



FREE FLOAT STEAM TRAP

MODEL JH5X CAST STEEL

FREE FLOAT STEAM TRAP WITH THERMOSTATIC AIR VENTING

Features

A reliable and durable cast steel free float trap with tight shut-off for use on steam mains and small to medium-size process equipment.

1. Self-modulating free float provides continuous, smooth, low velocity condensate discharge as process loads vary.
2. Constant water-seal design ensures steam-tight seal, even under low-load conditions.
3. Only one moving part, the free float, eliminates concentrated wear and provides long maintenance-free service life.
4. Thermostatic capsule with “fail open” feature vents air automatically until close-to-steam temperature for rapid start-up, increased productivity and even heating.
5. Easy, inline access to internal parts simplifies cleaning and reduces maintenance costs.
6. Built-in screen with large surface ensures trouble free operation.



Specifications

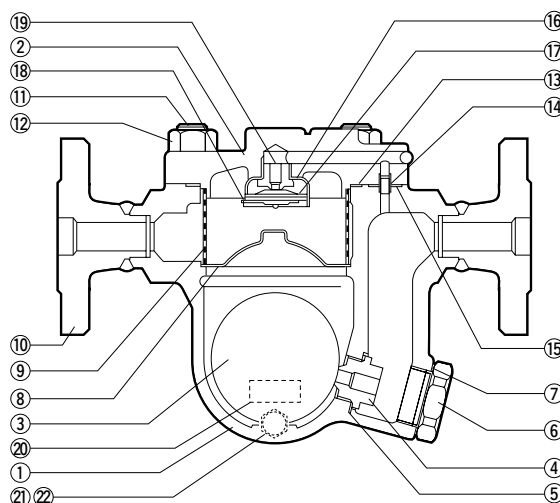
| Model | JH5X | |
|--|----------------------|--|
| Connection | Flanged | |
| Size | DN 20, 25 | |
| Orifice No. | 2, 5, 10, 14, 22, 32 | |
| Maximum Operating Pressure (barg) PMO | 2, 5, 10, 14, 22, 32 | |
| Maximum Differential Pressure (bar) ΔPMX | 2, 5, 10, 14, 22, 32 | |
| Maximum Operating Temperature (°C) TMO | 240 | |
| Subcooling of X-element Fill (°C) | up to 6 | |
| Type of X-element | B | |

PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS): Maximum Allowable Pressure (barg) PMA: 40 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 | A216 Gr. WCB |
| ② | Cover | Carbon Steel A105 | 1.0460 | A105 |
| ③ ^F | Float | Stainless Steel SUS316L | 1.4404 | AISI316L |
| ④ ^R | Orifice | Stainless Steel SUS420F | 1.4028 | AISI420F |
| ⑤ ^{MR} | Orifice Gasket | Soft Iron SUYP | 1.1121 | AISI1010 |
| ⑥ | Orifice Plug | Cast Stainless Steel SCS2A | 1.4027 | A217 Gr. CA15 |
| ⑦ ^{MR} | Orifice Plug Gasket | Soft Iron SUYP | 1.1121 | AISI1010 |
| ⑧ ^R | Float Cover | Stainless Steel SUS304 | 1.4301 | AISI304 |
| ⑨ ^R | Screen (outside/inside) | Stainless Steel SUS304/ Stainless Steel SUS430 | 1.4301/ 1.4016 | AISI304/ AISI430 |
| ⑩ | Flange** | Cast Steel A216 Gr. WCB/ Carbon Steel A105 | 1.0619/ 1.0460 | A216 Gr. WCB/ A105 |
| ⑪ | Cover Bolt | Alloy Steel SNB7 | 1.7225 | A193 Gr.B7 |
| ⑫ | Cover Nut | Carbon Steel S45C | 1.0503 | AISI1045 |
| ⑬ ^{MR} | Cover Gasket | Stainless Steel SUS316L/Graphite | 1.4404 | AISI316L |
| ⑭ | Connector | Stainless Steel SUS416 | 1.4005 | AISI416 |
| ⑮ ^{MR} | Connector Gasket | Stainless Steel SUS316L/Graphite | 1.4404 | AISI316L |
| ⑯ ^R | X-element Guide | Stainless Steel SUS304 | 1.4301 | AISI304 |
| ⑰ ^R | X-element | Stainless Steel | — | — |
| ⑱ ^R | Spring Clip | Stainless Steel SUS304 | 1.4301 | AISI304 |
| ⑲ ^R | Air Vent Valve Seat | Stainless Steel SUS420F | 1.4028 | AISI420F |
| ⑳ | Nameplate | Stainless Steel SUS304 | 1.4301 | AISI304 |
| ㉑ ^{MR} | Drain Plug Gasket | Soft Iron SUYP | 1.1121 | AISI1010 |
| ㉒ | Drain Plug | Carbon Steel S25C | 1.1158 | AISI1025 |



