Features & Benefits

High Efficiency Operation
• Using Centrifugal Chillers vs. Helirotor Screw

30% More Efficient
• Compared to a typical air-cooled chiller plant at full load

Efficiency
• < .54 kw/ton
• PUE 1.16

Dry or Wet Operation
• Using an adiabatic cooler

California Title 24 Compliant
• Without water use

Limited Water Usage
• Water savings between 15-45%
• Dry operation in cold weather
• Less or no water storage

Larger Modules
• 300 to 1500 tons

PLC Controls
• Reliability & redundancy

Competitive $/ton

The Complete Cooling Solution - High Efficiency with Minimal Water Usage

Tired of trying to decide between the benefits of a water-cooled chiller plant which is extremely efficient or an air-cooled chiller plant which uses less water and chemical treatment? You don’t have to.

At Systecon, we understand the importance of using water properly and have combined the best of both systems – efficient cooling with minimal water usage – in our patented CritiChill® system.

CritiChill® is an indirect evaporative cooling system with a supplemental chiller that can be bypassed as weather conditions dictate. The supplemental chiller is shut down during conditions when the evaporative cooler can efficiently cool the building and is engaged for supplemental cooling when conditions are not conducive for the evaporative cooler to handle all cooling needs.

With an adiabatic cooler, the system only uses 20 percent of the water normally required by a traditional cooling tower and without the harmful chemicals. Coupled with pre-cooling operation, the system provides a level of efficiency near that of a traditional water-cooled chiller.

CritiChill® can be an ideal solution for data centers or other buildings with overhead sensible cooling devices that have warm water delivery.
High efficiency chilled water cooling utilizing an integrated water side economizer and adiabatic coolers for minimal water usage.

Efficiency Gains vs. Air-Cooled
- 30% more efficient
- Evaporative cooler
- Wet bulb approach
- Better part & full load efficiencies

Limited Water Use
- Water savings between 15-45%
- Dry operation in cold weather
- Less or no water storage

Dry Operation
- Mechanical Cooling: 56.7%
- Integrated Pre-Cooling: 31.2%
- Free Cooling: 21.1%

Wet Operation
- Mechanical Cooling: 87.9%
- Integrated Pre-Cooling: 9.4%
- Free Cooling: 2.7%