

INSTALLATION, OPERATION AND SERVICE MANUAL

LANCASTER®
WATER TREATMENT

MODEL 230-1248DA AIR ELIMINATOR TANK

**CAREFULLY READ THE LITERATURE PROVIDED BEFORE INSTALLATION.
CONSULT LOCAL PLUMBING CODES.**

The LANCASTER air eliminator tank is used with water aeration/filtration systems, providing contact time and expelling excess air and separated gases. This "DA" (Double Aeration) model uses an airstone near the bottom of the tank to enhance hydrogen sulfide reduction. Iron will oxidize and could clog up the airstone, therefore **this "DA" model is not recommended if there is iron in the water.**

PRE-INSTALLATION

The air eliminator tank is packaged and shipped assembled except for the float attachment. The float requires field installation to prevent damage that would occur during shipment. To attach float (see float attachment diagram)...

1. Unscrew 230-40B-DA float valve assembly from FG1248 tank.
2. Raise 230-40B-DA float valve assembly to the height as shown in the float attachment diagram.
3. Holding F2304 float firmly, insert float into tank and screw onto 230-15B float rod.
4. Lower float valve assembly and screw into tank until o-ring is tight.

INSTALLATION

LOCATION- The air eliminator tank must be installed between the well pump pressure tank and filter tank (see installation diagram). A clean dry basement, pit or utility room to avoid temperature extremes are excellent choices.

PIPING- The air eliminator tank inlet/outlet size is ¾ inch FPT. Use only Teflon tape on male threads of pipe screwed into air eliminator tank. **DO NOT** use pipe joint compound on PVC air eliminator tank inlet/outlet or plastic piping because it will damage (crack) plastic overtime. **DO NOT** over-tighten piping into air eliminator tank inlet/outlet. The inlet is stamped "IN" above the ¾ inch FPT port. The outlet is stamped "OUT" above the ¾ inch FPT port.

VENT TUBING- The air eliminator tank provides an exterior 10-4-4 nylon straight fitting, ¼ inch MNPT x ¼ inch tube, assembled onto the VC2128 vent cap. This fitting is used to connect the air release vent tubing (not supplied). Polyethylene (PE) tubing, ¼ O.D. x 0.040 wall, 120 PSI water pressure, 150°F temp. max. rated, is recommended and sold separately. Route the air release vent tubing to a drain and cut to length, maintaining a 4 inch air gap to prevent siphonage. In cases where gases are present, route tubing outdoors so the gases can escape to the atmosphere.

AIR COMPRESSOR- Refer to the "LAER" system installation manual supplied with the air compressor, regarding installing the air eliminator tank and connecting air compressor to air eliminator tank.

OPERATION

The air eliminator tank operates **without** electricity, mechanical levers and hinges, or water loss through the vent tubing. The only moving part is the float. The float will open and close the air release port with water level fluctuations.

START UP- Refer to the "LAER" system installation manual supplied with the air compressor, and review its operation section including "start-up".

SERVICE

The air eliminator tank float valve assembly is machined from solid PVC bar stock, providing durability and corrosion resistance. All parts are easily disassembled for cleaning.

