

DELTA COOLING ANTI-MICROBIAL TOWER

The Smart Way to Minimize **Legionella** Risk



TOWER SHELL

- ◆ Anti-Microbial HDPE Resin
- ◆ Fully Compounded Throughout Resin
- ◆ Resists Biofilm Growth
- ◆ Withstands Most Aggressive Chemical Treatments

TOWER FILL

- ◆ Anti-Microbial Compounded PVC or PP
- ◆ Impedes Microorganism Growth
- ◆ Prevents Fouling Maximizing Performance
- ◆ Resists Biofilm Growth



Introducing our NEW Anti-Microbial (AM) Cooling Tower. According to test results from **Special Pathogens Laboratory®**, **The Legionella Experts®**, our tower displays the only Anti-Microbial efficacy against Legionella bacteria out of all the common cooling tower materials.

WHAT IS LEGIONNAIRE'S DISEASE?

A harmful lung infection caused by the bacterium *Legionella*. This bacteria grows best in warm water conditions where it is spread to humans when water vapor or mist containing the bacteria is inhaled. Cooling towers have an ideal environment for this growth.



GROWTH PROMOTION

- ◆ Poor water flow and areas where water is stagnant, common to cooling tower designs with a large flat bottom basin, which will have stagnant water in the corners
- ◆ pH between 5.0 and 8.5, water temperatures between 68°F and 122°F
- ◆ Sediment that promote growth of commensal microflora
- ◆ Microorganisms including algae, flavobacteria, and *Pseudomonas*, which supply essential nutrients for *Legionella* growth or harbor the organism

PREVENTION

- ◆ **Chemical Water Treatment:** Oxidizing Biocides are recommended as the best mode of control. **Warning:** this type of biocide can be aggressive towards metal surfaces; specifically metal cooling towers.
- ◆ **System Design & Engineering:** No stagnant water, sloped basin, and/or basin sweeper system.
- ◆ **Maintenance –** Competent consistent water treatment and monitoring most important.

According to the Center for Disease Control and Prevention, about **5,000** cases of Legionnaires' disease are now reported each year in the United States.

DELTA ANTI-MICROBIAL (AM) COOLING TOWER



We begin manufacturing with anti-microbial resin, which is fully compounded into base cooling tower plastic material. Our anti-microbial additives operate on the cellular level to continuously disrupt and prevent uncontrolled growth of the microorganisms and biofilm.



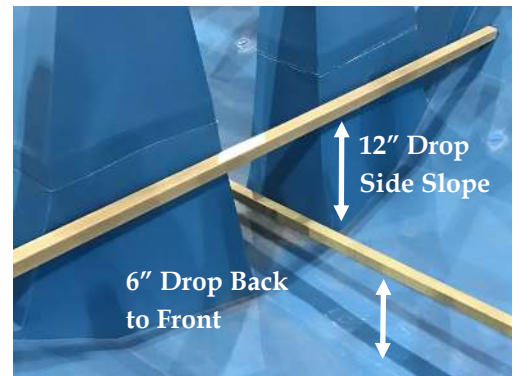
TEST RESULTS

The bacteria tested were Legionella Pneumophila Serogroup 1. The base materials tested were Delta Compounded HDPE, FRP, and Stainless Steel and the numbers reflect the bacterial count after 24 hour incubation.

Cooling Tower Shell	Anti- Microbial Efficacy
Delta AM HDPE	Yes
Stainless Steel	No
FRP	No

Cooling Tower Fill	Anti- Microbial Efficacy
Anti-Microbial Fill	Yes
Standard Fill	No

TOWER DESIGN MINIMIZES LEGIONELLA RISK



- ◆ Aggressive Slope Side to Side
- ◆ 3% Slope Back to Outlet
- ◆ Basin Sweeper System on Some Models

Stagnant Water is a breeding ground for microorganisms which reproduces Legionella. Our design prevents stagnant water.



WHY DELTA COOLING?

- ◆ Corrosion Proof Engineered Plastic
- ◆ Low Maintenance Direct Drive Fans
- ◆ Seamless Unitarily Molded Construction
 - ◆ Save Water and Energy
 - ◆ Exceptional Customer Service
 - ◆ Manufactured in USA since 1971



DELTA COOLING TOWERS, INC.

800-BUY-DELTA

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