Cert. No. LRQ 0963008

ISO 9001

# spirax sarco

**TI-P145-11**
ST Issue 3

# FTGS14
# Ball Float Steam Trap (Screwed)

## Description

The FTGS14 is a maintainable ball float steam trap with integral automatic air venting facility. It is available with horizontal connections and has a stainless steel body and an electroless nickel plated SG iron cover offering increased resistance to erosion.
All FTGS14's are provided with a drilled, tapped and plugged hole, therefore a steam lock release (SLR) valve can be retrofitted to the standard trap.

**Optional extras**

**FTGS14C** - An optional (SLR) valve (designated 'C' on the nomenclature) can be fitted to the trap to prevent steam locking of the system, this feature is available in addition to the air vent. For further information, please consult Spirax Sarco.

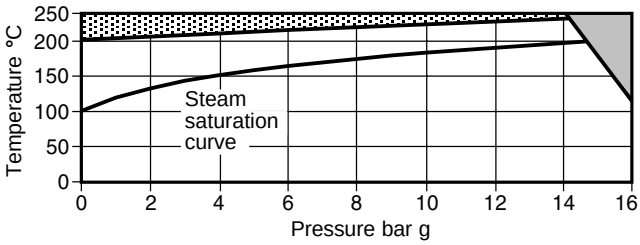
**Standards**
The product fully complies with the requirements of the European Pressure Equipment Directive 97/23/EC.

**Certification**
This product is available with material certification to EN 10204 2.2.
**Note:** All certification/inspection requirements must be stated at the time of order placement.

## Sizes and pipe connections

½" and ¾" screwed BSP or NPT.

## Pressure/temperature limits (ISO 6552)



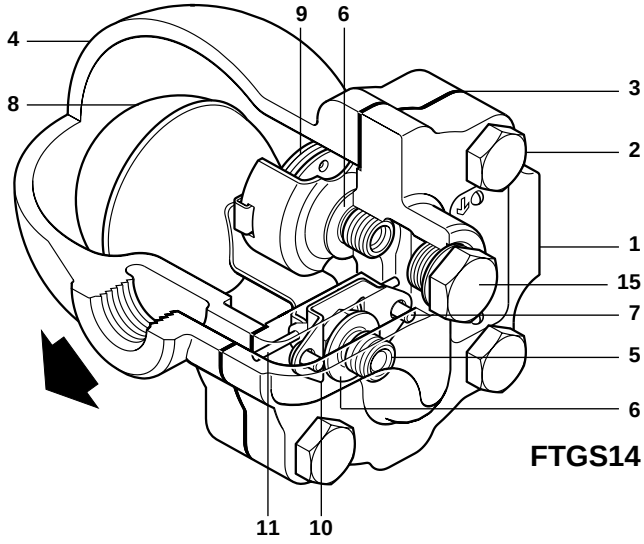

The product **must not** be used in this region.

The product should not be used in this region as damage to the internals may occur.

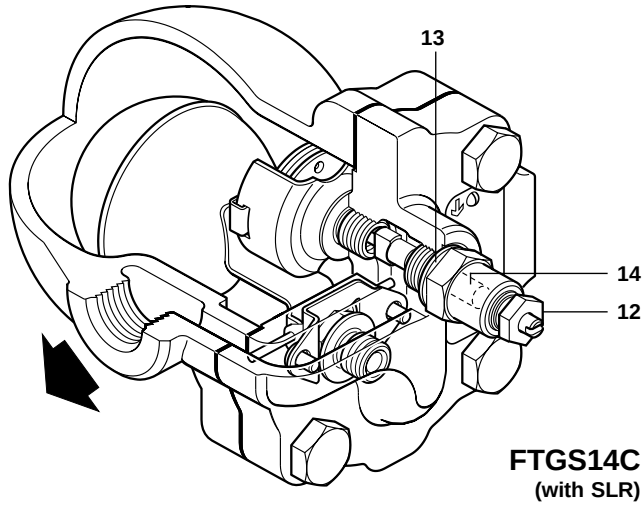
| | | | |
|---|---|---|---|
| Body design conditions | | | PN16 |
| PMA | Maximum allowable pressure | | 16 bar g @ 120°C |
| TMA | Maximum allowable temperature | | 250°C |
| Minimum allowable temperature | | | -10°C |
| PMO | Maximum operating pressure for saturated steam service | | 14.6 bar g @ 200°C |
| TMO | Maximum operating temperature | | 235°C @ 14.3 bar g |
| Minimum operating temperature | | | 0°C |
| ΔPMX | Maximum differential pressure | FTGS14-4.5 | 4.5 bar |
| | | FTGS14-10 | 10 bar |
| | | FTGS14-14 | 14 bar |
| Designed for a maximum cold hydraulic test pressure of 24 bar g | | | |

## Materials

| No. | Part | Material | |
|---|---|---|---|
| **1** | Body | Austenitic stainless steel | EN 10213-4 (1.4308) ASTM A351 CF8 |
| **2** | Cover bolts | Steel | |
| **3** | Cover gasket | Reinforced exfoliated graphite | |
| **4** | Cover | Electroless nickel plated SG iron | DIN 1693 GGG 40 |




