

**CLA-VAL™**

**Model 27**

**Pressure Vacuum Breaker  
2-1/2" to 10"**

## DESCRIPTION

The Cla-Val Co. Model 27 Pressure-Type Vacuum Breaker assembly is a reliable means of backflow protection for intermediate degrees of hazard.

The assembly is carefully constructed of corrosion resisting materials. It consists of two independently acting spring-loaded toggle lever check valves, an air inlet valve, two shut-off valves and four test cocks.

Field testing is easily performed by means of the test cocks provided for this purpose.

The toggle lever check valves are uniquely designed to provide drip tight closure against reverse flow, low pressure drop at maximum capacity. The spring-loaded toggle causes the valve to seal against a higher inlet pressure than outlet pressure when there is no flow.

## OPERATION

The toggle lever system is designed so the mechanical advantage of the toggle is maximum in the closed position. Spring force required is relatively low in this position. As the valve opens to permit flow, the mechanical advantage reduces rapidly so a very low pressure drop is incurred at high flow rates.

The levers, links, and pins are rugged, simple, and direct, with ample clearances to insure long trouble-free operation, even in very hard water and over prolonged periods of time. All internal parts are readily accessible without removing valves from the line.

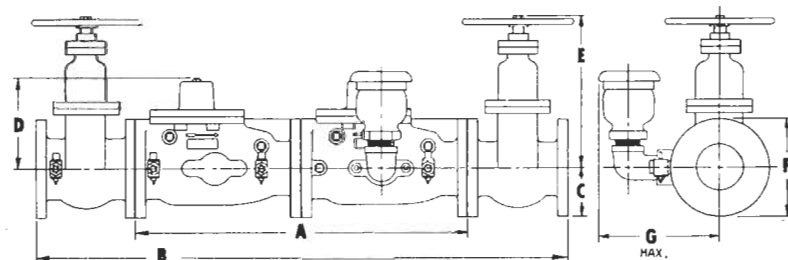
It is recommended that this unit be installed in a horizontal position. This unit is not acceptable for use on irrigation systems where liquid fertilizer is injected.

**7  
Cla Val**

## DIMENSIONS

Valve Size	2 1/2"	3"	4"	6"	8"	10"
A	27 1/16	26 1/16	30 1/8	40 1/8	50 3/4	59 1/2
* B	42 3/16	42 3/16	48 1/4	61 1/4	74	86
C	3 1/2	3 3/4	4 1/2	5 1/2	6 3/4	8
* D	7 1/4	7 1/4	8 5/16	11	13	15 3/4
* E	13 3/8	15	17 1/2	20 3/4	25	29 1/2
F	7	7 1/2	9 1/4	11 1/2	13 1/2	16 1/4
* G	8 3/4	9 1/2	10 1/2	12	14 1/2	15 1/2

\*Maximum Dimensions

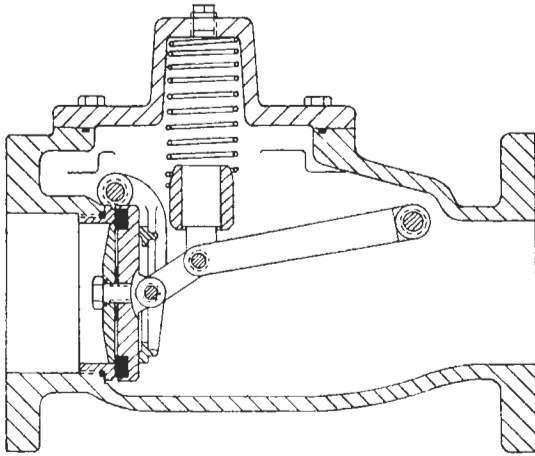


Gate Valves are non-rising stem

## SPECIFICATIONS

VALVE SIZES	2 1/2", 3", 4", 6", 8" & 10"
WORKING PRESSURE	Maximum: 175 psi
HYDROSTATIC TEST PRESSURE	350 psi
TEMPERATURE RANGE	+ 32° to 110 °F
FLUID	Water
MATERIALS	Check valve & cover: Cast Iron ASTM A-126
	Check valve trim: Bronze ASTM B-61
	Air inlet valve: Bronze ASTM B-61

