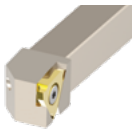
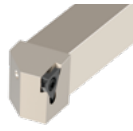
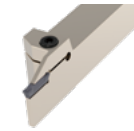
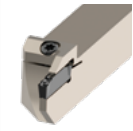
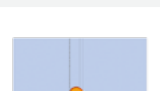
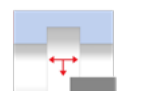
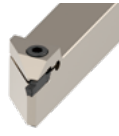
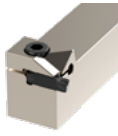
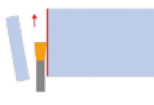
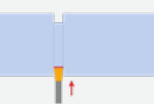
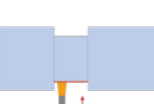
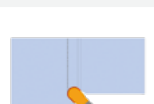
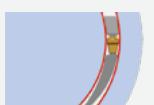


Overview of Grooving Holders

Holder Application			External grooving					
			ASGHR/L	S-ASGHL	ATGHR/L	ATSER/L	ATSER/L-D	ATSER/L-SW
								
Page			P147	P148	P149	P151	P153	P154
External grooving	Parting off					●	●	●
	Grooving		●	●	●	●	●	●
	Turning					●	●	●
	Profiling					●	●	
	Under cut							
Face grooving	Grooving							
	Turning							
Internal machining	Grooving							
	Turning							

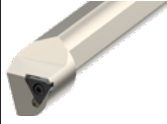
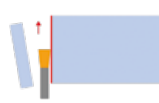
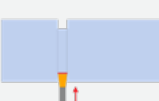
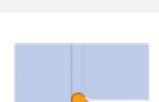
Marked: ● Best choice

Overview of Grooving Holders

Holder Application			External grooving	Face grooving					
			AGUER/L	ATSFR/L	ATSFR/L-OB	AGSFR/L	AGPFR/L	ATPFR/L	
									
Page			P155	P156	P157	P159	P160	P161	
External grooving	Parting off								
	Grooving					●	●		
	Turning					○	○		
	Profiling								
	Under cut		●						
Face grooving	Grooving			●	●	●	●	●	
	Turning			●	●	●	●	●	
Internal machining	Grooving								
	Turning								

Marked: ● Best choice

Overview of Grooving Holders

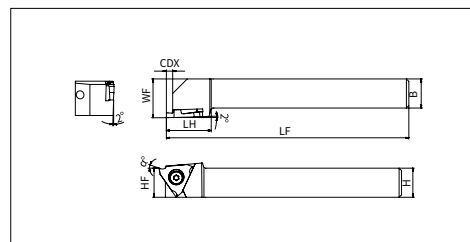
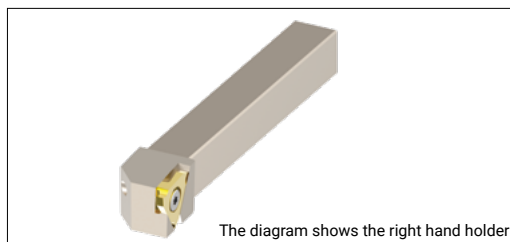
Holder Application			Internal machining				
			ATPIR/L	ATGIR/L	ATSIR/L	AGSIR/L	AGUIR/L
							
Page			P162	P163	P164	P165	P166
External grooving	Parting off						
	Grooving						
	Turning						
	Profiling						
	Under cut						●
Face grooving	Grooving				●	●	
	Turning				●	●	
Internal machining	Grooving		●	●			
	Turning		●				

Marked: ● Best choice

ASGH Grooving Holder Denomination System

A 1	S 2	G 3	H 4	R 5	20 6	20 7	JX 8	- -	32 9	F 10
1-Company Name		2-Matching Insert Type		3-Application		4-Holder Type		5-Hand of Tool		
ACHTECK		S	S: For swiss machine	G	Grooving	H	Holder	L	Left	
								R	Right	
6-Holder Height		7-Holder Width		8-Holder Length		9 -Matching Insert Size (IC)		10 -Shape of Holder Head		
20=20.0mm		20=20.0mm		JX=120mm		32=9.525mm		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		

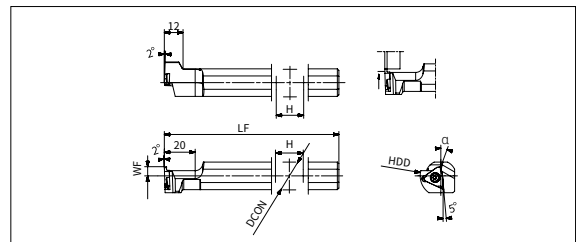
Applicable Insert

Application	Grooving
Insert shape	
Product code	
ASGHR/L**	ASG 32
Reference page	P172

S...ASGH Sleeve Tool Holder Denomination System

S 1	20 2	JX 3	- -	A 4	S 5	G 6	H 7	L 8	32 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....ASGH External Grooving Sleeve Holder for Swiss Lathe



Product code	Dimension (mm)					Spare parts	
	DCON	LF	WF	HDD	DMIN	Screw	Wrench
							
S12F-ASGHL32	12	80	6	11	27	SP040070	FT-TP08
S14H-ASGHL32	14	100		13			
S15.0H-ASGHL32	15.875			15.875			
S16H-ASGHL32	16			120			
S19.0JX-ASGHL32	19.05	18.6					
S20JX-ASGHL32	20	23.6					
S22JX-ASGHL32	22	120	10	23.6	37		
S25JX-ASGHL32	25	120					
S25.0JX-ASGHL32	25.4	120					

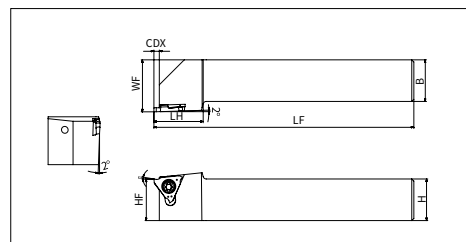
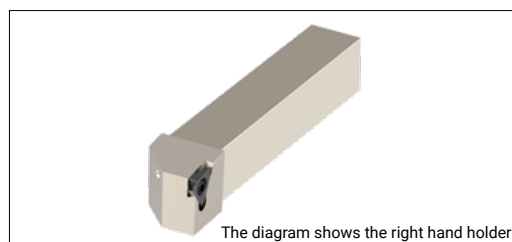
Applicable Insert

Application	Grooving
Insert shape	
Product code	
S....ASGHL**	ASG 32
Reference page	P172

ATGH Tool Holder Denomination System

A 1	T 2	G 3	H 4	R 5	25 6	25 7	M 8	43 9	- -	10 10	T25 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 Maximum Width 10=1.0mm			11-Maximum Ap T25=2.5mm		

ATGHR/L External Grooving Holder



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

Applicable Insert

Application	Grooving	Profiling
Insert shape		
Product code		
ATGHR/L** 32	ATG 32	ATG 32
ATGHR/L** 43	ATG 43	ATG 43
Reference page	P173	P174

Grooving Holder Denomination System

A	G	U	E	R	0750	-	4	T0315	-	40	-	80	-	SW
1	2	3	4	5	6		7	8	9	10	11	12		
					16									

1-Company name
ACHTECK

2-Application	
G	Grooving
T	Turning

3- Shape of holder head
S: Straight-180°
U: Under cut-45°
P: Perpendicular-90°

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

5-Hand of tool	
L	Left hand
R	Right hand

6-Holder diameter
0375=0.375
0750=0.750
1000=1.000

7-Holder Height/width
08=0.375
12=0.750
16=1.000

8-Insert width
2=0.079
3=0.118
4=0.157

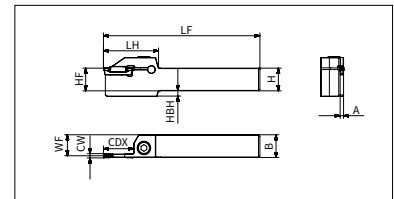
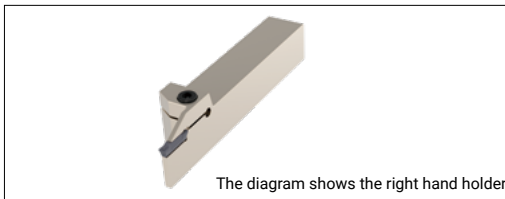
9-Ap
T0315=Max 0.315

10-Minimum cutting diameter
40=1.575

11-Maximum cutting diameter
80=3.150

12-Special code
SW: For swiss machine
OB: Outside bulge holders
C: With internal coolant
D: Reinforced holders

ATSER/L External Turning and Grooving



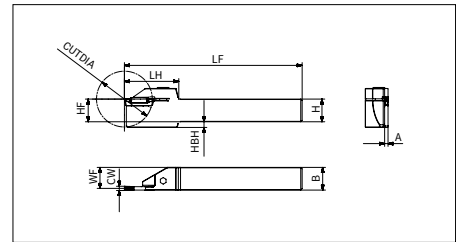
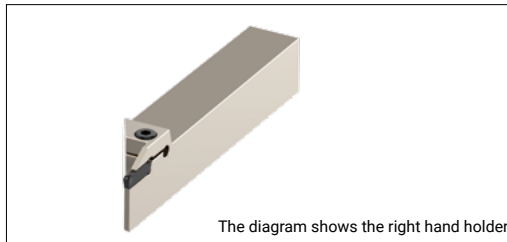
Product code		Dimension (inch)									Spare parts	
		H	B	HF	HBH	A	LF	LH	WF	CDX	Screw	Wrench
												
ATSER/L	10-2T0315	0.625	0.625	0.625	0.157	0.071	4.500	1.299	0.590	0.315	SH050160	LT-H4
	10-2T0472	0.625	0.625	0.625	0.157	0.071	4.500	1.260	0.590	0.472		
	10-2T0669	0.625	0.625	0.625	0.157	0.071	4.500	1.457	0.590	0.669		
	12-2T0315	0.750	0.750	0.750	0.000	0.071	5.000	1.299	0.715	0.315	SH050200	
	12-2T0472	0.750	0.750	0.750	0.000	0.071	5.000	1.260	0.715	0.472		
	12-2T0669	0.750	0.750	0.750	0.000	0.071	5.000	1.457	0.715	0.669		
	16-2T0315	1.000	1.000	1.000	0.000	0.071	6.000	1.299	0.965	0.315	SH050250	
	16-2T0472	1.000	1.000	1.000	0.000	0.071	6.000	1.260	0.965	0.472		
	16-2T0669	1.000	1.000	1.000	0.000	0.071	6.000	1.457	0.965	0.669		
	10-3T0354	0.625	0.625	0.625	0.157	0.094	4.500	1.260	0.578	0.354	SH050160	
	10-3T0472	0.625	0.625	0.625	0.157	0.094	4.500	1.260	0.578	0.472		
	10-3T0787	0.625	0.625	0.625	0.157	0.094	4.500	1.496	0.578	0.787		
	12-3T0354	0.750	0.750	0.750	0.000	0.094	5.000	1.260	0.703	0.354	SH050200	
	12-3T0472	0.750	0.750	0.750	0.000	0.094	5.000	1.260	0.703	0.472		
	12-3T0787	0.750	0.750	0.750	0.000	0.094	5.000	1.496	0.703	0.787		
	16-3T0354	1.000	1.000	1.000	0.000	0.094	6.000	1.260	0.953	0.354	SH050250	
	16-3T0472	1.000	1.000	1.000	0.000	0.094	6.000	1.260	0.953	0.472		
	16-3T0787	1.000	1.000	1.000	0.000	0.094	6.000	1.496	0.953	0.787		
	16-3T0984	1.000	1.000	1.000	0.000	0.094	6.000	1.772	0.953	0.984	LT-H5	
	10-4T0394	0.625	0.625	0.625	0.157	0.132	4.500	1.260	0.559	0.394		SH060160
	10-4T0591	0.625	0.625	0.625	0.157	0.132	4.500	1.299	0.559	0.591		
	10-4T0984	0.625	0.625	0.625	0.157	0.132	4.500	1.772	0.559	0.984		
	12-4T0984	0.750	0.750	0.750	0.000	0.132	5.000	1.260	0.684	0.394		SH060200
	12-4T0591	0.750	0.750	0.750	0.000	0.132	5.000	1.299	0.684	0.591		
	12-4T0984	0.750	0.750	0.750	0.000	0.132	5.000	1.772	0.684	0.984		
	16-4T0394	1.000	1.000	1.000	0.000	0.132	6.000	1.260	0.934	0.394		SH060250
	16-4T0591	1.000	1.000	1.000	0.000	0.132	6.000	1.299	0.934	0.591		
	16-4T0787	1.000	1.000	1.000	0.000	0.132	6.000	1.575	0.934	0.787		
	16-4T0984	1.000	1.000	1.000	0.000	0.132	6.000	1.772	0.934	0.984		SH060200
	12-5T0472	0.750	0.750	0.750	0.000	0.171	5.000	1.457	0.664	0.472		
	12-5T0787	0.750	0.750	0.750	0.000	0.171	5.000	1.457	0.664	0.787		
	16-5T0472	1.000	1.000	1.000	0.000	0.171	6.000	1.457	0.914	0.472		SH060250
	16-5T0787	1.000	1.000	1.000	0.000	0.171	6.000	1.457	0.914	0.787		
	16-5T1260	1.000	1.000	1.000	0.000	0.171	6.000	2.205	0.914	1.260		
	20-5T0472	1.250	1.250	1.250	0.000	0.171	7.000	1.457	1.164	0.472		
	20-5T0787	1.250	1.250	1.250	0.000	0.171	7.000	1.535	1.164	0.787		
	20-5T0984	1.250	1.250	1.250	0.000	0.171	7.000	1.811	1.164	0.984	SH060250	
	20-5T1260	1.250	1.250	1.250	0.000	0.171	7.000	2.205	1.164	1.260		
	12-6T0472	0.750	0.750	0.750	0.000	0.211	5.000	1.457	0.645	0.472	SH080200	
	12-6T0787	0.750	0.750	0.750	0.000	0.211	5.000	1.614	0.645	0.787		
	16-6T0472	1.000	1.000	1.000	0.276	0.211	6.000	1.457	0.895	0.472	SH080250	
	16-6T0787	1.000	1.000	1.000	0.276	0.211	6.000	1.614	0.895	0.787		
16-6T1260	1.000	1.000	1.000	0.276	0.211	6.000	2.205	0.895	1.260			
20-6T0472	1.250	1.250	1.250	0.000	0.211	7.000	1.457	1.145	0.472			
20-6T0787	1.250	1.250	1.250	0.000	0.211	7.000	1.614	1.145	0.787			
20-6T0984	1.250	1.250	1.250	0.000	0.211	7.000	1.811	1.145	0.984			
20-6T1260	1.250	1.250	1.250	0.000	0.211	7.000	2.205	1.145	1.260			
16-8T0630	1.000	1.000	1.000	0.276	0.244	6.000	1.850	0.878	0.630			
16-8T0984	1.000	1.000	1.000	0.276	0.244	6.000	1.850	0.878	0.984			
16-8T1417	1.000	1.000	1.000	0.276	0.244	6.000	2.362	0.878	1.417			
20-8T0984	1.250	1.250	1.250	0.000	0.244	7.000	1.850	1.128	0.984			
20-8T1417	1.250	1.250	1.250	0.000	0.244	7.000	2.362	1.128	1.417			

