## Relief Valves

# Netafim Air Release and Vacuum Valves

### Features and Benefits

- Ensures maximum protection of irrigation system with proper sizing and placement.
- Hydrodynamic float design ensures valve closure as water fills the system, remains open when air pressure reaches 10 psi.
- Large capacity valves prevent water hammer (pipes and fittings from cracking or bursting).
- Made of corrosion-resistant fiberglass with reinforced UV protected nylon (no metal parts to rust or corrode, no need for spare parts).
- On the 2" Combination, the unique rolling seal allows gradual opening and self cleaning.

| NI Part # | Description | Max. Operating Pressure (psi) | Body Material | Nominal Size |
|---|---|---|---|---|
| 97008 | **2" Combination** Vacuum Relief and Continuous Acting Air Vent w/ Plastic Base | 150 | Polypropylene | 2" |
| 97015 | **3" Guardian** Air and Vacuum Vent | 150 | Nylon | 3" |
| 97014 | **2" Guardian** Air and Vacuum Vent | 150 | Nylon | 2" |
| 97017 | **1" Guardian** Air and Vacuum Vent | 150 | Nylon | 1" |
| 97016 | **3/4" Guardian** Air and Vacuum Vent | 150 | Nylon | 3/4" |

## 2" Combination

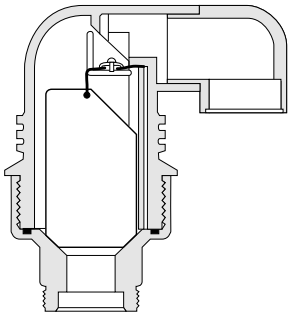
### Vacuum Relief and Continuous Air Vent

#### Applications

- For release of large volumes of air: pump and filtration stations, along mains, at the end of mainlines.
- At high elevations in pipe network.
- Every 1,000 feet along mainlines six inches and larger.
- At upstream side of manifolds.

#### Stages of Operation

1. During start-up, the valve releases large volumes of air.
2. As the system builds pressure, the body fills with water, forcing the float upwards and closing the valve.
3. While the system is pressurized, the automatic function continuously expels accumulated air.
4. At shutdown, the valve's large opening allows air back into the system preventing the pipe from collapsing.



## Guardian

### Air and Vacuum Vent

#### Applications

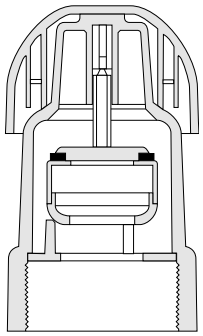
*2" Guardian*

- Commonly used at downstream of valves, primarily at manifolds, to break vacuum caused by system draining.
- On sloping terrain to prevent collapsing of pipes caused by vacuum when pipe networks drain.

#### Stages of Operation

*1" Guardian*

1. The Guardian releases large quantities of air through an opening equal to a large size standard vent. As water enters, the float rises and forces the valve to close.
2. During normal flow, while the line is under pressure, the valve remains closed.
3. As the line empties, or during a drop in pressure, the float drops down and opens the valve. Air is admitted, breaking the vacuum created by the withdrawing water and prevents the collapse of pipelines and suction into dripperlines.



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