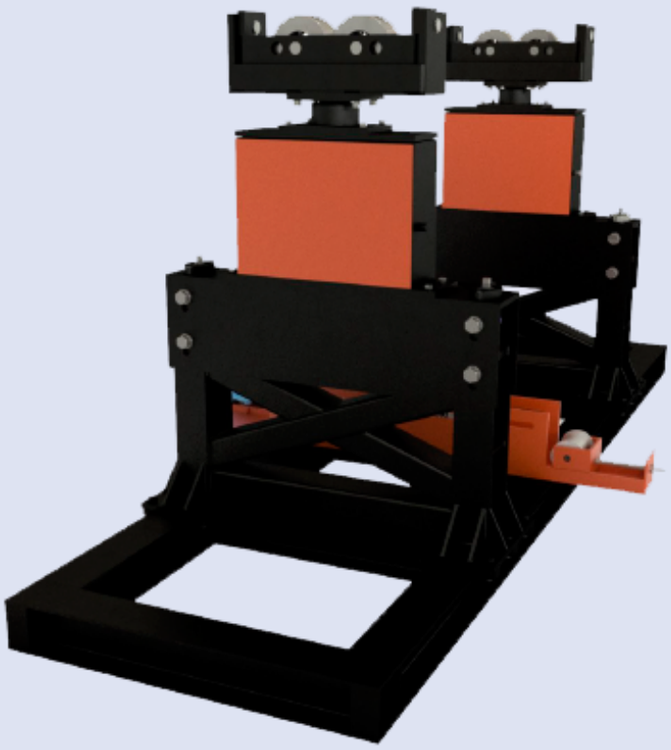
ERBESSD INSTRUMENTS®

EI-6000

Balancing Machine

Datasheet



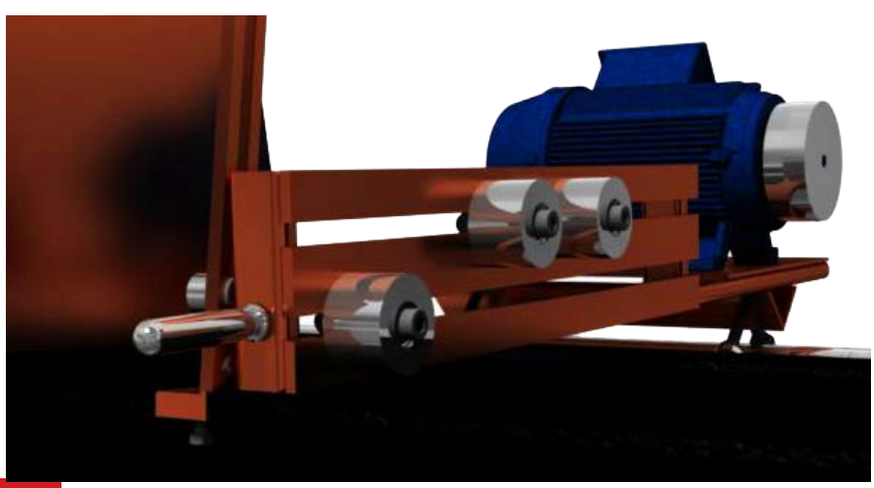
The **EI-6000** performace is perfect for the industrial balancing of mid-weight range rotors. With the *weight test* method or 3 runs you can balance fans, rollers, mills, propellers, electrical motors, among others.

Features

The EI-6000 is a balancing machine made 100% with carbon steel, does not require a special base to mount the balancer; features *swing-type* slices to automatically align them to the shaft and prevent scratches or damages in the roller's surface.

For a better contact between the shaft and the EI-6000, the rolling elements have a swing system with a pitch up to ten degrees, this way the EI-6000 gets aligned automatically with the shaft to prevent distortion on the shaft's rolling superficies.

