

# Thermodynamic Steam Traps

TD – 120

### Description:

The TD-120 Thermodynamic Steam Trap is a high pressure steam trap with in built strainer and full Alloy steel construction. This has low capacity, and best suited for mains drainage applications up to 250 kg/cm<sup>2</sup>.

### Size and Connections:

15NB and 20NB

Butt weldable ends to suit schedule 160.

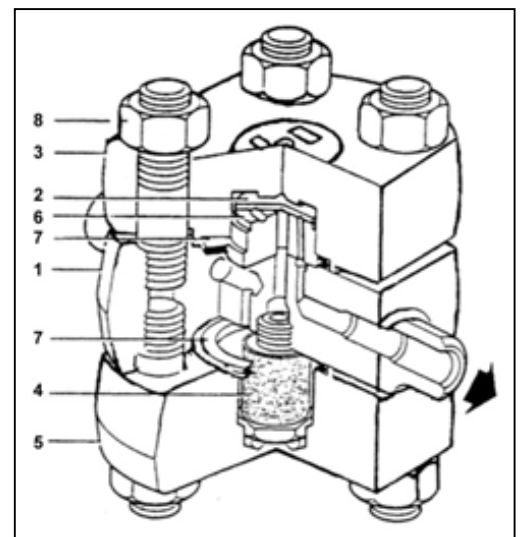
Socket weldable ends to ANSI B 16.11 Class 6000.

### Note:

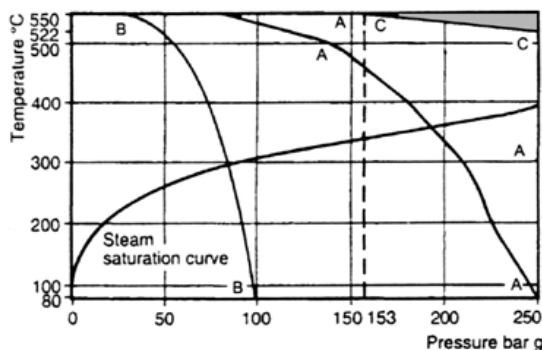
1. Available with ANSI 600 and ANSI 1500 Flanges on request.
2. Available with IBR Certificate.
- 3.

### Limiting Conditions:

Body Design Conditions	PN250
PMA - Maximum allowable pressure	250 kg/cm <sup>2</sup>
TMA - Maximum allowable pressure	550°C.
Hydraulic test pressure	500 kg/cm <sup>2</sup>



### Operating Range :



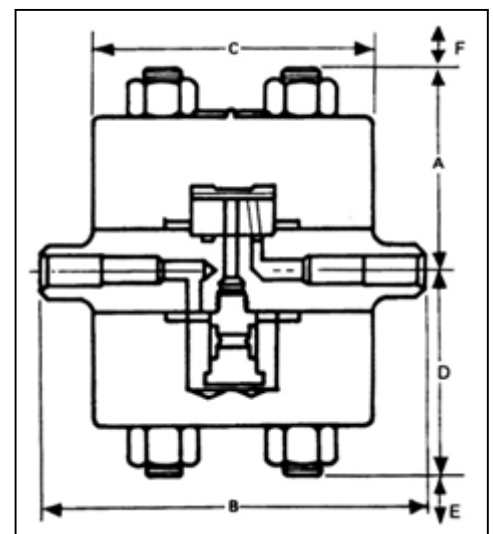
The product must not be used in this region.

A - A Flanged to ANSI-1500

B - B Flanged to ANSI - 600

C - C Socket weld and Butt weld ends.

**Note:** Minimum operating pressure for satisfactory operation 8 bar PMOB - Max. operating back pressure 50% of upstream pressure.



### Dimensions:

Size	A	B	C	D	E	F	Weight
15NB	86	111	90	76	50	55	8.7kg
20NB	86	111	90	76	50	55	8.7kg

**Materials:**

No	Part	Material	Standard
1	Body	Alloy steel	ASTM A 182 F22
2	Disc	Steel	BS 4659 Gr BD2
3	Top cover	Alloy steel	ASTM A 182 F22
4	Strainer screen	Stainless steel	BS 970 304 S 15/ Sintered stainless
5	Bottom	Alloy steel	ASTM A 182 F22
6	Seat	Steel	BS 4659 Gr BD2
7	Cover gasket	Spirally wound stainless steel with exfoliated graphite filler	
8	Cover	Steel	ASTM A 193 Gr B16
	Cover nuts	Steel	ASTM A 194 Gr4

**How to Specify:**

SPIRAX MARSHALL make Thermodynamic Steam Trap model TD-120.15NB Bun weld ends to suit schedule 160.

