ERBESSD INSTRUMENTS®

EI SERIES

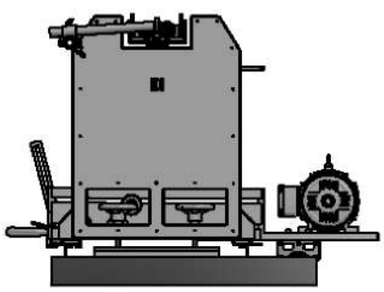
Balancing Machines

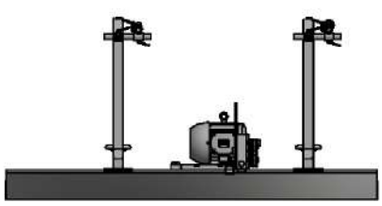


EI-30 is a high precision horizontal balancer ideal for turbochargers of high speed, as well as for other low weight rotors. The low inertia reduces vibration resistance and increases the sensitivity and accuracy of the balancing process.

Features

- 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.
- AxialSupports
- Sealed sensors to avoid corrosion
- Slices cantilever
- Easy calibration





Technical Specs

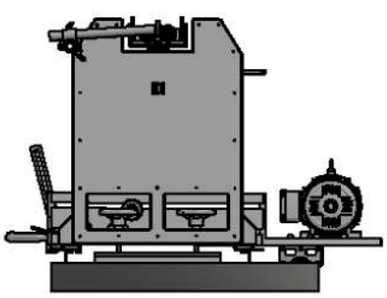
Max symmetric load	30kg(66lb) 0.1 kg (0.22 lb)
Dimensions	609x304x431mm
Weight	30 kg (66 lb)
Maximum rotor diameter	533 mm (21 in)
Maximum weight per base	15 kg (33 lb)
Maximum radial displacement	6.35 mm (0.250 in)
Maximum shaft diameter	50mm(2in)
Min / Max distance between supports	31 mm (1.25 in) 500 mm (19.75 in)
Transmission	Flat Band
Lubrication	Type-I (manual)
Precision	±0.01 mm/s
Accelerometer Sensitivity	100 mV/g
ISO 2953	97%
Residual unbalance	2 gmm / 100 kg rotor
Motor features	124 W (1/6 hp) 90VDC/1.8A 1,800 RPM
Speed driver	Input: 127/230 VAC~ 50/60Hz Output: 0 - 90/180 VDC

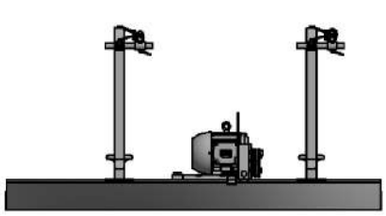


The Balancing Machine EI-300 is ideal for all types of rotating parts up to 300 kg, such as rollers, motor rotors, crankshafts, fans, mills, and more. The floating bases of the **EI-300** are made tough and lightweight to reduce mechanical inertia.

Features

- 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.
- AxialSupports
- Sealed sensors to avoid corrosion
- Slices cantilever
- Easy calibration





Technical Specs

Max symmetric load	300 kg (660 lb) 1 kg (2.20 lb)
Dimensions	2000 x 950 x 900 mm
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)
Min / Max distance between supports	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	97%
Residual unbalance	1 gmm / 100 kg rotor
Motor features	2.28 kW (3 hp) 220/440 V, 3 Phases, 4 poles
Speed shifter	Included, 2.28 kW AC (3 hp)

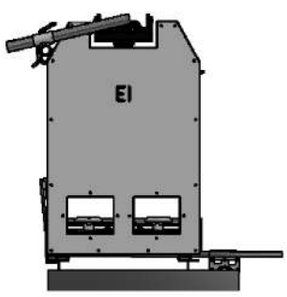
The EI-1000 Balancer

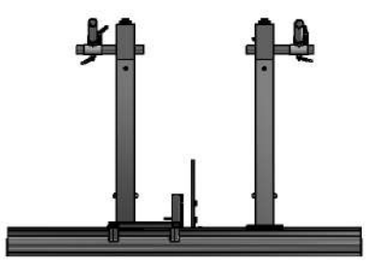
It is ideal for all types of rotating parts up to 1000 kg in weight, tales like rollers, engine rotors, crankshafts, mills, among others. The floating bases of the **EI-1000** are made tough and lightweight to reduce mechanical inertia.



