IRUA
VALVES

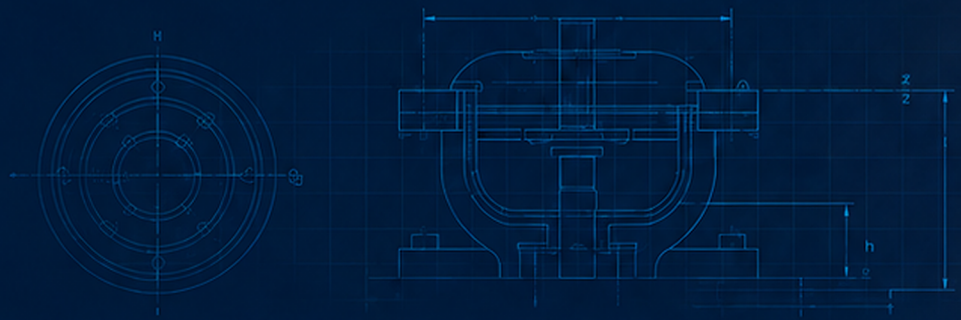
AIR VALVES

CATALOG

40 years
protecting
networks, equipment
and infrastructures

INDEX

Catalog • Air Valves



P SERIES

1" – DN 150 / PN10 – PN25 s/EN
#150 s/ANSI

AUTOMATIC AIR RELEASE VALVES

DESCRIPTION

- Automatic air release valve operated by a float with a simple lever mechanism, designed to discharge accumulated air from a pipeline while it is pressurized and in service.
- Watertight sealing is guaranteed by an interchangeable elastomer seat. All internal parts, including the float, are made of stainless steel and are designed for continuous operation.
- Top-entry design for easy maintenance.

ORDERING OPTIONS

- Inlet isolating ball valve
- Ball valve on the cover for tapping
- Side drain valve
- Provided that it is sufficiently larger than the outlet nozzle diameter, the inlet connection may be reduced or enlarged to facilitate installation without limiting the air valve capacity

GENERAL APPLICATIONS

- Water Supply networks
- Pumping Stations
- Irrigation
- Industry and power generation
- Desalination plants
- Mining

APPLICABLE STANDARDS

- EN 1074-1 & EN 1074-4
- AWWA C512

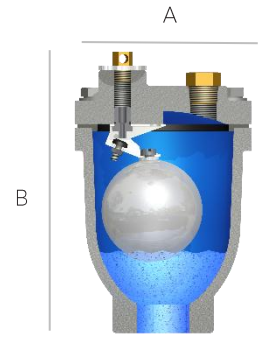
CONSTRUCTION MATERIALS

- **Body**: Ductile Iron EN GJS-500-7
- **Cover**: ST-44 steel
- **Float and internal mechanisms**: Stainless Steel A304 (Opc A316)
- **Closure**: Screw A304 + NBR/EPDM
- **Bolting**: Internal A2 stainless steel / External zinc-plated steel
- **Coating**: 250 µm epoxy coating suitable for drinking water, internal and external

Other special materials available upon request.

GENERAL DIMENSIONS AND WEIGHTS

DN	Connection	A	B	Weight
1"	Thread M.	132	160	3
2"	Thread F.	169	230	11
DN 50	Flanged	165	290	12
DN 80	Flanged	200	375	15
DN 100	Flanged	185	600	45
DN 150	Flanged	441	780	144

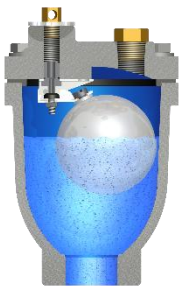


* Dimensions in mm and weights in kg.

TEST PRESSURES

	Body	Closure
PN 10	15 bar	11 bar
PN 16	24 bar	18 bar
PN 25	38 bar	28 bar

OPERATING SEQUENCE



The valve remains in the closed position until air pockets are detected

The valve dischargers accumulated air from the pipeline while it is pressurized and in service

VB SERIES

1" – DN500 / PN10 – PN25 s/EN
#150 s/ANSI

BIFUNCTIONAL AIR VALVES

DESCRIPTION

- Automatic bifunctional air valves for clean water, full-bore design, consisting of a single body, with inlet and outlet connections equal to the specified DN.
- Large-volume air discharge during pipeline filling, allowing the air, during discharge, to reach the speed of sound without causing the float to rise and close the orifice by floatation.
- Large-volume air intake/admission to prevent vacuum or pipe rupture conditions.

ORDERING OPTIONS

- Ducted outlet
- Side drain/test valve
- Special closure for working pressure below 1 bar

GENERAL APPLICATIONS

- Water Supply networks
- Pumping stations
- Irrigation
- Industry and power generation
- Desalination plants
- Mining

APPLICABLE STANDARDS

- EN 1074-1 & EN 1074-4
- AWWA C512

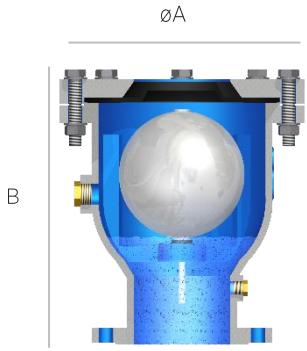
CONSTRUCTION MATERIALS

- **Body**: Ductile Iron EN GJS-500-7
- **Float and internal mechanisms**: AISI 304 (Opc A316)
- **Closure**: AISI A304 + NBR/EPDM
- **Bolting**: Internal A2 stainless steel / External zinc plated steel
- **Coating**: 250 µm epoxy coating suitable for drinking water, internal and external

Other special materials available upon request.

