

		HHW	ATORN®	ATORN®	ATORN®	ATORN®	ATORN®	ATORN®
		Angular milling cutter	Drill groove milling cutter	Angular milling cutter				
		17530	17501	17500	17500	17500	17500	17550
●	1. Choice							
◐	Alternative							
◑	May be possible							
◒	Can be used to a limited extent							
▽	Roughing							
▽▽	Medium machining							
▽▽▽	Finishing							
Version								
Diameter		16 - 20	20 - 32	10 - 32	10 - 25	16 - 25	32 - 50	12 - 20
Number of cutting edges		1	1	2 - 8	2 - 7	2 - 5	8 - 11	2 - 4
Insert		SDHT/SDMT	APKT/APHX	APKT 06	APKT 06	APKT 06	APKT 06	ADHX06/ADKX06
Machining		▽▽	▽▽	▽▽▽	▽▽▽	▽	▽▽▽	▽▽▽
Catalogue page		17.57	17.27	17.26	17.26	17.26	17.26	17.32
ISO code		P M K N S H	P M K N S H	P M K N S H	P M K N S H	P M K N S H	P M K N S H	P M K N S H
Face milling		●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
Angular milling			●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
Groove milling			●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
Pocket milling				●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
Contour milling								
Chamfer milling		●●●●●						
Keyway milling								
Hole machining			●●●●●					

		ATORN®	ATORN®	ATORN®	ATORN®	ATORN®	ATORN®	ATORN®
		Angular milling cutter						
		17550	17551	17551	17552	17552	17552	17553
●	1. Choice							
◐	Alternative							
◑	May be possible							
◒	Can be used to a limited extent							
▽	Roughing							
▽▽	Medium machining							
▽▽▽	Finishing							
Version								
Diameter		10 - 25	20 - 32	16 - 32	32 - 40	20 - 40	40 - 63	25 - 40
Number of cutting edges		1 - 6	3 - 6	2 - 6	4 - 6	2 - 6	4 - 9	2 - 4
Insert		ADHX06/ADKX06	ADHX09/ADKX09	ADHX09/ADKX09	ADHX12/ADKX12	ADHX12/ADKX12	ADHX12/ADKX12	ADHX17/ADKX17
Machining		▽▽▽	▽▽▽	▽▽▽	▽▽▽	▽▽▽	▽▽▽	▽▽▽
Catalogue page		17.32	17.33	17.33	17.34	17.34	17.34	17.35
ISO code		P M K N S H	P M K N S H	P M K N S H	P M K N S H	P M K N S H	P M K N S H	P M K N S H
Face milling		●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
Angular milling		●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
Groove milling		●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
Pocket milling		●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
Contour milling								
Chamfer milling								
Keyway milling								
Hole machining								

		Angular milling cutter						
		17553	17553	17556	17557	17558	17558	17558
●	1. Choice			NEW	NEW	NEW	NEW	NEW
●	Alternative							
◐	May be possible							
◑	Can be used to a limited extent							
▽	Roughing							
▽▽	Medium machining							
▽▽▽	Finishing							
Version								
Diameter		25 - 40	40 - 100	50 - 160	50 - 160	20 - 32	32 - 50	50 - 160
Number of cutting edges		2 - 4	4 - 9	4 - 20	5 - 20	3 - 5	6 - 8	5 - 11
Insert		ADHX17/ADKX17	ADHX17/ADKX17	LNMU	XNMU	WNEU	WNEU	WNEU/WNEX
Machining		▽▽▽	▽▽▽	▽▽▽	▽▽▽	▽▽▽	▽▽▽	▽▽▽
Catalogue page		17.35	17.35	17.36	17.37	17.38	17.38	17.38
ISO code		P M K N S H	P M K N S H	P M K N S H	P M K N S H	P M K N S H	P M K N S H	P M K N S H
Face milling		●●●●	●●●●	●●	●●	●●●	●●●	●●●
Angular milling		●●●●	●●●●	●●	●●	●●●	●●●	●●●
Groove milling		●●●●	●●●●	●●	●●	●●●	●●●	●●●
Pocket milling			●●●●			●●●	●●●	●●●
Contour milling								
Chamfer milling								
Keyway milling								
Hole machining								



		Angular milling cutter						
		17681	17680	17682	17505	17735	17662	
●	1. Choice							
●	Alternative							
◐	May be possible							
◑	Can be used to a limited extent							
▽	Roughing							
▽▽	Medium machining							
▽▽▽	Finishing							
Version								
Diameter		32	32	40 - 160	10 - 40	20 - 32	20 - 32	
Number of cutting edges		2	2	3 - 14	1 - 5	3 - 4	2 - 4	
Insert		SNUH 12	SNUH 12	SNUH 12	APKT/APHX	LN.X	SOMT	
Machining					▽▽	▽▽▽▽	▽▽▽	
Catalogue page		17.39	17.39	17.39	17.28	17.45	17.44	
ISO code		P M K N S H	P M K N S H	P M K N S H	P M K N S H	P M K N S H	P M K N S H	
Face milling		●●●●	●●●●	●●●●	●●●●	●●●●	●●●●	
Angular milling		●●●●	●●●●	●●●●	●●●●	●●●●	●●●●	
Groove milling		●●●●	●●●●	●●●●	●●●●	●●●●	●●●●	
Pocket milling								
Contour milling								
Chamfer milling								
Keyway milling								
Hole machining								



		Angular milling cutter					
		17882	17507	17882	17755	17736	17742
●	1. Choice						
◐	Alternative						
◑	May be possible						
◒	Can be used to a limited extent						
▽	Roughing						
▽▽	Medium machining						
▽▽▽	Finishing						
Version							
Diameter		12 - 40	10 - 40	20 - 32	40 - 250	40 - 160	40 - 125
Number of cutting edges		1 - 6	1 - 5	2 - 5	4 - 16	5 - 10	4 - 9
Insert		XD..	APKT/APHX	XD..	APKT/APHX	LN.X	SDMT
Machining		▽▽▽▽▽▽	▽▽	▽▽▽▽▽▽	▽▽▽	▽▽	▽▽▽▽▽
Catalogue page		1741	1728	1741	1729	1745	1743
ISO code		P M K N S H	P M K N S H	P M K N S H	P M K N S H	P M K N S H	P M K N S H
Face milling		●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
Angular milling		●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
Groove milling		●●●●●	●●●●●	●●●●●	●●●●●		●●●●●
Pocket milling							
Contour milling							
Chamfer milling							
Keyway milling							
Hole machining							



		Angular milling cutter			Face-milling cutter		
		17662	17882	17534	17876	17873	17876
●	1. Choice						
◐	Alternative						
◑	May be possible						
◒	Can be used to a limited extent						
▽	Roughing						
▽▽	Medium machining						
▽▽▽	Finishing						
Version							
Diameter		40 - 63	40 - 160	24 - 40	18,9 - 32	32 - 40	18,9 - 32
Number of cutting edges		5 - 7	4 - 14	2 - 4	3 - 5	3 - 4	3 - 5
Insert		SOMT	XD..	SEHT	OF./SF..	OAKU	OF./SF..
Machining		▽▽▽▽▽	▽▽▽▽▽	▽▽	▽▽▽	▽▽	▽▽▽
Catalogue page		1744	1741	1765	1763	1768	1763
ISO code		P M K N S H	P M K N S H	P M K N S H	P M K N S H	P M K N S H	P M K N S H
Face milling		●●	●●●●●	●●●	●●●●●	●●●	●●●●●
Angular milling		●●	●●●●●				
Groove milling		●●	●●●●●				
Pocket milling				◐ ◑ ◒			
Contour milling							
Chamfer milling				●●●	●●●●●	●●●	●●●●●
Keyway milling							
Hole machining							

		Face-milling cutter					
		17720	17722	17728	17728	17876	17873
●	1. Choice						
◐	Alternative						
◑	May be possible						
◒	Can be used to a limited extent						
▽	Roughing						
▽▽	Medium machining						
▽▽▽	Finishing						
Version					Left		
Diameter	40 - 250	50 - 250	50 - 250	50 - 125	30.7 - 125	40 - 125	
Number of cutting edges	3 - 8	4 - 20	4 - 13	4 - 7	4 - 13	4 - 12	
Insert	SEHT	SNEX/SNMX	SEEN	SEEN	OF./SF.	OAKU	
Machining	▽▽▽▽▽▽▽▽	▽▽▽▽▽▽▽▽	▽▽▽▽▽▽▽▽	▽▽▽▽▽▽▽▽	▽▽▽▽	▽▽▽▽	
Catalogue page	1765	1762	1766	1766	1764	1768	
ISO code	P M K N S H	P M K N S H	P M K N S H	P M K N S H	P M K N S H	P M K N S H	
Face milling		●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	
Angular milling							
Groove milling							
Pocket milling							
Contour milling							
Chamfer milling		●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	
Keyway milling							
Hole machining							

		Face-milling cutter	Spiral milling cutter (Igel)		HPC milling cutter		
		17739	17510	17753	17660	17660	17660
●	1. Choice						
◐	Alternative						
◑	May be possible						
◒	Can be used to a limited extent						
▽	Roughing						
▽▽	Medium machining						
▽▽▽	Finishing						
Version							
Diameter	50 - 100	20 - 40	40 - 100	25 - 32	25 - 40	40 - 80	
Number of cutting edges	4 - 8	1 - 3	3 - 6	2	2 - 4	4 - 5	
Insert	HNGJ	APKT/APHX	APKT/APHX	ZDCW	ZDCW/ZDEW	ZDCW/ZDEW	
Machining	▽▽▽▽▽▽▽▽	▽▽▽▽▽▽▽▽	▽▽▽▽▽▽▽▽	▽	▽	▽	
Catalogue page	1767	1729	1730	1751	1751	1751	
ISO code	P M K N S H	P M K N S H	P M K N S H	P M K N S H	P M K N S H	P M K N S H	
Face milling		●●●●●●●●			●●●●●●●●	●●●●●●●●	●●●●●●●●
Angular milling			●●●●●●●●	●●●●●●●●			
Groove milling			●●●●●●●●	●●●●●●●●			
Pocket milling					●●●●●●●●	●●●●●●●●	●●●●●●●●
Contour milling							
Chamfer milling							
Keyway milling							
Hole machining							

Milling tools



		HFC milling cutter						Aluminium plunge milling cutter											
		17865		17865		17865		17560		17561		17562							
●	1. Choice																		
●	Alternative																		
◐	May be possible																		
◑	Can be used to a limited extent																		
▽	Roughing																		
▽▽	Medium machining																		
▽▽▽	Finishing																		
Version																			
Diameter		16 - 32		16 - 32		32 - 63		25 - 32		25 - 42		42 - 100							
Number of cutting edges		2 - 5		2 - 5		3 - 6		2		2 - 3		3 - 5							
Insert		XP..		XP..		XD..		VCGT/VPGT		VCGT/VPGT		VCGT							
Machining		▽		▽		▽		▽▽▽		▽▽▽		▽▽▽							
Catalogue page		1752		1752		1752		1747		1747		1747							
ISO code		P	M	K	N	S	H	P	M	K	N	S	H	P	M	K	N	S	H
Face milling																			
Angular milling																			
Groove milling																			
Pocket milling																			
Contour milling																			
Chamfer milling																			
Keyway milling																			
Hole machining																			



		Centring milling cutter						Copy milling cutter											
		17536		17868		17613 - 17614		17868		17613 - 17615		17707							
●	1. Choice																		
●	Alternative																		
◐	May be possible																		
◑	Can be used to a limited extent																		
▽	Roughing																		
▽▽	Medium machining																		
▽▽▽	Finishing																		
Version																			
Diameter		20		10 - 32		15 - 20		20 - 42		15 - 42		52 - 125							
Number of cutting edges		1		2 - 5		2		2 - 7		2 - 6		4 - 8							
Insert		TCMX		RD./RP..		RDHX		RD./RP..		RDHX		OCKX/RCKX/XCKX							
Machining		▽▽▽		▽▽▽		▽▽▽		▽▽▽		▽▽▽		▽▽▽							
Catalogue page		1759		1755		1753		1755		1753 - 1754		1761							
ISO code		P	M	K	N	S	H	P	M	K	N	S	H	P	M	K	N	S	H
Face milling																			
Angular milling																			
Groove milling																			
Pocket milling																			
Contour milling																			
Chamfer milling																			
Keyway milling																			
Hole machining																			

		COPY MILLING CUTTER		END-OF-USE MILLING CUTTER	CHAMFER MILLING CUTTER		
		17868	17614 - 17616	17750	17527	17529	17536 NEW
●	1. Choice						
◐	Alternative						
◑	May be possible						
◒	Can be used to a limited extent						
▽	Roughing						
▽▽	Medium machining						
▽▽▽	Finishing						
Version							
Diameter		40 - 100	42 - 100	50 - 125	1.2 - 20	10 - 42.3	16
Number of cutting edges		3 - 10	4 - 7	3 - 7	1 - 2	1 - 3	1
Insert		RP..	RDHX	APKT/APHX	TCMT	SCMT	SEEX
Machining		▽▽▽▽▽▽	▽▽▽▽▽▽	▽▽▽	▽▽▽▽▽	▽▽▽▽▽	▽▽▽▽▽
Catalogue page		1756	1753 - 1754	1731	1758	1758	1759
ISO code		P M K N S H	P M K N S H	P M K N S H	P M K N S H	P M K N S H	P M K N S H
Face milling		●●●●●	●●●●●	●●●●●			
Angular milling							
Groove milling							
Pocket milling			●●●●●	●			
Contour milling		●●●●●	●●●●●	●			
Chamfer milling					●●●●●	●●●●●	●●●●●
Keyway milling							
Hole machining						●●●●●	

		CHAMFER MILLING CUTTER	ADJUSTABLE COUNTERBORE MILLING CUTTER	T-GROOVING MILLING CUTTER	BORING AND COUNTERBORING BIT		
		17760	17526	17540	17576	17577	17578
●	1. Choice						
◐	Alternative						
◑	May be possible						
◒	Can be used to a limited extent						
▽	Roughing						
▽▽	Medium machining						
▽▽▽	Finishing						
Version							
Diameter		33 - 90	20 - 25	21 - 50	9.8 - 33	16 - 42	10 - 45
Number of cutting edges		6 - 9	1	2 - 4	1	2	1
Insert		APKT/APHX	TCMT/SCMT	SPMT	CC...	CC..	CC..
Machining		▽▽▽	▽▽▽▽▽	▽	▽▽▽▽▽	▽▽▽▽▽	▽▽▽▽▽
Catalogue page		1730	1757	1760	1749	1750	1750
ISO code		P M K N S H	P M K N S H	P M K N S H	P M K N S H	P M K N S H	P M K N S H
Face milling							
Angular milling							
Groove milling				●●●			
Pocket milling							
Contour milling							
Chamfer milling		●●●●●	●●				
Keyway milling							
Hole machining			●●		●●●●●	●●●●●	●●●●●

Milling tools

Info

Overview of indexable insert milling tools (VII)

		ATORN®		ATORN®		ATORN®		ATORN®	
		Boring and counterboring bit				Disc milling cutter			
		17570	17570	17780	17782				
●	1. Choice								
◐	Alternative								
◑	May be possible								
◒	Can be used to a limited extent								
▽	Roughing								
▽▽	Medium machining								
▽▽▽	Finishing								
Version									
Diameter		18 - 76	15 - 31	63 - 250	63 - 160				
Number of cutting edges		1	1	3 - 12	3 - 8				
Insert		CC...	TCMT	SNHX	SNHX				
Machining		▽▽▽▽▽	▽▽▽▽▽	▽▽	▽▽				
Catalogue page		17.48	17.48	17.69	17.70				
ISO code		P M K N S H	P M K N S H	P M K N S H	P M K N S H				
Face milling									
Angular milling									
Groove milling									
Pocket milling									
Contour milling									
Chamfer milling									
Keyway milling				●●●	●●●				
Hole machining		●●●●	●●●●						





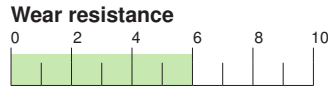
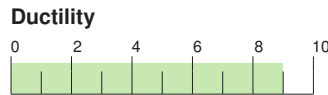
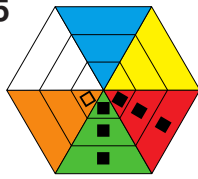
		Application area																											
HM grade		P				M				K				N				S				H							
		5	10	20	30	40	5	10	20	30	40	5	10	20	30	40	5	10	20	30	40	5	10	20	30	40	5	10	20
Coated grades	H 42																												
	H 45																												
	P 25/TiN																												
	K 10/TiAlN																												
	HC 4635																												
	HC 4535																												
	HC 4410																												
	HC 4540																												
	HC 4620																												
	P 40/TiAlN																												
	P 25/TiAlN																												
	M 40																												
	P20-P40																												
	H 55																												
Uncoated grades	H 25																												
	H 12																												
	HW 4415																												
	HW 4410																												
	HW 4540																												

		ISO P	ISO M	ISO K	ISO N	ISO S	ISO H		
Coated grade	H 42	P20-P30	M20-M30	K20-K30				Universal grade	Average cutting speed, average chip cross section
	H 45		M30-M40	K30-K40				Titanium and titanium alloys, austenitic and martensitic VA, Inconel	Average cutting speed, milling of VA using coolant, wear-resistant grade
	P 25/TiN	P20-P30	M20-M30	K20-K30				Universal grade	Average cutting speed, average chip cross section
	K 10/TiAlN						K05-K15	Hardened materials	Suitable for dry milling
	HC 4635	P30-P40	M35-M40					Steel, alloy steel, tool steel, titanium and titanium alloys, austenitic and martensitic VA, Inconel	Average cutting speed, milling of VA using coolant, high resistance to breakouts
	HC 4535	P20-P40	M20-M40	K20-K40				Steel, alloy steel, tool steel, GG, GGG, titanium and titanium alloys, austenitic and martensitic VA, Inconel	Average cutting speed, milling of VA using coolant, high resistance to breakouts
	HC 4410			K05-K15	N05-N15			Aluminium and aluminium alloys, GG, GGG	High cutting speed and feed rate
	HC 4540	P20-P40	M20-M40	K20-K40				Steel, alloy steel, tool steel, GG, GGG, VA	Average cutting speed, milling of VA using coolant
	HC 4620	P15-P30	M15-M30	K10-K30				Steel, cast steel, alloy steel, tool steel	For difficult milling and interrupted cutting, maximum service lives
	P 40/TiAlN	P30-P40						Steel, cast steel, alloy steel, tool steel	High wear-resistant grade
	P 25/TiAlN	P20-P30						Steel, cast steel, alloy steel, tool steel	Tough grade, even for interrupted cuts
	M 40		M30-M40					VA	Average cutting speed, average feed rate
	P20-P40	P20-P40	M20-M40					Universal grade	Average cutting speed, average chip cross section
	Uncoated grade	H 25				N20-N30			Aluminium and aluminium alloys
H 12		P20-P30	M20-M30					Universal grade	Average cutting speed, average chip cross section
HW 4415				K05-K20				Aluminium and copper alloys	Light to medium-heavy machining
HW 4410				K10-K20	N10-N20	S10-S20	S10-S20	GG over 220 HB, GTW, aluminium and copper alloys, high heat-resistant alloys	Light to medium-heavy chip machining
HW 4540		P30-P40						Steel and cast steel, alloy steel, tool steel	For difficult milling and interrupted cutting

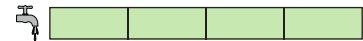




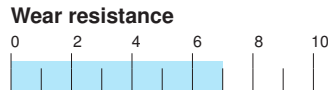
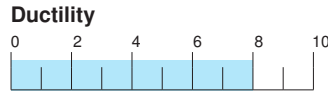
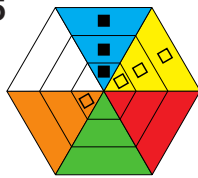
CTW4615
HW-K15



Wet / dry



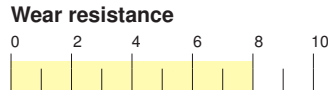
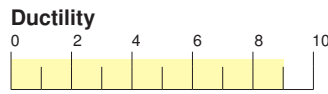
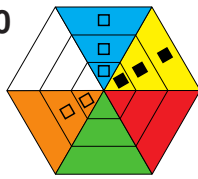
CTPP235
HC-P35
HC-M30



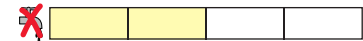
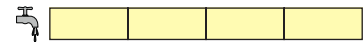
Wet / dry



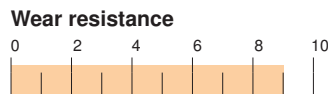
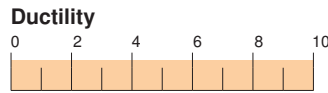
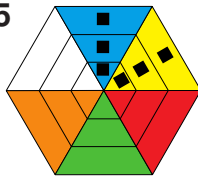
CTPM240
HC-P40
HC-M40



Wet / dry



CTPM245
HC-M45
HC-P45



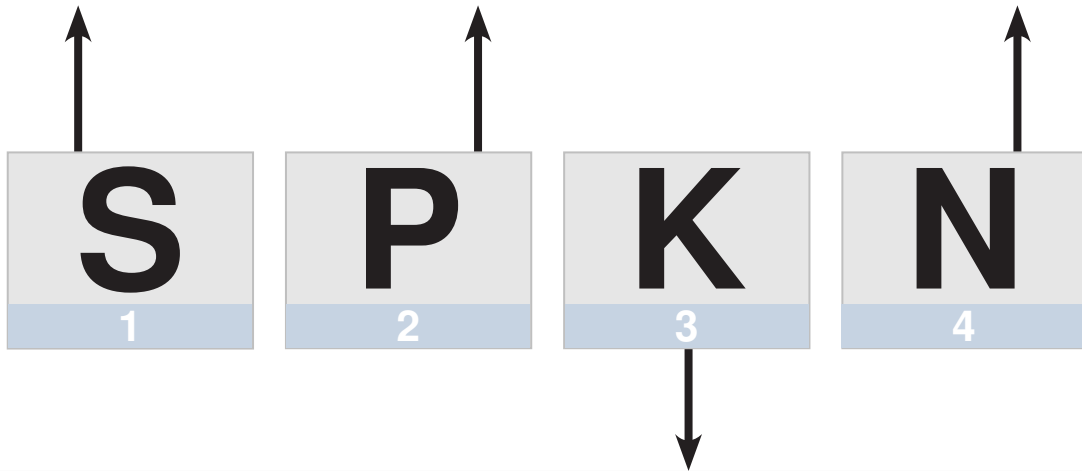
Wet / dry



Chip deflection step overview - milling

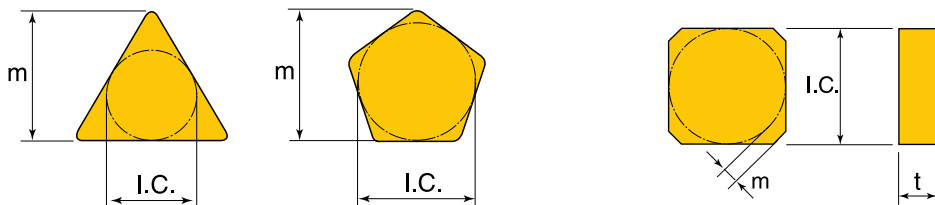


1 INSERT SHAPE				2 CLEARANCE ANGLE				4 INSERT TYPE		
A	B	C	H	B	5°	F	25°	A	F	G
				C	7°	G	30°			
L	M	O	P	D	15°	N	0°			Special
				E	20°	P	11°	T	W	X
R	S	T	W							



3 TOLERANCE CLASS

Class	Tolerance (mm)			I.C. Dimensions (mm)					
	m	t	I.C.	06:35	9,525	12.7	15,875	19:05	25.4
A	± 0.005	± 0.025	± 0.025	•	•	•	•	•	•
E	± 0.025	± 0.025	± 0.025	•	•	•	•	•	•
F	± 0.005	± 0.025	± 0.013	•	•	•	•	•	•
g	± 0.025	± 0.13	± 0.025	•	•	•	•	•	•
H	± 0.013	± 0.025	± 0.013	•	•	•	•	•	•
K	± 0.013	± 0.025	± 0.05	•	•				
			± 0.08						
			± 0.10			•	•		
			± 0.13					•	
M	± 0.08 ± 0.13 ± 0.15	± 0.13	± 0.05	•	•				
			± 0.08			•			
			± 0.10				•	•	
			± 0.13					•	



6 INSERT THICKNESS (mm)

01t = 1.59	05t = 5.56
02t = 2.38	06t = 6.35
03t = 3.18	07t = 7.94
T3t = 3.97	09t = 9.52
04t = 4.76	

7 CORNER RADIUS (mm)

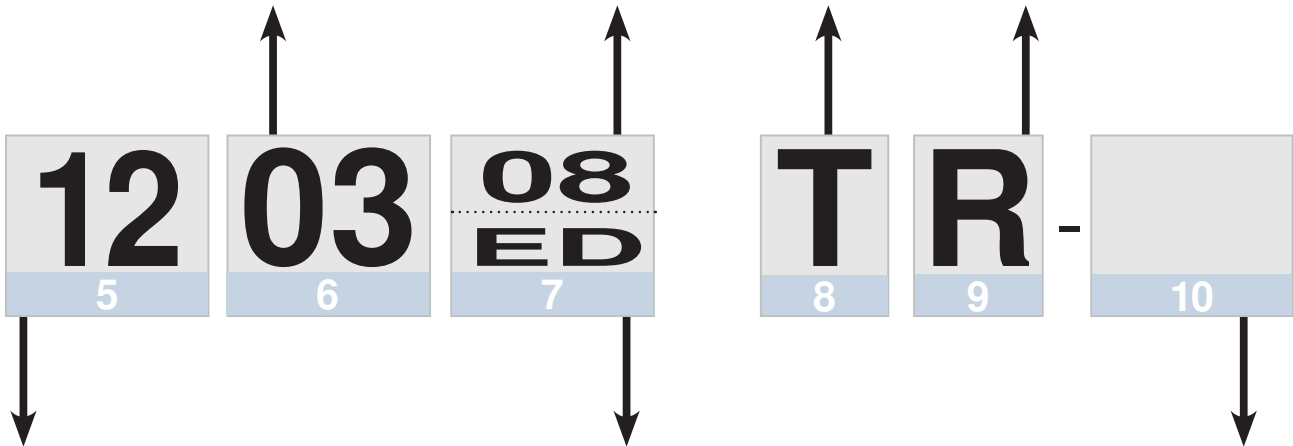
00R = round	
02R = 0.2	15R = 1.5
04R = 0.4	16R = 1.6
05R = 0.5	24R = 2.4
08R = 0.8	32R = 3.2
10R = 1.0	40R = 4.0
12R = 1.2	

