AIR VENTS ARE USED TO CONTROL THE AIR IN IRRIGATION SYSTEMS FOR PROPER WATERING AND ACCURATE MEASUREMENT FOR FLOW AND WATER METERS

Controlling the air in irrigation systems controls the water flow and the most efficient way to control air is by the proper use of air vents. Both the presence of air and absence of air can cause problems and damage to irrigation systems. Netafim provides air vents to discharge and admit air as required.

Trapped air in pipes impedes water flow and can lower watering uniformity. It can also cause water hammer and damage to pipes and fittings. Air in pipes also produces inaccurate readings for water and flow meters. For reliable and accurate water measurement, flow meters require pipes to be full of water.

The absence of air in pipes can trigger contaminants such as mud and dirt to be drawn into the piping system.

Note: Netafim Techline® HCVXR and CV driplines have built-in check valves with an anti-siphon feature in each emitter that keeps the tubing charged with water. Therefore, air vents are not needed when installing Techline HCVXR and CV and a flow meter is not used. Air vents are also not needed for on-surface installations.

TWO TYPES OF AIR VENTS AVAILABLE:

Air/Vacuum Relief Air Vents
- Install in subsurface systems
- Not required for on-surface systems or when installing Techline HCVXR and CV dripline
- Discharges large volumes of air before a pipe is pressurized and admits large quantities of air when the pipe drains
- Also known as large orifice air vents, vacuum breakers, low pressure air vents, or air relief vents

Combination Air Vents
- Install before water meters or metering valves to ensure there is no air in the line for accurate flow readings
- Performs both functions as an air/vacuum relief vent and automatic air release vent
- Admits and discharges large volumes of air when needed, and releases small volumes of air continuously when the lines are pressurized
- Also known as double acting air vents
APPLICATIONS

1/2” AIR VENTS
- Install in subsurface systems
- Not required when installing Techline® HCVXR and CV or on-surface installations

3/4”, 1” AND 2” AIR VENTS
- Install in subsurface systems
- Not required when installing Techline HCVXR and CV or on-surface installations
- On sloping terrain to prevent collapsing of pipes caused by vacuum when pipe networks drain
- For air discharge during system start-up

SPECIFICATIONS

1/2” AIR VENTS
- Maximum operating pressure: 140 psi

3/4”, 1” AND 2” AIR VENTS
- Maximum operating pressure: 150 psi
- Made of corrosion-resistant reinforced UV protected composite materials - no metal parts to rust or corrode, no need for spare parts

COMBINATION AIR VENTS

APPLICATIONS
- For discharge of large volumes of air, along mains and at the end of mainlines
- Place before water meters and automatic metering valves for accurate flow readings
- Place at high points in pipe network or upstream of manifolds

SPECIFICATIONS

MINI
- Continuous acting
- Maximum operating pressure: 150 psi
- Sizes: ½” and ¾” MPT (2.4”w x 4.5”h)

COMBINATION
- Continuous acting
- Maximum operating pressure: 150 psi
- Size: 1” MPT (3.9”w x 5.5”h)
APPLIANCES

• Drip irrigation systems
• Clean or dirty water

SPECIFICATIONS

• Not required with Techline® HCVXR and CV
• Flushing water volume: approximately 1 gallon per cycle
• Maximum zone flow rate per valve flush: 15 GPM
• Minimum pressure required: 1.5 psi
• Maximum operating pressure: 57 psi

FEATURES & BENEFITS

FLUSHING REDUCES SEDIMENT BUILD-UP
Eliminates clogging. Promotes long-term performance of the drip irrigation system.

AUTOMATIC CLEANING OPERATION
Eliminates periodic manual flushing.

UNIQUE DESIGN REACTS TO FLOW, NOT PRESSURE
Allows operation even at full line pressure.

DISASSEMBLES FOR WINTERIZATION ‘BLOWOUT’
Protects your drip system.

APPLICATIONS

• Prevents backflow of water and drainage of the system into low areas
• Eliminates the need for system water refill at the beginning of the next irrigation cycle
• For irrigating slopes where draining of the headers and laterals is common
• Designed to hold back up to a 13.4’ column of water
• Rule of thumb: Every 1’ of water exerts 0.433 psi of pressure at the base of the column. As such, a 100’ column of water exerts 43.3 psi at the base.

SPECIFICATIONS

• Flow rate: 0.9 - 4.4 GPM
• Closing pressure: 5.8 psi (13.4 feet column of water)
• Opening pressure: 10.2 psi

IN-LINE CHECK VALVE

APPLIANCES

• Prevents backflow of water and drainage of the system into low areas
• Eliminates the need for system water refill at the beginning of the next irrigation cycle
• For irrigating slopes where draining of the headers and laterals is common
• Designed to hold back up to a 13.4’ column of water
• Rule of thumb: Every 1’ of water exerts 0.433 psi of pressure at the base of the column. As such, a 100’ column of water exerts 43.3 psi at the base.

SPECIFICATIONS

• Flow rate: 0.9 - 4.4 GPM
• Closing pressure: 5.8 psi (13.4 feet column of water)
• Opening pressure: 10.2 psi
TECHLINE® HCVXR AND CV MISTER

SPECIFICATIONS

- Fogging rate: less than 2.0 GPH, creating a moistened area approximately 2’ outward from nozzle
- Check valve: opens at 22 psi, closes at 10 psi
- Fogging nozzle maximum flow rate: 2.0 GPH @ 60 psi
- Pre-assembled with fogging nozzle, check valve, anchoring stake, tubing and barb connector

FEATURES & BENEFITS

FOGGING NOZZLE EMITS A FINE MIST
Indicates system operation and minimum required system pressure.

CREATES A MOISTENED AREA SURROUNDING THE FOGGER
Showing zone operation.

OPERATION
Techline CV emitters open at 14.5 psi line pressure. Techline HCVXR emitters open at 21.8 psi line pressure. Indicator stake’s check valve opens and activates the fogging nozzle at 22 psi line pressure.

TECHLINE® DL AND EZ OPERATION FLAG

SPECIFICATIONS

- Down flag position (closed): 4.5 psi or lower
- Halfway flag position (45°): 7 psi
- Upright flag position (90° or open): 10 psi or higher
- Pre-assembled with indicator flag, anchoring stake, tubing and barb connector

FEATURES & BENEFITS

FLAG RAISES TO INDICATE SYSTEM OPERATION
With just a minimum of 10 psi operating pressure.