



# Manual Coordinate Measuring Arm



**Portable productivity**

# MCA, the Manual Coordinate measuring Arm...

The Metris MCA, Manual Coordinate measuring Arm, is a precise, reliable and comfortable portable measuring system. It feels perfectly at home in the metrology lab as well as on the shop floor.

The MCA can be equipped with a wide range of probing systems for touch trigger measurements, continuous scanning and laser scanning. Its flexibility makes the Metris measurement arm the perfect partner for a wide range of measurement tasks.

Last but not least, every user will appreciate that yearly calibration can be done on-site; no need to lose precious time when returning the system to the factory for calibration. This means minimum interruption of measurement campaigns and maximum productivity.

## ACCURACY FIRST

- Accuracy certified according to ISO 10360-2 or ASME B89.4.22 standard
- Further improved accuracy by limiting calibration to actual working envelope

## MEASURE ANYWHERE

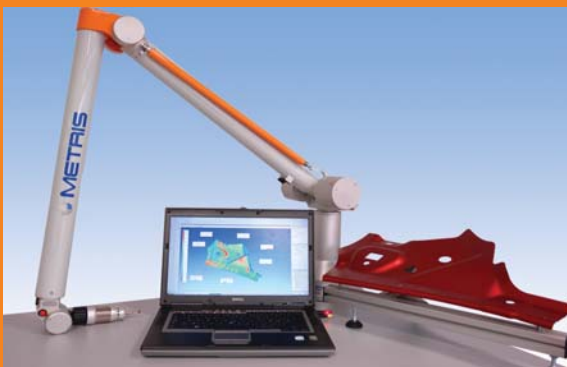
- True portable system thanks to lightweight carbon fiber and aluminum alloy components
- Wireless operation using internal battery and WiFi data communication
- Temperature compensation in +5 to +40°C temperature range

## ERGONOMIC DESIGN

- Lightweight operation thanks to symmetrical balancing springs
- Electromagnetic brake blocks the lower segment of the arm thus partly bearing the arm weight
- Ergonomic position of all measurement buttons including brake activation button

## MAXIMUM UP-TIME

- On-site calibration eliminates the need to send the arm back to the factory
- Robust design
- Electromagnetic brake guarantees effortless handling



# ... with flexible probing options



## TOUCH PROBE



With Metris' patented floating touch probe, the user manipulates the touch probe indirectly through a spring coil mounted around the probe. Red and green colored LEDs provide visual feedback on the contact force applied, resulting in highly accurate and repeatable measurements. The floating touch probe supports both touch trigger and continuous scanning measurement. As an option, a Renishaw LP2 probe can be used.

## MMD LASER SCANNER



The Metris ModelMaker digital laser scanner provides a detailed digital representation of the test object in minimum time. It is ideally suited for reverse engineering, part-to-CAD comparison and inspection of soft or fragile components. Choice between 50mm stripe width for maximum accuracy, 100mm and 200mm stripe width for maximum productivity. High speed scanning up to 80 stripes per second. Convenient connection of scanner directly to laptop without interface box.



# Arm specifications

The MCA comes in two variants. The I6 6-axis configuration is ideally suited for those applications where a quick verification of dimensions is needed. The M6 variant provides higher accuracy that is required for true metrology applications. Both arm types come standard with the electromagnetic brake for optimal handling comfort, while the quick mount probe adapter facilitates the easy exchange of measurement probes.

Model	Weight	Measurement diameter	Single point accuracy	Sphere repeatability	Length accuracy
MCA 2400 M6	20.5lbs/9.3kg	8ft/2400mm	0.0011"/0.028mm	0.0007"/0.018mm	0.0016"/0.040mm
MCA 3000 M6	21.2lbs/9.6kg	10ft/3000mm	0.0018"/0.045mm	0.0012"/0.030mm	0.0026"/0.065mm

Accuracies 2σ confidence level

Model	Weight	Measurement diameter	Single point accuracy	Sphere repeatability	Length accuracy
MCA 2400 I6	20.5lbs/9.3kg	8ft/2400mm	0.0017"/0.042mm	0.0011"/0.028mm	0.0024"/0.060mm
MCA 3000 I6	21.2lbs/9.6kg	10ft/3000mm	0.0024"/0.062mm	0.0018"/0.045mm	0.0035"/0.090mm

Accuracies 2σ confidence level

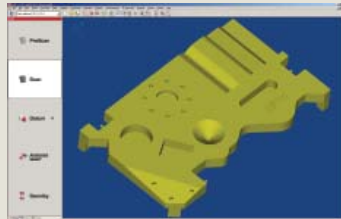
## GENERAL SPECIFICATIONS

- Temperature range: +5 °C to 40 °C dictated by electronically controlled hardware
- Humidity: 95% without condensation
- Power supply: 100 - 240 VAC 50/60 Hz.
- CE Certification
- Compatible with most metrology application software
- Accuracy certified according to ISO 10360-2 or ASME B89.4.22 standard

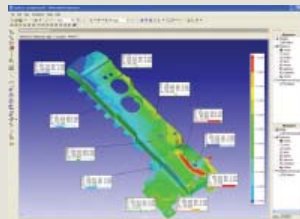
## METRIS RELATED PRODUCTS



**ModelMaker D**  
Digital handheld scanner



**KUBE software**  
Scanning & Inspection



**Focus software**  
Advanced 3D Inspection  
Reverse Engineering



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