8 CUTTING EDGE VERSION

- F Sharp
- E Rounded
- T Chamfered
- S Chamfered and rounded

9 CUTTING DIRECTION

- R
- L
- N



5 CUTTING EDGE LENGTH

I.C	Insert shape				
	C	R,S	T	H	O
5.56			09		
6.35	06	06	11		
7.94	08		13		
9.525	09	09	16		
12.7	12	12	22		05
15.875	16	15	27	09	
17.94					07
19.05	19	19	33	10	
25.4	25	25			

L

7 CORNER

Setting angle face cutting

A = 45°
D = 60°
E = 75°
F = 85°
P = 90°
Z = Special

Clearance angle face cutting

B = 5° F = 25°
C = 7° G = 30°
D = 15° N = 0°
E = 20° P = 11°
Z = Special

10 ADDITIONAL INFORMATION

This information is not part of the standard, and is therefore optional to the supplier.
E.G. – 14 for chip forming geometry



17500 Angular milling cutters, 90°

ATORN®

Design

- Soft cutting due to the positive installation position of the indexable insert
- Smooth milling behaviour of tools
- Precise 90° angular milling
- Axial runout max. 0.03 mm
- Radial runout max. 0.03 mm
- Supplied with clamping screw and wrench
- **Without** indexable inserts

NEW



17500 101-108

Ø D mm	Ø d mm	L mm	L1 mm	p mm	Z	with shank 17500	...
10	10	100	28	5.2	2		101
12	12	100	30	5.2	3		102
14	12	120	32	5.2	3		103
16	16	120	32	5.2	4		104
18	16	120	32	5.2	4		105
20	20	150	35	5.2	5		106
25	20	150	35	5.2	7		107
32	25	150	35	5.2	8		108

Ø D mm	Ø d mm	H mm	p mm	Z	with bore 17500	...
32	16	40	5.2	8		140
40	16	40	5.2	10		141
50	22	40	5.2	11		142



17500 140-142

Ø D mm	D1 mm	L mm	L1 mm	M	p mm	Z	with thread 17500	...
10	6.5	16	14.5	M6	5.2	2		120
12	6.5	16	14.5	M6	5.2	3		121
16	8.5	21	17.5	M8	5.2	4		122
20	10.5	26	20.0	M10	5.2	5		123
25	12.5	30	22.0	M12	5.2	7		124



17500 120-124



17500 130-132

Ø D mm	d mm	L mm	L1 mm	p mm	Z	Indexable inserts	17500	...
16	16	80	19.8	5.2	2	8		130
20	20	90	24.6	5.2	3	15		131
25	25	100	29.4	5.2	5	30		132

Long edge milling cutters with shank

Applications
Coating

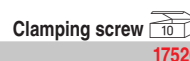
ISO designation	l mm	d mm	s mm	d1 mm	r mm	P M K TiN/PVD 17808	...
APKT 060204	6.4	3.65	2.15	2.0	0.4		102

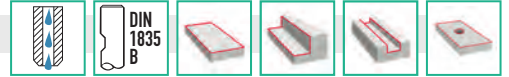


17808

Spare parts

For indexable inserts size	TX size T	Clamping screw 17520	Wrench 52529
AP.0602	6
		201	401




ATORN®
Design

- Positive
- Right cutting
- **With centre cutting**
- Angle of attack 90°
- Straight shank with driving surface in accordance with DIN 1835 B
- **Without** indexable inserts

Applications

For plunge milling, face milling and circular milling.

Note:

For indexable inserts see art. no. 17809–17811.

17501 102-104

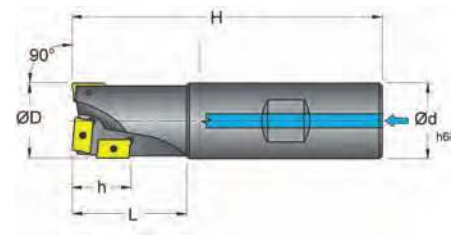

Ø D mm	Ø d h6 mm	H mm	h mm	L mm	Z	Z eff.	Indexable inserts	Short 17501	...
20	20	90	17	35	2	1	AP..1003		102
25	25	110	19	50	2	1	AP..1003		103
32	32	130	30	50	2	1	AP..1604		104

17501 110-111


Ø D mm	Ø d h6 mm	H mm	h mm	L mm	Z	Z eff.	Indexable inserts	Long 17501	...
20	20	150	17	30	3	1	AP..1003		110
25	25	150	19	50	3	1	AP..1003		111

17501 120-122

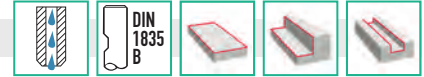

Ø D mm	Ø d h6 mm	H mm	h mm	L mm	Z	Z eff.	Indexable inserts	Extra long 17501	...
20	20	180	17	30	3	1	AP..1003		120
25	25	200	19	50	3	1	AP..1003		121
32	32	220	30	50	3	1	AP..1604		122


Spare parts

For indexable inserts size	TX size T	Clamping screw 17520	...	Key 52529	...
AP..1003	8		202		403
AP..1604	15		205		406

17505

End mills, 90°



Design

- Straight shank with driving surface in accordance with DIN 1835 B
- Positive
- Right cutting
- Without indexable inserts

Applications

For excellent machining performance, for processing steel and cast materials, and for high-alloy steels.

Note:

For indexable inserts see art. no. 17809–17811.



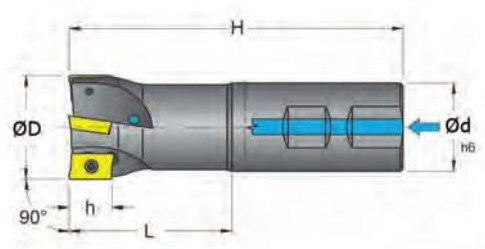
17505

17505 126-127

Without internal cooling.



Ø D mm	Ø d mm	H mm	L mm	h mm	Z	Indexable inserts	Short	
							17505	...
10	16	80	24	10	1	AP..1003		101
11	16	80	24	10	1	AP..1003		110
12	16	80	24	10	1	AP..1003		103
13	16	80	24	10	1	AP..1003		118
14	16	80	24	10	1	AP..1003		105
15	16	85	25	10	2	AP..1003		120
15.7	16	85	25	10	2	AP..1003		130
16	16	85	25	10	2	AP..1003		107
17	16	85	25	10	2	AP..1003		128
18	20	85	25	10	2	AP..1003		109
19.7	20	90	25	10	3	AP..1003		131
20	20	90	25	10	3	AP..1003		111
22	25	95	25	10	3	AP..1003		129
24.7	25	95	25	10	4	AP..1003		132
25	25	95	25	10	3	AP..1003		133
25	25	95	25	10	4	AP..1003		113
28	25	95	25	10	4	AP..1003		134
30	25	95	25	10	4	AP..1003		135
32	25	95	26	10	5	AP..1003		115
25	25	100	44	17	2	AP..1604		117
32	32	110	50	17	3	AP..1604		119
40	32	115	45	17	4	AP..1604		121



Ø D mm	Ø d mm	H mm	L mm	h mm	Z	Indexable inserts	Long	
							17505	...
10	16	150	24	10	1	AP..1003		102
12	16	150	24	10	1	AP..1003		104
16	16	150	100	10	2	AP..1003		122
18	16	150	25	10	2	AP..1003		137
20	20	150	100	10	3	AP..1003		123
25	20	150	25	10	4	AP..1003		124
25	25	200	60	17	2	AP..1604		126
32	25	150	90	10	5	AP..1003		125
32	32	200	60	17	3	AP..1604		127

Spare parts		Clamping screw	Wrench
For indexable inserts size	TX size T	17520	52529
AP..1003	8	202	403
AP..1604	15	205	406

17507

Screw-in milling cutters, 90°

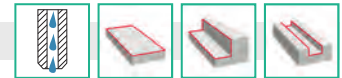


Design

- Soft cutting due to the positive installation position of the indexable insert
- High radial and axial runout accuracy of 0.03 mm
- Without indexable inserts

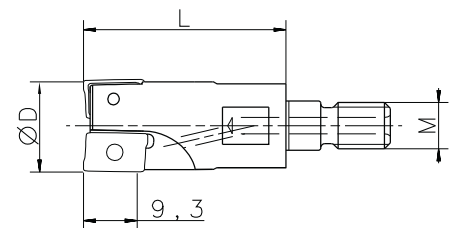
Note:

For milling arbours see cat. size 21, art. no. 17676.
For indexable inserts see art. no. 17809–17811.



17507

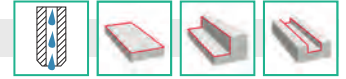
Ø D mm	L mm	M mm	D ₁ mm	Z	Indexable inserts	17507	...
10	20	M 6	6.5	1	AP..1003		101
12	20	M 6	6.5	1	AP..1003		102
16	25	M 8	8.5	2	AP..1003		103
20	30	M 10	10.5	3	AP..1003		104
25	35	M 12	12.5	4	AP..1003		106
32	43	M 16	17.0	5	AP..1003		107
32	46	M 16	17.0	3	AP..1604		108
40	46	M 16	17.0	4	AP..1604		109



Spare parts		Clamping screw	Wrench
For indexable inserts size	TX size T	17520	52529
AP..1003	8	202	403
AP..1604	15	205	406

17755

Angular milling cutter 90°

**ATORN®**

Design

- Positive
- Right cutting
- With internal cooling (except art. no. 17755 112–114)
- Without indexable inserts

Applications

For excellent machining performance.

17755

Note:

For indexable inserts see art. no. 17809–17811.

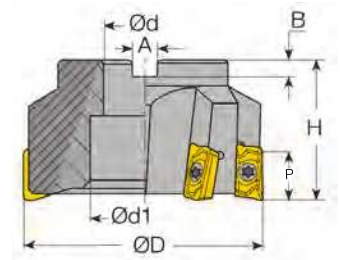


For indexable inserts AP.. 1003

Ø D mm	Ø d1 mm	Ø d H7 mm	H mm	Z	p mm	Indexable inserts	17755	...
40	17	16	40	6	10	AP..1003		101
50	17	22	40	7	10	AP..1003		102
63	17	22	40	8	10	AP..1003		103
80	20	27	50	11	10	AP..1003		109
100	26	32	50	12	10	AP..1003		110

For indexable inserts AP.. 1604

Ø D mm	Ø d1 mm	Ø d H7 mm	H mm	Z	p mm	Indexable inserts	17755	...
40	12	16	40	4	17	AP..1604		104
50	18	22	40	5	17	AP..1604		105
63	18	22	40	6	17	AP..1604		106
80	20	27	50	7	17	AP..1604		107
100	45	32	50	8	17	AP..1604		108
125	56	40	63	9	17	AP..1604		111
160	87	40	63	10	17	AP..1604		112
200	-	60	63	13	17	AP..1604		113
250	-	60	63	16	17	AP..1604		114



Spare parts

For indexable inserts size	TX size	Clamping screw	Wrench
AP..1003	8	17520	52529
AP..1604	15	202	403
		205	406

17510

Spiral end mills, 90° (porcupine)

**ATORN®**

Design

- Positive
- Right cutting
- Straight shank with driving surface in accordance with DIN 1835 B
- Without indexable inserts

Note:

For indexable inserts see cat. no. 17809–17811.

17510

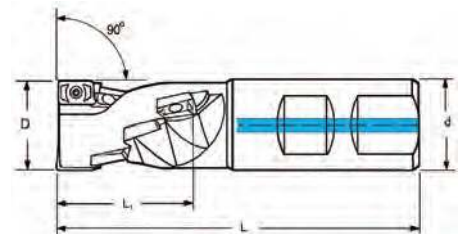


For indexable inserts AP.. 1003

Ø D mm	d mm	L1 mm	L mm	Z	Z effective	Indexable inserts	17510	...
20	20	28	86	4	1	AP..1003		102
25	25	37	105	8	2	AP..1003		103
32	32	46	115	12	2	AP..1003		104
40	32	54	128	18	3	AP..1003		107

For indexable inserts AP.. 1604

Ø D mm	d mm	L1 mm	L mm	Z	Z effective	Indexable inserts	17510	...
25	25	29	105	2	1	AP..1604		108
32	32	44	115	6	2	AP..1604		105
40	32	58	130	8	2	AP..1604		106

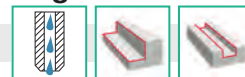


Spare parts

For indexable inserts size	TX size	Clamping screw	Wrench
AP..1003	8	17520	52529
AP..1604	15	202	403
		205	406

17753

Porcupine milling cutter, 90°



ATORN®

Design

- Positive
- Right-hand cutting
- Only one insert type for face and circumferential cutting edge
- Arrangement with high right-hand twist for good chip formation

- Full overlap within a row of teeth
- Supplied with clamping screws and wrench
- **Without** indexable inserts

Note:

For indexable inserts see art. no. 17809–17811.



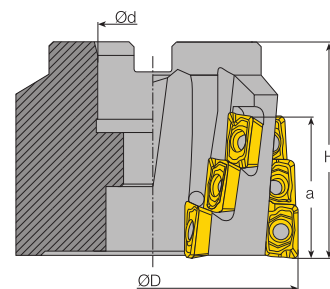
17753

For indexable inserts AP.. 1003

Ø D mm	Ø d mm	a mm	H mm	Indexable inserts	Z	Z eff.	17753	...
40	16	37	50	AP..1003	12	3	098	
50	22	46	60	AP..1003	15	3	099	
63	27	46	60	AP..1003	20	4	100	

For indexable inserts AP.. 1604

Ø D mm	Ø d mm	a mm	H mm	Indexable inserts	Z	Z eff.	17753	...
50	27	30	55	AP..1604	6	3	101	
63	27	44	60	AP..1604	12	4	102	
80	32	44	60	AP..1604	15	5	103	
100	40	44	60	AP..1604	18	6	104	



Spare parts

For indexable inserts size	TX size T	Clamping screw	Wrench
AP..1003	8	17520	52529
AP..1604	15	202	403
		205	406

Clamping screw 17520 ... Wrench 52529 ...

17760

Chamfer cutters

ATORN®

Design

- Milling jig with clamping screws and wrench
- **Without** indexable inserts

Applications

For chamfering 15° to 75° bevels.

Note:

For indexable inserts see art. no. 17809–17811.



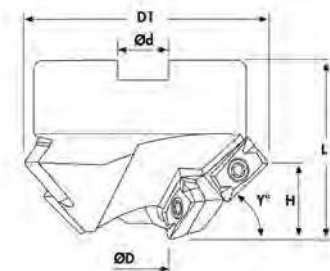
17760

For indexable inserts AP.. 1003

Y	Ø D mm	D1 mm	Ø d mm	L mm	H mm	No. of tooth rows	Z	17760	...
15°	17	70	22	50	7	3	9	096	
30°	17	65	22	50	13	3	9	097	
40°	17	60	22	50	17	3	9	106	
45°	17	56	22	50	19	3	9	098	
60°	17	45	16	50	24	3	9	099	
75°	19	33	16	60	27	3	9	100	

For indexable inserts AP.. 1604

Y	Ø D mm	D1 mm	Ø d mm	L mm	H mm	No. of tooth rows	Z	17760	...
15°	35	90	27	50	8.0	3	6	101	
30°	35	85	27	50	15.0	3	6	102	
40°	35	84	27	50	19.0	3	6	107	
45°	35	75	27	50	21.5	3	6	103	
60°	35	62	27	50	26.5	3	6	104	
75°	35	45	22	60	29.5	3	6	105	



Spare parts

For indexable inserts size	TX size T	Clamping screw	Wrench
AP..1003	8	17520	52529
AP..1604	15	202	403
		205	406

Clamping screw 17520 ... Wrench 52529 ...

17750

Face milling cutters, 75° (consumable milling cutters)



ATORN®

Note:

For indexable inserts see art. no. 17809–17811.

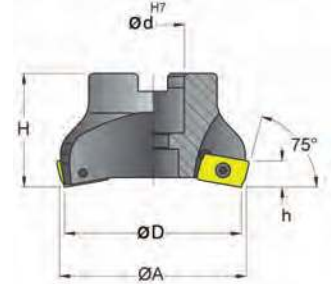
Design

- Positive
- Right cutting
- Without indexable inserts

Ø D mm	Ø A mm	Ø d H7 mm	H mm	Z	Indexable inserts	17750	...
50	54	16	40	3	AP..1604	201	
63	67	22	40	4	AP..1604	202	
80	84	27	50	5	AP..1604	203	
100	104	32	50	6	AP..1604	204	
125	129	40	63	7	AP..1604	205	



17750



Spare parts		Clamping screw	Wrench
For indexable inserts size	TX size T	17520	52529
AP..1003	8	202	403
AP..1604	15	205	406

17809

Indexable milling inserts, APKT and APHX

ATORN®

Design

- Square
- Positive 11°

17809 101+104

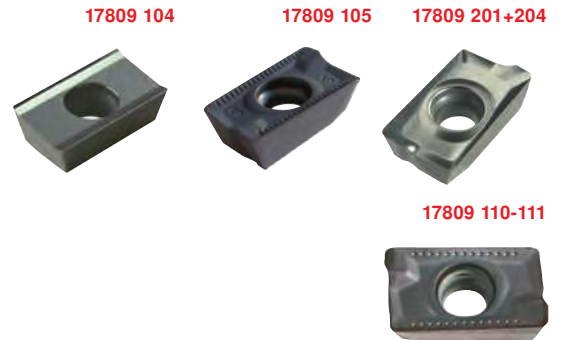
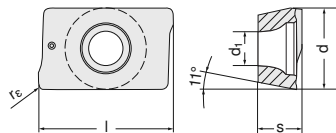
Design

- Polished

17809 102–103+105–106

Design

- With sintered chip breaker



Applications										
Cemented carbide grade										
Coating										
ISO designation	l mm	d mm	s mm	d ₁ mm	r		N HW 4415 uncoated 17809	PMK HC 4635 coated 17809	MK HC 4535 coated 17809	H HC 4615 coated 17809
APHX100304 FR-ALU	10.5	6.35	3.18	2.85	0.4	10 pcs.	101			
APKT1003 PDER-S	10.5	6.35	3.18	2.85	0.5	10 pcs.		102	103	110
APKT1003 PDFR-R04	10.5	6.35	3.18	2.85	0.5	10 pcs.	201			
APHX160404 FR-ALU	17.0	9.52	4.76	4.40	0.4	10 pcs.	104			
APKT1604 PDER-S	17.0	9.52	4.76	4.40	0.8	10 pcs.		105	106	111
APKT1604 PDFR-R04	17.0	9.52	4.76	4.40	0.8	10 pcs.	204			

17810 - 17811

Indexable milling inserts, APKT

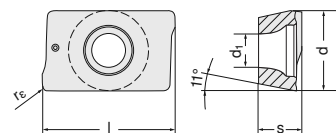
Design

- Square
- Positive 11°

17811

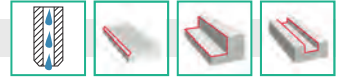
Design

- With sintered chip breaker



Applications									
Carbide type									
Coating									
ISO designation	l mm	d mm	s mm	d ₁ mm	r		N H 25/Al Uncoated 17810	PM H 55 TiAlN+TiN 17811	
APKT1003	10.5	6.35	3.18	2.85	0.5	10 pcs.			101
APKT1003 PDFR	10.5	6.35	3.18	2.85	0.5	10 pcs.			101
APKT1604 PD	17.0	9.52	4.76	4.40	0.8	10 pcs.			104
APKT1604 PDFR	17.0	9.52	4.76	4.40	0.8	10 pcs.			102

High performance angular milling cutters



17550 - 17553 High performance angular milling cutters

ATORN®

Design

- Milling jig with uneven pitch
- The latest generation of high-performance angular milling cutters
- With geometry that reduces cutting forces
- **Precise 90° angular milling**
- Internal coolant feed

Advantage:

- Maximum smoothness with low power consumption
- Large selection of basic bodies and milling inserts
- Indexable inserts in four sizes with different corner radii
- Maximum precision
- High cutting performance
- Positive cutting geometry for a soft cut

Applications

Ideally suited for almost any milling work even with **unstable conditions and low-performance machines**.

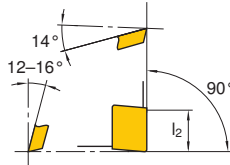
Indexable inserts

- ADKX** — precision-sintered milling inserts
- ADHX** — precision-ground milling inserts

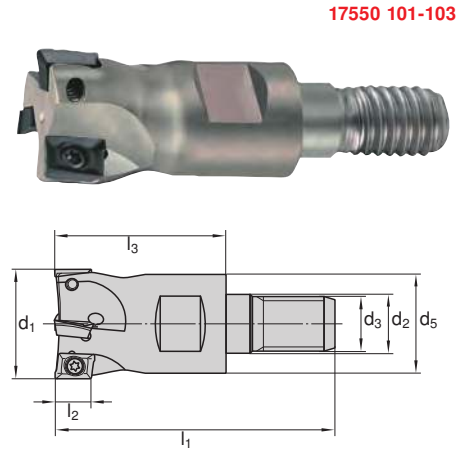
Screw-in milling cutters for insert size 06

Applications

For milling inserts AD.X 06..



d ₁ mm	l ₂ mm	l ₁ mm	l ₃ mm	d ₅ mm	d ₃ mm	d ₂ mm	Z	Indexable inserts	17550	...
12	5.5	45	28	13	M 8	8.5	2	AD.X 06...	101	
16	5.5	45	28	13	M 8	8.5	3	AD.X 06...	102	
20	5.5	49	30	18	M 10	10.5	4	AD.X 06...	103	

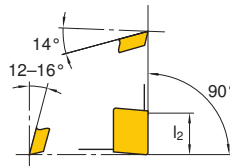


17550 101-103

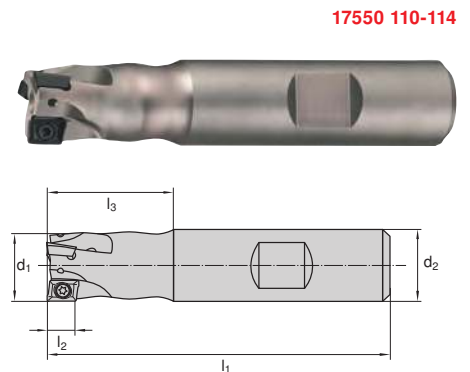
End mills for insert size 06

Applications

For milling inserts AD.X 06..

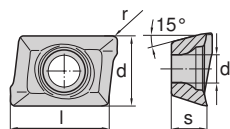


d ₁ mm	l ₂ mm	l ₁ mm	l ₃ mm	d ₂ mm	Z	Indexable inserts	17550	...
10	5.5	60	20	10	1	AD.X 06...	110	
12	5.5	70	25	12	2	AD.X 06...	111	
16	5.5	76	28	16	3	AD.X 06...	112	
20	5.5	86	36	20	4	AD.X 06...	113	
25	5.5	86	36	20	6	AD.X 06...	114	



17550 110-114

Indexable inserts AD.X 06... and spare parts



17550 FR-ALC

17550 SR



N K P
HC 4410
Coated

N
HW 4410
Uncoated

P M K
HC 4640
Coated

Applications
Carbide type
Coating

ISO designation	l mm	d mm	s mm	d ₁ mm	r mm	17550	...	17550	...	17550	...
ADHX 060202 FR-ALC	6.35	4.76	2.38	2.0	0.2	201		211			
ADKX 060202 SR	6.35	4.76	2.38	2.0	0.2	202				221	
ADKX 060204 SR	6.35	4.76	2.38	2.0	0.4	203				222	

Clamping screw



17550

Wrench



52529

Spare parts
For indexable insert

TX size
T

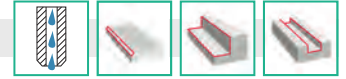
AD.X 06...

