7330

# NON-SLAM DYNAMIC ARV
## FAF 7330




### PRODUCTION STANDARTS

DN50 →DN300
PN 10-16-25-40

| | |
|---|---|
| **Design** | EN 1074-4 |
| **End Connection** | EN 1092-2 / ISO 7005-2 |
| **Marking** | EN 19 |
| **Tests** | EN1074-4 / EN12266 |
| **Corrosion Protection** | Industrial Epoxy |

### Features

- Non-Slam Dynamic ARV to be used for the purpose of vacuuming air into the pipe during emptying the pipeline due to maintenance or failure circumstances. In addition, to release small air particules that may occur time to time during operation.
- Non-Slam Dynamic ARV is installed to the pipe with a flanged connection.
- One of the most important feature of Non-Slam Dynamic ARV is that air outlet diameter has the same size with inlet diameter.
- Non-Slam Dynamic ARV's are known as three function ARV's; air release during filling the pipeline, releasing air particules under pressure, air vacuum during emptying the pipeline.
- Eliminates the problem of early closure.
- Provides a big advantage during installation and operation with its single body design and low weight.
- High resistant float parts made of HDPE eliminates the negative effects of deformation and abrasion.
- Ductile Iron Body, flanged connection according to EN 1092-2. Float part made of polyethylene which can be replaced easily.
- Body and cover of ductile iron with blue epoxy coating.
- Release valves can be manufactured with flanged or screwed ends.
- Working pressure range: 0.2 – 16 bar.

### Temperature

- +70 °C

### Product Description

FAF7330 Non-Slam Dynamic ARV; In pressurized water transmission systems, the amount of air in the system It is a self-executing control element that provides regulation.; to be used for the purpose of releasing the exsiting air in the potable water transmission lines and water networks after installation or during emptying and refilling the pipeline due to maintenance works.

### Accessories

- Gate valve, FAF6000
- Butterfly valve, FAF3500-3600
- Flange adaptor, FAF3960

### Scope of Application

- Pump suction lines
- Water lines
- Water supply network
- Line valves
- Venturimeters
- Plunger & turbine pumps

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| PRODUCTS MODEL CODES | |
|---|---|
| FAF7310 | SINGLE ORIFICE ARV |
| FAF7320 | DOUBLE ORIFICE ARV |
| **FAF7330** | **NON-SLAM DYNAMIC ARV** |
| FAF7340 | DOUBLE ORIFICE NON-SLAM (Kinetic) ARV |
| FAF7350 | COMBINATION (Underground -Street) ARV |

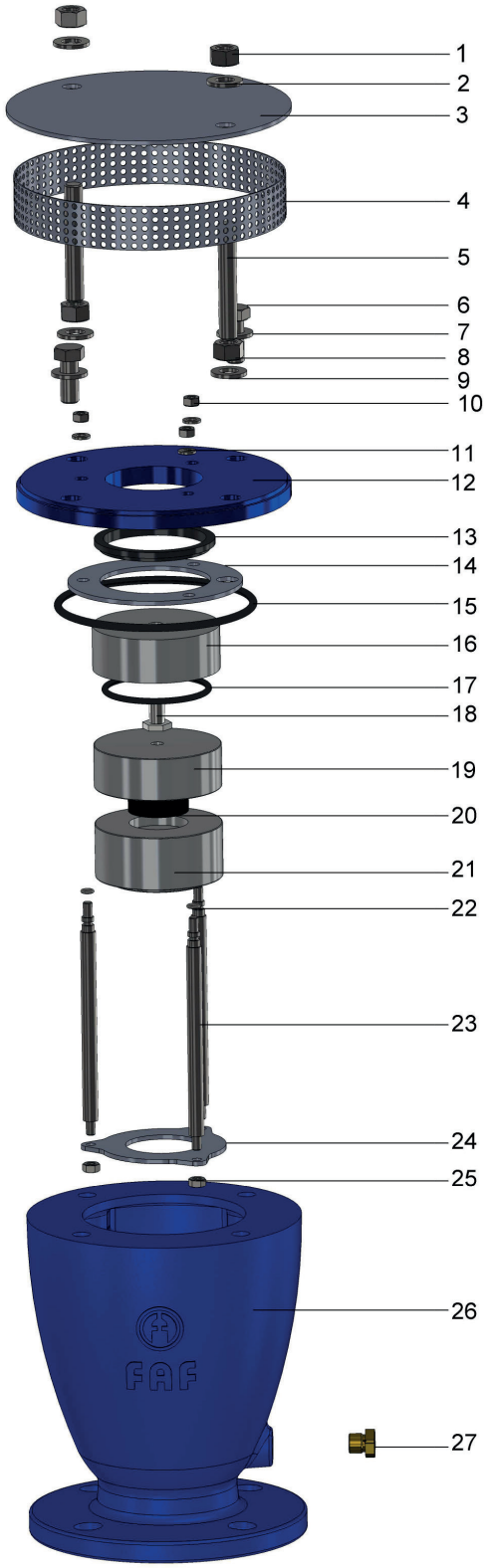
| VALVE TEST PRESSURE (Bar) | | |
|---|---|---|
| MAX. OPERATING PRESSURE | BODY / SHELL TEST | SEAT TEST |
| 10 | 15 | 11 |
| 16 | 24 | 17,6 |
| 25 | 37,5 | 27,5 |
| 100% of the valves are subjected to hydrostatic tests at FAF facilities. | | |

