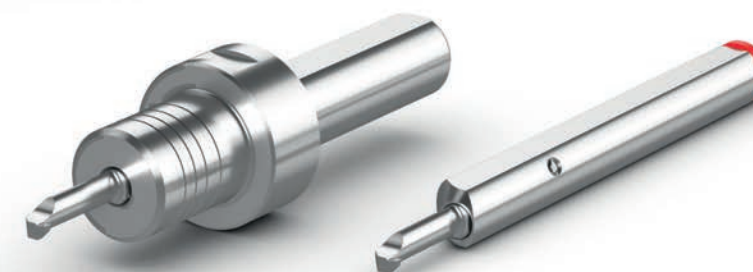


THE PATH THAT LEADS DIRECTLY TO MORE PRODUCTIVITY.

Turning or Swiss type turning, grooving, drilling or milling: whatever your requirements are, it's worth your while to take a look at ARNO. Beside tailor-made flange mounted holders and tools for INDEX and TRAUB machines we have a solution for almost every metal-working application. We have the right mix of experience, pioneering spirit and quality to ensure that you get the best out of your production with the right tool systems, tool management solutions and clever innovations.

See for yourself how impressive ARNO solutions result in more productivity in your production.



A winning team:

ARNO flange mounted holders and tools for INDEX and TRAUB machines.

TEAMWORK

ARNO SOLUTIONS FOR YOUR INDEX AND TRAUB MACHINES.

The INDEX Group and ARNO Werkzeuge pursue the same goal: to supply customers with optimised machining solutions. These solutions include tools and flange mounted holders from ARNO which are specially adapted to the machines manufactured by INDEX and TRAUB. The right interfaces ensure maximum stability and rigidity, from the machine right down to the workpiece. In addition, the patented ACS – ARNO Cooling System increases tool life. So you benefit from maximum precision, efficiency and process reliability in your production.



BIGLIA BMT
DAEWOO DOOSAN
MAZAK HARDINGE MIYANO
MURATA MORI SEIKI
NAKAMURA
GOELTENBODT
AND MANY MORE

Do you have other machines?
We have the right solution for them too!

Besides the wide selection of ARNO flange mounted holders and tools for INDEX and TRAUB machines, we also offer the right solutions for many other machine manufacturers and types. And the choice is expanding all the time. All thanks to our customers. When you are convinced by the advantages of our tailor-made solutions on your machine, you can also benefit from these advantages on other machines. That's why we are continuously expanding our portfolio – for example, by producing the right flange mounted holders for your machine type.

We're glad to help you – just send us an email at anfrage@arno.de

Contents

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04	ACS – ARNO Cooling System
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07	Turning holders
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19	Part-off blades
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30	World premiere: 3D printed tools
31	Modules
32	AMS – ARNO Mini System
36	Flange mounted holders
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80	Application references
88	Special solutions



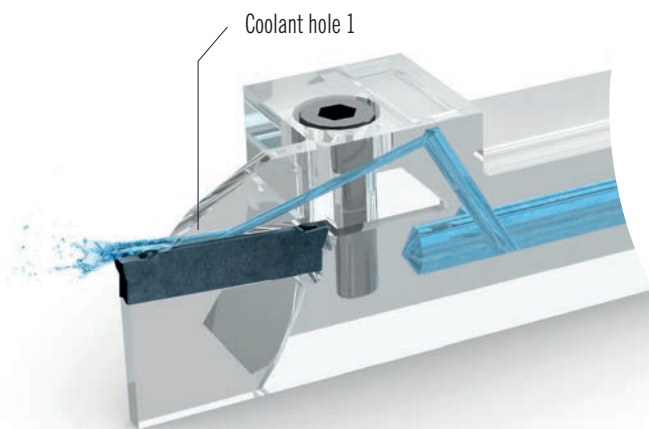
COOL BENEFITS

of the ARNO – ACS Cooling System

Precise feed of coolant hole –
no adjustment needed, no error possible

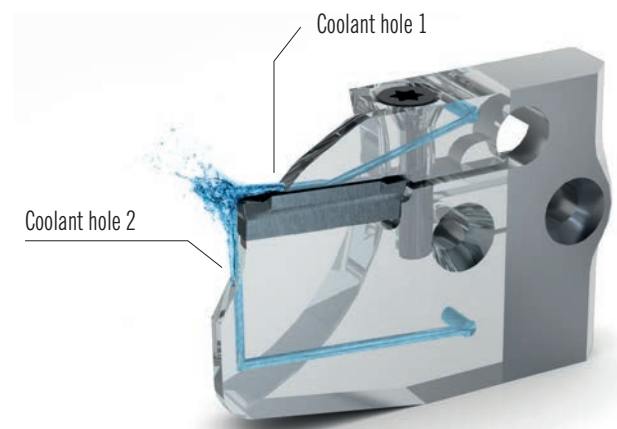
Average of 300% longer tool life –
thanks to significant reduction in wear

Optimised chip breakage and precise
chip removal by chip flushing



ACS1 – coolant under the swarf

The coolant hole (1) is fed directly along the insert seat and exits at the cutting zone. It goes under the swarf and removes it efficiently – so reducing wear effectively and increasing tool life.



ACS2 – two is better than one

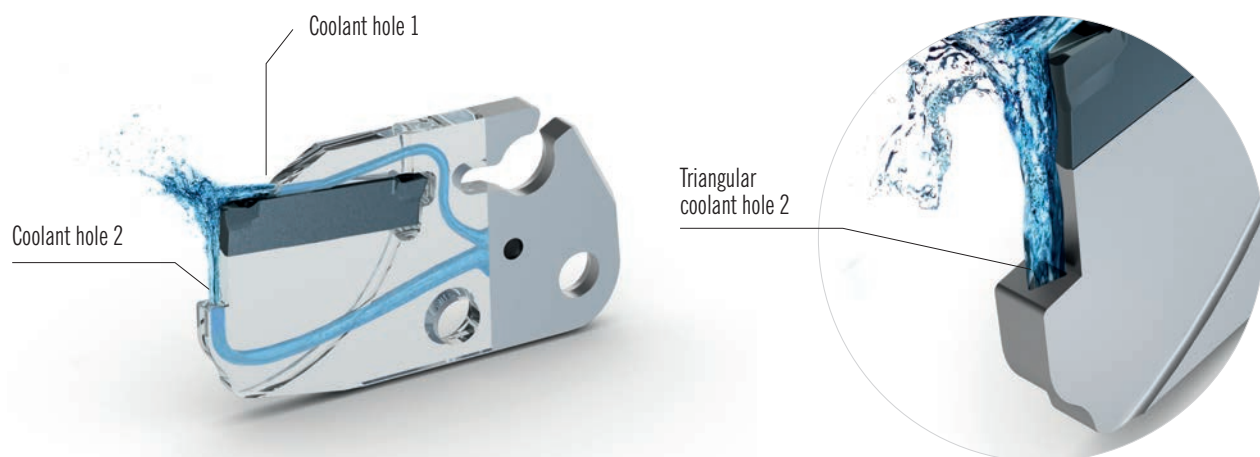
In addition to the coolant hole at the insert seat (1) there is a second coolant hole underneath the insert tool flank (2). This again increases tool life significantly.

The unrivalled original.

The ACS – ARNO Cooling System: the patented cooling system for efficient parting off, grooving and groove turning with the SA and SE grooving systems.

There's no cooler and more precise way: In the ACS Cooling System developed and patented by ARNO, coolant is fed directly along the insert seat to optimise insert cooling. Coolant enters the cutting zone, gets underneath the chip and ensures efficient chip removal.

In addition, the ACS2 cools the tool flank from underneath. This results in an average increase in tool life of 300 per cent, higher speed and greater process reliability. In summarizing, the patented ACS Cooling System makes our outstanding SA and SE grooving systems into outstanding productivity boosters.



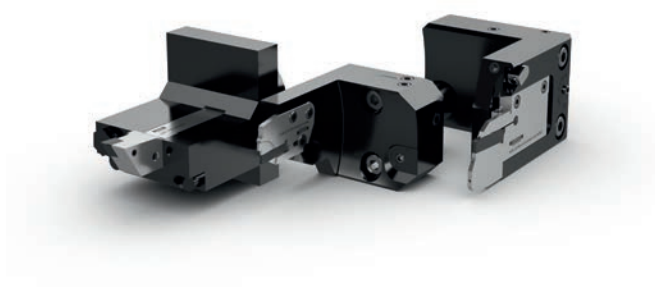
World premiere: 3D printed tool – the solution for narrow parting and grooving operations with ACS

Thanks to additive manufacturing it is possible for the first time to integrate two coolant holes in narrow modules. The bottom hole also ends in a triangular shape to feed coolant through to the edge of the tool flank.

Solutions for turning, parting and grooving combined in a variety of tool executionsn

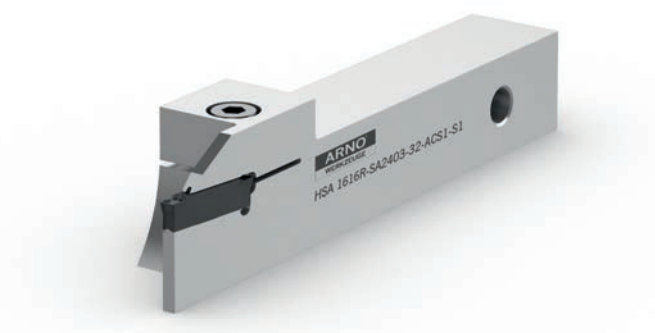
Turning holders from page 07

- Basic holder W7040055 / W7040056



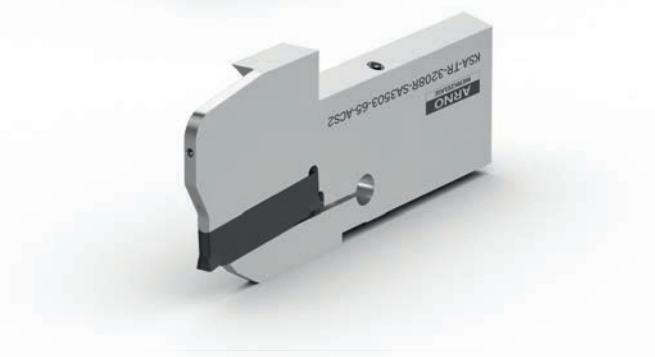
Monoblock holder from page 18

- 12 x 12 mm / groove width 1,5 mm



Part-off blades from page 19

- In sizes 26 and 32 /
groove width 1.5 to 3 mm



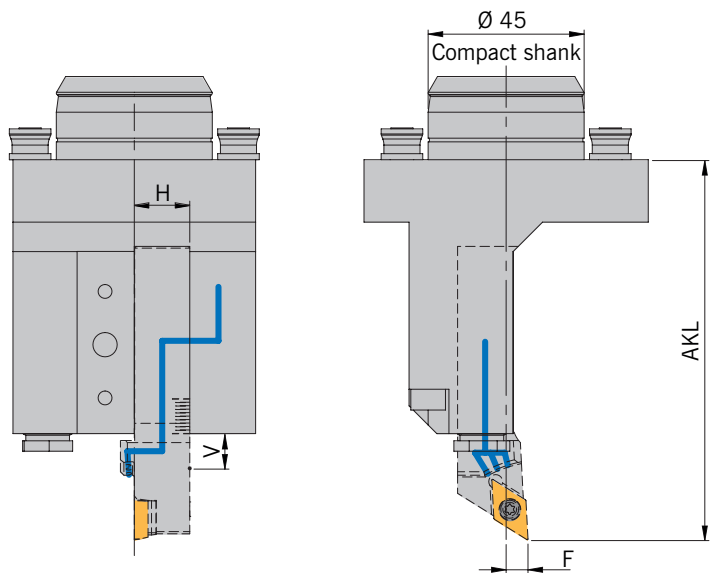
Modules from page 26

- Groove width 2 to 6 mm



Basic holder TNL18/TNL20/TNL32 - with internal coolant

For IK-UN-TR tool holders



Attachment W7040055 shown with tool holder SDJCR 1616X11-IK-UN-TR

Holder

Basic holder W7040055					Basic holder W7040056	
Designation	H _{schaff}	V*	AKL	F	AKL	F
SCLCR 1616X09-IK-UN-TR	16	10	119,5	6,3	119,5	6,3
SDJCR 1616X11-IK-UN-TR	16	10	119,5	6,3	119,5	6,3
SVJCR 1616X11-IK-UN-TR	16	10	119,5	-6,0	119,5	-6,0
SVVCN 1616X11-IK-UN-TR	16	10	102,5	1,3	102,5	1,3
AL 16-3-R-IK-UN-TR	16	10	102,0	6,3	102,0	6,3

The holder can be extended by dimension "V" value in the attachment.

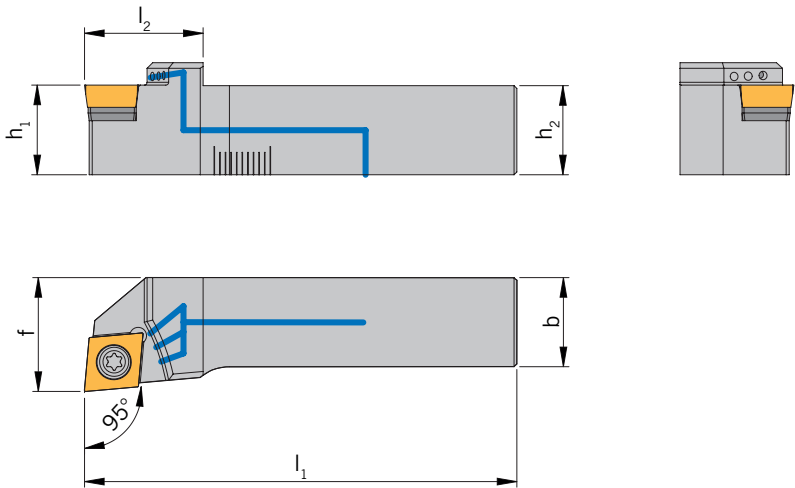
The coolant supply guaranteed within the adjustment range. The "AKL" dimension changes accordingly.

- Basic holders are available from the machine manufacturers.

Overhang (AKL) and F dimensions are available for other basic holders on request. Perfect coolant transfer cannot be guaranteed on other basic holders.

SCLCR 95° approach angle

Tool holder with IK-UN - specially for INDEX/TRAUB TNL18 / TNL20 / TNL32



Holder

Designation	h ₁ / h ₂	b	l ₁	l ₂	f	PG 05	Indexable Insert
SCLCR 1616X09-IK-UN-TR	16	16	77,2	21,2	20,3	●	CC...09T3...

For the F dimension when installed, see page 7.

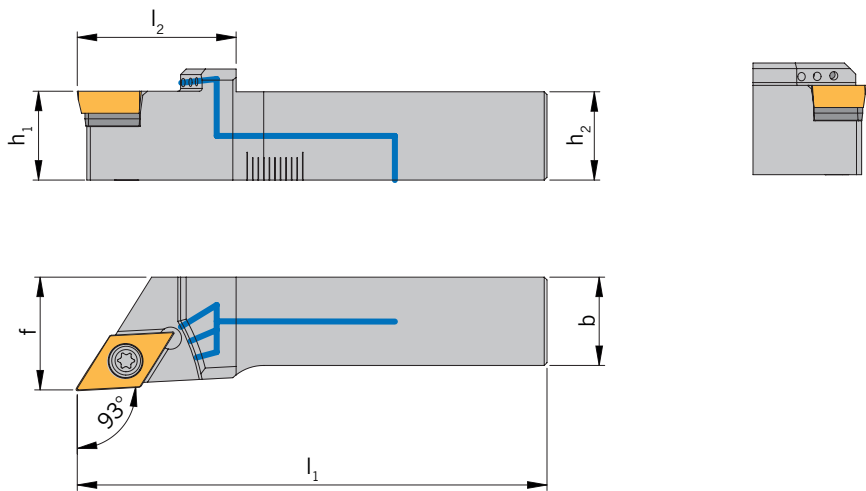
These tool holders fit on the following basic holders from INDEX/TRAUB: W7040055 / W7040056

Spare Parts

Holder	Screw	Key
SCLCR...X09...	SS 1111	KS 1111

SDJCR 93° approach angle

Tool holder with IK-UN - specially for INDEX/TRAUB TNL18 / TNL20 / TNL32



Holder

Designation	h ₁ / h ₂	b	l ₁	l ₂	f	PG 05	Indexable Insert
SDJCR 1616X11-IK-UN-TR	16	16	84,5	28,6	20,3	●	DC...11T3...

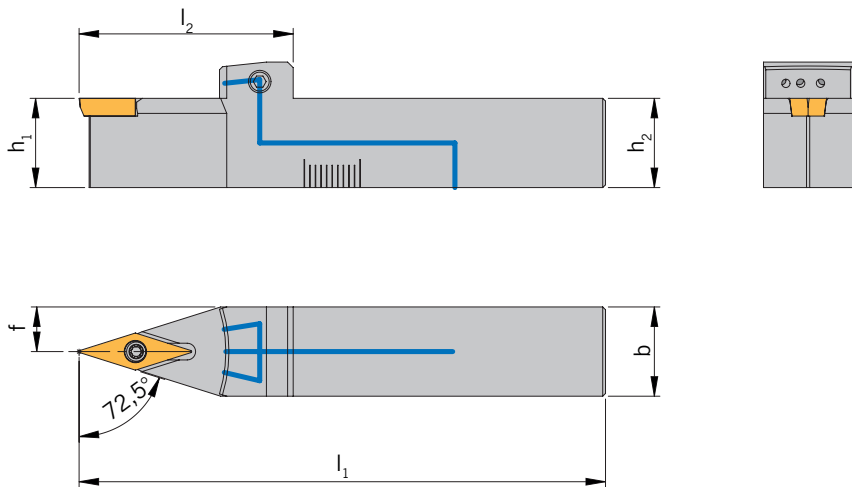
For the F dimension when installed, see page 7. Per la dimensione F quando montati vedere pagina 7.
These tool holders fit on the following basic holders from INDEX/TRAUB: W7040055 / W7040056

Spare Parts

Holder	Screw	Key
SDJCR...X11...	SS 1111	KS 1111

SVVCN 72,5 approach angle

Tool holder with IK-UN - specially for INDEX/TRAUB TNL18 / TNL20 / TNL32



Holders

Designation	h ₁ / h ₂	b	l ₁	l ₂	f	PG 05	Indexable Insert
SVVCN 1616X11-IK-UN-TR	16	16	94,5	38,5	8	●	VC...1103

For the F dimension when installed, see page 7.

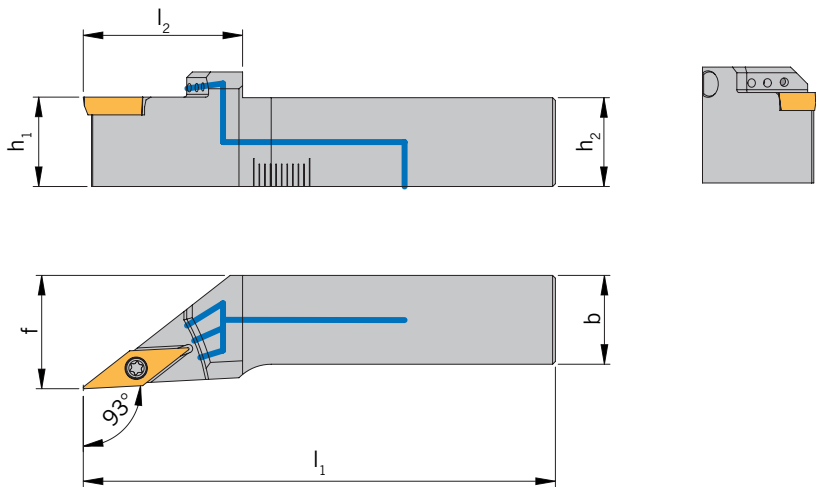
These tool holders fit on the following basic holders from INDEX/TRAUB: W7040055 / W7040056

Spare Parts

Holder	Screw	Key
SVVCN...X11...	SS 1751	KS 1751

SVJCR 93° approach angle

Tool holder with IK-UN - specially for INDEX/TRAUB TNL18 / TNL20 / TNL32



Holder

Designation	h ₁ / h ₂	b	l ₁	l ₂	f	PG 05	Indexable Insert
SVJCR 1616X11-1K-UN-TR	16	16	84,5	28,5	20,3	●	VC...1103

For the F dimension when installed, see page 7.

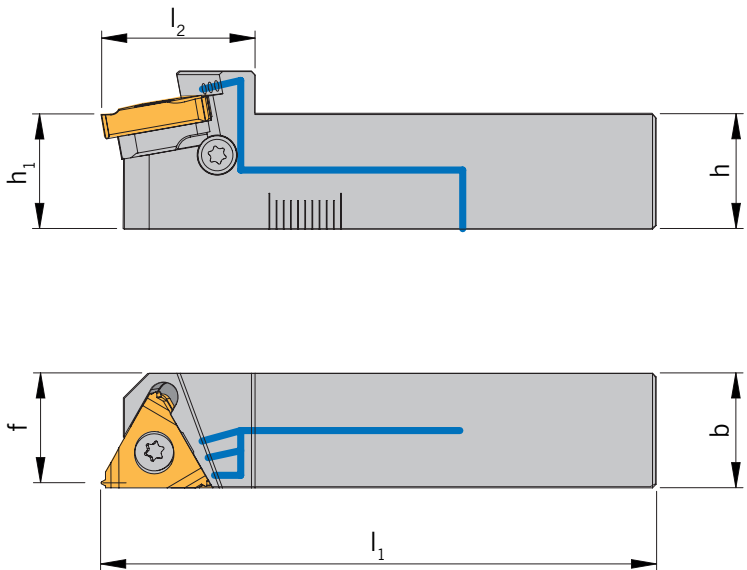
These tool holders fit on the following basic holders from INDEX/TRAUB: W7040055 / W7040056

Spare Parts

Holder	Screw	Key
SVJCR...X11...	SS 1751	KS 1751

External thread - standard design

Tool holder with IK-UN - specially for INDEX/TRAUB TNL18 / TNL20 / TNL32



Holder

Designation	$h = h_1 = b$	f	l_1	l_2	PG 39	Indexable Insert
AL16-3-R-IK-UN-TR	16	15,3	77,5	21,5	●	16ER...

For the F dimension when installed, see page 7.

These tool holders fit on the following basic holders from INDEX/TRAUB: W7040055 / W7040056

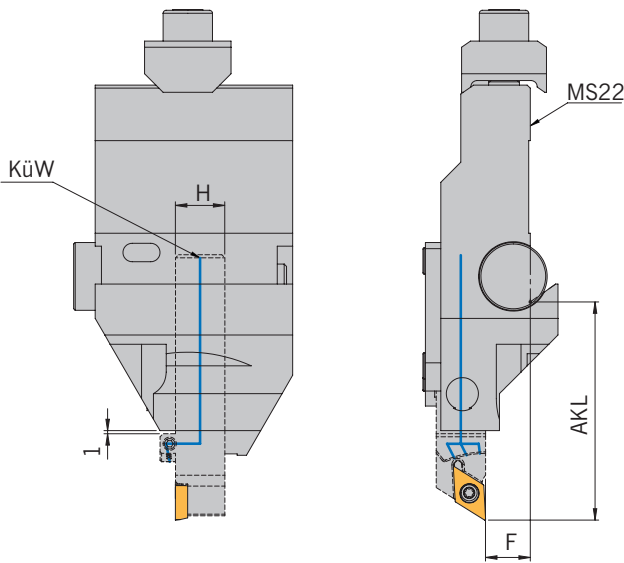
Spare Parts

Holder	Clamping screw	Screw + washer for support pad	Key	Support pad R
AL ...	SA3T	SY3T	KS 2510	YE3



Basic holder W519 0002 / W519 0003 / W519 0004 /
W519 0194 / W519 0195 / W519 0197 – with internal coolant

For tool holders with execution IK-H-MS and MS22 interface



Attachment W519 0003 shown with
tool holder SDJCR 1616X11-IK-H2-MS

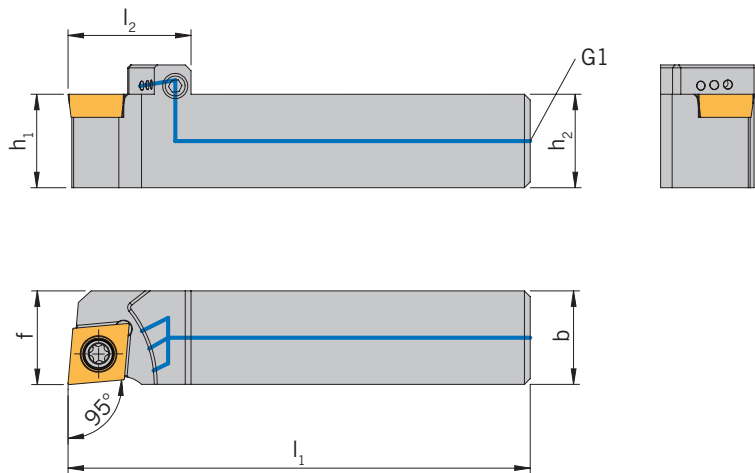
Holder

Designation	H _{schaft}	Basic holder W519 0002		Basic holder W519 0003		Basic holder W519 0004		Basic holder W519 0194		Basic holder W519 0195		Basic holder W519 0197	
		AKL	F	AKL	F	AKL	F	AKL	F	AKL	F	AKL	F
AL 16-3-R-IK-H2-MS	16	64,5	29,8	64,5	15,2	88,0	15,7	88,0	14,2	89,0	28,8	68,5	12,3
SCLCR 1616X09-IK-H2-MS	16	64,0	30,5	64,0	14,5	87,5	15,0	87,5	13,5	88,5	29,5	69,0	13,0
SDJCR 1616X11-IK-H2-MS	16	71,0	30,5	71,0	14,5	94,5	15,0	94,5	13,5	95,5	29,5	76,0	13,0
SVJCR 1616X11-IK-H2-MS	16	71,0	30,5	71,0	14,5	94,5	15,0	94,5	13,5	95,9	29,5	76,0	13,0

• Basic holders are available from the machine manufacturers.
Overhang (AKL) and F dimensions are available for other basic holders on request. Perfect coolant transfer cannot be guaranteed on other basic holders.

SCLCR 95° approach angle

Tool holder with IK-UN - specially for INDEX/TRAUB with MS22 interface



G1 = Thread 1

Holder

Designation	h ₁ / h ₂	b	l ₁	l ₂	f	Thread 1	PG 05	Indexable Insert
SCLCR 1616X09-IK-H2-MS	16	16	79	21	16	G 1/8"	●	CC...09T3...

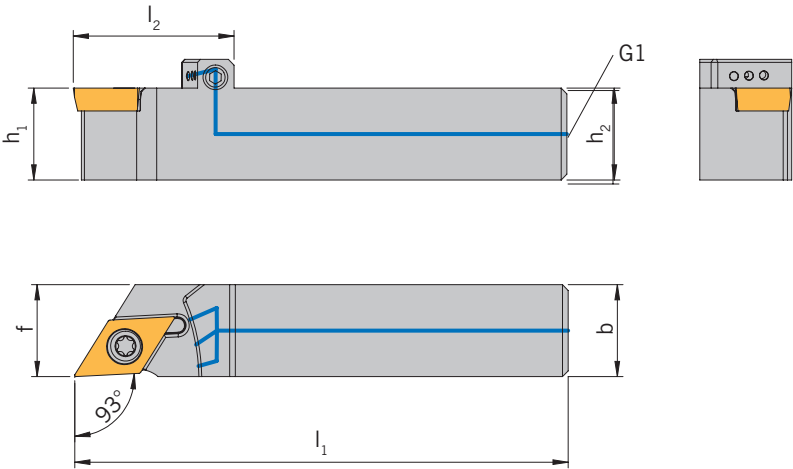
For the F dimension when installed, see page 13.
These tool holders fit on the following basic holders from INDEX/TRAUB: W519 0002 / W519 0003 / W519 0004 / W519 0194 / W519 0195 / W519 0197

Spare Parts

Holder	Screw	Key
SCLCR...X09...	SS 1111	KS 1111

SDJCR 93° approach angle

Tool holder with IK-UN - specially for INDEX/TRAUB with MS22 interface



G1 = Thread 1

Holder

Designation	h ₁ / h ₂	b	l ₁	l ₂	f	Thread 1	PG 05	Indexable Insert
SDJCR 1616X11-1K-H2-MS	16	16	86	28	16	G 1/8"	●	DC...11T3...

