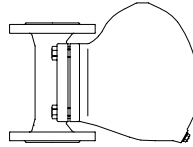


## Ball float steam trap

### PN16 / PN40

- with flanges
- with screwed sockets
- with socket weld ends
- with butt weld ends

(BR 631....1) Cast iron  
(BR 631....2) Nodular iron  
(BR 631....3) Cast steel  
(BR 631....4) Forged steel  
(BR 631....4) High temp. steel  
(BR 631....4) Stainless steel  
**BR 631**



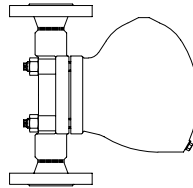
Page 2

## Ball float steam trap

### PN63 / PN100

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

(BR 631....1)  
(BR 631....3)  
(BR 631....4) High temp. steel /  
Cast steel  
**BR 631**



Page 6

## Ball float steam trap

### PN160

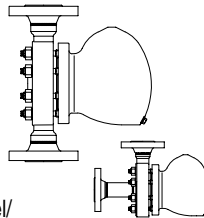
- with flanges
- with socket weld ends
- with butt weld ends

(BR 631....1)  
(BR 631....3)  
(BR 631....4)

#### Angle pattern design:

- with flanges
- with butt weld ends

(BR 632....1) High temp. steel/  
Cast steel  
(BR 632....4) **BR 631 / BR 632**



Page 8

## Ball float steam trap

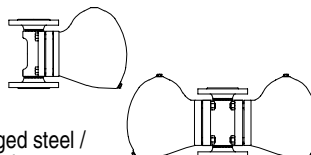
### PN16 / PN40

- pilot operated with flanges  
R4-P
- with flanges

(BR 633....1)  
(BR 639....1)

Forged steel /  
Cast iron  
Stainless steel

**BR 633 / BR 639**



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## Ball float steam trap

### PN40

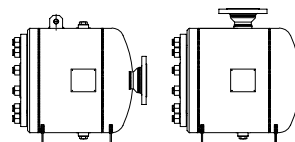
- with flanges

#### Angle pattern design:

- with flanges

(BR 637....1)  
(BR 638....1)

Steel  
**BR 637/638**



Page 14

## Ball float steam trap

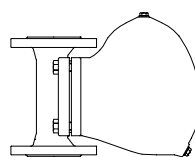
### for drainage of water from compressed air and gas systems

(acc. to PED 97/23/EC fluid group 2)

### PN16 / PN40

- with flanges
- with screwed sockets
- with socket weld ends
- with butt weld ends

(BR 630....1) Cast iron  
(BR 630....2) Nodular iron  
(BR 630....3) Forged steel/  
Cast steel  
(BR 630....4) **BR 630**



Page 16

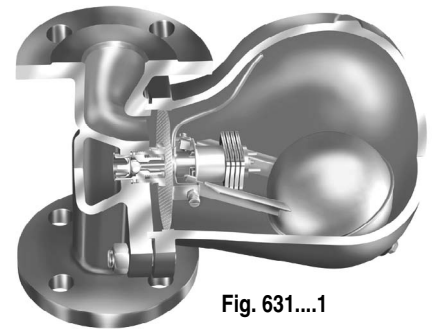


Fig. 631....1

## Features:

- Backpressure-free condensate discharge even at extreme pressure- and quantity fluctuations (except BR630)
- Controller with integrated automatic ventilation (except BR630)
- Robust and insensitive to waterhammer
- Integrated non return protection (except BR633/637/638)
- Union for pressure compension line and bypass possible
- Optimum on-site handling, converts easily from vertical to horizontal installation position (except BR637/638)
- The exchange of the controller is possible without disturbing the pipe connections

# Ball float steam trap made of cast iron, nodular iron, cast steel / forged steel, stainless steel

- 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
- **Standard installation position:** - vertical
- **Special installation position:** - horizontal with inlet from right or left (Please indicate when ordering)
- Refer to supplement page:  
„Information about the different installation positions“.
- Inside strainer
- Body with flanged hood
- Integrated non return protection
- The exchange of the controller is possible without disturbing the pipe connections
- On-site change of the installation position is possible according to the operating instructions
- **Option:** - Air vent - (Pos. 51) or  
blow down valve (Pos. 46), manual operated

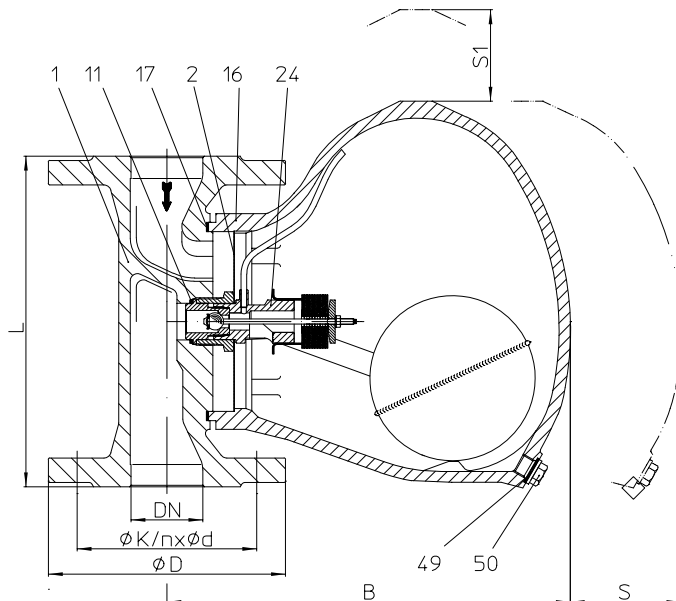


Fig. 631....1 with flanges - vertical installation

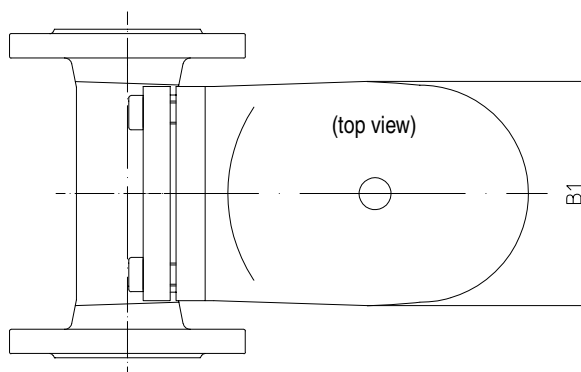
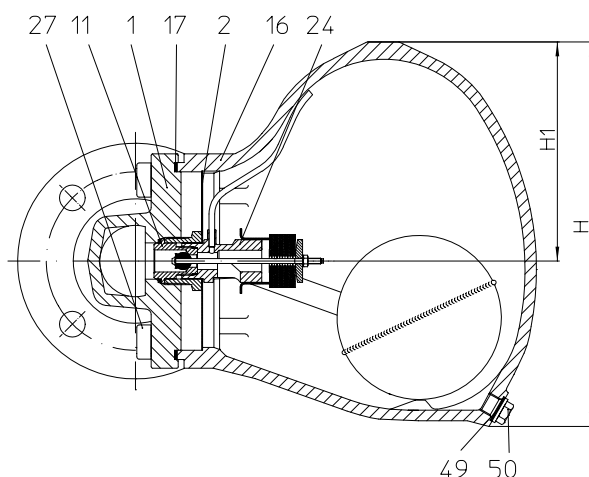


Fig. 631....1 with flanges - horizontal installation

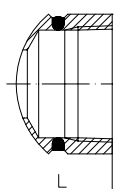


Fig. 631....2  
with screwed sockets

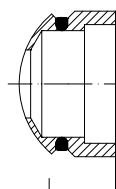


Fig. 631....3  
with socket weld ends

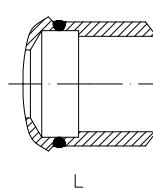


Fig. 631....4  
with butt weld ends

| Fig. 12.631 - PN16<br>Body / Hood: EN-JL1040                  |                 | Operating limits |                 |                    |  |
|---------------------------------------------------------------|-----------------|------------------|-----------------|--------------------|--|
| Operating pressure PS (bar-g)                                 |                 | 12,8             |                 | 9,6                |  |
| Operating temperature TS (°C)                                 |                 | 200              |                 | 300                |  |
| allowable diff. press. $\Delta PMX$ (bar):<br>for controller: | 2<br>R2<br>R2-S | 4<br>R4<br>R4-S  | 8<br>R8<br>R8-S | 13<br>R13<br>R13-S |  |
| for special controller from DN40:                             |                 |                  |                 |                    |  |

| Fig. 25.631 - PN40<br>Body / Hood: EN-JS1049                  |                 | Operating limits |                 |                    |           |           |  |
|---------------------------------------------------------------|-----------------|------------------|-----------------|--------------------|-----------|-----------|--|
| Operating pressure PS (bar-g)                                 |                 | 32               |                 | 22                 |           |           |  |
| Operating temperature TS (°C)                                 |                 | 250              |                 | 350                |           |           |  |
| allowable diff. press. $\Delta PMX$ (bar):<br>for controller: | 2<br>R2<br>R2-S | 4<br>R4<br>R4-S  | 8<br>R8<br>R8-S | 13<br>R13<br>R13-S | 22<br>R22 | 32<br>R32 |  |
| for special controller from DN40:                             |                 |                  |                 |                    |           |           |  |

| Fig. 45.631 - PN40<br>Body: 1.0460 / Hood: 1.0619+N           |                 | Operating limits |                 |                    |           |           |  |
|---------------------------------------------------------------|-----------------|------------------|-----------------|--------------------|-----------|-----------|--|
| Operating pressure PS (bar-g)                                 |                 | 32               |                 | 21                 |           |           |  |
| Operating temperature TS (°C)                                 |                 | 250              |                 | 400                |           |           |  |
| allowable diff. press. $\Delta PMX$ (bar):<br>for controller: | 2<br>R2<br>R2-S | 4<br>R4<br>R4-S  | 8<br>R8<br>R8-S | 13<br>R13<br>R13-S | 22<br>R22 | 32<br>R32 |  |
| for special controller from DN40:                             |                 |                  |                 |                    |           |           |  |

| Fig. 55.631 - PN40<br>Body: 1.4541 / Hood: 1.4308             |                 | Operating limits |                 |                    |           |           |  |
|---------------------------------------------------------------|-----------------|------------------|-----------------|--------------------|-----------|-----------|--|
| Operating pressure PS (bar-g)                                 |                 | 32               |                 | 28                 |           |           |  |
| Operating temperature TS (°C)                                 |                 | 250              |                 | 300                |           |           |  |
| allowable diff. press. $\Delta PMX$ (bar):<br>for controller: | 2<br>R2<br>R2-S | 4<br>R4<br>R4-S  | 8<br>R8<br>R8-S | 13<br>R13<br>R13-S | 22<br>R22 | 32<br>R32 |  |
| for special controller from DN40:                             |                 |                  |                 |                    |           |           |  |

| Types of connection                   |                    |                               |
|---------------------------------------|--------------------|-------------------------------|
| Flanges ....1                         | DIN PN16           | DIN PN40<br>ANSI 150 / 300 RF |
| Screwed sockets ....2                 | Rp- and NPT-thread |                               |
| Socket weld ends ....3                |                    |                               |
| Butt weld ends ....4                  |                    |                               |
| Other types of connection on request. |                    |                               |

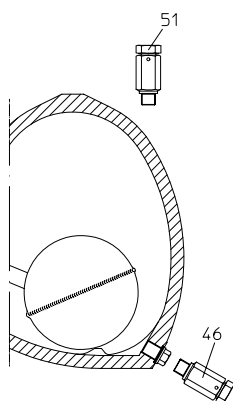
| Dimensions and weights               |            | Types of connection                      |           |         |             |         |                           |                                |                        |                                                               |                                                                          |         |                   |                                     |                              |           |         |             |         |
|--------------------------------------|------------|------------------------------------------|-----------|---------|-------------|---------|---------------------------|--------------------------------|------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------|---------|-------------------|-------------------------------------|------------------------------|-----------|---------|-------------|---------|
|                                      |            | Flanges                                  |           |         |             |         |                           |                                |                        | Screw sockets <sup>1)</sup><br>Socket weld ends <sup>2)</sup> |                                                                          |         |                   |                                     | Butt weld ends <sup>2)</sup> |           |         |             |         |
| Nominal diameters                    | mm<br>inch | 15<br>1/2                                | 20<br>3/4 | 25<br>1 | 40<br>1 1/2 | 50<br>2 | 65 <sup>1)</sup><br>2 1/2 | 80 <sup>1)</sup><br>3          | 100 <sup>1)</sup><br>4 | 15<br>1/2                                                     | 20<br>3/4                                                                | 25<br>1 | 40<br>1 1/2       | 50 <sup>1)</sup><br>2 <sup>1)</sup> | 15<br>1/2                    | 20<br>3/4 | 25<br>1 | 40<br>1 1/2 | 50<br>2 |
| Dimensions (mm)                      | L*         | 150                                      | 150       | 160     | 230         | 230     | 290                       | 310                            | 350                    | 150                                                           | 150                                                                      | 160     | 210 <sup>3)</sup> | 210                                 | 160                          | 160       | 160     | 250         | 250     |
|                                      | H          | 162                                      | 162       | 187     | 270         | 270     | 270                       | 270                            | 270                    | 162                                                           | 162                                                                      | 187     | 270               | 270                                 | 162                          | 162       | 187     | 270         | 270     |
|                                      | H1         | 85                                       | 85        | 102     | 151         | 151     | 151                       | 151                            | 151                    | 85                                                            | 85                                                                       | 102     | 151               | 151                                 | 85                           | 85        | 102     | 151         | 151     |
|                                      | B          | EN-JS1049                                | 214       | 214     | 255         | 280     | --                        | --                             | --                     | 214                                                           | 214                                                                      | 255     | 280               | --                                  | --                           | --        | --      | --          | --      |
|                                      |            | Steel                                    |           |         |             |         | 280                       | 280                            | 280                    | 167                                                           | 167                                                                      | 196     | 285               | 285                                 | 167                          | 167       | 196     | 285         | 285     |
|                                      | B1         | 95                                       | 95        | 118     | 157         | 157     | 157                       | 157                            | 157                    | 95                                                            | 95                                                                       | 118     | 157               | 157                                 | 95                           | 95        | 118     | 157         | 157     |
| Withdrawal distance (mm)             | S          | 180                                      | 180       | 200     | 300         | 300     | 300                       | 300                            | 300                    | 180                                                           | 180                                                                      | 200     | 300               | 300                                 | 180                          | 180       | 200     | 300         | 300     |
|                                      | S1         | 150                                      | 150       | 180     | 200         | 200     | 200                       | 200                            | 200                    | 150                                                           | 150                                                                      | 180     | 200               | 200                                 | 150                          | 150       | 180     | 200         | 200     |
| Weight approximate (kg)              |            | 7,9                                      | 8,1       | 10,9    | 24,7        | 25,3    | 27,2                      | 29,2                           | 32,7                   | 7,3                                                           | 7,3                                                                      | 8,5     | 20,0              | 20,5                                | 6,9                          | 7,9       | 9,0     | 21,0        | 22,0    |
| * other face-to-face dim. on request |            | <sup>1)</sup> DN50 (2") not for EN-JL/JS |           |         |             |         |                           | <sup>2)</sup> not for EN-JL/JS |                        |                                                               | <sup>3)</sup> at EN-JL/JS: L = 230 mm Stand.-flange dim. ref. to page 25 |         |                   |                                     |                              |           |         |             |         |

