

TI-P180-03 ST Issue 7

# Description

The Spirax Sarco BTS7 is a sealed 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 crevises, it is self-draining and operates close to steam temperature. Traps are individually packaged with protective end caps and sealed in a polythene bag.

#### Options

Fixed bleed to ensure fail open operation. Special connections to suit most piping systems.

#### Standards

The BTS7 has been designed and built in general accordance with ASME BPE. It also complies with the requirements of the European Pressure Equipment Directive 97/23 / EC. All wetted parts of this trap are manufactured from FDA approved materials.

#### Certification

This product is available with a manufacturer's Typical Test Report. **Note:** All certification/inspection requirements must be stated at the time of order placement.

### Sizes and pipe connections

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

 $\frac{1}{2}$ ",  $\frac{3}{4}$ ", 1" O/D x 16 swg (0.065") wall thickness tube butt weld.

#### DIN 11850 (Series 1) tube butt weld ends

12 mm O / D  $\,$  x 1.0 mm wall thickness tube butt weld (DN10-D) 18 mm O / D  $\,$  x 1.0 mm wall thickness tube butt weld (DN10-D)

### ISO 1127 (Series 1) tube butt weld ends

13.5 mm O / D x 1.6 mm wall thickness tube butt weld (DN8-I) 17.2 mm O / D x 1.6 mm wall thickness tube butt weld (DN10-I) 21.3 mm O / D x 1.6 mm wall thickness tube butt weld (DN15-I)

## Pressure / temperature limits



The product should not be used in this region as damage to the internals may occur.

Body design conditions						
PMA	Maximum allowable pressure	7 bar g @ 170°C				
TMA	Maximum allowable temperature 170°C @ 7 b					
Minimu	m allowable temperature	-254°C				
PMO	Maximum operating pressure for saturated steam service	7 bar g @ 170°C				
ТМО	Maximum operating temperature	170°C @ 7 bar g				
Minimum operating temperature 0°C						
Designed for a maximum cold hydraulic test pressure of 10.5 bar g						



BTS7 with screwed connection

## **Materials**

No.	Part	Material				
1	Body	Stainless steel	AISI 316L (1.4404)			
2	Element	Stainless steel	AISI 316L (1.4404)			

#### First for Steam Solutions





## 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 DN15 BTS7 clean steam trap with tube ends to ISO 1127, Series 1. (21.3 mm O/D x 1.6 mm wall thickness). Tangent length of tube ends to be 40 mm for ease of orbital welding. Body to be self-draining. Suitable for pressures up to 7 bar g.

# Spare parts

There are no spare parts for the BTS7.

# Dimensions/weights (approximate) in mm and kg

	Α	В	С	D	Weight	
Size		Tube		Screwed	Tube	Screwed
1⁄4"	40	-	-	58	-	0.53
1⁄2"	40	106	40	74	0.44	0.49
3/4"	40	106	40	81	0.51	0.60
1"	40	106	40	95	0.60	0.73
DN8*	40	106	40	-	0.35	-
DN10	40	106	40	-	0.35	-
DN15	40	106	40	-	0.42	-

\*DN8 only available for ISO 1127 tube ends.



# Screwed

