



Shop floor CMM solutions

Lab-grade metrology at the point of production



Modern manufacturing

Quality where it counts

Inspection on the shop floor

Manufacturers need to move quickly. Bottlenecks, idle time, defects, and rework drive up costs and lower efficiency. The shop floor is where these problems have the most direct impact. Compounding these challenges are ever-tightening tolerances, auditing demands, and the need for real-time data. Striking the correct balance between speed, accuracy, and due process has never been more vital.

Bringing inspection into production areas can be transformative. Typically carried out in isolated labs, specialised shop floor CMMs can integrate with or sit adjacent to production lines. In addition to speeding up validation and minimizing transit and wait times, they also introduce new levels of control, responsiveness, and automation potential to the shop floor.

Rising to the challenge

Achieving reliable measurement in production areas can be particularly demanding. Tight spaces, temperature swings, vibrations, and contaminants make shop floors extremely challenging environments. What's more, any new asset must work with existing machines, software, and devices, while being intuitive to use, suitable for all skill levels, and easy to learn.

No two shop floors are the same. Any investment must be built to match it.

Hexagon's extensive range of shop-floor measurement solutions enables lab-grade metrology at the speed of production. Our solutions provide a versatile mix of machinery, software, and add-ons that can rise to any challenge.

Unlock new levels of speed, control, and insight by embedding measurement in your production today.

