



# AV-010

PN 10



## Air & Vacuum Valve

### Description

The Air & Vacuum Valve discharges air during the filling or charging of the system, and intakes air into the system during system drainage.

### Applications

Agricultural and landscape irrigation laterals.

### Operation

The AV-010 discharges air at high flow rates during the filling of the system and intakes air into the system at high flow rates during its drainage.

High velocity air, or even air mixed with a mist of water spray, cannot blow the float shut. Water entry will cause the sealing of the valve.

At any time during system operation, should internal pressure of the system fall below atmospheric pressure, air will re-enter the system.

The smooth release of air prevents pressure surges and other destructive phenomena.

The intake of air in response to negative pressure protects the system from destructive vacuum conditions and prevents damage caused by water column separation. Air re-entry is essential to efficiently drain the system.

**As the system starts to fill, the valve functions according to the following stages:**

1. Entrapped air is released by the valve.
2. The liquid enters the valve lifting the float and sealing the valve.

**When internal pressure falls below atmospheric pressure (negative pressure):**

1. The float will immediately drop away from the orifice.
2. Air will intake into the system.

### Main Features

- Working pressure range: 0.2-10 bar
- Testing pressure: 16 bar
- Working Temperature: 60<sup>0</sup> C
- Maximum instantaneous working temperature: 90<sup>0</sup> C
- The body is made of high strength plastic, and all operating parts are made of specially selected corrosion-resistant materials.
- Drip-tight sealing at low pressure.
- All parts are UV protected.
- Lightweight, small dimensions, simple and reliable structure.

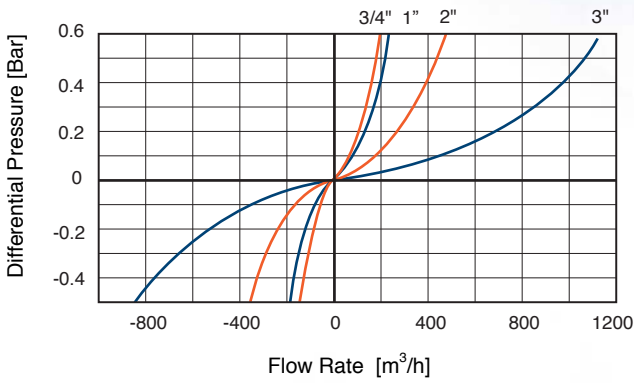
### Valve Selection

- Available in 3/4" (20mm), 1" (25mm) male threaded, 2" (50mm), 3" (80mm) female threaded NPT/BSPT.
- Shrader valve for measuring local line pressure.



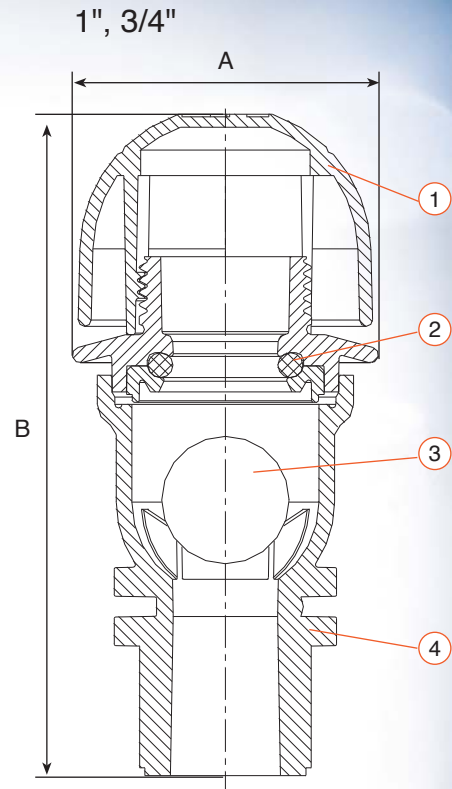
AV-010 with shrader

## AIR AND VACUUM FLOW RATE



## DIMENSIONS AND WEIGHT

Nominal Size	Dim. mm		Weight Kg.	Orifice Area mm <sup>2</sup>
	A	B		
3/4" (20mm)	60	124	0.1	314
1" (25mm)	60	124	0.1	314
2" (50mm)	73	122	0.2	800
3" (80mm)	104	165	0.6	2000



## PARTS LIST AND SPECIFICATION

No.	Part	Material 3/4", 1"	Material 2"	Material 3"
1.	Cover	Polypropylene	Polypropylene	Polypropylene
2.	Seal	BUNA-N	E.P.D.M.	E.P.D.M.
3.	Float	Polypropylene	Reinforced Nylon	Reinforced Nylon
4.	Body	Polypropylene	Reinforced Nylon	Reinforced Nylon
5.	Disc	-	Reinforced Nylon	Reinforced Nylon

