FAST*TRACER*

BALANCER APPLICATION

The unbalance of spindles and tools like grinders is one of the main causes of an excessive vibration level on machine tools.

In order to guarantee a better quality of the production processes and to prevent an excessive wear of the components of the machine tool, it is fundamental to control vibrations to reduce unbalance.
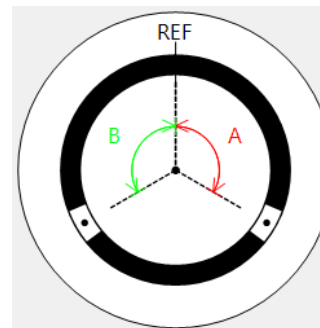
SEQUOIA IT, with the BALANCER application, offers an optimal solution for the rotor balancing.

Immediate installation

The system, including a very robust tri-axial digital MEMS sensor and a pc where the balancing software is installed, is extremely simple to install since it does not need any setting or accessory as a tachometer or a stroboscopic lamp. Moreover the wireless communication allows working in a safe way inside the machines avoiding difficult cable placements.
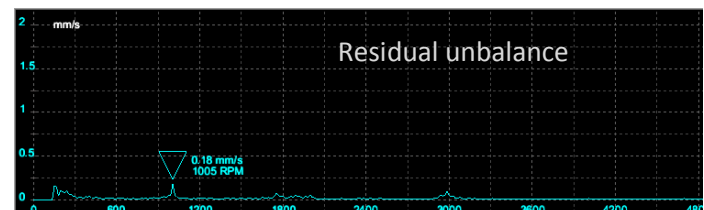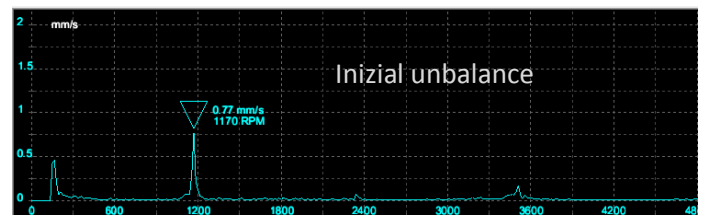
Simple balancing procedure

The intuitive software guides the userwith few and simple instructions during the phases necessary to complete the balancing.

Integrated Reporting

Once the balancing procedure has been finished, an automatic report is automatically generated, indicating the real balancing level that has been reached.

Technical Specifications

Tri-axial Digital MEMS sensor

Dynamic Range	±2g (Optional ±5g)
Frequency Range	0÷2500 Hz
Resolution	0,00075g
Dimensions	30x55,5x15 mm
Weight	55g
Protection index	IP67
Shock Resistance	10.000 g
Operating Temperature	0÷70°C
Communication	USB (optional Wi-Fi)

Software

The software implements the balancing method without phase information and provides an immediate guide for the balancing on field of:

- Spindles (with balancing holes)
- Grinders (with balancing masses)
- Rotating tables (with balancing masses or holes)

OPTIONAL SOFTWARE

The sensor functionalities can be extended with the optional software FTAnalyzer. It is able to do the following vibration analyses:

- RMS analysis based on ISO 10816
- Spectral analysis (FFT) in acceleration, velocity and displacement
- Analysis of the resonant frequencies
- Recording and post-processing of time signals.

The FTAnalyzer software allows moreover transforming the BALANCER in a powerful vibration analyzer suitable both for the predictive maintenance and for the diagnostic.

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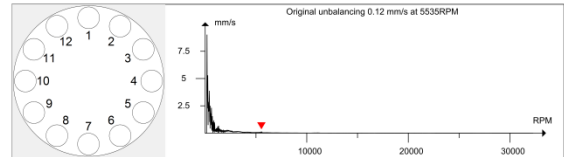Fax: +39 011 640 2985

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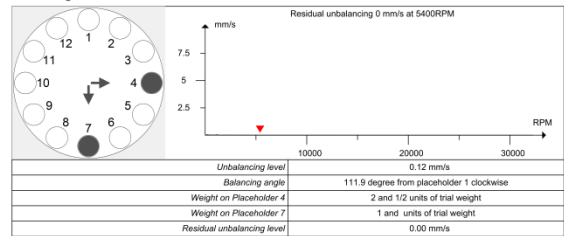**Balancer Application Report**

Company	-	Operator	-
Establishment	-	Machine	-

Session Data and Conditions:

Type of Rotor	Fixed Points
Date and Time	9/26/2014 - 10:10:22 AM
Type of Balancing	Static Balancing
Number of Placeholders	12
Rotation Frequency	5385 RPM
Axis of Analysis	Z
FFT Peak Mode	Peak
Trial Weight	N/A

Unbalancing Measurement:

Original unbalancing 0.12 mm/s at 5535RPM

Balancing Session Result:

Residual unbalancing 0 mm/s at 5400RPM

Unbalancing level	0.12 mm/s
Balancing angle	111.9 degree from placeholder 1 clockwise
Weight on Placeholder 4	2 and 1/2 units of trial weight
Weight on Placeholder 7	1 and units of trial weight
Residual unbalancing level	0.00 mm/s

Stamp

Signature _____

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WI-FI OPTION