

ARI-CONAsys® Pre-fabricated steam trap station

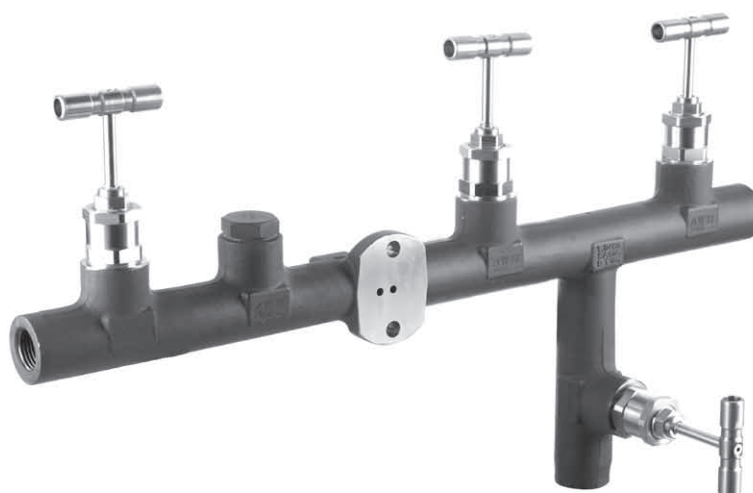
ARI-CONAsys®

CNS 1 Single Isolation



ARI-CONAsys®

CNS 2 Double Isolation



Features:

- A simple fabricated steam trap station for ease of installation and maintenance
- Can be combined with all types of CONA-Universal steam trap range
- Fully welded construction ensuring zero leakage
- Complies with European Pressure Equipment Directive 97/23/EC
- EN 10204 3.1 Certification
- Optional bellows sealed stop valves
- Ease of steam trap maintenance with simple two bolt connector reducing downtime and maintenance when compared to traditional steam trap stations

ARI-CONAsys® Pre-fabricated steam trap station

1. General Description

2. CNS1 Single Isolation

3. CNS2 Double Isolation

4. Gland packed stop valve (forged steel)

5. Bellows sealed stop valve (forged steel)

6. CONA“B-Universal – Bimetallic steam tap (stainless steel)

7. CONA“M-Universal – Thermostatic steam tap (stainless steel)

8. CONA“S-Universal – Ball float steam tap (stainless steel)

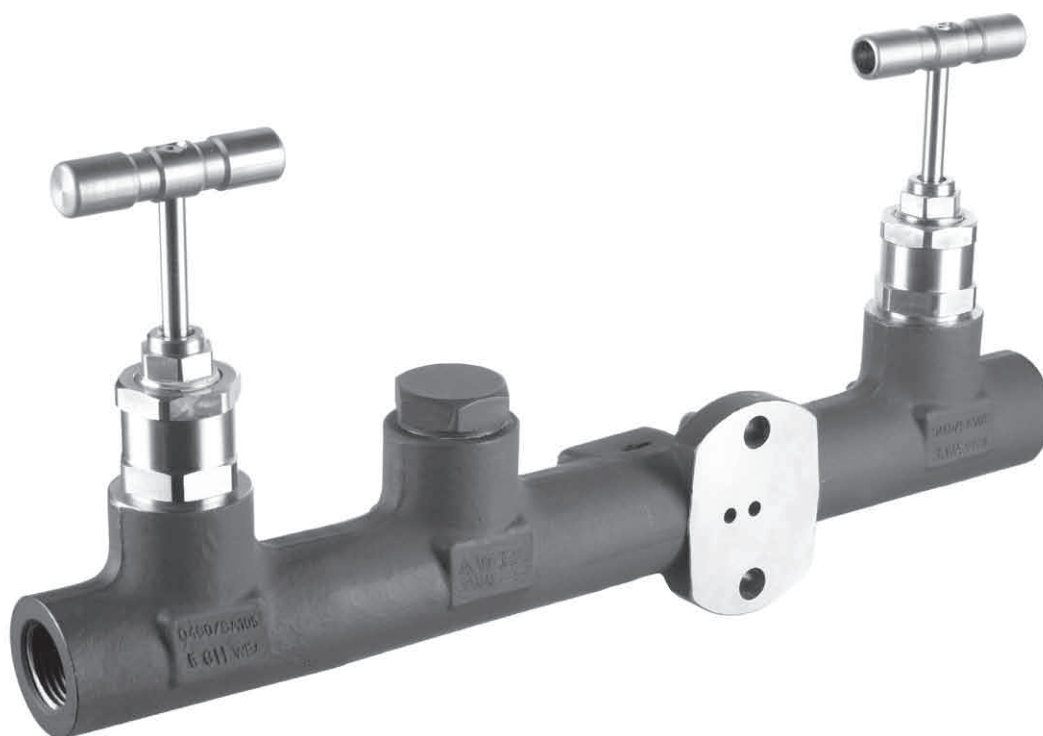
9. CONA“TD-Universal – Thermodynamic steam tap (stainless steel)

ARI-CONAsys® Pre-fabricated steam trap station

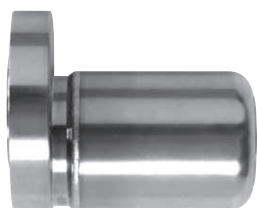
The CONAsys range of pre-fabricated steam trap stations have been designed to provide a convenient, ready to install steam trap system. The standard equipment includes inlet stop valve, pipeline connector complete with Y pattern strainer, check valve and outlet stop valve.

In addition to the standard system, the CONAsys range is available with either single or double inlet stop valves. The double inlet stop valve option comes complete with a bleed valve and is available for users wishing to comply with 'Best Practice' as indicated in the HSE guidance publication Safe Isolation of Plant in the UK' (generally, a single isolation valve with a bleed is not recommended for the safe isolation of hazardous fluids).

With both options, the inlet stop valve can be provided as either gland packed (see page 4) or bellows sealed (see page 5).



Compatible CONA Universal Steam Traps



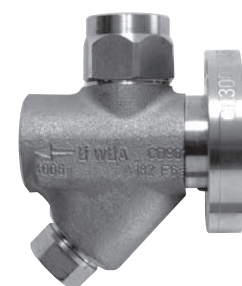
CONA B Bimetallic
see page 6



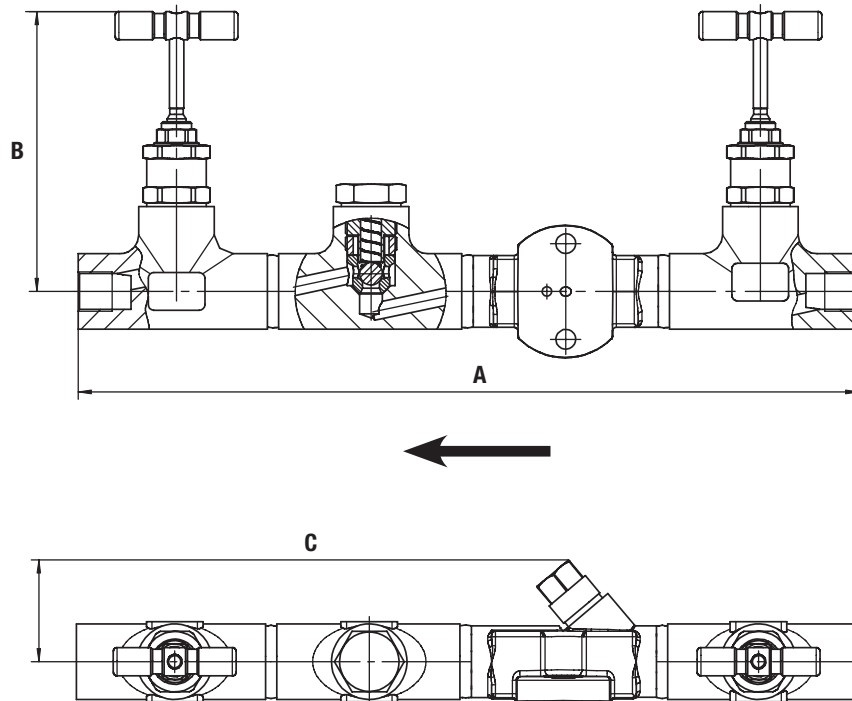
CONA M Thermostatic
see page 7



CONA S Ball Float
see page 8



CONA TD Thermodynamic
see page 9

ARI-CONAsys® Pre-fabricated steam trap station
CNS1 – Single Isolation


Single Upstream Isolation					
Dimensions and weights (approximate) in mm and kg					
	Size	A	B	C	Weight
Gland	½"	413	148	54	5
Gland	¾"	413	148	54	5
Gland	1"	395	148	54	5
Bellows	½"	413	181	54	5.6
Bellows	¾"	413	181	54	5.6
Bellows	1"	413	181	54	5.6

