

# VIBSCANNER<sup>®</sup>

Data collection & machine diagnostics



- Advanced signal analysis (option)
- Balancing in 1 or 2 planes (option)
- VIBCODE<sup>®</sup> compatible
- Intrinsically safe (option)

## The clever data collector for better maintenance

## VIBSCANNER®: One for all ...



VIBSCANNER® is an offline condition monitoring system for predictive maintenance. Its comprehensive measurement and analysis functions and the convenient joystick for navigation make this handy instrument ideal for everyday inspection routines.

Totally compatible with the OMNITREND® PC software it gives analysis and reporting functions in an easy to understand format to prevent catastrophic machine failure, unplanned production downtime and consequential damage to process equipment.

### 1 Sensors & interfaces

Measure important parameters directly. Use built-in transducers or external sensors attached to rugged connectors.

### 2 ISO alarm display

Four LEDs for 'everything's OK' (blue), 'pre-warning' (green), 'warning' (yellow) and 'alarm' (red).

### 3 Graphic display

Backlit screen with large intuitive symbols and text in different languages.

### 4 Joystick navigation

Easy to use, simple to learn! One joystick and two function keys are all the operating controls you need – whether you are right or left-handed.

### 5 Power to last

A practical quick-change rechargeable battery in the handle guarantees 8 hours of operation.

### Well equipped

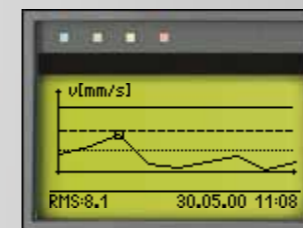
VIBSCANNER® measures the most important machine parameters on rotating equipment. All the sensors required are built into the instrument.

- ▶ Vibration
- ▶ Bearing condition
- ▶ Temperature
- ▶ RPM
- ▶ Process parameters
- ▶ FFT spectrum
- ▶ Signal analysis
- ▶ Balancing



VIBSCANNER® is protected by a rugged, waterproof and dustproof case. An intrinsically safe version is also available.

#### TRENDING



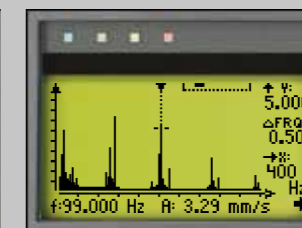
Use trend curves to follow the development of machine defects.

#### SIGNAL ANALYSIS



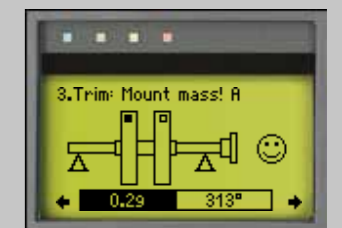
Time signals and orbits detect damage in low-speed machines, gearboxes or turbo machinery.

#### MACHINE DIAGNOSIS



FFT analysis with enveloping is provided for the diagnosis of machine condition, bearing condition and gear faults.

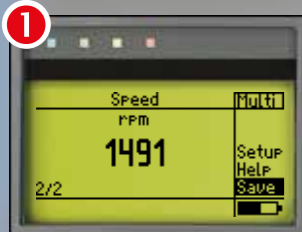
#### BALANCING



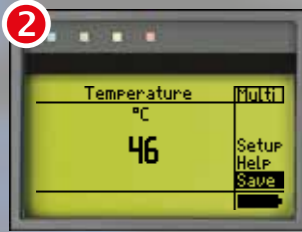
Allows one or two plane machine balancing in situ.



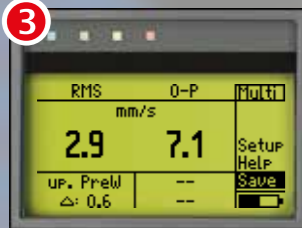
## Take-along convenience with built-in sensors!



**Up to speed?**  
Non-contact RPM measurement from distances up to 0.5 meters with no need for reflective tape – even in poor light. A bright red pointer beam helps in directing your aim at the rotating shaft.



