

TLV®

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

Drain Hole

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.

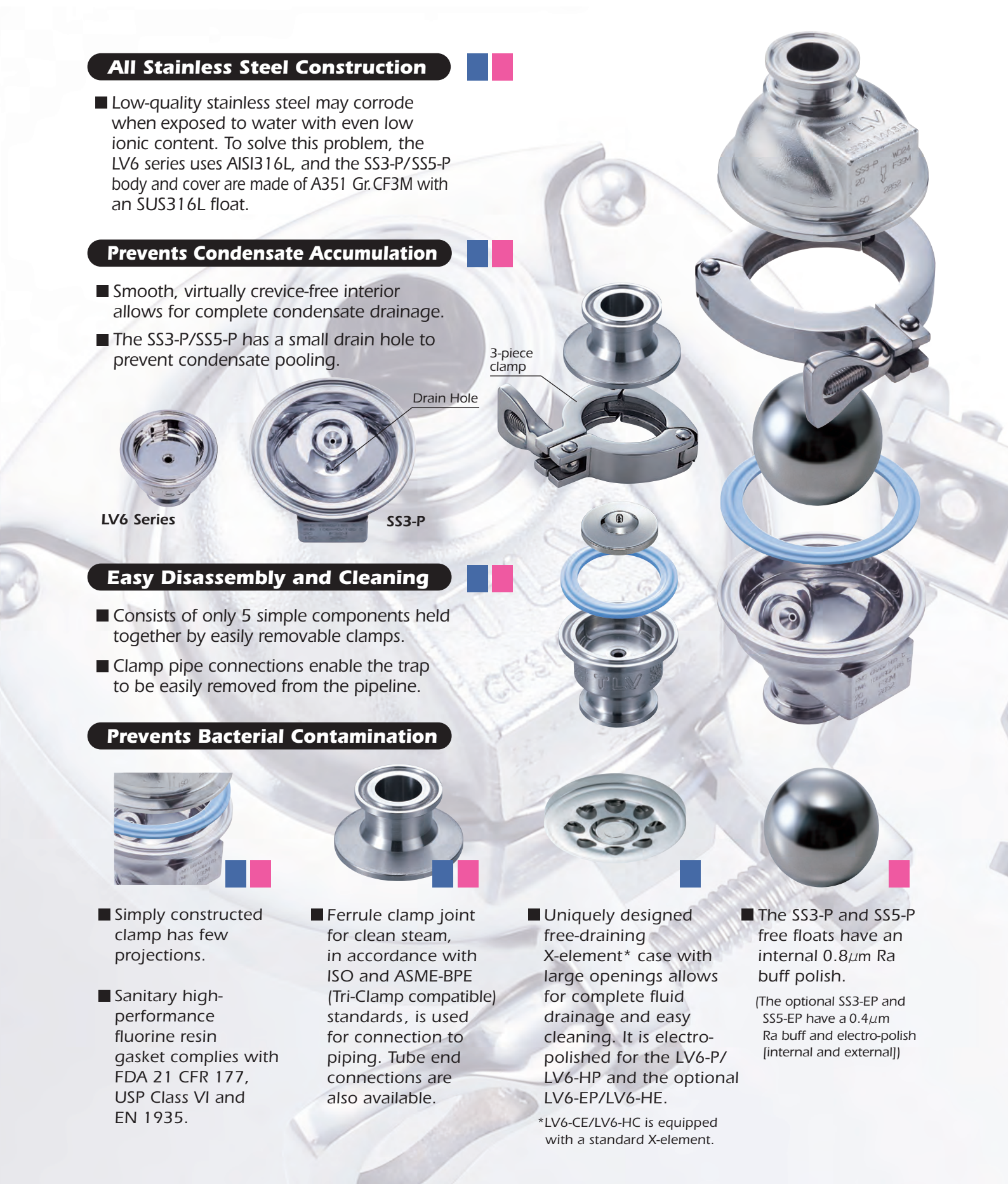
- Ferrule clamp joint for clean steam, in accordance with ISO and ASME-BPE (Tri-Clamp compatible) standards, is used for connection to piping. Tube end connections are also available.

- 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/LV6-HP and the optional LV6-EP/LV6-HE.

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

- 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])



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 2 °C less than saturated steam temperature.