Applicable Insert

Application		Low feed rate	Low-Medium feed rate	Medium to high feed rate	Finishing	Low feed rate	Medium feed rate	Profiling	Ground Profiling	Ground
Insert shape	Insert Size (mm)	CS 	CM 	CH 	GS 	TS 	TM 	RM 	RA 	G 
Product code										
ATSER/L** 2T	2	ACD 202 ACD 302	ACD/ACS 202 ACD/ACS 603	ACD/ACS 202 ACD/ACS 603	ATD 300E ATD 714E	ATD 203 ATD 808	ATD 304 ATD 812	ATD 210 ATD 840	ATD 315 ATD 840	ATD 100E ATD 800E
ATSER/L** 3T	3									
ATSER/L** 4T	4									
ATSER/L** 5T	5									
ATSER/L** 6T	6									
ATSER/L** 8T	8									
Reference page		P175	P176	P177	P178	P179	P179	P180	P180	P182

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

ATSER/L-D Reinforced External Turning and Grooving Holder



Product code		Dimension (inch)										Spare parts	
		H	B	HF	HBH	A	LF	LH	WF	CDX	CUTDIA	Screw	Wrench
ATSER/L	06-2T0591-D40	0.375	0.375	0.375	0.236	0.071	5.000	1.260	0.340	0.591	1.575	SH050160	LT-H4
	08-2T0591-D40	0.500	0.500	0.500	0.157	0.071	5.000	1.260	0.465	0.591	1.575		
	10-2T0787-D45	0.625	0.625	0.625	0.157	0.071	5.000	1.496	0.590	0.787	1.772		
	12-2T0787-D45	0.750	0.750	0.750	0.000	0.071	5.000	1.496	0.715	0.787	1.772		
	16-2T0787-D45	1.000	1.000	1.000	0.000	0.071	6.000	1.496	0.965	0.787	1.772		
	08-3T0591-D40	0.500	0.500	0.500	0.157	0.094	5.000	1.260	0.453	0.591	1.575		
	10-3T0787-D45	0.625	0.625	0.625	0.157	0.094	5.000	1.496	0.578	0.787	1.772		
	12-3T0787-D45	0.750	0.750	0.750	0.000	0.094	5.000	1.496	0.703	0.787	1.772		
	16-3T0787-D45	1.000	1.000	1.000	0.000	0.094	6.000	1.496	0.953	0.787	1.772		
	16-3T0984-D60	1.000	1.000	1.000	0.276	0.094	6.000	1.693	0.953	0.984	2.362		

Applicable Insert

Application	Insert Size (mm)	Low feed rate	Low-Medium feed rate	Medium to high feed rate	Finishing	Low feed rate	Medium feed rate	Profiling	Ground Profiling	Ground
Insert shape		CS	CM	CH	GS	TS	TM	RM	RA	G
Product code										
ATSER/L** 2T-D	2	ACD 202 ACD 302	ACD/ACS 202 ACD/ACS 302	ACD/ACS 202 ACD/ACS 302	ATD 300E ATD 318E	ATD 203 ATD 303	ATD 304	ATD 210 ATD 315	ATD 315	ATD 100E ATD 300E
ATSER/L** 3T-D	3									
Reference page		P175	P176	P177	P178	P179	P179	P180	P180	P182

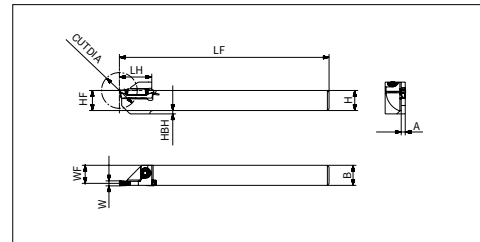
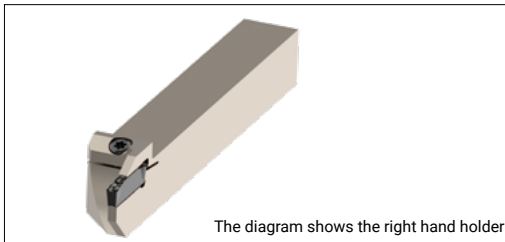
Inserts*: ACD/ACS series are only applicable to grooving and parting off machining

The max. cutting depth vs workpiece diameter

Product code		Workpiece diameter	CDX (inch)																
			≤0.314	0.354	0.394	0.433	0.472	0.512	0.551	0.591	0.669	0.709	0.748	0.787	0.827	0.866	0.906	0.945	0.984
ATSER/L	06-2T0591-D40	CUTDIA	∞	∞	∞	10.591	4.724	3.110	2.323	1.575	-	-	-	-	-	-	-	-	-
	08-2T0591-D40		∞	∞	∞	10.591	4.724	3.110	2.323	1.575	-	-	-	-	-	-	-	-	-
	10-2T0787-D45		∞	∞	∞	∞	∞	17.008	7.598	4.921	2.992	2.520	2.244	1.772	-	-	-	-	-
	12-2T0787-D45		∞	∞	∞	∞	∞	17.008	7.598	4.921	2.992	2.520	2.244	1.772	-	-	-	-	-
	16-2T0787-D45		∞	57.795	13.346	7.598	5.354	4.173	3.425	2.953	2.362	2.205	2.047	1.772	-	-	-	-	-
	08-3T0591-D40		∞	∞	∞	10.591	4.724	3.110	2.323	1.575	-	-	-	-	-	-	-	-	-
	10-3T0787-D45		∞	∞	∞	∞	∞	17.008	7.598	4.921	2.992	2.520	2.244	1.772	-	-	-	-	-
	12-3T0787-D45		∞	∞	∞	∞	∞	17.008	7.598	4.921	2.992	2.520	2.244	1.772	-	-	-	-	-
	16-3T0787-D45		∞	57.795	13.346	7.598	5.354	4.173	3.425	2.953	2.362	2.205	2.047	1.772	-	-	-	-	-
	16-3T0984-D60		∞	∞	∞	∞	∞	∞	∞	∞	16.457	9.331	6.575	5.118	4.213	3.583	3.189	2.874	2.362

"∞": The diameter is infinite

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

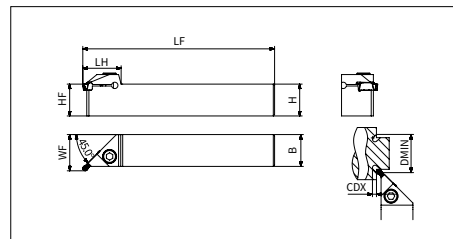
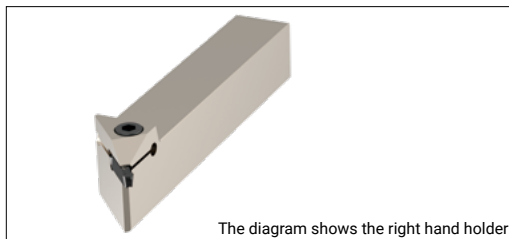


Product code		Dimension (inch)									Spare parts	
		H	B	HF	HBH	A	LF	LH	WF	CUTDIA	Screw	Wrench
ATSER/L	06-2D20-SW	0.375	0.375	0.375	0.079	0.071	5.000	0.748	0.340	0.787	SP040125	LT-TP15
	08-2D24-SW	0.500	0.500	0.500	0.079	0.071	5.000	0.748	0.465	0.945		
	10-2D32-SW	0.625	0.625	0.625	0.000	0.071	5.000	0.945	0.590	1.260		
	08-3D24-SW	0.500	0.500	0.500	0.079	0.094	5.000	0.748	0.453	0.945		
	10-3D32-SW	0.625	0.625	0.625	0.000	0.094	5.000	0.945	0.578	1.260		
	10-3D38-SW	0.625	0.625	0.625	0.000	0.094	5.000	1.063	0.578	1.496		
	12-3D45-SW	0.750	0.750	0.750	0.000	0.094	5.000	1.220	0.703	1.772		

Applicable Insert

Application		Low feed rate	Low-Medium feed rate	Medium to high feed rate	Finishing	Low feed rate	Medium feed rate	Profiling	Ground Profiling	Ground
Insert shape	Insert Size (mm)	CS	CM	CH	GS	TS	TM	RM	RA	G
Product code										
ATSER/L** 2D-SW	2	ACD 202	ACD/ACS 202	ACD/ACS 202	ATD 300E	ATD 203	ATD 304	ATD 210	ATD 315	ATD 100E
ATSER/L** 3D-SW	3	ACD 302	ACD/ACS 302	ACD/ACS 302	ATD 318E	ATD 303		ATD 315		ATD 300E
Reference page		P175	P176	P177	P178	P179	P179	P180	P180	P182

AGUER/L External Undercutting Holder

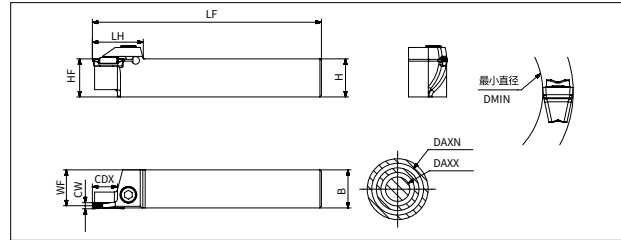
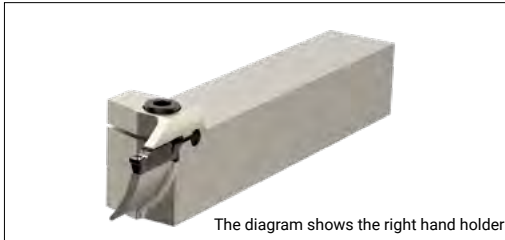
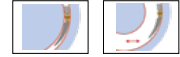


Product code		Insert Size (mm)	Dimension (inch)								Spare parts	
			H	B	HF	LF	LH	WF	CDX	DMIN	Screw	Wrench
AGUER/L	10-3	2, 3	0.625	0.625	0.625	4.500	1.189	0.767	0.118	2.362	SH050160	LT-H4
	10-4	4	0.625	0.625	0.625	4.500	1.189	0.775	0.118	2.165	SH060160	
	12-3	2, 3	0.750	0.750	0.750	5.000	1.189	0.892	0.118	2.362	SH050200	
	12-4	4	0.750	0.750	0.750	5.000	1.189	0.900	0.118	2.165	SH060200	LT-H5
	16-3	2, 3	1.000	1.000	1.000	6.000	1.189	1.142	0.118	2.362	SH050250	LT-H4
	16-4	4	1.000	1.000	1.000	6.000	1.189	1.150	0.118	2.165	SH060250	LT-H5
	16-6	5, 6	1.000	1.000	1.000	6.000	1.323	1.165	0.138	2.165		

