

## Control Algae in Ponds with the LG Sonic e-line

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- ✓ Eliminate up to 90% of the algae
- ✓ Easy to install and maintain
- ✓ Safe for fish, plants and other aquatic life

# Chemical-free Algae Control Solution

A combination of high temperatures, stagnant water, and nutrient overload can result in excessive algae growth. Causing a depletion of oxygen in the water, release of toxins and taste/odor problems.



**Algae Problem**



**Algae Solution**

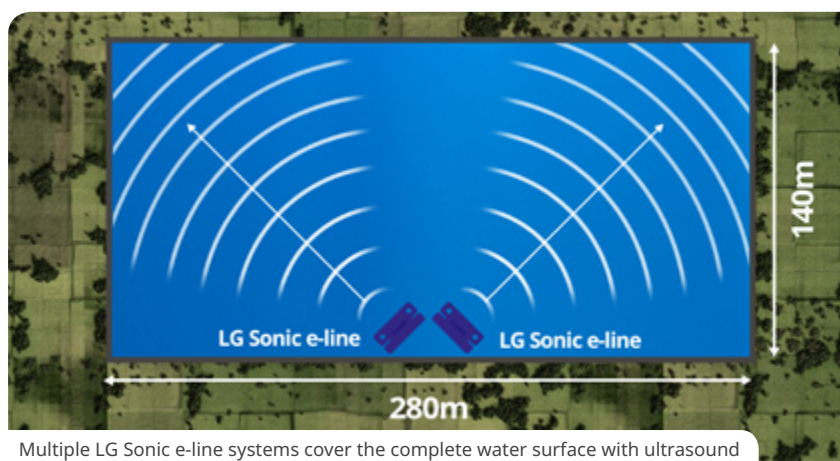
## LG Sonic e-line

The LG Sonic e-line provides an environmentally friendly solution to control algae in ponds with the use of ultrasound technology.

## The Advantages of our Technology

- ✓ Eliminate up to 90% of existing algae
- ✓ Prevent the growth of new algae
- ✓ Improve the water quality
- ✓ Safe for fish, plants, and other aquatic life

The solution is to install one or multiple systems that transmit specific ultrasonic parameters depending on the type of algae.



Multiple LG Sonic e-line systems cover the complete water surface with ultrasound

Each LG Sonic e-line system has an ultrasonic treatment range up to 200 meter (650 feet)

# Control Algae in Ponds

The LG Sonic e-line is an advanced system that emits specific ultrasonic parameters in order to control algae in smaller water surfaces such as ponds and golf course ponds.

## Ponds



Control algae without harming the ecological balance in the pond

## Irrigation Ponds



Prevent the clogging of pumps, filters and sprinklers in irrigation ponds

Over 10,000 LG Sonic products have been successfully installed in a wide range of applications in 52 different countries.

## MPC-Buoy for Larger Water Surfaces



### Control and Monitor Algae

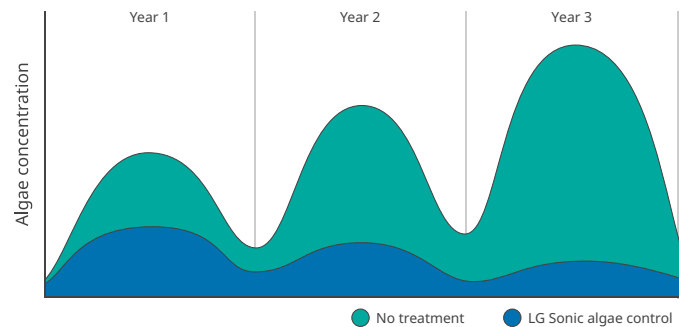
The MPC-Buoy is a floating, solar-powered system that combines real-time water quality monitoring and ultrasonic sound waves to effectively control algae in lakes and reservoirs.

