AIR VALVE 4 FUNCTIONS FB OR RB - A400 / AR400

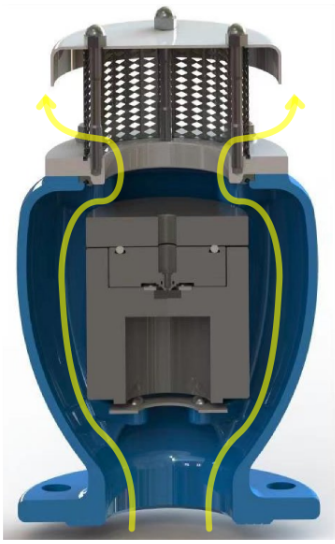
Specifications

DN mm	DN 50 - DN 300
DN inch	2” - 12 “
Temperature	0°C to 70°C
Connection	Flanged
Application	Water transport networks through pipelines. - Water distribution networks. - Irrigation systems. - In general, this model is used on slope changes and at high points of the pipeline.
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 epoxy painting applied through fluidized bed technology blue RAL 5005
Pressure	Minimum 0.2 bar (lower on request) - maximum 40 bar
Option	Customized changes on the flanges and painting on request.

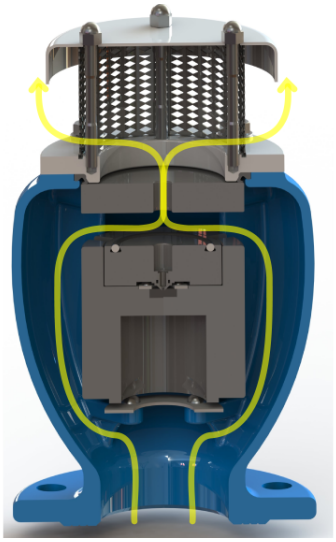
Advantages

Triple-Function Combined Air Valve:
- Anti-Hammer and Overpressure Protection.
- Single Chamber Design: Engineered for optimal performance with an exceptional contour.
- Full-Bore and Reduced-Bore Body: Constructed from ductile iron and 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 umbrellashaped vent screen available.

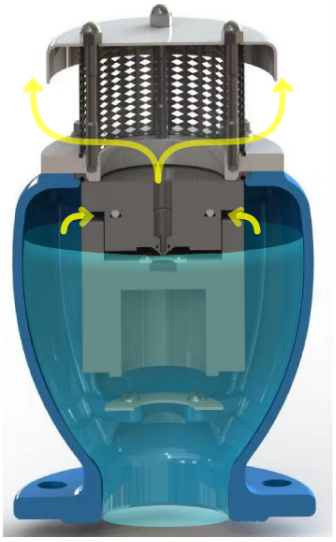
Advantages



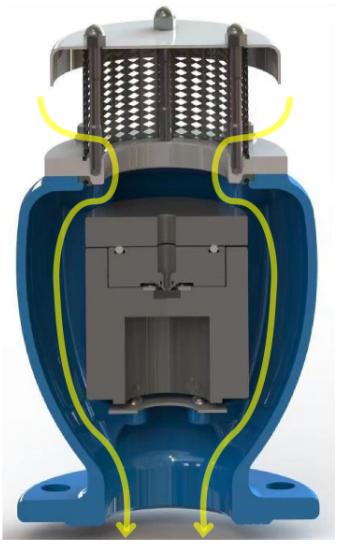
Discharge significant air volumes
When filling the pipe, it's essential to release air while water enters. The A400 equipped with an aerodynamic full-port body and deflector, ensures the prevention of premature closures of the mobile block during this phase.



Regulated Outflow
During pipe filling, if the differential air pressure surpasses a specific threshold without control, there is a potential risk of water hammer and system damage. In such a scenario, the PP top float will automatically rise, diminishing the outflow and consequently slowing down the



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.