Features

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





Technical Specs

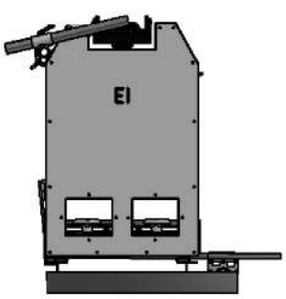
Max symmetric load	1000 kg (2200 lb) 3 kg (6.6 lb)
Dimensions	2000 x 950 x 1100 mm
Weight	200 kg (440 lb)
Maximum rotor diameter	1800 mm (71 in)
Maximum weight per base	500 kg (1100 lb)
Maximum radial displacement	12 mm (0.5 in)
Maximum shaft diameter	101 mm (4 in)
Min / Max distance between supports	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	97%
Residual unbalance	2 gmm / 100 kg rotor
Motor features	3.73 kW (5 hp) 220/440 V, 3 Phases, 4 poles
Speed inverter	Included, 3.73 kW AC (5 hp)

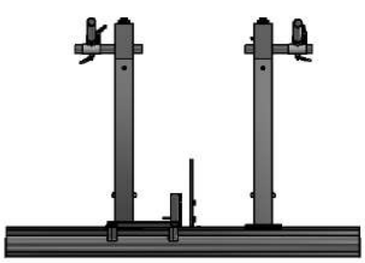
The Balancing Machine EI-2000 is ideal for all types of rotating parts up to 2000 kg as rollers, motor rotors, crankshafts, mills, among others. The floating bases of the EI-2000 are manufactured tough and light to reduce mechanical inertia.



Features

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





Technical Specs

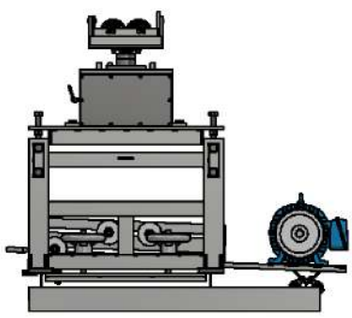
Max symmetric load	2000 kg (4400 lb) 5 kg (11 lb)
Dimensions	2000 x 1320 x 1295 mm
Weight	200 kg (440 lb)
Maximum rotor diameter	2000 mm (79 in)
Maximum weight per base	1000 kg (2200 lb)
Maximum radial displacement	12 mm (0.5 in)
Maximum shaft diameter	228 mm (9 in)
Min / Max distance between supports	152 mm (6 in) 1778 mm (70 in)
Transmission	Flat Belt
Lubrication	Type-I (manual)
Precision	±0.01 mm/s
Accelerometer Sensitivity	100 mV/g
ISO 2953	97%
Residual unbalance	2 gmm / 100 kg rotor
Motor features	3.73 kW (5 hp) 220/440 V, 3 Phases, 4 poles
Speed inverter	Included, 3.73 kW AC (5 hp)

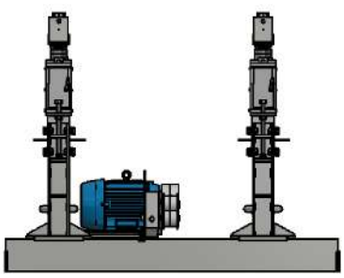


The balancer EI-4500 responds perfectly to the industrial needs of balancing for rotors of average weight. With the method "without test weights" or "influence" you can balance fans, rollers, drums, electric rotors, and more.

Features

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





Technical Specs

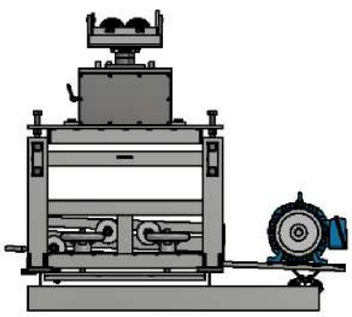
Max symmetric load	4 500 kg (10 000 lb) 10 kg (22 lb)
Dimensions	2000 x 1 700 x 1 220 mm
Weight	600 kg (1 322.78 lb)
Maximum rotor diameter	1700 mm (66.929 in)
Maximum weight per base	2250kg
Maximum radial displacement	25.4 mm (1 in)
Maximum shaft diameter	279.4 mm (11 in)
Min / Max distance between supports	254 - 1778 mm (10 - 70 in)
Transmission	Flat Belt with manual tension
Lubrication	Type-I (manual)
Precision	±0.01 mm/s
Accelerometer Sensitivity	100 mV/g
ISO 2953	97%
Residual unbalance	2 gmm / 100 kg rotor
Motor features	7.5 hp (5.6 kW) 220/440 VAC 4 poles
Diameter's difference in pivots	50.8 mm (2 in)
Lock system	Yes (mechanic operation)
Vibration sensors	2 accelerometers

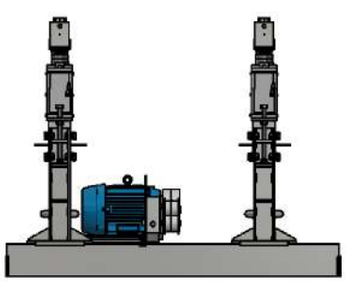


The balancer EI-6000 responds perfectly to the industrial needs of balancing for rotors of average weight. With the method "without test weights" or "influence coefficients" you can balance fans, rollers, drums, electric rotors, and more.

