

**18012 - 18016 Graver (incision miller)**

**Design**

With pre-sanded profile.

**Applications**

For machining tempered and chrome-nickel alloyed steels. For engraving letters and copy milling for contours, etc.

**18012**

Profile A

**Quality**

HSS-EW 9 Co 10 (10% cobalt).

**18016**

Profile D 60°

**Quality**

Cemented carbide K 10.

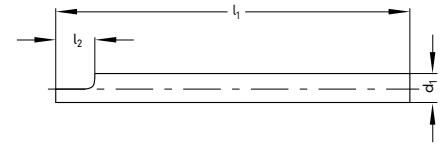
**HSS-E**

**18012**



**HM K10**

**18016**



**Recommended cutting speeds in m/min.**

Material	Graver		Reference values for the relief angle
	Steel	Cemented carbide K 10	
Cast iron, steel casting	50–70	60–100	-
Steel up to 900 N/mm <sup>2</sup>	40–70	120–160	15°–25°
Steel over 900 N/mm <sup>2</sup>	-	50–70	-
Brass, aluminium	200–250	200–400	35°
Plastics (Astralon, Plexiglas, Resopal, etc.)	200–300	200–600	35°
Light metal, copper, gold, silver	200–250	200–400	30°

d <sub>1</sub> mm	l <sub>1</sub> mm	l <sub>2</sub> mm	HSS-E	
			18012	...
2.5	40	6	101	
4	60	10	102	
6	80	14	103	
8	90	16	104	
8	125	16	105	
10	125	18	106	
12	125	18	107	

d <sub>1</sub> mm	l <sub>1</sub> mm	l <sub>2</sub> mm	HM-K10	
			18016	...
3	40	3	103	
4	40	4	104	
4	60	4	105	
6	70	6	107	
8	80	8	108	

**18020 High-performance lathe blanks DIN 4964**

**HSS-E**

**Design**

Round. Fully hardened, face-ground on all sides.

Ready for use immediately after the desired cutting-edge shape has been sanded.

**Quality**

HSS-1.3207

(EW 9 Co 10, cobalt 10%).

**18020**



Ø x l mm	HSS-E	
	18020	...
4 x 100	103	
5 x 100	105	
6 x 100	107	
8 x 80	110	
8 x 100	111	
8 x 160	113	
10 x 80	115	

Ø x l mm	HSS-E	
	18020	...
10 x 100	116	
10 x 125	117	
10 x 160	118	
10 x 200	119	
12 x 100	122	
12 x 160	124	
14 x 125	127	

Ø x l mm	HSS-E	
	18020	...
16 x 125	131	
16 x 160	132	
18 x 200	135	
20 x 160	138	
20 x 200	139	

18023

High-performance lathe blanks DIN 4964 B

HSS-E

Design

**Square.** Fully hardened, face-ground on all sides. Ready for use immediately after the desired cutting-edge shape has been sanded.

Quality

HSS-1.3207  
(EW 9 Co 10, cobalt 10%).

18023



w x h x l mm	HSS-E 18023	...
4 x 4 x 80	102	
5 x 5 x 63	103	
5 x 5 x 100	105	
6 x 6 x 63	106	
6 x 6 x 80	107	
6 x 6 x 100	108	
6 x 6 x 160	110	
8 x 8 x 63	111	
8 x 8 x 80	112	
8 x 8 x 100	113	
8 x 8 x 160	115	
8 x 8 x 200	116	

w x h x l mm	HSS-E 18023	...
10 x 10 x 63	117	
10 x 10 x 80	118	
10 x 10 x 100	119	
10 x 10 x 125	120	
10 x 10 x 160	121	
10 x 10 x 200	122	
12 x 12 x 80	124	
12 x 12 x 100	125	
12 x 12 x 125	126	
12 x 12 x 160	127	
12 x 12 x 200	128	
14 x 14 x 125	129	

w x h x l mm	HSS-E 18023	...
14 x 14 x 200	131	
16 x 16 x 100	132	
16 x 16 x 125	133	
16 x 16 x 160	134	
16 x 16 x 200	135	
20 x 20 x 125	137	
20 x 20 x 160	138	
20 x 20 x 200	139	
25 x 25 x 160	140	
25 x 25 x 200	141	
25 x 25 x 250	142	

18025

High-performance lathe blank DIN 4964 D

HSS-E

Design

**Rectangular.** Fully hardened, face-ground on all sides. Ready for use immediately after the desired cutting-edge shape has been sanded.

Quality

HSS-1.3207  
(EW 9 Co 10, cobalt 10%).

18025



w x h x l mm	HSS-E 18025	...
10 x 4 x 100	101	
10 x 4 x 160	102	
10 x 5 x 100	104	
10 x 5 x 160	105	
10 x 6 x 100	107	
10 x 6 x 160	108	
12 x 8 x 100	110	
12 x 8 x 160	111	

w x h x l mm	HSS-E 18025	...
12 x 8 x 200	112	
16 x 8 x 100	113	
16 x 8 x 160	114	
16 x 8 x 200	115	
16 x 10 x 160	116	
20 x 5 x 100	118	
20 x 5 x 160	119	
20 x 10 x 160	121	

w x h x l mm	HSS-E 18025	...
20 x 10 x 200	122	
20 x 12 x 160	123	
20 x 12 x 200	124	
25 x 16 x 200	126	
32 x 16 x 200	127	
40 x 10 x 200	128	

18102

Cutting-off tool holder

Design

With adjustable clamp for clamping the cutter on the side.

Applications

For tappings and for grooves in outside round slots for circlips.

Note:

Large AE for direct clamping of special cutters art. no. 18110 101-106.

18102 101-102



18102 103-105



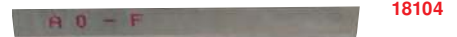
Size	b x a x l <sub>1</sub> mm	d mm	18102	...
A 00	11.0 x 16 x 100	12		101
A 0	11.0 x 18 x 125	14		102
A I/II a	14.5 x 22 x 170	20		103
A III a	18.0 x 27 x 210	25		104
AE	11.0 x 18 x 125	14		105



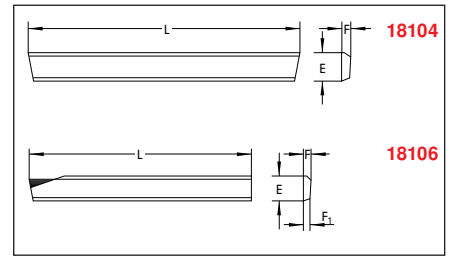
**18104 - 18106 Cutting-off tools**

**18104**  
Quality  
HSS, Quality class F (12% tungsten, 5% cobalt).

**18106**  
Quality  
With cemented carbide cutting plate P20.



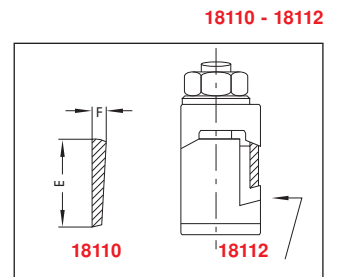
E x F/F <sub>1</sub> x L Mm	For holder size	HSS/F		Cemented carbide/P20	
		18104	...	18106	...
8.0 x 2.2 x 75	A 00			101	
10.0 x 2.7 x 100	A 0			102	102
16.0 x 4/3 x 150	A I/II a			103	103
18.5 x 5/4 x 150	A III a			104	104



**18110 - 18112 Recessing cutter and insert**

**18110**  
Recessing cutter  
Applications  
For circlip grooves, tolerance H11, for holder AI/IIa or AE (art. No. 18102 103 and/or 105).  
Quality  
HSS, Quality class F (12% tungsten, 5% cobalt).

**18112**  
Insert  
**Note:**  
Cutters for circlip grooves A 0.9 to A 2.15 can be clamped directly in holder AE or, using this spacer piece, in holder AI/IIa. Cutters A 2.65 to A 5.15 can be mounted directly in holder AI/IIa.



