



# FREE FLOAT STEAM TRAP

## MODEL SS1

### Features

**Inline repairable stainless steel steam trap for steam mains, tracer lines and small process applications.**

1. Self-modulating free float provides continuous, smooth, low velocity condensate discharge as process loads vary.
2. Designed to maintain the condensate level above valve orifice to provide a water seal.
3. Three-point seating guarantees a perfect seal even under no-load conditions.
4. Trap incorporates thermostatic air vent for fast start-up.
5. Built-in screen with large surface area holds back impurities.
6. Only one moving part, the free float, eliminates valve wear and provides long service life.
7. Model SS1N allows easy, inline access to internal parts to simplify cleaning and maintenance.



### Specifications

Model	SS1N	SS1V
Connection	Screwed, Socket Welded, Flanged	
Installation	horizontal	vertical
Size (mm)	15, 20, 25	
Orifice No.	10, 16, 21	
Maximum Operating Pressure (MPaG) PMO	1.0, 1.6, 2.1	
Maximum Differential Pressure (MPa) ΔPMX	1.0, 1.6, 2.1	
Minimum Operating Pressure (MPaG)	0.01	
Maximum Operating Temperature (°C) TMO	350	

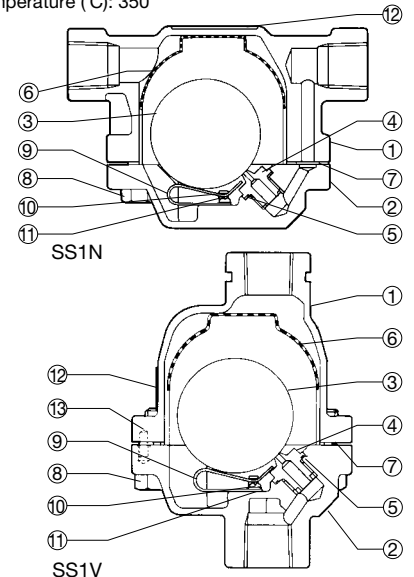
PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS): Maximum Allowable Pressure (MPaG): 2.1      1 MPa = 10.197 kg/cm<sup>2</sup>  
 Maximum Allowable Temperature (°C): 350



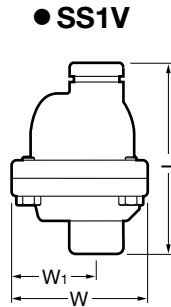
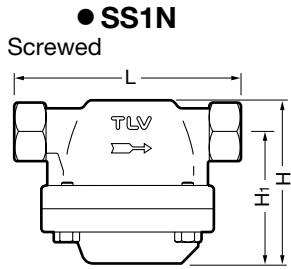
To avoid abnormal operation, accidents or serious injury, do not use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

No.	Description	Material	JIS	ASTM/AISI*
①	Body	Stainless Steel	SCS13	A351 Gr. CF8
②	Cover	Stainless Steel	SCS13	A351 Gr. CF8
③	Float	Stainless Steel	SUS316L	AISI316L
④	Valve Seat	Stainless Steel	SUS420F	AISI420F
⑤	Valve Seat Gasket	Stainless Steel	SUS316L	AISI316L
⑥	Screen	Stainless Steel	SUS304	AISI304
⑦	Cover Gasket	Stainless Steel/Graphite	SUS316L	AISI316L
⑧	Cover Bolt	Stainless Steel	SUS304	AISI304
⑨	Air Vent Strip	Bimetal	—	—
⑩	Screw	Stainless Steel	SUS304	AISI304
⑪	Spring Washer	Stainless Steel	SUS304	AISI304
⑫	Nameplate	Stainless Steel	SUS304	AISI304
⑬	Guide Pin (SS1V)	Stainless Steel	SUS304	AISI304
⑭	Flange**	Stainless Steel	SUS304/SCS13A***	AISI304/A351 Gr. CF8
⑮	Pipe**	Stainless Steel	SUS304	AISI304