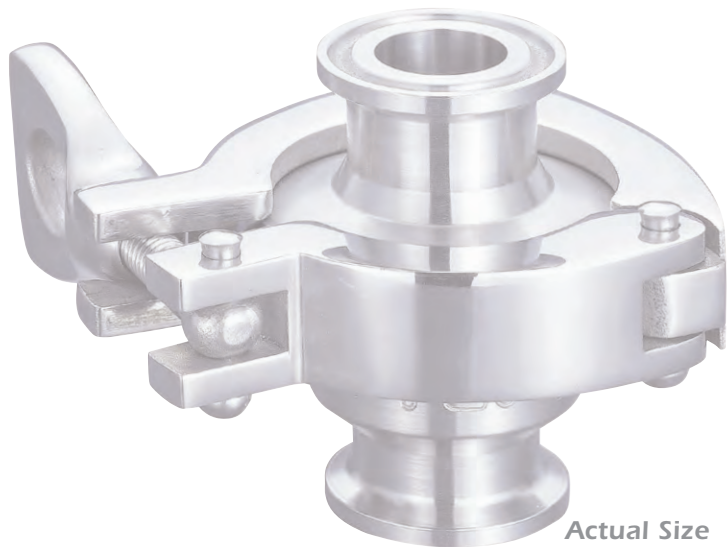


Fail-open Safety Mechanism

- 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.

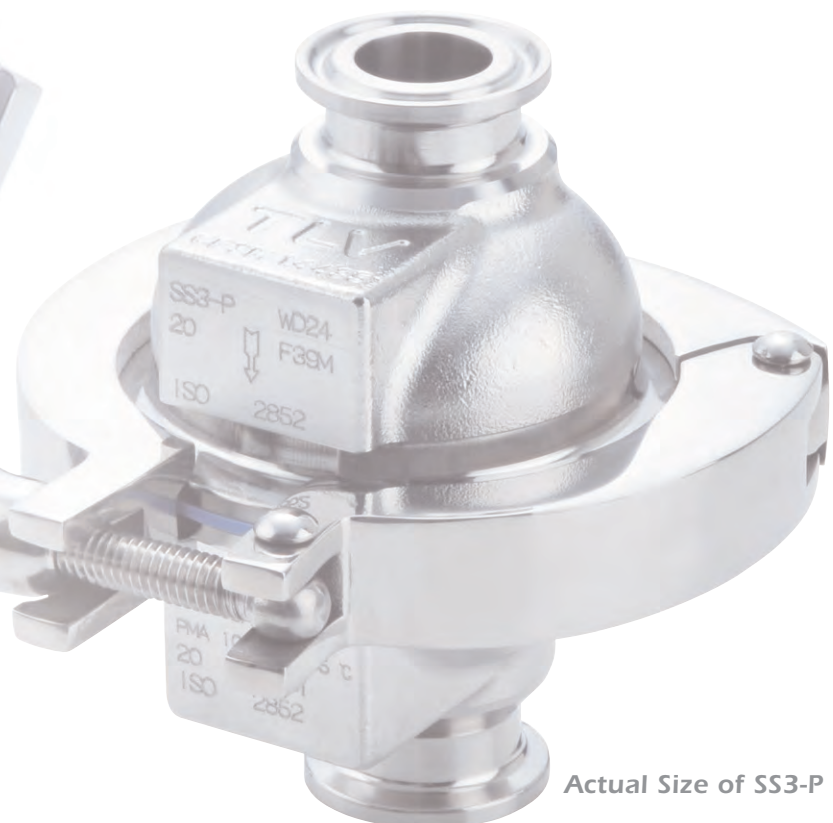


High Durability and Long Life

- 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-CF	LV6-SF	LV6-P	LV6-EP*
Material	Stainless Steel AISI316L				
Connection	Clamp End** / Tube End***				
Size	15, 20, 25mm(ISO) ½", ¾", 1"(ASME-BPE) / 8, 10, 15, 20, 25mm(ISO)				
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 Capsule Fill (°C)	Up to 2				
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 polished	0.4 μm Ra Electro-polished	

Model	LV6-HC	LV6-HS	LV6-HP	LV6-HE
Material	Stainless Steel AISI316L			
Connection	Clamp End** / Tube End***			
Size	15, 20, 25mm(ISO) ½", ¾", 1"(ASME-BPE) / 8, 10, 15, 20, 25mm(ISO)			
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)	1020			
Subcooling of Capsule Fill (°C)	Up to 2			
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 ** ISO 2852, ASME-BPE (Tri-Clamp compatible), other standards available.

1 MPa = 10.197 kg/cm²

*** ISO 1127, other standards available

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	15, 20mm(ISO) ½", ¾"(ASME-BPE)				25, 38mm(ISO) 1", 1½"(ASME-BPE)	
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	25μm Ra Electro-polished	0.8μm Ra Buff-polished	Buff-polished then 0.4μm Ra Electro-polished	0.8μm Ra Buff-polished	Buff-polished then 0.4μm Ra Electro-polished
	External		25μm 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/cm²


PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS): Maximum Allowable Pressure (MPaG) PMA: 1.0
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.

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	Air & Drain Traps	Pressure Reducing Valves	Air Vents	Check Valves	Separator Filters
 SS1NL	 SS3N	 SS1VG	 COS	 DR20	 A-DR20
 DR8-P	 VS3-P	 LA6	 CKF3M	 SF1	

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

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Manufacturer

TLV CO., LTD.

Kakogawa, Japan

is approved by LRQA Ltd. to ISO 9001/14001

ISO 9001
ISO 14001

