



# Vibtek Ltd

Reliability Engineering



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[www.vibtek.co.uk](http://www.vibtek.co.uk)

# EAGLE



**EAGLE** Smart Wireless Solution  
Condition monitoring installation has never been so easy!!

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**EAGLE** is **ONEPROD**'s easy-to-deploy continuous monitoring system for condition-based maintenance.

**EAGLE** eliminates wiring, meaning that you can easily instrument more of your critical machines. **EAGLE** offers outstanding performance, ensuring optimal process reliability with minimal maintenance costs.

This new smart wireless solution enables early fault detection through analysis of dynamic vibration signals.

## EASILY ENHANCE THE RELIABILITY OF YOUR FACILITIES



### UNIQUE MEASUREMENT CAPABILITIES

**EAGLE** automatically acquires vibration signals (including time waveforms and FFTs) on one or three vibration axes, together with temperature data.

Your machines are kept under close watch: Smart enough, **EAGLE** automatically trigs measurements if the vibration levels exceed predefined threshold limits.

Signals of up to 16 K-samples are transmitted wirelessly, for accurate and targeted diagnosis of all kinds of faults on all types of rotating machinery.

### DESIGNED FOR HARSH ENVIRONMENTS

Right from the design phase, the materials used were selected to meet detailed and demanding specifications.

With ATEX Zone 0 certification, **EAGLE** offers appropriate solutions in places where wiring is costly or too complex.

A true alternative to manual data collection, **EAGLE** enables automatic measurements to be taken safely in extreme conditions!

# → UNRIVALLED EASE OF DEPLOYMENT

## WIRELESS ANYWHERE

**EAGLE** is a self-powered wireless sensor. No cables are needed.

- **Autonomous:** the sensor acquires data with no external intervention
- **Up to five years of unattended operation**
- **Data is transferred wirelessly** to the ONEPROD NEST condition-based maintenance software
- **Expand boundaries:** Use of Wireless Expanders to reach the most isolated machines



## ATTACH AND GO!

**Attach** the sensor to the machine.

**Position** your gateway at an appropriate distance depending on your environment (up to 100 m).

**Add wireless Expanders** to increase the range and turn around obstacles.

**Start** acquisition from your ONEPROD software interface.

**Your data is there, ready for processing!**

## MOVE AND MONITOR!

It is not always feasible to monitor all critical production facilities continuously.

The solution: temporary monitoring

**EAGLE's** ease of deployment means that it is particularly suitable for such cases. Doubts about a machine that isn't monitored? Nothing could be easier: simply move sensors and start monitoring it!

That should give you some new ideas for improving the reliability of your facilities!



## RELIABLE COMMUNICATION

**ONEPROD** offers a proven smart solution for wireless communication capable of operating alongside other networks used in industry, such as WiFi, Bluetooth and Wireless Hart. The communication quality is guaranteed using smart algorithms to avoid interference with systems in the unit's environment!

**EAGLE** uses the 802.15.4 protocol which guarantees safe conditions for people, facilities, and security of data.





# BENEFIT FROM ALL THAT ONEPROD HAS TO OFFER

## A CENTRALIZED SYSTEM

**EAGLE** is totally integrated with the ONEPROD system.

Process data from **EAGLE** using the powerful range of analysis and post-processing tools available in ONEPROD NEST software: advanced vibration indicators, calculations covering all historical data, concatenated spectra, 3D spectra, Shock Finder filter, and more.

Regardless of how many machines you have, your entire installed base equipped with **EAGLE** sensors can be supervised remotely from any Internet browser using the NEST SUPERVISION module.



***“Doubts about a machine that isn’t monitored? Nothing could be easier: simply move sensors and start monitoring it!”***

## TAILORED SUPPORT

**EAGLE** eliminates implementation constraints and enables you to benefit from targeted support on a particular machine from ONEPROD experts.

Avoid a production shut-down that could have disastrous financial consequences!

*For more information, see [www.oneprod.com](http://www.oneprod.com)*

## MONITORING OF COMPLEX MACHINES

Monitor machines with varying operating conditions using **EAGLE**.

ONEPROD's expertise is embodied in this new wireless solution for monitoring even the most complex machines!

Information about the operation of your equipment is used to direct the monitoring system. The repeatability of measurements ensures that diagnosis are even more pertinent and analyses are even more effective.



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# → A HIGH-PERFORMANCE INDUSTRIAL SOLUTION

## EASY INSTALLATION

- Cable-free installation
- Use of wireless Expanders to reach the most isolated machines
- Up to 50 sensors per gateway

## UNIQUE PERFORMANCES

- 1 or 3 vibration axes + temperature
- FFT up to 20kHz analysis
- Measurement on alarm
- Monitoring of machines starting from 100RPM

## EASY MAINTENANCE

- Up to 5 years of unattended operation with several measurements per day
- Standard low cost battery replaceable by the end user

## ONEPROD METHODOLOGY

- Repeatable measurements: management of operating conditions
- No false alarms

## RELIABLE WIRELESS COMMUNICATION

- Immunity to interference with other wireless networks (WiFi, Bluetooth, Wireless HART, proprietary protocols)
- Secure data
- Very low power transmissions to ensure safe conditions for people and facilities

## SUITABLE FOR HARSH ENVIRONMENTS

- ATEX Zone 0 certification (Class I Div I) for both the EAGLE sensor and the Expander
- Withstands corrosive environments
- withstands a 120°C contact temperature
- IP67

