

EIBALANCE

P C B A S E D D Y N A M I C B A L A N C E R

Datasheet

A complete and useful **Dynamic 2-Plane Balancing System**



Only for illustrative purposes. Tablet is not included.

Overview

EI-Balance is a balancing tool for single and two plane balancing installable on any Windows laptop or tablet; this equipment is specially designed for field balancing using the influence coefficient method (does not include the balancing wizard found in the DigivibeMX M10 & M30).

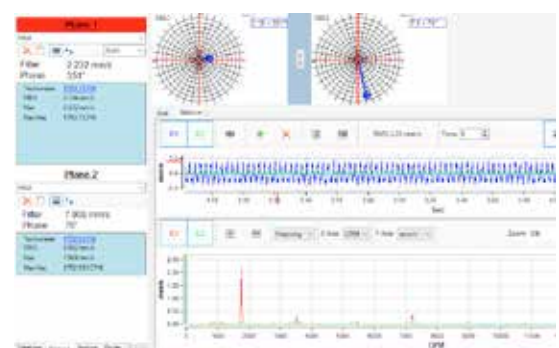
Thanks to its automated tracking filter, the system identifies the RPM in a selected range to avoid inaccuracies in case of slight changes in speed.

Balancing speed range from 100 to 120,000 RPM with signal recording time up to 1 minute.

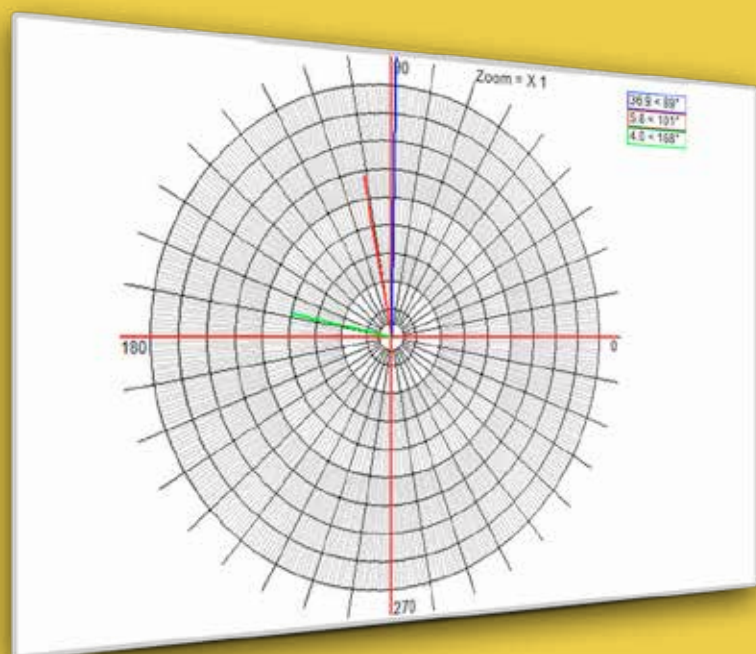
The **EI-Balance** can be used by professionals and novices with minimal knowledge in the dynamic balancing field because it is a very intuitive platform, and includes tutorial videos and a step-by-step user’s manual.

The User Interface shows the following data:

- Filter amplitude
- Maximum amplitude
- Overall RMS value
- Tachometer
- Polar graphs
- Real-time graph amplitude vs time
- FFT graphs



EI-Balance



Easy-to-use functions

With a single click, you can perform quick and accurate balancings

Balancing Tools

- 2 Polar graphics
- Real time FFT spectrum
- Multifunction balancing calculator



Balancing Calculator

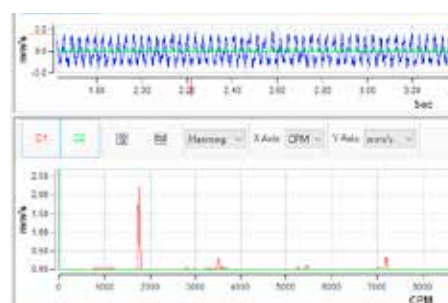
- 1 & 2 plane balancing
- Split & combine weights
- Removing weight drilling
- Add mass calculating plate sizes
- Calculate new radius for mass
- Calculate 1st trial Mass
- Serial Balancings and Residual Unbalance



