



# FREE FLOAT STEAM TRAP

MODEL ~~JH7X~~/JH7

## CAST STEEL FREE FLOAT STEAM TRAP WITH THERMOSTATIC AIR VENTING

### Benefits

Extremely durable, inline-repairable free float trap with tight shut-off for drainage of medium-size process heaters.

1. Self-modulating free float provides soft and continuous, low velocity discharge as process loads vary, for maximum production performance.
2. Unique rotational seating design eliminates concentrated wear to provide long maintenance-free service life.
3. ~~JH7X: 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 1570 psig hydraulic shock rating ensures excellent resistance to water hammer.
6. Built-in screen with large surface area ensures extended trouble-free service.



### Specifications

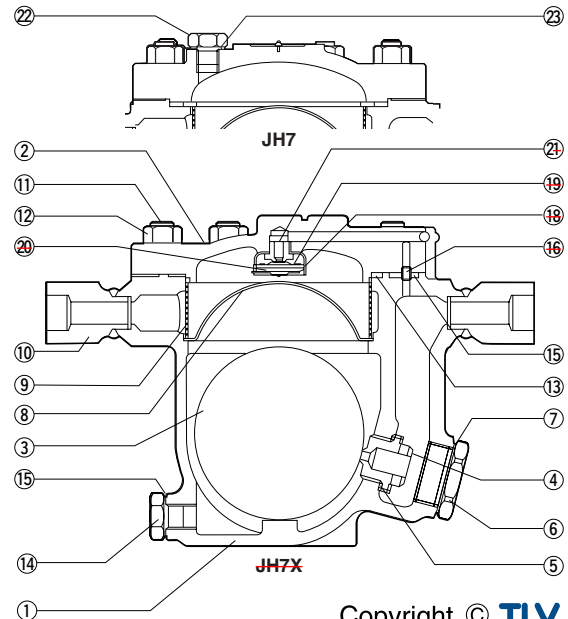
Model	JH7X	JHW7X	JH7X	JH7
Connection	Screwed	Socket Weld	Flanged	Flanged
Size (in)		1, 1½		1, 1½
Orifice No.		<del>1, 2, 5, 10, 14, 22, 32</del>		40
Maximum Operating Pressure (psig) PMO		<del>15, 30, 75, 100, 315, 450</del>		600
Maximum Differential Pressure (psi) ΔPMX		<del>15, 30, 75, 100, 200, 315, 450</del>		600
Minimum Operating Pressure (psig)		Vacuum		Vacuum
Maximum Operating Temperature (°F) TMO		464		800
Maximum Allowable Pressure (psig) PMA		600		925
Maximum Allowable Temperature (°F) TMA		800		800



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.

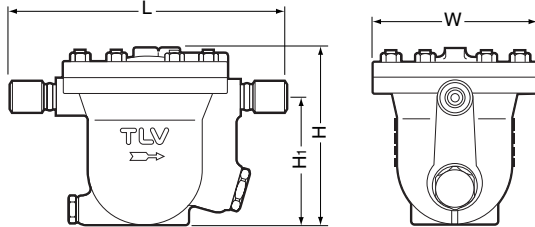
No.	Description	Material	ASTM/AISI*	JIS
①	Body	Cast Steel	A216 Gr. WCB	SCPH2
②	Cover	Carbon Steel	A105	A105
③ <sup>F</sup>	Float	Stainless Steel	AISI316L	SUS316L
④ <sup>F</sup>	Orifice	Stainless Steel	AISI420F	SUS420F
⑤ <sup>MR</sup>	Orifice Gasket	Soft Iron	AISI1010	SUYP
⑥	Orifice Plug	Cast Stainless Steel	A217 Gr.CF8	SCS13A
⑦ <sup>MR</sup>	Orifice Plug Gasket	Soft Iron	AISI1010	SUYP
⑧	Screen Holder	Stainless Steel	AISI304	SUS304
⑨ <sup>F</sup>	Screen	Stainless Steel	AISI430	SUS430
⑩	Flange (not shown)	Carbon/Cast Steel**	A105/216 Gr. WCB	-
	Socket (1", 1½")	Carbon Steel	AISI1025/A105	S25C/A105
⑪	Cover Bolt (JH7X/JH7)	Alloy Steel	A193-B7/B16	SNB7/B16
⑫	Cover Nut	Carbon Steel	AISI1045	S45C
⑬ <sup>MR</sup>	Cover Gasket (JH7X/JH7)	Stainless Steel/Graphite	AISI316L/304	SUS316L/304
⑭	Drain Plug	Carbon Steel	AISI1025	S25C
⑮ <sup>MR</sup>	Drain Plug Gasket	Soft Iron	AISI1010	SUYP
⑯	Connector	Stainless Steel	AISI416	SUS416
⑰ <sup>MR</sup>	Connector Gasket	Stainless Steel/Graphite	AISI316L	SUS316L
⑱ <sup>MR</sup>	X-element Guide	Stainless Steel	AISI304	SUS304
⑲ <sup>MR</sup>	X-element	Stainless Steel	-	-
⑳ <sup>MR</sup>	Spring Clip	Stainless Steel	AISI304	SUS304
㉑ <sup>MR</sup>	Air-Vent Valve Seat	Stainless Steel	AISI420F	SUS420F
㉒	Plug	Carbon Steel	AISI1025	S25C
㉓ <sup>MR</sup>	Plug Gasket	Soft Iron	AISI1010	SUYP

