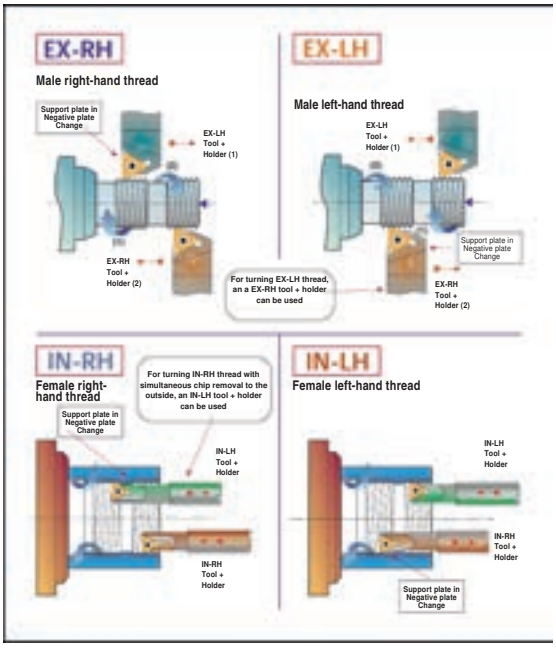
Info — Thread turning

HW 5615 (K10 - K30) uncoated carbide type for non-ferrous metals, aluminium and cast iron.
HC 5615 (P25 - P35) TiN-coated fine-grain quality for tempering steels and high-alloy steel (25 HRC and greater) for medium to low cutting speeds.
HC 5630 (P20 - P50 / K25 - K40) TiAlN-coated Ultra finest grit for stainless steels and special materials at medium to high cutting speeds.

Carbide qualities and selection of the cutting speeds

	Uncoated HW 5615	Coated HC 5615	Coated HC 5630
Non-ferrous metals and aluminium	120 - 200	-	140 - 290
General structural steels	-	100 - 200	90 - 240
High-alloy structural steels	-	80 - 160	80 - 170
Alloyed steel	-	50 - 120	90 - 130
Cast steel	-	90 - 150	120 - 180
Stainless steels	-	-	70 - 130
Cast iron	60 - 100	-	70 - 160

The cutting speeds are specified with a tolerance range.
In most cases it is recommended to select a medium sped for the start.
For high-strength steels, the cutting speed must be reduced.



18774 - 18775 Threading insert sets

ATORN®

Type
- In the case

Use
Universal for manufacturing a variety of thread leads for limited quantities of workpieces.


18774

	Set contents
1	**tool holder right-hand**
1 each	**carbide indexable insert HC 5615, partial profile 60°,** 16 .. A60 (lead 0,5 - 1,5 mm) and 16 .. G60 (lead 1,75 - 3,0 mm)
1 each	**carbide indexable insert HC 5615, full profile 60°,** Lead 0,75 / 1,00 / 1,25 / 1,50 / 1,75 / 2,00 / 2,50 / 3,00 mm
1	**TORX® key**
1	**spare clamping screw**

External thread Set	Holder Ø mm	18774 ...
KEG 20	20	102

Internal thread Set	Holder Ø mm	18775 ...
KIG 20	20	102

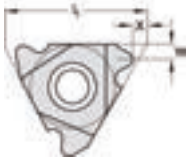
18776 Carbide threading tips outside

ATORN®

Type
Clockwise, **section profile 60°,** outside, ground.

Note:
Other leads and left-hand types available on request.

18776




Use							P
Carbide HM type							HC 5615
Coating							Coated
Designation	**Lead mm**	**Lead Threads/inch**	**l_1 mm**	**x mm**	**y mm**		**18776 ...**
16 ER A60	0,50-1,5	48-16	16	0,8	0,9	10 pcs.	302
16 ER G60	1,75-3,0	14-8	16	1,2	1,7	10 pcs.	303

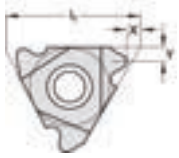
18777 Carbide threading tip inside

ATORN®

Type
Clockwise, **section profile 60°,** inside, ground.

Note:
Other leads and left-hand types available on request.

18777



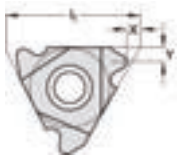

Use							P
Carbide HM type							HC 5615
Coating							Coated
Designation	**Lead mm**	**Lead Threads/inch**	**l_1 mm**	**x mm**	**y mm**		**18777 ...**
16 IR A60	0,50-1,5	48-16	16	0,8	0,9	10 pcs.	302
16 IR G60	1,75-3,0	14-8	16	1,2	1,7	10 pcs.	303

18778 Carbide threading inserts DIN 405 outside

ATORN®

Type
Clockwise, full profile **round thread,** outside, ground.

Note:
Other leads and left-hand types available on request.



18778

Use						P
Carbide HM type						HC 5615
Coating						coated
Designation	**Lead Threads/inch**	**l_1 mm**	**x mm**	**y mm**		**18778 ...**
16 ER 10 RD	10	16	1,1	1,2	10 pcs.	101
16 ER 8 RD	8	16	1,4	1,3	10 pcs.	102
16 ER 6 RD	6	16	1,5	1,7	10 pcs.	103

18780 External Thread Cutting Tool holders

ATORN®

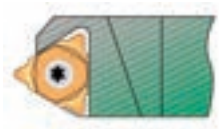
Note:
Further shank Ø available on request.

