A.R.I. D-025 L

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Wastewater

Reduced Bore, Combination Air Valve for Wastewater

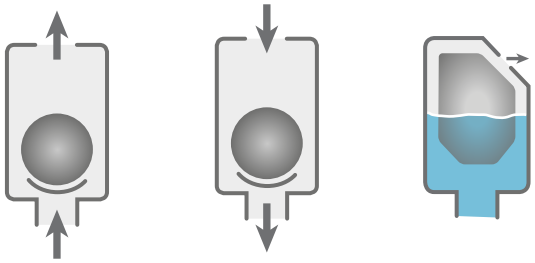
Description

A.R.I. D-025 L is a reduced bore 250psi, Combination Air Valve installed on wastewater transmission systems. The Air Valve is designed to improve hydraulic operation by protecting the pipeline, increasing pipeline efficiency, and reducing energy requirements. The unique body shape of the valve, enables a continuous air gap that separates the wastewater from the sealing mechanism and helps to avoid deposits or blockage.

Installation

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

Operation



Air Discharge | Air Intake | Automatic Air Release

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Features and Benefits

Conical body / funnel-shaped lower body	Maximum air gap, minimum body length
	Residue matter falls back into the system pipeline
Continuous air gap	Separates the liquid from the sealing mechanism
Aerodynamic float assembly	High velocity air will not close the valve under rapid filling operation
	Reduces accumulation of fat or grease buildup
	Free movement will not unseal the sealing mechanism
Sealing assembly	Provides smooth, reliable opening/closing, and leak-free sealing over a wide range of pressures
Cushioned spring connection	Cushioned joint allows continuous air discharge under vibration conditions related to turbulence from pump start and shut-off, or from flow fluctuations.
Ball valve	Releases pressure and drains valve prior to maintenance
Cover assembly	Allows complete drop-in replacement, reducing maintenance downtime
Screened threaded outlet (optional)	Compatible for vent pipe connection, prevents insect intrusion
ATEX certified air valves	ATEX certified air valves are optional by customer request. Certification is conditional upon the customer connecting the designated part on the product to a dedicated ground connection point.

AIS / BABA compliant	Domestic availability based on size & material

Technical Specifications

Size range	2" - 4"
Discharge orifice size	1.25 sq.in
Working pressure range	0.7 - 250 psi 0.3 - 150 psi
Testing pressure	1.5 times maximum working pressure
Temperature	Maximum working temperature: 140° F Maximum intermittent temperature: 194° F

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

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Valve Selection Options

USA models	**A.R.I. D-025 L** - Wastewater combination air valve, from a Reinforced Nylon top, rated for 250 psi.
	A.R.I. D-025 L NS – Non-slam Wastewater combination air valve, from a Reinforced Nylon top, rated for 250 psi.
	A.R.I. D-025 L ST - Wastewater combination air valve, from a Stainless Steel body and reinforced nylon top, rated for 250 psi.
	A.R.I. D-025 L ST NS - Non-slam Wastewater combination air valve, from a Stainless Steel body and Reinforced Nylon cover and top, rated for 250 psi.
	A.R.I. D-025 L STST - Wastewater combination air valve from a Stainless Steel body and top, rated for 250 psi.
	A.R.I. D-025 L STST NS - Non-slam Wastewater combination air valve from a Stainless Steel body, cover and top, rated for 250 psi.
	A.R.I. D-025 L LP - Low pressure Wastewater combination air valve, from a Reinforced Nylon top, rated for 150 psi.
	A.R.I. D-025 L LP STST - Low pressure Wastewater combination air valve from a Stainless Steel body and top, rated for 150 psi.
Valve connection	Threaded BSP/NPT or flanged ends to meet various requested standards
Standard materials	Reinforced Nylon body, optional: Stainless Steel
Optional add-on components	One-way Out - allows for air discharge only, prevents air intake Non-slam - discharge-throttling attachment, allows full air intake, throttles air discharge
Additional product configurations	SB Underground Air Valve System ARISENSE Air Valve Monitoring System

