



# FREE FLOAT® STEAM TRAP

## MODEL JH7RH-B JH7RH-P/JH7RH-W

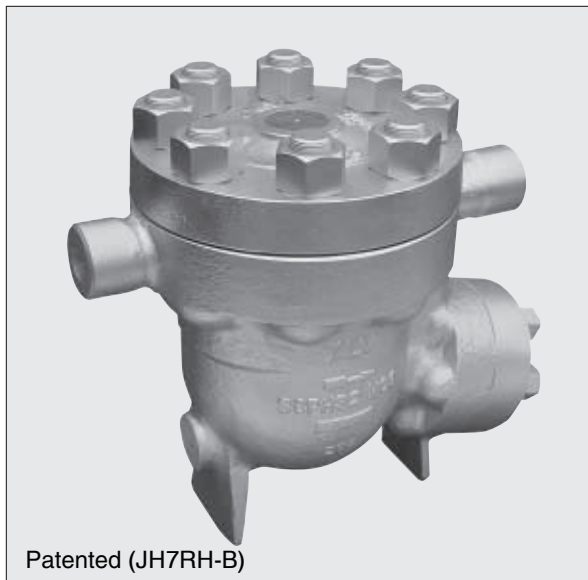
### FREE FLOAT STEAM TRAP WITH THERMOSTATIC AIR VENTING OR COVER CONNECTION

#### 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.

\* Option



#### Specifications

Model	JH7RH-B		JH7RH-P		JH7RH-W (option)	
	Socket Welded	Flanged	Socket Welded	Flanged	Socket Welded	Flanged
Size (mm)	15, 20, 25		15, 20, 25		15, 20, 25	
Orifice No.	80, 100		100, 120		100, 120	
Maximum Operating Pressure (MPaG) PMO	8.0, 10		10, 12		10, 12	
Maximum Differential Pressure (MPa) ΔPMX	8.0, 10		10, 12		10, 12	
Minimum Operating Pressure (MPaG)	0.01		0.01		0.01	
Maximum Operating Temperature (°C) TMO	425		530*		530	
Type of Air Vent	Bimetal (vents air up to approx. 100 °C)		—		—	

\*JH7RH-P available for temperatures up to 620 °C. See reverse.

1 MPa = 10.197 kg/cm<sup>2</sup>

PRESSURE SHELL DESIGN CONDITIONS (NOT OPERATING CONDITIONS):

Maximum Allowable Pressure (MPaG) PMA: 12 Maximum Allowable Temperature (°C) TMA: 425 (JH7RH-B), 530 (JH7RH-P, JH7RH-W)

