FREE FLOAT® STEAM TRAP

MODEL SS1 STAINLESS STEEL

FREE FLOAT STEAM TRAPS WITH THERMOSTATIC AIR VENTING

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. Constant water seal and unique three-point seating ensure perfect steam-tight seal, even under no-load conditions.
3. Trap incorporates thermostatic air vent for fast start-up.
4. Built-in screen with large surface area holds back impurities.
5. Only one moving part, the free float, prevents concentrated wear and provides long service life.
6. Easy, inline access to internal parts simplifies cleaning and reduces maintenance costs.

Specifications

Model		SS1NL	SS1VL	SS1NH	SS1VH
Installation		Horizontal	Vertical	Horizontal	Vertical
Connection		Screwed, Socket Welded, Flanged			
Size		½″, ¾″, 1″ / DN 15, 20, 25			
Orifice No.		5, 10, 21			
Maximum Operating Pressure (barg)	PMO	5, 10, 21			
Maximum Differential Pressure (bar)	ΔPMX	5, 10, 21			
Maximum Operating Temperature (°C)	TMO	220		350	

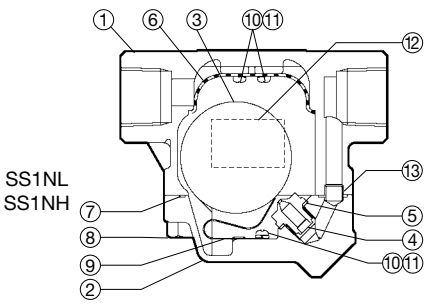
1 bar = 0.1 MPa

PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS):
Maximum Allowable Pressure (barg) PMA: 21
Maximum Allowable Temperature (°C) TMA: 220 (SS1NL/SS1VL), 350 (SS1NH/SS1VH)

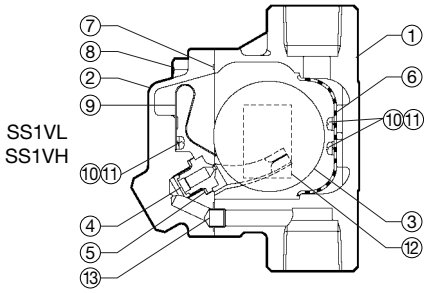
CAUTION To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

No.	Description		Material	DIN*	ASTM/AISI*
①	Body		Cast Stainless Steel A351 Gr.CF8	1.4312	—
②	Cover		Cast Stainless Steel A351 Gr.CF8	1.4312	—
③F	Float		Stainless Steel SUS316L	1.4404	AISI316L
④R	Valve Seat		—	—	—
⑤MR	Valve Seat Gasket		Stainless Steel SUS316L	1.4404	AISI316L
⑥R	Screen		Stainless Steel SUS304	1.4301	AISI304
⑦MR	Cover Gasket	SS1NL/VL	Fluorine Resin PTFE	PTFE	PTFE
		SS1NH/VH	Graphite/Stainless Steel SUS316L	-/1.4404	-/AISI316L
⑧	Cover Bolt		Stainless Steel SUS304	1.4301	AISI304
⑨R	Air Vent Strip		Bimetal	—	—
⑩R	Screw		Stainless Steel SUS304	1.4301	AISI304
⑪R	Spring Washer		Stainless Steel SUS304	1.4301	AISI304
⑫	Nameplate		Stainless Steel SUS304	1.4301	AISI304
⑬	Connector		Stainless Steel SUS304	1.4301	AISI304
⑭	Flange**		Cast Stainless Steel A351 Gr.CF8	1.4312	—

SS1NL
SS1NH



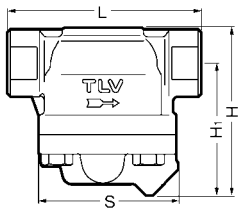
SS1VL
SS1VH



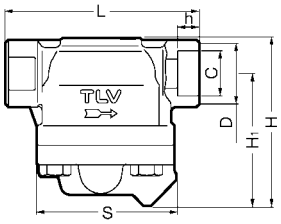
* Equivalent materials ** Shown on reverse
Replacement kits available: (M) maintenance parts, (R) repair parts, (F) float

Dimensions

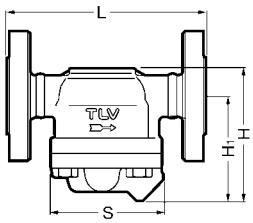
● **SS1NL/SS1NH**
Screwed



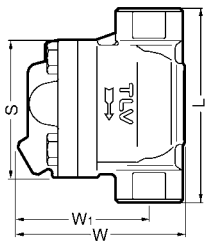
Socket Welded

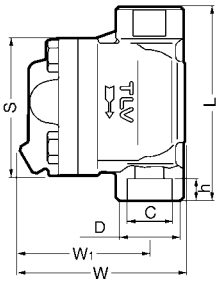


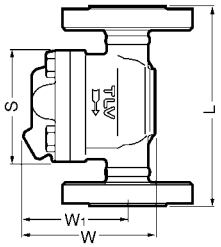
Flanged



● **SS1VL/SS1VH**







SS1NL/SS1NH/SS1VL/SS1VH Screwed* (mm)

Size	L	H (W)	H1 (W1)	S	Weight (kg)
15	110	102 (103)	81 (82)	85	1.6
20	120				1.7
25	130				1.8

* BSP DIN 2999, other standards available

SS1NL/SS1NH/SS1VL/SS1VH Socket Welded* (mm)

Size	L	H (W)	H1 (W1)	S	ϕD	ϕC	h	Weight (kg)
15	110	102 (103)	81 (82)	85	30	21.8	13	1.6
20	120				36	27.2		1.7
25	130				44	33.9		1.8

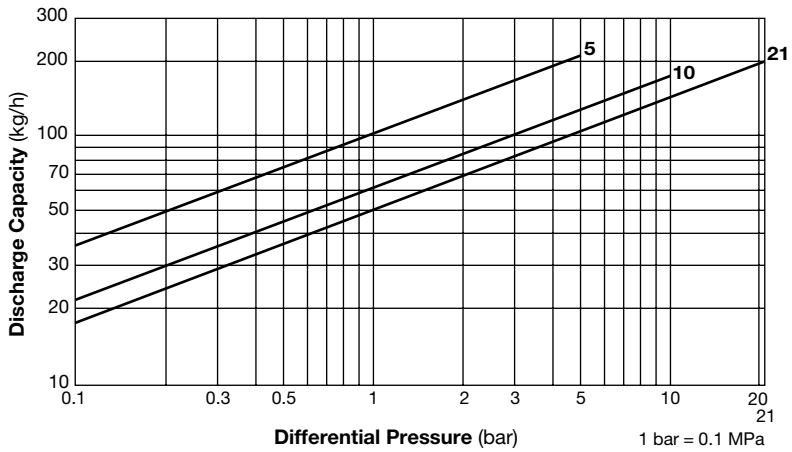
* ASME B16.11-2005, other standards available

SS1NL/SS1NH/SS1VL/SS1VH Flanged (mm)

DN	L			H (W)	H1 (W1)	S	Weight* (kg)
	DIN 2501	ASME Class					
	PN25/40	150RF	300RF				
15	150	175	175	102 (103)	81 (82)	85	2.8
20		195	195				3.2
25	160	215	215				4.2

Other standards available, but length and weight may vary
* Weight is for DIN PN 25/40

Discharge Capacity



1 bar = 0.1 MPa

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 6˚C 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!

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

ISO 9001/ISO 14001