

### CONA® All-in-one - Steam trap station with integrated inlet and outlet valves

Fig. 60A

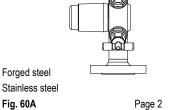
Fig. 61A

Forged steel

Fig. 63A

# CONA®B All-in-one Bimetallic steam trap **PN40**

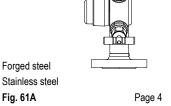
(Fig. 60A....1) - with flanges - with screwed sockets (Fig. 60A....2) - with socket weld ends (Fig. 60A....3) - with butt weld ends (Fig. 60A....4)





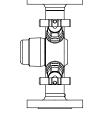
# **CONA®M All-in-one** Thermostatic steam trap **PN40**

- with flanges (Fig. 61A....1) - with screwed sockets (Fig. 61A....2) - with socket weld ends (Fig. 61A....3) - with butt weld ends (Fig. 61A....4)



# CONA®TD All-in-one Thermodynamic steam trap **PN40**

(Fig. 64A....1) - with flanges - with screwed sockets (Fig. 64A....2) - with socket weld ends (Fig. 64A....3) - with butt weld ends (Fig. 64A....4)

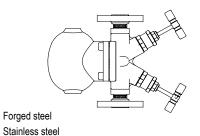


Stainless steel Fig. 64A Page 6



## CONA®SC All-in-one **Ball float steam trap PN40**

- with flanges (Fig. 63A....1) - with screwed sockets (Fig. 63A....2) - with socket weld ends (Fig. 63A....3) - with butt weld ends (Fig. 63A....4)



Page 10

### Features:

- · Robust and resistant to water-hammer
- · Integrated non return protection
- · Mounting position verical or horizontal
- · The controller maybe changed without disturbing the pipe work

#### CONA®B/M/TD All-in-one:

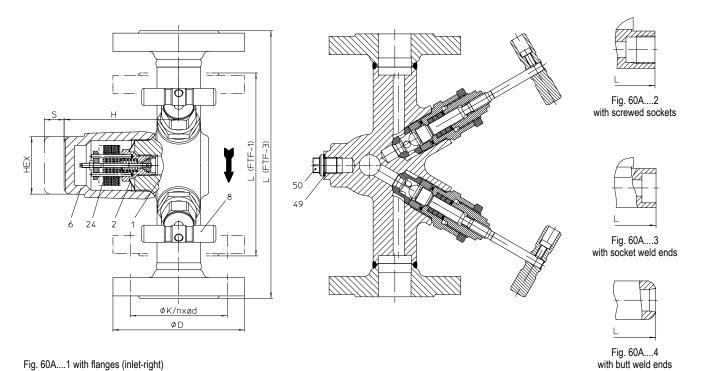
- For discharging of slight to highly sub-cooled condensate
- · Optimized design for quick installation
- · Gasket-free sealing of the screwed cap
- · Internal strainer

### CONA®SC All-in-one:

- · Back pressure-free condensate discharge
- · Rapid system start-up due to thermostatic airventing capsule



# CONA®B All-in-one - Bimetallic steam trap with integrated inlet and outlet valves (Forged steel, Stainless steel)



| Figure | Nominal pressure | Material | Nominal diameter / NPS | Operating pressure PS | Inlet temperature<br>TS | allowable differential pressure ΔPMX | for<br>controller |
|--------|------------------|----------|------------------------|-----------------------|-------------------------|--------------------------------------|-------------------|
|        |                  |          | DN15-25 /<br>1/2" - 1" | 32 barg               | 250 °C                  |                                      |                   |
| 45.60A | PN40             | 1.0460   |                        | 22 barg               | 385 °C                  | 32 bar                               | R32               |
|        |                  |          |                        | 14,5 barg             | 450 °C                  | 22 bar                               | R22               |
| 55.004 | DNI40            | 4.4544   | DN15-25 /              | 32 barg               | 350 °C                  | 13 bar                               | R13               |
| 55.60A | PN40             | 1.4541   | 1/2" - 1"              | 22 barg               | 400 °C                  |                                      |                   |

For ANSI versions refer to data sheet CONA®All-in-one ANSI

| Types of connection                   |   | Other types of connection on request.  |  |  |  |
|---------------------------------------|---|--|--|--|--|
| • Flanges1acc. to                     | DIN EN 1092-1   |  |  |  |  |
| Screwed sockets2 Rp three             | ad acc. to DIN EN 10226-1 or NPT thread acc. to ANSI B1.20.1  |  |  |  |  |
| Socket weld ends3 acc. to             | DIN EN 12760  |  |  |  |  |
|                                       | reparation acc. to EN ISO 9692 identification No. 1.3 and 1.5 estriction on operating pressure / inlet temperature depending to | o design!)   |  |  |  |
| Features                              |   |  |  |  |  |
| Thermostatic steam trap with non-     | corrosive and robust water hammer proof bimetallic controller   |  |  |  |  |
| User-friendly handling, easy and q    |   | Subcooling of condensate is continuously adjustable (observe the operation instructions) |  |  |  |
| Automatic air-venting during start is | up and operation of the plant   | Maintenance simplified due to screwed cap without sealing                                |  |  |  |
| Non return protection                 |   | The controller maybe changed without disturbing the pipe work                            |  |  |  |
| With inside strainer                  |   | 3,   |  |  |  |
| Mounting position                     |   |  |  |  |  |
| Otandani                              | vertical  |  |  |  |  |
| Standard:                             | horizontal; inlet-right   | Please indicate when ordering!   |  |  |  |
| Optional:                             | horizontal; inlet-left  |  |  |  |  |
| Controller                            |   | (chooseable for operating range)   |  |  |  |
| Controller R13                        | uo to inlet pressure: 13 bar  |  |  |  |  |
| Controller R22                        | uo to inlet pressure: 22 bar  |  |  |  |  |
| Controller R32                        | uo to inlet pressure: 32 bar  |  |  |  |  |
| Options                               |   | (Design refer to page 3)   |  |  |  |
| Drain valve (Pos. 51)                 |   |  |  |  |  |
| • Ball valve for blow down (Pos. 56)  |   |  |  |  |  |
| Stop valve with bellows seal (Pos.    | 8)  |  |  |  |  |





