

Cutting-off and grooving tools

18670

Basic holder for blades

ATORN®

Design

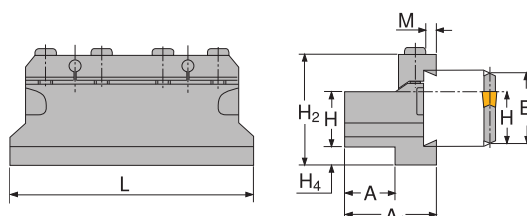
Delivered without blade.

Applications

For clockwise and anti-clockwise rotation.

Note:

Dimension B corresponds to the construction height of the blade.



Designation	B mm	H mm	A mm	M mm	L mm	A ₁ mm	H ₄ mm	H ₂ mm	Screw	18670	...
ATBN 16-2	19	16	16	2.0	76	26	4	30	SR-M5 x 25		101
ATBN 16-5	26	16	16	4.0	76	30	12	38	SR-M6 x 30		102
ATBN 19-5	26	19	19	5.0	87	33	9	38	SR-M6 x 30		103
ATBN 20-5	26	20	19	4.0	87	33	8	38	SR-M6 x 30		104
ATBN 20-6	32	20	19	5.5	100	35	13	48	SR-M6 x 40		105
ATBN 25-6	32	25	20	5.5	110	36	8	48	SR-M6 x 40		106
ATBN 32-6	32	32	28	5.5	120	44	3	48	SR-M6 x 40		107

18672

Blades

Design

Without depth stop.

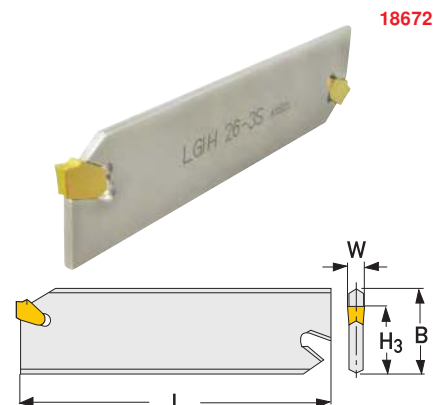
Applications

For clockwise and anti-clockwise rotation. For

holding cutting inserts art. no. 18674–18675.

For basic holder art. no. 18670.

Designation	D _{max} mm	W mm	B mm	L mm	H ₃ mm	18672	...
SGIH 26-2	50	2.2	26	110	21.4		102
SGIH 26-3	75	3.1	26	110	21.4		103
SGIH 26-4	80	4.1	26	110	21.4		104
SGIH 32-2	40	2.2	32	150	25.0		107
SGIH 32-3	100	3.1	32	150	25.0		108
SGIH 32-4	100	4.1	32	150	25.0		109
SGIH 32-5	120	5.1	32	150	25.0		110



18674

Cutting inserts for grooving and cutting off

Design

Neutral.

Applications

Suitable for blades art. no. 18672.

Applications

Cemented carbide grade

Coating

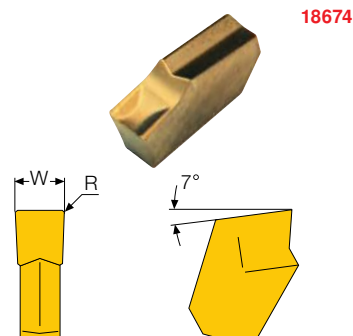
P M K

H 42

coated

18674

Designation	W _{±0.1} mm	R _{±0.05} mm		18674	...
GTN-2	2.2	0.16	10 pcs.		113
GTN-3	3.1	0.20	10 pcs.		114
GTN-4	4.1	0.24	10 pcs.		115
GTN-5	5.1	0.28	10 pcs.		116



18675

Cutting inserts for cutting off

Design

Right.

Applications

Suitable for blades art. no. 18672.

Applications

Cemented carbide grade

Coating

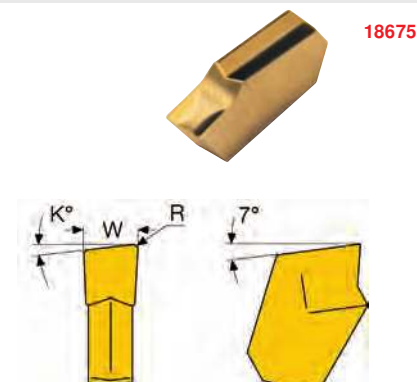
P M K

H 42

coated

18675

Designation	W _{±0.1} mm	K°	R _{±0.05} mm		18675	...
GTR-3-4D	3.1	4°	0.20	10 pcs.		225
GTR-4-4D	4.1	4°	0.24	10 pcs.		230



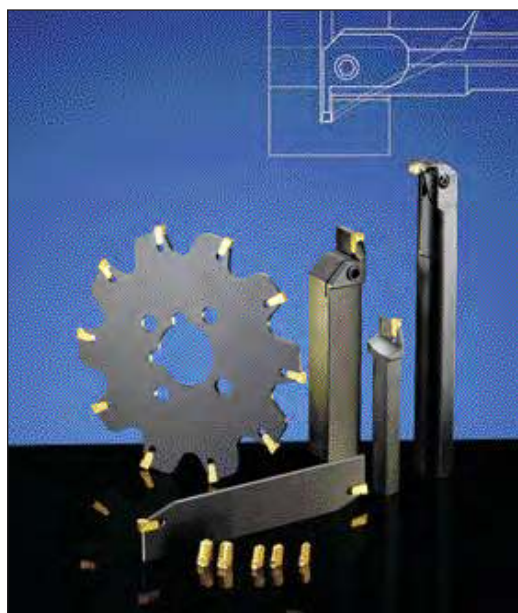


The A-CUT system covers a wide range of machining operations. It is unique because of its flexibility and economy. There are five different types of cutting inserts and a wide range of holders.

Possible operations of the A-CUT system:

- Tapping and grooving
- Deep precision engravings
- Turning and copying
- Undercutting and fine turning
- Groove milling
- Axial grooving

A-CUT cutting inserts are offered with chip breakers in four different geometries. Each is designed for optimal performance in a specific application. Choose the geometry that best suits your application.



Geometry C

AIMC cutting inserts are ideal for tapping and grooving most steel materials, alloyed steel and stainless steel. They have a strong cutting edge which makes them the first choice for hard materials and rough conditions at medium to high feed rates.

Geometry J

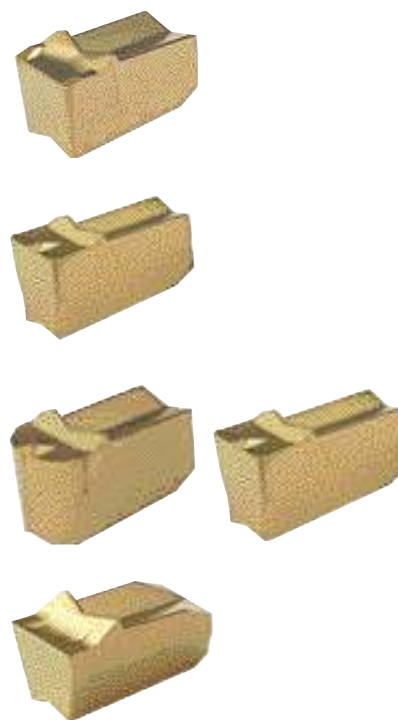
AIMJ cutting inserts are ideal for tapping and grooving in general operations involving low feed rates on carbon steel, alloy steel and austenitic stainless steel. The cutting edge has a positive clamping angle, making this design a first choice for soft materials, small diameters and thin-walled parts.

Geometry V

AIPV cutting inserts are designed for machining precision recesses, for free turning and for profile work (width tolerance ± 0.02 mm). These cutting inserts are available with different corner radii. The V-version has a multi-directional chip breaker.

Geometry F

AIMF cutting inserts have been specially developed for axial and frontal grooving. The cutting edge height for small diameters has been designed to be centred to allow the grooves to be widened by a series of overlapping grooves.



Selection of cemented carbide grade

	A-CUT quality	ISO	Physical properties HRA, BBF= bending strength... N/mm ²	Material	Recommended application area
Uncoated	HW 3410	K10-K20	HRA 92.5 BBF 2.250 N/mm ²	Cast iron with lamellar graphite over HB 220, malleable cast iron, aluminium and aluminium-silicon, copper alloys, phenolic resin laminate and highly heat-resistant alloys	For medium machining and finishing at medium cutting speeds and feed rates
Coated	HC 3630	P20-P40	CVD coated Multilayer TIC+TiCN+TiN	Carbon steel, alloy steel, cast steel, malleable cast iron, austenitic steel, martensitic stainless steel, free-cutting steel	Suitable for medium-heavy finishing and roughing, machining with interrupted cut
	HC 3635	P25-P45 M20-M30 K20-K40	PVD coated TiCN	Steel, alloy steel, stainless steel	For general applications at medium cutting speeds and in unstable machine conditions

Cutting-off and grooving tools

18680

Blades A-CUT

ATORN®

18680

Applications

For **cutting off** and **deep grooving**.

For cutting inserts AIMC, AIMJ and AIPV (art. no. 18687–18696).

Note:

Blades should not be used for turning or copy turning operations.

Delivered without cutting inserts.



Designation	B mm	W mm	A mm	L mm	H mm	Max. workpiece Ø mm	Matching basic holder	18680	...
AH 101 19 2	19	2.2	1.6	86	15.7	38	ATBN 16-2		202
AH 101 26 2	26	2.2	1.6	110	21.4	50	ATBN 16-5/ATBN 19-5/ATBN 20-5		204
AH 101 26 3	26	3.1	2.4	110	21.4	75	ATBN 16-5/ATBN 19-5/ATBN 20-5		205
AH 101 26 4	26	4.1	3.2	110	21.4	80	ATBN 16-5/ATBN 19-5/ATBN 20-5		206
AH 101 32 2	32	2.2	1.6	150	24.8	50	ATBN 20-6/ATBN 25-6/ATBN 32-6		209
AH 101 32 3	32	3.1	2.4	150	24.8	100	ATBN 20-6/ATBN 25-6/ATBN 32-6		210
AH 101 32 4	32	4.1	3.2	150	24.8	100	ATBN 20-6/ATBN 25-6/ATBN 32-6		211
AH 101 32 5	32	5.1	4.0	150	24.8	125	ATBN 20-6/ATBN 25-6/ATBN 32-6		212
AH 101 32 6	32	6.4	5.2	150	24.8	125	ATBN 20-6/ATBN 25-6/ATBN 32-6		213

18681

Clamp holder A-CUT

ATORN®

18681

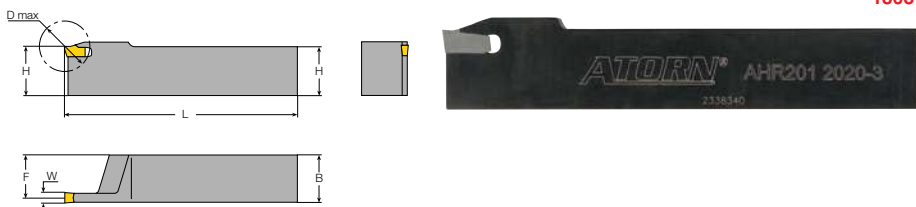
Applications

For **cutting off** and **grooving**. For cutting inserts AIMC, AIMJ and AIPV (art. no. 18687–18696).