Size	For ring width mm	F mm	E mm	Cutter length mm	HSS/F		Insert	
					18110	...	18112	...
A 0.9	0.80	0.90	11	80		101		101
A 1.1	1.00	1.10	11	80		102		
A 1.3	1.20	1.30	11	80		103		
A 1.6	1.50	1.60	11	80		104		
A 1.85	1.75	1.85	11	80		105		
A 2.15	2.00	2.15	11	80		106		
A 2.65	2.50	2.65	16	150		107		
A 3.15	3.00	3.15	16	150		108		
A 4.15	4.00	4.15	16	150		109		
A 5.15	5.00	5.15	16	150		110		

**18202 Boring-tool holder**

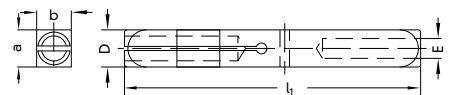
**Applications**  
For clamping reboring shank cutters  
(art. no. 18209–18233). For bores from 3 mm.

**18202 101**  
**Applications**  
For steels: Size 01–05 standard and extended.

**18202 102**  
**Applications**  
For steels: Size 01–06 standard and extended. Size 01–05, shank diameter 10 mm.



Size	a x b Mm	Mounting holes D + E mm	l <sub>1</sub> mm	Cutting edge height mm	18202	...
B 8	12 x 12	8	100	6.0		101
B 10	15 x 15	8 + 10	125	7.5		102



Lathe tools

**18209 - 18210**

**Roughing reboring cutters**

**Design**  
**Type g.**  
**Applications**  
 For through holes.  
**Quality**  
 HSS, quality class H (11% tungsten, 10% cobalt).

**18209**  
**Design**  
 Standard.

**18210**  
**Design**  
 Extended. Total length  $l_1 = 125$  mm.

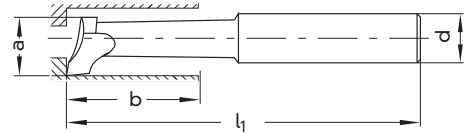
**18209**



**18210**



Size	a mm	$l_1$ mm	b mm	d mm	HSS/H		long HSS/H	
					18209	...	18210	...
01	3	60	20	8		101		
02	5	60	24	8		102	202	
03	7	65	26	8		103	203	
04	9	75	30	8		104	204	
05	12	80	50	8		105	205	
06	14	95	60	10		106	206	



**18215 - 18216**

**Angled reboring cutters**

**Design**  
**Type f.**  
**Applications**  
 For blind holes.  
**Quality**  
 HSS, quality class H (11% tungsten, 10% cobalt).

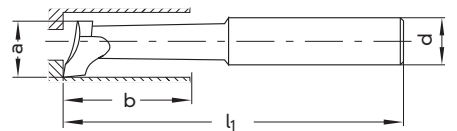
**18215**  
**Design**  
 Standard.

**18216**  
**Design**  
 Extended. Total length  $l_1 = 125$  mm.

**18215 - 18216**



Size	a mm	$l_1$ mm	b mm	d mm	HSS/H		long HSS/H	
					18215	...	18216	...
01	3	60	20	8		101	201	
02	5	60	24	8		102	202	
03	7	65	26	8		103	203	
04	9	75	30	8		104	204	
05	12	80	50	8		105	205	
06	14	95	60	10		106		



**18221 - 18226**

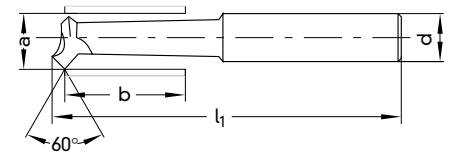
**Female thread cutters**

**Quality**  
 HSS, quality class H (11% tungsten, 10% cobalt).

**18221**  
**Design**  
 Standard, for metric ISO thread 60°.

**18226**  
**Design**  
 Standard, for Whitworth thread 55°.

**18221 - 18226**



Size	a mm	$l_1$ mm	b mm	d mm	Pitch to mm	Pitch to TPI	60°/HSS/H		55°/HSS/H	
							18221	...	18226	...
01	3	60	20	8	1.0	-		101		
02	5	60	24	8	1.0	-		102		
03	7	65	26	8	1.5	16-50		103		203
04	9	75	30	8	1.5	16-50		104		204
05	12	80	50	8	2.0	12-40		105		205
06	14	95	60	10	3.0	8-30		106		206

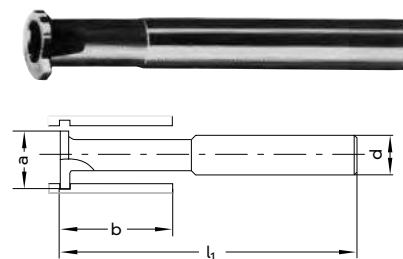
**18233 Internal recessing cutters**

**Design**  
 Type h, standard, for groove width 1.1 mm.  
**Quality**  
 HSS, quality class H (11% tungsten, 10% cobalt).

**Note:**  
 Standard recessing width 1.1 mm.

18233

Size	a mm	l <sub>1</sub> mm	b mm	d mm	HSS/H	
					18233	...
01	3	60	20	8		101
02	5	60	24	8		102
03	7	65	26	8		103
04	9	75	30	8		104
05	12	80	50	8		105
06	14	95	60	10		106



**18247 Boring bars**

**Applications**  
 For screwing on cutting heads  
 Art. no. 18301–18314. For holder art. no. 18246.

18247

Size	For bores from mm	Cutting edge height mm	Boring bar Ø mm	Length mm	18247	...
B 1	16	10	10	180		101
B 1a	18	14	13	220		102
B 2	21	14	13	250		103
B 2a	24	20	20	275		104
B 2B	28	20	20	300		105
B 3	30	20	20	325		106

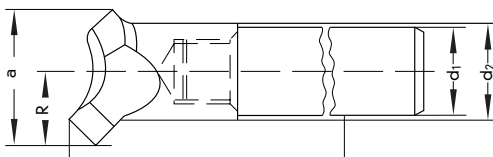
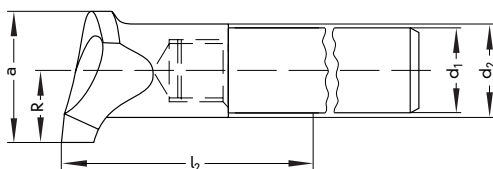


**18301 - 18303 Reboring heads**

**Applications**  
 For screwing onto boring bars art. no. 18247.  
**Quality**  
 HSS, Quality class F (12% tungsten, 5% cobalt).

**18301 Design**  
 Type f, angled cutter for extracting blind holes and for turning and facing.

**18303 Design**  
 Type g, roughing cutter for extracting through-bores.



18301



18303

For boring bar	a for Ø mm from	l <sub>2</sub> mm	R mm	d <sub>2</sub> mm	d <sub>1</sub> boring bar mm	Type f/HSS/F		Type g/HSS/F	
						18301	...	18303	...
B 1	16	80	9.0	11.5	10		101		101
B 1a	18	85	10.3	13.5	13		102		102
B 2	21	115	12.0	16.0	13		103		103
B 2a	24	120	13.5	18.0	20		104		104
B 2B	28	140	15.5	20.2	20		105		105
B 3	30	165	16.8	21.5	20		106		106

## 18310

## Female thread cutters

### Design

For a metric ISO thread 60°.

### Applications

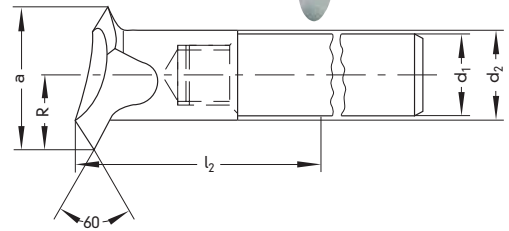
For screwing onto boring bars art. no. 18247.

### Quality

HSS, Quality class F (12% tungsten, 5% cobalt).