6

130

401

Continued ▶

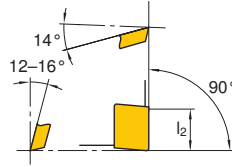


Continued ▶

Screw-in milling cutters for insert size 09

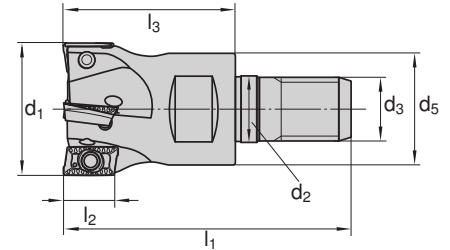
Applications

For milling inserts AD.X 09..



d ₁ mm	l ₂ mm	l ₁ mm	l ₃ mm	d ₅ mm	d ₃ mm	d ₂ mm	Z	Indexable inserts	17551	...
20	8.5	49	30	18	M 10	10.5	3	AD.X 09...		101
25	8.5	55	33	21	M 12	12.5	4	AD.X 09...		102
32	8.5	67	43	29	M 16	17.0	6	AD.X 09...		103

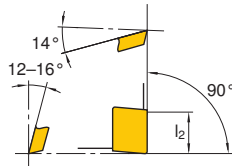
17551 101-103



End mills for insert size 09

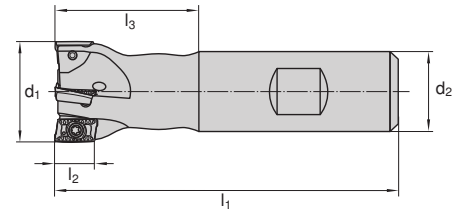
Applications

For milling inserts AD.X 09..



d ₁ mm	l ₂ mm	l ₁ mm	l ₃ mm	d ₂ mm	Z	Indexable inserts	17551	...
16	8.5	76	28	16	2	AD.X 09...		110
20	8.5	86	36	20	3	AD.X 09...		111
20	8.5	86	36	20	4	AD.X 09...		112
25	8.5	86	36	20	4	AD.X 09...		113
25	8.5	86	36	20	5	AD.X 09...		114
32	8.5	86	40	25	6	AD.X 09...		115

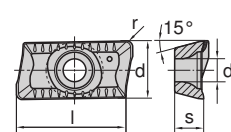
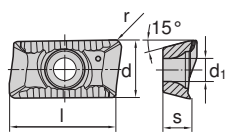
17551 110-115



Indexable inserts AD.X 09... and spare parts

17551 FR-ALC

17551 SR-TR



Applications
Carbide type
Coating

NKP
HC 4410
Coated

N
HW 4410
Uncoated

PMK
HC 4640
Coated

M
HC 4540
Coated

M
HC 4544
Coated

ISO designation	l mm	d mm	s mm	d ₁ mm	r mm	17551	...	17551	...	17551	...	17551	...	17551	...
ADHX 090308 FR-ALC	9.52	5.56	3.18	2.8	0.8		201		211						
ADHX 090312 FR-ALC	9.52	5.56	3.18	2.8	1.2		202		212						
ADKX 090304 SR-TR	9.52	5.56	3.18	2.8	0.4		203			221					
ADKX 090308 SR-TR	9.52	5.56	3.18	2.8	0.8		204			222		231		241	
ADKX 090312 SR-TR	9.52	5.56	3.18	2.8	1.2		205			223		232		242	
ADKX 090316 SR-TR	9.52	5.56	3.18	2.8	1.6		206			224		233		243	

Spare parts
For indexable insert

TX size
T

AD.X 09...	8														
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Clamping screw
17551

Wrench
52529



...

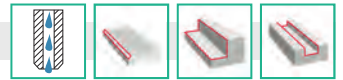
...

130

403

Continued ▶

High performance angular milling cutters



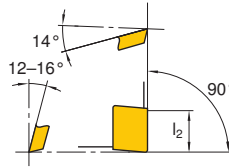
17550 - 17553 High performance angular milling cutters

Continued ▶

Screw-in milling cutters for insert size 12

Applications

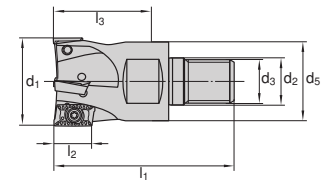
For milling inserts AD.X 12..



d ₁ mm	l ₂ mm	l ₁ mm	l ₃ mm	d ₅ mm	d ₃ mm	d ₂ mm	Z	Indexable inserts	17552	...
32	12	67	43	29	M 16	17	4	AD.X 12...	101	
40	12	67	43	29	M 16	17	6	AD.X 12...	102	



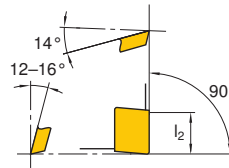
17552 101-102



End mills for insert size 12

Applications

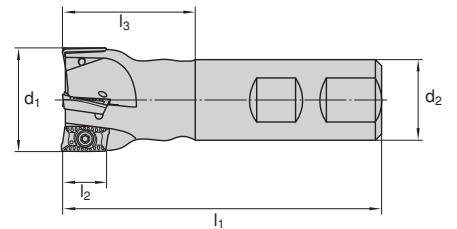
For milling inserts AD.X 12..



d ₁ mm	l ₂ mm	l ₁ mm	l ₃ mm	d ₂ mm	Z	Indexable inserts	17552	...
20	12	86	36	20	2	AD.X 12...	110	
25	12	86	36	20	3	AD.X 12...	111	
32	12	96	40	25	4	AD.X 12...	112	
32	12	96	40	25	5	AD.X 12...	113	
40	12	110	50	32	6	AD.X 12...	114	



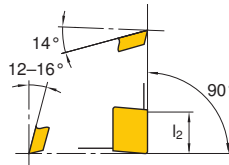
17552 110-114



Cutters with bore for insert size 12

Applications

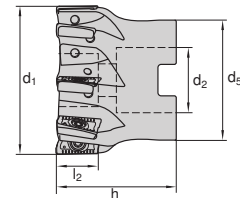
For milling inserts AD.X 12..



d ₁ mm	l ₂ mm	h mm	d ₅ mm	d ₂ mm	Z	Indexable inserts	17552	...
40	12	40	32	16	4	AD.X 12...	120	
40	12	40	32	16	6	AD.X 12...	121	
50	12	40	40	22	5	AD.X 12...	122	
50	12	40	40	22	7	AD.X 12...	123	
63	12	40	50	22	6	AD.X 12...	124	
63	12	40	50	22	9	AD.X 12...	125	



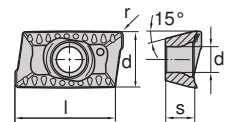
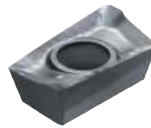
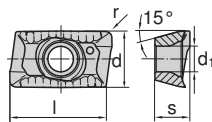
17552 120-125



Indexable inserts AD.X 12... and spare parts

17552 FR-ALC

17552 SR-TR



Applications
Carbide type
Coating

NKP
HC 4410
Coated

N
HW 4410
Uncoated

PMK
HC 4640
Coated

M
HC 4540
Coated

M
HC 4544
Coated

ISO designation	l mm	d mm	s mm	d ₁ mm	r mm	17552	...	17552	...	17552	...	17552	...	17552	...
ADHX 120408 FR-ALC	12.7	7.4	4.76	3.4	0.8		201		211						
ADHX 120412 FR-ALC	12.7	7.4	4.76	3.4	1.2		202		212						
ADHX 120416 FR-ALC	12.7	7.4	4.76	3.4	1.6		203		213						
ADKX 120408 SR-TR	12.7	7.4	4.76	3.4	0.8		204			221		231		241	
ADKX 120412 SR-TR	12.7	7.4	4.76	3.4	1.2		205			222		232		242	
ADKX 120416 SR-TR	12.7	7.4	4.76	3.4	1.6		206			223		233		243	
ADKX 120420 SR-TR	12.7	7.4	4.76	3.4	2.0		207			224					

Spare parts
For indexable insert

TX size
T

Clamping screw
17552



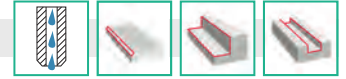
Wrench
52529



AD.X 12... 8

130 403

Continued ▶

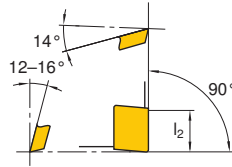


Continued

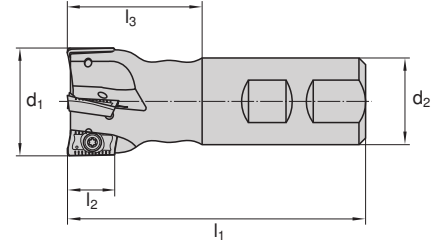
End mills for insert size 17

Applications

For milling inserts AD.X 17..



d ₁ mm	l ₂ mm	l ₁ mm	l ₃ mm	d ₂ mm	Z	Indexable inserts	17553	...
25	16.5	96	40	25	2	AD.X 17...		110
32	16.5	110	50	32	3	AD.X 17...		111
40	16.5	110	50	32	4	AD.X 17...		112

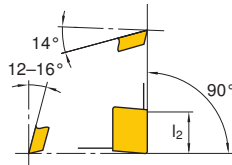


17553 110-112

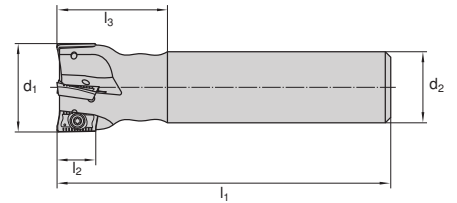
End mills, long, for insert size 17

Applications

For milling inserts AD.X 17..



d ₁ mm	l ₂ mm	l ₁ mm	l ₃ mm	d ₂ mm	Z	Indexable inserts	17553	...
25	16.5	200	40	25	2	AD.X 17...		115
32	16.5	250	50	32	3	AD.X 17...		116
40	16.5	250	50	32	4	AD.X 17...		117

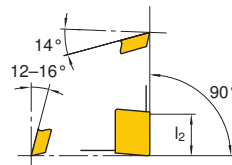


17553 115-117

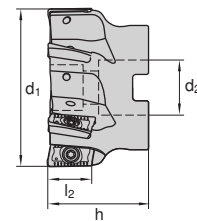
Cutters with bore for insert size 17

Applications

For milling inserts AD.X 17..

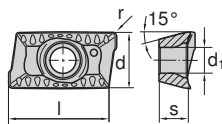


d ₁ mm	H mm	d ₂ mm	l ₂ mm	Z	Indexable inserts	17553	...
40	36	16	16.5	4	AD.X 17...		120
50	40	22	16.5	5	AD.X 17...		121
63	40	22	16.5	6	AD.X 17...		122
80	50	27	16.5	8	AD.X 17...		123
100	50	32	16.5	9	AD.X 17...		124



17553 120-124

Indexable inserts AD.X 17... and spare parts



17553 FR-ALC

17553 SR-TR



Applications
Carbide type
Coating

NKP
HC 4410
Coated

N
HW 4410
Uncoated

PMK
HC 4640
Coated

M
HC 4540
Coated

M
HC 4544
Coated

PK
HC 4430
Coated

ISO designation	r mm	17553	...	17553	...	17553	...	17553	...	17553	...	17553	...
ADHX 170508 FR-ALC	0.8		201		211								
ADHX 170512 FR-ALC	1.2		202		212								
ADHX 170516 FR-ALC	1.6		203		213								
ADKX 170508 SR-TR	0.8		204			221						251	
ADKX 170512 SR-TR	1.2		205			222		232		242		252	
ADKX 170516 SR-TR	1.6		206			223		233		243		253	
ADKX 170520 SR-TR	2.0		207			224		234		244		254	

Clamping screw Wrench

Spare parts	TX size	17553	...	17553	...
For indexable insert	T				
AD.X 17...	8			130	403

Info

17556 - 17557 - tangential angular milling cutters



The tangential indexable insert milling system with 4 and 8 cutting edges has been developed for roughing and semi-finishing operations on steel and cast iron. The programme includes supports with diameters ranging from 50 to 160 mm and indexable inserts with cutting depths to 11.5 mm.

Tangential installation position for process reliability

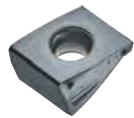
The tangential installation position of the indexable inserts offers several characteristic features. The favourable ratio between the supporting surface and the clamping force provides maximum stability. Even at a high cutting performance, the tools make the process extremely reliable.

Profitability through good machining properties

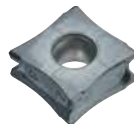
The robust indexable inserts have a positive chip angle resulting in excellent cutting behaviour and low power consumption for the machine. This greatly increases the service life of the cutting edge, which has a direct and positive impact on the tool costs.

Cost savings through cycle time reduction

The ratio of the tool diameter to the number of teeth, combined with the high feed rates that are possible, enables huge material removal rates. This means much shorter cycle times are achieved, which significantly reduces the overall process costs or the cost per part.



- 4-edged indexable insert for stable processes
- Feed depth to max. ap 11.5 mm
- Stable geometry for a wide range of applications



- 8-edged indexable insert for excellent cost efficiency
- Feed depth to max. ap 10 mm
- Soft cutting geometry for reduced chipping forces

17556

Tangential angular milling cutters, 90° LNMU 1306



Design

- Angular milling cutter with tangentially arranged indexable inserts and 4 usable cutting edges
- Wear-resistant, nickel-plated version
- With internal cooling up to Ø 125 mm

Advantage:

- Cutting depth down to 11.5 mm

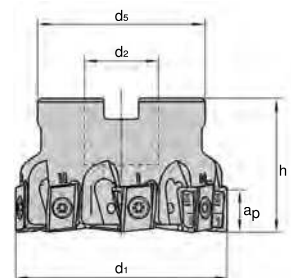
Note:

For clamping screws see art. no. 17557 501.



17556 101-112

Ø d ₁ mm	h mm	d ₂ mm	d ₅ mm	ap mm	Z	Indexable inserts	17556	...
50	40	22	40	11.5	4	LNMU 1306		101
50	40	22	40	11.5	6	LNMU 1306		102
63	40	22	50	11.5	6	LNMU 1306		103
63	40	22	50	11.5	8	LNMU 1306		104
80	50	27	60	11.5	8	LNMU 1306		105
80	50	27	60	11.5	10	LNMU 1306		106
100	50	32	65	11.5	10	LNMU 1306		107
100	50	32	65	11.5	12	LNMU 1306		108
125	63	40	90	11.5	12	LNMU 1306		109
125	63	40	90	11.5	16	LNMU 1306		110
160	63	40	130	11.5	14	LNMU 1306		111
160	63	40	130	11.5	20	LNMU 1306		112

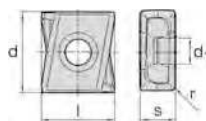


Indexable inserts

17556 201-221

Design

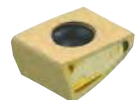
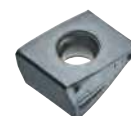
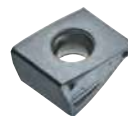
- 4-edged indexable insert for stable processes
- Feed depth to max. ap 11.5 mm
- Stable geometry for a wide range of applications



17556 201

17556 211

17556 221



K

HC 4420 coated
17556 ...

P K

HC 4430 coated
17556 ...

P

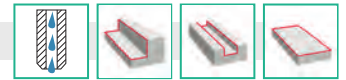
HC 4640 coated
17556 ...

ISO designation	l mm	d mm	s mm	d ₁ mm	r mm	201	211	221
LNMU 1306 SR	13.5	12.4	6	4.4	0.8			

Milling tools

17557

Tangential angular milling cutters, 90°, XNMU 1206

**ATORN®****Design**

- Angular milling cutter with tangentially arranged indexable inserts and 8 usable cutting edges
- Wear-resistant, nickel-plated version

17557 101-110

Design

- With internal cooling

NEW

17557 101-112

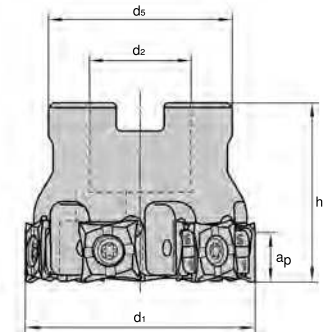
**Advantage:**

- Cutting depth down to 10 mm

Note:

For clamping screws see art. no. 17557 501.

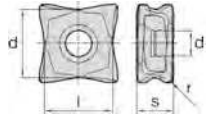
Ø d ₁ mm	h mm	d ₂ mm	d ₅ mm	a _p mm	Z	Indexable inserts	17557	...
50	40	22	40	10	5	XNMU 1206		101
50	40	22	40	10	6	XNMU 1206		102
63	40	22	50	10	6	XNMU 1206		103
63	40	22	50	10	8	XNMU 1206		104
80	50	27	60	10	8	XNMU 1206		105
80	50	27	60	10	10	XNMU 1206		106
100	50	32	65	10	9	XNMU 1206		107
100	50	32	65	10	12	XNMU 1206		108
125	63	40	90	10	11	XNMU 1206		109
125	63	40	90	10	16	XNMU 1206		110
160	63	40	130	10	13	XNMU 1206		111
160	63	40	130	10	20	XNMU 1206		112

**Indexable inserts and spare parts**

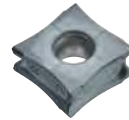
17557 201-221

Design

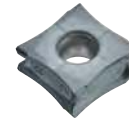
- 8-edged indexable insert for excellent cost efficiency
- Feed depth to max. a_p 10 mm
- Soft cutting geometry for reduced chipping forces



17557 201



17557 211



17557 221

**Applications**

Cemented carbide grade

Coating

KHC 4420
coated

17557

P KHC 4430
coated

17557

PHC 4640
coated

17557

ISO designation	l mm	d mm	s mm	d ₁ mm	r mm	17557	...	17557	...	17557	...
XNMU 1206 SR	12	12	6.35	4.4	0.8		201		211		221

Spare parts

Size	TX size	Clamping screw	Wrench
M 4 x 11.0	15	17557	52529
		501	406

17558

Angular milling cutter 90°



ATORN®

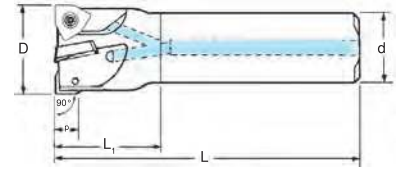
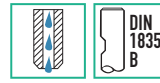
Design

- Wear-resistant, nickel-plated version
- Positive structural design of indexable insert
- Precise 90° angular milling
- Special chip breaker geometry for minimal power consumption
- Double-sided indexable insert with 6 cutting edges per indexable insert, therefore particularly cost-effective
- Substantial insert thickness for optimum process reliability with optimised plane cutting edge for high surface quality
- Internal coolant feed

Scope of delivery:

- Clamping screw and wrench
- Without indexable inserts

NEW



17558 101-106

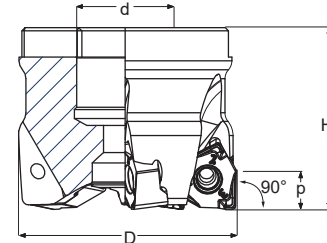


Ø D mm	Ø d mm	L mm	L ₁ mm	p mm	Z	Indexable inserts	17558	...
20	20	100	40	4	3	WNEU 0403..	101	
20	20	150	40	4	3	WNEU 0403..	102	
25	25	115	44	4	4	WNEU 0403..	103	
25	25	170	50	4	4	WNEU 0403..	104	
32	32	125	50	4	5	WNEU 0403..	105	
32	32	195	35	4	15	WNEU 0403..	106	



17558 120-122

Ø D mm	Ø d mm	H mm	p mm	Z	Indexable inserts	17558	...
32	16	40	4	6	WNEU 0403..	120	
40	16	40	4	6	WNEU 0403..	121	
50	22	40	4	8	WNEU 0403..	122	



Ø D mm	Ø d mm	H mm	p mm	Z	Indexable inserts	17558	...
50	22	40	7	5	WNEU/WNEX 0806..	130	
63	22	40	7	6	WNEU/WNEX 0806..	131	
80	27	50	7	7	WNEU/WNEX 0806..	132	
100	32	50	7	8	WNEU/WNEX 0806..	133	
125	40	63	7	10	WNEU/WNEX 0806..	134	
160	40	63	7	11	WNEU/WNEX 0806..	135	



17558 130-135

Indexable inserts and spare parts

17558 201-202 + 301-302 + 401-402

17558 203+303+403

17558 404

17558 501



Applications
Carbide type
Coating

PMK
HC 4430
Coated

PK
HC 4620
Coated

PM
HC 4630
Coated

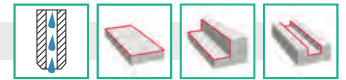
N
HW 4415
Uncoated

ISO designation	l mm	s mm	r mm	17558	...	17558	...	17558	...	17558	...
WNEU 040304-M	4.0	3.30	0.4		201		301		401		
WNEU 040308-M	4.0	3.30	0.8		202		302		402		
WNEU 080608-M	7.5	6.56	0.8		203		303		403		
WNEU 080608-MM	7.5	6.56	0.8						404		
WNEX 080608	7.5	6.56	0.8								501

Spare parts

For indexable inserts size	Screw	TX size T	Clamping screw	Wrench
WNEU 04..	M 2.5 x 5.5	8	17558	52529
WNE. 08..	M 4.0 x 12.0	15	601 602	403 406

Milling tools



Advantage:

- Patented system
- Exact 90° profile with 8 usable cutting edges per indexable insert
- Ground precision indexable insert in the H tolerance range
- Soft cut with low power consumption
- Perfect surface quality
- Holders available in metric and inch sizes
- For universal use (e.g. face milling, angular milling, trimming, slot milling, trochoidal groove milling)
- Tools with irregular pitch for perfect running smoothness during the milling process

- Smooth running is a great advantage, especially for low-performance machines or thin-walled, fragile components
- Optimum chip removal
- Perfectly adapted chip spaces
- Cooling takes place directly at the cutting edge and is suitable for emulsion, MMS and compressed air
- Innovative insert design with generous contact surfaces for maximum repeat accuracy
- Quick and easy insert assembly
- TX Plus clamping screws
- Milled coolant bore suitable for MMS, emulsion and compressed air
- The range includes tools with narrow or wide pitch
- Durable basic body with new base material and Hard & Tough coating

Great benefits:

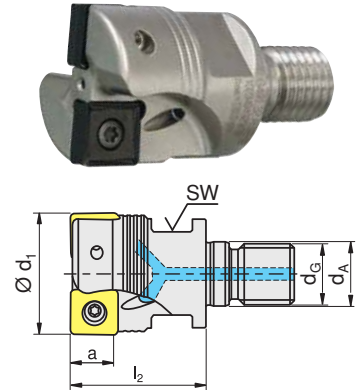
- Enormous profitability in terms of price per cutting edge for 90° angular milling
- Exact 90° profile
- Perfect axial and radial runout accuracy
- Also ideally suited to low-performance machines
- The cutter is quickly and easily equipped

Ø d ₁ mm	Designation	Z mm	l ₂ mm	a mm	Ø d _A mm	Ø d _G mm	max. rpm	Indexable inserts	with thread	
									17681	...
32	G491.32.R.02-12	2	35	8	17	16	13,600	SN.12..		201

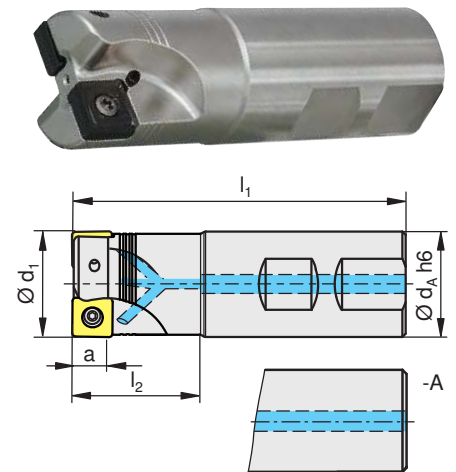
Ø d ₁ mm	Designation	Z mm	l ₂ mm	Ø d _A mm	a mm	max. rpm	Indexable inserts	with shank	
								17680	...
32	C491.32.R.02-12-B-40	2	102	32	8	13,600	SN.12..		201
32	C491.32.R.02-12-A-63-250	2	250	32	8	10,200	SN.12..		202

Ø d ₁ mm	Designation	Z mm	h mm	Ø d mm	Ø d _A mm	a mm	max. rpm	Indexable inserts	with bore	
									17682	...
40	A491.40.R.03-12	3	40	38	16	8	11,500	SN.12..		201
40	A491.40.R.04-12	4	40	38	16	8	11,500	SN.12..		202
50	A491.50.R.04-12	4	40	43	22	8	9,800	SN.12..		203
50	A491.50.R.05-12	5	40	43	22	8	9,800	SN.12..		204
63	A491.63.R.05-12	5	40	48	22	8	8,500	SN.12..		205
63	A491.63.R.06-12	6	40	48	22	8	8,500	SN.12..		206
80	A491.80.R.06-12	6	50	58	27	8	7,400	SN.12..		207
80	A491.80.R.08-12	8	50	58	27	8	7,400	SN.12..		208
100	A491.100.R.07-12	7	50	78	32	8	6,500	SN.12..		209
100	A491.100.R.10-12	10	50	78	32	8	6,500	SN.12..		210
125	A491.125.R.08-12	8	63	88	40	8	5,700	SN.12..		211
125	A491.125.R.12-12	12	63	88	40	8	5,700	SN.12..		212
160	A491.160.R.09-12	9	63	98	40	8	5,000	SN.12..		213
160	A491.160.R.14-12	14	63	98	40	8	5,000	SN.12..		214

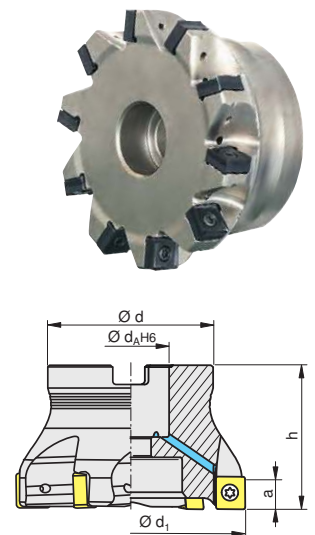
17681 201



17680 201-202

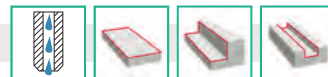


17682 201-214



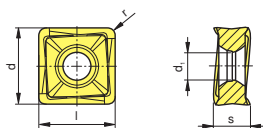
Continued ▶

Angular/slot milling cutters



17680 - 17685 Angular/slot milling cutters, MaxiMill 491

Continued



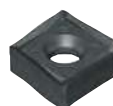
17685 101



17685 102



17685 103-105



17685 106-107



Applications
Carbide type
Coating
Chip breaker

KN

CTWN215
Uncoated

PM

CTPM240
Coated

PMK

CTCP230
Coated

PM

CTPM240
Coated

PM

CTPP235
Coated

K

CTCK215
Coated

K

CTPK220
Coated

Designation	r mm		17685	...	17685	...	17685	...	17685	...	17685	...	17685	...
SNHU 120408FR-F10	0.8	10 pcs.			101									
SNHU 120408SR-F50	0.8	10 pcs.				102								
SNHU 120408SR-M50	0.8	10 pcs.					103							
SNHU 120408SR-M50	0.8	10 pcs.						104						
SNHU 120408SR-M50	0.8	10 pcs.							105					
SNHU 120408SR-R50	0.8	10 pcs.								106				
SNHU 120408SR-R50	0.8	10 pcs.											107	
Clamping screw	Wrench	l ₁ mm	d mm								17998			...
M 3.5 x 8.6	IP 15	4.8	5.2											103

Milling tools



17882

Design

- Sturdy basic body made from tool steel with Hard & Tough coating
- Coolant bore also suitable for MMS
- Precise contact surfaces and exact positioning of the indexable insert

