

Cutting-Off and Grooving Tools

18670

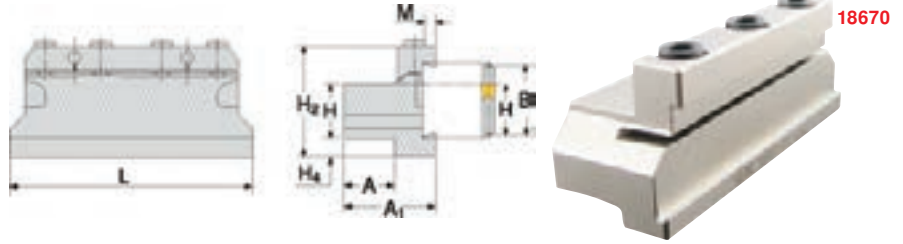
Basic Tool holders for Recessing Blades

ATORN®

Type
Recessing blade not included.

Use
For clockwise and counterclockwise operation.

Note:
Size B is equal to construction height of the grooving 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	

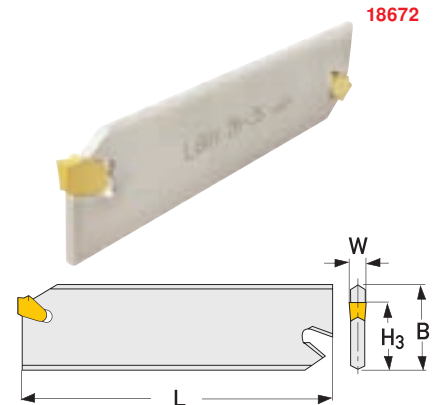
18672

Cut-Off and Deep Recessing Blades

Type
W/o. depth stop.

Use
For clockwise and counterclockwise operation.
For mounting cutting insert cat. no. 18674-18675.
For basic holder cat. 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

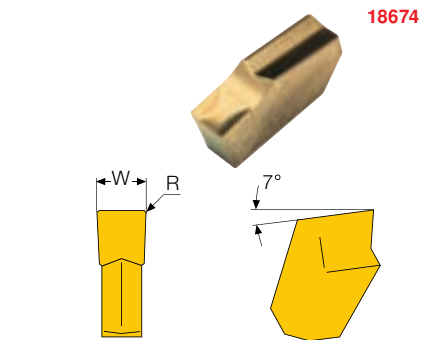
Cutting Inserts for Recessing and Parting-Off

Type
Neutral.

Use
Suitable for cut-off blades cat. no. 18672.

Designation	W ^{+0,1} mm	R ^{+0,05} mm	10 pcs.	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	

P M K
H 42
Coated



18675

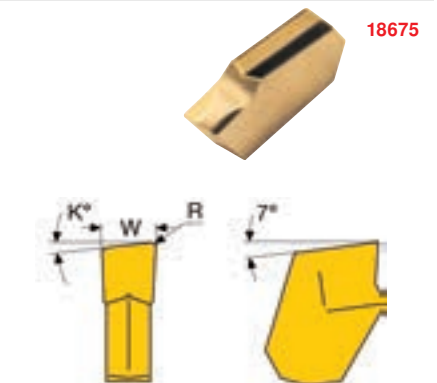
Cutting Inserts for Cutting-Off

Type
Right-hand.

Use
Suitable for cut-off blades cat. no. 18672.

Designation	W ^{+0,1} mm	K°	R ^{+0,05} mm	10 pcs.	18675	...
GTR-3-4D	3,1	4°	0,20	10 pcs.	225	
GTR-4-4D	4,1	4°	0,24	10 pcs.	230	

P M K
H 42
Coated



ATORN®

The A-CUT system covers a broad range of machining processes. It is unique due to its flexibility and cost-effectiveness. Five different versions of cutting inserts, as well as a versatile assortment of holders are offered.

Possible operations of the A-CUT system:

- Parting-off and recessing
- Low precision grooves
- Turning and copying
- Undercutting and fine turning
- Slot milling
- Axial recessing

A-CUT cutting inserts are offered with chip crushers in four different geometries. Each is designed for optimal performance in a special area of implementation. Select the geometry that is best suited for your application.



Geometry C

AIMC cutting inserts are ideal for parting off and recessing most steel materials, alloyed steel and stainless steel. They have a strong cutting edge that makes them the first choice for hard materials under tough conditions at medium to high feeds.

Geometry J

AIMJ double-ended inserts are ideal for cutting off and recessing carbon steel, alloyed steel, and austenitic, stainless steel in general tasks with low feed rates. The cutting edge has a positive true-rake angle that makes this version the first choice for soft materials, small diameter and thin-walled parts.

Geometry V

AIPV cutting inserts have been developed for machining of precision grooves, for free turning and for profile operations (width tolerance $\pm 0,02$ mm). These cutting inserts are offered with different radii. The V-version has a multi-directional chip deflection step.

Geometry F

AIMF cutting inserts have been specially developed for axial and face recessing. Cutting edge height at small diameters has been centred in order to provide extension of grooves by a series of overlapping recesses.



Selection of the carbide quality

	A-CUT quality	ISO	Physical characteristics 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 laminate and high-temperature resistant alloys	For medium-difficulty machining and finishing tasks at medium cutting speeds and feeds
Coated	HC 3630	P20-P40	CVD coated multilayer TiC+TiCN+TiN	Carbon steel, alloyed steel, cast steel, malleable cast iron, austenitic steel, martensitic stainless steel machining steel	Suitable for medium-difficulty finish machining and roughing, machining with interrupted cut
	HC 3635	P25-P45 M20-M30 K20-K40	PVD coated TiCN	Steel, alloyed steel, stainless steel	For general applications at medium cutting speeds and under unstable machine conditions

Cutting-Off and Grooving Tools

18680

Recessing blades A-CUT

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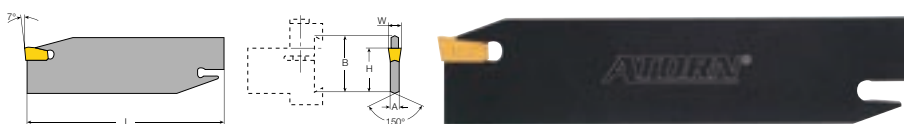
18680

Use

For **cutting-off** and **deep grooving**.
For cutting inserts AIMC, AIMJ and AIPV
(cat. no. 18687-18696).

Note:

Cut-off blades should not be used for turning and profiling machining operations.
Cutting inserts not included.



Designation	B mm	W mm	A mm	L mm	H mm	max. workpiece Ø mm	Suitable base 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

Clip holders A-CUT

ATORN®

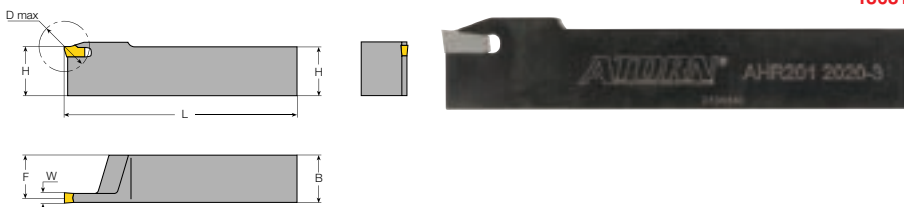
18681

Use

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

Note:

Tool holders should not be used for turning (please use tool holder cat. no. 18682).
Ejector included, cutting inserts not included.



