

# Condition Monitoring Solutions

Availability optimization  
for machines and plants



**Products & Services**

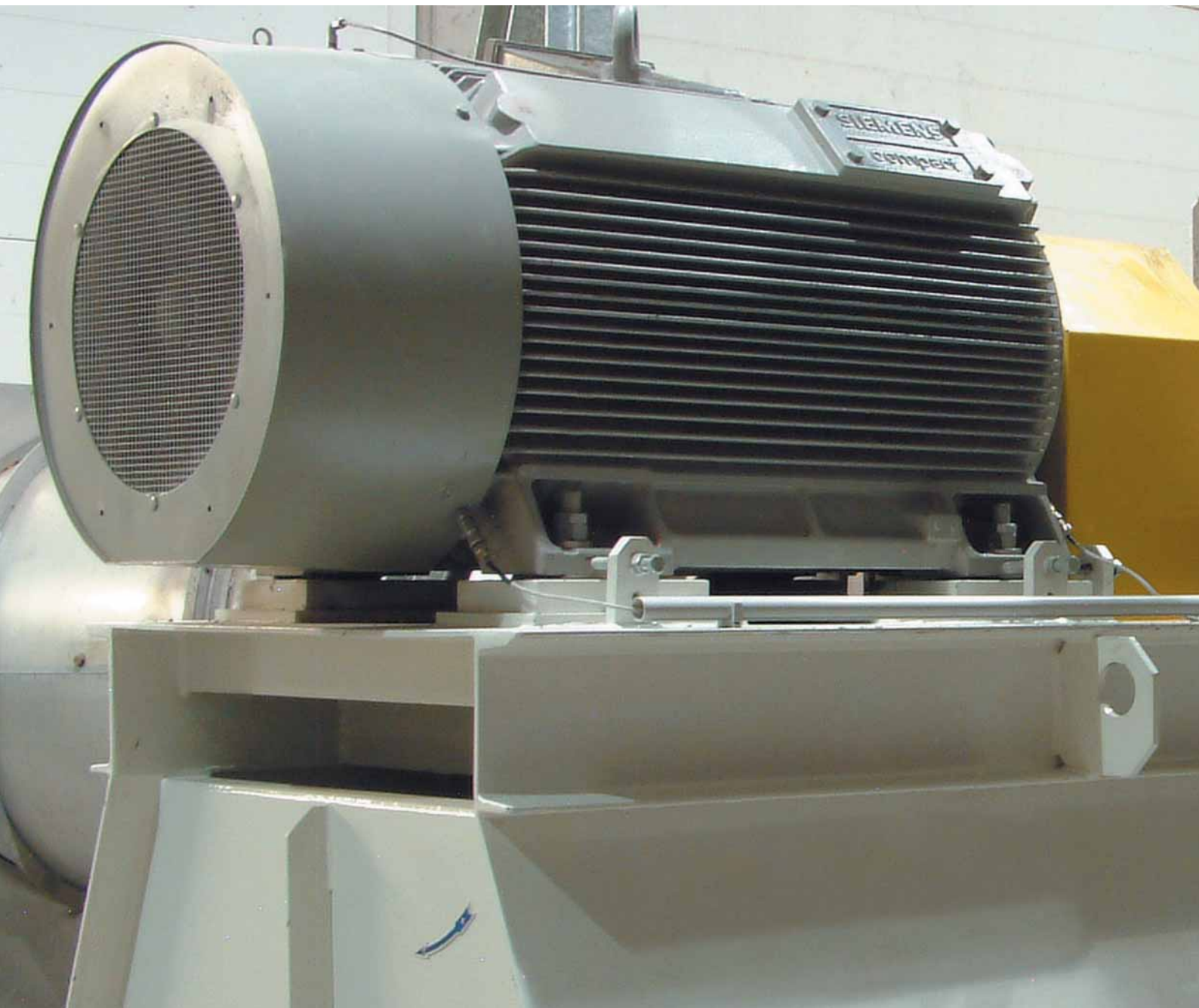
# Professional solutions

Unscheduled downtime puts a dent in your productivity and operating results. You can rely on condition-based maintenance (CbM) to keep your systems fit.

PRÜFTECHNIK Condition Monitoring supports you with innovative products and expert service.

Your benefits:

- ▶ Reduced rate of machine failure
- ▶ Limited unscheduled downtime and interruptions in production
- ▶ Smooth production process
- ▶ Increased system availability and productivity



# for machine monitoring & machine protection

Everyone involved in maintenance has certainly already heard of 'condition monitoring'. Condition monitoring simply means that every machine is regularly subjected to a 'health check' – normally with a vibration inspection: in the simplest case, the measurement instrument used to perform this check provides a numerical value that can be compared with a standard value to indicate the machine states, Good - OK - Bad.

