

# ACHTECK

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THE EXPERT OF DIFFICULT MACHINING

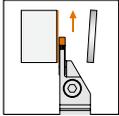
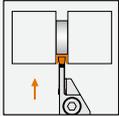
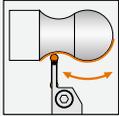
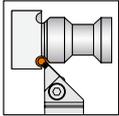
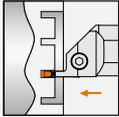
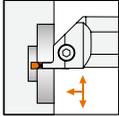
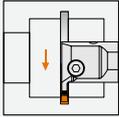
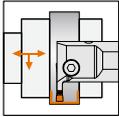
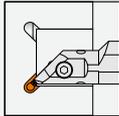


Grooving Tool Holder

## CUTTING TOOL CATALOGUE

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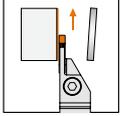
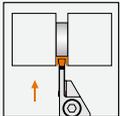
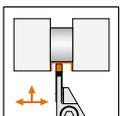
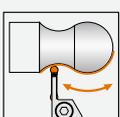
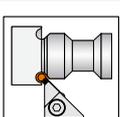
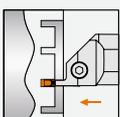
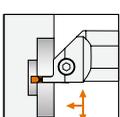
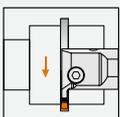
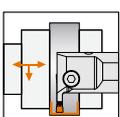
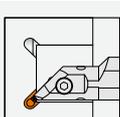
Overview of Grooving Holders

Holder			External Grooving					
			ASGHR/L	S...ASGHL	ATGHR/L	ATSER/L	ATSER/L-J	ATSER/L-D
Application								
Page			P192	P193	P194	P196	P199	P200
External Grooving	Parting off					●	●	●
	Grooving		●	●	●	●	●	●
	Turning					●	●	●
	Profiling		●	●	●	●	●	●
	Undercutting							
Face Grooving	Grooving							
	Turning							
Internal Machining	Grooving							
	Turning							
	Undercutting							

Marked: ● : Primary application ○ : Secondary application

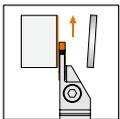
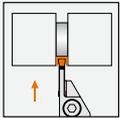
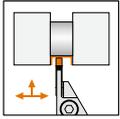
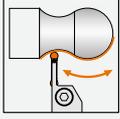
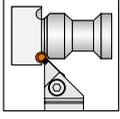
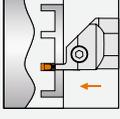
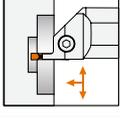
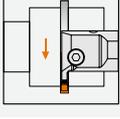
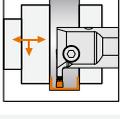
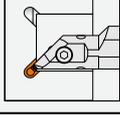
Grooving

## Overview of Grooving Holders

Holder Application			External Grooving		Face Grooving			
			ATSER/L-SW	AGUER/L	ATSFR/L	ATSFR/L-OB	AGSFR/L	AGPFR/L
								
Page			P202	P203	P204	P207	P211	P212
External Grooving	Parting off		●					
	Grooving		●					●
	Turning		●					○
	Profiling		●					
	Undercutting			●				
Face Grooving	Grooving				●	●	●	●
	Turning				●	●	●	●
Internal Machining	Grooving							
	Turning							
	Undercutting							

Marked: ● : Primary application ○ : Secondary application

Overview of Grooving Holders

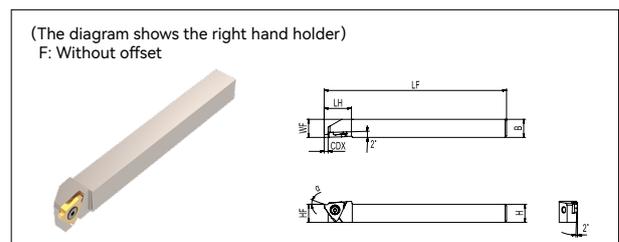
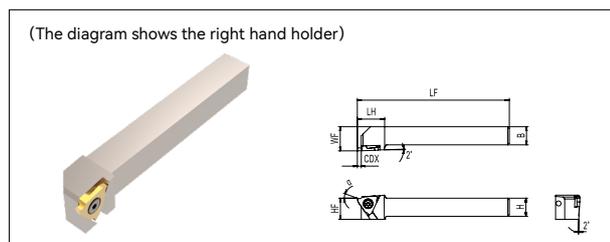
Holder Application			Face Grooving	Internal Machining					
			ATPFR/L	ATPIR/L	ATGIR/L	ATSIR/L	AGSIR/L	AGUIR/L	
									
Page			P213	P215	P217	P218	P219	P220	
External Grooving	Parting off								
	Grooving								
	Turning								
	Profiling								
	Undercutting							●	
Face Grooving	Grooving		●			●	●		
	Turning		●			●	●		
Internal Machining	Grooving			●	●				
	Turning			●					
	Undercutting							●	

Marked: ● : Primary application ○ : Secondary application

## ASGH Grooving Holder Denomination System

<b>A</b> 1	<b>S</b> 2	<b>G</b> 3	<b>H</b> 4	<b>R</b> 5	<b>20</b> 6	<b>20</b> 7	<b>JX</b> 8	<b>-</b> -	<b>32</b> 9	<b>F</b> 10
1- Company Name ACHTECK		2- Matching Insert Type S For swiss lathe		3- Application G Grooving		4- Holder Type H Holder		5- Hand of Tool L Left R Right		
6- Holder Height 20=20.0mm		7- Holder Width 20=20.0mm		8- Holder Length JX=120mm		9- Matching Insert Size (IC) 32=9.525mm		10- Shape of Holder Head F: Without dimple		

## ASGHR/L External Shallow Grooving Holder for Swiss Lathe



Product code		Dimension (mm)					Spare parts	
		H	B	LF	LH	CDX	Screw	Wrench
ASGHR/L	1010JX-32F	10	10	120	18.5	2.5	SP040070	FT-TP08
	1212FX-32F	12	12	85	18.5	2.5		
	1212JX-32F	12	12	120	18.5	2.5		
	1616JX-32F	16	16	120	18.5	2.5		
	2020JX-32F	16	16	120	18.5	2.5		
	1010F-32	10	10	80	18.5	2.5		
	1212H-32	12	12	100	18.5	2.5		
	1616H-32	16	16	100	18.5	2.5		
	2020K-32	20	20	125	20	2.5		
	2525M-32	25	25	150	20	2.5		

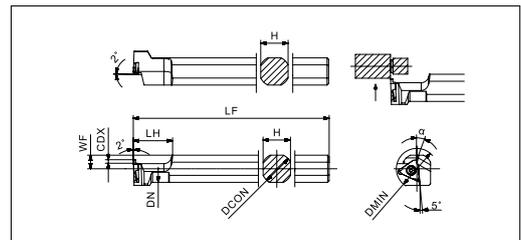
## Insert Application

Application	Grooving
Product code	
ASGHR**	ASG 32R
ASGHL**	ASG 32L
Reference page	P227

### S...ASGH Sleeve Tool Holder Denomination System

<b>S</b> 1	<b>20</b> 2	<b>JX</b> 3	<b>-</b> -	<b>A</b> 4	<b>S</b> 5	<b>G</b> 6	<b>H</b> 7	<b>L</b> 8	<b>32</b> 9
1- Holder Material S=Steel		2- Holder Shank Diameter 20=20mm		3- Holder Length JX=120mm		4- Company Name ACHTECK			
5- Matching Insert Type S Swiss		6- Application G Grooving		7- Holder Type H Holder		8- Hand of Tool L Left			
9- Matching Insert Size (IC) 32=9.525mm									

### S..ASGHL External Shallow Grooving Sleeve Holder for Swiss Lathe



Product code	Dimension (mm)					Spare parts	
	DCON	LF	WF	DN	DMIN	Screw	Wrench
<b>S12F-ASGHL32</b>	12	80		11			
<b>S14H-ASGHL32</b>	14			13			
<b>S15.0H-ASGHL32</b>	15.875	100		15.875			
<b>S16H-ASGHL32</b>	16				27		
<b>S19.0JX-ASGHL32</b>	19.05	120	6	17.6		SP040070	FT-TP08
<b>S20JX-ASGHL32</b>	20	120		18.6			
<b>S22JX-ASGHL32</b>	22	120		23.6			
<b>S25JX-ASGHL32</b>	25	120		23.6	32		
<b>S25.0JX-ASGHL32</b>	25.4	120	10	23.6			

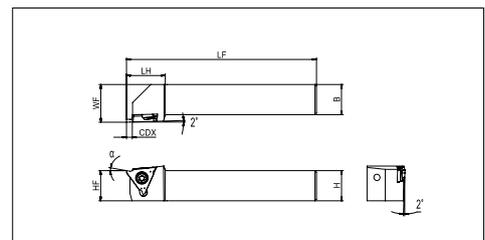
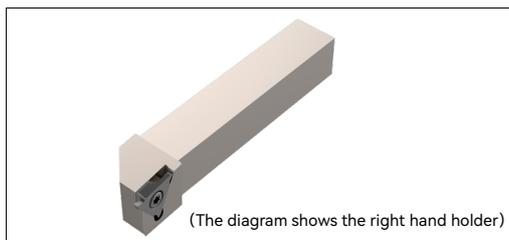
### Insert Application

Application	Grooving
Product code	
<b>S...ASGHL**</b>	ASG 32R
Reference page	P227

## ATGH Tool Holder Denomination System

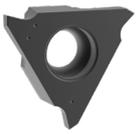
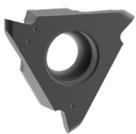
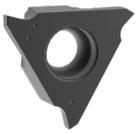
<b>A</b> 1	<b>T</b> 2	<b>G</b> 3	<b>H</b> 4	<b>R</b> 5	<b>25</b> 6	<b>25</b> 7	<b>M</b> 8	<b>43</b> 9	<b>-</b> -	<b>10</b> 10	<b>T25</b> 11
1- Company Name ACHTECK		2- Matching Insert Type T Triangular			3- Application G Grooving		4- Holder Type H Holder				
5- Hand of Tool L Left R Right		6- Holder Height 20=20.0mm 25=25.0mm			7- Holder Width 20=20.0mm 25=25.0mm		8- Holder Length K=125mm M=150mm				
9- Matching Insert Size (IC) 32=9.525mm			10- Matching Insert Minimum Width 10=1.0mm			11- Maximum CDX T25=2.5mm					

## ATGHR/L External Shallow Grooving Holder



Product code		Dimension (mm)						Spare parts	
		H	B	LF	LH	WF	CDX	Screw 	Wrench 
ATGHR/L	<b>2020K32-T25</b>	20	20	125	24	25	2.5	SP040085	FT-TP15
	<b>2525M32-T25</b>	25	25	150	24	30	2.5		
	<b>2020K43-10T40</b>	20	20	125	25.5	25	4.0	SP05008550	FT-TP20
	<b>2525M43-10T40</b>	25	25	150	25.5	30	4.0		
	<b>2020K43-20T45</b>	20	20	125	25.5	25	4.5		
	<b>2525M43-20T45</b>	25	25	150	25.5	30	4.5		
	<b>2020K43-20T55</b>	20	20	125	25.5	25	5.5		
	<b>2525M43-20T55</b>	25	25	150	25.5	30	5.5		
	<b>2020K43-30T55</b>	20	20	125	25.5	25	5.5		
	<b>2525M43-30T55</b>	25	25	150	25.5	30	5.5		

## Insert Application

Application	Grooving	Profiling
Insert shape 		
Product code		
<b>ATGHR** 32</b>	ATG 32R	ATG 32R
<b>ATGHR** 43</b>	ATG 43R	ATG 43R
<b>ATGHL** 32</b>	ATG 32L	ATG 32L
<b>ATGHL** 43</b>	ATG 43L	ATG 43L
Reference page	P228	P228

### Grooving Holder Denomination System

<b>A</b> 1	<b>G</b> 2	<b>U</b> 3	<b>E</b> 4	<b>R</b> 5	<b>25</b> 7	<b>25</b> 8	<b>-</b> -	<b>4</b> 9	<b>T25</b> 10	<b>-</b> -	<b>40</b> 11	<b>-</b> -	<b>80</b> 12	<b>-</b> -	<b>SW</b> 13
					<b>32</b> 6										

1- Company Name
ACHTECK

2- Application	
G	Grooving
T	Turning

3- Shape of Holder Head
S: Straight U: Undercutting P: Perpendicular

4- Machining Type
E: External I: Internal F: Facing

5- Hand of Tool	
L	Left
R	Right

6- Holder Diameter
20=20.0mm 25=25.0mm 32=32.0mm

7- Holder Height
20=20.0mm 25=25.0mm 32=32.0mm

8- Holder Width
20=20.0mm 25=25.0mm 32=32.0mm

9- Insert Width
2=2.0mm 3=3.0mm 4=4.0mm

10- Maximum CDX
T25=25.0mm

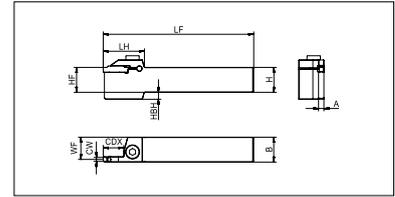
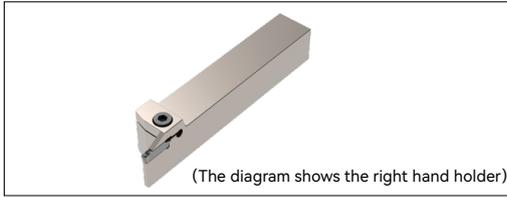
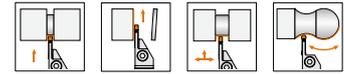
11- Minimum Cutting Diameter
40=40.0mm

12- Maximum Cutting Diameter
80=80.0mm

13- Special Code
SW: For swiss lathe OB: Outside bulge holders C: With internal coolant D: Reinforced holders J: High-pressure internal coolant

Grooving

## ATSER/L External Turning and Grooving Holder



Product code		Dimension (mm)									Spare parts		
		H	B	HF	HBH	A	LF	LH	WF	CDX	Screw	Wrench	
ATSER/L	1616-2T08	16	16	16	4	1.8	110	33	15.1	8	SH050160	LT-H4	
	1616-2T12	16	16	16	4	1.8	110	32	15.1	12			
	1616-2T17	16	16	16	4	1.8	110	37	15.1	17			
	2020-2T08	20	20	20	0	1.8	125	33	19.1	8	SH050200		
	2020-2T12	20	20	20	0	1.8	125	32	19.1	12			
	2020-2T17	20	20	20	0	1.8	125	37	19.1	17			
	2525-2T08	25	25	25	0	1.8	150	33	24.1	8	SH050250		
	2525-2T12	25	25	25	0	1.8	150	32	24.1	12			
	2525-2T17	25	25	25	0	1.8	150	37	24.1	17			
	3232-2T08	32	32	32	0	1.8	170	37	31.1	8			
	3232-2T12	32	32	32	0	1.8	170	37	31.1	12			
	3232-2T17	32	32	32	0	1.8	170	37	31.1	17			
	1616-3T09	16	16	16	4	2.4	110	32	14.8	9	SH050160		
	1616-3T12	16	16	16	4	2.4	110	32	14.8	12			
	1616-3T16	16	16	16	4	2.4	110	35	14.8	16			
	1616-3T20	16	16	16	4	2.4	110	38.5	14.8	20			
	2020-3T09	20	20	20	0	2.4	125	32	18.8	9	SH050200		
	2020-3T12	20	20	20	0	2.4	125	32	18.8	12			
	2020-3T16	20	20	20	0	2.4	125	35	18.8	16			
	2020-3T20	20	20	20	0	2.4	125	38.5	18.8	20			
	2525-3T09	25	25	25	0	2.4	150	32	23.8	9	SH050250		
	2525-3T12	25	25	25	0	2.4	150	32	23.8	12			
	2525-3T16	25	25	25	0	2.4	150	35	23.8	16			
	2525-3T20	25	25	25	0	2.4	150	37.5	23.8	20			
	2525-3T25	25	25	25	0	2.4	150	44.5	23.8	25			
	3232-3T09	32	32	32	0	2.4	170	35	30.8	9			
	3232-3T12	32	32	32	0	2.4	170	35	30.8	12			
	3232-3T16	32	32	32	0	2.4	170	35	30.8	16			
	3232-3T20	32	32	32	0	2.4	170	42	30.8	20			
	3232-3T25	32	32	32	0	2.4	170	44.5	30.8	25			
	1616-4T10	16	16	16	4	3.35	110	32	14.3	10	SH060160		LT-H5
	1616-4T15	16	16	16	4	3.35	110	33	14.3	15			
1616-4T25	16	16	16	4	3.35	110	45	14.3	25				
2020-4T10	20	20	20	0	3.35	125	32	18.3	10	SH060200			
2020-4T15	20	20	20	0	3.35	125	33	18.3	15				
2020-4T20	20	20	20	0	3.35	125	40	18.3	20				
2020-4T25	20	20	20	0	3.35	125	45	18.3	25				

**ATSER/L External Turning and Grooving Holder**

Product code		Dimension (mm)									Spare parts	
		H	B	HF	HBH	A	LF	LH	WF	CDX	Screw	Wrench
												
ATSER/L	<b>2525-4T10</b>	25	25	25	0	3.35	150	32	23.3	10	SH060250	LT-H5
	<b>2525-4T15</b>	25	25	25	0	3.35	150	33	23.3	15		
	<b>2525-4T20</b>	25	25	25	0	3.35	150	40	23.3	20		
	<b>2525-4T25</b>	25	25	25	0	3.35	150	45	23.3	25		
	<b>3232-4T10</b>	32	32	32	0	3.35	170	32	30.3	10		
	<b>3232-4T15</b>	32	32	32	0	3.35	170	33	30.3	15		
	<b>3232-4T20</b>	32	32	32	0	3.35	170	40	30.3	20		
	<b>3232-4T25</b>	32	32	32	0	3.35	170	45	30.3	25		
	<b>2020-5T12</b>	20	20	20	0	4.35	125	37	17.8	12	SH060200	
	<b>2020-5T16</b>	20	20	20	0	4.35	125	37	17.8	16		
	<b>2020-5T20</b>	20	20	20	0	4.35	125	37	17.8	20		
	<b>2525-5T12</b>	25	25	25	0	4.35	150	37	22.8	12	SH060250	
	<b>2525-5T16</b>	25	25	25	0	4.35	150	37	22.8	16		
	<b>2525-5T20</b>	25	25	25	0	4.35	150	37	22.8	20		
	<b>2525-5T25</b>	25	25	25	0	4.35	150	46	22.8	25		
	<b>2525-5T32</b>	25	25	25	0	4.35	150	54	22.8	32		
	<b>3232-5T12</b>	32	32	32	0	4.35	170	37	29.8	12		
	<b>3232-5T16</b>	32	32	32	0	4.35	170	38	29.8	16		
	<b>3232-5T20</b>	32	32	32	0	4.35	170	39	29.8	20		
	<b>3232-5T25</b>	32	32	32	0	4.35	170	46	29.8	25		
	<b>3232-5T32</b>	32	32	32	0	4.35	170	56	29.8	32		
	<b>2020-6T12</b>	20	20	20	0	5.35	125	37	17.3	12	SH080200	
	<b>2020-6T16</b>	20	20	20	0	5.35	125	37	17.3	16		
	<b>2020-6T20</b>	20	20	20	0	5.35	125	41	17.3	20		
	<b>2525-6T16</b>	25	25	25	7	5.35	150	37	22.3	16	SH080250	
	<b>2525-6T12</b>	25	25	25	7	5.35	150	37	22.3	12		
	<b>2525-6T20</b>	25	25	25	7	5.35	150	41	22.3	20		
	<b>2525-6T25</b>	25	25	25	7	5.35	150	46	22.3	25		
	<b>2525-6T32</b>	25	25	25	7	5.35	150	56	22.3	32		
	<b>3232-6T12</b>	32	32	32	0	5.35	170	37	29.3	12		
	<b>3232-6T16</b>	32	32	32	0	5.35	170	37	29.3	16		
	<b>3232-6T20</b>	32	32	32	0	5.35	170	41	29.3	20		
<b>3232-6T25</b>	32	32	32	0	5.35	170	46	29.3	25			
<b>3232-6T32</b>	32	32	32	0	5.35	170	56.2	29.3	32			
<b>2525-8T16</b>	25	25	25	7	6.2	150	47	21.9	16			
<b>2525-8T25</b>	25	25	25	7	6.2	150	47	21.9	25			
<b>2525-8T36</b>	25	25	25	7	6.2	150	60	21.9	36			
<b>3232-8T16</b>	32	32	32	0	6.2	170	47	28.9	16			
<b>3232-8T25</b>	32	32	32	0	6.2	170	47	28.9	25			
<b>3232-8T36</b>	32	32	32	0	6.2	170	60	28.9	36			

