A.R.I. S-015, S-016, S-100

Aquestia
Directing the Flow

Industry

High Pressure, Automatic Air Release Valve

Description

A.R.I. S-015, S-016, S-100 are high pressure Automatic Air Release Valves. Installed on pressurized liquid transmission systems, the Air Valves are designed to release accumulated air, optimizing pipeline hydraulic efficiency by reducing head losses and improving flow.

Applicable for: Desalination & Seawater, Mines, Marine - Ballast Water, Oil & Gas, Food Industry, Power Plant Cooling, CBM, Hydro / Thermal Power.

Installation

- On high-pressure pumps
- On high-pressure transmission pipelines

Operation

Automatic Air Release

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Features and Benefits

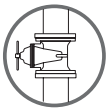
Air release valve orifice	Covers a wide pressure range (up to 100 bar)
Aerodynamic design	High-capacity air discharge, while system is under pressure
	Saves energy and increases system efficiency
Air release valve rolling seal	Leak-free sealing over a wide range of pressure differentials
	Lessens obstruction by debris due to its unique design
Simple product design	Easy to install and maintain
	No need to disconnect the valve from the main line for maintenance
Construction materials	Non-corrosive and durable
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	½" ¾" 1"
Working pressure range	A.R.I. S-015 0.2-40 bar (PN40) A.R.I. S-016 0.2-64 bar (PN64) A.R.I. S-100 0.2-100 bar (PN100)
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 (applied on Cast Steel and Ductile Iron valves)
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.



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Valve Selection Options

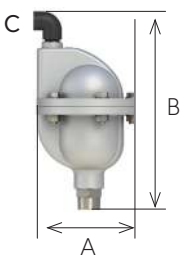
Models	A.R.I. S-015 A.R.I. S-016 A.R.I. S-100
Valve connection	Threaded male BSPT/NPT
Standard materials	Cast Ductile Iron (S-015 Only), Cast Steel, Cast Stainless Steel, Super Duplex
Optional add-on components	One-way Out attachment, allows for air discharge only, prevents air intake
Pressure rating	PN40 A.R.I. S-015 PN64 A.R.I. S-016 PN100 A.R.I. S-100

A.R.I. S-015

A.R.I. S-016
A.R.I. S-100

Dimensions and Weight

Model	Dimensions (mm)		Connections	Weight (kg)	Orifice Area (mm^2)
	max. A	B	C		
A.R.I. S-015	158	292	1/2" BSP Female	5.4	15
A.R.I. S-016	197	290	1/2" BSP Female	11	15
A.R.I. S-100	197	290	1/2" BSP Female	12	6



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.

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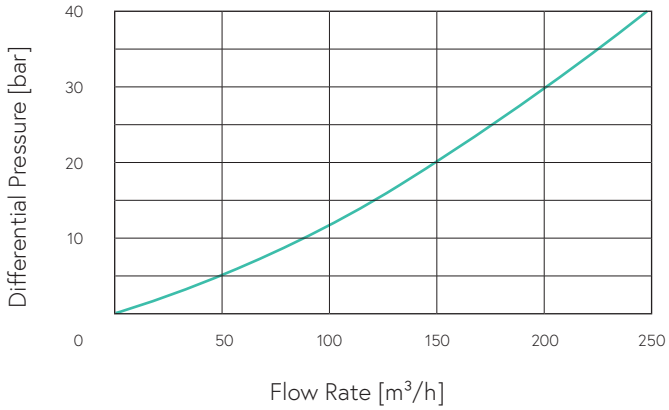
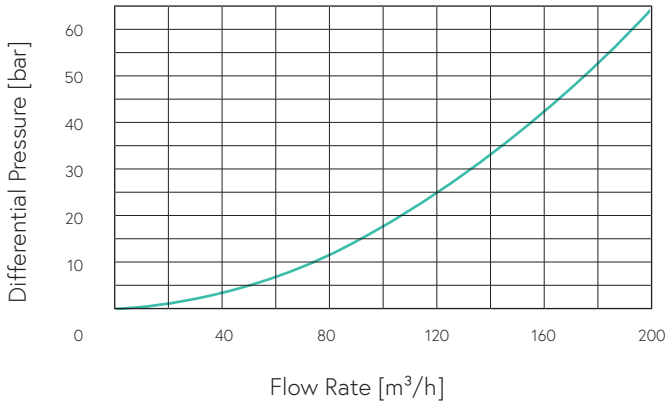
Flow Charts

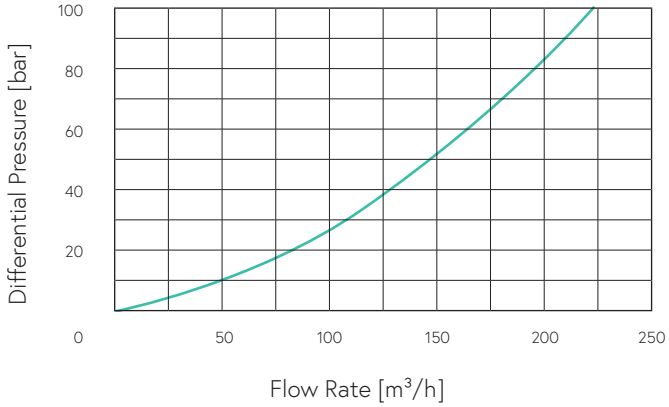
A.R.I. S-015 Automatic Air Release Flow Rate



A.R.I. S-016 Automatic Air Release Flow Rate



A.R.I. S-100 Automatic Air Release Flow Rate



A.R.I. S-015

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Parts List and Specifications

No.	Part	Material
1	Cover Assembly	
1a	Discharge Outlet	PVC
1b	Circlip	Stainless Steel 304
1c	Cover	Cast Steel / Stainless Steel 316 / Super Duplex
2	Float & Orifice Assy.	
2a	O-ring	NBR / EPDM / Viton
2b	Orifice Seat	Reinforced Nylon
2c	Rolling Seal	EPDM / Viton
2d	Lever	Reinforced Nylon
2e	Roll Pin	Stainless Steel 316
2f	Float	Polypropylene / Stainless Steel 316 / Super Duplex
3	Body Assembly	
3a	O-ring	NBR / EPDM / Viton
3b	Bolts, Nuts & Washers	Steel / Stainless Steel 316
3c	Body	Cast Steel / Stainless Steel 316 / Super Duplex
3d	Adaptor	Stainless Steel 316 / Super Duplex

A.R.I. S-016, S-100

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Parts List and Specifications

No.	Part	Material
1	Cover Assembly	
1a	Orifice Cover	Polypropylene
1b	Nut	Brass
1c	Cover	Cast Steel / Stainless Steel 316 / Super Duplex
2	Float & Orifice Assy.	
2a	Stopper Pin	Stainless Steel 316
2b	O-ring	NBR / EPDM / Viton
2c	Orifice Seat	Reinforced Nylon / PVDF
2d	Rolling Seal	EPDM / Viton
2e	Lever	Reinforced Nylon / PVDF
2f	Roll Pin	Stainless Steel 316
2g	Float	Polycarbonate / Stainless Steel 316 / Super Duplex
3	Body Assembly	
3a	O-ring	NBR / EPDM / Viton
3b	Bolts, Nuts & Washers	Steel / Stainless Steel 316
3c	Body	Cast Steel / Stainless Steel 316 / Super Duplex
3d	Adaptor	Stainless Steel 316 / Super Duplex