

Mahr Service – for optimum performance



Your partner for greater reliability and quality

Benefit from fast advice, competent contact persons and comprehensive services. Our objective is always to provide the highest quality, good cooperation and straight-forward support – find out for yourself.

Top notch performance without compromise

A modern, reliable and efficient quality assurance system is essential to ensure that you can offer your customers the highest quality and safety. This also means a high level of responsibility for us – towards you.

So that you can do your best for your customers, we give you these Mahr service promises:

- Personal & close
- Fast & reliable
- Competent & committed

300+

service staff worldwide

Large network

of service partners

Subsidiaries in

20 countries

160 years
Trusted Partne

active in

> 60 countries around the world

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Always **available**

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Our services

for you

When you choose a measuring solution by Mahr, it is hoped that a long partnership will begin. However, added value is not only created by the purchase, but also by allround good service. Mahr offers the following services:

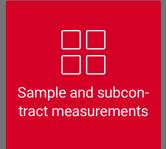
- Advice
- Commissioning
- Maintenance service
- Repairs
- Application engineering

- Modernization
- Calibration and gage management
- (Additional) supply of original parts and accessories
- Training and education
- Technical support and remote assistance

Independent services

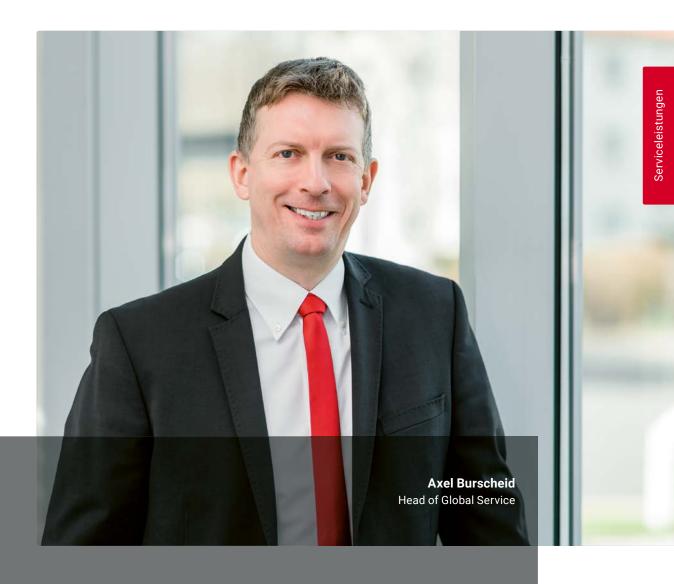
by Mahr

Mahr is a specialist in all aspects of testing and calibration. Our certified laboratories and our application engineering therefore offer you a wide range of services, including manufacturer-independent services. We guarantee maximum quality and many years of experience.









Our service objective is the same as that of our measuring technology: **Ultimate reliability** and performance."

From delivery to repair: the best care from one source

From initial commissioning to reliable continuous operation: Mahr services represent a one-stop shop for full care.



Commissioning your instrument

A measuring machine running according to specification is a basic prerequisite for the reliability of your quality assurance. That is why our service technicians are available for you directly at the time of delivery and carry out commissioning with subsequent acceptance.

Our services:

- · Installation and commissioning according to Mahr's set procedures
- · Documentation in commissioning record & service report
- · Successful acceptance together with you; start of warranty
- Documented calibration using qualified calibration certificate and calibration seal on measuring station service badge
- · Optional: Practical training sessions & measurement capability tests

Maintenance service for lasting quality

We can conduct regular maintenance of your measuring machine on request to ensure proper functioning and high availability (MTBF/MTTF). This involves checking and adjusting your measuring equipment and, if necessary, replacing wearing parts. A final calibration measurement ensures compliance with the national standard.

Our services:

- Testing measuring stations for deviations from the specified tolerance
- · Replacement of typical wear parts and repair of minor faults
- · Cleaning of measuring instruments, as well as oiling or greasing of moving parts
- · Setting of all mechanical, pneumatic and electronic functions as well as testing of the software used
- · Testing of technical function parameters and adjustment of measuring stations
- · Calibration and detailed documentation



3 Mahr quality repairs

Found a defect in your device? We will take care of your damaged equipment professionally. After repair, your device will meet the specifications and accuracy of a new device. Depending on the type of device, the repair is carried out either at your company or at our premises.

