

Enhanced calibration

High quality services from your global instrumentation partner



One trusted advisor

Get the best to meet all your critical application needs

Are you facing a continuous increase of demands relating to process reliability, plant safety and product quality? With measurement precision being critical, calibration is also growing in importance.

A smooth and safe running plant is your top priority and compliant calibration is an integral part of its operation. Endress+Hauser supports every aspect of your calibration process in line with industry regulations.

Receive only the best from our broad range of services, including a unique on-site flow calibration service. Let us take care of your calibration needs and take advantage of our calibration competences to optimize your processes.

Receive the same high-level of performance worldwide

You can benefit from fully accredited on-site and laboratory calibration across a wide variety of measuring principles. The same calibration services, traceable to national standards, are available in more than 60 countries, covering all manufacturers' equipment.



More information at
www.endress.com/services





Cost-effective, reliable calibration as and when needed

Ensuring consistent quality
and full compliance

Regular calibration is essential to keep the instrumentation controlling your quality-critical processes in spec. Endress+Hauser provides timely, traceable, and cost-effective services that are accompanied by clear and concise calibration certificates. From in-situ testing to fully accredited laboratory calibration, we carry out and advise on every aspect of calibration.

Make full calibration compliance your ongoing goal

Benefit from full compliance and audit readiness with complete and traceable calibration performed according to ISO 17025.

Invest in calibration expertise for results you can rely on

Secure accurate and consistent results for your devices over their entire life cycle by putting our metrology expertise to work for you.

Save time and minimize production losses Keep all your processes working reliably and your devices in spec. Our on-site calibration services deliver precise, dependable and cost-effective calibration.

Entrust your calibration to safe hands Make safe procedures a priority to prevent harm to users, consumers and the environment. Compliant calibration ensures the safety of your processes and products.

Calibration close to operating conditions

On-site service increases process availability

On-site calibration is performed by highly trained engineers. Convenient and cost-effective, it removes the need to send instruments off-site as our specialists come to you, keeping downtime to an absolute minimum. It also offers the highest flexibility as calibration can be scheduled according to process shortages.

Our qualified and experienced field service engineers can perform adjustments, diagnose faults and recalibrate instantly where necessary. We calibrate all of your plant's installed base, not just Endress+Hauser devices.

Having our engineers on your site also offers the benefit of direct communication with your staff and means that calibration takes place close to the operating conditions.

Unique on-site flow calibration Our mobile trailers with portable calibration equipment are stationed close to you, allowing your instruments to remain at your place of operation. Depending on plant topology, many measuring points can be quickly calibrated with minimal interruption to your process.

Mobile trailers perform a comparison between two devices under test. They are all fully traceable to national and international standards thus allowing end-to-end traceability of measured values.





Laboratory services to achieve highest accuracy

Worldwide high-tech calibration systems for standardized quality statements

Our calibration laboratories are located worldwide to provide the best possible service, wherever and whenever you need it. These identically built high-tech calibration systems ensure standardized quality statements. No other calibration provider can propose such a wide range of assistance worldwide.

For decades Endress+Hauser have been planning, building and constantly improving high-tech calibration rigs with dedicated specialists, engineers, software developers, technicians and designers. Regular contacts to national metrology institutes maintain the exchange of specialist know-how. This knowledge ensures our calibration rigs always represent the state-of-the-art metrology.

These benefits allow you to dependably measure and process costly raw materials and intermediate products, complying with stringent quality specifications, and implementing optimum process automation to minimize costs.

Our primary standards laboratory has the resources you need to meet the traceability of your lab standards. All our laboratories are environmentally controlled, ensuring the correct atmosphere for the precise measurements your instruments require.



Traceable and accredited calibration

We help you to stay compliant

Comparisons between devices under testing, testing equipment and the country's highest national standard are the only way of establishing end-to-end traceability of measured values. To get accredited, Endress+Hauser is checked by official bodies during comprehensive and stringent audits. Various criteria are evaluated:

- Technical expertise of the operating personnel
- Calibration infrastructure (operating procedures, methods, calculations)
- Quality management system

With high level corporate standards on calibration quality, global qualifications management system, global training on metrology and calibration, we guarantee you will benefit from the same quality of service wherever you are. The calibration quality systems operated in our production

and local entities are accredited to international standard ISO 17025. A comprehensive range of Standard Operating Procedures (SOPs) relating to the calibration of all types of process instrumentation ensures a consistent approach.

