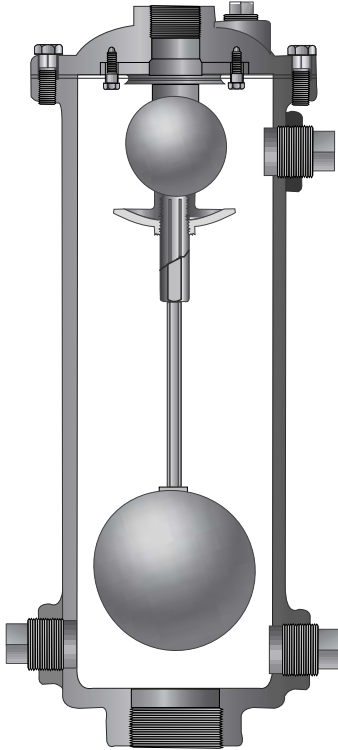




WASTEWATER SERVICE



- **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.

Note: The Series 35WW does not open under pressure to exhaust small quantities of air which may collect at high points during system normal 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 Specification

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

The Air and Vacuum Valve shall be Series 35WW from Cla-Val Newport Beach, CA, U.S.A.

General 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:
Cast Iron ASTM
A 126, Class B

Float:
Stainless Steel

Internal Parts:
Stainless Steel

Seal:
Buna-N® Rubber

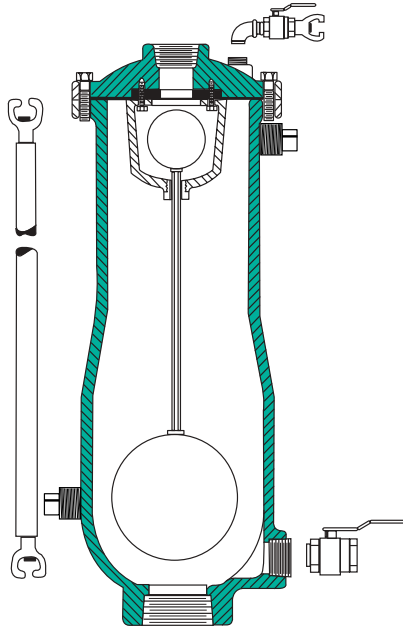
When Ordering, Please Specify:

1. Model Number
2. Inlet Size
3. Optional Backwash Kit (See page 60)



Series 35-WW

AIR AND VACUUM VALVES



Series No.	*Inlet Size	*Outlet Size	Max Working Pressure	Height with BWKT	Height w/o BWKT	Width with BWKT	Width w/o BWKT	Depth	Wt. Lb. with BWKT	Wt. Lb. w/o BWKT
35-WW	2"	1"	150	23"	15"	10 1/2"	7"	7"	56	44
35-WW	2"	2"	150	28"	20 1/2"	14"	9 1/2"	9 1/2"	95	83
35-WW	3"	3"	150	29"	17 7/16"	14"	9 1/2"	9 1/2"	119	82
35-WW	4"	4"	150	46"	37"	19"	12"	12"	233	158
35-WW	6"	6"	150	47"	36"	21"	14"	14"	351	235

For Valves with working pressure above 150 PSI consult factory.

*Sizes 1" thru 3" have NPT inlets and outlets. Larger sizes have flanged inlets conforming to ANSI Class 125 and have NPT outlets as standard. Flanged outlets or protective hoods are optional.

Note: The Series 35WWS (short body) should only be substituted for the standard 35WW when vertical clearance for the 35WW is not available.

Sizing Guide

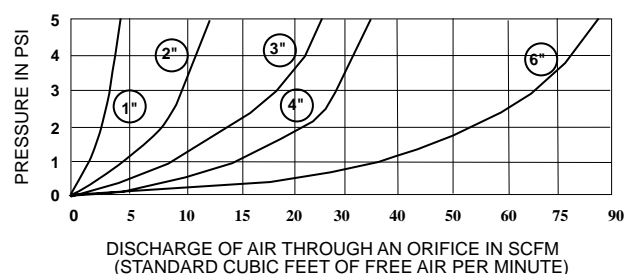
When selecting valve size, consideration should be given to requirements for air release due to filling conditions and for air inlet due to draining conditions.

- 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.

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 35-WW with Optional Customer Installed BWKT Backwash Kit

E 35WW (R-5/00)

