



FOERSTER
INSTRUMENTS INDIA PVT. LTD.



FOERSTER INSTRUMENTS INDIA PVT. LTD. (FIIND)

FOERSTER Instruments India Pvt. Ltd. (FIIND) was formed as a joint venture between Institut Dr. FOERSTER GmbH & Co. KG (FOERSTER), Germany & Electronic & Engineering Co. (I) Pvt. Ltd. (EECI), India. FIIND was founded to explore the great potential of Indian Market and serve their customers better with FOERSTER & EECI's extensive experience & knowledge in NDT application & manufacturing.

FIIND aims at serving their customers better & faster using & expanding EECI infrastructure and providing NDT solutions as per customer / market requirements. FIIND manufactures & distributes equipment for non-destructive testing as well as magnetics and detection. Solutions from FIIND includes:

- Eddy Current Testing
- Magnetic Flux Leakage Testing
- Ultrasonic Testing
- Magnetic Field Detection
- Hardness Testing
- Material Sorting

ELECTRONIC & ENGINEERING COMPANY (I) P. LTD.

Electronic & Engineering Company (I) P. Ltd. (EECI) has been manufacturing and supplying Non-Destructive Testing (NDT) solutions since 1958. We strive to provide innovative tools and expertise to increase the reliability and accuracy of NDT inspections. Our portfolio includes NDT solutions for Ultrasonic Inspection, Eddy Current Inspection, Magnetic Particle Inspection, Radiography Testing & Radiation Monitoring Instruments

In addition to all parts of India, EECI has developed a large clientele in the Americas, Asia, Europe & Africa – which today stands at 1200+ satisfied customers.

EECI takes great pride in conceptualizing, designing and perfecting all its products in a state-of-the-art Research & Development laboratory, recognized by Ministry of Science & Technology, Department of Science & Industrial Research, Govt. Of India.

With an advanced manufacturing facility, a wide network of service centers and trained manpower, EECI is able to successfully cater to customers across the world.



INSTITUT DR. FOERSTER GMBH & CO. KG

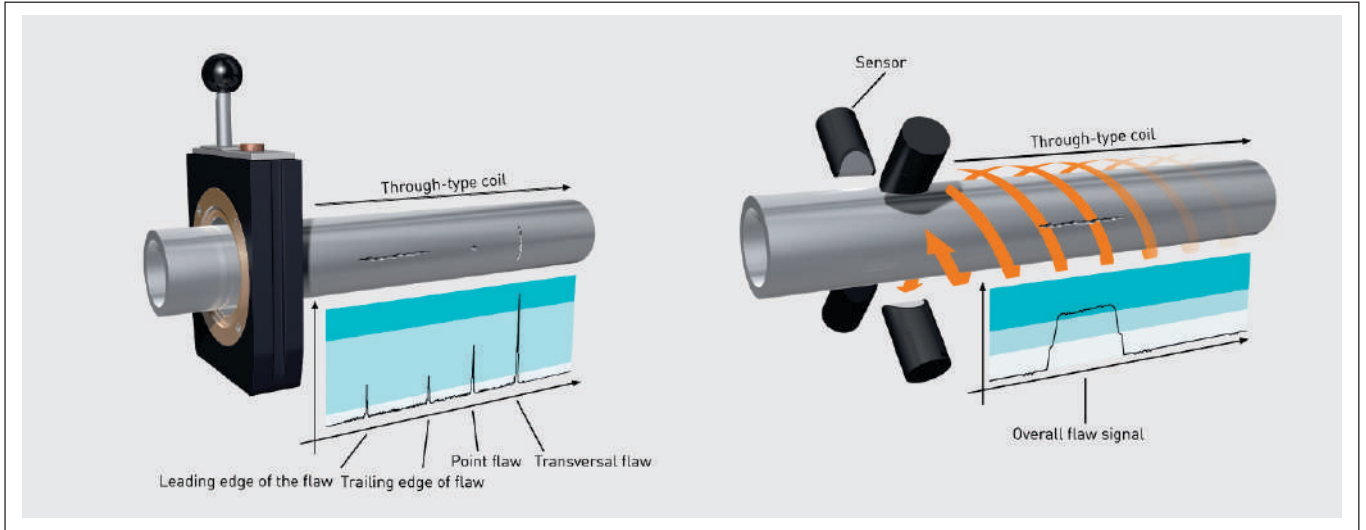
Since 1948, the name FOERSTER has been synonymous with quality and precision. We develop and produce units and systems for the non-destructive testing of metallic materials, metal detection, and magnetics. Additionally, FOERSTER offers non-destructive materials testing services in the chemical industry throughout the world. An international network of subsidiaries, long-standing representatives and partners, as well as an excellent service guarantees worldwide proximity to customers.

