

Summary

Industry:	Food - Dairy
Application:	Air Handling Units
Actual Saving:	£5,296
Payback Period:	22 months



Milking Optimum Drive Efficiency

Fenner Torque Drive PLUS 3 Belts increase application efficiency

ISSUE

A modern milk processing facility in West Yorkshire identified the need to review energy consumption throughout the whole production process. As a large user of electricity the Air Handling Units providing ambient air were identified and became the subject of an energy efficiency review by ERIKS.

SOLUTION

ERIKS undertook a survey which revealed that the processing factory was already considerably ahead in their energy efficiency goals. The client already had a number of 220kW frequency inverters installed which ensured that motor speeds were already adjusted for optimum efficiency.

However, the processing factory is always seeking continuous improvement and tasked ERIKS with discovering further improvements. Rising to the challenge, the team noticed that the frequency inverters are driven by foot mounted electric motors and wedge belt drives, and although there is a regular maintenance programme in place, the drive belts and pulleys were in various states of wear. ERIKS advised that replacement of the complete belt drives would produce efficiency savings.

After discussions with the end user it was decided to fit Fenner Torque Drive PLUS 3 (TDP3) Synchronous Belts and Pulleys on two selected drives. This was to operate as a trial to prove the efficiency savings achieved by replacing existing worn belts and pulleys with new drive sets.

Accurate kW/hr readings were taken on a "before and after" basis and an average saving of 7.5% was achieved. This resulted in projected annual savings of over £100 for the two trial units. Based on the results of the trial the decision has been made to change over all of the existing drives to the new Fenner TDP3

Again using the trial data it was calculated that the whole project to replace all of the belt drives would have a payback period of 22 months, with no disruption to the production process.

OTHER BENEFITS

- Fenner TDP 3 Belts have a positive drive with no slippage
- Quick delivery thanks to ERIKS stock-holding
- Limited wear and elongation with reduced maintenance
- Synchronous drive which retains efficiency

FURTHER COMMENTS...

An additional advantage of the synchronous belt drive is the potential to increase the period between routine belt inspections, reducing the overall cost of ownership.

MORE INFORMATION

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