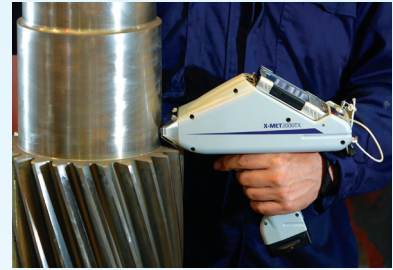


On site material analysis



There are a large number of common and exotic metallic materials found in power stations and process plant. Records of the exact composition of these alloys are not always available, hence the need for an accurate, reliable and cost effective on-site analysis inspection methodology.

The Problem

The determination of material composition is important for a variety of reasons; from QA and defect investigation, to sorting and reverse engineering. Traditional on-site material analysis tools such as the metascop rely heavily on operator interpretation and may struggle with the more exotic alloys encountered on modern power plant.

The Challenge

To invest in and develop a system that rapidly determines material composition in on-site situations, without the need for time consuming laboratory analysis.

Our Solution

The implementation of a portable computer based X-ray fluorescence (XRF) instrument, with an on-screen break down of material composition, supported with portable hardness testing and conductivity measuring equipment, for a more comprehensive material profile if required.

Product

- instantaneous results of material composition
- break down of each element present as a percentile
- ease of on-screen data visualisation coupled with electronic transfer capability for permanent history
- accurate on-site hardness measurements
- conductivity measurements (e.g. for assessing heat damaged material).

Benefits

- time/cost savings from rapid analysis results
- time/cost savings from reduced laboratory time
- improved confidence in 'goods-in' QA and rapid reverse engineering circumstances
- extend plant life through improved data for metallurgical appraisal.