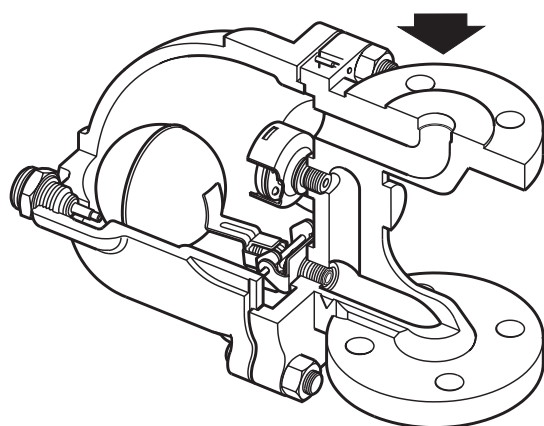
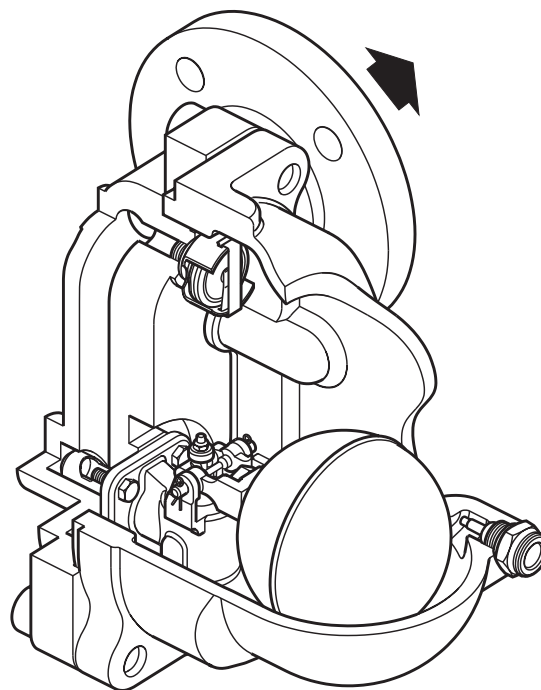


**spirax
sarco**TI-P615-06
CMGT Issue 5

IFT54 Carbon Steel Ball Float Steam Trap with Integral Spiratec Sensor and Flanged Connections



IFT54V DN15



IFT54H DN40

Description

The IFT54 is a carbon steel ball float steam trap fitted with an integral Spiratec sensor (SSI) for steam leakage detection and integral 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. Body and cover are produced by TÜV approved foundries.

Available options

IFT54H - Horizontal flow.

IFT54V - Vertical flow.

Sensors are compatible with Spiratec indicators, automatic monitors and test points:

R1 (single trap) remote test point, **R12** (12 trap) remote test point, **Type 30** hand held indicator, **R16C** (16 trap) automatic steam trap monitor with PNP/NPN output where appropriate.

Standards

This product fully complies with the requirements of the EU Pressure Equipment Directive/UK Pressure Equipment (Safety) Regulations and carries the **CE** mark when so required.

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.

Steam traps
Ball float

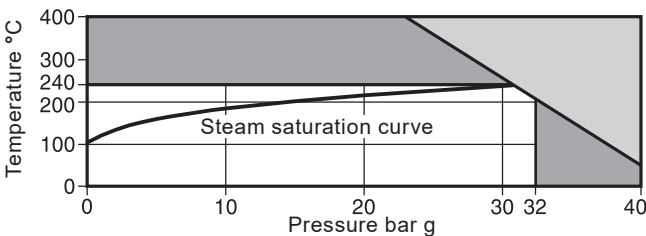
Sizes and pipe connections

DN15, DN20, DN25, DN40 and DN50.
Standard flange EN 1092 PN40 (formerly DIN 2501).
Face-to-face dimensions to BS EN 26554 Series 1.

