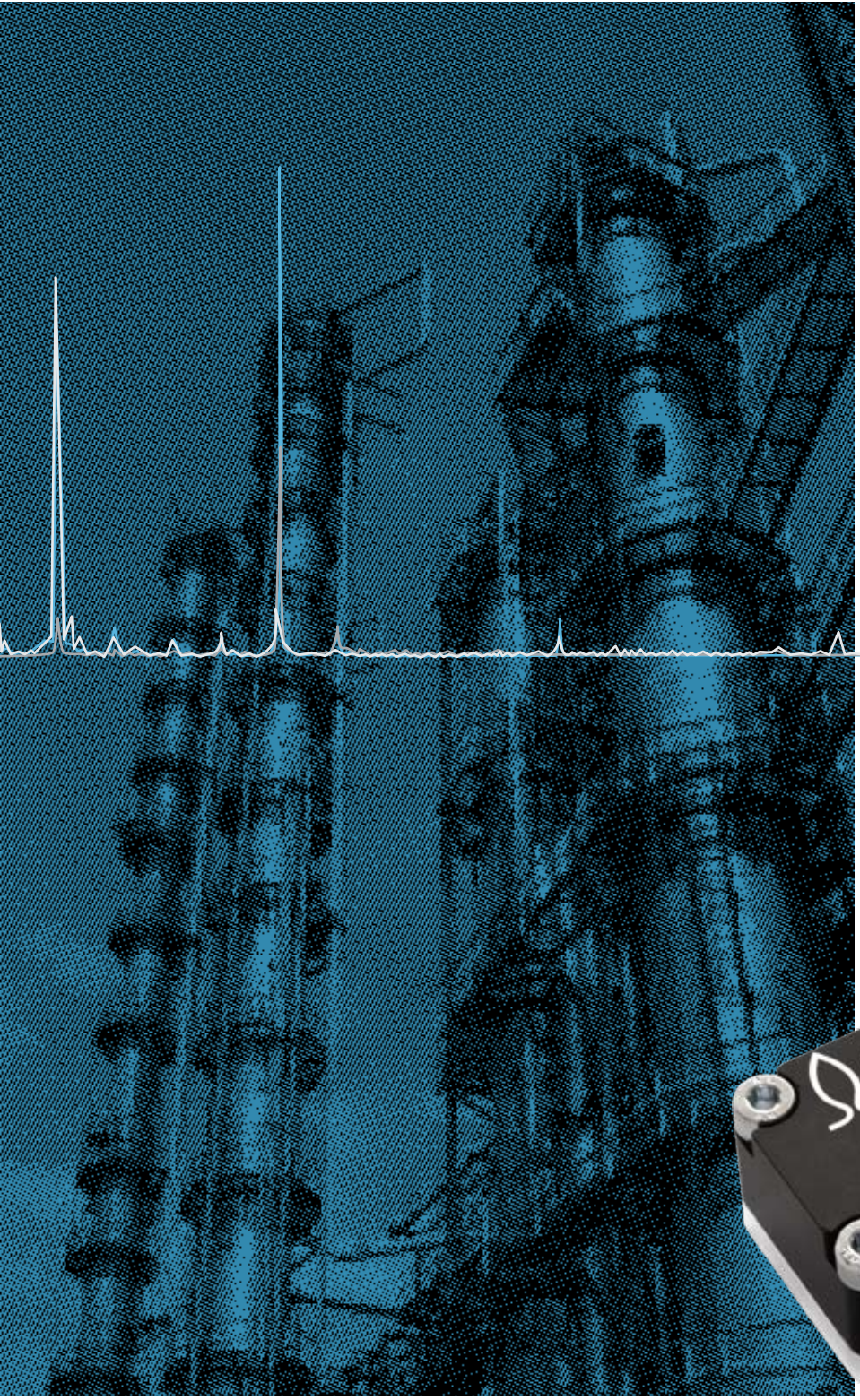
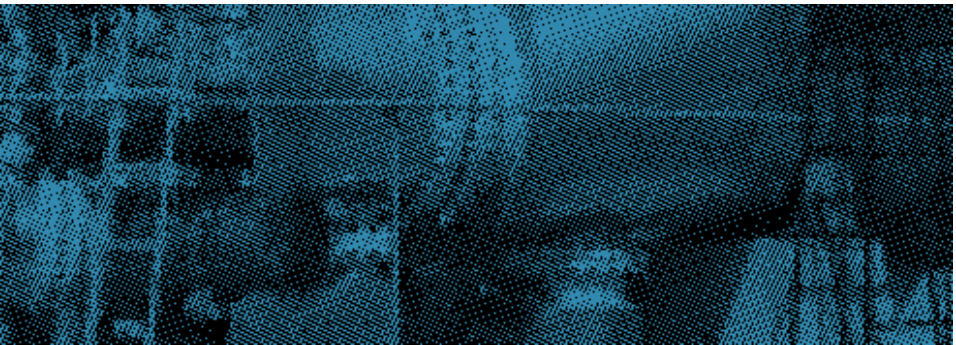