Grooving

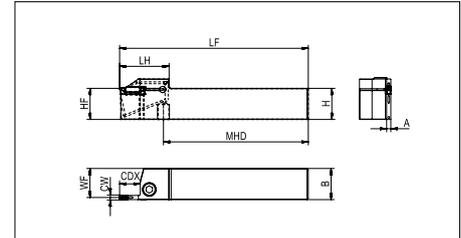
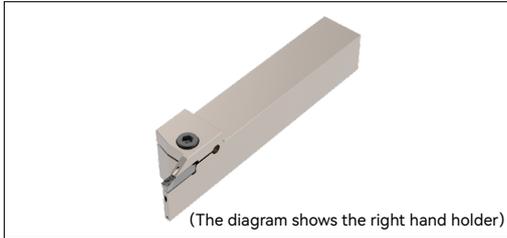
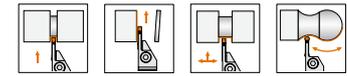
## Insert Application

Application	Low feed rate	Low-Medium feed rate	Medium feed rate	Finishing	Low Cutting Force	Medium feed rate	Profiling
Product code / Insert shape	CS 	CM 	CH 	GS 	TS 	TM 	RM 
<b>ATSER/L**</b>	ACD 202 ACD 302	ACD/ACS 202 ..... ACD/ACS 603	ACD/ACS 202 ..... ACD/ACS 603	ATD 300E ..... ATD 400E	ATD 203 ..... ATD 808	ATD 304 ..... ATD 812	ATD 210 ..... ATD 840
Reference page	P230	P231	P232	P233	P234	P235	P236

Application	Low Cutting Force	Medium feed rate	Profiling	Ground Profiling	Ground Profiling	Ground
Product code / Insert shape	TSR 	TMR 	RMR 	RA 	RS 	G 
<b>ATSER/L**</b>	ATD 203 ..... ATD 808	ATD 304 ..... ATD 812	ATD 210 ..... ATD 840	ATD 315 ..... ATD 840	ATD 210 ..... ATD 840	ATD 100E ..... ATD 800E
Reference page	P234	P235	P236	P237	P237	P239

Inserts\*: ACD/ACS series are only applicable to grooving and parting off machining.

### ATSER/L-J External High-Pressure Turning and Grooving Holder with Internal Coolant



Product code		Dimension (mm)										Spare parts	
		H	B	HF	HBH	A	LF	LH	WF	CDX	MHD	Screw	Wrench
ATSER/L	2020-2T12-J	20	20	20	0	1.8	125	37	19.1	12	73	SH050200	LT-H4
	2020-3T12-J	20	20	20	0	2.4	125	37	18.8	12	73		
	2020-4T10-J	20	20	20	0	3.35	125	37	18.3	10	73	SH060200	LT-H5
	2525-2T12-J	25	25	25	0	1.8	125	39	24.1	12	115.5		
	2525-3T12-J	25	25	25	0	2.4	150	39	23.8	12	115.5	SH060250	LT-H4
	2525-4T15-J	25	25	25	0	3.35	150	39	23.3	15	115.5		
	2525-5T20-J	25	25	25	0	4.35	150	45	22.8	20	111	SH060250	LT-H5
	2525-6T20-J	25	25	25	0	5.35	150	52	22.3	20	120.5		
2525-8T25-J	25	25	25	0	6.2	150	58	21.9	25	115	SH080250	LT-H6	

### Insert Application

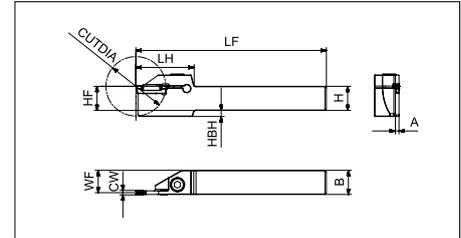
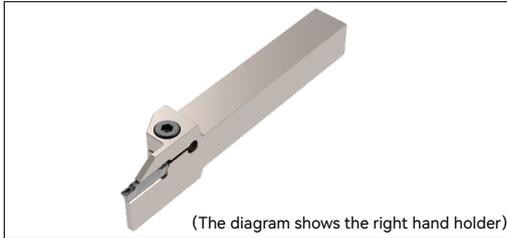
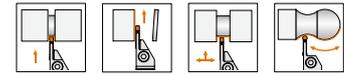
Application	Low feed rate	Low-Medium feed rate	Medium feed rate	Finishing	Low Cutting Force	Medium feed rate	Profiling
Product code	CS 	CM 	CH 	GS 	TS 	TM 	RM 
ATSER/L**-J	ACD 202 ACD 302	ACD/ACS 202 ..... ACD/ACS 603	ACD/ACS 202 ..... ACD/ACS 603	ATD 300E ..... ATD 400E	ATD 203 ..... ATD 808	ATD 304 ..... ATD 812	ATD 210 ..... ATD 840
Reference page	P230	P231	P232	P233	P234	P235	P236

Application	Low Cutting Force	Medium feed rate	Profiling	Ground Profiling	Ground Profiling	Ground
Product code	TSR 	TMR 	RMR 	RA 	RS 	G 
ATSER/L**-J	ATD 203 ..... ATD 808	ATD 304 ..... ATD 812	ATD 210 ..... ATD 840	ATD 315 ..... ATD 840	ATD 210 ..... ATD 840	ATD 100E ..... ATD 800E
Reference page	P234	P235	P236	P237	P237	P239

Inserts\*: ACD/ACS series are only applicable to grooving and parting off machining

Grooving

## ATSER/L-D Reinforced External Turning and Grooving Holder



Product code		Dimension (mm)										Spare parts	
		H	B	HF	HBH	A	LF	LH	WF	CDX	CUTDIA	Screw	Wrench
ATSER/L	1010-2T15-D40	10	10	10	6	1.8	125	32	9.1	15	40	SH050160	LT-H4
	1212-2T15-D40	12	12	12	4	1.8	125	32	11.1	15	40		
	1616-2T20-D45	16	16	16	4	1.8	125	38	15.1	20	45		
	2020-2T20-D45	20	20	20	0	1.8	125	38	19.1	20	45		
	2525-2T20-D45	25	25	25	0	1.8	150	38	24.1	20	45		
	1212-3T15-D40	12	12	12	4	2.4	125	32	10.8	15	40		
	1616-3T20-D45	16	16	16	4	2.4	125	38	14.8	20	45		
	2020-3T20-D45	20	20	20	0	2.4	125	38	18.8	20	45		
	2525-3T20-D45	25	25	25	0	2.4	150	38	23.8	20	45		
2525-3T25-D60	25	25	25	7	2.4	150	43	23.8	25	60	SH050250		

## Insert Application

Application	Low feed rate	Low-Medium feed rate	Medium feed rate	Finishing	Low Cutting Force	Medium feed rate	Profiling
Product code	CS	CM	CH	GS	TS	TM	RM
ATSER/L**-D	ACD 202 ACD 302	ACD/ACS 202 ..... ACD/ACS 603	ACD/ACS 202 ..... ACD/ACS 603	ATD 300E ..... ATD 400E	ATD 203 ..... ATD 808	ATD 304 ..... ATD 812	ATD 210 ..... ATD 840
Reference page	P230	P231	P232	P233	P234	P235	P236

Application	Low Cutting Force	Medium feed rate	Profiling	Ground Profiling	Ground Profiling	Ground
Product code	TSR	TMR	RMR	RA	RS	G
ATSER/L**-D	ATD 203 ..... ATD 808	ATD 304 ..... ATD 812	ATD 210 ..... ATD 840	ATD 315 ..... ATD 840	ATD 210 ..... ATD 840	ATD 100E ..... ATD 800E
Reference page	P234	P235	P236	P237	P237	P239

Inserts\*: ACD/ACS series are only applicable to grooving and parting off machining

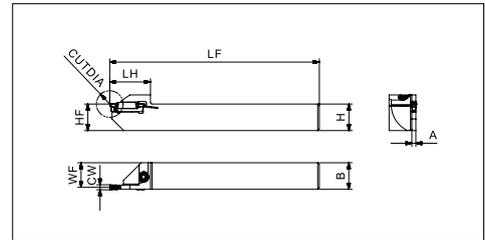
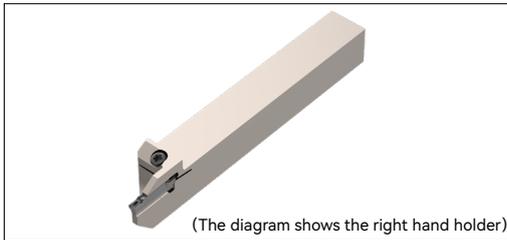
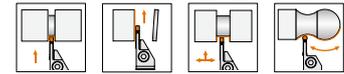
## ATSER/L-D Reinforced External Turning and Grooving Holder

The max. cutting depth vs workpiece diameter

Product code		Workpiece diameter	CDX																	
			≤ 8	9	10	11	12	13	14	15	17	18	19	20	21	22	23	24	25	
ATSER/L	1010-2T15-D40	CUTDIA	∞	∞	∞	269	120	79	59	40	-	-	-	-	-	-	-	-	-	
	1212-2T15-D40		∞	∞	∞	269	120	79	59	40	-	-	-	-	-	-	-	-	-	
	1616-2T20-D45		∞	∞	∞	∞	∞	432	193	125	76	64	57	45	-	-	-	-	-	
	2020-2T20-D45		∞	∞	∞	∞	∞	432	193	125	76	64	57	45	-	-	-	-	-	
	2525-2T20-D45		∞	1468	339	193	136	106	87	75	60	56	52	45	-	-	-	-	-	
	1212-3T15-D40		∞	∞	∞	269	120	79	59	40	-	-	-	-	-	-	-	-	-	-
	1616-3T20-D45		∞	∞	∞	∞	∞	432	193	125	76	64	57	45	-	-	-	-	-	
	2020-3T20-D45		∞	∞	∞	∞	∞	432	193	125	76	64	57	45	-	-	-	-	-	
	2525-3T20-D45		∞	1468	339	193	136	106	87	75	60	56	52	45	-	-	-	-	-	
	2525-3T25-D60		∞	∞	∞	∞	∞	∞	∞	∞	∞	418	237	167	130	107	91	81	73	60

"∞": The diameter is infinite

## ATSER/L-SW External Turning and Grooving Holder for Swiss Lathe



Product code		Dimension (mm)									Spare parts	
		H	B	HF	HBH	A	LF	LH	WF	CUTDIA	Screw	Wrench
ATSER/L	1010-2D20-SW	10	10	10	2	1.8	125	19	9.1	20	SP040125	LT-TP15
	1212-2D24-SW	12	12	12	2	1.8	125	19	11.1	24		
	1414-2D24-SW	14	14	14	0	1.8	125	19	13.1	24		
	1616-2D32-SW	16	16	16	0	1.8	125	24	15.1	32		
	1212-3D24-SW	12	12	12	2	2.4	125	19	10.8	24		
	1616-3D32-SW	16	16	16	0	2.4	125	24	14.8	32		
	1616-3D38-SW	16	16	16	0	2.4	125	27	14.8	38		
2020-3D45-SW	20	20	20	0	2.4	125	30.5	18.8	45			

## ATSER/L-SW External Turning and Grooving Holder for Swiss Lathe

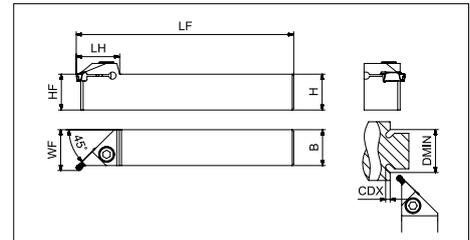
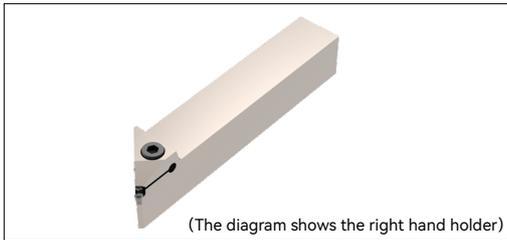
### Insert Application

Application	Low feed rate	Low-Medium feed rate	Medium feed rate	Finishing	Low Cutting Force	Medium feed rate	Profiling
Insert shape	CS	CM	CH	GS	TS	TM	RM
Product code							
ATSER/L**SW	ACD 202 ACD 302	ACD/ACS 302 ..... ACD/ACS 302	ACD/ACS 302 ..... ACD/ACS 302	ATD 300E ..... ATD 318E	ATD 203 ..... ATD 303	ATD 304	ATD 210 ..... ATD 315
Reference page	P230	P231	P232	P233	P234	P235	P236

Application	Low Cutting Force	Medium feed rate	Profiling	Ground Profiling	Ground Profiling	Ground
Insert shape	TSR	TMR	RMR	RA	RS	G
Product code						
ATSER/L**SW	ATD 203 ..... ATD 303	ATD 304	ATD 210 ..... ATD 315	ATD 315	ATD 210 ATD 315	ATD 100E ..... ATD 300E
Reference page	P234	P235	P236	P237	P237	P239

Inserts\*: ACD/ACS series are only applicable to grooving and parting off machining

### AGUER/L External Undercutting Holder



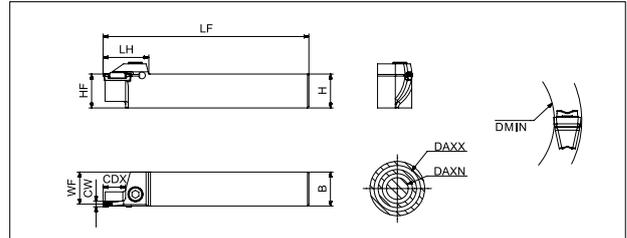
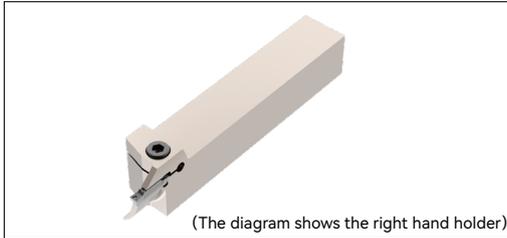
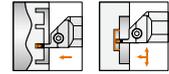
Product code	Insert width (mm)	Dimension (mm)									Spare parts	
		H	B	HF	LF	LH	WF	CDX	DMIN	Screw	Wrench	
AGUER/L	1616-3	2, 3	16	16	16	110	30.2	19.6	3	60	SH050160	LT-H4
	1616-4	4	16	16	16	110	30.2	19.8	3	55	SH060160	
	2020-3	2, 3	20	20	20	125	30.2	23.6	3	60	SH050200	
	2020-4	4	20	20	20	125	30.2	23.8	3	55	SH060200	LT-H5
	2525-3	2, 3	25	25	25	150	30.2	28.6	3	60	SH050250	
	2525-4	4	25	25	25	150	30.2	28.8	3	55	SH060250	
	2525-6	5, 6	25	25	25	150	33.6	29.2	3.5	55		

Grooving

### Insert Application

Application	Profiling	Ground Profiling	Ground Profiling	Ground	Profiling
Product code	RM	RA	RS	G	RMR
AGUER/L**	ATD 210 ..... ATD 630	ATD 315 ..... ATD 630	ATD 210 ..... ATD 630	ATD 100E ..... ATD 600E	ATD 210 ..... ATD 630
Reference page	P236	P237	P237	P239	P236

## ATSFR/L Face Grooving and Turning Holder



Product code		Dimension (mm)									Spare parts	
		H	B	HF	LF	LH	WF	CDX	DAXN	DAXX	Screw	Wrench
ATSFR/L	<b>2020-3T10-35-45</b>	20	20	20	140	32	18.95	10	35	45	SH050200	LT-H4
	<b>2020-3T10-40-55</b>	20	20	20	140	32	18.95	10	40	55		
	<b>2020-3T10-50-85</b>	20	20	20	140	32	18.95	10	50	85		
	<b>2020-3T10-80-130</b>	20	20	20	140	32	18.95	10	80	130		
	<b>2020-3T10-125-250</b>	20	20	20	140	32	18.95	10	125	250		
	<b>2020-3T10-200-000</b>	20	20	20	140	32	18.95	10	200	∞		
	<b>2020-3T15-45-65</b>	20	20	20	140	32	18.95	15	45	65		
	<b>2020-3T15-55-85</b>	20	20	20	140	32	18.95	15	55	85		
	<b>2020-3T15-80-130</b>	20	20	20	140	32	18.95	15	80	130		
	<b>2020-3T15-125-250</b>	20	20	20	140	32	18.95	15	125	250		
	<b>2020-3T15-200-000</b>	20	20	20	140	35	18.95	15	200	∞		
	<b>2020-4T15-55-85</b>	20	20	20	140	33	18.3	15	55	85	SH060200	LT-H5
	<b>2020-4T15-80-130</b>	20	20	20	140	33	18.3	15	80	130		
	<b>2020-4T15-125-250</b>	20	20	20	140	33	18.3	15	125	250		
	<b>2525-3T10-35-45</b>	25	25	25	150	32	23.95	10	35	45	SH050250	LT-H4
	<b>2525-3T10-40-55</b>	25	25	25	150	32	23.95	10	40	55		
	<b>2525-3T10-50-85</b>	25	25	25	150	32	23.95	10	50	85		
	<b>2525-3T10-80-130</b>	25	25	25	150	32	23.95	10	80	130		
	<b>2525-3T10-125-250</b>	25	25	25	150	32	23.95	10	125	250		
	<b>2525-3T10-200-000</b>	25	25	25	150	32	23.95	10	200	∞		
	<b>2525-3T15-45-65</b>	25	25	25	150	32	23.95	15	45	65		
	<b>2525-3T15-55-85</b>	25	25	25	150	32	23.95	15	55	85		
	<b>2525-3T15-80-130</b>	25	25	25	150	32	23.95	15	80	130		
	<b>2525-3T15-125-250</b>	25	25	25	150	32	23.95	15	125	250		
	<b>2525-3T15-200-000</b>	25	25	25	150	32	23.95	15	200	∞		
	<b>2525-4T10-35-50</b>	25	25	25	150	32	23.55	10	35	50		
	<b>2525-4T10-45-65</b>	25	25	25	150	32	23.55	10	45	65		
	<b>2525-4T10-55-85</b>	25	25	25	150	32	23.55	10	55	85		
	<b>2525-4T10-80-130</b>	25	25	25	150	32	23.55	10	80	130		
	<b>2525-4T10-125-250</b>	25	25	25	150	32	23.55	10	125	250		
	<b>2525-4T15-35-50</b>	25	25	25	150	33	23.55	15	35	50	SH060250	LT-H5
	<b>2525-4T15-45-65</b>	25	25	25	150	33	23.55	15	45	65		
<b>2525-4T15-55-85</b>	25	25	25	150	33	23.55	15	55	85			
<b>2525-4T15-80-130</b>	25	25	25	150	32	23.55	15	80	130			
<b>2525-4T15-125-250</b>	25	25	25	150	32	23.55	15	125	250			
<b>2525-5T15-70-110</b>	25	25	25	150	41	23.05	15	70	110	SH080250	LT-H6	
<b>2525-5T15-100-150</b>	25	25	25	150	37	22.8	15	100	150			
<b>2525-5T15-140-200</b>	25	25	25	150	37	22.8	15	140	200			
<b>2525-5T15-190-000</b>	25	25	25	150	37	22.8	15	190	∞			
<b>2525-5T20-50-80</b>	25	25	25	150	41	23.05	20	50	80			
<b>2525-5T20-70-110</b>	25	25	25	150	41	23.05	20	70	110			
<b>2525-5T20-100-150</b>	25	25	25	150	41	23.05	20	100	150			
<b>2525-5T20-140-200</b>	25	25	25	150	41	23.05	20	140	200			

