

ARV-4

AIR RELEASE VALVE FOR WASTE WATER & FRESH WATER SYSTEMS



The ARV-4 incorporates a kinetic and an automatic air release valve in one single valve body. Its function in the waste water and fresh water 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 waste water and fresh water 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 water.

TECHNICAL DATA

Pressure Classes	PN16	
Maximum Air Outflow	500m ³ /h (filling line) & 20m ³ /h (full line)	
Minimum Sealing	0.1 bar	
Temperature Range	0°C to 80°C	
Inlet Connections	Flange 25mm	Thread 25mm BSP, 25mm NPT
Upper Outlet Orifice	20mm BSPF	
Weight	Flange 3.7kg (25mm)	Thread 3.0kg (25mm BSP)
Height	Flange - 420mm	Thread - 415mm
Diameter	130mm	



ARV-4

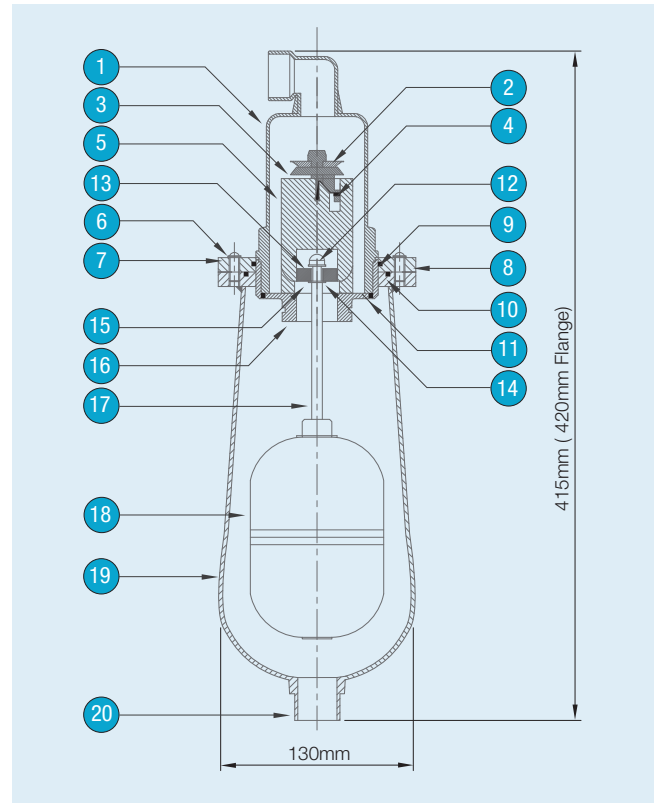
AIR RELEASE VALVE

MATERIAL SPECIFICATIONS & PARTS LIST

NO.	DESCRIPTION	MATERIAL
1	* Air Release Body	Fibreglass-Reinforced Polyamide
2	* Main Seal	EPDM
3	* Slide	Polyamide
4	* Secondary Seal	EPDM
5	* Top Float	Polypropylene
6	Dome Head CHS	SS316
7	Flat 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	Nylon
15	Washer	SS316
16	* Base	Fibreglass-Reinforced Polyamide
17	Stem	SS316
18	Bottom Float	SS316
19	Main Body	SS316
20	Nipple	SS316

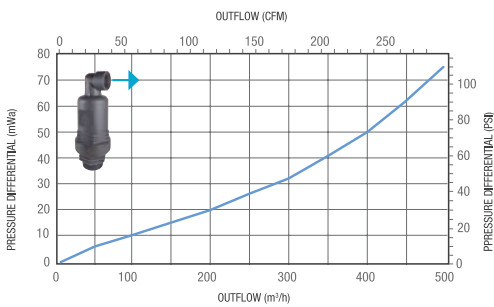
* In spare parts kit - ARV-4-SK

DIMENSIONAL DRAWING

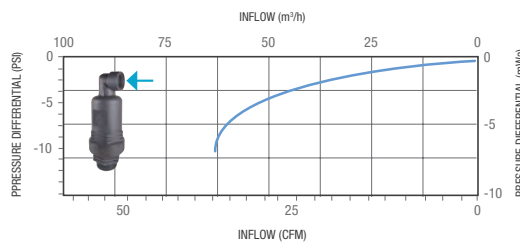


AIR INFLOW & OUTFLOW

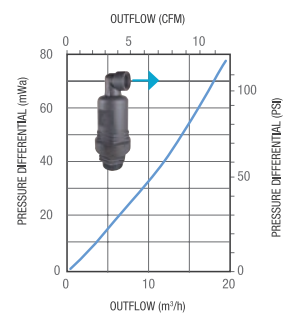
Air OUTFLOW Main Seal



Air INFLOW Main Seal



Air OUTFLOW Secondary Seal



PRINCIPLE OF OPERATION

