

DigivibeMX[®]

Vibration Analyzer, Data Collector &
Dynamic Balancer

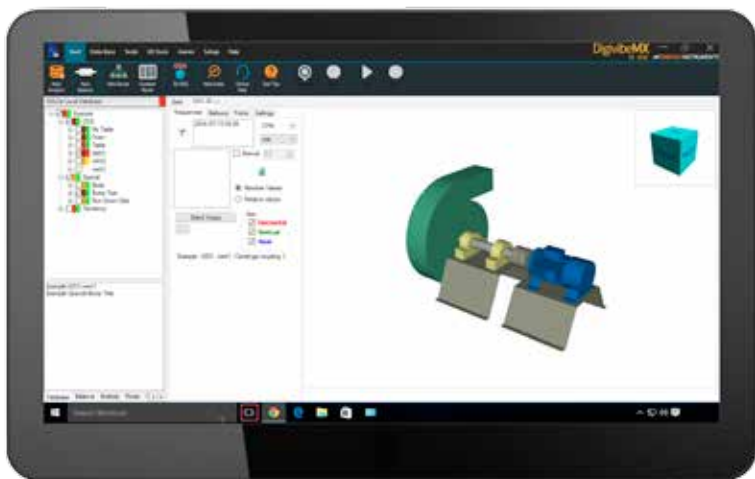
The most complete, reliable and productive **Dynamic Balancing and Vibration Analysis Device**



Only for illustrative purposes. Computer is not included.

Overview

The **DigivibeMX** platform is the most complete, reliable and productive device for dynamic balancing, vibration analysis and portable data collection. Digivibe allows you to do simple and complex analysis in both on and off route modes. The Balancing functions can be used in the field and on balancing machines. The intuitive interface is perfect for novice and expert users alike.



Functions

3D ODS Analysis
FFT Spectra 3D Waterfall
Dual Channel Functions
FFT Spectra with 2 million lines of resolution
Lines and columns tendency (octaves)
Statistical machinery condition
Code Bar generator
Easy-to-use and understand color coding
Intelligent Analysis
Large Bearing Database
Synchronize with other users easily
Export to ASCII, WAV, UFF-58
Gear calculator
4 Channel, Trial Capable Option
Analysis and Balancing Reports (CSS, Word, Excel)
Balancing in the field in 1 or 2 planes
Automatic Balancing Reports
12 functions in the balancing calculator
Balancing without trial weights



Take a shot.
Get the data.

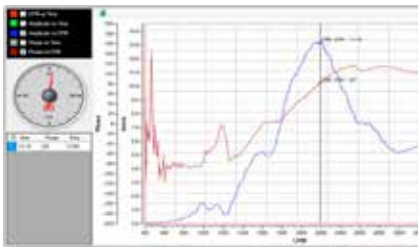
DigivibeMX can easily identify your machines using our embedded barcode generator and reader.

¹Available at M20 & M30

Advanced Analysis M30 M20

Advanced features allow you to diagnose complex problems in machinery and structures avoiding high costs of downtime, collateral damage, and unplanned repairs.

The most common tool are:



- Signal in time FFT
- FFT Pointers
- CPM, Hz, Orders
- FRF & Bump Test
- Waveform Analysis-
- Transient Capture

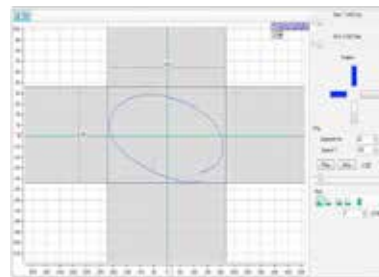
Bearings and Gears M30 M20

DigivibeMX has a expandable data base with failures frequencies of more than 20,000 bearings. Also includes functions for frequencies calculation and analysis of gears.

Designation	Type	Internal diameter	External diameter	Width	Dynamic load rating kN	Static load rating kN	Fatigue load line kN	Reference speed
623	1 HB	3	10	4	0.54	0.18	0.007	130000
623-2RS1	1 HB	3	10	4	0.54	0.18	0.007	-
623-2Z	1 HB	3	10	4	0.54	0.18	0.007	130000
623-RS1	1 HB	3	10	4	0.54	0.18	0.007	-
623-Z	1 HB	3	10	4	0.54	0.18	0.007	130000
618/4	1 HB	4	9	2.5	0.54	0.18	0.007	140000
626/4-2Z	1 HB	4	9	3.5	0.54	0.18	0.007	140000
638/4-2Z	1 HB	4	9	4	0.54	0.18	0.007	140000
619/4	1 HB	4	11	4	0.715	0.232	0.0098	130000
619/4-2Z	1 HB	4	11	4	0.715	0.232	0.0098	130000
604	1 HB	4	12	4	0.806	0.28	0.012	120000
604-2Z	1 HB	4	12	4	0.806	0.28	0.012	120000
604-Z	1 HB	4	12	4	0.806	0.28	0.012	120000

Dual Channels M30 M20

The Dual Channel functions offers advantages, because it save time for the data collection and obtains information that can't be achieved with one channel analysis.



