



# FREE FLOAT® STEAM TRAP

## MODEL SH5VL

### HIGH-PRESSURE FREE FLOAT AND THERMOSTATIC STEAM TRAP WITH THREE-POINT SEATING

#### Benefits

**Vertical inline repairable trap with tight shut-off for drainage of superheated or high-pressure steam mains, equipment, and turbines.**

1. Self-modulating free float provides continuous, smooth, low-velocity condensate discharge.
2. Constant water seal and unique rotational seating design prevents concentrated wear to ensure long life.
3. Three-point seating ensures steam-tight seal, even under no-load conditions.
4. Easy, inline access to internal parts to simplify cleaning and lower maintenance costs.
5. Up to 1740 or 2300 psig\* hydraulic shock rating ensures excellent resistance of the float to water hammer.
6. Durable thermostatic air vent for exceptionally fast start-up.
7. Built-in screen for extended trouble-free service.

\*Depending on orifice no.



#### Specifications

Model	SH5VL	
Connection	Screwed	Socket Weld
Size (in)	3/4	1/2, 3/4, 1
Orifice No.	46, 65	
Maximum Operating Pressure (psig) PMO	650, 925	
Maximum Differential Pressure (psi) ΔPMX	650, 925	
Minimum Operating Pressure (psig)	1.5	
Maximum Operating Temperature (°F) TMO	800	
Maximum Allowable Pressure (psig) PMA	925	
Maximum Allowable Temperature (°F) TMA	800	



**CAUTION**

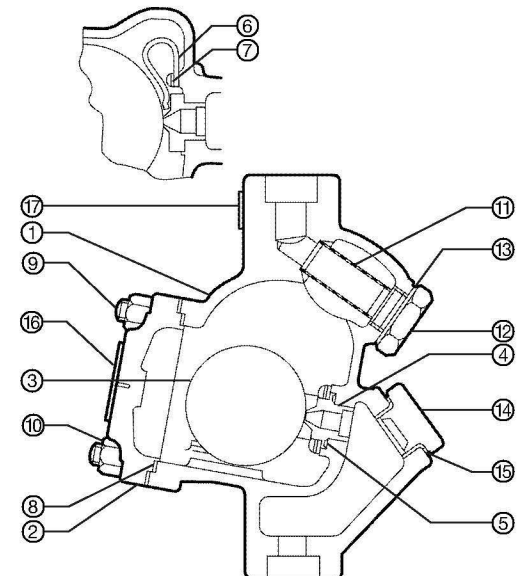
To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

Connections and sizes in bold are standard

No.	Description	Material	ASTM/AISI*	JIS
①	Body	Cast Steel	A216 Gr.WCB	—
②	Cover	Carbon Steel	A105	—
③ <sup>F</sup>	Float	Stainless Steel	AISI316L	SUS316L
④ <sup>R</sup>	Orifice	—	—	—
⑤ <sup>MR</sup>	Orifice Gasket	Graphite/Stainless Steel	- /AISI316L	- /SUS316L
⑥ <sup>R</sup>	Air Vent Strip	Bimetal	—	—
⑦ <sup>R</sup>	Screw & Spring Washer	Stainless Steel	AISI304	SUS304
⑧ <sup>MR</sup>	Cover Gasket	Graphite/Stainless Steel	- /AISI316L	- /SUS316L
⑨	Cover Bolt	Alloy Steel	A193 Gr.B7	SNB7
⑩	Cover Nut	Carbon Steel	AISI1045	S45C
⑪ <sup>R</sup>	Screen	Stainless Steel	AISI430	SUS430
⑫	Screen Holder	Stainless Steel	AISI420F2	SUS420F2
⑬ <sup>MR</sup>	Screen Holder Gasket	Soft Iron	AISI1010	SUYP
⑭	Orifice Plug	Cast Stainless Steel	A743 Gr.CA40	SCS2A
⑮ <sup>MR</sup>	Orifice Plug Gasket	Soft Iron	AISI1010	SUYP
⑯	Nameplate	Stainless Steel	AISI304	SUS304
⑰	Up-seal	Aluminum	B209	AIP

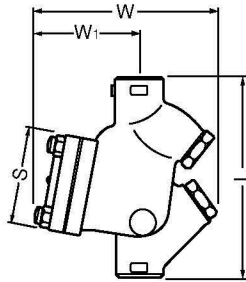
\*Equivalent

Replacement kits available: (M) maintenance parts, (R) replacement parts, (F) float



**Dimensions**

● **SH5VL Screwed**

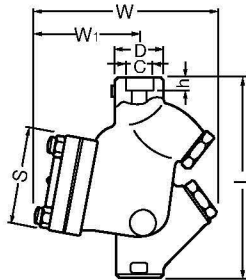


**SH5VL Screwed\*** (in)

Size	L	W	W <sub>1</sub>	S	Weight (lb)
3/4	8 11/16	7 11/16	4 5/16	4 1/8	15

\* NPT, other standards available

● **SH5VL Socket Weld**

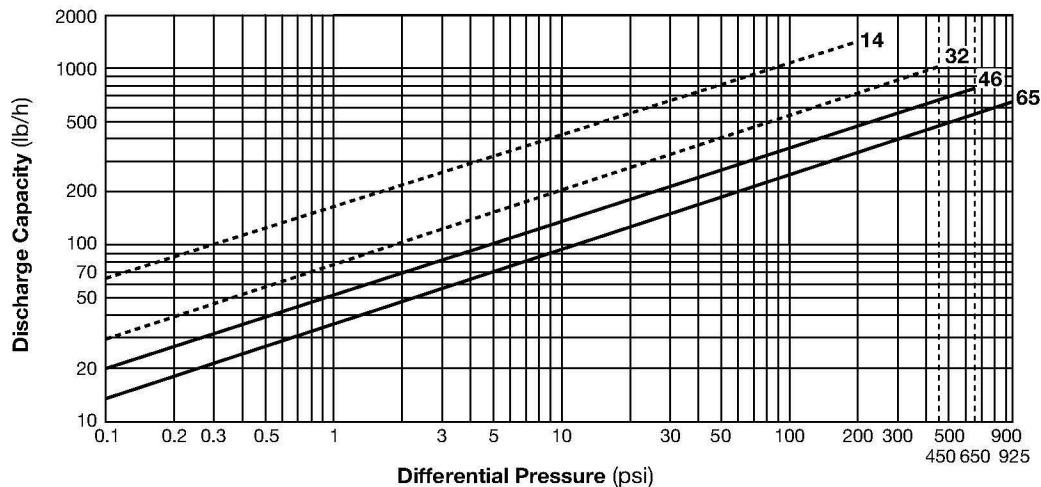


**SH5VL Socket Weld\*** (in)

Size	L	W	W <sub>1</sub>	S	φ D	φ C	h	Weight (lb)
1/2	8 11/16	7 11/16	4 5/16	4 1/8	1 7/8	0.855	1/2	15
3/4						1.065	9/16	
1						1.330		

\*ASME B16.11-2005, other standards available

**Discharge Capacity**



— Standard    - - - - Available on special request

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

**CAUTION** DO NOT use traps 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.

**TLV CORPORATION**

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

ISO 9001/ISO 14001

