

SOFT53-X

Single Orifice Float Trap with TV

Description

The Forbes Marshall Single Orifice Float Trap, SOFT53-X, is a carbon steel single orifice float trap with an integral automatic air venting facility. It is available with horizontal flanged connections only.

Sizes and Pipe Connections

DN100

Flanged : ANSI B 16.5 CLASS 150, CLASS 300

Note : Available with IBR certificate

Available Types

SOFT53-X with built-in thermostatic air vent

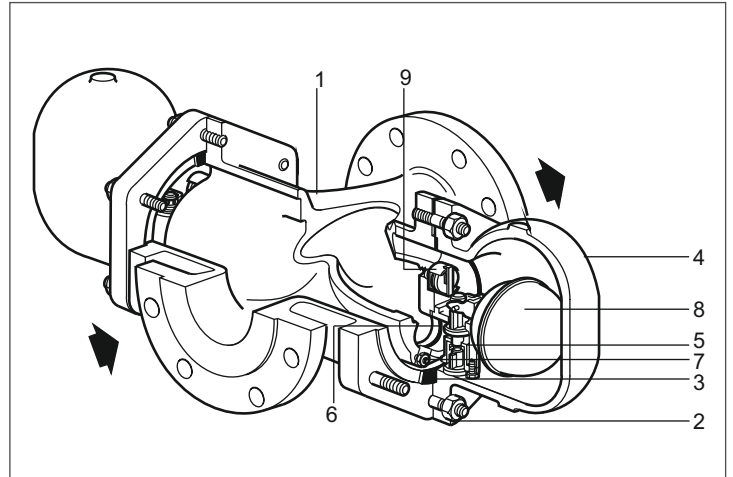
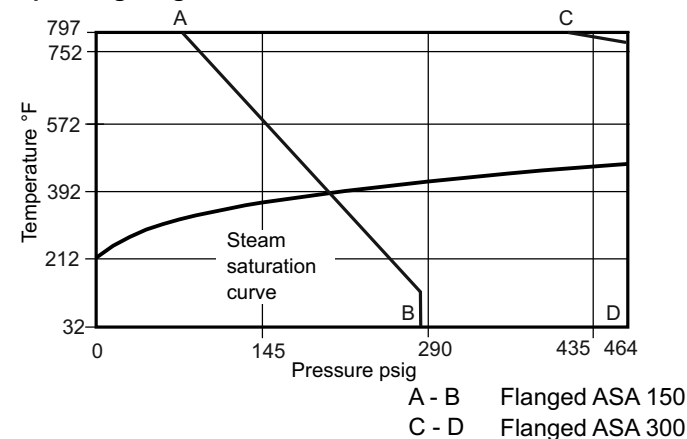
Limiting Conditions

PMA Maximum allowable pressure	32 bar g @ 425°C	
TMA Maximum allowable temperature	425°C	
Minimum operating temperature	0°C	
END CONNECTION	MAX OPERATING PRESSURE (PMO)	MAX OPERATING TEMPERATURE(TMO)
CLASS 150	13 bar g @ 220 deg C	220 deg C @ 13 bar g
CLASS 300	32 bar g @ 410deg C	425 deg C @ 28.8 bar g
ΔPMX Maximum Differential pressure		
	SOFT53-X-4.5	4.5 bar g
	SOFT53-X-10	10 bar g
	SOFT53-X-14	14 bar g
	SOFT53-X-21	21 bar g
	SOFT53-X-32	32 bar g
Cold hydraulic test pressure (Without internals)	1.5 times Max operating Pressure	

Dimensions (approx.) in mm

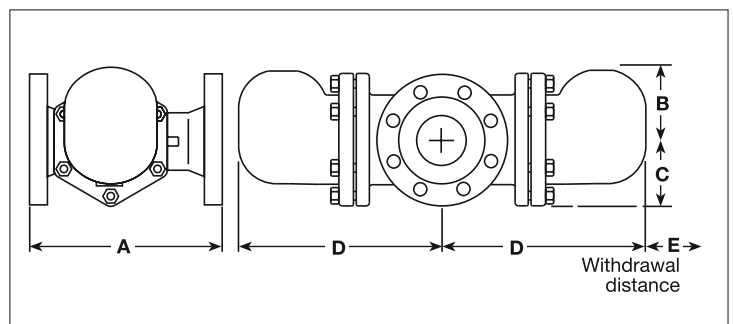
Size	A	B	C	D	E	Weight
DN 100	365	140	123	390	250	110kg

