



FREE FLOAT® STEAM TRAP

MODEL J5S-X STAINLESS STEEL

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

Features

A reliable and durable steam trap with tight shut-off for use on small to medium-size process equipment.

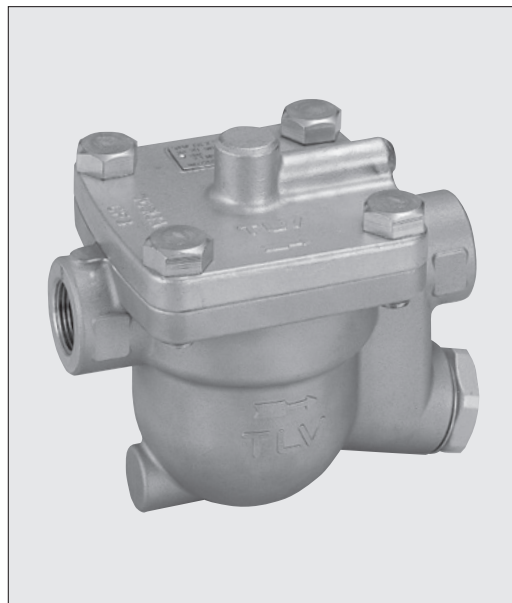
1. Self-modulating free float provides continuous, smooth, low velocity condensate discharge as process loads vary.
2. Precision-ground float, constant water seal and three-point seating design ensure a steam tight seal, even under no-load conditions.
3. Only one moving part, the free float, prevents concentrated wear and provides long maintenance-free service life.
4. Thermostatic capsule (X-element) with "fail open" feature vents air automatically until close- to-steam temperature.
5. Built-in screen with large surface area ensures extended trouble-free operation.
6. 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
3/4", 1", 1 1/4", 1 1/2"	—*	Art. 4, Sec. 3 (sound engineering practice), CE marking not allowed

* Manufactured in accordance with sound engineering practice



Specifications

Model		J5S-X	
Connection		Screwed	Flanged*
Size		3/4", 1", 1 1/4", 1 1/2"	DN 20, 25
Orifice No.		2, 5, 10, 14, 21	
Maximum Operating Pressure (barg)	PMO	2, 5, 10, 14, 21	
Maximum Differential Pressure (bar)	ΔPMX	2, 5, 10, 14, 21	
Maximum Operating Temperature (°C)	TMO	220	
Subcooling of X-element Fill (°C)		up to 6	
Type of X-element		C6	

* DN 32, 40 and 50 available on request

1 bar = 0.1 MPa

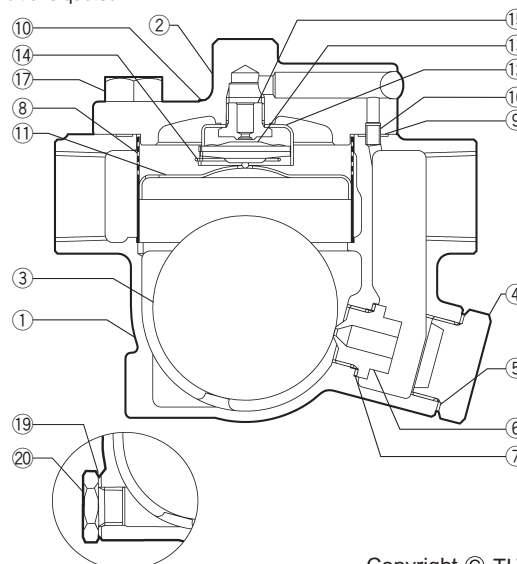
PRESSURE SHELL DESIGN CONDITIONS (NOT OPERATING CONDITIONS): Maximum Allowable Pressure (barg) PMA: 21
Maximum Allowable Temperature (°C) TMA: 220

