



FREE FLOAT STEAM TRAP

MODEL SS5 STAINLESS STEEL

Features

A multi-purpose steam trap for steam mains, tracer lines and small-to-medium process applications.

1. All-welded, maintenance-free construction.
2. Automatic bimetal air vent for rapid start-up.
3. Self-modulating free float provides continuous, smooth, low velocity condensate discharge as process loads vary.
4. Constant water seal and unique three-point seating ensure perfect steam-tight seal, even under no-load conditions.
5. Only one moving part, the free float, eliminates valve wear and provides long service life.
6. Built-in screen with large area holds back impurities.



Specifications

| Model | SS5N | SS5V | SS5NH | SS5VH |
|--|---------------------------------|----------|------------|----------|
| Installation | Horizontal | Vertical | Horizontal | Vertical |
| Connection | Screwed, Socket Welded, Flanged | | | |
| Size | 1/2", 3/4", 1" / DN 15, 20, 25 | | | |
| Orifice No. | 5, 10, 16, 21, 32 | | | 46 |
| Maximum Operating Pressure (barg) PMO | 5, 10, 16, 21, 32 | | | 46 |
| Maximum Differential Pressure (bar) ΔPMX | 5, 10, 16, 21, 32 | | | 46 |
| Maximum Operating Temperature (°C) TMO | 350 | | | 350 |

PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS):

Maximum Allowable Pressure (barg) PMA: 32 (SS5N/V), 46 (SS5NH/VH)

Maximum Allowable Temperature (°C) TMA: 350

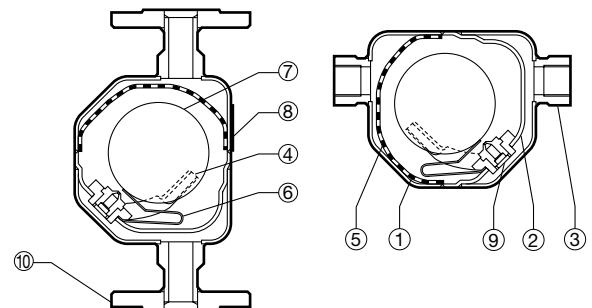
1 bar = 0.1 MPa



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.

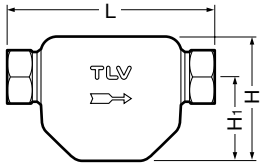
| No. | Description | Material | DIN* | ASTM/AISI* |
|-----|----------------|--|-------------------|---------------|
| ① | Body | Stainless Steel SUS316L | 1.4404 | AISI316L |
| ② | Inner Cover | Stainless Steel SUS316L | 1.4404 | AISI316L |
| ③ | Socket | Stainless Steel SUS304 | 1.4301 | AISI304 |
| ④ | Float Guide | Cast Stainless Steel SCS16A | 1.4435 | A351 Gr. CF3M |
| ⑤ | Screen | Stainless Steel SUS304 | 1.4301 | AISI304 |
| ⑥ | Air Vent Strip | Bimetal | — | — |
| ⑦ | Float | Stainless Steel SUS316L | 1.4404 | AISI316L |
| ⑧ | Nameplate | Stainless Steel SUS304 | 1.4301 | AISI304 |
| ⑨ | Orifice | Stainless Steel SUS440C | 1.4125 | AISI440C |
| ⑩ | Flange | Stainless/Cast Stainless Steel SUS304/A351 Gr. CF8** | 1.4301/ 1.4312 | AISI304/— |

* Equivalent materials ** Material depends on flange specifications

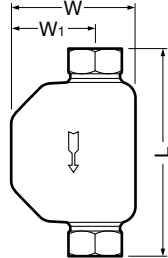


Dimensions

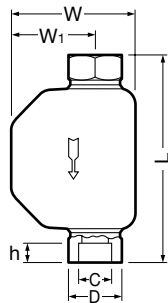
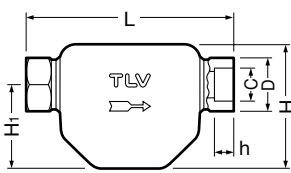
SS5N/SS5NH Screwed