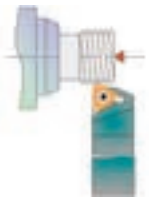
18780 103-118
Type
Right-hand, lead angle 1,5°.

18780 203-218
Type
Left-hand, lead angle 1,5°.

18780

18780 116





					Right-hand		Left-hand	
Designation	**$h_1 = c_1$ mm**	**l_1 mm**	**f_1 mm**	**Clamping screw**	**18780**	**...**	**18780**	**...**
SER/L 1616 H16	16	100	16	S 16		103		203
SER/L 2020 K16	20	125	20	S 16		106		206
SER/L 2525 M16	25	150	25	S 16		109		209
SER/L 2525 M22	25	150	25	S 22		112		212
SER/L 3232 P22	32	170	32	S 22		115		215
SER/L 3232 P22U	32	170	32	S 22		116		
SER/L 2525 M27	25	150	32	S 27		117		217
SER/L 3232 P27	32	170	32	S 27		118		218

18781 Carbide threading tips outside

ATORN®

Type
Full profile ISO, metric 60°, outside, ground.

Note:
Other leads available on request.

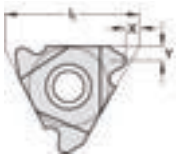
18781 210-226
Type
Right-hand.

18781 310-335
Type
Right-hand.

18781 410-435
Type
Right-hand.

18781 510-535
Type
Left-hand.

18781



Use						N M K	P	N P M K	P
Carbide type						HW 5615	HC 5615	HC 5630	HC 5615
Coating						Uncoated	Coated	Coated	Coated
Designation	**Lead mm**	**l_1 mm**	**x mm**	**y mm**		**18781 ...**	**18781 ...**	**18781 ...**	**18781 ...**
16 ER/L 0,5 ISO	0,50	16	0,6	0,6	10 pcs.	210	310	410	510
16 ER/L 0,75 ISO	0,75	16	0,6	0,6	10 pcs.	211	311	411	511
16 ER/L 0,8 ISO	0,80	16	0,6	0,6	10 pcs.	212	312	412	512
16 ER/L 1,0 ISO	1,00	16	0,7	0,7	10 pcs.	213	313	413	513
16 ER/L 1,25 ISO	1,25	16	0,8	0,9	10 pcs.	214	314	414	514
16 ER/L 1,5 ISO	1,50	16	0,8	1,0	10 pcs.	215	315	415	515
16 ER/L 1,75 ISO	1,75	16	0,9	1,2	10 pcs.	216	316	416	516
16 ER/L 2,0 ISO	2,00	16	1,0	1,3	10 pcs.	217	317	417	517
16 ER/L 2,5 ISO	2,50	16	1,1	1,5	10 pcs.	218	318	418	518
16 ER/L 3,0 ISO	3,00	16	1,2	1,6	10 pcs.	219	319	419	519
22 ER/L 3,5 ISO	3,50	22	1,6	2,3	10 pcs.	225	325	425	525
22 ER/L 4,0 ISO	4,00	22	1,6	2,3	10 pcs.	226	326	426	526
22 ER/L 4,5 ISO	4,50	22	1,7	2,4	10 pcs.		327	427	527
22 ER/L 5,0 ISO	5,00	22	1,7	2,5	10 pcs.		328	428	528
27 ER/L 6,0 ISO	6,00	27	2,0	2,9	10 pcs.		335	435	535

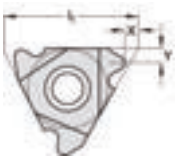
= Sales are restricted to the packaging units mentioned in the catalogue. Purchase orders must be in units.

18783 Carbide threading tips outside

ATORN®

Type
Clockwise, full profile **BSW 55°,** outside, ground.

Note:
Other leads and left-hand types available on request.



18783

Use						P	N P M K
Carbide type						HC 5615	HC 5630
Coating						Coated	Coated
Designation	**Lead Threads/inch**	**l_1 mm**	**x mm**	**y mm**		**18783 ...**	**18783 ...**
16 ER 28 W	28	16	0,6	0,7	10 pcs.	319	419
16 ER 19 W	19	16	0,8	1,0	10 pcs.	320	420
16 ER 16 W	16	16	0,9	1,1	10 pcs.	322	422
16 ER 14 W	14	16	1,0	1,2	10 pcs.	323	423
16 ER 11 W	11	16	1,1	1,5	10 pcs.	325	425

18785 Carbide threading inserts DIN 103 outside

ATORN®

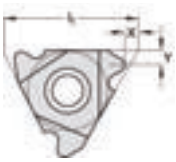
Type
Clockwise, full profile **trapezoidal 30°,** outside, ground.

Note:
Other leads and left-hand types available on request.

