

# DYNAMIC AIR VENT

## CONTROLLED AND GRADUAL AIR DISCHARGE

### REVOLUTIONARY DIAPHRAGM MAXIMIZES SYSTEM PROTECTION WITH CONTROLLED AIR INTAKE AND DISCHARGE



#### APPLICATIONS

- Installation on irrigation systems with any diameter pipeline when the slope is greater than 2 - 3%
- Installation on irrigation systems with 8" or great diameter pipelines
- For discharge of air at pump and filtration stations, along mains and at the end of mainlines
- At high points in the pipe network or upstream of manifolds

#### SPECIFICATIONS

- Maximum operating pressure: 150 psi
- Maximum working temperature: 140° F
- Available size: 2" or 3" NPT Male Threaded

#### MATERIALS

Body: Reinforced Nylon  
Drainage Elbow: Polypropylene  
Rolling Seal: EPDM Rubber  
O-Ring: BUNA-N

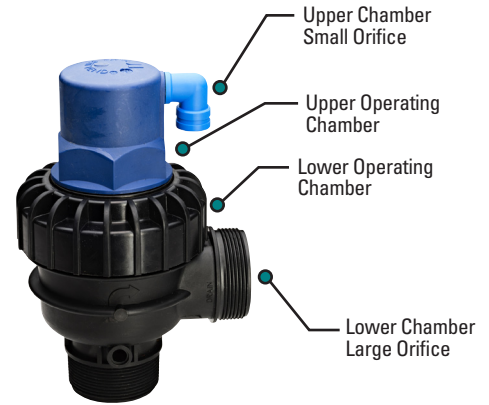
#### PRODUCT ADVANTAGES

- Rolling diaphragm principle allows air to be discharged in a controlled and gradual manner preventing slam and surges.
- Reacts very quickly to vacuum surges by intaking large amounts of air - three times more air than other vents.
- Air vent is normally closed when the line is not operating preventing debris and contaminants from entering the pipeline.
- Light-weight and small for easy installation with simple and reliable operation.
- Built-in outlet connection for surplus water drainage.
- Corrosion-resistant composite materials.

# DYNAMIC AIR RELEASE AIR VENTS

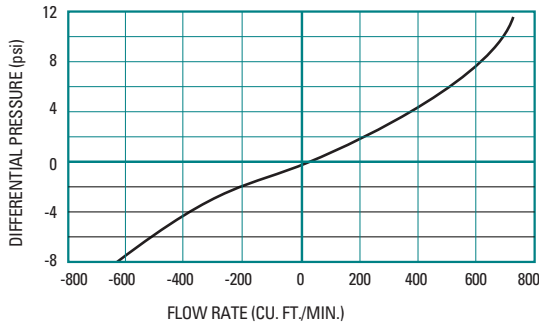
## STAGES OF OPERATION

1. When the system is charged and the pipeline begins to fill with water, air flows into the pipeline and enters the dynamic air vent, raising the large orifice sealing assembly to the open position.
2. Air is discharged mainly through the lower chamber but also the upper chamber.
3. When the water enters the dynamic air vent, it fills the lower chamber and some of the water flows up to the upper operating chamber raising the float of the pilot which rolls the sealing mechanism to its sealed position.
4. Pressure develops inside the upper operating chamber resulting in a controlled lowering and sealing of the large orifice sealing assembly which in turn closes the lower chamber large orifice.
5. At this stage, only the automatic air release component continues to work and releases air through the upper chamber small orifice.
6. When line pressure is reduced during drainage or shut-off, the pressure is less than the outside atmospheric pressure.
7. The vacuum created causes the large orifice sealing assembly to rise up into its open position, opening the lower chamber large orifice and allowing the intake of air from the atmosphere into the system.

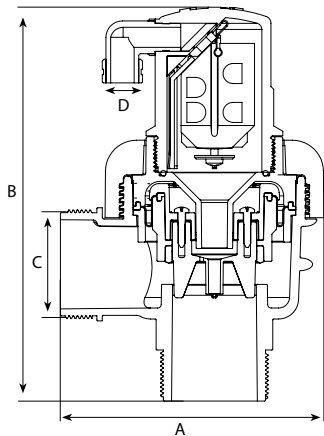
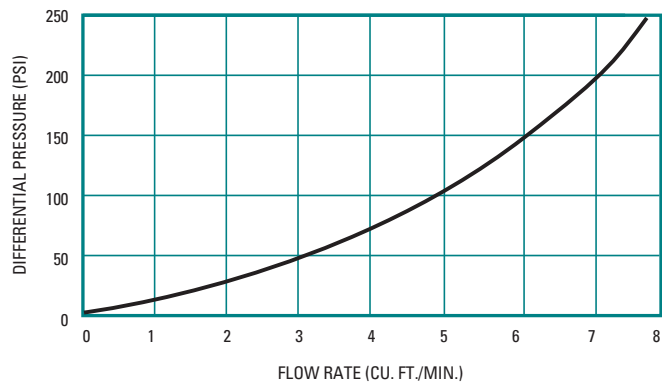


**NOTE:** It is recommended to attain a drainage pipe to the external threads on the lower chamber large orifice outlet as some water will be expelled during the closure stage. The size of the drainage pipe should be at a minimum the diameter of the outlet and the unattached end should remain open to the atmosphere.

**AIR & VACUUM FLOW RATE**



**AUTOMATIC AIR RELEASE**



### DIMENSIONS & WEIGHT

SIZE	A	B	C	D	WEIGHT	ORIFICE (SQ. IN.)	
						LOWER	UPPER
2"	5.67"	8.50"	2" MPT	3/8" FPT	2.30 LBS.	3.038	3.038
3"	5.67"	8.54"	2" MPT	3/8" FPT	2.37 LBS.	3.038	3.038

### ORDERING INFORMATION

SIZE	MODEL NUMBER
2"	65ARIDY2
3"	65ARIDY3



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