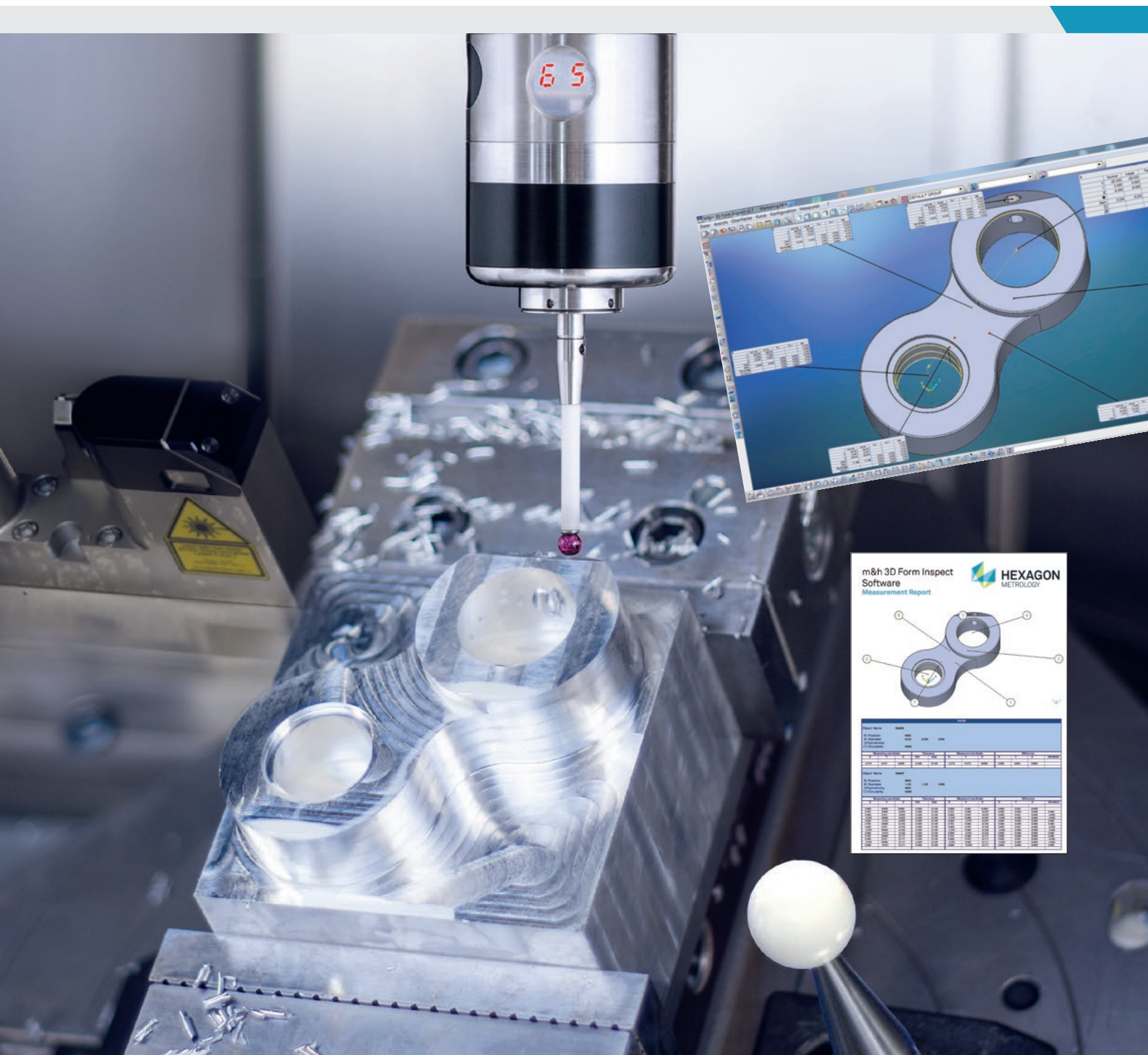




m&h 3D FORM INSPECT SOFTWARE

Measuring on Machine Tools – fast and precise





... The original, since 2002 a leader in the market!

