

+

optomet.

LASER VIBROMETRY

**MEASUREMENTS
FOR YOUR SUCCESS**



**NON-CONTACT
OPTICAL
METROLOGY**

continuous
innovation

world-class
performance

seamless
integration

MEASUREMENTS FOR SUCCESS

Optomet is
laser vibrometry
for non-contact
vibration
measurement.

Combining state-of-the-art technology and sophisticated design in the development and manufacturing of laser Doppler vibrometers is our mission. The results are high-precision, user-friendly measurement devices with world class performance. Using latest generation FPGA-based signal processing and high-sensitivity SWIR laser measurement technology, Optomet defines a new standard for high-performance laser Doppler vibrometers.

Optomet systems excel by a consistently digital workflow and can also be seamlessly integrated into existing analog data acquisition environments.

Optomet's vibrometers allow customers to make the most accurate and efficient non-contact vibration measurements, all without surface treatment.



Innovation for advancement

Using world class technology, Optomet laser Doppler vibrometers enable non-contact measurement of vibration over a wide range of applications, from atomic level vibrations to large amplitude motion of buildings. Optomet is pleased to offer the new gold standard in non contact vibration measurements with products that are designed, developed, manufactured, sold and supported at our company headquarters in Darmstadt, Germany.

MEASURING
VIBRATION
BY LASER

VISUALIZE THE UNSEEN

Non-contact.
Precise.
Innovative.

Optomet laser Doppler vibrometers are high-precision instruments for non-contact vibration measurements: Whether for single point or full field measurements, on reflective or non-reflective surfaces, from microstructures to entire buildings – the modular Optomet systems are the ideal solution for virtually any vibration measurement application.



OPTOMET STANDS FOR...

the fast track to precise vibration data

- SWIR Technology
- End-to-End Digital Workflow
- All-in-One Design
- Smooth Operation



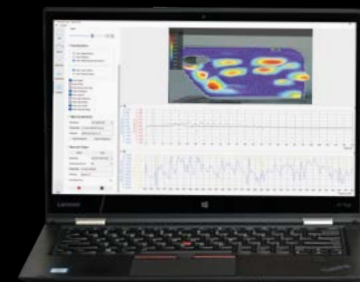
Single-point vibrometers

Optomet single-point vibrometers enable quick and easy measurements of displacement, velocity and acceleration at one measurement point in the direction of the laser beam on nearly any measurement object.



Full-field vibrometers

Optomet scanning laser Doppler vibrometers use an advanced measurement technique for the visualization of vibrations of a full field of multiple points on the surface of nearly any object. They produce deflection shapes and eigenmodes, capture the propagation of surface waves, validate FEM models, characterize vibration processes and determine modal parameters.



Software

The Optomet software is designed to optimize the use of the Optomet laser Doppler vibrometers. It provides intuitive to use modules for measurement acquisition, data visualization, analysis and export. The Optomet software can remotely control Optomet laser vibrometer which can be networked via the Ethernet interface. Users benefit from the maximum dynamic range of the Optomet laser Doppler vibrometers in a consistently digital workflow.



Support

Our support team assists you in ensuring that your Optomet laser Doppler vibrometer retains its performance over its entire service life. Optomet offers different calibration and customized maintenance options as well as repair for your instrument when accidents happen. Our team of technology specialists are available to support your unique application needs and answer technical questions when you're faced with challenges.

