

# Figures 983-D, 983-DC and 983-DJ Slow Closing Combination Air Valve for Water

## Description

GA Industries Figure 983-D consists of a Figure 950-D Combination Air Valve and a Figure F284-D Surge Check, factory assembled and tested as a unit. This valve system vents air during filling, admits air during draining and releases residual air during operation. Plus, the surge check's adjustable regulated exhaust feature minimizes surges and protects the air valve from damage by controlling the rate at which air is vented as the system re-pressurizes after a column separation.

GA Industries Figure 983-D Slow Closing Combination Air Valves are typically installed at system high points where air naturally rises, and column separation is likely to occur.

Figure 983-DT has NPT outlet, Figure 983-DC has an outlet cowl and Figure 983-DJ has Class 125 flanged outlet.

## Product Features

- Full port large orifice for maximum air outflow and inflow
- Air vacuum valve utilizes "kinetic" operating principle, designed not to blow shut
- Surge check (regulated exhaust device) reduces air venting rate to minimize surge and protect air valve
- Rugged iron body
- Corrosion resistant Type 316 stainless steel float
- Tight sealing and easily replaceable rubber seat

## Air Valve Standard Materials

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

## Surge Check Standard Materials

- Body Ductile Iron, ASTM 536 Gr 65-45-12
- Trim Lead-Free Bronze
- Coating NSF-61 Certified Fusion Bond Epoxy

## Options/Accessories

- Option IV Inlet Isolating Valve - lever (3" to 6") or worm gear (8" to 10") AWWA butterfly valve. Not available on 12" valves.
- Option SE 316 Stainless Steel external fasteners
- Option US American Iron and Steel (AIS) Compliant

## Ordering Data

- Figure Number (983-DT, 983-DC, 983-DJ)
- Size
- Options/Accessories



## Approvals & Certifications

- Complies with AWWA Standard C512

Non-Shock Working Water Pressure at up to 150F (66C)						
Figure	983-DT	983-DC	983-DJ	983H-DT	983H-DC	983H-DJ
SIZE	3" & 4"	6" – 12"		3" & 4"	6" – 12"	
Outlet	NPT	COWL	CL 125	NPT	COWL	CL 125
Working Pressure	10- 150 PSI			10 – 200 PSI		
Pressure Rating	200 PSI					
Hydro Test	300 PSI					

Data Sheet 983.01G

**Air Vacuum Orifice**

Pressure at Valve Inlet During Filling	Air Outflow Rate, Standard Cubic Feet/Min (SCFM)					
	3"	4"	6"	8"	10"	12"
1 PSI	707	1260	2830	5030	7850	11300
2 PSI	1000	1780	4000	7110	11100	16000
3 PSI	1220	2180	4900	8710	13600	19600
4 PSI	1410	2510	5660	10100	15700	22600
5 PSI	1580	2810	6320	11200	17600	25300
7 PSI	1870	3320	7480	13300	20800	29900
10 PSI	2240	3970	8940	15900	24800	35800
15 PSI	2740	4870	11000	19500	30400	43800

Value is rate at which air is vented from pipeline/system during filling at valve inlet pressures shown. Inlet pressure during filling should not exceed 5 PSI. Multiply SCFM air venting rate x 7.48 to convert to equivalent pipeline/system liquid filling rate in USGPM.

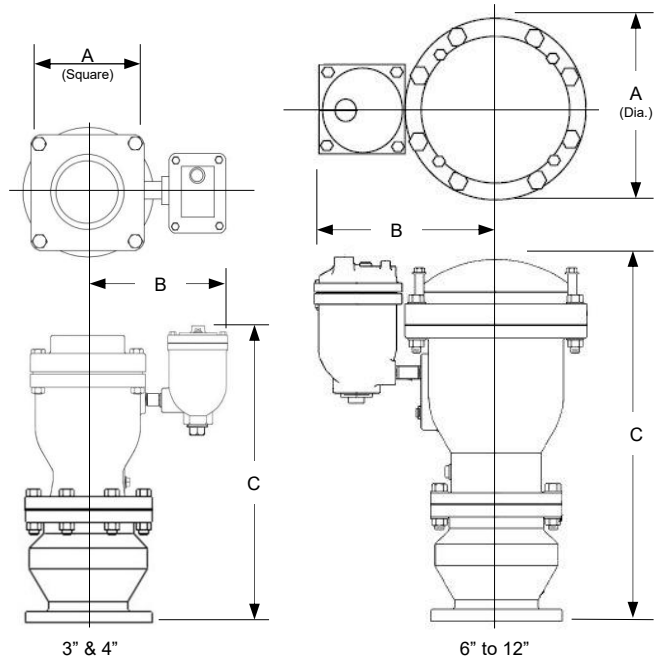
**Air Vacuum Orifice**

Pressure at Valve Inlet During Draining	Air Inflow Rate, Standard Cubic Feet/Min (SCFM)					
	3"	4"	6"	8"	10"	12"
-1 PSIG	721	1280	2880	5130	8010	11600
-2 PSIG	1020	1810	4080	7250	11300	16400
-3 PSIG	1250	2220	5000	8880	13900	20000
-4 PSIG	1440	2560	5770	10300	16000	23100
-5 PSIG	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.

**Air Release Orifice**

Pressure At Valve Inlet	Air Release Orifice Venting Rate, Standard Cubic Feet/Min (SCFM)	
	3" and 4"	6" to 12"
10 PSI	2.2	3.9
15 PSI	2.6	4.7
25 PSI	3.5	6.3
50 PSI	5.8	10.3
75 PSI	8.0	14.2
100 PSI	10.2	18.2
150 PSI	14.7	26.1

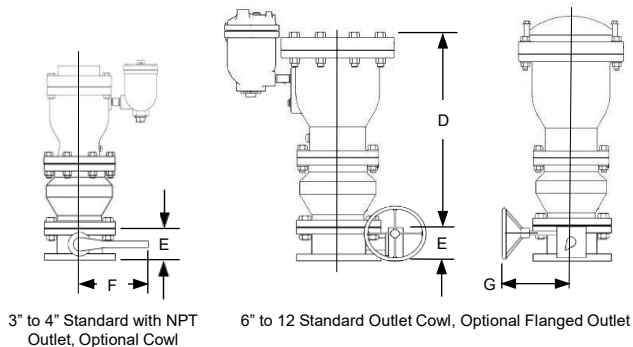


**Installation Dimensions**

SIZE	3"	4"	6"	8"	10"	12"
A	6 $\frac{3}{4}$	9	15 $\frac{1}{4}$	19	23 $\frac{1}{2}$	27 $\frac{1}{2}$
B	8 $\frac{1}{4}$	9 $\frac{3}{4}$	14	15 $\frac{1}{2}$	18 $\frac{1}{2}$	26 $\frac{1}{2}$
C	16 $\frac{1}{2}$	19 $\frac{1}{4}$	30 $\frac{3}{4}$	38	48 $\frac{1}{2}$	54 $\frac{1}{2}$
D	Not Applicable		27 $\frac{1}{4}$	33	42 $\frac{1}{2}$	47
E	5	5	5	6	8	--
F	10 $\frac{1}{4}$	10 $\frac{1}{4}$	17 $\frac{1}{4}$	Not Applicable		
G	Not Applicable			9	9 $\frac{1}{4}$	--
Weight	100	135	290	505	710	980
Add Weight for Class 125 Inlet Isolating BFV*	26	39	64	135	179	Not Available

- All dimensions and weights are approximate. If critical request certified drawings
- Inlet isolating butterfly valve available only 3" to 10". Size 6" and smaller standard with lever operator, 8" and 10" with worm gear

**OPTIONAL INLET ISOLATING AWWA BUTTERFLY VALVE and/or FLANGED OUTLET**



3" to 4" Standard with NPT Outlet, Optional Cowl

6" to 12" Standard Outlet Cowl, Optional Flanged Outlet