

Safety and Quality –
FOERSTER proof.



proof.



Sustainable Growth with a Vision



Thomas Himmler · Felix Förster · Dr. Jürgen Schröder

FOERSTER is a global technology leader for non-destructive testing of metallic materials. One of the "Hidden Champion" companies, FOERSTER operates worldwide and works closely with its customers as a system integrator and partner.

A proud history

Over 65 years ago the company founder, Prof. Dr. Friedrich Förster, developed innovative methods for measuring magnetic fields and detecting magnetic flux leakage and eddy currents. These methods still play an important role in quality assurance in the metals and metalworking industries. They are also used for positioning, for example in shipping, satellite systems and environmental protection.

Strong for the future

Leading with foresight and a sense of social responsibility, Felix Förster is the third generation of his family to run the company, supported by Thomas Himmler and Dr. Jürgen Schröder. At this family-owned business, headquartered in Reutlingen, Germany, good governance and forward-thinking strategies continually strengthen the company's market position, ensuring healthy capital development and long-term job security.

The company's philosophy is based on these fundamental principles:

A true partner to our customers

Our corporate strategy focuses on our customers – together, we work to develop customized, innovative solutions.

Open-minded and internationally focused

Although we are solidly rooted in Reutlingen, our products and solutions are available globally. Our openness to different countries and cultures sets us apart.

Success, thanks to our employees

The expertise, commitment and motivation of our employees are the keys to our success. They will take the company into the future.

Cutting-edge technology and innovation

FOERSTER products are technologically groundbreaking. We solve tomorrow's technology challenges in close partnership with customers, suppliers and science.

Duty-bound to quality

FOERSTER is devoted to the very highest quality standards. FOERSTER stands for precision, performance, safety and commitment. Proof, period.

Demand the **FOERSTER proof.**

Moving Forward Together



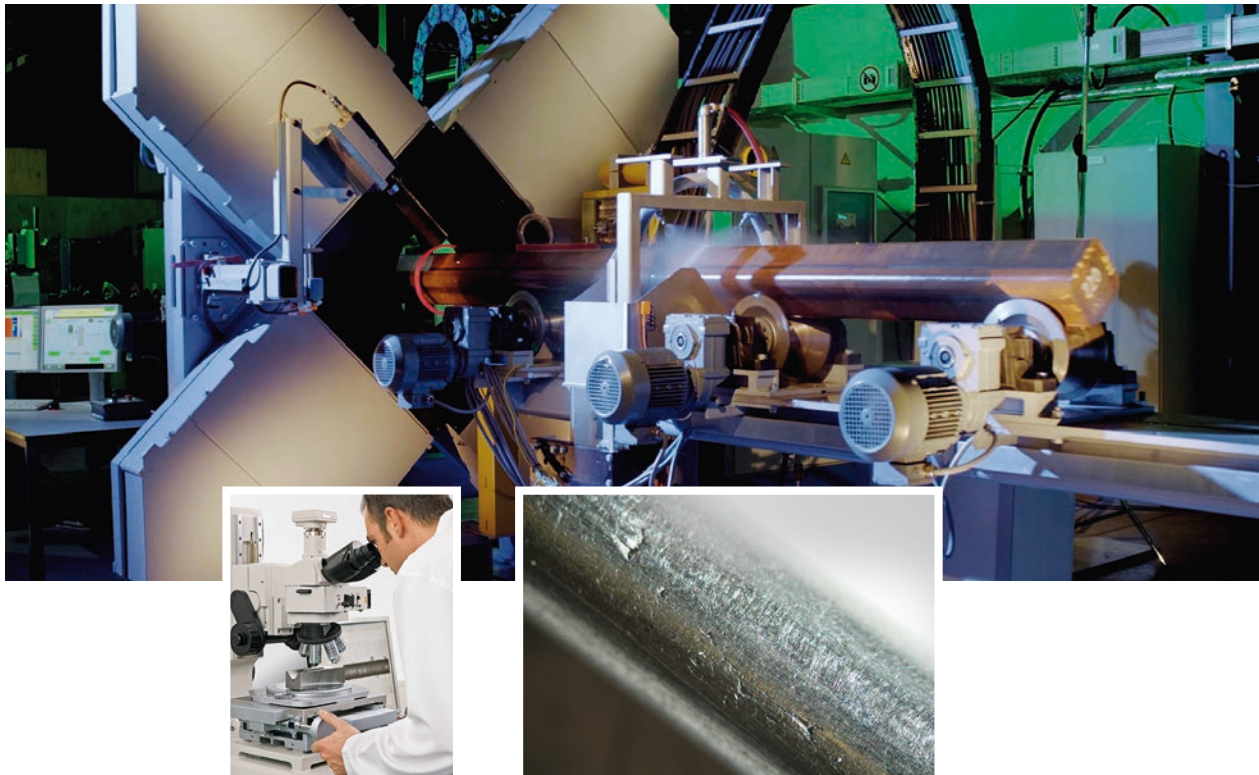
Its employees are a company's most valuable asset: at FOERSTER, this guiding principle is brought to life. Here, challenging and sophisticated assignments with wide-ranging, interesting perspectives – both national and international – for continued advancement are as much a part of the package as the modern work environment and individual professional development.