Designation	H mm	W mm	B mm	L mm	F mm	max. workpiece Ø mm	Right-hand		Left-hand	
							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

Clip holders A-CUT

ATORN®

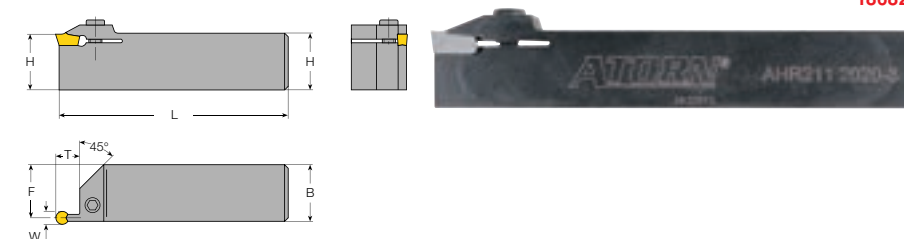
18682

Use

For **cutting-off**, **grooving** and **turning**.
For cutting inserts AIMC, AIMJ and AIPV
(cat. no. 18687-18696).

Note:

Cutting inserts AIMC and AIMJ (cat. no. 18687-18692) should only be used for grooving operations.
Cutting inserts not included. Clamping screw see cat. no. 18685.



Designation	H mm	W mm	B mm	L mm	F mm	T mm	Clamping Screw	Right-hand		Left-hand	
								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	



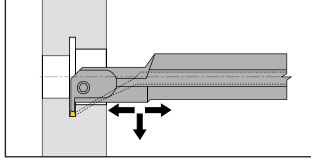
ATORN®

Type

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

Use

For internal turning and grooving. For cutting inserts AIMC, AIMJ and AIPV (cat. no. 18687-18696).



Note:

Cutting inserts AIMC and AIMJ (cat. no. 18687-18692) should only be used for grooving operations. For optimum results, the cutting edge should be positioned above centre by C mm. Delivery complete with clamping screws (cat. no. 18685), TORX® wrench T20 and seal, **without** Cutting inserts.



18684



(1) Seal thread
(2) Seal

Designation	D mm	smallest borehole Ø mm	Tmax mm	C mm	W mm	F mm	L ₁ mm	L ₂ mm	H mm	Clamping screw	Right-hand		Left-hand	
											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	202	301	302
AHR/L 619 25C 3	25	47	8,0	0,5	3,1	20,8	200	51,0	11,5	SR 76-1022	203	204	303	304
AHR/L 619 25C 4	25	47	8,0	0,5	4,1	20,8	200	51,0	11,5	SR 76-1022	205	206	305	306
AHR/L 619 32C 2	32	43	7,5	0,3	2,2	25,0	250	63,5	14,5	SR 76-1022	210		310	
AHR/L 619 32C 3	32	52	10,0	0,5	3,1	26,6	250	57,0	14,5	SR 76-1022				
AHR/L 619 32C 4	32	52	10,0	0,5	4,1	26,6	250	51,0	14,0	SR 76-1022				
AHR/L 619 40C 4	40	47	12,0	0,5	4,1	33,0	300	51,0	18,0	SR 76-1022				

ATORN®

Use

For A-CUT tool holder, cat. no. 18682 and A-CUT boring bars, cat. 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®

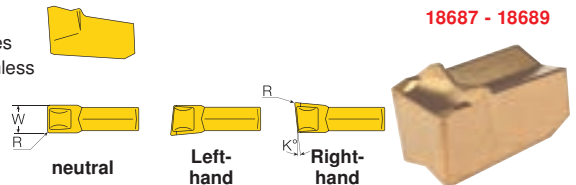
Type

With chip breaker geometry C (strong cutting edge).

Use

For cutting-off and grooving most types of steel materials, alloyed steel and stainless steel. For hard materials under tough conditions at medium to high feeds.

18687 - 18689



Use Carbide type Coating	W+/-0,1 mm	K Degree	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

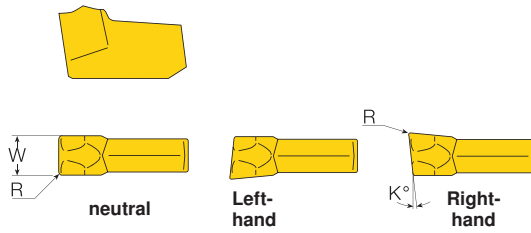
Cutting-Off and Grooving Tools

18690 - 18692 Cutting insert A-CUT AIMJ



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

Use
For **cutting off and grooving** for carbon steel, alloyed steel, and austenitic, stainless steel in general tasks with low feed rates. For soft materials, small diameters and thin-walled parts.



18690 - 18692



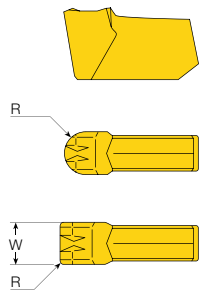
Use Carbide type Coating	W \pm 0,1 mm	K Degree	R mm		NK HW 3410 Uncoated		PMK HC 3635 Coated		P HC 3630 Coated	
					18690	...	18691	...	18692	...
AIMJ 2	2,2	0	0,20	5 pcs.		301		401		501
AIMJ 2 6L	2,2	6	0,20	5 pcs.		302		402		502
AIMJ 2 6R	2,2	6	0,20	5 pcs.		303		403		503
AIMJ 3	3,1	0	0,20	5 pcs.		304		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		408		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 Schneideinsätze A-CUT AIPV



Type
with chip breaker geometry V (multi-directional chip deflection step).

Use
For machining of **precision grooves**, for **free turning** and for **profile operations**.



18695



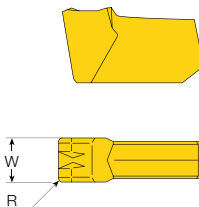
Use Carbide type Coating	Designation	W \pm 0,02 mm	R mm		PMK HC 3635 Coated		PMK HC 3635 Coated	
					18695	...	18695	...
	AIPV 3.00E 0.40	3	0,4	5 pcs.		201		205
	AIPV 4.00E 0.40	4	0,4	5 pcs.		202		206
	AIPV 6.00E 0.40	6	0,4	5 pcs.		204		208

18696 Cutting insert A-CUT AIPV



Type
with chip breaker geometry V (multi-directional chip deflection step).

Use
For machining of **Seeger circlip grooves**.



18696

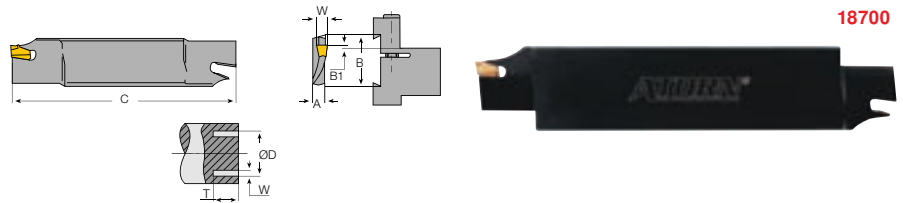


Use Carbide type Coating	Designation	W \pm 0,02 mm	R mm		PMK HC 3635 Coated		PMK HC 3635 Coated	
					18696	...	18696	...
	AIPV 1.85 0.10	1,85	0,10	5 pcs.		201		205
	AIPV 2.00 0.20	2,00	0,20	5 pcs.		202		207
	AIPV 2.15 0.15	2,15	0,15	5 pcs.		203		208
	AIPV 2.65 0.15	2,65	0,15	5 pcs.		204		



Type
Right-hand.
Use

For machining of diameters 35-700 mm.
For cutting insert AIMF (cat. no. 18701). Cutting inserts **not** included.



18700

Designation	for cutting insert	W mm	B mm	min-max ØD mm	Tmax mm	A mm	B1 mm	C mm	Right-hand	
									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



Type
With chip breaker geometry F.
Use

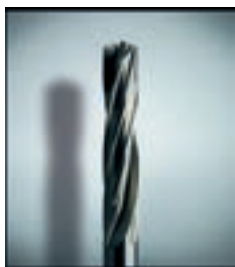
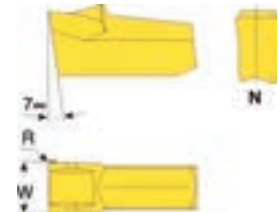
Specially for **axial and on face grooving**. Cutting edge height at small diameters is centred in order to provide extension of grooves by a series of overlapping recesses. After the first recess, the recess width can be enlarged in both directions.