Note:

Clamp holders should not be used for turning (use clamp holder art. no. 18682 for this operation).

Delivered with ejector, without cutting inserts.



Designation	H mm	W mm	B mm	L mm	F mm	Max. workpiece Ø mm	Right		Left	
							18681	...	18681	...
AHR/L 201 1212 2	12	2.2	12	110	11.2	32		201		301
AHR/L 201 1212 3	12	3.1	12	110	10.8	32		202		302
AHR/L 201 1616 2	16	2.2	16	110	15.2	32		203		303
AHR/L 201 1616 3	16	3.1	16	110	14.8	35		204		304
AHR/L 201 2020 2	20	2.2	20	110	19.2	35		206		306
AHR/L 201 2020 3	20	3.1	20	120	18.8	52		207		307
AHR/L 201 2020 4	20	4.1	20	120	18.4	57		208		308
AHR/L 201 2525 3	25	3.1	25	150	23.8	56		209		309
AHR/L 201 2525 4	25	4.1	25	150	23.4	65		210		310

18682

Clamp holder A-CUT

ATORN®

18682

Applications

For **cutting off**, **grooving** and **turning**.

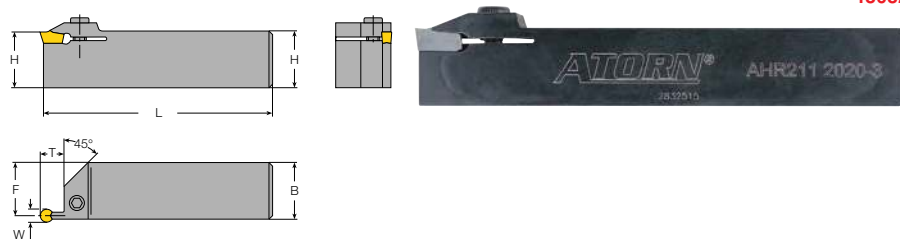
For cutting inserts AIMC, AIMJ and AIPV (art. no. 18687–18696).

Note:

Cutting inserts AIMC and AIMJ (art. no. 18687–18692) should be used only for grooving.

Delivered without cutting inserts.

For clamping screw, see art. no. 18685.



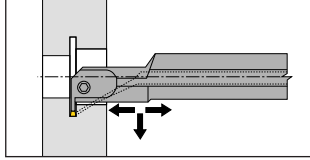
Designation	H mm	W mm	B mm	L mm	F mm	T mm	Clamping screw	Right		Left	
								18682	...	18682	...
AHR/L 211 1616 3	16	3.1	16	100	14.7	9.9	M5 x 16		201		301
AHR/L 211 1616 4	16	4.1	16	100	14.2	13.0	M5 x 16		202		302
AHR/L 211 2020 3	20	3.1	20	125	18.7	9.9	M5 x 20		203		303
AHR/L 211 2020 4	20	4.1	20	125	18.2	13.0	M5 x 20		204		304
AHR/L 211 2525 3	25	3.1	25	150	23.7	9.9	M5 x 20		205		305
AHR/L 211 2525 4	25	4.1	25	150	23.2	13.0	M5 x 25		206		306
AHR/L 211 2525 5	25	5.1	25	150	22.7	13.0	M5 x 25		207		307
AHR/L 211 2525 6	25	6.4	25	150	22.2	16.0	M5 x 25		208		308


ATORN®
Design

With internal coolant supply. Seal thread R 1/8. When using the seal, the boring bar can be shortened by up to 100 mm.

Applications

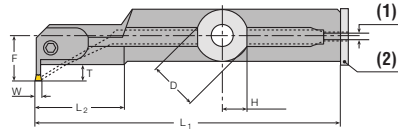
For **internal turning** and **grooving**. For cutting inserts AIMC, AIMJ and AIPV (art. no. 18687–18696).


Note:

Cutting inserts AIMC and AIMJ (art. no. 18687–18692) should be used only for grooving. For best results, the cutting edge height should be above the centre by dimension C. Supplied complete with clamping screw (art. no. 18685), TORX® key T20 and seal, **without** cutting inserts.



18684



(1) Sealing thread
(2) Seal

Designation	D mm	Smallest bore Ø in mm	Tmax mm	C mm	W mm	F mm	L ₁ mm	L ₂ mm	H mm	Clamping screw	Right		Left	
											18684	...	18684	...
AHR/L 619 25C 2	25	35	6.5	0.3	2.2	20.0	200	51.0	11.5	SR 76-1021		201		301
AHR/L 619 25C 3	25	47	8.0	0.5	3.1	20.8	200	51.0	11.5	SR 76-1022		202		302
AHR/L 619 25C 4	25	47	8.0	0.5	4.1	20.8	200	51.0	11.5	SR 76-1022		203		303
AHR/L 619 32C 2	32	43	7.5	0.3	2.2	25.0	250	63.5	14.5	SR 76-1022		204		304
AHR/L 619 32C 3	32	52	10.0	0.5	3.1	26.6	250	57.0	14.5	SR 76-1022		205		305
AHR/L 619 32C 4	32	52	10.0	0.5	4.1	26.6	250	51.0	14.0	SR 76-1022		206		306
AHR/L 619 40C 4	40	47	12.0	0.5	4.1	33.0	300	51.0	18.0	SR 76-1022		210		310

ATORN®
Applications

For A CUT clamp holder, art. no. 18682 and A-CUT boring bars, art. no. 18684.

18685

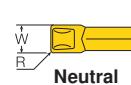
Designation		18685	...
M5 x 16 hexagon socket	10 pcs.		101
M5 x 20 hexagon socket	10 pcs.		102
M5 x 25 hexagon socket	10 pcs.		103
M6 x 25 hexagon socket	10 pcs.		104
SR 76-1021 TORX®	10 pcs.		105
SR 76-1022 TORX®	10 pcs.		106


ATORN®
Design

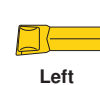
With chip breaker geometry C (strong cutting edge).

Applications

For **cutting off and grooving** in most steels, alloyed steel and stainless steel. For hard materials and rough conditions with mid-range to high feed rates.



Neutral



Left



Right



18687 - 18689

Applications
Cemented carbide grade
Coating

Designation	W mm	K degrees	R mm		NK		PMK		P	
					HW 3410 uncoated 18687	...	HC 3635 coated 18688	...	HC 3630 coated 18689	...
AIMC 1.6	1.6	0	0.16	5 pcs.		301				501
AIMC 2	2.2	0	0.20	5 pcs.		302		402		502
AIMC 2 6L	2.2	6	0.20	5 pcs.		303				503
AIMC 2 6R	2.2	6	0.20	5 pcs.		304				504
AIMC 3	3.1	0	0.20	5 pcs.		305		405		505
AIMC 3 6L	3.1	6	0.20	5 pcs.		306		406		506
AIMC 3 6R	3.1	6	0.20	5 pcs.		307		407		507
AIMC 4	4.1	0	0.25	5 pcs.		308		408		508
AIMC 4 6L	4.1	6	0.25	5 pcs.		309				509
AIMC 4 6R	4.1	6	0.25	5 pcs.		310				510
AIMC 5	5.1	0	0.30	5 pcs.		311		411		511
AIMC 5 6L	5.1	6	0.30	5 pcs.		312				512
AIMC 5 6R	5.1	6	0.30	5 pcs.		313				513
AIMC 6	6.4	0	0.35	5 pcs.		314		414		514
AIMC 6 6L	6.4	6	0.35	5 pcs.		315				515
AIMC 6 6R	6.4	6	0.35	5 pcs.		316				516

Cutting-off and grooving tools

18690 - 18692

Cutting inserts A-CUT AIMJ

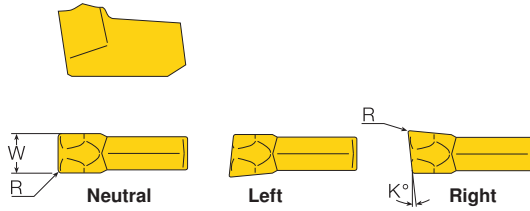
ATORN®

Design

With chip breaker geometry J (cutting edge with positive chip angle).

Applications

For **cutting off and grooving** in general operations at low feed rates with carbon steel, alloy steel and austenitic, stainless steel. For soft materials, small diameters and thin-walled parts.



18690 - 18692



Applications
Cemented carbide grade
Coating

NK
HW 3410
uncoated
18690 ...

PMK
HC 3635
coated
18691 ...

P
HC 3630
coated
18692 ...

Designation	W ± 0.1 mm	K degrees	R mm					
AIMJ 2	2.2	0	0.20	5 pcs.		301	401	501
AIMJ 2 6L	2.2	6	0.20	5 pcs.		302	402	502
AIMJ 2 6R	2.2	6	0.20	5 pcs.		303	403	503
AIMJ 3	3.1	0	0.20	5 pcs.		304	404	504
AIMJ 3 6L	3.1	6	0.20	5 pcs.		305	405	505
AIMJ 3 6R	3.1	6	0.20	5 pcs.		306	406	506
AIMJ 4	4.1	0	0.25	5 pcs.		307	407	507
AIMJ 4 6L	4.1	6	0.25	5 pcs.		308		508
AIMJ 4 6R	4.1	6	0.25	5 pcs.		309	409	509
AIMJ 5	5.1	0	0.30	5 pcs.		310		510

18695

Cutting inserts A-CUT AIPV

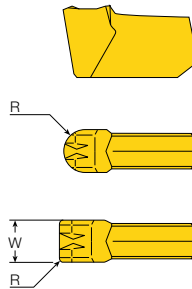
ATORN®

Design

With chip breaker geometry V (multi-directional chip breaker).

