

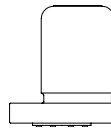
CONA®-Universal ANSI

for quick assembly/disassembly on CONA®-Connector or foreign system connectors

CONA®B-Universal ANSI

Bimetallic steam trap
ANSI300

(Fig. 604) Stainless steel
Fig. 604

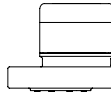


Page 2

CONA®M-Universal ANSI

Thermostatic steam trap
ANSI300

(Fig. 622) Stainless steel
Fig. 622

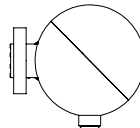


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CONA®S-Universal ANSI

Ball float steam trap
ANSI300

(Fig. 628) Stainless steel
Fig. 628



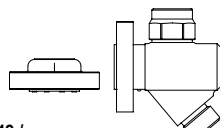
Page 4

CONA®TD-Universal ANSI

Thermodynamic steam trap
ANSI300

- without strainer (Fig. 642)
- with outside strainer (Fig. 643)

Stainless steel
Fig. 642 / Fig. 643 (Y)



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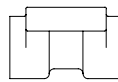
CONA®-Connector 681 ANSI

System connector

ANSI300

- with screwed sockets (Fig. 681....2)
- with socket weld ends (Fig. 681....3)

Stainless steel
Fig. 681



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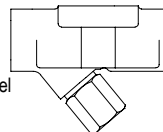
CONA®-Connector 682 ANSI

System connector with outside strainer

ANSI300

- with flanges (Fig. 682....1)
- with screwed sockets (Fig. 682....2)
- with socket weld ends (Fig. 682....3)
- with butt weld ends (Fig. 682....4)

Forged steel
Stainless steel
Fig. 682



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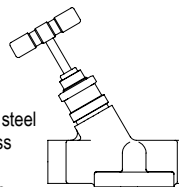
CONA®-Connector 683 ANSI

System connector with stop function
at inlet

ANSI300

- with flanges (Fig. 683....1)
- with screwed sockets (Fig. 683....2)
- with socket weld ends (Fig. 683....3)
- with butt weld ends (Fig. 683....4)

Forged steel
Stainless steel
Fig. 683



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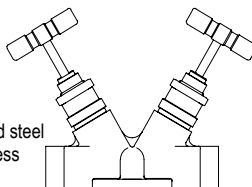
CONA®-Connector 684 ANSI

System connector with stop function
at inlet and outlet

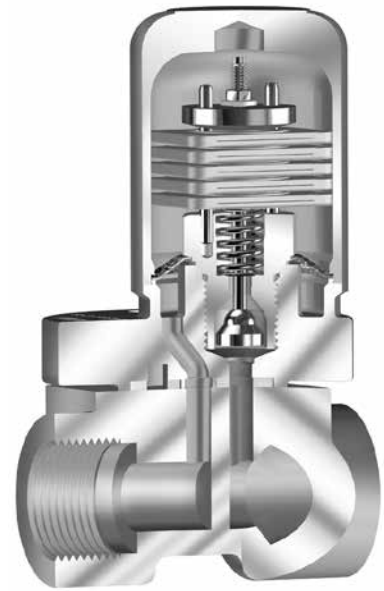
ANSI300

- with flanges (Fig. 684....1)
- with screwed sockets (Fig. 684....2)
- with socket weld ends (Fig. 684....3)
- with butt weld ends (Fig. 684....4)

Forged steel
Stainless steel
Fig. 684



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CONA®B-Universal Fig. 604 with
CONA®-Connector Fig. 681....2

Features CONA®-Universal ANSI:

- For the discharge of
 - Fig. 604 / 622 / 642 / 643: slightly subcooled condensate
 - Fig. 628: boiling hot condensate
- Robust and resistant to water-hammer
- Automatic air-venting during start up and operation of the plant
- Fig. 604 / 622 / 642 / 643: Integrated non return protection
- Mounting position:
 - Fig. 604 / 622: any, except cap upside down
 - Fig. 628: plug always upside down
 - Fig. 642: any position
 - Fig. 643: always with drain plug upside down
- Construction in high quality stainless steel
- Optimized design for quick installation
- Can be combined with all types of CONA-Connector

Features CONA®-Connector ANSI:

- Space saving, compact design
- Minimization of installation and maintenance labor
- Material optional in forged steel and stainless steel
- Fig. 682: with outside strainer
- Fig. 683 / 684: with integrated, low-maintenance stop valve with gland seal (on request with maintenance free bellows seal design acc. to german clean air act "TA-Luft")
- Simple replacement of steam traps by shut-off of inlet and outlet
- Optional with blow down valve
- Fig. 683: Recommended in combination with CODIcollector
- Elimination of potential leak points by reduced numbers of pipe joints
- Can be combined with all types of CONA-Universal
- Pressure test acc. to API 598

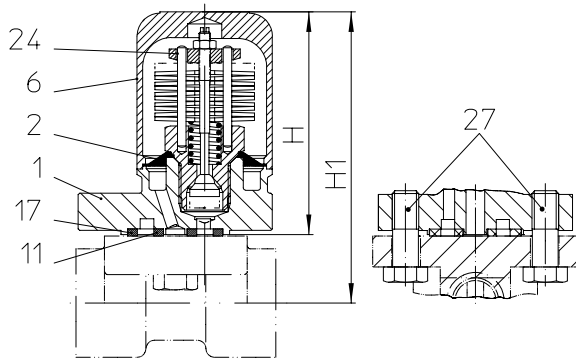
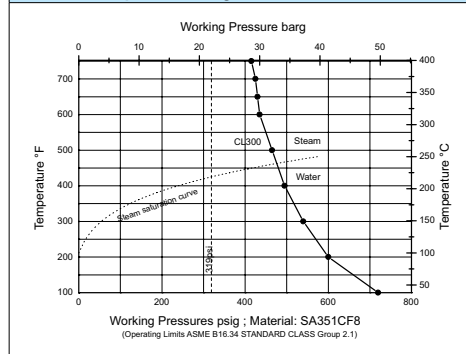
CONA®B-Universal - Bimetallic steam trap (Stainless steel)

Fig. 604 Universal flange with 2 x 3/8" UNC-thread
Pressure-Temperature-Diagram


Figure	Nominal pressure	Material	NPS	Operating pressure PS	Inlet temperature TS	max. differential pressure Δ PMX	for controller
55.604	ANSI300	SA351CF8	2 x 3/8"	319 psig	752°F	319 psi	R22

Types of connection

- Universal flange — 2 x 3/8" UNC-thread

Features

- Bimetallic steam trap with corrosion resistant and water hammer proofed bimetallic controller
- Automatic air-venting during start up and operation of the plant
- Non return protection
- With inside strainer
- Robust and insensitive to waterhammer
- Installation in any position, except cap upside down
- Optimized design for quick installation
- Can be combined with all types of CONA-Connector (refer to page 6)

Types of connection
Universal flange
NPS
2 x 3/8"
Dimensions

H	(in)	3.23
H1	(in)	acc. to connector type

Weights

(approx.)	(lbs)	1.8
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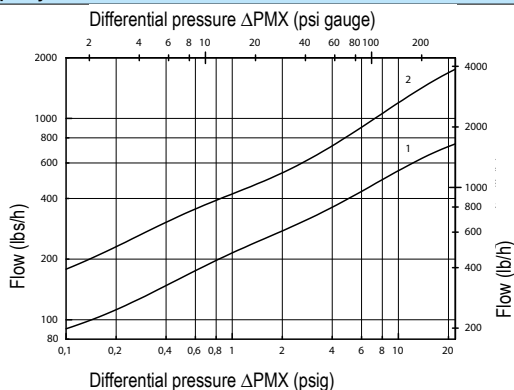
Parts

Pos.	Sp.p.	Description	Fig. 55.604
1	x (cpl. unit)	Body	SA351CF8
2		Strainer	SA240Gr.304
6		Cap	SA276Gr.321
11		Sealing ring (spiral wounded gasket)	Metaflex (with Graphite)
17		Sealing ring (spiral wounded gasket)	Metaflex (with Graphite)
24		Controller	corrosion resistant bimetal TB 102 / 85
27	L	Hexagon screw	SA193Gr.B16
		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 capacity at factory setting.

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

Curve 2: Maximum flow at cold condensate at about 68°F (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.

