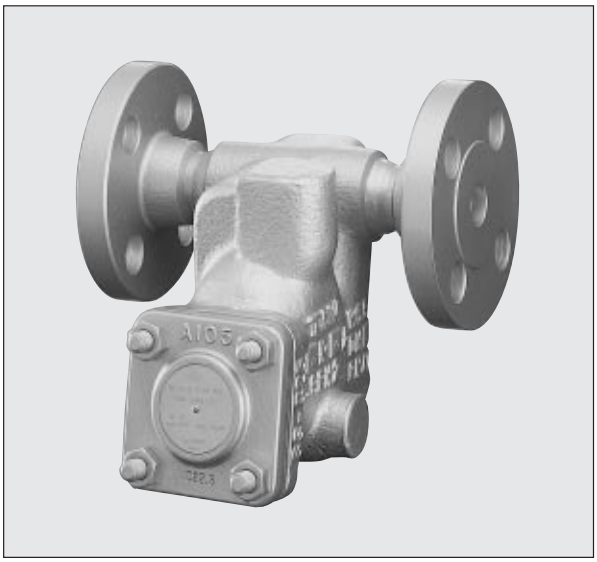
FREE FLOAT® STEAM TRAP

MODEL SH3NL CAST STEEL

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

Features



Inline repairable trap with tight shut-off for drainage of superheated or high-pressure steam mains and turbines.

1. Self-modulating free float provides continuous, smooth, low velocity condensate discharge as loads vary.
2. Precision-ground float, constant water seal and three-point seating design ensure a steam tight seal, even under no-load conditions.
3. Only one moving part, the free float, prevents concentrated wear and provides long maintenance-free service life.
4. Thermostatic air venting with bimetal strip allows fast start-up.
5. High rating against hydraulic shock offers excellent resistance of the float to water hammer.
6. Built-in screen with large surface area ensures extended trouble-free operation.
7. Easy, inline access to internal parts simplifies cleaning and reduces maintenance costs.

Specifications

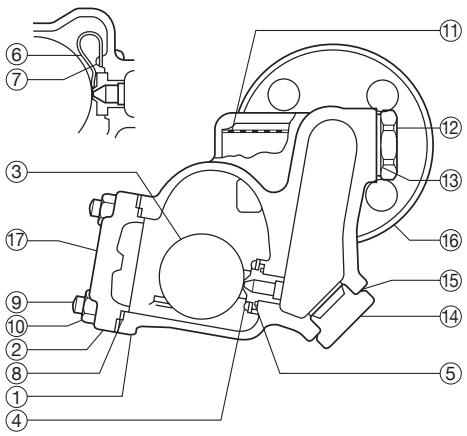
Model		SH3NL	
Connection		Socket Welded	Flanged
Size		DN 15, 20, 25	
Orifice No.		14, 32, 45	
Maximum Operating Pressure (barg)	PMO	14, 32, 45	
Maximum Differential Pressure (bar)	ΔPMX	14, 32, 45	
Maximum Operating Temperature (°C)	TMO	425	

PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS): Maximum Allowable Pressure (barg) PMA: 45
Maximum Allowable Temperature (°C) TMA: 425

1 bar = 0.1 MPa

⚠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.

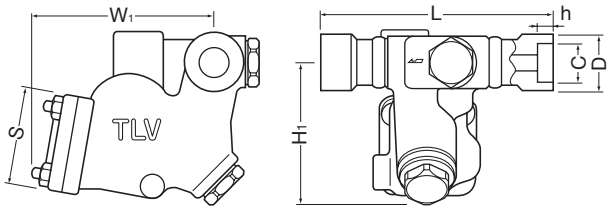
No.	Description	Material	DIN*	ASTM/AISI*
①	Body	Cast Steel A216 Gr.WCB	1.0619	—
②	Cover	Carbon Steel A105	1.0460	—
③F	Float	Stainless Steel SUS316L	1.4404	AISI316L
④R	Orifice	—	—	—
⑤MR	Orifice Gasket	Graphite/Stainl. Steel SUS316L	- /1.4404	- /AISI316L
⑥R	Air Vent Strip	Bimetal	—	—
⑦R	Screw & Spring Washer	Stainless Steel SUS304	1.4301	AISI304
⑧MR	Cover Gasket	Graphite/Stainl. Steel SUS316L	- /1.4404	- /AISI316L
⑨	Cover Bolt	Alloy Steel SNB7	1.7225	A193 Gr.B7
⑩	Cover Nut	Carbon Steel S45C	1.0503	AISI1045
⑪R	Screen	Stainless Steel SUS430	1.4016	AISI430
⑫	Screen Holder	Cast Stainl. Steel A351 Gr.CF8	1.4312	—
⑬MR	Screen Holder Gasket	Soft Iron SUYP	1.1121	AISI1010
⑭	Orifice Plug	Cast Stainl. Steel A351 Gr.CF8	1.4312	—
⑮MR	Orifice Plug Gasket	Soft Iron SUYP	1.1121	AISI1010
⑯	Socket**	Carbon Steel S25C	1.1158	AISI1025
	Flange	Carbon Steel A105/ Cast Steel A216 Gr.WCB***	1.0460/ 1.0619	—
⑰	Nameplate	Stainless Steel SUS304	1.4301	AISI304



