



# FREE FLOAT STEAM TRAP

## MODEL J7X

### FREE FLOAT STEAM TRAP WITH THERMOSTATIC AIR VENTING

#### Features

A reliable and durable free float steam trap with tight shut-off for use on medium-size process equipment.

1. Self-modulating free float provides continuous, smooth, low velocity condensate discharge as process loads vary.
2. Constant water-seal design ensures steam-tight seal, even under low-load conditions.
3. Only one moving part, the free float, eliminates concentrated valve wear and provides long maintenance-free service life.
4. Thermostatic capsule with "fail-open" feature vents air automatically until close-to-steam temperature for rapid start-up, increased productivity and even heating.
5. Easy, inline access to internal parts simplifies cleaning and reduces maintenance costs.
6. Built-in screen with large surface area ensures trouble-free operation.



#### Specifications

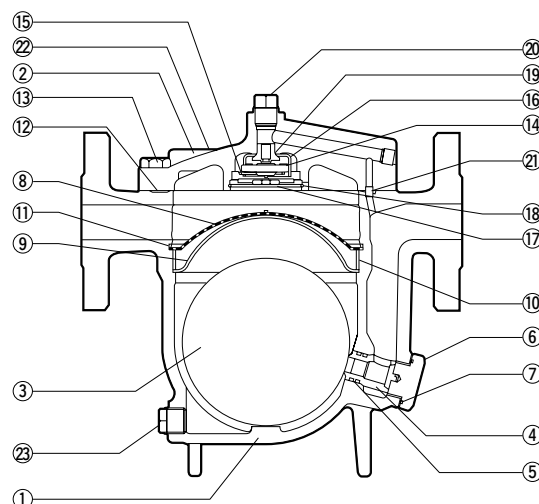
Model	JS7X	J7X
Connection	Screwed	Flanged
Size (mm)	25, 40	20, 25, 32, 40, 50
Orifice No.	2.5, 5, 10, 14, 16	
Maximum Operating Pressure (MPaG) PMO	0.25, 0.5, 1.0, 1.4, 1.57	
Maximum Differential Pressure (MPa) ΔPMX	0.25, 0.5, 1.0, 1.4, 1.57	
Maximum Operating Pressure (MPaG)	0.01	
Maximum Operating 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: 1.57 1MPa = 10.197kg/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 Iron	FCV410	A842 Gr. 400
②	Cover	Cast Iron	FCV410	A842 Gr. 400
③ <sup>F</sup>	Float	Stainless Steel	SUS316L	AISI316L
④ <sup>R</sup>	Orifice	Stainless Steel	SUS420F	AISI420F
⑤ <sup>MR</sup>	Orifice O-Ring	Synthetic Rubber	EPR	D2000 CA
⑥	Orifice Holder Plug	Carbon Steel	S25C	AISI1025
⑦ <sup>MR</sup>	Orifice Plug Gasket	Fluorine Resin	PTFE	—
⑧ <sup>R</sup>	Screen	Stainless Steel	SUS430	AISI430
⑨	Screen Holder	Stainless Steel	SUS304	AISI304
⑩	Screen Holder Retainer	Stainless Steel	SUS304	AISI304
⑪	Snap Ring	Stainless Steel	SUS304	AISI304
⑫ <sup>MR</sup>	Cover Gasket	Fluorine Resin	PTFE	—
⑬	Cover Bolt	Carbon Steel	S45C	AISI1045
⑭ <sup>R</sup>	X-element	Stainless Steel	—	—
⑮ <sup>R</sup>	Spring Clip	Stainless Steel	SUS304	AISI304
⑯ <sup>R</sup>	X-element Guide	Stainless Steel	SUS304	AISI304
⑰ <sup>R</sup>	X-element Cover	Stainless Steel	SUS304	AISI304
⑱ <sup>R</sup>	Snap Ring	Stainless Steel	SUS304	AISI304
⑲ <sup>R</sup>	Air Vent Valve Seat	Stainless Steel	SUS420F	AISI420F
⑳	Plug	Carbon Steel	SS400	A6
㉑	Connector	Stainless Steel	SUS416	AISI416
㉒	Nameplate	Stainless Steel	SUS304	AISI304
㉓	Drain Plug	Carbon Steel	SS400	A6

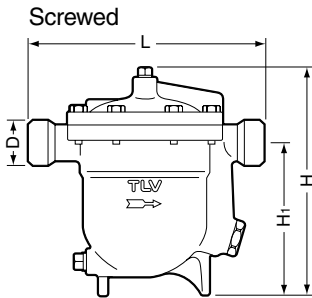


\* Equivalent

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

**Dimensions**

● **JS7X**

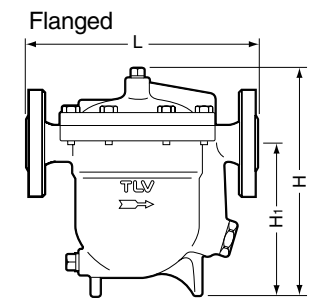


**JS7X** Screwed\* (mm)

Size	L	H	H <sub>1</sub>	φW	D	Weight (kg)
25	280	276	182	185	50	13
40		291	190		70	14

\* Rc(PT), other standards available

● **J7X**

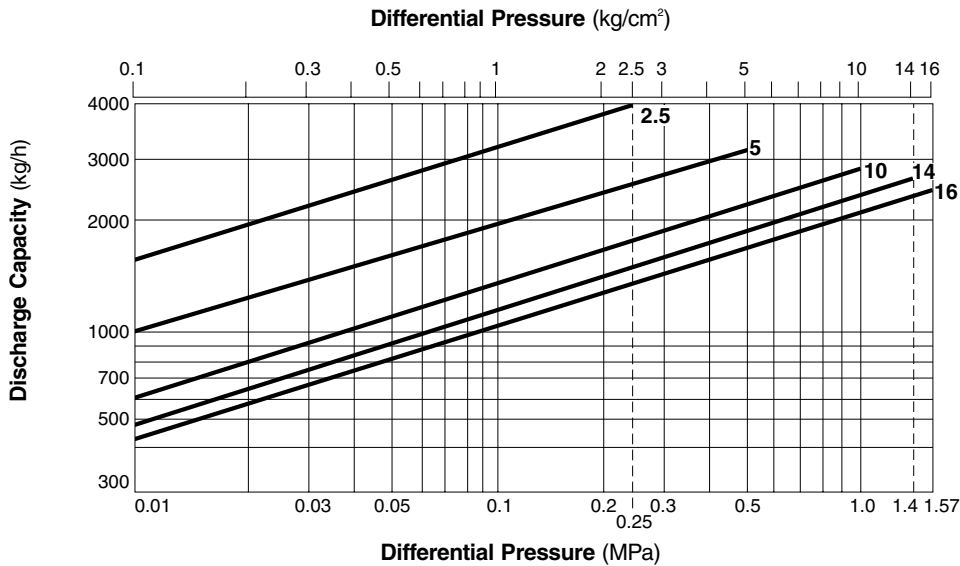


**J7X** Flanged\* (mm)

Size	L (ASME Class)		H	H <sub>1</sub>	φW	Weight (approx. kg)
	150RF	300RF				
20	270	270	272	180	185	14
25		274	276	182		15
32		270	286	187		16
40	280	284	291	190		18
50	290	296	301	195		

\* Fits to ASME Class 150RF or 300RF  
Other standards available, length and weight may vary

**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

