120-6 (page 8.5) for D = 5 mm below.

### Technical details:

Solid T.C. head with centre point, two cutting edges and **negatively ground spurs**.

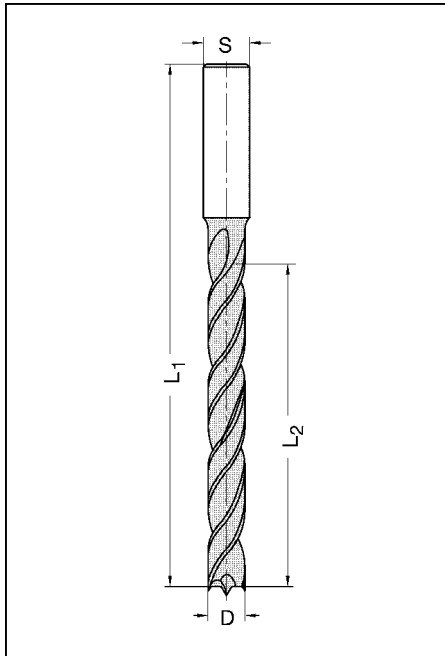
**Increased back relief angle (ill. on page 9.7).** Spiral portion Teflon coated, with landed flute.\*

\* **The landed flute (heel) provides improved centering on return stroke and permits infinitely mounting of countersinks directly on the spiral portion of the drill.**

### Application:

Especially recommended for drilling accurate blind-holes and through-holes in all kinds of wood, wood composites and boards, due to landed flute.

## 30150-4 parallel shank



D mm	L <sub>2</sub> mm	L <sub>1</sub> mm	Shank mm	Part-No.	€ p.pc.
6	75	140	13 x 50	30150-4-06000-R ●	
8	85	150	13 x 50	30150-4-08000-R ●	
10	95	160	13 x 50	30150-4-10000-R ●	
12	105	170	13 x 50	30150-4-12000-R ●	
13	110	175	13 x 50	30150-4-13000-R ●	
14	115	180	13 x 50	30150-4-14000-R ●	
15	120	185	13 x 50	30150-4-15000-R ●	
16	125	190	16 x 50	30150-4-16000-R ●	
18	130	200	16 x 50	30150-4-18000-R ●	
20	140	210	16 x 50	30150-4-20000-R ●	
22	150	220	16 x 50	30150-4-22000-R ●	
24	160	235	16 x 50	30150-4-24000-R ●	
25	170	250	20 x 50	30150-4-25000-R ●	
30	190	270	20 x 50	30150-4-30000-R ●	

### Technical details:

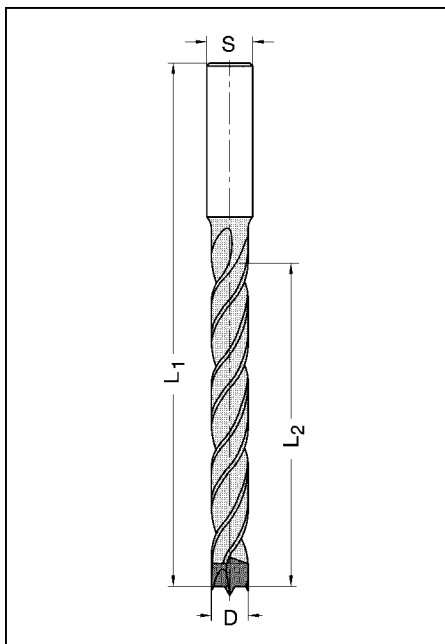
Two raker edges, two spurs, centre point.

### Application:

Especially recommended for drilling accurate blind-holes and through-holes in all kinds of wood, wood composites and boards, due to landed flute vibration-free running.

# Twist Drill T.C.T.

## 30150-5 parallel shank



D mm	L <sub>2</sub> mm	L <sub>1</sub> mm	Shank mm	Part-No.	€ p.pc.
6	75	140	13 x 50	30150-5-06000-R ●	
8	85	150	13 x 50	30150-5-08000-R ●	
10	95	160	13 x 50	30150-5-10000-R ●	
12	105	170	13 x 50	30150-5-12000-R ●	
13	110	175	13 x 50	30150-5-13000-R ●	
14	115	180	13 x 50	30150-5-14000-R ●	
15	120	185	13 x 50	30150-5-15000-R ●	
16	125	190	16 x 50	30150-5-16000-R ●	
18	130	200	16 x 50	30150-5-18000-R ●	
20	140	210	16 x 50	30150-5-20000-R ●	

### Technical details:

Solid T.C. head with centre point, two cutting edges and **negatively ground spurs**.

**Increased back relief angle.** Spiral portion Teflon-coated, with landed flute.\*

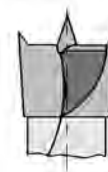
\* The landed flute (heel) provides improved centering on return stroke and permits infinitely mounting of the countersink directly on the spiral portion of the drill.

### Application:

Especially recommended for drilling accurate blind-holes and through-holes in all kinds of wood, wood composites and boards, due to landed flute vibration-free running.

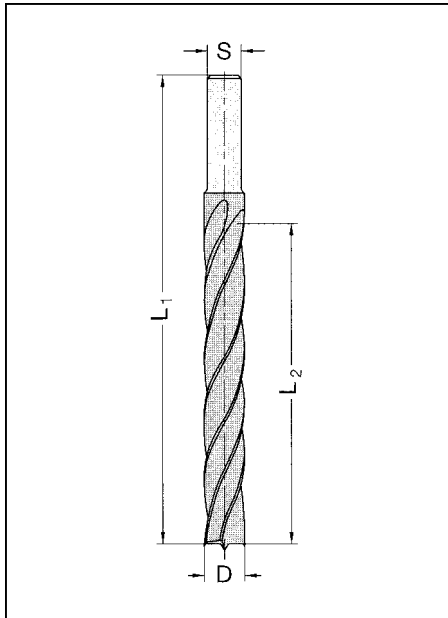


Negatively ground spurs for accurate holes and longer tool life



Increased back relief angle for reduced feed force and improved chip removal

## 30155-4 parallel shank



D mm	L <sub>2</sub> mm	L <sub>1</sub> mm	Shank mm	Part-No.	€ p.p.c.
11	100	140	10 x 30	30155-4-11000-R ●	
12	100	140	10 x 30	30155-4-12000-R ●	
13	100	140	10 x 30	30155-4-13000-R ●	
14	100	140	10 x 30	30155-4-14000-R ●	
15	100	140	10 x 30	30155-4-15000-R ●	
16	100	140	10 x 30	30155-4-16000-R ●	
18	100	140	10 x 30	30155-4-18000-R ●	
20	100	140	10 x 30	30155-4-20000-R ●	

For diameter below 11 mm see No. 30140-4 (page 9.6).

