



# FREE FLOAT STEAM TRAP

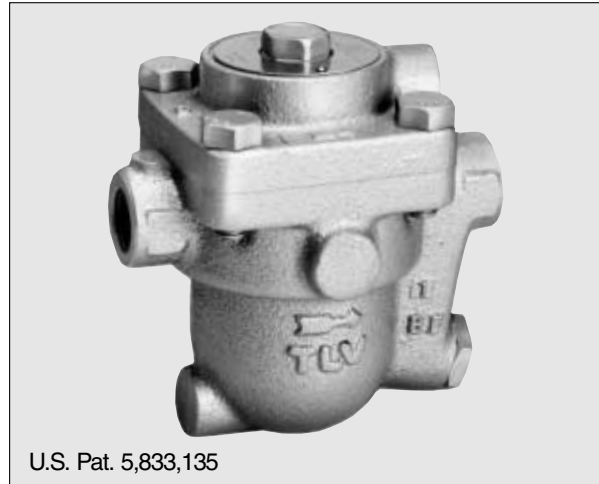
## MODEL J3X

### FREE FLOAT STEAM TRAP WITH THERMOSTATIC AIR VENTING

#### Benefits

**Extremely durable, inline repairable free-float trap with tight shut-off for drainage of steam mains and small process loads.**

1. Self-modulating free float provides soft and continuous, low velocity discharge as process loads vary for maximum performance.
2. Unique rotational seating design eliminates concentrated wear to provide long life.
3. Durable thermostatic unit automatically vents air for exceptional start-up and performance.
4. Easy, inline access to internal parts simplifies cleaning and lowers maintenance costs.
5. Rugged float construction with up to 1740 psig hydraulic shock rating ensures excellent resistance to water hammer.
6. Built-in screen with large surface area ensures extended trouble-free service.



U.S. Pat. 5,833,135

**CAUTION** DO NOT DISASSEMBLE OR REMOVE THIS PRODUCT WHILE IT IS UNDER PRESSURE. Allow internal pressure of this product to equal atmospheric pressure and its surface to cool to room temperature before disassembling or removing. Failure to do so could cause burns or other injury. READ INSTRUCTION MANUAL CAREFULLY.

#### Specifications

Model	J3X	JF3X
Connection	<b>Screwed</b>	<b>Flanged</b>
Size (in)	<b>1/2, 3/4, 1</b>	<b>1</b>
Orifice No.	1*, 2, 5, 10, 21	1, 2, 5, 10, 18
Maximum Operating Pressure (psig) PMO	15, 30, 75, 150, 300	15, 30, 75, 150, 250
Maximum Differential Pressure (psi) Δ PMX	15, 30, 75, 150, 300	15, 30, 75, 150, 250
Minimum Operating Pressure (psig)	Vacuum	
Maximum Operating Temperature (°F) TMO	428	
Maximum Allowable Pressure (psig) PMA	300	250
Maximum Allowable Temperature (°F) TMA	428	428

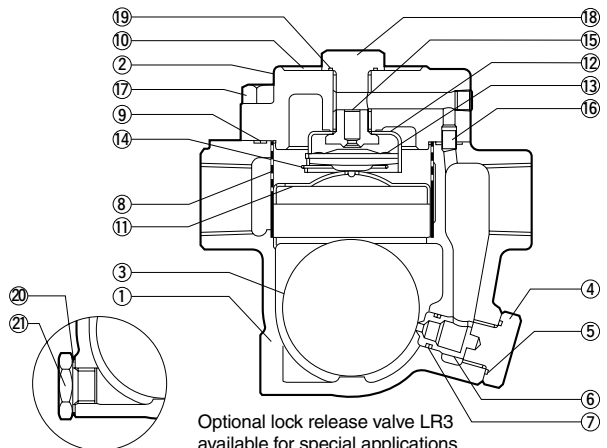
\* #1 orifice is standard only on 3/4" size

