



## FTS62

# Stainless Steel Ball Float Steam Traps (DN15 to DN25)

### Description

The FTS62 is a stainless steel bodied ball float steam trap having stainless steel working internals and automatic air venting facility.

### FTS62 available options when facing the body:

L-R Select L-R for a flow direction of **Left-to-Right**

or


R-L Select R-L for a flow direction of **Right-to-Left**

### Optional extra:

On request the cover (2) can be drilled and tapped for the purpose of fitting a balance line.

If this option is requested at the time of order placement there will be an extra charge incurred and the unit will be treated as a special product.

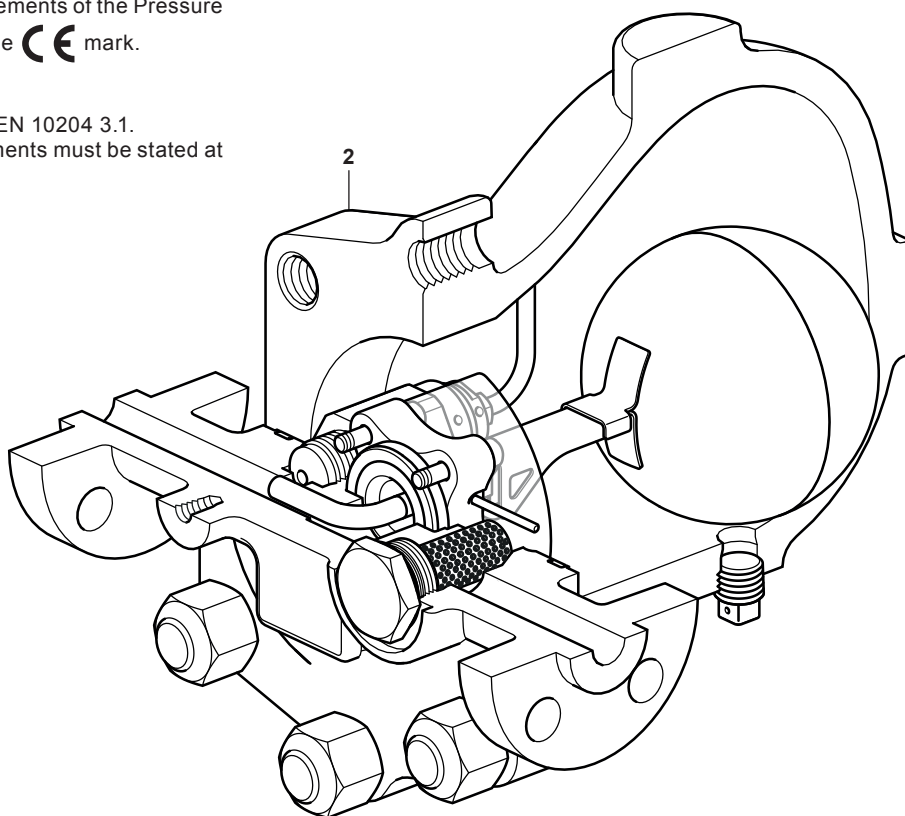
### Standards

This product fully complies with the requirements of the Pressure Equipment Directive (PED) and carries the  mark.

### Certification

This unit is available with certification to EN 10204 3.1.

**Note:** All certification/inspection requirements must be stated at the time of order placement.



### Sizes and pipe connections

|                     |                                                |
|---------------------|------------------------------------------------|
| 1/2", 3/4" and 1"   | Screwed BSP or NPT                             |
| 1/2", 3/4" and 1"   | Socket weld ends to BS 3799 and Class 3000 lbs |
| Standard flanges:   |                                                |
| DN15, DN20 and DN25 | Flanged EN 1092-1 PN100 †                      |
| 1/2", 3/4" and 1"   | Flanged ASME B 16.5 Class 600                  |

