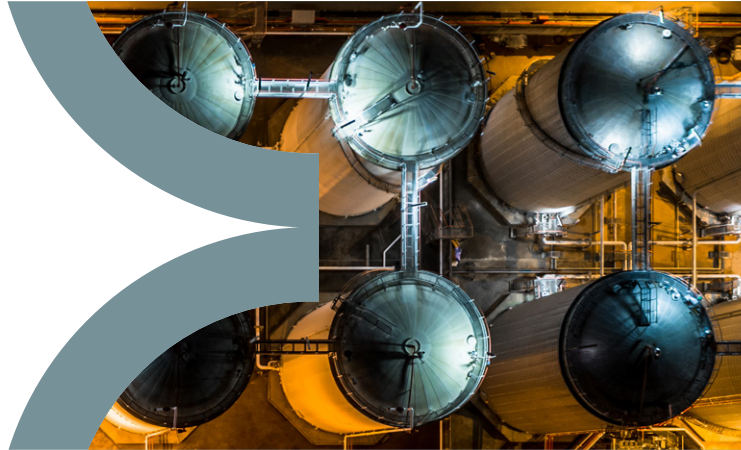


A.R.I. D-025

Aquestia
Directing the Flow



Industry

Combination Air Valve for Non-clean Water - Short Version

Description

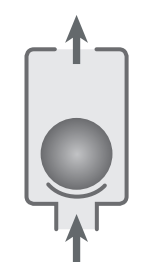
The D-025 Series, is a reduced bore compact Combination Air Valve. Installed on a non-clean water transmission system, the Air Valve is designed to improve hydraulic operation by protecting the pipeline, increasing pipeline efficiency and reducing energy requirements. A continuous air gap in the valve body separates the wastewater from the sealing mechanism.

Applicable for: Desalination & Sea Water, Mines, Marine - Ballast Water, Oil & Gas, Food Industry, Power Plant Cooling, CBM, Hydro / Thermal Power.

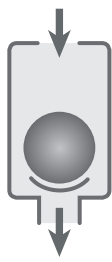
Installation

- Wastewater & water treatment plants
- Wastewater and effluent water transmission lines
- Industrial water transmission lines and applications

Operation



Air Discharge



Air Intake



Automatic
Air Release



One Way Out



One Way In



Non Slam

Features and Benefits

Conical body shape & unique design	maximum air gap / minimum body length
Continuous air gap	separates the liquid from the sealing mechanism
Float assembly and sealing mechanism linkage	free movement, turbulence will not unseat the sealing mechanism
Funnel-shaped lower body	residue matter falls back into the system pipeline
Rolling seal mechanism	leak-free sealing over wide range of pressure differentials
All parts are suitable for corrosive liquid and environment	non-corrosive and durable parts
Screened threaded outlet	compatible for vent pipe connection, prevents insect intrusion
Dynamic design	high capacity air discharge, no premature closure
Tap	releases pressure and drains valve prior to maintenance

Technical Specifications

Size range	2" - 4"
Sealing pressure range	0.05 - 10 bar (PN10) Testing pressure: 1.5 times maximum working pressure
Temperature	Maximum working temperature: 60° C Maximum intermittent temperature: 90° C

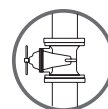
Upon ordering, please specify: model, size, working pressure, thread / flange standard and type of liquid

Valve Selection Options

Valve connection	Threaded male BSPT/NPT Flanged ends to meet various requested standards
Standard materials	Reinforced nylon body, optional: stainless steel
Optional add-on components	One-way Out-only attachment, allows for air discharge only, prevents air intake Vacuum Breaker In-only attachment, allows for air intake only, prevents air discharge Non-slam discharge-throttling attachment, allows for free air intake, throttles air discharge
Additional product configurations	SB Underground Air Valve System ARISENSE Air Valve Monitoring System

The valve installed under the air valve must be fully open to prevent damage or malfunction and ensure performance within the specifications of the air valve.

For complete installation instructions, please refer to the IOM document.