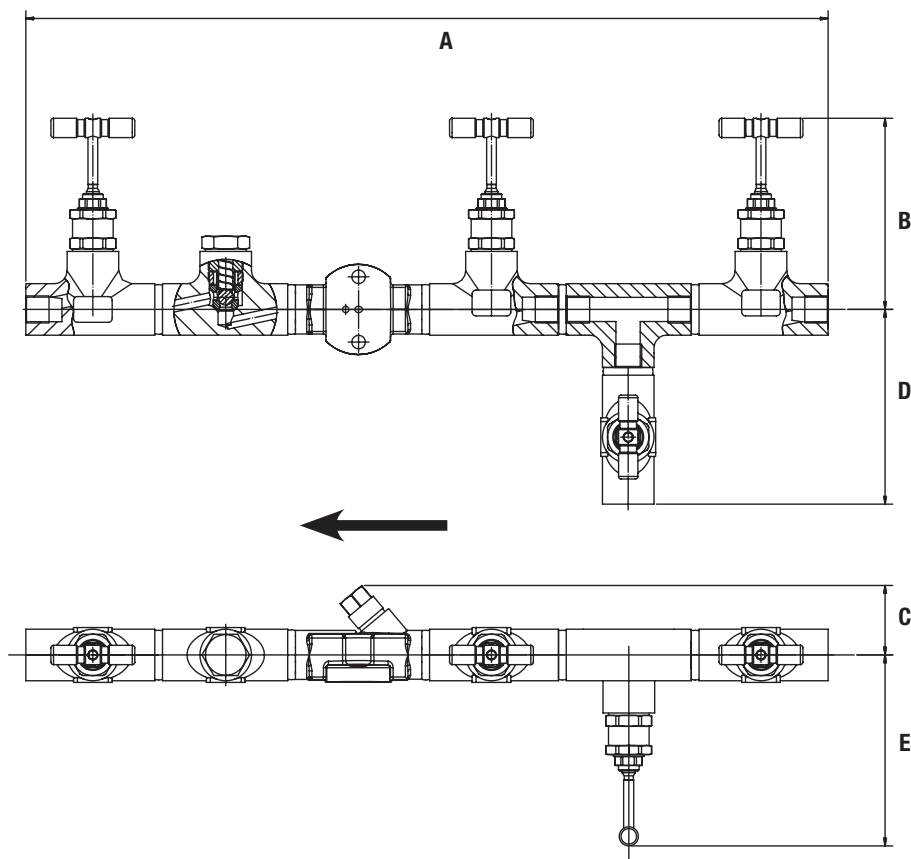
Materials of Construction		
No	Part	Material
1	Isolation globe valve	Forged steel P250GH, 1.0460
2	Universal connector	Stainless steel SA351CF8
3	Check valve	Forged steel P250GH, 1.0460
4	Isolation globe valve	Forged steel P250GH, 1.0460

System Design Conditions	
Nominal pressure	PN40
Operating pressure	32 bar
Operating temperature	240°C

Available Pipe Connections
Screwed BSP
Socket Weld
Butt Weld

ARI-CONAsys® Pre-fabricated steam trap station

CNS2 – Double Isolation & Bleed



Double Upstream Isolation & Bleed							
Dimensions and weights (approximate) in mm and kg							
	Size	A	B	C	D	E	Weight
Gland	½"	668	148	54	151	148	9
Gland	¾"	668	148	54	151	148	9
Gland	1"	668	148	54	151	148	9
Bellows	½"	668	181	54	151	181	10.2
Bellows	¾"	668	181	54	151	181	10.2
Bellows	1"	668	181	54	151	181	10.2

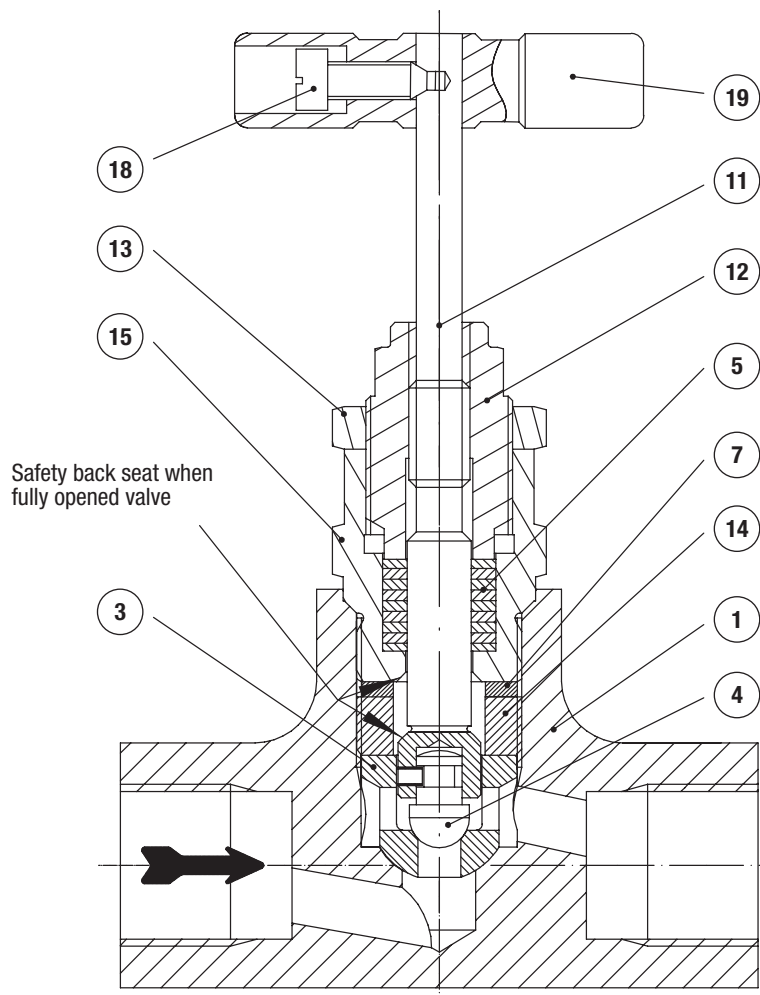
Materials of Construction		
No	Part	Material
1	Isolation globe valve	Forged steel P250GH, 1.0460
2	Isolation globe valve	Forged steel P250GH, 1.0460
3	Isolation globe valve	Forged steel P250GH, 1.0460
4	Universal connector	Stainless steel SA351CF8
5	Check valve	Forged steel P250GH, 1.0460
6	Isolation globe valve	Forged steel P250GH, 1.0460