**Note for the PN100 variant:**

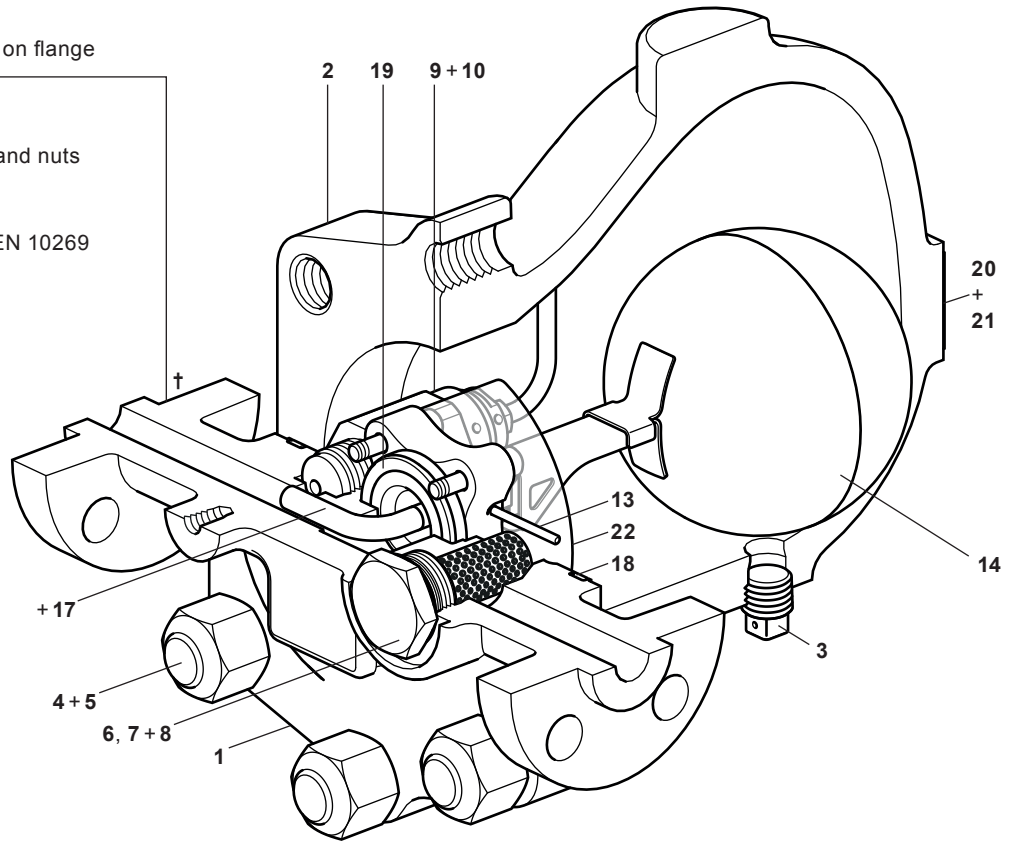
† The material used for the weld on flange variant is:  
Stainless steel 1.4301.

The material used for the studs and nuts upon all versions is

- Studs = ASTM A193 B7
- Nuts = ASTM A194 Gr. 4 to EN 10269

**11, 12, 15, 16**

**\*Please note** that part numbers **11, 12, 15** and **16** are more clearly identified on the spares illustration on page 6.

