

Portable instruments

N500

Multifunction vibrometer
Spectrum analyzer
Balancing



CEMB
BALANCING MACHINES



N500



Flexibility at the service of industry

The search for perfection in all fields has encouraged development of increasingly more accurate instruments in order to achieve better and better results.

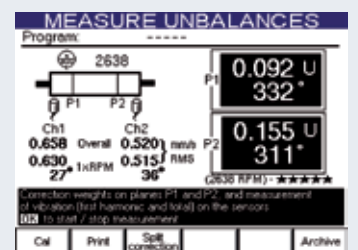
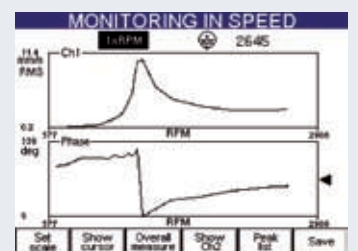
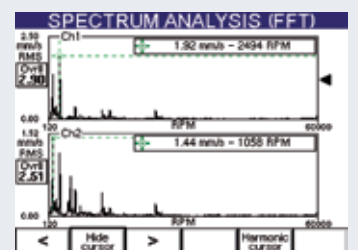
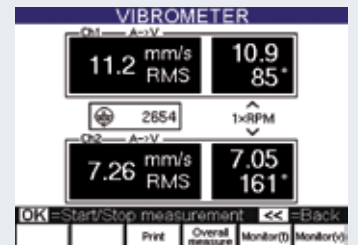
To recognize and understand the causes of vibration in machinery, then act accordingly has now become of vital importance. Of all the parameters which can be measured, the vibration signal contains the greatest quantity of information useful for machine diagnostics.

CEMB has extended its series of portable instruments with the new N500 model: a complete and user friendly multi-functional two-channel analyzer, designed for measurement of vibrations, FFT vibration analysis, monitoring of total vibration against time or variation in machine speed, as well as balancing rotating equipment under service conditions on 1 or 2 planes.

Balancing management is performed by a program designed to guide the user "step-by-step", with provision for editing and intermediate modifications to make balancing easy, even for those not expert in the field.

Particularly helpful is the large backlit display LCD 320x240-5.7" with user-friendly software implemented for your analysis requirements.

Quick-connect inputs are provided for the sensors with two independent and simultaneous measuring channels, plus a dedicated input for the photocell, RS232 port and two USB ports.





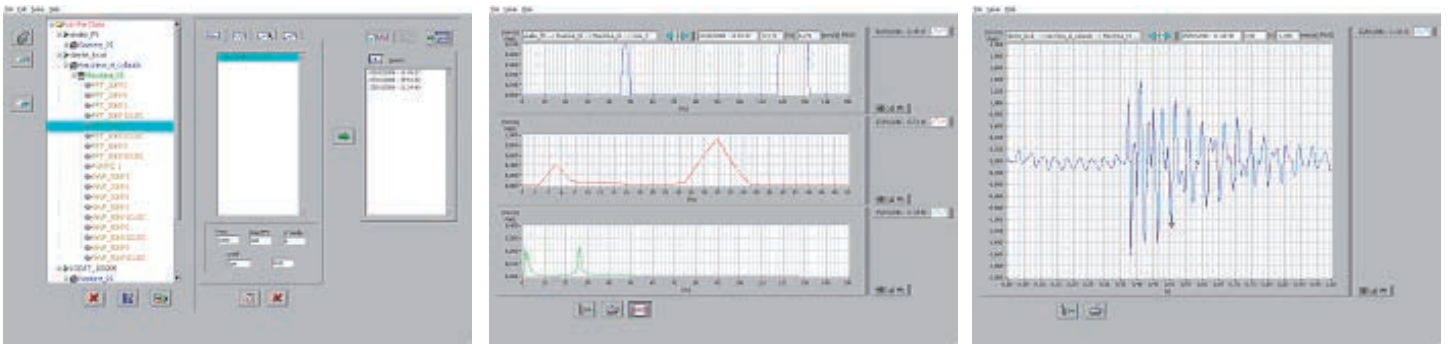
PolnTer The right solution for factory management

POINTER
Portable Instruments Terminal

To support your measurements, CEMB has developed the PolnTer dedicated software whereby each measurement can be associated with the point acquired, then the results filed on the PC.

It is also possible to handle the data acquired with an archive at two or more levels, thus allowing careful management of predictive maintenance, by comparing the vibration measurements coming from the machine at different times.

