Algae Control in Lakes

- Eliminate up to 70-90% of the algae
- Reduce taste and odor problems
- Safe for fish, plants and other aquatic life
Algae Control in Lakes

The MPC-Buoy is a floating, solar-powered system that combines real-time water quality monitoring and ultrasonic sound waves to control algae effectively.

Control Algae with Ultrasound

Specific ultrasonic sound waves based on real-time water quality data can be used to control algae in lakes.

Each MPC-Buoy system has an ultrasonic treatment range of 500m in diameter

How Ultrasound Targets Algae

Specific ultrasonic frequencies, waveforms and amplitudes can be utilised to directly target algae.

1. Ultrasound waves create a sound layer in the top layer of the water
2. The sound layer has a direct impact on the buoyancy of the algae
3. The algae cells sink to the bottom where they are unable to photosynthesize and eventually die due to a lack of light

LG Sonic products have been tested by various universities and are proven to be safe for fish, plants, zooplankton, and insects.

Learn more about ultrasound
LG Sonic Algae Control Products

MPC-Buoy

The MPC-Buoy is a solar-powered system that controls algae using sound waves. The solution is to anchor one or multiple systems that transmit specific ultrasonic parameters depending on the type of algae.

1. Specific ultrasonic parameters control algae up to 90%
2. Sensor package provides real-time insight in the water quality
3. The real-time water quality data is automatically transferred to online software

Real-time Water Quality Monitoring Software

Real-time water quality monitoring combined with web-based software allows to have a clear overview of the water quality in a drinking water reservoir.

- Real-time insight in the water quality
- Data transfer through radio, GPRS, 3G
- Ultrasonic program based on received data

The MPC-Buoy provides a complete overview of the water quality by collecting the following parameters every ten minutes: Chlorophyll α (green algae), Phycocyanin (blue-green algae), pH, Turbidity, Dissolved Oxygen, and Temperature.

Based on the received data an algorithm determines the most effective ultrasonic parameters.

The customer can visually monitor the water quality, progress of the treatment, and technical status of the devices
**Case study: Algae Control in the Skrzyneckie Male lake (10.7 ha) in Poland**

**The challenge**
High algae levels often result in bad odour and a deterioration of the water quality. Two MPC-Buoy systems were installed in the Skrzyneckie Male lake (10.7 ha) in Poznan, Poland.

**Applied product**

**Key results**
- Cyanobacteria nine times lower at Skrzyneckie Male lake
- Substantial improvement in water quality

"The water in the lake has become cleaner and no algae scum occurred after the deployment of the algae control systems."

Local inhabitants located near Skrzyneckie Male Lake

At this moment LG Sonic is running MPC-Buoy projects in more than 15 countries worldwide

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LG Sonic
Leading in ultrasonic algae control