



TI-S02-03
CMGT Issue 14

FT14

Ball Float Steam Trap (Screwed)

Description

The FT14 is an SG iron bodied ball float steam trap having stainless steel working internals and integral automatic air venting facility. The FT14 can be maintained without disturbing the pipework.

Available types	FT14 (R-L)	Horizontal connections with flow from right to left
	FT14 (L-R)	Horizontal connections with flow from left to right
	FT14V	Vertical connections with flow downwards

Capsule

The BP99/32 capsule which is used in the FT14 is suitable for use on 150 °C (270 °F) superheat @ 0 bar g (0 psi g) and 50 °C (91 °F) superheat @ 32 bar g (464 psi g).

Optional extras

A **manually adjustable needle valve** (designated 'C' on the nomenclature i.e. **FT14-C**) can be fitted to the trap. This option provides a **steam lock release (SLR)** feature in addition to the standard air vent. For further information please consult Spirax Sarco.

The FT14 has the option of an **integral strainer screen** (designated 'X' on the nomenclature i.e. **FT14X-**).

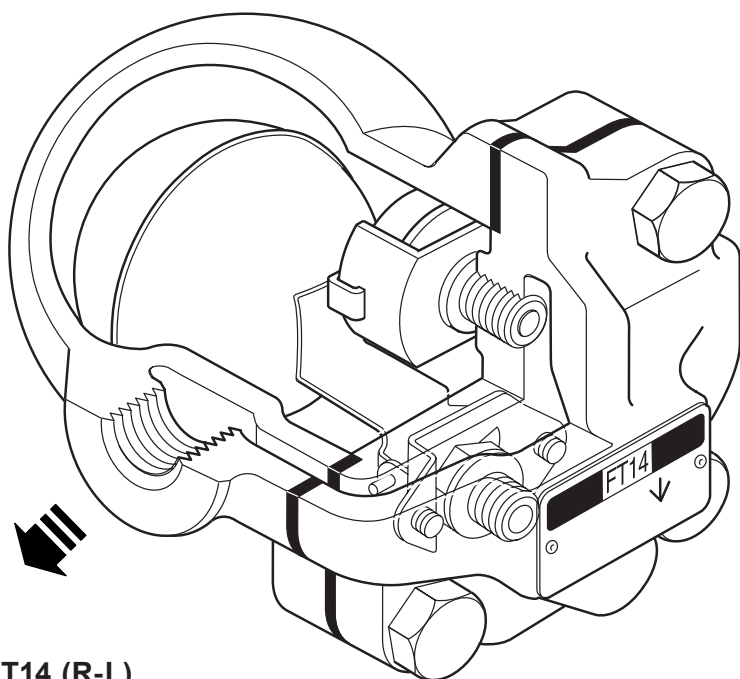
Standards

This product fully complies with the requirements of the European Pressure Equipment Directive 2014/68/EU.

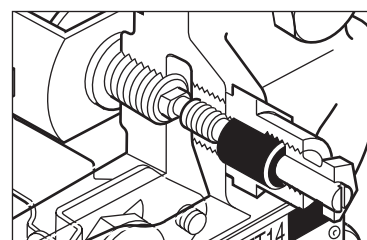
Certification

This product is available with a manufacturers' Typical Test Report.

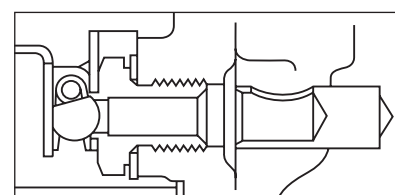
Note: All certification/inspection requirements must be stated at the time of order placement.



FT14 (R-L)



FT14-C (R-L)

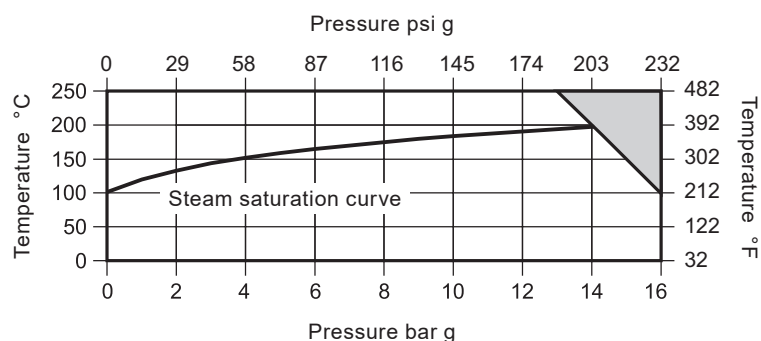


Main valve assembly 1"

Sizes and pipe connections

½", ¾" and 1" screwed BSP T Rp (ISO 7-1) or NPT.

