



BTS7.1

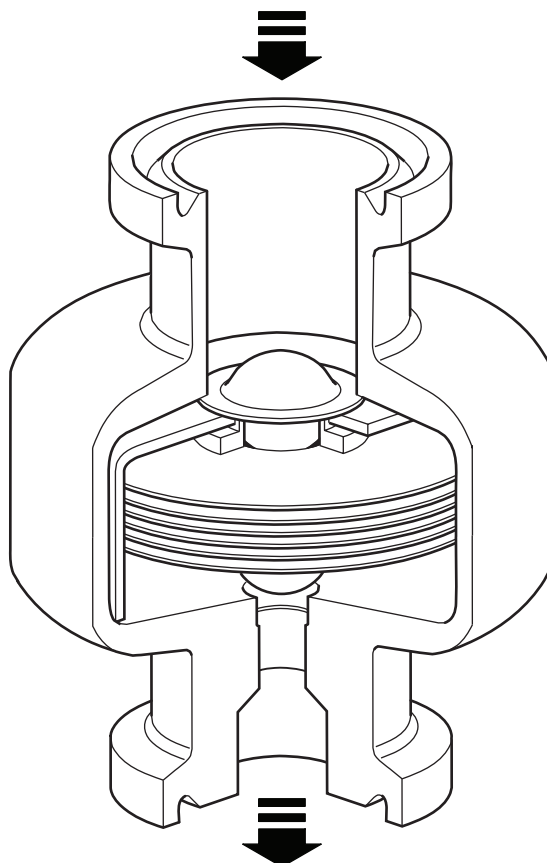
Sanitary Balanced Pressure Thermostatic Steam Trap

Description

The Spirax Sarco BTS7.1 is a sealed sanitary balanced pressure thermostatic steam trap designed to remove condensate from clean (Chemical Free) and pure steam applications with minimal condensate retention. Applications include sterile steam barriers, block and bleed installations, mains drainage and CIP/SIP of vessels and reactors and process lines. Manufactured in 316L stainless steel with minimal crevices, it is self-draining and operates close to steam temperature.

The BTS7.1 has an internal finish of $0.5 \mu\text{m Ra}$ ($20 \mu\text{in Ra}$) whilst the external finish is $0.75 \mu\text{m Ra}$ ($30 \mu\text{in Ra}$). Each trap is individually packaged within an "ISO CLASS 7" clean environment with protective end caps and sealed in a protective plastic bag.

Designed, manufactured and approved for Steam and Condensate applications. This product complies with EC1935:2004 Food Contact Materials. It also complies with regulation EC2023:2006 on good manufacturing practice for materials and articles intended to come into contact with food.



BTS7.1

Sanitary clamp ended variant

Options

Fixed bleed to ensure 'Fail Open' operation.

Standards

- The BTS7.1 has been designed and manufactured in general accordance with ASME BPE standards.
- The unit also complies with the requirements of the EU Pressure Equipment Directive/UK Pressure Equipment (Safety) Regulations.

Certification

This product is available with the following certification:

- EN 10204 3.1 Material Certification Pressure Retaining Parts - Chargeable.
- EN 10204 3.1 Material Certification for Wetted Parts including the WFI element fill - Chargeable.
- Specific Internal Surface Finish - Chargeable.
- Typical Internal Surface Finish - F.O.C.
- Certificate of Compliance for FDA and ADI Free Statement - F.O.C
- TSE-BSE Statement - F.O.C.
- EC1935:2004 Declaration of Compliance - F.O.C.
- Declaration of Conformity BS EN ISO 14644-1:2015 Class 7 Clean Room - F.O.C.
- Typical Test Report - F.O.C.