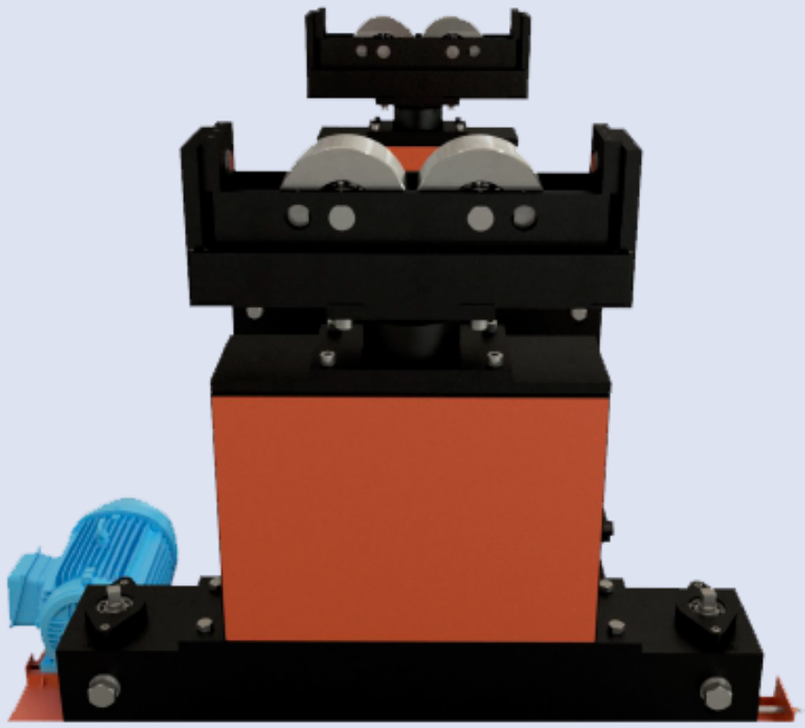
Between the roller's work supports and the soft bearing suspension system, there is a lifting screw with 1.5 inches range to allow the rotor's axis to be in horizontal position. This feature permits independency among planes for dual plane balancing.



The EI-6000 can support up to 6000 kg (3000 kg each support) and with its 2 roller positions it allows shaft diameters of 320.7 mm (12.62 in).

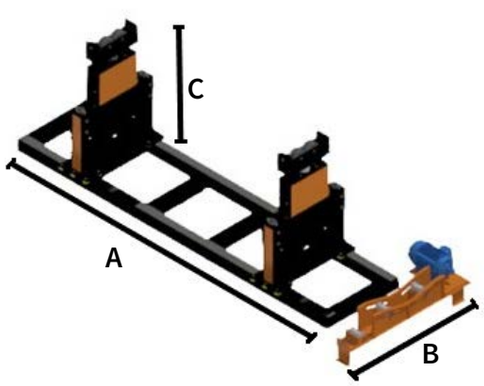
It also has an elevator screw to adjust the position in case the tracks rotor supports have different diameters up to 76.2 mm (3 in) and a swinging movement for auto-alignment.

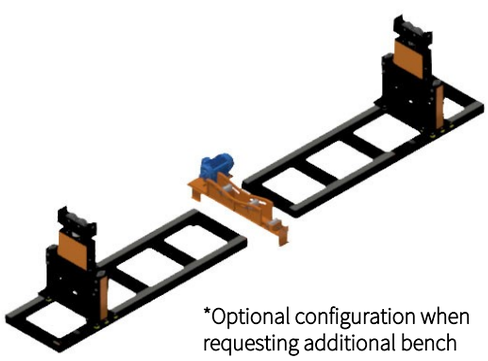
Made 100% of **carbon steel**, supports up to 6000 kg.



EI-6000 includes

- 2 Roller positions
- 2 Elevation screws
- 2 Axial Supports
- Transmission kit
- Flat band
- 3 flat pulleys
- Main pulley guideline
- Electric motor (optional speed driver)
- DigivibeMX M10 (for more details see next page)