ACCELERATE TESTING AND PRODUCT DEVELOPMENT

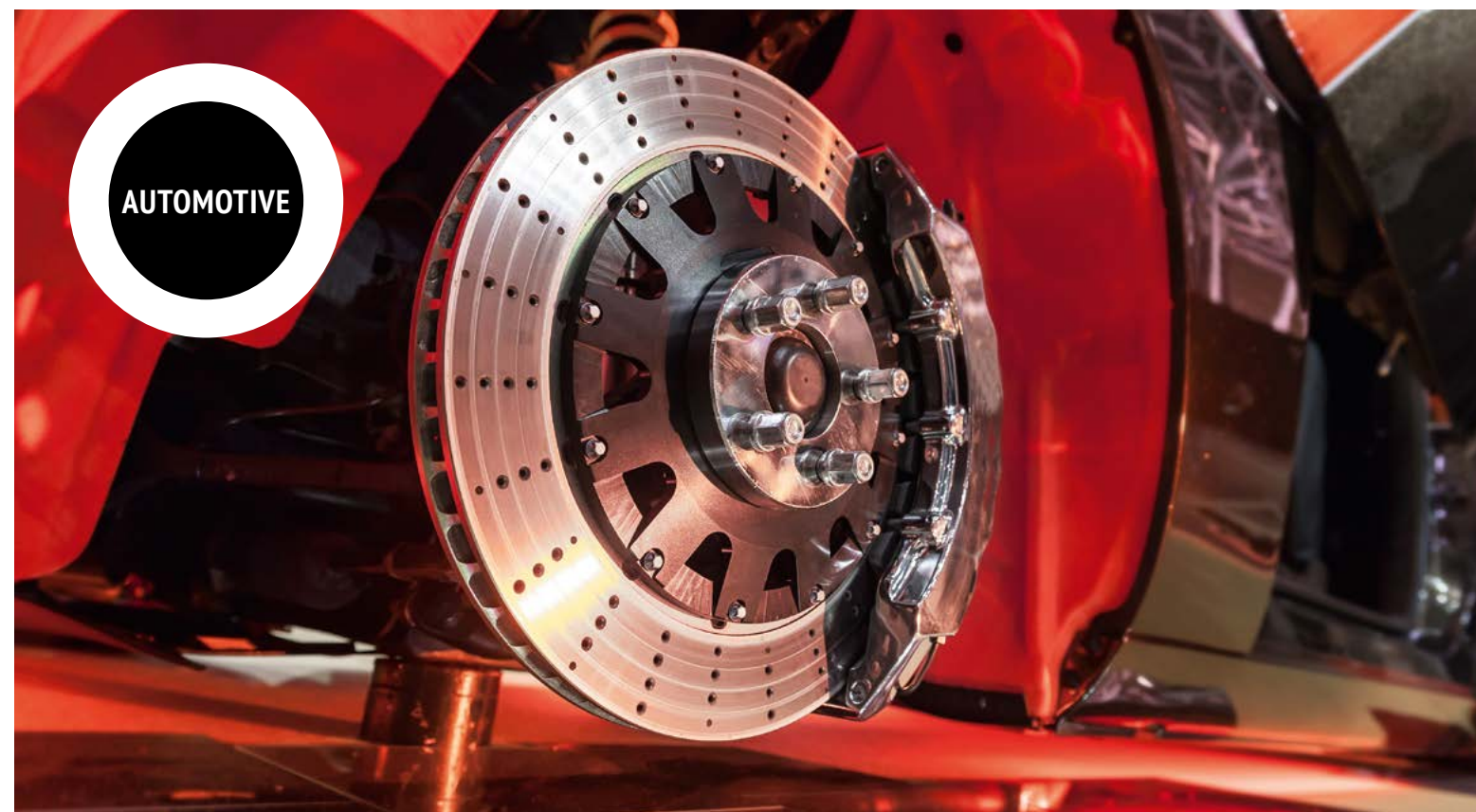
Versatile.
Flexible.
Indispensable.

Due to their flexibility and precision, Optomet laser Doppler vibrometers are used in a variety of industrial and institutional applications. Their performance is critical for solving engineering challenges, improving testing efficiency and advancing research. When precision and flexibility are required, Optomet is the only choice.



