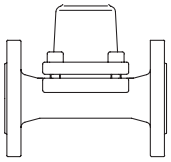
Bimetallic steam trap

Bimetallic steam trap
PN16
- with flanges (Fig. 600....1)
- union with butt weld ends (Fig. 600....5)



Grey cast iron
Fig. 600 Page 2

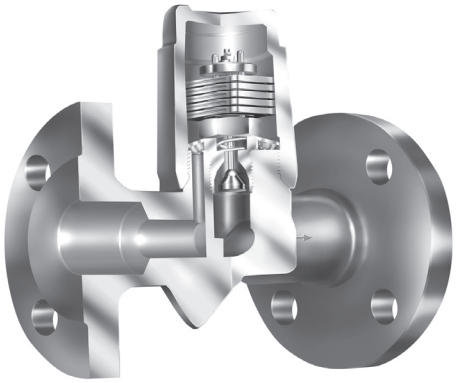
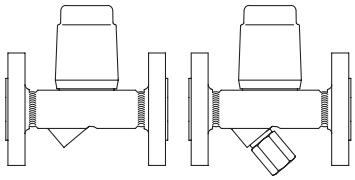


Fig. 600....1 (PN40)

Bimetallic steam trap
PN40
- with flanges (Fig. 600/601....1)
- with screwed sockets (Fig. 600/601....2)
- with socket weld ends (Fig. 600/601....3)
- with butt weld ends (Fig. 600/601....4)



Forged steel DN15-25 Page 4
High temperature steel
Stainless steel DN40-50 Page 6
Fig. 600/601 (Y)

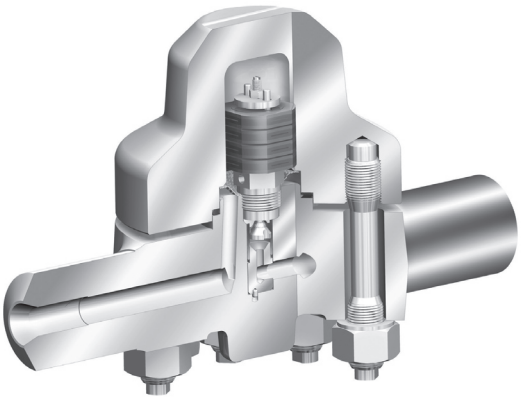
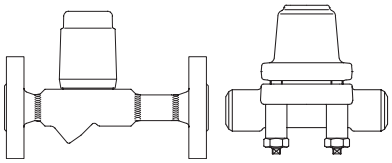


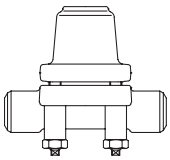
Fig. 600....4 (PN630)

Bimetallic steam trap
PN63 / PN100
- with flanges (Fig. 600....1)
- with socket weld ends (Fig. 600....3)
- with butt weld ends (Fig. 600....4)



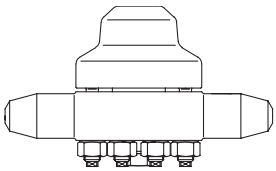
DN15-25 Page 8
High temperature steel DN40-50 Page 12
Fig. 600

High pressure bimetallic steam trap
PN160 / PN250
- with flanges (Fig. 600....1)
- with socket weld ends (Fig. 600....3)
- with butt weld ends (Fig. 600....4)



High temperature steel
Fig. 600 Page 14

High pressure bimetallic steam trap
PN320 / PN400 / PN630
- with flanges (up to PN400) (Fig. 600....1)
- with socket weld ends (Fig. 600....3)
- with butt weld ends (Fig. 600....4)



High temperature steel
Fig. 600 Page 16

Features:
- For discharging of slight to highly sub-cooled condensate
- Automatic air-venting during start up and operation of the plant
- Robust and resistant to water-hammer
- Integrated non return protection
- Design with internal strainer - Fig. 600
  Design with outside strainer (Y) - Fig. 601 (Y)
- Optimized design for quick installation
  (PN40, PN63 with R46, DN15-25)
- Gasket-free sealing of the screwed cap
  (PN40 and PN63 with Cap, DN15-25)
- Installation in any position
  (except cover/screwed cap downwards)
- Subcooling of condensate is continuously adjustable
  (observe the operation instructions)
- The controller maybe changed without disturbing the pipe work

Bimetallic steam trap (Grey cast iron)

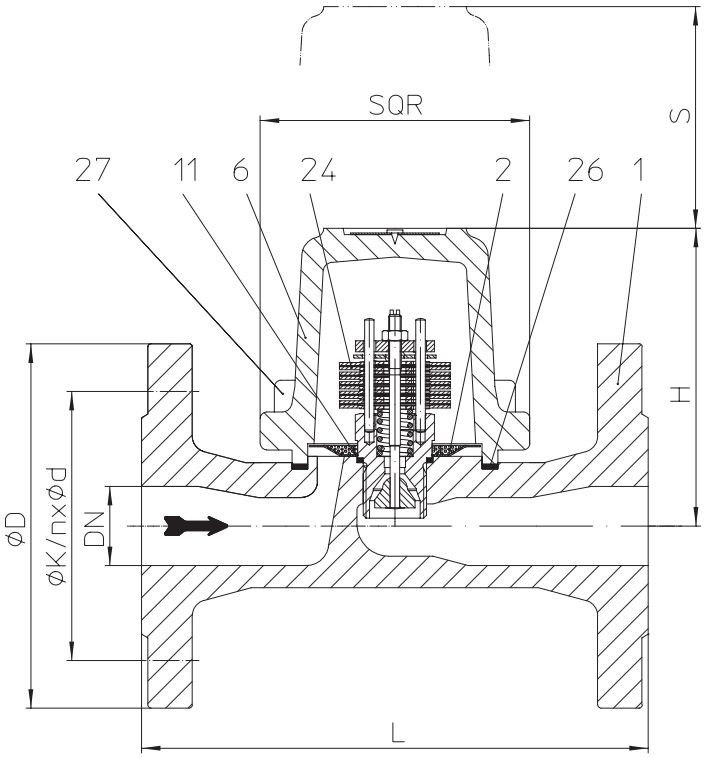


Fig. 600....1 with inside strainer

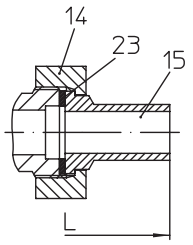


Fig. 600....5
union with butt weld ends

Figure	Nominal pressure	Material	Nominal diameter / NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure ΔPMX	for controller
12.600	PN16	EN-JL1040	DN15-50 / 1/2“ - 2“	12,8 barg	200 °C	13 bar	R13
				9,6 barg	300 °C		
For ANSI versions refer to data sheet CONA®B-ANSI							

Types of connection	Other types of connection on request.
• Flanges ....1 _____	acc. to DIN 2533 or DIN EN 1092-2
• Union butt weld nipples ....5 __	acc. to data sheet resp. customer request
Features	
• Thermostatic steam trap with non-corrosive and robust water hammer proof bimetallic controller	
• Automatic air-venting during start up and operation of the plant	
• Non return protection	
• With inside strainer	
• Installation in any position, except cover downwards	
• Subcooling of condensate is continuously adjustable (observe the operation instructions)	
Controller	(chooseable for operating range)
• Controller R13 _____	up to inlet pressure: 13 bar

Types of connection		Flanges		Union butt weld nipples	
DN		25	50	15	20
NPS		1	2	1/2	3/4
Face-to-face acc. to data sheet resp. customer request					
L	(mm)	160	230	190	190
Dimensions					Standard-flange dimensions refer to page 19 / Larger nominal diameters refer to page 4.
H	(mm)	100	124	100	100
S	(mm)	70	90	70	70
SQR	(mm)	85	105	85	85
Weights					
Fig. 600 (approx.)	(kg)	4,6	10	2,6	2,3

Parts

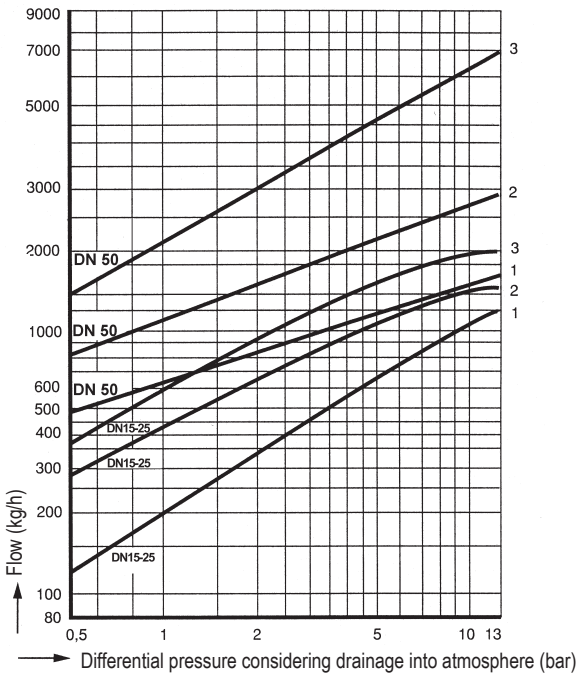
Pos.	Sp.p.	Description	Fig. 12.600
1		Body	EN-GJL-250, EN-JL1040
2	x	Strainer	X5CrNi18-10, 1.4301
6		Cover	EN-GJL-250, EN-JL1040
11	x	Sealing ring	CU
14		Union nut	11SMn30+C, 1.0715+C
15		Welding end	C15, 1.0401
23	x	Sealing ring	Novapress MULTI
24	x	Controller, cpl.	TB 102 / 85 (corrosion resistant bimetal)
26	x	Gasket	Graphite (CrNi laminated with graphite)
27		Cheese head screw	A2-70
	└ Spare parts		

Information / restriction of technical rules need to be observed!

