

EI-6000
Balancing Machine
Datasheet



EI-6000 is ideal for all kind of medium-weight rotating parts up to **6000 kg** such as rollers, motors, propellers, mills, among others. EI-6000 uses soft bearing suspensions built with light and resistant materials to decrease inertia.

Features

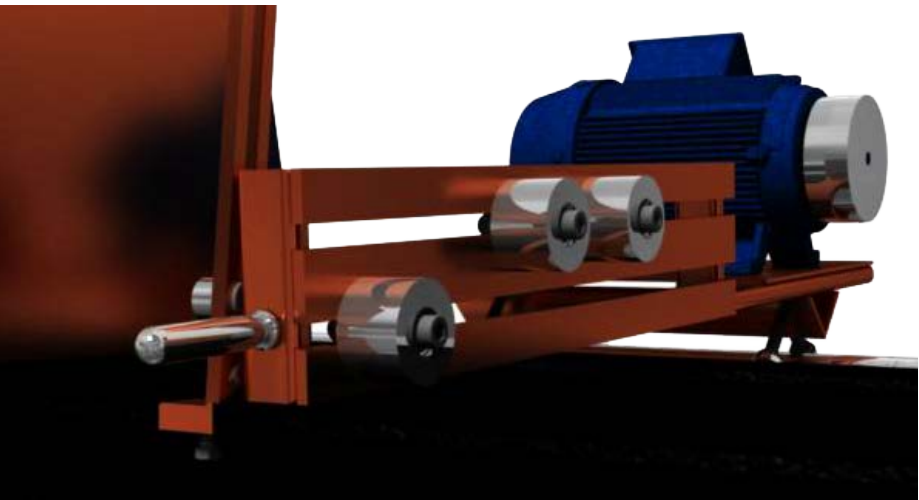
EI-6000 is a balancing machine made 100% of carbon steel, it does not require a special base to mount the frame & it includes *swing-type* slices to automatically align the shaft and **prevent** scratches or damages in the roller's surface.

Between the roller supports and the soft bearing suspension system, there is a lifting screw with 1.5 inches range to **level** the rotor axis to be in horizontal position.

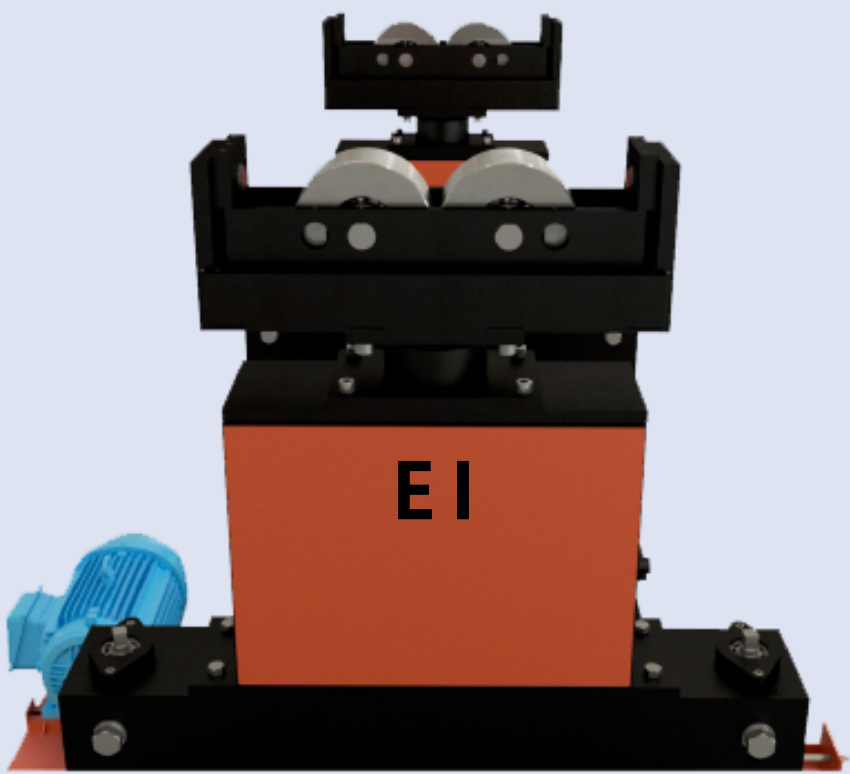


EI-6000 can support up to 6000kg (3000kg each support) and with its 2 roller positions it allows shaft diameters up to 320.7mm (12.62").

The transmission system includes 3 adjustable pulleys to tension the flat belt designed for maximum traction and avoid the belt to slip.



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

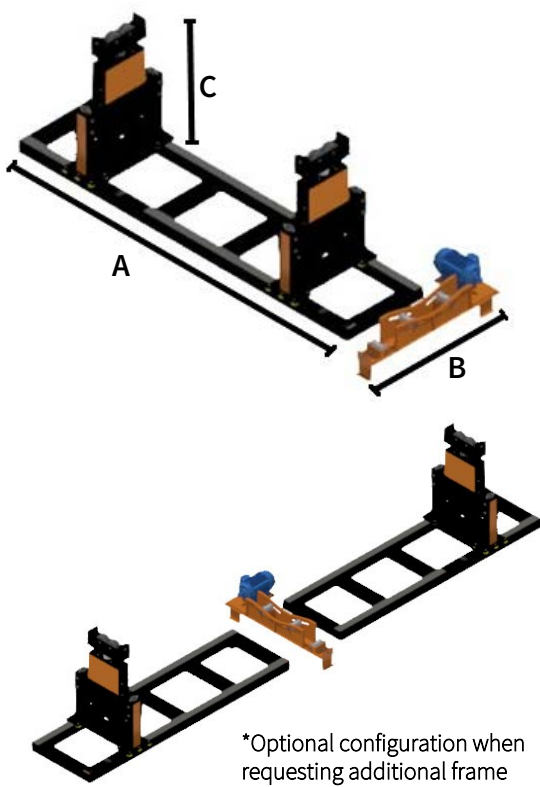


EI-6000 includes

- 2 Roller positions
- 2 Elevation screws
- 2 Axial Supports
- Transmission kit
- Flat belt
- 3 flat pulleys
- Main frame
- Electric motor with inverter
- DigivibeMX M10 (for more details see next page)

Technical Specs

Max / Min Load	6000 kg (13 228 lb) / 100 kg (45 lb)
Dimensions (L x W x H)	2000 x 1371.6 x 2000 mm (78.74 x 54 x 78.74 in)
Weight	Each support: 400kg (881 lb) Complete: 1200 kg (2645 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 shaft'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	2000 mm / 78.74"
B	1371.6 mm / 54.00"
C	2000 mm / 78.74"



Accessories

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

Negative Load Supports

(Not included)



It's an accessory for **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 displacement on the 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.

Transmission Belt & Pulleys

(Included)



A flat belt of high strength and durability reinforced with 3 layers: **fabric-nylon-fabric**. Length: 6 m (19 ft) Width: 75 mm (2.9 in)



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

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

DigivibeMX M10 is the easy-to-use system that fits perfectly with the EI-6000 in order to perform accurate balancings in 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

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