Applications

For machining **precision grooves**, for **free-turning** and for **profiling**.



18695



Applications
Cemented carbide grade
Coating

PMK
HC 3635
coated
18695 ...

Designation	W ± 0.02 mm	R mm		
AIPV 3.00E 0.40	3	0.4	5 pcs.	201
AIPV 4.00E 0.40	4	0.4	5 pcs.	202
AIPV 6.00E 0.40	6	0.4	5 pcs.	204

Applications
Cemented carbide grade
Coating

PMK
HC 3635
coated
18695 ...

Designation	W ± 0.02 mm	R mm		
AIPV 3.00E 1.50	3	1.5	5 pcs.	205
AIPV 4.00E 2.00	4	2.0	5 pcs.	206
AIPV 6.00E 3.00	6	3.0	5 pcs.	208

18696

Cutting inserts A-CUT AIPV

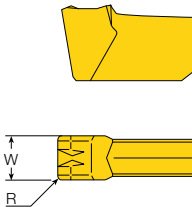
ATORN®

Design

With chip breaker geometry V (multi-directional chip breaker).

Applications

For machining **circclip grooves**.



18696



Applications
Cemented carbide grade
Coating

PMK
HC 3635
coated
18696 ...

Designation	W ± 0.02 mm	R mm		
AIPV 1.85 0.10	1.85	0.10	5 pcs.	201
AIPV 2.00 0.20	2.00	0.20	5 pcs.	202
AIPV 2.15 0.15	2.15	0.15	5 pcs.	203
AIPV 2.65 0.15	2.65	0.15	5 pcs.	204

Applications
Cemented carbide grade
Coating

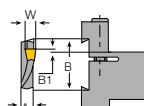
PMK
HC 3635
coated
18696 ...

Designation	W ± 0.02 mm	R mm		
AIPV 3.00 0.20	3.00	0.20	5 pcs.	205
AIPV 4.00 0.20	4.00	0.20	5 pcs.	207
AIPV 4.15 0.15	4.15	0.15	5 pcs.	208

ATORN®**Design****Right.****Applications**

For machining diameters 35–700 mm.

For cutting inserts AIMF (art. no. 18701).

Delivered **without** cutting inserts.

18700

Designation	For cutting insert	W mm	B mm	Min./max. Ø mm	Tmax mm	A mm	B1 mm	C mm	Right 18700	...
AH 106 35R-2	AIMF 2N	2.1	32	35–46	20	5.2	0.8	150		201
AH 106 45R-2	AIMF 2N	2.1	32	45–61	20	5.2	0.8	150		202
AH 106 60R-2	AIMF 2N	2.1	32	60–80	20	5.2	0.8	150		203
AH 106 80R-2	AIMF 2N	2.1	32	79–102	20	4.0	0.8	150		204
AH 106 100R-2	AIMF 2N	2.1	32	101–132	20	4.0	0	150		205
AH 106 75R-3	AIMF 3N	3.0	32	65–92	20	5.2	1.0	150		206
AH 106 90R-3	AIMF 3N	3.0	32	90–122	20	5.2	0.2	150		207
AH 106 120R-3	AIMF 3N	3.0	32	120–160	25	5.2	0	150		208
AH 106 80R-4	AIMF 4N	4.0	32	80–155	30	5.2	2.5	150		209
AH 106 150R-4	AIMF 4N	4.0	32	150–500	30	5.2	2.5	150		210
AH 106 80R-5	AIMF 5N	5.0	32	80–162	32	5.2	2.5	150		211
AH 106 150R-5	AIMF 5N	5.0	32	150–600	35	5.2	2.5	150		212
AH 106 90R-6	AIMF 6N	6.0	32	90–150	32	8.0	2.5	150		213
AH 106 150R-6	AIMF 6N	6.0	32	148–700	35	5.2	2.5	150		214

ATORN®**Design**

With chip breaker geometry F.

ApplicationsDesigned specifically for **axial and face grooving**.

The cutting edge height for small diameters is centred to allow the grooves to be expanded through a series of overlapping recesses. After the first recess, the groove width can be increased in both directions.

Note:

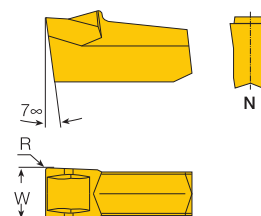
AIMF cutting inserts are **not** interchangeable with AIMC, AIMJ or AIPV cutting inserts (art. no. 18687–18696).



18701

Applications**Cemented carbide grade****Coating**
P M K
 HC 3630
 coated

Designation	Version	W ^{+0.1} mm	R mm	For ØD mm		18701	...
AIMF 2N	Neutral	2.1	0.20	from 35	5 pcs.		101
AIMF 3N	Neutral	3.0	0.30	from 54	5 pcs.		104
AIMF 4N	Neutral	4.0	0.25	from 35	5 pcs.		107
AIMF 5N	Neutral	5.0	0.25	from 40	5 pcs.		108
AIMF 6N	Neutral	6.0	0.25	from 44	5 pcs.		109



The user's guide provides the basic information that allows users to familiarise themselves with the extensive benefits of the T-Clamp system.

The T-clamp system permits multi-functional applications in just one system:

- Deep grooving
- Cutting off and grooving
- External turning
- Longitudinal turning and grooving
- Precision grooving and ramping
- Axial grooving and turning and facing
- External grooving

Cutting Inserts

- Repeat accuracy
- Sintered chip breakers
- An upper and lower half-radius position the cutting insert precisely and firmly
- TDJ/C universal, double-sided cutting inserts for turning and grooving
- TSJ/C-universal, single-sided cutting insert for deep grooving and cutting off
- TDT universal, double-sided cutting inserts for longitudinal turning and grooving

One-piece tool

- Simple, accurate and reliable positioning
- Top and bottom guidance of the cutting insert in the holder
- No additional spare parts
- Use of standard mounts

Integrated tools with shank

- Simple, accurate and reliable positioning
- Top and bottom guidance of the cutting insert in the holder
- Firm hold against lateral forces
- No additional spare parts
- Standard shank dimensions

Benefits of the T-Clamp system

- T-clamp is deliverable as a double-sided or one-sided cutting insert for maximum profitability
- Multi-functional use
- Clockwise and anti-clockwise rotation, grooving and cutting off with a single tool
- T-clamp replaces one or more ISO tools
- Reduces the number of tools per machining operation
- Fewer types of inserts and tool holders in the magazine
- Shorter set-up times
- Shorter settings and faster lead time
- Reduces the need for presettings
- Less machine operating time
- The outstanding surface quality achieved by rough turning can replace the finishing step



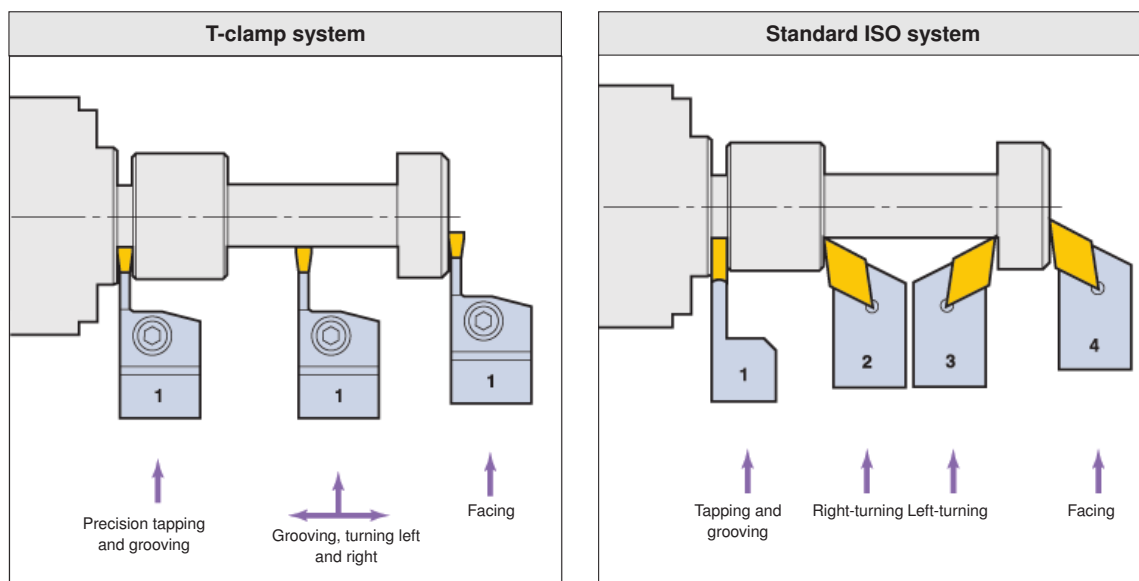
Cutting off



Longitudinal turning and grooving



Axial grooving and turning and facing



Recommended machine data

Face turning

Material			Hardness Brinell HB		Cutting speed (m/min)	
					H 20	H 45
Unalloyed steel	0,2%C	150				110 - 140
	0,45%C	190				100 - 130
	0,83%C	250				90 - 110
Alloy steel		< 200				80 - 110
		200 - 250				75 - 120
		275 - 325				70 - 90
		325 - 375				60 - 75
		375 - 425				45 - 55
Stainless steel	Martensit	175 - 225				100 - 135
	Austenit	275 - 325				70 - 95
		135 - 175				50 - 65
Cast steel	Kohlenstoff	- 150				105 - 135
	legiert	150 - 200				85 - 100
		200 - 250				75 - 90
Malleable cast iron	kurzspanig	110 - 145			90 - 100	
	langspanig	200 - 250			70 - 90	
Cast iron	geringe Festigkeit	180			115 - 140	
	hohe Festigkeit	250			80 - 100	
Nodular graphite iron	ferritisch	160			85 - 105	
	pearlitisch	250			80 - 100	
Hard cast iron		400			20	
Bronze alloy	120 - 200	110 - 120				
Lead alloy	80 - 150	150 - 165				
Brass, red brass	60 - 110	115 - 125				
Phosphor bronze	85 - 110	80 - 90				
Aluminium alloy	150 - 200	200 - 240				
Non-heat-resistant	30 - 80	600 - 700				
Heat-resistant	80 - 120	250 - 300				
Aluminium alloy, cast iron		300 - 340				
Magnesium	40 - 60 HRB	225 - 265				
	60 - 90 HRB	230 - 250				
Electrolytic copper	50 - 85	90 - 100				

• When turning lengthwise, increase the cutting speed by 20-30%

Cutting-off and grooving tools

18710

Blades

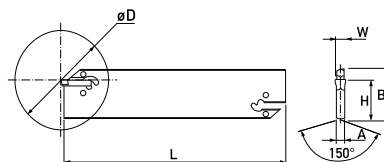


Applications

For clockwise and anti-clockwise rotation. For holding cutting inserts art. no. 18747–18750.