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	DIN*	ASTM/AISI*
①	Body	Cast Stainl. Stl. A351 Gr.CF8	1.4312	—
②	Cover	Cast Stainl. Stl. A351 Gr.CF8	1.4312	—
③ ^F	Float	Stainless Steel SUS316L	1.4404	AISI316L
④	Orifice Plug	Cast Stainl. Stl. A351 Gr.CF8	1.4312	—
⑤ ^{MR}	Orifice Plug Gasket	Stainless Steel SUS316L	1.4404	AISI316L
⑥ ^R	Orifice	—	—	—
⑦ ^{MR}	Orifice Gasket	Stainless Steel SUS316L	1.4404	AISI316L
⑧ ^R	Screen inside/outside	Stainless Steel SUS430/SUS304	1.4016/1.4301	AISI430/AISI304
⑨ ^{MR}	Cover Gasket	Fluorine Resin PTFE	PTFE	PTFE
⑩	Nameplate	Stainless Steel SUS304	1.4301	AISI304
⑪ ^F	Float Cover	Stainless Steel SUS304	1.4301	AISI304
⑫ ^R	X-element Guide	Stainless Steel SUS304	1.4301	AISI304
⑬ ^R	X-element	Stainless Steel	—	—
⑭ ^R	Spring Clip	Stainless Steel SUS304	1.4301	AISI304
⑮ ^R	Air Vent Valve Seat	Stainless Steel SUS420F	1.4028	AISI420F
⑯	Connector	Stainless Steel SUS416	1.4005	AISI416
⑰	Cover Bolt	Stainless Steel SUS304	1.4301	AISI304
⑱	Flange**	Cast Stainl. Stl. A351 Gr.CF8	1.4312	—
⑲	Drain Plug Gasket***	Stainless Steel SUS316L	1.4404	AISI316L
⑳	Drain Plug***	Stainless Steel SUS303	1.4305	AISI303

* Equivalent materials ** Shown overleaf *** Option

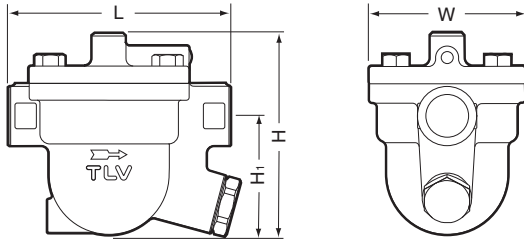
Replacement kits available: (M) maintenance parts, (R) repair parts, (F) float



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Dimensions

● **J5S-X** Screwed

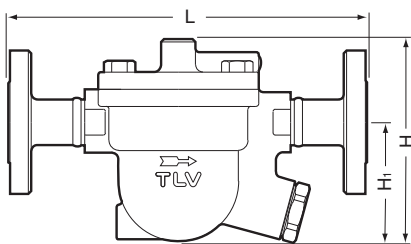


J5S-X Screwed* (mm)

Size	L	H	H ₁	W	Weight (kg)
3/4"	155	141	83	108	4.4
1"					4.3
1 1/4"	160	174	105		5.8
1 1/2"					

* BSP DIN 2999, other standards available

● **J5S-X** Flanged



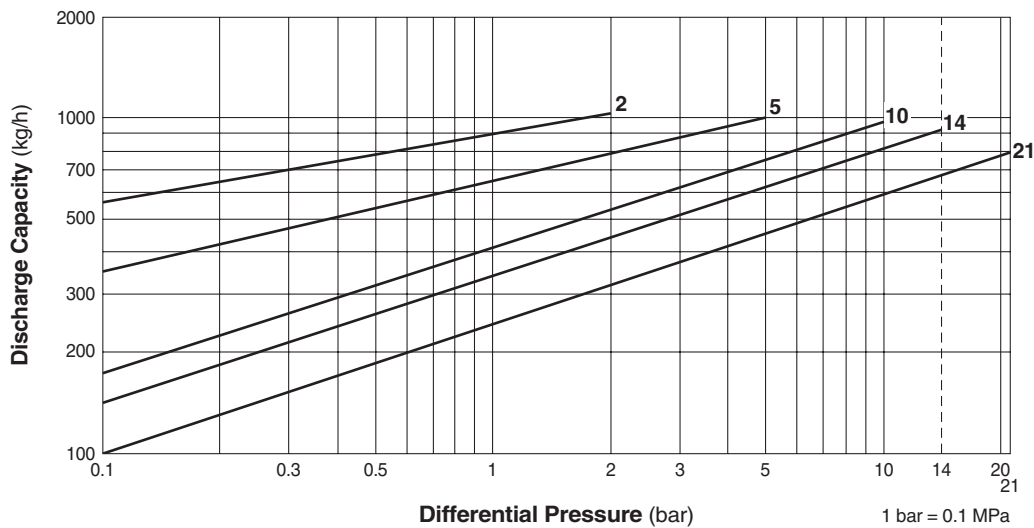
J5S-X Flanged (mm)

DN*	L		H	H ₁	Weight** (kg)
	ASME Class				
	150RF	300RF			
20	250	250	141	83	6.6
25	270	270			7.2

* DN 32, 40 and 50 available on request

** Weight is for Class 300 RF

Discharge Capacity



1. Line numbers within the graph are 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

