Operation:

Flomatic Sewair-Combo® valves provide two air release functions in a single body casting. The design permits the automatic escape of large quantities of air from a pipeline when the line is being filled, and allows the entry of air when a negative pressure occurs. The valve will also release accumulating air while the system is in operation and under pressure.

Air is forced out of a pipeline through the Air Release Valve by a liquid column as the line is being filled. As the liquid enters the Flomatic Sewair-Combo®, the float is made buoyant and rises with the liquid level. Both the air and vacuum and the pressure air release orifice will be sealed through the buoyant reaction of the float and the compound lever system. Accumulating air enters the valve body and displaces the liquid level, which causes the float to drop. The pressure air release orifice is opened and air escapes. The loss of compressed air causes a rise in the liquid level, which again raises the float and seals the valve. This cycle will continue to occur as long as air accumulates in the valve body.

NOTE: Valve is not for fuel service.

Installation:

Installation must be performed by qualified, licensed personnel only.
Remove all plastic protection plugs that are covering inlet and outlet threads.
The Flomatic Sewair-Combo® should be installed in a vertical position ***ONLY*** at the highest points in the system above the main in order to function properly. Installation of these valves off to the side of the main is fine as long as the inlet piping is always upward to the valve from the top of the main and the valve is vertical. Isolation valves need to be installed on the inlet to allow for servicing and general maintenance.

When installing these valves in manholes be sure to allow enough room for service personnel to be able to get to the valve safely. Also, adequate venting should be available to discharge the venting air and keep manhole from becoming pressurized. When the valve closes, especially during startup they sometimes discharge some fluid from the top. A proper drain system should be considered. In colder climates protection from freezing is required.

Maintenance:

WARNING: Always wear safety glasses when examining the seat / orifice area of the valve. Any unexpected release of fluid could cause injury.

The Sewair-Combo® should be inspected regularly for leakage in the seat / orifice area on top of the valve. If the seat fails to seal, water and debris will fill the valve body to a much higher level than normal. Accumulated debris could interfere with the proper movement of the float allowing the valve to leak. If the valve is fitted with the optional back-flushing attachment, back-flushing the valve may correct the problem without removing the valve from the system (note: see back-flushing procedures). If it is not equipped with the back-flushing option, shut the isolation valve on the inlet and loosen one of the plugs on the side of the valve to relieve any potential pressure. Remove the

valve from the main and try washing it out with a hose. Remember; always handle the valve with care. Examine the orifice area on the top of the valve for any obvious damage. Re-install the valve on the main, tighten the plug and open isolation valve placing the valve back in service. If it still leaks you will need to close the isolation valve and remove the top cover to inspect the valve internally. You can remove the complete valve from the system or remove the top cover while the valve is installed. Examine all parts for wear or defects. Replace needed parts and be sure everything is clean before re-installing the top cover.

Backflushing:

The purpose of the back-flushing procedure is to prevent the build up of solids and scum from the sewage water in the valve body. To maintain proper valve function, this should be done periodically. Frequency needed could vary from system to system.

Valves supplied with the backflush attachment will have a shutoff on the inlet and two (2) blow-off valves located on the side of the main valve. A hose with quick disconnect fittings for attaching the hose to the blow-of valves is also part of the assembly.

A clean water source is needed for flushing the valve. A portable tank or tank truck fitted with a pump that can supply 30-90 psi through a 1" hose should provide an adequate water supply to clean the valve. **(Note: The water supply for flushing can not be a direct connection to a potable water source.)** In some instances it maybe necessary to return the flushed water to another tank for disposal at a waste water treatment plant, local regulations should be followed.