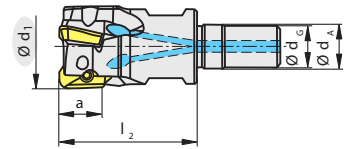
Advantage:

- Soft cut

Scope of delivery:

- Basic body with clamping screws
- **Without** indexable inserts

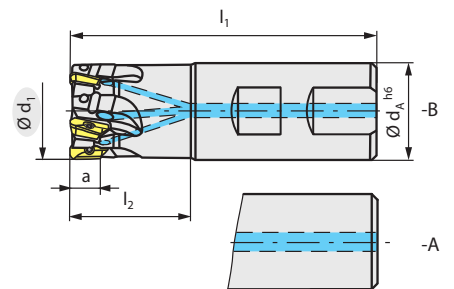
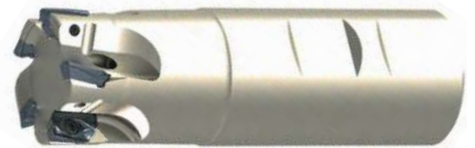
17882 102-106



$\varnothing d_1$ mm	Designation	Z	l_2 mm	a mm	$\varnothing d_A$ mm	$\varnothing d_G$ mm	Indexable inserts	with thread	
								17882	...
20	G211.20.R.03-11	3	33	10	10.5	10	XD.. 11..		102
25	G211.25.R.03-11	3	34	10	12.5	12	XD.. 11..		103
25	G211.25.R.04-11	4	35	10	12.5	12	XD.. 11..		104
32	G211.32.R.04-11	4	36	10	17.0	16	XD.. 11..		105
32	G211.32.R.05-11	5	37	10	17.0	16	XD.. 11..		106

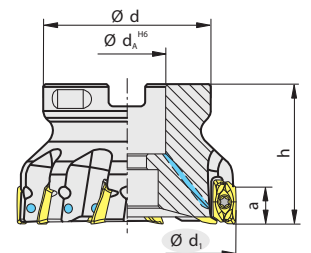
$\varnothing d_1$ mm	Designation	Z	l_1 mm	l_2 mm	$\varnothing d_A$ mm	a mm	Indexable inserts	with shank	
								17882	...
12	C211.12.R.01-11-B-20	1	75	20	16	10	XD.. 11..		201
16	C211.16.R.02-11-A15-32-165	2	165	32	15	10	XD.. 11..		202
16	C211.16.R.02-11-A-25	2	75	25	16	10	XD.. 11..		203
16	C211.16.R.02-11-A-32-165	2	165	32	16	10	XD.. 11..		204
16	C211.16.R.02-11-B-25	2	75	25	16	10	XD.. 11..		205
20	C211.20.R.02-11-A19-40-200	2	200	40	19	10	XD.. 11..		206
20	C211.20.R.02-11-A-25	2	77	25	20	10	XD.. 11..		207
20	C211.20.R.02-11-A-40-200	2	200	40	20	10	XD.. 11..		208
20	C211.20.R.02-11-B-25	2	77	25	20	10	XD.. 11..		209
20	C211.20.R.03-11-A-25	3	77	25	20	10	XD.. 11..		210
20	C211.20.R.03-11-A-32-165	3	165	32	20	10	XD.. 11..		211
20	C211.20.R.03-11-B-25	3	77	25	20	10	XD.. 11..		212
25	C211.25.R.02-11-A-50-225	2	225	50	25	10	XD.. 11..		213
25	C211.25.R.03-11-A24-50-225	3	225	50	24	10	XD.. 11..		214
25	C211.25.R.03-11-A-32	3	90	32	25	10	XD.. 11..		215
25	C211.25.R.03-11-A-50-225	3	225	50	25	10	XD.. 11..		216
25	C211.25.R.03-11-B-32	3	90	32	25	10	XD.. 11..		217
25	C211.25.R.04-11-A-32	4	90	32	25	10	XD.. 11..		218
25	C211.25.R.04-11-A-40-165	4	165	40	25	10	XD.. 11..		219
25	C211.25.R.04-11-B-32	4	90	32	25	10	XD.. 11..		220
32	C211.32.R.04-11-B-40	4	102	40	32	10	XD.. 11..		221
32	C211.32.R.05-11-B25-40	5	102	40	25	10	XD.. 11..		222
32	C211.32.R.05-11-B-40	5	102	40	32	10	XD.. 11..		223
40	C211.40.R.06-11-B-50	6	122	50	40	10	XD.. 11..		224

17882 201-224



$\varnothing d_1$ mm	Designation	Z	h mm	$\varnothing d$ mm	$\varnothing d_A$ mm	a mm	Indexable inserts	with bore	
								17882	...
40	A211.40.R.04-11	4	40	38	16	10	XD.. 11..		301
40	A211.40.R.06-11	6	40	38	16	10	XD.. 11..		302
50	A211.50.R.05-11	5	40	43	22	10	XD.. 11..		303
50	A211.50.R.08-11	8	40	43	22	10	XD.. 11..		304
63	A211.63.R.06-11	6	40	48	22	10	XD.. 11..		305
63	A211.63.R.10-11	10	40	48	22	10	XD.. 11..		306
80	A211.80.R.07-11	7	50	58	27	10	XD.. 11..		307
80	A211.80.R.10-11	10	50	58	27	10	XD.. 11..		308
100	A211.100.R.08-11	8	50	78	32	10	XD.. 11..		310
125	A211.125.R.10-11	10	63	88	40	10	XD.. 11..		312

17882 301-312



Continued ▶

Angular/slot milling cutters

17882 - 17884 Angular/slot milling cutter system, MaxiMill 211-11



Continued ▶

17884

Indexable inserts

Design

The notch makes the difference:

Up to WP radius 1.6 mm, the notch enables smooth, vibration-free operation, higher stability during plunge milling and improved machining performance. The radial forces during plunge milling are compensated.

Applications

Chip breaker F20:

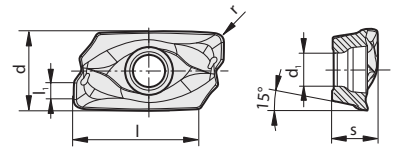
- Very good cutting efficiency, finishing of non-ferrous metals

Chip breaker F50:

- Chamfered indexable insert, very good cutting efficiency, finishing of steel, stainless steel and cast iron even under unstable conditions

Chip breaker M50:

- For universal use, compromise between cutting efficiency and stability, for medium machining of steel, stainless steel and cast iron



17884

17884 101-103

17884 104-106

17884 107-109



N

CTWN215
uncoated
F20

P

CTPP235
PVD
F50

M

CTPM240
PVD
M50

Applications
Cemented carbide type
Coating
Chip breaker

Designation	d mm	l mm	s mm	l ₁ mm	r mm	d ₁ mm		17884	...	17884	...	17884	...
XDKT 11T304FR-F20	6.8	10.6	3.8	1.8	0.4	2.8	10 pcs.			101			
XDKT 11T308FR-F20	6.8	10.6	3.8	1.4	0.8	2.8	10 pcs.			102			
XDKT 11T3020FR-F20	6.8	10.6	3.8	1.7	2.0	2.8	10 pcs.			103			
XDKT 11T304SR-F50	6.8	10.6	3.8	1.8	0.4	2.8	10 pcs.					104	
XDKT 11T308SR-F50	6.8	10.6	3.8	1.4	0.8	2.8	10 pcs.					105	
XDKT 11T320SR-F50	6.8	10.6	3.8	2.1	2.0	2.8	10 pcs.					106	
XDKT 11T308SR-M50	6.8	10.6	3.8	1.4	0.8	2.8	10 pcs.						107
XDKT 11T312SR-M50	6.8	10.6	3.8	1.0	1.2	2.8	10 pcs.						108
XDKT 11T320SR-M50	6.8	10.6	3.8	2.1	2.0	2.8	10 pcs.						109

Spare parts

for Ø d ₁ mm	Clamping screw	Wrench	Clamping screw	Wrench
12	M 2.5 x 5.0	IP 8	17999	51932
15.7-32	M 2.5 x 5.6	IP 8	123	404
40-160	M 2.5 x 7.3	IP 8	124	404
			125	404

**For cutters with bore
Ø d₁ mm**

	Power screw	Power screw
40	M 8 x 30.0	101
50	M 10 x 31.0	102

Info

MaxiMill 211-11

Active principle by "the notch" during circular and oblique immersion: (r < 2.0 mm)

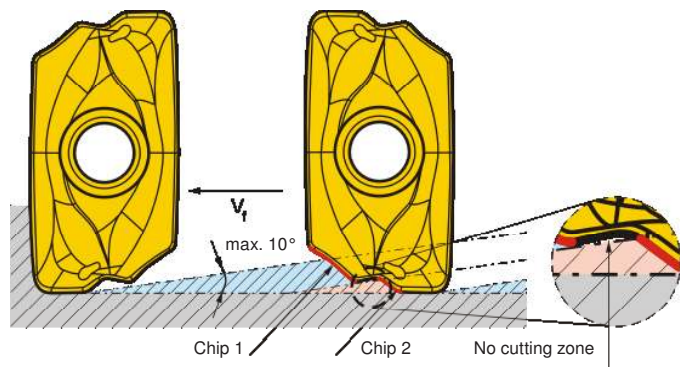


Radial force compensation

- The notch provides additional stability during immersion.
- Smooth running and vibration-free operation are thus guaranteed to a large extent.

Chip division

- Low cutting pressure
- Low power consumption
- Optimal chip transport
- Minimal vibrations
- Very good chip formation

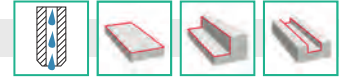


The PLUS for professional machinists:

- Higher cutting performance
- Better surfaces when milling closed grooves and pockets

17742

Angular milling cutter 90°

**ATORN®****Design**

- Positive
- Right cutting
- **Without** indexable inserts
- Insert design with four cutting edges per insert
- Cutting depths up to a maximum of 10.5 mm

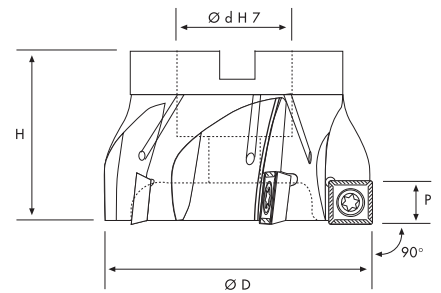
Applications

For carbide indexable inserts SD.T 1205.. For general corner and face milling, suitable for use near the clamping device. Core drilling via circular interpolation.

Note:

For cemented carbide indexable inserts SD.T 1205.. see art. no. 17833.

17742



Ø D mm	Ø d H7 mm	H mm	P mm	Z	Indexable inserts	17742	...
40	16	45	10.5	4	SD.T 1205 ..		100
50	22	40	10.5	5	SD.T 1205 ..		101
63	22	40	10.5	6	SD.T 1205 ..		102
80	27	50	10.5	6	SD.T 1205 ..		103
100	32	50	10.5	8	SD.T 1205 ..		104
125	40	63	10.5	9	SD.T 1205 ..		105

Spare parts

For indexable inserts size	Clamping screw type	TX size T	Clamping screw 10 17744	Wrench 52529
SD.T 1205..	VT 40 710	15	101	406

17833

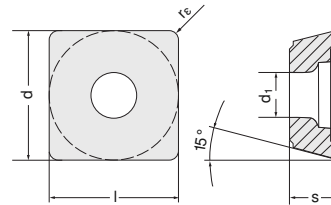
Indexable milling insert, SDMT

ATORN®**Design**

- Square
- Positive 15°

Applications
 Carbide type
 Coating

ISO designation	d+l mm	s mm	d ₁ mm	r	10 pcs.
SDMT 1205 PDR69	12.7	5.00	4.40	0.8	10 pcs.



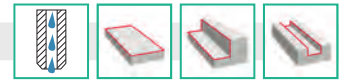
17833


PM
 P 25
 TiAlN
 17833

101

17662

Angular milling cutter 90°

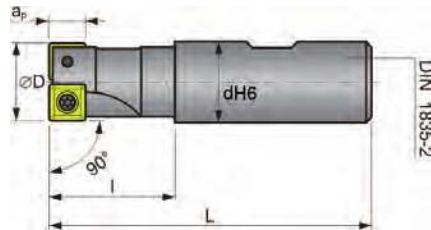


Design

- Nickel-plated milling body made of hardened special steel for precise 90° cuts
- Extremely soft cut

Applications

Universal use for light to medium machining. **Very good surface** thanks to optimised face cutting. For indexable inserts SOMT 09T304.

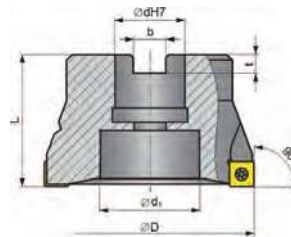


17662 101-103



with shank

Cutting edge Ø mm	No. of cutting edges	Overall length mm	Shank Ø mm	Working depth L2 mm	17662	...
20	2	82	20	32	101	
25	3	98	25	42	102	
32	4	102	32	42	103	



17662 120-122

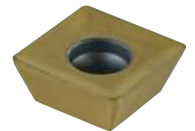


with bore

Cutting edge Ø mm	No. of cutting edges	Overall length mm	Location hole mm	17662	...
40	5	40	16	120	
50	6	40	22	121	
63	7	40	22	122	

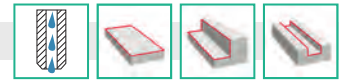
Indexable inserts and spare parts

17662 301-304



Indexable inserts Designation	Carbide type/ coating	Steel		Steel roughing		UNI - soft cut		VA - soft cut	
		17662	...	17662	...	17662	...	17662	...
SOMT 09T304	P30/TiN		301				303		
SOMT 09T304	P40/TiN				302				304

Spare parts		Clamping screw		Wrench	
For indexable inserts size	TX size	17662	...	52529	...
SOMT 09T304	9		200		404



ATORN®

Design

- Internal coolant feed
- Multifunctional milling tool system with 4 cutting edges on a double-sided indexable insert
- Long tool life due to low cutting forces. Despite the strong cutting edge, the special chip shape geometry enables low power consumption due to the large chip angle
- Special chip geometry guarantees consistently high tool life due to the new carbide types
- Nickel-plated design offers greater protection against wear and a longer service life of the basic body

Use

For face milling, corner milling, trimming and groove milling.

17735 201-203

Screw-in milling cutter

Applications

For the use of ISO indexable milling inserts LN.X 100605 PNR art. no. 17738.

17735 101-103

End mill, 4-10 Power

Applications

For the use of ISO indexable milling inserts LN.X 100605 PNR art. no. 17738.

17735 301-303

End mill, long

Applications

For the use of ISO indexable milling inserts LN.X 100605 PNR art. no. 17738.

17736 101-103

Angular milling cutter, 4-10 Power

Applications

For the use of ISO indexable milling inserts LN.X 100605 PNR art. no. 17738.

17736 105-109

Angular milling cutter, 4-15 Power

Applications

For the use of ISO indexable inserts LN.X 151008 PNR art. no. 17738.

								with thread	
Ø D	d	L	L ₁	D ₁	M	Z	Indexable inserts	17735	...
mm	mm	mm	mm	mm					
20	10	30	20	10.5	M 10	3	LN.X 100605 PNR	201	
25	10	35	22	12.5	M 12	3	LN.X 100605 PNR	202	
32	10	43	24	17.0	M 16	4	LN.X 100605 PNR	203	

								with shank	
Short	Ø D	d	L	L ₁	p	Z	Indexable inserts	17735	...
	mm	mm	mm	mm	mm				
	20	20	100	30	9	3	LN.X 100605 PNR	101	
	25	25	115	35	9	3	LN.X 100605 PNR	102	
	32	25	115	40	9	4	LN.X 100605 PNR	103	

								with shank	
Long	Ø D	d	L	L ₁	Z	Indexable inserts	17735	...	
	mm	mm	mm	mm					
	20	20	150	50	3	LN.X 100605 PNR	301		
	25	25	150	50	3	LN.X 100605 PNR	302		
	32	32	200	60	4	LN.X 100605 PNR	303		

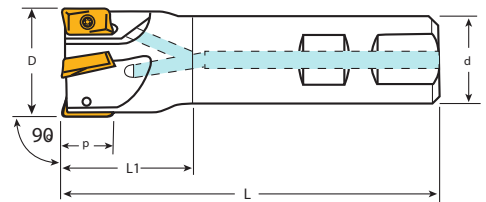
								with bore	
	Ø D	d	H	p	Z	Indexable inserts	17736	...	
	mm	mm	mm	mm					
	40	16	40	9	5	LN.X 100605 PNR	101		
	50	22	40	9	7	LN.X 100605 PNR	102		
	63	22	40	9	9	LN.X 100605 PNR	103		
	50	22	40	14	5	LN.X 151008 PNR	105		
	63	22	40	14	6	LN.X 151008 PNR	106		
	80	27	50	14	7	LN.X 151008 PNR	107		
	100	32	63	14	8	LN.X 151008 PNR	108		
	125	40	63	14	10	LN.X 151008 PNR	109		
	160	40	63	14	11	LN.X 151008 PNR	110	NEW	



17735 201-203



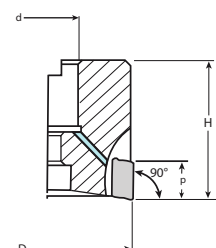
17735 101-103



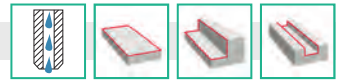
17735 301-303



17736 101-110



Continued ▶



17735 - 17738 Angular milling cutters (4-10/4-15 Power)

Continued ▶

Indexable inserts and spare parts

17738 101-205

Applications

- HW 4310: for aluminium machining
- HC 4630: for steel machining

- HC 4410: for cast iron machining
- HC 4535: for stainless steel machining
- HC 4635: for universal machining

Note:

Cutting edges are marked with dots; please always use cutting edges with the same dots.

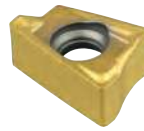
17738 101



17738 102



17738 103



17738 104



Applications
Carbide type
Coating

N

HW 4310
Uncoated

P

HC 4630
Coated

K


HC 4410
Coated

M

HC 4535
Coated

P M K

HC 4635
Coated

ISO designation	r mm		17738	...	17738	...	17738	...	17738	...	17738	...
LNEX 100605 PNR-MA	0.5	10 pcs.	101									
LNMX 100605 PNR-MB	0.5	10 pcs.			102		103		104			
LNKX 100605 PNR-MB	0.5	10 pcs.										105
LNEX 151008 PNR-MA	0.8	10 pcs.	201									
LNMX 151008 PNR-MB	0.8	10 pcs.			202		203		204			
LNKX 151008 PNR-MB	0.8	10 pcs.										205

Spare parts

Clamping screws



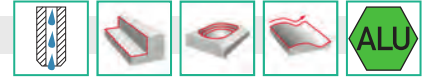
Wrench



For indexable inserts size	TX size T	17737	...	52529	...
LN.X 100605 PNR	9			101	404
LN.X 151008 PNR	15			102	406

17560

Plunge mills



ATORN®

Note:
For indexable inserts see art. no. 17563.

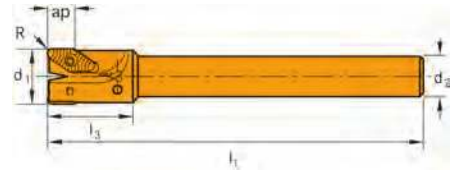
Applications
For non-ferrous metals and plastics.



17560

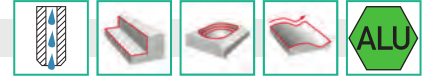
Ø d ₁ mm	Z	R mm	l ₁ mm	l ₃ mm	ap mm	Ø d ₂ mm	Indexable inserts	17560	...
25	2	1.2	200	40	14	20	VPGT 160412-ALM	102	
32	2	3.0	220	50	15	25	VCGT 220530-ALM	103	

Spare parts		Clamping screws		Wrench	
For indexable inserts size	Screw	TX size T	17564	...	52529
VPGT 160412-ALM	M 4.0 x 7.5	15	102	406	
VCGT 220530-ALM	M 5.0 x 10.0	15	103	406	



17561

Screw-on mill cutters



ATORN®

Note:
For indexable inserts see art. no. 17563.

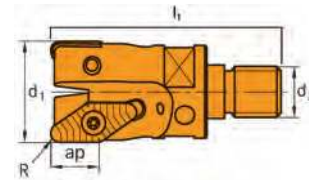
Type THR
Applications
For non-ferrous metals and plastics.



17561

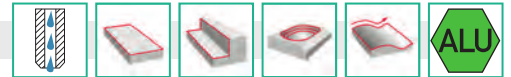
Ø d ₁ mm	Z	R mm	l ₁ mm	ap mm	d ₃ mm	Indexable inserts	17561	...
25	2	1.2	40	14	M 12	VPGT 160412-ALM	102	
32	2	3.0	50	15	M 16	VCGT 220530-ALM	103	
42	3	3.0	50	15	M 16	VCGT 220530-ALM	104	

Spare parts		Clamping screws		Wrench	
For indexable inserts size	Screw	TX size T	17564	...	52529
VPGT 160412-ALM	M 4.0 x 7.5	15	102	406	
VCGT 220530-ALM	M 5.0 x 10.0	15	103	406	



17562

Shell end mills



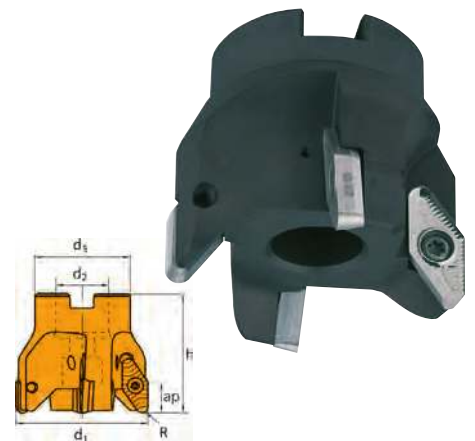
ATORN®

Note:
For indexable inserts see art. no. 17563.

Design
For non-ferrous metals and plastics.

Ø d ₁ mm	Z	R mm	h mm	ap mm	Ø d ₅ mm	d ₂ mm	Indexable inserts	17562	...
42	3	3.0	55	15	32	16	VCGT 220530-ALM	101	
52	3	3.0	55	15	40	22	VCGT 220530-ALM	102	
66	4	3.0	60	15	48	27	VCGT 220530-ALM	103	
80	4	3.0	60	15	60	27	VCGT 220530-ALM	104	
100	5	3.0	65	15	80	32	VCGT 220530-ALM	105	

Spare parts		Clamping screws		Wrench	
For indexable inserts size	Screw	TX size T	17564	...	52529
VCGT 220530-ALM	M 5.0 x 10.0	15	103	406	



17562

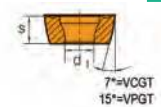
17563

Indexable milling inserts, VPGT/VCGT

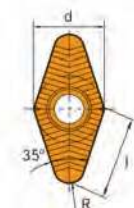
ATORN®



Indexable inserts Type	l		d	d ₁	R	10 pcs.	Uncoated K 10		Coated K 10	
	mm	mm					17563	...	17563	...
VPGT 160412-ALM	16.6	4.76	9.52	4.4	1.2	10 pcs.	102	202		
VCGT 220530-ALM	22.1	5.56	12.70	5.5	3.0	10 pcs.	103	203		



17563



17570

Reverse milling counterbores, 180°/45°



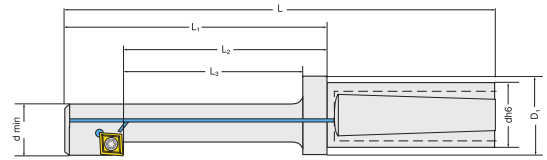
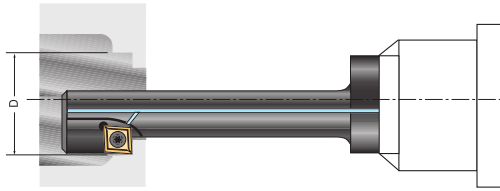
ATORN®

Design

- Supplied **without** indexable inserts

Applications

For reverse countersinking of bores.



17570 101-114



Reverse milling counterbores, 180°

Ø D	d min.	L	L ₁	L ₂	L ₃	dh6	D ₁	e	Indexable inserts	17570	...
mm	mm	mm	mm	mm	mm	mm	mm	mm			
18	10.5	112	62	47	40	20	25	4.0	CC.. 0602..		101
20	13.0	117	67	52	45	20	25	3.75	CC.. 0602..		102
24	15.0	122	72	57	50	20	25	4.75	CC.. 0602..		103
26	17.0	132	82	67	60	20	25	5.0	CC.. 0602..		104
30	19.0	142	92	77	65	20	25	6.0	CC.. 0602..		105
33	21.0	152	102	82	75	20	25	6.5	CC.. 09T3..		106
36	23.0	173	113	93	85	32	40	7.0	CC.. 09T3..		107
40	25.0	183	123	103	95	32	40	8.0	CC.. 09T3..		108
43	30.0	183	123	103	95	32	40	7.0	CC.. 09T3..		109
48	33.0	223	163	143	135	32	40	8.0	CC.. 09T3..		110
53	36.0	210	140	40	110	40	-	9.0	CC.. 1204..		111
57	39.0	220	150	40	120	40	-	9.5	CC.. 1204..		112
66	45.0	245	165	50	135	50	-	11.0	CC.. 1204..		113
76	52.0	265	185	50	155	50	-	12.5	CC.. 1204..		114

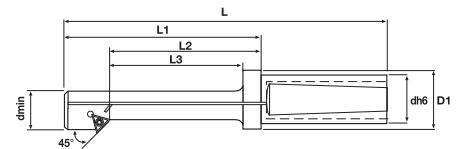
17570 101

Design

- Without internal cooling

Note:

For indexable inserts see art. no. 18550 ff.



