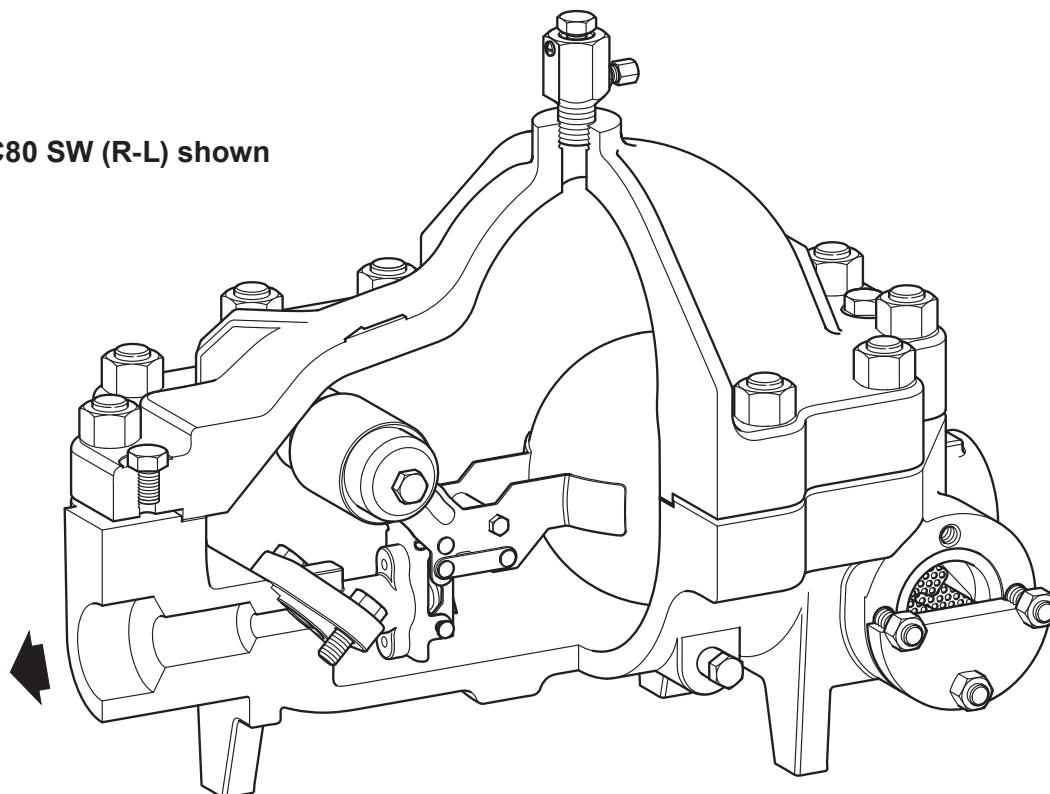


**spirax
sarco**

TI-P179-02

ST Issue 4

FTC80**Cast Steel****1½" and 2" Ball Float Steam Trap with ASTM Body****2" FTC80 SW (R-L) shown**

8.5

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Description

As standard, the FTC80 ball float steam trap is supplied with a right to left (R-L) flow configuration having horizontal connections and has provision for adding an air venting option; Please note that the unit is supplied with a ¾" socket weld connection in the cover with a plug screwed into the fitting. It has been designed for floor mounting and is suitable for most high-pressure process and drainage applications. Its simple robust ball float mechanism ensures excellent resistance to waterhammer. All internals are easily accessible for in-line maintenance and a drain port allows full body drainage. It has a large maintainable strainer screen that extends service intervals and is located in an accessible flanged chamber.

Available options

Factory fitted external BDV2 air vent having a ½" NPT screwed connection (a ½" BSP screwed connection is used on the PN100 version)

Factory fitted internal fixed bleed for continuous discharge of air and other incondensable gasses

Note: As standard the unit is supplied with a ¾" socket weld connection in the cover with a ¾" BSP screwed plug fitted.

Standard

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 for the body, cover, fasteners, screen flange and BDV2 air vent.

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

Sizes and pipe connections

1½" and 2" ASME B 16.11 Class 6000 socket weld.

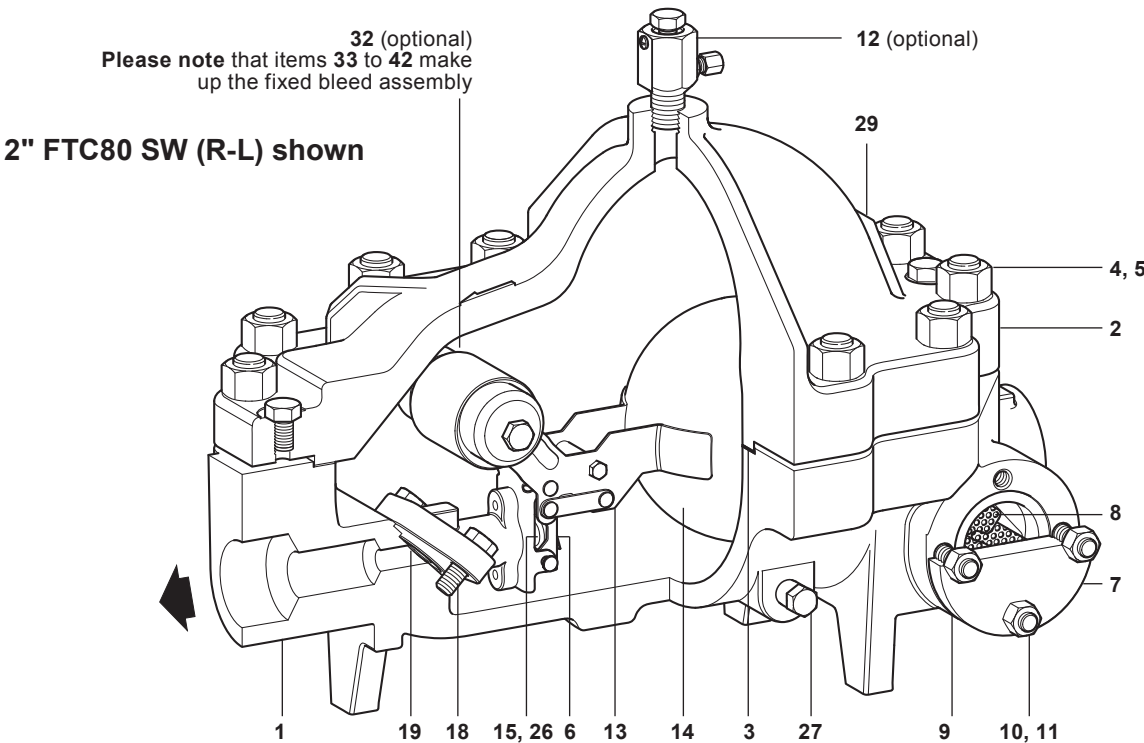
1½" and 2" ASME B 16.5 Class 600 flanges.

Note: Other connections are available upon request but may limit the operating range – Please consult Spirax Sarco for further information.

Drain plug connection is ¾" screwed NPT as standard (a ¾" screwed BSP connection is used on the PN100 version).

8

Steam traps
Ball float

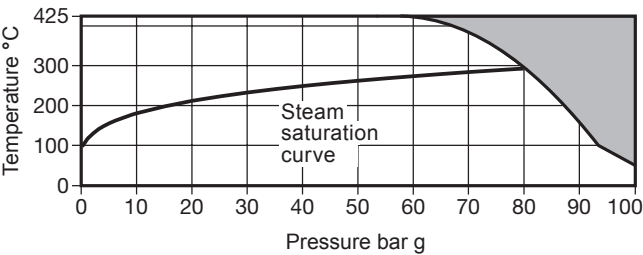


Materials

No.	Part	Material	
1	Body	Cast steel	ASTM A216 WCB
2	Cover	Cast steel	ASTM A216 WCB
3	Cover gasket	Tanged graphite	SST100
4	Cover stud	Steel	ASTM A193 B16
5	Cover nuts	Steel	ASTM A194 Gr. 4
6	Valve head and retainer	Stainless steel	
7	Strainer flange	Steel	ASTM A182 F11 CL2
8	Strainer screen	Stainless steel	
9	Strainer gasket	Tanged graphite	SST100
10	Strainer studs	Steel	ASTM A193 B16
11	Strainer nuts	Steel	ASTM A194 Gr. 4
12	Air vent (optional)	Stainless steel	(See BDV2 in TI-P600-01)
13	Mechanism assembly	Stainless steel	
14	Float	Stainless steel	
15	Valve seat	Titanium	
18a	Assembly bolts	Stainless steel	A4-80
18b			
19	Assembly gasket	Reinforced exfoliated graphite	
26	Gasket	Stainless steel	
27	Drain plug	Steel	ASTM A182 F11 CL2
28	Air vent plug (not shown)	Steel	ASTM A182 F11 CL2
29	Name-plate	Stainless steel	
* 30	Flange pipe	Steel	ASTM A335 P11
* 31	Flange	Steel	ASTM A182 F11 CL2
32	Fixed bleed assembly	33 Bleed orifice	Stainless steel ASTM A276 431
		34 Pipe support	Stainless steel 304 or 316
		35 Washer	Stainless steel
		36 Lock-nut	Stainless steel A2-70
		37 Nut	Stainless steel 316
		38 Ferrule	Stainless steel 316L
		39 Bleed pipe	Stainless steel ASTM A269 304
		40 Stud	Stainless steel 316 S11 or S13
		41 Twin ferrule	Stainless steel 316 S11 or S13
		42 Nut	Stainless steel 316 S11 or S13

* Note: Items 30 and 31 the flange and flange pipe are not shown.

