

A.R.I. S-050



Waterworks

Automatic Air Release Valve Series

Description

A.R.I. S-050 is an Automatic Air Release Valve Series that releases accumulated air from a pressurized system, to optimize pipeline hydraulic efficiency by reducing head losses and improving flow.

Installation

- On pumps
- On liquid transmission pipelines
- After filters & pressure reducers

Operation






Automatic Air Release



One-way Out

Features and Benefits

Rolling seal	Leak-free sealing over a wide range of pressure differentials
Nylon strainer	Prevents plugging from debris
Construction materials	UV resistant, non-corrosive and durable
Lightweight, small dimensions	Easily installed, even on polymeric piping systems, simple to maintain
Unique body and float design	Seals at very low pressure (A.R.I. S050 L LP)
Continual air gap	Separates the liquid from the sealing mechanism (A.R.I. S050 L LP)
 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.
 NSF/ANSI/CAN 61 Certified & Listed	For drinking water system component
 NSF/ANSI 372 Certified & Listed	Conforms with lead content requirements for "lead-free" plumbing

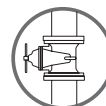
Technical Specifications

Size range	½" ¾" 1"
Working pressure range	A.R.I. S-050 P LLP 0.3 - 150 psi
	A.R.I. S-050 P L S-050 SS L 0.7 - 250 psi
	A.R.I. S-050 P S-050 C S-050 SS 3 - 250 psi
	A.R.I. S-052 3 - 250 psi
	A.R.I. S-052 SS L 1.5 - 360 psi
Temperature	Maximum working temperature: 140° F Maximum intermittent temperature: 194° F
Testing pressure	1.5 times maximum working pressure
Valve coating	Fusion bonded epoxy coating in compliance with standard DIN 30677-2 (Model A.R.I. S-050 C, A.R.I. S-052)

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.



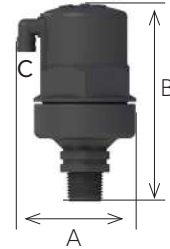
Valve Selection Options

USA Models	A.R.I. S-050 P - Automatic air release valve from Reinforced Nylon, rated to 250 psi.						
	A.R.I. S-050 C - Automatic air release valve with Ductile Iron shell, rated to 250 psi						
	A.R.I. S-050 P L - Long automatic air release valve from Reinforced Nylon, rated to 250 psi						
	A.R.I. S-050 P LLP - Low pressure long automatic air release valve from Reinforced Nylon, rated to 150 psi						
	A.R.I. S-050 SS - Automatic air release valve from Stainless Steel, rated to 250 psi						
	A.R.I. S-050 SS L - Long automatic air release valve from Stainless Steel, rated to 250 psi						
	A.R.I. S-050 SS LLP - Low pressure long automatic air release valve from Stainless Steel, rated to 150 psi						
	A.R.I. S-052 - Automatic air release valve with Ductile Iron shell, rated to 360 psi						
	A.R.I. S-052 SS - Automatic air release valve from Stainless Steel, rated to 360 psi						
	A.R.I. S-052 SS L - Long automatic air release valve from Stainless Steel, rated to 360 psi						
Valve connection	Threaded male BSPT/NPT						
Optional add-on components	One-way Out - allows for air discharge only, prevents air intake						
Pressure rating	<table border="0"> <tr> <td>150 psi</td> <td>A.R.I S-050 P LLP S-050 SS LLP</td> </tr> <tr> <td>250 psi</td> <td>A.R.I S-050 P S-050 C S-050 SS S-050 P L S-050 SS L</td> </tr> <tr> <td>360 psi</td> <td>A.R.I S-052 S-052 SS L</td> </tr> </table>	150 psi	A.R.I S-050 P LLP S-050 SS LLP	250 psi	A.R.I S-050 P S-050 C S-050 SS S-050 P L S-050 SS L	360 psi	A.R.I S-052 S-052 SS L
150 psi	A.R.I S-050 P LLP S-050 SS LLP						
250 psi	A.R.I S-050 P S-050 C S-050 SS S-050 P L S-050 SS L						
360 psi	A.R.I S-052 S-052 SS L						



Dimensions and Weight

Model	Dimensions (Inch)		Connections	Weight (Lbs.)	Orifice Area (Sq.in)
	max. A	B			
A.R.I. S-050	3.9	5.5	1/8" NPT Female	0.66	0.018
A.R.I. S-050 L	3.46	8.77	1/8" NPT Female	0.75	0.018
A.R.I. S-050 C	3.3	5.8	1/8" NPT Female	3.63	0.018
A.R.I. S-052	3.3	5.8	1/8" NPT Female	3.63	0.014
A.R.I. S-050 SS	3.35	5.8	1/8" NPT Female	2.2	0.018
A.R.I. S-050 L SS	3.35	8.5	1/8" NPT Female	3.6	0.018
A.R.I. S-052 SS	3.35	5.8	1/8" NPT Female	2.2	0.014
A.R.I. S-052 L SS	3.35	8.5	1/8" NPT Female	3.6	0.014



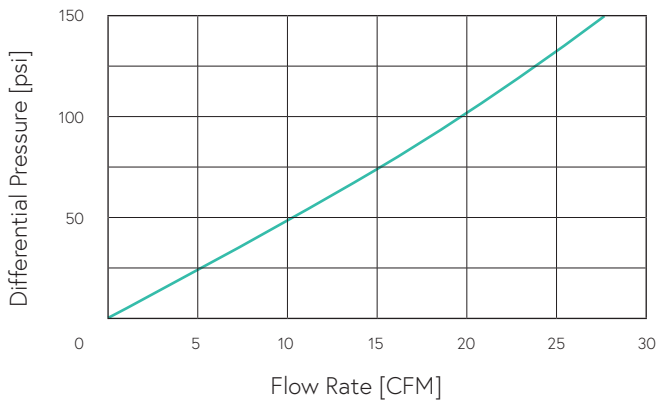
NOTE

Dimension A in the picture and in the table shows the maximum product width.

