

Sewer Air Valves

Technical Guide W4.24

Waste water combination air release.



11.22 | W4.24 SEWER AIR VALVES

Applications

Waste water

Combination venting

Product Attributes

Main body 316 SS

Upper body Polyamide and fibreglass

Quality

ISO 9001:2008 Quality

Management Standard

We are the supply partner of choice for New Zealand's civil construction industry, specialising in water and infrastructure based solutions.

HYNDSwater

The ARV-3-N incorporates a kinetic and an automatic air release valve in one single valve body.

Its function in the sewage system is to allow air and gases to be expelled from the pipeline during filling, and air to be admitted into the pipeline during emptying. The valve is designed to provide complete separation of the sewage from the sealing mechanism.

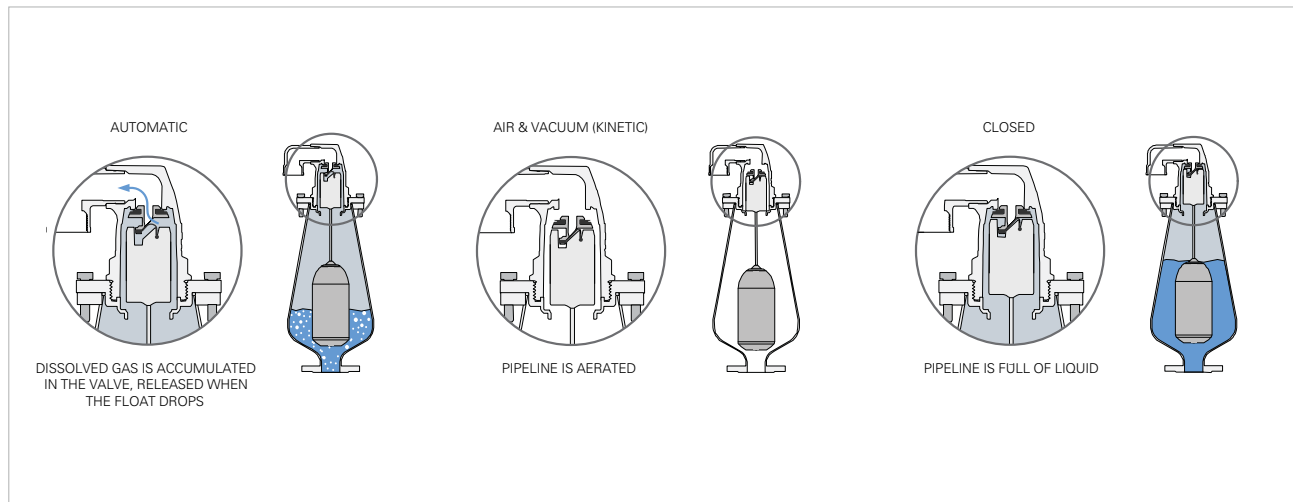


FIG. 1 Principle of operation

Main Features

- Working pressure of 0.1 - 16 bar
- All wetted components manufactured from 316 and 316L stainless steel
- Design of valve maintains air gap between sewage and sealing mechanism
- The valve body shape is designed to contain the maximum volume of sewage while minimising the valve height
- Lower shape of valve body is designed to provide ease of drainage of sewage back into the pipeline

Operation

When the pipeline is being filled, trapped air and gases are released through the large orifice of the kinetic valve.

During emptying of the pipeline the valve allows air to enter the pipeline through the large orifice. During normal operation the large orifice remains closed while the small orifice allows small amounts of entrapped air which has accumulated, to be released through the valve.

The valve mechanism is designed to absorb small changes in pressure which prevents the small orifice from continually opening, thus maintaining a constant air gap between the sealing mechanism and the sewage.

Technical Data

- Pressure Classes: PN16
- Maximum Air Outflow: 500m³/h (filling line) and 20m³/h (full line)
- Minimum Sealing: 0.1 bar
- Temperature Range: 0°C to 80°C
- Inlet Connection (optional): 50, 80, 100 & 150mm
- Upper Outlet Orifice: 32mm BSPF
- Weight: 13.6kg
- Maximum Height: 670mm
- Maximum Diameter: 270mm

