



Summary

Industry:	Defence
Application:	Air Handling Units
Actual Saving:	£21,017
Payback Period:	n/a

Drive Redesign Cuts Costs for BAE Systems

ERIKS expertise provides BAE Systems with a problem solving, cost cutting solution

ISSUE

BAE Systems at Samlesbury were experiencing problems with five of their air handling units, even with inverters fitted, the units were currently running at 35Hz, higher than the desired optimum speed of 25Hz.

If the units were running at their optimum speed of 25Hz they were faced with harmonic vibration in the motor/drive/fan assembly/base which was causing the belts to twist in the groove and fail. In addition, problems were also encountered at start-up where severe vibration often threw the belts out of the pulley grooves, again causing failure, not to mention a health and safety risk.

SOLUTION

Following a site visit and consultation with Dave Johnson, one of ERIKS Drives Technical Specialists, it was agreed that the best method to combat the problem, would be to change the mass of the driving element. This was achieved by using a banded belt instead of the 4 separate SPB section belts used originally. This in turn changed the natural harmonic frequency of the whole drive assembly.

After fitting the banded belts the fan was able to run at the required speed of 25Hz, without any recurrence of the vibrations that had been encountered with the original set up. This saved BAE Systems in excess of £21,017 per annum.

Not only did the drive redesign solve the initial vibration problem, but also provided BAE Systems with a considerable cost saving on their running costs. The combined saving of the redesign and subsequent reduced running speed will, over a year, equate to a significantly large amount of cost savings.

OTHER BENEFITS

FURTHER COMMENTS...

ERIKS technical expertise provided BAE Systems at Samlesbury with a drive re-design which solved their vibration issues and saved them a cost of £21,017

MORE INFORMATION

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