



FREE FLOAT[®] AIR TRAP

MODEL JA3

FREE FLOAT AIR TRAP WITH TIGHT SHUT-OFF FOR AIR SERVICE

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 continuous, smooth, low velocity condensate discharge as process loads vary.
2. Perfect air-tight seal, even under low-load conditions.
3. Only one moving part, the free float, prevents concentrated wear and provides long maintenance-free service life.
4. Built-in screen with large surface area ensures extended trouble-free operation.
5. Manual blow down device allows cleaning of the valve seat from outside during operation.
6. Major internal parts made of stainless steel.



Specifications

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

* Do not use for toxic, flammable or otherwise hazardous fluids.

1 MPa = 10.197 kg/cm²

PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS): Maximum Allowable Pressure (MPaG) PMA: 2.1 (JA3), 1.6 (JAF3)
Maximum Allowable Temperature (°C) TMA: 220

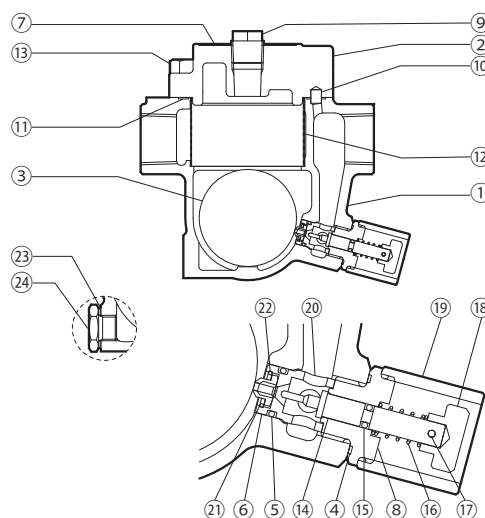


To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

| No. | Description | Material | JIS | ASTM/AISI* |
|-----------------|--------------------------|-------------------|-------------------|--------------------|
| ① | Body | JA3 | Ductile Cast Iron | FCD450 A536 |
| | | JAF3 | Cast Iron | FCV400 A842 Gr.400 |
| ② | Cover | Ductile Cast Iron | FCD450 | A536 |
| ③ ^F | Float | Stainless Steel | SUS316L | AISI316L |
| ④ ^{MR} | Holder Nut Gasket | Fluorine Resin | PTFE | PTFE |
| ⑤ ^{MR} | Valve Seat Holder O-Ring | Nitrile Rubber | NBR | D2000BF |
| ⑥ ^R | Valve Seat | Nitrile Rubber | NBR | D2000BF |
| ⑦ | Nameplate | Stainless Steel | SUS304 | AISI304 |
| ⑧ ^R | Valve Seat Holder Nut | Stainless Steel | SUS420F | AISI420F |
| ⑨ | Balancing Line Plug | Carbon Steel | SS400 | A6 |
| ⑩ | Alignment Pin | Bearing Steel | SUU2 | A485 |
| ⑪ ^{MR} | Cover Gasket | Fluorine Resin | PTFE | PTFE |
| ⑫ ^R | Screen | Stainless Steel | SUS430 | AISI430 |
| ⑬ | Cover Bolt | Carbon Steel | S45C | AISI1045 |
| ⑭ ^R | Needle | Stainless Steel | SUS420F | AISI420F |
| ⑮ ^{MR} | Needle O-Ring | Nitrile Rubber | NBR | D2000BF |
| ⑯ ^R | Coil Spring | Stainless Steel | SUS304 | AISI304 |
| ⑰ ^R | Split Pin | Stainless Steel | SUS304 | AISI304 |
| ⑱ ^R | Plunger | Stainless Steel | SUS420F | AISI420F |
| ⑲ ^R | Guard Bushing | Carbon Steel | SGP | A53 Type F |
| ⑳ ^R | Valve Seat Holder | Stainless Steel | SUS420F | AISI420F |
| ㉑ ^R | Snap Ring | Stainless Steel | SUS304 | AISI304 |
| ㉒ ^R | Washer | Stainless Steel | SUS304 | AISI304 |
| ㉓ | Drain Plug Gasket** | Soft Iron | SUYP | AISI1010 |
| ㉔ | Drain Plug** | Carbon Steel | S25C | AISI1025 |

