



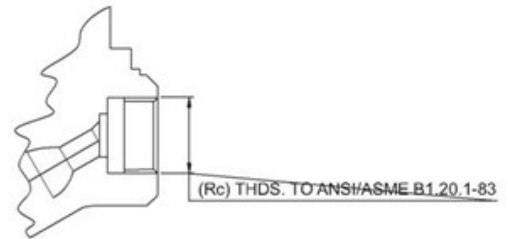
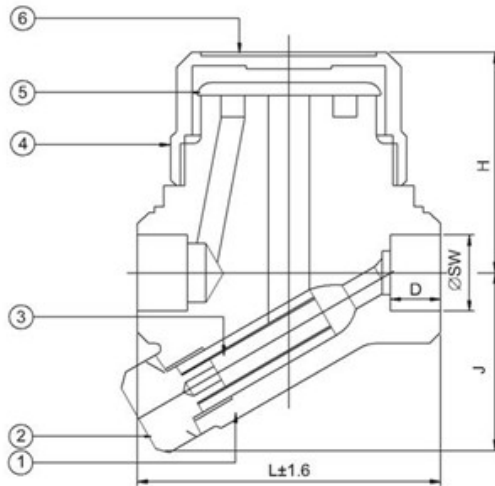
STEEL THERMODYNAMIC STEAM TRAPS

SPECIFICATIONS

STEEL THERMODYNAMIC TYPE STEM TRAP WITH STRAINER, SCREWED FEMALE BSP TAPER THREADS TO B&S21 /SOCKET WELDED ENDS TO ASME B16.11. OTHER FORMS OF THREADS CAN BE PROVIDED ON REQUEST. THESE STEAM TRAPS ARE SUITABLE FOR MAX. BACK PRESSURE 60% OF THE INLET PRESSURE & THE MIN. PRESSURE DIFFERENTIAL OF 10 PSI (0.7 KG/CM²)

CERTIFICATE

ITEMS CAN BE SUPPLIED WITH CERTIFICATE OF MANUFACTURE AND TEST ON FORM III-C AS PER REGULATION 269 OF IBR.



STANDARD MATERIAL COMBINATION					
P.NO.	QTY.	DESCRIPTION	MATERIAL		
			A105	F6a	F304
1	1	Body	Forged Carbon Steel To ASTM A105	S.S to ASTM A182 Gr. F6a	S.S ASTM A182 Gr. F304
2	1	Plug	S.S to ASTM A182 Gr. F6a	S.S to ASTM A182 Gr. F6a	S.S ASTM A182 Gr. F304
3	1	Gasket	C.A.F. to B.S. 1832	C.A.F. to B.S. 1832	C.A.F. to B.S. 1832
4	1	Strainer	Type 304 with 1 mm ø Perforation	Type 304 with 1 mm ø Perforation	Type 304 with 1 mm ø Perforation
5	1	Cover	S.S to ASTM A182 Gr. F6a	S.S to ASTM A182 Gr. F6a	S.S ASTM A182 Gr. F304
6	1	Valve Disc	S.S to ASTM A182 Gr. F6a	S.S to ASTM A182 Gr. F6a	S.S ASTM A182 Gr. F304
7	1	Name plate	Aluminium or S.S	Aluminium or S.S	Aluminium or S.S
TEST PRESSURE					
END DETAILS	MAX. WORKING PRESSURE	SHELL TEST (HYDROSTATIC)	SEAT TEST		CODE
			(HYDROSTATIC)	STEAM	
Threaded Ends	450° psig (31 bar) AT 750° F(399° C)	900 psig (62 bar)	900 psig (62 bar)	250 psig (17.24 bar)	INDIAN BOILER REGULATIONS
Socketwelding Ends	600 psig (41.38 bar) at 750° F(399°C)	1200 (82.87 bar)	1200 (82.87 bar)	250 psig (17.24 bar)	
NOTE: The above date is subject to change without notice due to our continuing program of product improvement					

