

Figures F990-D Vacuum Breaking Valve for Clean Water

Description

GA Industries Figure F990-D Vacuum Breaking Valves are air inlet only valves. They are normally closed and automatically open to admit air whenever the pipeline or system pressure falls approximately 0.25 PSI below atmospheric. The valves open as far as necessary to admit air at the rate needed to limit the vacuum condition and re-close when the system pressure recovers above the opening pressure.

Figures F990-D Vacuum Breaking Valves are typically installed at system high points where negative pressure first develops during system draining and/or where column separations are predicted to occur. They can also be installed adjacent to air & vacuum valves or combination air valves to supplement those valves' air inflow during uncontrolled pipeline draining. .

Product Features

- Compact and light weight
- Full port orifice for maximum air inflow
- Rugged 300 PSI rated iron body with lead free bronze trim
- Fusion bond epoxy internal and external coating
- Tight sealing and easily replaceable rubber seat
- 2-Part epoxy coated screened hood to minimize entry of foreign matter

Standard Materials

- Body Ductile Iron, ASTM A536 Gr 65-45-12
- Plug & Seat Lead-free Bronze, C87800 or C87600
- Replaceable Seat EPDM Rubber
- Bushing Lead-free Bronze, C95400
- Spring Type 302 Stainless Steel
- External Fasteners Steel, A307, Zinc Plated
- Valve Coating Internal and External NSF-61 Certified Fusion Bond Epoxy Coated

Non-Shock Working Water Pressure at up to 150F (66C)	
Figure No.	F990-D
Pipeline Connection	ANSI Class 125/150
Size	2½" to 12"
Air Inlet	Screened Cowl
Max Working Pressure	300 PSI
Hydro Test	450 PSI



Approvals & Certifications

- Complies with AWWA Standard C512

Options/Accessories

- Option IV Inlet Isolating Valve – lever operated AWWA butterfly valve (Available only on 3" to 10" valves)
- Option SE 316 Stainless Steel external fasteners

Ordering Data

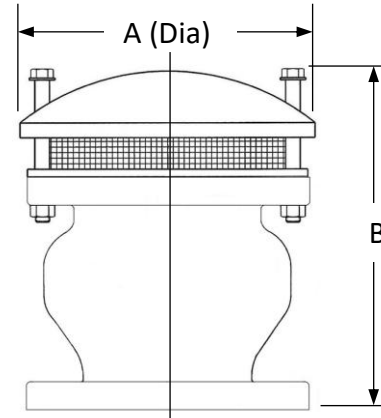
- Figure Number (F990-D)
- Size
- Options/Accessories

Data Sheet F990.01A

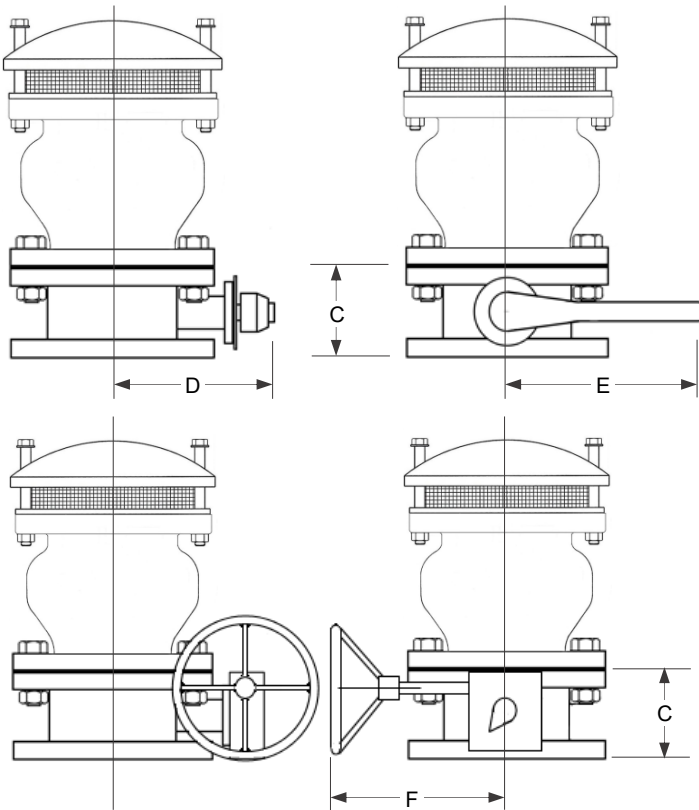
Air Inflow Rate

Pressure Inside Valve	Air Inflow Rate ($C_d = 0.7$) Standard Cubic Feet/Min (SCFM)						
	2½"	3"	4"	6"	8"	10"	12"
-1 PSIG	387	721	1280	2880	5130	8010	11600
-2 PSIG	548	1020	1810	4080	7250	11300	16400
-3 PSIG	672	1250	2220	5000	8880	13900	20000
-4 PSIG	774	1440	2560	5770	10300	16000	23100
-5 PSIG	865	1610	2870	6430	11500	17900	25900

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.



OPTIONAL INLET ISOLATING AWWA BUTTERFLY VALVE



Installation Dimensions

SIZE	2½"	3"	4"	6"	8"	10"	12"
A	8	8	10	12	14"	18	20
B	9¼	9¾	11½	14½	18	22¼	22
C	NA	5	5	5	6	8	8
D	NA	8	8½	10			
E	NA	10¼	10¼	17¾			
F					9¼	9¼	NA
WEIGHT.	32	38	56	85	145.	215	350
Add for Inlet Isolating BFV	NA	33	53	66	132.	190	NA

- NA = Inlet butterfly valve not available in 2½" or 12" size
- BFV is lever operated 3" to 6", 8" and 10" are worm gear with handwheel
- Dimensions in inches, weight in pounds and are approximate. Request certified drawings if critical.