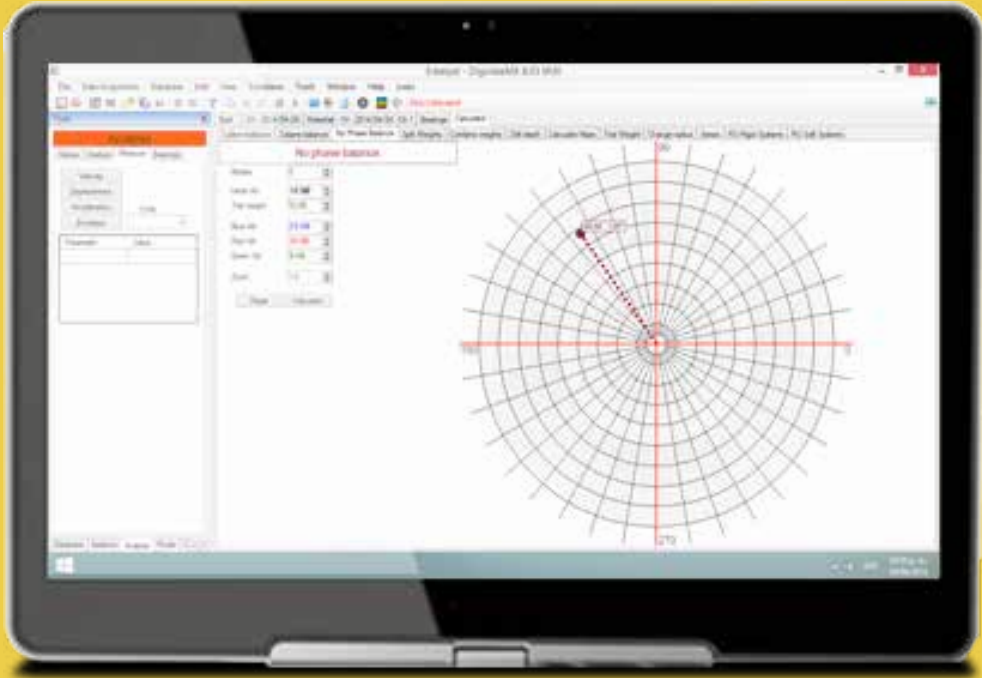
BALANCING CALCULATOR

FFT

- Frequency accuracy of 99% with a 10 second sample
- Measurement window (defined by user)
- Harmonics, Hz and CPM display
- 2000 FFT Points in real time, 16,000 3s recordings, up to 2,000,000 FFT Points recording 120s