## Parts

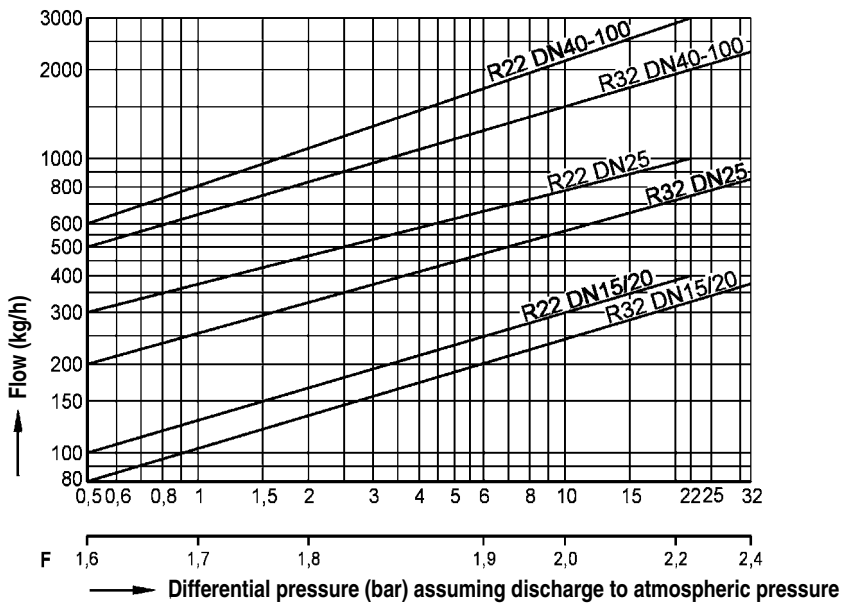
| Pos. | Description                | Material (Material-No.)                         |                                          |                                                 |                                 |                                                 |                                 |                                                 |                               |
|------|----------------------------|-------------------------------------------------|------------------------------------------|-------------------------------------------------|---------------------------------|-------------------------------------------------|---------------------------------|-------------------------------------------------|-------------------------------|
|      |                            | DIN                                             | comp. with<br>ASTM / AISI                | DIN                                             | comp. with<br>ASTM / AISI       | DIN                                             | comp. with<br>ASTM / AISI       | DIN                                             | comp. with<br>ASTM / AISI     |
| 1    | Body                       | EN-JL1040,<br>EN-GJL-250                        | SA 278<br>Class No.40                    | EN-JS1049, EN-<br>GJS-400-18U-LT                | SA 395                          | P250GH,<br>1.0460                               | SA 105                          | X6CrNiTi18-<br>10, 1.4541                       | SA 182 F 321                  |
| 2    | Strainer                   | X5CrNi18-10,<br>1.4301                          | SA 240<br>Gr.304                         | X5CrNi18-10,<br>1.4301                          | SA 240<br>Gr.304                | X5CrNi18-10,<br>1.4301                          | SA 240<br>Gr.304                | X5CrNi18-10,<br>1.4301                          | SA 240<br>Gr.304              |
| 11   | Sealing ring (Body/seat) * | R-Cu99                                          |                                          | R-Cu99                                          |                                 | R-Cu99                                          |                                 | X6CrNiTi18-<br>10, 1.4541                       | SA 182 F 321                  |
| 16   | Hood                       | EN-JL1040,<br>EN-GJL-250                        | SA 278<br>Class No.40                    | EN-JS1049, EN-<br>GJS-400-18U-LT                | SA 395                          | GP240GH+N,<br>1.0619+N                          | SA 216 WCB                      | GX5CrNi19-<br>10, 1.4308                        | SA 351 CF8                    |
| 17   | Gasket (Body/hood) *       | CrNi laminated both sides<br>with pure graphite |                                          | CrNi laminated both sides<br>with pure graphite |                                 | CrNi laminated both sides<br>with pure graphite |                                 | CrNi laminated both sides<br>with pure graphite |                               |
| 24   | Controller *               | X5CrNi18-10,<br>1.4301                          | SA 240<br>Gr.304                         | X5CrNi18-10,<br>1.4301                          | SA 240<br>Gr.304                | X5CrNi18-10,<br>1.4301                          | SA 240<br>Gr.304                | X5CrNi18-10,<br>1.4301                          | SA 240<br>Gr.304              |
|      |                            | Bimetal TB 102/85                               |                                          | Bimetal TB 102/85                               |                                 | Bimetal TB 102/85                               |                                 | Bimetal TB 102/85                               |                               |
| 27   | Cheese head screws         | X6CrNiTi18-10,<br>1.4541 / 8.8                  | SA 182 F 321/<br>1035/1038 <sup>4)</sup> | 21CrMoV5-7,<br>1.7709                           | SA 193<br>Gr. B16 <sup>4)</sup> | 21CrMoV5-7,<br>1.7709                           | SA 193<br>Gr. B16 <sup>4)</sup> | X6CrNiTi18-<br>10, 1.4541                       | SA 182<br>F 321 <sup>4)</sup> |
| 46   | Blow down valve *          | X8CrNiS18-9,<br>1.4305                          | AISI 303                                 | X8CrNiS18-9,<br>1.4305                          | AISI 303                        | X8CrNiS18-9,<br>1.4305                          | AISI 303                        | X8CrNiS18-9,<br>1.4305                          | AISI 303                      |
| 49   | Sealing ring for plug *    | R-Cu99                                          |                                          | R-Cu99                                          |                                 | R-Cu99                                          |                                 | X6CrNiTi18-<br>10, 1.4541                       | SA 182 F 321                  |
| 50   | Plug (M14x1,5) *           | C35E, 1.1181                                    | 1035 / 1038                              | 21CrMoV5-7,<br>1.7709                           | SA 193<br>Gr. B16 <sup>4)</sup> | 21CrMoV5-7,<br>1.7709                           | SA 193<br>Gr. B16 <sup>4)</sup> | X6CrNiTi18-<br>10, 1.4541                       | SA 182<br>F 321 <sup>4)</sup> |
| 51   | Manual air vent valve *    | X8CrNiS18-9,<br>1.4305                          | AISI 303                                 | X8CrNiS18-9,<br>1.4305                          | AISI 303                        | X8CrNiS18-9,<br>1.4305                          | AISI 303                        | X8CrNiS18-9,<br>1.4305                          | AISI 303                      |

\* Spare parts <sup>4)</sup> with metric screw-thread

## Options



**Standard R22 and R32  
DN 15 - 100**



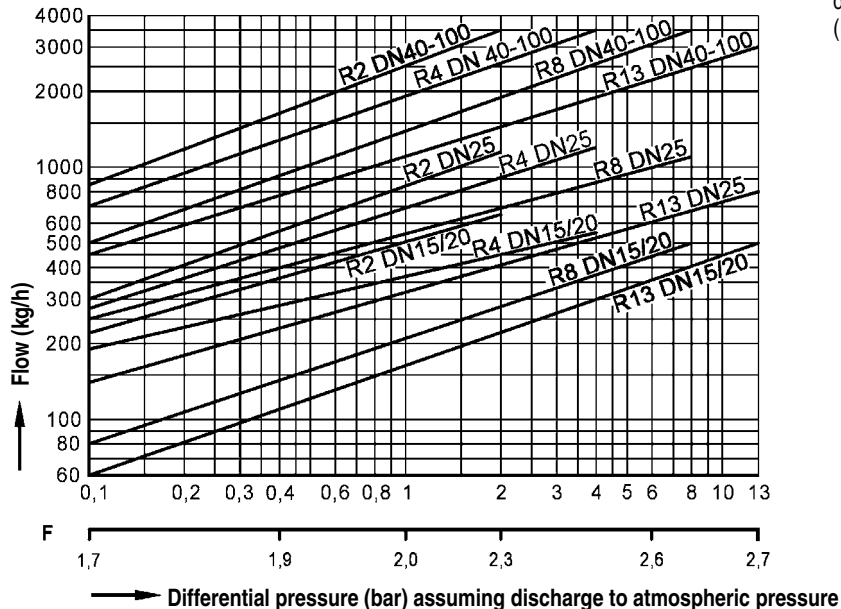
The capacity chart shows the maximum flow quantities of hot condensate for the different controllers and steam trap sizes.

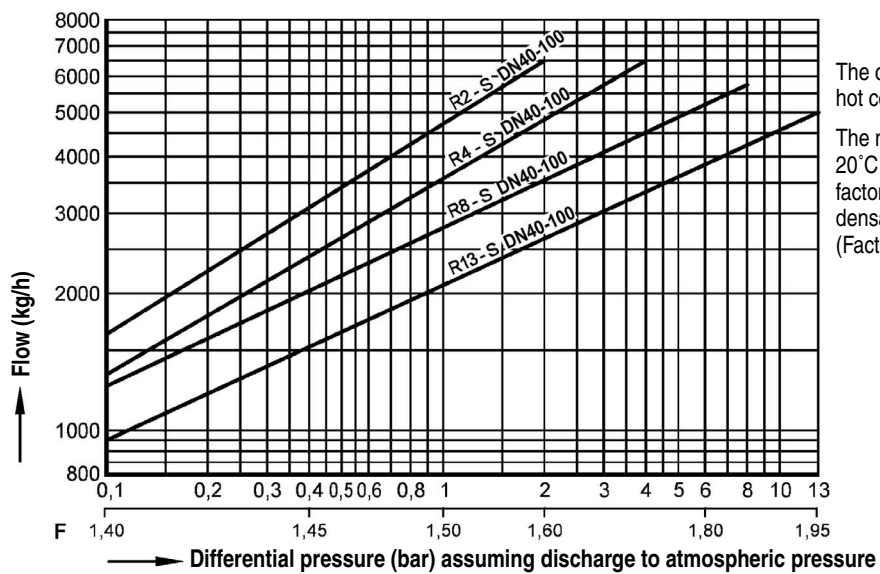
In common, the steam traps are fitted out with an controller as shown in the flow diagrams of this page acc. to the differential pressures and flow rates.

For very large flow rates with low differential pressures, steam traps at sizes DN40 up to DN100 can be fitted out with a super-controller (refer to page 9) .

The maximum flow quantity of cold condensate at about 20°C can be determined by multiplication of the appropriate factor F (in the scale below the diagrams) with the hot condensate quantity determined by the capacity chart. (Factor F is related to the differential pressure.)

**Standard R2 to R13  
DN 15 - 100**



**Special design: Super-controller for very large flow rates with low differential pressures**
**R2-S to R13-S**
**DN 40 - 100**


The capacity chart shows the maximum flow quantities of hot condensate for the Super-controller versions.

The maximum flow quantity of cold condensate at about 20°C can be determined by multiplication of the appropriate factor F (in the scale below the diagrams) with the hot condensate quantity determined by the capacity chart. (Factor F is related to the differential pressure.)

## Ball float steam trap made of high temperature steel

- 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
  - Standard installation position: - vertical
  - Special installation position: - horizontal with inlet from right or left (Please indicate when ordering)
- Refer to supplement page:  
„Information about the different installation positions“.
- Inside strainer
  - Body with flanged hood
  - Integrated non return protection
  - The exchange of the controller is possible without disturbing the pipe connections
  - On-site change of the installation position is possible according to the operating instructions
  - Option: - Air vent - (Pos. 51) or blow down valve (Pos. 46), manual operated

| Fig. 86.631 - PN63<br>Body: 16Mo3 /<br>Hood: G17CrMo5-5       |     | Operating limits |     |  |
|---------------------------------------------------------------|-----|------------------|-----|--|
| Operating pressure PS (bar-g)                                 | 56  | 50               | 45  |  |
| Operating temperature TS (°C)                                 | 300 | 350              | 450 |  |
| allowable diff. press. $\Delta PMX$ (bar):<br>for controller: |     | 50<br>R50        |     |  |

| Fig. 87.631 - PN100<br>Body: 16Mo3 /<br>Hood: G17CrMo5-5      |           | Operating limits |  |  |
|---------------------------------------------------------------|-----------|------------------|--|--|
| Operating pressure PS (bar-g)                                 | 64        | 50               |  |  |
| Operating temperature TS (°C)                                 | 400       | 450              |  |  |
| allowable diff. press. $\Delta PMX$ (bar):<br>for controller: | 64<br>R64 | 50<br>R50        |  |  |

| Fig. 87.631 - PN100<br>Body: 13CrMo4-5 /<br>Hood: G17CrMo5-5  |           | Operating limits |           |  |
|---------------------------------------------------------------|-----------|------------------|-----------|--|
| Operating pressure PS (bar-g)                                 | 80        | 60               | 30        |  |
| Operating temperature TS (°C)                                 | 480       | 510              | 525       |  |
| allowable diff. press. $\Delta PMX$ (bar):<br>for controller: | 80<br>R80 | 64<br>R64        | 50<br>R50 |  |

| Types of connection                   |                         |                          |
|---------------------------------------|-------------------------|--------------------------|
| Flanges ....1                         | DIN PN63<br>ANSI 400 RF | DIN PN100<br>ANSI 600 RF |
| Butt weld ends ....4                  |                         |                          |
| Other types of connection on request. |                         |                          |

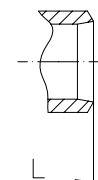


Fig. 631....4  
with butt weld ends

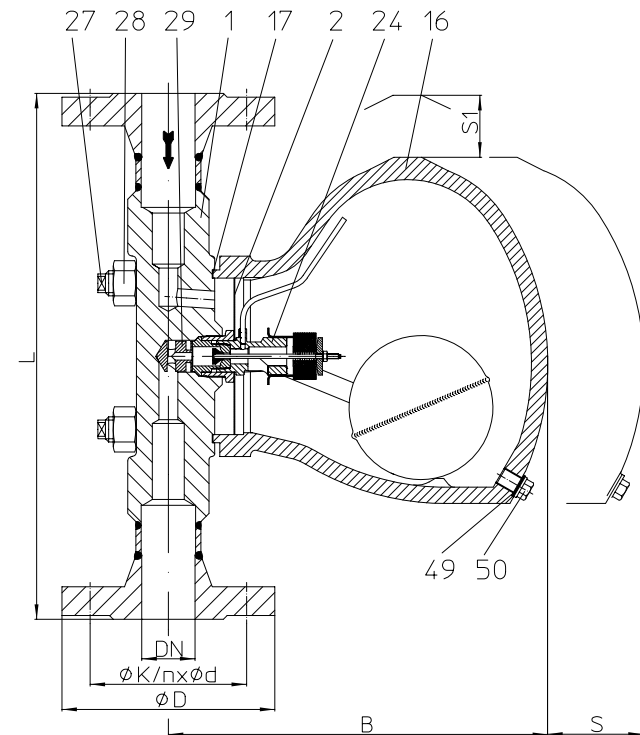


Fig. 631...1 with flanges - vertical installation (PN100)

