A.R.I. D-060 NS

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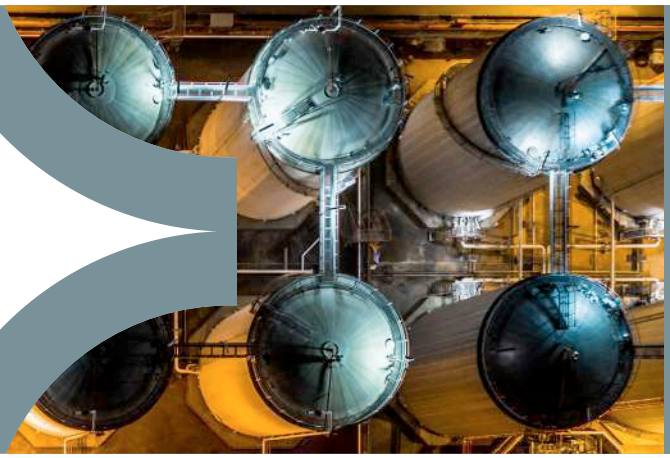


Industry

Full-bore, Non-slam, Combination Air Valve Series

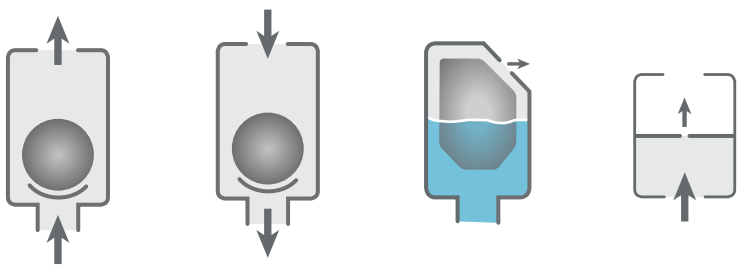
Description

A.R.I. D-060 NS is a non-slam, full-bore, surge-dampening 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 both high-capacity vacuum protection and efficient surge suppression.

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
- Water pipelines with anticipated conditions of surge and water hammer
- Water pipelines where water column separation occurs
- Municipal and industrial water conveyance systems

Operation



Air Discharge | Air Intake | Automatic Air Release | Non-slam

A.R.I. D-060 NS

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Features and Benefits

Flow cross-sections	Equal to or greater than nominal port area
Simple product design	Easy to install and maintain
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
Non-slam (NS) device	Efficient surge suppression
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	1"- 10" 2" – 8" (D-065 NS only)
Working pressure range	A.R.I. D-060 L NS 0.05 - 16 bar (PN16) A.R.I. D-060 NS 0.2 - 16 bar (PN16) A.R.I. D-062 NS 0.2 - 25 bar (PN25) A.R.I. D-065 NS 0.2 - 40 bar (PN40)
Testing pressure	1.5 times maximum working pressure
Temperature	Maximum working temperature: 60° C Maximum intermittent temperature: 90° C

Upon ordering, please specify: model, size, working pressure, thread / flange standard and type of liquid

A.R.I. D-060 NS

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Valve Selection Options

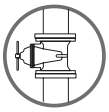
Models	A.R.I. D-060 NS | A.R.I. D-060 L NS | A.R.I. D-062 NS | A.R.I. D-065 NS
Valve connection	Threaded male BSPT/NPT (1", 2") Flanged ends to meet various requested standard (2"-10")
Standard materials	Cast Stainless Steel 316
Pressure rating	PN16 A.R.I. D-060 NS | A.R.I. D-060 L NS PN25 A.R.I. D-062 NS PN40 A.R.I. D-065 NS
Additional product configurations	SB Underground Air Valve System

A.R.I. D-060 NS
A.R.I. D-062 NS

A.R.I. D-060 L NS

A.R.I. D-065 NS

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.

A.R.I. D-060 NS

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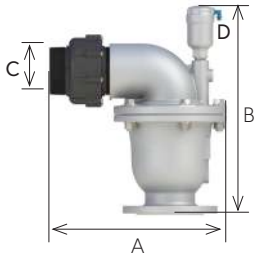

