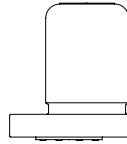


## CONA®-Universal for quick assembly/disassembly on CONA®-Connector or foreign system connectors

**CONA®B-Universal**  
Bimetallic steam trap  
ANSI 300

(Series 604)

Stainless steel  
Series 604

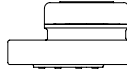


Page 2

**CONA®M-Universal**  
Thermostatic steam trap  
ANSI 300

(Series 622)

Stainless steel  
Series 622

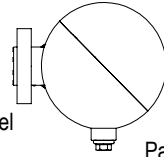


Page 3

**CONA®S-Universal**  
Ball float steam trap  
ANSI 300

(Series 628)

Stainless steel  
Series 628



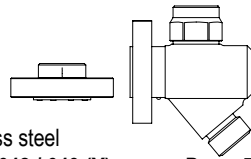
Page 4

**CONA®TD-Universal**  
Thermodynamic steam trap  
ANSI 300

- without strainer  
- with outside strainer

(Series 642)  
(Series 643)

Stainless steel  
Series 642 / 643 (Y)



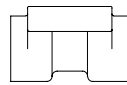
Page 5

**CONA®-Connector 681**  
System connector  
ANSI 300

- with threaded ends  
- with socket weld ends

(Series 681....2)  
(Series 681....3)

Stainless steel  
Series 681



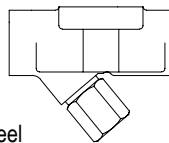
Page 6

**CONA®-Connector 682**  
System connector  
with outside strainer  
ANSI 300

- with flanges  
- with threaded ends  
- with socket weld ends  
- with butt weld ends

(Series 682....1)  
(Series 682....2)  
(Series 682....3)  
(Series 682....4)

Forged steel  
Stainless steel  
Series 682



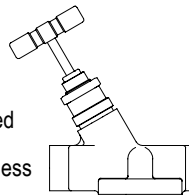
Page 6

**CONA®-Connector 683**  
System connector  
with stop function at inlet  
ANSI 300

- with flanges  
- with threaded ends  
- with socket weld ends  
- with butt weld ends

(Series 683....1)  
(Series 683....2)  
(Series 683....3)  
(Series 683....4)

Forged steel  
Stainless steel  
Series 683



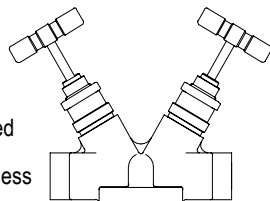
Page 6

**CONA®-Connector 684**  
System connector  
with stop function at inlet and outlet  
ANSI 300

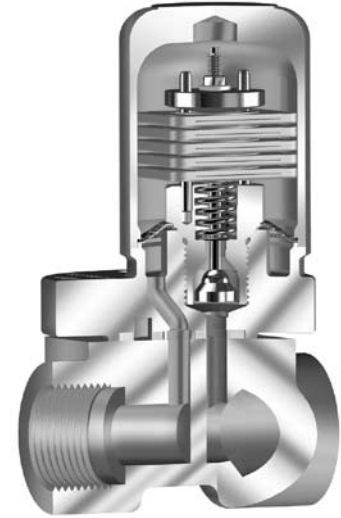
- with flanges  
- with threaded ends  
- with socket weld ends  
- with butt weld ends

(Series 684....1)  
(Series 684....2)  
(Series 684....3)  
(Series 684....4)

Forged steel  
Stainless steel  
Series 684



Page 6



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

### Features CONA®-Universal:

- For the discharge of
  - Series 604 / 622 / 642 / 643: sub-cooled condensate
  - Series 628: scalding hot condensate
- Robust and insensitive to waterhammer
- Automatic ventilation during start up and operation of the plant
- Series 604 / 642 / 643: Integrated non-return protection
- Installation position:
  - Series 604 / 622: any, except cap upside down
  - Series 628: always with drain plug upside down
  - Series 642: any
  - Series 643: always with strainer plug upside down
- Construction in high quality stainless steel
- Installation in any position
- Can be combined with all types of CONA®-Connector

### Features CONA®-Connector:

- Space saving, compact design
- Minimization of installation and maintenance labor
- Material optional in forged steel and stainless steel
- Series 682: with outside strainer
- Series 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
- Optionally with blow-down valve
- Series 683: Recommended in combination with CODI®-collector
- Elimination of potential leak points by reduced numbers of pipe joints
- Can be combined with all types of CONA®-Universal

