FREE FLOAT® STEAM TRAP

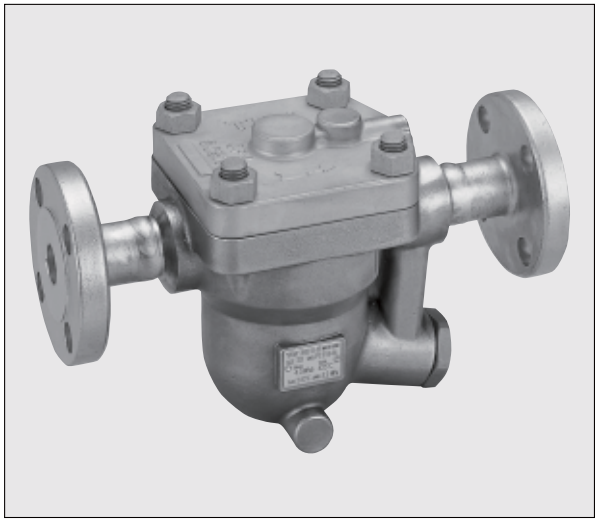
MODEL JH5SL-X/JH5SL-B JH5SH-B STAINLESS STEEL

FREE FLOAT STEAM TRAP WITH 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.



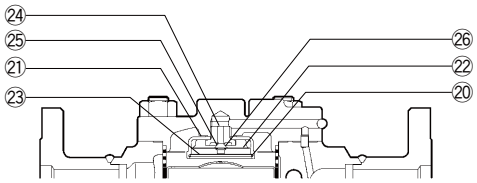
Specifications

Model	JH5SL-X			JH5SL-B			JH5SH-B	
Connection	Screwed	Socket Welded	Flanged	Screwed	Socket Welded	Flanged	Socket Welded	Flanged
Size	½″, ¾″, 1″	DN 15, 20, 25, 40, 50		½″, ¾″, 1″	DN 15, 20, 25, 40, 50		DN 15, 20, 25, 40, 50	
Orifice No.	5, 10, 22, 32			2, 5,10, 22, 32, 40, 46			65	
Maximum Operating Pressure (barg) PMO	5, 10, 22, 32			2, 5,10, 22, 32, 40, 46			65	
Maximum Differential Pressure (bar) ΔPMX	5, 10, 22, 32			2, 5,10, 22, 32, 40, 46			65	
Maximum Operating Temperature (°C) TMO	240			400*/425			400*/425	
Type of Air Vent	X-element (6 °C subcooling)			Bimetal (vents air up to approx. 100 °C)				

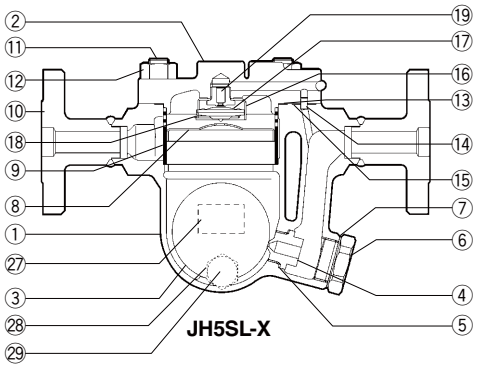
PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS): 1 bar = 0.1 MPa
Maximum Allowable Pressure (barg) PMA: 40 (JH5SL-X), 46 (JH5SL-B), 65 (JH5SH-B)
Maximum Allowable Temperature (°C) TMA: 400*/425 * With PN flange

⚠ 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	DIN [1]	ASTM/AISI [1]
①	Body	Cast Stainless Steel A351 Gr.CF8	1.4312	—
②	Cover	Cast Stainless Steel A351 Gr.CF8	1.4312	—
③F	Float	Stainless Steel SUS316L	1.4404	AISI316L
④R	Orifice	—	—	—
⑤MR	Orifice Gasket	Stainless Steel SUS316L	1.4404	AISI316L
⑥	Orifice Plug	Cast Stainless Steel A351 Gr.CF8	1.4312	—
⑦MR	Orifice Plug Gasket	Stainless Steel SUS316L	1.4404	AISI316L
⑧R	Float Cover	Stainless Steel SUS304	1.4301	AISI304
⑨R	Screen inside/outside [2]	Stainless Steel SUS430/304	1.4016/1.4301	AISI430/304
⑩	Socket [3]	Stainless Steel SUS304	1.4301	AISI304
	Flange [4]	Stainless Steel SUS304/ Cast Stainless Steel A351 Gr.CF8	1.4301/1.4312	AISI304/ –
⑪	Cover Bolt	Stainless Steel A193 Gr.B8 Cl.2	1.4301	—
⑫	Cover Nut	Stainless Steel A194 Gr.8	1.4301	—
⑬MR	Cover Gasket	Graphite/Stainless Steel SUS316L	– /1.4404	– /AISI316L
⑭	Connector	Stainless Steel SUS416	1.4005	AISI416
⑮MR	Connector Gasket	Graphite/Stainless Steel SUS316L	– /1.4404	– /AISI316L
⑯R	X-element Guide	Stainless Steel SUS304	1.4301	AISI304
⑰R	X-element	Stainless Steel	—	—
⑱R	Spring Clip	Stainless Steel SUS304	1.4301	AISI304
⑲R	Air Vent Valve Seat	Stainless Steel SUS420F	1.4028	AISI420F
⑳R	Snap Ring	Stainless Steel SUS304	1.4301	AISI304
㉑R	Air Vent Case	Cast Stainless Steel A351 Gr.CF8	1.4312	—
㉒R	Bimetal Plate	Bimetal	—	—
㉓R	Air Vent Screen	Stainless Steel SUS304	1.4301	AISI304
㉔R	Air Vent Valve Seat	—	—	—
㉕R	Air Vent Valve Plug	—	—	—
㉖R	Snap Ring	Stainless Steel SUS304	1.4301	AISI304
㉗	Nameplate	Stainless Steel SUS304	1.4301	AISI304
㉘	Drain Plug Gasket [5]	Stainless Steel SUS316L	1.4404	AISI316L
㉙	Drain Plug [5]	Stainless Steel SUS303	1.4305	AISI303



