ics cool energy

DIGGING DEEP WITH ADIABATIC COOLING SOLUTIONS

The Challenge

Water costs at a global mine dewatering and slurry manufacturer were spiralling and an ageing cooling tower was the culprit. ICS Cool Energy recommended an efficient and water-saving adiabatic cooling system.

ICS Cool Energy:

"There is now a powerful and vastly more sustainable source of cooling that is truly future-proof."

WE MAKE IT WORK

The Solution

A global slurry and mining equipment provider headquartered in the UK needed a smarter solution to improve efficiencies and save water.

ICS Cool Energy surveyed the site and recommended an adiabatic cooler to replace the cooling tower. Typically the capital costs of an adiabatic cooler and its first 25 years of water consumption is less than a cooling tower's consumption in just one year so the payback is rapid.

The new adiabatic cooler is connected to the site's system by pipework that runs around the boundary wall. The return from the process is routed into a new 500 litre buffer tank before re-entering the cooler via standby process circulation pumps.

The Result

Adiabatic cooling provides a more sustainable alternative to cooling towers, minimising water consumption and running costs for a smarter and more sustainable means of temperature control.

Capable of extracting 1036kW with a wet bulb temperature or 18°C at the manufacturer's conditions, the adiabatic cooler has an anti-legionella UV filter to stamp out the risk of bacteria growth.

It functions at optimal efficiency through reliance on the system's fans for the majority of the year, with the water and spray facility only activated in high ambient conditions. This means that the company now has a lower cost and more sustainable alternative to its old system.

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