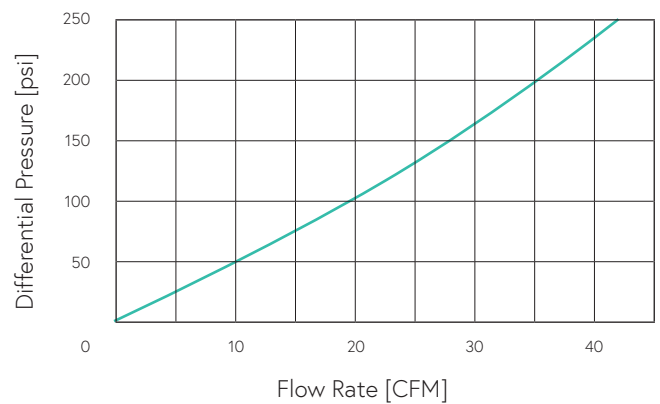
All product weights are approximate, due to the differences in flange standards, materials and variable accessories.

Flow Charts

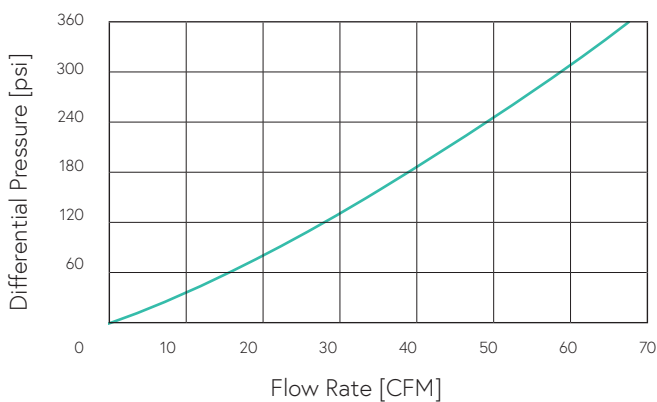
150 psi Automatic Air Release Flow Rate



250 psi Automatic Air Release Flow Rate



360 psi Automatic Air Release Flow Rate



Parts List and Specifications

No.	Part	Material
1	Cover Assembly	
1a	Discharge Outlet	Polypropylene
1b	Body	Reinforced Nylon / Polypropylene
2	Air Release Assembly	
2a	Clamping Stem	Reinforced Nylon / Polypropylene
2b	Float	Foamed Polypropylene
2c	Rolling Seal	EPDM / VITON
3	Base Assembly	
3a	O-ring	NBR / VITON
3b	Base	Reinforced Nylon / Polypropylene / Stainless Steel
3c	Strainer	Reinforced Nylon

NOTE
Polypropylene for PN10 models only



Parts List and Specifications

No.	Part	Material
1	Cover Assembly	
1a	Discharge Outlet	Polypropylene
1b	Body	Reinforced Nylon / Polypropylene
2	Air Release Assembly	
2a	Clamping Stem	Reinforced Nylon / Polypropylene
2b	Float	Foamed Polypropylene
2c	Rolling Seal	EPDM / VITON
3	Extension Assembly	
3a	Extension	Reinforced Nylon / Polypropylene
3b	O-ring	NBR / VITON
4	Base Assembly	
4a	O-ring	NBR / VITON
4b	Base	Reinforced Nylon / Polypropylene
4c	Strainer	Reinforced Nylon

NOTE
Polypropylene for PN10 models only



Parts List and Specifications | A.R.I. S-050 C, A.R.I. S-052

No.	Part	Material
1	Cover Assembly	
1a	Discharge Outlet	Brass
1b	O-ring	NBR / VITON
1c	Shell	Ductile Iron
2	Body	Reinforced Nylon
3	Air Release Assembly	
3a	Clamping Stem	Reinforced Nylon / Polypropylene
3b	Float	Foamed Polypropylene
3c	Rolling Seal	EPDM / VITON
3d	O-ring	NBR / VITON
4	Base	Stainless Steel



Parts List and Specifications | A.R.I. S-050 SS, A.R.I. S-052 SS

No.	Part	Material
1	Cover Assembly	
1a	Discharge Outlet	Polypropylene
1b	O-ring	NBR / VITON
1c	Cover	Stainless Steel 316, Super Duplex Grade 5A
2	Air Release / Air & Vacuum Assembly	
2a	Clamping Stem	Reinforced Nylon / Polypropylene
2b	Rolling Seal	EPDM / VITON
2c	Float	Foamed Polypropylene
2d	O-ring	NBR / VITON
3	Body Assembly	
4a	O-ring	NBR / VITON
4b	Body	Stainless Steel 316, Super Duplex Grade 5A



Parts List and Specifications | A.R.I. S-050 L SS, A.R.I. S-052 L SS

No.	Part	Material
1	Cover Assembly	
1a	Discharge Outlet	Polypropylene
1b	O-ring	NBR / VITON
1c	Cover	Stainless Steel 316, Super Duplex Grade 5A
2	Air Release / Air & Vacuum Assembly	
2a	Clamping Stem	Reinforced Nylon / Polypropylene
2b	Rolling Seal	EPDM / VITON
2c	Float	Foamed Polypropylene
2d	O-ring	NBR / VITON
3	Optional Extension Assembly	
3a	Extension	Stainless Steel 316 / Super Duplex Grade 5A
3b	O-ring	NBR / VITON
3c	Long Float	Foamed Polypropylene
4	Body Assembly	
4a	O-ring	NBR / VITON
4b	Body	Stainless Steel 316, Super Duplex Grade 5A