18310



60°/HSS/F

For boring bar	a bore From mm	l <sub>2</sub> mm	R mm	d <sub>2</sub> mm	d <sub>1</sub> boring bar mm	Thread pitch to mm	Thread pitch to TPI	18310	...
B 1	16	80	9.0	11.5	10	4	6.5		101
B 1a	18	85	10.3	12.5	13	5	5.0		102
B 2	21	115	12.0	15.0	13	6	4.0		103
B 2a	24	120	13.5	17.0	20	7	3.5		104
B 2B	28	140	15.5	20.2	20	8	3.0		105
B 3	30	165	16.8	21.5	20	9	2.5		106

## 18314

## Female thread cutters

### Design

For trapezoidal thread.

### Applications

For screwing onto boring bars art. no. 18247.

### Quality

HSS, Quality class F (12% tungsten, 5% cobalt).



18314

TR/HSS/F

For boring bar	min. core Ø mm	Pitch mm	18314	...
B 1	16	3		101
B 1a	18	4		102
B 2	21	5		103
B 2a	24	6		104
B 3	30	8		106

**18137 Grooving-tool assortment**

18137 201

**Design**

With two cutting edges on each indexable insert for very small-scale grooving work.

**Set contents:**

1 holder, right, 12 x 12 x 120 mm, 1 grooving indexable insert 0.9/1.1/1.3/1.6/1.85 mm in each case. In case, incl. TX key T8.

**Applications**

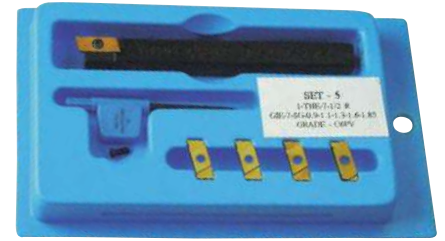
For locking grooves.

**Quality**

Indexable inserts P 25 PVD/TiN-coated.

18137 501

Clamping screws for grooving-tool assortment (art. no. 18137 201), grooving-tool holder (art. no. 18130) and grooving boring bars (art. no. 18133).



18137 201

Set contents	Size	TORX® Size		18137	...
7 pcs.	-	-			201
-	M 3 x 8	T 8	10 pcs.		501

18137 501

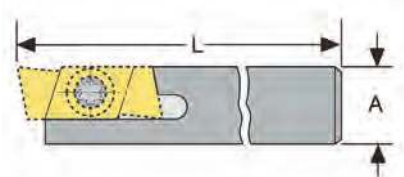


**18130 Grooving-tool external holder**

**Applications**

For grooving indexable inserts art. no. 18138.

Holder designation	A mm	L mm	Right	
			18130	...
THE 1010	10	120		102
THE 1212	12	120		103
THE 1616	16	125		104



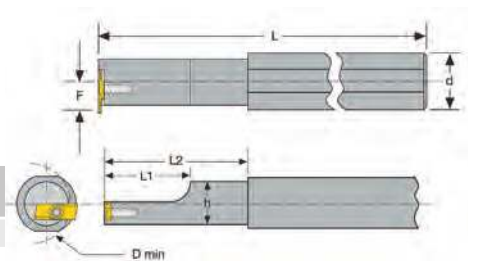
18130

**18133 Grooving boring bar, left**

**Applications**

For grooving indexable inserts art. no. 18138.

Holder designation	d mm	h mm	L mm	L <sub>1</sub> mm	L <sub>2</sub> mm	F mm	D min. mm	18133	...
THI-7-20	20	19.05	140	25	50	13.34	38.1		201



18133

**18138 Grooving indexable inserts**

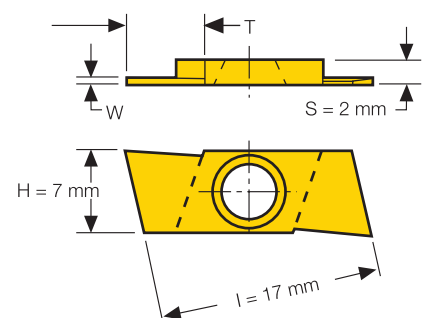
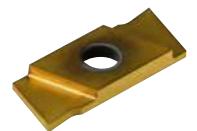
**Applications**

For locking grooves. Suitable for assortment art. no. 18137.

**Quality**

P 25 PVD/TiN-coated.

W +0.02/0 mm	T mm		P 25/TiN	...
			18138	
0.50	2.54	10 pcs.		210
0.70	2.54	10 pcs.		211
0.80	2.54	10 pcs.		212
0.90	2.54	10 pcs.		213
1.10	6.00	10 pcs.		214
1.30	6.00	10 pcs.		215
1.60	6.00	10 pcs.		216
1.85	6.00	10 pcs.		217



18138

**Design**

Right cutting, with internal coolant supply.

**Quality**

Inserts HC8615/TiN-coated.

**18320 101****Cutting-tool set mini-bore 1****Applications**

For internal extraction, internal recess turning and chamfering. For internal machining from bore diameter 3mm.

**18320 102****Cutting-tool set mini-bore 2****Applications**

For internal recess turning. For internal machining from bore diameter 4mm.

**18320 103****Cutting-tool set mini-bore 3****Applications**

For internal extraction. For internal machining from bore diameter 3 mm.

18320 101



18320 102



18320 103

**18320 101 mini-bore 1**

Set contents	Designation	Bore Ø mm	Bore depth mm	Grooving depth mm	Grooving width mm	Fig.
1x clamp holder	676.0016-D	-	-	-	-	-
1x clamp holder	645.0016-D	-	-	-	-	-
1x T-handle wrench	111.645	-	-	-	-	-
1x cutting insert	R 050.6-22	6	22	-	-	A
1x cutting insert	R 050.5-20	5	20	-	-	A
1x cutting insert	R 060.5-20	5	20	-	-	F
1x cutting insert	R 050.4-16	4	16	-	-	A
1x cutting insert	R 050.3-16	3	16	-	-	A
1x cutting insert	R 006.0200-22	6	22	1.8	2.0	E
1x cutting insert	R 006.0150-22	6	22	1.8	1.5	E
1x cutting insert	R 005.0200-20	5	20	1.0	2.0	E
1x cutting insert	R 005.0150-20	5	20	1.0	1.5	E
1x cutting insert	R 004.0100-16	4	16	0.8	1.0	E

**18320 102 mini-bore 2**

Set contents	Designation	Bore Ø mm	Bore depth mm	Grooving depth mm	Grooving width mm	Fig.
1x clamp holder	676.0016-D	-	-	-	-	-
1x clamp holder	645.0016-D	-	-	-	-	-
1x T-handle wrench	111.645	-	-	-	-	-
1x cutting insert	R 006.0200-22	6	22	1.8	2.0	E
1x cutting insert	R 006.0150-22	6	22	1.8	1.5	E
1x cutting insert	R 005.0200-20	5	20	1.0	2.0	E
1x cutting insert	R 005.0150-20	5	20	1.0	1.5	E
1x cutting insert	R 004.0100-16	4	16	0.8	1.0	E

**18320 103 mini-bore 3**

Set contents	Designation	Bore Ø mm	Bore depth mm	Grooving depth mm	Grooving width mm	Fig.
1x clamp holder	676.0016-D	-	-	-	-	-
1x clamp holder	645.0016-D	-	-	-	-	-
1x T-handle wrench	111.645	-	-	-	-	-
1x cutting insert	R 050.6-22	6	22	-	-	A
1x cutting insert	R 050.5-20	5	20	-	-	A
1x cutting insert	R 050.4-16	4	16	-	-	A
1x cutting insert	R 050.3-16	3	16	-	-	A

Fig. A

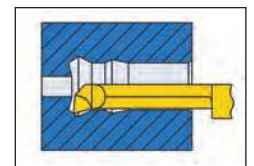


Fig. E

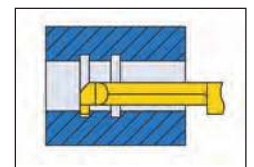
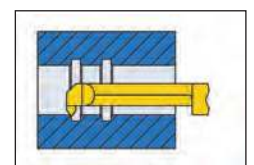


Fig. F



18320 ...

mini-bore 1	101
mini-bore 2	102
mini-bore 3	103



# Cutting-off and grooving tools

18321

## Clamp holder for system mini-bore

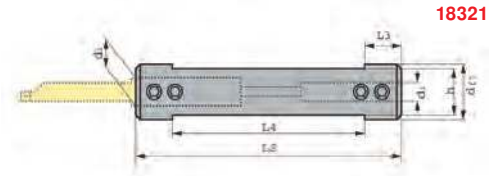


### Design

Clamp holder with 2 clamping diameters. Internal coolant feed. Built-in depth stop for exact reproducibility.

