



FREE FLOAT[®] STEAM TRAP

MODEL SH6NL/SH6NH

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

Benefits

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. Rugged float construction with up to 1600 or 2300 psig* hydraulic shock rating ensures excellent resistance 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

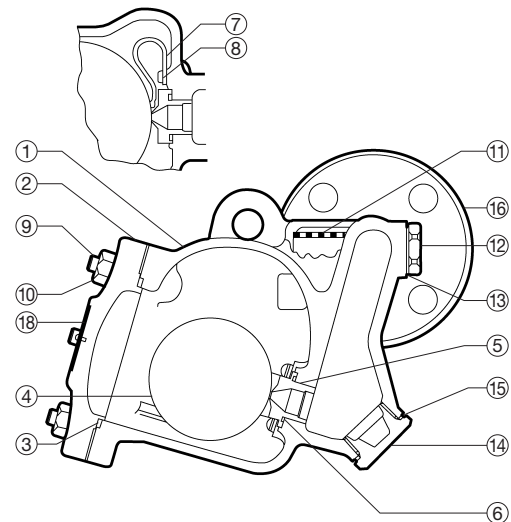
| Model | SH6NL | | SH6NH |
|--|--------------------|---------|--------------------|
| Connection | Socket Weld | Flanged | Socket Weld |
| Size (in) | 1 | 1 | 3/4, 1 |
| Orifice No. | 46, 65 | | 100 |
| Maximum Operating Pressure (psig) PMO | 650, 925 | | 1500 |
| Maximum Differential Pressure (psi) ΔPMX | 650, 925 | | 1500 |
| Minimum Operating Pressure (psig) | 1.5 | | 1.5 |
| Maximum Operating Temperature (°F) TMO | 800 | | 800 |
| Maximum Allowable Pressure (psig) PMA | 925 | | 1500 |
| Maximum Allowable Temperature (°F) TMA | 800 | | 800 |

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.

Connections and sizes in bold are standard

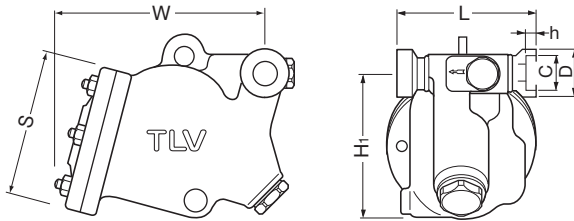
| No. | Description | Material | ASTM/AISI* | JIS |
|-----------------|-----------------------|--|---------------------------|-------------------------|
| ① | Body | Cast Steel | A216 Gr.WCB | — |
| ② | Cover | Cast Steel | A216 Gr.WCB | — |
| ③ ^{MR} | Cover Gasket | SH6NL Graphite/Stainless Steel SH6NH Graphite/Stainless Steel | - /AISI316L - /AISI304 | - /SUS316L - /SUS304 |
| ④ ^F | Float | Stainless Steel | AISI316L | SUS316L |
| ⑤ ^R | Orifice | — | — | — |
| ⑥ ^{MR} | Orifice Gasket | SH6NL Graphite/Stainless Steel SH6NH Graphite/Stainless Steel | - /AISI316L - /AISI316 | - /SUS316L - /SUS316 |
| ⑦ ^R | Air Vent Strip | Bimetal | — | — |
| ⑧ ^R | Screw & Spring Washer | Stainless Steel | AISI304 | SUS304 |
| ⑨ | Cover Bolt | Alloy Steel | A193 Gr.B7 | SNB7 |
| ⑩ | Cover Nut | Carbon Steel | AISI1045 | S45C |
| ⑪ ^R | Screen | Stainless Steel | AISI430 | SUS430 |
| ⑫ | Screen Holder | Cast Stainless Steel | A743 Gr.CA40 | SCS2A |
| ⑬ ^{MR} | Screen Holder Gasket | Soft Iron | AISI1010 | SUYP |
| ⑭ | Orifice Plug | Cast Stainless Steel | A351 Gr.CF8 | — |
| ⑮ ^{MR} | Orifice Plug Gasket | Soft Iron | AISI1010 | SUYP |
| ⑯ | Flange | Carbon/Cast Steel*** | A105/216 Gr.WCB | — |
| ⑰ | Socket** | Carbon Steel | A105 | — |
| ⑱ | Nameplate | Stainless Steel | AISI304 | SUS304 |