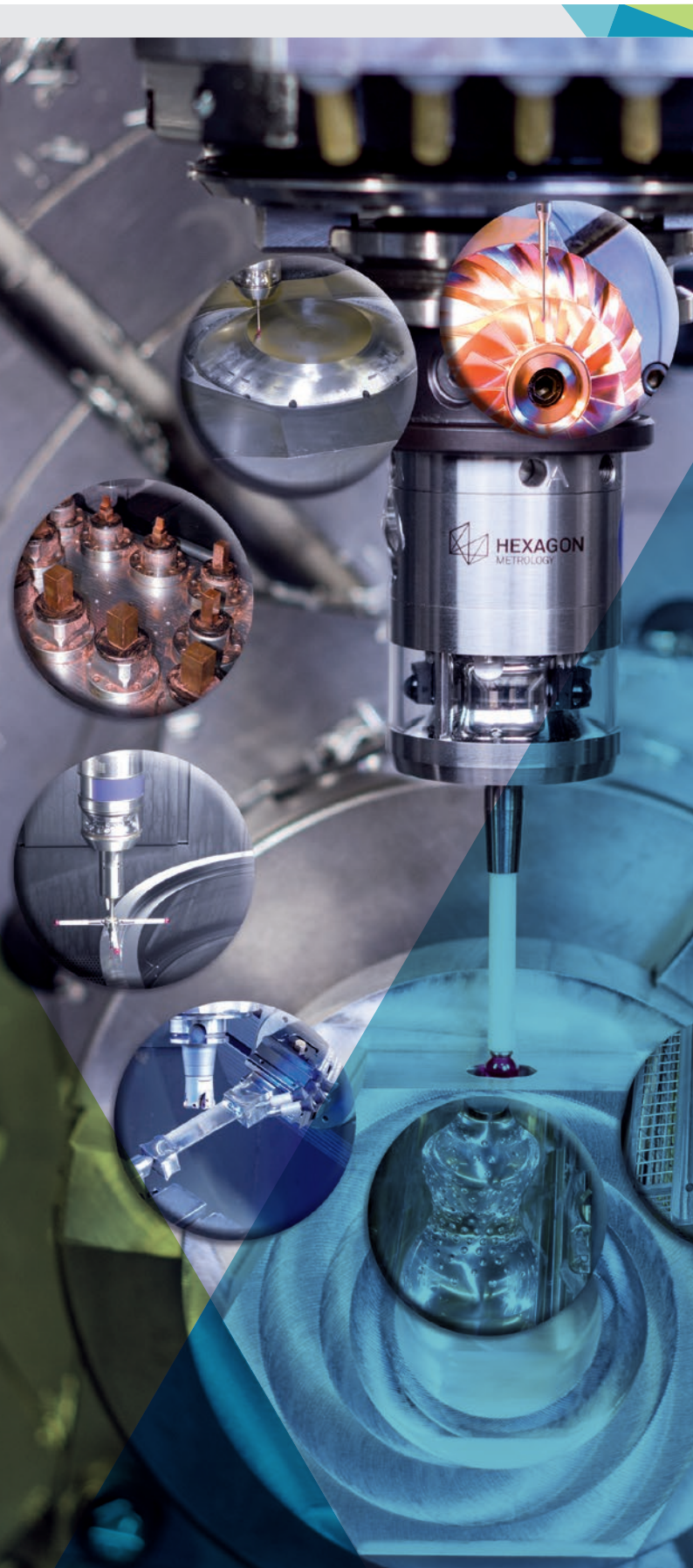
As easy as can be

- Determine measuring points
- On-screen collision control
- Generation of measuring program with automatic transfer to CNC control
- Measuring on the machine
- Evaluation of measuring results
- No machine downtime
- Documentation of genuine quality

Thanks to the easy handling, the machine operator has more time to concentrate on the production process.

m&h 3D Form Inspect offers you:

- m&h's patented real-time calibration ensuring highest precision
- Self-explanatory user interface designed for the machine operator
- Support of a wide range of CAD formats and machine post processors
- Clear, understandable measuring reports can be shown in Excel, Word, OpenOffice, PDF or HTML as well as in the CAD view.
- Full support of 4th and 5th axis measurements
- The Best-Fit option allows for quick re-clamping of forms necessary for rework





