

FREE FLOAT STEAM TRAP

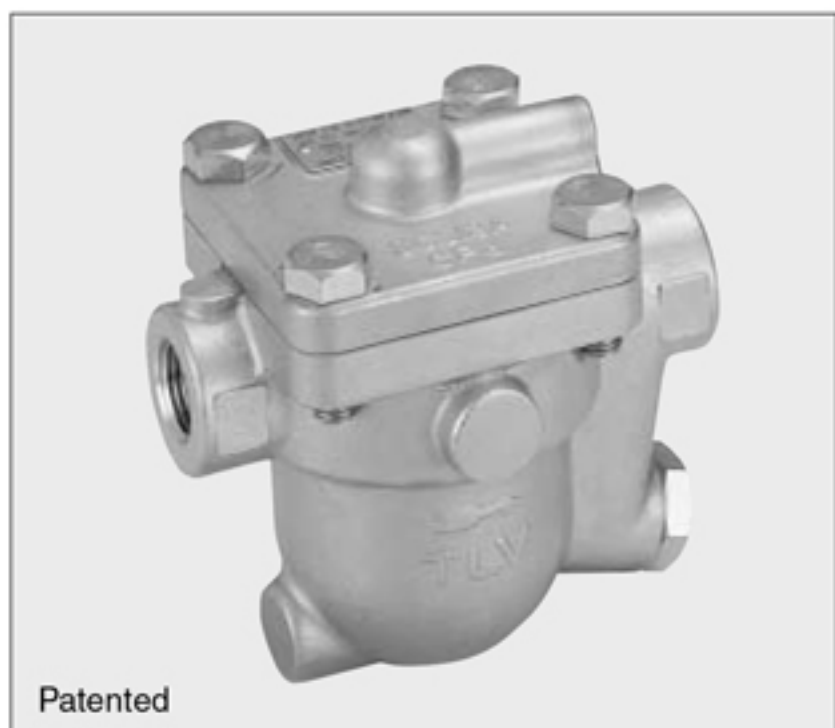
MODEL J3S-X

FREE FLOAT STEAM TRAP WITH THERMOSTATIC AIR VENTING

Features

A reliable and durable stainless steel steam trap with tight shut-off for use on small-size process equipment.

1. Self-modulating free float provides continuous, smooth, low velocity condensate discharge as process loads vary.
2. Only one moving part, the free float, prevents concentrated wear and provides long maintenance-free service life.
3. Thermostatic capsule (X-element) with "fail open" feature vents air automatically until close-to-steam temperature.
4. Built-in screen with large surface area ensures extended trouble-free service.
5. Easy, inline access to internal parts simplifies cleaning and reduces maintenance costs.



Specifications

| Model | | J3S-X | |
|-------------------------------------|------|-------------------------|---------|
| Connection | | Screwed | Flanged |
| Size (mm) | | 15, 20, 25 | |
| Orifice No. | | 2, 5, 10, 14, 21 | |
| Maximum Operating Pressure (MPaG) | PMO | 0.2, 0.5, 1.0, 1.4, 2.1 | |
| Maximum Differential Pressure (MPa) | ΔPMX | 0.2, 0.5, 1.0, 1.4, 2.1 | |
| Minimum Operating Pressure (MPaG) | | 0.01 | |
| Maximum Operating Temperature (°C) | TMO | 220 | |
| Subcooling of X-element Fill (°C) | | up to 6 | |
| Type of X-element | | B | |

PRESSURE SHELL DESIGN CONDITIONS (NOT OPERATING CONDITIONS): Maximum Allowable Pressure (MPaG) PMA: 2.1 1 MPa = 10.197 kg/cm²
Maximum Allowable Temperature (°C) TMA: 220

