

# Figure 983-D, 983-U

## Slow Closing Combination Air Valve for Water

### Description

GA Industries Figure 983-D/983-U are a Figure 950-D/950-U Combination Air Valve and a “surge check,” valve 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 subsequent to a column separation.

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



### Product Features

- Full port large orifice for maximum air outflow and inflow
- Utilizes “kinetic” operating principle, designed not to blow shut
- Surge check 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

### Surge Check Standard Materials

- Body Cast Iron, ASTM A126 Class B
- Trim Type 316 Stainless Steel

### Coating

- Standard: Uncoated internal, external enamel primer, 2 mil DFT
- Optional See Option P2

### Options/Accessories

- Option IV Inlet Isolating Valve - lever (3” to 6”) or worm gear (8” to 10”) AWWA butterfly valve. Not available on 12” or Class 250 flanged valves.
- Option P2 316 Stainless Steel external fasteners and internal/external Carboline 891 NSF-61 certified 2-part epoxy, 6 mil DFT

### Ordering Data

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

### Approvals & Certifications

- Complies with AWWA Standard C512

Non-Shock Working Water Pressure at up to 150F (66C)						
Figure No.	983-DT	983-DC	983-DJ	983-UT	983-UC	983-UJ
<b>Inlet Connection</b>	ANSI Class 125			ANSI Class 250		
<b>Inlet Size Range</b>	3” & 4”	6” to 12”		3” & 4”	6” to 12”	
<b>Outlet</b>	NPT	Cowl	CL125 Flange	NPT	Cowl	CL125 Flange
<b>Outlet Size</b>	Same as Inlet					
<b>Working Pressure</b>	10-150 PSI			10-300 PSI		
<b>Pressure Rating</b>	150 PSI			300 PSI		
<b>Hydro Test</b>	225 PSI			450 PSI		

# Figure 983-DT, 983-DC, 983-DJ Slow Closing Combination Air Valve for Water

## Data Sheet 983.01B

### 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.

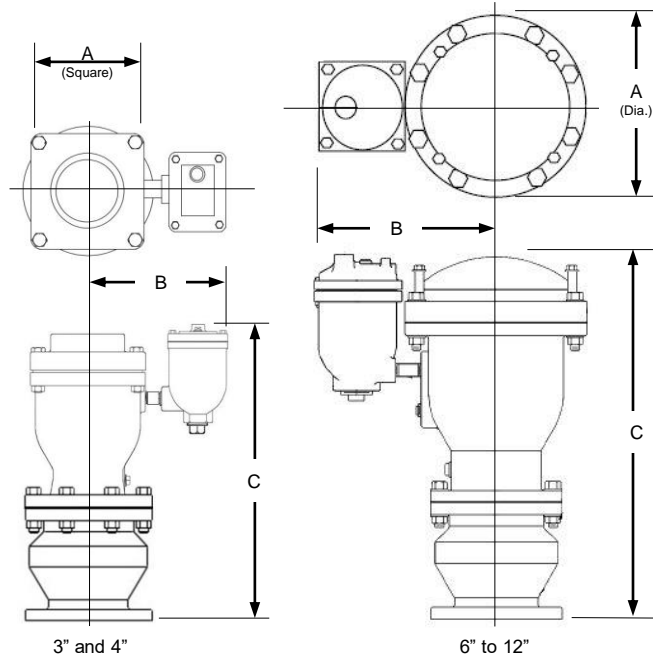
### Air Vacuum Orifice

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

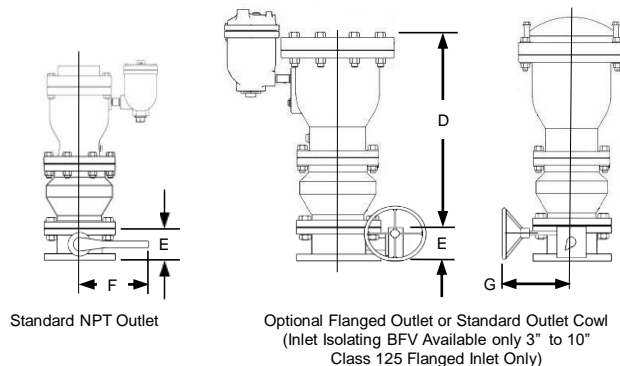
Value is rate at which air is drawn into the valve at negative pipeline/system pressure shown. Multiply SCFM air inflow rate x 7.48 to convert to equivalent pipeline/system liquid draining rate in USGPM.

### 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



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



### Installation Dimensions

SIZE	3"	4"	6"	8"	10"	12"
A	6 $\frac{1}{2}$ "	9"	15 $\frac{1}{4}$ "	19"	23 $\frac{1}{2}$ "	27 $\frac{1}{2}$ "
B	7 $\frac{1}{8}$ "	9 $\frac{3}{4}$ "	14"	15 $\frac{5}{8}$ "	18 $\frac{1}{2}$ "	26 $\frac{1}{8}$ "
C	16 $\frac{5}{8}$ "	19 $\frac{1}{4}$ "	30 $\frac{3}{8}$ "	37 $\frac{3}{8}$ "	48 $\frac{1}{2}$ "	54 $\frac{1}{4}$ "
D	--	--	27 $\frac{3}{8}$ "	34 $\frac{1}{8}$ "	42"	48 $\frac{3}{4}$ "
E	5"	5"	5"	6"	8"	--
F	10 $\frac{1}{4}$ "	10 $\frac{1}{4}$ "	17 $\frac{3}{4}$ "	--	--	--
G	--	--	--	9"	9 $\frac{1}{4}$ "	--
Valve Weight	CL125	100	135	255	465	930
	CL250	120	170	300	585	1200
Add for Class 125 Inlet Isolating BFV*	26	39	64	135	179	232