



# FREE FLOAT<sup>®</sup> STEAM TRAP

## MODEL SJH3B CAST STEEL

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

#### Features

Reliable and durable steam trap with tight shut-off for use on small to medium high pressure process equipment. Models for horizontal or vertical piping installation.

1. Self-modulating free float provides continuous, smooth, low velocity condensate discharge as process 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. Thermostatic bimetal air vent valve vents air automatically for rapid startup.
4. Built-in screen with large surface area ensures extended trouble-free operation.
5. Easy, inline access to internal parts simplifies cleaning and reduces maintenance costs.

#### Pressure Equipment Directive (PED)

Classification according to PED 2014/68/EU, fluid group 2

| Size  | Category | CE Marking   |
|-------|----------|--|
| DN 15 | —*       | Art. 4, Sec. 3 (sound engineering practice),<br>CE marking not allowed |

\* Manufactured in accordance with sound engineering practice



#### Specifications

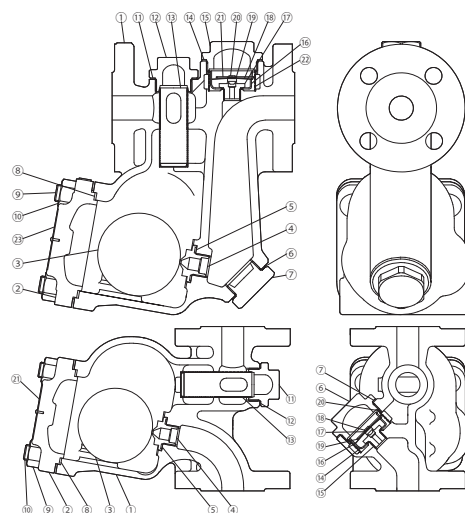
| Model                                    | SJH3NB            | SJH3VB   |
|--|-------------------|----------|
| Installation                             | Horizontal        | Vertical |
| Connection                               | Flanged           |          |
| Size                                     | DN 15             |          |
| Orifice No.                              | 5, 10, 14, 22, 32 |          |
| Maximum Operating Pressure (barg) PMO    | 5, 10, 14, 22, 32 |          |
| Maximum Differential Pressure (bar) ΔPMX | 5, 10, 14, 22, 32 |          |
| Maximum Operating Temperature (°C) TMO   | 400               |          |

PRESSURE SHELL DESIGN CONDITIONS (NOT OPERATING CONDITIONS): Maximum Allowable Pressure (barg) PMA: 40  
Maximum Allowable Temperature (°C) TMA: 400  
Minimum Allowable Temperature (°C): 0  
1 bar = 0.1 MPa

| No. | Description          | Material                         | DIN*     | ASTM/AISI* |
|-----|----------------------|----------------------------------|----------|------------|
| ①   | Body                 | Cast Steel A216 Gr.WCB           | 1.0619   | —          |
| ②   | Cover                | Carbon Steel A105                | 1.0460   | —          |
| ③   | Float                | Stainless Steel SUS316L          | 1.4404   | AISI316L   |
| ④   | Orifice              | —                                | —        | —          |
| ⑤   | Orifice Gasket       | Graphite/Stainl. Steel SUS316L   | —/1.4404 | —/AISI316L |
| ⑥   | Orifice Plug Gasket  | Soft Iron SUYP                   | 1.1121   | AISI1010   |
| ⑦   | Orifice Plug         | Cast Stainless Steel A351 Gr.CF8 | 1.4312   | —          |
| ⑧   | Cover Gasket         | Graphite/Stainl. Steel SUS316L   | —/1.4404 | —/AISI316L |
| ⑨   | Cover Bolt           | Carbon Steel SNB7                | 1.7225   | A193 Gr.B7 |
| ⑩   | Cover Nut            | Carbon Steel S45C                | 1.0503   | AISI1045   |
| ⑪   | Screen Holder Gasket | Soft Iron SUYP                   | 1.1121   | AISI1010   |
| ⑫   | Screen Holder        | Cast Stainless Steel A351 Gr.CF8 | 1.4312   | —          |
| ⑬   | Strainer             | Stainless Steel SUS430           | 1.4016   | AISI430    |
| ⑭   | Element Cover Gasket | Soft Iron SUYP                   | 1.1121   | AISI1010   |
| ⑮   | Element Cover        | Cast Stainless Steel A351 Gr.CF8 | 1.4312   | —          |
| ⑯   | Guide                | Stainless Steel SUS304           | 1.4301   | AISI304    |
| ⑰   | Air Vent Valve Seat  | —                                | —        | —          |
| ⑱   | Bimetal              | —                                | —        | —          |
| ⑲   | Snap Ring            | Stainless Steel SUS304           | 1.4301   | AISI304    |
| ⑳   | Air Vent Valve       | —                                | —        | —          |
| ㉑   | Snap Ring            | Stainless Steel SUS304           | 1.4301   | AISI304    |
| ㉒   | Screen               | Stainless Steel SUS304           | 1.4301   | AISI304    |
| ㉓   | Nameplate            | Stainless Steel SUS304           | 1.4301   | AISI304    |