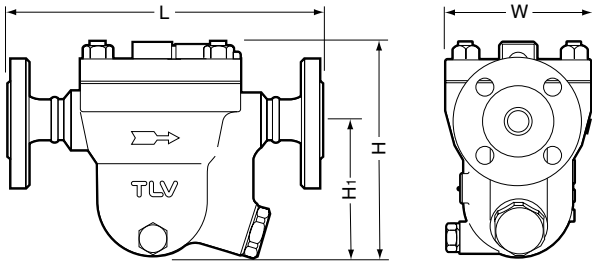
* Equivalent materials ** Material depends on flange specifications

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

Dimensions

● **JH5X** Flanged

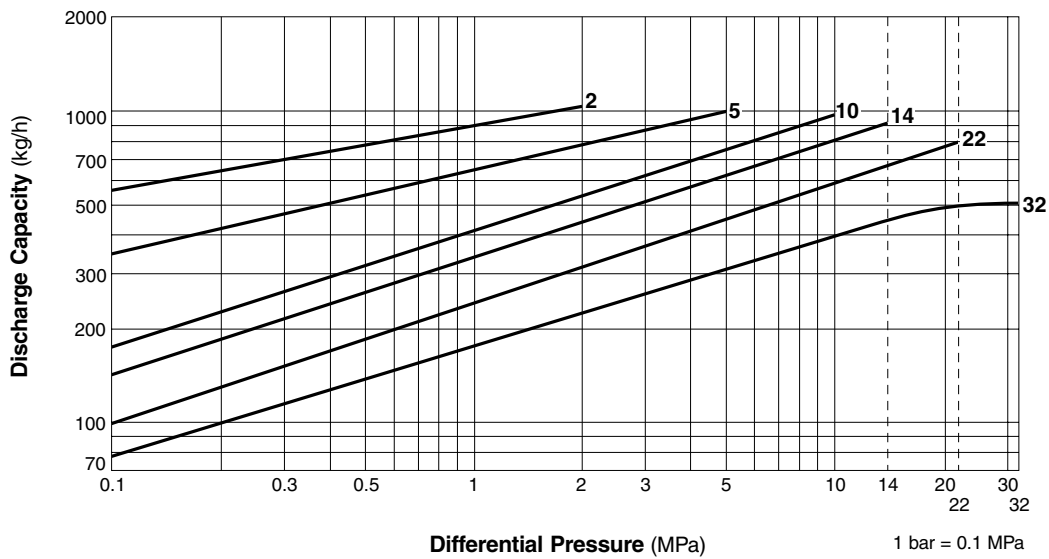
JH5X Flanged (mm)



| DN | L | | | | H | H ₁ | W | Weight* (kg) |
|----|----------|------------|-------|-------|-----|----------------|-----|--------------|
| | DIN 2501 | ASME Class | | | | | | |
| | PN25/40 | 150RF | 300RF | 600RF | | | | |
| 20 | 250 | 250 | 250 | 250 | 165 | 106 | 115 | 9.5 |
| 25 | | | | | | | | 11 |

Other standards available, but length and weight may vary
* Weight is for DIN PN 25/40

Discharge Capacity



- Line numbers within the graph refer to orifice numbers.
- Differential pressure is the difference between the inlet and outlet pressure of the trap.
- Capacities are based on continuous discharge of condensate 6 °C below saturated steam temperature.
- 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 **TLV® CO., LTD.** ISO 9001/ISO 14001
Kakogawa, Japan
is approved by LRQA Ltd. to ISO 9001/14001