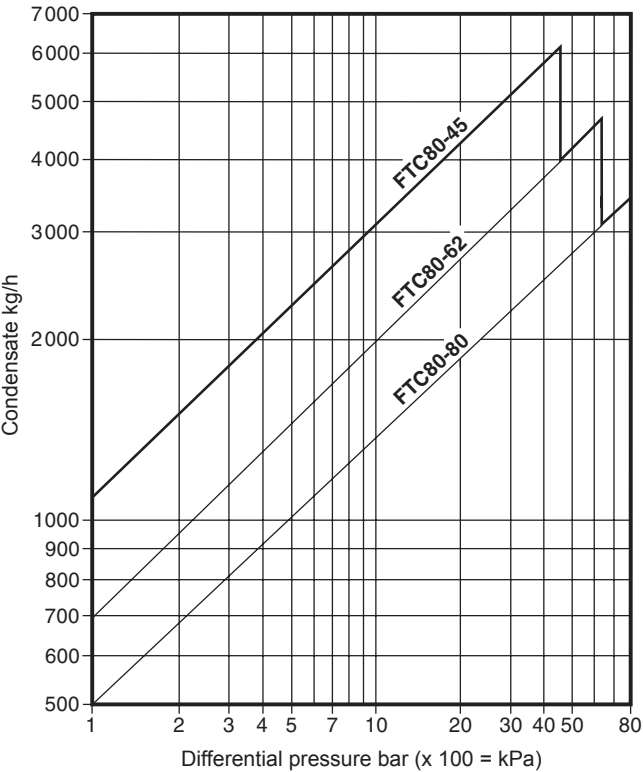
Pressure/temperature limits



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

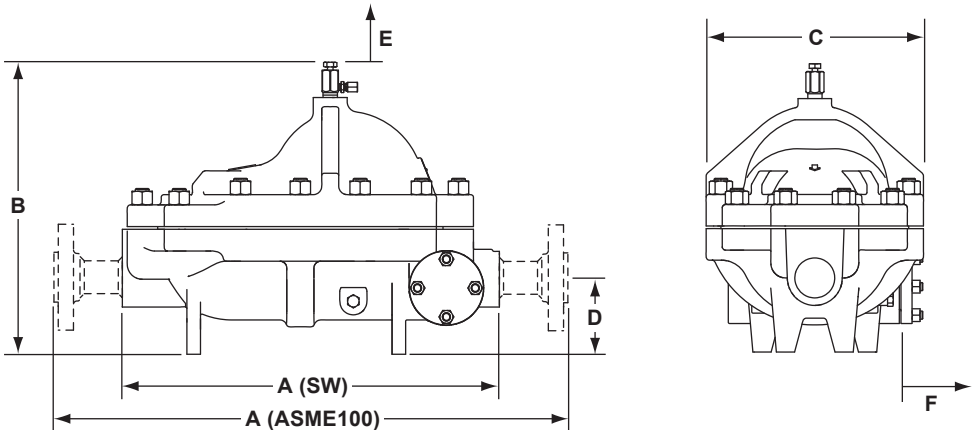
Body design conditions		ASME 600
PMA	Maximum allowable pressure	100 bar g @ 52°C
TMA	Maximum allowable temperature	425°C @ 57 bar g
Minimum allowable temperature		-29°C
PMO	Maximum operating pressure for saturated steam service	80 bar g
TMO	Maximum operating temperature	425°C @ 57 bar g
Minimum operating temperature		0°C
ΔPMX	Maximum differential pressure	FTC80-45 45 bar
		FTC80-62 62 bar
		FTC80-80 80 bar
Designed for a maximum cold hydraulic test pressure of 150 bar g		

Capacities (in accordance with ISO 7842)



Dimensions/weights (approximate) in mm and kg

Size	A		B		C	D	Withdrawal distance		Weight	
	Socket weld	Flanged ASME 600	BDV2	Plug			E Cover	F Screen	Socket weld	Flanged ASME 600
DN40 (1½")	555	755	430	390	324	110.5	55	260	112	118
DN50 (2")	555	785	430	390	324	110.5	55	260	112	118



Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P179-06) supplied with the product.

Installation note:

The FTC80 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. Integral legs assist stable floor mounting. Please note that appropriate high temperature jointing compound must be used on the drain plug and air vent plug threads.

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 1½" FTC80-45 (R-L) ball float steam trap with ASME Class 6000 weld connections and screwed BDV2 manual air vent complete with 3.1 certification for the FTC80 and BDV2.

Steam traps
Ball float

Spare parts

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

Available spares

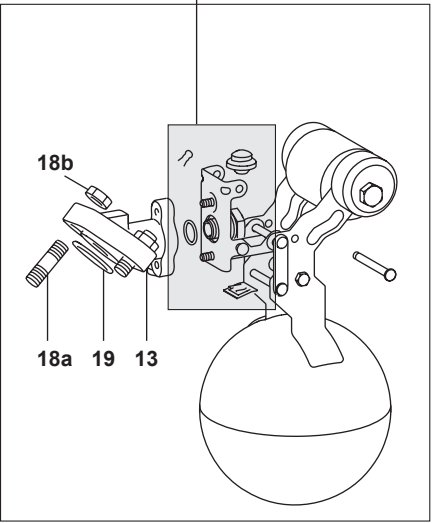
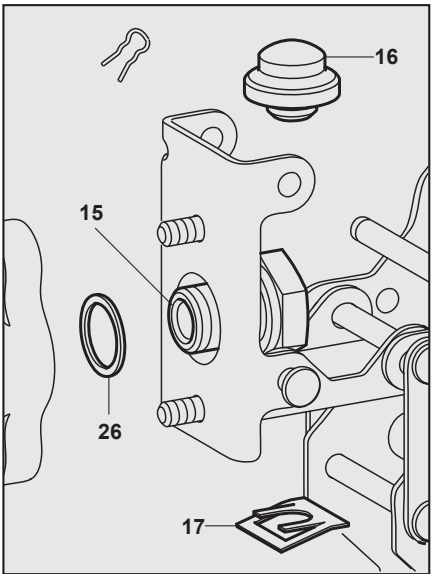
Mechanism maintenance kit, including float	3, 13, 18a, 18b, 19
Seat and ball head	3, 15, 16, 17, 19, 26
Cover gasket (3 off)	3
Strainer screen	8, 9
Strainer gasket (3 off)	9
Mechanism and fixed bleed maintenance kit including float	3, 13, 18a, 18b, 19, 32

How to order spares

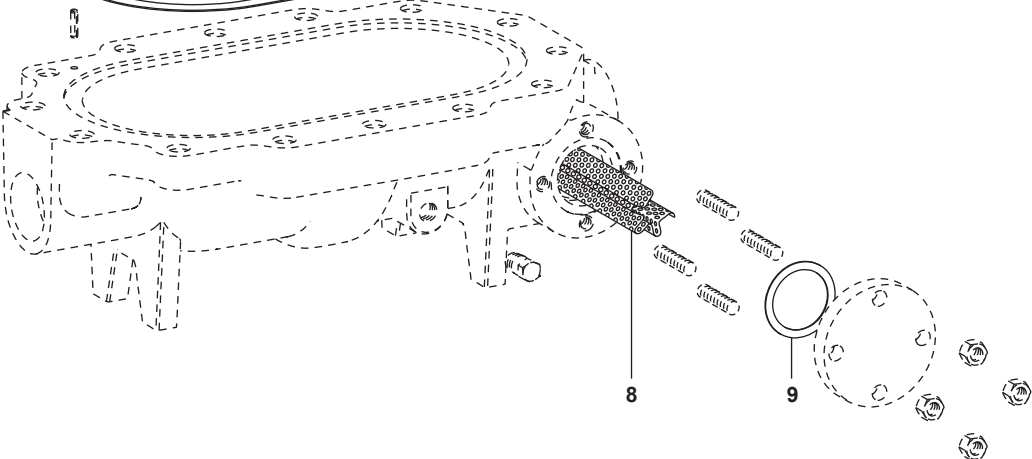
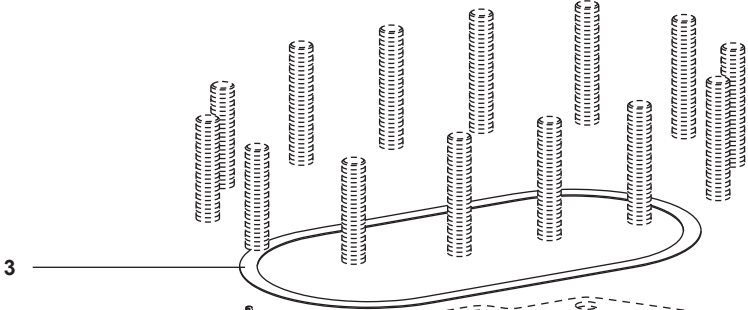
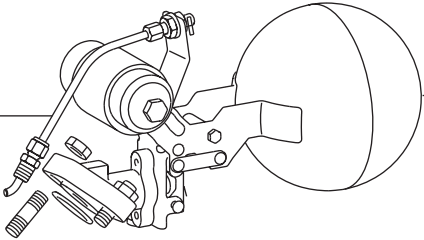
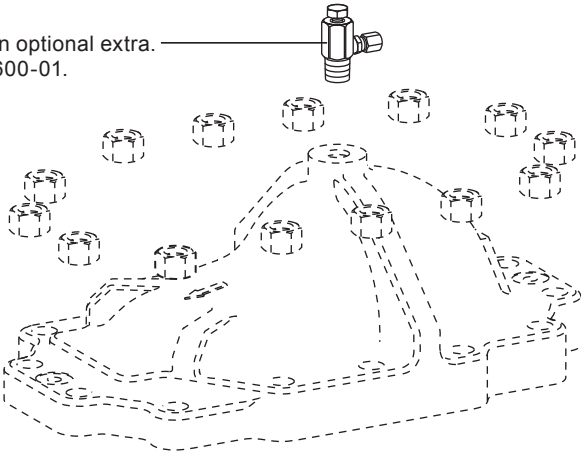
Always order spares by using the description given in the column headed 'Available spares' and state the size and type of trap, including pressure range.

Example: 1 off Seat and ball head set for a Spirax Sarco 1½" FTC80-45 ball float steam trap.

Item 12 The BDV2 air vent is an optional extra.
For ordering this unit see TI-P600-01.



32
(Optional - fixed
bleed assembly)



spirax sarco

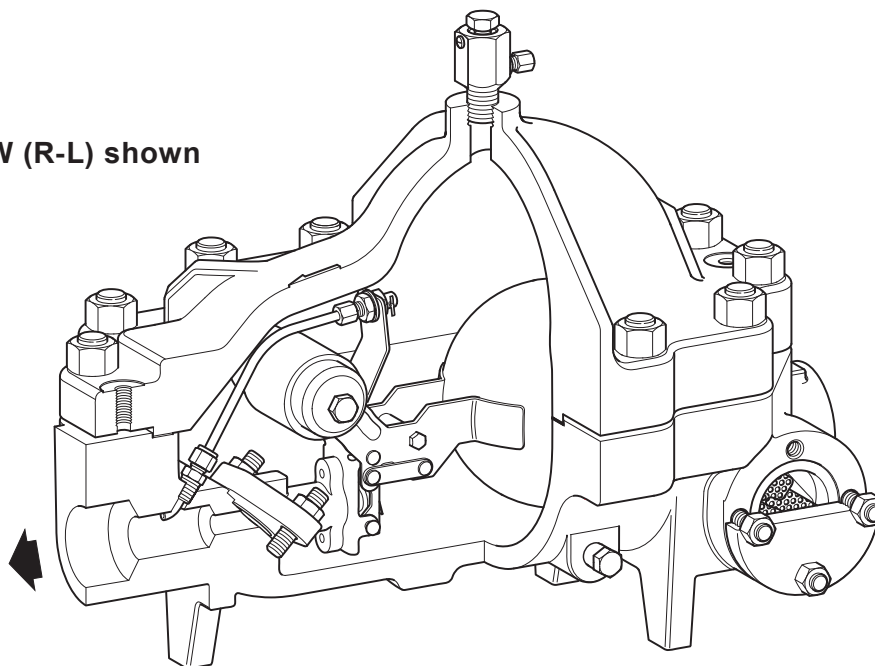
FTC80

TI-P179-03
CMGT Issue 4

Cast Steel

DN40 and DN50 Ball Float Steam Trap with EN Body

2" FTC80 SW (R-L) shown



Description

As standard, the FTC80 ball float steam trap is supplied with a right to left (R-L) flow configuration having horizontal connections and has provision for adding an air venting option; Please note that the unit is supplied with a 3/4" socket weld connection in the cover with a plug screwed into the fitting. It has been designed for floor mounting and is suitable for most high-pressure process and drainage applications. Its simple robust ball float mechanism ensures excellent resistance to waterhammer. All internals are easily accessible for in-line maintenance and a drain port allows full body drainage. It has a large maintainable strainer screen that extends service intervals and is located in an accessible flanged chamber.

8.5

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Available options

Factory fitted external BDV2 air vent having a 1/2" BSP screwed connection

Factory fitted internal fixed bleed for continuous discharge of air and other incondensable gasses

Note: As standard the unit is supplied with a 3/4" socket weld connection in the cover with a 3/8" BSP screwed plug fitted.

Standard

This product fully complies with the requirements of the Pressure Equipment Directive (PED).

Certification

This product is available with certification to EN 10204 3.1 for the body, cover, fasteners, screen flange and BDV2 air vent.

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

Sizes and pipe connections

DN40 and DN50 socket weld BS 3799.

DN40 and DN50 flanged EN 1092 PN100.

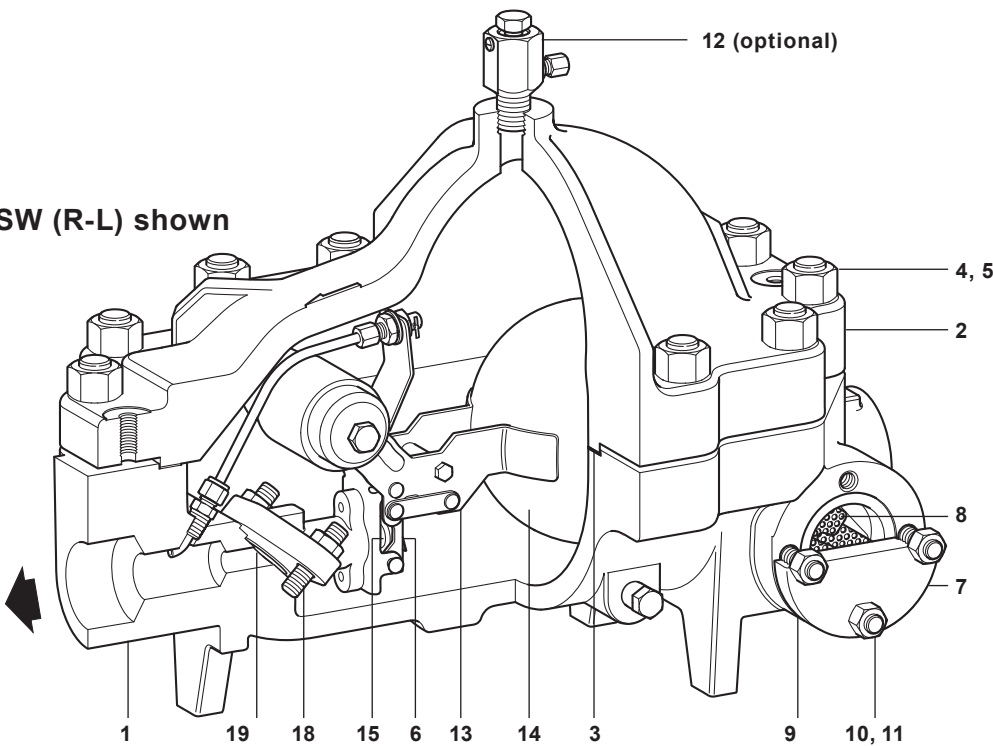
Note: Other connections are available upon request but may limit the operating range – Please consult Spirax Sarco for further information.

Drain plug connection is 3/8" screwed BSP as standard.

8

Steam traps
Ball float
Materials

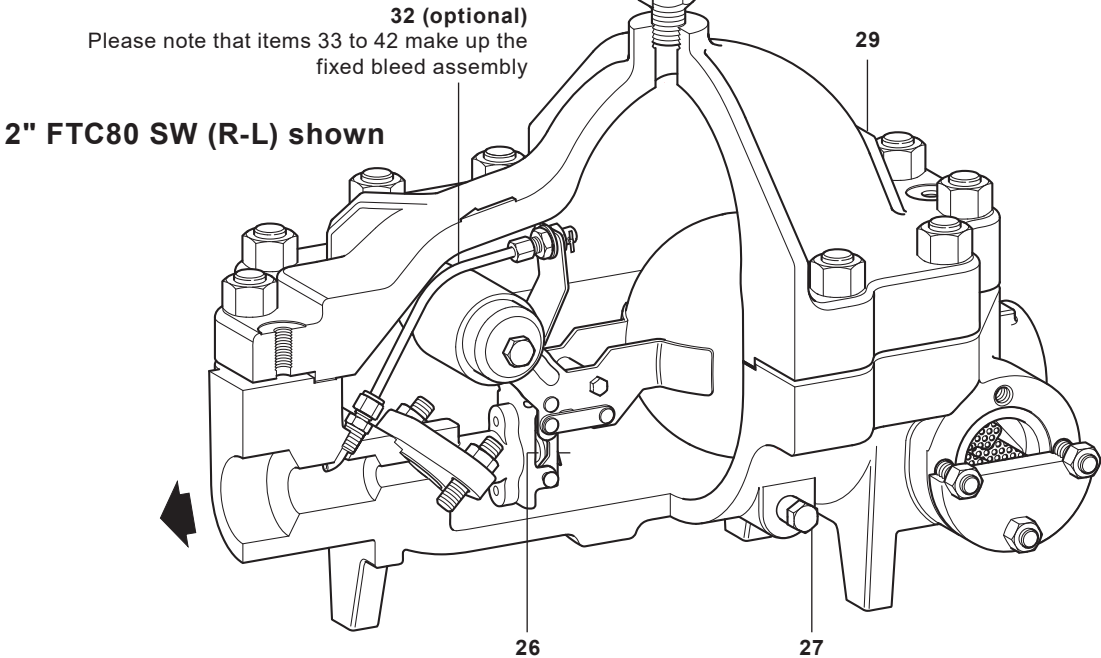
2" FTC80 SW (R-L) shown



No.	Part	Material	
1	Body	Cast steel	GP240GH 1.0619
2	Cover	Cast steel	GP240GH 1.0619
3	Cover gasket	Tanged graphite	SST100
4	Cover stud	Steel	ASTM A193 B16
5	Cover nuts	Steel	ASTM A194 Gr. 4
6	Valve head and retainer	Stainless steel	
7	Strainer flange	Steel	ASTM A182 F11 CL2
8	Strainer screen	Stainless steel	
9	Strainer gasket	Tanged graphite	SST100
10	Strainer studs	Steel	ASTM A193 B16
11	Strainer nuts	Steel	ASTM A194 Gr. 4
12	Air vent (optional)	Stainless steel	(See BDV2 in TI-P600-01)
13	Mechanism assembly	Stainless steel	
14	Float	Stainless steel	
15	Valve seat	Titanium	
18a 18b	Assembly bolts and nuts	Stainless steel	A4-80
19	Assembly gasket	Reinforced exfoliated graphite	

Materials continued on next page

Materials (continued)

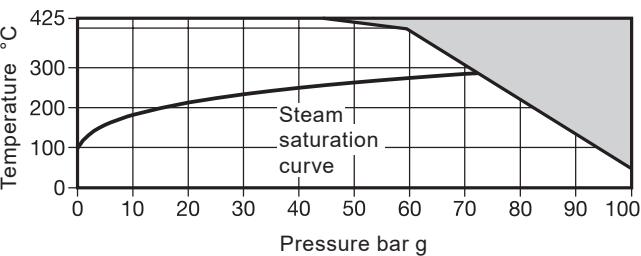


No.	Part	Material			
26	Gasket	Stainless steel			
27	Drain plug	Steel	ASTM A182 F11 CL2		
28	Air vent plug (not shown)	Steel	ASTM A182 F11 CL2		
29	Name-plate	Stainless steel			
30 *	Flange pipe	Steel	ASTM A335 P11		
31 *	Flange	Steel	ASTM A182 F11 CL2		
32	Fixed bleed assembly	33	Bleed orifice	Stainless steel	ASTM A276 431
		34	Pipe support	Stainless steel	304 or 316
		35	Washer	Stainless steel	
		36	Lock-nut	Stainless steel	A2-70
		37	Nut	Stainless steel	316
		38	Ferrule	Stainless steel	316L
		39	Bleed pipe	Stainless steel	ASTM A269 304
		40	Stud	Stainless steel	316 S11 or S13
		41	Twin ferrule	Stainless steel	316 S11 or S13
		42	Nut	Stainless steel	316 S11 or S13

* **Note:** Items 30 and 31 the flange and flange pipe are not shown.

Steam traps
Ball float

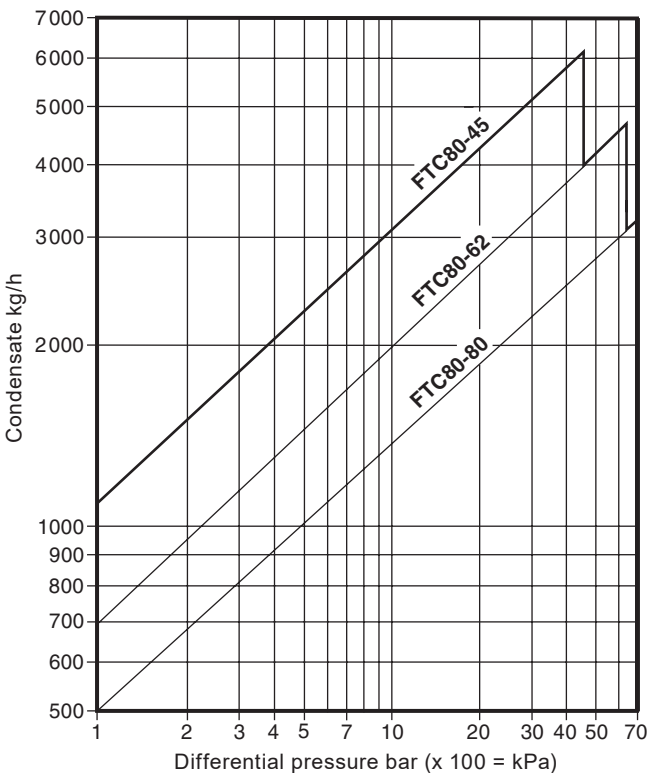
Pressure/temperature limits



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

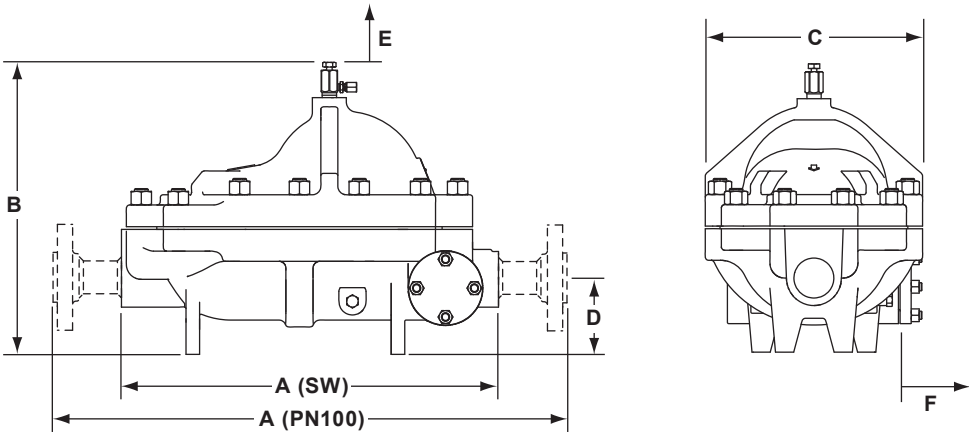
Body design conditions			PN100
PMA	Maximum allowable pressure		100 bar g @ 50 °C
TMA	Maximum allowable temperature		425 °C @ 46 bar g
Minimum allowable temperature			-29 °C
PMO	Maximum operating pressure for saturated steam service		70 bar g
TMO	Maximum operating temperature		425 °C @ 46 bar g
Minimum operating temperature			0 °C
ΔPMX	Maximum differential pressure	FTC80-45	45 bar g
		FTC80-62	62 bar g
		FTC80-80	70 bar g
Designed for a maximum cold hydraulic test pressure of			150 bar g

Capacities (in accordance with ISO 7842)



Dimensions/weights (approximate) in mm and kg

Size	A		B		C	D	Withdrawal distance		Weight	
	Socket weld	Flanged PN100	BDV2	Plug			E Cover	F Screen	Socket weld	Flanged PN100
DN40 (1½")	555	755	430	390	324	110.5	55	260	112	118
DN50 (2")	555	785	430	390	324	110.5	55	260	112	118



Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P179-06) supplied with the product.

