



# TC Series Clean Steam Thermostatic Traps

For Clean Steam Systems

For Pressures to 120 psig (8 bar)...Capacities to 3,775 lb/hr (1,712 kg/hr)

Steam Trapping and Steam Tracing Equipment

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.

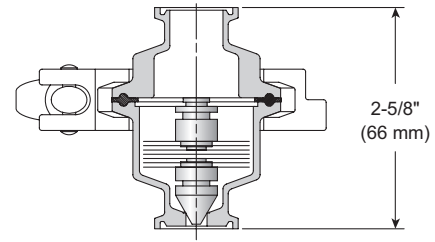
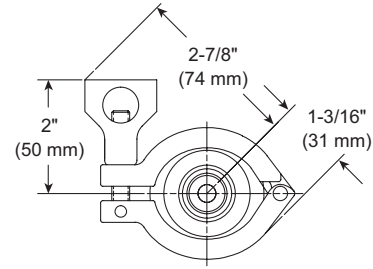
The thermostatic design is free-draining and can operate close to steam temperature at any given pressure.

## 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.

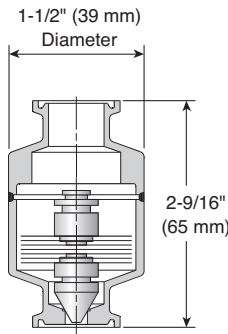
For a fully detailed certified drawing, refer to:

TC-C CD #1161

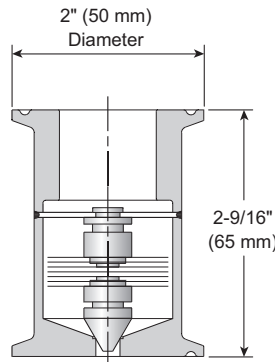
TC-R CD #1162

TC-S CD #1163

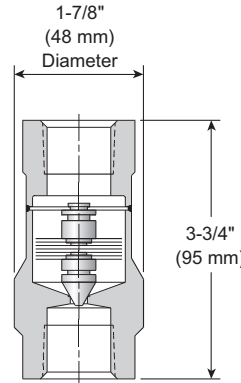
**Model TC-C Clamp  
With Sanitary Body Clamp**  
1/2" (15 mm), 3/4" (20 mm), 1" (25 mm)  
Sanitary End Connections



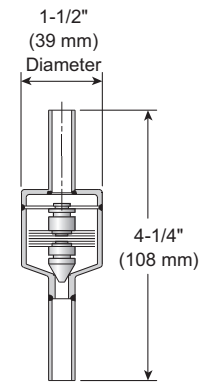
**Model TC-S Sealed**  
1/2" (15 mm), 3/4" (20 mm)  
Sanitary End Connections



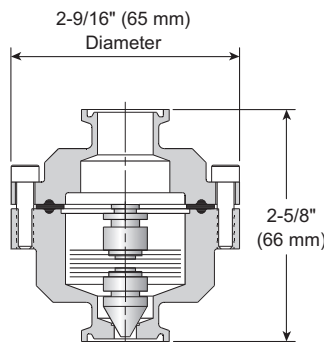
**Model TC-S Sealed**  
1" (25 mm)  
Sanitary End Connections



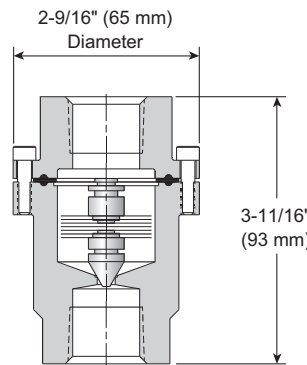
**Model TC-S Sealed**  
1/2" (15 mm), 3/4" (20 mm)  
Threaded End Connections



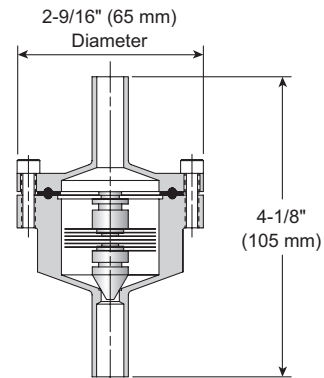
**Model TC-S Sealed**  
1/2" (15 mm), 3/4" (20 mm)  
Tube End Connections



**Model TC-R Repairable  
With Bolted Body and Cap**  
1/2" (15 mm), 3/4" (20 mm), 1" (25 mm)  
Sanitary End Connections



**Model TC-R Repairable  
With Bolted Body and Cap**  
1/2" (15 mm), 3/4" (20 mm)  
Threaded End Connections



**Model TC-R Repairable  
With Bolted Body and Cap**  
1/2" (15 mm), 3/4" (20 mm)  
Tube End Connections

# TC Series Clean Steam Thermostatic Traps

## For Clean Steam Systems

For Pressures to 120 psig (8 bar)...Capacities to 3,775 lb/hr (1,712 kg/hr)



### Materials

Model	TC-C Clamp	TC-R Repairable	TC-S Sealed
Cap and body	ASTM A479 316L		
Bellows	316L Stainless Steel		
Body gasket	Viton®		—
Retainer	Stainless Steel		
Clamp	Stainless Steel	—	—
Screws	—	Stainless Steel	—
Finish	180 grit electro polish to 20 µin Ra or below inside, and 150 grit electro polish to 30 µin Ra or below on outside		Mechanical finish to 63 µin Ra interior and 32 µin Ra exterior

NOTE: µin = microinches

### Physical Data

Model	TC-C Clamp	TC-R Repairable	TC-S Sealed
Maximum Allowable Pressure (Vessel Design)	120 psig (8.3 bar)		150 psig (10 bar)
Maximum Allowable Temperature	350°F (177°C)		366°F (186°C)
Maximum Operating Pressure	100 psig (7 bar)		120 psig (8.3 bar)
Weight lb (kg)	1-1/4 (0.57)	1-1/2 (0.68)	3/4 (0.34)

### TC Series Clean Steam Trap Capacities

psig	bar	10°F (5.6°C) Subcool		20°F (11.2°C) Subcool	
		lb/hr	kg/hr	lb/hr	kg/hr
5	0.35	180	82	320	145
10	0.70	360	163	645	293
20	1.4	676	307	1,108	503
30	2.1	1,009	458	1,563	709
40	2.8	1,236	561	1,830	830
50	3.5	1,542	699	2,016	915
60	4.1	1,845	837	2,505	1,136
70	4.8	2,037	924	2,668	1,210
80	5.5	2,360	1,071	2,990	1,356
90	6.2	2,460	1,116	3,237	1,468
100	6.9	2,547	1,155	3,450	1,565
110	7.6	2,610	1,184	3,640	1,651
120	8.3	2,660	1,206	3,775	1,712