17570 201-209



Reverse milling counterbores, 45°

Ø D	d min.	L	L ₁	L ₂	L ₃	dh6	D ₁	e	Indexable inserts	17570	...
mm	mm	mm	mm	mm	mm	mm	mm	mm			
15	10	105	55	42	35	20	25	2.7	TCMT 0802..		201 NEW
20	14	110	60	47	40	20	25	3.2	TCMT 0802..		203 NEW
23	17	120	70	57	50	20	25	3.2	TCMT 1102..		204 NEW
27	21	140	90	77	70	20	25	3.2	TCMT 1102..		207 NEW
31	24	150	100	87	80	20	25	3.7	TCMT 1102..		209 NEW

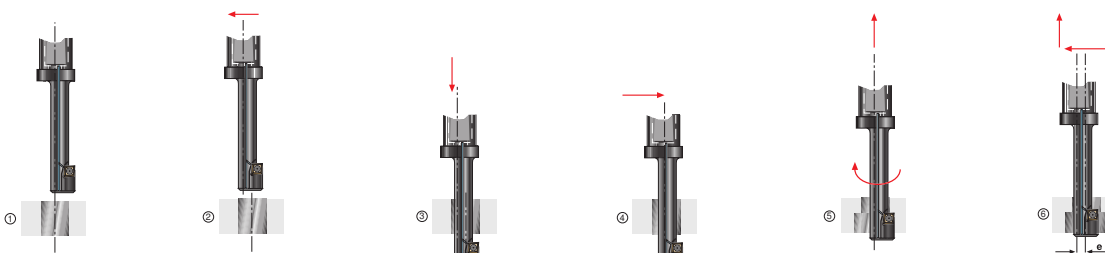
17570 201

Design

- Without internal cooling

Note:

For indexable inserts see art. no. 17570 301.



- 1) Position the tool on the centre of the bore. Spindle orientation 0°.
- 2) Offset the tool by the programming dimension (e).
- 3) Plunge to the position below the lower edge of the workpiece with safety clearance.
- 4) Move back to the centre of the bore by the dimension (e), and then start the spindle.
- 5) Countersink to the desired depth.
- 6) Position at the safety distance below the lower edge of the workpiece. Spindle orientation at 0°. Then offset the tool by the programming dimension (e) and extend the cutter.

Applications

Coating



ISO Designation	l	d	s	d ₁	r		17570	...
	mm	mm	mm	mm	mm			
TCMT 080204	8.2	4.76	2.38	2.3	0.4	10 pcs.		301 NEW

Spare parts

For indexable inserts size	TX size	Clamping screw	Wrench
TCMT 080204	7	17528	52529
CC.. 0602..	8	100 NEW	402 NEW
CC.. 09T3..	15	101	403
CC.. 1204..	20	102	406
		103	407

Milling tools



ATORN®

Design

- Single-edged boring bar with internal cooling
- Without indexable inserts

Bore tolerances:

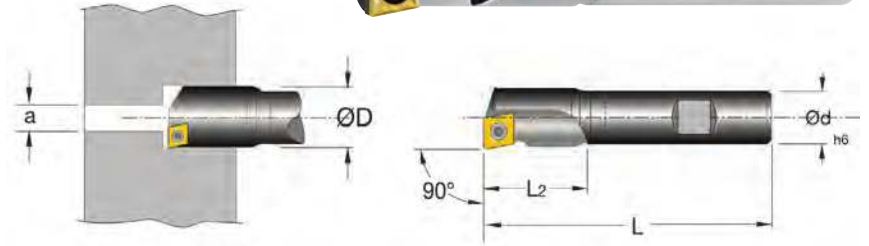
Indexable insert radius 0.2 mm = +0.05/-0.10 mm
 Indexable insert radius 0.4 mm = +0.03/-0.18 mm

Applications

For countersinking and core drilling.

Note:

For indexable inserts see art. no. 18550 ff.



17576

Ø D mm	Ød h6 mm	a mm	L mm	L ₂ mm	Indexable inserts	17576	...	Ø D mm	Ød h6 mm	a mm	L mm	L ₂ mm	Indexable inserts	17576	...
9.8	8	4.5	90	23	CC..0602..	201	NEW	21.8	20	10	160	35	CC..09T3..	213	NEW
10	12	4	85	15	CC..0602..	101		22	16	6	95	37	CC..09T3..	113	
10.8	10	3.5	105	24	CC..0602..	202	NEW	22.8	20	11	165	36	CC..09T3..	214	NEW
11	12	4	85	16	CC..0602..	102		23	16	6	95	40	CC..09T3..	114	
11.8	10	3	105	25	CC..0602..	203	NEW	23.8	20	12	170	37	CC..09T3..	215	NEW
12	10	4	85	20	CC..0602..	103		24	16	6	95	34	CC..09T3..	115	
12.8	10	2.5	105	26	CC..0602..	204	NEW	24.8	20	13	180	38	CC..09T3..	216	NEW
13	12	5	85	21	CC..0602..	104		25	16	8	95	33	CC..09T3..	116	
13.8	12	3	110	27	CC..0602..	205	NEW	25.8	20	14	185	39	CC..09T3..	217	NEW
14	12	5	85	21	CC..0602..	105		26	20	8	120	53	CC..09T3..	117	
14.8	12	3.5	120	28	CC..0602..	206	NEW	26.8	20	15	190	40	CC..09T3..	218	NEW
15	12	5	85	24	CC..0602..	106		27	20	9	120	56	CC..09T3..	118	
15.8	12	4	125	29	CC..0602..	207	NEW	27.8	20	16	190	41	CC..09T3..	219	NEW
16	12	5	85	28	CC..0602..	107		28	20	10	120	53	CC..09T3..	119	
16.8	16	5	140	30	CC..0602..	208	NEW	28.8	20	17	200	42	CC..09T3..	220	NEW
17	16	5	95	40	CC..09T3..	108		29	20	11	120	55	CC..09T3..	120	
17.8	16	6	140	31	CC..0602..	209	NEW	29.8	25	18	200	43	CC..09T3..	221	NEW
18	16	5	95	40	CC..09T3..	109		30	20	12	121	57	CC..09T3..	121	
18.8	16	7	150	32	CC..0602..	210	NEW	30.8	25	19	200	44	CC..09T3..	222	NEW
19	16	5	95	40	CC..09T3..	110		31	20	14	120	55	CC..09T3..	122	
19.8	16	8	150	33	CC..09T3..	211	NEW	31.8	25	20	200	45	CC..09T3..	223	NEW
20	16	5	95	40	CC..09T3..	111		32	20	15	120	54	CC..09T3..	123	
20.8	16	9	160	34	CC..09T3..	212	NEW	33	20	16	120	55	CC..09T3..	124	
21	16	5	95	33	CC..09T3..	112									

Spare parts

For indexable inserts size	TX size	Clamping screw	Wrench
	T	17528	52529
CC..0602..	8	101	403
CC..09T3..	15	102	406

Milling tools



17577 Core and countersunk drills (double-edged)



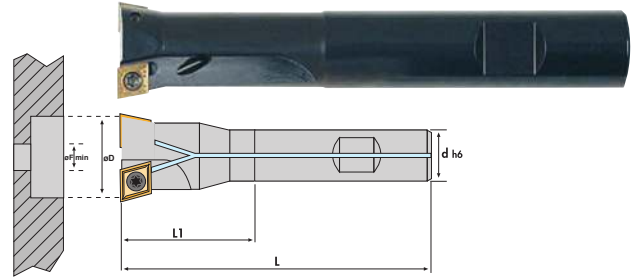
Note:
For indexable inserts see art. no. 18550 ff.

17577

Design
- Double-edged boring bar with internal cooling
- Without indexable inserts

Bore tolerances:
Indexable insert radius 0.2 mm = +0.05/-0.10 mm
Indexable insert radius 0.4 mm = +0.03/-0.18 mm

Applications
For countersinking and core drilling.



Ø D mm	Ød h6 mm	Ø F min. mm	L mm	L1 mm	Indexable inserts	17577	...
16	12	5	92	30	CC..0602..		101
17	16	6	94	32	CC..0602..		102
18	16	7	97	41	CC..0602..		103
19	16	8	100	41	CC..0602..		104
20	16	9	102	41	CC..0602..		105
21	16	10	105	41	CC..0602..		106
22	16	11	110	41	CC..0602..		107
23	16	12	112	41	CC..0602..		108
24	16	13	115	41	CC..0602..		109
25	16	8	120	40	CC..09T3..		110
26	20	9	125	55	CC..09T3..		111
27	20	10	128	55	CC..09T3..		112
28	20	11	130	55	CC..09T3..		113
29	20	12	132	55	CC..09T3..		114

Ø D mm	Ød h6 mm	Ø F min. mm	L mm	L1 mm	Indexable inserts	17577	...
30	20	13	134	55	CC..09T3..		115
31	20	14	136	55	CC..09T3..		116
32	20	15	138	55	CC..09T3..		117
33	20	16	140	55	CC..09T3..		118
34	25	16	140	60	CC..09T3..		119
35	25	17	140	60	CC..09T3..		120
36	25	18	140	60	CC..09T3..		121
37	25	19	140	60	CC..09T3..		122
38	25	20	140	60	CC..09T3..		123
39	25	21	140	60	CC..09T3..		124
40	25	22	140	60	CC..09T3..		125
41	25	23	140	60	CC..09T3..		126
42	25	24	140	60	CC..09T3..		127

Spare parts

For indexable inserts size	TX size	Clamping screw	Wrench
	T	17528	52529
CC..0602..	8		403
CC..09T3..	15		406

Milling tools

17578 Adjustable fine boring bars



Advantage:
- Cost-effective alternative to spindle tools

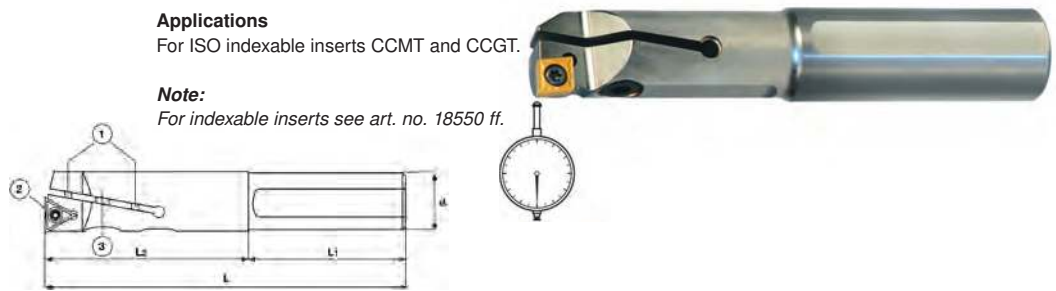
17578

Design
- Special steel, nickel-plated
- Adjustment range 2–5 mm
- Without indexable inserts

Applications
For ISO indexable inserts CCMT and CCGT.

Note:
For indexable inserts see art. no. 18550 ff.

- 1 = Draw bolt
- 2 = Clamping screw
- 3 = Counter screw



D min. mm	D max. mm	d mm	L mm	L2 mm	L1 mm	Indexable inserts	Holder 17578	...	Draw bolt 17578	...	Counter screw 17578	...
10	12	10	100	30	70	CC..0602..		101		201		301
12	15	12	105	30	70	CC..0602..		102		201		302
15	20	16	110	50	60	CC..0602..		103		202		303
20	25	20	120	60	60	CC..0602..		104		203		304
25	30	25	140	70	70	CC..09T3..		105		204		305
30	35	25	160	90	70	CC..09T3..		106		205		306
35	40	32	170	100	70	CC..09T3..		107		206		307
40	45	32	190	120	70	CC..09T3..		108		207		308
45	50	32	220	160	70	CC..09T3..		109		208		309

Spare parts

For indexable inserts size	TX size	Clamping screw	Wrench
	T	17528	52529
CC..0602..	8		403
CC..09T3..	15		406



**Design**

- Nickel-plated face milling cutter head made of hardened special steel for **HPC machining**
- Dynamic cutting geometry **for maximum feed rates**
- Very soft cutting
- Reduced **cutting force minimises load on the spindle**

Applications

For face and pocket milling. Even large projection depths can be milled.



17660 101-102

**with shank**

Cutting edge Ø mm	No. of teeth	Overall length mm	Shank Ø mm	Working depth L2 mm	For indexable insert	17660	...
25	2	140	25	80	ZDCW 09T304		101
32	2	140	32	80	ZDCW 09T304		102

with thread

Cutting edge Ø mm	No. of teeth	Overall length mm	Clamping thread mm	For indexable insert	17660	...
25	2	54	M 12	ZDCW 09T304		110
32	3	63	M 16	ZDEW 120408		111
40	4	63	M 16	ZDEW 120408		112

17660 110-112

**with bore**

Cutting edge Ø mm	No. of teeth	Overall length mm	Location hole mm	For indexable insert	17660	...
40	4	40	16	ZDCW 09T304		120
50	4	40	22	ZDEW 120408		121
63	5	40	22	ZDEW 120408		122
80	5	50	27	ZDEW 120408		123

17660 120-123

**Indexable inserts and spare parts**

17660 304



17660 305



17660 306

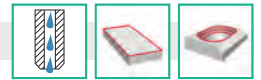


Designation	Carbide type/coating	Programmable radius mm	Steel		Steel roughing		Cast iron + hardened	
			17660	...	17660	...	17660	...
ZDCW 09T304	P25/AI203	2.27		301				
ZDCW 09T304	P40/AI203	2.27				302		
ZDCW 09T304	K10/AI203	2.27						303
ZDEW 120408	P25/AI203	3.52		304				
ZDEW 120408	P40/AI203	3.52				305		
ZDEW 120408	K10/AI203	3.52						306

Spare parts

For indexable inserts size	TX size	Clamping screw	Wrench
ZDCW 09T304	9	17660	52529
ZDEW 120408	15	200	404
		201	406

HFC milling system | Face and copy milling cutters



17865 - 17867

HFC milling system



Design

- Basic body made of special steel
- Dynamic cutting edge geometry for a soft cut

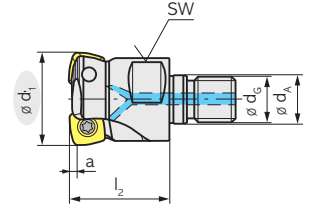
Scope of delivery:

- Basic body with clamping screws
- **Without** indexable inserts

Advantages:

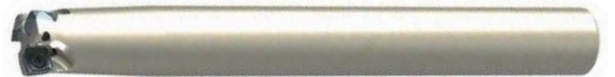
- HyperCoat coating for an extremely long service life
- Maximum running smoothness
- Maximum machining performance
- Maximum cost efficiency

17865 101-104

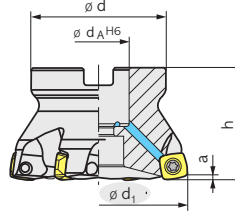
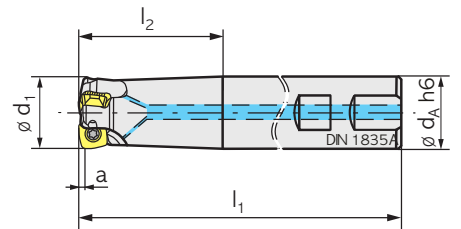


Ø d ₁ mm	Designation	Z	l ₂ mm	a mm	Ø d _A mm	Ø d _G mm	Indexable inserts	with thread	
								17865	...
16	GHFC.16.R.02-06-27	2	27	0.8	8.5	M 8	XP..06	101	
20	GHFC.20.R.03-06-33	3	33	0.8	10.5	M 10	XP..06	102	
25	GHFC.25.R.04-06-35	4	35	0.8	12.5	M 12	XP..06	103	
32	GHFC.32.R.05-06-35	5	35	0.8	17.0	M 16	XP..06	104	

17865 201-204



Ø d ₁ mm	Designation	Z	l ₁ mm	l ₂ mm	a mm	Ø d _A mm	Indexable inserts	with shank	
								17865	...
16	CHFC.16.R.02-06-B-40	2	89	40	0.8	16	XP..06	201	
20	CHFC.20.R.03-06-B-50	3	101	50	0.8	20	XP..06	202	
25	CHFC.25.R.04-06-B-50	4	107	50	0.8	25	XP..06	203	
32	CHFC.32.R.05-06-B25-60	5	117	60	0.8	25	XP..06	204	



17865 301-304

Ø d ₁ mm	Designation	Z	Ø d _A mm	h mm	Ø d mm	a mm	Indexable inserts	with bore	
								17865	...
32	AHFC.32.R.03-09	3	16	40	38	1	XD..09..	301	
42	AHFC.42.R.05-09	5	16	40	38	1	XD..09..	302	
52	AHFC.52.R.06-09	6	22	40	43	1	XD..09..	303	
63	AHFC.63.R.06-09	6	22	40	48	1	XD..09..	304	



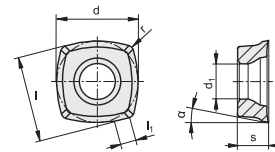
Indexable inserts and spare parts

Applications

Cemented carbide grade

Coating

Designation	d mm	l mm	s mm	l ₁ mm	r mm	d ₁ mm		M P		P	
								CTPM245 PVD	...	CTPP235 PVD	...
XPLX 060305SR-M50	6.35	6.00	2.75	1.0	0.50	2.80	10 pcs.	102			
XDLX 09T308ER-F40	9.60	9.60	3.97	1.5	0.80	4.40	10 pcs.	103			
XDLX 09T308SR-M50	9.60	9.60	3.97	1.5	0.80	4.40	10 pcs.				104



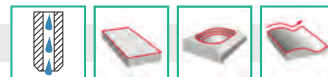
17867

Spare parts

for indexable inserts	Clamping screw	Key	Wrench
Size	17999		51932
XP..06	M 2.5 x 5.0	T 8	115
XD..09..	M 3.5 x 8.6	T 15	116

For cutters with bore	Power screw
Ø d ₁ mm	17998
32-42	M 8 x 30.0

17613 - 17824 Face and copy milling cutters



Design

- Nickel-plated milling cutter body in hardened special steel
- Robust design for smooth running
- High radial and axial runout accuracy

Applications

For face and copy milling with high rotation speeds and feed rates. For toolmaking and mould making.

17613 104



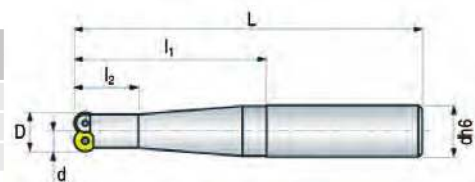
For indexable inserts RDHX 0702

Copy milling cutters with shank

Cutting edge Ø mm	No. of cutting edges	Overall length mm	Shank Ø mm	Working depth L2 mm	17613	...
15	2	90	16	20		104
15L	2	110	16	20		105
15XL	2	160	20	22		106

Copy milling cutters with thread

Cutting edge Ø mm	No. of cutting edges	Overall length mm	Clamping thread	17613	...
15	2	23	M 8		110
20	4	30	M 10		111
25	5	35	M 12		112
32	5	42	M 12		113



Indexable inserts and spare parts

ISO designation	Type/coating	Coated	Applications	s mm	d mm	d1 mm	17824	...
RDHX 0702 MOT	Al, polished	-	N	2.38	7	2.7	10 pcs.	304
RDHX 0702 MOT	K 10/Al2O3	x	KH	2.38	7	2.7	10 pcs.	305
RDHX 0702 MOT	P 25/Al2O3	x	PH	2.38	7	2.7	10 pcs.	306
RDHX 0702	ABC10T, chamfered	-	S	2.38	7	2.7	-	330
RDHX 0702	ABC25T, chamfered	-	H	2.38	7	2.7	-	331

Clamping screw Wrench

Spare parts	TX size	17613	...	52529	...
For indexable insert	T				
RDHX 0702	7		201		402

For indexable inserts RDHX 1003

Copy milling cutters with shank

Cutting edge Ø mm	No. of cutting edges	Overall length mm	Shank Ø mm	Working depth L2 mm	17614	...
20	2	90	20	30		101
20L	2	110	25	22		102
20XL	2	160	25	25		103

Copy milling cutters with thread

Cutting edge Ø mm	No. of cutting edges	Overall length mm	Clamping thread	17614	...
20	2	28	M 10		110
25	3	32	M 12		111
30	4	42	M 16		112
35	5	42	M 16		113
42	6	42	M 16		114

Copy milling cutters with bore

Cutting edge Ø mm	No. of cutting edges	Overall length mm	Location hole mm	17614	...
42	6	40	16		120
52	7	50	22		121

Indexable inserts and spare parts

ISO designation	Type/coating	Coated	Applications	s mm	d mm	d1 mm	17824	...
RDHX 1003 MOT	Al, polished	-	N	3.18	10	3.1	10 pcs.	309
RDHX 1003 MOT	K 10/Al2O3	x	KH	3.18	10	3.1	10 pcs.	310
RDHX 1003 MOT	P 25/Al2O3	x	PH	3.18	10	3.1	10 pcs.	311
RDHX 1003 MOT	P 40/Al2O3	x	PH	3.18	10	3.1	10 pcs.	312
RDHX 1003 MOT	M 40/Al2O3	x	MH	3.18	10	3.1	10 pcs.	313
RDHX 1003	ABC10T, chamfered	-	S	3.18	10	3.1	-	332
RDHX 1003	ABC25T, chamfered	-	H	3.18	10	3.1	-	333

Clamping screw Wrench

Spare parts	TX size	17614	...	52529	...
For indexable insert	T				
RDHX 1003	15		201		406

17614 101



17614 110-114



17614 120-121



17824 309



17824 310



17824 311



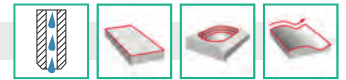
17824 312



17824 332-333



Continued



17613 - 17824 Face and copy milling cutters

Continued ▶

Design

- Nickel-plated milling cutter body in hardened special steel
- Robust design for smooth running
- High radial and axial runout accuracy

Applications

For face and copy milling with high rotation speeds and feed rates. For **toolmaking and mould making**.

For indexable inserts RDHX 12T3

Copy milling cutters with thread

Cutting edge Ø mm	No. of cutting edges	Overall length mm	Shank Ø mm	17615	...
24	2	35	M 12		110
32	3	42	M 16		111
35	3	42	M 16		112
42	5	42	M 16		113

Copy milling cutters with bore

Cutting edge Ø mm	No. of cutting edges	Overall length mm	Location hole mm	17615	...
42	4	40	16		120
52	5	50	22		121
66	6	50	27		122
80	7	50	27		123

Indexable inserts and spare parts

ISO designation	Type/coating	Coated	Applications	s mm	d mm	d1 mm	17824	...
RDHX 12T3 MOT	Al, polished	-	N	3.97	12	3.9	10 pcs.	314
RDHX 12T3 MOT	K 10/Al2O3	x	KH	3.97	12	3.9	10 pcs.	315
RDHX 12T3 MOT	P 25/Al2O3	x	P	3.97	12	3.9	10 pcs.	316
RDHX 12T3 MOT	P 40/Al2O3	x	P	3.97	12	3.9	10 pcs.	317
RDHX 12T3 MOT	M 40/Al2O3	x	M	3.97	12	3.9	10 pcs.	318
RDHX 12T3	ABC10T, chamfered	-	S	3.97	12	3.9	-	334
RDHX 12T3	ABC25T, chamfered	-	H	3.97	12	3.9	-	335

Spare parts for indexable insert	TX size	Clamping screw	Clamping claw	Wrench	...
RDHX 12T3	15	17615	...	17615	52529
			200		201
					406

For indexable inserts RDHX 1604

Copy milling cutters with bore

Cutting edge Ø mm	No. of cutting edges	Overall length mm	Location hole mm	17616	...
52	4	50	22		120
66	5	50	27		121
80	6	50	27		122
100	7	50	32		123

Indexable inserts and spare parts

ISO designation	Carbide type/coating	Coated	Applications	s mm	d mm	d1 mm	17824	...
RDHX 1604 MOT	Al, polished	-	N	4.76	16	5.0	10 pcs.	319
RDHX 1604 MOT	K 10/Al2O3	x	KH	4.76	16	5.0	10 pcs.	320
RDHX 1604 MOT	P 25/Al2O3	x	P	4.76	16	5.0	10 pcs.	321
RDHX 1604 MOT	P 40/Al2O3	x	P	4.76	16	5.0	10 pcs.	322
RDHX 1604 MOT	M 40/Al2O3	x	M	4.76	16	5.0	10 pcs.	323

Spare parts for indexable insert	TX size	Clamping screw	Clamping claw	Wrench	...
RDHX 1604	20	17616	...	17616	52529
			200		201
					407

17615 110-113



17615 120-123



17824 314



17824 315



17824 316



17824 317



17824 334-335



17616 120-123



17824 319



17824 320



17824 321



17824 322





Design

- Sturdy basic body with Hard & Tough coating
- Insert seat with indexing aid
- Power screw with Ø 40 mm and Ø 50 mm

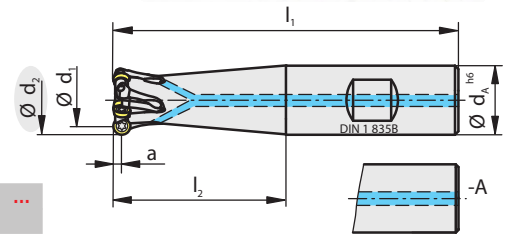
Advantages:

- Easy cutting, low-vibration cutting edge geometry
- Maximum process reliability
- Predictable wear behaviour
- Reproducible service life

Scope of delivery:

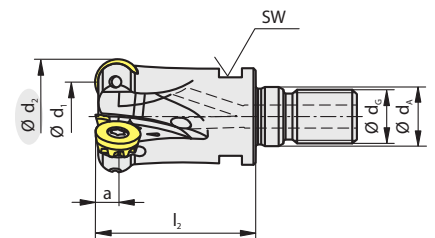
- Basic body with clamping screws
- **Without** indexable inserts