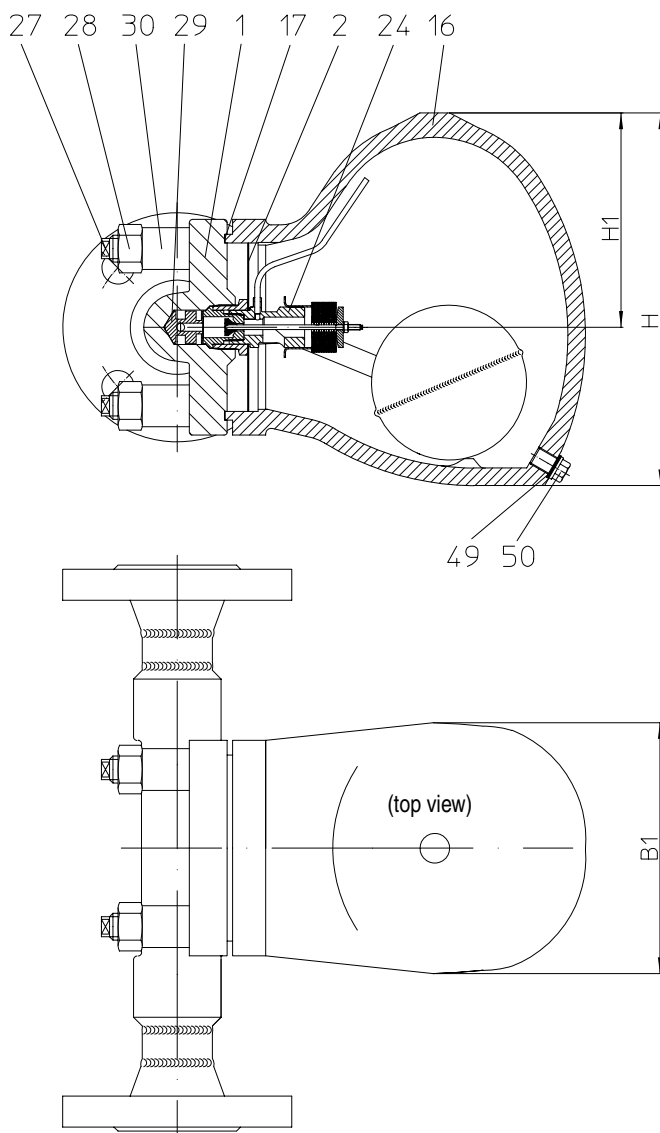


Fig. 631...1 with flanges - horizontal installation (PN100)

| Dimensions and weights                      |            | Types of connection acc. to DIN |         |             |         |           |                |         |             |         |           | Types of connection acc. to ANSI |         |             |         |           |                |         |             |         |  |
|---------------------------------------------|------------|---------------------------------|---------|-------------|---------|-----------|----------------|---------|-------------|---------|-----------|----------------------------------|---------|-------------|---------|-----------|----------------|---------|-------------|---------|--|
|                                             |            | Flanges                         |         |             |         |           | Butt weld ends |         |             |         |           | Flanges                          |         |             |         |           | Butt weld ends |         |             |         |  |
| Nominal diameters                           | mm<br>inch | 15<br>1/2                       | 25<br>1 | 40<br>1 1/2 | 50<br>2 | 15<br>1/2 | 20<br>3/4      | 25<br>1 | 40<br>1 1/2 | 50<br>2 | 15<br>1/2 | 20<br>3/4                        | 25<br>1 | 40<br>1 1/2 | 50<br>2 | 15<br>1/2 | 20<br>3/4      | 25<br>1 | 40<br>1 1/2 | 50<br>2 |  |
| Dimensions (mm)                             | L          | 300                             | 300     | 420         | 416     | 216       | 216            | 216     | 240         | 250     | 300       | 300                              | 300     | 420         | 416     | 216       | 216            | 216     | 240         | 250     |  |
|                                             | H          | 280                             | 280     | 280         | 280     | 280       | 280            | 280     | 280         | 280     | 280       | 280                              | 280     | 280         | 280     | 280       | 280            | 280     | 280         | 280     |  |
|                                             | H1         | 160                             | 160     | 160         | 160     | 160       | 160            | 160     | 160         | 160     | 160       | 160                              | 160     | 160         | 160     | 160       | 160            | 160     | 160         | 160     |  |
|                                             | B          | 302                             | 302     | 302         | 302     | 302       | 302            | 302     | 302         | 302     | 302       | 302                              | 302     | 302         | 302     | 302       | 302            | 302     | 302         | 302     |  |
|                                             | B1         | 185                             | 185     | 185         | 185     | 185       | 185            | 185     | 185         | 185     | 185       | 185                              | 185     | 185         | 185     | 185       | 185            | 185     | 185         | 185     |  |
| Withdrawal distance (mm)                    | S          | 300                             | 300     | 300         | 300     | 300       | 300            | 300     | 300         | 300     | 300       | 300                              | 300     | 300         | 300     | 300       | 300            | 300     | 300         | 300     |  |
|                                             | S1         | 200                             | 200     | 200         | 200     | 200       | 200            | 200     | 200         | 200     | 200       | 200                              | 200     | 200         | 200     | 200       | 200            | 200     | 200         | 200     |  |
| Weight approx. (kg)                         |            | 30                              | 34      | 38          | 42      | 26        | 26             | 26      | 28          | 28      | 28        | 29                               | 32      | 35          | 38      | 26        | 26             | 26      | 28          | 28      |  |
| Standard-flange dimensions refer to page 21 |            |                                 |         |             |         |           |                |         |             |         |           |                                  |         |             |         |           |                |         |             |         |  |

Standard-flange dimensions refer to page 21

## Parts

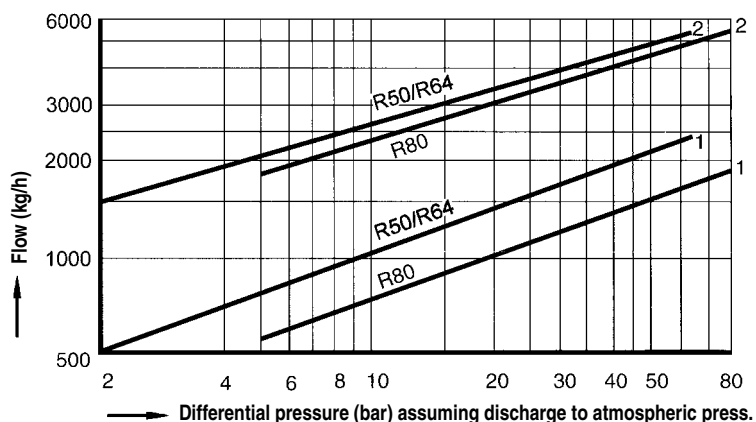
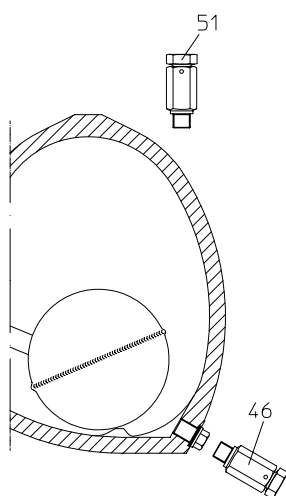
| Pos. | Description                    | Material (Material-No.)                                      |                                |                                                        |                                |
|------|--------------------------------|--------------------------------------------------------------|--------------------------------|--------------------------------------------------------|--------------------------------|
|      |                                | DIN                                                          | comparable with<br>ASTM / AISI | DIN                                                    | comparable with<br>ASTM / AISI |
| 1    | Body                           | 16Mo3, 1.5415                                                | SA 182 F1                      | 13CrMo4-5, 1.7335                                      | SA 182 F12                     |
| 2    | Strainer                       | X5CrNi18-10, 1.4301                                          | SA 240 Gr.304                  | X5CrNi18-10, 1.4301                                    | SA 240 Gr.304                  |
| 16   | Hood                           | G17CrMo5-5, 1.7357                                           | SA 217 WC6                     | G17CrMo5-5, 1.7357                                     | SA 217 WC6                     |
| 17   | Gasket (body/hood) *           | CrNi laminated both sides with pure graphite                 |                                | CrNi laminated both sides with pure graphite           |                                |
| 24   | Controller *                   | X5CrNi18-10, 1.4301<br>corrosion resistant bimetal TB 102/85 |                                | SA 240 Gr.304<br>corrosion resistant bimetal TB 102/85 |                                |
| 27   | Studs                          | X22CrMoV12-1, 1.4923                                         | SA 453 Gr. 660 b               | X22CrMoV12-1, 1.4923                                   | SA 453 Gr. 660 b               |
| 28   | Hexagon nuts                   | X22CrMoV12-1, 1.4923                                         | SA 453 Gr. 660 b               | X22CrMoV12-1, 1.4923                                   | SA 453 Gr. 660 b               |
| 29   | Erosion deflector (only PN100) | X17CrNi16-2, 1.4057                                          | AISI 431                       | X17CrNi16-2, 1.4057                                    | AISI 431                       |
| 30   | Extension sleeve               | 21CrMoV5-7, 1.7709                                           | SA 193 Gr. B16                 | 21CrMoV5-7, 1.7709                                     | SA 193 Gr. B16                 |
| 46   | Blow down valve *              | X39CrMo17-1+QT,<br>1.4122+QT                                 | AISI 440 <sup>1)</sup>         | X39CrMo17-1+QT,<br>1.4122+QT                           | AISI 440 <sup>1)</sup>         |
| 49   | Sealing ring for plug *        | X6CrNiTi18-10, 1.4541                                        | SA 182 F 321                   | X6CrNiTi18-10, 1.4541                                  | SA 182 F 321                   |
| 50   | Plug (M14x1,5) *               | 21CrMoV5-7, 1.7709                                           | SA 193 Gr. B16                 | 21CrMoV5-7, 1.7709                                     | SA 193 Gr. B16                 |
| 51   | Manual air vent valve *        | X39CrMo17-1+QT,<br>1.4122+QT                                 | AISI 440 <sup>1)</sup>         | X39CrMo17-1+QT,<br>1.4122+QT                           | AISI 440 <sup>1)</sup>         |

\* Spare parts

<sup>1)</sup> with metric screw-thread

## Options

## Capacity chart



### Capacity chart

The capacity chart shows the maximum flow quantities of condensate for the controllers R 50, R 64 and R 80.

#### Curve 1

Maximum flow quantities of hot condensate.

#### Curve 2

Maximum flow quantities of cold condensate of about 20°C (during system start-up).



## Ball float steam trap made of high temperature steel

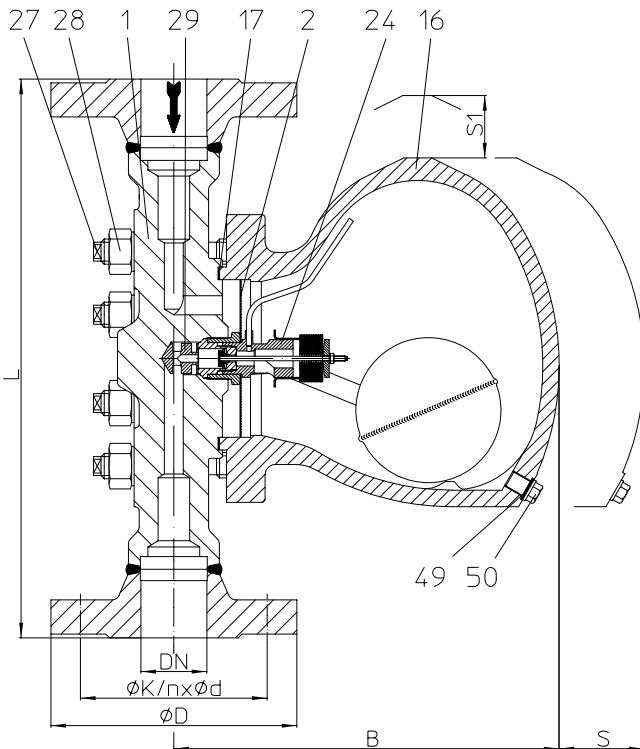


Fig. 631....1 with flanges - vertical installation

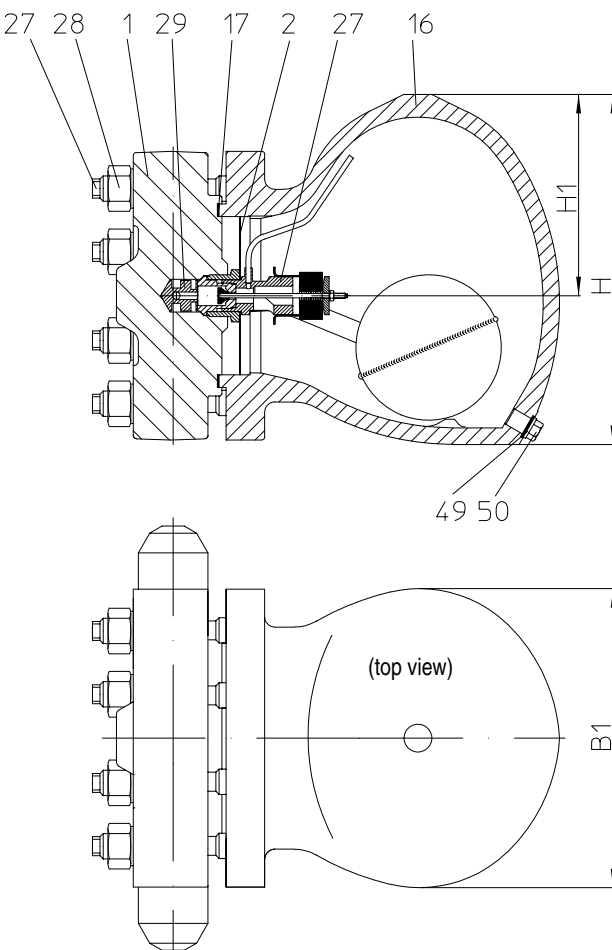


Fig. 631....4 with butt weld ends - horizontal installation

- 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
  - Immediate discharge of hot boiling condensate
  - Standard installation position: - vertical
  - Special installation position: - horizontal with inlet from right or left (Please indicate when ordering)
- Refer to supplement page:  
„Information about the different installation positions“.
- Inside strainer
  - Body with flanged hood
  - Integrated non return protection
  - The exchange of the controller is possible without disturbing the pipe connections
  - On-site change of the installation position is possible according to the operating instructions
  - Option: - Air vent - (Pos. 51) or blow down valve (Pos. 46), manual operated

| Fig. 88.631 / 88.632 - PN160<br>Body: 13CrMo4-5 /<br>Hood: G17CrMo5-5 |             | Operating limits |     |  |
|-----------------------------------------------------------------------|-------------|------------------|-----|--|
| Operating pressure PS (bar-g)                                         | 110         | 80               | 35  |  |
| Operating temperature TS (°C)                                         | 506         | 519              | 550 |  |
| allowable diff. press. $\Delta PMX$ (bar):<br>for controller:         | 110<br>R110 | 80<br>R80        |     |  |

| Types of connection                   |                          |
|---------------------------------------|--------------------------|
| Flanges ...1                          | DIN PN160<br>ANSI 900 RF |
| Socket weld ends ....3                |                          |
| Butt weld ends ....4                  |                          |
| Other types of connection on request. |                          |

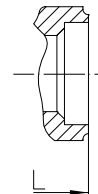


Fig. 631....3 / 632....3  
with socket weld ends

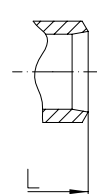


Fig. 631....4 / 632....4  
with butt weld ends

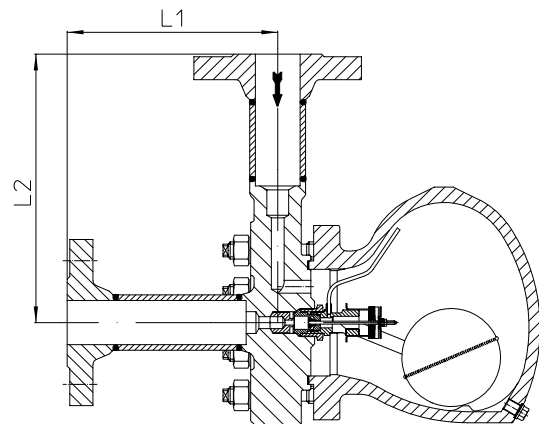


Fig. 632....1 Angle pattern design with flanges - vertical installation



| Dimension and weights    |            | Types of connection acc. to DIN |         |         |                                    |         |         | Types of connection acc. to ANSI |           |         |             |         |                                    |           |         |             |         |
|--------------------------|------------|---------------------------------|---------|---------|------------------------------------|---------|---------|----------------------------------|-----------|---------|-------------|---------|------------------------------------|-----------|---------|-------------|---------|
|                          |            | Flanges                         |         |         | Butt weld ends<br>Socket weld ends |         |         | Flanges                          |           |         |             |         | Butt weld ends<br>Socket weld ends |           |         |             |         |
| Nominal diameters        | mm<br>inch | 15<br>1/2                       | 25<br>1 | 50<br>2 | 15<br>1/2                          | 25<br>1 | 50<br>2 | 15<br>1/2                        | 20<br>3/4 | 25<br>1 | 40<br>1 1/2 | 50<br>2 | 15<br>1/2                          | 20<br>3/4 | 25<br>1 | 40<br>1 1/2 | 50<br>2 |
| Dimensions (mm)          | L *        | 400                             | 415     | 440     | 335                                | 335     | 335     | 400                              | 400       | 415     | 440         | 440     | 335                                | 335       | 335     | 335         | 335     |
|                          | L1* / L2*  | 200                             | 208     | 220     | 168                                | 168     | 168     | 200                              | 200       | 208     | 220         | 220     | 168                                | 168       | 168     | 168         | 168     |
|                          | H          | 280                             | 280     | 280     | 280                                | 280     | 280     | 280                              | 280       | 280     | 280         | 280     | 280                                | 280       | 280     | 280         | 280     |
|                          | H1         | 160                             | 160     | 160     | 160                                | 160     | 160     | 160                              | 160       | 160     | 160         | 160     | 160                                | 160       | 160     | 160         | 160     |
|                          | B          | 302                             | 302     | 302     | 302                                | 302     | 302     | 302                              | 302       | 302     | 302         | 302     | 302                                | 302       | 302     | 302         | 302     |
|                          | B1         | 185                             | 185     | 185     | 185                                | 185     | 185     | 185                              | 185       | 185     | 185         | 185     | 185                                | 185       | 185     | 185         | 185     |
| Withdrawal distance (mm) | S          | 300                             | 300     | 300     | 300                                | 300     | 300     | 300                              | 300       | 300     | 300         | 300     | 300                                | 300       | 300     | 300         | 300     |
|                          | S1         | 200                             | 200     | 200     | 200                                | 200     | 200     | 200                              | 200       | 200     | 200         | 200     | 200                                | 200       | 200     | 200         | 200     |
| Weight approx. (kg)      |            | 46                              | 49      | 56      | 43                                 | 41      | 38      | 48                               | 50        | 51      | 54          | 58      | 43                                 | 42        | 41      | 39          | 38      |

