

# USB Balancer

## *The balancing within reach*

The static balancing of rotary elements becomes an easy and cheap operation thanks to the USB Balancer.

Due to the triaxial analysis even the operator without experience can follow an automatic procedure that, after the detection of the initial unbalancing, suggests the operations to be carried out for the balancing of the components. At the end of the procedure an automatic report certifies the success of the operation.



### • An instrument to be used on site

Thanks to the compact dimensions and the high robustness the USB Balancer is highly appreciated in the most difficult industrial sites. Among the characteristics that distinguish it the most important is the possibility to quick balance the rotary element directly in the production line without using any additional complex devices.

### • Reliability and safety

The correct calibration of the instrument is always guaranteed avoiding the standard periodical checking, since its functioning is based on the acquisition of the vibration through capacitive MEMS sensors. The reliability of the measurements is constantly guaranteed through a self-diagnosis system. Furthermore, the digital data communication prevents the USB Balancer from electromagnetic disturbs.



## • Simple and intuitive

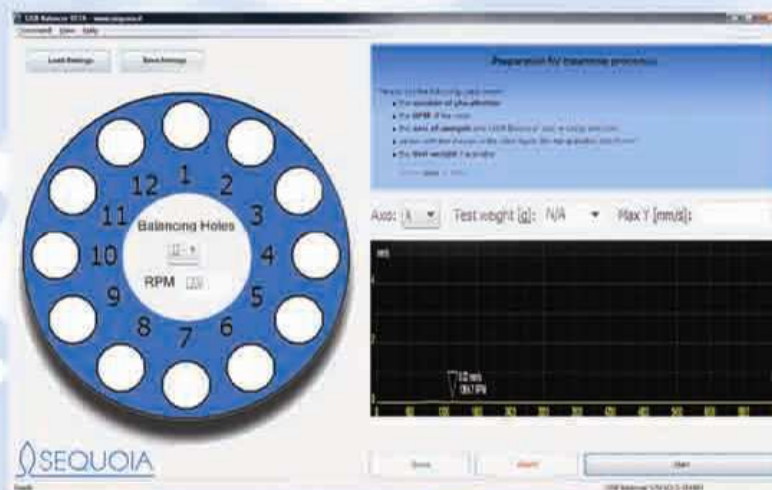
The USB Balancer was designed with the aim to combine user-friendliness and high precision. Therefore, a quick positioning on the checking point and the characteristic of being triaxial were necessary in order to give more complete information during the balancing. Conceived for the less expert operator the included software provides a guide procedure, after which, a report compares the obtained results with the initial unbalancing.

## • Guided procedure

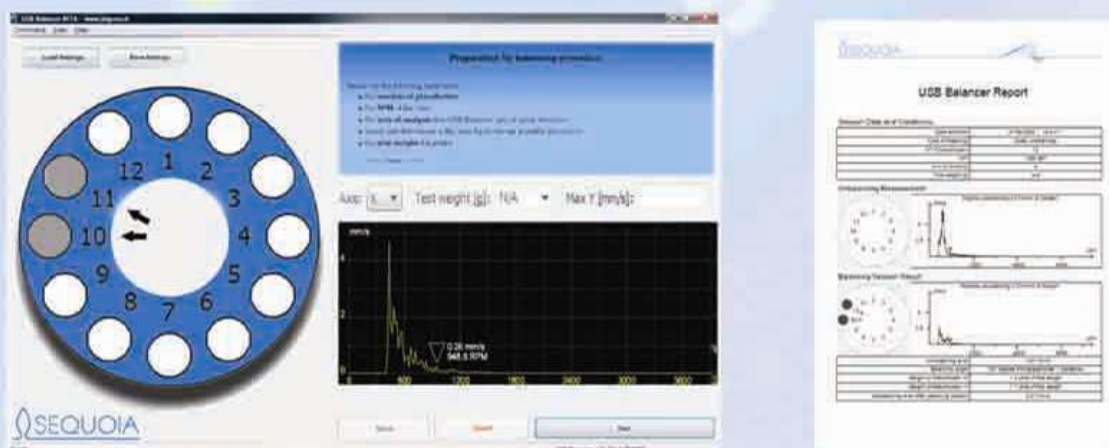
1. Set the number of RPM to which you want to perform the operation, the selected axle and the maximum number of available holes. During this operation it is possible to quantify the initial unbalancing.

2. Bring the rotary element at the selected speed by positioning the weight at 0° and start the first step of balancing.

3. Bring the rotary element at the selected speed by positioning the weight at 90° and start the second step of balancing.



4. The software will show the right points to be balanced giving the information about the angular position and the weight of the weights to be positioned.



5. An automatic report at the end of the analyses will give the information about the initial unbalancing and the introduced corrections for reaching the suggested balancing level.



## Technical specifications

**Acquisition**

- Full scale
- +/- 5g optional: +/- (2g, 18g)
- Bandwidth
- 0 - 2500 Hz
- Resolution
- 0,0025 m/s<sup>2</sup>
- Noise
- 0,075 m/s<sup>2</sup>

**Physical**

- Dimensions
- 30 x 55.5 x 15 mm
- Weight
- 55 g
- Cable length
- 3m (optional up to 30m)

**Electrics**

- Communication
- USB 2.0
- Totally powered by USB
- (power consumption 200mA)

**Environmentals**

- Protection level
- IP67
- Shock resistance
- 10.000 g
- Temperature range
- 0-70°C
- CEI UNI - EN 61000-6-2
- CEI UNI - EN 61000-6-4

## Measurements

Unbalancing level (mm/s)

**Static Balancing Procedure**  
on three axes with indication of unbalancing angle and corrective weight

**Residual Unbalancing level**

**Automatic Report**  
with results exposition, corrective actions, graphs and value comparisons pre and post balancing.