ADVANCED WATER TREATMENT TECHNOLOGY



Water and Energy Solutions for Commercial, Industrial, Residential





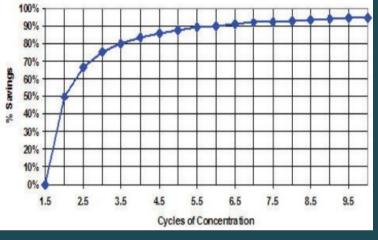




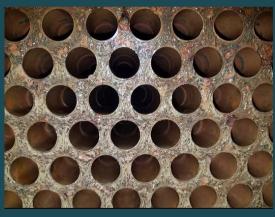
## APPLICATIONS

- COOLING TOWERS
- POOLS
- WATER MAINS
- WATER TOWERS





#### Dramatic COC increases



450T Trane Condensor WV Has not been brushed since 2015.



Water Feature Treatment Solutions

### ADVANTAGES & BENEFITS

- REDUCES WATER
  CONSUMPTION
- LOWERS ENERGY
  CONSUMPTION
- PREVENTS AND REMOVES SCALE
- CONTROLS BACTERIA AND
  BIOFILM
- NON-CORROSIVE
  ENVIRONMENT
- LOWERS CHEMICAL COSTS



VODAA DROP-IN TECHNOLOGY

VODAA CLAMP-ON TECHNOLOGY

# COMMERCIAL & INDUSTRIAL

The control and maintenance of cooling systems found on the most commercial and industrial applications are achieved through the use of chemicals. The Vodaa Technology system prevents scaling and corrosion as well as maintaining extremely low bacteria levels while reducing the use of chemicals.

The prevention of scaling is achieved by changing the dissolved calcium ions found in cooling system water into nanoparticles. These nanoparticles do not want to bond to cooling system surfaces and they remain in suspension until they are removed by filtration or blow-down. Even more important, the reduction in "free calcium" prevents new scale from forming and stops the old scale from continued bonding with the cooling system surfaces. The old scale eventually falls off and can be removed during routine maintenance.

Corrosion protection is achieved by raising the pH of the cooling water. Corrosion rates are greatly reduced when the pH is over 8. Virtually all Vodaa Technology systems operate at a pH of 8 or higher. The higher pH neutralizes any acid compounds that form in the cooling system. Open cooling systems generally form carbonic acid by absorbing carbon dioxide from the air. The calcium carbonate absorbs the CO2 and forms Ca(HCO3)2 (calcium bicarbonate). The calcium bi-carbonate remains in the water until it is removed by blowdown.

Bacteria control by the Vodaa Technology system is achieved in two ways. As the cooling water is circulated through our self-contained unit, the electromagnetic fields cause stress in the bacteria contained in the water. The second method is achieved by stabilizing any chlorine that is contained in the make-up water. Most cooling system water supplies contain chlorine added by the supplier. The Vodaa Technology system helps to maintain these chlorine levels or stabilize them for a longer lasting effect. The synergistic effects of the EST field and the stabilization of the chlorine in solution produces a dramatic reduction in bacteria levels. The Cooling Technology Institute recommends that cooling systems maintain less than 10,000 CFU (colony forming units) per m/l of bacteria, especially Legionella. The Vodaa Technology treated water is consistently found to contain less than 1000 CFU/m/l of bacteria.

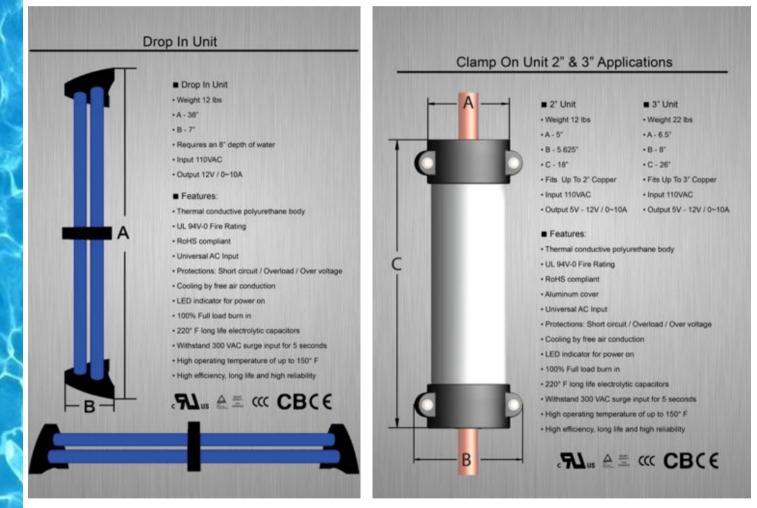


#### EARLY ADOPTERS









### Vodaa Solutions

2829 Townsgate Road, Suite 100 Westlake Village, CA 91361 800-309-0942