



# FREE FLOAT® STEAM TRAP

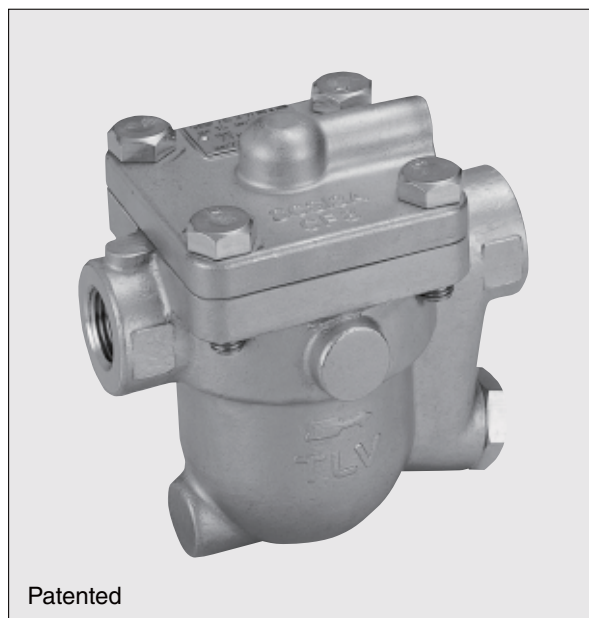
## MODEL J3S-X STAINLESS STEEL

### FREE FLOAT STEAM TRAP WITH THREE-POINT SEATING AND 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. 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, prevents concentrated wear and provides long maintenance-free service life.
4. Thermostatic capsule (X-element) with “fail open” feature vents air automatically until close-to-steam temperature.
5. Built-in screen with large surface area ensures extended trouble-free service.
6. Easy, inline access to internal parts simplifies cleaning and reduces maintenance costs.



Patented

#### Specifications

Model		J3S-X	
Connection		Screwed	Flanged
Size		1/2", 3/4", 1"	DN 15, 20, 25
Orifice No.		2, 5, 10, 14, 21	
Maximum Operating Pressure (barg)	PMO	2, 5, 10, 14, 21	
Maximum Differential Pressure (bar)	ΔPMX	2, 5, 10, 14, 21	
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 (barg) PMA: 21 1 bar = 0.1 MPa  
Maximum Allowable Temperature (°C) TMA: 220



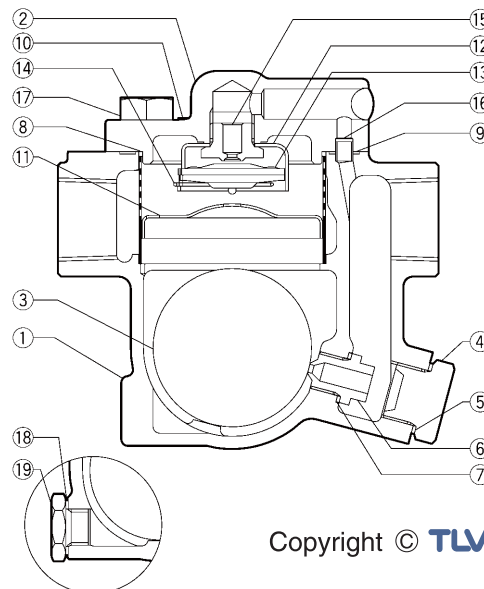
#### CAUTION

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*	ASTM/AISI*
①	Body	Cast Stainl. Steel A351 Gr.CF8	1.4312	—
②	Cover	Cast Stainl. Steel A351 Gr.CF8	1.4312	—
③ <sup>F</sup>	Float	Stainless Steel SUS316L	1.4404	AISI316L
④	Orifice Plug	Cast Stainl. Steel A351 Gr.CF8	1.4312	—
⑤ <sup>MR</sup>	Orifice Plug Gasket	Stainless Steel SUS316L	1.4404	AISI316L
⑥ <sup>R</sup>	Orifice	—	—	—
⑦ <sup>MR</sup>	Orifice Gasket	Stainless Steel SUS316L	1.4404	AISI316L
⑧ <sup>R</sup>	Screen inside/outside	Stainless Steel SUS430/304	1.4016/1.4301	AISI430/304
⑨ <sup>MR</sup>	Cover Gasket	Fluorine Resin PTFE	PTFE	PTFE
⑩	Nameplate	Stainless Steel SUS304	1.4301	AISI304
⑪ <sup>R</sup>	Float Cover	Stainless Steel SUS304	1.4301	AISI304
⑫ <sup>R</sup>	X-element Guide	Stainless Steel SUS304	1.4301	AISI304
⑬ <sup>R</sup>	X-element	Stainless Steel	—	—
⑭ <sup>R</sup>	Spring Clip	Stainless Steel SUS304	1.4301	AISI304
⑮ <sup>R</sup>	Air Vent Valve Seat	Stainless Steel SUS420F	1.4028	AISI420F
⑯	Connector	Stainless Steel SUS416	1.4005	AISI416
⑰	Cover Bolt	Stainless Steel SUS304	1.4301	AISI304
⑱	Drain Plug Gasket**	Stainless Steel SUS316L	1.4404	AISI316L
⑲	Drain Plug**	Stainless Steel SUS303	1.4305	AISI303
⑳	Flange***	Cast Stainl. Steel A351 Gr.CF8	1.4312	—

