



# Series 34-WW

## Wastewater Service Air Release Valves



This product meets Federal Mandate for Lead Content Limit

- **Stainless Steel Trim Standard**
- **Stainless Steel Floats Guaranteed**
- **Easily Serviced Without Removal From Pipeline**
- **Engineered For Drip Tight Seal At Low Pressures**
- **Optional Backwash Kit Available**

The Cla-Val Series 34WW Air Release Valve is specially designed for sewage service. It will protect pipelines from entrained air or gases that collect at high points in sewage pipelines. This valve effectively eliminates air from a system by releasing small amounts of air before large air pockets can occur. In extreme cases, the continued accumulation of air without release valves can actually stop flow completely. Increased power consumption and associated power costs can be anticipated if systems are not properly designed to release accumulated air.

During normal operation, air and gas accumulation will displace the liquid within the valve and lower the liquid level in relation to the float. When the level of the liquid lowers to where the float is no longer buoyant, the float will lower and using a mechanical lever will open the valve seat to permit the accumulated air to be exhausted to atmosphere. As air is released, liquid level in the valve raises the float and closes the valve seat. This cycle is automatically repeated as often as necessary.

### Installation

Series 34WW Air Release Valves are typically installed at high points in pipelines and at regular intervals of approximately 1/2 mile, along horizontal pipelines.

Mount the unit in the vertical position on top of the pipeline with an isolation valve installed below each valve in the event servicing is required. A vault with adequate venting and drainage should also be provided.

For regular cleaning to keep sewage equipment in good working condition use the optional customer installed BWKT Backwash Kit with back flushing hose and quick disconnect couplings.

### Purchase Specifications

The air release valve shall be of the float operated, compound lever design, and capable of automatically releasing accumulated air, gas or vapor from a pressurized fluid system while it is in operation.

An adjustable featured orifice shall be used to seal the valve discharge port with drip-tight shut-off. The orifice diameter must be sized for use within a given operating pressure range to insure maximum discharge capacity.

### General Specifications

#### Sizes

2", 3", 4" NPT

#### Pressure Ratings

150 psi with 1/4" Orifice  
300 psi with 5/32" Orifice

**Note:** Specify when operating pressure below 10 psi

#### Materials

Body and Cover:  
Ductile Iron  
ASTM A536 65-45-12

#### Float:

Stainless Steel

#### Internal Parts:

Stainless Steel

#### Seal:

Buna N® Rubber

The float shall be of all stainless steel construction and capable of withstanding maximum system surge pressure without failure. The body and the cover shall be of ductile iron and the valve internal parts shall be of stainless steel with a Buna-N® rubber seat.

The air release valve shall be Series 34WW from Cla-Val, Newport Beach, CA, U.S.A.

# Series 35-WW

## Wastewater Service Air and Vacuum Valves



This product meets Federal Mandate for Lead Content Limit

- **Stainless Steel Trim Standard**
- **Stainless Steel Floats Guaranteed**
- **Fully Ported Valves - No Restrictions**
- **Designed For Drip Tight Seal At Low Pressures**
- **Optional Backwash Kit Available**

The Cla-Val Series 35WW Air and Vacuum Valve is designed to perform two separate functions in a sewage or wastewater system. First, it will allow large quantities of air to be exhausted from the pipeline as it is being filled. When this air has been vented completely, liquid will enter the valve causing the float to seal tightly against the seat. Secondly, if the line is being drained, the valve responds to the loss in pressure and opens. This allows air to re-enter the pipeline and prevents potentially damaging vacuum from developing.

The Series 35WW does not open under pressure to exhaust small quantities of air which may collect at high points during normal system operation. Model 34WW Air Release Valve is required for this function. For both functions, select Model 36WW Combination Air Release and Vacuum Valve.

### Installation

Series 35WW Air and Vacuum Valves should be installed at high points or at grade changes within the pipeline. Mount the unit in the vertical position on top of the pipeline with isolation valve below each valve in the event servicing is required. A vault with adequate venting and drainage should also be provided.

For regular cleaning to keep sewage equipment in good working condition use the optional customer installed BWKT Backwash Kit with back flushing hose and quick disconnect couplings.

### Purchase Specifications

The air and vacuum valve shall be able to automatically exhaust large quantities of air during filling of a pipeline and allows air to re-enter pipeline during the draining or when a negative pressure occurs.