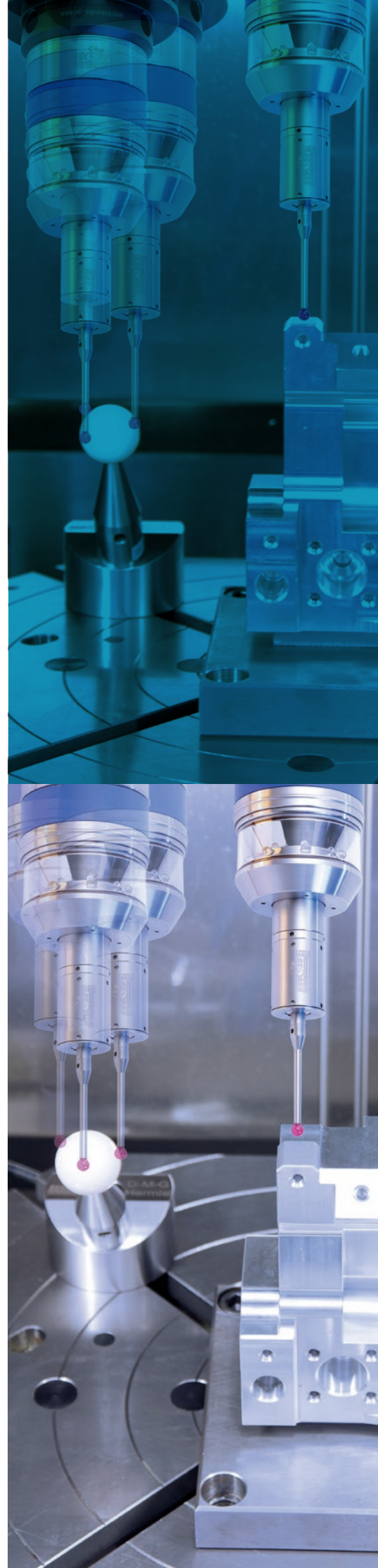
The proven solution for your success !

m&h 3D Form Inspect this software enables quick, easy measuring and logging of important geometries and shapes on all sides and with all axes directly on the machine tool. This saves time, provides safety, and enhances quality.

- Measure, correct and document geometry on all sides of the workpiece
- Perform measurement and final machining in one set-up
- No transferring to the measuring machine

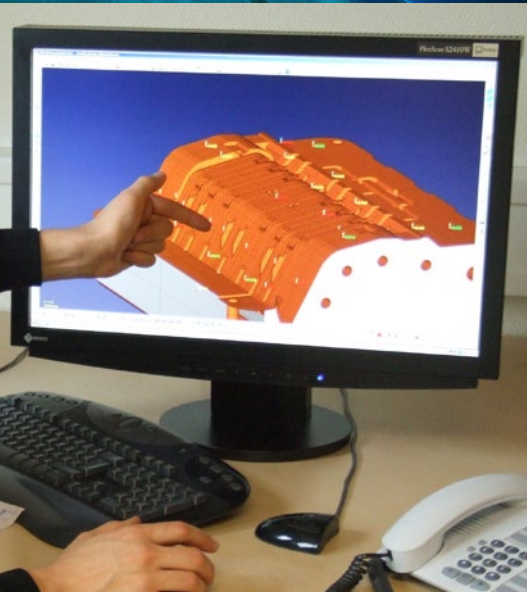
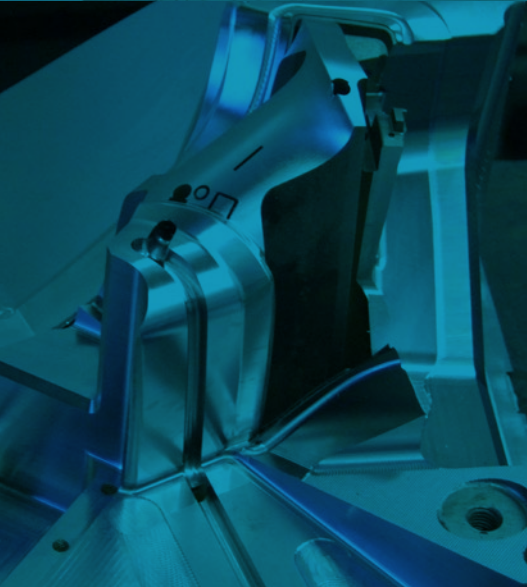
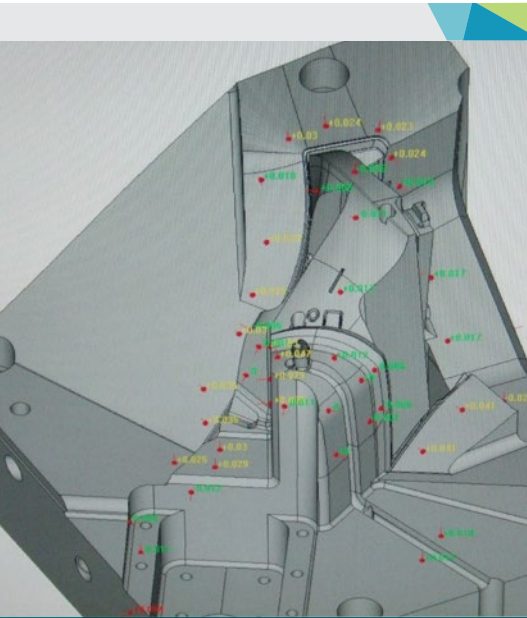
Highest precision through reliable calibration strategy (patented)!

