

#### **APPLICATIONS**

- Platen Presses
- Plating Tanks
- Sterilizers
- Tire Presses
- Cooking Equipment
- Laundry Equipment
- Other Process Equipment

#### **OPTION**

-B Bellows for low subcool

Canadian Registration # OE0591.9C

# **DS200 SERIES** THERMOSTATIC STEAM **TRAPS**

Pressures To 100 PSIG (6.9 barg) Temperatures to 338°F (170°C)

Stainless Steel Body—Body materials are Type 316L Stainless Steel.

Self Centering Valve—Leak tight shut off. Assembly of actuator and valve to impingement plate allows valve to self-align with center of valve seat orifice. Provides long lasting valve and seat.

Temperature Sensitive Actuator—One moving part. Inconel welded actuator for maximum corrosion, thermal and hydraulic shock resistance.

Thermal and Hydraulic Shock Resistant—Impingement plate plus welded construction prevents damage to actuator.

Valve and Seat—Long life, stainless steel valve and seat lapped and matched together for water tight seal.

Maintenance—All models are sealed and maintenance free.

Three Year Guarantee—Trap guaranteed for three years against defects in material or workmanship.

Additional Features—Best air handling capability for fast start up and operation. Fastest response to condensate load or temperature changes. Broad application range. Selection of orifice and pipe sizes meet majority of condensate removal demands in deionized steam systems.

**Unique SLR Orifice Option**—Specify when immediate elimination of condensate and improved sensitivity is desired. An orifice on the valve allows for continuous discharge of condensate. Trap will nominally pass 50 lb/hr (22.7 kg/hr) of condensate at 50 psi (3.4 barg) within 0.5°C (1°F) of saturated temperature.

### Models

- DS202-Low capacity
- DS203–Medium capacity
- DS204-High capacity

## **OPERATION**

Thermal actuator is filled at it's free length with a liquid having a lower boiling point than water. As assembled, valve is normally open. On startup, air passes through vent. As air is eliminated, hot steam reaches vent and the thermal actuator fill vaporizes to a pressure higher than line pressure. This forces

valve into seat orifice to prevent any further flow. Should more air collect, it takes heat from the actuator, lowering internal pressure. Line pressure will then compress thermal actuator to open valve and discharge air. Valve lift automatically adjusts to variations.

## **DS200 SERIES** THERMOSTATIC STEAM **TRAPS**

## **SPECIFICATION**

Steam trap shall be of balanced pressure design with 316L welded bellows capable of releasing condensate within 5°C (10°F) of saturated pressure. Where drainage at saturated temperatures is required, trap shall have SLR orifice. All other components shall be of 316 or 316L stainless steel. Trap shall be self draining and normally open.

## MAXIMUM OPERATING CONDITIONS

PMO: Max. Operating Pressure TMO: Max. Operating Temperature	100 psig 338°F	(6.9 barg) (170°C)
PMA: Max. Allowable Pressure	150 psig	(10.3 barg)
TMA: Max. Allowable Temperature	366°F	(186°C)

## MATERIALS OF CONSTRUCTION

Body	ASTM A351 Grade CF3M (316L)
Welded Actuator	316L Fittings & Plates
Valve & Seat	316L Stainless Steel

## **SLR ORIFICE OPTION**

Specify when immediate elimination of condensate and improved sensitivity is desired. An orifice on the valve allows for continuous discharge of condensate. Trap will nominally pass 50 lb/hr (22.7 kg/hr) of condensate at 50 psi (3.4 barg) within 0.5°C (1°F) of saturated temperature.

### -B Bellows

1°C (2-3°F) subcool for sensitive applications under 40 psi (2.7 barg)

	Α	
В		
	3/8" - 3/4" BODY	

Connections:									
3/8" – 3/4" NPT or socketweld									

#### **DIMENSIONS** inches (mm) and WEIGHTS pounds (kg)

NPT or Socket Weld	Α	В	Weight		
% and ½	3¾	1¾	1.1		
	(95)	(44)	(0.5)		
3/4	3 <sup>15</sup> / <sub>16</sub>	1¾	1.2		
	(100)	(44)	(0.54)		

Maximum Capacity—lbs/hr 10°F Below Saturation (Kg/hr 5°C Below Saturation)															
Trap	Orifice		Differential PSIG (bar)												
пар	Inch	5	10	20	50	100	125	150	200	250	300	350	400	450	500
	(mm)	(0.34)	(0.7)	(1.4)	(3.5)	(6.9)	(8.6)	(10.3)	(13.8)	(17.2)	(20.7)	(24.1)	(27.6)	(31.0)	(34.5)
DS202	1/8	216	265	375	592	778	838	890	980	1055	1121	1180	1235	1284	1323
	(3)	(98)	(120)	(170)	(269)	(354)	(381)	(405)	(445)	(480)	(510)	(536)	(561)	(584)	(601)
DS203	1/4	550	825	1210	1975	2825	3140	3425	3650	3960	4100	4230	4420	4600	4760
	(6)	(249)	(374)	(549)	(896)	(1281)	(1424)	(1554)	(1656)	(1796)	(1860)	(1919)	(2005)	(2086)	(2161)
DS204	5/16	860	1220	1725	2725	3575	3850	4090	4505	4850	5155	5425	5675	5900	6110
	(8)	(390)	(554)	(783)	(1237)	(1623)	(1748)	(1857)	(2045)	(2202)	(2340)	(2463)	(2576)	(2679)	(2774)