| Types of connection | Flanges 1) |      |    |      | rewed socket<br>cket weld end |    | Butt weld ends <sup>2)</sup> |      |    |  |
|---------------------|------------|------|----|------|-------------------------------|----|------------------------------|------|----|--|
| 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 |       |      |     |     |     |     |     |     |     |     |     |  |  |
|--------------|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| 1            | FTF-1 | (mm) | 150 | 150 | 160 | 150 | 150 | 220 | 160 | 160 | 160 |  |  |
| L            | FTF-3 | (mm) | 210 | 210 | 230 | 150 | 150 | 230 | 100 | 160 | 160 |  |  |

2) Face-to-face acc. to datasheet resp. customer request

| <b>Dimensions</b> Standard-flange dimensions refer to page |      |     |     |     |     |     |     |     |     |     |  |  |
|--|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Н  | (mm) | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |  |  |
| S  | (mm) | 70  | 70  | 70  | 70  | 70  | 70  | 70  | 70  | 70  |  |  |
| HEX  | (mm) | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  | 50  |  |  |

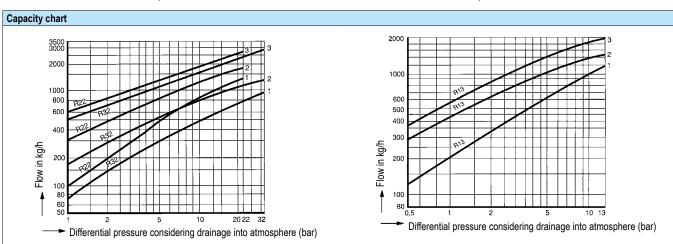
| Weights  |                      |     |     |     |     |   |     |     |   |     |
|----------|----------------------|-----|-----|-----|-----|---|-----|-----|---|-----|
| F': COA  | FTF-1 (approx.) (kg) | 4,8 | 5,3 | 5,8 |     | _ |     | 4.4 | , | 0.0 |
| Fig. 60A | FTF-3 (approx.) (kg) | 5,6 | 6,1 | 6,6 | 4,1 | 4 | 6,6 | 4,1 | 4 | 3,9 |

| Parts |        |                           |   |                       |
|-------|--------|---------------------------|---|-----------------------|
| Pos.  | Sp.p.  | Description               | Fig. 45.60A                               | Fig. 55.60A           |
| 1     |        | Body                      | P250 GH, 1.0460                           | X6CrNiTi18-10, 1.4541 |
| 2     | х      | Strainer                  | X5CrNi18-10, 1.4301                       |                       |
| 6     |        | Сар                       | P250 GH, 1.0460                           | X6CrNiTi18-10, 1.4541 |
| 8     | х      | Assembly stop valve, cpl. | X8CrNiS18-9, 1.4305                       |                       |
| 24    | х      | Controller, cpl.          | TB 102 / 85 (corrosion resistant bimetal) |                       |
| 49    | х      | Sealing ring              | A4  |                       |
| 50    | х      | Screw plug (M14x1,5)      | X6CrNiTi18-10, 1.4541                     |                       |
| 51    | х      | Drain valve               | X8CrNiS18-9, 1.4305                       |                       |
| 56    | х      | Ball valve for blow down  | GX5CrNiMo19-11-2, 1.4408                  |                       |
|       | L Spar | e parts                   |   |                       |

Information / restriction of technical rules need to be observed!

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

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



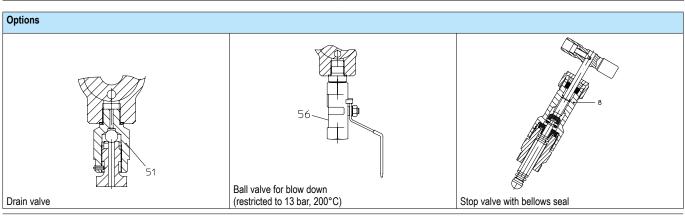
The capacity chart shows the maximum capacity at factory setting.

