

# STEAM TRAPS

## FDA400 Series

Thermostatic Clean Steam Trap (Repairable)

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Model	<b>FDA401, FDA402, FDA403</b>
Sizes	<b>1/2", 3/4"</b>
Connections	<b>Tri-clamp</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>



**FDA402**  
shown



Sanitary  
Clamp for  
Trap Body

### TYPICAL APPLICATIONS

**DRIP, PROCESS:** The **FDA400 Series** thermostatic steam traps are used on clean steam applications as drip traps on piping runs as well as drainage for CIP/SIP systems and various process vessels. The FDA400 Series allows for a 90° connection on either the inlet or outlet capable of 360° orientation.

### HOW IT WORKS

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

### FEATURES

- Universal horizontal connection swivels to any angle
- All wetted parts are 316L stainless steel
- Electro-polish finish of **20-25** microinches RA on **internal** body
- Electro-polish finish of **25-32** microinches RA on **external** body
- Operates close to saturation curve to minimize condensate back-up
- Completely self-draining in the vertical downward flow orientation

### MATERIALS

Body	Stainless Steel, AISI 316L
Gasket	Teflon Coated Elastomer
Element Plate	Stainless Steel, AISI 316L
Thermal Element	Stainless Steel, AISI 316L
Clamp	Stainless Steel, AISI 304

### CAPACITIES – Condensate (lbs/hr)

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

Note: Capacities at 10°F below saturation.

### SAMPLE SPECIFICATION

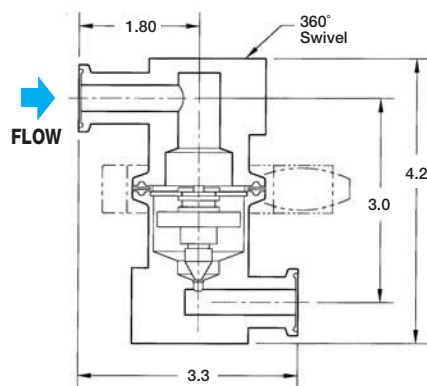
The Steam Trap shall be all 316L stainless steel thermostatic type with a balanced pressure bellows that operates close to saturated steam temperatures. Inlet, outlet or both connections must contain a 90° swivel arrangement capable of 360° orientation. Internal body parts shall have an electro-polish 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 & MAINTENANCE

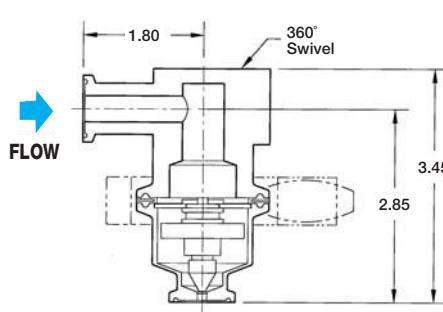
Trap is designed for installation in a vertical, downward flow orientation to ensure that the self-draining clean steam requirement is satisfied. For full maintenance details see Installation and Maintenance Manual.

### FDA400 Series Connections: 1/2" & 3/4"

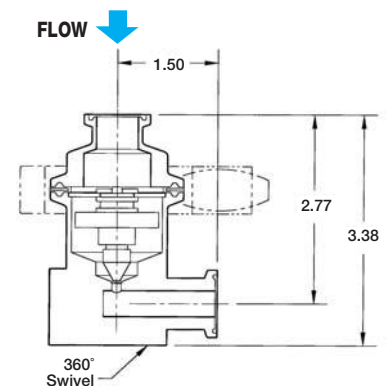
Units: inches



**FDA401** Inlet: 90° Angle  
Outlet: 90° Angle



**FDA402** Inlet: 90° Angle  
Outlet: Straight



**FDA403** Inlet: Straight  
Outlet: 90° Angle

## FDA500

### Thermostatic Clean Steam Trap (Repairable)

Model	<b>FDA500, FDA510</b>
Sizes	<b>1/2", 3/4", 1"</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>



Sanitary Clamp for Trap Body

### TYPICAL APPLICATIONS

**DRIP, PROCESS:** The **FDA500 Series** thermostatic steam traps are used on clean steam applications as drip traps on piping runs as well as drainage for CIP/SIP systems and various process vessels.

### HOW IT WORKS

The thermostatic trap contains a welded 316L stainless steel thermal element that expands when heated and contracts when cooled. When air and condensate are present the trap is in the 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 body
- Electro-polish finish of **25-32** microinches RA on external 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

Trap is designed for installation in a vertical, downward flow orientation to ensure that the self-draining clean steam requirement is satisfied. Isolation valves should be installed for maintenance purposes. For welded installations, removal of the body gasket and thermal element is necessary.

### MAINTENANCE

Dirt is the most common cause of premature failure. Therefore, the upstream strainer should be periodically inspected and cleaned. For full maintenance details see Installation and Maintenance Manual.

### 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.

