Ball float steam trap

Ball float steam trap
ANSI125 / 150 / 300

- with flanges	**(Fig. 631....1)**	Grey cast iron
- with screwed sockets	**(Fig. 631....2)**	SG iron
- with socket weld ends	**(Fig. 631....3)**	Cast steel
- with butt weld ends	**(Fig. 631....4)**	Forged steel
		High temperature steel
		Stainless steel

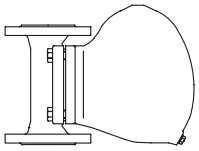


Fig. 631 Page 2

Ball float steam trap
ANSI900

- with flanges	**(Fig. 631....1)**	
- with socket weld ends	**(Fig. 631....3)**	
- with butt weld ends	**(Fig. 631....4)**	
Angle pattern design:		
- with flanges	**(Fig. 632....1)**	High temperature steel/
- with butt weld ends	**(Fig. 632....4)**	Cast steel

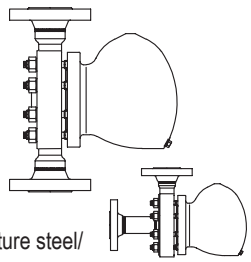


Fig. 631 / Fig. 632 Page 6

Ball float steam trap
ANSI150 / 300

- with flanges R4-P	**(Fig. 633....1)**	Forged steel/ Grey cast iron
- with flanges	**(Fig. 639....1)**	Forged steel/ Cast steel
		Stainless steel

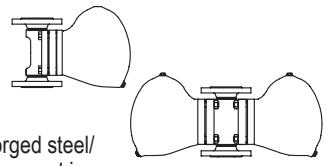


Fig. 633 / Fig. 639 Page 8

Ball float steam trap for drainage of water from compressed air and gas systems
(acc. to PED 97/23/EC fluid group 2)
ANSI125 / 150 / 300

- with flanges	**(Fig. 630....1)**	Grey cast iron
- with screwed sockets	**(Fig. 630....2)**	SG iron
- with socket weld ends	**(Fig. 630....3)**	Forged steel/ Cast steel
- with butt weld ends	**(Fig. 630....4)**	

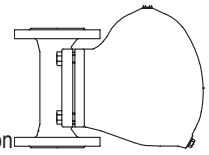


Fig. 630 Page 10

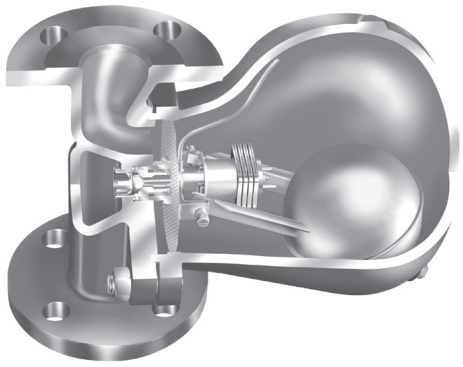


Fig. 631....1
vertical installation

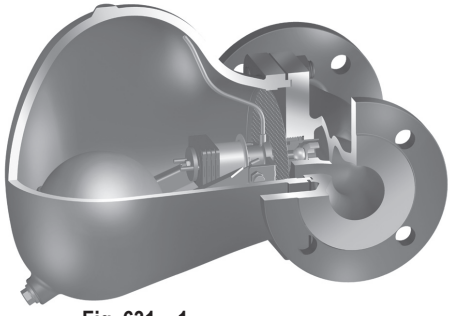


Fig. 631....1
horizontal installation

Features:

- Back pressure-free condensate discharge even at extreme pressure- and quantity fluctuations
- Controller with integrated automatic ventilation (except Fig. 630)
- Robust and insensitive to waterhammer
- Non return protection (except Fig. 633)
- Union for pressure compension line and bypass possible
- On-site change of the installation position is possible according to the operating instructions (except Fig. 633)
- The controller maybe changed without disturbing the pipe work
- Pressure test acc. to API 598
- CRN approved

Ball float steam trap (Grey cast iron, SG iron, Cast steel/Forged steel, Stainless steel)

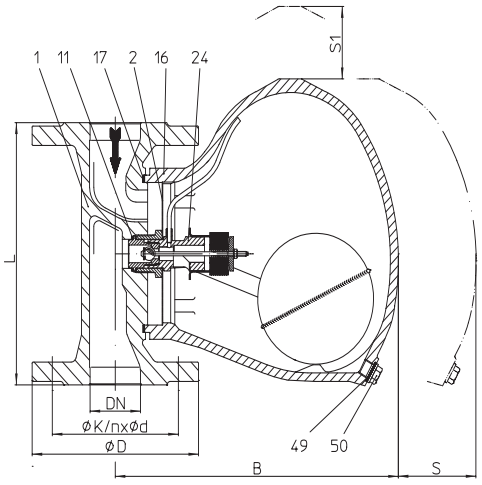


Fig. 631....1 with flanges - vertical installation

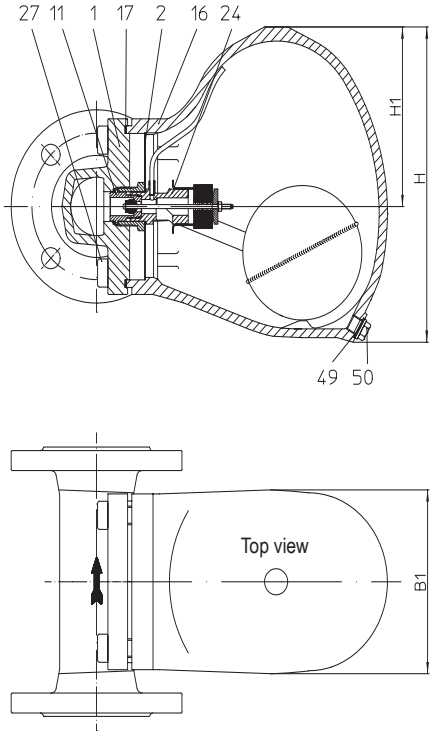


Fig. 631....1 with flanges - horizontal installation)

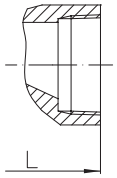


Fig. 631....2
with screwed sockets

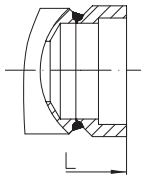


Fig. 631....3
with socket weld ends

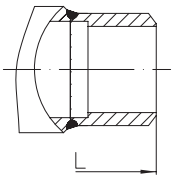


Fig. 631....4
with butt weld ends

Figure	Nominal pressure	Material	NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure ΔPMX	for controller	
11.631	ANSI125	Body/Hood: EN-JL1040 (similar to ASTM A 126 Cl. B)	1/2“ - 2“	Flanges acc. to ANSI B16.1		2 bar 4 bar 8 bar 8,6 barg	R2 R4 R8 R13	≥ NPS 1 1/2“: R2-S R4-S R8-S
				8,6 barg	232 °C			
				Screwed sockets acc. to ANSI B16.4				
				8,6 barg	178 °C			
22.631	ANSI150	Body/Hood: EN-JS1049 (similar to SA395)	1/2“ - 2“	12,8 barg	232 °C	2 bar 4 bar 8 bar 13 bar ≥ ANSI300: 22 bar 32 bar	R2 R4 R8 R13 R22 R32	≥ NPS 1 1/2“: R2-S R4-S R8-S R13-S
				8,6 barg	343 °C			
42.631	ANSI150	Body: SA105 / Hood: SA216WCB	1/2“ - 4“	13 barg	225 °C			
				8 barg	360 °C			
				4 barg	427 °C			
45.631	ANSI300	Body: SA105 / Hood: SA216WCB	1/2“ - 4“	32 barg	411 °C			
				22 barg	427 °C			
52.631	ANSI150	Body: SA182F321 / Hood: SA351CF8	1/2“ - 4“	13 barg	208 °C			
				8 barg	360 °C			
				4 barg	467 °C			
				2 barg	510 °C			
55.631	ANSI300	Body: SA182F321 / Hood: SA351CF8	1/2“ - 4“	32 barg	262 °C			
				22 barg	510 °C			
DIN/EN-Constructions refer to data sheet CONA®S								

Types of connection — Other types of connection on request.

- Flanges ....1 _____ acc. to ASME B16.1 (ANSI125) / acc. to ASME B16.5 (ANSI150-300)
- Screwed sockets ....2 ___ NPT-Thread acc. to ASME B16.4 (ANSI125) / acc. to ASME B1.20.1 (ANSI150-300) or Rp-Thread acc. to DIN EN 10226-1)
- Socket weld ends ....3 ___ acc. to ASME B16.11
- Butt weld ends ....4 _____ ASME B16.25 (Note restriction on operating pressure / inlet temperature depending to design!)

Features

- Ball float steam trap with level control for the condensate-discharge from all kinds of steam systems
- Rapid system start-up due to thermostatic control element
- Inside strainer
- Body with flanged hood
- Non return protection
- The controller maybe changed without disturbing the pipe work

Mounting position

• Standard:	vertical
• Optional:	horizontal with inlet from right or left

Please indicate when ordering!

Refer to: Information about the different installation positions (Page 17)
On-site change of the installation position is possible according to the operating instructions.

