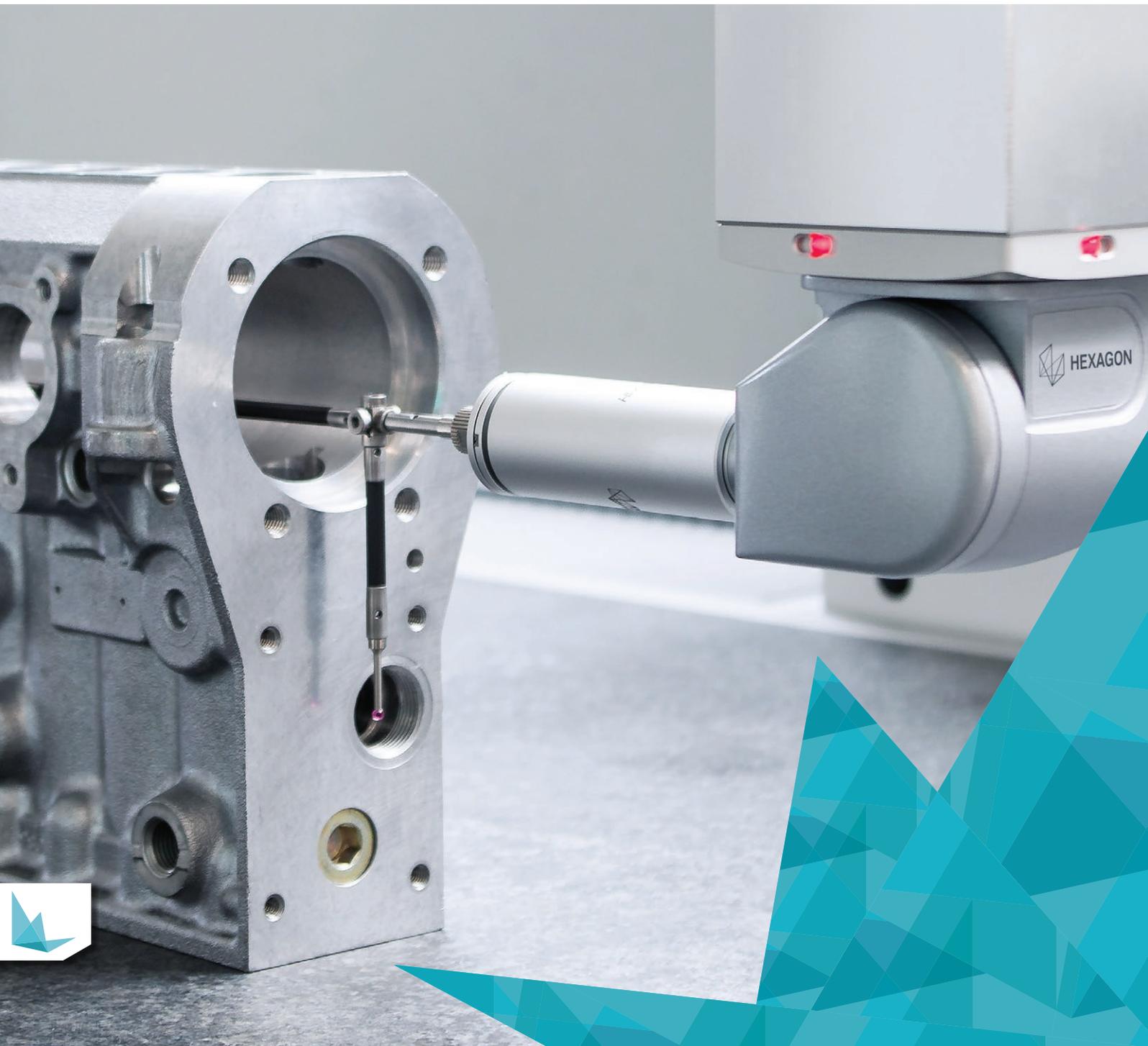


GLOBAL LINE

VERSATILE COORDINATE MEASURING MACHINES





TAILORED FOR MAXIMUM PRODUCTIVITY

Scalability and scope are the hallmarks of the GLOBAL coordinate measuring machine (CMM) range. Offering optimal measurement performance across a wide range of models to fit any type of job, they enable companies of all sizes to select the perfect fit to improve production quality.



