

# Figure 991-D

## Vacuum Breaking

### for Sewage/Wastewater

#### Description

GA Industries Figure 991-D Vacuum Breaking Valves are typically installed at locations along the forcemain where column separations are predicted to occur. The Figure 991-D has no internal spokes, stems or springs and is especially designed for use with sewage and fluids containing floatable solids.

The Figure 991-D is an “air inlet only” valve. The valve is normally held closed by the counterweight and system pressure and opens only if an when the pressure inside the pipe falls below atmospheric. The position and amount of counterweight determines the negative pressure at which the valve opens to rapidly admit air to limit the negative pressure. The valve closes when the pipeline pressure recovers above the opening pressure.

The Figure 991-D is especially designed for use with sewage or fluids containing debris. It has no internal spokes, stems or springs that could collect stringy and/or floatable solids.



#### Product Features

- Especially designed for use on sewage
- Full port orifice for maximum air inflow during negative pressure, small orifice controls air release rate
- Rugged iron body with 316SS trim
- Tight sealing and easily replaceable rubber seat
- Screened hood to minimize entry of foreign matter

#### Standard Materials

- Body Cast Iron, ASTM A126 Class B
- Body Seat Type 316 Stainless Steel
- Replaceable Seat Buna-N
- External Fasteners Steel, A307, Zinc Plated
- Coating Internal and External NSF-61 Certified Epoxy

#### Options/Accessories

- Option BA Build America/Buy America (BABA) and American Iron and Steel (AIS) Compliant
- Option SE 316 Stainless Steel external fasteners

#### Ordering Data

- Figure Number (991-D)
- Size
- Options

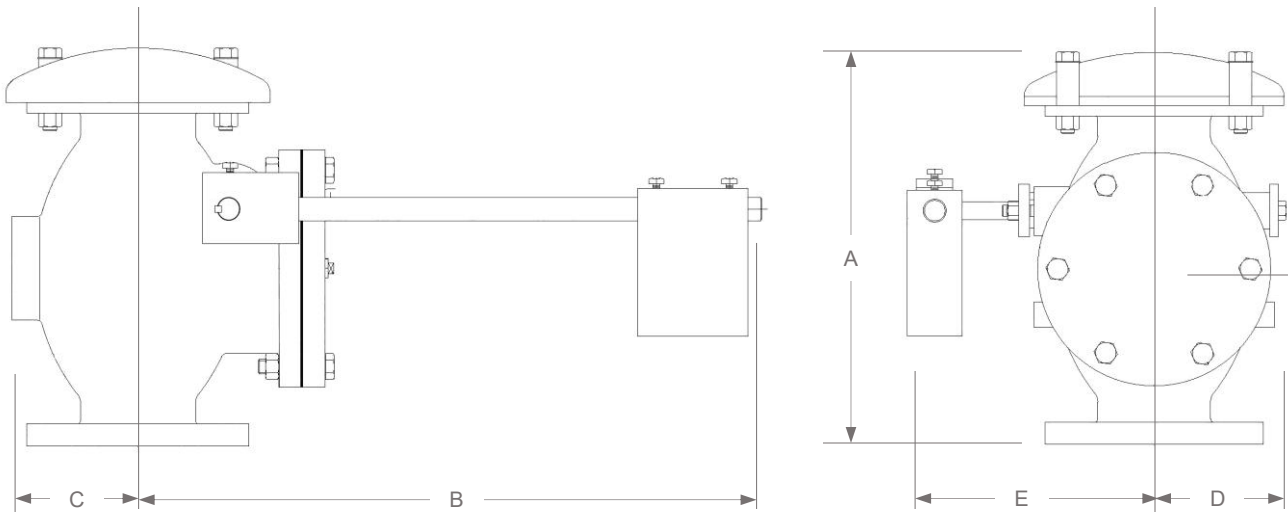
Non-Shock Working Water Pressure at up to 150F (66C)	
Figure No.	991-D
Pipeline Connection	ANSI Class 125
Size	3" to 8"
Air Inlet	Screened Cowl
Working Pressure	10 - 200 PSI
Pressure Rating	200 PSI
Hydro Test	300 PSI

Data Sheet 991.01E

**Air Inflow Rate**

Pressure Inside Valve	Air Inflow Rate, Standard Cubic Feet/Min (SCFM)			
	3"	4"	6"	8"
-1 PSIG	699	1244	2799	4977
-2 PSIG	989	1759	3959	7039
-3 PSIG	1212	2155	4849	8621
-4 PSIG	1399	2488	5599	9955
-5 PSIG	1565	2782	6260	11130

Value is rate at which air is drawn into the valve at negative pipeline/system pressure shown. Multiply SCFM air inflow rate x 7.48 to convert to equivalent pipeline/system liquid draining rate in USGPM.



**Installation Dimensions**

SIZE	3"	4"	6"	8"
A	15½	17	22	23¼
B	16½	17½	20½	22½
C	4¼	5	6	7⅞
D	5	6	7½	8
E	11½	11¾	13¾	15
Weight	95	140	220	340

Dimensions in inches, weight in pounds and are approximate.  
Request certified drawings if critical.  
Larger size valves available, consult factory