# STAINLESS STEEL AIR VALVE 3 FUNCTIONS FB OR RB - A300X / AR300X


## Specifications

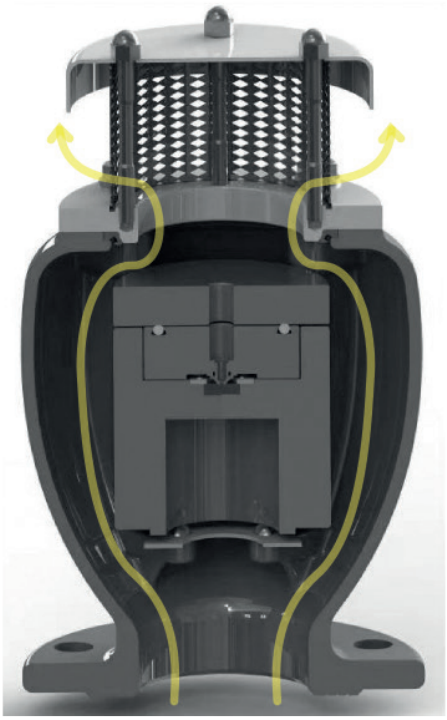
| | |
|---|---|
| DN mm | DN 50 - DN 300 |
| DN inch | 2” - 12 “ |
| Temperature | 0°C to 70°C |
| Connection | Flanged |
| Application | Main transmission lines, water distribution networks, irrigation systems |
| Flange | PN10, PN16, PN25, PN40 |
| Flange standard | BS EN1092-2 PN10-16-25-40, ANSI Class 125-150-250 |
| Design and Test Standard | Designed in compliance with EN-1074/4 and AWWA C-512 |
| Pressure | Minimum 0.2 bar (lower on request) - maximum 40 bar |
| Option | Customized changes on the flanges and painting on request. |

## Advantages

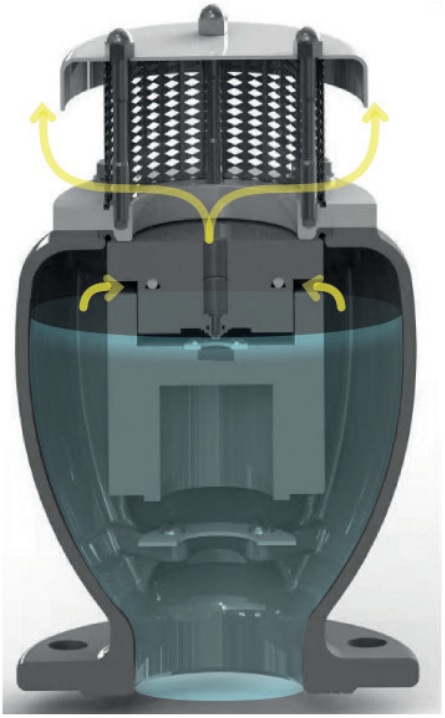
**Triple-Function Combined Air Valve:**

- **Anti-Hammer and Overpressure Protection.**
- **Single Chamber Design: Engineered for optimal performance with an exceptional contour.**
- **Full Bore and Reduce Bore Body: Constructed from stainless steel, with a maximum capacity of 40 bar, featuring internal ribs for precise float guidance.**
- **Aerodynamic Airflow Path: Ensures efficient air release and intake.**
- **Tangential Drainage: Facilitates complete drainage.**
- **Cylindrical Floats: Designed to perform multiple functions.**
- **Easy Float Replacement: Switching between three floats and two floats can be done conveniently from the top.**
- **Reinforced Lower Float Plate: Made of stainless steel to eliminate the impact of overloads on floats in minimal time.**
- **Customizable Nozzle Sizes: Accommodates various valve model requirements.**
- **Standard Flat Vent Screen: Stainless steel to prevent insect entry, with an optional umbrella-shaped vent screen available.**