Options — (Design refer to page 3)

- Air vent - (Pos. 51) or blow down valve (Pos. 46), manual operated

Types of connection		Flanges								Screwed sockets [1] Socket weld ends [2]					Butt weld ends [2]				
NPS		1/2	3/4	1	1 1/2	2	2 1/2	3	4	1/2	3/4	1	1 1/2	2 [1]	1/2	3/4	1	1 1/2	2

[1] NPS 2 1/2 not in EN-JL / EN-JS [2] not in EN-JL / EN-JS

Face-to-face acc. to data sheet resp. customer request																			
L (EN-JL/EN-JS)	(mm)	150	150	160	230	230	--	--	--	150	150	160	230	--	--	--	--	--	--
L (Steel)	(mm)	210	210	210	230	230	290	310	350	150	150	160	210	210	160	160	160	250	250

Dimensions																			Standard-flange dimensions refer to page 17
H	(mm)	162	162	187	270	270	270	270	270	162	162	187	270	270	162	162	187	270	270
H1	(mm)	85	85	102	151	151	151	151	151	85	85	102	151	151	85	85	102	151	151
B (EN-JS1049)	(mm)	214	214	255	280	280	--	--	--	214	214	255	280	--	--	--	--	--	--
B (Steel)	(mm)	167	167	196	285	285	285	285	285	167	167	196	285	285	167	167	196	285	285
B1	(mm)	95	95	118	157	157	157	157	157	95	95	118	157	157	95	95	118	157	157
S	(mm)	180	180	200	300	300	300	300	300	180	180	200	300	300	180	180	200	300	300
S1	(mm)	150	150	180	200	200	200	200	200	150	150	180	200	200	150	150	180	200	200

Weights																			
Fig. 631 (approx.)	(kg)	7,9	8,1	10,9	24,7	25,3	27,2	29,2	32,7	7,3	7,3	8,5	20	20,5	6,9	7,9	9	21	22

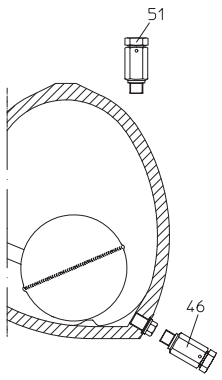
Parts						
Pos.	Sp.p.	Description	Fig. 11.631	Fig. 22.631	Fig. 42./45.631	Fig. 52./55.631
1		Body	EN-GJL-250, EN-JL1040 (similar to ASTM A 126 Cl. B)	EN-GJS-400-18U-LT, EN-JS1049 (similar to SA395)	SA105	SA182F321
2		Strainer	SA240Gr.304			
11	x	Sealing ring	CU	SA182F321		
16		Hood	EN-GJL-250, EN-JL1040 (similar to ASTM A 126 Cl. B)	EN-GJS-400-18U-LT, EN-JS1049 (similar to SA395)	SA216WCB	SA351CF8
17	x	Gasket	GRAPHIT (CrNi laminated with graphite)			
24	x	Controller, cpl.	SA240Gr.304 / TB102/85 (corrosion resistant bimetal)			
27		Cheese head screw	SA193Gr.B16 (with metric screw-thread)			
46	x	Blow down valve	SA182F321			
49	x	Sealing ring	CU	SA182F321		
50	x	Plug (M14x1,5)	SA182F321 (with metric screw-thread)			
51	x	Manual air vent valve	SA182F321			
		└ Spare parts				

Information / restriction of technical rules need to be observed!

Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).

Operating and installation instructions can be downloaded at www.ari-armaturen.com.

Options

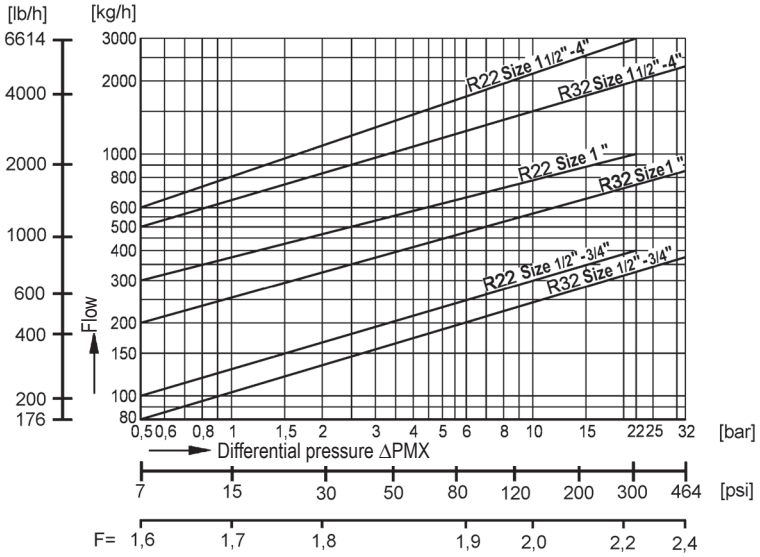


Air vent - (Pos. 51) or blow down valve (Pos. 46), manual operated

Capacity chart

Standard R22 and R32

NPS 1/2“ - 4“



The capacity chart shows the maximum flow quantities of hot condensate for the different controllers and steam trap sizes

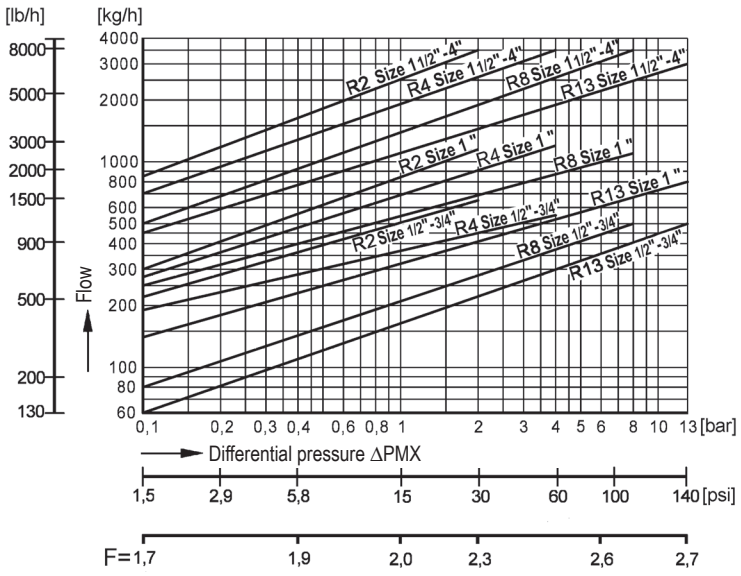
In commen, the steam traps are fitted out with an controller as shown in the flow diagrams of this page acc. to the differential pressures and flow rates.

For very large flow rates with low differential pressures, steam traps at sizes 1 1/2“ to 4“ can be fitted out with a super-controller.

The maximum flow quantity of cold condensate at about 20°C can be determined by multiplication of the appropriate factor F (in the scale below the diagrams) with the hot condensate quantity determined by the capacity chart. (Factor F is related to th

Standard R2 to R13

NPS 1/2“ - 4“



The capacity chart shows the maximum flow quantities of hot condensate for the different controllers and steam trap sizes

In commen, the steam traps are fitted out with an controller as shown in the flow diagrams of this page acc. to the differential pressures and flow rates.

For very large flow rates with low differential pressures, steam traps at sizes 1 1/2“ to 4“ can be fitted out with a super-controller.

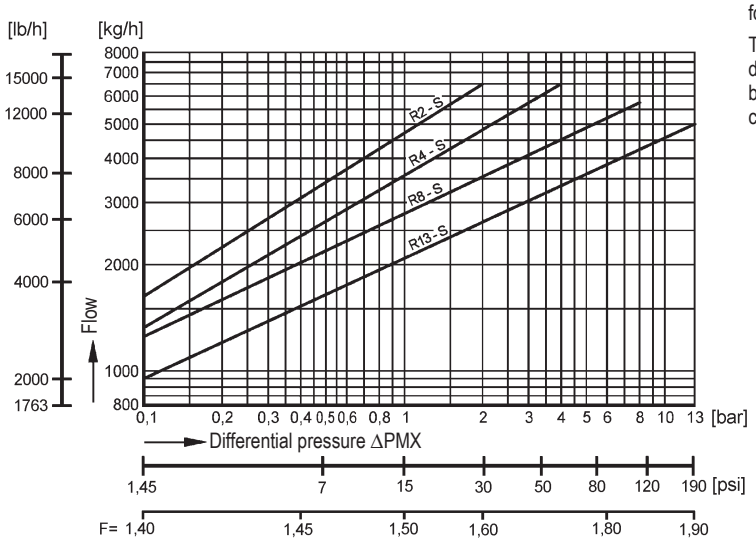
The maximum flow quantity of cold condensate at about 20°C can be determined by multiplication of the appropriate factor F (in the scale below the diagrams) with the hot condensate quantity determined by the capacity chart. (Factor F is related to th

Capacity chart

Special design: Super-controller for very large flow rates with low differential pressures

