



# FREE FLOAT<sup>®</sup> STEAM TRAP

MODEL **JH7RH-B**  
**JH7RH-P/JH7RH-W**  
LOW ALLOY CAST STEEL

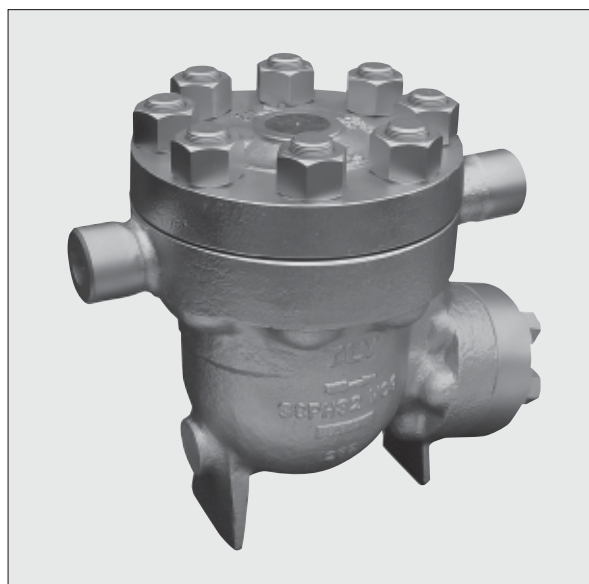
## FREE FLOAT STEAM TRAP WITH THERMOSTATIC AIR VENTING OR COVER CONNECTION

### Features

**A reliable and durable low alloy cast steel\* steam trap for use on medium-size process equipment, also suitable for both superheated and extremely high-pressure applications.**

1. Self-modulating free float provides continuous, smooth, low-velocity condensate discharge as process loads vary.
2. Precision-ground float, constant water seal and three-point seating design ensure a steam-tight seal, even under no-load conditions.
3. **JH7RH-B**: Thermostatic bimetal air vent valve vents air automatically for rapid startup.
4. **JH7RH-P/JH7RH-W\*\***: Instead of the bimetal air vent, for higher pressure and temperature applications, the JH7RH-P/JH7RH-W are manufactured with a cover threaded plug, or socket connection.
5. Built-in screen with large surface area ensures extended trouble-free operation.
6. Easy, inline access to internal parts simplifies cleaning and reduces maintenance costs.

\* Stainless Steel body available on request \*\* Option



### Specifications

Model	JH7RH-B		JH7RH-P		JH7RH-W (option)	
	Socket Welded	Flanged	Socket Welded	Flanged	Socket Welded	Flanged
Connection						
Size	DN 15, 20, 25		DN 15, 20, 25		DN 15, 20, 25	
Orifice No.	80, 100		100, 120		100, 120	
Maximum Operating Press. (barg) PMO	80, 100		100, 120		100, 120	
Maximum Differential Press. (bar) ΔPMX	80, 100		100, 120		100, 120	
Maximum Operating Temp. (°C) TMO	425		530*		530	
Type of Air Vent	Bimetal (vents air up to approx. 100 C)		—		—	

\* JH7RHT-P available for temperatures up to 620 °C. See reverse.

1 bar = 0.1 MPa

PRESSURE SHELL DESIGN CONDITIONS (NOT OPERATING CONDITIONS):

Maximum Allowable Pressure (barg) PMA: 120 Maximum Allowable Temperature (°C) TMA: 425 (JH7RH-B), 530 (JH7RH-P, JH7RH-W)