Note:
AIMF cutting inserts are not exchangeable with AIMC, AIMJ, or AIPV cutting inserts (cat. no. 18687-18696).



18701

Designation	Type	W ^{+0,1} mm	R mm	for ØD mm		P M K	
						HC 3630	Coated
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



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Performance requires quality.

For example, with the solid carbide high-performance ALUSPEED drill, from ATORN.

- 6x guiding section
- Solid carbide Ultra finest grit
- Al-CC-coating
- to 8xD
- Twisted cooling channel



The user guide provides basic information which enable the user to get to know all the advantages of the T-Clamp system.

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

- deep grooving
- cutting off and grooving
- outside turning
- longitudinal turning and grooving
- precision grooving and removing of material
- axial grooving and facing
- outside grooving

Cutting inserts

- repeatability
- sintered-in chip former
- one top and one bottom half radius help positioning the cutting insert exactly and securely
- TDJ/C-multi-purpose, double-sided cutting insert for turning and grooving
- TSJ/C-multi-purpose, single-ended cutting insert for deep grooving and cutting-off
- TDT-multi-purpose, double-sided cutting insert for longitudinal turning and grooving

One-part tool

- easy, exact and secure positioning
- upper and lower guides of the cutting insert in holder
- no additional spare parts
- standard tool holders can be used

Integrated tools with shank

- easy, exact and secure positioning
- upper and lower guides of the cutting insert in holder
- stable footing against lateral forces
- no additional spare parts
- standard shank dimensions

Advantages of the T-clamp system

- T-Clamp is offered as double-sided or single-sided cutting insert for maximum economy
- multi-purpose use
- clockwise and counterclockwise turning, grooving and cutting-off with a single tool
- T-Clamp replaces one or more ISO tools
- it reduces the number of tools per machining operation
- less different types of inserts and tool holders in the magazine
- shorter setup time
- shorter times for adjustment and preparation
- reduces the necessity for turret indexing
- reduced machining times
- the extraordinary surface characteristics during roughing turning might replace the finishing



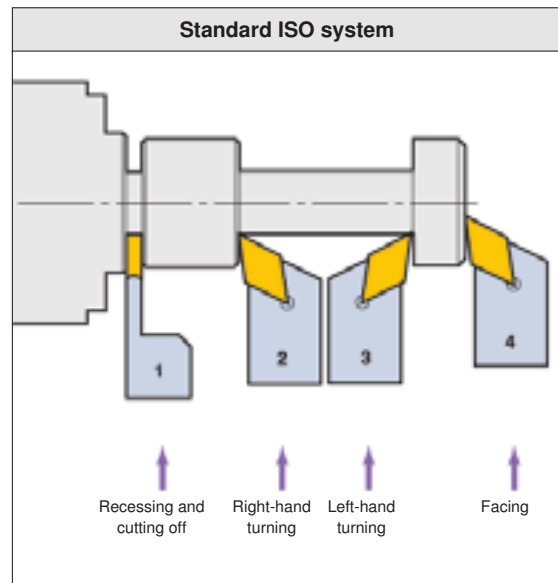
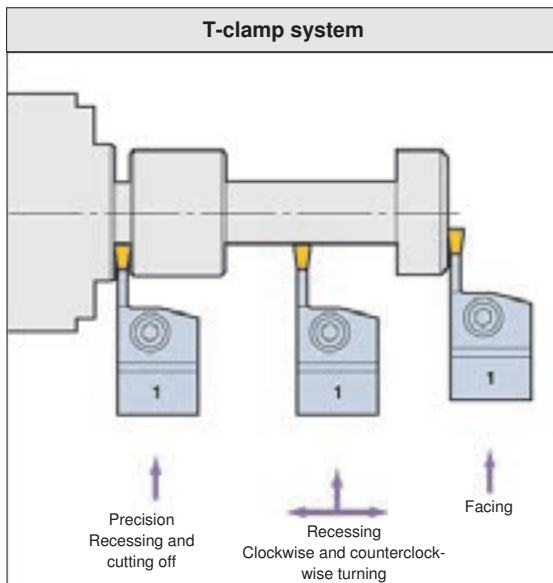
Cutting-off



Longitudinal turning and Recessing



Axial grooving and facing



Recommended machine data

Face turning

Material	Hardness Brinell HB	Cutting speed (m/min)	
		H 20	H 45
Unalloyed steel	0,2%C		110 - 140
	0,45%C		100 - 130
	0,83%C		90 - 110
Alloyed steel	< 200		80 - 110
	200 - 250		75 - 120
	275 - 325		70 - 90
	325 - 375		60 - 75
	375 - 425		45 - 55
Stainless steel	Martensite		100 - 135
	Austenite		70 - 95
Cast steel	Carbon		105 - 135
	Alloy		85 - 100
			75 - 90
Malleable cast iron	Short chipping	90 - 100	
	Long chipping	70 - 90	
Cast iron	Low strength	115 - 140	
	high strength	80 - 100	
Spheroidal graphite cast iron	Ferritic	85 - 105	
	Pearlitic	80 - 100	
Hardened cast iron		20	
Bronze alloy	120 - 200		
Lead alloy	80 - 150		
Brass, red brass	60 - 110		
Phosphor-bronze	85 - 110		
Aluminium alloy	150 - 200		
Not heat-resistant	30 - 80		
Heat resistant	80 - 120		
Aluminium alloy, cast			
Magnesium	40 - 60 HRB		
	60 - 90 HRB		
Electrolytic copper	50 - 85		

• For longitudinal turning, increase the cutting speed by 20-30%

Cutting-Off and Grooving Tools

18710

Cut-Off and Deep Recessing Blades

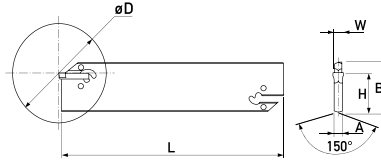


Use

For clockwise and counterclockwise operation.
For mounting cutting insert cat. no. 18747-18750.

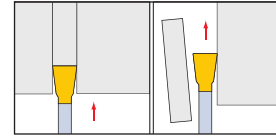
Note:

Basic tool holder for grooving blades
see cat. no. 18670 204-206.



18710

Type	B mm	L mm	H mm	A mm	W mm	For cutting insert	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

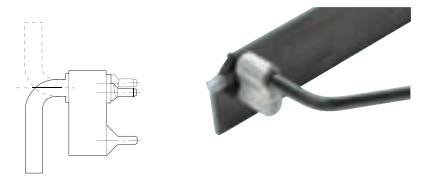
Special wrench



Use

For cut-off blades cat. no. 18710.

18711	...
	101



18711

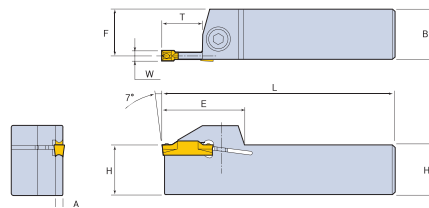
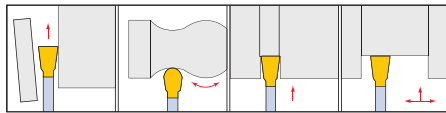
18715 - 18716

Tool holders for Longitudinal Turning and Recessing



Use

For mounting cutting inserts
cat.-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 insert	Screw size	Right-hand 18715	...	Left-hand 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

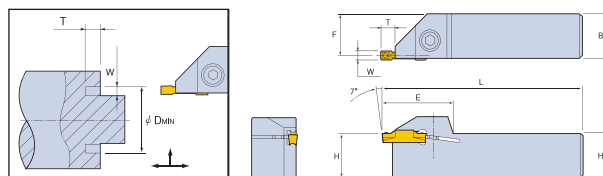
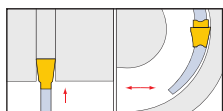
18719 - 18720

Tool holders for External and Axial Recessing



Use

For mounting cutting insert
cat. no. 18747-18760.