As a technology leader and "hidden champion", FOERSTER continuously works on offering its customers individual solutions with new innovations and further product developments. Together with its customers, FOERSTER shapes the future in non-destructive testing.



ECT - Eddy Current Testing

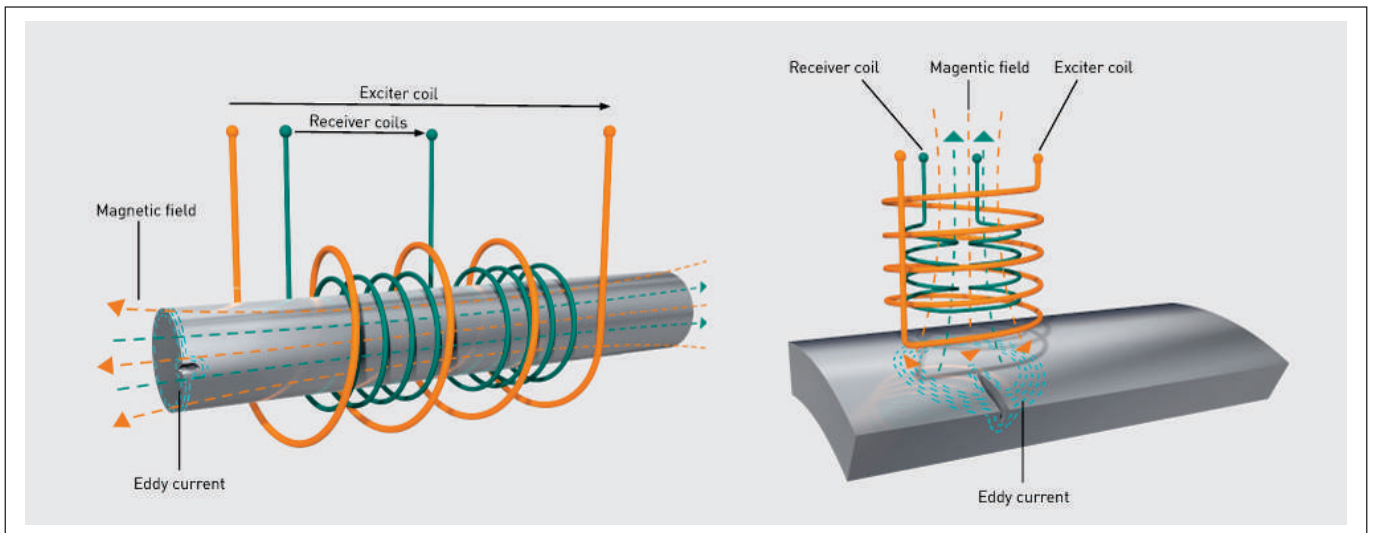
In eddy current testing with rotating probes, the test material is moved longitudinally through the system as the sensors quickly rotate around the semi-finished product. Spiraling along the length of the sample, they scan the surface completely without ever touching it. Longitudinal defects can thus be displayed in their full extent. Since they're quite small, our sensors are extremely responsive and can reveal even the tiniest of defects.