Note:

Supplied **without** special key.
Basic holder for blades,
see art. no. 18670 105-107.



18710

Type	B mm	L mm	H mm	A mm	W mm	For cutting inserts	Dmax mm	18710	...
TGB 32-2	32	150	24.8	1.6	1.9-2.5	TDC/TDJ	40	101	
TGB 32-3	32	150	24.8	2.4	2.4-3.3	TDC/TDJ/TSJ	50	102	
TGB 32-4	32	150	24.8	3.2	3.2-4.3	TDC/TDJ/TSJ	100	103	
TGB 32-5	32	150	24.8	4.0	4.2-5.3	TDC/TDJ/TSJ	120	104	



18711

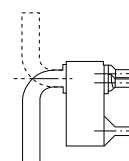
Special key



Applications

For blades art. no. 18710.

	18711	...
		101



18711

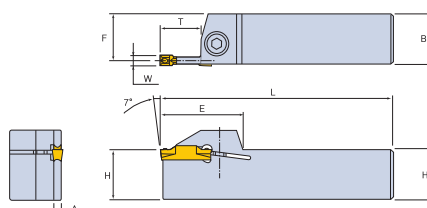
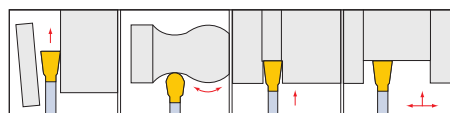
18715 - 18716

Clamp holder for longitudinal turning and grooving



Applications

For holding cutting inserts
art. no. 18747-18756 and 18760.



18715

Type	H mm	B mm	L mm	F mm	E mm	A mm	W mm	Tmax mm	For cutting inserts	Screw size	Right 18715	...	Left 18716	...
TTER/L 1616-2	16	16	110	14.95	32	1.6	1.9-2.5	12	TDC/TDJ	M 5 x 0.8	101		101	
TTER/L 2020-2	20	20	125	18.95	32	1.6	1.9-2.5	12	TDC/TDJ/TSJ/TDT	M 5 x 0.8	102		102	
TTER/L 2525-2	25	25	150	23.95	32	1.6	1.9-2.5	12	TDC/TDJ/TSJ/TDT	M 5 x 0.8	103		103	
TTER/L 1616-3	16	16	110	14.95	32	2.1	2.4-3.2	12	TDC/TDJ/TSJ/TDT	M 5 x 0.8	104		104	
TTER/L 2020-3	20	20	125	18.95	32	2.1	2.4-3.2	12	TDC/TDJ/TSJ/TDT	M 5 x 0.8	105		105	
TTER/L 2525-3	25	25	150	23.95	32	2.1	2.4-3.2	12	TDC/TDJ/TSJ/TDT	M 5 x 0.8	106		106	
TTER/L 1616-4	16	16	110	14.55	32	2.9	3.2-4.2	15	TDC/TDJ/TSJ/TDT	M 5 x 0.8	107		107	
TTER/L 2020-4	20	20	125	18.55	32	2.9	3.2-4.2	15	TDC/TDJ/TSJ/TDT	M 5 x 0.8	108		108	
TTER/L 2525-4	25	25	150	23.55	32	2.9	3.2-4.2	15	TDC/TDJ/TSJ/TDT	M 5 x 0.8	109		109	
TTER/L 2020-5	20	20	125	18.05	37	3.9	4.2-5.2	20	TDC/TDJ/TSJ/TDT	M 6 x 1.0	110		110	
TTER/L 2525-5	25	25	150	23.05	37	3.9	4.2-5.2	20	TDC/TDJ/TSJ/TDT	M 6 x 1.0	111		111	

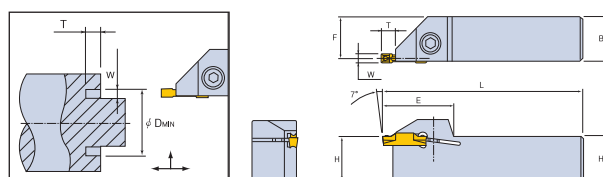
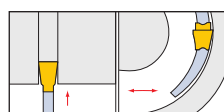
18719 - 18720

Clamp holder for external and axial grooving



Applications

For holding cutting inserts
art. no. 18747–18760.



18719

Type	H mm	B mm	L mm	F mm	E mm	Wmax mm	Tmax mm	Ø Dmin mm	For cutting inserts	Screw size	Right 18719	...	Left 18720	...
TGFR/L 1616-4	16	16	110	14.55	32	-4.3	6	30	TDC/TDJ/TSJ/TDT/TDFT-E	M 5 x 0.8	101		101	
TGFR/L 2020-4	20	20	125	18.55	32	-4.3	6	30	TDC/TDJ/TSJ/TDT/TDFT-E	M 5 x 0.8	102		102	
TGFR/L 2525-4	25	25	150	23.55	32	-4.3	6	30	TDC/TDJ/TSJ/TDT/TDFT-E	M 5 x 0.8	103		103	

18731 - 18732

Clamp holder for axial deep grooving and turning and facing

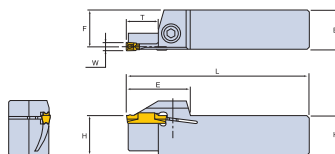
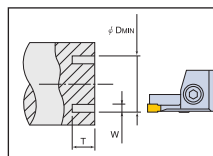
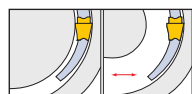


Applications

For holding cutting inserts art. no. 18752–18758.

Diameter D mm = diameter range for axial grooving.

After the recess, the diameter for turning and facing is unlimited.



18731

Type	H mm	B mm	L mm	F mm	E mm	W mm	Tmax mm	Ø D mm	For cutting inserts	Screw size	Right 18731	Left 18732
TTFR/L 25-30-4	25	25	150	23.55	32	4	12	22-40	TDT/TDFT-E	M 5 x 0.8	101	101
TTFR/L 25-40-4	25	25	150	23.55	32	4	15	32-50	TDT/TDFT-E	M 5 x 0.8	102	102
TTFR/L 25-50-4	25	25	150	23.55	32	4	15	42-60	TDT/TDFT-E	M 5 x 0.8	103	103
TTFR/L 25-60-4	25	25	150	23.55	32	4	15	52-85	TDT/TDFT-E	M 5 x 0.8	104	104

18735 - 18736

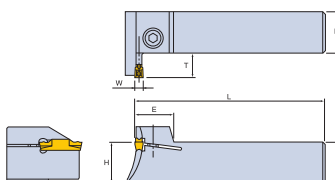
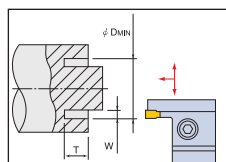
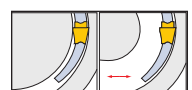
Clamp holder for axial deep grooving and turning and facing

Applications

For holding cutting inserts art. no. 18752–18758.

Diameter D mm = diameter range for axial grooving.

After the recess, the diameter for turning and facing is unlimited.



18735

Type	H mm	B mm	L mm	E mm	W mm	Tmax mm	Ø D mm	For cutting inserts	Screw size	Right 18735	Left 18736
TTFPR/L 25-30-4	25	25	150	18	4	12	22-40	TDT TDFT-E/	M 5 x 0.8	301	301
TTFPR/L 25-40-4	25	25	150	18	4	15	32-50	TDT TDFT-E/	M 5 x 0.8	302	302
TTFPR/L 25-50-4	25	25	150	18	4	15	42-60	TDT TDFT-E/	M 5 x 0.8	303	303
TTFPR/L 25-60-4	25	25	150	18	4	15	52-85	TDT TDFT-E/	M 5 x 0.8	304	304

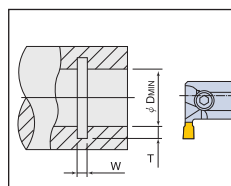
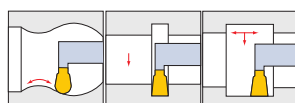
18739 - 18740

Boring bars for longitudinal turning and grooving



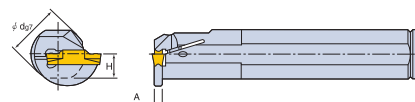
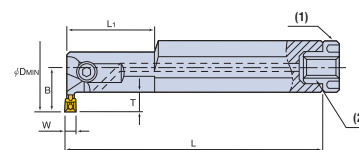
Applications

For holding cutting inserts art. no. 18762.



18739

Type	Right 18739	Left 18740
TTIR/L 20-3C	101	101
TTIR 20-4C/L	102	102
TTIR 25-4C/L	103	103
TTIR 25-5C/L	104	104
TTIR 32-5C/L	105	105



Type	Ø d mm	L mm	L1 mm	B mm	H mm	W mm	A mm	Tmax mm	Ø Dmin mm	For cutting inserts	Seal (1)	Sealing threads (2)	Screw size
TTIR/L 20-3C	20	160	40	15.8	9.0	3	2.1	6.5	25	TDIT-E	PL20	M 6	M 5 x 0.8
TTIR/L 20-4C	20	160	40	15.8	9.0	4	2.9	6.5	25	TDIT-E	PL20	M 6	M 5 x 0.8
TTIR/L 25-4C	25	200	40	17.5	11.5	4	2.9	5.8	25	TDIT-E	PL25	R 1/8	M 5 x 0.8
TTIR/L 25-5C	25	200	40	17.3	11.5	5	3.9	6.5	31	TDIT-E	PL25	R 1/8	M 6 x 1.0
TTIR/L 32-5C	32	250	60	20.8	14.0	5	3.9	6.5	31	TDIT-E	PL32	R 1/8	M 6 x 1.0

Cutting-off and grooving tools

18747

Cutting inserts TDC



Design

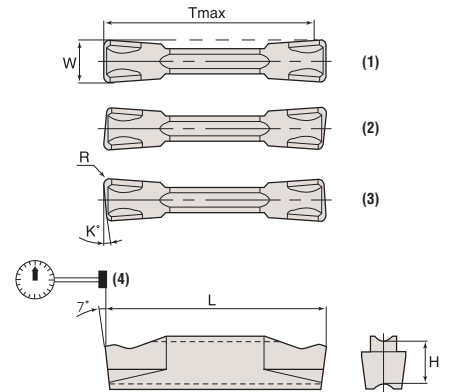
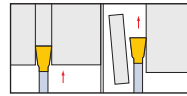
Double-edged, with chip breaker type -C-.

