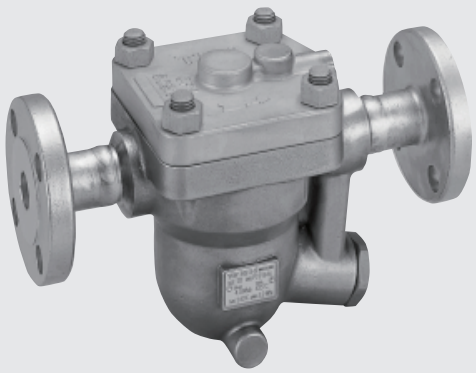
FREE FLOAT® STEAM TRAP
MODEL JH5SL-X
JH5SL-B/JH5SH-B

FREE FLOAT STEAM TRAP WITH THREE-POINT SEATING AND THERMOSTATIC AIR VENTING

Features

A reliable and durable stainless steel steam trap for use on small to medium-size process equipment. JH5SL-B/JH5SH-B are also suitable for both superheated and high-pressure process equipment.

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. **JH5SL-X:** Thermostatic capsule (X-element) with “fail open” feature vents air automatically at close-to-steam temperature.
4. **JH5SL-B/JH5SH-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 (JH5SL-B/JH5SH-B)

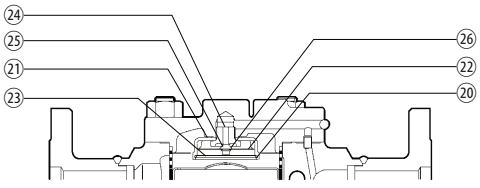
Specifications

Model	JH5SL-X			JH5SL-B			JH5SH-B	
Connection	Screwed	Socket Welded	Flanged	Screwed	Socket Welded	Flanged	Socket Welded	Flanged
Size (mm)	15, 20, 25	15, 20, 25, 40, 50		15, 20, 25	15, 20, 25, 40, 50		15, 20, 25, 40, 50	
Orifice No.	5, 10, 22, 32			2, 5, 10, 22, 32, 40, 46			65	
Maximum Operating Pressure (MPaG) PMO	0.5, 1.0, 2.2, 3.2			0.2, 0.5, 1.0, 2.2, 3.2, 4.0, 4.6			6.5	
Maximum Differential Pressure (MPa) ΔPMX	0.5, 1.0, 2.2, 3.2			0.2, 0.5, 1.0, 2.2, 3.2, 4.0, 4.6			6.5	
Minimum Operating Pressure (MPaG)	0.01			0.01			0.01	
Maximum Operating Temperature (°C) TMO	240			425			425	
Type of Air Vent	X-element (6 °C subcooling)			Bimetal (vents air up to approx. 100 °C)				

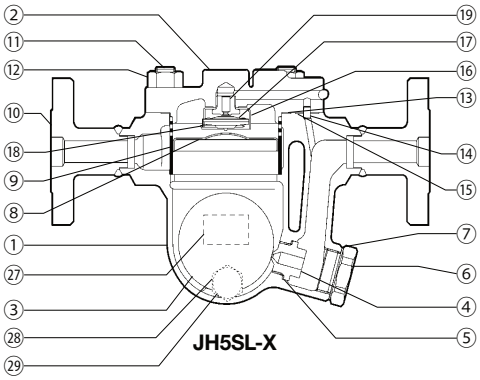
PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS): 1 MPa = 10.197 kg/cm^2
Maximum Allowable Pressure (MPaG) PMA: 4.0 (JH5SL-X), 4.6 (JH5SL-B), 6.5 (JH5SH-B) Maximum Allowable Temperature (°C) TMA: 425

⚠ CAUTION 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]
①	Body	Cast Stainless Steel	—	A351 Gr.CF8
②	Cover	Cast Stainless Steel	—	A351 Gr.CF8
③F	Float	Stainless Steel	SUS316L	AISI316L
④R	Orifice	—	—	—
⑤MR	Orifice Gasket	Stainless Steel	SUS316L	AISI316L
⑥	Orifice Plug	Cast Stainless Steel	—	A351 Gr.CF8
⑦MR	Orifice Plug Gasket	Stainless Steel	SUS316L	AISI316L
⑧R	Float Cover	Stainless Steel	SUS304	AISI304
⑨R	Screen inside/outside [2]	Stainless Steel	SUS430/304	AISI430/304
⑩	Socket [3]	Stainless Steel	SUS304	AISI304
	Flange [4]	Stainl. Stl./Cast Stainl. Stl.	SUS304/ –	AISI304/A351 Gr.CF8
⑪	Cover Bolt	Stainless Steel	—	A193 Gr.B8 Cl.2
⑫	Cover Nut	Stainless Steel	—	A194 Gr.8
⑬MR	Cover Gasket	Graphite/Stainless Steel	– /SUS316L	– /AISI316L
⑭	Connector	Stainless Steel	SUS416	AISI416
⑮MR	Connector Gasket	Graphite/Stainless Steel	– /SUS316L	– /AISI316L
⑯R	X-element Guide	Stainless Steel	SUS304	AISI304
⑰R	X-element	Stainless Steel	—	—
⑱R	Spring Clip	Stainless Steel	SUS304	AISI304
⑲R	Air Vent Valve Seat	Stainless Steel	SUS420F	AISI420F
⑳R	Snap Ring	Stainless Steel	SUS304	AISI304
㉑R	Air Vent Case	Cast Stainless Steel	—	A351 Gr.CF8
㉒R	Bimetal Plate	Bimetal	—	—
㉓R	Air Vent Screen	Stainless Steel	SUS304	AISI304
㉔R	Air Vent Valve Seat	—	—	—
㉕R	Air Vent Valve Plug	—	—	—
㉖R	Snap Ring	Stainless Steel	SUS304	AISI304
㉗	Nameplate	Stainless Steel	SUS304	AISI304
㉘	Drain Plug Gasket [5]	Stainless Steel	SUS316L	AISI316L
㉙	Drain Plug [5]	Stainless Steel	SUS303	AISI303



JH5SL-B/JH5SH-B

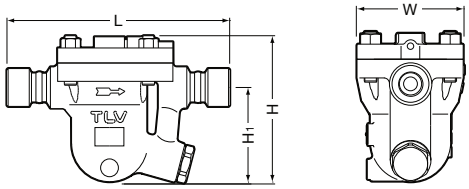


JH5SL-X

[1] Equivalent [2] JH5SL-B, JH5SH-B: inside only [3] Shown on reverse [4] Material depends on flange specifications [5] Option
Replacement kits available: (M) maintenance parts, (R) repair parts, (F) float

Dimensions

• JH5SL-X/JH5SL-B Screwed

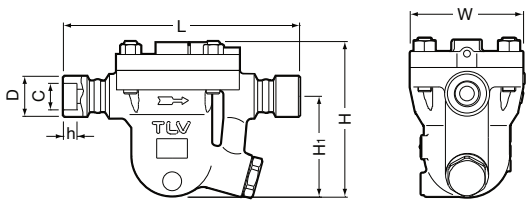


JH5SL-X/JH5SL-B Screwed* (mm)

Size	L	H	H_1	W	Weight (kg)
15	234	167	105	115	6.5
20	246				6.6
25	258				6.7

* Rc(PT), other standards avalilable

• JH5SL-X/JH5SL-B/JH5SH-B Socket Welded

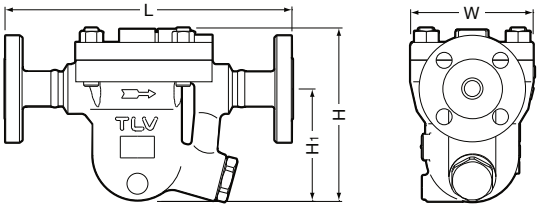


JH5SL-X/JH5SL-B/JH5SH-B Socket Welded (mm)

Size	L	H	H_1	W	ϕD	ϕC	h	Weight (kg)
15	234	167 (177)	105 (107)	115 (125)	33	22.2	12	6.5 (6.8)
20	246				39.5	27.7	14	6.6 (6.9)
25	258				48	34.5		6.7 (7.0)
40	246				64	49.1		9.1 (9.4)
50					77.5	61.1	17	10 (11)

( ) JH5SH-B

• JH5SL-X/JH5SL-B/JH5SH-B Flanged



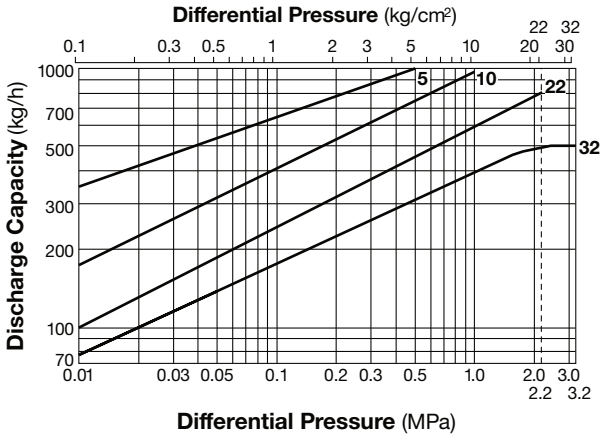
JH5SL-X/JH5SL-B/JH5SH-B Flanged (mm)

Size	L			H	H_1	W	Weight** (kg)
	ASME Class						
	150RF*	300RF*	600RF				
15	251	251	261	167 (177)	105 (107)	115 (125)	7.6 (7.9)
20	271	271	271				9.1 (9.4)
25	291	291	291				9.8 (10)
40	290	290	290				14 (15)
50	300	300	300				15 (16)

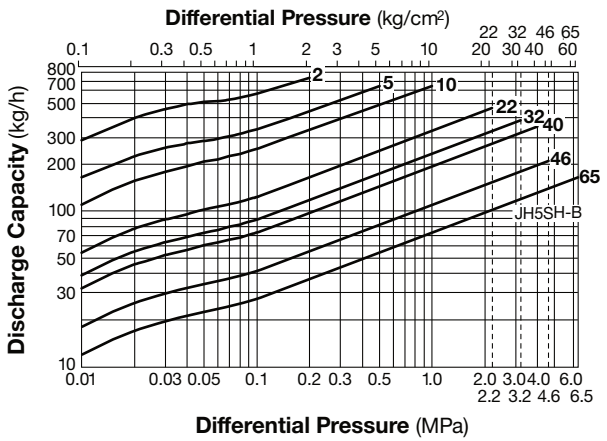
Other standards available, but length and weight may vary
* Not standard for JH5SH-B ** Weight is for class 600 RF
( ) JH5SH-B

Discharge Capacity

• JH5SL-X



• JH5SL-B/JH5SH-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
ISO14001

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Products for intended use only.
Specifications subject to change without notice.