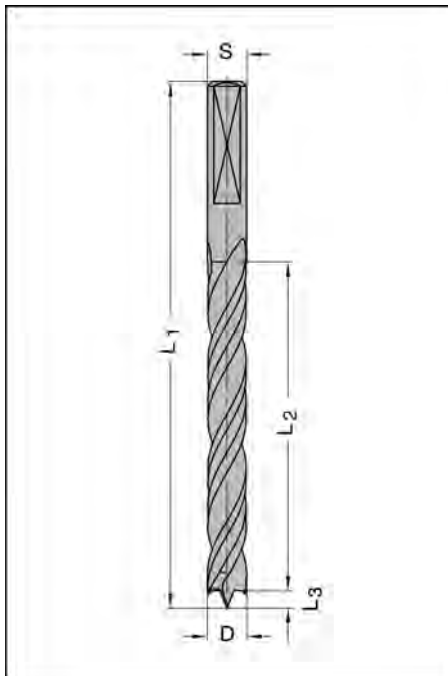
### Technical details:

Two raker edges, two spurs, centre point. Spiral portion with landed flute.

# Twist Drill - Solid T.C.

**new**

## 30155-6 parallel shank



D mm	L <sub>2</sub> mm	L <sub>3</sub> mm	L <sub>1</sub> mm	Shank mm	Part-No.	€ p.p.c.	Part-No.	€ p.p.c.
8	70	3,5	113	10 x 25	30155-6-08070-L ●		30155-6-08070-R ●	
8	90	3,5	133	10 x 25	30155-6-08090-L ●		30155-6-08090-R ●	
10	70	3,5	113	10 x 25	30155-6-10070-L ●		30155-6-10070-R ●	
10	90	3,5	133	10 x 25	30155-6-10090-L ●		30155-6-10090-R ●	

### Technical details:

Solid T.C., two raker edges, two spurs, extra long centre point.

Polished flutes for perfect chip removal, **with JSO-XD-coating for improved life time**. Parallel shank with clamping flat for use in Weldon clamping chucks.

### Application:

For drilling very deep and exceptionally accurate holes without emptying between. Especially applicable to drilling connection- and dowel holes in frame- and window production. Also perfect for drilling holes in oblique work-pieces. For soft and hardwood, glued wood as well as for wood in window production. In long-grain and end-grain.

### Application data:

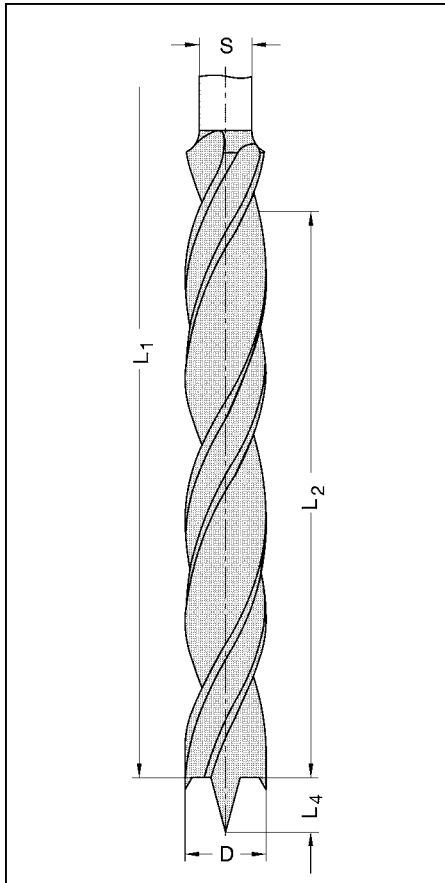
R.P.M = 4 500 - 6 000

v<sub>f</sub> = 2 - 3 m/min

It is necessary to determine the optimum feed rate within the specific range, depending on the material to be worked on.



## 30175-4 parallel shank



D mm	L <sub>2</sub> mm	L <sub>4</sub> mm	L <sub>1</sub> mm	Shank mm	Part-No.	€ p.pc.
12	105	10,0	170	13 x 50	30175-4-12000-R ●	
14	115	12,5	180	13 x 50	30175-4-14000-R ●	
16	125	13,0	190	13 x 50	30175-4-16000-R ●	
18	130	16,0	200	13 x 50	30175-4-18000-R ●	
20	140	16,5	210	13 x 50	30175-4-20000-R ●	
22	150	16,5	220	13 x 50	30175-4-22000-R ●	
24	160	18,0	235	13 x 50	30175-4-24000-R ●	
25	170	18,5	250	13 x 50	30175-4-25000-R ●	
28	180	20,0	260	13 x 50	30175-4-28000-R ●	
30	190	20,0	270	13 x 50	30175-4-30000-R ●	

### Technical details:

Two cutting edges, two spurs and **extra long centre point**.

Spiral portion with landed flute. Stepped parallel shank 13 x 50 mm. Right-hand rotation.

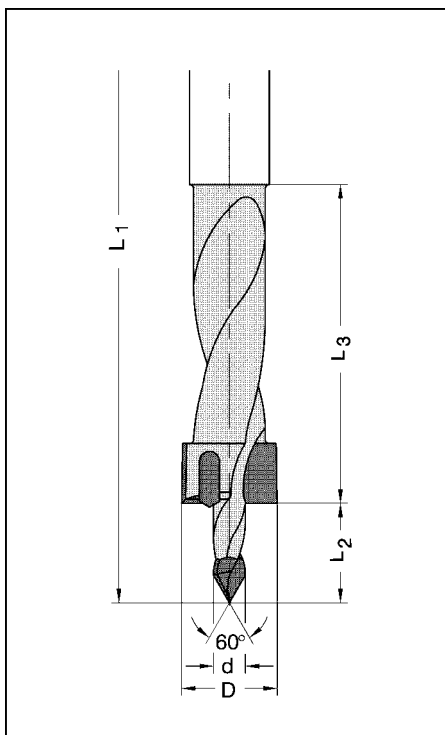
### Application:

For drilling holes in oblique work-pieces, e.g. holes for stockades in stair production.

To be used with jigs or drilling attachments for stockade holes. For hardwood or exotic wood please use T.C. design No. 30175-5 for longer tool life.

# Stockade Drill T.C.T.

## 30175-5 parallel shank



D mm	d mm	L <sub>2</sub> mm	L <sub>3</sub> mm	L <sub>1</sub> mm	Shank mm	Part-No.	€ p.pc.
16	8	25	80	220	20 x 115	30175-5-16000-R ●	
20	8	25	80	220	20 x 115	30175-5-20000-R ●	
22	8	25	80	220	20 x 115	30175-5-22000-R ●	
24	8	25	80	220	20 x 115	30175-5-24000-R ○	
25	8	25	80	220	20 x 115	30175-5-25000-R ●	
30	8	25	80	220	20 x 115	30175-5-30000-R ●	

### Technical details:

Large diameter drill with two T.C. cutting edges and two inserted spurs. Pilot drill with 60° V-point. Right-hand rotation.