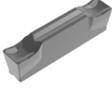
**ATSFR/L Face Grooving and Turning Holder**

Product code		Dimension (mm)									Spare parts	
		H	B	HF	LF	LH	WF	CDX	DAXN	DAXX	Screw	Wrench
												
ATSFR/L	<b>2525-5T20-190-000</b>	25	25	25	150	40	23.05	20	190	∞	SH080250	LT-H6
	<b>2525-6T12-50-85</b>	25	25	25	150	37	22.3	12	50	85		
	<b>2525-6T12-75-150</b>	25	25	25	150	37	22.3	12	75	150		
	<b>2525-6T12-140-250</b>	25	25	25	150	37	22.3	12	140	250		
	<b>2525-6T12-200-000</b>	25	25	25	150	37	22.3	12	200	∞		
	<b>2525-6T20-50-85</b>	25	25	25	150	41	22.55	20	50	85		
	<b>2525-6T20-75-150</b>	25	25	25	150	41	22.55	20	75	150		
	<b>2525-6T20-140-250</b>	25	25	25	150	41	22.55	20	140	250		
	<b>2525-6T20-200-000</b>	25	25	25	150	41	22.55	20	200	∞		
	<b>2525-8T25-75-150</b>	25	25	25	150	49	21.9	25	75	150		
	<b>2525-8T25-140-250</b>	25	25	25	150	49	21.9	25	140	250		
	<b>2525-8T25-200-000</b>	25	25	25	150	49	21.9	25	200	∞		
	<b>2525-8T25-80-115</b>	25	25	25	150	49	21.9	25	80	115		
	<b>3232-3T10-50-85</b>	32	32	32	170	32	30.8	32	50	85	SH060250	LT-H5
	<b>3232-3T10-80-130</b>	32	32	32	170	32	30.8	32	80	130		
	<b>3232-3T10-125-250</b>	32	32	32	170	32	30.8	32	125	250		
	<b>3232-3T10-200-000</b>	32	32	32	170	32	30.8	32	200	∞		
	<b>3232-3T15-80-130</b>	32	32	32	170	35	30.8	32	80	130		
	<b>3232-3T15-125-250</b>	32	32	32	170	35	30.8	32	125	250		
	<b>3232-3T15-200-000</b>	32	32	32	170	35	30.8	32	200	∞		
	<b>3232-4T10-35-50</b>	32	32	32	170	32	30.5	32	35	50		
	<b>3232-4T10-45-65</b>	32	32	32	170	32	30.5	32	45	65		
	<b>3232-4T10-55-85</b>	32	32	32	170	32	30.5	32	55	85		
	<b>3232-4T10-80-130</b>	32	32	32	170	32	30.5	32	80	130		
	<b>3232-4T10-125-250</b>	32	32	32	170	32	30.5	32	125	250		
	<b>3232-4T15-35-50</b>	32	32	32	170	35	30.5	32	35	50		
	<b>3232-4T15-45-65</b>	32	32	32	170	35	30.5	32	45	65		
	<b>3232-4T15-55-85</b>	32	32	32	170	35	30.5	32	55	85		
	<b>3232-4T15-80-130</b>	32	32	32	170	35	30.5	32	80	130		
	<b>3232-4T15-125-250</b>	32	32	32	170	35	30.5	32	125	250		
	<b>3232-5T15-50-80</b>	32	32	32	170	37	30.05	32	50	80	SH080250	LT-H6
	<b>3232-5T15-70-110</b>	32	32	32	170	37	30.05	32	70	110		
	<b>3232-5T15-100-150</b>	32	32	32	170	37	30.05	32	100	150		
	<b>3232-5T15-140-200</b>	32	32	32	170	37	30.05	32	140	200		
	<b>3232-5T15-190-000</b>	32	32	32	170	37	30.05	32	190	∞		
	<b>3232-5T20-50-80</b>	32	32	32	170	39	30.05	32	50	80		
	<b>3232-5T20-70-110</b>	32	32	32	170	39	30.05	32	70	110		
	<b>3232-5T20-100-150</b>	32	32	32	170	39	30.05	32	100	150		
	<b>3232-5T20-140-200</b>	32	32	32	170	39	30.05	32	140	200		
	<b>3232-5T20-190-000</b>	32	32	32	170	39	30.05	32	190	∞		
	<b>3232-6T12-50-85</b>	32	32	32	170	37	29.55	32	50	85		
	<b>3232-6T12-75-150</b>	32	32	32	170	37	29.55	32	75	150		
<b>3232-6T12-140-250</b>	32	32	32	170	37	29.55	32	140	250			
<b>3232-6T12-200-000</b>	32	32	32	170	37	29.55	32	200	∞			
<b>3232-6T20-50-85</b>	32	32	32	170	41	29.55	32	50	85			
<b>3232-6T20-75-150</b>	32	32	32	170	41	29.55	32	75	150			
<b>3232-6T20-140-250</b>	32	32	32	170	41	29.55	32	140	250			
<b>3232-6T20-200-000</b>	32	32	32	170	41	29.55	32	200	∞			
<b>3232-8T25-75-150</b>	32	32	32	170	47	28.9	32	75	150			
<b>3232-8T25-140-250</b>	32	32	32	170	47	28.9	32	140	250			
<b>3232-8T25-200-000</b>	32	32	32	170	47	28.9	32	200	∞			

Grooving

## ATSFR/L Face Grooving and Turning Holder

### Insert Application

Application	Low-Medium feed rate	Medium feed rate	Finishing	Low Cutting Force	Medium feed rate	Profiling
Product code \ Minimum machining diameter DMIN (mm) \ Insert shape	CM	CH	GS	TS	TM	RM
						
<b>ATSFR/L 3232/2525-3T</b>	79	79	59	35	35	59
<b>ATSFR/L 3232/2525-4T</b>	42	42	42	35	35	42
<b>ATSFR/L 3232/2525-5T</b>	50	50	50	50	50	50
<b>ATSFR/L 3232/2525-6T</b>	50	50	50	50	50	50
<b>ATSFR/L 3232/2525-8T</b>	-	60	-	60	60	60
Reference page	P231	P232	P233	P234	P235	P236

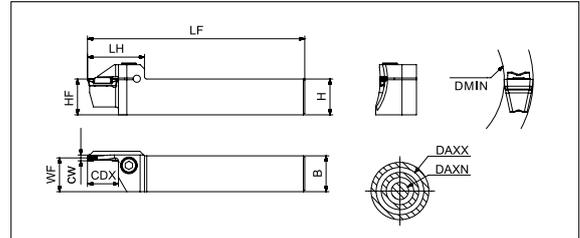
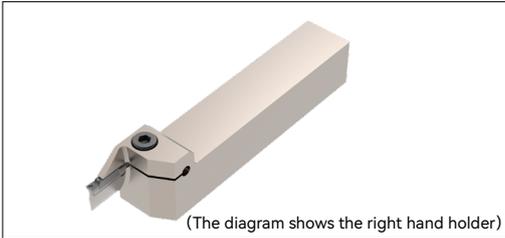
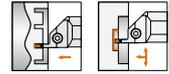
Application	Low Cutting Force	Medium feed rate	Profiling	Ground Profiling	Ground Profiling	Ground
Product code \ Minimum machining diameter DMIN (mm) \ Insert shape	TSR	TMR	RMR	RA	RS	G
						
<b>ATSFR/L 3232/2525-3T</b>	79	79	79	59	79	59
<b>ATSFR/L 3232/2525-4T</b>	55	55	55	42	55	42
<b>ATSFR/L 3232/2525-5T</b>	60	60	60	50	60	50
<b>ATSFR/L 3232/2525-6T</b>	60	60	60	50	60	50
<b>ATSFR/L 3232/2525-8T</b>	60	60	60	60	60	60
Reference page	P234	P235	P236	P237	P237	P239

1. Inserts\*: ACD/ACS series are only applicable to grooving

2. -: Indicates that the insert is not available

3. Having selected the range of tool holder, please check the minimum face grooving machining diameter of the selected insert

**ATSFR/L-OB Face Grooving and Turning Holder (Outside Bluge Type)**



Product code		Dimension (mm)									Spare parts	
		H	B	HF	LF	LH	WF	CDX	DAXN	DAXX	Screw	Wrench
ATSFR/L	2020-3T10-30-40-OB	20	20	20	140	31	18.95	10	30	40	SH060200	LT-H5
	2020-3T10-35-50-OB	20	20	20	140	31	18.95	10	35	50		
	2020-3T10-45-70-OB	20	20	20	140	31	18.95	10	45	70		
	2020-3T10-65-100-OB	20	20	20	140	31	18.95	10	65	100		
	2020-3T10-95-200-OB	20	20	20	140	31	18.95	10	95	200		
	2020-3T10-190-000-OB	20	20	20	140	31	18.95	10	190	∞		
	2020-3T15-45-70-OB	20	20	20	140	35	18.95	15	45	70		
	2020-3T15-65-100-OB	20	20	20	140	35	18.95	15	65	100		
	2020-4T10-20-30-OB	20	20	20	140	31	18.55	10	20	30		
	2020-4T10-25-35-OB	20	20	20	140	31	18.55	10	25	35		
	2020-4T10-30-45-OB	20	20	20	140	31	18.55	10	30	45		
	2020-4T10-35-50-OB	20	20	20	140	31	18.55	10	35	50		
	2020-4T10-45-70-OB	20	20	20	140	31	18.55	10	45	70		
	2020-4T10-65-120-OB	20	20	20	140	31	18.55	10	65	120		
	2020-4T10-115-200-OB	20	20	20	140	31	18.55	10	115	200		
	2020-4T16-30-45-OB	20	20	20	140	36	18.55	16	30	45		
	2020-4T16-35-50-OB	20	20	20	140	36	18.55	16	35	50		
	2020-4T16-45-70-OB	20	20	20	140	36	18.55	16	45	70		
	2020-4T16-65-120-OB	20	20	20	140	36	18.55	16	65	120		
	2020-4T16-115-200-OB	20	20	20	140	36	18.55	16	115	200		
ATSFR/L	2525-3T10-35-50-OB	25	25	25	150	38	23.95	10	35	50	SH060250	LT-H5
	2525-3T10-45-70-OB	25	25	25	150	38	23.95	10	45	70		
	2525-3T10-65-100-OB	25	25	25	150	38	23.95	10	65	100		
	2525-3T10-95-200-OB	25	25	25	150	38	23.95	10	95	200		
	2525-3T10-190-000-OB	25	25	25	150	38	23.95	10	190	∞		
	2525-3T15-45-70-OB	25	25	25	150	38	23.95	15	45	70		
	2525-3T15-65-100-OB	25	25	25	150	38	23.95	15	65	100		
	2525-4T10-25-35-OB	25	25	25	150	39	23.55	10	25	35		
	2525-4T10-30-45-OB	25	25	25	150	39	23.55	10	30	45		
	2525-4T10-35-50-OB	25	25	25	150	39	23.55	10	35	50		
	2525-4T10-45-70-OB	25	25	25	150	39	23.55	10	45	70		
	2525-4T10-65-120-OB	25	25	25	150	39	23.55	10	65	120		
	2525-4T10-115-200-OB	25	25	25	150	39	23.55	10	115	200		
	2525-4T10-190-000-OB	25	25	25	150	39	23.55	10	190	∞		
	2525-4T20-30-45-OB	25	25	25	150	39	23.55	20	30	45		
	2525-4T20-35-50-OB	25	25	25	150	39	23.55	20	35	50		
	2525-4T20-45-70-OB	25	25	25	150	39	23.55	20	45	70		
	2525-4T20-65-125-OB	25	25	25	150	39	23.55	20	65	125		
2525-4T20-115-200-OB	25	25	25	150	39	23.55	20	115	200			
2525-4T20-190-000-OB	25	25	25	150	39	23.55	20	190	∞			

Grooving

## ATSFR/L-OB Face Grooving and Turning Holder (Outside Bluge Type)

Product code		Dimension (mm)									Spare parts	
		H	B	HF	LF	LH	WF	CDX	DAXN	DAXX	Screw	Wrench
												
ATSFR/L	2525-5T15-50-80-OB	25	25	25	150	41	23.05	15	50	80	SH080250	LT-H6
	2525-5T15-70-110-OB	25	25	25	150	41	23.05	15	70	110		
	2525-5T15-100-150-OB	25	25	25	150	41	23.05	15	100	150		
	2525-5T15-140-200-OB	25	25	25	150	41	23.05	15	140	200		
	2525-5T15-190-000-OB	25	25	25	150	41	23	15	190	∞		
	2525-5T25-50-80-OB	25	25	25	150	49	23.05	25	50	80		
	2525-5T25-70-110-OB	25	25	25	150	49	23.05	25	70	110		
	2525-5T25-100-150-OB	25	25	25	150	49	23.05	25	100	150		
	2525-5T25-140-200-OB	25	25	25	150	49	23.05	25	140	200		
	2525-5T25-190-000-OB	25	25	25	150	49	23.05	25	190	∞		
	2525-6T15-50-70-OB	25	25	25	150	41	22.55	15	50	70		
	2525-6T15-60-100-OB	25	25	25	150	41	22.55	15	60	100		
	2525-6T15-90-180-OB	25	25	25	150	41	22.55	15	90	180		
	2525-6T15-170-400-OB	25	25	25	150	41	22.55	15	170	400		
	2525-6T15-390-000-OB	25	25	25	150	41	22.55	15	390	∞		
	2525-6T25-50-70-OB	25	25	25	150	49	22.55	25	50	70		
	2525-6T25-60-100-OB	25	25	25	150	49	22.55	25	60	100		
	2525-6T25-90-180-OB	25	25	25	150	49	22.55	25	90	180		
	2525-6T25-170-400-OB	25	25	25	150	49	22.55	25	170	400		
	2525-6T25-390-000-OB	25	25	25	150	49	22.55	25	390	∞		
	2525-8T25-60-100-OB	25	25	25	150	49	21.55	25	60	100		
	2525-8T25-90-180-OB	25	25	25	150	49	21.55	25	90	180		
	2525-8T25-170-400-OB	25	25	25	150	49	21.55	25	170	400		
	2525-8T25-390-000-OB	25	25	25	150	49	21.55	25	390	∞		
	3232-3T10-45-70-OB	32	32	38	170	38	30.95	10	45	70		
3232-3T10-65-100-OB	32	32	38	170	38	30.95	10	65	100			
3232-3T10-95-200-OB	32	32	38	170	38	30.95	10	95	200			
3232-3T10-190-000-OB	32	32	38	170	38	30.95	10	190	∞			
3232-3T15-45-70-OB	32	32	38	170	38	30.95	15	45	70			
3232-3T15-65-100-OB	32	32	38	170	38	30.95	15	65	100			
3232-3T15-95-200-OB	32	32	38	170	38	30.95	15	95	200			
3232-3T15-190-000-OB	32	32	38	170	38	30.8	15	190	∞			
3232-4T10-30-45-OB	32	32	38	170	39	30.55	10	30	45			
3232-4T10-35-50-OB	32	32	38	170	39	30.55	10	35	50			
3232-4T10-45-70-OB	32	32	38	170	39	30.55	10	45	70			
3232-4T10-65-120-OB	32	32	38	170	39	30.55	10	65	120			
3232-4T10-115-200-OB	32	32	38	170	39	30.55	10	115	200			
3232-4T10-190-000-OB	32	32	38	170	39	30.5	10	190	∞			
3232-4T20-30-45-OB	32	32	38	170	39	30.55	20	30	45			
3232-4T20-35-50-OB	32	32	38	170	39	30.55	20	35	50			
3232-4T20-45-70-OB	32	32	38	170	39	30.55	20	45	70			
3232-4T20-65-120-OB	32	32	38	170	39	30.55	20	65	120			
3232-4T20-115-200-OB	32	32	38	170	39	30.55	20	115	200			
3232-4T20-190-000-OB	32	32	38	170	39	30.5	20	190	∞			

**ATSFR/L-OB Face Grooving and Turning Holder (Outside Bluge Type)**

Product code		Dimension (mm)									Spare parts	
		H	B	HF	LF	LH	WF	CDX	DAXN	DAXX	Screw	Wrench
												
ATSFR/L	<b>3232-5T15-50-80-OB</b>	32	32	32	170	41	30.05	15	50	80	SH080250	LT-H6
	<b>3232-5T15-70-110-OB</b>	32	32	32	170	41	30.05	15	70	110		
	<b>3232-5T15-100-150-OB</b>	32	32	32	170	41	30.05	15	100	150		
	<b>3232-5T15-140-200-OB</b>	32	32	32	170	41	30.05	15	140	200		
	<b>3232-5T15-190-000-OB</b>	32	32	32	170	41	30.05	15	190	∞		
	<b>3232-5T25-50-80-OB</b>	32	32	32	170	49	30.05	25	50	80		
	<b>3232-5T25-70-110-OB</b>	32	32	32	170	49	30.05	25	70	110		
	<b>3232-5T25-100-150-OB</b>	32	32	32	170	49	30.05	25	100	150		
	<b>3232-5T25-140-200-OB</b>	32	32	32	170	49	30.05	25	140	200		
	<b>3232-5T25-190-000-OB</b>	32	32	32	170	49	30.05	25	190	∞		
	<b>3232-6T15-50-70-OB</b>	32	32	32	170	41	29.55	15	50	70		
	<b>3232-6T15-60-100-OB</b>	32	32	32	170	41	29.55	15	60	100		
	<b>3232-6T15-90-180-OB</b>	32	32	32	170	41	29.55	15	90	180		
	<b>3232-6T15-170-400-OB</b>	32	32	32	170	41	29.55	15	170	400		
	<b>3232-6T15-390-000-OB</b>	32	32	32	170	41	29.55	15	390	∞		
	<b>3232-6T25-50-70-OB</b>	32	32	32	170	49	29.55	25	50	70		
	<b>3232-6T25-60-100-OB</b>	32	32	32	170	49	29.55	25	60	100		
	<b>3232-6T25-90-180-OB</b>	32	32	32	170	49	29.55	25	90	180		
	<b>3232-6T25-170-400-OB</b>	32	32	32	170	49	29.55	25	170	400		
	<b>3232-6T25-390-000-OB</b>	32	32	32	170	49	29.5	25	390	∞		
<b>3232-8T25-60-100-OB</b>	32	32	32	170	49	28.55	25	60	100			
<b>3232-8T25-90-180-OB</b>	32	32	32	170	49	28.55	25	90	180			
<b>3232-8T25-170-400-OB</b>	32	32	32	170	49	28.55	25	170	400			
<b>3232-8T25-390-000-OB</b>	32	32	32	170	49	28.55	25	390	∞			

