



## CASE STUDY:

# 140 First St Medical Labs



EasyWater Model CTF-425-S System installed for 140 First Street - Medical Labs

## COOLING TOWER TREATMENT SYSTEM FOR LARGE MEDICAL LAB BUILDING

Project:	140 First Street - Medical Labs
EasyWater Rep:	New England Sales Group
Project Engineer:	AHA Consulting Engineers
Location:	Cambridge, MA
Scope of Work:	2800 ton Cooling Tower
EasyWater Equipment:	Model CTF-425-S Skid System



A view of the dirty water in the backwash tank from the CTF sub-micron filter

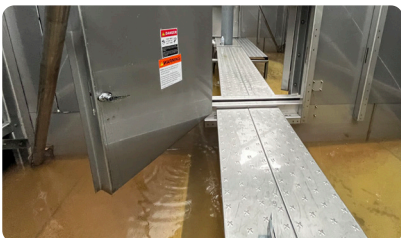
### ≈ PROBLEM

140 First St Medical Labs, located in the East Cambridge Market, is a six-story, 238,934 square foot medical building.

They were concerned with the proximity of the discharge drift from their cooling tower system to the HVAC outdoor air inlet to the building since the water droplets could contain legionella. Consequently, the engineer contacted EasyWater for a solution.

The EasyWater CTF System was recommended to minimize legionella risk and help control:

- ▶ Scaling in the cooling tower fill and chiller condenser tubes
- ▶ Biofilm
- ▶ Dirty turbid water
- ▶ High bacteria counts



Dirty water and sediment in the tower basin prior to CTF Treatment

## ≈ SOLUTION



EasyWater Model CTF-425-S System installed for 140 First Street - Medical Labs

In March 2023, TG Gallagher Mechanical installed the EasyWater model CTF-425-S. It is a side stream treatment system, to manage scaling, corrosion, and bacterial concerns in the cooling tower system. On March 14th, an EasyWater technician performed the startup of the CTF System.

**EasyWater's CTF-425-S Cooling Tower Treatment System is a three part solution:**

- 1) An EasyWater SedimentShield, sub-micron backwashing filter for the removal of sediment and bacteria
- 2) An Ultraviolet chamber for bacterial sanitization
- 3) (2) EasyWater No-Salt Conditioners to prevent and remove hard water scale deposits, biofilm, and reduce bacteria. The No-Salt Conditioners have the added benefit of preventing the hot UV lamps from scaling.



No-Salt Conditioners



SedimentShield backwashing filtration tank



Ultraviolet touchscreen display

## ≈ RESULTS

Within just three weeks, the cooling tower bacteria count went from over  $10^3$  (4700 CFU/mL) down to  $10^0$ . In addition, the cooling tower sumps and fill were free of scale, algae and biofilm.

The owners of 140 First St. Labs are very pleased with the treatment results of the CTF System and intend to implement it in more facilities.



**Prior to treatment**, the water was very dirty and lab results from March 17th, 2023 indicated a high  $10^3$  bacteria count



### Certificate of Analysis

7184 North Park Drive  
Pennsauken, NJ 08109  
8564861177

EasyWater  
9850 Las Casas Dr.  
Fort Myers FL, 33919  
Project: **1 CHARLES STREET, CAMBRIDGE MA**

Condition of Sample(s) Upon Receipt: Acceptable

Client Sample #: 1  
Sample Location: COOLING TOWER BASIN

Test: 2056.10 Water, Non-Potable, Heterotrophic Plate Count, SM 9215: SOP 2.5  
Results: **4700 CFU/mL**  
Comments: Collected 3-14-23 at 10:00 am; Incubated 3-15-23 at 11:00 am

Date Collected: 3/14/2023  
Date Received: 3/15/2023  
Date Analyzed: 3/15/2023  
Date Reported: 3/17/2023  
Project ID: 23009824  
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Lab Sample #: 23009824-001

Liquid Volume: **1 mL**  
MRL: **100 CFU/mL**



**(6) months later**, bacteria dip slides continue to show  $10^0$  bacteria count and the sump and fill continue to be free of scale and biofilm