Applicable Insert

Application	Profiling	Ground Profiling	Ground
Insert shape	RM	RA	G
Product code			
AGUER/L**	ATD 210 ATD 630	ATD 315 ATD 630	ATD 100E ATD 600E
Reference page	P180	P180	P182

ATSFR/L Face Grooving and Turning Holder



Product code		Dimension (inch)									Spare parts	
		H	B	HF	LF	LH	WF	CDX	DAXX	DAXN	Screw	Wrench
ATSFR/L	16-3T0394-35-45	1.000	1.000	1.000	6.000	1.260	0.959	0.394	1.378	1.772	SH050250	LT-H4
	16-3T0394-40-55	1.000	1.000	1.000	6.000	1.260	0.959	0.394	1.575	2.165		
	16-3T0591-45-65	1.000	1.000	1.000	6.000	1.260	0.959	0.591	1.772	2.559		
	16-3T0591-55-85	1.000	1.000	1.000	6.000	1.260	0.959	0.591	2.165	3.346		
	16-4T0591-35-50	1.000	1.000	1.000	6.000	1.260	0.943	0.591	1.378	1.969	SH060250	LT-H5
	16-4T0591-45-65	1.000	1.000	1.000	6.000	1.260	0.943	0.591	1.772	2.559		
	16-4T0591-55-85	1.000	1.000	1.000	6.000	1.260	0.943	0.591	2.165	3.346		
	16-5T0787-50-80	1.000	1.000	1.000	6.000	1.575	0.923	0.787	1.969	3.150	SH080250	LT-H6
	16-5T0787-70-110	1.000	1.000	1.000	6.000	1.575	0.923	0.787	2.756	4.331		
	16-5T0787-100-150	1.000	1.000	1.000	6.000	1.575	0.923	0.787	3.937	5.906		
	16-5T0787-140-200	1.000	1.000	1.000	6.000	1.575	0.923	0.787	5.512	7.874		
	16-6T0787-50-85	1.000	1.000	1.000	6.000	1.575	0.904	0.787	1.969	3.346		
	16-6T0787-75-150	1.000	1.000	1.000	6.000	1.575	0.904	0.787	2.953	5.906		
	16-6T0787-140-250	1.000	1.000	1.000	6.000	1.575	0.904	0.787	5.512	9.843		
	16-6T0787-200-000	1.000	1.000	1.000	6.000	1.575	0.904	0.787	7.874	∞		

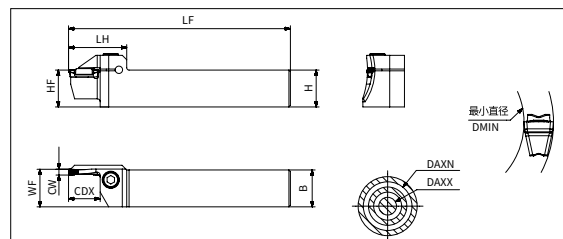
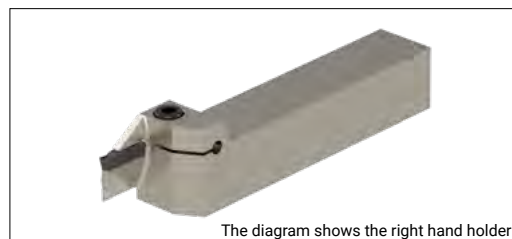
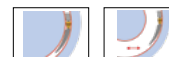
Applicable Insert

Application		Insert Size (mm)	Low-Medium feed rate	Medium to high feed rate	Finishing	Low feed rate	Medium feed rate	Profiling	Ground
Product code	Insert shape		CM	CH	GS	TS	TM	RM	G
	Minimum machining diameter DMIN(inch)								
ATSFR/L 16-3T		3	3.110	3.110	2.323	1.378	1.378	2.323	2.323
ATSFR/L 16-4T		4	1.654	1.654	1.654	1.378	1.378	1.654	1.654
ATSFR/L 16-5T		5	1.969	1.969	1.969	1.969	1.969	1.969	1.969
ATSFR/L 16-6T		6	1.969	1.969	1.969	1.969	1.969	1.969	1.969
Reference page			P176	P177	P178	P179	P179	P180	P182

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

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 (inch)									Spare parts	
		H	B	HF	LF	LH	WF	CDX	DAXX	DAXN	Screw	Wrench
ATSFR/L	12-3T0394-30-40-OB	0.750	0.750	0.750	5.500	1.220	0.671	0.394	1.181	1.575	SH060200	LT-H5
	12-3T0394-35-50-OB	0.750	0.750	0.750	5.500	1.220	0.671	0.394	1.378	1.969		
	12-3T0591-45-70-OB	0.750	0.750	0.750	5.500	1.378	0.671	0.591	1.772	2.756		
	12-3T0591-65-100-OB	0.750	0.750	0.750	5.500	1.378	0.671	0.591	2.559	3.937		
	12-4T0394-20-30-OB	0.750	0.750	0.750	5.500	1.220	0.656	0.394	0.787	1.181		
	12-4T0394-25-35-OB	0.750	0.750	0.750	5.500	1.220	0.656	0.394	0.984	1.378		
	12-4T0630-30-45-OB	0.750	0.750	0.750	5.500	1.417	0.656	0.630	1.181	1.772		
	12-4T0630-35-50-OB	0.750	0.750	0.750	5.500	1.417	0.656	0.630	1.378	1.969		
	12-4T0630-45-70-OB	0.750	0.750	0.750	5.500	1.417	0.656	0.630	1.772	2.756		
	12-4T0630-65-120-OB	0.750	0.750	0.750	5.500	1.417	0.656	0.630	2.559	4.724		
	12-4T0630-115-200-OB	0.750	0.750	0.750	5.500	1.417	0.656	0.630	4.528	7.874		
	16-3T0394-35-50-OB	1.000	1.000	1.000	6.000	1.496	0.974	0.394	1.378	1.969	SH060250	LT-H5
	16-3T0591-45-70-OB	1.000	1.000	1.000	6.000	1.496	0.974	0.591	1.772	2.756		
	16-3T0591-65-100-OB	1.000	1.000	1.000	6.000	1.496	0.974	0.591	2.559	3.937		
	16-4T0394-25-35-OB	1.000	1.000	1.000	6.000	1.535	0.959	0.394	0.984	1.378		
	16-4T0787-30-45-OB	1.000	1.000	1.000	6.000	1.535	0.959	0.787	1.181	1.772		
	16-4T0787-35-50-OB	1.000	1.000	1.000	6.000	1.535	0.959	0.787	1.378	1.969		
	16-4T0787-45-70-OB	1.000	1.000	1.000	6.000	1.535	0.959	0.787	1.772	2.756		
	16-4T0787-65-125-OB	1.000	1.000	1.000	6.000	1.535	0.959	0.787	2.559	4.921		
	16-4T0787-115-200-OB	1.000	1.000	1.000	6.000	1.535	0.959	0.787	4.528	7.874		
	16-4T0787-190-000-OB	1.000	1.000	1.000	6.000	1.535	0.959	0.787	7.480	∞		
	16-5T0984-50-80-OB	1.000	1.000	1.000	6.000	1.929	0.939	0.984	1.969	3.150	SH080250	LT-H6
	16-5T0591-50-80-OB	1.000	1.000	1.000	6.000	1.614	0.939	0.591	1.969	3.150		
	16-5T0984-70-110-OB	1.000	1.000	1.000	6.000	1.929	0.939	0.984	2.756	4.331		
	16-5T0591-70-110-OB	1.000	1.000	1.000	6.000	1.929	0.939	0.591	2.756	4.331		
	16-5T0984-100-150-OB	1.000	1.000	1.000	6.000	1.929	0.939	0.984	3.937	5.906		
	16-5T0984-140-200-OB	1.000	1.000	1.000	6.000	1.929	0.939	0.984	5.512	7.874		
	16-5T0984-190-000-OB	1.000	1.000	1.000	6.000	1.929	0.939	0.984	7.480	∞		
	16-6T0984-50-70-OB	1.000	1.000	1.000	6.000	1.929	0.919	0.984	1.969	2.756		
	16-6T0984-60-100-OB	1.000	1.000	1.000	6.000	1.929	0.919	0.984	2.362	3.937		
	16-6T0984-90-180-OB	1.000	1.000	1.000	6.000	1.929	0.919	0.984	3.543	7.087		
	16-6T0984-170-400-OB	1.000	1.000	1.000	6.000	1.929	0.919	0.984	6.693	15.748		
	16-6T0984-390-000-OB	1.000	1.000	1.000	6.000	1.929	0.919	0.984	15.354	∞		

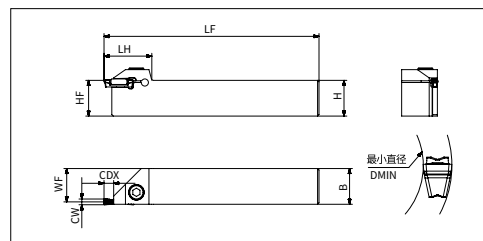
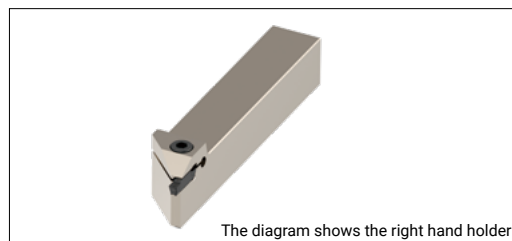
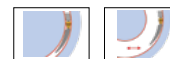
Applicable Insert

Application		Insert Size (mm)	Low-Medium feed rate	Medium to high feed rate	Finishing	Low feed rate	Medium feed rate	Profiling	Ground
Product code	Insert shape Minimum machining diameter DMIN (inch)		CM	CH	GS	TS	TM	RM	G
									
ATSFR/L 12-3T...OB		3	3.110	3.110	2.323	1.181	1.181	2.323	2.323
ATSFR/L 12-4T...OB		4	1.654	1.654	1.654	0.866	0.866	1.654	1.654
ATSFR/L 16-3T...OB		3	3.110	3.110	2..323	1.378	1.378	2.323	2.323
ATSFR/L 16-4T...OB		4	1.654	1.654	1.654	0.984	0.984	1.654	1.654
ATSFR/L 16-5T...OB		5	1.969	1.969	1.969	1.969	1.969	1.969	1.969
ATSFR/L 16-6T...OB		6	1.969	1.969	1.969	1.969	1.969	1.969	1.969
Reference page			P176	P177	P178	P179	P179	P180	P182

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

2. 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 Size (mm)	Dimension (inch)							Spare parts	
			H	B	HF	LF	LH	WF	CDX	Screw	Wrench
AGSFR/L	10-4	2,3,4	0.625	0.625	0.625	4.500	1.299	0.558	0.181	SH060160	LT-H5
	12-4	2,3,4	0.750	0.750	0.750	5.000	1.299	0.683	0.181	SH060200	
	12-6	5,6	0.750	0.750	0.750	5.000	1.457	0.644	0.181		
	16-4	2,3,4	1.000	1.000	1.000	6.000	1.299	0.933	0.181	SH060250	
	16-6	5,6	1.000	1.000	1.000	6.000	1.457	0.894	0.181		

Applicable Insert

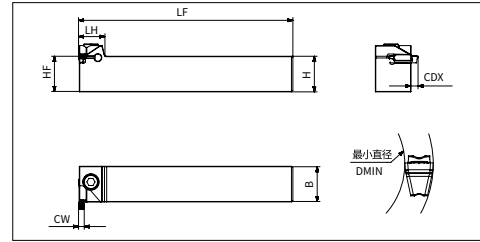
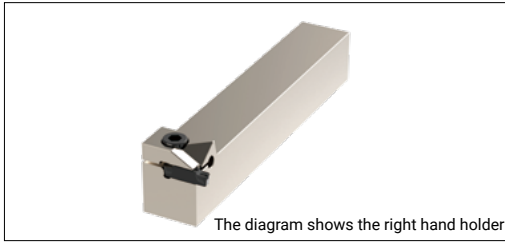
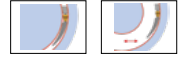
Application		Insert Size (mm)	Low feed rate	Low-Medium feed rate	Medium to high feed rate	Finishing	Low feed rate	Medium feed rate	Profiling	Ground
Product code	Insert shape		CS	CM	CH	GS	TS	TM	RM	G
	Minimum machining diameter DMIN (inch)									
AGSFR/L**		2	7.717	7.717	7.717	3.937	7.717	-	7.717	3.937
		3	3.110	3.110	3.110	2.323	0.949	0.949	2.323	2.323
		4	-	1.654	1.654	1.654	0.866	0.866	1.654	1.654
		5	-	1.969	1.969	1.575	0.787	0.787	1.575	1.575
		6	-	1.890	1.890	1.496	0.709	0.709	1.496	1.496
Reference page			P175	P176	P177	P178	P179	P179	P180	P182