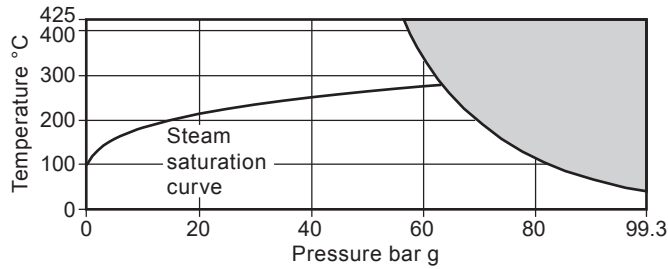


**Materials**

| No. | Part                                   | Material                       |                                       |
|-----|----------------------------------------|--------------------------------|---------------------------------------|
| 1   | Body                                   | Stainless steel                | ASTM A351 CF8 EN10213 1.4308          |
| 2   | Cover                                  | Stainless steel                | ASTM A351 CF8 EN10213 1.4308          |
| 3   | 3/8" NPT taper plug                    | Stainless steel                | CF8/1.4308 or 1.4301/304              |
| 4   | 3/4" UNF nut (6)                       | Carbon steel                   | ASTM A194 Gr. 7                       |
| 5   | 3/4" UNF studs x 85mm long (x6)        | Carbon steel                   | ASTM A193 B7                          |
| 6   | Strainer cap                           | Stainless steel                | CF8/1.4308 or 1.4301/304              |
| 7   | Strainer screen                        | Stainless steel                | AISI 316L                             |
| 8   | 'S' type gasket                        | Stainless steel                | AISI 304                              |
| 9   | Air vent assembly                      | Stainless steel                | AISI 431 S29 + 303                    |
| 10  | Air vent tube                          | Stainless steel                | ASTM A269 304L                        |
| 11* | Seat clamp                             | Stainless steel                | CF8/1.4308 or AISI 303                |
| 12* | M6x30 long cap screw (x4)              | Stainless steel                | EN 150 3506-1                         |
| 13  | Pivot pin                              | Stainless steel                | ASTM A276 304                         |
| 14  | Float assembly                         | Stainless steel                | AISI 304L                             |
| 15* | 1/2" Ø ball                            | Stainless steel                | AISI 316                              |
| 16* | Conical spring                         | Stainless steel                | Gr. 302 S26 Gr. 1                     |
| 17  | Valve seat and discharge pipe assembly | Stainless steel                | AISI 431 S29 + 304L                   |
| 18  | Spirally wound gaskets                 | Body to Cover and Seat to Body | Graphite filler + 304 stainless strip |
| 19  |                                        |                                |                                       |
| 20  | Name-plate                             | Stainless steel                | 204                                   |
| 21  | Hammer drive screws (x 2)              | Stainless steel                | 18-8                                  |
| 22  | Baffle plate                           | Stainless steel                | 304L                                  |

## Pressure/temperature limits (ISO 6552)

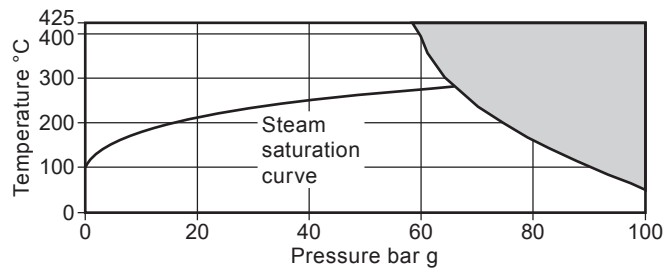
### Screwed Socket weld



The product must not be used in this region or beyond the parameter of the PMA or TMA of the relative end connection.

|                                                                                                  |                     |        |
|--------------------------------------------------------------------------------------------------|---------------------|--------|
| Body design condition                                                                            | ASME Class 600      |        |
| PMA Maximum allowable pressure                                                                   | 99.3 bar g @ 38 °C  |        |
| TMA Maximum allowable temperature                                                                | 425 °C @ 56 bar g   |        |
| Minimum allowable temperature                                                                    | -29 °C              |        |
| PMO Maximum operating pressure for saturated steam service                                       | 63.1 bar g @ 280 °C |        |
| TMO Maximum operating temperature                                                                | 425 °C @ 56 bar g   |        |
| Minimum operating temperature <b>Note:</b> For lower operating temperatures consult Spirax Sarco | 0 °C                |        |
| Minimum operating differential pressure                                                          | 0.1 bar g           |        |
| ΔPMX Maximum differential pressure                                                               | FTS62-46            | 46 bar |
|                                                                                                  | FTS62-62            | 62 bar |
| Designed for a maximum cold hydraulic test pressure of:                                          | 149 bar g           |        |

### Flanged PN100

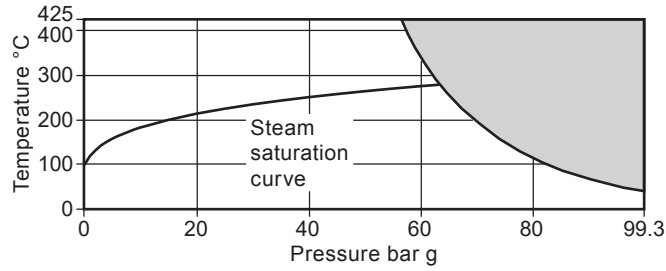


The product must not be used in this region or beyond the parameter of the PMA or TMA of the relative end connection.