\* other face-to-face dimensions on request

Standard-flange dimensions refer to page 21

## Parts

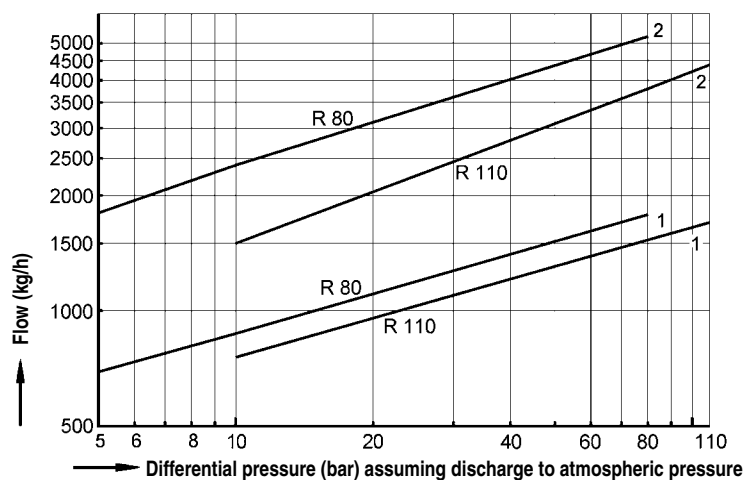
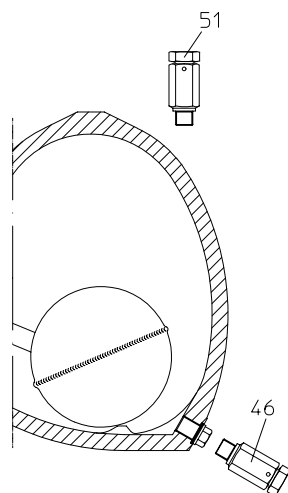
| Pos. | Description             | Material (Material-No.)                      |                                     |
|------|-------------------------|----------------------------------------------|-------------------------------------|
|      |                         | DIN                                          | comparable with<br>ASTM / AISI      |
| 1    | Body                    | 13CrMo4-5, 1.7335                            | SA 182 F12                          |
| 2    | Strainer                | X5CrNi18-10, 1.4301                          | SA 240 Gr.304                       |
| 16   | Hood                    | G17CrMo5-5, 1.7357                           | SA 217 WC6                          |
| 17   | Gasket (Body / Hood) *  | CrNi laminated both sides with pure graphite |                                     |
| 24   | Controller *            | X5CrNi18-10, 1.4301 / bimetal TB 102 / 85    | SA 240 Gr.304 / bimetal TB 102 / 85 |
| 27   | Studs                   | X22CrMoV12-1, 1.4923                         | SA 453 Gr. 660 b                    |
| 28   | Hexagon nuts            | X22CrMoV12-1, 1.4923                         | SA 453 Gr. 660 b                    |
| 29   | Erosion deflector *     | X17CrNi16-2, 1.4057                          | AISI 431                            |
| 46   | Blow down valve *       | X39CrMo17-1+QT, 1.4122+QT                    | AISI 440 <sup>1)</sup>              |
| 49   | Sealing ring for plug * | X6CrNiTi18-10, 1.4541                        | SA 182 F 321                        |
| 50   | Plug (M14x1,5) *        | 21CrMoV5-7, 1.7709                           | SA 193 Gr. B16                      |
| 51   | Manual air vent valve * | X39CrMo17-1+QT, 1.4122+QT                    | AISI 440 <sup>1)</sup>              |

\* Spare parts

<sup>1)</sup> with metric screw-thread

## Options

## Capacity chart



### Capacity chart

The capacity chart shows the maximum flow quantities of condensate for the controllers R 80 and R 110.

#### Curve 1

Maximum flow quantities of hot condensate.

#### Curve 2

Maximum flow quantities of cold condensate of about 20°C (during system start-up).

## Ball float steam trap made of cast steel / forged steel

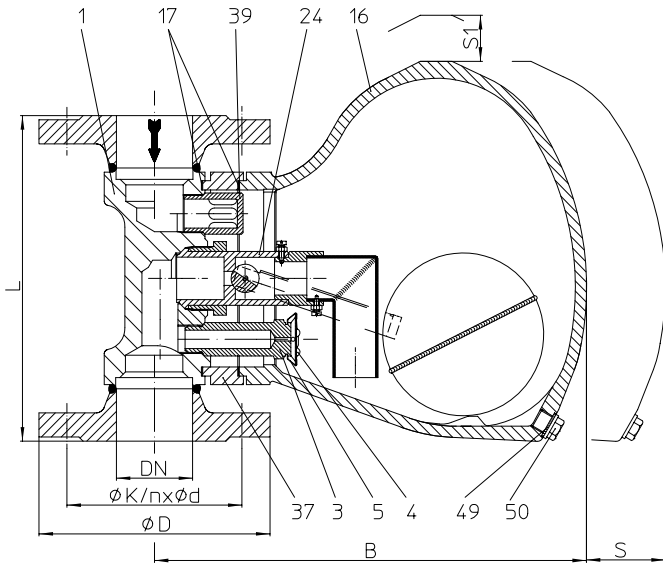


Fig. 633....1 with flanges - vertical installation

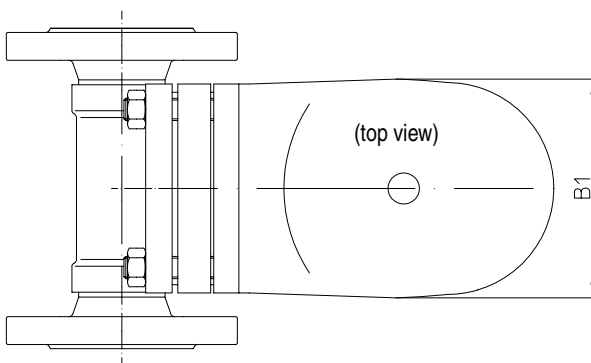
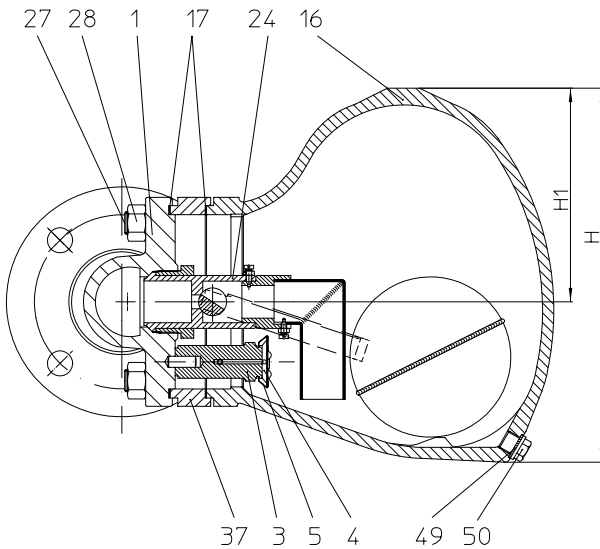


Fig. 633....1 with flanges - horizontal installation

- 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
- Immediate discharge of hot boiling condensat
- Discharge of high condensate load even at low differential pressure
- Standard installation position: - vertical
- Special installation position: - horizontal with inlet from right or left (Please indicate when ordering)

Refer to supplement page:

„Information about the different installation positions“.

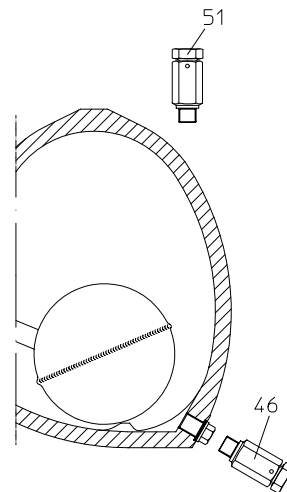
- Body with flanged hood
- The exchange of the controller is possible without disturbing the pipe connections
- Option: - Air vent - (Pos. 51) or blow down valve (Pos. 46), manual operated

| Fig. 45.633 - PN40<br>Body: 1.0460 /<br>Hood: 1.0619+N        |           |
|---------------------------------------------------------------|-----------|
| Operating limits                                              |           |
| Operating pressure PS (bar-g)                                 | 0,1-4     |
| Operating temperature TS (°C)                                 | 350       |
| allowable diff. press. $\Delta PMX$ (bar):<br>for controller: | 4<br>R4-P |

EN-JS1049 on request.

| Types of connection                   |                         |
|---------------------------------------|-------------------------|
| Flanges ....1                         | DIN PN40<br>ANSI 300 RF |
| Other types of connection on request. |                         |

### Options



| Dimensions and weights   |            | Types of connection |      |      |      |      |
|--------------------------|------------|---------------------|------|------|------|------|
|                          |            | Flanges             |      |      |      |      |
| Nominal diameters        | mm<br>inch | 40                  | 50   | 65   | 80   | 100  |
| Dimensions (mm)          | L*         | 230                 | 230  | 290  | 310  | 350  |
|                          | H          | 270                 | 270  | 270  | 270  | 270  |
|                          | H1         | 151                 | 151  | 151  | 151  | 151  |
|                          | B          | 307                 | 307  | 307  | 307  | 307  |
|                          | B1         | 157                 | 157  | 157  | 157  | 157  |
| Withdrawal distance (mm) | S          | 300                 | 300  | 300  | 300  | 300  |
|                          | S1         | 200                 | 200  | 200  | 200  | 200  |
| Weight approximate (kg)  |            | 24,7                | 25,3 | 27,2 | 29,2 | 32,7 |

\* other face-to-face dimensions on request

Standard-flange dimensions refer to page 21

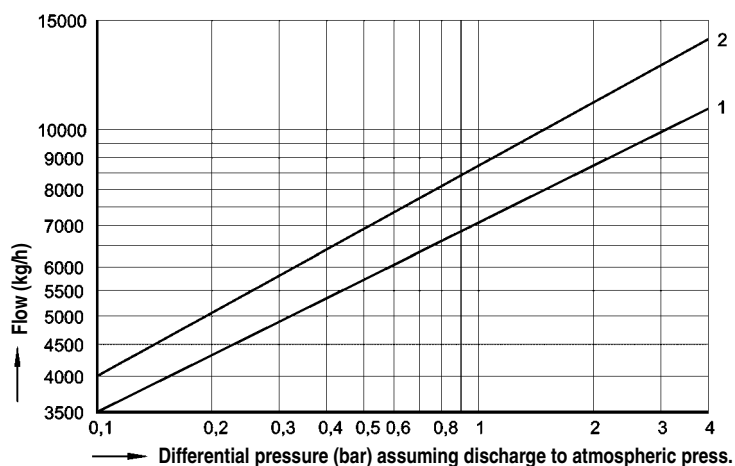
## Parts

| Pos. | Description             | Material (Material-No.)                      |                                    |
|------|-------------------------|----------------------------------------------|------------------------------------|
|      |                         | DIN                                          | comparable with ASTM / AISI        |
| 1    | Body                    | P250GH, 1.0460                               | SA 105                             |
| 3    | Seat                    | X8CrNiS18-9, 1.4305                          | AISI 303                           |
| 4    | Diaphragm               | Hastelloy                                    |                                    |
|      | Capsule                 | X5CrNi18-10, 1.4301                          | SA 240 Gr.304                      |
| 5    | Spring actuated clip *  | X12CrNi17-7, 1.4310                          | AISI 301                           |
| 16   | Hood                    | GP240GH+N, 1.0619+N                          | SA 216 WCB                         |
| 17   | Gasket (body/hood) *    | CrNi laminated both sides with pure graphite |                                    |
| 24   | Controller, kpl. *      | X5CrNi18-10, 1.4301 / bimetal TB 102 / 85    | SA 240Gr.304 / bimetal TB 102 / 85 |
| 27   | Studs                   | 21CrMoV5-7, 1.7709                           | SA 193 Gr. B16 <sup>1)</sup>       |
| 28   | Hexagon nuts            | 21CrMoV5-7, 1.7709                           | SA 194 Gr. 4 <sup>1)</sup>         |
| 37   | Intermediate flange     | P250GH, 1.0460                               | SA 105                             |
| 39   | Baffle straightener *   | X14CrMoS17+QT, 1.4104+QT                     | AISI 430 F                         |
| 46   | Blow down valve *       | X8CrNiS18-9, 1.4305                          | AISI 303 <sup>1)</sup>             |
| 49   | Sealing ring for plug * | X6CrNiTi18-10, 1.4541                        | SA 182 F 321                       |
| 50   | Plug (M14x1,5) *        | 21CrMoV5-7, 1.7709                           | SA 193 Gr. B16 <sup>1)</sup>       |
| 51   | Manual air vent valve * | X8CrNiS18-9, 1.4305                          | AISI 303 <sup>1)</sup>             |

\* Spare parts

<sup>1)</sup> with metric screw-thread

## Capacity chart



### Capacity chart

#### Curve 1

Maximum flow quantities of hot condensate.

