

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.

The UTD 62 is a steam trap with integral strainer specifically designed to meet above application. An insulating cover can be fitted as a option on superheated steam mains.



END CONNECTIONS:

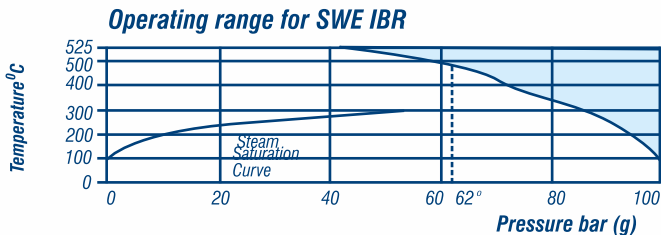
Threaded to NPT, BSP and BSPT
Socket Weld to ASME B 16.11
Flanged End- #600/#900 (On Request)

MATERIAL OF CONSTRUCTION:

ASTMA 217 Gr. WC6

SIZES AVAILABLE:-

1/4", 3/4" and 1"
15, 20 and 25NB



*PMO - Max. operating pressure recommended
PMOB - Max. operating back pressure 80% of upsteam pressure.

ON REQUEST:-

IBR/Non-IBR
Isotub
Flanges weld on type
UTD 62R with replaceable sheet and disc
also available on request. (Non Standard Requirement)

INSTALLATION:-

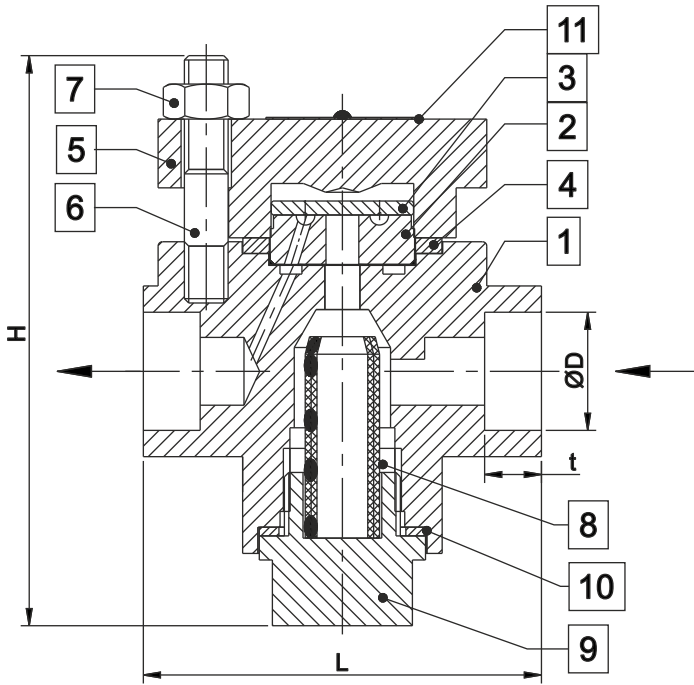
Preferably in horizontal position.

OPERATING CONDITIONS

End Conn.	BSPT / NPT / SW / BW
Max. Allowable Pressure	1493 psi at 200 °F
	103 bar at 93 °C
Max Allowable Temperature	977 °F at 619 psi
	525 °C at 42.7 bar
Max. Operating Pressure	907.5 psi at 900 °F
	62 bar at 482 °C
Max. Operating Temperature	977 °F at 619 psi
	525 °C at 42.7 bar

Hydro Test Pressure :- 1.5 times design pressure

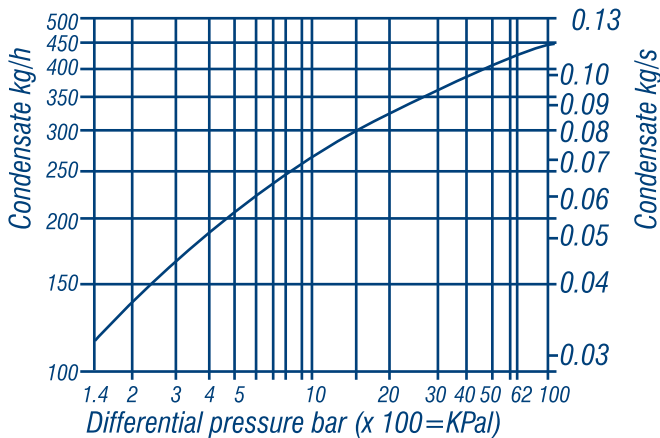
BILL OF MATERIAL



No.	PART NAME	MATERIAL	MATERIAL CODE
1	Body	Alloy Steel	ASTM A217 WC6
2#	Disc	Tool Steel	ASTM A 681 Gr D2
3	Seat	Tool Steel	ASTM A 681 Gr D2
4#	Gasket	Spiral Wound	Reinforced Exfoliated S.W. AISI304 With Graphite Filler
5	Top Cover	Alloy Steel	ASTM A217 WC6
6#	Stud	Alloy Steel	ASTM A 193 Gr B16
7#	Nut	Alloy Steel	ASTM A 194 Gr 8M
8#	Filter	Stainless Steel	AISI 304
9	Filter Cap	Alloy Steel	ASTM A217 WC6
10#	Gasket For Filter Cap	Spiral Wound	Reinforced Exfoliated S.W. AISI304 With Graphite Filler
11	Name Plate	Stainless Steel	AISI 304
12	Isotub(Optional)		

Available as spares

UTD-62 Flowchart :-



Notations	Dimensions (mm) (kg)			Dimensions (in) (lb)		
	15	20	25	1/2"	3/4"	1"
L	92	92	120	3.6	3.6	4.7
H	130	130	130	5.1	5.1	5.1
ØD	21.80	27.20	33.10	0.9	1.1	1.3
t	10	13	13	0.4	0.5	0.5
Weight(kg)	2.2	2.2	2.5	4.9	4.9	5.6

Note: Minimum Differential pressure for satisfactory operation 19.9 psig (1.4 bar g) with Positive Pressure and Discharge to atmosphere.

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

UNI KLINGER LIMITED

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