**Spiral portion Teflon-coated.**

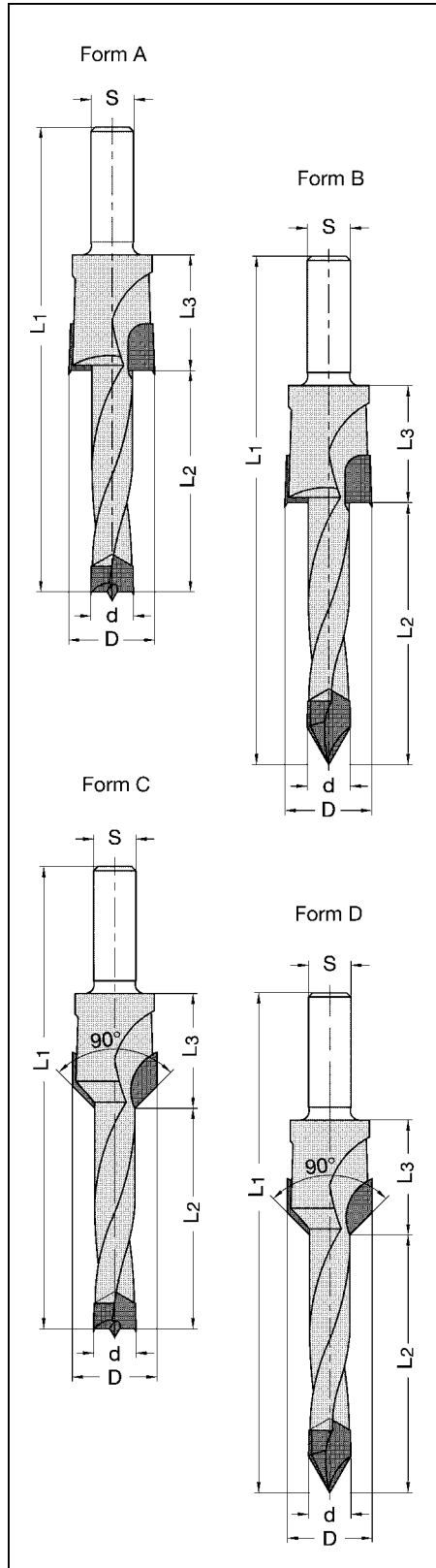
### Application:

For drilling holes in oblique work-pieces e.g. holes for stockades in stair production. To be used with jigs or drilling attachments for stockade holes. Especially recommended also for use on CNC machines. Long tool life in all kinds of wood.

### Modification possibilities:

- Shortening of total length L<sub>1</sub> (by shortening length of shank)
- Reduction of shank diameter
- Both shortening and reduction
- Providing with clamping flat for WELDON tool holder (see ill. on page 7.9).

## 30170/30180



D	L <sub>1</sub>	for 2 - 4	for 5 - 9	for 10 - 20	PU	€
up to mm	up to mm	pieces	pieces	pieces		p.pc.
<b>30170-4 HS - Form A, B / 30180-4 HS - Form C, D</b>						
15	70	-	-	-	2	
20	70	-	-	-	2	
25	70	-	-	-	2	
30	70	-	-	-	2	
15	110	-	-	-	2	
20	130	-	-	-	2	
25	140	-	-	-	2	
30	150	-	-	-	2	
35	165	-	-	-	2	
<b>30170-5 HW - Form A, B</b>						
15	70	-	-	-	2	
20	70	-	-	-	2	
25	70	-	-	-	2	
30	70	-	-	-	2	
35	70	-	-	-	2	
15	110	-	-	-	2	
20	130	-	-	-	2	
25	140	-	-	-	2	
30	150	-	-	-	2	
35	165	-	-	-	2	
<b>30180-5 HW - Form C, D</b>						
15	70	-	-	-	2	
18	90	-	-	-	2	
20	100	-	-	-	2	
25	120	-	-	-	2	

Minimum quantity of order: Two pieces both of same dimension and rotation.

### Technical details:

**Form A, B (30170):** Large diameter drill with spurs. Front drill with centre point and spurs (form A) or V-point (form B).

**Form C, D (30180):** Large diameter drill with 90° countersink, front drill either centre point and spurs (form C) or V-point (form D).

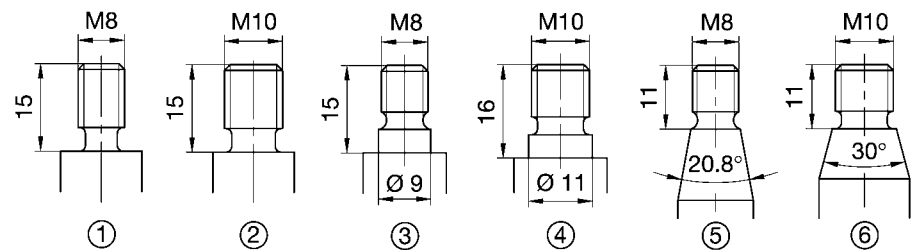
**HS:** With landed flute

**T.C.T.:** Spiral portion Teflon coated, without landed flute.

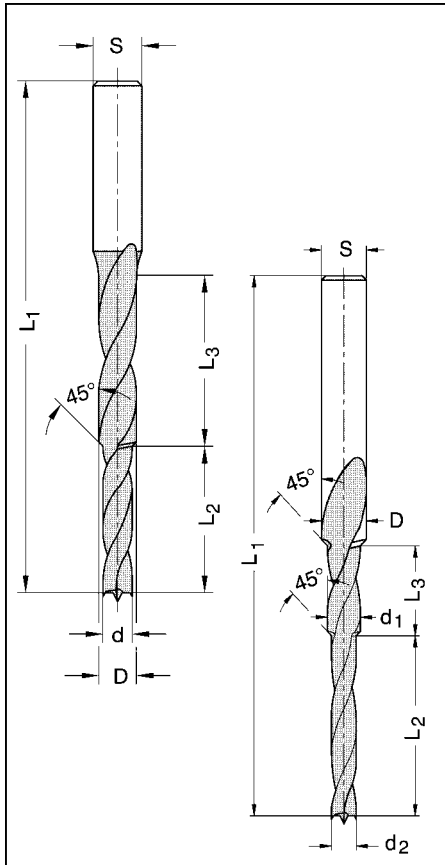
### Specifications required for orders:

Form, quality, rotation and all other dimensions stated in the above illustrations.

