



Cert. No. LRQ 0963008

ISO 9001

spirax sarco

TI-P142-01
ST Issue 7

FT47 SG Iron

Ball Float Steam Traps (DN15 to DN50)

Description

The FT47 is an SG iron ball float steam trap with integral automatic air venting facility. It is available with horizontal flanged connections as well as vertical flanged connections, designated FT47V. As an option in the horizontal version up to 21 bar g, a manually adjustable needle valve can be added for use as a steam lock release designated FT47-C. If required, the cover can be drilled and tapped $\frac{3}{8}$ " BSP or NPT for the purpose of fitting a drain cock. Body and cover castings are produced by a TÜV approved foundry.

Standards - This product fully complies with the requirements of the European Pressure Equipment Directive 97/23/EC and carries the CE mark when so required.

Certification - This product is available with a manufacturers' Typical Test Report. As an available option certification to EN 10204 3.1 can be supplied. **Note:** All certification/inspection requirements must be specified at the time of order placement.

Sizes and pipe connections

DN15, DN20, DN25, DN40 and DN50.

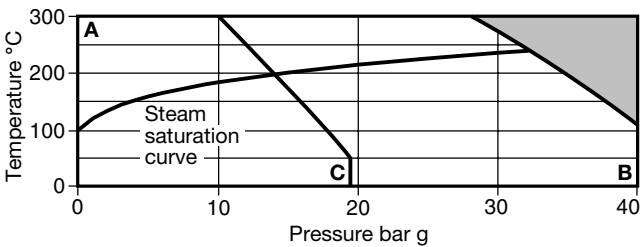
Note: Flow direction, for horizontal orientated traps, when facing the body: - DN15 to DN25 is left to right. - DN40 and DN50 is right to left. For vertically orientated traps the flow is downwards only.

Standard flanges are EN 1092 PN40 and PN25 with face-to-face dimensions in accordance with EN 26554 (Series 1).

On request ANSI B 16.5 Class 150 flanges are also available with face-to-face dimensions in accordance with EN 26554 (Series 1).

ANSI flanges are supplied with tapped (UNC) holes for flanged bolts.

Pressure / temperature limits



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

A - B Flanged EN 1092 PN25/40.

A - C Flanged ANSI 150.

Body design conditions PN40

PMA Maximum allowable pressure 40 bar g @ 100°C

TMA Maximum allowable temperature 300°C @ 28 bar g

Minimum allowable temperature -10°C

PMO Maximum operating pressure for saturated steam service 32 bar g @ 239°C

Note: The DN40 and DN50 traps are limited to a PMO equal to ΔPMX

TMO Maximum operating temperature 300°C @ 28 bar g

Minimum operating temperature 0°C

Note: For lower operating temperatures consult Spirax Sarco

	Size	DN15, 20, 25	DN40, 50
Maximum ΔPMX differential pressure	FT47-4.5	4.5 bar	4.5 bar
	FT47-10	10 bar	10 bar
	FT47-14	14 bar	-
	FT47-21	21 bar	21 bar
	FT47-32	32 bar	32 bar

Designed for a maximum cold hydraulic test pressure of 60 bar g

Note: With internals fitted, test pressure must not exceed ΔPMX

Caution: The trap in its complete operational form must not be subjected to a pressure greater than 48 bar otherwise damage to the internal mechanism may result.

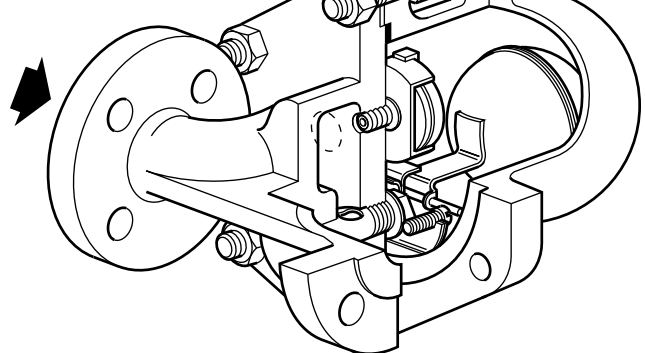
Materials See page 2 for the materials list.

Capacities See TI-S02-36 for full details.

