



# FREE FLOAT<sup>®</sup> STEAM TRAP

## MODEL JH7.2R-X/JH7.2R-B

### FREE FLOAT STEAM TRAP WITH THERMOSTATIC AIR VENTING

#### Features

A reliable and durable cast steel steam trap for use on medium-size process equipment. JH7.2R-B is also suitable for high-pressure process equipment.

1. Self-modulating free float provides continuous, smooth, low-velocity condensate discharge as process loads vary.
2. Constant water seal design ensures a steam-tight seal, even under low-load conditions.
3. **JH7.2R-X**: Thermostatic capsule (X-element) with "fail open" feature vents air automatically at close-to-steam temperature.
4. **JH7.2R-B**: Thermostatic bimetal air vent valve vents air automatically for rapid startup.
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.



Patented (JH7.2R-B)

#### Specifications

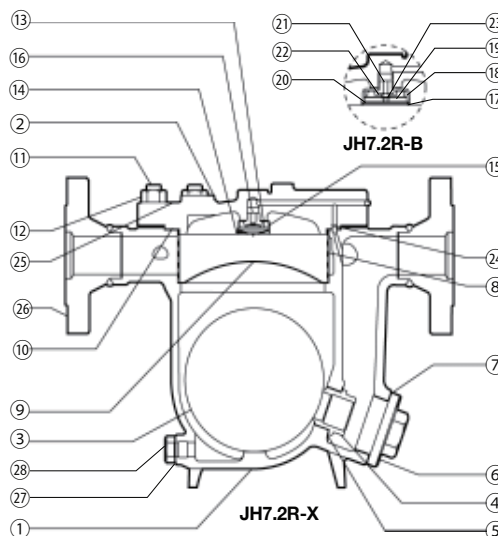
Model	JH7.2R-X		JH7.2R-B	
	Socket Welded	Flanged	Socket Welded	Flanged
Size (mm)	40, 50		40, 50	
Orifice No.	2, 5, 10, 14, 22, 32		2, 5, 10, 14, 22, 32, 40, 46	
Maximum Operating Pressure (MPaG) PMO	0.2, 0.5, 1.0, 1.4, 2.2, 3.2		0.2, 0.5, 1.0, 1.4, 2.2, 3.2, 4.0, 4.6	
Maximum Differential Pressure (MPa) ΔPMX	0.2, 0.5, 1.0, 1.4, 2.2, 3.2		0.2, 0.5, 1.0, 1.4, 2.2, 3.2, 4.0, 4.6	
Minimum Operating Pressure (MPaG)	0.01		0.01	
Maximum Operating Temperature (°C) TMO	240		425	
Type of Air Vent	X-element (6 °C subcooling)		Bimetal (vents air up to approx. 100 °C)	

PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS): Maximum Allowable Pressure (MPaG) PMA: 4.6 1 MPa = 10.197 kg/cm<sup>2</sup>  
Maximum Allowable Temperature (°C) TMA: 425



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
③ <sup>F</sup>	Float	Stainless Steel	SUS316L	AISI316L
④ <sup>R</sup>	Orifice	—	—	—
⑤ <sup>MR</sup>	Orifice Gasket	Soft Iron	SUYP	AISI1010
⑥	Orifice Plug	Cast Stainless Steel	—	A351 Gr.CF8
⑦ <sup>MR</sup>	Orifice Plug Gasket	Soft Iron	SUYP	AISI1010
⑧ <sup>R</sup>	Screen inside/outside**	Stainless Steel	SUS430/304	AISI430/304
⑨	Screen Holder	Stainless Steel	SUS304	AISI304
⑩ <sup>MR</sup>	Cover Gasket	Graphite/Stainless Steel	— /SUS316L	— /AISI316L
⑪	Cover Bolt	Alloy Steel	SNB16	A193 Gr.B16
⑫	Cover Nut	Carbon Steel	S45C	AISI1045
⑬ <sup>R</sup>	X-element	Stainless Steel	—	—
⑭ <sup>R</sup>	Spring Clip	Stainless Steel	SUS304	AISI304
⑮ <sup>R</sup>	X-element Guide	Stainless Steel	SUS304	AISI304
⑯ <sup>R</sup>	Air Vent Valve Seat	Stainless Steel	SUS420F	AISI420F
⑰ <sup>R</sup>	Snap Ring	Stainless Steel	SUS304	AISI304
⑱ <sup>R</sup>	Air Vent Case	Cast Stainless Steel	—	A351 Gr.CF8
⑲ <sup>R</sup>	Bimetal Plate	Bimetal	—	—
⑳ <sup>R</sup>	Air Vent Screen	Stainless Steel	SUS304	AISI304
㉑ <sup>R</sup>	Air Vent Valve Seat	—	—	—
㉒ <sup>R</sup>	Air Vent Valve Plug	—	—	—
㉓ <sup>R</sup>	Snap Ring	Stainless Steel	SUS304	AISI304
㉔	Connector	Stainless Steel	SUS416	AISI416
㉕	Nameplate	Stainless Steel	SUS304	AISI304
㉖	Flange/Socket***	Carbon Steel	—	A105
㉗ <sup>MR</sup>	Drain Plug Gasket	Soft Iron	SUYP	AISI1010
㉘	Drain Plug	Carbon Steel	S25C	AISI1025