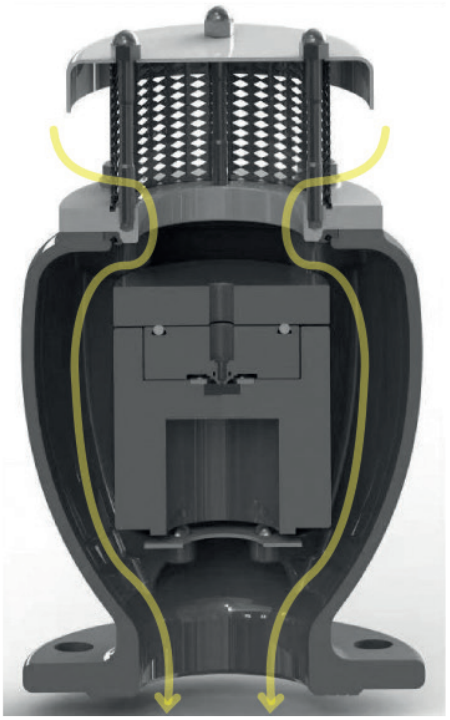
## Advantages



**Discharge significant air volumes**
When filling the pipe, it's essential to release air while water enters. The A300X equipped with an aerodynamic full-port body and deflector, ensures the prevention of premature closures of the mobile block during this phase.

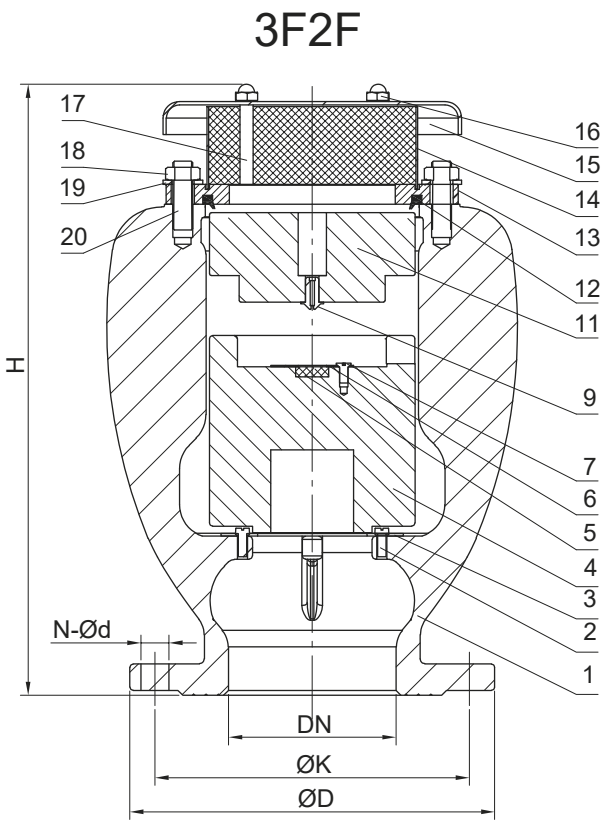


**Air Release in Operational Conditions**
While in operation, the air generated by the pipeline accumulates in the upper section of the air valve. Gradually, it undergoes compression, and the pressure reaches the water pressure level. Consequently, its volume expands, pushing the water level downward and facilitating the release of air through the nozzle.



**Inflow of Significant Air Volumes**
During pipeline drainage or pipe bursts, it is essential to introduce an equivalent amount of air as the outflowing water to prevent negative pressure and potential serious damage to the pipeline and the entire system.