Non-slam Add-on Component Data Table for Variable Orifices

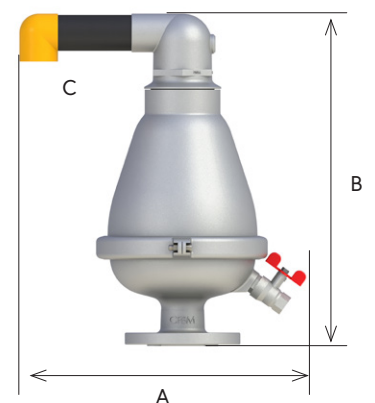
Size	Discharge orifice (mm)	Total NS area (mm ²)	NS orifice (mm)	Switching point (bar)	Flow at 0.4 bar (m ³ /h)
2" (50mm)	37.5	12.6	4	Spring loaded normally closed	23
3" (80mm)					
4" (100mm)					

Dimensions and Weight

Size	Dimensions (mm)		Connections	Weight (kg)		Orifice area (mm ²)	
	A	B		C	RN	ST ST	A / V
2" (50mm) THR	370	455	1½" BSP F	3.8	14.4	804	12
2" (50mm) FL	370	460	1½" BSP F	4.2	16.2	804	12
3" (80mm) THR	370	455	1½" BSP F	3.8	14.7	804	12
3" (80mm) FL	370	460	1½" BSP F	5.4	16.5	804	12
4" (100mm) THR	370	455	1½" BSP F	3.9	16.6	804	12
4" (100mm) FL	370	460	1½" BSP F	6.0	18.4	804	12

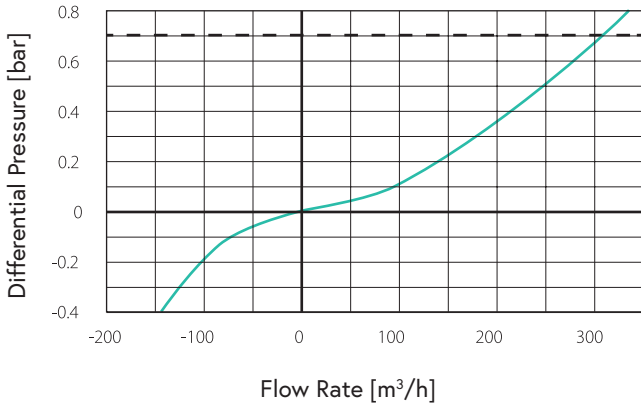
THR - Threaded
FL - Flanged

NOTE
All product weights and dimensions are approximate, due to the differences in flange standard materials and variable accessories.