Dimensions and Weight

FL - Flanged THR - Threaded

Model	Size	Dimensions (mm)		Connections		Weight (kg)	Orifice Area (mm²)	
		max. A	B	C	D		A / V	Auto.
A.R.I. D-060 NS								
Horizontal Outlet	1" (25mm) THR	250	303	1½" Female	1/8" Female	4.4	507	12
	2" (50mm) THR	270	380	2" Female	1/8" Female	10.3	1960	12
	2" (50mm) FL	270	367	2" Female	1/8" Female	12.7	1960	12
	3" (80mm) FL	338	423	3" Female	1/8" Female	20.2	5030	12
	4" (100mm) FL	404	480	4" Female	1/8" Female	31.5	7850	12
Screen Cover	6" (150mm) FL	375	689		1/8" Female	78	17662	12
	8" (200mm) FL	463	849		1/8" Female	156	31400	12
	10" (250mm) FL	586	993		1/8" Female	291	49087	12
A.R.I. D-060 C NS / D-062 NS								D-060 C NS / D-062 NS
Horizontal Outlet	1" (25mm) THR	250	311	1½" Female	1/8" Female	5.3	507	12 / 9
	2" (50mm) THR	270	388	2" Female	1/8" Female	11.3	1960	12 / 9
	2" (50mm) FL	270	375	2" Female	1/8" Female	13.7	1960	12 / 9
	3" (80mm) FL	338	431	3" Female	1/8" Female	21.7	5030	12 / 9
	4" (100mm) FL	404	488	4" Female	1/8" Female	32.5	7850	12 / 9
Screen Cover	6" (150mm) FL	375	700		1/8" Female	93	17662	12 / 9
	8" (200mm) FL	463	800		1/8" Female	157	31400	12 / 9
	10" (250mm) FL	586	987		1/8" Female	292	49087	12 / 9
A.R.I. D-065 NS								
Horizontal Outlet	1" (25mm) THR	312	452	1½" Female	1/2" BSP Female	9.3	507	15
	2" (50mm) THR	312	531	2" Female	1/2" BSP Female	15.3	1960	15
	2" (50mm) FL	300	518	2" Female	1/2" BSP Female	17.3	1960	15
	3" (80mm) FL	364	575	3" Female	1/2" BSP Female	24.7	5030	15
	4" (100mm) FL	424	631	4" Female	1/2" BSP Female	36.5	7850	15
Screen Cover	6" (150mm) FL	382	774		1/2" BSP Female	95	17662	15
	8" (200mm) FL	476	973		1/2" BSP Female	152	31400	15

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.

A.R.I. D-060 NS

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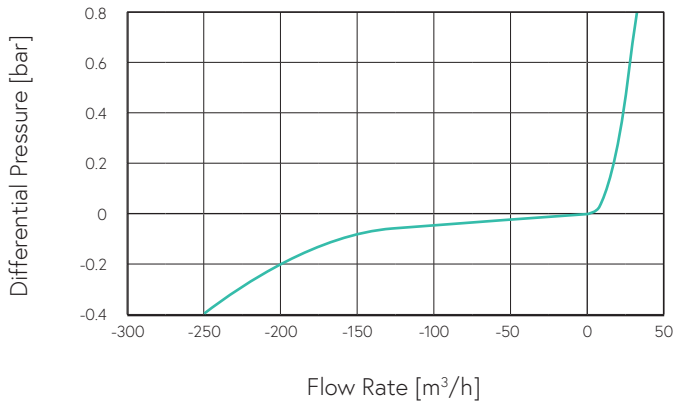
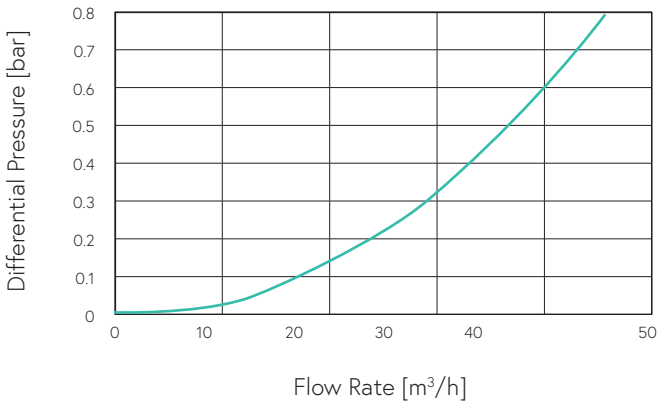
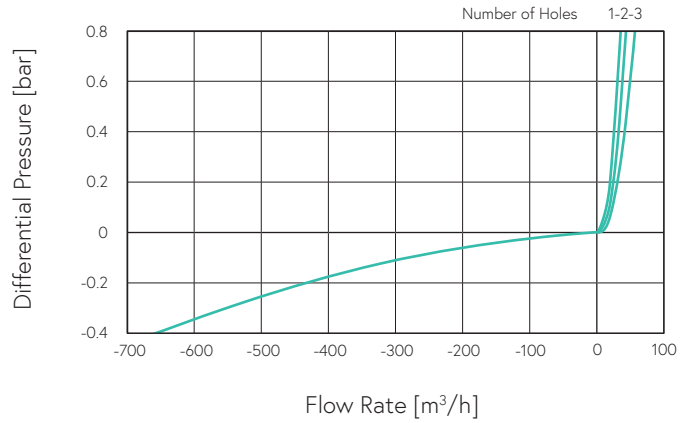
Flow Charts Horizontal Outlet Models

