



FREE COOLING SAVES PACKAGING MANUFACTURER £120K A YEAR



THE CHALLENGE

With a focus on sustainability and the environment, our packaging manufacturing customer planned to upgrade their cooling plant across multiple sites to:

- Reduce energy and water consumption
- Reduce operational costs
- Boost and future-proof environmental profile in the food packaging sector
- Operate to industry best practice
- Reduce risk associated with maintaining chilled water systems

THE SOLUTION

We began with an on-site consultation and analysis of existing equipment. We undertook a review and a more detailed Energy analysis to compare the running costs of existing equipment against more efficient alternatives.

The cost of utilities, size of the unit, refrigerant, ambient temperatures, cooling capacity and power input are all taken into consideration to demonstrate the reduction in kWh and associated cost savings. The energy consumption and precis of the cooling equipment was then presented with several options to make improvements, along with the amount of energy that could be saved and the expected payback period. Following agreement on the improvements to be made, a full project proposal and system design was created by our in-house team for the following:

- Relocating from internal location to external location 4 off 54kW i-Chillers with the addition of a Free Cooler (reducing power costs from £49k down to £13k – saving £36k per annum)
- Cooling Tower replacement with a Chiller and Free Cooler at two sites (removing the risk of legionella and costs associated with water treatment and cleaning twice a year)
- Relocating from internal location to external location 2 off 125kW chillers with the addition of 1 off 213kW i-Chiller and a Free Cooler (reducing power costs from £70k down to £44k – saving £26k per annum)

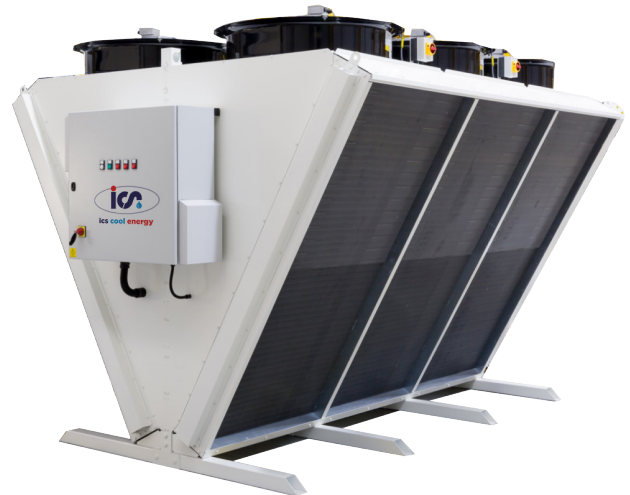
Once the project proposal was approved, the units and materials were delivered to sites, ready for the install and commissioning. Our full turnkey projects are fully managed on-site by our nationwide Contracts teams to ensure the projects run smoothly.

All equipment is backed-up by a planned preventative maintenance programme to keep the equipment as efficient as the day it was installed. Risk to production downtime is therefore minimised and production quality remains high – creating further energy and material savings.



THE RESULT

The cooling system now runs at a lower ambient temperature thanks to citing units externally to the manufacturing operation. The customer now complies with industry best practice and will benefit from the investment by saving £120,000 per annum from reduced energy and water costs which translates to 26,000 tonnes of water – helping to boost their green credentials and strengthening their position in the marketplace.



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