### Selection criteria:

- |                          |  |
|--------------------------|--|
| - Steam pressure         | - Type of connection                         |
| - Back pressure          | - Material                                   |
| - Quantity of condensate | - Place of service or type of steam consumer |
| - Size class             |  |

### Example for order data:

Type of steam trap / type of connection  
=> Bimetallic steam trap CONA®B-Universal - Figure 55.604  
=> System connector with outside strainer CONA®-Connector 682, SA105, ANSI 300, with flanged connection, Size 1", Face-to-face dimension 6.30 inch

CONA®B-Universal - Bimetallic steam trap made of stainless steel

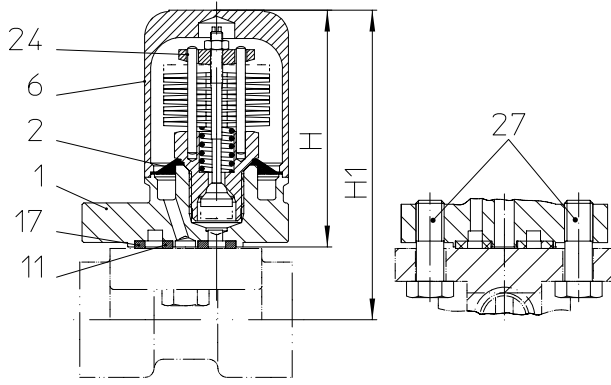


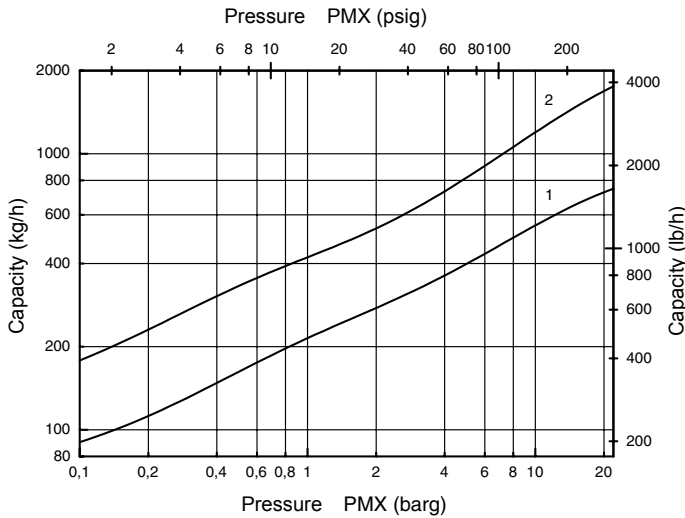
Fig. 604 Universal flange with 2 x 3/8" UNC-thread

- Bimetallic steam trap with corrosion resistant and water hammer proofed bimetallic controller
- Automatic ventilation during start up and operation of the plant
- Integrated check valve
- integrated 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)

ANSI 300 Fig. 55.604 SA351CF8	Operating limits
Max. temperature (°F)	752
Controller unit permissible ΔP (psi)	R22 319

Types of connection	
Universal flange	2 x 3/8" UNC-thread

Dimensions and weights		
Dimension (in)	H	3.07
	H1	acc. to connector type
Weight approx. (lb)		1,8



Capacity chart

The capacity chart shows the maximum flow at factory setting.

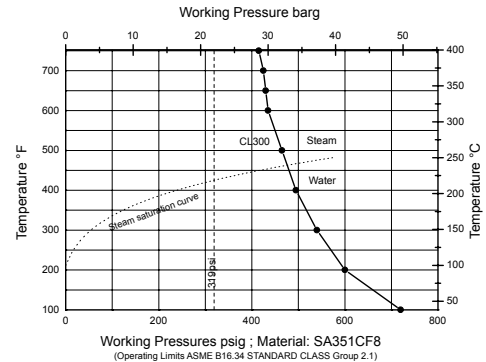
Curve 1

Maximum flow quantity of hot condensate at approx. 10 K / 18°F below boiling temperature.

Curve 2

Maximum flow quantity of cold condensate at about 68°F (cold start-up).

The condensate-temperature determines the aperture of the controller. The capacity is increasing with the sub-cooling temperature of the condensate.



