A.R.I. K-050

Aquestia
Directing the Flow

Waterworks

Reduced Bore, Air & Vacuum Air Valve

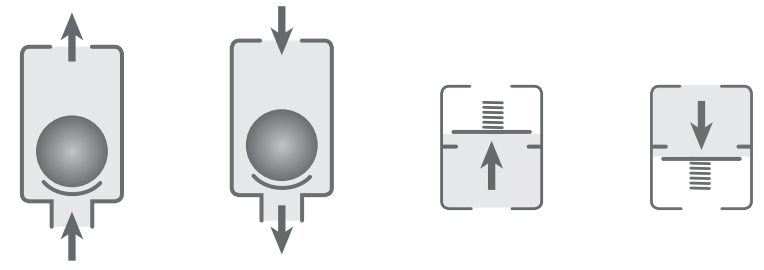
Description

A.R.I K-050 Series is a reduced bore Air & Vacuum Air Valve. Valve operation includes venting air from a filling pipeline and also vacuum breaking (air intake) of a draining pipeline, to optimizie pipeline hydraulic efficiency and flow.

Installation

- Pump stations: downstream of the pump and the check valve
- Downstream and upstream of shut-off valves
- Downstream of deep-well pumps
- On long constant-sloped pipeline segments
- At peaks along the pipeline and at peaks relative to hydraulic gradient
- At end lines
- Before water meters
- On strainers and filters
- Municipal and industrial water conveyance systems

Operation



Air Discharge | Air Intake | One Way Out | One Way In

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Features and Benefits

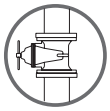
Flow cross-sections equal or greater than nominal port area	maximum flow
Reliable operation	reduces water hammer impact
Saves energy and increases system efficiency	high capacity air discharge
Dynamic design	high capacity air discharge, no premature closure
Installation and maintenance	easy to install and simple to maintain
Unique orifice seat / seal design	long-term maintenance-free operation
Screen protected outlet	prevents intrusion of insects and debris
All internal operating parts – stainless steel 316, polymers and rubber materials	non-corrosive and durable

Technical Specifications

Size range	2"–12"
Sealing pressure range	A.R.I. K-050 0.2 - 16 bar (PN16) A.R.I. K-052 0.2 - 25 bar (PN25) A.R.I. K-055 0.2 - 40 bar (PN40)
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 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

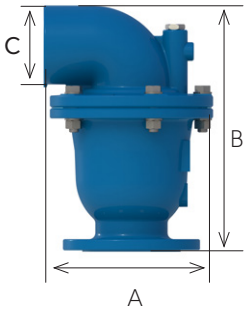
Models	A.R.I K-050 | A.R.I K-052 | A.R.I K-055
Valve connection	Threaded male BSPT/NPT (2") Flanged ends to meet various requested standard (2"-12")
Standard materials	Cast ductile iron body
Optional add-on components	One-way Out attachment, allows for air discharge only, prevents air intake One-way In attachment, allows air intake only, prevents air discharge
Pressure rating	PN16 A.R.I. K-050 PN25 A.R.I. K-052 PN40 A.R.I. K-055
Additional product configurations	SB Underground Air Valve System

Horizontal Outlet

Screen Cover

Dimensions and Weight

Model	Size	Dimensions (mm)		Connections	Weight (kg)	Orifice Area (mm^2)
		max. A	B	C		A / V
Horizontal Outlet	2" (50mm) TRH	150	216	1.5" BSP Female	4.5	794
	2" (50mm) FL	165	221	1.5" BSP Female	6.8	794
	3" (80mm) FL	200	253	2" BSP Female	13	1960
	4" (100mm) FL	230	318	3" BSP Female	20	5030
	6" (150mm) FL	305	395	4" BSP Female	38	7850
	8" (200mm) FL	384	587	6" Grooved	70	17662
Screen Cover	3" (80mm) FL	190	217	-	13	1960
	4" (100mm) FL	230	283	-	19	5030
	6" (150mm) FL	305	338	-	34	7850
	8" (200mm) FL	375	508	-	73	17662
	10" (250mm) FL	463	605	-	130	31400
	12" (300mm) FL	586	750	-	243	49087



NOTE
Dimension A in the picture and in the table shows the maximum product width. This width can be reduced by changing the cover direction.
All product weights are approximate, due to the differences in flange standards, materials and variable accessories.