Features

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





Technical Specs

Max symmetric load	6 000 kg (13 228 lb) 15 kg (33 lb)
Dimensions	2 000 x 1 686.3 x 1 371.6 mm
Weight	1 280 kg (2 825 lb)
Maximum rotor diameter	2 000 mm (78.74 in)
Maximum weight per base	2250kg
Maximum radial displacement	25.4 mm (1 in)
Maximum shaft diameter	320.7 mm (12.625 in)
Min / Max distance between supports	355.6 - 1 943.1 mm (14 - 76.5 in)
Transmission	Flat Belt with manual tension
Lubrication	Type-I (manual)
Precision	±0.01 mm/s
Accelerometer Sensitivity	100 mV/g
ISO 2953	97%
Residual unbalance	2 gmm / 100 kg rotor
Motor features	10 hp (7.45 kW) 220/440 VAC 4 poles
Diameter's difference in pivots	76.2 mm (3 in)
Lock system	Yes (mechanic operation)
Vibration sensors	2 accelerometers

Accessories

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

Negative Load Support (Optional)

EI-30, EI-300, EI-1000, EI-200, EI-4500 and EI-6000

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



Transmission Belt (Included)

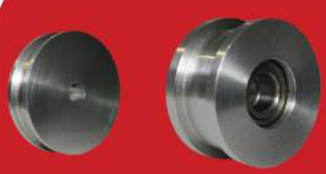


Axial Support (Included)

The axial supports limit axial displacement.



Pulley Set (Included)



+DigivibeMX M10

Powerful...
Precise..
Performance.
The dynamic
balancing system



DigivibeMX M10 is the most powerful and precise solution 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.

Includes:

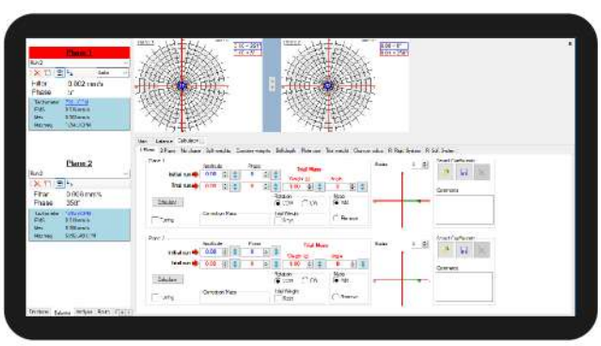
> Balancing without trial weights
> Calculator with 12 functions
> Balancing Wizard & In-Situ
> Balancing without phase
> Automatic Balancing Reports



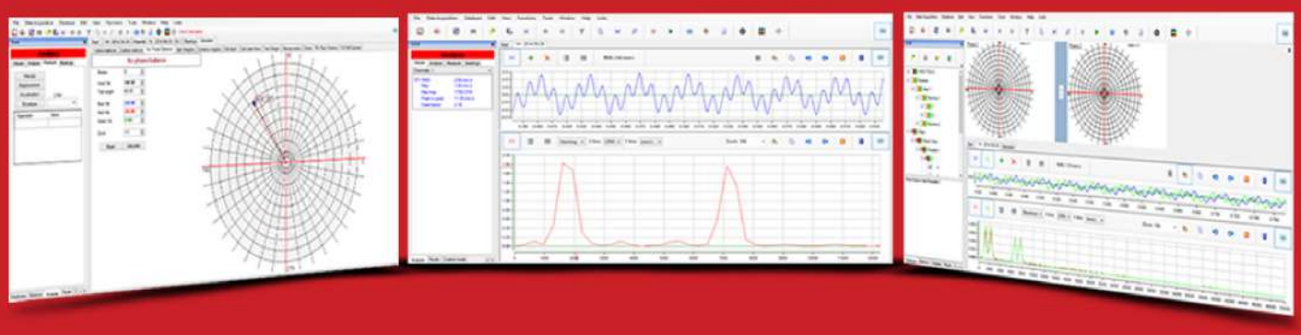
Excellent precision

With this system you can obtain superior balancing quality

>Quality grad:G0.4 @ 30 000 rpm
>Residual Unbalance:1g mm/100 Kg
>Speed:0.01 mm/s (ISO 10816)



