

spirax/sarco®

Thermo-Dynamic® Steam Trap BTD52L

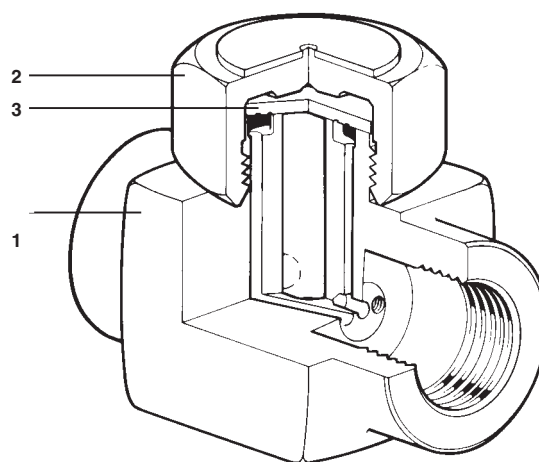
The BTD52L Thermo-Dynamic® Steam Trap is constructed entirely of 316L stainless steel and is suitable for aggressive condensate often found in clean steam systems using deionized water. Condensate and air are discharged at saturated steam temperature without the need for a water seal.

Model ↔	BTD52L
PMO	150 psig
Sizes	1/4", 3/8" & 1/2"
Connections	NPT, 0.065" O.D. Tube (1/2" only) Tri-Clamp®* compatible (1/2" only)
Construction	316L Stainless Steel
Options	BSP connections Insulcap

* A registered trademark of Tri-Clover Inc.

Typical Applications

In the biotechnology, pharmaceutical, fine chemical, food, dairy and beverage industries: main drip service, WFI system sterilization, and drainage of steam filter housing and separators.



Limiting Operating Conditions

Max. Operating Pressure (PMO) 150psig (10 barg)

Minimum pressure for satisfactory operation is 3.5 psi (0.24 bar)
Maximum back pressure should not exceed 80% of the inlet pressure under any conditions of operation, otherwise the trap may not shut.

Max. Operating Temperature 850°F (454°C)
at all operating pressures

Pressure Shell Design Conditions

PMA 230 psig/0-850°F 16 barg/0-454°C
Max. allowable pressure

TMA 850°F/0-230 psig 454°C/0-16 barg
Max. allowable temperature

Capacities

Pressure (psig)	1/2" sanitary clamp, 1/2" OD tube end, 1/4" NPT Flow (lb/h)	3/8", 1/2" NPT Flow (lb/h)
5	71	167
10	89	185
15	101	196
20	111	204
25	120	210
50	150	270
75	171	331
100	188	393
125	203	454
150	215	515

All flows shown are differential flows

Construction Materials

No.	Part	Material	
1	Body	Stainless Steel	AISI 316L
2	Cap	Stainless Steel	AISI 316L
3	Disc	Stainless Steel	AISI 316L
	Insulcap (optional)	Stainless Steel	AISI 304

Material Certification

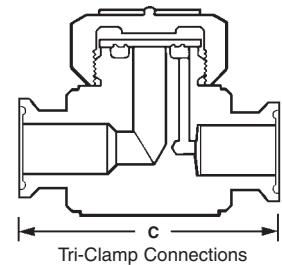
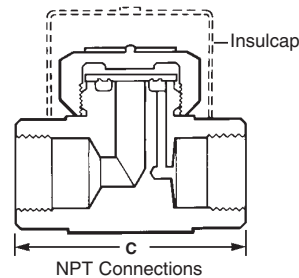
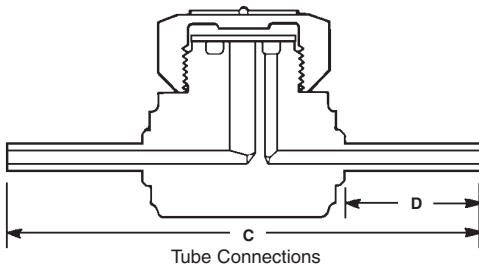
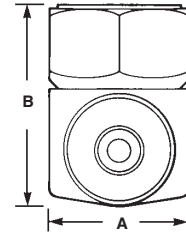
Actual mill test reports covering the O.D. tube and Tri-Clamp® body and cap material are available if specified at the time of ordering.

Thermo-Dynamic® Steam Trap BTD52L

Dimensions

(nominal) in inches and millimeters

Size	A	B	C Tube	C Screwed	C Tri-Clamp	D Tube	Weight Tube	Weight Screwed	Weight Tri-Clamp
1/4"	1.4	2.1	—	2.6	—	—	—	1 lb	—
	36	53	—	65	—	—	—	.45 kg	—
3/8"	1.4	2.1	—	2.6	—	—	—	1 lb	—
	36	53	—	65	—	—	—	.45 kg	—
1/2"	1.4	2.1	4.4	2.6	2.6	1.5	1 lb	1 lb	1.2 lb
	36	53	111	65	65	40	.45 kg	.45 kg	.55 kg



Options

Insulcap – The insulcap is a friction-fit cover designed to reduce the effect of excessive heat loss resulting from low ambient temperatures, wind, rain, etc. Available as a spare part.

Sample Specification

Steam trap shall be all ANSI 316L stainless steel thermodynamic disc type with connections on a common center line which can be installed in any position. Integral seat design. Shall not require any water seal for normal operation. Spirax Sarco type BTD52L for all pressures between 3.5 psig (0.24 barg), and 150 psig (10 barg).

Installation

Preferably install in a horizontal line as close as possible to equipment or pipeline being drained. For freeze proof or self-draining installations, or where horizontal fitting is not possible, the BTD52L may be installed vertically. Full-flow isolating valves should be installed upstream and downstream of the trap.

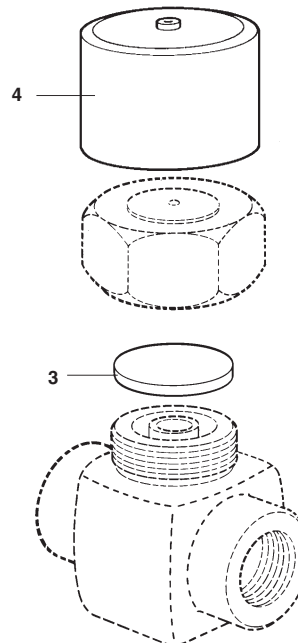
Maintenance

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.

The only wearing parts of the trap are the disc and seat rings, which should be inspected and cleaned periodically. Slight wear can often be corrected by resurfacing on a lapping plate.

Complete installation and maintenance instructions are given in the IMI sheet, which accompanies the product.

Spare Parts



Disc	3
Insulcap	4

Only parts listed above are available as spares