- Orbits
- Cross Power Spectrum
- Transference function
- Coherence function
- Bode
- Nyquist
- Phase Analysis

Machinery Data Bases M30 M20

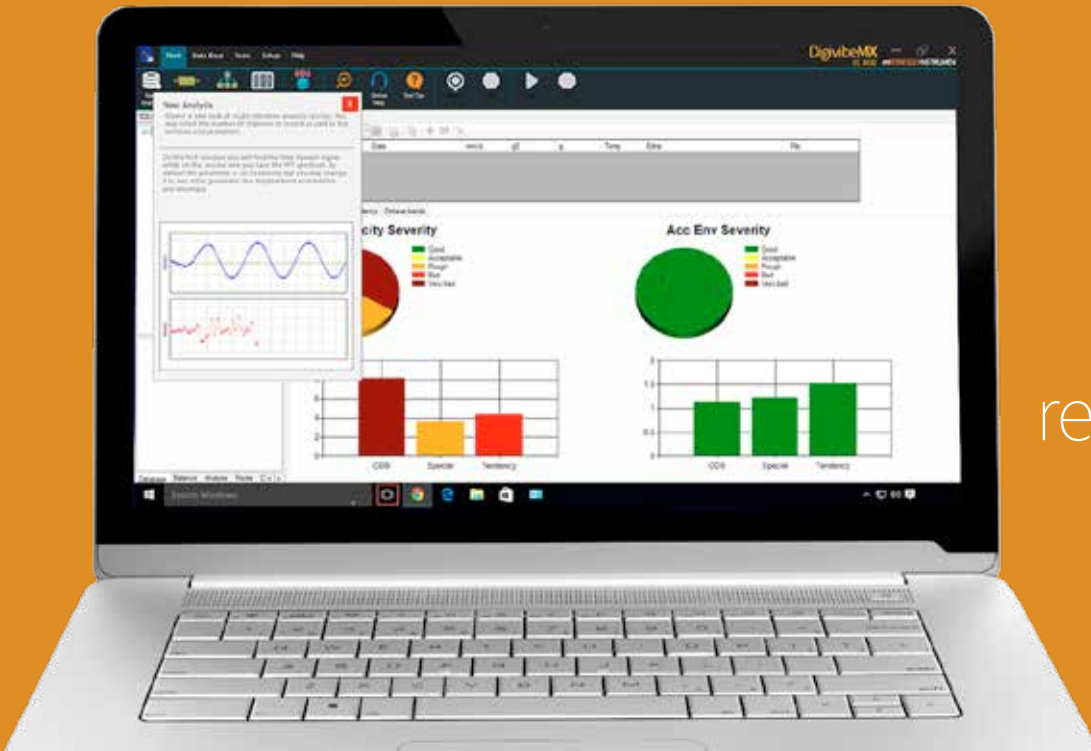


- Name, area & company.
- Measure points
- Kind of coupling
- Iso Class

Compatibility M30 M20



- ASCII* Format
- UFF58 Files
- ANL BAL
- WAV (stethoscope)

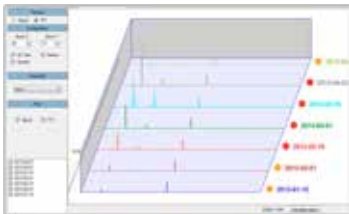


Functions and Tools

that allows you to diagnose the real status of your machines.

Predictive Analysis Tools M30 M20

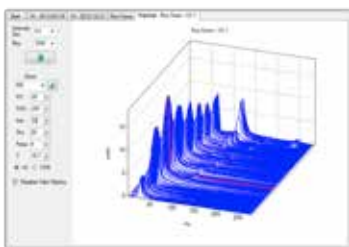
ESPECTRO EN CASCADA



DigivibeMX allows the users to complete analysis of all kinds of machinery in the data base with tools like:

- Machinery database and routes
- Database with more than 20,000 bearings & a gear calculator
- Speeds Interpretation tools and diagnostics
- Cascade Spectra
- 3D ODS