18719

Type	H mm	B mm	L mm	F mm	E mm	Wmax mm	Tmax mm	Ø Dmin mm	For cutting insert	Screw size	Right-hand 18719	...	Left-hand 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



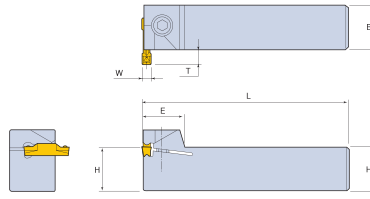
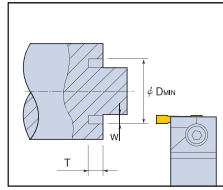
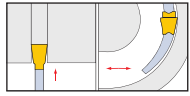
18723 - 18724

Tool Holders for Longitudinal Turning and Axial grooving



Use

For mounting cutting inserts cat.-no. 18747 and 18758.



18723

18724



Type	H mm	B mm	L mm	E mm	Wmax mm	Tmax mm	Ø Dmin mm	For cutting insert	Screw size	Right-hand	Left-hand		
										18723	...	18724	...
TGFPR/L 2525-4	25	25	150	18	-4,3	4,8	30	TDC/TDFT-E	M 5 x 0,8		101		101

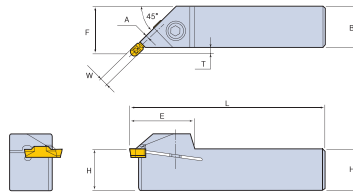
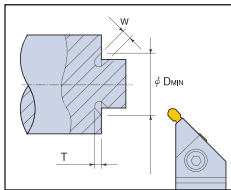
18727 - 18728

External Undercutting Tool Holders



Use

For mounting cutting insert cat. no. 18748-18756 and 18760.



18727



Type	H mm	B mm	L mm	F mm	E mm	A mm	Wmax mm	Tmax mm	Ø Dmin mm	For cutting insert	Screw size	Right-hand	Left-hand		
												18727	...	18728	...
TGEUR/L 1616-3	16	16	110	17,30	30	1,05	-3	2,8	32	TDJ/TSJ/TDT	M 5 x 0,8		301		301
TGEUR/L 2020-3	20	20	125	23,30	30	1,05	-3	2,8	32	TDJ/TSJ/TDT	M 5 x 0,8		302		302
TGEUR/L 2525-3	25	25	150	28,30	30	1,05	-3	2,8	32	TDJ/TSJ/TDT	M 5 x 0,8		303		303
TGEUR/L 1616-4	16	16	110	19,45	30	1,45	-4	2,8	32	TDJ/TSJ/TDT	M 5 x 0,8		304		304
TGEUR/L 2020-4	20	20	125	23,45	30	1,45	-4	2,8	32	TDJ/TSJ/TDT	M 5 x 0,8		305		305
TGEUR/L 2525-4	25	25	150	28,45	30	1,45	-4	2,8	32	TDJ/TSJ/TDT	M 5 x 0,8		306		306

18731 - 18732

Tool Holders for Axial Deep Recessing and Facing

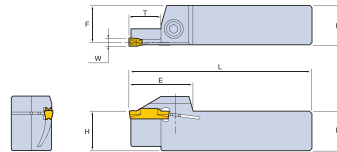
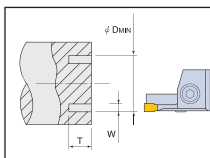
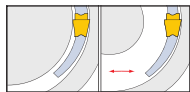


Use

For mounting cutting insert cat. no. 18752-18758.

Ø D mm = Diameter rang for axial grooving.

After the clearance groove the diameter for face turning is unlimited.



18731



Type	H mm	B mm	L mm	F mm	E mm	W mm	Tmax mm	Ø D mm	For cutting insert	Screw size	Right-hand	Left-hand		
											18731	...	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

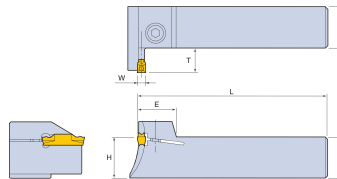
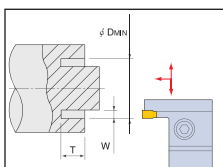
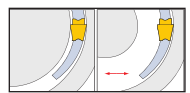
Tool Holders for Axial Deep Recessing and Facing

Use

For mounting cutting insert cat. no. 18752-18758.

Ø D mm = Diameter rang for axial grooving.

After the clearance groove the diameter for face turning is unlimited.



18736



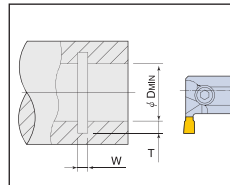
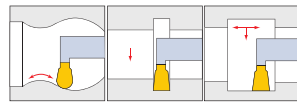
Type	H mm	B mm	L mm	E mm	W mm	Tmax mm	Ø D mm	For cutting insert	Screw size	Right-hand	Left-hand		
										18735	...	18736	...
TTFPR/L 25-30-4	25	25	150	18	4	12	22-40	TDT/TDFT-E	M 5 x 0,8		301		301
TTFPR/L 25-40-4	25	25	150	18	4	15	32-50	TDT/TDFT-E	M 5 x 0,8		302		302
TTFPR/L 25-50-4	25	25	150	18	4	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

Cutting-Off and Grooving Tools

18739 - 18740 Boring Bars for Internal Turning and Recessing

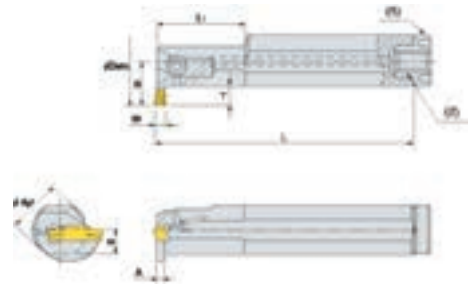


Use
For mounting cutting insert
cat. no. 18762.



18739

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

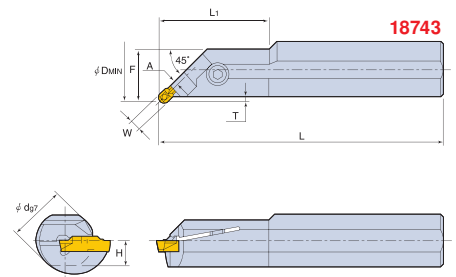
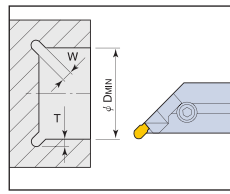
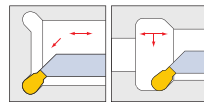


Type	Ø d mm	L mm	L1 mm	B mm	H mm	W mm	A mm	Tmax mm	Ø Dmin mm	For cutting Inserts	Seal (1)	Seal thread (2)	Screw Size
TTIR/L 20-3C	20	160	40	15,8	9,0	3	2,1	6,5	25	TDIT-E	PL20	M 6	M 5 x 0,8
TTIR/L 20-4C	20	160	40	15,8	9,0	4	2,9	6,5	25	TDIT-E	PL20	M 6	M 5 x 0,8
TTIR/L 25-4C	25	200	40	17,5	11,5	4	2,9	5,8	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

18743 - 18744 Boring Bars for Internal Undercutting



Use
For mounting cutting inserts
cat. no. 18752-18756 and 18760-18762.