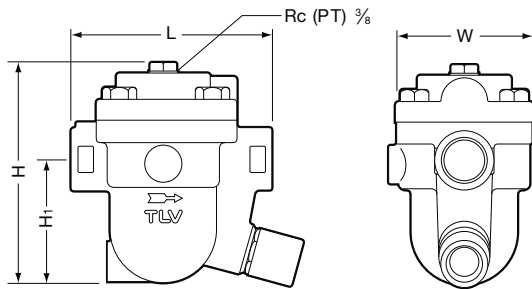
* Equivalent ** Option

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



Dimensions

● **JA3** Screwed

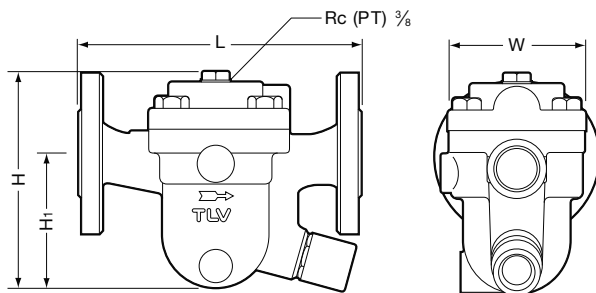


JA3 Screwed* (mm)

| Size | L | H | H ₁ | 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)

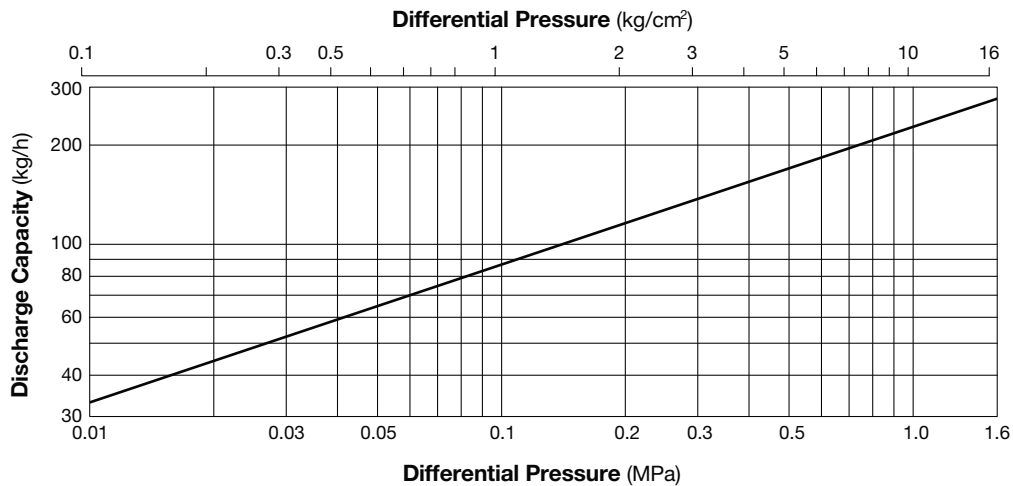
| Size | L | | | | H | H ₁ | W | Weight* (kg) |
|------|------------|---------|-------|---------|-----|----------------|----|--------------|
| | ASME Class | | | | | | | |
| | 125FF | (150RF) | 250RF | (300RF) | | | | |
| (15) | — | 175 | — | 175 | 127 | 79 | 80 | [3.8] |
| (20) | — | 195 | — | 195 | 133 | 89 | | [5.1] |
| 25 | 203 | 215 | 215 | 219 | 140 | 91 | | 5.6 |

() No ASME standard exists for cast iron; machined to fit steel flanges
 Class 125 FF can connect to 150 RF, 250 RF can connect to 300 RF
 Other standards available, but length and weight may vary
 * Weight is for Class 250 RF [300 RF]

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.



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