[Learn more about the MPC-Buoy](#) 

# LG Sonic Ultrasonic Algae Control Treatment Process

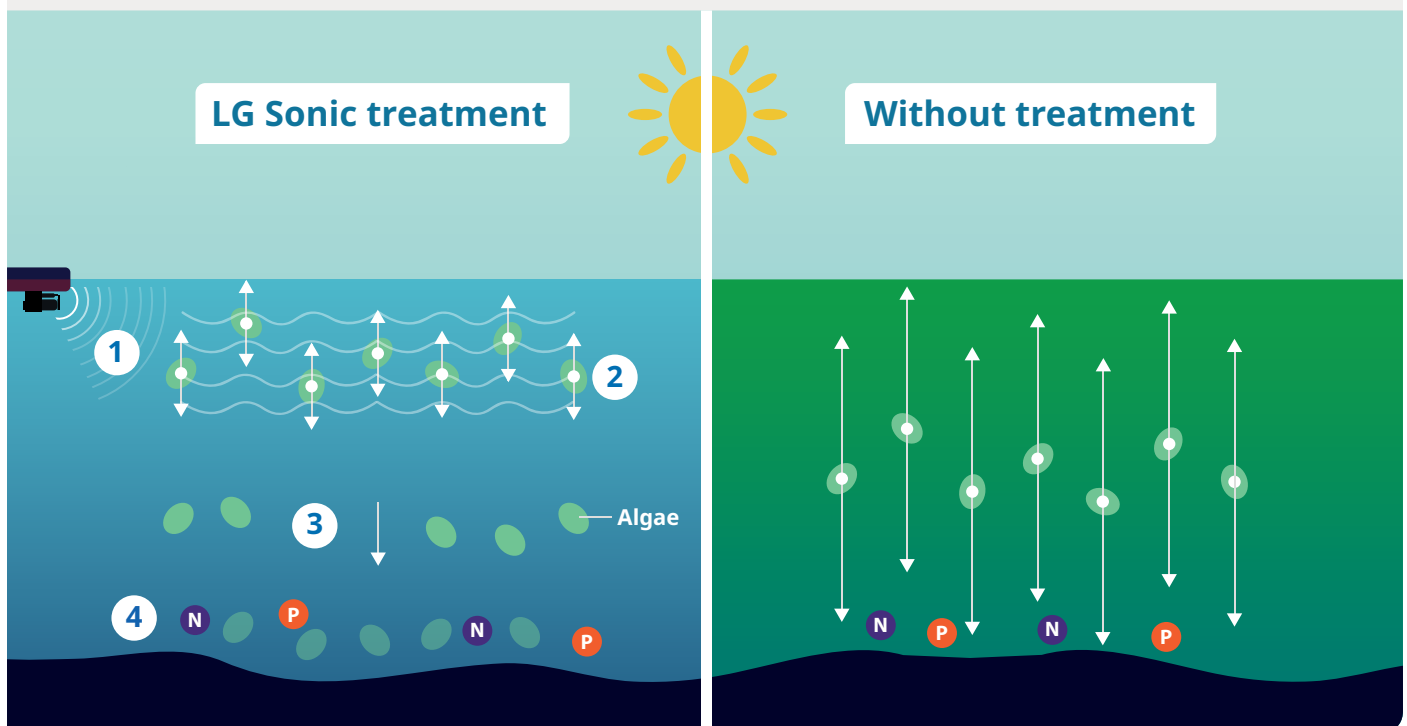
## Why it is Important to Control Algae Growth

Algal blooms cause a reduced light penetration, depletion of oxygen, and release of toxins from the algae, which are unfavourable conditions for fish and plants. LG Sonic ultrasonic technology contributes to a healthy ecosystem by controlling the algae growth. After one year of treatment, the algal levels will reduce even more as the increased clarity of the water will result in plant growth and increased oxygen levels.



## How Ultrasound Targets the Algae

- 1 The ultrasound creates a sound layer in the top layer of the water.
- 2 The ultrasound affects the buoyancy of the algae, **fixing** them in the water column.
- 3 Due to a lack of sunlight and nutrients, the algae will die and sink to the bottom of the reservoir.
- 4 The algae are degraded by the bacteria present.



