EI SERIES
Balancing Machine
EI-30 is a horizontal balancing machine delivering the highest precision ideal for low weight and high speed rotors. The low inertia reduces the resistance to the vibration and increases the sensitivity and precision of the balancing process.

**Characteristics**

- Balancing in 1 and 2 planes without trial weights
- Variable speed with inverter
- Easy to use and easy to adjust
- Adjustable pulleys
- Adjustable height for each support
- Manual adjustment for the transmission system
- Bearing supports minimize mechanical looseness
- Balancing speed 60 to 15,000 RPM
- Slices cantilever
- Optical RPM sensor
- Isolates Mechanic parts to avoid corrosion

**Technical Specs**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max symmetric load</td>
<td>30 kg (66 lb) / 0.1 kg (0.22 lb)</td>
</tr>
<tr>
<td>Dimensions (L x An x Al)</td>
<td>609 x 304 x 431 mm (24 x12 x 17 in)</td>
</tr>
<tr>
<td>Weight</td>
<td>30 kg (66 lb)</td>
</tr>
<tr>
<td>Maximum rotor diameter</td>
<td>533 mm (21 in)</td>
</tr>
<tr>
<td>Maximum weight per base</td>
<td>15 kg (33 lb)</td>
</tr>
<tr>
<td>Maximum radial displacement</td>
<td>6.35 mm (0.250 in)</td>
</tr>
<tr>
<td>Maximum shaft diameter</td>
<td>50 mm (2 in)</td>
</tr>
<tr>
<td>Shorter distance between supports</td>
<td>31 mm (1.25 in) / 12 mm (0.5 in)</td>
</tr>
<tr>
<td>*Using the support for short rotors</td>
<td></td>
</tr>
<tr>
<td>Longest distance between supports</td>
<td>500 mm (19.75 in)</td>
</tr>
<tr>
<td>Acellecmometer sensitivity</td>
<td>100 mV/g</td>
</tr>
<tr>
<td>Power transmission</td>
<td>Flat band</td>
</tr>
<tr>
<td>Lubrication</td>
<td>Type-I (manual)</td>
</tr>
<tr>
<td>Precision</td>
<td>±0.01 mm/s</td>
</tr>
<tr>
<td>Speed Driver</td>
<td>Input: 127/230 VAC ~ 50/60Hz Output: 0 - 90/180 VDC</td>
</tr>
<tr>
<td>Motor characteristics</td>
<td>124 W (1/6 hp) 90 VDC / 1.8 A 1,600 RPM</td>
</tr>
</tbody>
</table>
The EI-300 balancing machine is ideal for all types of rotating parts up to 300 kg, like rollers, electric motor rotors, crankshafts, fans, mills and more. The soft bearing suspensions are manufactured using the highest quality lowest friction components.

**Characteristics**

- Balancing in 1 and 2 planes without trial weights
- Variable speed with inverter
- Adjustable pulleys
- 3 liberty axis per pedestal
- Easy adjustment of the transmission system and support distance
- Soft bearing suspension to minimize mechanical looseness.
- Axials supports
- Sealed Sensors to avoid corrosion
- Slices cantilever
- Easy calibration

**Technical Specs**

- Max symmetric load: 300 kg (660 lb) / 1 kg (2.20 lb)
- Dimensions (L x An x Al): 2000 x 950 x 900 mm (79 x 37.5 x 35.5 in)
- Weight: 200 kg (440 lb)
- Maximum rotor diameter: 1600 mm (63 in)
- Maximum weight per base: 150 kg (330 lb)
- Maximum radial displacement: 12 mm (0.5 in)
- Maximum shaft diameter: 101 mm (4 in)
- Distance between supports min/max: 100 mm (4 in) / 1778 mm (70 in)
- Transmission: V Band Type A
- Lubrication: Type-I (manual)
- Precision: ±0.01 mm/s
- Accelerometer sensitivity: 100 mV/g
- ISO 2953 Reducción de desbalanceo por seg.: 97%
- Residual Unbalance: 1 gmm / 100 kg rotor
- Motor characteristics: 2.28 kW (3 hp) / 220/440 V, 3 phases, 4 poles
- Speed shifter: Included, 2.28 kW AC (3 hp)
EI SERIES | BALANCING MACHINES

EI-1000

The EI-1000 balancing machine is perfect for all kind of rotating assets up to 1000 kg, like rollers, motor rotors, crankshafts, mills and many more. The soft bearing suspensions are manufactured utilizing the highest quality antifriction components.

