



BTM7

Stainless Steel Thermostatic Clean Steam Trap

Description

The Spirax Sarco BTM7 is a maintainable thermostatic steam trap designed to remove condensate from clean steam systems with minimal backing up. Applications include sterile steam barriers, process vessels and CIP/SIP systems. Manufactured in 316L stainless steel with minimal crevices, it is self-draining and operates close to steam temperature. Traps are individually packaged with protective end caps and sealed in a polythene bag.

Standards

The BTM7 has been designed in general accordance with ASME BPE. It also complies with the requirements of the European Pressure Equipment Directive.

All wetted parts of this trap are manufactured from FDA approved materials.

Part 3, 'O' ring - Complies with USP Class VI and FDA CFR title 21, Paragraph 177, Section 2600.

Certification

This product is available with certification to EN 10204 3.1.

Note: All certification / inspection requirements must be stated at the time of order placement.

Fixed bleed to ensure fail open operation available at extra cost

Sizes and pipe connections

1/4", 1/2", 3/4", 1" screwed BSP or NPT.

1/2", 3/4", 1" O/D x 16 swg (0.065") wall thickness tube end.

1/2", 3/4", 1" sanitary clamp compatible hygienic connection.

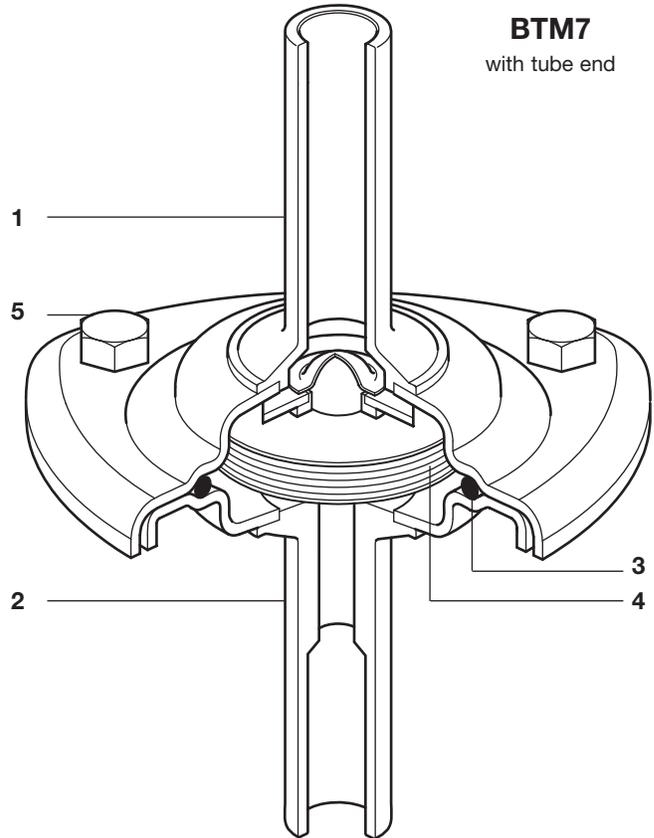
Pressure and Temperature Limits

Body design conditions

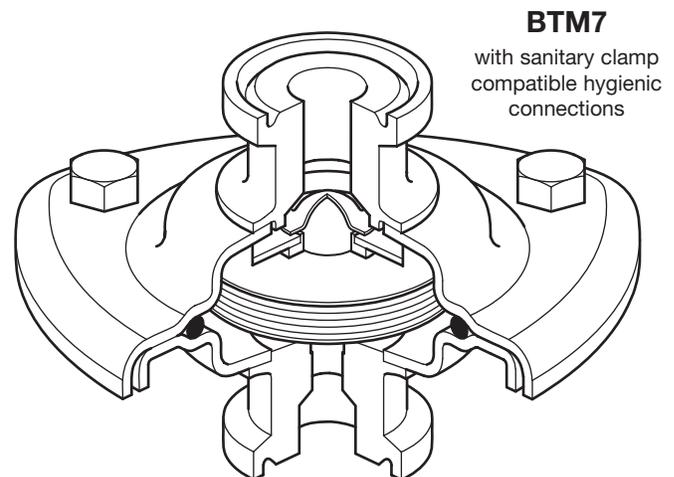
PMA	Maximum allowable pressure	102 psig @ 338°F (7 barg @ 170°C)
TMA	Maximum allowable temperature	338°F @ 102 psig (170°C @ 7 barg)
	Minimum allowable temperature	14°F (-10°C)
PMO	Maximum operating pressure for saturated steam service	102 psig (7 bar g)
TMO	Maximum operating temperature	338° F (170°C)
	Minimum operating temperature	32°F (0°C)
Designed for a maximum cold hydraulic test pressure of 155 psig (10.7 bar g)		

Materials

No.	Part	Material
1	Body (inlet)	Stainless steel AISI 316L (1.4404)
2	Body with seal (outlet)	Stainless steel AISI 316L (1.4404)
3	'O' ring	FKM Compound complies with FDA 21CFR 177.2600 and is USP Class VI approved. For use on all clean systems or where lactic acid may be present
4	Element	Stainless steel AISI 316L (1.4404)
5	Nuts and bolts	Stainless steel BS 6105 Gr. A4 80
	Washers	Austenitic stainless steel



BTM7
with tube end



BTM7
with sanitary clamp
compatible hygienic
connections

Local regulation may restrict the use of this product below the conditions quoted. Limiting conditions refer to standard connections only.
In the interests of development and improvement of the product, we reserve the right to change the specification.

