



FREE FLOAT STEAM TRAP

MODEL SH3NL CAST STEEL

FREE FLOAT AND THERMOSTATIC STEAM TRAP WITH THREE-POINT SEATING

Features

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

1. Constant water seal and unique rotational seating design eliminate concentrated wear.
2. Three-point seating ensures perfect steam tight seal, even under no-load conditions.
3. Easy, inline access to internal parts simplifies cleaning and reduces maintenance costs.
4. High rating against hydraulic shock offers excellent resistance of the float to water hammer.
5. Precision-ground float guarantees superior sealing.
6. Thermostatic air venting with bimetal strip allows fast start-up.
7. Built-in screen with large surface area ensures extended trouble-free operation.
8. Extremely smooth, near-to-steam discharge for safety and environmental considerations.



Specifications

Model	SH3NL	
Connection	Socket Welded	Flanged
Size	DN 15, 20, 25	
Orifice No.	2, 5, 10, 14, 22, 32, 45	
Maximum Operating Pressure (barg) PMO	2, 5, 10, 14, 22, 32, 45	
Maximum Differential Pressure (bar) ΔPMX	2, 5, 10, 14, 22, 32, 45	
Maximum Operating Temperature (°C) TMO	400	

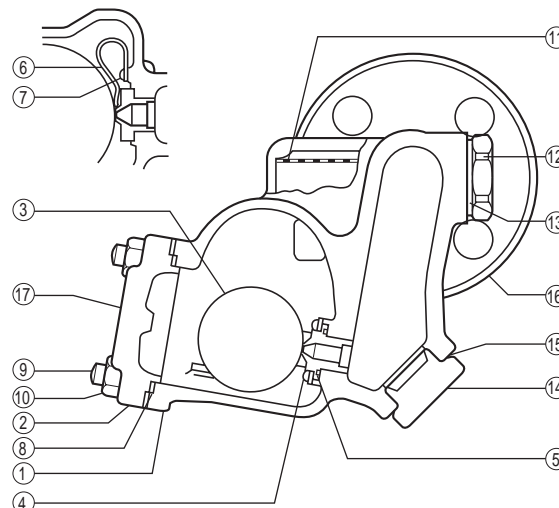
PRESSURE SHELL DESIGN CONDITIONS (NOT OPERATING CONDITIONS): Maximum Allowable Pressure (barg) PMA: 45 1 bar = 0.1 MPa
Maximum Allowable Temperature (°C)TMA: 400



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.

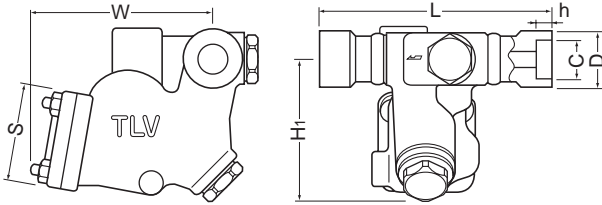
No.	Description	Material	DIN*	ASTM/AISI*
①	Body	Cast Steel A216 Gr. WCB	1.0619	—
②	Cover	Carbon Steel A105	1.0460	—
③ ^F	Float	Stainless Steel SUS316L	1.4404	AISI316L
④ ^R	Orifice	Stainless Steel SUS420F	1.4028	AISI420F
⑤ ^{MR}	Orifice Gasket	Stainl. Steel SUS316L/Graphite	1.4404	AISI316L
⑥ ^R	Air Vent Strip	Bimetal	—	—
⑦ ^R	Screw & Spring Washer	Stainless Steel SUS304	1.4301	AISI304
⑧ ^{MR}	Cover Gasket	Stainl. Steel SUS316L/Graphite	1.4404	AISI316L
⑨	Cover Bolt	Alloy Steel SNB7	1.7225	A193 Gr.B7
⑩	Cover Nut	Carbon Steel S45C	1.0503	AISI1045
⑪ ^R	Screen	Stainless Steel SUS430	1.4016	AISI430
⑫	Screen Holder	Cast Stainless Steel SCS2A	1.4027	A217 Gr. CA15
⑬ ^{MR}	Screen Holder Gasket	Soft Iron SUYP	1.1121	AISI1010
⑭	Orifice Plug	Cast Stainless Steel SCS2A	1.4027	A217 Gr. CA15
⑮ ^{MR}	Orifice Plug Gasket	Soft Iron SUYP	1.1121	AISI1010
⑯	Socket	Carbon Steel S25C	1.1158	AISI1025
⑰	Flange**	Carbon Steel / Cast Steel A105/A216 Gr. WCB	1.0460/ 1.0619	—
⑱	Nameplate	Stainless Steel SUS304	1.4301	AISI304

