

Single Orifice Float Trap (with SLR / TV)

Description

The Forbes Marshall Single Orifice Float Trap SOFT53 is a condensate drain trap of cast steel body, cover and stainless steel internals.

Sizes and Pipe Connections

DN 15, 20, 25, 40 and 50

Screwed BSPT / NPT / Socket weldable to ANSI B 16.11

Flanged ANSI B 16.5 class 150, 300, 600

BS Table H, J, K, R; DIN ND 10, 16, 25 and 40

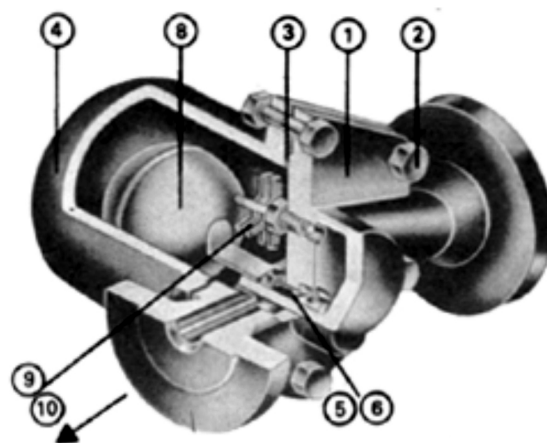
Note

- 1) Available with IBR certificate
- 2) DN 15 ASA 150 is available only with weld on flanges.
- 3) Flange thickness is common for each size as shown in dimensional details.

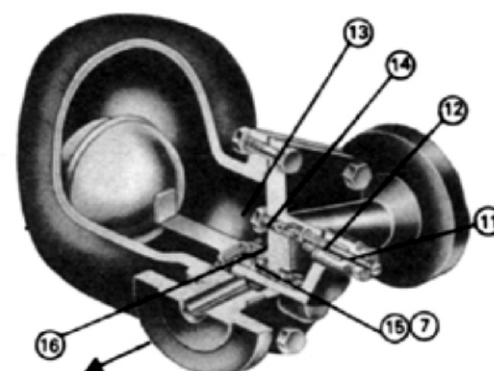
Available Types

SOFT53 with built in Thermostatic Air Vent (TV)

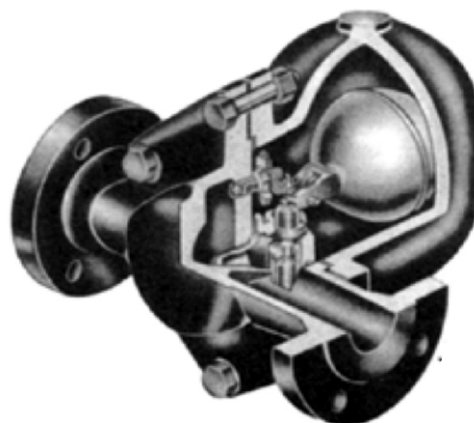
SOFT53 with built in Steam Lock Release (SLR)



DN15/20



DN 25

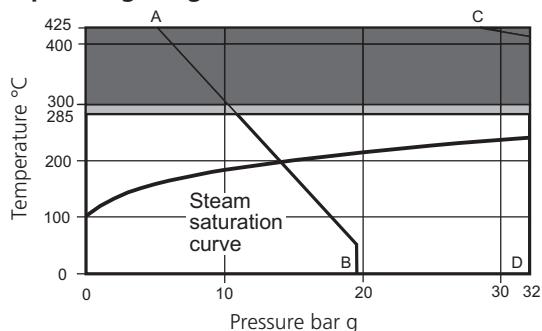


DN 40 / 50

Limiting Conditions

PMA Maximum allowable pressure	32 bar g @ 425°C
TMA Maximum allowable temperature	425°C
PMO Maximum operating pressure	32 bar g
TMO Maximum operating temperature	300°C @ 32 bar g
Minimum operating temperature	0°C
ΔPMX Maximum Differential pressure	
SOFT53-4.5	4.5 bar g
SOFT53-10	10 bar g
SOFT53-14	14 bar g
SOFT53-21	21 bar g
SOFT53-32	32 bar g
Cold hydraulic test pressure	64 bar g

