

A.R.I. K-050



Waterworks

Reduced Bore, Air & Vacuum Air Valve Series

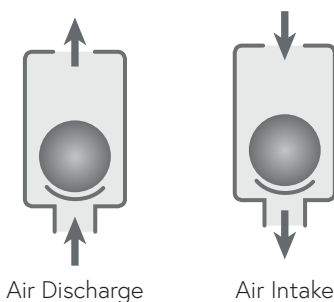
Description

A.R.I. K-050 is a reduced bore Air & Vacuum Air Valve Series. 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.




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



Features and Benefits

Simple product design	Easy to install and maintain, 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	Prevents intrusion of insects and debris
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
 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

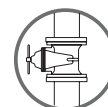
Technical Specifications

Size range	2"-12"
Working 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 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

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



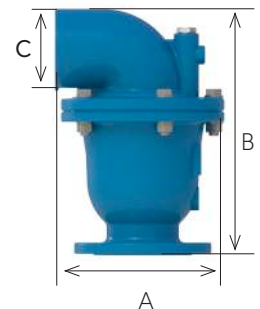
Horizontal Outlet



Screen Cover

Dimensions and Weight

Model	Size	Dimensions (mm)		Connections	Weight (kg)	Orifice Area (mm ²)
		max. A	B			
Horizontal Outlet	2" (50mm) THR	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

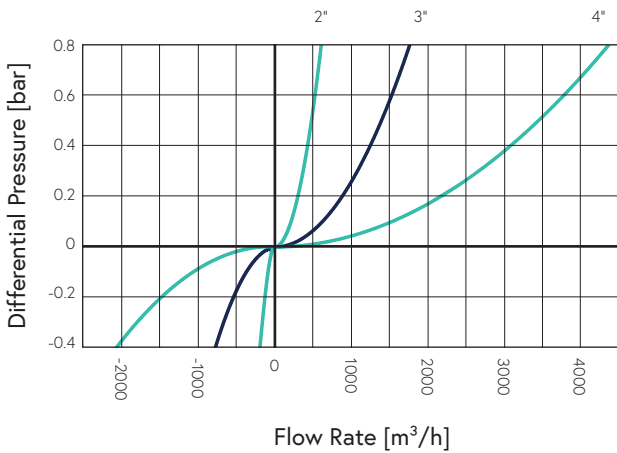
Dimension A in the picture and in the table shows the maximum product width. This width can be reduced by changing the cover direction. All product weights are approximate, due to the differences in flange standards, materials and variable accessories.

