

ARV-3

316 STAINLESS STEEL SEWER AIR RELEASE VALVE



The ARV-3 incorporates a kinetic and an automatic air release valve in one single valve body. Its function in the sewage system is to allow air to be expelled from the pipeline during filling, and air to be admitted into the pipeline during emptying.

The lightweight valve is designed to provide complete separation of the sewage from the sealing mechanism, utilising non-corrosive components and materials.

ADVANTAGES

- ▷ All wetted components manufactured from 316 and 316L stainless steel and UV stabilised plastic, makes it totally non-corrosive.
- ▷ Triple action air release in the one unit; incorporates both automatic and kinetic air release and vacuum breaking functions.
- ▷ Design of valve maintains air gap between fluid and sealing mechanism.
- ▷ Lower shape of valve body is designed to provide ease of drainage of debris back into the pipeline.
- ▷ Protects wastewater / water systems from suffering structural damage caused by hammer and vacuum situations.
- ▷ Inherently reliable with low maintenance requirements due to the valve design and selected materials.

OPERATIONS

When the pipeline is being filled, trapped air is 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	1000m ³ /h (filling line) & 20m ³ /h (full line)	
Minimum Sealing	0.1 bar	
Temperature Range	0°C to 80°C	
Inlet Connections	Flange 50, 80, 100, 150mm	Thread 50mm BSP, 50mm NPT
Upper Outlet Orifice	32mm BSPF	
Weight	Flange 11.85kg (50mm) 12.45kg (80mm) 13.10kg (100mm) TBAkg (150mm)	Thread 11.15kg (50mm BSP)
Height	Flange - 670mm	Thread - 700mm
Diameter	270mm	



ARV-3

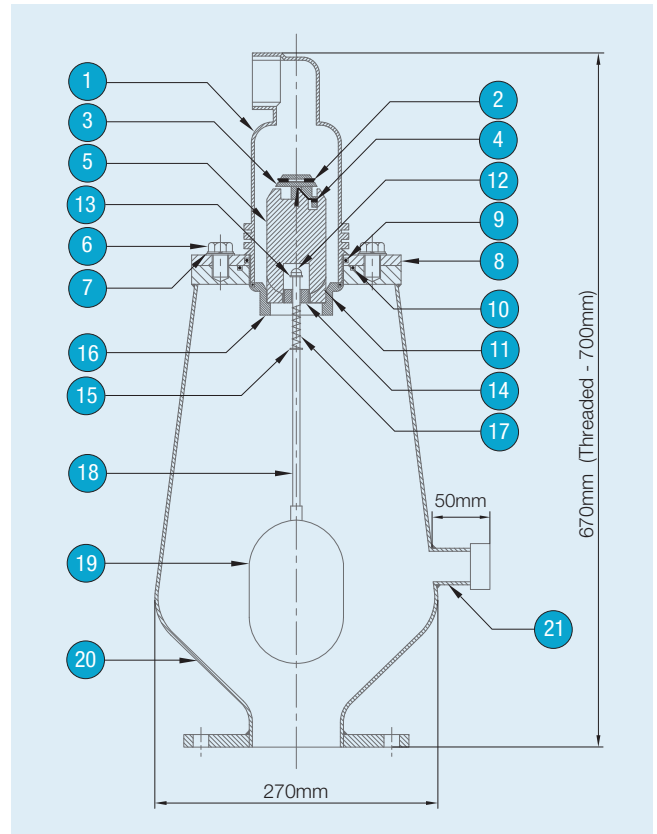
316 STAINLESS STEEL SEWER AIR RELEASE VALVE

