



Waterworks

Full-bore, Combination Air Valve Series

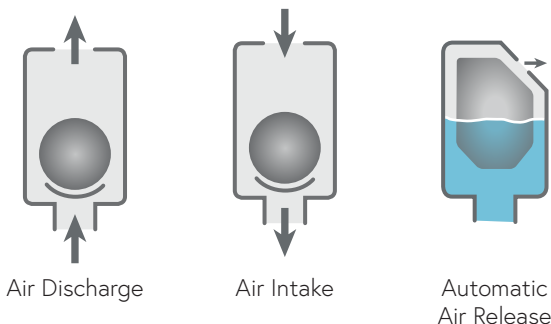
Description

A.R.I. D-060 is a full-bore Combination Air Valve Series. Installed on liquid transmission systems, the Air Valve is designed to improve hydraulic operation by protecting the pipeline, increasing pipeline efficiency, and reducing energy requirements. The Air Valve provides high-capacity air release and intake.

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

Flow cross-sections	Equal to or greater than nominal port area
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
Automatic air release valve rolling seal	Leak-free sealing over a wide range of pressure differentials
Automatic air release valve orifice	High flow air release, lessens obstruction by debris
 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
 AWWA C512	Meets air valve design standard

Technical Specifications

Size range	1" - 10" 2" - 8" (D-065-HF only)
Working pressure range	3-285 psi A.R.I. D-060 C HF A.R.I. D-060 HF SS
	3-360 psi A.R.I. D-062 C HF A.R.I. D-062 HF SS
	3-580 psi A.R.I. D-065 HF A.R.I. D-065-HF SS
	0.3-150 psi A.R.I. D-060 L LP HF A.R.I. D-060 L LP HF SS
	0.7-250 psi A.R.I. D-060 L HF A.R.I. D-060 L HF SS
	1.5-360 psi A.R.I. D-062 L HF A.R.I. D-062 L HF SS
Testing pressure	1.5 times maximum working pressure
Temperature	Maximum working temperature: 140° F Maximum intermittent temperature: 194° F
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

Valve Selection Options

USA models	A.R.I. D-060 C HF - High flow Ductile Iron combination air valve with casted air release valve, rated to 285 psi.
	A.R.I. D-062 C HF - High flow Ductile Iron combination air valve with casted air release valve, rated to 360 psi.
	A.R.I. D-065 HF - High flow Ductile Iron combination air valve with casted air release valve, rated to 580 psi.
	A.R.I. D-060 L HF - High flow Ductile Iron combination air valve with a long Reinforced Nylon air release valve, rated to 250 psi.
	A.R.I. D-062 L HF - High flow Ductile Iron combination air valve with a long stainless steel air release valve, rated to 360 psi.
	A.R.I. D-060 L LP HF - Low sealing pressure high flow Ductile Iron combination air valve with a long Reinforced Nylon air release valve, rated to 150 psi.
	A.R.I. D-060 L HF SS - High flow Cast Stainless Steel 316 combination air valve with a long Stainless Steel air release valve, rated to 250 psi.
	A.R.I. D-060 L LP HF SS - Low sealing pressure high flow cast stainless steel 316 combination air valve with a long stainless steel air release valve, rated to 150 psi.
	A.R.I. D-060 HF SS - High flow Cast Stainless Steel 316 combination air valve rated to 250 psi.
	A.R.I. D-062 HF SS - High flow Cast Stainless Steel 316 combination air valve rated to 360 psi.
	A.R.I. D-062 L HF SS - High flow Cast Stainless Steel 316 combination air valve with a long Stainless Steel air release valve, rated to 360 psi.
	A.R.I. D-065 HF SS - High flow Cast Stainless Steel 316 combination air valve, rated to 580 psi.
Valve connection	Threaded male NPT (1"-2") Flanged ends to meet various requested standards (2"-10")
Optional add-on components	One-way Out - allows for air discharge only, prevents air intake One-way In - allows air intake only, not allowing air discharge
Additional product configurations	SB Underground Air Valve System



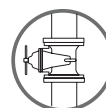
A.R.I. D-060 C HF

A.R.I. D-060 L HF

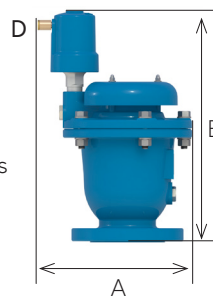
A.R.I. D-065 HF

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.

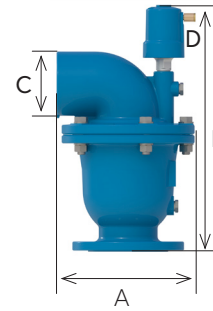
For complete installation instructions, please refer to the IOM document.



