



Bubble Pro Mini Sub-Surface Aerator

Thank you for your purchase!

This aeration system will be a great benefit to the aquatic ecosystem in which you are placing it. Please read through the following guidelines completely before installation and operation of your aeration system.



This Kit Includes

- 1 - 1/4HP COMPRESSOR
- 1- SELF WEIGHTED DIFFUSER BASE
- 1- DIFFUSER MEMBRANE
- 1 - ROLL 3/8" X 100 FOOT SELF-WEIGHTED AIR TUBING
- 1- SINGLE VALVE ASSEMBLY
- 1 - BARBED CHECK VALVE FITTING
- 2 - HOSE CLAMPS
- 1 - PADDED HOSE CLAMP

Tools Needed

- FLAT HEAD SCREWDRIVER
- 7/16" WRENCH OR PLIERS
- 9/16" WRENCH OR PLIERS

13245 Barry Street, Holland, MI 49424
scottaerator.com
information@scottaerator.com
800-WATER-45 (800-928-3745)
(616) 392-8882



Safety Warnings

- Use extreme caution when operating in winter. Danger due to thin ice can cause drowning. Unseen currents can cause thin ice in areas long distances away from diffuser operation. Provide adequate warning for others using a pond with a diffused aeration system.
- The surface of the compressor will be hot during operation. This is normal - be careful not to touch the compressor while it is running.
- Units must be connected to GFCI protected outlets.
- Avoid using extension cords to operate compressor.
- Keep children or pets away from operating units
- Always disconnect power when servicing system.
- Relieve pressure from system before servicing.

Operation

- All of our compressors are designed for continuous operation. It is not uncommon for compressors to run 24 hours per day for three to five years. The only maintenance required is replacement of wearable items (diaphragm, piston ring, vanes, etc.) when needed and keeping filter clean.

CAUTION: All compressors in these kits are designed for oil-free operation. Never oil or lubricate the compressors.

- In addition to adding oxygen to your pond, an aeration system creates a circulation action. It takes hours for the maximum effect to be achieved, therefore we recommend running these systems continuously so that maximum circulation is sustained.

Summer Time Start Up

CAUTION: If you are installing this system at a time when your pond is already stratified (warm on surface, cold on bottom), you should be careful when first starting the aeration system. If the stagnant water on the pond bottom is stirred up too fast, a temporary increase in oxygen demand will occur and, in rare cases, a fish kill could result. If your pond is severely stratified, you should only run your system one to two hours the first day. Each day after that, increase the run time by one to two hours during the first week, run continuously after that. This will slowly mix the bottom water without a sudden depletion of oxygen.

Installation Precautions

- The air diffuser should not be placed in the deepest part of the pond. Try to locate the diffuser at approximately 2/3 to 3/4 of the deepest point (a 15' deep pond would have the diffuser at approximately 10' to 12' deep). This allows the deepest water to remain cool in the summer and stay warm in the winter.
- If your pond freezes during the winter, be sure the tubing is buried leading into the pond. If not, the ice can form around the tubing, kinking it or possibly shearing it off.

CAUTION: Locate all utilities before digging to ensure safety of installer and others.

Compressor Placement

It is critical that the air compressors be protected from the weather. You will need to provide a shelter for your compressor to protect it from rain, snow and other harsh elements.

- Be sure your shelter is adequately ventilated.
- Be sure the compressor does not sit directly on the ground, as the vibration from the motor will cause dust and dirt particles to be pulled into the motor and may cause premature failure.
- If operating compressor in freezing climates do not place compressor in “heated” buildings. Warm air holds more moisture. This warm air may condensate and freeze in the colder outdoor line.
- Ensure that compressors are placed where they will not become flooded with water.
- If possible, shaded areas are preferred.
- In areas with limited electrical supply, compressors can be placed long distances from the pond edge. A remote access valve assembly can be fed from the compressor with properly sized tubing.

