



## SANITIZER NTD 230L SERIES SANITARY THERMODYNAMIC STEAM TRAPS

**Pressures To 150 PSIG (10.3 barg)  
Temperatures to 850°F (454°C)**

### APPLICATIONS

- Steam Tracing
- Drip Leg
- Heating
- Sanitary Applications

**Sanitary** — 316L stainless steel bar stock body, disc and cap, with surface finishes better than 32 RA, prevent contamination and rouging.

**Compact Design** — Stainless steel disc is the only moving part.

**Inexpensive** — Low initial cost is less expensive than repairable technologies.

**Simplifies Installation** — Works in any position.

**Rugged** — Handles water hammer and superheat.

**Reliable, Efficient Operation** — Blast discharge quickly draws condensate and helps maintain system temperature.

**Freeze resistant** — Self draining design prevents freezing.

**All 316L Stainless Steel Construction** — Resists both internal and external corrosion.

**Easy to Monitor** — Audible discharge cycle makes checking operation simple.

### MODELS

- **NTD 230L**—Sanitizer Thermodynamic Steam Trap

NOTE: Please specify if Material Test Reports (MTR) or Certificates of Conformance (COC) are required.

### OPERATION

Incoming air and condensate flow through the trap body and into the control chamber. Line pressure raises the disc off the seat, allowing complete discharge. When flashing condensate enters the cartridge, flow velocity increases, creating low pressure underneath the disc. Flashing condensate at high velocity strikes the inside wall of the disc chamber and is deflected

to the top of the disc, causing a pressure buildup. The disc is forced down onto the seat by this pressure imbalance. The trap remains closed as flashed vapor in the control chamber keeps the disc seated. Pressure inside the cap is not lowered until the trapped flash vapor condenses due to body radiation. Condensing steam lowers the pressure above the disc. Disc is then lifted and the cycle repeated.

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## SPECIFICATION

Steam Trap shall be of the thermodynamic design. Body shall be of 316L stainless steel construction. Surface finishes shall exceed 32 $\mu$  in. grade. Trap body shall contain an integral seat. Cover shall seal to body without gaskets or seals. Trap shall be suitable for pressures through 150 PSI. Trap end connections shall be sanitary clamp and accommodate mating connection sizes of 1/2 and 3/4 inch. Trap shall function installed in any pipe configuration.

### MAXIMUM OPERATING CONDITIONS

PMO: Max. Operating Pressure 150 psig (10.3 barg)

TMO: Max. Operating Temperature 850°F (454°C)

PMA: Max. Allowable Pressure 230 psig (15.9 barg)

TMA: Max. Allowable Temperature 850°F (454°F)

### MATERIALS OF CONSTRUCTION

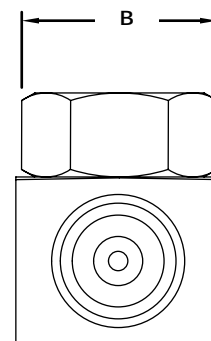
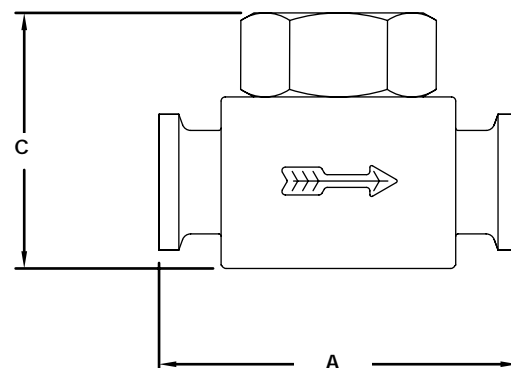
Body .....316L Stainless Steel Bar Stock

Disc .....316L Stainless Steel Bar Stock

Cover .....316L Stainless Steel Bar Stock

Maximum Capacity — lbs/hr (10°F Below Saturation)							
Orifice	Differential PSIG (barg)						
	5 (0.34)	10 (0.7)	20 (1.4)	50 (3.4)	100 (6.9)	125 (8.6)	150 (10.3)
0.141	215	236	264	345	447	486	521

For Kg/Hr Multiply by .454



Connections: 1/2/3/4" Sanitary Clamp

Dimensions			
inches (mm)			Weight Lbs. (kg)
A	B	C	
2 <sup>5</sup> / <sub>8</sub> (66)	1 <sup>1</sup> / <sub>2</sub> (38)	2 (51)	1.31 (0.59)