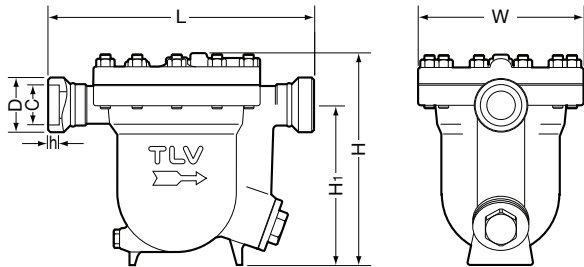


\* Equivalent \*\* JH7.2R-B: inside only \*\*\* Shown on reverse

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

**Dimensions**

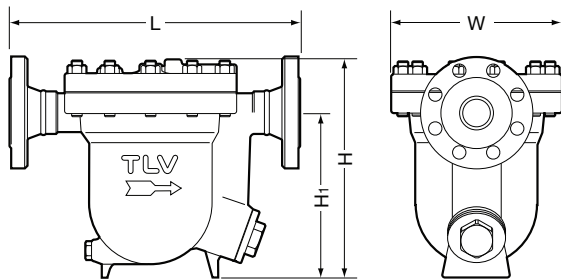
• **JH7.2R-X/JH7.2R-B** Socket Welded



**JH7.2R-X/JH7.2R-B** Socket Welded (mm)

Size	L	H	H <sub>1</sub>	φW	φD	φC	h	Weight (kg)
40	401	320	244	250	64	49.1	13	35
50					77.5	61.1	16	38

• **JH7.2R-X/JH7.2R-B** Flanged



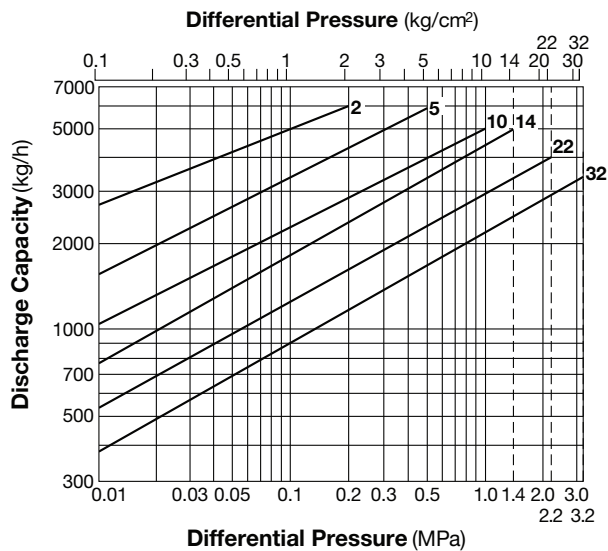
**JH7.2R-X/JH7.2R-B** Flanged (mm)

Size	L			H	H <sub>1</sub>	φW	Weight* (kg)
	ASME Class						
	150RF	300RF	600RF				
40	406	413	429	320	244	250	37
50	410	416	435				39

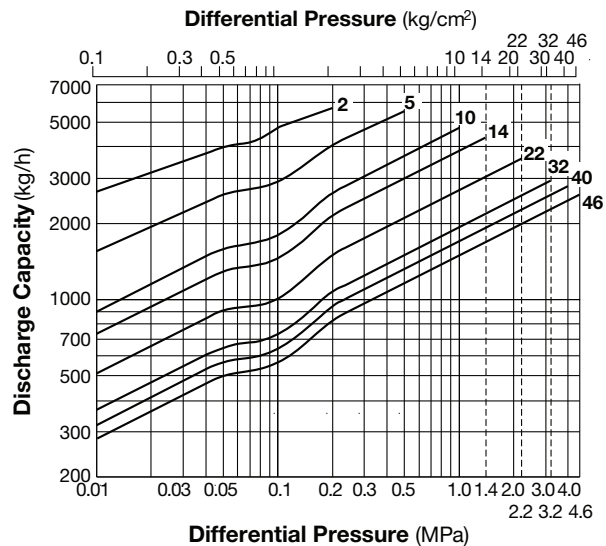
Other standards available, but length and weight may vary  
\* Weight is for Class 600 RF

**Discharge Capacity**

• **JH7.2R-X**



• **JH7.2R-B**



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.



**CAUTION**

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

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

ISO 9001  
ISO 14001

