

Forbes Marshall Bucket Trap

Description

The Forbes Marshall Bucket Trap, FMBT30, is a cast iron inverted bucket steam traps designed to be fitted into horizontal pipelines. These traps are maintainable in-line and are complete with integral strainer screen.

Sizes and Pipe Connections

DN 15, 20 and 25 with Screwed BSPT/ NPT ends

Limiting Conditions

Maximum body design conditions	13 bar g
PMA - max. allowable pressure	13 bar g
TMA - max. allowable temperature	220 °C
Cold hydraulic test pressure	26 bar

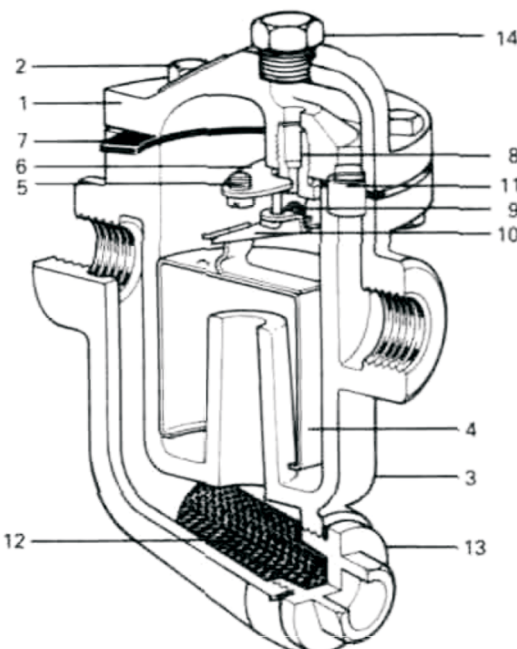
Maximum operating conditions depend upon orifice size.

ΔPMX - max. differential pressure

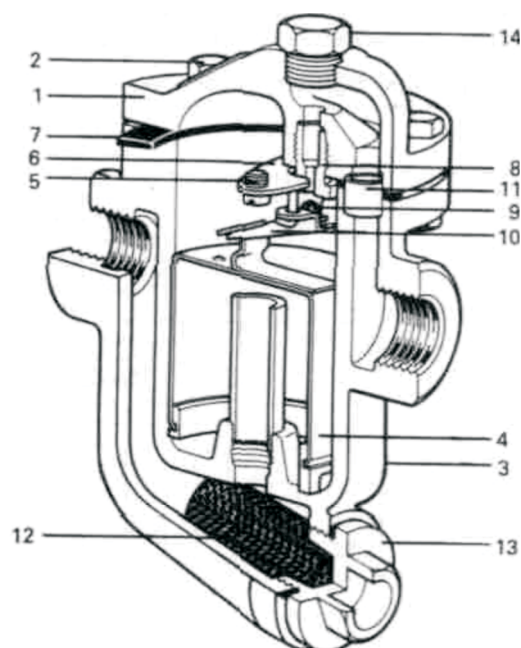
Model	Size (DN)	ΔPMX (bar g)
FMBT 30/6	15	10.0
FMBT 30/7	15	8.5
FMBT 30/8	15	4.0
FMBT 30/7	20	12.5
FMBT 30/8	20	8.5
FMBT 30/10	20	4.0
FMBT 30/7	25	13.0
FMBT 30/10	25	8.5
FMBT 30/12	25	4.0

Materials

No.	Part	Material	Standard
1	Cover	Cast iron	IS 210 FG 260
2	Cover studs and nuts	Carbon steel	IS 1367
3	Body	Cast iron	IS 210 FG 260
4	Bucket	Stainless steel Type 304	ASTM A 240
5	Valve guide plate screws	Stainless steel Type 304	IS 1364
6	Valve guide plate	Stainless steel Type 304	ASTM A 240
7	Cover gasket	Reinforced exfoliated graphite	
8	Valve seat	Stainless steel Type 304	ASTM A 276
9	Valve	Stainless steel Type 304	ASTM A 276
10	Valve lever	Stainless steel Type 304	ASTM A 240
11	Ferrule	Stainless steel Type 304	ASTM A 213
12	Strainer screen	Stainless steel Type 304	ASTM A 240
13	Strainer cap	Stainless steel / Cast steel	
14	Plug	Carbon steel	