In addition to international growth and a global presence, FOERSTER believes that social values and corporate responsibility to its employees are the foundation for success. Job security and healthy growth are just two critical aspects of its forward-thinking business strategy.

Regular investments are made in the infrastructure at the Reutlingen headquarters: recent phases of construction have thus resulted in not only modern office workstations and a technologically-advanced manufacturing environment, but also attractive shared areas and social gathering points to facilitate a congenial work atmosphere.

FOERSTER inspires its employees to live out the company philosophy: always pushing the envelope of technology and quality. This deliberately creates space for creativity, personal initiative and a sense of responsibility while promoting the advancement of individual abilities and professional development.

Making the Invisible Visible



Even the tiniest flaws – such as hairline cracks, micrometer-sized holes or fractures in a metallic surface or structure – can lead to critical consequences. Prevention of such defects is therefore key to ensuring the functionality of a component or, indeed, entire machines and structures. Quality assurance down to the smallest detail: making the invisible visible with FOERSTER.

The importance of quality assurance – even in a running production line – has risen in parallel with the soaring costs of raw materials, growing resource scarcity and ever-tightening requirements for material strength. This is why eddy current and magnetic flux leakage methods are used to inspect metal parts for infinitesimal cracks, seams and gaps – without inflicting any damage. Magnetic inductive methods can determine the critical material properties of components that absolutely must work perfectly under difficult mechanical or thermal conditions.

FOERSTER products are considered the industry standard wherever the safety of man and machine requires the fulfilling of exacting requirements. Worldwide, FOERSTER products are renowned for their quality, precision, durability and reliability.

FOERSTER strives to maintain technological leadership on the world market. Its employees are constantly at work with customers, developing new technologies and innovative solutions for non-destructive testing. Continuous investments in highly-skilled employees and state-of-the-art development and production equipment ensure its position at the forefront of the field.

Non-destructive Testing of Long Products



Division TS (Semi-Finished Product Testing) specializes in developing and manufacturing technical systems for the automated, non-destructive testing of metallic long products and heavy plates. Electromagnetic methods such as eddy current and flux leakage testing, ultrasound and inductive heat flow thermography are used to inspect these semi-finished products for flaws that are invisible to the naked eye.

These systems are made for the metal producing and metalworking industries, where tubes, wires, bars, billets, profiles, metal sheets and similar items are produced on rolling mills, drawing lines, welding lines or processed in various finishing operations. FOERSTER products perform many critical test applications during these processes. Division TS focuses on surface inspections, although methods for core defect testing, positive identification of materials and wall thickness measurement are also employed.

The FOERSTER product portfolio ranges from stand-alone testing instruments to complex multi-inspection lines. Experienced system specialists can plan and implement system solutions tailored exactly to customers' specific requirements. The result is a custom-built testing facility that can be integrated into the respective production process across defined interfaces. In addition to its own technologies, FOERSTER offers the integration of third-party testing methods and the complete automation of complex inspection lines.

In use all around the globe, FOERSTER's durable, robust systems are now considered the industry standard for quality assurance.



CIRCOSON® WT – EMAT technology for measuring wall thickness



DEFECTOMAT® DA with DEFECTOARRAY® Sensor – testing semi-finished products with distance compensation

Detection Systems and Magnetics



Division DM (Metal Detection and Magnetics) develops and manufactures measuring instruments for determining magnetic parameters such as flux density, permeability, magnetic saturation and coercive field strength. The product range also encompasses magnetometers and metal detectors for geomagnetic surveys and environmental clean-ups.

The systems, based on passive flux gate or active eddy current technologies, are relevant for a broad range of applications that includes non-destructive material testing of carbides, soft magnetic metallic components, sintered parts and austenitic steels. The various methods can be employed to furnish precise proof of specified material properties – an important prerequisite for components approved for use in magnetically sensitive areas.

These instruments play critical roles in industrial environments and medical technology, in the aerospace industry and in geophysics – in fact, wherever there is a need for extremely high precision. Munitions and mine detection, archeological surveys and the three-dimensional capture and logging of magnetic fields complete the range of applications.

Data logging and recording processes are supported by extensive computer-assisted analysis programs, as well as GPS-based navigation and digital cartography systems. A modular product concept allows application-specific system solutions to be created at any time.