**Note**

- For proper use and safety precautions please follow the installation and operating instructions.
- It provides 100% impermeability with its special design gasket and stainless cover flange.
- Prevents leakage including low pressure usage (0.2 bar).
- The filter and cover plate are designed to completely cover the body. In this way, possible external wastes in the field are prevented from entering the suction cup.
- It is produced so that the total hole area in the filter is not less than the cross-sectional area of the nominal diameter.
- The periphery of HDPE floaters is equipped with stainless steel guides/studs to ensure precise operation.
- Body and cover are coated with powder epoxy. Metal parts in contact with the fluid are protected against corrosion by using stainless steel.
- It has an aerodynamic structure that prevents premature closing without disturbing the air flow.

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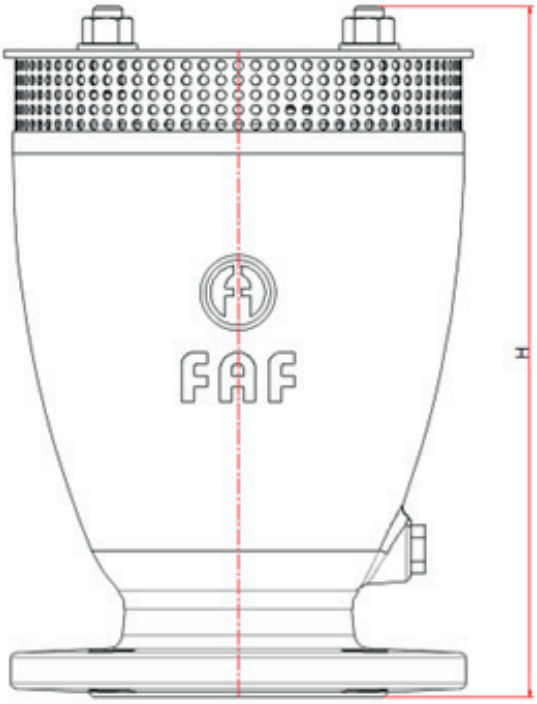
### Material List