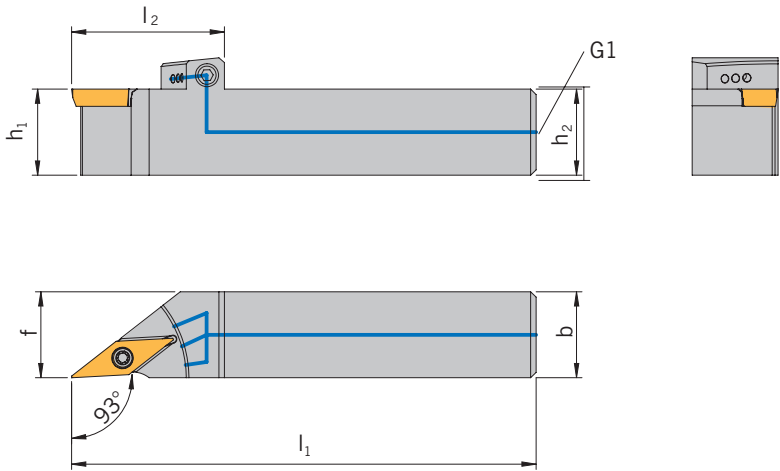
For the F dimension when installed, see page 13.
These tool holders fit on the following basic holders from INDEX/TRAUB: W519 0002 / W519 0003 / W519 0004 / W519 0194 / W519 0195 / W519 0197

Spare Parts

Holder	Screw	Key
SDJCR...X11...	SS 1111	KS 1111

SVJCR 93° approach angle

Tool holder with IK-UN - specially for INDEX/TRAUB with MS22 interface



G1 = Thread 1

Holder

Designation	h_1 / h_2	b	l_1	l_2	f	Thread 1	PG 05	Indexable Insert
SVJCR 1616X11-IK-H2-MS	16	16	86	28	16	G 1/8"	●	VC...1103...

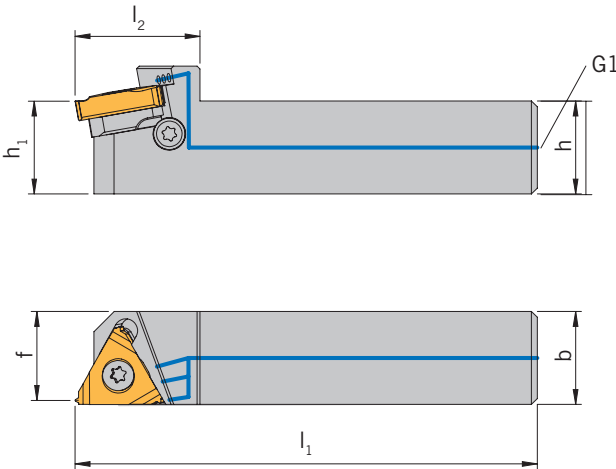
For the F dimension when installed, see page 13.
These tool holders fit on the following basic holders from INDEX/TRAUB: W519 0002 / W519 0003 / W519 0004 / W519 0194 / W519 0195 / W519 0197

Spare Parts

Holder	Screw	Key
SVJCR...X11...	SS 1751	KS 1751

External thread - standard design

Tool holder with IK-UN - specially for INDEX/TRAUB with MS22 interface



G1 = Thread 1

Holder

Designation	$h = h_1 = b$	f	l_1	l_2	Thread 1	PG 39	Indexable Insert
AL16-3-R-IK-H2-MS	16	15,3	77,5	21,5	G 1/8"	●	16ER...

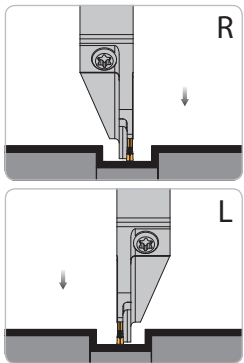
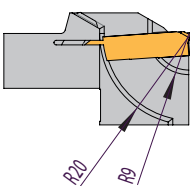
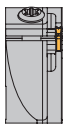
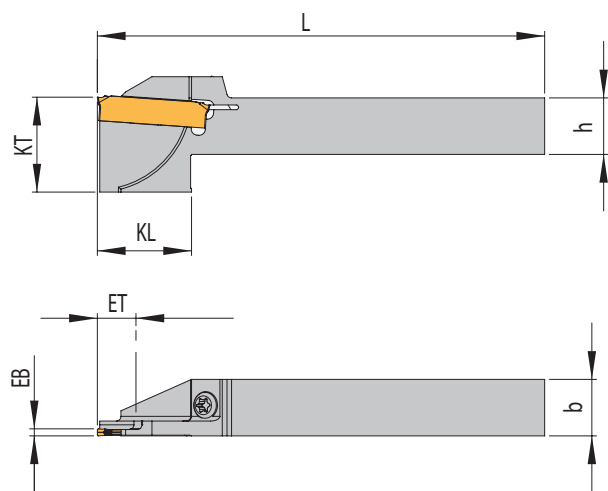
For the F dimension when installed, see page 13.
These tool holders fit on the following basic holders from INDEX/TRAUB: W519 0002 / W519 0003 / W519 0004 / W519 0194 / W519 0195 / W519 0197

Spare Parts

Holder	Clamping screw	Screw + washer for support pad	Key	Support pad R
AL ...	SA3T	SY3T	KS 2510	YE3

HSA

For TRAUB TNL12



Right-hand execution shown

Holders

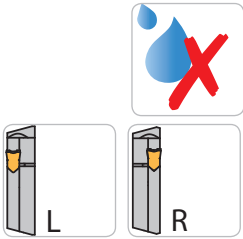
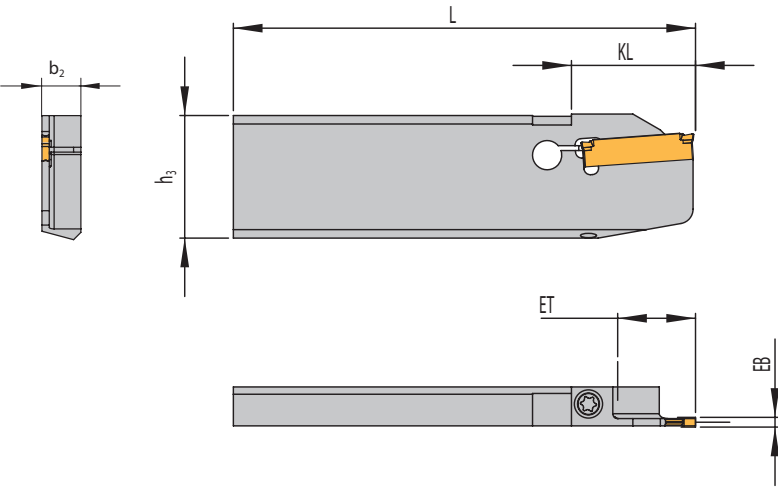
Designation	EB	ET	D _{max}	h	b	L	KL	KT	PG 37	Indexable Insert
HSA 1212R-SA24015-S1-16	1,5	8	16	12	12	95	20	12	●	SA24-15...

Spare Parts

Holder	Screw	Key
HSA 1212.. -SA24015..	AS 0022	T5215-IP

KSA

For INDEX/TRAUB-Machines



Left-hand execution shown

Holders

Designation	EB	ET	D _{max}	D _R	h ₃	b ₂	L	KL	PG 37	Indexable Insert
KSA 260895L/R-SA1602-20	2,0	10	20	-	26	8,0	95	19,5	●	SA 16-20...
KSA 260895L-SA24015-20	1,5	10	20	-	26	8,0	95	19,5	●	SA 24-15...
KSA 260895L/R-SA2402-32	2,0	16	32	-	26	8,0	95	25,5	●	SA 24-20...
KSA 260895L/R-SA2403-32	3,0	16	32	-	26	8,0	95	25,5	●	SA 24-30...
KSA 260895L/R-SA2403-44	3,0	22	44	61	26	8,0	95	31,5	●	SA 24-30...
KSA 260895R-SA24015-32	1,5	16	32	-	26	8,0	95	25,5	●	SA 24-15...
KSA 320895L/R-SA2402-44	2,0	22	44	61	32	8,0	95	31,5	●	SA 24-20...
KSA 320895L/R-SA2403-44	3,0	22	44	61	32	8,0	95	31,5	●	SA 24-30...

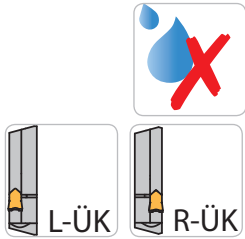
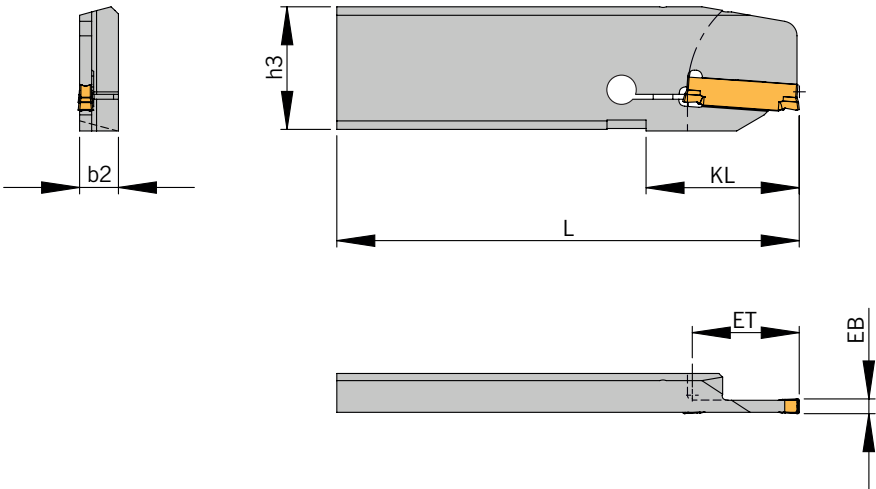
D_{max} = Maximum diameter in solid, D_R = Maximum diameter for tube material

Spare Parts

Holder	Screw	Key
KSA 260895.. - KSA 320895..	AS 0022	T5115-IP

KSA - Upside down

Part-off blades suitable for INDEX/TRAUB-Machines



Left-hand execution upside down shown.

Holders

Designation	EB	ET	D _{max}	D _R	h ₃	b ₂	L	KL	PG 37	Indexable Insert
KSA 260895R-SA24015-20-ÜK	1,5	10	20	-	26	8,0	95	19,5	●	SA 24-15...
KSA 260895R-SA24015-32-ÜK	1,5	16	32	-	26	8,0	95	25,5	●	SA 24-15...
KSA 260895L/R-SA24015-44-ÜK	1,5	22	44	61	26	8,0	95	31,5	●	SA 24-15...
KSA 260895L/R-SA2403-32-ÜK	3,0	16	32	-	26	8,0	95	25,5	●	SA 24-30...
KSA 260895L/R-SA2403-44-ÜK	3,0	22	44	61	26	8,0	95	31,5	●	SA 24-30...
KSA 320895L/R-SA2402-44-ÜK	2,0	22	44	61	32	8,0	95	31,5	●	SA 24-20...
KSA 320895L/R-SA2403-44-ÜK	3,0	22	44	61	32	8,0	95	31,5	●	SA 24-30...

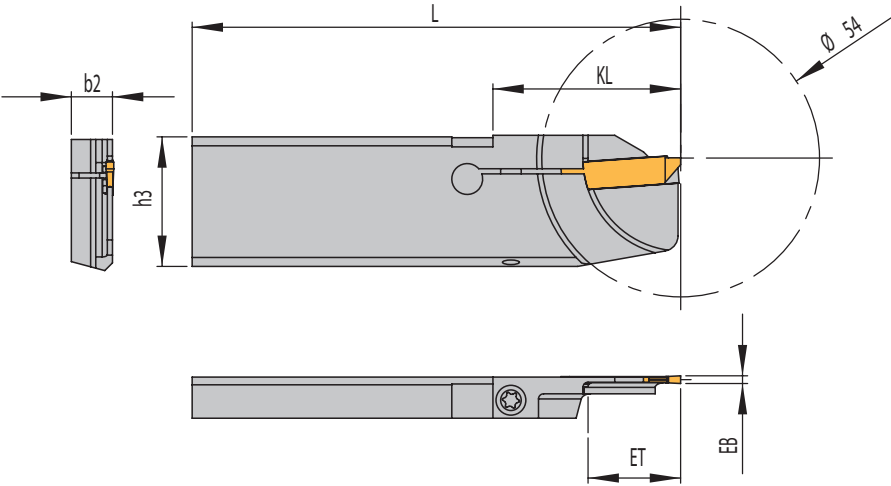
D_{max} = Maximum diameter in solid, D_R = Maximum diameter for tube material

Spare Parts

Holder	Screw	Key
KSA 260895.. - KSA 320895..	AS 0022	T5115-IP

KSA

Part-off blades suitable for TRAUB TNK36 / TNL32 / TNL26K and INDEX MS 18C - Reinforced blade design



Right-hand execution shown.

Holders

Designation	EB	ET	D _{max}	h ₃	b ₂	L	KL	PG 37	Indexable Insert
KSA 260895R-SA24015-S1-36	1,5	18	36	26	8,0	95	36,5	●	SA 24-15...
KSA 260895R-SA2402-S1-36	2,0	18	36	26	8,0	95	36,5	●	SA 24-20...

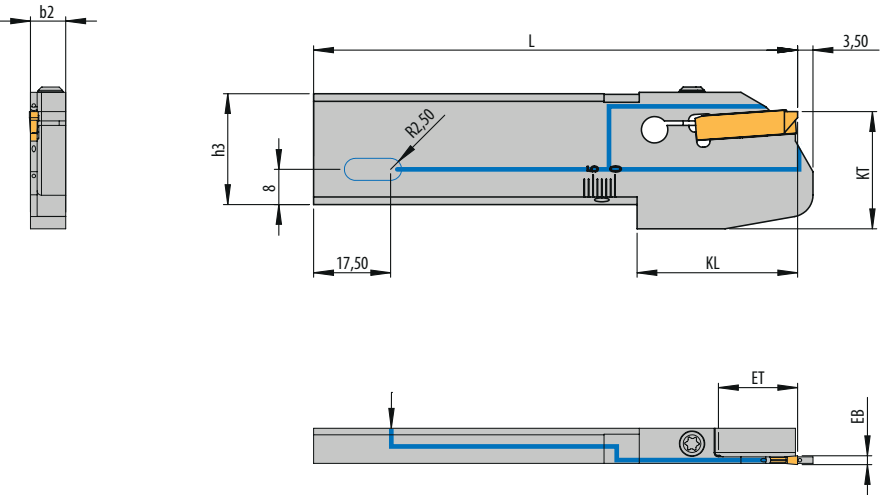
Dmax = Maximum diameter in solid

Spare Parts

Holder	Screw	Key
KSA 260895..	AS 0022	T5115-IP

KSA-ACS2

Part-off blade suitable for TRAUB TNL26 / TNL32 and TNK36 - with ACS



Holders

Designation	EB	ET	D _{max}	D _R	h ₃	b ₂	L	KL	KT	PG 37	Indexable Insert
KSA 2608R-SA2402-28-ACS2	2	14	28	28	26	8,0	110	36,5	26,6	●	SA 24-20...
KSA 2608L-SA2402-36-ACS2	2	18	36	36	26	8,0	110	36,5	26,6	●	SA 24-20...
KSA 2608L-SA2403-44-ACS2	3	22	44	61	26	8,0	110	36,5	26,6	●	SA 24-30...

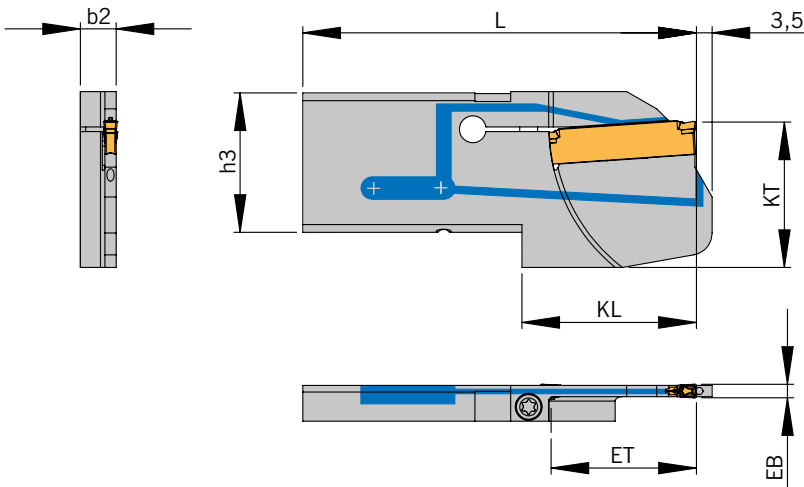
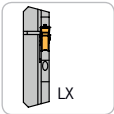
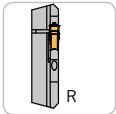
D_{max} = Maximum diameter in solid, D_R = Maximum diameter for tube material

Spare Parts

Holder	Screw	Key
KSA ..08.. -SA24..	AS 0022	T5215-IP

KSA-TR-ACS2

Part-off blade suitable for TRAUB (TNL18 / TNL32 / TNC42 / TNC65 / TNK42 / TNK65) and INDEX (ABC / C42 / C100 / C160) - with ACS



Right-hand execution shown

Holders

Designation	EB	ET	D _{max}	D _R	h ₃	b ₂	L	KL	KT	PG 37	Indexable Insert
KSA-TR-2608R-SA2402-36-ACS2 ²	2	18,0	36	36	26	8,0	74	25	26,6	●	SA 24-20...
KSA-TR-2608LX-SA2403-44-ACS2 ⁴	3	22,0	44	61	26	8,0	78	29	26,6	●	SA 24-30...
KSA-TR-2608R-SA2403-44-ACS2 ²	3	22,0	44	61	32	8,0	100	31	32,5	●	SA 24-30...
KSA-TR-3208LX-SA3503-65-ACS2 ¹	3	32,5	65	80	32	8,0	110	41	32,5	●	SA 35-30...
KSA-TR-3208R-SA3503-65-ACS2 ³	3	32,5	65	80	32	8,0	88	39	32,5	●	SA 35-30...

D_{max} = Maximum diameter in solid, D_R = Maximum diameter for tube material

¹ Part-off-blade suit to the flange mounted holder HTR45-R-W7040098-KSA-32LX-ACS

² Part-off-blade suit to the flange mounted holder W7040096

³ Part-off-blade suit to the flange mounted holder W7040097

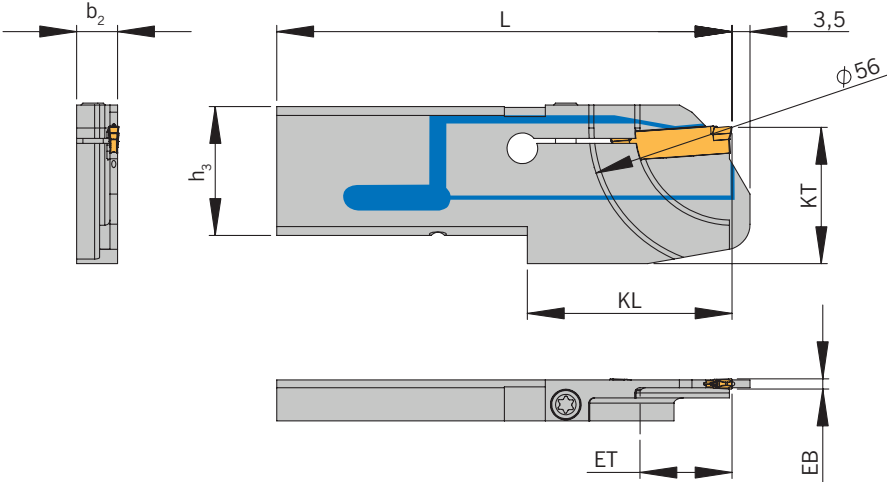
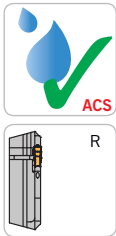
⁴ Part-off-blade suit to the basic holder W1250031 grooving tool holder W9991276

Spare Parts

Holder	Screw	Key
KSA-TR ..08.. -ACS2	AS 0022	T5215-IP

KSA-TR-S1-ACS2

Part-off blade suitable for TRAUB TNL18 / TNL20 / TNL32 and INDEX MS22 - with ACS



Right-hand execution shown

Holders

Designation	EB	ET	D _{max}	D _R	h ₃	b ₂	L	KL	KT	PG 37	Indexable Insert
KSA-TR-2608R-SA2402-S1-36-ACS2	2	18,0	36	36	26	8,0	89	40	26,6	●	SA 24-20...

Dmax = Maximum diameter in solid, DR = Maximum diameter for tube material

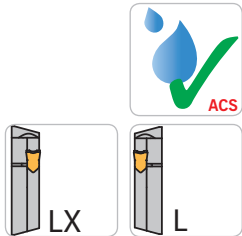
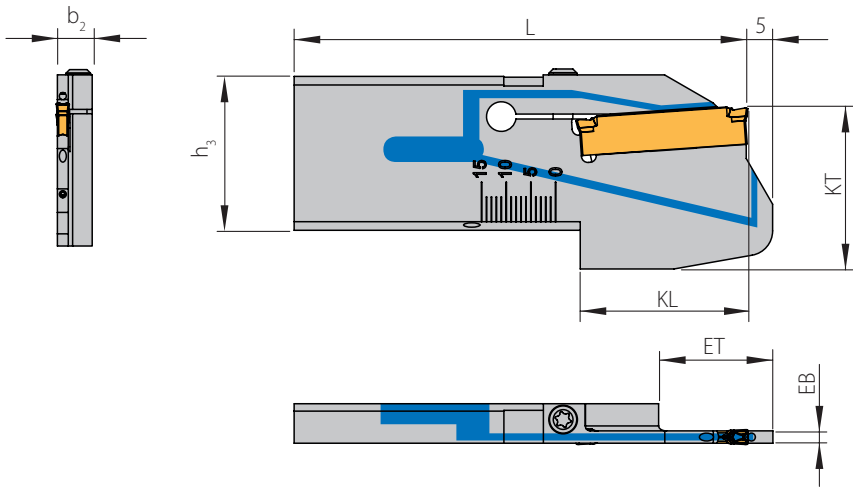
Part-off-blade suit to the flange mounted holder W7040096

Spare Parts

Holder	Screw	Key
KSA-TR ..08.. -ACS2	AS 0022	T5215-IP

KSA-ACS2

Part-off blade with ACS for VDI flange mounted holders



Left-hand execution shown

Holders

Designation	EB	ET	D _{max}	h ₃	b ₂	L	KL	KT	PG 37	Indexable Insert
KSA 3208L-SA2403-44-ACS2 ¹	3	22,0	44	32	8,0	81,5	23,5	32,5	●	SA 24-30...
KSA 3208LX-SA2403-44-ACS2 ²	3	22,0	44	32	8,0	81,5	23,5	32,5	●	SA 24-30...
KSA 3208L-SA3503-65-ACS2 ¹	3	32,5	65	32	8,0	92,0	34,0	32,5	●	SA 35-30...
KSA 3208LX-SA3503-65-ACS2 ²	3	32,5	65	32	8,0	92,0	34,0	32,5	●	SA 35-30...

D_{max} = Maximum diameter in solid

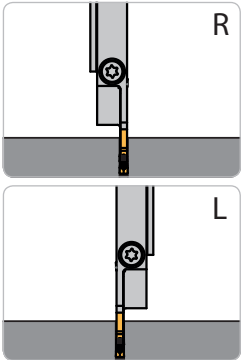
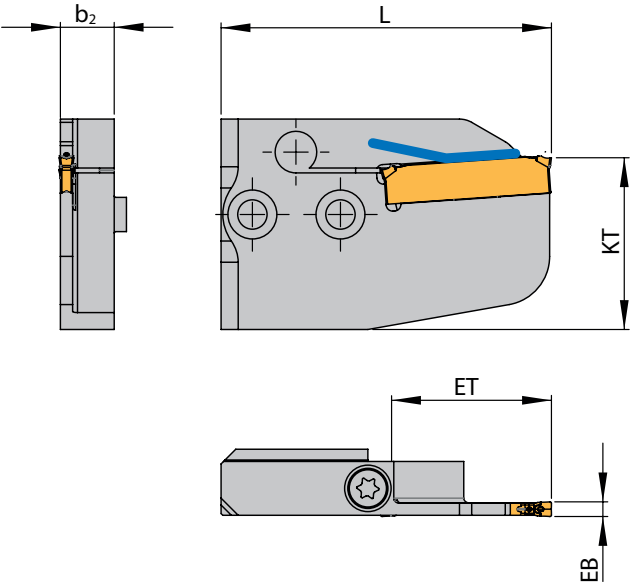
¹ Part-off-blade suit to the flange mounted holder HVDI-30R-7-38-KSA-32L and HVDI-30L-7-60-KSA-32L. (Page 50/51)
² Part-off-blade suit to the flange mounted holder HVDI-30L-7-38-KSA-32LX and HVDI-30R-7-60-KSA-32LX. (Page 50/51)

Spare Parts

Holder	Screw	Key
KSA 3208.. - ACS2	AS 0022	T5115-IP

MSA-ACS1

Module with through tool coolant - ACS1



Left-hand execution shown

Holders

Designation	EB	ET	D _{max}	D _R	b ₂	L	KT	PG 37	Indexable Insert
MSA-SL/R-SA2402-44-ACS1	2	22,0	44	61	11	57,0	35	●	SA 24-20...
MSA-SL/R-SA2403-44-ACS1	3	22,0	44	61	11	57,0	35	●	SA 24-30...
MSA-SL/R-SA3502-65-ACS1	2	32,5	65	80	11	67,5	35	●	SA 35-20...
MSA-SL/R-SA3502-90-ACS1	2	45,0	90	90	11	80,0	35	●	SA 35-20...
MSA-SL/R-SA3503-65-ACS1	3	32,5	65	80	11	67,5	35	●	SA 35-30...
MSA-SL/R-SA3503-105-ACS1	3	52,5	105	105	11	88,0	35	●	SA 35-30...
MSA-SL-SA3504-105-ACS1	4	52,5	105	105	11	88,0	35	●	SA 35-40...
MSA-SL-SA3506-65-ACS1	6	32,5	65	80	12	67,5	35	●	SA 35-60...
MSA-SL-SA3506-105-ACS1	6	52,5	105	105	12	88,0	35	●	SA 35-60...

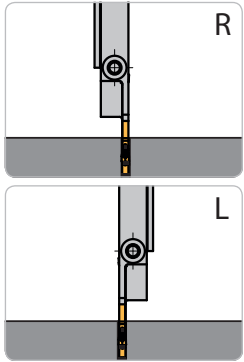
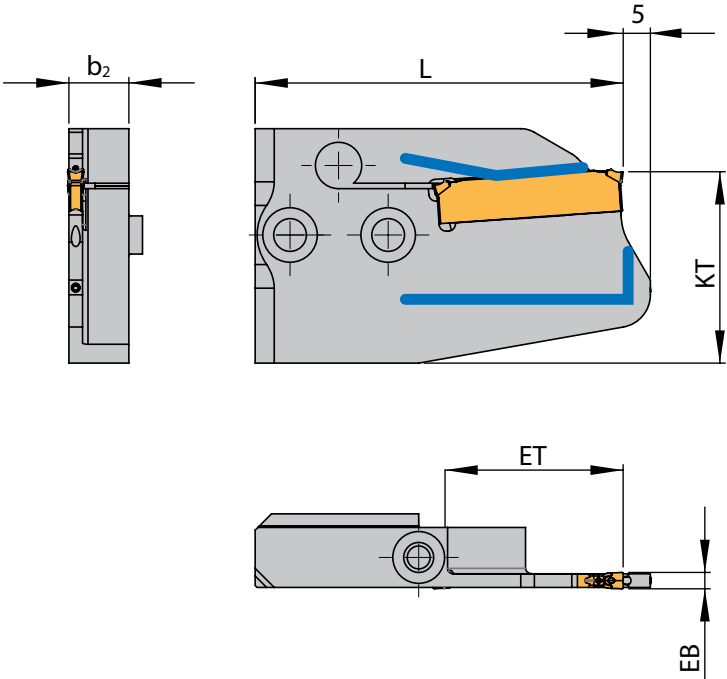
D_{max} = Maximum diameter in solid, D_R = Maximum diameter for tube material
When using part-off modules from 105mm diameter we recommend using a torque at torque setting of 3NM
Remark: Suitable flange mounted holders with VDI can be found from page 38.

