

DAV-MP-2-KA 2" Combination Air Valve

Description

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

The valve is appropriate for:

- Expelling the air at high flow velocity during the initial filling of the systems
- Introducing large quantities of air when the pipe drains, maintaining atmospheric pressures in the pipe and preventing collapse and cavitation damage to the conduits
- Relieving the entrained air from the water, 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 an easy dismantling for maintenance.

Operation

The DAV-MP-2-KA valve has three modes of operation:
Discharge of large quantities of air at a high flow velocity when

the conduit is being filled. When the water arrives to the valve, the main float rises up and closes the outlet.

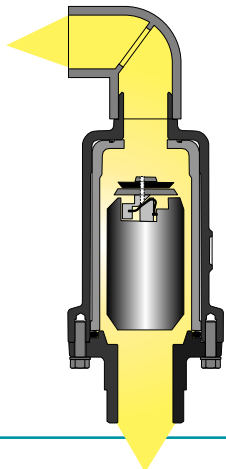
Introduction of air into the pipeline when the internal pressure is sub-atmospheric. The pressure difference forces the main float to drop to "opened" position, allowing the air to flow into the pipe. Releasing entrained air from the pipeline. Small quantities of diluted air accumulate in high peaks of the pipeline and in the peak of the valve.

The pressurized air expels the water. The descending water level moves the main float with it. 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.

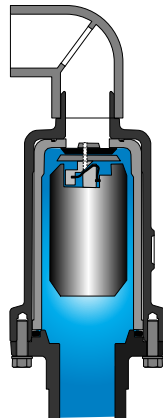
Technical Specifications

- Operating pressure of 0.2 to 16 bars
- 2" BSP or NPT threaded or flanged base – as per the customer's choice
- Air flow, even at a critical velocity created by pipeline pressure of 0.9 bar, will not cause premature closure of the valve
- Structure materials: Body: Ductile Iron UV resistant Polyester coated
- Internal parts: corrosion resistant plastic materials and synthetic rubber
- The valve allows the discharge of 700m³/h of air at pipe pressure of 0.5 bar, when fully-open

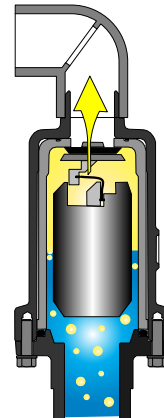
Pipe is aerated
Air valve allows free flow



Pipe is full of water
Discharge port is sealed



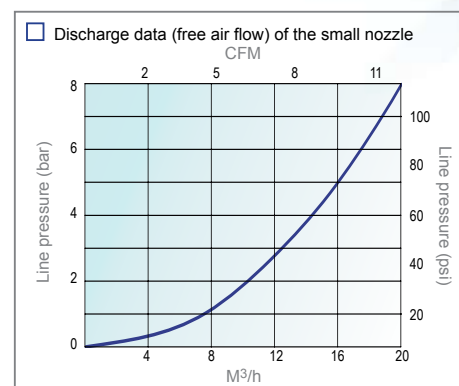
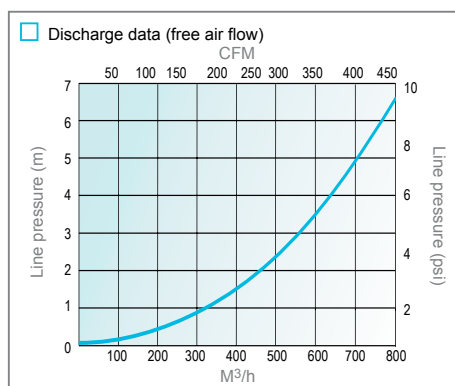
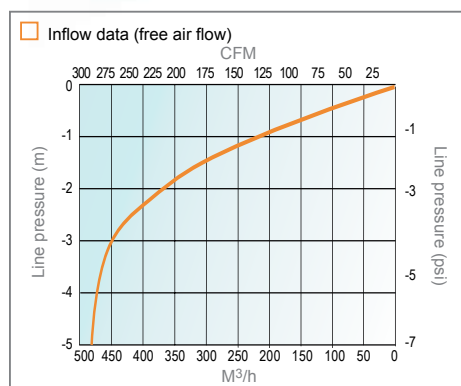
Pipe is full of water
Pressurized air is released
through automatic discharge port



DAV-MP-2-KA 2" Combination Air Valve

Performance

Air intake / discharge



Dimensions

Dimension	SI	US
H - Height	269mm	10 ⁹ / ₁₆ in.
W - Width	102mm	4 in.
D - Threaded Attachment	2" BSP	2" NPT
Wf- Flange width	165 mm	6.5 in
a - Automatic nozzle area	7mm ²	0.0108 in ²
A - Nozzle Area	855mm ²	132.5 in ²

Part Specifications

Part	Description	Material
1	Base	D.I.
2	Bonnet	D.I.
3	Guide	PA
4	Float assy	PP+EPDM
5	Washer	SST
6	Bolt	SST
7	O- ring	NBR
8	I.D. Plate	AL
9	Outlet elbow	GRP