Also available with threaded shank.



# Counterbores



## 30185 for drill-in hinges

Hinge size	D mm	d mm	L <sub>2</sub> mm	L <sub>3</sub> mm	L <sub>1</sub> mm	Shank mm	Part-No.	€ p.pc.
<b>HS-steel</b>								
14,5	7,2	6,3	24	40	105	10 x 30	30185-4-07201-R ●	
16	7,7	6,7	30	35	105	10 x 30	30185-4-07701-R ●	
18	8,7	7,7	30	35	105	10 x 30	30185-4-08701-R ●	
20	9,8	8,8	30	35	105	10 x 30	30185-4-09801-R ●	
13/15	6,8	6,0	15	50	105	10 x 30	30185-4-06801-R ●	
<b>Solid T.C.</b>								
14,5	7,2	6,3	24	40	105	8 x 30	30185-6-07201-R ●	
16	7,7	6,7	30	35	105	8 x 30	30185-6-07701-R ●	

## 30188 for connecting bolts screws

D mm	d <sub>1</sub> mm	d <sub>2</sub> mm	L <sub>1</sub> mm	L <sub>2</sub> mm	L <sub>3</sub> mm	Shank mm	Part-No.	€ p.pc.
<b>HS-steel</b>								
10	7,3	5,5	120	38	20	10 x 40	30188-4-10001-R ●	
			155	53	20	10 x 60	30188-4-10002-R ○	

### Technical details:

Front drill with centre point and spurs. Counter sink with 45°. Parallel shank 10 mm without clamping flat. Right-hand rotation.

### Application:

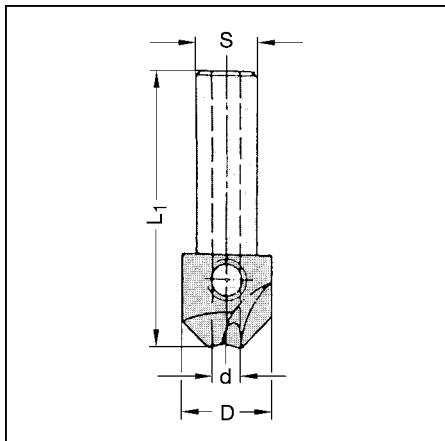
For drilling stepped holes for closure fittings e.g. Anuba, Simons, etc. Application with drilling jigs or attachments on CNC machines.

No. 30188 for connecting bolt screws.

T.C.-tipped design and other dimensions on request.

# Countersink Z2

with parallel shank



### Technical details:

Two cutting edges.  
Countersink angle 90°. Parallel shank 10 x 30 mm.

### Application:

To be used in conjunction with parallel shank twist drills No. 30130 page 9.5, No. 30140 page 9.6 and No. 30120 page 8.5.

## 30755-4 HS

d mm	D mm	L <sub>1</sub> mm	Shank mm	Part-No.	€ p.pc.
3	15	58	10 x 30	30755-4-03000-R ●	
3,5	15	58	10 x 30	30755-4-03500-R ●	
4	15	58	10 x 30	30755-4-04000-R ●	
4,5	15	58	10 x 30	30755-4-04500-R ●	
5	15	58	10 x 30	30755-4-05000-R ●	
6	15	58	10 x 30	30755-4-06000-R ●	

## 30755-5 T.C.T.

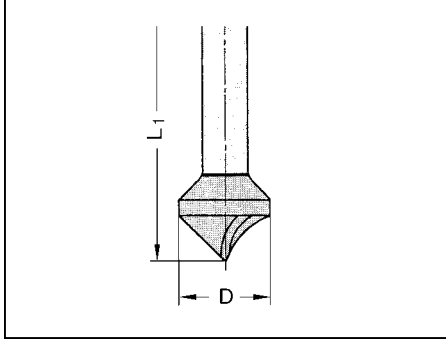
d mm	D mm	L <sub>1</sub> mm	Shank mm	Part-No.	€ p.pc.	Part-No.	€ p.pc.
				Left-hand rotation		Right-hand rotation	
3	15	58	10 x 30	30755-5-03000-L ●		30755-5-03000-R ●	
3,5	15	58	10 x 30	-		30755-5-03500-R ●	
4	15	58	10 x 30	30755-5-04000-L ●		30755-5-04000-R ●	
4,5	15	58	10 x 30	30755-5-04500-L ●		30755-5-04500-R ●	
5	15	58	10 x 30	30755-5-05000-L ●		30755-5-05000-R ●	
5,5	15	58	10 x 30	-		30755-5-05500-R ●	
6	15	58	10 x 30	30755-5-06000-L ●		30755-5-06000-R ●	

PU = packing unit  
⊕ = supplement  
Z = number of cutting edges

● = popular size, ex stock  
○ = while stocks last

# Countersink SP Z1

## 24470-1



D mm	Angle $\angle$	L <sub>1</sub> mm	Shank mm	Part-No.	€ p.pc.
16	90°	54	8 x 30	24473-1-16000-R ●	

### Technical details:

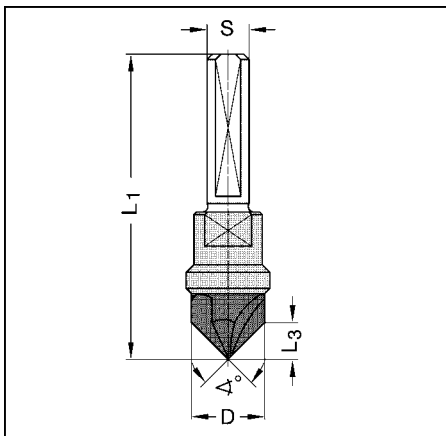
One cutting edge. Countersink 90°. Right-hand rotation.

### Application:

For countersinking of pre-drilled holes.

# Countersink solid T.C. Z3

## 24545



D mm	Angle $\angle$	L <sub>3</sub> mm	L <sub>1</sub> mm	Shank mm	Part-No.	€ p.pc.
14	60°	12	62,5	10	24545-5-14060-R ●	
			62,5	12	24546-5-14060-R ●	
14	90°	7	55,5	10*	24545-5-14001-R ●	
			70	10*	24545-5-14002-R ●	
			58	10	24545-5-14003-R ●	
			62,5	12	24546-5-14090-R ●	

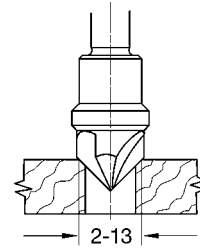
\* With clamping flat and length adjusting screw

### Technical details:

Three solid T.C. edges, precise centre point on bottom. Right-hand rotation.