Spare Parts

Holder	Screw	Key
MSA-S R/L..	SA5T	T5220-IP

MSA-ACS2

Module with through tool coolant – ACS2



Left-hand execution shown

Holders

Designation	EB	ET	D _{max}	D _R	b ₂	L	KT	PG 37	Indexable Insert
MSA-SL/R-SA2402-32-ACS2	2	16,0	32	48	11	52,0	35	●	SA 24-20...
MSA-SL/R-SA2402-44-ACS2	2	22,0	44	61	11	57,0	35	●	SA24-20..
MSA-SL/R-SA2403-32-ACS2	3	16,0	32	48	11	52,0	35	●	SA24-30..
MSA-SL/R-SA2403-44-ACS2	3	22,0	44	61	11	57,0	35	●	SA24-30..
MSA-SL/R-SA3503-52-ACS2	3	26,0	52	68	11	67,5	35	●	SA35-30..
MSA-SL/R-SA3503-65-ACS2	3	32,5	65	80	11	67,5	35	●	SA35-30..
MSA-SL/R-SA3503-69-ACS2	3	34,5	69	80	11	69,5	35	●	SA35-30..
MSA-SL/R-SA3503-80-ACS2	3	40,0	80	80	11	75,0	35	●	SA35-30..
MSA-SL/R-SA3503-90-ACS2	3	45,0	90	90	11	80,0	35	●	SA 35-30...
MSA-SL/R-SA3503-105-ACS2	3	52,5	105	105	11	88,0	35	●	SA35-30..
MSA-SL/R-SA3504-65-ACS2	4	32,5	65	80	11	67,5	35	●	SA35-40..
MSA-SL/R-SA3504-105-ACS2	4	52,5	105	105	11	88,0	35	●	SA35-40..

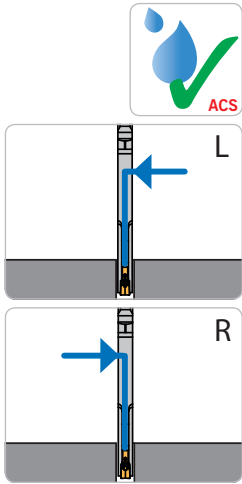
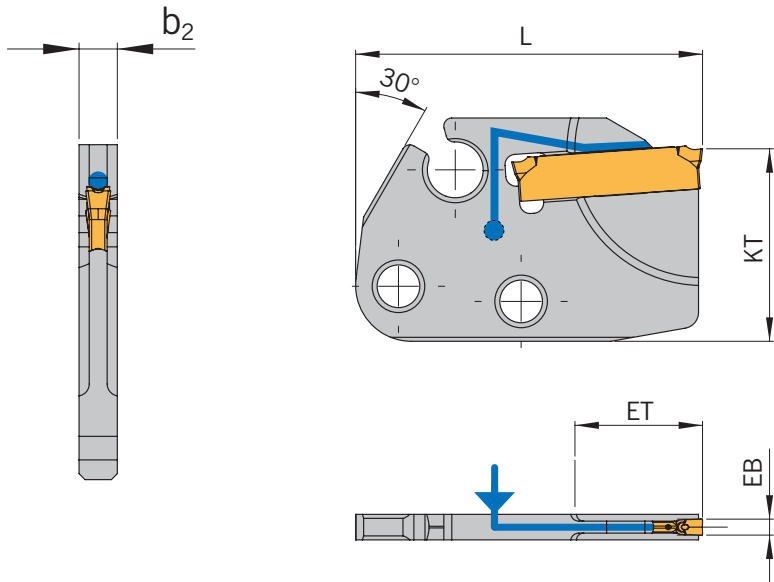
D_{max} = Maximum diameter in solid, D_R = Maximum diameter for tube material
When using part-off modules from 105mm diameter we recommend using a torque at torque setting of 3NM
Remark: Suitable flange mounted holders with VDI can be found from page 38.

Spare Parts

Holder	Screw	Key
MSA-S R/L..	SA5T	T5220-IP

MSA-IL/R...ACS1

Module with through tool coolant - ACS1



Left-hand execution shown

Holders

Designation	EB	ET	D _{max}	b ₂	L	KT	PG 37	Indexable Insert
MSA-IL/R-SA1602-L37-20-ACS1	2	10	20	3,2	37,0	24	●	SA 16-20...
MSA-IL/R-SA1602-L41-20-ACS1	2	10	20	3,2	41,0	24	●	SA 16-20...
MSA-IL/R-SA1602-L43,5-26-ACS1	2	13	26	3,2	43,5	24	●	SA 16-20...
MSA-IL/R-SA1602-L45,5-22-ACS1	2	11	22	3,2	45,5	24	●	SA 16-20...
MSA-IL/R-SA2402-L44-46-ACS1	2	23	46	3,2	44,0	24	●	SA 24-20...
MSA-IL/R-SA2402-L45,5-32-ACS1	2	16	32	3,2	45,5	24	●	SA 24-20...
MSA-IL-SA2402-L48,5-20-ACS1	2	10	20	3,2	48,5	24	●	SA 24-20...
MSA-IL/R-SA2402-L48,5-42-ACS1	2	21	42	3,2	48,5	24	●	SA 24-20...
MSA-IL-SA2402-L56-32-ACS1	2	16	32	3,2	56,0	24	●	SA 24-20...
MSA-IL/R-SA2403-L45,5-32-ACS1	3	16	32	3,2	45,5	24	●	SA 24-30...
MSA-IL/R-SA2403-L48,5-42-ACS1	3	21	42	3,2	48,5	24	●	SA 24-30...
MSA-IL/R-SA3502-L55-52-ACS1	2	26	52	3,2	55,0	24	●	SA 35-20...
MSA-IL/R-SA3503-L55-52-ACS1	3	26	52	3,2	55,0	24	●	SA 35-30...

Remark: Suitable flange mounted holders can be found from page 38.

Dmax = Maximum diameter in solid

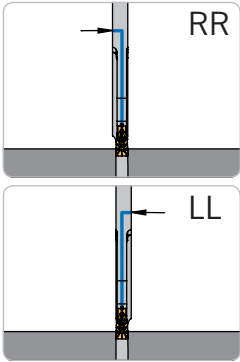
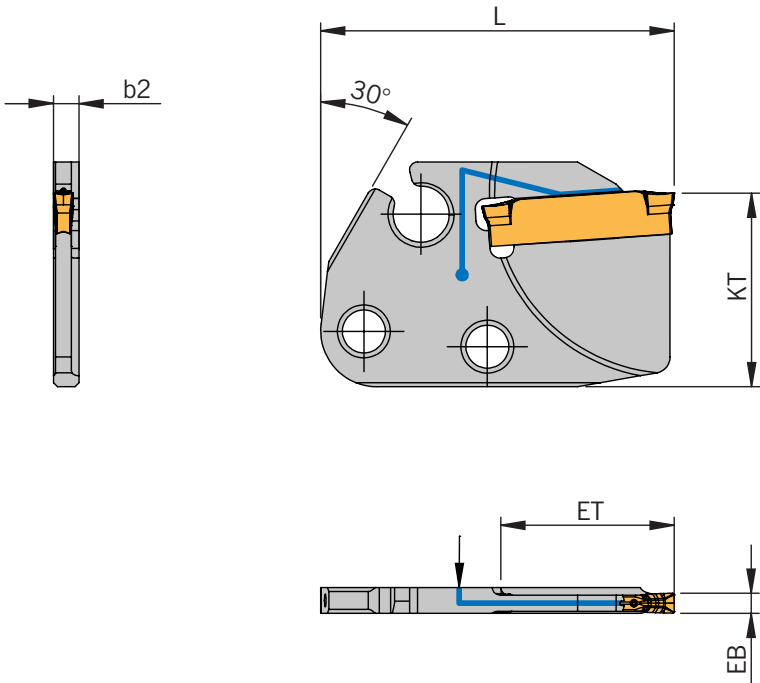
Spare Parts

Holder	Screw	Key
MSA-I ..	2 x AS 0049 / 1 x AS 0050*	T5220-IP

* Alternative AS 0050D (Double-sided IP20)

MSA-ILL/IRR-ACS1

Module with through tool coolant - ACS1



Left-hand execution shown

Holders

Designation	EB	ET	D _{max}	b ₂	L	KT	PG 37	Indexable Insert
MSA-ILL-SA1602-L45,5-22-ACS1	2,0	11	22	3,2	45,5	24	●	SA 16-20...
MSA-ILL-SA24025-L44-44-ACS1	2,5	22	44	3,2	44,0	24	●	SA24-25...
MSA-IRR-SA24025-L44-44-ACS1	2,5	22	44	3,2	44,0	24	●	SA24-25...
MSA-ILL-SA24025-L51-46-ACS1	2,5	23	46	3,2	51,0	24	●	SA24-25...

Remark: Suitable flange mounted holders Tornos / Göltenbott and INDEX can be found from page 38.
Dmax = Maximum diameter in solid

Spare Parts

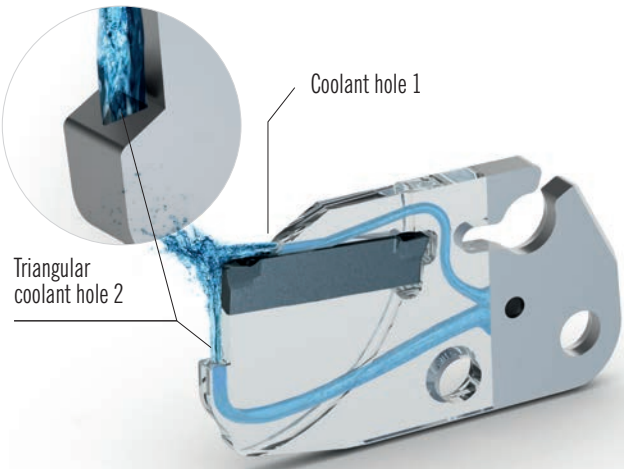
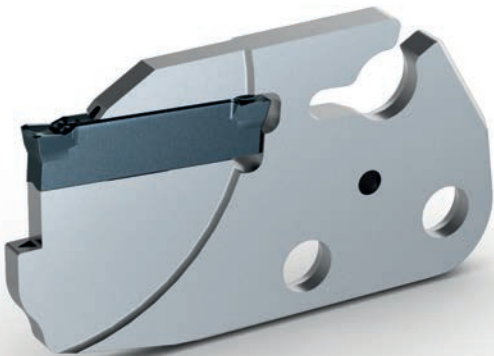
Holder	Screw	Key
MSA-I RR/LL..	2 x AS 0049 / 1 x AS 0050*	T5220-IP

* Alternative AS 0050D (Double-sided IP20)

Cool innovation:
The first series-produced additive manufactured tool in the world.

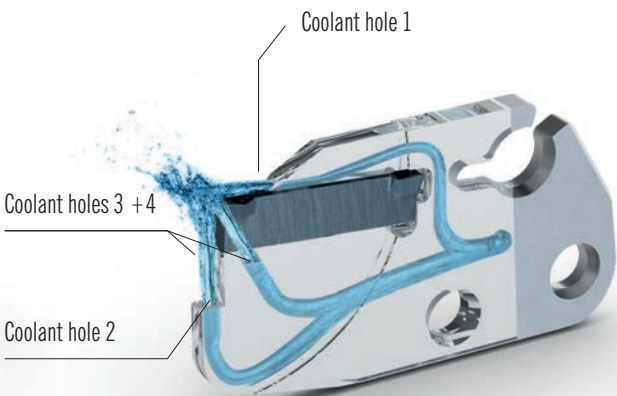
The ACS module with triangular coolant hole ensures maximum cooling through to the edge – and 3D printing for unlimited options of adaptation to your INDEX and TRAUB machines.

A grooving module with triangular coolant hole – it sounds futuristic but it has already been successfully produced in series – using 3D printing: for the first time, ARNO Werkzeuge and Rosswag Engineering have transformed the possibilities of additive manufacturing into a standard tool in the grooving sector. This process even allows narrow tools to have two coolant holes with nozzle-shaped geometries and optimised flow characteristics. The bottom hole also ends in a triangular shape to feed coolant through to the furthest edge of the tool flank. This results in longer tool life and shorter chips and it breaks down chips to reduce tool flank wear. We have already conducted tests with additional side coolant holes. And if you have specific requirements for your INDEX or TRAUB machines, we will implement them without any problem. With this tool you are now ready to face future challenges.



Cool all the way down the line – triangular coolant hole

The coolant hole cooling the underside of the tool flank ends in a triangular shape. This feeds coolant across the full width of the insert through to the edge and minimises wear.

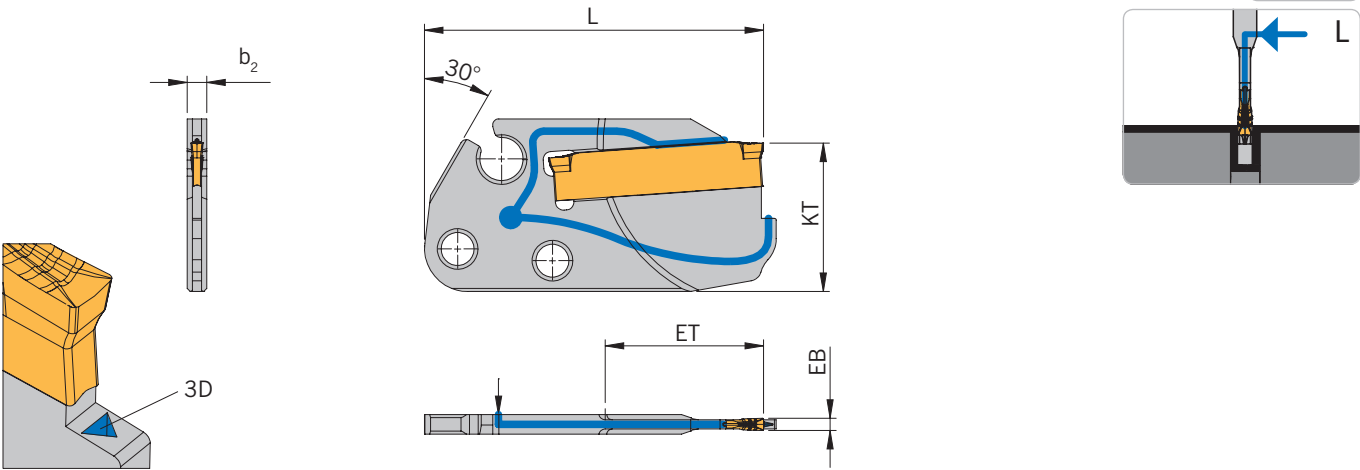


Cool flanks – ACS4 with side coolant holes already under test

Besides cooling the cutting edges and tool flanks, the insert sides can also be cooled. Prototypes with four coolant holes are already undergoing trials at the ARNO Test Centre.

MSA-IL...ACS2

Module with through tool coolant – ACS2



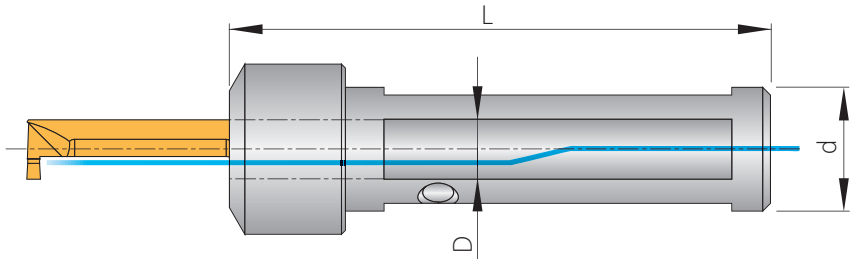
Designation	EB	ET	D _{max}	b ₂	L	KT	PG 37	Indexable Insert
MSA-IL-SA1602-L41-20-ACS2-3D	2	10	20	3,2	41	24	●	SA16-20...
MSA-IL-SA1602-L45,5-22-ACS2-3D	2	11	22	3,2	45,5	24	●	SA16-20...
MSA-IL-SA2402-L45,5-32-ACS2-3D	2	16	32	3,2	45,5	24	●	SA24-20...
MSA-IL-SA2402-L48,5-20-ACS2-3D	2	10	20	3,2	48,5	24	●	SA24-20...
MSA-IL-SA2402-L48,5-24-ACS2-3D	2	12	24	3,2	48,5	24	●	SA24-20...
MSA-IL-SA2402-L48,5-42-ACS2-3D	2	21	42	3,2	48,5	24	●	SA24-20...
MSA-IL-SA2402-L56-32-ACS2-3D	2	16	32	3,2	56	24	●	SA24-20...
MSA-IL-SA2403-L45,5-32-ACS2-3D	3	16	32	3,2	45,5	24	●	SA24-30...
MSA-IL-SA2403-L48,5-42-ACS2-3D	3	21	42	3,2	48,5	24	●	SA24-30...
MSA-IL-SA3502-L55-52-ACS2-3D	2	26	52	3,2	55	24	●	SA35-20...
MSA-IL-SA3503-L55-52-ACS2-3D	3	26	52	3,2	55	24	●	SA35-30...

Dmax= maximum diameter in solid.
Remark: See page 38 for matching flange mounted holders.

Holder	Screw	Key
MSA-I ..	2 x AS 0049 / 1 x AS 0050*	T5220-IP

* Alternatively AS 0050D (double sided IP20)

Holders for TRAUB-lathes



d = Shank diameter [mm]

Holders

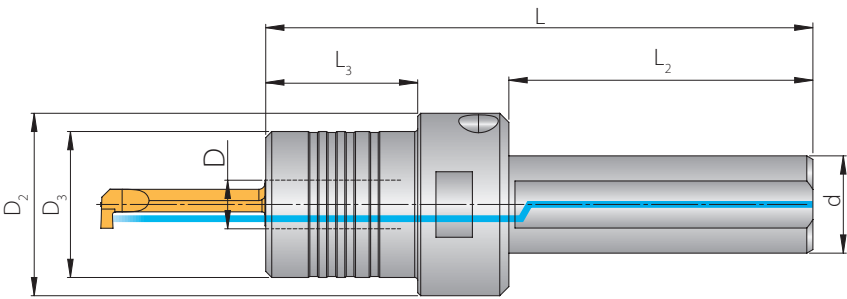
Designation	D	d	L	Connection	PG 44	Indexable Insert
HAMS 2804-TR	4	28	120	G 1/4"	●	AMS...40R
HAMS 2806-TR	6	28	120	G 1/4"	●	AMS...60R

.Holders with 2 flats = CITIZEN, TORNOS, TRAUB, TSUGAMI and HANWA.
Holders with 4 flats = STAR.
Remark: All inserts from the "Parting and grooving" catalogue, Chapter 7 (AMS) are suitable for use with these holders. Please pay attention to dimension "D"!

Spare Parts

Holder	Screw	Key
HAMS 2804...HAMS 2806..	AS 0044	KP1111

Hydraulic Holder



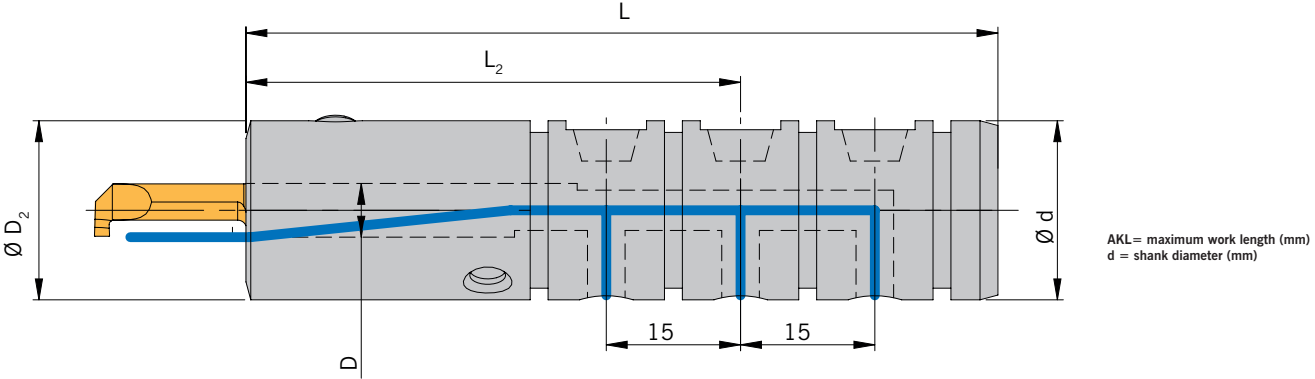
d = Shank diameter [mm]

Holders

Designation	D	D ₂	D ₃	d	L	L ₂	L ₃	PG 47	Indexable Insert
HAMS 1604R-HYD.	4	30	18	16	82,5	50	18	●	AMS...40R
HAMS 1606R-HYD.	6	30	20	16	90,0	50	25	●	AMS...60R
HAMS 1608R-HYD.	8	30	24	16	90,0	50	25	●	AMS...80R

Remark: All inserts from the "Parting and grooving" catalogue, Chapter 7 (AMS) are suitable for use with these holders. Please pay attention to dimension "D"!

Holders for TRAUB-lathes



Holder

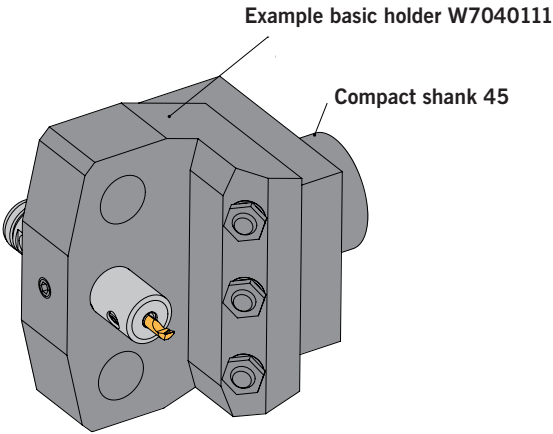
Designation	D	d	D ₂	L	L ₂	PG 44	Indexable Insert
HAMS 2004-TNL-TR	4	20	20	84	55,3	●	AMS...40R
HAMS 2006-TNL-TR	6	20	20	84	55,3	●	AMS...60R
HAMS 2008-TNL-TR	8	20	20	84	55,3	●	AMS...80R

These tool holders fit on the following 3-position basic holders from INDEX/TRAUB: W7040109 / W7040110 / W7040111 / W7040113
Remark: All inserts from the "Parting and grooving" catalogue, Chapter 7 (AMS) are suitable for use with these holders. Please pay attention to dimension "D"!

Maximum work length

D	AKL	L ₁
4	2,0	4
4	5,0	6,5
4	6,0	8
4	7,5	10
4	10,0	12
4	15,0	17
4	20,0	22
6	10,0	12
6	18,0	20
6	20,0	22
6	30,0	32
6	40,0	42
6	50,0	52
8	10,0	12
8	25,0	17
8	30,0	32
8	42,0	44
8	45,0	47
8	50,0	52

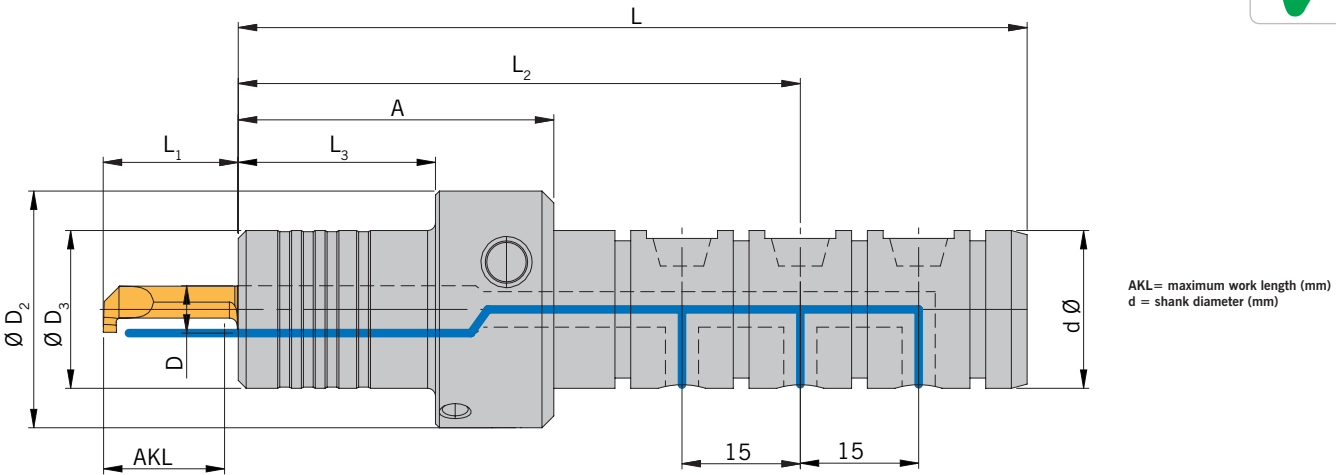
Assembly options, example:



Spare Parts

Holder	Screw	Key
HAMS...-TNL-TR	AS 0044	KP 1111

Hydraulic holder for TRAUB-lathes



Holder

Designation	D	d	D ₂	D ₃	L	L ₂	L ₃	A	PG 47	Indexable Insert
HAMS 2004-HYD-TNL-TR	4	20	30	18	92,5	63,8	17,5	32,5	●	AMS...40R
HAMS 2006-HYD-TNL-TR	6	20	30	20	100,0	71,3	25,0	40,0	●	AMS...60R
HAMS 2008-HYD-TNL-TR	8	20	30	24	100,0	71,3	25,0	40,0	●	AMS...80R

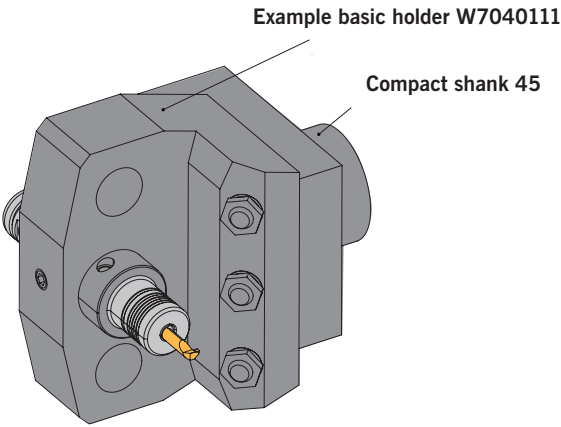
These tool holders fit on the following 3-position basic holders from INDEX/TRAUB: W7040109 / W7040110 / W7040111 / W7040113

Remark: All inserts from the "Parting and grooving" catalogue, Chapter 7 (AMS) are suitable for use with these holders. Please pay attention to dimension "D"!

Maximum work length

D	AKL	L ₁
4	2,0	4
4	5,0	6,5
4	6,0	8
4	7,5	10
4	10,0	12
4	15,0	17
4	20,0	22
6	10,0	12
6	18,0	20
6	20,0	22
6	30,0	32
6	40,0	42
6	50,0	52
8	10,0	12
8	25,0	17
8	30,0	32
8	42,0	44
8	45,0	47
8	50,0	52

Assembly options, example:



Spare Parts

Holder	Screw	O-ring
HAMS...HYD-TNL-TR	1x AS0043, 1x AS0074	4 x 17x1,5 NBR70



STABLE ADVANTAGES

of ARNO flange mounted holders

Reliable processes – maximum stability
thanks to perfectly matched holders

With internal cooling – reduced insert
wear, optionally with ACS

Versatile – for normal or upside down assembly
and for a grooving range of 20 to 140 mm
and widths of 1.5 to 6 mm

The connection to maximum stability.

One interface less for more process reliability: with flange mounted holders for monoblock holders, grooving modules and grooving blades.

