



Summary



Industry:	Quarrying & Mining
Application:	Aggregate Drying Application
Actual Saving:	£11,000 pa
Payback Period:	n/a



Cost Savings through Energy Reduction

ERIKS expertise helps reduce Carbon Footprint by 100 tonnes of CO₂

ISSUE

We focused our attention on the aggregate drying application. The dryer exhaust fan, powered by a 240kW electric motor is used to draw hot air across the product inside the Benninghoven drier. The exhaust fan used a motorised inlet damper to regulate the air flow and pressure within the drier. The damper control, whilst effective, is not an efficient method of regulating fan output.

SOLUTION

We proposed that the damper is locked fully open, and the fan speed controlled by a frequency inverter. The inverter would interface seamlessly into the Benninghoven control system, by taking the control signals for the damper, and converting these into a fan speed command for the inverter.

Based on the duty cycle that the plant operated at, the inclusion of an upgraded wedge belt drive, and the improvement over fan and damper losses, the project yielded a 22% energy reduction.

OTHER BENEFITS

FURTHER COMMENTS...

The 22% energy reduction equates to a reduction in energy consumption of 188MWh per year, which reduces the site's carbon footprint by 100 Tonnes of CO₂, saving approximately £11,000 pa.

MORE INFORMATION

ERIKS Industrial Services

Amber Way, Halesowen,
West Midlands B62 8WG

Tel: 0845 006 6000

Web: www.eriks.co.uk

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