



FREE FLOAT STEAM TRAP

MODEL JH3X

FREE FLOAT STEAM TRAP WITH THERMOSTATIC AIR VENTING

Features

Inline repairable traps for drainage of high pressure heat exchangers and process heaters.

1. Self-modulating free float provides continuous, smooth, low velocity condensate discharge as process loads vary.
2. Constant water seal and unique rotational seating design eliminates concentrated wear and ensures perfect steam-tight seal, even under low-load conditions.
3. Easy inline repair and maintenance possible.
4. Precision-ground float for superior sealing.
5. Thermostatic capsule with "fail open" feature vents air automatically until close to steam temperature.
6. Built-in screen with large surface area.
7. Rugged construction, withstands superheat and water hammer.



Specifications

Model	JH3X		
Connection	Screwed	Socket Welded	Flanged
Size (mm)	15, 20, 25	15, 20, 25	15, 20, 25
Orifice No.	2, 5, 10, 14, 22, 32		
Maximum Operating Pressure (MPaG) PMO	0.2, 0.5, 1.0, 1.4, 2.2, 3.2		
Maximum Differential Pressure (MPa) ΔPMX	0.2, 0.5, 1.0, 1.4, 2.2, 3.2		
Minimum Operating Pressure (MPaG)	0.01		
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 (MPaG) PMA: 3.2

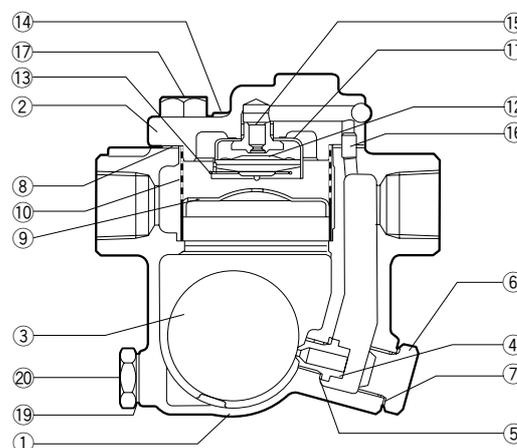
Maximum Allowable Temperature (°C) TMA: 350

1 MPa = 10.197 kg/cm²



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 Steel	—	A216 Gr. WCB
②	Cover	Carbon Steel	—	A105
③F	Float	Stainless Steel	SUS316L	AISI316L
④R	Orifice	Stainless Steel	SUS420F	AISI420F
⑤MR	Orifice Gasket	Soft Iron	SUYP	AISI1010
⑥	Orifice Plug	Stainless Steel	SUS303	AISI303
⑦MR	Plug Gasket	Soft Iron	SUYP	AISI1010
⑧MR	Cover Gasket	Stainl. Stl./Graphite	SUS316L	AISI316L
⑨R	Float Cover	Stainless Steel	SUS304	AISI304
⑩R	Screen inner/outer	Stainless Steel	SUS430/304	AISI430/304
⑪R	X-element Guide	Stainless Steel	SUS304	AISI304
⑫R	X-element	Stainless Steel	—	—
⑬R	Spring Clip	Stainless Steel	SUS304	AISI304
⑭	Nameplate	Stainless Steel	SUS304	AISI304
⑮R	Air Vent Valve Seat	Stainless Steel	SUS420F	AISI420F
⑯	Connector	Stainless Steel	SUS416	AISI416
⑰	Cover Bolt	Carbon Steel	S45C	AISI1045
⑱	Flange**	Forged Steel***	—	A105/A216 Gr. WCB
⑲MR	Drain Plug Gasket	Soft Iron	SUYP	AISI1010
⑳	Drain Plug	Carbon Steel	S25C	AISI1045

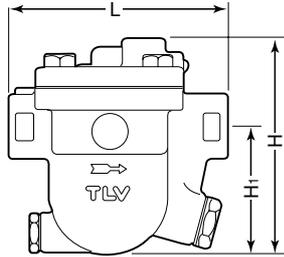


* Equivalent ** Shown on reverse *** Either A105 or A216 Gr. WCB, depending upon flange specifications

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

Dimensions

● **JH3X**
Screwed

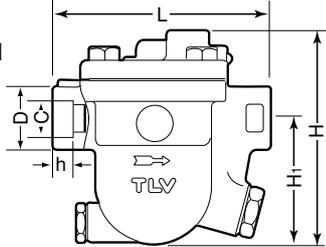


JH3X Screwed* (mm)

Size	L	H	H ₁	Weight (kg)
15	130	133	82	3
20				
25	133	146	91	3.1

* Rc(PT), other standards available

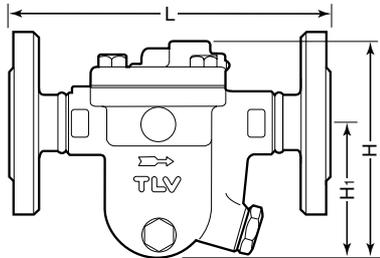
● **JH3X**
Socket Welded



JH3X Socket Welded (mm)

Size	L	H	H ₁	φC	φD	h	Weight (kg)
15	130	133	82	21.70	36	12	3
20				27.05		14	
25	133	146	91	33.80	44		3.1

● **JH3X**
Flanged

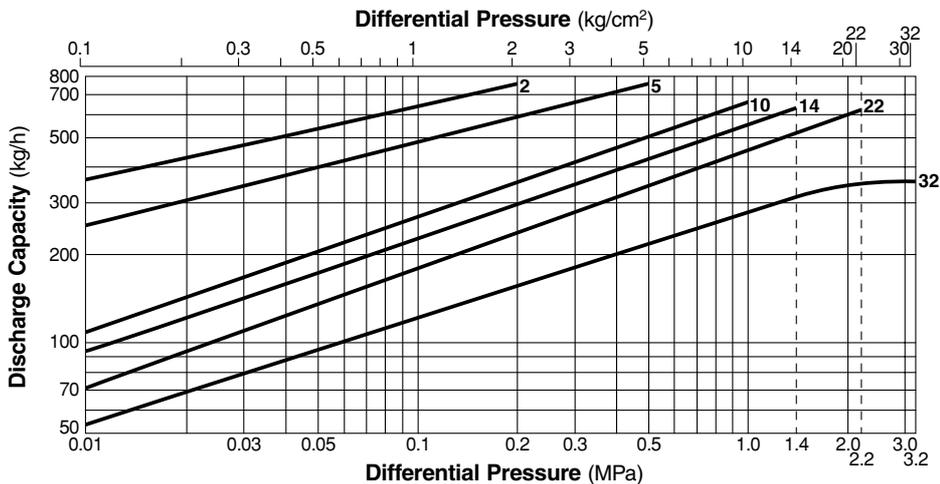


JH3X Flanged (mm)

Size	L(ASME Class)			H	H ₁	W	Weight (approx. kg)
	150RF	300RF	600RF				
15	210	210	210	146	106	91	4.5
20							5.4
25							6.1

Other standards available, but length and weight may vary

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

CAUTION DO NOT use traps under conditions which 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

