

# JA3 Ductile Iron Free Float Air Trap

#### **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, prevents concentrated wear and provides long maintenance-free service life.
- 4. Built-in screen with large surface area ensures trouble free service.
- 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            |
|---|----------------|
| Connection                                | Screwed        |
| Size                                      | 1/2", 3/4", 1" |
| Maximum Operating Pressure (barg) PMO     | 16             |
| Maximum Differential Pressure (bar) Δ PMO | 16             |
| Maximum Operating Temperature (°C) TMO    | 100            |
| Applicable Fluid*                         | Air            |

<sup>\*</sup> Do not use for toxic, flammable or otherwise hazardous fluids.
PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS): Maximum Allowable Pressure (barg) PMA: 21

1 bar = 0.1 MPa

/ CAUTION

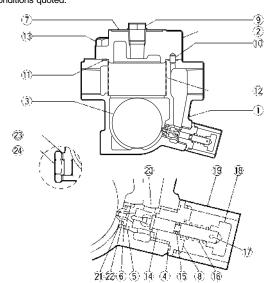
Maximum Allowable Temperature (°C) TMA: 100

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 GGG40.3 | 0.7043 | A395       |
| 2               | Cover                    | Ductile Cast Iron FCD450  | 0.7040 | A536       |
| 3)F             | Float                    | Stainless Steel SUS316L   | 1.4404 | AISI316L   |
| 4 MR            | Holder Nut Gasket        | Fluorine Resin PTFE       | PTFE   | PTFE       |
| 5 <sub>MR</sub> | Valve Seat Holder O-Ring | Nitrile Rubber NBR        | NBR    | D2000BF    |
| 6)R             | Valve Seat               | Nitrile Rubber NBR        | NBR    | D2000BF    |
| 7               | Nameplate                | Stainless Steel SUS304    | 1.4301 | AISI304    |
| 8 R             | Valve Seat Holder Nut    | Stainless Steel SUS420F   | 1.4028 | AISI420F   |
| 9               | Balancing Line Plug      | Carbon Steel SS400        | 1.0037 | A6         |
| 10              | Alignment Pin            | Bearing Steel SUJ2        | 1.2067 | A485       |
| 11)MR           | Cover Gasket             | Fluorine Resin PTFE       | PTFE   | PTFE       |
| 12 <sup>R</sup> | Screen                   | Stainless Steel SUS430    | 1.4016 | AISI430    |
| 13              | Cover Bolt               | Carbon Steel S45C         | 1.0503 | AISI1045   |
| (14)R           | Cleaning Needle          | Stainless Steel SUS420F   | 1.4028 | AISI420F   |
| (15)MR          | Needle O-Ring            | Nitrile Rubber NBR        | NBR    | D2000BF    |
| 16 <sup>R</sup> | Coil Spring              | Stainless Steel SUS304    | 1.4301 | AISI304    |
| 17)R            | Split Pin                | Stainless Steel SUS304    | 1.4301 | AISI304    |
| 18 <sup>R</sup> | Plunger                  | Stainless Steel SUS420F   | 1.4028 | AISI420F   |
| 19R             | Guard Bushing            | Carbon Steel SGP          | 1.0035 | A53 Type F |
| 20 R            | Valve Seat Holder        | Stainless Steel SUS420F   | 1.4028 | AISI420F   |
| 21)R            | Snap Ring                | Stainless Steel SUS304    | 1.4301 | AISI304    |
| 22)R            | Washer                   | Stainless Steel SUS304    | 1.4301 | AISI304    |
| 23              | Drain Plug Gasket**      | Soft Iron SUYP            | 1.1121 | AISI1010   |
| 24)             | Drain Plug**             | Carbon Steel S25C         | 1.1158 | AISI1025   |

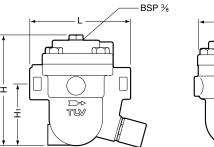
<sup>\*</sup> Equivalent materials \* Option

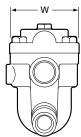
Replacement kits available: (M) maintenance parts, (R) repair parts, (F) float



### **Dimensions**

#### ● JA3 Screwed





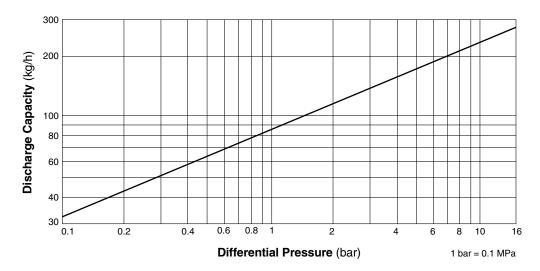
| UAS Sciewed (mm |     |     |    |    |             |  |  |  |
|-----------------|-----|-----|----|----|-------------|--|--|--|
| Size            | L   | Н   | Ηı | W  | Weight (kg) |  |  |  |
| 1/2″            | 120 | 100 | 75 |    | 2.7         |  |  |  |
| 3/4″            |     | 130 | 73 | 80 | 2.8         |  |  |  |
| 1″              |     | 137 | 75 |    | 3.0         |  |  |  |

<sup>\*</sup> BSP DIN 2999, other standards available

#### 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**



- Differential pressure is the difference between the inlet and outlet pressure of the trap.
   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!