JH5SL-B/JH5SH-B

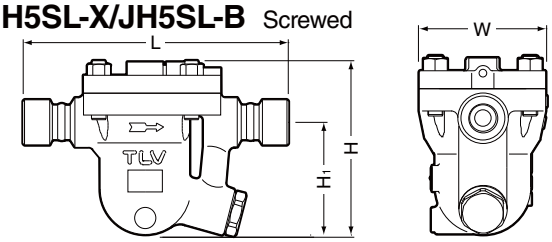


JH5SL-X

[1] Equivalent materials [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

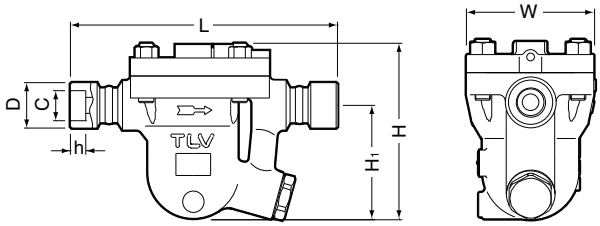


JH5SL-X/JH5SL-B Screwed* (mm)

Size	L	H	H1	W	Weight (kg)
½″	234	167	105	115	6.5
¾″	246				6.6
1″	258				6.7

* BSP DIN 2999, other standards available

● **JH5SL-X/JH5SL-B/JH5SH-B** Socket Welded

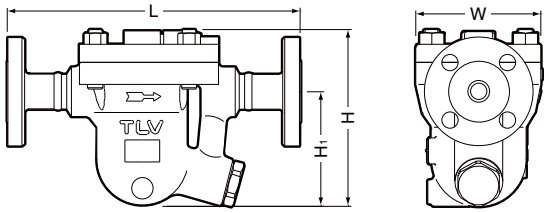


JH5SL-X/JH5SL-B/JH5SH-B Socket Welded* (mm)

DN	L	H	H1	W	ϕD	ϕC	h	Weight (kg)
15	234	167 (177)	105 (107)	115 (125)	33	21.8	12	6.5 (6.8)
20	246				39.5	27.2	14	6.6 (6.9)
25	258				48	33.9		6.7 (7.0)
40	246				64	48.8		9.1 (9.4)
50					77.5	61.2	17	10 (11)

* ASME B16.11–2005, other standards available
( ) JH5SH-B

● **JH5SL-X/JH5SL-B/JH5SH-B** Flanged



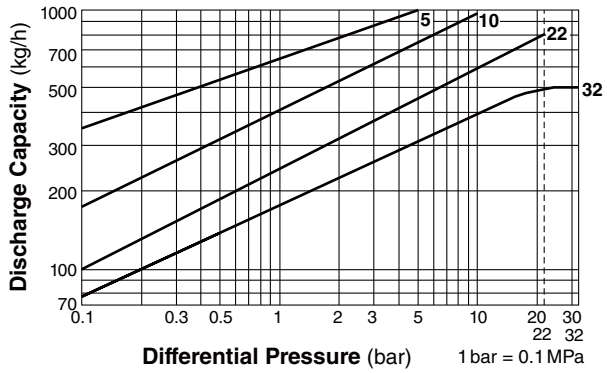
JH5SL-X/JH5SL-B/JH5SH-B Flanged (mm)

DN	L				H	H1	W	Weight** (kg)
	DIN2501	ASME Class						
	PN25*/40*	150RF*	300RF*	600RF				
15	226	251	251	261	167 (177)	105 (107)	115 (125)	7.7 (7.9)
20	226	271	271	271				8.1 (9.4)
25	236	291	291	291				9.1 (10)
40	—	290	290	290				14 (15)
50	—	300	300	300				15 (16)

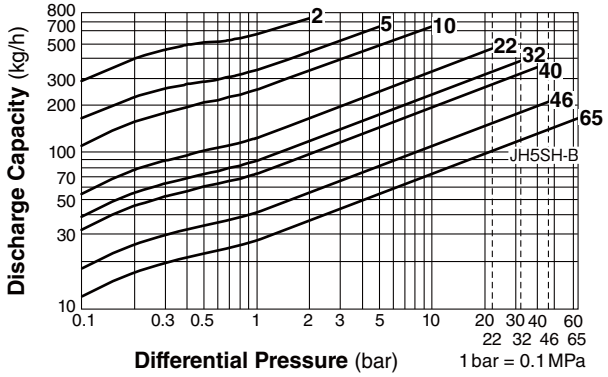
Other standards available, but length and weight may vary
* Not available for JH5SH-B ** Weight is for DIN PN 25/40 on available models and sizes, otherwise ASME Class 600 RF
( ) JH5SH-B

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 traps 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