Optional extras

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

Pressure/temperature limits

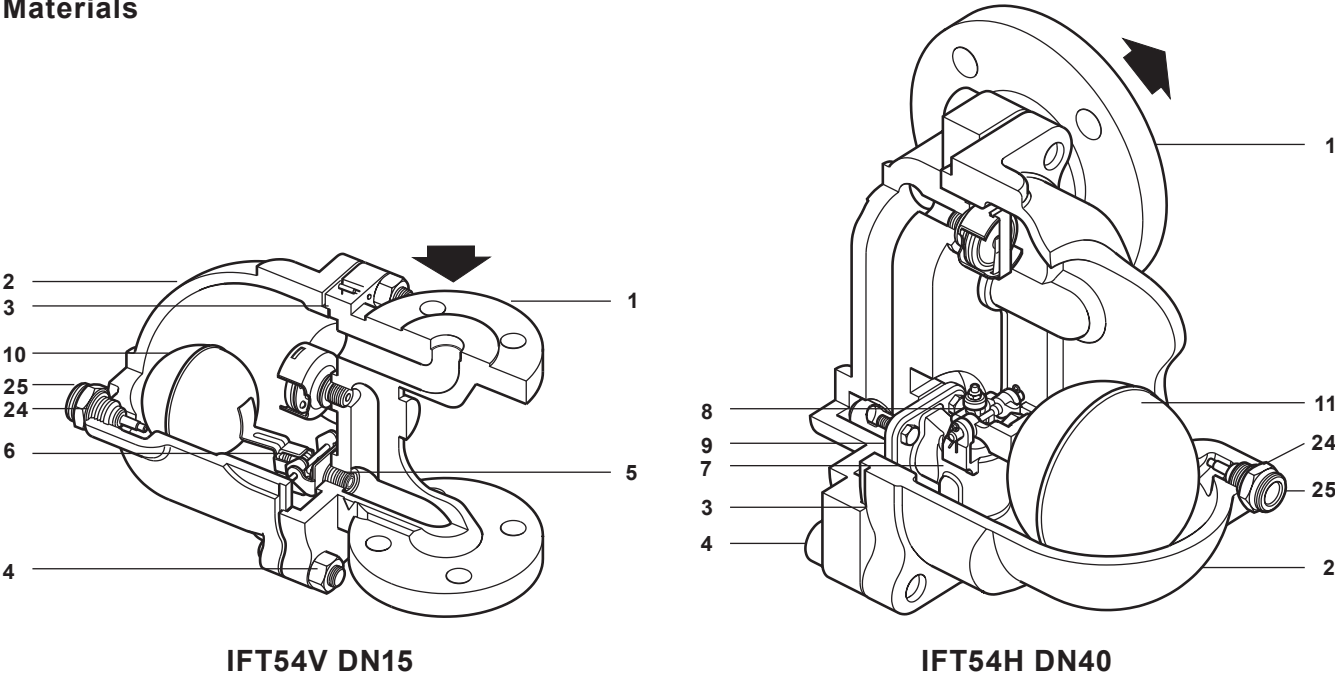


- The product **must not** be used in this region.
- The product should not be used in this region or beyond its operating range as damage to the internals may occur.

Body design conditions										PN40	
PMA	Maximum allowable pressure									40 bar g @ 50°C	
TMA	Maximum allowable temperature									400°C @ 24 bar g	
Minimum allowable temperature										-10°C	
PMO	Maximum operating pressure for saturated steam service									31 bar g	
TMO	Maximum operating temperature									240°C @ 31 bar g	
Minimum operating temperature										0°C	
Note: For lower operating temperatures consult Spirax Sarco											
ΔPMX	Maximum differential pressure										
	Size and model	IFT54H-4 IFT54V-4	IFT54H-4.5 IFT54V-4.5	IFT54H-8 IFT54V-8	IFT54H-10 IFT54V-10	IFT54H-12 IFT54V-12	IFT54H-20 IFT54V-20	IFT54H-28 IFT54V-28	IFT54H-32 IFT54V-32		
	DN15, DN20 and DN25	4 bar	-	8 bar	-	12 bar	20 bar	-	32 bar		
	DN40 and DN50	-	4.5 bar	-	10 bar	-	-	28 bar	-		
Designed for a maximum cold hydraulic test pressure of											60 bar g

