

EXCALIBUR _case study

EXCALIBUR
Energy Efficient Management

38% energy saving for 2 Sisters

Like most organisations, 2 Sisters Food Group are coming under increasing pressure to reduce their environmental impact and control costs.

With this in mind engineering staff at the chicken products supplier's Haughley Park site contacted Excalibur to assess whether it was possible to improve the efficiency of their existing refrigeration.

Excalibur undertook a full survey of the refrigeration, recording all operating parameters which allowed the energy performance of each system to be modelled. Projections showed that following modification energy consumption could be reduced by over 35%.

Initially Roast 95 pack was selected for modification; this comprises 4 Bitzer OSK 7471 screw compressors and an air-cooled 7 fan condenser. The system is used to chill cooked chicken and is a 7 day / week operation.

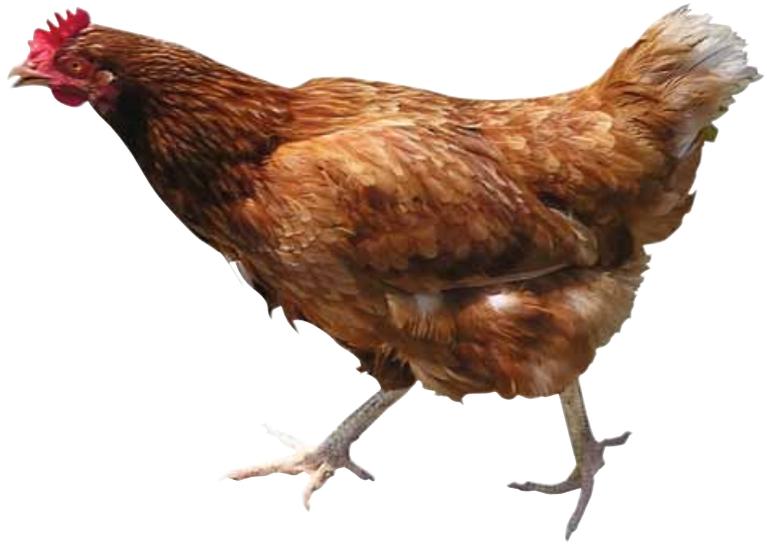
Excalibur undertook the installation of Liquid Pressure Amplification and Variable Speed Drive to control condenser fans. This allows compressor discharge pressure to be drastically reduced, improving efficiency and reducing mechanical wear. The work was undertaken with no disruption, pre-fabrication being completed during normal working hours and final connections made during a weekend shutdown.

A web-based refrigeration monitoring system was installed to establish the improvements in efficiency, the system being operated in bypass to establish a baseline efficiency before the Excalibur modifications were commissioned. The improved efficiency was immediately clear to see – energy consumption dropped by 38%, giving a return on investment of 15 months and an annual reduction in carbon emissions of 177 tonnes.

“Excalibur installed LPA and inverter control to our Bitzer screw pack, the work was completed to a very high standard with minimum effect to production. Monitoring over the first 12 month period showed a reduction in power consumption of 38%. Several evaporators which had been starved of refrigerant now achieve temperatures where previously they struggled.

“There have been no reliability issues and we are benefiting from a system which is not only energy efficient but also provides improved refrigeration performance.”

Engineering Manager
2 Sisters Food Group



EXCALIBUR testimonials

EXCALIBUR
Energy Efficient Management



Throughout the LPA project at Manchester Airport Excalibur provided a thorough and professional service ensuring the project was delivered on time with minimal operational disruption. The project delivered savings as quoted, the refrigerant change helped re-life ageing equipment and was seen as a great success.

Manchester Airport



Excalibur have installed Liquid Pressure Amplification and Intervers to 2 off 1300 kW data centre process chillers. The cooling system is critical to this business and Excalibur's professional approach provided the customer with the confidence to undertake the project. Their condition monitoring also raised several maintenance issues, which we were able to resolve during the contract. Initial monitoring is demonstrating a 46% reduction in electrical consumption.

UK NRG Ltd



I would like to take this opportunity to thank you and all others from within Excalibur involved with the development of this project, from my initial involvement through to today's handover meeting, all of which has run extremely well, with any issues uncovered being easily resolved by the proactive nature of you and your site team, which are a credit to Excalibur. Hopefully, in the not too distant future I will have the opportunity to call upon Excalibur's assistance and experience again on another LPA Project, though in between times I would thank you again for your support and guidance.

Norland Managed Services



Taking a leap forward



If you would like to understand more about how Excalibur can help you to reduce energy costs we offer a free no obligation survey.

Our report will identify the potential energy reduction and project cost. We are able to monitor the system prior to, and following the modifications to verify the improvements in efficiency.

We are an approved supplier for the Carbon Trust / Siemens finance scheme and can arrange a loan or lease to fund the project with repayments made from energy savings.

Contact Us!

EXCALIBUR
EXCALIBUR
Energy Efficient Management

Excalibur Energy Ltd

7 The Beacon Centre
Solar Way
Solstice Park
Amesbury
Wiltshire
SP4 7SZ

phone 01980 626490

fax 01980 626858

email info@excaliburenergy.co.uk

www excaliburenergy.co.uk