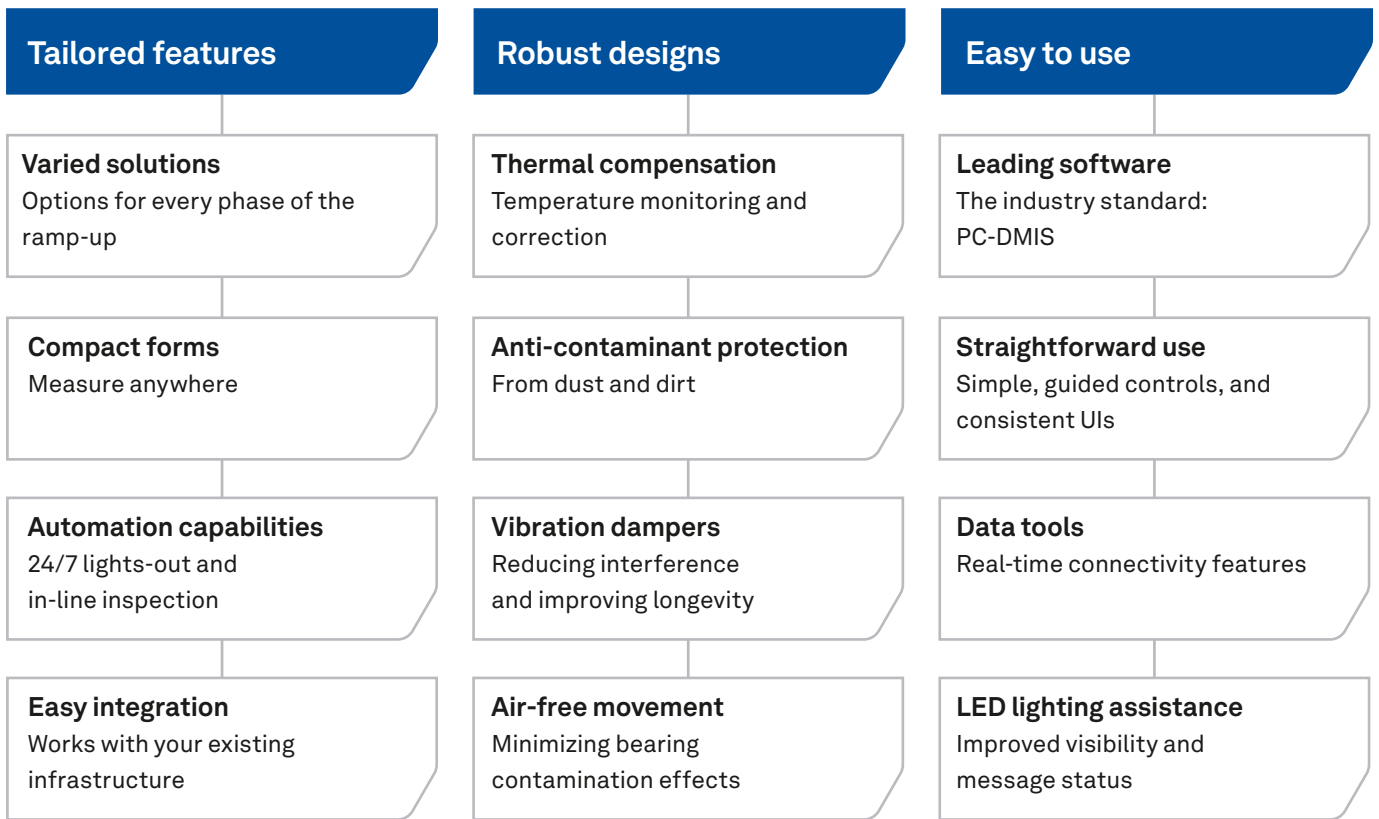
Hexagon delivers

Hexagon shop floor solutions

Solve any measurement challenge

Remove the bottlenecks and inefficiencies that make inspection a source of frustration with Hexagon's broad portfolio of inspection solutions, designed to match any task.

Built with durability and straightforward operation in mind, our solutions accelerate processes, catch defects earlier, and increase throughput across the entire production line.



4.5.4 SF

Flexible, compact, and mobile measurement

Shop floor space is often limited. Confined areas can make local part inspections tricky, especially when having to relocate machinery. But transporting units to quality labs creates friction, introducing inefficiencies up and down the line.

Compact, easy to relocate, and requiring only 110V outlets, Hexagon's 4.5.4 SF brings mobile inspection to the shop floor. Built for rapid deployment and simple operations, its easy-access design eliminates the need for complicated setup and alignment steps.



4.5.4 SF features:

True mobility

Relocate anywhere, even through doors

Small footprint

Our smallest shop floor CMM

Rapid deployment

Minimal set-up required

Standard 110V supply

No need for adapters or specialist supplies

Automation enabled

Pre-program inspection sequences

Rapid deployment

Minimal set-up required

Technical specifications:

Measurement volume size:
355 x 514 x 353 mm (X/Y/Z)

Compact footprint:
833 x 1325 x 2020 mm
32.8 x 52.2 x 79.5 in

7.10.7 SF

Larger capacity inspection

Transporting larger, heavy parts to the lab is particularly frustrating in high-throughput environments that depend upon speed and accuracy. Yet harsh conditions threaten to compromise measurements, create delays, or even damage machinery.

Rugged and robust in its design, the Hexagon 7.10.7 SF is the largest-capacity shop floor CMM, built to handle the most challenging environments. Inspect large parts and even surface measurements with its laser scanner and ensure your quality assurance keeps pace with production.



7.10.7 SF features:

High volume inspection

The Largest capacity SF CMM

Heavy lifter

Holds 60% more weight than the competition

Laser scanning

Measure larger-sized parts and even surfaces

All-in-one design

Suitable for multiple small, large, or complex parts

Expandible probes

Touch trigger and continuous contact options available

Standard 110/220V supply

No need for adapters or specialist supplies

Technical specifications:

Measurement volume size:
710 x 1010 x 680 mm (X/Y/Z)

Maximum part weight:
680 kg / 1499 lbs

TIGO SF

Compact, easy-access measurements

Loading, handling, and positioning parts on the shop floor add time and risk to routines, particularly in confined spaces. This leaves processes vulnerable to errors that stall production lines, force delays, and cause rework. Yet you need a constant flow of production validation.

Hexagon's TIGO SF excels in tight conditions. Made to work right next to machines, its open-access design enables operators to load parts from three sides, reducing setup times, maximising flexibility, and allowing easy integration into automated inspection cells.



TIGO SF features:

Open-access

Load from three sides with its cantilever design

Automation-ready

Easy integration with automated loading solutions

High-speed scanning

Eliminates stop-and-go probe changes

Small footprint

Inspection even in tight spaces

Higher volumes

Great footprint to measurement volume ratio

Eco Mode

Automatically powers down while idle

Technical specifications:

Measurement volume size:
500 x 580 x 500 mm (X/Y/Z)

Volumetric length measuring error: $2.2 \mu + L/300$

Bridge CMMs: Shop floor configurations

High-performance measurement on the front line

Some production lines require higher-performance or specialist measurement. Others involve parts too large or heavy for typical shop floor CMMs. Yet the same challenges remain: Transporting units to labs is cumbersome and time-consuming, impeding production speed and efficiency.