ER

18785

U ER



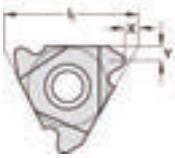
Use						P	N P M K
Carbide type						HC 5615	HC 5630
Coating						Coated	Coated
Designation	**Lead mm**	**l_1 mm**	**x mm**	**y mm**		**18785 ...**	**18785 ...**
16 ER 2TR	2	16	1,0	1,3	10 pcs.	310	
16 ER 3TR	3	16	1,3	1,5	10 pcs.	311	411
22 ER 4TR	4	22	1,8	1,9	10 pcs.	315	415
22 ER 5TR	5	22	2	2,4	10 pcs.	316	416
22 U ER 6TR	6	22 U	2,0	11,0	10 pcs.	317	417
22 U ER 7TR	7	22 U	2,3	11,0	10 pcs.	318	418

18787 Carbide threading tips outside

ATORN®

Type
Clockwise, full profile **UN,** outside, ground.

Note:
Other leads and left-hand types available on request.



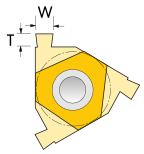
18787

Use						P
Carbide HM type						HC 5615
Coating						Coated
Designation	**Lead threads/inch**	**l_1 mm**	**x mm**	**y mm**		**18787 ...**
16 ER 20 UN	20	16	0,8	0,9	10 pcs.	110
16 ER 18 UN	18	16	0,8	1,0	10 pcs.	111
16 ER 16 UN	16	16	0,9	1,1	10 pcs.	112
16 ER 12 UN	12	16	1,1	1,4	10 pcs.	115

18788 Carbide indexable inserts for O-rings, outside

ATORN®

Use
For tool holder outside clockwise or inside counterclockwise.



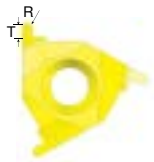
18788

Use				N P M K
Carbide type				Coated
Coating				HC 5640
Designation	**W mm**	**T mm**		**18788 ...**
16 ER/IL 1.00	1,00	1,40	10 pcs.	401
16 ER/IL 1.20	1,20	1,60	10 pcs.	402
16 ER/IL 1.40	1,40	1,80	10 pcs.	403
16 ER/IL 1.70	1,70	2,00	10 pcs.	404
16 ER/IL 1.95	1,95	2,00	10 pcs.	405
16 ER/IL 2.25	2,25	2,25	10 pcs.	406

18786 Carbide indexable inserts for grooving

ATORN®

Use
For tool holder outside clockwise or inside counterclockwise.



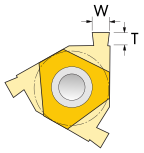
18786

Use					P K	
Carbide type					HC 5640	
Coating					Coated	
Designation	**R +/- 0,04 mm**	**T mm**		**Suitable Spacer**	**18786**	**...**
16 ER/IL R 0,5	0,5	1,4	10 pcs.	AE 16-0		401
16 ER/IL R 0,6	0,6	1,6	10 pcs.	AE 16-0		402
16 ER/IL R 0,9	0,9	2,0	10 pcs.	AE 16-0		403
16 ER/IL R 1,0	1,0	2,0	10 pcs.	AE 16-0		404
16 ER/IL R 1,1	1,1	2,15	10 pcs.	AE 16-0		405
16 ER/IL R 1,2	1,2	2,25	10 pcs.	AE 16-0		406

18802 Carbide indexable inserts for O-rings, inner

ATORN®

Use
For tool holder inside clockwise or outside counterclockwise.



18802

Use				N P M K	
Carbide type				HC 5640	
Coating				Coated	
Designation	**W mm**	**T mm**		**18802**	**...**
16 IR/EL 1.00	1,00	1,40	10 pcs.		401
16 IR/EL 1.20	1,20	1,60	10 pcs.		402
16 IR/EL 1.40	1,40	1,80	10 pcs.		403
16 IR/EL 1.70	1,70	2,00	10 pcs.		404
16 IR/EL 1.95	1,95	2,00	10 pcs.		405
16 IR/EL 2.25	2,25	2,25	10 pcs.		406

18789 Carbide indexable inserts with radius

ATORN®

18789 401-406
Use
For tool holder inside clockwise or outside counter-clockwise.

18789 501-502
Type
Spacer for grooving inserts.

18789 401-406

Use			P K		
Carbide type			HC 5640		
Coating			Coated		Spacer
Designation	**R +/- 0,04 mm**	**T mm**	**18789**	**...**	**18789**	**...**
16 IR/EL R 0,5	0,5	1,40		401		
16 IR/EL R 0,6	0,6	1,60		402		
16 IR/EL R 0,9	0,9	2,00		403		
16 IR/EL R 1,0	1,0	2,00		404		
16 IR/EL R 1,1	1,1	2,15		405		
16 IR/EL R 1,2	1,2	2,25		406		
AE 16-0	-	-				501
AI 16-0	-	-				502

18790 Mini threading insert sets

ATORN®

Type
For internal threads, section profile, right-hand
Incl. 1 TORX key and 2 spare screws.

	18790 ...
KU 60 M	101
KM 60 M	103

18790 101
Contents KU 60 M
1 boring bar, shank 12 mm (cat. no. 18791 101),
10 threading inserts partial profile metric 60° for leads 0,5-1,5 (cat. no. 18793 101).

18790 103
Contents KM 60M
1 boring bar, shank 16 mm (cat. no. 18791 102),
10 threading inserts partial profile metric 60° for leads 0,5-1,5 (cat. no. 18793 102).