FL - Flanged THR - Threaded

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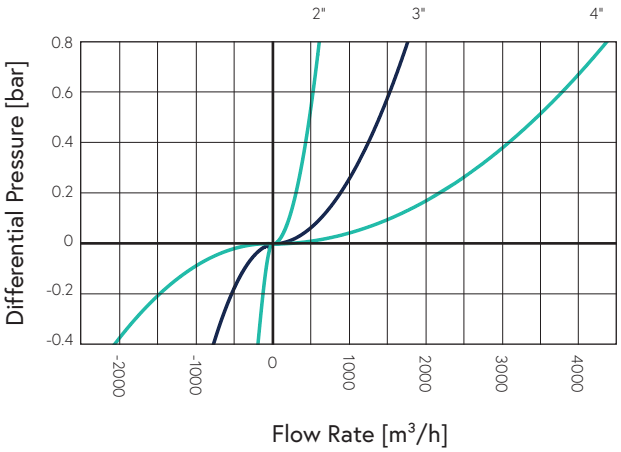
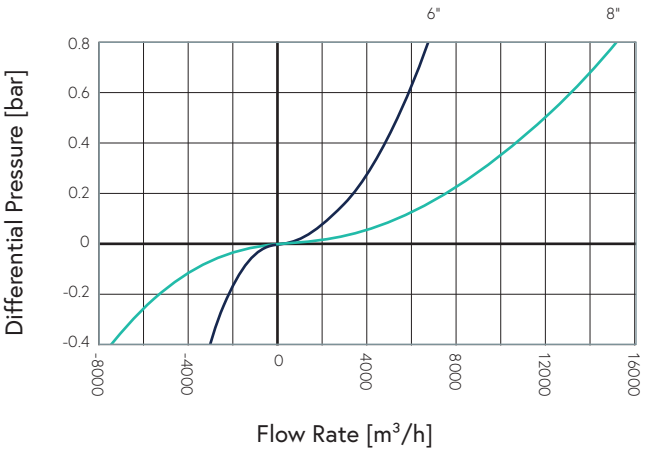
Flow Charts

