





Nanobubble Technology

Naturally Control Algae and Improve Water Quality

Each year, the news is filled with headlines warning of invasive species, harmful algal blooms, and deadly cyanotoxins plaguing our lakes, ponds and waterways. As urban development, pollution and natural habitat loss continue to rise, our aquatic ecosystems suffer from nutrient loading and poor water quality as a result. Thankfully, industry-changing innovations, like nanobubbles, are available to help combat these unprecedented obstacles.

Nanobubble technology is a premium lake management tool that is EPA-registered and designed to naturally control algae by providing unparalleled direct and lasting oxygenation of the waterbody.

What are Nanobubbles and How Do They Improve Water Quality?

Nanobubbles, produced by a small onshore generator, are ultra-fine and nearly invisible to the eye; in fact, at less than 1 micrometer, they are about 400 times smaller in diameter than human hair and 1 million times smaller than ordinary lake and pond aeration bubbles. As a result of their size, nanobubbles have no natural buoyancy.

Unlike traditional aeration systems, which use rising larger bubbles to induce circulation and the transfer of atmospheric oxygen throughout the water column, nanobubbles:

- Remain within the water column for extended periods of time, as long as two to three months.
- Provide direct oxygenation of the water and the typically anoxic sediment water interface at the bottom.
- Are EPA-registered to control algae and dangerous cyanobacteria.

Put simply, nanobubbles are like traditional lake and pond aeration systems on steroids!



Nanobubble technology is a premium innovative solution that is designed to exceed the capabilities of traditional lake and pond aeration systems by providing up to 79,000x more oxygen!

Water Quality Restoration Utilizing Nanobubbles: Before and After





Immediate Benefits of Nanobubble Technology

- · Saturates water with up to 79,000x more oxygen than traditional aeration
- · Can remain within the water column for 2-3 months
- · Sustains the rapid growth of beneficial bacteria and desirable microbes
- · Prevents accumulation of anaerobic bottom muck and sediments
- · Helps reduce the impact of nutrients responsible for fueling weeds, algae and cyanotoxins
- · Within a few days—and even hours—water quality can return to its natural balance without traditional herbicides

The Positive Power Of Negatively-Charged Bubbles

Another interesting characteristic of nanobubbles is that they are negatively charged, and therefore are attracted to positively charged organic matter in the water column. When they connect with positively charged metals and pollutants, nanobubbles will oxidize and neutralize them—preventing undesirable water quality conditions.

While nanobubbles are traditionally infused with oxygen from the atmosphere, they can also be infused with concentrated oxygen or ozone from small onshore generators that can easily be added to the system where faster or more immediate results are needed.