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

2. — : Indicates that the insert is not a choice

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 Size (mm)	Dimension (inch)						Spare parts	
			H	B	HF	LF	LH	CDX	Screw	Wrench
AGPFR/L	12-4	2,3,4	0.750	0.750	0.750	5.000	0.709	0.181	SH060200	LT-H5
	16-4	2,3,4	1.000	1.000	1.000	6.000	0.709	0.181	SH060250	LT-H5
	16-6	5,6	1.000	1.000	1.000	6.000	0.866	0.181	SH060250	LT-H5

Applicable Insert

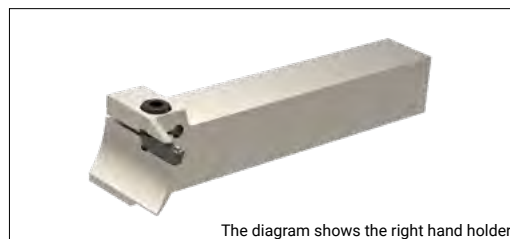
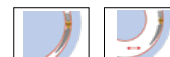
Application		Insert Size (mm)	Low feed rate	Low-Medium feed rate	Medium to high feed rate	Finishing	Low feed rate	Medium feed rate	Profiling	Ground
Product code	Insert shape		CS	CM	CH	GS	TS	TM	RM	G
	Minimum machining diameter DMIN (inch)									
AGPFR/L**		2	7.717	7.717	7.717	3.937	7.717	-	7.717	3.937
		3	3.110	3.110	3.110	2.323	0.949	0.949	2.323	2.323
		4	-	1.654	1.654	1.654	0.866	0.866	1.654	1.654
		5	-	1.969	1.969	1.575	0.787	0.787	1.575	1.575
		6	-	1.890	1.890	1.496	0.709	0.709	1.496	1.496
Reference page			P175	P176	P177	P178	P179	P179	P180	P182

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

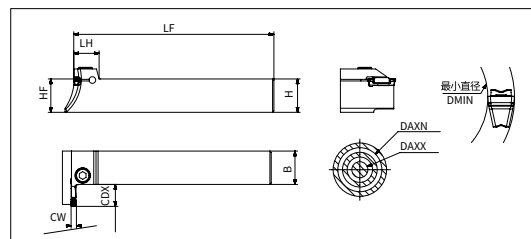
2. — : Indicates that the insert is not a choice

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



The diagram shows the right hand holder



Product code		Insert Size (mm)	Dimension (inch)							Spare parts	
			H	B	LF	LH	CDX	DAXX	DAXN	Screw	Wrench
ATPFR/L	16-3T0394-30-40	3	1.000	1.000	6.000	0.709	0.394	1.181	1.575	SH050250	LT-H4
	16-3T0394-35-50	3	1.000	1.000	6.000	0.709	0.394	1.378	1.969		
	16-3T0591-45-60	3	1.000	1.000	6.000	0.709	0.591	1.772	2.362		
	16-3T0591-55-85	3	1.000	1.000	6.000	0.709	0.591	2.165	3.346		
	16-4T0472-25-40	4	1.000	1.000	6.000	0.728	0.472	0.984	1.575	SH060250	LT-H5
	16-4T0591-35-50	4	1.000	1.000	6.000	0.728	0.591	1.378	1.969		
	16-4T0591-45-60	4	1.000	1.000	6.000	0.728	0.591	1.772	2.362		
	16-4T0591-55-85	4	1.000	1.000	6.000	0.728	0.591	2.165	3.346		
	16-5T0787-50-80	5	1.000	1.000	6.000	0.866	0.787	1.969	3.150	SH080250	LT-H6
	16-5T0787-70-110	5	1.000	1.000	6.000	0.866	0.787	2.756	4.331		
	16-5T0787-100-150	5	1.000	1.000	6.000	0.866	0.787	3.937	5.906		
	16-5T0787-140-200	5	1.000	1.000	6.000	0.866	0.787	5.512	7.874		
	16-5T0787-190-000	5	1.000	1.000	6.000	0.866	0.787	7.480	∞		
	16-6T0787-50-85	6	1.000	1.000	6.000	0.866	0.787	1.969	3.346		
	16-6T0787-75-150	6	1.000	1.000	6.000	0.866	0.787	2.953	5.906		
	16-6T0787-140-250	6	1.000	1.000	6.000	0.866	0.787	5.512	9.843		
	16-6T0787-240-000	6	1.000	1.000	6.000	0.866	0.787	9.449	∞		

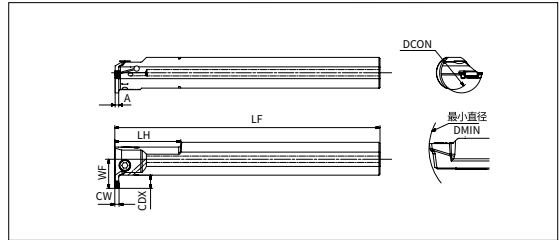
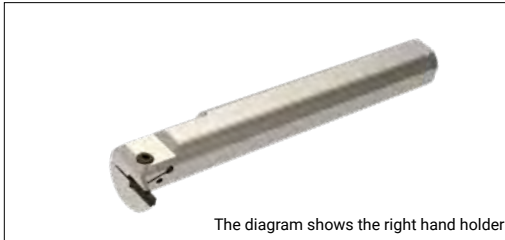
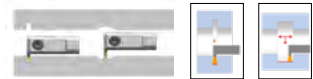
Applicable Insert

Application		Insert Size (mm)	Low-Medium feed rate	Medium to high feed rate	Finishing	Low feed rate	Medium feed rate	Profiling	Ground
Product code	Insert shape		CM	CH	GS	TS	TM	RM	G
	Minimum machining diameter DMIN (inch)								
ATPFR/L 16-3T		3	3.110	3.110	2.323	1.378	1.378	2.323	2.323
ATPFR/L 16-4T		4	1.654	1.654	1.654	1.378	1.378	1.654	1.654
ATPFR/L 16-5T		5	1.969	1.969	1.969	1.969	1.969	1.969	1.969
ATPFR/L 16-6T		6	1.969	1.969	1.969	1.969	1.969	1.969	1.969
Reference page			P176	P177	P178	P179	P179	P180	P182

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

2. 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 (inch)							Spare parts	
		DCON	LF	LH	WF	A	CDX	DMIN	Screw	Wrench
ATPIR/L	0750-2T0236-25-C	0.750	6.500	1.575	0.622	0.071	0.236	0.984	SH050120	LT-H4
	1000-2T0197-25-C	1.000	8.000	1.575	0.689	0.071	0.197	0.984	SH050160	
	1250-2T0197-30-C	1.250	10.000	1.575	0.780	0.071	0.197	1.181		
	0750-3T0236-25-C	0.750	6.500	1.575	0.622	0.094	0.236	0.984	SH050120	
	1000-3T0197-25-C	1.000	8.000	1.575	0.689	0.094	0.197	0.984		
	1000-3T0315-32-C	1.000	8.000	1.575	0.846	0.094	0.315	1.260		
	1250-3T0197-30-C	1.250	10.000	2.362	0.780	0.094	0.197	1.181	SH050160	
	1250-3T0394-40-C	1.250	8.000	2.362	1.063	0.094	0.394	1.575		
	1500-3T0472-50-C	1.500	12.000	2.559	1.299	0.094	0.472	1.969		
	0750-4T0236-25-C	0.750	6.500	1.575	0.622	0.132	0.236	0.984	SH050120	
	1000-4T0197-25-C	1.000	8.000	1.575	0.689	0.132	0.197	0.984	SH050160	
	1000-4T0315-32-C	1.000	8.000	1.575	0.846	0.132	0.315	1.260		
	1250-4T0197-30-C	1.250	10.000	2.362	0.819	0.132	0.197	1.181	SH060160	LT-H5
	1250-4T0394-40-C	1.250	10.000	2.362	1.063	0.132	0.394	1.575		
	1500-4T0472-50-C	1.500	12.000	2.559	1.299	0.132	0.472	1.969		
	2000-4T0551-60-C	2.000	14.000	2.756	1.575	0.132	0.551	2.362	SH060200	
	1000-5T0197-31-C	1.000	8.000	1.575	0.681	0.171	0.197	1.220	SH060160	
	1250-5T0197-31-C	1.250	10.000	2.362	0.819	0.171	0.197	1.220	SH060200	
	1250-5T0394-40-C	1.250	10.000	2.362	1.063	0.171	0.394	1.575		
	1500-5T0472-50-C	1.500	12.000	2.559	1.299	0.171	0.472	1.969	SH060250	
	2000-5T0551-60-C	2.000	14.000	2.756	1.575	0.171	0.551	2.362		
	1250-6T0197-31-C	1.250	10.000	2.362	0.819	0.211	0.197	1.220	SH060200	
	1250-6T0394-40-C	1.250	10.000	2.362	1.063	0.211	0.394	1.575		
	1500-6T0472-50-C	1.500	12.000	2.559	1.299	0.211	0.472	1.969	SH060250	
	2000-6T0551-60-C	2.000	14.000	2.756	1.575	0.211	0.551	2.362		
	1250-8T0236-38-C	1.250	10.000	2.362	0.839	0.244	0.236	1.496	SH060200	
	1500-8T0236-42-C	1.500	12.000	2.559	1.016	0.244	0.236	1.654	SH060250	

Applicable Insert

Application		Insert Size (mm)	Low-Medium feed rate	Medium to high feed rate	Finishing	Low feed rate	Medium feed rate	Profiling	Ground	
Insert shape			CM	CH	GS	TS	TM	RM	G	
Product code	Minimum machining diameter DMIN(inch)									
ATPIR/L **-2T			2	-	-	0.984	0.984	0.984	-	0.984
ATPIR/L **-3T			3	1.969	1.969	0.984	0.984	0.984	0.984	0.984
ATPIR/L **-4T			4	1.969	1.969	0.984	0.984	0.984	0.984	0.984
ATPIR/L **-5T			5	1.969	1.969	1.221	1.221	1.221	1.221	1.221
ATPIR/L **-6T			6	1.969	1.969	1.221	1.221	1.221	1.221	1.221
ATPIR/L **-8T			8	-	-	-	1.496	1.496	1.496	1.496
Reference page				P176	P177	P178	P179	P179	P180	P182

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

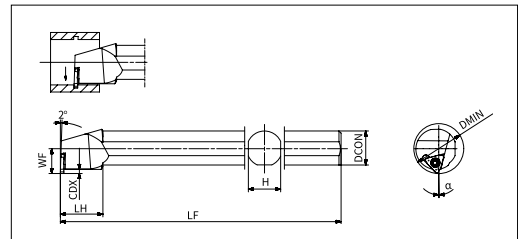
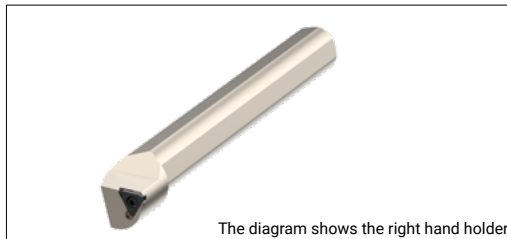
2. — : Indicates that the insert is not a choice

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

A 1	T 2	G 3	I 4	R 5	1000 6	S 7	43 8	- -	40 9	T30 10
1-Company Name		2-Matching Insert Type		3-Application		4-Holder Type		5-Hand of Tool		
ACHTECK		T	Triangular	G	Grooving	I	Internal machining	L	Left	
								R	Right	
6-Holder Size		7-Holder Length		8-Matching Insert Size (IC)		9-Minimum Internal Machining Diameter		10-Maximum Ap		
25=0.984inch 32=1.260inch		R:8.661inch S:9.843inch		43=0.500inch		40=1.575inch		T30=0.118inch		

ATGIR/L Internal Grooving Holder



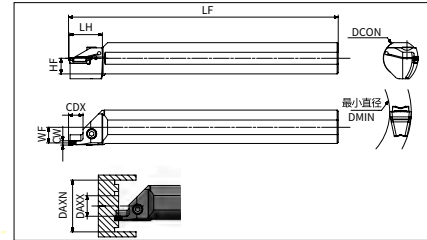
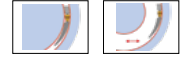
Grooving

