

spirax sarco

FTS14

TI-P145-01
 ST Issue 3

Austenitic Stainless Steel Ball Float Steam Trap

Description

The FTS14 is an austenitic stainless steel ball float steam trap with an integral automatic air vent. It provides efficient condensate drainage and prompt air removal to ensure process equipment operates to its maximum potential. As standard the FTS14 has horizontal connections with flow from right to left (R-L). However its unique design allows the cover to be simply rotated to provide horizontal left to right (L-R) and vertical up or vertical down configurations.

Standards

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

Certification

This product 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

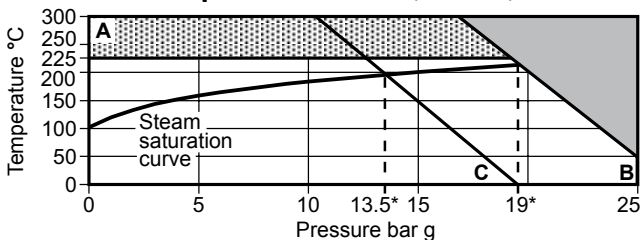
½", ¾" and 1"	Screwed BSP (BS 21 and DIN 2999) or NPT (ASME B 1.20.1).
½", ¾" and 1"	Socket weld ends to ASME B 16.11, BS 3799 Class 3000 and DIN 3239
DN15, 20 and 25	Flanged ends to ASME B 16.5 Class 150 and 300 or EN 1092-1 PN16 or PN25.
½", ¾" and 1"	Tri-clamp ends (FTS14-4.5 only).

Note: For alternative connections please consult Spirax Sarco.

Optional extras

Internal strainer (FTS14X). A manually adjustable needle valve can be added for use as a steam lock release mechanism (FTS14-C). The cover can be tapped ⅛" BSP for installation of a temperature sensor. **Note:** All options are available at extra cost.

Pressure/temperature limits (ISO 6552)

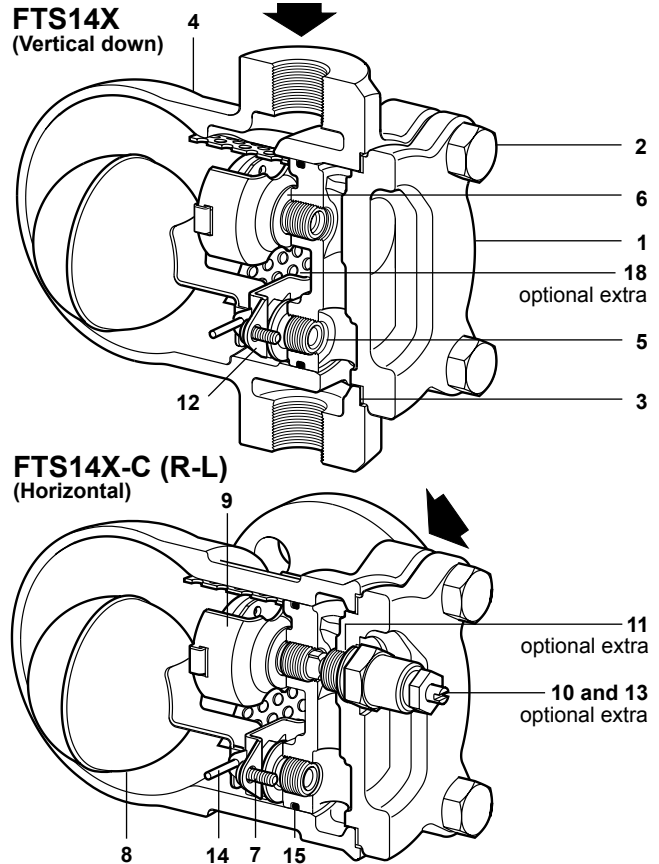


A - B Flanged PN16, PN25, ASME 300, screwed and socket weld.
A - C Flanged ASME 150.
Note: Tri-clamp compatible end connections, used for hygienic/sanitary applications, are only available on the FTS14-4.5.