GENERAL DIMENSIONS AND WEIGHTS

DN	Connection	øA	B	Weight
1"	Thread M.	100	195	4
2"	Thread F.	138	215	9
DN 50	Flanged	138	215	10
DN 60/65	Flanged	138	215	11
DN 80	Flanged	170	285	20
DN 100	Flanged	210	315	31
DN 150	Flanged	386	469	79
DN 200	Flanged	483	650	151
DN 250	Flanged	597	840	214
DN 300	Flanged	699	945	345
DN 350	Flanged	778	1105	460
DN 400	Flanged	851	1235	592
DN 500	Flanged	1010	1450	850

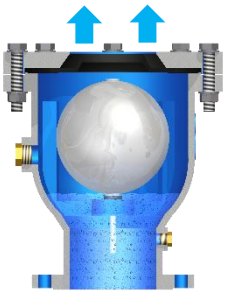


* Dimensions in mm and weight in kgs

TEST PRESSURES

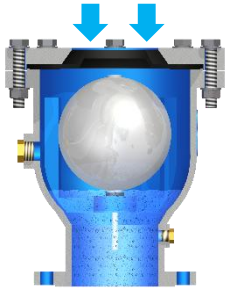
	Body	Closure
PN 10	15 bar	11 bar
PN 16	24 bar	18 bar
PN 25	38 bar	28 bar

OPERATING SEQUENCE



Large-volume air discharge during filling.

The valve remains closed until a vacuum condition is detected in the pipeline



Large-volume air admission during draining

VBH SERIES

1" – DN400 / PN40 – PN100 s/EN
#300 - #600 s/ANSI

HIGH-PRESSURE BIFUNCTIONAL AIR VALVES

DESCRIPTION

- Automatic bifunctional air valves for clean water and high-pressure networks, consisting of a compact single-body, full-bore design, with inlet and outlet connections equal to the specified DN.
- High-capacity air discharge during pipeline filling, allowing the discharged air to reach sonic velocity without the float rising and closing. The float will rise and close the passage by buoyancy.
- High-capacity air intake/admission to prevent vacuum conditions during draining or pipe rupture.

GENERAL APPLICATIONS

- Water supply networks
- Pumping Stations
- Irrigation
- Industry and power generation
- Desalination plants
- Mining

CONSTRUCTION MATERIALS

- **Body**: Ductile Iron EN GJS-500-7 en PN40. Carbon Steel A216-WCB for PN64/PN100
- **Float and internal mechanisms**: Stainless Steel A304 (Opc A316)
- **Seal**: Stainless Steel A304 + NBR/EPDM
- **Bolting**: Internal in A2 Stainless Steel/ External in Zinc-Plated Steel
- **Coating**: Non-toxic epoxy for potable wáter, internal and external 250 µ

Other special materials available upon request.

TEST PRESSURES

	Body	Seat
PN 40	60 bar	44 bar
PN 64	96 bar	71 bar
PN 100	150 bar	110 bar

ORDERING OPTIONS

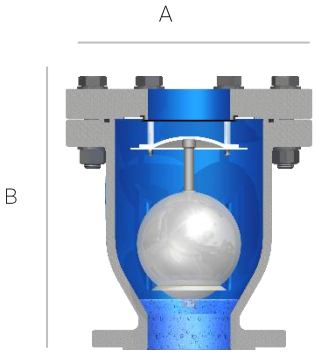
- Piped outlet
- Side drain/test valve

APPLICABLE STANDARDS

- EN 1074-1 & EN 1074-4
- AWWA C512

GENERAL DIMENSIONS AND WEIGHTS

DN	Connection	A	B	Weight
1"	Thread F	134	185	15
DN 50	Flange	225	350	47
DN 65	Flange	225	350	51
DN 80	Flange	282	370	65
DN 100	Flange	300	395	75
DN 150	Flange	437	632	172
DN 200	Flange	517	795	228
DN 250	Flange	626	920	350
DN 300	Flange	670	1000	470
DN 350	Flange	645	1280	550
DN 400	Flange	895	1330	630



* Dimensions in mm and weights in kg

OPERATING SEQUENCE

High-capacity air discharge during pipeline filling

The valve remains closed during normal system operation

Air intake into the pipeline in the event of draining or pipe rupture

VTC SERIES

1” – DN400 / PN10 – PN25 s/EN
#150 s/ANSI

MONOBLOCK COMBINATION AIR VALVE

DESCRIPTION

- Automatic combination air valves with compact body and kinetic effect for clean water. Consisting of a compact body with full-bore inlet and outlet equal to the specified DN.
- Discharge of large volumes of air during pipeline filling, preventing water hammer, blow-off and/or collision with the float and its premature closure.
- Admission of air in large quantities to prevent vacuum conditions or pipeline rupture
- Release of air pockets accumulated in the pipeline while the system is in service.

GENERAL APPLICATIONS

- Water Supply Networks
- Pumping Stations
- Irrigation
- Industry and Power Generation
- Desalination Plants
- Mining

CONSTRUCTION MATERIALS

- **Body**: Ductile Iron EN GJS-500
- **Float and internal mechanisms**: Stainless Steel A304 (Opc A316)
- **Closure**: Elastómer NBR/EPDM
- **Bolting**: A2 Stainless Steel / External galvanized steel
- **Coating**: Epoxy suitable for potable water, 250 µm internal and external coating on body

Other special materials available upon request.

TEST PRESSURES

	Body	Closure
PN 10	15 bar	11 bar
PN 16	24 bar	18 bar
PN 25	38 bar	28 bar

ORDERING OPTIONS

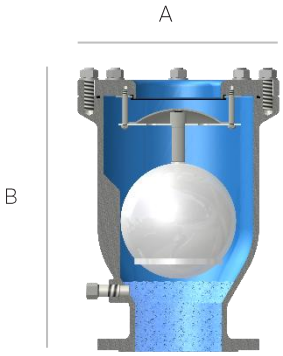
- Piped outlet
- Side drain/test valve

APPLICABLE STANDARDS

- EN 1074-1 & EN 1074-4
- AWWA C512

GENERAL DIMENSIONS AND WEIGHTS

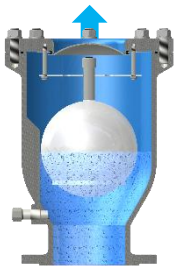
DN	Connection	A	B	Weight
1”	Threaded M.	105	200	2,3
2”	Threaded M.	140	258	4,9
DN 50	Flanged	140	258	7
DN 65	Flanged	140	258	7
DN 80	Flanged	184	355	18
DN 100	Flanged	222	394	25
DN 150	Flanged	650	385	82
DN 200	Flanged	725	480	142
DN 250	Flanged	860	626	245
DN 300	Flanged	1000	756	370
DN 400	Flanged	1330	900	430



*Dimensions in mm and weights in kg.

