Operation:

Flomatic Comboair® valves are designed to vent large volumes of air while the system is filling and expel accumulated air while the system is under pressure. Should the system encounter a negative pressure as a result of a main break for example, it will allow large volumes of air to re-enter the system to prevent the main from collapsing. The valve has two orifices, a large one for the air and vacuum feature which handles the large volumes of air and a small one to expel accumulated air. The orifices are closed by a float attached to a lever arm mechanism that lifts the seat discs as the water rises in the valve. As the air accumulates in the valve it displaces the water causing the float to drop, allowing the small orifice to expel the air and the water to rise again closing the valve.

NOTE: These valves are designed for use on clean water systems. Using them on systems other than water is not recommended. Consult factory for special applications.

Installation:

Installation must be performed by qualified, licensed personnel only.
Remove all plastic protection plugs that are covering inlet and outlet threads.
The Flomatic Comboair® should be installed at the high points in the system in a vertical position above the water main. If they are not installed directly over the water main, the inlet piping to the valve should always be upwards towards the valve with the valve being vertical only. To facilitate servicing and repairs it is strongly recommended that an isolation valve be installed on the inlet side of the valve. Proper supports for the valve and piping are required as needed.

These valves should NEVER be buried. In warm climate areas installing them above grade is acceptable as long as precautions are taken to keep people away from them and protect them from being tampered with (these precautions should be determined by the project engineer). Freeze protection is a necessity in colder areas. Manholes should be adequately sized to allow access to the valves by service personnel.

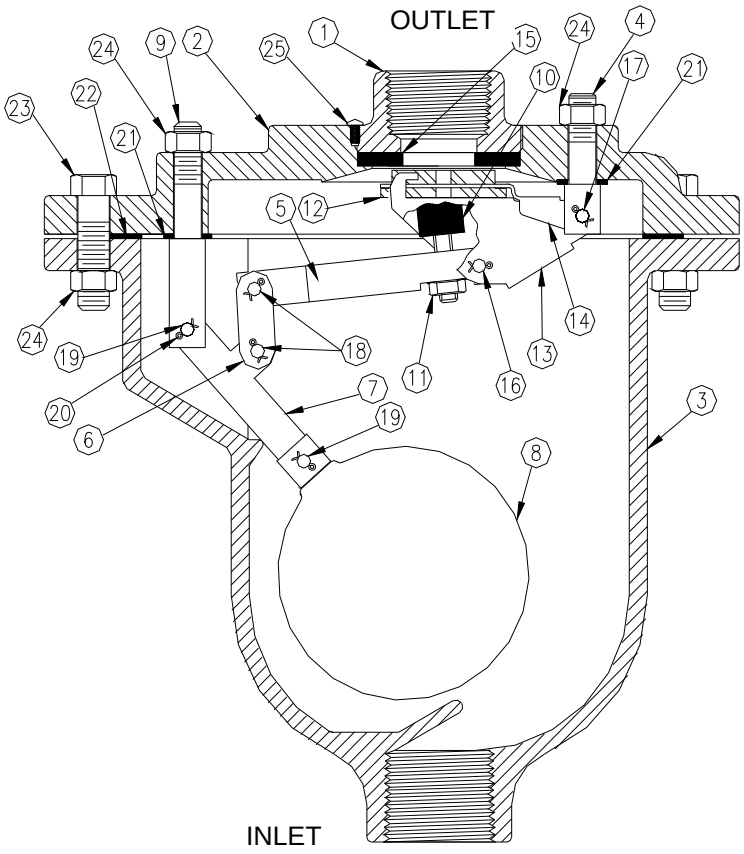
Maintenance:

The Comboair® requires no schedule maintain, but should be inspected periodically for leakage in the orifice area on top.

Disassembly / Reassembly:

The Comboair® can be disassembled without removing it from the line. No special tools are required and all working should be performed by qualified, licensed personnel.

1. Close the isolation valve on the inlet of the valve or shut the system down if these are not a valve. Be sure system pressure is relieved.
2. Remove top flange (#2), bolts (#24) and lift cover off.
3. Examine internal parts for signs of wear or damage.
4. Examine seats (#10 & 15) for damage to rubber or excessive wear.
5. If the air & vacuum seat rubber is damaged, you will need to remove the top (#1) by removing interference pin (#25) and unscrewing it. Remove and replace the seat and then reassemble top flange assembly.
6. The air release seat, (#10) is removed by removing plunger nut (#11) and then unscrewing the plunger. When installing the new plunger screw it in to the same depth as the old one and then the lift lever arm to see if it meets the seat plate evenly. Adjust as necessary and then re-install plunger nut.
7. Replace any other parts as needed on the compound linkage mechanism.
8. Clean flange surfaces, use a new flange gasket (#22) and reassemble valve.
9. Put valve back in service and check for leaks.



Item #	Description
1	Top
2	Flange
3	Body
4	A&V Fulcrum
5	Valve Lever
6	Link
7	Ball Lever
8	Float
9	Ball Fulcrum
10	Valve Plunger
11	Plunger Nut
12	Pressure Seat
13	Pressure Fulcrum
14	Seat Cage
15	A&V Seat
16	Bearing Pin
17	Bearing Pin
18	Bearing Pin
19	Bearing Pin
20	Cotter Pin
21	Fulcrum Pin
22	Gasket
23	Bolt
24	Nut
25	Interference Pin

Trouble Shooting Guide	
Problem:	Possible Solutions:
Leaking at inlet connection	Tighten valve connection. If valve still leaks remove valve from system and re-attach with new Teflon tape or liquid Teflon.
Leaking around the cover	Tighten bolts to 10-20 ft/lbs
Leaks when closed	Flush valve to remove debris. If valves still leaks disassemble valve, inspect and replace used or worn parts.
Orifice not venting air	Make sure the operating pressure is not exceeded. If not disassemble valve, inspect and replace used or worn parts.

Information needed to order repair parts:

Valve Model Number
Valve Size
Valve working Pressure

Limited One Year Warranty: Flomatic valves are guaranteed against defects of material or workmanship when used for the services recommended. If, in any recommended service a defect develops due to material or workmanship, and the device is returned, freight prepaid, to Flomatic Corporation within 12 months from date of purchase, it will be repaired or replaced free of charge. Flomatic Corporations' liability shall be limited to our agreement to repair or replacement of valve only.

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