



# FREE FLOAT AIR TRAP

## MODEL JA3

### Features

**Light free-float air trap for pipe-end installation to automatically drain condensate and oil from compressed air systems.**

1. Self-modulating free float provides soft, continuous, and smooth, low velocity discharge as process loads vary.
2. Perfect air-tight seal, even under low-load conditions.
3. Only one moving part, the free float, eliminates concentrated valve wear and provides long maintenance-free service life.
4. Built-in screen with large surface area.
5. Manual blow valve allows cleaning of the valve seat from outside during operation.
6. Major internal parts made of stainless steel.
7. Inline access to internal parts possible.



### Specifications

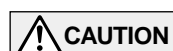
Model	JA3	JAF3
Connection	Screwed	Flanged
Size (mm)	15, 20, 25	
Maximum Operating Pressure (MPaG) PMO	1.6	1.57
Maximum Differential Pressure (MPa) ΔPMX	1.6	1.57
Maximum Operating Temperature (°C) TMO	100	

PRESSURE SHELL DESIGN CONDITIONS (NOT OPERATING CONDITIONS):

Maximum Allowable Pressure (MPaG) PMA: 2.1(JA3), 1.57(JAF3)

Maximum Allowable Temperature (°C) TMA: 220

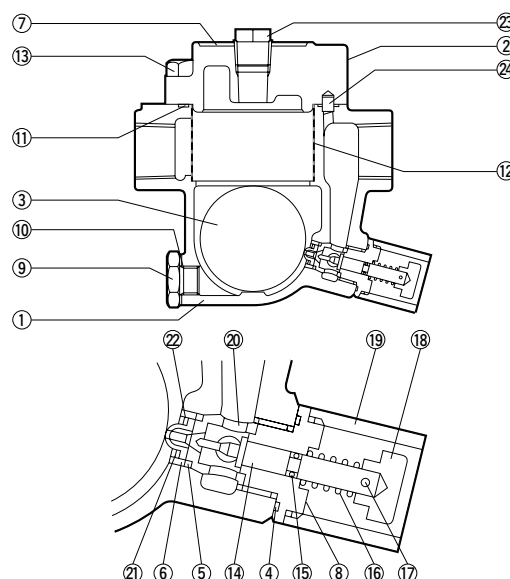
1 MPa = 10.197 kg/cm<sup>2</sup>



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	JIS	ASTM/AISI*
①	Body (JA3)	Ductile Cast Iron	FCD450	A536 Gr. 65-45-12
	Body (JAF3)	Cast Iron	FCV410	A842 Gr. 400
②	Cover	Ductile Cast Iron	FCD450	A536 Gr. 65-45-12
③	Float	Stainless Steel	SUS316L	AISI316L
④	Gasket	Fluorine Resin	PTFE	—
⑤	Valve Seat O-Ring	Nitrile Rubber	NBR	D2000BF
⑥	Valve Seat	Nitrile Rubber	NBR	D2000BF
⑦	Nameplate	Stainless Steel	SUS304	AISI304
⑧	Valve Seat Holder Nut	Stainless Steel	SUS420F	AISI420F
⑨	Drain Plug	Carbon Steel	S25C	AISI1025
⑩	Drain Plug Gasket	Soft Iron	SUYP	AISI1010
⑪	Cover Gasket	Fluorine Resin	PTFE	—
⑫	Screen	Stainless Steel	SUS430	AISI430
⑬	Cover Bolt	Carbon Steel	S45C	AISI1045
⑭	Needle	Stainless Steel	SUS420F	AISI420F
⑮	Seat O-Ring	Nitrile Rubber	NBR	D2000BF
⑯	Coil Spring	Stainless Steel	SUS304	AISI304
⑰	Split Pin	Stainless Steel	SUS304	AISI304
⑱	Plunger	Stainless Steel	SUS420F	AISI420F
⑲	Guard Bushing	Carbon Steel	SGP	A120
⑳	Valve Seat Holder	Stainless Steel	SUS420F	AISI420F
㉑	Snap Ring	Stainless Steel	SUS304	AISI304
㉒	Washer	Stainless Steel	SUS304	AISI304
㉓	Balancing Plug	Carbon Steel	SS400	A6
㉔	Alignment Pin	Bearing Steel	SUJ2	A485

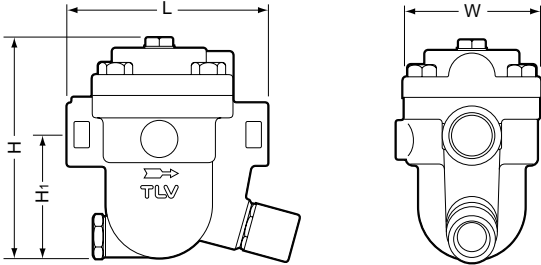
\* Equivalent



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**Dimensions**

● **JA3** Screwed

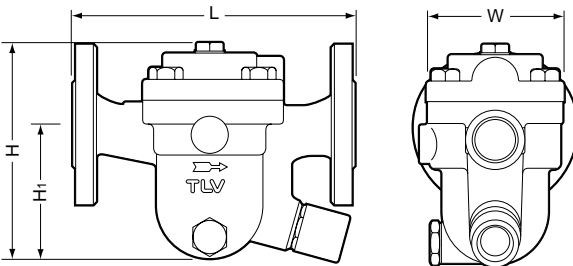


**JA3** Screwed\* (mm)

Size	L	H	H <sub>1</sub>	W	Weight (kg)
15	120	130	75	80	2.7
20			73		2.8
25		137	75		3.0

\* Rc(PT), other standards available

● **JAF3** Flanged



**JAF3** Flanged\* (mm)

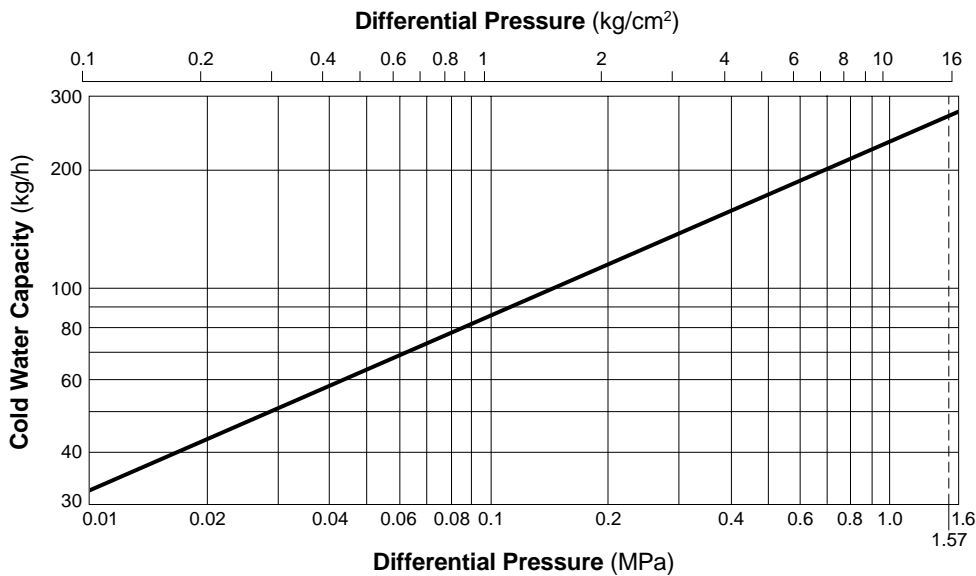
Size	L(ASME Class)		H	H <sub>1</sub>	W	Weight (approx. kg)
	150RF	300RF				
15	175	175	127	79	80	3.8
20	195	195	133	89		5.1
25	215	219	140	91		6.0

\* Fits to ASME Class 150RF or 300RF, other standards available but length and weight may vary

**NOTE**

A pressure-balancing line must be connected to the air system from the balancing port at the top of the trap to a place above any possible condensate accumulation in the system.

**Discharge Capacity**



1. Differential pressure is the difference between the inlet and outlet pressure of the trap.
2. The chart is applicable to condensate below 100 °C.
3. The discharge capacity is for a liquid with specific gravity of 1.
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

