



THE FAST TRACK TO 85% ENERGY SAVINGS



The Challenge

A world-leading supplier of high performance transmissions and drive line components for the motor industry needed to expand its production facility. With the help of ICS Cool Energy, it did exactly that, achieving higher product quality and 85% energy savings using free cooling as well as a system payback of just two years.

ICS Cool Energy:

“Free cooling is the perfect way for any business to embrace new technologies for a win-win in temperature control solutions, with measurable energy savings and rapid payback.”

WE MAKE IT WORK

The Solution

A full consultation by ICS Cool Energy’s technical teams revealed that the site’s single furnace was cooled by an ageing 80kW chiller which used the ozone-depleting R22 refrigerant. An upgrade was urgent to comply with the R22 phase-out which came into force on 1 January 2015. The expansion plans included two new furnaces for the site to support the manufacturing process.

A powerful cooling process was needed so the product could be cooled rapidly after heating, with accurate temperature controls to tight tolerances.

- Free Cooling: using freely available ambient air
- Two iC412 i-Chillers, and two free cooling coils
- Rapid cooling of furnace process with water at 25°C



“Full consultation and optimum system design”

The Result

ICS Cool Energy’s solution included a free cooling system with which takes advantage of the low ambient air temperatures so often found in the northern hemisphere. It’s sustainable and energy efficient as it uses the freely available air to assist the water cooling process, keeping energy bills to a minimum.

The solution enables the furnace process to be cooled very rapidly with water at 25°C. Plus the units provide partial or 100% free cooling when the ambient air is 5°C below the required discharge temperature.

- 85% energy savings
- Low carbon footprint
- Two-year system payback
- High efficiency, high performance system

Date code: 12/16

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