System Design Conditions	
Nominal pressure	PN40
Operating pressure	32 bar
Operating temperature	240°C

Available Pipe Connections
Screwed BSP
Socket Weld
Butt Weld

ARI-CONAsys® Pre-fabricated steam trap station

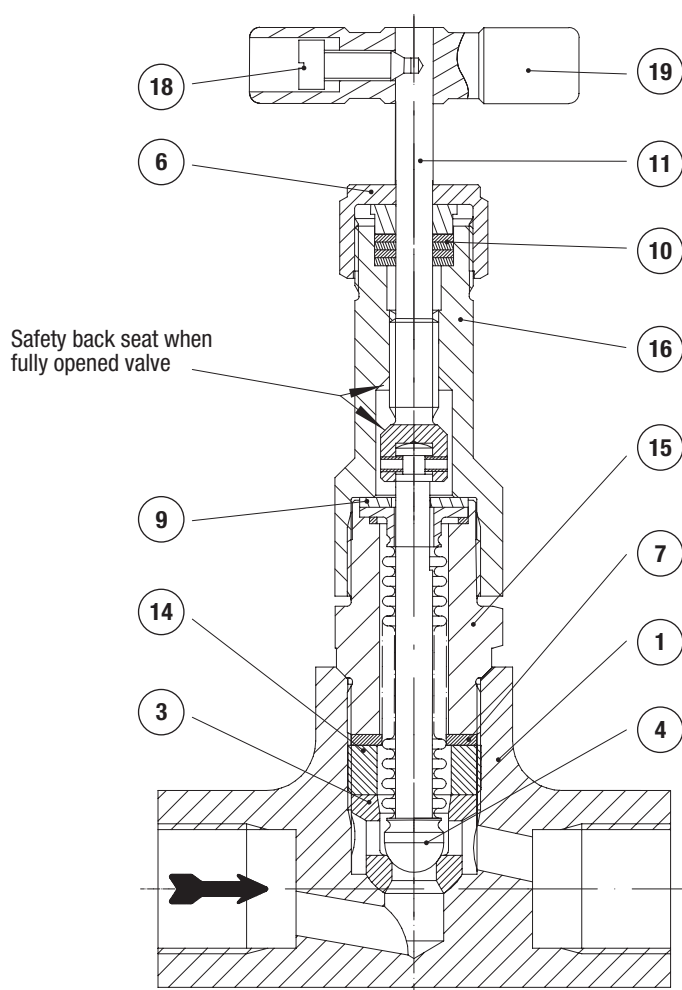
Gland packed stop valve (forged steel)



Parts			
Pos.	Sp.p.	Description	Fig. 45.6A1
1		Body	P250GH, 1.0460
3	x	Seat	X8CrNiS18-9, 1.4305
4		Valve ball	X39CrMo17-1+QT, 1.4122+QT
5	x	Packing ring	Pure graphite
7		Sealing ring	Graphite
8	x	Assembly stop valve	X6CrNiMoTi17-12-2, 1.4571
11		Stem	X2CrNiMo17-12-2, 1.4404
12		Insert nuts	X39CrMo17-1+QT, 1.4122+QT
13		Safety nut	X8CrNiS18-9, 1.4305
14		Banjo bolt	X8CrNiS18-9, 1.4305
15		Fitting	X8CrNiS18-9, 1.4305
18	x	Cylinder screw	A2-70
19	x	Hand grip	X14CrMoS17+QT, 1.4104+QT
		Other interior parts	Stainless steel
		Spare parts	

ARI-CONAsys® Pre-fabricated steam trap station

Bellows seal stop valve (Forged steel)



Parts			
Pos.	Sp.p.	Description	Fig. 45.6A2
1		Body	P250GH, 1.0460
3	x	Seat	X8CrNiS18-9, 1.4305
4		Valve ball	X39CrMo17-1+QT, 1.4122+QT
6		Sleeve nut	X14CrMoS17+QT, 1.4104+QT
7		Sealing ring	Graphite
8	x	Assembly stop valve, cpl.	X6CrNiMoTi17-12-2, 1.4571
8.1		Bellows seal	Stainless steel
9		Removable lock washer	X5CrNi18-10, 1.4301
10	x	Packing ring	Pure graphite
11		Stem	X2CrNiMo17-12-2, 1.4404
14		Banjo bolt	X8CrNiS18-9, 1.4305
15		Fitting	X8CrNiS18-9, 1.4305
16		Stem guiding	X8CrNiS18-9, 1.4305
18	x	Cylinder screw	A2-70
19	x	Hand grip	X14CrMoS17+QT, 1.4104+QT
		Other interior parts	Stainless steel
		Spare parts	