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

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

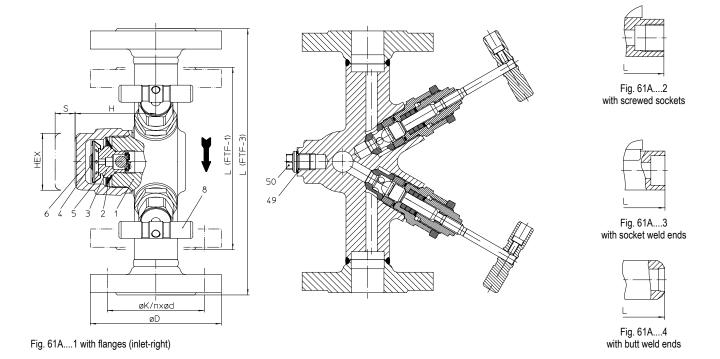
Curve 3: Maximum flow at cold condensate at about 20°C (during start-up of a cold installation).

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





### CONA®M All-in-one - Thermostatic steam trap with integrated inlet and outlet valves (Forged steel, Stainless steel)



| Figure           | Nominal pressure       | Material          | Nominal diameter / NPS | Operating pressure PS | Inlet temperature<br>TS | allowable differential pressure ΔPMX | for controller |  |
|------------------|------------------------|-------------------|------------------------|-----------------------|-------------------------|--------------------------------------|----------------|--|
|                  |                        |                   |                        | 32 barg               | 250 °C                  |                                      | R32            |  |
| 45.61A           | PN40                   | 1.0460            | DN15-25 /<br>1/2" - 1" | 22 barg               | 385 °C                  |                                      |                |  |
|                  |                        |                   |                        | 14,5 barg             | 450 °C                  | 32 bar                               |                |  |
| FF C4 A          | DNAO                   |                   | DN15-25 /              | 32 barg               | 350 °C                  |                                      |                |  |
| 55.61A           | PN40                   | 1.4541            | 1/2" - 1"              | 22 barg               | 400 °C                  |                                      |                |  |
| For ANSI version | ons refer to data shee | et CONA®All-in-on | e ANSI                 |                       |                         |                                      |                |  |

Types of connection Other types of connection on request. • Flanges ....1 acc. to 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 noncorrosive and robust water hammer proofed capsule · Filter effect maximised at horizontal installation · User-friendly handling, easy and quick access to the controller · Optimized design for quick installation · Non return protection · Maintenance simplified due to screwed cap without sealing · With inside strainer • The controller maybe changed without disturbing the pipe work Mounting position vertical · Standard: horizontal; inlet-right Please indicate when ordering! · Optional: horizontal; inlet-left Capsule: (chooseable for operating range) · Capsule No. 1 for condensate discharge at boiling temperature (only on request) • Capsule No. 2 for condensate sub-cooling about approx. 10K (Standard) • Capsule No. 3 for condensate sub-cooling about approx. 30K

• Drain valve (Pos. 51)

Options

- Ball valve for blow down (Pos. 56)
- Stop valve with bellows seal (Pos. 8)

(Design refer to page 5)



| Types of connection |      | Flanges 1) |    |      | rewed sockets<br>cket weld end |    | Butt weld ends <sup>2)</sup> |      | 2) |
|---------------------|------|------------|----|------|--------------------------------|----|------------------------------|------|----|
| 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 |       |      |     |     |     |     |     |     |     |     |     |  |
|--------------|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| 1            | FTF-1 | (mm) | 150 | 150 | 160 | 150 | 150 | 230 | 160 | 160 | 160 |  |
| L            | FTF-3 | (mm) | 210 | 210 | 230 | 150 | 150 | 230 | 100 | 100 | 100 |  |

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<sup>2)</sup> Face-to-face acc. to datasheet resp. customer request

| <b>Dimensions</b> Standard-flange dimensions refer to page |      |    |    |    |    |    |    |    |    |    |  |  |
|--|------|----|----|----|----|----|----|----|----|----|--|--|
| Н  | (mm) | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |  |  |
| S  | (mm) | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |  |  |
| HEX  | (mm) | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |  |  |

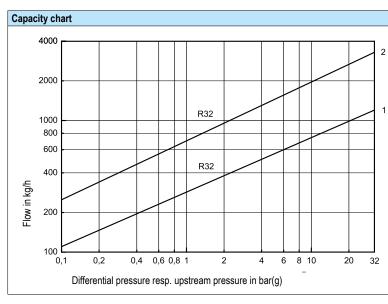
| Weights  |                 |      |     |     |     |     |     |     |     |     |     |  |
|----------|-----------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| E': C4A  | FTF-1 (approx.) | (kg) | 4,3 | 4,8 | 5,3 | 2.2 | 2.0 | F 0 | 2.4 | 2.2 | 2.0 |  |
| Fig. 61A | FTF-3 (approx.) | (kg) | 4,8 | 5,3 | 5,8 | 3,3 | 3,2 | 5,8 | 3,4 | 3,3 | 3,2 |  |