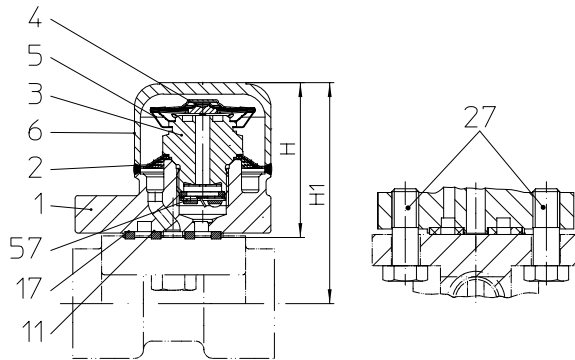
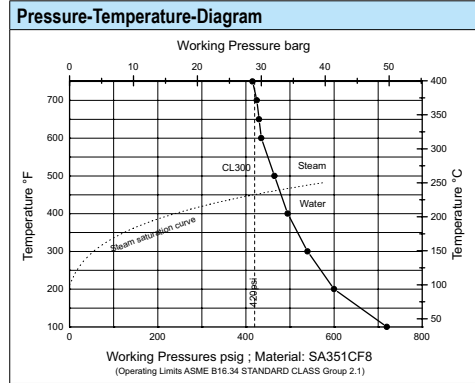
CONA®M-Universal - Thermostatic steam trap (Stainless steel)

Fig. 622 Universal flange with 2 x 3/8" UNC-thread


Figure	Nominal pressure	Material	NPS	Operating pressure PS	Inlet temperature TS	max. differential pressure ΔPMX	for controller
55.622	ANSI300	SA351CF8	2 x 3/8"	421 psig	752°F	421 psi	R32

Types of connection

- Universal flange _____ 2 x 3/8" UNC-thread

Features

- Thermostatic steam trap with noncorrosive and robust water hammer proofed capsule
- Non return protection
- With inside strainer
- Robust and insensitive to waterhammer
- With capsule for condensate sub-cooling about approx. 10K
- Installation in any position, except cap upside down (Filter effect maximised at horizontal installation)
- Optimized design for quick installation
- Can be combined with all types of CONA-Connector (refer to page 6)

Types of connection	Universal flange
NPS	2 x 3/8"

Dimensions

H	(in)	2.13
H1	(in)	acc. to connector type

Weights

(approx.)	(lbs)	1.3
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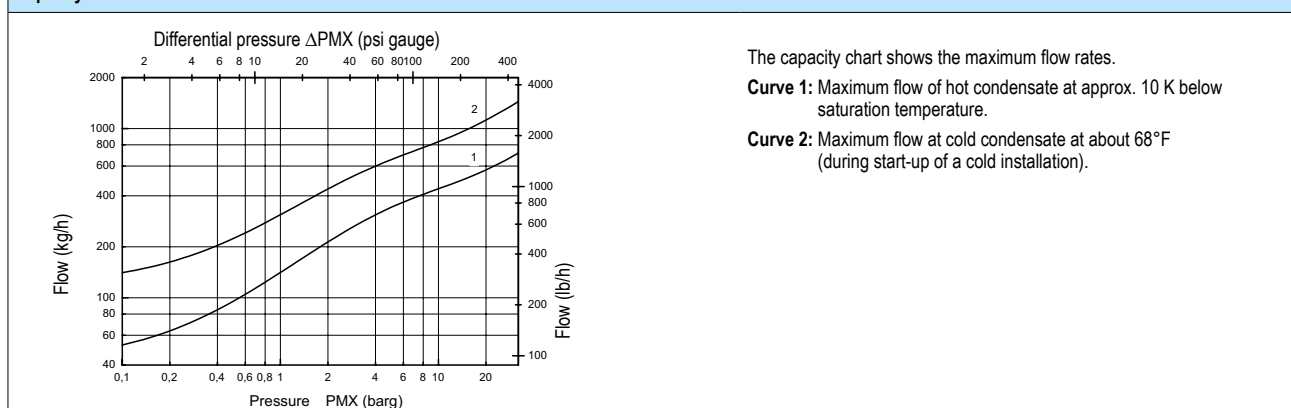
Parts

Pos.	Sp.p.	Description	Fig. 55.622
1	x (opt. unit)	Body	SA351CF8
2		Strainer	SA240Gr.304
3		Seat	AISI303
4		Capsule B (Diaphragm / Capsule)	Hastelloy / SA240Gr.304
5		Spring actuated clip	AISI301
6		Cap	SA276Gr.321
11		Sealing ring (spiral wound gasket)	Metaflex (with Graphite)
17		Sealing ring (spiral wound gasket)	Metaflex (with Graphite)
27		Hexagon screw	SA193Gr.B16
57		Non return protection	SA240Gr.304
	L	Spare parts	

Information / restriction of technical rules need to be observed!