Working of Eddy Current Testing

How does eddy current testing work?

In eddy current testing with rotating probes, the test material is moved longitudinally through the system as the sensors quickly rotate around the semi-finished product. Spiraling along the length of the sample, they scan the surface completely without ever touching it. Longitudinal defects can thus be displayed in their full extent. Since they're quite small, our sensors are extremely responsive and can reveal even the tiniest of defects.





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SEMI FINISHED PRODUCT TESTING

DEFECTOMAT PRODUCT FAMILY

DEFECTOMAT Product Family: Non-destructive eddy current testing of long products such as tubes, rods, wire, and profiles.

Key Features:

- **Contactless and Non-Destructive Testing:** Eddy current method for safe and non-destructive testing of long products.
- **Detection of Short and Transverse Defects:** Identifies holes, localized defects, and transverse defects for thorough quality control.
- **Automatic and Reliable Defect Detection:** Automatically detects and marks defective materials for efficient classification and discarding.
- **High Test Speed:** Up to 150 m/s test speed enables 100% testing, even at high production speeds.
- **Low Operating Costs and Energy Consumption:** Economically efficient design with low operating costs and frugal energy consumption.



CIRCOGRAPH PRODUCT FAMILY

CIRCOGRAPH Product Family: The ultimate solution for Contact-less eddy current testing of bright material

Key Features:

- **Maximum Detection Sensitivity:** Precisely detects longitudinal surface defects on bright material.
- **Versatile Applications:** Ideal for wire drawing machines, Cu tube rewinders, and finishing sections in the bright steel sector.
- **Customizable Design:** Offers options for rotating sensors or CIRCOSCAN rotating discs for scanning flat and profiled material.
- **Seamless Integration:** Easily integrates into the production process with comprehensive documentation.
- **Optimized Material Transportation:** Various testing sections available for separate testing lines.





CIRCOFLUX

CIRCOFLUX Product Family: The ultimate solution for non-destructive surface testing of ferromagnetic steel bars.

Key Features:

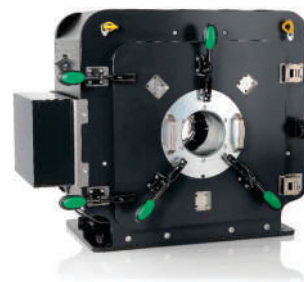
- **Magnetic Flux Leakage Method:** Utilizes the most sensitive testing method for longitudinal, crack-like defects in hot-rolled ferromagnetic steel bars.
- **Replaces Subjective Testing:** Eliminates the need for magnetic powder tests and visual checks, providing a more objective and reliable testing process.
- **Wide Material Diameter Range:** Covers a range from approximately 10 to 180 mm, ensuring versatility and compatibility with various steel bar sizes.
- **High Operating Reliability:** FOERSTER's extensive experience in the field ensures a reliable and efficient testing system.
- **Modular Design:** The test electronics can be easily customized and upgraded to meet future demands, enhancing defect detection sensitivity.

ROTOMAT / TRANSOMAT PRODUCT FAMILY

Rotomat / Transomat Product Family: The ultimate solution for non-destructive surface testing of electromagnetic inspection

Key Features:

- Reliable detection of natural and oblique defects regardless of length and angle
- Improved detectability of inner defects
- The more precise decision between outer and inner defects
- Reduction of untested ends



MAGNATEST D-HZP

Magneto-inductive testing of the material properties of semi-finished products such as tubes, wire, and rods



Key Features:

- **Fully Automatic System:** Enables fully automated testing of material properties.
- **Single-Coil Absolute Mode:** Eliminates the need for a comparator coil, simplifying the testing setup.
- **High Excitation Currents and Complex Evaluation:** Detects small structural discrepancies with high accuracy using powerful excitation currents and advanced evaluation electronics.
- **Comprehensive Test Result Documentation:** Provides detailed documentation, including test piece statistics, histograms, and exportable test data.
- **Large Color Display:** Offers a clear and easy-to-read test result display on a spacious color screen.