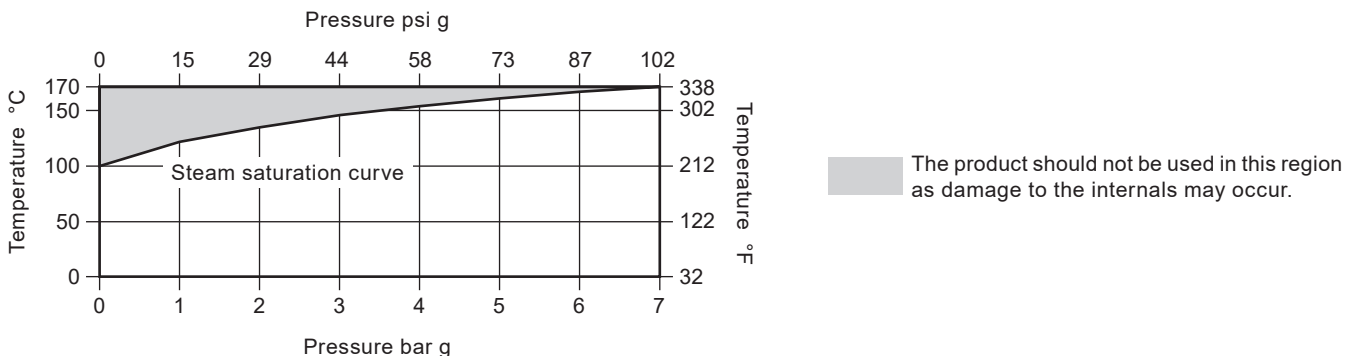
Note: All certification/inspection requirements must be stated at the time of order placement, and may be subject to additional cost as detailed above.

Sizes and pipe connections

¾" inlet and ½" outlet to ASME BPE Type A sanitary clamp connections.

The BTS7.1 trap is designed to be self draining for vertical installation (discharge down) ½" - ¾" trap should be fitted with a ¾" gasket at the inlet.

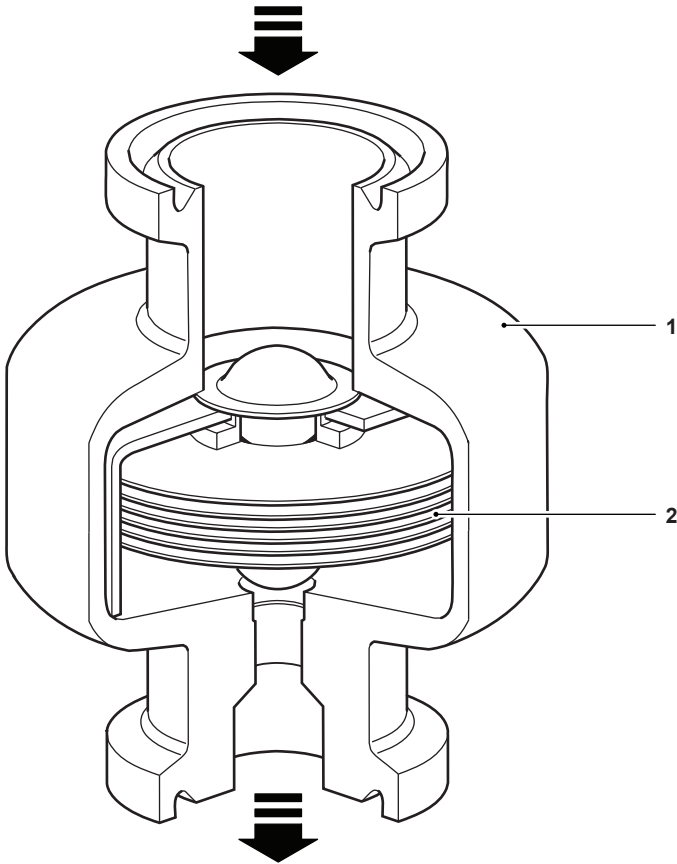
Pressure/temperature limits



Body design conditions		PN7	
PMA	Maximum allowable pressure	7 bar g @ 170 °C	102 psi g @ 338 °F
TMA	Maximum allowable temperature	170 °C @ 7 bar g	338 °F @ 102 psi g
Minimum allowable temperature		-254 °C	-425 °F
PMO	Maximum operating pressure for saturated steam service	7 bar g @ 170 °C	102 psi g @ 338 °F
TMO	Maximum operating temperature	170 °C @ 7 bar g	338 °F @ 102 psi g
Minimum operating temperature		0 °C	32 °F
Designed for a maximum cold hydraulic test pressure of:		10.7 bar g	155 psi g

