ERBESSD RELIABILITY™

DigivibeMX®

Vibration Analyzer, Data Collector &
Dynamic Balancer

The most complete, reliable and productive **Vibration analyzer, Collector** and **Dynamic Balancer**

Only for illustrative purposes. Computer is not included.

Overview

DigivibeMX platform is the most complete, realiable and productive vibration analyzer, collector & dynamic balancer. Digivibe allow you to do simple and complex analysis in both on and off route modes. The Balancing functions can be used in situ and on balancing machines. The intuitive interface is perfect for novice and expert users alike.

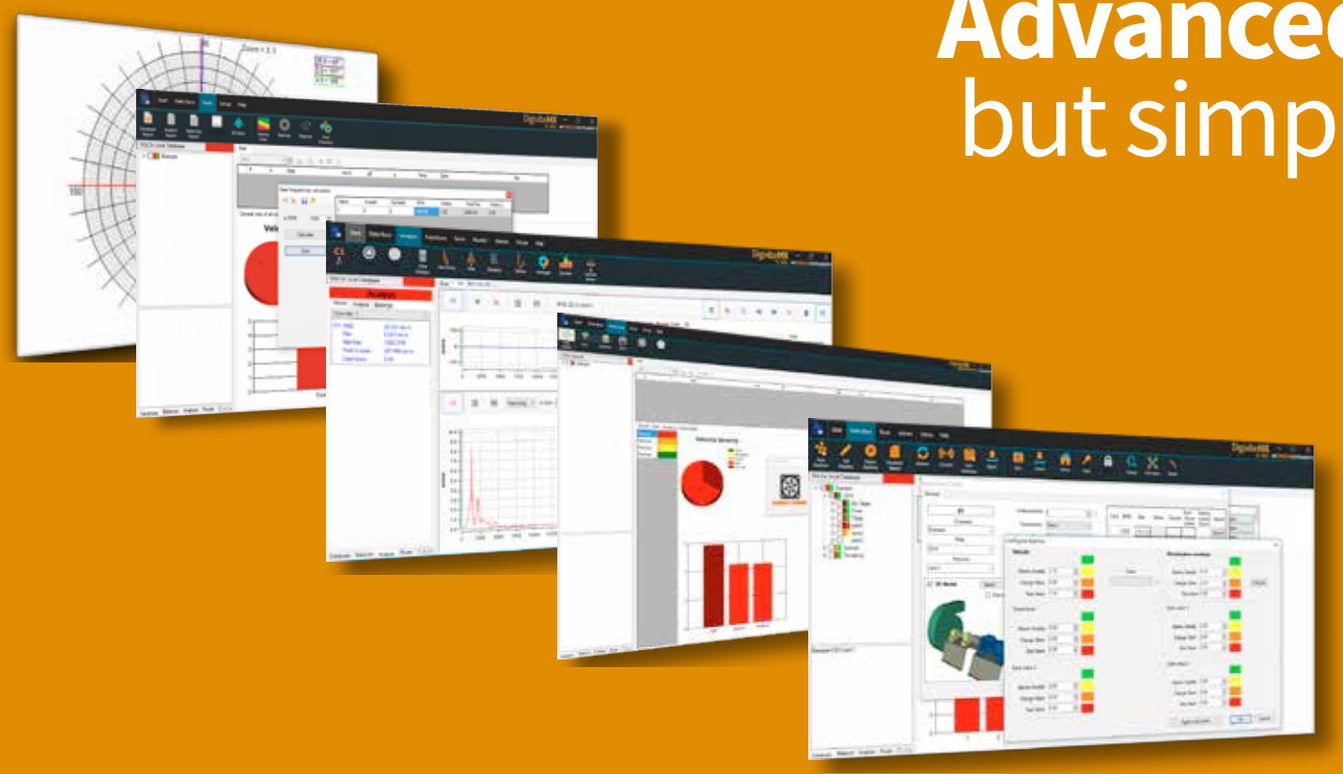
DigivibeMX Series

DigivibeMX M30: vibration analyzer, data collector and dynamic balancer.

