



# **118** kinetic air valve

#### Application

This valve has been designed for the efficient discharge and intake of air in water 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 filling the system
- Introducing large quantities of air when the pipe is being drained, maintaining atmospheric pressures in the pipe and preventing collapse and cavitation damage.
- Relieving entrained air from the water while the system is pressurised.

#### Design

Leak-proof sealing under all conditions, including at 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.

The threaded outlet elbow allows various possibilities of drain connection.

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

The design includes a non-return valve which allows air and water to pass through when attached to the air valve.

#### Operation

The valve has three modes of operation:

- 1 Discharging large quantities of air at a high flow velocity when the system is being filled.
- 2 When water enters the valve, the float rises up and closes the outlet.
- 3 Introduction of air into the pipeline when the internal pressure is sub-atmospheric.

The kinetic air valve incorporates a float mechanism that ensures that a riser, when full, is hydraulically isolated from the atmosphere. If the riser becomes partially emptied the float mechanism allows atmospheric pressure to enter the riser in order to prevent a vacuum forming within.

It also has the ability to expel the introduced atmospheric pressure gradually in a controlled manner as the riser is once again filled with water by the booster set.

## Dimensions



Ref No	А	В	С	D	Н	L	kg
118-2001	R1⁄2	Rc¾	314	86	183	134	0.47
118-2002	R3⁄4	Rc¾	314	86	183	134	0.47
118-2003	R1	Rc¾	314	86	183	134	0.47
118-2004	R2	Rc11⁄2	908	110	249	187	1.052

#### **Construction Details**

#### Item Component

- 1 Body
- 2 Bonnet
- 3 Float
- 4 Kinetic seal
- 5 'O' ring
- 6 Drainage elbow

# Technical Specification

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Medium:
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Max. percentage glycol: Operating pressure: Working temperature:

Discharge volume of air @ pipe pressure of 0.5 bar:

# Material Glass reinforced nylon

Glass reinforced nylon Formed polypropylene EPDM elastomer NBR elastomer Polypropylene

water glycol solution 30% 0.2 to 16 bar -10 to 70°C **must be insulated below 0°C** 

<sup>1</sup>/<sub>2</sub>" - 70 m<sup>3</sup>/hr <sup>3</sup>/<sub>4</sub>" - 170 m<sup>3</sup>/hr 1" - 300 m<sup>3</sup>/hr 2" - 700 m<sup>3</sup>/hr

WRAS approved products

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