- Compensate measuring errors occurring at the spindle interface
 - Automatically detect and compensate kinematic changes while measuring
 - Identify thermal displacements in the working area and apply to evaluations
 - Remove the effects of Axis Lag-error from measuring procedures
 - Eliminate pre-travel variation of probing systems using vector calibration
-
- RTC – Real Time Calibration
 - Calibration strategy (patented)





– High-end functionality, exclusively from m&h



Support of 4th and 5th axis and Correction of kinematic errors

True 4th and 5th axis support is available with 3D Form Inspect. Positioning the machine's rotary axis is as simple as selecting the probing surface in the CAD, or dragging the probe orientation on the screen. After carrying out a full simulation of program, the operator is confident that the program will collision free.

- Measuring on all sides of the workpiece and at undercuts or inclined geometries in free space
- Maximum precision by patented compensation of swivelling errors
- Collection of kinematic errors of the 4th and 5th axes through calibration or actual workpiece
- Detected deviations are compensated for during the measuring process

Best-Fit Function

Alignment of complex shapes in a machine can be simplified by using an optional Best Fit routine. With this, it is possible to collect a number of points on a surface, and then use the software to calculate the shifts and rotations required to bring all the points as close as possible to their correct position. The results of the calculation can then be used to set up the machine.

- Optimization of deviations in position and location by turning and shifting the workpiece
- Can be used for quick fitting of the blank into the best machining position
- Quick re-clamping of moulds for necessary rework, determination of position and zero point defining after measuring



Extended reporting function

Clear, understandable measuring reports can be shown in Excel, Word, OpenOffice, PDF, or HTML as well as in the CAD view. For the complete workpiece or for partial measurements.

Additional design features

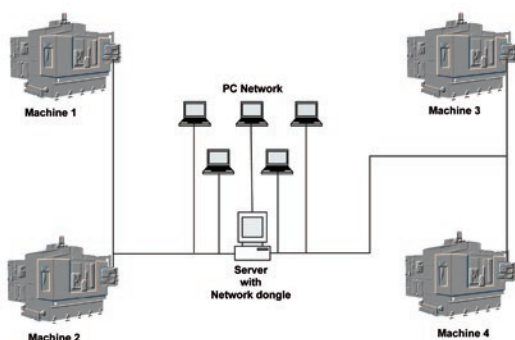
The reporting function enables the integration of

- > company name
- > tool name
- > series or drawing number
- > clamping number
- > machine designation
- > stamp

Flexible Licencing Options

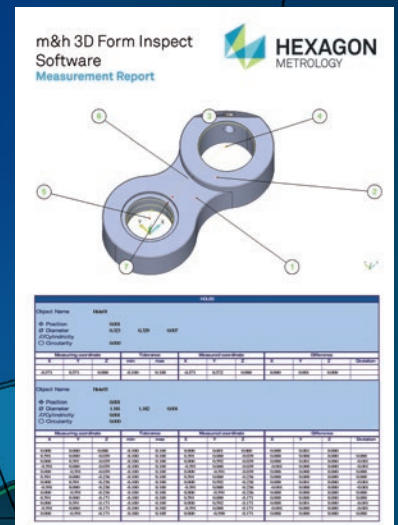
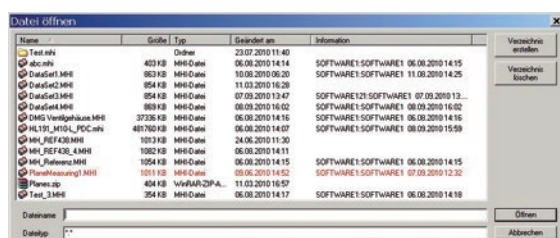
Single licence per PC or network floating license