#### Curve 2

Maximum flow quantities of cold condensate of about 20°C

## Ball float steam trap made of forged steel, stainless steel

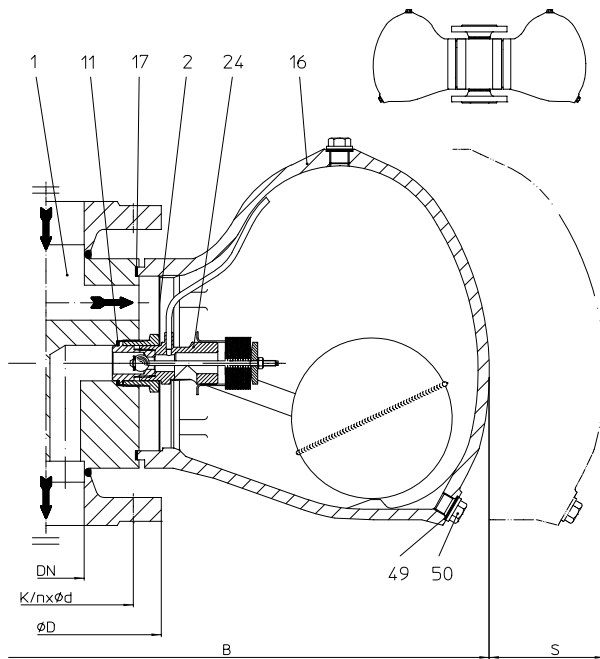


Fig. 639....1 with flanges - **vertical installation**

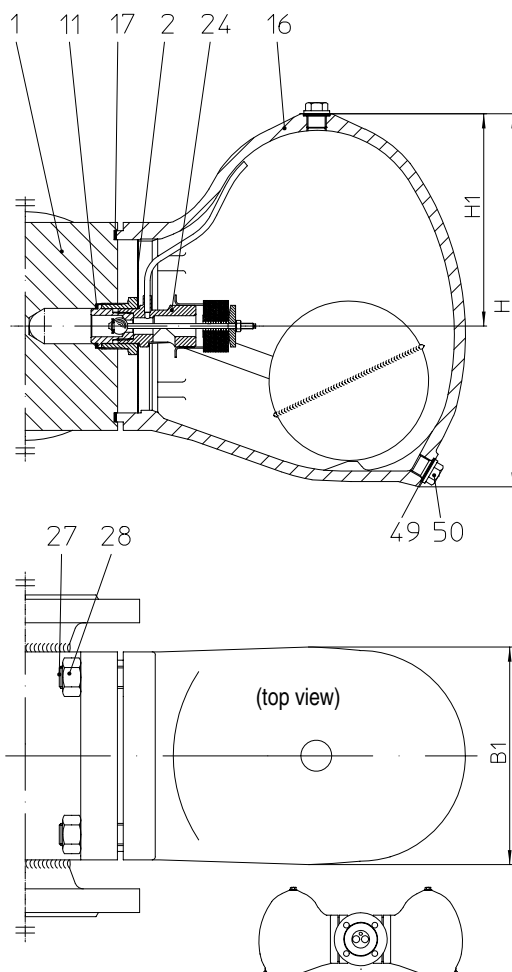


Fig. 639....1 with flanges - **horizontal installation**

The controller R4-P deviates in his construction from the shown controller on this side.  
Refer to BR633 (page 10).

- Ball float steam trap with level control for the condensate-discharge from all kinds of steam systems for large condensate flowrates
  - Discharge of great condensate volumes even at low differential pressure
  - Rapid system start-up due to thermostatic control element
  - Immediate discharge of hot boiling condensat
  - Standard installation position: - vertical
  - Special installation position: - horizontal with inlet from right or left (Please indicate when ordering)
- Refer to supplement page:  
„Information about the different installation positions“.
- Inside strainer
  - Body with flanged hood
  - Integrated non return protection
  - The exchange of the controller is possible without disturbing the pipe connections
  - On-site change of the installation position is possible according to the operating instructions (With an existing external vent there are modifies bypass parts needed due to the required installation position - please inquire)
  - External vent cpl. for venting of high quantities of air during start-up and operation (standard with controller R2-S, R4-S and R4-P)

| Fig. 42.639 - PN16<br>Body: 1.0460 / Hood: EN-JL1040  |  | Operating limits |           |           |             |
|-------------------------------------------------------|--|------------------|-----------|-----------|-------------|
| Operating pressure PS (bar-g)                         |  | 13               |           |           |             |
| Operating temperature TS (°C)                         |  | 300              |           |           |             |
| allowable diff. press. ΔPMX (bar):<br>for controller: |  | 2<br>R2-S        | 4<br>R4-S | 8<br>R8-S | 13<br>R13-S |

| Fig. 45.639 - PN40<br>Body: 1.0460 / Hood: 1.0619+NN  |  | Operating limits |           |           |             |           |           |
|-------------------------------------------------------|--|------------------|-----------|-----------|-------------|-----------|-----------|
| Operating pressure PS (bar-g)                         |  | 32               |           | 21        |             |           |           |
| Operating temperature TS (°C)                         |  | 250              |           | 400       |             |           |           |
| allowable diff. press. ΔPMX (bar):<br>for controller: |  | 2<br>R2-S        | 4<br>R4-S | 8<br>R8-S | 13<br>R13-S | 22<br>R22 | 32<br>R32 |

| Fig. 55.639 - PN40<br>Body: 1.4541 / Hood: 1.4308     |  | Operating limits |           |           |             |           |           |
|-------------------------------------------------------|--|------------------|-----------|-----------|-------------|-----------|-----------|
| Operating pressure PS (bar-g)                         |  | 32               |           | 28        |             |           |           |
| Operating temperature TS (°C)                         |  | 250              |           | 300       |             |           |           |
| allowable diff. press. ΔPMX (bar):<br>for controller: |  | 2<br>R2-S        | 4<br>R4-S | 8<br>R8-S | 13<br>R13-S | 22<br>R22 | 32<br>R32 |

| Types of connection                   |                         |                         |
|---------------------------------------|-------------------------|-------------------------|
| Flanges ....1                         | DIN PN16<br>ANSI 150 RF | DIN PN40<br>ANSI 300 RF |
| Other types of connection on request. |                         |                         |

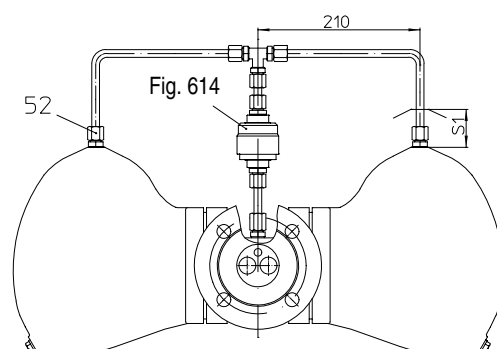


Fig. 639....1  
with flanges - **horizontal installation and external vent kpl.**

| Dimensions and weights   |            | Types of connection |             |         |          |               |             |         |          |
|--------------------------|------------|---------------------|-------------|---------|----------|---------------|-------------|---------|----------|
|                          |            | Flanges, PN16       |             |         |          | Flanges, PN40 |             |         |          |
| Nominal diameters        | mm<br>inch | 50<br>2             | 65<br>2 1/2 | 80<br>3 | 100<br>4 | 50<br>2       | 65<br>2 1/2 | 80<br>3 | 100<br>4 |
| Dimensions (mm)          | L*         | 230                 | 290         | 310     | 350      | 230           | 290         | 310     | 350      |
|                          | H          | 270                 | 270         | 270     | 270      | 270           | 270         | 270     | 270      |
|                          | H1         | 151                 | 151         | 151     | 151      | 151           | 151         | 151     | 151      |
|                          | B          | 634                 | 634         | 634     | 634      | 634           | 634         | 634     | 634      |
|                          | B1         | 157                 | 157         | 157     | 157      | 157           | 157         | 157     | 157      |
| Withdrawal distance (mm) | S          | 300                 | 300         | 300     | 300      | 300           | 300         | 300     | 300      |
|                          | S1         | 200                 | 200         | 200     | 200      | 200           | 200         | 200     | 200      |
| Weight approximate (kg)  |            | 44,7                | 46,2        | 47,7    | 50,5     | 26            | 48,3        | 50,5    | 55       |

\* other face-to-face dimensions on request

Standard-flange dimensions refer to page 21

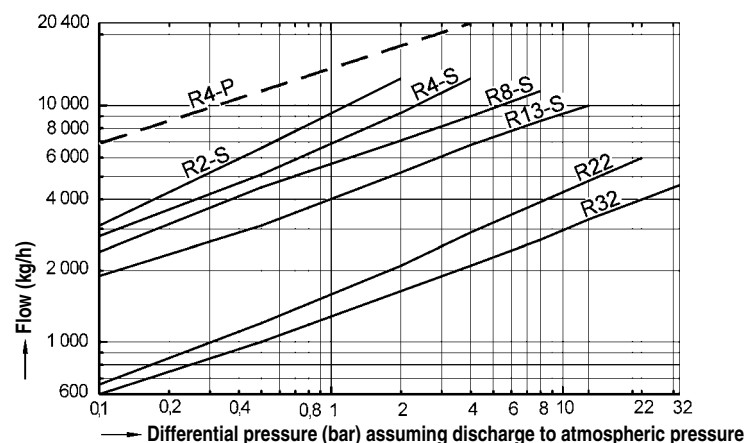
## Parts

| Pos. | Description                     | Material (Material-No.)                      |                                  |                                              |                                  |                                              |                                  |     |                                |
|------|---------------------------------|----------------------------------------------|----------------------------------|----------------------------------------------|----------------------------------|----------------------------------------------|----------------------------------|-----|--------------------------------|
|      |                                 | DIN                                          | comparable with<br>ASTM / AISI   | DIN                                          | comparable with<br>ASTM / AISI   | DIN                                          | comparable with<br>ASTM / AISI   | DIN | comparable with<br>ASTM / AISI |
| 1    | Body                            | P250GH, 1.0460                               | SA 105, 1.0432                   | P250GH, 1.0460                               | SA 105, 1.0432                   | X6CrNiTi18-10, 1.4541                        | SA 182 F 321                     |     |                                |
| 2    | Strainer                        | X5CrNi18-10, 1.4301                          | SA 240 Gr.304                    | X5CrNi18-10, 1.4301                          | SA 240 Gr.304                    | X5CrNi18-10, 1.4301                          | SA 240 Gr.304                    |     |                                |
| 11   | Sealing ring (body/seat) *      | R-Cu99                                       |                                  | R-Cu99                                       |                                  | X6CrNiTi18-10, 1.4541                        | SA 182 F 321                     |     |                                |
| 16   | Hood                            | EN-JL1040, EN-GJL-250                        | SA 278 Class No.40               | GP240GH+N, 1.0619+N                          | SA 216 WCB                       | GX5CrNi19-10, 1.4308                         | SA 351 CF8                       |     |                                |
| 17   | Gasket (body/hood) *            | CrNi laminated both sides with pure graphite |                                  | CrNi laminated both sides with pure graphite |                                  | CrNi laminated both sides with pure graphite |                                  |     |                                |
| 24   | Controller, kpl. *              | X5CrNi18-10, 1.4301 / Bimetall TB 102/85     | SA 240 Gr.304 Bimetall TB 102/85 | X5CrNi18-10, 1.4301 / Bimetall TB 102/85     | SA 240 Gr.304 Bimetall TB 102/85 | X5CrNi18-10, 1.4301 / Bimetall TB 102/85     | SA 240 Gr.304 Bimetall TB 102/85 |     |                                |
| 27   | Studs                           | C35E, 1.1181                                 | 1035 / 1038                      | 21CrMoV5-7, 1.7709                           | SA 193 Gr. B16 1)                | X6CrNiTi18-10, 1.4541                        | SA 182 F 321 1)                  |     |                                |
| 28   | Hexagon nuts                    | C35E, 1.1181                                 | 1035 / 1038                      | 21CrMoV5-7, 1.7709                           | SA 194 Gr. 4 1)                  | X6CrNiTi18-10, 1.4541                        | SA 182 F 321 1)                  |     |                                |
| 46   | Blow down valve *               | X8CrNiS18-9, 1.4305                          | AISI 303                         | X8CrNiS18-9, 1.4305                          | AISI 303                         | X8CrNiS18-9, 1.4305                          | AISI 303                         |     |                                |
| 49   | Sealing ring for plug *         | R-Cu99                                       |                                  | R-Cu99                                       |                                  | X6CrNiTi18-10, 1.4541                        | SA 182 F 321                     |     |                                |
| 50   | Plug (M14x1,5) *                | 21CrMoV5-7, 1.7709                           | SA 193 Gr. B16 1)                | 21CrMoV5-7, 1.7709                           | SA 193 Gr. B16 1)                | X6CrNiTi18-10, 1.4541                        | SA 182 F 321 1)                  |     |                                |
| 51   | Manual air vent valve *         | X8CrNiS18-9, 1.4305                          | AISI 303                         | X8CrNiS18-9, 1.4305                          | AISI 303                         | X8CrNiS18-9, 1.4305                          | AISI 303                         |     |                                |
| 52   | Union for pressure comp. line * | X8CrNiS18-9, 1.4305                          | AISI 303 1)                      | X8CrNiS18-9, 1.4305                          | AISI 303 1)                      | X8CrNiS18-9, 1.4305                          | AISI 303 1)                      |     |                                |

\* Spare parts

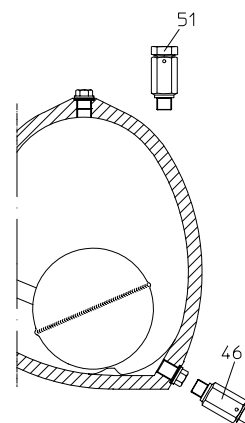
1) with metric screw-thread

## Capacity chart



The capacity chart shows the maximum flow quantities of hot condensate for the controller versions.

## Options with controller R8-S to R32



## Ball float steam trap made of steel

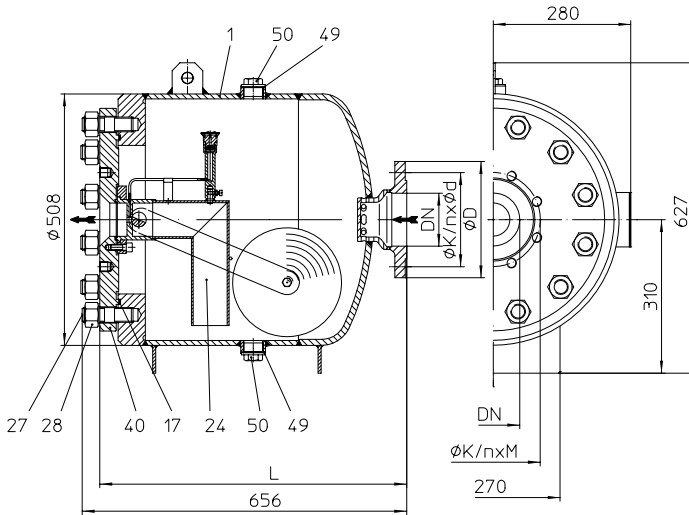


Fig. 637....1 with flanges  
**Design for DN65-100**  
 on DN50 connecting flange at the outlet (refer to page 15)

- 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
- Venting of air during start-up and operation due to the thermostatic element (necessary only at BR637)
- Immediate discharge of hot boiling condensat
- Standard installation position: - horizontal
- BR 637: straight through (inlet from right or left)  
 BR 638: angle pattern (inlet from the top)
- Capacity: 74 litres
- Drain plug
- Support points
- Simple exchange of controller
- Option: - pre-assembled welding neck flanges to the inlet - and outlet (standard on DN50)

| Fig. 85.637 / 85.638 - PN40<br>Body: P265GH /<br>Cover: P355NH |         | Operating limits |           |           |  |
|----------------------------------------------------------------|---------|------------------|-----------|-----------|--|
| Operating pressure PS (bar-g)                                  | 40      | 29               | 25        | 22        |  |
| Operating temperature TS (°C)                                  | 120     | 250              | 300       | 350       |  |
| allowable diff. press. ΔPMX (bar):<br>for controller:          | 4<br>R4 | 14<br>R14        | 23<br>R23 | 30<br>R30 |  |

| Types of connection                                                                 |                      |                                 |
|-------------------------------------------------------------------------------------|----------------------|---------------------------------|
| Flanges ....1                                                                       | DIN PN16<br>and PN25 | DIN PN40<br>ANSI 150 and 300 RF |
| Other types of connection on request<br>(possibly note different operating limits). |                      |                                 |