Pos.	Description	Material codes
		ASTM / AISI
1	Body	SA351CF8
2	Strainer	SA240Gr.304
6	Cap	SA182F321
11	Sealing ring (inside)	spiral-wound gasket with graphite
17	Sealing ring (outside)	spiral-wound gasket with graphite
24	Controller	corrosion resist. bimetal TB 102 / 85
27	Hexagon screw	SA193Gr.B16

CONA®M-Universal - Thermostatic steam trap made of stainless steel

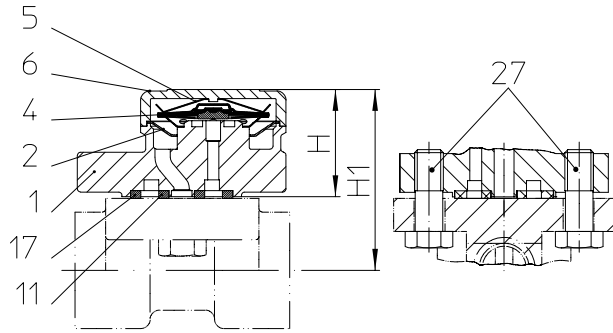


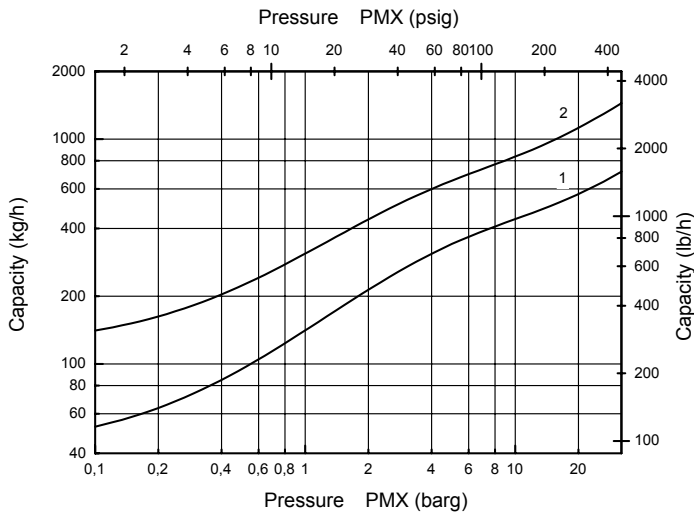
Fig. 622 Universal flange with 2 x 3/8" UNC-thread

- Thermostatic steam trap with corrosion resistant and water hammer proofed capsule
- Inside strainer
- Robust and insensitive to waterhammer
- Installation in any position, except cap upside down (optimal filter effect at horizontal installation)
- Optimized design for quick installation
- With capsule for condensate sub-cooling about approx. 10K
- Can be combined with all types of CONA®-Connector (refer to page 6)

ANSI 300 Fig. 55.622 SA351CF8	Operating limits
Max. temperature (°F)	752
Controller unit permissible ΔP (psi)	R32 464

Types of connection	
Universal flange	2 x 3/8" UNC-thread

Dimensions and weights		
Dimension (in)	H	1.38
	H1	acc. to connector type
Weight approx. (lb)		1.1



Capacity chart

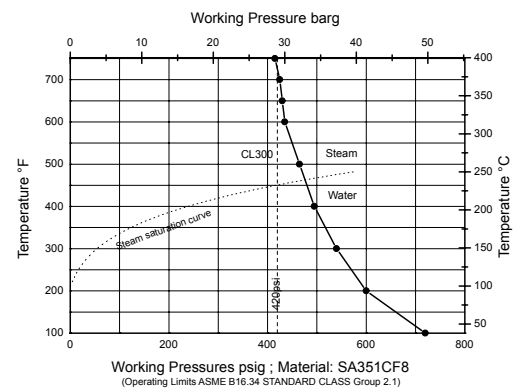
The capacity chart shows the maximum flow.

Curve 1

Maximum flow quantity of hot condensate at approx. 10 K / 18°F below boiling temperature.

Curve 2

Maximum flow quantity of cold condensate at about 68°F (cold start-up).



Pos.	Description	Material codes	
			ASTM / AISI
1	Body		SA351CF8
2	Strainer		SA240Gr.304
4	Capsule B	Diaphragm	Hastelloy
		Capsule	SA240Gr.304
5	Flat spring		AISI 301
6	Cap		SA182F321
11	Sealing ring (inside)	spiral-wound gasket with graphite	
17	Sealing ring (outside)	spiral-wound gasket with graphite	
27	Hexagon screw		SA193Gr.B16