18743

Typ	Ø d mm	L mm	L1 mm	F mm	H mm	A mm	W mm	Tmax mm	Ø Dmin mm	For cutting inserts	Screws size	Right-hand		Left-hand	
												18743	...	18744	...
TGIUR/L 20-3	20	160	-	12,8	9,5	1,05	3	2,8	38	TDT/TDIT-E	M 5 x 0,8		101		101
TGIUR/L 25-3	25	200	40	14,8	11,5	1,05	3	2,8	38	TDT/TDIT-E	M 5 x 0,8		102		102
TGIUR/L 20-4	20	160	-	12,9	9,5	1,45	4	2,8	38	TDT/TDIT-E	M 5 x 0,8		103		103
TGIUR/L 25-4	25	200	40	14,9	11,5	1,45	4	2,8	46	TDT/TDIT-E	M 5 x 0,8		104		104

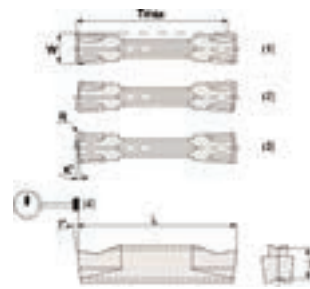
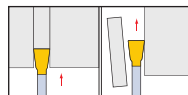
18747 Cutting Inserts TDC



Type
Two cutting blades, with chip former type -C-.

Use
For cut-off blade and tool holder
cat. no. 18710-18724.

Note:
(1) = neutral,
(2) = counterclockwise,
(3) = right-hand,
(4) = Tolerance +/- 0,1 mm.



18747

Type	W +/-0,05 mm	R	L mm	K	H mm	Tmax mm		NK		PK	
								H 20	...	H 45	...
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

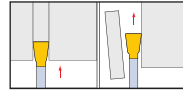
Double Ended Inserts TDJ



Type
Two cutting blades, with chip former type -J-.

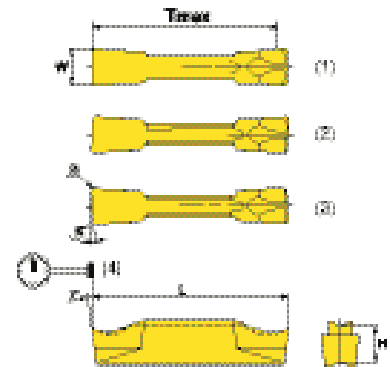
Use
For cut-off blades and tool holders cat. no. 18710-18720 and 18727-18728.

Note:
(1) = neutral,
(2) = counterclockwise,
(3) = right-hand,
(4) = Tolerance +/- 0,1 mm.



18748

Use Carbide Type	W +/-0,05 mm	R mm	L mm	K mm	H mm	Tmax mm	Image	N K		P K	
								H 20	...	H 45	...
TDJ 2	2	0,2	20	-	4,7	19	10 pcs.	18748	...	18748	...
TDJ 2-6R	2	0,2	20	6°	4,7	19	10 pcs.	101	102	201	202
TDJ 2-6L	2	0,2	20	6°	4,7	19	10 pcs.	103	104	203	204
TDJ 3	3	0,2	20	-	4,7	19	10 pcs.	105	106	205	206
TDJ 3-6R	3	0,2	20	6°	4,7	19	10 pcs.	107	108	207	208
TDJ 3-6L	3	0,2	20	6°	4,7	19	10 pcs.	109	110	209	210
TDJ 4	4	0,3	20	-	4,7	19	10 pcs.				
TDJ 4-4R	4	0,3	20	4°	4,7	19	10 pcs.				
TDJ 4-4L	4	0,3	20	4°	4,7	19	10 pcs.				
TDJ 5	5	0,3	25	-	5,2	24	10 pcs.				



18750

Single Ended Inserts TSJ



Type
Single flute, with chip former type -J-.

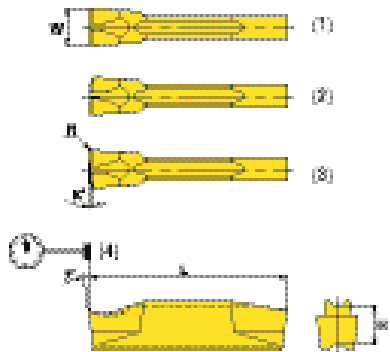
Use
For cut-off blades and tool holders cat. no. 18710-18720 and 18727-18728.

Note:
(1) = neutral,
(2) = counterclockwise,
(3) = right-hand,
(4) = Tolerance +/- 0,1 mm.



18750

Use Carbide Type	W +/-0,05 mm	R mm	L mm	K mm	H mm	Image	N K		P K	
							H 20	...	H 45	...
TSJ 3	3	0,2	20	-	4,7	10 pcs.	18750	...	18750	...
TSJ 3-6R	3	0,2	20	6°	4,7	10 pcs.	101	102	201	202
TSJ 3-6L	3	0,2	20	6°	4,7	10 pcs.	103	104	203	204
TSJ 4	4	0,3	20	-	4,7	10 pcs.	105	106	205	206
TSJ 4-4R	4	0,3	20	4°	4,7	10 pcs.	107	108	207	208
TSJ 5	5	0,3	25	-	5,2	10 pcs.	109	110	209	210



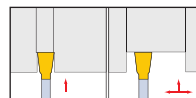
18752

Precision Double Ended Inserts TDT-E

Type
Two cutting blades, with chip former type -T-.

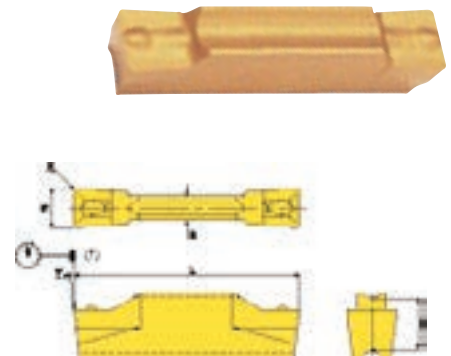
Use
For tool holders cat. no. 18715-18720, 18727-18736 and 18743-18744.

Note:
(1) = Tolerance +/- 0,025 mm.



18752

Use Carbide Type	W +/-0,02 mm	R +/-0,05 mm	B mm	L mm	H mm	Image	N K		P M K	
							H 20	...	H 42	...
TDT 3.00E-0.40	3	0,4	2,2	20	4,7	10 pcs.	18752	...	18752	...
TDT 4.00E-0.40	4	0,4	3,0	20	4,7	10 pcs.	101	102	201	202
TDT 4.00E-0.80	4	0,8	3,0	20	4,7	10 pcs.	103	104	203	204
TDT 5.00E-0.40	5	0,4	4,0	25	5,2	10 pcs.	105	106	205	206
TDT 5.00E-0.80	5	0,8	4,0	25	5,2	10 pcs.	107	108	207	208



18754

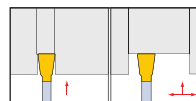
Double Ended Inserts TDT-E



Type
Two cutting blades, with chip former type -T-.

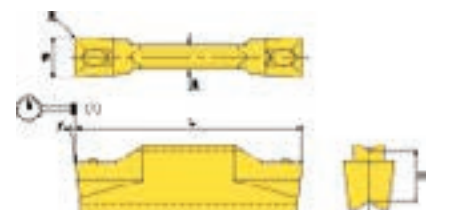
Use
For tool holders cat. no. 18715-18720, 18727-18736 and 18743-18744.

Note:
(1) = Tolerance +/- 0,1 mm.



