

WHAT OUR CLIENTS SAY

"We have noticed a significant improvement in water quality, system has not affected neither fish nor turtles. Thank you again for working with Sawyers Pond..."

Juan M. | President
Sawyer's Pond HOA | TN USA

"Your Quattro-DB worked right on the money in controlling algae in our waste water lagoon system."

Tim Millwood | VP of Operations
Heartland Catfish Company | MS USA

"Improvement for sure. Your Quattro-DB continues to impress."

B.M. | Manager
Bass Pro Shops & Cabela's | USA

"When used to control biofouling organisms in seawater reservoirs the Quattro-DB® has proven to reduce system maintenance and reduce biofouling organism loadings."

Australian Bay Lobster Producers Limited
NSW, Australia

"PIRRAMIMMA Winery being awarded in 2020 its 4th AWC Vienna Best Australian Producer title, for installing the QuattroDB on August 18, 2021."

Geoff Johnston
Pirramimma Winery | South Australia, AU

"The use of HBS ultrasonic equipment in Lagoa Verde, Sao Miguel is years in the making of the recovery of environmental heritage for Seven Cities Parish, Sao Miguel, and all of the Azores."

Vasco Cordeiro | President
The Azores | Portugal

OUR LEADERSHIP



"HBS develops and provides environmentally friendly tools and effective alternatives to chemical carcinogen applications in water management. I hope you'll agree with our quest and join us. Discover how working together, we can create cleaner environments."

Antonio Trigiani | President

ABOUT US

Since 2016, Hydro BioScience, LLC (HBS) and Diversified Power International, LLC (DPI), have been pioneers of worldwide patented Ultrasonic Algae Remediation systems and technology, as proven through thousands of system installations. As stewards of the environment, with regard for public safety, HBS is driven to lower the chemical footprint. Through continued scientific research and product innovation, HBS commits to providing you, our valued customer, with ever improving functionality, quality, and affordability.



IN HOUSE
MANUFACTURING



MULTIPLE CARRIER
OPTIONS



TIMELY,
ECONOMICAL DELIVERY



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www.hydro-bioscience.com



Advanced Monitoring Technology & Applications for Clean Water

Eco Driven Solutions®

HARMFUL ALGAE BLOOMS BIOFILM & BIOFILING

While algae can be beneficial in food sourcing and biofuel, nutrients loading into waterways as a result from excessive use of agricultural fertilizers and sewage seepage, has contributed to algae growth reaching harmful masses.

These harmful algae blooms (HABs) can be toxic to aquatic populations, pets, and humans. This makes it essential to keep algae growth under control. Traditional control methods are often chemical centric, while effective, can kill many organisms that are beneficial to a healthy aquatic biome. In addition to creating sterile water environments, chemicals accelerate the recycling of phosphates and nitrates creating conditions that ensure larger HABs in the future. The survival of algae is dependent upon constant travel through the water column, feeding at water beds and rising to the surface for photosynthesis processes.

Our patented, **CHEMICAL-FREE** systems are safe for humans and animals. They introduce frequencies into the water environment at power levels far below depth finders, fetal imaging devices, sonar, or other common appliances using ultrasound technology. Frequencies are introduced in a linear pattern across the water, covering up to 120 surface area acres. This ensures algae cannot rise to the surface, restricting access to photosynthesis processes, causing the organism to expire. The defeated algae, along with any toxins they contain, are consumed by fish and naturally occurring bacteria, transforming them into inert byproducts. Our eco-friendly systems quickly eradicate algae with visible results in as little as 2 weeks and continued operation keep future blooms at bay. The frequencies introduced will also greatly reduce biofilm by mimicking the movement of water, resulting in a noticeable decrease of biofouling agents, such as barnacles and mussels, within the affected area.

SOLAR POWER, ENERGY STORAGE & REMOTE MONITORING

Our dedication to using solar power technologies in combination with the most advanced charging and energy storage systems available allow us to lower our chemical footprint. It's our commitment. This elite engineering is made available to us through a close association with our sister company, Diversified Power International, LLC (DPI). Based in Piney Flats TN, with 25+ years in state-of-the-art energy storage and battery charging systems, DPI is among the top international manufacturers. As OEM manufacturers for some of the largest electric vehicle companies in America, DPI ensures that power needs are met while sharing our commitment to the planet and precious energy resources.



While HBS systems can be operated on any AC voltage system available internationally, our solar power options afford the user with the simple, environmentally friendly installation. Using the power of the sun, combined with our advanced storage and algorithmically correct charging systems, our products can be operated anywhere. With multiple solar array options available, including land and floating water-based systems, there's no application too big or small to be instituted using resources that are free, safe, and environmentally friendly.

All HBS products can be monitored remotely via wireless and cellular communications, providing real time reporting and customized content. Created with you in mind, our monitoring system is convenient, accessible and makes managing your HBS product(s) easy.

Partial list of algae species affected by our patented systems: Aphanizomenon, Cyclotella, Pseudanabaena, Anabaena, Dictyosphaerium, Phacus, Aphanochaete, Fragilaria, Pinnularia, Arcella, Gloeocystis, Planktothrix, Gomphonema, Chlamydomonas, Lagerheimia, Chlorella, Lyngbya, Chroococcus, Microactinium, Spirogyra, Coelastrum, Staurastrum, Microcystis, Cosmarium, Tabellaria, Crucigenia, Nitzschia, Tribonema, Ulothrix, Botryococcus braunii, Rhodomonas minuta, Tetrademus acuminatus, Scenedesmus quadricauda, Merismopedia tenuissima, Sphaerocystis schroeteri, Chloromonas reticulata, Navicula minima, Cryptomonas erosa, and Oocystis pusilla

CHEMICAL FREE



GLOBALY INSTALLED IN THOUSANDS OF LOCATIONS

ADVANCED WATER QUALITY MONITORING

Water quality testing and monitoring has historically been expensive and time consuming, often requiring outside institutions to gather samples, send to labs, and deliver reports on issues which may have dramatically changed since the samples were taken. A fast-changing water environment requires a monitoring system that can deliver accurate, instant reporting.