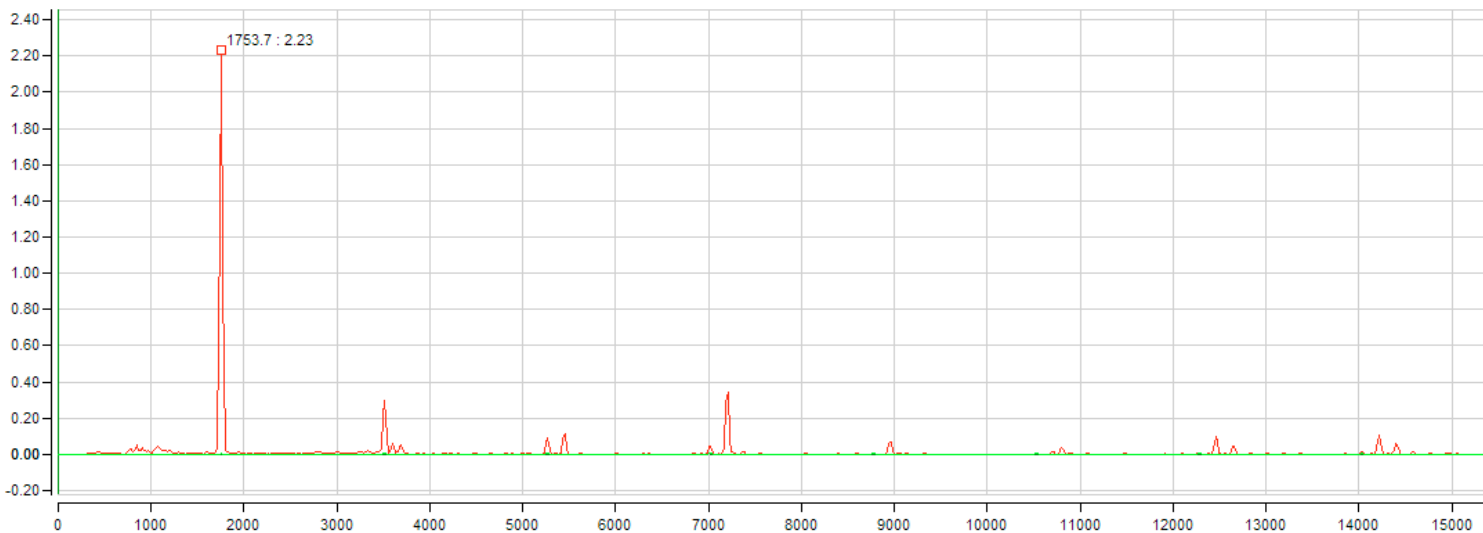


1 & 2 planes Dynamic Balancing



EI-Balance has a calculator for single and 2-plane balancing, this calculator uses the influence coefficients method. Therefore it is not necessary to establish the rotor’s dimensions and their bearings position (cantilever, between bearings, etc.) **EI-Balance** has a very friendly balancing interface. With a single click you can start balancing.

EI-Balance performs its calculations using the **Fast Fourier Transform (FFT)**. The number of resolution points of the spectra reaches 2 million resolution lines.



EI-Balance includes:

2-Channel interface



3 Input connectors: 1-A, 1-B & OP/2 .

Selector button (1-A/ 1-B)

Cable with USB connector (15cm)

Weight 127g

Dimensions (cm): 6(d) x 7.5(w) x 2.5(h)

* Dimensions may vary.

2 Accelerometers



Dynamic Impact Shock: 50g peak (max shock 5000g)

Freq. response (+/- 3dB): 0.32 - 13 000 Hz

Freq. response (+/- 10%): 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 68

Impact resistance: IEC 60028-27

Standard 2-Pin MIL connector

Includes 2-Pin to 4-Pin cable and Magnetic Base

Stainless steel body

Weight 50g

Laser Optical Sensor



Analogic output / Range: 1 - 5000 Hz

Power and current supply: 5V , 20 - 30 mA.

Voltage drop: <0.4 V

Short circuit, Reverse Voltage and Over-Voltage (15V for 1min) protection

Operation distance: 20 cm up to 15 m

Operating temp: -10 - 50 °C

Storing temp: -40 - 85 °C

Protection grade: IP 67, III

Impact Resistance: IEC 60028-27

Weight 60 g

Nylamid body

Cables



Calibrator



Soft Case



Installation CD & User Manual



Software highlights

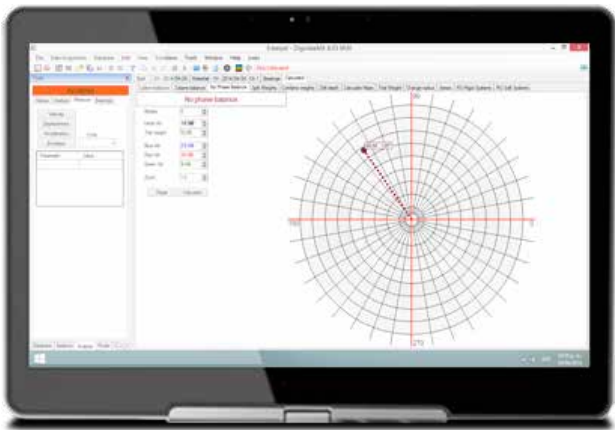
Velocity: 0.002 to 3000 mm/s (0.0001 to 120 mm/s)

Lines of resolution: > 2 000 000

Units: Peak, Peak to Peak, RMS in mm/s, in/s

System requirements.

Minimum requirements for the computer or tablet* to install **EI-Balance**:



- Intel ® Celeron ® (1.60GHz / 400MHz FSB) or higher
- 1GB RAM DDR2 or higher
- Windows 10 (compatible with Windows 7,8 & 8.1*)
- SVGA display or higher (touch screen supported)
- 300 MB minimum free hard disk space
- USB Port

*Windows RT devices are not supported.



Accessories

Increase capabilities and performance with optional accessories

Upgrade to DigivibeMX



DigivibeMX M10 is the Dynamic Balancing System with the most functions on the market. It is built with an intuitive interface and designed for the most demanding users.

Upgrading features:

- Balancing reports
- Balancing without trial mass
- Multilanguage
- Intuitive and friendly interface
- Analysis functionalities
- Compatible with 4-Ch interface



Magnetic stand



Neodymium magnets for round and flat surfaces.

Shielded Cables



A wide range of shielded monoaxial cables with 4 or 5 Pin security connectors. Suitable for Accelerometers and Optical Sensors.

Hard Case



Rugged industrial case with foam to accommodate your balancing system and accessories.

Weight Scales



200 g, 500 g and 1000 g

