

Figures 942, 942F Single Body Sewage Combination Air Valve

Description

VAG/GA Industries Figure 942 Combination Air Valves employ a large and small orifice in a single body to efficiently vent air and gas from sewage forcemains. Air is vented through the large orifice as the system is filled and then it close tight once the system is full and pressurized. Residual air and gas is released through the small orifice while the system is in operation. The large orifice automatically opens to admit air when the forcemain is drained and/or a negative pressure occurs in the valve.

Figure 942 are typically installed at system high points where air and sewage gas naturally rise during filling, collect during operation and vacuum first forms during draining. The elongated body is designed to maintain an air gap between the solids bearing fluid and the valve's internal mechanism to minimize fouling and spillage.

Figure 942F includes optional "back flushing attachments" to facilitate cleaning sludge and debris from the valve



Product Features

- Full size large orifice for maximum air outflow and inflow rates
- Corrosion resistant Type 316 stainless steel float, plug, seat ring and internal mechanism
- Elongated body reduces potential for fouling
- Tight sealing and easily replaceable rubber seat
- 2" NPT plugged side port allows removal of large debris

Standard Materials

- Body & Cover Cast Iron, ASTM A126 Class B
- Float Stainless Steel, Type 316
- Internal Linkage Stainless Steel, Type 316
- Replaceable Seat Buna-N
- External Fasteners Steel, A307, Zinc Plated

See Data Sheet 942SS.01 for Durovent™ all 316SS construction version

Coating

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

Approvals & Certifications

- Complies with AWWA Standard C512

Options/Accessories

- Option IV Inlet Isolating Valve – lever operated bronze ball valve (3" NPT and smaller inlet valves) Note: inlet valve included with backflush attachments.
- 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 (942, 942F)
- Size (Inlet x Outlet)
- Options/Accessories

Non-Shock Working Water Pressure at up to 150F (66C)									
	Valve Only					Valve and Backflush Attachments*			
Figure Numbers	942					942F			
Valve Size	2" x 1"	2"	3" x 2"	3"	4"	2" x 1"	2"	3" x 2"	3"
Inlet Size	2" NPT	2" NPT	3" NPT	3" NPT	4" NPT	2" NPT	2" NPT	3" NPT	3" NPT
Outlet Size	1" NPT	2" NPT	2" NPT	3" NPT	4" NPT	1" NPT	2" NPT	2" NPT	3" NPT
Working Pressure	10-150 PSI					10-150 PSI			
Pressure Rating	200 PSI					200 PSI			
Hydro Test	300 PSI					300 PSI			

* See Data Sheet 942.02 for 4" and 6" flanged valves with backflush attachments

Data Sheet 942.01a

Air Vacuum Orifice

Pressure at Valve Inlet	Air Outflow Rate, Standard Cubic Feet/Min (SCFM)				
	2" x 1"	2"	3" x 2"	3"	4"
1 PSI	78.5	314	314	707	1260
2 PSI	111	444	444	1000	1780
3 PSI	136	544	544	1220	2180
4 PSI	157	628	628	1410	2510
5 PSI	176	703	703	1580	2810

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 2 PSI. Size is inlet x outlet.

Air Vacuum Orifice

Pressure at Valve Inlet	Air Inflow Rate, Standard Cubic Feet/Min (SCFM)				
	2" x 1"	2"	3" x 2"	3"	4"
-1 PSIG	80	320	320	721	1280
-2 PSIG	113	453	453	1020	1810
-3 PSIG	138	555	555	1250	2220
-4 PSIG	160	641	641	1440	2560
-5 PSIG	179	716	716	1610	2870

Value is rate at which air is drawn into the valve at negative pipeline/system pressure shown. Size is inlet x outlet.

Air Release Orifice

Pressure At Valve Inlet	Air Release Orifice Venting Rate, Standard Cubic Feet/Min (SCFM)	
	2" x 1", 2" and 3" x 2"	3" and 4"
10 PSI	2.2	8.7
15 PSI	2.6	10.6
25 PSI	3.5	14.1
50 PSI	5.8	23.1
75 PSI	8.0	32.0
100 PSI	10.2	40.9
150 PSI	14.7	58.7

Installation Dimensions

SIZE	2'x1", 2"	3" x 2"	3"	4"
A (Square)	6½"	6½"	9½"	13½"
B	20½"	20½"	23½"	25½"
C	4½"	4½"	7"	7"
D	5"	8"	8"	NA
E	8"	13"	13"	NA
F	10"	10"	12"	NA
Valve Weight	60 lb.	60 lbs.	170 lb.	190 lbs.
Add for Inlet Isolating Valve Only	8 lbs.	20 lbs.	20 lbs.	Not Available*
Add for Backflush Attachments	15 lbs.	27 lbs.	27 lbs.	Not Available*

* For 4" valves with inlet isolating valve or backflush attachments, see Data Sheet 942.02
All dimensions and weights are approximate. If critical request certified drawings

