

A.R.I. S-021



Irrigation

Automatic Air Valve - Raw, Reclaimed & Non-potable Water

Description

A.R.I. S-021 is an ultra-compact, automatic Air Release Valve installed on pressurized raw, reclaimed and non-potable water transmission systems. The valve releases accumulated air - improving pipeline hydraulic efficiency by reducing head losses and improving flow. The unique body shape of the valve, enables a continuous air gap that separates the liquid from the sealing mechanism and helps to avoid deposits or blockage.

Installation

Water with low concentrations of suspended solids:

- Reclaimed & raw water pumps
- Transmission pipelines with low concentrations of suspended solids in liquid
- On liquid transmission pipelines
- Upstream of filtration systems

Operation



Automatic
Air Release

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 unseal the sealing mechanism
Funnel-shaped lower body	Residue matter falls back into the system pipeline
Rolling seal mechanism	Leak-free sealing over a wide range of pressure differentials
Construction materials	UV resistant, non-corrosive and durable
Tap	Releases pressure and drains valve prior to maintenance

Technical Specifications

Size range	1" - 2"
Working pressure range	Sealing pressure range: 0.1 - 10 bar (PN10) Testing pressure: 1.5 times maximum working pressure
Temperature	Maximum working temperature: 60° C Maximum intermittent temperature: 90° C

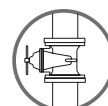
Upon ordering, please specify: model, size, working pressure, thread / flange standard and type of liquid

Valve Selection Options

Valve connection	Threaded male BSPT/NPT or Flanged ends to meet various requested standard
Optional add-on components	One-way Out attachment, allows for air discharge only, prevents air intake

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.

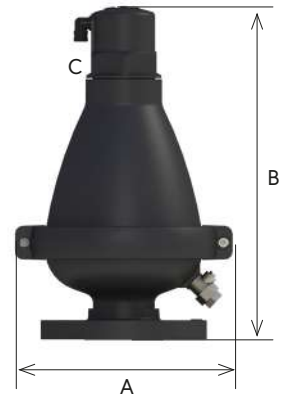


Dimensions and Weight

Size	Dimensions (mm)		Connections	Weight (kg)	Orifice Area (mm ²)
	A	B	C		
1" (25mm) THR	216	323	3/8" BSP F	1.7	7.8
1" (25mm) FL	216	331	3/8" BSP F	1.9	7.8
2" (50mm) THR	216	324	3/8" BSP F	1.8	7.8
2" (50mm) FL	216	328	3/8" BSP F	2.1	7.8

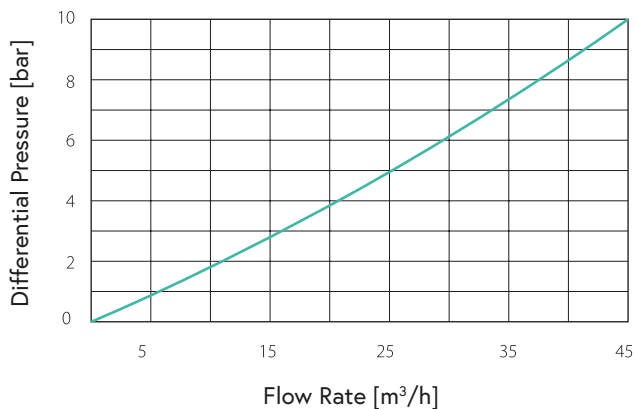
NOTE

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



Flow Charts

Automatic Air Release Flow Rate



Parts List and Specifications

No.	Part	Material
1	Air Valve Body Assembly	
1a	Body	Reinforced Nylon
1b	Discharge Elbow	Polypropylene
2	Seal Assembly	
2a	Rolling Seal	EPDM
2b	Float Connector	Foamed Polypropylene
2c	Clamping Stem	Reinforced Nylon
3	Body Assembly	
3a	O-ring	NBR
3b	Body	Reinforced Nylon
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	Reinforced Nylon + Stainless Steel 316
5c	Base	Reinforced Nylon
5d	Tap	Brass, Nickel Plated / Stainless Steel 316

