

FREESTONE AQUATICS LAKEBED AERATION INFORMATION

2010

About Lakebed Aeration

Low levels of dissolved oxygen and highly stratified waters usually lead to degraded and unhealthy ponds and lakes. In these cases, warm oxygen-rich water is suspended above cool oxygen-depleted bottom water.

As anaerobic or low oxygen conditions begin to develop in deeper water, naturally occurring aerobic bacteria can no longer perform beneficial tasks such as waste digestion and water purification. With time, water quality greatly decreases leading to unsightly blooms of algae, the accumulation of aquatic sludge, and the build-up of gases such as methane and hydrogen sulfide. Low oxygen levels can also lead to fish kills and a degrading aquatic ecosystem.

During winter months, decomposition is still taking place within a pond or lake. If a body of water is frozen over completely, there is no way for the decomposition gases to escape. Some of these gases are toxic to aquatic organisms such as fish, and without the ability to escape, these toxic gasses can cause major winter kills.

Consequently, degraded ponds and lakes can easily be enhanced with the addition of a Lakebed Aeration System. Lakebed Aeration acts to increase dissolved oxygen levels while eliminating stratified waters. This destratification allows aerobic bacteria to recolonize in deeper water, where they rapidly begin to digest accumulated sludge and improve water quality. Our lakebed aeration systems are also successful at keeping areas ice free during winter months, which allows for toxic gasses to escape.

Benefits of Lakebed Aeration:

- Improves water chemistry and the overall health of ponds and lakes.
- Targets the "cause" of the problem, rather than just its "symptoms"
- Often eliminates the need for synthetic chemicals.
- Is safe for the environment and animal inhabitants.
- Reduces maintenance, saving you time and money in the long run

Our aeration systems are used around the U.S. for:

- Improving Water Quality and Clarity
- Improving Fish and Waterfowl Habitat
- Increase dissolved oxygen throughout entire water column
- Ice Removal and release of trapped toxic gasses

Our custom aeration systems include the following equipment:

- Energy Efficient, High Volume Air Compressor
- Attractive 100% Recycled Plastic Cabinet equipped with cooling and sound reduction package
- Programmable Digital Timer
- Fully-Adjustable Manifolds with Safety Relief Valve and Pressure Gauge
- Duraplate Self-Cleaning, Non-Clogging, Membrane Diffusers
- Complete Fittings Package
- Installation if desired or installation instructions and phone consultation



To summarize, Freestone Aquatics Lakebed Aeration Systems are designed to improve water quality, biological processes, and promote healthy populations of aquatic organisms. We would like to thank you for considering the benefits of our aeration systems. Please feel free to contact us with any questions.

Thank You,

A handwritten signature in black ink that reads "Luke Kelly". The signature is written in a cursive, flowing style.

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