



# Motion Amplification™

Advanced technology to enhance machinery availability and reliability services

Vibration is one of the major causes of unplanned maintenance and early degradation on rotating equipment and the associated structures and pipework.

The ability to detect movement can prove key in minimising downtime; helping to ensure maximum reliability as well as operational performance of the asset.

Through the use of state-of-the-art technology Quartzelec can now measure vibration in a way that exposes complexity and interactions not visible using traditional measuring techniques nor to the naked eye.

A portable HD digital camera - captures short video images before processing millions of pixels of data through specific algorithm programs to detect motion and vibration with a high degree of accuracy.

These images are enhanced to allow the moving picture to present vibration in a very visual way that clearly gives an understanding of vibration issues without the requirement for any detailed technical knowledge.

As well as delivering our customers the visual representation of the vibration seen, Quartzelec specialist engineers can use this data to pinpoint areas of concern both pictorially and graphically, to assist in root cause analysis.

As there is no requirement to physically touch the assets; large, complex assemblies and discrete components alike can be 'visualised' using the same equipment, simply by changing lenses and without any interruption to production or requirement to shut machines down.

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## Typical Applications

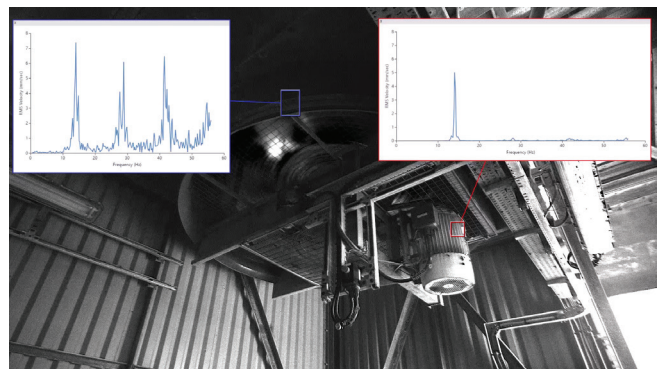
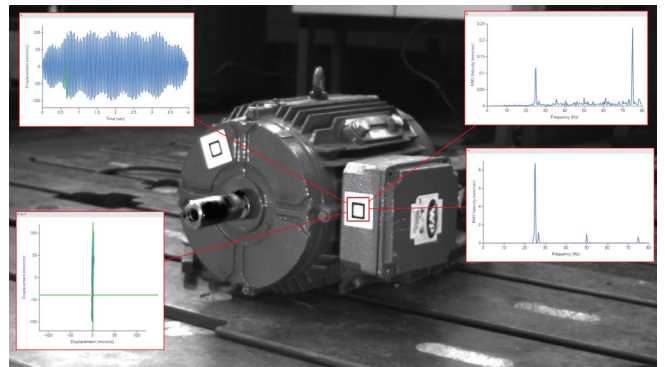
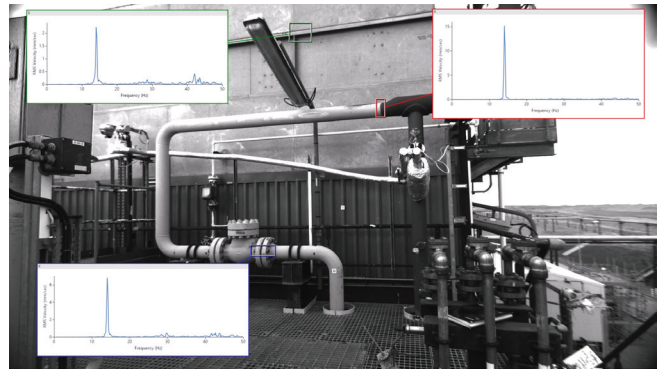
- Motors / generators / pumps / compressors
- Baseplates / pipework / valves
- Support cable trays / junction boxes / cables and glands
- HVAC / fan units / ducting

## Benefits

- Useful for safety inspections/surveys
- Cost savings compared to traditional techniques
- Quick and efficient results
- Visual reports available
- Ability to 'visualise' machine faults
- Helps pinpoint faults and causes

## Preventative Maintenance

- Identify potential issues before failure
- Compliments condition monitoring strategy
- Visualise the cause and solution
- Improve reliability and availability



On completion of any Motion Amplification™ survey undertaken, Quartzelec will issue a detailed report in video format, highlighting faults that would have previously been invisible to the naked eye. Detailed vibration waveforms supporting further analysis for potential solutions will also be provided.

## Key Contact Information

To request a quotation or further information  
please contact

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