



SS THERMODYNAMIC STEAM TRAP, NPT

Thermodynamic Disc Steam Trap · Stainless Steel 316 · NPT Threaded · Integral Strainer

BRAND: SW FLOW CONTROLS

REF: P-0094

SIZE 1/2" TO 2"

40 BAR PMA



FIG. 1 | SS THERMODYNAMIC STEAM TRAP, NPT THREADED

PRODUCT OVERVIEW

The SWBM SS Thermodynamic Steam Trap uses a single hardened disc as its only moving part. Condensate arriving under the disc lifts it clear of the seat and is discharged. As the condensate approaches steam temperature it flashes, and the high velocity flash steam across the underside of the disc creates a pressure drop that snaps the disc shut against the seat.

The trap holds closed until the pressure in the chamber above the disc decays, then reopens and repeats the cycle. The body and cap are stainless steel 316 for corrosion resistance on superheated and wet steam duty, and an integral strainer screen protects the seating faces from pipe scale. The design is intrinsically freeze proof when mounted horizontally and drains fully when the line is shut down.

Trap type	Thermodynamic disc, single moving part
Operation	Intermittent blast discharge
Body material	Stainless steel 316 (ASTM A351 CF8M)
End connection	Female NPT threaded
Pressure rating	40 bar maximum allowable
Size range	1/2" to 2" (DN15 to DN50)

TECHNICAL SPECIFICATION

Design standard	ISO 6552 / EN 26704	Disc	Stainless steel 420, hardened and lapped
Face to face	Manufacturer standard	Seating faces	Integral with body, hardened and lapped
Threads (NPT)	ASME B1.20.1	Minimum operating pressure	0.3 bar g
Testing	EN 26948 / ISO 6948	Temperature range	0°C to +400°C
Body test	1.5 x PMA	Operating position	Horizontal, cap uppermost
Strainer screen	Stainless steel, 100 mesh	Maintenance	Disc and screen replaceable in line



PRODUCT DATA SHEET

SS THERMODYNAMIC STEAM TRAP, NPT
Ref. P-0094 | Rev. 01

BILL OF MATERIALS

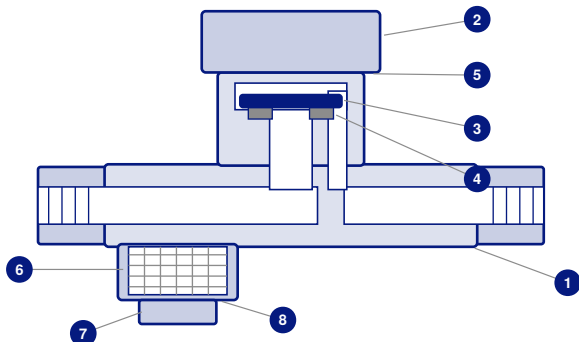


FIG. 2 | SECTIONAL ARRANGEMENT

#	COMPONENT	MATERIAL
1	Body	Stainless steel 316, ASTM A351 CF8M
2	Cap	Stainless steel 316
3	Disc	Stainless steel 420, hardened
4	Seating faces	Integral with body, hardened
5	Cap gasket	Reinforced graphite
6	Strainer screen	Stainless steel 304, 100 mesh
7	Strainer cap	Stainless steel 316
8	Strainer cap gasket	Reinforced graphite

Insulation caps, anti air binding discs and socket weld or flanged end variants are available on request. The disc and the strainer screen are replaceable without removing the body from the pipework.

DIMENSIONS AND WEIGHTS

SIZE	DN	THREAD (NPT)	L (MM)	H (MM)	A/F (MM)	WEIGHT (KG)
1/2"	15	1/2"	95	72	41	1.0
3/4"	20	3/4"	95	72	41	1.1
1"	25	1"	110	85	50	1.6
1.1/4"	32	1.1/4"	135	100	60	2.6
1.1/2"	40	1.1/2"	145	105	65	3.2
2"	50	2"	165	120	75	4.5

L = face to face length, H = overall height including cap, A/F = across flats of the cap. Dimensions and weights are nominal and are given for guidance only. Certified drawings for the supplied make and size are issued on request.

ORDERING INFORMATION

FIELD	OPTIONS
Product code	P-0094
Size	1/2", 3/4", 1", 1.1/4", 1.1/2", 2"
Connection	NPT, female
Strainer	Integral 100 mesh screen, standard
Options	Insulation cap, anti air binding disc, socket weld ends
Order example	P-0094 / 1" / NPT / WITH STRAINER

Stock held in Dubai for fast despatch across the UAE and GCC. Contact our sales desk for pricing, availability, project quantities and certification requirements.



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PRESSURE AND TEMPERATURE

Maximum allowable pressure (PMA)	40 bar g
Maximum allowable temperature (TMA)	400°C
Maximum operating pressure (PMO)	40 bar g
Minimum operating pressure	0.3 bar g

Below the minimum operating pressure the disc will not seat correctly and the trap will pass steam. Back pressure should not exceed 80% of the inlet pressure. Capacity curves are issued on request.

TYPICAL APPLICATIONS

- Steam main and header drainage
- Steam tracing lines and jacketed pipework
- Superheated steam distribution
- Separators, driers and drip legs
- Outdoor and freezing duty where drainage is required
- High pressure process and utility steam services

COMPLIANCE AND QUALITY

- Design and manufacture to ISO 6552 and EN 26704
- Testing to EN 26948 / ISO 6948
- Stainless steel 316 body and cap, ASTM A351 CF8M
- Hardened and lapped disc and seating faces
- 100% pressure and seat tested prior to despatch
- Material test certificate EN 10204 3.1 on request
- Single moving part, no springs, bellows or floats

INSTALLATION AND OPERATION

- Install horizontally with the cap uppermost and the arrow in the flow direction
- Apply PTFE tape or an approved sealant to the male thread only
- Tighten on the body flats, never on the cap
- Allow a cooling leg of at least one metre of uninsulated pipe upstream on main drainage
- Keep discharge pipework as short as possible to limit back pressure
- Clean the strainer screen after commissioning and at each planned shutdown

COMPANY

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