## ATSFR/L-OB Face Grooving and Turning Holder (Outside Bluge Type)

### Insert Application

Application	Low-Medium feed rate	Medium feed rate	Finishing	Low Cutting Force	Medium feed rate	Profiling
Product code \ Minimum machining diameter DMIN (mm) \ Insert shape	CM	CH	GS	TS	TM	RM
						
<b>ATSFR/L 2020-3T...OB</b>	79	79	59	30	30	59
<b>ATSFR/L 2020-4T...OB</b>	42	42	42	22	22	42
<b>ATSFR/L 2525/3232-3T...OB</b>	79	79	59	35	35	59
<b>ATSFR/L 2525/3232-4T...OB</b>	42	42	42	25	25	42
<b>ATSFR/L 2525/3232-5T...OB</b>	50	50	50	50	50	50
<b>ATSFR/L 2525/3232-6T...OB</b>	50	50	50	50	50	50
<b>ATSFR/L 2525/3232-8T...OB</b>	-	60	-	60	60	60
Reference page	P231	P232	P233	P234	P235	P236

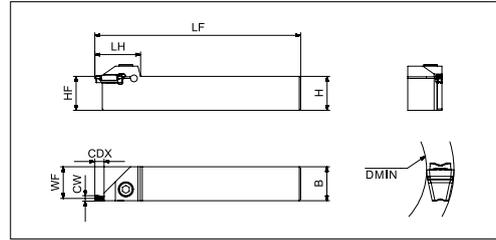
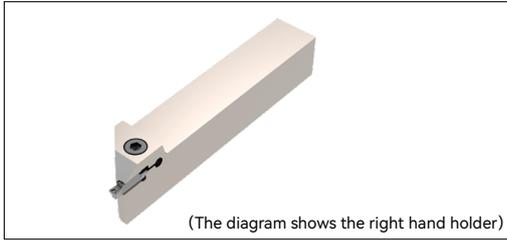
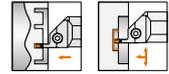
Application	Low Cutting Force	Medium feed rate	Profiling	Ground Profiling	Ground Profiling	Ground
Product code \ Minimum machining diameter DMIN (mm) \ Insert shape	TSR	TMR	RMR	RA	RS	G
						
<b>ATSFR/L 2020-3T...OB</b>	79	79	79	59	79	59
<b>ATSFR/L 2020-4T...OB</b>	55	55	55	42	55	42
<b>ATSFR/L 2525/3232-3T...OB</b>	79	79	79	59	79	59
<b>ATSFR/L 2525/3232-4T...OB</b>	55	55	55	42	55	42
<b>ATSFR/L 2525/3232-5T...OB</b>	60	60	60	50	60	50
<b>ATSFR/L 2525/3232-6T...OB</b>	60	60	60	50	60	50
<b>ATSFR/L 2525/3232-8T...OB</b>	60	60	60	60	60	60
Reference page	P234	P235	P236	P237	P237	P239

1. Inserts\*: ACD/ACS series are only applicable to grooving

2. -: Indicates that the insert is not available

3. Having selected the range of tool holder, please check the minimum face grooving machining diameter of the selected insert

### AGSFR/L External & Face Grooving and Turning Holder



Product code		Insert width (mm)	Dimension (mm)							Spare parts	
			H	B	HF	LF	LH	WF	CDX	Screw	Wrench
AGSFR/L	1616-4	2, 3, 4	16	16	16	110	33	14.30	4.6	SH060160	LT-H5
	2020-4	2, 3, 4	20	20	20	125	33	18.30	4.6	SH060200	
	2020-6	5, 6	20	20	20	125	37	17.30	4.6	SH060200	
	2525-4	2, 3, 4	25	25	25	150	33	23.30	4.6	SH060250	
	2525-6	5, 6	25	25	25	150	37	22.30	4.6	SH060250	

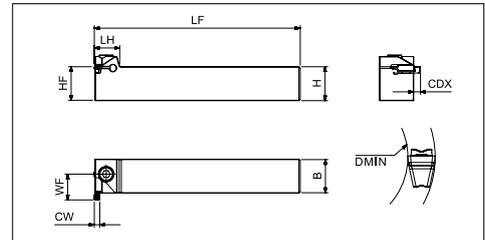
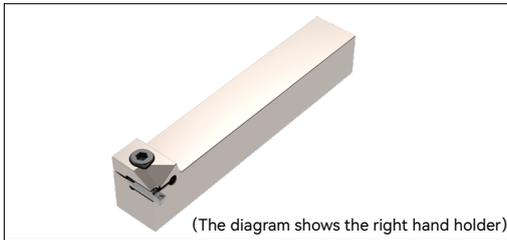
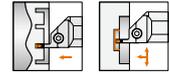
### Insert Application

Application	Insert width (mm)	Low feed rate	Low-Medium feed rate	Medium feed rate	Finishing	Low Cutting Force	Medium feed rate	Profiling
		CS	CM	CH	GS	TS	TM	RM
AGSFR/L.....	2	196	196	196	100	196	-	196
	3	79	79	79	59	24	24	59
	4	-	42	42	42	22	22	42
	5	-	50	50	40	20	20	40
	6	-	48	48	38	18	18	38
Reference page		P230	P231	P232	P233	P234	P235	P236

Application	Insert width (mm)	Low Cutting Force	Medium feed rate	Profiling	Ground Profiling	Ground Profiling	Ground
		TSR	TMR	RMR	RA	RS	G
AGSFR/L.....	2	300	-	300	-	300	100
	3	79	79	79	59	79	59
	4	55	55	55	42	55	42
	5	60	60	60	50	60	40
	6	60	60	60	50	60	38
Reference page		P234	P235	P236	P237	P237	P239

1. Inserts\*: ACD/ACS series are only applicable to grooving
2. - : Indicates that the insert is not available
3. Having selected the range of tool holder, please check the minimum face grooving machining diameter of the selected insert

## AGPFR/L Face Grooving and Turning Holder



Product code		Insert width (mm)	Dimension (mm)						Spare parts	
			H	B	HF	LF	LH	CDX	Screw	Wrench
AGPFR/L	2020-4	2, 3, 4	20	20	20	125	18	4.6	SH060200	LT-H5
	2525-4	2, 3, 4	25	25	25	150	18	4.6	SH060250	LT-H5
	2525-6	5, 6	25	25	25	150	22	4.6	SH060250	LT-H5

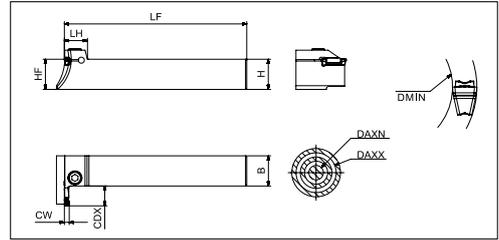
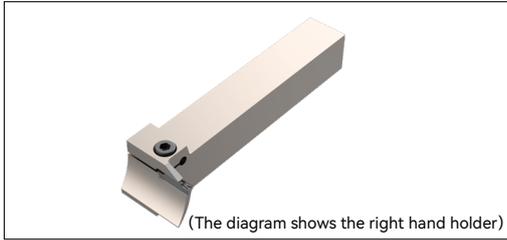
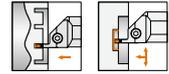
## Insert Application

Application	Insert shape	Insert width (mm)	Low feed rate	Low-Medium feed rate	Medium feed rate	Finishing	Low Cutting Force	Medium feed rate	Profiling
			CS	CM	CH	GS	TS	TM	RM
AGPFR/L.....	Minimum machining diameter DMIN (mm)	2	196	196	196	100	196	-	196
		3	79	79	79	59	24	24	59
		4	-	42	42	42	22	22	42
		5	-	50	50	40	20	20	40
		6	-	48	48	38	18	18	38
Reference page			P230	P231	P232	P233	P234	P235	P236

Application	Insert shape	Insert width (mm)	Low Cutting Force	Medium feed rate	Profiling	Ground Profiling	Ground Profiling	Ground
			TSR	TMR	RMR	RA	RS	G
AGPFR/L.....	Minimum machining diameter DMIN (mm)	2	300	-	300	-	300	100
		3	79	79	79	59	79	59
		4	55	55	55	42	55	42
		5	60	60	60	50	60	40
		6	60	60	60	50	60	38
Reference page			P234	P235	P236	P237	P237	P239

1. Inserts\*: ACD/ACS series are only applicable to grooving
2. - : Indicates that the insert is not available
3. Having selected the range of tool holder, please check the minimum face grooving machining diameter of the selected insert

### ATPFR/L Face Grooving and Turning Holder



Product code		Insert width (mm)	Dimension (mm)							Spare parts	
			H	B	LF	LH	CDX	DAXN	DAXX	Screw	Wrench
ATPFR/L	<b>2525-3T10-30-40</b>	3	25	25	150	18	10	30	40	SH050250	LT-H4
	<b>2525-3T10-35-50</b>	3	25	25	150	18	10	35	50		
	<b>2525-3T15-45-60</b>	3	25	25	150	18	15	45	60		
	<b>2525-3T15-55-85</b>	3	25	25	150	18	15	55	85		
	<b>2525-4T12-25-40</b>	4	25	25	150	18.5	12	25	40	SH060250	LT-H5
	<b>2525-4T15-35-50</b>	4	25	25	150	18.5	15	35	50		
	<b>2525-4T15-45-60</b>	4	25	25	150	18.5	15	45	60		
	<b>2525-4T15-55-85</b>	4	25	25	150	18.5	15	55	85		
	<b>2525-5T20-50-80</b>	5	25	25	150	22	20	50	80	SH080250	LT-H6
	<b>2525-5T20-70-110</b>	5	25	25	150	22	20	70	110		
	<b>2525-5T20-100-150</b>	5	25	25	150	22	20	100	150		
	<b>2525-5T20-140-200</b>	5	25	25	150	22	20	140	200		
	<b>2525-5T20-190-000</b>	5	25	25	150	22	20	190	∞		
	<b>2525-6T20-50-85</b>	6	25	25	150	22	20	50	85		
	<b>2525-6T20-75-150</b>	6	25	25	150	22	20	75	150		
	<b>2525-6T20-140-250</b>	6	25	25	150	22	20	140	250		
<b>2525-6T20-240-000</b>	6	25	25	150	22	20	240	∞			

Grooving

## ATPFR/L Face Grooving and Turning Holder

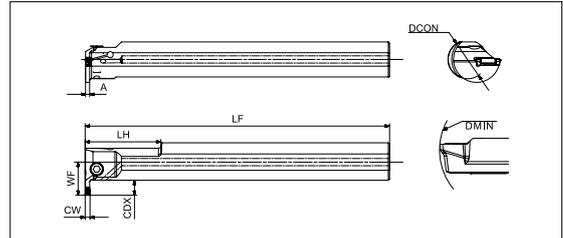
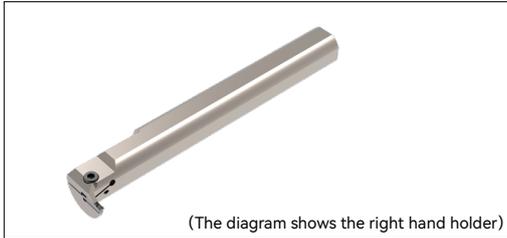
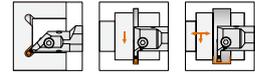
### Insert Application

Application	Low-Medium feed rate	Medium feed rate	Finishing	Low Cutting Force	Medium feed rate	Profiling
Product code \ Minimum machining diameter DMIN (mm)	Insert shape CM 	CH 	GS 	TS 	TM 	RM 
	<b>ATPFR/L 2525-3T</b>	79	79	59	35	35
<b>ATPFR/L 2525-4T</b>	42	42	42	35	35	42
<b>ATPFR/L 2525-5T</b>	50	50	50	50	50	50
<b>ATPFR/L 2525-6T</b>	50	50	50	50	50	50
Reference page	P231	P232	P233	P234	P235	P236

Application	Low Cutting Force	Medium feed rate	Profiling	Ground Profiling	Ground Profiling	Ground
Product code \ Minimum machining diameter DMIN (mm)	Insert shape TSR 	TMR 	RMR 	RA 	RS 	G 
	<b>ATPFR/L 2525-3T</b>	79	79	79	59	79
<b>ATPFR/L 2525-4T</b>	55	55	55	42	55	42
<b>ATPFR/L 2525-5T</b>	60	60	60	50	60	50
<b>ATPFR/L 2525-6T</b>	60	60	38	50	60	50
Reference page	P234	P235	P236	P237	P237	P239

1. Inserts\*: ACD/ACS series are only applicable to grooving
2. — : Indicates that the insert is not available
3. Having selected the range of tool holder, please check the minimum face grooving machining diameter of the selected insert

**ATPIR/L Internal Turning, Grooving and Profiling Holder**



Product code		Dimension (mm)							Spare parts	
		DCON	LF	LH	WF	A	CDX	DMIN	Screw	Wrench
ATPIR/L	20-2T6-25-C	20	160	40	15.8	1.8	6	25	SH050120	LT-H4
	25-2T5-25-C	25	200	40.2	17.5	1.8	5	25	SH050160	
	32-2T5-30-C	32	250	40	19.8	1.8	5	30	SH050120	
	20-3T6-25-C	20	160	40	15.8	2.4	6	25	SH050120	
	25-3T5-25-C	25	200	40.3	17.5	2.4	5	25	SH050160	
	25-3T8-32-C	25	200	40	21.5	2.4	8	32		
	32-3T5-30-C	32	250	60	19.8	2.4	5	30		
	32-3T10-40-C	32	200	60	27	2.4	10	40		
	40-3T12-50-C	40	300	65	33	2.4	12	50	SH050120	
	20-4T6-25-C	20	160	40	15.8	3.35	6	25	SH050160	
	25-4T5-25-C	25	200	40.5	17.5	3.35	5	25	SH050160	
	25-4T8-32-C	25	200	40.4	21.5	3.35	8	32	SH050120	
	32-4T5-30-C	32	250	60	20.8	3.35	5	30	SH060160	
	32-4T10-40-C	32	250	60	27	3.35	10	40		
	40-4T12-50-C	40	300	65.4	33	3.35	12	50		
	50-4T14-60-C	50	350	70.4	40	3.35	14	60	SH060200	
	25-5T5-31-C	25	200	40.5	17.3	4.35	5	31	SH060160	LT-H5
	32-5T5-31-C	32	250	60.5	20.8	4.35	5	31	SH060200	
	32-5T10-40-C	32	250	60	27	4.35	10	40	SH060250	
	40-5T12-50-C	40	300	65.5	33	4.35	12	50	SH060200	
	50-5T14-60-C	50	350	70.5	40	4.35	14	60	SH060200	
	32-6T5-31-C	32	250	60.5	20.8	5.35	5	31	SH060250	
	32-6T10-40-C	32	250	60.5	27	5.35	10	40	SH060200	
	40-6T12-50-C	40	300	65.5	33	5.35	12	50	SH060250	
50-6T14-60-C	50	350	70.5	40	5.35	14	60	SH060200		
32-8T6-38-C	32	250	60	21.3	7.35	6	38	SH060250		
40-8T6-42-C	40	300	65	25.8	7.35	6	42	SH060250		

Grooving

## ATPIR/L Internal Turning, Grooving and Profiling Holder

### Insert Application

Application	Low-Medium feed rate	Medium feed rate	Finishing	Low Cutting Force	Medium feed rate	Profiling
Product code \ Insert shape \ Minimum machining diameter DMIN (mm)	CM 	CH 	GS 	TS 	TM 	RM 
<b>ATPIR/L **-2T</b>	-	-	25	25	-	25
<b>ATPIR/L **-3T</b>	50	50	25	25	25	25
<b>ATPIR/L **-4T</b>	50	50	25	25	25	25
<b>ATPIR/L **-5T</b>	50	50	31	31	31	31
<b>ATPIR/L **-6T</b>	50	50	31	31	31	31
<b>ATPIR/L **-8T</b>	-	-	-	38	38	38
Reference page	P231	P232	P233	P234	P235	P236

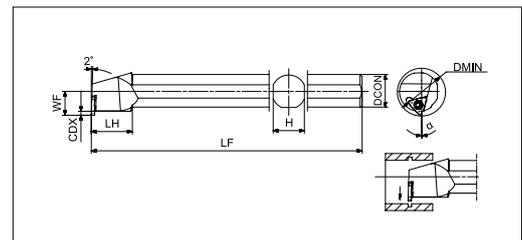
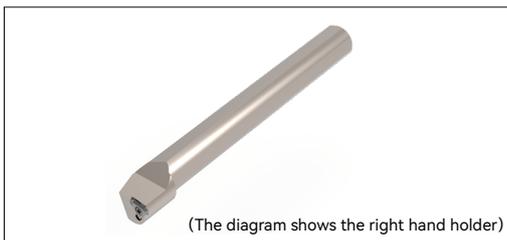
Application	Low Cutting Force	Medium feed rate	Profiling	Ground Profiling	Ground Profiling	Ground
Product code \ Insert shape \ Minimum machining diameter DMIN (mm)	TSR 	TMR 	RMR 	RA 	RS 	G 
<b>ATPIR/L **-2T</b>	25	-	25	-	25	25
<b>ATPIR/L **-3T</b>	25	25	25	25	25	25
<b>ATPIR/L **-4T</b>	25	25	31	25	25	25
<b>ATPIR/L **-5T</b>	31	31	31	31	31	31
<b>ATPIR/L **-6T</b>	31	31	38	31	31	31
<b>ATPIR/L **-8T</b>	38	38	38	38	38	38
Reference page	P234	P235	P236	P237	P237	P239

1. Inserts\*: ACD/ACS series are only applicable to grooving
2. — : Indicates that the insert is not available
3. Having selected the range of tool holder, please check the minimum face grooving machining diameter of the selected insert

### ATGI Tool Holder Denomination System

<b>A</b> 1	<b>T</b> 2	<b>G</b> 3	<b>I</b> 4	<b>R</b> 5	<b>25</b> 6	<b>S</b> 7	<b>43</b> 8	<b>-</b> -	<b>40</b> 9	<b>T30</b> 10	
1- Company Name ACHTECK		2- Matching Insert Type T Triangular		3- Application G Grooving		4- Holder Type I Internal machining					
5- Hand of Tool L Left R Right		6- Holder Size 25=25.0mm 32=32.0mm		7- Holder Length R:220mm S:250mm		8- Matching Insert Size (IC) 43=12.70mm					
9- Minimum Internal Machining Diameter 40=40mm				10- Maximum CDX T30=3.0mm							

### ATGIR/L Internal Shallow Grooving Holder

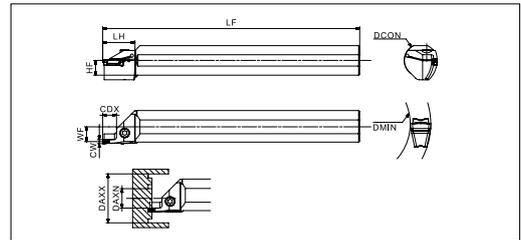
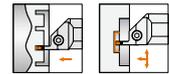


