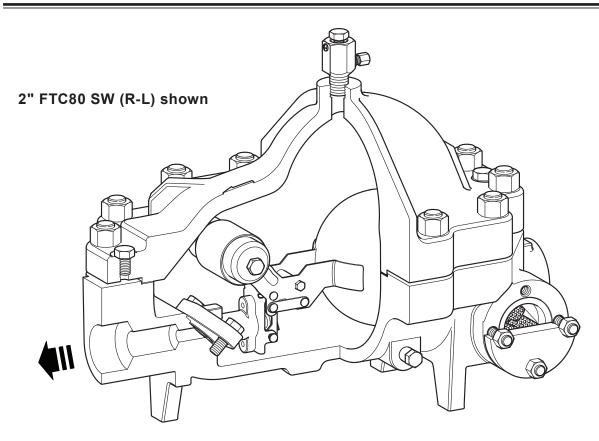


TI-P179-02 CMGT Issue 7

# **Cast Steel**

1<sup>1</sup>/<sub>2</sub>" and 2" Ball Float Steam Trap with ASTM Body



# 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 <sup>3</sup>/<sub>4</sub>" 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 T Rp (ISO 7-1) 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 <sup>3</sup>/<sub>4</sub>" socket weld connection in the cover with a <sup>3</sup>/<sub>4</sub>" BSP T Rp (ISO 7-1) screwed plug fitted.

#### Standard

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

#### Certification

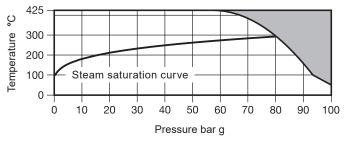
This product is available with certification to EN 10204 3.1 for the body, cover, fasteners, screen flange and BDV2 air vent. **Note:** All certification / inspection requirements must be stated at the time of order placement.

# 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 3<sup>e</sup> screwed NPT as standard (a 3<sup>e</sup> screwed BSP T Rp (ISO 7-1) connection is used on the PN100 version).

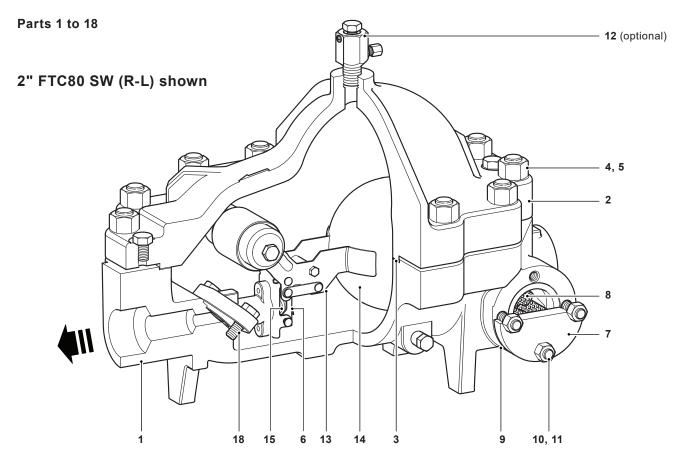
# **Pressure/temperature limits**



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 se	ervice	80 bar g		
TMO Maximum operating temperature	425 °C @ 57 bar g			
Minimum operating temperature		0 °C		
	FTC80-45	45 bar		
△PMX Maximum differential pressure	FTC80-62	62 bar		
	FTC80-80	80 bar		
Product is safe for use under full vacuum conditions				
Designed for a maximum cold hydraulic test pressure of:	150 bar g			

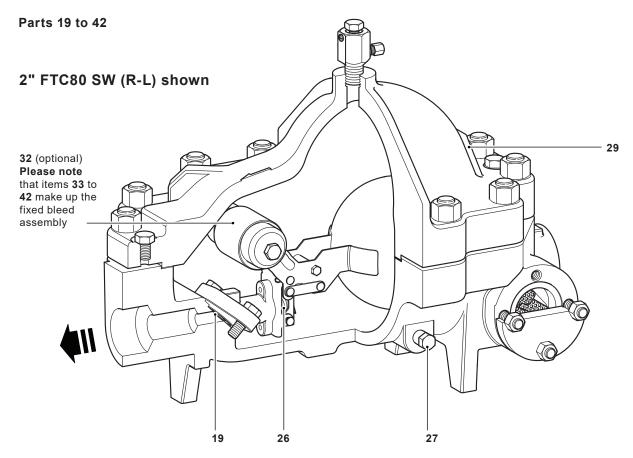
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No.	Part	Material		
1	Body	Cast steel	ASTM A216 WCB	
2	Cover	Cast steel	ASTM A216 WCB	
3	Cover gasket	Tanged graphite	SST100	
4	Cover stud	Steel	ASTM A193 B16	
5	Cover nuts	Steel	ASTM A194 Gr. 4	
6	Valve head and retainer	Stainless steel		
7	Strainer flange	Steel	ASTM A105N	
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	Stainless steel	A4-80	

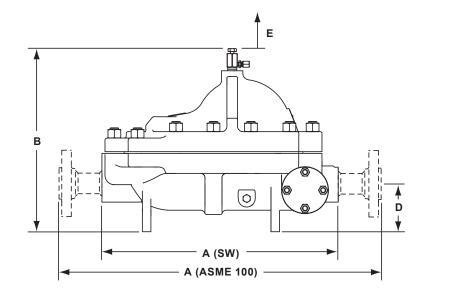
## Materials continued on next page

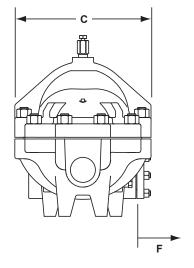




No.	Part			Material	
19	Assembly gasket			Reinforced exfoliated graphite	
26	Gasket			Stainless steel	
27	Drain plug			Steel	ASTM A105N
28	Air vent plug (not shown)			Steel	ASTM A105N
29	Name-plate			Stainless steel	ASTM A105N
30 *	Flange pipe			Steel	ASTM A106B
31 *	Flange			Steel	ASTM A105N
		33	Bleed orifice	Stainless steel	ASTM A276 431
	Fixed bleed assembly	34	Pipe support	Stainless steel	304 or 316
		35	Washer	Stainless steel	
		36	Lock-nut	Stainless steel	A2-70
		37 Nut		Stainless steel	316
32		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

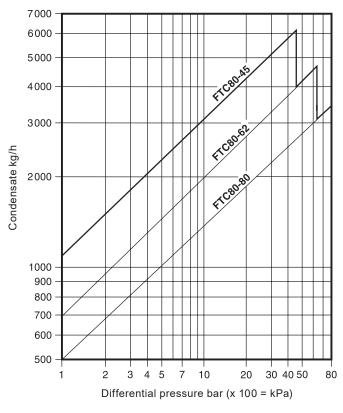
\* Note: Items 30 and 31 the flange and flange pipe are not shown.





		4	E	3			Withdraw	al distance	We	ight
Size	Socket weld	Flanged ASME 600	BDV2	Plug	С	D	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

## Capacities (in accordance with ISO 7842)



## 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.

Please visit the Spirax Sarco product compliance web pages

https://www.spiraxsarco.com/product-compliance

for up to date information on any substances of concern that may be contained within this product. Where no additional information is provided on the Spirax Sarco product compliance web page, this product may be safely recycled and/or disposed providing due care is taken.

Always check your local recycling and disposal regulations.

#### 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.

# 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	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.