R2-S to R13-S

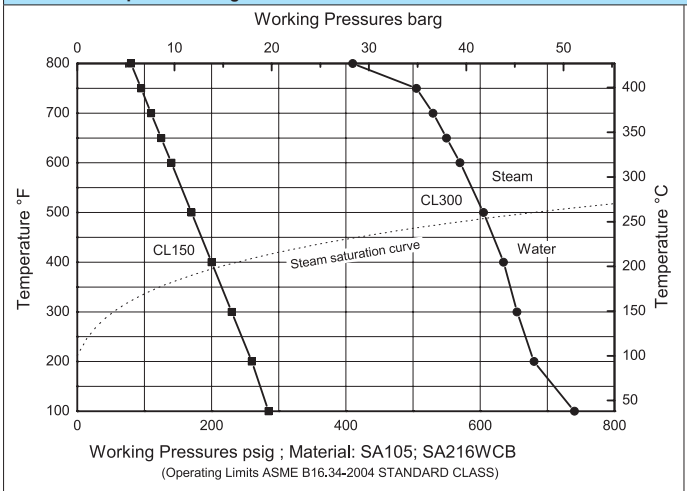
NPS 1 1/2“ - 4“

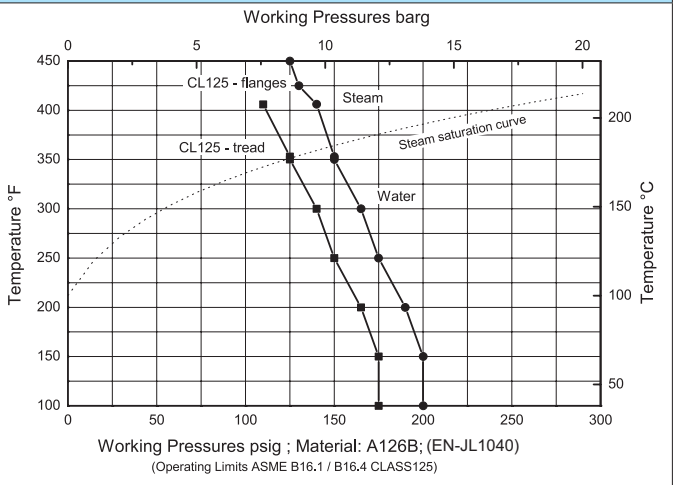


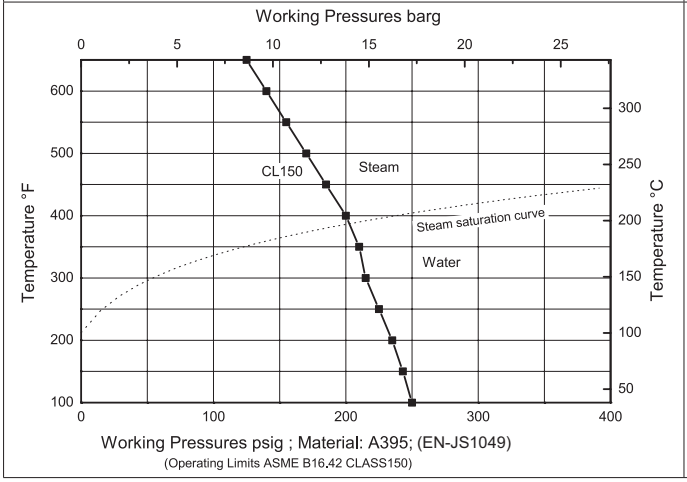
The capacity chart shows the maximum flow quantities of hot condensate for the Super-controller versions.

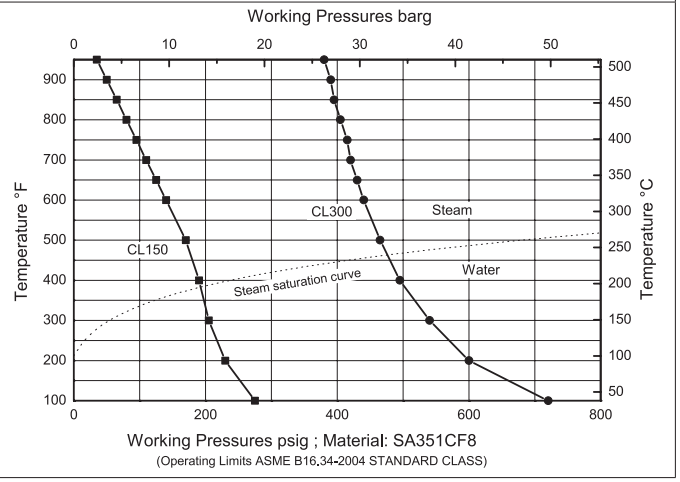
The maximum flow quantity of cold condensate at about 20°C can be determined by multiplication of the appropriate factor F (in the scale below the diagrams) with the hot condensate quantity determined by the capacity chart. (Factor F is related to th

Pressure-Temperature-Diagram









Ball float steam trap (High temperature steel)

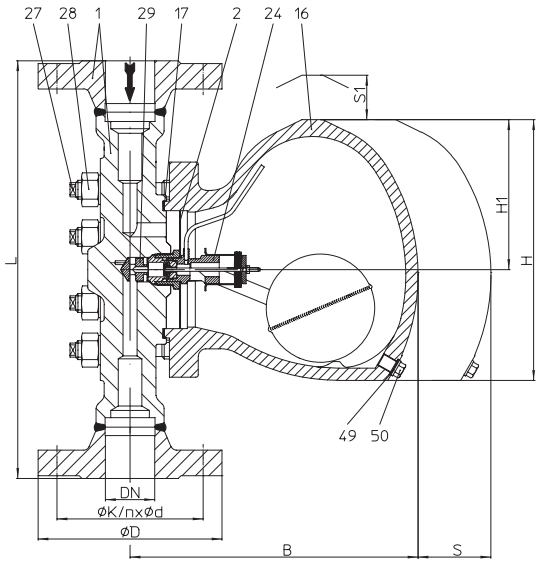


Fig. 631....1 with flanges - vertical installation

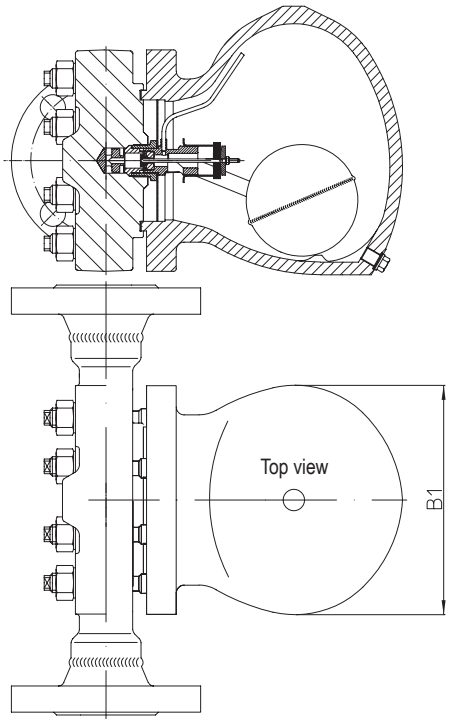


Fig. 631....1 with flanges - horizontal installation

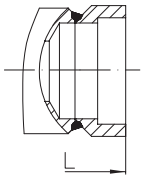


Fig. 631....3
with socket weld ends

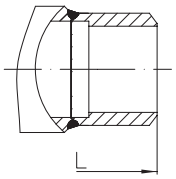


Fig. 631....4
with butt weld ends

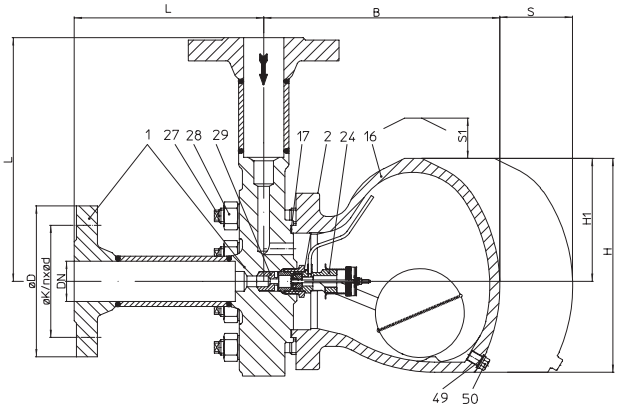


Fig. 632....1 Angle pattern design with flanges - vertical installation

Figure	Nominal pressure	Material	NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure ΔPMX	for controller
88.631 88.632	ANSI900	Body: SA182F12Cl.2 / Hood: SA217WC6	1/2“ - 2“	110 barg	399 °C	110 bar 80 bar	R110 R80
				80 barg	479 °C		
				45 barg	538 °C		
DIN/EN-Constructions refer to data sheet CONA®S							

Types of connection	Other types of connection on request.
• Flanges ....1 _____ acc. to ASME B16.5	
• Socket weld ends ....3 ___ acc. to ASME B16.11	
• Butt weld ends ....4 _____ ASME B16.25 (Note restriction on operating pressure / inlet temperature depending to design!)	

Features	
• Ball float steam trap with level control for the condensate-discharge from all kinds of steam systems	• Body with flanged hood
• Rapid system start-up due to thermostatic control element	• Non return protection
• Inside strainer	• The controller maybe changed without disturbing the pipe work
	• On-site change of the installation position is possible according to the operating instructions

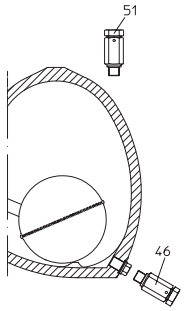
Mounting position		
• Standard:	vertical	**Please indicate when ordering!** Refer to: Information about the different installation positions (Page 17) On-site change of the installation position is possible according to the operating instructions.
• Optional:	horizontal with inlet from right or left	

Options	(Design refer to page 7)
• Air vent - (Pos. 51) or blow down valve (Pos. 46), manual operated	

Types of connection		Flanges					Socket weld ends Butt weld ends				
NPS		**1/2**	**3/4**	**1**	**1 1/2**	**2**	**1/2**	**3/4**	**1**	**1 1/2**	**2**
Face-to-face acc. to data sheet resp. customer request											
L	(mm)	400	400	415	440	440	335	335	335	335	335
L1 / L2 ECK	(mm)	200	200	208	220	220	168	168	168	168	168
Dimensions											Standard-flange dimensions refer to page 17
H	(mm)	280	280	280	280	280	280	280	280	280	280
H1	(mm)	160	160	160	160	160	160	160	160	160	160
B	(mm)	302	302	302	302	302	302	302	302	302	302
B1	(mm)	185	185	185	185	185	185	185	185	185	185
S	(mm)	300	300	300	300	300	300	300	300	300	300
S1	(mm)	200	200	200	200	200	200	200	200	200	200
Weights											
Fig. 631 (approx.)	(kg)	46	48	49	52	56	53	40	41	40	38