**Installation:**

Install in a horizontal pipe line with the name plate on top. **After 24 hours in service the cover nuts should be checked for tightness.**

**Available Spares:**

The spare parts available are shown in heavy outline. Parts drawn in broken lines are not supplied as spares.

**Available spares**

Set of internals	2, 7 (2 No.)	4
Screen	4, 7	7
Set of Cover Gaskets	7 (Pack of 2)	7
Set of Cover Studs & Nuts	8 (Pack of 8)	8

**How to order:**

Always order spares by using the description given in the column headed Available spares.

Example 1: Set of internals for Spirax make 15NB TD-120 steam trap.

**Service:**

Before undertaking any maintenance on the trap it must be isolated from both supply line and return line and any pressure allowed to safely normalise to atmosphere. The trap assembly should then be allowed to cool.

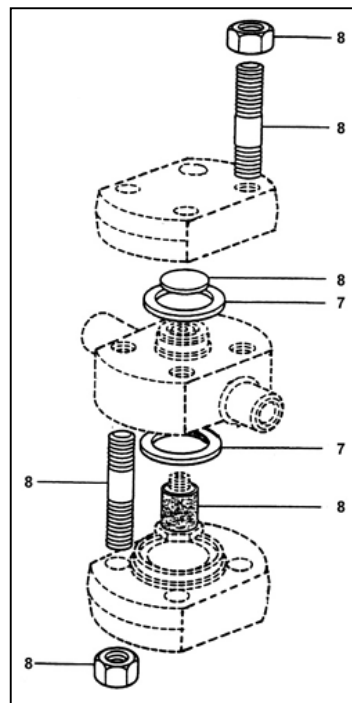
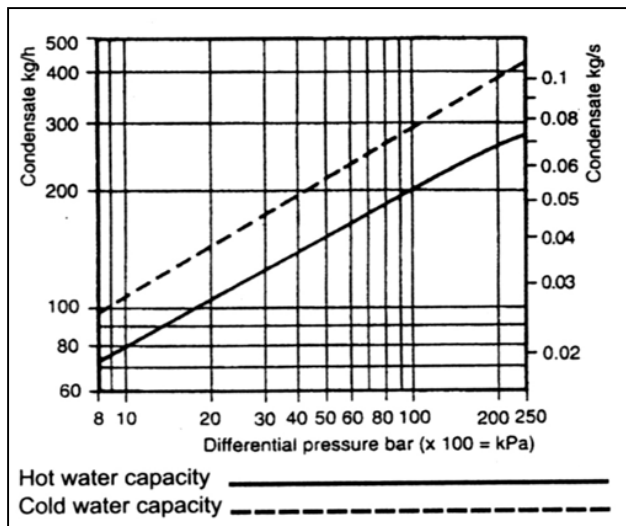
**How to fit new disc:**

To fit a complete spares set it will be necessary to undo both sets of nuts, therefore unscrew the nuts on the top and bottom of the trap. Lift off the top cover.

**Replace the disc:**

Always reassemble using new gaskets making sure that all seat faces are perfectly clean.

**Capacities**



**To Clean Strainers:**

To fit the screen assembly it is only necessary to unscrew the bottom set of nuts. Access to the strainer can be obtained by undoing nuts and lowering the bottom cover. When reassembling, fit a new gasket. The nuts should be evenly tightened in a diagonally opposite sequence.

**To replace Cover Studs & Nuts:**

After removing the old cover nuts & studs, fit new cover studs until the studs bottom out. The use of antiseize compound on threads of studs is recommended.

**Recommended tightening torques:**

Item	A/Fon Hex	Torques N-m
4	22	25 -35
8(Nut)	23(M16)	160 -180
8(Stud)	M16	85 - 90

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