18754

Use Carbide Type	W +/-0,05 mm	R mm	B mm	L mm	H mm	Image	N K		P M K	
							H 20	...	H 42	...
TDT 3E-0.4	3	0,4	2,2	20	4,7	10 pcs.	18754	...	18754	...
TDT 4E-0.4	4	0,4	3,0	20	4,7	10 pcs.	101	102	201	202



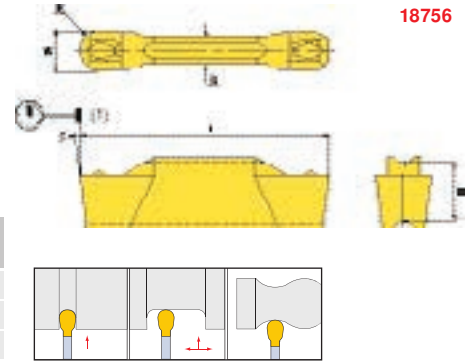
Cutting-Off and Grooving Tools

18756 Precision Double Ended Inserts TDT-E

Type
Two cutting blades, with chip former type -T-.

Use
For tool holders and boring bars cat. no. 18715-18720, 18727-18736 and 18743-18744.

Note:
(1) = Tolerance +/- 0,025 mm.



Type	W +/-0,02 mm	R +/-0,05 mm	B mm	L mm	H mm		NK		PMK	
							H 20	...	H 42	...
TDT 3.00E-1.50	3	1,5	2,2	20	4,7	10 pcs.	18756	...	18756	...
TDT 4.00E-2.00	4	2,0	3,0	20	4,7	10 pcs.	101	...	201	...
TDT 5.00E-2.50	5	2,5	4,0	25	5,2	10 pcs.	102	...	202	...
							103	...	203	...

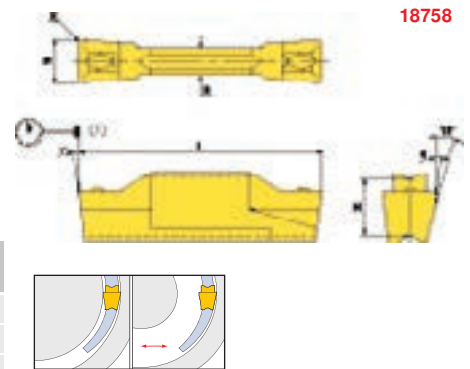
18758 Double Ended Inserts TDFT-E

HHW

Type
Two cutting blades, with chip former type -T-.

Use
For tool holder cat. no. 18719-18724 and 18731-18736.

Note:
(1) = Tolerance +/- 0,1 mm.



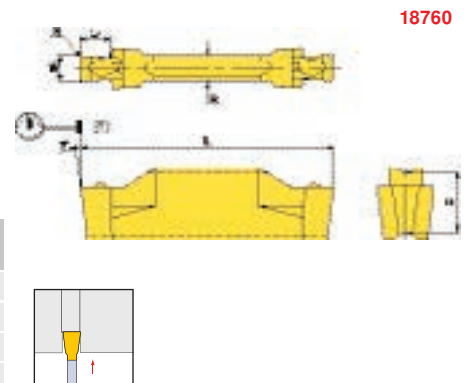
Type	W +/-0,02 mm	R mm	B mm	L mm	H mm		NK		PMK	
							H 20	...	H 42	...
TDFT 3E-0.40R	3	0,4	2,2	20	4,7	10 pcs.	18758	...	18758	...
TDFT 3E-0.40L	3	0,4	2,2	20	4,7	10 pcs.	101	...	201	...
TDFT 4E-0.40R	4	0,4	3,0	20	4,7	10 pcs.	102	...	202	...
TDFT 4E-0.40L	4	0,4	3,0	20	4,7	10 pcs.	103	...	203	...
							104	...	204	...

18760 Precision Double Ended Inserts TDT

Type
Two cutting blades, with chip former type -T-.

Use
For tool holders and boring bars cat. no. 18715-18720, 18727-18728 and 18739-18744.

Note:
(1) = Tolerance +/- 0,025 mm.



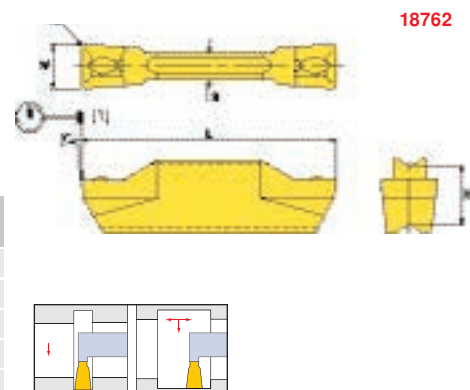
Type	W +/-0,02 mm	R mm	B mm	L mm	L1 mm	H mm		NK		PMK	
								H 20	...	H 42	...
TDT 1.00-0.00	1,00	0,00	2,2	20	2,5	4,7	10 pcs.	18760	...	18760	...
TDT 1.30-0.00	1,30	0,00	2,2	20	2,5	4,7	10 pcs.	101	...	301	...
TDT 1.60-0.10	1,60	0,10	2,2	20	2,5	4,7	10 pcs.	102	...	302	...
TDT 1.85-0.10	1,85	0,10	2,2	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	...
								109	...	309	...

18762 Precision Double Ended Inserts TDIT-E

Type
Two cutting blades.

Use
For boring bars cat. no. 18739-18744.

Note:
(1) = Tolerance +/- 0,025 mm.



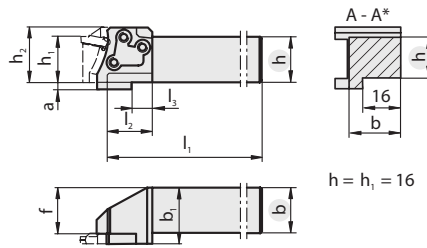
Type	W +/-0,02 mm	R +/-0,05 mm	B mm	L mm	H mm		NK		PMK	
							H 20	...	H 42	...
TDIT 3.00E-0.40	3	0,4	2,2	20	4,7	10 pcs.	18762	...	18762	...
TDIT 4.00E-0.40	4	0,4	3,0	20	4,7	10 pcs.	101	...	301	...
TDIT 4.00E-0.80	4	0,8	3,0	20	4,7	10 pcs.	102	...	302	...
TDIT 5.00E-0.40	5	0,4	4,0	25	5,2	10 pcs.	103	...	303	...
TDIT 5.00E-0.80	5	0,8	4,0	25	5,2	10 pcs.	104	...	304	...
							105	...	305	...

Turning Tools

19650



Modular base holder MSS shank 0°



NEW

19650

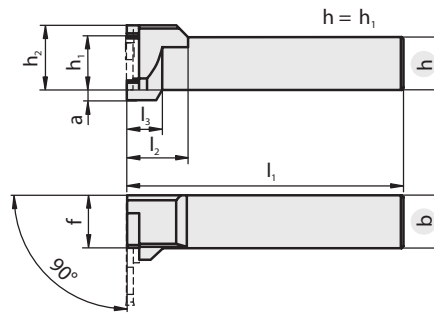


Size	Designation	h mm	b mm	f mm	b ₁ mm	h ₂ mm	l ₁ mm	l ₂ mm	Right-hand		Left-hand	
									19650	...	19650	...
20	MSS-E20R/L00-2020J	20	20	20,1	24,3	24	110	20	101	...	201	...
25	MSS-E25R/L00-2525L	25	25	25,5	31,0	30	140	25	102	...	202	...
32	MSS-E32R/L00-3225N	32	25	25,5	31,0	38	160	32	103	...	203	...