Parts			
Pos.	**Sp.p.**	**Description**	**Fig. 88.631 / 88.632**
1		Body	SA182F12Cl.2
2		Strainer	SA240Gr.304
16		Hood	SA217WC6
17	x	Gasket	GRAPHIT (CrNi laminated with graphite)
24	x	Controller, cpl.	SA240Gr.304 / TB102/85 (corrosion resistant bimetal)
27		Stud	SA453Gr.660b
28		Hexagonal nut	SA453Gr.660b
29	x	Erosion deflector	AISI431
46	x	Blow down valve	AISI440 (with metric screw-thread)
49	x	Sealing ring	SA182F321
50	x	Plug (M14x1,5)	SA182F321
51	x	Manual air vent valve	AISI440 (with metric screw-thread)
	└ Spare parts		

Options



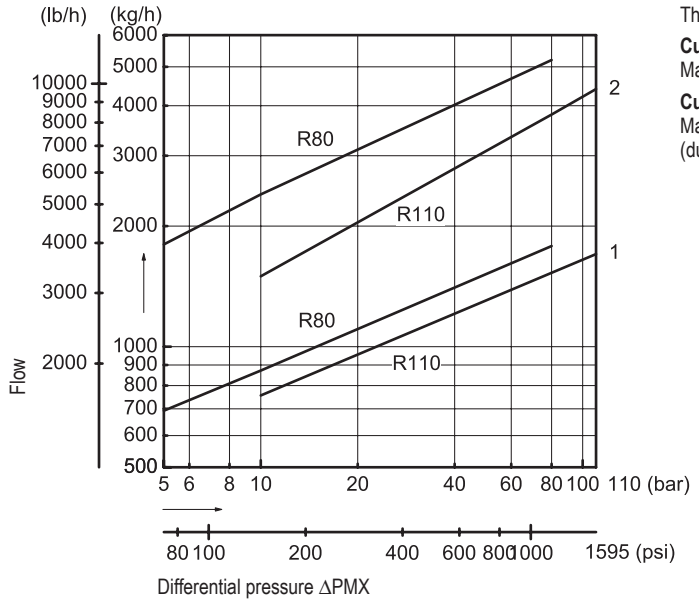
Air vent - (Pos. 51) or blow down valve (Pos. 46), manual operated

Information / restriction of technical rules need to be observed!

Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).

Operating and installation instructions can be downloaded at www.ari-armaturen.com.

Capacity chart

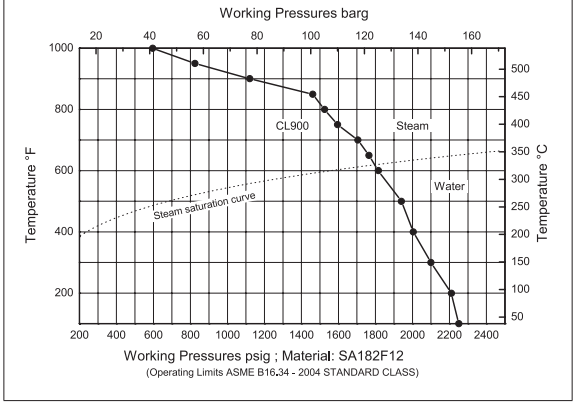


The capacity chart shows the maximum flow rates.

Curve 1:
Maximum flow of hot condensate.

Curve 2:
Maximum flow at cold condensate of approx. 20°C (during start-up of a cold installation).

Pressure-Temperature-Diagram



Ball float steam trap (warmfester Baustahl)

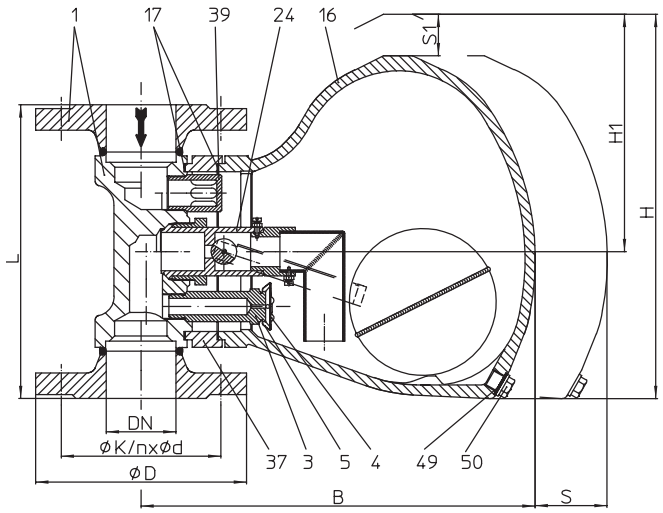


Fig. 633....1 with flanges - vertical installation

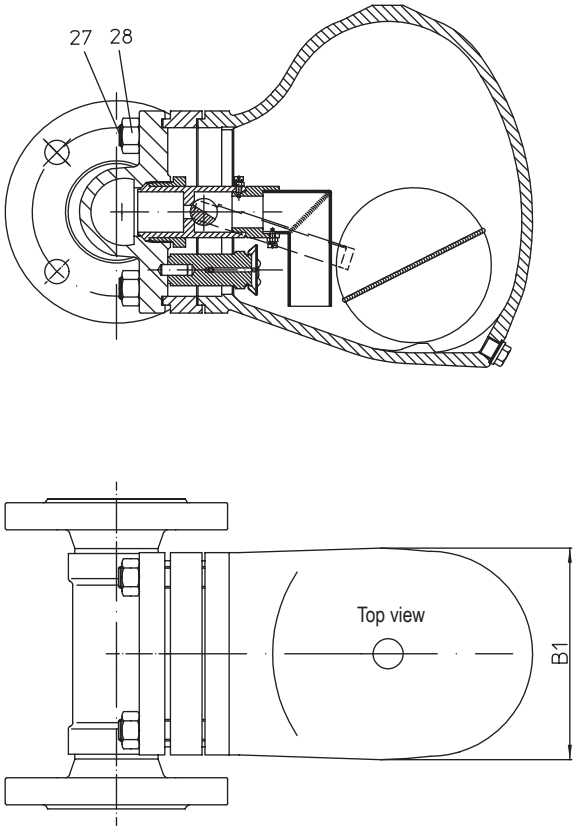


Fig. 633....1 with flanges - horizontal installation

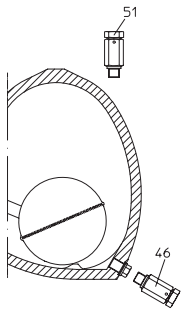
Figure	Nominal pressure	Material	NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure ΔPMX	for controller
42.633	ANSI150	Body: SA105 / Hood: SA216WCB	1 1/2“ - 4“	4 barg	427 °C	4 bar	R4-P
45.633	ANSI300	Body: SA105 / Hood: SA216WCB	1 1/2“ - 4“	4 barg	427 °C	4 bar	R4-P
EN-JL1040, EN-JS1049 and SA182F321 on request.							
DIN/EN-Constructions refer to data sheet CONA®S							

Types of connection	Other types of connection on request.
• Flanges ....1 _____ acc. to ASME B16.5	
Features	
• Ball float steam trap with level control for the condensate-discharge from all kinds of steam systems • Rapid system start-up due to thermostatic control element • Immediate discharge of hot boiling condensat	• Body with flanged hood • The controller maybe changed without disturbing the pipe work • Installation position can not be changed later on
Mounting position	
• Standard: vertical • Optional: horizontal with inlet from right or left	**Please indicate when ordering!** Refer to: Information about the different installation positions (Page 17) On-site change of the installation position is possible according to the operating instructions.
Options	(Design refer to page 9)
• Air vent - (Pos. 51) or blow down valve (Pos. 46), manual operated	

Types of connection		Flanges				
NPS		1 1/2	2	2 1/2	3	4
Face-to-face acc. to data sheet resp. customer request						
L	(mm)	230	230	290	310	350
Dimensions						Standard-flange dimensions refer to page 17
H	(mm)	270	270	270	270	270
H1	(mm)	151	151	151	151	151
B	(mm)	307	307	307	307	307
B1	(mm)	157	157	157	157	157
S	(mm)	300	300	300	300	300
S1	(mm)	200	200	200	200	200
Weights						
Fig. 633 (approx.)	(kg)	24,7	25,3	27,2	29,2	32,7

Parts			
Pos.	Sp.p.	Description	Fig. 42./45.633
1		Body	SA105
3		Seat	AISI303
4	x	Capsule	SA240Gr.304
5	x	Spring actuated clip	AISI301
16		Hood	SA216WCB
17	x	Gasket	GRAPHIT (CrNi laminated with graphite)
24	x	Controller, cpl.	SA240Gr.304
27		Stud	SA193Gr.B16 (with metric screw-thread)
28		Hexagonal nut	SA194Gr.4 (with metric screw-thread)
37		Intermediate flange	SA105
39		Baffle straightener	AISI430F
46	x	Blow down valve	SA182F321 (with metric screw-thread)
49	x	Sealing ring	SA182F321
50	x	Plug (M14x1,5)	SA182F321 (with metric screw-thread)
51	x	Manual air vent valve	SA182F321 (with metric screw-thread)
	└ Spare parts		

Options



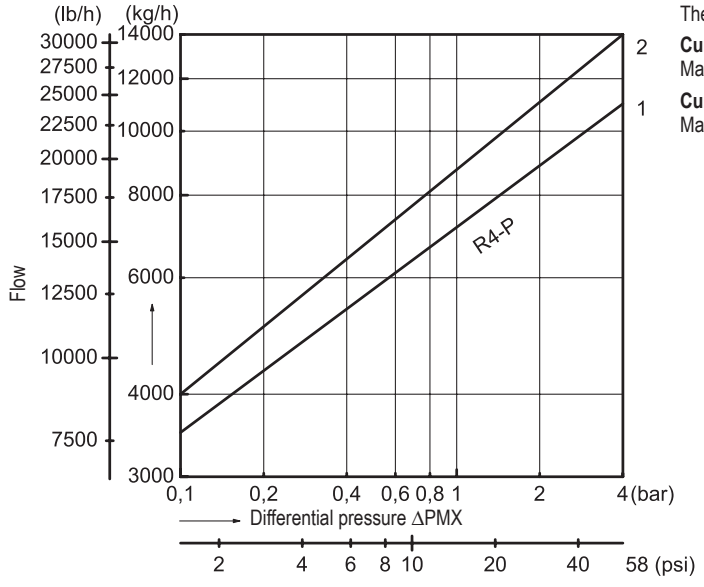
Air vent - (Pos. 51) or blow down valve (Pos. 46), manual operated

Information / restriction of technical rules need to be observed!

Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).

Operating and installation instructions can be downloaded at www.ari-armaturen.com.

Capacity chart

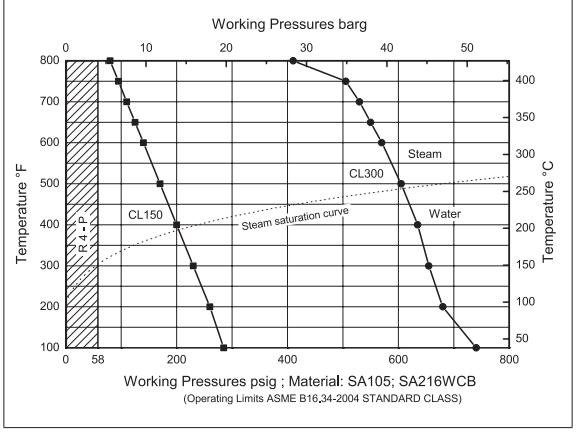


The capacity chart shows the maximum flow rates.

Curve 1:
Maximum flow at hot condensate.

Curve 2:
Maximum flow at cold condensate of approx. 20°C

Pressure-Temperature-Diagram



Ball float steam trap (Forged steel, Stainless steel)

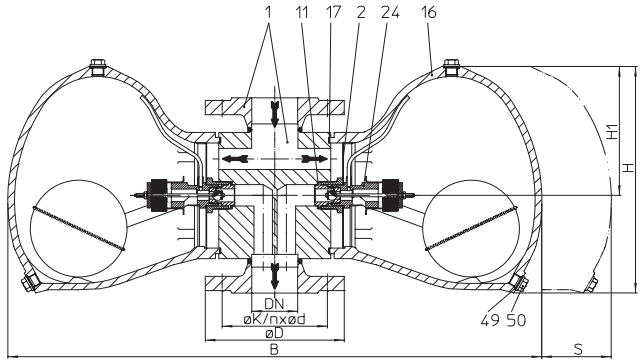


Fig. 639....1 with flanges - vertical installation

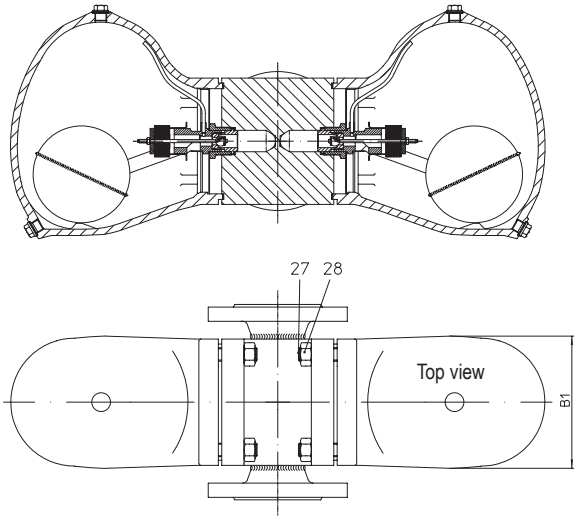


Fig. 639....1 with flanges - horizontal installation

The controller R4-P deviates in his contruction from the shown controller on this side. Refer to Fig. 633 (Page 8).

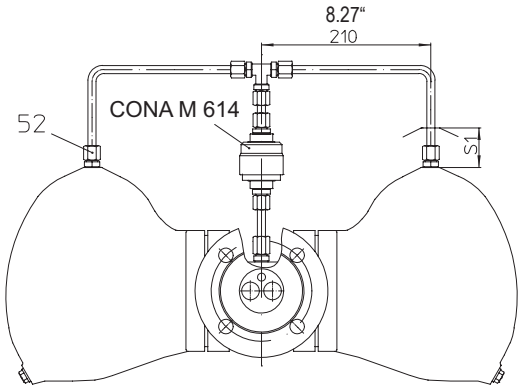


Fig. 639....1 with flanges - horizontal installation and äußere Entlüftung

Figure	Nominal pressure	Material	NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure ΔPMX	for controller
41.639	ANSI125	Body: SA105 / Hood: EN-JL1040	2“ - 4“	8,6 barg	232 °C	2 bar 4 bar 8 bar 8,6 bar	R2-S R4-S / R4-P R8-S R13-S
42.639	ANSI150	Body: SA105 / Hood: SA216WCB	“ - 4“	13 barg	225 °C	2 bar 4 bar 8 bar 13 bar 22 bar 32 bar	R2-S R4-S / R4-P R8-S R13-S R22 R32
				8 barg	360 °C		
				4 barg	427 °C		
45.639	ANSI300	Body: SA105 / Hood: SA216WCB	2“ - 4“	32 barg	411 °C		
				22 barg	427 °C		
52.639	ANSI150	Body: SA182F321 / Hood: SA351CF8	2“ - 4“	13 barg	208 °C		
				8 barg	360 °C		
				4 barg	467 °C		
				2 barg	510 °C		
55.639	ANSI300	Body: SA182F321 / Hood: SA351CF8	2“ - 4“	32 barg	262 °C		
				22 barg	510 °C		
DIN/EN-Constructions refer to data sheet CONA®S							

Types of connection		Other types of connection on request.
• Flanges ....1 _____ acc. to ASME B16.5		
Features		
• Ball float steam trap with level control for the condensate-discharge from all kinds of steam systems for large condensate flowrates • Discharge of great condensate quantities even at low differential pressure • Rapid system start-up due to thermostatic control element		• Inside strainer (exept R4-P) • Body with flanged hood • Non return protection (exept R4-P) • The controller maybe changed without disturbing the pipe work
Mounting position		
• Standard:	vertical	**Please indicate when ordering!** Refer to: Information about the different installation positions (Page 17) On-site change of the installation position is possible according to the operating instructions; with an existing external vent there are modifies bypass parts needed due to the required installation position - please inquire. (exept R4-P).
• Optional:	horizontal with inlet from right or left	
Options		(Design refer to page 11)
• External vent cpl. for venting of high quantities of air during start-up and operation (standard with controller R2-S, R4-S and R4-P)		

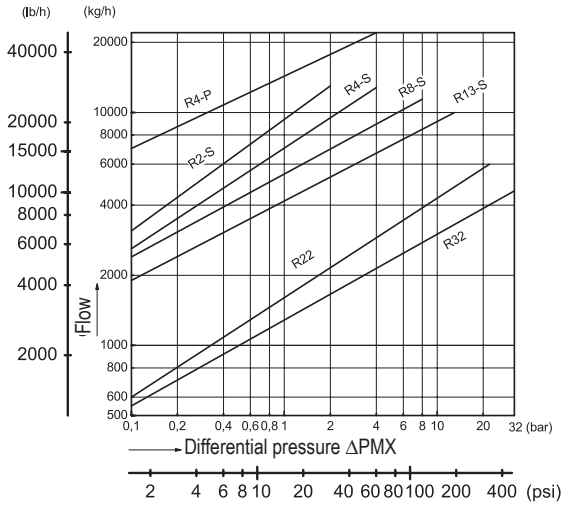
Types of connection		Flanges			
NPS		**2**	**2 1/2**	**3**	**4**
Face-to-face acc. to data sheet resp. customer request					
L	(mm)	230	290	310	350
Dimensions					Standard-flange dimensions refer to page 17
H	(mm)	270	270	270	270
H1	(mm)	151	151	151	151
B	(mm)	634	634	634	634
B1	(mm)	157	157	157	157
S	(mm)	300	300	300	300
S1	(mm)	200	200	200	200
Weights					
ANSI 150 (approx.)	(kg)	44,7	46,2	47,7	50,5
ANSI 300 (approx.)	(kg)	46	48,3	50,5	55

Parts					
Pos.	**Sp.p.**	**Description**	**Fig. 41.639**	**Fig. 42./45.639**	**Fig. 52./55.639**
1		Body	SA105		SA182F321
2		Strainer	SA240Gr.304		
11	x	Sealing ring	SA182F321		
16		Hood	EN-GJL-250, EN-JL1040 (similar to A126Cl.B)	SA216WCB	SA351CF8
17		Gasket	GRAPHIT (CrNi laminated with graphite)		
24	x	Controller	SA240Gr.304 / bimetallic TB102/85		
27		Stud	SA193Gr.B16		
28		Hexagonal nut	SA194Gr.4		
46	x	Blow down valve	SA182F321 (with metric screw-thread)		
49	x	Sealing ring	SA182F321		
50	x	Plug (M14x1,5)	SA182F321 (with metric screw-thread)		
51		Manual air vent valve	SA182F321 (with metric screw-thread)		
52	x	Union for recovery pipe	AISI303 (with metric screw-thread)		
	└ Spare parts				

Information / restriction of technical rules need to be observed! / Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).