### Applications

For cutting inserts art. no.18322–18329.



18321

Model	For cutting insert Ø mm	Ødg6 mm	L <sub>2</sub> mm	L <sub>3</sub> mm	L <sub>4</sub> mm	h mm	18321	...
645.0012-D	4/5	12	75	10	55	10.3		101
645.0016-D	4/5	16	75	10	55	14.0		102
645.0020-D	4/5	20	90	10	70	18.0		103
676.0016-D	6/7	16	75	10	55	14.0		104
676.0020-D	6/7	20	90	10	70	18.0		105

18322 - 18325

## Cutting inserts for system mini-bore



### Design

With straight shank and lateral clamping surface for holding in the clamp holder.

### Applications

For internal extraction from bore diameter 0.6 mm.

### Quality

Cemented-carbide ultra-fine grain HC8615/TiN-coated.

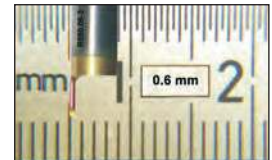
### 18324 101-111

Right cutting, for clamp holder 676.0016-D and 676.0020-D (art. no. 18321 104–105).

### 18325 101-111

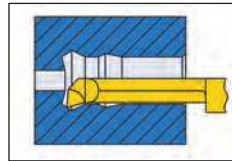
Left cutting, for clamp holder 676.0016-D and 676.0020-D (art. no. 18321 104–105).

18322 - 18325



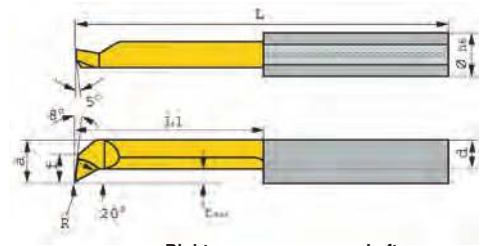
### 18322 101-120

Right cutting, for clamp holder 645.0012-D, 645.0016-D and 645.0020-D (art. no. 18321 101-103).



### 18323 101-120

Left cutting, for clamp holder 645.0012-D, 645.0016-D and 645.0020-D (art. no. 18321 101-103).



Model	Ø h6 mm	f mm	d mm	a mm	L mm	L <sub>1</sub> mm	t max. mm	D min. mm	R mm	Right		Left	
										18322	...	18323	...
R/L 050.06-2	4	-	0.4	0.5	20	2	0.08	0.6	0.04		101		101
R/L 050.06-3	4	-	0.4	0.5	20	3	0.08	0.6	0.04		102		102
R/L 050.15-5	4	-	1.15	1.3	19	5	0.1	1.5	0.05		103		103
R/L 050.15-10	4	-	1.15	1.3	24	10	0.1	1.5	0.05		104		104
R/L 050.2-5	4	-	1.5	1.7	19	5	0.1	2.0	0.05		105		105
R/L 050.2-10	4	-	1.5	1.7	24	10	0.1	2.0	0.05		106		106
R/L 050.2-15	4	-	1.5	1.7	29	15	0.1	2.0	0.05		107		107
R/L 050.3-10	4	0.6	2.3	2.6	24	10	0.2	2.8	0.1		108		108
R/L 050.3-16	4	0.6	2.3	2.6	30	16	0.2	2.8	0.1		109		109
R/L 050.3-20	4	0.6	2.3	2.6	34	20	0.2	2.8	0.1		110		110
R/L 050.4-10	4	1.5	3.0	3.5	24	10	0.3	4.0	0.1		111		111
R/L 050.4-16	4	1.5	3.0	3.5	30	16	0.3	4.0	0.1		112		112
R/L 050.4-20	4	1.5	3.0	3.5	34	20	0.3	4.0	0.1		113		113
R/L 050.4-24	4	1.5	3.0	3.5	38	24	0.3	4.0	0.1		114		114
R/L 050.5-10	5	1.9	3.8	4.4	25	10	0.5	5.0	0.15		116		116
R/L 050.5-20	5	1.9	3.8	4.4	35	20	0.5	5.0	0.15		118		118
R/L 050.5-30	5	1.9	3.8	4.4	45	30	0.5	5.0	0.15		120		120

Model	Ø h6 mm	f mm	d mm	a mm	L mm	L <sub>1</sub> mm	t max. mm	D min. mm	R mm	Right		Left	
										18324	...	18325	...
R/L 050.6-15	6	2.3	4.5	5.3	30	15	0.5	6.0	0.15		101		101
R/L 050.6-22	6	2.3	4.5	5.3	37	22	0.5	6.0	0.15		102		102
R/L 050.6-25	6	2.3	4.5	5.3	40	25	0.5	6.0	0.15		103		103
R/L 050.6-35	6	2.3	4.5	5.3	50	35	0.5	6.0	0.15		105		105
R/L 050.7-20	7	2.8	5.5	6.3	35	20	0.6	6.8	0.15		107		107
R/L 050.7-30	7	2.8	5.5	6.3	45	30	0.6	6.8	0.15		109		109
R/L 050.7-40	7	2.8	5.5	6.3	55	40	0.6	7.0	0.15		111		111

**Version**

With straight shank and lateral clamping surface for holding in the clamp holder.

**Applications**

For internal recessing from bore diameter 4 mm.

**Quality**

Cemented-carbide ultra-fine grain HC8615/TiN-coated.

**18326 101-119**

**Right cutting**, for clamp holder 645.0012-D, 645.0016-D and 645.0020-D (art. no. 18321 101-103).

**18327 101-119**

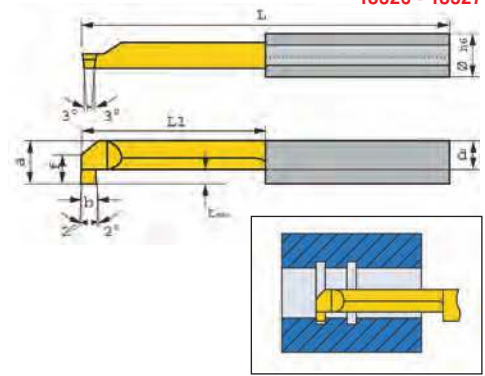
**Left cutting**, for clamp holder 645.0012-D, 645.0016-D and 645.0020-D (art. no. 18321 101-103).