| Parts |        |                               |                                 |                       |
|-------|--------|-------------------------------|---------------------------------|-----------------------|
| Pos.  | Sp.p.  | Description                   | Fig. 45.61A                     | Fig. 55.61A           |
| 1     |        | Body                          | P250 GH, 1.0460                 | X6CrNiTi18-10, 1.4541 |
| 2     | х      | Strainer                      | X5CrNi18-10, 1.4301             |                       |
| 3     | х      | Seat                          | X8CrNiS18-9, 1.4305             |                       |
| 4     | х      | Capsule (Diaphragm / Capsule) | Hastelloy / X5CrNi18-10, 1.4301 |                       |
| 5     | х      | Spring actuated clip          | X10CrNi18-8, 1.4310             |                       |
| 6     |        | Сар                           | P250 GH, 1.0460                 | X6CrNiTi18-10, 1.4541 |
| 8     | х      | Assembly stop valve, cpl.     | X8CrNiS18-9, 1.4305             |                       |
| 49    | х      | Sealing ring                  | A4                              |                       |
| 50    | х      | Screw plug (M14x1,5)          | X6CrNiTi18-10, 1.4541           |                       |
| 51    | х      | Drain valve                   | X8CrNiS18-9, 1.4305             |                       |
| 56    | х      | Ball valve for blow down      | GX5CrNiMo19-11-2, 1.4408        |                       |
|       | L Ersa | tzteile                       | ·                               |                       |

Information / restriction of technical rules need to be observed!

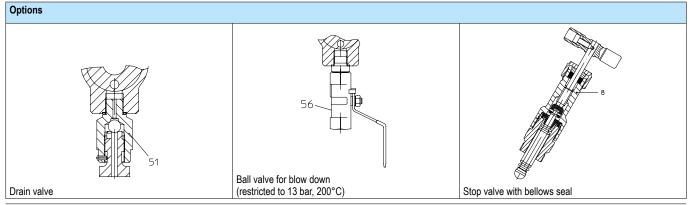
Operating and installation instructions can be downloaded at www.ari-armaturen.com.

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



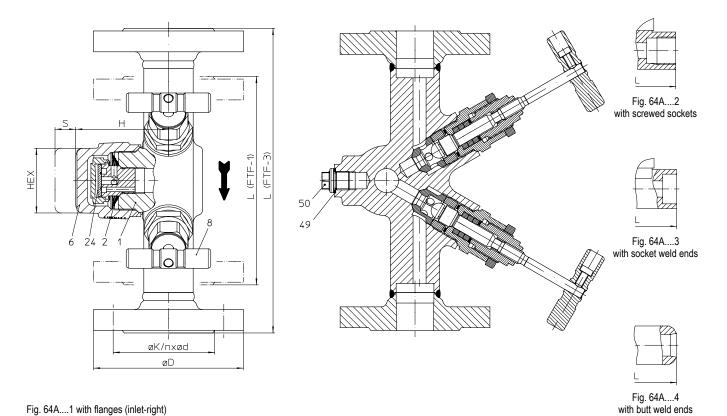
**Curve 1:** The capacity chart shows the maximum flow of hot condensate for capsule No. 1, 2 and 3.

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





### CONA®TD All-in-one - Thermodynamic steam trap with integrated inlet and outlet valves (Forged steel, Stainless steel)



| Figure | Nominal pressure | Material | Nominal diameter / NPS | Operating pressure PS | Inlet temperature<br>TS | allowable differential pressure ΔPMX | permissible<br>pressure ratio |
|--------|------------------|----------|------------------------|-----------------------|-------------------------|--------------------------------------|-------------------------------|
|        |                  |          |                        | 32 barg               | 250 °C                  |                                      |                               |
| 45.64A | PN40             | 1.0460   | DN15-25 /<br>1/2" - 1" | 22 barg               | 385 °C                  |                                      | Back pressure / Inlet         |
|        |                  |          | "-                     | 14,5 barg             | 450 °C                  | 32 bar                               | pressure                      |
| EE CAA | DNAO             | 4.4544   | DN15-25 /              | 32 barg               | 350 °C                  |                                      | ≤ 0,8 barg                    |
| 55.64A | PN40             | 1.4541   | 1/2" - 1"              | 22 barg               | 400 °C                  | 1                                    |                               |

For ANSI versions refer to data sheet CONA®All-in-one ANSI

| Types of connection   |   | Other types of connection on request.   |
|---|---|---|
| • Flanges1a   | cc. to DIN EN 1092-1  |   |
| Screwed sockets2R   | p thread acc. to DIN EN 10226-1 or NPT thread acc. to ANSI B1.20.1  |   |
| Socket weld ends3a  | cc. to DIN EN 12760   |   |
|   | Veld preparation acc. to EN ISO 9692 identification No. 1.3 and 1.5 Note restriction on operating pressure / inlet temperature depending to | o design!)  |
| Features  |   |   |
| minimize the effects from the temperatures, rain, wind, etc.  User-friendly handling, easy Intermittent mode of operation | and quick access to the controller<br>in<br>impact of weather conditions on the trap's performance  | Integrated non return protection  With inside strainer  Optimized design for quick installation  Maintenance simplified due to screwed cap without sealing  The controller maybe changed without disturbing the pipe work |
| Mounting position   |   |   |
| 0: 1 1  | vertical  |   |
| Standard:   | horizontal; inlet-right   | Please indicate when ordering!  |
| Optional:   | horizontal; inlet-left  |   |
| Options   |   | (Design refer to page 7)  |
| Drain valve (Pos. 51)   |   |   |
| Ball valve for blow down (Post  | s. 56)  |   |
| Stop valve with bellows seal  | (Pos. 8)  |   |



| Types of connection | Flanges 1) |      |    | Screwed sockets <sup>2)</sup><br>Socket weld ends <sup>2)</sup> |      |    | nds 2) Butt weld ends 2) |      |    |
|---------------------|------------|------|----|---|------|----|--------------------------|------|----|
| 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 |       |      |     |     |     |     |     |     |     |     |     |
|--------------|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| ı            | FTF-1 | (mm) | 150 | 150 | 160 | 150 | 150 | 230 | 160 | 160 | 160 |
| L            | FTF-3 | (mm) | 210 | 210 | 230 | 130 | 150 | 230 | 100 | 100 | 100 |