Product code		Dimension (inch)						Spare parts	
		DMIN	DCON	LF	LH	WF	CDX	Screw	Wrench
ATGIR/L	1000R32-35T0110	1.378	1.000	8.661	1.181	0.689	0.110	SP040085	FT-TP15
	1250S43-40T0118	1.575	1.250	9.843	1.181	0.906	0.118	SP05008550	FT-TP20

Applicable Insert

Application	Grooving	Profiling
Insert shape		
Product code		
ATGIR/L** 32	ATG 32	ATG 32
ATGIR/L** 43	ATG 43	ATG 43
Reference page	P173	P174

ATSIR/L Internal Facing Grooving and Turning Holder



Product code		Dimension (inch)								Spare parts	
		DCON	LF	LH	WF	A	CDX	DMIN	DMAX	Screw	Wrench
ATSIR/L	1000-3T0472-35-45-C	1.000	8.000	1.220	0.453	0.453	0.472	1.378	1.772	SH050160	LT-H4
	1000-3T0472-40-60-C	1.000	8.000	1.220	0.453	0.453	0.472	1.575	2.362		
	1000-3T0472-55-90-C	1.000	8.000	1.220	0.453	0.453	0.472	2.165	3.543		
	1000-3T0472-80-150-C	1.000	8.000	1.220	0.453	0.453	0.472	3.150	5.906		
	1000-4T0472-20-35-C	1.000	8.000	1.220	0.433	0.453	0.472	0.787	1.378		
	1000-4T0472-28-45-C	1.000	8.000	1.220	0.433	0.453	0.472	1.102	1.772		
	1000-4T0472-35-55-C	1.000	8.000	1.220	0.433	0.453	0.472	1.378	2.165		
	1250-4T0472-45-70-C	1.250	10.000	1.220	0.571	0.591	0.472	1.772	2.756		
	1250-4T0472-60-100-C	1.250	10.000	1.220	0.571	0.591	0.472	2.362	3.937		
	1250-4T0472-90-180-C	1.250	10.000	1.220	0.571	0.591	0.472	3.543	7.087		

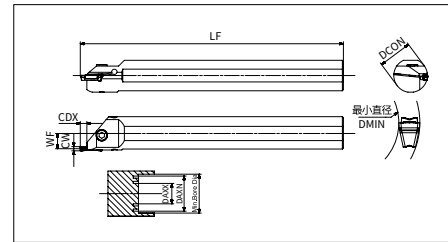
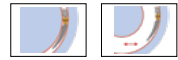
Applicable Insert

Application		Insert Size (mm)	Low-Medium feed rate	Medium to high feed rate	Finishing	Low feed rate	Medium feed rate	Profiling	Ground
Product code	Insert shape Minimum machining diameter DMIN(inch)		CM	CH	GS	TS	TM	RM	G
									
ATSIR/L **3T		3	3.15	3.15	2.323	1.378	1.378	2.323	2.323
ATSIR/L **4T		4	1.654	1.654	1.654	0.866	0.866	1.654	1.654
Reference page			P176	P177	P175	P179	P179	P180	P182

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

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

AGSIR/L Internal Facing Grooving and Turning Holder



Product code		Insert Size(mm)	Dimension (inch)					Spare parts	
			DCON	LF	LH	WF	CDX	Screw	Wrench
AGSIR/L	1000-4T0228-C	2,3,4	1.000	8.000	0.484	0.429	0.228	SH060160	LT-H5
	1000-6T0228-C	5,6	1.000	8.000	0.484	0.406	0.228		
	1250-4T0228-C	2,3,4	1.250	10.000	0.622	0.571	0.228		
	1250-6T0228-C	5,6	1.250	10.000	0.622	0.543	0.228		

Applicable Insert

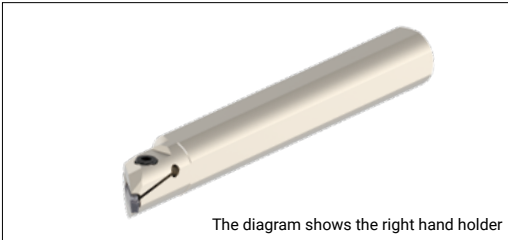
Application			Low feed rate	Low-Medium feed rate	Medium to high feed rate	Finishing	Low feed rate	Medium feed rate	Profiling	Ground
Insert shape		Insert Size (mm)	CS	CM	CH	GS	TS	TM	RM	G
Product code	Minimum machining diameter DMIN(inch)									
AGSIR/L**		2	7.717	7.717	7.717	3.937	7.717	-	7.717	3.937
		3	3.110	3.110	3.110	2.323	0.949	0.949	2.323	2.323
		4	-	1.654	1.654	1.654	0.866	0.866	1.654	1.654
		5	-	1.969	1.969	1.575	0.787	0.787	1.575	1.575
		6	-	1.890	1.890	1.496	0.709	0.709	1.496	1.496
Reference page			P175	P176	P177	P178	P179	P179	P180	P182

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

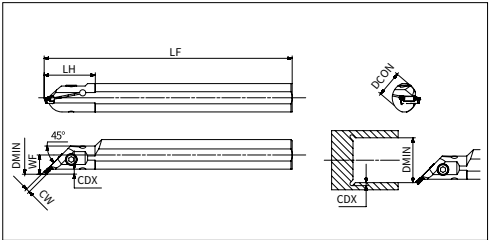
2. — : Indicates that the insert is not a choice

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



The diagram shows the right hand holder



Product code		Insert Size(mm)	Dimension (inch)							Spare parts	
			DCON	LF	LH	WF	CDX	DIMN		Screw	Wrench
AGUIR/L	0750-3T0118-45	3	0.750	6.000	1.575	0.484	0.118	1.772		SH050120	LT-H4
	0750-4T0118-45	4	0.750	6.000	1.575	0.484	0.118	1.772			
	0750-3T0118-45	3	1.000	8.000	1.575	0.567	0.118	1.772		SH050160	
	1000-4T0118-45	4	1.000	8.000	1.575	0.567	0.118	1.772			
	1000-6T0118-45	5,6	1.000	8.000	1.575	0.567	0.118	1.772		SH060160	LT-H5

Applicable Insert

Application	Profiling	Ground Profiling	Ground
Insert shape	RM	RA	G
Product code			
AGUER/L**	ATD 315 ATD 630	ATD 315 ATD 630	ATD 300E ATD 600E
Reference page	P180	P180	P182

Grooving Grade Description

Grade for Parting off and Grooving

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 finish, semi-finish 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 finish, semi-finish 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.

N

Non-ferrous metal

Basic grade

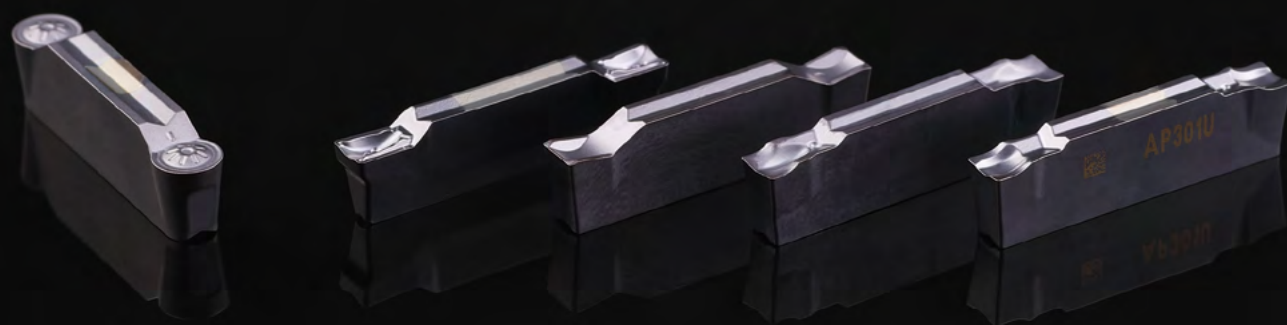
AW100K N15 (N05-N25)

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

ACHTECK

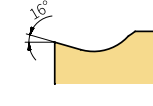
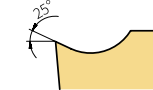
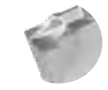
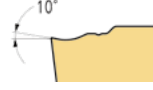
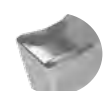
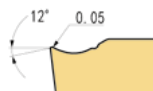
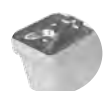
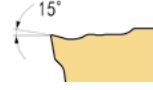
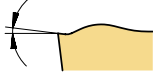
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THE EXPERTS OF DIFFICULT MACHINING



Grooving Inserts

Insert Geometry Introduction

Geometry	Insert	Shape of cutting edge	Description	Geometry Width (mm)								
				External Machining					Face grooving		Internal Machining	
				Grooving	Parting off	Turning	Profiling	Under cut	Grooving	Turning	Grooving	Turning
ATG			● Use precision insert ● Positive insert reduces the vibration ● 3 edge design, with good expansibility.	0.33	-	-	0.5	-	-	-	0.33	-
					-	-	1.0	-	-		-	
				4.8	-	-	1.5	-	-	4.8	-	
				2.0			3.0					
				4.0			4.0					
ASG			● Use precision insert ● Big rake angle and sharp edge design obtain good surface quality. ● 3 edge design	0.8	-	-	-	-	-	-	0.8	-
					-	-	-	-	-		-	
				2.5	-	-	-	-	-	2.5	-	
CS			● Used in parting off & grooving stainless steel, heat resistant alloy and low carbon steel ● For low feed rate application	2.0	2.0	-	-	-	3.0	-	3.0	-
						-	-	-	3.0	-	3.0	-
				3.0	3.0	-	-	-	-	-	-	
CM			● Used in parting off & grooving low carbon steel and stainless steel ● For sticky material, pipe fitting, thin-walled part parting off, low cutting force ● For low to medium feed rate	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							
CH			● Used in parting off and grooving steel, alloy steel and stainless steel with high hardness and toughness. ● Strong cutting edge ● For parting off and grooving at medium to high feed rate	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							
				8.0	8.0							
GS			● Excellent chip breaking, suitable for grooving and finish turning. ● Geometry for finish machining, low cutting force, low feed, excellent surface quality. ● Ground insert, better precision control and positioning repeatability.	2.0	2.0	2.0	-	-	3.0	3.0	2.0	2.0
							-	-				
				7.14	7.14	7.14	-	-	6.0	6.0	7.14	7.14
TS			● Multifunctional insert for external, internal turning and grooving, parting off, face grooving and face turning ● Excellent chip control ● For low and medium feed rate.	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	
				6.0	6.0	6.0					8.0	8.0
				8.0	8.0	8.0						
TM			● Multifunctional insert for external, internal turning and grooving, parting off, face grooving and face turning ● Stronger cutting edge design ● For medium feed rate	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	
				6.0	6.0	6.0					8.0	8.0
				8.0	8.0	8.0						
RM			● External grooving, turning, profiling ● Medium feed rate	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	
				6.0	-	6.0	6.0	6.0			8.0	8.0
				8.0	-	8.0	8.0	8.0				
RA			● For turning and profiling aluminum alloy ● High positive rake angle and sharp cutting edge ● Ground inserts with high precision	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	6.0	6.0	8.0	8.0
Precision ground			● Ground insert with high precision, better precision control ● Complete product offering ● Good surface quality	1.0	-	2.22	3.0	3.0	3.0	3.0	2.22	2.22
					-		4.8	4.8	4.8			
				8.0	-	8.0	5.0	5.0	5.0	8.0	8.0	
				6.0	-	6.0	6.0	6.0	6.0	8.0	8.0	8.0
							8.0	8.0				

Grade Application Guide

Materials				Turning grade application			
				PVD coated		CVD coated	Uncoated
ISO	Material classification	Tensile strength (N/mm ²)	Hardness (HB)	AP301U	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

Triangular Shallow Grooving Insert Denomination System

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

1-Company Name
ACHTECK

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

3-Application	
G	Grooving

4-Insert IC Size
32=0.375 inch
43=0.5 inch

5-Hand of Tool	
L	Left
R	Right

6-Insert Width
050=0.020 inch

7-Max Ap
T12=0.047 inch

8-Insert Corner
R005=0.020 inch

ASG: Applied to external shallow grooving for Swiss machine

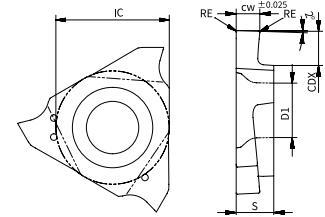
The diagram shows the right hand insert

●: Stock available ▲: Stock available now but will be replaced in the future.