OPERATING SEQUENCE

Discharge of large volumes of air during filling



Air release under pressure

Admission of large volumes of air during draining

VTH SERIES

1" – DN400 / PN40 – PN100 s/EN
#300 - #600 s/ANSI

HIGH-PRESSURE COMBINATION AIR VALVES

DESCRIPTION

- Compact-body triple-function automatic air valves with kinetic effect for high-pressure clean water networks. Single compact body, full-bore design, with inlet and outlet diameters equal to the specified DN.
- High-capacity air discharge during pipeline filling, allowing the air to reach sonic velocity during exhaust without the float rising and closing prematurely.
- High-capacity air intake or admission to prevent vacuum conditions or pipeline rupture.
- Release of air pockets accumulated in the pipeline while it is in service.

GENERAL APPLICATIONS

- Water supply networks
- Pumping stations
- Irrigation
- Industry and power generation
- Desalination Plants
- Mining

MATERIALS OF CONSTRUCTION

- **Body**: Ductile Iron EN GJS-500-7 en PN40. Carbon Steel A216-WCB en PN64/PN100
- **Float and internal mechanisms**: Stainless steel A304 (Opc A316)
- **Seal**: Elastómer NBR/EPDM
- **Bolting**: Internal A2 stainless steel / External zinc-plated steel
- **Coating**: non-toxic epoxy suitable for potable water, internal and external, 250 µ

Other special materials available upon request.

TEST PRESSURES

	Body	Seat
PN 40	60 bar	44 bar
PN 64	96 bar	71 bar
PN 100	150 bar	110 bar

ORDERING OPTIONS

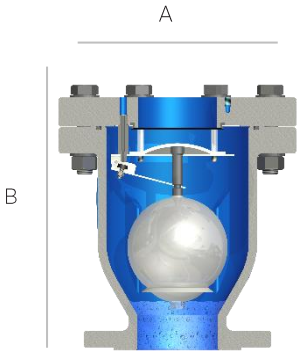
- Piped outlet
- Lateral drain/test valve

APPLICABLE STANDARDS

- EN 1074-1 & EN 1074-4
- AWWA C512

GENERAL DIMENSIONS AND WEIGHTS

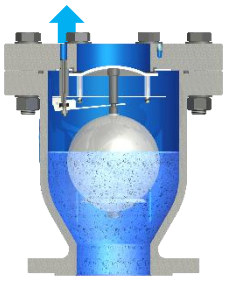
DN	Connection	A	B	Weight
1"	Thread F	134	185	15
DN 50	Flange	225	350	47
DN 65	Flange	225	350	51
DN 80	Flange	282	370	65
DN 100	Flange	300	395	75
DN 150	Flange	437	632	172
DN 200	Flange	517	795	228
DN 250	Flange	626	920	350
DN 300	Flange	670	1000	470
DN 400	Flange	895	1330	635



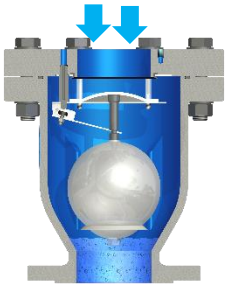
* Dimensions in mm and weights in kg.

OPERATING SEQUENCE

High-capacity air discharge during filling



Air release under pressure



High-capacity air admission during draining

VTD SERIES

2” – DN500 / PN10 – PN25 acc. to EN
#150 acc. to ANSI

DOUBLE-BODY COMBINATION AIR VALVES

DESCRIPTION

- Automatic double-body, triple-function air valves with kinetic effect for clean water. Compact, full-bore construction, with inlet and outlet connections equal to the specified DN.
- High-capacity air discharge during pipeline filling, allowing the air to reach sonic velocity during discharge without the float rising and closing prematurely.
- High-capacity air intake or admission to prevent vacuum conditions or pipeline collapse.
- Release of air pockets accumulated in the pipeline while it is in service.

GENERAL APPLICATIONS

- Water supply networks
- Pumping stations
- Irrigation
- Industry and power generation
- Desalination plants
- Mining

CONSTRUCTION MATERIALS

- **Body:** Ductile Iron EN GJS-500
- **Float and Internal Mechanisms:** Stainless Steel A304 (A316 optional)
- **Seal:** NBR/EPDM elastomer
- **Bolting:** Internal A2 stainless steel / External zinc-plated steel
- **Coating:** Non-toxic epoxy for potable water, internal and external, 250 µm (body)

Other special materials available upon request

TEST PRESSURES

	Body	Seal
PN 10	15 bar	11 bar
PN 16	24 bar	18 bar
PN 25	38 bar	28 bar

ORDERING OPTIONS

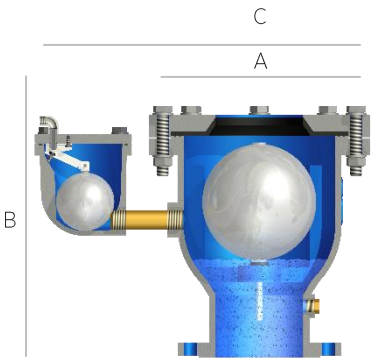
- Piped outlet
- Side drain/test valve
- Special sealing for working pressures below 1 bar