COILS / SENSORS

Sensors, probes and coils for component testing

KEY FEATURES:

- **Eddy Current Crack Detection:** Uses eddy current technology for non-destructive crack detection.
- **Permanent Installation:** Designed for easy and secure permanent installation in testing stations.
- **Scanning Options:** Offers flexible scanning options by moving the test item or probe along the testing track.
- **Versatile Designs:** Available in round, flat, and angled shapes to accommodate different testing requirements.
- **Special Probes:** Provides individually adapted probes for precise and targeted testing.
- **Rotating Heads:** Features rotating heads with probes that rotate for comprehensive testing capabilities.





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COMPONENT TESTING



MAGNATEST

Magnetic-inductive testing of metallic materials in the automotive and aviation sectors

Key Features:

- Processor-controlled testing system
- Single coil absolute operation, therefore no comparison coil required
- Optional adapter for two-coil differential operation
- Load-independent induction current, therefore constant induction current intensity and constant magnetic field strength during the testing
- High induction current intensity thus stimulation of higher harmonics and particularly high test sensitivity to the magnetic characteristics of the test material
- Single frequency or multi-frequency testing, Harmonics analysis
- Simple operator guidance thanks to application-specific function buttons and high resolution TFT color screen



MAGNATEST TCL

Smart and efficient material and structure testing

Key Features:

- **Smart and Efficient Testing:** Enables fully automated, non-destructive eddy current testing for series production and manual testing for quality assurance.
- **Compact Design:** Can be installed in an equipment cabinet or directly in the production line, minimizing cable lengths and maintaining test quality.
- **Intuitive Software:** User-friendly software optimized for touch operation, with embedded help screens and optional wizard for easy test parameter setup.
- **Wide Frequency Range:** Covers frequencies from 4 Hz to 20 MHz, allowing for versatile testing capabilities.
- **Fundamental and Harmonic Evaluation:** Offers comprehensive analysis of test results using both fundamental and harmonic evaluation.
- **Flexible Triggering Options:** Supports manual, external (PLC), and automatic triggering modes for test initiation.



STATOGRAPH

Crack testing of complex workpieces with eddy current

Key Features:

- **Decentralized operation:** web-enabled access allows user inputs from mobile devices
- Innovative wizard sets parameters automatically
- Improved filters for even more precise testing
- Fieldbus connections for simple integration into control systems
- Intuitive and easy-to-understand user interface



STATOVISION

Software for Visualizing Surface Quality

Key Features:

- Suppression of interfering contours such as holes and grooves is possible
- Visualization of the surface to be tested enables intuitive evaluation of abstract eddy current signals
- Storage of test data for traceability of tested parts
- Process monitoring for early intervention in the production processes
- Advanced filtering techniques to improve signal quality



SENSORS

Sensors, probes and coils for component testing

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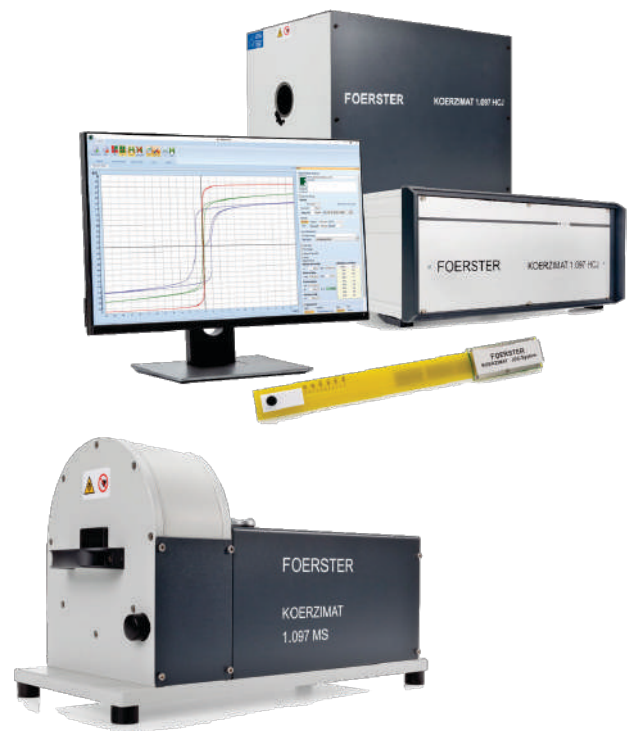