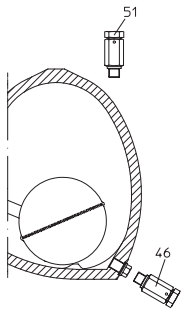
Operating and installation instructions can be downloaded at www.ari-armaturen.com.

Capacity chart



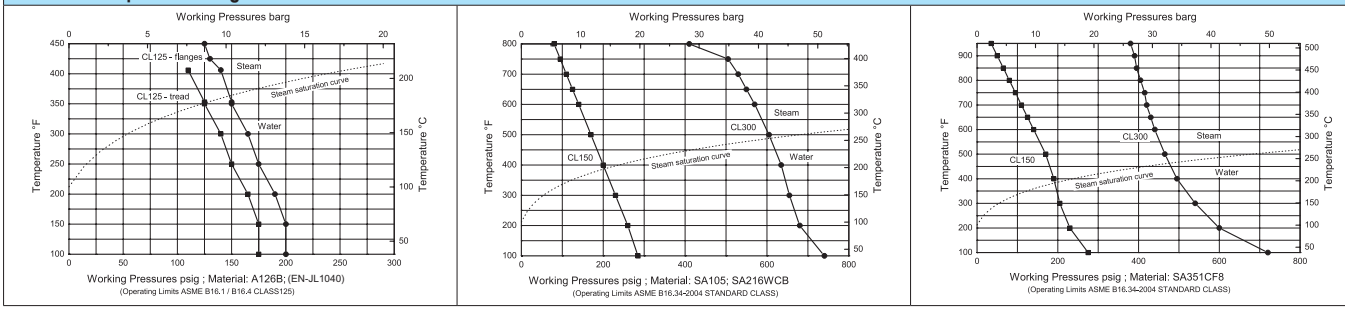
The capacity chart shows the maximum flow quantities of hot condensate for the different controllers and steam trap sizes

Options für R8-S to R32



Air vent - (Pos. 51) or
blow down valve (Pos. 46), manual operated

Pressure-Temperature-Diagram



Ball float steam trap (Grey cast iron, SG iron, Cast steel/Forged steel, Stainless steel)

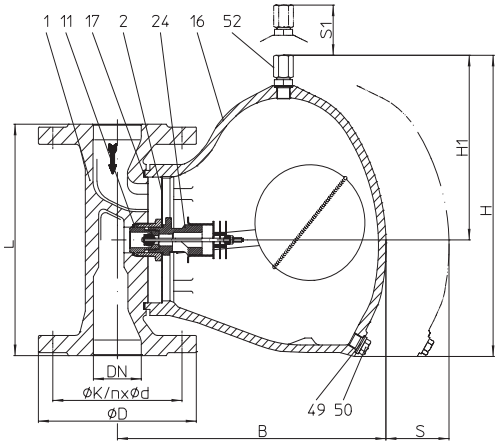


Fig. 630....1 with flanges - vertical installation

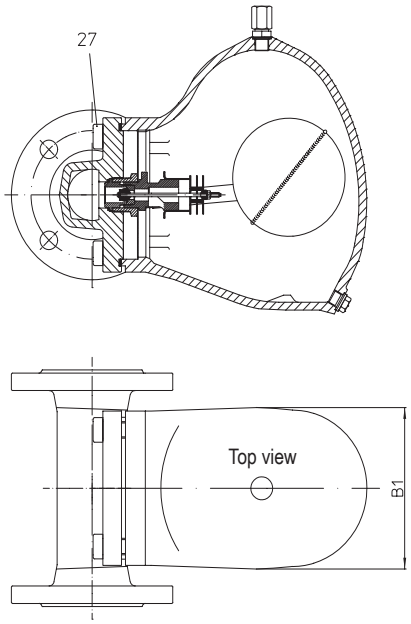


Fig. 630....1 with flanges - horizontal installation

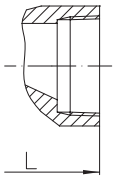


Fig. 630....2
with screwed sockets

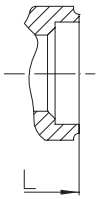


Fig. 630....3
with socket weld ends

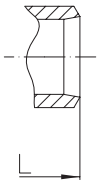


Fig. 630....4
with butt weld ends

Figure	Nominal pressure	Material	NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure ΔPMX	for controller
11.630	ANSI125	Body/Hood: EN-JL1040 (similar to ASTM A 126 Cl. B)	1/2“ - 2“	Flanges acc. to ANSI B16.1		2 bar	R2
				8,6 barg	232 °C	4 bar	R4
				Screwed sockets acc. to ANSI B16.4		8 bar	R8
				8,6 barg	178 °C	8,6 bar	R13
22.630	ANSI150	Body/Hood: EN-JS1049 (similar to SA395)	1/2“ - 2“	12,8 barg	232 °C	2 bar 4 bar 8 bar 13 bar 22 bar 32 bar	R2 R4 R8 R13 R22 R32
				8,6 barg	343 °C		
42.630	ANSI150	Body: SA105 / Hood: SA216WCB	1/2“ - 2“	13 barg	225 °C		
				8 barg	360 °C		
				4 barg	427 °C		
45.630	ANSI300	Body: SA105 / Hood: SA216WCB	1/2“ - 2“	32 barg	411 °C		
				22 barg	427 °C		
52.630	ANSI150	Body: SA182F321 / Hood: SA351CF8	1/2“ - 2“	13 barg	208 °C		
				8 barg	360 °C		
				4 barg	467 °C		
				2 barg	510 °C		
55.630	ANSI300	Body: SA182F321 / Hood: SA351CF8	1/2“ - 2“	32 barg	262 °C		
				22 barg	510 °C		

DIN/EN-Constructions refer to data sheet CONA®S

Types of connection — Other types of connection on request.

- Flanges ....1 _____ acc. to ASME B16.5
- Screwed sockets ....2 ___ NPT thread acc. to ANSI B1.20.1 or Rp thread acc. to DIN EN 10226-1
- Socket weld ends ....3 ___ acc. to ASME B16.11
- Butt weld ends ....4 _____ ASME B16.25 (Note restriction on operating pressure / inlet temperature depending to design!)

Features

- Ball float steam trap with level control for the condensate-discharge from compressed air and gas systems (acc. to PED 97/23/EG fluid group 2, other fluid groups on request)
- Inside strainer
- Body with flanged hood
- Non return protection
- Union (Pos. 52) for recovery pipe (for connecting pipes with outside-Ø 8 x 1 mm acc. to EN 10305-4 steel or EN 10216-5 stainless steel, compression type fitting acc. to DIN 2353)
- The controller maybe changed without disturbing the pipe work

Mounting position

• Standard:	vertical
• Optional:	horizontal with inlet from right or left

Please indicate when ordering!

Refer to: Information about the different installation positions (Page 17)
On-site change of the installation position is possible according to the operating instructions.

Options — (Design refer to page 13)

- Air vent - (Pos. 51) or blow down valve (Pos. 46), manual operated

Types of connection		Flanges					Screwed sockets [1] Socket weld ends [2]					Butt weld ends [2]				
NPS		1/2	3/4	1	1 1/2	2	1/2	3/4	1	1 1/2	2 [1]	1/2	3/4	1	1 1/2	2

[1] NPS 2” not in EN-JL/EN-JS [2] not in EN-JL / EN-JS

Face-to-face acc. to data sheet resp. customer request																
L (EN-JL/EN-JS)	(mm)	150	150	160	230	230	150	150	160	230	--	--	--	--	--	--
L (Steel)	(mm)	210	210	210	230	230	150	150	160	210	210	160	160	160	250	250

Dimensions																Standard-flange dimensions refer to page 17
H	(mm)	188	188	213	296	296	188	188	213	296	296	188	188	213	296	296
H1	(mm)	111	111	128	177	177	111	111	128	177	177	111	111	128	177	177
B (EN-JL/EN-JS)	(mm)	214	214	255	280	280	214	214	255	280	--	--	--	--	--	--
B (Steel)	(mm)	167	167	196	285	285	167	167	196	285	285	167	167	196	285	285
B1	(mm)	95	95	118	157	157	95	95	118	157	157	95	95	118	157	157
S	(mm)	180	180	200	300	300	180	180	200	300	300	180	180	200	300	300
S1	(mm)	150	150	180	200	200	150	150	180	200	200	150	150	180	200	200

Weights																
Fig. 631 (approx.)	(kg)	7,9	8,1	10,9	24,7	25,3	7,3	7,3	8,5	20	20,5	6,9	7,9	9	21	22

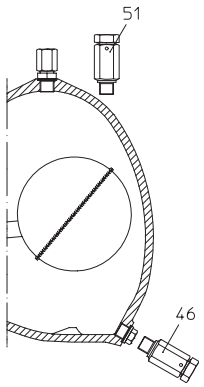
Parts

Pos.	Sp.p.	Description	Fig. 11.630	Fig. 22.630	Fig. 42./45.630	Fig. 52./55.630
1		Body	EN-GJL-250, EN-JL1040 (similar ASTM A 126 Cl. B)	EN-GJS-400-18U-LT, EN-JS1049 (similar to SA395)	SA105	SA182F321
2		Strainer	SA240Gr.304			
11	x	Sealing ring	CU	SA182F321		
16		Hood	EN-GJL-250, EN-JL1040 (similar ASTM A 126 Cl. B)	EN-GJS-400-18U-LT, EN-JS1049 (similar A395)	SA216WCB	SA351CF8
17	x	Gasket	GRAPHIT (CrNi laminated with graphite)			
24	x	Controller, cpl.	SA240Gr.304			
27		Cheese head screw	SA193Gr.B16 (with metric screw-thread)			
46	x	Blow down valve	SA182F321 (with metric screw-thread)			
49	x	Sealing ring	CU	SA182F321		
50	x	Plug (M14x1,5)	SA182F321 (with metric screw-thread)			
51	x	Manual air vent valve	SA182F321 (with metric screw-thread)			
	└ Spare parts					

Information / restriction of technical rules need to be observed! / Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).

