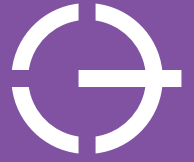


A.R.I. S-020



Wastewater

Automatic Air Release Valve for Wastewater

Description

The S-020, 022 are automatic air release valves installed on pressurized wastewater transmission systems to release accumulated air - improving pipeline hydraulic efficiency by reducing head losses and improving flow. A continuous air gap in the valve body separates the wastewater from the sealing mechanism.

Installation

- Pump stations for sewage, wastewater & water treatment plants
- Wastewater and effluent water transmission lines

Operation



Automatic
Air Release



One Way out

Features and Benefits

Conical body shape & unique design	maximum air gap / minimum body length
Continuous air gap	separates the liquid from the sealing mechanism
Spring-guided linkage between float assembly and sealing mechanism	free movement of the float, turbulence will not unseal the sealing mechanism
Funnel-shaped lower body	residue matter falls back into the system pipeline
Rolling Seal	leak-free sealing over wide range of pressure differentials
One-size orifice	covers a wide pressure range (up to 25 bar)
All internal parts - stainless steel 316, polymer, rubber materials	non-corrosive and durable
Ball valve	releases pressure and drains valve prior to maintenance

Technical Specifications

Size Range	2" - 4"
Sealing pressure range	S-020 0.2 - 16 bar (PN 16) S-022 0.2 - 25 bar (PN 25) Testing pressure: 1.5 times maximum working pressure
Temperature	Maximum working temperature: 60° C Maximum intermittent temperature: 90° C
Valve coating	Fusion bonded epoxy coating in compliance with standard DIN 30677-2

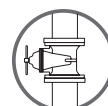
Upon ordering, please specify: model, size, working pressure, thread / flange standard and type of liquid

Valve Selection Options

- 2" valve connections: threaded BSP /NPT or flanged
- Flanged ends to meet any requested standard
- Welded / casted bodies: steel or stainless steel
- Valve coating: Fusion bonded epoxy coating in compliance with standard DIN 30677-2
Other coatings are available upon request
- Optional Add-on Component:
One-way, Out-only attachment, allows for air discharge only, prevents air intake

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.

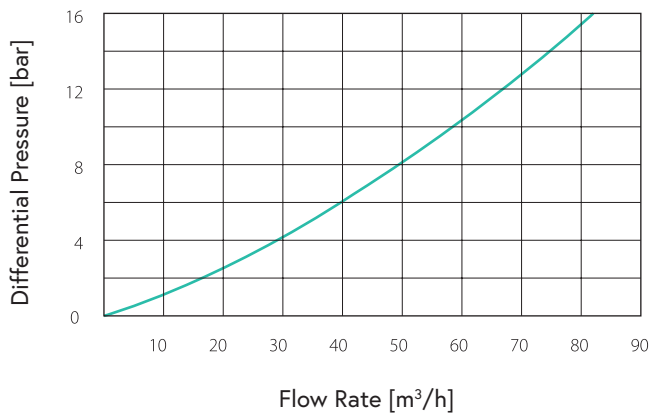
For complete installation instructions, please refer to the IOM document.