**FTGS14**




**FTGS14C**
**(with SLR)**

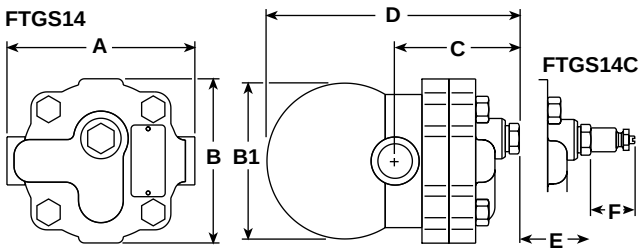
| No. | Part | Material |
|---|---|---|
| **5** | Main valve seat | Stainless steel |
| **6** | Main valve/air vent seat gasket | Stainless steel |
| **7** | Main valve assembly screws | Stainless steel |
| **8** | Ball float and lever | Stainless steel |
| **9** | Air vent assembly | Stainless steel |
| **10** | Pivot frame | Stainless steel |
| **11** | Pivot pin | Stainless steel |
| **12** | SLR assembly | Stainless steel |
| **13** | SLR gasket | Stainless steel |
| **14** | SLR seal | Graphite |
| **15** | SLR plug | Stainless steel |

*Local regulations may restrict the use of this product to below the conditions quoted.*
*In the interests of development and improvement of the product, we reserve the right to change the specification.*

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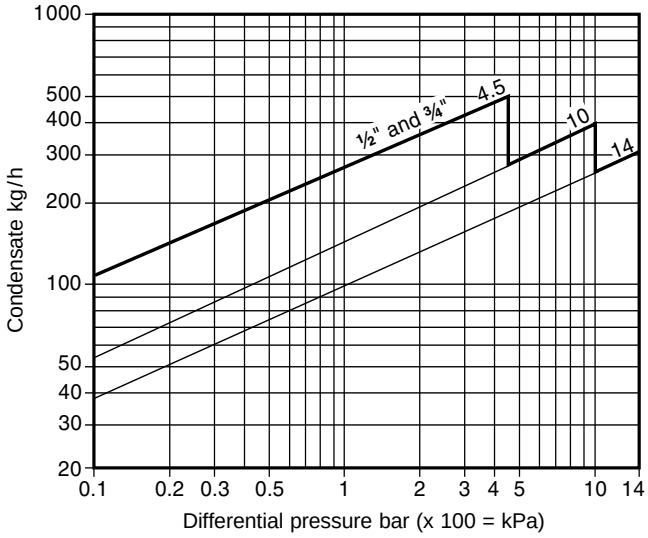
## Dimensions/weights (approximate) in mm and kg

| Size | A | B | B1 | C | D | E Withdrawal distance | F | Weight |
|---|---|---|---|---|---|---|---|---|
| ½" and ¾" | 121 | 107 | 96 | 77 | 158 | 105 | 27 | 3.15 |




## Capacities

**Note**. Capacities shown are based on discharge at steam saturation temperature. When discharging sub-cooled condensate the air vent provides extra capacity. Under start-up conditions the thermostatic air vent will be open, and will provide additional condensate capacity to the main valve assembly. On 4.5 bar units this will provide a minimum of 50% increased capacity above the hot condensate figures shown. On 10 and 14 bar units this will be a minimum increase of 100% on the published capacity. For full details see TI-S02-28.




## Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P145-12) supplied with the product.

**Installation note -** The FTGS14 must be installed with the direction of flow as indicated on the cover, and with the float arm in a horizontal plain so that it rises and falls vertically. The FTGS14 has been designed for use in a right to left flow direction when viewed from the name plate end, however, it can also be installed in a left to right orientation, by simply rotating the complete trap through 180°. **Caution:** Ensure that adequate distance is allowed for removal of the body and internals in the event of maintenance. See 'Dimensions/weights' for withdrawal distances.

**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 ½" FTGS14-4.5 ball float steam trap with screwed BSP connections and integral air vent.

## Spare parts

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

**Available spares**

| | |
|---|---|
| Maintenance kit | **3, 5, 6** (2 off)**, 7** (2 off)**, 8, 9, 10, 11** |
| Main valve assembly | **3, 5, 6, 7, 8, 10, 11** |
| Air vent assembly | **3, 6, 9** |
| Steam lock release | **12 + 14**, **13** |
| Cover gasket (packet of 3) | **3** |

**How to order spares**

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

**Example:** 1 - Main valve assembly for a Spirax Sarco ½" FTGS14-10 ball float steam trap.

**Recommended tightening torques**

| Item | or mm | | N m |
|---|---|---|---|
| **2** | 17 A/F | M10 x 30 | 47 - 50 |
| **5** | 17 A/F | | 50 - 55 |
| **7** | Pozidrive | M4 x 6 | 2.5 - 3.0 |
| **9** | 17 A/F | | 50 - 55 |
| **12** | 19 A/F | | 57 - 63 |
| **15** | 19 A/F | | 57 - 63 |