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

Capacity chart


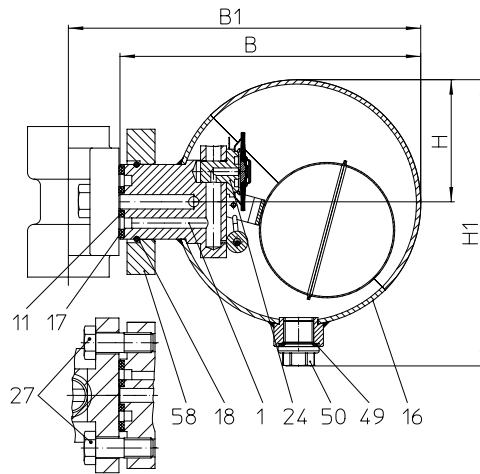
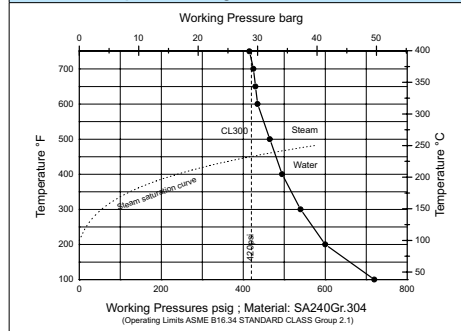
CONA®S-Universal - Ball float steam trap (Stainless steel)

Pressure-Temperature-Diagram

Fig. 628 Universal flange with 2 x 3/8" UNC-thread

Figure	Nominal pressure	Material	NPS	Operating pressure PS	Inlet temperature TS	max. differential pressure ΔPMX	for controller
55.628	ANSI300	Body: SA182F321 / Hood: SA240Gr.304	2 x 3/8"	421 psig	752°F	421 psi	R32

Types of connection

- Universal flange _____ 2 x 3/8" UNC-thread

Features

- Ball float steam trap with level control for the condensate-discharge from all kinds of steam systems
- Robust and insensitive to waterhammer
- Rapid system start-up due to thermostatic air venting capsule
- Installation always with drain plug (Pos. 50) upside down
- Immediate discharge of hot boiling condensat
- Can be combined with all types of CONA-Connector (refer to page 6)

Types of connection
Universal flange
NPS
2 x 3/8"
Dimensions

H	(in)	2.28
H1	(in)	5.28
B	(in)	5.51
B1	(in)	acc. to connector type

Weights

(approx.)	(lbs)	3.1
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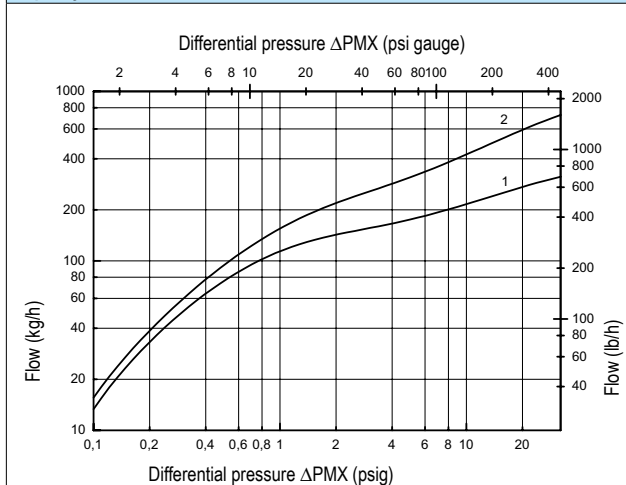
Parts

Pos.	Sp.p.	Description	Material, Material-Nr.
1		Body	SA276Gr.321
11	x	Sealing ring (spiral wound gasket)	Metaflex (with Graphite)
16		Hood	SA240Gr.304
17	x	Sealing ring (spiral wound gasket)	Metaflex (with Graphite)
18		Snap ring	AISI301
24		Retaining ring B, kpl.	SA240Gr.304 / Hastelloymembran
27		Hexagon screw	SA193Gr.B16
49	x	Sealing ring für Plug	SA240Gr.316Ti
50	x	Plug (M14x1.5)	SA276Gr.321 (with metric screw-thread)
58		Loose flange	SA276Gr.321
L 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 rates.

