

spirax sarco

TI-P603-07
 ST Issue 4

FT53

Cast Iron

Ball Float Steam Trap with Flanged Connections

Description

The FT53 is a cast iron ball float steam trap with internal thermostatic air vent for the prompt removal of large condensate loads from steam systems. The trap is supplied with integrally flanged connections (for horizontal or vertical installation) and can be maintained without disturbing the pipework. For further information see TI-P603-08.

Available options: FT53H - Horizontal flow. FT53V - Vertical flow.

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 manufacturer's Typical Test Report.
Note: All certification / inspection requirements must be stated at the time of order placement.

Sizes and pipe connections

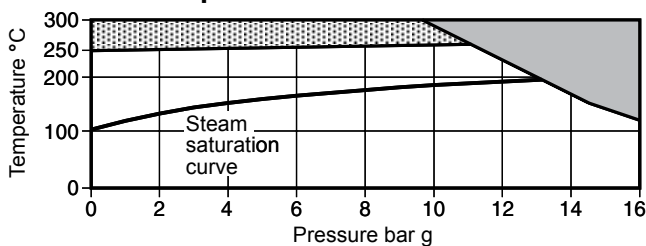
DN40 and DN50.
 Standard flange EN 1092 PN40 (formerly DIN 2501).
 Face-to-face dimensions to BS EN 26554 Series 1.

Optional extras

Manually adjustable needle valve (designated 'C' on the nomenclature can be fitted to all versions. This option provides a **steam lock release** feature in addition to the standard air vent.

The cover can be drilled and tapped for the purpose of fitting a balance line and drain cock if requested at the point of order.

Pressure/temperature limits



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

The product should not be used in this region or beyond its operating range as damage to the internals may occur.

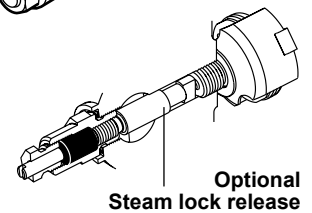
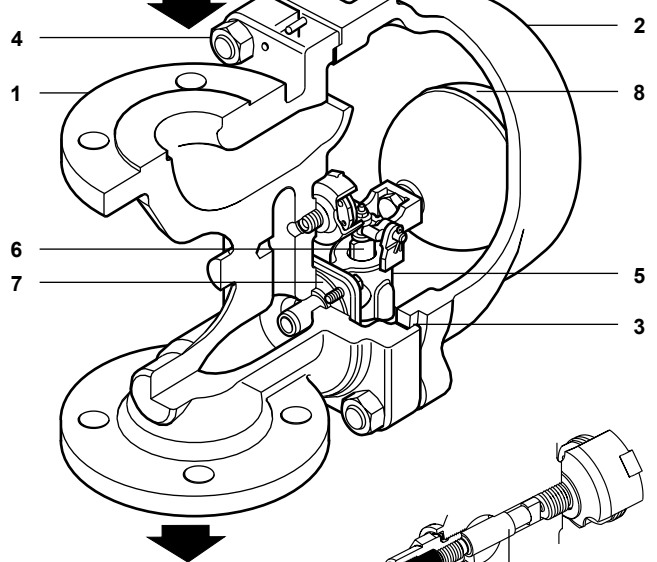
Body design conditions		PN16
PMA	Maximum allowable pressure	16 bar g @ 120°C
TMA	Maximum allowable temperature	300°C @ 9.5 bar g
Minimum allowable temperature		-10°C
PMO	Maximum operating pressure for saturated steam service	13 bar g
TMO	Maximum operating temperature	265°C @ 11 bar g
Minimum operating temperature		0°C

Note: For lower operating temperatures consult Spirax Sarco

	FT53H-4.5	4.5 bar
	FT53V-4.5	4.5 bar
ΔPMX	Maximum differential pressure	FT53H-10
		FT53V-10
	FT53H-13	13 bar
	FT53V-13	13 bar

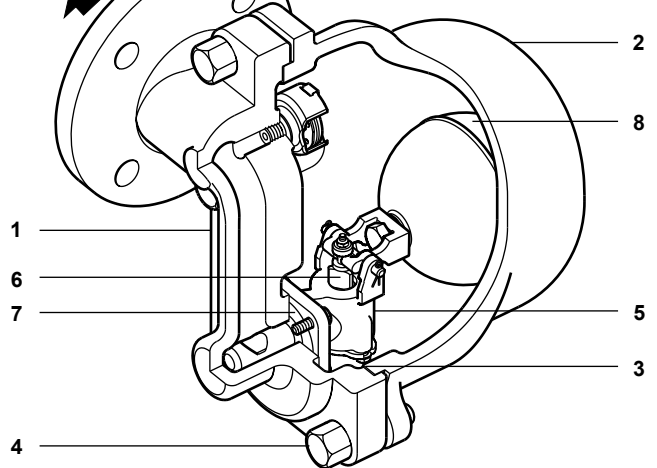
Designed for a maximum cold hydraulic test pressure of 24 bar g