## Nomenclature



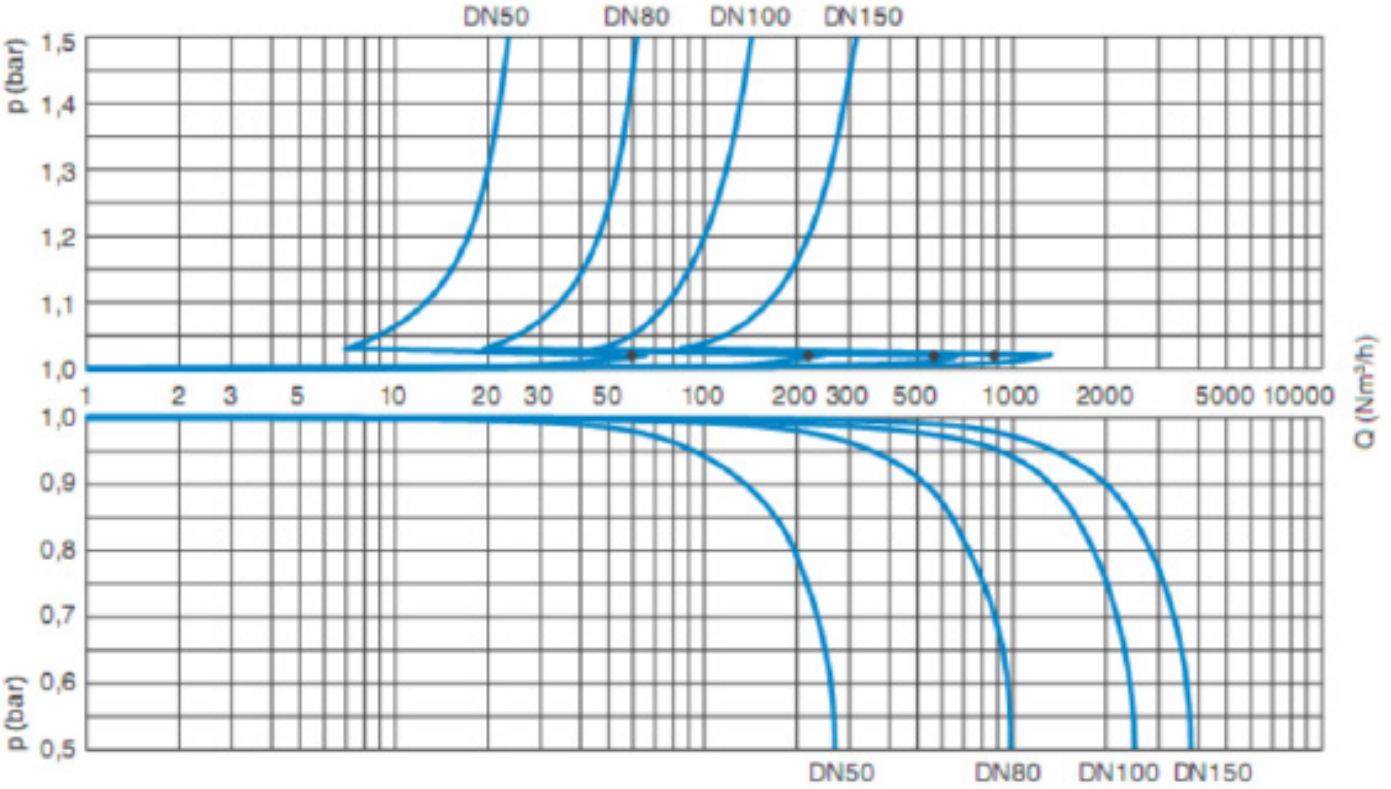

| Designation | Option 1 | Option 2 | |
|---|---|---|---|
| **1.Valve body** | CF8 | CF8M | |
| **2.Screw** | A2 | A4 | |
| **3.Plate Ring** | SS304 | SS316 | |
| **4.Lower float** | PP | PP | |
| **5.Seal** | FKM | FKM | |
| **6.Seal retainer** | SS304 | SS316 | |
| **7.Screw** | A2 | A4 | |
| **8.Middle float** | PP | PP | For 4 functions model only |
| **9.Nozzle** | SS304 | SS316 | |
| **10.Oring** | FKM | FKM | For 4 functions model only |
| **11.Top float** | PP | PP | |
| **12.Seal ring** | FKM | FKM | |
| **13.Top flange** | SS304 | SS316 | |
| **14.Screen** | SS304 | SS316 | |
| **15.Cap** | SS304 | SS316 | |
| **16.Screw** | A2 | A4 | |
| **17.Bolt** | A2 | A4 | |
| **18.Nut** | A2 | A4 | |
| **19.Washer** | A2 | A4 | |
| **20.Bolt** | A2 | A4 | |

## Dimensions

| DN | ØD (mm) | | | | ØK (mm) | | | | N-Ød (mm) | | | | Full Bore A300X | | Reduce Bore AR300X | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PN10 | PN16 | PN25 | PN40 | PN10 | PN16 | PN25 | PN40 | PN10 | PN16 | PN25 | PN40 | H (mm) | Weight (kg) | H (mm) | Weight (kg) |
| 50 | 165 | | | | Ø125 | | | | Ø4-19 | | | | 220 | 14.5 | - | - |
| 80 | 200 | | | | Ø160 | | | | Ø8-19 | | | | 300 | 26 | 220 | 15.5 |
| 100 | 220 | | 235 | | Ø180 | | Ø190 | | Ø8-19 | | 8-Ø23 | | 370 | 34 | 300 | 28 |
| 150 | 285 | | 300 | | Ø240 | | Ø250 | | Ø8-23 | | 8-Ø28 | | 520 | 70 | 370 | 39 |
| 200 | 340 | | 360 | 375 | Ø295 | | Ø310 | Ø320 | 8-Ø23 | 12-Ø23 | 12-Ø28 | 12-Ø31 | 650 | 129 | 520 | 76 |
| 250 | 395 | 405 | 425 | 450 | Ø350 | Ø355 | Ø370 | Ø385 | 12-Ø23 | 12-Ø28 | 12-Ø31 | 12-Ø34 | 800 | 185 | 650 | 139 |
| 300 | 445 | 460 | 485 | 515 | Ø400 | Ø410 | Ø430 | Ø450 | 12-Ø23 | 12-Ø28 | 16-Ø34 | 16-Ø34 | 980 | 286 | 800 | 205 |