APPLICABLE STANDARDS

- EN 1074-1 & EN 1074-4
- AWWA C512

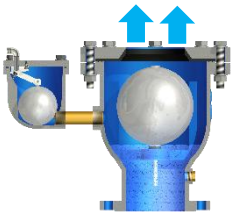
GENERAL DIMENSIONS AND WEIGHTS

DN	Connection	A	C	B	Weight
2”	Female Thread	138	285	245	13
DN 50	Flanged	138	285	265	14
DN 80	Flanged	175	300	350	23
DN 100	Flanged	213	345	375	35
DN 150	Flanged	388	605	540	94
DN 200	Flanged	483	685	650	156
DN 250	Flanged	597	815	845	275
DN 300	Flanged	699	890	1010	358
DN 350	Flanged	780	980	1105	475
DN 400	Flanged	851	1050	1210	615
DN 500	Flanged	1010	1450	1450	880

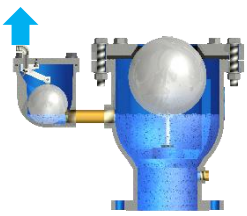


* Dimensions in mm and weights in kg

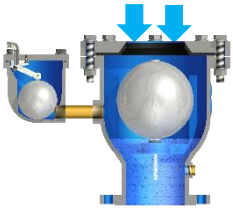
OPERATING SEQUENCE



High-capacity air discharge during filling



Air release under pressure



High-capacity air admission during draining

VA SERIES

DN 50 – DN 1000 / PN10 – PN25 s/EN
#150 s/ANSI

VACUUM BREAKER VALVES

DESCRIPTION

- Automatic air inlet valve designed to admit large volumes of air during pipeline draining or negative pressure conditions.
- These valves remain normally closed and open only when the pressure in the line drops approximately 0.02 bar below atmospheric pressure. They allow rapid air intake, as the free passage area is 10% greater than the area equivalent to the nominal diameter, and close when pressure is restored.
- Air inlet protected by a stainless steel screen and cover, preventing foreign materials from entering the line.

GENERAL APPLICATIONS

- Water supply networks
- Pumping stations
- Irrigation
- Industry and power generation
- Desalination plants
- Mining

MATERIALS OF CONSTRUCTION

- **Body:** Ductile iron EN GJS-500-7
- **Internal mechanisms:** Stainless steel and bronze
- **Seal:** NBR/EPDM elastomer seat ring
- **Top protection:** Steel with stainless steel screen
- **Bolting:** Internal A2 stainless steel / External zinc-plated steel
- **Coating:** Non-toxic epoxy for potable water, internal and external, 250 µ

Other special materials available on request.

TEST PRESSURES

	Body	Seat
PN 10	15 bar	11 bar
PN 16	24 bar	18 bar
PN 25	38 bar	28 bar

ORDERING OPTIONS

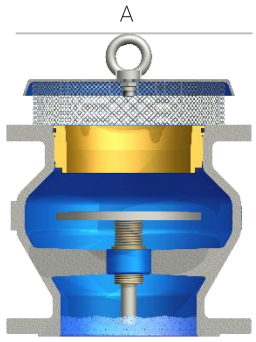
- Possibility of supplying the valve with a side-mounted automatic air release valve.
- Side drain/test valve

APPLICABLE STANDARDS

- EN 1074-1 & EN 1074-4
- AWWA C512

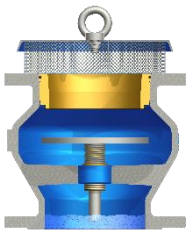
GENERAL DIMENSIONS AND WEIGHTS

DN	Connection	A	B	Weight
DN 50	Flanged	152	185	10
DN 80	Flanged	200	190	14
DN 100	Flanged	220	292	25
DN 150	Flanged	285	388	53
DN 200	Flanged	343	520	85
DN 250	Flanged	426	600	99
DN 300	Flanged	510	645	122
DN 350	Flanged	560	675	177
DN 400	Flanged	624	855	262
DN 500	Flanged	772	1042	350
DN 600	Flanged	912	1035	440
DN 700	Flanged	1030	1130	650
DN 800	Flanged	1350	1250	810
DN 900	Flanged	1450	1550	1100
DN 1000	Flanged	1750	1700	1250

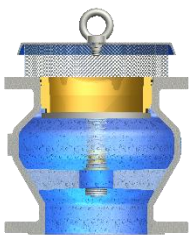


* Dimensions in mm and weights in kg.

OPERATING SEQUENCE



The valve opens in response to a slight negative pressure in the pipeline, caused by draining, pipe rupture, etc.



The valve remains in the closed position both during pipeline filling and during normal operation of the installation.

VC SERIES

DN80 – DN400 / PN10 – PN40 s/EN
#300 s/ANSI

SLOW CLOSING VALVE

DESCRIPTION

- These slow or progressive closing valves are designed to be installed at the inlet of an air valve, closing the flow path during the transition from air to water.
- The closing action of this valve slows down or minimizes the velocity of the water as it reaches the air valve, protecting it against water impact and water hammer.
- If the flow velocity exceeds 3 metres per second, the impact of the water — and therefore of the float against the seat — could damage the air valve. The same occurs in deep-well turbine pumps, where velocities are very high.

GENERAL APPLICATIONS

- Water supply networks
- Pumping stations
- Irrigation
- Industry and power generation
- Desalination plants
- Mining

MATERIALS OF CONSTRUCTION

- **Body:** Ductile iron EN GJS-500-7
- **Internal mechanisms:** A304 stainless steel and bronze
- **Bolting:** Internal A2 stainless steel / External zinc-plated steel
- **Coating:** Non-toxic epoxy for potable water, internal and external, 200 µ

Other special materials available on request.

