



# **HVAC PRE COOLING SYSTEMS**

- ■Savings of up to 30% in operating costs by pre cooling the air.
- Fast efficient pre cooling solutions for commercial and industrial chillers and outdoor HVAC systems.
- Extend your condensor life and increase cooling capacity in hot weather.
- "Flash Evaporation Technology" leaves minimal wet areas on the
- Designed and manufactured in Australia using the best components available. Quickly and easily installed with no disruption to the HVAC system
- Minimal water use compared to temporary sprinkler systems



#### HOW DOES THE OZMIST PRE COOLING SYSTEM WORK?

The system works by using "Flash Evaporation" technology. Individual misting lines are fitted to each condenser coil. 1,000PSI water generated by the Ozmist Pump Module is forced through the nozzles in each system creating an ultra fine mist that flash evaporates.

The cool the air is drawn in over the coil. The cooler coil allows the rejection of more heat resulting in lower head pressures and compression ratios.

Ozmist introduced "Flash Evaporation Technology" to the Australian market place. Since 2000 Ozmist has provided misting solutions for both Australia and New Zealand.

## The hotter it is, the better it works!







• OUTDOOR AND ALFRESCO COOLING • FACTORIES AND WORKSHOP COOLING • PORTABLE SYSTEMS •

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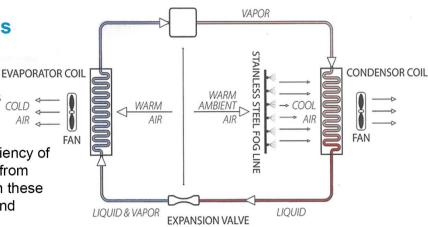
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# **HVAC PRE COOLING MIST SYSTEMS**

#### **OZmist Misting Systems Pre-Cooling benefits your business**

During Australia's hottest months Industrial, Commercial and even Domestic HVAC units struggle to cope due to increased head pressures caused by high ambient temperatures.

When air temperatures rise to over 60°C the efficiency of standard condenser coil units drops dramatically from the design set point of only 46°C. Units that reach these temperatures are under threat of shutting down and costing business thousands of dollars.



### Save up to 30% on building air conditioning and refrigeration costs

A correctly designed and installed Ozmist Misting System can dramatically Increase Cooling Capacity and efficiency while Lowering Energy Usage in Air Cooled HVAC systems on Commercial and Industrial buildings.

#### Pre-Cooling Condensers is a Proven Technology!

An independent study conducted by Hong Kong Polytechnic University in 2009 found that "the application of water mist pre-cooling could increase the co-efficient performance by up to 30%".

The researchers concluded that significant energy savings may be generated by "enhancing the heat transfer rate in condensers by using water mist to pre-cool ambient air temperature around the condenser coils".

#### Will a Pre Cooling System harm my equipment?

As the droplets "Flash Evaporate" moisture contact with the coil is minimal. Also, the system is controlled automatically (unlike sprinklers) and will only run when required, therefore limiting the operating hours



Traditional sprinkler setups around condenser units can cause corrosion on the fins and lead to excessive water use

Excess water can also lead to potential OH&S issues by leaving wet surfaces

around the units.



An OzMist Pre Cooling system flash evaporates the hot air particles leaving no wet surfaces, while effectivley reducing the ambient air temperature around the condenser units.

#### OZMIST PRE COOLING FACTS:

\*A reduction in temperature of around 12°C at the coil face

\*Energy consumption drops, saving as much as 30%

\*Increases the efficiency of air-conditioning unit by as much as 30%

\*Improves the capacity of underperforming HVAC units

\*Reduces system downtime

\*Improves occupant comfort level

\*Substantially extends the life time of all A/C units

\*Environmental benefits – lower kW consumption reduces your carbon footprint

\*Reduction in water usage when compared to using sprinklers which are left on for long periods of time.

\*Can be retrofitted eo existing condensers without turning the HVAC system off.



