DOUGLAS ITALIA S.P.A.

INVERTED BUCKET STEAM TRAPS
IED

INVERTED BUCKET

This trap uses an inverted bucket that floats whean steam is present and sinks when condensate exceeds a predetermined liquid level.When the bucket floats the valve – at the top of the trap – is closed . When it sinks the valve will open. On start up the bucket is down end the valve is wide open , when condensate and air enters the trap it flows directly into the bucket…The condensate falls into the trap body whereas air collects at the top of the bucket and causes it to float thereby closing the valve. Air is released through a vent at the top of the bucket and collects in the top of the trap until the bucket sinks opening the valve and allows the discharge of air and condensate. When steam is formed , it collects in the top of the bucket causing it to float thereby closing the valve. The bucket will sink again when condensate reaches the predeterminated level and the cycle starts over.

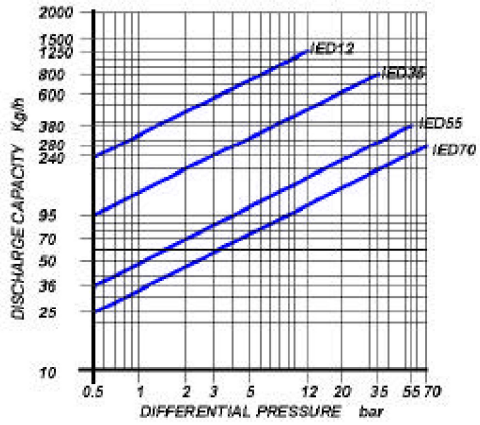
MAIN FEATURES

Discharge of condensate at steam temperature. Simple and reliable construction. Slow discharge of air. Suitable for superheated steam. It whith stands waterhammer.

APPLICATIONS

- *Heater batteries*
- *Heat exchangers*
- *Pans*
- *Turbines*
- *Drying cilinders*
- *Ironing machines*

DISCHARGE CAPACITY



Cold water capacities are 2 to 4 times greater than the above . Safety factor = 1.2 – 1.5

SIZES

½" – ¾" – 1"

CONNECTIONS

Screwed	*BS 21 (BSP) /ANSI B1.20.1 (NPT)*
Socket weld	*ANSI B 16.11*
Flanged	*ANSI B 16.5 / UNI / DIN*

LIMITING CONDITIONS *(according to ISO 6552)*

Steam Trap rating		*ANSI 600*
PMA: Max allowable pressure		*100 bar*
TMA: max allowable temperature		*410°C*
PMO: max working pressure		*75 bar*
TMO: max working temperature		*380°C*
Max. Differential pressure	*(IED 12)*	*12 bar*
Max. Differential pressure	*(IED 35)*	*35 bar*
Max. Differential pressure	*(IED 55)*	*55 bar*
Max. Differential pressure	*(IED 70)*	*70 bar*

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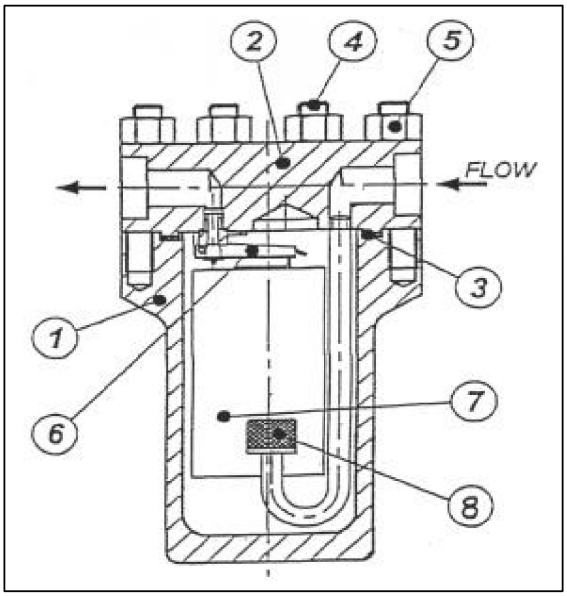
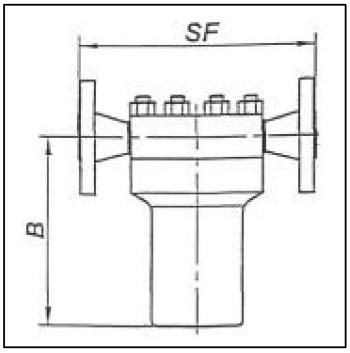
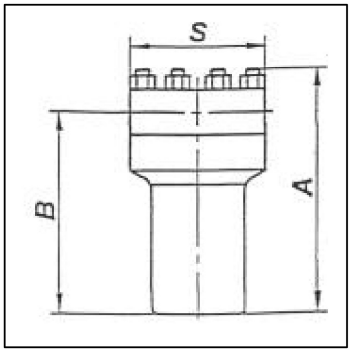


POS.	DESCRIPTION	MATERIALS	SPARES
1	Body	ASTM A 105	
2	Cover	ASTM A 105	
3	Cover gasket	316 / GRAPHITE	X
4	Studs	ASTM A193 B7	
5	Nuts	ASTM A194 2H	
6	Seat	AISI 410	X
6	Valve	AISI 416	X
6	Lever	AISI 304	X
7	Bucket	AISI 304	X
8	Screen *	AISI 304	X
* optional			

Flanged															
Size (inches)	S NPT	S SW	A	B	Weight (Kg)	UNI-DIN PN 25 – 40		150#		300#		600#		1500#	
						SF	Kg	SF	Kg	SF	Kg	SF	Kg	SF	Kg
½"	145	145	255	207	23	207	24.5	224	25	234	26	250	27	262	30
¾"	145	145	255	207	23	211	25	234	26	244	27	256	28	282	31
1"	145	145	255	207	23	211	26	240	27	255	28	266	29	288	33





INSTALLATION

The trap must be installed with the body upright so that the bucket rises and falls vertically. The inlet and outlet connections must be in a horizontal position, with the trap installed below the drain point in order to from and preservate the internal water seal.

HOW TO SERVICE

Before doing any maintenance work always ensure that the trap is isolated and pressure is dissipated. Undo cover nuts (5), remove cover (2) with all mechanism and cover gasket (3). Unlock the bucket (7) from valve lever (6). Remove the valve guide undoing to the screw. Remove valve seat from cover (2). Screw in a new valve seat. Reinstall valve guide with lever and bucket (7). Refit cover (2), using new gasket (3).

How to order: i.e. *IED 12 ½" 300 RF*

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