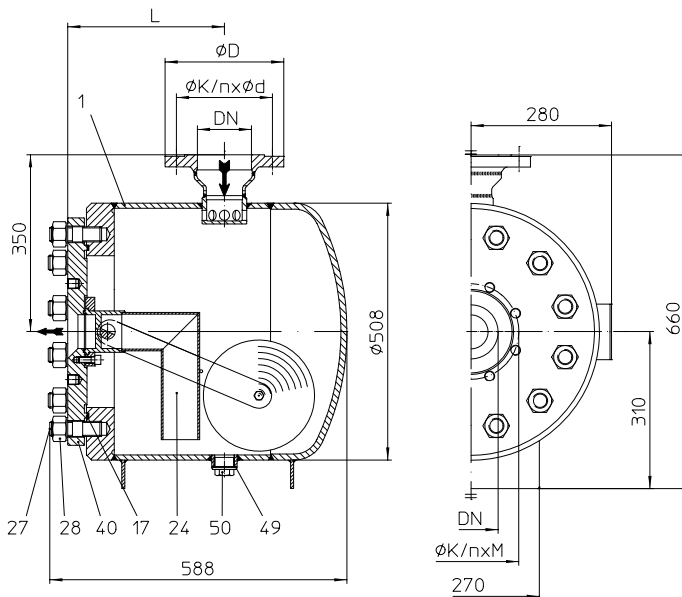


Fig. 638....1 angle pattern with flanges  
**Design for DN65-100**  
 on DN50 connecting flange at the outlet (refer to page 15)

| Dimensions and weights  |              | Types of connection       |               |               |               |                        |               |               |               |
|-------------------------|--------------|---------------------------|---------------|---------------|---------------|------------------------|---------------|---------------|---------------|
|                         |              | BR 637 (straight through) |               |               |               | BR 638 (angle pattern) |               |               |               |
| Nominal diameters       | mm<br>inch   | 50<br>2                   | 65<br>2 1/2   | 80<br>3       | 100<br>4      | 50<br>2                | 65<br>2 1/2   | 80<br>3       | 100<br>4      |
| Dimensions (mm)         | L            | 750                       | 620           | 620           | 620           | 445                    | 310           | 310           | 310           |
|                         | Ø K / n x M  | *                         | 145 / 8 x M16 | 160 / 8 x M16 | 190 / 8 x M20 | *                      | 145 / 4 x M16 | 160 / 8 x M16 | 190 / 8 x M20 |
|                         | Ø K / n x Ød | 125 / 4 x 18              | 145 / 8 x 18  | 160 / 8 x 18  | 190 / 8 x 22  | 125 / 4 x 18           | 145 / 8 x 18  | 160 / 8 x 18  | 190 / 8 x 22  |
| Weight approximate (kg) |              | 201                       | 194           | 195           | 197           | 201                    | 194           | 195           | 197           |

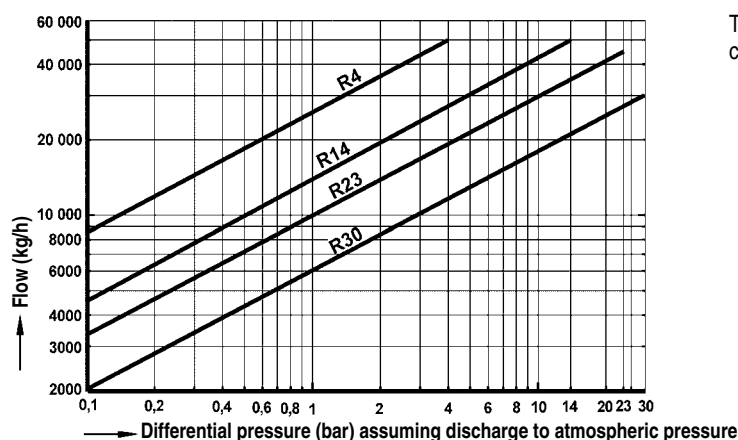
\* on DN50 connecting flange at the outlet standard (see at the bottom)

### Parts

| Pos. | Description             | Material (Material-No.)                      |                                     |
|------|-------------------------|----------------------------------------------|-------------------------------------|
|      |                         | DIN                                          | comparable with ASTM / AISI         |
| 1    | Body                    | P 265 GH, 1.0425                             | SA 516 Gr. 60                       |
| 17   | Gasket (body/hood) *    | CrNi laminated both sides with pure graphite |                                     |
| 24   | Controller, kpl. *      | X5CrNi18-10, 1.4301<br>Bimetall TB 102/85    | SA 240 Gr.304<br>Bimetall TB 102/85 |
| 27   | Studs                   | 21CrMoV5-7, 1.7709                           | SA 193 Gr. B16 <sup>1)</sup>        |
| 28   | Hexagon nuts            | 21CrMoV5-7, 1.7709                           | SA 194 Gr. 4 <sup>1)</sup>          |
| 40   | Cover                   | P355NH, 1.0565                               |                                     |
| 49   | Sealing ring for plug * | R-Cu99                                       |                                     |
| 50   | Plug (G 1 1/4) *        | P250 GH, 1.0460                              | SA 105                              |

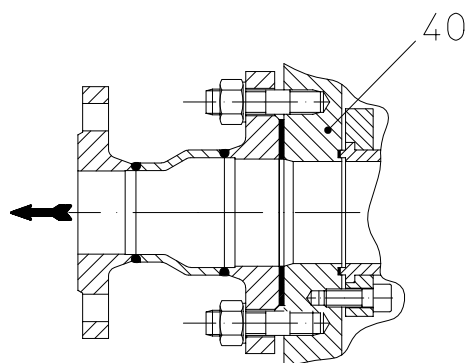
\* Spare parts <sup>1)</sup> with metric screw-thread

### Capacity chart



The capacity chart shows the maximum flow quantities of hot condensate for the controller versions.

### Design of outlet connecting flange on DN50



| DN  | Dimension and material for the studs and hexagon nuts for the connecting flange to the pipe flange (Pos. 40) |                               |
|-----|--------------------------------------------------------------------------------------------------------------|-------------------------------|
|     | Studs                                                                                                        | Hexagon nuts                  |
| 65  | M16 x 55 DIN 939 - 1.7709                                                                                    | NF M16 x 55 DIN 2510 - 1.7709 |
| 80  | M16 x 55 DIN 939 - 1.7709                                                                                    | NF M16 x 55 DIN 2510 - 1.7709 |
| 100 | M20 x 55 DIN 939 - 1.7709                                                                                    | NF M20 x 55 DIN 2510 - 1.7709 |



## Ball float steam trap made of cast iron, nodular iron, cast steel / forged steel , stainless steel

• Ball float steam trap with level control for the condensate-discharge from compressed air and gas systems (acc. to PED 97/23/EC fluid group 2, other fluid groups on request)

• Standard installation position: - vertical

• Special installation position: - horizontal with inlet from right or left (please indicate when ordering)  
Pressure compensation line required (refer to p. 18, installation example)

Refer to supplement page:

„Information about the different installation positions“.

• Integrated strainer

• Body with flanged hood

• Integrated non return protection

• Union (Pos. 52) for pressure compensation line

• The exchange of the controller is possible without disturbing the pipe connections

• On-site change of the installation position is possible according to the operating instructions

• Options: - Air vent (Pos. 51) or  
blow down valve (Pos. 46), manual operated

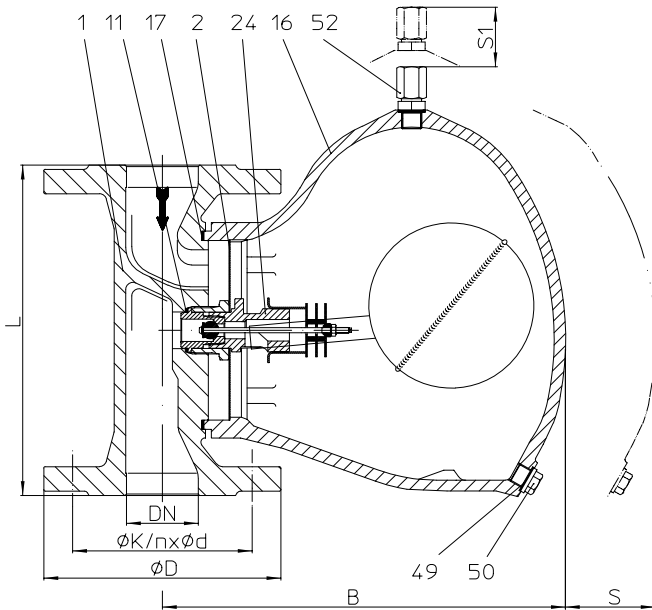


Fig. 630....1 with flanges - vertical installation

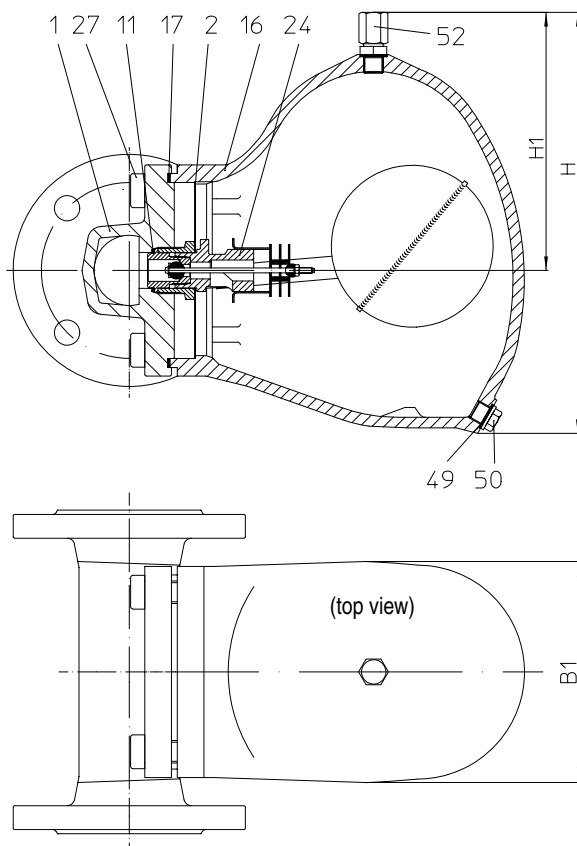


Fig. 630....1 with flanges - horizontal installation

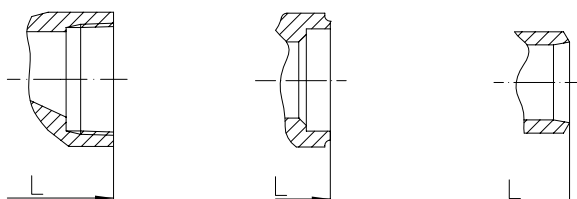


Fig. 630....2  
with screwed sockets

Fig. 630....3  
with socket weld ends

Fig. 630....4  
with butt weld ends

| Fig. 12.630 - PN16<br>Body / Hood: EN-JL1040          |  | Operating limits |         |         |           |
|-------------------------------------------------------|--|------------------|---------|---------|-----------|
| Operating pressure PS (bar-g)                         |  | 12,8             |         | 9,6     |           |
| Operating temperature TS (°C)                         |  | 200              |         | 300     |           |
| allowable diff. press. ΔPMX (bar):<br>for controller: |  | 2<br>R2          | 4<br>R4 | 8<br>R8 | 13<br>R13 |

| Fig. 25.630 - PN40<br>Body / Hood: EN-JS1049          |  | Operating limits |         |         |           |           |           |
|-------------------------------------------------------|--|------------------|---------|---------|-----------|-----------|-----------|
| Operating pressure PS (bar-g)                         |  | 32 / 22          |         |         |           |           |           |
| Operating temperature TS (°C)                         |  | 250 / 350        |         |         |           |           |           |
| allowable diff. press. ΔPMX (bar):<br>for controller: |  | 2<br>R2          | 4<br>R4 | 8<br>R8 | 13<br>R13 | 22<br>R22 | 32<br>R32 |

| Fig. 45.630 - PN40<br>Body: 1.0460 /<br>Hood: 1.0619+N |  | Operating limits |         |         |           |           |           |
|--------------------------------------------------------|--|------------------|---------|---------|-----------|-----------|-----------|
| Operating pressure PS (bar-g)                          |  | 32 / 21          |         |         |           |           |           |
| Operating temperature TS (°C)                          |  | 250 / 400        |         |         |           |           |           |
| allowable diff. press. ΔPMX (bar):<br>for controller:  |  | 2<br>R2          | 4<br>R4 | 8<br>R8 | 13<br>R13 | 22<br>R22 | 32<br>R32 |

| Fig. 55.630 - PN40<br>Body: 1.4541 /<br>Hood: 1.4308  |  | Operating limits |         |         |           |           |           |
|-------------------------------------------------------|--|------------------|---------|---------|-----------|-----------|-----------|
| Operating pressure PS (bar-g)                         |  | 32 / 28          |         |         |           |           |           |
| Operating temperature TS (°C)                         |  | 250 / 300        |         |         |           |           |           |
| allowable diff. press. ΔPMX (bar):<br>for controller: |  | 2<br>R2          | 4<br>R4 | 8<br>R8 | 13<br>R13 | 22<br>R22 | 32<br>R32 |

| Types of connection                   |                    |                                 |
|---------------------------------------|--------------------|---------------------------------|
| Flanges ....1                         | DIN PN16           | DIN PN40<br>ANSI 150 and 300 RF |
| Screwed sockets ....2                 | Rp- and NPT-thread |                                 |
| Socket weld ends ....3                |                    |                                 |
| Butt weld ends ....4                  |                    |                                 |
| Other types of connection on request. |                    |                                 |

| Dimensions and weights   |            | Types of connection |           |         |             |         |                                                               |           |         |                   |                                     |                              |           |         |             |         |
|--------------------------|------------|---------------------|-----------|---------|-------------|---------|---------------------------------------------------------------|-----------|---------|-------------------|-------------------------------------|------------------------------|-----------|---------|-------------|---------|
|                          |            | Flanges             |           |         |             |         | Screw sockets <sup>1)</sup><br>Socket weld ends <sup>2)</sup> |           |         |                   |                                     | Butt weld ends <sup>2)</sup> |           |         |             |         |
| Nominal diameters        | mm<br>inch | 15<br>1/2           | 20<br>3/4 | 25<br>1 | 40<br>1 1/2 | 50<br>2 | 15<br>1/2                                                     | 20<br>3/4 | 25<br>1 | 40<br>1 1/2       | 50 <sup>1)</sup><br>2 <sup>1)</sup> | 15<br>1/2                    | 20<br>3/4 | 25<br>1 | 40<br>1 1/2 | 50<br>2 |
| Dimensions (mm)          | L*         | 150                 | 150       | 160     | 230         | 230     | 150                                                           | 150       | 160     | 210 <sup>3)</sup> | 230                                 | 150                          | 150       | 160     | 250         | 250     |
|                          | H          | 188                 | 188       | 213     | 296         | 296     | 188                                                           | 188       | 213     | 296               | 296                                 | 188                          | 188       | 213     | 296         | 296     |
|                          | H1         | 111                 | 111       | 128     | 177         | 177     | 111                                                           | 111       | 128     | 177               | 177                                 | 111                          | 111       | 128     | 177         | 177     |
|                          | B          | 214                 | 214       | 255     | 280         | 280     | 214                                                           | 214       | 255     | 280               | --                                  | --                           | --        | --      | --          | --      |
|                          |            |                     |           |         |             |         | 167                                                           | 167       | 196     | 285               | 285                                 | 167                          | 167       | 196     | 285         | 285     |
|                          | B1         | 95                  | 95        | 118     | 157         | 157     | 95                                                            | 95        | 118     | 157               | 157                                 | 95                           | 95        | 118     | 157         | 157     |
| Withdrawal distance (mm) | S          | 180                 | 180       | 200     | 300         | 300     | 180                                                           | 180       | 200     | 300               | 300                                 | 180                          | 180       | 200     | 300         | 300     |
|                          | S1         | 150                 | 150       | 180     | 200         | 200     | 150                                                           | 150       | 180     | 200               | 200                                 | 150                          | 150       | 180     | 200         | 200     |
| Weight approximate (kg)  |            | 7,9                 | 8,1       | 10,9    | 24,7        | 25,3    | 7,3                                                           | 7,3       | 8,5     | 20,0              | 20,5                                | 6,9                          | 7,9       | 9,0     | 21,0        | 22,0    |

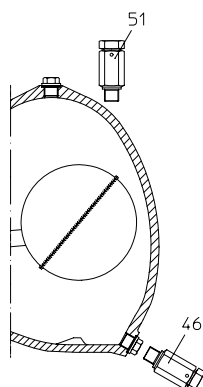
\* other face-to-face dim. on request <sup>1)</sup> DN50 (2") not for EN-JL/JS <sup>2)</sup> not for EN-JL/JS <sup>3)</sup> at EN-JS: L = 230 mm Stand.-flange dim. ref. to page 25

