

Case note

Energy centre 14 percent more efficient with variable speed drives



Heinz' energy centre in the UK is 14 percent more efficient by using ABB standard drives.

ABB drives help control gas combustion

The Heinz factory at Kitt Green in Wigan produces over 1.3 billion cans of food a year, including soups, beans, pasta, infant foods and puddings. This huge production requires the generation of 100 tonnes of steam every hour, which is used for both space heating and sterilisation of canned foods.

The steam is produced in a energy centre which has four boilers. The energy centre replaces the existing boiler plant, which is now at the end of its operational life.

Each boiler has two gas-fired burners, fitted with fans to push air into the flame. These eight fans are controlled by eight ABB standard drives, rated 55 kW, which vary the speed of the fans to control the amount of air injected, depending on whether a high or low flame is required.

This ability to vary the flame to match steam demand is expected to make the energy centre 14 percent more efficient than the existing steam plant.

Barry Aspey, Environmental Compliance Manager for Heinz, says: "I specified variable speed drives for use on the plant so we could take account of the variations in demand. We have a six day a week operation and although steam demand stays reasonably flat, it does ramp up slowly over a period of 36 hours and ramps down over a period of 24 hours. It also varies from summer to winter, when there is a greater demand for heating and we also produce more soups."

Solved problem

- Inefficient old boiler plant whose output could not be varied effectively

Solution

- Eight ABB standard drives, each rated at 55 kW, installed on burners of steam generation plant

Benefits

- Energy centre is 14 percent more efficient than previous boiler plant
- Variable speed drives allow Heinz to take account of seasonal production demands
- Variable speed drives are more responsive than mechanical dampers, which tend to introduce a time lag when demand changes direction



55 kW ABB standard drives are used to control the fans.

For more information please contact:

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