FREE FLOAT® STEAM TRAP
MODEL SH5VL

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

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

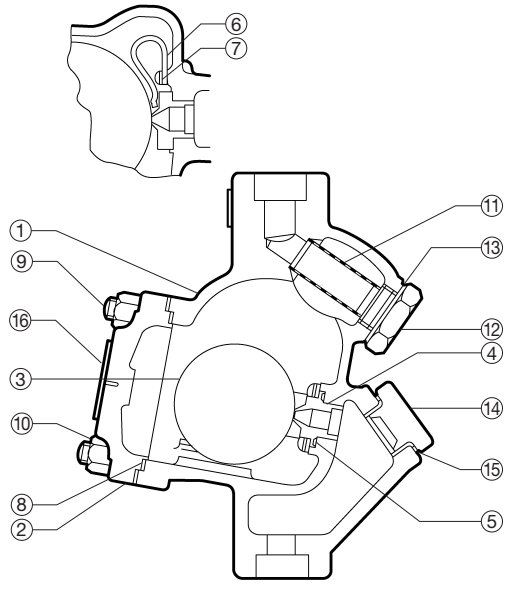
Model		SH5VL		
Connection		**Screwed**	**Socket Weld**	**Flanged**
Size (in)		**¾**	**½ , ¾ , 1**	½ , **¾ , 1**
Orifice No.		46, 65		
Maximum Operating Pressure (psig)	PMO	650, 925		
Maximum Differential Pressure (psi)	ΔPMX	650, 925		
Minimum Operating Pressure (psig)		1.5		
Maximum Operating Temperature (°F)	TMO	800		
Maximum Allowable Pressure (psig)	PMA	925		
Maximum Allowable Temperature (°F)	TMA	800		

Connections and sizes in bold are standard

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.

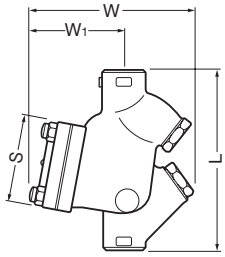
No.	Description	Material	ASTM/AISI*	JIS
①	Body	Cast Steel	A216 Gr.WCB	—
②	Cover	Carbon Steel	A105	—
③F	Float	Stainless Steel	AISI316L	SUS316L
④R	Orifice	—	—	—
⑤MR	Orifice Gasket	Graphite/Stainless Steel	- /AISI316L	- /SUS316L
⑥R	Air Vent Strip	Bimetal	—	—
⑦R	Screw & Spring Washer	Stainless Steel	AISI304	SUS304
⑧MR	Cover Gasket	Graphite/Stainless Steel	- /AISI316L	- /SUS316L
⑨	Cover Bolt	Alloy Steel	A193 Gr.B7	SNB7
⑩	Cover Nut	Carbon Steel	AISI1045	S45C
⑪R	Screen	Stainless Steel	AISI430	SUS430
⑫	Screen Holder	Stainless Steel	AISI420F2	SUS420F2
⑬MR	Screen Holder Gasket	Soft Iron	AISI1010	SUYP
⑭	Orifice Plug	Cast Stainless Steel	A351 Gr.CF8	—
⑮MR	Orifice Plug Gasket	Soft Iron	AISI1010	SUYP
⑯	Nameplate	Stainless Steel	AISI304	SUS304

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



Dimensions

● **SH5VL** Screwed

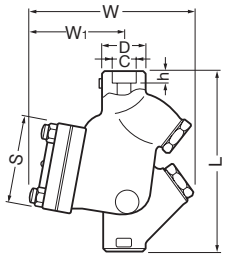


SH5VL Screwed* (in)

Size	L	W**	W1**	S	Weight (lb)
3/4	8 11/16	7 11/16	4 5/16	4 1/8	15

* NPT, other standards available
** Approx.

● **SH5VL** Socket Weld

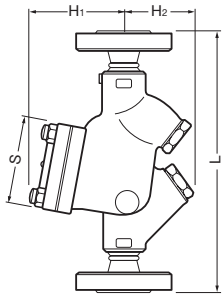


SH5VL Socket Weld* (in)

Size	L	W**	W1**	S	ϕD	ϕC	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
** Approx.

● **SH5VL** Flanged

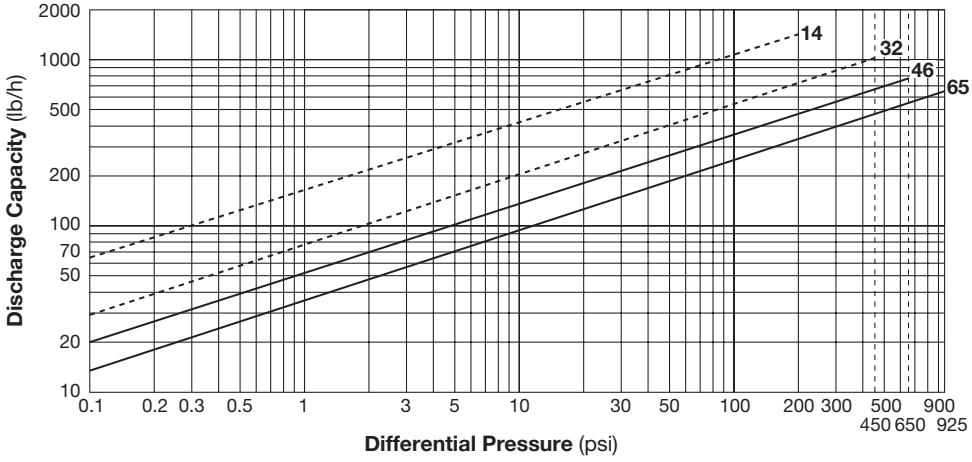


SH5VL Flanged (in)

Size	L ASME Class 150RF	L ASME Class 300RF	L ASME Class **600RF**	L ASME Class 900RF	H1*	H2*	S	Weight** (lb)
1/2	11 11/16	11 11/16	11 11/16	11 11/16	4 15/16	3 3/8	4 1/8	17
3/4								22
1								24

Other standards available, but length and weight may vary
* Approx.
** Weight is for Class 600 RF **Flange classes in bold are standard**

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 this product 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
13901 South Lakes Drive, Charlotte, NC 28273-6790
Tel: 704-597-9070 Fax: 704-583-1610
E-mail: tlv@tlvengineering.com **https://www.tlv.com**
For Technical Service 1-800 "TLV TRAP"

Member of FCI Fluid Controls Institute, Inc. Technical Resources for Instrumentation and Fluid Control

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

ISO 9001
ISO 14001
LRQA CERTIFIED

(T)