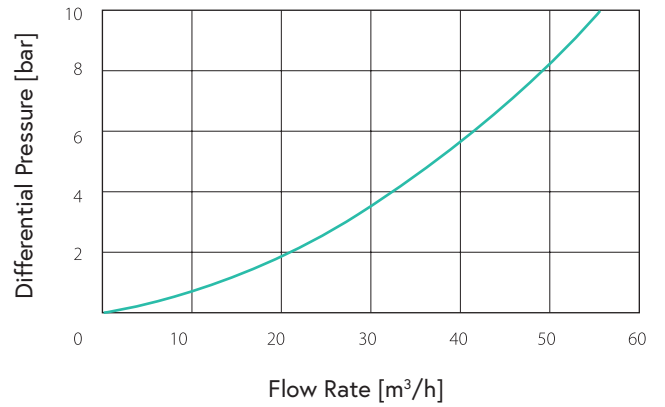


Flow Charts

Air & Vacuum Flow Rate



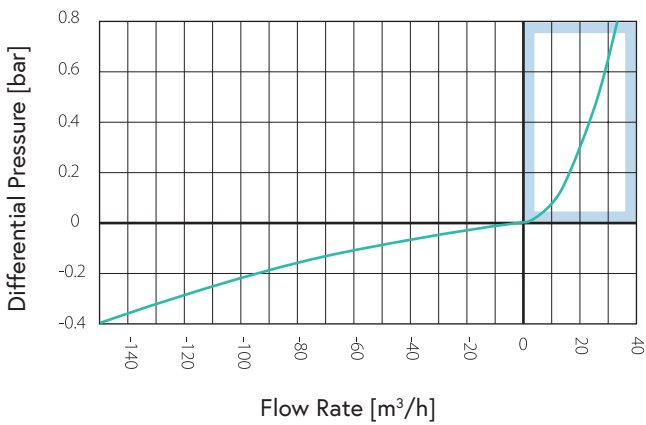
Automatic Air Release Flow Rate



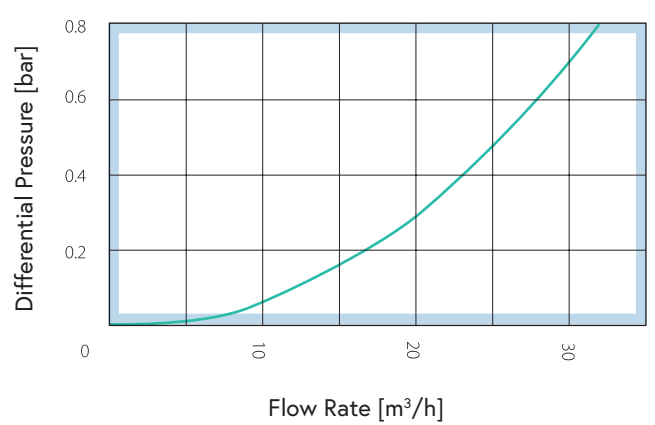
--- Max. recommended design air discharge

D-025 NS

Air & Vacuum Flow Rate



Air Discharge Flow Rate



Parts List and Specifications

No.	Part	Material
1	Air Valve Body Assembly	
1a	Body	Reinforced Nylon
1b	Extension	Polypropylene
1c	Discharge Elbow	Polypropylene
1d	Camlock (Optional)	Polypropylene
1e	Non-slam (Optional)	Polypropylene + Stainless Steel
2	Seal Assembly	
2a	Clamping Stem	Reinforced Nylon / Polypropylene
2b	Float	Foamed Polypropylene
2c	Seal Assembly	
2d	Screws	Stainless Steel, Optional Electroless Nickel Coat
2e	Plug Cover	Reinforced Nylon / Polypropylene
2f	Rolling Seal	EPDM
2g	Plug	Reinforced Nylon / Polypropylene
3	Body Assembly	
3a	O-Ring	NBR / EPDM / VITON
3b	Body	Reinforced Nylon
4	Float Assembly	
4a	Domed Nut	Stainless Steel 316
4b	Stopper	Polypropylene
4c	Spring	Stainless Steel 316 / Hastelloy
4d	Float & Rod	Foamed Polypropylene + Stainless Steel 316 or Titanium
5	Base Assembly	
5a	O-ring	NBR / EPDM / VITON
5b	Clamp Assembly	Reinforced Nylon + Stainless Steel 316
5c	Base	Reinforced Nylon
5d	Tap	Stainless steel 316
5e	Flange (Optional)	Reinforced Nylon



Parts List and Specifications

No.	Parts	Material
1	Air Valve Body Assembly	
1a	Body	Stainless Steel 316
1b	Extension	Polypropylene
1c	Discharge Elbow	Polypropylene
1d	Camlock (Optional)	Polypropylene
1e	Non-Slam (Optional)	Polypropylene + Stainless Steel
2	Seal Assembly	
2a	Clamping Stem	Reinforced Nylon / Polypropylene
2b	Float	Foamed Polypropylene
2c	Seal Assembly	
2d	Screws	Stainless Steel
2e	Plug Cover	Reinforced Nylon / Polypropylene
2f	Rolling Seal	EPDM / VITON
2g	Plug	Reinforced Nylon / Polypropylene
3	Body Assembly	
3a	O-Ring	NBR / EPDM / VITON
3b	Body	Stainless Steel 316
4	Float Assembly	
4a	Domed Nut	Stainless Steel / Super Duplex
4b	Stopper	Polypropylene
4c	Spring	Stainless Steel 316 / Hastelloy
4d	Float & Rod	Foamed Polypropylene + Stainless Steel 316 or Titanium
5	Base Assembly	
5a	O-ring	NBR / EPDM / VITON
5b	Clamp Assembly	Stainless Steel 316
5c	Base (threaded or flange)	Stainless Steel 316
5d	Tap	Stainless steel 316