<sup>2)</sup> Face-to-face acc. to datasheet resp. customer request

| Dimensions |      |    |    |    |    |    | St | andard-flange | dimensions ref | er to page 12. |
|------------|------|----|----|----|----|----|----|---------------|----------------|----------------|
| Н          | (mm) | 70 | 70 | 70 | 70 | 70 | 70 | 70            | 70             | 70             |
| S          | (mm) | 40 | 40 | 40 | 40 | 40 | 40 | 40            | 40             | 40             |
| HEX        | (mm) | 50 | 50 | 50 | 50 | 50 | 50 | 50            | 50             | 50             |

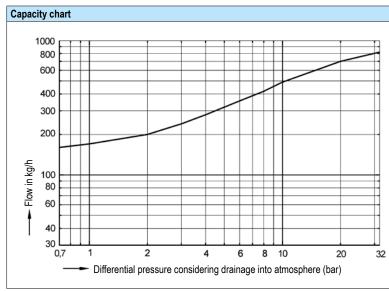
| Weights  |                      |     |     |     |     |     |     |     |     |     |
|----------|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| F' - C4A | FTF-1 (approx.) (kg) | 4,3 | 4,8 | 5,3 | 2.2 | 2.0 | F 0 | 2.4 | 2.2 | 2.0 |
| Fig. 64A | FTF-3 (approx.) (kg) | 4,8 | 5,3 | 5,8 | 3,3 | 3,2 | 5,8 | 3,4 | 3,3 | 3,2 |

| Parts |        |                           |                           |                       |
|-------|--------|---------------------------|---------------------------|-----------------------|
| Pos.  | Sp.p.  | Description               | Fig. 45.64A               | Fig. 55.64A           |
| 1     |        | Body                      | P250 GH, 1.0460           | X6CrNiTi18-10, 1.4541 |
| 2     | х      | Strainer                  | X5CrNi18-10, 1.4301       |                       |
| 6     |        | Сар                       | P250 GH, 1.0460           | X6CrNiTi18-10, 1.4541 |
| 8     | х      | Assembly stop valve, cpl. | X8CrNiS18-9, 1.4305       |                       |
| 24    | х      | Controller, cpl.          | X39CrMo17-1+QT, 1.4122+QT |                       |
| 49    | х      | Sealing ring              | A4                        |                       |
| 50    | х      | Screw plug (M14x1,5)      | X6CrNiTi18-10, 1.4541     |                       |
| 51    | х      | Drain valve               | X8CrNiS18-9, 1.4305       |                       |
| 56    | х      | Ball valve for blow down  | GX5CrNiMo19-11-2, 1.4408  |                       |
|       | L Spar | e parts                   |                           |                       |

Information / restriction of technical rules need to be observed!

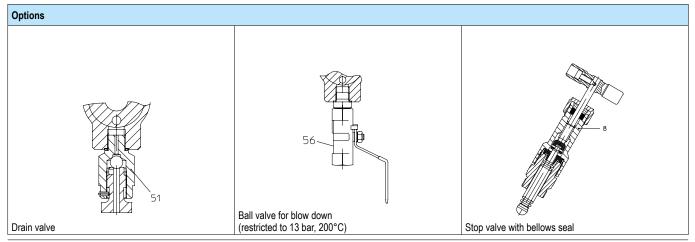
Operating and installation instructions can be downloaded at www.ari-armaturen.com.

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



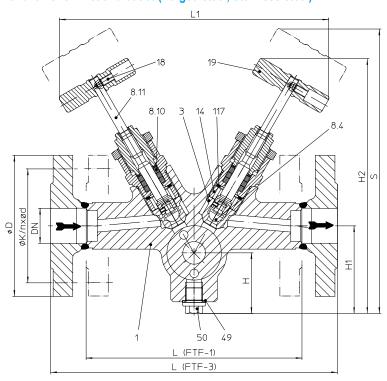
The capacity chart shows the maximum flow of hot condensate for the standard controller

Flow rate of cold condensate at 20  $^{\circ}\text{C}$  is about 1,5 times the volume of hot condensate

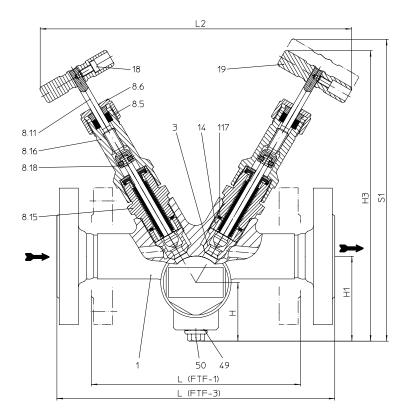




## Handvalve for inlet and outlet (Forged steel, Stainless steel)



Stop valve with gland packing (inlet-right)



