



FREE FLOAT STEAM TRAP

MODEL JH5R/JH5RH

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 small to medium-size 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 facilitates rapid start-up.
5. Built-in screen with large surface area ensures trouble-free operation.
6. Easy, inline access to internal parts simplifies cleaning and lowers maintenance costs.



Specifications

Model	JH5R			JH5RH	
	Screwed	Socket Welded	Flanged	Socket Welded	Flanged
Connection					
Size (mm)	15, 20, 25	15, 20, 25, 40, 50		15, 20, 25, 40, 50	
Orifice No.	1, 2, 5, 10, 14, 22, 32, 40, 46, 65			70, 80	
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			7.0, 8.0	
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			7.0, 8.0	
Maximum Operating Temperature (°C) TMO			425		

PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS):

Maximum Allowable Pressure (MPaG) PMA: 6.5 (JH5R), 8.0 (JH5RH)

Maximum Allowable Temperature (°C) TMA: 425

1 MPa = 10.197 kg/cm²

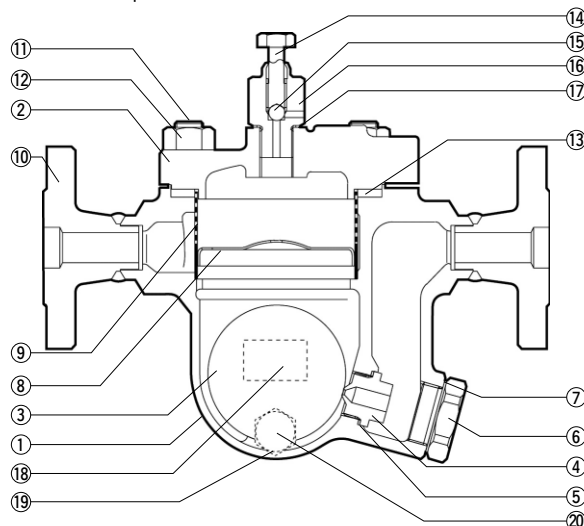


To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

No.	Description	Material	JIS	ASTM/AISI*
①	Body	Cast Steel	—	A216 Gr. WCB
②	Cover (JH5R)	Carbon Steel	—	A105
	Cover (JH5RH)	Cast Steel	—	A216 Gr. WCB
③ ^F	Float	Stainless Steel	SUS316L	AISI316L
④ ^R	Orifice	—	—	—
⑤ ^{MR}	Orifice Gasket	Soft Iron	SUYP	AISI1010
⑥	Orifice Plug	Stainless Steel	SCS2A	A217 Gr. CA15
⑦ ^{MR}	Plug Gasket	Soft Iron	SUYP	AISI1010
⑧ ^R	Float Cover	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	Stainl. Steel/Graphite	SUS304	AISI304
⑭ ^V	Air Vent Valve Stem	Stainless Steel	SUS304	AISI304
⑮ ^V	Steel Ball	Stainless Steel	SUS440C	AISI440C
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	Drain Plug Gasket***	Soft Iron	SUYP	AISI1010
⑳	Drain Plug***	Carbon Steel	S25C	AISI1025

* Equivalent ** Shown on reverse *** Option

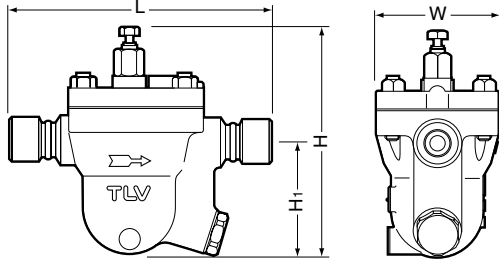
Replacement kits available: (M) maintenance parts, (R) repair parts, (F) float, (V) air vent valve unit



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Dimensions

● JH5R Screwed

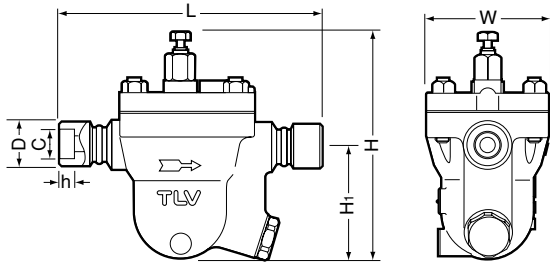


JH5R Screwed* (mm)

Size	L	H	H ₁	W	Weight (kg)
15	234	210	105	115	6.5
20	246				6.6
25	258				6.7

* Rc(PT), other standards available

● JH5R/JH5RH Socket Welded

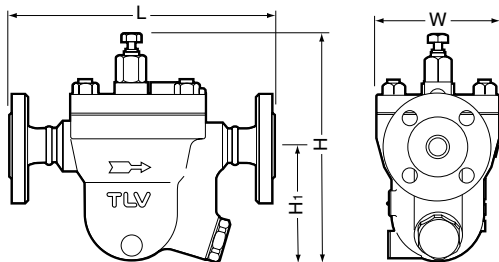


JH5R/JH5RH Socket Welded (mm)

Size	L	H	H ₁	W	φD	φC	h	Weight (kg)
15	234	210	105	115	33	22.2	12	6.5 (10)
20	246				39.5	27.7	14	6.6 (10)
25	258				(212)	(107)		(125)
40	246				64	49.1		9.1 (13)
50					77.5	61.1		17

() JH5RH

● JH5R/JH5RH Flanged



JH5R/JH5RH Flanged (mm)

Size	L				H	H ₁	W	Weight* (kg)
	ASME Class							
	150RF	300RF	600RF	900RF				
15	239	239	239	269	210	105	115	8.4 (12)
20	264	264	264	294				9.8 (14)
25	309	309	309	319				11 (16)
40	290	290	290	306	(212)	(107)	(125)	15 (19)
50	300	300	300	316				19 (23)

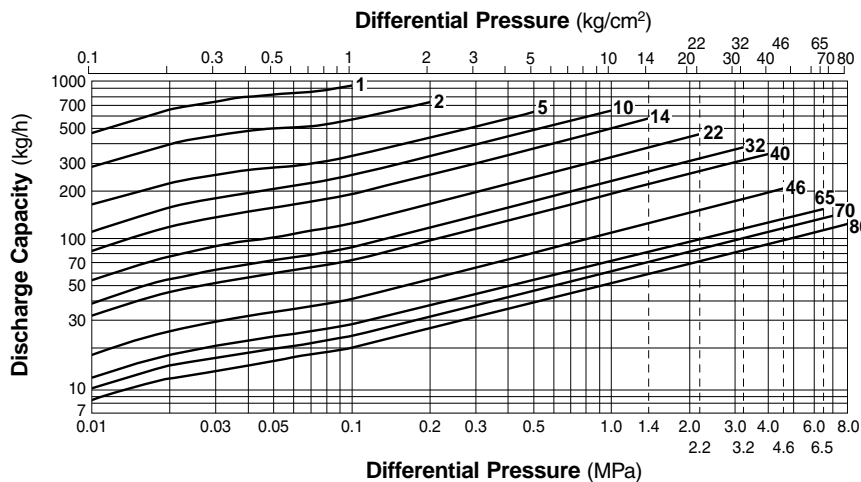
Other standards available, but length and weight may vary

* Weight is for Class 600 RF

() JH5RH

JH5R shown. Configuration of JH5RH differs slightly.

Discharge Capacity



1. Line numbers within the graph refer to 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!

Manufacturer

ISO 9001/ISO 14001

TLV CO., LTD.
Kakogawa, Japan

is approved by LRQA Ltd. to ISO 9001/14001

