



# FREE FLOAT<sup>®</sup> STEAM TRAP

**MODEL SS3-P Clean Steam Trap  
STAINLESS STEEL**

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

### Features

**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  $0.4\mu\text{m}$  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.



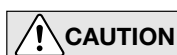
### Specifications

Model	SS3-E*	SS3-P	SS3-EP*
Connection	Clamp End		
Size	DN 15, 20 (ISO) 1/2", 3/4" (ASME-BPE)		
Maximum Operating Pressure (barg) PMO	6		
Maximum Differential Pressure (bar) ΔPMX	6		
Maximum Operating Temperature (°C) TMO	165		
Clamp type	3-piece (buff-polished)		
Finishing**	Internal	25 $\mu\text{m}$ Ra electro-polished	0.8 $\mu\text{m}$ Ra buff-polished
	External	25 $\mu\text{m}$ Ra electro-polished	Buff-polished then 0.4 $\mu\text{m}$ Ra electro-polished

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

1 bar = 0.1 MPa

PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS): Maximum Allowable Pressure (barg) PMA: 10  
Maximum Allowable Temperature (°C) TMA: 185

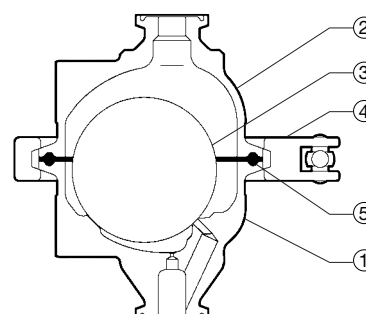


To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

No.	Description	Material	DIN*	ASTM/AISI*
①	Body	Cast Stainless Steel A351 Gr.CF3M	1.4435	—
②	Cover	Cast Stainless Steel A351 Gr.CF3M	1.4435	—
③	Float	Stainless Steel SUS316L	1.4404	AISI316L
④	Body Clamp	Cast Stainless Steel A351 Gr.CF8	1.4312	—
⑤	Cover Gasket**	High-performance Fluorine Resin	—	—

\* Equivalent materials

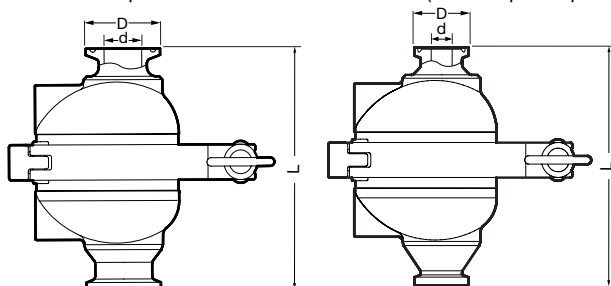
\*\* Cover gasket is GYLON BIO-PRO; complies with FDA 21 CFR 177. 1550, USP Class VI and EC 1935/2004. GYLON BIO-PRO is a registered trademark of Garlock GmbH.  
Material certificates to ISO 10474 2.2 or 3.1B available for major components, contact TLV for details.



## Dimensions

### ● SS3-P Clamp End

ISO 2852 Clamp / ISO 2037 Tube ASME-BPE (Tri-Clamp Compatible)



### SS3-P Clamp End\*

(mm)

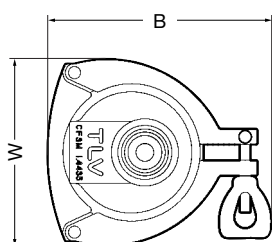
DN	L	W**	B**	φD	φd	Weight (kg)
15 (1/2")	105	105	125	34 (25)	15.2 (9.4)	1.4 (1.3)
20 (3/4")					19.3 (15.75)	

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

\*\* Approximate dimensions

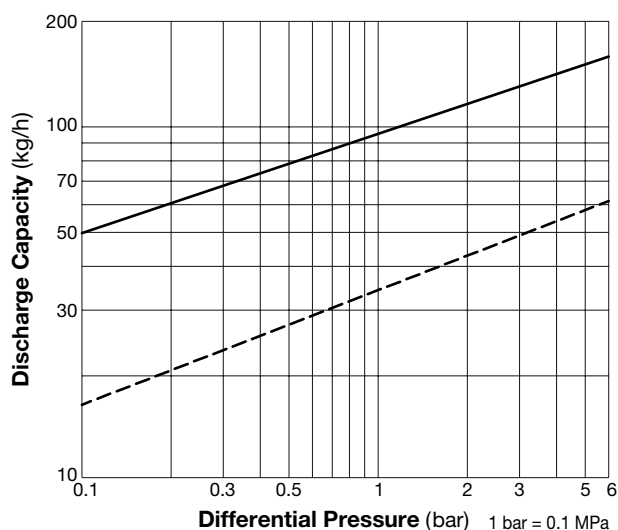
() ASME-BPE (Tri-Clamp compatible)

### ● Body Clamp



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

- Differential pressure is the difference between the inlet and outlet pressure of the trap.
- Capacities are based on continuous discharge of condensate 6 °C below saturated steam temperature.
- Recommended safety factor: at least 1.5.

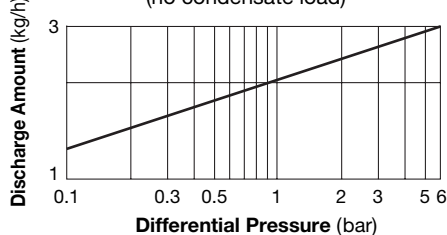


**CAUTION**

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

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)



Manufacturer  
**TLV** CO., LTD.  
Kakogawa, Japan  
is approved by LRQA Ltd. to ISO 9001/14001

ISO 9001  
ISO 14001