FL - Flanged THR - Threaded

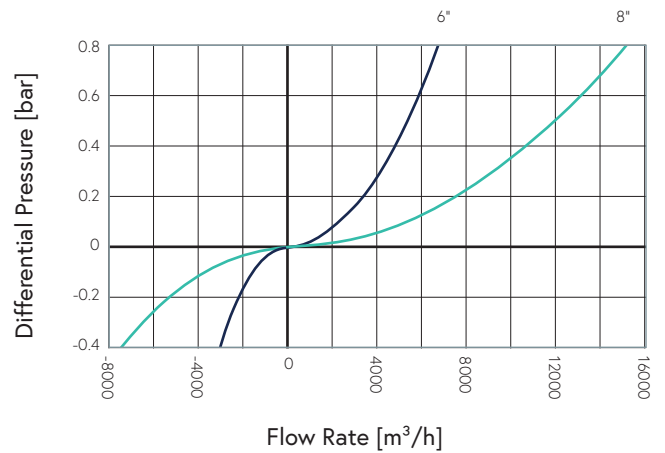
Flow Charts

Horizontal Outlet Models

Air & Vacuum Flow Rate

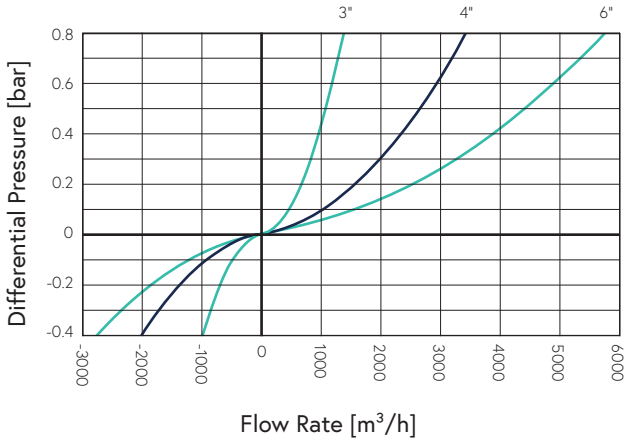


Air & Vacuum Flow Rate

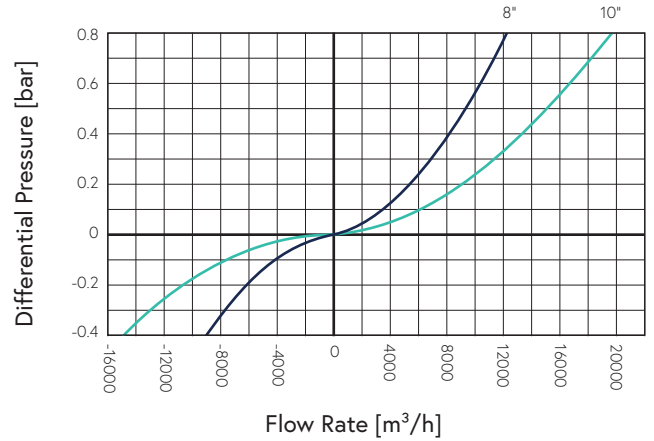


Screen Cover Models

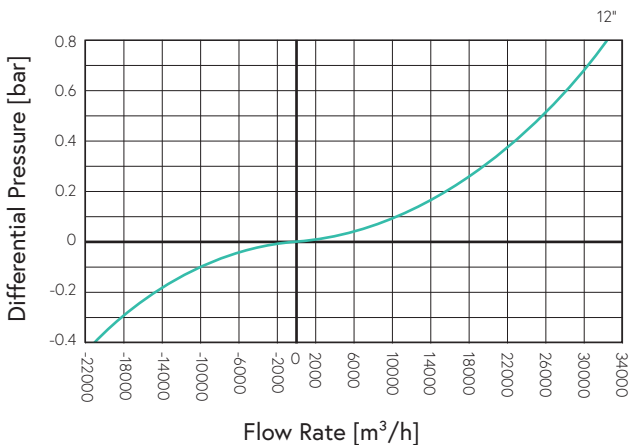
Air & Vacuum Flow Rate



Air & Vacuum Flow Rate

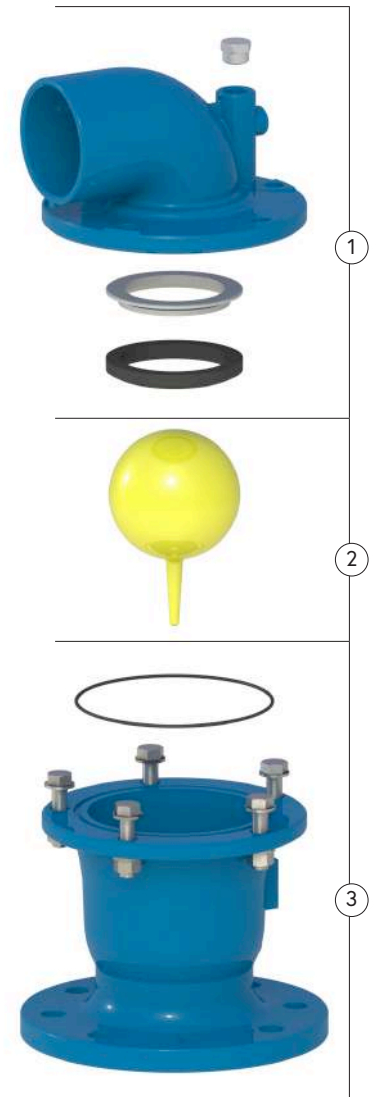


Air & Vacuum Flow Rate



Horizontal Outlet | 2" - 8" 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



Screen Cover | 3"-12" 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