Shallow Grooving Series

ATG: Applied to external and internal shallow grooving

Product code	IC	S	D1
ATG 32-	0.375	0.125	0.173
ATG 43-	0.500	0.187	0.217
ATG 43R/L480	0.500	0.197	0.217



The diagram shows the right hand insert

		Machining conditions				● Good condition ⚙ General condition ✖ Bad condition							
						⚙	●	✖	●	✖	⚙	●	●
		Inserts	Product code	Cutting parameter		Dimensions		P			M		K
Grooving	CDX			CW (mm)	RE	AC230P	AP301U	AP330M	AP301U	AP330M	AC230P	AP301U	AW100K
f (inch/rev)													
	*ATG 32R/L033T08-R005	0.001-0.003	0.031	0.33	0.002		●		●			●	
	ATG 32R/L050T12-R005	0.001-0.003	0.047	0.50	0.002		●		●			●	
	ATG 32R/L075T20-R005	0.001-0.003	0.079	0.75	0.002		●		●			●	
	ATG 32R/L095T20-R005	0.001-0.003	0.079	0.95	0.002		●		●			●	
	ATG 32R/L100T20-R005	0.001-0.003	0.079	1.00	0.002		●		●			●	
	ATG 32R/L110T20-R005	0.001-0.003	0.079	1.10	0.002		●		●			●	
	ATG 32R/L120T20-R005	0.001-0.003	0.079	1.20	0.002		●		●			●	
	ATG 32R/L125T20-R020	0.002-0.004	0.079	1.25	0.008		●		●			●	
	ATG 32R/L130T20-R020	0.002-0.004	0.079	1.30	0.008		●		●			●	
	ATG 32R/L140T25-R020	0.002-0.004	0.098	1.40	0.008		●		●			●	
	ATG 32R/L145T25-R020	0.002-0.004	0.098	1.45	0.008		●		●			●	
	ATG 32R/L150T25-R020	0.002-0.004	0.098	1.50	0.008		●		●			●	
	ATG 32R/L160T25-R020	0.002-0.004	0.098	1.60	0.008		●		●			●	
	ATG 32R/L170T25-R020	0.002-0.004	0.098	1.70	0.008		●		●			●	
	ATG 32R/L175T25-R020	0.002-0.004	0.098	1.75	0.008		●		●			●	
	ATG 32R/L200T25-R020	0.002-0.004	0.098	2.00	0.008		●		●			●	
	ATG 32R/L225T25-R020	0.002-0.004	0.098	2.25	0.008		●		●			●	
	ATG 32R/L250T25-R020	0.002-0.004	0.098	2.50	0.008		●		●			●	
	ATG 32R/L300T25-R020	0.002-0.004	0.098	3.00	0.008		●		●			●	
	ATG 43R/L100T20-R010	0.001-0.003	0.079	1.00	0.004		●		●			●	
	ATG 43R/L125T20-R010	0.002-0.004	0.079	1.25	0.004		●		●			●	
	ATG 43R/L125T20-R020	0.002-0.004	0.079	1.25	0.008		●		●			●	
	ATG 43R/L130T30-R010	0.002-0.004	0.118	1.30	0.004		●		●			●	
	ATG 43R/L130T30-R020	0.002-0.004	0.118	1.30	0.008		●		●			●	
	ATG 43R/L140T35-R020	0.002-0.004	0.138	1.40	0.008		●		●			●	
	ATG 43R/L145T35-R020	0.002-0.004	0.138	1.45	0.008		●		●			●	
	ATG 43R/L150T35-R010	0.002-0.004	0.138	1.50	0.004		●		●			●	
	ATG 43R/L150T35-R020	0.002-0.004	0.138	1.50	0.008		●		●			●	
	ATG 43R/L170T35-R020	0.002-0.004	0.138	1.70	0.008		●		●			●	
	ATG 43R/L175T35-R020	0.002-0.004	0.138	1.75	0.008		●		●			●	
	ATG 43R/L185T35-R020	0.002-0.004	0.138	1.85	0.008		●		●			●	
	ATG 43R/L195T35-R020	0.002-0.004	0.138	1.95	0.008		●		●			●	

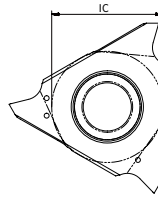
*ATG 32R/L033 Insert appearance is yellow

●: Stock available ▲: Stock available now but will be replaced in the future.

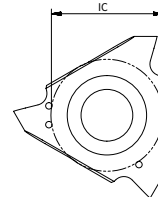
Shallow Grooving Series

ATG: Applied to external and internal shallow grooving

Product code	IC	S	D1
ATG 32-	0.375	0.125	0.173
ATG 43-	0.500	0.187	0.217
ATG 43R/L480	0.500	0.197	0.217



The diagram shows the right hand insert



The diagram shows the right hand insert

		Machining conditions				● Good condition ⚙ General condition ✖ Bad condition							
						⚙	●	✖	●	✖	⚙	●	●
		Inserts	Product code	Cutting parameter		Dimensions		P			M		K
Grooving	CDX			CW (mm)	RE	AC230P	AP301U	AP330M	AP301U	AP330M	AC230P	AP301U	AW100K
f (inch/rev)													
	ATG 43R/L200T35-R010	0.002-0.004	0.138	2.00	0.004		●		●			●	
	ATG 43R/L200T35-R020	0.002-0.004	0.138	2.00	0.008		●		●			●	
	ATG 43R/L225T35-R020	0.002-0.004	0.138	2.25	0.008		●		●			●	
	ATG 43R/L230T35-R020	0.002-0.004	0.138	2.30	0.008		●		●			●	
	ATG 43R/L250T50-R010	0.002-0.004	0.197	2.50	0.004		●		●			●	
	ATG 43R/L250T50-R030	0.002-0.004	0.197	2.50	0.012		●		●			●	
	ATG 43R/L265T50-R030	0.002-0.004	0.197	2.65	0.012		●		●			●	
	ATG 43R/L280T50-R030	0.002-0.004	0.197	2.80	0.012		●		●			●	
	ATG 43R/L300T50-R010	0.002-0.004	0.197	3.00	0.004		●		●			●	
	ATG 43R/L300T50-R030	0.002-0.004	0.197	3.00	0.012		●		●			●	
	ATG 43R/L325T50-R030	0.002-0.004	0.197	3.50	0.012		●		●			●	
	ATG 43R/L330T50-R030	0.002-0.005	0.197	3.30	0.012		●		●			●	
	ATG 43R/L350T50-R010	0.002-0.005	0.197	3.50	0.004		●		●			●	
	ATG 43R/L350T50-R030	0.002-0.005	0.197	3.50	0.012		●		●			●	
	ATG 43R/L400T50-R010	0.002-0.005	0.197	4.00	0.004		●		●			●	
	ATG 43R/L400T50-R040	0.002-0.005	0.197	4.00	0.016		●		●			●	
	ATG 43R/L430T50-R040	0.002-0.005	0.197	4.30	0.016		●		●			●	
	ATG 43R/L450T50-R040	0.002-0.005	0.197	4.50	0.016		●		●			●	
	ATG 43R/L480T50-R040	0.002-0.005	0.197	4.80	0.016		●		●			●	
	ATG 32R/L050T20-R025	0.001-0.003	0.047	0.50	0.010		●		●			●	
	ATG 32R/L100T20-R050	0.001-0.003	0.079	1.00	0.020		●		●			●	
	ATG 32R/L150T25-R075	0.002-0.004	0.098	1.50	0.030		●		●			●	
	ATG 32R/L200T25-R100	0.002-0.004	0.098	2.00	0.039		●		●			●	
	ATG 32R/L300T25-R150	0.002-0.004	0.098	3.00	0.059		●		●			●	
	ATG 43R/L100T20-R050	0.001-0.003	0.079	1.00	0.020		●		●			●	
	ATG 43R/L150T35-R075	0.002-0.004	0.138	1.50	0.030		●		●			●	
	ATG 43R/L200T35-R100	0.002-0.004	0.138	2.00	0.039		●		●			●	
	ATG 43R/L250T40-R125	0.002-0.004	0.197	2.50	0.049		●		●			●	
	ATG 43R/L300T40-R150	0.002-0.004	0.197	3.00	0.059		●		●			●	
	ATG 43R/L400T50-R200	0.002-0.005	0.197	4.00	0.079		●		●			●	

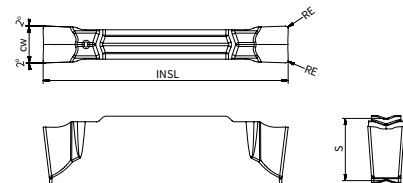
●: Stock available ▲: Stock available now but will be replaced in the future.

Insert Denomination System

A 1	C 2	D 3	4 4	0 5	- -	CM 6	- -	6 7	R 8
1-Company nName ACHTECK			2-Application C Grooving/Parting off T Turning/Grooving			3-Insert Shape S Single-edged D Double-edged		4-Insert Width 2=0.079inch 3=0.118inch 4=0.158inch	
5-Insert Corner 02=0.008inch 03=0.012inch 04=0.016inch			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	

Parting Off-Grooving Series

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

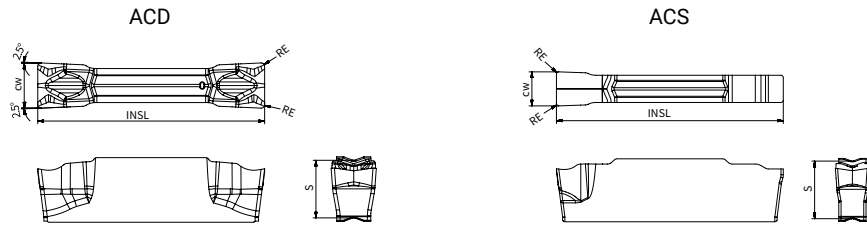


Inserts	Product code	Cutting parameter		Dimensions				Machining conditions							
								● Good condition ⬤ General condition ✖ Bad condition							
								P		M		K		N	
		CDX	f (inch/rev)	CW (mm)	RE	INSL	S	AC230P	AP301U	AP330M	AP301U	AP330M	AC230P	AP301U	AW100K
	ACD 202-CS	0.776	0.002-0.005	2	0.008	0.787	0.201	●	●	●	●		●		
	ACD 302-CS	0.776	0.002-0.006	3	0.008	0.787	0.201	●	●	●	●		●		

●: Stock available ▲: Stock available now but will be replaced in the future.

Parting Off-Grooving Series

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



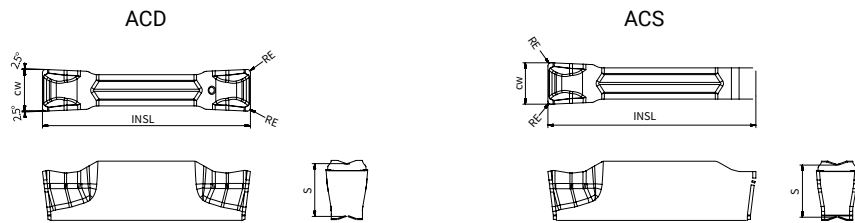
Inserts	Product code	Cutting parameter		Dimensions				Machining conditions							
								● Good condition ⚙ General condition ✖ Bad condition							
								⚙	●	✖	●	✖	⚙	●	●
		CDX	f (inch/rev)	CW (mm)	RE	INSL	S	P			M		K		N
								AC230P	AP301U	AP330M	AP301U	AP330M	AC230P	AP301U	AW100K
	ACD 202-CM	0.776	0.002-0.006	2	0.008	0.787	0.201		●	●	●	●		●	
	ACD 202-CM-6R	0.776	0.001-0.004	2	0.008	0.815	0.201		●	●	●	●		●	
	ACD 202-CM-6L	0.776	0.001-0.004	2	0.008	0.815	0.201		●		●			●	
	ACD 202-CM-15R	0.776	0.001-0.004	2	0.008	0.827	0.201		●	●	●	●		●	
	ACD 202-CM-15L	0.776	0.001-0.004	2	0.008	0.827	0.201		●		●			●	
	ACD 302-CM	0.776	0.002-0.006	3	0.008	0.787	0.201		●	●	●	●		●	
	ACD 302-CM-6R	0.776	0.002-0.006	3	0.008	0.815	0.201		●		●			●	
	ACD 302-CM-6L	0.776	0.002-0.006	3	0.008	0.815	0.201		●	●	●	●		●	
	ACD 302-CM-15R	0.776	0.002-0.006	3	0.008	0.827	0.201		●	●	●	●		●	
	ACD 302-CM-15L	0.776	0.002-0.006	3	0.008	0.827	0.201		●		●			●	
	ACD 403-CM	0.776	0.002-0.007	4	0.012	0.787	0.201		●	●	●	●		●	
	ACD 403-CM-4R	0.776	0.002-0.006	4	0.012	0.815	0.201		●	●	●	●		●	
	ACD 403-CM-4L	0.776	0.002-0.006	4	0.012	0.815	0.201		●	●	●	●		●	
	ACD 503-CM	0.972	0.002-0.008	5	0.012	0.984	0.197		●		●			●	
	ACD 503-CM-4R	0.972	0.002-0.007	5	0.012	1.012	0.197								
	ACD 503-CM-4L	0.972	0.002-0.007	5	0.012	1.012	0.197								
	ACD 603-CM	1.169	0.002-0.009	6	0.012	0.984	0.197		●		●			●	
	ACS 202-CM	-	0.002-0.006	2	0.008	0.787	0.201		●	●	●	●		●	
	ACS 302-CM	-	0.002-0.006	3	0.008	0.787	0.201		●		●			●	
	ACS 403-CM	-	0.002-0.007	4	0.012	0.787	0.201								
	ACS 503-CM	-	0.002-0.008	5	0.012	0.984	0.197								
	ACS 603-CM	-	0.002-0.009	6	0.012	0.984	0.197								

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.

●: Stock available ▲: Stock available now but will be replaced in the future.

Parting Off-Grooving Series

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



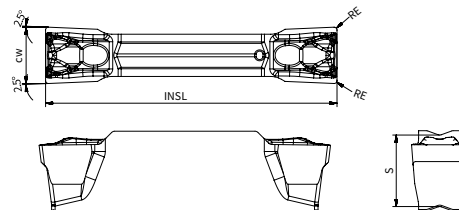
Inserts	Product code	Cutting parameter		Dimensions				Machining conditions							
								● Good condition ⬤ General condition ✖ Bad condition							
								P		M		K		N	
		CDX	f (inch/rev)	CW (mm)	RE	INSL	S	AC230P	AP301U	AP330M	AP301U	AP330M	AC230P	AP301U	AW100K
	ACD 202-CH	0.776	0.002-0.008	2	0.008	0.787	0.201	●	●	●	●		●		
	ACD 202-CH-6R	0.776	0.002-0.006	2	0.008	0.815	0.201	●	●	●	●		●		
	ACD 202-CH-6L	0.776	0.002-0.006	2	0.008	0.815	0.201	●	●	●	●		●		
	ACD 202-CH-15R	0.776	0.002-0.006	2	0.008	0.827	0.201	●	●	●	●		●		
	ACD 202-CH-15L	0.776	0.002-0.006	2	0.008	0.827	0.201	●	●	●	●		●		
	ACD 302-CH	0.776	0.003-0.010	3	0.008	0.787	0.201	●	●	●	●		●		
	ACD 302-CH-6R	0.815	0.002-0.008	3	0.008	0.815	0.201	●	●	●	●		●		
	ACD 302-CH-6L	0.854	0.002-0.008	3	0.008	0.815	0.201	●	●	●	●		●		
	ACD 302-CH-15R	0.787	0.002-0.007	3	0.008	0.827	0.201	●	●	●	●		●		
	ACD 302-CH-15L	0.787	0.002-0.007	3	0.008	0.827	0.201	●	●	●	●		●		
	ACD 403-CH	0.748	0.003-0.012	4	0.012	0.787	0.201	●	●	●	●		●		
	ACD 403-CH-4R	0.776	0.002-0.010	4	0.012	0.815	0.201	●	●	●	●		●		
	ACD 403-CH-4L	0.776	0.002-0.010	4	0.012	0.815	0.201	●	●	●	●		●		
	ACD 503-CH	0.945	0.004-0.014	5	0.012	0.984	0.197	●	●	●	●		●		
	ACD 503-CH-4R	0.972	0.003-0.012	5	0.012	1.012	0.197	●	●	●	●		●		
	ACD 503-CH-4L	1.012	0.003-0.012	5	0.012	1.012	0.197	●	●	●	●		●		
	ACD 603-CH	0.945	0.005-0.016	6	0.012	0.984	0.197	●	●	●	●		●		
	ACD 804-CH	1.142	0.006-0.018	8	0.016	1.181	0.240	●	●	●	●		●		
	ACS 202-CH	-	0.002-0.008	2	0.008	0.787	0.201	●	●	●	●		●		
	ACS 302-CH	-	0.003-0.010	3	0.008	0.787	0.201	●	●	●	●		●		
	ACS 403-CH	-	0.003-0.012	4	0.012	0.787	0.201	●	●	●	●		●		
	ACS 503-CH	-	0.004-0.014	5	0.012	0.787	0.197	●	●	●	●		●		
	ACS 603-CH	-	0.005-0.016	6	0.012	0.984	0.197	●	●	●	●		●		

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.

●: Stock available ▲: Stock available now but will be replaced in the future.

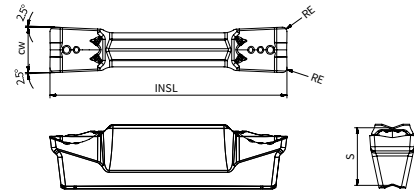
GS: Double-edged inserts applicable to external, internal and face turning, grooving and parting off



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Grooving-Turning Series

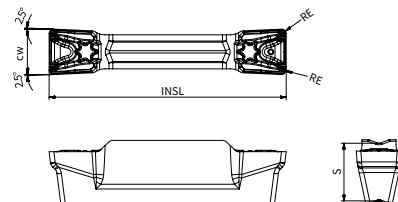
TS: Double-edged inserts applicable to external, internal and face turning, grooving and parting off



Inserts	Product code	Cutting parameter				Dimensions				Machining conditions							
										● Good condition ● General condition ✖ Bad condition							
		Grooving	CDX	Turning		CW (mm)	RE	INSL	S	P		M		K		N	
		f (inch/rev)		f (inch/rev)	Ap (inch)					AC230P	AP301U	AP330M	AP301U	AP330M	AC230P	AP301U	AW100K
	ATD 203-TS	0.002-0.008	0.776	0.005-0.007	0.016-0.059	2	0.012	0.815	0.201	●	●		●	●	●	●	
	ATD 303-TS	0.002-0.010	0.776	0.006-0.009	0.018-0.079	3	0.012	0.815	0.201		●	●	●	●		●	
	ATD 404-TS	0.002-0.011	0.776	0.007-0.010	0.020-0.098	4	0.016	0.815	0.201		●	●	●	●		●	
	ATD 408-TS	0.002-0.011	0.776	0.007-0.010	0.039-0.098	4	0.031	0.815	0.201	●	●		●		●	●	
	ATD 504-TS	0.003-0.012	0.972	0.008-0.012	0.022-0.138	5	0.016	1.012	0.197		●	●	●	●		●	
	ATD 508-TS	0.003-0.012	0.972	0.008-0.012	0.039-0.138	5	0.031	1.012	0.197		●	●	●	●		●	
	ATD 604-TS	0.004-0.016	0.972	0.009-0.018	0.026-0.150	6	0.016	1.012	0.197		●		●		●	●	
	ATD 608-TS	0.004-0.016	0.972	0.009-0.018	0.039-0.150	6	0.031	1.012	0.197	●	●	●	●	●	●	●	
	ATD 808-TS	0.005-0.018	1.201	0.011-0.020	0.039-0.177	8	0.031	1.240	0.240		●		●		●		

Grooving-Turning Series

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

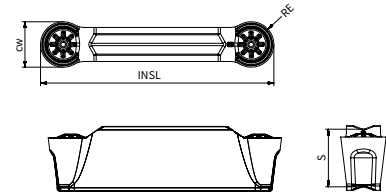


Inserts	Product code	Cutting parameter				Dimensions				Machining conditions							
										● Good condition ● General condition ✖ Bad condition							
		Grooving	CDX	Turning		CW (mm)	RE	INSL	S	P		M		K		N	
		f (inch/rev)		f (inch/rev)	Ap (inch)					AC230P	AP301U	AP330M	AP301U	AP330M	AC230P	AP301U	AW100K
	ATD 304-TM	0.004-0.010	0.776	0.006-0.009	0.02-0.079	3	0.016	0.815	0.201		●		●				
	ATD 404-TM	0.006-0.012	0.776	0.007-0.011	0.02-0.098	4	0.016	0.815	0.201	●	●	●	●	●	●	●	
	ATD 408-TM	0.006-0.012	0.776	0.007-0.011	0.039-0.098	4	0.031	0.815	0.201	●	●	●	●	●	●	●	
	ATD 504-TM	0.007-0.014	0.972	0.008-0.014	0.022-0.138	5	0.016	1.012	0.197	●	●	●	●	●	●	●	
	ATD 508-TM	0.007-0.014	0.972	0.008-0.014	0.039-0.138	5	0.031	1.012	0.197		●	●	●	●		●	
	ATD 604-TM	0.008-0.018	0.972	0.009-0.018	0.026-0.157	6	0.016	1.012	0.197	●	●	●	●	●	●	●	
	ATD 608-TM	0.008-0.018	0.972	0.009-0.018	0.039-0.157	6	0.031	1.012	0.197	●	●	●	●	●	●	●	
	ATD 808-TM	0.009-0.020	1.201	0.011-0.020	0.039-0.197	8	0.031	1.240	0.240								
	ATD 812-TM	0.009-0.020	1.201	0.011-0.020	0.059-0.197	8	0.047	1.240	0.240		●		●				

●: Stock available ▲: Stock available now but will be replaced in the future.

Grooving-Turning Series

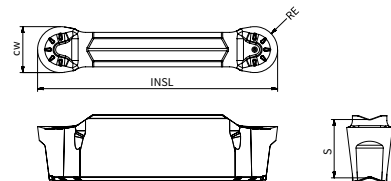
RM: Double-edged inserts applicable to external turning, grooving and profiling



					Machining conditions				● Good condition ⚙ General condition ✖ Bad condition							
									⚙	●	✖	●	✖	⚙	●	●
					Inserts	Product code	Cutting parameter			Dimensions				P		
Grooving	Turning		CW (mm)	RE			INSL	S	AC230P	AP301U	AP330M	AP301U	AP330M	AC230P	AP301U	AW100K
f (inch/rev)	f (inch/rev)	Ap (inch)														
	ATD 210-RM	0.002-0.006	0.005-0.010	0.016-0.039	2	0.039	0.815	0.201		●	●	●	●		●	
	ATD 315-RM	0.003-0.007	0.006-0.012	0.02-0.059	3	0.059	0.815	0.201	●	●	●	●	●	●	●	
	ATD 420-RM	0.004-0.008	0.007-0.014	0.024-0.079	4	0.079	0.815	0.201	●	●	●	●	●	●	●	
	ATD 525-RM	0.005-0.010	0.008-0.016	0.028-0.098	5	0.098	1.012	0.197	●	●	●	●	●	●	●	
	ATD 630-RM	0.006-0.012	0.01-0.020	0.035-0.118	6	0.118	1.012	0.197		●	●	●	●		●	
	ATD 840-RM	0.007-0.014	0.012-0.024	0.039-0.157	8	0.157	1.240	0.240		●		●			●	

Grooving-Turning Series

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



					Machining conditions				● Good condition ⚙ General condition ✖ Bad condition							
									⚙	●	✖	●	✖	⚙	●	●
Inserts	Product code	Cutting parameter			Dimensions				P			M		K		N
		Grooving	Turning		CW (mm)	RE	INSL	S	AC230P	AP301U	AP330M	AP301U	AP330M	AC230P	AP301U	AW100K
		f (inch/rev)	f (inch/rev)	Ap (inch)												
	ATD 315-RA	0.003-0.007	0.006-0.012	0.020-0.059	3	0.059	0.815	0.201								●
	ATD 420-RA	0.004-0.010	0.008-0.018	0.024-0.008	4	0.079	0.815	0.201								●
	ATD 525-RA	0.004-0.011	0.008-0.020	0.028-0.098	5	0.098	1.012	0.197								●
	ATD 630-RA	0.005-0.012	0.009-0.024	0.035-0.118	6	0.118	1.012	0.197								●
	ATD 840-RA	0.006-0.016	0.010-0.026	0.039-0.157	8	0.157	1.240	0.240								●

●: Stock available ▲: Stock available now but will be replaced in the future.

Insert Denomination System (Ground)

A	T	D	215	E	010	G	R/L
1	2	3	4	5	6	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
215=0.085inch
145=0.057inch

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

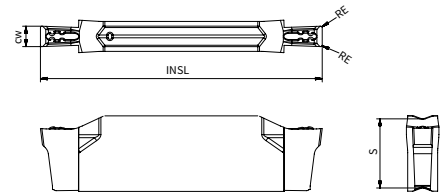
6-Insert Corner
010=0.004inch 020=0.008inch 200=0.079 inch

7-Application Limited	
G	only applicable to parting off

8-Hand of Tool	
	L: Left
	R: Right

Grooving - Turning Series

Ground inserts applicable to turning and grooving



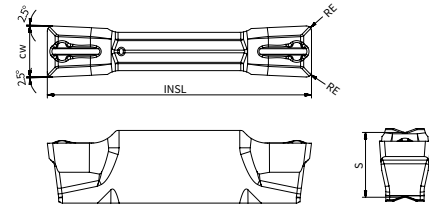
Inserts	Product code	Suitable tool holder	Cutting parameter Grooving f (inch/rev)	Machining conditions					● Good condition ● General condition ✱ Bad condition							
									P		M		K		N	
				CW (mm)	RE	CDX	S	INSL	AC230P	AP301U	AP330M	AP301U	AP330M	AC230P	AP301U	AW100K
	ATD 100E000G	0.079	0.001-0.002	1.00	0.000	0.079	0.201	0.815		●		●			●	
	ATD 100E050G	0.079	0.001-0.002	1.00	0.020	-	0.201	0.815		●		●			●	
	ATD 104E000G	0.079	0.001-0.002	1.04	0.000	0.079	0.201	0.815		●		●			●	
	ATD 115E000G	0.079	0.001-0.002	1.15	0.000	0.079	0.201	0.815		●		●			●	
	ATD 120E000G	0.079	0.001-0.002	1.20	0.000	0.079	0.201	0.815		●		●			●	
	ATD 125E010G	0.079	0.001-0.002	1.25	0.004	0.079	0.201	0.815		●		●			●	
	ATD 130E000G	0.079	0.001-0.002	1.30	0.000	0.079	0.201	0.815		●		●			●	
	ATD 135E000G	0.079	0.001-0.002	1.35	0.000	0.079	0.201	0.815		●		●			●	
	ATD 140E000G	0.079	0.001-0.002	1.40	0.000	0.079	0.201	0.815		●		●			●	
	ATD 140E070G	0.079	0.002-0.003	1.40	0.028	0.079	0.201	0.815		●		●			●	
	ATD 145E010G	0.079	0.001-0.002	1.45	0.004	0.079	0.201	0.815		●		●			●	
	ATD 147E000G	0.079	0.001-0.002	1.47	0.000	0.098	0.201	0.815		●		●			●	
	ATD 150E010G	0.079	0.001-0.002	1.50	0.004	0.098	0.201	0.815		●		●			●	
	ATD 157E015G	0.079	0.001-0.003	1.57	0.006	0.106	0.201	0.815		●		●			●	
	ATD 157E079G	0.079	0.002-0.003	1.57	0.031	0.106	0.201	0.815		●		●			●	
	ATD 165E010G	0.079	0.001-0.003	1.65	0.004	0.106	0.201	0.815		●		●			●	
	ATD 170E010G	0.079	0.001-0.003	1.70	0.004	0.118	0.201	0.815		●		●			●	
	ATD 178E018G	0.079	0.001-0.003	1.78	0.007	0.118	0.201	0.815		●		●			●	
	ATD 190E010G	0.079	0.002-0.004	1.90	0.004	0.118	0.201	0.815		●		●			●	
	ATD 196E015G	0.079	0.002-0.004	1.96	0.006	0.118	0.201	0.815		●		●			●	
	ATD 200E020G	0.079	0.002-0.004	2.00	0.008	0.118	0.201	0.815		●		●			●	
	ATD 200E100G	0.079	0.002-0.004	2.00	0.039	0.118	0.201	0.815		●		●			●	
	ATD 215E010G	0.079	0.002-0.004	2.15	0.004	0.118	0.201	0.815		●		●			●	
	ATD 222E015G	0.079	0.002-0.004	2.22	0.006	0.138	0.201	0.815		●		●			●	
	ATD 230E020G	0.079	0.002-0.004	2.30	0.008	-	0.201	0.815		●		●			●	
	ATD 239E120G	0.079	0.002-0.005	2.39	0.047	-	0.201	0.815		●		●			●	

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

●: Stock available ▲: Stock available now but will be replaced in the future.

Grooving - Turning Series

Ground inserts applicable to turning and grooving

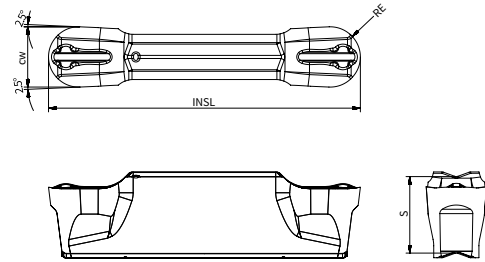


						Machining conditions					● Good condition ● General condition ✖ Bad condition							
											● ● ✖ ● ✖ ● ● ●							
Inserts	Product code	Suitable tool holder	Cutting parameter			Dimensions					P		M		K		N	
			Turning		Grooving	CW (mm)	RE	CDX	S	INSL	AC230P	AP301U	AP330M	AP301U	AP330M	AC230P	AP301U	AW100K
			f (inch/rev)	Ap (inch)	f (inch/rev)													
	ATD 265E015	0.118	0.004-0.007	0.008-0.071	0.002-0.005	2.65	0.006	-	0.201	0.815		●		●			●	
	ATD 300E020	0.118	0.004-0.008	0.012-0.079	0.002-0.006	3.00	0.008	-	0.201	0.815		●		●			●	
	ATD 300E040	0.118	0.006-0.009	0.020-0.087	0.002-0.006	3.00	0.016	-	0.201	0.815		●		●			●	
	ATD 400E040	0.157	0.006-0.012	0.020-0.098	0.003-0.007	4.00	0.016	-	0.201	0.815		●		●			●	
	ATD 400E080	0.157	0.006-0.012	0.039-0.098	0.003-0.007	4.00	0.031	-	0.201	0.815		●		●			●	
	ATD 415E015	0.157	0.006-0.012	0.008-0.098	0.003-0.007	4.15	0.006	-	0.201	0.815		●		●			●	
	ATD 478E055	0.197	0.008-0.014	0.024-0.102	0.004-0.008	4.78	0.022	-	0.197	1.012		●		●			●	
	ATD 500E040	0.197	0.008-0.014	0.020-0.102	0.004-0.008	5.00	0.016	-	0.197	1.012		●		●			●	
	ATD 500E080	0.197	0.009-0.014	0.039-0.118	0.004-0.008	5.00	0.031	-	0.197	1.012		●		●			●	
	ATD 515E015	0.197	0.009-0.014	0.008-0.118	0.004-0.009	5.15	0.006	-	0.197	1.012		●		●			●	
	ATD 555E055	0.236	0.009-0.016	0.024-0.118	0.005-0.011	5.55	0.022	-	0.197	1.012		●		●			●	
	ATD 600E080	0.236	0.01-0.0180	0.039-0.138	0.005-0.012	6.00	0.031	-	0.197	1.012		●		●			●	
	ATD 600E120	0.236	0.01-0.0180	0.051-0.138	0.005-0.012	6.00	0.047	-	0.197	1.012		●		●			●	
	ATD 635E080	0.236	0.01-0.0180	0.039-0.138	0.005-0.012	6.35	0.031	-	0.197	1.012		●		●			●	
	ATD 800E080	0.315	0.012-0.022	0.039-0.189	0.006-0.016	8.00	0.031	-	0.240	1.240		●		●			●	
	ATD 800E120	0.315	0.012-0.022	0.047-0.189	0.006-0.016	8.00	0.047	-	0.240	1.240		●		●			●	

Grooving

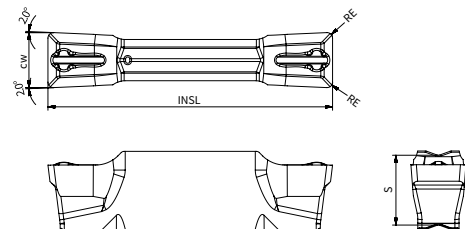
Grooving - Turning Series

Ground inserts applicable to turning and grooving



						Machining conditions					● Good condition ● General condition ✖ Bad condition							
											●	●	✖	●	✖	●	●	●
						Inserts	Product code	Suitable tool holder	Cutting parameter			Dimensions					P	
Turning		Grooving	CW (mm)	RE	CDX				S	INSL	AC230P	AP301U	AP330M	AP301U	AP330M	AC230P	AP301U	AW100K
f (inch/rev)	Ap (inch)	f (inch/rev)																
	ATD 300E150	0.118	0.006-0.012	0-0.059	0.003-0.007	3.00	0.059	-	0.201	0.815		●		●			●	
	ATD 400E200	0.157	0.007-0.014	0-0.079	0.004-0.008	4.00	0.079	-	0.201	0.815		●		●			●	
	ATD 478E239	0.197	0.009-0.018	0-0.094	0.005-0.009	4.78	0.094	-	0.197	1.012		●		●			●	
	ATD 500E250	0.197	0.009-0.018	0-0.098	0.005-0.009	5.00	0.098	-	0.197	1.012		●		●			●	
	ATD 600E300	0.236	0.010-0.020	0-0.118	0.006-0.012	6.00	0.118	-	0.197	1.012		●		●			●	
	ATD 800E400	0.315	0.012-0.026	0-0.157	0.007-0.014	8.00	0.157	-	0.240	1.240		●		●			●	

Blank Insert of ATBD



Inserts	Product code	Suitable tool holder (mm)	Dimensions				P	M	K	N	S	H
			CW (mm)	RE	INSL	S						
	ATBD 2.6 M200	2	2.60	0.004	0.835	0.201	●	●	●	●	●	●
	ATBD 3.5 M200	3	3.50	0.004	0.835	0.201	●	●	●	●	●	●
	ATBD 4.5 M200	4	4.50	0.004	0.835	0.201	●	●	●	●	●	●
	ATBD 5.5 M200	5	5.50	0.004	1.032	0.197	●	●	●	●	●	●
	ATBD 6.5 M200	6	6.50	0.004	1.032	0.197	●	●	●	●	●	●
	ATBD 8.5 M200	8	8.74	0.005	1.260	0.240	●	●	●	●	●	●

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

●: Stock available ▲: Stock available now but will be replaced in the future.

Cutting Data Recommendation Table

Materials						Cutting parameter recommended table of parting off and grooving application												
ISO	Workpiece material			Brinell hardness (HB/HRC)	Tensile strength Rm(N/mm²)	AP301U			AP330M			AC230P			AW100K			
						f (inch/rev)			f (inch/rev)			f (inch/rev)			f (inch/rev)			
						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	160	130	100	220	180	160	-	-	-	
		0.25<C≤0.55%	Annealed	190	639	145	130	115	120	100	90	160	130	115	-	-	-	
		0.25<C≤0.55%	Heat-treated	210	708	130	115	100	120	100	90	130	115	100	-	-	-	
		C>0.55%	Annealed	190	639	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	-	-	-	
		Free cutting steel (short-chip)	Annealed	220	745	130	115	100	130	115	100	130	115	100	-	-	-	
	Low-alloyed steel	Annealed			175	591	180	145	130	-	-	-	-	-	-	-	-	-
		Heat-treated			300	1013	115	100	80	-	-	-	-	-	-	-	-	-
		Heat-treated			380	1282	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	-	-	-	-	-	-	-	-	-
		Martensitic, heat-treated			330	1114	150	115	70	-	-	-	-	-	-	-	-	-
M	Stainless steel	Austenitic, quench hardened			200	675	165	135	105	-	-	-	-	-	-	-	-	-
		Austenitic, precipitation hardened (PH)			300	1013	155	120	80	-	-	-	-	-	-	-	-	
		Austenitic/ferritic, duplex			230	778	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	-	-	-	-	-	-	-	-	-	-	-	-	-
			Hardened	280	940	-	-	-	-	-	-	-	-	-	-	-	-	-
		Ni or Co based	Annealed	250	840	-	-	-	-	-	-	-	-	-	-	-	-	-
			Hardened	350	1180	-	-	-	-	-	-	-	-	-	-	-	-	-
			Cast	320	1080	-	-	-	-	-	-	-	-	-	-	-	-	-
	Titanium alloys	Pure titanium			200	680	-	-	-	-	-	-	-	-	-	-	-	-
		α and β alloys, hardened			375	1260	-	-	-	-	-	-	-	-	-	-	-	-
		β alloys			410	1400	-	-	-	-	-	-	-	-	-	-	-	-
Tungsten alloys				300	1010	-	-	-	-	-	-	-	-	-	-	-	-	
Molybdenum alloys				300	1010	-	-	-	-	-	-	-	-	-	-	-	-	
H	Hardened steel	Hardened and tempered			50HRC	-	-	-	-	-	-	-	-	-	-	-	-	-
		Hardened and tempered			55HRC	-	-	-	-	-	-	-	-	-	-	-	-	-
		Hardened and tempered			60HRC	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chilled cast iron	Hardened and tempered			50HRC	-	-	-	-	-	-	-	-	-	-	-	-	-

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.