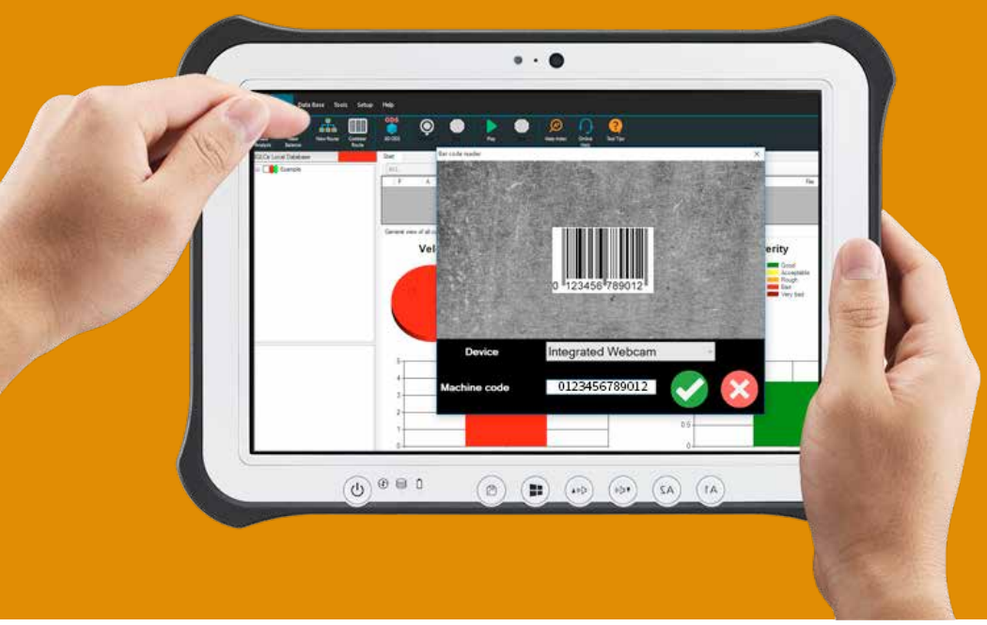
DigivibeMX M20: vibration analyzer and data collector.

DigivibeMX M10: balancer for 1 and 2 planes.

Advanced, but simple



Functions	M30	M20	M10
3D ODS Analysis	●	●	
FFT Spectra 3D Waterfall	●	●	
Dual Channel Functions	●	●	
FFT Spectra with 2 millon lines of resolution	●	●	
Lines and columns tendency (octaves)	●	●	
Statistical machinery condition	●	●	
Barcode generator	●	●	
Easy-to-use and understand ISO color alarm 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)	●	●	●
Multilanguaje	●	●	●
Balancing in situ in 1 and 2 planes	●		●
Balancing calculator with 12 functions	●		●
Balancing without trial weights	●		●



Take a shot. Get the data.

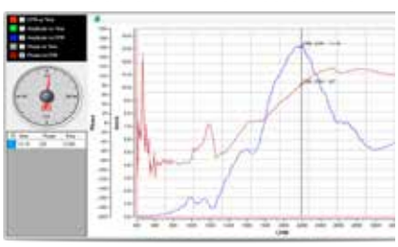
DigivibeMX can easily identify your machines using our embedded barcode generator and reader.