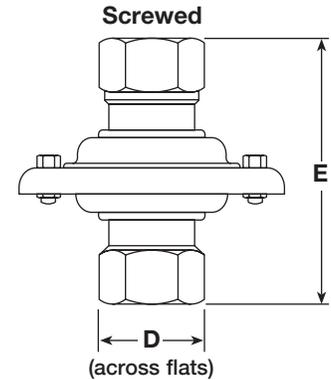
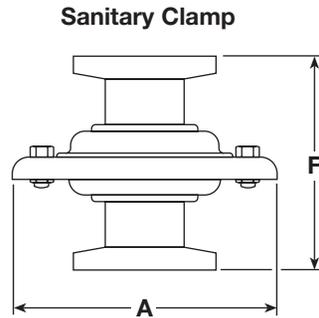
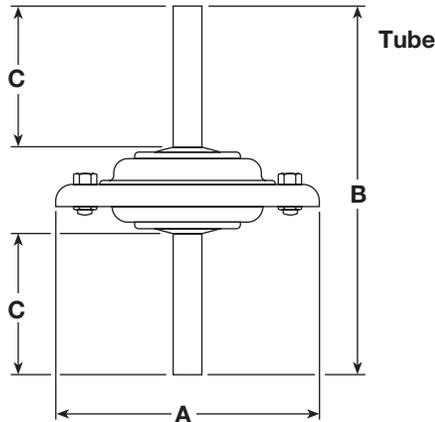
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BTM7

Stainless Steel Thermostatic Clean Steam Trap

Dimensions /weights (approximate) in inches (millimeters), lbs (kg)

Size	Tube			Screwed		Sanitary clamp		Weight	
	A	B	C	D	E	F	Tube	Screwed	Sanitary clamp
¼"	2.8 (70)	-	-	1.0 (27)	2.3 (58)	-	-	1.2 (0.53)	-
½"	2.8 (70)	4.2 (106)	1.5 (40)	1.0 (27)	2.9 (74)	1.9 (49)	1.3 (0.62)	1.4 (0.66)	1.3 (0.62)
¾"	2.8 (70)	4.2 (106)	1.5 (40)	1.2 (32)	3.2 (81)	1.9 (49)	1.5 (0.68)	1.7 (0.77)	1.3 (0.62)
1"	2.8 (70)	4.2 (106)	1.5 (40)	1.6 (41)	3.7 (95)	2.1 (53)	1.7 (0.77)	2.0 (0.90)	2.0 (0.90)



Capacities

Pressure (psig)	cold water #/hr	½" and larger hot condensate #/hr.	¼" only hot condensate #/hr.
1	565	50	50
5	1125	124	124
10	1513	217	217
20	2036	404	404
30	2422	590	590
40	2740	777	737
50	3014	963	779
75	3586	1429	855
100	4056	1896	910

Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P180-05) supplied with the product.

Installation note:

The trap is designed for installation in vertical lines with the flow downward to ensure self-draining operation. Do not expose element to superheat conditions since over-expansion may result. Suitable isolation valves must be installed to allow for safe maintenance / replacement.

Sample Specification

Steam trap shall be self-adjusting balanced pressure type capable of operating close to saturated steam temperature. All wetted parts shall be manufactured from 316L stainless steel. Trap shall be sealed construction and shall be completely self-draining when installed in vertical pipeline. Connections shall be 0.065" extended O.D. tube, Tri-Clamp® compatible, or screwed NPT. All wetted parts of this trap are manufactured from FDA/3-A approved materials.

Spare parts

Available parts are shown in solid outline. Parts drawn in broken line are not available as spares.

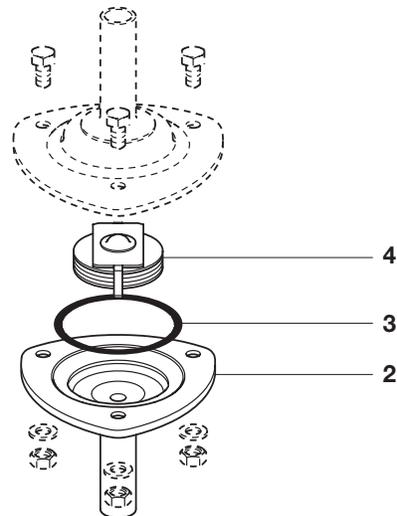
Available spares

Element assembly	4
'O' ring (packet of 3)	3
Body with seat (outlet) - state connections	2

How to order spares

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

Example: 1 off Element assembly for a Spirax Sarco ½" BTM7 thermostatic clean steam trap having screwed NPT connections.



Recommended tightening torques

Item No.	Part	or		lb - ft (N m)
		mm	M5	
5	Nuts and bolts	8 A/F	M5	2.2-3 (3-4)

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High Purity

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