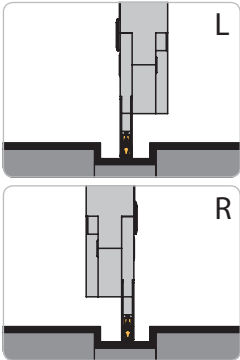
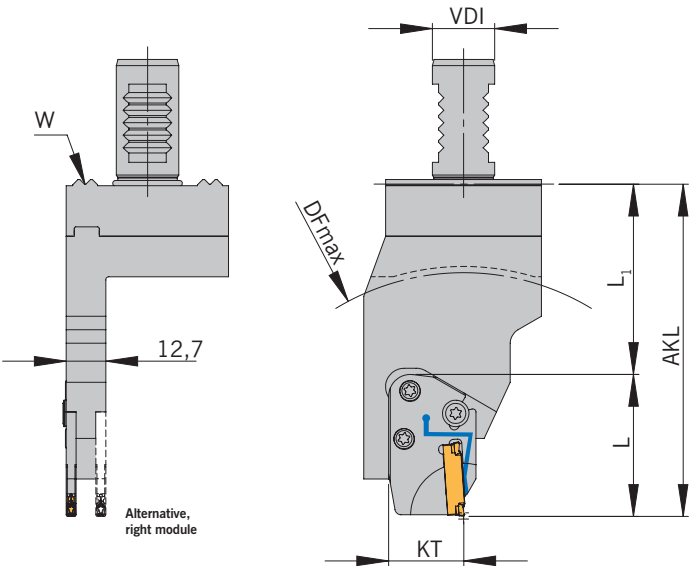
Reliability is the top priority in grooving and parting off operations. Our flange mounted holders are specially optimised for each machine to eliminate an interface and therefore get rid of one more error source. They are perfectly designed to guarantee maximum stability. Whether your requirement is for a monoblock holder, grooving module or grooving blade – we offer you the corresponding flange mounted holder for every application and for many machine types.



Perfect combination – flange mounted holders and grooving modules.

ARNO tip: combine flange mounted holders and grooving modules – this combines the advantages of monoblock holders and blades.

VDI 20 - with ACS and W-notch



Left holder and left module mounted.
Height-adjustable holder.
W=W-notch

Basic holder

Designation	VDI	L ₁	F1	F2	KT	Module	PG 43
HVDI 20WL-7-13-D-MSA-I-ACS	20	61	13,5	26	24	MSA-I-...-ACS.	●

Holder

$AKL = L \text{ (module length)} + L_1$ and DF_{max} = maximum chuck diameter with MSA-I-... module

Designation	HVDI 20WL-7-13-D-MSA-I-ACS	
	AKL	DF _{max}
MSA-I-...-L37-...-ACS.	98,0	135
MSA-I-...-L41-...-ACS.	102,0	145
MSA-I-...-L43,5-...-ACS.	104,5	150
MSA-I-...-L44-...-ACS.	105,0	150
MSA-I-...-L45,5-...-ACS.	106,5	155
MSA-I-...-L48,5-...-ACS.	109,5	160
MSA-I-...-L51-...-ACS.	112,0	165
MSA-I-...-L55-...-ACS.	116,0	175
MSA-I-...-L56-...-ACS.	117,0	175

See Chapter 1 (SA grooving system) starting at page 28 and in the “Parting and grooving” catalogue for matching modules and inserts.

Spare Parts

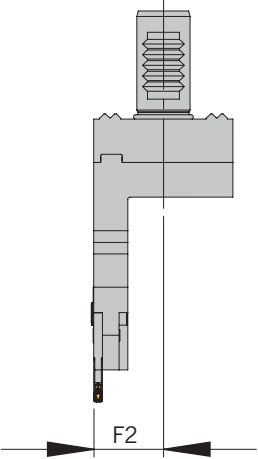
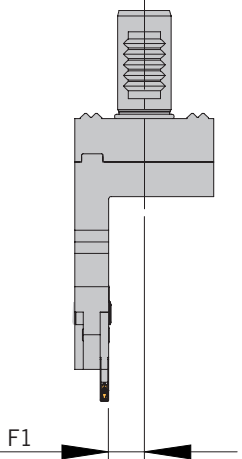
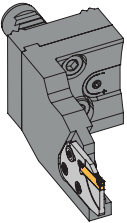
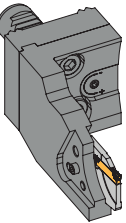
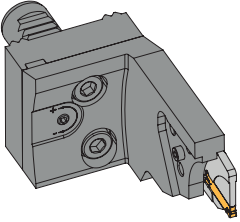
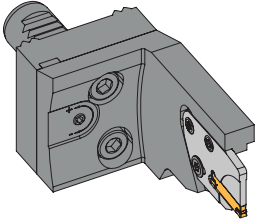
Holder	Cheese head screw	O-ring	O-ring
HVDI 20WL-7-13-D-MSA-I-ACS	DIN912-M3x3-A2	OR8X1-NBR70	OR18,77x1,78P

Spare Parts

Holder	Screw for module	Key
MSA-...-...-ACS	2 x AS 0049 / 1 x AS 0050*	T5220-IP

* Alternative AS 0050D (Double-sided IP20)

Assembly options

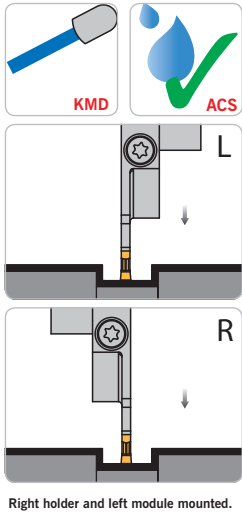
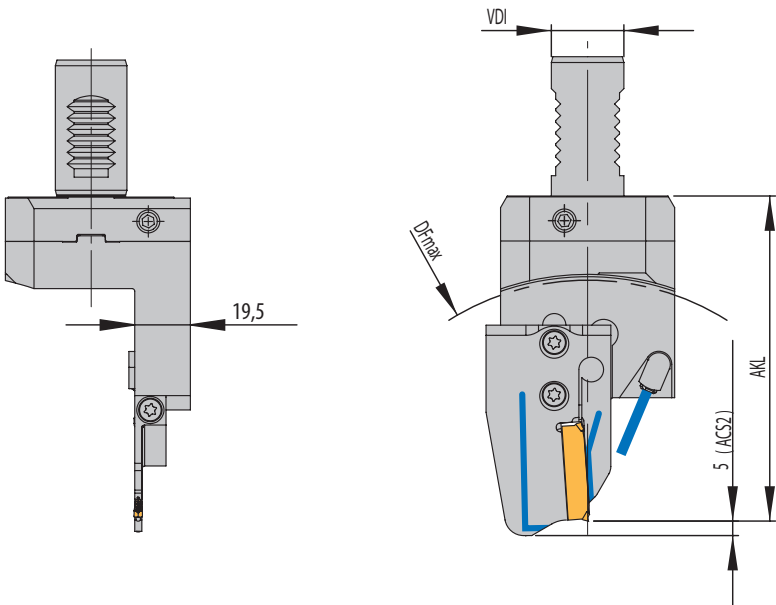
Left holder	
HVDI 20WL-7-13-D-MSA-I-ACS	
	
Left module mounted	Right module mounted
	
Normal assembly	Normal assembly
	
Upside down assembly	Upside down assembly

Note: All variants shown can be mounted with a holder.

Note: Special dimensions and part-off holders for other machine manufacturers available on request.
A request sheet can be found on page 89 or in the Internet at: www.arno.de/service/downloads.

--> For application reference please see page 80 – 86

VDI25 - with internal coolant and ACS



Basic holder

Designation	VDI	F1	F2	Module	PG 43
HVDI 25L-7-15-MSA-SR-100	25	15	-	MSA-SR-..	●
HVDI 25L-7-35-MSA-SL-100	25	-	35	MSA-SL-..	●
HVDI 25R-7-15-MSA-SL-100	25	15	-	MSA-SL-..	●
HVDI 25R-7-35-MSA-SR-100	25	-	35	MSA-SR-..	●
HVDI 25L-7-15-MSA-SR	25	15	-	MSA-SR-..	●
HVDI 25L-7-35-MSA-SL	25	-	35	MSA-SL-..	●
HVDI 25R-7-15-MSA-SL	25	15	-	MSA-SL-..	●
HVDI 25R-7-35-MSA-SR	25	-	35	MSA-SR-..	●
HVDI 25L-7-15-MSA-SR-122	25	15	-	MSA-SR-..	●
HVDI 25L-7-35-MSA-SL-122	25	-	35	MSA-SL-..	●
HVDI 25R-7-15-MSA-SL-122	25	15	-	MSA-SL-..	●
HVDI 25R-7-35-MSA-SR-122	25	-	35	MSA-SR-..	●

Holder

DF_{max} = maximum chuck diameter and AKL = maximum work length with MSA module-...

Designation	VDI25...-100		VDI25...		VDI25...-122	
	AKL	DF _{max}	AKL	DF _{max}	AKL	DF _{max}
MSA-...-32-ACS.	84,5	110	96,5	135	106,5	155
MSA-...-44-ACS.	89,5	120	101,5	145	111,5	165
MSA-...-52-ACS.	100,0	140	112,0	165	122,0	185
MSA-...-65-ACS.	100,0	140	112,0	165	122,0	185
MSA-...-69-ACS.	102,0	145	119,0	170	129,5	190
MSA-...-80-ACS.	107,5	155	119,5	180	129,5	200
MSA-...-90-ACS.	112,5	165	124,5	190	134,5	210
MSA-...-105-ACS.	120,5	180	132,5	205	142,5	225
MSA-...-125	130,0	200	142,5	225	152,0	240
MSA-...-140	138,0	215	150,0	235	160,0	255

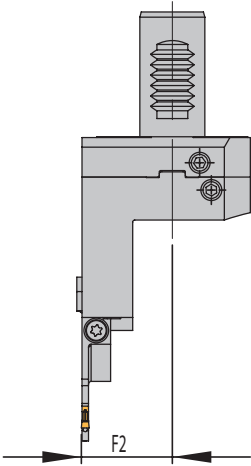
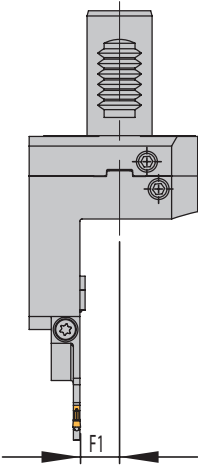
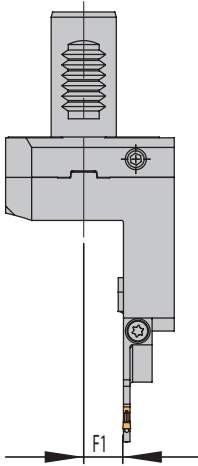
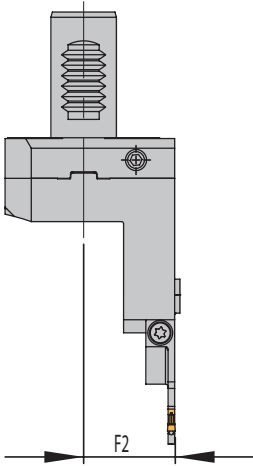
See Chapter 1 (SA grooving system) starting at page 28 and in the “Parting and grooving” catalogue for matching modules and inserts.

Spare Parts

Holder	Screw for module	Key	O-ring	Coolant jet	Locking pin
HVDI 25.-	AS 0070	T5220-IP	OR 23,6X1,8-NBR80*	KMD 0820-4BJ	ZS0820G
Holder	Screw for insert			Key	
MSA-...-	SA5T			T5220-IP	

* Not included in the delivery contents

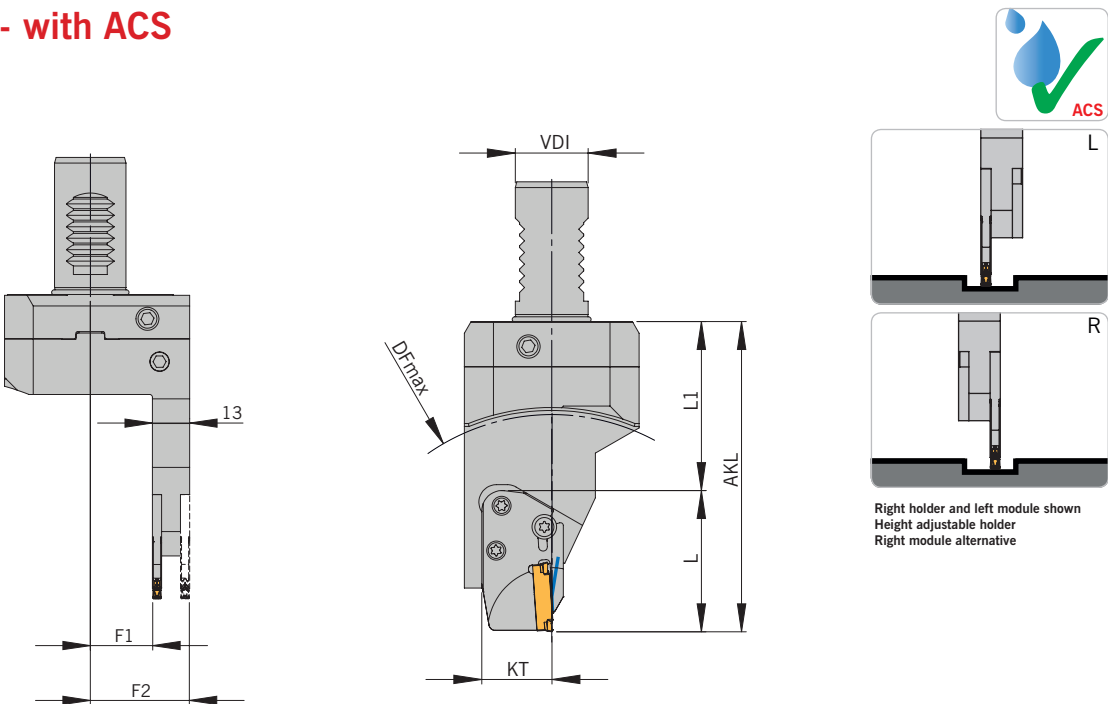
Assembly options

Left holder		Right-hand holder	
HVDI 25L-7-35-MSA-SL-100	HVDI 25L-7-15-MSA-SR-100	HVDI 25R-7-15-MSA-SL-100	HVDI 25R 7-35-MSA-SR-100
HVDI 25L-7-35-MSA-SL	HVDI 25L-7-15-MSA-SR	HVDI 25R-7-15-MSA-SL	HVDI 25R 7-35-MSA-SR
HVDI 25L-7-35-MSA-SL-122	HVDI 25L-7-15-MSA-SR-122	HVDI 25R-7-15-MSA-SL-122	HVDI 25R 7-35-MSA-SR-122
			
Left module mounted	Right module mounted	Left module mounted	Right module mounted
			
Normal assembly	Normal assembly	Normal assembly	Normal assembly
			
Upside down assembly	Upside down assembly	Upside down assembly	Upside down assembly

Note: Special dimensions and part-off holders for other machine manufacturers available on request.
A request sheet can be found on page 89 or in the Internet at: www.arno.de/service/downloads.

--> For application reference please see page 80 – 86

VDI25 / MSA-I - with ACS



Basic holder

Designation	VDI	L1	F1	F2	KT	Module	PG 43
HVDI 25R-7-22-D-MSA-I-ACS	25	58	23,4	33,2	24	MSA-I-...-ACS.	●

Holder

DF_{max} = maximum chuck diameter and AKL = L (module length) + L1

Designation	VDI25...	
	AKL	DF _{max}
MSA-I.-L37-...-ACS.	95,0	125
MSA-I.-L41-...-ACS.	99,0	130
MSA-I.-L43,5-...-ACS.	101,5	135
MSA-I.-L44-...-ACS.	102,0	135
MSA-I.-L45,5-...-ACS.	103,5	140
MSA-I.-L48,5-...-ACS.	106,5	145

See Chapter 1 (SA grooving system) starting at page 28 and in the "Parting and grooving" catalogue for matching modules and inserts.

Spare Parts

Basic holder	Cylinder head screw	O-ring	O-ring 2
HVDI 25R-...	DIN912-M3X3-A2	OR 8X1-NBR70	OR 23,6X1,8-NBR70

Spare Parts

Holder	Screw for module	Key
MSA-I-...-ACS.	2 x AS 0049 / 1 x AS 0050*	T5220-IP

Alternatively AS 0050D (double sided IP20)Alternativo AS 0050D (bilateralmente IP20)

Assembly options

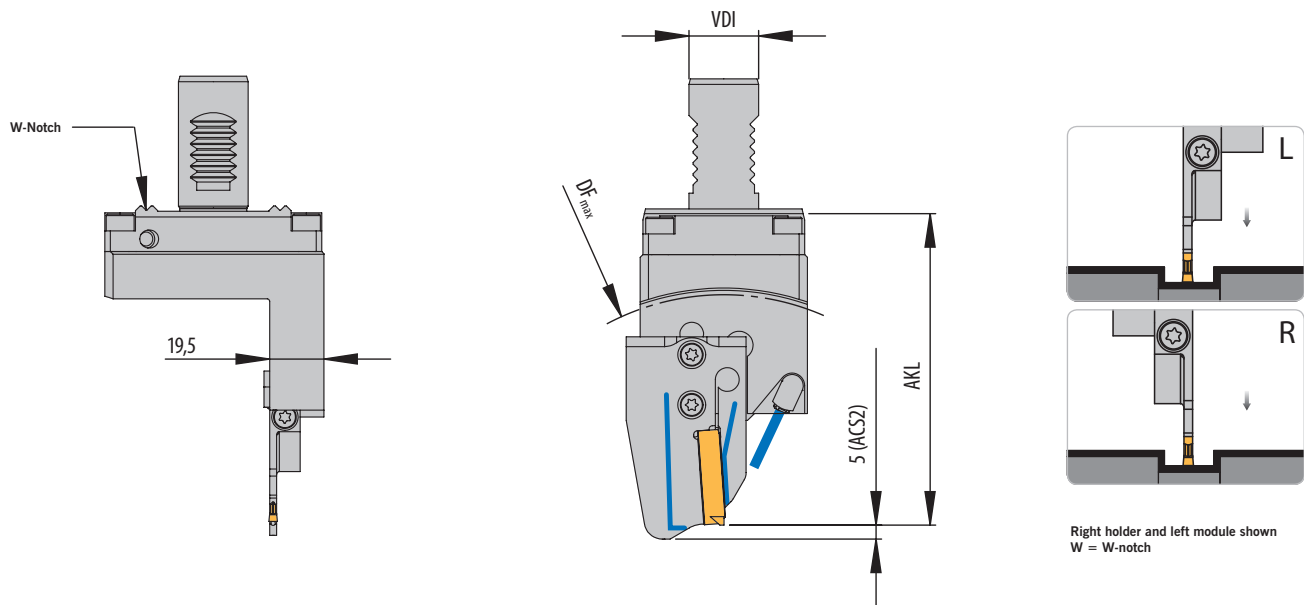
Left module mounted	Right module mounted
	
Normal assembly	Normal assembly
	
Upside down assembly	Upside down assembly

Note: All variants shown can be mounted with a holder.

Note: Special dimensions and part-off holders for other machine manufacturers available on request.
A request sheet can be found on page 89 or in the Internet at: www.arno.de/service/downloads.

--> For application reference please see page 80 – 86

VDI25 - with internal coolant, ACS and W-notch



Basic holder

Designation	VDI	F1	Module	PG 43
HVDI 25WL-7-20-MSA-SR	25	20	MSA-SR-...-ACS.	●
HVDI 25WR-7-20-MSA-SL	25	20	MSA-SL-...-ACS.	●

Module /

DF_{max} = maximum chuck diameter and AKL = Overhang length with modules MSA-... /

Designation	VDI25W	
	AKL	DF_{max}
MSA-...-32-ACS.	96,5	135
MSA-...-44-ACS.	101,5	145
MSA-...-52-ACS.	112,0	165
MSA-...-65-ACS.	112,0	165
MSA-...-69-ACS.	114,0	170
MSA-...-80-ACS.	119,5	180
MSA-...-90-ACS.	124,5	190
MSA-...-105-ACS.	132,0	205

See Chapter 1 (SA grooving system) starting at page 28 and in the “Parting and grooving” catalogue for matching modules and inserts.

Spare Parts

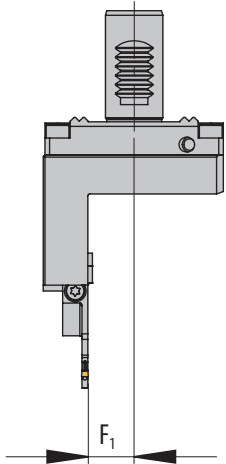
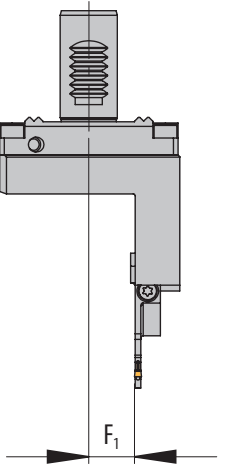
Holder	Screw for module	Key	O-ring	Coolant jet	Locking pin
HVDI 25W.-	AS 0070	T5220-IP	OR 23,6X1,8-NBR80*	KMD 0820-4BJ	ZS0820G

* Not included in the delivery contents

Spare Parts

Module	Screw for instert	Key
MSA-...-	SA5T	T5220-IP

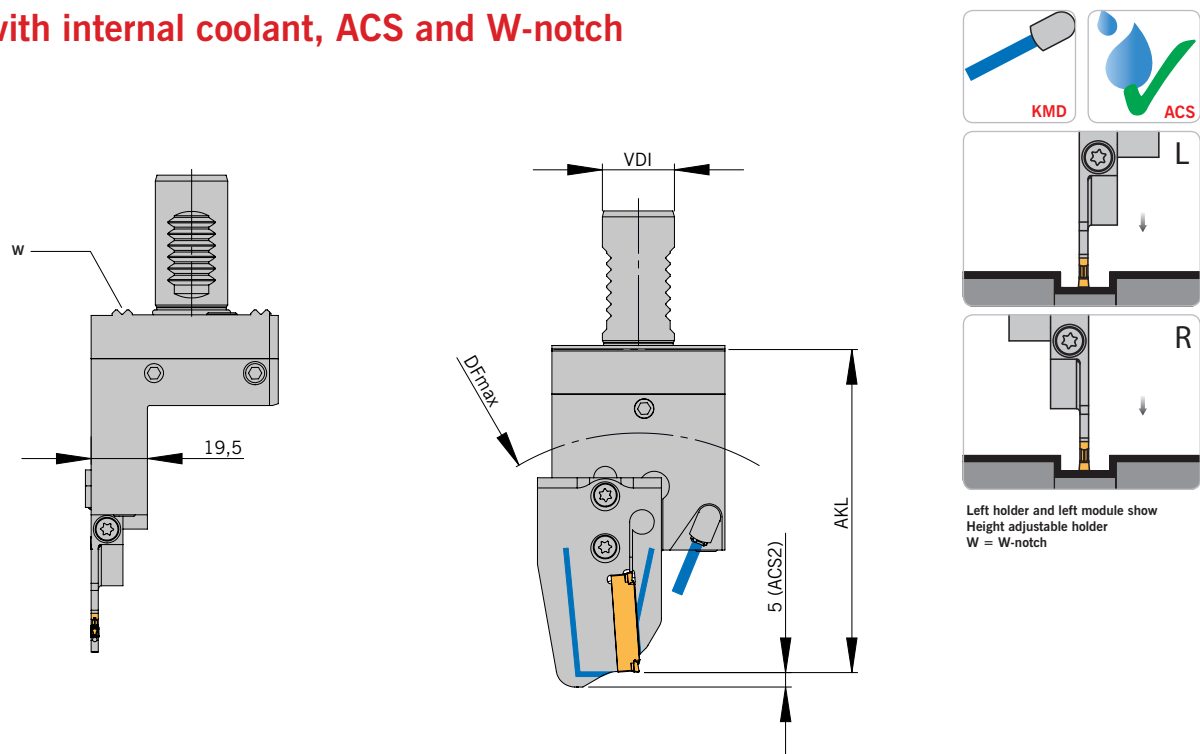
Assembly options

Left-hand holder HVDI 25WL-7-20-MSA-SR	Right-hand holder HVDI 25WR-7-20-MSA-SL
	
Right module shown	Left module shown
	
Normal assembly	Normal assembly
	
Upside down assembly	Upside down assembly

Note: Special dimensions and part-off holders for other machine manufacturers available on request.
A request sheet can be found on page 89 or in the Internet at: www.arno.de/service/downloads.

--> For application reference please see page 80 – 86

VDI25 - with internal coolant, ACS and W-notch



Basic holder

Designation	VDI	F2	Module	PG 43
HVDI 25WL-7-35-MSA-SL	25	35	MSA-SL-...-ACS.	●
HVDI 25WR-7-35-MSA-SR	25	35	MSA-SR-...-ACS.	●

Holder

DF_{max} = maximum chuck diameter and AKL = Overhang length with modules MSA-..

Designation	VDI25W	
	AKL	DF _{max}
MSA-...-32-ACS.	96,5	135
MSA-...-44-ACS.	101,5	145
MSA-...-52-ACS.	112,0	165
MSA-...-65-ACS.	112,0	165
MSA-...-69-ACS.	114,0	170
MSA-...-80-ACS.	119,5	180
MSA-...-90-ACS.	124,5	190
MSA-...-105-ACS.	132,0	205

See Chapter 1 (SA grooving system) starting at page 28 and in the “Parting and grooving” catalogue for matching modules and inserts.

Spare Parts

Basic holder	Screw for module	Key	O-ring	Coolant jet	Locking pin
HVDI 25W.-	AS 0070	T5220-IP	OR 23,6X1,8-NBR80*	KMD 0820-4BJ	ZS0820G

* Not included in the delivery contents

Spare Parts

Holder	Screw for module	Key
MSA-...-	SA5T	T5220-IP

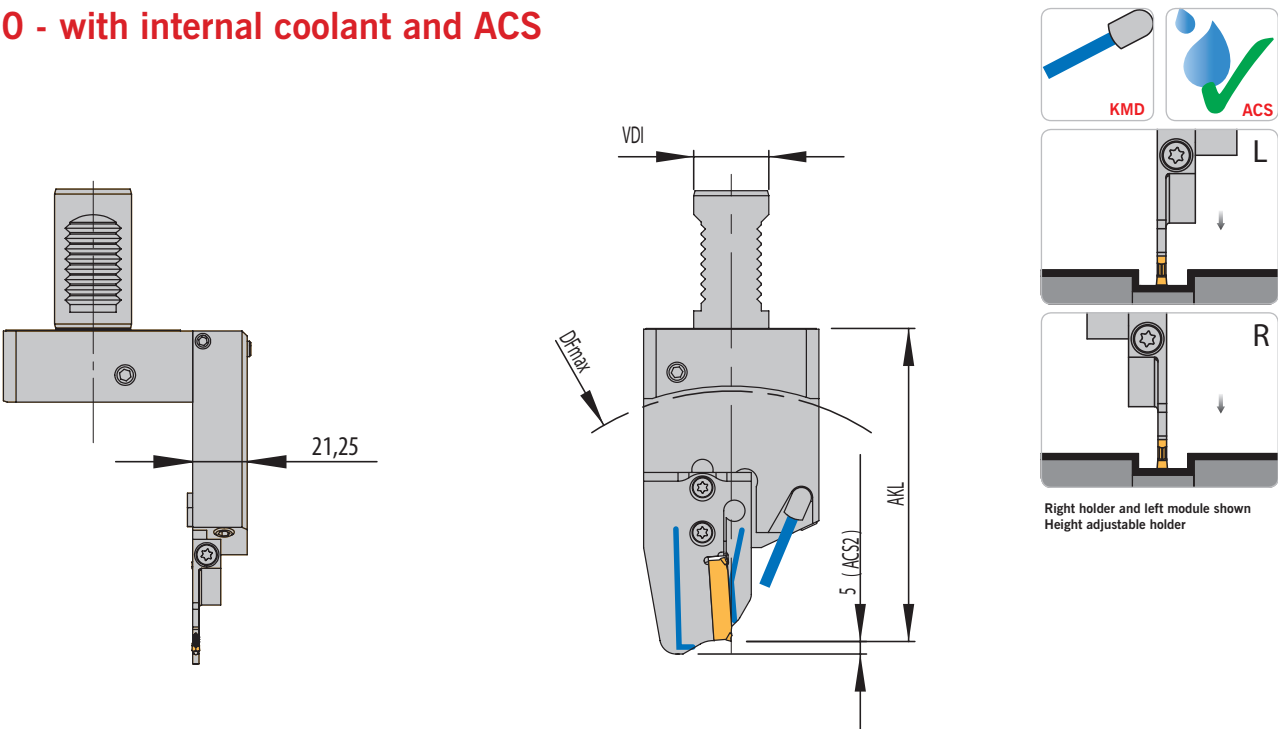
Assembly options

Left holder	Right-hand holder
HVDI 25WL-7-35-MSA-SL	HVDI 25WR-7-35-MSA-SR
Left module mounted	Right module mounted
Normal assembly	Normal assembly
Upside down assembly	Upside down assembly

Note: Special dimensions and part-off holders for other machine manufacturers available on request.
A request sheet can be found on page 89 or in the Internet at: www.arno.de/service/downloads.

