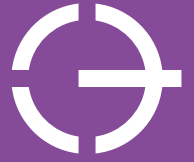


# A.R.I. S-020



Wastewater

## Automatic Air Release Valve Series for Wastewater

### Description

A.R.I. S-020 is an Automatic Air Release Valve Series installed on pressurized wastewater transmission systems. The valve releases accumulated air from a pressurized system, to optimize 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 wastewater from the sealing mechanism and helps to avoid deposits or blockage.

### Installation


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

### 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
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 a wide range of pressure differentials
Construction materials	Non-corrosive and durable
Ball valve	Releases pressure and drains valve prior to maintenance
 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.

## Valve Selection Options

Valve connection	Valve connections: flanged or threaded BSP/NPT Flanged ends to meet various requested standards
Standard materials	Welded/Cast Steel body, optional: Stainless Steel
Optional add-on components	One-way Out - allows for air discharge only, prevents air intake

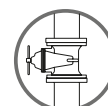
## Technical Specifications

Size range	2" - 4"
Working pressure range	A.R.I. S-020      0.2 - 16 bar      (PN 16) A.R.I. 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

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.

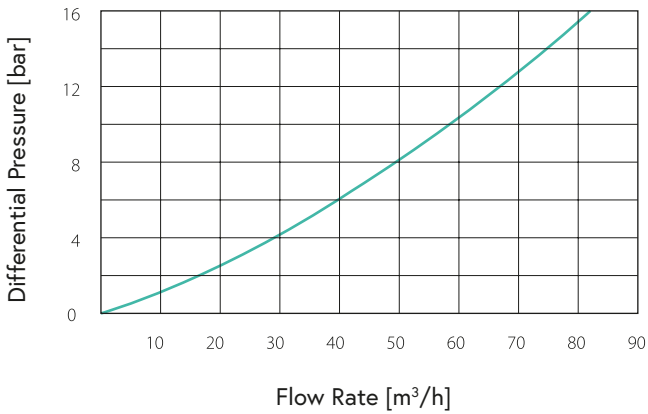
For complete installation instructions, please refer to the IOM document.



## Flow Charts

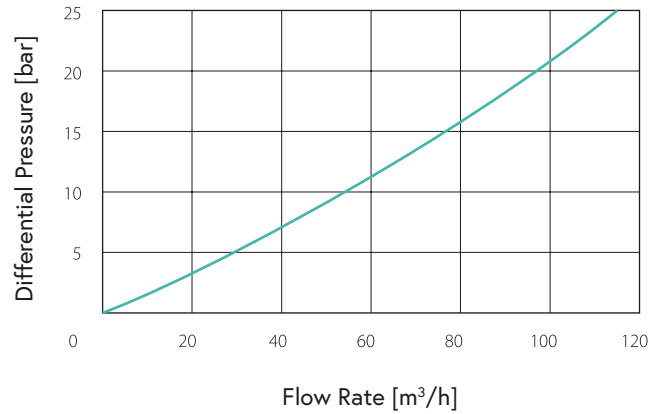
### A.R.I. S-020 PN 16

Automatic Air Release Flow Rate



### A.R.I. S-022 PN 25

Automatic Air Release Flow Rate



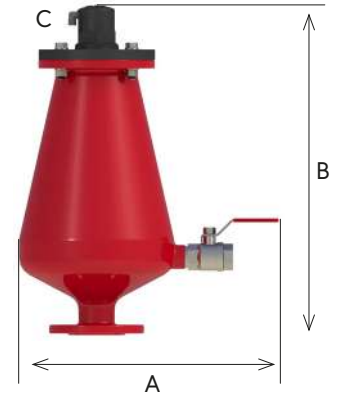
## Dimensions and Weight

Size	Dimensions (mm)		Connections	Weight (kg)	Orifice area (mm <sup>2</sup> )
	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 Specifications

No.	Part	Material
1	Air Release Valve Body Assembly	
1a	Body	Reinforced Nylon
1b	Air Release Elbow	Polypropylene
2	Cover Assembly	
2a	O-ring	NBR
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	NBR
5b	Body	Cast Steel / Cast Stainless Steel
5c	Ball Valve	Brass, Chrome-coated / Stainless Steel 316



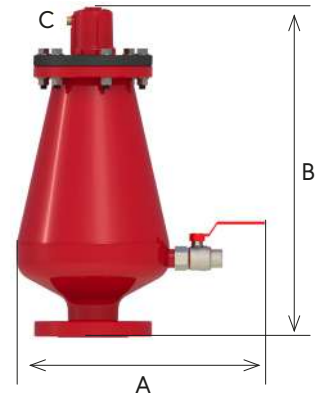
## Dimensions and Weight

Size	Dimensions (mm)		Connections	Weight (kg)	Orifice area (mm <sup>2</sup> )
	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 Specifications

No.	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	NBR
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	NBR
5b	Body	Cast Steel / Cast Stainless Steel
5c	Ball Valve	Brass, Chrome-coated / Stainless Steel 316