Curve 1: Maximum flow at hot condensate.

Curve 2: Maximum flow at cold condensate at about 68°F (during start-up of a cold installation).

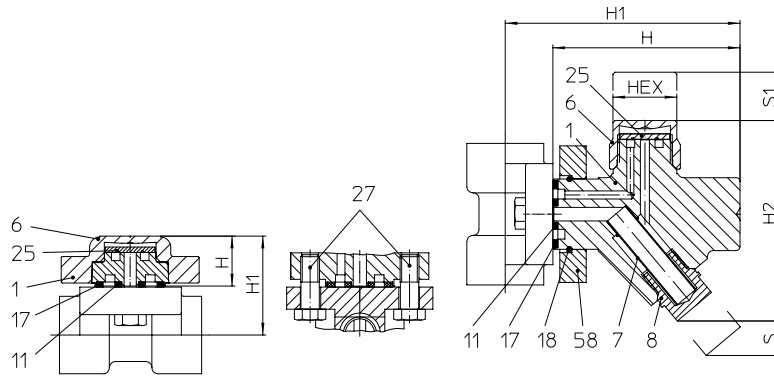
CONA®TD-Universal - Thermodynamic steam trap (Stainless steel)


Fig. 642 without strainer
Universal flange with 2 x 3/8" UNC-thread

Fig. 643 with outside strainer
Universal flange with 2 x 3/8" UNC-thread

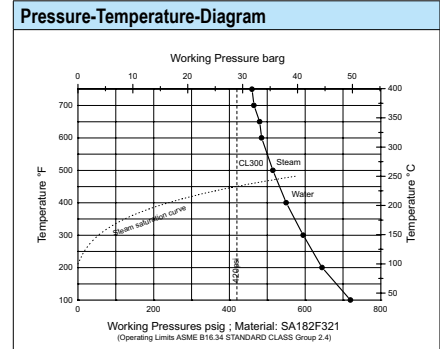


Figure	Nominal pressure	Material	NPS	Operating pressure PS	Inlet temperature TS	max. differential pressure ΔPMX	permissible pressure ratio
55.642	ANSI300	SA276Gr.420 ¹⁾	2 x 3/8"	421 psig	752°F	421 psi	Back pressure / Inlet press. ≤ 11.6
55.643 (Y)	ANSI300	SA182F6 A	2 x 3/8"	421 psig	752°F	421 psi	

Types of connection

- Universal flange _____ 2 x 3/8" UNC-thread

Features

- Thermodynamic steam trap in compact design for the condensate-discharge of steam systems.
- Intermittent mode of operation
- Integrated non return protection
- Robust and insensitive to waterhammer
- Constructions:
 - Fig. 642: without strainer
 - Fig. 643: with outside strainer
- Mounting position:
 - Fig. 642: any position
 - Fig. 643: always with drain plug upside down
- Can be combined with all types of CONA-Connector (refer to page 6)

Types of connection		Universal flange	
NPS		2 x 3/8"	
Dimensions		Fig. 55.642	Fig. 55.643
H	(in)	0.94	3.31
H1	(in)	acc. to connector type	
H2	(in)	--	4.06
S	(in)	--	1.77
S1	(in)	--	0.79
HEX	(in)	--	1.26
Weights			
(approx.)	(lbs)	0.9	2.9