17868 101-126



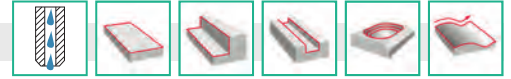
Ø d ₂ mm	Designation	Z	Ø d ₁ mm	l ₁ mm	l ₂ mm	Ø d _A mm	a mm	Indexable inserts	with shank 17868	...
10	C251.10.R.02-05-A-25-165-RS	2	5	165	25	10	2.5	RD..0501..		101
10	C251.10.R.02-05-B12-20-RS	2	5	67	20	12	2.5	RD..0501..		102
12	C251.12.R.03-05-A-32-165-RS	3	7	165	32	12	2.5	RD..0501..		103
12	C251.12.R.03-05-B16-25-RS	3	7	75	25	16	2.5	RD..0501..		104
16	C251.16.R.04-05-A-40-165-RS	4	11	165	40	16	2.5	RD..0501..		105
16	C251.16.R.04-05-B32-RS	4	11	81	32	16	2.5	RD..0501..		106
20	C251.20.R.05-05-A-50-165-RS	5	15	165	50	20	2.5	RD..0501..		107
20	C251.20.R.05-05-B40-RS	5	15	91	40	20	2.5	RD..0501..		108
16	C251.16.R.02-08-A-40-165-RS	2	8	165	40	16	4.0	RD..0802..		109
16	C251.16.R.02-08-B32-RS	2	8	81	32	16	4.0	RD..0802..		110
20	C251.20.R.03-08-A-50-200-RS	3	12	200	50	20	4.0	RD..0802..		111
20	C251.20.R.03-08-A-60-RS	3	12	110	60	20	4.0	RD..0802..		113
20	C251.20.R.03-08-B40-RS	3	12	91	40	20	4.0	RD..0802..		114
25	C251.25.R.04-08-A-60-RS	4	17	116	60	25	4.0	RD..0802..		115
25	C251.25.R.04-08-A-60-225-RS	4	17	225	60	25	4.0	RD..0802..		116
25	C251.25.R.04-08-B50-RS	4	17	107	50	25	4.0	RD..0802..		117
20	C251.20.R.02-10-A-50-RS	2	10	102	50	20	5.0	RP..10T3..		118
20	C251.20.R.02-10-A-50-200-RS	2	10	200	50	20	5.0	RP..10T3..		119
25	C251.25.R.03-10-A-60-RS	3	15	116	60	25	5.0	RP..10T3..		120
25	C251.25.R.03-10-A-60-225-RS	3	15	225	60	25	5.0	RP..10T3..		121
25	C251.25.R.03-10-B60-RS	3	15	116	60	25	5.0	RP..10T3..		122
32	C251.32.R.04-10-A-70-RS	4	22	130	70	32	5.0	RP..10T3..		123
25	C251.25.R.02-12-B30-RS	2	13	86	30	25	6.0	RP..1204..		124
32	C251.32.R.03-12-A-40-RS	3	20	100	40	32	6.0	RP..1204..		125
32	C251.32.R.03-12-B40-RS	3	20	100	40	32	6.0	RP..1204..		126

17868 201-213



Ø d ₂ mm	Designation	Z	Ø d ₁ mm	l ₂ mm	a mm	Ø d _A mm	Ø d _G mm	Indexable inserts	17868	...
20	G251.20.R.05-05-RS	5	15	33	2.5	10.5	10	RD..0501..		201
25	G251.25.R.06-05-RS	6	20	35	2.5	12.5	12	RD..0501..		202
32	G251.32.R.07-05-RS	7	27	35	2.5	17.0	16	RD..0501..		203
20	G251.20.R.03-08-RS	3	12	33	4.0	10.5	10	RD..0802..		204
25	G251.25.R.04-08-RS	4	17	35	4.0	12.5	12	RD..0802..		205
32	G251.32.R.05-08-RS	5	24	35	4.0	17.0	16	RD..0802..		206
20	G251.20.R.02-10-RS	2	10	33	5.0	10.5	10	RP..10T3..		207
25	G251.25.R.03-10-RS	3	15	35	5.0	12.5	12	RP..10T3..		208
32	G251.32.R.04-10-RS	4	22	35	5.0	17.0	16	RP..10T3..		209
25	G251.25.R.02-12-35-RS	2	13	35	6.0	12.5	12	RP..1204..		210
32	G251.32.R.03-12-35-RS	3	20	35	6.0	17.0	16	RP..1204..		211
35	G251.35.R.03-12-35-RS	3	23	35	6.0	17.0	16	RP..1204..		212
42	G251.42.R.04-12-42-RS	4	30	42	6.0	17.0	16	RP..1204..		213

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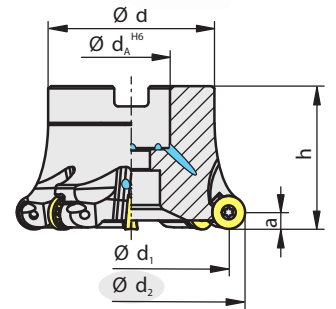


17868 - 17870 Round insert milling system, 251-RS

Continued

Ø d ₂ mm	Designation	Z	Ø d ₁ mm	h mm	Ø d mm	Ø d _A mm	a mm	Indexable inserts	with bore	
									17868	...
40	A251.40.R.03-10-RS	3	30	40	38	16	5	RP.. 10T3..		301
40	A251.40.R.05-10-RS	5	30	40	38	16	5	RP.. 10T3..		302
42	A251.42.R.06-10-RS	6	32	40	38	16	5	RP.. 10T3..		303
50	A251.50.R.04-10-RS	4	40	40	43	22	5	RP.. 10T3..		304
50	A251.50.R.06-10-RS	6	40	40	43	22	5	RP.. 10T3..		305
52	A251.52.R.06-10-RS	6	42	40	43	22	5	RP.. 10T3..		306
40	A251.40.R.04-12-RS	4	28	40	38	16	6	RP.. 1204..		307
50	A251.50.R.04-12-RS	4	38	40	43	22	6	RP.. 1204..		308
50	A251.50.R.05-12-RS	5	38	40	43	22	6	RP.. 1204..		309
52	A251.52.R.05-12-RS	5	40	40	43	22	6	RP.. 1204..		310
63	A251.63.R.06-12-RS	6	51	40	48	22	6	RP.. 1204..		311
66	A251.66.R.07-12-RS	7	54	40	48	22	6	RP.. 1204..		312
80	A251.80.R.05-12-RS	5	68	50	58	27	6	RP.. 1204..		313
80	A251.80.R.07-12-RS	7	68	50	58	27	6	RP.. 1204..		314
100	A251.100.R.06-12-RS	6	88	50	78	32	6	RP.. 1204..		315
100	A251.100.R.10-12-RS	10	88	50	78	32	6	RP.. 1204..		316
50	A251.50.R.04-16-RS	4	34	40	48	22	8	RP.. 1605..		317
52	A251.52.R.04-16-RS	4	36	40	48	22	8	RP.. 1605..		318
63	A251.63.R.05-16-RS	5	47	40	48	22	8	RP.. 1605..		319
80	A251.80.R.06-16-RS	6	64	50	58	27	8	RP.. 1605..		320
100	A251.100.R.07-16-RS	7	84	50	78	32	8	RP.. 1605..		321

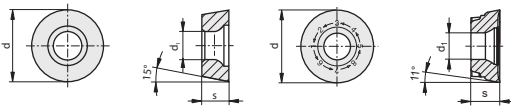
17868 301-321



Milling Tools

RDHX ..

RPHX ..



17870 102

17870 105

17870 107

17870 110

17870 113

17870 116



Applications
Cemented carbide type
Coating

N
H216T
Uncoated

PK
CTCP230
CVD

MP
CTPM245
PVD

Designation	d mm	s mm	d ₁ mm		17870	...	17870	...	17870	...
RDHX 0501MOFN	5	1.59	2.5	10 pcs.			101			
RDHX 0501MOSN	5	1.59	2.5	10 pcs.				106		
RDHX 0802MOFN	8	2.38	2.8	10 pcs.			102			
RDHX 0802MOSN	8	2.38	2.8	10 pcs.				107		
RDHX 0802MOEN-F50	8	2.38	2.8	10 pcs.						116 NEW
RPHX 10T3M8FN-27P	10	3.97	3.4	10 pcs.			103			
RPHX 10T3M8SN	10	3.97	3.4	10 pcs.				108		
RPHX 10T3M8EN-F50	10	3.97	3.4	10 pcs.						113
RPHX 1204M8FN-27P	12	4.76	4.4	10 pcs.			104			
RPHX 1204M8SN	12	4.76	4.4	10 pcs.				109		
RPHX 1204M8EN-F50	12	4.76	4.4	10 pcs.						117 NEW
RPHX 1605M8FN-27P	16	5.56	5.5	10 pcs.			105			
RPHX 1605M8SN	16	5.56	5.5	10 pcs.				110		
RPHX 1605M8EN-F50	16	5.56	5.5	10 pcs.						118 NEW

Spare parts

for indexable inserts Size	Clamping screw	Key	Clamping screw	Wrench
RD.. 0501..	M 2.0 x 3.3	T 6	17999	51932
RD.. 0802..	M 2.5 x 5.0	T 8	117	202
RP.. 10T3..	M 3.0 x 7.3	T 10	115	204
RP.. 1204..	M 3.5 x 8.6	T 15	119	206
RP.. 1605..	M 4.5 x 10.5	T 20	116	207
			120	208

For cutters with bore Ø d ₁ mm	Power screw	For indexable inserts size	Power screw
40	M 8 x 30.0	RP.. 10T3..	17998
50	M 10 x 31.0	RP.. 1605..	101
			102

17526

Adjustable chamfer cutter



ATORN®

Design

- Adjustable from 10–80°
- Straight shank with driving surface according to DIN 1835 B
- Includes one replaceable cassette for indexable inserts TCMT16T3... and SCMT1204...

Scope of delivery:

Counter sink milling cutter with clamping screw and wrench, **without** indexable inserts.

Applications

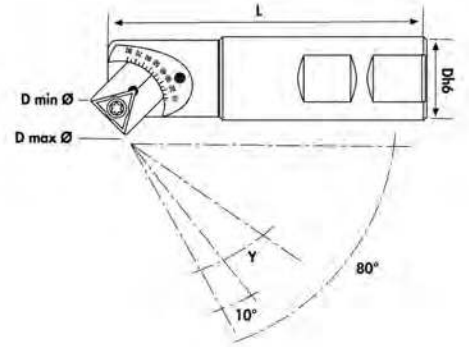
For chamfering, deburring and countersinking. Stable, smooth running.

Note:

For indexable inserts SCMT see art. no. 18578–18582.
For replacement cassette for TCMT, see art. no. 17526 201.
For replacement cassette for SCMT, see art. no. 17526 202.



17526



Y	TCMT	TCMT	SCMT	SCMT
	D min. Ø mm	D max. Ø mm	D min. Ø mm	D max. Ø mm
10°	5	32	7.5	30.0
20°	6	33	10.0	32.0
30°	7	34	13.0	32.5
40°	10	33	16.5	33.5
45°	11	33	17.5	33.5
50°	13	32	19.0	33.5
60°	16	31	22.0	33.5
70°	19	29	24.5	33.5
80°	23	27	27.0	31.0

D h6 mm	L mm	17526	...
20	100		100
25	100		101
25	150		102
25	200		103

17530

Adjustable chamfer cutter



HHW

Design

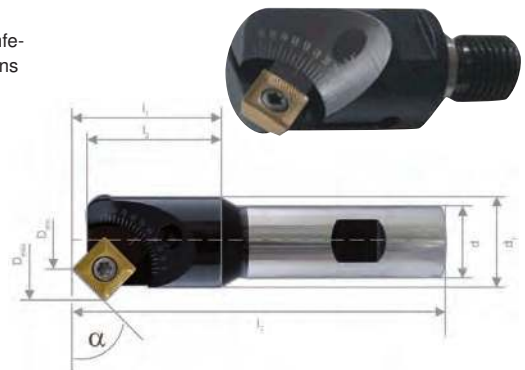
- Continuously adjustable angle range from 0° to 90°
- Stable structure enables minimal machining times due to high cutting values
- For standard indexable inserts SD...
- All four cutting edges can be used
- Clearance of two indexable insert edges enables forward and reverse chamfering
- Deep engraved scale for extra-long service life
- Straight shank with driving surface according to DIN 1835 B
- No need for special tools, complex 5-axis programming or additional clamping of the sine bar or angle table

Applications

For chamfering, deburring and countersinking to the full cutting edge length. For face milling, profile groove milling, pocket milling and circular chamfering of larger countersinks at all angular positions from 0° to 90°, and for oblique plunge milling.

Quality

Made of high-quality, heat-treated steel.



17530

Ø D ₂ mm	d ₁ mm	l ₂ mm	l ₃ mm	D max. mm	D min. mm	L min.–max. mm	AF mm	Indexable inserts	17530	...
16	18.65	32	89.0	20.54–23.99	2.94–20.79	33.0–35.0	-	SD... 09T3		201
20	25.00	37	101.5	27.00–31.60	3.20–27.00	35.9–40.5	-	SD... 1205		301
M 16	28.50	46	73.5	27.00–31.60	3.20–27.00	44.9–49.5	24	SD... 1205		302

Applications		P	M	NK
Cemented carbide type		CTCP230	CTPM240	H216T
Coating		coated	coated	coated
ISO designation	r mm	17530	17530	17530
SDHT 09T308SR-29	10.75	500		
SDHT 09T308SR-33	10.75		501	
SDHT 09T308FR-27P	10.75			502
SDMT 1205ZZSN-29	14.60	510		
SDMT 1205ZZSN-29	14.60		511	
SDHT 120508FR-27P	14.60			512

Spare parts	Clamping screw	Adjustable angle
Indexable insert	17530	17530
SD... 09T3		210
SD... 1205		310

17527

Chamfer cutters, 30°/45°/60°



ATORN®

Design

Countersink angles 30°, 45°, 60°, straight shank in accordance with DIN 1835 B, right-hand cutting. Without indexable inserts.

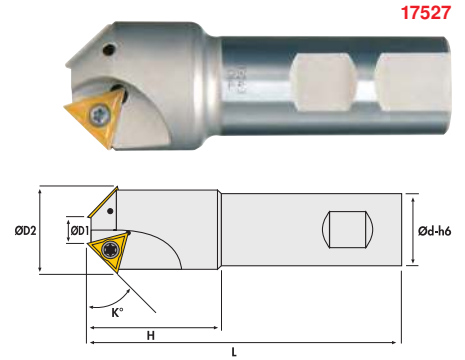
Applications

For countersinking screw heads and deburring bores and slots.

Note:

For indexable inserts see art. no. 17856.

K°	Ø D2 mm	Ø D1 mm	Ø d h6 mm	H mm	Z	L mm	Indexable inserts	17527	...
30	32.0	6.0	25	38	2	95	TCMT 16T3		100
45	16.0	1.2	12	20	1	70	TCMT 1102		101
45	21.0	6.2	20	35	2	90	TCMT 1102		102
45	32.5	10.4	25	42	2	95	TCMT 16T3		103
60	16.0	5.4	12	20	1	70	TCMT 1102		104
60	26.0	15.8	20	35	2	90	TCMT 1102		105
60	35.0	20.0	25	39	2	95	TCMT 16T3		106



17527

Spare parts

For indexable inserts size	Clamping screw	L mm	TX size IP	Clamping screws	Wrench
TCMT 1102	M 2.5 x 0.45	6.3	8	17528 101	51932 404
TCMT 16T3	M 4.0 x 0.7	8.0	15	17528 102	51932 407

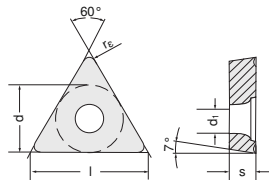
17856

Indexable milling inserts, TCMT

HW

Design

- Triangular
- Positive 7°
- With sintered chip breaker



17856

Applications

Cemented carbide grade
Coating

P M

H 42
TiN

ISO designation	l mm	d mm	d ₁ mm	s mm	r	...	17856	...
TCMT 110202	11.0	6.35	2.80	2.38	0.20	10 pcs.		101
TCMT 16T304	16.5	9.52	4.40	3.97	0.40	10 pcs.		102

17529

Chamfer cutters, 45°



ATORN®

Design

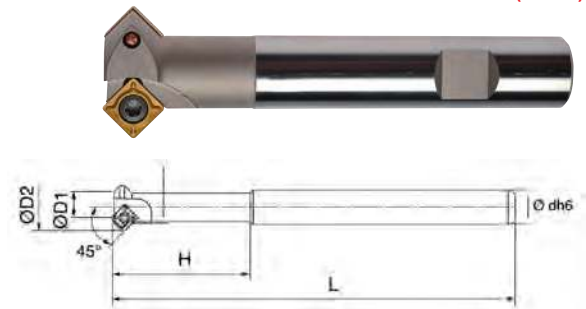
Chamfer cutters, 45° with Weldon shank.

Applications

For chamfer cutting from Ø 4 mm.

Note:

For indexable inserts see art. no. 18578 ff.



17529 (Z2 + 3)

45°	Ø D2 mm	Ø D1 mm	L mm	H mm	Ød h6 mm	Z mm	Indexable inserts	17529	...
	10.0	4	80	28	12	1	SCMT 0602		101
	20.0	11	80	33	12	2	SCMT 0602		102
	23.7	12	100	37	20	1	SCMT 09T3		103
	28.8	16	100	31	16	2	SCMT 09T3		104
	42.3	30	100	32	20	3	SCMT 09T3		105
	23.7	12 L	200	37	20	1	SCMT 09T3		106
	28.8	16 L	200	32	16	2	SCMT 09T3		107
	42.3	30 L	200	32	20	3	SCMT 09T3		108

Spare parts

For indexable inserts size	Clamping screw	L mm	TX size IP	Clamping screws	Wrench
SCMT 0602	M 2.5 x 0.45	6.3	8	17528 101	51932 404
SCMT 09T3	M 4.0 x 0.7	8.0	15	17528 102	51932 407

17536 - 17857

Chamfer and centring cutters



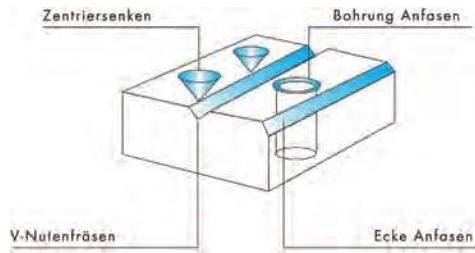
ATORN®

Design

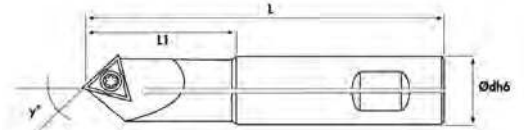
- Indexable insert holder
- Tip angle 45°
- With coolant bore
- Without indexable inserts

Applications

For NC spot drilling, chamfering and V-groove milling.



17536



d1 h6 mm	L mm	L1 mm	y°	Z	D min. mm	D max. mm	17536	...
20	115	40	45	1	0.2	20		101
20	150	60	45	1	0.2	20		102
20	200	80	45	1	0.2	20		103

Indexable inserts and spare parts

Applications
Cemented carbide grade
Coating



17857

PMK
H 42
TiN

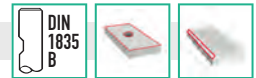
ISO designation	Image	17857	...
TCMX 16T3 ZR		10 pcs.	101

Size	TX size	Clamping screw	Wrench
M 4 x 8	15	17761	52529

		101	406
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17536

Chamfer and centring cutters, 30°/45°



ATORN®

Applications

For NC spot drilling, chamfering and engraving.

NEW

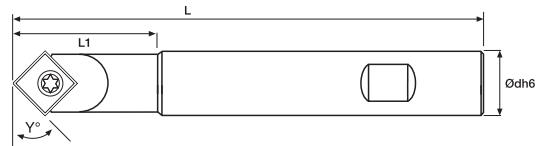
17536 201-202

Design

- With straight shank and clamping surface in accordance with DIN 1835 B
- Tip angles 30° and 45°
- Shaft tolerance h6
- **Without** indexable insert (art. no. 17536 201 + 202)

Latest technology:

- Indexable insert sits in the tool holder rotated by 180°



d1 h6 mm	Ø Ds mm	L mm	L1 mm	Y°	Z	D min. mm	D max. mm	17536	...
16	0.8	120	40	30°	1	0.8	17		201
16	0.8	120	40	45°	1	0.8	21		202

17536 203-204

Design

Set comprises a chamfer cutter and engraver's milling cutter 30° or 45° including five indexable inserts SEEX 12T408, 1 clamping screw, 1 wrench. In a practical tool box.



17536 203-204

Set	17536	...
30°		203
45°		204

17536 205



Applications
Coating

PMK
TiN/PVD

ISO designation	l mm	s mm	r mm	Image	17536	...
SEEX 12T408	12.25	5.25	0.8		10 pcs.	205

Spare parts

Size	TX size	Clamping screw	Wrench
M 4 x 11.0	15	17536	52529

		206	406
--	--	-----	-----



17540 - 17541 T-slot cutter



Design

- T-slot cutter made of special steel with driving surface according to DIN 1835 B

Advantage:

For ISO indexable inserts SPMT.

Scope of delivery:

- With clamping screw and wrench
- **Without** indexable inserts

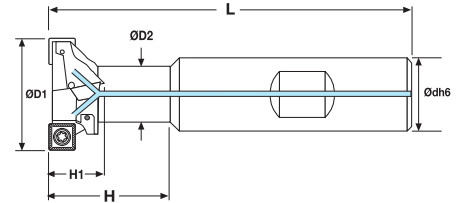
Applications

For T-slots in accordance with DIN-UNI 4788-ISO 299.



17540

Ø D1 mm	Ø D2 mm	L mm	H mm	H1 mm	Ø dh6 mm	K mm	Z	Indexable inserts	17540	...
21	11	76	26	9	16	1	2	SPMT 060304		110
25	13	82	31	11	16	2	4	SPMT 060304		111
32	17	88	38	14	20	2	4	SPMT 09T308		112
40	21	108	50	17	25	2	4	SPMT 09T308		113
50	27	120	56	22	32	2	4	SPMT 120408		114



Indexable inserts and spare parts

Applications

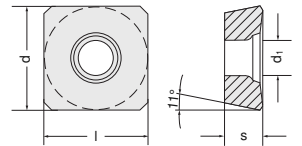
Cemented carbide grade



ISO designation	l mm	d mm	s mm	d ₁ mm	r mm	17541	...
SPMT 060304	6.35	6.35	3.18	2.8	0.4		201
SPMT 09T308	9.52	9.52	3.97	4.5	0.8		202
SPMT 120408	12.70	12.70	4.76	5.5	0.8		203



17541



Spare parts

For indexable inserts size	TX size	Clamping screw	Wrench
SPMT 06..	8	17520	52529
SPMT 09..	15	206	406
SPMT 12..	20	207	407

Milling tools

17710 Indexable milling inserts OFEX/OFMT



Applications

Carbide type

Coating



HW 4410
Uncoated



HC 4635
Coated

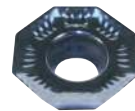


HC 4535
Coated

ISO designation	l mm	d ₁ mm	s mm	17710	...	17710	...	17710	...
OFEX 05T305	12.7	4.5	3.97		401				
OFMT 05T305	12.7	4.5	3.97			402		403	

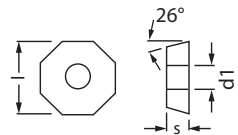
17710 401

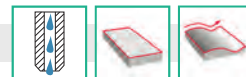
17710 403



Spare parts

For indexable inserts size	TX size	Clamping screw	Wrench
OF.. 05T3..	15	17710	52529
		301	406





ATORN®

Design

- High feed rates and smooth running
- Wide pitch means minimal power required
- Suitable for low-performance machines
- Axial and oblique plunge milling possible, suitable for excavation and pocket milling
- **Without** indexable inserts

Applications

Universal use for a broad range of materials. For face milling with 8-edge, 12-edge or round indexable inserts **OCKX, RCKX or XCKX**.

Note:

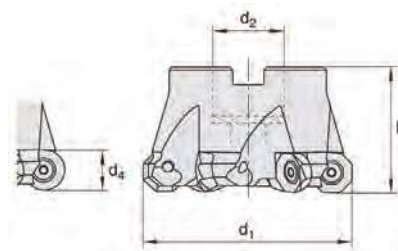
Ø 52–100 mm **with** internal cooling supply
Ø 125 mm **without** internal cooling supply

17707



Face and copy milling cutters

d ₁ mm	d ₂ mm	h mm	d ₄ mm	Z	
52	22	40	16	4	17707 ...
66	27	50	16	5	101
80	27	50	16	6	102
100	32	50	16	7	103
125	40	63	16	8	104
					105



Indexable inserts and spare parts

17817

Design

- TRT with wide cutting edge chamfer

Applications

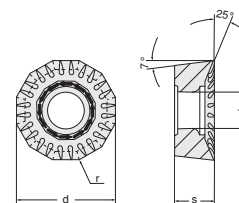
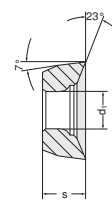
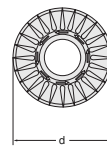
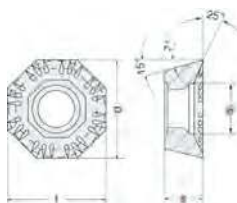
HC 4640 = roughing.
HC 4410 = aluminium/non-ferrous metals.

OCKX

RCKX

XCKX

17817



Applications

Cemented carbide grade

Coating

PM
HC 4640
coated
17817 ...

KN
HC 4410
coated
17817 ...

ISO designation	s mm	l mm	d mm	d ₁ mm	r mm			
OCKX 0606 AD-TR	6.35	16	16	5.8	0.5	10 pcs.		115 105
RCKX 1606 MO-TR	6.35	-	16	5.8	-	10 pcs.		117 107
RCKX 1606 MO-TRT	6.35	-	16	5.8	-	10 pcs.		108
XCKX 1606 ZDR-TR	6.35	-	16	5.8	-	10 pcs.		119

Clamping screw 17708 ...

Wrench 52529 ...

Size	TX size T		
M 5 x 12	20	101	407

Info

The HHW colour guidance system

With the **HHW** colour guidance system you can see at first glance which materials the tool is suitable for. In most catalogue sections, the **HHW** also informs you about the application data for the corresponding tool. The **HHW** colour guidance system is logically structured according to the steel key. This means that you can select the appropriate tools in advance of the machining process, saving you time and money.

