

*“Precise, reliable,
easy to use and based on the
Industry Standard GrindoSonic®
Technology for non destructive
measurements.”*



GrindoSonic

THE IMPULSE EXCITATION TECHNIQUE

GrindoSonic® IL

Launch of new In-Line system GrindoSonic® IL for 100% production QA-QC.



The GrindoSonic® IL System is designed to integrate and fully automate the quality control process of objects in a production line.

Highlights

- Non-destructive 100% Quality Assurance by measurements of elastic properties of materials in the production line
- Fully automated
- OEM equipment can be integrated by line-builders
- Calculation of E- and G-modulus and Poisson's ratio
- An alternative to destructive testing as excellent correlations exist between breaking load and natural frequency
- Production process monitoring for launch and QA-QC
- Widest range of materials: ceramic, wood, composites, brick, concrete, ...
- Widest range of sizes from less than 100mg to 100ton

Technical information

- Frequency range 20 Hz - 100 KHz
- Reference accuracy better than 0.005%
- Vibration detector integrated on manipulator arm in separate housing for in-line mounting
- Impulse Excitation device in separate housing for in-line mounting
- Remote control inputs to trigger measurement
- Supply 100 - 240 VAC

Options

- Frequency analysis
- FFT calculation for detections of multiple vibrations modes
- Selection of zones of interest by waveband filtering
- Oscilloscope function for time domain analysis
- Graphic visualisation of frequency domain

Applications

- Abrasives and grinding
- Friction materials
- Ceramics
- Tiles
- Brake pads
- Wood and timber
- Composite and plastics
- Cement and concrete
- ...

“Fully automated, inline integrated and easy to install.”



GrindoSonic® MK7

GrindoSonic® MK7, the instrument for non-destructive measurements of Material Characteristics based on Impulse Excitation Technique (IET).



The core apparatus measures various natural vibration frequencies on a wide range of test objects through the use of the Impulse Excitation Technique (IET).

Highlights

- Non-destructive measurements of elastic properties of materials
- Extremely rapid and simple: just a light tap is needed and the result is displayed within a fraction of a second
- Measurements of E- and G-modulus and Poisson's ratio
- An alternative to destructive testing as excellent correlations exist between breaking load and natural frequency
- Production process monitoring for launch and QA-QC
- Widest range of materials: ceramic, wood, composites, brick, concrete, ...
- Widest range of sizes from less than 100mg to 100ton
- Suitable for industrial and laboratory use

Technical information

- Frequency range 20 Hz - 100 KHz
- Reference accuracy better than 0.005%
- Resolution up to 1/1.000.000
- Vibration detector
- Acoustic detector
- Supply 100 - 240 VAC

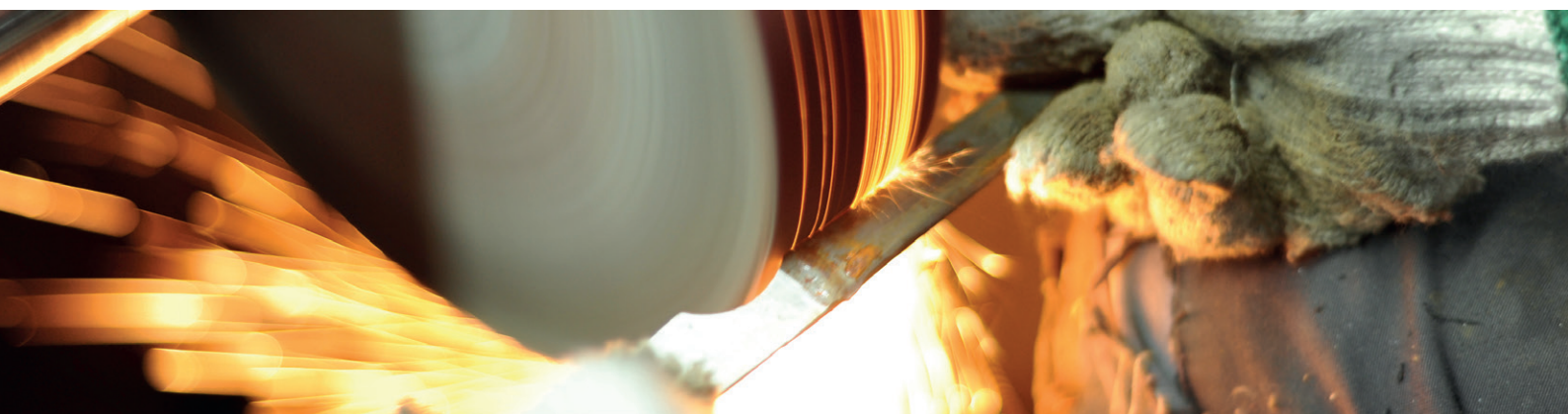
Options

- Frequency analysis
- FFT calculation for detections of multiple vibrations modes
- Selection of zones of interest by waveband filtering
- Oscilloscope function for time domain analysis
- Graphic visualisation of frequency domain

Applications

- Abrasives and grinding
- Building materials
- Geology
- Ceramics
- Friction materials
- Composite and plastics
- Metals and alloys
- Cement and concrete
- Refractories
- Wood and timber
- ...

“Universal instrument for industrial quality control and research purposes.”



GrindoSonic® SA

GrindoSonic® SA is a Semi-Automatic system for 100% production Quality Control.



[WATCH THE DEMO](#)

The GrindoSonic® SA System is designed to automate the quality control process of brake pads, ceramic components and other production elements that need to be IET tested.

Highlights

- Automated measurement cycle
- Immediate good/bad result feedback to operator
- User settable acceptance limits
- Internal storage of measurements, addressable via network
- Real-time data transmission over RS232

Technical information

- 3 seconds cycle time
- Measurement range from 20Hz to 100kHz
- Measurement accuracy of 0.005%
- RS232 output port
- 100V - 240VAC 50/60Hz power supply
- Infra-red hand and object detection

Options

- Frequency analysis
- FFT calculation for detections of multiple vibrations modes
- Selection of zones of interest by waveband filtering
- Oscilloscope function for time domain analysis
- Graphic visualisation of frequency domain

Applications

- Brake pads
- Abrasives and grinding
- Metals and Alloys
- Ceramics
- ...

“High throughput quality control on the shop floor.”



GrindoSonic® HT

GrindoSonic® HT system for elevated temperature materials testing based on the Impulse Excitation Technique (IET).



The GrindoSonic® HT System is designed to perform materials testing at elevated temperatures.

Highlights

- Based on Industry standard GrindoSonic® measurement Technology
- Fully programmable ramping/dwelling temperature profile
- Programmable measurement intervals in 1 degree steps (ramp) or 1 second steps (dwell)
- Data recorded for post processing and analysis
- E-modulus is calculated according to ASTM-E1876 standard

Technical information

- Impulse Excitation Technique (IET) based measurement principle
- Working temperature up to 1200°C (optional up to 1500°C)
- Minimum sample temperature at start: -200°C
- Optional inert gas atmosphere

Options

- Frequency analysis
- FFT calculation for detections of multiple vibrations modes
- Selection of zones of interest by waveband filtering
- Oscilloscope function for time domain analysis
- Graphic visualisation of frequency domain

Applications

- Metals and alloys
- Ceramics
- ...

“High accuracy measurement at elevated temperatures.”





“Since its invention by Jozef Lemmens, more than 50 years ago, GrindoSonic® became gradually the industry standard for Non Destructive Testing based on Impulse Excitation Technique (IET).

Our worldwide references

With more than 1500 systems installed worldwide, GrindoSonic® is the recognised market leader. Reliability, ease of use, state of the art technology and excellent service are our company's DNA.



GrindoSonic
THE IMPULSE EXCITATION TECHNIQUE

JW Lemmens - AIF Management BVBA

Esperantolaan 4, 3001 Leuven, Belgium
+32 (0)16-39 15 00
info@grindosonic.com
Technical support: support@grindosonic.com

www.grindosonic.com