

A.R.I. K-016/K-100

Aquestia
Directing the Flow



Industry

High Pressure, Air & Vacuum Valve

Description

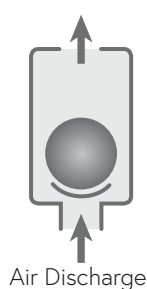
A.R.I. K-016, K100 are high pressure Air & Vacuum Air Valves. Valve operation includes venting air from a filling pipeline and also vacuum breaking (air intake) of a draining pipeline, to optimize pipeline hydraulic efficiency and flow.

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


Installation

- Municipal and industrial water conveyance systems
- Water conveyance systems requiring high pressure valves

Operation



Features and Benefits

Simple product design	No need to disconnect the valve from the main line for maintenance
	Reduces downtime
Aerodynamic design	High capacity air discharge, no premature closure
	Reduces water hammer impact
	Saves energy and increases system efficiency
Unique orifice seat / seal design	Long-term maintenance-free operation
Screen protected outlet (6"-8")	Prevents intrusion of insects and debris
High strength construction materials	Non-corrosive and durable up to 100 bar
	Performs in extreme working conditions
 ATEX certified air valves	Certification is conditional on the customer connecting the designated part on the product to a dedicated ground connection point

Technical Specifications

Size range	1" - 8"
Sealing pressure range	K-016: 0.2 - 64 bar (PN 64) K-100: 0.2 - 100 bar (PN 100) 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, Flange standard and type of liquid

Valve Selection Options

Models	A.R.I. K-016 A.R.I. K-100
Valve connection	Threaded male BSPT/NPT (1"-2") Flanged ends to meet various requested standard (2"-10")
Standard materials	Cast Steel
Optional add-on components	One-way Out attachment, allows for air discharge only, prevents air intake Non-slam discharge-throttling attachment, allows for free air intake, throttles air discharge
Pressure rating	PN64 A.R.I. K-016 PN100 A.R.I. K-100

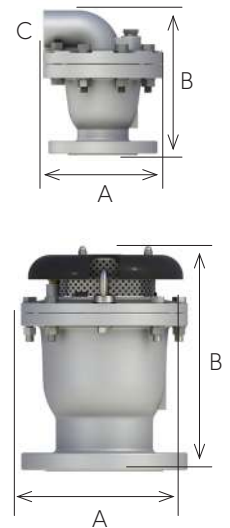
Dimensions and Weight

Model	Dimensions (mm)		Connections	Weight (kg)	Orifice Area (mm ²)
	A	B			
Elbow cover models					
1" (25 mm) FL	165	260	1.5" BSP/NPSM Female	6.8	794
2" (50 mm) FL	210	276	1.5" BSP/NPSM Female	24	794
3" (80 mm) FL	235	289	2" BSP/NPSM Female	31	1809
4" (100 mm) FL	270	358	3" BSP/NPSM Female	50	3318
Screen cover models					
6" (150 mm) FL	556	536	-	115.8	17662
8" (200 mm) FL	556	536	-	120	17662

FL - Flanged

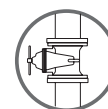
NOTE

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



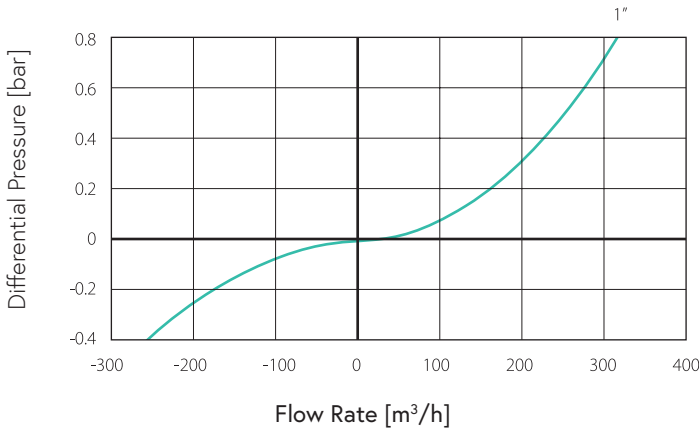
The isolation valve installed under the air valve must be fully open to prevent damage or malfunction and ensure performance within the specifications of the air valve.

