V301
NON SLAM DYNAMIC AIR REALASE VALVE

Product Description

TVN V301 Dynamic Triple Function Air Release Valve is a unique valve operating without a float, utilizing the rolling diaphragm principle. This unique structure allows the dynamic valves to discharge air from the water system in a controlled and gradual manner, preventing slam and local up-surges. When vacuum occurs, the valves fast reaction will draw in large volumes of air into the water system, impeding down-surges and, consequently, all pressure surges in the line. The valves are normally closed when the line is not operating, thus preventing the infiltration of foreign particles and insects into the water system.

Technical Data	
Size range	DN50 - DN300
Pressure range	PN 10 -16 - 25
Temperature	-10°C to +130 °C
Design	EN 1074 - 4
Connection	EN 1092-2 ISO 7005-2 - Flanged
Coating	Thermoplastic Powder Epoxy
Testing	EN 12266-1
Marking	EN 19
Operation	Automatic

Application Range

- Water transmission
- Water distribution
- Pump suction line
- Peaks points on pipeline
- Next to by-pass valve

Related Products

- V151 Gate Valve Resilient Seated
- V106 Butterfly Valve Flanged
- V251 Dismantling Joint

IRRIGATION

POTABLE WATER

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Product Features

- Ventilation outlet in nominal size (large opening cross-section according to the flange size).
- Intake of large volumes of air on shut-off of the system, while pipelines are being drained.
- Efficient, high performance ventilation protects pipeline from vacuum related damages.
- High velocity air discharge prevents premature closure, thus safeguarding optimum ventilation during the process of filling pipelines or containers.
- Large orifice for outlet and intake of large air volumes, during filling and emptying of pipeline.
- Continuously reliable ventilation of air inlets under normal operating conditions.
- Non slam closure by the help of two stage closing design.
- Excellent corrosion protection, all stainless-steel internal parts
- The housing is made of ductile iron and coated with high quality epoxy powder All uncoated metal is stainless steel.
- High capacity inlet sectional area and outlet are equal area.
- Casting Standard: EN 1563:2011 / TS EN 1074-4 / TS EN 1092-2.
- Hydrostatic test pressure for seat: PN x 1.1 , for shell: PN x 1.5 according to EN 12266-1.

*V301 Dynamic Air Release Valve is a available for OEM branding alternative.

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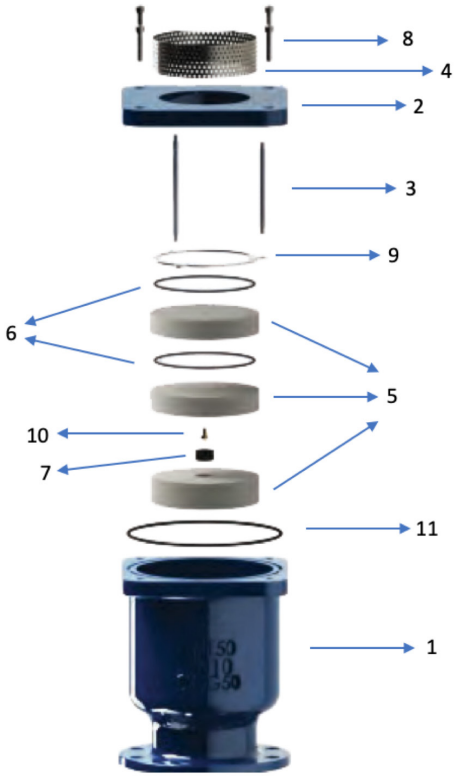
Material List



Item No	Part	Material
1	Body	GGG50 Ductile Iron
2	Cover	GGG50 Ductile Iron
3	Float Guide	AISI 304 Stainless Steel
4	Upper Cover	AISI 304 Stainless Steel
5	Float	PE
6	O-Ring	EPDM/NBR
7	Orifice Sealing	EPDM/NBR
8	Bolt	8.8 / A2 / A4
9	Float Flange	AISI 304 Stainless Steel
10	Orifice	Brass
11	Body Sealing	EPDM/NBR

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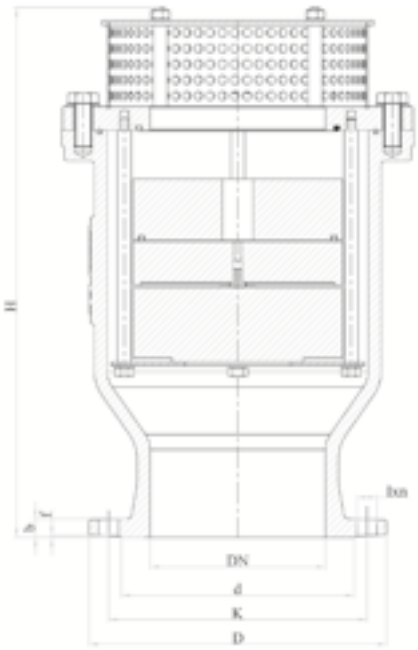
Dimensions Table