CONA®S-Universal - Ball float steam trap made of stainless steel

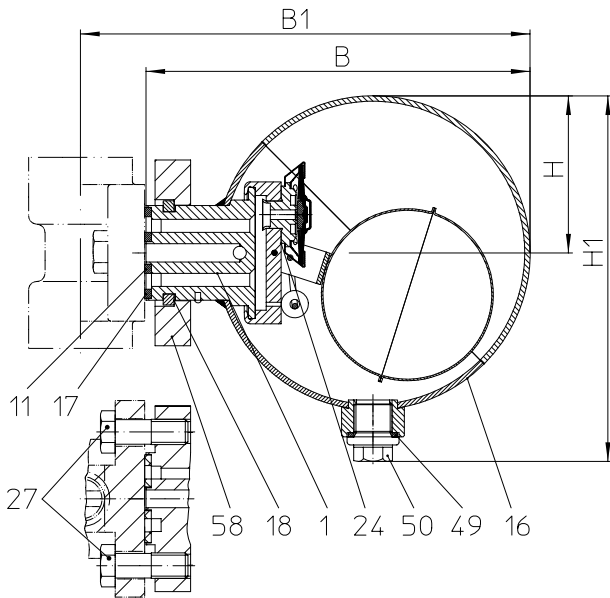


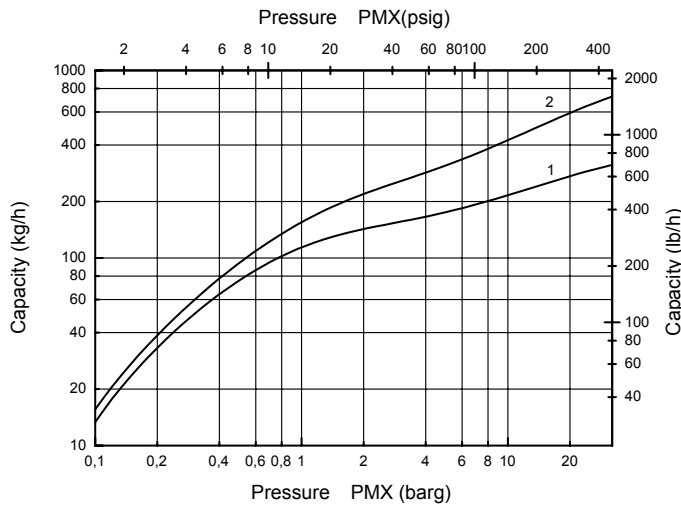
Fig. 628 Universal flange with 2 x 3/8" UNC-thread

- 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 (integrated capsule)
- Immediate discharge of hot boiling condensat
- Robust and insensitive to waterhammer
- Installation always with drain plug (Pos. 50) upside down
- Can be combined with all types of CONA®-Connector (refer to page 6)

<b>ANSI 300 Fig. 55.628</b> <b>Body: SA182F321</b> <b>Hood: SA240Gr.304</b>	<b>Operating limits</b>
Max. temperature (°F)	752
Controller unit permissible ΔP (psi)	R32 464

Types of connection	
Universal flange	2 x 3/8" UNC-thread

Dimensions and weights		
Dimension (in)	H	2.28
	H1	5.28
	B	5.51
	B1	acc. to connector type
Weight approx. (lb)		3.1



Capacity chart

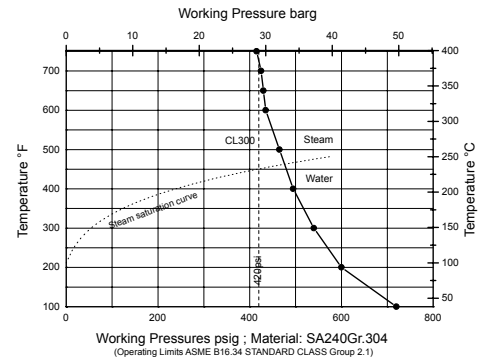
The capacity chart shows the maximum flow.

Curve 1

Maximum flow quantity of scalding hot condensate.

Curve 2

Maximum flow quantity of cold condensate at about 68°F.



Pos.	Description	Material codes	
		ASTM / AISI	
1	Body	SA182F321	
11	Sealing ring (inside)	spiral-wound gasket with graphite	
16	Hood	SA240Gr.304	
17	Sealing ring (outside)	spiral-wound gasket with graphite	
18	Retaining ring	A4	
24	Controller	Capsule B:	SA240Gr.304 Hastelloymembran
27	Hexagon screw	SA193Gr. B16	
49	Sealing ring for plug *	A4	
50	Plug (M14x1,5) *	SA182F321	
58	Loose flange	SA182F321	