Installation note

The FTC80 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. Integral legs assist stable floor mounting. Please note that appropriate high temperature jointing compound must be used on the drain plug and air vent plug threads.

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 DN40 FTC80-45 (R-L) ball float steam trap with flanged EN 1092 PN100 connections and screwed BDV2 manual air vent complete with 3.1 certification for the FTC80 and BDV2.

Steam traps
Ball float

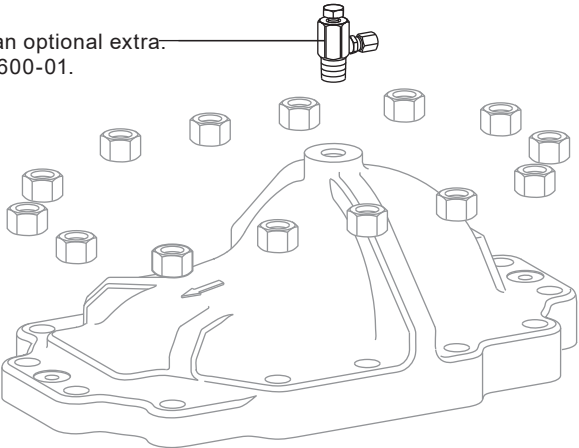
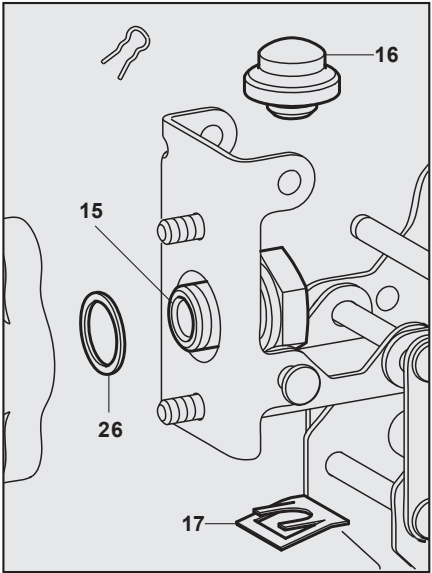
Spare parts

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

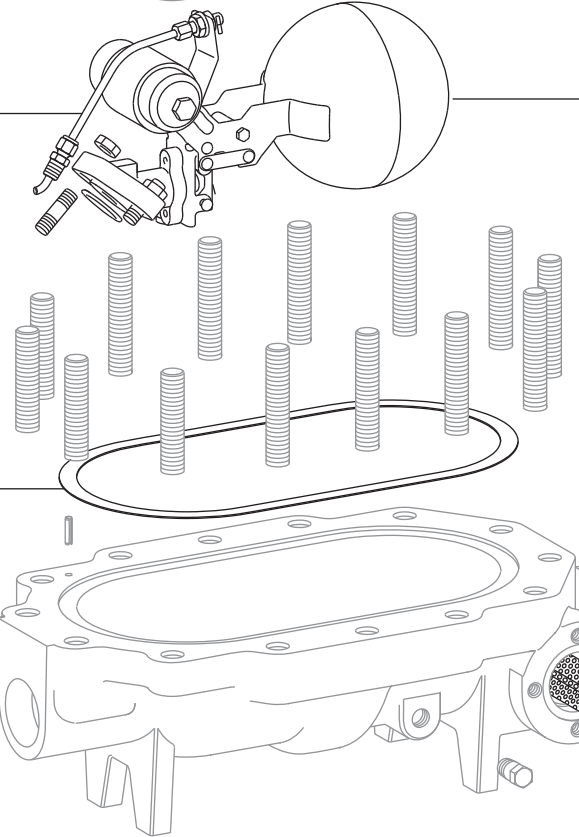
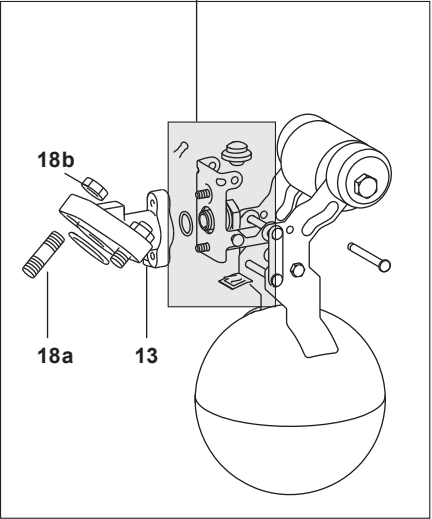
Available spares

Mechanism maintenance kit, including float	3, 13, 18a,18b, 19
Seat and ball head	3, 15, 16, 17, 19, 26
Cover gasket (3 off)	3
Strainer screen	8, 9
Strainer gasket (3 off)	9
Mechanism and fixed bleed maintenance kit including float	3, 13, 18a, 18b, 19, 32

Item 12 The BDV2 air vent is an optional extra.
For ordering this unit see TI-P600-01.



32
(Optional - fixed
bleed assembly)



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.

Example: 1 off Seat and ball head set for a Spirax Sarco DN40 FTC80-45 ball float steam trap.