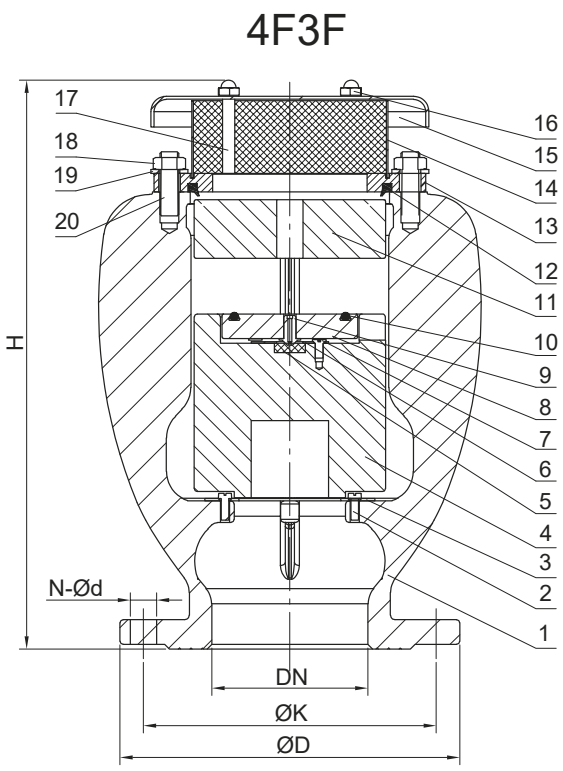


Inflow of Significant Air Volumes
During pipeline drainage or pipe bursts, it is essential to introduce an equivalent amount of air as the outflowing water to prevent negative pressure and potential serious damage to the pipeline and the entire system.

Dimensions

DN	ØD (mm)				ØK (mm)				N-Ød (mm)				Full Bore A400		Reduce Bore AR400	
	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	-	-
80	200				Ø160				Ø8-19				300	25	220	16
100	220		235		Ø180		Ø190		Ø8-19		8-Ø23		370	33	300	27
150	285		300		Ø240		Ø250		Ø8-23		8-Ø28		520	68	370	38
200	340		360	375	Ø295		Ø310	Ø320	8-Ø23	12-Ø23	12-Ø28	12-Ø31	650	125	520	74
250	395	405	425	450	Ø350	Ø355	Ø370	Ø385	12-Ø23	12-Ø28	12-Ø31	12-Ø34	800	180	650	135
300	445	460	485	515	Ø400	Ø410	Ø430	Ø450	12-Ø23	12-Ø28	16-Ø34	16-Ø34	980	280	800	200