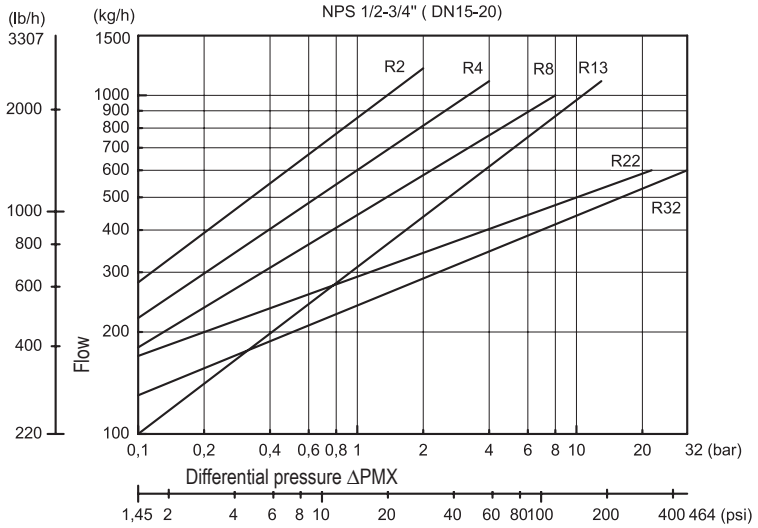
Operating and installation instructions can be downloaded at www.ari-armaturen.com.

Options

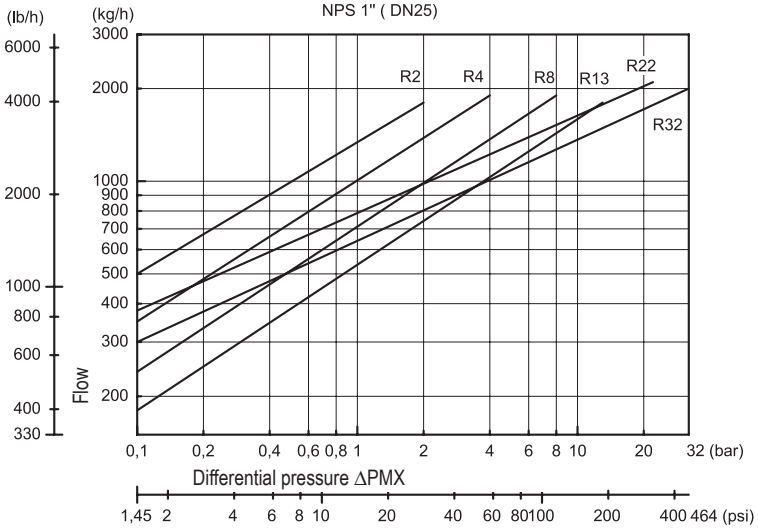


Air vent - (Pos. 51) or blow down valve (Pos. 46), manual operated

Capacity chart

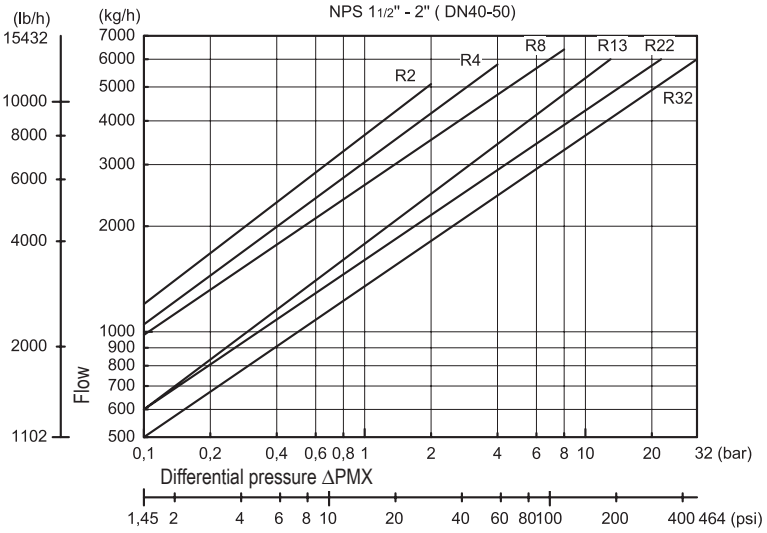


To determine the drainage quantity of cold water at about 20°C from compressed air and gas systems.



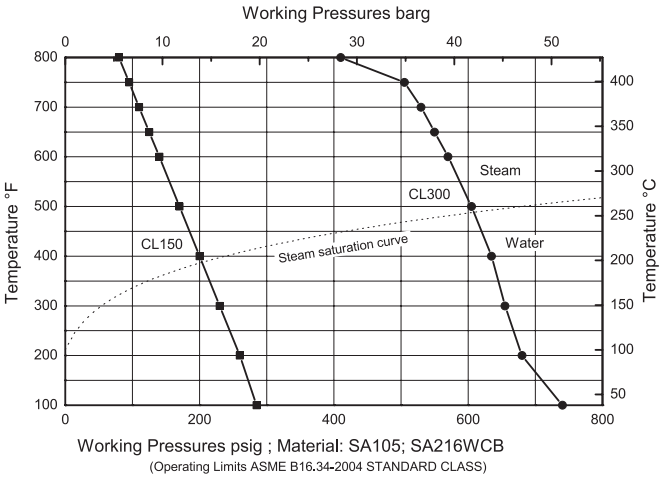
To determine the drainage quantity of cold water at about 20°C from compressed air and gas systems.

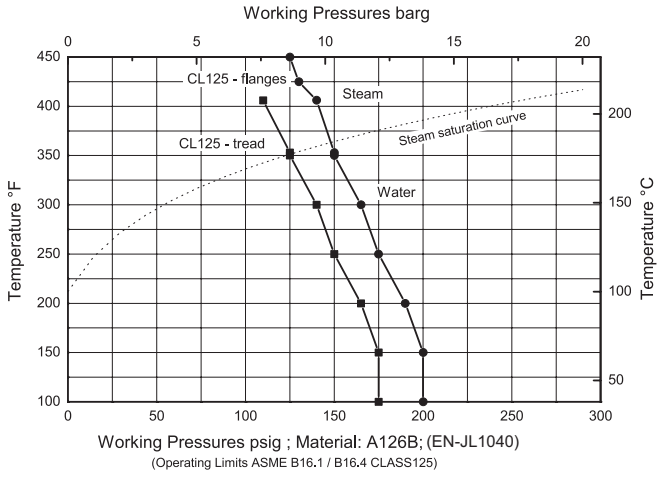
Capacity chart

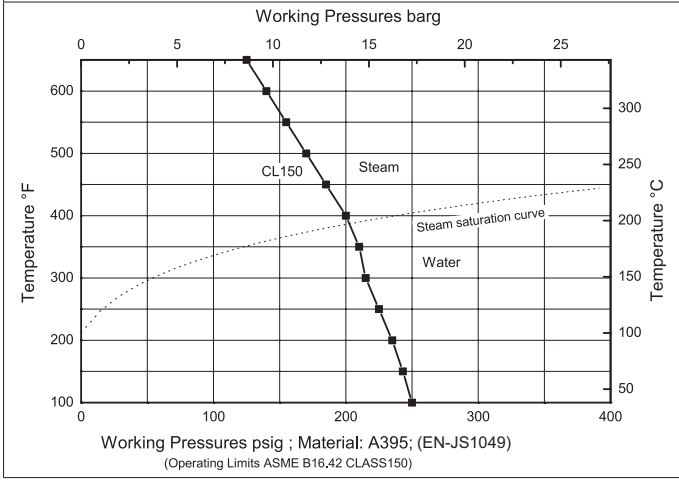


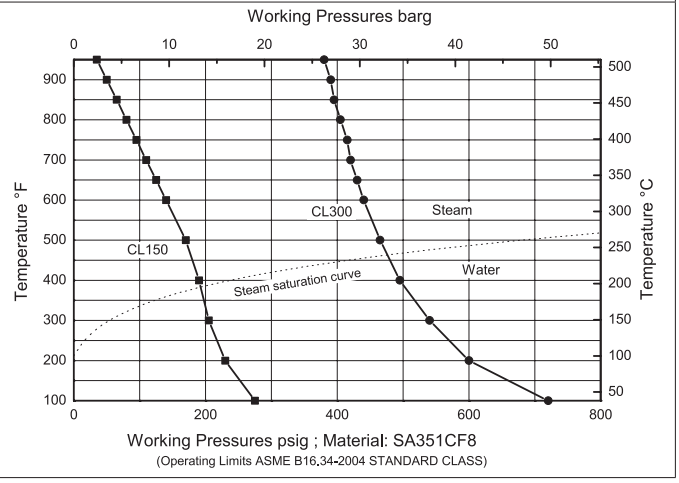
To determine the drainage quantity of cold water at about 20°C from compressed air and gas systems.

Pressure-Temperature-Diagram









Informations about pipe welding

Welding groove acc. to ASME B16.25

The material used for ARI valves with butt weld ends are:	SA105
	SA182F321
Note:	SA182F12Cl.2

Note restriction on operating pressure / inlet temperature depending to design!