Advantages:

- Repair by qualified technical personnel using original spare parts
- · Fast repair turnaround and service
- · Inhouse repair of gages, including other makes by other manufacturers
- · Replacement equipment provided if required
- · 12 month warranty on service and parts used
- "Replace not repair" replacement service

Retain the value of your machine with an **update**

Have you been measuring and testing with your machine for many years? It may well be that the equipment is no longer up-to-date; or product and customer requirements may have changed. To continue to protect your measuring system from outages, it is time for an upgrade.

Hardware upgrade

Our upgrade offers are always tailored exactly to your machine. We upgrade the existing machine for you individually according to your needs and are happy to support you throughout the entire life cycle.

Software maintenance

Regular updates help your measuring software move with the times. This ensures compatibility with other Mahr measuring machines and compliance with current standards and guidelines.

Spare parts and accessories demand the original

Only Mahr can guarantee original parts and accessories specially developed, tested and approved for its measuring systems. Whether individual components, spare parts kits or pre-fitted assemblies: All components are coordinated down to the last detail.

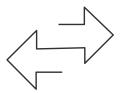


Spare parts & accessories

Original manufacturer quality spare parts and accessories maximize performance and extend the life of your machine. Through years of intensive research and development, quality audits and ongoing improvements, we ensure that you always receive the highest quality.

Advantages::

- · Guaranteed compliance with the original specifications
- · Best precision during assembly
- · Long-term availability even after discontinuation
- · Highly durable
- · Best value for money



Replacement and rental service

Replace not repair - this is a simple solution for lots of measuring equipment. You receive a refurbished device or a corresponding component as a replacement for the defective technology without any fuss. In this way you can keep downtimes to a minimum and get a 12-month warranty on the replacement unit.

Refurbished equipment & components as replacements (examples):

- · Outside micrometers and digital calipers
- · Indicating measuring instruments from the Marameter product group
- · Mobile roughness measuring instruments, e.g. MarSurf PS 10 or MarSurf M 310
- · Surface drive units and probe systems
- · Probe arms for surface and form measurement



An overview of our application engineering services:

- Consulting and concept development
- Contract programming
- Software and user training
- Sample and subcontract measurements
- Capability tests

Application Engineering – support on all levels

There are many reasons why your work can come to a halt when it comes to setting up, use and planning. Whether capacity bottlenecks, a lack of expertise in specialist areas or even individual software requirements -Mahr's metrology specialists can help you with your plans.

Consulting & concept development

Creating the right measuring concept is not so easy: Numerous details must be taken into account until the correct probe is determined and the optimum measuring routine is defined. All the more important that you can rely on the know-how and experience of Mahr.

Our application engineers will advise you on selecting the appropriate measuring system and work out an individual concept together with you to find the best possible measuring solution for your requirements.

Contract programming

In addition to high-quality hardware, the measuring program is key in order to be able to perform quality control on complex workpieces reliably and reproducibly. But what if your own company does not have the resources or expertise to develop the appropriate measurement program?

This is where Mahr's application engineering comes into play: After an extensive analysis, we create the appropriate, individual program for you, which if desired, can also include the design and manufacture of equipment.

Sample and subcontract measurements

Do you need to bridge short-term capacity bottlenecks or want to sample new components? Not worth buying an expensive measurement solution? We can measure your workpieces, samples and first batches for you - including documentation.

Use our subcontract measurement service if ...

- · ... your own measuring capacities are fully utilized
- · ... a new or complex measuring task is to be undertaken
- · ... you need support for new measuring tasks
- · ... there are short and medium-term bottlenecks in your quality assurance



Our goal is clear: We want the handling of our machines to be as easy as possible for you and your processes to run optimally. We are here to help you in this."