Flow Charts

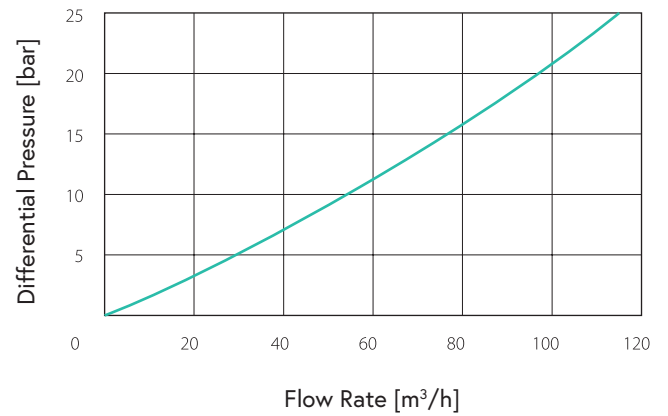
S-020 PN 16

Automatic Air Release Flow Rate



S-022 PN 25

Automatic Air Release Flow Rate



Dimensions and Weight

Size	Dimensions (mm)		Connections	Weight (kg)	Orifice Area (mm ²)
	A	B			
2" (50 mm) THR	463	575	1/8" BSP F	16	12
2" (50 mm) FL	463	575	1/8" BSP F	17	12
3" (80 mm) THR	463	575	1/8" BSP F	17	12
3" (80 mm) FL	463	575	1/8" BSP F	18	12
4" (100 mm) FL	463	575	1/8" BSP F	19	12

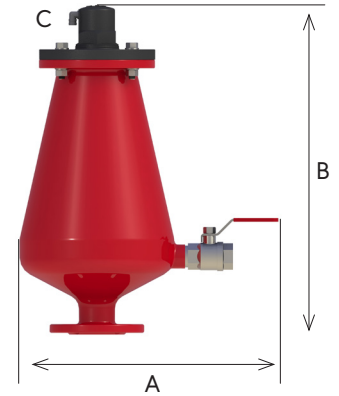
THR - Threaded
FL - Flanged

NOTE

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

Parts List and Specification

Part	Material
1. Air Release Valve Body Assembly	
1a. Body	Reinforced Nylon
1b. Air Release Elbow	Polypropylene
2. Cover Assembly	
2a. O-Ring	BUNA-N
2b. Cover	Reinforced Nylon
3. Seal Assembly	
3a. Rolling Seal	EPDM
3b. Float Connector	Foamed Polypropylene
3c. Clamping Stem	Reinforced Nylon
4. Float Assembly	
4a. Domed Nut	Stainless Steel 316
4b. Stopper	Polypropylene
4c. Spring	Stainless Steel 316
4d. Float & Rod	Polypropylene / Stainless Steel 316 & Stainless Steel 316
5. Body Assembly	
5a. O-Ring	BUNA-N
5b. Body	Cast Steel / Cast Stainless Steel
5c. Ball Valve	Brass, Chrome Coated / Stainless Steel 316



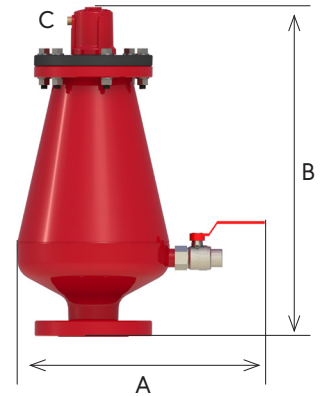
Dimensions and Weight

Size	Dimensions (mm)		Connections	Weight (kg)	Orifice Area (mm ²)
	A	B	C		
2" (50 mm) THR	463	593	1/8" BSP F	17	9
2" (50 mm) FL	463	593	1/8" BSP F	18	9
3" (80 mm) THR	463	593	1/8" BSP F	18	9
3" (80 mm) FL	463	593	1/8" BSP F	19	9
4" (100 mm) THR	463	593	1/8" BSP F	20	9

THR - Threaded
FL - Flanged

NOTE

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



Parts List and Specification

Part	Material
1. Air Release Valve Body Assembly	
1a. Air Release Outlet	Brass
1b. Casing	Ductile Iron
1c. Body	Reinforced Nylon
2. Cover Assembly	
2a. O-Ring	BUNA-N
2b. Cover	Cast Steel / Stainless Steel 316
3. Seal Assembly	
3a. Rolling Seal	EPDM
3b. Float Connector	Foamed Polypropylene
3c. Clamping Stem	Reinforced Nylon
4. Float Assembly	
4a. Domed Nut	Stainless Steel 316
4b. Stopper	Polypropylene
4c. Spring	Stainless Steel 316
4d. Float & Rod	Polypropylene / Stainless Steel 316 & Stainless Steel 316
5. Body Assembly	
5a. O-Ring	BUNA-N
5b. Body	Cast Steel / Cast Stainless Steel
5c. Ball Valve	Brass, Chrome Coated / Stainless Steel 316