The precision and quality of the parts we manufacture are not negotiable. The GLOBAL Advantage CMM has increased our ability to maintain high quality standards without causing longer lead times.”

Tim Cook,
Quality Technician, Bonfiglioli

ACCELERATE THROUGHPUT

With accuracy starting at 1.3 μm , GLOBAL CMMs combine precision with speed, ensuring high productivity while maintaining the degree of precision expected from the leader in metrology. From accurately measuring parts with tight tolerances to increasing inspection throughput, GLOBAL machines are equipped to meet unique production requirements.

In addition to the standard size offerings, Hexagon Manufacturing Intelligence is equipped to build GLOBAL frames to custom ranges and specifications upon request.



GLOBAL Classic

With excellent price-performance ratio, the GLOBAL Classic offers a cost-effective solution to standard dimensional inspection applications. GLOBAL Classic is the ideal CMM model for routine measurements with less challenging accuracy and throughput requirements. It guarantees a good level of versatility for both touch trigger and tactile scanning measurements, and the ability to cope with almost all basic inspection requirements.

GLOBAL Performance

Offering better results for more sophisticated measurement tasks and high-tolerance parts, GLOBAL Performance machines provide a wide range of inspection methods including outstanding scanning operations. Easily upgraded to accommodate a variety of contact and non-contact scanning sensors, it is a versatile multipurpose machine which will exceed expectations for manufacturers in diverse industry sectors.

GLOBAL Advantage

An advanced package that combines accuracy and speed to maximise throughput, GLOBAL Advantage machines feature a high-performance analogue scanning probe, thermal compensation and advanced software as standard. Perfect for inspecting complex geometries or freeform surfaces efficiently, optimised motion dynamics and state-of-the-art electronics ensure excellent productivity while maintaining the characteristic flexibility of the GLOBAL range.



GLOBAL EVO

Optimised for high-performance tactile scanning and offering best-in-class throughput, GLOBAL EVO is the ideal solution for manufacturers who require higher productivity in dimensional inspection. Scan at high speeds without compromising on accuracy and performance via patent pending Compass Technology. Overall performance is further improved by the Scan Pilot feature for undefined path scanning measurements and Fly2 Mode, the second-generation motion trajectory optimisation system. In addition, the Eco Mode energy-saving function will contribute to a reduction of machine operating costs.