FEREX® – Magnetometer for environmental clean-up



MAGNETOSCOPE® – Measurement of magnetic parameters

Quality Control of Metallic Components



Division CT (Component Testing) develops testing instruments as well as customized and fully-automated complete systems for non-destructive quality control of metallic components in the automotive and component supply industry.

These devices use the eddy current method to detect and document with maximum sensitivity and repeatability such surface defects as cracks and pores. Contactless operation makes this method ideal for use on sensitive surfaces.

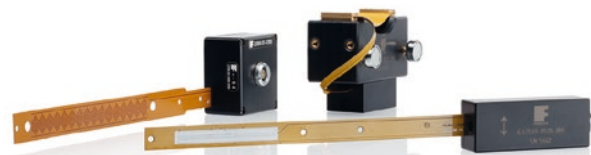
Another field of application is the testing of material properties to prevent use of the wrong material and for early detection of incorrect thermal treatment states. These magneto-inductive systems are particularly suited for verifying surface hardness and hardness penetration depth in diverse component geometries.

For both fields of application, a broad range of sensors, each adapted specifically to the inspection task at hand, is available.

The CT testing instruments and systems have been developed specifically to fit the needs of the automotive industry and its first- and second-tier component suppliers. Companies worldwide rely on the superior testing capabilities provided by FOERSTER inspection technologies to ensure the highest integrity of components that are critical to safety or long service life, such as wheel hubs, brake discs, camshafts, drive shafts and valves.



MAGNATEST® D V3.0 – Instrument for magneto-inductive material testing



Flex probes – Flexible probes for eddy current testing of complex geometries

Mobile Crack and Microstructure Testing



The product range of Division M (Mobile Testing and Measuring Equipment) includes portable instruments and systems for manual or semi-automatic testing of components critical for safety. This division develops and manufactures customized eddy current sensors for crack and microstructure testing.

Used primarily in preventive maintenance in the aerospace industry, these compact measuring and inspection instruments are also beneficial in general machine and system construction. A broad range of sensors is available, each adapted to the inspection task at hand: encircling coils for crack detection on rotationally symmetric components, pencil probes for crack detection on simple or complex surface geometries, or rotating

probes for detecting cracks in drilled holes. Concave or convex surfaces can be inspected quickly and easily with multi-channel, flexible array probes.

Eddy current technology is also suited for measuring electrical conductivity as a physical characteristic of metallic materials.

In addition, FOERSTER creates reference flaws for various depths, widths and lengths that can be used to calibrate these inspection systems. A sophisticated testing system is available for calibrating electrical conductivity. All variables can be traced back to national standards.



DEFECTOMETER® M 1.837 – Mobile crack detector



SIGMATEST® 2.069 – Mobile instrument for measuring conductivity

Rooted in Reutlingen – at Home Around the Globe

With over 550 employees worldwide, the FOERSTER Group operates globally and exports around 80% of its output. An extensive network of ten subsidiaries plus qualified representatives in more than 60 countries guarantees close proximity to customers and uncomplicated responsiveness, everywhere.

If you serve global markets through global production, you need competent business partners with a worldwide presence. Very early on, the FOERSTER Group began building a global network that has continued to evolve. No matter where in the world a given application is required – FOERSTER is always standing by, ready to meet customers' needs and requirements.

At FOERSTER, technical customer support is carried out as a matter of course by product and industry experts. Furthermore, short delivery times and an excellent on-site service performed only by experienced technicians and highly-qualified engineers are self-evident in the company's own quality standards. Seamless collaboration between FOERSTER Group employees and their customers, partners, representatives and suppliers throughout the world guarantees a unique combination of skills and experience, as well as fast, customer-oriented solutions.





Headquarters

- Institut Dr. Foerster GmbH & Co. KG, Germany

Subsidiaries

- Magnetische Pruefanlagen GmbH, Germany
- FOERSTER Tecom s.r.o., Czech Republic
- FOERSTER France SAS, France
- FOERSTER Italia S.r.l., Italy
- FOERSTER Russland AO, Russia
- FOERSTER U.K. Limited, United Kingdom
- FOERSTER (Shanghai) NDT Instruments Co., Ltd., China
- FOERSTER Japan Co., Ltd., Japan
- NDT Instruments Pte Ltd, Singapore
- FOERSTER Instruments Inc., USA

The FOERSTER Group is being represented by subsidiaries and representatives in over 60 countries – worldwide.

foerstergroup.de



Institut Dr. Foerster GmbH & Co. KG

In Laisen 70
72766 Reutlingen
Germany
+49 7121 140 0
info@foerstergroup.de



Reg.-Nr. 001159 QM08