

AIR RELEASE VALVE



Metalic series

AUTOMATIC AIR RELEASE VALVE



Hydrodynamic design

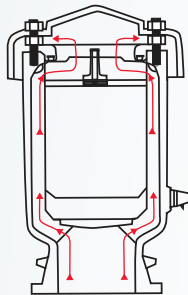
The trifunctional air release valve are based on the kinetic concept of air removal in main water conduction systems.

The patented construction design is single chamber unlike other conventional models.

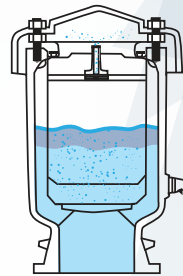
The same suction cup, depending on the assembly of the internal float block can perform various functions.



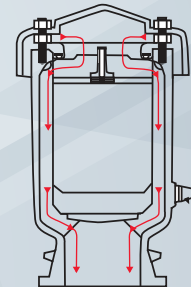
Operation



Air circulation



Air vent



Air intake

1. AIR CIRCULATION

During the filling of the main pipe it is necessary to release both air and water inlet flow. The movable block * remains in the lower part and the air, passing through the circular guide of the interior of the body, circulates through the main orifice at atmospheric pressure. When the water enters the suction cup, the float rises and pushes the upper disc upwards against the seat of the main hole closing perfectly. The same pushing force causes the orifice of the nozzle (threaded onto the upper disk) to close.

2. AIR VENT

During operation, an air bag accumulates at the top of the suction cup. Little by little it is compressed arriving its pressure to the same as the one of the water reason why its volume increases pushing the water down. Following the Archimedes Principle, the float can not be held by the thrust of the water and falls thus releasing the orifice of the nozzle aiding the release of the air bag. When the air is vented, the water level increases by moving the float upwards and closing the nozzle orifice.

3. AIR INTAKE

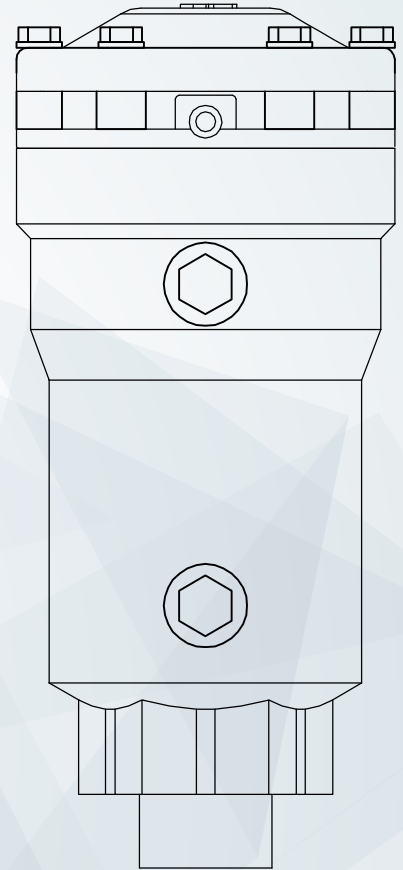
During the drainage of the main pipe or breakage phases it is necessary to take up both air and water flow to avoid vacuum conditions. The movable block remains at the bottom of the suction cup when there is no water, allowing more air to enter through the main orifice.

* The Mobile block is the set formed by the cylindrical polypropylene float, upper disk and nozzle retainer (see parts and materials).



Technical specifications

- ✓ - Bolted cap; Easy maintenance in plant and spare parts of springs.
- ✓ - Compact and corrosion resistant body; Construction in Ductile cast iron GGG - 40 with internal and external coating of EPOXI powder paint, with single chamber.
- ✓ - Body with internal guides solidary; Allow high precision in float sliding and vertical thrust while facilitating air circulation.
- ✓ - Compact and finely machined cylindrical float of polypropylene; It avoids great sliding accuracy and avoids the phenomenon of "ventura" and "dynamic closure" during the air inlet and outlet phases.
- ✓ - Mobile Flange; Great versatility, Rating PN 16.
- ✓ - Versatility of functions; Depending on the assembly of the mobile float assembly, the same suction cup can perform up to 4 different functions.
- ✓ - Purge Valve Faucet; Checking the control chamber and draining liquid.



Installation

Before proceeding with installation, care must be taken to clean the ducts to prevent foreign particles such as stones or building material from damaging the suction cups.

They must be mounted vertically and on a T with entrance to the suction cup of at least one DN half of the main pipe.

It is recommended to install a gate valve between the T and the suction cup for line disconnection in maintenance operations.

In cases of placement in underground bowls, ventilation tubes of a DN equal to or greater than the suction cup must be placed.