## Chameleon Technology™ to Adapt the Ultrasonic Treatment to the Type of Algae

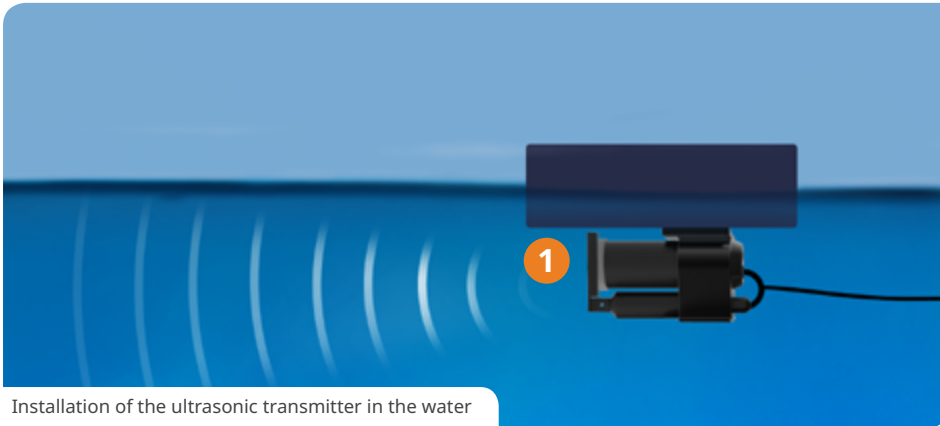
Chameleon Technology™ makes it possible to change the ultrasonic program according to the water conditions, type of algae, and type of application, thereby providing the most effective solution for each specific situation.

- ✓ More efficient algae control
- ✓ Shorter treatment time
- ✓ Prevent the occurrence of resistant algae

[Learn more about ultrasonic algae control](#)



# LG Sonic e-line Features



Installation of the ultrasonic transmitter in the water



Control box to select treatment program

## 1 Ultrasonic transmitter for effective algae control

- ✓ Treatment range up to 200m/650ft per device
- ✓ Integrated Aquawiper™, an automatic cleansing system for the ultrasonic transmitters
- ✓ Chameleon Technology™, adjusts the ultrasonic program to the specific water conditions

## 2 Weatherproof control box

- ✓ Weatherproof design to protect against outdoor conditions
- ✓ LCD display with control buttons to select 12 different ultrasonic programs
- ✓ It is possible to add multiple ultrasonic transmitters to one control box for the treatment of multiple tanks or water surfaces with curves

## 3 Remote control monitoring to prevent frequent site visits

- ✓ GSM/GPRS control allows the user to monitor and change the ultrasound program remotely
- ✓ Receive status updates and alerts when power outages occur.

## Optional

### Installation bracket

Bracket to install LG Sonic e-line without a float. Easy removable for maintenance checks.

### Check the ultrasonic transmitter with the e-line tester

Device to check whether your LG Sonic device is still working, sending the correct frequency program and if the ultrasound is being spread throughout your whole water body.

### Onshore solar system for autonomous power supply

The LG Sonic e-line can work autonomous on solar energy. LG Sonic provides a complete solar system including a solar panel, batteries, and a charge regulator.

### Easy installation with the flexi-arm

The flexi-arm can be adjusted to fit every application and can be extended up to 5 meters.