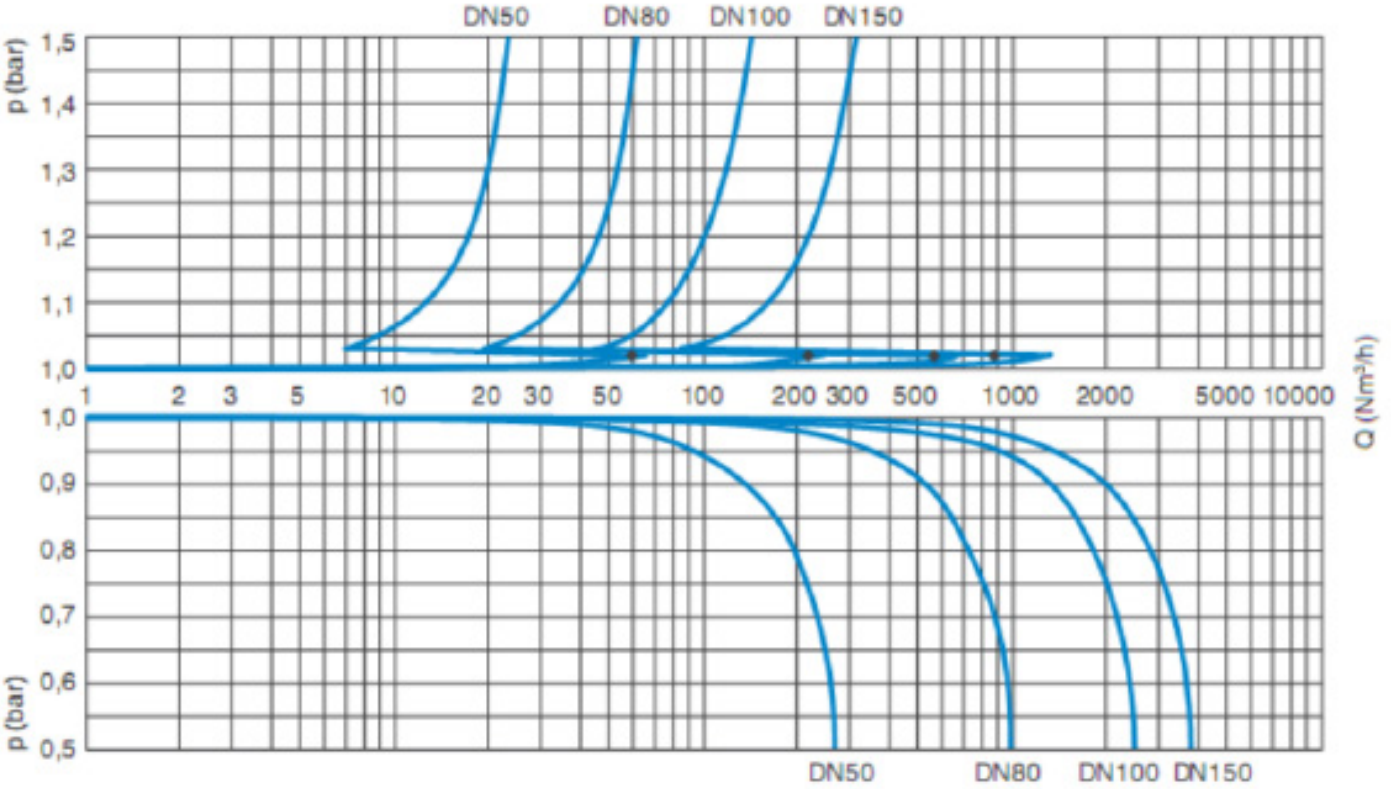
Nomenclature



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

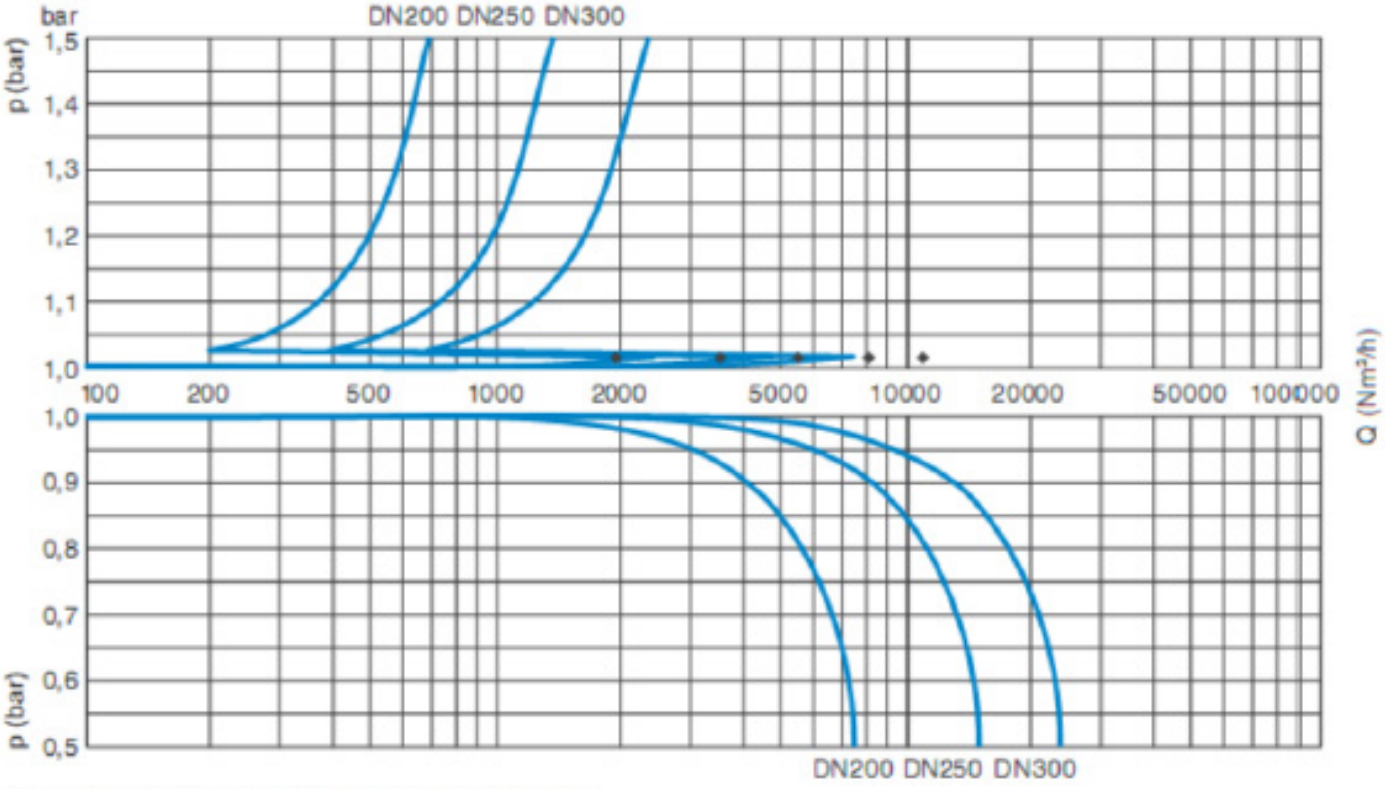
Air Performance

AIR DISCHARGE DURING PIPE FILLING



AIR ENTRANCE DURING PIPE DRAINING

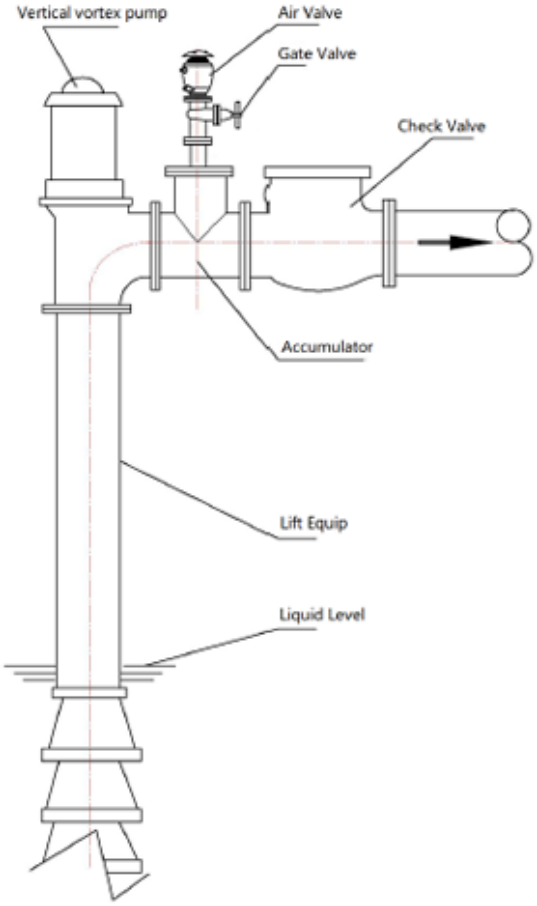