Stop valve with bellows seal (inlet-right)



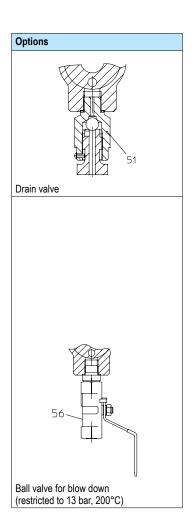
Handvalve with screwed sockets



Handvalve with socket weld ends



Handvalve with butt weld ends





| Types of connection |      | Flanges 1) |    | Screwed so | ckets2) / Socke | t weld ends2) | В    | lutt weld ends | 2) |
|---------------------|------|------------|----|------------|-----------------|---------------|------|----------------|----|
| 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 |       |      |     |     |     |     |     |     |     |     |     |
|--------------|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| _            | FTF-1 | (mm) | 150 | 150 | 160 | 150 | 150 | 230 | 160 | 160 | 160 |
| L            | FTF-3 | (mm) | 210 | 210 | 230 | 150 | 150 | 230 | 160 | 160 | 160 |

<sup>2)</sup> Face-to-face acc. to datasheet resp. customer request

| Dimensions        |      |                  |                  |                  |     |     | St  | andard-flange | dimensions ref | er to page 12. |
|-------------------|------|------------------|------------------|------------------|-----|-----|-----|---------------|----------------|----------------|
| L1                | (mm) | 220              | 220              | 220              | 220 | 220 | 220 | 220           | 220            | 220            |
| L2 (bellows seal) | (mm) | 259              | 259              | 259              | 259 | 259 | 259 | 259           | 259            | 259            |
| Н                 | (mm) | 50               | 50               | 50               | 50  | 50  | 50  | 50            | 50             | 50             |
| H1                | (mm) | 72 <sup>3)</sup> | 72 <sup>3)</sup> | 72 <sup>3)</sup> | 72  | 72  | 72  | 72            | 72             | 72             |
| H2                | (mm) | 208              | 208              | 208              | 208 | 208 | 208 | 208           | 208            | 208            |
| H3 (bellows seal) | (mm) | 241              | 241              | 241              | 241 | 241 | 241 | 241           | 241            | 241            |
| S                 | (mm) | 217              | 217              | 217              | 217 | 217 | 217 | 217           | 217            | 217            |
| S1 (bellows seal) | (mm) | 250              | 250              | 250              | 250 | 250 | 250 | 250           | 250            | 250            |

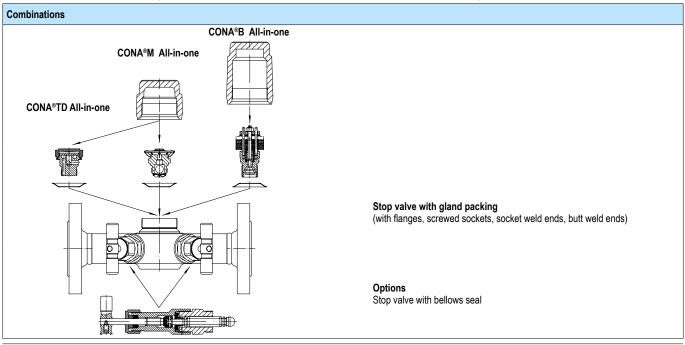
<sup>3)</sup> FTF-3

| Parts   |           |                          |   |                       |
|---------|-----------|--------------------------|---|-----------------------|
| Pos.    | Sp.p.     | Description              | Forged steel  | Stainless steel       |
| 1       |           | Body                     | P250GH, 1.0460  | X6CrNiTi18-10, 1.4541 |
| 3       | х         | Seat                     | X8CrNiS18-9, 1.4305   |                       |
| 8       |           | Bonnet Handvalve         | X8CrNiS18-9, 1.4305   |                       |
| 8.4     |           | Valve ball               | X39CrMo17-1+QT, 1.4122+QT   |                       |
| 8.5     |           | Packing ring             | Pure graphite   |                       |
| 8.6     | .=        | Sleeve nut               | X14CrMoS17+QT, 1.4104+QT  |                       |
| 8.10    | cpl. unit | Packing ring             | Pure graphite   |                       |
| 8.11    | do x      | Stem                     | Bland packing: X2CrNiMo17-12-2, 1.4404<br>Bellows seal: X39CrMo17-1+QT, 1.4122+QT | Г                     |
| 8.15    |           | Fitting                  | X8CrNiS18-9, 1.4305   |                       |
| 8.16    |           | Stem guiding             | X8CrNiS18-9, 1.4305   |                       |
| 8.18    |           | Stem unit                | X5CrNi18-10, 1.4301   |                       |
| 14      | х         | Banjo bolt               | X8CrNiS18-9, 1.4305   |                       |
| 18      | х         | Cheese head screw        | A2-70   |                       |
| 19      | х         | Hand grip                | X14CrMoS17+QT, 1.4104+QT  |                       |
| 49      | х         | Sealing ring             | A4  |                       |
| 50      | х         | Screw plug (M14x1,5)     | X6CrNiTi18-10, 1.4541   |                       |
| 51      | х         | Drain valve (M14x1,5)    | X8CrNiS18-9, 1.4305   |                       |
| 56      | х         | Ball valve for blow down | GX5CrNiMo19-11-2, 1.4408  |                       |
| 117     | х         | Sealing ring             | Graphit   |                       |
| Option: | Hand whe  | el                       |   |                       |
| 18      | х         | Grub screw               | A2-70   |                       |
| 19      | х         | Hand wheel               | GX5CrNiMo19-11-2, 1.4408  |                       |
|         | L Spai    | re parts                 |   |                       |

Information / restriction of technical rules need to be observed!

