



# Clean Steam Traps

**LV6 Series  
SS3-P / SS5-P**





# Designed for Bio and Clean Steam Applications

# Clean Steam Trap

LV6 Series

SS3-P/SS5-P

## All Stainless Steel Construction

- Low-quality stainless steel may corrode when exposed to water with even low ionic content. To solve this problem, the LV6 series uses AISI316L, and the SS3-P/SS5-P body and cover are made of A351 Gr.CF3M with an SUS316L float.

## Prevents Condensate Accumulation

- Smooth, virtually crevice-free interior allows for complete condensate drainage.
- The SS3-P/SS5-P has a small drain hole to prevent condensate pooling.



LV6 Series



SS3-P

3-piece clamp

## Easy Disassembly and Cleaning

- Consists of only 5 simple components held together by easily removable clamps.
- Clamp pipe connections enable the trap to be easily removed from the pipeline.

## Prevents Bacterial Contamination



- Simply constructed clamp has few projections.

- Sanitary high-performance fluorine resin gasket complies with FDA 21 CFR 177, USP Class VI and EN 1935.



- Ferrule clamp joint for clean steam, in accordance with ISO and ASME-BPE (Tri-Clamp compatible) standards, is used for connection to piping. Tube end connections are also available.



- Uniquely designed free-draining X-element\* case with large openings allows for complete fluid drainage and easy cleaning. It is electro-polished for the LV6-P and the optional LV6-EP.

\*LV6-CE is equipped with a standard X-element.



- The SS3-P and SS5-P free floats have an internal 0.8 $\mu$ m Ra buff polish.

(The optional SS3-EP and SS5-EP have a 0.4 $\mu$ m Ra buff and electro-polish [internal and external])



# AN STEAM TRAP

## Thermostatic Clean Steam Trap Compact **LV6 Series**

### What is the X-element?

- A multi-diaphragm valve mechanism filled with a thermoliquid which opens and closes the valve at approximately 6 °C less than saturated steam temperature.

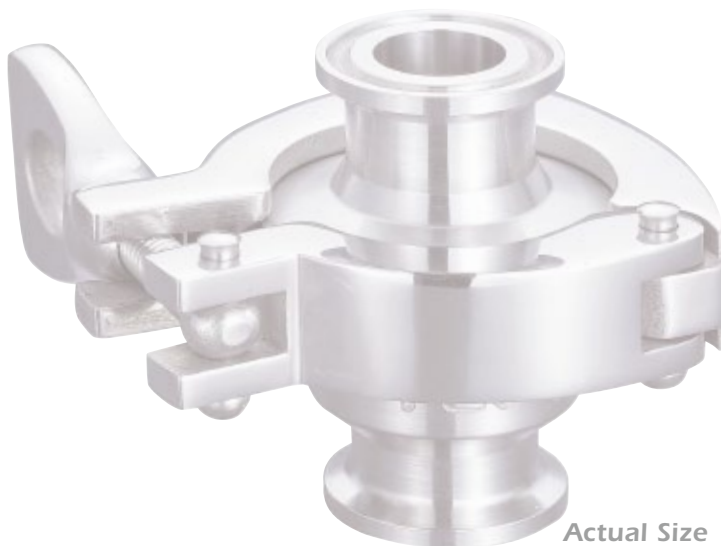


### Fail-open Safety Mechanism

- In the event of a damaged diaphragm, the LV6 is not blocked, but remains open, ensuring the operation of the steam using equipment.

### Automatic Air Venting

- The LV6 rapidly vents low temperature air and condensate at system start up, therefore reducing overall start-up time and improving productivity.
- In addition to rapid air venting at start up, air at near-to-steam temperature can be almost completely vented during operation, making the LV6 suitable for batch processes.



Actual Size

## Free Float Clean Steam Trap Continuous Discharge **SS3-P/SS5-P**

### Continuous Discharge of Condensate

- The self-modulating free float automatically adjusts to the level of condensate allowing continuous discharge. There is no condensate backup or accumulation in the equipment.



### High Durability and Long Life

- The free float with simple construction and only one moving part, without levers or hinges, has less failure. Valve wear is distributed across the entire float surface, greatly improving valve service life.

### Suitable for Condensate Recovery

- Even with a back pressure of 99% of operating steam pressure, the free float operates without fail. The SS3-P and SS5-P are therefore suitable for condensate recovery in closed systems.



Actual Size of SS3-P

# LV6 Series



## ● Specifications

Model	LV6-CE	LV6-SF	LV6-P	LV6-EP*
Material	Stainless Steel AISI316L			
Connection	Clamp End** / Tube End***			
Size (mm)	15, 20, 25 / 8, 10, 15, 20, 25			
Maximum Operating Pressure (MPaG) PMO	0.6			
Minimum Operating Pressure (MPaG)	0.01			
Maximum Back Pressure	90% of Inlet Pressure			
Maximum Operating Temperature (°C) TMO	165			
Maximum Discharge Capacity (kg/h)	770			
Subcooling of X-element Fill (°C)	Up to 6			
X-element type (for <b>Clean Steam Traps</b> )	Standard	Free-draining	Free-draining (Electro-polished)	
Clamp Type	2-piece Clamp (Buff-polished)		3-piece Clamp (Buff-polished)	
Finishing (Internal/External)	Natural Machining	0.8 μm Ra / 1.2 μm Ra Fine Machining	0.8 μm Ra / 1.2 μm Ra Buff-polished	0.4 μm Ra Electro-polished

\* Option \*\* ISO 2852, ASME-BPE (Tri-Clamp compatible), other standards available.  
 \*\*\* ISO 1127, other standards available

1 MPa = 10.197 kg/cm<sup>2</sup>

PRESSURE SHELL DESIGN CONDITIONS (**NOT OPERATING CONDITIONS**): Maximum Allowable Pressure (MPaG) PMA : 1.0  
 Maximum Allowable Temperature (°C) TMA : 185

# SS3-P/ SS5-P



## ● Specifications

Model	SS3-E*	SS3-P	SS3-EP*	SS5-P	SS5-EP*
Material	Body: Cast Stainless Steel A351 Gr. CF3M Float: Stainless Steel SUS316L (AISI316L)				
Connection	Clamp End**				
Size (mm)	15, 20			25, 38	
Maximum Operating Pressure (MPaG) PMO	0.6				
Maximum Differential Pressure (MPa) ΔPMX	0.6				
Maximum Operating Temperature (°C) TMO	165				
Maximum Discharge Capacity (kg/h)	155			530	
Finishing***	Internal	25 μm Ra Electro-polished	0.8 μm Ra Buff-polished	Buff-polished then 0.4 μm Ra Electro-polished	0.8 μm Ra Buff-polished
	External		25 μm Ra Electro-polished		Bead blasted and Electro-polished

\* Option \*\* ISO 2852, ASME-BPE (Tri-Clamp compatible) \*\*\* Treated base surfaces are lost-wax casted

1 MPa = 10.197 kg/cm<sup>2</sup>

PRESSURE SHELL DESIGN CONDITIONS (**NOT OPERATING CONDITIONS**): Maximum Allowable Pressure (MPaG) PMA : 1.0  
 Maximum Allowable Temperature (°C) TMA : 185



**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.

Full product details (sizes, pressures, capacities and materials, etc.) are included in the individual specification data sheets (SDS).

## TLV® Stainless Steel Product Series

Steam Traps		PowerTrap	Pressure Reducing Valves		Separator Filters	Separators	
Valves		Flowmeters	Air Vents		Air & Drain Traps	Check Valves	Strainers

Contact **TLV** for more information on these and other stainless steel products.

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