**18326 127-159**

**Right cutting**, for clamp holder 676.0016-D and 676.0020-D (art. no. 18321 104-105).

**18327 127-159**

**Left cutting**, for clamp holder 676.0016-D and 676.0020-D (art. no. 18321 104-105).



18326 - 18327

Model	Ø h6 mm	b + 0,05 mm	f mm	d mm	a mm	L mm	L <sub>1</sub> mm	t max. mm	D min. mm	Right		Left	
										18326	...	18327	...
R/L 004.0100-10	4	1.0	1.5	2.4	3.5	24	10	0.8	4.0			101	101
R/L 004.0100-16	4	1.0	1.5	2.4	3.5	30	16	0.8	4.0			102	102
R/L 004.0100-20	4	1.0	1.5	2.4	3.5	34	20	0.8	4.0			103	103
R/L 005.0150-10	5	1.5	1.9	3.3	4.4	25	10	1.0	5.0			110	110
R/L 005.0150-20	5	1.5	1.9	3.3	4.4	35	20	1.0	5.0			112	112
R/L 005.0150-30	5	1.5	1.9	3.3	4.4	45	30	1.0	5.0			114	114
R/L 005.0200-10	5	2.0	1.9	3.3	4.4	25	10	1.0	5.0			115	115
R/L 005.0200-20	5	2.0	1.9	3.3	4.4	35	20	1.0	5.0			117	117
R/L 005.0200-30	5	2.0	1.9	3.3	4.4	45	30	1.0	5.0			119	119
R/L 006.0150-10	6	1.5	2.3	3.4	5.3	25	10	1.8	6.0			127	127
R/L 006.0150-22	6	1.5	2.3	3.4	5.3	37	22	1.8	6.0			129	129
R/L 006.0150-30	6	1.5	2.3	3.4	5.3	45	30	1.8	6.0			131	131
R/L 006.0200-10	6	2.0	2.3	3.4	5.3	25	10	1.8	6.0			133	133
R/L 006.0200-22	6	2.0	2.3	3.4	5.3	37	22	1.8	6.0			135	135
R/L 006.0200-25	6	2.0	2.3	3.4	5.3	40	25	1.8	6.0			136	136
R/L 007.0100-15	7	1.0	2.8	3.8	6.3	30	15	2.5	6.8			139	139
R/L 007.0100-25	7	1.0	2.8	3.8	6.3	40	25	2.5	6.8			141	141
R/L 007.0100-40	7	1.0	2.8	3.8	6.3	55	40	2.5	7.0			144	144
R/L 007.0100-50	7	1.0	2.8	3.8	6.3	65	50	2.5	7.0			146	146
R/L 007.0150-15	7	1.5	2.8	3.8	6.3	30	15	2.5	6.8			148	148
R/L 007.0150-25	7	1.5	2.8	3.8	6.3	40	25	2.5	6.8			150	150
R/L 007.0150-40	7	1.5	2.8	3.8	6.3	55	40	2.5	7.0			153	153
R/L 007.0200-15	7	2.0	2.8	3.8	6.3	30	15	2.5	6.8			155	155
R/L 007.0200-25	7	2.0	2.8	3.8	6.3	40	25	2.5	6.8			157	157
R/L 007.0200-35	7	2.0	2.8	3.8	6.3	50	35	2.5	7.0			159	159

# Cutting-off and grooving tools

18335 - 18337

## Clamp holders for system MINI-CUT



### Version

With internal cooling.

### Applications

For recess turning, extracting and thread cutting (internal) from diameter 7.8 mm.

18335

Cemented-carbide clamp holder

18336

Steel clamp holder

18335

18336



### Cemented-carbide clamp holder

Designation	Ø dg6 mm	l2 mm	l1 mm	l7 mm	d1 mm	f mm	a mm	h mm	For cutting plate	t max. mm	d min. mm	clamping screw	18335	...
608.0012.1 HM	12	21	80	48	6	4.8	7.8	11.0	R/LS08	1.0	8	M 2.6-MC	101	
608.0012.2 cemented carbide	12	30	90	48	6	4.8	7.8	11.0	R/LS08	1.0	8	M 2.6-MC	102	
608.0012.3 cemented carbide	12	42	100	48	6	4.8	7.8	11.0	R/LS08	1.0	8	M 2.6-MC	103	
608.0012.4 HM	12	50	115	48	6	4.8	7.8	11.0	R/LS08	1.0	8	M 2.6-MC	104	
611.0012.1 HM	12	29	95	60	8	6.7	10.7	10.5	R/LS11	2.3	11	M 3.5-MC	105	
611.0012.2 cemented carbide	12	42	110	60	8	6.7	10.7	10.5	R/LS11	2.3	11	M 3.5-MC	106	
611.0012.3 cemented carbide	12	56	120	60	8	6.7	10.7	10.5	R/LS11	2.3	11	M 3.5-MC	107	
611.0012.4 cemented carbide	12	64	130	60	8	6.7	10.7	10.5	R/LS11	2.3	11	M 3.5-MC	108	
614.0012.1 cemented carbide	12	34	100	609.5 x 11	9.0	13.8	10.5	R/LS14	4.0/6.5	14/17	M 4-MC	109		
614.0012.2 cemented carbide	12	45	110	609.5 x 11	9.0	13.8	10.5	R/LS14	4.0/6.5	14/17	M 4-MC	110		
614.0012.3 cemented carbide	12	64	130	609.5 x 11	9.0	13.8	10.5	R/LS14	4.0/6.5	14/17	M 4-MC	111		
614.0016.1 cemented carbide	16	34	100	609.5 x 11	9.0	13.8	14.5	R/LS14	4.0/6.5	14/17	M 4-MC	112		
614.0016.2 cemented carbide	16	45	110	609.5 x 11	9.0	13.8	14.5	R/LS14	4.0/6.5	14/17	M 4-MC	113		
614.0016.3 cemented carbide	16	64	130	609.5 x 11	9.0	13.8	14.5	R/LS14	4.0/6.5	14/17	M 4-MC	114		
614.0016.4 cemented carbide	16	75	145	609.5 x 11	9.0	13.8	14.5	R/LS14	4.0/6.5	14/17	M 4-MC	115		
616.0012.1 cemented carbide	12	40	130	60	11	10.2	15.7	10.5	R/LS16	4.3	16	M 5-MC	116	
616.0012.2 cemented carbide	12	56	130	60	11	10.2	15.7	10.5	R/LS16	4.3	16	M 5-MC	117	
616.0012.3 cemented carbide	12	80	150	60	11	10.2	15.7	10.5	R/LS16	4.3	16	M 5-MC	118	
616.0016.1 cemented carbide	16	40	130	60	11	10.2	15.7	14.5	R/LS16	4.3	16	M 5-MC	119	
616.0016.2 cemented carbide	16	56	130	60	11	10.2	15.7	14.5	R/LS16	4.3	16	M 5-MC	120	
616.0016.3 cemented carbide	16	80	150	60	11	10.2	15.7	14.5	R/LS16	4.3	16	M 5-MC	121	

### Steel clamp holder, short

Designation	Ø dg6 mm	l2 mm	l1 mm	d1 mm	f mm	a mm	h mm	For cutting plate	t max. mm	d min. mm	Clamping screw	18336	...
608.0016.1 ST	16	12	80	6	4.8	7.8	15.0	R/LS08	1.0	8	M 2.6-MC	101	
611.0016.2 ST	16	16	97	8	6.7	10.7	14.5	R/LS11	2.3	11	M 3.5-MC	102	
614.0016.3 ST	16	18	100	9.5 x 11	9.0	13.8	14.5	R/LS14	4.0/6.5	14/17	M 4-MC	103	
616.0016.3 ST	16	22	100	11	10.2	15.7	14.5	R/LS16	4.3	16	M 5-MC	104	

### Steel clamp holder, long

Designation	Ø dg6 mm	l2 mm	l1 mm	d1 mm	f mm	a mm	h mm	For cutting plate	t max. mm	d min. mm	Clamping screw	18336	...
608.0016.1E.ST	16	22	90	6 x 7	4.8	7.8	15.0	R/LS08	1.0	8	M 2.6-MC	201	
611.0016.2E.ST	16	29	110	8 x 9.5	6.7	10.7	14.5	R/LS11	2.3	11	M 3.5-MC	202	
614.0016.3E.ST	16	38	120	9.5 x 11	9.0	13.8	14.5	R/LS14	4.0/6.5	14/17	M 4-MC	203	
616.0016.3E.ST	16	42	120	11 x 13.5	10.2	15.7	14.5	R/LS16	4.3	16	M 5-MC	204	