|                                                                                                  |                     |        |
|--------------------------------------------------------------------------------------------------|---------------------|--------|
| Body design condition                                                                            | PN100               |        |
| PMA Maximum allowable pressure                                                                   | 100 bar g @ 50 °C   |        |
| TMA Maximum allowable temperature                                                                | 425 °C @ 58.9 bar g |        |
| Minimum allowable temperature                                                                    | -29 °C              |        |
| PMO Maximum operating pressure for saturated steam service                                       | 65.8 bar g @ 283 °C |        |
| TMO Maximum operating temperature                                                                | 425 °C @ 58.9 bar g |        |
| Minimum operating temperature <b>Note:</b> For lower operating temperatures consult Spirax Sarco | 0 °C                |        |
| Minimum operating differential pressure                                                          | 0.1 bar g           |        |
| ΔPMX Maximum differential pressure                                                               | FTS62-46            | 46 bar |
|                                                                                                  | FTS62-62            | 62 bar |
| Designed for a maximum cold hydraulic test pressure of:                                          | 150 bar g           |        |

## Pressure/temperature limits (ISO 6552) - Flanged ASME

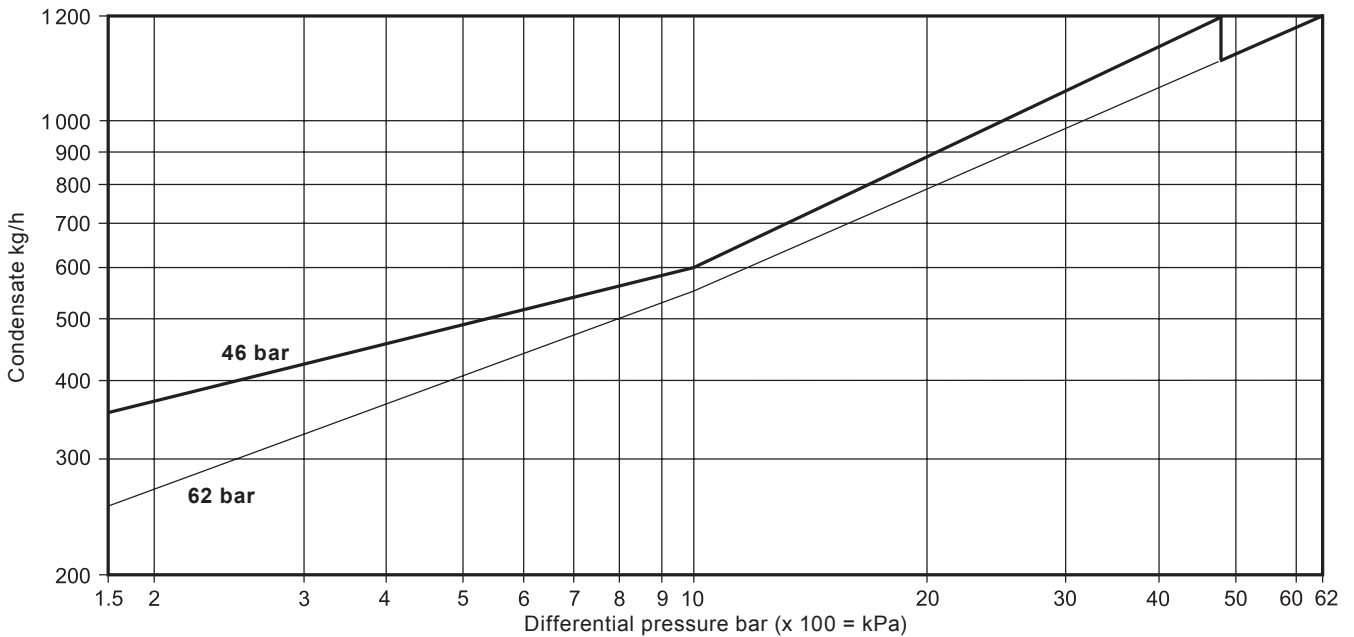
### Flanged ASME Class 600



The product must not be used in this region or beyond the parameter of the PMA or TMA of the relative end connection.

