

## MicroAire DAF® Aeration Unit Shutdown/Restart Instructions

1. Turn power off to the recirculation pump to shut down the unit. Restart the pump by applying power to the MicroAire DAF® Aeration Unit.
2. Leave all air and water valve(s) in their normal operating positions.
3. The pilot operated valve on the air line will automatically shut off the air supply.

## Daily Operating Checklist

1. Verify the air pressure. If the air pressure is less than 140psig at the gauge on the regulator adjust the regulator to bring the air pressure to 140psig minimum.
2. Verify the air rotameters are within the range on the green scale.
3. The air to water mixture should be approximately ½ air and ½ water at each vent line.
4. Verify a good float blanket is forming on the top of the water in the DAF tank. If needed adjust each breakout valve to obtain a good float blanket.
5. Drain condensate from filter/regulator and compressor.

## Maintenance Checklist

1. Refer to VanAire's Equipment Maintenance Charts in VanAire's Technical Manual for maintenance guidelines.
2. VanAire maintains a stock of most components for immediate shipment if needed. Please don't hesitate to call us! 1-800-826-2473



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## MicroAire DAF® Aeration Unit Quick Reference

### Startup Instructions

#### IMPORTANT!

Pump damage can result if ran in the wrong direction. Before placing unit into initial service and any time electrical connections to the motor have been disconnected and reconnected, check motor rotation direction as follows:

Perform lock out/tag out procedure to assure motor cannot be started accidentally.

Disconnect the motor from the pump by removing the shaft coupling components including the key from the motor shaft  
**WARNING:** Failure to remove the key may result in personal injury.

Jog the motor by momentarily switching electrical power on. Direction of motor shaft rotation must correspond to the arrow sign on the pump.

Upon confirmation of correct rotation reinstall coupling components and guard.

1. Verify that all isolation valves are open and the pump is flooded with water. Note: Systems with Sulzer pumps are equipped with a dynamic shaft seal. It is normal for the pump to leak somewhat when the pump is idle.
2. Open the vent valve on top of each saturation tank approximately 1/3.
3. Open each blue breakout valve fully.
4. Verify the compressed air is present at the aeration unit; compressed air pressure must meet a minimum of 20psig above the aeration pump pressure. Minimum regulated air supply pressure must be 40psig. Adjust the regulator to obtain this value at the gauge on the regulator.
5. Start the pump (verify the pump's rotation on initial startup – rotation must correspond to the arrow on the pump **CAUTION:** improper rotation may damage pump- see box above).
6. Run the pump for a few minutes to purge air from the piping system.
7. Adjust the air flow meter (rotameter) on each saturation tank so the bottom of the ball is within the range of the green scale. If large bubbles appear in the DAF tank, reducing the amount of air flow may reduce the amount and size of the large bubbles.
8. Adjust BOV (breakout valve) by turning clockwise until lightly seated (**WARNING: OVERTIGHTING MAY CAUSE DAMAGE TO DIAPHRAGM**) then turn counter clockwise approximately ¼ turn. Check the differential pressure and adjust BOV to meet VanAire's recommended differential pressure of approximately 15-35psig. If more than one breakout valve shares a common saturation tank adjusting one breakout valve may slightly affect other breakout valves. Minimizing the size and amount of large bubbles will provide the best float blanket.
9. Adjust the vent valve on the top of each saturation tank so that a stream of approximately ½ air and ½ water passes from each vent line. By opening or closing the vent valve may affect the differential pressure over the corresponding saturation tank.
10. Drain moisture from the filter periodically to protect the regulator and keep the rotameter(s) clean.