TEST PRESSURES

	Body	Seat
PN 10	15 bar	11 bar
PN 16	24 bar	18 bar
PN 25	38 bar	28 bar

ORDERING OPTIONS

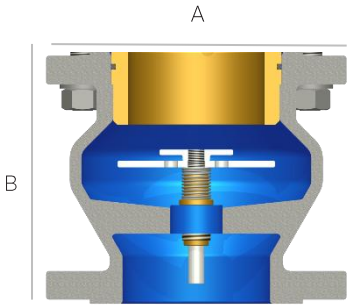
- With normally open disc (NO)
- With normally closed disc (NC)

APPLICABLE STANDARDS

- EN 1074-1 & EN 1074-4
- AWWA C512

GENERAL DIMENSIONS AND WEIGHTS

DN	Connection	A	B	Weight
DN 80	Flanged	200	150	14
DN 100	Flanged	220	184	18
DN 150	Flanged	285	248	33
DN 200	Flanged	340	318	54
DN 250	Flanged	420	400	88
DN 300	Flanged	515	362	129
DN 350	Flanged	560	388	362
DN 400	Flanged	637	549	479



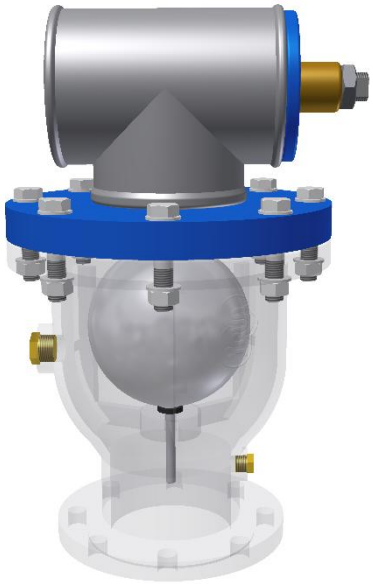
* Dimensions in mm and weights in kg.

OPERATING SEQUENCE

VC SERIES

1" – DN50 / PN10 – PN25 s/EN
#150 s/ANSI

AIR DISCHARGE REGULATING VALVE



DESCRIPTION

- These air discharge regulating valves are designed to be installed at the outlet of air valves in order to regulate air evacuation during pipeline filling, such as during pump start-up.
- The closing action of this valve slows down or minimizes the velocity of the water as it reaches the air valve, protecting it against water impact and water hammer.
- They are also especially necessary at high points where the hydraulic gradient and service conditions allow continuous negative pressures.

APPLICABLE STANDARDS

- EN 1074-1 & EN 1074-4
- AWWA C512

GENERAL APPLICATIONS

- Water supply networks
- Pumping stations
- Irrigation
- Industry and power generation
- Desalination plants
- Mining

MATERIALS OF CONSTRUCTION

- **Body:** A-316 stainless steel
- **Internal mechanisms:** A304 stainless steel, bronze and brass
- **Bolting:** Internal A2 stainless steel / External zinc-plated steel

Other special materials available on request.

TEST PRESSURES

	Body	Seat
PN 10	15 bar	11 bar
PN 16	24 bar	18 bar
PN 25	38 bar	28 bar

OPERATING SEQUENCE

These air valves with restricted outlet use the kinetic principle to discharge controlled quantities of air during pump start-up and allow air intake during pump shutdown.

Air discharge control is achieved by means of a restrictor installed at the air valve outlet, equipped with a free-area adjustment system. The smaller the free area generated by the restrictor, the lower the velocity at which the fluid rises through the suction column and, therefore, the lower the water hammer generated when the air valve float closes as the fluid rises.

P-AR SERIES

2” – DN 100 / PN10 – PN16 s/EN
#150 s/ANSI

AUTOMATIC AIR RELEASE VALVES FOR WASTEWATER

DESCRIPTION

- Float-operated automatic air release valve for wastewater, with a single-lever mechanism, designed to discharge accumulated air from a pipeline while it is pressurized and in service.
- Full sealing guaranteed by an interchangeable elastomer seat. All internal parts, including the float, are made of stainless steel and designed to withstand continuous operation.
- Top-entry design for maintenance operations.

ORDERING OPTIONS

- Isolation ball valve at the inlet
- ¼” ball valve on cover for sampling/tapping point
- Side drain valve
- Provided that it is sufficiently larger than the outlet nozzle diameter, the inlet connection may be reduced or enlarged to facilitate installation without limiting the valve’s air release capacity.

GENERAL APPLICATIONS

- Wastewater

APPLICABLE STANDARDS

- EN 1074-1 & EN 1074-4
- AWWA C512

MATERIALS OF CONSTRUCTION

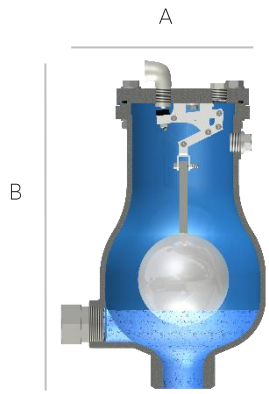
- **Body:** Ductile iron EN GJS-500-7
- **Float and internal mechanisms:** A316 stainless steel
- **Seal:** A316 stainless steel + NBR/EPDM
- **Bolting:** Internal A2 stainless steel / External zinc-plated steel
- **Coating:** Non-toxic epoxy for potable water, internal and external, 250 µ

Other special materials available on request.

GENERAL DIMENSIONS AND WEIGHTS

DN	Connection	A	B	Weight
2”	Female thread	440	235	24
DN 80	Flanged	516	305	44
DN 100	Flanged	516	305	51

* Dimensions in mm and weights in kg.

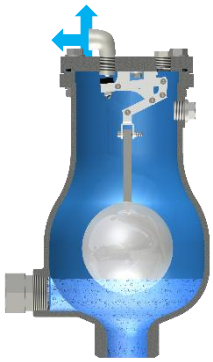


TEST PRESSURES

	Body	Seat
PN 10	15 bar	11 bar
PN 16	24 bar	18 bar

OPERATING SEQUENCE

The valve remains in the closed position until it detects air pockets to be released.



The valve discharges the accumulated air from a pipeline while it is pressurized and in service.

