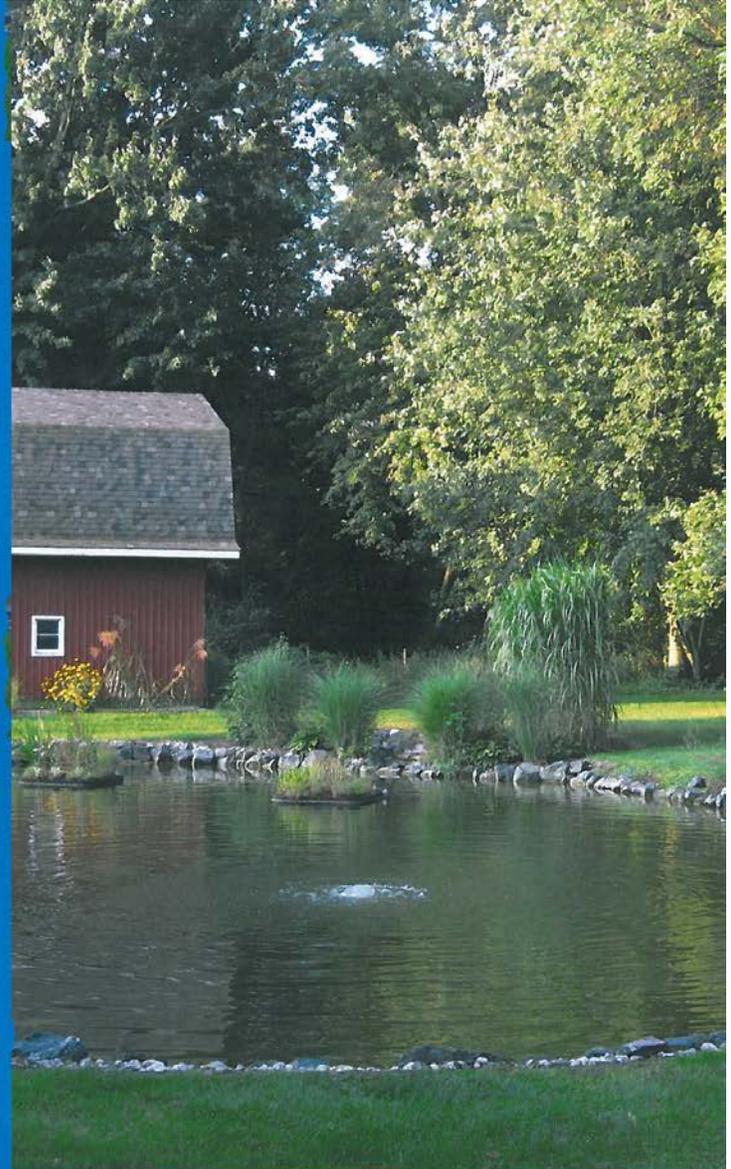


***DEEP AIRE
OPERATION AND
MAINTENANCE
MANUAL***





800-821-3177 www.airolator.com

**INSTALLATION, OPERATION
AND MAINTENANCE GUIDE**

***Deep Aire*
Diffused Aeration Systems**

Models DA250, DA500 & DA750

Save this booklet for future reference

**Manuals also available on our website:
www.airolator.com**

Thank you for your purchase!

Your aeration system will be a great benefit to the aquatic ecosystem in which you are placing it. Following are some important guidelines regarding the installation and operation of your system.

This manual is designed for your use to aid in the installation; operation and maintenance of your Deep Aire Diffused Air System. **Do not dispose of this manual.** Provide this manual to the owner.

The following information is provided to alert persons to potential personal injury hazards inherent with products.

! DANGER: Indicates an eminently hazardous situation which, if not avoided, will result in death or serious injury.

! WARNING: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

! CAUTION: Indicates a potentially hazardous situation which may result in minor or moderate injury.

Installation:

- 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 compressor 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 has adequate ventilation.
- Also 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 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.
- Compressors can be placed long distances from the pond edge with properly sized tubing.
- Ensure that compressors are placed where they will not become flooded with water.

!Safety Warnings:

- 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.
- Use extreme caution when operating in winter. Danger due to thin ice can cause drowning. Unseen current can cause thin ice in areas long distances away from diffuser operation. Provide adequate warning for others when using a pond with a diffused aeration system.
- 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 these compressors to run 24 hours per day for four to five years. The only maintenance required is replacement of piston rings, or diaphragms when needed. All compressors have oil-less motors.
! CAUTION Never oil or lubricate the compressors.
- In addition to adding oxygen to your pond, one of the main benefits to an aeration system is the circulation it creates. It takes hours for the maximum circulation to be achieved, therefore we recommend running all these systems continuously so that the maximum circulation is sustained. Systems that operate a few hours each day will just get the circulation going and then it is time to shut off.