Characteristics

- Balancing in 1 and 2 planes without trial weights
- Variable speed with inverter
- Adjustable pulleys
- 3 liberty axis per pedestal
- Easy adjust of the transmission system and support distance
- Soft bearing suspension to minimize friction
- Axials supports
- Sealed sensors to avoid corrosion
- Auto-aligned slices
- Easy calibration

Technical Specs

- Max symmetric load: 1000 kg (2200 lb) / 3 kg (6.6 lb)
- Dimensions (L x An x Al): 2000 x 950 x 1100 mm (79 x 37.5 x 43.25 in)
- Weight: 200 kg (440 lb)
- Maximum rotor diameter: 1800 mm (71 in)
- Maximum weight per base: 500 kg (1100 lb)
- Maximum radial displacement: 12 mm (0.5 in)
- Maximum shaft diameter: 101 mm (4 in)
- Min / Max distance between supports: 100 mm (4 in) / 1778 mm (70 in)
- Transmission: Flat B
- Lubrication: Type-I (manual)
- Precision: ±0.01 mm/s
- Accelerometer sensitivity: 100 mV/g
- ISO 2953 unbalance reduction per sec.: 97%
- Residual Unbalance: 2 gmm / 100 kg rotor
- Motor Characteristics: 3.73 kW (5 hp)
- Speed shifter: Included, 3.73 kW AC (5 hp)

EI-1000
The EI-2000 balancing machine is built for industry and rotors to 2000 kg, just like machine rolls, motors rotors, large crankshafts, mills and more. The soft bearing suspensions of the EI-300 are made of ultralightweight anti-friction components.

**Characteristics**

- Balancing in 1 and 2 planes without trial weights
- Variable speed with inverter
- Adjustable pulleys
- 3 liberty axis per pedestal
- Easy adjust of the transmission system and support distance
- Soft bearing suspension to minimize friction.
- Axial Supports
- Sealed sensors to avoid corrosion
- Auto-aligned slices
- Easy calibration

**Technical Specs**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max symmetric load</td>
<td>2000 kg (4400 lb) / 5 kg (11 lb)</td>
</tr>
<tr>
<td>Dimensions (L x An x Al)</td>
<td>2000 x 1320 x 1295 mm (79 x 52 x 51 in)</td>
</tr>
<tr>
<td>Weight</td>
<td>200 kg (440 lb)</td>
</tr>
<tr>
<td>Maximum rotor diameter</td>
<td>2000 mm (79 in)</td>
</tr>
<tr>
<td>Maximum weight per base</td>
<td>1000 kg (2200 lb)</td>
</tr>
<tr>
<td>Maximum radial displacement</td>
<td>12 mm (0.5 in)</td>
</tr>
<tr>
<td>Maximum shaft diameter</td>
<td>228 mm (9 in)</td>
</tr>
<tr>
<td>Min / Max distance between supports</td>
<td>152 mm (6 in) / 1778 mm (70 in)</td>
</tr>
<tr>
<td>Transmission</td>
<td>Flat Belt</td>
</tr>
<tr>
<td>Lubrication</td>
<td>Type-I (manual)</td>
</tr>
<tr>
<td>Precision</td>
<td>±0.01 mm/s</td>
</tr>
<tr>
<td>Accelerometer Sensitivity</td>
<td>100 mV/g</td>
</tr>
<tr>
<td>ISO 2953 Reducción de desbalanceo por sec.</td>
<td>97%</td>
</tr>
<tr>
<td>Residual unbalance</td>
<td>2 gmm / 100 kg rotor</td>
</tr>
<tr>
<td>Motor characteristics</td>
<td>3.73 kW (5 hp) 220/440 V, 3 fases, 4 polos</td>
</tr>
<tr>
<td>Speed inverter</td>
<td>Included, 3.73 kW AC (5 hp)</td>
</tr>
</tbody>
</table>

*Using a Soft Bearing suspension system*
The EI-4500 balancing machine responds perfectly to the needs of industrial customers that balance mid-weight rotors. With the “trial weights” mode or influence coefficients you can balance fans, rollers, electric rotors and more.

