Thermodynamic Steam Trap

TD 120

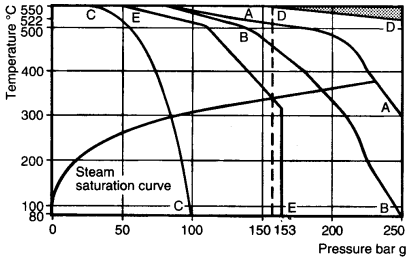
Description :

The TD 120 is a maintainable high pressure thermodynamic steam trap which can be supplied in ½" , ¾" and 1" sizes with socket weld, butt weld or flanged connections. It has low capacity specifically for mains drainage applications up to 250 bar g.

Limiting Conditions (ISO 6552)

Body design conditions PN 250
PMA – Max. allowable pressure 250 bar g
TMA – Max. allowable temperature 5500 C.
Cold hydraulic test pressure 375 bar g

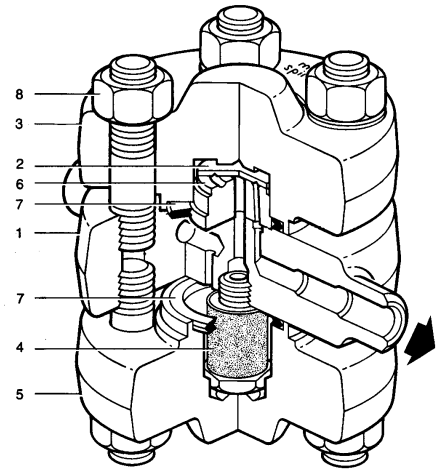
Operating Range :



The product must not be used in this region
A – A Flanged to DIN 2549 PN 250
B – B Flanged ANSI 1500
C – C Flanged to ANSI 600 & DIN 2547 PN 100 (DN 15 only)
D – D Socket weld and butt weld ends
E – E Flanged to DIN 2548 PN 160 (DN 15 only)
If the product is used at pressures above 170 bar g then a reduction in working life may be experienced.
Note : Minimum operating pressure for satisfactory operation 8 bar g
PMOB – Max. operating back pressure 50% of upstream pressure.

Sizes and Pipe Connections :

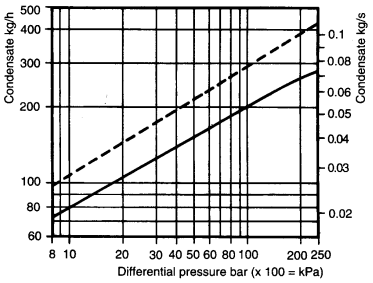
½" , ¾" and 1" Butt weld ends to suit schedule 160
½" , ¾" and 1" Socket weld ends to ANSI B16. 11 Class 6000.
DN 15 and 25 standard integral flange DIN 2549 PN 250
DN 15, 20 and 25 standard integral flange ANIS 1500
DN 15 standard integral flange DIN 2547 PN 100, DIN 2548 PN 160 and ANSI 600.



Materials :

No.	Part	Material	Specifications
1	Body	Alloy Steel	ASTM A 182 F22
2	Disc	Steel	BS 4659 Gr BD 2
3	Top Cover	Alloy Steel	ASTM A 182 F22
4	Strainer Screen Assembly	Stainless steel	BSS 970 304 S15/ Stainless steel
5	Bottom Cover	Alloy Steel	ASTM A 182 F22
6	Seat	Steel	BS 4659 Gr BD 2
7	Cover Gasket	Spirally Wound Stainless steel with Exfoliated Graphite Filler	
8	Cover Studs	Steel	ASTM A 193 Gr B16
	Cover Nuts	Steel	ASTM A 194 Gr 4

Capacities :



Hot Water Capacity : ——————
Cold Water Capacity : .....

Material Certification :

This product can be certified to EN 10204 3.1B as standard. Certification must be specified at time of order.

How to Specify :

½" SPIRAX SARCO TD 120 Thermodynamic disc type steam trap having steel body with butt weld connections. It will incorporate a Stainless steel strainer and give a tight shut - off. For pressure up to 250 bar g.

Butt weld and Socket weld

Size	A	B	B1	C	D	E	Weight
½"	78	158	156	55	55	78	10.5 Kg
¾"	80	158	156	55	55	80	10.5 Kg
1"	80	158	170	55	55	80	10.5 Kg

Flanged PN 100, PN 160 and ANSI 600

DN	A	B2	C	D	E	Weight
15	80	210	55	55	80	17.8 Kg

Flanged PN 250* and ANSI 1500

DN	A	B2	C	D	E	Weight
15	80	240	55	55	80	17.8 Kg
20	80	240	55	55	80	18.7 Kg
25	80	260	55	55	80	21.7 Kg

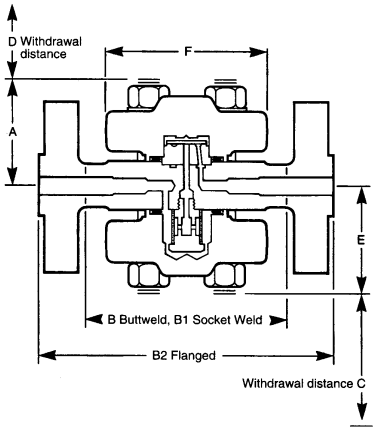
Installation :

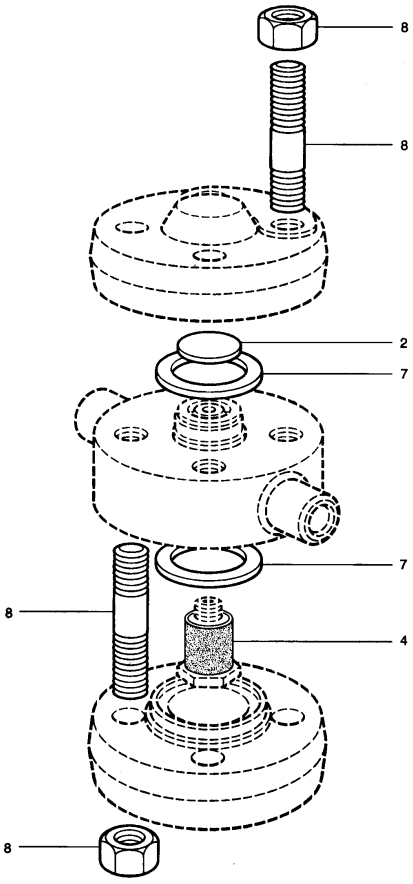
Install in a horizontal pipeline with the nameplate on top. After 24 hours in service the cover nuts should be checked for tightness.

Spare Parts :

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

AVAILABLE SPARE	
Set of Internals	2, 7 (2 off), 4
Screen	4, 7
set of Cover Gaskets	(2 off) 7
Set of Cover Studs & Nuts	(8 off) 8





How to Order :

Always order spares by using the description given in the column headed Available Spare and stating the type of trap.

Example : 1 - Set of Internals for ½" SPIRAX SARCO TD 120 Steam trap.

Maintenance :

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 nuts on top and bottom of trap. Lift off top cover. Remove disc.
Always re-assemble using new gaskets making sure that all seat faces are perfectly clean.

To Clean S trainer :

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.

How to replace cover studs :

After removing old cover studs, fit new cover studs until the studs bottom out. The use of a thread lubricant is recommended. Note : Two sets of studs are included when spares are supplied. For traps with flat topped covers the long studs should be used. For traps with profiled forged covers the shorter studs should be used.

Recommended Tightening Torques :

Item	or  mm 		Nm
4	22		25 – 35
8 Nut	23	M 16	160 – 180
8 Stud		M 16	85 – 90