

# ARV-5

## AIR RELEASE VALVE FOR WASTE WATER & FRESH WATER SYSTEMS



The ARV-5 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.

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

### ADVANTAGES

- ▷ The ARV-5 valve is manufactured with certified materials, utilising certified welding techniques.
- ▷ All wetted components manufactured from 316 and 316L stainless steel and UV stabilised plastic, makes it totally non-corrosive.
- ▷ Double action air release in the one unit; incorporates both automatic and kinetic air release.
- ▷ Design of valve maintains air gap between fluid and sealing mechanism.
- ▷ Protects wastewater/water systems from suffering structural damage caused by hammer.
- ▷ Inherently reliable with low maintenance requirements due to the valve design and selected materials.
- ▷ The 50mm BSP incorporated into the top cover allows an extension to be added to vent the air higher into the atmosphere.
- ▷ The 6mm coupling on the cover allows condensation to drain from the valve.

### OPERATIONS

When the pipeline is being filled, trapped air is released through the large orifice of the kinetic valve. 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	1000m <sup>3</sup> /h (filling line) & 20m <sup>3</sup> /h (full line)	
Minimum Sealing	0.1 bar	
Temperature Range	0°C to 80°C	
Inlet Connections	Flange 40, 50mm	Thread 50mm BSP, 50mm NPT
Upper Outlet Orifice	50mm BSPF	
Weight	Flange 13.3kg (40mm) 14.3kg (50mm)	Thread 12.3kg (50mm BSP)
Height	Flange - 630mm	Thread - 610mm
Diameter	180mm	



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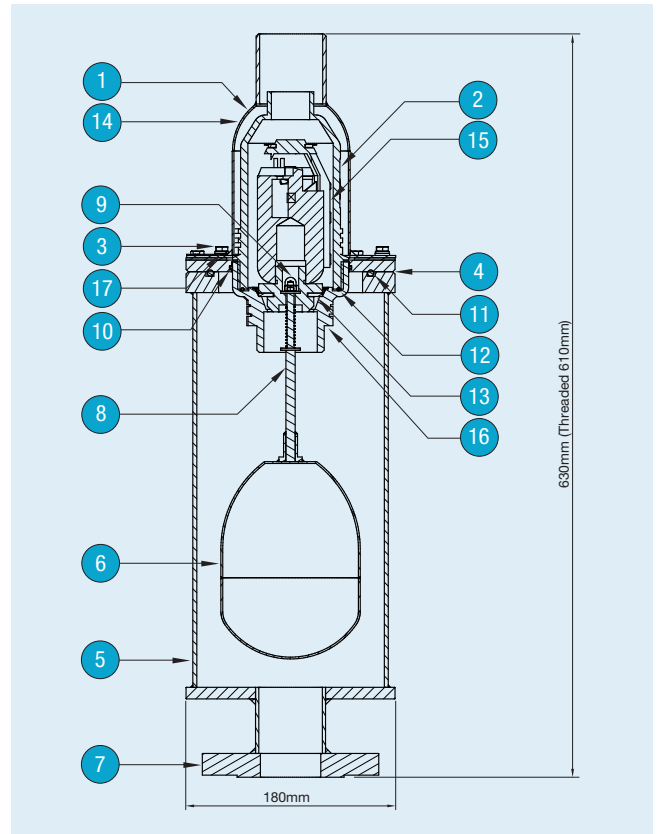
## AIR RELEASE VALVE

### MATERIAL SPECIFICATIONS & PARTS LIST

NO.	DESCRIPTION	MATERIAL
1	Cover Assembly	SS316 - DN50 BSP
2	ARV-2	Fibreglass-Reinforced Polyamide
3	Fixings	SS316
4	Seals	NBR
5	Main Body	SS316
6	Float Assembly	SS316
7	Flange	40NB CL150 R/F ASTM A182 F316L
8 *	Spring	SS316
9 *	Dome Nut	SS316
10 *	Top O Ring	HBR
11 *	Mid O Ring	HBR
12 *	Base O Ring	HBR
13 *	Vent Plug Assembly	Acetal
14 *	Upper Body	Fibreglass-Reinforced Polyamide
15 *	Upper Float	Polyamide
16 *	Upper Base	Fibreglass-Reinforced Polyamide
17 *	Top Seal	HBR

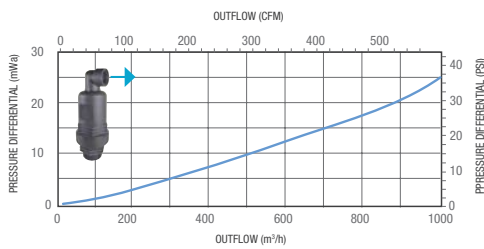
\* In spare parts kit - ARV-5-SK

### DIMENSIONAL DRAWING

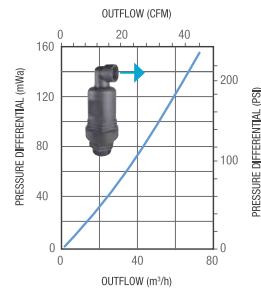


### AIR OUTFLOW

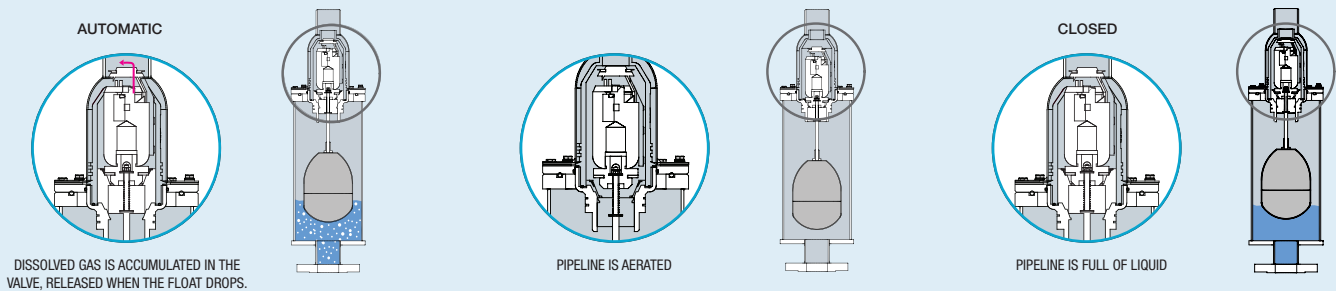
Air OUTFLOW Main Seal



Air OUTFLOW Secondary Seal



### PRINCIPLE OF OPERATION



# ARV-5

## AIR RELEASE VALVE

### SPARE PARTS KIT (ARV-5-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	
ARV-5-N	-040	FLANGED	T/D	Table D
	-050		ANSI	ANSI
	-050	THREADED	BSP	BSP
	-050		NPT	NPT

EXAMPLE	
	ARV-5, 40mm Table D Flangeds
	ARV-5-N-040 T/D