Screen Cover Models



Horizontal Outlet Models



Dimensions and Weight

Model	Size	Dimensions (inch)		Connections		Weight (lbs.)	Orifice Area (sq.in.)		
		max. A	B	C	D		A / V	Auto.	
A.R.I. D-060 C FH A.R.I. D-062 C HF								D-060 C	D-062 C
Horizontal Outlet	1" (25mm) THR	6	11.4	1½" Female	1/8" Female	11.7	0.78	0.018	0.014
	2" (50mm) THR	7.48	15.2	2" Female	1/8" Female	24.2	3.03	0.018	0.014
	2" (50mm) FL	7.48	14.8	2" Female	1/8" Female	29.5	3.03	0.018	0.014
	3" (80mm) FL	9	16.9	3" Female	1/8" Female	46.2	7.8	0.018	0.014
	4" (100mm) FL	10.7	19.2	4" Female	1/8" Female	68.3	12.1	0.018	0.014
	6" (150mm) FL	17.3	28.3	6" Grooved	1/8" Female	200	27.4	0.018	0.014
	8" (200mm) FL	20.45	34.9	8" Grooved	1/8" Female	320	48.7	0.018	0.014
Screen Cover	2" (50mm) THR	8.3	14		1/8" Female	22	3.04	0.018	0.014
	2" (50mm) FL	8.3	12.8		1/8" Female	26.4	3.04	0.018	0.014
	3" (80mm) FL	9.6	15.5		1/8" Female	42	7.8	0.018	0.014
	4" (100mm) FL	11	17.2		1/8" Female	57.3	12.1	0.018	0.014
	6" (150mm) FL	14.8	28		1/8" Female	174.2	27.4	0.018	0.014
	8" (200mm) FL	20	31		1/8" Female	260	48.7	0.018	0.014
	10" (250mm) FL	23	35		1/8" Female	333	76.08	0.018	0.014
A.R.I. D-065 HF									
Horizontal Outlet	1" (25mm) THR	7.75	17.9	1½" Female	1/2" Female	19.8	0.78	0.023	
	2" (50mm) THR	8.6	20.9	2" Female	1/2" Female	33	3.04	0.023	
	2" (50mm) FL	8.6	20.4	2" Female	1/2" Female	37.4	3.04	0.023	
	3" (80mm) FL	10	22.6	3" Female	1/2" Female	53	7.8	0.023	
	4" (100mm) FL	11.5	24.8	4" Female	1/2" Female	77	12.1	0.023	
	6" (150mm) FL	18.5	32.2	6" Grooved	1/2" Female	207	27.4	0.023	
	8" (200mm) FL	20.45	34.9	8" Grooved	1/2" Female	324	48.7	0.023	
Screen Cover	2" (50mm) THR	10	19		1/2" Female	34.7	3.04	0.023	
	2" (50mm) FL	10	19		1/2" Female	34.7	3.04	0.023	
	3" (80mm) FL	11.5	21.5		1/2" Female	50.2	7.8	0.023	
	4" (100mm) FL	12.5	23		1/2" Female	65.2	12.1	0.023	
	6" (150mm) FL	15.5	30.5		1/2" Female	72.2	27.4	0.023	
	8" (200mm) FL	20.5	38.5		1/2" Female	268.4	48.7	0.023	

FL - Flanged THR - Threaded

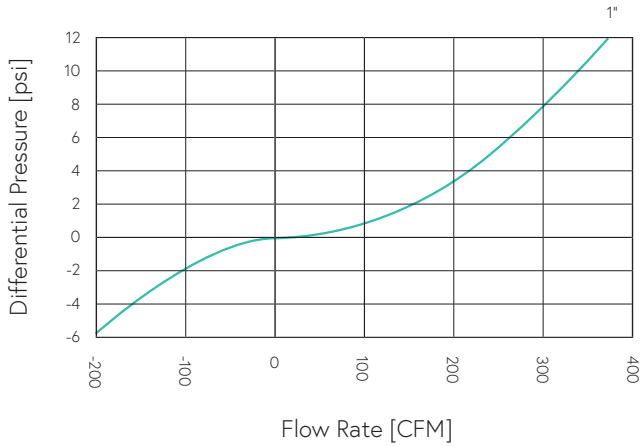
NOTE

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.

