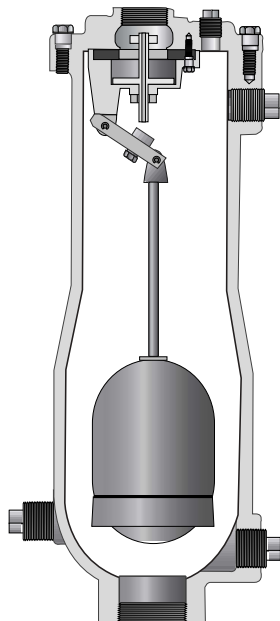




WASTEWATER SERVICE



- **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.

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 cast iron and the valve internal parts shall be of stainless steel with Buna-N® rubber seat.

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

General Specifications

Sizes

1", 2", 3", 4" NPT

Pressure Ratings

150 psi & 300 psi ratings

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

Materials

Body and Cover:
Cast Iron ASTM
A 126, Class B

Float:
Stainless Steel

Internal Parts:
Stainless Steel

Seal:
Buna-N® Rubber

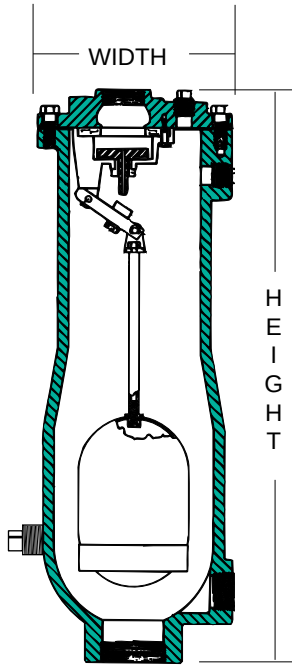
When Ordering, Please Specify

1. Model Number
2. Inlet Size
3. Inlet Pressure Rating
4. Orifice Size
5. Optional Backwash Kit (see page 60)



Series 36-WW

COMBINATION AIR VALVES DATA AND SIZING (SINGLE BODY STYLE)



Model	Size Inlet X Outlet Inches	Maximum Operating Pressure	Dimensions (Inches)					Wt Lbs. with BWKT	Wt Lbs. w/o BWKT
			Ht. with BWKT	Ht. w/o BWKT	Depth	Width with BWKT	Width w/o BWKT		
36-WW	2 x 1	150	23	14 15/16	7	9 1/2	7	72	50
36-WW	2 x 2	150	23 1/2	18	9 1/2	14	9 1/2	109	85
36-WW	3 x 3	150	30 1/2	23 1/2	11	16	11	190	160
36-WW	4 x 4	150	33	23 1/2	11	16	11	305	175

For 6" valves or for with working pressure above 150 psi consult factory.

Sizing Guide

When selecting valve size, consideration should be given to requirements for air release due to filling conditions and for air inlet due to draining conditions.

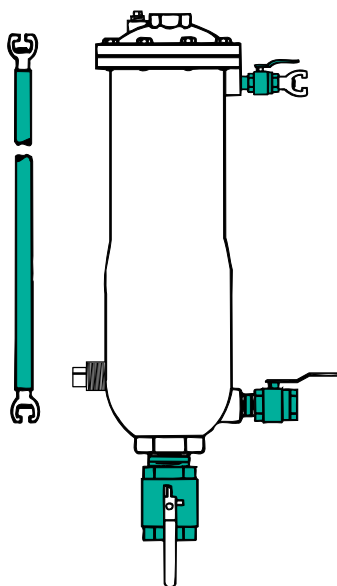
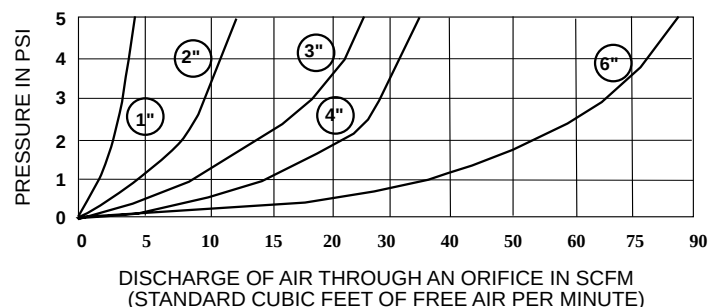
- Determine system fill rate. If fill rate can be controlled to a flow rate less than actual system design flow during initial fill **or refilling**, then this rate can be used for selection from the Step One Table.
- Determine pipeline potential collapsing factor when draining.
 - Calculate rate of flow (using Hazen-Williams or similar formulas) for each high point using the more severe gradient there.
 - Determine collapsing pressure (psi) of pipe being used by consulting manufacturer's literature. Use a safety factor of 4 to 1.
 - Using collapsing pressure and high point rate of flow, select valve size from Step Two Chart which meets or exceeds flow (SCFS).
- Use the larger valve size selected from Step One Table or Step Two Chart.

Note: Cla-Val slide rule air valve calculator available upon request

Step One Table

Fill Rate GPM	0 To 1,300	1,301 To 3,800	3,801 To 7,100	7,101 To 10,500	10,501 To 23,000
Size	1"	2"	3"	4"	6"

Step Two Chart



Series 36WW with Optional
Customer Installed BWKT Backwash Kit