18790

18791 Miniature boring bars

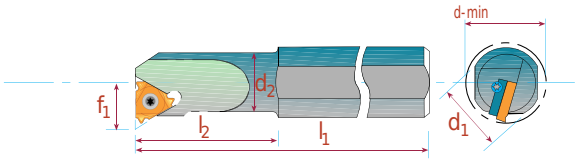
ATORN®

Type
Inside thread, steel.

18791 101-102
Type
Right-hand.

18791 201-202
Type
Left-hand.

18791



Designation	d_1 mm	d_2 mm	l_1 mm	l_2 mm	d min mm	f_1 mm	Clamping screw	Right-hand 18791 ...	Left-hand 18791 ...
SIR/L 0005 H06	12	5,1	100	12	6,0	4,3	S 06	101	201
SIR/L 0007 K08	16	6,6	125	18	7,8	5,3	S 08	102	202

18792 Clamping screws

Use
For miniature tool holders (cat. no. 18791).

	TORX-Size		18792 ...
S 06	T 6	10 pcs.	101
S 08	T 6	10 pcs.	102

18792

18793 Mini threading tip inserts inside

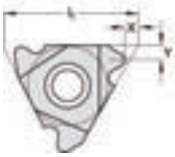
ATORN®

Type
Section profile, **metric 60°, BSW 55°,**
inside, ground.
Quality
HC 5640

18793 101-105
Type
Right-hand.

18793 201-205
Type
Left-hand.

18793



Designation	Profile	l_1 mm	Lead		Right-hand 18793 ...	Left-hand 18793 ...
06 IR/L A 60	60°	6	0,5 - 1,25	10 pcs.	101	201
08 IR/L A 60	60°	8	0,5 - 1,50	10 pcs.	102	202
06 IR/L A 55	55°	6	48 - 20	10 pcs.	104	204
08 IR/L A 55	55°	8	48 - 16	10 pcs.	105	205

18794 Solid carbide boring bars with ICF

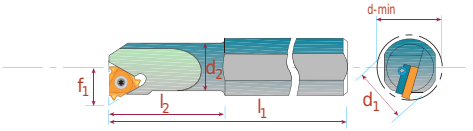
ATORN®

Type
Insert without support plate.
Use
Especially suitable for long overhangs and small hole diameters in order to prevent vibrations and bending.

18794 101-103
Type
Right-hand.

18794 201-203
Type
Left-hand.

18794



Designation	d_1 mm	d_2 mm	d min mm	l_1 mm	l_2 mm	f_1 mm	Clamping screw	Right-hand with ICF 18794 ...	Left-hand with ICF 18794 ...
SIR/L 0010 M11CB	10	10	12	150	-	7,4	S 11	101	201
SIR/L 0012 P11CB	12	12	15	170	-	8,4	S 11	102	202
SIR/L 0016 R16CB	16	16	19	200	-	11,7	S 16S	103	203

18795 Boring bars (internal thread)

ATORN®

Use
For internal thread turning.

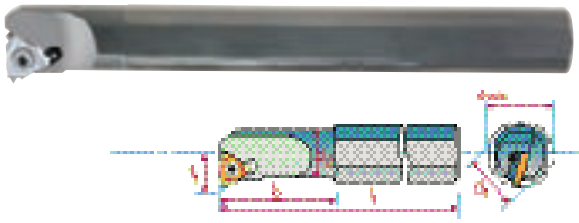
Note:
Further shank Ø available on request.

18795 101-112
Type
Right-hand, lead angle 1,5°.

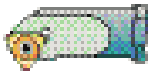
18795 201-212
Type
Left-hand, lead angle 1,5°.

18795 501-506
Type
Right-hand, **with inner coolant supply**
Lead angle 1,5°.

18795



18795 111



Designation	d_1 mm	d_2 mm	d min mm	l_1 mm	l_2 mm	f_1 mm	Clamping screw	Right-hand 18795 ...	Left-hand 18795 ...
SIR/L 0010 K11	16	10	12	125	25	7,4	S 11	101	201
SIR/L 0013 L11	16	13	15	140	32	8,9	S 11	102	202
SIR/L 0016 P16	20	16	19	170	40	11,7	S 16S	104	204
SIR/L 0020 P16	20	20	24	170	–	13,7	S 16	105	205
SIR/L 0025 R16	25	25	29	200	–	16,2	S 16	106	206
SIR/L 0025 R22	25	25	29	200	–	18,1	S 22	109	209
SIR/L 0032 S22	32	32	38	250	–	21,6	S 22	110	210
SIR/L 0032 S22U	32	32	38	250	–	24,4	S 22	111	
SIR/L 0032 S27	32	32	40	250	–	22,6	S 27	112	212

Designation	d_1 mm	d_2 mm	d min mm	l_1 mm	l_2 mm	f_1 mm	Clamping screw	Right-hand with ICF 18795 ...
SIR 0010 K11B	16	10	12	125	25	7,4	S 11	501
SIR 0013 M16B	16	13	16	150	32	10,2	S 16S	503
SIR 0016 P16B	20	16	19	170	40	11,7	S 16S	504
SIR 0020 P16B	20	20	24	170	-	13,7	S 16	505
SIR 0025 R16B	25	25	29	200	-	16,2	S 16	506

18796 Carbide threading tip inside

ATORN®

Type
Full profile ISO, metric 60°, inside, ground.