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A.R.I. D-025 L ST

A.R.I. D-025 L STST

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

Size	Discharge orifice (inch)	Total NS area (sq.in)	NS orifice (inch)	Switching point (psi)	Flow at 5.8 psi (CFM)
2" (50mm)	1½" NPT	0.02	0.20	Spring-loaded normally closed	10.3
3" (80mm)					
4" (100mm)					

Dimensions and Weight

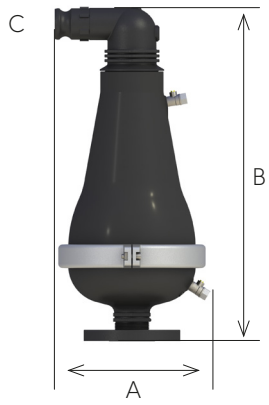
Size	Dimensions (inch)		Connections	Weight (lbs)			Orifice Area (sq.in)	
	max. A	B	C	RN	ST	ST ST	A / V	Auto.
2" (50mm) THR	11	22.3	Camlock 1½" NPT	15.5	29	36	1.25	0.018
2" (50mm) FL	12	22.5	Camlock 1½" NPT	15.9	33	40	1.25	0.018
3" (80mm) THR	11	22.3	Camlock 1½" NPT	15.5	30	37	1.25	0.018
3" (80mm) FL	12	22.5	Camlock 1½" NPT	17.7	36	43	1.25	0.018
4" (100mm) FL	12	22.9	Camlock 1½" NPT	17.7	40	47	1.25	0.018

FL - Flanged THR - Threaded

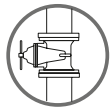
NOTE

The cover assembly with the discharge elbow can be set in four directions.
Dimension A in the picture and in the table shows the maximum product width.
This width can be reduced by changing the direction.

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



The isolation 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.

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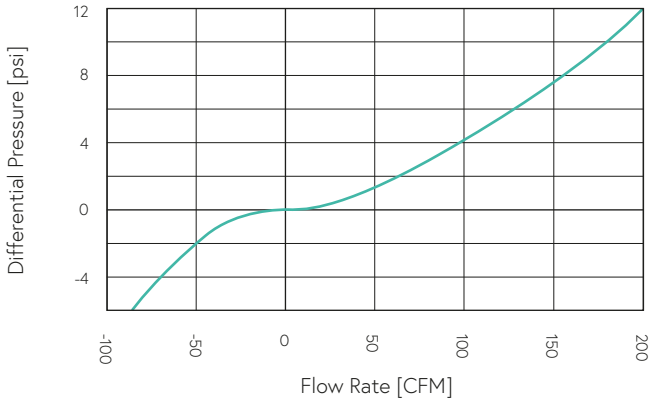
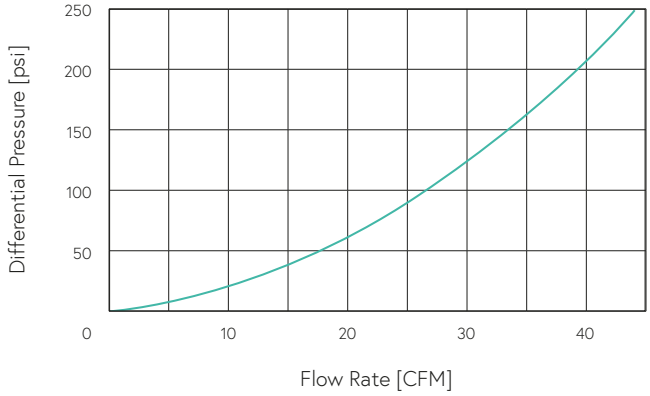
Flow Charts

