

TI-S02-27-US Issue 2

### Description

The trap contains a float valve mechanism which modulates to discharge condensate continuously at steam temperature, while non-condensible gases are released by a separate internal balanced pressure thermostatic air vent.

| Model                | IFT14-4.5<br>FT14-4.5  | IFT14-10<br>FT14-10  | IFT14-14<br>FT14-14 |
|----------------------|--|----------------------|---------------------|
| РМО                  | 65 psi g   | 145 psi g            | 200 psi g           |
| Sizes                | IFT ½", ¾", only<br>½", ¾", 1" HC, 1-½", 2"  |                      |                     |
| Connections          | NPT  |                      |                     |
| Construction         | 1⁄2", 3⁄4", 1" HC: Ductile Iron Body<br>1-1⁄2", 2": Cast Iron Body<br>All: Stainless Steel Internals |                      |                     |
| Options<br>FT14 only | 1/2" - 2": Combination   | (C) Air Vent and SLR | (steam lock release |

# Limiting operating conditions

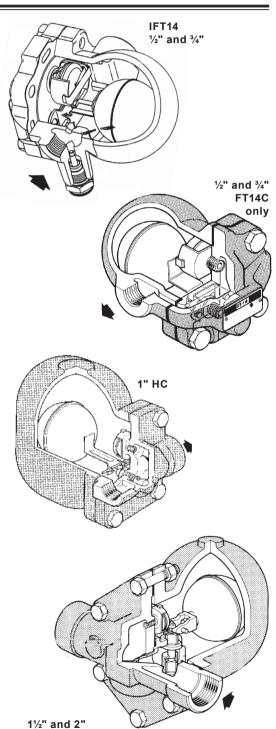
| Maximum operating pressure (PMO)<br>IFT14-4.5 ,FT14-4.5,FT14C-4.5 | 65 psi g (4.5 bar g)   |
|---|--|
| Maximum operating pressure (PMO)<br>IFT14-10, FT14-10, FT14C-10   | 145 psi g (10 bar g)   |
| Maximum operating pressure (PMO)<br>IFT14-14 ,FT14-14, FT14C-14   | 200 psi g (14 bar g)   |
| Maximum operating temperature (TMO)<br>IFT14 ½", ¾" FT14C         | 482 °F (250 °C) @ 188 psi g (13 bar g)<br>392 °F (200 °C) @ 200 psi g (14 bar g)   |
| Maximum operating temperature (TMO)<br>1" FT14HC                  | 482 °F (250 °C) @ 200 psi g (14 bar g)   |
| Maximum operating temperature (TMO) 11/2", 2" FT14                | 428 °F (220 °C) @ 195 psi g (13.5 bar g)<br>392 °F (200 °C) @ 200 psi g (14 bar g) |
| Minimum allowable temperature<br>All IFT, FT14, FT14C             | 14 °F (-10 °C)   |

# **Typical applications**

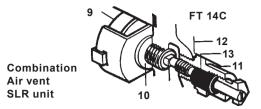
All process equipment, particularly when controlled by modulating temperature control valves; also for unit heaters, air heating coils, heat exchangers and steam main drip stations

# Capacities

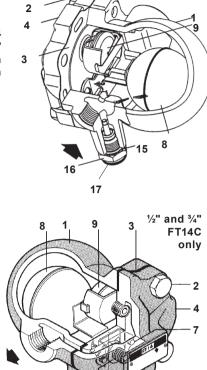
See TIS 2.306

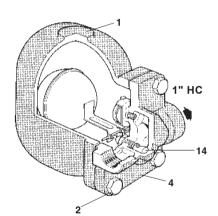


# **Materials**

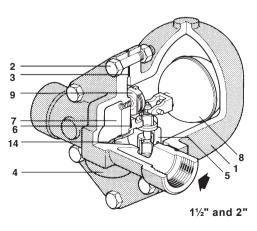


IFT14 1/2" and 3/4" Sensor Connection standard with plug sensor added at installation