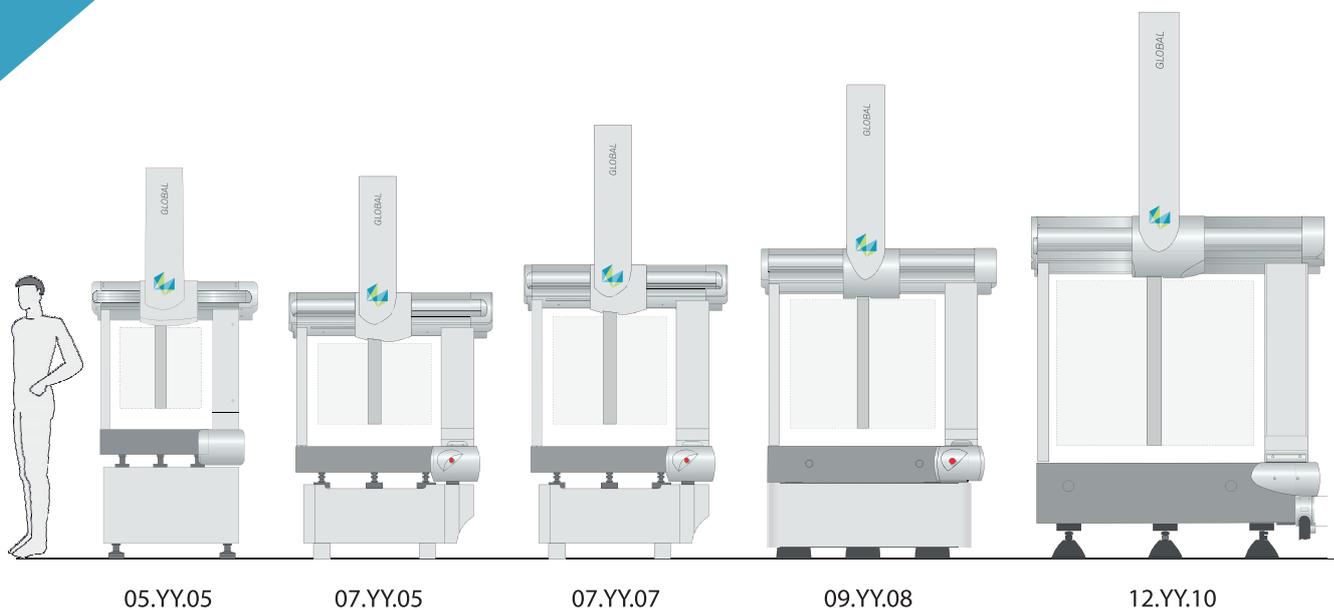
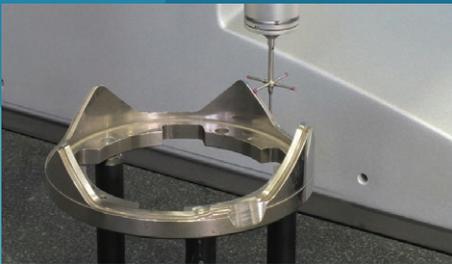
GLOBAL SHOP FLOOR

For customers who need to measure within frontline production, GLOBAL CMMs are available as a shop-floor proven model to enable dimensional inspection in the most challenging environments. GLOBAL SHOP FLOOR machines include an advanced thermal compensation system able to deliver state-of-the-art performance, as well as extra bellows and covers to protect the machine against dust and airborne particles.

MAXIMUM FLEXIBILITY

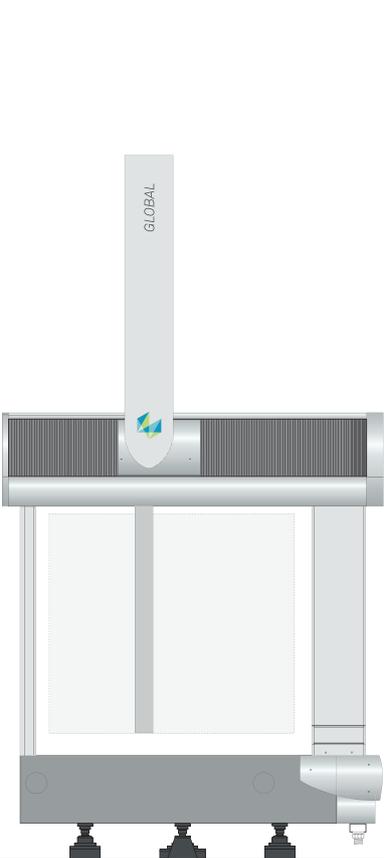
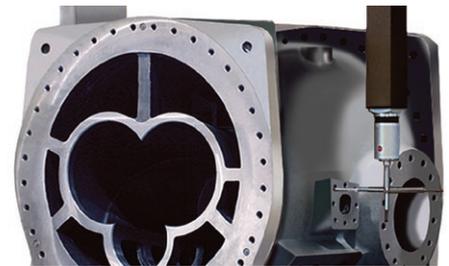
GLOBAL CMMs are offered in a wide range of workspace capacities to accurately measure virtually any size and shape of workpiece. As a guideline for selecting the correct size, it is important to consider the dimension of the largest part and adding at least twice the maximum offset of the probe configuration, ensuring there is accessibility to all measuring elements.

The combination of a variety of machine sizes and performance levels offer a unique range of solutions suitable for a broad range of applications and dimensional inspection requirements. From the smallest watch parts to large complex geometries with hard to reach features, GLOBAL CMMs offer the right solution to fit the job.

