



# Robust-Aire™ Diffuser Assembly Installation Instructions

Important - Read Carefully Before Installation

## Parts Included

- (1) Robust-Aire™ Diffuser Assembly
- (1) Vent Plug
- (1) 3/8" Tubing Clamp
- (1) 5/8" Tubing Clamp
- (1) 1/2" NPT x 3/8" Barb Elbow
- (1) 1/2" NPT x 5/8" Barb Elbow
- (1) 3/8" Tubing Strain Relief
- (1) 5/8" Tubing Strain Relief
- (1) 1/4"-20 x 1-3/8" Hex Head Capscrew
- (2) 1/4" Flat Washer
- (1) 1/4"-20 Lock Nut

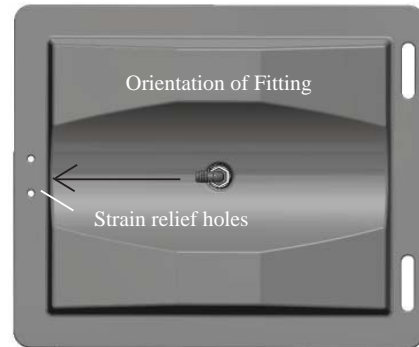
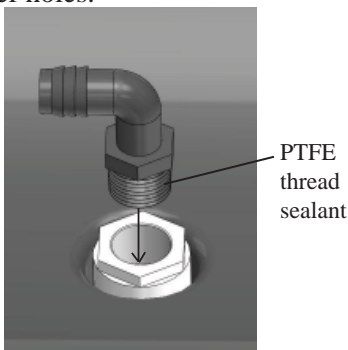
\*Not all fittings will be used. Use 3/8" fittings with 3/8" SureSink™ Aeration Tubing and 5/8" fittings with 5/8" SureSink™ Aeration Tubing.

## Installation Tools & Materials

- 7/8" Open End Wrench
- 20-30 lbs (.25-.375 cu.ft.) of pea gravel
- Length of 1/4" – 3/8" nylon rope (or equivalent). Rope length to be at least twice the water depth
- 7/16" socket wrench
- 7/16" box or open end wrench
- 5/16" socket wrench or screwdriver
- PTFE thread sealant (teflon tape)

## On Shore Preparation

1. Install appropriate elbow fitting into inlet port located on the bottom side center of the diffuser assembly. Install until hand tight. Continue turning using 7/8" open end wrench until barbed portion of the fitting is pointing towards the edge of the diffuser assembly with the strain relief holes.



2. Fill diffuser base with pea gravel.



3. Install vent plug once base is completely full.



**CAUTION:** Once the diffuser base has been filled with gravel, do not lift assembly by diffuser hose or PVC structure. Use outer edges of base to pick up assembly.

If a boat is being used for diffuser placement, load the boat with weighted diffuser assembly and remaining parts kit. Do not use boats that tip easily for installation, such as a canoe.

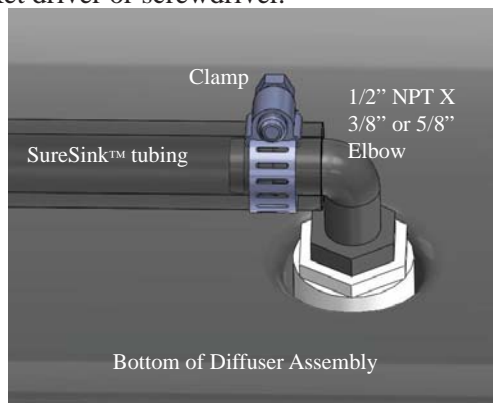
## Diffuser Assembly Installation

The effectiveness of the Robust-Aire™ Diffuser is greatly dependant on where the diffusers are located in the pond. Therefore, proper placement is key. Space the Robust-Aire™ Diffusers equally from each other in a depth that embodies the majority of the pond. If there are small, deep cavities in the pond, do not install the diffuser in those cavities. Please contact Kasco Marine if there are any questions on placement.