\* Spare parts

## CONA®TD-Universal - Thermodynamic steam trap made of stainless steel

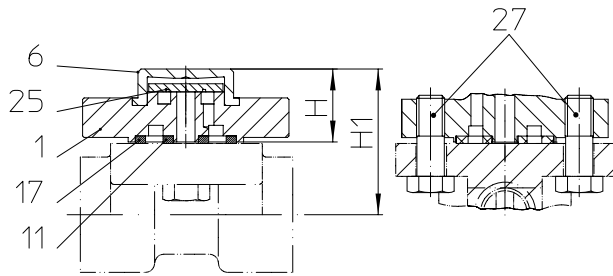


Fig. 642 without strainer  
Universal flange with 2 x 3/8" UNC-thread

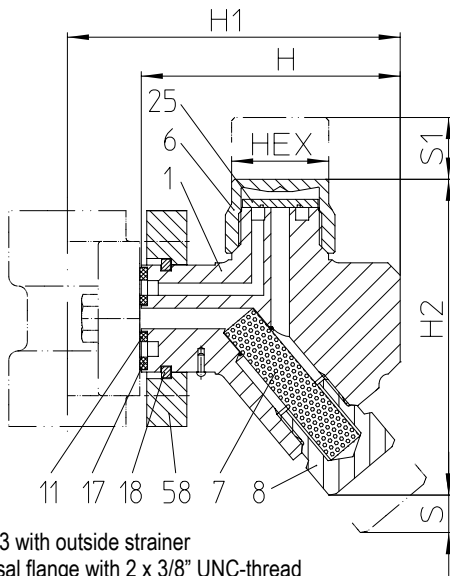


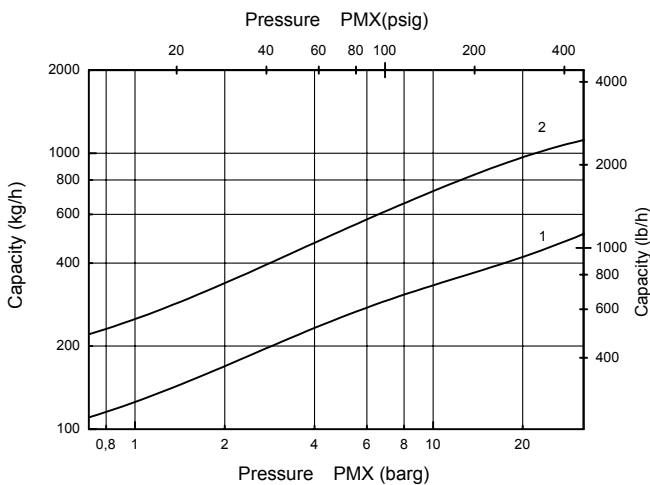
Fig. 643 with outside strainer  
Universal flange with 2 x 3/8" UNC-thread

- 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
- Design:
  - Series 642: without strainer
  - Series 643: with outside strainer
- Installation:
  - Series 642: any position
  - Series 643: strainer plug upside down
- Can be combined with all types of CONA®-Connector (refer to page 6)

ANSI 300 Fig. 55.642 / 55.643 (Y) SA470Gr.410 / SA182F6A	Operating limits
Max. temperature (°F)	752
permissible ΔP (psi)	420
perm. pressure ratio (psi-g):	Back pressure / Inlet pressure ≤ 12

Types of connection	
Universal flange	2 x 3/8" UNC-thread

Dimensions and weights		Series 642	Series 643
Dimension (in)	H	0.95	3.31
	H1	acc. to connector type	
	H2	--	4.06
	S	--	1.77
	S1	--	0.79
	HEX	--	1.26
Weight approx. (lb)		0.9	2.9



### Capacity chart

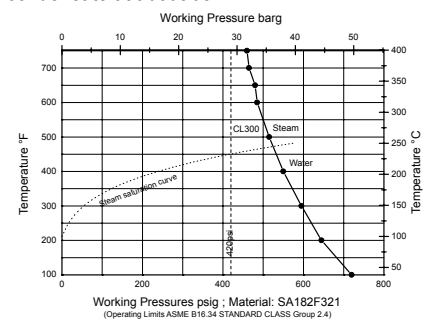
The capacity chart shows the maximum flow.

#### Curve 1

Maximum flow quantity of hot condensate.

#### Curve 2

Maximum flow quantity of cold condensate at about 68°F.