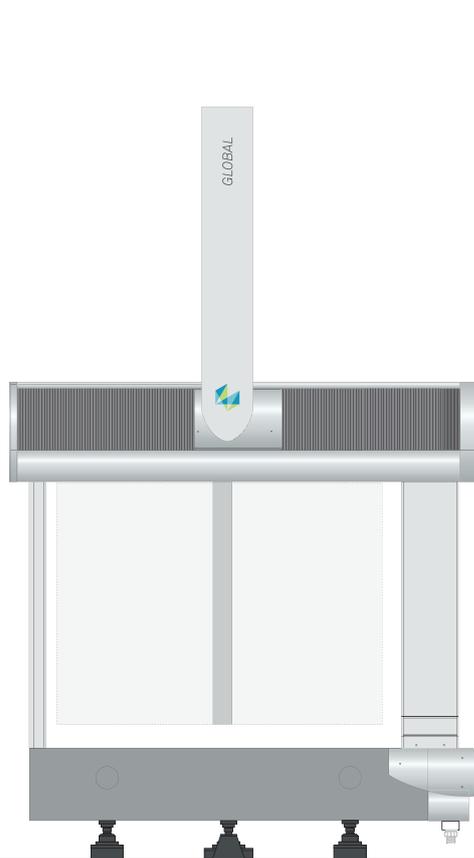


GLOBAL LINE						
Size *	Measuring range (mm)	CLASSIC	PERFORMANCE	ADVANTAGE	EVO	SHOP FLOOR
05.YY.05	500 x 500/700 x 500	•	•	•		
07.YY.05	700 x 700/1000 x 500	•	•	•		•
07.YY.07	700 x 1000 x 660	•	•	•	•	•
09.YY.08	900 x 1200/1500/2000 x 800	•	•	•	•	•
12.YY.10	1200 x 1500/2200/3000 x 1000		•	•	•	•
15.YY.10	1500 x 2200/3000 x 1000			•		
15.YY.14	1500 x 2000/2600/3300 x 1350			•		
20.YY.15	2000 x 3300/4000 x 1500			•		
20.YY.18	2000 x 3300/4000 x 1800			•		

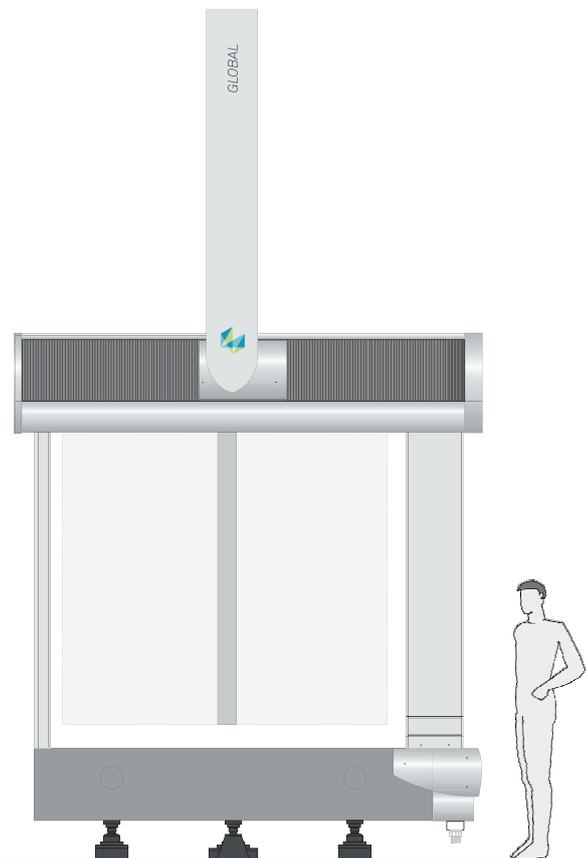
* Some models and sizes only available in specific regions.
Longer Y measuring strokes are also available as special systems upon request.



