

# Steam Traps

## Clean Steam Thermostatic Steam Trap

(Repairable)

**FDA500**  
Thermostatic Clean Steam

Model	<b>FDA500, FDA510</b>
Sizes	<b>1/2", 3/4", 1", 1 1/2"</b>
Connections	<b>Tri-clamp, NPT, Tube Weld</b>
Body Material	<b>Stainless Steel</b>
PMO Max. Operating Pressure	<b>90 PSIG</b>
TMO Max. Operating Temperature	<b>Saturated Steam Temperature</b>
PMA Max. Allowable Pressure	<b>145 PSIG up to 338°F</b>
TMA Max. Allowable Temperature	<b>350°F @ 132 PSIG</b>

### Typical Applications

**DRIP, PROCESS:** FDA500 Series thermostatic clean steam traps are used in clean steam applications as drip traps on piping runs as well as for drainage for CIP/SIP systems and various process vessels. Available with 2°F sub-cool bellows.

### How It Works

This trap contains a welded 316L stainless steel thermal element that expands when heated and contracts when cooled. When air and sub-cooled condensate are present, the trap is in an open discharge position. When steam reaches the trap, the element expands, closing the trap tightly.

### Features

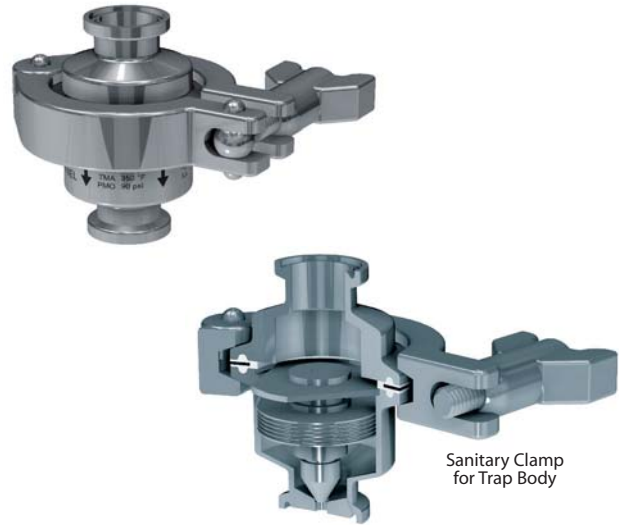
- All wetted parts are 316L stainless steel
- Electro-polish finish of 20-25 microinches RA on **internal** surfaces of body. Consult factory for 15RA max surface finish option.
- Electro-polish finish of 25-32 microinches RA on **external** surfaces of body
- Operates close to saturation curve to minimize condensate back-up
- Completely self-draining in the vertical downward flow orientation

### Sample Specification

The steam Trap shall be all 316L stainless steel thermostatic type with a balanced pressure bellows that operates close to saturated steam temperatures. Internal body parts shall have an electro-polish finish of 20-25 microinches RA internally and a 25-32 finish externally. The unit shall have a split-body sanitary clamp design for easy maintenance. Trap shall be completely self-draining when mounted vertically.

### Installation and Maintenance

This trap is designed for installation in a vertical, downward flow orientation to ensure that the self-draining clean steam requirement is satisfied. If purchased with tube weld connections with the intention of welding in-line, the thermal element and gasket must be removed during the welding process or heat damage may occur.



Sanitary Clamp for Trap Body

Size/Connection Inlet x Outlet	Model Code	Orifice Size	Weight lbs
1/2" TC x TC	FDA500-12-TCTC	9/64"	2.00
3/4" TC x TC	FDA500-13-TCTC	9/64"	2.00
1" TC x TC	FDA500-14-TCTC	9/64"	2.25
1 1/2" TC x TC	FDA500-16-TCTC	9/64"	2.25
1/2" TC x TC	FDA510-12-TCTC	5/16"	2.00
3/4" TC x TC	FDA510-13-TCTC	5/16"	2.00
1" TC x TC	FDA510-14-TCTC	5/16"	2.25
1 1/2" TC x TC	FDA510-16-TCTC	5/16"	2.25
1/2" TC x NPT	FDA500-12-TCNP	9/64"	2.00
3/4" TC x NPT	FDA500-13-TCNP	9/64"	2.00
1" TC x NPT	FDA500-14-TCNP	9/64"	3.00
1 1/2" TC x NPT	FDA500-16-TCNP	9/64"	2.25
1/2" TC x NPT	FDA510-12-TCNP	5/16"	2.25
3/4" TC x NPT	FDA510-13-TCNP	5/16"	2.25
1" TC x NPT	FDA510-14-TCNP	5/16"	2.25
1 1/2" TC x NPT	FDA510-16-TCNP	5/16"	2.25
1/2" TW x TW	FDA500-12-TWTW	9/64"	2.25
1/2" TW x TW	FDA510-12-TWTW	5/16"	2.25