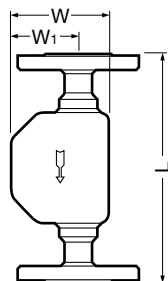
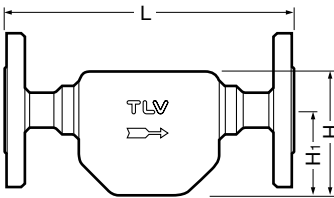
SS5V/SS5VH



Socket Welded



Flanged



SS5N/SS5NH/SS5V/SS5VH Screwed* (mm)

| Model | Size | L | φ H/W | H ₁ /W ₁ | Weight* (kg) |
|----------------|------|-----|-------|--------------------------------|--------------|
| SS5N SS5V | 1/2" | 155 | 104 | 71 | 1.4 |
| | 3/4" | 182 | | | 1.6 |
| | 1" | 193 | | | 1.8 |
| SS5NH SS5VH | 1/2" | 160 | 108 | 73 | 1.5 |
| | 3/4" | 187 | | | 1.7 |
| | 1" | 198 | | | 1.9 |

* BSP DIN 2999, other standards available

SS5N/SS5NH/SS5V/SS5VH Socket Welded* (mm)

| Model | DN | L | φ H/W | H ₁ /W ₁ | φ D | φ C | h | Weight* (kg) |
|----------------|----|-----|-------|--------------------------------|-----|-------|----|--------------|
| SS5N SS5V | 15 | 155 | 104 | 71 | 31 | 21.70 | 12 | 1.4 |
| | 20 | 182 | | | 37 | 27.05 | 14 | 1.6 |
| | 25 | 193 | | | 44 | 33.80 | 14 | 1.8 |
| SS5NH SS5VH | 15 | 160 | 108 | 73 | 31 | 21.70 | 12 | 1.5 |
| | 20 | 187 | | | 37 | 27.05 | 14 | 1.7 |
| | 25 | 198 | | | 44 | 33.80 | 14 | 1.9 |

* ASME B16.11, other standards available

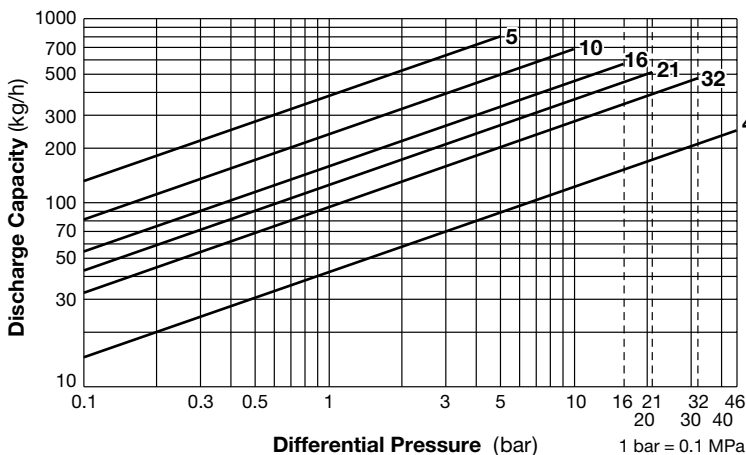
SS5N/SS5NH/SS5V/SS5VH Flanged (mm)

| Model | DN | L | | | | φ H/W | H ₁ /W ₁ | Weight* (kg) |
|----------------|----|----------|-------|-------------|-------|-------|--------------------------------|--------------|
| | | DIN 2501 | | ASME Class | | | | |
| | | PN 25/40 | PN 63 | 150RF 300RF | 600RF | | | |
| SS5N SS5V | 15 | 210 | 210 | 202 | 202 | 104 | 71 | 3.2 |
| | 20 | | - | 222 | 222 | | | 3.6 |
| | 25 | | 230 | 230 | 242 | | | 242 |
| SS5NH SS5VH | 15 | 210 | 210 | - | 208 | 108 | 73 | 3.3 |
| | 20 | | - | - | 228 | | | 3.7 |
| | 25 | | 230 | 230 | - | | | 248 |

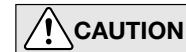
Other standards available, but length and weight may vary

* Weight is for DIN PN 25/40

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 steam temperature.
4. Recommended safety factor: at least 1.5.



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