15.YY.14



20.YY.15



20.YY.18

EQUIPPED TO BE EFFECTIVE

Configuring a GLOBAL CMM to accomplish particular measurement goals has never been easier. With an extensive offering of probes, probe heads and styli available on the GLOBAL CMM line, Hexagon can tailor a solution to meet specific needs. With this type of flexibility, a GLOBAL solution can be configured to handle any measurement demand and can be adapted if requirements change.



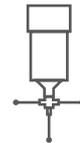
PROBE HEADS

The probe head forms the heart of every coordinate measuring machine. Combined with a probe, it generates the measurement data during inspection cycles. Manual heads for touch trigger probes provide excellent basic capabilities. Automatic probe heads extend that capability with a kinematic joint for the coupling of scanning probes and laser scanners. Fixed scanning probes ensure the highest performance even with long extensions and styli.



TOUCH TRIGGER PROBES

Touch trigger probes provide fast and repeatable 3D measurements. Offering a precise and high-throughput inspection method for maximum productivity, the Hexagon touch probe range ensures excellent accessibility for virtually any part measured on a GLOBAL CMM. An optional tool changer also allows multiple probe types to be used automatically within a single program to maintain accuracy and operational efficiency.



SCANNING PROBES

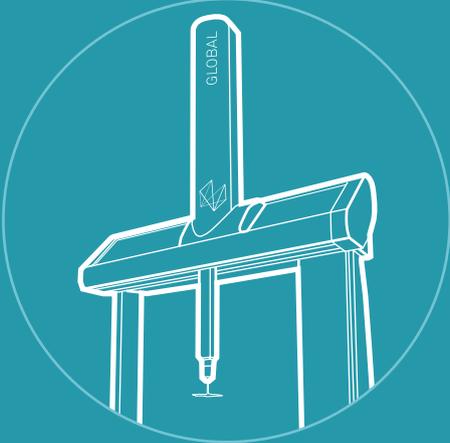
When large amounts of data are required, scanning will yield higher-quality results in less time than the touch-trigger method. With more data, measurement uncertainty is decreased and the repeatability of the measuring process is increased, ensuring greater confidence in the results. Hexagon offers scanning probes ranging from heavy-duty fixed probes capable of reaching deep part features to lightweight scanning probes attached to articulating heads for quick feature measurement changes.



NON-CONTACT SENSORS

Ideal for soft, delicate or low-rigidity parts, non-contact vision or laser scanning sensors enable GLOBAL CMMs to measure either a large area or a smaller area of interest such as a hole or edge. They are also used for quick surface verifications of mid-large solid parts. Specialist software options allow the machine to utilise these sensors effectively without changing setups or compromising on efficiency. Using point clouds generated from scanning, GLOBAL CMMs can provide the data necessary for reverse engineering and prototype modelling.

PATHWAY TO PRODUCTIVITY



MEASURING PROBE HEADS

Manual Probe Heads
HH-T • HH-MI



Automatic Probe Heads
HH-A • HH-AS



Fixed Scanning Probes
HP-S-X1C • HP-S-X3 • HP-S-X5

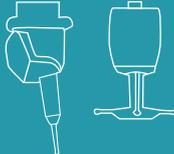


PROBES/SENSORS

Touch Trigger Probes
HP-T • HP-TM • HP-T-RP



Scanning Probes
HP-S-X1 • HP-S-X3T



Non-Contact Vision and Laser
HP-C-VE • HP-L

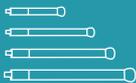


ACCESSORIES

Styli Kits



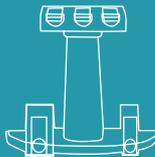
Specialised Styli



Adapters and Accessories



Styli Changer Racks
HR-X

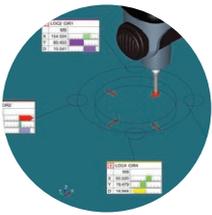


Probe and Module Changer Racks
HR-P • HR-R



THE RIGHT SYSTEM FOR THE JOB

Software is the essential link between user and machine. Hexagon believes that creating, editing and executing part programs should be intuitive, fast and adaptable. While ensuring parts meet quality standards is critical, not all parts have the same measurement requirements. To meet these quality standards, Hexagon offers multiple software configuration options ranging from novice to expert – ensuring that efficient part programming and accurate actionable results are possible.