Pressure/temperature limits (ISO 6552)

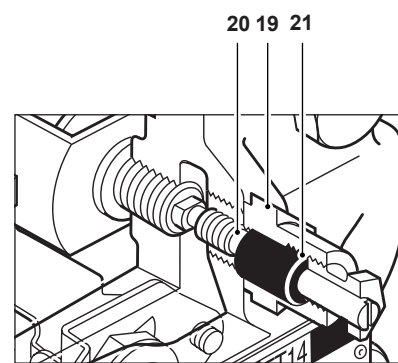
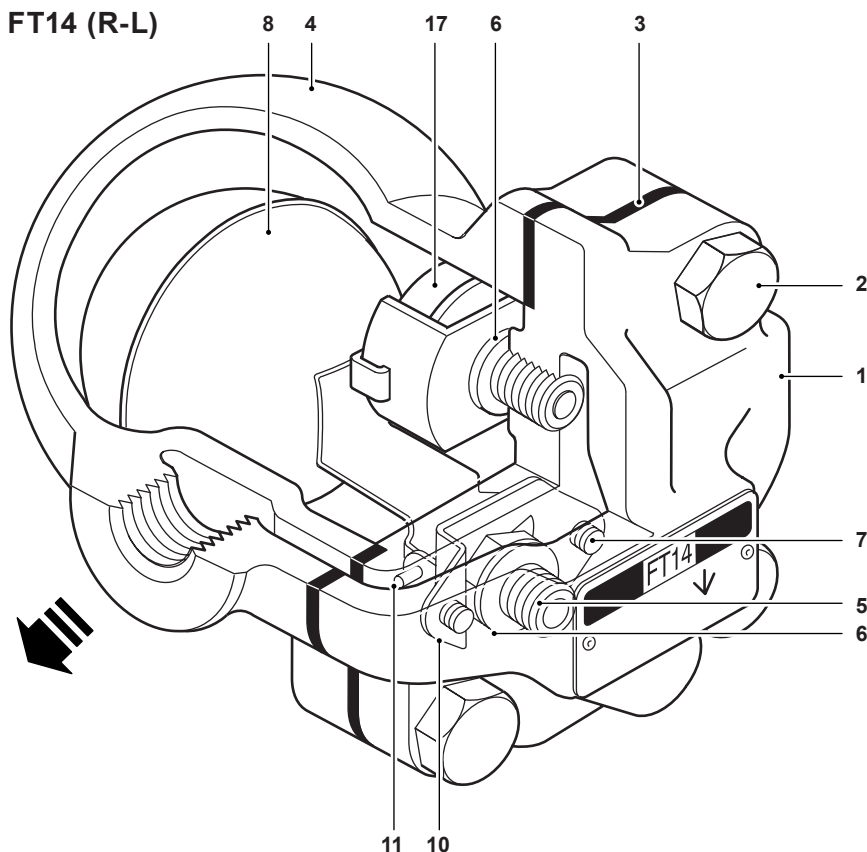


The product **must not** be used in this region.

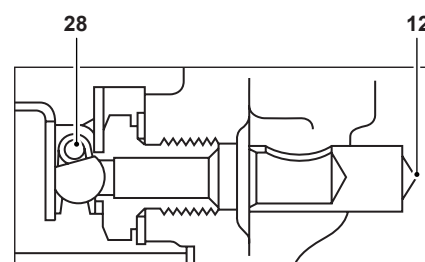
Body design conditions				PN16
PMA	Maximum allowable pressure		16 bar g @ 100 °C	232 psi g @ 212 °F
TMA	Maximum allowable temperature		250 °C @ 13 bar g	482 °F @ 189 psi g
Minimum allowable temperature			-10 °C	14 °F
PMO	Maximum operating pressure for saturated steam service		14 bar g	203 psi g
TMO	Maximum operating temperature		250 °C @ 13 bar g	482 °F @ 189 psi g
Minimum operating temperature			0 °C	32 °F
ΔPMX	Maximum differential pressure	FT14-4.5	4.5 bar	65 psi g
		FT14-10	10 bar	145 psi g
		FT14-14	14 bar	203 psi g
Product is safe for use under full vacuum conditions				
Designed for a maximum cold hydraulic test pressure of:			24 bar g	348 psi g