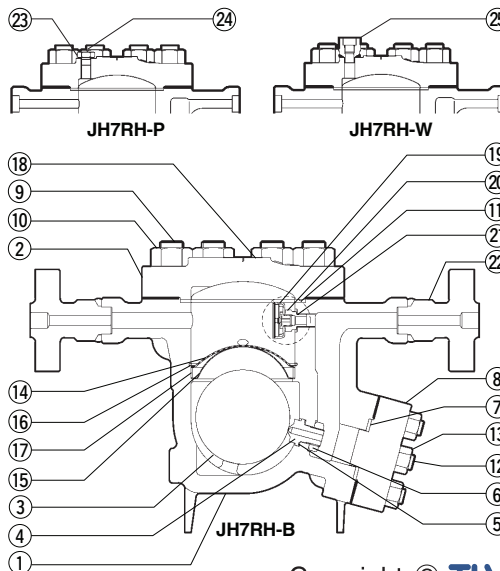


To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

No.	Description	Material	JIS	ASTM/AISI*
①	Body	Low Alloy Cast Steel	—	A217 Gr.WC9
②	Cover	Low Alloy Cast Steel	—	A217 Gr.WC9
③ <sup>F</sup>	Float	Stainless Steel	SUS316L	AISI316L
④ <sup>R</sup>	Orifice	—	—	—
⑤ <sup>MR</sup>	Orifice Gasket	Graphite/Stainless Steel	—/SUS316	—/AISI316
⑥ <sup>R</sup>	Orifice Locknut	Stainless Steel	SUS303	AISI303
⑦ <sup>MR</sup>	Outlet Cover Gasket	Graphite/Stainless Steel	—/SUS309S+cb	—/AISI309S+cb
⑧	Outlet Cover	Stainless Steel	SUS420J2	AISI420
⑨	Cover Bolt	Alloy Steel	SNB16	A193 Gr.B16
⑩	Cover Nut	Alloy Steel	SNB7	A193 Gr.B7
⑪ <sup>MR</sup>	Cover Gasket	Graphite/Stainless Steel	—/SUS309S+cb	—/AISI309S+cb
⑫	Outlet Cover Bolt	Alloy Steel	SNB16	A193 Gr.B16
⑬	Outlet Cover Nut	Alloy Steel	SNB7	A193 Gr.B7
⑭ <sup>R</sup>	Screen	Stainless Steel	SUS430	AISI430
⑮	Screen Holder	Stainless Steel	SUS304	AISI304
⑯	Snap Ring	Stainless Steel	SUS304	AISI304
⑰	Screen Holder Retainer	Stainless Steel	SUS304	AISI304
⑱	Nameplate	Stainless Steel	SUS304	AISI304
⑲ <sup>R</sup>	Bimetal Air Vent Unit	—	—	—
⑳	Air Vent Guide	Stainless Steel	SUS303	AISI303
㉑ <sup>MR</sup>	Air Vent Unit Gasket	Stainless Steel	SUS316L	AISI316L
㉒	Flange	Alloy Steel	—	A182 F22 Cl.3
㉓ <sup>MR</sup>	Cover Plug Gasket	Stainless Steel	SUS316L	AISI316L
㉔	Cover Plug	Stainless Steel	SUS303	AISI303
㉕	Cover Socket	Alloy Steel	—	A182 F22 Cl.3

\* Equivalent

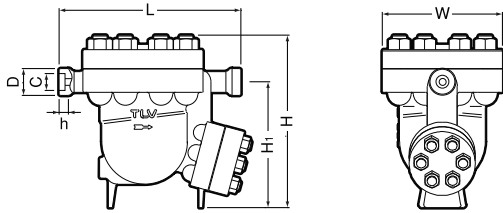
Replacement kits available: (M) maintenance parts, (R) repair parts, (F) float



Copyright © TLV

**Dimensions**

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

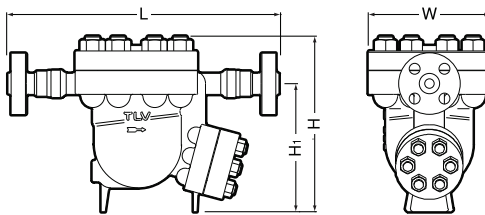


**JH7RH-B/JH7RH-P/JH7RH-W** Socket Welded (mm)

Size	L	H	H <sub>1</sub>	φW	φD	φC	h	Weight (kg)
15	390	371 (382)	270	258	53.5	22.2	13	86
20						27.7		
25						34.5		

( ) JH7RH-W

● **JH7RH-B/JH7RH-P/JH7RH-W** Flanged

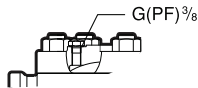


**JH7RH-B/JH7RH-P/JH7RH-W** Flanged (mm)

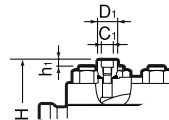
Size	L		H	H <sub>1</sub>	φW	Weight (kg)
	ASME Class					
	900RF	1500RF				
15	572	572	371 (382)	270	258	94
20						95
25						98

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

● **JH7RH-P**



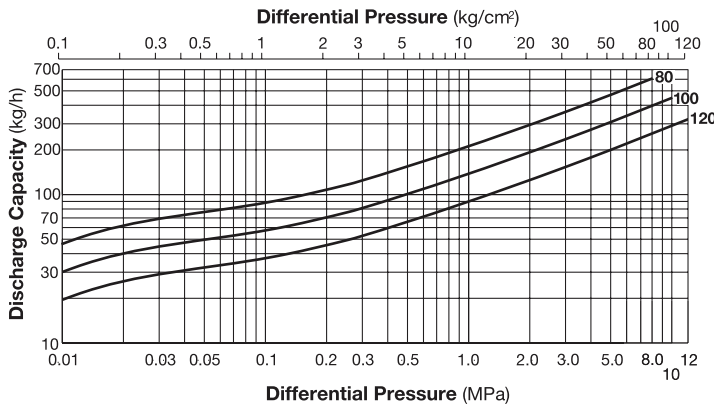
● **JH7RH-W**



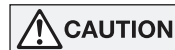
**JH7RH-W** Cover Socket (mm)

φD <sub>1</sub>	φC <sub>1</sub>	h <sub>1</sub>
36	22.2	13

**Discharge Capacity**



- Line numbers within the graph are 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



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. (MPaG)	PMO	6.0, 9.0
Max. Differential Press. (MPa)	ΔPMX	6.0, 9.0
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