\* Equivalent \*\* Material depends on flange specifications  
 Parts 16-21 for JH7X only, parts 22-23 for optional air vent kit on JH7 only  
 Replacement kits available: (M) maintenance parts, (R) repair parts, (F) float



**Dimensions**

● **JHS7X** Screwed

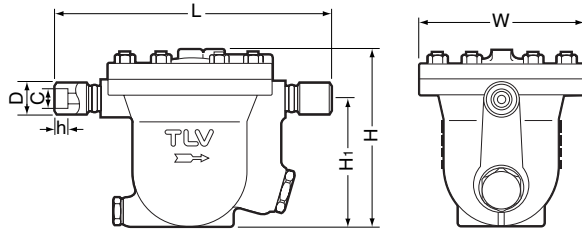


**JHS7X** Screwed\*

Size	L	H	H <sub>1</sub>	φ W	Weight (lb)
1	13 <sup>3</sup> / <sub>4</sub>	8 <sup>15</sup> / <sub>16</sub>	6 <sup>5</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>8</sub>	47
1 1/2	13 <sup>3</sup> / <sub>4</sub>				50

NPT, other standards available

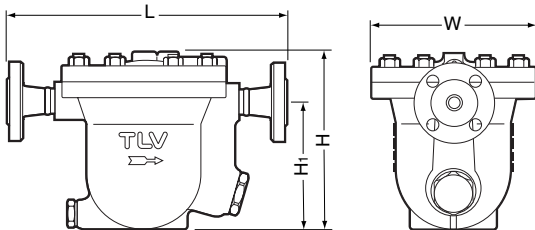
● **JHW7X** Socket Weld



**JHW7X** Socket Weld

Size	L	H	H <sub>1</sub>	φ W	φ D	φ C	h	Weight (lb)
1	13 <sup>3</sup> / <sub>4</sub>	8 <sup>15</sup> / <sub>16</sub>	6 <sup>5</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>8</sub>	1 <sup>15</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>16</sub>	47
1 1/2	13 <sup>3</sup> / <sub>4</sub>				2 <sup>5</sup> / <sub>8</sub>	1 <sup>15</sup> / <sub>16</sub>		50

● **JH7X** Flanged



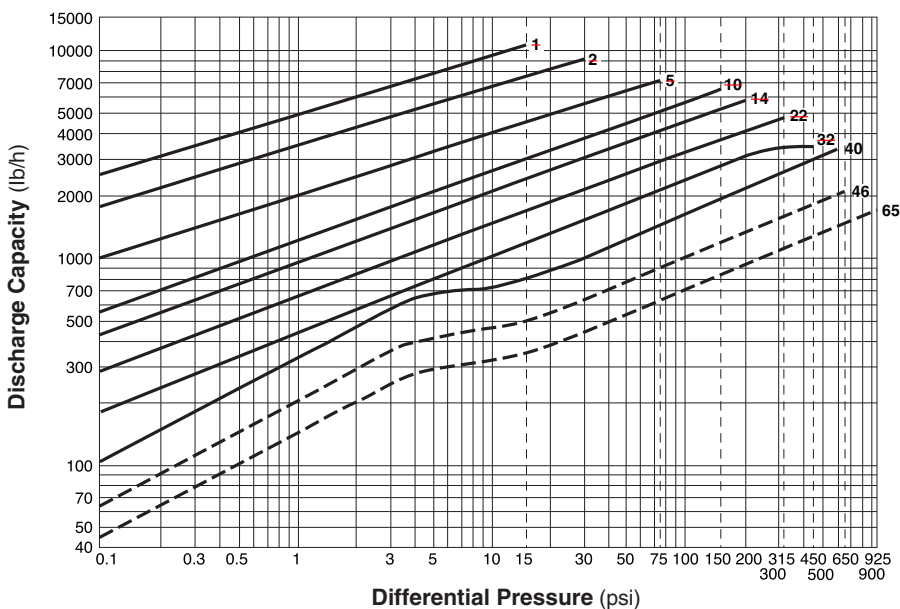
**JH7X/JH7** Flanged

Model	Size	L				H	H <sub>1</sub>	φ W	Weight* (lb)
		ASME Class							
		150RF	300RF	600RF	900RF				
JH7X	1	13 <sup>3</sup> / <sub>4</sub>	13 <sup>3</sup> / <sub>4</sub>	13 <sup>3</sup> / <sub>4</sub>	—	8 <sup>15</sup> / <sub>16</sub>	6 <sup>5</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>8</sub>	51
	1 1/2	15	15	15	—				58
JH7	1	13 <sup>3</sup> / <sub>4</sub>	13 <sup>3</sup> / <sub>4</sub>	13 <sup>3</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>2</sub>	9 <sup>3</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>8</sub>	8 <sup>3</sup> / <sub>4</sub>	59
	1 1/2	15	15	15	15 <sup>3</sup> / <sub>8</sub>				62

Other standards available, but length and weight may vary

\* Weight is for Class 600 RF

**Discharge Capacity**



- Standard
  - - - Available on special request
- Capacities for orifice #1-32 apply only to JH7X (#1 only to size 1 1/2); capacities #40-65 apply only to JH7
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.



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

**TLV CORPORATION**

13901 South Lakes Drive, Charlotte, NC 28273-6790  
 Phone: 704-597-9070 Fax: 704-583-1610  
 E-mail: tlvc@tlvengineering.com  
 For Technical Service 1-800 "TLV TRAP"



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

ISO 9001/ISO 14001