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

Materials



No.	Part		Material	
1	Body		Carbon steel	1.0619+N
2	Cover		Carbon steel	1.0619+N
3	Cover gasket		Reinforced exfoliated graphite	
4	Cover bolts	FT54H	Steel	25 CrMo 4 (1.7218)
	Cover studs	FT54V	Steel	25 CrMo 4 (1.7218)
	Cover nuts	FT54V	Steel	CK 35 (1.1181)
5	Valve seat	(DN15-25)	Stainless steel	X 22 CrNi 17 2 (1.4057)
6	Valve	(DN15-25)	Stainless steel	X 105 CrMo 17 (1.4125)
7	Valve seat	(DN40-50)	Stainless steel	X 22 CrNi 17 2 (1.4057)
8	Valve	(DN40-50)	Stainless steel	X 22 CrNi 17 2 (1.4057)
9	Main valve gasket	Exfoliated graphite		
10	Ball float		Stainless steel	X 5 CrNi 18 10 (1.4301)
11	Ball float		Stainless steel	X 5 CrNi 18 10 (1.4301)
24	Sensor gasket	Stainless steel	BS 1449 304 S16	
25	Sensor		Stainless steel	BS 1449 304 S16

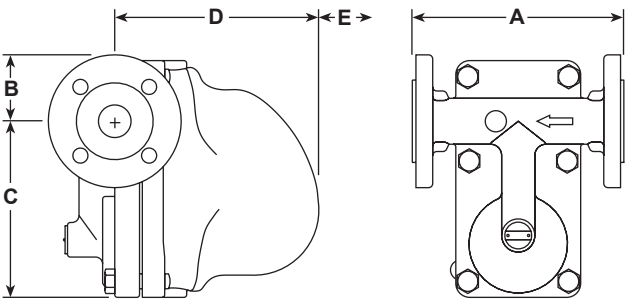
Note: All other internals are manufactured in stainless steel.

Steam traps
Ball float

Dimensions/weights (approximate) in mm and kg
IFT54H

Size	A	B	C	D	E	Weight
DN15	150	48	126	151	119	7.5
DN20	150	53	126	151	119	8.0
DN25	160	58	126	151	119	8.5
DN40	230	75.5	192	208	168	27.0
DN50	230	83	192	208	168	28.0

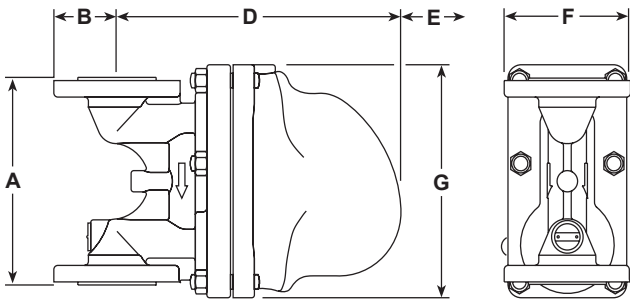
DN15 - DN50



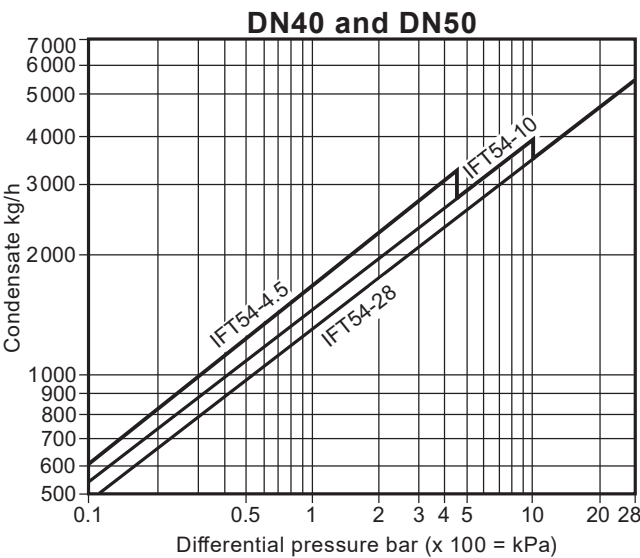
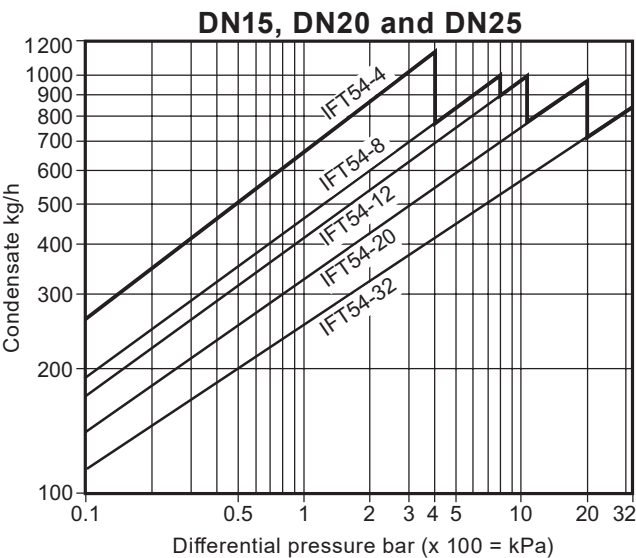
IFT54V