Body design conditions	PN25
PMA Maximum allowable pressure	25 bar g @ 50°C
TMA Maximum allowable temperature	300°C
Minimum allowable temperature	-20°C
* PMO Maximum operating pressure for saturated steam service	A - B 19 bar g A - C 13.5 bar g
TMO Maximum operating temperature	225°C @ 19 bar g
Minimum operating temperature	0°C

Maximum differential pressure	FTS14-4.5	4.5 bar
	FTS14-10	10 bar
	FTS14-14	14 bar

Designed for a maximum cold hydraulic test pressure of 37.5 bar g



Materials

No.	Part	Material
1	Body	Austenitic stainless steel (316) EN 10213-4 (1.4408) ASTM A351 CF8M
2	Cover bolts	Stainless steel BS EN 3506 A2-70
3	Cover gasket	Reinforced exfoliated graphite
4	Cover	Austenitic stainless steel (316) EN 10213-4 (1.4408) ASTM A351 CF8M
5	Main valve seat	Stainless steel BS 970 431 S29
6	Main valve/air vent seat gasket	Stainless steel
7	Main valve assembly screws	Stainless steel
8	Ball float and lever	Stainless steel BS 1449 304 S16
9	Air vent assembly	Stainless steel
10	SLR assembly	Stainless steel
11	SLR gasket	Stainless steel
12	Pivot frame	Stainless steel
13	SLR seal	Graphite
14	Pivot	Stainless steel
15	'O' ring	Grey Viton complies with FDA CFR Title 21, Para 177, Section 2600
+ 16	Valve spring (1" only)	Stainless steel
+ 17	Sensor blanking plug	Stainless steel (optional extra)
+ 18	Strainer screen	Stainless steel (optional extra)

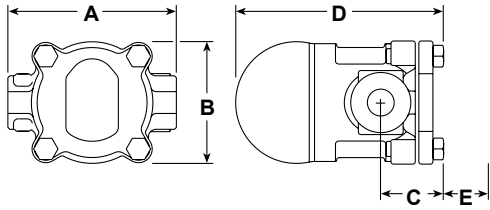
+ **Note:** Items 16 and 17 cannot be shown.

First for Steam Solutions

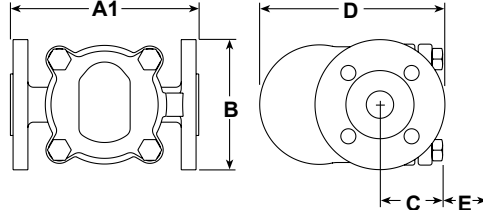
Dimensions /weights (approximate) in mm and kg

Size	Screwed/SW	A				B	C	D	E	Withdrawal distance	F	Weight	
		Tri-clamp	PN16/25	A1	ASME 150/ASME 300							Screwed/SW	Flanged
½"	135	180	-	-	-	97	48	162	135	22	3.75	-	
¾"	135	180	-	-	-	97	48	162	135	22	3.75	-	
1"	139	200	-	-	-	113	51	179	145	22	4.25	-	
DN15	-	-	150	147	194	97	77	162	135	22	-	5.00	
DN20	-	-	150	147	194	102	77	162	135	22	-	5.00	
DN25	-	-	160	160	204	113	62	179	145	22	-	6.25	

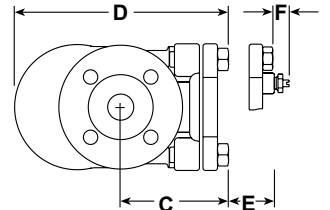
Screwed, Socket weld and Tri-clamp ends (all sizes)



