

# **VIBROTIP®** Machine condition trending data collector





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VIBROTIP

# **5 Measurements**



Vibration severity

**Bearing condition** 

Temperature

RPM

Pump cavitation

# ... and a data collector in one

Modern industrial practices, particularly those of lean maintenance, demand autonomous decisions based upon hard facts such as vibration readings, rpm and temperature measurements. But who can afford to acquire and carry around a whole collection of hand-held instruments, each designed for its own particular type of measurement? VIBROTIP® offers a rational approach to measuring, displaying and storing five of the most vital indications of rotating equipment condition. Imagine measuring vibration level, bearing condition, cavitation, rotation speed and temperature with only one instrument!

All transducers are already built into the instrument, with no cumbersome cables or fragile plugs.

VIBROTIP<sup>®</sup> is an ideal data collector, too: it transfers the whole day's measurements to your personal computer for long-term storage, analysis and graphic representation.

This rugged instrument features a tough, rubberized housing designed to take the rigors of daily maintenance work in its stride. All operating elements are robust and easily withstand the unavoidable shocks, splashes and dirt that come with the territory. Intrinsic safety is available as an option.

#### **RPM** sensor

Non-contact contrast sensor measures RPM from distances up to 1 m (39")

#### **USB** Interface

For sending measurements to PC and receiving measurement routes from PC

#### Temperature

Flexible probe folds out of the way when not in use, maintains proper probe contact regardless of application angle. Also measures temperature of fluids. External temperature probes can also be connected.

# Tandem-Piezo<sup>®</sup> dual function accelerometer

Revolutionary design is ideal for both bearing measurement and general vibration readings; contoured tip minimizes contact resonance.

#### LCD display

Clear symbols and large, easy-to-read digits show measurement results at a glance.

#### **VIBROTIP®** housing

Extremely robust housing withstands shocks, chemicals, water spray and dirt (IP65).







# Accessories: VIBCODE®

### Automatic measurement point identification



### The VIBCODE® concept

VIBCODE<sup>®</sup> obtains all the measurement location information from the red code ring (shown on the left) placed in the measurement stud: it is encoded by breaking off specific teeth to form the required code. The transducer fulfills two functions: First, it deciphers the code ring and then retrieves the required machine signals. The combination of measurement studs and transducer guarantees reliable machine evaluation by ensuring that measurements are always taken in the same location, in the same direction and with the same amount of pressure.

VIBCODE<sup>®</sup> is the world's first intelligent system to encode the measurement stud with location number and measurement type. A special patented probe locks onto the stud, ensuring excellent signal transmission and repeatability. It also allows VIBROTIP<sup>®</sup> to recognize each location and to take the appropriate measurement(s) fully automatically. By allowing any operator to collect accurate data, this enhances trending reliability and eliminates repeat measurements due to mixups.



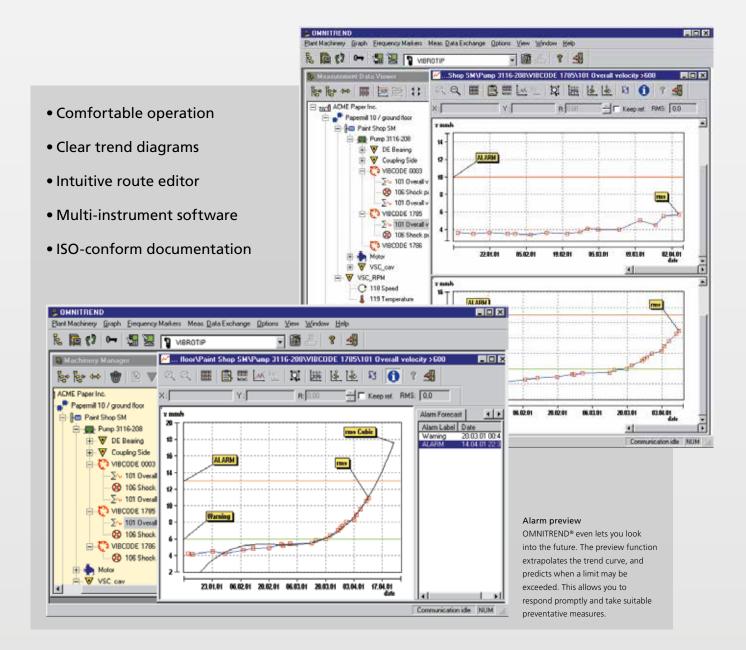
## Accessories: OMNITREND® PC software

For reliable data evaluation and storage

Let the OMNITREND® software save you valuable time in evaluating VIBROTIP® measurement data!

The program is extremely easy to operate and supervises your machine park, instantly calling your attention to critical changes in the machine condition.