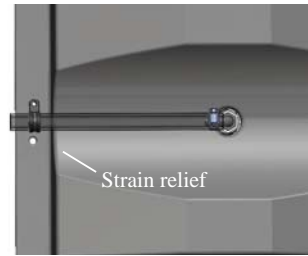
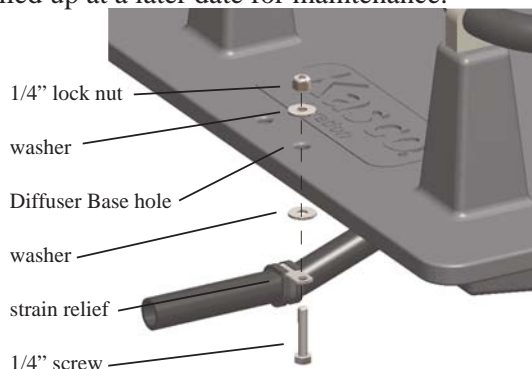


**CAUTION:** Do not use boats that tip easily for installation, such as a canoe, and follow all boating safety rules and regulations, including wearing a PFD. (Personal Flotation Device)

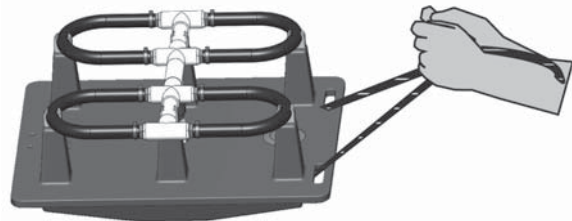
4. It is recommended to place a buoy for each diffuser to mark the area that it is to be placed.
5. Unroll the SureSink™ Aeration Tubing on shore to remove any twists or knots. The performance will decrease if the tube is not properly uncoiled.
6. On the end of the SureSink™ Tube that will be connected to the diffuser assembly, slide a clamp over the tubing and connect the end of the tubing to the barbed fitting on the diffuser assembly. Position clamp over tubing and barbed fitting and tighten using a 5/16" socket driver or screwdriver.



7. Install strain relief over tubing and secure to diffuser base as shown using 7/16" socket and wrench. A properly installed strain relief will prevent any damage to the diffuser assembly when it is lowered in the water or pulled up at a later date for maintenance.



8. If you anticipate running out of tubing (each tube is 100') before reaching the buoy, connect any additional tubes according to the SureSink™ Tube instructions. Make sure to unroll these tubes as you did with the first tube. If you are unsure how many rolls of tubes will be needed to reach the diffuser location, you can load the unconnected diffuser assemblies and tubing kits into the boat and connect as needed while making your way to the marked buoy.
9. Tie off shore end of the SureSink™ Tubing by the compressor cabinet. Make sure you have a few extra feet of tubing to work with so that the tube will reach the cabinet after trenching the tube.
10. Assembled Diffuser(s) can be loaded onto the boat. Possible additional tubing kits and assembly tools should be loaded on the boat if not already connected.
11. Make sure the boat is in reverse to avoid damaging the boat prop and slowly make your way to the marking buoy pulling the tubing as you go.
12. Once you reach the marked buoy, thread a rope through the two slots of the diffuser base. Pull through until the rope is at the midway point by the diffuser base.



13. While holding the two ends of the rope, gently lower the diffuser assembly into the water. Submerge the assembly and allow the air to escape from the vent plug as the base fills with water.
14. When the air has been removed from the base, continue lowering the assembly slowly until it reaches the bottom of the pond. Using this method, the diffuser should not invert while lowering.
15. Pull up on only one side of the rope to bring it back. The Robust-Aire™ Diffuser should now be seated properly on the bottom of the pond. (Optional: For ease of future maintenance, it may be desirable to leave rope looped through diffuser base and tie both ends to marker-buoy or duck decoy. This will allow diffusers to be located easily and pulled up for maintenance.)
16. Repeat the process for additional Robust-Aire™ Diffuser locations.