

spirax sarco

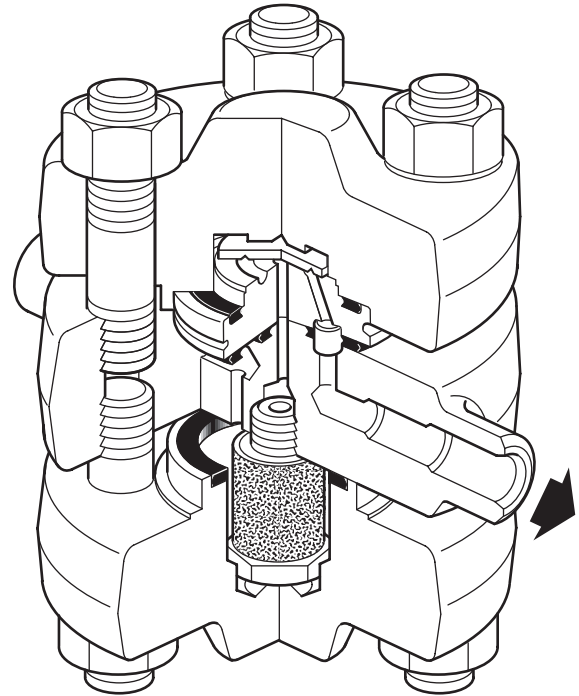
TD120M

High Pressure Thermodynamic Steam Trap with Replaceable Seat

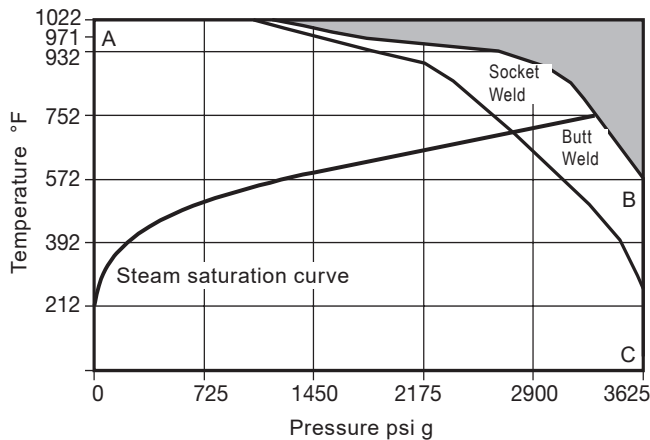
Description

The Thermodynamic steam trap cycles periodically to discharge condensate very near to steam temperature. It is unaffected by waterhammer or superheat.

Model	TD 120M
PMO	3190 psi g
Sizes	1/2", 3/4" & 1"
Connections	SW to ANSI B 16.11 Class 6000
Construction	Forged Alloy Steel
Options	Buttweld and ANSI 1500/900 RF connections



Pressure/temperature limits (ISO 6552)

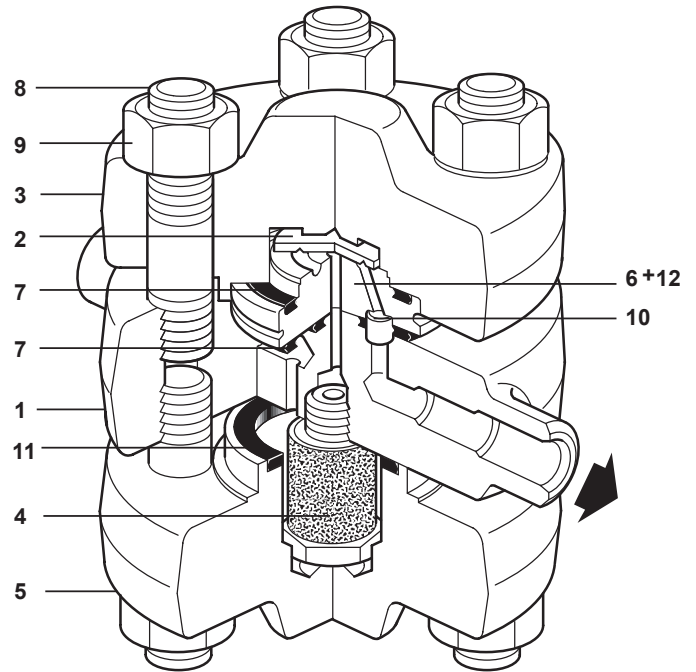


PMA	Maximum allowable pressure	3,190 psi g/up to 572 °F	220 bar g/up to 300 °C
		1160 psi g/1022 °F	80 bar g/550 °C
TMA	Maximum allowable temperature	1022 °F/0-1160 psi g	550 °C/0-80 bar g
	Cold Hydraulic Test Pressure	5437 psi g	375 bar g
	Maximum Operating Pressure (PMO)	3190 psi g at saturated steam temperature	
	Maximum Operating Temperature	572 °F (300 °C) at 3,190 psi g (220 bar g)	
		1022 °F (550 °C) at operating pressures below 1160 psi g (80 bar g)	
	Minimum pressure for satisfactory operation is:	116 psi, 8 bar	
	Maximum back pressure should not exceed 50% of the inlet pressure under any conditions of operation, otherwise the trap may not shut		