Regularly recurring measurement routes can be easily compiled and transmitted by data cable to the VIBROTIP<sup>®</sup>. With a simple click, the recorded machine data are displayed as clear trend plots that can be evaluated with a range of practical tools (zoom, alarm preview ...). Simply press a key to obtain the information on paper to compile a full report that complies with the documentation requirements of ISO. OMNITREND® can be expanded for use with other Condition Monitoring Systems from PRUFTECHNIK like VIBSCANNER®, VIBXPERT®, VIBNODE®, VIBROWEB® or VIBRONET® Signalmaster.



# **Condition Monitoring à la carte**

### LEVEL 1

#### VIBROTIP<sup>®</sup> Data collector

VIBROTIP<sup>®</sup> is an ideal level-1 data collector for recording the most important machine parameters. All the required transducers are integrated in the instrument.

- 1 analog measurement channel
- Built-in transducers for vibration, RPM & temperature
- Route
- Segment display
- Simple 3-key operation
- Battery / rechargeabel battery
- Intrinsically safe (optional)

### LEVEL 1 / LEVEL 2

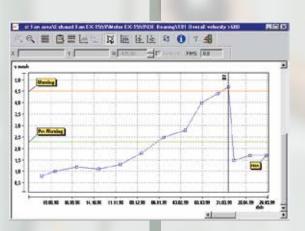
### VIBSCANNER®

Universal data collector and analyzer

As a level-1 data collector, VIBSCANNER<sup>®</sup> can be used for all measurement variables and inspection tasks. Optionally, it can be updated to a level-2 analyzer.

- 1 analog measurement channel
- 1 digital trigger input
- Built-in transducers for vibration, RPM & temperature
- Visual inspection
- Adaptive route (condition-based route)
- FFT analysis (optional)
- Machine scan (graphical route guidance)
- Balancing (optional)
- Illuminated pixel display
- Joystick operation
- Rechargeabel battery / Mains
- Intrinsically safe (optional)







Clever strategy:

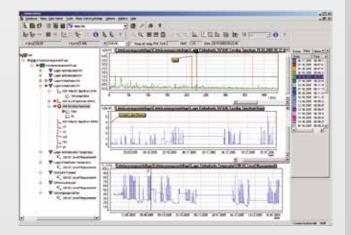
# Level 1 = Detection Level 2 = Diagnosis

To monitor the condition of the machine, it is usually sufficient to use a simple data collector to record the characteristic parameters ('Level 1'). If one of these characteristic parameters changes appreciably, the cause must be investigated and an in-depth diagnosis is required. The analyzer now comes into its own ('Level 2'). In contrast to the data collector, this requires a skilled operator.

This dual strategy of machine monitoring results in the efficient use of existing resources and provides all vital information concerning the machine park.

#### OMNITREND<sup>®</sup>

The common software platform for all systems



OMNITREND<sup>®</sup> is the common PC platform for all level 1/level 2 instruments. It automatically adapts its functionality to the active instrument and, thus, enables the optimum preparation and evaluation of the machine data.

### LEVEL 1 / LEVEL 2

VIBXPERT<sup>®</sup> II Dual channel FFT data collector and signal analyzer

As a combined level 1 – level 2 instrument, VIBXPERT<sup>®</sup> Il is ideal for condition monitoring and diagnosis on machines crucial to production.

- 2 true synchronous channels (for almost all sensor types)
- 1 digital trigger input
- Analysis functions (e.g. tracking, orbit, phase)
- Machine templates
- Adaptive route (condition-based route)
- FFT analysis with characteristic machine frequencies
- Time waveform
- Signal post-processing
- Balancing (1/2 planes)
- Brilliant VGA color display
- Keypad operation
- Rechargeabel battery



# **PRUFTECHNIK**

### proven technology for all industries

With our products, processes and services for alignment applications, condition monitoring and availability optimization, we help ensure that your machines run smoothly and generate an output of consistently high quality. This also includes systems for automatic process control and quality assurance that are integrated directly in your production process.

#### **PRUFTECHNIK** delivers maintenance solutions worldwide



Laser measurement systems and services for optimum alignment of machines and systems.



**Condition Monitoring** 

Vibration measurement systems for machine condition monitoring - including services such as machinery fault diagnosis.



**Nondestructive Testing** 

Systems and services for quality assurance and process control in production.



Service & Support

We offer professional services anywhere in the world to support our customers with alignment and condition monitoring.



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PRÜFTECHNIK

Condition Monitoring GmbH Oskar-Messter-Str. 19-21 85737 Ismaning, Germany Tel.:+49 89 99616-0 Fax: +49 89 99616-300 info@pruftechnik.com www.pruftechnik.com

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