VB-AR SERIES

2” – DN 200 / PN10 – PN16 s/EN
#150 s/ANSI

BIFUNCTIONAL AIR VALVE FOR WASTEWATER

DESCRIPTION

- High-capacity discharge of air and gases during pipeline filling.
- Allows large volumes of air to enter when negative pressure or vacuum conditions occur.
- The float is fully spherical and closes by buoyancy against an easily replaceable soft rubber seat. All internal metallic parts are made of stainless steel.
- Watertight sealing from 0.1 bar. Please consult us for lower working pressures.

ORDERING OPTIONS

- Please consult us for piped outlets.
- Side drain valve
- - Special seal for working pressure below 0.1 bar

GENERAL APPLICATIONS

- Wastewater

APPLICABLE STANDARDS

- EN 1074-1 & EN 1074-4
- AWWA C512

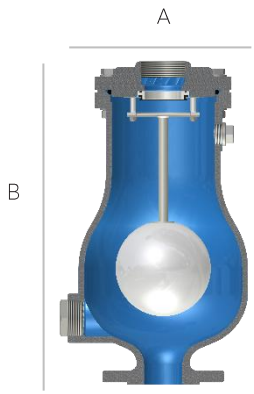
MATERIALS OF CONSTRUCTION

- **Body:** Ductile iron EN GJS-500-7
- **Float and internal mechanisms:** A316 stainless steel
- **Seal:** A316 stainless steel + NBR/EPDM
- **Bolting:** Internal A2 stainless steel / External zinc-plated steel
- **Coating:** Non-toxic epoxy for potable water, internal and external, 250 µ

Other special materials available on request.

GENERAL DIMENSIONS AND WEIGHTS

DN	Connection	A	B	Weight
2”	Female thread	440	235	24
DN 50	Flanged	440	235	27
DN 80	Flanged	516	305	44
DN 100	Flanged	516	305	51
DN 150	Flanged	541	405	146
DN 200	Flanged	610	504	198



* Dimensions in mm and weights in kg.

TEST PRESSURES

	Body	Seat
PN 10	15 bar	11 bar
PN 16	24 bar	18 bar

OPERATING SEQUENCE

Discharge of large volumes of air during filling.

The valve remains closed until negative pressure is detected in the pipeline.

The valve discharges accumulated air from a pipeline while it is pressurized and in service.

VT-AR SERIES

2” – DN 200 / PN10 – PN16 s/EN
#150 s/ANSI

COMBINATION AIR VALVE FOR WASTEWATER

DESCRIPTION

- These air valves are designed to discharge large volumes of air during filling, release accumulated air pockets during service, and admit large volumes of air to prevent vacuum conditions.
- They feature a compact single-body design housing all operating mechanisms. The three functions are performed by the buoyancy of a single stainless steel float; all internal parts are also made of stainless steel.
- Watertight sealing from 0.1 bar. Please consult us for lower working pressures.

ORDERING OPTIONS

- Surge protection system (quadruple-function air valve)
- Piped outlets
- Device to prevent air intake into the pipeline
- Peterson tapping point
- High-capacity air release valve with lever mechanism
- Stainless steel float

GENERAL APPLICATIONS

- Wastewater

APPLICABLE STANDARDS

- EN 1074-1 & EN 1074-4
- AWWA C512

MATERIALS OF CONSTRUCTION

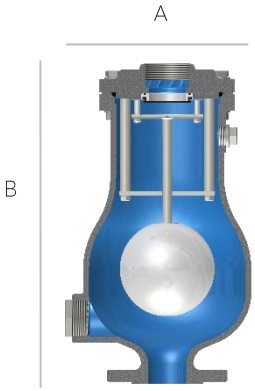
- **Body:** Ductile iron EN GJS-500-7
- **Cover:** Ductile iron up to DN100; carbon steel for DN150 and DN200
- **Internal mechanisms:** A304 stainless steel, optional A316
- **Float:** A316 stainless steel, optional ABS
- **Seal:** A316 stainless steel + NBR/EPDM
- **Bolting:** Internal A4 stainless steel / External zinc-plated steel
- **Coating:** Non-toxic epoxy, internal and external, 250 microns, with potable water certificate

Other special materials available on request.

GENERAL DIMENSIONS AND WEIGHTS

DN	Connection	A	B	Weight
2”	Female thread	235	440	24
DN 50	Flanged	235	440	27
DN 80	Flanged	305	516	44
DN 100	Flanged	305	516	51
DN 150	Flanged	405	541	146
DN 200	Flanged	505	610	198

* Dimensions in mm and weights in kg.



TEST PRESSURES

	Body	Seat
PN 10	15 bar	11 bar
PN 16	24 bar	18 bar

OPERATING SEQUENCE

Discharge of large volumes of air during filling.