\* Equivalent materials  
Contact TLV for available replacement parts.

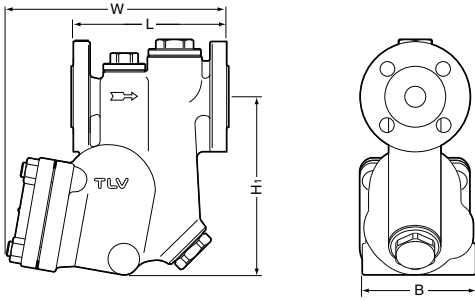
**CAUTION** To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.



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**Dimensions**

● **SJH3NB** Flanged

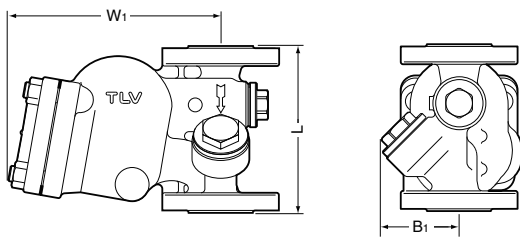


**SJH3NB** Flanged (mm)

| DN | L        |         | H <sub>1</sub> * | W*  | B* | Weight (kg) |
|----|----------|---------|------------------|-----|----|-------------|
|    | DIN 2501 | PN25/40 |                  |     |    |             |
| 15 | 150      |         | 160              | 190 | 95 | 6.7         |

\* Approx.

● **SJH3VB** Flanged

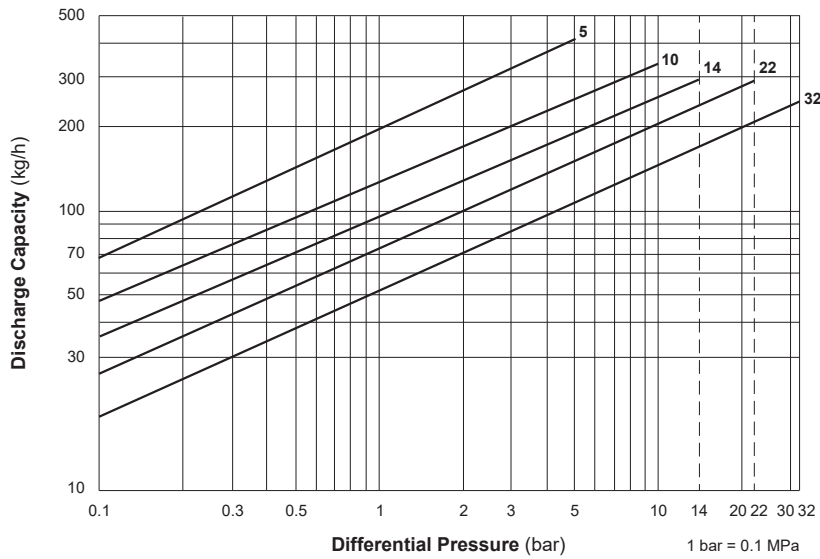


**SJH3VB** Flanged (mm)

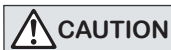
| DN | L        |         | W <sub>1</sub> * | B <sub>1</sub> * | Weight (kg) |
|----|----------|---------|------------------|------------------|-------------|
|    | DIN 2501 | PN25/40 |                  |                  |             |
| 15 | 150      |         | 165              | 70               | 5.6         |

\* Approx.

**Discharge Capacity**



1. Line numbers within the graph are 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 this product 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

