



FREE FLOAT[®] STEAM TRAP

MODEL JH7.5R-X/JH7.5R-B

FREE FLOAT STEAM TRAP WITH THERMOSTATIC AIR VENTING

Features

A reliable and durable cast steel steam trap for use on large-size process equipment. JH7.5R-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. **JH7.5R-X**: Thermostatic capsule (X-element) with "fail open" feature vents air automatically at close-to-steam temperature.
4. **JH7.5R-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 (JH7.5R-B)

Specifications

Model	JH7.5R-X		JH7.5R-B	
	Connection	Socket Welded	Flanged	Socket Welded
Size (mm)	40, 50, 80		40, 50, 80	
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: 4.0 (JH7.5R-X), 4.6 (JH7.5R-B)

Maximum Allowable Temperature (°C) TMA: 425

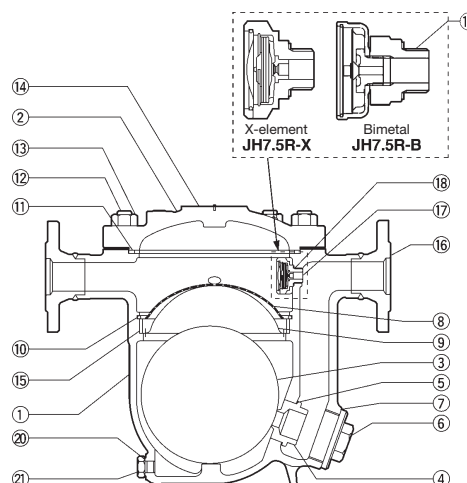
1 MPa = 10.197 kg/cm²



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 ^F	Float	Stainless Steel	SUS316L	AISI316L
④ ^R	Orifice	—	—	—
⑤ ^{MR}	Orifice Gasket	Soft Iron	SUYP	AISI1010
⑥	Orifice Plug	Cast Stainless Steel	—	A351 Gr.CF8
⑦ ^{MR}	Orifice Plug Gasket	Soft Iron	SUYP	AISH1010
⑧ ^R	Screen	Stainless Steel	SUS430	AISI430
⑨	Screen Holder	Stainless Steel	SUS304	AISI304
⑩	Snap Ring	Stainless Steel	SUS304	AISI304
⑪ ^{MR}	Cover Gasket	Graphite/Stainless Steel	- /SUS304	- /AISI304
⑫	Cover Bolt	Alloy Steel	SNB16	A193 Gr.B16
⑬	Cover Nut	Carbon Steel	S45C	AISH1045
⑭	Nameplate	Stainless Steel	SUS304	AISI304
⑮	Screen Holder Retainer	Stainless Steel	SUS304	AISI304
⑯	Flange/Socket** (40/50 mm)	Carbon Steel	—	A105
	Flange (80 mm)	Cast Steel	—	A216 Gr.WCB
⑰ ^{RX}	Air Vent Unit***	—	—	—
⑱ ^{MRX}	Air Vent Unit Gasket	Soft Iron	SUYP	AISI1010
⑲	Air Vent Guide	Stainless Steel	SUS303	AISI303
⑳ ^{MR}	Drain Plug Gasket	Soft Iron	SUYP	AISH1010
㉑	Drain Plug	Carbon Steel	S25C	AISH1025

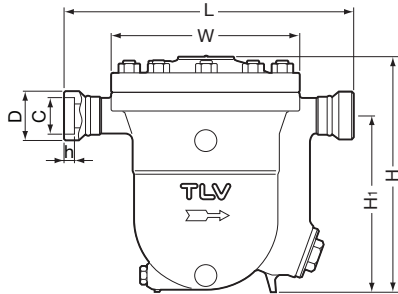
* Equivalent ** Shown on reverse *** Replacement kit for air vent unit: Bimetal (R), X-element (X)
Replacement kits available: (M) maintenance parts, (R) repair parts, (F) float, (X) X-element unit



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Dimensions

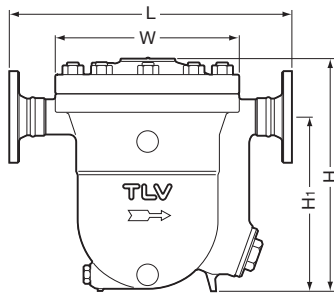
• **JH7.5R-X/JH7.5R-B** Socket Welded



JH7.5R-X/JH7.5R-B Socket Welded (mm)

Size	L	H	H ₁	φW	φD	φC	h	Weight (kg)
40	466	389	291	305	64	49.1	13	51
50					77.5	61.1		16
80	506				112	90		65

• **JH7.5R-X/JH7.5R-B** Flanged



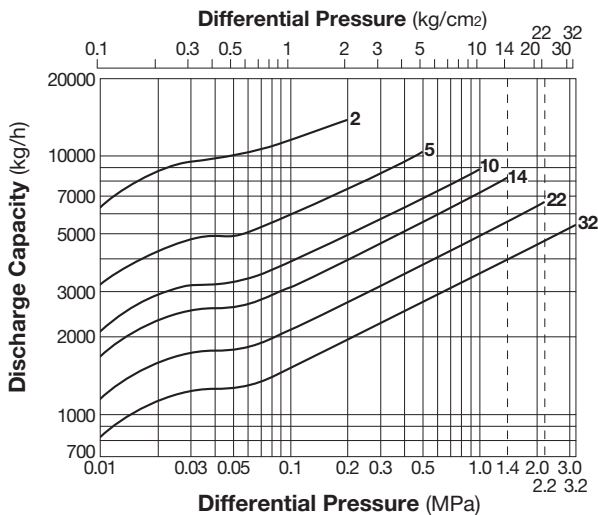
JH7.5R-X/JH7.5R-B Flanged (mm)

Size	L			H	H ₁	φW	Weight* (kg)
	ASME Class						
	150RF	300RF	600RF				
40	471	478	494	389	291	305	64
50	475	481	500				66
80	504	514	533				78

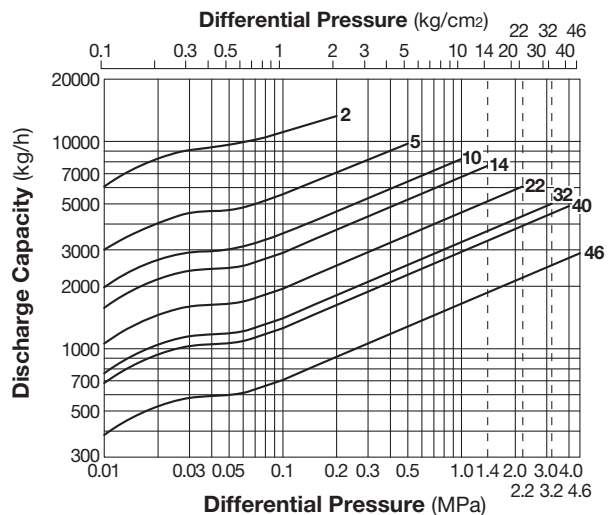
Other standards available, but length and weight may vary
* Weight is for class 600 RF

Discharge Capacity

• **JH7.5R-X**



• **JH7.5R-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

