

FMAE53

Forbes Marshall Air Eliminator

Description

The Forbes Marshall Air Eliminators, FMAE53, are ball float type air or gas eliminators used for liquid systems, with cast steel Body, cover and stainless steel internals.

Size and Pipe Connections

DN 15, 20, 25

Screwed BSPT / NPT / BSP socket weldable to ANSI B 16.11 / Flanged ANSI B 16.5 class 150,300,600, BS Table H, J, K, R, DIN PN 10,16,25 and 40

Note:

- 1.DN 15 ASA 150 is available only with weld on flanges.
- 2.Flanges thickness as shown in dimensional details.

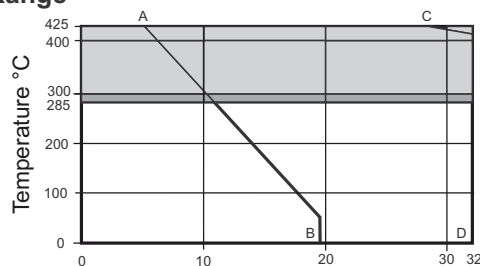
Limiting Conditions

Body design condition : 32 bar g at 425 deg C
 PMX bar g (Max Differential Pressures) : 4.5 , 10, 14 ,21 ,32
 Cold Hydraulic Test Pressure : 1.5 times operating Temperature

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	32bar g @ 410deg C	425 deg C @ 28.8 bar g
CLASS 600	32bar g @ 425 deg C	425 deg C @ 32 barg
PN10	10 bar g @ 175 deg C	425deg C @ 5.6 bar g
PN16	16bar g @ 200deg C	425deg C @ 9 bar g
PN25	25bar g @ 200deg C	425 deg C @14barg
PN40	32bar g @ 350deg C	425 deg C @23barg
BSPT/NPT	32bar g @ 425deg C	425 deg C @32barg
SOCKET WELD	32bar g @ 425deg C	425deg C @ 32 bar g
BS10 TAB H	32bar g @ 260deg C	425deg C @ 17 bar g
BS10 TAB J	32bar g @ 260deg C	425deg C @ 17 bar g
BS10 TAB K	32bar g @ 425deg C	425 deg C @ 32barg
BS10 TAB R	32bar g @ 425deg C	425 deg C @ 32barg

Min. Operating Temperature : 0 deg C

Operating Range




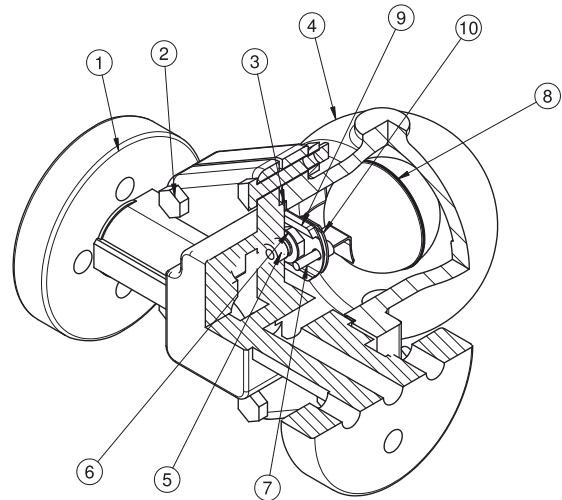
A - B Flanged #150.

Pressure bar g

C - D Flanged #300.

 This product **must not** used in this region.

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



Materials

No	Part	Material	Standard
1	Base flanged Base screwed	Cast steel Forged carbon steel	ASTM A 216 Gr.WCB ASTM A 105
2	a)Cover bolts b)Cover nuts	Carbon steel	ASTM A 193 B7 ASTM A 194 2H
3	Cover Gasket	Reinforced exfoliated graphite	
4	Cover	Cast steel	ASTM A 216 Gr.WCB
5	Valve seat	Stainless steel	ASTM A 743 Gr. CA 40
6	Valve seat gasket	Stainless steel	ASTM A 240 TYPE 410
7	Pivot frame assly, set screws	Stainless steel	IS 1364
8	Ball float & lever	Stainless steel	ASTM A 240 Type304
9	Support frame	Stainless steel	ASTM A 240 Type304
10	Pivot frame	Stainless steel	ASTM A 240 Type304

Installation

The arrow on the name plate must point downwards.

The low point of the cover is provided with a 1/2" tapping for a balance pipe which is essential for satisfactory operation. The balance pipe must be connected between the inlet pipe and the tapping provided on the cover as shown in the sketch.