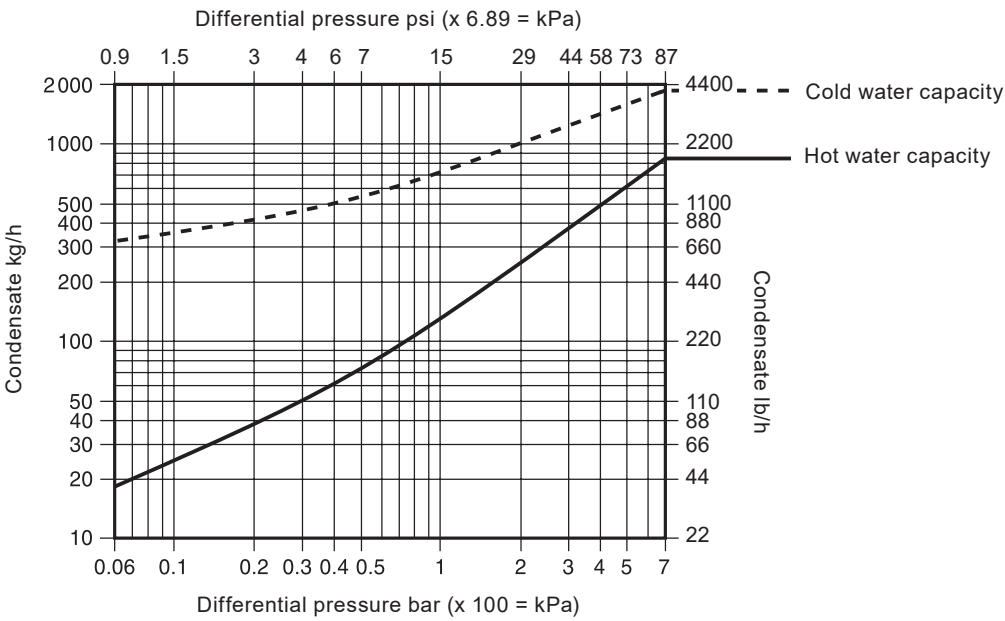
Materials

BTS7.1
Sanitary clamp ended variant

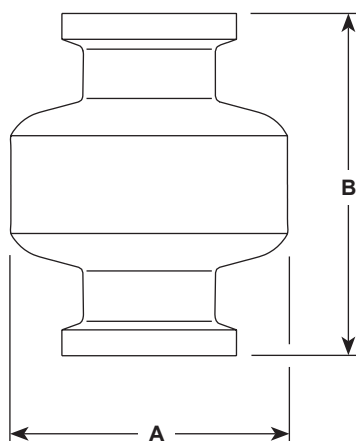


No.	Part	Material	
1	Body	Stainless steel	316L (1.4404)
2	Capsule element	Stainless steel	316L (1.4404)

Capacities



Dimensions/weights approximate) in mm (inches) and kg (pounds)



Size	A	B	Weight
¾" x ½"	40 (1.6)	49 (1.9)	0.15 (0.3)

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 the element to superheat conditions since over-expansion may result. Suitable isolation valves must be installed to allow for safe maintenance/replacement.

How to order example

1 off Spirax Sarco non-maintainable ½" - ¾" BTS7.1 clean steam trap suitable for pressures up to 7 bar g with a body that is self-draining.

Spare parts

There are no spare parts for the BTS7.1.