\* Equivalent \*\* Shown on reverse \*\*\* Either material may be used



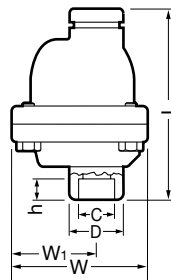
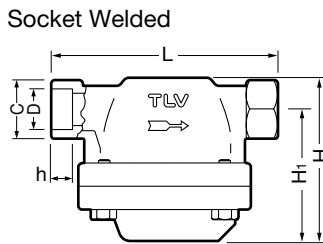
**Dimensions**



**SS1N/SS1V Screwed\*** (mm)

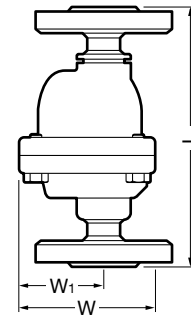
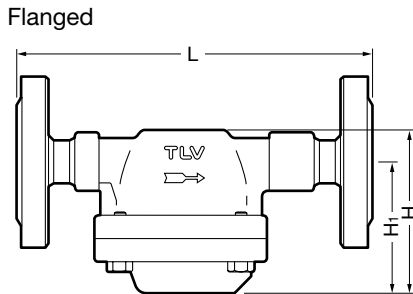
Size	L	H	H <sub>1</sub>	W	W <sub>1</sub>	Weight (kg)
15	127	91	74	88	55	2.6 (1.7)
20	136					2.8 (1.8)
25	140					3.0 (1.9)

\* Rc(PT), other standards available



**SS1N/SS1V Socket Welded** (mm)

Size	φD	φC	h	L	H	H <sub>1</sub>	W	W <sub>1</sub>	Weight (kg)
15	31	22.2	13	127	91	74	88	55	2.6 (1.7)
20	37	27.7		136					2.8 (1.8)
25	45	34.5		140					3.0 (1.9)

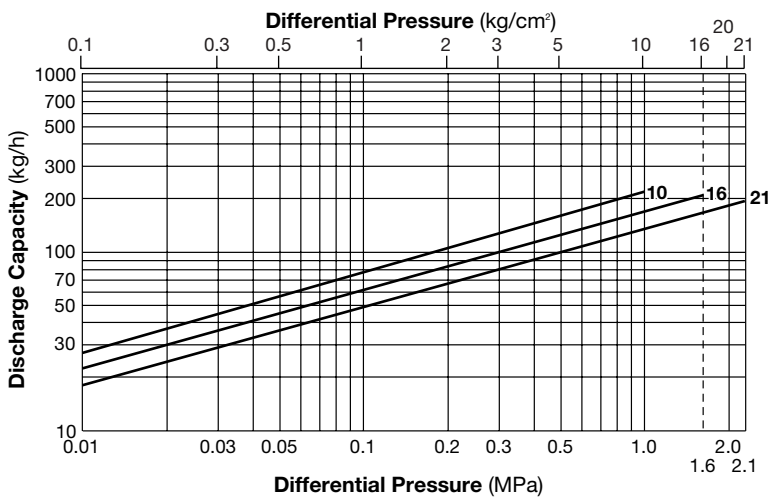


**SS1N/SS1V Flanged\*** (mm)

Size	L (ASME Class)		H	H <sub>1</sub>	W	W <sub>1</sub>	Weight (approx. kg)
	150RF	300RF					
15	175	175	91	74	88	55	4.2 (3.4)
20	195	195					5.3 (4.4)
25	215	215					6.5 (5.5)

\* Other Standards available, but length and weight may vary  
( ) SS1V

**Discharge Capacity**



- Line numbers within the graph refer to orifice numbers.
- Differential pressure is the difference between the inlet and outlet pressure of the trap.
- Capacities are based on continuous discharge of condensate 6°C below saturated steam temperature.
- Recommended safety factor: at least 1.5.



DO NOT use traps under conditions that exceed maximum differential pressure as condensate backup will occur!

Manufacturer

ISO 9001/ISO 14001

**TLV**® CO., LTD.  
Kakogawa, Japan

is approved by LRQA Ltd. to ISO 9001/14001