Size	A	B	D	E	F	G	Weight
DN15	150	48	214	119	96	175	7.5
DN20	150	53	214	119	106	175	8.0
DN25	160	58	221	119	116	175	8.5
DN40	230	75.5	312	168	151	255	29.0
DN50	230	83	312	168	166	255	30.0

DN15 - DN50



Capacities (in accordance with ISO 7842) Capacities shown are based on boiling hot condensate.



Additional cold water capacities from 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	4.5	8	10	12	16	20	28	32
DN15, DN20 and DN25	460	680	900	1080	1250	-	1700	-	2000	2250	2550	-	3000
DN40 and DN50	460	680	900	1080	-	1300	1700	1900	-	2250	2550	2900	-

How to order

Example: 1 off Spirax Sarco DN40 IFT54H-4.5 ball float steam trap with a carbon steel body and cover having an integral sensor (SS1) to identify steam leakage. Flanged connections to EN 1092 PN40. Trap to be fitted with the optional balance and drain connections.

Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P603-03) supplied with the product.

Installation note:

The trap is designed for installation with the float arm in a horizontal plane so that it rises and falls vertically, ideally with a drop leg immediately preceding the trap. Suitable isolation valves must be installed to allow for safe maintenance/replacement. Where steam traps are fitted in exposed conditions, the possibility of freezing damage may be reduced by thermal insulation/draining/isolation.

Caution:

The cover gasket and main valve assembly gasket may contain a thin stainless steel support ring which may cause physical injury if it is not handled and disposed of carefully.

Maintenance note:

Maintenance can be completed with the trap in the pipeline, once the safety procedures have been observed. It is recommended that new gaskets and spares are used whenever maintenance is undertaken.

Disposal

No ecological hazard is anticipated with the disposal of these products provided due care is taken.