Safety for all concerned

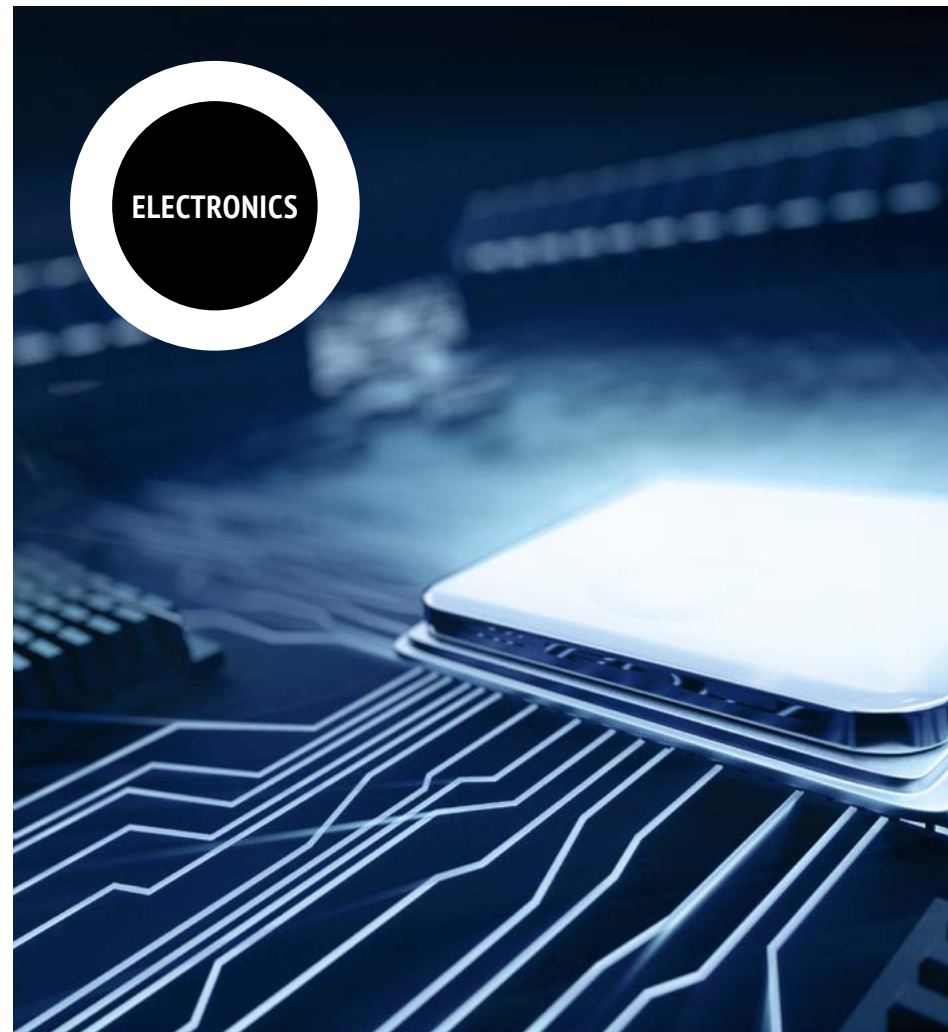
Components such as jet engines and aircraft wings must meet the strictest quality requirements – calling for efficient and precise measurement technology. Optomet vibrometers perform reliable non-contact measurements without the need to attach sensors.



The science of silence

Noise, Vibration and Harshness (NVH) is the study and modification of noise and vibration characteristics particularly in cars and trucks. OEMs and suppliers rely on precise Optomet vibrometry to design silent safety – from electrical components to brake systems to entire car bodies.

NON-CONTACT VIBRATION MEASUREMENT PER LASER VIBROMETRY



Minuscule robustness

Understanding and controlling the dynamic behaviour of electronic components, printed-circuit boards, and modules is essential for safe and robust high-performance products. Detecting weak points early helps optimize products and achieve top quality.

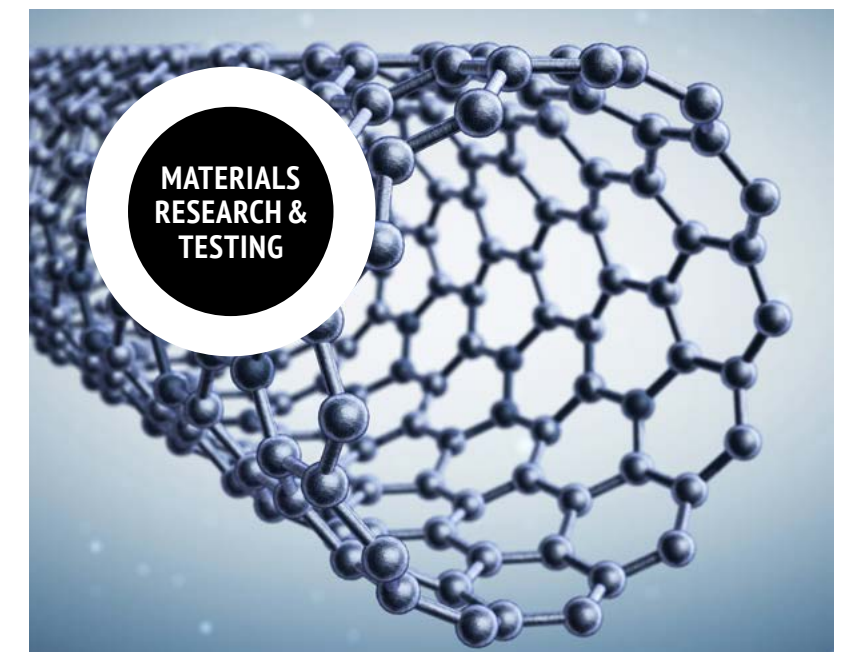


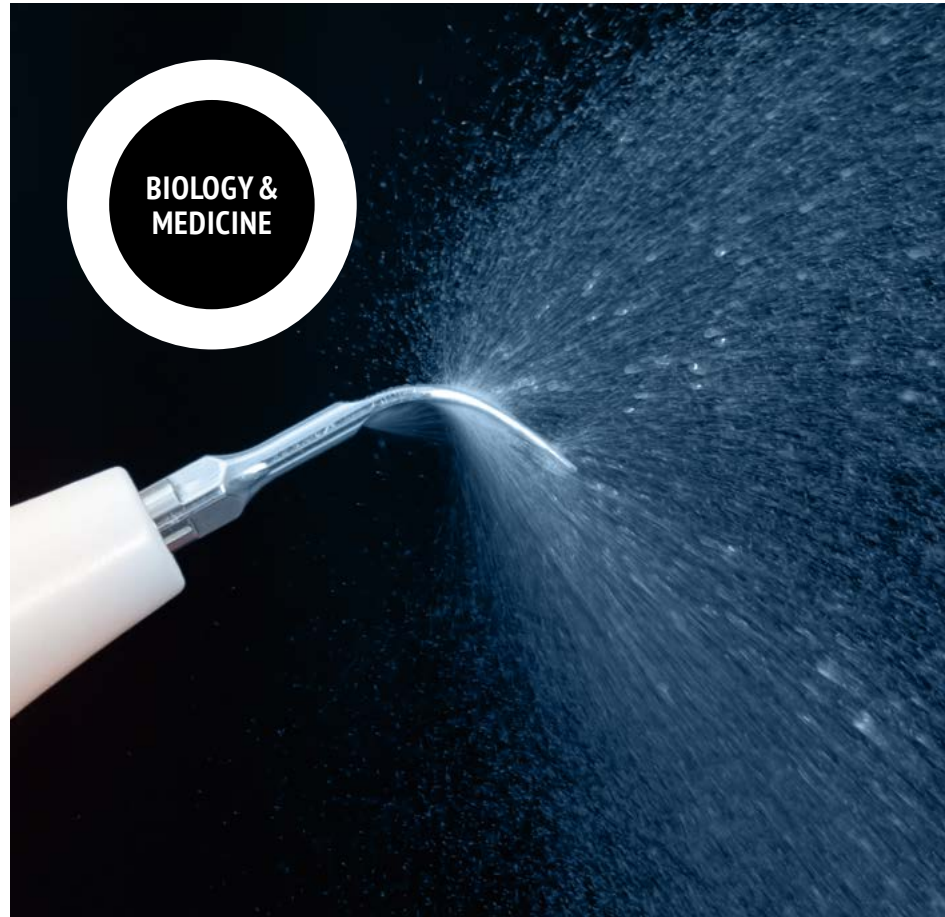
From music to welding

Optomet laser vibrometers have proven their value in the development and construction of loudspeaker systems, musical instruments, ultrasonic sensors, microphones, mobile phones – all the way to industrial applications like sonotrodes and ultrasonic welding.

Materials for tomorrow

The right materials in the right place are essential for product quality, service life, and market success. Optomet laser Doppler vibrometers make important contributions to systematic new findings in material research as well as to non-destructive testing/inspection.





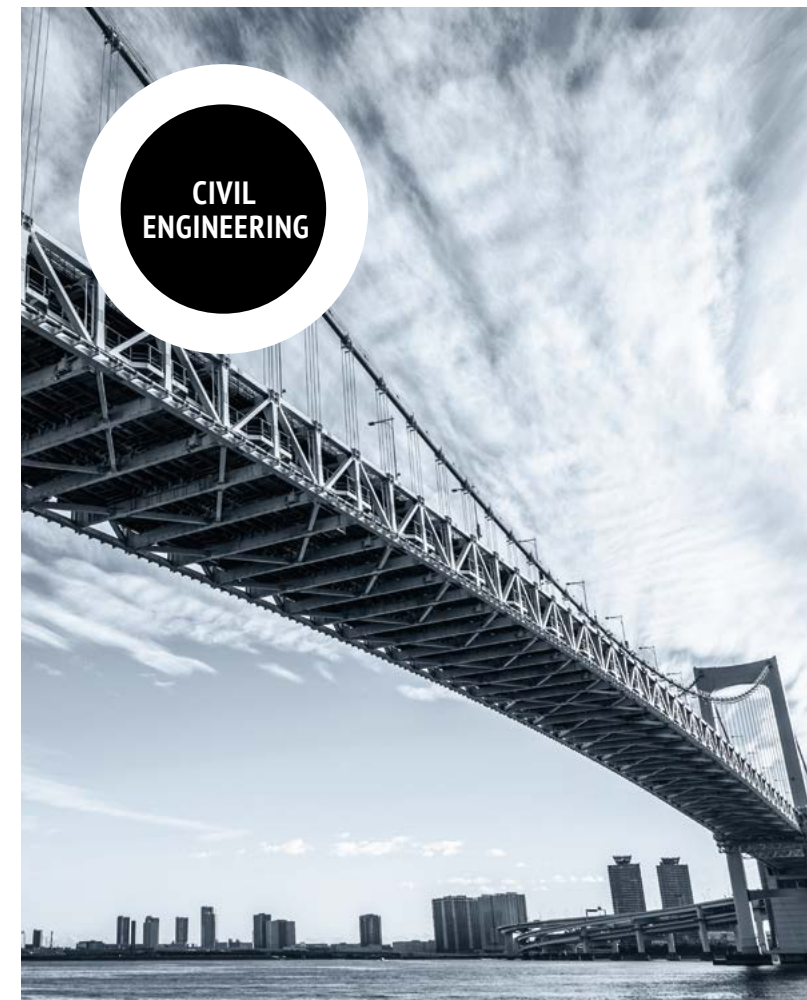
Life matters up close

Optomet Laser Doppler vibrometers measure even the smallest vibrations or displacements using a non-contact principle, even on difficult surfaces like bones, skin or tissue. They are also used in the development of scientific/medical devices or medical products.



Testing novel shapes

Our vibrometers are perfect for detecting the dynamic behaviour of different kinds of machinery and equipment, because they are flexible enough to measure all types of vibrations quickly and without contact, even over long distances, on rotating parts or hot / glowing surfaces.



Construction and mobility

Laser Doppler vibrometers are perfectly suited for mobile use, measuring pipeline and line vibrations in industrial plants, vibrations of railroads possibly indicating material failure, bridges that are subject to excitation by traffic, or vibrations of buildings.

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