> **Timo Dankenbrink Head of Application Engineering**

Software and user training

You will only be able to utilize the full potential of your measuring station or software with good training. Learn to operate the system in our user and software training courses, as well as identify and eliminate minor faults unaided. The training concept is flexibly designed and leaves room for individual needs.

Tip: To ensure that you use your new measuring solution efficiently right from the start, we recommend that you combine user training directly with commissioning. You will learn everything you need to know for trouble-free, efficient operation including practical tips - directly at the measuring station.

Capability tests

When workpiece tolerance demands are high, measuring systems are often operating at the limit of their capabilities. So Mahr can check whether your measuring machines are suitable for the tasks in hand. A fundamental distinction is made between testing under ideal and real conditions.

A test under ideal conditions takes place in Mahr's own laboratory (or alternatively in your measuring room) and serves as a general capability test in accordance with ISO 9001. The test under real conditions includes location and operator factors. This way you can be sure that your measuring machine also measures reliably at the respective installation site without environmental influences ruining the results.





Accredited calibration services for your measuring instruments

Mahr is your accredited and experienced specialist in the field of testing and calibration. We offer you traceable and cost-effective calibration services for measuring instruments, standards and measuring equipment. In doing so, we rely on national and international standards. Four advantages that speak in our favor:

Reliable traceability & worldwide acceptance

All Mahr calibration laboratories work in accordance with ISO 17025. Depending on your requirements, calibration is performed to DAkkS, NVLAP or CVAS level, or to factory/ISO level. The results are documented in audit-proof calibration certificates. DAkkS, NVLAP and CVAS certificates are globally recognized through the ILAC.

Prompt advice for shorter downtimes

Standardized procedures and trained personnel ensure short throughput times and with the Mahr system boxes you can be sure of fast and professional transport to and from us. For very urgent cases we also offer quick calibrations of selected products.

Professional competence **by tradition**

Almost 160 years of experience have also had an impact on our calibration services. Mahr's knowhow ensures reliable, precise and reproducible results. As a pioneer in measurement technology, we have also helped develop many of the standards that apply today. So you can be sure: We know what we're doing!

One-stop shop for comprehensive service

Mahr is accredited for a wide range of dimensions in length and form metrology. We offer our services for all Mahr products as well as handheld measuring instruments by other manufacturers. We can also take care of your gage management, including for measurands such as torque, pressure, temperature and electrical variables. For you this means: Service from a single source, which reduces your administrative costs.



Learn from experts the Mahr Academy

The Mahr Academy is our service to you to provide you with technical content in addition to product training courses. Not only do we offer training and courses in measuring technology, but also in gage and quality testing. Our instructors are 100% committed to their subject and have their finger on the pulse from their own experience. Not a moment is wasted - quite the opposite in fact:

Every minute of a Mahr seminar is an effective investment in your own know-how.

The areas we cover:

- · Quality and gage management
- · Practical application of production metrology
- New DIN / ISO / GPS standards
- AUKOM training courses (AUKOM level 1, AUKOM level 2 & AUKOM level 3, AUKOM form and position)
- · Product-specific learning content





Find out about our webinars and in-house training options at www.mahr.com too

Qualified know-how

from metrology specialists

The entire course content is structured by topic and is geared towards your staff in various departments.

Basic training

Production metrology

Learn the basics of metrology at Mahr Academy.



User trainingProduction metrology

Expand your knowledge in our advanced training courses.



Product presentationsProduction metrology

Keep up to date with our product highlights.



eLearning

Continue learning at home – with our eLearning courses.



Webinars

We offer all of our training courses as webinars too – put us to the test!