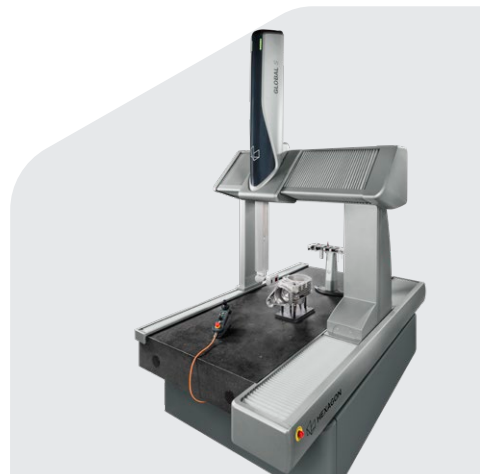
Typically lab-based, Hexagon Bridge CMMs can be equipped with SF kits or special accessories for use in or near production environments. Both machines can integrate with existing systems, provide automation capabilities, and combine multisensor functionality, high-performance accuracy, rapid throughput, and scalable sizes to meet the needs of almost any part production line.



MAESTRO

Hexagon's all-digital, fully connected, next-generation bridge CMM system.

- The highest speed in its class
- Intuitive usage thanks to all-around LEDs, displays and modern setup workflows
- Standardized integration interface
- Digital twin synchronisation
- Rapid probe changeovers



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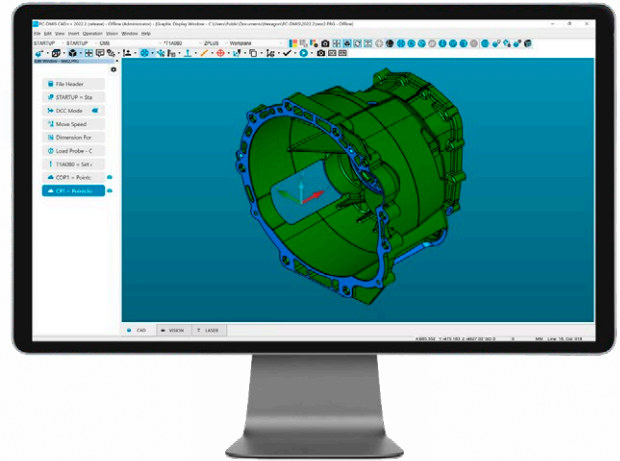
Hexagon's performance-workhorses, delivering ultra-fast and flexible accuracy.

- Rapid-throughput
- Broadest sensor and software versatility
- Fully automatic sensor exchange
- Scalable configurations: Wide range of sizes, options and upgrades available
- Suitable for heavy parts

Industry-leading technology

Software

Customisable solutions for every skill level



Your software ecosystem is just as important as your hardware. The right platform accelerates processes, integrates with existing assets, and enables users with intuitive controls, permissions handling, and guided processes.

As the largest software developer in the industry, Hexagon offers a wide range of customisable packages that deliver intelligent and effective data acquisition, analysis, and evaluation, as well as powerful data management and reporting tools.

PC-DMIS

Hexagon's universal metrology software

Hexagon solutions are powered by PC-DMIS as standard, providing a consistent and simplified experience with seamless data handling across labs and lines. Create measurement routines, execute them on the shop floor, and collaborate using the results.

Providing a complete suite of programming capabilities, PC-DMIS can be used on almost any measurement system, including non-Hexagon machines, featuring:

Quick-start guided UI

Make full use of frequently used capabilities

Broad machine support

Install on CMMs, portable devices, and machine tools

Automatic programming

Create programs during live inspections

Common UI

Universal conventions across all editions

Full integration

Shares programs and data among different machines

Offline development

Create inspection sequences independent of the device

User-specific UI options

Provision user-specific permissions on devices

CAD capabilities

Reference CAD during inspections or programming

Protect mode

Prevent unauthorised changes to programs

NC Server with PC-DMIS

Link quality and production by bringing metrology to your machine tool

NC Server with PC-DMIS connects CNC machines and quality departments through a shared inspection platform. Production can run meaningful inspections directly at the machine using the same PC-DMIS logic and reporting as your CMMs, guaranteeing both teams work from the same data and standards.