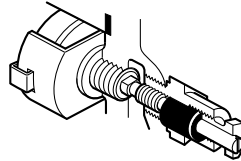
FT47

DN15, DN20 and DN25

DN15 shown



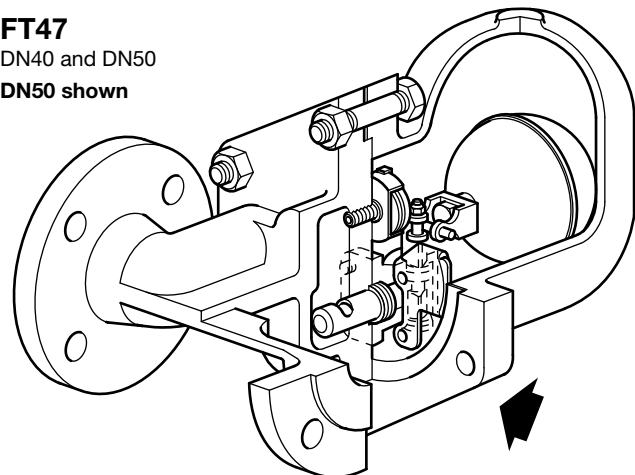
FT47-C



FT47

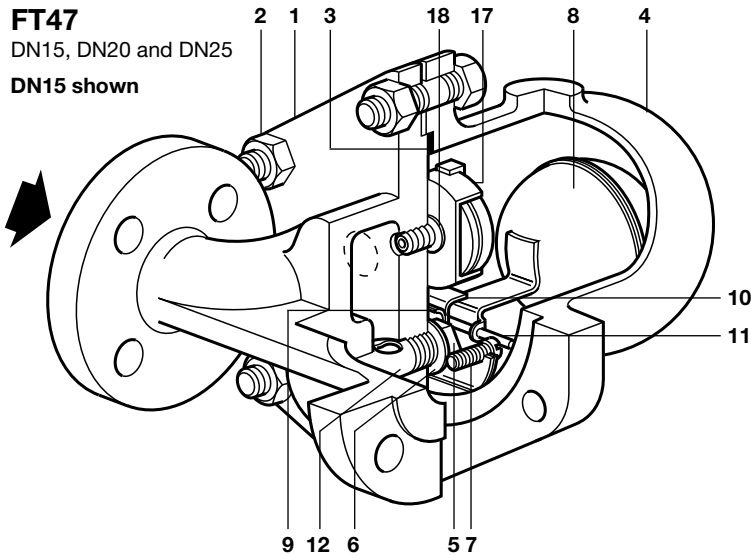
DN40 and DN50

DN50 shown

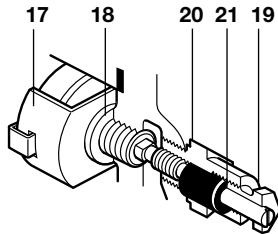


FT47

DN15, DN20 and DN25
 DN15 shown

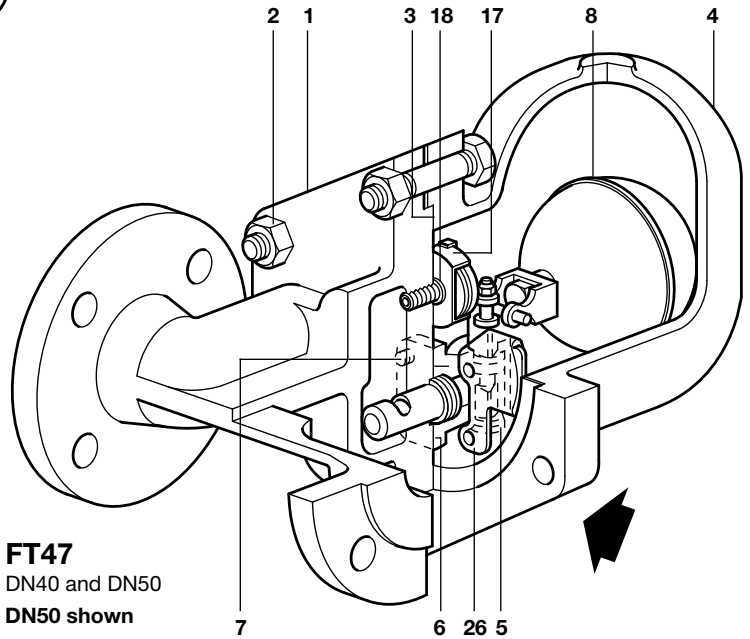


FT47-C



FT47

DN40 and DN50
 DN50 shown

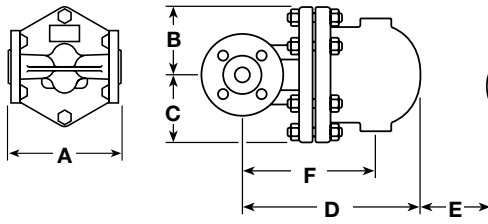


Materials

No.	Part		Material		
1	Body		SG iron	DIN 1693 GGG 40.3	
2	Cover stud		Steel	DIN 17420 21 Cr Mo V57	
	Cover nuts		Steel	DIN 17420 24 Cr Mo 5	
3	Cover gasket		Reinforced exfoliated graphite		
4	Cover		SG iron	DIN 1693 GGG 40.3	
	Valve seat	DN15, DN20 and DN25	Stainless steel	BS 970 431 S29	
5	Main valve assembly with erosion deflector	DN40 and DN50	Stainless steel	BS 3146 Pt2 ANC2 BS 970 416 S37	
	Valve seat gasket	DN15, DN20 and DN25	Stainless steel	BS 1449 304 S11	
6	Main valve assembly gasket	DN40 and DN50	Reinforced exfoliated graphite		
	Pivot frame assembly set screws	DN15, DN20 and DN25	Stainless steel	BS 4183 18/8	
7	Main valve assembly				
		Bolts	DN40	Stainless steel	BS 970 302 S25
		Studs and nuts	DN50	Stainless steel	BS 970 431 S29
8	Ball float and lever		Stainless steel	BS 1449 304 S16	
9	Support frame	DN15, DN20 and DN25	Stainless steel	BS 1449 304 S16	
