



FREE FLOAT STEAM TRAP

MODEL JH7RL

HIGH-PRESSURE FREE FLOAT STEAM TRAP WITH AIR VENT VALVE

Features

A reliable and durable cast steel free float steam trap with tight shut-off for drainage from superheated or high-pressure steam mains, equipment and turbines.

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. Only one moving part, the free float, eliminates concentrated valve wear and provides long maintenance-free service life.
4. Easy-to-use air vent valve for rapid start-up.
5. Built-in screen with large surface area ensures extended trouble-free service.
6. Easy, inline access to internal parts simplifies cleaning and lowers maintenance costs.



Specifications

Model	JH7RL	
Connection	Socket Welded	Flanged
Size (mm)	20, 25, 40, 50	
Orifice No.	1*, 2, 5, 10, 14, 22, 32, 40, 46, 65	
Maximum Operating Pressure (MPaG) PMO	0.1, 0.2, 0.5, 1.0, 1.4, 2.2, 3.2, 4.0, 4.6, 6.5	
Maximum Differential Pressure (MPa) ΔPMX	0.1, 0.2, 0.5, 1.0, 1.4, 2.2, 3.2, 4.0, 4.6, 6.5	
Minimum Operating Pressure (MPaG)	0.01	
Maximum Operating Temperature (°C) TMO	425	

* No.1 orifice is available only for sizes 40 and 50 mm

1 MPa = 10.197 kg/cm²

PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS): Maximum Allowable Pressure (MPaG) PMA: 6.5
Maximum Allowable Temperature (°C) TMA: 425

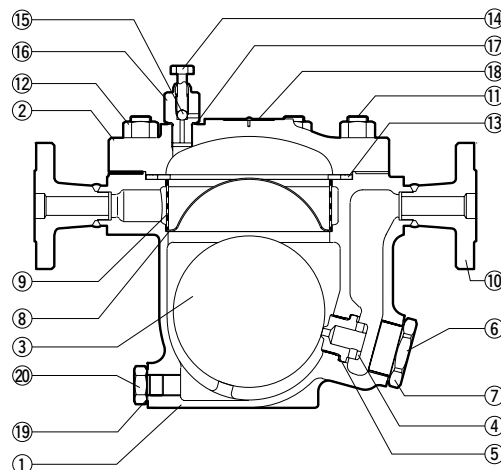


To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range.
Local regulations may restrict the use of this product to below the conditions quoted.

No.	Description	Material	JIS	ASTM/AISI*
①	Body	Cast Steel	—	A216 Gr. WCB
②	Cover	Carbon Steel	S25C	AISI1025
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	AISI1010
⑧	Screen Holder	Stainless Steel	SUS304	AISI304
⑨ ^R	Screen	Stainless Steel	SUS430	AISI430
⑩	Socket**/Flange	Carbon Steel	—	A105
⑪	Cover Bolt	Alloy Steel	SNB16	A193 Gr. B16
⑫	Cover Nut	Carbon Steel	S45C	AISI1045
⑬ ^{MR}	Cover Gasket	Stainless Steel/Graphite	SUS304	AISI304
⑭ ^V	Air Vent Valve Stem	Stainless Steel	SUS304	AISI304
⑮ ^V	Steel Ball	Stainless Steel	SUS440C	AISI440
⑯ ^V	Air Vent Valve Body	Stainless Steel	SUS303	AISI303
⑰ ^{MR}	Air Vent Valve Gasket	Soft Iron	SUYP	AISI1010
⑱	Nameplate	Stainless Steel	SUS304	AISI304
⑲ ^{MR}	Drain Plug Gasket	Soft Iron	SUYP	AISI1010
⑳	Drain Plug	Carbon Steel	S25C	AISI1025

