Assembly and Installation Instructions

VaraCorp Turbine Aerator

1. All electrical connections should be made by a licensed electrician.
2. The motor should rotate in a clockwise direction when viewed from above.
3. After the electrical connections are made to the motor (and control box, if any), lay the two pontoons side by side on the ground and place the (reinforcing) stainless steel square tubing into the slots on the pontoons. See diagram and further instructions below.
4. Insert the motor deck onto the pontoons.
5. After applying Locktite to the eye bolt threads, insert the eye bolts through the motor deck and through the holes in the square tubing and bolt down to the pontoons snugly. The eye bolts are used to tie the pontoons to the shore or bank. **Do not attempt to pick up the aerator using these pontoon eye bolts!** Instead, use the eye bolts on the motor to lift the aerator.
6. Apply Locktite to the eight (3/8-inch x 2¾-inch) hex head bolts and then use these to bolt down the rest of the motor deck to the pontoons using the washers supplied.
7. Place the motor on the motor deck, and bolt it down using the large ½-inch motor bolts, large flat washers, lock washers, and Locktite.
8. Attach the air turbine to the air shaft using the separate instructions that are included below.
9. Using a bucket truck or back hoe, lift the pontoon into the air by the motor eye bolts.
10. Slide the air shaft onto the motor shaft and insert the set-screws into the holes (divots) located on the motor shaft. The threads on the air shaft must line up perfectly with the divots. **Apply Locktite** to the set-screw threads before inserting them. Tighten the set-screws snugly, but do not over tighten.
11. Gently move the aerator over to the lake or lagoon and lower slowly into the water.
12. The air shaft is a precision-made component. **Never grab it to use as a lever in lifting or moving the aerator. If you bend it, even slightly, you will void the warranty.**
13. Never let the air shaft drag on the ground or the bank of the lagoon.
14. Turn on the aerator.
15. There should be very little, if any, vibration in the aerator while it is operating. If the aerator vibrates excessively, turn it off immediately and locate the source of the vibration (such as a loose air shaft).
16. If you are using a VFD control panel, set the rpm to rotate between 1200 and 1750 rpm. Find the rpm setting that provides you the most efficient performance. A good starting point is 1750 rpm. Call us if you have questions.
17. The aerator will perform best if it is allowed to run continuously. Avoid frequent starts and stops since this will shorten the life of the motor.

13501 Ranch Road 12 Suite 103
Wimberley, Texas  78676
info@varacorp.com   800.801.6685   www.varacorp.com
Aeration Pontoon Assembly

Fasteners

8 – 3/8 -16 x 2-3/4” HCS Stainless.
12 - 3/8 x 1” o.d. Flat washers.
12 - 3/8” Lock washers.
4 - 3/8-16 x 3” Eye bolts Stainless.
4 - 3/8-16 Nuts (thread nuts onto eyebolts then add washer).

4 – 1/2-13 x 2” HCS Stainless Steel (Motor bolts).
4 – 1/2 x 2” o.d. flat washers.
4 – 1/2” Lock washers.

1. After the electrical connections are made to the motor (and control box, if any), lay the two pontoons side by side on the ground and place the (reinforcing) stainless steel square tubing into the slots on the pontoons with round side up. (See photo above.)
Turbine Assembly

ATTENTION! Don’t use a hammer, just a small screwdriver.

Operating Instructions
1. The turbine shaft have to enter into axis without effort. The shaft diameter must be 33.7 mm.
2. The safety needle should enter at effortlessly.
4. Do not apply excessive force to tighten the screw in the stainless steel disc.

The turbine is made from a plastic composite reinforced with fiberglass, thanks to this special material this turbine is resistant to acidic than basic substances.

Turbine assembly:

1.

2.

3.

4.

Motor Shaft to Air Shaft Assembly

13501 Ranch Road 12 Suite 103
Wimberley, Texas 78676
info@varacorp.com 800.801.6685 www.varacorp.com
The threaded holes on the air shaft must line up perfectly with the dimples (divots) in the motor shaft.
Optional Low Water Legs

Insert low water legs into the sockets on each pontoon and secure with 2-inch threaded Schedule 80 PVC end cap (supplied.)
Pontoon Attachment to Cable

4 – 3/16 Cable Clamps
2 – Quick Links
(Use minimum ¼ inch Stainless Steel Cable)

Secure “quick links” to pontoon eyebolts and cable then place cable clamps on each side of “quick links”.
Guy Wire Tension

Install guy wire with enough slack to allow for the different levels of water. See example. Anchor both cable ends to shore.

Correct

U-Bolt of all clips on dead end of rope.

Incorrect

Staggered Clips

Incorrect

U-Bolt of all clips on live end of rope.
Optional Debris Sleeve

Use this option when rags, strings, etc... could wrap around shaft

Cut the end of the sleeve to length by mounting the sleeve under the motor deck and over the drive/air shaft with the black hub/turbine coupling attached. Where the white turbine blades bolt to the hub is where the sleeve needs to be cut ¼ inch shorter. Then slide the clamp & leather gasket (presoaked) onto the sleeve. Then bolt the white turbine blade onto the hub. You should now have approx. ¼” gap between the end of the sleeve and the turbine. Slide the leather gasket down on top of the turbine with slight pressure (to insure a good seal with no gaps.) Tighten the clamp and spin the turbine by hand to make certain there are no gaps. 

Do not run motor out of water with gasket in place.