19651



Modular base holder MSS shank 90°



NEW

19651



Size	Designation	h mm	b mm	f mm	h ₂ mm	l ₁ mm	l ₂ mm	Right-hand		Left-hand	
								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

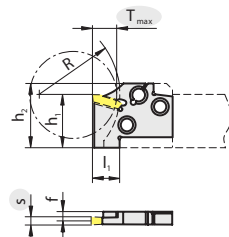
19653 - 19658

Recessing inserts GX/SX outside for modular grooving system MSS

19653



Inserts GX 16 (without grooving indexable inserts)



NEW

19653

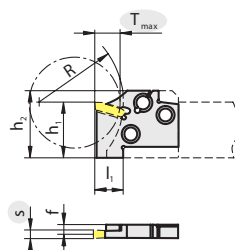


Size	Designation	Tmax mm	f mm	l ₁ mm	h ₁ mm	h ₂ mm	R mm	Indexable inserts	Right-hand		Left-hand	
									19653	...	19653	...
20	MSS-E20R/L12-GX16-1	12	3,74	13	20	24	30,0	GX16-1..	101	...	201	...
20	MSS-E20R/L12-GX16-2	12	3,40	13	20	24	30,0	GX16-2..	102	...	202	...
20	MSS-E20R/L12-GX16-3	12	2,93	13	20	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 grooving indexable inserts)



19654

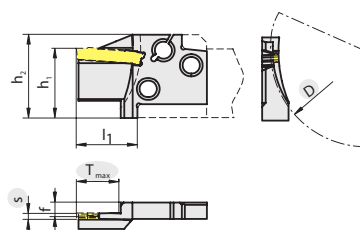


Size	Designation	Tmax mm	f mm	l ₁ mm	h ₁ mm	h ₂ mm	R mm	Indexable inserts	Right-hand		Left-hand	
									19654	...	19654	...
20	MSS-E20R/L21-GX24-2	21	3,40	22	20	24	30,0	GX24-2..	101	...	201	...
20	MSS-E20R/L21-GX24-3	21	3,00	22	20	24	30,0	GX24-3..	102	...	202	...
25	MSS-E25R/L21-GX24-2	21	4,90	22	25	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 grooving indexable inserts)



19655



Size	Designation	Tmax mm	f mm	l ₁ mm	h ₁ mm	h ₂ mm	Dmin mm	Dmax mm	Indexable inserts	Right-hand		Left-hand	
										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	...

continuation ►

Continuation ▶

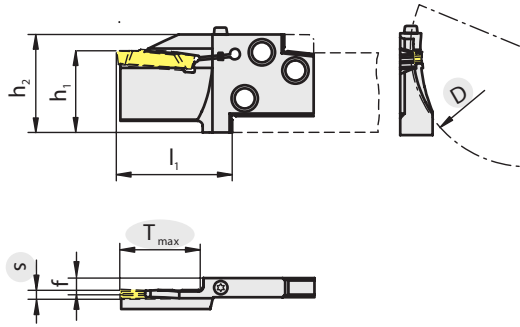
19656



Inserts GX 24 axial long
(without grooving indexable inserts)

Note:

Axial modules in long can be clamped in on both sides.



NEW

19656

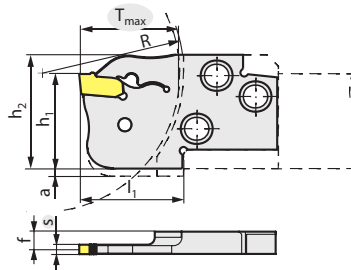


Size	Designation	T _{max} mm	f mm	l ₁ mm	h ₁ mm	h ₂ mm	D _{min} mm	D _{max} mm	Indexable inserts	Right-hand		Left-hand	
										19656	...	19656	...
25	MSS-E25R/L21-GX24-3 AS50-70	21	4,43	35	25	30	50	70	GX24-3..	101	...	201	...
25	MSS-E25R/L21-GX24-3 AS70-100	21	4,43	35	25	30	70	100	GX24-3..	102	...	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



Inserts SX outside
(without grooving indexable insert)



NEW

19658



Size	Designation	S mm	T _{max} mm	f mm	l ₁ mm	h ₁ mm	h ₂ mm	R mm	a mm	Indexable inserts	Right-hand		Left-hand	
											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	...

LARGE SELECTION – EASY SEARCH

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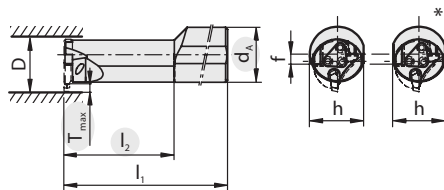
Cutting-Off and Grooving Tools

19660 - 19661 Modular cutting-off and grooving system MSS boring bars

19660



Modular cutting-off and grooving system MSS boring bar 1,5 x D



NEW

19660

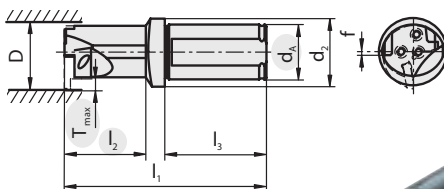


Size	Designation	l ₂ mm	d ₁ mm	d ₂ mm	f mm	l ₁ mm	l ₃ mm	T _{max} mm	D _{min} mm	Insert	Right-hand		Left-hand	
											19660	...	19660	...
16	MSS-I16R/L90-1.5D-N	24	20	25	1,0	82	50	4	20	MSS-I16R/L	101	...	201	...
20	MSS-I20R/L90-1.5D-N	30	20	25	1,0	87	50	5	25	MSS-I20R/L	102	...	202	...
25	MSS-I25R/L90-1.5D-N	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



Modular cutting-off and grooving system MSS boring bar 2,5 x D



NEW

19661



Size	Designation	l ₂ mm	d ₁ mm	f mm	l ₁ mm	T _{max} mm	D _{min} mm	Insert	Right-hand		Left-hand	
									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-I40R/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	...

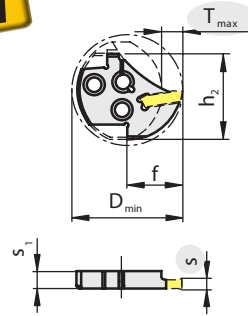
Turning Tools

19663



Inserts GX 09 (without grooving indexable inserts)

NEW



19663



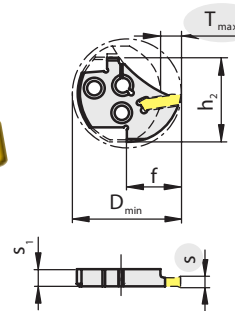
Size	Designation	T _{max} mm	f mm	s ₁ mm	h ₂ mm	D _{min} mm	Indexable inserts	Right-hand		Left-hand	
								19663	...	19663	...
16	MSS-I16R/L04-GX09-1	4	10,0	3,8	16,4	20	GX09-1..		101		201
16	MSS-I16R/L04-GX09-2	4	10,0	3,8	16,4	20	GX09-2..		102		202
20	MSS-I20R/L05-GX09-1	5	12,0	3,8	20,4	25	GX09-1..		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 grooving indexable inserts)

NEW



19664



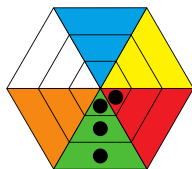
Size	Designation	T _{max} mm	f mm	s ₁ mm	h ₂ mm	D _{min} mm	Indexable inserts	Right-hand		Left-hand	
								19664	...	19664	...
32	MSS-I32R/L09-GX16-1	9	20	5,9	32,2	40	GX16-1..		101		201
32	MSS-I32R/L09-GX16-2	9	20	5,9	32,2	40	GX16-2..		102		202
32	MSS-I32R/L09-GX16-3	9	20	5,9	32,2	40	GX16-3..		103		203
32	MSS-I32R/L09-GX16-4	9	20	5,9	32,2	40	GX16-4..		104		204

Info

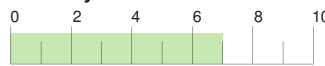
Modular parting and grooving system MSS

Type description

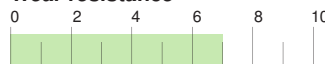
H216T
HW-K15



Ductility



Wear resistance

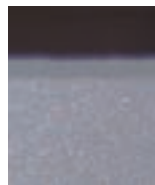
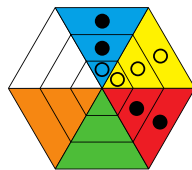


Characteristics/application:

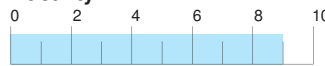
- Ideally suited for aluminium
- High wear resistance
- High temperature stability
- Minimal adhesion tendency

