

Reduce **energy use** and **demand**, while **increasing cooling capacity** and **compressor life**.





## MicroCool® C³ Systems \_\_\_\_\_\_

MicroCool® C³ systems come in numerous configurations to accommodate a wide variety of applications.

Each C<sup>3</sup> system consists of the following components:

- Industrial quality Reverse Osmosis package with multiple membranes to provide mineral free water and prevent the formation of salts on condenser coils.
- Water concentrate panel to control cycling, blending, and water rejection.
- Accumulator tank with bladder.
- ▶ High-pressure triplex pump unit with pressure-based VFD and standby mode.
- ▶ Stainless Steel nozzle lines with patented C³ nozzles mounted at 18″ (500mm) spacing.
- ▶ High pressure sectioning zone valves.
- Flexible or stainless steel manifold run between the pump station and the condenser coil.
- MicroCool® C³ Panel to control zones and stages of cooling based on ambient temperatures and humidity.
- External connections for remote triggers and inputs.
- Fault light panel with optional dial-out feature.
- ▶ Powder-coated steel frame with rubber shock mounts.

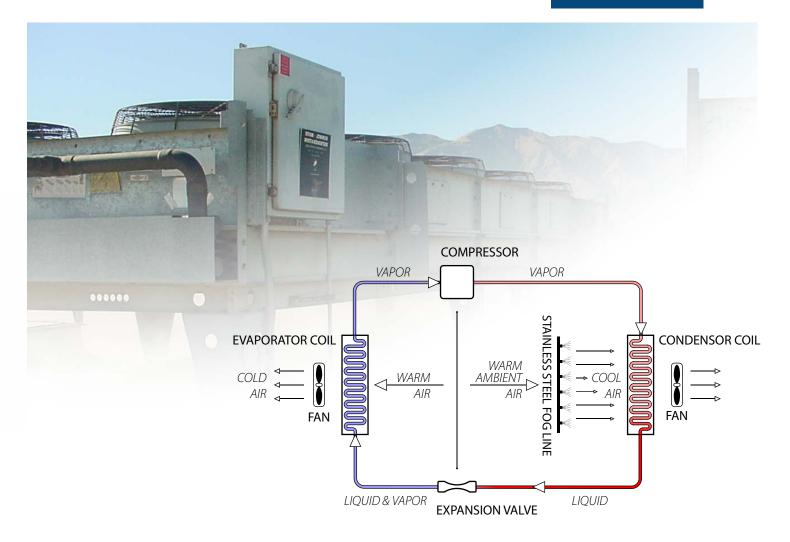
Eliminate "high head" problems

and reduce peak demand charges.



### HOW IT WORKS





Standard sizes vary from 2-15 US gpm (0.5-55 m $^3$ /h) with controls. Larger and smaller sizes are available on request. Special units are available for less frequent usage (peak demand control). Contact the  $C^3$  sales office for details.



# MicroCool® C³ Systems

#### FOR AIR-COOLED CONDENSERS

With over 25 years of adiabatic cooling experience, MicroCool® design engineers have built a product that simultaneously improves the efficiencies of aircooled cooling systems while minimizing water usage. An integral C³ controller adjusts the water volume for ambient conditions by cycling nozzle lines on and off as needed. A VFD (variable frequency drive) maintains the appropriate water pressure while minimizing the electrical consumption of the water pump.

Manufacturers' data sheets for virtually every air-cooled condenser demonstrate that these systems are far more efficient during cool weather than under peak ambient conditions. The MicroCool® C³ system dramatically improves the efficiencies of air-cooled condensers under peak ambient conditions by lowering the temperature of the incoming (condenser) air by up to 30°F (18°C). Overall efficiency improvements can reach 25% when compared to a system without the C³.

The C<sup>3</sup> system accomplishes this by injecting billions of micron-sized droplets of treated water into the condenser air. These droplets flash evaporate, extracting heat from the air and creating lower temperatures at the face of the condenser coil. This lowers system head pressures, which in turn reduces energy use and demand while increasing cooling capacity and compressor life.





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