St<1200N	St<1400N	<45HRC	<55HRC	<60HRC	<67HRC	VA-steel<900N	VA-steel>900N	Ti alloys	GG(G)	plastics
40-50	35-40	-	-	-	-	35-45	35-45	-	80-120	-



Use

HM grade

Coating

Designation	W ^{+0,1} mm	R ^{±0,05} mm		
GTN-2	2,2	0,16	10 pieces	113
GTN-3	3,1	0,20	10 pieces	114

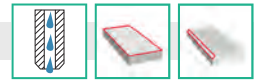
PMK
H 42
coated
18674 ...



Face milling cutters

17722 - 17847

Face milling cutters, 45°



ATORN®

Design

- Double-sided indexable inserts
- Large clamping angle
- Eight cutting edges
- Cutting with low cutting force and excellent surface finish

- With internal cooling
(except art. no. 17722 107-108)

Applications
For universal use.

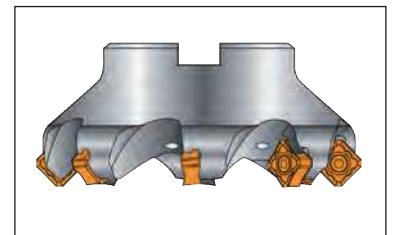
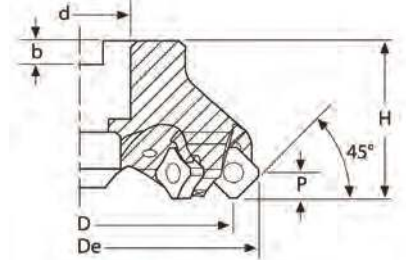
Note:
Supplied with clamping screw and wrench.



17722

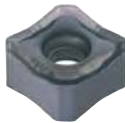
Ø D mm	Ø De mm	d mm	b mm	H mm	p mm	Z	Narrow pitch	
							17722	...
50	63	22	6.3	40	6	4		101
63	76	22	6.3	40	6	6		102
80	93	27	7.0	50	6	7		103
100	113	32	8.0	50	6	8		104
125	138	40	9.0	63	6	10		105
160	173	40	9.0	63	6	12		106
200	213	60	13.5	63	6	14		107
250	263	60	13.5	63	6	16		108

Ø D mm	Ø De mm	d mm	b mm	H mm	p mm	Z	Extra narrow pitch	
							17722	...
50	63	22	6.3	40	6	6		110
63	76	22	6.3	40	6	8		111
80	93	27	7.0	50	6	10		112
100	113	32	8.0	50	6	12		113
125	138	40	9.0	63	6	16		114
160	173	40	9.0	63	6	20		115

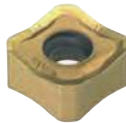


Indexable inserts and spare parts

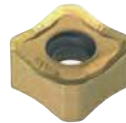
17847 101



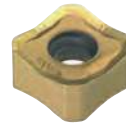
17847 103+203



17847 102+202



17847 104+204



17847 105



17847 205-207



Applications
Carbide type
Coating

N
HW 4310
Uncoated

P
HC 4630
Coated

M
HC 4535
Coated

K
HC 4410
Coated

PMK
HC 4635 (UNI)
Coated

ISO designation	KF mm		17847	...	17847	...	17847	...	17847	...	17847	...
SNEX 1206 ANN-MA	2.36	10 pcs.		101								
SNMX 1206 ANN-MB1	2.36	10 pcs.			103		102		104			
SNKX 1206 ANN-MM1	2.36	10 pcs.										105
SNMU 1206 ANER	2.36	10 pcs.			203		202		204			
ONMU 1205 ANN	2.36	10 pcs.			205	NEW	206	NEW	207	NEW		

Spare parts

For indexable inserts size	Screw	TX size T	Clamping screw	Wrench
SN.X 1206	M 4.0 x 11.0	20	17723	52529



Design

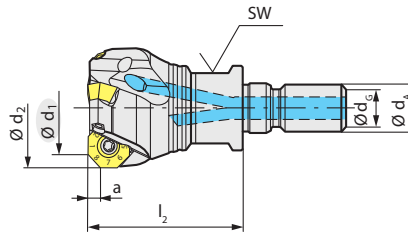
- Sturdy basic body
- Extremely positive installation position of the indexable insert
- Patented screw clamping

Advantages:

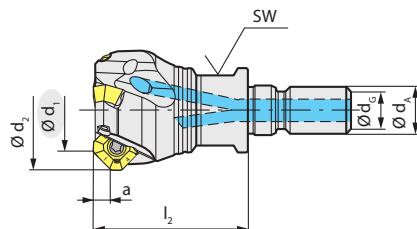
- Soft cut
- Low power requirement
- 8 usable cutting edges

Scope of delivery:

- Basic body with clamping screws
- **Without** indexable inserts



17876 101-103
(with indexable insert OF..)

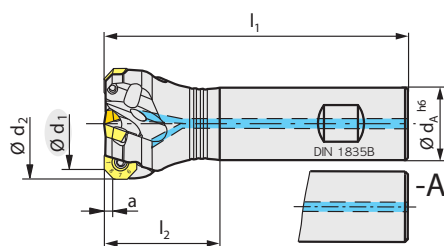


17876 101-103
(with indexable insert SF..)

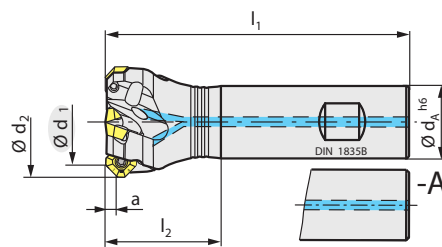


Ø d ₁ mm	Designation	Z	Ø d ₂ mm	l ₂ mm	a mm	Ø d _A mm	Ø d _G mm	Indexable inserts	with thread	
									17876	...
20 (18.9)	G274.20.R.03-09	3	25.6 (27.4)	35 (35.7)	2.5 (3.8)	12.5	12	OF.. 04.. / SF.. 09..	101	...
25 (23.8)	G274.25.R.04-09	4	30.6 (32.5)	35 (35.7)	2.5 (3.8)	12.5	12	OF.. 04.. / SF.. 09..	102	...
32 (30.7)	G274.32.R.05-09	5	37.7 (39.5)	35 (35.7)	2.5 (3.8)	17.0	16	OF.. 04.. / SF.. 09..	103	...

(*) Dimensions for indexable insert SF



17876 201-206
(with indexable insert OF..)



17876 201-206
(with indexable insert SF..)



Ø d ₁ mm	Designation	Z	Ø d ₂ mm	l ₁ mm	l ₂ mm	a mm	Ø d _A mm	Indexable inserts	with shank	
									17876	...
20 (18.9)	C274.20.R.03-09-A-25	3	25.6 (27.4)	77 (77.7)	25 (25.7)	2.5 (3.8)	20	OF.. 04.. / SF.. 09..	201	...
20 (18.9)	C274.20.R.03-09-B-25	3	25.6 (27.4)	77 (77.7)	25 (25.7)	2.5 (3.8)	20	OF.. 04.. / SF.. 09..	202	...
25 (23.8)	C274.25.R.04-09-A-20-32	4	30.7 (32.5)	84 (84.7)	32 (32.7)	2.5 (3.8)	20	OF.. 04.. / SF.. 09..	203	...
25 (23.8)	C274.25.R.04-09-B-20-32	4	30.7 (32.5)	84 (84.7)	32 (32.7)	2.5 (3.8)	20	OF.. 04.. / SF.. 09..	204	...
32 (30.7)	C274.32.R.05-09-A-25-40	5	37.7 (39.5)	98 (98.7)	40 (40.7)	2.5 (3.8)	25	OF.. 04.. / SF.. 09..	205	...
32 (30.7)	C274.32.R.05-09-B-25-40	5	37.7 (39.5)	98 (98.7)	40 (40.7)	2.5 (3.8)	25	OF.. 04.. / SF.. 09..	206	...

(*) Dimensions for indexable insert SF

Continued ►



17876 - 17877 Face milling cutter system 274

Continued



Design

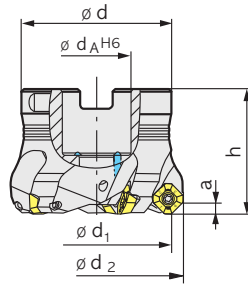
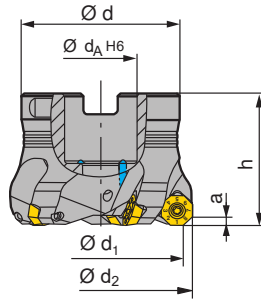
- Sturdy basic body
- Extremely positive installation position of the indexable insert
- Patented screw clamping

Advantages:

- Soft cut
- Low power requirement
- 8 usable cutting edges

Scope of delivery:

- Basic body with clamping screws
- Without indexable inserts



17876 301-312 (with indexable insert OF..)



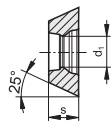
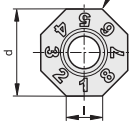
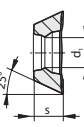
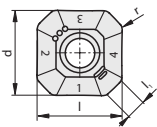
17876 301-312 (with indexable insert SF..)

Ø d ₁ mm	Designation	Z	Ø d ₂ mm	h mm	Ø d mm	Ø d _A mm	a mm	Indexable inserts	with bore 17876	...
32 (30.7)	A274.32.R.05-09	5	37.7 (39.2)	40 (40.7)	38	16	2.5 (3.8)	OF.. 04.. / SF.. 09..		301
40 (38.7)	A274.40.R.04-09	4	45.7 (47.6)	40 (40.7)	38	16	2.5 (3.8)	OF.. 04.. / SF.. 09..		302
40 (38.7)	A274.40.R.06-09	6	45.7 (47.6)	40 (40.7)	38	16	2.5 (3.8)	OF.. 04.. / SF.. 09..		303
50 (48.7)	A274.50.R.05-09	5	55.7 (57.6)	40 (40.7)	48	22	2.5 (3.8)	OF.. 04.. / SF.. 09..		304
50 (48.7)	A274.50.R.07-09	7	55.7 (57.6)	40 (40.7)	48	22	2.5 (3.8)	OF.. 04.. / SF.. 09..		305
63 (61.7)	A274.63.R.06-09	6	68.7 (70.5)	40 (40.7)	48	22	2.5 (3.8)	OF.. 04.. / SF.. 09..		306
63 (61.7)	A274.63.R.09-09	9	68.7 (70.5)	40 (40.7)	48	22	2.5 (3.8)	OF.. 04.. / SF.. 09..		307
80 (78.7)	A274.80.R.07-09	7	85.7 (87.5)	50 (50.7)	58	27	2.5 (3.8)	OF.. 04.. / SF.. 09..		308
80 (78.7)	A274.80.R.11-09	11	85.7 (87.5)	50 (50.7)	58	27	2.5 (3.8)	OF.. 04.. / SF.. 09..		309
100 (98.7)	A274.100.R.09-09	9	105.7 (107.5)	50 (50.7)	78	32	2.5 (3.8)	OF.. 04.. / SF.. 09..		310
100 (98.7)	A274.100.R.13-09	13	105.7 (107.5)	50 (50.7)	78	32	2.5 (3.8)	OF.. 04.. / SF.. 09..		311
125 (123.7)	A274.125.R.12-09	12	130.7 (132.5)	63 (63.7)	88	40	2.5 (3.8)	OF.. 04.. / SF.. 09..		312

(*) Dimensions for indexable insert SF

SF..

OF..



Applications
Cemented carbide type
Coating

Designation	d mm	l mm	s mm	l ₁ mm	r mm	d ₁ mm		17877	...	17877	...	17877	...
SFHT 0903AFFR-F10	9.52	9.52	3.18	1.73	1.0	3.35	10 pcs.	101					
SFHT 0903AFSR-F50	9.52	9.52	3.18	1.73	1.0	3.35	10 pcs.			102			
SFKT 0903AFSR-M50	9.52	9.52	3.18	1.73	1.0	3.35	10 pcs.					103	
OFHT 040305FN-F10	9.52	3.94	3.18	-	0.5	3.35	10 pcs.	104					
OFHT 040305SN-F50	9.52	3.94	3.18	-	0.5	3.35	10 pcs.			105			
OFHT 040305SN-M50	9.52	3.94	3.18	-	0.5	3.35	10 pcs.					106	

Spare parts

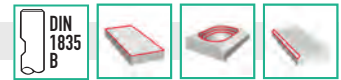
for indexable inserts Size	Clamping screw	Key	Clamping screw	Wrench
OF.. 04.. / SF.. 09..	M 2.5 x 7.6	IP 8	17999	51932
			122	404

For cutters with bore Ø d ₁ mm	For indexable inserts size	Power screw
32 (30.7)–40 (38.7)	OF.. 04.. / SF.. 09..	M 8 x 30.0
		17998
		101

(*) Dimensions for indexable insert SF

17534

Chamfer cutters, 45°



ATORN®

Design

- Positive
- Right cutting
- Combination shank with straight shank in accordance with DIN 1835 B
- Without indexable inserts

Applications

For chamfering, face milling and circular milling.

Note:

For indexable inserts see art. no. 17838 and 17845.

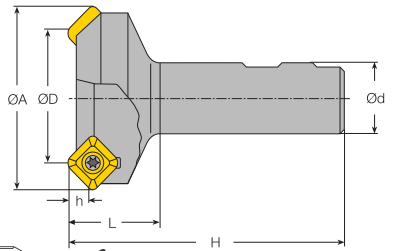


17534

Ø D mm	Ø d h6 mm	L mm	Z	Indexable inserts	17534	...
24	25	100	2	SE.T 1204..	102	
32	25	110	3	SE.T 1204..	103	
40	32	115	4	SE.T 1204..	104	

Spare parts

For indexable inserts size	Clamping screw	Length mm	TX size T	Clamping screw	Wrench
SE.T 1204..	M 5.0 x 0.8	11	20	17721 ...	52529 ...
				101	407



17720

Face milling cutter 45°



ATORN®

Design

- Positive
- Right cutting
- Without indexable inserts
- With internal cooling (except art. no. 17720 214-215)

Applications

For square indexable inserts SE.T 1204.. Item no. 17838 and 17845.



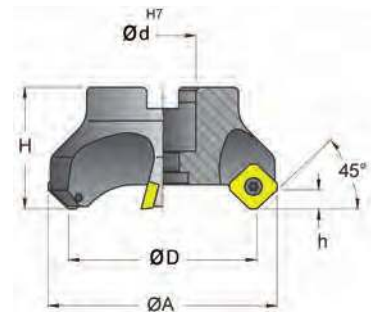
17720

Ø D mm	Ø d H7 mm	H mm	Ø A mm	h mm	Z	Indexable inserts	Narrow pitch	17720	...
40	16	40	53	6	3	SE.T 1204..	200		
50	22	48	63	6	4	SE.T 1204..	201		
63	22	48	76	6	5	SE.T 1204..	202		
80	27	50	93	6	6	SE.T 1204..	203		
100	32	50	113	6	6	SE.T 1204..	204		
125	40	63	138	6	7	SE.T 1204..	205		
160	40	63	173	6	8	SE.T 1204..	206		
200	60	63	213	6	12	SE.T 1204..	214		
250	60	63	263	6	16	SE.T 1204..	215		

Ø D mm	Ø d H7 mm	H mm	Ø A mm	h mm	Z	Indexable inserts	Extra narrow pitch	17720	...
40	16	40	53	6	4	SE.T 1204..	207		
50	22	48	63	6	5	SE.T 1204..	208		
63	22	48	76	6	6	SE.T 1204..	209		
80	27	50	93	6	7	SE.T 1204..	210		
100	32	50	113	6	8	SE.T 1204..	211		
125	40	63	138	6	9	SE.T 1204..	212		
160	40	63	173	6	10	SE.T 1204..	213		

Spare parts

For indexable inserts size	Clamping screw	Length mm	TX size T	Clamping screw	Wrench
SE.T 1204..	M 5.0 x 0.8	11	20	17721 ...	52529 ...
				101	407

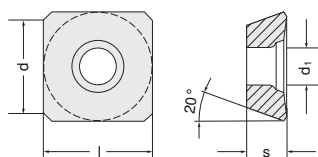


17838

Indexable milling inserts, SEHT

Design

- Square
- Positive 20°
- With chip breaker



Applications
Carbide type
Coating

ISO designation	d+l mm	d ₁ mm	s mm	10 pcs.	17838	...	17838	...
SEHT 1204 AF	12.7	5.50	4.76	10 pcs.	17838		17838	202
SEHT 1204 AF-AL	12.7	5.50	4.76	10 pcs.			203	

17838 203

17838 202



N
H 25/Al
Uncoated
17838

PM
H 42
TiN
17838

17845

Indexable milling inserts, SEET



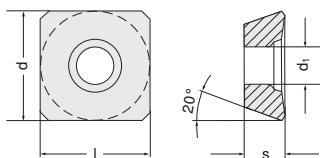
Design

- Square
- Positive 20°
- With chip breaker

Applications

Cemented carbide grade
Coating

Tolerance classes in comparison:
SEET +/- 0.025 mm,
SEKT +/- 0.130 mm.



17845 101

17845 102-103



N
HW 4410
uncoated

P M K
HC 4540
coated

M K
HC 4620
coated

ISO designation	d+l mm	d1 mm	s mm		17845	...	17845	...	17845	...
SEET 1204 AF SN	12.7	5.50	4.76	10 pcs.			101		103	102

17728 - 17729

Face milling cutter 45°

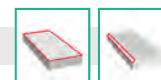


Design

- Positive
- Right- and left-hand cutting
- Without indexable inserts

Applications

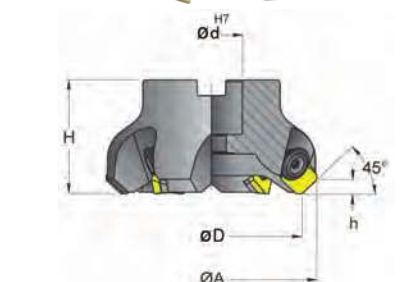
For square indexable inserts, SEE. 1203,
art. no. 17841 + 17843.



17728

Ø D mm	Ø d mm	H mm	Ø A mm	h mm	Z	Indexable inserts	Right-hand cutting		Left-hand cutting	
							17728	...	17728	...
50	22	48	63	6	4	SEE. 1203		101		109 NEW
63	22	40	76	6	5	SEE. 1203		102		110 NEW
80	27	50	93	6	6	SEE. 1203		103		111 NEW
100	32	50	113	6	6	SEE. 1203		104		112 NEW
125	40	63	138	6	7	SEE. 1203		105		113 NEW
160	40	63	173	6	8	SEE. 1203		106		
200	60	63	213	6	10	SEE. 1203		107		
250	60	63	263	6	13	SEE. 1203		108		

		Spare parts	
		17729	...
Support plate	-		101
Screw for support plate	10 pcs.		102
Clamping screw for right-hand cutting face milling cutters	10 pcs.		103
Clamping screw for left-hand cutting face milling cutters	10 pcs.		104 NEW



17729 101 17729 102 17729 103



17841

Indexable milling inserts, SEEN



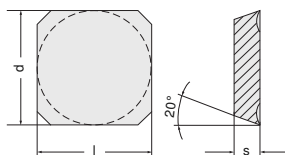
Design

- Square
- Positive 20°
- Without chip breaker

Applications

Cemented carbide grade
Coating

Tolerance classes in comparison:
SEEN +/- 0.025 mm,
SEKN +/- 0.130 mm.



17841 103



P M K
HC 4540
coated

M K
HC 4620
coated

ISO designation	d+l mm	s mm		17841	...	17841	...
SEEN 1203 AF FN	12.7	3.18	10 pcs.			103	102
SEEN 1203 AF SN	12.7	3.18	10 pcs.			107	106

17843

Indexable milling inserts, SEER



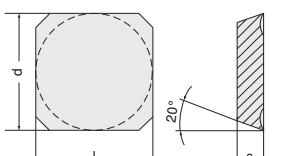
Design

- Square
- Positive 20°
- With chip breaker

Applications

Cemented carbide grade
Coating

Tolerance classes in comparison:
SEER +/- 0.025 mm,
SEKR +/- 0.130 mm.



17843 102



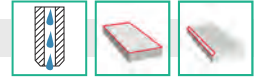
P M K
HC 4540
coated

M K
HC 4620
coated

ISO designation	d+l mm	s mm		17843	...	17843	...
SEER 1203 AF SN	12.7	3.18	10 pcs.			102	101

17739

Face milling cutter 45°



Design

- Indexable insert tool for roughing and for medium machining
- Uneven tooth pitch for smooth running
- New material and hardening technologies for maximum tool accuracy
- Special surface treatment for optimum corrosion resistance and longer service life

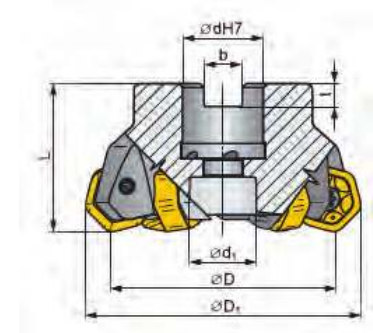
Advantage:

- Favourable cutting costs due to the 12-edged indexable insert

Applications

- For face milling, chamfering, oblique plunge milling.
- HNGJ09-S** indexable insert for medium machining
- HNGJ09-R** indexable insert for roughing

17739 101-105



$\varnothing D$ mm	$\varnothing d_{H7}$ mm	d_1 mm	L mm	D_1 mm	Z	17739	...
50	22	18	40	61.7	4		101
63	22	19	41	74.7	6		102
80	27	38	50	91.7	6		103
80	27	39	51	91.7	8		104
100	32	45	52	111.7	8		105

Indexable inserts and spare parts

Applications
Carbide type
Coating

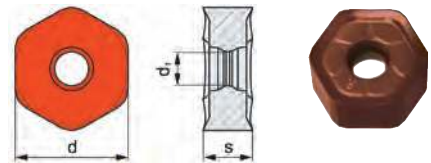
P M
P 40
coated

P K
P 30
coated

P K
K 15
coated

Designation	d mm	s mm	d_1 mm	17739	...	17739	...	17739	...
HNGJ09-S	16.5	6.35	4.9		201		202		
HNGJ09-R	16.5	6.35	4.9				204		203

17739 201-204



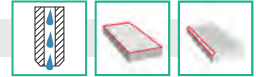
Spare parts

Clamping screw



Indexable insert size	Size	17739	...
HNGJ09	M4		301





17873 - 17874 Face milling cutter system 273-6



Design

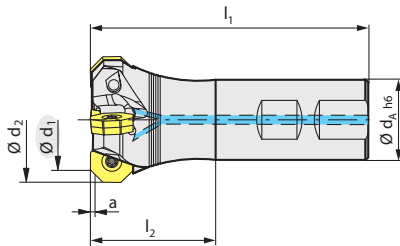
- Sturdy basic body with Hard & Tough coating
- Maximum number of cutting edges

Advantages:

- Highly economical
- Reduced power consumption
- High stability and running smoothness

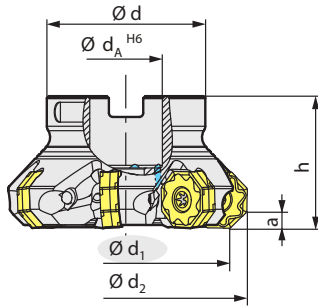
Scope of delivery:

- Basic body with clamping screws
- **Without** indexable inserts



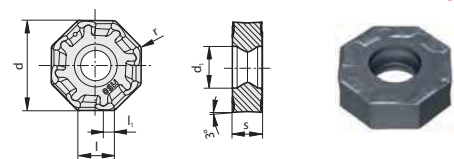
Ø d ₁ mm	Designation	Z	Ø d ₂ mm	l ₁ mm	l ₂ mm	Ø d _A mm	a mm	Indexable inserts	with shank
32	C273.32.R.03-06-B-40	3	42.2	101	40	32	3.5	OAKU 06..	17873 ...
40	C273.40.R.04-06-B32-50	4	50.2	111	50	32	3.5	OAKU 06..	101 102

17873 201-206



Ø d ₁ mm	Designation	Z	Ø d ₂ mm	h mm	Ø d mm	Ø d _A mm	a mm	Indexable inserts	with bore
40	A273.40.R.04-06	4	50.2	40	38	16	3.5	OAKU 06..	17873 ...
50	A273.50.R.05-06	5	60.2	40	48	22	3.5	OAKU 06..	201
63	A273.63.R.07-06	7	73.2	40	48	22	3.5	OAKU 06..	202
80	A273.80.R.08-06	8	90.2	50	58	27	3.5	OAKU 06..	203
100	A273.100.R.10-06	10	110.2	50	78	32	3.5	OAKU 06..	204
125	A273.125.R.12-06	12	135.2	63	88	40	3.5	OAKU 06..	205 206

Indexable inserts and spare parts



17874

Applications
Cemented carbide grade
Coating

Designation	d mm	l mm	s mm	l ₁ mm	r mm	d ₁ mm	Box icon	MP CTPM245 PVD	P CTPP235 PVD
OAKU 060508ER-F40	17.18	6.00	5.56	2.0	0.8	5.8	10 pcs.	17874 ...	17874 ...
OAKU 060508SR-M50	17.18	6.00	5.56	2.0	0.8	5.8	10 pcs.	101	102

Spare parts

for indexable inserts	Clamping screw	Key	Clamping screw	Wrench
Size			17999 ...	51932 ...
OAKU 06..	M 5.0 x 14.0	T 20	121	208

For cutters with bore Ø d ₁ mm	Power screw	For indexable inserts size	Power screw
40	M 8 x 30.0	OAKU 06..	17998 ...
50	M 10 x 31.0	OAKU 06..	101 102



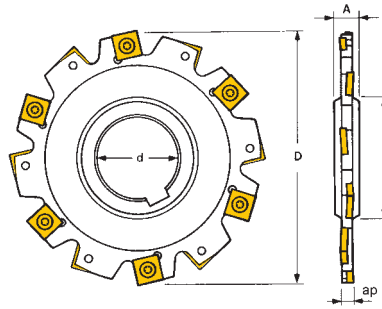
ATORN®

Design

Three-sided cutting, fixed width. Generates a slight arched shape in the groove base. Supplied with clamping screws.