DN	Dimensions								
	PN 10				PN 16				PN10-16
mm	D	k	lxn	Unit Weight (kg.)	D	k	lxn	Unit Weight (kg.)	H
50	165	125	19x4	13	165	125	19x4	13	230
65	185	145	19x4	14	185	145	19x4	14	245
80	200	160	19x8	18	200	160	19x8	18	265
100	220	180	19x8	23	220	180	19x8	23	290
125	250	210	19x8	32	250	210	19x8	32	310
150	285	240	23x8	46	285	240	23x8	46	330
200	340	295	23x8	74	340	295	23x12	77	390
250	400	350	23x12	95	405	355	28x12	100	430
300	455	400	23x12	107	460	410	28x12	110	470

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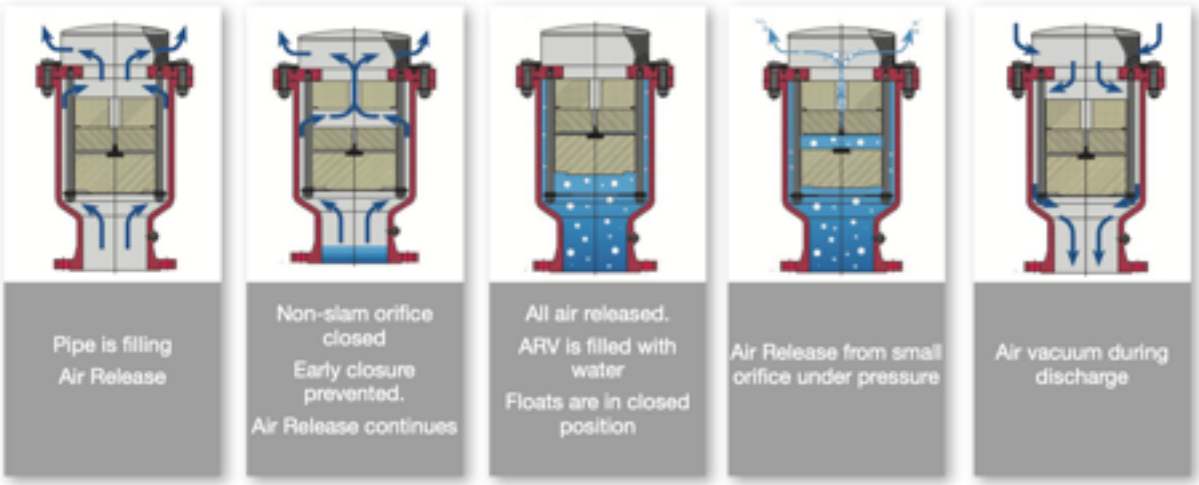
Effects of Air in Pipelines

Air release and vacuum is crucial for the pipelines during line filling and line emptying. Problems occurs when air left in the pipeline

- Pipes are already filled with water before commissioning
- %2 of dissolved air already exists in water
- Pumps absorb air while operating
- Air accumulating in the pipeline narrows the water passage area even may stop the entire flow

Dynamic Air Release Valve Working Principle



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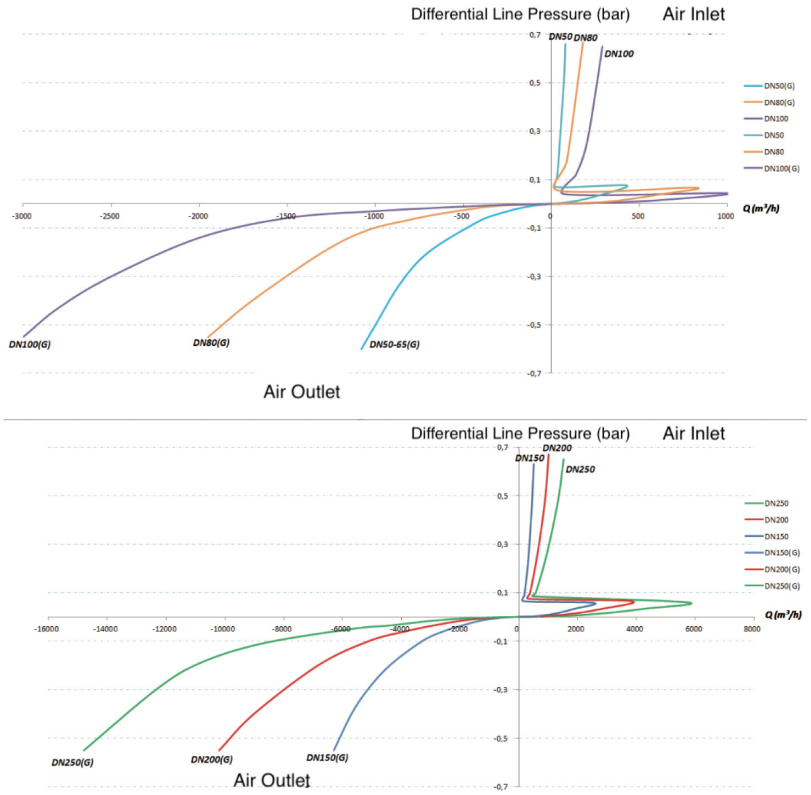
ARV Selection Criteria



Test Procedures

- Hydrostatic test
- Air release test
- Air release under pressure
- Air vacuum test
- Low pressure sealing test
- Body resistance test

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