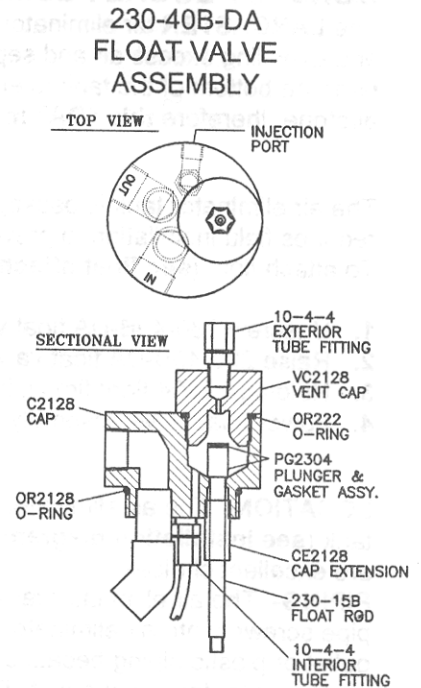
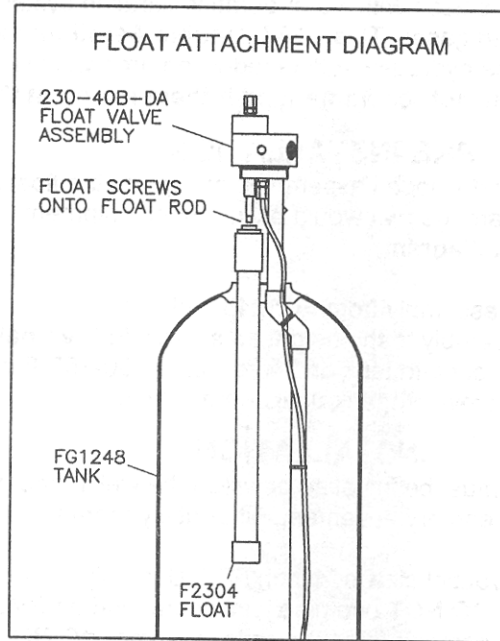
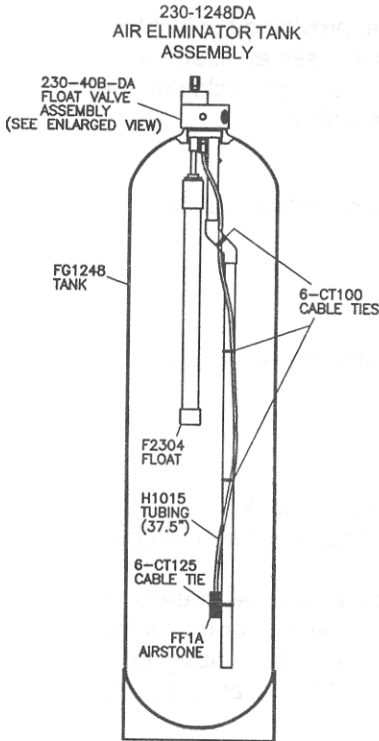
WARNING-HAZARDOUS VOLTAGE- Disconnect electrical power supply before servicing equipment.

WARNING-HAZARDOUS PRESSURE. Never work on unit without relieving the internal pressure. Turn off power to the well pump and relieve system pressure before servicing the equipment.

SEE TROUBLE SHOOTING & DRAWINGS ON REVERSE SIDE

TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
WATER IN AIR RELEASE VENT TUBING	<ol style="list-style-type: none"> 1. Float valve gasket dirty (iron or turbidity buildup). 2. Float "rise and fall" travel obstructed. 3. Float is water logged. 	<ol style="list-style-type: none"> 1. Remove vent cap and inspect gasket. Clean or replace plunger & gasket. Plunger & gasket assembly is screwed onto float rod. DO NOT DROP float rod into tank. 2. Remove float valve assembly from tank and inspect. 3. Replace float (see pre-installation section).
MILKY OR BUBBLY WATER	<ol style="list-style-type: none"> 1. Excessive air injection. Air eliminator tank not able to vent all the undissolved air. 2. Air eliminator tank is air bound. Undissolved air trapped in tank, excess air is carried over to filter tank and plumbing fixtures. 	<ol style="list-style-type: none"> 1. Reduce air injection. Refer to "LAER" system installation manual supplied with the air compressor, and review operating section, regulating air flow. 2. Remove vent cap from air eliminator tank float valve assembly. Inspect small hole through the center of the vent cap. Also inspect small hole in the cap beside the plunger & gasket assembly. Clear any obstruction in these holes. Also, check air release vent tubing for blockage, such as ice, dirt, kinks in the line.



INSTALLATION DIAGRAM