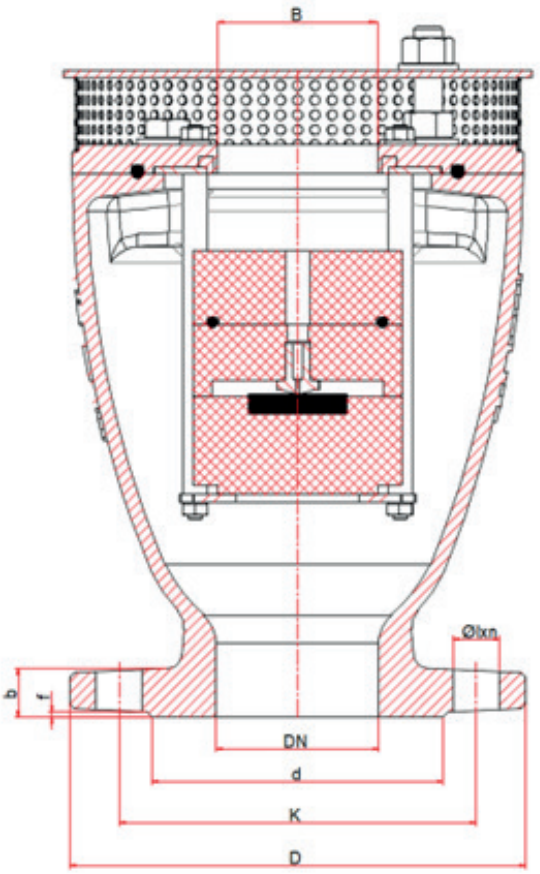



| NO | ITEM | MATERIALS |
|---|---|---|
| 1 | NUT | A2-STAINLESS STEEL |
| 2 | WASHER | A2-STAINLESS STEEL |
| 3 | PROTECTION COVER | AISI 430 STAINLESS STEEL |
| 4 | FILTER | AISI 430 STAINLESS STEEL |
| 5 | STUD | AISI 420 STAINLESS STEEL |
| 6 | BOLT | A2-STAINLESS STEEL |
| 7 | WASHER | A2-STAINLESS STEEL |
| 8 | NUT | A2-STAINLESS STEEL |
| 9 | WASHER | A2-STAINLESS STEEL |
| 10 | NUT | A2-STAINLESS STEEL |
| 11 | WASHER | A2-STAINLESS STEEL |
| 12 | BONNET | STEEL |
| 13 | SEALİNG RİNG | EPDM |
| 14 | COVER FLANGE | AISI 430 STAINLESS STEEL |
| 15 | O-RING | NBR |
| 16 | UPPER FLOAT | HOPE |
| 17 | O-RING | NBR |
| 18 | ORIFICE | AISI 420 STAINLESS STEEL |
| 19 | MIDDLE FLOAT | HOPE |
| 20 | SEALING | EPDM |
| 21 | LOWER FLOAT | HOPE |
| 22 | O-RING | NBR |
| 23 | STUD | AISI 420 STAINLESS STEEL |
| 24 | FLANGE | AISI 430 STAINLESS STEEL |
| 25 | NUT | A2-STAINLESS STEEL |
| 26 | BODY | EN GJS 500 DUCTILE IRON |
| 27 | DRAIN PLUG | BRASS |

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### Non-Slam Dynamic ARV Technical Details




| DIMENSIONS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DN (mm) | PN | D | K | d | Øl x n | f | b | H | B |
| 50 | PN 10 - 16 - 25 | 165 | 125 | 99 | Ø19x4 | 3 | 19 | 266 | 50 |
| 65 | PN 10 - 16 | 185 | 145 | 118 | Ø19x4 | 3 | 19 | 275 | 65 |
| | PN 25 | 185 | 145 | 118 | Ø19x8 | 3 | 19 | 275 | 65 |
| 80 | PN 10 - 16 - 25 | 200 | 160 | 132 | Ø19x8 | 3 | 19 | 293 | 80 |
| 100 | PN 10 - 16 | 220 | 180 | 156 | Ø19x8 | 3 | 19 | 340 | 100 |
| | PN 25 | 235 | 190 | 156 | Ø23x8 | 3 | 19 | 340 | 100 |
| 150 | PN 10 - 16 | 285 | 240 | 211 | Ø23x8 | 3 | 19 | 553 | 150 |
| | PN 25 | 300 | 250 | 211 | Ø28x8 | 3 | 20 | 553 | 150 |
| 200 | PN 10 | 340 | 295 | 266 | Ø23x8 | 4 | 20 | 599 | 200 |
| | PN 16 | 340 | 295 | 266 | Ø23x12 | 4 | 20 | 599 | 200 |
| | PN 25 | 360 | 310 | 274 | Ø28x12 | 4 | 22 | 599 | 200 |
| 250 | PN 10 | 400 | 350 | 319 | Ø23x12 | 4 | 22 | 676 | 250 |
| | PN 16 | 400 | 355 | 319 | Ø28x12 | 4 | 22 | 676 | 250 |
| | PN 25 | 425 | 370 | 330 | Ø31x12 | 4 | 24,5 | 676 | 250 |
| 300/250 | PN 10 | 455 | 400 | 370 | Ø23x12 | 4 | 24,5 | 676 | 250 |
| | PN 16 | 455 | 410 | 370 | Ø28x12 | 4 | 24,5 | 676 | 250 |
| | PN 25 | 485 | 430 | 389 | Ø31x16 | 4 | 27,5 | 676 | 250 |