|                                                                                                  |                     |        |
|--------------------------------------------------------------------------------------------------|---------------------|--------|
| Body design condition                                                                            | ASME Class 600      |        |
| PMA Maximum allowable pressure                                                                   | 99.3 bar g @ 38 °C  |        |
| TMA Maximum allowable temperature                                                                | 425 °C @ 56 bar g   |        |
| Minimum allowable temperature                                                                    | -29 °C              |        |
| PMO Maximum operating pressure for saturated steam service                                       | 63.1 bar g @ 280 °C |        |
| TMO Maximum operating temperature                                                                | 425 °C @ 56 bar g   |        |
| Minimum operating temperature <b>Note:</b> For lower operating temperatures consult Spirax Sarco | 0 °C                |        |
| Minimum operating differential pressure                                                          | 0.1 bar g           |        |
| ΔPMX Maximum differential pressure                                                               | FTS62-46            | 46 bar |
|                                                                                                  | FTS62-62            | 62 bar |
| Designed for a maximum cold hydraulic test pressure of:                                          | 149 bar g           |        |

## Capacities



Capacities shown above are based on condensate at saturation temperature. Under start-up conditions when condensate is cold the internal bi-metallic air vent will be open and provides additional capacity to the main valve. The following table gives the minimum additional cold water capacities from the air vent on all sizes.

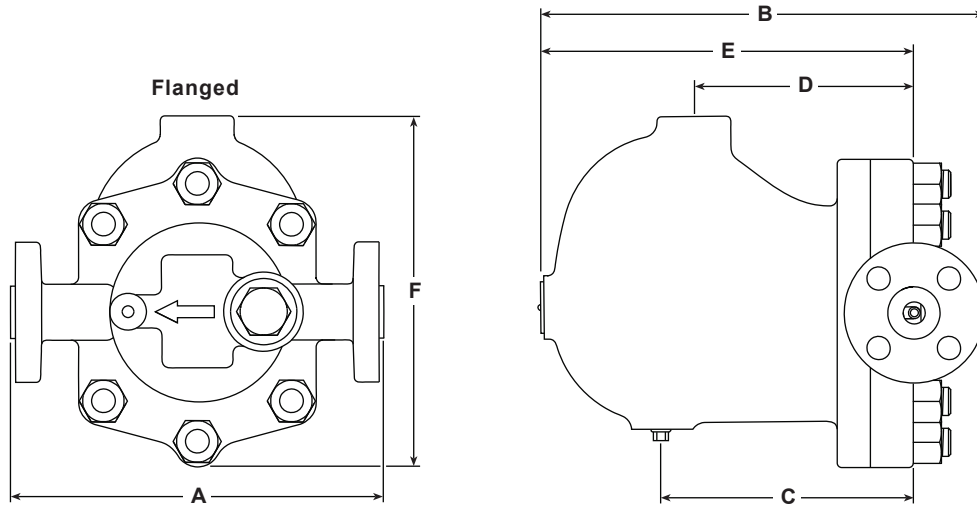
**Note:** The air vent closing temperature range = 120 °C to 135 °C.

For differential pressures less than 1.5 bar g, the additional cold water capacity is minimal.