CTCP335

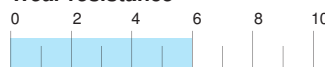
HC-P35
HC-M30
HC-K35



Ductility



Wear resistance

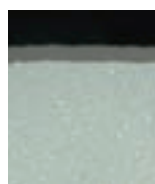
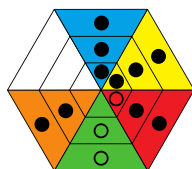


Characteristics/application:

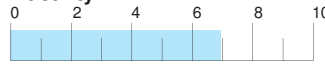
- Excellent wear resistance
- Good oxidation resistance
- High ductility
- Good temperature stability

CTP1340

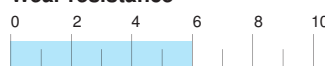
HC-P30
HC-M25
HC-K30



Ductility



Wear resistance



Characteristics/application:

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



19670 - 19672 Cutting inserts for modular grooving system MSS



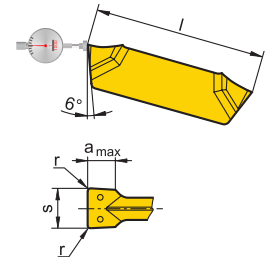
19670
Cutting inserts for system GX-E

NEW



19670

Use Carbide type Coating Designation	s mm	l mm	r mm	a _{max} mm		PMKS		N	
						CTP1340 PVD	...	H216T Uncoated	...
						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



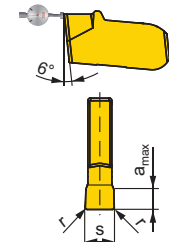
Cutting inserts for system SX

NEW



19671

Use Carbide type Coating Designation	s mm	l mm	r mm	a _{max} mm		PMKS		N	
						CTP1340 PVD	...	H216T Uncoated	...
						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
SX E4.00N0.40-M2	4	13	0,4	2,5	10 pcs.		103		

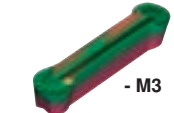


19672



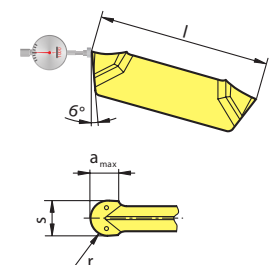
Cutting inserts for system GX-R

NEW



19672

Use Carbide type Coating Designation	s mm	l mm	r mm	a _{max} mm		PMKS		PK	
						CTP1340 PVD	...	CTCP335 Ti(C,N)+Al2O3	...
						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



ATORN®**Type**

Solid tool holder of 42 CrMo4V quenched and tempered to approx. 1.300 N/mm². Through powerful clamping element guided by two cylinder pins.

Use

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

18765 - 18766

**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-hand		Left-hand	
							18765	...	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-hand		Left-hand	
							18765	...	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-hand		Left-hand	
							18765	...	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-hand		Left-hand	
							18765	...	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	...

Holder R/L...2-D grooving depth to 8 mm

Designation	H +/- 0,1 mm	B +/- 0,1 mm	L1 mm	L2 mm	T max. mm	For grooving inserts	Right-hand		Left-hand	
							18766	...	18766	...
R/L 0.780.2020.2D	20	20	125	24	8	DED.02..	101	...	201	...
R/L 0.780.2525.2D	25	25	150	-	8	DED.02..	102	...	202	...
R/L 0.780.3232.2D	32	32	170	-	8	DED.02..	103	...	203	...

Holder R/L...3-D grooving depth to 8 mm

Designation	H +/- 0,1 mm	B +/- 0,1 mm	L1 mm	L2 mm	T max. mm	For grooving inserts	Right-hand		Left-hand	
							18766	...	18766	...
R/L 0.780.2020.3D	20	20	125	24	8	DED.03..	104	...	204	...
R/L 0.780.2525.3D	25	25	150	-	8	DED.03..	105	...	205	...
R/L 0.780.3232.3D	32	32	170	-	8	DED.03..	106	...	206	...

Holder R/L...4-D grooving depth to 8 mm

Designation	H +/- 0,1 mm	B +/- 0,1 mm	L1 mm	L2 mm	T max. mm	For grooving inserts	Right-hand		Left-hand	
							18766	...	18766	...
R/L 0.780.2020.4D	20	20	125	24	8	DED.04.. / DED.05..	107	...	207	...
R/L 0.780.2525.4D	25	25	150	-	8	DED.04.. / DED.05..	108	...	208	...
R/L 0.780.3232.4D	32	32	170	-	8	DED.04.. / DED.05..	109	...	209	...

Spare parts

For holders	Clamping screw		Guide pin		Clamping claw Right-hand		Clamping claw Left-hand	
	18767	...	18767	...	18767	...	18767	...
R/L 207...1.2.3.4-D		101		102		103		105
R/L 0.780...2.3.4-D		101		102		103		105
R/L 207...1.2.3-D						104		106
R/L 0.780...2.3-D						104		106

see next page for suitable inserts ▶

Threading lathe tools

18768 - 18770 Indexable inserts for grooving system DED

Type

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

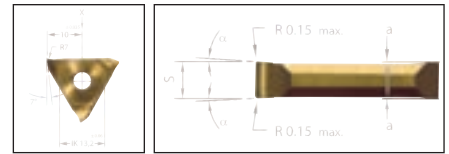
- Low cutting forces
- Grooving insert with chip breaker
- High thermal and chemical stability
- Low coefficients of friction

Use

Universal implementation of virtually all materials.
Can be used with limitation for dry machining.

Quality

Carbide finest grit HC 8620/TiAlN-coated.



18768



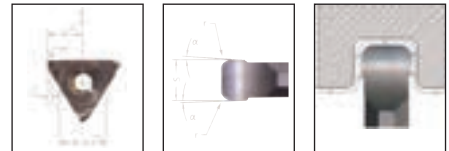
- For circlip grooves in accordance with DIN 471/472

Designation	Groove dimension mm	S -0,05 mm	Relief angle alpha Bottom	Relief angle alpha Top	a +/-0,02 mm	For Tool 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 turning and fine turning

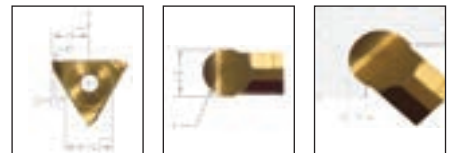


Designation	S +0,03 mm	r mm	Relief angle alpha Bottom	Relief angle alpha Top	For Tool holder type	18769	...
DED.0150.02-D	1,5	0,2	4°	3°	R/L..1-D		101
DED.0200.02-D	2,0	0,2	4°	3°	R/L..1-D		102
DED.0200.04-D	2,0	0,4	4°	3°	R/L..1-D		103
DED.0300.02-D	3,0	0,2	4°	3°	R/L..2-D		105
DED.0300.06-D	3,0	0,6	4°	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 groove turning 0,5 to 1,6 mm grooving width

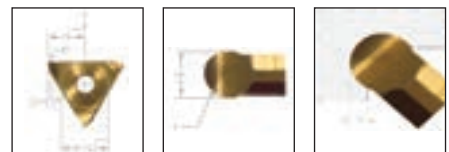


Designation	S +/-0,05 mm	r mm	T mm	For Tool holder type	18770	...
DED.0002.05-D	0,5	0,25	0,20	R/L..1-D		101
DED.0005.10-D	1,0	0,50	0,35	R/L..1-D		102
DED.0006.12-D	1,2	0,60	0,40	R/L..1-D		103
DED.0008.16-D	1,6	0,80	0,55	R/L..1-D		104

18770 106-110



- Full radius for groove turning 2,0 to 5,0 mm grooving width



Designation	S +/-0,05 mm	r mm	T mm	For Tool 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