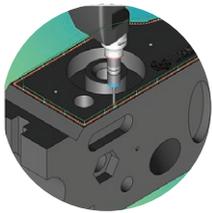
PC-DMIS PRO

Designed to enable users to perform simple inspection operations without CAD data, PC-DMIS PRO features an easy-to-use graphical user interface. Quick-start routines for probe calibration, part alignment and reporting allow operators to efficiently create part programs and perform the measurement tasks.



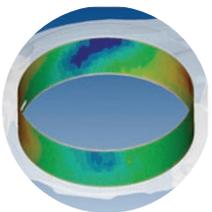
PC-DMIS CAD

PC-DMIS CAD is ideal for manufacturers of prismatic parts that want to integrate CAD into inspection operations. It allows users to program and inspect parts using CAD models ranging from simple 2D blueprints through to full 3D solid models. While guiding users through the programming process, CAD offers the user an interface that allows them to finalise programs more quickly, improving productivity.



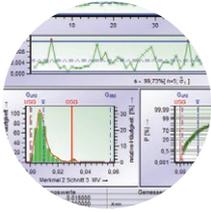
PC-DMIS CAD++

PC-DMIS CAD++ enables users to measure complex parts. It includes all the capabilities of PC-DMIS CAD and adds the ability to measure complex, contoured surfaces including thin-walled sheet metal, plastic, blades, dies and moulds. PC-DMIS CAD++ supports numerous scanning devices and applications and includes algorithms for managing large amounts of data. It links to CAD, allowing users to compare measurement results directly against models for unsurpassed speed and accuracy. It is feature-rich, yet easy to use.



QUINDOS

QUINDOS is ideal for the most complex measurement tasks and special analyses. Allowing users to measure even at the submicron level with ultra-high accuracy CMMs, QUINDOS is perfect for special part geometries and other functional extensions. From R&D and part prototyping to production, QUINDOS is the ultimate developer tool for users looking to take a deeper dive into metrology.