Production critical machines and less critical machines, large and small industrial plants, discrete and distributed plant locations, operators and service providers: each of these diverse applications requires its own special monitoring strategy with customized condition monitoring solutions.

These pages provide an overview of the PRÜFTECHNIK product and service range.



## Mobile data collection & analysis

Portable vibration measurement equipment for the routine assessment of machine condition is used on systems with a low failure rate, slow damage progression and limited consequential damage, as well as on machine trains with redundancy.

Data collection takes place in the course of routine inspection runs and individual measurements (troubleshooting). If measurement values are elevated, the devices provide information on possible damage causes.



## Product Overview

**VIBXPert®** – Two-channel FFT data collector, signal analyzer, balancer and data recorder.



**VIBXPert® Ex-** Approved for use in explosive atmospheres.



**VIBSCANNER®** – Measurement data collector, vibration analyzer, balancer and data recorder.



**VIBROTIP®** – Measurement data collector for the five critical machine condition parameters.

**VIBTOOL®** – Intrinsically safe machine analyzer.



**VIBCODE®** – Vibration transducer with automatic measurement point identification for all systems – guarantees consistently reproducible measurement results, regardless of who takes the readings



# Online monitoring & machine protection systems

Permanently installed measurement systems monitor production critical machines around the clock. They are therefore ideal for machine trains with high downtime costs, high failure probabilities or

rapid damage progression. Fault messages are automatically sent to the operator via eMail, SMS or fax.



## Product Overview

**VIBNODE®** – Entry level solution for frequency-selective monitoring of standard machine trains (motors, pumps, fans, simple gears, ...)



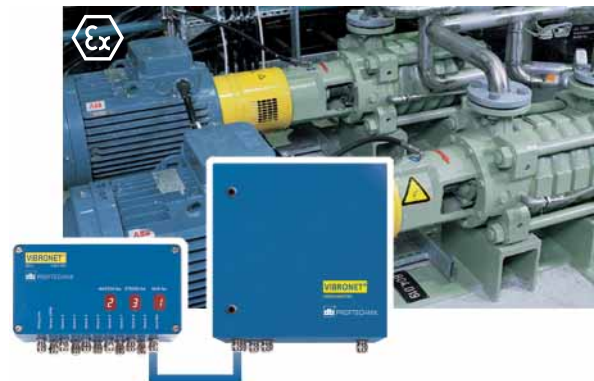
**VIBROWEB® XP** – Frequency-selective monitoring of critical machine trains with only a few measurement locations (low speed gears, compressors, ...)



**VIBROWEB®** – Frequency-selective monitoring for complex machine trains with many measurement locations (extruders, paper machines, mills, ...)



**VIBRONET® Signalmaster** – Frequency-selective monitoring for systems that are distributed over a large area (conveyor belts, pumping systems, ...)



**VIBROTECTOR®** – Vibration monitor for a single measurement location (4-20 mA; ISO 10816-3).



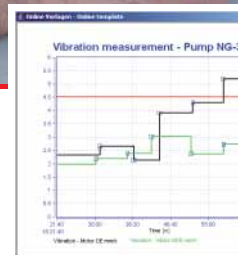
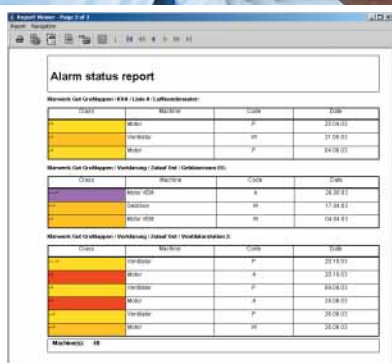
**VIBREX®** – 1 or 2-channel monitoring system for vibration and roller bearing conditions.



# OMNITREND® suite – the common PC platform

OMNITREND® is the common PC software for all data collectors and online monitoring systems from PRÜFTECHNIK. OMNITREND® is used to pro-

gram measurement tasks and to evaluate, archive and document measurement results in conformance with ISO standards.