1" Adjustable NS Check Valve

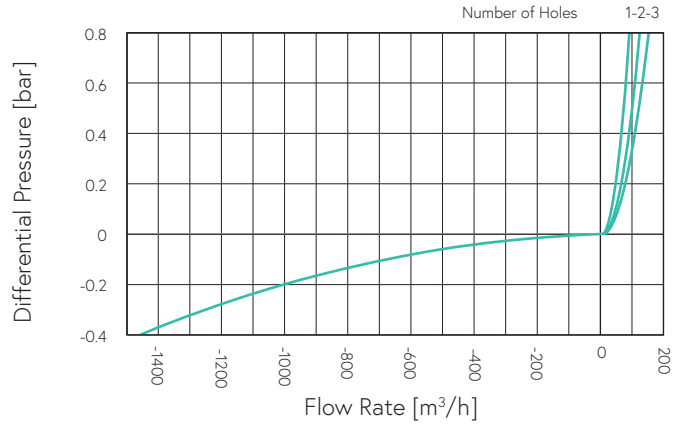


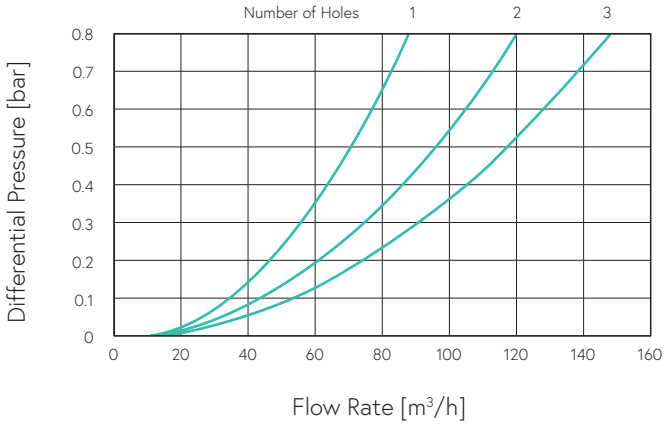


2" Adjustable NS Check Valve



3" Adjustable NS Check Valve





A.R.I. D-060 NS

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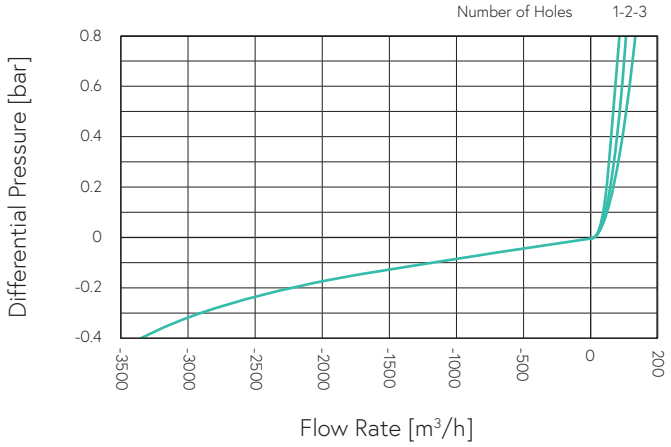
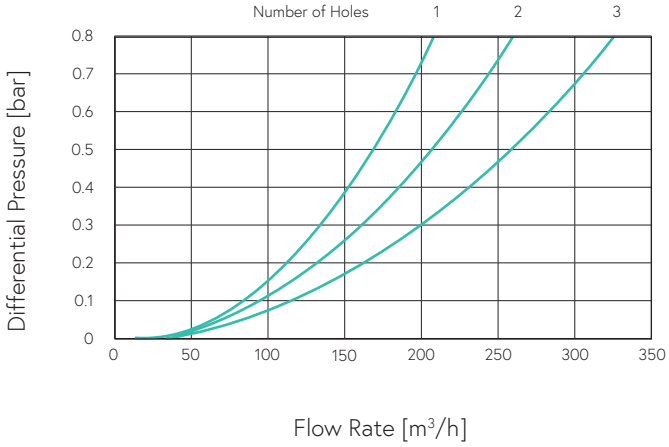
Flow Charts