## Parts

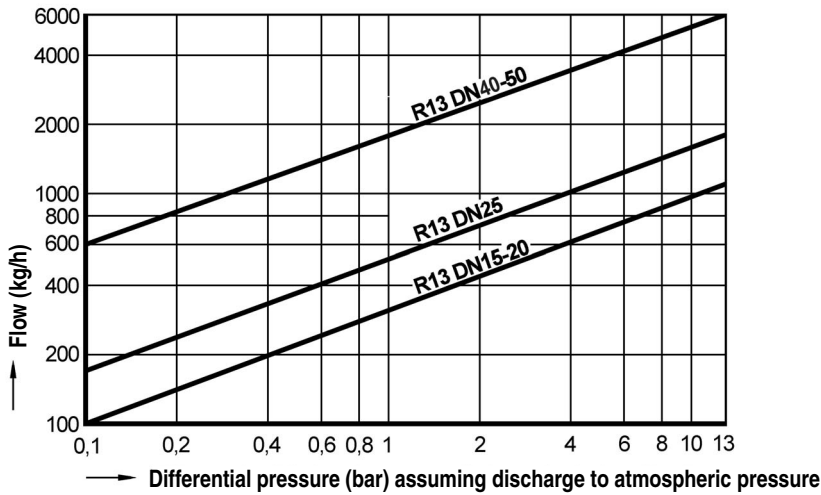
| Pos. | Description                         | Material (Material-No.)                         |                                          |                                                 |                                 |                                                 |                                 |                                                 |                            |     |                           |
|------|-------------------------------------|-------------------------------------------------|------------------------------------------|-------------------------------------------------|---------------------------------|-------------------------------------------------|---------------------------------|-------------------------------------------------|----------------------------|-----|---------------------------|
|      |                                     | DIN                                             | comp. with<br>ASTM / AISI                | DIN                                             | comp. with<br>ASTM / AISI       | DIN                                             | comp. with<br>ASTM / AISI       | DIN                                             | comp. with<br>ASTM / AISI  | DIN | comp. with<br>ASTM / AISI |
| 1    | Body                                | EN-JL1040,<br>EN-GJL-250                        | SA 278<br>Class No.40                    | EN-JS1049,<br>EN-GJS-400-18U-LT                 | SA 395                          | P250GH,<br>1.0460                               | SA 105,<br>1.0432               | X6CrNiTi18-10,<br>1.4541                        | SA 182 F 321               |     |                           |
| 2    | Strainer                            | X5CrNi18-10,<br>1.4301                          | SA 240<br>Gr.304                         | X5CrNi18-10,<br>1.4301                          | SA 240<br>Gr.304                | X5CrNi18-10,<br>1.4301                          | SA 240<br>Gr.304                | X5CrNi18-10,<br>1.4301                          | SA 240<br>Gr.304           |     |                           |
| 11   | Gasket (body/seat) *                | R-Cu99                                          |                                          | R-Cu99                                          |                                 | R-Cu99                                          |                                 | X6CrNiTi18-10,<br>1.4541                        | SA 182 F 321               |     |                           |
| 16   | Hood                                | EN-JL1040,<br>EN-GJL-250                        | SA 278<br>Class No.40                    | EN-JS1049,<br>EN-GJS-400-18U-LT                 | SA 395                          | GP240GH+N,<br>1.0619+N                          | SA 216 WCB                      | GX5CrNi19-10,<br>1.4308                         | SA 351 CF8                 |     |                           |
| 17   | Gasket (body/hood) *                | CrNi laminated both sides<br>with pure graphite |                                          | CrNi laminated both sides<br>with pure graphite |                                 | CrNi laminated both sides<br>with pure graphite |                                 | CrNi laminated both sides<br>with pure graphite |                            |     |                           |
| 24   | Controller *                        | X5CrNi18-10,<br>1.4301                          | SA 240<br>Gr.304                         | X5CrNi18-10,<br>1.4301                          | SA 240<br>Gr.304                | X5CrNi18-10,<br>1.4301                          | SA 240<br>Gr.304                | X5CrNi18-10,<br>1.4301                          | SA 240<br>Gr.304           |     |                           |
|      |                                     | bimetal TB102 / 85                              |                                          | bimetal TB102 / 85                              |                                 | bimetal TB102 / 85                              |                                 | bimetal TB102 / 85                              |                            |     |                           |
| 27   | Cheese head screws                  | X6CrNiTi18-10,<br>1.4541 / 8.8                  | SA 182 F 321/<br>1035/1038 <sup>4)</sup> | 21CrMoV5-7,<br>1.7709                           | SA 193<br>Gr. B16 <sup>4)</sup> | 21CrMoV5-7,<br>1.7709                           | SA 193<br>Gr. B16 <sup>4)</sup> | X6CrNiTi18-10,<br>1.4541                        | SA 182 F 321 <sup>4)</sup> |     |                           |
| 46   | Blow down valve *                   | X8CrNiS18-9,<br>1.4305                          | AISI 303                                 | X8CrNiS18-9,<br>1.4305                          | AISI 303                        | X8CrNiS18-9,<br>1.4305                          | AISI 303                        | X8CrNiS18-9,<br>1.4305                          | AISI 303                   |     |                           |
| 49   | Sealing ring for plug *             | R-Cu99                                          |                                          | R-Cu99                                          |                                 | R-Cu99                                          |                                 | X6CrNiTi18-10,<br>1.4541                        | SA 182 F 321               |     |                           |
| 50   | Plug (M14x1,5) *                    | C35E, 1.1181                                    | 1035 / 1038 <sup>4)</sup>                | 21CrMoV5-7,<br>1.7709                           | SA 193<br>Gr. B16 <sup>4)</sup> | 21CrMoV5-7,<br>1.7709                           | SA 193 Gr.<br>B16 <sup>4)</sup> | X6CrNiTi18-10,<br>1.4541                        | SA 182 F 321 <sup>4)</sup> |     |                           |
| 51   | Manual air vent valve *             | X8CrNiS18-9,<br>1.4305                          | AISI 303 <sup>4)</sup>                   | X8CrNiS18-9,<br>1.4305                          | AISI 303 <sup>4)</sup>          | X14CrMoS17+QT,<br>1.4104+QT                     | AISI 430 F <sup>4)</sup>        | X14CrMoS17+QT,<br>1.4104+QT                     | AISI 430 F <sup>4)</sup>   |     |                           |
| 52   | Union f. pressure compension line * | X8CrNiS18-9,<br>1.4305                          | AISI 303 <sup>4)</sup>                   | X8CrNiS18-9,<br>1.4305                          | AISI 303 <sup>4)</sup>          | X14CrMoS17+QT,<br>1.4104+QT                     | AISI 430 F <sup>4)</sup>        | X14CrMoS17+QT,<br>1.4104+QT                     | AISI 430 F <sup>4)</sup>   |     |                           |

\* Spare parts <sup>4)</sup> with metric screw-thread

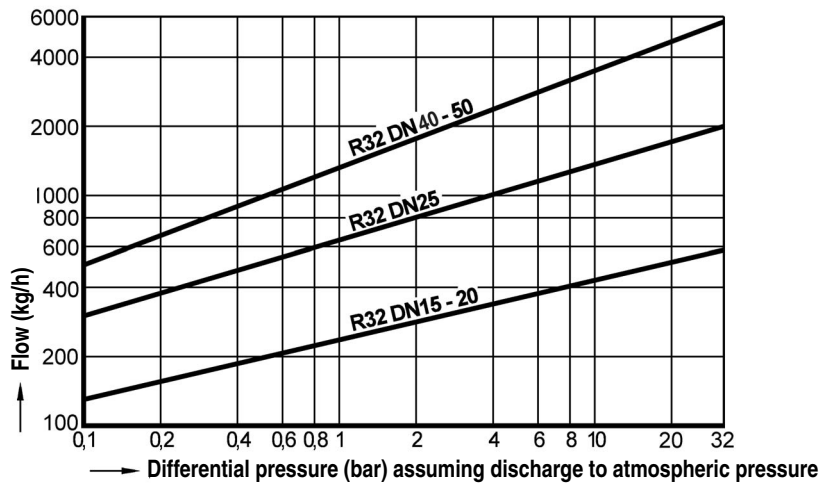
## Options



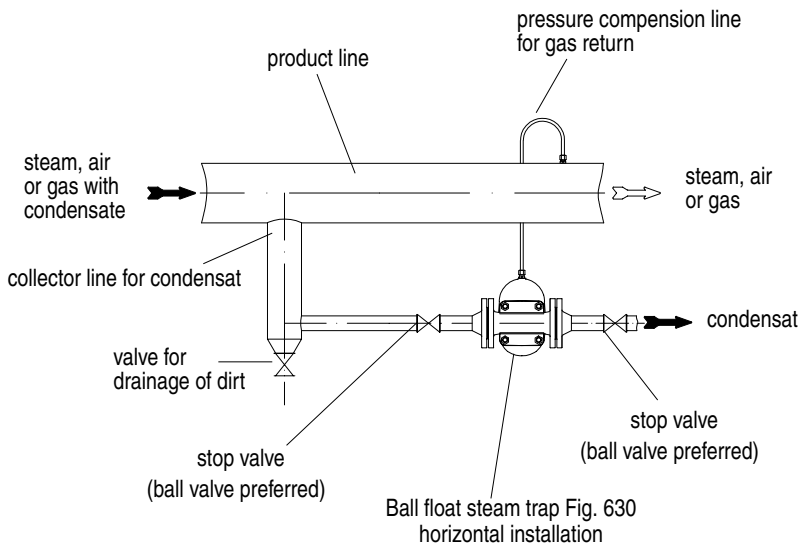
**PN16**  
**Standard R13**



**PN40**  
**Standard R32**



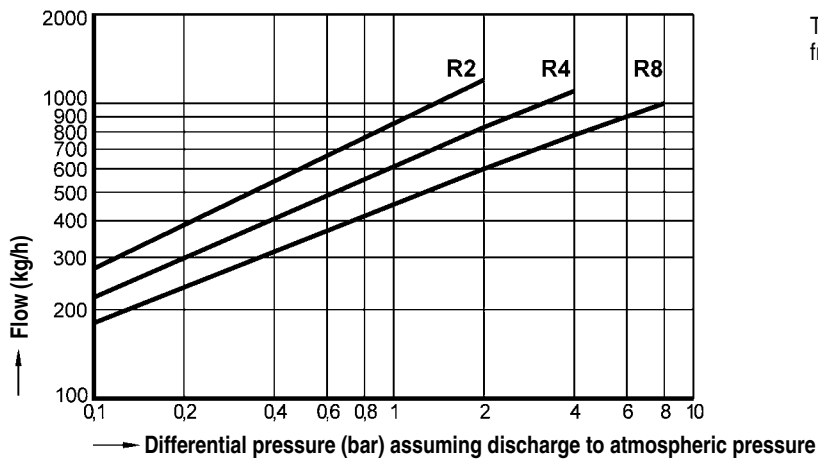
**Installation with pressure compensation line**



**Important:**

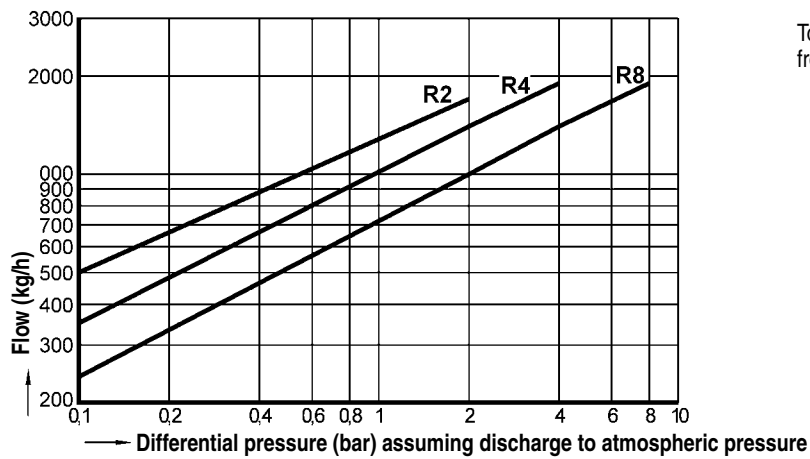
The installation of a pressure compensation line for gas return is always recommended; especially if the ball float steam trap is installed horizontally.

**PN16 - PN40**  
**Special design R2, R4, R8**  
**DN 15 - 20**



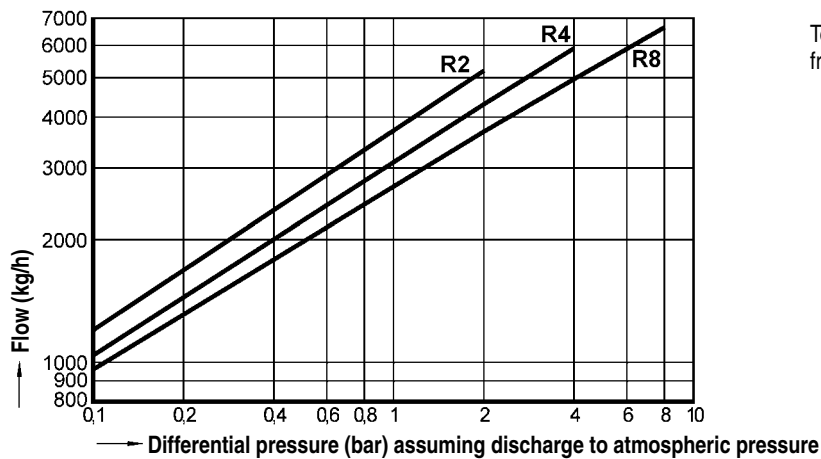
To determine the drainage quantity of cold water at about 20°C from compressed air and gas systems.

**PN16 - PN40**  
**Special design R2, R4, R8**  
**DN 25**



To determine the drainage quantity of cold water at about 20°C from compressed air and gas systems.

**PN16 - PN40**  
**Special design R2, R4, R8**  
**DN 40 - 50**



To determine the drainage quantity of cold water at about 20°C from compressed air and gas systems.

**Flanges according to DIN 2501**

**Screw sockets according to DIN EN 10266-1 (previous DIN 2999) resp. customer request**

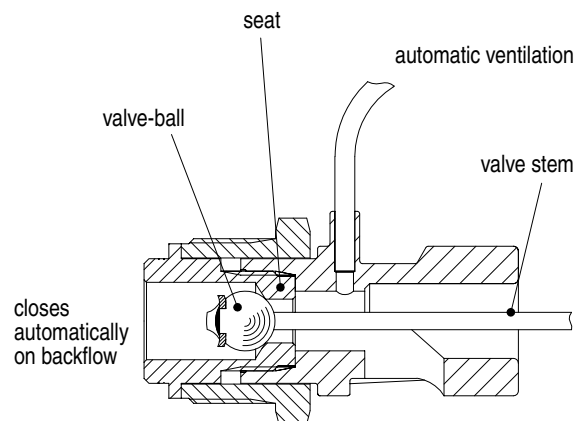
**Socket weld ends according to DIN EN 12760 (previous DIN 3239 T2) resp. customer request**

**Butt weld ends according to DIN EN 12627 (previous DIN 3239 T1)**

**Union butt weld ends according to data sheet resp. customer request**

**Face-to-face acc. to data sheet resp. customer request**

## Integrated non return protection



The integrated non return protection acts as a check valve.

In case of parallel installed heat exchangers or heater batteries the non return protection prevents a shut down heat-exchanger from flooding with condensate from the downstream side and reverse heating up.

A check valve which otherwise has to be installed is not necessary.