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

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





# CONA®SC All-in-one - Ball float steam trap with integrated inlet and outlet valves (Forged steel, Stainless steel)

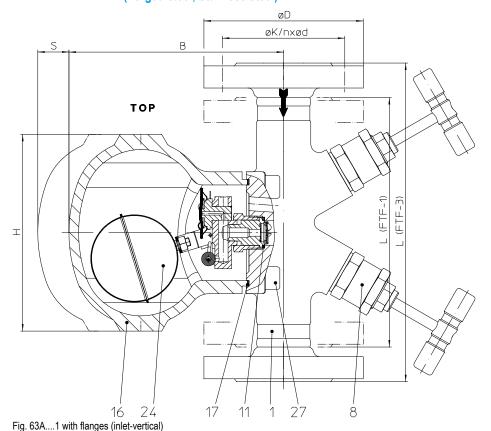




Fig. 63A....2 with screwed sockets



Fig. 63A....3 with socket weld ends



Fig. 63A....4 with butt weld ends

| Figure | Nominal pressure | Material          | Nominal diameter / NPS | Operating pressure PS | Inlet temperature<br>TS | allowable differential pressure ΔPMX | for<br>controller |
|--------|------------------|-------------------|------------------------|-----------------------|-------------------------|--------------------------------------|-------------------|
| 45.63A | PN40             | Hood:<br>1.0619+N | DN15-25 /<br>1/2" - 1" | 4 barg                |                         |                                      |                   |
|        |                  |                   |                        | 14 barg               | 400 °C                  | 32 bar<br>21 bar<br>14 bar<br>4 bar  |                   |
|        |                  |                   |                        | 21 barg               |                         |                                      | R32               |
|        |                  |                   |                        | 32 barg               | 250 °C                  |                                      | R21               |
|        |                  |                   | DN15-25 /<br>1/2" - 1" | 4 barg                |                         |                                      | R14               |
| EE 02A | DNIAO            | Hood:<br>1.4308   |                        | 14 barg               | 300 °C                  |                                      | R4                |
| 55.63A | PN40             |                   |                        | 21 barg               |                         |                                      |                   |
|        |                  |                   |                        | 32 barg               | 250 °C                  |                                      |                   |

#### For ANSI versions refer to data sheet CONA®All-in-one ANSI Types of connection Other types of connection on request. • Flanges ....1 acc. to 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** · Ball float steam trap with level control for the condensate-discharge from · Discharge of great condensate quantities even at low differential pressure all kinds of steam systems · Body with flanged hood · Rapid system start-up due to thermostatic air venting capsule · Non return protection · User-friendly handling, easy and quick access to the controller • The controller maybe changed without disturbing the pipe work Immediate discharge of hot boiling condensat Mounting position: Standard: Please indicate when ordering! horizontal with inlet from right · Optional: Installation position may be changed on-site (see operating instructions). horizontal with inlet from left Definition: Globe valves facing the operator, bonnet at the rear, top side up. **Options** (Design refer to page 3) Vent plug (Pos. 47) • Ball valve for blow down (Pos. 56) • Plug (Pos. 50) · Stop valve with bellows seal

· Manual air vent valve (Pos. 51)

Butt weld ends 2)





Types of connection

| 3,          |                     |         |               | . 3 |      | Socket weld ends 2) |     |                |                  |                 |                |
|-------------|---------------------|---------|---------------|-----|------|---------------------|-----|----------------|------------------|-----------------|----------------|
| DN          |                     |         | 15            | 20  | 25   | 15                  | 20  | 25<br>1"       | 15<br>1/2"       | 20<br>3/4"      | 25<br>1"       |
| NPS         |                     | 1/2"    | 3/4"          | 1"  | 1/2" | 3/4"                |     |                |                  |                 |                |
| Face-to-fa  | ice                 |         |               |     |      |                     |     |                |                  |                 |                |
|             | FTF-1               | (mm)    | 150           | 150 | 160  | 150                 | 150 | 230            | 160              | 160             | 160            |
| L           | FTF-3               | (mm)    | 210           | 210 | 230  |                     |     |                |                  |                 |                |
| 1)Face-to-f | face acc. to DIN EN | 26554 I | FTF-1 / FTF-3 |     |      |                     |     | 2) Face-to-fac | ce acc. to datas | sheet resp. cus | tomer request  |
| Dimension   | ns                  |         |               |     |      |                     |     | St             | andard-flange    | dimensions ref  | er to page 12. |
| Н           |                     | (mm)    | 150           | 150 | 150  | 150                 | 150 | 150            | 150              | 150             | 150            |
| В           |                     | (mm)    | 156           | 156 | 156  | 156                 | 156 | 156            | 156              | 156             | 156            |
| S (mm)      |                     | 112     | 112           | 112 | 112  | 112                 | 112 | 112            | 112              | 112             |                |