Flanged DN25

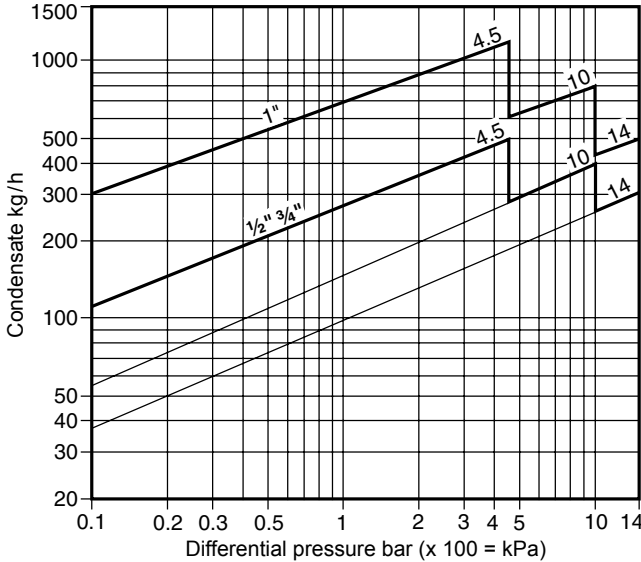


Flanged DN15, 20 and FTS14-C



Capacities

Note. Capacities shown are based on discharge at 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.



Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P145-02) supplied with the product.

Spare parts

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

Available spares

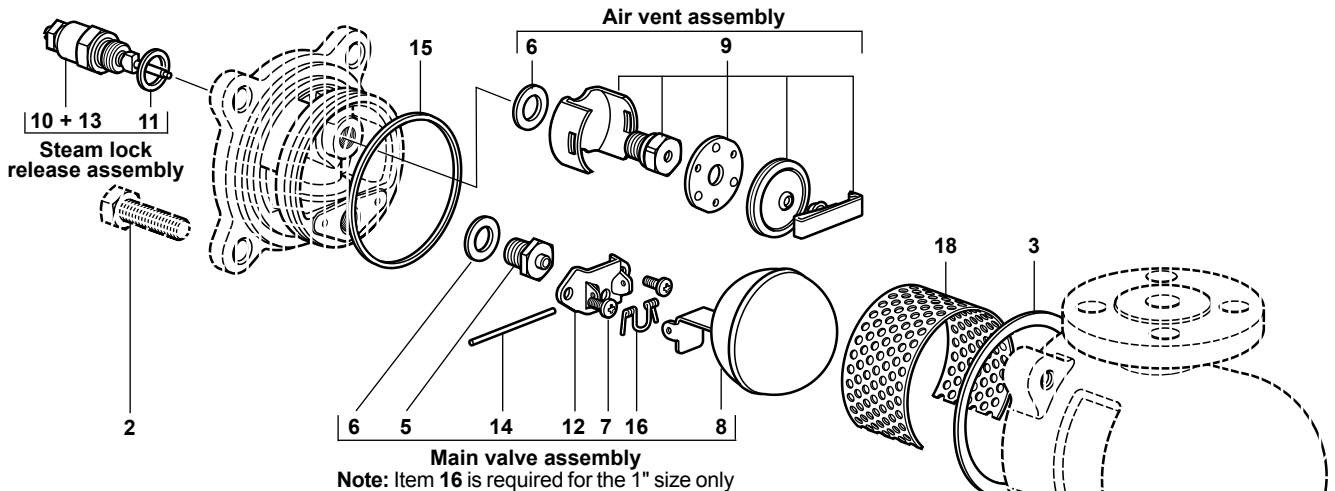
Maintenance kit **3, 5, 6 (2 off), 7 (2 off), 8, 9, 12, 14, 15, 16 (1" only), 18**
 Gasket set (packet of 3) **3, 15**

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 i.e. 4.5, 10 or 14 bar.
Example: 1 - Maintenance kit for a Spirax Sarco ½" FTS14-4.5 steam trap.

Recommended tightening torques

Item	or mm	N m
2	M10 x 30	20 - 25
5	17 A/F	50 - 55
7	Pozidrive M4 x 6	2.5 - 3.0
9	17 A/F	50 - 55
10	19 A/F	35 - 40
17 sensor blanking plug	11 A/F	15 - 20



How to order

Example: 1 off Spirax Sarco ½" FTS14X-4.5 R-L (right to left) stainless steel float trap fitted with screwed BSP connections. Trap is maintainable in line. Fitted with integral air vent and strainer screen.

Optional extra

At extra cost the cover can be tapped ⅛" BSP for installation of a temperature sensor.