# STEAM TRAPS

# FDA500

## Thermostatic Clean Steam Trap (Repairable)

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

*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

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|---|---|
| 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.