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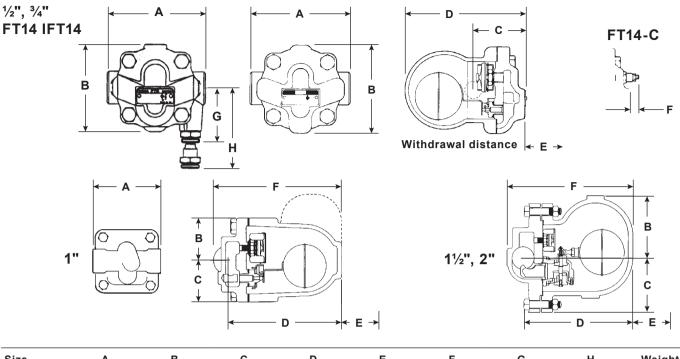


| No. | Part  |  | Material                                    |                 |  |  |  |
|-----|---|--|---|-----------------|--|--|--|
|     | Dedu  | <sup>1</sup> ⁄2", <sup>3</sup> ⁄4", 1" | Ductile (SG) Iron                           | DIN 1693 GGG 40 |  |  |  |
| 1   | Body  | 11⁄2", 2"                              | Cast Iron                                   | DIN 1691 GG 25  |  |  |  |
| 2   | Cover bolting                                     |  | Steel                                       | BS 3692 Gr. 8.8 |  |  |  |
| 3   | Cover gasket                                      |  | Nickel Reinforced Exfoliated Graphite       |                 |  |  |  |
|     | 0   | 1/2", 3/4", 1", 11/4"                  | Ductile (SG) Iron                           | DIN 1693 GGG 40 |  |  |  |
| 4   | Cover   | 11⁄2", 2"                              | Cast Iron                                   |                 |  |  |  |
|     | Valve seat  | 1/2", 3/4"                             | Stainless steel                             |                 |  |  |  |
| 5   | Valve seat  | 1"                                     | Stainless steel                             |                 |  |  |  |
|     | Main valve<br>assembly                            | 1½", 2"                                | Stainless steel                             |                 |  |  |  |
|     | Valve seat gasket                                 | 1/2", 3/4" 1", 11/4"                   | Stainless steel                             |                 |  |  |  |
| 6   | Main valve<br>assembly gasket                     | 1½", 2"                                | Reinforced Exofoliated Graphite             |                 |  |  |  |
|     | Main valve<br>assembly screws                     | 1/2", 3/"                              | Stainless steel<br>M4 x 6 mm                |                 |  |  |  |
| 7   | Pivot frame<br>assembly set<br>screws             | 1", 1¼"                                | Stainless steel<br>M5 x 20 mm               |                 |  |  |  |
|     | Main valve<br>assembly<br>Bolts<br>Studs and Nuts | 1½"<br>2"                              | Stainless steel<br>M6 x 20 mm<br>M8 x 20 mm |                 |  |  |  |
| 8   | Ball float and lever                              |  | Stainless steel                             |                 |  |  |  |
| 9   | Air vent  |  | Stainless steel                             |                 |  |  |  |
| 10  | Air vent seat gasket                              |  | Stainless steel                             |                 |  |  |  |
| 11  | SLR   |  | Stainless steel                             |                 |  |  |  |
| 12  | SLR Unit gasket                                   | 1", 1½", 2"                            | Mild steel                                  |                 |  |  |  |
| 13  | SLR seal  |  | Stainless steel                             |                 |  |  |  |
| 14  | Erosion deflector                                 |  | Stainless steel                             |                 |  |  |  |
| 15  | Sensor dasket                                     |  | Stainless steel                             |                 |  |  |  |
| 16  | Sensor SSLI, WLSI                                 | optional                               | Stainless steel                             |                 |  |  |  |
| 17  | Blanking plug standa                              | ard (not shown)                        | Steel                                       |                 |  |  |  |
| 18  | Inlet baffle<br>(baffle not shown)                | 1½", 2" only                           | Stainless steel                             |                 |  |  |  |

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# spirax sarco Cast/Ductile Iron Float & Thermostatic Steam Trap FT14, IFT14 and FT14C

