




FALCON Smart Portable Solution

Condition monitoring has never been so easy!!



With **FALCON**, **ONEPROD** offers a collection, analysis and balancing tool with outstanding performance, accessible to all users.

ONEPROD has distilled its 30 years of experience with condition-based maintenance into **FALCON**. Highly experienced and novice users alike can now easily monitor machine vibrations and obtain highly pertinent results.

CONDITION MONITORING FOR ANYONE



A HOST OF INNOVATIONS

FALCON provides the best that technology has to offer, in an innovative product meeting the needs of all users.

Powerful yet easy to use, **FALCON** makes optimum productivity available immediately.

Right from the outset, **FALCON** stands out with its wireless sensor, large color touch screen, automatic detection of measurement points via QR Codes, built-in accessories including a pyrometer, stroboscope and camera, shock-resistant design, and more.

Nothing has been left to chance!

WIRELESS

FAST

AUTOMATIC CONFIGURATION

AUTOMATIC DIAGNOSIS

ALL-IN-ONE



RELIABILITY IN AUTOMATIC MODE!

AUTOMATIC CONFIGURATION

Any user can now set up vibration monitoring configurations with no expert assistance: All it takes is a straightforward kinematic description of the machine in the visual tool.

Child's play!

AUTOMATIC DIAGNOSIS

FALCON's built-in automatic diagnosis module provides unbeatably relevant and dependable results.

All faults commonly encountered in industry, such as unbalance, misalignment, defective mountings, looseness, friction, structural resonance, lubrication defects, bearing defects, gear defects, pump cavitation and more, are detected.

Faults are identified in clear and accurate language, and displayed with an associated confidence level. The result, displayed instantaneously, can be understood by all.

The screenshot displays the FALCON software interface. On the left, the 'Machine properties' section includes fields for 'Instrumentation' (Minimal), 'Setup Auto mode' (Automatic Diagnosis), 'Parameters' model, 'Machine type' (Fixed Speed), 'Sensitivity (mV/Hz)' (0.01), 'Speed unit' (RPM), and 'Main direction (vert)'. Below this is the 'Component properties' section. The main area shows a schematic diagram of a machine with a motor (M), a gear, and a shaft. A pop-up window titled 'FAN YPZ244' displays the following information:

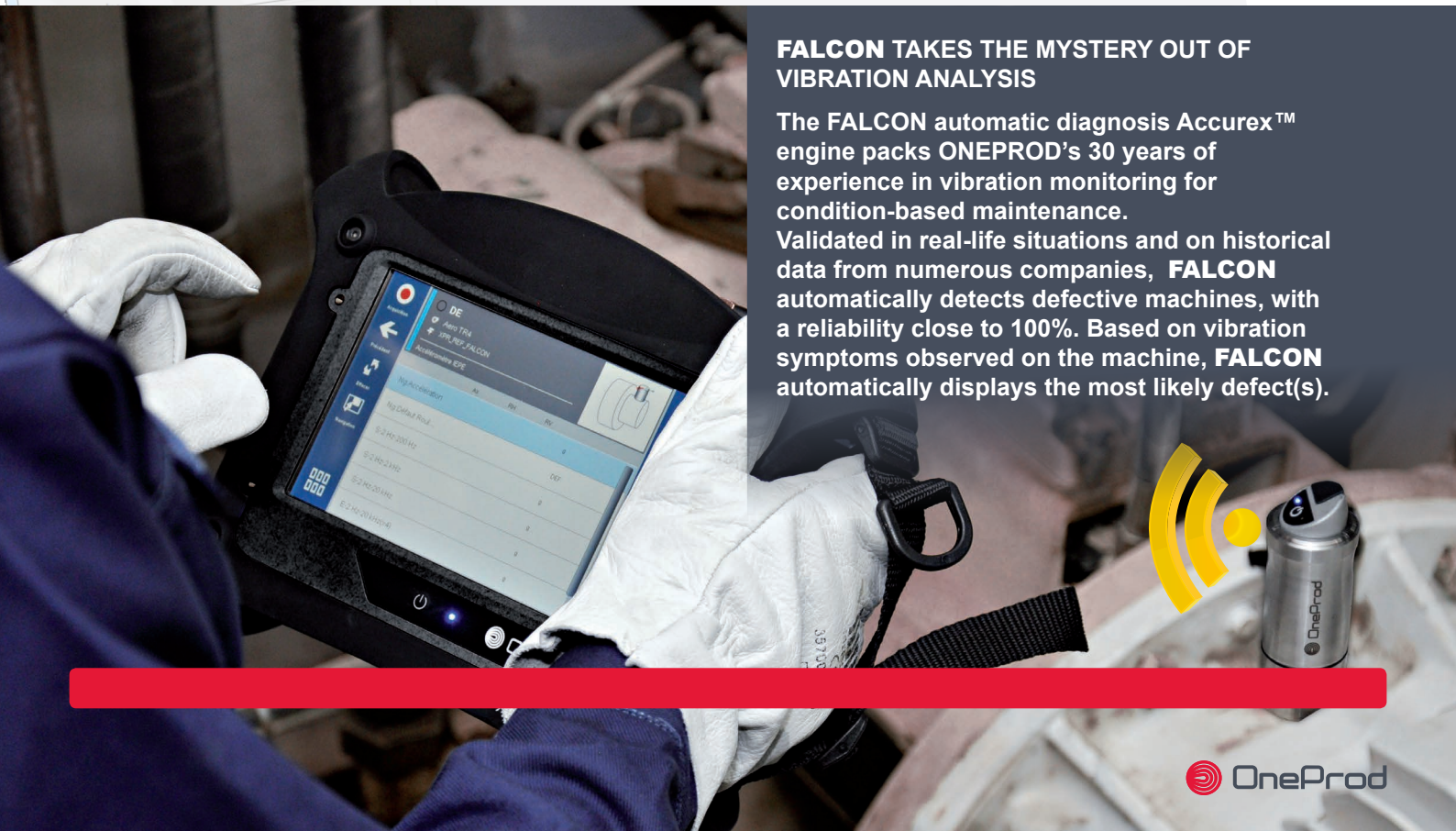
- Location: Drying workshop, Tour burning area #2
- Speed: 1234 RPM
- Date/Time: 15/06/12 15:36:24
- Points: 6/6 points