Horizontal Outlet Models

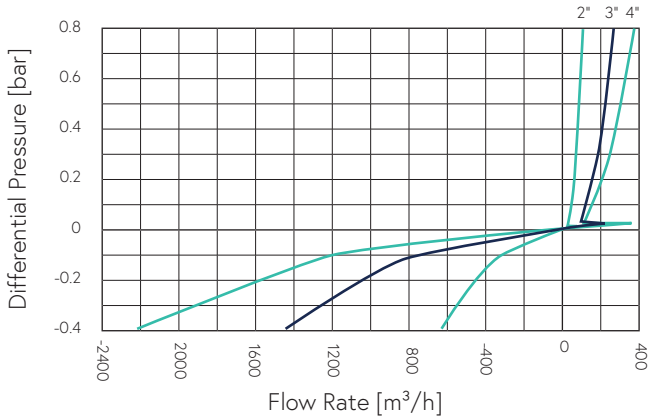
4" Adjustable NS Check Valve



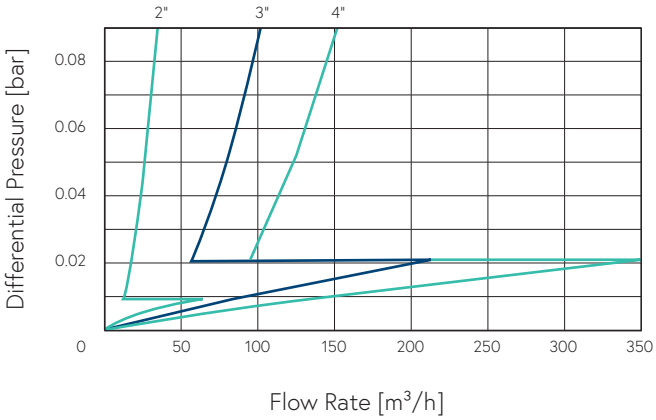


Screen Cover Models

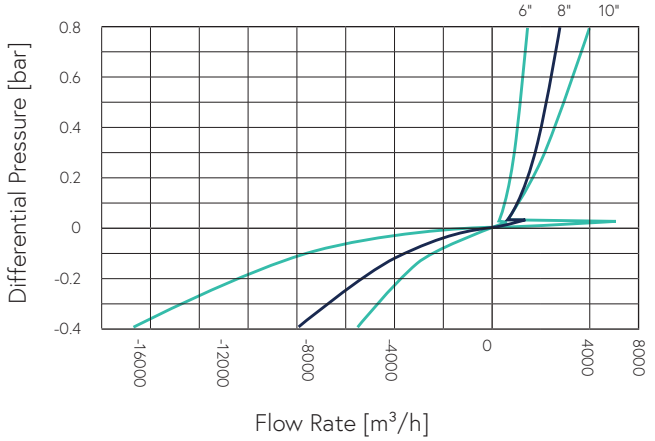
Air & Vacuum Flow Rate



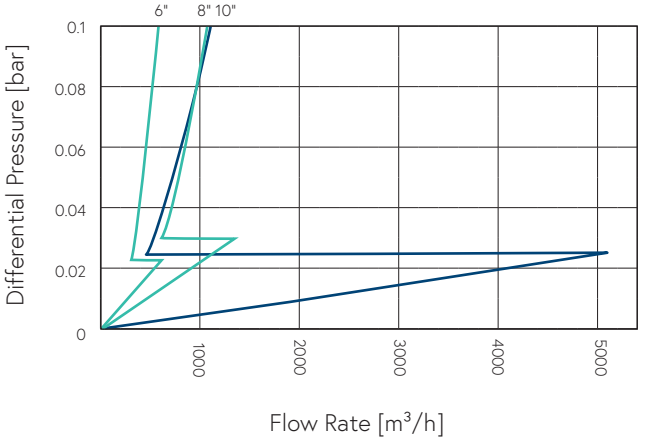
Air Discharge Switching Region



Air & Vacuum Flow Rate



Air Discharge Switching Region



A.R.I. D-060 NS

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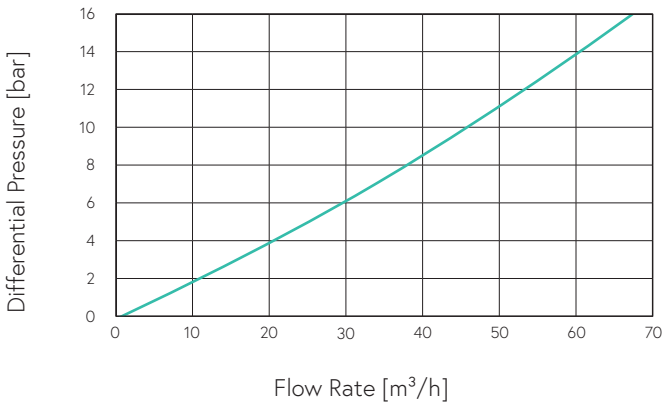
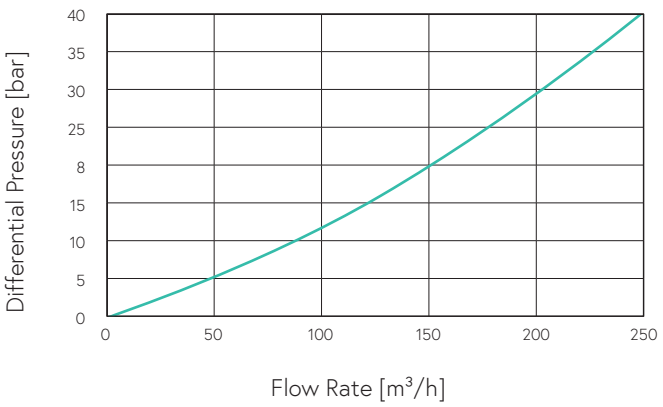
Flow Charts

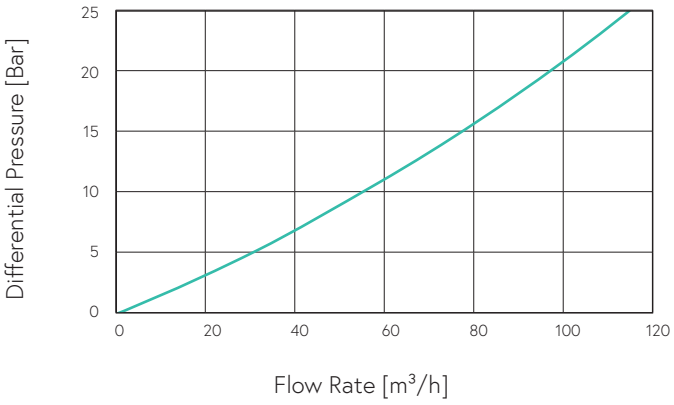
PN16 Automatic Air Realease Flow Rate



PN40 Automatic Air Realease Flow Rate



PN25 Automatic Air Realease Flow Rate



A.R.I. D-060 NS

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

No.	Part	Material
1	Automatic Assembly options	
	A.R.I. S-050	Stainless Steel 316, Reinforced Nylon, Polypropylene, EPDM
	A.R.I. S-050 L	
	A.R.I. S-052	
	A.R.I. S-015	
2	Cover Assembly	
2a	Cover	Stainless Steel 316, Super Duplex
2b	Orifice Seat	Stainless Steel 316, Super Duplex
2c	Orifice Seal	EPDM, Viton
