

A.R.I. S-020 HC

 **Aquestia**
Directing the Flow



Wastewater

High-capacity, Automatic Air Release Valve Series for Wastewater

Description

A.R.I. S-020 HC is a high-capacity, 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
Float assembly and sealing mechanism linkage	Free movement, turbulence will not unseal the sealing mechanism
Large orifice area	High-capacity air release
Funnel-shaped lower body	Residue matter falls back into the system pipeline
Rolling seal	Leak-free sealing over a wide range of pressure differentials
One-size orifice	Covers a wide pressure range (up to 40 bar)
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.

Technical Specifications

Size Range	2" - 4"									
Working pressure range	<table border="0"> <tr> <td>A.R.I. S-020 HC</td> <td>0.05 - 16 bar</td> <td>(PN 16)</td> </tr> <tr> <td>A.R.I. S-022 HC</td> <td>0.05 - 25 bar</td> <td>(PN 25)</td> </tr> <tr> <td>A.R.I. S-024 HC</td> <td>0.05 - 40 bar</td> <td>(PN 40)</td> </tr> </table> Testing pressure: 1.5 times maximum working pressure	A.R.I. S-020 HC	0.05 - 16 bar	(PN 16)	A.R.I. S-022 HC	0.05 - 25 bar	(PN 25)	A.R.I. S-024 HC	0.05 - 40 bar	(PN 40)
A.R.I. S-020 HC	0.05 - 16 bar	(PN 16)								
A.R.I. S-022 HC	0.05 - 25 bar	(PN 25)								
A.R.I. S-024 HC	0.05 - 40 bar	(PN 40)								
Temperature	Maximum working temperature: 60° C Maximum intermittent temperature: 90° C									
Valve coating	Fusion bonded epoxy coating in compliance with standard DIN 30677-2									

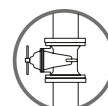
Upon ordering, please specify: model, size, working pressure, thread / flange standard and type of liquid

Valve Selection Options

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

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.

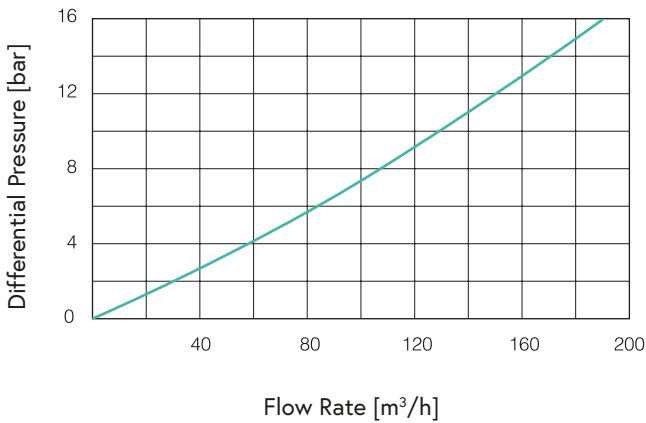
For complete installation instructions, please refer to the IOM document.



Flow Charts

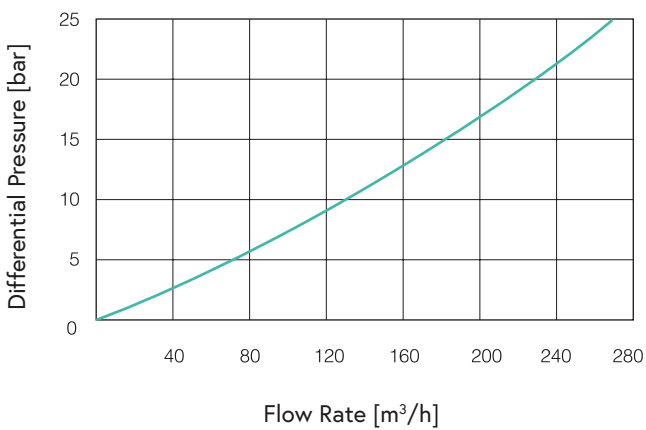
A.R.I. S-020 HC PN 16

Automatic Air Release Flow Rate



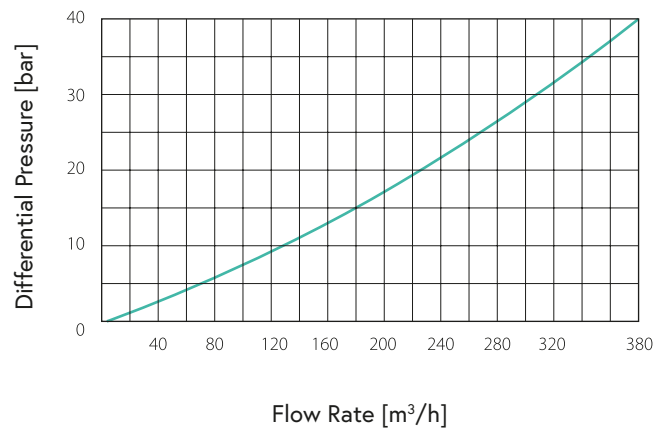
A.R.I. S-022 HC PN 25

Automatic Air Release Flow Rate



A.R.I. S-024 HC PN 40

Automatic Air Release Flow Rate



Dimensions and Weight

Size	Dimensions (mm)		Connections	Weight (kg)	Orifice area (mm ²)
	A	B			
2" (50 mm) THR	271	603	1"	16	40
2" (50 mm) FL	271	603	1"	16.5	40
3" (80 mm) THR	271	603	1"	16.7	40
3" (80 mm) FL	271	603	1"	16.7	40
4" (100 mm) FL	271	603	1"	17.2	40



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	Cover Assembly	
1a	Discharge Elbow	Polypropylene
1b	Cover	Reinforced Nylon / Steel Din St.37
2	Seal Assembly	
2a	Air Release Orifice	Reinforced Nylon
2b	Lever	Reinforced Nylon
2c	Rolling Seal	EPDM
3	Float Assembly	
3a	Nut & Washer	Stainless Steel 316
3b	Spring	Stainless Steel 316
3c	Float & Rod	Polypropylene / Stainless Steel 316 & Stainless Steel 316
4	Body Assembly	
4a	O-ring	NBR
4b	Body	Cast Steel
4c	Ball Valve	Brass, Chrome-coated / Stainless Steel 316