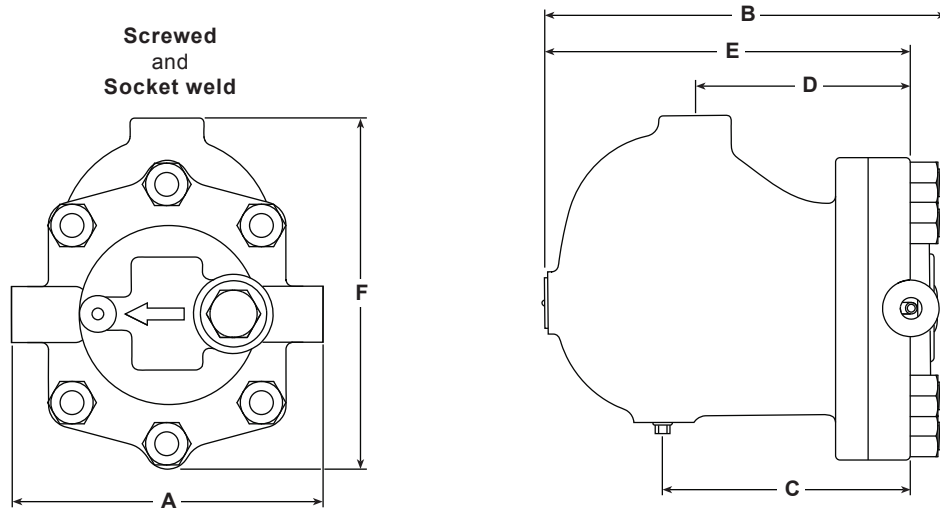
| ΔP (bar)       | 1.5                                           | 10  | 30  | 46  | 62  |
|----------------|-----------------------------------------------|-----|-----|-----|-----|
| FTS62          | Minimum additional cold water capacity (kg/h) |     |     |     |     |
| 46 bar version | 20                                            | 426 | 536 | 800 |     |
| 62 bar version | 20                                            | 350 | 440 | 930 | 800 |

**Dimensions/weights (approximate) in mm and kg**

| Size | Flanged |       |        |          |     |        | Screwed and Socket weld |       |        | Common sizes |     |       |     |
|------|---------|-------|--------|----------|-----|--------|-------------------------|-------|--------|--------------|-----|-------|-----|
|      | PN100   |       |        | ASME 600 |     |        | A                       | B     | Weight | C            | D   | E     | F   |
|      | A       | B     | Weight | A        | B   | Weight |                         |       |        |              |     |       |     |
| DN15 | 300     | 304.0 | 25.0   | 261      | 299 | 24.0   | 190                     | 287.5 | 22.0   | 172.5        | 148 | 251.5 | 239 |
| DN20 | 300     | 316.5 | 26.0   | 271      | 309 | 25.5   | 190                     | 287.5 | 22.0   | 172.5        | 148 | 251.5 | 239 |
| DN25 | 300     | 321.5 | 28.0   | 291      | 314 | 27.0   | 190                     | 287.5 | 22.0   | 172.5        | 148 | 251.5 | 239 |



**Notes:** 1. PN100 EN 1092-1 and ASME 600 B 16.5 face-to-face dimensions



**Safety information, installation and maintenance**

For full details see the Installation and Maintenance Instructions (IM-P179-15) supplied with the product.

**Installation note:**

The FTS62 must be installed with the direction of flow as indicated on the body, and with the float arm in a horizontal plane so that it rises and falls vertically.

**Disposal**

This product is recyclable. No ecological hazard is anticipated with the disposal of this product, providing due care is taken.