ARI-CONAsys® Pre-fabricated steam trap station

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

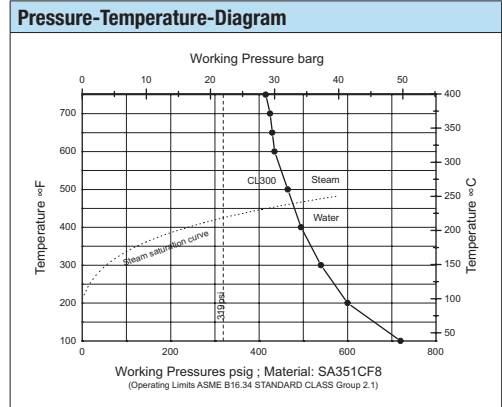
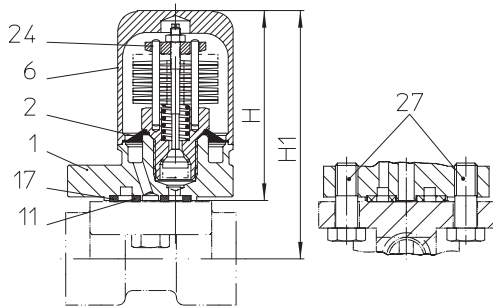


Fig. 604 Universal flange with 2 x 3/8" UNC-thread

Figure	Nominal pressure	Material	NPS	Operating pressure PS	Inlet temperature TS	max. differential pressure ΔPMX	for controller
55.604	ANSI300	SA351CF8	2 x 3/8"	22 barg	400 °C	22 bar	R22

Types of connection

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

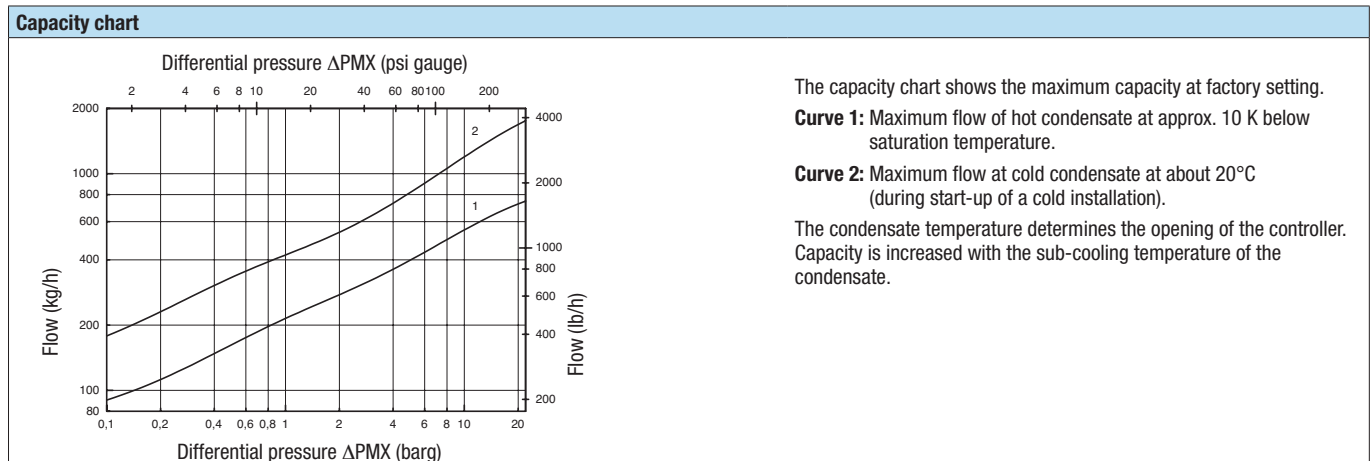
Features

- Resistant to waterhammer, corrosive condensate and frost
- Good air venting capacity
- Non return protection
- Inside strainer
- Two bolt connector for quick and simple maintenance

Types of connection		Universal flange
NPS		2 x 3/8"
Dimensions		
H	(mm)	82
H1	(mm)	acc. to connector type
Weights		
(approx.)	(kg)	0,8

Parts			
Pos.	Ers.	Description	Fig. 55.604
1	x (cpl. unit)	Body	SA351CF8
2		Strainer	SA240Gr.304
6		Cap	SA182F321
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		Hexagon screw	SA193Gr.B16
Spare parts			

Information / restriction of technical rules need to be observed!
Resistance and fitness must be verified (or contact the manufacturer for information).