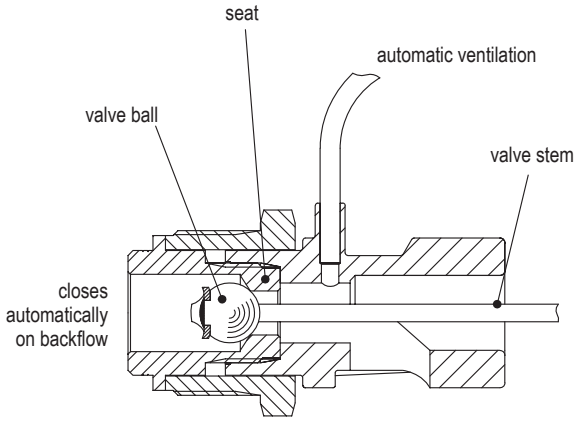
Due to our experience, we recommend to apply an electric welding process.

Because of the different material compositions and wall thickness of the steam traps and the pipe gas welding shall not be applied. Quenching cracks and coarse grain structure may develop.

Steam traps with socket-weld ends shall only be welded by arc welding (welding process 111 acc. to DIN EN 24063).

If during the time of warranty others than the manufacturer or by the manufacturer authorized persons are interfering in the product and/or the setting, the right of claim for warranty will lapse!

Integrated non return protection

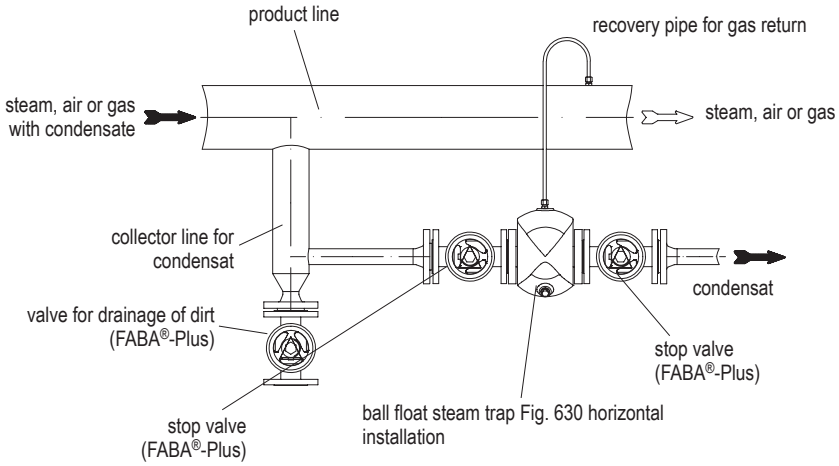


The integrated non return protection acts as a check valve (except BR633 and BR639 R4-P).

In case of parallel installed heat exchangers or heater batteries the non return protection prevents a shut down heat-exchanger fror flooding with condensate from the downstream side and reverse heating up.

A check valve which otherwise has to be installed is not necessary.

Installation with recovery pipe



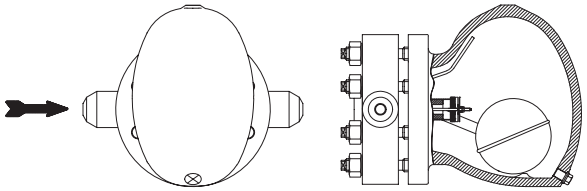
Important:
The installation of a recovery pipe for gas return is always recommended; especially if the ball float steam trap is installed horizontally.

Selection criteria:		Example for order data:
• Steam pressure	• Nominal diameter / pressure	**Ball float steam trap CONA® S,** **Fig. 630, ANSI300, NPS 2“, SA105/SA216WCB, Controller R22,** **with flanges, Face-to-face dimension 230 mm**
• Back pressure	• Type of connection	
• Quantity of condensate	• Material	
• Flow medium	• Place of service or kind of steam consumer	

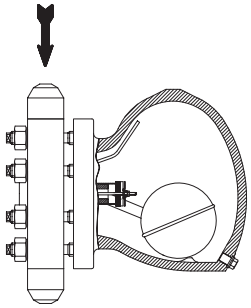
Other installation positions than standard (vertical) have to be indicated together with the information about the flow direction i.e. inlet from left or right

Standard-flange dimensions acc. to ASME B16.5											
NPS			**1/2**	**3/4**	**1**	**1 1/4**	**1 1/2**	**2**	**2 1/2**	**3**	**4**
ANSI150	ØD	(mm)	89	99	108	117	127	153	--	--	--
	ØK	(mm)	60	70	79	78	98	121	--	--	--
	n x Ød	(mm)	4 x 16	4 x 16	4 x 16	4 x 16	4 x 16	4 x 19	--	--	--
ANSI300	ØD	(mm)	95	117	124	133	155	165	191	210	254
	ØK	(mm)	66,5	82,5	89	99	114	127	149	168	200
	n x Ød	(mm)	4 x 16	4 x 19	4 x 19	4 x 19	4 x 22	8 x 19	8 x 22	8 x 22	8 x 22
ANSI400	ØD	(mm)	95	117	127	133	156	165	--	--	--
	ØK	(mm)	67	83	89	99	114	127	--	--	--
	n x Ød	(mm)	4 x 16	4 x 19	4 x 19	4 x 19	4 x 22	4 x 19	--	--	--
ANSI600	ØD	(mm)	95	117	127	133	156	165	--	--	--
	ØK	(mm)	67	83	89	99	114	127	--	--	--
	n x Ød	(mm)	4 x 16	4 x 19	4 x 19	4 x 19	4 x 22	4 x 19	--	--	--
ANSI900	ØD	(mm)	121	130	149	160	180	215	--	--	--
	ØK	(mm)	83	89	102	111	124	165	--	--	--
	n x Ød	(mm)	4 x 22	4 x 22	4 x 25	4 x 25	4 x 28	4 x 25	--	--	--

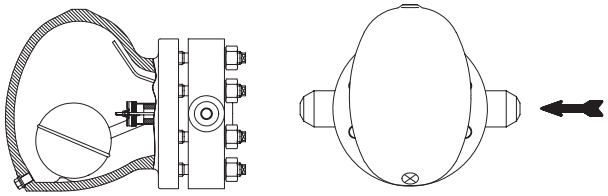
Information about the different installation positions (shown at BR631)



Horizontal installation - inlet from the left side (ZL)



Vertical installation (standard)



Horizontal installation – inlet from the right side (ZR)

Installation (see picture)

The ball float steam traps can be installed either in vertical (standard) or horizontal position. In case of horizontal installation please indicate whether the inlet is from the left or right side.

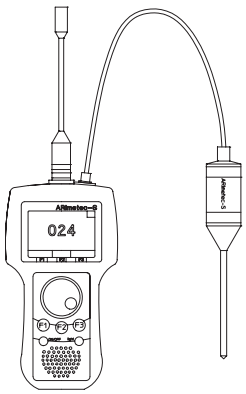
The steam trap can also be converted on site to match the different installation positions (please observe the appropriate operating manuals).

The steam trap must be fitted with the direction of flow as indicated by the arrow on the body..
An adequate clearance (refer to dimension S) for the removal of the hood shall be provided.

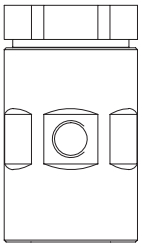
The steam trap shall preferably be installed at the lowest point of the system and the membrane capsule resp. the bleeding tube shall be installed in an upright position inside of the hood.

For the modification of the installation position observe the operating manual.

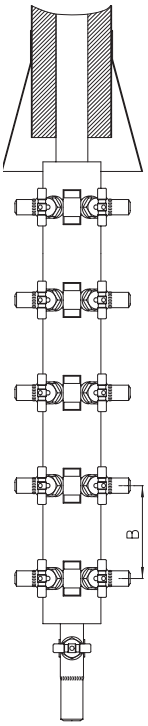
A modification of the installation position during the time of warranty shall be carried out by the AWH-Service or it shall be agreed between the customer and manufacturer.



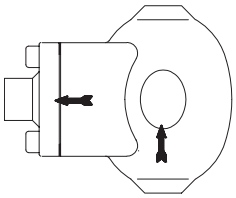
Multifunction tester **ARImetec®-S**



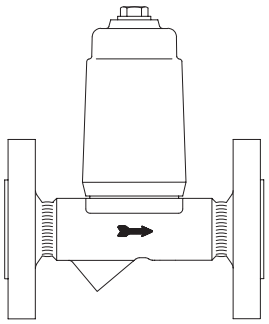
Vacuum breaker
Fig. 655



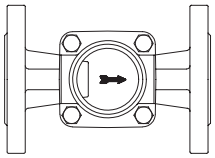
CODI ®S with gland packing Fig. 671/672;
CODI ®B with bellows seal, maintenance-free Fig. 675/676



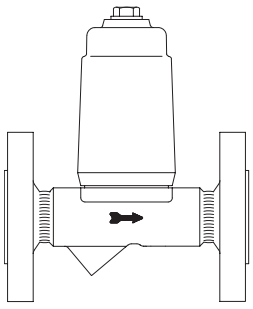
Automatic air vent for liquid systems
Fig. 656



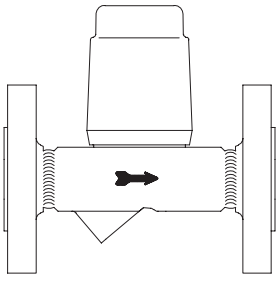
Condensate discharge temperature limiter
Fig. 645/647



Flow indicator
Fig. 660/661



Return temperature limiter
Fig. 650



Liquid drainer
Fig. 665

(Further informations about the accessories can be found in the appropriate data sheets.)

ARI-Armaturen Albert Richter GmbH & Co. KG, D-33756 Schloß Holte-Stukenbrock,
Tel. +49 52 07 / 994-0, Telefax +49 52 07 / 994-158 or 159 Internet: http://www.ari-armaturen.com E-mail: info.vertrieb@ari-armaturen.com