Screwed sockets 2)

| Weights  |                      |     |     |     |     |     |     |     |     |     |
|----------|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Fig. 63A | FTF-1 (approx.) (kg) | 6,5 | 7,2 | 7,7 |     |     | 0.0 |     | _ , |     |
|          | FTF-3 (approx.) (kg) | 7   | 7,7 | 8,2 | 5,6 | 5,5 | 8,2 | 5,5 | 5,4 | 5,3 |

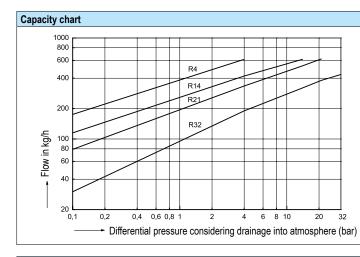
| Parts |        |                            |  |                       |  |  |  |  |  |
|-------|--------|----------------------------|--|-----------------------|--|--|--|--|--|
| Pos.  | Sp.p.  | Description                | Fig. 45.63A                            | Fig. 55.63A           |  |  |  |  |  |
| 1     |        | Body                       | P250 GH, 1.0460                        | X6CrNiTi18-10, 1.4541 |  |  |  |  |  |
| 8     | х      | Assembly stop valve, cpl.  | X8CrNiS18-9, 1.4305                    |                       |  |  |  |  |  |
| 11    | х      | Sealing ring               | A4                                     |                       |  |  |  |  |  |
| 16    |        | Hood                       | GP240GH+N, 1.0619+N                    | GX5CrNi19-10, 1.4308  |  |  |  |  |  |
| 17    | х      | Gasket                     | GRAPHIT (CrNi laminated with graphite) |                       |  |  |  |  |  |
| 24    | х      | Controller / Capsule, cpl. | X5CrNi18-10, 1.4301 / Hastelloy        |                       |  |  |  |  |  |
| 27    |        | Cheese head screw          | 21CrMoV 5-7, 1.7709 A2-70              |                       |  |  |  |  |  |
| 47    |        | Vent plug (M14x1,5)        | X6CrNiTi18-10, 1.4541                  |                       |  |  |  |  |  |
| 49    | х      | Sealing ring               | A4                                     |                       |  |  |  |  |  |
| 50    | х      | Screw plug (M14x1,5)       | X6CrNiTi18-10, 1.4541                  |                       |  |  |  |  |  |
| 51    | х      | Drain valve                | X8CrNiS18-9, 1.4305                    |                       |  |  |  |  |  |
| 56    | х      | Ball valve for blow down   | GX5CrNiMo19-11-2, 1.4408               |                       |  |  |  |  |  |
|       | L Spar | e parts                    |  |                       |  |  |  |  |  |

Information / restriction of technical rules need to be observed!

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

Flanges 1)

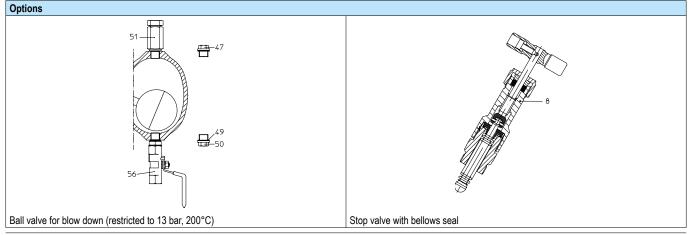


The capacity chart shows the maximum flow of hot boiling condensate.

The total cold water capacity is the result of::

- The capacity of the trap is increased by 1,2 x the value shown in the capacity chart. - The thermostatic air vent is open, provided additional capacity as shown in the table

| Additional cold water-flow quantity of the thermostatic steam trap at starting conditions |        |     |     |     |     |     |     |     |     |     |
|---|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Δp  | (bar)  | 1   | 2   | 3   | 4   | 5   | 6   | 8   | 10  | 21  |
| Q<br>(approx.20°C)  | (kg/h) | 280 | 360 | 440 | 490 | 550 | 590 | 640 | 710 | 990 |





### Informations about pipe welding

Welding groove acc. to DIN 2559

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

1.0460 P250GH acc. to DIN EN 10222-2

Note: 1.4541 X6CrNiTi18-10 acc. to DIN EN 10222-5

Note restriction on operating pressure / inlet temperature depending to

design!

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

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

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

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

| Standard - Flange dimensions acc. to DIN EN 1092-1 |        |      |        |        |        |  |  |  |  |  |
|--|--------|------|--------|--------|--------|--|--|--|--|--|
| DN   |        |      | 15     | 20     | 25     |  |  |  |  |  |
| NPS  |        |      | 1/2"   | 3/4"   | 1"     |  |  |  |  |  |
|  | ØD     | (mm) | 95     | 105    | 115    |  |  |  |  |  |
| PN40   | ØK     | (mm) | 65     | 75     | 85     |  |  |  |  |  |
|  | n x Ød | (mm) | 4 x 14 | 4 x 14 | 4 x 14 |  |  |  |  |  |







