



# FREE FLOAT STEAM TRAP

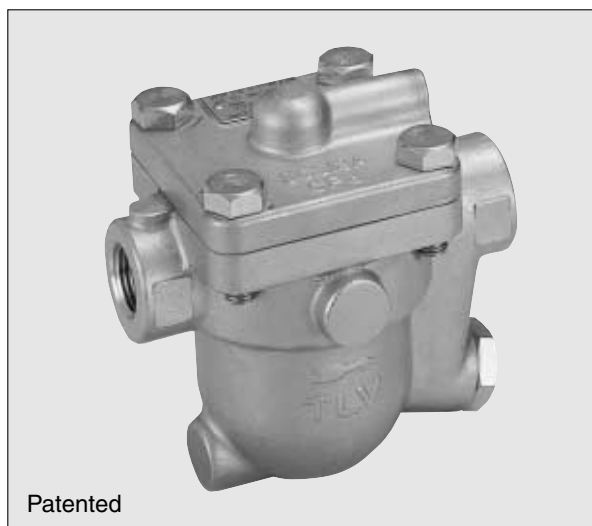
## MODEL J3S-X

### FREE FLOAT STEAM TRAP WITH THERMOSTATIC AIR VENTING

#### Features

**A reliable and durable stainless steel steam trap with tight shut-off for use on small-size process equipment.**

1. Self-modulating free float provides continuous, smooth, low velocity condensate discharge as process loads vary.
2. Only one moving part, the free float, prevents concentrated wear and provides long maintenance-free service life.
3. Thermostatic capsule (X-element) with "fail open" feature vents air automatically until close-to-steam temperature.
4. Built-in screen with large surface area ensures extended trouble-free service.
5. Easy, inline access to internal parts simplifies cleaning and reduces maintenance costs.



#### Specifications

Model		J3S-X	
Connection		Screwed	Flanged
Size (mm)		15, 20, 25	
Orifice No.		2, 5, 10, 14, 21	
Maximum Operating Pressure (MPaG)	PMO	0.2, 0.5, 1.0, 1.4, 2.1	
Maximum Differential Pressure (MPa)	ΔPMX	0.2, 0.5, 1.0, 1.4, 2.1	
Minimum Operating Pressure (MPaG)		0.01	
Maximum Operating Temperature (°C)	TMO	220	
Subcooling of X-element Fill (°C)		up to 6	
Type of X-element		B	

PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS): Maximum Allowable Pressure (MPaG) PMA: 2.1 1 MPa = 10.197 kg/cm<sup>2</sup>  
Maximum Allowable Temperature (°C) TMA: 220

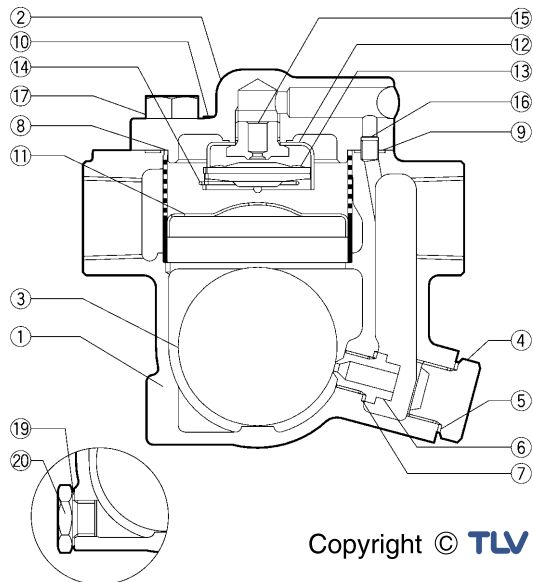


To avoid abnormal operation, accidents or serious injury, **DO NOT** use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

No.	Description	Material	JIS	ASTM/AISI*
①	Body	Cast Stainless Steel	—	A351 Gr.CF8
②	Cover	Cast Stainless Steel	—	A351 Gr.CF8
③ <sup>F</sup>	Float	Stainless Steel	SUS316L	AISI316L
④	Orifice Plug	Cast Stainless Steel	—	A351 Gr.CF8
⑤ <sup>MR</sup>	Orifice Plug Gasket	Stainless Steel	SUS316L	AISI316L
⑥ <sup>R</sup>	Orifice	—	—	—
⑦ <sup>MR</sup>	Orifice Gasket	Stainless Steel	SUS316L	AISI316L
⑧ <sup>R</sup>	Screen inside/outside	Stainless Steel	SUS430/304	AISI430/304
⑨ <sup>MR</sup>	Cover Gasket	Fluorine Resin	PTFE	PTFE
⑩	Nameplate	Stainless Steel	SUS304	AISI304
⑪ <sup>R</sup>	Float Cover	Stainless Steel	SUS304	AISI304
⑫ <sup>R</sup>	X-element Guide	Stainless Steel	SUS304	AISI304
⑬ <sup>R</sup>	X-element	Stainless Steel	—	—
⑭ <sup>R</sup>	Spring Clip	Stainless Steel	SUS304	AISI304
⑮ <sup>R</sup>	Air Vent Valve Seat	Stainless Steel	SUS420F	AISI420F
⑯	Connector	Stainless Steel	SUS416	AISI416
⑰	Cover Bolt	Stainless Steel	SUS304	AISI304
⑱	Flange**	Cast Stainless Steel	—	A351 Gr.CF8
⑲	Drain Plug Gasket***	Stainless Steel	SUS316L	AISI316L
⑳	Drain Plug***	Stainless Steel	SUS303	AISI303

