

Plastic Air Valves



Series: 701

SERIES 701/90

Automatic Air Valve



Description

The Series 701/90 Automatic Air Valve has been designed for the efficient release of entrapped air from the pipeline, while the network is at normal working pressure.

Due to the relatively large orifice, compared to other Automatic valves in the market, it is ideally suited for installation on small diameter pipelines.

Properties

An Automatic air valve that enables the release of dissolved air that accumulates in the pipeline. The valve will release the air at normal operating pressures of the pipeline.

The float is made of naturally buoyant material.

The float activates a sealing strip, that closes the outlet when the water fills the valve body.

On accumulation of air in the valve, loss of buoyancy causes the float to drop and to pull the strip, thus opening the air outlet.

The hydraulic sealing of the orifice will provide a drip-tight closure at low pressures.

Operation

Releasing entrained air from the pipeline. Small quantities of diluted air accumulate in the top of the valve. The pressurised air forces the water down. The descending water level moves the main float with it. At a certain position the main float pulls down the small seal, which partially opens the nozzle.

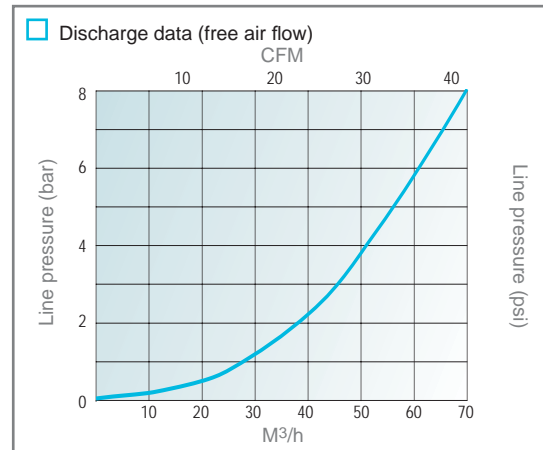
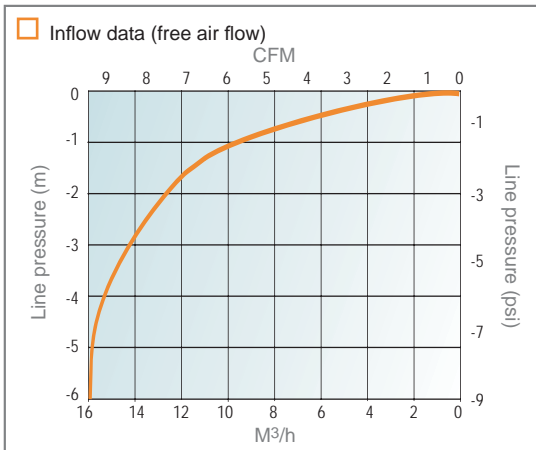
The pressurised air can escape, the water level rises and the nozzle re-closes.

Technical Specifications

- Operating pressure of 0.2 to 16 bars
- 25mm BSP-M threaded base
- Air flow, even at a critical velocity created by pipeline pressure of 0.9 bar, will not cause premature closure of the valve
- Valve body materials:
Cover: Glass reinforced, UV resistant Polyamide (GRP)
Base: GRP/Brass
- Internal parts: corrosion resistant, reinforced plastic materials and synthetic rubber
- The valve allows the discharge of 28m³/hour of air at pipe pressure of 1.0 bar, when fully open

Performance

Air intake / discharge



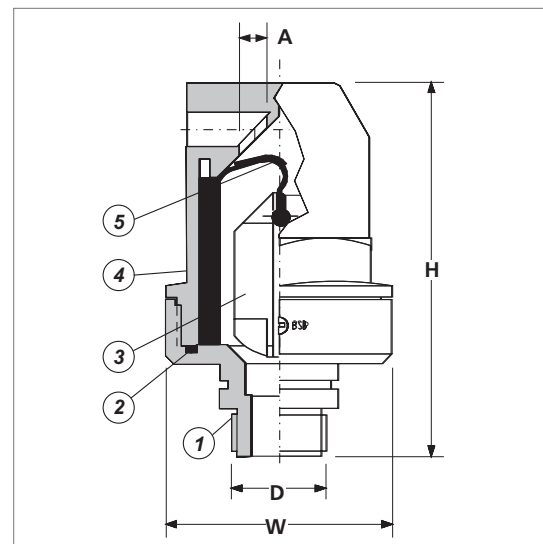
Dimensions

Dimension

H - Height	133mm
W - Width	102mm
D - Threaded Attachment	25mm BSP-M
A - Nozzle Area	25mm ²
Weight	0.29 kg

Part Specifications

Part	Description	Material
1	Base	GRP (Brass optional)
2	O-ring	NBR rubber
3	Float	Polypropylene
4	Body	GRP
5	Valve seal	EPDM rubber



SERIES 701/91 Combination Air Valve



Description

The Series 701/91 Combination Air Valve has been designed for efficient discharge and intake of air in water transmission pipelines, filtering systems and other places where confined air could impair the system's operation.

The valve is appropriate for:

- Expelling air at high flow velocity during the initial filling of the system
- Introducing large quantities of air when the pipe drains, maintaining atmospheric pressure in the pipe and preventing collapse and cavitation damage to the pipeline
- Relieving the entrained air from the water, while the network is pressurised

Properties

Leak-proof sealing under all conditions, including low system pressure.

The aerodynamic design of the float enables air flow at a very high velocity.

The float does not close before the water has reached the valve.

Threaded outlet elbow allows various options for drain connections.

The valve design contains a very limited number of parts, allowing easy dismantling for maintenance.