--> For application reference please see page 80 – 86

VDI30 - with internal coolant and ACS



Basic holder

Designation	VDI	F1	F2	Module	PG 43
HVDI 30L-7-38-MSA-SR	30	38,5	-	MSA-SR...-ACS.	●
HVDI 30L-7-60-MSA-SL	30	-	60,3	MSA-SL...-ACS.	●
HVDI 30R-7-38-MSA-SL	30	38,5	-	MSA-SL...-ACS.	●
HVDI 30R-7-60-MSA-SR	30	-	60,3	MSA-SR...-ACS.	●
HVDI 30L-7-38-107-MSA-SR	30	38,5	-	MSA-SR...-ACS.	●
HVDI 30L-7-60-107-MSA-SL	30	-	60,3	MSA-SL...-ACS.	●
HVDI 30R-7-38-107-MSA-SL	30	38,5	-	MSA-SL...-ACS.	●
HVDI 30R-7-60-107-MSA-SR	30	-	60,3	MSA-SR...-ACS.	●

Holder

DF_{max} = maximum chuck diameter and AKL = Overhang length with modules MSA-..

Designation	VDI30...		VDI30...-107	
	AKL	DF _{max}	AKL	DF _{max}
MSA-...-32-ACS.	109,5	165	91,5	130
MSA-...-44-ACS.	114,5	175	96,5	140
MSA-...-52-ACS.	125,0	200	107,0	160
MSA-...-65-ACS.	125,0	200	107,0	160
MSA-...-69-ACS.	127,0	200	109,0	165
MSA-...-80-ACS.	132,5	210	114,5	175
MSA-...-90-ACS.	137,5	220	119,5	185
MSA-...-105-ACS.	145,5	235	127,5	200

See Chapter 1 (SA grooving system) starting at page 28 and in the “Parting and grooving” catalogue for matching modules and inserts.

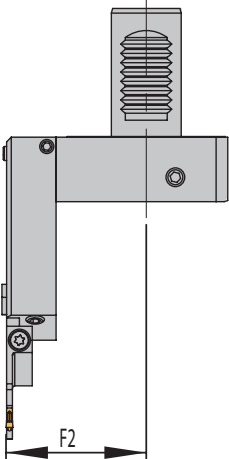
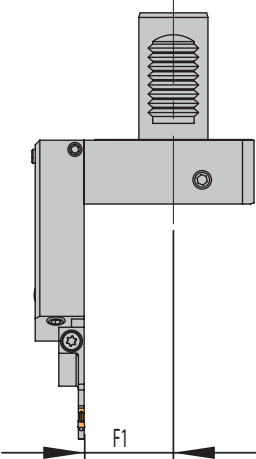
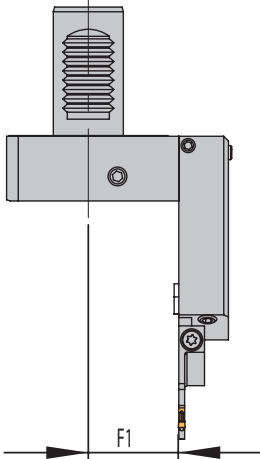
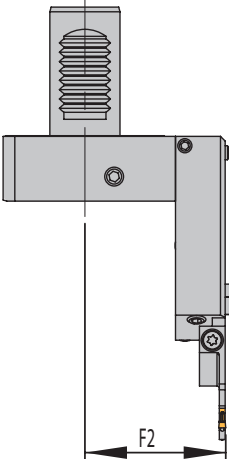
Spare Parts

Grundhalter	Screw for module	Key	O-ring	Coolant jet	Locking pin
HVDI 30.-	AS 0070	T5220-IP	OR 28X1,8-NBR80	KMD 0820-4BJ	ZS0820G

Spare Parts

Holder	Screw for instert	Key
MSA-...-	SA5T	T5220-IP

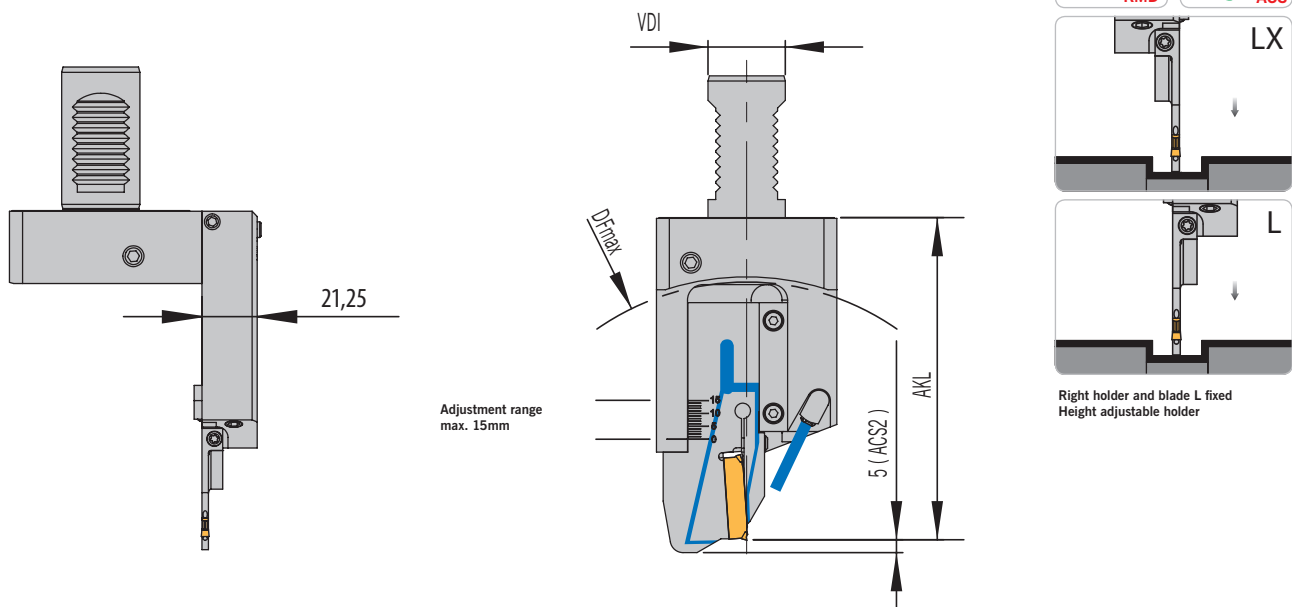
Assembly options

Left holder		Right-hand holder	
HVDI 30L-7-60-MSA-SL	HVDI 30L-7-38-MSA-SR	HVDI 30R-7-38-MSA-SL	HVDI 30R-7-60-MSA-SR
HVDI 30L-7-60-107-MSA-SL	HVDI 30L-7-38-107-MSA-SR	HVDI 30R-7-38-107-MSA-SL	HVDI 30R-7-60-107-MSA-SR
			
Left module mounted	Right module mounted	Left module mounted	Right module mounted
			
Normal assembly	Normal assembly	Normal assembly	Normal assembly
			
Upside down assembly	Upside down assembly	Upside down assembly	Upside down assembly

Note: Special dimensions and part-off holders for other machine manufacturers available on request.
A request sheet can be found on page 89 or in the Internet at: www.arno.de/service/downloads.

--> For application reference please see page 80 – 86

VDI30 - with internal coolant and ACS for KSA blades



Basic holder

Designation	VDI	F1	F2	Blade	PG 43
HVDI 30L-7-38-KSA-32LX	30	38,5	-	KSA 3208LX...-ACS.	●
HVDI 30L-7-60-KSA-32L	30	-	60,3	KSA 3208L...-ACS.	●
HVDI 30R-7-38-KSA-32L	30	38,5	-	KSA 3208L...-ACS.	●
HVDI 30R-7-60-KSA-32LX	30	-	60,3	KSA 3208LX...-ACS.	●

Remark for blade „L“ and „LX“: For optimum coolant flow the blade should not exceed a 15 mm overhang.

Holder

DF_{max} = maximum chuck diameter and AKL = Overhang length with blades KSA-..

Designation	VDI30...	
	AKL	DF _{max} ¹⁾
KSA...-44-ACS.	114,5	177
KSA...-65-ACS.	125,0	198

1) Formula for DF_{max} for variable overhang of blade: DF_{max} (AKL_{min} - 26 + adjustment) x 2

See Chapter 1 (SA grooving system) on page 19 and in the “Parting and grooving” catalogue for suitable modules and inserts

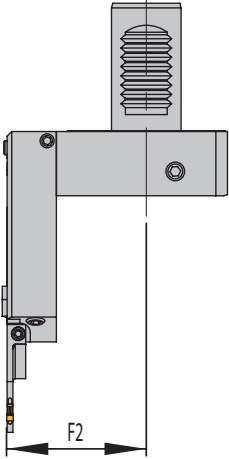
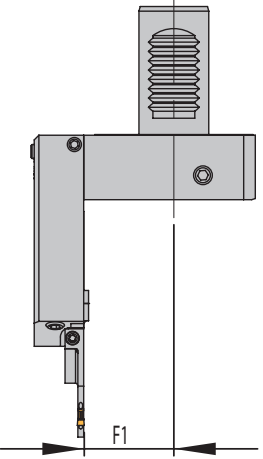
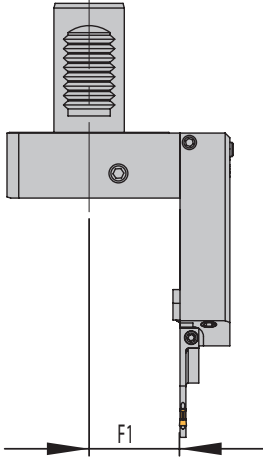
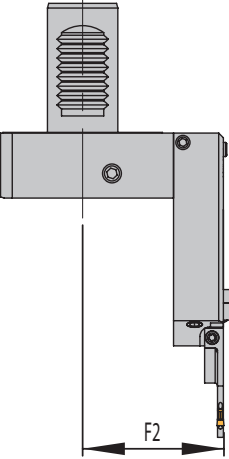
Spare Parts

Basic holder	Span screw for clamp	Clamp	Coolant jet	Locking pin	O-ring
HVDI 30...-KSA-..	DIN912-M4X12-12.9	K-HVDI-10-50	KMD 0820-4BJ	ZS0820G	OR 28X1,8-NBR80

Spare Parts

Holder	Span screw for insert	Key
KSA 3208...	AS 0022	T5115-IP

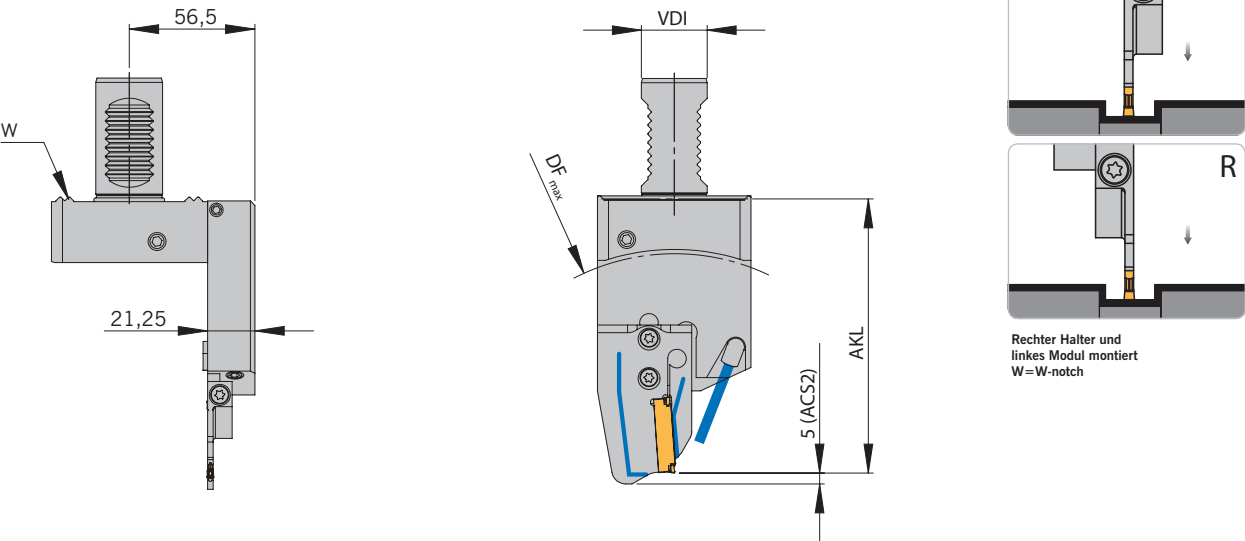
Assembly options

Left holder		Right-hand holder	
HVDI 30L-7-60-KSA-32L	HVDI 30L-7-38-KSA-32LX	HVDI 30R-7-38-KSA-32L	HVDI 30R-7-60-KSA-32LX
			
Blade L mounted	Blade LX mounted	Blade L mounted	Blade LX mounted
			
Normal assembly	Normal assembly	Normal assembly	Normal assembly
			
Upside down assembly	Upside down assembly	Upside down assembly	Upside down assembly

Note: Special dimensions and part-off holders for other machine manufacturers available on request.
A request sheet can be found on page 89 or in the Internet at: www.arno.de/service/downloads.

--> For application reference please see page 80 – 86

VDI30 - with internal coolant, ACS and W-notch



Basic holder

Designation	VDI	F1	Module	PG 43
HVDI 30WL-7-35-MSA-SR	30	35	MSA-SR-...-ACS.	●
HVDI 30WR-7-35-MSA-SL	30	35	MSA-SL-...-ACS.	●

Holder

DF_{max} = maximum chuck diameter and AKL = Overhang length with modules MSA-..

Designation	VDI30W...	
	AKL	DF _{max}
MSA-...-32-ACS.	109,5	165
MSA-...-44-ACS.	114,5	175
MSA-...-52-ACS.	125,0	200
MSA-...-65-ACS.	125,0	200
MSA-...-69-ACS.	127,0	200
MSA-...-80-ACS.	132,5	210
MSA-...-90-ACS.	137,5	220
MSA-...-105-ACS.	145,5	235

See Chapter 1 (SA grooving system) starting at page 28 and in the “Parting and grooving” catalogue for matching modules and inserts.

Spare Parts

Basic holder	Screw for module	Key	O-ring	Coolant jet	Locking pin
HVDI 30W.-	AS 0070	T5220-IP	OR28x1,8-NBR80	KMD 0820-4BJ	ZS0820G

* Not included in the delivery contents

Spare Parts

Holder	Screw for module	Key
MSA-...-	SA5T	T5220-IP

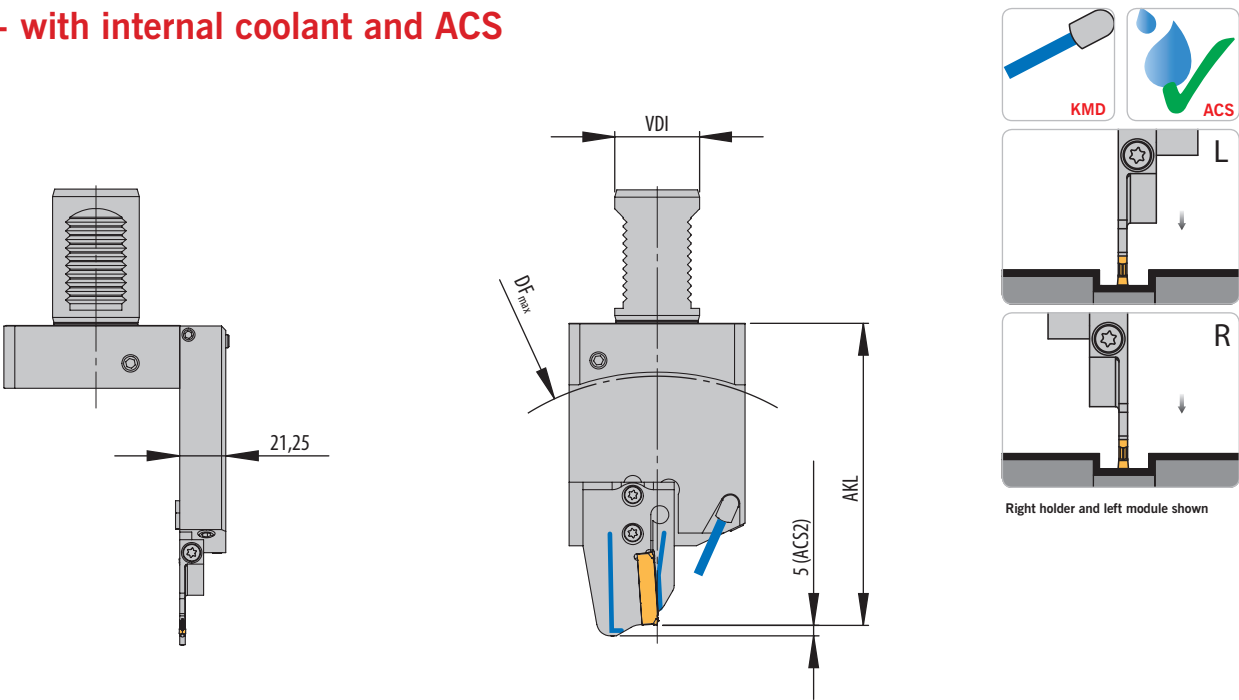
Assembly options

Left holder	Right-hand holder
HVDI 30WL-7-35-MSA-SR	HVDI 30WR-7-35-MSA-SL
Right module mounted	Left module mounted
Normal assembly	Normal assembly
Upside down assembly	Upside down assembly

Note: Special dimensions and part-off holders for other machine manufacturers available on request.
A request sheet can be found on page 89 or in the Internet at: www.arno.de/service/downloads.

--> For application reference please see page 80 – 86

VDI40 - with internal coolant and ACS



Basic holder

Designation	VDI	F1	F2	Module	PG 43
HVDI 40L-7-38-MSA-SR	40	38,5	-	MSA-SR...-ACS.	●
HVDI 40L-7-60-MSA-SL	40	-	60,3	MSA-SL...-ACS.	●
HVDI 40R-7-38-MSA-SL	40	38,5	-	MSA-SL...-ACS.	●
HVDI 40R-7-60-MSA-SR	40	-	60,3	MSA-SR...-ACS.	●

Holders

DF_{max} = maximum chuck diameter and AKL = Overhang length with modules MSA-..

Designation	VDI40...	
	AKL	DF _{max}
MSA-...-32-ACS.	127,0	200
MSA-...-44-ACS.	132,0	210
MSA-...-52-ACS.	142,5	235
MSA-...-65-ACS.	142,5	235
MSA-...-69-ACS.	144,5	235
MSA-...-80-ACS.	150,0	245
MSA-...-90-ACS.	155,0	255
MSA-...-105-ACS.	163,0	270

See Chapter 1 (SA grooving system) starting at page 28 and in the “Parting and grooving” catalogue for matching modules and inserts.

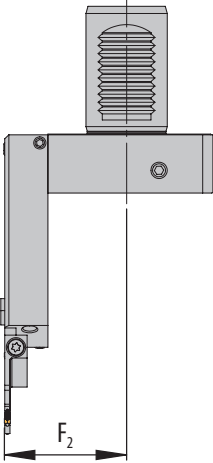
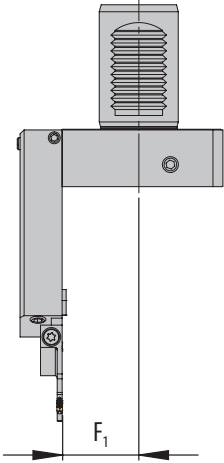
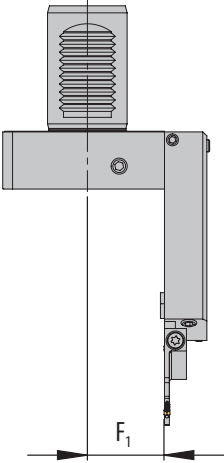
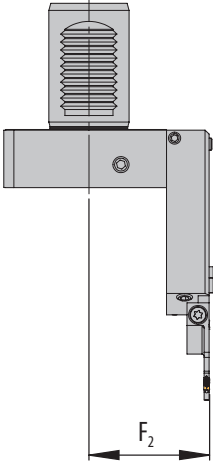
Spare Parts

Basic holder	Screw for module	Key	O-ring	Coolant jet	Locking pin
HVDI 40.-	AS 0070	T5220-IP	OR 38,7X2,65-NBR80	KMD 0820-4BJ	ZS0820G

Spare Parts

Holder	Screw for insert	Key
MSA-...-	SA5T	T5220-IP

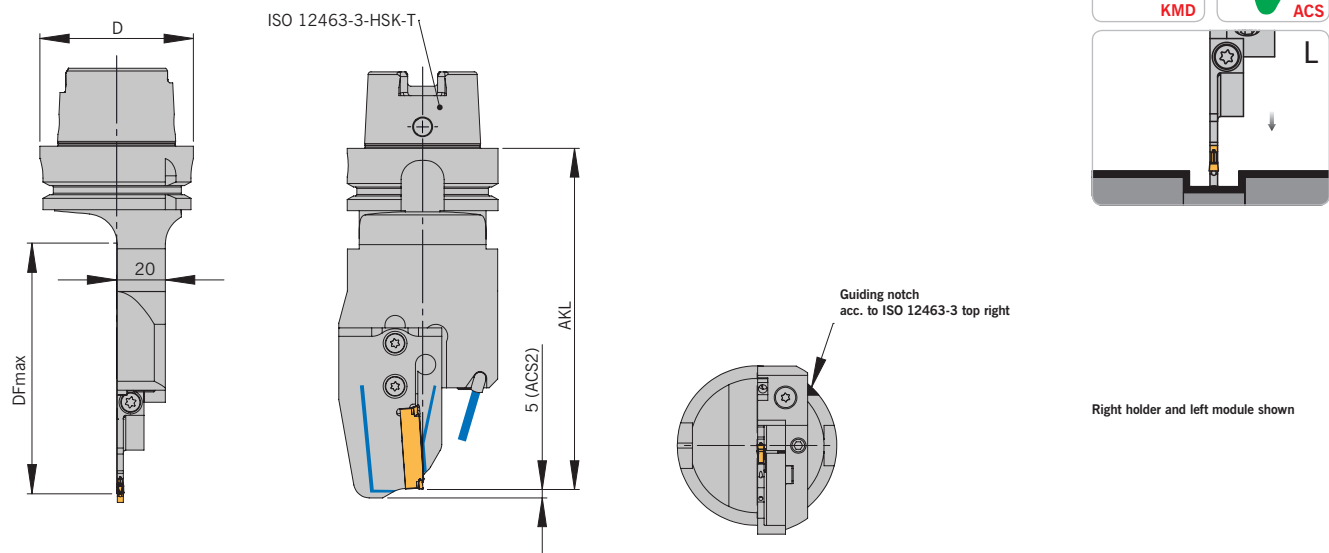
Assembly options

Left holder		Right-hand holder	
HVDI 40L-7-60-MSA-SL	HVDI 40L-7-38-MSA-SR	HVDI 40R-7-38-MSA-SL	HVDI 40R-7-60-MSA-SR
			
Left module mounted	Right module mounted	Left module mounted	Right module mounted
			
Normal assembly	Normal assembly	Normal assembly	Normal assembly
			
Upside down assembly	Upside down assembly	Upside down assembly	Upside down assembly

Note: Special dimensions and part-off holders for other machine manufacturers available on request.
A request sheet can be found on page 89 or in the Internet at: www.arno.de/service/downloads.

--> For application reference please see page 80 – 86

HSK-T63 - with internal coolant and ACS



Basic holder

Designation	Nominal size	D	Module	PG 43
HSK-T63-R-7-0-MSA-SL-ACS	T63	63	MSA-SL-...ACS.	●

Remark: when parting-off > Ø90mm, we recommend a max insert width of 3mm.

Holder

DF_{max} = maximum chuck diameter and AKL = Overhang length with modules MSA-..

Designation	...T63...	
	AKL	DF _{max}
MSA-...-32-ACS.	127,0	170
MSA-...-44-ACS.	132,0	180
MSA-...-52-ACS.	142,5	205
MSA-...-65-ACS.	142,5	205
MSA-...-69-ACS.	144,5	205
MSA-...-80-ACS.	150,0	220

See Chapter 1 (SA grooving system) starting at page 28 and in the “Parting and grooving” catalogue for matching modules and inserts.

Spare Parts

Basic holder	Screw for module	Key	Coolant jet	Locking pin
HSK-T63	AS 0070	T5220-IP	KMD 0516	ZS0512G

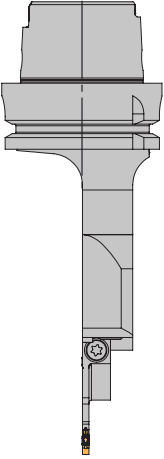
Spare Parts

Holder	Screw for instert	Key
MSA-...-..	SA5T	T5220-IP

Assembly options

Right-hand holder

HSK-T63-R-7-0-MSA-SL-ACS



Left module mounted



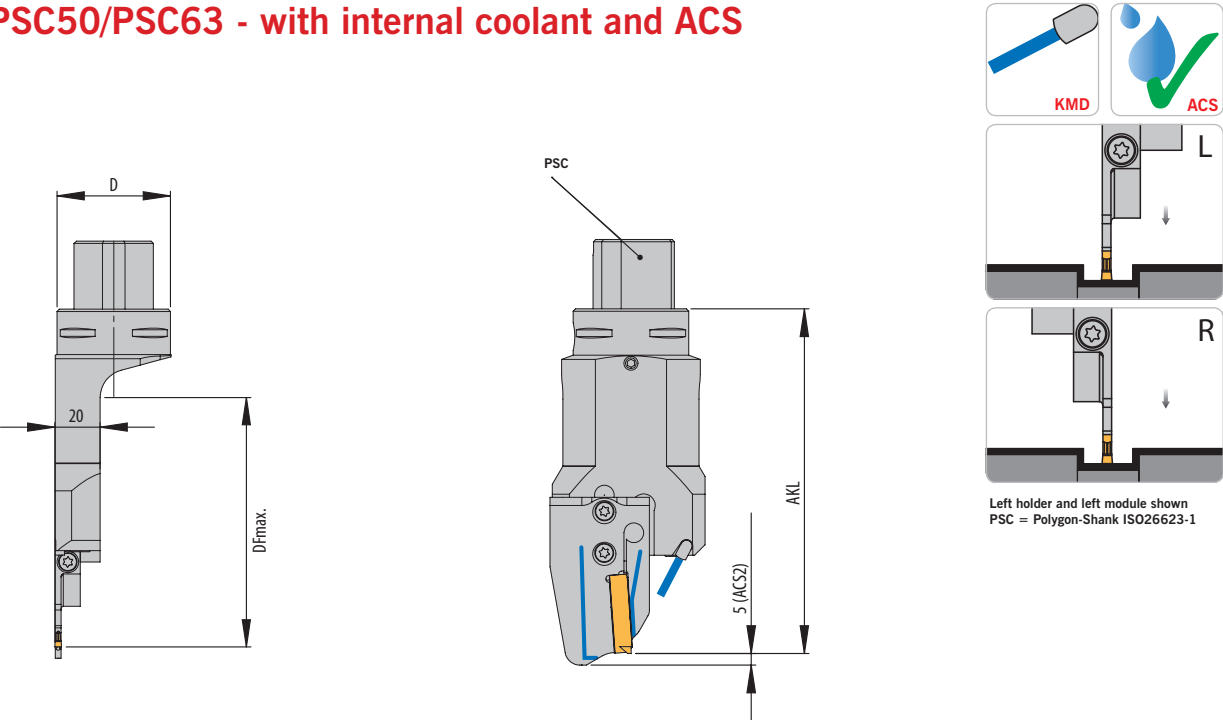
Normal assembly



Upside down assembly

Note: Special dimensions and part-off holders for other machine manufacturers available on request.
A request sheet can be found on page 89 or in the Internet at: www.arno.de/service/downloads.