Resistance and fitness must be verified (or contact the manufacturer for information).

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

Capacity chart



The capacity chart shows the maximum capacity at factory setting.
(Other factory-settings for the sub-cooling on request.)

Curve 1: Maximum flow of hot condensate at approx. 10 K below saturation temperature.

Curve 2: Maximum flow of sub-cooled condensate at approx. 30 K below saturation temperature (with back-up of condensate).

Curve 3: Maximum flow at cold condensate at about 20°C (during start-up of a cold installation).

Bimetallic steam trap (Forged steel, High temperature steel, Stainless steel)

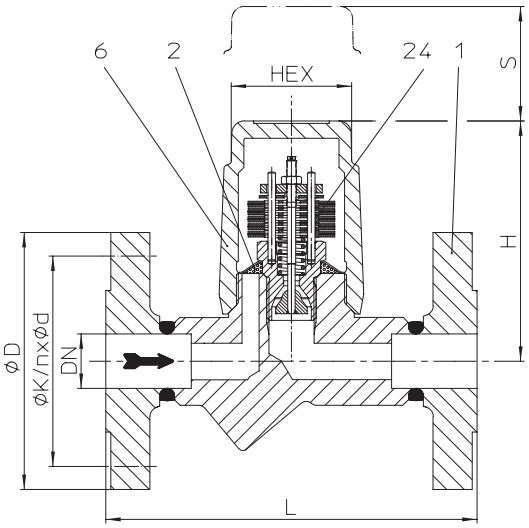


Fig. 600....1 with inside strainer

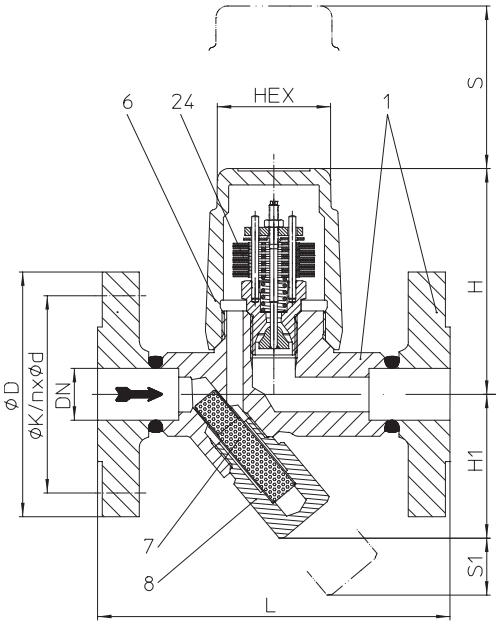


Fig. 601....1 with outside strainer (Y)

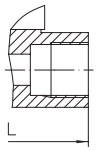


Fig. 600/601....2
with screwed sockets

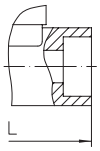


Fig. 600/601....3
with socket weld ends

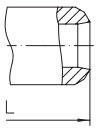


Fig. 600/601....4
with butt weld ends

Figure	Nominal pressure	Material	Nominal diameter / NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure ΔPMX	for controller
45.600 45.601 (Y)	PN40	1.0460	DN15-25 / 1/2“ - 1“	32 barg	250 °C	32 bar 22 bar 13 bar	R32 R22 R13
				22 barg	385 °C		
				14,5 barg	450 °C		
85.600 85.601 (Y)	PN40	16Mo3	DN15-25 / 1/2“ - 1“	35 barg	300 °C		
				32 barg	335 °C		
				28 barg	450 °C		
55.600 55.601 (Y)	PN40	1.4541	DN15-25 / 1/2“ - 1“	32 barg	350 °C		
				22 barg	400 °C		
For ANSI versions refer to data sheet CONA®B-ANSI							

Types of connection — Other types of connection on request.

- Flanges ....1 _____ acc. to DIN 2635 or DIN EN 1092-1
- Screwed sockets ....2 _____ Rp thread acc. to DIN EN 10226-1 or NPT thread acc. to ANSI B1.20.1
- Socket weld ends ....3 _____ acc. to DIN EN 12760
- Butt weld ends ....4 _____ Weld preparation acc. to EN ISO 9692 identification No. 1.3 and 1.5
  (Note restriction on operating pressure / inlet temperature depending to design!)

Features

- Thermostatic steam trap with non-corrosive and robust water hammer proof bimetallic controller
- Automatic air-venting during start up and operation of the plant
- Non return protection
- With inside strainer - Fig. 600 / with outside strainer - Fig. 601 (Y)
- Installation in any position, except screw cap downwards
- Subcooling of condensate is continuously adjustable (observe the operation instructions)
- Maintenance simplified due to screwed cap without sealing

Controller — (chooseable for operating range)

- Controller R13 _____ up to inlet pressure: 13 bar
- Controller R22 _____ up to inlet pressure: 22 bar
- Controller R32 _____ up to inlet pressure: 32 bar

Options — (Design refer to page 5)

- Outside strainer with blow down valve (Pos. 46)
- Ball valve for blow down (pos. 56) with internal strainer (Observe operating and installation instructions!)

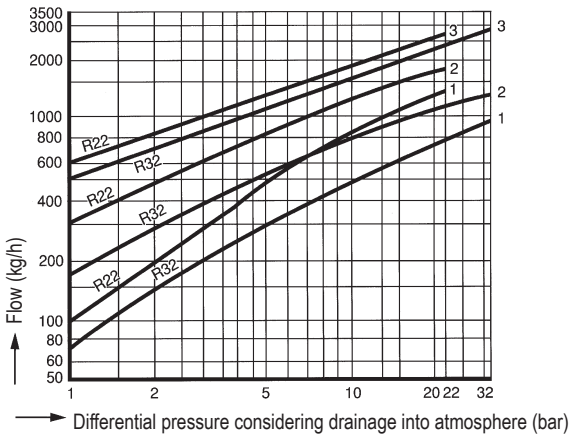
Types of connection		Flanges			Screwed sockets Socket weld ends			Butt weld ends		
DN		15	20	25	15	20	25	15	20	25
NPS		1/2	3/4	1	1/2	3/4	1	1/2	3/4	1
Face-to-face acc. to data sheet resp. customer request										
L	(mm)	150	150	160	95	95	95	250	250	250
Dimensions										Standard-flange dimensions refer to page 19 / Larger nominal diameters refer to page 6.
H	(mm)	98	98	98	98	98	103	98	98	98
H1	(mm)	62	62	62	62	62	55	62	62	62
S	(mm)	70	70	70	70	70	70	70	70	70
S1	(mm)	30	30	30	30	30	30	30	30	30
HEX	(mm)	50	50	50	50	50	50	50	50	50
Weights										
Fig. 600 / 601 (approx.)	(kg)	3,2	3,7	4,2	1,7	1,6	2,1	2,2	2,3	2,4

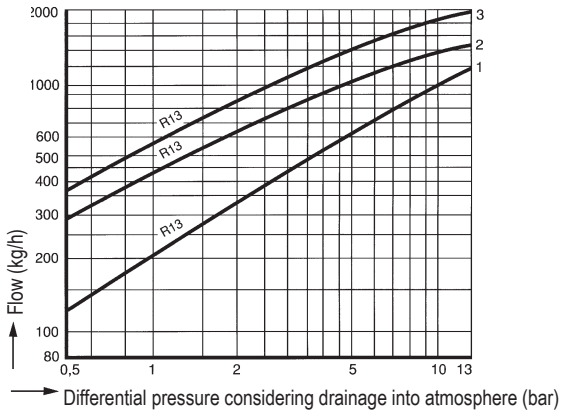
Parts

Pos.	Sp.p.	Description	Fig. 45.600 / 45.601	Fig. 85.600 / 85.601	Fig. 55.600 / 55.601
1		Body	P250 GH, 1.0460	16Mo3, 1.5415	X6CrNiTi18-10, 1.4541
2	x	Strainer	X5CrNi18-10, 1.4301		
6		Cap	P250 GH, 1.0460	16Mo3, 1.5415	X6CrNiTi18-10, 1.4541
7	x	Strainer	X5CrNi18-10, 1.4301		
8	x	Strainer plug	X6CrNiTi18-10, 1.4541		
24	x	Controller, cpl.	TB 102 / 85 (corrosion resistant bimetal)		
46	x	Blow down valve, cpl.	X6CrNiTi18-10, 1.4541		
56	x	Ball valve for blow down (G 3/8")	GX5CrNiMo19-11-2, 1.4408		
		└ Spare parts			

Information / restriction of technical rules need to be observed! / Resistance and fitness must be verified (or contact the manufacturer for information).
Operating and installation instructions can be downloaded at www.ari-armaturen.com.