ARI-CONAsys® Pre-fabricated steam trap station CONA®M-Universal - Thermostatic steam trap (Stainless steel)

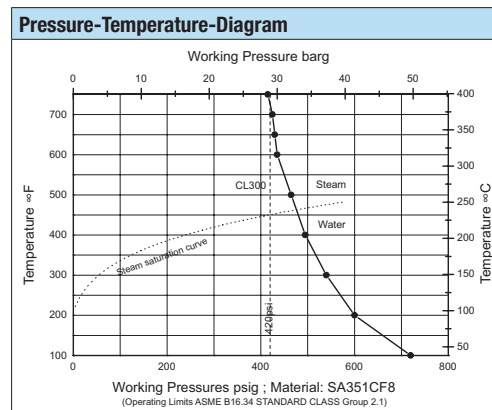
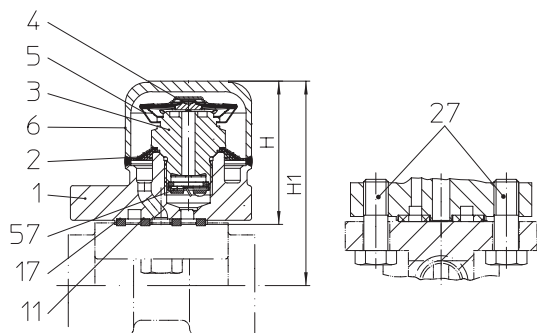


Fig. 622 Universal flange with 2 x 3/8" UNC-thread

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"	29 barg	400 °C	29 bar	R32

Types of connection	
• Universal flange _____ 2 x 3/8" UNC-thread	
Features	
<ul style="list-style-type: none"> Resistant to waterhammer, corrosive condensate and frost Operates below steam saturation temperature Good air venting capacity 	<ul style="list-style-type: none"> Non return protection Inside strainer Two bolt connector for quick and simple maintenance

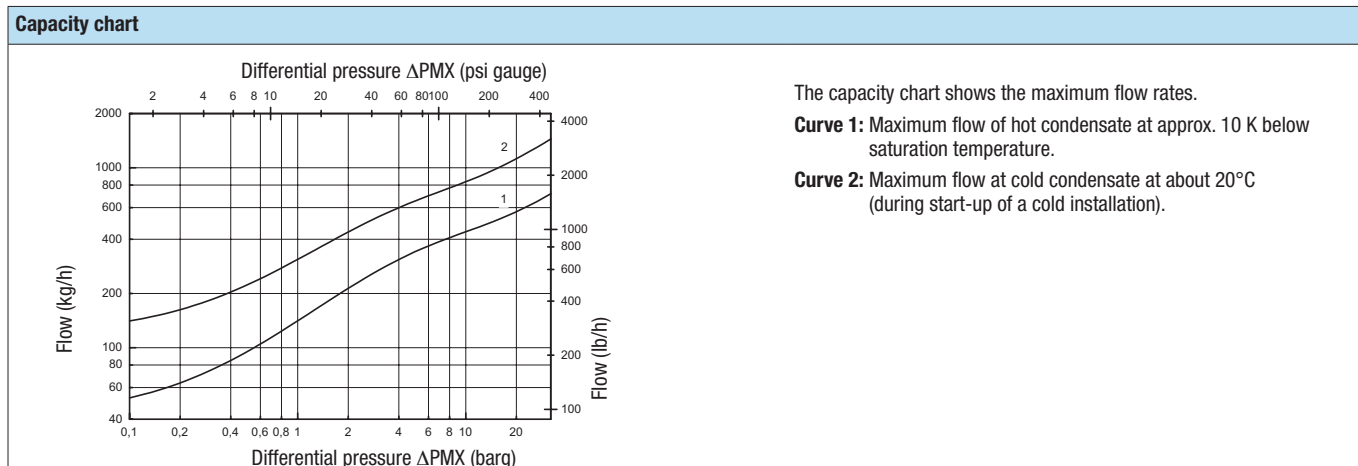
Types of connection	Universal flange
NPS	2 x 3/8"

Dimensions	
H	(mm) 54
H1	(mm) acc. to connector type

Weights	
(approx.)	(kg) 0,6

Parts			
Pos.	Ers.	Description	Fig. 55.622
1	x (cpl. 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	SA182F321
11		Sealing ring (spiral wounded gasket)	Metaflex (with Graphite)
17		Sealing ring (spiral wounded gasket)	Metaflex (with Graphite)
27		Hexagon screw	SA193Gr.B16
57		Non return protection	SA240Gr.304
Spare parts			

Information / restriction of technical rules need to be observed!
Resistance and fitness must be verified (or contact the manufacturer for information).