Using the "Report" function it is possible to print full certificates of field measurement data (residual unbalance, vibration spectrum, amplitude-phase diagram, etc.).



N500 A complete instrument for your analysis

Standard accessories:

- 2 velocity or acceleration transducers
- 2 connecting cables for transducers
- 2 magnetic bases
- 2 probes
- 1 photocell 18000 RPM complete with up-right and magnetic base
- 1 reflecting tape roll
- 1 USB drive
- 1 plastic disc graduated in angles strap
- battery charger
- carrying case
- instruction manual

Optional accessories:

- Printer
- Protection cover
- Softcase
- Complete acceleration transducer (connection cable and magnetic base)
- Complete velocity transducer (connection cable and magnetic base)
- Proximity sensor complete with up-right and magnetic base
- Optical fibre photocell (60000 RPM) complete with up-right and magnetic base
- Extension cable, length 10 m, for transducers
- Extension cable, length 10 m, for photocell
- CEMB PolnTer software for data filing, management



Functions:

- Measurement of the overall vibration value (acceleration, velocity, displacement)
- Measurement of the vibration phase
- FFT analysis
- Monitoring of the overall vibration against time or speed (Bode diagram)
- Balancing on 1 to 2 planes
- Waveform

Measuring capabilities

- RMS value (RMS)
- Peak value (Pk)
- Peak to peak value (PP)

Units of measurement

- Acceleration: [g]
- Velocity: [mm/s] or [inch/s]
- Displacement: [μ m] or [mils]
- Frequency: [Hz] or [Rpm]

Inputs

- 2 independent and simultaneous measuring channels (acceleration transducers, speed, non-contacts, any signal max 5V-PP)
- 1 photocell channel (speed and angle reference)
- 2 USB outputs for data exchange

Vibrometer function

- Measurement of the overall vibration value in predefined band (10-1000Hz; 3-300Hz; 10-10000Hz) or band set by user (in the field 3-20000Hz)
- Measurement of the value and phase of the first 5 harmonics

FFT functions (frequency analysis)

- FFT analysis (manual/trigger)
- Maximum settable frequency (25; 100; 500; 1000Hz; 2.5; 5; 10; 15kHz)
- Resolution (100; 200; 400; 800; 1600; 3200 lines)
- Averages number: from 1 to 32, List of main peaks

Monitor function – Data Logger

- Recording and indication of the overall vibration value against time
- Storage and visualization of the overall vibration value against variation in speed of rotation

Balancing

- Number of the correction planes: from 1 to 2
- Graphic indication of stability of measurement
- Polar graph of unbalancing
- Step-by-step guided balancing procedure, with possibility of editing and intermediate modifications
- Possibility of storage of the influence coefficients after auto-learning
- Vector splitting of unbalances, additioning weight or removing weight

Analysis capacity

- Maximum measuring frequency 15kHz
- Dynamic field 108dB
- Resolution: until 3200 lines
- Analysis: 2.5 averages/sec (400 lines – 1kHz)

General characteristics

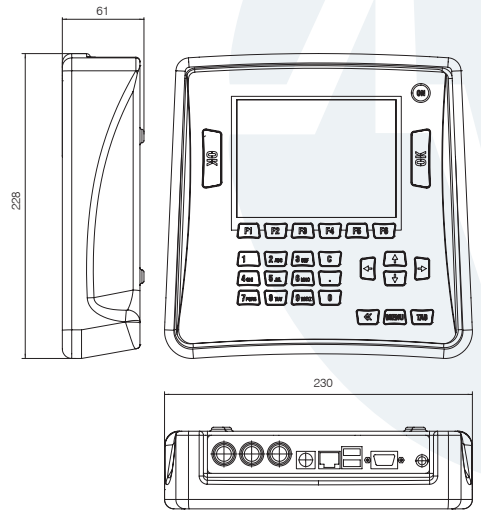
- Display: ¼ VGA LCD 320x240 – 5.7" backlit
- A/D converter: resolution 24 bit
- Data memory: 10.000 FFT with 800 lines
- Dimensions approx: 230 x 230 x 58 mm
- Weight: 1.4 kg
- Processor with static memory of 256 MB

Operating condition

- Temperature: from -10° to +50° C
- Air humidity: from 0 to 95% without condensate

Power supply

- Rechargeable Lithium battery 6 Ah
- Charging time: < 5 hours (from completely discharged battery)
- Battery charger 100-240 V, 50/60 Hz (24 V, 1.5 A)
- Battery life: > 10 hours typical use



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BALANCING MACHINES



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