## Informations about pipe welding of steam traps

### Welding groove acc. to DIN 2559

The body materials of our steam traps which are for welding into the pipe are as following:

|          |                                                  |
|----------|--------------------------------------------------|
| 1.0619+N | GP240GH+N acc. to DIN EN 10213-2 / SA 216 WCB    |
| 1.0460   | P250GH acc. to DIN EN 10222-2 / SA 105           |
| 1.5415   | 16Mo3 acc. to DIN EN 10028 / SA 182 F1           |
| 1.4541   | X6CrNiTi18-10 acc. to DIN EN 10088 / SA 182 F321 |
| 1.7335   | 13CrMo4-5 acc. to DIN EN 10028 / SA 182 F12      |

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!

## Allocation of types

| BR      |                                      | formerly designation of types       |
|---------|--------------------------------------|-------------------------------------|
| 631.... | <b>different types of connection</b> | ....NU (ANU, BNU, CNU)              |
| 632.... | ....1 Flanges                        | C....<br>....NU11 (BNU11, CNU11)    |
| 633.... | ....2 Screwed sockets                | A....<br>....NUP (ANUP, BNUP, CNUP) |
| 639     | ....3 Socket weld ends               | B....<br>--                         |
| 637     | ....4 Butt weld ends                 | B....<br>--                         |
| 638     |                                      | --                                  |
| 630.... |                                      | ....N (AN, BN, CN)                  |

**Information / restriction of technical rules to be observed!**

**Operating instructions can be ordered on request by phone (+49 52 07) 994-0 or fax (+49 52 07) 994-158 or 159.**

### Selection criteria:

- Steam pressure
- Back pressure
- quantity of condensate
- Flow media
- Nominal diameter / pressure
- Type of connection
- Material
- Place of service or kind of steam consumer

**Other installation positions than standard ( vertical ) have to be indicated together with the information about the flow direction i.e. inlet from left or right**

### Example for order data:

=> Ball float steam trap,  
BR 630, PN40, DN50, 1.0460/1.0619+N, R22, flange connection, face-to-face dimension 230 mm

|                                                            |
|------------------------------------------------------------|
| Dimensions in mm resp. inch                                |
| Weights in kg                                              |
| 1 bar $\triangleq$ 10 <sup>5</sup> Pa $\triangleq$ 0,1 MPa |
| Kvs in m <sup>3</sup> /h                                   |
| 1 bar $\triangleq$ 14,5 PSI                                |
| 1 inch $\triangleq$ 25,4 mm                                |

**Standard - flange dimensions (DIN)**

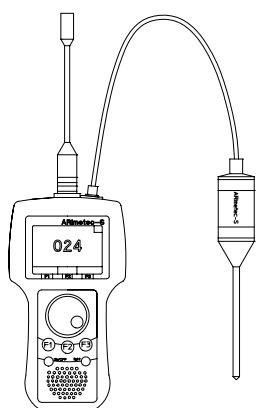
| DN  | PN 16 |     |        | PN 25 |     |        | PN 40 |     |        | PN 63 |     |        | PN 100 |     |        |
|-----|-------|-----|--------|-------|-----|--------|-------|-----|--------|-------|-----|--------|--------|-----|--------|
|     | Ø D   | Ø K | n x Ø  | Ø D   | Ø K | n x Ø  | Ø D   | Ø K | n x Ø  | Ø D   | Ø K | n x Ø  | Ø D    | Ø K | n x Ø  |
| 15  | 95    | 65  | 4 x 14 | --    | --  | --     | 95    | 65  | 4 x 14 | 105   | 75  | 4 x 14 | 105    | 75  | 4 x 14 |
| 20  | 105   | 75  | 4 x 14 | --    | --  | --     | 105   | 75  | 4 x 14 | --    | --  | --     | --     | --  | --     |
| 25  | 115   | 85  | 4 x 14 | --    | --  | --     | 115   | 85  | 4 x 14 | 140   | 100 | 4 x 18 | 140    | 100 | 4 x 18 |
| 32  | 140   | 100 | 4 x 18 | --    | --  | --     | 140   | 100 | 4 x 18 | --    | --  | --     | --     | --  | --     |
| 40  | 150   | 110 | 4 x 18 | --    | --  | --     | 150   | 110 | 4 x 18 | 170   | 125 | 4 x 22 | 170    | 125 | 4 x 22 |
| 50  | 165   | 125 | 4 x 18 | --    | --  | --     | 165   | 125 | 4 x 18 | 180   | 135 | 4 x 22 | 195    | 145 | 4 x 26 |
| 65  | 185   | 145 | 4 x 18 | 185   | 145 | 8 x 18 | 185   | 145 | 8 x 18 | --    | --  | --     | --     | --  | --     |
| 80  | 200   | 160 | 8 x 18 | 200   | 160 | 8 x 18 | 200   | 160 | 8 x 18 | --    | --  | --     | --     | --  | --     |
| 100 | 220   | 180 | 8 x 18 | 235   | 190 | 8 x 22 | 235   | 190 | 8 x 22 | --    | --  | --     | --     | --  | --     |

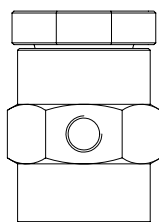
| DN | PN 160 |     |        |
|----|--------|-----|--------|
|    | Ø D    | Ø K | n x Ø  |
| 15 | 130    | 75  | 4 x 14 |
| 25 | 150    | 100 | 4 x 18 |
| 50 | 195    | 145 | 4 x 26 |

**Standard - flange dimensions (ANSI)**

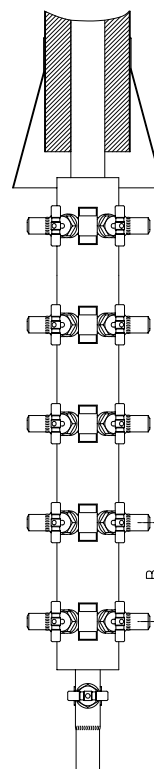
| DN  |       | ANSI 150 |      |      |      |        |        | ANSI 300 |       |      |      |        |        | ANSI 400                                                                                                                                                                                                                                                                                                                                                |      |      |      |        |        |
|-----|-------|----------|------|------|------|--------|--------|----------|-------|------|------|--------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|--------|--------|
|     |       | Ø D      |      | Ø K  |      | n x Ød |        | Ø D      |       | Ø K  |      | n x Ød |        | Ø D                                                                                                                                                                                                                                                                                                                                                     |      | Ø K  |      | n x Ød |        |
| mm  | inch  | mm       | inch | mm   | inch | mm     | inch   | mm       | inch  | mm   | inch | mm     | inch   | mm                                                                                                                                                                                                                                                                                                                                                      | inch | mm   | inch | mm     | inch   |
| 15  | 1/2   | 89       | 3,50 | 60   | 2,36 | 4x16   | 4x0,62 | 95       | 3,75  | 66,5 | 2,62 | 4x16   | 4x0,62 | 95                                                                                                                                                                                                                                                                                                                                                      | 3,75 | 66,5 | 2,62 | 4x16   | 4x0,62 |
| 20  | 3/4   | 99       | 3,90 | 70   | 2,70 | 4x16   | 4x0,62 | 117      | 4,62  | 82,5 | 3,25 | 4x19   | 4x0,75 | 117                                                                                                                                                                                                                                                                                                                                                     | 4,62 | 82,6 | 3,25 | 4x16   | 4x0,75 |
| 25  | 1     | 108      | 4,25 | 79   | 3,10 | 4x16   | 4x0,62 | 124      | 4,88  | 89   | 3,50 | 4x19   | 4x0,75 | 124                                                                                                                                                                                                                                                                                                                                                     | 4,88 | 89   | 3,50 | 4x19   | 4x0,75 |
| 32  | 1 1/4 | 117      | 4,62 | 89   | 3,50 | 4x16   | 4x0,62 | 133      | 5,25  | 98,5 | 3,88 | 4x19   | 4x0,75 | --                                                                                                                                                                                                                                                                                                                                                      | --   | --   | --   | --     | --     |
| 40  | 1 1/2 | 127      | 5,00 | 98   | 3,85 | 4x16   | 4x0,62 | 155      | 6,12  | 114  | 4,50 | 4x22,5 | 4x0,88 | --                                                                                                                                                                                                                                                                                                                                                      | --   | --   | --   | --     | --     |
| 50  | 2     | 153      | 6,00 | 121  | 4,76 | 4x19   | 4x0,75 | 165      | 6,50  | 127  | 5,00 | 8x19   | 8x0,75 | --                                                                                                                                                                                                                                                                                                                                                      | --   | --   | --   | --     | --     |
| 65  | 2 1/2 | 178      | 7,0  | 140  | 5,51 | 4x19   | 4x0,75 | 191      | 7,52  | 149  | 5,86 | 8x22   | 8x0,87 | --                                                                                                                                                                                                                                                                                                                                                      | --   | --   | --   | --     | --     |
| 80  | 3     | 191      | 7,52 | 152  | 5,98 | 4x19   | 4x0,75 | 210      | 8,27  | 168  | 6,61 | 8x22   | 8x0,87 | --                                                                                                                                                                                                                                                                                                                                                      | --   | --   | --   | --     | --     |
| 100 | 4     | 229      | 9,02 | 191  | 7,52 | 8x19   | 8x0,75 | 254      | 10,00 | 200  | 7,87 | 8x22   | 8x0,87 | --                                                                                                                                                                                                                                                                                                                                                      | --   | --   | --   | --     | --     |
|     |       |          |      |      |      |        |        |          |       |      |      |        |        |                                                                                                                                                                                                                                                                                                                                                         |      |      |      |        |        |
| DN  |       | ANSI 600 |      |      |      |        |        | ANSI 900 |       |      |      |        |        | Steam traps according to ASTM <ul style="list-style-type: none"><li>• Pressure bearing parts made of ASTM / AISI -materials</li><li>• Studs and nuts made of ASTM-materials, but metric screw-threads</li><li>• Face-to-face acc. to data sheet resp. customer request</li><li>• Flanges acc. to ANSI</li><li>• Pressure test acc. to API 598</li></ul> |      |      |      |        |        |
|     |       | Ø D      |      | Ø K  |      | n x Ød |        | Ø D      |       | Ø K  |      | n x Ød |        |                                                                                                                                                                                                                                                                                                                                                         |      |      |      |        |        |
| mm  | inch  | mm       | inch | mm   | inch | mm     | inch   | mm       | inch  | mm   | inch | mm     | inch   |                                                                                                                                                                                                                                                                                                                                                         |      |      |      |        |        |
| 15  | 1/2   | 95       | 3,75 | 66,5 | 2,62 | 4x16   | 4x0,62 | 121      | 4,75  | 82,5 | 3,25 | 4x22,5 | 4x0,88 |                                                                                                                                                                                                                                                                                                                                                         |      |      |      |        |        |
| 20  | 3/4   | 117      | 4,62 | 82,6 | 3,25 | 4x19   | 4x0,75 | 130      | 5,12  | 88,9 | 3,50 | 4x22,3 | 4x0,88 |                                                                                                                                                                                                                                                                                                                                                         |      |      |      |        |        |
| 25  | 1     | 124      | 4,88 | 89   | 3,50 | 4x19   | 4x0,75 | 149      | 5,88  | 102  | 4,00 | 4x25,5 | 4x1,0  |                                                                                                                                                                                                                                                                                                                                                         |      |      |      |        |        |
| 32  | 1 1/4 | 133      | 5,25 | 98,6 | 3,88 | 4x19   | 4x0,75 | 159      | 6,25  | 111  | 4,38 | 4x25,5 | 4x1,0  |                                                                                                                                                                                                                                                                                                                                                         |      |      |      |        |        |
| 40  | 1 1/2 | 155      | 6,12 | 114  | 4,50 | 4x22,5 | 4x0,88 | 178      | 7,00  | 124  | 4,88 | 4x28,5 | 4x1,12 |                                                                                                                                                                                                                                                                                                                                                         |      |      |      |        |        |
| 50  | 2     | 165      | 6,50 | 127  | 5,00 | 8x19   | 8x0,75 | 216      | 8,50  | 165  | 6,50 | 8x25,5 | 8x1,0  |                                                                                                                                                                                                                                                                                                                                                         |      |      |      |        |        |



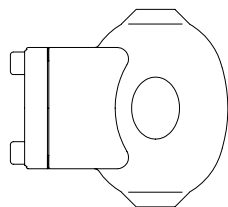
Testing device **ARImetec®-S**



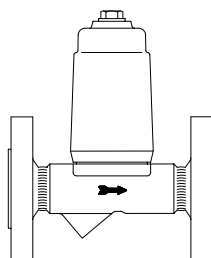
Vacuum breaker **BR655**



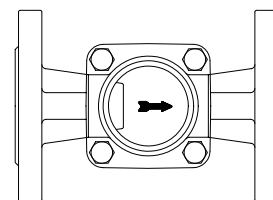
Prefabricated manifolds for  
condensate collection (B = 160), steam distribution (B = 120)  
**CODI®S** with stuffing box BR671/672;  
**CODI®B** with bellows seal, maintenance-free BR675/676



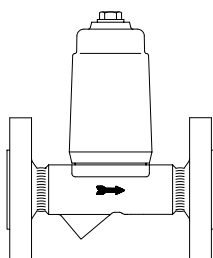
Automatic air vent for liquid systems  
**BR 656**



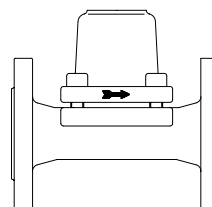
Condensate discharge temperature limiter  
**BR645/647**



Double window sight glasses  
**BR660/661**



Return temperature limiter **BR650**

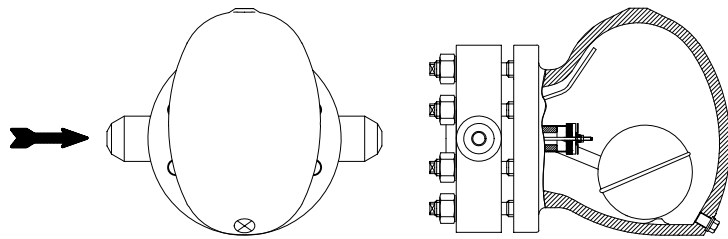


Liquid drainer **BR665**

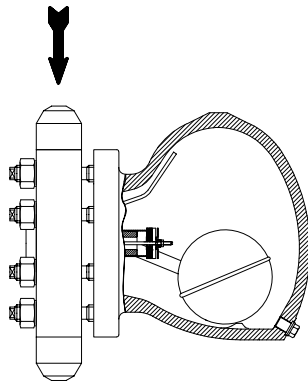
(Further informations about the accessories can be found in the appropriate data sheets.)



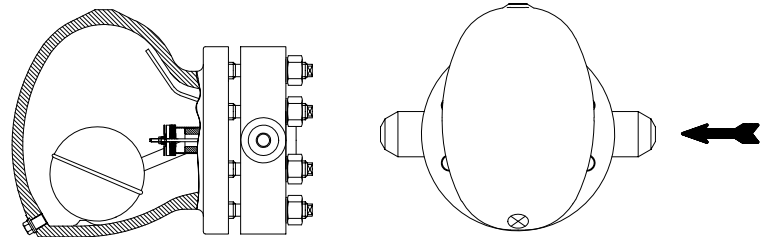
## Information about the different installation positions (shown at BR631)



Horizontal installation - inlet from the left side (ZL)



Vertical installation (standard)



Horizontal installation – inlet from the right side (ZR)

### Installation (see picture)

The ball float steam traps can be installed either in vertical (standard) or horizontal position. In case of horizontal installation please indicate whether the inlet is from the left or right side.

The steam trap can also be converted on site to match the different installation positions. Please observe the appropriate operating manuals.

The steam trap must be fitted with the direction of flow as indicated by the arrow on the body. A clearance of 300 mm for the removal of the hood shall be provided. The steam trap shall preferably be installed at the lowest point of the system and the membrane capsule resp. the bleeding tube shall be installed in an upright position inside of the hood.

### For the modification of the installation position observe the operating manual.

A modification of the installation position during the time of warranty shall be carried out by the AWH-Service or it shall be agreed between the customer and manufacturer.