

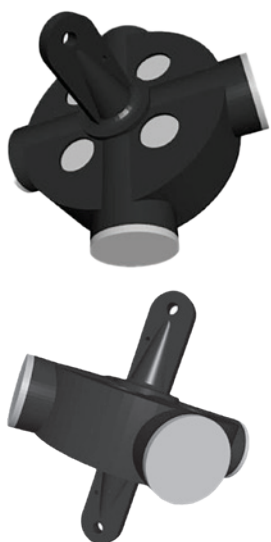


REAL GREEN
SOLUTIONS

TRAITEMENTS
BIOBAC

Pulsar® Ultrasounds transducer for control of algae, cyanobacteria and biofilm

STATE-OF-THE-ART TECHNOLOGY OFFERING UNMATCHED PERFORMANCES



The Pulsar series is the latest ultrasonic technology for algae, cyanobacteria and biofilm treatment.

It offers innovative features that are not found in the competition. With a radial audio output operating in two different bandwidths (algae and diatoms in the lower band and cyanobacteria in the upper bandwidth) and over 2000 generated frequencies, the unit is now the most powerful and efficient on the market worldwide.

The Pulsar® technology allows treatment coverage up to 7 ha for algae and 50 ha for cyanobacteria, depending on environmental conditions. The device is easy to install, requires little maintenance, and operates 24 hours a day, providing unparalleled control of different bodies of water.

- Lakes and ponds
- Wastewater treatment plants (clarifiers and aerated lagoons)
- Aquaculture facilities
- Drinking and irrigation reservoirs



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HOW DOES ULTRASOUND WORK?

All existing materials have a critical resonance frequency at which they may suffer damage. The frequencies of Pulsar® devices are set to match the harmonic frequency of the cell membrane of algae fatally damaging them within 72 hours of contact. These frequencies also attack the biofilm and certain fungi, such as Pythium.

With cyanobacteria, the gas vesicles are damaged, and small vacuoles keep them buoyant in the water column and regulate their vital functions. The ultrasound pops them, causing the cell to sink to the bottom and die due to a lack of photosynthesis.

Humans, animals, fish, and plants have different resonance frequencies and are therefore not affected by the ultrasound emitted by Pulsar transducers.



ADVANTAGES

- State-of-the-art technology • Radial sound output • Over 2000 frequencies on two bandwidths
- Solar or electrical installations • Very low energy consumption • Reduces the cost of cleaning and maintenance
- Completely ecological • Significantly reduces the use of chemicals • Harmless to humans, animals and plants
- Reduces TSS (biological) in wastewater treatment plant effluent

Portée maximale	Pulsar 3000	Pulsar 4000
Applications	Small ponds Golf courses Reservoirs Clarifiers (wastewater)	Recreation lakes and reservoirs Irrigation basins Drinking water facilities Aerated lagoons (wastewater)
Coverage area	360°	360°
Algae and diatoms Cyanobacteria	80 m (10 ac) radially 200 m (60 ac) radially	150 m (17 ac) radially 500 m (123 ac) radially
Sharklet (antibiofilm)	Yes	Yes
Power supply systems	110V/220V AC 24V DC, Solar	110V/220V AC 24V DC, Solar
Warranty	3 years	3 years

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