Applications

For blades and clamp holder
art. no. 18710–18724.

Note:

- (1) = neutral,
(2) = left,
(3) = right,
(4) = tolerance ± 0.1 mm.



18747

Applications Cemented carbide grade

Type	W ± 0.05 mm	R	L mm	K	H mm	Tmax mm		NK H 20 18747	...	PK H 45 18747	...
TDC 2	2	0.2	20	–	4.7	19	10 pcs.		101		201
TDC 2-6R	2	0.2	20	6°	4.7	19	10 pcs.		102		202
TDC 2-6L	2	0.2	20	6°	4.7	19	10 pcs.		103		203
TDC 3	3	0.2	20	–	4.7	19	10 pcs.		104		204
TDC 3-6R	3	0.2	20	6°	4.7	19	10 pcs.		105		205
TDC 3-6L	3	0.2	20	6°	4.7	19	10 pcs.		106		206
TDC 4	4	0.3	20	–	4.7	19	10 pcs.		107		207
TDC 4-4R	4	0.3	20	4°	4.7	19	10 pcs.		108		208
TDC 4-4L	4	0.3	20	4°	4.7	19	10 pcs.		109		209
TDC 5	5	0.3	25	–	5.2	24	10 pcs.		110		210

18748

Cutting inserts TDJ



Design

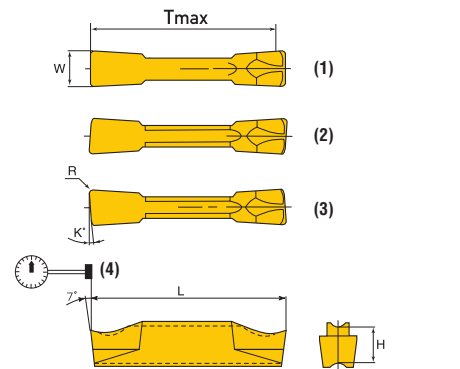
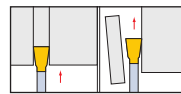
Double-edged, with chip breaker type -J-.

Applications

For blades and clamp holder art. no. 18710–18720
and 18727–18728.

Note:

- (1) = neutral,
(2) = left,
(3) = right,
(4) = tolerance ± 0.1 mm.



18748

Applications Cemented carbide grade

Type	W ± 0.05 mm	R	L mm	K	H mm	Tmax mm		NK H 20 18748	...	PK H 45 18748	...
TDJ 2	2	0.2	20	–	4.7	19	10 pcs.		101		201
TDJ 2-6R	2	0.2	20	6°	4.7	19	10 pcs.		102		202
TDJ 2-6L	2	0.2	20	6°	4.7	19	10 pcs.		103		203
TDJ 3	3	0.2	20	–	4.7	19	10 pcs.		104		204
TDJ 3-6R	3	0.2	20	6°	4.7	19	10 pcs.		105		205
TDJ 3-6L	3	0.2	20	6°	4.7	19	10 pcs.		106		206
TDJ 4	4	0.3	20	–	4.7	19	10 pcs.		107		207
TDJ 4-4R	4	0.3	20	4°	4.7	19	10 pcs.		108		208
TDJ 4-4L	4	0.3	20	4°	4.7	19	10 pcs.		109		209
TDJ 5	5	0.3	25	–	5.2	24	10 pcs.		110		210

18750

Cutting inserts TSJ



Design

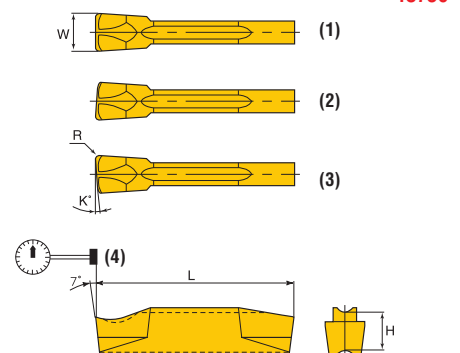
Single edged, with chip former type -J-.

Applications

For blades and clamp holder art. no. 18710–18720
and 18727–18728.

Note:

- (1) = neutral,
(2) = left,
(3) = right,
(4) = tolerance ± 0.1 mm.



18750

Applications Cemented carbide grade

Type	W ± 0.05 mm	R	L mm	K	H mm		NK H 20 18750	...	PK H 45 18750	...
TSJ 3	3	0.2	20	–	4.7	10 pcs.		101		201
TSJ 3-6R	3	0.2	20	6°	4.7	10 pcs.		102		202
TSJ 3-6L	3	0.2	20	6°	4.7	10 pcs.		103		203
TSJ 4	4	0.3	20	–	4.7	10 pcs.		104		204
TSJ 4-4R	4	0.3	20	4°	4.7	10 pcs.		105		205
TSJ 5	5	0.3	25	–	5.2	10 pcs.		107		207

18752

Precision cutting inserts TDT-E

Design

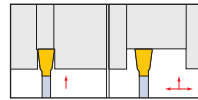
Double-edged, with chip breaker type -T-.

Applications

For clamp holders and boring bars art. no. 18715–18720, 18727–18736 and 18743–18744.

Note:

(1) = tolerance ± 0.025 mm.



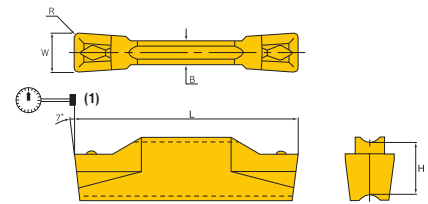
18752



Applications

Cemented carbide grade

Type	W ± 0.02 mm	R ± 0.05 mm	B mm	L mm	H mm		NK H 20 18752	...	PMK H 42 18752	...
TDT 3.00E-0.40	3	0.4	2.2	20	4.7	10 pcs.			101	201
TDT 4.00E-0.40	4	0.4	3.0	20	4.7	10 pcs.			102	202
TDT 4.00E-0.80	4	0.8	3.0	20	4.7	10 pcs.			103	
TDT 5.00E-0.40	5	0.4	4.0	25	5.2	10 pcs.			104	204
TDT 5.00E-0.80	5	0.8	4.0	25	5.2	10 pcs.			105	205



18754

Cutting inserts TDT-E



Design

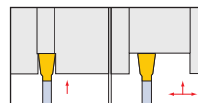
Double-edged, with chip breaker type -T-.

Applications

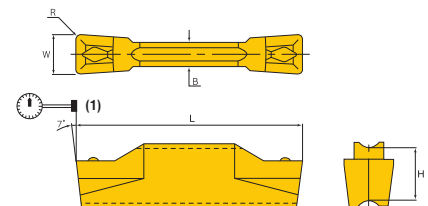
For clamp holders and boring bars art. no. 18715–18720, 18727–18736 and 18743–18744.

Note:

(1) = tolerance ± 0.1 mm.



18754



Applications

Cemented carbide grade

Type	W ± 0.05 mm	R	B mm	L mm	H mm		NK H 20 18754	...	PMK H 42 18754	...
TDT 3E-0.4	3	0.4	2.2	20	4.7	10 pcs.			101	201
TDT 4E-0.4	4	0.4	3.0	20	4.7	10 pcs.			102	202

18756

Precision cutting inserts TDT-E

Design

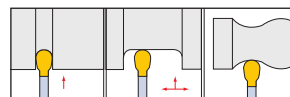
Double-edged, with chip breaker type -T-.

Applications

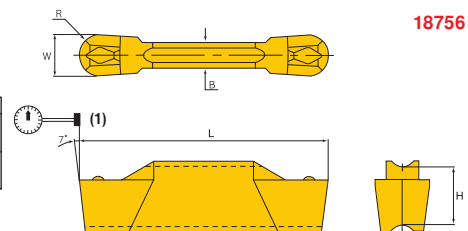
For clamp holders and boring bars art. no. 18715–18720, 18727–18736 and 18743–18744.

Note:

(1) = tolerance ± 0.025 mm.



18756



Applications

Cemented carbide grade

Type	W ± 0.02 mm	R ± 0.05 mm	B mm	L mm	H mm		NK H 20 18756	...	PMK H 42 18756	...
TDT 3.00E-1.50	3	1.5	2.2	20	4.7	10 pcs.			101	201
TDT 4.00E-2.00	4	2.0	3.0	20	4.7	10 pcs.			102	202
TDT 5.00E-2.50	5	2.5	4.0	25	5.2	10 pcs.			103	203

18758

Cutting inserts TDFT-E



Design

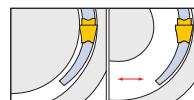
Double-edged, with chip breaker type -T-.

Applications

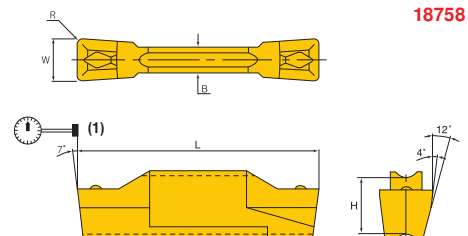
For clamp holders art. no. 18719–18724 and 18731–18736.

Note:

(1) = tolerance ± 0.1 mm.



18758



Applications

Cemented carbide grade

Type	W ± 0.02 mm	R	B mm	L mm	H mm		NK H 20 18758	...	PMK H 42 18758	...
TDFT 3E-0.40R	3	0.4	2.2	20	4.7	10 pcs.			101	201
TDFT 3E-0.40L	3	0.4	2.2	20	4.7	10 pcs.			102	202
TDFT 4E-0.40R	4	0.4	3.0	20	4.7	10 pcs.			103	203
TDFT 4E-0.40L	4	0.4	3.0	20	4.7	10 pcs.			104	204

Cutting-off and grooving tools

18760

Precision cutting inserts TDT

Design

Double-edged, with chip breaker type -T-.

