



# LEITZ REFERENCE XE

Coordinate Measuring Machine



Xe

# THE CMM FOR THE SME

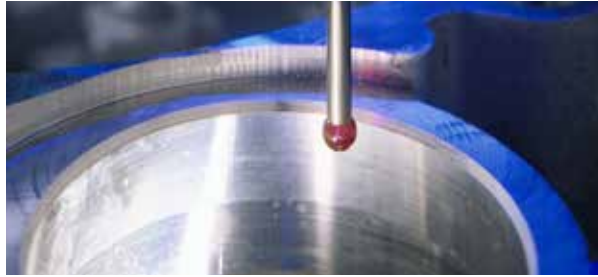
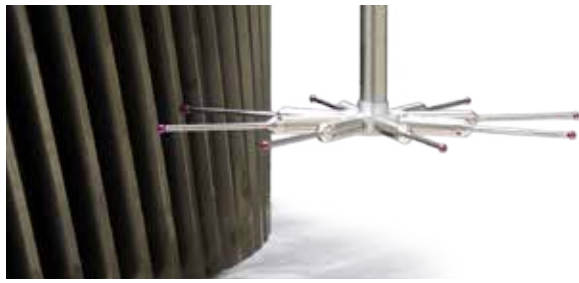
## **Leitz Reference Xe**

Small and medium-sized enterprises (SME), such as suppliers and original equipment manufacturers (OEM) in the automotive industry are always under pressure. Speed, a consistently high standard of product quality and a good price-performance ratio are critical for the success or otherwise of the company. Therefore quality assurance is a crucial factor.

Leitz Reference Xe is the solution. The 3D coordinate measuring machine (CMM) from Hexagon Metrology brings conflicting requirements into the equation. Highly precise methods of measurement, sensors and software are part of the system – ideal for keeping product quality at a high level even for complex parts. But at the same time, we have looked at the costs of the Leitz Reference Xe under the microscope and have managed to give it a reduced price label. Now this coordinate measuring machine ticks both boxes: measurement performance and price.

A close-up photograph of a Leitz Reference Xe Coordinate Measuring Machine (CMM). The machine is white with a grey vertical column. The text "LEITZ REFERENCE XE" is printed vertically in a stylized, italicized font on the white section. A red circular logo is visible at the bottom of the white section. The background features abstract geometric shapes in blue and green.

*LEITZ REFERENCE XE*



# 3D METROLOGY GROWS

## Tolerances shrink

Requirements for the dimensional accuracy of parts and tools are continuously increasing in many industries – particularly for made-to-measure products.

A multitude of parts have therefore to be measured to single-figure micron accuracy. Leitz Reference Xe helps achieve efficiency and high precision in the development, production and quality control of industrial companies.

### Applications for the SME:

- Initial inspection
- Quality assurance during production
- Fit-and-finish inspection
- Process analysis

### Measurement of geometric features of a variety of parts, for example:

- Complex parts: engine blocks, camshafts, transmission housings
- Prismatic parts
- Tools
- Gears

### For many industries:

- Automotive
- Machine-making
- Power engineering
- Medical technology
- and their suppliers.





# TECHNOLOGY

## Made in Germany

The Leitz Reference Xe offers technology particularly suitable for high-precision metrology applications. The core components are developed and produced at the Hexagon Metrology works in Wetzlar, Germany.

### Features & Benefits:

- Mobile gantry with patented TRICISION technology, low centre of gravity, evenly distributed bearing loads for very efficient measurement and optimum stiffness, no foundation required
- New Leitz control generation for integration of various Leitz 3D sensor systems for dynamic single-point probing, variable High-Speed-Scanning and self-centring scanning
- Maintenance-free aerostatic guideways in all axes
- High-resolution steel scales with incremental encoders
- Linear temperature compensation for scales and inspected part
- Driven by servomotors with steel-reinforced belt drives
- Modular system of measurement and control electronics with integrated operational monitoring, CE marking
- Measurement range (X x Y x Z): 1000 x 700 x 590 mm, 700 x 500 x 500 mm









# LSP-X SENSORS

## For X applications

We recommend the most suitable sensor for our customers depending on the application and their requirements. LSP-X series sensors provide plenty of scope: they are available in a variety of sizes, can be combined in different lengths and used with heavy probes. All sensors support measuring methods such as single-point probing, self-centring or high-precision Variable High-Speed-Scanning. The probe heads can capture data at up to 1,000 measured points per second.