Applications

For bolted indexable inserts (see art. no. 17785–17786). For slitting, cutting and grooving.



For indexable inserts SNHX 1102T

D mm	d mm	ap mm	A mm	B mm	Z	Z eff.	Cutting depth ae max. mm	Indexable inserts	Clamping screws	17780	...
63	22	4	8	34	8	4	14	SNHX 1102T	VTX 3503		101
80	22	4	8	34	10	5	22	SNHX 1102T	VTX 3503		104
100	27	4	12	45	12	6	24	SNHX 1102T	VTX 3503		107
125	40	4	12	58	14	7	33	SNHX 1102T	VTX 3503		114
160	40	4	12	68	18	9	45	SNHX 1102T	VTX 3503		122
200	50	4	12	72	18	9	62	SNHX 1102T	VTX 3503		131

For indexable inserts SNHX 1103T

D mm	d mm	ap mm	A mm	B mm	Z	Z eff.	Cutting depth ae max. mm	Indexable inserts	Clamping screws	17780	...
63	22	5	8	34	8	4	14	SNHX 1103T	VTX 3504		102
80	22	5	8	34	10	5	22	SNHX 1103T	VTX 3504		105
100	27	5	12	45	12	6	24	SNHX 1103T	VTX 3504		108
125	40	5	12	58	14	7	33	SNHX 1103T	VTX 3504		115
160	40	5	12	68	18	9	45	SNHX 1103T	VTX 3504		123
200	50	5	12	72	18	9	62	SNHX 1103T	VTX 3504		132

For indexable inserts SNHX 1203T

D mm	d mm	ap mm	A mm	B mm	Z	Z eff.	Cutting depth ae max. mm	Indexable inserts	Clamping screws	17780	...
63	22	6	8	34	6	3	14	SNHX 1203T	VTX 405		103
80	22	6	8	34	8	4	22	SNHX 1203T	VTX 405		106
100	27	6	12	45	10	5	24	SNHX 1203T	VTX 405		109
125	40	6	12	58	12	6	33	SNHX 1203T	VTX 405		116
160	40	6	12	68	16	8	45	SNHX 1203T	VTX 405		124
200	50	6	12	72	18	9	62	SNHX 1203T	VTX 405		133

For indexable inserts SNHX 1205T

D mm	d mm	ap mm	A mm	B mm	Z	Z eff.	Cutting depth ae max. mm	Indexable inserts	Clamping screws	17780	...
100	27	10	12	45	10	5	24	SNHX 1205T	VTX 408		113
125	40	10	12	58	12	6	33	SNHX 1205T	VTX 408		120
160	40	10	12	68	16	8	45	SNHX 1205T	VTX 408		128
160	40	14	14	68	15	5	45	SNHX 1205T	VTX 408		130
200	50	10	12	72	18	9	62	SNHX 1205T	VTX 408		135
200	50	14	14	72	18	6	62	SNHX 1205T	VTX 408		137
250	50	10	12	72	24	12	88	SNHX 1205T	VTX 408		139

Al<10%Si	Al>10%Si	Cu	St<520N	St<750N	St<900N	St<1100N	St<1200N	St<1400N	<45HRC	<55HRC	<60HRC	<67HRC	VA<900N	VA>900N	Ti alloy	GG(G)	Plastic
300-350	300-350	-	140-200	140-200	140-200	120-150	120-150	120-150	-	-	-	-	130-160	130-160	-	100-140	-

17782 - 17789 Disc milling cutters with collar



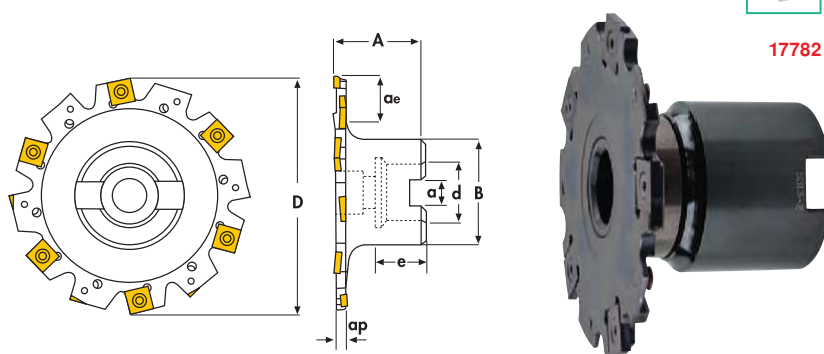
ATORN®

Design

With collar. Three-sided cutting, fixed width.
Generates a slight arched shape in the groove base.
Supplied with clamping screws.

Applications

For bolted indexable inserts.
For slitting, cutting and grooving.



For indexable inserts SNHX 1102T

D mm	d mm	ap mm	A mm	B mm	a mm	e mm	Z	Z eff.	Cutting depth ae max. mm	Indexable inserts	Clamping screws	17782	...
63	22	4	50	40	10.4	21	6	3	10.5	SNHX 1102T	VTX 3503	101	101
80	22	4	50	40	10.4	21	8	4	20.2	SNHX 1102T	VTX 3503	104	104
100	27	4	50	48	12.4	23	12	6	24.2	SNHX 1102T	VTX 3503	107	107

For indexable inserts SNHX 1103T

D mm	d mm	ap mm	A mm	B mm	a mm	e mm	Z	Z eff.	Cutting depth ae max. mm	Indexable inserts	Clamping screws	17782	...
63	22	5	50	40	10.4	21	6	3	10.5	SNHX 1103T	VTX 3504	102	102
80	22	5	50	40	10.4	21	8	4	20.2	SNHX 1103T	VTX 3504	105	105
100	27	5	50	48	12.4	23	12	6	24.2	SNHX 1103T	VTX 3504	108	108

For indexable inserts SNHX 1203T

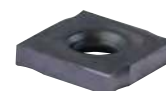
D mm	d mm	ap mm	A mm	B mm	a mm	e mm	Z	Z eff.	Cutting depth ae max. mm	Indexable inserts	Clamping screws	17782	...
63	22	6	50	40	10.4	21	6	3	10.5	SNHX 1203T	VTX 405	103	103
80	22	6	50	40	10.4	21	8	4	20.2	SNHX 1203T	VTX 405	106	106
100	27	6	50	48	12.4	23	10	5	24.2	SNHX 1203T	VTX 405	109	109
125	40	6	50	70	16.4	30	12	6	23.7	SNHX 1203T	VTX 405	111	111
160	40	6	50	70	16.4	30	16	8	41.2	SNHX 1203T	VTX 405	113	113

For indexable inserts SNHX 1205T

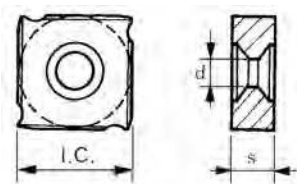
D mm	d mm	ap mm	A mm	B mm	a mm	e mm	Z	Z eff.	Cutting depth ae max. mm	Indexable inserts	Clamping screws	17782	...
100	27	10	50	48	12.4	23	10	5	24.2	SNHX 1205T	VTX 408	110	110
125	40	10	50	70	16.4	30	12	6	23.7	SNHX 1205T	VTX 408	112	112
160	40	10	50	70	16.4	30	16	8	41.2	SNHX 1205T	VTX 408	114	114

Indexable inserts and spare parts

17785 - 17786



Applications	Carbide type	Coating	ISO designation	I.C. mm	d mm	s mm	17785	...	17786	...
Carbide type	HC 4630	TiAlN-coated	SNHX 1102T	11.0	4.4	2.3	10 pcs.	101	101	101
	HW 7415	Uncoated	SNHX 1103T	11.0	4.4	2.7	10 pcs.	102	102	102
			SNHX 1203T	12.7	5.0	3.2	10 pcs.	103	103	103
			SNHX 1205T	12.7	5.0	5.4	10 pcs.	105	105	105



Type	Size	TX size	Clamping screws	Wrench
VTX 3503	M 3.5 x 3	9	17789	52529
VTX 3504	M 3.5 x 4	9	102	404
VTX 405	M 4.0 x 5	15	103	406
VTX 408	M 4.0 x 8	15	104	406

Al<10%Si	Al>10%Si	Cu	St<520N	St<750N	St<900N	St<1100N	St<1200N	St<1400N	<45HRC	<55HRC	<60HRC	<67HRC	VA<900N	VA>900N	Ti alloy	GG(G)	Plastic
300-350	300-350	-	140-200	140-200	140-200	120-150	120-150	120-150	-	-	-	-	130-160	130-160	-	100-140	-



17580

Clamp holder type ZH22

Design

- With internal coolant supply
- 3-rib toothing

Applications

For producing grooves, Seeger ring grooves, metric ISO threads, Whitworth pipe threads and full radius grooves, and for chamfering and deburring.



17580 101-108

17580 101-108

Solid carbide shaft, DIN 6535 HA



Designation	Ø d2 h6 mm	Ø d1 mm	l1 mm	l2 mm	Cutting circle Ø DS mm	t max. mm	Clamping screw	TX wrench	17580	...
ZH22.1212.42.A.HM	12	-	100	42	21.7	4.5	M5 (17581 101)	T 20 (51932 208)		101
ZH22.1212.60.A.HM	12	-	130	60	21.7	4.5	M5 (17581 101)	T 20 (51932 208)		102
ZH22.1611.30.A.HM	16	11.5	90	30	21.7	3.9	M5 (17581 101)	T 20 (51932 208)		103
ZH22.1612.42.A.HM	16	12.0	100	42	21.7	4.5	M5 (17581 101)	T 20 (51932 208)		104
ZH22.1612.60.A.HM	16	12.0	130	60	21.7	4.5	M5 (17581 101)	T 20 (51932 208)		105
ZH22.1612.85.A.HM	16	12.0	160	85	21.7	4.5	M5 (17581 101)	T 20 (51932 208)		106
ZH22.2016.45.A.HM	20	16.0	110	45	21.7	2.5	M5 (17581 101)	T 20 (51932 208)		107
ZH22.2016.65.A.HM	20	16.0	130	65	21.7	2.5	M5 (17581 101)	T 20 (51932 208)		108

17580 201-203

Steel shaft, DIN 1835

17580 201-203



Designation	Ø d2 h6 mm	Ø d1 mm	l1 mm	l2 mm	Cutting circle Ø DS mm	t max. mm	Clamping screw	TX wrench	17580	...
ZH22.1011.10.A.ST	10	11.3	60	10.7	21.7	4.5	M5 (17581 101)	T 20 (51932 208)		201
ZH22.1311.25.A.ST	13	11.3	70	25.7	21.7	4.0	M5 (17581 101)	T 20 (51932 208)		202
ZH22.1612.24.A.ST	16	12.0	80	24.0	21.7	4.5	M5 (17581 101)	T 20 (51932 208)		203

17580 301-308

Solid carbide shaft, DIN 6535 HB

17580 301-308



Designation	Ø d2 h6 mm	Ø d1 mm	l1 mm	l2 mm	Cutting circle Ø DS mm	t max. mm	Clamping screw	TX wrench	17580	...
ZH22.1212.42.B.HM	12	-	100	42	21.7	4.5	M5 (17581 101)	T 20 (51932 208)		301
ZH22.1212.60.B.HM	12	-	130	60	21.7	4.5	M5 (17581 101)	T 20 (51932 208)		302
ZH22.1611.30.B.HM	16	11.5	90	30	21.7	3.9	M5 (17581 101)	T 20 (51932 208)		303
ZH22.1612.42.B.HM	16	12.0	100	42	21.7	4.5	M5 (17581 101)	T 20 (51932 208)		304
ZH22.1612.60.B.HM	16	12.0	130	60	21.7	4.5	M5 (17581 101)	T 20 (51932 208)		305
ZH22.1612.85.B.HM	16	12.0	160	85	21.7	4.5	M5 (17581 101)	T 20 (51932 208)		306
ZH22.2016.45.B.HM	20	16.0	110	45	21.7	2.5	M5 (17581 101)	T 20 (51932 208)		307
ZH22.2016.65.B.HM	20	16.0	130	65	21.7	2.5	M5 (17581 101)	T 20 (51932 208)		308

17580 401

Steel shaft, DIN 1835 B

17580 401



Designation	Ø d2 h6 mm	Ø d1 mm	l1 mm	l2 mm	Cutting circle Ø DS mm	t max. mm	Clamping screw	TX wrench	17580	...
ZH22.1612.24.B.ST	16	12	80	24	21.7	4.5	M5 (17581 101)	T 20 (51932 208)		401

Spare parts

Clamping screw

TX size

Clamping screw

TX wrench

M5	20	17581	...	51932	...
		101		208	

Continued

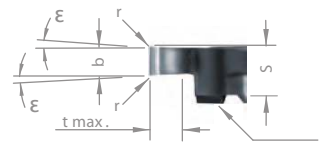
Groove and circular form milling system

17580 - 17593 Groove and circular form milling system, MINI MILL

Continued

17582

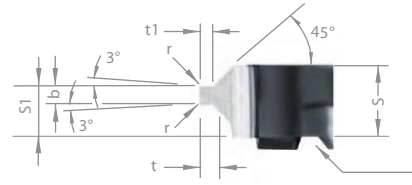
17582
Dümmel
 WERKZEUGFABRIK
 - Cutting inserts for **Seeger ring grooves**,
 DIN 471/472 and **general groove milling**
 - Cemented carbide/AL 41F TiAlN-coated



Fräseschaft
shank face

Description	Groove width mm	S mm	Clearance angle (epsilon)	r mm	b -0.02 mm	t max. mm	17582	...
Z22.0070.00	0.7	5.7	1°	-	0.74	1.5		101
Z22.0080.00	0.8	5.7	1°	-	0.84	1.7		102
Z22.0090.00	0.9	5.7	1°	-	0.94	1.9		103
Z22.0100.00	1.0	5.7	1°	-	1.04	2.1		104
Z22.0110.00	1.1	5.7	1°	-	1.21	2.5		105
Z22.0130.00	1.3	5.7	3°	0.1	1.41	4.5		106
Z22.0160.00	1.6	5.7	3°	0.1	1.71	4.5		107
Z22.0185.02	1.85	5.7	3°	0.15	1.96	4.5		108
Z22.0215.02	2.15	5.7	3°	0.15	2.26	4.5		109
Z22.0265.02	2.65	5.7	3°	0.15	2.76	4.5		110
Z22.0315.02	3.15	5.7	3°	0.15	3.26	4.5		111
Z22.0415.02	4.15	5.7	3°	0.15	4.26	4.5		112
Z22.0515.02	5.15	5.7	3°	0.15	5.26	4.5		113

17583
Dümmel
 WERKZEUGFABRIK
 - Cutting inserts with groove outer edge chamfer for
Seeger ring grooves, DIN 471/472
 - Cemented carbide/AL 41F TiAlN-coated

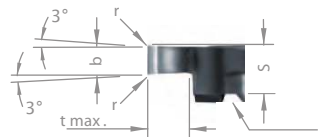


Fräseschaft
shank face

Description	Groove width mm	S mm	S1 mm	r mm	b -0.02 mm	Groove depth t mm	Forming depth t1 -0.04 mm	17583	...
Z22.1105.30	1.1	5.85	5.07	-	1.21	0.50	0.49		101
Z22.1307.30	1.3	5.85	5.17	-	1.41	0.70	0.67		102
Z22.1308.30	1.3	5.85	5.17	-	1.41	0.85	0.83		103
Z22.1609.35	1.6	5.85	5.07	-	1.71	0.85	0.83		104
Z22.1610.35	1.6	5.85	5.07	-	1.71	1.00	0.97		105
Z22.1812.35	1.85	5.85	5.19	0.15	1.96	1.25	1.23		106
Z22.2215.35	2.15	5.85	5.34	0.15	2.26	1.50	1.47		107
Z22.2616.45	2.65	5.85	5.09	0.15	2.76	1.50	1.47		108
Z22.2617.45	2.65	5.85	5.09	0.15	2.76	1.75	1.72		109
Z22.3118.45	3.15	5.85	5.34	0.20	3.26	1.75	1.72		110
Z22.4120.55	4.15	5.85	5.34	0.20	4.26	2.00	1.97		111
Z22.4125.55	4.15	5.85	5.34	0.20	4.26	2.50	2.47		112

17583

17584
Dümmel
 WERKZEUGFABRIK
 - Cutting inserts for **general groove milling**
 - Cemented carbide/AL 41F TiAlN-coated



Fräseschaft
shank face

Designation	S mm	r mm	b +0.02 mm	t max. mm	17584	...
Z22.0150.02	5.7	0.2	1.5	4.5		101
Z22.0200.02	5.7	0.2	2.0	4.5		102
Z22.0250.02	5.7	0.2	2.5	4.5		103
Z22.0300.02	5.7	0.2	3.0	4.5		104
Z22.0400.02	5.7	0.2	4.0	4.5		105

17584

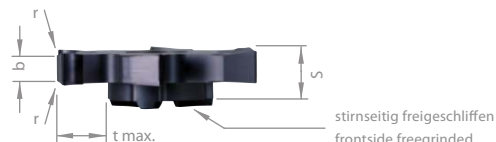
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17585



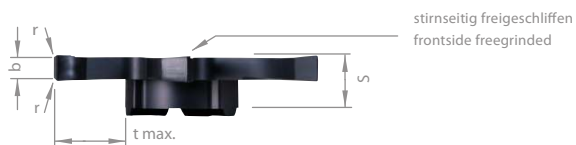
- Cutting inserts for **general groove milling with 6 teeth**
- Cemented carbide/AL 41F TiAlN-coated



Designation	S mm	r mm	b +0.02 mm	t max. mm	17585	...
Z622.0150.01	6.2	0.1	1.5	4.5		101
Z622.0200.02	6.2	0.2	2.0	4.5		102
Z622.0250.02	6.2	0.2	2.5	4.5		103
Z622.0300.02	6.2	0.2	3.0	4.5		104
Z622.0400.02	6.2	0.2	4.0	4.5		105



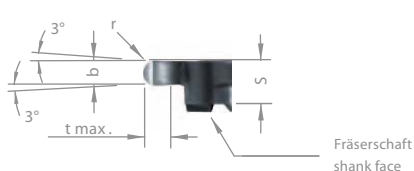
- Cutting inserts for **general groove milling with 6 teeth**
- t max. 12 mm can only be used in combination with holder ZH22
- Cemented carbide/AL 41F TiAlN-coated



Designation	S mm	r mm	b +0.02 mm	b +0.05 mm	t max. mm	D min. mm	17586	...
Z637.0050.00	5.85	-	-	0.5	12	37		101
Z637.0100.01	5.85	0.1	1.0	-	12	37		102
Z637.0150.01	5.85	0.1	1.5	-	12	37		103



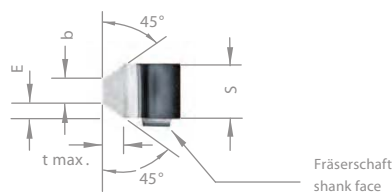
- Cutting inserts for **full radius grooving**
- Cemented carbide/AL 41F TiAlN-coated



Designation	S mm	r mm	b +0.03 mm	t max. mm	17587	...
Z22.0005.10	5.75	0.5	1.0	4.5		101
Z22.0010.20	5.75	1.0	2.0	4.5		102
Z22.0014.28	5.75	1.4	2.8	4.5		103
Z22.0015.30	5.75	1.5	3.0	4.5		104
Z22.0020.40	5.75	2.0	4.0	4.5		105



- Cutting inserts for **bore milling, forward and reverse chamfering**
- Cemented carbide/AL 41F TiAlN-coated



Designation	S mm	E mm	b +0.03 mm	t max. mm	17588	...
Z22.4545.58	5.85	2.00	2.0	1.7		101
Z22.4545.94	9.40	3.25	3.0	3.0		102

Continued 

Groove and circular form milling system | Indexable milling inserts

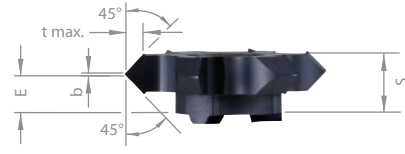
17580 - 17593 Groove and circular form milling system, MINI MILL

Continued

17589



- Cutting pates for **bore milling, forward and reverse chamfering with 6 teeth**
- Cemented carbide/AL 41F TiAlN-coated



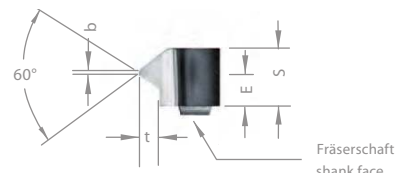
17589

Designation	S mm	E mm	b mm	t max. mm	17589	...
Z622.4545.63	6.2	3.65	0.2	1.9		101

17590



- Cutting inserts for **metric ISO threads, partial profile**
- Cemented carbide/AL 41F TiAlN-coated



17590

Designation	S mm	Pitch P mm	E mm	b mm	t max. mm	17590	...
Z22.0720.01	5.85	1.0-2.0	4.6	0.12	1.19		101
Z22.2545.01	5.85	2.0-4.5	3.7	0.31	2.71		102
Z22.0815.01	5.85	1.5-2.75	4.8	0.18	1.62		103
Z22.1020.01	5.85	2.0-3.75	4.6	0.25	2.22		104
Z22.1630.01	5.85	2.5-5.0	4.0	0.37	2.98		105

17591



- Cutting inserts for **metric ISO threads, internal partial profile with 6 teeth**
- Cemented carbide/AL 41F TiAlN-coated



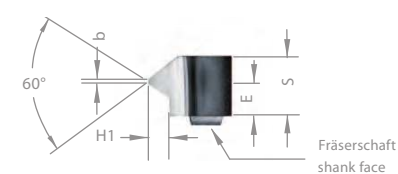
17591

Designation	S mm	Pitch P mm	E mm	Min. thread size	t max. mm	17591	...
Z622.0720.01	6.20	1.0-2.0	5.1	M 27	1.19		101
Z622.2545.01	6.05	2.0-4.5	4.3	M 27	2.71		102

17592



- Cutting inserts for **metric ISO threads, full profile**
- Cemented carbide/AL 41F TiAlN-coated



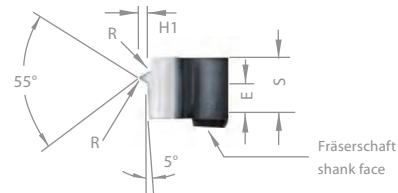
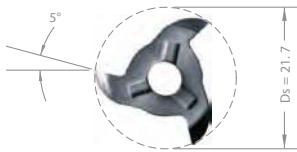
17592

Designation	S mm	Pitch P mm	E mm	b mm	H1 mm	17592	...
Z22.0815.02	5.85	1.5	4.8	0.19	0.81		101
Z22.0917.02	5.85	1.75	4.7	0.22	0.95		102
Z22.1020.02	5.85	2.0	4.6	0.25	1.08		103
Z22.1630.02	5.85	3.0	4.3	0.37	1.62		104
Z22.1835.02	5.85	3.5	4.1	0.43	1.89		105
Z22.2140.02	5.85	4.0	3.9	0.50	2.16		106
Z22.2445.02	5.85	4.5	3.7	0.56	2.43		107

17593



- Cutting inserts for **Whitworth pipe threads, DIN ISO 228(259) and 2999 full profile**
- Cemented carbide/AL 41F TiAlN-coated



17593

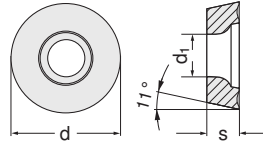
Designation	S mm	Pitch TPI	E mm	R mm	H1 mm	17593	...
Z22.5506.02	5.85	6 (4.23)	3.1	0.58	2.71		101
Z22.5508.02	5.85	8 (3.17)	3.5	0.43	2.03		102
Z22.5511.02	5.85	11 (2.30)	4.0	0.31	1.48		103

17826

Indexable milling insert, RPMT

Design

- Round
- Positive 11°
- With sintered chip breaker



17826

Applications
Cemented carbide grade
Coating

P M K
H 42
TiN
17826 ...

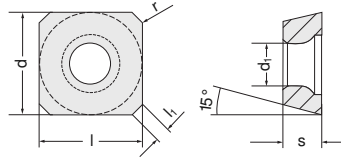
ISO designation	d mm	s mm	d ₁ mm		
RPMT 1204 MOSN	12	4.76	4.40	10 pcs.	102

17834

Indexable milling inserts, SDHT/SDNT

Design

- Square
- Positive 14°
- With chip breaker



17834

Applications
Carbide type
Coating

N
H 25/Al
Uncoated
17834 ...

P M
H 42
TiN
17834 ...

ISO designation	d+l mm	d ₁ mm	s mm	l ₁ mm	r		
SDHT 0903 AE	9.52	3.40	3.18	1.68	1.0	10 pcs.	102
SDNT 0903 AESN	9.52	3.40	3.18	1.68	1.0	10 pcs.	101

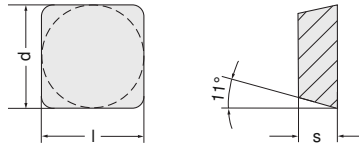
17849

Indexable milling inserts, SPKN



Design

- Square
- Positive 11°
- Without chip breaker
- With chamfer milling



17849

Applications
Cemented carbide grade
Coating

P M K
HC 4540
coated
17849 ...

M K
HC 4620
coated
17849 ...

ISO designation	d+l mm	s mm		
SPKN 1203 ED SR	12.7	3.18	10 pcs.	102

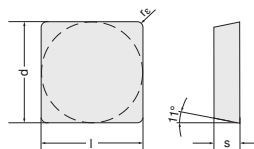
17855

Indexable milling insert, SPUN



Design

- Square
- Positive 11°



17855

Applications
Carbide type
Coating

P
HW 4640
uncoated
17855 ...

ISO designation	d+l mm	s mm	r		
SPUN 120308	12.7	3.18	0.4	10 pcs.	101