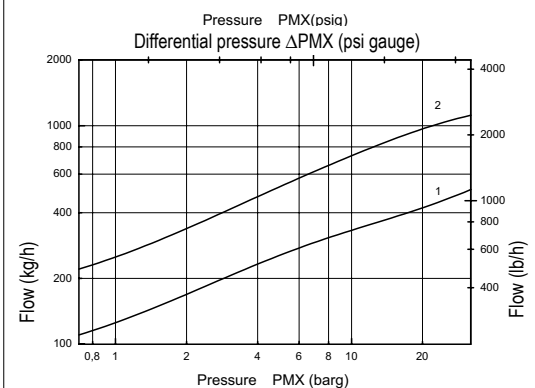
Parts				
Pos.	Sp.p.	Description	Fig. 55.642	Fig. 55.643
1	x x x x x x L Spare parts	Body	SA276Gr.420 ¹⁾	SA182F6 A
6		Cap	SA276Gr.420 ¹⁾	SA276Gr.321
7		Strainer (Y)	--	SA240Gr.304
8		Strainer plug (Y)	--	SA276Gr.321
11		Sealing ring (spiral wounded gasket)	Metaflex (with Graphite)	
17		Sealing ring (spiral wounded gasket)	Metaflex (with Graphite)	
18		Snap ring	--	AISI301
25		Disc	AISI440	
27	Hexagon screw	SA193Gr.B16		
58	Loose flange	--	SA276Gr.321	

¹⁾ Heat treatment acc. to EN

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 Differential pressure ΔPMX (psig)

Curve 1: Maximum flow at hot condensate.

Curve 2: Maximum flow at cold condensate at about 68°F (during start-up of a cold installation).

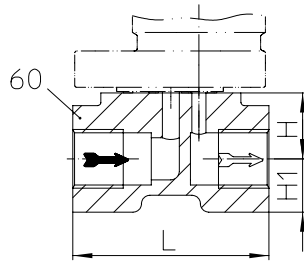
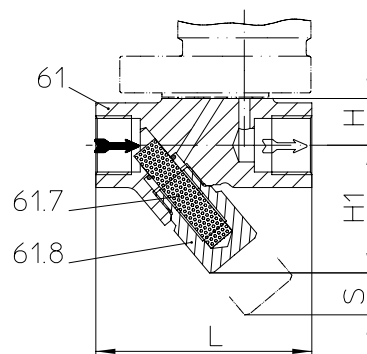
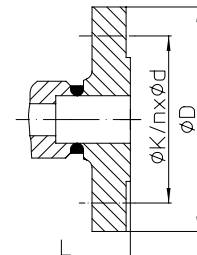
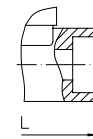
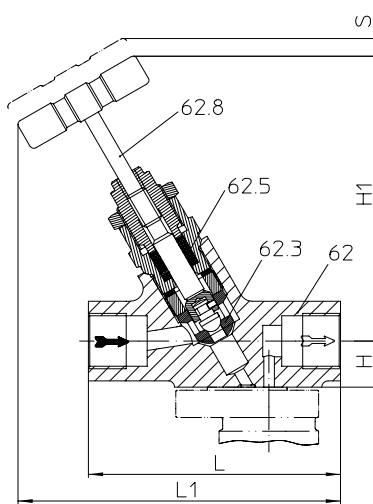
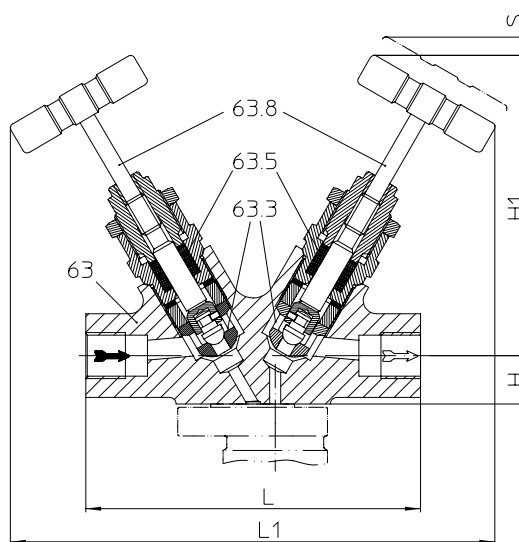
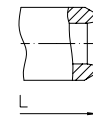
CONA®-Connector - System connector (Forged steel, Stainless steel)

