



Clean Steam Traps

**LV6 Series
SS3-P/SS5-P
P10**



Designed for Bio and Clean Steam Applications

Clean Steam Trap

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CL

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 and P10 uses SUS316L, 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.



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.
- The SS3-P and SS5-P free floats have an internal 0.8 μ m Ra buff polish. (The optional SS3-EP and SS5-EP have a 0.4 μ m Ra buff and electro-polish [internal and external])

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



LEAN 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 11°F 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.

Thermodyne Clean Steam Trap Cost Performance

P10

Air-jacketed Construction

- An insulating air pocket held above the pressure chamber slows radiant heat loss to reduce no-load cycling, minimizing steam loss and wear.



Tight Sealing

- precision-ground seating surfaces provide good sealing, lengthening the operation cycle, extending service life.

Excellent Cost Performance

- The P10 achieves high reliability and performance for essential functions while maintaining the simplest, most cost-effective design.

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.



LV6 Series



LV6-CE/LV6-SF



LV6-P

SS3-P/ SS5-P



P10



● Specifications

Model	LV6-CE	LV6-SF	LV6-P	LV6-EP*
Material	Stainless Steel SUS316L			
Connection	Clamp End / Tube End			
Size (in)	1/2, 3/4, 1			
Maximum Operating Pressure (psig) PMO	85			
Minimum Operating Pressure (psig)	Vacuum			
Maximum Back Pressure	90% of inlet Pressure			
Maximum Operating Temperature (°F) TMO	329			
Maximum Allowable Pressure (psig) PMA	150			
Maximum Allowable Temperature (°F) TMA	365			
Maximum Discharge Capacity (lb/h)	1700			
Subcooling of Capsule Fill (°F)	Up to 11			
X-element Type (for Clean Steam Traps)	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

● Specifications

Model	SS3-E ¹⁾	SS3-P	SS3-EP ¹⁾	SS5-P	SS5-EP ¹⁾	
Material	Body: Cast Stainless Steel A351 Gr. CF3M Float: Stainless Steel SUS316L (AISI316L)					
Connection ²⁾	Clamp End ³⁾					
Size (in)	1/2, 3/4			1, 1 1/2		
Maximum Operating Pressure (psig) PMO	85					
Maximum Differential Pressure (psig) ΔPMX	85					
Maximum Operating Temperature (°F) TMO	329					
Maximum Allowable Pressure (psig) PMA	150					
Maximum Allowable Temperature (°F) TMA	365					
Maximum Discharge Capacity (lb/h)	350			1160		
Clamp Type	3-Piece Clamp (buff-polished)					
Finishing ⁴⁾	Internal	25 μm Ra Electro-polished	0.8 μm Ra Buff-polished 25 μm Ra Electro-polished	Buff-polished then 0.4 μm Ra Electro-polished	0.8 μm Ra Buff-polished Bead blasted and Electro-polished	Buff-polished then 0.4 μm Ra Electro-polished
	External					

¹⁾ Option ²⁾ Tube end connections available on request ³⁾ ISO 2852 ASME-BPE (Tri-Clamp compatible) ⁴⁾ Treated base surface are lost-wax casted

● Specifications








Model	P10
Material	Stainless Steel SUS316L
Connection	Screwed / Clamp End
Size (in)	1/2
Maximum Operating Pressure (psig) PMO	150
Minimum Operating Pressure (psig)	Horizontally installed: 3.5 Vertically installed: 6
Maximum Back Pressure	80% of Inlet Pressure
Maximum Operating Temperature (°F) TMO	850
Maximum Allowable Pressure (psig) PMA	300
Maximum Allowable Temperature (°F) TMA	850
Maximum Discharge Capacity (lb/h)	530
Finishing (Internal / External)	Natural Machining / Natural Forged Surface



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

TLV® Stainless Steel Product Series

Steam Traps	Air & Drain Traps	Pressure Reducing Valves	Air Vents	Check Valves	Separator Filters	
 SS1NL	 SS3N	 SS1VA	 DR8-P	 VS3-P	 CKF3M	 SF1

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



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.

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