Capacity chart





The capacity chart shows the maximum capacity at factory setting.
(Other factory-settings for the sub-cooling on request.)

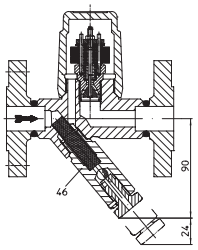
Curve 1: Maximum flow of hot condensate at approx. 10 K below saturation temperature.

Curve 2: Maximum flow of sub-cooled condensate at approx. 30 K below saturation temperature (with back-up of condensate).

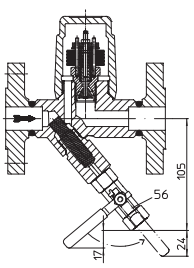
Curve 3: Maximum flow at cold condensate at about 20°C (during start-up of a cold installation).

The condensate temperature determines the opening of the controller. Capacity is increased with the sub-cooling temperature of the condensate.

Options



Outside strainer with blow down valve



Ball valve with adapter for blow down with internal strainer
(restricted to 16 bar, 210°C)

Bimetallic steam trap (Forged steel, High temperature steel, Stainless steel)

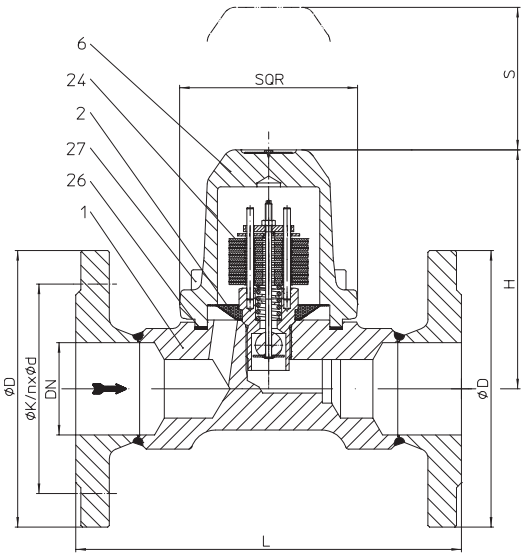


Fig. 600....1 with inside strainer

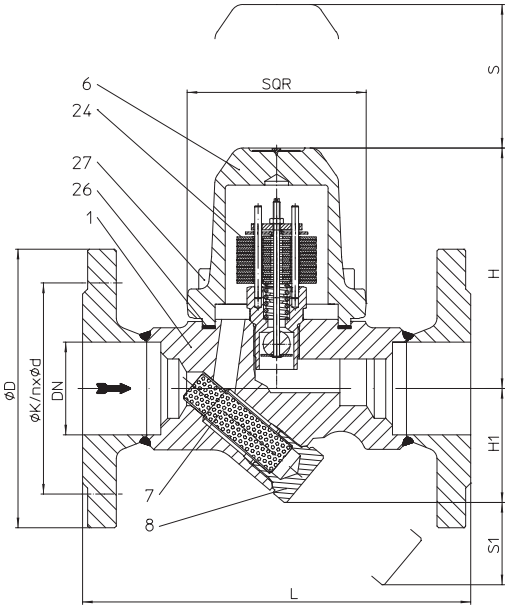


Fig. 601....1 with outside strainer (Y)

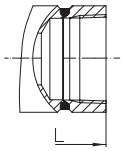


Fig. 600/601....2
with screwed sockets

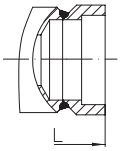


Fig. 600/601....3
with socket weld ends

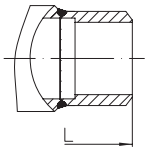


Fig. 600/601....4
with butt weld ends

Figure	Nominal pressure	Material	Nominal diameter / NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure ΔPMX	for controller
45.600 45.601 (Y)	PN40	1.0460	DN40-50 / 1 1/2" - 2"	32 barg	250 °C	32 bar 22 bar 13 bar	R32 R22 R13
				22 barg	385 °C		
				14,5 barg	450 °C		
85.600 85.601 (Y)	PN40	16Mo3	DN40-50 / 1 1/2" - 2"	35 barg	300 °C		
				32 barg	335 °C		
				28 barg	450 °C		
55.600 55.601 (Y)	PN40	1.4541	DN40-50 / 1 1/2" - 2"	32 barg	350 °C		
				22 barg	400 °C		
For ANSI versions refer to data sheet CONA®B-ANSI							

Types of connection — Other types of connection on request.

- Flanges ....1 _____ acc. to DIN 2635 or DIN EN 1092-1
- Screwed sockets ....2 _____ Rp thread acc. to DIN EN 10226-1 or NPT thread acc. to ANSI B1.20.1
- Socket weld ends ....3 _____ acc. to DIN EN 12760
- Butt weld ends ....4 _____ Weld preparation acc. to EN ISO 9692 identification No. 1.3 and 1.5
  (Note restriction on operating pressure / inlet temperature depending to design!)

Features

- Thermostatic steam trap with non-corrosive and robust water hammer proof bimetallic controller
- Automatic air-venting during start up and operation of the plant
- Non return protection
- With inside strainer - Fig. 600 / with outside strainer - Fig. 601 (Y)
- Installation in any position, except cover downwards
- Subcooling of condensate is continuously adjustable (observe the operation instructions)

Controller — (chooseable for operating range)

- Controller R13 _____ up to inlet pressure: 13 bar
- Controller R22 _____ up to inlet pressure: 22 bar
- Controller R32 _____ up to inlet pressure: 32 bar

Options — (Design refer to page 5)

- Outside strainer with blow down valve (Pos. 46)
- Ball valve for blow down (pos. 56) with internal strainer (Observe operating and installation instructions!)

Types of connection		Flanges		Screwed sockets Socket weld ends		Butt weld ends	
DN		40	50	40	50	40	50
NPS		1 1/2	2	1 1/2	2	1 1/2	2
Face-to-face acc. to data sheet resp. customer request							
L	(mm)	230	230	130 / 160 [1]	210	250	250

[1] Construction with screwed sockets

Dimensions							Standard-flange dimensions refer to page 19
H	(mm)	144	144	144	144	144	144
H1	(mm)	68	68	68	68	68	68
S	(mm)	90	90	90	90	90	90
S1	(mm)	50	50	50	50	50	50
SQR	(mm)	110	110	110	110	110	110
Weights							
Fig. 600 / 601 (approx.)	(kg)	11,3	12,1	8	8	8,9	9,8

Parts

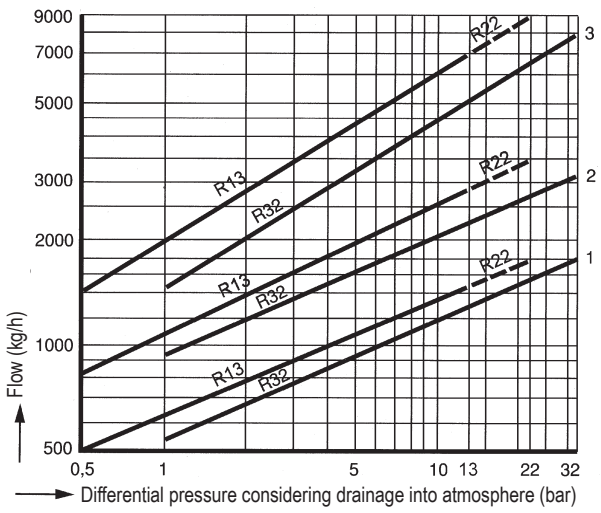
Pos.	Sp.p.	Description	Fig. 45.600 / 45.601	Fig. 85.600 / 85.601	Fig. 55.600 / 55.601
1		Body	P250 GH, 1.0460	16Mo3, 1.5415	X6CrNiTi18-10, 1.4541
2	x	Strainer	X5CrNi18-10, 1.4301		
6		Cover	P250 GH, 1.0460	16Mo3, 1.5415	X6CrNiTi18-10, 1.4541
7	x	Strainer	X5CrNi18-10, 1.4301		
8	x	Strainer plug	X6CrNiTi18-10, 1.4541		
24	x	Controller, cpl.	TB 102 / 85 (corrosion resistant bimetal)		
26	x	Gasket	Graphite (CrNi laminated with graphite)		
27		Cheese head screw	21CrMoV 5-7, 1.7709		
46	x	Blow down valve, cpl.	X6CrNiTi18-10, 1.4541		
56	x	Ball valve for blow down (G 3/8")	GX5CrNiMo19-11-2, 1.4408		
		└ Spare parts			

Information / restriction of technical rules need to be observed!

Resistance and fitness must be verified (or contact the manufacturer for information).

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

Capacity chart



The capacity chart shows the maximum capacity at factory setting.
(Other factory-settings for the sub-cooling on request.)

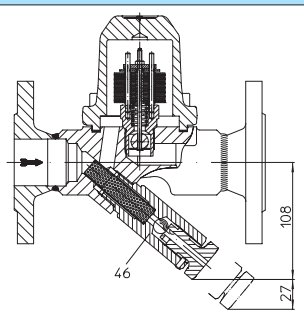
Curve 1: Maximum flow of hot condensate approx. 15 K below saturation temperature.