Note:
Other leads available on request.

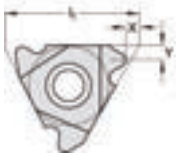
18796 205-224
Type
Right-hand.

18796 305-328
Type
Right-hand.

18796 405-428
Type
Right-hand.

18796 505-528
Type
Left-hand.

18796



Use						N M K	P	N P M K	N P M K
Carbide type						HW 5615	HC 5615	HC 5630	HC 5630
Coating						Uncoated	Coated	Coated	Coated
Designation	Lead mm	l_1 mm	x mm	y mm		18796 ...	18796 ...	18796 ...	18796 ...
11 IR/L 0,5 ISO	0,50	11	0,6	0,6	10 pcs.	205	305	405	505
11 IR/L 0,75 ISO	0,75	11	0,6	0,6	10 pcs.	208	308	408	508
11 IR/L 0,8 ISO	0,80	11	0,6	0,6	10 pcs.	209	309	409	509
11 IR/L 1,0 ISO	1,00	11	0,6	0,7	10 pcs.	210	310	410	510
11 IR/L 1,25 ISO	1,25	11	0,8	0,8	10 pcs.	211	311	411	511
11 IR/L 1,5 ISO	1,50	11	0,8	1,0	10 pcs.	212	312	412	512
11 IR/L 1,75 ISO	1,75	11	0,8	1,1	10 pcs.	213	313	413	513
16 IR/L 1,0 ISO	1,00	16	0,6	0,7	10 pcs.	214	314	414	514
16 IR/L 1,25 ISO	1,25	16	0,8	0,9	10 pcs.	216	316	416	516
16 IR/L 1,5 ISO	1,50	16	0,8	1,0	10 pcs.	217	317	417	517
16 IR/L 1,75 ISO	1,75	16	0,9	1,2	10 pcs.	218	318	418	518
16 IR/L 2,0 ISO	2,00	16	1,0	1,3	10 pcs.	219	319	419	519
16 IR/L 2,5 ISO	2,50	16	1,1	1,5	10 pcs.	220	320	420	520
16 IR/L 3,0 ISO	3,00	16	1,1	1,5	10 pcs.	221	321	421	521
22 IR/L 3,5 ISO	3,50	22	1,6	2,3	10 pcs.	223	323	423	523
22 IR/L 4,0 ISO	4,00	22	1,6	2,3	10 pcs.	224	324	424	524
22 IR/L 4,5 ISO	4,50	22	1,6	2,4	10 pcs.		326	426	526
22 IR/L 5,0 ISO	5,00	22	1,6	2,3	10 pcs.		327	427	527
27 IR/L 6,0 ISO	6,00	27	1,8	2,5	10 pcs.		328	428	528

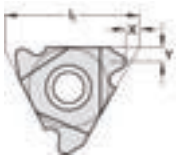
= Sales are restricted to the packaging units mentioned in the catalogue. Purchase orders must be in units.

18798 Carbide threading tips inside

ATORN®

Type
clockwise, **full profile BSW 55°,** inside, ground.

Note:
Other leads and left-hand types available on request.



18798

Use Carbide type Coating						P HC 5615 Coated		N P M K HC 5630 Coated	
Designation	**Lead threads/inch**	**l_1 mm**	**x mm**	**y mm**		**18798**	**...**	**18798**	**...**
11 IR 28 W	28	11	0,6	0,7	10 pcs.	319		419	
11 IR 19 W	19	11	0,8	1,0	10 pcs.	320		420	
11 IR 16 W	16	11	0,9	1,1	10 pcs.	322		422	
11 IR 14 W	14	11	0,9	1,1	10 pcs.	323		423	
11 IR 12 W	12	11	1,0	1,1	10 pcs.	324		424	
11 IR 11 W	11	11	0,9	1,2	10 pcs.	325		425	
16 IR 28 W	28	16	0,6	0,7	10 pcs.	339		439	
16 IR 19 W	19	16	0,8	1,0	10 pcs.	340		440	
16 IR 16 W	16	16	0,9	1,1	10 pcs.	342		442	
16 IR 14 W	14	16	1,0	1,2	10 pcs.	343		443	
16 IR 12 W	12	16	1,1	1,4	10 pcs.	344		444	
16 IR 11 W	11	16	1,1	1,5	10 pcs.	345		445	

18800 Carbide threading inserts DIN 103 inside

ATORN®

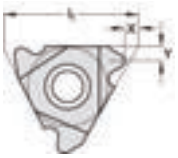
Type
clockwise, full profile **trapezoidal 30°,** inside, ground.

Note:
Other leads and types counterclockwise available on request.

U IR

18800

IR



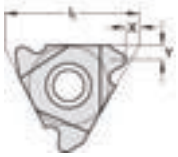
Use Carbide type Coating						P HC 5615 Coated		N P M K HC 5630 Coated	
Designation	**Lead mm**	**l_1 mm**	**x mm**	**y mm**		**18800**	**...**	**18800**	**...**
16 IR 3TR	3	16	1,3	1,5	10 pcs.	305		405	
22 IR 4TR	4	22	1,8	1,9	10 pcs.	306		406	
22 IR 5TR	5	22	2,0	2,4	10 pcs.	307		407	
22 U IR 6TR	6	22 U	2,0	11	10 pcs.	308		408	
22 U IR 7TR	7	22 U	2,3	11	10 pcs.	309		409	

18804 Carbide threading inserts DIN 405 inside

ATORN®

Type
clockwise, full profile **round thread,** inside, ground.