Functions and tools **easy to use**



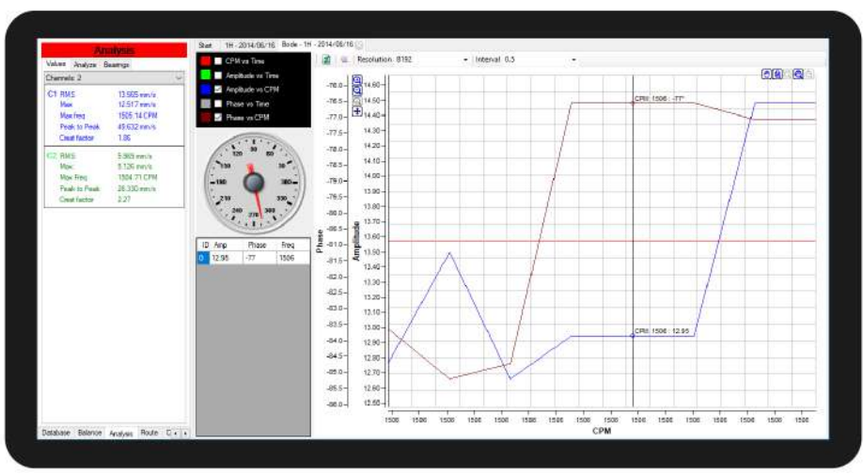
Balancing Tools

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
>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 10 include advanced features like:

> Bode diagram
> Frequency response
> Soft Bearing
> Suspension Mode



DigivibeMX Includes: One of our 3 Interfaces

EI-WiSER



Wireless accelerometer: 2.4 GHz
Sensitivity: 100 mV/g
Frequency Range:: (+/-3dB): 0.32 - 10 kHz
Operation distance: 30 m

Sample rate: 48 kHz - 24 bits

Standard
LEMO 5 Pin for additional sensors

Protection grade
IP 67

Rechargeable battery (CR-123)
14 hours of continuous use

Charger and USB receiver



Software Highlights

Displacement:
0.5 mm to 30 mm (0.02 a 1200 mils)

Velocity:
0.002 to 3000 mm/s (0.0001 a 120 in/s)

Acceleration: 0.0001 to 100 G's peak-peak
Lines of resolution: > 2,000,000

FFT Models:
Rectangular, Hanning, Hamming, Flaptop, Blackman, Cosign, Bartlett, Kaiser

Measurements peaks:
peak-peak RMS

4 Channel-Interface



4 Input 24V 4-pin connectors:
Up to 4 single axial accelerometers or 1 tri-axial accelerometer and 1 single axis accelerometer.

3 Input 5V 5-pin connector:
For optical sensor and non powered accelerometers/proximity probes.

Sample rate:
11k Hz - 22kHz - 44kHz

Power supply: USB 5V - 250mA
5-Pin LEMO Output: 24V - 5mA cc / 5V

Frequency Range: 0.5-40kHz

Weight 220 g
Dimensions: 89 x 129 x 19.5 mm



Accelerometer AC500

Dinamyc impact shock: 20 G Peak
(Max shock 5000g)

Freq. response (+/-3dB): 0.32 - 10 kHz

Sensitivity: 100 mV/g +/- 10%
Transverse sensitivity: < 5%

Power supply: 2.5/5V or 24 Volt
Short-circuit protection

Operation temperature.: -10 - 50 °C

Protection grade: IP 67,III
Impact resistance: IEC 60028-27
Standard 3 Pin MIL connector
Weight: 50g
Made of: Stainless steel body
Includes: Magnetic Base w/neodymium

2-Channel interface



5-Pin LEMO Connectors
(Ch 1-A, Ch 1-B, Ch 2/Op)

Active Plane Indicator
(LED 1-A & LED 1-B)

Channel Auto Switching
*Only with DigivibeMX® 10+

IP 67 Protection grade
4-pin LEMO to USB cable (1m/3ft)

Frequency Range: 0.5-20kHz

Dimensions: 79 x 70 x 24 mm /
Weight: 53g



Laser Optical Sensor

Analogic output

Range: 1 - 5,000 Hz

Power supply: 5V
Current supply: 10mA

Operation distance: 20cm to 15m

Operating temperature:
-10 -50 °C

Storing temperature: -40 - 85 °C

Protection grade: IP 60, III
Impact Resistanc: IEC 60028-27
Weight: 60g
Nylamid body

System requirements

> Processor Quad-Core or superior
> 4GB RAM
> Windows 10 (supports Windows 8.1 Windows 7*)
> SVGA Monitor or superior
> "Touch" mode for touch screen
> 300 MB free disk space
> 1 USB 2.0 port



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