

DELTA COOLING TOWERS

Anti-Microbial Tower



The Smart Way to Minimize Legionella Risk

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



DeltaCooling.com
1-800-BUY-DELTA



DELTA COOLING TOWERS

Anti-Microbial Tower

The Tower Shell

- Anti-microbial HDPE resin
- Fully compounded throughout resin
- Resists biofilm growth
- Withstands most aggressive chemical treatments

The Tower Fill and Drift Eliminator

- Anti-microbial inhibits the growth of microorganisms
- Resists biofilm growth



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 toward 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.

Stagnant water is a breeding ground for microorganisms which reproduces legionella.

Our design prevents stagnant water.

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

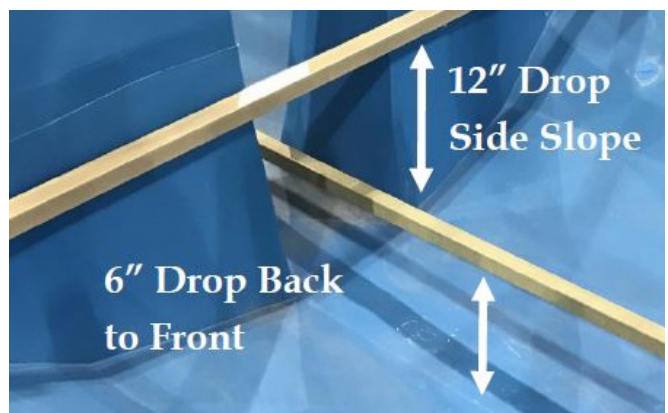
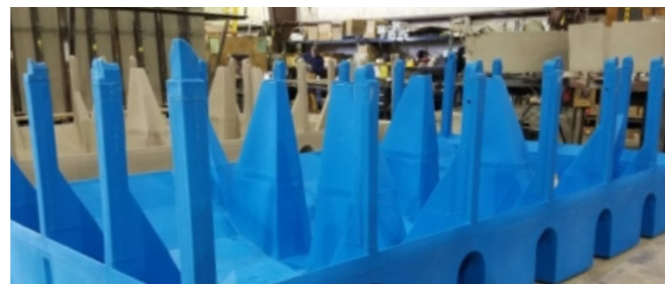
The bacteria tested were legionella pneumophila serogroup 1. The base materials tested were Delta compounded HDPE, FRP, and stainless steel. The numbers reflect the bacterial count after 24 hour incubation.

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

Delta Tower Design Minimizes Legionella Risk

- Aggressive slope side-to-side
- 3% slope back-to-outlet
- Prevents stagnant corner water typical in flat bottom towers
- Basin sweeper system on some models



Prevents Stagnant Water

Why Delta Cooling?

- **OVER 50 YEARS OF EXPERIENCE** in cooling tower design and manufacturing
- **STRONG OUTSIDE SALES ORGANIZATION** partnered with industry-leading manufacturer reps
- **EXCEPTIONAL, WORLD CLASS SERVICE TEAM** supporting industry-leading 20-year warranty
- **MADE IN THE USA** West Virginia manufacturing supporting global industry
- **CORROSION-PROOF** engineered plastic
- **LOW MAINTENANCE** direct drive fans
- **SEAMLESS**, unitarily-molded construction
- **SAVES** water and energy
- Industry's most innovative engineers driving **CONTINUOUS IMPROVEMENT**



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