### LSP-X5 probe head

This analogue probe head measures highly accurately even with extra-long probe extensions and heavy styli configurations of up to 500 mm in length and 500 g in weight. The LSP-X5 has an anti-collision system for extra protection. With this probe head, users can measure mechanical parts with complex geometries. The LSP-X5 is available for Leitz Reference 10.7.6.

### LSP-X3c probe head

This 3D scanning probe head is compact, fast and extremely accurate. Combined with Leitz Reference 10.7.6 it can carry up to 360 mm long probes and extensions as well as a variety of styli configurations. With Leitz Reference Xe 7.5.5 the maximum probe length is 180 mm.

### LSP-X1h probe head

Together with the TESASTAR-m and TESASTAR-sm indexable continuous wrists, the LSP-X1h probe head can reach every feature of a part. It is designed for a probe with a length of 20 to 225 mm in the axial orientation. It can also be used with a probe with a length of up to 50 mm in the vertical orientation.

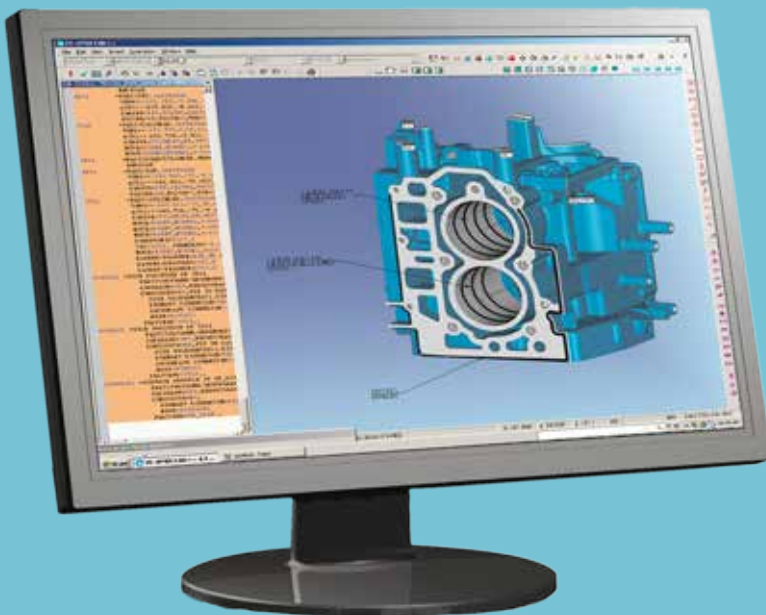
### LSP-X1c

The fixed probe head LSP-X1c carries up to 115 mm long probes in the axial orientation and 50 mm in the vertical orientation. Its small outer diameter allows measurements deep inside a work piece. LSP-X1c is compatible with Leitz Reference Xe 7.5.5.

# SOFTWARE

Out of data comes information

Having data alone does not improve the processes involved in the development and manufacture of parts and tools. Making decisions on a firm basis depends on generating information from that data. With PC-DMIS and QUINDOS measuring software.



## PC-DMIS

- Software for simple CAD-based, computer-simulated programming
- Graphics-focused, operator-friendly user interface
- Efficient tools to display the results
- Measurement of regular shapes and free-form surfaces



## QUINDOS

- Software for virtually all industrial metrology applications – from simple parts through to complex special geometries
- Unlimited repertoire thanks to over 50 options
- QUINDOS allows Leitz coordinate measuring machines to also be used as gear inspection systems: options for inspecting gears and gear cutting tools are available, e.g. for straight and spiral bevel gears, cylindrical worms, worm gears, step gears, screw compressors etc.
- Integrated CAD core for the 3D representation of any shape, e.g. displaying specified points, probed points, calculated elements and coordinate measuring systems



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](http://www.hexagonmetrology.com)

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