Operating range

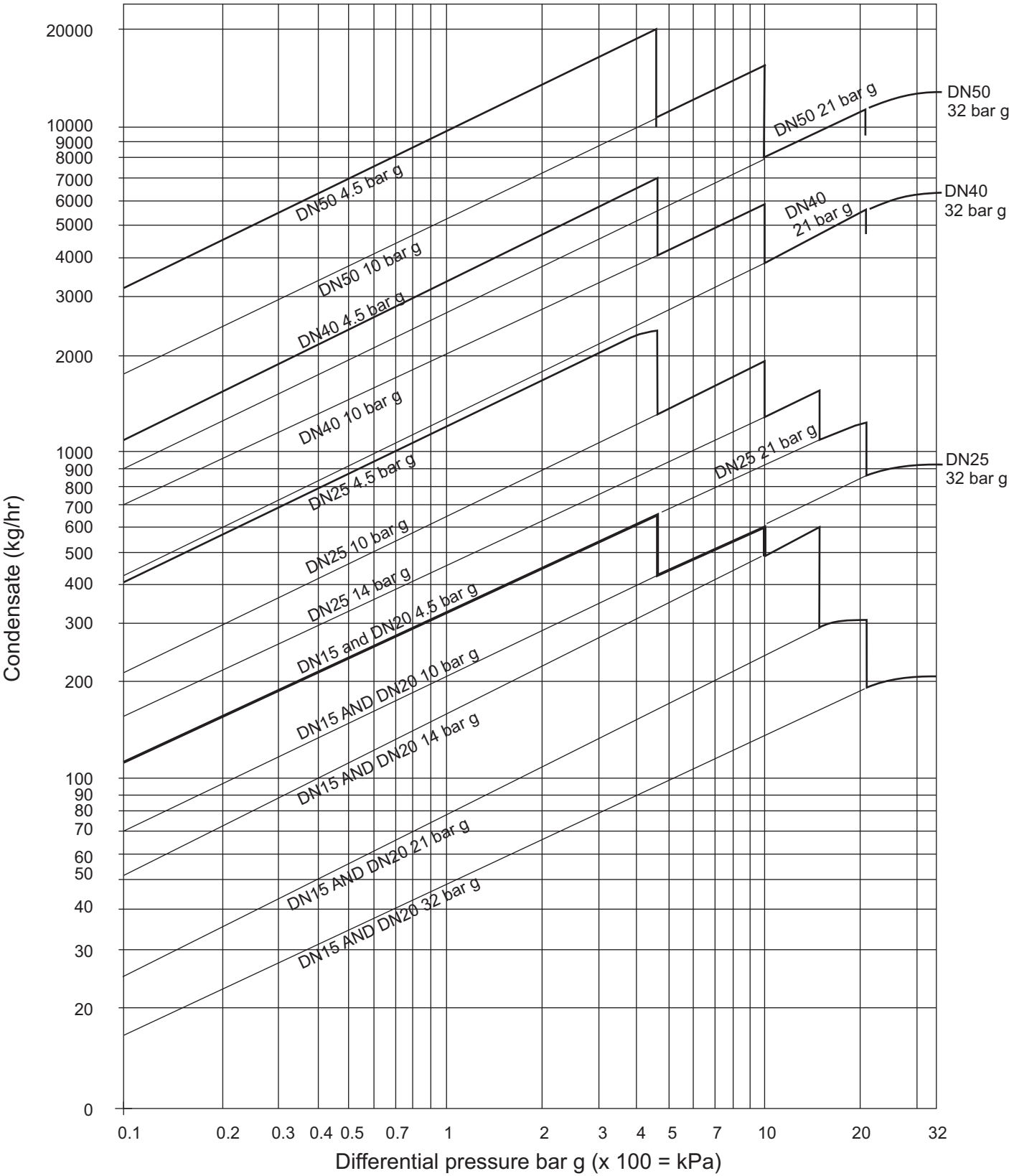


- This product **must not** be used in this region.
- This product should not be used in this region as damage to the internals may occur.