Fast Tracer

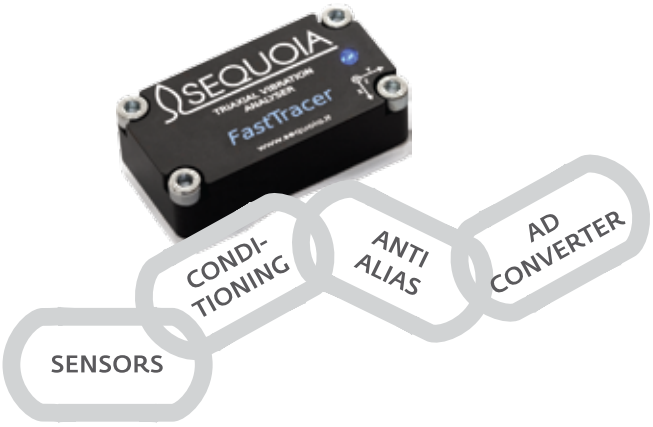
VIBRATION ANALYSIS AT FINGER TIPS



SEQUOIA

*Fast*Tracer

All the measurement chain within a sensor



FastTracer is a new, innovative concept in the vibration analyzer market. Thanks to MEMS technology, SEQUOIA IT combine in a sensor all features required in a powerful vibration analyzer:

- Tri-axial MEMS Sensor
- Signal Conditioning
- A/D Converter

Thanks to a standard USB port, FastTracer brings vibration data in your PC.

The Concept behind

Few essential drivers have been followed into the FastTracer design:

- Keep it Simple
- Keep it Handy
- Keep it Affordable
- Keep it Accurate
- Keep it Powerful

SENSOR

The tri-axial, MEMS, digital, extremely robust sensor is the core of the whole system

DRIVER

No need to purchase any software. Simply use the supplied library and develop your own application

CORE SOFTWARE

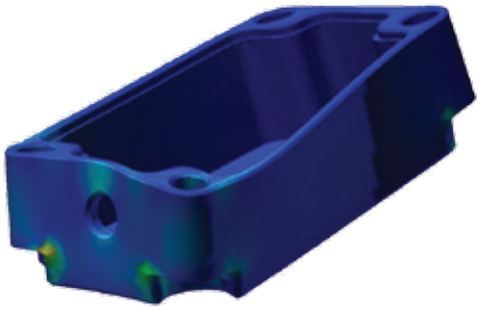
The core software includes what is necessary to perform vibration analysis including tools such as RMS calculation, spectral analysis and data recording

APPLICATION SOFTWARE

It this not enough?
You can also expand FastTracer functionalities thanks to the application software

The Hardware

The hardware has been developed using MEMS technology. Thanks to the hardware, the robustness of the sensor is guaranteed for long time. Furthermore, the accuracy of measurements is granted by the calibration certificate.
The data are digitized directly in the sensor avoiding in this way triboelectric noise in the cable.
The assembling operation on ferromagnetic materials is very easy thanks to a base which has been designed specifically to be used both on flat and curved surfaces.



FEM study of dynamic behavior of sensor case

USB Connection

The sensor can be easily connected to your PC thanks to a standard USB interface. There is no need of a dedicated interface, just plug the system in and get ready to play with your PC.



...and Wi-Fi Communication

FastWi device is available for Wi-Fi transmission in order to carry out measurements in the most difficult points to be reached.



Why must Vibrations be measured?

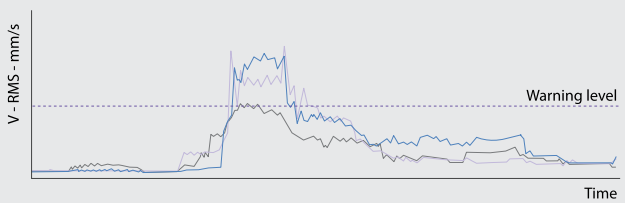
Vibrations are often a warning or a cause of malfunctioning in mechanical engineering.