PC-DMIS across CMMs and machine tools enables:

Closed-loop feedback

Automatically adjust production using real-time inspection data

Catch issues early

Respond rapidly to setup errors, tool wear, and process drift

Inspection at production

Eliminate transport and waiting time between CNC and CMM

Unified dashboard and interface

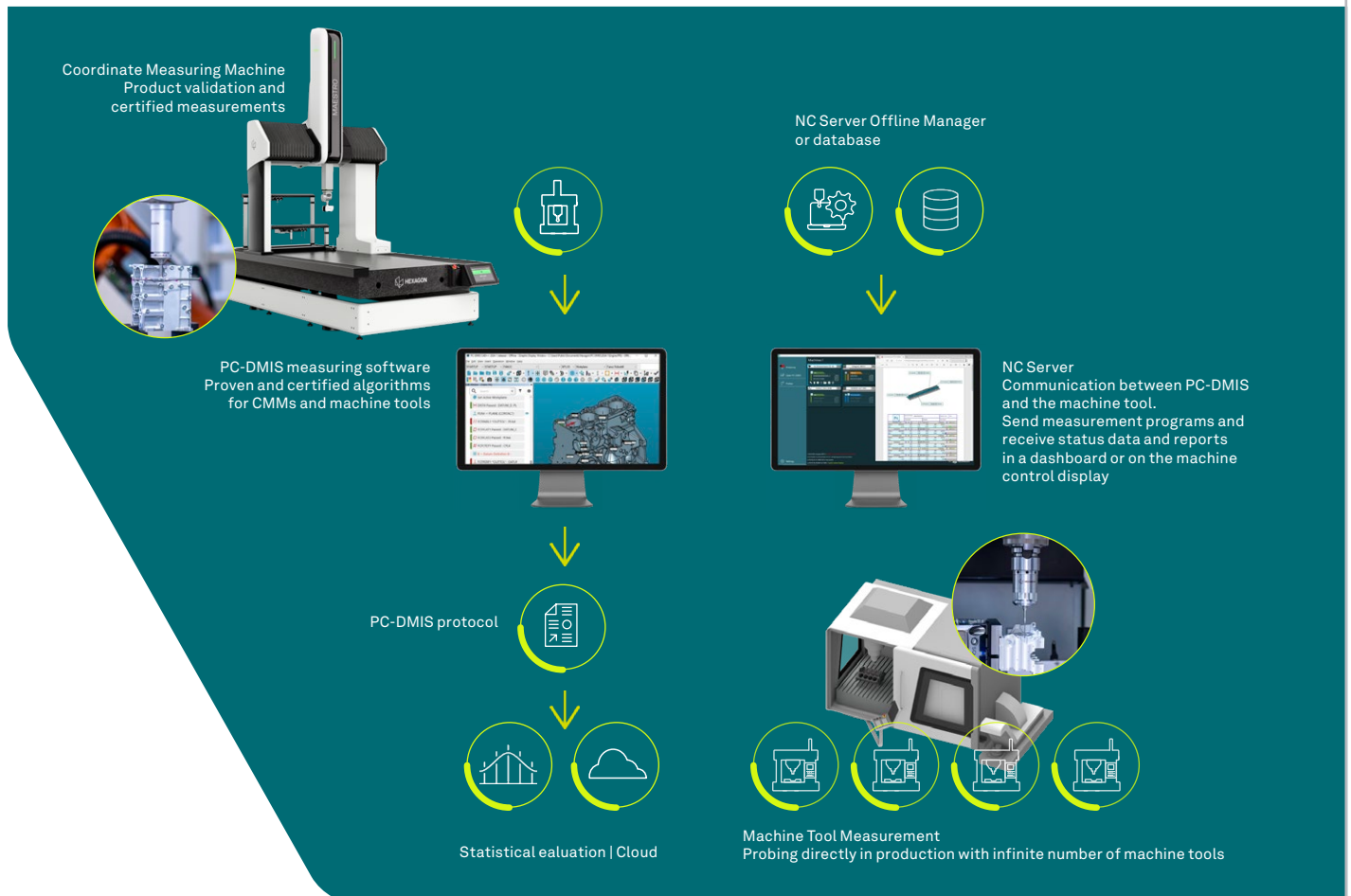
Streamlined machine controls, reporting, and training

Offline management

Import server configurations and calibration data during operation.

Protect CMM capacity

Create inspection sequences independent of the device



Production enhanced

Shop floor packages

Reinforce existing equipment

Shop floors can be demanding environments for even the toughest machinery. Contaminants, temperature swings, and vibrations can cause any number of challenges, driving up costs, slowing production, and frustrating staff. Hexagon offers a range of equipment to tailor machinery to challenging environments. These include:



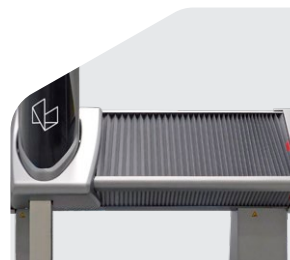
PULSE environmental monitoring

Vibration, temperature, humidity, crash notifications, and CMM status – all in one convenient place



Enclosures

Create fully controlled environments for your machines, free from shocks or disturbance



Protective bellows

Prevent airborne contaminants from entering sensitive areas



Dampers

Reduce vibration interference with active or passive systems

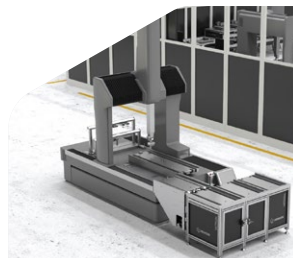
Enhanced loading

Accelerate your inspection with Hexagon's automation and loading solutions, spanning automated part storage, recognition, and feeding systems, in-line integration with collaborative robots, and data transfer to other process operations.