## Technical Specifications

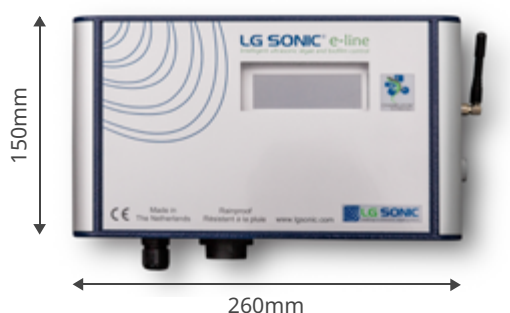
<b>Ultrasonic transmitter</b>	<ul style="list-style-type: none"> <li>• Unique Chameleon Technology™</li> <li>• 12 pre-installed ultrasonic programs</li> <li>• Max freq/program, 80</li> <li>• Ultrasonic generator integrated in the ultrasonic transmitter</li> <li>• Transmitter cable, 20m/65ft (extension possible)</li> <li>• Float</li> </ul>
<b>Control box</b>	<ul style="list-style-type: none"> <li>• Choose between 1, 2 or 4 transmitter outputs to one control box</li> <li>• LCD display with control buttons</li> <li>• Remote control monitoring, GSM/GPRS</li> <li>• AC input voltage, 100-240V AC, 50/60hz</li> <li>• DC input voltage, 24V DC</li> <li>• Energy consumption, 5-40 Watt</li> <li>• Weatherproof design, Aluminum</li> <li>• Ingress protection, IP67</li> </ul>
<b>Aquawiper™</b>	<ul style="list-style-type: none"> <li>• IP67 underwater housing</li> <li>• 360° turning angle</li> <li>• Industrial-designed brush</li> </ul>
<b>Solar power system*</b>	<ul style="list-style-type: none"> <li>• 195 WP solar panel</li> <li>• 2x 12 Volt, 60Ah batteries</li> <li>• Solar regulator</li> <li>• Panel mounts or poles are optional</li> </ul>
<b>e-line tester™</b>	<ul style="list-style-type: none"> <li>• Check whether the LG Sonic device is working, sending the correct program and if the ultrasound is spread throughout the whole water body</li> <li>• Including adjustable receiver stick, 100 to 200 cm (3-6 ft)</li> </ul>
<b>Flexi-arm™</b>	<ul style="list-style-type: none"> <li>• 1 meter arm for easy installation</li> <li>• The flexi-arm can be extended up to 3 meters</li> </ul>
<b>Installation bracket™*</b>	<ul style="list-style-type: none"> <li>• Install ultrasonic transmitter without float</li> <li>• Easily remove ultrasonic transmitter for maintenance checks</li> <li>• Coated stainless steel</li> <li>• Length of 40 cm</li> </ul>

\* The solar powered system, e-line tester, flexi-arm and installation bracket are optional

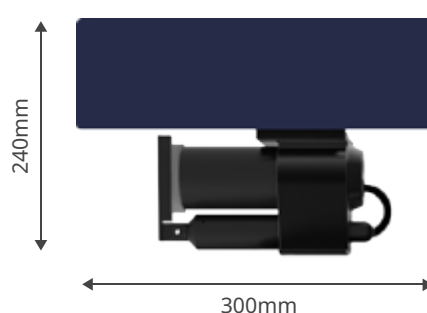
## Compare LG Sonic e-line Products

	<b>XL</b>	<b>XXL</b>
<b>Treatment range in meter (feet)</b>	< 120 (393)	< 200 (650)

**Control box**



**Ultrasonic transmitter**



# Company Profile

## Mission

We at LG Sonic have the mission to eliminate harmful chemicals in the water treatment industry. Therefore, we developed a chemical-free technology that controls algae without disturbing the natural balance within water ecosystems. We work together with different European Universities and Research Institutes, many of which are European funded research and development projects.

Since 1999, LG Sonic has been a leading international manufacturer of ultrasonic algae control and biofouling prevention systems



## Our Solutions

- **MPC-Buoy**  
Control and monitor algae in lakes and reservoirs
- **LG Sonic e-line**  
Control algae in ponds
- **LG Sonic Industrial Line**  
Biofouling prevention in industrial systems
- **Ecohull**  
Prevent biofouling and reduce the use of antifouling paint with the Ecohull

## Track Record

- Coordinator of several European FP7 projects: ClearWater PMPC and Dronic (€3.2 million)
- Official Innovation Partner of American Water, U.S. largest water and waste water utility
- Winner of several innovation awards: Aquatech Innovation Award (2015), Global TAG excellence award (2015), WssTP Water Innovation Award (2014)



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**LG Sonic B.V.**  
Radonstraat 10  
2718 TA  
Zoetermeer  
The Netherlands

T: 0031- 70 77 09030  
F: 0031- 70 77 09039

[www.lgsonic.com](http://www.lgsonic.com)  
[info@lgsonic.com](mailto:info@lgsonic.com)