



# TC Series Clean Steam Thermostatic Traps

**Stainless Steel 316L**

For Pressures to 8,3 bar...Capacities to 1 700 kg/h

Armstrong offers a complete range of T-316L stainless steel clean steam thermostatic traps to handle the special requirements of clean steam systems. Different body configurations allow for choice of piping and ease of cleaning.

The thermostatic design is free-draining and can operate close to steam temperature at any given pressure.

## Features:

- Constructed of 316L stainless steel for corrosion resistance
- Highly polished for cleanability
- Self-draining to minimize contamination
- Compact and lightweight
- Easy to install
- Provide easy disassembly for cleaning

## Typical Applications:

- Fermentors
- Sterilizers/autoclaves
- Process piping
- Block and bleed
- Bioreactors
- CIP/SIP systems
- Equipment sterilization
- Sterile barriers

## How to Order:

Specify:

- Model number
- Pipe connection size
- End connection type

Example:

TC-C, 1/2" sanitary end connections.



Steam Trapping and Steam Tracing Equipment

**Table ST-184-1. TC Series Clean Steam Traps Materials**

Model	TC-C Clamp	TC-R Repairable	TC-S Sealed
Cap and body	316L stainless steel		
Bellows	316L stainless steel		
Body gasket	Viton	—	
Retainer	316L Stainless steel		
Clamp	304 Stainless steel	—	—
Screws	—	304 Stainless steel	—
Polish	Grit Electro		Mechanical
Interior Finish	≤ 0,5 µm Ra		≤ 1,6 µm Ra
Exterior Finish	≤ 0,8 µm Ra outside		

All models comply with the article 3.3 of the PED (97/23/EC).

**Table ST-184-2. TC Series Clean Steam Traps Physical Data**

Model	TC-C Clamp	TC-R Repairable	TC-S Sealed
Maximum Allowable Pressure (Vessel Design)	8,3 bar		10 bar
Maximum Allowable Temperature	177°C		186°C
Maximum Operating Pressure	7 bar		8,3 bar
Weight in kg	0,57	0,68	0,34

Maximum back pressure: 99% of inlet pressure

**Table ST-184-3. TC Series Capacity**

Differential Pressure* bar	5°C Subcool	11°C Subcool
	kg/h	kg/h**
0,35	82	145
0,7	163	293
1,4	307	503
2,1	458	709
2,8	561	830
3,5	699	915
4,1	837	1 136
4,8	924	1 210
5,5	1 071	1 356
6,2	1 116	1 468
6,9	1 155	1 565
7,6	1 184	1 651
8,3	1 206	1 712

\* Capacities based on differential pressure with no back pressure.

\*\* Capacities will vary with the degree of subcooling. When greater capacities are required, the trap will automatically adjust to the load, up to the maximum (cold water) capacity shown, by increasing the amount of subcooling.

**All dimensions and weights are approximate. Use certified print for exact dimensions. Design and materials are subject to change without notice.**

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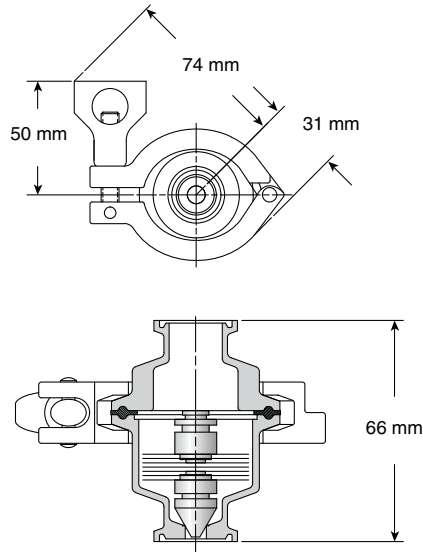
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Stainless Steel 316L

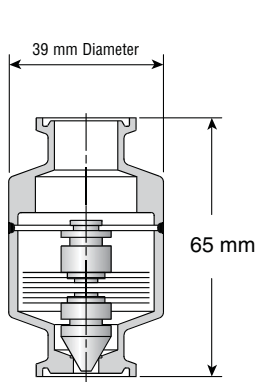
For Pressures to 8,3 bar... Capacities to 1 700 kg/h



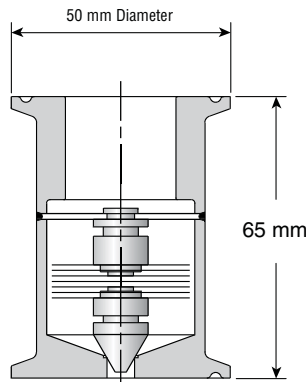
Steam Trapping and Steam Tracing Equipment



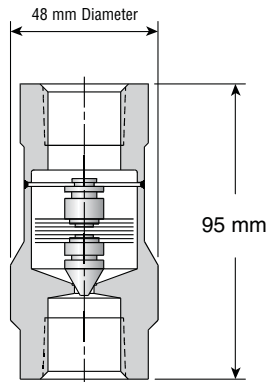
**Model TC-C Clamp**  
**With Sanitary Body Clamp**  
 1/2", 3/4" and 1" Sanitary End Connections



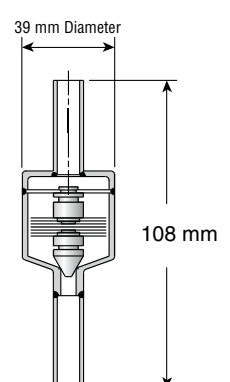
**Model TC-S Sealed**  
 1/2" and 3/4"  
 Sanitary End Connections



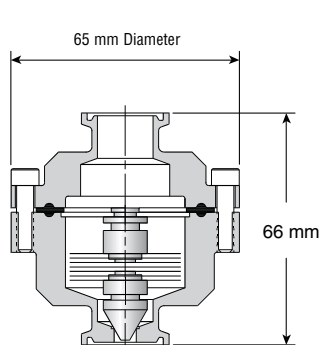
**Model TC-S Sealed**  
 1"  
 Sanitary End Connections



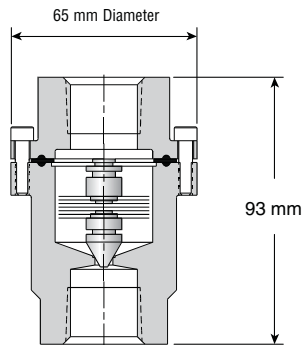
**Model TC-S Sealed**  
 1/2" and 3/4"  
 Threaded End Connections



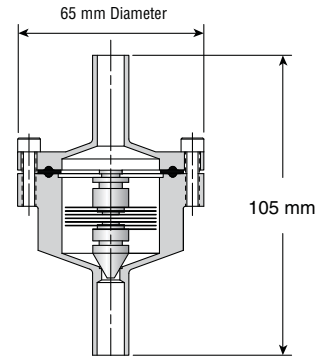
**Model TC-S Sealed**  
 1/2" and 3/4"  
 Tube End Connections



**Model TC-R Repairable**  
**With Bolted Body and Cap**  
 1/2", 3/4" and 1"  
 Sanitary End Connections



**Model TC-R Repairable**  
**With Bolted Body and Cap**  
 1/2" and 3/4"  
 Threaded End Connections



**Model TC-R Repairable**  
**With Bolted Body and Cap**  
 1/2" and 3/4"  
 Tube End Connections

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