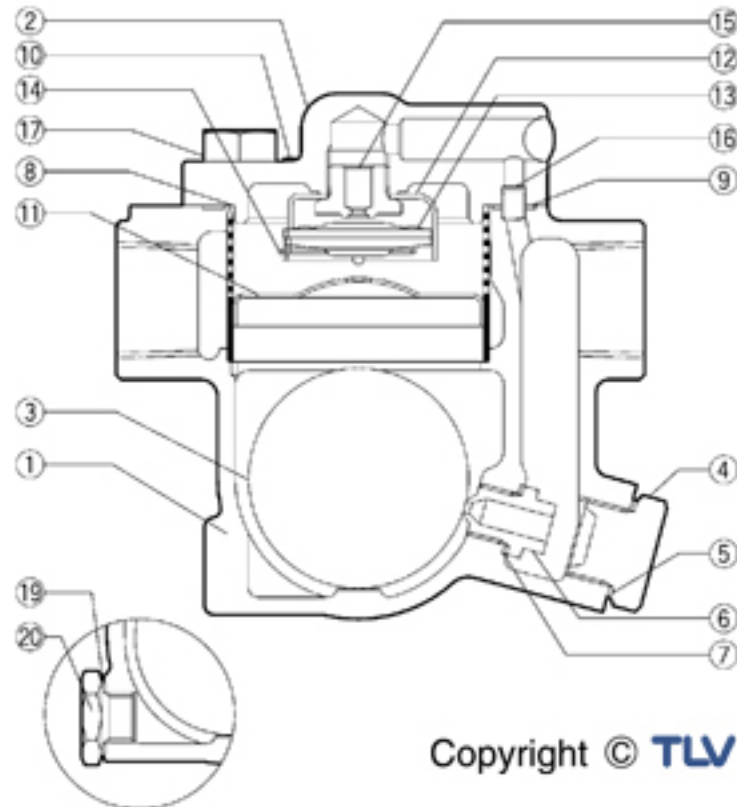
CAUTION

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 | JIS | ASTM/AISI* |
|-----------------|-----------------------|----------------------|------------|-------------|
| ① | Body | Cast Stainless Steel | — | A351 Gr.CF8 |
| ② | Cover | Cast Stainless Steel | — | A351 Gr.CF8 |
| ③ ^F | Float | Stainless Steel | SUS316L | AISI316L |
| ④ | Orifice Plug | Cast Stainless Steel | — | A351 Gr.CF8 |
| ⑤ ^{MR} | Orifice Plug Gasket | Stainless Steel | SUS316L | AISI316L |
| ⑥ ^R | Orifice | — | — | — |
| ⑦ ^{MR} | Orifice Gasket | Stainless Steel | SUS316L | AISI316L |
| ⑧ ^R | Screen inside/outside | Stainless Steel | SUS430/304 | AISI430/304 |
| ⑨ ^{MR} | Cover Gasket | Fluorine Resin | PTFE | PTFE |
| ⑩ | Nameplate | Stainless Steel | SUS304 | AISI304 |
| ⑪ ^R | Float Cover | Stainless Steel | SUS304 | AISI304 |
| ⑫ ^R | X-element Guide | Stainless Steel | SUS304 | AISI304 |
| ⑬ ^R | X-element | Stainless Steel | — | — |
| ⑭ ^R | Spring Clip | Stainless Steel | SUS304 | AISI304 |
| ⑮ ^R | Air Vent Valve Seat | Stainless Steel | SUS420F | AISI420F |
| ⑯ | Connector | Stainless Steel | SUS416 | AISI416 |
| ⑰ | Cover Bolt | Stainless Steel | SUS304 | AISI304 |
| ⑱ | Flange** | Cast Stainless Steel | — | A351 Gr.CF8 |
| ⑲ | Drain Plug Gasket*** | Stainless Steel | SUS316L | AISI316L |
| ⑳ | Drain Plug*** | Stainless Steel | SUS303 | AISI303 |

* Equivalent ** Shown on reverse *** Option

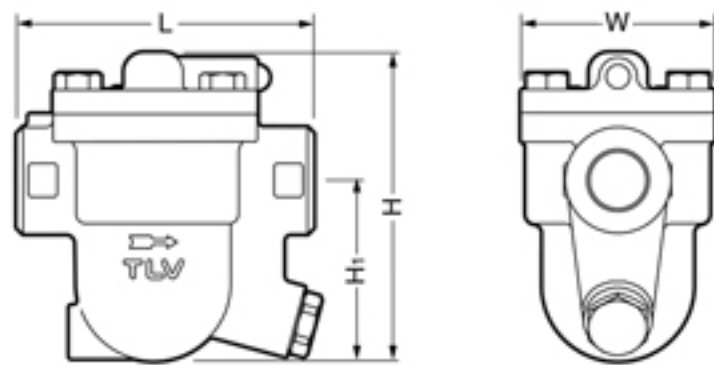
Replacement kits available: (M) maintenance parts, (R) repair parts, (F) float



Consulting & Engineering Service

Dimensions

● J3S-X Screwed

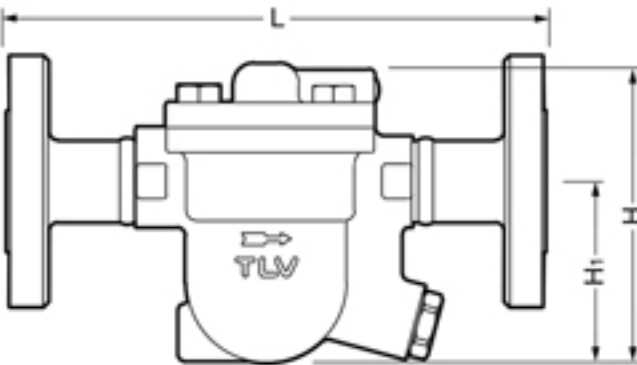


J3S-X Screwed* (mm)

| Size | L | H | H ₁ | W | Weight (kg) |
|------|-----|-----|----------------|----|-------------|
| 15 | 120 | 119 | 75 | 80 | 2.5 |
| 20 | | | 72.5 | | 2.6 |
| 25 | | 126 | 75 | | 2.8 |