Curve 2: Maximum flow of sub-cooled condensate at approx. 30 K below saturation temperature (with back-up of condensate).

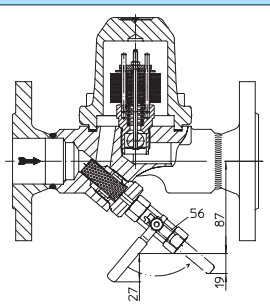
Curve 3: Maximum flow at cold condensate at about 20°C (during start-up of a cold installation).

The condensate temperature determines the opening of the controller. Capacity is increased with the sub-cooling temperature of the condensate.

Options



Outside strainer with blow down valve



Ball valve with adapter for blow down with internal strainer (restricted to 16 bar, 210°C)

Bimetallic steam trap (High temperature steel)

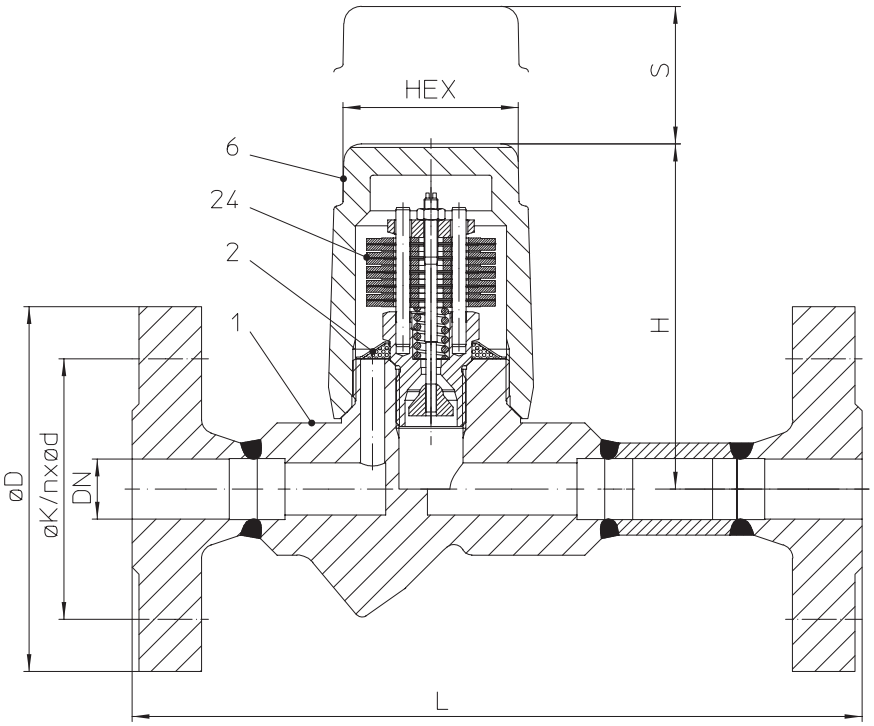


Fig. 600....1 with inside strainer

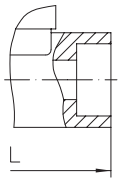


Fig. 600....3
with socket weld ends

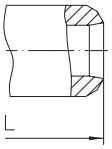


Fig. 600....4
with butt weld ends

Figure	Nominal pressure	Material	Nominal diameter / NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure ΔPMX	for controller
86.600	PN63	16Mo3	DN15-25 / 1/2“ - 1“	46 barg	425 °C	46 bar	R46
				45 barg	450 °C		
For ANSI versions refer to data sheet CONA®B-ANSI							

Types of connection	Other types of connection on request.
• Flanges 1	acc. to DIN 2636 or DIN EN 1092-1
• Socket weld ends 3	acc. to DIN EN 12760
• Butt weld ends 4	Weld preparation acc. to EN ISO 9692 identification No. 1.3 and 1.5 (Note restriction on operating pressure / inlet temperature depending to design!)
Features	
• Thermostatic steam trap with non-corrosive and robust water hammer proof bimetallic controller	
• Automatic air-venting during start up and operation of the plant	
• Non return protection	
• With inside strainer	
• Installation in any position, except screw cap downwards	
• Subcooling of condensate is continuously adjustable (observe the operation instructions)	
• Maintenance simplified due to screwed cap without sealing	
Controller	(chooseable for operating range)
• Controller R46	up to inlet pressure: 46 bar

Types of connection		Flanges			Socket weld ends			Butt weld ends [2]		
DN		15	20 [1]	25	15	20	25	15	20	25
NPS		1/2	3/4 [1]	1	1/2	3/4	1	1/2	3/4	1
Face-to-face acc. to data sheet resp. customer request										
L	(mm)	210	210	230	95	95	95	250	250	250
Dimensions										
H	(mm)	98	98	98	98	98	103	98	98	98
S	(mm)	70	70	70	70	70	70	70	70	70
HEX	(mm)	50	50	50	50	50	50	50	50	50
Weights										
Fig. 600 (approx.)	(kg)	4,1	5,6	7	1,7	1,6	2,1	2,2	2,3	2,4

[1] acc. to DIN EN 1092-1

[2] Please indicate dimension of the tube when ordering

Standard-flange dimensions refer to page 19

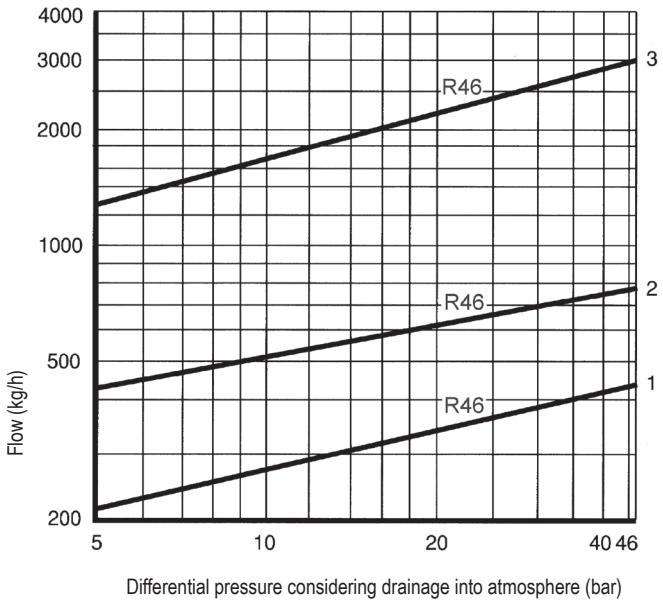
Parts			
Pos.	Sp.p.	Description	Fig. 86.600
1		Body	16Mo3, 1.5415
2	x	Strainer	X5CrNi18-10, 1.4301
6		Cap	16Mo3, 1.5415
24	x	Controller, cpl.	TB 102 / 85 (corrosion resistant bimetal)
		└ Spare parts	

Information / restriction of technical rules need to be observed!

Resistance and fitness must be verified (or contact the manufacturer for information).

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

Capacity chart



The capacity chart shows the maximum capacity at factory setting.
(For operating pressures below 5 bar, a correction of the factory-setting acc. to manufacturers information is recommended.)

Curve 1: Maximum flow of hot condensate approx. 15 K below saturation temperature.

Curve 2: Maximum flow of sub-cooled condensate at approx. 30 K below saturation temperature (with back-up of condensate).

Curve 3: Maximum flow at cold condensate at about 20°C (during start-up of a cold installation).

The condensate temperature determines the opening of the controller. Capacity is increased with the sub-cooling temperature of the condensate.

High pressure - Bimetallic steam trap (High temperature steel)

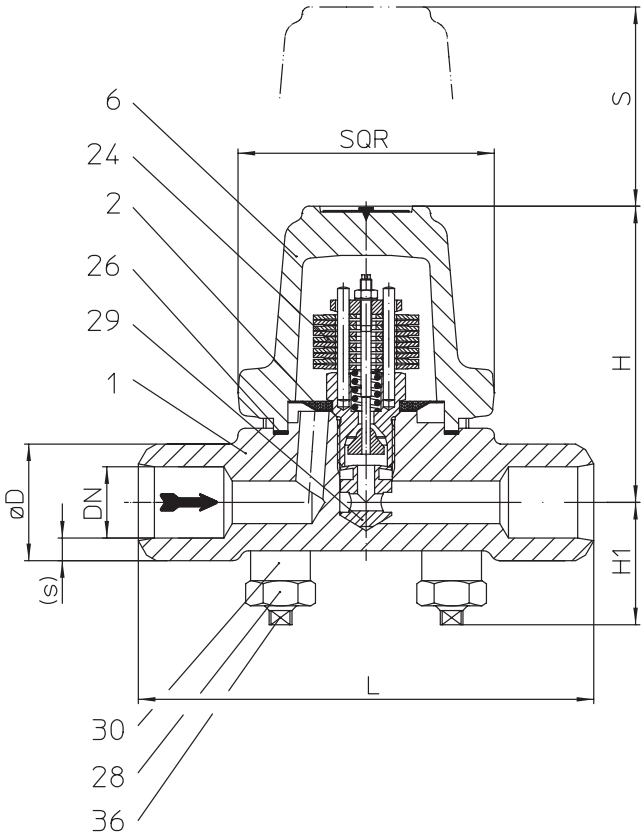


Fig. 600....4 with butt weld ends

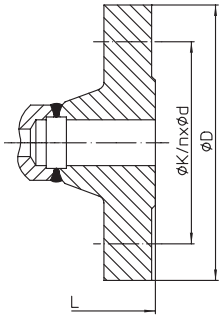


Fig. 600....1
with flanges

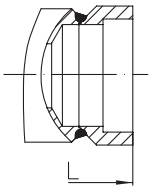


Fig. 600....3
with socket weld ends

Figure	Nominal pressure	Material	Nominal diameter / NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure ΔPMX	for controller
86.600	PN63	16Mo3	DN15-25 / 1/2" - 1"	56 barg	300 °C	56 bar	R56
				47 barg	400 °C		
				45 barg	450 °C		
87.600	PN100	16Mo3	DN15-25 / 1/2" - 1"	90 barg	450 °C	56 bar 90 bar	R56 R90
				56 barg	500 °C		
				27 barg	530 °C		
For ANSI versions refer to data sheet CONA®B-ANSI							