18337 101-104



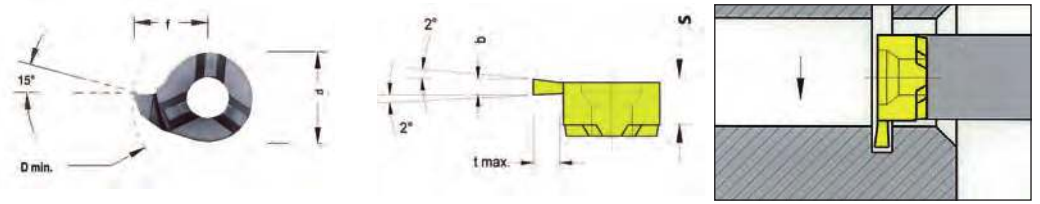
### Clamping screws

Designation	18337	...
M 2.6-MC	101	
M 3.5-MC	102	
M 4-MC	103	
M 5-MC	104	





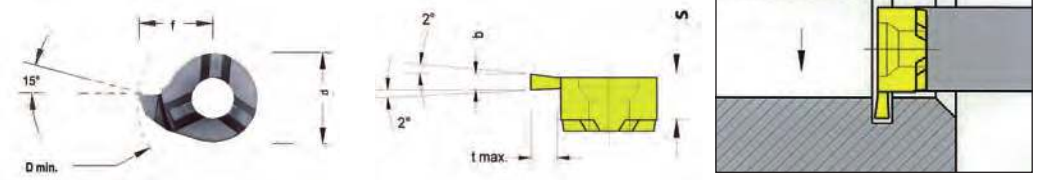
- For circlip grooves  
- Cemented carbide/HC8620  
TiAlN-coated



Designation	D min. mm	t max. mm	b + 0.03 mm	d mm	f mm	s mm	For clamp holder type	Right	...	Left	...
								18340		18340	
R/LS008.0070	8	1.0	0.73	6	4.8	3.3	608	101		201	
R/LS008.0080	8	1.0	0.83	6	4.8	3.3	608	102		202	
R/LS008.0090	8	1.0	0.93	6	4.8	3.3	608	103		203	
R/LS008.0110	8	1.0	1.20	6	4.8	3.3	608	104		204	
R/LS008.0130	8	1.0	1.40	6	4.8	3.3	608	105		205	
R/LS008.0160	8	1.0	1.70	6	4.8	3.3	608	106		206	
R/LS011.0070	11	1.2	0.73	8	6.7	4.2	611	107		207	
R/LS011.0080	11	1.3	0.83	8	6.7	4.2	611	108		208	
R/LS011.0090	11	1.5	0.93	8	6.7	4.2	611	109		209	
R/LS011.0110	11	2.3	1.20	8	6.7	4.2	611	110		210	
R/LS011.0130	11	2.3	1.40	8	6.7	4.2	611	111		211	
R/LS011.0160	11	2.3	1.70	8	6.7	4.2	611	112		212	
R/LS014.0070	14	1.2	0.73	9	9.0	5.3	614	113		213	
R/LS014.0080	14	1.3	0.83	9	9.0	5.3	614	114		214	
R/LS014.0090	14	1.5	0.93	9	9.0	5.3	614	115		215	
R/LS014.0110	14	4.0	1.20	9	9.0	5.3	614	116		216	
R/LS014.0130	14	4.0	1.40	9	9.0	5.3	614	117		217	
R/LS014.0160	14	4.0	1.70	9	9.0	5.3	614	118		218	
R/LS016.0070	16	1.2	0.73	11	10.2	5.4	616	119		219	
R/LS016.0080	16	1.3	0.83	11	10.2	5.4	616	120		220	
R/LS016.0090	16	1.5	0.93	11	10.2	5.4	616	121		221	
R/LS016.0110	16	4.3	1.20	11	10.2	5.4	616	122		222	
R/LS016.0130	16	4.3	1.40	11	10.2	5.4	616	123		223	
R/LS016.0160	16	4.3	1.70	11	10.2	5.4	616	124		224	



- Recess turning **general**  
- Cemented carbide/HC8620  
TiAlN-coated



Designation	D min. mm	t max. mm	b + 0.03 mm	d mm	f mm	s mm	For clamp holder type	Right	...	Left	...
								18341		18341	
R/LS008.0100	8	1.0	1.0	6	4.8	3.3	608	101		201	
R/LS008.0150	8	1.0	1.5	6	4.8	3.3	608	102		202	
R/LS008.0200	8	1.0	2.0	6	4.8	3.3	608	103		203	
R/LS011.0100	11	2.3	1.0	8	6.7	4.2	611	104		204	
R/LS011.0150	11	2.3	1.5	8	6.7	4.2	611	105		205	
R/LS011.0200	11	2.3	2.0	8	6.7	4.2	611	106		206	
R/LS011.0250	11	2.3	2.5	8	6.7	4.2	611	107		207	
R/LS011.0300	11	2.3	3.0	8	6.7	4.2	611	108		208	
R/LS014.0150	14	4.0	1.5	9	9.0	5.3	614	109		209	
R/LS014.0200	14	4.0	2.0	9	9.0	5.3	614	110		210	
R/LS014.0250	14	4.0	2.5	9	9.0	5.3	614	111		211	
R/LS014.0300	14	4.0	3.0	9	9.0	5.3	614	112		212	
R/LS016.0150	16	4.3	1.5	11	10.2	5.4	616	113		213	
R/LS016.0200	16	4.3	2.0	11	10.2	5.4	616	114		214	
R/LS016.0250	16	4.3	2.5	11	10.2	5.4	616	115		215	
R/LS016.0300	16	4.3	3.0	11	10.2	5.4	616	116		216	
R/LS016.0350	16	4.3	3.5	11	10.2	5.4	616	117		217	
R/LS016.0400	16	4.3	4.0	11	10.2	5.4	616	118		218	

Continued

# Cutting-off and grooving tools

18340 - 18352

Cemented-carbide cutting plates for system MINI-CUT

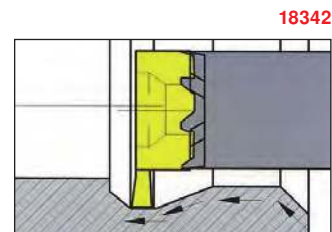
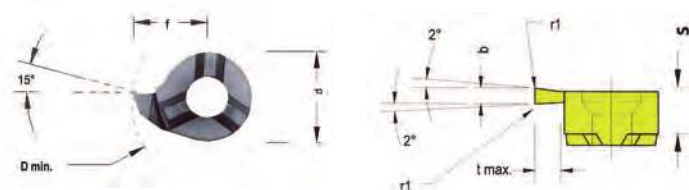


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### Finishing inserts

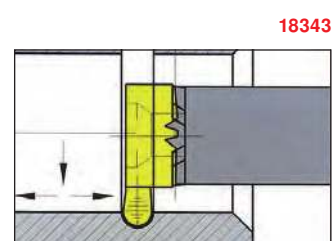
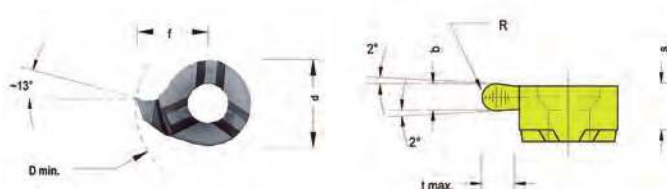
- Maximum cutting depth = 0.02 mm
- Cemented carbide/HC8620
- TiAlN-coated



Designation	D min. mm	t max. mm	b + 0.05 mm	d mm	f mm	s mm	For clamp holder type	Right	Left
								18342	18342
R/LS08.150.02	8	1.0	1.5	6	4.8	3.3	608	101	201
R/LS08.200.02	8	1.0	2.0	6	4.8	3.3	608	102	202
R/LS11.150.02	11	2.3	1.5	8	6.7	4.2	611	103	203
R/LS11.200.02	11	2.3	2.0	8	6.7	4.2	611	104	204
R/LS14.150.02	14	4.0	1.5	9	9.0	5.3	614	105	205
R/LS14.200.02	14	4.0	2.0	9	9.0	5.3	614	106	206
R/LS16.200.02	16	4.3	2.0	11	10.2	5.4	616	107	207



- full radius
- Cemented carbide/HC8620
- TiAlN-coated

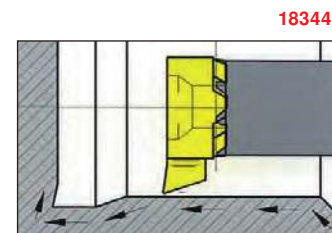
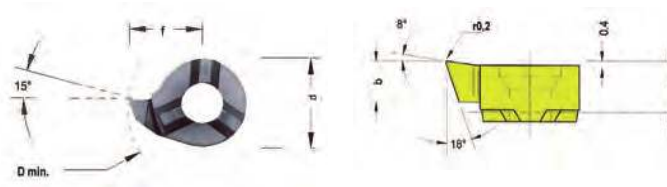