AIR DISCHARGE DURING PIPE FILLING



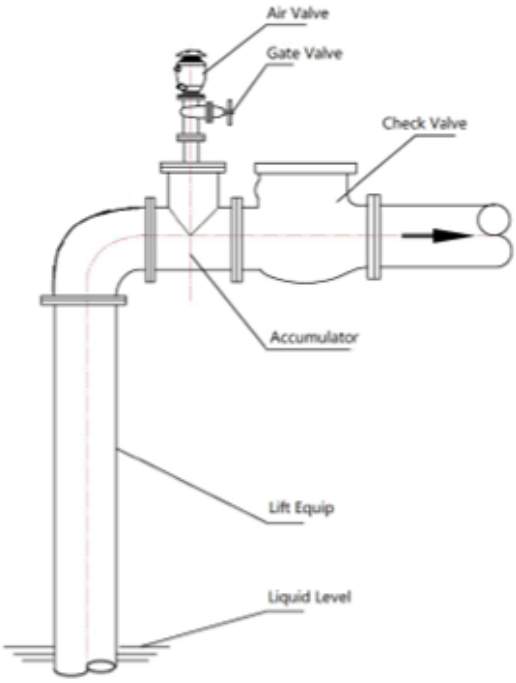
AIR ENTRANCE DURING PIPE DRAINING

Installation Suggestion

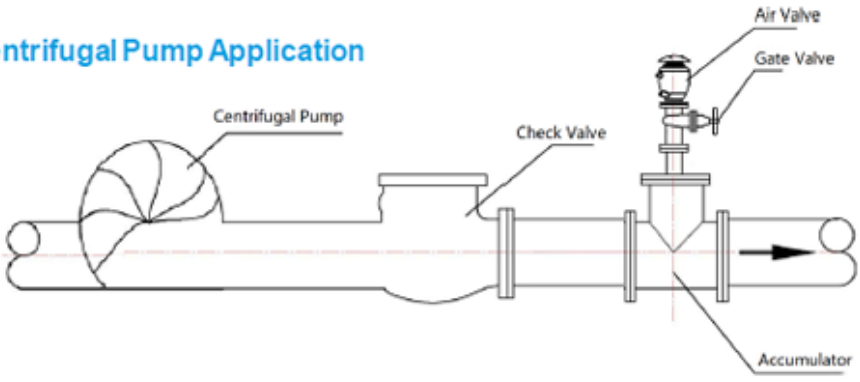
Vertical Vortex Pump Application



Well Application



Centrifugal Pump Application



Application in a Network