*Optional configuration when requesting additional bench

Technical Specs

Max / Min Load	6000 kg (13 228 lb) / 15 kg (33 lb)
Dimensions (L x W x H)	2000 x 1686.3 x 1371.6 mm (78.74 x 66.4 x 54 in)
Weight	Each support: 119 kg (263 lb) Complete: 1280 kg (2825 lb)
Max rotor diameter	2000 mm (78.74 in)
Max displacement 0 to peak	25.4 mm (1 in)
Max shaft diameter	320.7 mm (12.625 in)
Min/Max length between supports	355.6 - 1 943.1 mm (14 - 76.5 in)
Min/Max shatf's length	482.6 - 2 500 mm (19 - 98.42 in)
Max shaft's diameter difference	76.2 mm (3 in)
Bedplate length	2 000 mm (78.75 in)
Lock system	Yes (manual)
Vibration sensors	2 accelerometers (with 5 pin connectors)
Accelerometer sensitivity	100 mV/g
ISO 2953 Unbalance reduction per sequence	97%
Transmission type	Manual tension; Flat belt
Lubrication	Type I (Manual)
Residual Unbalance	2 gmm / 100 kg rotor
Motor electrical features	10 hp (7.45 kW) 220/440 VAC 4 poles

A	1 686.3 mm / 66.40"
B	1 371.6 mm / 54.00"
C	2 000 mm / 78.74"

Accessories

EI-6000 Balancing Machine has a wide range of optional accessories and spares to increase performace and realiability.

Negative Load Supports (Not included)

It's an accessory for **EI-6000 balancing machine** required when rotors are mounted on cantilever and/or to secure rotors with high levels of vibration, like crankshafts. Each support includes bearings and has adjustable height. Its dimensions may vary depending on the bearing suspensions. **Sold separately.**

Axial Supports (Included)

Designed to limit the axial rotor's displacement on the EI-6000 balancing machine. It has 2 axes to adjust up to 1 meter shaft's length from the supports. They include the mounting base to the balancing pedestal, an axial and radial arm and a rolling element at the tip. EI-6000 includes 2 axial supports.

Transmission Belt & Pulleys (Included)

A flat belt of high stren-gth and durability rein-forced with 3 layers: **fa-bric-nylon-fabric**. Length: 6 m (19 ft) Width:75 mm (2.9 in)

Set of 3 bearing pulleys and 1 driver pulley for EI-6000 flat belt.

For more accessories and spares visit our online store: **www.erbessd-instruments.com/store**

+ DigivibeMX M10

DigivibeMX M10 is an easy-to-use device that fits perfectly with the **EI-6000** in order to perform accurate balancings in 1 and 2 planes.

DigivibeMX M10 Features

- 2-plane balancing without trial weights*.
- Easy-to-use balancing calculator.
- Plug&Play DAQ interface.
- Balancings from 120 to 150'000 RPM.
- Intuitive graphic interface.
- 2 Polar graphs.
- 1-click balancing reports.
- High compatibility.
- 2 accelerometers and 1 optical sensor included with the EI-6000.
- **laptop or tablet not included in the kit**.

*Consult DigivibeMX M10 Datasheet

Technical Specs

4-Channel Interface

3 LEMO 5-pin Connectors
Up to 4 mono-axial accelerometers
2- plane simultaneous measuring
IP 67 Protection grade
Frequency Range: **48 kHz**
Dimensions: 67 x 74 x 22 mm
Weight: 100 g

Accelerometer AC-500-2P

Freq. response (+/-3dB): 0.32 - 13kHz
Sensitivity: 100 mV/g +/- 10%
Transverse sensitivity: < 5%
Power supply: 18-30 V - Short-circuit protection
Operation temp.: - 50 to 121 °C
Protection grade: IP 68
Impact Resistance: IEC 60028-27
Standard 2 Pin MIL connector
Weight: 50g
Stainless steel body
Dynamic impact shock: 80 G Peak (Max shock 5000g)

Laser Tachometer OP-20

Range: 1 - 5000 Hz
Power and current supply: 5V - 10 mA
Short circuit, Reverse Voltage and Over-Voltage (15V for 1min) protection
Voltage drop: <0.4 V
Operation distance: 20cm < 15 m
Operating temp: −10 - 50 °C
Storing temp: −40 - 85 °C
Protection grade: IP 60, III
Impact Resistance: IEC 60028-27
Weight 60 g
Nylamyd body
Analogic output

For more info visit our website
www.erbessd-instruments.com/digivibemx

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