

## Monitoring Offerings

# Vibration Sweeps



Vibration analysis is a well established engineering discipline and is proven to deliver valuable information about the health of a machine. However, to really understand vibration data, one first has to understand the design of the system that is being monitored.

Romax provide a vibration sweep service using portable data loggers as an alternative to installing permanent vibration condition monitoring systems. This greatly reduces your capital expenditure whilst still delivering the core benefits of drivetrain monitoring.

Romax experts analyse the data using advanced algorithms and produce detailed condition reports highlighting areas of damage or concern, then a set of recommendations as to how to correct, mitigate and prevent the issue reoccurring.

Vibrations sweeps detect potential damage and areas for concern in the drivetrain, including:

- Gearbox
- Main bearings
- Generator bearings

Romax's core strength in vibration analysis comes from a strong basis in drivetrain design and gear and bearing technology. By focussing on research and development using real-world data, Romax has developed unique algorithms and metrics for vibration monitoring

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## Who we are

For over 25 years Romax has been a global leader in providing solutions to design, develop, deploy and monitor drivetrains across industry. These solutions deliver a proven combination of innovative technology, engineering excellence and design expertise to optimize business performance while reducing carbon emissions.

As the world's leading independent designer of wind turbine gearboxes and drivetrains, Romax has over 25 designs GL certified and in production ranging in capacity from 750 kW to 6 MW. We have an unparalleled understanding of wind turbine drivetrains.

## Example service scope

The project scope varies depending on current turbine set up and architecture, but generally include:

### 1. DATA COLLECTION

Data is collected and collated either from an existing CMS or SCADA system or via Romax's portable data loggers.

### 2. DATA ANALYSIS

Key data is analysed by Romax experts, for example SCADA, CMS, oil/grease samples, maintenance records, manufacturing data etc.

### 3. ACTIONABLE REPORT

A report is produced and delivered detailing the findings of the vibration sweep and any issues or indications of damage to the drivetrain. If problems are found, the report recommends the next steps to correct, mitigate and prevent the issue reoccurring.



**Romax Technology Limited**  
Rutherford House  
Nottingham Science & Technology Park  
Nottingham  
NG7 2PZ  
United Kingdom  
**T: +44 (0) 115 951 8800**  
**F: +44 (0) 115 951 8801**  
**E: [sales@romaxtech.com](mailto:sales@romaxtech.com)**  
**[www.romaxtech.com](http://www.romaxtech.com)**