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The Challenge

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The Solution

The Midlands-based company which specialises in surface coatings for precision-engineered components used in the military and defence sectors needed an efficient replacement for a life-expired system providing chilled fluid at 10°C to anodising tanks. A number of alternative solutions were developed by ICS Cool Energy’s engineers but the savings and payback offered by the heat recovery proposal made it an obvious choice with calculations predicting 45% energy savings on a chiller operating at 10°C. Another 5°C on the discharge temperature and the savings could increase to 50%, providing a payback in just two years.

- Air cooled chiller with full heat recovery using a heat exchanger
- 801kW of recovered energy is provided for 171kW of total power input, with a global efficiency ratio of 8.4
- Three-year extended warranty and maintenance contract for added peace of mind

“Capital equipment payback of 2 years and 45% - plus energy savings”.

The Result

Full project management for the installation meant that disruption to site and existing production was kept to a minimum and little input was needed from the customer or the site personnel. And with the equipment and new cooling system running, savings in excess of 45% were achieved, with a capital equipment payback of two years plus energy savings continuing each year after that, effectively halving the overall running costs.

Long term maintenance costs were also kept to a minimum as the manufacturer opted for a planned preventative maintenance contract so the equipment is regularly maintained and serviced by ICS Cool Energy’s skilled engineers.

Watch our video infographic which shows a heat recovery system in action https://vimeo.com/84569697

Richard Metcalfe  
Sales Director