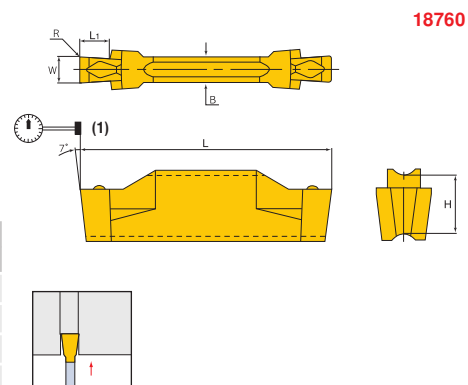
Applications

For clamp holders and boring bars art. no.

18715–18720, 18727–18728 and 18739–18744.

Note:

(1) = tolerance +/- 0.025 mm.



Applications

Cemented carbide grade

Type	W +/-0.02 mm	R	B mm	L mm	L1 mm	H mm		N K		P M K	
								H 20	...	H 42	...
TDT 1.00-0.00	1.00	0.00	2.2	20	2.5	4.7	10 pcs.	18760	...	18760	...
TDT 1.30-0.00	1.30	0.00	2.2	20	2.5	4.7	10 pcs.		101		301
TDT 1.60-0.10	1.60	0.10	2.2	20	2.5	4.7	10 pcs.		102		302
TDT 1.85-0.10	1.85	0.10	2.2	20	3.5	4.7	10 pcs.		103		303
TDT 2.15-0.15	2.15	0.15	2.2	20	3.5	4.7	10 pcs.		104		304
TDT 2.65-0.15	2.65	0.15	2.2	20	5.0	4.7	10 pcs.		105		305
TDT 3.15-0.15	3.15	0.15	2.2	20	5.0	4.7	10 pcs.		106		306
TDT 4.15-0.15	4.15	0.15	3.0	20	5.0	4.7	10 pcs.		107		307
TDT 5.15-0.15	5.15	0.15	4.0	25	5.0	5.2	10 pcs.		108		308
											309

18762

Precision cutting inserts TDIT-E

Design

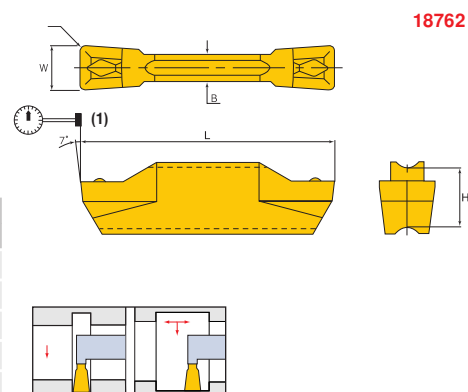
Double-edged.

Applications

For boring bars art. no. 18739–18744.

Note:

(1) = tolerance +/- 0.025 mm.



Applications

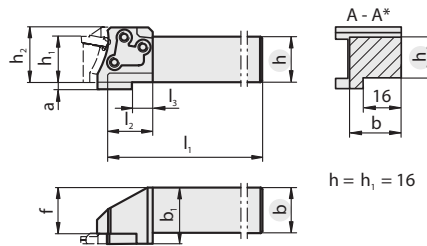
Cemented carbide grade

Type	W +/-0.02 mm	R +/-0.05	B mm	L mm	H mm		N K		P M K	
							H 20	...	H 42	...
TDIT 3.00E-0.40	3	0.4	2.2	20	4.7	10 pcs.	18762	...	18762	...
TDIT 4.00E-0.40	4	0.4	3.0	20	4.7	10 pcs.		101		301
TDIT 4.00E-0.80	4	0.8	3.0	20	4.7	10 pcs.		102		302
TDIT 5.00E-0.40	5	0.4	4.0	25	5.2	10 pcs.		103		303
TDIT 5.00E-0.80	5	0.8	4.0	25	5.2	10 pcs.		104		304
								105		305

19650



Modular basic holder MSS shank 0°



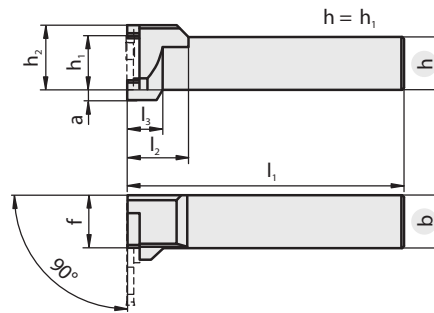
19650

Size	Designation	h mm	b mm	f mm	b ₁ mm	h ₂ mm	l ₁ mm	l ₂ mm	Right		Left	
									19650	...	19650	...
20	MSS-E20R/L00-2020J	20	20	20.1	24.3	24	110	20		101		201
25	MSS-E25R/L00-2525L	25	25	25.5	31.0	30	140	25		102		202
32	MSS-E32R/L00-3225N	32	25	25.5	31.0	38	160	32		103		203

19651



Modular basic holder MSS shank 90°



19651

Size	Designation	h mm	b mm	f mm	h ₂ mm	l ₁ mm	l ₂ mm	Right		Left	
								19651	...	19651	...
20	MSS-E20R/L90-2020J	20	20	20	24	110	20		101		201
25	MSS-E25R/L90-2525L	25	25	25	30	140	28		102		202
32	MSS-E32R/L90-3225N	32	25	32	38	160	34		103		203

Spare parts

Clamping screw



For size	Clamping screw	
		19699 ...
20	M 4 x 14	101
25	M 5 x 18	102
32	M 6 x 20	103

MSS

– The modular grooving and threading system

Modern tools are modularly structured in order to cover the diversity of requirements in its totality.

System functions:

- Shank and insert holder are separated
- Uniform separating point for grooving and threading applications
- Stable, precise connection
- Can be extended with new "modules"
- Easy handling
- Application-optimised clamping function



> Flexibility

> Precision

> Stability

> Simplicity

> Profitability

> Completeness

Cutting-off and grooving tools

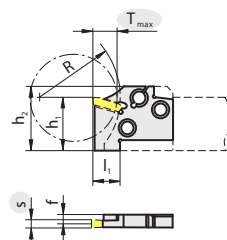
19653 - 19658

Cutting Inserts GX/SX external for modular recessing system MSS

19653



Inserts GX 16 (without parting inserts)



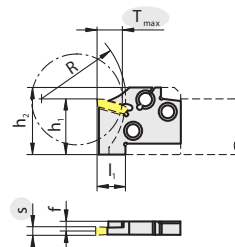
19653

Size	Designation	T _{max} mm	f mm	l ₁ mm	h ₁ mm	h ₂ mm	R mm	Indexable inserts	Right	...	Left	...
									19653		19653	
20	MSS-E20R/L12-GX16-1	12	3.74	13	20	24	30.0	GX16-1..		101		201
20	MSS-E20R/L12-GX16-2	12	3.40	13	20	24	30.0	GX16-2..		102		202
20	MSS-E20R/L12-GX16-3	12	2.93	13	20	24	30.0	GX16-3..		103		203
25	MSS-E25R/L12-GX16-1	12	5.25	13	25	30	37.5	GX16-1..		104		204
25	MSS-E25R/L12-GX16-2	12	4.90	13	25	30	37.5	GX16-2..		105		205
25	MSS-E25R/L12-GX16-3	12	4.43	13	25	30	37.5	GX16-3..		106		206
25	MSS-E25R/L12-GX16-4	12	3.80	13	25	30	37.5	GX16-4..		107		207

19654



Inserts GX 24 (without parting inserts)



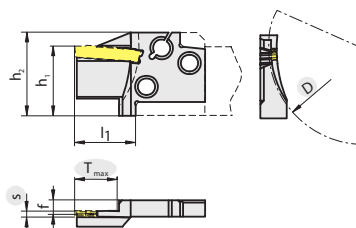
19654

Size	Designation	T _{max} mm	f mm	l ₁ mm	h ₁ mm	h ₂ mm	R mm	Indexable inserts	Right	...	Left	...
									19654		19654	
20	MSS-E20R/L21-GX24-2	21	3.40	22	20	24	30.0	GX24-2..		101		201
20	MSS-E20R/L21-GX24-3	21	3.00	22	20	24	30.0	GX24-3..		102		202
25	MSS-E25R/L21-GX24-2	21	4.90	22	25	30	37.5	GX24-2..		103		203
25	MSS-E25R/L21-GX24-3	21	4.43	22	25	30	37.5	GX24-3..		104		204
25	MSS-E25R/L21-GX24-4	21	3.80	22	25	30	37.5	GX24-4..		105		205
32	MSS-E32R/L21-GX24-2	21	4.95	22	32	38	48.0	GX24-2..		106		206
32	MSS-E32R/L21-GX24-3	21	4.43	22	32	38	48.0	GX24-3..		107		207
32	MSS-E32R/L21-GX24-4	21	3.80	22	32	38	48.0	GX24-4..		108		208

19655



Inserts GX 24 axial (without cutting indexable inserts)



19655

Size	Designation	T _{max} mm	f mm	l ₁ mm	h ₁ mm	h ₂ mm	D _{min} mm	D _{max} mm	Indexable inserts	Right	...	Left	...
										19655		19655	
25	MSS-E25R/L15-GX24-2 A50-70	15	4.90	22	25	30	50	70	GX24-2..		101		201
25	MSS-E25R/L15-GX24-2 A70-100	16	4.90	22	25	30	70	100	GX24-2..		102		202
25	MSS-E25R/L15-GX24-2 A100-150	17	4.90	22	25	30	100	150	GX24-2..		103		203
25	MSS-E25R/L15-GX24-3 A50-70	15	4.43	22	25	30	50	70	GX24-3..		104		204
25	MSS-E25R/L15-GX24-3 A70-100	15	4.43	22	25	30	70	100	GX24-3..		105		205
25	MSS-E25R/L15-GX24-3 A100-150	15	4.43	22	25	30	100	150	GX24-3..		106		206
25	MSS-E25R/L15-GX24-3 A150-300	15	4.43	22	25	30	150	300	GX24-3..		107		207

Continued

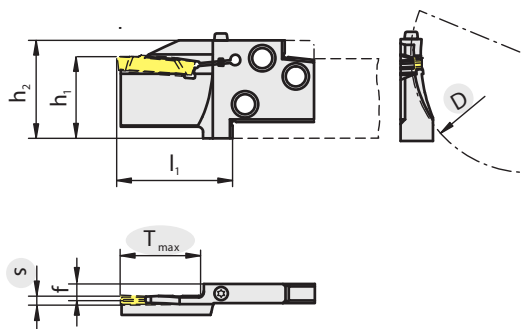
Continued

19656

CUTTING SOLUTIONS BY
CERATIZIT

Inserts GX 24 axial long

(without cutting indexable inserts)

Note:Axial modules in long version can be clamped
on both sides.

