

## V661 / V662 Plastic Air Release Valves

Air release valves are used to eliminate the kinetic and residual air of the pipes. The air release valves are designed for an efficient discharge of large air volumes from small water network systems, filters, containers, and others devices where trapped air may impair the system's operation.

#### Specifications

- Expelling the air at high flow velocity during the initial filling of the systems.

- Introducing air when the pipe drains, maintaining atmospheric pressures in the pipe, preventing collapse and cavitation damage to the conduits.

- Relieving the entrained air from the water, while the network is pressurized.

#### Plastic Air Valves are two types;

1- Single Effect (Kinetic) Plastic Air Valve ½ "- ¾"
1 "and 2" Single Effect

**2-** (Automatic) Plastic Air Valve Available in ½ " <sup>3</sup>4" - 1 "and 2" models.

**Plastic Air Vent Valve Connections;** ½ ", ¾", 1 "and 2" threaded connections.

#### Plastic Air Valves Usage Locations;

1- In agricultural irrigation, (every 400-500 mt on straight lines on the main line, at the beginning of the slope, 400-500 mt at the upward inclines at the peak points, before the beginning of the deflection and before the end of the line and before the irrigation valve

**2-** In filtration systems, (Disc Filter, Hydrocyclone, Gravel Tank, Automatic Horizontal Filters, ete.).

**3-** Factory installations in industrial areas, in treatment systems and so on.





The plastic automatic air valve operates in 3 modes.

1- Discharge Mode: Fill the air piping system with a high flow rate of the water in the system. When the water reaches the air vent valve, the float of the valve moves upwards and prevents air from flowing out of the system quickly.

2- System Pressure Balancing Mode: After system air is evacuated, the system balances the difference between the pressurizer and the atmospheric

pressure.

3- Air-Water Balance Adjustment Mode: Air is collected in small quantities on piezometric lines or on top of the valve. This allows the water to make a certain pressure and move down with the float of the valve. in this position, the valve of the valve does not close completely. it adjusts the air-water balance by staying as open as part of the air

### 1/2" - 3/4" - 1" Double Effect (Automatic) Air Valve

Size	Unit	1/2"	3/4"	1"
н	Height (mm)	112	112,75	136,57
W	Width (mm)	58,88	58,88	85,65
D	Connection Diameter	1/2"BSP	3/4"BSP	1"BSP
A	Evacuation Mouthpiece	25mm²	25mm²	25mm²
-	Weight (kg)	0,140	0,141	0,304



Dimensions

No	Material Name	Type Of Material
1	Body	Glass Reinforced polyamide
2	O-Ring	NBR
3	Float	Poliproplen
4	Cover	Glass Reinforced polyamide
5	Float Tire	EPDM



#### 2" Double Effect ( Automatic) Air Valve

#### Dimensions

Size	Unit	2"
н	Height (mm)	243
w	Width (mm)	103
D	Connection Diameter	2″ BSP
а	Evacuation Mouthpiece	7mm²
-	Weight (kg)	0,695
Α	Kinetic Nozzle Area	855mm



Parts		
No	Material Name	Type Of Material
1	Body	Glass Reinforced polyamide
2	O-Ring	NBR
3	Cover	Glass Reinforced polyamide
4	Float	Poliproplen
5	Fork Rubber	EPDM
6	Float Fork	Glass Reinforced polyamide
7	Float Seal	EPDM





# **Discharge Mode**

### **Open Position**

Provides rapid evacuation of the high amount of air in the pipeline from the system during the first start of the system











# **Closed Position**

When the water reaches the air valve, the float lifts up and closes the outlet of the air valve

# **Pressure Stabilization Mode**

### **Open Position**

During drawing or evacuating the water from the pipeline. The pressure in the line is lower than atmospheric pressure. This condition called vacuum effect, and its causes collapse and cavitation damage in pipes. The float goes down (Open position) and avoids this problem by letting air flow from the outside to the pipeline.





### **Modulation Mode**

When the system is in service, that is, when the pipeline is under pressure, the low amount of air is dragged with water and collected in certain places such as high parts of the line. The high pressure accumulated air is evacuated with water and the float is partially opened (Modulation position). After evacuation, the float rises again and closes the air valve outlet (Closed position).





# 1/2" - 3/4" - 1" Double Effect (Automatic) Air Valve



# 2" Double Effect ( Automatic) Air Valve



Catalogue 2023



# **V662 Plastic Kinetic Air Valves**

### **Working Principles**

The plastic air vent valve operates in 2 modes.

1- Discharge Mode: Fill the air piping system with a high flow rate of the water in the system. When the water reaches the air vent valve, the float of the

valve moves upwards and prevents air from flowing out of the system quickly.

2- System Pressure Balancing Mode: After system air is evacuated , the system balances the difference between the pressurizer and the atmospheric

pressure.

### 1/2" - 3/4" - 1" Single Effect (Kinetic) Air Valve



Unit	1/2"	3/4"	1"
Height (mm)	111,98	112,12	191,60
Width (mm)	58,88	58,88	85,65
Connection Diameter	1/2"BSP	3/4"BSP	1″BSP
Evacuation mouthplace	314 mm <sup>2</sup>	314 mm²	314 mm²
Weight (kg)	0,138	0,141	0,364
	Unit Height (mm) Width (mm) Connection Diameter Evacuation mouthplace Weight (kg)	Unit1/2"Height (mm)111,98Width (mm)58,88Connection Diameter1/2"BSPEvacuation mouthplace314 mm²Weight (kg)0,138	Unit         1/2"         3/4"           Height (mm)         111,98         112,12           Width (mm)         58,88         58,88           Connection Diameter         1/2"BSP         3/4"BSP           Evacuation mouthplace         314 mm²         314 mm²           Weight (kg)         0,138         0,141

# Parts

Dimensions

No	Material Name	Type Of Material
1	Body	Glass Reinforced polyamide
2	O-Ring	NBR
3	Cover	Glass Reinforced polyamide
4	Float	Poliproplen
5	Fork Rubber	EPDM



2" Single Effect (Kinetic) Air Valve

#### Dimensions



Size	Unit	2"
н	Height (mm)	243
w	Width (mm)	103
D	Connection Diameter	2″ BSP
А	A Evacuation Mouthpiece	
-	Weight (kg)	0,695



# Parts

No	Material Name	Type Of Material
1	Body	Glass Reinforced polyamide
2	O-Ring	NBR
3	Float	Polipropylene
4	Cover	Glass Reinforced polyamide
5	Float Tire	EPDM

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# **Discharge Mode**

### **Open Position**

Provides rapid evacuation of the high amount of air in the pipeline from the system during the first start of the system



### **Closed Position**

When the water reaches the air valve, the float lifts up and closes the outlet of the air valve



### **Open Position**

During drawing or evacuating the water from the pipeline. The pressure in the line is lower than atmospheric pressure. This condition called vacuum effect, and its causes collapse and cavitation damage in pipes. The float goes down (Open position) and avoids this problem by letting air flow from the outside to the pipeline.









# 1/2" - 3/4" - 1" Single Effect (Kinetic) Air Valve



Air Discharge



# 2" Single Effect (Kinetic) Air Valve





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