How to Order

Example DN 25 Single Orifice Float Trap, SOFT53 - 4.5 bar g, TV, screwed BSPT

Capacity Chart



Material

No. Part	Material	Standard
1. Base	Cast Steel	ASTM A216 Gr.WCB
2a) Cover Bolts	Carbon Steel	H.T. IS 1367 Gr. 8.8
2b) Cover Nuts	Carbon Steel	H.T. IS 1367 Gr.8
3. Cover Gasket	Reinforced exfoliated graphite	
4. Cover	Cast Steel	ASTM A216 Gr. WCB
5. Valve Seat	Stainless Steel Type ANC - 2	BS 3148 Part 2
6. Valve Seat Gasket	Reinforced exfoliated graphite	
7. Pivot Frame Assly. Set Screws	Stainless Steel Type 304	IS-1364
8. Ball Float & Lever	Stainless Steel Type 304	ASTM A240
9. Air Vent Assly.	Stainless Steel Type 316	ASTM A240
10. Air Vent Seat Gasket	Stainless Steel Type 410	ASTM A240
11. SLR Unit	Stainless Steel Type 410	ASTM A276
12. SLR Unit Gasket	Graphite	
13. SLR Seat	Stainless Steel Type CA 40	ASTM A743
14. SLR Seat Gasket	Stainless Steel Type 410	ASTM A240
15. Support Frame	Stainless Steel Type 304	ASTM A240
16. Pivot Frame	Stainless Steel Type 304	ASTM A240

Installation

The arrow on the nameplate must point downwards. The arrow on casting indicates the flow direction.

Servicing

- For DN 15, 20 and 25 main valve assembly : Unscrew cover bolts and lift off the cover. Remove complete float assembly by undoing the two screws on the pivot frame, main valve seat and gasket and if damaged replace with a new one. Fit support frame and pivot frame by using two set screws but do not fully tighten. Place the float arm and complete the assembly by placing the pin. Now tighten the set screws. Refit the cover.
- For DN 40 and 50 main valve assembly : Unscrew cover bolts and lift off the cover. Unscrew the assembly set screws. Remove the main assembly, if damaged replace with a new one. Refit the cover by using the cover bolts and nuts.

Dimensions (approx) in mm.

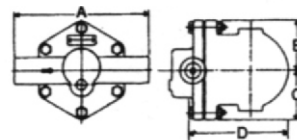
* For screwed/socket weldable ends: T = 0

For ASA 600

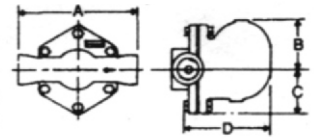
Size (DN)	A	B	C	D	E	T*
15/20	230	84	84	172	120	23
25	240	119	88	225	160	24
40	350	131	124	265	200	29
50	335	143	130	265	200	32

Gen Tol. ± 3

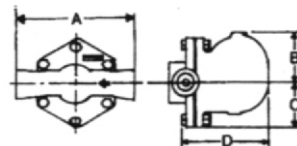
(SOFT53 DN15/20)



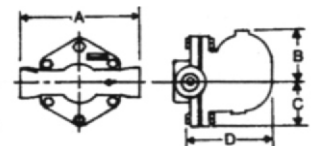
(SOFT53 DN25)



(SOFT53 DN40)



(SOFT53 DN50)



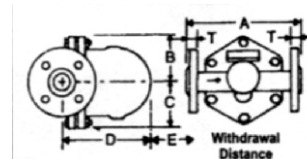
Dimensions - (approx) in mm.

Flanged – (Except ASA 600)

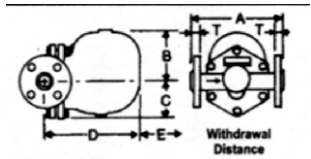
Size (DN)	A	B	C	D	E	T*
15/20	230	80	84	172	120	23
25	240	119	88	225	160	24
40	350	131	124	265	200	26
50	335	143	130	265	200	26

Gen.Tol. ± 3

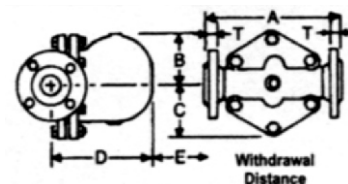
(SOFT53 DN 15/20)



(SOFT53 DN 25)



(SOFT53 DN 25)



Recommended Tightening Torques

Sr.No.	Part	Torque (Nm)
1.	TV seat	45 - 55
2.	SLR seat	45 - 55
3.	SLR body	60 - 70
4.	Valve housing (studs)	15 - 20
5.	Cover bolts	70-80

Spare Parts

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

Available Spares

Main Valve Assembly with Float (DN15, 20 & 25)	A
Main Valve Assembly (DN 40, 50)	A+D
Air Vent Assembly	B
Steam Lock Release Unit	C
Sets of Gaskets (Pkt of 3)	E
Float	D

How to Order Spares

Always order spares using the description given in the column above, headed "Available Spares", and stating the size and type and differential pressure of the trap. For codes refer the user manual.