Pos.	Description	Material codes	
		Series 642 ASTM / AISI	Series 643 ASTM / AISI
1	Body	SA470Gr.410	SA182F6 A
6	Cap	SA470Gr.410	SA182F321
7	Strainer screen (Y) *	--	SA240Gr.304
8	Strainer plug (Y) *	--	SA182F321
11	Sealing ring (inside)	spiral-wound gasket with graphite	spiral-wound gasket with graphite
17	Sealing ring (outside)	spiral-wound gasket with graphite	spiral-wound gasket with graphite
18	Retaining ring	--	A4
25	Disc	AISI440	AISI440
27	Hexagon screw	SA193Gr.B16	SA193Gr.B16
58	Loose flange	--	SA182 F321

## CONA®-Connector - System connector made of forged steel, stainless steel

- System connector for minimization of installation and maintenance space saving and compact design
- Series 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")
- Optional: - Blow down valve

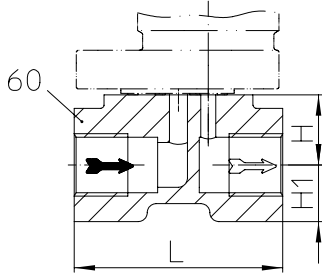


Fig. 681....2 System connector with threaded ends

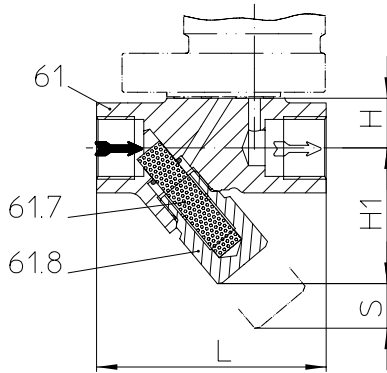


Fig. 682....2 System connector with outside strainer with threaded ends

ANSI 300 Fig. 55.681 SA351CF8	Operating limits
Max. pressure PS (psi)	420
Max. temperature (°F)	752

ANSI 300 Fig. 45.682/683/684 SA105	Operating limits
Max. pressure PS (psi)	464
Max. temperature (°F)	752

ANSI 300 Fig. 55.682/683/684 SA182F321	Operating limits
Max. pressure PS (psi)	464
Max. temperature (°F)	752

Types of connection	
Flanges ....1	ANSI 300 RF
Threaded ends ....2	R- and NPT-thread
Socket weld ends ....3	
Butt weld ends ....4	
Other types of connection on request.	