PSC40/PSC50/PSC63 - with internal coolant and ACS



Basic holder

Designation	Nominal size	D	F2	Module	PG 43
PSC40-L-7-21-MSA-SL-ACS	PSC40	40	21	MSA-SL-...-ACS.	●
PSC40-R-7-21-MSA-SR-ACS	PSC40	40	21	MSA-SR-...-ACS.	●
PSC50-L-7-26-MSA-SL-ACS	PSC50	50	26	MSA-SL-...-ACS.	●
PSC50-R-7-26-MSA-SR-ACS	PSC50	50	26	MSA-SR-...-ACS.	●
PSC63-L-7-32-MSA-SL-ACS	PSC63	63	32	MSA-SL-...-ACS.	●
PSC63-R-7-32-MSA-SR-ACS	PSC63	63	32	MSA-SR-...-ACS.	●

* When component is larger than 200 mm diameter, then larger DFmax is possible. Please ask for more information.

Holder

DF_{max} = maximum chuck diameter and AKL = Overhang length with modules MSA-..

Designation	PSC40...		PSC50...		PSC63...	
	AKL	DF _{max}	AKL	DF _{max}	AKL	DF _{max}
MSA-...-32-ACS.	128,5	175	133,5	185	142,0	190
MSA-...-44-ACS.	133,5	185	138,5	195	147,0	200
MSA-...-52-ACS.	144,0	210	149,0	215	157,5	220
MSA-...-65-ACS.	144,0	210	149,0	215	157,5	220
MSA-...-69-ACS.	146,0	215	151,0	220	159,5	225
MSA-...-80-ACS.	151,5	225	156,5	230	165,0	235
MSA-...-90-ACS.	156,5	235	164,5	250	178,0	260
MSA-...-105-ACS.	164,5	250	169,5	255	178,0	260

See Chapter 1 (SA grooving system) starting at page 28 and in the “Parting and grooving” catalogue for matching modules and inserts.

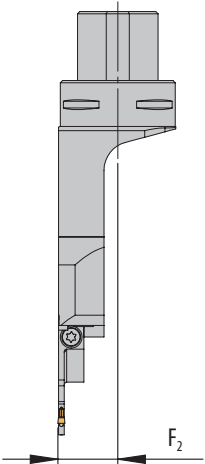
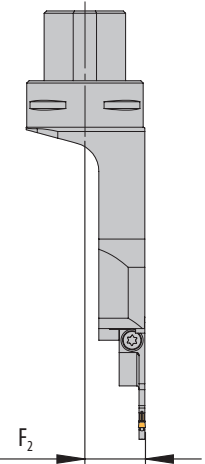
Spare Parts

Basic holder	Screw for module	Key	Coolant jet	Locking pin
PSC.L-/PSC.R.-	AS 0070	T5220-IP	KMD 0516	ZS0512G

Spare Parts

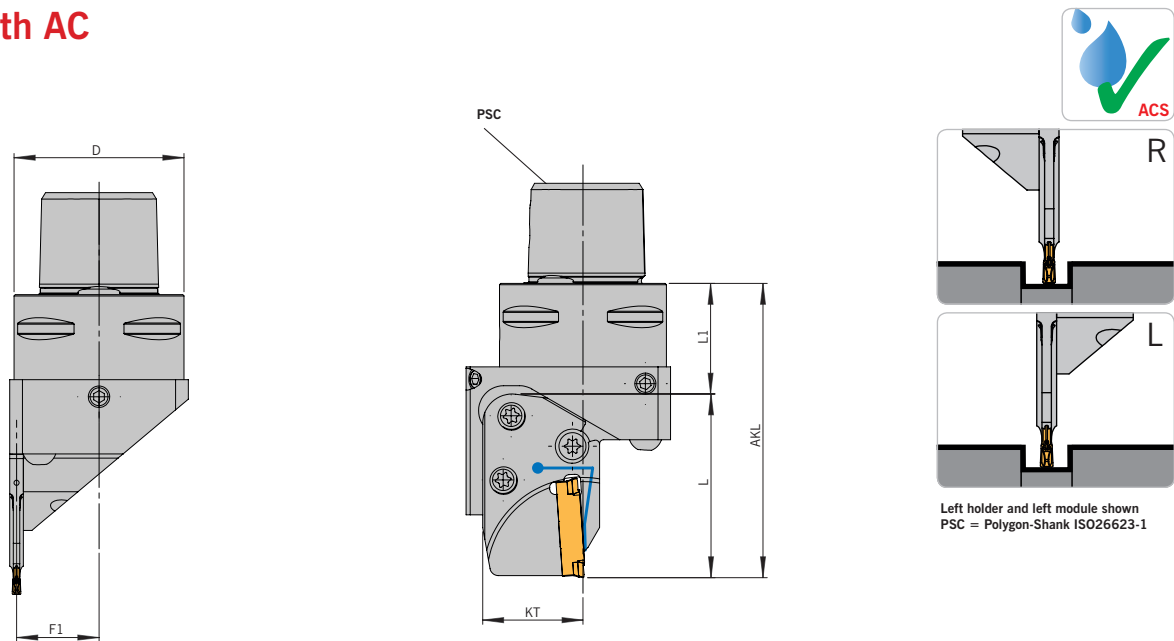
Holder	Screw for insert	Key
MSA-...-	SA5T	T5220-IP

Assembly options

Left holder	Right-hand holder
PSC40-L-7-21-MSA-SL-ACS	PSC40-R-7-21-MSA-SR-ACS
PSC50-L-7-26-MSA-SL-ACS	PSC50-R-7-26-MSA-SR-ACS
PSC63-L-7-32-MSA-SL-ACS	PSC63-R-7-32-MSA-SR-ACS
	
Left module mounted	Right module mounted
	
Normal assembly	Normal assembly
	
Upside down assembly	Upside down assembly

Note: Special dimensions and part-off holders for other machine manufacturers available on request.
A request sheet can be found on page 89 or in the Internet at: www.arno.de/service/downloads.

PSC40 - with ACS



Basic holder

Designation	Nenngröße	D	L1	F1	Modul	PG 43
PSC40-L-7-21-MSA-IL-ACS	PSC40	40	26.5	19,4	MSA-IL/ILL-...-ACS.	●
PSC40-R-7-21-MSA-IR-ACS	PSC40	40	26.5	19,4	MSA-IR/IRR-...-ACS.	●

Holder

DF_{max} = maximum chuck diameter and AKL = Overhang length with modules MSA-..

Designation	PSC40...	
	AKL 1)	DF _{max}
MSA-I.-L37-...-ACS.	63,5	2)
MSA-I.-L41-...-ACS.	67,5	2)
MSA-I.-L43,5-...-ACS.	69,0	2)
MSA-I.-L44-...-ACS.	70,5	2)
MSA-I.-L45,5-...-ACS.	72,0	2)
MSA-I.-L48,5-...-ACS.	75,0	2)
MSA-I.-L55-...-ACS.	81,5	2)

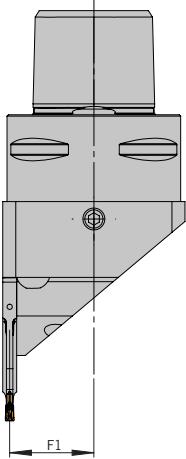
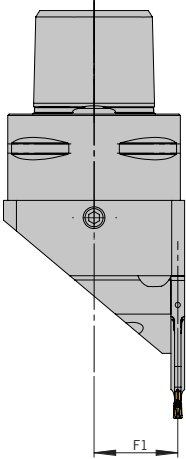
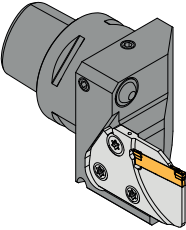
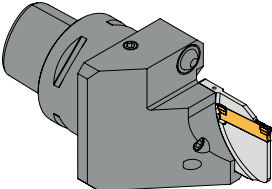
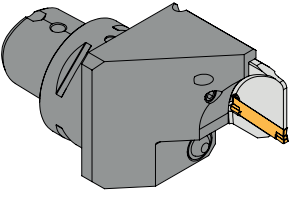
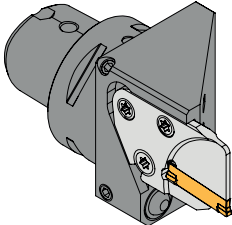
1) Calculation for AKL if the module is not mentioned: AKL=l1+L (length of the module)
2) Calculation F-dimension for: MSA-IL/IR: F=F1+1/2 EB (1/2 EB=1/2 grooving width), Calculation F-dimension for: MSA-ILL/IRR: F=F1+1,6 (1,6 = 1/2 b2)
See Chapter 1 (SA grooving system) starting at page 28 and in the "Parting and grooving" catalogue for matching modules and inserts.

Spare Parts

Holder	Screw for module	Key
MSA-I-...-ACS.	2 x AS 0049 / 1 x AS 0050*	T5220-IP

* Alternatively AS 0050D (double sided IP20)

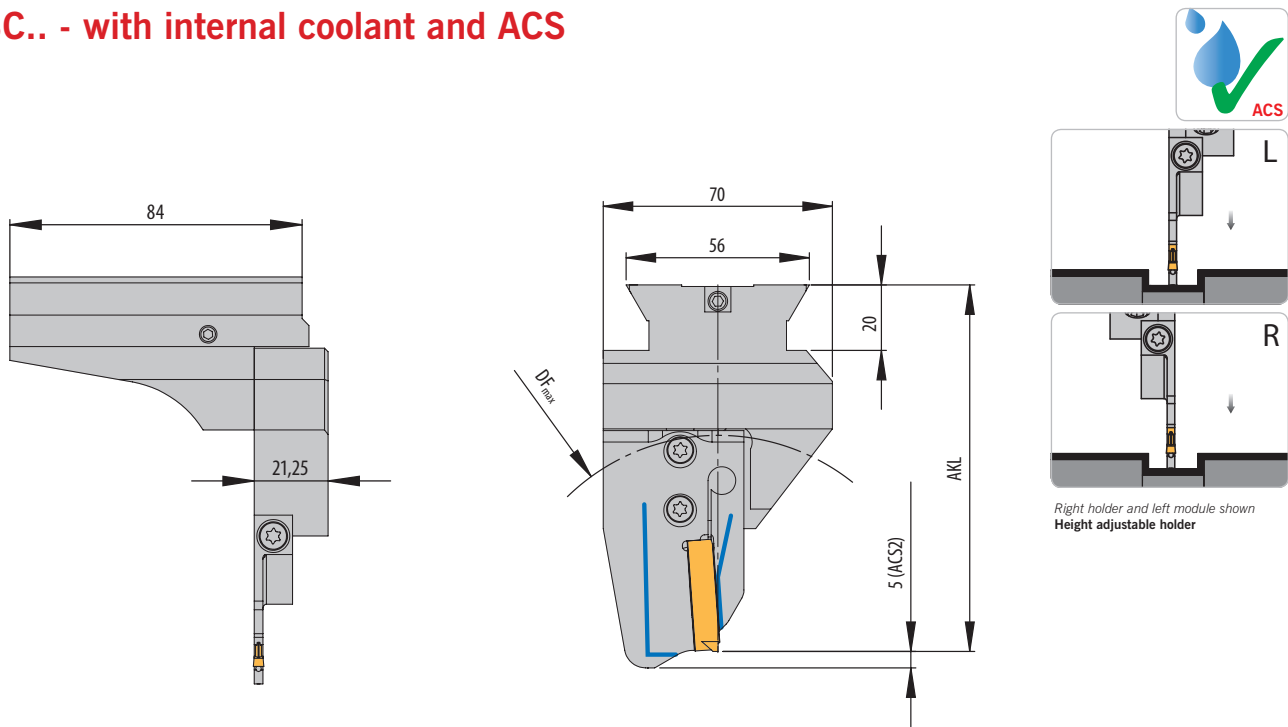
Assembly options

Left holder	Right-hand holder
PSC40-L-7-21-MSA-IL-ACS	PSC40-R-7-21-MSA-IR-ACS
	
Left module mounted	Right module mounted
	
Normal assembly	Normal assembly
	
Upside down assembly	Upside down assembly

Note: Special dimensions and part-off holders for other machine manufacturers available on request.
A request sheet can be found on page 89 or in the Internet at: www.arno.de/service/downloads.

--> For application reference please see page 80 – 86

HABC... - with internal coolant and ACS



Basic holder

Designation	F1	F2	Module	PG 43
HABC-R-7-MSA-SL-ACS	21,5	-	MSA-SL-...-ACS.	●
HABC-R-7-MSA-SR-ACS	-	21,5	MSA-SR-...-ACS.	●

Holder

DF_{max} = maximum chuck diameter and AKL = Overhang length with modules MSA-...

Designation	HABC...	
	AKL	DF _{max}
MSA-...-32-ACS.	96,5	100
MSA-...-44-ACS.	101,5	110
MSA-...-52-ACS.	112,0	130
MSA-...-65-ACS.	112,0	130
MSA-...-69-ACS.	114,0	135

See Chapter 1 (SA grooving system) starting at page 28 and in the "Parting and grooving" catalogue for matching modules and inserts.

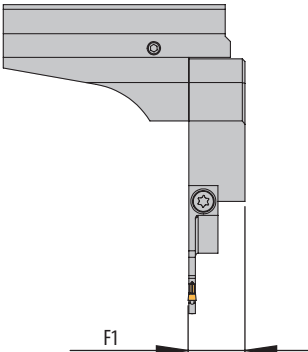
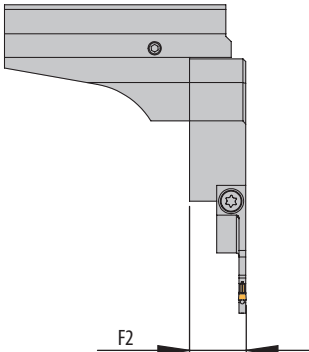
Spare Parts

Module	Screw for module	Key
HABC-R-7-MSA-...-ACS	AS 0070	T5220-IP

Spare Parts

Holder	Screw for instert	Key
MSA-...-...	SA5T	T5220-IP

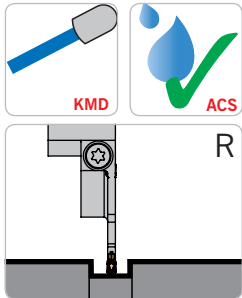
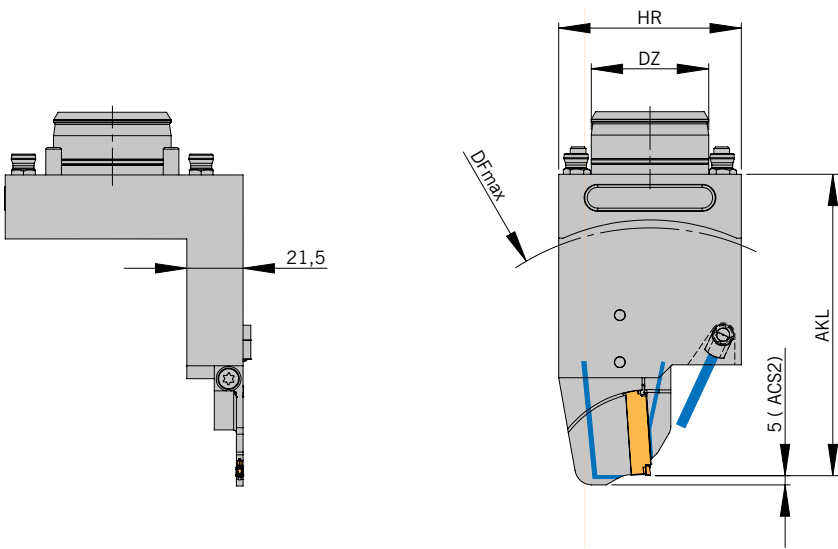
Assembly options

Right-hand holder	
HABC-R-7-MSA-SL-ACS	HABC-R-7-MSA-SR-ACS
	
Left module mounted	Right module mounted
	
Normal assembly	Normal assembly
	
Upside down assembly	Upside down assembly

Note: Special dimensions and part-off holders for other machine manufacturers available on request.
A request sheet can be found on page 89 or in the Internet at: www.arno.de/service/downloads.

--> For application reference please see page 80 – 86

HTR45 - with internal coolant and ACS



Rechter Halter und
Right holder and right module shown

Basic holder

Designation	DZ	F2	HR	Module	PG 43
HTR45-R-W7040135-MSA-SR-ACS	45	50,3	70	MSA-SR-...-ACS.	●

Holder

DF_{max} = maximum chuck diameter and AKL = Overhang length with modules MSA-..

Designation	HTR45 for TNK42		HTR45 for TNK65/ABC65	
	AKL	DF _{max}	AKL	DF _{max}
MSA-...-44-ACS.	105	170	-	-
MSA-...-65-ACS	-	-	115,5	185

See Chapter 1 (SA grooving system) starting at page 28 and in the “Parting and grooving” catalogue for matching modules and inserts.

Spare Parts

Basic holder	Screw for module	Key	Coolant jet	Locking pin
HTR45-R-...-MSA-...	AS 0070	T5220-IP	KMD 0820-4BJ	ZS0820G

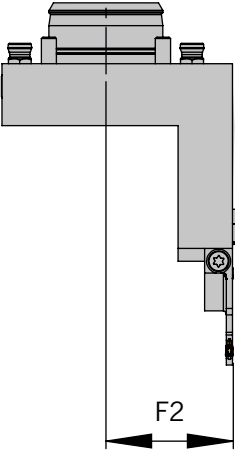
Spare Parts

Holder	Screw for instert	Key
MSA-...-...	SA5T	T5220-IP

Assembly options

Right-hand holder

HTR45-R-W7040135-MSA-SR-ACS



Right module mounted



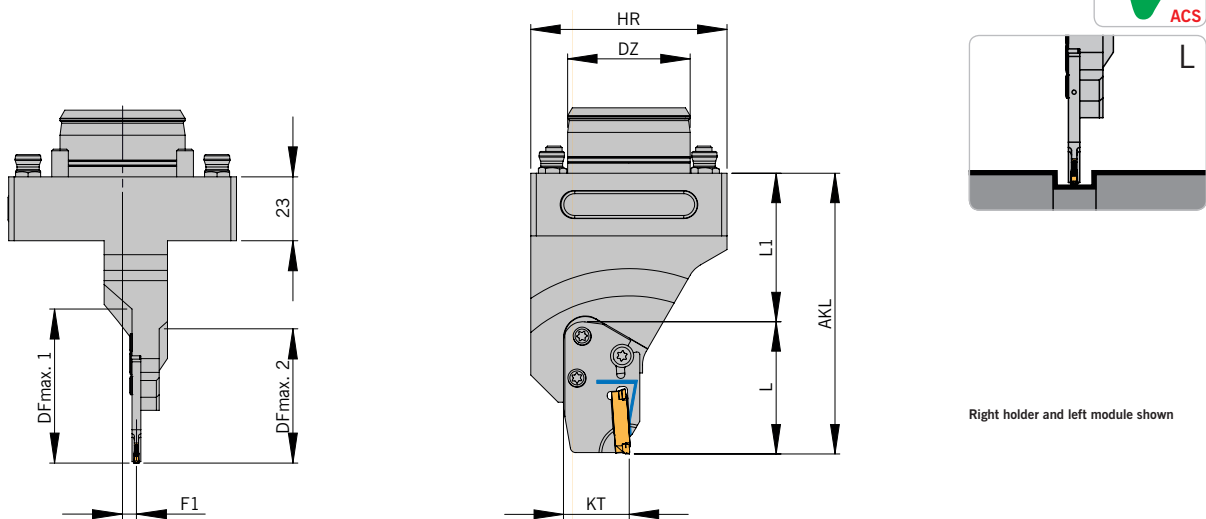
Normal assembly



Upside down assembly

Note: Special dimensions and part-off holders for other machine manufacturers available on request.
A request sheet can be found on page 89 or in the Internet at: www.arno.de/service/downloads.

HTR45 - with ACS



Basic holder

Designation	DZ	F1	HR	KT	Module	Module	PG 43
HTR45-R-W7040134-MSA-IL-ACS	45	54,5	5	72	24	MSA-IL-...-ACS.	●

Holder

DF_{max} = maximum chuck diameter and AKL = Overhang length with modules MSA-..

Designation	HTR45 for TNL18			HTR45 for TNL32		
	AKL	DF _{max1}	DF _{max2}	AKL	DF _{max1}	DF _{max2}
MSA-IL-SA2402-L48,5-20-ACS.	103	110	95	-	-	-
MSA-IL-SA2402-L56,0-32-ACS1	-	-	-	110,5	120	105

1) Calculation for AKL if the module is not mentioned: AKL=11+L (length of the module)
See Chapter 1 (SA grooving system) starting at page 28 and in the “Parting and grooving” catalogue for matching modules and inserts.

Spare Parts

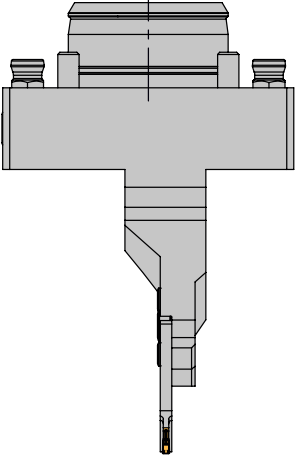
Holder	Screw for module	Key
MSA-I-...-ACS.	2x AS0049 / 1x AS0050 *	T5120-IP

* Alternatively AS 0050D (double sided IP20)

Assembly options

Right-hand holder

HTR45-R-W7040134-MSA-IL-ACS



Left module mounted



Normal assembly

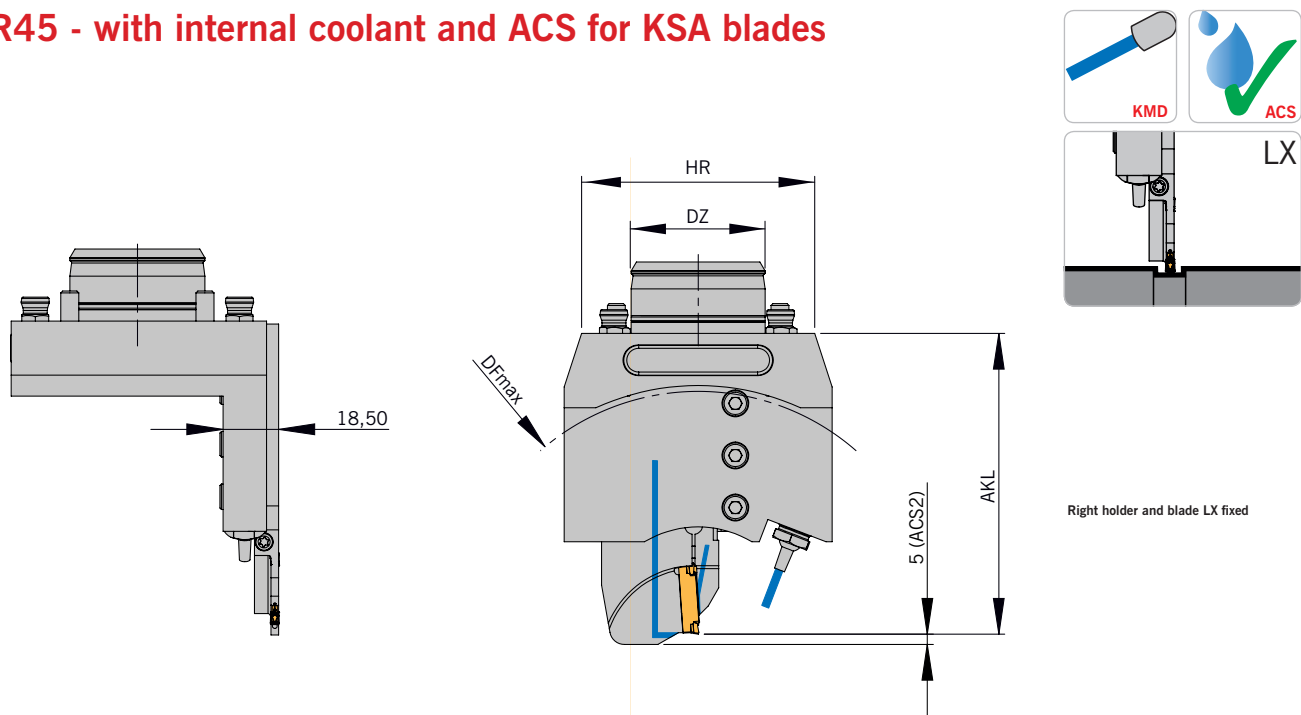


Upside down assembly

Note: Special dimensions and part-off holders for other machine manufacturers available on request.
A request sheet can be found on page 89 or in the Internet at: www.arno.de/service/downloads.

--> For application reference please see page 80 – 86

HTR45 - with internal coolant and ACS for KSA blades



Basic holder

Designation	DZ	F2	HR	Module	PG 43
HTR45-R-W7040098-KSA-32LX-ACS	45	47,3	78.3	KSA-TR-3208LX-...ACS.	●

Holder

DF_{max} = maximum chuck diameter and AKL = Overhang length with blades KSA-..

Designation	TNK42/TNK65/ABC65	
	AKL	DF _{max}
KSA-TR-3208LX-SA2403-44-ACS2	101	160
KSA-TR-3208LX-SA3503-65-ACS2	111	180

See Chapter 1 (SA grooving system) on page 25 and in the “Parting and grooving” catalogue for suitable modules and inserts

Spare Parts

Holder	Clamping strip	Clamping strip 2	O-ring	O-ring 2
HTR45-R-...KSA-..	60AB3444	W67310.0624	OR 18,77X1,78 P	OR 40X1,6 P

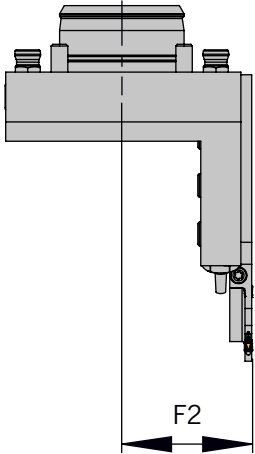
Spare Parts

Holder	Screw for instert	Key
KSA-TR-3208LX-..	AS 0022	T5215-IP

Assembly options

Right-hand holder

HTR45-R-W7040098-KS-32LX-ACS



Blade LX mounted



Normal assembly

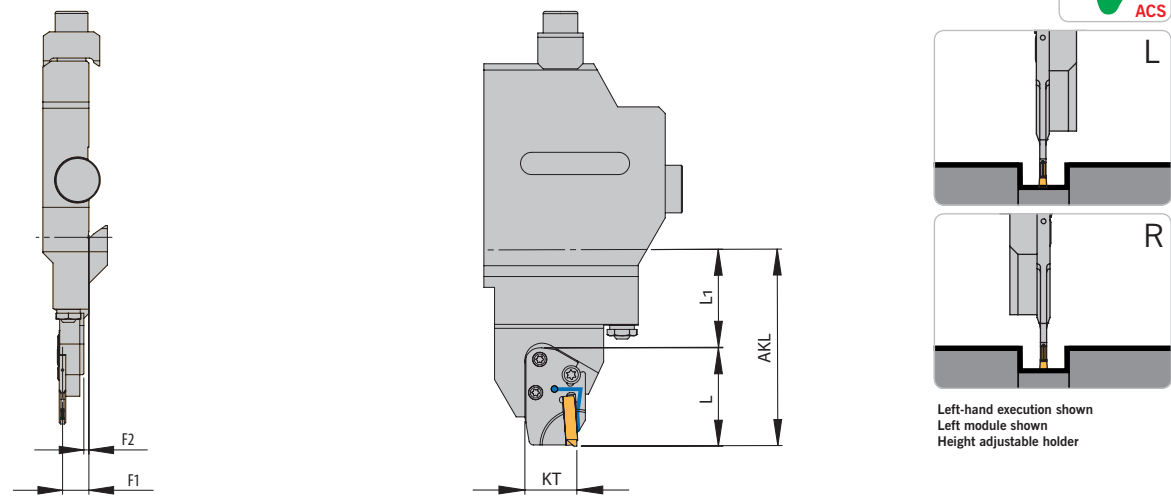


Upside down assembly

Note: Special dimensions and part-off holders for other machine manufacturers available on request.
A request sheet can be found on page 89 or in the Internet at: www.arno.de/service/downloads.