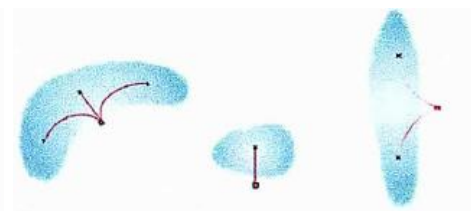
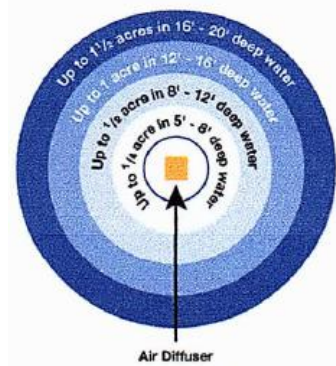
Compressor cabinets are available from Scott Aerator Co.

Diffuser Placement

The amount of surface area an aeration system will effectively cover is greatly dependent on two factors - DEPTH and SHAPE. The deeper an air diffuser is located, the more boiling action it will create and a larger area will be aerated. The diagram below shows how much surface area is effectively aerated per air diffuser at various depths. Ponds that are irregular or odd shaped will also reduce size of aeration area - call our technical department for additional help. The shape of a pond affects the amount of diffusers needed. Irregular shaped ponds often require multiple diffusers to adequately aerate entire water column.

Example:

Our Bubble Pro Mini pond aerator would aerate only 1/8 of an acre if operated in 4" deep water, while aerating up to 1 acre if operating in 12" - 16" deep water.



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General Assembly Instructions

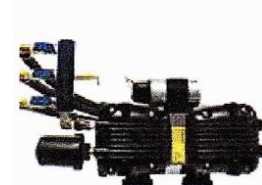
1. Unpack the aeration system to ensure all parts were received. If a shortage occurs, please notify Scott Aerator Co. immediately.
2. Assemble diffusers (See below).
3. You will need to install the inlet filter and the outlet assembly. Remove the compressor from the box and remove the colored inserts from the ports on the head of the compressor, leaving in the threaded plugs.



Bubble Pro Mini



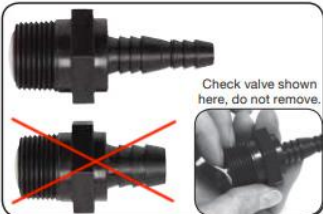
Bubble Pro



Bubble Pro Max

4. Unroll the entire roll of tubing. It is recommended that the diffuser be installed at this point. This will allow you to trim any unused tubing before attaching to the compressor. Use clamps to secure tubing to outlet assembly.
5. Open the valves on the outlet assembly to their full open position. Plug the compressor into a GFCI outlet and adjust each valve to equal the air flow to each diffuser. This equalizes air flow between diffusers with different operating depths and/or tubing lengths.

Diffuser Assembly



1. $\frac{3}{4}$ " MPT barbed check valve is designed to be used with $\frac{1}{2}$ " or $\frac{3}{8}$ " I.D. tubing.



2. Screw in correct barbed fitting until snug. **Do not over tighten**, hand tighten only.



3. Screw diffuser(s) onto $\frac{3}{4}$ " FPT on top of unit. Snug fitting by hand. **Do not over tighten.**



4. Use supplied hose clamp, slip loosely over end of tubing and push tubing tightly onto the fitting.



5. Slide hose clamp over fitting and fasten with regular screwdriver or nut driver.



6. Fit padded hose clamp over tubing. (Use 17.5mm clamp for $\frac{3}{8}$ " tubing or 25.5mm clamp for $\frac{1}{2}$ " and $\frac{5}{8}$ " tubing)



7. Use washer on both sides of base. Insert 10mm bolt from bottom side and tighten nut to clamp down tubing and provide strain relief.



8. Use rope looped through holes in base to assist lowering assembly to pond bottom. Carry only by base, do not lift by diffusers.