Product code		Dimension (mm)						Spare parts	
		DMIN	DCON	LF	LH	WF	CDX	Screw	Wrench
<b>ATGIR/L</b>	25R32-35T28	35	25	220	30	17.5	2.8	SP040085	FT-TP15
	32S43-40T30	40	32	250	30	23.0	3.0	SP05008550	FT-TP20

### Insert Application

Application	Grooving	Profiling
Insert shape		
Product code		
<b>ATGIR** 32</b>	ATG 32L	ATG 32L
<b>ATGIR** 43</b>	ATG 43L	ATG 43L
<b>ATGIL** 32</b>	ATG 32R	ATG 32R
<b>ATGIL** 43</b>	ATG 43R	ATG 43R
Reference page	P228	P228

## ATSIR/L Internal Face Grooving and Turning Holder



Product code		Dimension (mm)							Spare parts	
		DCON	LF	LH	WF	CDX	DAXN	DAXX	Screw	Wrench
ATSIR/L	25-3T12-35-45-C	25	200	31	11.4	12	35	45	SH050160	LT-H4
	25-3T12-40-60-C	25	200	31	11.4	12	40	60		
	25-3T12-55-90-C	25	200	31	11.4	12	55	90		
	25-3T12-80-150-C	25	200	31	11.4	12	80	150		
	25-4T12-20-35-C	25	200	31	11	12	20	35		
	25-4T12-28-45-C	25	200	31	11	12	28	45		
	25-4T12-35-55-C	25	200	31	11	12	35	55		
	32-4T12-45-70-C	32	250	31	14.5	12	45	70		
	32-4T12-60-100-C	32	250	31	14.5	12	60	100		
32-4T12-90-180-C	32	250	31	14.5	12	90	180			

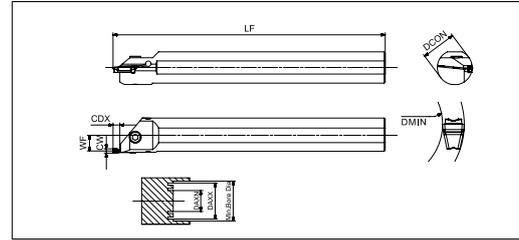
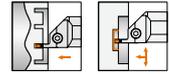
## Insert Application

Application	Low-Medium feed rate	Medium feed rate	Finishing	Low Cutting Force	Medium feed rate	Profiling
Product code \ Insert shape \ Minimum machining diameter DMIN (mm)	CM	CH	GS	TS	TM	RM
ATSIR/L **3T	80	80	59	35	35	59
ATSIR/L **4T	42	42	42	22	22	42
Reference page	P231	P232	P233	P234	P235	P236

Application	Low Cutting Force	Medium feed rate	Profiling	Ground Profiling	Ground Profiling	Ground
Product code \ Insert shape \ Minimum machining diameter DMIN (mm)	TSR	TMR	RMR	RA	RS	G
ATSIR/L **3T	80	80	80	59	80	59
ATSIR/L **4T	55	55	55	42	55	42
Reference page	P234	P235	P236	P237	P237	P239

1. Inserts\*: ACD/ACS series are only applicable to grooving
2. — : Indicates that the insert is not available
3. Having selected the range of tool holder, please check the minimum face grooving machining diameter of the selected insert

### AGSIR/L Internal Face Grooving and Turning Holder



Product code		Insert width (mm)	Dimension (mm)					Spare parts	
			DCON	LF	LH	WF	CDX	Screw	Wrench
<b>AGSIR/L</b>	<b>25-4T5-C</b>	2, 3, 4	25	200	12.3	10.9	5.8	SH060160	LT-H5
	<b>25-6T5-C</b>	5, 6	25	200	12.3	10.3	5.8		
	<b>32-4T5-C</b>	2, 3, 4	32	250	15.8	14.5	5.8		
	<b>32-6T5-C</b>	5, 6	32	250	15.8	13.8	5.8		

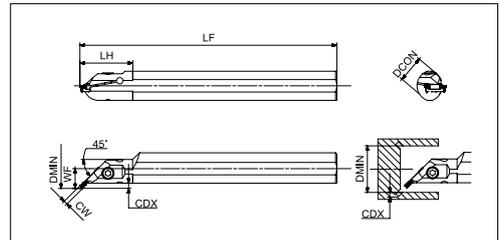
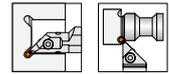
### Insert Application

Application	Insert shape	Insert width (mm)	Low feed rate	Low-Medium feed rate	Medium feed rate	Finishing	Low Cutting Force	Medium feed rate	Profiling
			CS	CM	CH	GS	TS	TM	RM
<b>AGSIR/L.....</b>		2	196	196	196	100	196	-	196
		3	79	79	79	59	24	24	59
		4	-	42	42	42	22	22	42
		5	-	50	50	40	20	20	40
		6	-	48	48	38	18	18	38
Reference page			P230	P231	P232	P233	P234	P235	P236

Application	Insert shape	Insert width (mm)	Low Cutting Force	Medium feed rate	Profiling	Ground Profiling	Ground Profiling	Ground
			TSR	TMR	RMR	RA	RS	G
<b>AGSIR/L.....</b>		2	300	-	300	-	300	100
		3	79	79	79	59	79	59
		4	55	55	55	42	55	42
		5	60	60	60	50	60	40
		6	60	60	60	50	60	38
Reference page			P234	P235	P236	P237	P237	P239

1. Inserts\*: ACD/ACS series are only applicable to grooving
2. — : Indicates that the insert is not available
3. Having selected the range of tool holder, please check the minimum face grooving machining diameter of the selected insert

## AGUIR/L Internal Undercutting Holder



Product code		Dimension (mm)						Spare parts	
		DCON	LF	LH	WF	CDX	DIMN	Screw	Wrench
AGUIR/L	<b>20-3T3-45</b>	20	160	40	12.3	3	45	SH050120	LT-H4
	<b>20-4T3-45</b>	20	160	40	12.3	3	45		
	<b>25-3T3-45</b>	25	200	40	14.4	3	45	SH050160	
	<b>25-4T3-45</b>	25	200	40	14.4	3	45		
	<b>25-6T3-45</b>	25	200	40	14.4	3	45	SH060160	

## Insert Application

Application	Profiling	Ground Profiling	Ground Profiling	Ground
Product code	RM	RA	RS	G
<b>AGUER/L**</b>	ATD 315 ..... ATD 630	ATD 315 ..... ATD 630	ATD 210 ..... ATD 630	ATD 300E ..... ATD 600E
Reference page	P236	P237	P237	P239

# ACHTTECK

[www.achtecktool.com](http://www.achtecktool.com)

THE EXPERT OF DIFFICULT MACHINING



Grooving Inserts

## Turning Grade Description

### Grooving Grade Description

#### **P** Steel, cast steel, long chipping malleable cast iron

##### Basic grade

###### AP301U P25(P15-P35)

PVD coated grade, suitable for steel, stainless steel and heat resistant alloy grooving. High strength and wear resistant submicron carbide substrate with nanostructured PVD coating. Good coating adhesion, high wear resistance.

###### AC230P P20(P10-P30)

CVD coated grade. It's mainly used in steel, grey cast iron and nodular cast iron grooving, turning and profiling under high cutting speed. High toughness and wear resistant substrate combined with nano-structured coating offered good wear resistance, coating adhesion, machining stability and longer tool life.

##### Supplemental grade

###### AP330M P35(P25-P45)

Brand new PVD coated grade. Suitable for stainless steel and steel finishing, semi-finishing and rough grooving. It's the 1st choice for stainless steel turning, and good for steel turning as well. It has high thermal stability, wear resistance, and excellent thermal crack resistance. Enriched cobalt superfine grain substrate offers high hardness and good anti shock capability which reduces the edge chipping problem.

#### **M** Austenitic/ferrite/martensite, cast iron, manganese steel, alloyed cast iron, malleable cast iron, free cutting iron

##### Basic grade

###### AP330M M35(M25-M45)

Brand new PVD coated grade. Suitable for stainless steel and steel finishing, semi-finishing and rough grooving. It's the 1st choice for stainless steel turning, and good for steel turning as well. It has high thermal stability, wear resistance, and excellent thermal crack resistance. Enriched cobalt superfine grain substrate offers high hardness and good anti shock capability which reduces the edge chipping problem.

##### Supplemental grade

###### AP301U M20(M15-M35)

PVD coated grade. Suitable for steel, stainless steel and heat resistant alloy grooving. High strength and wear resistant submicron carbide substrate with nanostructured PVD coating. Good coating adhesion, high wear resistance.

###### AP130S M10(M05-M20)

PVD coated carbide material. Suitable for turning grooves in nickel-based, titanium-based, iron-based superalloys, titanium alloys, stainless steel, and other materials. The substrate adopts binder phase strengthening technology, enhancing the tool's high-temperature resistance and impact resistance. Paired with the newly developed PVD coating, which features a dense structure and low surface friction coefficient, the tool's resistance to built-up edge, wear resistance, and high-temperature oxidation resistance are improved.

#### **N** Non-ferrous metal

##### Basic grade

###### AW100K N15 (N05-N25)

Uncoated ultra-fine grain substrate, specially treated cutting edge, suitable for aluminum alloy grooving.

#### **S** Heat resistant alloys

##### Basic grade

###### AP130S S15(S10-S20)

PVD coated carbide material. Suitable for turning grooves in nickel-based, titanium-based, iron-based superalloys, titanium alloys, stainless steel, and other materials. The substrate adopts binder phase strengthening technology, enhancing the tool's high-temperature resistance and impact resistance. Paired with the newly developed PVD coating, which features a dense structure and low surface friction coefficient, the tool's resistance to built-up edge, wear resistance, and high-temperature oxidation resistance are improved.

**Grade Application Guide**

Material Group	ISO	ISO Group of Grooving Insert Grades					ISO
		PVD coated			CVD coated	Uncoated	
		AP301U	AP130S	AP330M	AC230P	AW100K	
<b>P</b> Unalloyed steels / Alloyed steels	P01						P01
	P10	AP301U			AC230P		P10
	P20	AP301U		AP330M			P20
	P30			AP330M			P30
	P40						P40
	P50						P50
<b>M</b> Stainless steels	M01		AP130S				M01
	M10	AP301U	AP130S				M10
	M20	AP301U		AP330M			M20
	M30			AP330M			M30
	M40						M40
<b>K</b> Cast iron	K01						K01
	K10						K10
	K20						K20
	K30						K30
	K40						K40
	K50						K50
<b>N</b> Aluminum/ Aluminum alloys	N01					AW100K	N01
	N10					AW100K	N10
	N20					AW100K	N20
	N30						N30
<b>S</b> Heat resistant alloys	S01						S01
	S10						S10
	S20		AP130S				S20
	S30						S30
	S40						S40
<b>H</b> Hardened steels/ Chilled cast iron	H01						H01
	H10						H10
	H20						H20
	H30						H30

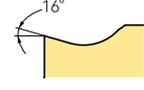
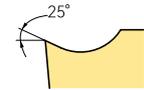
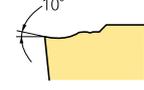
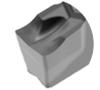
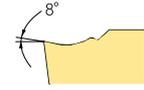
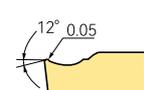
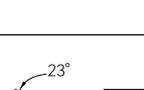
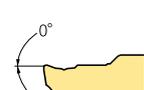
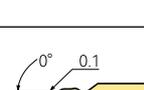
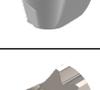
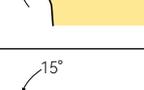
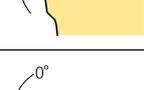
Grooving

## Grade Application Guide

Materials				Turning grade application				
ISO	Material classification	Tensile strength (N/mm <sup>2</sup> )	Hardness (HB)	PVD coated			CVD coated	Uncoated
				AP301U	AP130S	AP330M	AC230P	AW100K
P	Unalloyed steel	<600	<180	●	⦿	●	●	-
		<950	<280	●	⦿	●	●	-
	Alloyed steel	700-950	200-280	●	⦿	●	●	-
		950-1200	280-355	●	⦿	●	●	-
		1200-1400	355-415	●	⦿	●	●	-
M	Duplex stainless steel	778	230	●	●	●	-	-
	Austenitic stainless steel	675	200	●	●	●	-	-
	Precipitation-hardening stainless steel	1013	300	●	●	●	-	-
K	Grey cast iron	700	220	⦿	-	-	●	-
	Nodular cast iron	880	260	⦿	-	-	●	-
	Malleable cast iron	800	250	⦿	-	-	●	-
N	Aluminum	260	75	-	-	-	-	●
	Aluminum alloy	447	130	-	-	-	-	●
S	Fe-based alloy	943	280	-	●	-	-	-
	Co-based alloy	1076	320	-	●	-	-	-
	Ni-based alloy	1177	350	-	●	-	-	-
	Ti-alloy	1262	370	-	●	-	-	-
H	Hardened steel	-	50-60HRC	-	-	-	-	-
	Chilled cast iron	-	55HRC	-	-	-	-	-

- 1st choice
- ⦿ 2nd choice
- Inapplicable

**Insert Geometry Introduction**

Geometry	Insert	Shape of cutting edge	Description	Geometry width (mm)								
				External grooving					Face grooving		Internal grooving	
				Grooving	Parting off	Turning	Profiling	Undercutting	Grooving	Turning	Grooving	Turning
ATG			<ul style="list-style-type: none"> <li>High precision insert</li> <li>Positive rake angle reduces the vibration</li> <li>3 teeth design, with good flexibility.</li> </ul>	0.33	-	-	0.5	-	-	-	0.33	-
				4.5	-	-	1.0 1.5 2.0 3.0 4.0	-	-	-	-	4.5
ASG			<ul style="list-style-type: none"> <li>High precision insert</li> <li>Big rake angle and sharp teeth design obtain good surface quality.</li> <li>3 teeth design</li> </ul>	0.8	-	-	-	-	-	-	0.8	-
				2.5	-	-	-	-	-	-	-	2.5
CS			<ul style="list-style-type: none"> <li>Used in parting off &amp; grooving stainless steel, heat resistant alloy and low carbon steel</li> <li>For low feed rate application</li> </ul>	2.0	2.0	-	-	-	-	-	-	-
				3.0	3.0	-	-	-	3.0	-	3.0	-
CM			<ul style="list-style-type: none"> <li>Used in parting off &amp; grooving low carbon steel and stainless steel</li> <li>For sticky material, pipe fitting, thin-walled part parting off, low cutting force</li> <li>For low to medium feed rate</li> </ul>	2.0	2.0	-	-	-	-	3.0	-	3.0
				3.0	3.0	-	-	-	4.0	-	4.0	-
				4.0	4.0	-	-	-	5.0	-	5.0	-
				5.0	5.0	-	-	-	6.0	-	6.0	-
				6.0	6.0	-	-	-	6.0	-	6.0	-
CH			<ul style="list-style-type: none"> <li>Used in parting off and grooving steel, alloy steel and stainless steel with high hardness and toughness.</li> <li>Strong cutting edge</li> <li>For parting off and grooving at medium to high feed rate</li> </ul>	2.0	2.0	-	-	-	-	3.0	-	3.0
				3.0	3.0	-	-	-	4.0	-	4.0	-
				4.0	4.0	-	-	-	5.0	-	5.0	-
				5.0	5.0	-	-	-	6.0	-	6.0	-
				6.0	6.0	-	-	-	6.0	-	6.0	-
GS			<ul style="list-style-type: none"> <li>Excellent chip breaking, suitable for grooving and finish turning.</li> <li>Geometry for finish machining, low cutting force, low feed, excellent surface quality.</li> <li>Ground insert, better precision control and positioning repeatability.</li> </ul>	2.0	2.0	2.0	-	-	3.0	3.0	2.0	2.0
				4.00	4.00	4.00	-	-	4.00	4.00	4.00	4.00
TS			<ul style="list-style-type: none"> <li>Multifunctional insert for external, internal turning and grooving, parting off, face grooving and face turning</li> <li>Excellent chip control</li> <li>For low and medium feed rate</li> <li>Extended diameter range for internal and face machining</li> </ul>	2.0	2.0	2.0	-	-	3.0	3.0	2.0	2.0
				3.0	3.0	3.0	-	-	4.0	4.0	3.0	3.0
				4.0	4.0	4.0	-	-	5.0	5.0	4.0	4.0
				5.0	5.0	5.0	-	-	6.0	6.0	5.0	5.0
				6.0	6.0	6.0	-	-	6.0	6.0	6.0	6.0
TM			<ul style="list-style-type: none"> <li>Multifunctional insert for external, internal turning and grooving, parting off, face grooving and face turning</li> <li>Stronger cutting edge design</li> <li>For medium feed rate</li> <li>Extended diameter range for internal and face machining</li> </ul>	2.0	2.0	2.0	-	-	3.0	3.0	2.0	2.0
				3.0	3.0	3.0	-	-	4.0	4.0	3.0	3.0
				4.0	4.0	4.0	-	-	5.0	5.0	4.0	4.0
				5.0	5.0	5.0	-	-	6.0	6.0	5.0	5.0
				6.0	6.0	6.0	-	-	6.0	6.0	6.0	6.0
RM			<ul style="list-style-type: none"> <li>External grooving, turning, profiling</li> <li>Medium feed rate</li> </ul>	2.0	-	2.0	2.0	2.0	3.0	3.0	2.0	2.0
				3.0	-	3.0	3.0	3.0	4.0	4.0	3.0	3.0
				4.0	-	4.0	4.0	4.0	5.0	5.0	4.0	4.0
				5.0	-	5.0	5.0	5.0	6.0	6.0	5.0	5.0
				6.0	-	6.0	6.0	6.0	6.0	6.0	6.0	6.0
RA			<ul style="list-style-type: none"> <li>For turning and profiling aluminum alloy</li> <li>High positive rake angle and sharp cutting edge</li> <li>Ground inserts with high precision</li> </ul>	3.0	-	3.0	3.0	3.0	3.0	3.0	3.0	3.0
				4.0	-	4.0	4.0	4.0	4.0	4.0	4.0	4.0
				5.0	-	5.0	5.0	5.0	5.0	5.0	5.0	5.0
				6.0	-	6.0	6.0	6.0	6.0	6.0	6.0	6.0
				8.0	-	8.0	8.0	8.0	8.0	8.0	8.0	8.0
RS			<ul style="list-style-type: none"> <li>External grooving, turning, profiling</li> <li>Robust cutting edge design</li> <li>Low feed applications</li> <li>Sharpened grade circular inserts with high precision control</li> <li>Good surface quality</li> </ul>	2.0	-	2.0	2.0	2.0	-	-	2.0	2.0
				3.0	-	3.0	3.0	3.0	3.0	3.0	3.0	3.0
				4.0	-	4.0	4.0	4.0	4.0	4.0	4.0	4.0
				5.0	-	5.0	5.0	5.0	5.0	5.0	5.0	5.0
				6.0	-	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Precision ground			<ul style="list-style-type: none"> <li>Ground insert with high precision, better precision control</li> <li>Complete product offering</li> <li>Good surface quality</li> </ul>	1.0	-	2.22	3.0	3.0	3.0	3.0	2.22	2.22
				4.0	-	4.8	4.0	4.0	4.8	4.8	4.8	4.8
				5.0	-	5.0	5.0	5.0	5.0	5.0	5.0	5.0
				6.0	-	6.0	6.0	6.0	6.0	6.0	6.0	6.0
				8.0	-	8.0	8.0	8.0	8.0	8.0	8.0	8.0

