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# Algae Control

Algae are present on vegetation, in the air, soil and water. They are primitive aquatic plants that differ from other plants by lacking true stems, leaves, or roots. Their microscopic spores are continuously introduced by wind, dust storms, rain showers, etc. When algae overtake the water surface and prevent adequate sunlight penetration, water quality deteriorates due to minimal oxygen transfer. Ponds are settling basins for nutrients washing in from the land. Runoff from fertilized lawns accelerates nutrient loading and alga growth in a pond.
The SonicSolutions® ultrasonic waves cause the algae to die. Aeration helps maintain the oxygen supply creating a balanced environment for other aquatic life. Aerobic microbes break down nutrient rich organic matter allowing for fewer nutrients available for alga growth in the water column.

Wastewater Lagoon: Pennsylvania
Dimensions: 200’ x 600’
Capacity: High of 12M gal to a low of 3 M gal
Water is sprayed over the land.

SonicSolutions® uses the resonance of the ultrasonic waves to disrupt alga cells. The submerged transducer is programmed to generate ultrasonic waves that are directed at the vacuole of the algae.
These waves weaken the cell membranes resulting in a leakage of cytoplasm and a collapse of the cell into a dense brown mass. The cells may remain buoyant for up to 4-5 weeks after exposure, although they are no longer viable.

***EPA Registration 074929-MA-001 UL Approved***

The ultrasonic waves extend only in front of the transducer unit. The SonicSolutions® Algae Control device emits ultrasonic waves that "fan out" at approximately 180o from the front of the transducer. The nutrient level, turbidity, shape of the body of water and latitude affect the coverage area. The potential coverage for the SS 400 model can be as much as 1.5 acres and for the SS 500 model up to 3 acres.

| *Device* | *Range* | *Max. Effect Area-Muddy Bottom* | *Max. Effect Area – Hard Bottom* |
|---|---|---|---|
| SS 400 | 350 ft/108 m | 50,000 sq.ft./5,000 sq. m. | 200,000 sq.ft/20,000 sq. m. |
| SS 500 | 500 ft/154 m | 100,000 sq.ft/10,000 sq. m. | 400,000 sq.ft/40,000 sq. m |

For optimal exposure of the ultrasonic waves in the body of water, place the unit close to the edge of the pond. Sonic waves extend only in front of the transducer unit. Larger installations and certain shapes of ponds or lakes may require installation of more than one unit. Multiple devices can be installed at opposite sides of a lake or pond, or attached together pointing in different directions, depending on the site requirements.

***Technical Specifications***

| *Unit* | *Power Input-US* | *Power Input-UK & EU* |
|---|---|---|
| SS 400 | 105-125V AC, 60 Hz, 0.4 Amps | 210-250V AC, 50 Hz, 0.2 Amps |
| SS 400-24* | 24V DC, 1.3 Amps | |
| SS 500 | 105-125V AC, 60 Hz, 0.4 Amps | 210-250V AC, 50 Hz, 0.2 Amps |
| SS 500-24* | 24V DC, 2.0 Amps | |

*Requires a minimum of two 105 deep cycle 12v batteries wired in series required (not included in unit).

For Solar Panels, check with local supplier.