Operation

The Series 701/91 valve has three modes of operation:

- **Discharge** of large quantities of air at a high flow velocity when the pipeline is being filled. When the water reaches the valve, the main float rises up and closes the outlet.
- **Introduction** of air into the pipeline when the internal pressure is sub-atmospheric.
- **Releasing** entrained air from the pipeline.

The pressure difference forces the main float to drop to the "opened" position, allowing the air to flow into the pipe.

- **Releasing** entrained air from the pipeline.

Small quantities of diluted air accumulate in high points of the valve pipeline and in the top of the valve.

The pressurised 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.

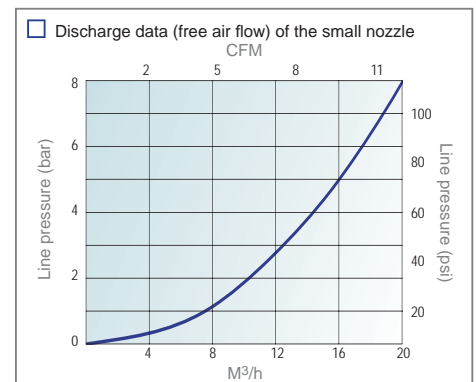
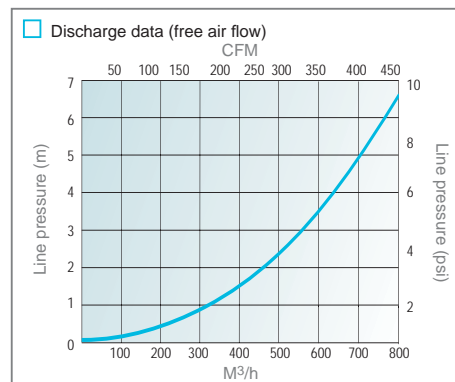
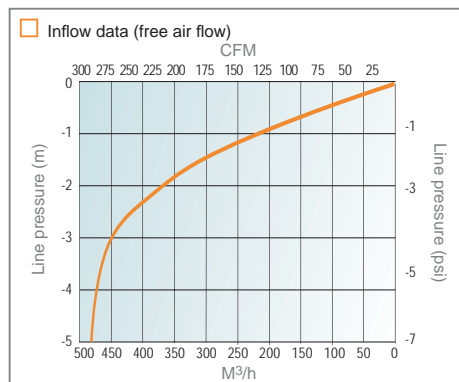
The pressurised air can escape, the water level rises and the nozzle re-closes.

Technical Specifications

- Operating pressure of 0.2 to 16 bars
- 50mm BSP-M threaded base
- Air flow, even at a critical velocity created by pipeline pressure of 0.9 bar, will not cause premature closure of the valve
- Valve body materials:
Body and base: Glass reinforced, UV resistant Polyamide (GRP)
- 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

Performance

Air intake / discharge



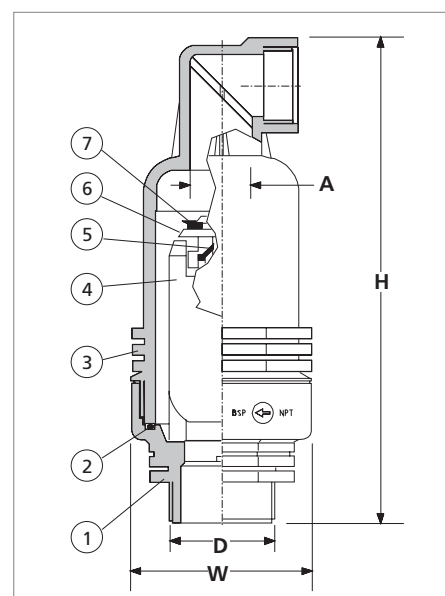
Dimensions

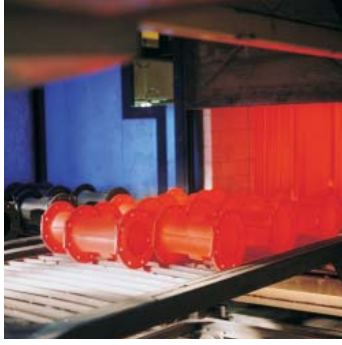
Dimension

H - Height	269mm
W - Width	102mm
D - Threaded Attachment	50mm BSP-M
a - Automatic nozzle area	7mm ²
A - Nozzle Area	855mm ²
Weight	0.725 kg

Part Specifications

Part	Description	Material
1	Base	GRP
2	O-ring	NBR rubber
3	Body	GRP
4	Kinetic float	Polypropylene
5	Automatic seal	EPDM rubber
6	Automatic float	GRP
7	Kinetic seal	EPDM rubber





AVK Focuses on the Environment

AVK recognises the dangers of environmental impact from a global point of view. AVK products are part of the infrastructure and as such, they are an important part of the environment in many regions around the world. Therefore, we constantly work on reducing this impact as much as possible by improving actions in the environmental aspect of our operations. AVK constantly seeks to identify areas of improvement within the environment – not only in our production processes but also in relation to our suppliers where we have set certain standards.

At our factories and in all processes AVK works systematically by:

- Always complying with environmental and work environment legislation and other relevant requirements from authorities within the area in question.
- Minimising the consumption of energy and raw materials.
- Reducing the amount of waste within the company. Where possible recycle waste materials from production or alternatively apply the most environmentally friendly waste disposal methods.
- Minimising the use of materials and processes which may be hazardous to the external and workplace environments.
- Informing and educating company employees, enabling them to act in accordance with our objectives concerning external and workplace environments and thereby contributing to minimising environmental hazards.
- Taking environmental factors into consideration when choosing suppliers.
- Advising customers on the use and disposal of company products.
- Continuous improvement in our quest for the prevention of pollution.
- On-going evaluation of the external and workplace environments.



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