\* Equivalent \*\* Shown on reverse \*\*\* Option

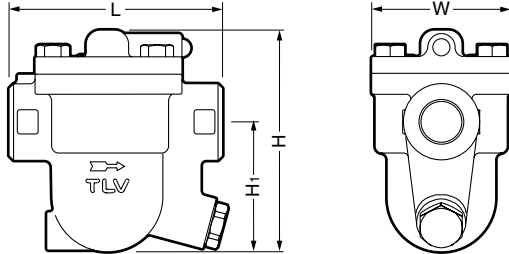
Replacement kits available: (M) maintenance parts, (R) repair parts, (F) float



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**Dimensions**

● **J3S-X** Screwed

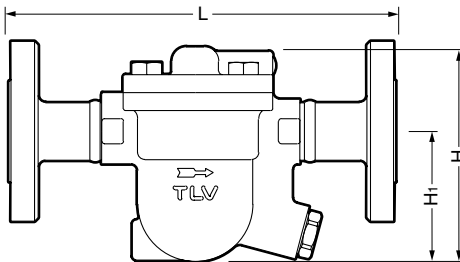


**J3S-X** Screwed\* (mm)

Size	L	H	H <sub>1</sub>	W	Weight (kg)
15	120	119	75	80	2.5
20			72.5		2.6
25		126	75		2.8

\* Rc(PT), other standards available

● **J3S-X** Flanged

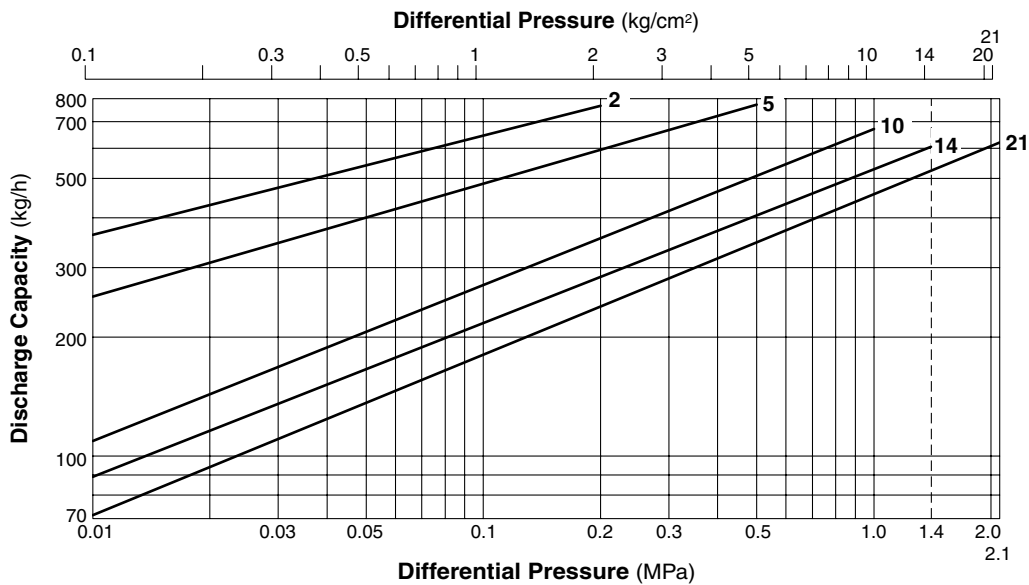


**J3S-X** Flanged (mm)

Size	L		H	H <sub>1</sub>	Weight* (kg)
	ASME Class				
	150RF	300RF			
15	195	195	119	75	3.8
20	215	215			4.8
25	235	235			5.5

Other standards available, but length and weight may vary  
\* Weight is for Class 300 RF

**Discharge Capacity**



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

ISO 9001/ISO 14001

**TLV** CO., LTD.  
Kakogawa, Japan

is approved by LRQA Ltd. to ISO 9001/14001