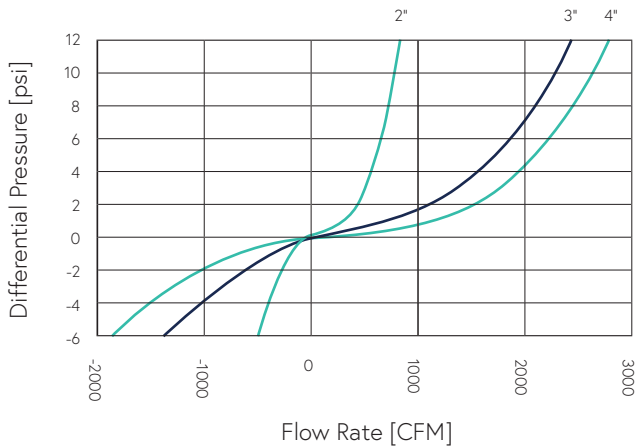
Flow Charts

Horizontal Outlet Models

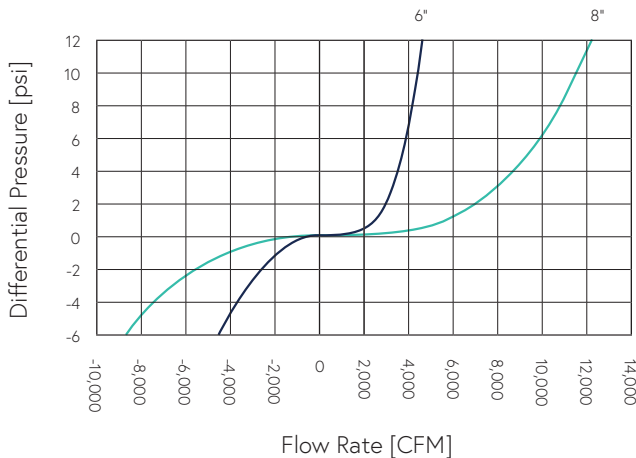
Air & Vacuum Flow Rate



Air & Vacuum Flow Rate

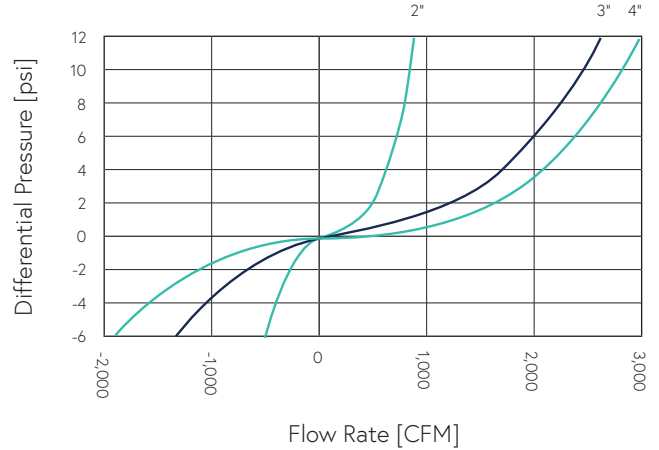


Air & Vacuum Flow Rate

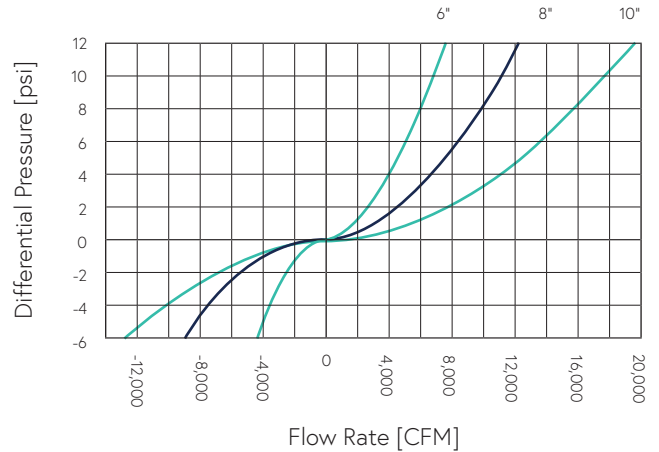


Screen Cover Models

Air & Vacuum Flow Rate

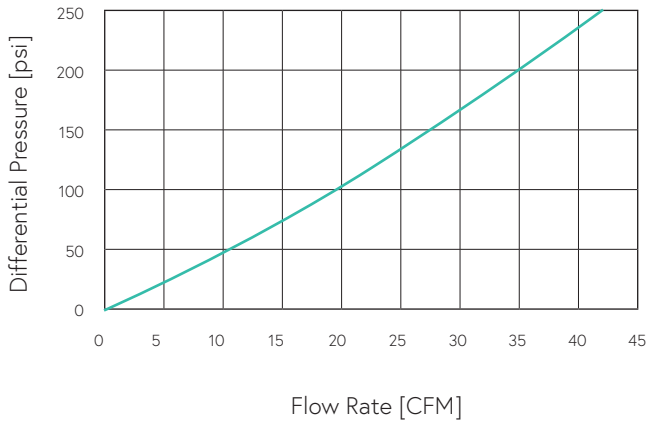


Air & Vacuum Flow Rate

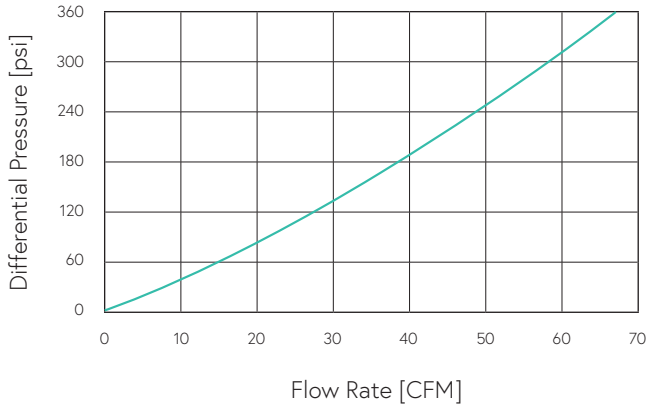


Flow Charts

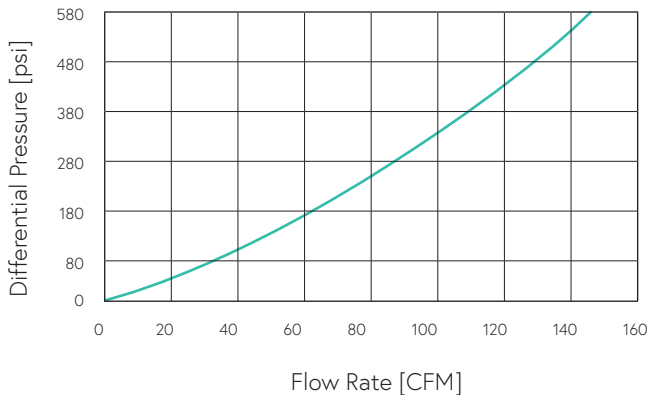
250 psi Automatic Air Release Flow Rate



360 psi Automatic Air Release Flow Rate



580 psi Automatic Air Release Flow Rate



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

No.	Part	Material
1	Automatic Assembly Options:	
	A.R.I. S-050 L	Stainless Steel 316, Reinforced Nylon, Polypropylene, EPDM
	A.R.I. S-050 C	Ductile Iron, Stainless Steel 316, Reinforced Nylon, Polypropylene, EPDM
	A.R.I. S-052	Ductile Iron, Stainless Steel 316, Reinforced Nylon, Polypropylene, EPDM
	A.R.I. S-015	Ductile Iron, Reinforced Nylon, Polypropylene, Stainless Steel 316, EPDM
2	Cover Assembly	
2a	Screen Cover	Ductile Iron
2b	Screen	Stainless Steel 316
2c	Bolts, Nuts & Washers	Stainless Steel 316
2d	Plug	Stainless Steel 316
2e	Cover	Ductile Iron
2f	Orifice Seat	Stainless Steel 316
2g	Orifice Seal	EPDM
3	Float	Stainless Steel 316
4	Body Assembly	
4a	O-ring	NBR / EPDM
4b	Bolts, Nuts & Washers	Stainless Steel 316
4c	Plug	Stainless Steel 316
4d	Body	Ductile Iron