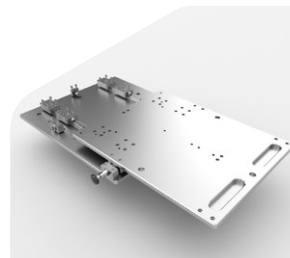
Fully-automated loading solutions

METRICAL and TEMPO solutions enable autonomous, lights-out measurement with minimal operator intervention.



Semi-automated loading solutions

Shuttle systems, trolleys, and stations reduce handling and keep measurement in motion.



Manual loading solutions

Cantilever and kinematic base plates for pre-mounted, repeatable loading.

Hendrick Motorsports



Driving racing innovation

The challenge

In motorsport, tolerance differences of even a few thousandths of an inch can make or break performance. Collecting metrology data quickly, easily and reliably is vital.

“Our partnership with Hexagon is fantastic because it gains us access to both the tools and the technology, and to the people with the knowledge. You can call with a problem and they’ll say ‘try this technique’ or ‘we’ve got a software application that can help with that’. Looking back, measurement was a tool for conformity. Now, it’s a tool for performance.”

Tad Merriman, Engineering Manager,
Engine Shop at Hendrick Motorsports integration.

Hexagon solutions

- 5x Hexagon CMMs
- Portable laser scanners
- 30+ measurement arms

Delivering

- Flexible probing and non-contact measurement capabilities
- Higher measurement capacity and accuracy
- Part surface scanning
- Robotic inspection to remove bottlenecks
- Automated unattended measurement

Sodick



Future factory foundations

The challenge

To advance automation and flexibility in its electrical discharge machining (EDM) production, Sodick required metrology solutions that ensure product quality, improve measurement efficiency, and establish the foundation for a fully realized and automated smart factory.

“Overall optimisation of measurements has led to a 100% improvement in our Smart SITE measurement efficiency.”

Yuki Tsuda, Manager, Machine Tools Division,
Kaga factory, Sodick Co., Ltd.

Hexagon solutions

- TIGO SF CMM
- 3D metrology software PC-DMIS

Delivering

- Straightforward integration with Sodick’s JvMAS mould automation system, used in machining centres, EDM machines, and 3D measurement machines
- Process automation, including: measurement, correction/rework offset data, metrology report generation, and synchronization

Your transformation partner

Hexagon metrology solutions

Your partner in transformation

Hexagon is more than just a supplier. We appreciate that no two shop floors are the same and that there is no one-size-fits-all approach. We'll assess your environment, help define your objectives, and recommend a tailored mix of solutions aligned to your goals. Our experts will streamline integration with your existing assets, reducing disruption and ensuring reliable, consistent operations that deliver measurable value.

A full range of CMMs to suit every need

Hexagon's comprehensive range of CMMs delivers solutions that impact beyond the shop floor. They are strategic assets that drive productivity, efficiency, quality and product development across manufacturing and engineering businesses.



Bridge CMMs



Ultra-high accuracy CMMs



Optical CMMs



Gantry CMMs



Horizontal arm CMMs

Services and aftermarket

MyCare is Hexagon's service subscription offering that keeps your metrology system performing at its best. Simplify equipment maintenance and keep it performing to the highest standards with cost-effective support throughout its lifetime. A MyCare service plan can include:

- Unlimited technical support
- All software updates
- Scheduled preventive maintenance and annual certifications
- Full coverage or discounts on replacement parts and service labour
- Industry 4.0 asset management software access for real-time performance and health monitoring

Hexagon is the global leader in measurement technologies. We provide the confidence that vital industries rely on to build, navigate, and innovate. From microns to Mars, our solutions ensure productivity, quality, safety, and sustainability in everything from manufacturing and construction to mining and autonomous systems.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 24,800 employees in 50 countries and net sales of approximately 5.4bn EUR. Learn more at [hexagon.com](https://www.hexagon.com)