Characteristics

- Slices with 2 positions
- Elevation screw
- Axial supports
- Flat belt transmission
- 3 liberty axis per pedestal
- 3 flat pulleys for transmission ajust
- Flat drive pulley
- Electric motor
- 2 acelerometers
- 2 channel interface
- Optical sensor with magnetic base

Technical Specs

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max symmetric load</td>
<td>4500 kg (10 000 lb) / 10 kg (22 lb)</td>
</tr>
<tr>
<td>Dimensions (L x An x Al)</td>
<td>2000 x 1700 x 1220 mm (78.74 x 67 x 48 in)</td>
</tr>
<tr>
<td>Weight</td>
<td>Per base: 78 kg (172.3 lb) Complete: 600 kg (1322.7 lb)</td>
</tr>
<tr>
<td>Maximum rotor diameter</td>
<td>1700 mm (66.93 in)</td>
</tr>
<tr>
<td>Maximum radial displacement</td>
<td>25.4 mm (1 in)</td>
</tr>
<tr>
<td>Maximum shaft diameter</td>
<td>279.4 mm (11 in)</td>
</tr>
<tr>
<td>Min / Max distance between supports</td>
<td>254 - 1778 mm (10 - 70 in)</td>
</tr>
<tr>
<td>Maximum shaft diameter</td>
<td>177 mm (7 in) / 1700 mm (67 in)</td>
</tr>
<tr>
<td>Diameter’s difference in pivots</td>
<td>50.8 mm (2 in)</td>
</tr>
<tr>
<td>Length of the bench</td>
<td>2000 mm (78.75 in)</td>
</tr>
<tr>
<td>Lock system</td>
<td>Yes (manual operation)</td>
</tr>
<tr>
<td>Vibration sensors</td>
<td>2 accelerometers (with 2 pins connectors)</td>
</tr>
<tr>
<td>Accelerometer sensitivity</td>
<td>100 mV/g</td>
</tr>
<tr>
<td>ISO 2953 Unbalance reduction per sequence</td>
<td>97%</td>
</tr>
<tr>
<td>Transmission</td>
<td>Flat Belt with manual tension</td>
</tr>
<tr>
<td>Lubrication</td>
<td>Tipo I (Manual)</td>
</tr>
<tr>
<td>Residual Unbalance</td>
<td>2 gmm / 100 kg rotor</td>
</tr>
<tr>
<td>Motor characteristics</td>
<td>7.5 hp (5.6 kW)</td>
</tr>
</tbody>
</table>

A 1700 mm / 67.00”
B 1220 mm / 48.00”
C 2000 mm / 78.74”
The EI-6000 balancing machine is built to be rugged, repeatable, and reliable. With the “trial weights” mode or influence coefficients you can balance fans, rollers, electric rotors and more.

Characteristics

- Slices with 2 positions
- Elevation screw
- Axial supports
- Flat belt transmission
- 3 flat pulleys for transmission adjust
- Flat drive pulley
- Electric motor
- 2 accelerometers
- 2 channel interface
- Optical sensor with magnetic base

Technical Specs

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max symmetric load</td>
<td>6,000 kg (13,228 lb) / 15 kg (33 lb)</td>
</tr>
<tr>
<td>Dimensions (L x An x Al)</td>
<td>2,000 x 1,686.3 x 1,371.6 mm (78.74 x 66.4 x 54 in)</td>
</tr>
<tr>
<td>Weight</td>
<td>Per base: 125 kg (263 lb) Complete: 1,280 kg (2,825 lb)</td>
</tr>
<tr>
<td>Maximum rotor diameter</td>
<td>2,000 mm (78.74 in)</td>
</tr>
<tr>
<td>Maximum radial displacement</td>
<td>25.4 mm (1 in)</td>
</tr>
<tr>
<td>Maximum shaft diameter</td>
<td>320.7 mm (12.625 in)</td>
</tr>
<tr>
<td>Min / Max distance between supports</td>
<td>355.6 - 1,943.1 mm (14 - 76.5 in)</td>
</tr>
<tr>
<td>Shorter distance between supports</td>
<td>482.6 - 2,500 mm (19 - 98.42 in)</td>
</tr>
<tr>
<td>“Using the support for short rotors”</td>
<td>Diameter’s difference in pivots 76.2 mm (3 in)</td>
</tr>
<tr>
<td>Lock system</td>
<td>Yes (mechanic operation)</td>
</tr>
<tr>
<td>Vibration sensors</td>
<td>2 accelerometers (with 2 pins connector)</td>
</tr>
<tr>
<td>Accelerometer sensitivity</td>
<td>100 mV/g</td>
</tr>
<tr>
<td>ISO 2953 Unbalance reduction per sequence</td>
<td>97%</td>
</tr>
<tr>
<td>Transmission</td>
<td>Flat belt with tension manual</td>
</tr>
<tr>
<td>Lubrication</td>
<td>Type I (Manual)</td>
</tr>
<tr>
<td>Residual Unbalance</td>
<td>2 gmm / 100 kg rotor</td>
</tr>
<tr>
<td>Motor characteristics</td>
<td>Included, 10 hp (7.45 kW) 220/440 VAC 4 polos</td>
</tr>
</tbody>
</table>