Materials

FT14 (R-L)



FT14-C (R-L)

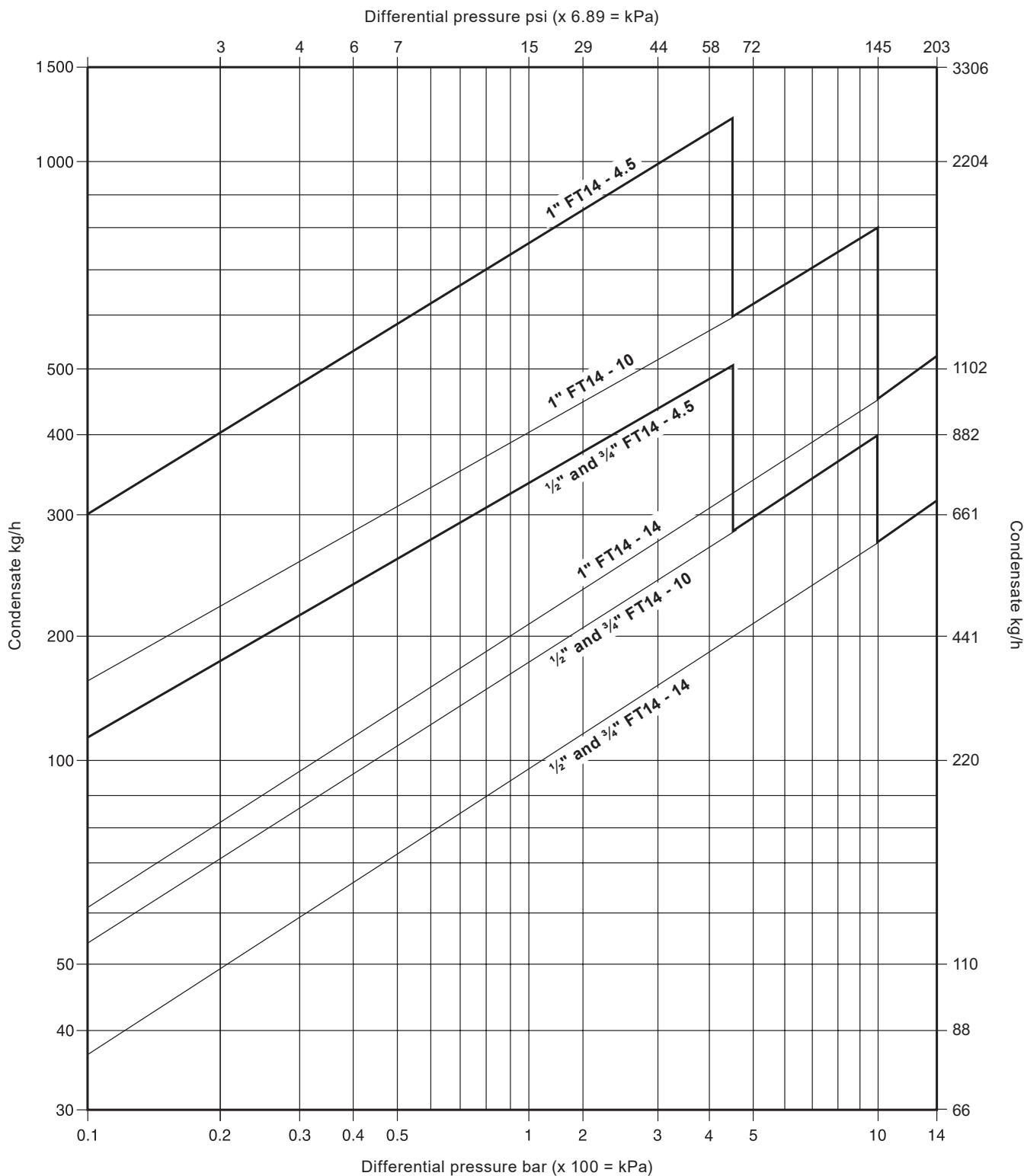


Main valve assembly 1"

