



Summary

Industry:	Power Gen - Renewable
Application:	Abstraction Pump
Actual Saving:	£11,000
Payback Period:	n/a



Improved OEM component supplied

ERIKS reverse engineer obsolete OEM part

ISSUE

The installed pump unit is a split case horizontal unit and because there was a significant level of silt in the water, the unit had suffered high levels of erosion. The impeller required replacement and after approaching the OEM for a price and delivery it transpired that they needed to manufacture a new pattern due to obsolescence. The cost of a new impeller was expensive with a delivery quoted at 22 weeks. The casings were also found to require some remedial work.

SOLUTION

Using a "3D Coordinate Measuring Machine" to scan the original impeller to gain the hydraulic profiles, we then created a virtual 3D model and produced CAD drawings. We then were able to reverse engineer a new impeller that cost significantly less than the OEM, with a lead time of around 6 weeks. Some additional machining was carried out to the casings to allow for oversize wear rings to be fitted. Spectral analysis of the original material ensured that we were able to provide a product of improved standard to the OEM component.

OTHER BENEFITS

- Due to the unit having significant levels of erosion ERIKS were able to improve the grade of the material so it offered greater resistance to future erosion.

FURTHER COMMENTS...

This application shows how by using the latest "3 D Scanning Technology" it is no longer necessary to be locked into the OEM for supplying of cast parts where obsolescence is an issue.

MORE INFORMATION

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