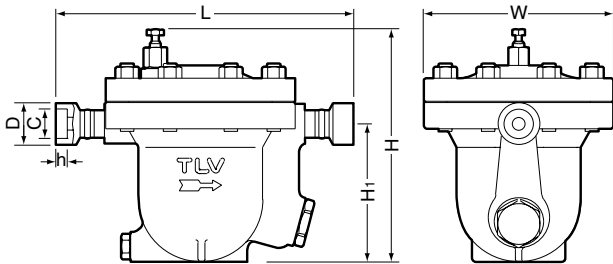
* Equivalent ** Shown on reverse

Replacement kits available: (M) maintenance parts, (R) repair parts, (F) float, (V) air vent valve unit



Dimensions

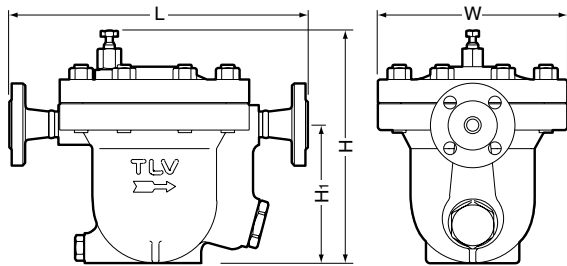
● **JH7RL Socket Welded**



JH7RL Socket Welded (mm)

Size	L	H	H ₁	φW	φD	φC	h	Weight (kg)
20	322	271	160	222	41.5	27.7	14	19
25	334				50	34.5		
40	336				66	49.1		21
50					79.5	61.1		17

● **JH7RL Flanged**

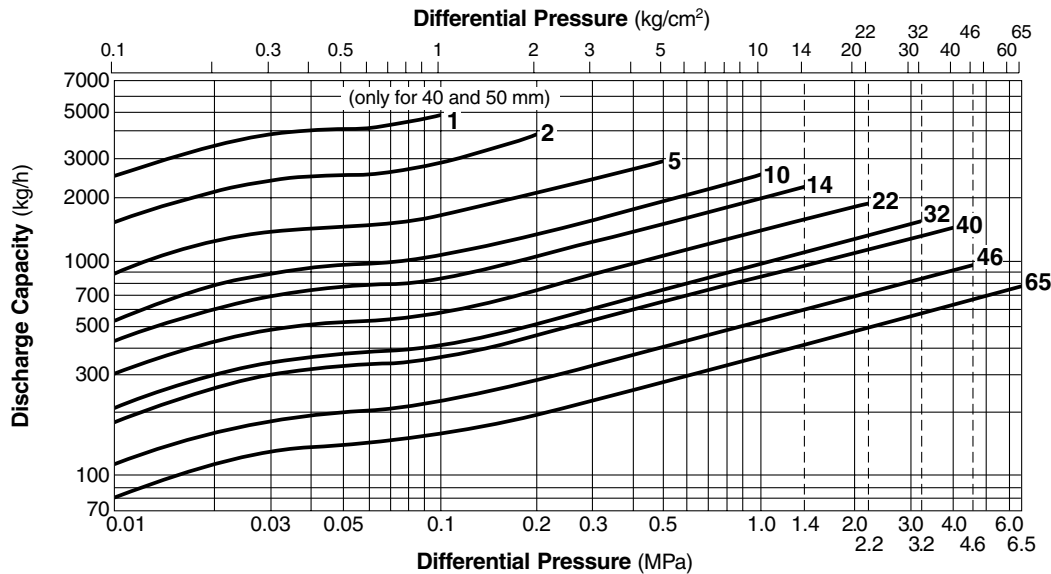


JH7RL Flanged (mm)

Size	L				H	H ₁	φW	Weight* (kg)
	ASME Class							
	150RF	300RF	600RF	900RF				
20	340	340	340	370	271	160	222	23
25	385	385	385	395				25
40	380	380	380	390				29
50	390	390	390	400				33

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

Discharge Capacity



- Line numbers within the graph refer to orifice numbers.
- No.1 orifice is available only for sizes 40 and 50 mm.
- 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!

Manufacturer

ISO 9001/ISO 14001

TLV® CO., LTD.
Kakogawa, Japan

is approved by LRQA Ltd. to ISO 9001/14001