* Rc(PT), other standards available

● J3S-X Flanged



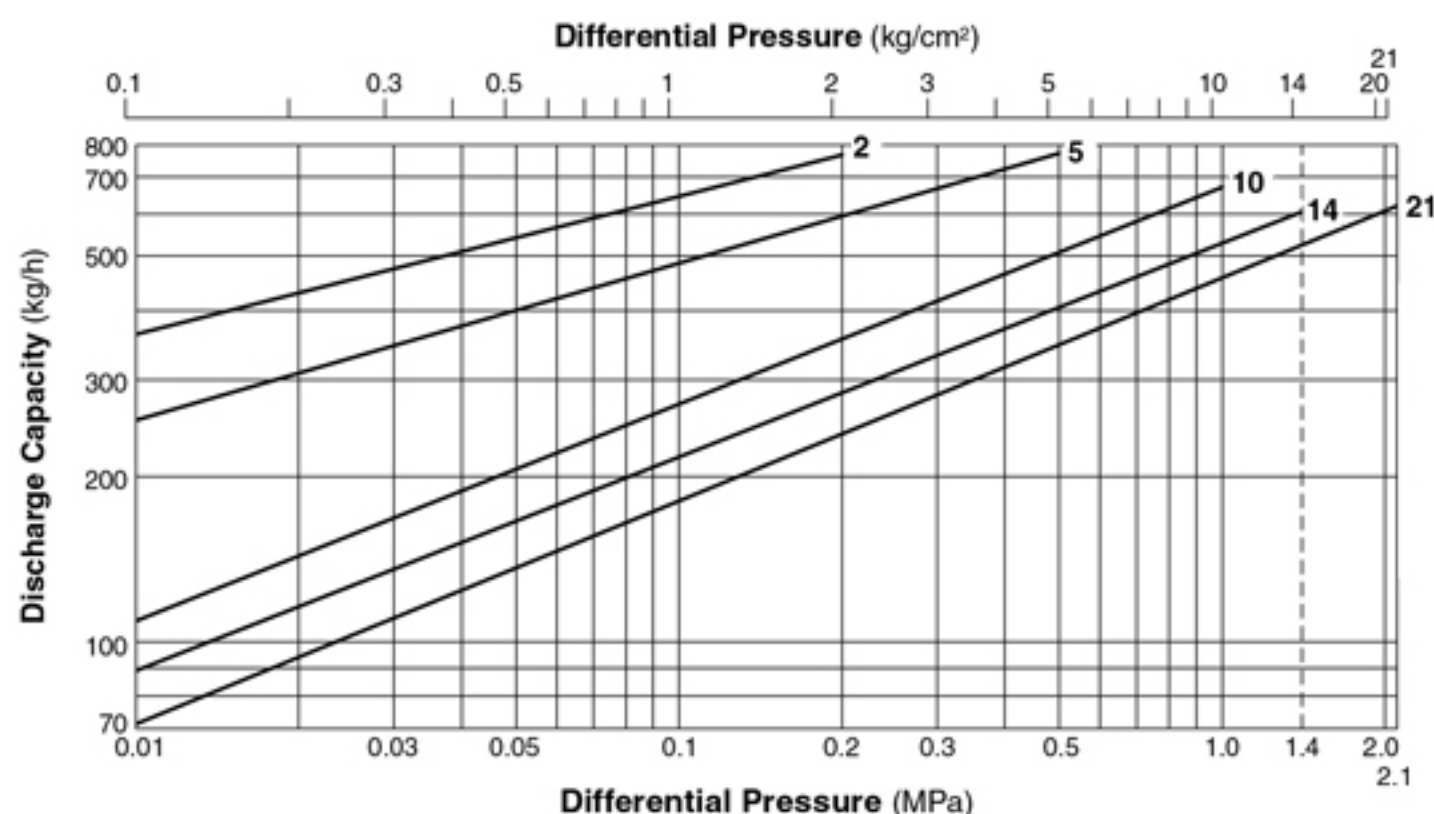
J3S-X Flanged (mm)

| Size | L | | H | H ₁ | Weight* (kg) |
|------|------------------|-------|-----|----------------|--------------|
| | ASME Class 150RF | 300RF | | | |
| 15 | 195 | 195 | 119 | 75 | 3.8 |
| 20 | 215 | 215 | | | 4.8 |
| 25 | 235 | 235 | | | 5.5 |

Other standards available, but length and weight may vary

* Weight is for Class 300 RF

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.

CAUTION

DO NOT use traps under conditions that exceed maximum differential pressure, as condensate backup will occur!

Manufacturer

ISO 9001/ISO 14001

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