Steam traps
Ball float

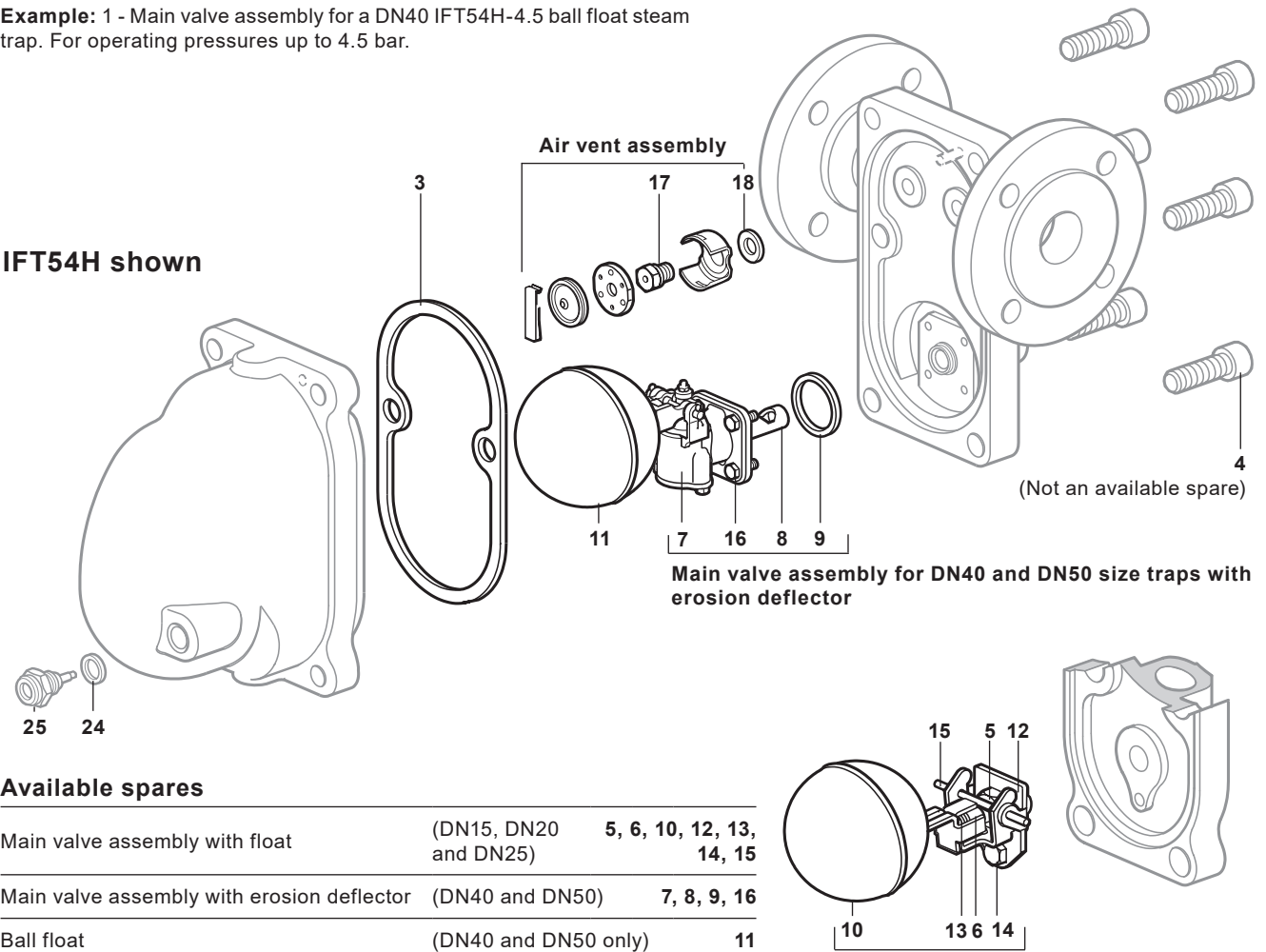
Spare parts

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

How to order spares

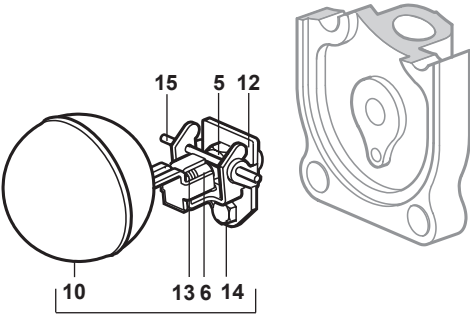
Always order spare parts by using the description given in the column headed 'Available spares' and state the size, Model No., orientation i.e. horizontal (H) or vertical (V) and pressure rating of the trap.

Example: 1 - Main valve assembly for a DN40 IFT54H-4.5 ball float steam trap. For operating pressures up to 4.5 bar.







Available spares

Main valve assembly with float	(DN15, DN20 and DN25)	5, 6, 10, 12, 13, 14, 15
Main valve assembly with erosion deflector	(DN40 and DN50)	7, 8, 9, 16
Ball float	(DN40 and DN50 only)	11
Air vent assembly		17, 18
Complete set of gaskets (packet of 3)		3, 9, 18, 20
Sensor and gasket		24, 25



Recommended tightening torques

Item			 or 	N m	
4	DN15, DN20 and DN25	IFT54H Bolt	10 (socket)	M12 x 35	70 - 75
		IFT54V Stud		M12	35 - 40
		IFT54V Nut	19 A/F	M12	70 - 75
	DN40 and DN50	IFT54H Bolt	24 A/F	M16 x 55	150 - 165
		IFT54V Stud		M16	70 - 80
		IFT54V Nut	24 A/F	M16	150 - 165
5	Valve seat		17 A/F	M12	50 - 55

Item			 or 	N m	
14	Valve bolts		10 A/F	M6 x 10	10 - 12
16	Erosion deflector bolts		10 A/F	M6 x 10	10 - 12
17	Air vent seat		17 A/F		50 - 55
25	Sensor		24 A/F		50 - 55