MATERIAL SPECIFICATIONS & PARTS LIST

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

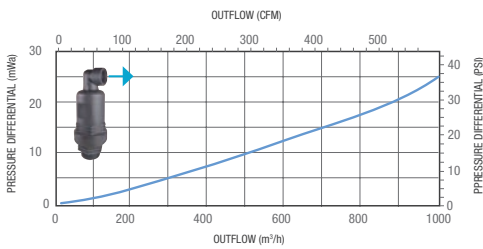
* In spare parts kit - ARV-3-SK

DIMENSIONAL DRAWING

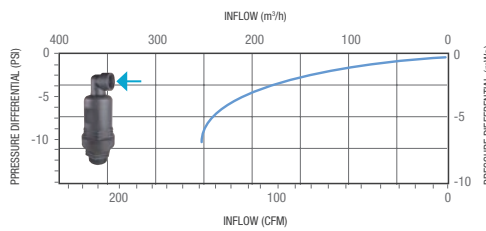


AIR INFLOW & OUTFLOW

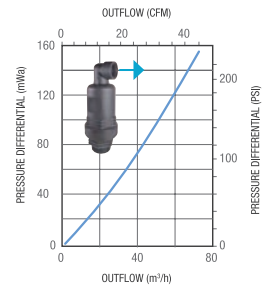
Air OUTFLOW Main Seal



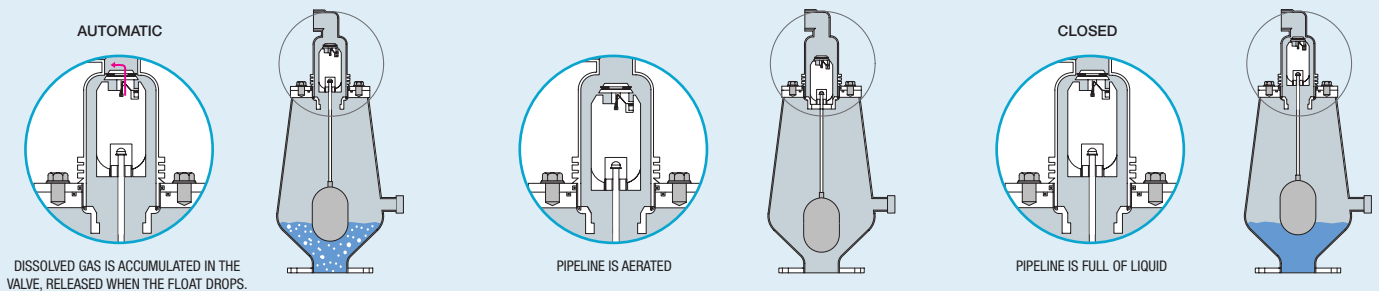
Air INFLOW Main Seal



Air OUTFLOW Secondary Seal



PRINCIPLE OF OPERATION



ARV-3

316 STAINLESS STEEL SEWER AIR RELEASE VALVE

OPTIONS



COVER (C)
316 Stainless Steel, additional protection of the plastic air release components.
Adds an additional 40mm.



CHECK VALVE (CK)
Eliminates air being drawn into the pipe line.
Adds an additional 120mm.



FLUSH PORT (FL)
Allows the debris to be easily flushed from the valve. Assists in preparing the valve for maintenance.
Adds an additional 50mm.



ANTI SLAM (AS)
Slows the momentum of the valve.
Adds an additional 140mm.

SPARE PARTS KIT (ARV-3-SK)

DESCRIPTION	MATERIAL
Air Release Body	Fibreglass-Reinforced Polyamide
Main Seal	NBR
Slide	Polyamide
Secondary Seal	NBR
Top Float	Polypropylene
Top O-Ring	NBR
Middle O-Ring	NBR
Base O-Ring	NBR
Dome Head Nut	SS316
Plug	Nylon
Base	Fibreglass-Reinforced Polyamide
Spring	SS316



ORDERING CHART

MODEL	SIZE		ATTACHMENT		OPTION	
ARV-3-N	-050	FLANGED	T/D	Table D	+C	Cover
	-080		T/E	Table E	+CK	Check Valve
	-100		ANSI	ANSI	+FL	Flush Port
	-150	THREADED			+AS	Anti Slam
	-050		BSP	BSP		
	-050		NPT	NPT		

EXAMPLE	ARV-3, 50mm Table D Flanged with cover, checked valve & flush port
	ARV-3-N-050 T/D+C+CK+FL