[1]Available at M20 & M30

Advanced Analysis M30 M20 M10

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

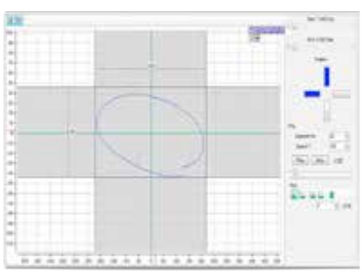
The most common tool are:



- Time domain
- FFT Pointers
- CPM, Hz, Orders
- FRF & Bump Test
- Waveform Analysis- Transient Capture

Dual Channels M30 M20

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



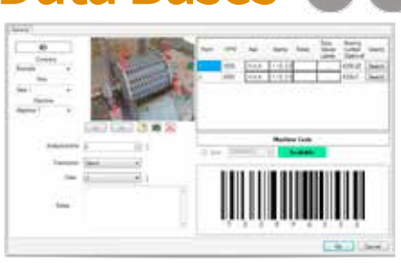
- **Orbits**
- **Cross Power Spectrum**
- **Transference** function
- **Coherence** function
- **Bode**
- **Nyquist**
- **Phase Analysis**

Bearings and Gears M30 M20

DigivibeMX has a expandable data base with failure frequencies of more than 23,000 bearings. It also includes functions for frequencies calculation and analysis of gear boxes.

Designation	Type	Internal diameter	External diameter	Width	Dynamic load rating kN	Static load rating kN	Fatigue load limit 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
628/4-2Z	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

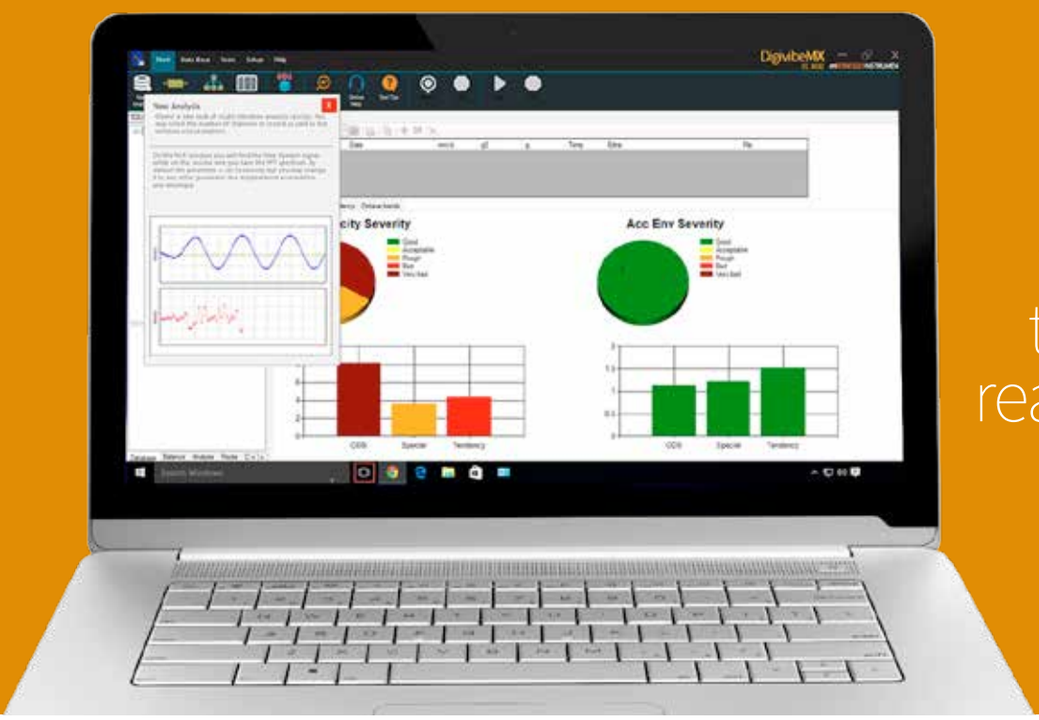
Machinery Data Bases M30 M20



- Name, area & company.
- Measure points
- Type of coupling
- Iso Class
- Export/Import db