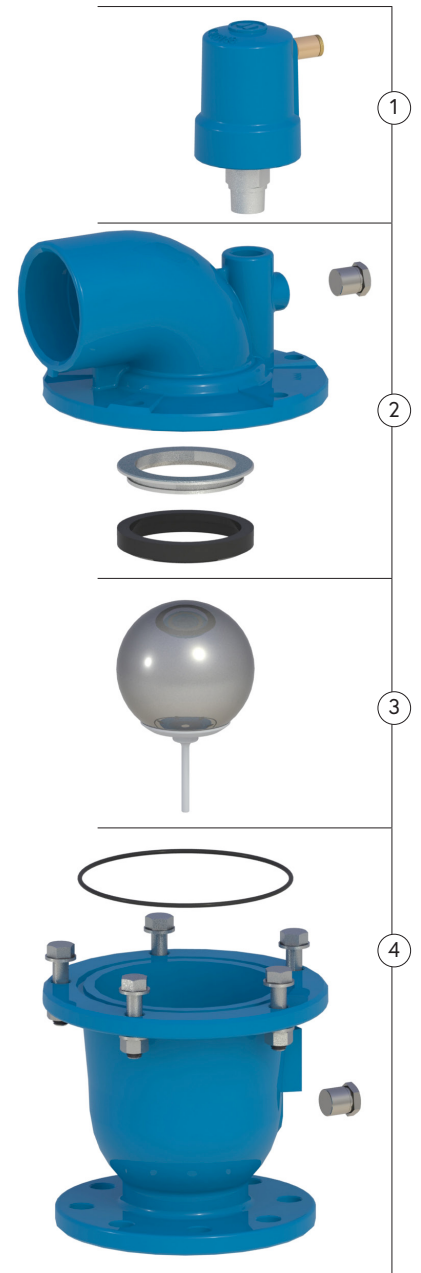
Parts List and Specifications | 6"-10" Screen Cover Models

No.	Part	Material
1	Automatic Assembly Options:	
	A.R.I. S-050 L	Stainless Steel 316, Reinforced Nylon, Polypropylene, EPDM
	A.R.I. S-050 C	Ductile Iron, Stainless Steel 316, Reinforced Nylon, Polypropylene, EPDM
	A.R.I. S-052	Ductile Iron, Stainless Steel 316, Reinforced Nylon, Polypropylene, EPDM
	A.R.I. S-015	Ductile Iron, Reinforced Nylon, Polypropylene, Stainless Steel 316, EPDM
2	Cover Assembly	
2a	Screen Cover	Ductile Iron
2b	Screen	Stainless Steel 316
2c	Bolts, Nuts & Washers	Stainless Steel 316
2d	Screen Ring	Carbon Steel
2e	O-ring	NBR
2f	Cover	Ductile Iron
2g	Test Cock	Stainless Steel 316
2h	Orifice Seat	Stainless Steel 316
2i	Orifice Seal	EPDM
3	Float	Stainless Steel 316
4	Body Assembly	
4a	O-ring	NBR / EPDM
4b	Bolts, Nuts & Washers	Stainless Steel 316
4c	Plug	Stainless Steel 316
4d	Body	Ductile Iron



Parts List and Specifications | 1"-4" Horizontal Outlet Models

No.	Part	Material
1	Automatic Assembly Options:	
	A.R.I. S-050 L	Stainless Steel 316, Reinforced Nylon, Polypropylene, EPDM
	A.R.I. S-050 C	Ductile Iron, Stainless Steel 316, Reinforced Nylon, Polypropylene, EPDM
	A.R.I. S-052	Ductile Iron, Stainless Steel 316, Reinforced Nylon, Polypropylene, EPDM
	A.R.I. S-015	Ductile Iron, Reinforced Nylon, Polypropylene, Stainless Steel 316, EPDM
2	Cover Assembly	
2a	Cover	Ductile Iron
2b	Plug	Stainless Steel 316
2c	Orifice Seat	Stainless Steel 316
2d	Orifice Seal	EPDM
3	Float	Stainless Steel 316
4	Body Assembly	
4a	O-ring	NBR / EPDM
4b	Bolts, Nuts & Washers	Stainless Steel 316
4c	Plug	Stainless Steel 316
4d	Body	Ductile Iron



Parts List and Specifications | 6"-8" Horizontal Outlet Models

No.	Part	Material
1	Automatic Assembly Options:	
	A.R.I. S-050 L	Stainless Steel 316, Reinforced Nylon, Polypropylene, EPDM
	A.R.I. S-050 C	Ductile Iron, Stainless Steel 316, Reinforced Nylon, Polypropylene, EPDM
	A.R.I. S-052	Ductile Iron, Stainless Steel 316, Reinforced Nylon, Polypropylene, EPDM
	A.R.I. S-015	Ductile Iron, Reinforced Nylon, Polypropylene, Stainless Steel 316, EPDM
2	Cover Assembly	
2a	Discharge Outlet	Ductile Iron
2b	Bolts, Nuts & Washers	Stainless Steel 316
2c	O-ring	NBR
2d	Cover	Ductile Iron
2e	Test Cock	Stainless Steel 316
2f	Orifice Seat	Stainless Steel 316
3	Float	Stainless Steel 316
4	Body Assembly	
4a	O-ring	NBR / EPDM
4b	Bolts, Nuts & Washers	Stainless Steel 316
4c	Plug	Stainless Steel 316
4d	Body	Ductile Iron