Designation	D min. mm	t max. mm	b + 0.05 mm	d mm	f mm	s mm	For clamp holder type	Right	Left
								18343	18343
R/LS08.008R04	8	1.0	0.8	6	4.8	3.3	608	101	201
R/LS08.012R06	8	1.0	1.2	6	4.8	3.3	608	102	202
R/LS08.018R09	8	1.0	1.8	6	4.8	3.3	608	103	203
R/LS11.008R04	11	2.3	0.8	8	6.7	4.2	611	104	204
R/LS11.012R06	11	2.3	1.2	8	6.7	4.2	611	105	205
R/LS11.018R09	11	2.3	1.8	8	6.7	4.2	611	106	206
R/LS11.020R10	11	2.3	2.0	8	6.7	4.2	611	107	207
R/LS11.030R15	11	2.3	3.0	8	6.7	4.2	611	108	208
R/LS14.012R06	14	4.0	1.2	9	9.0	5.3	614	109	209
R/LS14.018R09	14	4.0	1.8	9	9.0	5.3	614	110	210
R/LS14.020R10	14	4.0	2.0	9	9.0	5.3	614	111	211
R/LS14.022R11	14	4.0	2.2	9	9.0	5.3	614	112	212
R/LS14.030R15	14	4.0	3.0	9	9.0	5.3	614	113	213
R/LS16.018R09	16	4.3	1.8	11	10.2	5.4	616	114	214
R/LS16.022R11	16	4.3	2.2	11	10.2	5.4	616	115	215
R/LS16.030R15	16	4.3	3.0	11	10.2	5.4	616	116	216
R/LS16.040R20	16	4.3	4.0	11	10.2	5.4	616	117	217



### copy plates

- Ap max = maximum cutting depth
- Cemented carbide/HC8620
- TiAlN-coated



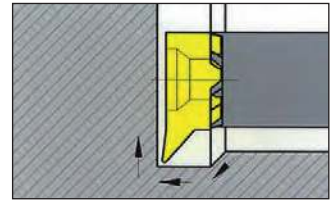
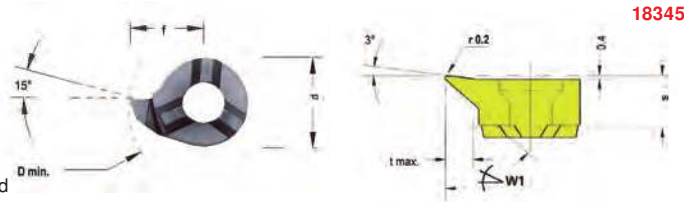
Designation	D min. mm	Ap max. mm	b mm	d mm	f mm	s mm	For clamp holder type	Right	Left
								18344	18344
R/LS08.1846.02	7.8	0.6	3.3	6	4.65	3.5	608	101	201
R/LS11.1855.02	9.8	1.0	3.9	8	5.50	4.2	611	102	202
R/LS11.1867.02	11.0	1.0	3.9	8	6.70	4.2	611	103	203
R/LS14.1867.02	13.8	1.5	5.0	9	8.70	5.3	614	104	204
R/LS16.1897.02	15.5	1.5	5.0	11	9.70	5.4	614	105	205

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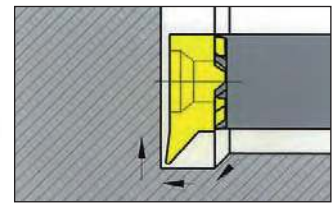
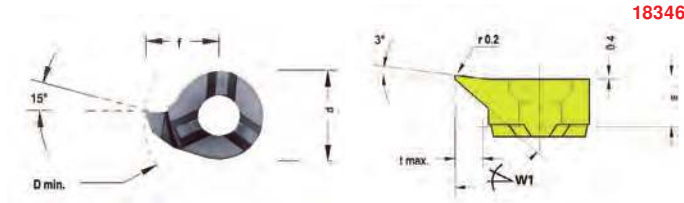
**Relief grooving inserts**  
- Extraction, internal relief grooves (DIN 509)  
-  $A_p \text{ max}$  = maximum cutting depth  
- Angle  $W1 = 47^\circ$   
- Cemented carbide/HC8620 TiAlN-coated



Designation	D min. mm	t max. mm	Ap max. mm	d mm	f mm	s mm	For clamp holder type	Right	Left
								18345	18345
R/LS08.4746.02	7.8	1.2	0.4	6	4.65	3.5	608	101	201
R/LS11.4767.02	11.0	2.3	0.6	8	6.70	4.2	611	102	202
R/LS14.4787.02	13.7	3.0	0.8	9	8.70	5.3	614	103	203



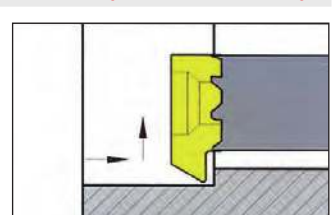
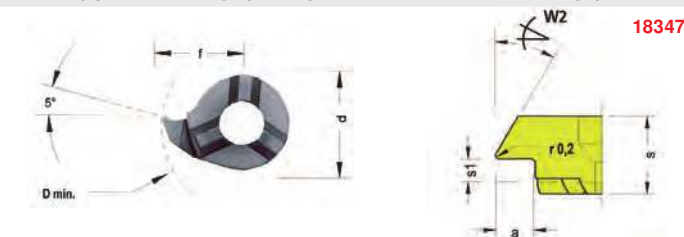
**Copy swivel plates**  
- Angle  $W1 = 30^\circ$   
- Cemented carbide/HC8620 TiAlN-coated



Designation	D min. mm	t max. mm	Ap max. mm	d mm	f mm	s mm	For clamp holder type	Right	Left
								18346	18346
R/LS08.2555.02	7.8	1.2	0.4	6	4.65	3.5	608	101	201
R/LS11.2755.02	11.0	2.3	0.6	8	6.70	4.2	611	102	202
R/LS14.3555.02	13.7	4.0	0.8	9	8.70	5.3	614	103	203
R/LS16.4055.02	15.8	4.3	0.8	11	10.20	5.4	616	104	204



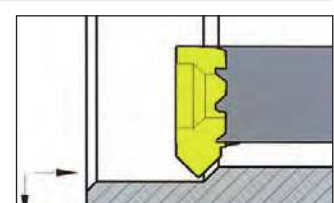
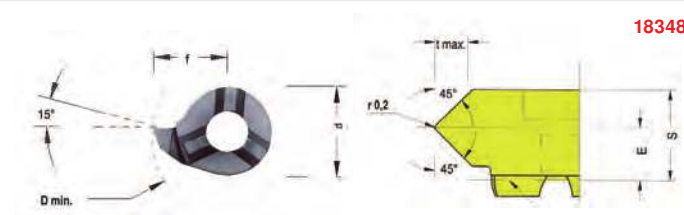
**Reverse swivel plates**  
-  $A_p \text{ max}$  = maximum cutting depth  
- Angle  $W2 = 30^\circ$   
- Cemented carbide/HC8620 TiAlN-coated



Designation	D min. mm	t max. mm	Ap max. mm	s1 mm	d mm	f mm	s mm	For clamp holder type	Right	Left
									18347	18347
R/LS08.3046.02	7.8	1.3	0.6	1.0	6	4.65	3.5	608	101	201
R/LS11.3067.02	11.0	2.3	1.0	1.6	8	6.70	4.3	611	102	202
R/LS14.3087.02	13.8	3.5	1.5	2.4	9	8.70	5.4	614	103	203