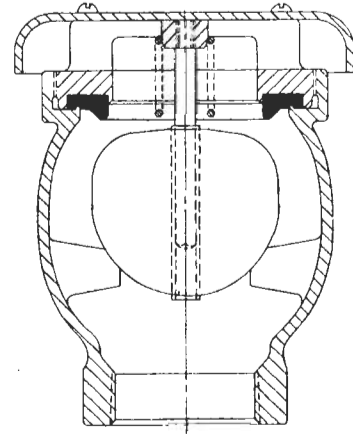
# MODEL 27



**AIR INLET VALVE**

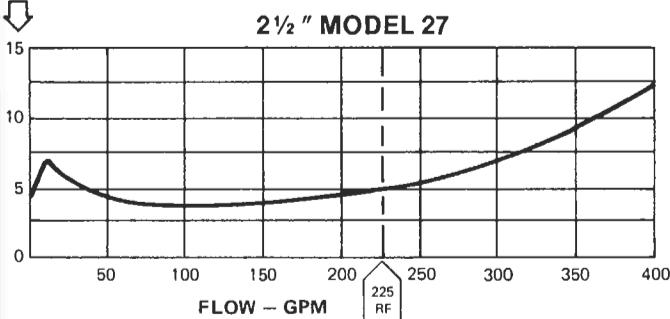


**TOGGLE LEVER CHECK VALVE**

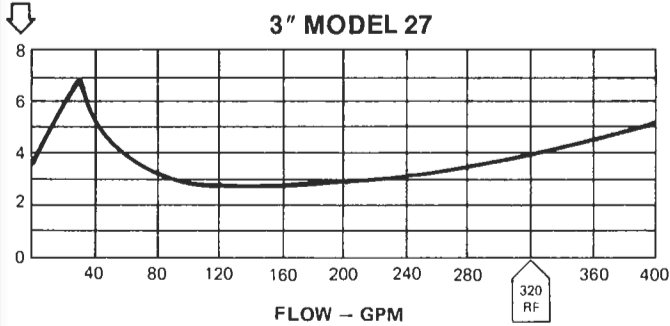


## FLOW CURVES

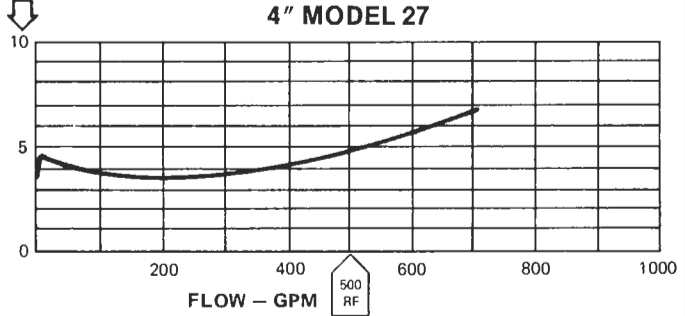
HEADLOSS - PSI



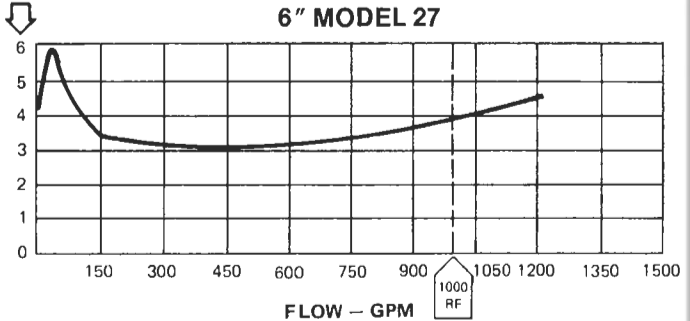
HEADLOSS - PSI



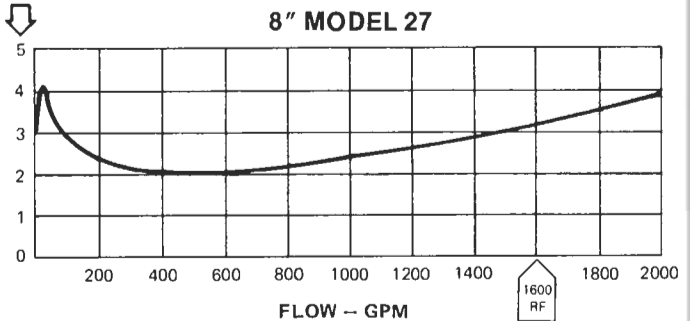
HEADLOSS - PSI



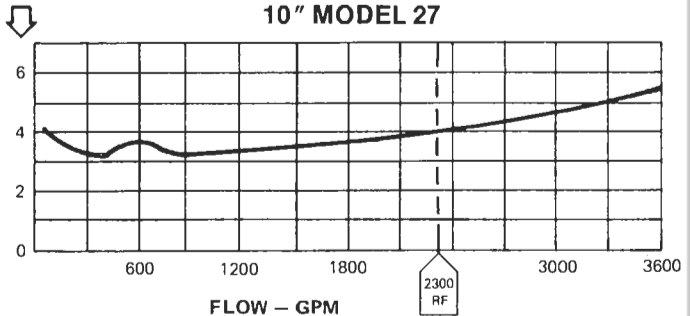
HEADLOSS - PSI



HEADLOSS - PSI



HEADLOSS - PSI



## PURCHASE SPECIFICATIONS

The Pressure-Type Vacuum Breaker Assembly shall be a complete unit consisting of two independently acting spring loaded toggle lever check valves, an opening to atmosphere on the discharge side of the second check valve, two shut-off valves and four test cocks arranged so that a test of each check valve can be made. The spring loading of the check valves shall be sufficient to hold at least 1 PSI in the direction of flow. The head loss across the entire unit shall not exceed 10 PSI at the rated flow.

The opening to atmosphere shall be arranged so that it begins to open at no less than 1 PSI and is fully open at atmospheric pressure. All internal parts of the toggle lever check valves and the air inlet valve must be removable or replaceable without removal of the unit from the line. All materials shall be corrosion resistant. Where ferrous metals are used they shall be protected against corrosion. The Assembly shall be similar in all respects to the Model 27 Pressure-Type Vacuum Breaker Assembly as manufactured by Cla-Val Co., Newport Beach, California 92663, or approved equal.

**American Backflow Specialties**

[www.americanbackflow.com](http://www.americanbackflow.com)

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