#### Dimensions/weights (nominal) in inches (mm) and lbs (kg)



| Size       | Α    | В   | С   | D   | Е   | F    | G   | н   | Weight  |
|------------|------|-----|-----|-----|-----|------|-----|-----|---------|
| 1/11 3/11  | 4.8  | 4.2 | 2.6 | 5.8 | 4.1 | 1.2  | 2.6 | 3.9 | 6.4 lb  |
| 1/2", 3/4" | 121  | 107 | 67  | 147 | 105 | 30   | 66  | 98  | 2.9 kg  |
| 1"         | 4.7  | 4.3 | 3.2 | 7.7 | 6.3 | 8.6  | -   | -   | 15.0 lb |
|            | 120  | 110 | 80  | 195 | 160 | 220  | -   | -   | 6.8 kg  |
| 11⁄2"      | 10.6 | 5.1 | 4.3 | 9.4 | 7.9 | 10.6 | -   | -   | 38.5 lb |
|            | 270  | 130 | 108 | 238 | 200 | 270  | -   | -   | 17.5 kg |
| 2"         | 11.9 | 5.4 | 4.9 | 9.8 | 7.8 | 11.3 | -   | -   | 52 lb   |
|            | 300  | 138 | 125 | 250 | 200 | 288  | -   | -   | 24 kg   |

#### Sample specification

Steam traps shall be of the mechanical ball float type having iron bodies, horizontal line connections, and all stainless steel internals. Incorporated into the trap body shall be a stainless steel balanced pressure thermostatic air vent capable of withstanding 45 °F(25 °C) of superheat and resisting waterhammer without sustaining damage. Internals of the trap shall be completely servicable without disturbing the piping. (Optional: The trap shall include an adjustable steam lock release unit.) 14C version.

#### Installation

A pipeline strainer should be installed ahead of any steam trap. Full port isolating valves should be placed to permit servicing. The trap should be installed below the drainage point of the equipment with a collecting leg before the trap, in a position so that the float arm is in a horizontal plane and the float rises and falls vertically, with the flow direction as indicated on the body. (The ½" and ¾" FT14 only trap is supplied with right-to-left flow. If left-to-right or vertical flows are required, cover can be rotated as desired.) Refer to IMI 2.300 or IM-FO1-30 for IFT for complete instructions.

#### Maintenance

This product can be maintained without disturbing the piping connections. Complete isolation from both supply and return line is required before any servicing is performed. The trap should be disassembled periodically for inspection and cleaning of the valve head and seat, operating mechanism and air vent. Worn or damaged parts should be replaced using a complete valve mechanism assembly and/or air vent assembly. Complete installation and maintenance instructions are given in IMI 2.300, or IM-FO1-30 for IFT which accompanies the product.

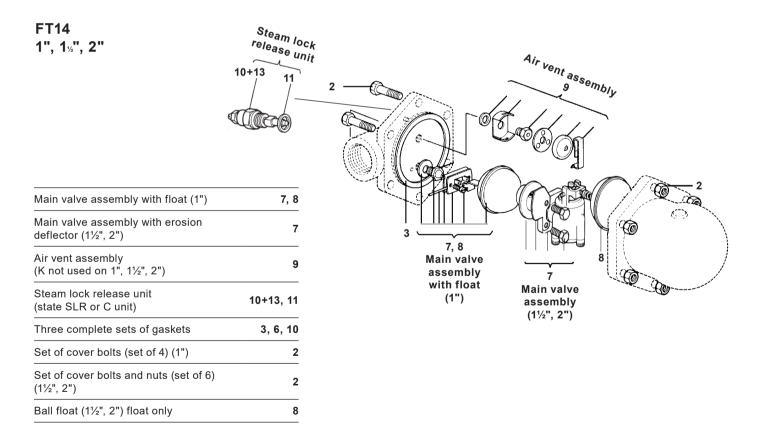
# Spare parts

# FT14 and IFT14

1/2" and 3/4"

|                | Steam lock<br>release unit Air |  |
|----------------|--------------------------------|--|
| 2              | 11 Vent assembly               |  |
|                |                                |  |
|                |                                |  |
| , 8<br>9<br>11 | Valve mechanism assembly 3     |  |
| 3              | assembly 3                     |  |

| Main valve assembly with float | 7, 8      |
|--------------------------------|-----------|
| Air vent assembly              | 9         |
| Steam lock release unit        | 10+13, 11 |
| Cover gasket (Pkt of 3)        | 3         |



The erosion deflector on the 1" is pressed into the body during manufacture and not available as a spare.