Connections and sizes in bold are standard

No.	Description	Materials	ASTM/AISI*	JIS
①	Body (J3X)	Ductile Cast Iron	A536 Gr.65-45-12	FCD450
	Body (JF3X)	Cast Iron	A842 Gr.400	FCV410
②	Cover	Ductile Cast Iron	A536 Gr.65-45-12	FCD450
③F	Float	Stainless Steel	AISI316L	SUS316L
④	Orifice Holder Plug	Carbon Steel	AISI1025	S25C
⑤MR	Orifice Plug Gasket	Fluorine Resin	PTFE	PTFE
⑥R	Orifice	—	—	—
⑦MR	Orifice O-Ring	Synthetic Rubber	D2000CA	EPR
⑧R	Screen	Stainless Steel	AISI430	SUS430
⑨MR	Cover Gasket	Fluorine Resin	PTFE	PTFE
⑩	Nameplate	Stainless Steel	AISI304	SUS304
⑪R	Float Cover	Stainless Steel	AISI304	SUS304
⑫R	X-element Guide	Stainless Steel	SUS304	SUS304
⑬R	X-element	Stainless Steel	—	—
⑭R	Spring Clip	Stainless Steel	AISI304	SUS304
⑮R	Air Vent Valve Seat	Stainless Steel	AISI420F	SUS420F
⑯	Connector	Stainless Steel	SUS416	SUS416
⑰	Cover Bolt	Carbon Steel	AISI1045	S45C
⑱	Plug	Carbon Steel	AISI1025	S25C
⑲MR	Plug Gasket	Fluorine Resin	PTFE	PTFE
⑳	Drain Plug Gasket**	Soft Iron	AISI1010	SUYP
㉑	Drain Plug**	Carbon Steel	AISI1025	S25C

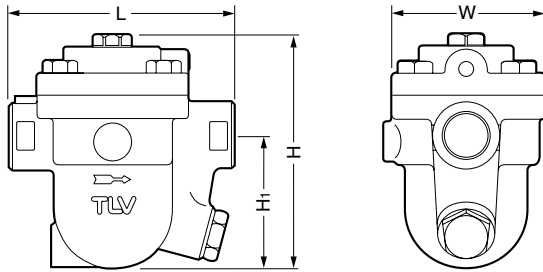
\* Equivalent \*\* Option  
Replacement kits available: (M) maintenance parts, (R) repair parts, (F) float

**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.



**Dimensions**

● **J3X** Screwed

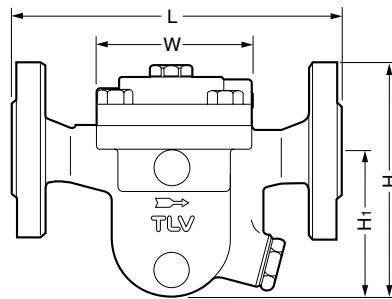


**J3X** Screwed\* (in)

Size	L	H	H <sub>1</sub>	W	Weight (lb)
1/2	4 3/4	5 1/8	2 15/16	3 1/8	6.0
3/4			2 7/8		6.2
1		5 3/8	2 15/16		6.6

\* NPT, other standards available

● **JF3X** Flanged



**JF3X** Flanged (in)

Size	L		H	H <sub>1</sub>	W	Weight* (lb)
	ASME Class					
	125FF	<b>250RF</b>				
1	8	<b>8 7/16</b>	5 1/2	3 9/16	3 1/8	13

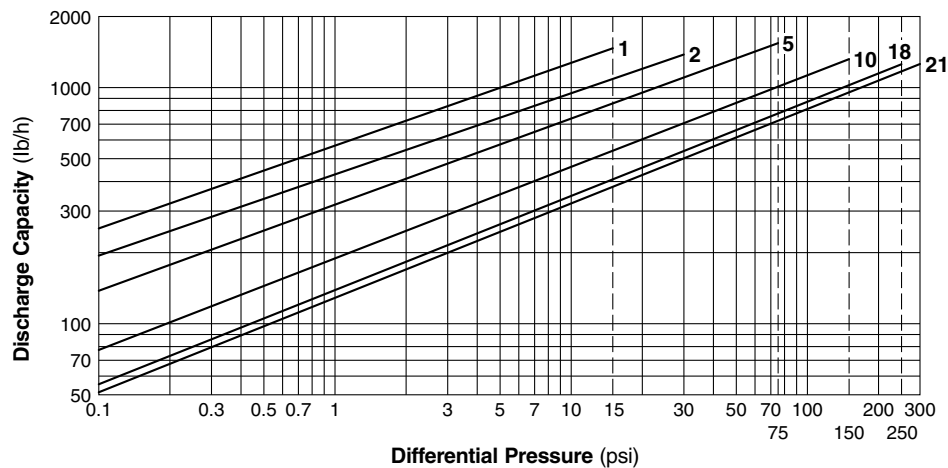
Class 125 FF can connect to 150 RF, 250 RF can connect to 300 RF

Other standards available, but length and weight may vary

\* Weight is for Class 250 RF

Flange classes in bold are standard

**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 11 °F below saturated steam temperature.
4. Recommended safety factor: at least 1.5.
5. #1 orifice is standard only on 3/4" size.

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

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

ISO 9001/ISO 14001

