



FREE FLOAT STEAM TRAP

MODEL SJ7FX DUCTILE CAST IRON

FREE FLOAT STEAM TRAP WITH THERMOSTATIC AIR VENTING

Features

Inline repairable multi-purpose steam trap with tight shut-off for use with heat exchangers, tank heaters, dryers and process equipment.

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



Specifications

Model	SJ7FNX	SJ7FVX
Connection	Flanged (horizontal)	Flanged (vertical)
Size	DN 40, 50	
Orifice No.	2, 5, 9, 14, 22	
Maximum Operating Pressure (barg) PMO	2, 5, 9, 14, 22	
Maximum Differential Pressure (bar) ΔPMX	2, 5, 9, 14, 22	
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: 22
Maximum Allowable Temperature (°C) TMA: 220
1 bar = 0.1 MPa

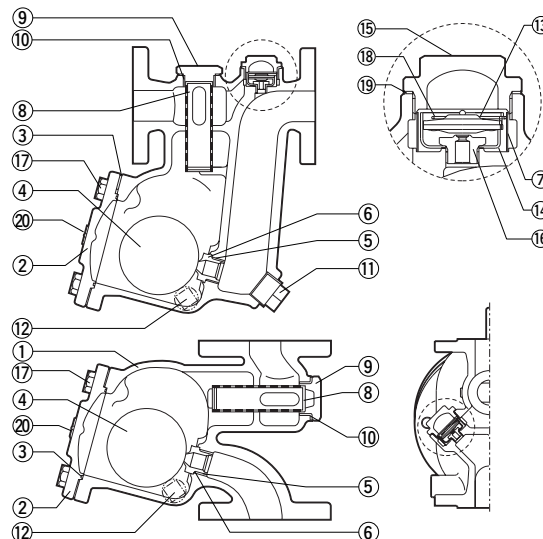


To avoid abnormal operation, accidents or serious injury, **DO NOT** use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

No.	Description	Material*	DIN	ASTM/AISI
①	Body	Ductile Cast Iron GGG40.3	0.7043	A395
②	Cover	Ductile Cast Iron GGG40.3	0.7043	A395
③ ^{MR}	Cover Gasket	Fluorine Resin PTFE	PTFE	PTFE
④ ^F	Float	Stainless Steel SUS316L	1.4404	AISI316L
⑤ ^R	Orifice	Stainless Steel SUS420F	1.4028	AISI420F
⑥ ^{MR}	Orifice Gasket	Fluorine Resin PTFE	PTFE	PTFE
⑦ ^R	X-element Screen	Stainless Steel SUS304	1.4301	AISI304
⑧ ^R	Screen	Stainless Steel SUS430	1.4016	AISI430
⑨	Screen Holder	Cast Stainless Steel SUS13A	1.4312	A351 Gr. CF-8
⑩ ^{MR}	Screen Holder Gasket	Soft Iron SUYP	1.1121	AISI1010
⑪	Orifice Plug (SJ7FNX)	Carbon Steel SS400	1.0037	A6
⑫	Drain Plug	Carbon Steel SS400	1.0037	A6
⑬ ^R	X-element	Stainless Steel	—	—
⑭ ^R	X-element Guide	Stainless Steel SUS304	1.4301	AISI304
⑮	X-element Cover	Ductile Cast Iron GGG40.3	0.7043	A395
⑯ ^R	Air Vent Valve Seat	Stainless Steel SUS420F	1.4028	AISI420F
⑰	Cover Bolt	Carbon Steel S45C	1.0503	AISI1045
⑱ ^R	Spring Clip	Stainless Steel SUS304	1.4301	AISI304
⑲ ^{MR}	X-element Cover Gasket	Fluorine Resin PTFE	PTFE	PTFE
⑳	Nameplate	Stainless Steel SUS304	1.4301	AISI304

* Equivalent materials

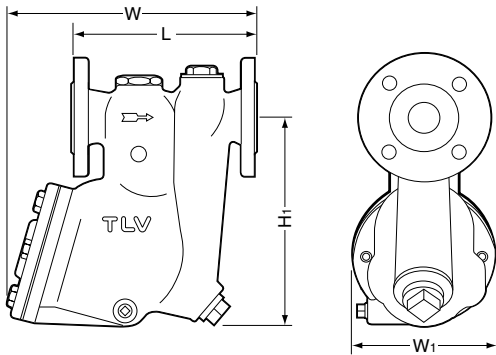
Replacement kits available: (M) maintenance parts, (R) repair parts, (F) float



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Dimensions

● **SJ7FNX** Flanged

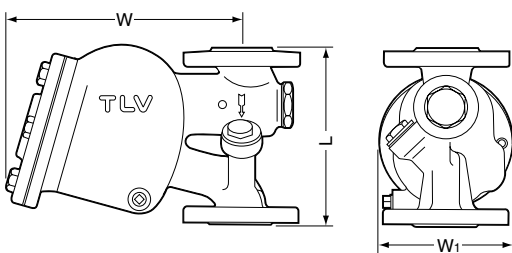


SJ7FNX Flanged* (mm)

DN	L		W	H ₁	φ W ₁	Weight (kg)
	DIN 2501	PN25/40				
40	230		346	312	205	26
50						28

* Other standards available, but length and weight may vary

● **SJ7FVX** Flanged

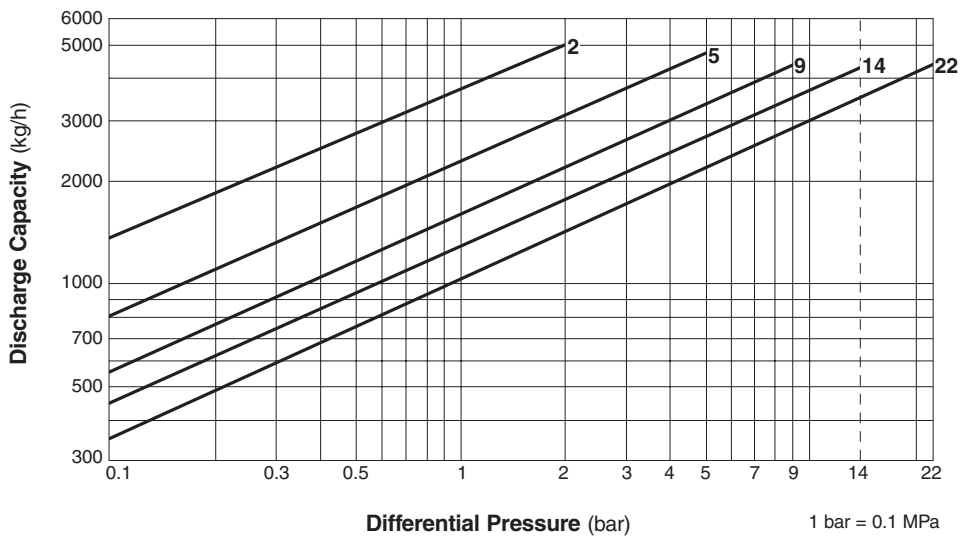


SJ7FVX Flanged* (mm)

DN	L		W	φ W ₁	Weight (kg)
	DIN 2501	PN25/40			
40	230		304	205	22
50					23

* Other standards available, but 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.

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