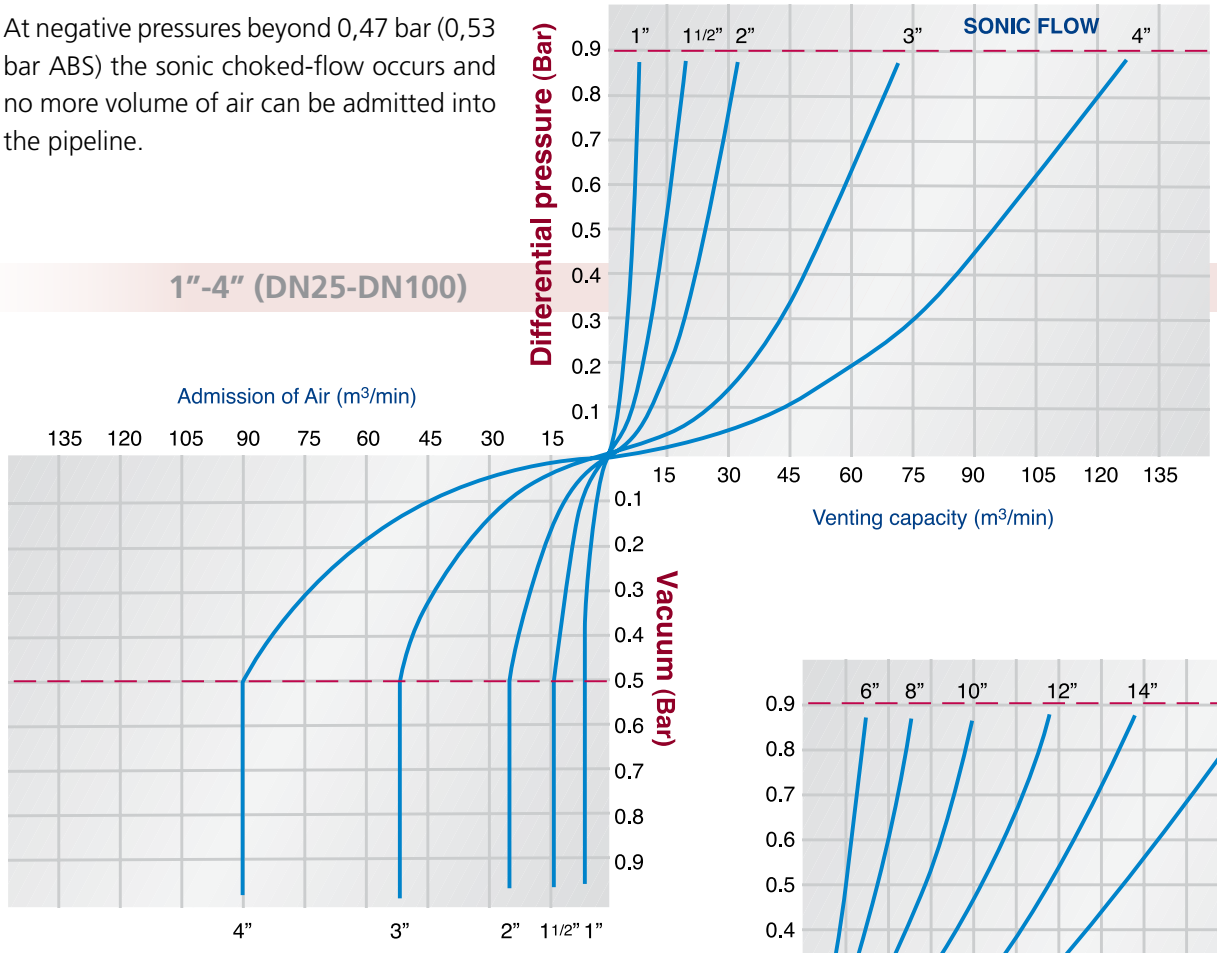
Large-volume air admission during pipe rupture or draining operations to prevent vacuum and pipeline collapse.

The valve discharges accumulated air from a pipeline while it is pressurized and in service.