No.	Part	Material	
1*	Body	SG iron	EN 1563 EN-GJS-400-15
2	Cover bolts	Steel	BS 3692 Gr.8.8
3	Cover gasket	Reinforced exfoliated graphite	
4	Cover	SG iron	EN 1563 EN-GJS-400-15
5	Valve seat	Stainless steel	BS 970 431 S29
6	Valve seat gasket	Stainless steel	BS 1449 409 S19
7	Pivot frame assembly screws	Stainless steel	BS 6105 CI A2-70
8	Ball float and lever	Stainless steel	BS 1449 304 S16
10	Pivot frame	Stainless steel	BS 1449 304 S16
11	Pivot pin	Stainless steel	
12*	Erosion deflector (1" only)	Stainless steel	BS 970 431 S29
17	Air vent assembly	Stainless steel	
18	Air vent gasket	Stainless steel	BS 1449 409 S19
19	SLR assembly	Stainless steel	BS 970 303 S21
20	SLR gasket	Stainless steel	BS 1449 304 S16
21	SLR seal	Graphite	
28	Valve spring (1" only)	Stainless steel	BS 2056 302 S26

* Note: Item 12 is pressed into item 1 (1" only).

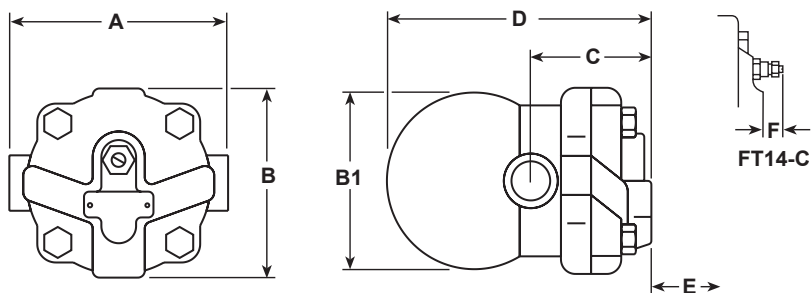
Capacities



Capacities shown above are based on condensate at saturation temperature. When discharging sub-cooled condensate the air vent provides extra capacity. Under start-up conditions when the condensate is cold the internal thermostatic air vent will be open and provides additional capacity to the main valve. On 4.5 bar (65 psi) units this will provide a minimum of 50% increased capacity above the hot condensate figures shown. On 10 bar (145 psi) and 14 bar (203 psi) units this will be a minimum increase of 100% on the published capacity. The following table gives the minimum additional cold water capacities from the air vent.

ΔP (bar)	0.5 (7)	1 (15)	2 (29)	3 (44)	4.5 (65)	7 (102)	10 (145)	14 (203)
Minimum additional cold water capacity (kg/h)								
1/2" and 3/4"	70 (154)	140 (309)	250 (551)	380 (838)	560 (1235)	870 (1918)	1130 (2491)	1500 (3307)
1"	120 (265)	240 (529)	360 (794)	500 (1102)	640 (1411)	920 (2028)	1220 (2690)	1500 (3307)

Dimensions/weights (approximate) in mm (inches) and kg (lbs)



Size	A	B	B1	C	D	E Withdrawal distance	F	Weight
½"	121 (4.8)	107 (4.2)	96 (3.8)	67 (2.6)	147 (5.8)	105 (4.1)	30 (1.1)	2.9 (6.4)
¾"								
1"	145 (5.74)	107 (4.2)	117 (4.6)	75 (3.0)	166 (6.5)	110 (4.3)	23 (0.9)	4.0 (8.8)

Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-S02-13) supplied with the product.

Installation note:

The FT14 must be installed with the direction of flow as indicated on the body, and with the float arm in a horizontal plain so that it rises and falls vertically. If required the flow orientation can be changed on site.

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" FT14-4.5 (R-L) ball float steam trap with screwed BSP T Rp (ISO 7-1) connections and integral air vent.

