



## WÄRTSILÄ OFFLINE VIBRATION ANALYSIS SERVICE FOR PROPULSION AND OTHER ROTATING EQUIPMENT

Propulsion and other rotating equipment are under extensive strain throughout their lifecycle. The Wärtsilä Offline vibration analysis service for propulsion and other rotating equipment will help you make the right maintenance decisions at the right time, enabling you to maximise the uptime of your machinery and avoid unplanned downtime.

This subscription-based expert service evaluates measurements taken from your propulsion, generators, gears, pumps, electric motors, compressors and other rotating equipment and diagnoses their exact condition. After the data has been gathered, experts analyse the information and produce clear reports that include the evaluation of equipment health and recommendations. This will help you predict and prevent potential equipment failures and schedule maintenance accordingly.

### VIBRATION MEASUREMENTS WITH PORTABLE DEVICE

The procedure starts with a Wärtsilä expert preparing a measurement plan based on the properties and possible symptoms of your equipment. A service engineer then takes the measurements with a hand-held device. When there is a need for regular measurements, Wärtsilä can also train your crew to carry out these operations.



When the data has been accumulated, an expert from Wärtsilä analyses the vibration data in accordance with ISO 18436:2 standards. The analysis diagnoses possible component faults and structural issues, such as defected bearings, misalignment, unbalance and hydrodynamic issues. The evaluation of vibration velocity over all values are compared with respective ISO standards.

### KEY BENEFITS

- Optimise your maintenance and reduce your propulsion and other rotating equipment maintenance costs.
- Avoid unplanned downtime.
- Increase operational predictability.



Wärtsilä Experts report the measurement and analysis results and make recommendations for improving the performance of your equipment.

### ANALYSIS REPORT

The experts at Wärtsilä compile a report based on an in-depth analysis of the measurements. The report contains the specifications of the installation, details of the measurements and the findings and recommendations based on the analysis. The installation specification describes the forcing frequencies, such as blade pass and gear mesh as well as bearing information used during the analysis. The report also includes all overall vibration velocity (RMS) levels of the measured equipment.

The findings and recommendations of the Wärtsilä Experts describe in detail the observations that were made as well as include practical advice on needed follow-up measurements.

If potential failures are found, a second measurement is often recommended to enable trending the progression of the failure. Extended periods of operation are often still possible in these situations, for example in bearing and gear failures, if they are stable.

### SCOPE OF SUPPLY

- Measurement plan
- Measurements/  
training on how to measure
- Analysis
- Report and recommendations

The Offline vibration analysis service for propulsion and other rotating equipment is suitable for all kinds of vessels and their onboard rotating equipment.

### THE SERVICE CAN BE USED FOR:

- spot check measurements to avoid unplanned delays when docked
- case by case troubleshooting
- regular condition monitoring when continuous measurement is not needed.