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STEEL THERMODYNAMIC STEAM TRAPS

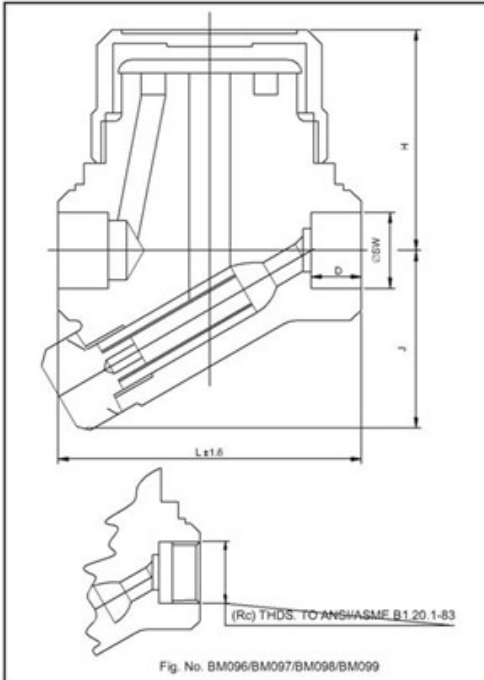


Fig. No. BM096/BM097/BM098/BM099

WORKING PRINCIPLE:

The working principle of this type of steam trap is explained below.

1. Disc A is raised from seat ring C by incoming pressure, allowing instant discharge of air and condensate through outlet B.
2. High velocity of flowing flash steam creates a low pressure area under disc which forces it down towards the seat, and at the same time builds up pressure in chamber D.
3. Steam pressure in chamber D, acting on full top area of disc, forces it down against pressure of incoming steam until it seats on inner ring C, trapping pressure in chamber D. There is no continuous leak on no-load.
4. Condensate in chamber D decreased the pressure, the disc is raised by incoming pressure and cycle begins again.
5. In case of positive back pressure it should be subtracted from the inlet pressure and in case of negative back pressure it should be added to the inlet pressure while computing capacities.

SOCKET WELD END DETAILS

DN NPS	15 ½	20 ¾	25 1
ØSW	21.8	27.4	34.1
D	11	14	14

DIMENSIONAL DATA

NPS	½	¾	1
L	65	76	95
H	41	51	59
J	42	60	68
ITEM CODE NO.	BM 096 D	BM 096 F	BM 096 G
	BM 097 D	BM 097 F	BM 097 G
	BM 098 D	BM 098 F	BM 098 G
	BM 099 D	BM 099 F	BM 099 G

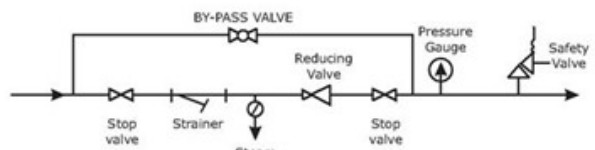
ITEM FIG. NOS.

ITEM	CODE NO.
STEAM TRAP (F304) SCREWED FEMALE ENDS	BM 096
STEAM TRAP (F304) SOCKET WELDING ENDS	BM 097
STEAM TRAP (F6a) SCREWED FEMALE ENDS	BM 098
STEAM TRAP (F6a) SCREWED FEMALE ENDS	BM 099

INLET STEAM PRESSURE		DISCHARGE CAPACITIES (IN KILOGRAMS PER HOUR)		
Kg/cm2 g	Psig	½"	¾"	1"
0.70	10	215	430	675
1.76	25	275	550	875
3.52	50	350	650	1050
5.27	75	410	750	1250
7.03	100	475	850	1350
10.54	150	575	950	1500
14.06	200	650	1050	1625
21.09	300	775	1200	1850
28.12	400	850	1250	2000
42.18	600	950	1375	2250

INSTALLATION:

The recommended installation assembly of steam trap when it is discharging into common header is shown in the sketch.



Strainer may not be used when steam trap design incorporates in integral strainer

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