Types of connection	Other types of connection on request.
• Flanges 1	acc. to DIN 2636 or DIN EN 1092-1 (PN63) DIN 2637 or DIN EN 1092-1 (PN100)
• Socket weld ends 3	acc. to DIN EN 12760
• Butt weld ends 4	Weld preparation acc. to EN ISO 9692 identification No. 1.3 and 1.5 (Note restriction on operating pressure / inlet temperature depending to design!)

Features
• Thermostatic steam trap with non-corrosive and robust water hammer proof bimetallic controller
• Steam trap specially for high pressures
• Automatic air-venting during start up and operation of the plant
• Non return protection
• With inside strainer
• Installation in any position, except cover downwards
• Subcooling of condensate is continuously adjustable (observe the operation instructions)
• The controller maybe changed without disturbing the pipe work

Controller	(chooseable for operating range)
• Controller R56	up to inlet pressure: 56 bar
• Controller R90	up to inlet pressure: 90 bar

Types of connection		Flanges			Socket weld ends			Butt weld ends [2]		
DN		15	20 [1]	25	15	20	25	15	20	25
NPS		1/2	3/4 [1]	1	1/2	3/4	1	1/2	3/4	1
Face-to-face acc. to data sheet resp. customer request										
L	(mm)	210	210	230	160	160	160	160	160	160
Dimensions										
H	(mm)	104	104	104	104	104	104	104	104	104
H1	(mm)	42	42	42	42	42	42	42	42	42
S	(mm)	70	70	70	70	70	70	70	70	70
SQR	(mm)	90	90	90	90	90	90	90	90	90
Weights										
Fig. 600	(approx.) (kg)	6,2	7,7	9,3	4,6	4,5	4,4	4,6	4,5	4,4

[1] Flanges acc. to DIN EN 1092-1

[2] Please indicate dimension of the tube when ordering

Standard-flange dimensions refer to page 19 / Larger nominal diameters (PN63) refer to page 12.

Parts

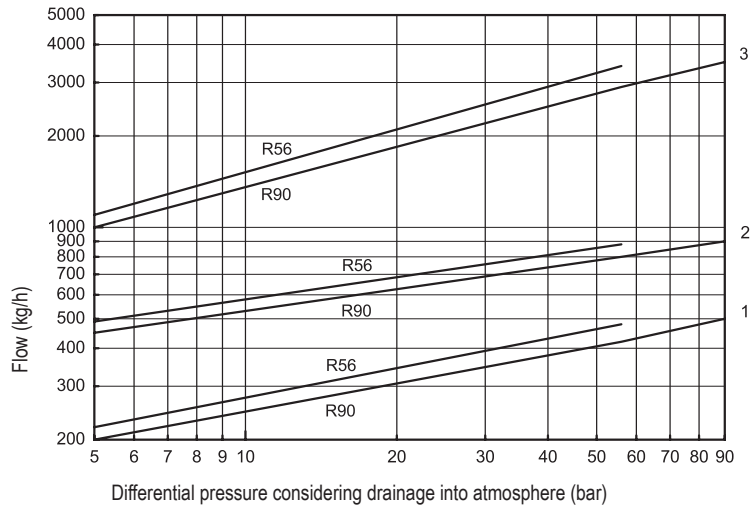
Pos.	Sp.p.	Description	Fig. 86.600 / 87.600
1		Body	16Mo3, 1.5415
2	x	Strainer	X5CrNi18-10, 1.4301
6		Cover	16Mo3, 1.5415
24	x	Controller, cpl.	TB 102 / 85 (corrosion resistant bimetal)
26	x	Gasket	Graphite (CrNi laminated with graphite)
28		Hexagonal nut	21CrMoV 5-7, 1.7709
29	x	Erosion deflector	X8CrNiS18-9, 1.4305
30		Extension sleeve	21CrMoV 5-7, 1.7709
36		Stud	21CrMoV 5-7, 1.7709
	└ Spare parts		

Information / restriction of technical rules need to be observed!

Resistance and fitness must be verified (or contact the manufacturer for information).

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

Capacity chart



The capacity chart shows the maximum flow at factory setting.
(For operating pressures below 5 bar, a correction of the factory-setting acc. to manufacturers information is recommended.)

Curve 1: Maximum flow of hot condensate approx. 15 K below saturation temperature.

Curve 2: Maximum flow of sub-cooled condensate at approx. 30 K below saturation temperature (with back-up of condensate).

Curve 3: Maximum flow at cold condensate at about 20°C (during start-up of a cold installation).

The condensate temperature determines the opening of the controller. Capacity is increased with the sub-cooling temperature of the condensate.

High pressure - Bimetallic steam trap (High temperature steel)

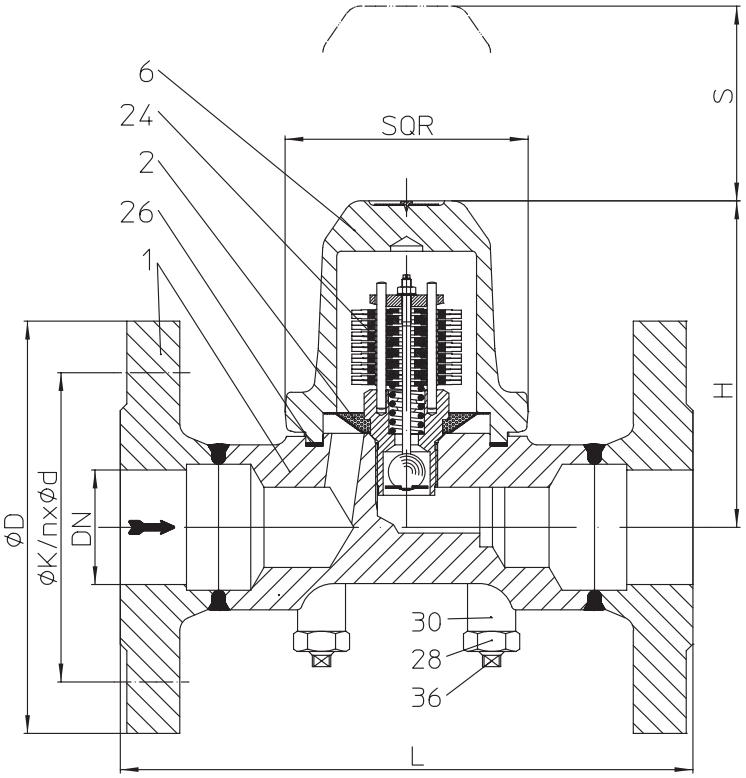


Fig. 600....1 with flanges

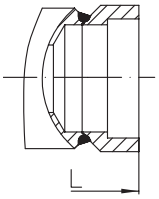


Fig. 600....3
with socket weld ends

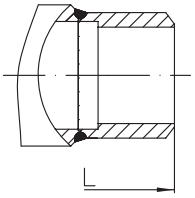


Fig. 600....4
with butt weld ends

Figure	Nominal pressure	Material	Nominal diameter / NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure ΔPMX	for controller
86.600	PN63	16Mo3	DN40-50 / 1 1/2“ - 2“	56 barg	300 °C	56 bar 32 bar	R56 R32
				50 barg	350 °C		
				45 barg	450 °C		
For ANSI versions refer to data sheet CONA®B-ANSI							

Types of connection	Other types of connection on request.
• Flanges 1	acc. to DIN 2636 or DIN EN 1092-1
• Socket weld ends 3	acc. to DIN EN 12760
• Butt weld ends 4	Weld preparation acc. to EN ISO 9692 identification No. 1.3 and 1.5 (Note restriction on operating pressure / inlet temperature depending to design!)