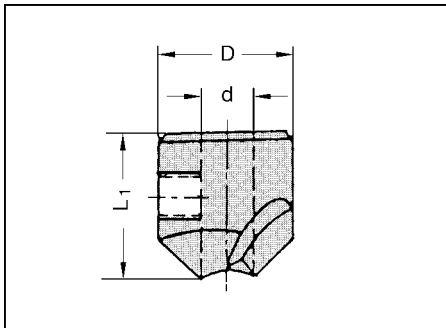
### Application:

For countersinking of pre-drilled holes. Can also be used as decorative groove and bevelling cutter.



# Loose Countersink HS Z2

## 30650-4



d mm	D mm	L <sub>1</sub> mm	Part-No.	€ p.pc.	Part-No.	€ p.pc.
3	15,5	16,5	-		Left-hand rotation	Right-hand rotation
3,5	15,5	16,5	-		30650-4-03000-R ●	30650-4-03500-R ●
4	15,5	16,5	-		30650-4-04000-R ●	30650-4-04500-R ●
4,5	15,5	16,5	-		30650-4-05000-R ●	30650-4-06000-R ●
5	15,5	16,5	30650-4-05000-L ●		30650-4-07000-R ●	30650-4-08000-R ●
6	15,5	16,5	-		30650-4-08000-R ●	30650-4-10000-R ●
7	15,5	20	-			
8	15,5	16,5	-			
10	20	16,5	-			

### Spare parts / Accessories

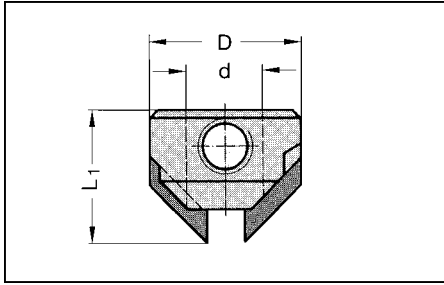
		PU	€ p.pc.
Allen screw	M 6 x 4 ISO 4029	39070-0-06040-R 10	

### Technical details/Application:

Two HS cutting edges, countersink angle 90°. To be used in conjunction with twist drills and dowel drills with **landed flute** Nos. 30530/30500/30145/30150. To be clamped directly onto the spiral portion of the drill.

# Loose Countersink T.C.T. Z2

## 30650-5



### Technical details/Application:

Two T.C.T. cutting edges, countersink angle 90°. To be used in conjunction with twist drills and dowel drills **with landed flute** Nos. 30510/30530/30150/30140/30145/30500/30567. To be clamped directly onto the spiral portion of the drill.

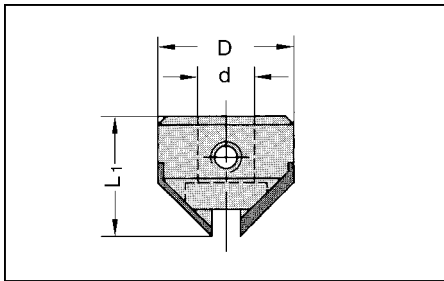
d mm	D mm	L <sub>1</sub> mm	Part-No.	€ p.pc.	Part-No.	€ p.pc.
			Left-hand rotation		Right-hand rotation	
3	15,5	16,5	30650-5-03000-L ●		30650-5-03000-R ●	
4	15,5	16,5	30650-5-04000-L ●		30650-5-04000-R ●	
5	15,5	16,5	30650-5-05000-L ●		30650-5-05000-R ●	
6	15,5	16,5	30650-5-06000-L ●		30650-5-06000-R ●	
7	15,5	16,5	30650-5-07000-L ●		30650-5-07000-R ●	
8	15,5	16,5	30650-5-08000-L ●		30650-5-08000-R ●	
9	15,5	16,5	30650-5-09000-L ●		30650-5-09000-R ●	
10	20	16,5	30650-5-10000-L ●		30650-5-10000-R ●	
12	20	16,5	30650-5-12000-L ●		30650-5-12000-R ●	

### Spare parts / Accessories

		PU	€ p.pc.
Allen screw	M 6 x 4 ISO 4029	39070-0-06040-R	10

# Loose Countersink T.C.T. Z2

## 30660 for shank clamping



### Technical details/Application:

Two T.C.T. cutting edges, countersink angle 90°. To be clamped onto the extended shank of drills No. 30540-5 (page 8.10).

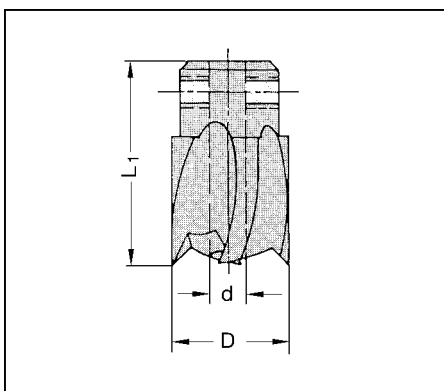
d mm	D mm	L <sub>1</sub> mm	For drills diameter	Part-No.	€ p.pc.	Part-No.	€ p.pc.
				Left-hand rotation		Right-hand rotation	
10	15,5	16,5	5 - 10	30660-5-15500-L ●		30660-5-15500-R ●	
10	20	17,5	5 - 10	30660-5-20001-L ●		30660-5-20001-R ●	
10	22	16,5	11 - 12	-		30660-5-22002-R ●	

### Spare parts / Accessories

		PU	€ p.pc.
Allen screw	M 6 x 4 ISO 4029 (for D = 15,5/20 mm)	39070-0-06040-R	10
Allen screw	M 6 x 5 ISO 4029 (for D = 22 mm)	39070-0-06050-R	10

# Loose Countersink HS Z2+V2

## 30160



### Technical details/Application:

Two raker teeth and two spurs. Right-hand rotation. To be used in conjunction with twist drills with landed flute.

d mm	D mm	L <sub>1</sub> mm	Part-No.	€ p.pc.
5	12	22	30160-4-05012-R ●	
5	15	22	30160-4-05015-R ●	
6	15	22	30160-4-06015-R ●	
8	16	22	30160-4-08016-R ●	
8	20	22	30160-4-08020-R ●	
8	25	22	30160-4-08025-R ●	
10	20	22	30160-4-10020-R ●	
10	25	25	30160-4-10025-R ●	
10	30	25	30160-4-10030-R ●	
12	25	25	30160-4-12025-R ●	
12	30	25	30160-4-12030-R ●	
14	40	25	30160-4-14040-R ●	

### Spare parts / Accessories

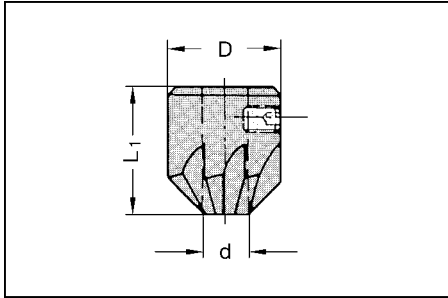
		PU	€ p.pc.
Allen screw	M 5 x 4 ISO 4029 (up to d = 6 mm)	39070-0-05040-R	10
Allen screw	M 6 x 5 ISO 4029 (up from d = 8 mm)	39070-0-06050-R	10

PU = packing unit  
 ● = supplement  
 Z = number of cutting edges

● = popular size, ex stock  
 ○ = while stocks last

# Loose Countersink HS Z6

## 30652



### Technical details/Application:

Six HS cutting edges. To be used in conjunction with twist drills with landed flute. Right-hand rotation.

