

## Thermodynamic Steam Traps

### TD – 55 BD

**Description:**

SPIRAX TD 55 is a thermodynamic steam trap with in-built strainer screen and unique three port design. The three port design ensures parallel lifting of the disc and no wearing due to uneven seating of the disc enhancing the life of the trap. Integral Slowdown valve allows online cleaning of strainer screen. Typical applications include main distribution headers, turbine inlets etc.

**Sizes & Pipe Connections :**

15 NB and 20 NB  
Screwed BSPT / NPT and Socket Weld Ends with Slowdown valve.

**Note:**

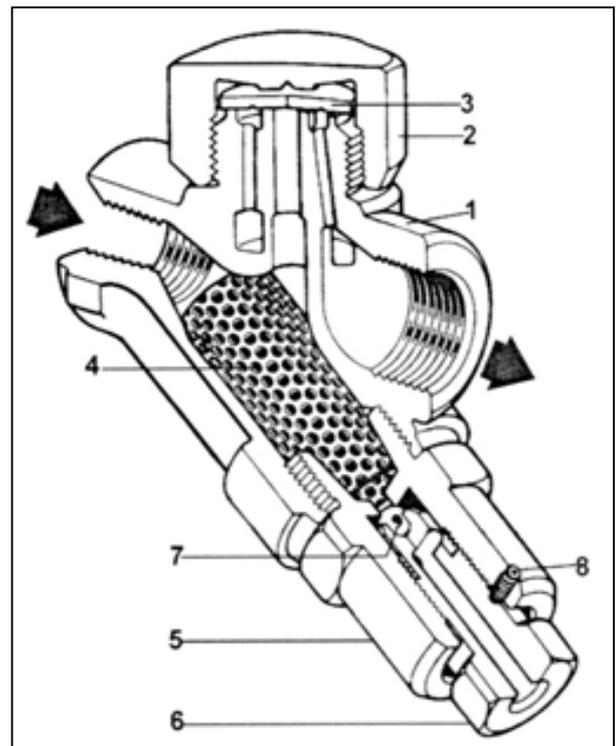
1. Available with ASA-150, 300, & 600 weld on flanges on request.
2. Available with IBR certificate

**Limiting Conditions :**

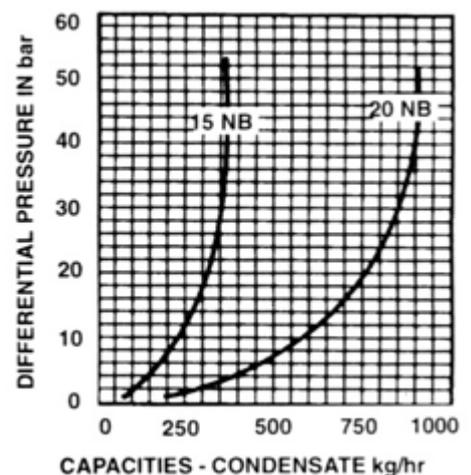
PMO : Max. Op. Pressure in kg / cm<sup>2</sup>.  
TMO : Max. Op. Temperature in Deg. C

Parameter	Screwed end	Socket Weld end
PMO	31.5	55.0
TMO	427.0	450.0
Hyd. Test	63.0	110.0

PMOB-Max.: Operating Back Pressure on outlet should not exceed 80% of inlet pressure.  
Min. inlet pressure for satisfactory operation -0.25 kg / cm<sup>2</sup>.

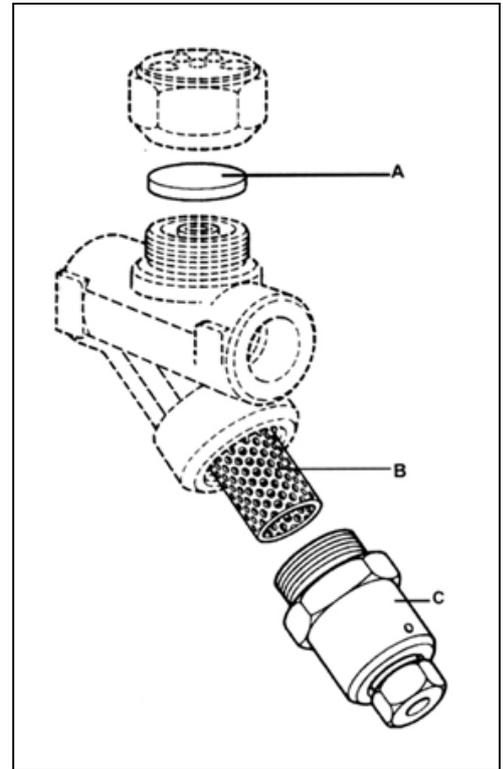


**Capacity Chart :**



**Material:**

Sr. No.	Description	Mat.	Standard
1	Body	S.S.	ASTMA 743 Gr.-CA 40
2	Cap	S.S.	ASTMA 743 Gr.-CA 40
3	Disc	S.S.	ASTM A 743 Gr.-CA 40
4	Screen	S.S.	ASTM A 240, Type 304
5	Blowdown Cap	St. Steel type 304	ASTM - A 276
6	Blowdown Screw	St. Steel type 304	ASTM - A - 276
7	Blowdown Valve	St. Steel	AISI440B
8	Grub Screw	Hardened Steel	--