The pop-up also shows a warning: 'Dangerous global state for component Fan : it is recommended to stop the machine. Good global state for component Motor.' Below this, a table lists detected faults:

	severity	confidence
Bearing defect : wear	Red face icon	★★★★★
Unbalance	Yellow face icon	★★★★☆

FALCON TAKES THE MYSTERY OUT OF VIBRATION ANALYSIS

The FALCON automatic diagnosis Accurex™ engine packs ONEPROD's 30 years of experience in vibration monitoring for condition-based maintenance. Validated in real-life situations and on historical data from numerous companies, **FALCON** automatically detects defective machines, with a reliability close to 100%. Based on vibration symptoms observed on the machine, **FALCON** automatically displays the most likely defect(s).



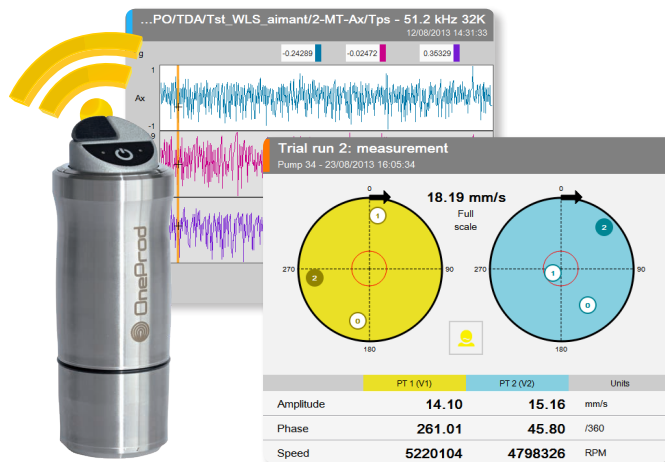
→ OPTIMAL PRODUCTIVITY

WIRELESS

The exceptional measurement capabilities of the **FALCON** three-axis wireless sensor make a genuine contribution to productivity. Synchronous acquisition reduces data collection times.

After quickly mounting the wireless sensor, measurements can be made remotely and safely.

Data point identification and sensor positioning are automatic. The monitoring controls repeatability is thus ensured. Most measurement errors stem from connections and wiring: with **FALCON** this is a thing of the past.



UNRIVALLED PERFORMANCE

FALCON offers exceptional real time processing capabilities, making it the fastest collection device on the market!

It has never been so easy to identify critical speeds: synchronous acquisition of 4 vibration channels and rotation speed makes the measurement easier. Also, patented Bode-Ellipse technology allows neglecting the direction-based uncertainty.

QUICK AND EASY BALANCING

With automatic simulation tools and assistance in positioning weights, **FALCON** is the benchmark tool correcting unbalance issues on site.

FALCON provides intuitive visual assistance to guide users through operations. The results are automatically compared against standards to ensure accurate balancing. A report showing all data, graphs and photos is automatically generated in a single click!

FALCON reduces intervention times:

- Wireless three-axis measurement
- Real time processing
- User guidance

At the scale of an industrial site,
FALCON really stands out!





THE NEW GENERATION IN CONDITION-BASED MAINTENANCE

QUICK AND EFFECTIVE

- Synchronous three-axis collection with a single sensor
- Simultaneous 4-channel acquisition at 40 kHz + tachometer, 2 channels at 80 kHz
- Real time processing
- Long time waveform, up to 80 seconds at 51.2 kHz (4 Mega samples)
- More reliable identification of critical speeds based on patented Ellipse Spectrum technology

WIRELESS

- Measurements taken in total safety
- Enhanced productivity: easily installed with one hand, reducing intervention time
- No measurement errors
- No wires: reduced maintenance and transport costs



AUTOMATIC

- Automatic configuration
- Automatic diagnosis
- Automatic recognition of measurement points

7" DISPLAY

- High definition
- Readable even in bright sunlight
- Touch screen usable with gloves



COMMUNICATING

- USB, WiFi, Ethernet, Internet
- Remote display mode: the **FALCON**'s screen is displayed on a PC
- Remote control of the CMS platform
- Results easily exchanged via the **SUPERVISION** tool

ALL-INCLUSIVE

- Built-in rotation speed measurement (stroboscope)
- Built-in pyrometer with laser sight
- Built-in camera for recording sensor positions, inspection photos, and so on



SUITABLE FOR HARSH CONDITIONS

- ATEX Zone 2 certification
- IP65
- Withstands a 1.2 meter drop

About ACOEM Group

Reduce your environmental impact

In today's fast-moving world, the environment is increasingly impacted. The ACOEM Group is committed to sustainable development and helping companies and public authorities limit their environmental impact by offering products and services that:

- Prevent and control air, noise and vibration pollution
- Increase the productivity and reliability of industrial machinery
- Contribute to the development of effective, robust & noiseless products
- Protect soldiers, sites and vehicles in military operations.

Across the world, ACOEM's 670 employees innovate in the measurement, analysis and control of all environmental parameters through the 01dB, ECOTECH, ONEPROD, FIXTURLASER, MEAX and METRAVIB brands.

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