Materials

No.	Part	Material	
1	Body	Alloy steel	ASTM A182 F22
2	Disc	Steel	
3	Top cover	Alloy steel	ASTM A182 F22
4	Strainer screen assembly	Stainless steel	Sintered stainless
5	Bottom cover	Alloy steel	ASTM A182 F22
*6	Seat	Steel	BS 4659 Gr. BD2
7	Cover gasket	Spirally wound stainless steel with exfoliated graphite filler	
8	Cover studs	Steel	ASTM A193 Gr. B16
9	Cover nuts	Steel	ASTM A194 Gr.4
10	Inner seat gasket	Spirally wound stainless steel with exfoliated graphite filler	
11	Cover gasket	Spirally wound stainless steel with exfoliated graphite filler	
*12	Ferrule	Stainless steel	

*Note: Item 12 (ferrule) is pressed into item 6 (seat).

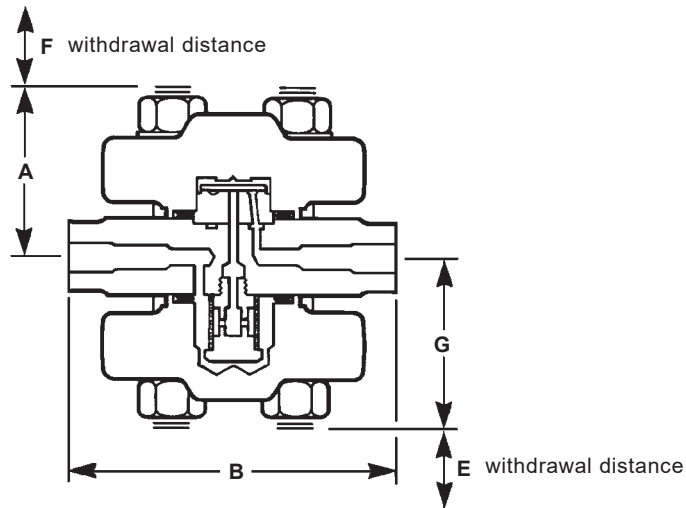


Capacities

pressure (psi g)	cold water (#/hr.)	Hot condensate (#/hr.)	pressure psi g	cold water (#/hr.)	Hot condensate (#/hr.)
116	217	156	2000	725	487
250	300	212	2250	762	510
500	403	280	2500	796	532
750	478	329	2750	829	553
1000	540	369	3000	860	572
1250	594	404	3250	890	591
1500	641	434	3500	918	608
1750	685	461	3625	932	617

Dimensions (nominal) in inches (mm) and lbs (kg)

Size	DN	A	B	E	F	G	Weight
1/2"		3.1	6.2	2.2	2.2	3.1	23.1 lb
	15	78	158	55	55	78	10.5 kg
3/4"		3.2	6.2	2.2	2.2	3.2	23.1 lb
	20	80	158	55	55	80	10.5 kg
1"		3.2	6.2	2.2	2.2	3.2	23.1 lb
	25	80	158	55	55	80	10.5 kg



Sample Specification

High pressure Thermodynamic steam trap with socket weld ends as standard. Trap to be inline maintainable with complete replacement of operating internals. The trap is constructed with alloy steel, suitable for operation from 116 psi g to 3,190 psi g. Trap comes standard with sinter stainless fine strainer.

Installation

Install in a horizontal pipeline with the nameplate on top. After 24 hours in service, the cover nuts should be checked for tightness. Full-port isolating valves should be installed upstream and downstream of the trap.

Maintenance

This product can be maintained without disturbing the piping connections. Complete isolation of the trap from both supply and return line is required before any servicing is performed.

The trap should be disassembled periodically for inspection and cleaning of the disc and seat.

Complete installation and maintenance instructions are given in IM-P150-12.

Spare parts

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

Available spares

Set of cover studs and nuts	8 (8 off), 9 (8 off)
Strainer screen and gasket	4, 11
Set of gaskets	7 (2 off), 10, 11
Maintenance kit	2, 4, 7 (2 off), 10, 11, 6+12

How to order spares

Always order spares by using the description given in the column headed 'Available spares' and state the size and type of trap.

Example: 1 - Seat and disc assembly for a Spirax Sarco 1/2" TD120M high pressure thermodynamic steam trap.