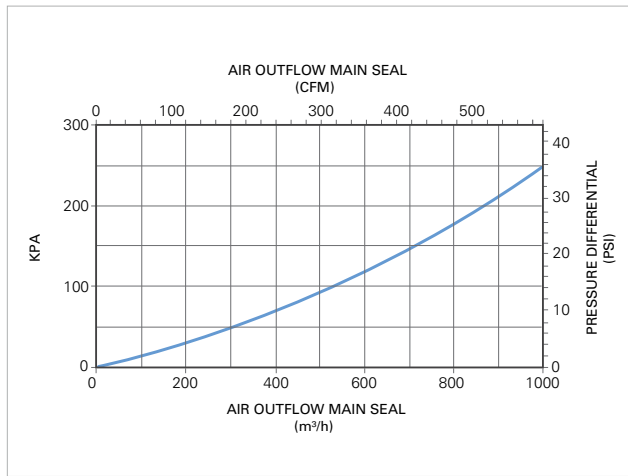


FIG. 2

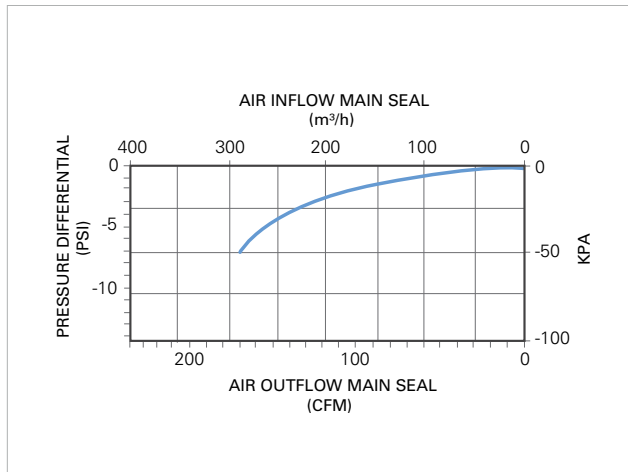


FIG. 3

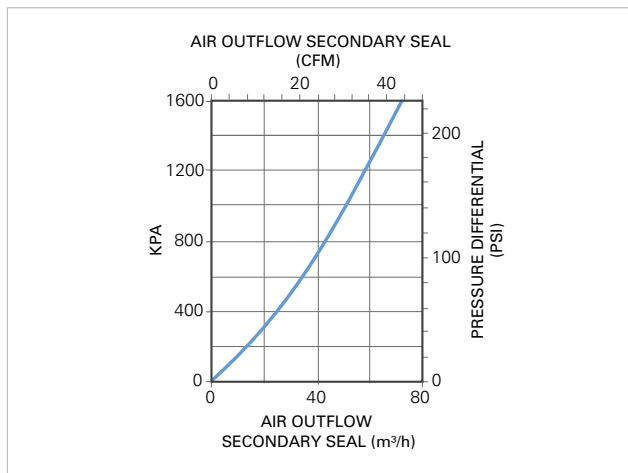


FIG. 4

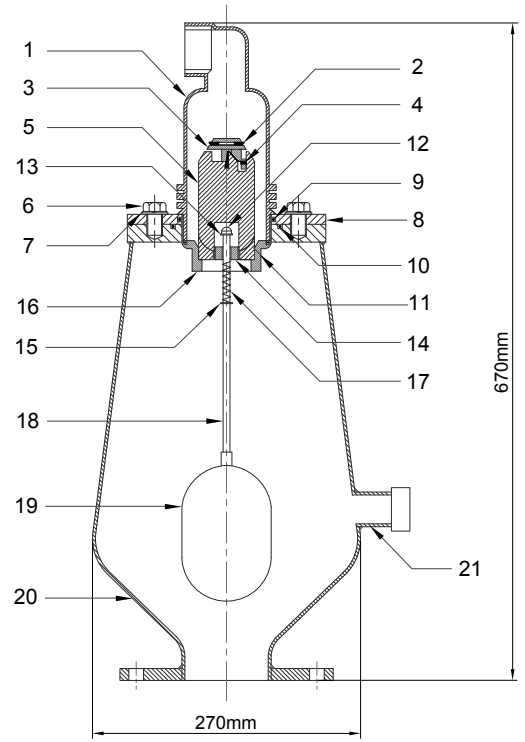


FIG. 5

TABLE 1

No.	Description	Material
1	Air Release Body	GRN
2	Main Seal	EPDM
3	Slide	Polyamide
4	Secondary Seal	EPDM
5	Top Float	Polypropylene
6	Bolt	SS316
7	Washer	SS316
8	Top Flange	SS316
9	Top O-Ring	EPDM
10	Middle O-Ring	EPDM
11	Base O-Ring	EPDM
12	Dome Head Nut	SS316
13	Washer	SS316
14	Plug	UPVC
15	Washer	SS316
16	Base	GRN
17	Spring	SS316
18	Stem	SS316
19	Bottom Float	SS316L
20	Main Body	SS316L
21	Flush Port (1" BSP)	SS316

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