**How to order**

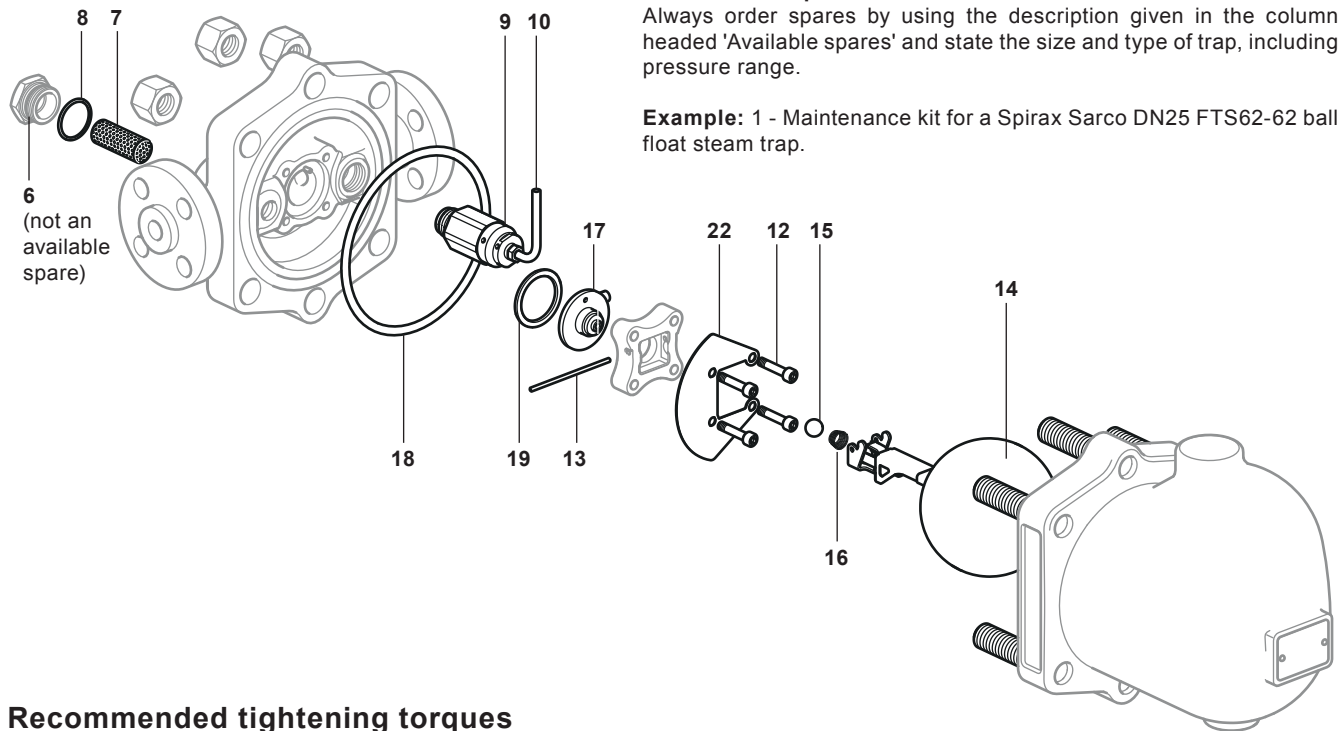
**Example:** 1 off Spirax Sarco DN25 FTS62-62 L-R ball float steam trap, flanged to EN 1092 PN100 with stainless steel body and cover and thermostatic air vent.

## Spare parts

The spare parts available are shown in solid outline. Parts drawn in a grey line are not supplied as spares.

### Available spares

|                                   |                                                              |
|-----------------------------------|--------------------------------------------------------------|
| Body/cover gasket kit             | <b>18</b>                                                    |
| Air vent assembly + Air vent tube | <b>9 and 10</b>                                              |
| Strainer screen + 'S' type gasket | <b>7 and 8</b>                                               |
|                                   | <b>3</b>                                                     |
|                                   | <b>12</b>                                                    |
|                                   | <b>13</b>                                                    |
|                                   | <b>14</b>                                                    |
| Maintenance kit                   | <b>15</b>                                                    |
|                                   | <b>16</b>                                                    |
|                                   | <b>17</b>                                                    |
|                                   | <b>8, 18 and 19</b>                                          |
|                                   | <b>22</b>                                                    |
| Overhaul kit                      | <b>3, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19 and 22</b> |





### How to order spares

Always order spares by using the description given in the column headed 'Available spares' and state the size and type of trap, including pressure range.

**Example:** 1 - Maintenance kit for a Spirax Sarco DN25 FTS62-62 ball float steam trap.

### Recommended tightening torques

| Item | Part                          |  | inch or mm      |  | N m         | lbf ft    |
|------|-------------------------------|-------------------------------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------|-------------|-----------|
| 3    | 3/8" NPT Square head plug     |                                                                                     | 11 mm A/F       | 3/8" NPT                                                                            | As required |           |
| 4    | 3/4" UNF Hex. Nut             |                                                                                     | 1.125" A/F      | 3/4" UNF                                                                            | 252-260     | 186 - 192 |
| 6    | Strainer cap                  |                                                                                     | 32 mm A/F       | M28 x 1.5                                                                           | 170-190     | 125-140   |
| 9    | Air vent assembly             |                                                                                     | 32 mm A/F       | M22 x 1.5                                                                           | 80-88       | 59-65     |
| 10   | Air vent tube assembly        |                                                                                     | 11 mm A/F       | M10 x 1.5                                                                           | 10-12       | 7-9       |
| 12   | M6 x 30 Socket head cap screw |                                                                                     | 5 A/F (Hex Key) | M6                                                                                  | 14-16       | 10-12     |