\* Equivalent materials \*\* Option \*\*\* ASME Flange, not shown

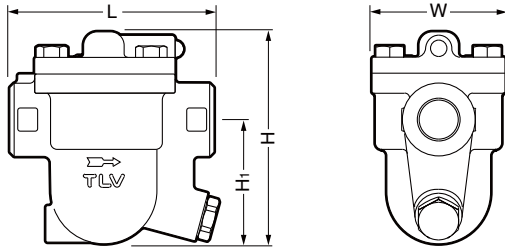
Replacement kits available: (M) maintenance parts, (R) repair parts, (F) float



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**Dimensions**

● **J3S-X** Screwed

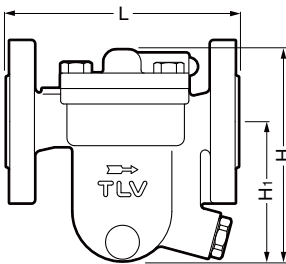


**J3S-X** Screwed\* (mm)

Size	L	H	H <sub>1</sub>	W	Weight (kg)
1/2"	120	119	75	80	2.5
3/4"			72.5		2.6
1"		126	75		2.8

\* BSP DIN 2999, other standards available

● **J3S-X** Flanged



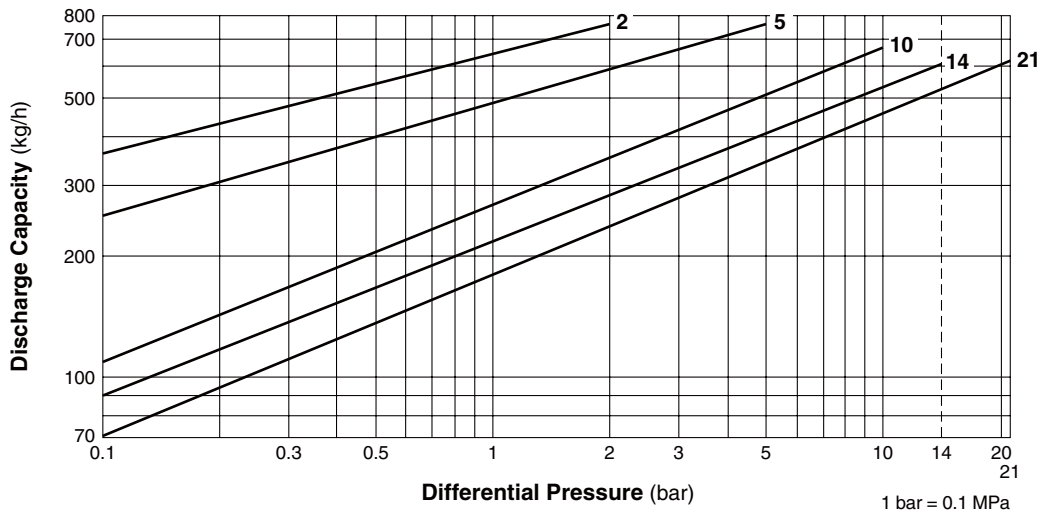
**J3S-X** Flanged (mm)

DN	L			H		H <sub>1</sub>		Weight* (kg)
	DIN 2501	ASME Class		DIN	ASME	DIN	ASME	
	PN25/40	150RF	300RF					
15	150	195	195	132	119	84	75	3.4
20		215	215	140		90		3.6
25	160	235	235	147		92		4.6

\* Weight is for PN 25/40

DIN type is shown. ASME type has welded on flanges.

**Discharge Capacity**



- Line numbers within the graph are orifice numbers.
- 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.

**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