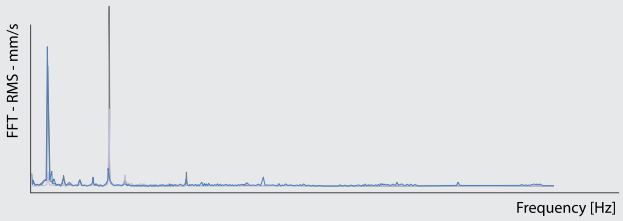




The overall vibration analysis helps you identify easily any damages, either if you are using a complete system or a sub-component.



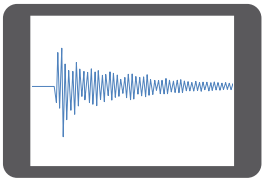
Why does vibration level increase over time?
You can detect and identify the cause of the problem thanks to the spectrum analysis. Is it a tooth gear or a ball bearing?



FastTracer helps you perform vibration analysis easily and professionally.

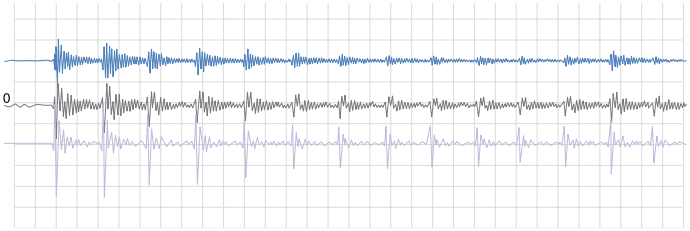
The Core Software

The standard software supplied with the system, the FT Analyzer, offers a complete range of analysis:



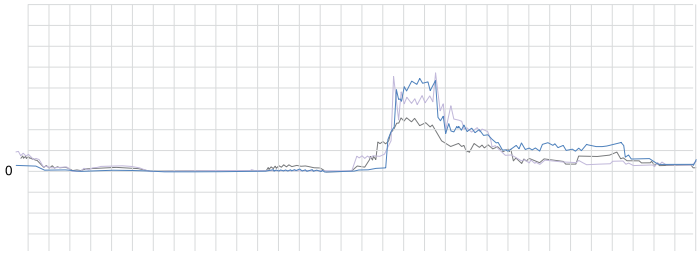
Time Signal Analysis

It allows a clear view of the acquired signal with zoom functionality. It is particularly useful to explore transitory phenomena.



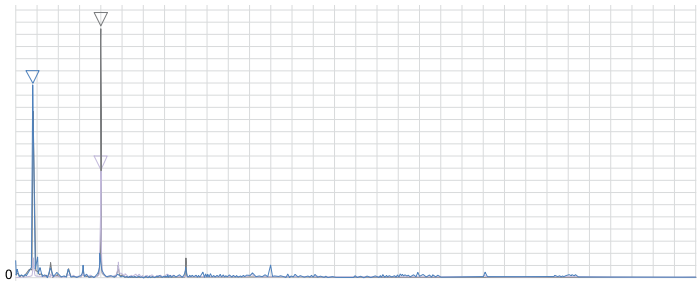
RMS Evaluation

The RMS vibration values, which are calculated in conformity with ISO 10816, allow a quick verification of the vibration severity. The calculated values can be compared with the limits provided by the standards. Furthermore, the tri-axial feature reduces drastically the testing time, when measurements are performed in different locations (eg. axial and radial directions on a shaft bearing).



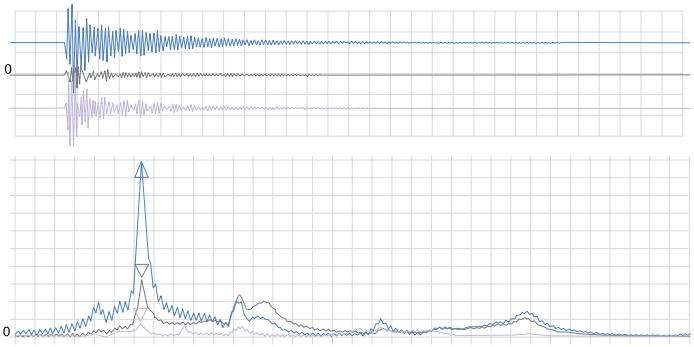
FFT Analysis

Spectral analysis includes several options which are not available in standard handheld instruments. Not only the possibility of performing it directly on three axis, but also of analyzing the same signal in real time with different setups, allowing the use of different frequency resolutions.