**Salient Features:**

1. Complete stainless steel construction ensures better mechanical and corrosion resistant properties.
2. The disc and seat are hardened by induction hardening process to about 50 Re to enable withstand continuous water hammering condition.
3. Seat is integral part of the body. and eliminates leakage prone joints and gaskets.
4. Condensate entry below the disc concentric to disc and seat, ensures clean and parallel lift of disc with reference to seat, eliminating any localised uneven wear & tear.
5. An inbuilt strainer screen of adequate large area ensures long and trouble free operation.
6. Three port design ensures proper lifting and seating of the disc and results in uniform wear enhancing life of the steam trap.
7. Integral Blowdown Valve facilitates on line cleaning of strainer screen.

**Installation :**

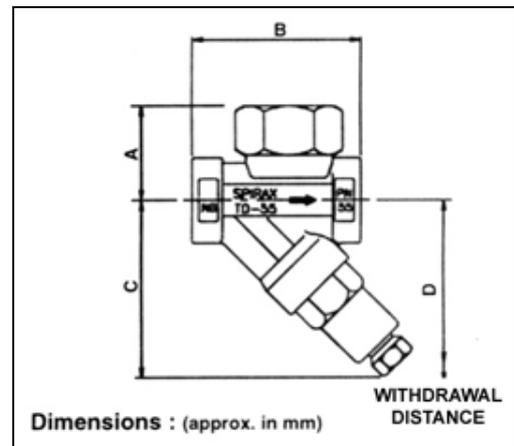
Preferably on horizontal pipe line; can be fitted in other position if unavoidable.

**Operation of Slowdown Valve.**

The slowdown valve has a screw (6) which can be unscrewed with a 19mm A/F spanner to discharge the contents of the strainer screen. To make Blowdown screw (6) operational screw the Grub screw (8) 2 to 3 threads. The Grub Screw (8) will prevent the slowdown screw (6) from disengaging from the slowdown cap (5). Ensure Grub Screw (8) is tightened back. Ensure adequate safety precautions are taken when opening the slowdown valve to atmosphere. Hand protection is a must.

**Optional extras:**

ISOTUB: An insulating cover on the cap prevent the trap being unduly influenced by excessive heat loss such as when subjected to low outside temperatures, wind, rain etc.



Dimensions : (approx. in mm) WITHDRAWAL DISTANCE

**Dimensions : (approx. in mm)**

SIZE	A	B	C	D
15&20NB	42	68	78	125

**Available spares:**

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

Disc and Screen Kit	A + B
Blowdown Valve	C

**How to order spares:**

Always order spares by using the description given under Available Spares' and state the size and type of trap.

Example: Disc and Strainer Screen Kit for 15 NB Spirax Marshall TD 55 Thermodynamic Steam Trap.

**How to service:**

Remove isotub if fitted and unscrew cap using spanner. Do not use Stillsons or wrench similar type which may cause distortion of the cap. If the disc and body seating faces are only slightly worn they can be refaced by lapping individually on a flat surface plate. A figure of eight motion and a fine aluminium oxide lapping slurry gives the best results.

If the wear is beyond rectification by simple lapping, the seating faces on the body must be ground flat and then lapped and the disc replaced by a new one. The total amount of metal removed in this way should not exceed 0.25 micron.

Alternatively, customers may prefer to take advantage of our reconditioned trap scheme which allows this work to be done to original production standards.

When re-assembling, place the disc with the grooved side in contact with body seating face and screw on cap. No gasket is required but a fine smear of molysulf high temperature grease should be applied to the threads.

**How to Clean or Replace Strainer:**

Periodical Blowdown will remove most debris within the strainer screen. However Removal and cleaning / replacing of strainer screen is necessary, at least once in a year. Unscrew Blowdown valve assembly, withdrawn screen and clean, or if damaged replace with new. Put the screen in to the cap and tighten the Blowdown valve with suitable torque.

No gasket is required but a fine smear of molysulf high temperature grease should be applied to the threads.

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