

EI-3000

Balancing Machine

Datasheet



EI-3000 is ideal for all kind of rotating parts whose mass is up to 3000kg such as rollers, motors, propellers, mills, crankshafts, among others. **EI-3000** uses soft bearing suspensions built with light and resistant materials to decrease inertia.

Features

- 2 planes balancing
- Variable speed (inverter included)
- Adjustable pulley’s position
- 2 roller positions for wide shaft diameters
- 3 liberty axis for each SBS
- Elevation screw
- Soft bearing suspension system to avoid mechanical looseness
- Axial supports
- Sealed sensors to avoid corrosion
- Easy calibration



Technical Specs

Minimum suitable rotor weight	5 kg (11 lb)
Max load per support	1500 kg (3306 lb)
Balancing speed range	450 - 3000 RPM
Max rotor diameter	2000 mm (79 in)
Max SBS displacement	12 mm (0.5 in) 0-to-peak
Max shaft diameter	228 mm (9 in)
Min / Max SBS distance	152 mm (6 in) / 1778 mm (70 in)
Max elevation height	12 mm (0.5 in)
Residual unbalance	0.2 g.mm.kg
Power transmission	Flat Belt
Lubrication	Type-I (manual)
Dimensions (L x W x H)	2000 x 1320 x 1295 mm (79 x 52 x 51 in)
Weight	450 kg (992 lb)
Motor electrical features	5.59 kW (7.5 hp) 220/440 V, 3 phases, 4 poles
Speed Driver	Included, 5.59 kW AC (7.5 hp)



External Sensor



90° Sensor (Opt)

DigivibeMX M10 is an easy-to-use device that fits perfectly with the EI-3000 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-3000^T.
- **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



Accessories

EI-3000 Balancing Machine has a wide range of optional accessories and spares to increase performance and reliability.

Protection Supports (Not included)



It's an accessory for **EI-3000 balancing machine** required to secure rotors with high levels of vibration, like crankshafts. Each support includes bearings and has adjustable height. **Sold separately.**

Axial Supports (Included)



Designed to limit the axial rotor's displacement on the **EI-3000 balancing machine**. It has 3 axes to adjust shaft's length from the supports. They include the mounting base to the pedestal, an axial and radial arm and a rolling element at the tip. **EI-3000 includes 2 axial supports.**

Transmission Belt & Pulleys



A flat belt of high strength and durability reinforced with 3 layers: **fabric-nylon-fabric**.
Length: 4.2 m (13.8 ft)
Width: 50 mm (2 in)



Set of 3 bearing pulleys and 1 driver pulley for EI-3000 flat belt.

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