



FREE FLOAT[®] STEAM TRAP

MODEL **SJ3V-X**
DUCTILE CAST IRON

FREE FLOAT STEAM TRAP WITH THREE-POINT SEATING AND THERMOSTATIC AIR VENTING

Features

Reliable and durable steam trap with tight shut-off for use on small to medium process equipment. Model for vertical piping installation.

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. 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.

Pressure Equipment Directive (PED)

Classification according to PED 2014/68/EU, fluid group 2

Size	Category	CE marking
½", ¾", 1"	—*	Art. 4, Sec. 3 (sound engineering practice), CE marking not allowed

* Manufactured in accordance with sound engineering practice



Specifications

Model	SJ3V-X	
Installation	Vertical	
Connection	Screwed	
Size	½", ¾", 1"	
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	C6	

PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS): Maximum Allowable Pressure (barg) PMA: 22
Maximum Allowable Temperature (°C) TMA: 220
Minimum Allowable Temperature (°C): 0

1 bar = 0.1 MPa

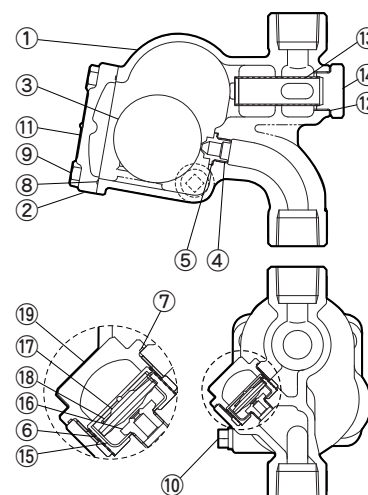


To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

No.	Description	Material	DIN	ASTM/AISI*
①	Body	Ductile Cast Iron EN-GJS-400-18-LT	0.7043	A395 Gr.60-40-18
②	Cover	Ductile Cast Iron EN-GJS-400-18-LT	0.7043	A395 Gr.60-40-18
③ ^F	Float	Stainless Steel SUS316L	1.4404	AISI316L
④ ^R	Orifice	—	—	—
⑤ ^{MR}	Orifice Gasket	Fluorine Resin PTFE	—	—
⑥ ^R	Air Vent Screen	Stainless Steel SUS304	1.4301	AISI304
⑦	X-element Cover Gasket	Fluorine Resin PTFE	—	—
⑧ ^{MR}	Cover Gasket	Fluorine Resin PTFE	—	—
⑨	Cover Bolt	Carbon Steel S45C	1.0503	AISI1045
⑩	Drain Plug	Carbon Steel SS400	1.0037	A6
⑪	Nameplate	Stainless Steel SUS304	1.4301	AISI304
⑫ ^{MR}	Screen Holder Gasket	Soft Iron SUYP	1.1121	AISI1010
⑬ ^R	Main Screen	Stainless Steel SUS430	1.4016	AISI430
⑭	Screen Holder	Cast Stainless Steel A351 Gr.CF8	1.4312	—
⑮ ^R	X-element Guide	Stainless Steel SUS304	1.4301	AISI304
⑯ ^R	Air Vent Valve Seat	Stainless Steel SUS420F	1.4028	AISI420F
⑰ ^R	X-element	Stainless Steel	—	—
⑱ ^R	Spring Clip	Stainless Steel SUS304	1.4301	AISI304
⑲	X-element Cover	Cast Stainless Steel A351 Gr.CF8	1.4312	—

* Equivalent materials

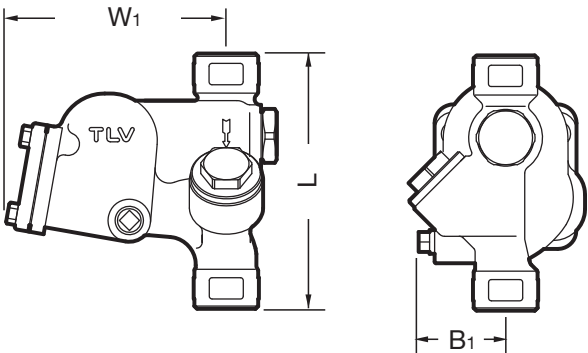
Replacement kits available: (M) maintenance parts, (R) repair parts, (F) float



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Dimensions

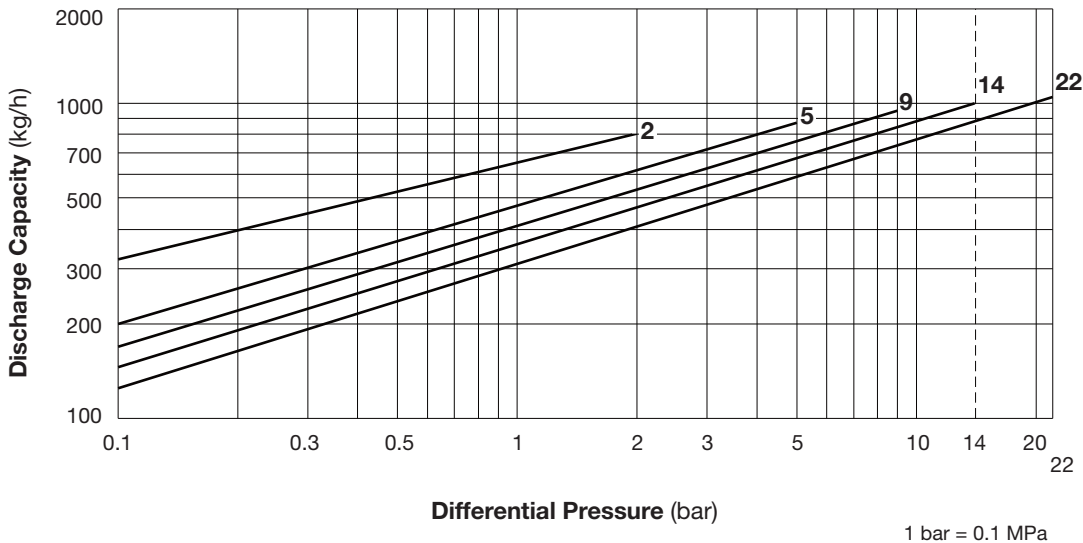
● SJ3V-X Screwed



SJ3V-X Screwed* (mm)				
Size	L	W ₁ **	B ₁ **	Weight (kg)
1/2"	180	155	70	4.0
3/4"				
1"				

* BSP DIN 2999, other standards available
** Approx.

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

LRQA
CERTIFIED