FT53V



Optional Steam lock release

FT53H



Materials

No.	Part	Material	
1	Body	Cast iron	EN-GJL-250
2	Cover	Cast iron	EN-GJL-250
3	Cover gasket	Reinforced exfoliated graphite	
	Cover bolts FT53H	Steel	24 CrMo 5 (1.7258)
4	Cover studs FT53V	Steel	24 CrMo 5 (1.7258)
	Cover nuts FT53V	Steel	CK 35 (1.1181)
5	Valve seat	Stainless steel	X 22 CrNi 17 2 (1.4057)
6	Valve	Stainless steel	X 22 CrNi 17 2 (1.4057)
7	Main valve gasket	Exfoliated graphite	
8	Ball float	Stainless steel	X 5 CrNi 18 10 (1.4301)

Note: All other internals are manufactured in stainless steel.

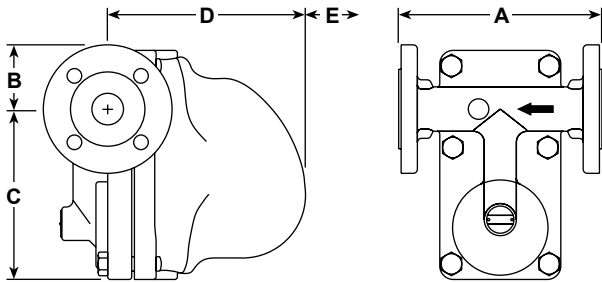
First for Steam Solutions

Dimensions/weights (approximate) in mm and kg

FT53H

Size	A	B	C	D	E	Weight
DN40	230	75.5	192	208	168	27.0
DN50	230	83.0	192	208	168	28.0

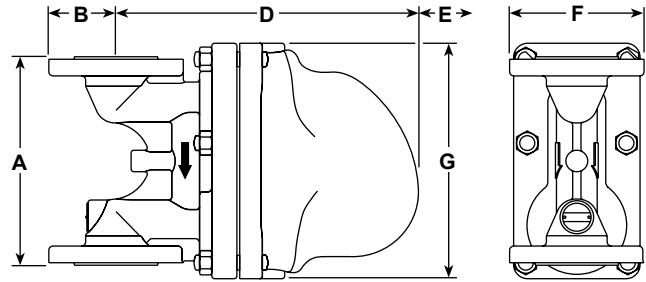
FT53H



FT53V

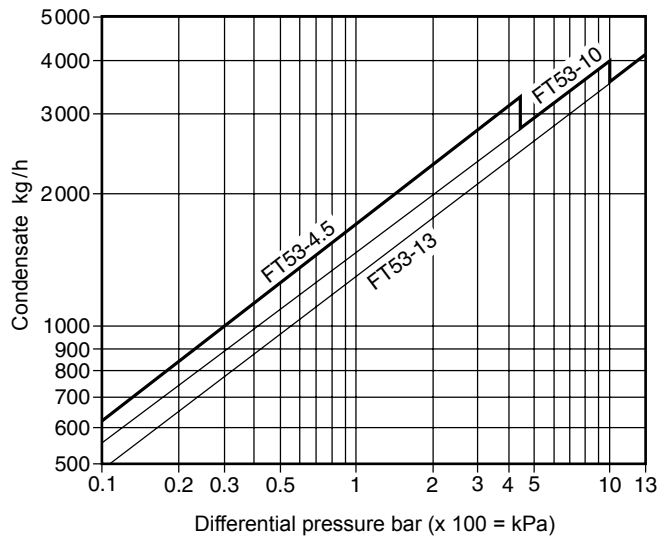
Size	A	B	D	E	F	G	Weight
DN40	230	75.5	312	168	151	255	29.0
DN50	230	83.0	312	168	166	255	30.0

FT53V



Capacities (in accordance with ISO 7842)

Note: Capacities shown are based on condensate at boiling temperature.



Additional cold water capacities from the thermostatic air vent under start-up conditions:

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. The table below gives the minimum additional cold water capacities from the air vent.

Minimum additional cold water capacities from the air vent (kg/h):

Pressure (bar)	0.5	1	2	3	4.5	8	10	13
DN40 and 50	460	680	900	1080	1300	1700	1900	2150

How to order

Example: 1 off Spirax Sarco DN40 FT53H-4.5 ball float steam trap with cast iron body and cover. Flanged connections to EN 1092 PN16. Trap to be fitted with the optional balance and drain connections.

Note: If the product has the optional steam lock release fitted the nomenclature would be FT53H-4.5-C.

Spare parts

See TI-P603-08 for the relevant information.