

**DAV-MP-2-KA**

**Combination Air-Valve, Metallic-Shield**

This valve has been designed for efficient discharge and intake of air in water pipelines, filtering systems, containers, and other places where confined air could impair the system’s operation. The valve is designed for:

- Discharge of high air-volumes during the initial filling of the systems
- Introducing large quantities of air when the pipe drains, maintaining atmospheric pressure in the pipe and preventing collapse and cavitation damage to the conduits
- Relieving air from the water-filled system, while the network is pressurized

**Properties:**

Leak-proof sealing at all conditions, including low system pressure. The aerodynamic design of the float provides air flow at a very high velocity. The float does not close before the water has reached the valve. Threaded outlet elbow allows various possibilities of drain connection. The valve design contains a very limited number of parts, allowing easy dismantling for maintenance.

**Operation:**

The DAV-P-2-KA valve has three modes of operation:

- Discharge of large volumes of air at a high flow velocity when the conduit is being filled. When the water arrives to the valve, the main float rises and closes the outlet.
- Introduction of air into the pipeline when the internal pressure is sub-atmospheric. The pressure differential and the gravity, force the main float to drop to “opened” position, allowing the air to flow into the pipe.
- Releasing air from the pressurized, water-filled pipeline. Small quantities of air accumulate at high peaks of the pipeline and in the body of the valve. The descending



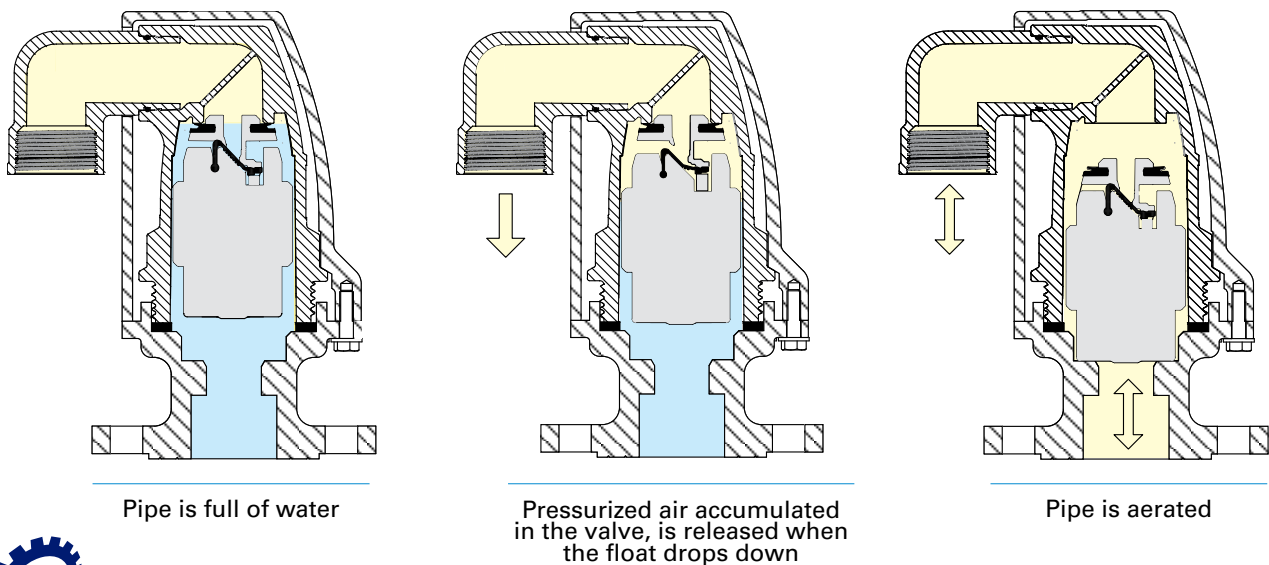
water level allows the float to drop. At a certain position the main float pulls down the small seal, that partially opens the nozzle. The pressurized air can escape, the water level rises and the nozzle re-closes.

- Introduction of air into the pipeline when the internal pressure is sub-atmospheric. The pressure difference and the gravity, force the float to drop to “opened” position, allowing large volumes of air to flow into the pipe.

**Technical Specifications:**

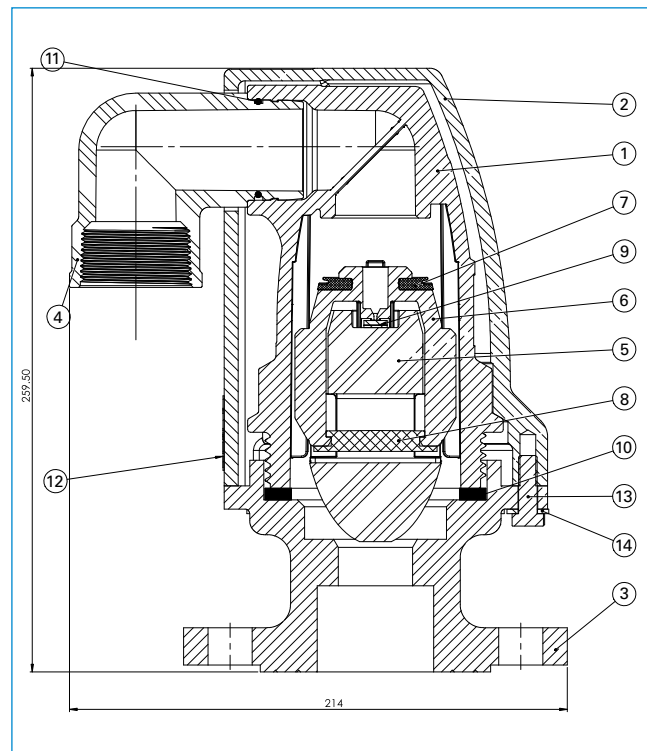
- Operating pressure 0.1 bar / 1.5 psi to 25 bar / 360 psi
- 2” Threaded/Flanged base - as per the customer’s choice
- Cover material: Ductile Iron
- Base Material: Ductile Iron
- Internal parts: corrosion resistant, reinforced plastic materials and synthetic rubber
- The valve allows the discharge of 450m<sup>3</sup>/h of air at a line pressure of 0.9 bar, when fully-open

**Principle of operation:**



### Parts list and specifications:

Part	Description	Material
1	Bonnet	PA6+30GF
2	Cover	D.I
3	Flanged Base	D.I
4	Elbow	Polypropylene
5	Float	Foam PP
6	Slider	PA6+30GF
7	Seal	EPDM
8	Spacer	POM
9	Auto Seal	EPDM
10	Flat Seal	EPDM
11	O Ring	Nitrilic Rubber
12	ID Plate	Aluminium
13	Screw Hex	SST
14	Washer	SST



### Dimensions:

Valve Dimension	50 mm / 2"	
	SI	US
H - Height	259.5 mm	10 <sup>3</sup> / <sub>16</sub> "
Total Width	214 mm	8 <sup>3</sup> / <sub>8</sub> "
D - Thread	2" BSP	2" NPT
A - Nozzle Area	12.85 mm <sup>2</sup>	0.02 in <sup>2</sup>
K - Kinetic Nozzle Area	908 mm <sup>2</sup>	1.41 in <sup>2</sup>
Flange	ISO16/25	ANSI150
E - Drainage Diameter	1 <sup>1</sup> / <sub>2</sub> " BSP	1 <sup>1</sup> / <sub>2</sub> " BSP
Weight	9 kg	19.8 lbs.

### Performance:

