

DAV-MP-1-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-1-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 at 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

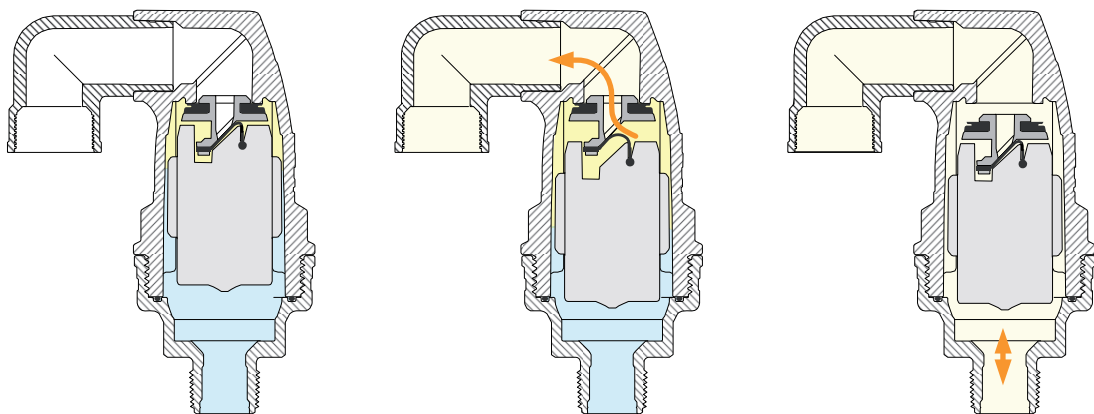


seal, that partially opens the nozzle. The pressurized air can escape, the water level rises and the nozzle re-closes.

- 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
- 1" BSP or NPT threaded base - as per the customer's choice
- Cover material: Cast Iron
- Base Material: Brass
- Internal parts: corrosion resistant, reinforced plastic materials and synthetic rubber
- At pipe pressure of 0.5 bar / 7 psi:
 - The 2"/50mm valve allows the discharge of 260 m³/h / 153 CFM of air
 - The 1"/25mm valve allows the discharge of 60 m³/h / 35 CFM of air

Principle of operation:

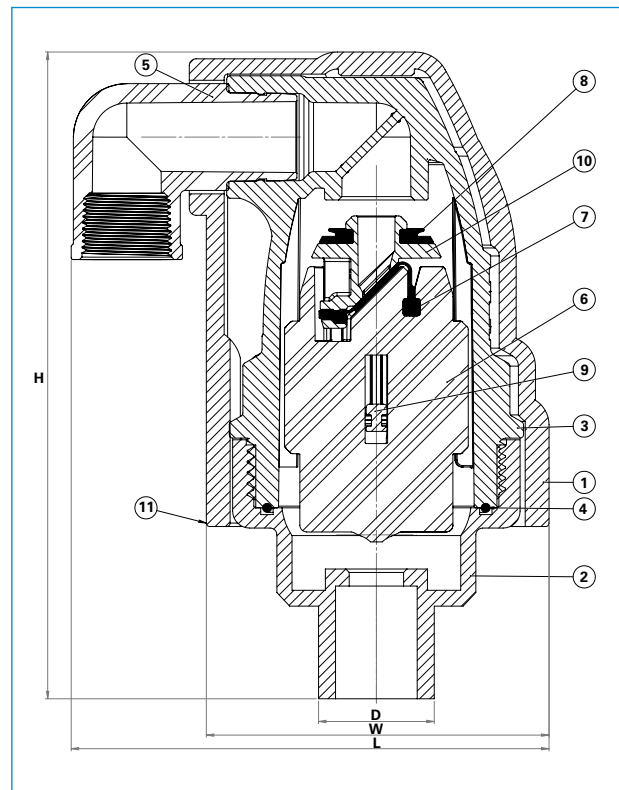
Pipe is full of water

Pressurized air accumulated in the valve, is released when the float drops down

Pipe is aerated

Parts list and specifications:

Part	Description	Material
1	Metallic Cover	Ductile iron (Optional SST)
2	Base	Brass (optional SST)
3	Bonnet	PA6+30GF
4	O-ring seal	NBR
5	Drainage Elbow	PP
6	Float	Foamed PP
7	Automatic Seal	EPDM
8	Kinetic Seal	EPDM
9	Spacer	POM
10	Slider	PA GF
11	ID Plate	AL



Dimensions:

Valve	25 mm / 1"	
	SI	US
H - Height	190 mm	7 1/2"
W - Width	100 mm	3 7/8"
D - Thread	1" BSP	1" NPT
A - Nozzle Area	12.85 mm ²	0.02 in ²
K-Kinetic Nozzle Area	314 mm ²	0.49 in ²
L - Total Width	140 mm	5 1/2"
E - Drainage Diameter	3/4" BSP	3/4" BSP
Weight	2.6 kg	5.60 lbs.

Performance:

