

# H2oBioSonic.com

## Advanced Ultrasonic Bio Fouling Protection Systems HVAC BGPS Overview



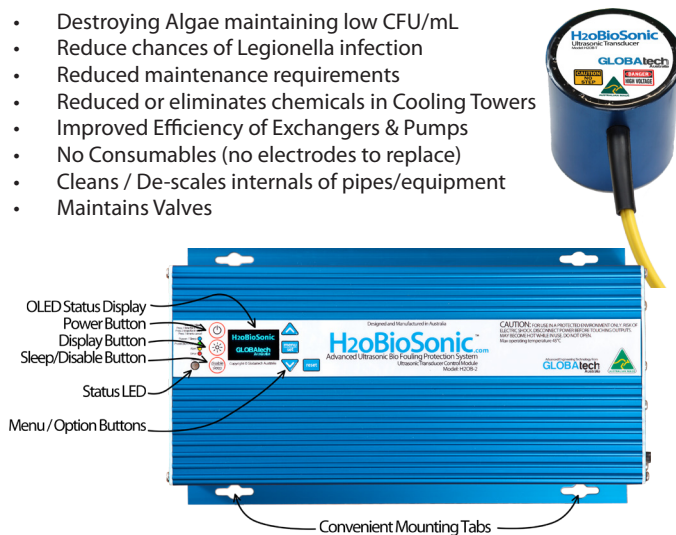
### The problem of bio-fouling & Algae formation

The H2oBioSonic BioFouling Protection System is ideal for the prevention of algae formation through the destruction of micro-organisms within the water column of large HVAC systems, drastically reducing or eliminating the requirement for chemical dosing to control Standard Plate Count CFU/mL and prevent Legionella colonisation. This sterilisation of the water system is an environmentally friendly way of reducing the maintenance requirements and ongoing use of dangerous chemicals in the cooling water while also improving efficiency of the cooling system.

### Ultrasonic benefits

Ultrasonic Bio Fouling protection with H2oBioSonic combats the common problems associated with algae and Bio Fouling in HVAC systems including;

- Destroying Algae maintaining low CFU/mL
- Reduce chances of Legionella infection
- Reduced maintenance requirements
- Reduced or eliminates chemicals in Cooling Towers
- Improved Efficiency of Exchangers & Pumps
- No Consumables (no electrodes to replace)
- Cleans / De-scales internals of pipes/equipment
- Maintains Valves



### How the H2oBioSonic Ultrasonic System Works

The Ultrasonic energy output generates microscopic bubbles of varying sizes which implode generating microscopic points of cavitation. The cavitation implosion has a cleansing effect and provides a constant scrubbing of the water body protected. During these implosions the cell wall of algae and other single cell bacteria and organisms is split preventing the continued growth. This cavitation also provides a scrubbing effect on the inside wall of pipe work and ancillary devices helping to prevent any settlement and improving flow.

H2oBioSonic also implements our advanced **!BLAST!** Function for added protection effectively supercharging the output for short blasts of energy that drastically improves the effectiveness of the scrubbing effects.

### Installation

Installation of the H2oBioSonic system is simple and requires the strategic mounting of our Ultrasonic Transducers. The number of transducers depends on the cooling tower size, pipe/object size, density and rate of flow. Additional transducers can easily be added where required for added protection.

### Preventing Settlement & Growth

The use of H2oBioSonic BioFouling Growth Protection System can control the formation of algae and bacteria in the water column in Cooling Towers. During the short settlement period of bio fouling the Ultrasonic energy destroys the spores, larvae, algae and bacteria while the scrubbing effect of the system prevents a buildup.

Without Anti foul protection, pipes and objects can quickly become encrusted or grown over with algae or growth leading to partial or total blockage and reduced flow and efficiency and the increased incidence of Legionella and other diseases.

### Dual Action System

The H2oBioSonic system operates on two fronts with dual action, while destroying algae, larvae and micro organisms with the microscopic cavitation we also generate an advanced ultrasonic cleaning function within pipe work, objects or systems to help in maintaining pipes and

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