--> For application reference please see page 80 – 86

MS22 / MS32-40 / MS52 - with ACS



Basic holder

Designation	Location	L1	F1	F2	KT	Module	PG 43
MS22-W5190231-MSA-IN-ACS	MS22	44,2	8,4	-2,0	24	MSA-IL/ILL-...ACS.	●
MS32-40-W5190233-MSA-IN-ACS	MS32-40	45,5	12,9	2,5	24	MSA-IL/ILL-...ACS.	●
MS52-W5190260-MSA-IL-ACS	MS 52	35,5	8,9	0,5	24	MSA-IL/ILL-...ACS.	●
MS52-W5190261-MSA-IR-ACS	MS 52	35,5	2,1	0,5	24	MSA-IR/IRR-...ACS.	●
MS52-W5190244-MSA-IN-ACS	MS52	67,5	6,9	-3,5	24	MSA-IL/ILL-...ACS.	●

Holder

AKL (overhang length) = L (length of module) + L1

Designation	MS22...	MS32-40...	MS52... kurz	MS52... lang
	AKL	AKL	AKL	AKL
MSA-I...SA1602-L45,5-22-ACS.	89,7	—	—	—
MSA-I...SA2402-L45,5-32-ACS.	—	91	—	—
MSA-I...SA2402-L48,5-42-ACS.	—	94	—	—
MSA-I...SA2403-L45,5-32-ACS.	—	91	—	—
MSA-I...SA2403-L48,5-42-ACS.	—	94	—	—
MSA-I...SA3502-L55-52-ACS.	—	—	90,5	—
MSA-I...SA3502-L55-52-ACS.	—	—	90,5	—
MSA-I...SA3503-L55-52-ACS.	—	—	90,5	—
MSA-I...SA3503-L55-52-ACS.	—	—	90,5	—
MSA-I...SA3502-L55-52-ACS.	—	—	—	122,5
MSA-I...SA3503-L55-52-ACS.	—	—	—	122,5

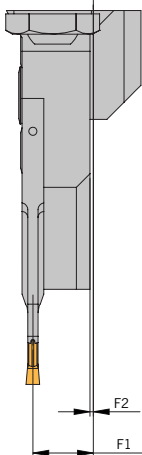
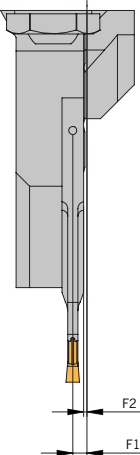
See Chapter 1 (SA grooving system) starting at page 28 and in the “Parting and grooving” catalogue for matching modules and inserts.

Spare Parts

Holder	Screw for module	Key
MSA-I...-ACS.	2 x AS 0049 / AS 0050 *	T5220-IP

* Alternatively AS 0050D (double sided IP20)

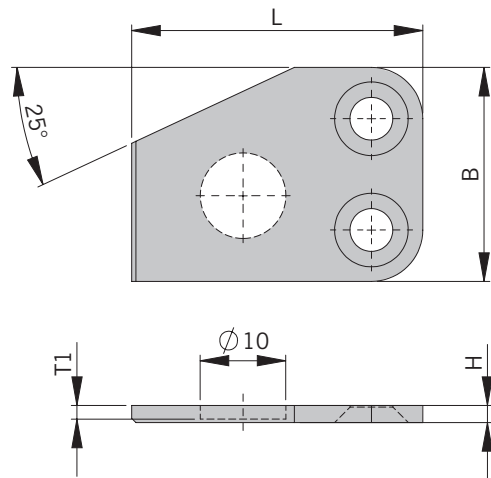
Assembly options

Left holder	Right-hand holder
MS22-W5190231-MSA-IN-ACS	MS52-W5190261-MSA-IR-ACS
MS32-40-W5190233-MSA-IN-ACS	
MS52-W5190260-MSA-IL-ACS	
MS52-W5190244-MSA-IN-ACS	
	
Left module mounted	Right module mounted
	
Normal assembly	Normal assembly

Note: Special dimensions and part-off holders for other machine manufacturers available on request.
A request sheet can be found on page 89 or in the Internet at: www.arno.de/service/downloads.

--> For application reference please see page 80 – 86

Fixed stop for MS holders

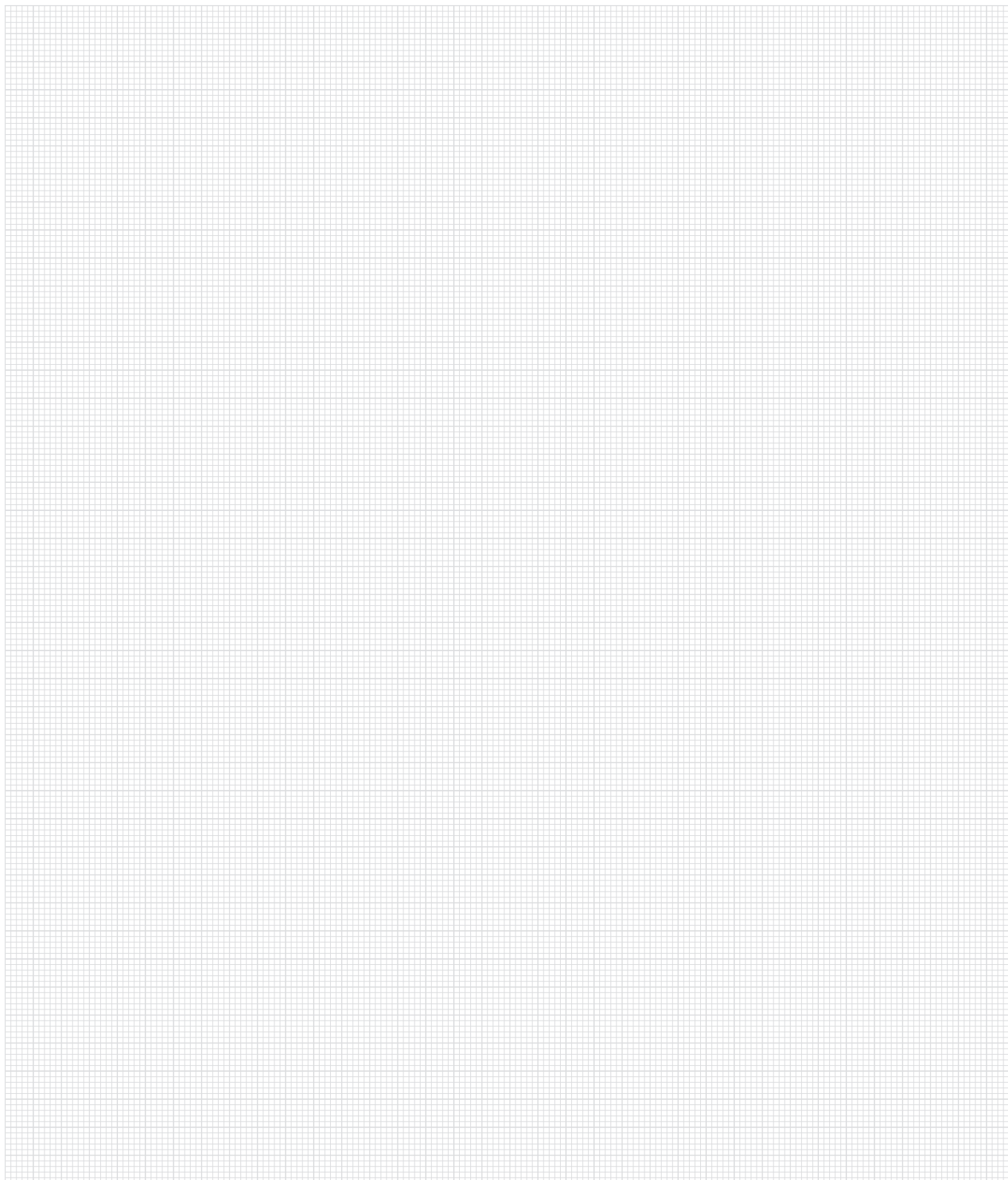


Holders

Designation	L	B	H	T1	PG 37
ASP-MS01	30	25	2	2	●
ASP-MS02	34	25	2	2	●
ASP-MS03	30	25	2	1,6	●
ASP-MS04	34	25	2	1,6	●

Assembly options

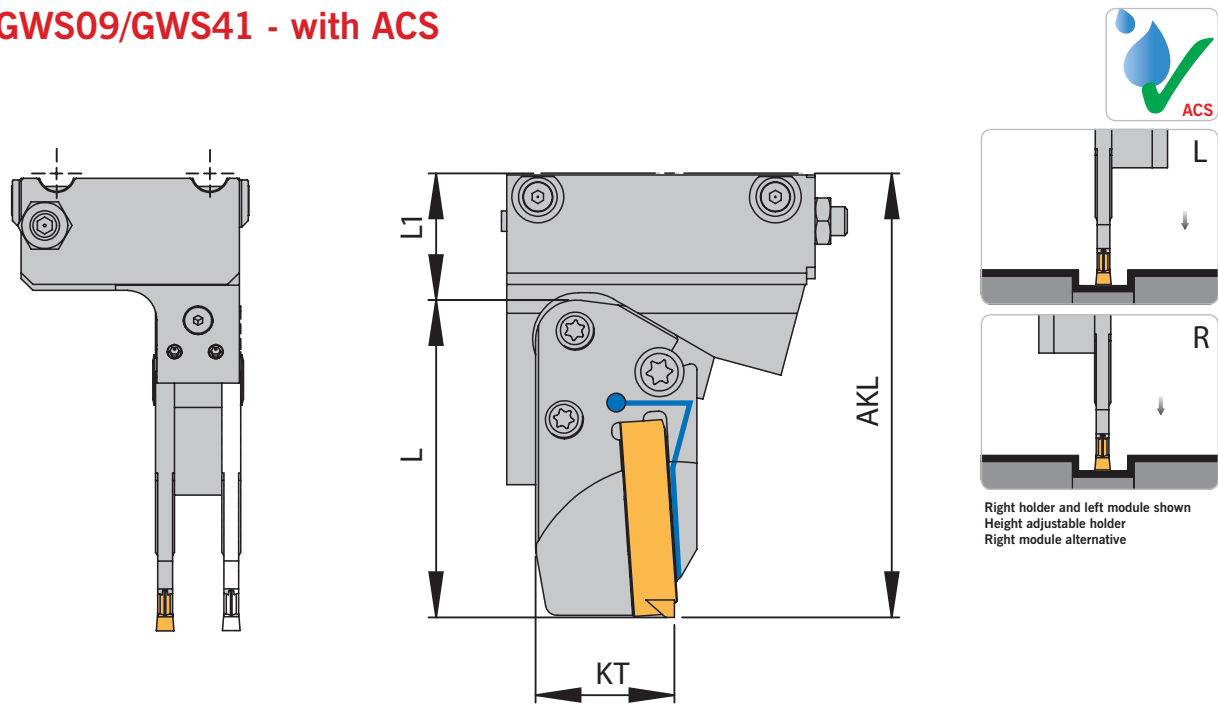
Left module shown	Right module shown
Access to clamping screw AS0050D ASP-MS01 ASP-MS02	Access to clamping screw AS0050 ASP-MS01 ASP-MS02
ASP-MS03 ASP-MS03	ASP-MS03 ASP-MS04



For more information see

www.arno.de

GWS02/GWS09/GWS41 - with ACS



Basic holders

Designation	Location	L1	F1	F2	KT	Module	PG 43
GWS02R-EQ02001-MSA-IN-ACS	GWS02	14	3,6	7,6	24	MSA-I-...-ACS.	●
GWS02R-EQ02002-MSA-IN-ACS	GWS02	22	3,6	7,6	24	MSA-I-...-ACS.	●
GWS09R-EQ09001-MSA-IN-ACS	GWS09	14	3,6	7,6	24	MSA-I-...-ACS.	●
GWS41R-EQ41002-MSA-IN-ACS	GWS41	22	3,6	7,6	24	MSA-I-...-ACS.	●
GWS41L-EQ41001-MSA-IN-ACS	GWS41	22	3,6	7,6	24	MSA-I-...-ACS.	●

Holder

AKL (overhang length) = L (length of module) + L1

Module	GWS02R-EQ02001...	GWS02R-EQ02002...	GWS09R-EQ09001...	GWS41R-EQ41002...	GWS41L-EQ41001...
	AKL	AKL	AKL	AKL	AKL
MSA-I.-L37-...-ACS.	51,0	59,0	51,0	59,0	59,0
MSA-I.-L41-...-ACS.	55,0	63,0	55,0	63,0	63,0
MSA-I.-L43,5-...-ACS.	57,0	56,5	57,5	65,5	65,5
MSA-I.-L44-...-ACS.	58,0	66,0	58,0	66,0	66,0
MSA-I.-L45,5-...-ACS.	59,5	67,5	59,5	67,5	67,5
MSA-I.-L48,5-...-ACS.	62,5	70,5	62,5	70,5	70,5
MSA-I.-L55-...-ACS.	69,0	77,0	69,0	77,0	77,0

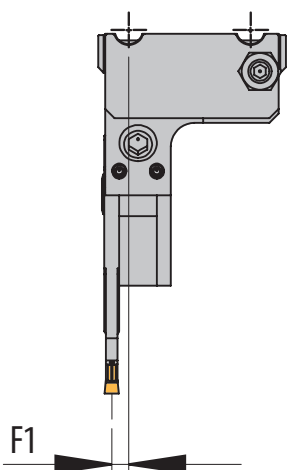
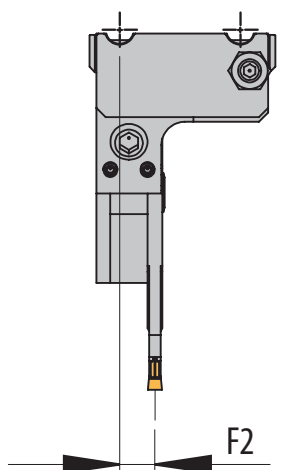
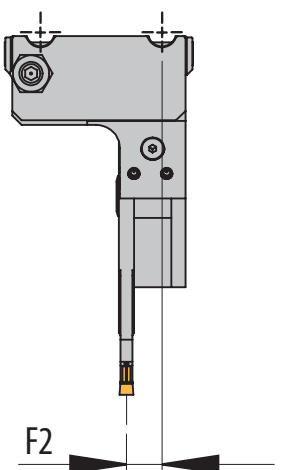
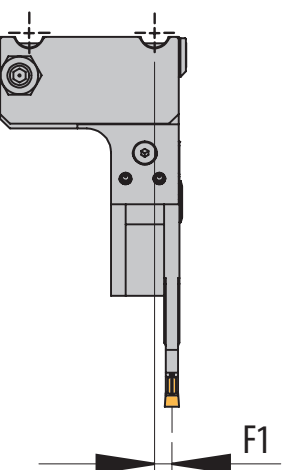
See Chapter 1 (SA grooving system) starting at page 28 and in the "Parting and grooving" catalogue for matching modules and inserts.

Spare Parts

Holder	Screw for module	Key
MSA-I-...-ACS.	2 x AS 0049 / AS 0050 *	T5220-IP

* Alternatively AS 0050D (double sided IP20)

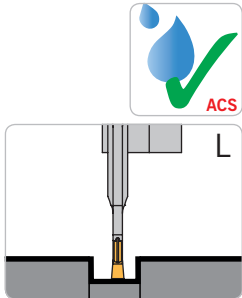
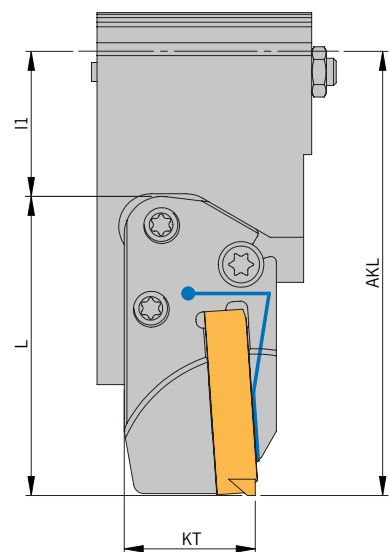
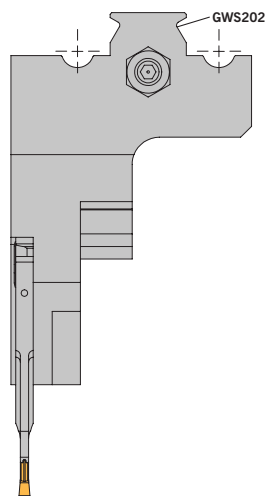
Assembly options

Left holder		Right-hand holder	
GWS41L-EQ41001-MSA-IN-ACS	GWS41L-EQ41001-MSA-IN-ACS	GWS02R-EQ02001-MSA-IN-ACS	GWS02R-EQ02001-MSA-IN-ACS
		GWS02R_EQ02002-MSA-IN-ACS	GWS02R_EQ02002-MSA-IN-ACS
		GWS09R-EQ09001-MSA-IN-ACS	GWS09R-EQ09001-MSA-IN-ACS
		GWS41R-EQ41002-MSA-IN-ACS	GWS41R-EQ41002-MSA-IN-ACS
			
Left module mounted	Right module mounted	Left module mounted	Right module mounted
			
Normal assembly	Normal assembly	Normal assembly	Normal assembly

Remark: All shown options are available with only one holder.
Note: Special dimensions and part-off holders for other machine manufacturers available on request.
A request sheet can be found on page 89 or in the Internet at: www.arno.de/service/downloads.

--> For application reference please see page 80 – 86

GWS02 - with ACS



Left holder and left module shown
Height adjustable holder

Basic holder

Designation	Location	L1	F1	KT	Module	PG 43
GWS202L-EQ202001-MSA-IN-ACS	GWS202	26,5	9,8	24	MSA-IL/ILL-...-ACS.	●

Holder

AKL (overhang length) = L (length of module) + L1

Modul	GWS202...	
	AKL ¹⁾	F-Maß
MSA-I.-L37-...-ACS.	63,5	2.)
MSA-I.-L41-...-ACS.	67,5	
MSA-I.-L43,5-...-ACS.	69,0	
MSA-I.-L44-...-ACS.	70,5	
MSA-I.-L45,5-...-ACS.	72,0	
MSA-I.-L48,5-...-ACS.	75,0	
MSA-I.-L55-52-...-ACS.	81,5	

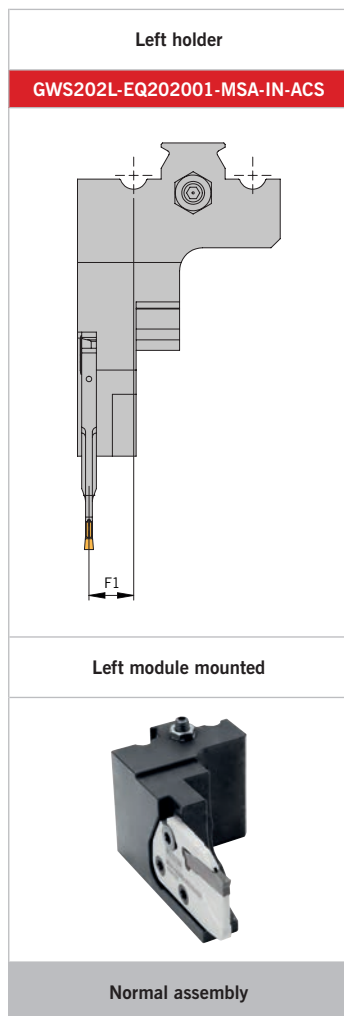
1) Calculation for AKL if the module is not mentioned: AKL=L1+L (length of the module)
2) Calculation F-dimension for: MSA-IL/IR: F=F1+1/2 EB (1/2 EB=1/2 grooving width), Calculation F-dimension for: MSA-ILL/IRR: F=F1+1,6 (1,6 = 1/2 b2)
See Chapter 1 (SA grooving system) starting at page 28 and in the "Parting and grooving" catalogue for matching modules and inserts.

Spare Parts

Holder	Screw for module	Key
MSA-I-...-ACS.	2 x AS 0049 / AS 0050 *	T5220-IP

* Alternatively AS 0050D (double sided IP20)

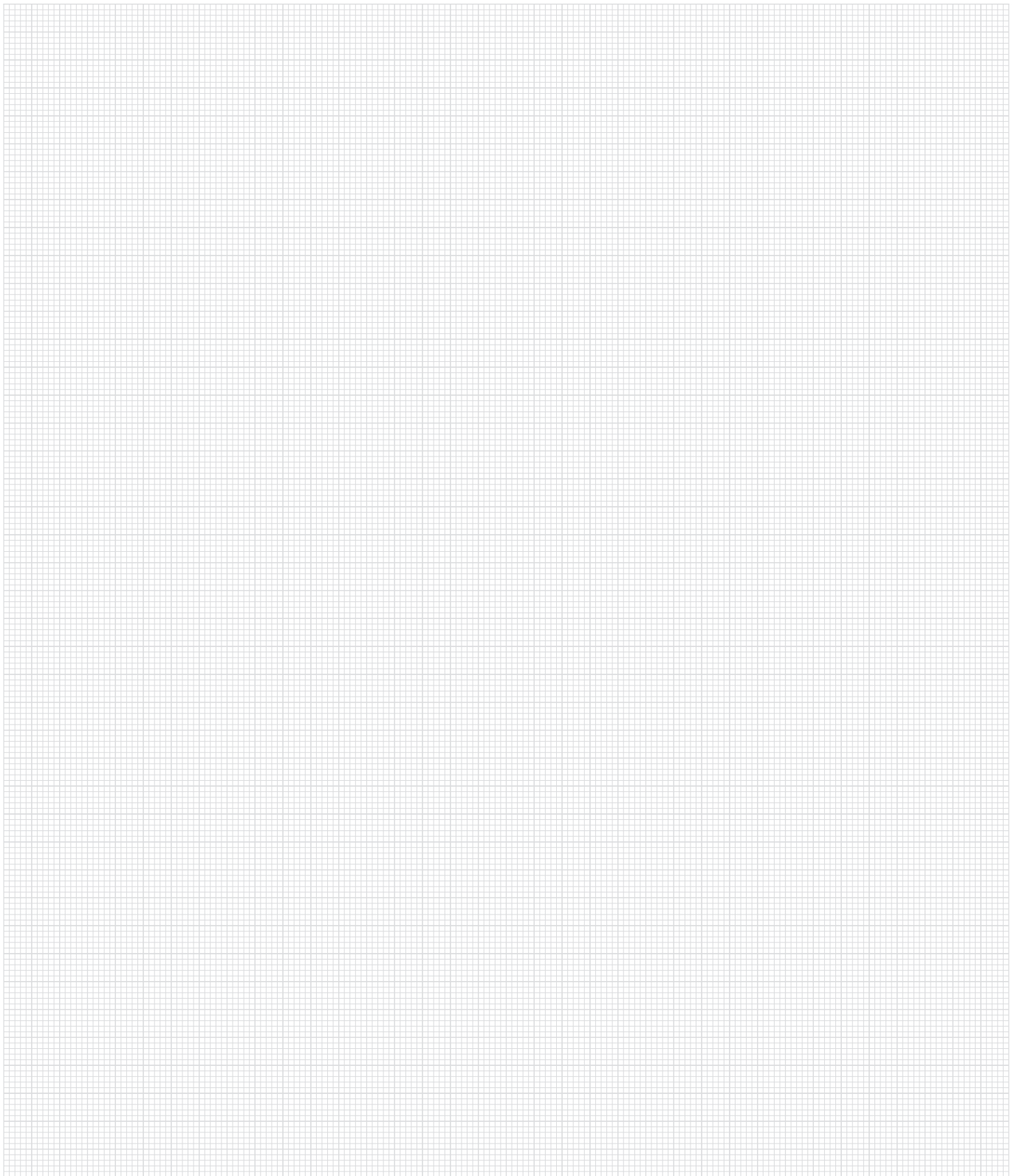
Assembly options



Note: Special dimensions and part-off holders for other machine manufacturers available on request.
A request sheet can be found on page 89 or in the Internet at: www.arno.de/service/downloads.

--> For application reference please see page 80 – 86





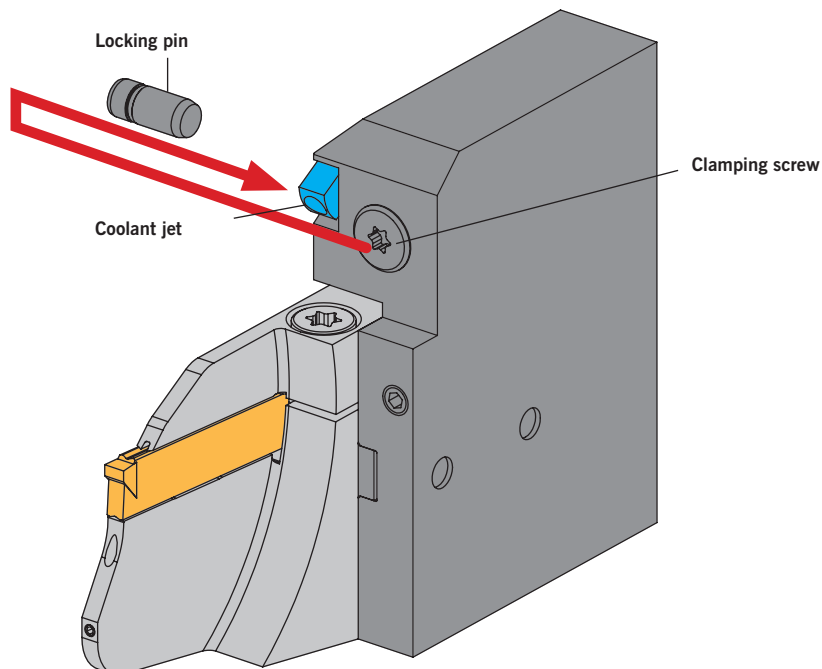
For more information see

www.arno.de

M9A 0002 – Assembly instructions

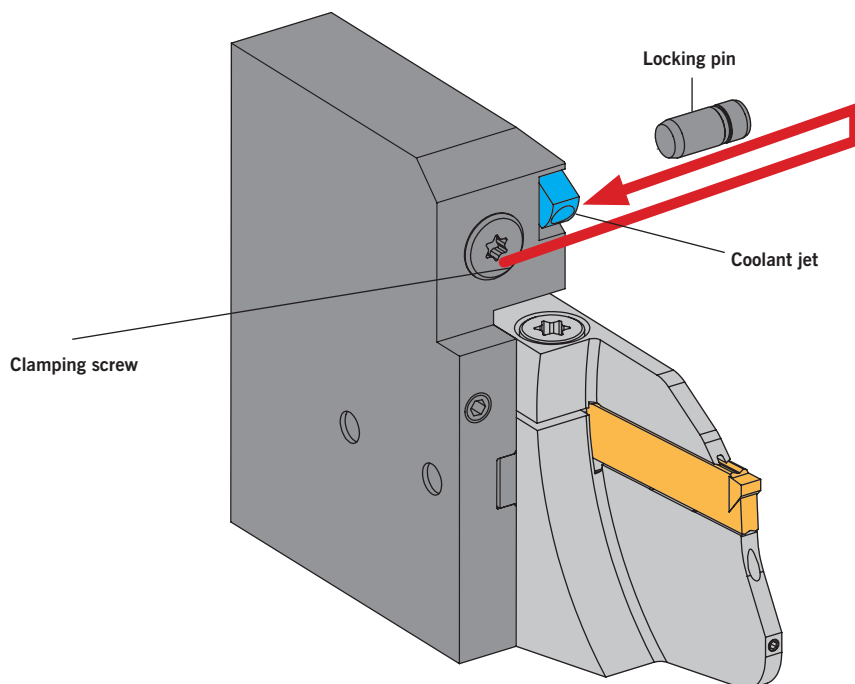
Option 1: left module

If no coolant is wanted from the fitted coolant jet, please loosen threaded pin and remove jet and replace with enclosed locking pin and then fasten the threaded pin.