* Equivalent ** Not shown *** Material depends on flange specifications
Replacement kits available: (M) maintenance parts, (R) replacement parts, (F) float



Dimensions

● **SH6NL/SH6NH** Socket Weld

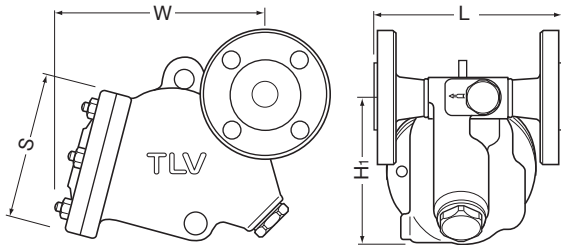


SH6NL/SH6NH Socket Weld* (in)

| Model | Size | L | H ₁ | W | S | φ D | φ C | h | Weight (lb) |
|-------|-------|---|----------------|--------|--------|-------|-------|------|-------------|
| SH6NL | 1 | 7 | 7 1/8 | 10 1/8 | 7 1/16 | 2 | 1.330 | 9/16 | 46 |
| SH6NH | 3/4 | 7 | 7 1/2 | 11 1/2 | 8 1/16 | 1 3/4 | 1.065 | 9/16 | 66 |
| | 2 1/8 | | | | | 1.330 | | | 68 |

*ASME B16.11-2005, other standards available

● **SH6NL** Flanged



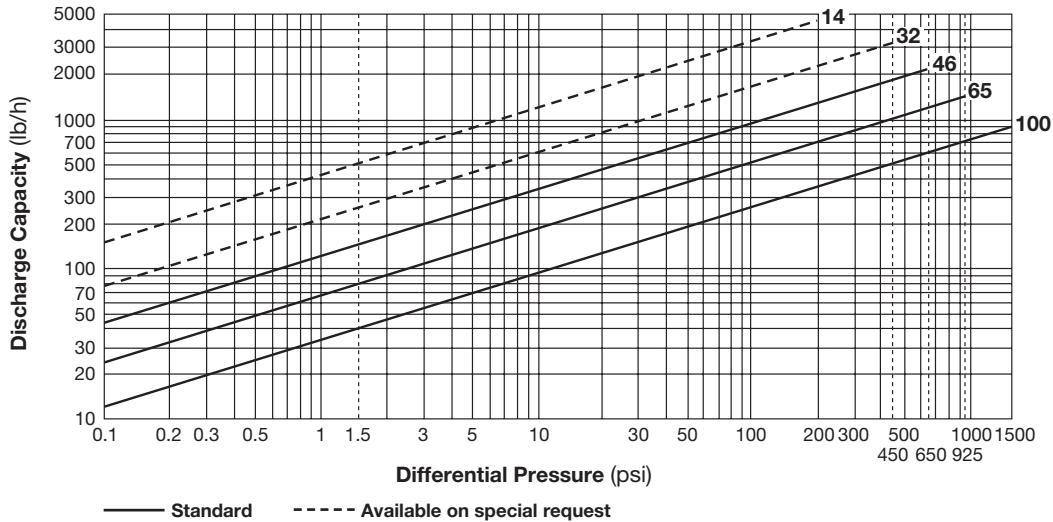
SH6NL Flanged (in)

| Model | Size | L | | | H ₁ | W | S | Weight* (lb) |
|-------|------|------------------------|-------|-------|----------------|--------|--------|--------------|
| | | Connects to ASME Class | 150RF | 300RF | | | | |
| SH6NL | 1 | 8 3/4 | 8 3/4 | 8 3/4 | 7 1/8 | 10 1/8 | 7 1/16 | 51 |

Other standards available, but length and weight may vary

*Weight is for Class 600RF

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 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.

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