HBS has answered the call for more affordable and easily manageable water quality management systems with the recent introduction of the SolaRaft-iQM™. Weighing in at under 28kg (60lbs), this intelligent water quality monitoring system is self/solar powered, highly visible, unsinkable, and easy to install. It arrives fully assembled and is ready to report a wide variety of water quality data to a computer or smart phone including:

- Temperature
- Conductivity | Salinity | TDS
- pH | ORP
- Ammonia
- Nitrates
- Dissolved Oxygen
- Turbidity
- Chlorophyll-A
- Blue-Green Algae
- and many more!

The intelligent combination of our SolaRaft-iQM™, Quattro-DB® and Mezzo-DB® algae eradication systems, and our unparalleled engineering and devotion to innovation gives you the **ULTIMATE SET** of environmentally friendly water management tools. With HBS you can effectuate positive change in water environments across our planet.



HBS products, such as the algae management & monitoring systems, are patent pending or patented in various countries worldwide. All products advertised, excluding solar panels are **PROPRIETARY HBS, LLC PRODUCTS.**



INTRODUCING GEN 2

The Quattro-DB® and Mezzo-DB® are state of the art, algae and biofilm management systems employing patented, advanced ultrasonic technology. Working in harmony with the surrounding environment, our systems disable algal growth cycles, resulting in rapid eradication.

BENEFITS

Reduced Biofouling | Reduced Turbidity
Reduced THMs | Reduced HAAs & HABs
Reduced pH | Reduced Chlorine Usage
Increased Filter Life | Improved Water Taste
Reduced Water Odors



**COST EFFECTIVE
OPERATION**



**CLEANER,
SAFER WATER**



EASY INSTALL



FAST RESULTS

APPLICATIONS

- Lakes, Reservoirs, Marinas & Docks
- Wastewater Treatment Facilities
- Irrigation Basins
- Clarifiers and Sedimentation Basins
- UV Chambers
- Distribution Water Tanks
- Ponds, Pools, Fountains and Aquariums
- Aquaculture and Agriculture
- *Endless possibilities*



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**IN HOUSE
MANUFACTURING**



**MULTIPLE
CARRIER OPTIONS**



**TIMELY,
ECONOMICAL DELIVERY**



**QUATTRO-DB®
MEZZO-DB®**



**Ultrasonic Algae,
Biofilm and Biofouling
Prevention Systems**



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EPA Registered | Worldwide Patent
Safe for People and Pets

SONIC HEAD TRANSDUCERS

New uni-body design, IP68 enclosures | Ultra slick polymer construction reduces bio-fouling on exterior | Multiple bio-fouling options include coatings and UV modules, patent pending | Interior cavity is completely potted for a watertight seal



MEZZO-DB®

Mezzo-DB® operates in a bidirectional pattern for narrow channeled applications.

Included in your Algae Management System:

- Power Supply
- Warning | Position Flag
- High Visibility Buoy*
- 316 Stainless Steel Chains
- 2 Meter Cable | Custom options available up to several hundred meters

*Several buoy options available, including harsh environment and low visibility



QUATTRO-DB®

Quattro-DB® emits thousands of ultrasonic frequencies in a 360°, linear, and line of sight pattern, managing:

- Up to 120 acres for Blue-Green Algae
- Up to 17.5 acres for Green Algae
- Up to 2.8 acres for Biofilm & Diatoms



**POSITIVE RESULTS
IN AS LITTLE AS
14 DAYS!**



MyQuattro™ Available on Android
COMING SOON for iOS

POWER OPTIONS

Our ultrasonic transducers operate on safe, low current, power supplies. Remote monitoring is available for real time tracking!



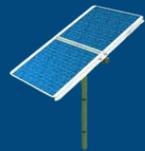
SOLAR CONTROLLER

- Connects to our land or raft based solar panels
- Correctly manages battery charging and powers 2 or more sonic heads
- Wireless and Serial communications are built in.

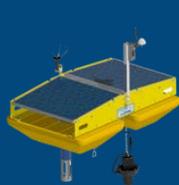
UNIVERSAL POWER SUPPLY 85-264 VAC

- For land based power, international applications
- Wireless and Serial communications are built in
- Unit can power 2 separate sonic heads
- Connected to AC Power supply *

*Wide variety of AC plugs available for ALL international applications



SunSonix™ Land Based Solar



SolaRaft-iQDB™



SolaRaft-iQM™

**USES
MINIMAL
POWER
AVG 11.2 WATTS**



24 VOLT AC\DC POWER SUPPLY

- Specifically designed for applications where 24V is supplied for pre-existing fountains, etc.
- Commonly used on golf courses
- Wireless and Serial communications are built in
- Can power 2 separate sonic heads
- Hardwired to your existing 24 VAC/DC power supply



With the SolaRaft-iQM™ or iQDB™, our state of the art, intelligent water quality monitoring systems, the Quattro-DB® & Mezzo-DB® algae management systems provide a complete set of tools to positively affect water quality problems before they blossom into larger environmental health related issues.

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