FREE FLOAT® STEAM TRAP

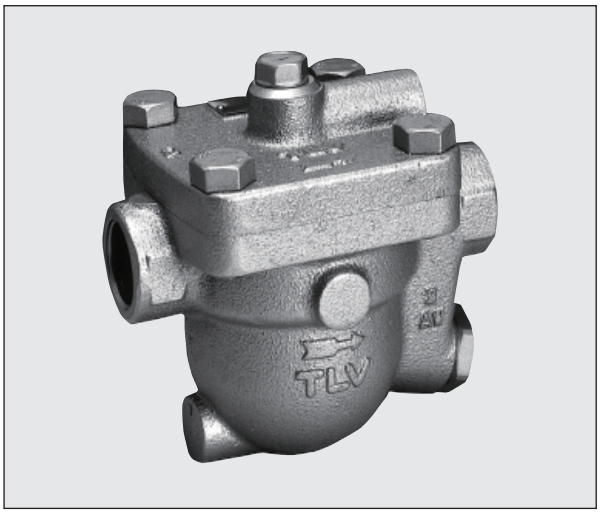
MODEL J5X

FREE FLOAT STEAM TRAP WITH THERMOSTATIC AIR VENTING

Features

A reliable and durable ductile cast iron or cast iron steam trap with tight shut-off for use on small to medium-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 operation.
5. Easy, inline access to internal parts simplifies cleaning and reduces maintenance costs.



Specifications

Model		J5X	JF5X
Connection		Screwed	Flanged*
Size (mm)		20, 25, 32, 40	20, 25, 32, 40, 50
Orifice No.		2, 5, 8, 10, 21	2, 5, 8, 10, 16
Maximum Operating Pressure (MPaG)	PMO	0.2, 0.5, 0.8, 1.0, 2.1	0.2, 0.5, 0.8, 1.0, 1.6
Maximum Differential Pressure (MPa)	ΔPMX	0.2, 0.5, 0.8, 1.0, 2.1	0.2, 0.5, 0.8, 1.0, 1.6
Minimum Operating Pressure (MPaG)		0.01	
Maximum Operating Temperature (°C)	TMO	220	
Subcooling of X-element fill (°C)		up to 6 (option: up to 11)	
Type of X-element		C6 (option: C11**)	

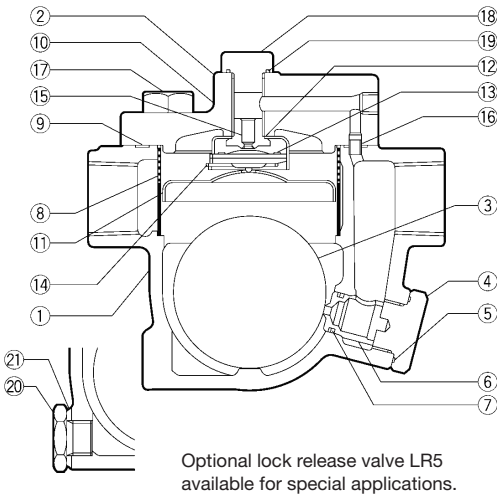
* JF5X 20 mm and 25 mm have screwed-in flanges ** Trap discharge capacity will decrease slightly. Contact TLV for information. 1 MPa = 10.197 kg/cm^2

PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS):
Maximum Allowable Pressure (MPaG) PMA: 2.1 (J5X, JF5X 20, 25 mm), 1.6 (JF5X 32 to 50 mm)
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	JIS	ASTM/AISI*
①	Body	J5X, JF5X 20, 25 mm	Ductile Cast Iron	FCD450	A536
		JF5X 32, 40, 50 mm	Cast Iron	FCV400	A842 Gr.400
②	Cover		Ductile Cast Iron	FCD450	A536
③F	Float		Stainless Steel	SUS316L	AISI316L
④	Orifice Holder Plug		Carbon Steel	S25C	AISI1025
⑤MR	Orifice Plug Gasket		Fluorine Resin	PTFE	PTFE
⑥R	Orifice		—	—	—
⑦MR	Orifice O-Ring		Ethylene Propylene Rubber	EPR	D2000CA
⑧R	Screen inside/outside		Stainless Steel	SUS430/304	AISI430/304
⑨MR	Cover Gasket		Fluorine Resin	PTFE	PTFE
⑩	Nameplate		Stainless Steel	SUS304	AISI304
⑪R	Float Cover		Stainless Steel	SUS304	AISI304
⑫R	X-element Guide		Stainless Steel	SUS304	AISI304
⑬R	X-element		Stainless Steel	—	—
⑭R	Spring Clip		Stainless Steel	SUS304	AISI304
⑮R	Air Vent Valve Seat		Stainless Steel	SUS420F	AISI420F
⑯	Connector		Stainless Steel	SUS416	AISI416
⑰	Cover Bolt		Carbon Steel	S45C	AISI1045
⑱	Plug		Carbon Steel	S25C	AISI1025
⑲MR	Plug Gasket		Fluorine Resin	PTFE	PTFE
⑳	Drain Plug**		Carbon Steel	S25C	AISI1025
㉑	Drain Plug Gasket**		Soft Iron	SUYP	AISI1010
㉒	Flange (JF5X 20, 25 mm)***		Carbon Steel	SS400/S25C	A6/AISI1025
㉓	Pipe (JF5X 20, 25 mm)***		Carbon Steel	STPG370	A53 Type S Gr.A