FFT Spectra M30 M20 M10



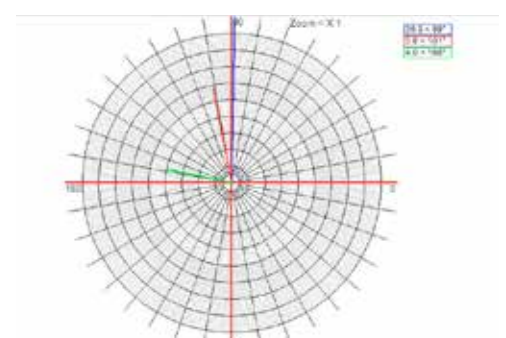
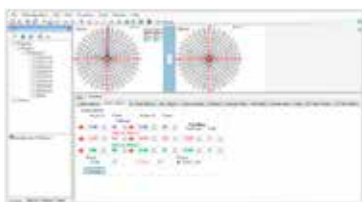
The spectral analysis tools in DigivibeMX are based on the FFT algorithm, able to measure very low frequencies (0.4 Hz) and up to 30kHz. The precision of the spectra adjust based upon the point definition and can reach several million lines of resolution

- Spectra with millions of resolution lines
- Spectrogram
- 3D Spectra
- Pointers
- Zoom In - Zoom Out
- Markers
- FFT Averaging

Dynamic balancing in 1 and 2 planes M30 M10

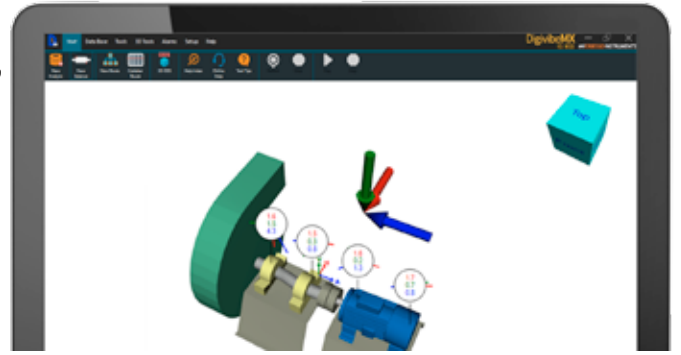
- Balancing without trial weights
- 2 Polar graph
- Calculator with 12 functions:

- Add or remove weight
- Separate or combine weights
- Trial weights
- Balancing in series (without trial weights)
- Drills calculation
- Residual Imbalance
- Degree of quality
- Intelligent Machine Wizard
- Balancing Report



ODS Functions M30 M20

ODS analysis is now a easy task. Create your 3D model in 3D design software (3DS Max, Blender, Solid Works, Windows 3D Builder that comes free with Windows 10 etc.) import the model to the DigivibeMX to generate a customized ODS analysis. The phase analysis also calculates the coherence between signals, the cross power and the transference to ensure that all of the recorded signals are consistent. Also all the 3D simulations can be exported to AVI video or to an animated graphic GIF.



3D Cascade M30 M20

One FFT graphic in cascade (waterfall) is a spectral representation variable in time (creating a 3D drawing) that shows how the density of a signal vary as time passes. DigivibeMX includes a tool that generates this graph easily with the ability to rotate and zoom in with the mouse or your finger like in other 3D software.



System requirements

Requirements of the laptop/tablet where Digivibe its going to be installed:

- > Processor 1.6 GHz or superior
- > 1 GB RAM or superior
- > Windows 7 or superior (supports Windows 8.1 Windows 10*)
- > SVGA Monitor or superior
- > "Touch" mode for touch screen
- > 300 MB free disk space
- > 1 USB 2.0 port



*Does not work with Windows RT.

DigivibeMX includes:

2-Channel interface



- 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)

Accelerometer



- 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

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: 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 & Magnetic Base



*Solo M10 y M30

Installation CD & User Manual



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

Accessories Digital Scale



200 g, 500 g y 1000 g

Magnetic base- for acelerometer



4 Channel interface



4 Channel Interface measures with a max sample of 44100 Hz. Supports 4 acelerometers monoaxials or 1 triaxial acelerometer and 1 opti-calsensor
Weight: 220 g. Dimen-sions:129 x 84 x 19 mm.

Triaxial Acelerometer



Is the ideal sensor to measure simultaneously*the X, Y, Z axis for 3D analysis, dual functions and data collector in routes.

*Requires a 4 channel interface

 **ERBESSD RELIABILITY™**

Service & Support Engineer

1-877-223-4606 / +52 (55) 6280-7654 / 7592-2130

support@erbessd-instruments.com

support@erbessd-reliability.com

Sales

info@erbessd-instruments.com

info@erbessdreliability.com

BUY ONLINE

www.erbessd-instruments.com

www.erbessdreliability.com

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