The number of single-station licenses which are available to a company is stored on the network-capable server dongle.



Remote Project Manager (optional)

- > Open and share project files on a network
- > Modify project files stored on network shares locally while file is being locked on the network
- > Save project files in network automatically



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Applications

3D Form Inspect Software saves time, gives safety, and enhances quality – for many years leading companies from the following fields have been relying on it:

- Aerospace
- Automotive
- Mould & Die
- Mechanical Engineering
- Power Generation
- Precision Industry
- Medical Technology
- Domestic Appliances

A large number of user reviews from the above-mentioned areas can be found on our homepage www.mh-inprocess.com in the „Applications“ area.



Probing systems and software

m&h designs and manufactures precision made, highquality, dependable probe systems for use in machine tools.

Technical innovation focused on our customer's manufacturing processes lies at the heart of our development process.

As a part of Hexagon Metrology, m&h stands for innovative metrology for machine tools. [m&h – Part of Hexagon Metrology](#)



m&h PROBING SYSTEMS



m&h LASER TOOL SETTERS



m&h TOOL SETTERS



m&h MEASURING SOFTWARE

Used worldwide

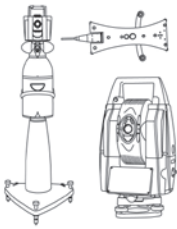
Anywhere in the world our field engineers install probing systems and software solutions. Do you have questions about the products or do you need application assistance on your machine tool? We will advise and support you until your problem is solved.

We offer trainings in order to give confidence to the machine tool operators. Our quick repair & exchange service for damaged probes avoids downtime. The Hexagon Metrology worldwide sales and service network offers qualified advice and local service, quickly and effectively.

- Field Service Technicians
- Technical Support
- Training and Demo
- Repair and Exchange Service
- Spare Parts



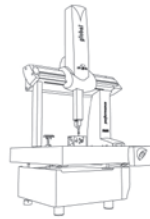
Worldwide more than 70 precision centers for your support



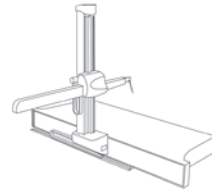
LASER TRACKERS
& STATIONS



PORTABLE MEASURING ARMS



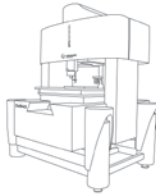
BRIDGE CMMs



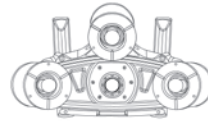
HORIZONTAL ARM CMMs



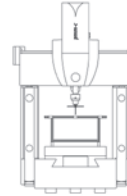
GANTRY CMMs



MULTISENSOR & OPTICAL SYSTEMS



WHITE LIGHT SCANNERS



ULTRA HIGH ACCURACY CMMs



SENSORS



PRECISION MEASURING
INSTRUMENTS



SOFTWARE SOLUTIONS



HEXAGON
METROLOGY

Hexagon Metrology offers a comprehensive range of products and services for all industrial metrology applications in sectors such as automotive, aerospace, energy and medical. We support our customers with actionable measurement information along the complete life cycle of a product – from development and design to production, assembly and final inspection.

With more than 20 production facilities and 70 Precision Centers for service and demonstrations, and a network of over 100 distribution partners on five continents, we empower our customers to fully control their manufacturing processes, enhancing the quality of products and increasing efficiency in manufacturing plants around the world.

For more information, visit www.hexagonmetrology.com

Hexagon Metrology is part of Hexagon (Nordic exchange: HEXA B). Hexagon is a leading global provider of design, measurement and visualisation technologies that enable customers to design, measure and position objects, and process and present data.

Learn more at www.hexagon.com

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