Operating range

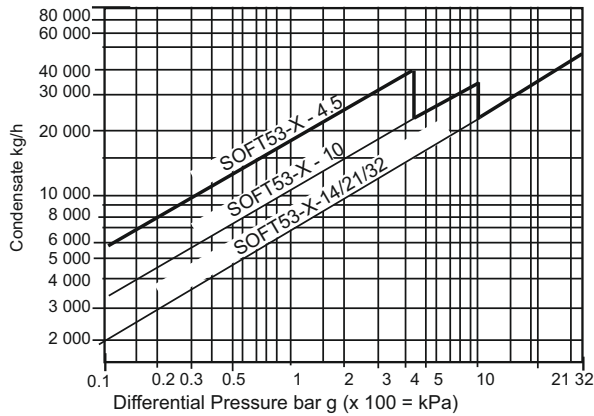


Materials

No.	Part	Material	Standard
1.	Base	Cast Steel	ASTM A216 Gr. WCB
2.	Cover studs and nuts	Carbon Steel	B7 and 2H
3.	Cover gasket	Reinforced exfoliated graphite	
4.	Cover	Cast Steel	ASTM A216 Gr. WCB
5.	Main valve assembly	Stainless Steel	BS 3146 Pt. 2 ANC 2
6.	Main valve assembly gasket	Reinforced exfoliated graphite	
7.	Main valve assembly studs	Stainless steel Type 431	ASTM A276
8.	Ball float	Stainless Steel Type 304	ASTM A240
9.	Air vent Assly.	Stainless Steel Type 304	—



Capacity Chart



Installation

The trap must be fitted with the float arm in a horizontal plane so that it rises and falls vertically with the direction of flow indicated on the base.

How to Specify

DN 100 SOFT53-X-4.5 steam trap flanged ASA 300

Maintenance: Before undertaking any maintenance on the trap, it must be isolated from both supply and return line and any pressure allowed to safely normalise to atmosphere. The trap should then be allowed to cool. Maintenance can then ensure that all joint faces are clean and that the dowels locate fully in the covers. Once completed, open isolation valves slowly and check for leaks.

How to fit Main Valve Assembly

Remove cover nuts and cover. Undo nuts and remove complete main valve assembly and replace with new assembly and tighten nuts. Reuse or replace ball float as required. Replace cover ensuring the dowels are located correctly. Retighten cover nuts evenly to the specified torque. Always use new gaskets.

How to Fit Air Vent Assembly

Remove spring clip, capsule, spacer plate and unscrew seat. Fit new seat and frame, assemble spacer plate, fit new capsule and clip.

Spare Parts

The spare parts available are shown in heavy outline in the figure below. Parts drawn in broken lines are not supplied as spares.

Available Spares

*Main Valve Assembly	5,6,7
*Ball Float	8
Air Vent Assembly	9
*Set of all Gaskets	3,6

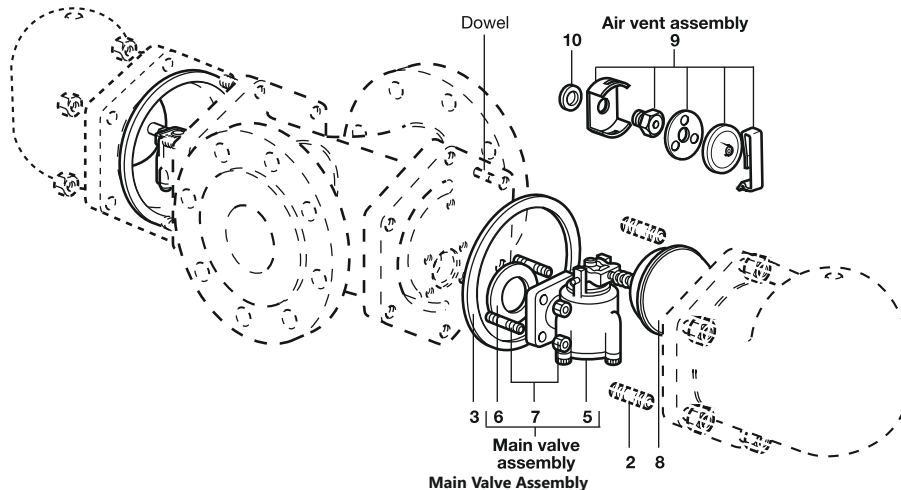
*The spares thus marked are interchangeable with those used in the DN50 SOFT53 trap but 2 sets will be required for completely refurbishing the DN100 SOFT53-X trap.

How to Order Spares

Always order spares by using the description given in the column headed 'Available Spares' in the table above and stating the size and type of trap. Example:- Air Vent Assembly for DN100 SOFT53-X 4.5 bar steam trap flanged to ASA 300.

Recommended Tightening Torques

Part description	Torque (Nm)
1. TV Seat	5 - 55
2. Valve Housing (Studs)	15 - 20
3. Cover Bolts	70 - 80



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