Advantages of accredited calibration facilities

- Traceability to primary standards
- Worldwide acceptance via Mutual Recognition Agreement
- Quality certified by national accreditation bodies
- Secure calibration results

360° asset information

Improve calibration processes by instant access to critical information

Enjoy peace of mind during audits With asset information and documentation made available throughout your plant life cycle, you have instant access to calibration documentation ensuring you are always ready for quality audits.

Achieve calibration excellence with metrology expertise The calibration at the right time and to the right specifications ensures the quality of your products is in compliance with relevant standards and regulations. Consistent data and always accessible documentation from your installed base allow effectively scheduling and tracking the calibration of your critical instruments. In order to increase plant availability you can monitor the achievements of your KPIs. Whenever needed, you are supported by our service technicians worldwide to reduce complexity.

Advantages

- Traceability of the calibrations
- Access to the complete calibration history
- Audit readiness



Only a clear picture and detailed knowledge of the installed instrument base can act as a solid foundation for a proactive maintenance and optimizing strategy for your plant. With data concerning a plant and its components generated right from the first day of planning, W@M Life Cycle Management supports you in operational matters and also assumes strategic tasks.



www.endress.com/optimized-operations



Stronger plant performance thanks to harmonized calibration

Manage your calibration activities to support planning and decision-making

Your competitive edge depends on maintaining and continuously improving production efficiency. Optimize calibration in line with your needs to enhance productivity, ensure compliance, and maintain the quality of your product. Schedule calibration of critical instruments, monitor KPIs for process improvement, and call on the expertise of our service engineers, who are at your disposal for swift, cost-effective support and any necessary repairs.

Manage your calibration set-up for full compliance

Expert consulting on deviation handling and root cause analysis reduce non-conformities and keep your devices in spec. Compliance is backed by fully traceable data.

Optimize calibration for maximum effect

Smart scheduling with optimized calibration intervals keeps processes running smoothly and costs down to a minimum.

Achieve transparency to manage costs effectively

Improve processes continuously by integrating KPIs directly into your business systems. Create transparency to feed your calibration budget.

Factor calibration into process downtime Align calibration activities to your schedule and turn downtime to your advantage through optimal use of resources and advanced calibration methods.





Operational excellence in regulated industries

Endress+Hauser ensures conformity and keeps calibration costs under control In today's regulated industries, operational excellence means running programs that increase plant availability and product quality while decreasing risk of product recalls. To achieve excellence, calibration processes have to be optimized. Therefore, day-to-day calibration tasks have been outsourced to Endress+Hauser in a customer project, making sure that instruments are regularly and properly calibrated with regard to true time and cost efficiency.

Compliance to standards and regulations Documentation traceability of service events and calibration results in the customer's system was an integral part of the project. Accessibility of the documents, timeliness of calibrations and transparency on quality issues ensured readiness for external and internal audits.

Effective utilization of process downtime The installed base was assessed and calibration intervals were optimized. Endress+Hauser took responsibility in managing calibrations done by the subcontractors in cooperation with Endress+Hauser calibration technicians. All scheduled activities are now aligned with production, and calibration time per device was reduced. To maximize equipment availability, time needed for references calibration was shortened by up to two weeks.

Calibration cost management With agreed Key Performance Indicators and monthly reporting meetings, full transparency on calibration costs was achieved. Continuous identification of improvements, aiming to reduce calibration costs, enabled the customer to adhere to their calibration budget.

Accurate process measurement Endress+Hauser's expertise in calibration and measurement technologies helped the customer accurately adjust existing metrological requirements such as Maximum Permissible Error or deviation alerts. Endress+Hauser continuously improved the customer's calibration process by root cause analysis of deviations and efficient resolution targeting to achieve zero devices out of specification.

