

Adiabatic Coolers

Cooling Tower Alternatives

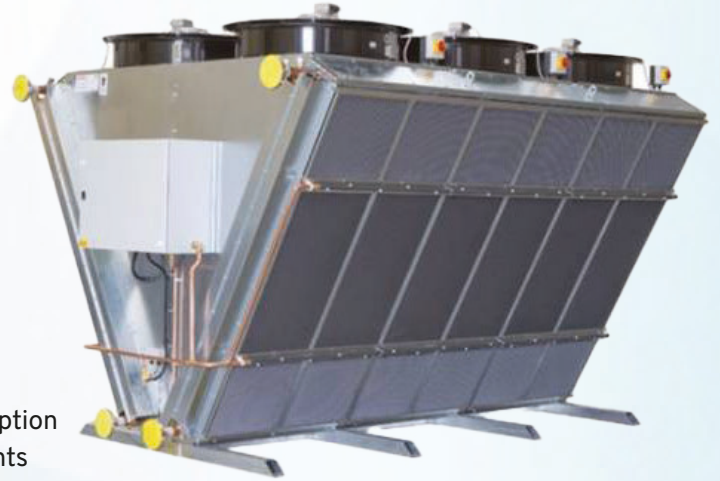
What are Adiabatic Coolers?

Summit Adiabatic Coolers reduce running costs, water use, chemical water treatment and stringent maintenance regimes associated with evaporative cooling towers.

Adiabatic cooling is achieved by reducing the air inlet temperature being drawn over the coolers coil block. This reduced oncoming air temperature, achieved by creating a fine mist at the coolers air inlet, allows the cooler to supply water temperatures as low as 25°C in the Summer period.

What are the benefits of Adiabatic Cooling?

- ▶ Save you money – by drastically reducing energy, water consumption and the need for costly chemical dosing. Maintenance requirements are also much lower in comparison to conventional adiabatic designs.
- ▶ Create a competitive advantage – through better quality and more uptime, due to consistent, precise water temperature control.
- ▶ Expand as you grow – our modular approach allows production facilities to install economical systems that can be easily expanded.
- ▶ Improve environmental sustainability – by saving extensive amounts of water and requiring zero chemical discharges.
- ▶ Operation in the UK as a dry air blast cooler for over 95% of the year
- ▶ No chemical water treatment
- ▶ No registration with local authorities
- ▶ Lower operating costs than cooling towers
- ▶ Lower water use than cooling towers
- ▶ Minimal maintenance
- ▶ No unsightly plumes of water vapour
- ▶ No contamination of the water circuit
- ▶ Multiple fans unlike a typical tower with one fan
- ▶ Extended Warranties



Cooling Tower Disadvantages

- ▶ Owners of evaporative cooling towers must register the unit with their local authority under the 'Notification of cooling towers and evaporative condensers regulations 1992 act'.
- ▶ A costly chemical water treatment regime is required for all cooling towers including chlorination's and cleaning. Responsibility and weekly record keeping of water quality for cooling towers is borne by the owner and must be kept up to date.
- ▶ HSC guidance on the control of legionella in water systems states that the option of dry cooling should be considered particularly when cooling towers are due to be replaced or when new cooling systems are planned.
- ▶ Cooling Towers by their very design evaporate water to remove heat and need constant water make-up to operate, a constant water bleed is also required to avoid the build-up of total dissolved solids in the system which creates cooling issues. This high-water use increases running costs further.



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April 2023