* Equivalent materials ** Shown overleaf *** Material depends on flange specifications
Replacement kits available: (M) maintenance parts, (R) repair parts, (F) float

Dimensions

•SH3NL Socket Welded

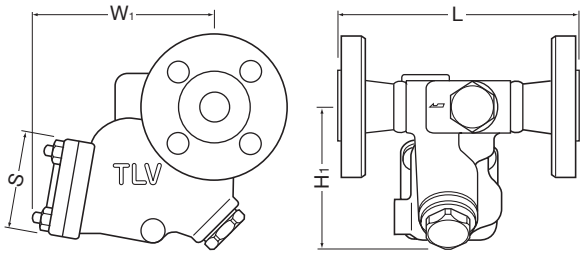


SH3NL Socket Welded* (mm)

DN	L	H_1**	W_1**	S	ϕD	ϕC	h	Weight (kg)
15	200	125	160	83	32	21.8	12	8.5
20					38	27.2	14	
25					47	33.9		

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

•SH3NL Flanged

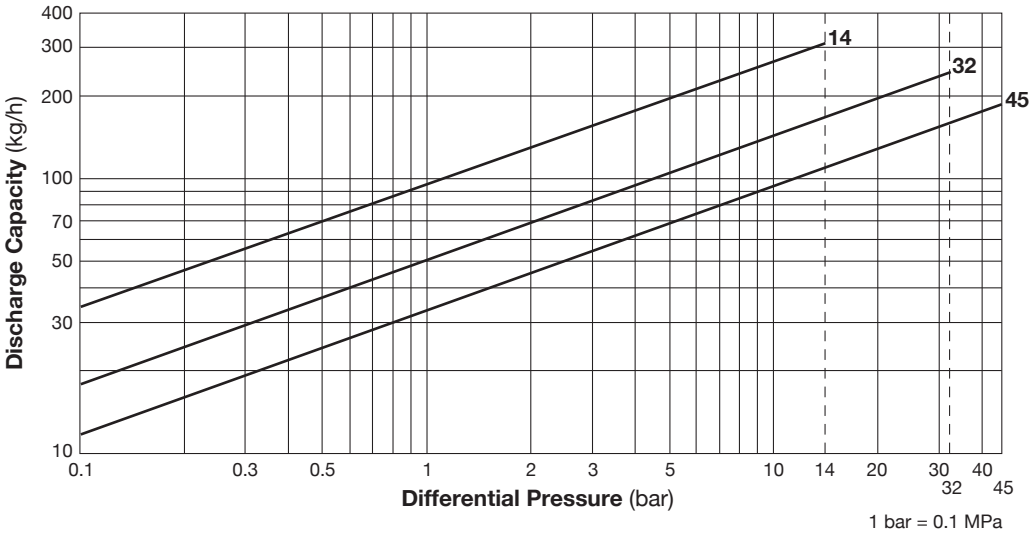


SH3NL Flanged (mm)

DN	L (ASME Class)			H_1*	W_1*	S	Weight** (kg)
	150RF	300RF	600RF				
15	202	202	202	125	160	83	9.0
20							9.6
25							10

DIN and other standards available, but length and weight may vary
* Approx.
** Weight is for Class 600 RF

Discharge Capacity



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 back up will occur!

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

ISO 9001
ISO 14001