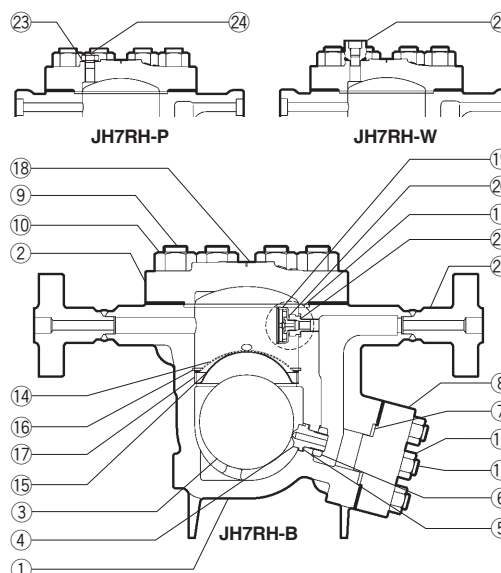


To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

No.	Description	Material	DIN*	ASTM/AISI*
①	Body	Low Alloy Cast Steel A217 Gr.WC9	1.7379	—
②	Cover	Low Alloy Cast Steel A217 Gr.WC9	1.7379	—
③ <sup>F</sup>	Float	Stainless Steel SUS316L	1.4404	AISI316L
④ <sup>R</sup>	Orifice	—	—	—
⑤ <sup>MR</sup>	Orifice Gasket	Graphite/Stainless Steel SUS316	- /1.4401	- /AISI316
⑥ <sup>R</sup>	Orifice Locknut	Stainless Steel SUS303	1.4305	AISI303
⑦ <sup>MR</sup>	Outlet Cover Gasket	Graphite/Stainless Steel SUS309S+cb	—	—
⑧	Outlet Cover	Stainless Steel SUS420J2	1.4031	AISI420
⑨	Cover Bolt	Alloy Steel SNB16	1.7711	A193 Gr.B16
⑩	Cover Nut	Alloy Steel SNB7	1.7225	A193 Gr.B7
⑪ <sup>MR</sup>	Cover Gasket	Graphite/Stainless Steel SUS309S+cb	—	—
⑫	Outlet Cover Bolt	Alloy Steel SNB16	1.7711	A193 Gr.B16
⑬	Outlet Cover Nut	Alloy Steel SNB7	1.7225	A193 Gr.B7
⑭ <sup>R</sup>	Screen	Stainless Steel SUS430	1.4016	AISI430
⑮	Screen Holder	Stainless Steel SUS304	1.4301	AISI304
⑯	Snap Ring	Stainless Steel SUS304	1.4301	AISI304
⑰	Screen Holder Retainer	Stainless Steel SUS304	1.4301	AISI304
⑱	Nameplate	Stainless Steel SUS304	1.4301	AISI304
⑲ <sup>R</sup>	Bimetal Air Vent Unit	—	—	—
⑳	Air Vent Guide	Stainless Steel SUS303	1.4305	AISI303
㉑ <sup>MR</sup>	Air Vent Unit Gasket	Stainless Steel SUS316L	1.4404	AISI316L
㉒	Flange	Alloy Steel A182 F22 Cl.3	1.7380	—
㉓ <sup>MR</sup>	Cover Plug Gasket	Stainless Steel SUS316L	1.4404	AISI316L
㉔	Cover Plug	Stainless Steel SUS303	1.4305	AISI303
㉕	Cover Socket	Alloy Steel A182 F22 Cl.3	1.7380	—

\* Equivalent materials

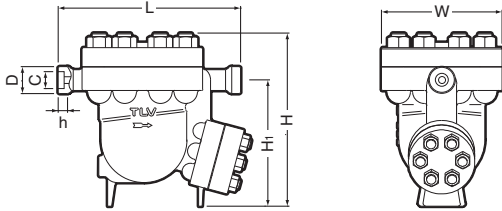
Replacement kits available: (M) maintenance parts, (R) repair parts, (F) float



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**Dimensions**

● **JH7RH-B/JH7RH-P/JH7RH-W** Socket Welded

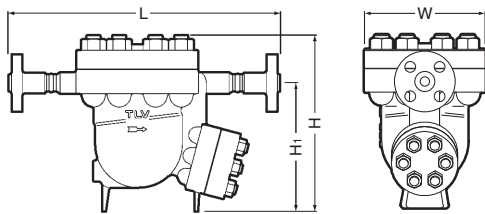


**JH7RH-B/JH7RH-P/JH7RH-W** Socket Welded\* (mm)

DN	L	H	H <sub>1</sub>	φW	φD	φC	h	Weight (kg)
15	390	371 (382)	270	258	53.5	21.8	13	86
20						27.2		
25						33.9		

\* ASME B16.11-2005, other standards available  
( ) JH7RH-W

● **JH7RH-B/JH7RH-P/JH7RH-W** Flanged



**JH7RH-B/JH7RH-P/JH7RH-W** Flanged (mm)

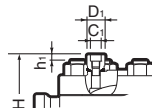
DN	L		H	H <sub>1</sub>	φW	Weight (kg)
	ASME Class					
	900RF	1500RF				
15	572	572	371 (382)	270	258	94
20						95
25						98

Other standards available, but length and weight may vary  
( ) JH7RH-W

● **JH7RH-P**



● **JH7RH-W**

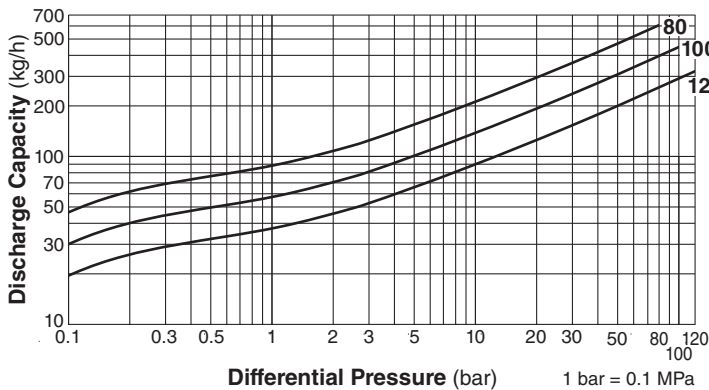


**JH7RH-W** Cover Socket\* (mm)

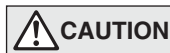
φD <sub>1</sub>	φC <sub>1</sub>	h <sub>1</sub>
36	21.8	13

\* ASME B16.11-2005, other standards available

**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.



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

**Optional High Temperature Model**

Model	JH7RHT-P	
Body Material	Low Alloy Cast Steel (ASTM A217 Gr.C12A)	
Connection / Size (mm)	Socket Welded / 15, 20, 25	
Orifice No.	60, 90	
Max. Operating Press. (barg)	PMO	60, 90
Max. Differential Press. (bar)	ΔPMX	60, 90
Max. Operating/Allowable Temp. (°C)	TMO/TMA	620, 595
Max. Discharge Capacity (kg/h)	760, 495	

Contact TLV for further details.

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