KOERZIMAT

Systems for measuring magnetic parameters

Key Features:

- PC-controlled measuring system
- Determination of coercive field strength in accordance with IEC 60404-7
- Determination of relative permeability $\mu_r(H)$ for soft magnetic steel bars
- Determination of relative permeability $\mu_r(H)$ for soft magnetic steel bars
- Determination of magnetic saturation magnetization in accordance with IEC 60404-14
- Determination of the magnetic phase in austenitic steels
- Geometry independent measurement
- Light weight and compact design
- Application software to control single and serial measurements
- Data base to store measuring data and process parameters





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MOBILE TESTING



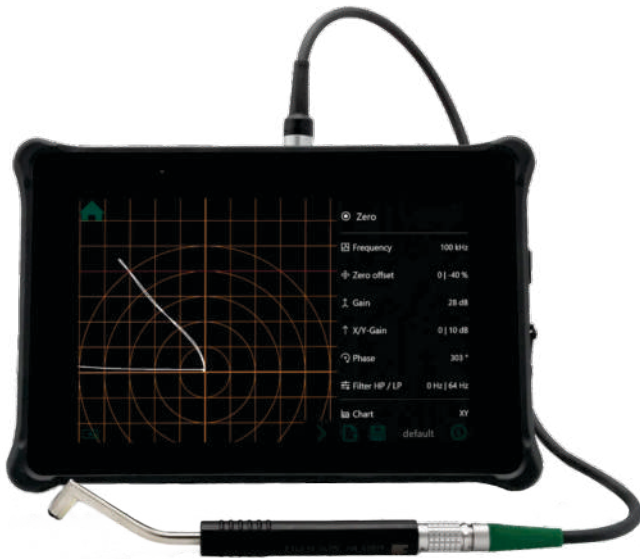
TCM

FOERSTER's versatile new TCM serves as a unifying platform for established eddy current testing products.

The TCM platform also covers conductivity measurement of non-ferromagnetic materials.

Advantages at a Glance:

- Eddy current testing with rotating, HF, LF applications, etc. to solve a wide variety of test tasks, either using your own sensors or sensors adapted by FOERSTER.
- C-scan: data from a hand-held rotating probe can be displayed in a high-resolution C-scan
- Multi-frequency inspection with up to 8 frequencies to check at different material depths for discontinuities in a single pass, or to reduce interference via frequency mixing.



DEFECTOMETER M 1.837

Mobile crack and hardness testing with eddy current for aircraft and automobile components, etc.

Advantages at a Glance:

- High sensitivity with a defect resolution from 20 μm
- Simple operation
- Automatic lift-off, zero, and tilt compensation
- Warning for lifted off probe
- Very good legibility of the LED scale display and the LCD display
- 35-hour operation with activated backlighting
- USB port for the visualization and documentation of the measurement results
- Probes from earlier DEFECTOMETERS can be used



SIGMATEST 2.070

New generation portable meter to measure the electrical conductivity of non-ferromagnetic metals

Advantages at a Glance

- Five measuring frequencies 60, 120, 240, 480, 960 kHz The high frequency of 960 kHz allows accurate electrical conductivity measurement on very thin pieces
- 50 measurements per second
- Easy operation in either touch or continuous mode
- Internal and external temperature compensation
- Measurement possible up to 0.75 mm distance from the test item
- Measurement range from 0.5 to 65 MS/m (1-112 % IACS)
- Remote control by an external PC is possible via Ethernet standard RJ45. The interface allows complete control over the instrument and an integration in automated systems



MAGNETOSCOPI 1.070

Portable, microprocessor controlled magnetometer system

The MAGNETOSCOPI 1.070 is a portable magnetometer system with microprocessor and probes for measuring the magnetic flux density as an absolute or differential value (gradient).