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



Dimensions

• **SH3NL Socket Welded**

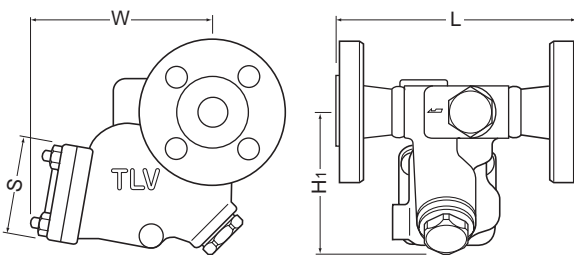


SH3NL Socket Welded (mm)

DN	L	H ₁	W	S	φD	φC	h	Weight (kg)
15	200	121	157	83	34	21.70	12	8.5
20					40	27.05	14	
25					49	33.80		

* ASME B16.11, other standards available

• **SH3NL Flanged**

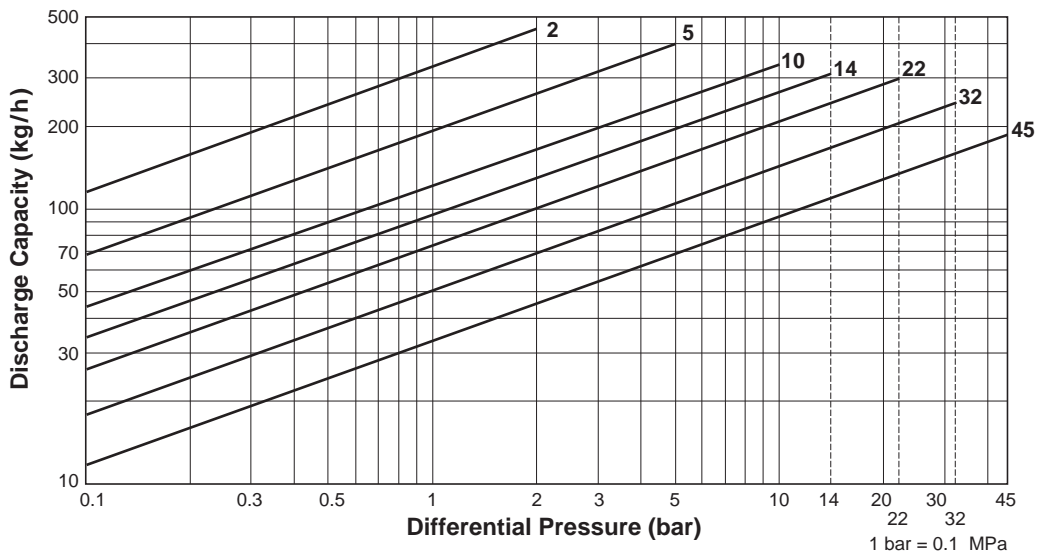


SH3NL Flanged (mm)

DN	L			H ₁	W	S	Weight* (kg)
	ASME Class						
	150RF	300RF	600RF				
15				121	157	83	9.0
20	202	202	202				9.6
25							10

DIN and other standards available, but length and weight may vary
* 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.



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