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

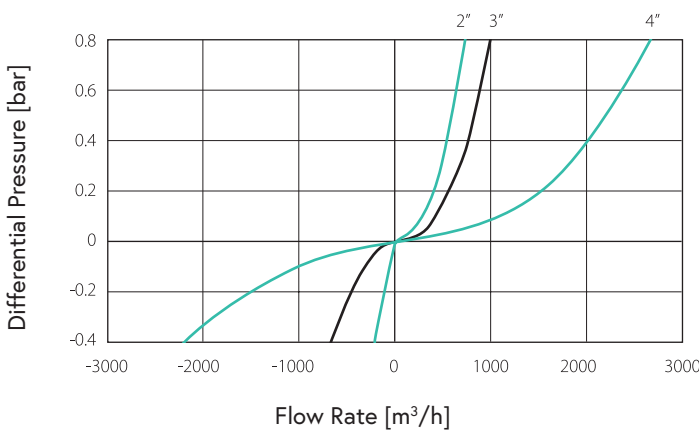


Flow Charts

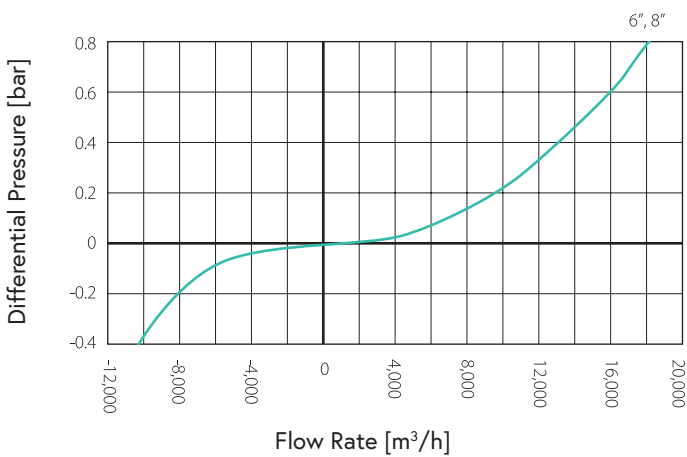
Air & Vacuum Flow Rate



Air & Vacuum Flow Rate

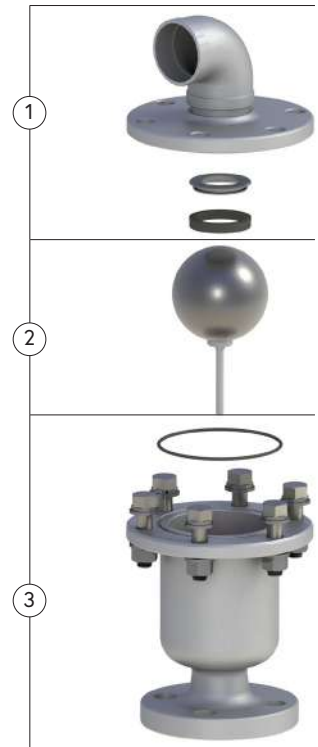


Air & Vacuum Flow Rate



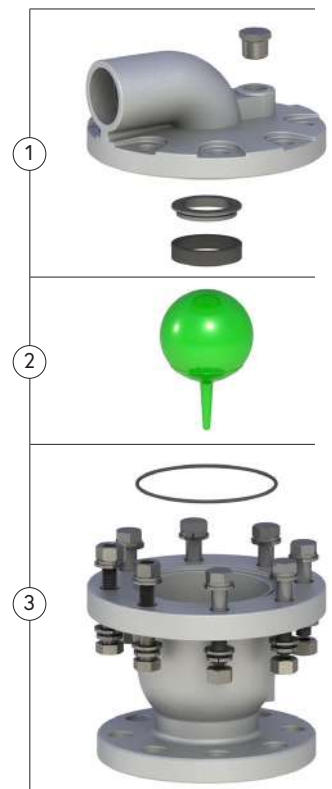
Parts List and Specifications | 1" Elbow Cover Models

No.	Part	Material
1	Cover Assembly	
1a	Cover	Cast Steel, Stainless Steel 316, Super Duplex
1b	Orifice Seat	Stainless Steel 316, Super Duplex
1c	Orifice Seal	EPDM / Viton
2	Float Assembly	Polycarbonate / Stainless Steel 316/ 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



Parts List and Specifications | 2"-4" Elbow Cover Models

No.	Part	Material
1	Cover Assembly	
1a	Plug	Stainless Steel 316, Super Duplex
1b	Discharge Elbow	Cast Steel, Stainless Steel 316, Super Duplex
1c	Orifice Seat	Stainless Steel 316, Super Duplex
1d	Orifice Seal	EPDM / Viton
2	Float Assembly	Polycarbonate / Stainless Steel 316/ 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



Parts List and Specifications | 6"-8" Screen Cover Models

No.	Part	Material
1	Cover Assembly	
1a	Screen Cover	Polyethylene
1b	Screen	Stainless Steel 316
1c	Bolts Nuts & Washers	Stainless Steel 316
1d	Plug	Stainless Steel 316, Super Duplex
1e	Cover	Cast Steel, Stainless Steel 316, Super Duplex
1f	Orifice Seat	Stainless Steel 316, Super Duplex
1g	Orifice Seal	EPDM / Viton
2	Float Assembly	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

