MAXSYS REDUCES GAS CONSUMPTION BY 6.58% AT BRITISH BAKELS

The installation of a Maxsys Fuel System at British Bakels Ltd, a leading manufacturer and supplier of quality ingredients to the bakery, confectionary and food service sectors, has cut the amount of gas consumed by its steam raising boiler by 6.58%, a result that will pay for the equipment within an impressively short period of just 14.5 months.

The Challenge

Founded in 1947 and now based in a new facility at Bicester, Oxfordshire, British Bakels commands a strong market position as a supplier of ready mixed, bespoke ingredient blends that save considerable time and effort for its growing list of customers. Part of the global Bakels Group that was founded by the Amsterdam based merchant brothers Bakels in 1904, the group now has 33 factories in 22 countries.

In the UK, products are formulated to suit each market sector and include bread, roll and morning goods, pastry products, savoury products, cake and sponge goods, confectionary products and ice cream goods. The 5.5 acre Bicester site operates 24 hours a day, five days a week and employs 150 people. The EFSIS-accredited manufacturing facility comprises a powder blending plant, a production unit for food ingredients in liquid and paste form, and a 2400 pallet space warehouse.

The wet factory has a range of mixing and cooking vessels allowing the production of products ranging from oil and fat blends through to release agents, liquid improvers, glazes, fudge icings and chilled RTU custard.

Part of the 'cooking' process is facilitated by a seven-year-old gas fired, steam raising boiler with a steam output of 2600 kg/hr. The same boiler, which is now incorporated in the main factory unit following a recent facility extension, also provides factory space heating as a secondary function.

"The reasons for examining the amount of gas consumed by our boiler were two fold," explains the company's Engineering and Powder Plant Manager Simon Dawson. "Firstly, we had a survey completed by the Carbon Trust around two years ago and they made some recommendations regarding how we could make a positive impact on our carbon footprint, one of which involved making more efficient use of fuel. Secondly, with the spiralling cost of gas it was in our interest to review our energy costs in order to sustain profitability. This enables us to continually re-invest in our business for the benefit of our customers."

The Solution

Having read a Maxsys Fuel System case study in a trade magazine, Mr Dawson made some enquiries that led to a site visit at Bicester. Within a short space of time the deal was concluded and work began in April 2008 to install the innovative Maxsys equipment to a NewAir burner that serves the steam-raising boiler at the plant.

Maxsys Fuel Systems are patented fuel treatment systems that improve combustion, and hence lower consumption, by applying a finely calibrated magnetic field directly to the fuel. There are no moving parts and the units are maintenance-free.

The Outcome

The installation followed a three-month period of data collection from the existing system to monitor gas consumption, with a similar post-installation exercise completed over a time span of six weeks.

"The results showed that we can expect to achieve a 6.58% reduction in annual gas consumption as a result of installing the Maxsys Fuel System," says Mr Dawson. "Our initial projection was for just 5% with payback achieved in two years. However, because we have exceeded this expectation we are now confident of seeing a return on our investment in just 14.5 months. We are naturally delighted with this outcome."

Further boosting the success of the turn-key project, a return visit by the Carbon Trust saw the organisation highly impressed with the efforts made by British Bakels and particularly of the performance of the Maxsys Fuel System.

"We operate in a competitive industry and so it's vitally important that we do all we can to be as energy efficient as possible," concludes Mr Dawson. "However, as a relatively large production facility we also have social responsibility and the Maxsys Fuel System is already contributing considerably towards minimising our carbon footprint. It's a win-win situation."

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