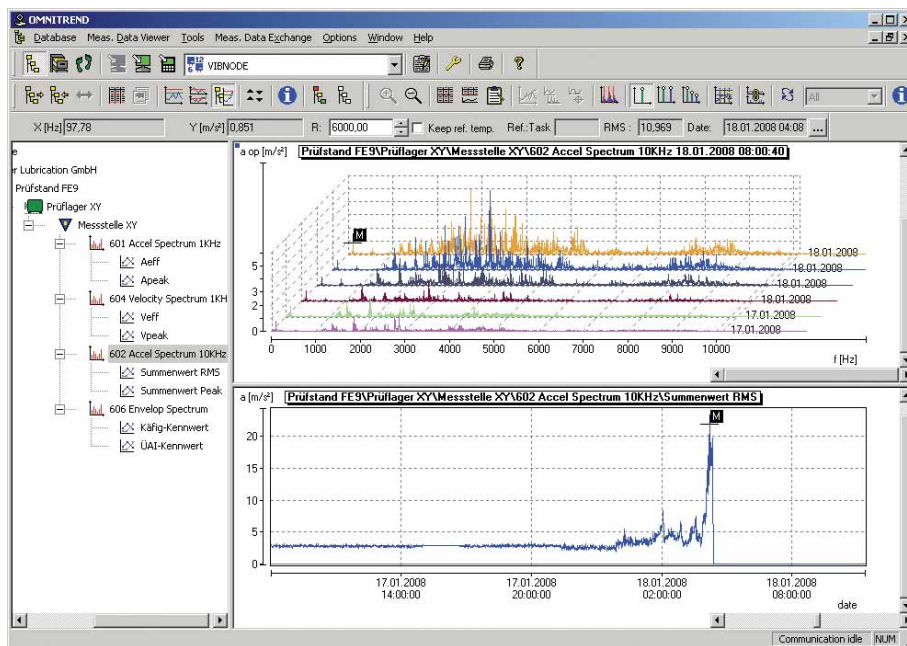
**WebReport** – Creates detailed reports for analyzing machine conditions. Color-coded alarm classes in the status report identify machine problems at a glance.

**Online View** – Visualizes measurement data from online systems and machine conditions in real time.

## Product Overview

**OMNITREND®** – The PC software saves measurement data in a database, arranges routes for data collection and visualizes the results in easy-to-read

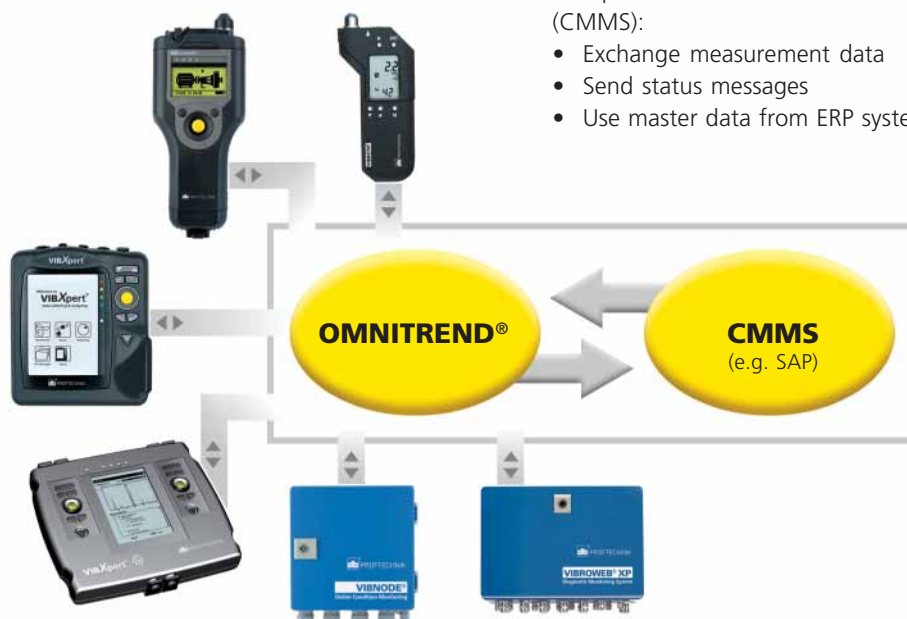
diagrams. Practical tools support data evaluation and documentation.



## Data exchange

Data exchange between OMNITREND® and a Computerized Maintenance Management System (CMMS):

- Exchange measurement data
- Send status messages
- Use master data from ERP systems



# Service & Diagnostic Center

Machines are often complex and require professional testing expertise in all phases – from installation to maintenance. PRÜFTECHNIK Machinery Service offers worldwide alignment and condition monitoring services and has its own certified Monitoring Center.

Innovative testing equipment and methods achieve greater geometric precision and enable vibration analyses that can significantly increase machine availability, promote early damage detection, abbreviate the troubleshooting phase and thus save on costs.





## Services Overview

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**Balancing** – Reduction of unallowable vibration loads by means of 1, 2 or multiplane balancing under operating conditions.



**Installation and maintenance** – Selection and installation of measurement locations, introduction of vibration measurements and comprehensive system maintenance for online systems.



**Functional machine testing** – Acceptance measurements, noise analyses or torque measurements for determining effective loads.



**Evaluating machine conditions** – Mobile vibration diagnosis, telemonitoring and telediagnosis, inspection and evaluation.



**Troubleshooting** – Machine analyses, temporary telediagnosis service (TTS), load analyses, geometric analyses (alignment tolerances).



**Training & consulting** – Inhouse seminars, start-up and follow-up service, introduction of alignment and condition monitoring programs.



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