



Summary

<b>Industry:</b>	Metals
<b>Application:</b>	Aluminium Smelting - Cumbria
<b>Actual Saving:</b>	£1,030 pa
<b>Payback Period:</b>	2.5 Months



# Fan Drive Replacement Proves Energy Efficient

Energy efficient fan drive reduces costs at Aluminium Smelting site

## ISSUE

An essential part of the production line at an Aluminium Smelting site in Cumbria is a large process fan that operates 24 hrs per day. Driven by a single 64/43 kW 4/6 pole electric motor via three SPC conventional wedge belts, ERIKS calculated that, providing the pulleys were new the fan would be operating at 92.2%. In reality efficiency was significantly less due to losses caused by the worn pulleys. As a result ERIKS engineers were asked to find a more efficient fan drive to save energy costs.

## SOLUTION

To improve the efficiency of the fan drive ERIKS installed a replacement based on three XPB section pulleys that were smaller and lighter than the originals. Matched with Fenner Quattro Plus premium cogged raw edge wedge belts, the new system provided operating efficiency of 95%, resulting in significant savings over the old assembly.

The total cost to the client of the new drive system was approximately £200, but it has been calculated to save £1,030 pa with energy costs of £0.07 per kWh. Using these energy costs the payback time of the new pulleys and belts would be just two and a half months with the current levels of duty.

## OTHER BENEFITS

## FURTHER COMMENTS...

"By replacing the old pulleys the both the efficiency of the drive system has been improved as well as the reducing the wear life of the belts, cutting maintenance time and associated costs."

## MORE INFORMATION

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