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 startup, you should increase the run time by one to two hours during the first week, then run continuously after that. This will slowly mix the bottom water without a sudden depletion of oxygen. Please contact us prior to start-up if you have questions.

Maintenance:

- Keep intake filter on compressor clean.
- Diffusers may need regular cleaning in certain water conditions. This may be every two to five years.
- Compressor may need to be rebuilt if running but no longer "pumping air". Contact your Air-O-Lator dealer for compressor rebuild kits.
- If lines become frozen, denatured alcohol can be run down the frozen line.

DA2510 & DA2520 Aeration Systems

The **DA2510** aerator features a ¼ horsepower continuous duty air compressor, 100' of 3/8" weighted PVC tubing, membrane diffuser, air outlet with pressure relief valve, fittings and clamps. Once the air diffuser is assembled and the tubing is attached, you are ready to install the diffuser into the pond. Always unroll the tubing completely before installing the diffuser. The diffuser can be lowered into your pond with a rope. Often a float, such as a duck decoy or a milk jug, will be used so retrieval of the diffuser is possible.

The **DA2520** is installed the same way as the DA2510 but includes a two valved outlet, two 100' air tubes and two single diffusers.



Assembly:

1. Unpack all the parts. Compare parts with packing list to ensure all parts were received. If a shortage occurs, please notify us immediately.
2. Fill the diffuser base with sand or small stone 2/3 full. Screw the round rubber membrane diffuser into the diffuser base.
3. Slide one end of the tubing onto the barbed adapter on the diffuser base and secure with a clamp (provided).
4. Unroll the entire roll of tubing. It is recommended that the pond diffuser be installed at this point. This will allow you to trim any unused tubing before attaching to the compressor.
5. Attach the 2' piece of flex hose (provided) into the outlet side of the compressor.
6. Once the tubing is installed and trimmed, attach the tubing to the hose on the compressor with fittings and clamps provided

Be sure to clean the inlet air filter on your compressor regularly. Wash dirty air filters in soapy water. Be sure the filters are completely dry before reinstalling. Please contact factory for replacement filters.

After several years of operation, you will possibly notice a sudden drop in air bubbles. This is a sign that the piston rings may need replacing. Please contact factory for a repair kit that will include items necessary to rebuild your compressor's piston ring.

DA5030 Aeration Systems

The **DA500** aerator features a 1/2 horsepower continuous duty air compressor, 300' of 3/8" weighted PVC tubing, three (3) double membrane diffusers, valve outlet assembly, pressure relief valve, fittings and clamps. Once the air diffusers are assembled and the tubing is attached, you are ready to install the diffusers into the pond. Always unroll the tubing completely before installing the diffuser. The diffusers can be lowered into your pond with a rope. Often a float, such as a duck decoy or a milk jug, will be used so retrieval of the diffuser is possible.



Assembly:

1. Unpack all the parts. Compare parts with packing list to ensure all parts were received. If a shortage occurs, please notify us immediately.
2. Fill the diffuser bases with sand or small stone 2/3 full. Screw the round rubber membrane diffusers into the diffuser bases.
3. Slide one end of the tubing onto the barbed adapter on one of the diffuser bases and secure with a clamp (provided). Repeat this procedure for each diffuser base.
4. Unroll one of the entire rolls of tubing. It is recommended that the pond diffusers be installed at this point. This will allow you to trim any unused tubing before attaching to the compressor. Repeat this procedure for each roll and diffuser.
5. Once the tubing is installed and trimmed, attach the other end of the tubing to the flexible hose on the compressor with fittings and clamps provided. Repeat this procedure for each diffuser.
6. Connect the valved outlet assembly to the compressor.
7. Connect the tubing to the flex hose on the compressor. Once the compressor is running, you may have to adjust the valves to equal the air flow to each diffuser. This corrects the difference in air flow caused by a difference in operating depth and/or tubing lengths.

Be sure to clean the inlet air filter on your compressor regularly. Wash dirty air filters in soapy water. Be sure the filters are completely dry before reinstalling. Please contact factory for replacement filters.

After several years of operation, you will possibly notice a sudden drop in air bubbles. This is a sign that the piston rings may need replacing. Please contact factory for a repair kit that will include items necessary to rebuild your compressor's piston ring.

DA7540 Aeration Systems

The **DA7540** aerator features a 3/4 horsepower continuous duty air compressor, 400' of 3/8" weighted PVC tubing, four (4) double membrane diffusers, valve outlet assembly, pressure relief valve, fittings and clamps. Once the air diffusers are assembled and the tubing is attached, you are ready to install the diffusers into the pond. Always unroll the tubing completely before installing the diffuser. The diffusers can be lowered into your pond with a rope. Often a float, such as a duck decoy or a milk jug, will be used so retrieval of diffuser is possible.