Bump Test

It is very important to understand the resonance frequency of a structure, in order to avoid that a vibration source could be enhanced by the structural behaviour. The bump test functionality allows to perform the resonance test without using modal hammer.



Data Recording

While making your real time analysis, raw data can be recorded for further post processing in the FTAnalyzer or exported to a text file to be analyzed by other advanced software such as excel or matlab.

The software is not only simple and flexible. By using the PC, it allows to exploit the PC technology, such as the integration in Microsoft Office environment with quick excel and/or word reports and the direct communication to the rest of the world using the mail and the internet.

The Application software

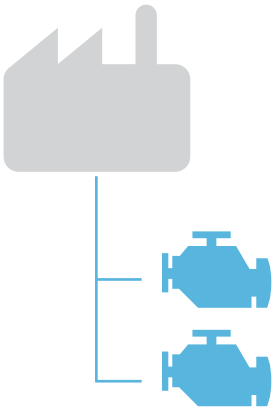
Balancer

Rotor unbalance is one of the main causes of excessive vibrations in rotating equipments. The balancing in situ is often complicated due to the necessity of setting up a correct phase reading by means of a tacho probe. When applicable, the BALANCER application provides a fast and reliable way to balance your rotor for single plane static rotor balancing. Just mount the sensor and follow the procedure.



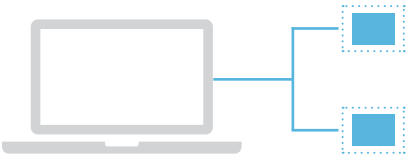
Esplora 3D

The root base management software of SEQUOIA IT. The software allows building up your standard vibration test on your machine providing to non-expert users a graphical guide for operating the machine for testing, to know where and how to place the sensor, which kind of tests should be performed, the indication of the problem and the correction to be performed. The basis of your preventive maintenance program (BETA Version).



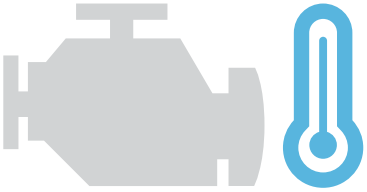
Multisensor

From now on, with FT analyzer it is possible to use multi-sensors at the same time. This functionality speeds up not only the measuring time (when several test locations on your machine should be evaluated) but it extends some applications of the software, e.g. testing transmission property of damper in situ.



Genset

Special application software dedicated to assess the vibrations of a generator in situ, to define position on generators where test should be performed, to set the order to be evaluated and to define appropriate limits. It is also available with a special version of the sensor suited to high temperature operations.



FastTracer Kits

FastTracer - PA

The basic FastTracer kit is delivered with the calibration certificate, the leather case, DLL and LABVIEW library for programming purposes.

ORDERING INFO:

80115057:	±5g	Full scale
80114032:	±2g	Full scale
80115070:	±18g	Full scale



FastTracer - Full

As the PA, it includes also the powerful FTAnalyzer software and the Esplora 3D. It is available in three versions:

ORDERING INFO:

80114499:	±5g	Full scale
80114476:	±2g	Full scale
80114487:	±18g	Full scale



FastTracer - Balancer

As the PA, it includes also the Balancer for plane static rotor balancing:

ORDERING INFO:

80115057:	±5g	Full scale
80114032:	±2g	Full scale
80115070:	±18g	Full scale
+ 81524052	Balancer License	

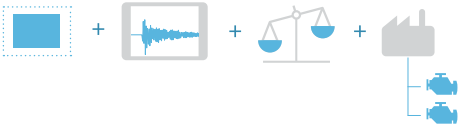


FastTracer - Extended

As the FULL, it includes also the Balancer application:

ORDERING INFO:

80114499:	±5g	Full scale
80114476:	±2g	Full scale
80114487:	±18g	Full scale
+ 81524052	Balancer License	



Accessories:

EXTENSIONS CABLES:

P0000066:	4m
80333028:	10m
P0000072:	18m
80333006:	27m

WIFI OPTIONS*

80151533	FastWi (Wifi Module)
40400056	Battery pack for FastWi

**Only supported by FTAnalyzer software*

Technical specifications

Full Scale	± 5 g, optional ± (2g, 18g)
Bandwidth	0-2500 Hz
Tolerance	< 5% (0-1000 Hz)
Dimension	30 x 55,5 x 15 mm
Weight	55 g
Protection Index	IP67
Shock Resistance	10.000 g
Operating Temperature	-20 ÷ 70° C

SEQUOIA
EXPERT VIBRATION MONITORING SOLUTIONS

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Bellissimo and The Beast