Note:
Other leads and left-hand types available on request.



18804

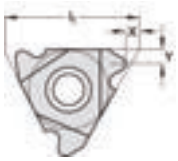
Use Carbide HM type Coating						P HC 5615 Coated	
Designation	**Lead threads/inch**	**l_1 mm**	**x mm**	**y mm**		**18804**	**...**
16 IR 8 RD	8	16	1,4	1,4	10 pcs.	102	
16 IR 6 RD	6	16	1,4	1,5	10 pcs.	103	
22 IR 6 RD	6	22	1,5	1,7	10 pcs.	104	
22 IR 4 RD	4	22	2,2	2,3	10 pcs.	105	

18803 Carbide threading tip inside

ATORN®

Type
clockwise, full profile **UN,** inside, ground.

Note:
Other leads and left-hand types available on request.



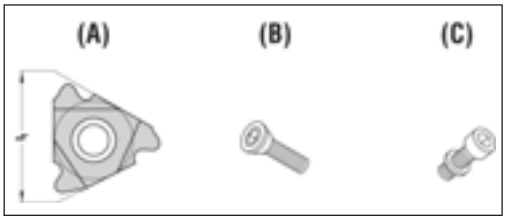
18803

Use Carbide HM type Coating						P HC 5615 Coated	
Designation	**Lead threads/inch**	**l_1 mm**	**x mm**	**y mm**		**18803**	**...**
16 IR 14 UN	14	16	0,9	1,2	10 pcs.	113	
16 IR 12 UN	12	16	1,1	1,4	10 pcs.	115	

Info

18805 - 18807 Spare parts for threaded plates

Plate size (A)		Clamp screw (B)	Screw with washer (C)
11 (1/4)	Inner	S 11	
16 (3/8)	Outer	S 16	A 16
	Inner	S 16	A 16
22 (1/2)	Outer	S 22	A 22
	Inner	S 22	A 22
27 (5/8)	Outer	S 27	A 27



18805 Clamping screws for threading inserts

		18805 ...
S 11 (1/4)	10 pcs.	101
S 16 (3/8)	10 pcs.	102
S 16 S	10 pcs.	105
S 22 (1/2)	10 pcs.	103
S 27 (5/8)	10 pcs.	104

18805

18806 Screws for support plates

	18806 ...
A 16 (3/8)	101
A 22 (1/2)	102
A 27 (5/8)	103

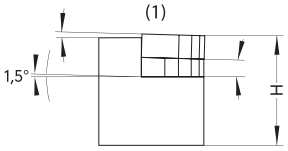
18806

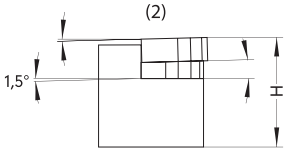
18807 Standard and Special Washers

Use
Standard washers with a **positive** lead angle (cutting from right to left) are used for cutting a **right-hand thread with a right-hand cutting insert (1).** Special washers with a **negative** lead angle (cutting from left to right) are used for cutting a **right-hand thread with a left-hand cutting insert** or a **left-hand thread with a right-hand cutting insert (2).**

Important note:
The size H remains constant for any washer combination.

18807





Insert size l_1 mm	For tool holder	Lead angle	Insert designation	18807 ...
16 (3/8)	SER.../HIL...	1,5°	AE 16	102
16 (3/8)	SEL.../HIR...	1,5°	AI 16	103
16 (3/8)	SER.../HIL...	-1,5°	AE 16-1,5	106
16 (3/8)	SEL.../HIR...	-1,5°	AI 16-1,5	107
22 (1/2)	SER.../HIL...	1,5°	AE 22	110
22 (1/2)	SEL.../HIR...	1,5°	AI 22	111
22 U (1/2)	SER.../HIL...	1,5°	AE 22 U	112
22 U (1/2)	SEL.../HIR...	1,5°	AI 22 U	113
22 (1/2)	SER.../HIL...	-1,5°	AE 22-1,5	114
22 (1/2)	SEL.../HIR...	-1,5°	AI 22-1,5	115
27 (5/8)	SER.../HIL...	1,5°	AE 27	116
27 (5/8)	SEL.../HIR...	1,5°	AI 27 U	117
27 (5/8)	SER.../HIL...	-1,5°	AE 27 -1,5	118
27 (5/8)	SEL.../HIR...	-1,5°	AI 27 -1,5	119

18811 Tool holders SER/L for double-sided threading inserts

ATORN®

Type
- Male thread
- Exclusively for double-sided indexable inserts
- New-design spacer with anti-vibration geometry, for optimal east of the threading insert in the holder

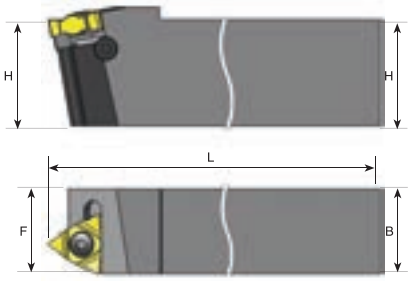
18805 102
Clamping screw for threading insert

18806 101
Screw for spacer

18819 101
Spacer
Outside right-hand AER 16U-6.

