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## **The Aquacleaner Pond Pumper Dredger**



3” or 4” 23hp pump w/hookah air and nozzle



Sediment and debris discharging

**Introduction:** All ponds need to be dredged; it’s just a matter of when. Organic material fills in your pond three ways: Blowing, flowing and growing. Leaves and grass clippings blow into your pond, water flows into your pond and brings with it sediment and plants grow and die every year, all adding sediment that over time will fill your pond in. Our Pond Pumper is a unique system that allows sediment mixed with plants, leaves, and sticks all to be removed and discharged out of your pond with ease. Aquacleaner Environmental is the leader in small, portable dredging technology with over 12 years of experience manufacturing and performing service work with our dredging equipment. We offer you a variety of choices in size, configuration and options of our machines that will work best for your individual needs as well as a comprehensive training program that teaches you the “art of dredging” to maximize your productivity.

**Science & Dynamics:** Dredging is no longer a nasty eight letter word but rather the natural progression in the remediation of your water way because you are removing the biomass and nutrients that have accumulated over the years in an environmentally sound manner. Firming up the bottom and removing the layers of fragments of invasive plants along with the organic silt has been shown to reduce the growth of invasive plants and prevent algae blooms. Our machines are designed to only extract the soft organic material and not change the natural hardpan contours of your bottom.

**How It Works:** The traditional method for removing soil entailed having a large construction excavator operate either from your dock or out on a barge. This process is imprecise and not very effective. Scooping large volumes of soil from a water way is intrusive, disrupting the ecosystem and doesn’t afford a close tight cleaning. Pumps are the preferred method of dredging but the norm in the industry is large,

aggressive machines, which move huge amounts of water (2500gpm and up) along with sediment and are very hard to manage in a small-contained area like the backyard of your lakefront property.

Our Pond Pumper operates by sucking up silt and water together (slurry) and pumping it to a desired location. The most cost effective method involves pumping the material into a field and letting the water and sediment dissipate and be absorbed into the ground.

## **STATS AND FACTS ABOUT THE AQUACLEANERS**

**Aquacleaner Pond Pumper Dredger:** – We have created a unique pond pumping system that allows all the material in your pond to be discharged directly onto the shoreline. This machine operates with an injection tube that is feed by a high pressure water pump so that none of your material passes through an impeller. This allows for ease of use and reduces the potential for clogs. The trade off to this machine is that our system operates with low pressure so moving material very far (out of the pond) will be limited without a booster pump.

**Operating The Pond Pumper** – Once the machine is primed, you simply hold the nozzle of the bottom and let the water mix with the bottom material to create an efficient slurry while keeping large debris from entering the nozzle.

### **Our Pond Pumper comes with two configurations:**

- 1) Using a 4" intake nozzle you can move the maximum amount of material per use but are limited to a discharge distance of approx 100'with minimal lift (grade)
- 2) Using a 3" intake nozzle you can move material approx 150'-200' with minimal lift (grade)

When dredging areas that are in water over 6', you can use the Hookah air system that is part of your work barge and supplies air to the diver so that they can operate the nozzle efficiently, with either configuration to dredge out the specified area.

### **Pond Pumper Components –**

Engine – 23 Hp "V" twin engine with oil cooler, electric starter.

Pump – High Pressure 4" x 3" water pump with stationary Intake.

Injection Tube – Made of stainless steel, this device works with laws of physics to create suction.

Barge – Standard configuration is 6' x 8' Marlex Plastic (2) section barge with buoyancy of 1600lbs.

Hookah – Commercial grade surface air compressor w/air filters, that can support multiple divers.

Nozzle – Available in either 3" or 4" with handle and swivel

**Options** – We offer a variety of options that can aid in the use and add productivity to your daily dredging operations, and will be happy to custom build your accessories based on a better understanding of your project goals.

**Larger Pontoon Boat** – Upgrade to a 12' Marlex Plastic pontoon boat gives you a larger workstation to dredge.

**Booster Pump** – Available with the use of water or air

**Refuge barge**- Available in several sizes and gives you a place to store the assorted debris you will encounter.

**Turbidity curtain**- Contains turbid water while being compliant with states requirements

**Capacity** –Different types of bottom material will dredge at different rates but you can expect to move 10-20cyds/hr.

**Training** – A.E. offers a comprehensive training program with delivery of your machine as well as options for long-term use. We can assist in all aspects of your program including manpower, supplies, and insurance.

**References** – Available upon request once we learn about your application, specifics of your project, and the level of information you are seeking