**Takes the heat for you**  
The retractable, flexible temperature probe ensures optimal surface contact for quick, accurate readings – even in liquid. When higher temperature ranges are needed, external probes are available.



**Good vibrations**  
The rugged, patented accelerometer measures machine vibration as well as the high-frequency shock pulses emitted by anti-friction bearings and cavitating pumps – for a total of three different machine signals all at the same time.



### Unmistakable connectors

Color-coding of the input and output channels as well as the connecting cables prevents confusion.

## All the right connections

**Blue – in**  
Nearly any transducer (ICP®, CLD\*, Pt100, AC, DC,...) can be used to measure analog signals.

**Yellow – out**  
Data exchange with the PC, the measurement of digital trigger signals and the output of analog signals for headphones and analysis devices is carried out via the yellow interface.

\*CLD: Current LineDrive

## Data collection with VIBCODE® or 'machine scanning'

### Easy data collection with 'machine scan'

Run through non-VIBCODE® measurement locations using a graphical route. VIBSCANNER® graphically displays the next measurement point location with its direction of measurement. This prevents measurement locations from being overlooked or mixed up.

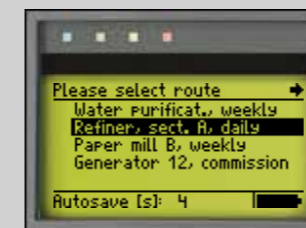
### Coded measurement locations

## Positive identification!

VIBCODE® is the world's first intelligent, field-tested transducer system to recognize its measurement locations automatically – at an unbeatably low price. The probe locks onto the measurement stud via bayonet mount and reads its encoded plastic ring. Then it reads the machine signals programmed for that location. VIBCODE® therefore delivers extremely reliable trending results by ensuring that the location, measurement direction and probe pressure are exactly the same each time. The new VIBCODE® transducer now also measures signals on low-speed machines (as low as 2 Hz).

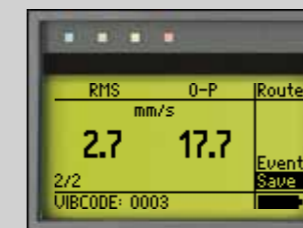


### STEP-BY-STEP



Collect machine condition data in a predefined measurement route or use VIBCODE® for automatic data collection. As soon as VIBCODE® is connected to a measurement location, the programmed measurement tasks start automatically.

### ADAPTIVE ROUTES



Measurement values are compared to alarm limits and stored. If alarm conditions arise, additional diagnostic measurements start automatically.

### ELECTRONIC NOTEPAD



Next to measurement tasks, visual inspection tasks appear as a pick list for entry of inspection data. (e.g. 'Check oil level')

### DON'T FORGET



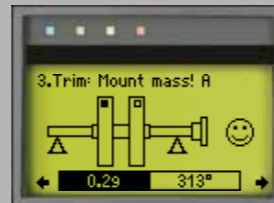
VIBSCANNER® indicates the end of the route – namely when all measurement locations have been completed.

# PC software for storage, analysis and reporting

## Balancing in 1 and 2 planes

### Clear indication

After every measurement, the position and weight of the correction masses appear. The 'Smiley' shows that required balancing quality has been reached.



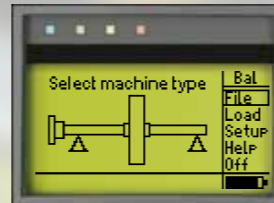
### Flexible balancing

Correct unbalance with fixed-mass balancing weights, fixed correction locations (e.g. for blowers) or by tape measure positioning. Choose between adding masses or removing weight by boring into the rotor.



### Intuitive operation

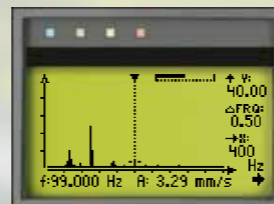
Graphical step-by-step operator guidance for an extremely easy yet accurate balancing procedure.