Horizontal Outlet Models

Air & Vacuum Flow Rate

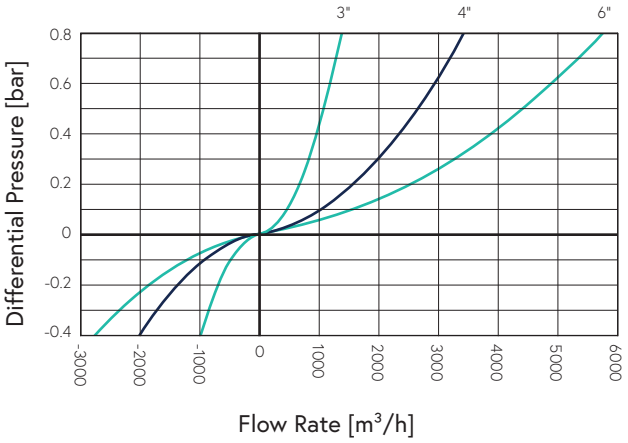


Air & Vacuum Flow Rate

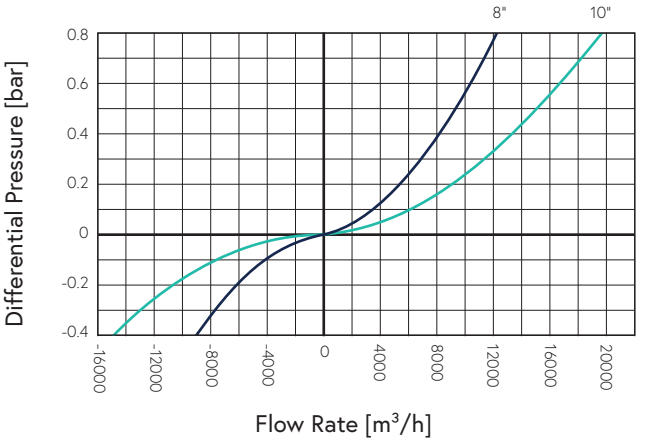


Screen Cover Models

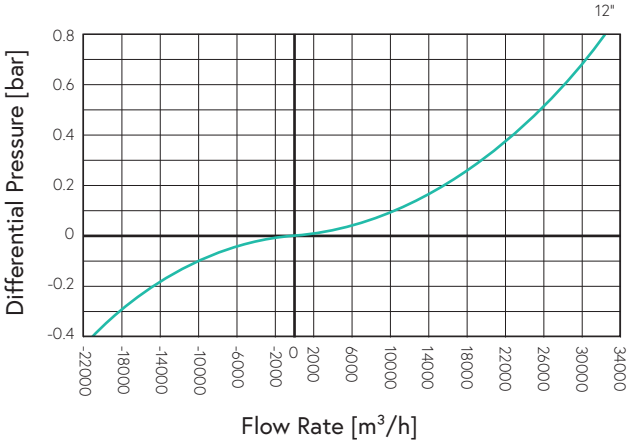
Air & Vacuum Flow Rate



Air & Vacuum Flow Rate



Air & Vacuum Flow Rate



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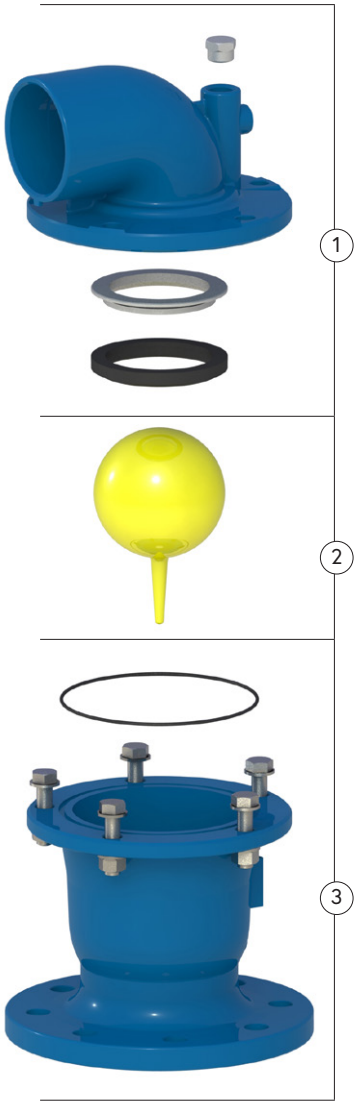
2"- 8" Horizontal Outlet Models

Parts List and Specifications

No.	Part	Material
1	Cover Assembly	
1a	Plug	Stainless Steel 316
1b	Cover	Ductile Iron
1c	Orifice Seat	Stainless Steel 316
1d	Orifice Seal	EPDM
2	Float	Polycarbonate/Stainless Steel 316
3	Body Assembly	
3a	O-ring	EPDM
3b	Bolts, Nuts & Washers	Steel/Stainless Steel 316
3c	Body	Ductile Iron



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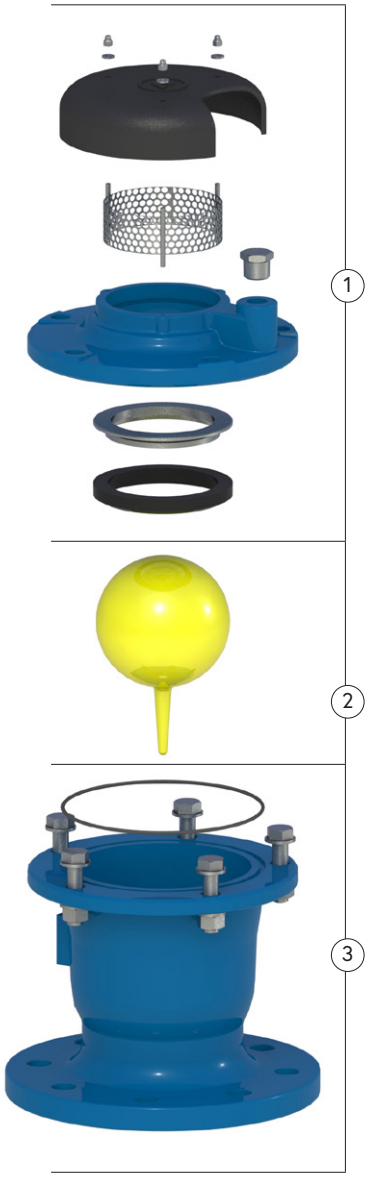
3"-12" Screen Cover Models

Parts List and Specifications

No.	Part	Material
1	Cover Assembly	
1a	Screen Cover	Polypropylene/Ductile Iron
1b	Screen	Stainless Steel 316
1c	Bolts, Nuts & Washers	Stainless Steel 316
1d	Plug	Stainless Steel 316
1e	Cover	Ductile Iron
1f	Orifice Seat	Stainless Steel 316
1g	Orifice Seal	EPDM
2	Float	Polycarbonate/Stainless Steel 316
3	Body Assembly	
3a	O-ring	EPDM
3b	Bolts, Nuts & Washers	Steel/Stainless Steel 316
3c	Body	Ductile Iron



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