3	Float	Stainless Steel 316, Super Duplex, Polycarbonate
4	Body Assembly	
4a	O-ring	EPDM, Viton
4b	Bolts, Nuts & Washers	Steel/Stainless Steel 316
4c	Body	Stainless Steel 316, Super Duplex
5	Non-slam Assy.	Polypropylene / Reinforced Nylon

A.R.I. D-060 NS

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

No.	Part	Material
1	Automatic Assembly Options	
	A.R.I. S-050	Stainless Steel 316, Reinforced Nylon, Polypropylene, EPDM
	A.R.I. S-050 L	
	A.R.I. S-052	
	A.R.I. S-015	
2	Cover Assembly	
2a	Screen Cover	Polypropylene
2b	Screen	Stainless Steel 316
2c	Bolts, Nuts & Washers	Stainless Steel 316
2d	Locking Ring	Stainless Steel 316
2e	Non-slam Disc Assy.	Stainless Steel 316
2f	Cover	Stainless Steel 316, Super Duplex
2g	Orifice Seat	Stainless Steel 316, Super Duplex
2h	Orifice Seal	EPDM, Viton
3	Float	
3a	Float	Stainless Steel 316, Super Duplex, Polycarbonate
4	Body Assembly	
4a	O-ring	EPDM, Viton
4b	Bolts, Nuts & Washers	Steel/Stainless Steel 316
4c	Body	Stainless Steel 316, Super Duplex

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