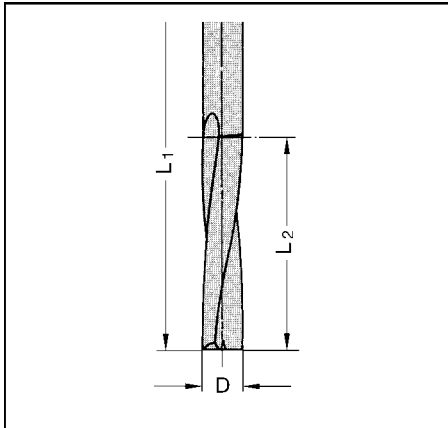
d mm	D mm	L <sub>1</sub> mm	Part-No.	€ p.pc.
3	16	22	30652-4-16030-R ●	
4	16	22	30652-4-16040-R ●	
5	16	22	30652-4-16050-R ●	
6	16	22	30652-4-16060-R ●	
8	20	22	30652-4-20080-R ●	
10	22	22	30652-4-20010-R ●	

### Spare parts / Accessories

			PU	€ p.pc.
Allen screw with slot	M 5 x 5 ISO 7434	39074-0-05050-R	10	

# Slot Mortise Bit HS Z2

## 30030 with helical cutting edges



D mm	L <sub>2</sub> mm	L <sub>1</sub> mm	Shank mm	Part-No.	€ p.pc.
6	25	70	6	30030-4-06000-R ●	
8	35	80	8	30030-4-08000-R ●	
12	45	100	12	30030-4-12000-R ○	

### Technical details:

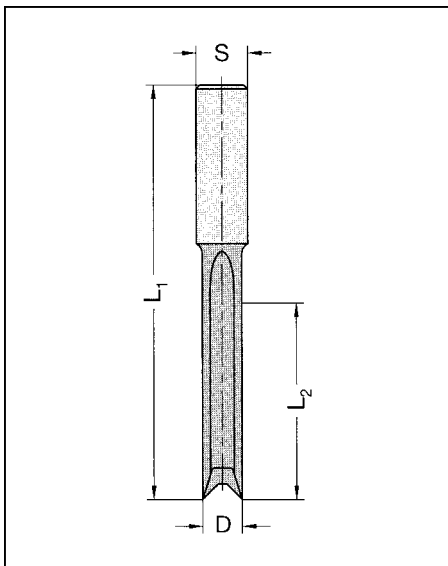
Two helical cutting edges, cutting on bottom and periphery. Common shank and cutting diameter. Right-hand rotation.

### Application:

For cutting mortises and slots etc. in solid wood. Helical edges for accurate machining with low cutting forces.

# Reciprocating Slot Mortise Bit Z2

## 30020-4 HS



D mm	L <sub>2</sub> mm	L <sub>1</sub> mm	Shank mm	Part-No.	€ p.pc.
6	38	90	13 x 40	30020-4-06000-R ●	
8	42	95	13 x 40	30020-4-08000-R ●	
10	50	105	13 x 40	30020-4-10000-R ●	
12	60	115	13 x 40	30020-4-12000-R ●	
14	70	120	13 x 40	30020-4-14000-R ●	
16	70	120	13 x 40	30020-4-16000-R ●	

## 30020-5 T.C.T.

D mm	L <sub>2</sub> mm	L <sub>1</sub> mm	Shank mm	Part-No.	€ p.pc.
10	50	105	13 x 40	30020-5-10000-R ○	

### Technical details:

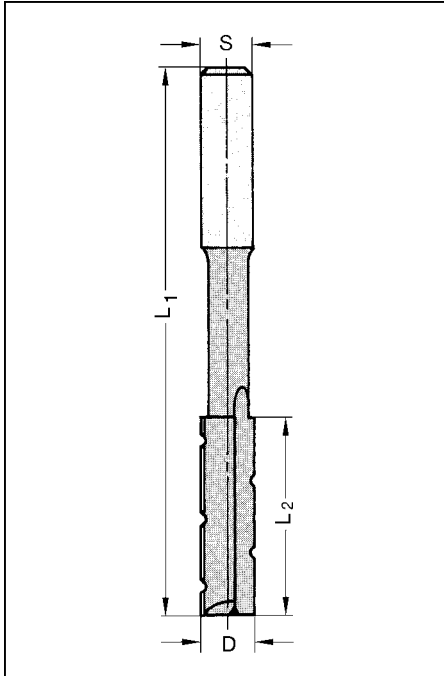
Two cutting edges with two flutes, stepped parallel shank. For right-hand and left-hand rotation.

### Application:

For oscillating cutting of mortises and slots.

HS steel for soft and hardwood. T.C.-tipped for hard and exotic wood.

## 30035 with chip breaking grooves



D mm	L <sub>2</sub> mm	L <sub>1</sub> mm	Shank mm	Part-No.	€ p.pc.	Part-No.	€ p.pc.
				Left-hand rotation		Right-hand rotation	
<b>Shank 13 x 50 mm</b>							
6	35	120	13 x 50	30035-1-06013-L ●		30035-1-06013-R ●	
7	35	125	13 x 50	-		30035-1-07013-R ●	
8	38	130	13 x 50	30035-1-08013-L ●		30035-1-08013-R ●	
9	40	135	13 x 50	-		30035-1-09013-R ●	
10	42	140	13 x 50	30035-1-10013-L ●		30035-1-10013-R ●	
11	45	145	13 x 50	-		30035-1-11013-R ●	
12	48	150	13 x 50	30035-1-12013-L ●		30035-1-12013-R ●	
13	50	155	13 x 50	-		30035-1-13013-R ●	
14	54	160	13 x 50	30035-1-14013-L ●		30035-1-14013-R ●	
15	57	165	13 x 50	-		30035-1-15013-R ●	
24	80	195	13 x 50	-		30035-1-24013-R ●	
<b>Shank 16 x 50 mm</b>							
6	35	120	16 x 50	-		30035-1-06016-R ●	
8	38	130	16 x 50	30035-1-08016-L ●		30035-1-08016-R ●	
10	42	140	16 x 50	-		30035-1-10016-R ●	
12	48	150	16 x 50	30035-1-12016-L ●		30035-1-12016-R ●	
14	54	160	16 x 50	-		30035-1-14016-R ●	
16	60	170	16 x 50	30035-1-16016-L ●		30035-1-16016-R ●	
18	65	180	16 x 50	-		30035-1-18016-R ●	
20	70	185	16 x 50	-		30035-1-20016-R ●	
22	75	190	16 x 50	-		30035-1-22016-R ●	