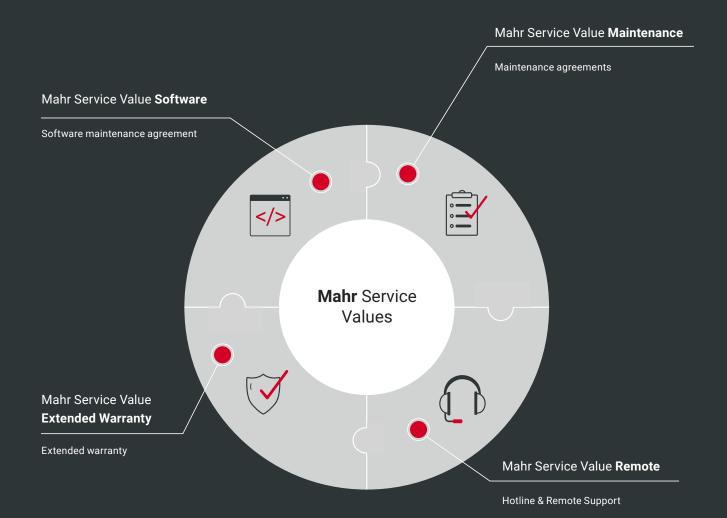




Our **service agreements** – Packages with added value

Whether it's day-to-day business or an exceptional situation: When you use our service, you want fast, competent support – without having to worry about costs. This is exactly what Mahr Service Values is for: Our agreements for maintenance, software maintenance, warranty extension, hotline and remote support.

With Mahr Service Values, you can conveniently get the right service for your needs – and keep full control of your budget. Depending on the package, we can also guarantee you shorter response times or prioritization when arranging appointments. You can also put together your own modular service package – try it for yourself!





Mahr Service Value Maintenance

In addition to individual maintenance, we offer MSV Maintenance, the right agreements for regular, recurring maintenance. While you concentrate on your core business, we look after scheduling and carry out the annual inspection of your Mahr measuring machines – including calibration, maintenance records and detailed machine report. In addition, if you order a new machine at the same time, you will receive a voucher for a 1-2 day seminar at Mahr Academy (excludes AUKOM training courses).

Includes:

- Annual maintenance according to use (e.g. once yearly in double shift operation)
- · Includes lubricants and cleaning agents
- Documentation: Calibration certificate and maintenance protocol with detailed machine report
- · Prioritized handling for remote support and technician dispatch
- Duration: 12 months (automatic renewal)

Mahr Service Value Extended Warranty

The MSV Extended Warranty is an affordable manufacturer's extended warranty that packs a punch: Enjoy stable prices, high system availability, free remote support and priority treatment for appointments. In combination with the MSV Maintenance agreement, you can extend the warranty for selected measuring systems by 12 months.

Includes:

- · Manufacturer's extended 12-month warranty
- In combination with a maintenance agreement
- · Available for selected products



Mahr Service Value Software

This maintenance agreement guarantees you comprehensive software support. Functionality and all of your machines will always be up-to-date. You will also save over 90% memory space (from MarWin version 11) and continuous bug fixing.

Includes:

- Latest software version installed (performed once a year together with maintenance)
- · In combination with a maintenance agreement
- Duration: 24 months (automatic renewal)





Mahr Service Value Remote

Telephone advice and remote support at a fixed price – even after the warranty has expired: That's what MSV-Remote offers you. Book an hourly quota at a special rate and avail of them whenever you need. You benefit from transparent and scalable costs and can concentrate fully on solving the problem with us in an emergency.

Includes:

- · Within warranty / manufacturer's warranty free of charge
- Minute-based billing (initial analysis free of charge)
- · Remote contract with annual flat rate at a fixed price
- Bookable hourly quota at a special rate

Always available for you



Direct contact with you is important to us. We want you to be able to reach us with your concerns and get support at all times.

Find the right person for your service request at: www.mahr.com/service/kontakt

Mahr Service all over the world

Egypt
Argentina
Australia
Belgium
Brazil
Bulgaria
Chile
China
Denmark
Estonia
Finland
France
Great Britain
India
Iran
Ireland
Israel
Italy

Colombia
Korea
Croatia
Latvia
Lithuania
Luxembourg
Malaysia
Morocco
Macedonia
Mexico
Montenegro
Netherlands
Norway
Austria
Peru
Poland

Russia
Sweden
Switzerland
Serbia
Singapore
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Thailand
Czech Republic
Tunisia
Turkey
Hungary
USA



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