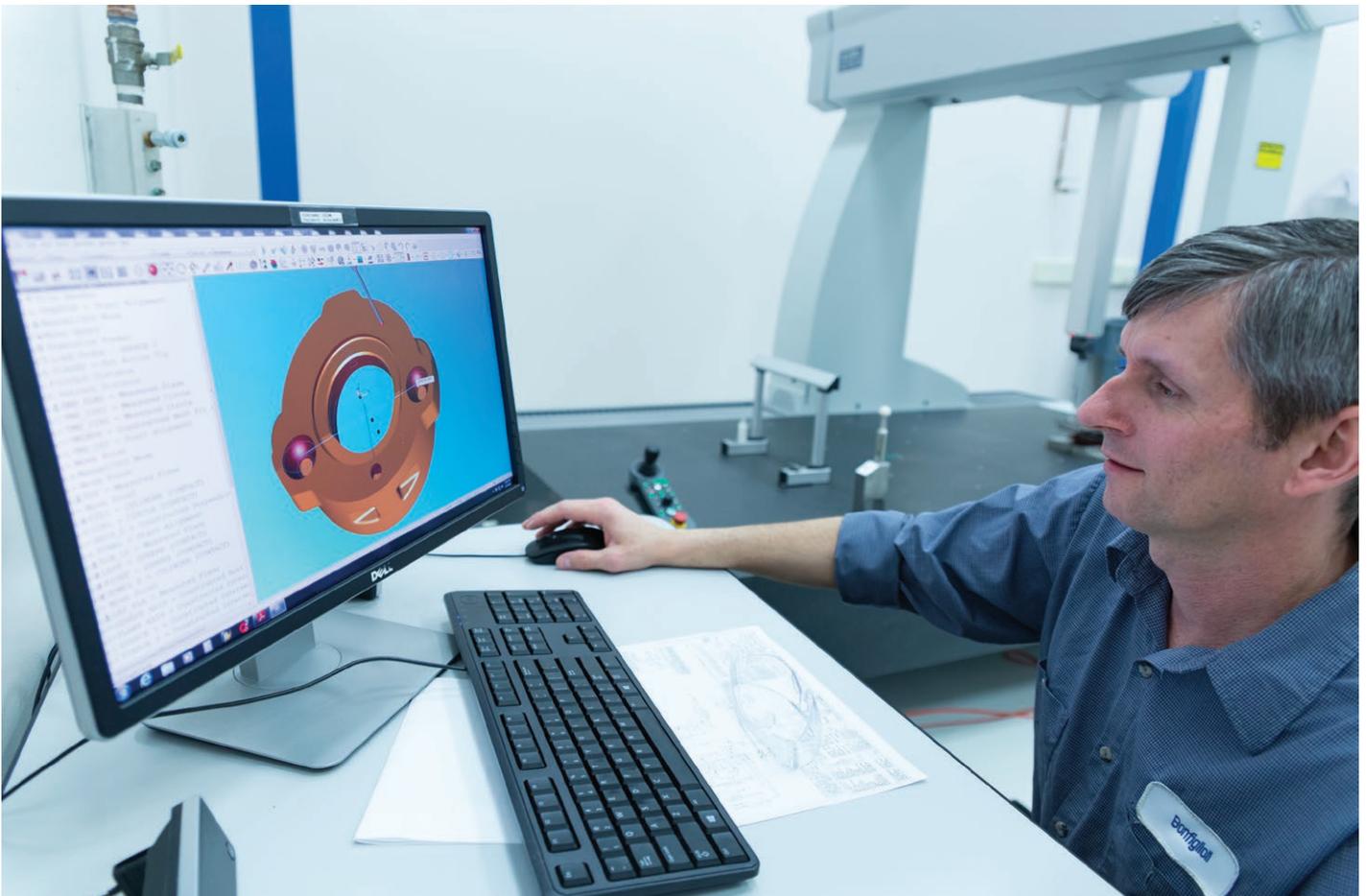
Q-DAS

Statistical analysis is crucial to industrial production and its equipment. With more than 8 000 customers and 200 000 users around the globe, Q-DAS statistical process control (SPC) software enables companies to achieve their internal requirements (including compatibility with major automotive manufacturer standards) as well as those of external customers and auditors. Q-DAS software offers powerful packages for the SPC analysis of measurement data gathered from any measurement equipment. A standard interface for data exchange ensures data integrity and safe transfer. Among the main benefits, is the reduction of rejected parts thanks to real-time SPC capability and alert functions.



MMS PULSE

MMS PULSE uses a network of sensors to record variations in temperature, vibration and humidity in the vicinity of the CMM. Also offering equipment status alerts and crash notifications, MMS PULSE creates a central dashboard of information for operators to access at any time. It provides a comprehensive picture of inspection activities, suggests optimal measurement efficiencies and provides actionable information for quality environments. Available on selected models.



TAILOR THE PROCESS

Take measurements further with options and accessories that will enhance the metrology experience.



PROPERLY FIXTURED PARTS MEAN ACCURATE RESULTS

When parts are not properly fixed to the CMM, a carefully developed part program may generate useless results. Hexagon experts help customers find the best method to hold the part on the CMM, including the design and production of custom fixtures that will not only save inspection time, but money as well.



INCREASE THROUGHPUT

Manual, automatic and semi-automatic workpiece feeding systems increase throughput and allow measuring operations to continue unattended, while existing part transportation systems can also be adapted to deliver parts via a CMM.



PROTECT INVESTMENT

Optional bellows covers protect the bearing way surfaces from airborne contaminants. In addition to the protection provided by the standard bellows for the Y drive leg, this option provides bellows for the X beam and non-drive leg. Available on selected models.