## 30038 set in wooden box, shank 13 x 50 mm



D mm	Quality	Rotation	Part-No.	€ p.pc.
6, 8, 10, 12, 14, 16	SP	Right-hand rotation	30038-1-00006-R ●	
6, 8, 10, 12, 14, 16	SP	Left-hand rotation	30038-1-00006-L ●	

### Technical details No. 30035/30038:

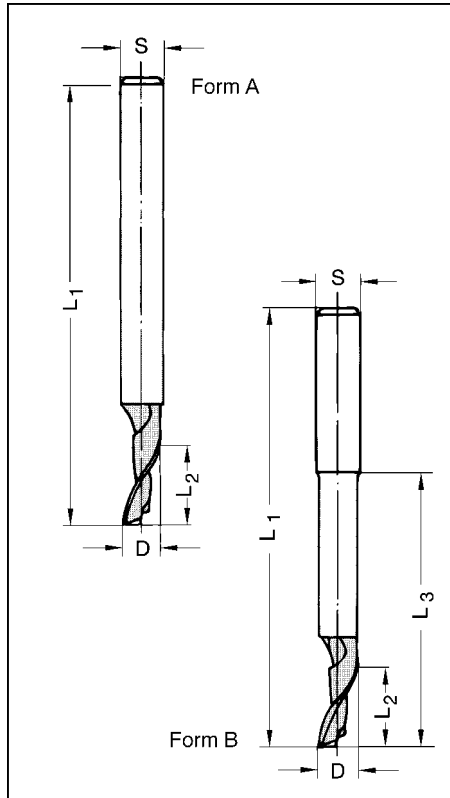
Two straight cutting edges, with chip breaking grooves, cutting on bottom and periphery.

### Application:

For cutting mortises and slots in softwood.

Set of Ø 6 - 16 mm with shank 16 mm, right-hand rotation, available on request.

## 25213-4



D mm	L <sub>2</sub> mm	L <sub>3</sub> mm	L <sub>1</sub> mm	Shank mm	Part-No.	€ p.pc.
<b>Form A</b>						
3	12	-	60	8	25213-4-03012-R	●
4	12	-	60	8	25213-4-04012-R	●
5	14	-	60	8	25213-4-05012-R	●
	14	-	120	8	25213-4-05120-R	●
6	14	-	60	8	25213-4-06014-R	●
7	14	-	60	8	25213-4-07014-R	●
8	14	-	80	8	25213-4-08014-R	●
	14	-	120	8	25213-4-08120-R	●
9	14	-	80	8	25213-4-09014-R	●
10	14	-	80	8	25213-4-10014-R	●
	14	-	120	10	25213-4-10120-R	●
12	14	-	80	8	25213-4-12014-R	●
<b>Form B</b>						
4	16	45	90	8	25213-4-04045-R	●
5	18	35	80	8	25213-4-05035-R	●
	16	45	90	8	25213-4-05045-R	●
6	14	35	80	8	25213-4-06035-R	●
	16	45	90	8	25213-4-06045-R	●
8	14	54	80	8	25213-4-08054-R	●
	14	68	100	8	25213-4-08068-R	●
	14	90	120	8	25213-4-08080-R	●
10	14	65	85	10	25213-4-10065-R	○
	14	75	96	10	25213-4-10075-R	●
	14	95	120	10	25213-4-10095-R	●
	30	70	100	10	25213-4-10070-R	●

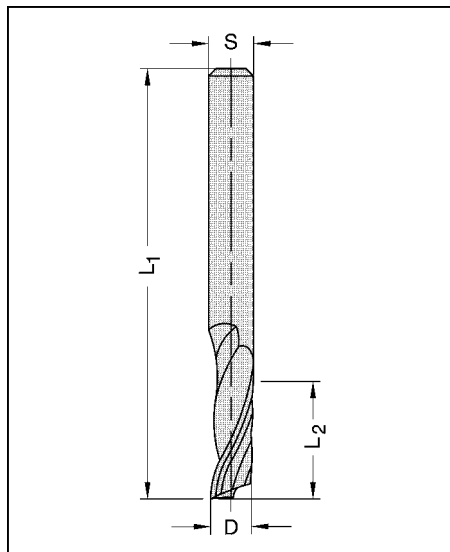
### Technical details:

One helical HS cutting edge. Cutting on bottom and periphery.  
Type B with narrow neck. Right-hand rotation.

### Application:

For grooving, slotting and aperture operations in aluminium and plastic materials.  
For use on copying machines, e.g. Elumatec, Haffner, Rotox, Striffler, Wegoma, etc.

## 25213-6



D mm	L <sub>2</sub> mm	L <sub>1</sub> mm	Shank mm	Part-No.	€ p.pc.
3	12	60	6	25213-6-03012-R	●
4	12	60	6	25213-6-04012-R	●
5	16	60	6	25213-6-05016-R	●
5	16/35 <sup>1)</sup>	80	8	25213-6-05080-R	●
5	20/35 <sup>1)</sup>	90	8	25213-6-05090-R	●
5	45 <sup>1)</sup>	100	8	25213-6-05045-R	●
6	16	60	6	25213-6-06016-R	●
6	27	60	6	25213-6-06027-R	●
6	40 <sup>1)</sup>	80	6	25213-6-06040-R	●
8	22	80	8	25213-6-08022-R	●
8	32	80	8	25213-6-08032-R	●
8	40 <sup>1)</sup>	80	8	25213-6-08040-R	●
10	32	80	10	25213-6-10032-R	●

<sup>1)</sup> Long design not recommended for working with complete cutting length.

### Technical details:

One helical solid tungsten carbide cutting edge (solid T.C.). Cutting on bottom and periphery.  
Right-hand rotation.

### Application:

For grooving, slotting and aperture operations in aluminium and plastic materials.  
For use on copying machines, e.g. Elumatec, Haffner, Rotox, Striffler, Wegoma, etc.