Fig. 681....2 with screwed sockets

Fig. 682....2 with outside strainer and screwed sockets

Fig. 682/683/684....1 with flanges

Fig. 681/682/683/684....3 with socket weld ends

Fig. 683....2 with stop function at inlet and screwed sockets

Fig. 684....2 with stop function at inlet and outlet and screwed sockets

Fig. 682/683/684....4 with butt weld ends

Figure	Nominal pressure	Material	NPS	Operating pressure PS	Inlet temperature TS
55.681	ANSI300	SA351CF8	1/2" - 1"	421 psig	752°F
45.682 / 45.683 / 45.684	ANSI300	SA105		464 psig	752°F
55.682 / 55.683 / 55.684	ANSI300	SA182F321		421 psig	752°F

Types of connection

- Flanges1 acc. to ASME B16.5
- Screwed sockets2 NPT-Thread acc. to ANSI B1.20.1 or Rp-Thread acc. to DIN EN 10226-1
- Socket weld ends3 acc. to ASME B16.11 and B16.34
- Butt weld ends4 ASME B16.25 (Note restriction on operating pressure / inlet temperature depending to design!)

Features

- System connector for minimization of installation and maintenance space saving and compact design
- Fig. 683 / 684: with integrated, low-maintenance stop valve with gland seal (on request with maintenance free bellows seal design acc. to german clean air act „TA-Luft“)

Options

- Blow down valve

Types of connection	Flanges			Screwed sockets Socket weld ends			Butt weld ends		
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	Fig. 681	(in)	--	--	--	2.76	2.76	--	--	--	--
	Fig. 682	(in)	5.91	5.91	6.3	3.74	3.74	6.3	9.84	9.84	9.84
	Fig. 683	(in)	5.91	5.91	6.3	4.72	4.72	6.3	9.84	9.84	9.84
	Fig. 684	(in)	7.87	7.87	8.07	5.98	5.98	8.07	9.84	9.84	9.84

Dimensions

L1	Fig. 683	(in)	6.65	6.65	6.85	6.06	6.06	6.85	8.62	8.62	8.62
	Fig. 684	(in)	8.66	8.66	8.66	8.66	8.66	8.66	8.66	8.66	8.66
H	Fig. 681	(in)	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
	Fig. 682	(in)	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
	Fig. 683	(in)	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
	Fig. 684	(in)	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
H1	Fig. 681	(in)	--	--	--	0.75	0.75	--	--	--	--
	Fig. 682	(in)	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28
	Fig. 683	(in)	5.35	5.35	5.35	5.35	5.35	5.35	5.35	5.35	5.35
	Fig. 684	(in)	5.35	5.35	5.35	5.35	5.35	5.35	5.35	5.35	5.35
S	Fig. 682	(in)	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
	Fig. 683	(in)	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
	Fig. 684	(in)	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Ø D		(in)	3.74	4.61	4.88	--	--	--	--	--	--
Ø K		(in)	2.62	3.25	3.5	--	--	--	--	--	--
n x Ød		(in)	4x0.75	4x0.75	4x0.75	--	--	--	--	--	--

Weights

Fig. 681	(approx.)	(lbs)	--	--	--	1.3	1.3	--	--	--	--
Fig. 682	(approx.)	(lbs)	5.1	6.4	7.7	2.2	2.2	2.6	2.9	3.1	3.3
Fig. 683	(approx.)	(lbs)	6.6	7.7	9	3.7	3.5	4	4.2	4.4	4.6
Fig. 684	(approx.)	(lbs)	8.8	9.9	11	6	5.7	6.2	6.4	6.6	6.8

Parts

Pos.	Sp.p.	Description	Fig. 45.682 / 683 / 684	Fig. 55.681	Fig. 55.682 / 683 / 684
60		Body (Fig. 681)	--	SA351CF8	--
61 (Y)		Body (Fig. 682)	SA105	--	SA182F321
61.7 (Y)	x	Strainer	SA240Gr.304		
61.8 (Y)	x	Strainer plug	SA276Gr.321		
62		Body (Fig. 683)	SA105	--	SA182F321
62.3	x	Seat	AISI303		
62.5		Sealing ring	Pure graphite		
62.8	x	Assembly stop valve, cpl.	AISI303		
63		Body (Fig. 684)	SA105	--	SA182F321
63.3	x	Seat	AISI303		
63.5	x	Sealing ring	Pure graphite		
63.8	x	Assembly stop valve, cpl.	AISI303		
L 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.

Pressure-Temperature-Diagram