Features
• Thermostatic steam trap with non-corrosive and robust water hammer proof bimetallic controller
• Automatic air-venting during start up and operation of the plant
• Non return protection
• With inside strainer
• Installation in any position, except cover downwards
• Subcooling of condensate is continuously adjustable (observe the operation instructions)
• The controller maybe changed without disturbing the pipe work

Controller	(chooseable for operating range)
• Controller R56	up to inlet pressure: 56 bar
• Controller R32	up to inlet pressure: 32 bar

Types of connection		Flanges		Socket weld ends		Butt weld ends [1]	
DN		40	50	40	50	40	50
NPS		1 1/2	2	1 1/2	2	1 1/2	2

[1] Please indicate dimension of the tube when ordering

Face-to-face acc. to data sheet resp. customer request							
L	(mm)	260	300	130	210	250	250

Dimensions							Standard-flange dimensions refer to page 19 / Smaller nominal diameters refer to page 10
H	(mm)	144	144	144	144	144	144
S	(mm)	90	90	90	90	90	90
SQR	(mm)	110	110	110	110	110	110

Weights							
Fig. 600 (approx.)	(kg)	13,3	14,1	8	8	8,9	9,8

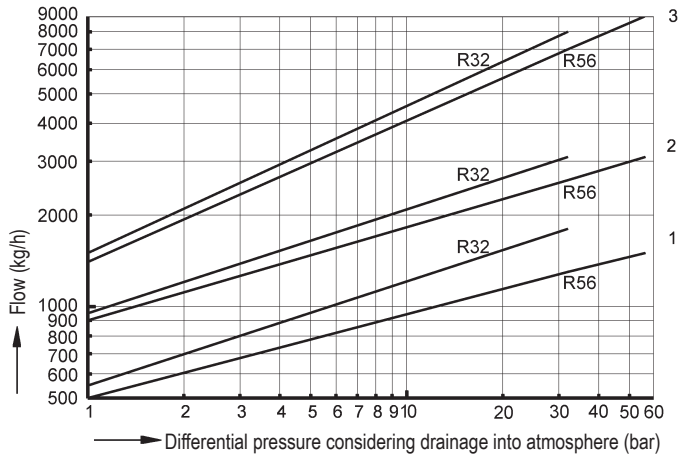
Parts			
Pos.	Sp.p.	Description	Fig. 86.600
1		Body	16Mo3, 1.5415
2	x	Strainer	X5CrNi18-10, 1.4301
6		Cover	16Mo3, 1.5415
24	x	Controller, cpl.	TB 102 / 85 (corrosion resistant bimetal)
26	x	Gasket	Graphite (CrNi laminated with graphite)
28		Hexagonal nut	21CrMoV 5-7, 1.7709
30		Extension sleeve	21CrMoV 5-7, 1.7709
36		Stud	40CrMoV4-7, 1.7711
	└ Spare parts		

Information / restriction of technical rules need to be observed!

Resistance and fitness must be verified (or contact the manufacturer for information).

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

Capacity chart



The capacity chart shows the maximum flow at factory setting.
(For operating pressures below 5 bar, a correction of the factory-setting acc. to manufacturers information is recommended.)

Curve 1: Maximum flow of hot condensate approx. 15 K below saturation temperature.

Curve 2: Maximum flow of sub-cooled condensate at approx. 30 K below saturation temperature (with back-up of condensate).

Curve 3: Maximum flow at cold condensate at about 20°C (during start-up of a cold installation).

The condensate temperature determines the opening of the controller. Capacity is increased with the sub-cooling temperature of the condensate.

High pressure - Bimetallic steam trap (High temperature steel)

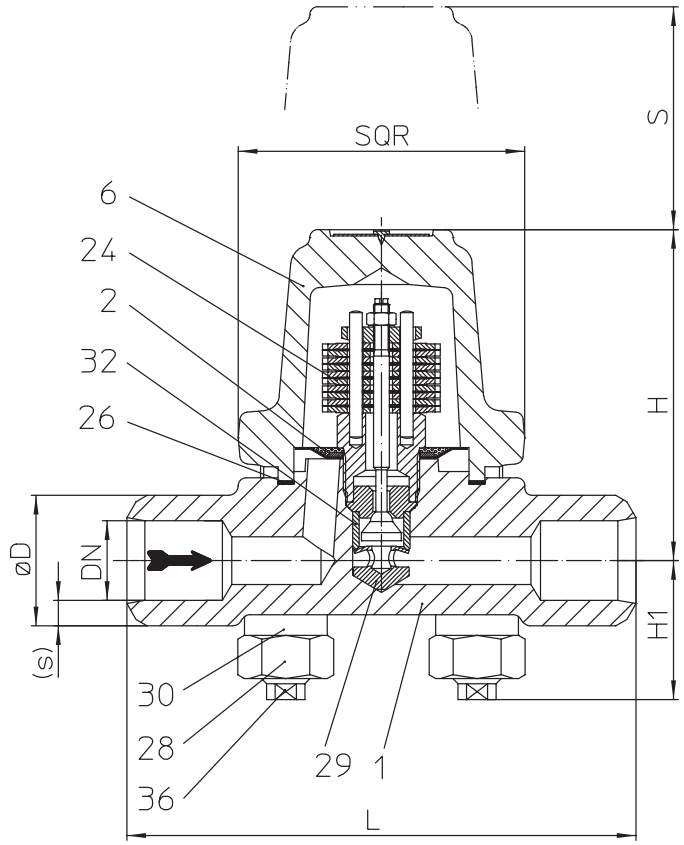


Fig. 600....4 with butt weld ends

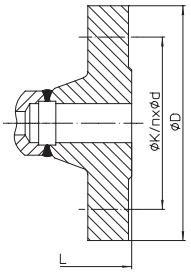


Fig. 600....1
with flanges

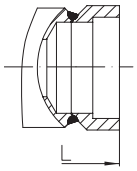


Fig. 600....3
with socket weld ends

Figure	Nominal pressure	Material	Nominal diameter / NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure ΔPMX	for controller
88.600	PN160	13CrMo4-5	DN15-25 / 1/2" - 1"	153 barg	350 °C	110 bar	R130
				100 barg	510 °C		
				62 barg	530 °C		
				35 barg	550 °C		
89.600	PN250	10CrMo9-10	DN15-25 / 1/2" - 1"	184 barg	500 °C	154 bar	R150
				154 barg	510 °C		
				108 barg	530 °C		
				81 barg	550 °C		
For ANSI versions refer to data sheet CONA®B-ANSI							

Types of connection — Other types of connection on request.

- Flanges ....1 _____ acc. to DIN 2638, DIN 2628 or DIN EN 1092-1
- Socket weld ends ....3 _____ acc. to DIN EN 12760
- Butt weld ends ....4 _____ Weld preparation acc. to EN ISO 9692 identification No. 1.3 and 1.5
  (Note restriction on operating pressure / inlet temperature depending to design!)

Features

- Thermostatic steam trap with non-corrosive and robust water hammer proof bimetallic controller
- **Steam trap specially for high pressures**
- Automatic air-venting during start up and operation of the plant
- Non return protection
- With inside strainer
- Installation in any position, except cover downwards
- Subcooling of condensate is continuously adjustable (observe the operation instructions)
- The controller maybe changed without disturbing the pipe work

Controller — (chooseable for operating range)

- Controller R130 _____ up to inlet pressure: 110 bar
- Controller R150 _____ up to inlet pressure: 154 bar

Types of connection		Flanges		Socket weld ends			Butt weld ends [1]		
DN		15	25	15	20	25	15	20	25
NPS		1/2	1	1/2	3/4	1	1/2	3/4	1

[1] Please indicate dimension of the tube when ordering

Face-to-face acc. to data sheet resp. customer request									
L	(mm)	210	230	160	160	160	160	160	160

Dimensions									Standard-flange dimensions refer to page 19
H	(mm)	104	104	104	104	104	104	104	104
H1	(mm)	42	42	42	42	42	42	42	42
S	(mm)	70	70	70	70	70	70	70	70
SQR	(mm)	90	90	90	90	90	90	90	90

Weights									
Fig. 600	(approx.) (kg)	6,4	9,6	4,8	4,7	4,6	4,8	4,7	4,6

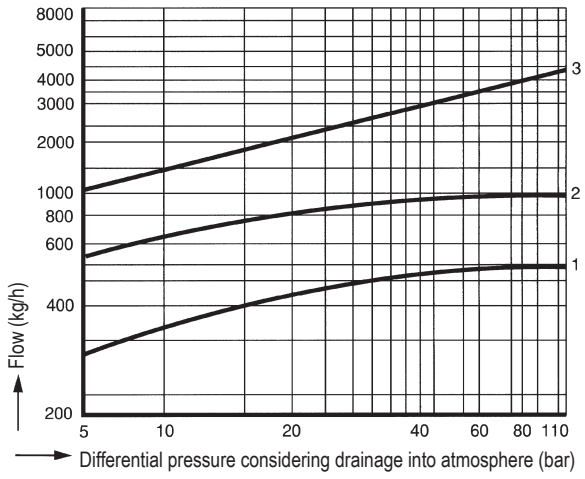
Parts				
Pos.	Sp.p.	Description	Fig. 88.600	Fig. 89.600
1		Body	13CrMo4-5, 1.7335	10CrMo9-10, 1.7380
2	x	Strainer	X5CrNi18-10, 1.4301	
6		Cover	13CrMo4-5, 1.7335	10CrMo9-10, 1.7380
24	x	Controller, cpl.	TB 102 / 85 (corrosion resistant bimetal)	
26	x	Gasket	Graphite (CrNi laminated with graphite)	
28		Hexagonal nut	21CrMoV 5-7, 1.7709	X22CrMoV12-1, 1.4923
29	x	Erosion deflector	X8CrNiS18-9, 1.4305	
30		Extension sleeve	21CrMoV 5-7, 1.7709	X22CrMoV12-1, 1.4923
32	x	Clamping sleeve	X39CrMo17-1+QT, 1.4122+QT	
36		Stud	21CrMoV 5-7, 1.7709	X22CrMoV12-1, 1.4923
	└ Spare parts			

Information / restriction of technical rules need to be observed!