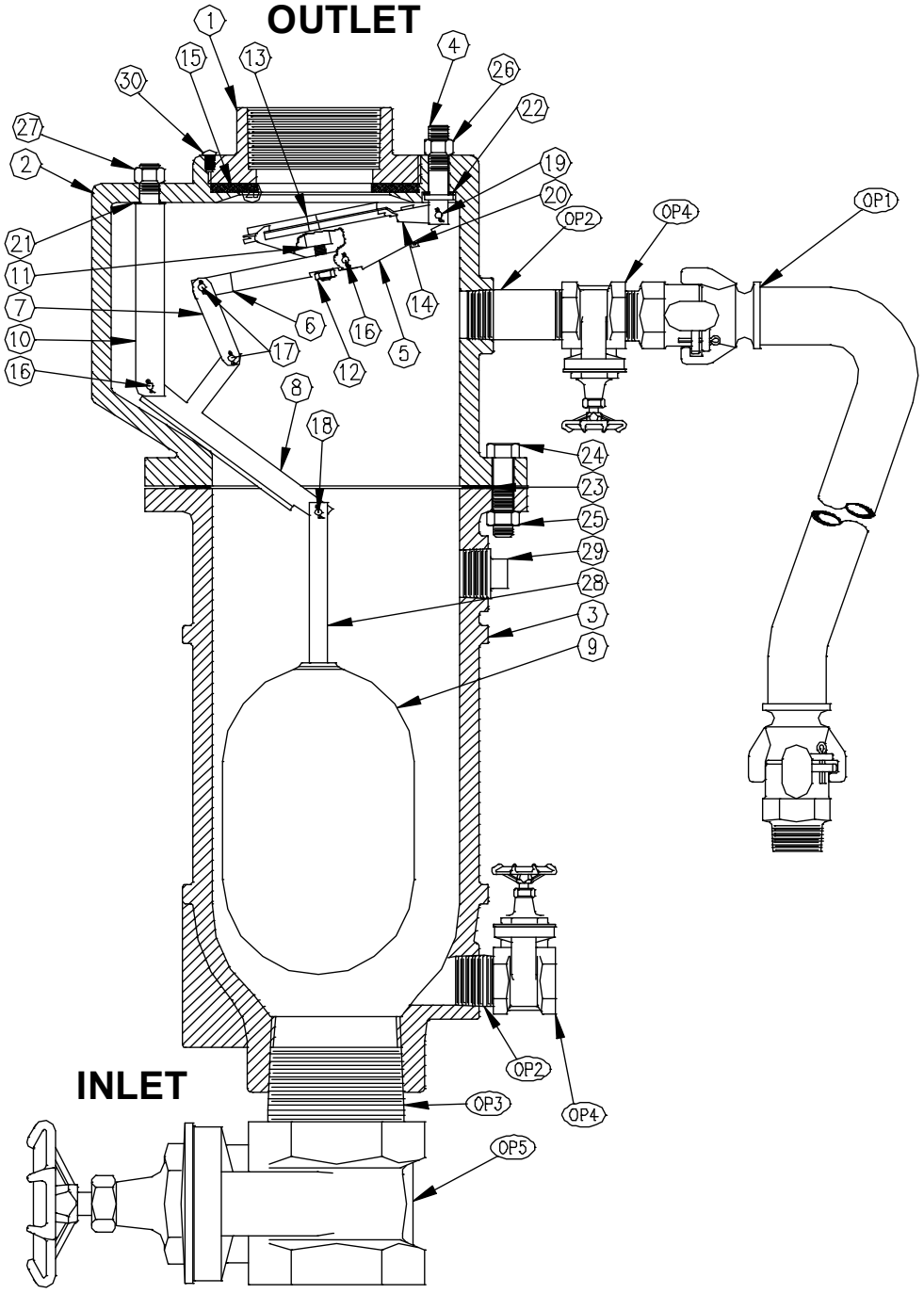
1. Close the inlet valve on the bottom of the main valve and attach the water source hose to the top blow-off valve on the side of valve.
2. Open the bottom blow-off valve (use caution as this will release system pressure from within the valve).
3. Open the top blow-off valve allowing the flush water to pass through the valve.
4. Observe the flushed water until it appears that the solids have been washed out of the valve.
5. Close the top blow-off valve first and disconnect the hose. This allows the remaining water to drain out of the valve body.
6. Close the bottom blow-off valve and slowly open the inlet valve placing the unit back in service.
7. Check for leaks.

Disassembly / Reassembly:

The Sewair-Combo® can be disassembled without removing it from the line. No special tools are required and all working should be performed by qualified, licensed personnel.
NOTE: Before attempting to take the valve apart, first be sure that it is isolated from system pressure and system pressure is relieved.

The seat may be inspected and replaced by removing the threaded top (#1). If the seat seems to be defective, replace it and return the valve to service. When replacing the rubber seat, care must be taken not to over tighten the seat. Over tightening of the seat can distort it causing it to leak. After

cleaning the seat area and applying some thread sealer to the top (#1), tighten it until it is snug against the seat and then give it an additional ONE quarter turn. If the valve still leaks through the seat, you will need to isolate the valve from the system again and remove the top flange. Examine the internal parts for excessive wear or damage. Replace whatever is found to be defective.



Part #	Description	Material	Part #	Description	Material
1	Top	Ductile Iron	16	Bearing Pin	Stainless Steel
2	Flange	Ductile Iron	17	Bearing Pin	Stainless Steel
3	Body	Ductile Iron	18	Bearing Pin	Stainless Steel
4	A&V Fulcrum	Stainless Steel	19	Bearing Pin	Stainless Steel
5	Pressure Fulcrum	Stainless Steel	20	Bearing Pin Clip	Stainless Steel
6	Valve Lever	Stainless Steel	21	Fulcrum Washer	Fibre
7	Link	Stainless Steel	22	Fulcrum Washer	Fibre
8	Ball Lever	Stainless Steel	23	Fulcrum Gasket	Armstrong
9	Float	Stainless Steel	24	Flange Bolt	Steel
10	Ball Fulcrum	Stainless Steel	25	Flange Nut	Steel
11	Plunger	Buna-n/Stainless Steel	26	A&V Fulcrum Nut	Steel
12	Plunger Nut	Stainless Steel	27	Ball Fulcrum Nut	Steel
13	Pressure Seat	Stainless Steel	28	Ball Float Rod	Stainless Steel
14	Seat Cage	Stainless Steel	29	Flush Plug	Ductile Iron
15	A&V Seat	Buna-n	30	Interference Pin	Stainless Steel

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	Backflush valve to remove debris. If valves still leaks disassemble valve, inspect and replace used or wore parts.
Leaks when closed	Check system operation pressure. If less then 10 psi consult factory.

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.