ARI-CONAsys® Pre-fabricated steam trap station

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

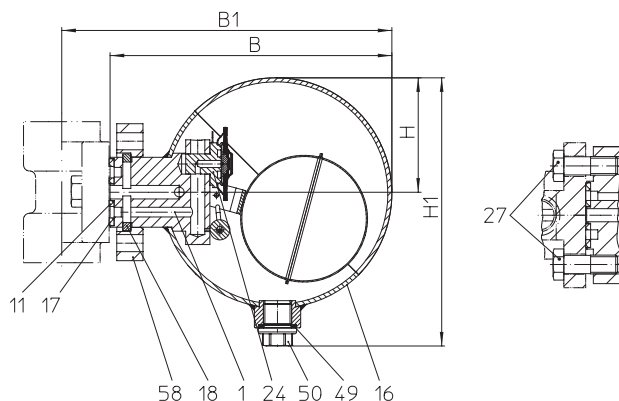


Fig. 628 Univr flange with 2 UNC-thread

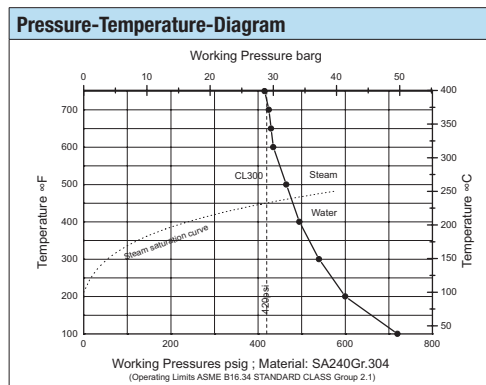


Figure	Nominal pressure	Material	NPS	Operating pressure PS	Inlet temperature TS	max. differential pressure ΔPMX	for controller
55.628	ANSI300	Body: SA182F321 / Hood: SA240Gr.304	2 x 3/8"	29 barg	400 °C	29 bar	R32

Types of connection

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

Features

- Resistant to waterhammer, corrosive condensate
- Good air venting capacity
- Responds immediately to wide and sudden changes in load
- Two bolt connector for quick and simple maintenance
- Installation with drain plug pointing down

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

Dimensions

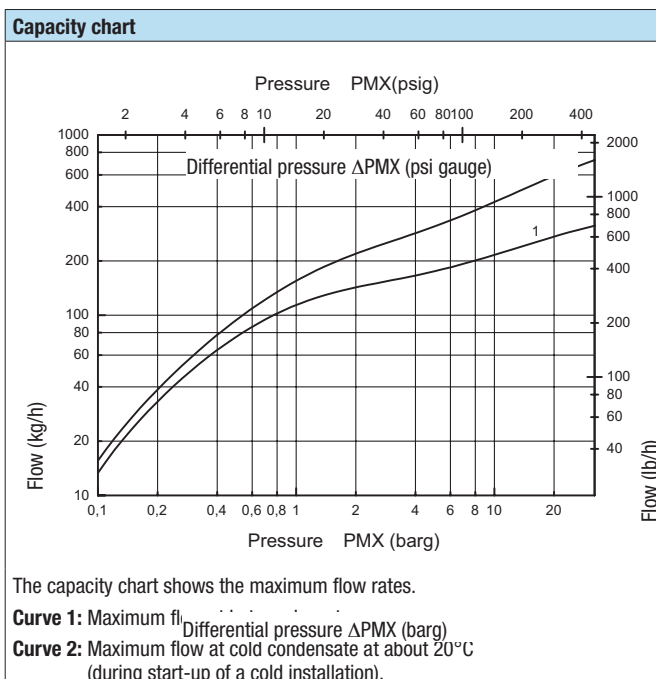
H	(mm)	58
H1	(mm)	134
B	(mm)	140
B1	(mm)	acc. to connector type

Weights

(approx.)	(kg)	1,4
-----------	------	-----

Parts			
Pos.	Ers.	Description	Material, Material-Nr.
1		Body	SA182F321
11	x	Sealing ring (spiral wounded gasket)	Metaflex (with Graphite)
16		Hood	SA240Gr.304
17	x	Sealing ring (spiral wounded gasket)	Metaflex (with Graphite)
18		Retaining ring	A4
24		Retaining ring B, kpl.	SA240Gr.304 / Hastelloymembran
27		Hexagon screw	SA193Gr.B16
49	x	Sealing ring für Plug	A4
50	x	Plug (M14x1,5)	SA182F321 (with metric screw-thread)
58		Loose flange	SA182F321
Spare parts			

Information / restriction of technical rules need to be observed!
Resistance and fitness must be verified (or contact the manufacturer for information).



The capacity chart shows the maximum flow rates.
Curve 1: Maximum flow at differential pressure ΔPMX (barg)
Curve 2: Maximum flow at cold condensate at about 20°C (during start-up of a cold installation).