Spare parts

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

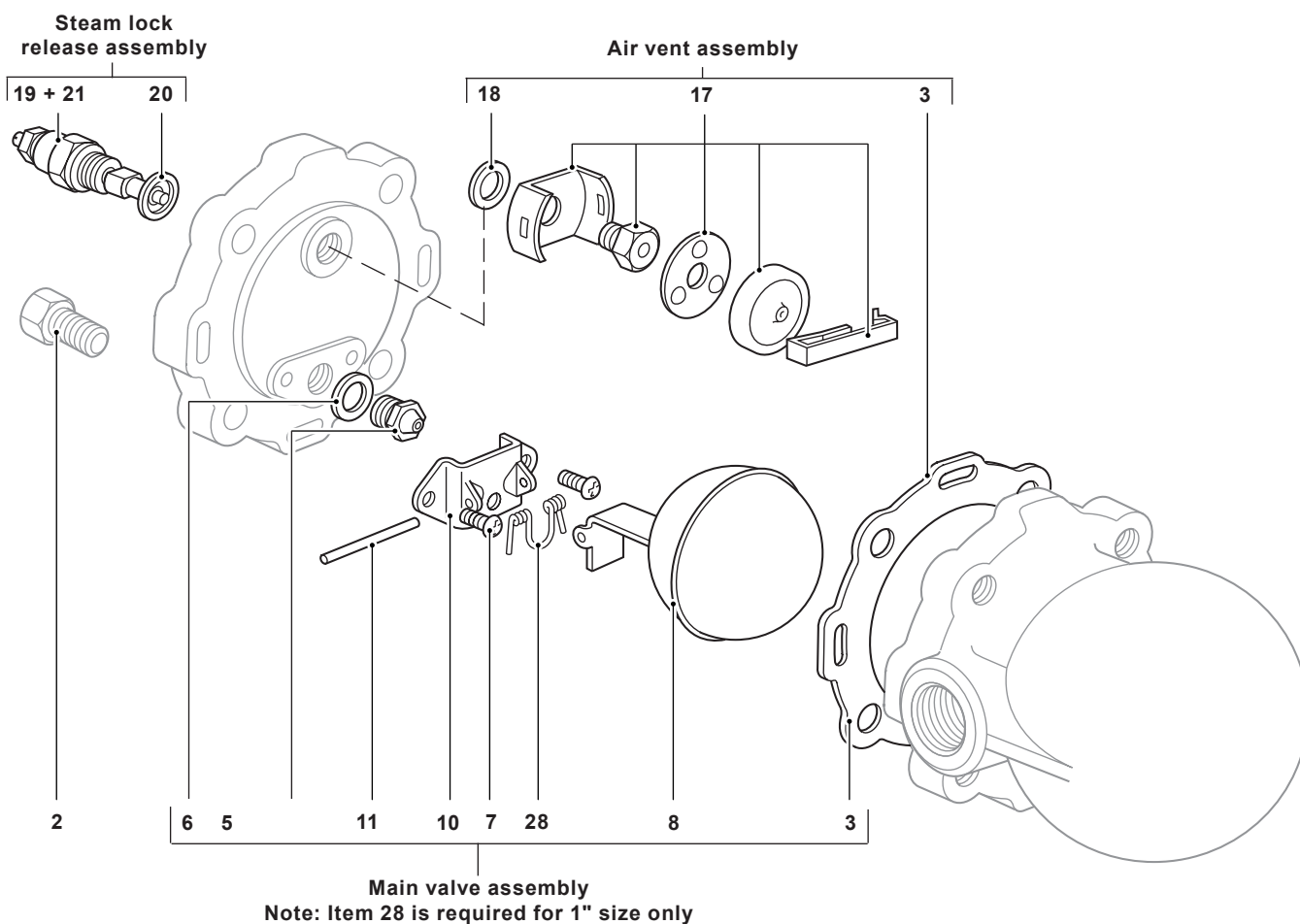
Available spares

Main valve assembly with float	3, 5, 6, 7 (2 off), 8, 10, 11, 28 (1" only)
Air vent assembly	3, 17, 18
Steam lock release and air vent assembly	3, 17, 18, 19, 20, 21
Cover gasket (packet of 3)	3
Maintenance kit	3, 5, 6, 7 (2 off), 8, 10, 11, 17, 18, 28 (1" only)



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" FT14-10 ball float steam trap.



Recommended tightening torques

Item	 or mm		N m	ft lbf
2	17 A/F	M10 x 30	47 - 50	35 - 37
5	17 A/F		50 - 55	37 - 41
7	Pozidrive	M4 x 6	2.5 - 3.0	1.8 - 2.2
17	17 A/F		50 - 55	37 - 41
19 and 21	19 A/F		50 - 55	37 - 41