# Water Slot Cutters HS (HSS-E)

## 25217/25218 helical design

D mm	L <sub>2</sub> mm	L <sub>1</sub> mm	Z	Shank mm	Part-No.	€ p.pc.
4	40	100	1	8	25217-4-04040-R	●
5	35	80	1	8	25217-4-05035-R	●
5	40	100	1	8	25217-4-05040-R	●
6	40	100	1	8	25217-4-06040-R	●
5	40	100	2	8	25218-4-05040-R	●

## 25220/25221 straight design

D mm	L <sub>2</sub> mm	L <sub>1</sub> mm	Z	Shank mm	Part-No.	€ p.pc.
4	25	100	1	8	25220-4-04025-R	●
5	30	100	1	8	25220-4-05030-R	●
<b>With V-point</b>						
5	35	100	1	8	25221-4-05035-R	●
	45	100	1	8	25221-4-05045-R	●
	55	100	1	8	25221-4-05055-R	●
6	48	90	1	8	25221-4-06048-R	○
	45	100	1	8	25221-4-06045-R	●

### Technical details:

No. 25217/25218: helical design with either one or two cutting edges.

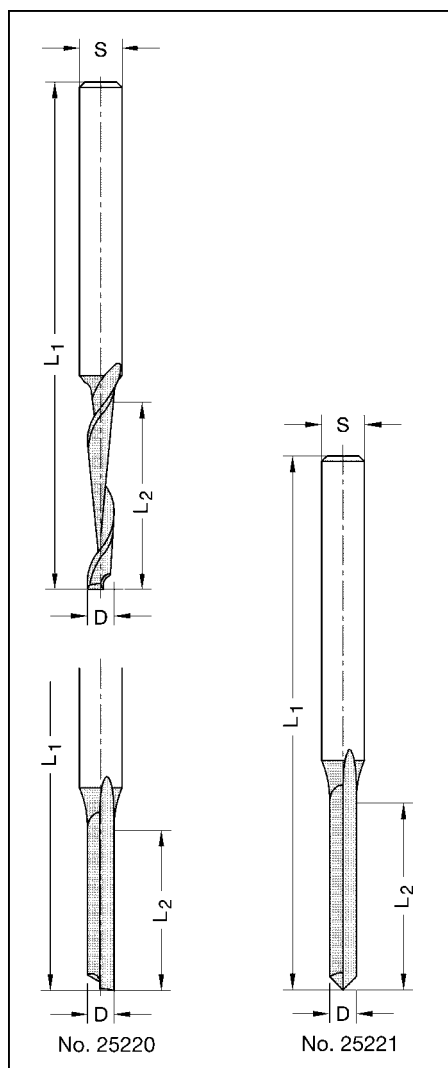
No. 25220/25221: straight design, with one cutting edge.

No. 25221: with V-point.

Right-hand rotation.

### Application:

For use on copying and water slot machines, e.g. Elumatec, Haffner, Rotox, Striffler, Wegoma, etc. No. 25221 especially recommendable for extrusions in plastics (PVC).



# Copying Cutter solid T.C. Z1

for working steel

## 25223 double-sided design

D mm	L <sub>2</sub> mm	L <sub>1</sub> mm	Shank mm	Part-No.	€ p.pc.
5	12	65	8 x 34	25223-6-05012-R	●

### Technical details:

One helical solid tungsten carbide cutting edge each on both ends of shank. Cutting on bottom and periphery. Right-hand rotation.

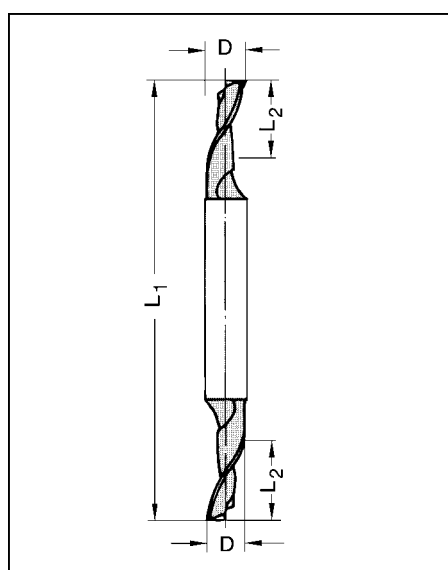
### Application:

For grooving, slotting and apertures in steel profiles on copying machines

e.g.: Elumatec, Haffner, Rotox, Striffler, Wegoma, etc.

Double life time by reversing the cutter after wear.

With special cutting angle geometry for steel profiles.



PU = packing unit  
 ⊕ = supplement  
 Z = number of cutting edges

● = popular size, ex stock  
 ○ = while stocks last

## Boring Bit Sets in wooden box

new



### 30133 6 pieces set, long design

Quality	Combination	Part-No.	€ p.p.c.
SP	6, 8, 10, 12, 14, 16 mm ø	30133-1-00000-R	●

**Technical details:**

Two raker edges, two spurs, centre point, premium design. Common shank and drilling diameter up to D 10 mm. From D 12 mm with shank 10 mm, L<sub>1</sub> = 200 mm.

**Only available as set.**

**Application:**

For drilling accurate blind-holes and through-holes in all kinds of wood.

### 30134 11 pieces set, short design

Quality	Combination	Part-No.	€ p.p.c.
SP	4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15 mm ø	30134-1-00000-R	●

**Technical details:**

Two raker edges, two spurs, centre point, premium design. Common shank and drilling diameter up to D 10 mm. From D 12 mm with shank 10 mm.

**Only available as set.**

**Application:**

For drilling accurate blind-holes and through-holes in all kinds of wood.

### 30138 Forstner boring bits, wave ground

Quality	Combination	Part-No.	€ p.p.c.
SP	20, 25, 30, 35, 40, 50 mm ø	30138-1-00000-R	●

**Technical details:**

Two raker edges wave ground, two spurs, centre point. Up to D 30 mm with shank 8 x 30 mm. From D 35 mm with shank 10 x 30 mm.

**Only available as set.**

**Application:**

For drilling accurate blind-holes in softwood.

## Boring Bit Sets in wooden box



### 30137 Cylinder boring bits, short design

Quality	Combination	Part-No.	€ p.p.c.
<b>Complete in wooden box</b>			
SP	15, 20, 25, 30, 35 mm ø	30137-1-00000-R	●
HW	15, 20, 25, 30, 35 mm ø	30137-5-00000-R	●

Single drills No. 30100 see page 9.2 (T.C.) and page 9.4 (SP). Ill. shows No. 30137-5.

### 30136 Forstner boring bits, short design

Quality	Combination	Part-No.	€ p.p.c.
<b>Complete in wooden box</b>			
SP	15, 20, 25, 30, 35 mm ø	30136-1-00000-R	○

Single drills No. 30070 see page 9.1.