18819 102
Spacer
Outside left-hand AEL 16U-6.

18811



Designation	Cutting edge length mm	H mm	B mm	L mm	F mm	Right-hand 18811	...	Left-hand 18811	...
SER/L 2020 K16U	16	20	20	125	20		101		201
SER/L 2520 M16U	16	25	20	150	20		102		202

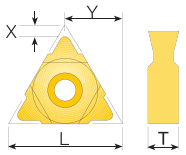
Spare parts		Clamping screw 18805	...	Screw 18806	...	Screwdriver 52529	...	Insert right 18819	...	Insert left 18819	...
Insert size L	Torx size T										
16U	10		102		101		405		101		102

18812 Threading inserts, double-sided, outside

ATORN®

Type
- **Partial profile 60°,** outside
- 6-edge threading insert
- Ground on both sides Type
- Same threading plate for right-hand and left-hand thread

18812



Use P K
Carbide HM type HC 5615
Coating Coated

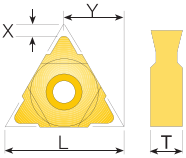
Designation	Lead mm	L mm	X mm	Y mm	T mm		18812	...
16U ER/L G60-6	1,75 - 3,0	16U	1,4	7,1	4,5	10 pcs.		101
16U ER/L AG60-6	0,5 - 3,0	16U	1,4	7,1	4,5	10 pcs.		102
16U ER/L N60-6	3,5 - 5,0	16U	1,2	7,3	4,5	10 pcs.		103

18813 Threading inserts, double-sided, outside

ATORN®

Type
- **Partial profile 55°,** outside
- 6-edge threading insert
- Ground on both sides Type
- Same threading plate for right-hand and left-hand thread

18813



Use P K
Carbide HM type HC 5615
Coating Coated

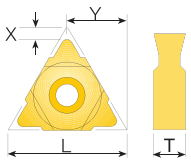
Designation	Lead threads/inch	L mm	X mm	Y mm	T mm		18813	...
16U ER/L G55-6	14 - 8	16U	1,4	7,1	4,5	10 pcs.		101
16U ER/L AG55-6	48 - 8	16U	1,4	7,1	4,5	10 pcs.		102
16U ER/L N55-6	7 - 5	16U	1,2	7,3	4,5	10 pcs.		103

18814 Threading inserts, double-sided, outside

ATORN®

18814

Type
- **Full profile ISO 60°,** outside
- 6-edge threading insert
- Ground on both sides Type
- Same threading insert for right-hand and left-hand thread



Use							P K
Carbide type							HC 5615
Coating							coated
ISO designation	**Lead mm**	**L mm**	**X mm**	**Y mm**	**T mm**		**18814 ...**
16U ER/L 1,5 ISO	1,5	16U	1,6	6,9	4,5	10 pcs.	101
16U ER/L 1,75 ISO	1,75	16U	1,6	6,9	4,5	10 pcs.	102
16U ER/L 2,0 ISO	2,0	16U	1,6	6,9	4,5	10 pcs.	103
16U ER/L 2,5 ISO	2,5	16U	1,6	6,9	4,5	10 pcs.	104
16U ER/L 3,0 ISO	3,0	16U	1,6	6,9	4,5	10 pcs.	105
16U ER/L 3,5 ISO	3,5	16U	1,6	6,9	4,5	10 pcs.	106
16U ER/L 4,0 ISO	4,0	16U	1,6	6,9	4,5	10 pcs.	107
16U ER/L 4,5 ISO	4,5	16U	1,6	6,9	4,5	10 pcs.	108
16U ER/L 5,0 ISO	5,0	16U	1,6	6,9	4,5	10 pcs.	109

18815 Boring bars SIR/ILS with IK for double-sided threading inserts

ATORN®

18815

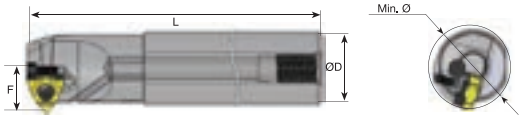
Type
- Inside thread
- Exclusively for double-sided indexable inserts
- New-design spacer with anti-vibration geometry, for optimal east of the threading insert in the holder.

18805 102
Clamping screw for threading insert

18806 101
Screw for spacer

18819 103
Spacer
Inside right AIR 16U-6.

18819 104
Spacer
Inside left AIL 16U-6.