## Diagnosis by FFT

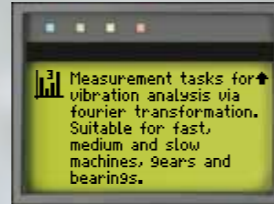
### Also for bearings and gears

As well as standard spectra, VIBSCANNER® measures enveloped spectra to diagnose bearing and gear meshing problems. Spectra can be zoomed with the joystick, facilitating field evaluations.



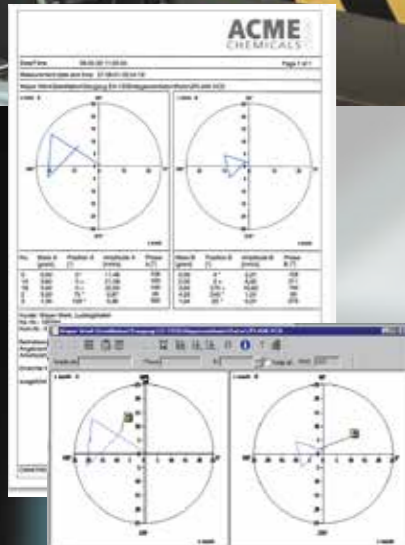
### The correct setting

How to measure high-speed gears or low-speed machines? VIBSCANNER® has all the answers in optimized and predefined setups.



### Report function

Reports are very simple to compile and print out.



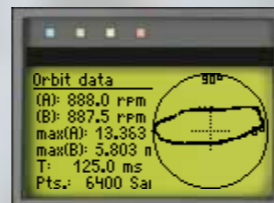
### Activating software

The optional balancing, signal analysis and recording modules are simple to activate in VIBSCANNER® by entering a password – without any changes to the hardware or any additional program updates.

## Analysis in detail

### Going into orbit

The movement of a rotating shaft is measured sequentially in both the X and Y axis and displayed as an orbit.



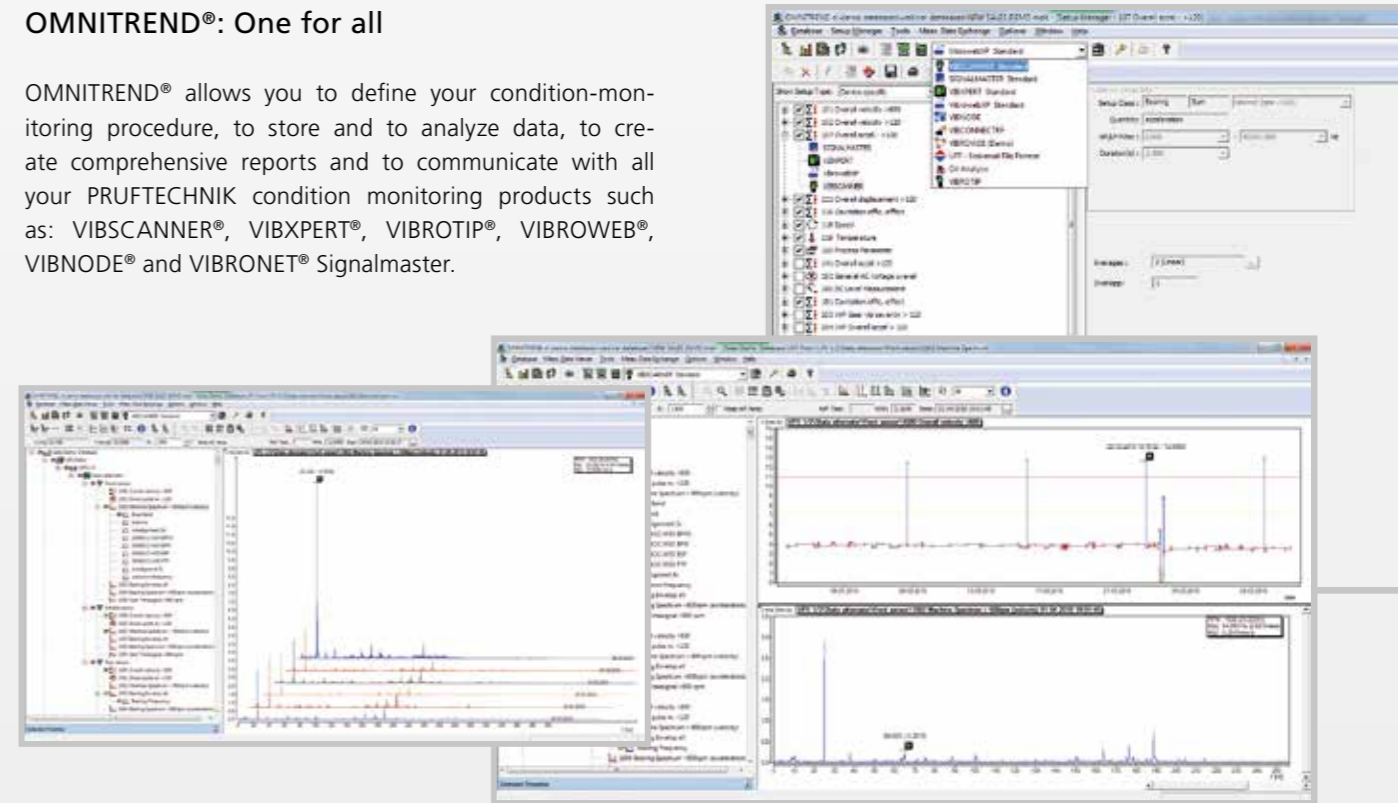
### Temporarily 'online'