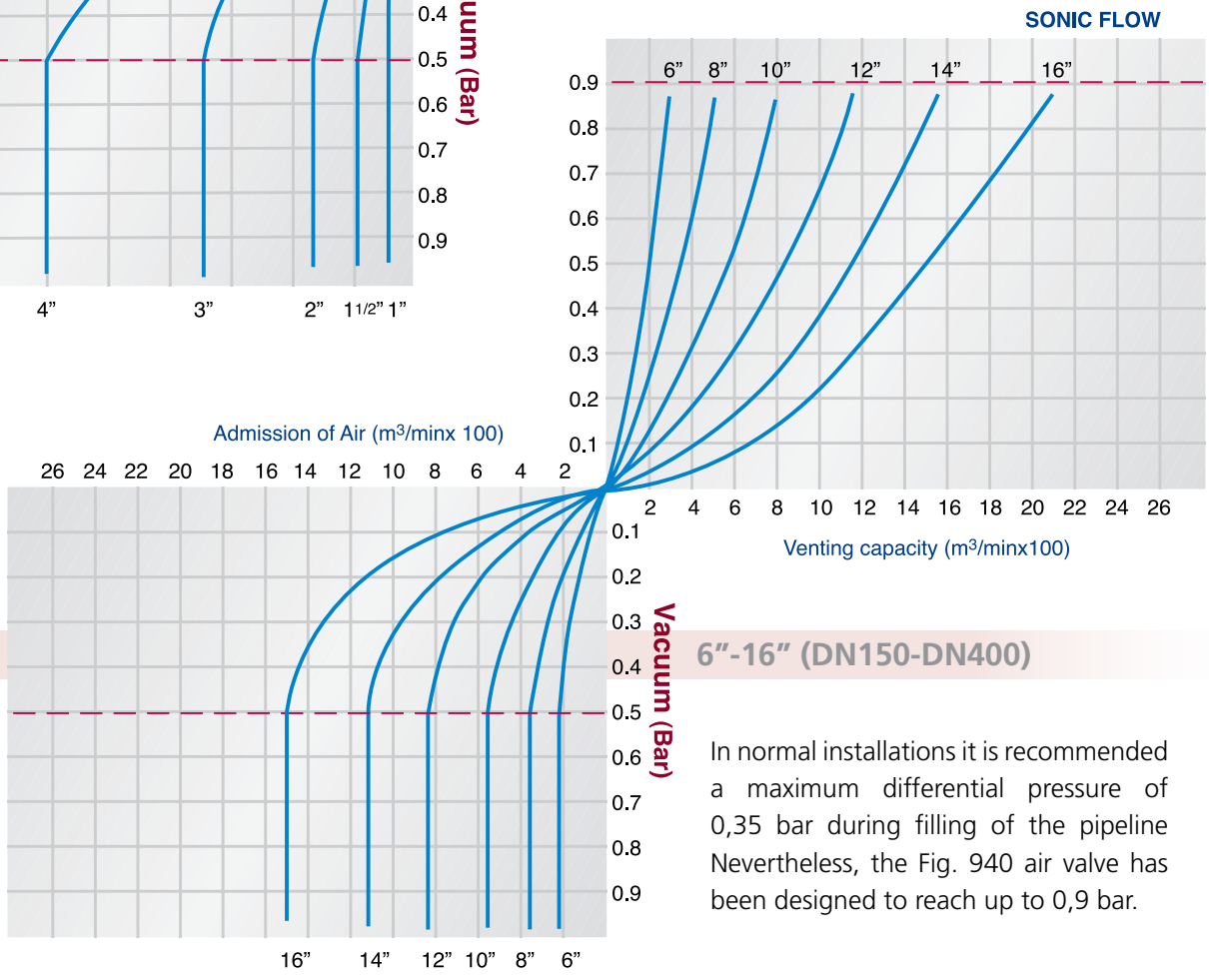
AIR VACUUM VALVES, AIR INLET AND OUTLET CURVES

At negative pressures beyond 0,47 bar (0,53 bar ABS) the sonic choked-flow occurs and no more volume of air can be admitted into the pipeline.

1”-4” (DN25-DN100)



6”-16” (DN150-DN400)



In normal installations it is recommended a maximum differential pressure of 0,35 bar during filling of the pipeline Nevertheless, the Fig. 940 air valve has been designed to reach up to 0,9 bar.

AIR RELEASE VALVES, SELECTION AND SIZING

METHOD 1: IF A SPECIFIC VENTING CAPACITY IS REQUIRED

A. USING TABLE #1

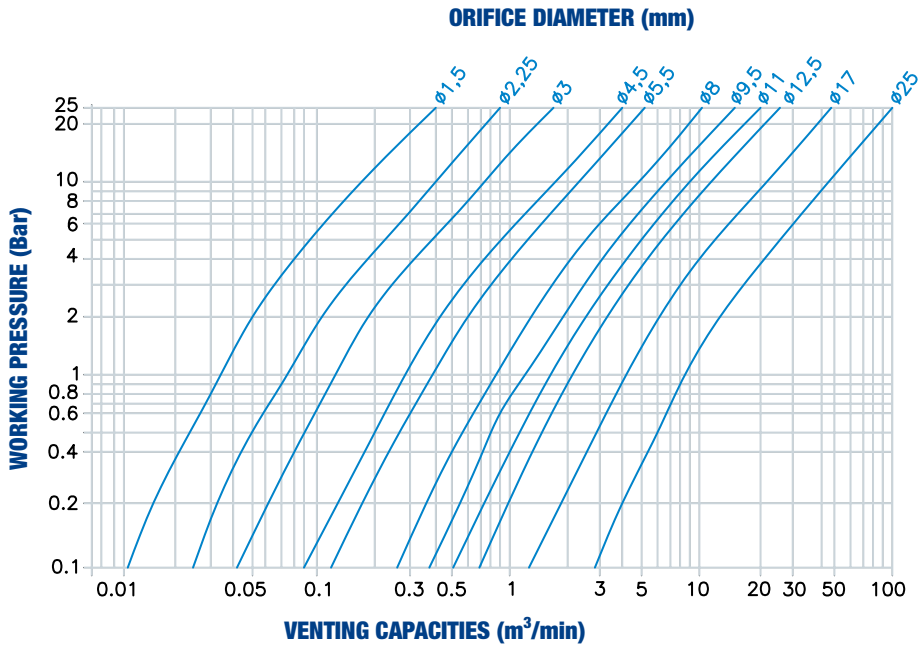
If the specific venting rate is known, refer to Table #1 and select the Air Release Valve which has an orifice available whose venting rate is at least equal to the required rate, at the maximum working pressure the valves will be operating. Select standard orifices whenever possible.

On a long pipeline, it is better to install Air Release Valves with smaller orifices at frequent intervals than to install a few valves with large orifices.

		CLEAN FLUIDS												SEWAGE SERVICE					
		9100		9120		9200		9220		9230 DN 100		9230 DN150		9250		9270		9290	
WORKING PRESSURE Bar	0,35	0,04		0,07		0,18		0,7		1,24		5		0,5		1,24		0,5	
	0,7	0,06		0,11		0,24		1		1,75		7		0,7		1,75		0,7	
	1	0,07		0,13		0,3		1,2		2,12		8,5		0,83	8	2,12	12,5	0,83	8
	1,7	0,1		0,18		0,4		1,6		2,85		11,3		1,1		2,85		1,1	
	3,5	0,16	2,25	0,29	3	0,65	5	2,6	9,5	4,6	12,5	18,5	25	1,8		4,6		1,8	
	5	0,22		0,4		0,9		3,6		6,43		25,7		2,5		6,43		2,5	
	7	0,28		0,5		1,15		4,62		8,22		32,9		1,16		6,3		1,16	
	8,5	0,35		0,62		1,4		5,63		10		40		1,4	4,5	7,67	11	1,4	4,5
	10	0,41		0,73		1,65		6,64		11,8		47,2		1,66		9,05		1,66	
	14	0,24	1,5	0,54	2,25	0,96	3	2,94	5,5	8,7	9,5	29,1	17	Consult Factory					
	16	0,3		0,66		1,18		3,6		10,6		35,9							
	20	0,22	1,25	0,3	1,5	1,4	3	3,43	5	8,8	8	26,9	14						
	25	0,27		0,4		1,65		4,25		10,9		33,3							
FOR OTHER ORIFICES, CONSULT FACTORY																			

B. USING GRAPH #1

1. Enter system pressure and venting capacity onto Graph #1 and select nearest larger orifice diameter.
2. Consult available Air Release Valve orifice diameters on Table #1 and select valve with correct orifice diameter and pressure rating. SELECT A STANDARD ORIFICE WHENEVER POSSIBLE.
3. It is more efficient to install a greater quantity of air release valves at strategic locations with smaller orifice than lesser quantity with larger orifice.



VALVES

Since 1987

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