EXTEND REACH

CMM measuring applications will normally require a variety of stylus tips to get the job done. When measurements are required in difficult-to-access locations, probe head extensions and customised styli accessories can provide assistance. Hexagon offers various CMM styli and probe extensions to increase part accessibility.



Hexagon provided the desired software features and packaged it (through menu driven icons) into a product that was very easy to learn. The point and click icon menus make it simple to teach the operators how to run a program for production measuring requirements. The online training and support has made it very easy for me to find the answers I need that might have taken me a few days to resolve in the past.”

Tim Acton,
CMM Programming, Metal Technologies, Inc.





THE LOCAL EXPERTS AND METROLOGY PARTNERS

With a global network of solution centres and consultation engineers, a team of metrology experts is right around the corner to help manufacturers achieve their quality goals. Each facility is equipped to provide product demonstrations, live part programming and extensive training options. From installation and start-up to ongoing support throughout the life of the GLOBAL CMM, Hexagon will be there every step of the way.

SUPPORT FOR SUCCESS



START-UP SUPPORT

Ensure trouble-free operations at installation and beyond with expert application engineers on hand to provide staff training, write initial part measurement programs and offer ongoing support.



TRAINING

An important factor for the use and maintenance of the machine is good knowledge of its operation. Thanks to Hexagon's introductory and advanced metrology courses, users can optimise CMM productivity. Hexagon offers a wide range of training courses for beginners and experienced operators, either in a dedicated training centre or on-site at a customer facility.



MAINTENANCE PLANS

Preventative maintenance and scheduled services keep hardware in optimal condition. When repairs are needed, service parts, labour and transportation are covered. The service includes a dedicated customer representative, access to Hexagon's technical support, and remote assistance wherever applicable.



CALIBRATION SERVICES

Maximise return on investment by keeping the system precise throughout its life. Hexagon support engineers have the experience, the specialist tools, and the accreditation to current global standards to properly calibrate and recertify CMM systems.



APPLICATIONS SUPPORT

Hexagon's expert metrology application engineers can write part inspection programs for customers during installation and beyond. This service is ideal for first-time CMM users or for experienced operators who are dealing with new and complex geometry.



PART INSPECTION SERVICES

When output requirements outpace production capabilities, Hexagon is available to help. Whether it's part measurements, fit checks, SPC data collection, deformation/drift monitoring or in-process inspection, use Hexagon to optimise inspection capacity and reduce overall measurement costs.



SITE ANALYSIS

When workshop or laboratory conditions are less than ideal, a Hexagon engineer will come on site to determine what actions can be taken to improve results and help select the most appropriate solution.



SYSTEM ENCLOSURES

When the installation environment is not suitable for a GLOBAL CMM to reach and maintain its specification performance, or to protect the machine from dust or oil suspension contamination, then either dust-protection enclosures or climate-controlled rooms are available.



HEXAGON
MANUFACTURING INTELLIGENCE

Hexagon Manufacturing Intelligence helps industrial manufacturers develop the disruptive technologies of today and the life-changing products of tomorrow. As a leading metrology and manufacturing solution specialist, our expertise in sensing, thinking and acting – the collection, analysis and active use of measurement data – gives our customers the confidence to increase production speed and accelerate productivity while enhancing product quality.

Through a network of local service centres, production facilities and commercial operations across five continents, we are shaping smart change in manufacturing to build a world where quality drives productivity. For more information, visit HexagonMI.com.

Hexagon Manufacturing Intelligence is part of Hexagon (Nasdaq Stockholm: HEXA B; hexagon.com), a leading global provider of information technologies that drive quality and productivity across geospatial and industrial enterprise applications.



COORDINATE MEASURING MACHINES



3D LASER SCANNING



SENSORS



PORTABLE MEASURING ARMS



SERVICES



LASER TRACKERS & STATIONS



MULTISENSOR & OPTICAL SYSTEMS



WHITE LIGHT SCANNERS



METROLOGY SOFTWARE SOLUTIONS



CAD / CAM



STATISTICAL PROCESS CONTROL



AUTOMATED APPLICATIONS



MICROMETERS, CALIPERS AND GAUGES