Air & Vacuum Flow Rate



Automatic Air Release Flow Rate



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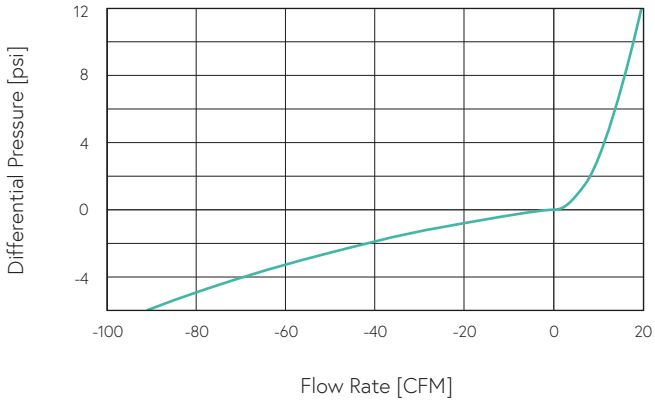
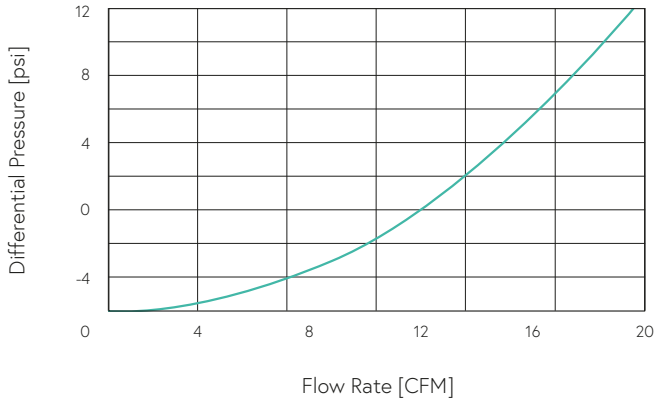
Air & Vacuum Flow Rate



Air Discharge Flow Rate



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Parts List and Specifications | Nylon Models

No.	Part	Material
1	Air Valve Body Assembly	
1a	Body	Reinforced Nylon
1b	Extension	Polypropylene / Cast Stainless Steel
1c	Discharge Elbow	Polypropylene
1d	Non-slam Component (optional)	Reinforced Nylon / Polypropylene + Acetal + Stainless Steel
2	Seal Assembly	
2a	Rolling Seal Assembly	Nylon + EPDM + Stainless Steel
2b	Float Connector	Foamed Polypropylene
2c	Clamping Stem	Reinforced Nylon
3	Body Assembly	
3a	O-ring	NBR
3b	Tap	Stainless Steel 316
3c	Body	Reinforced Nylon / Cast Stainless Steel
4	Float Assembly	
4a	Domed Nut	Stainless Steel 316
4b	Stopper	Polypropylene
4c	Spring	Stainless Steel 316
4d	Float & Rod	Foamed Polypropylene + Stainless Steel 316
5	Base Assembly	
5a	O-ring	NBR
5b	Clamp Assembly	Cast Stainless Steel
5c	Base	Reinforced Nylon / Cast Stainless Steel
5d	Tap	Stainless Steel 316
5e	Flange (optional)	Reinforced Nylon / Cast Stainless Steel

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Parts List and Specifications | Metal Models

No.	Parts	Material
1	Air Valve Body Assembly	
1a	Camlock	Polypropylene
1b	Non-slam (optional)	Polypropylene + Stainless Steel
D-025 L ST Model		
1e	Body	Reinforced Nylon
D-025 L STST Model		
1c	Shell	Stainless Steel 316
1d	O-ring	NBR
1e	Body	Reinforced Nylon
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	1/2" Ball Valve	Stainless Steel 316
3c	Body	Stainless Steel 316
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	Stainless Steel 316
5c	Base	Stainless Steel 316
5d	1/2" Ball Valve	Stainless Steel 316
5e	Flange (optional)	Stainless Steel 316