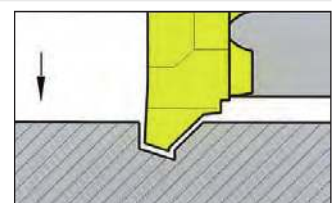
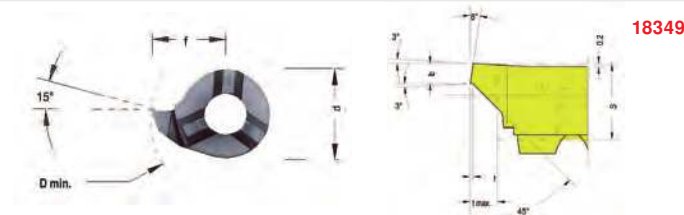
**Chamfer swivel plates**  
- Chamfering and extracting  
-  $A_p \text{ max}$  = maximum cutting depth  
- Cemented carbide/HC8620 TiAlN-coated



Designation	D min. mm	t max. mm	Ap max. mm	e mm	d mm	f mm	s mm	For clamp holder type	Right	Left
									18348	18348
R/LS08.4545.02	8	1.4	0.6	1.8	6	4.8	3.5	608	101	201
R/LS11.4545.02	11	1.5	1.0	2.2	8	6.7	4.3	611	102	202
R/LS14.4545.02	14	1.5	1.2	2.8	9	9.0	5.4	614	103	203



**Pre-cutting plates**  
- Pre-cutting and chamfering  
-  $t = 0.2 \text{ mm}$   
- Cemented carbide/HC8620 TiAlN-coated



Designation	D min. mm	t max. mm	b mm	d mm	f mm	s mm	For clamp holder type	Right	Left
								18349	18349
R/LS08.0810.45	8	1.0	1.0	6.0	4.8	3.3	608	101	201
R/LS11.0810.45	11	1.5	1.0	8.0	6.7	4.2	611	102	202
R/LS14.0815.45	14	1.5	1.0	9.0	9.0	5.3	614	103	203
R/LS16.0815.45	16	1.5	1.0	11.0	10.2	5.4	616	104	204

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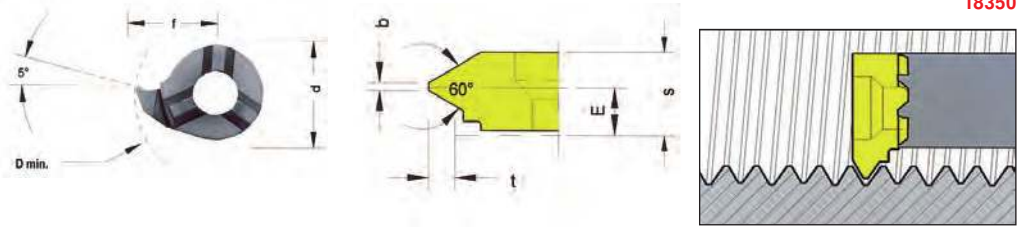
# Cutting-off and grooving tools

## 18340 - 18352 Cemented-carbide cutting plates for system MINI-CUT



Continued ▶

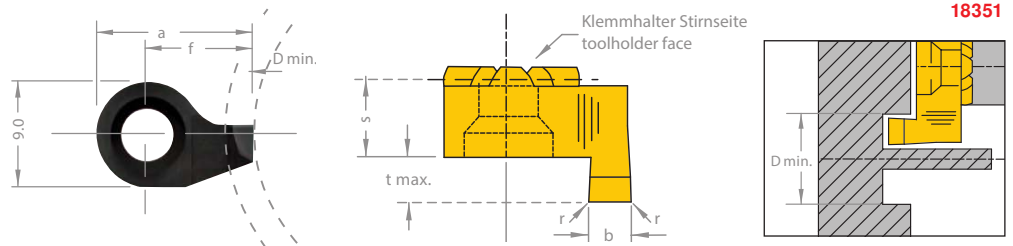
**Dümmel**  
WERKZEUGFABRIK  
**Thread-cutting inserts 60°**  
- Standard thread partial profile  
- t = 0.2 mm  
- Cemented carbide/HC8620  
TiAlN-coated



18350

Designation	D min. mm	pitch mm	t mm	e mm	b mm	f mm	s mm	d mm	For clamp holder type	Right	Left
										18350	18350
R/LS08.0815.01	8	1.5/1.75	0.95	2.25	0.18	4.8	3.5	6	608	101	201
R/LS11.1020.01	11	2.0/2.5	1.08	3.00	0.25	6.7	4.3	8	611	102	202
R/LS11.1325.01	11	2.5/3.0	1.35	3.00	0.31	6.7	4.3	8	611	103	203
R/LS14.1020.01	14	2.0/2.5	1.08	3.90	0.25	9.0	5.4	9	614	104	204
R/LS14.1325.01	14	2.5/3.0	1.35	3.65	0.31	9.0	5.4	9	614	105	205
R/LS16.1325.01	16	2.5/3.0	1.35	3.70	0.31	10.2	5.5	11	616	106	206

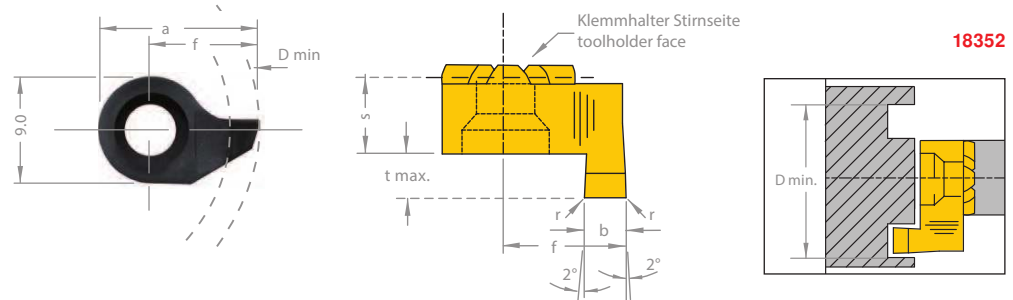
**Dümmel**  
WERKZEUGFABRIK  
**Axial grooving inserts**  
- Axial grooving past the pin  
- Cemented carbide/HC8620  
TiAlN-coated



18351

Designation	D min. mm	t max. mm	b + 0.03 mm	a mm	r mm	f mm	s mm	For clamp holder type	Right	Left
									18351	18351
R/LS014.1210.00	12	1.5	1.0	11.5	-	7.0	8.3	614	101	201
R/LS014.1215.02	12	2.5	1.5	12.0	0.2	7.5	8.3	614	102	202
R/LS014.1220.02	12	3.0	2.0	12.5	0.2	8.0	8.3	614	103	203
R/LS014.1225.02	12	3.0	2.5	13.0	0.2	8.5	8.3	614	104	204
R/LS014.1230.02	12	3.0	3.0	13.5	0.2	9.0	8.3	614	105	205
R/LS014.1220.52	12	5.0	2.0	12.5	0.2	8.0	10.3	614	106	206
R/LS014.1225.52	12	5.0	2.5	13.0	0.2	8.5	10.3	614	107	207
R/LS014.1230.52	12	5.0	3.0	13.5	0.2	9.0	11.3	614	108	208

**Dümmel**  
WERKZEUGFABRIK  
**Axial grooving inserts**  
- Axial grooving  
- Cemented carbide/HC8620  
TiAlN-coated



18352

Designation	D min. mm	t max. mm	b + 0.03 mm	a mm	r mm	f mm	s mm	For clamp holder type	Right	Left
									18352	18352
R/LS014.1410.00	14	1.5	1.0	13.5	-	9	8.3	614	101	201
R/LS014.1415.02	14	2.5	1.5	13.5	0.2	9	8.3	614	102	202
R/LS014.1420.02	14	3.0	2.0	13.5	0.2	9	8.3	614	103	203
R/LS014.1425.02	14	3.0	2.5	13.5	0.2	9	8.3	614	104	204
R/LS014.1430.02	14	3.0	3.0	13.5	0.2	9	8.3	614	105	205
R/LS014.1420.52	14	5.0	2.0	13.5	0.2	9	10.3	614	106	206
R/LS014.1425.52	14	5.0	2.5	13.5	0.2	9	10.3	614	107	207
R/LS014.1430.52	14	5.0	3.0	13.5	0.2	9	10.3	614	108	208

Lathe tools