Grooving

## Triangular Shallow Grooving Insert Denomination System

<b>A</b>	<b>T</b>	<b>G</b>	<b>32</b>	<b>R/L</b>	<b>050</b>	<b>T12</b>	<b>-</b>	<b>R005</b>
1	2	3	4	5	6	7	-	8

1- Company Name	
ACHTECK	

2- Insert Type	
T	Triangular
S	Only applied to Swiss lathe

3- Application	
G	Grooving

4- Insert IC Size	
32=9.525mm	
43=12.70mm	

5- Hand of Tool	
L	Left
R	Right

6- Insert Width	
050=0.5mm	

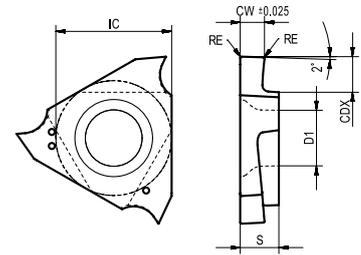
7- Maximum CDX	
T12=1.2mm	

8- Insert Corner	
R005=0.05mm	

**Shallow Grooving Series**

ASG: Applied to external shallow grooving for Swiss lathe

Product code	IC	S	D1
ASG 32-	9.525	3.18	4.6



(The diagram shows the right hand insert)

Inserts	Product code	Machining conditions				● Good Conditions    ⚙ General Conditions ✖ Bad Conditions							
		Cutting parameter		Dimensions		P		M		K		N	
		Grooving f (mm/rev)	CDX	CW	RE	AP301U	AP330M	AC230P	AP330M	AP301U	AC230P	AP301U	AW100K
	<b>ASG 32R/L033T08-R005</b>	0.01-0.05	0.8	0.33	0.05	●				●		●	
	<b>ASG 32R/L050T12-R005</b>	0.01-0.05	1.2	0.50	0.05	●				●		●	
	<b>ASG 32R/L075T20-R010</b>	0.02-0.07	2.0	0.75	0.10	●				●		●	
	<b>ASG 32R/L095T20-R010</b>	0.02-0.07	2.0	0.95	0.10	●				●		●	
	<b>ASG 32R/L100T20-R010</b>	0.03-0.08	2.0	1.00	0.10	●				●		●	
	<b>ASG 32R/L120T20-R010</b>	0.03-0.08	2.0	1.20	0.10	●				●		●	
	<b>ASG 32R/L125T20-R010</b>	0.03-0.08	2.0	1.25	0.10	●				●		●	
	<b>ASG 32R/L140T20-R010</b>	0.03-0.08	2.0	1.40	0.10	●				●		●	
	<b>ASG 32R/L145T20-R010</b>	0.03-0.08	2.0	1.45	0.10	●				●		●	
	<b>ASG 32R/L150T20-R010</b>	0.03-0.08	2.0	1.50	0.10	●				●		●	
	<b>ASG 32R/L175T20-R010</b>	0.03-0.08	2.0	1.75	0.10	●				●		●	
	<b>ASG 32R/L200T25-R010</b>	0.03-0.08	2.5	2.00	0.10	●				●		●	
	<b>ASG 32R/L250T25-R010</b>	0.03-0.08	2.5	2.50	0.10	●				●		●	

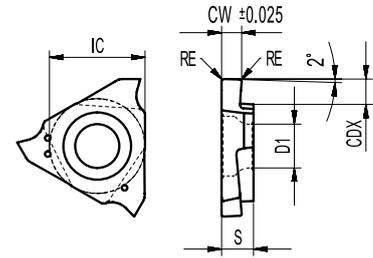
● : Standard stock    ○ : Made-to-Order

Grooving

## Shallow Grooving Series

ATG: Applied to external and internal shallow grooving

Product code	IC	S	D1
ATG 32-	9.525	3.18	4.4
ATG 43-	12.7	4.76	5.5
ATG 43R/L450	12.7	5.0	5.5



(The diagram shows the right hand insert)

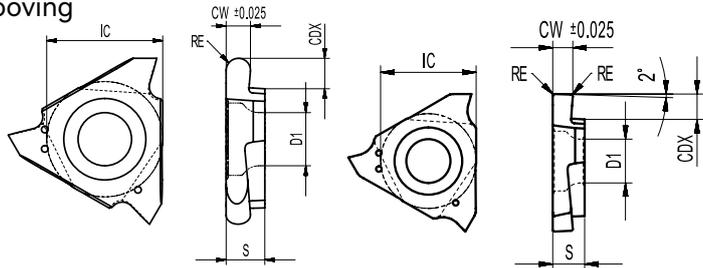
Inserts	Product code	Machining conditions				● Good Conditions   ● General Conditions ✖ Bad Conditions							
		Cutting parameter		Dimensions		P		M		K		N	
		Grooving f (mm/rev)	CDX	CW	RE	AP301U	AP330M	AC230P	AP330M	AP301U	AC230P	AP301U	AW100K
	<b>ATG 32R/L033T08-R005</b>	0.03-0.08	0.8	0.33	0.05	●				●		●	
	<b>ATG 32R/L050T12-R005</b>	0.03-0.08	1.2	0.50	0.05	●				●		●	
	<b>ATG 32R/L075T20-R005</b>	0.03-0.08	2.0	0.75	0.05	●				●		●	
	<b>ATG 32R/L095T20-R005</b>	0.03-0.08	2.0	0.95	0.05	●				●		●	
	<b>ATG 32R/L100T20-R005</b>	0.03-0.08	2.0	1.00	0.05	●				●		●	
	<b>ATG 32R/L110T20-R005</b>	0.03-0.08	2.0	1.10	0.05	●				●		●	
	<b>ATG 32R/L120T20-R005</b>	0.03-0.08	2.0	1.20	0.05	●				●		●	
	<b>ATG 32R/L125T20-R020</b>	0.04-0.09	2.0	1.25	0.20	●				●		●	
	<b>ATG 32R/L130T20-R020</b>	0.04-0.09	2.0	1.30	0.20	●				●		●	
	<b>ATG 32R/L140T25-R020</b>	0.04-0.09	2.5	1.40	0.20	●				●		●	
	<b>ATG 32R/L145T25-R020</b>	0.04-0.09	2.5	1.45	0.20	●				●		●	
	<b>ATG 32R/L150T25-R020</b>	0.04-0.09	2.5	1.50	0.20	●				●		●	
	<b>ATG 32R/L160T25-R020</b>	0.04-0.09	2.5	1.60	0.20	●				●		●	
	<b>ATG 32R/L170T25-R020</b>	0.04-0.09	2.5	1.70	0.20	●				●		●	
	<b>ATG 32R/L175T25-R020</b>	0.04-0.09	2.5	1.75	0.20	●				●		●	
	<b>ATG 32R/L200T25-R020</b>	0.04-0.09	2.5	2.00	0.20	●				●		●	
	<b>ATG 32R/L225T25-R020</b>	0.04-0.09	2.5	2.25	0.20	●				●		●	
	<b>ATG 32R/L250T25-R020</b>	0.05-0.10	2.5	2.50	0.20	●				●		●	
	<b>ATG 32R/L300T25-R020</b>	0.05-0.10	2.5	3.00	0.20	●				●		●	
	<b>ATG 43R/L100T20-R010</b>	0.03-0.08	2.0	1.00	0.10	●				●		●	
	<b>ATG 43R/L125T20-R010</b>	0.04-0.09	2.0	1.25	0.10	●				●		●	
	<b>ATG 43R/L125T20-R020</b>	0.04-0.09	2.0	1.25	0.20	●				●		●	
	<b>ATG 43R/L130T30-R010</b>	0.04-0.09	3.0	1.30	0.10	●				●		●	
	<b>ATG 43R/L130T30-R020</b>	0.04-0.09	3.0	1.30	0.20	●				●		●	
	<b>ATG 43R/L140T35-R020</b>	0.04-0.09	3.5	1.40	0.20	●				●		●	
	<b>ATG 43R/L145T35-R020</b>	0.04-0.09	3.5	1.45	0.20	●				●		●	
	<b>ATG 43R/L150T35-R010</b>	0.04-0.09	3.5	1.50	0.10	●				●		●	
	<b>ATG 43R/L150T35-R020</b>	0.04-0.09	3.5	1.50	0.20	●				●		●	
	<b>ATG 43R/L170T35-R020</b>	0.04-0.09	3.5	1.70	0.20	●				●		●	
	<b>ATG 43R/L175T35-R020</b>	0.04-0.09	3.5	1.75	0.20	●				●		●	
	<b>ATG 43R/L185T35-R020</b>	0.04-0.09	3.5	1.85	0.20	●				●		●	
	<b>ATG 43R/L195T35-R020</b>	0.04-0.09	3.5	1.95	0.20	●				●		●	

● : Standard stock   ○ : Made-to-Order

**Shallow Grooving Series**

ATG: Applied to external and internal shallow grooving

Product code	IC	S	D1
ATG 32-	9.525	3.18	4.4
ATG 43-	12.7	4.76	5.5
ATG 43R/L450	12.7	5.0	5.5



(The diagram shows the right hand insert)

Inserts	Product code	Cutting parameter		Dimensions		Machining conditions							
		Grooving f (mm/rev)	CDX	CW	RE	P		M		K		N	
						AP301U	AP330M	AC230P	AP330M	AP301U	AC230P	AP301U	AW100K
	ATG 43R/L200T35-R010	0.04-0.09	3.5	2.00	0.10	●				●		●	
	ATG 43R/L200T35-R020	0.04-0.09	3.5	2.00	0.20	●				●		●	
	ATG 43R/L225T35-R020	0.04-0.09	3.5	2.25	0.20	●				●		●	
	ATG 43R/L230T35-R020	0.05-0.10	3.5	2.30	0.20	●				●		●	
	ATG 43R/L250T50-R010	0.05-0.10	5.0	2.50	0.10	●				●		●	
	ATG 43R/L250T50-R030	0.05-0.10	5.0	2.50	0.30	●				●		●	
	ATG 43R/L265T50-R030	0.05-0.10	5.0	2.65	0.30	●				●		●	
	ATG 43R/L280T50-R030	0.05-0.10	5.0	2.80	0.30	●				●		●	
	ATG 43R/L300T50-R010	0.05-0.10	5.0	3.00	0.10	●				●		●	
	ATG 43R/L300T50-R030	0.05-0.10	5.0	3.00	0.30	●				●		●	
	ATG 43R/L325T50-R030	0.05-0.10	5.0	3.25	0.30	●				●		●	
	ATG 43R/L330T50-R030	0.05-0.12	5.0	3.30	0.30	●				●		●	
	ATG 43R/L350T50-R010	0.05-0.12	5.0	3.50	0.10	●				●		●	
	ATG 43R/L350T50-R030	0.05-0.12	5.0	3.50	0.30	●				●		●	
	ATG 43R/L400T50-R010	0.05-0.12	5.0	4.00	0.10	●				●		●	
	ATG 43R/L400T50-R040	0.05-0.12	5.0	4.00	0.40	●				●		●	
	ATG 43R/L430T50-R040	0.05-0.12	5.0	4.30	0.40	●				●		●	
ATG 43R/L450T50-R040	0.05-0.12	5.0	4.50	0.40	●				●		●		
	ATG 32R/L050T12-R025	0.03-0.08	1.2	0.50	0.25	●				●		●	
	ATG 32R/L100T12-R050	0.03-0.08	1.2	1.00	0.50	●				●		●	
	ATG 32R/L150T25-R075	0.04-0.09	2.5	1.50	0.75	●				●		●	
	ATG 32R/L200T25-R100	0.04-0.09	2.5	2.00	1.00	●				●		●	
	ATG 32R/L300T25-R150	0.05-0.10	2.5	3.00	1.50	●				●		●	
	ATG 43R/L100T20-R050	0.03-0.08	2.0	1.00	0.50	●				●		●	
	ATG 43R/L150T35-R075	0.04-0.09	3.5	1.50	0.75	●				●		●	
	ATG 43R/L200T35-R100	0.04-0.09	3.5	2.00	1.00	●				●		●	
	ATG 43R/L250T40-R125	0.05-0.10	5.0	2.50	1.25	●				●		●	
	ATG 43R/L300T40-R150	0.05-0.10	5.0	3.00	1.50	●				●		●	
	ATG 43R/L400T50-R200	0.05-0.12	5.0	4.00	2.00	●				●		●	

● : Standard stock ○ : Made-to-Order

Grooving

## Insert Denomination System (Pressing Insert)

<b>A</b>	<b>C</b>	<b>D</b>
1	2	3

<b>4</b>	<b>0</b>	<b>3</b>
4	5	

<b>-</b>
-

<b>CM</b>
6

<b>6</b>	<b>R</b>
7	8

1- Company Name
ACHTECK

2- Application
C Grooving/Parting off
T Turning/Grooving

3- Insert Shape
S Single-edged
D Double-edged

4- Insert Width
2=2.0mm
3=3.0mm
4=4.0mm

5-Insert Corner
02=0.2mm
03=0.3mm
04=0.4mm

6-Geometry
CS
CM
CH
GS
TS
TM
RM
RA

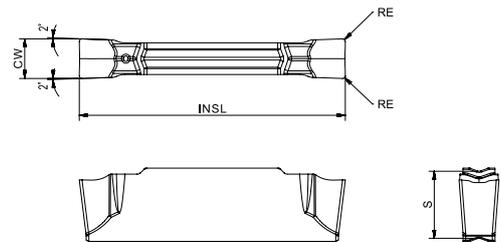
7-Cutting Edge Angle
6=6°
15=15°

8-Hand of Tool
 L: Left
 R: Right

Grooving

## Parting Off-Grooving Series

CS: Double-edged inserts applicable to parting off and grooving

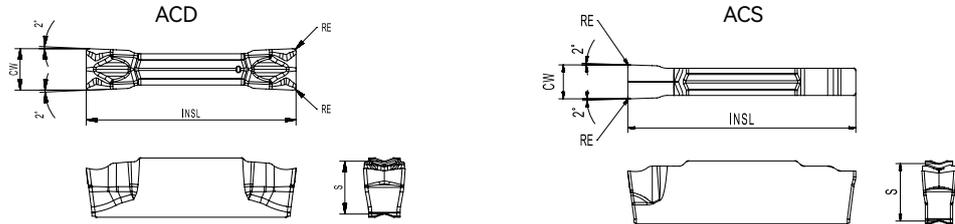


Inserts	Product code	Machining conditions						● Good Conditions    ⚙ General Conditions ✖ Bad Conditions									
		Cutting parameter		Dimensions				P		M		K		S		N	
		CDX	f (mm/rev)	CW	RE	INSL	S	AP301U	AP330M	AC230P	AP330M	AP130S	AP301U	AC230P	AP301U	AP130S	AW100K
	<b>ACD 202 CS</b>	19.7	0.04-0.13	2	0.2	20	5.1	●	●		●	●	●		●	●	
	<b>ACD 302 CS</b>	19.7	0.05-0.15	3	0.2	20	5.1	●	●		●	●	●		●	●	

● : Standard stock    ○ : Made-to-Order

**Parting Off-Grooving Series**

CM: Double-edged inserts applicable to parting off and grooving



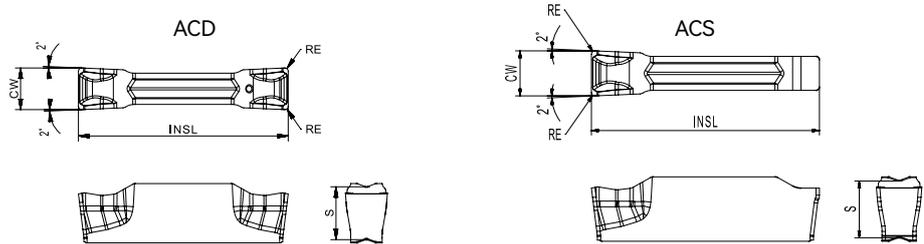
Inserts	Product code	Cutting parameter		Dimensions				Machining conditions										
								● Good Conditions    ⚙ General Conditions ✖ Bad Conditions										
								P		M		K		S		N		
CDX	f (mm/rev)	CW	RE	INSL	S	AP301U	AP330M	AC230P	AP330M	AP130S	AP301U	AC230P	AP301U	AP130S	AW100K			
	<b>ACD 202-CM</b>	19.7	0.04-0.15	2	0.2	20	5.1	●	●		●	●	●	●	●			
	<b>ACD 202-CM-6R</b>	19.7	0.03-0.09	2	0.2	20.7	5.1	●	●		●	●	●	●	●			
	<b>ACD 202-CM-6L</b>	19.7	0.03-0.09	2	0.2	20.7	5.1	●	○		○	●	●	●	●			
	<b>ACD 202-CM-15R</b>	19.7	0.03-0.09	2	0.2	21	5.1	●	●		●	●	●	●	●			
	<b>ACD 202-CM-15L</b>	19.7	0.03-0.09	2	0.2	21	5.1	●	○		○	●	●	●	●			
	<b>ACD 302-CM</b>	19.7	0.05-0.16	3	0.2	20	5.1	●	●		●	●	●	●	●	●		
	<b>ACD 302-CM-6R</b>	19.7	0.04-0.14	3	0.2	20.7	5.1	●	○		○	●	●	●	●			
	<b>ACD 302-CM-6L</b>	19.7	0.04-0.14	3	0.2	20.7	5.1	●	●		●	●	●	●	●			
	<b>ACD 302-CM-15R</b>	19.7	0.04-0.14	3	0.2	21	5.1	●	●		●	●	●	●	●			
	<b>ACD 302-CM-15L</b>	19.7	0.04-0.14	3	0.2	21	5.1	●	○		○	●	●	●	●			
	<b>ACD 403-CM</b>	19.7	0.06-0.18	4	0.3	20	5.1	●	●		●	●	●	●	●			
	<b>ACD 403-CM-4R</b>	19.7	0.05-0.16	4	0.3	20.7	5.1	●	●		●	●	●	●	●			
	<b>ACD 403-CM-4L</b>	19.7	0.05-0.16	4	0.3	20.7	5.1	●	●		●	●	●	●	●			
	<b>ACD 503-CM</b>	24.7	0.06-0.20	5	0.3	25	5.0	●	○		○	●	●	●	●			
	<b>ACD 503-CM-4R</b>	24.7	0.06-0.18	5	0.3	25.7	5.0	○	○		○	○	○	○	○			
	<b>ACD 503-CM-4L</b>	24.7	0.06-0.18	5	0.3	25.7	5.0	○	○		○	○	○	○	○			
<b>ACD 603-CM</b>	29.7	0.06-0.22	6	0.3	25	5.0	●	○		○	●	●	●	●				
	<b>ACS 202-CM</b>	—	0.04-0.15	2	0.2	20	5.1	●	●		●	●	●	●	●			
	<b>ACS 302-CM</b>	—	0.05-0.16	3	0.2	20	5.1	●	○		○	●	●	●	●			
	<b>ACS 403-CM</b>	—	0.06-0.18	4	0.3	20	5.1	○	○		○	○	○	○	○			
	<b>ACS 503-CM</b>	—	0.06-0.20	5	0.3	25	5.0	○	○		○	○	○	○	○			
	<b>ACS 603-CM</b>	—	0.06-0.22	6	0.3	25	5.0	○	○		○	○	○	○	○			

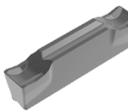
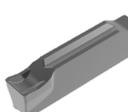
● : Standard stock    ○ : Made-to-Order

Remark: 1. if R/L style inserts are selected, the feed need to be reduced by 20-40%.  
 2. ACS single edged insert's Tmax is determined according to the tool holder.