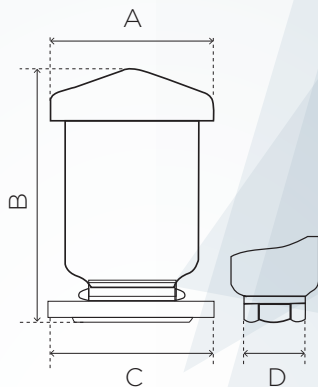
A drainage area in the pool at the bottom of the main pipeline should be prevented in order to prevent flooding.

The suction cup should never be installed on the main line to prevent air from returning because the depression fills the main line without an accumulation point that is pushed when the pump starts. Collation of the suction cup is recommended as high as possible with respect to the main line.



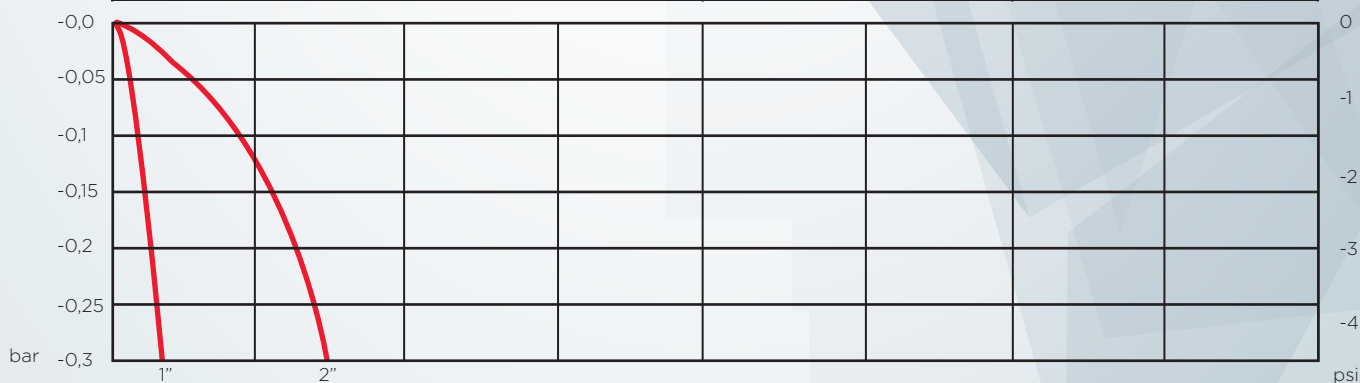
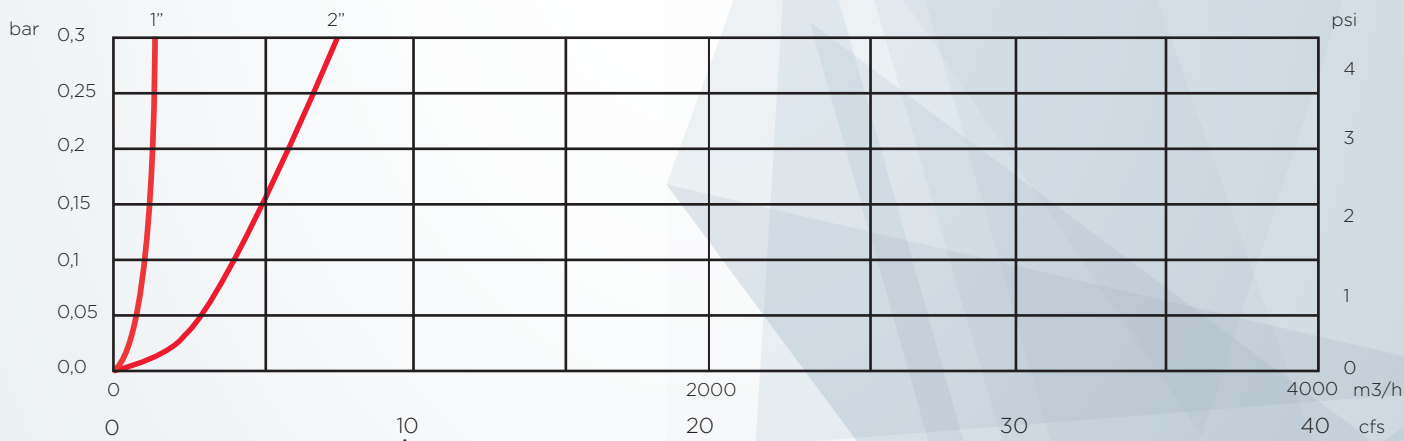
Dimensions

Calibre		A	B	C	D	Coupling	Weight kg
mm	inches	mm					
25	1	113	205	-	CH45	Threaded	3,7
50	2	142	260	-	CH75	Threaded	6,4



Hydraulic characteristics

AIR DISCHARGE DURING PIPE FILLING



AIR INLET DURING PIPELINE DRAINAGE



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WHEN WATER COUNTS

CUANDO EL AGUA ES LO QUE CUENTA

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