# NON-SLAM DYNAMIC ARV
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### General Informatıon About Arv's

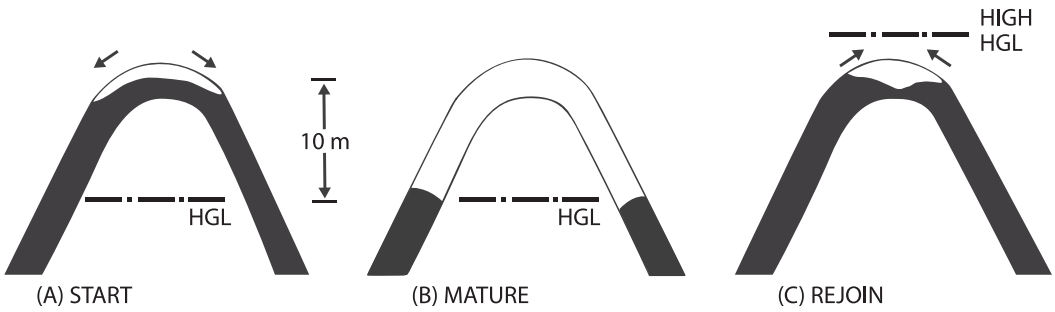
Air vacuum and release is vital for the pipeline operation and safety. Many problems faced with the pipelines are actually related with the air left inside the pipe that cannot be released.

Where does the air in the pipeline come from?

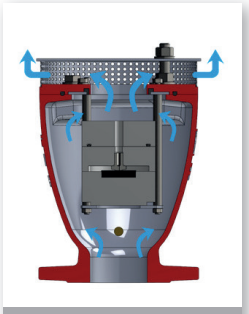
- Pipeline is already filled with air before filling with water.
- There exists 2% dissolved air in the water, which can vaporise by temperature change or pressure drop.
- Each pump absorbs a certain amount of air.
- Incorrect installations.

### Effects of Air

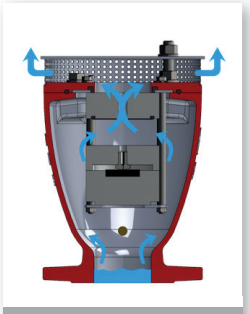
- Air in the pipeline, narrows the filled water section and increases operationg costs.
- Sometimes trapped air can stop the entire flow, depending on the nature of the pump
- At the peaks, the air that is trapped moves suddenly. This creates turbulence and vibration on the pipeline.
- Corrosion rate accelerates.
- Causes faulty flow meter readings.
- Affects the operation of control valves.
- At some cases, the jammed air arrives at such a moment that it causes the pipe to explode.



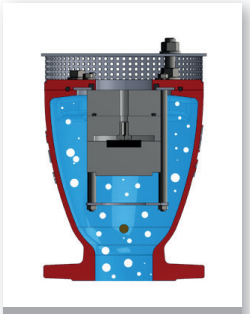
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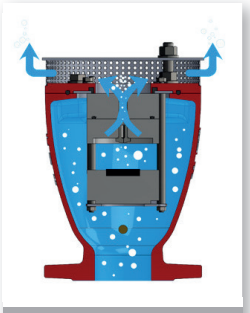
Pipe is filling
Air Release



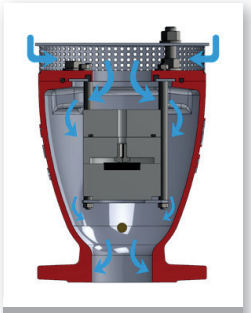
Non-slam orifice closed
Early closure prevented.
Air Release continues



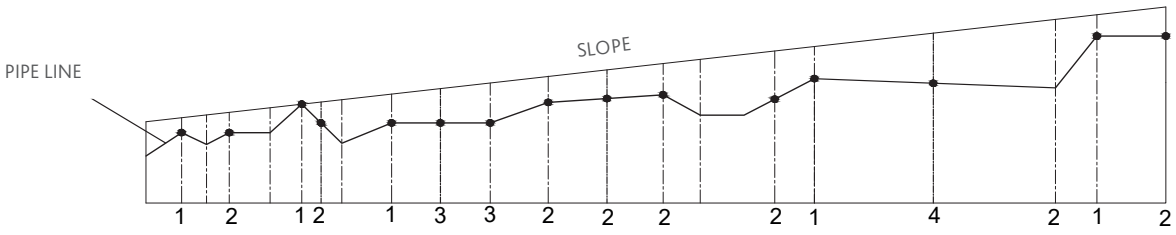
All air released.
ARV is filled with water
Floats are in closed position