## Parting Off-Grooving Series

CH: Double-edged inserts applicable to parting off and grooving



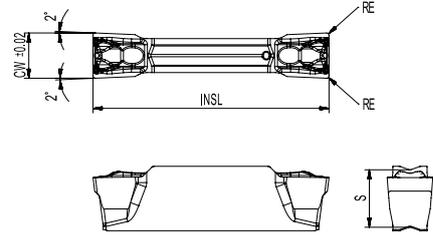
Inserts	Product code	Cutting parameter		Dimensions				Machining conditions							
								● Good Conditions   ● General Conditions ✖ Bad Conditions							
								P		M		K		N	
CDX	f (mm/rev)	CW	RE	INSL	S	AP301U	AP330M	AC230P	AP330M	AP301U	AC230P	AP301U	AW100K		
	ACD 202-CH	19.7	0.05-0.20	2	0.2	20	5.1	●	●		●	●		●	
	ACD 202-CH-6R	19.7	0.04-0.16	2	0.2	20.7	5.1	●	●		●	●		●	
	ACD 202-CH-6L	19.7	0.04-0.16	2	0.2	20.7	5.1	●	○		○	●		●	
	ACD 202-CH-15R	19.7	0.04-0.15	2	0.2	21	5.1	●	●		●	●		●	
	ACD 202-CH-15L	19.7	0.04-0.15	2	0.2	21	5.1	●	○		○	●		●	
	ACD 2.502-CH	19.7	0.07-0.20	2.5	0.2	20	5.1	●	○		○	●		●	
	ACD 302-CH	19.7	0.07-0.25	3	0.2	20	5.1	●	●		●	●		●	
	ACD 302-CH-6R	20.7	0.05-0.20	3	0.2	20.7	5.1	●	●		●	●		●	
	ACD 302-CH-6L	21.7	0.05-0.20	3	0.2	20.7	5.1	●	●		●	●		●	
	ACD 302-CH-15R	20	0.05-0.18	3	0.2	21	5.1	●	●		●	●		●	
	ACD 302-CH-15L	20	0.05-0.18	3	0.2	21	5.1	●	○		○	●		●	
	ACD 403-CH	19	0.08-0.30	4	0.3	20	5.1	●	●		●	●		●	
	ACD 403-CH-4R	19.7	0.06-0.25	4	0.3	20.7	5.1	●	●		●	●		●	
	ACD 403-CH-4L	19.7	0.06-0.25	4	0.3	20.7	5.1	●	●		●	●		●	
	ACD 503-CH	24	0.09-0.35	5	0.3	25	5.0	●	●		●	●		●	
	ACD 503-CH-4R	24.7	0.08-0.30	5	0.3	25.7	5.0	●	●		●	●		●	
	ACD 503-CH-4L	25.7	0.08-0.30	5	0.3	25.7	5.0	●	●		●	●		●	
	ACD 603-CH	24	0.12-0.40	6	0.3	25	5.0	●	●		●	●		●	
ACD 804-CH	29	0.15-0.45	8	0.4	30	6.1	●	●		●	●		●		
	ACS 202-CH	—	0.05-0.20	2	0.2	20	5.1	●	○		○	●		●	
	ACS 302-CH	—	0.07-0.25	3	0.2	20	5.1	●	●		●	●		●	
	ACS 403-CH	—	0.08-0.30	4	0.3	20	5.1	●	●		●	●		●	
	ACS 503-CH	—	0.09-0.35	5	0.3	25	5.0	●	●		●	●		●	
	ACS 603-CH	—	0.12-0.40	6	0.3	25	5.0	○	○		○	○		○	

● : Standard stock   ○ : Made-to-Order

Remark: 1. if R/L style inserts are selected, the feed need to be reduced by 20-40%.  
 2. ACS single edged insert's Tmax is determined according to the tool holder.

**Grooving-Turning Series**

GS: Double-edged inserts applicable to external, internal and face turning, grooving and parting off



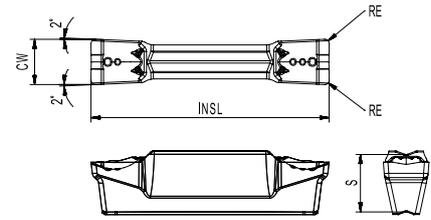
Inserts	Product code	Machining conditions							● Good Conditions   ● General Conditions ✖ Bad Conditions										
		Cutting parameter			Dimensions				P		M		K		S		N		
		Grooving	Turning		CW	RE	INSL	S	AP301U	AP330M	AC230P	AP330M	AP130S	AP301U	AC230P	AP301U	AP130S	AW100K	
	f (mm/rev)	f (mm/rev)	Ap (mm)																
	<b>ATD 200E020-GS</b>	0.04-0.20	0.05-0.20	0.30-1.5	2	0.20	20.70	5.1	●				●				●		
	<b>ATD 300E020-GS</b>	0.04-0.20	0.05-0.20	0.30-2.0	3.00	0.20	20.70	5.1	●				●	●			●	●	
	<b>ATD 300E040-GS</b>	0.04-0.20	0.05-0.20	0.45-2.0	3.00	0.40	20.70	5.1	●				●	●			●	●	
	<b>ATD 310E020-GS</b>	0.04-0.20	0.05-0.20	0.25-2.0	3.15	0.20	20.70	5.1	●					●	●			●	
	<b>ATD 318E020-GS</b>	0.04-0.20	0.05-0.20	0.25-2.0	3.18	0.20	20.70	5.1	●					●	●			●	
	<b>ATD 318E040-GS</b>	0.04-0.20	0.05-0.20	0.45-2.0	3.18	0.40	20.70	5.1	●					●	●			●	
	<b>ATD 318E080-GS</b>	0.04-0.20	0.05-0.20	0.85-2.0	3.18	0.80	20.70	5.1	●					●	●			●	
	<b>ATD 361E030-GS</b>	0.04-0.20	0.06-0.23	0.35-2.0	3.61	0.30	20.70	5.1	●					●	●			●	
	<b>ATD 396E020-GS</b>	0.05-0.25	0.07-0.25	0.25-2.50	3.96	0.20	20.70	5.1	●					●	●			●	
	<b>ATD 396E040-GS</b>	0.05-0.25	0.07-0.25	0.45-2.50	3.96	0.40	20.70	5.1	●					●	●			●	
	<b>ATD 396E080-GS</b>	0.05-0.25	0.07-0.25	0.85-2.50	3.96	0.80	20.70	5.1	●					●	●			●	
	<b>ATD 400E020-GS</b>	0.05-0.25	0.07-0.25	0.25-2.50	4.00	0.20	20.70	5.1	●				●	●				●	●
	<b>ATD 400E040-GS</b>	0.05-0.25	0.07-0.25	0.45-2.50	4.00	0.40	20.70	5.1	●				●	●				●	●

● : Standard stock   ○ : Made-to-Order

Grooving

## Grooving-Turning Series

TS: Double-edged inserts applicable to external, internal and face turning, grooving and parting off

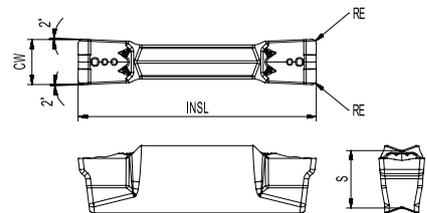


Inserts	Product code	Cutting parameter								Machining conditions				● Good Conditions    ● General Conditions ✖ Bad Conditions					
		CDX	Grooving	Turning		CW	RE	INSL	S	P	M	K	S	N					
			f (mm/rev)	f (mm/rev)	Ap (mm)					AP301U	AP330M	AC230P	AP330M	AP130S	AP301U	AC230P	AP301U	AP130S	AW100K
	<b>ATD 203-TS</b>	19.7	0.04-0.20	0.12-0.19	0.40-1.50	2	0.3	20.7	5.1	●	○	○	○	○	●	○	●	○	○
	<b>ATD 303-TS</b>	19.7	0.05-0.25	0.15-0.23	0.45-2.00	3	0.3	20.7	5.1	●	●	○	●	○	●	○	●	○	○
	<b>ATD 404-TS</b>	19.7	0.06-0.27	0.18-0.25	0.50-2.50	4	0.4	20.7	5.1	●	●	○	○	○	●	○	●	○	○
	<b>ATD 408-TS</b>	19.7	0.06-0.27	0.18-0.25	1.00-2.50	4	0.8	20.7	5.1	●	○	●	○	○	●	○	●	○	○
	<b>ATD 504-TS</b>	24.7	0.07-0.30	0.20-0.30	0.55-3.50	5	0.4	25.7	5.0	●	●	○	●	○	●	○	●	○	○
	<b>ATD 508-TS</b>	24.7	0.07-0.30	0.20-0.30	1.00-3.50	5	0.8	25.7	5.0	●	●	○	●	○	●	○	●	○	○
	<b>ATD 604-TS</b>	24.7	0.10-0.40	0.22-0.45	0.65-3.80	6	0.4	25.7	5.0	●	○	○	○	○	●	○	●	○	○
	<b>ATD 608-TS</b>	24.7	0.10-0.40	0.22-0.45	1.0-3.80	6	0.8	25.7	5.0	●	●	●	●	○	●	○	●	○	○
	<b>ATD 808-TS</b>	30.5	0.12-0.45	0.28-0.50	1.0-4.50	8	0.8	31.5	6.1	●	○	○	○	○	●	○	●	○	○

● : Standard stock    ○ : Made-to-Order

## Grooving-Turning Series

TSR: Double-edged inserts applicable to external, internal and face turning, grooving and parting off

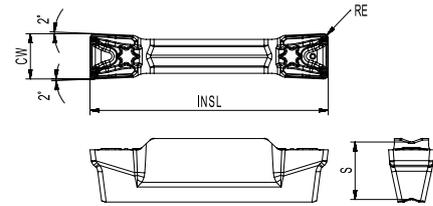


Inserts	Product code	Cutting parameter								Machining conditions				● Good Conditions    ● General Conditions ✖ Bad Conditions					
		CDX	Grooving	Turning		CW	RE	INSL	S	P	M	K	S	N					
			f (mm/rev)	f (mm/rev)	Ap (mm)					AP301U	AP330M	AC230P	AP330M	AP130S	AP301U	AC230P	AP301U	AP130S	AW100K
	<b>ATD 203-TSR</b>	19.7	0.04-0.20	0.12-0.19	0.40-1.50	2	0.3	20.7	5.1	●	○	○	○	○	●	○	●	○	○
	<b>ATD 303-TSR</b>	19.7	0.05-0.25	0.15-0.23	0.45-2.00	3	0.3	20.7	5.1	●	○	○	○	○	●	○	●	○	○
	<b>ATD 404-TSR</b>	19.7	0.06-0.27	0.18-0.25	0.50-2.50	4	0.4	20.7	5.1	●	○	○	○	○	●	○	●	○	○
	<b>ATD 408-TSR</b>	19.7	0.06-0.27	0.18-0.25	1.00-2.50	4	0.8	20.7	5.1	●	○	○	○	○	●	○	●	○	○
	<b>ATD 504-TSR</b>	24.7	0.07-0.30	0.20-0.30	0.55-3.50	5	0.4	25.7	5.0	●	○	○	○	○	●	○	●	○	○
	<b>ATD 508-TSR</b>	24.7	0.07-0.30	0.20-0.30	1.00-3.50	5	0.8	25.7	5.0	●	○	○	○	○	●	○	●	○	○
	<b>ATD 604-TSR</b>	24.7	0.10-0.40	0.22-0.45	0.65-3.80	6	0.4	25.7	5.0	●	○	○	○	○	●	○	●	○	○
	<b>ATD 608-TSR</b>	24.7	0.10-0.40	0.22-0.45	1.0-3.80	6	0.8	25.7	5.0	●	○	○	○	○	●	○	●	○	○
	<b>ATD 808-TSR</b>	30.5	0.12-0.45	0.28-0.50	1.0-4.50	8	0.8	31.5	6.1	●	○	○	○	○	●	○	●	○	○

● : Standard stock    ○ : Made-to-Order

### Grooving-Turning Series

TM: Double-edged inserts applicable to external turning, grooving and parting off

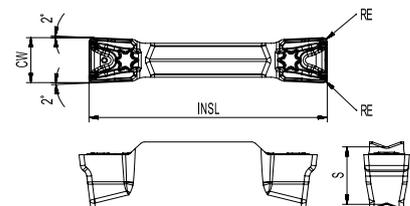


Inserts	Product code	Cutting parameter								Machining conditions							
		CDX	Grooving	Turning		Dimensions				P		M		K		N	
			f (mm/rev)	f (mm/rev)	Ap (mm)	CW	RE	INSL	S	AP301U	AP330M	AC230P	AP330M	AP301U	AC230P	AP301U	AW100K
	ATD 304-TM	19.7	0.1-0.25	0.15-0.22	0.5-2.0	3	0.4	20.7	5.1	●	○	○	○	●	○	○	
	ATD 404-TM	19.7	0.15-0.30	0.18-0.27	0.5-2.50	4	0.4	20.7	5.1	●	●	●	●	●	●	●	
	ATD 408-TM	19.7	0.15-0.30	0.18-0.27	1.0-2.50	4	0.8	20.7	5.1	●	●	○	●	●	○	●	
	ATD 504-TM	24.7	0.18-0.35	0.20-0.35	0.55-3.50	5	0.4	25.7	5.0	●	●	●	●	●	●	●	
	ATD 508-TM	24.7	0.18-0.35	0.20-0.35	1.0-3.50	5	0.8	25.7	5.0	●	●	○	●	●	○	●	
	ATD 604-TM	24.7	0.20-0.45	0.22-0.45	0.65-4.0	6	0.4	25.7	5.0	●	●	●	●	●	●	●	
	ATD 608-TM	24.7	0.20-0.45	0.22-0.45	1.0-4.0	6	0.8	25.7	5.0	●	●	●	●	●	●	●	
	ATD 808-TM	30.5	0.22-0.50	0.28-0.5	1.0-5.0	8	0.8	31.5	6.1	○	○	○	○	○	○	○	
	ATD 812-TM	30.5	0.22-0.50	0.28-0.5	1.5-5.0	8	1.2	31.5	6.1	●	○	○	○	●	○	○	

● : Standard stock ○ : Made-to-Order

### Grooving-Turning Series

TMR: Double-edged ground inserts applicable to aluminium alloy turning and parting off



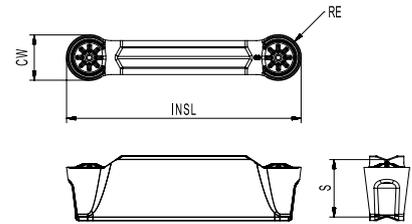
Inserts	Product code	Cutting parameter								Machining conditions							
		CDX	Grooving	Turning		Dimensions				P		M		K		N	
			f (mm/rev)	f (mm/rev)	Ap (mm)	CW	RE	INSL	S	AP301U	AP330M	AC230P	AP330M	AP301U	AC230P	AP301U	AW100K
	ATD 304-TMR	19.7	0.1-0.25	0.15-0.22	0.5-2.0	3	0.4	20.7	5.1	●				●		●	
	ATD 404-TMR	19.7	0.15-0.30	0.18-0.27	0.5-2.50	4	0.4	20.7	5.1	●				●		●	
	ATD 408-TMR	19.7	0.15-0.30	0.18-0.27	1.0-2.50	4	0.8	20.7	5.1	●				●		●	
	ATD 504-TMR	24.7	0.18-0.35	0.20-0.35	0.55-3.50	5	0.4	25.7	5.0	●				●		●	
	ATD 508-TMR	24.7	0.18-0.35	0.20-0.35	1.0-3.50	5	0.8	25.7	5.0	●				●		●	
	ATD 604-TMR	24.7	0.20-0.45	0.22-0.45	0.65-4.0	6	0.4	25.7	5.0	●				●		●	
	ATD 608-TMR	24.7	0.20-0.45	0.22-0.45	1.0-4.0	6	0.8	25.7	5.0	●				●		●	
	ATD 808-TMR	30.5	0.22-0.50	0.28-0.5	1.0-5.0	8	0.8	31.5	6.1	○				○		○	
	ATD 812-TMR	30.5	0.22-0.50	0.28-0.5	1.5-5.0	8	1.2	31.5	6.1	●				●		●	

● : Standard stock ○ : Made-to-Order

Grooving

## Grooving-Turning Series

RM: Double-edged inserts applicable to external turning, grooving and profiling

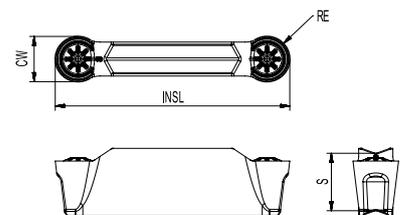


Inserts	Product code	Cutting parameter							Machining conditions										
		Grooving			Turning				Dimensions				P		M		K		N
		f (mm/rev)	f (mm/rev)	Ap (mm)	CW	RE	INSL	S	AP301U	AP330M	AC230P	AP330M	AP301U	AC230P	AP301U	AW100K			
	<b>ATD 210-RM</b>	0.06-0.15	0.12-0.25	0.4-1.0	2	1	20.7	5.1	●	●	○	●	●	○	●				
	<b>ATD 315-RM</b>	0.08-0.18	0.15-0.30	0.5-1.5	3	1.5	20.7	5.1	●	●	●	●	●	●	●				
	<b>ATD 420-RM</b>	0.10-0.20	0.18-0.35	0.6-2.0	4	2	20.7	5.1	●	●	●	●	●	●	●				
	<b>ATD 525-RM</b>	0.12-0.25	0.20-0.40	0.7-2.5	5	2.5	25.7	5.0	●	●	●	●	●	●	●				
	<b>ATD 630-RM</b>	0.15-0.30	0.25-0.50	0.9-3.0	6	3	25.7	5.0	●	●	○	●	●	○	●				
	<b>ATD 840-RM</b>	0.18-0.35	0.30-0.60	1.0-4.0	8	4	31.5	6.1	●	○	○	○	●	○	●				

● : Standard stock ○ : Made-to-Order

## Grooving-Turning Series

RMR: Double-edged round inserts applicable to external turning, grooving and profiling

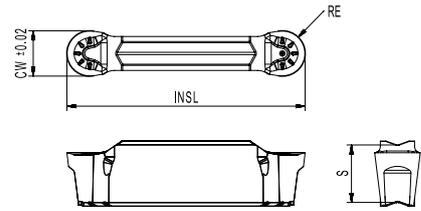


Inserts	Product code	Cutting parameter							Machining conditions											
		Grooving			Turning				Dimensions				P		M		K		S	N
		f (mm/rev)	f (mm/rev)	Ap (mm)	CW	RE	INSL	S	AP301U	AP330M	AC230P	AP330M	AP130S	AP301U	AC230P	AP301U	AP130S	AW100K		
	<b>ATD 210-RMR</b>	0.06-0.15	0.12-0.25	0.4-1.0	2	1	20.7	5.1	●				●	●		●	●			
	<b>ATD 315-RMR</b>	0.08-0.18	0.15-0.30	0.5-1.5	3	1.5	20.7	5.1	●				●	●		●	●			
	<b>ATD 420-RMR</b>	0.10-0.20	0.18-0.35	0.6-2.0	4	2	20.7	5.1	●				●	●		●	●			
	<b>ATD 525-RMR</b>	0.12-0.25	0.20-0.40	0.7-2.5	5	2.5	25.7	5.0	●			○	●			●	○			

● : Standard stock ○ : Made-to-Order

### Grooving-Turning Series

RA: Double-edged ground inserts applicable to aluminium alloy turning and profiling



