FREE FLOAT® STEAM TRAP

MODEL J7X CAST IRON

FREE FLOAT STEAM TRAP WITH THERMOSTATIC AIR VENTING

Features

A reliable and durable cast iron 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. 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.

Pressure Equipment Directive (PED)

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

Size	Category	CE marking
DN 20 to DN 50	—*	Art. 4, Sec. 3 (sound engineering practice), CE marking not allowed

* Manufactured in accordance with sound engineering practice

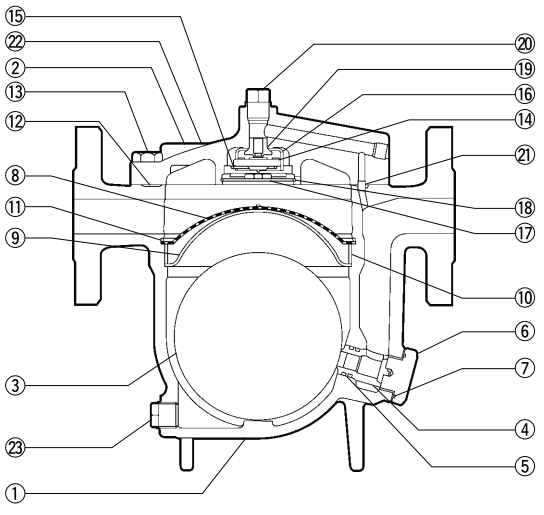
Specifications

Model	JS7X	J7X
Connection	Screwed	Flanged
Size	1″, 1½″	DN 20, 25, 32, 40, 50
Orifice No.	2.5, 5, 10, 13	
Maximum Operating Pressure (barg) PMO	2.5, 5, 10, 13	
Maximum Differential Pressure (bar) ΔPMX	2.5, 5, 10, 13	
Maximum Operating Temperature (°C) TMO	200	
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: 13 1 bar = 0.1 MPa
Maximum Allowable Temperature (°C) TMA: 200

⚠ 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.

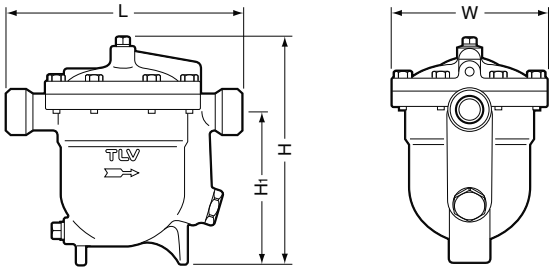
No.	Description	Material	DIN*	ASTM/AISI*
①	Body	Cast Iron FCV400	—	A842 Gr.400
②	Cover	Cast Iron FCV400	—	A842 Gr.400
③F	Float	Stainless Steel SUS316L	1.4404	AISI316L
④R	Orifice	—	—	—
⑤MR	Orifice O-Ring	Ethylene Propylene Rubber	EPR	D2000CA
⑥	Orifice Holder Plug	Carbon Steel S25C	1.1158	AISI1025
⑦MR	Orifice Plug Gasket	Fluorine Resin PTFE	PTFE	PTFE
⑧R	Screen	Stainless Steel SUS430	1.4016	AISI430
⑨	Screen Holder	Stainless Steel SUS304	1.4301	AISI304
⑩	Screen Holder Retainer	Stainless Steel SUS304	1.4301	AISI304
⑪	Snap Ring	Stainless Steel SUS304	1.4301	AISI304
⑫MR	Cover Gasket	Fluorine Resin PTFE	PTFE	PTFE
⑬	Cover Bolt	Carbon Steel S45C	1.0503	AISI1045
⑭R	X-element	Stainless Steel	—	—
⑮R	Spring Clip	Stainless Steel SUS304	1.4301	AISI304
⑯R	X-element Guide	Stainless Steel SUS304	1.4301	AISI304
⑰R	X-element Cover	Stainless Steel SUS304	1.4301	AISI304
⑱R	Snap Ring	Stainless Steel SUS304	1.4301	AISI304
⑲R	Air Vent Valve Seat	Stainless Steel SUS420F	1.4028	AISI420F
⑳	Plug	Carbon Steel SS400	1.0037	A6
㉑	Connector	Stainless Steel SUS416	1.4005	AISI416
㉒	Nameplate	Stainless Steel SUS304	1.4301	AISI304
㉓	Drain Plug	Carbon Steel SS400	1.0037	A6



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

Dimensions

● **JS7X** Screwed

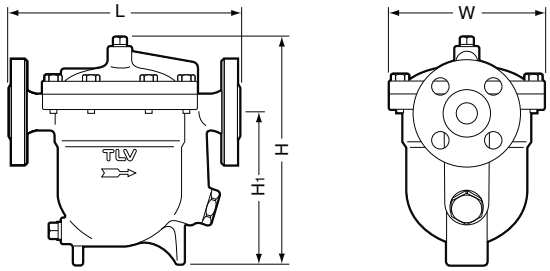


JS7X Screwed* (mm)

Size	L	H	H_1	W	Weight (kg)
1″	280	280	185	185	13
1½″		295	190		14

* BSP DIN 2999, other standards available

● **J7X** Flanged

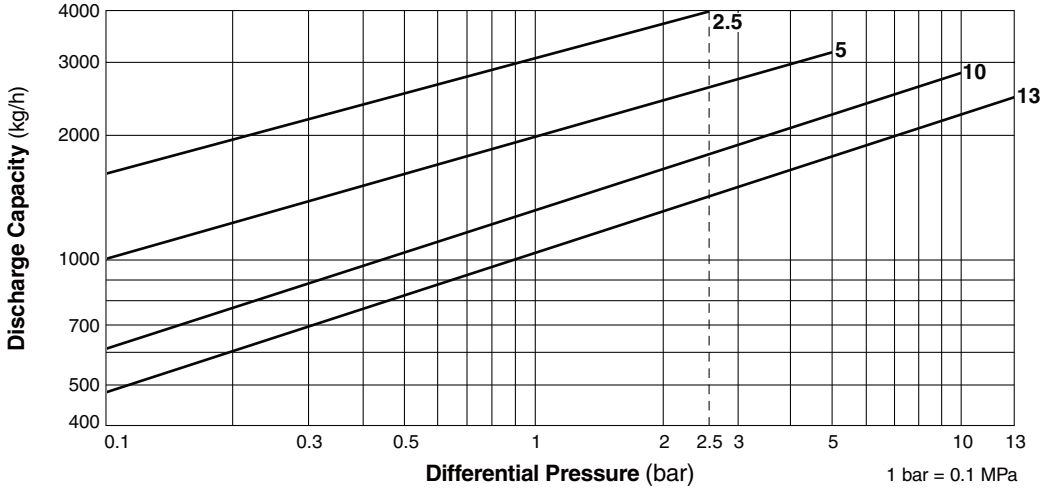


J7X Flanged (mm)

DN	L DIN 2501 PN10/16	H	H_1	W	Weight (kg)
20	266	272	180	185	14
25		276	182		15
32		286	187		16
40	276	291	190		17
50	290	301	195		18

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 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

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