Option 2: right module

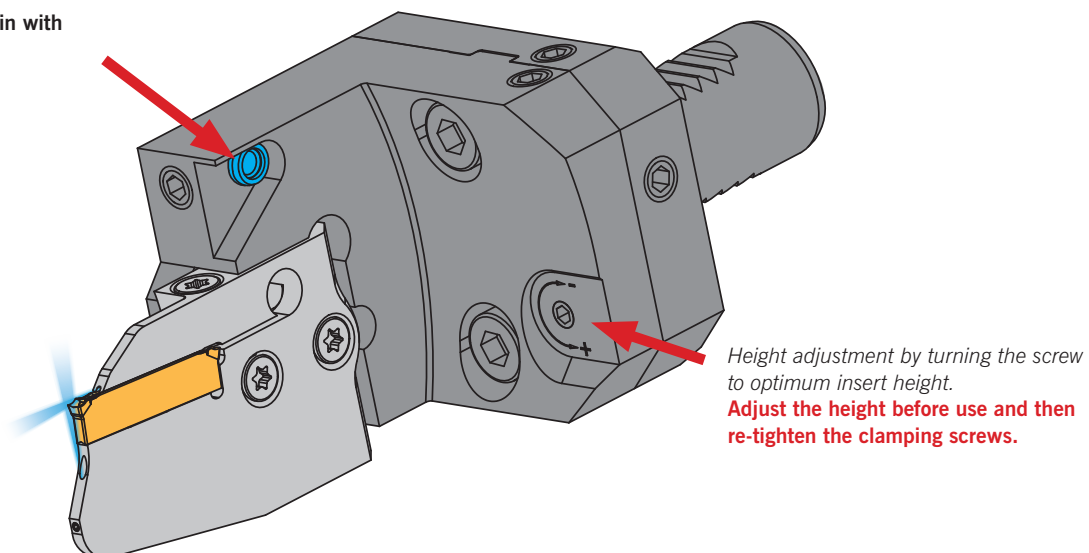
If no coolant is wanted from the fitted coolant jet, please loosen threaded pin and remove jet and replace with enclosed locking pin and then fasten the threaded pin.



HVDI25 – Assembly instructions

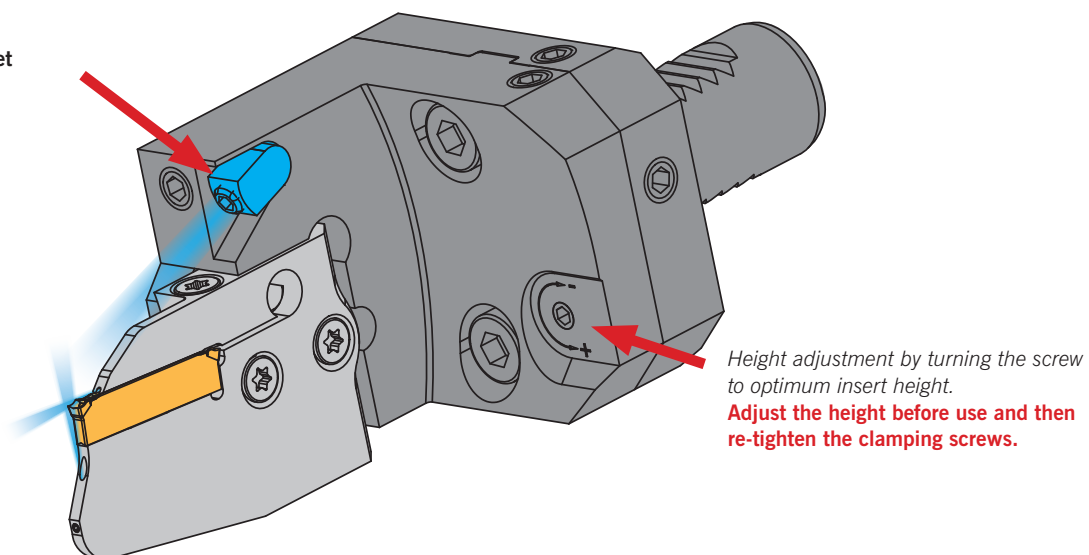
Option 1: Coolant with ACS2

Assembly of locking pin with sealing ring



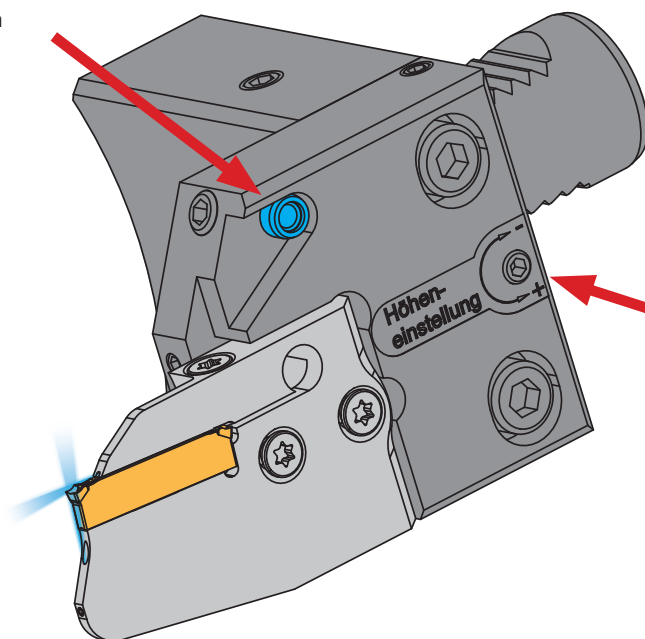
Option 2: Coolant with ACS2 and additional coolant jet

Assembly of coolant jet



HVDI30 / HVDI40 – Assembly instructions**Option 1: Coolant with ACS2**

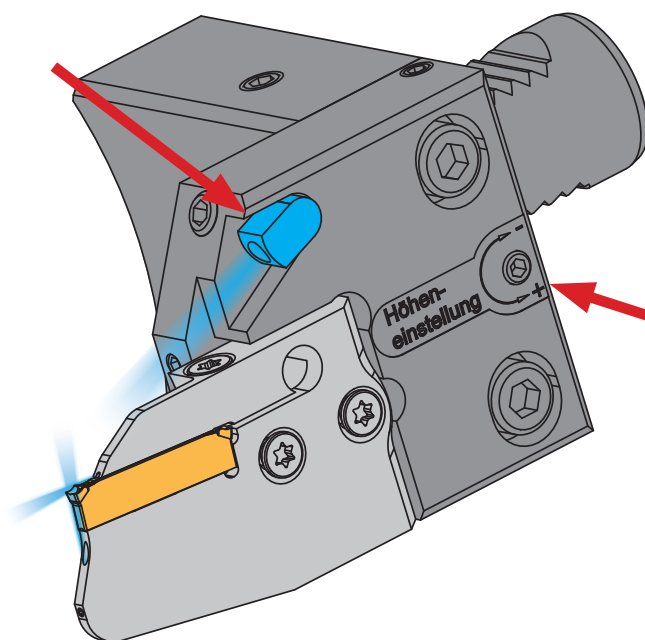
Assembly of locking pin with
sealing ring



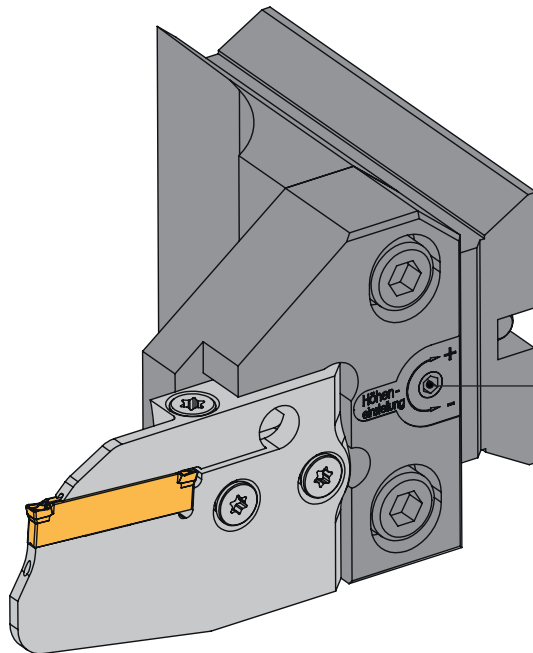
Height adjustment by turning the screw
to optimum insert height.
**Adjust the height before use and then
re-tighten the clamping screws.**

Option 2: Coolant with ACS2 and additional coolant jet

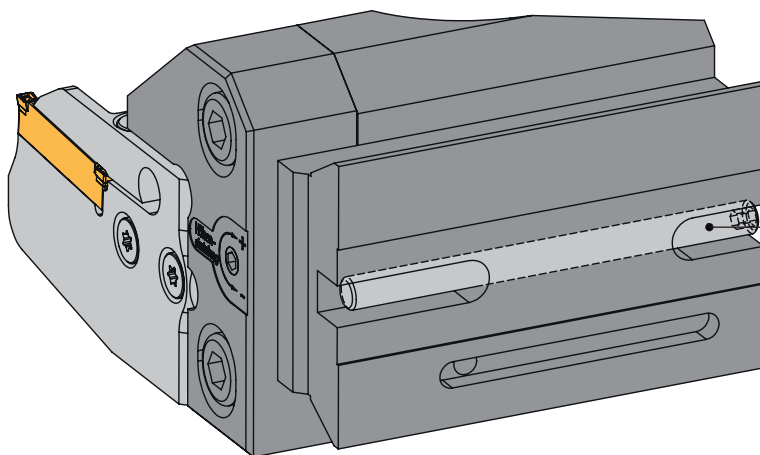
Assembly of coolant jet



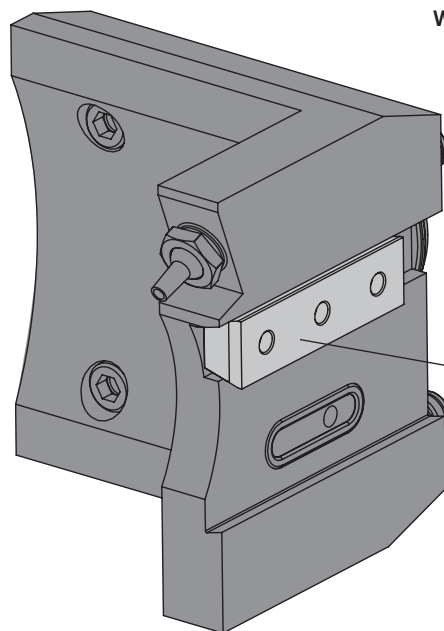
Height adjustment by turning the screw
to optimum insert height.
**Adjust the height before use and then
re-tighten the clamping screws.**

HABC – Assembly instructions

When using height-adjustable holders:
Please adjust the height before use.
Height can be adjusted by turning the threaded pin. Re-tighten the clamping screws.

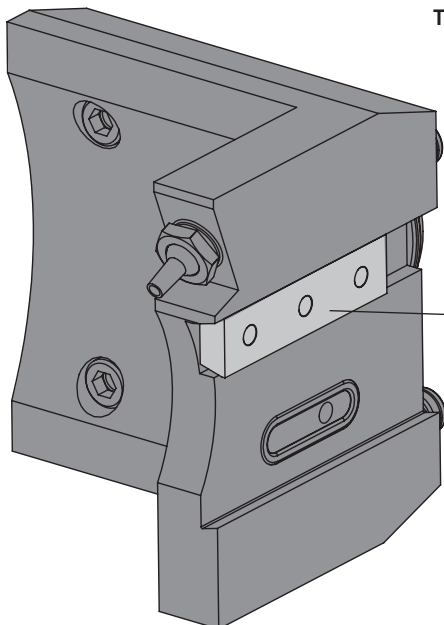


Threaded pin for adjustment on turret
In the Z axis at the mounting location.

M9A 0005 – Assembly instructions

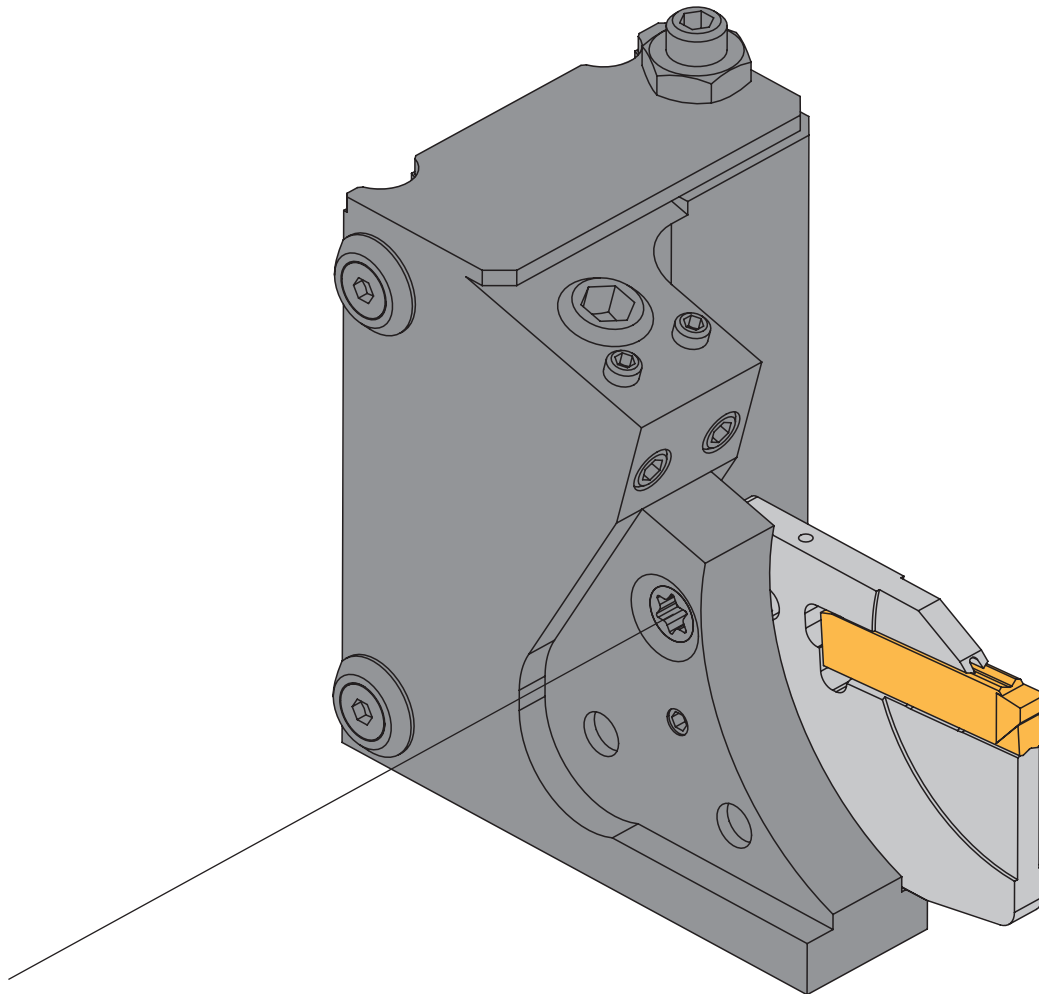
Wide clamping strip

The wide clamping strip 60AB3444 is already mounted. Manual height adjustment takes place outside the machine.



Thin clamping strip

Use the W67310.0624 thin clamping strip for then blades. Manual height adjustment takes place outside the machine.

M9A 0007 – Assembly instructions

In order to be able to mount the insert from the opposite side (as shown), alternatively the screw AS 0050D should be used (Double-sided IP20 interface)

Please note:

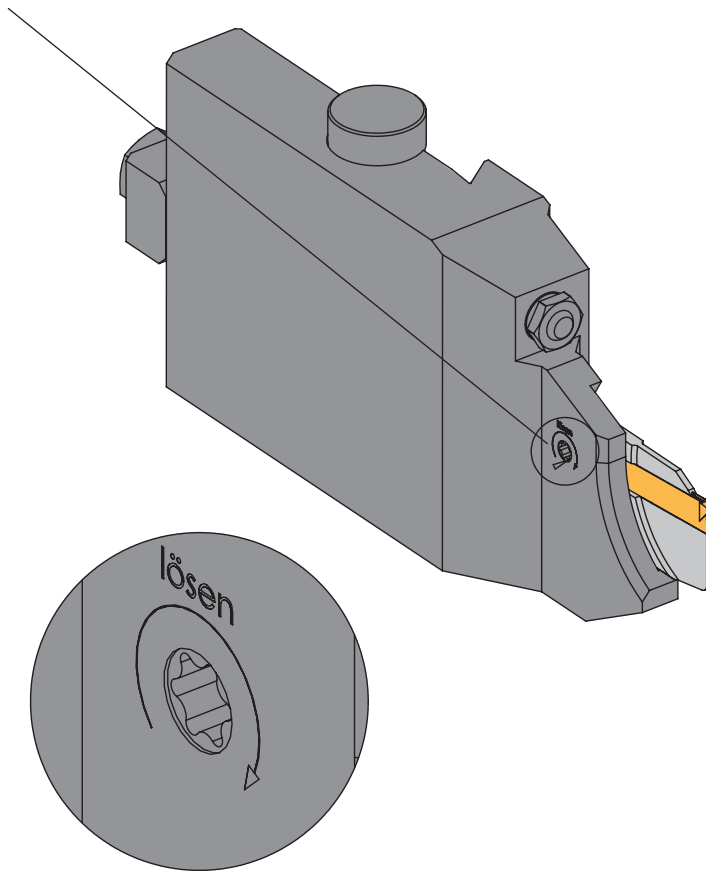
Turn left = clamping

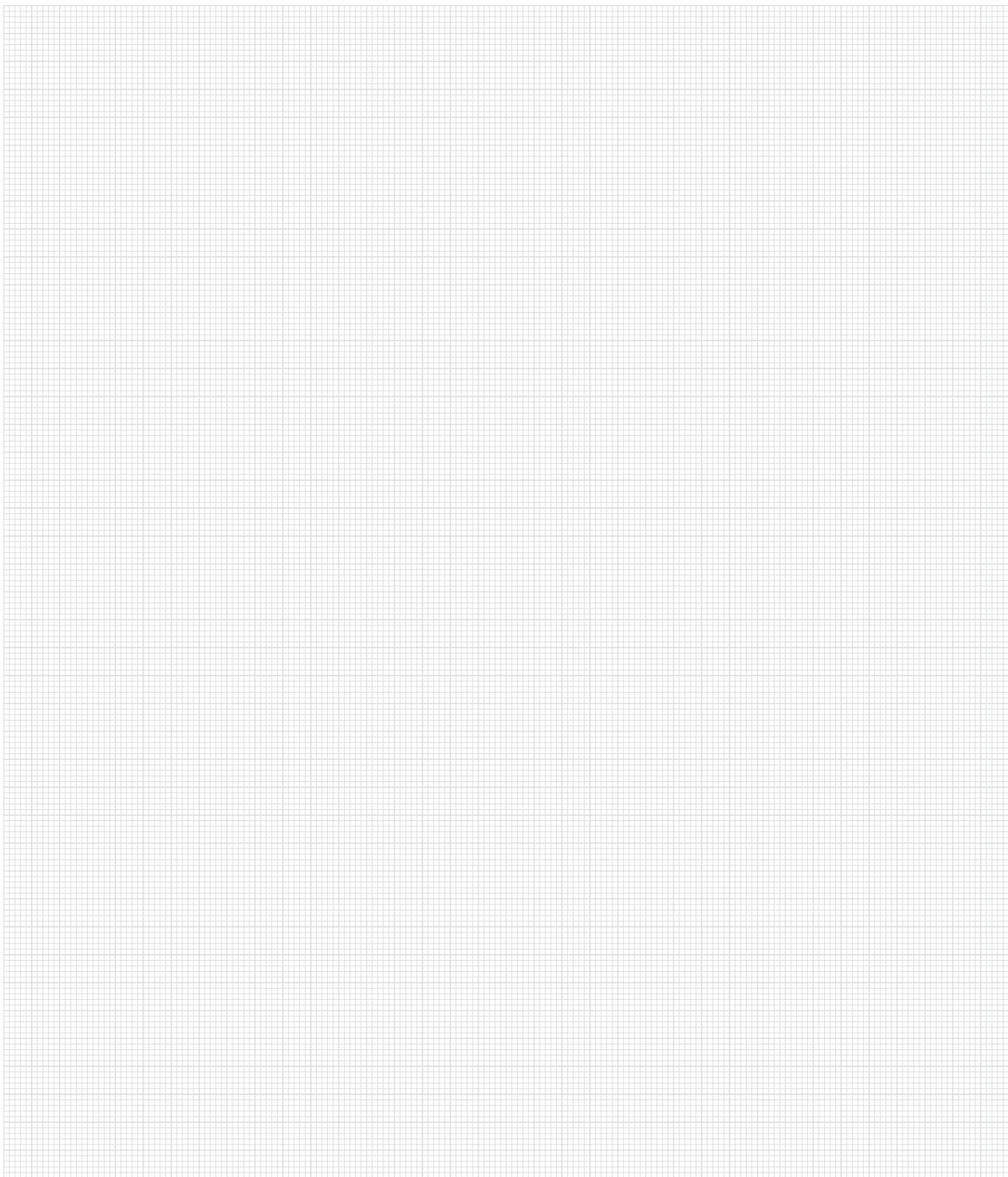
Turn right = open

M9A 0006 – Assembly instructions

In order to be able to mount the insert from the opposite side (as shown), alternatively the screw AS 0050D should be used (Double-sided IP20 interface)

Please note:
Turn left = clamping
Turn right = open





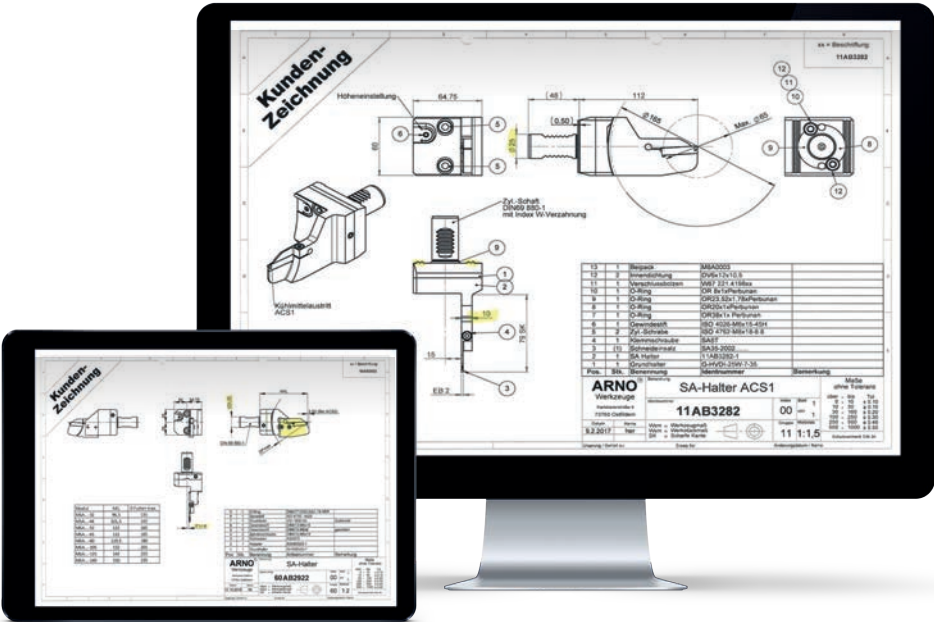
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When enquiring about special holders please state the following dimensions:



Machine

Type

Location

Turret / number of tool posts

Chuck diameter mm

Maximum part-off diameter mm

Tool length AKL mm

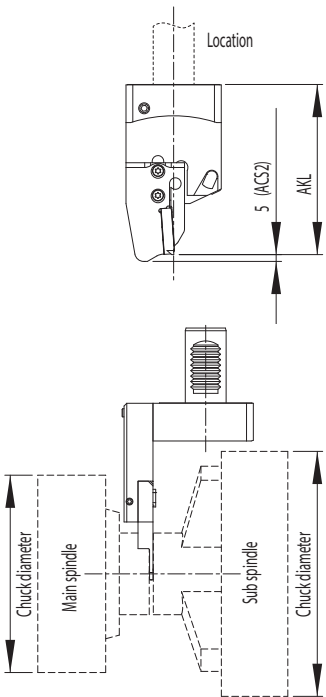
Turret clearance mm

F1 dimension mm

F2 dimension mm

Module description

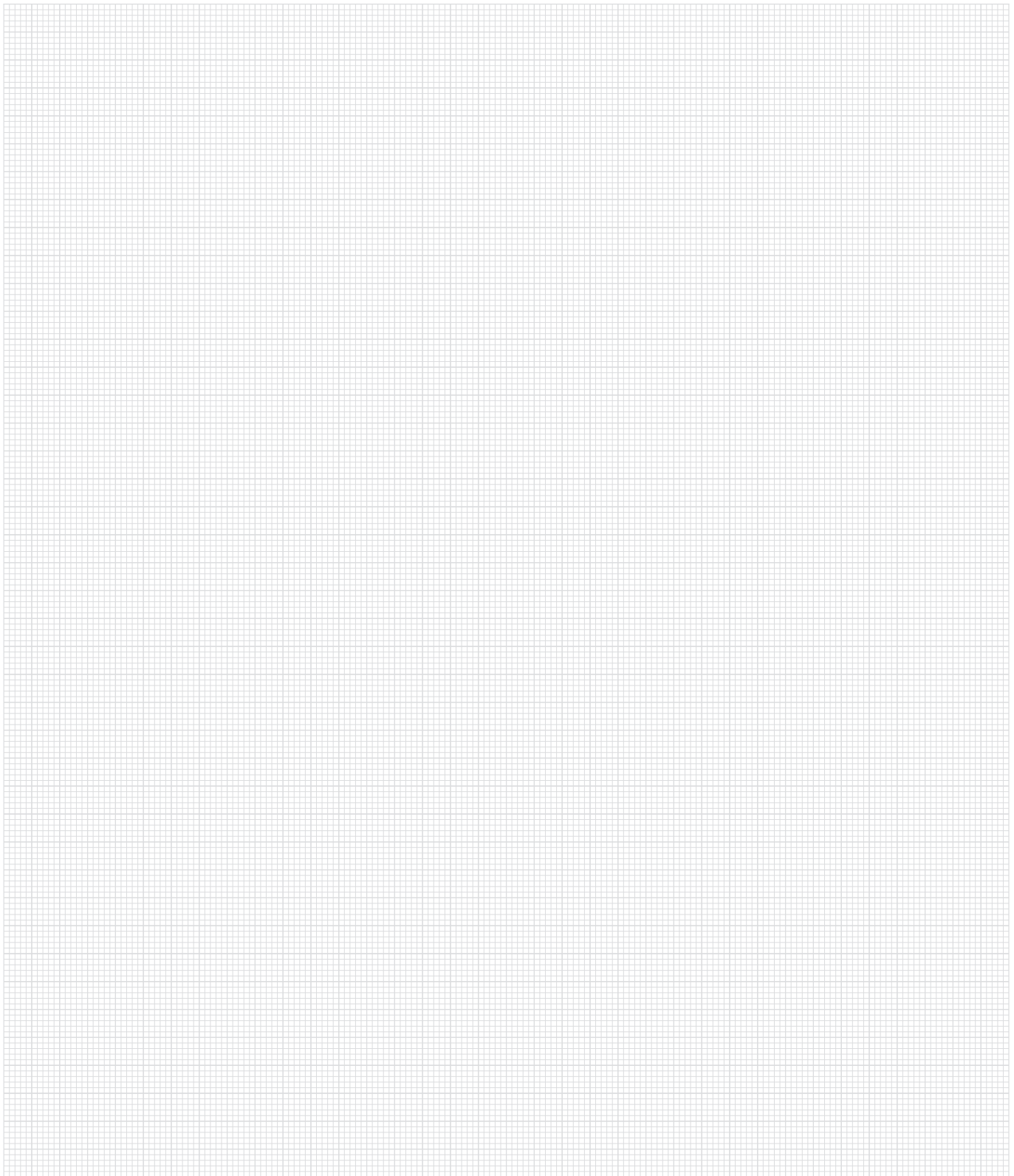
Other comments
.....
.....
.....
.....
.....



Assembly*

Left-hand holder		Right-hand holder	
Left module shown	Right module shown	Left module shown	Right module shown

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For more information see

www.arno.de