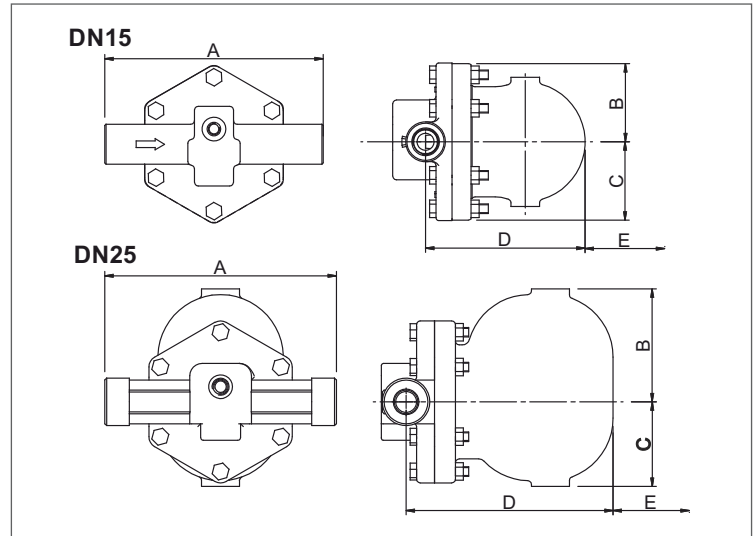
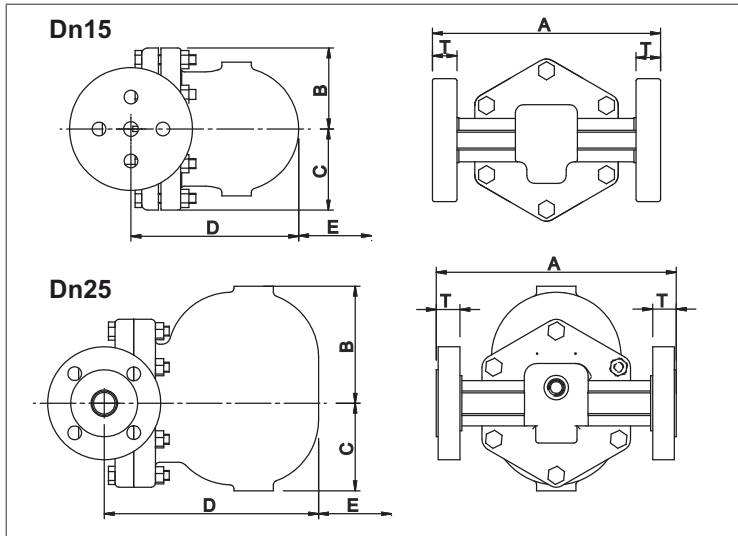
Dimensions (approx.in mm) and weight in kg Flanged

Size (DN)	A	B	C	D	E	T	Wt (kg)
DN15/20	230	68	84	172	120	21	11
DN25	240	119	88	225	160	24	30

Dimensions (approx in mm) and weight (in kg)

Screwed/ Socket Weldable

Size (DN)	A	B	C	D	E	T	Wt(kg)
DN15/20	230	68	84	172	120	--	11
DN25	220	119	88	225	160	--	25



How to Order

Example: 1 No. DN15 Forbes Marshall Air Eliminator, FMAE53, BSPT ends

Servicing

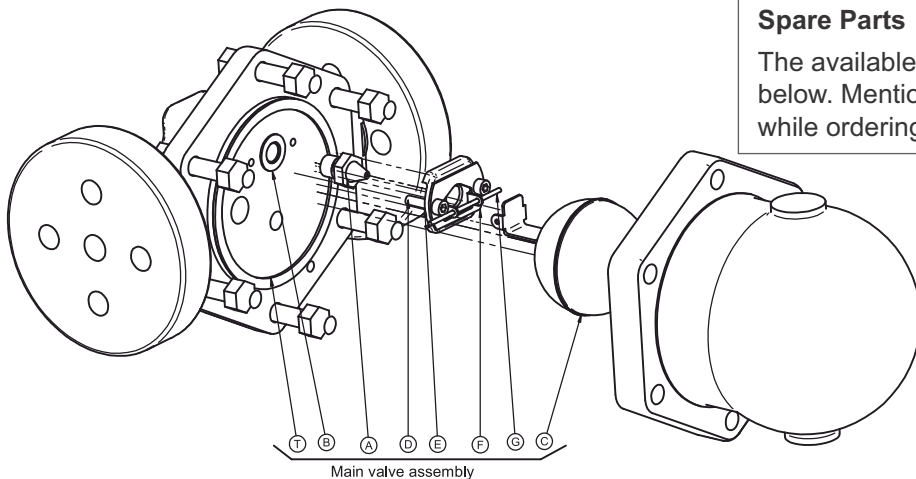
Main Valve Assembly : Unscrew cover bolts and lift off the cover. Remove complete float assembly by undoing the two screws on the frame, main valve and gasket and if damaged replace with a new one. Fit the support frame and pivot frame by using two screws but do not tighten it. Place the float arm and complete the assembly by placing the pin. Now tighten the set screws. Refit the cover.

Available Spares

Main Valve Assembly with Float	A, B, C, D, E, F, G, T
Set Gasket (pkt of 3)	F
Float	C

Recommended Tightening Torques

Part	Torque (Nm)
1. Valve Seat	45-55
2. Cover Bolts	25-35



Spare Parts

The available spare parts are shown in the exploded figure below. Mention traps size, type and differential pressure while ordering spares. For codes refer user manual.



www.forbesmarshall.com

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Forbes Vyncke

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