Advantages at a Glance

- Measure magnetic flux density, absolute or gradient
- Probe for measurement of relative permeability μ_r in accordance with IEC 60404-15 and ASTM A342M
- 3,5" colour display
- USB interface for data transfer
- SD card for storage of measurement data and parameters



SONODUR 3

The Leading Mobile Hardness Testing Solution

- Industrial-grade, rugged design
- The largest range of UCI test probes on the market
- Multitouch software design based on Android
- Unique combination option with Leeb sensors via Bluetooth

Advantages at a Glance:

- Proven UCI methods: According to the current standards DIN 50159 1,2-2021 and ASTM A1038 2019.
- Maximum flexibility: SONODUR 3 has the largest range of UCI test probes in the market.
- Unique combination possibility with Leeb sensors via Bluetooth: 2-in-1 concept.



SONODUR R

The world's only UCI hardness tester suitable for fully automated production lines with the possibility of 100% process monitoring in mass or series production

Advantages at a Glance:

- Safety and cost savings: fully automatable UCI hardness testing for 100% process monitoring
- Operator-independent measurements: Reproducible measurement for the highest quality requirements
- Maximum flexibility for a wide range of applications: Ideally suited for use in fully automated production lines, but also for use as a benchtop device
- Android-based software design: Easy and intuitive handling of the software
- Large number of commercially available interfaces: Max. Flexibility for connection to third-party systems
- The largest range of UCI test probes on the market: Maximum flexibility
- Test method UCI method - Our expertise for your safety- Complies with DIN 50159-1,2-2021, ASTM A1038-2019





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ULTRASONIC TESTING



PLATEPROOF

Automated ultrasonic testing and quality assessment of plates

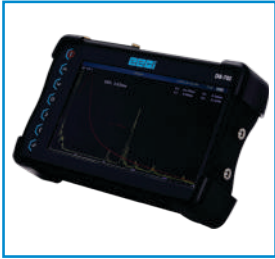


Advantages at a Glance

- High system availability – through the use of proven and robust modules with powerful modern components
- Testing in a single test run – through individual adaptation to the specific plate dimensions, whether operated inline or offline
- High test volume – due to fast test cycles for each plate. The short cycle times are achieved through an optimized control sequence using the latest Siemens control technology
- Highly sensitive flaw detection with good reproducibility – thanks to modern ultrasonic electronics
- Automatic quality assessment of the plates, as well as logging by the evaluation software, according to official or individually defined test standards
- Re-evaluation of plates – based on stored test data



- India's Largest Manufacturing Facility
- CSIR Approved R&D
- NABL Approved Calibration Lab



Ultrasonic

- Ultrasonic Crack/Flaw Detector
- Thickness Gauges
- Probes



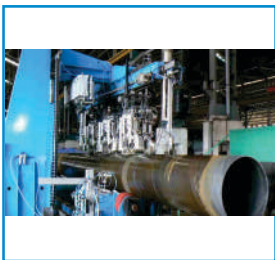
Magnetic Particle

- Prod Units
- Yokes
- Bench Units
- Ultraviolet Black Light
- Consumables & Essentials



Radiography

- Gamma Ray Projectors
- IR-192, Se-75, Co-60 Sources
- Radiation Contamination Monitor
- Radiation Survey Meter



Ultrasonic Systems

- On Line / Off Line Systems
- Bar Testing
- Pipe Testing
- Piston Testing
- Component Testing



ELECTRONIC & ENGINEERING CO. (I). P. LTD

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