### MATERIALS

Body	Stainless Steel, AISI 316L
Gasket	Teflon/Encapsulated Viton
Element Plate	Stainless Steel, AISI 316L
Thermal Element	Stainless Steel, AISI 316L
Clamp	Stainless Steel, AISI 304

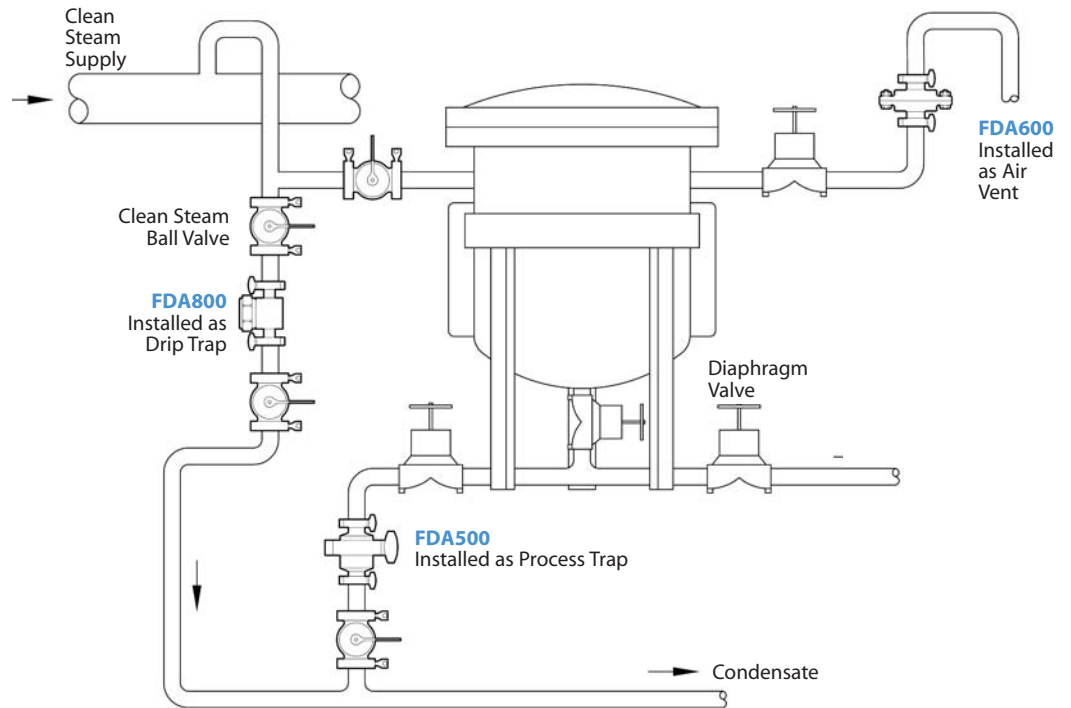
### CAPACITIES – Condensate (lbs/hr)

Model	Orifice (Inches)	Differential Pressure (PSI)					
		5	10	20	50	75	90
FDA500	9/64	140	240	400	690	850	950
FDA510	5/16	850	1200	1695	2690	3165	3400

**Note:** Capacities at 10°F below saturation.



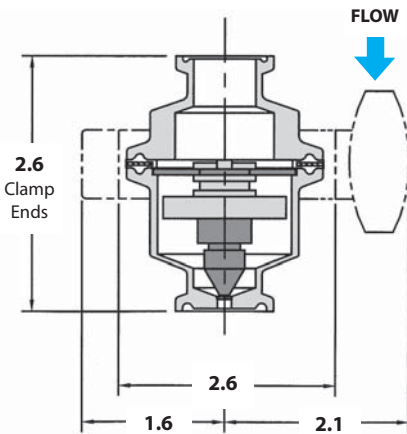
Typical Clean Steam Application



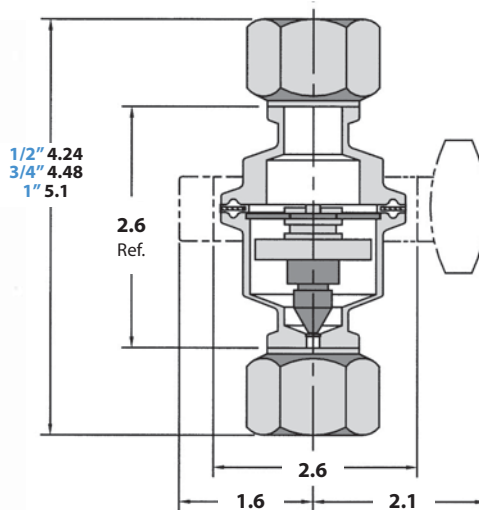
FDA500 Series Connections: 1/2", 3/4" & 1"

Units: inches

Tri-Clamp Connection: TC x TC



Connection: NP x NP or TC x NP



Tube-weld Connection: TW x TW