Air Release from small orifice under pressure



Air vacuum during discharge




**ARV Placement Position Suggestions ARV Application**

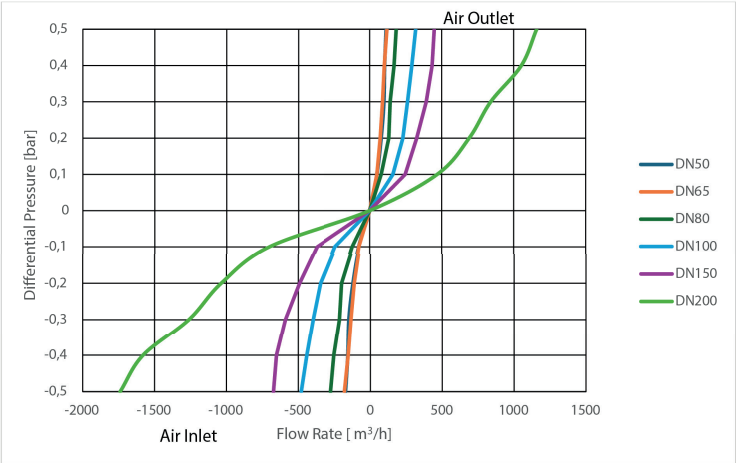
1. Full peak points
2. Incase of increase in downward slope or decrease in upward slope.
3. At every 600 to 1000 mt. at long linear pipelines
4. At long sloping lines, maximum at every 600 mt.
5. At every 400-500 mt in water networks.

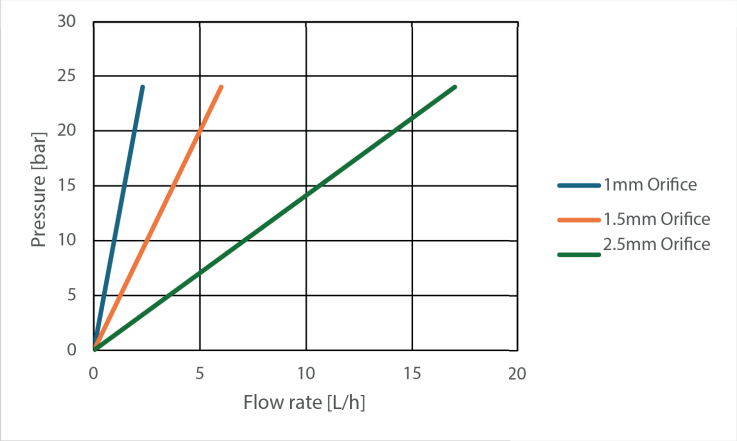
ARV placement interval alternative to Item 3 and 4; can be taken as PIPELINE DIAMETER DN (mm) X 1 (mt).

(DN1000 mm X 1mt. = 1000 mt)

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### General Information about ARV's
### ARV Selection Criteria




| ORIFICE SELECTION | |
|---|---|
| ARV Size | Orifice Size |
| DN50 | 1 mm |
| DN65 | 1 mm |
| DN80 | 1.5 mm |
| DN100 | 1.5 mm |
| DN150 | 1.5 mm |
| DN200 | 2.5 mm |
| DN250 | 2.5 mm |
| DN300/250 | 2.5 mm |

| Recommended ARV Sizes According to Pipe Diameters | |
|---|---|
| Pipe Inner Diameter - mm | ARV - DN |
| 65 - 150 | 50 |
| 200 - 250 | 65 |
| 300 - 400 | 80 |
| 450 - 600 | 100 |
| 700 - 900 | 150 |
| 1000 - 1200 | 200 |
| 1400 - 1600 | 250 |
| 1800 - 2000 | 300 |

### ARV Factory Acceptance Test Requirements

1. Reistance Test
2. Hydrostatic Test
3. Low Pressure Sealing Test
4. Air Release
5. Air Release under pressure
6. Vaccum tests