Compatibility M30 M20

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



Functions and Tools

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

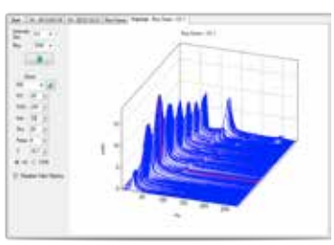
Predictive Analysis Tools M30 M20

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 23,000 bearings & a gear calculator
- Diagnosis Interpretation tool
- Cascade Spectra
- 3D ODS

FFT Spectra M30 M20 M10

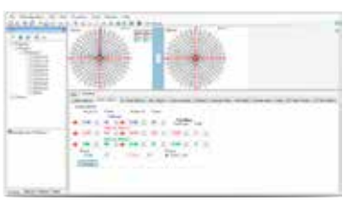


The spectral analysis tool in DigivibeMX are based on the FFT algorythm, able to measure very low frequencies (0.4 Hz) up to 30kHz. The precision of the spectra adjust based upon the point definition and can reach 2 million lines of resolution.

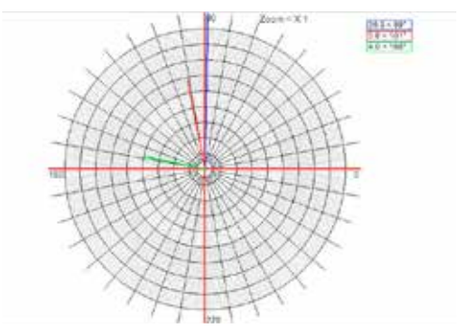
- Spectra with 2 million of resolution lines
- Spectrogram
- 3D Spectra
- Pointers & cursors
- Zoom In - Zoom Out
- Markers
- FFT Averaging

Dynamic balancing in 1 and 2 planes M30 M10

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

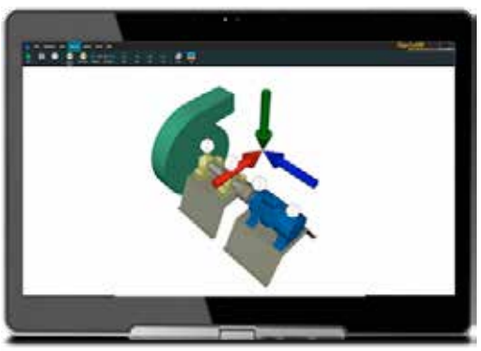


- Add or remove weight
- Separate or combine weights
- Trial weights
- Serial Balancings (without trial weights)
- Drill calculation
- Residual Imbalance
- Degree of quality
- Intelligent Machine Wizard
- Balancing Report



ODS Function

M30 M20



ODS analysis is now an 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

The FFT graphic in cascade (waterfall) is a spectral representation variable in time (creating a 3D drawing) showing 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 fingers like in any other 3D software.

System requirements

Requirements to install the Digivibe:

- Processor 1.6 GHz or superior
- 2 GB RAM or superior
- 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

*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 for plane 1 or plane 2
- Cable with USB connector (45cm)
- Weight 230g
- Dimensions (mm): 60(d) x 90(w) x 30(h)

2 Accelerometer

- Dinamyc Impact Shock: 80g 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 w/neodymium magnet
- 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 Stand*

*Only M10 & 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: 0-Peak, Peak to Peak, RMS**

Accessories

3-axis Accelerometer

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

Digital Scale

200 g, 500 g & 1000 g

Magnetic base

4-Ch Interface

4 Channel Interface measures with a max sample rate of 44100 Hz. Supports 4 monoaxis accelerometers or 1 triaxis accelerometer and 1 laser optical sensor

Weight: 220 g. Dimensions:129x84 x19 mm.

ERBESSD RELIABILITY™

Service & Support Engineer
+1-518-874-2700 /+52 (55) 6280-7654 / 7592-2130
support@erbessd-instruments.com

Sales
info@erbessd-instruments.com
info@erbessdreliability.com

Buy Online
www.erbessd-instruments.com
www.erbessdreliability.com

USA | MEXICO | SPAIN | CANADA

C-2017.0321.09