A 1,686.3 mm / 66.40”
B 1,371.6 mm / 54.00”
C 2,000 mm / 78.74”
Powerful... Precise... Performance. The dynamic balancing system

DigivibeMX M10 is the most powerful and precise solutions for dynamic balancing available on the market today. It is built with an intuitive interface and designed for both novice and for the most demanding users.

DigivibeMX M10 includes:

- Balancing without trial weights
- Calculator with 12 functions
- Balancing Wizard & In-Situ
- Balancing without phase
- Automatic Balancing Reports
- Multi-lingual software

Excellent precision
With this system you can obtain superior balancing quality

- Quality grad: G 0.4 @ 30 000 rpm
- Residual Unbalance: 1g mm/100 Kg
- Speed: 0.01 mm/s (ISO 10816)
Balancing Tools

2 Polar Graphs Balancing calculator with 12 functions:
- Add or remove weight
- Separate and combine weights
- Trial Weights
- Balancing in series (without trial weights)
- Drill depth
- Plate size
- Residual Unbalance
- Quality grade
- Balancing report

Automatic balancing reports:
- Runs values separates in tables
- Balancing evolution in RMS and filtered values
- FFT spectra
- Signal based on time in waterfall format
- Polar graphics with vibration phase
- Final spectrum

DigivibeMX M10 includes advanced features like:

- Bode diagram
- Frequency response
- Soft Bearing Suspension Mode
**DigivibeMX includes:**

- 2-Channel interface
- Accelerometer
- Laser Optical Sensor

**Cables**
- 4-pin connectors (1-A, 1-B, 2) for 24V accelerometers
- 5-pin connector (Op) for Optical Sensor
- Selector button (Ch 1 / Ch 2)
- Cable with USB connector (15cm)
- Weight 230g
- Dimensions (mm): 60(d) x 90(w) x 30(h)

**Calibrator**
- Dinamyc Impact Shock: 50g peak (max shock 5000g)
- Freq. response (+/- 3dB): 0.32 - 13000 Hz
- Freq. response (+/- 5%): 2 - 10000 Hz
- Sensitivity: 100 mV/g +/- 10%
- Transverse sensitivity: < 5%
- Power supply: 18-30 V / 3-8 mA
- Short-circuit protection
- Operation temp.: −10 - 50 °C
- Protection grade: IP 67, III
- Impact resistance: IEC 60028-27
- Standard 2-Pin MIL connector Magnetic Base
- Weight 50g
- Stainless steel body

**Software highlights**
- Displacement: 0.5 um to 30 mm (0.02 to 1200 mils)
- Velocity: 0.002 to 3000 mm/s (0.0001 to 120 in/s)
- Acceleration: 0.0001 to 100 G’s PP
- Lines of resolution: > 1 000 000
- FFT windows: Rectangular, Hanning, Hamming, Flaptop, Blackman, CosSum, Bartlett, Kaiser
- Measures: Peak, Peak to Peak, RMS

**System requirements**

**Hardware & Software Requirements:**

- Processor 1.6 GHz Minimum
- 1 GB RAM Minimum
- Windows 7 or newer (supports Windows 8.1 & Windows 10*)
- SVGA Monitor or better
- “Touch” mode for touch screen
- 300 MB free disk space
- 1 USB 2.0 port

*No available on Windows Mobile or Windows RT.
Accessories

The EI Series balancing machines have a wide range of optional accessories and supplies to improve performance and reliability.

**Negative Load Support** (Optional)

Accessory required to secure rotors with high vibration levels like crankshafts.

**Axial Supports** (Included)

The axial supports limit axial displacement.

**Pulleys Set** (Included)

**Transmission Belt** (Included)
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