

UKL THERMODYNAMIC STEAM TRAP

The enthalpy in the steam basically has two components. The Latent heat and the Sensible heat. Whereas condensate has only sensible heat. This condensate has to be removed as soon as it is formed, because it hinders to efficient heat transfer as well as leads to water hammer phenomenon as it is hot water (having more Specific Gravity) that moves with high velocity of steam (8 to 10 times higher than water), carrying enough momentum to rupture pipes and which is damaging to the plant pipelines as well as piping equipments. Hence, need to remove condensate from steam main and trap steam. This is done by steam trap.

The thermodynamic traps separate condensate and steam based on velocity which in case of steam is higher than that of condensate. These are used mainly on drip lines of the main steam distribution line, platen presses and super heated steam lines to remove condensate.

Condensate pressure is used to open the trap by lifting the disc, discharging condensate in low pressure. Due to low pressure flashing of condensate takes place. High flash steam velocity (approximately 5 times of condensate) creates a low pressure zone below the disc. Accumulated flash steam force over the disc becomes greater than the incoming condensate pressure this leads to closure of the disc. Subsequently the flash steam condenses and the incoming higher pressure condensate pushes the disc opening the trap and thus the cycle continues.



END CONNECTIONS:

Threaded to NPT, BSP and BSPT
Socket Weld to ASME B 16.11
Flanged End- #150/#300/DIN

MATERIAL OF CONSTRUCTION:

UTD 55 :-ASTM A 743 Gr. CA40
UTD 55F :- AISI 420

SIZES AVAILABLE:-

UTD 55 :- 1/4" (15NB) and 3/4"(20NB)
UTD 55 F :- 1" (25NB)

ON REQUEST:-

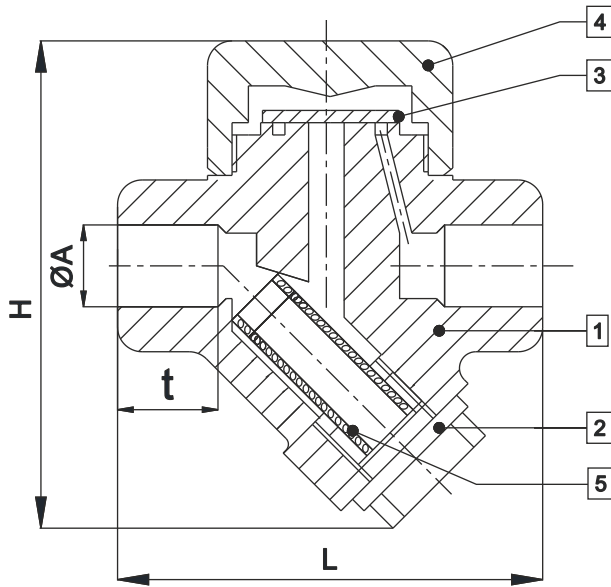
IBR/Non-IBR
Blow down cock
Isotub
Flanges weld on type
Single Orifice/Three orifice
Compactable with UITVS

INSTALLATION:-

Preferably in horizontal position.

End Connections		BSP	NPT	SW	FL 150	FL 300	
Size		Press PSI	177.8	782.4	782.4	284.5	739.7
(Inch.)	(mm)	Press Kg/cm2	12.5	55	55	20	52
1/2", 3/4" 1"	15, 20, 25	Temp 0 F	500	849	849	797	797
		Temp 0 C	260	454	454	425	425

BILL OF MATERIAL

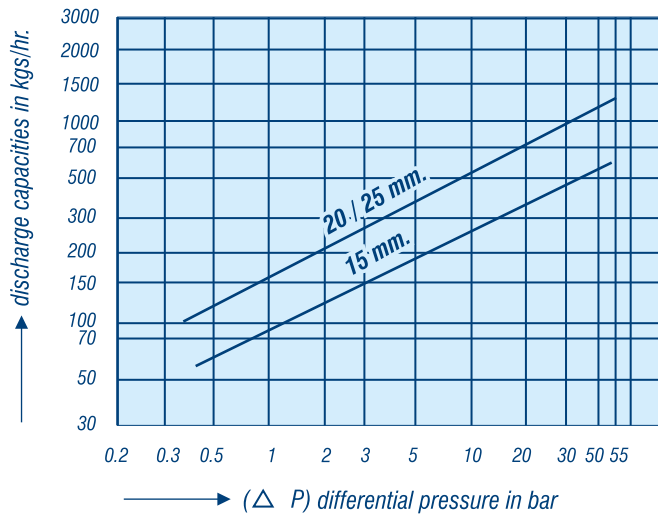


Sr.	Part	Materials	
		UTD 55 1/2" and 3/4"	UTD 55F 1"
1	Body	A743 Gr. CA 40	AISI 420
2	Filter Cap	A743 Gr. CA 40	AISI 420
3	Disc	A743 Gr. CA 40	AISI 420
4	Cover	A743 Gr. CA 40	AISI 420
5	Filter	AISI 304	AISI 304
6*	Blow Down	SS	SS

* Parts are available on Request.

#Note :- UTD-55 Trap for Size 25NB shall come with external connectors

FIOW CAPACITIES



Notations	Dimensions (mm)			Dimensions (in)			
	15	20	25	1/2"	3/4"	1"	
L	75	75	90	2.95	2.95	3.54	
H	108	108	125	4.25	4.25	4.92	
ØA	S	21.8	27.2	33.9	0.86	1.07	1.33
	t	10	13	13	0.39	0.51	0.51
ØA	BSP / NPT / BSPT						
Weight (Kg & lb)	0.92	0.92	1.8	2.06	2.06	4.03	

In view of technical progress designs and dimensions are subject to change without notice.

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