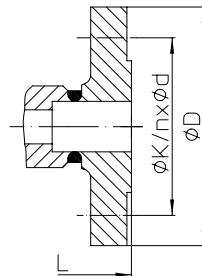


Fig. 682/683/684....1 with flanges

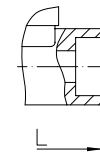


Fig. 681/682/683/684....3 with socket weld ends

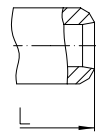


Fig. 682/683/684....4 with butt weld ends

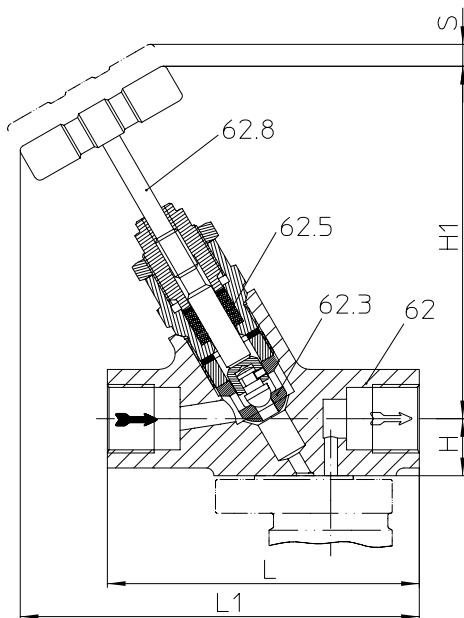


Fig. 683....2 System connector with stop function at inlet with threaded ends

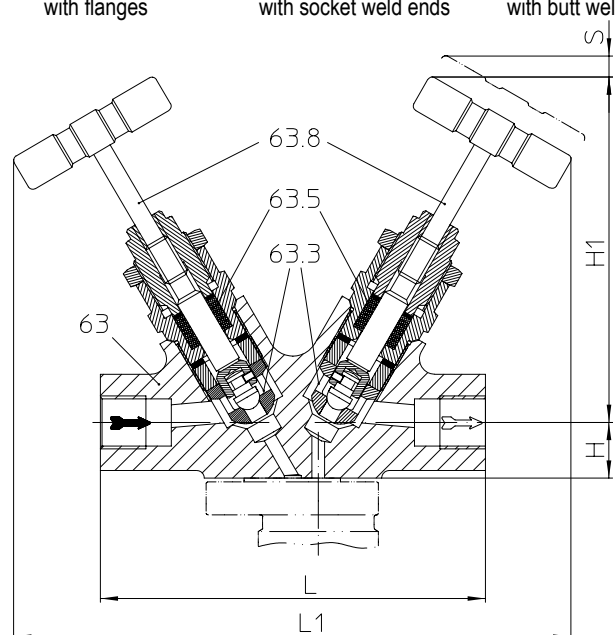


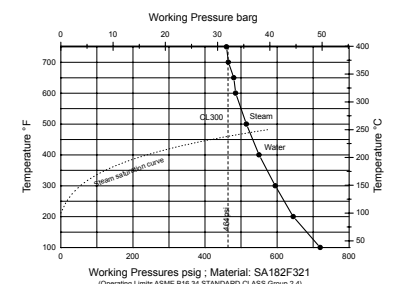
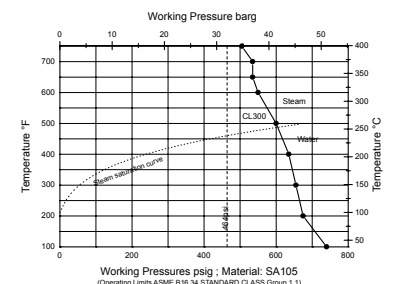
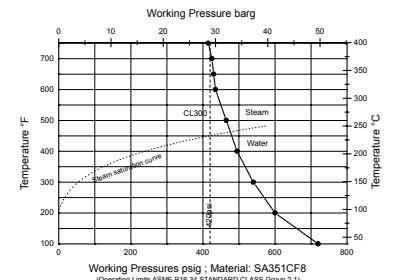
Fig. 684....2 System connector with stop function at inlet and outlet with threaded ends

Dimensions and weights			Types of connection								
			Flanges			Threaded ends Socket weld ends			Butt weld ends		
Size	inch		1/2"	3/4"	1"	1/2"	3/4"	1"	1/2"	3/4"	1"
Dimension (in)	L*	Fig. 681	--	--	--	2.76	2.76	--	--	--	--
		Fig. 682	5.91	5.91	6.30	3.74	3.74	6.30	9.84	9.84	9.84
		Fig. 683	5.91	5.91	6.30	4.72	4.72	4.72	9.84	9.84	9.84
		Fig. 684	7.87	7.87	8.07	5.98	5.98	8.07	9.84	9.84	9.84
	L1	Fig. 683	6.65	6.65	6.85	6.06	6.06	6.85	8.62	8.62	8.62
		Fig. 684	8.66	8.66	8.66	8.66	8.66	8.66	8.66	8.66	8.66
	H	Fig. 681	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
		Fig. 682	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
		Fig. 683	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
		Fig. 684	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
	H1	Fig. 681	--	--	--	0.75	0.75	--	--	--	--
		Fig. 682	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28
		Fig. 683	5.35	5.35	5.35	5.35	5.35	5.35	5.35	5.35	5.35
		Fig. 684	5.35	5.35	5.35	5.35	5.35	5.35	5.35	5.35	5.35
	S	Fig. 682	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
		Fig. 683	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
		Fig. 684	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
	Ø D		0.75	4.62	4.88	--	--	--	--	--	--
	Ø K		2.62	3.25	3.50	--	--	--	--	--	--
	n x Ød		4 x 0.62	4 x 0.75	4 x 0.75	--	--	--	--	--	--
Weight approx. (lb)	Fig. 681		--	--	--	1.32	1.32	--	--	--	
	Fig. 682		5.1	6.4	7.7	2.2	2.2	2.7	2.9	3.1	
	Fig. 683		6.6	7.7	9.0	3.8	3.5	4.0	4.2	4.4	
	Fig. 684		8.8	9.9	11.2	6.0	5.7	6.2	6.4	6.6	