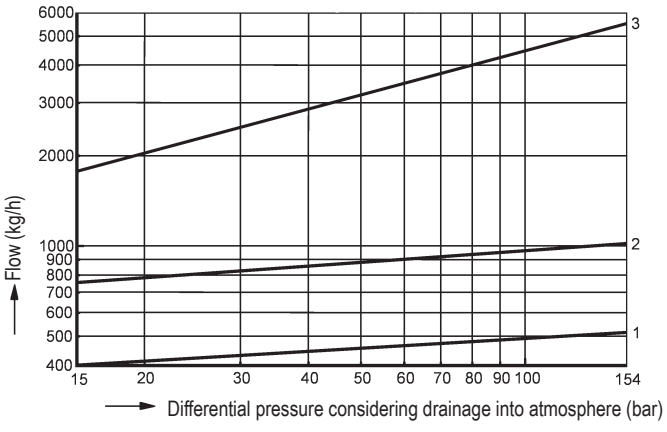
Resistance and fitness must be verified (or contact the manufacturer for information).

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

Capacity chart



Capacity chart PN160



Capacity chart PN250

The capacity chart shows the maximum capacity at factory setting.
(For operating pressures below 15 bar, a correction of the factory-setting acc. to manufacturers information is recommended.)

Curve 1: Maximum flow of hot condensate at approx. 10 K below saturation temperature.

Curve 2: Maximum flow of sub-cooled condensate at approx. 30 K below saturation temperature (with back-up of condensate).

Curve 3: Maximum flow at cold condensate at about 20°C (during start-up of a cold installation).

The condensate temperature determines the opening of the controller. Capacity is increased with the sub-cooling temperature of the condensate.

High pressure - Bimetallic steam trap (High temperature steel)

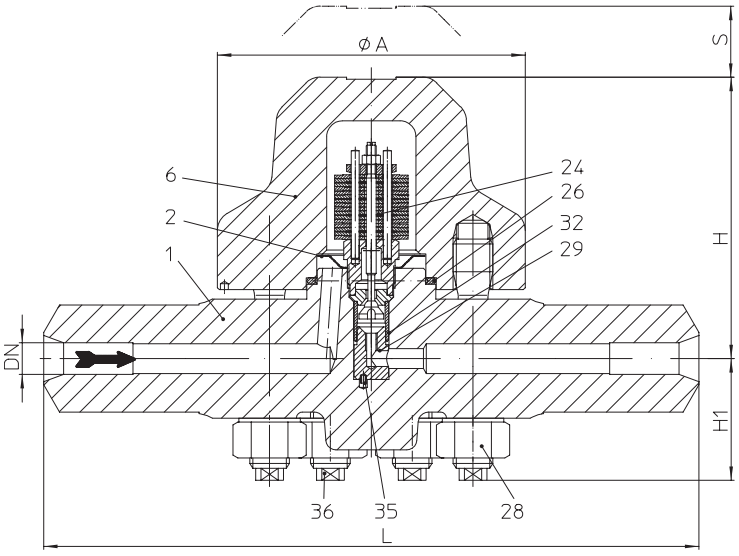


Fig. 600....4 with butt weld ends

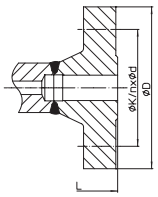


Fig. 600....1 (PN320 / 400)
with flanges

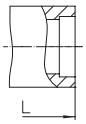


Fig. 600....3
with socket weld ends

Figure	Nominal pressure	Material	Nominal diameter / NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure ΔPMX	for controller
8a.600	PN320	10CrMo9-10, 1.7380	DN15-25 / 1/2" - 1"	200 barg	510 °C	200 bar	R270
				139 barg	530 °C		
				121 barg	540 °C		
				104 barg	550 °C		
8b.600	PN400	10CrMo9-10, 1.7380	DN15-25 / 1/2" - 1"	250 barg	510 °C	250 bar	R270
				174 barg	530 °C		
				151 barg	540 °C		
				130 barg	550 °C		
8c.600	PN630	10CrMo9-10, 1.7380	DN15-25 / 1/2" - 1"	270 barg	547 °C	270 bar	R270
				250 barg	550 °C		
				216 barg	560 °C		
				162 barg	580 °C		
		X10CrMo VNb9-1, 1.4903	DN15-25 / 1/2" - 1"	298 barg	550 °C		
				270 barg	581 °C		
				205 barg	590 °C		
				130 barg	600 °C		
		X11CrMoW VNb9-1-1, 1.4905	DN15-25 / 1/2" - 1"	300 barg	580 °C		
				270 barg	592 °C		
				250 barg	600 °C		
				180 barg	630 °C		
		X10CrWMo VNb9-2, 1.4901	DN15-25 / 1/2" - 1"	320 barg	600 °C	320 bar	R320
				300 barg	610 °C		
				220 barg	630 °C		
				160 barg	650 °C		
For ANSI versions refer to data sheet CONA®B-ANSI							

Types of connection — Other types of connection on request.

- Flanges ....1 _____ acc. to DIN 2629, DIN 2627 or DIN EN 1092-1
- Socket weld ends ....3 _____ acc. to DIN EN 12760
- Butt weld ends ....4 _____ Weld preparation acc. to EN ISO 9692 identification No. 1.3 and 1.5
  (Note restriction on operating pressure / inlet temperature depending to design!)

Features

- Thermostatic steam trap with non-corrosive and robust water hammer proof bimetallic controller
- **Steam trap specially for high pressures**
- Automatic air-venting during start up and operation of the plant
- Non return protection
- With inside strainer
- Installation in any position, except cover downwards
- Subcooling of condensate is continuously adjustable (observe the operation instructions)
- The controller maybe changed without disturbing the pipe work

Controller — (chooseable for operating range)

- Controller R270 _____ up to inlet pressure: 270 bar (or to 200 bar at PN320; 250 bar at PN 400)
- Controller R320 _____ up to inlet pressure: 320 bar

Types of connection		Flanges		Socket weld ends		Butt weld ends [1]	
DN		15	25	15	25	15	25
NPS		1/2	1	1/2	1	1/2	1

[1] Please indicate dimension of the tube when ordering

Face-to-face acc. to data sheet resp. customer request							
L	(mm)	435	470	330	330	330	330

Dimensions							Standard-flange dimensions refer to page 19
H	(mm)	135	135	135	135	135	135
H1	(mm)	63	63	63	63	63	63
S	(mm)	95	95	95	95	95	95
A	(mm)	155	155	155	155	155	155

Weights							
Fig. 600 (approx.)	(kg)	27	33	20	19	20	19

Parts

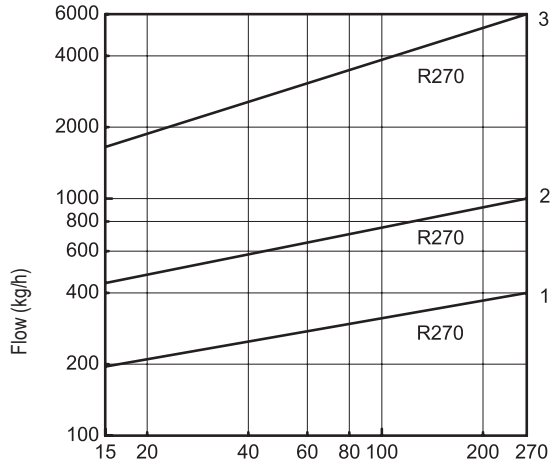
Pos.	Sp.p.	Description	Fig. 8a.600 / 8b.600 / 8c.600	Fig. 8c.600	Fig. 8c.600	Fig. 8c.600
1		Body	10CrMo9-10, 1.7380	X10CrMoVNb9-1, 1.4903	X11CrMoWVNb9-1-1, 1.4905	X10CrWMoVNb9-2, 1.4901
2	x	Strainer	X5CrNi18-10, 1.4301			
6		Cover	10CrMo9-10, 1.7380	X10CrMoVNb9-1, 1.4903	X11CrMoWVNb9-1-1, 1.4905	X10CrWMoVNb9-2, 1.4901
24	x	Controller, cpl.	TB 102 / 85 (corrosion resistant bimetal)			
26	x	Spiral gasket	MICA/RGF (CrNi laminated with graphite)			
28		Hexagonal nut	X22CrMoV12-1, 1.4923	X7CrNiMoBNb16-16, 1.4986		
29	x	Erosion deflector	X39CrMo17-1+QT, 1.4122+QT			
32	x	Clamping sleeve	X39CrMo17-1+QT, 1.4122+QT			
35		Straight pin	A2			
36		Stud	X22CrMoV12-1, 1.4923	X7CrNiMoBNb16-16, 1.4986		
	└ Spare parts					

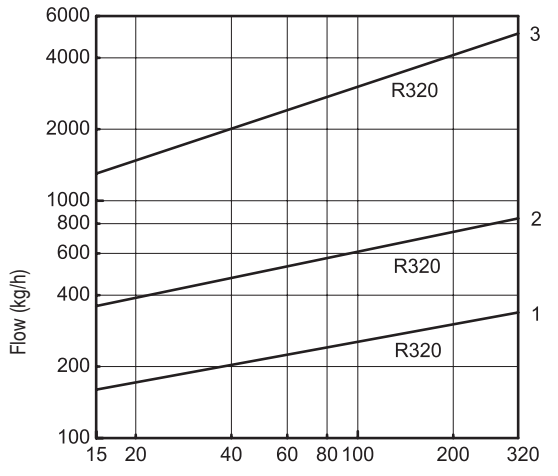
Information / restriction of technical rules need to be observed!