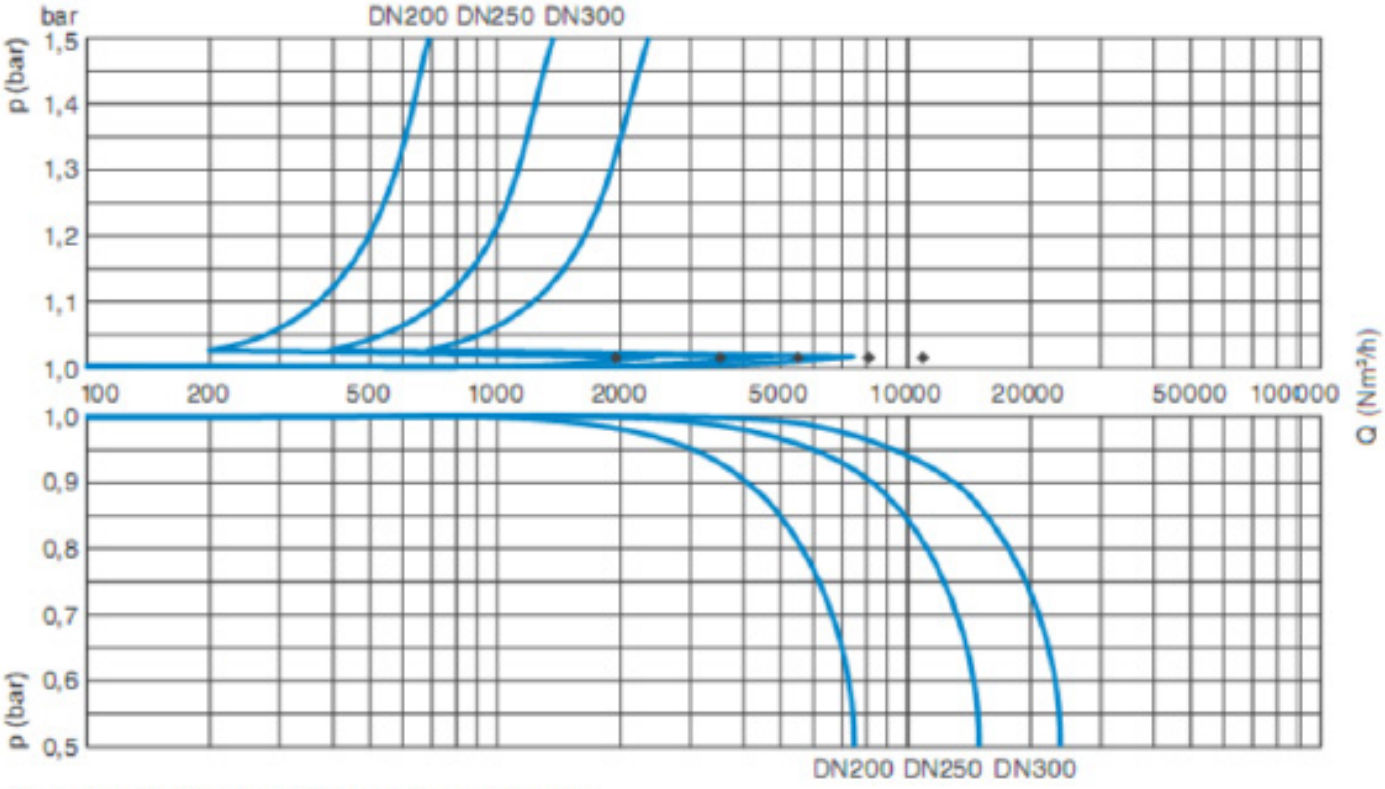
## Air Performance

AIR DISCHARGE DURING PIPE FILLING




AIR ENTRANCE DURING PIPE DRAINING

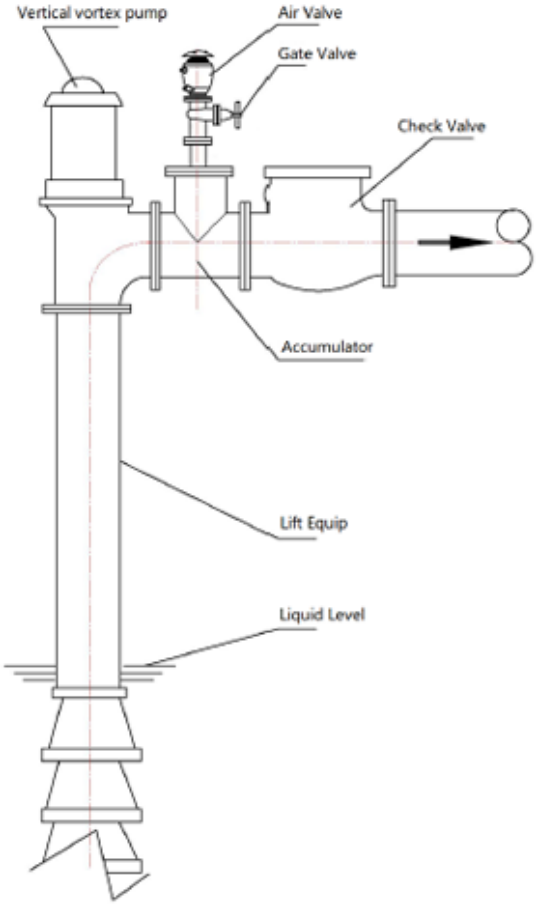
AIR DISCHARGE DURING PIPE FILLING



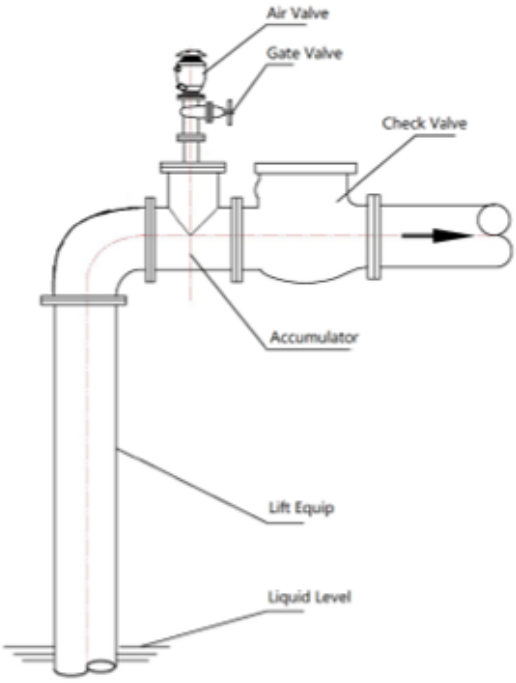

AIR ENTRANCE DURING PIPE DRAINING

## Installation Suggestion

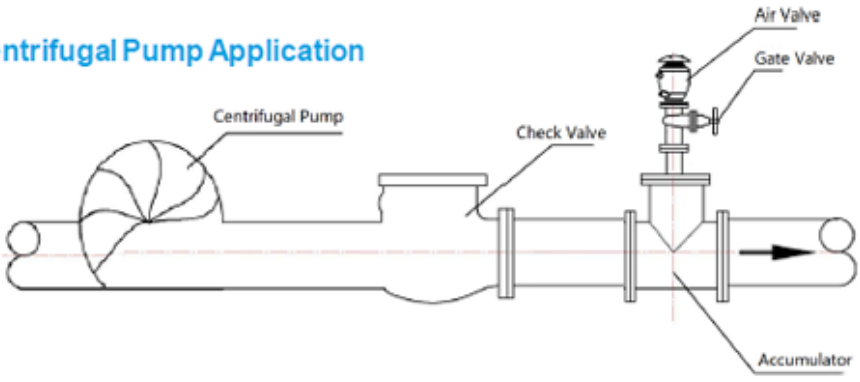
### Vertical Vortex Pump Application




### Well Application




### Centrifugal Pump Application




### Application in a Network