10	Pivot frame	DN15, DN20 and DN25	Stainless steel	BS 1449 304 S16	
11	Pivot pin	DN15, DN20 and DN25	Stainless steel		
12	Erosion deflector	DN15, DN20 and DN25 for horizontal installations only	Stainless steel	BS 970 431 S29	
17	Air vent assembly		Stainless steel		
18	Air vent seat gasket		Stainless steel	BS 1449 409 S19	
19	SLR assembly		Stainless steel	BS 970 303 S31	
20	SLR gasket		Steel	BS 1449 CS 4	
21	SLR seal		Graphite		
26	Inlet plate	DN40 and DN50 for horizontal installations only	Stainless steel	BS 1449 304 S16	

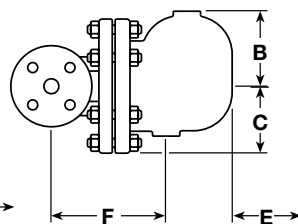
FT47

DN15 and DN20



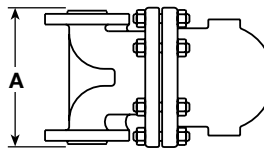
FT47

DN25, DN40 and DN50



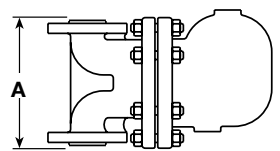
FT47V

DN15 and DN20



FT47V

DN25, DN40 and DN50



Dimensions/weights (approximate) in mm and kg

Size	A	B	C	D	E	F	Weight
DN15	150	80	80	215	120	155	10.8
DN20	150	80	80	225	120	165	10.8
DN25	160	115	85	276	170	215	15.0
DN40	230	130	115	326	200	200	33.0
DN50	230	141	123	332	200	236	34.0

Face-to-face dimensions in accordance with EN 26554 (Series 1)

Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-S02-30) supplied with the product.

Installation note:

The FT47 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 FT47-14 ball float steam trap, having an SG iron body and cover with thermostatic air vent. Connections are to be flanged to EN 1092 PN40.