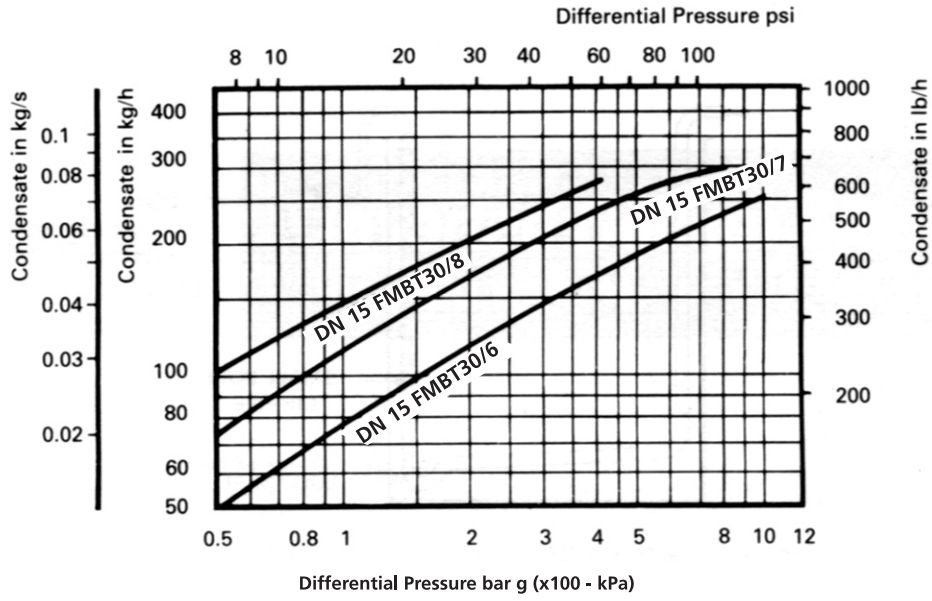


DN 15 and 20

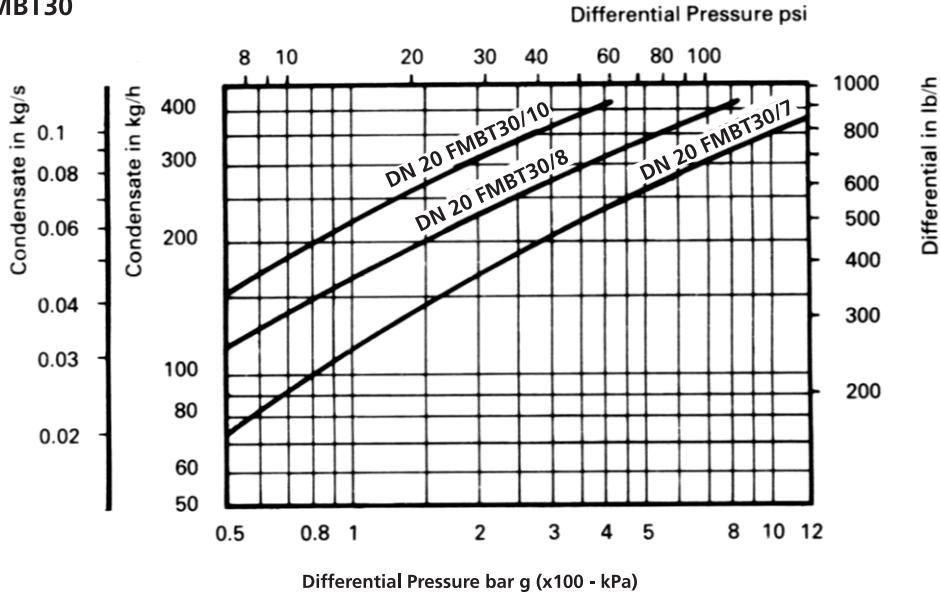


DN 25

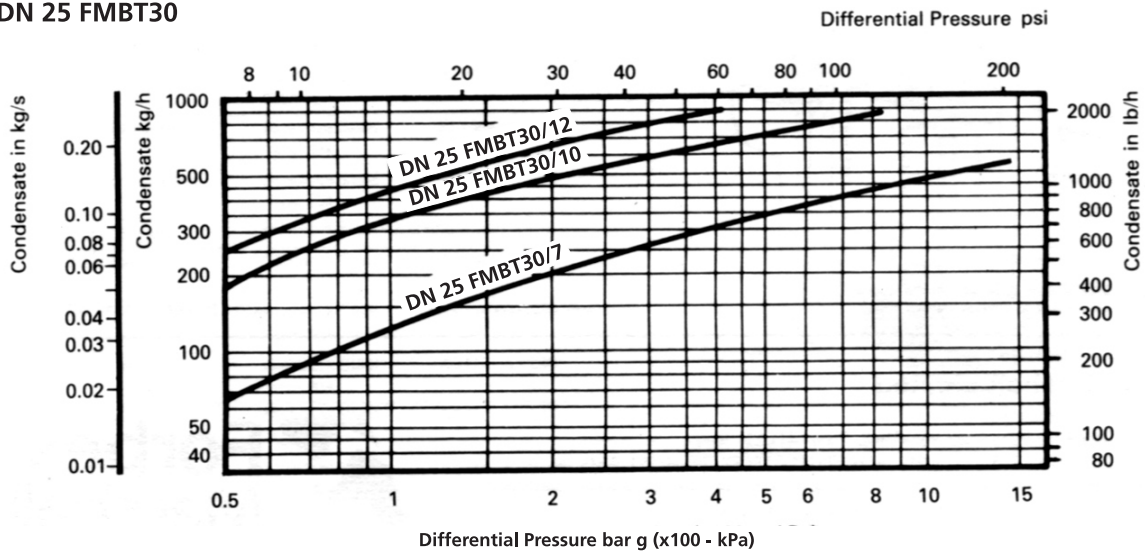
Capacity Chart
DN 15 FMBT30

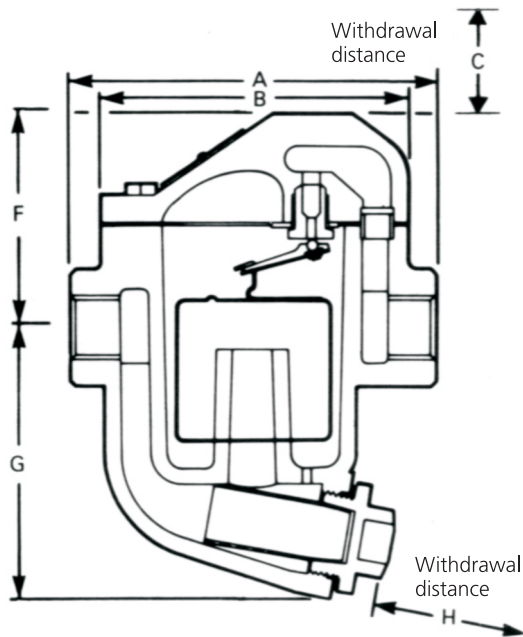


Capacity Chart
DN 20 FMBT30



Capacity Chart
DN 25 FMBT30





Dimensions (approx.) mm.

Size	A	B	C	F	G	H	Weight (kg)
DN 15	130	120	110	75	100	65	5.25
DN 20	130	120	150	93	117	65	6.00
DN 25	180	165	170	132	127	85	11.50

How to Order

Example : 1 no. DN 20 Forbes Marshall Bucket Trap FMBT30/7 with screwed BSPT connections, IBR

Installation

The trap must be installed with the body upright so that the bucket is rising and falling vertically. The inlet and outlet connections should be in a horizontal plane. With the trap installed below the drain point so that a water seal can be maintained around the open end of the bucket.

How to Fit Valve and Seat Assembly

Isolate the trap and remove the cover by undoing the cover nuts. Unhook the bucket from the valve lever **A**. Remove the valve seat **B**. Remove the valve guide plate **C** by undoing the two screws **D**. Screw in new valve seat, using a little jointing paste on the threads and making sure the joint faces are clean. Fix new valve guide plate in position by using the new screws which are supplied, hook new valve lever over pins on valve guide plate and centralise the valve to the orifice and tighten screws.

Recommended tightening torques

Part	Size (DN)	Torque (Nm)
Seat B	15, 20	23 - 27
	25	80 - 88
Studs & Nuts J	15, 20	25 - 28
	25	85 - 95
Strainer cap	15, 20	90 - 100
	25	125 - 145

Spare parts

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

Available Spare

Valve and seat assembly	A, B, C (2 off) D
Bucket	E
Cover gasket and ferrule (pkt of 3 each)	F, G
Strainer screen	H
Set of cover studs and nuts (set of 6)	J

How to Order

Always order spares by using the description given in the column headed 'Available Spares' and stating the size and series of the trap.

Example 1 - Valve and Seat Assembly for DN 15 Forbes Marshall Bucket Trap FMBT30 for 6 bar g differential pressure

