

Portable equipment

# N300

Vibrometer  
Balancer



**CEMB**  
BALANCING MACHINES



# N300



## Countless fields of application



## The pocket balancer, simply easy

Unbalanced rotating bodies cause vibration and mechanical stress, which are transmitted to the machine's entire structure through the supports. Field balancing reduces the amount of vibration, improving the machine's overall condition and reducing wear. For electric spindles and machine tools this also means better quality machining. Reduced stress on the bearings, and consequently reduced temperature, energy consumption, noise and maintenance frequency with a tangible reduction in costs are just some of the benefits offered by field balancing.

With **N300**, **CEMB** meets the needs of both engineering companies and maintenance personnel who, now more than ever, need a compact and ergonomic balancer close to hand at all times. Ease of use and quick intervention are N300's strong points.

N300 can be used to measure the overall vibration value (ISO10816-3), take synchronous measurements (1xRPM), and for field balancing of rotating bodies on one or two planes, with one or two sensors.

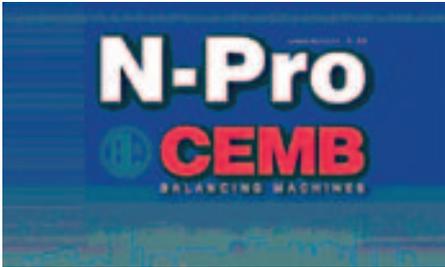
Thanks to the backlit graphic display and intuitive "step-by-step" software, even occasional users will find N300 easy to use.

The quick coupling connectors can be used to connect two independent and simultaneous measuring channels and a photocell. The data can be transferred to a PC via the mini USB port.



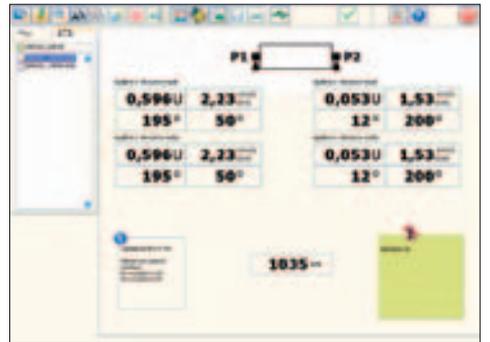
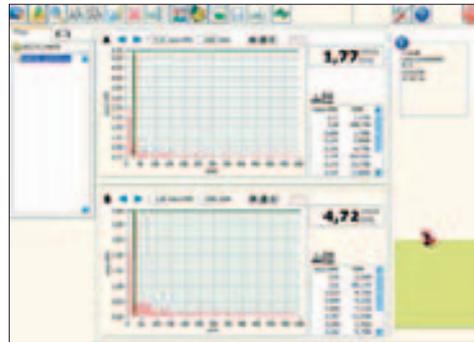
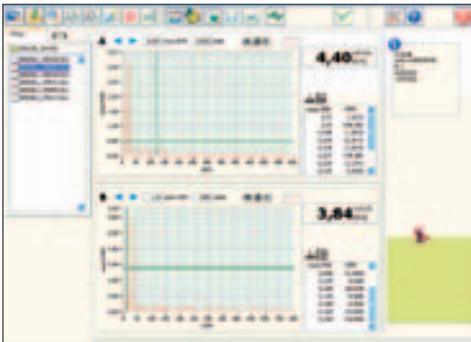


**N-Pro, the software designed for your balancing data and reports**



N300 is equipped with **N-Pro**, Professional Environment for N-Instruments, software. This software can transfer all of the data recorded by the instrument and automatically file it by simply pressing a button. It can be displayed, processed, analysed and employed to generate reports in PDF format or on paper at any time.

The standard report forms supplied with the software are suitable for the most common situations, but new fully customised forms can also be created, satisfying the needs of even the most demanding clients.



**N300 The quick way to balance**

**Standard accessories:**

- 1 heavy duty, high resistance, water and air-tight carrying case.
- 1 acceleration transducer
- 1 connecting cable for the accelerometer
- 1 magnetic base
- 1 probe
- 1 18000RPM photocell complete with upright and magnetic base
- 1 USB data cable
- 1 roll of reflecting tape
- angle rule
- battery charger
- quick instruction manual
- instruction manual on CD-ROM



**Optional accessories:**

- Second complete acceleration transducer (cable, magnetic base and probe)
- Complete velocity transducer (cable, magnetic base and probe)
- Optic fibre photocell (60000RPM) complete with upright and magnetic base
- 10 m-long extension cable for transducers
- 10 m-long extension cable for photocell
- 5 m-long sensor cables
- Data management and reporting software, with standard and customised report forms.



## ► Technical data

### Functions:

- Measurement of the overall vibration value (acceleration, velocity, displacement)
- Measurement of synchronous vibration value and phase
- Analysis of vibration in the frequency range
- Field balancing of rotating bodies on 1 or 2 planes

### Measurement types

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

### Units of measurement

- Acceleration: [g]
- Velocity: [mm/s] or [inch/s]
- Displacement: [ $\mu\text{m}$ ] or [mils]
- Frequency: [Hz] or [Rpm]

### Inputs

- 2 independent and simultaneous measuring channels (acceleration transducer, velocity transducer)
- 1 photocell channel (velocity and angle reference)
- 1 mini USB port for data transmission
- battery charger input

### Vibrometer functions

- Measurement of the overall vibration value in predefined frequency bands (1-100Hz 2-200Hz 5-500Hz 10-1000Hz)
- Measurement of the value and phase of the vibration of the main frequency and the first five harmonics.
- List of the five highest peaks.

### FFT Function (Analysis in frequency)

- FFT analysis with N-Pro software
- Maximum allowed frequency (1-100Hz 2-200Hz 5-500Hz 10-1000Hz)
- Resolution (400 lines)
- Number of averages: from 1 to 16

### Balancing function

- Number of correction planes: 1 or 2
- Step-by-step guided balancing procedure.
- Balancing can also be carried out using one or two sensors.

### General characteristics

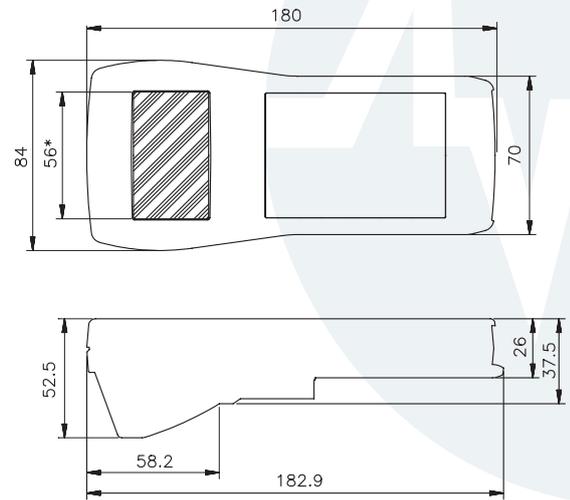
- Display: 128x64 LED
- Approx. dimensions: 180 x 84 x 45 mm
- Weight: approx. 300 gr

### Operating conditions

- Temperature: from  $-10^{\circ}$  to  $+50^{\circ}$  C
- Air humidity: from 0 to 95% without condensate

### Power supply

- Rechargeable 1.8Ah Lithium battery
- Charging time: < 5 hours (when battery is fully discharged)
- Battery charger for 100-240 Vac, 50/60 Hz (8.4V DC, 0.71 A, 60W max)
- Battery life: > 10 hours based on typical use



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