19656



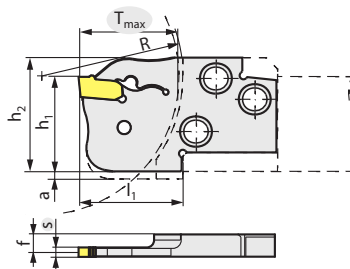
Size	Designation	Tmax mm	f mm	l ₁ mm	h ₁ mm	h ₂ mm	Dmin mm	Dmax mm	Indexable inserts	Right		Left	
										19656	...	19656	...
25	MSS-E25R/L21-GX24-3 AS50-70	21	4.43	35	25	30	50	70	GX24-3..		101		201
25	MSS-E25R/L21-GX24-3 AS70-100	21	4.43	35	25	30	70	100	GX24-3..		102		202
25	MSS-E25R/L21-GX24-3 AS100-150	21	4.43	35	25	30	100	150	GX24-3..		103		203
25	MSS-E25R/L21-GX24-3 AS150-300	21	4.43	35	25	30	150	300	GX24-3..		104		204
25	MSS-E25R/L25-GX24-4 AS50-70	25	3.80	35	25	30	50	70	GX24-4..		105		205
25	MSS-E25R/L25-GX24-4 AS70-100	25	3.80	35	25	30	70	100	GX24-4..		106		206
25	MSS-E25R/L25-GX24-4 AS100-150	25	3.80	35	25	30	100	150	GX24-4..		107		207
25	MSS-E25R/L25-GX24-4 AS150-300	25	3.80	35	25	30	150	300	GX24-4..		108		208

19658

CUTTING SOLUTIONS BY
CERATIZIT

Inserts SX external

(without cutting indexable inserts)



19658



Size	Designation	S mm	Tmax mm	f mm	l ₁ mm	h ₁ mm	h ₂ mm	R mm	a mm	Indexable inserts	Right		Left	
											19658	...	19658	...
20	MSS-E20R/L20-SX2	2	20	3.57	22	20	24	30.0	3	SX..2		101		201
20	MSS-E20R/L20-SX3	3	20	3.20	22	20	24	30.0	3	SX..3		102		202
25	MSS-E25R/L20-SX2	2	20	5.07	22	25	30	37.5	-	SX..2		103		203
25	MSS-E25R/L25-SX3	3	25	4.70	27	25	30	37.5	-	SX..3		104		204
25	MSS-E25R/L35-SX3	4	35	4.70	37	25	30	37.5	-	SX..3		105		205
25	MSS-E25R/L25-SX4	4	25	4.30	27	25	30	37.5	-	SX..4		106		206
25	MSS-E25R/L35-SX4	4	35	4.30	37	25	30	37.5	-	SX..4		107		207

Cutting-off and grooving tools

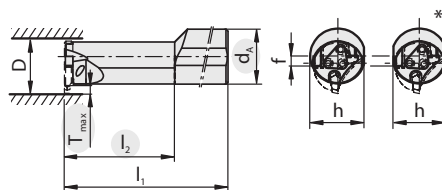
19660 - 19661

Modular recessing system MSS boring bars

19660

CUTTING SOLUTIONS BY
CERATIZIT
Modular recessing system
MSS boring bar 1.5 x D

19660

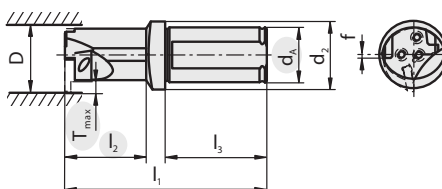


Size	Designation	l ₂ mm	d ₁ mm	d ₂ mm	f mm	l ₁ mm	l ₃ mm	T _{max} mm	D _{min.} mm	Insert	Right		Left	
											19660	...	19660	...
16	MSS-I16R/L90-1.5D-N	24	20	25	1.0	82	50	4	20	MSS-I16R/L		101		201
20	MSS-I20R/L90-1.5D-N	30	20	25	1.0	87	50	5	25	MSS-I20R/L		102		202
25	MSS-I25R/L90-1.5D-N	38	25	32	1.5	102	56	6	32	MSS-I25R/L		103		203
32	MSS-I32R/L90-1.5D-N	48	32	40	2.0	119	60	9	40	MSS-I32R/L		104		204

19661

CUTTING SOLUTIONS BY
CERATIZIT
Modular recessing system
MSS boring bar 2.5 x D

19661



Size	Designation	l ₂ mm	d ₁ mm	f mm	l ₁ mm	T _{max} mm	D _{min.} mm	Insert	Right		Left	
									19661	...	19661	...
16	MSS-I16R/L90-2.5D-N	40	20	4.5	180	4	20	MSS-I16R/L		101		201
20	MSS-I20R/L90-2.5D-N	50	25	6.0	200	5	25	MSS-I20R/L		102		202
25	MSS-I25R/L90-2.5D-N	63	32	7.0	250	6	32	MSS-I25R/L		103		203
32	MSS-I32R/L90-2.5D-N	80	40	9.5	300	9	40	MSS-I32R/L		104		204

Spare parts

Clamping screw



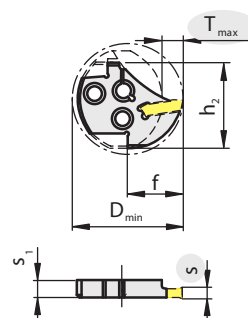
For size	Clamping screw	19699	...
16	M 2.5 x 10.0		104
20	M 3.0 x 11.0		105
25	M 3.5 x 12.5		106
32	M 4.5 x 17.0		107

19663



Inserts GX 09 (without parting inserts)

19663



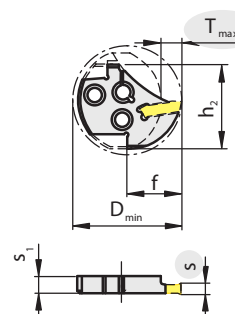
Size	Designation	T _{max} mm	f mm	s ₁ mm	h ₂ mm	D _{min.} mm	Indexable inserts	Right		Left	
								19663	...	19663	...
16	MSS-I16R/L04-GX09-1	4	10.0	3.8	16.4	20	GX09-1..		101		201
16	MSS-I16R/L04-GX09-2	4	10.0	3.8	16.4	20	GX09-2..		102		202
20	MSS-I20R/L05-GX09-1	5	12.0	3.8	20.4	25	GX09-1..		103		203
20	MSS-I20R/L05-GX09-2	5	12.0	3.8	20.4	25	GX09-2..		104		204
25	MSS-I25R/L06-GX09-1	6	15.5	3.8	24.9	32	GX09-1..		105		205
25	MSS-I25R/L06-GX09-2	6	15.5	3.8	24.9	32	GX09-2..		106		206

19664



Inserts GX 16 (without parting inserts)

19664



Size	Designation	T _{max} mm	f mm	s ₁ mm	h ₂ mm	D _{min.} mm	Indexable inserts	Right		Left	
								19664	...	19664	...
32	MSS-I32R/L09-GX16-1	9	20	5.9	32.2	40	GX16-1..		101		201
32	MSS-I32R/L09-GX16-2	9	20	5.9	32.2	40	GX16-2..		102		202
32	MSS-I32R/L09-GX16-3	9	20	5.9	32.2	40	GX16-3..		103		203
32	MSS-I32R/L09-GX16-4	9	20	5.9	32.2	40	GX16-4..		104		204

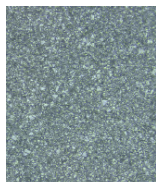
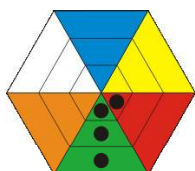
Info

Modular burring system MSS

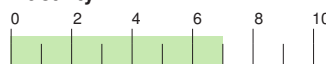
Grade description

H216T

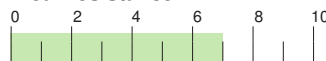
HW-K15



Ductility



Wear resistance



Properties/Application:

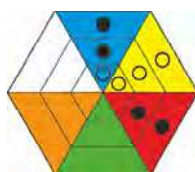
- Ideally suited to aluminium
- High wear resistance
- High heat resistance
- Low adhesion

CTCP335

HC-P35

HC-M30

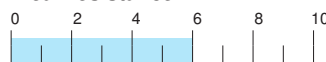
HC-K35



Ductility



Wear resistance



Properties/Application:

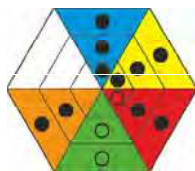
- Very good wear resistance
- Good oxidation resistance
- High toughness
- Good heat resistance

CTP1340

HC-P30

HC-M25

HC-K30



Ductility



Wear resistance



Properties/Application:

- Excellent "all-round grade"
- Ideal for stainless steels
- High cutting edge stability

Cutting-off and grooving tools

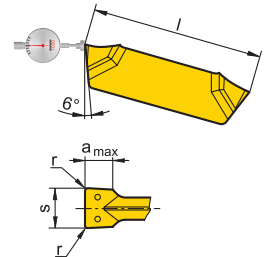
19670 - 19672

Cutting inserts for modular recessing system MSS

19670

CUTTING SOLUTIONS BY
CERATIZIT
Cutting inserts for system GX-E

19670



Applications
Cemented carbide grade
Coating

P M K S

CTP1340
PVD

N

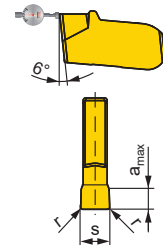
H216T
uncoated

Designation	s mm	l mm	r mm	a _{max} mm		19670	...	19670	...
GX09-1E2.00N0.20-M40	2	9	0.2	1.5	10 pcs.		101		
GX09-2E3.00N0.30-M40	3	9	0.3	2.0	10 pcs.		102		
GX16-1E2.00N0.20-27P	2	16	0.2	2.0	10 pcs.				201
GX16-1E2.00N0.20-M40	2	16	0.2	2.0	10 pcs.		103		
GX16-2E3.00N0.30-27P	3	16	0.3	3.0	10 pcs.				202
GX16-2E3.00N0.30-M40	3	16	0.3	3.0	10 pcs.		104		
GX16-3E4.00N0.40-27P	4	16	0.4	3.5	10 pcs.				203
GX16-3E4.00N0.40-M40	4	16	0.4	3.5	10 pcs.		105		
GX24-2E3.00N0.30-27P	3	24	0.3	3.5	10 pcs.				204
GX24-2E3.00N0.30-M40	3	24	0.3	3.5	10 pcs.		106		
GX24-3E4.00N0.40-27P	4	24	0.4	4.0	10 pcs.				205
GX24-3E4.00N0.40-M40	4	24	0.4	4.0	10 pcs.		107		

