



# INTELLIGENT ADIABATIC PRE-COOLING SYSTEM



ROI in just 12 to 24 months



Reduce carbon foot prints



Increase chiller cooling capacity  
by up to 29%



Reduce chiller electricity consumption  
by up to 27 %



## TRUECHILLERS

Our chiller efficiency boosting adiabatic pre-cooling system, TrueChillers works flawlessly with your equipment to increase efficiency, reduce operational costs and protect it from environmental hazards such as corrosion and limescale formation. TrueChillers keeps your condensers safer and cleaner for longer than any other adiabatic device in the market. We ensure the quality and reliability of each TrueChillers component to boost the efficiency and performance of your chillers.



## What is TrueChiller ?

The HVAC (Heating, Ventilation and Air conditioning) is the technology installed to provide indoor thermal comfort and acceptable indoor air quality. HVAC is important in the design of medium to large industrial and office buildings such as skyscrapers, onboard vessels, and in marine environments such as aquariums, where safe and healthy building conditions are regulated with respect to temperature and humidity, using fresh air from outdoors. Air conditioning systems perform at their worst in hot summer days, just when they are needed the most. The cooling capacity decreases by 12–16% and the power draw increases by 32%. The problem occurs in condensers which has to change vapors refrigerant into liquid forcing the air through the unit and absorbing heat from the refrigerant causing it to condense.

Applying a water misting / fogging system to air-cooled chillers can improve the efficiency under most of the working conditions, as the water mist could lower the **Ambiente** air temperature entering the condenser which results in very fast heat exchange. It will immediately lower AC unit's pressure and increase in cooling capacity **by** substantially by 29%. **This will result in a reliable up to 27% reduction in energy use and up to 23% reduction in cost.**

## How it works?

A customized evaporative Misting / Fogging system is attached to each Air Cooled chiller unit which lowers the temperature of the air entering the condenser. This allows the condenser to reject more heat which lowers head pressures and compression ratios, thereby causing the compressor to draw less power, consume less energy, require less maintenance and last longer.

The pre-cooling application performs best at the exact time when commercial buildings require increased refrigeration system performance – that is, during peak heat. In fact, the higher the ambient temperature, the greater the energy and cost savings potential. An array of customized misting arms and nozzles designed to meet your specific HVAC equipment specifications and environmental conditions. Safely attach to the outside of the coil.



Each nozzle once installed is positioned & field calibrated to produce the best mist pattern for optimal performance of the ac mister. The TrueChillers is a series of designed high pressure brass or stainless steel mist runners and nozzles designed for your Dry Cooling Tower's size and environmental conditions. With each run including up to hundreds of nozzles the can be tired together through a series of manifolds to individual or multiple pumps depending on the controlled needed for each particular spaces. To maximize their efficiency each fit out we carefully position our product to insure the least amount of resources are used whilst it's running.

# Benefits of Truechiller

- 1** Reduces gas pressure within the chiller circuit, minimizes compressor load, increases **COP** and reduces electricity consumption.
- 2** Protects condensers from rust, dust, direct sunlight and calcium and mineral deposit (limescale).
- 3** Reduction in temperature of approximately 10 to 15°C at the coil face.
- 4** Energy reduction drops, saving as much as 27%.
- 5** Increases the efficiency of air conditioning units by as much as 29%.
- 6** Improves the capacity of under-performing refrigeration data Centre and HVAC units under high ambient conditions.
- 7** Reduces system downtime.
- 8** Environmental benefits – lower kW consumption reduces your carbon footprint.
- 9** Reduction in water usage when compared to traditional cooling methods.
- 10** Return on investment in 12 to 24 months
- 11** Reduce carbon footprints



# TRUECHILLERS COMPONENTS



TrueChillers  
Automatic  
Control Unit



TrueChillers  
Monitoring Unit



High Pressure  
Misting Pump



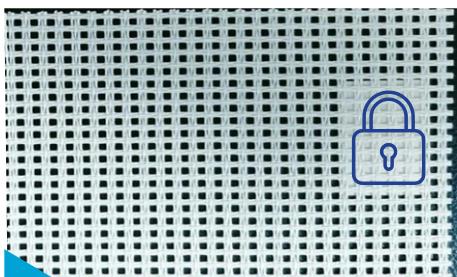
High Pressure  
Mist Nozzles



Fittings &  
Fasteners



Tubes & Pipes



Condenser Protection  
Membrane



Water  
Filteration Unit

## Our Network



### Also Available in

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