



Summary



Industry:	Construction
Application:	Kiln Fan Motors
Actual Saving:	£8,470 per annum
Payback Period:	N/A



Motor efficiency review identifies energy savings

Overall carbon footprint also reduced at the same time

ISSUE

A large manufacturer of bricks with sites throughout the UK, asked ERIKS to evaluate the efficiency of their kiln fan motors and to advise what the cost effectiveness of replacing the existing ones with IE3 electric motors would be, opposed to rewinding their motors that fail as their current practice was.

SOLUTION

All of the motors on the kiln fan drives were surveyed, and found to be 15kW, 2 pole machines in a 160 frame with a combination of EFF1 and EFF2 efficiency. The kiln ran 24/7 so had an annual running time of 8,500 hours per year.

Using their online tool - the Total Cost of Ownership Calculator, ERIKS technical support engineers were able to quickly calculate the running costs of the existing motors then offer a comparison against repairing or replacing with new.

Based on an energy unit cost of 15p per kWh the annual running costs were calculated:

Rewound EFF2 motor - £16,275 p/a

New IE3 motor - £15,505 p/a

ERIKS found the potential saving that could be made was £770 per motor, per year, based on using WEG IE3 premium efficiency motors, giving a total saving per kiln of £8,470.00 p/a (based on each kiln being fitted with 11 new fan motors).

The use of premium efficiency motors can significantly reduce energy consumption and in doing so reduces a machines carbon footprint which to a responsible blue chip company like this comes high on their list of requirements.

WEG W22 Range IE3 motors were chosen to replace motors which eventually failed onsite. For the company, knowing that they can replace very quickly with a high quality WEG product that gives them the advantages detailed in the ERIKS Total Cost of Ownership report meant that they had no problem signing off a cost saving report .

OTHER BENEFITS

- IE3 new specification motor is 92.9% efficient at 100% FLC
- Qualifies for the enhanced capital allowance scheme
- Reduces carbon footprint and therefore tax via carbon reduction scheme
- Clear purchase path to take when motors fail

FURTHER COMMENTS...

If the motors fail on plant they will be replaced on an as and when basis.

MORE INFORMATION

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