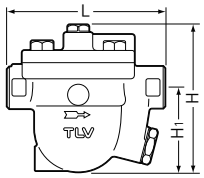
* Equivalent ** Option *** Shown on reverse
Replacement kits available: (M) maintenance parts, (R) repair parts, (F) float

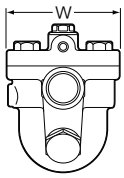


Optional lock release valve LR5 available for special applications.

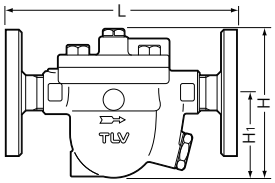
Dimensions

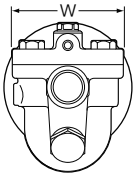
● **J5X** Screwed



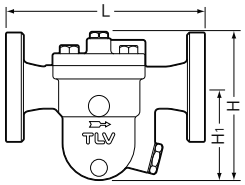


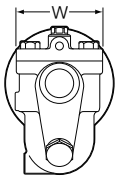
● **JF5X** Flanged 20, 25 mm (Screwed-in flange)





● **JF5X** Flanged 32, 40, 50 mm





J5X Screwed* (mm)

Size	L	H	H_1	W	Weight (kg)
20	155	149	84	108	4.4
25					4.3
32	160	182	106		5.8
40					

* Rc(PT), other standards avalilable

JF5X Flanged (mm)

Size	L ASME Class 150RF	L ASME Class 300RF	H	H_1	W	Weight* (kg)
20	250	250	149	84	108	6.8
25						7.4

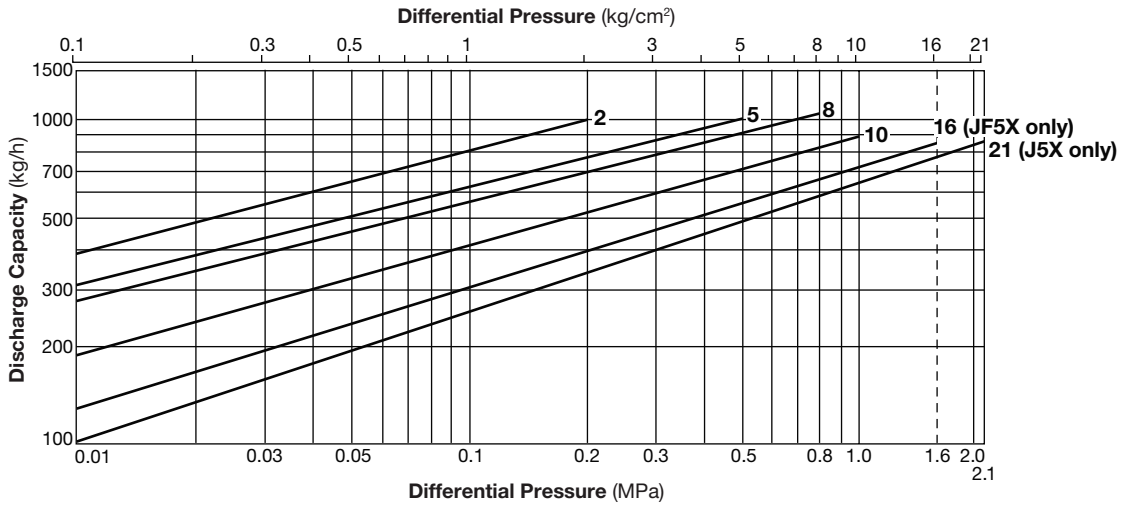
Other standards available, but length and weight may vary
* Weight is for Class 300 RF

JF5X Flanged (mm)

Size	L ASME Class 125FF	L ASME Class (150RF)	L ASME Class 250RF	L ASME Class (300RF)	H	H_1	W	Weight* (kg)
32	231	245	244	245	182	113	108	9.4
40	250	260	262	264		116		11
50	257	265	270	271	196	119		12

( ) No ASME standard exists for cast iron; machined to fit steel flanges
Class 125 FF can connect to 150 RF, 250 RF can connect to 300 RF
Other standards available, but length and weight may vary
* Weight is for Class 250 RF/300 RF

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.

⚠ 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
ISO 14001

(T)

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