



FREE FLOAT STEAM TRAP

MODEL SJ3FX 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 maintenance-free 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.



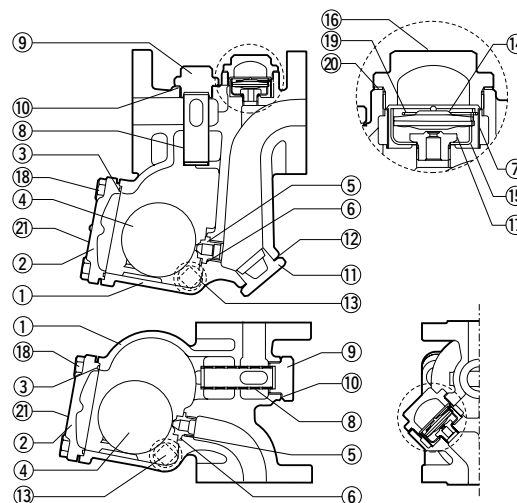
Specifications

Model	SJ3FNX	SJ3FVX
Connection (installation)	Flanged (horizontal)	Flanged (vertical)
Size	DN 15, 20, 25	
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

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	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	—	—	—
⑥ ^{MR}	Orifice Gasket	Fluorine Resin PTFE	PTFE	PTFE
⑦ ^R	Air Vent Screen	Stainless Steel SUS304	1.4301	AISI304
⑧ ^R	Main Screen	Stainless Steel SUS430	1.4016	AISI430
⑨	Screen Holder (SJ3FNX)	Ductile Cast Iron GGG40.3	0.7043	A395
	Screen Holder (SJ3FVX)	Cast Stainless Steel SCS2A	1.4027	A743 Gr. CA40
⑩ ^{MR}	Screen Holder Gasket	Soft Iron SUYP	1.1121	AISI1010
⑪	Orifice Plug	Cast Stainless Steel A351 Gr.CF8	1.4312	—
⑫ ^{MR}	Orifice Plug Gasket (SJ3FNX)	Soft Iron SUYP	1.1121	AISI1010
⑬	Drain Plug	Carbon Steel SS400	1.0037	A6
⑭ ^R	X-element	Stainless Steel	—	—
⑮ ^R	X-element Guide	Stainless Steel SUS304	1.4301	AISI304
⑯	X-element Cover	Ductile Cast Iron GGG40.3	0.7043	A395
⑰ ^R	Air Vent Valve Seat	Stainless Steel SUS420F	1.4028	AISI420F
⑱	Cover Bolt	Carbon Steel S45C	1.0503	AISI1045
⑲ ^R	Spring Clip	Stainless Steel SUS304	1.4301	AISI304
⑳ ^{MR}	X-element Cover Gasket	Fluorine Resin PTFE	PTFE	PTFE
㉑	Nameplate	Stainless Steel SUS304	1.4301	AISI304



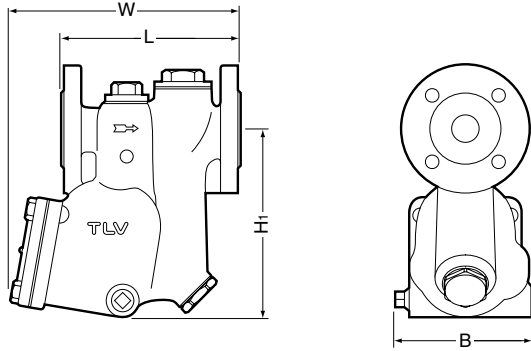
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* Equivalent materials

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

Dimensions

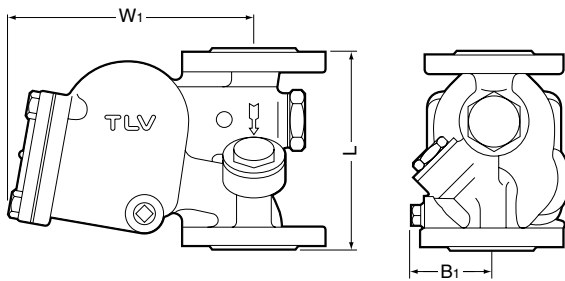
● **SJ3FNX** Flanged



SJ3FNX Flanged (mm)

DN	L		H ₁	W	B	Weight (kg)
	DIN 2501	PN25/40				
15	150		157	177	100	6.0
20				184		6.4
25				184		6.9

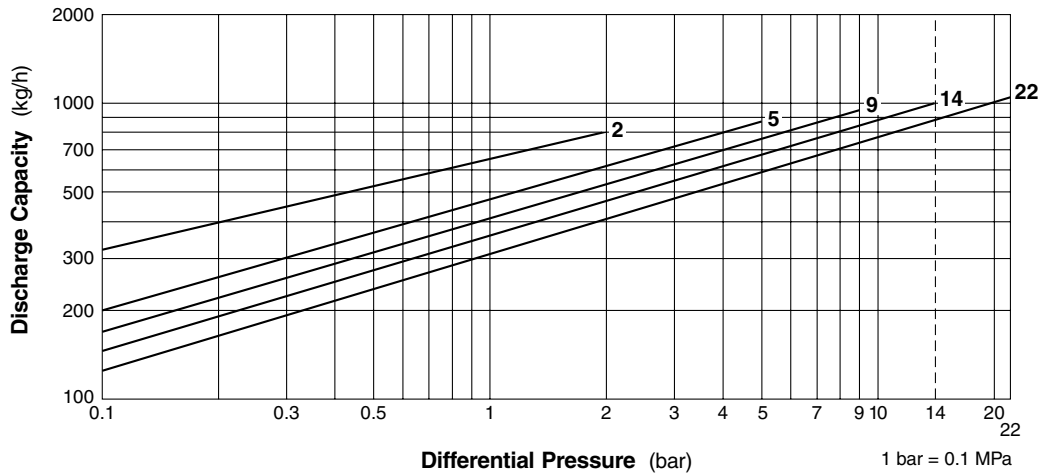
● **SJ3FVX** Flanged



SJ3FVX Flanged (mm)

DN	L		W ₁	B ₁	Weight (kg)
	DIN 2501	PN25/40			
15	150		155	70	5.1
20					5.6
25					6.3

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