Designation	Cutting edge length	Ø D mm	L mm	F mm	Min. Ø mm	Right-hand 18815 ...	Left-hand 18815 ...
SIR/L 0020 P16UB-6	16	20	170	14,9	24	101	201
SIR/L 0025 R16UB-6	16	20	200	17,4	29	102	202

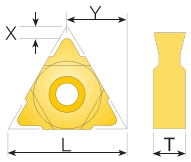
Spare parts		Clamping screw		Screw		Screwdriver		Insert right		Insert left	
Insert size L	**TORX® size T**	**18805**	**...**	**18806**	**...**	**52529**	**...**	**18819**	**...**	**18819**	**...**
16U	10	102		101		405		103		104	

18816 Threading inserts, double-sided, inside

ATORN®

18816

Type
- **Partial profile 60°,** inside
- 6-edge threading insert
- Ground on both sides Type
- Same threading insert for right-hand and left-hand thread



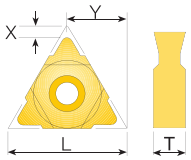
Use							P K
Carbide type							HC 5615
Coating							coated
Designation	**Lead mm**	**L mm**	**X mm**	**Y mm**	**T mm**		**18816 ...**
16U IR/L G60-6	1,75 - 3,0	16U	1,4	7,1	4,5	10 pcs.	101
16U IR/L AG60-6	0,5 - 3,0	16U	1,4	7,1	4,5	10 pcs.	102
16U IR/L N60-6	3,5 - 5,0	16U	1,2	7,3	4,5	10 pcs.	103

18817 Threading inserts, double-sided, inside

ATORN®

Type
- Partial profile 55°, inside
- 6-edge threading insert
- Ground on both sides Type

- Same threading plate for right-hand and left-hand thread



18817

Use
Carbide type
Coating

PK
HC 5615
Coated

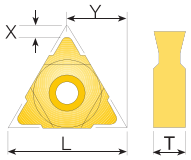
Designation	Lead Threads/inch	L mm	X mm	Y mm	T mm		18817 ...
16U IR/L G55-6	14 - 8	16U	1,4	7,1	4,5	10 pcs.	101
16U IR/L AG55-6	48 - 8	16U	1,4	7,1	4,5	10 pcs.	102
16U IR/L N55-6	7 - 5	16U	1,2	7,3	4,5	10 pcs.	103

18818 Threading inserts, double-sided, inside

ATORN®

Type
- Full profile ISO 60°, inside
- 6-edge threading insert
- Ground on both sides Type

- Same threading plate for right-hand and left-hand thread



18818

Use
Carbide type
Coating

PK
HC 5615
Coated

ISO designation	Lead mm	L mm	X mm	Y mm	T mm		18818 ...
16U IR/L 1,5 ISO	1,5	16U	1,6	6,9	4,5	10 pcs.	101
16U IR/L 1,75 ISO	1,75	16U	1,6	6,9	4,5	10 pcs.	102
16U IR/L 2,0 ISO	2,0	16U	1,6	6,9	4,5	10 pcs.	103
16U IR/L 2,5 ISO	2,5	16U	1,6	6,9	4,5	10 pcs.	104
16U IR/L 3,0 ISO	3,0	16U	1,6	6,9	4,5	10 pcs.	105
16U IR/L 3,5 ISO	3,5	16U	1,6	6,9	4,5	10 pcs.	106
16U IR/L 4,0 ISO	4,0	16U	1,6	6,9	4,5	10 pcs.	107
16U IR/L 4,5 ISO	4,5	16U	1,6	6,9	4,5	10 pcs.	108
16U IR/L 5,0 ISO	5,0	16U	1,6	6,9	4,5	10 pcs.	109

18810 Fine spindle set MicroKom® hi.flex

KOMET®

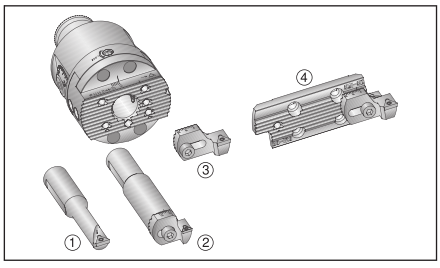
Type

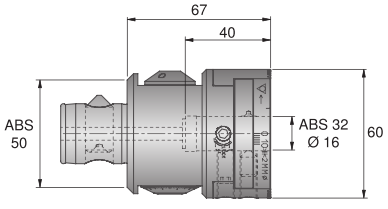
The system is characterised by its high flexibility and covers the whole range of diameters from 6 - 125 mm with its single adjustment head, different boring bars and the smartly designed adapters. The adjustment head offers a true-running accuracy of 0,01 mm per graduation mark on an easily readable dial and 0,002 mm by means of a Vernier, with a radial adjusting distance up to 5 mm. The system is balanced in the zero position and offers and internal coolant flow to the blade across all diameters. The set can be extended with the proven shank boring tools and/or UniTurn® products, with which face the turning range starts already at 0,5 mm. This new system is easily manageable through the variable projecting length and the single wrench for clamping, adjusting and mounting of bridge and tool holders.

Scope of supply:
1 fine adjustment head,
2 tool holders Ø 25-44 / 44-125 mm,
1 bridge,
1 serrated tool body,
1 filler piece,
4 boring bars Ø 6-8 / 8-12 / 12-18 / 18-25 mm,
4 indexable inserts each TOGX 06T102 and TOGX 090204,
2 indexable inserts WOHX 02T001,
suitable screwdriver,
plastic case.

Note:
The fine adjustment system MicroKom® hi.flex is compatible to the existing ABS® and straight shank fine spindle components.

18810





Ø range mm	True-running accuracy mm	18810 ...
6 - 125	0,01	101

1 Ø 6-25 mm can be reached with 4 different boring bars.

2 Ø 25-63 mm are achievable with serrated tool body and 2 different tool holders.

3 Ø 63-93 mm can be achieved with insert holder

4 Ø 90-125 mm can be achieved with bridge and insert holder