Spare parts

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

Available spares

Main valve assembly with float (DN15, DN20 and DN25 horizontal traps)*	5, 6, 7, 8, 9, 10, 11
Main valve assembly with integral erosion deflector (DN40 and 50)** (specify horizontal or vertical trap)	5, 6, 7, 12, 26
Main valve assembly with float (DN15, DN20 and DN25 vertical traps only)	5, 6, 7, 8, 9, 10, 11
Ball float (DN40 and 50)	8
Air vent assembly	17, 18
Steam lock release and air vent assembly (FT47-C)	17, 18, 19, 20, 21
Complete set of gaskets (packet of 3 sets)	3, 6, 18, 20, 21

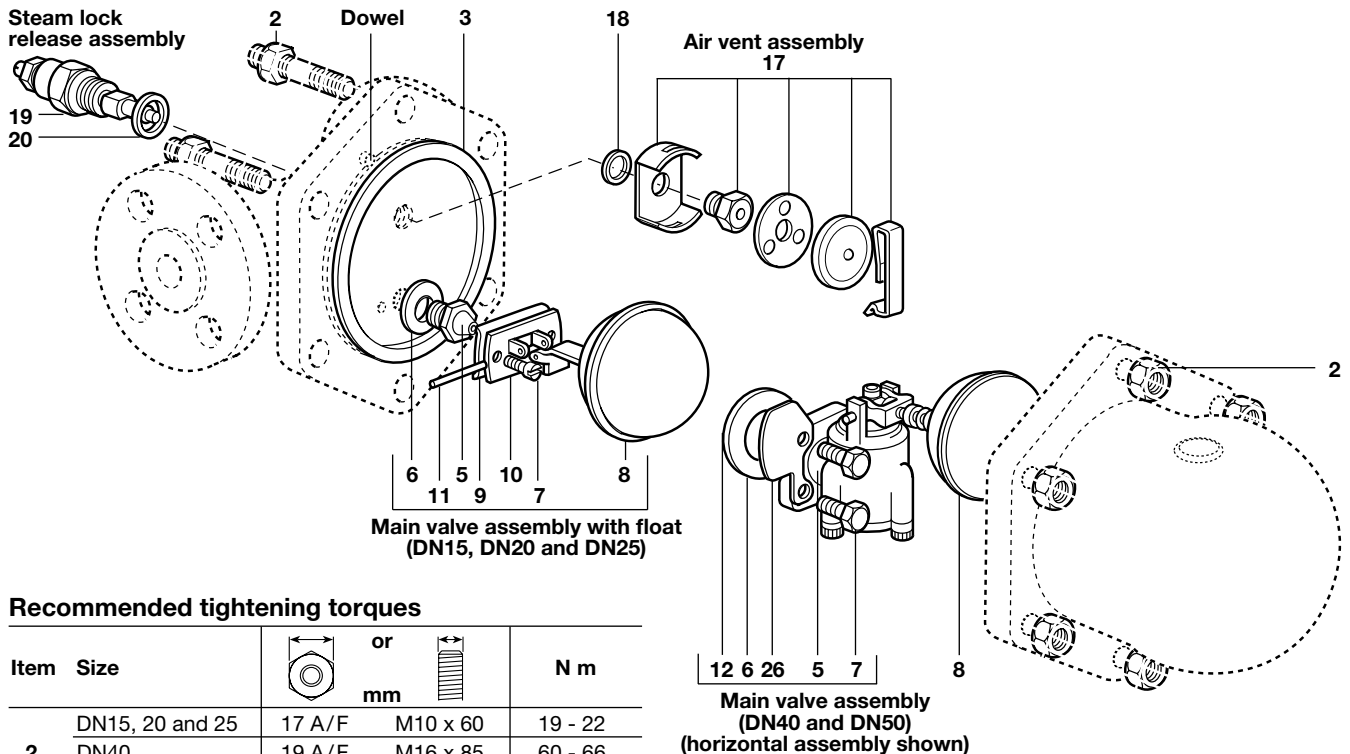
* On horizontal traps the erosion deflector on the DN15, DN20 and DN25 is pressed into the body during manufacture and not available as a spare.

** There is no erosion deflector on vertical traps in sizes DN40 and DN50.



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 and orientation i.e.: horizontal or vertical connections.

Example: 1 - Air vent assembly for a Spirax Sarco DN20 FT47-21 ball float steam trap, with horizontal connections.



Recommended tightening torques

Item	Size	or		N m
				
2	DN15, 20 and 25	17 A/F	M10 x 60	19 - 22
	DN40	19 A/F	M16 x 85	60 - 66
	DN50	24 A/F	M16 x 85	80 - 88
5	DN15, 20 and 25	17 A/F		50 - 55
	DN15, 20 and 25		M5 x 20	2.5 - 2.8
7	DN40	10 A/F	M6 x 20	10 - 12
	DN50	13 A/F	M8 x 20	20 - 24
17		17 A/F		50 - 55
19		22 A/F		50 - 55