Benefits

- Shortened time to recalibrate device and proof of compliance as requested by regulations
- Improved interval of calibration according to the process criticality of the device
- Increased equipment availability thanks to on-site calibrations by Endress+Hauser service technicians and expert advice on out-of-spec devices
- Conformity thanks to well-managed maximum permissible errors (MPE) and proactive deviation alerts
- Ensured on-time calibration by smart, flexible scheduling and advanced calibration management software
- Benefited from Endress+Hauser's metrology expertise and consulting as a one-stop shop



More information at www.endress.com/calibration-optimization

Your global calibration partner

Benefits at a glance

By working with a global player, you can be sure to get **the same service quality wherever you are located.**

Standard Operating Procedures (SOPs) ensure professional service is maintained around the world. We support with development of customer-specific SOPs.

Only **skilled specialists** undertake your on-site calibrations. Our service technicians are trained according to the industry standards. This relieves your in-house maintenance staff from routine time consuming tasks and allows them to focus on improving plant availability.

You don't need to invest in calibration tools and resources. We **take on all the necessary work** of calibration on your behalf and **provide testing equipment.** Our mobile calibration rigs are traceable to national and international standards in accordance with ISO/IEC 17025.

As a leading supplier of field instrumentation we also **adjust, repair** or eventually propose you a **replacement solution.**

Certified and traceable documentation is part of our calibration service. Your meters might be calibrated in the field or in our factory, but you always receive a calibration protocol or certificate.

Simplify the calibration process of your complex installed base of instrumentation. We can take care of **all parameters and all manufacturers' equipment.** This reduces time, efforts and cost for coordination and documentation.

Using innovative methods, Endress+Hauser expert consultants **optimize your processes** to reduce downtime, labor, product variability and save raw materials and energy.

Benefit from support and advice when you draw up **metrology plans.** Working together with your experts, we define calibration specifics for the applicable parameters.

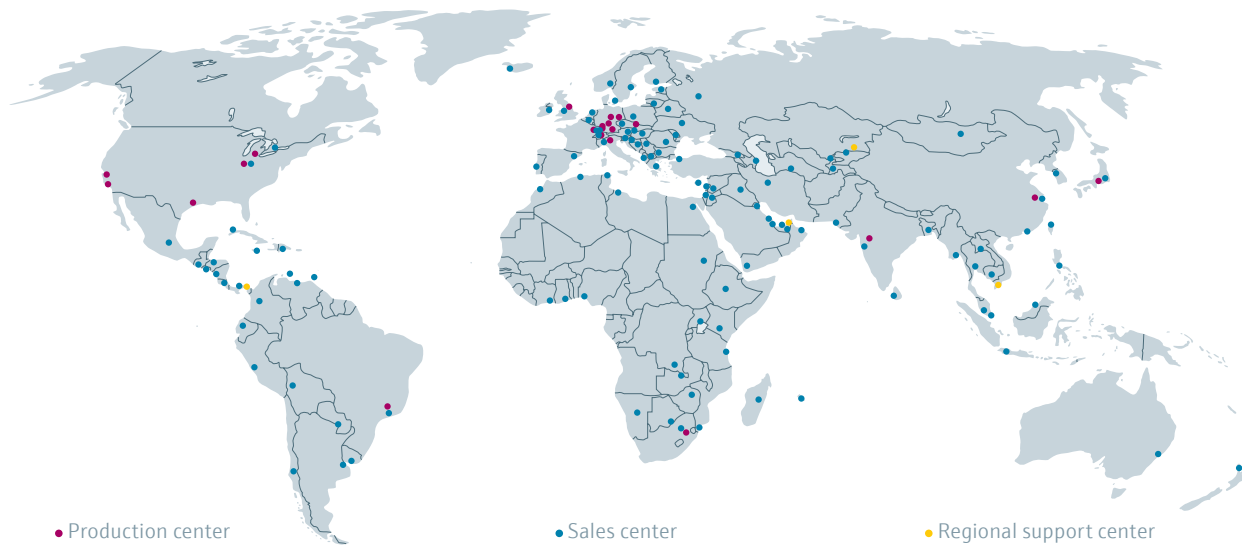
We assist you in **implementing optimum and effective calibration processes.** You can benefit from advice and support in all areas. By delegating optimization and calibration management to Endress+Hauser, you can concentrate on your core business. Our calibration experts will identify potential for improvements to increase your plant in productivity, quality and to reduce your operational costs.



Services - by your side
Committed to your business to support, to service and to optimize your process.



Endress+Hauser - more than 1000 service people around the world



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