Overall values or spectra can be recorded at scheduled times in order to identify the problems in troublesome machines – almost like an online system!



## OMNITREND®: One for all

OMNITREND® allows you to define your condition-monitoring procedure, to store and to analyze data, to create comprehensive reports and to communicate with all your PRUFTECHNIK condition monitoring products such as: VIBSCANNER®, VIBXPERT®, VIBROTIP®, VIBROWEB®, VIBNODE® and VIBRONET® Signalmaster.



### ALWAYS IN THE PICTURE

The clearly-structured database enables a quick localization of the measurement data. The data can then be visualized and combined in trend curves, spectra, time based signals or orbits.

### THE RIGHT SETTING

Optimized settings for almost every measurement task are stored in OMNITREND®. The software knows which measurement instrument can use which set-up in order to avoid incorrect settings.

### IMPORT-EXPORT

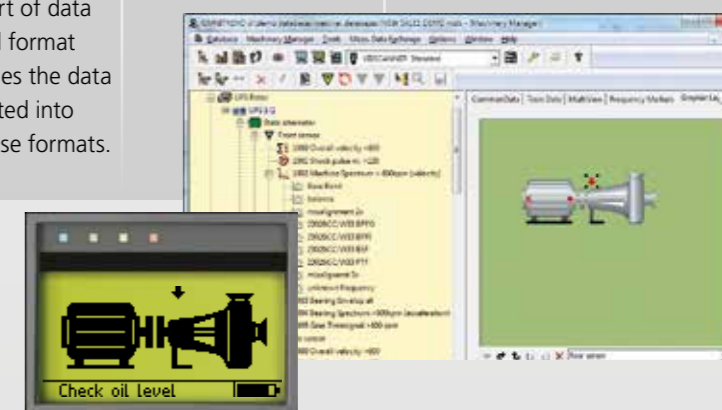
All recorded data (route, multimode) is transferred onto the PC and placed into the OMNITREND® database. For synchronizing and archiving existing data records, data can be imported from other OMNITREND® databases. The export of data in a standard format (ASCII) enables the data to be converted into other database formats.

### A SERIES OF SPECTRA

A spectra waterfall diagram makes it easy to see changes when looking at multiple spectra for data analysis.

### OFF THE NEXT ROUND

Creating a VIBSCANNER® route is particularly easy as every machine can be represented graphically. Use 'drag & drop' to position measurement locations, which are then shown on the VIBSCANNER® display.



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