The inlet and outlet of the valve shall have the same cross-section area. The float shall be guided by a synthetic rubber seal.

The float shall be of all stainless steel construction and capable of withstanding maximum system surge pressure without failure. The body and cover shall be concentrically located and of ductile iron and the valve internal parts shall be of stainless steel with Buna-N® rubber seat.

The Air and Vacuum Valve shall be manufactured per ANSI/AWWA C512-04 Series 35WW from Cla-Val Newport Beach, CA, U.S.A.

### Specifications

#### Sizes

2", 3", 4" NPT  
4", 6" 8" flanged ANSI  
Class 125 lb.  
Class 250 lb.

#### Pressure Rating

150 psi & 300 psi ratings

**NOTE:** SPECIFY WHEN OPERATING PRESSURE BELOW 10 PSI

#### Materials

##### Body and Cover:

Ductile Iron ASTM A536  
65-45-12

##### Float:

Stainless Steel

##### Internal Parts:

Stainless Steel

##### Seal:

Buna-N® Rubber

#### When Ordering, Please Specify:

1. Model Number
2. Inlet Size
3. Optional Backwash Kit



# Series 36-WW

## Combination Air Valves (Single Body Style)



This product meets Federal Mandate for Lead Content Limit

- **Stainless Steel Trim Standard**
- **Stainless Steel Floats Guaranteed**
- **Fully Ported Valves - No Restrictions**
- **Engineered For Drip Tight Seal At Low Pressures**
- **Optional Backwash Kit Available**

The Cla-Val Series 36WW Combination Air and Vacuum Valve is a multipurpose valve that combines the operation of both the Series 34WW Air Release Valve and Series 35WW Air and Vacuum Valve, especially for sewage and wastewater applications. It functions to exhaust large quantities of air in the pipeline during the filling cycle and to admit air, as necessary, to prevent a potentially dangerous vacuum from forming when being emptied either intentionally or as a result of pipeline breakage.

**Note: Cla-Val Air Valves are manufactured to meet ANSI-AWWA C512-92 Standards.**

### Installation

The Series 36WW Combination Air Valve should be installed at high points and grade changes within the pipeline.

Mount the unit in the vertical position on top of the pipeline with an isolation valve installed below each valve in the event servicing is required. A vault with adequate venting and drainage should also be provided.

For regular cleaning to keep sewage equipment in good working condition use the optional customer installed BWKT Backwash Kit with back flushing hose and quick disconnect couplings.

### Purchase Specification

The combination air valve shall combine the operating features of both an air and vacuum valve and an air release valve in one housing. The air and vacuum valve portion shall automatically exhaust large quantities of air during the filling of the pipeline and automatically allow air to reenter the pipeline when the internal pressure of the pipeline approaches a negative value due to column separation, draining of the pipeline, or other emergency. The air release valve portion shall automatically release small amounts of air from the pipeline while it is under pressure.

The inlet and outlet of the valve shall have the same cross-section area. The float shall be guided by a stainless steel guide shaft and seat drip-tight against a synthetic rubber seal.

The float shall be of all stainless steel construction and capable of withstanding maximum system surge pressure without failure. The body and cover shall be concentrically located and of ductile iron and all valve internal parts shall be stainless steel with Buna-N® rubber seat. Must be Manufactured per ANSI/AWWA C512-04

The Combination Air Release and Vacuum Valve shall be Model 36WW from Cla-Val., Newport Beach, CA, U.S.A.

### Specifications

**Sizes - Inlet & Outlet**  
2", 3", 4" NPT

**Working Pressure Ratings**  
175 psi & 300 psi ratings

**Standard Pressure**  
Air Release Orifice  
1/8" Diameter

**NOTE: SPECIFY WHEN OPERATING PRESSURE BELOW 10 PSI**

**Materials**  
Body and Cover:  
Ductile Iron ASTM  
536 65-45-12

**Float:**  
Stainless Steel

**Internal Parts:**  
Stainless Steel

**Seal:**  
Buna-N® Rubber

### When Ordering, Please Specify

1. Model Number
2. Inlet Size (minimum is 2" NPT)
3. Inlet Pressure Rating
4. Orifice Size (175 psi 1/8") (300 psi 3/32")
5. Optional Backwash Kit (see page 70)