Resistance and fitness must be verified (or contact the manufacturer for information).

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

Capacity chart





The capacity chart shows the maximum capacity at factory setting.
(For operating pressures below 15 bar, a correction of the factory-setting acc. to manufacturers information is recommended.)

Curve 1: Maximum flow of hot condensate at approx. 10 K below saturation temperature.

Curve 2: Maximum flow of sub-cooled condensate at approx. 30 K below saturation temperature (with back-up of condensate).

Curve 3: Maximum flow at cold condensate at about 20°C (during start-up of a cold installation).

The condensate temperature determines the opening of the controller. Capacity is increased with the sub-cooling temperature of the condensate.

myValve® - Ihr VAlve SIzing-Program.

myValve is a powerful software tool that not only helps you size your system components; it also gives you instant access to all other data about the selected product, such as order information, spare parts drawings, operating instructions, data sheets, etc., whenever you need it.

myValve - VAlve SIzing-Program

Contents:

Module ARI-Steam trap CONA-Calcuation

- Sizing (calculation of steam trap systems with given flow capacity or heat capacity)
- Calculation of nominal diameter acc. to given pressure, condensate quantity, condensate sub-cooling and speed

Media:

- Steam (saturated and superheated)
- Compressed air

Special Features

- Project administration of the calculation and product data incl. spare part drawings concerning to project and tag number
- Direct output or calculation and product data in PDF format
- Product data could be taken for a direct order
- SI- and ANSI-units with direct conversion to another databank
- Settings with over pressure or absolute pressure
- All ARI products are integrated in one databank
- Direct access concerning to the product on data sheets, operating instructions, pressure-temperature-diagram and spare part drawings
- Operation in company networks possible (no complex installations on individually PC's necessary)
- Extensive catalogue extending over several product groups

System Requirements:

Windows operating systems, Linux, etc.

Informations about pipe welding

Welding groove acc. to DIN 2559

The material used for ARI valves with butt weld ends are:

1.0619+N	GP240GH+N acc. to DIN EN 10213-2
1.0460	P250GH acc. to DIN EN 10222-2
1.0401	C15 acc. to DIN 17210
1.5415	16Mo3 acc. to DIN EN 10028
1.4541	X6CrNiTi18-10 acc. to DIN EN 10088
1.7335	13CrMo4-5 acc. to DIN EN 10028
1.7380	10CrMo 9-10 acc. to DIN EN 10028
1.4903	X10CrMoVNb 91 acc. to VdTÜV Data sheet 511/3 (06.99)
1.4905	X11CrMo WVNb 9-1-1 acc. to VdTÜV Data sheet 522/3 (06.99)
1.4901	X10CrWMoVNb9-2, 1.4901 acc. to VdTÜV Data sheet 552/3 (12.2007)

Note:

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.

On bimetallic steam traps face-to-face of 95 mm or less, the bimetallic controller has to be disassembled prior to welding. After the traps have cooled down to the ambient temperature the bimetallic controller shall be fitted again into the body.

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!

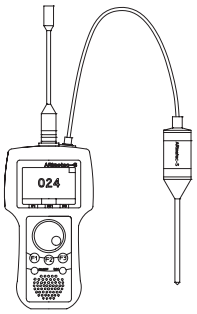
Standard-flange dimensions acc. to DIN 2626 / 2627 / 2628 / 2629 / 2533 / 2635 / 2636 / 2637 2638 or DIN EN 1092-1 / -2

DN			15	20	25	32	40	50
NPS			1/2	3/4	1	1 1/4	1 1/2	2
PN16	ØD	(mm)	95	105	115	140	150	165
	ØK	(mm)	65	75	85	100	110	125
	n x Ød	(mm)	4 x 14	4 x 14	4 x 14	4 x 18	4 x 18	4 x 18
PN40	ØD	(mm)	95	105	115	140	150	165
	ØK	(mm)	65	75	85	100	110	125
	n x Ød	(mm)	4 x 14	4 x 14	4 x 14	4 x 18	4 x 18	4 x 18
PN63	ØD	(mm)	105	130	140	--	170	180
	ØK	(mm)	75	90	100	--	125	135
	n x Ød	(mm)	4 x 14	4 x 18	4 x 18	--	4 x 22	4 x 22
PN100	ØD	(mm)	105	130	140	--	--	--
	ØK	(mm)	75	90	100	--	--	--
	n x Ød	(mm)	4 x 14	4 x 16	4 x 18	--	--	--
PN160	ØD	(mm)	130	--	140	--	--	--
	ØK	(mm)	75	--	100	--	--	--
	n x Ød	(mm)	4 x 14	--	4 x 18	--	--	--
PN250	ØD	(mm)	130	--	150	--	--	--
	ØK	(mm)	90	--	105	--	--	--
	n x Ød	(mm)	4 x 18	--	4 x 22	--	--	--
PN320	ØD	(mm)	130	--	160	--	--	--
	ØK	(mm)	90	--	115	--	--	--
	n x Ød	(mm)	4 x 18	--	4 x 22	--	--	--
PN400	ØD	(mm)	145	--	180	--	--	--
	ØK	(mm)	100	--	130	--	--	--
	n x Ød	(mm)	4 x 22	--	4 x 26	--	--	--

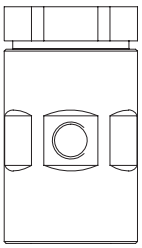
acc. to DIN EN 1092-1

Dimensions in mm
Weights in kg
1 bar ≙ 10^5 Pa ≙ 0,1 MPa
Kvs in m^3/h
1 bar ≙ 14,5 psi
1 inch ≙ 25,4 mm

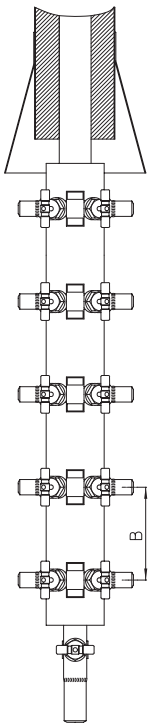
Selection criteria:		Example for order data:
• Steam pressure	• Pipe-connection	**Bimetallic steam trap CONA® B,** **Fig. 600, PN40, DN15, 1.0460, Controller R22, with flanges,** **Face-to-face dimension 150 mm**
• Back pressure	• Controller	
• Quantity of condensate	• Material	
• Nominal diameter / pressure	• Place of service or kind of steam consumer	



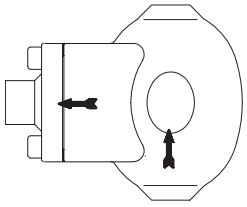
Multifunction tester
ARImetec®-S



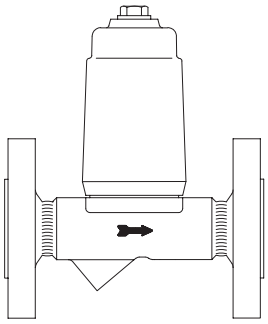
Vacuum breaker
Fig. 655



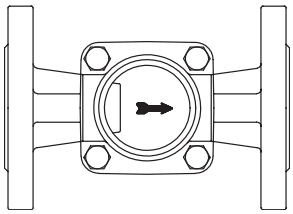
Condensate collection (B = 160), steam distribution (B = 120)
CODI ®S with gland packing Fig. 671/672;
CODI ®B with bellows seal, maintenance-free Fig. 675/676



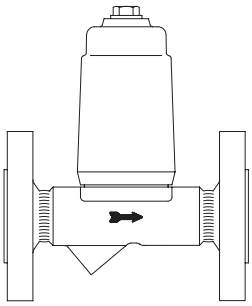
Automatic air vent for liquid systems
Fig. 656



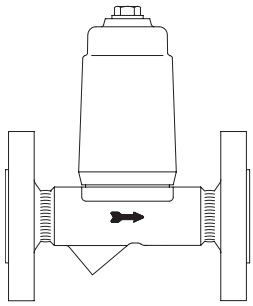
Condensate discharge temperature limiter
Fig. 645/647



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