ARI-CONAsys® Pre-fabricated steam trap station

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

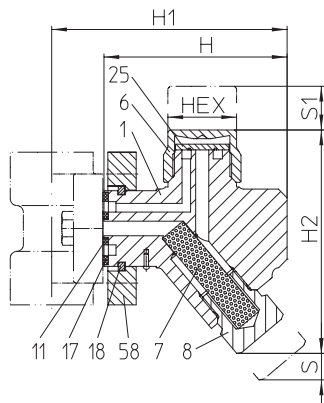


Fig. 643 with outside strainer
Universal flange with 2 x 3/8" UNC-thread

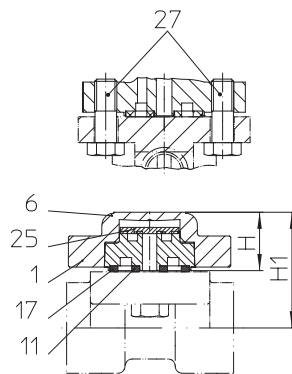


Fig. 642 without strainer
Universal flange with 2 x 3/8" UNC-thread

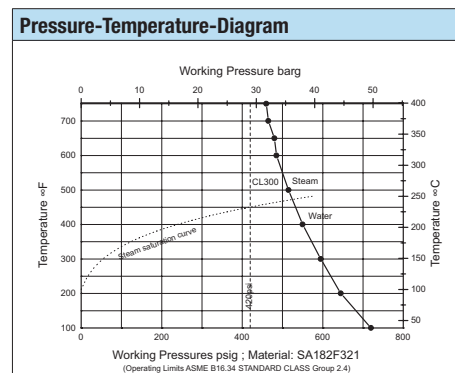


Figure	Nominal pressure	Material	NPS / Nominal diameter	Operating pressure PS	Inlet temperature TS	max. differential pressure ΔPMX	permissible pressure ratio
55.642	ANSI300	SA276Gr.420	2 x 3/8"	29 barg	400 °C	29 bar	Back pressure / Inlet press. ≤ 0,8 barg
55.643 (Y)	ANSI300	SA182F6 A	2 x 3/8"	29 barg	400 °C	29 bar	

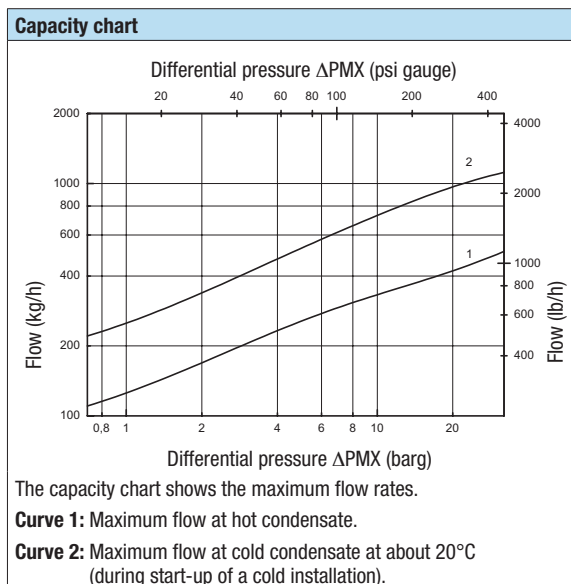
Types of connection	
• Universal flange _____ 2 x 3/8" UNC-thread	
Features	
• Resistant to waterhammer, corrosive condensate and frost	• Compact design
• Inside strainer	• Two bolt connector for quick and simple maintenance

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

Dimensions		Fig. 55.642	Fig. 55.643
H	(mm)	24	84
H1	(mm)	acc. to connector type	
H2	(mm)	--	103
S	(mm)	--	45
S1	(mm)	--	20
HEX	(mm)	--	32

Weights	
(approx.)	(kg)
	0,4
	1,3

Parts					
Pos.	Ers.	Description	Fig. 55.642	Fig. 55.643	
1		Body	SA276Gr.420	SA182F6 A	
6		Cap	SA276Gr.420	SA182F321	
7	x	Strainer (Y)	--	SA240Gr.304	
8	x	Strainer plug (Y)	--	SA182F321	
11	x (cpl. unit)	Sealing ring (spiral wounded gasket)	Metaflex (with Graphite)		
17		Sealing ring (spiral wounded gasket)	Metaflex (with Graphite)		
18		Retaining ring	--	A4	
25		Disc	AISI440		
27		Hexagon screw	SA193Gr.B16		
58		Loose flange	--	SA182 F321	
Spare parts					



Information / restriction of technical rules need to be observed!
Resistance and fitness must be verified (or contact the manufacturer for information).

The capacity chart shows the maximum flow rates.
Curve 1: Maximum flow at hot condensate.
Curve 2: Maximum flow at cold condensate at about 20°C (during start-up of a cold installation).



ARI-Armaturen UK Ltd. Energy House, Shannon Place, GB, Tewkesbury, Glos. GL20 8SL
Tel: +44 1684 275752 **Fax:** +44 1684 275627 **Email:** inquiries@uk.ari-armaturen.com **Internet:** www.ari-armaturen.com