19671

CUTTING SOLUTIONS BY
CERATIZIT
Cutting inserts for system SX

19671



Applications
Cemented carbide grade
Coating

P M K S

CTP1340
PVD

N

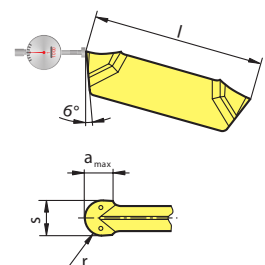
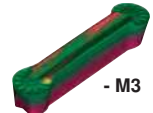
H216T
uncoated

Designation	s mm	l mm	r mm	a _{max} mm		19671	...	19671	...
SX E2.00N0.20-27P	2	11	0.2	1.5	10 pcs.				201
SX E2.00N0.20-M2	2	11	0.2	1.5	10 pcs.		101		
SX E3.00N0.30-27P	3	11	0.3	2.0	10 pcs.				202
SX E3.00N0.30-M2	3	11	0.3	2.0	10 pcs.		102		
SX E4.00N0.40-27P	4	13	0.4	2.5	10 pcs.				203

19672

CUTTING SOLUTIONS BY
CERATIZIT
Cutting inserts for system GX-R

19672



Applications
Cemented carbide grade
Coating

P M K S

CTP1340
PVD

P K

CTCP335
Ti(C,N)+Al2O3

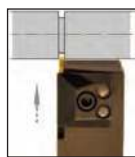
Designation	s mm	l mm	r mm	a _{max} mm		19672	...	19672	...
GX16-2R1.50N	3	16.0	1.5	1.5	10 pcs.		101		
GX16-3R2.00N	4	16.0	2.0	2.0	10 pcs.		102		
GX16-3R2.50N	5	16.0	2.5	2.5	10 pcs.		103		
GX24-2R1.50N-M3	3	24.4	1.5	1.5	10 pcs.				201
GX24-3R2.00N-M3	4	24.4	2.0	2.5	10 pcs.				202
GX24-3R3.00N-M3	5	24.4	2.5	3.0	10 pcs.				203

**Design**

Solid clamp holder from 42 CrMo4V tempered to approx. 1300 N/mm². Powerful clamping element guided by two cylinder pins.

Applications

For three-edged indexable inserts (art. no. 18768–18770).



18765

Holder R/L...1-D grooving depth to 4 mm

Designation	H +/- 0.1 mm	B +/- 0.1 mm	L1 mm	L2 mm	T max. mm	For grooving inserts	right 18765	...	left 18765	...
R/L 207.1212.1-D	12	12	100	24	4	DED.00.. / DED.01..	101		201	
R/L 207.1616.1-D	16	16	125	22	4	DED.00.. / DED.01..	102		202	
R/L 207.2020.1-D	20	20	125	21	4	DED.00.. / DED.01..	103		203	
R/L 207.2525.1-D	25	25	150	-	4	DED.00.. / DED.01..	104		204	

Holder R/L...2-D grooving depth to 6 mm

Designation	H +/- 0.1 mm	B +/- 0.1 mm	L1 mm	L2 mm	T max. mm	For grooving inserts	right 18765	...	left 18765	...
R/L 207.1212.2-D	12	12	100	24	6	DED.02..	105		205	
R/L 207.1616.2-D	16	16	125	22	6	DED.02..	106		206	
R/L 207.2020.2-D	20	20	125	21	6	DED.02..	107		207	
R/L 207.2525.2-D	25	25	150	-	6	DED.02..	108		208	

Holder R/L...3-D grooving depth to 6 mm

Designation	H +/- 0.1 mm	B +/- 0.1 mm	L1 mm	L2 mm	T max. mm	For grooving inserts	right 18765	...	left 18765	...
R/L 207.1212.3-D	12	12	100	24	6	DED.03..	109		209	
R/L 207.1616.3-D	16	16	125	22	6	DED.03..	110		210	
R/L 207.2020.3-D	20	20	125	21	6	DED.03..	111		211	
R/L 207.2525.3-D	25	25	150	-	6	DED.03..	112		212	

Holder R/L...4-D grooving depth to 6 mm

Designation	H +/- 0.1 mm	B +/- 0.1 mm	L1 mm	L2 mm	T max. mm	For grooving inserts	right 18765	...	left 18765	...
R/L 207.1616.4-D	16	16	125	22	6	DED.04.. / DED.05..	113		213	
R/L 207.2020.4-D	20	20	125	21	6	DED.04.. / DED.05..	114		214	
R/L 207.2525.4-D	25	25	150	-	6	DED.04.. / DED.05..	115		215	

Spare parts

Clamping screw

Guide pin

Adjustable clamp right

Adjustable clamp left

For holders	18767	...	18767	...	18767	...	18767	...
R/L 207...1.2.3.4-D		101		102				
R/L 0.780...2.3.4-D		101		102				
R/L 207...1.2.3-D						103		105
R/L 0.780...2.3.-D						103		105
R/L 207...4-D						104		106
R/L 0.780...4.-D						104		106

18768 - 18770

Indexable inserts for recessing system DED

Design

- 3 cutting edges
- Sintered version
- Positive, ground cutting edge geometries
- Extremely soft cut

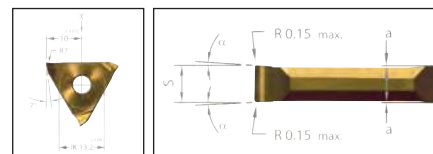
- Low cutting forces
- Cutting-off insert with chip breaker
- High thermal and chemical stability
- Low friction coefficients

Applications

Universal use for practically every material. Limited use for dry machining.

Quality

Cemented carbide ultra-fine grain HC 8620/
TiAlN-coated.



18768



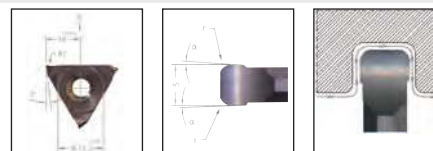
- For locking grooves in accordance with DIN 471/472

Designation	Groove dimension mm	S -0.05 mm	Clearance angle Alpha bottom	Clearance angle Alpha top	a +/-0.02 mm	for Clamp holder type	18768	...
DED.0050.00-D	0.50	0.57	0.5°	1°	0.07	R/L..1-D		101
DED.0060.00-D	0.60	0.67	0.5°	1°	0.07	R/L..1-D		102
DED.0070.00-D	0.70	0.77	0.5°	1°	0.08	R/L..1-D		103
DED.0080.00-D	0.80	0.87	0.5°	1°	0.08	R/L..1-D		104
DED.0090.00-D	0.90	0.97	0.5°	1°	0.08	R/L..1-D		105
DED.0100.00-D	1.00	1.07	0.5°	1°	0.09	R/L..1-D		106
DED.0110.00-D	1.10	1.24	3°	3°	0.15	R/L..1-D		107
DED.0130.00-D	1.30	1.44	3°	3°	0.15	R/L..1-D		108
DED.0160.00-D	1.60	1.74	3°	3°	0.20	R/L..1-D		110
DED.0185.00-D	1.85	1.99	3°	3°	0.20	R/L..1-D		111
DED.0215.00-D	2.15	2.29	3°	3°	0.20	R/L..2-D		113
DED.0265.00-D	2.65	2.79	3°	3°	0.20	R/L..2-D		115
DED.0315.00-D	3.15	3.29	3°	3°	0.20	R/L..3-D		117
DED.0415.00-D	4.15	4.29	3°	3°	0.20	R/L..4-D		119
DED.0515.00-D	5.15	5.29	3°	3°	0.20	R/L..4-D		120

18769



- For copy and precision turning

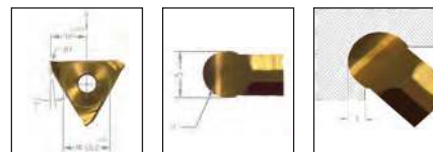


Designation	S +0.03 mm	r mm	Clearance angle Alpha bottom	Clearance angle Alpha top	For clamp holder type	18769	...
DED.0150.02-D	1.5	0.2	4°	3°	R/L..1-D		101
DED.0200.02-D	2.0	0.2	4°	3°	R/L..1-D		102
DED.0200.04-D	2.0	0.4	4°	3°	R/L..1-D		103
DED.0300.02-D	3.0	0.2	4°	3°	R/L..2-D		105
DED.0300.06-D	3.0	0.6	4°	3°	R/L..2-D		106
DED.0300.08-D	3.0	0.8	4°	3°	R/L..2-D		107
DED.0400.02-D	4.0	0.2	4°	3°	R/L..3-D		109
DED.0400.08-D	4.0	0.8	4°	3°	R/L..3-D		110
DED.0400.12-D	4.0	1.2	4°	3°	R/L..3-D		111

18770 101-104



- Full radius for grooving 0.5 to 1.6 mm groove width

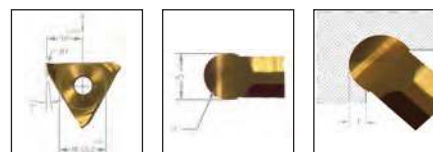


Designation	S +/-0.05 mm	r mm	T mm	For clamp holder type	18770	...
DED.0002.05-D	0.5	0.25	0.20	R/L..1-D		101
DED.0005.10-D	1.0	0.50	0.35	R/L..1-D		102
DED.0006.12-D	1.2	0.60	0.40	R/L..1-D		103
DED.0008.16-D	1.6	0.80	0.55	R/L..1-D		104

18770 106-110



- Full radius for grooving 2.0 to 5.0 mm groove width



Designation	S +/-0.05 mm	r mm	T mm	For clamp holder type	18770	...
DED.0010.20-D	2.0	1.00	0.70	R/L..2-D		106
DED.0012.25-D	2.5	1.25	0.85	R/L..2-D		107
DED.0015.30-D	3.0	1.50	1.00	R/L..3-D		108
DED.0020.40-D	4.0	2.00	1.20	R/L..4-D		109
DED.0025.50-D	5.0	2.50	1.50	R/L..4-D		110