\* other face-to-face dimensions on request

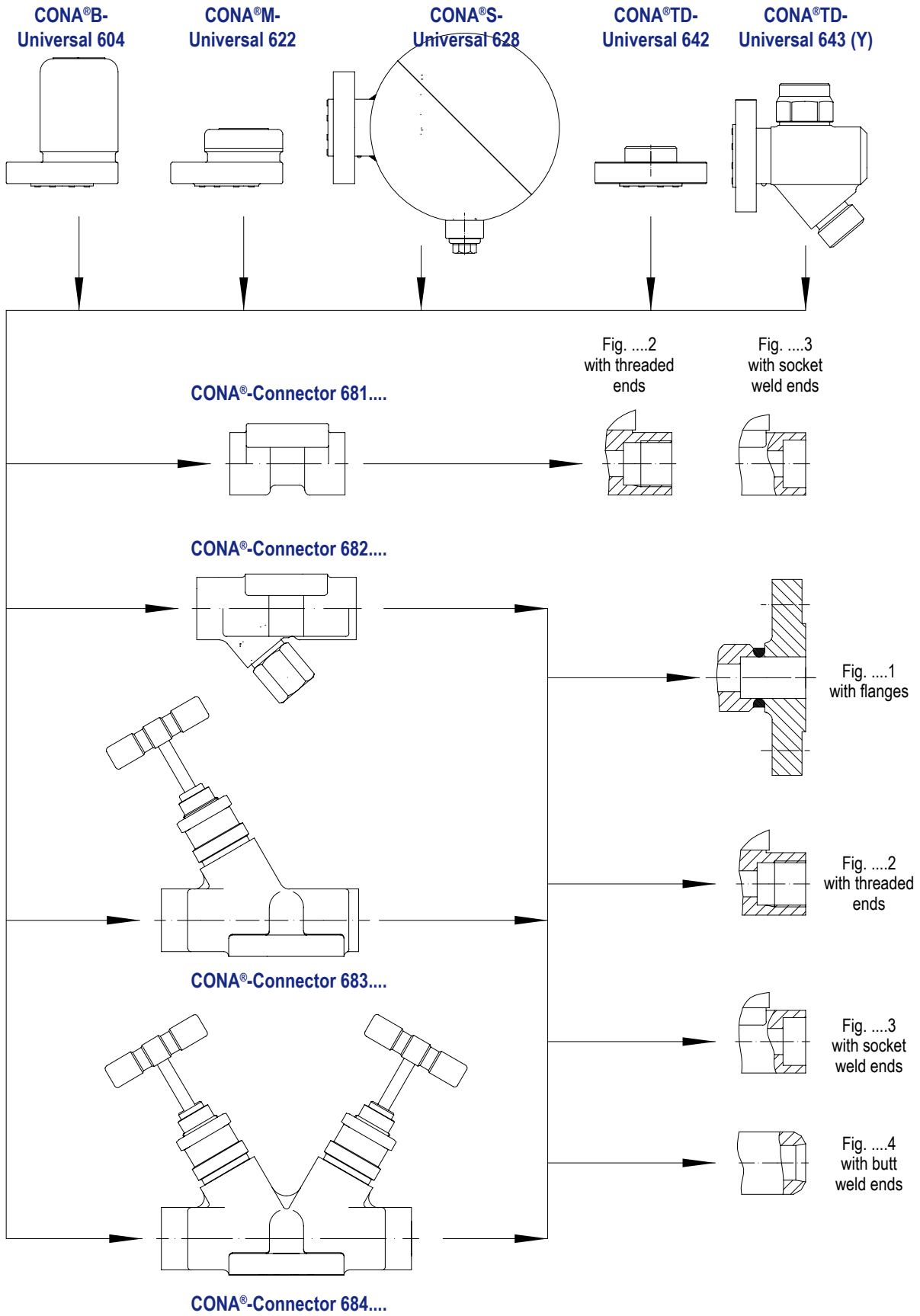
### Steam traps according to ASTM

- Pressure bearing parts made of ASTM / AISI -materials
- Studs and nuts made of ASTM-materials, with metric or american screw-threads
- Face-to-face dimension acc. to data sheet resp. customer request
- Flanges acc. to ANSI
- Pressure test acc. to API 598



Pos.	Description	Material codes	
		ASTM / AISI	ASTM / AISI
60	Body (Fig. 681)	--	SA351CF8
61 (Y)	Body (Fig. 682)	SA105	SA182F321
61.7 (Y)	Strainer screen *	SA240Gr.304	SA240Gr.304
61.8 (Y)	Strainer plug *	SA182F321	SA182F321
62	Body (Fig. 683)	SA105	SA182F321
62.3	Seat *	AISI303	AISI303
62.5	Packing ring (1 set) *	Graphite	Graphite
62.8	Assembly stop valve, cpl. *	SA240	SA240
63	Body (Fig. 684)	SA105	SA182F321
63.3	Seat *	AISI303	AISI303
63.5	Packing ring (1 set) *	Graphite	Graphite
63.8	Assembly stop valve, cpl. *	SA240	SA240

\* Spare parts



**Technik mit Zukunft.**  
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