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Assembly:

1. Unpack all the parts. Compare parts with packing list to ensure all parts were received. If a shortage occurs, please notify us immediately.
2. Fill the diffuser bases with sand or small stone 2/3 full. Screw the round rubber membrane diffusers into the diffuser bases.
3. Slide one end of the tubing onto the barbed adapter on one of the diffuser bases and secure with a clamp (provided). Repeat this procedure for each diffuser base.
4. Unroll one of the entire rolls of tubing. It is recommended that the pond diffusers be installed at this point. This will allow you to trim any unused tubing before attaching to the compressor. Repeat this procedure for each roll and diffuser.
5. Once the tubing is installed and trimmed, attach the other end of the tubing to the flexible hose on the compressor with fittings and clamps provided. Repeat this procedure for each diffuser.
6. Connect the valved outlet assembly to the compressor.
7. Connect the tubing to the flex hose on the compressor. Once the compressor is running, you may have to adjust the valves to equal the air flow to each diffuser. This corrects the difference in air flow caused by a difference in operating depth and/or tubing lengths.

Be sure to clean the inlet air filter on your compressor regularly. Wash dirty air filters in soapy water. Be sure the filters are completely dry before reinstalling. Please contact factory for replacement filters.

After several years of operation, you will possibly notice a sudden drop in air bubbles. This is a sign that the piston rings may need replacing. Please contact factory for a repair kit that will include items necessary to rebuild your compressor's piston ring.

Deluxe Aeration Systems

Our deluxe packages include the Rocking Piston compressor system mounted in our lockable cabinet. In addition, the deluxe package includes a valved outlet assembly, a pressure gauge, a cooling fan and an electrical box/outlet, all neatly installed and ready for incoming power supply.



Assembly:

1. Unpack all parts. Compare parts with packing list to ensure all parts were received. If a shortage occurs, please notify us immediately.
2. Fill the diffuser base with sand or small stone 2/3 full. Screw the round rubber membrane diffuser into the diffuser base.
3. Slide one end of the tubing onto the barbed adapter on the diffuser base and secure with a clamp (provided).
4. Unroll the entire roll of tubing. It is recommended that the pond diffuser be installed at this point. This will allow you to trim any unused tubing before attaching to the compressor.
5. Install the air tubing through one of six holes located in the bottom of the cabinet and connect the tubing to the two foot flex hose connected to the valve outlet with fitting and clamps provided.

Electrical Connection:

! WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK CONNECT ONLY TO A PROPERLY GROUNDED CONNECTION. FAILURE TO CONNECT TO A PROPER GROUND COULD RESULT IN PERSONAL INJURY.

1. Remove the outlet cover and outlet plug from the electrical box located inside the cabinet.
2. Install incoming power supply through the conduit located in the bottom of the cabinet into the outlet box.
3. Install incoming power supply to the outlet plug and reinstall outlet plug and cover.
4. Turn on power and plug in cooling fan. Insure fan comes on. If not, check electrical supply and connections before operating the compressor.
5. Fully open the air valves before plugging in compressor.
6. Plug in compressor.

Note: It may take a few minutes for the air to reach the diffuser and for you to see bubbles in water.

Be sure to clean the inlet air filter on your compressor regularly. Wash dirty air filters in soapy water. Be sure the filters are completely dry before reinstalling. Please contact factory for replacement filters.

After several years of operation, you will possibly notice a sudden drop in air bubbles. This is a sign that the piston rings may need replacing. Please contact factory for a repair kit that will include items necessary to rebuild your compressor's piston ring.

Limited Warranty:

This limited warranty is against any mechanical or material defects for a period of (see below) from the date of purchase. Warranty only covers properly installed and maintained units.

Rocking Piston Compressors have a one year warranty.

Air diffusers have a five year warranty,

Weighted tubing has a five year warranty.

The limited warranty does not cover normal wear and tear, nor any deterioration suffered through overloading, improper use, negligence or accident. Similarly, any modification made by the purchase to the product will cause the warranty to be null and void.

All returned items will be inspected to determine the cause of failure before warranty is approved.

Warranty does not cover any cost associated with the installation or removal of the product subject to warranty claim.

It is your responsibility to pay the return shipping charges. Be sure to include your name, address and phone number on the inside of the package.

Ensure the product is properly packaged and insured for the replacement value. Damage due to improper packaging is the responsibility of the sender.

The manufacturer or supplier shall not be held liable for any damages caused by defective components or materials of this product; or for loss incurred because of the interruption of service; or any consequential/incidental damages and expense arising from the production, sale, use or misuse of this product.

The manufacturer or supplier shall not be held liable for any loss of fish, plants or any other livestock as a result of any failure or defect of this product.



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