



# FREE FLOAT<sup>®</sup> STEAM TRAP

## MODEL SS3-P Clean Steam Trap

### STAINLESS STEEL FREE FLOAT STEAM TRAP FOR PURE AND CLEAN STEAM SYSTEMS

#### Benefits

**Free float steam trap recommended for use in reactors, fermenters and sterilizers in the chemical, pharmaceutical, food and beverage services.**

1. Virtually crevice-free design with drain hole allows for condensate drainage without pooling, minimizing the possibility of bacteria build-up.
2. Internal buff-polishing with an additional interior and exterior electro-polish option to 0.4  $\mu\text{m}$  (16 micro-inch) Ra for improved resistance to bacterial growth.
3. Self-modulating free float provides continuous, smooth, low-velocity discharge as process loads vary.
4. Maintainable design lowers cleaning costs.
5. Only one moving part, the free float, prevents concentrated wear and provides long service life.
6. Up to 1740 psig hydraulic shock rating ensures excellent durability of the float.



#### Specifications

Model		SS3-E*	SS3-P	SS3-EP*
Connection			Clamp End	
Size (in)			1/2, 3/4	
Maximum Operating Pressure (psig)	PMO		85	
Maximum Differential Pressure (psi)	PMX		85	
Minimum Operating Pressure			Vacuum	
Maximum Operating Temperature (°F)	TMO		329	
Maximum Allowable Pressure (psig)	PMA		150	
Maximum Allowable Temperature (°F)	TMA		365	
Clamp type			3-piece (buff-polished)	
Finishing**	Internal	25 $\mu\text{m}$ Ra (1000 micro-inch) electro-polished	0.8 $\mu\text{m}$ Ra (32 micro-inch) buff-polished	Buff-polished then 0.4 $\mu\text{m}$ Ra (16 micro-inch) electro-polished
	External		25 $\mu\text{m}$ Ra (1000 micro-inch) electro-polished	

\* Option \*\* Treated base surfaces are lost-wax cast

SS3-P is a non-standard product, consult TLV for delivery time required.



**CAUTION** To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

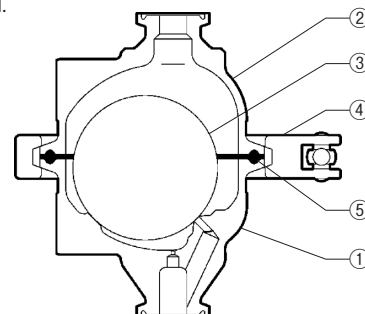
No.	Description	Material	ASTM/AISI	JIS
①	Body	Cast Stainless Steel	A351 Gr.CF3M	—
②	Cover	Cast Stainless Steel	A351 Gr.CF3M	—
③	Float	Stainless Steel	AISI316L*	SUS316L
④	Body Clamp	Cast Stainless Steel	A351 Gr.CF8	—
⑤	Cover Gasket**	High-performance Fluorine Resin	—	—

\* Equivalent

\*\* Cover gasket is GYLON BIO-PRO; complies with FDA 21 CFR 177. 1550, USP Class VI and

EC 1935/2004. GYLON BIO-PRO is a registered trademark of Garlock GmbH.

Material certificates to ISO 10474 2.2 or 3.1B available for major components, contact TLV for details.

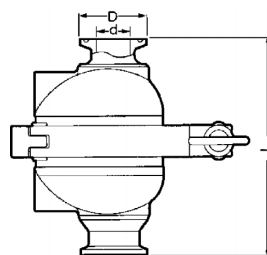
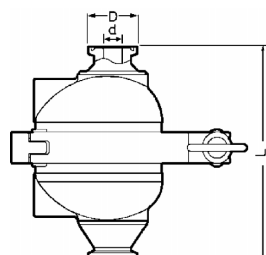


## Dimensions

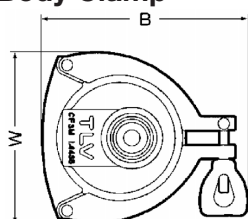
### • SS3-P Clamp End

ASME-BPE (Tri-Clamp Compatible)

ISO 2852 Clamp / ISO 2037 Tube



### • Body Clamp



### SS3-P Clamp End\*

(in)

Size	L	W**	B**	φ D	φ d	Weight (lb)
1/2	4 1/8	4 1/8	4 15/16	1 (1 11/32)	3/8 (19/32)	2.9 (3.1)
3/4					5/8 (3/4)	

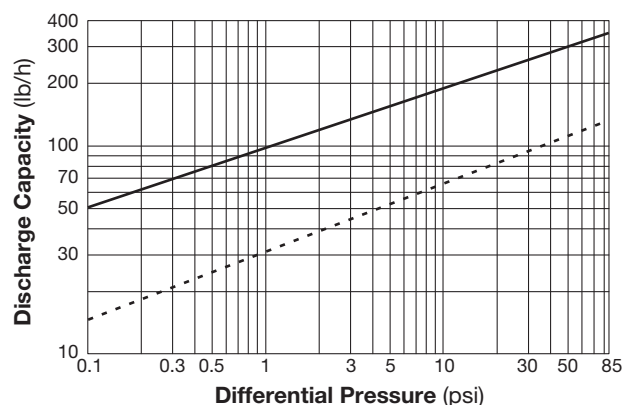
\* ASME-BPE (Tri-Clamp compatible) or ISO 2852 Clamp / ISO 2037 Tube

\*\* Approximate dimension

() ISO 2852 Clamp / ISO 2037 Tube

Tri-Clamp is a registered trademark of Alfa Laval Corporate AB.

## Discharge Capacity



— : Maximum capacity of SS3-P

- - - : Minimum amount of condensate required to prevent steam discharge

1. Differential pressure is the difference between the inlet and outlet pressure of the trap.
2. Capacities are based on continuous discharge of condensate 11 °F below saturated steam temperature.
3. Recommended safety factor: at least 1.5.



**CAUTION**

DO NOT use this product under conditions that exceed maximum differential pressure, as condensate backup will occur!

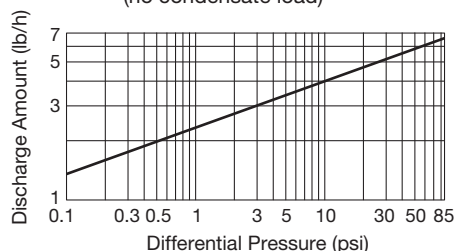


**CAUTION**

DO NOT DISASSEMBLE OR REMOVE THIS PRODUCT WHILE IT IS UNDER PRESSURE. Allow internal pressure of this product to equal atmospheric pressure and its surface to cool to room temperature before disassembling or removing. Failure to do so could cause burns or other injury. READ INSTRUCTION MANUAL CAREFULLY

The SS3-P **Clean Steam Trap** has a small built-in drain hole to ensure no condensate remains in the trap after operation. Therefore, a minimum condensate load is required during operation to prevent any steam discharge. The chart below shows the maximum steam discharge through the drain hole under no condensate load conditions.

### Max. Steam Discharge Through Drain Hole (no condensate load)



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Manufacturer

**TLV CO., LTD.**

Kakogawa, Japan

is approved by LRQA Ltd. to ISO 9001/14001

ISO 9001  
ISO 14001

