

Aero-life Aeration Systems

System Installation Instructions

1. Evaluate your proposed site for the following:

(This information is necessary to design a system that will work best.)

- Size and configuration of the grease trap
 - a. Approximate volume of the trap
 - b. Size and location of the trap access
 - c. Proximity of the access hole to the inflow
 - d. Chamber configuration of the trap
 - e. Trap access “clear space to aeration chamber” (usually the 1st chamber)
 - f. Determine the approximate depth of the trap water level



- Gain an understanding of the drain system (Usually, dishwashers, floor drains, and 3 compartment sinks drain into the trap while other drains may go straight to the sewer) Use food dyes as necessary to verify.
 - a. Determine the approximate drain distance from the trap to the closest floor sink.
 - b. Find out if they experience periodic drainage backups, and try to understand the causes.

- Find a floor sink (or open drain) close to the trap with the following:



- a. A spot to locate the pump. This should be:
1. Out of the way
 2. Off of the floor
 3. Away from water
 4. Away from flammables
 5. Near a grounded 110 outlet (GFI if possible)
 6. Adequate ventilation (not inside a close space)
 7. Have adequate access for the air tubing around screens, grates or other obstacles

With this information you will be able to provide a system that will work for your customer. You may want to use the sample form provided as you collect this information.

2. The next step is to prepare for your installation:

- Assemble the diffuser array
 - a. Attach ballast to stand (many types of ballast can be used, we recommend common “three hole” bricks). The bricks usually weigh 3.25lbs each and we use 5 attached with heavy-duty cable ties as shown.



- b. Slip the secured end of the tether rope over the diffuser coupling on the supply end of the stand. Remove the protective tape from the ends of both couplings. Using a small amount of Teflon tape on the threads carefully screw the disk diffusers onto the stand. Be careful not to over tighten.



- Get all needed components together, including:
 - a. Pump
 - b. Pump stand or shelf, if necessary
 - c. Diffusers and stands (assembled with ballast and retrieval rope securely attached)
 - d. 1.5 – 2 times the amount of tubing you've estimated you may need
 - e. All plumbing connectors
 - f. Electrical extension cords, as needed

- g. Attachments needed to secure and protect the power/extension cords.
 - h. Attachments needed to secure the air tubing
 - i. Florescent nylon string and aluminum foil for “pull line”
- Schedule drain line cleaning just prior to installation. Schedule the trap to be pumped at the time you plan to install the system. Watch the pumping, just to see that it is done thoroughly.
 - Schedule your installation to be during a time and day when you will not be in the way of kitchen or other operations.

3. System Installation

- Put the nylon pull string in place, through the drain into the trap.



- a. Remove and strainers or grates that cover the drain opening. Run as large a stream of water as possible through the drain. (Sometimes filling up the 3-comp. sink helps or using a hose from another tap.
 - b. Wad up a 2” square of aluminum foil onto the end of your florescent nylon string, making sure it is secure and the wadded is as tightly and roundly as possible.
 - c. Open the flow of water and unwind the string as fast as the water will take it down the drain.
 - d. The other person will observe the inflow stream through the trap access cover. Let the person at the drain end know when the pull line is in the trap.
 - e. Snag the string and pull it through the trap and out the access hole, leaving about 10’ outside the trap.
- Pull the air tubing through the drain into the trap and out through the access hole.



- a. At the drain end, securely attach the pull string to the tubing.
- b. Let the tubing feed through a soft cloth coated with waterproof automotive grease or petroleum jelly as it feeds into the drain.
- c. The person on the trap end will slowly pull the tubing through the drain into the trap and out of the access hole leaving enough length for the diffuser to be attached and located in the best spot on the bottom of the trap.



- Attach the air diffusers
 - a. Attach and secure air tubing to the prepared diffuser stand.
 - b. Wait to put the diffusers in the tank until you have observed air flowing into them expanding the diaphragms.
- Locate and secure the pump in a good location near the drain. The location should be off the floor, dry, out of the way, with sufficient ventilation.



- Attach and secure the power cord to a grounded outlet. Secure the cord in an out of the way route so that it both looks good and is not likely to come loose and get in the way or come in contact with water or anything flammable. *** **Take any extra time and care to do this step well.** ***
- Route the air supply tube up from the drain to the pump in a short, secure out of the way position. Take care that you protect the tubing and keep it from being snagged, kinked, or moved.
- Install the diffusers in the tank
 - a. Once you can see that air is flowing into the diffusers and the diaphragms are expanded, you can put the diffuser stand in place in the tank.
 - b. Using the retrieval rope, lower the stand carefully and slowly to the bottom of the tank, taking extra care not to let the air tubing become tangled.
 - c. Using a telescoping pole, move the diffuser stand into a central location within the chamber. Be careful not to tangle or kink the supply tubing.
 - d. Secure the end of the end of the retrieval rope within reach
 - e. As the tank fills, observe the operation of the diffusers to make sure they are operating properly.



4. **Train the kitchen managers, and maintenance persons**, or others as appropriate, in the operation of the system, safety precautions, and what to do in case of problems or questions. Be sure to address the issue of cleaning or maintenance to the drain that contains the air supply tubing. (Note: The tubing should be removed and replaced if snaking the line is required)
5. **Return after day or so of operation to observe the operation**, the tank, and talk with the manager about any related issues. **Your follow-up contacts can be very important to getting positive “word of mouth” referrals.**