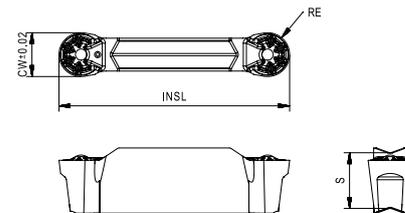
Inserts	Product code	Cutting parameter							Machining conditions											
		Grooving			Turning				Dimensions				P		M		K		N	
		f (mm/rev)	f (mm/rev)	Ap (mm)	CW	RE	INSL	S	AP301U	AP330M	AC230P	AP330M	AP301U	AC230P	AP301U	AW100K				
	<b>ATD 315-RA</b>	0.08-0.18	0.15-0.30	0.5-1.5	3	1.5	20.7	5.1										●		
	<b>ATD 420-RA</b>	0.10-0.25	0.2-0.45	0.6-0.2	4	2	20.7	5.1										●		
	<b>ATD 525-RA</b>	0.11-0.28	0.2-0.50	0.7-2.5	5	2.5	25.7	5.0										●		
	<b>ATD 630-RA</b>	0.12-0.30	0.22-0.60	0.9-3.0	6	3	25.7	5.0										●		
	<b>ATD 840-RA</b>	0.15-0.40	0.25-0.65	1.0-4.0	8	4	31.5	6.1										●		

● : Standard stock ○ : Made-to-Order

Grooving

### Grooving-Turning Series

RS: Double-edged precision ground inserts, turning and profiling



Inserts	Product code	Cutting parameter							Machining conditions													
		Grooving			Turning				Dimensions				P		M		K		S		N	
		f (mm/rev)	f (mm/rev)	Ap (mm)	CW	RE	INSL	S	AP301U	AP330M	AC230P	AP330M	AP130S	AP301U	AC230P	AP301U	AP130S	AW100K				
	<b>ATD 210-RS</b>	0.08-0.15	0.10-0.22	0-1.0	2.0	1.0	20.7	5.1														
	<b>ATD 315-RS</b>	0.08-0.18	0.15-0.30	0-1.5	3.0	1.5	20.7	5.1					●							●		
	<b>ATD 420-RS</b>	0.10-0.20	0.18-0.35	0-2.0	4.0	2	20.7	5.1					●							●		
	<b>ATD 525-RS</b>	0.13-0.25	0.25-0.55	0-2.5	5.0	2.5	25.7	5.0					●							●		
	<b>ATD 630-RS</b>	0.15-0.28	0.30-0.65	0-3.0	6.0	3	25.7	5.0					●							●		
	<b>ATD 840-RS</b>	0.18-0.35	0.35-0.65	0-4.0	8.0	4	31.5	6.1												○		

● : Standard stock ○ : Made-to-Order

## Insert Denomination System (Ground Insert)

**A**  
1

**T**  
2

**D**  
3

**215**  
4

**E**  
5

**010**  
6

**G**  
7

**R/L**  
8

1- Company Name
ACHTECK

2- Application	
C	Grooving/Parting off
T	Turning/Grooving

3- Insert Shape	
S	Single-edged
D	Double-edged

4- Insert Width
215=2.15mm
145=1.45mm

5- Application
E: External
F: Facing
I: Internal

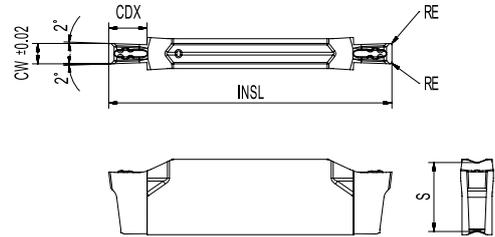
6- Insert Corner
010=0.10mm
020=0.20mm
200=2.00mm

7- Application Limited	
G	only applicable to parting off

8- Hand of Tool	
	L: Left
	R: Right

**Grooving-Turning Ground Series**

Ground inserts applicable to turning and grooving



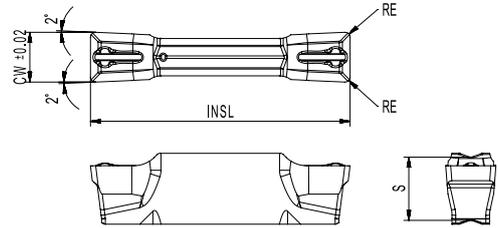
Inserts	Product code	Suitable tool holder (mm)	Cutting parameter Grooving f (mm/rev)	Dimensions					Machining conditions							
				CW	RE	CDX	S	INSL	P		M		K		N	
									AP301U	AP330M	AC230P	AP330M	AP301U	AC230P	AP301U	AW100K
	<b>ATD 100E000G</b>	2	0.02-0.05	1.00	0.00	2.00	5.1	20.700	●					●	●	
	<b>ATD 104E000G</b>	2	0.02-0.05	1.04	0.00	2.00	5.1	20.700	●					●	●	
	<b>ATD 115E000G</b>	2	0.02-0.05	1.15	0.00	2.00	5.1	20.700	●					●	●	
	<b>ATD 120E000G</b>	2	0.03-0.05	1.20	0.00	2.00	5.1	20.700	●					●	●	
	<b>ATD 125E010G</b>	2	0.03-0.05	1.25	0.10	2.00	5.1	20.700	●					●	●	
	<b>ATD 130E000G</b>	2	0.03-0.05	1.30	0.00	2.00	5.1	20.700	●					●	●	
	<b>ATD 135E000G</b>	2	0.03-0.05	1.35	0.00	2.00	5.1	20.700	●					●	●	
	<b>ATD 140E000G</b>	2	0.03-0.06	1.40	0.00	2.00	5.1	20.700	●					●	●	
	<b>ATD 145E010G</b>	2	0.03-0.06	1.45	0.10	2.00	5.1	20.700	●					●	●	
	<b>ATD 147E000G</b>	2	0.03-0.06	1.47	0.00	2.50	5.1	20.700	●					●	●	
	<b>ATD 150E010G</b>	2	0.03-0.06	1.50	0.10	2.50	5.1	20.700	●					●	●	
	<b>ATD 157E015G</b>	2	0.03-0.07	1.57	0.15	2.70	5.1	20.700	●					●	●	
	<b>ATD 165E010G</b>	2	0.03-0.07	1.65	0.10	2.70	5.1	20.700	●					●	●	
	<b>ATD 170E010G</b>	2	0.03-0.07	1.70	0.10	3.00	5.1	20.700	●					●	●	
	<b>ATD 178E018G</b>	2	0.03-0.07	1.78	0.18	3.00	5.1	20.700	●					●	●	
	<b>ATD 190E010G</b>	2	0.04-0.09	1.90	0.10	3.00	5.1	20.700	●					●	●	
	<b>ATD 196E015G</b>	2	0.04-0.09	1.96	0.15	3.00	5.1	20.700	●					●	●	
	<b>ATD 200E020G</b>	2	0.04-0.09	2.00	0.20	3.00	5.1	20.700	●					●	●	
	<b>ATD 215E010G</b>	2	0.04-0.10	2.15	0.10	3.00	5.1	20.700	●					●	●	
	<b>ATD 222E015G</b>	2	0.04-0.10	2.22	0.15	-	5.1	20.700	●					●	●	
	<b>ATD 230E020G</b>	2	0.04-0.10	2.30	0.20	-	5.1	20.700	●					●	●	
	<b>ATD 100E050G</b>	2	0.03-0.06	1.00	0.50	2.00	5.1	20.700	●					●	●	
	<b>ATD 140E070G</b>	2	0.04-0.07	1.40	0.70	2.00	5.1	20.700	●					●	●	
	<b>ATD 157E079G</b>	2	0.04-0.08	1.57	0.785	2.70	5.1	20.700	●					●	●	
	<b>ATD 200E100G</b>	2	0.05-0.11	2.00	1.00	3.00	5.1	20.700	●					●	●	
	<b>ATD 239E120G</b>	2	0.06-0.12	2.39	1.195	-	5.1	20.700	●					●	●	

● : Standard stock ○ : Made-to-Order

1. When the width of insert is less than 1.78mm, please pay attention to size A of the holder.

## Grooving-Turning Ground Series

Ground inserts applicable to turning and grooving

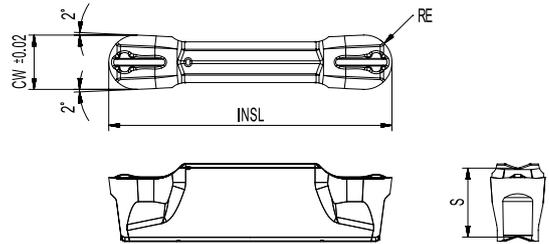


Inserts	Product code	Suitable tool holder (mm)	Machining conditions								Machining conditions							
			Turning		Grooving	Dimensions			P	M	K	N						
			f (mm/rev)	Ap (mm)	f (mm/rev)	CW	RE	CDX	S	INSL	AP301U	AP330M	AC230P	AP330M	AP301U	AC230P	AP301U	AW100K
	<b>ATD 265E015</b>	3	0.10-0.18	0.20-1.80	0.04-0.12	2.65	0.15	-	5.1	20.70	●				●		●	
	<b>ATD 300E020</b>	3	0.11-0.20	0.30-2.00	0.06-0.14	3.00	0.20	-	5.1	20.70	●				●		●	
	<b>ATD 300E040</b>	3	0.15-0.23	0.50-2.20	0.06-0.15	3.00	0.40	-	5.1	20.70	●				●		●	
	<b>ATD 400E040</b>	4	0.16-0.30	0.50-2.50	0.08-0.19	4.00	0.40	-	5.1	20.70	●				●		●	
	<b>ATD 400E080</b>	4	0.16-0.30	1.00-2.50	0.08-0.19	4.00	0.80	-	5.1	20.70	●				●		●	
	<b>ATD 415E015</b>	4	0.16-0.30	0.20-2.50	0.08-0.19	4.15	0.15	-	5.1	20.70	●				●		●	
	<b>ATD 478E055</b>	5	0.20-0.35	0.60-2.60	0.10-0.20	4.78	0.55	-	5.0	25.70	●				●		●	
	<b>ATD 500E040</b>	5	0.20-0.35	0.50-2.60	0.10-0.20	5.00	0.40	-	5.0	25.70	●				●		●	
	<b>ATD 500E080</b>	5	0.22-0.35	1.00-3.00	0.10-0.20	5.00	0.80	-	5.0	25.70	●				●		●	
	<b>ATD 515E015</b>	5	0.22-0.35	0.20-3.00	0.10-0.22	5.15	0.15	-	5.0	25.70	●				●		●	
	<b>ATD 555E055</b>	6	0.23-0.40	0.60-3.00	0.12-0.28	5.55	0.55	-	5.0	25.70	●				●		●	
	<b>ATD 600E080</b>	6	0.25-0.45	1.00-3.50	0.12-0.30	6.00	0.80	-	5.0	25.70	●				●		●	
	<b>ATD 600E120</b>	6	0.25-0.45	1.30-3.50	0.12-0.30	6.00	1.20	-	5.0	25.70	●				●		●	
	<b>ATD 635E080</b>	6	0.25-0.45	1.00-3.50	0.13-0.30	6.35	0.80	-	5.0	25.70	●				●		●	
	<b>ATD 800E080</b>	8	0.30-0.55	1.00-4.80	0.15-0.40	8.00	0.80	-	6.1	31.50	●				●		●	
	<b>ATD 800E120</b>	8	0.30-0.55	1.20-4.80	0.15-0.40	8.00	1.20	-	6.1	31.50	●				●		●	

● : Standard stock ○ : Made-to-Order

### Grooving-Turning Ground Series

Ground inserts applicable to turning and grooving

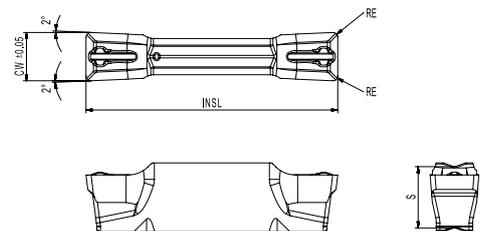


Inserts	Product code	Suitable tool holder (mm)	Machining conditions								Machining conditions							
			Turning		Grooving	Dimensions			P	M	K	N						
			f (mm/rev)	Ap (mm)	f (mm/rev)	CW	RE	CDX	S	INSL	AP301U	AP330M	AC230P	AP330M	AP301U	AC230P	AP301U	AW100K
	<b>ATD 300E150</b>	3	0.15-0.30	0-1.50	0.08-0.19	3.00	1.50	-	5.1	20.700	●				●		●	
	<b>ATD 400E200</b>	4	0.18-0.35	0-2.00	0.10-0.20	4.00	2.00	-	5.1	20.700	●				●		●	
	<b>ATD 478E239</b>	5	0.22-0.45	0-2.40	0.12-0.24	4.78	2.39	-	5.0	25.700	●				●		●	
	<b>ATD 500E250</b>	5	0.22-0.45	0-2.50	0.12-0.24	5.00	2.50	-	5.0	25.700	●				●		●	
	<b>ATD 600E300</b>	6	0.25-0.50	0-3.00	0.15-0.30	6.00	3.00	-	5.0	25.700	●				●		●	
	<b>ATD 800E400</b>	8	0.30-0.65	0-4.00	0.18-0.35	8.00	4.00	-	6.1	31.50	●				●		●	

● : Standard stock ○ : Made-to-Order

Grooving

### Blank Inserts of ATBD



Inserts	Product code	Suitable tool holder (mm)	Dimensions				P	M	K	N	S	H
			CW	RE	INSL	S						
	<b>ATBD 2.6 M200</b>	2	2.60	0.10	21.2	5.1	●	●	●	●	●	
	<b>ATBD 3.5 M200</b>	3	3.50	0.10	21.2	5.1	●	●	●	●	●	
	<b>ATBD 4.5 M200</b>	4	4.50	0.10	21.2	5.1	●	●	●	●	●	
	<b>ATBD 5.5 M200</b>	5	5.50	0.10	26.2	5.0	●	●	●	●	●	
	<b>ATBD 6.5 M200</b>	6	6.50	0.10	26.2	5.0	●	●	●	●	●	
	<b>ATBD 8.5 M200</b>	8	8.74	0.12	32.0	6.1	●	●	●	●	●	

● : Standard stock ○ : Made-to-Order

Finished inserts need to be used together with Achteck grooving holder.

## Cutting Data Recommendation Table

Materials					Cutting parameter recommended table of parting off and grooving application															
ISO	Workpiece material		Brinell hardness (HB/HRC)	Tensile strength (N/mm <sup>2</sup> )	AP301U			AP130S			AP330M			AC230P			AW100K			
					f (mm/rev)			f (mm/rev)			f (mm/rev)			f (mm/rev)			f (mm/rev)			
					0.1	0.3	0.5	0.1	0.3	0.5	0.1	0.3	0.5	0.1	0.3	0.5	0.1	0.2	0.4	
P	Unalloyed steel	C ≤ 0.25%	Annealed	125	428	180	145	130	180	145	130	160	130	100	220	180	160	-	-	-
		0.25 < C ≤ 0.55%	Annealed	190	639	145	130	115	145	130	115	120	100	90	160	130	115	-	-	-
		0.25 < C ≤ 0.55%	Heat-treated	210	708	130	115	100	130	115	100	120	100	90	130	115	100	-	-	-
		C > 0.55%	Annealed	190	639	145	130	115	145	130	115	145	130	80	160	130	115	-	-	-
		C > 0.55%	Heat-treated	300	1013	115	100	80	115	100	80	115	100	80	115	100	80	-	-	-
		Free cutting steel (short-chip)	Annealed	220	745	130	115	100	130	115	100	130	115	100	130	115	100	-	-	-
	Low-alloyed steel	Annealed		175	591	180	145	130	180	145	130	-	-	-	-	-	-	-	-	-
		Heat-treated		300	1013	115	100	80	115	100	80	-	-	-	-	-	-	-	-	-
		Heat-treated		380	1282	170	90	105	170	90	105	-	-	-	-	-	-	-	-	-
		Heat-treated		430	1477	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	High-alloyed steel and high-alloyed tool steel	Annealed		200	675	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Hardened and tempered		300	1013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Hardened and tempered		400	1361	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Stainless steel	Ferritic/martensitic, annealed		200	675	165	135	105	165	135	105	-	-	-	-	-	-	-	-	-
		Martensitic, heat-treated		330	1114	150	115	70	150	115	70	-	-	-	-	-	-	-	-	-
M	Stainless steel	Austenitic, quench hardened		200	675	165	135	105	165	135	105	165	135	105	-	-	-	-	-	-
		Austenitic, precipitation hardened (PH)		300	1013	155	120	80	155	120	80	155	120	80	-	-	-	-	-	-
		Austenitic/ferritic, duplex		230	778	135	110	85	135	110	85	135	110	85	-	-	-	-	-	-
K	Malleable cast iron	Ferritic		200	400	115	90	65	-	-	-	-	-	-	115	90	65	-	-	-
		Pearlitic		260	700	115	90	65	-	-	-	-	-	-	115	90	65	-	-	-
	Grey cast iron	Low tensile strength		180	200	185	140	95	-	-	-	-	-	-	200	160	120	-	-	-
		High tensile strength/austenitic		245	350	185	140	95	-	-	-	-	-	-	200	160	120	-	-	-
	Nodular cast iron	Ferritic		155	400	145	110	80	-	-	-	-	-	-	160	130	100	-	-	-
		Pearlitic		265	700	145	110	80	-	-	-	-	-	-	160	130	100	-	-	-
	GGV(CGI)		230	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
N	Wrought aluminium alloys	Non-aging		30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Aged		100	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Cast aluminium alloys	≤ 12% Si, non-aging		75	260	-	-	-	-	-	-	-	-	-	-	-	-	850	500	200
		≤ 12% Si, aged		90	310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		12% Si, non-aging		130	450	-	-	-	-	-	-	-	-	-	-	-	-	450	250	40
	Magnesium alloys		70	250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Copper and copper alloys	Unalloyed, electrolytic copper		100	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Brass, bronze, red brass		90	310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cu alloys, short-chipping		110	380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
High-tensile, Ampco alloy		300	1010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
S	Heat-resistant alloys	Fe-based	Annealed	200	680	-	-	-	80	60	40	-	-	-	-	-	-	-	-	-
			Hardened	280	940	-	-	-	80	60	40	-	-	-	-	-	-	-	-	-
		Ni or Co based	Annealed	250	840	-	-	-	80	60	40	-	-	-	-	-	-	-	-	-
			Hardened	350	1180	-	-	-	80	60	40	-	-	-	-	-	-	-	-	-
	Titanium alloys	Pure titanium		200	680	-	-	-	80	60	40	-	-	-	-	-	-	-	-	-
		α and β alloys, hardened		375	1260	-	-	-	80	60	40	-	-	-	-	-	-	-	-	-
		β alloys		410	1400	-	-	-	80	60	40	-	-	-	-	-	-	-	-	-
	Tungsten alloys		300	1010	-	-	-	80	60	40	-	-	-	-	-	-	-	-	-	
Molybdenum alloys		300	1010	-	-	-	80	60	40	-	-	-	-	-	-	-	-	-		
H	Hardened steel	Hardened and tempered		50HRC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Hardened and tempered		55HRC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Hardened and tempered		60HRC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chilled cast iron	Hardened and tempered		55HRC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

The recommended cutting data always refer to general cutting conditions. The actual selection should be adjusted according to machine rigidity, tool body and workpiece conditions and coolant.  
(f=mm/rev to be adjusted for insert radius)