



C3 Coordinate Measuring Machines



Reliable and Innovative Metrology Solutions

A CMM to resolve every requirement

Metris provides high quality and innovative metrology solutions to a wide range of industries. With the introduction of the C3 range of CMMs, Metris is able to offer an alternative to its popular range of premium ceramic machines. The new models extend the Metris CMM portfolio to a broad range of almost five hundred sizes and configurations. The C3 products from Coord3 include bridge CMMs (C3 V), horizontal arm CMMs (C3 H), as well as large gantry machines (C3 V-G and C3 V-GP), all with an impressive pedigree dating back will over 30 years.

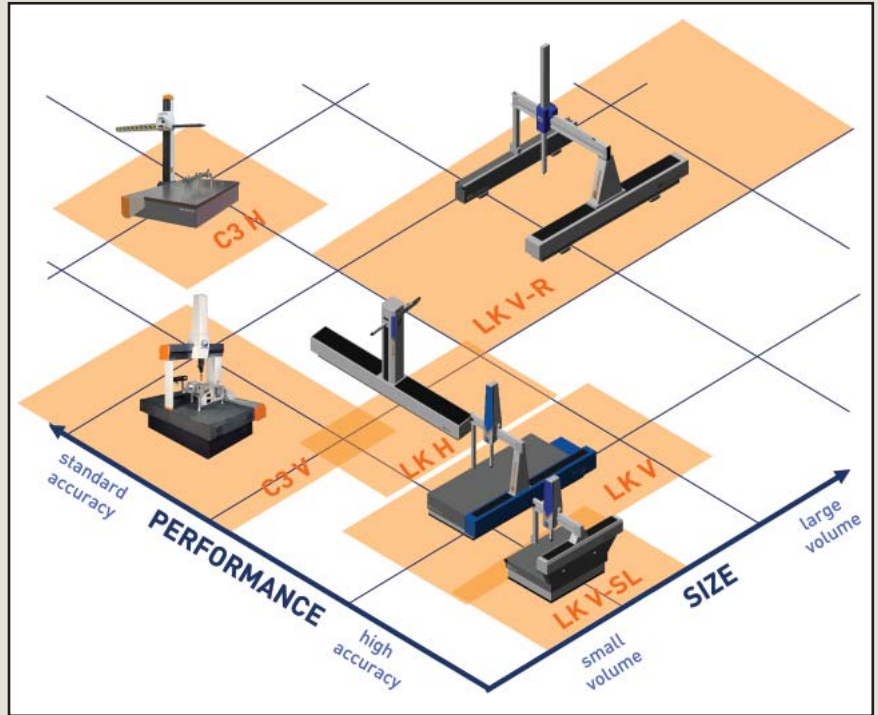
All Metris CMMs are supplied with CAMIO Studio and the MCC-200 controller as standard and benefit from the same broad range of hardware options including:

- Point to point scanning - for a Renishaw TP200 touch trigger probe
- Continuous contact scanning - Renishaw SP25 analogue probe
- Non-contact laser scanning - Metris LC and XC range of laser scanners
- Fully automated stylus and probe changers
- Motorized indexing or rotary table
- Pneumatic anti-vibration mounts
- Temperature compensation

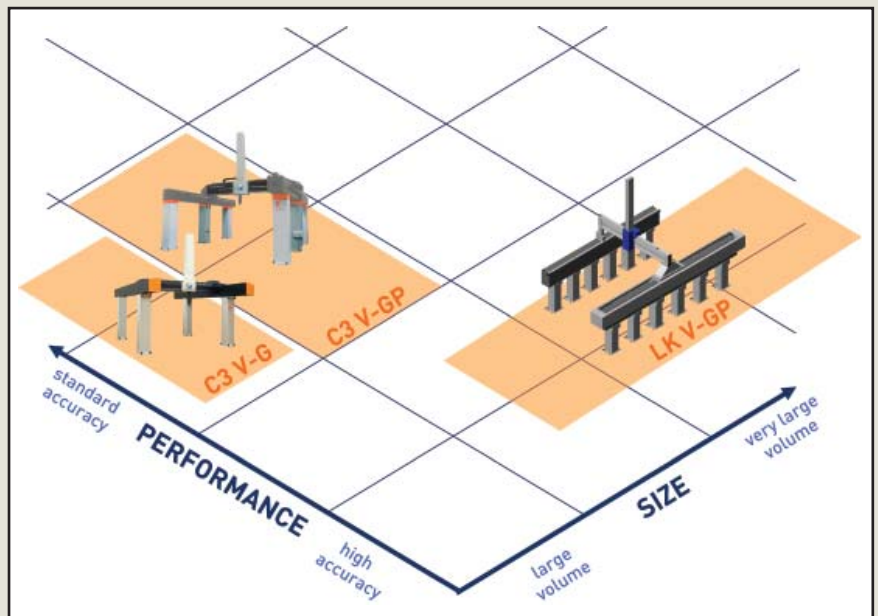


Metris C3 V featuring Cross Scanner XC50-LS

METRIS BRIDGE AND HORIZONTAL ARM CMMs PERFORMANCE AND SIZE OVERVIEW



METRIS GANTRY CMMs PERFORMANCE AND SIZE OVERVIEW



*A lookup table on the new and former Metris LK CMM names can be found on the back of this brochure

C3 Bridge and Horizontal Arm CMMs

C3 V BRIDGE CMM

With super-light aluminium as a key structural component, and air bearings on all axes, the C3 V is a high specification cost effective metrology solution. Due to its size, high capacity table and comprehensive selection of options, the C3 V is suitable for a wide range of small to medium size applications.

Key features

- Manual and CNC versions (limited sizes)
- 0.5µm resolution scales
- Fully protected guideways (limited sizes)
- Passive anti-vibration mounts
- Aluminium Y and Z guideways
- Granite table and X guideway
- Air bearings on all axis

Typical applications

- Machined and pressed parts
- Plastic mouldings
- Casting and forgings
- Touch trigger and non-contact inspection
- Digitizing, scanning and reverse engineering

Key benefits

- High acceleration for low cycle times
- Excellent accuracy and repeatability
- Flexible multi sensor platform
- Small footprint
- High capacity (loads) table
- Suitable for a shop floor environment

Specifications

- Accuracy from 2.4µm+L/333
- Velocity from 52 m/min
- Acceleration from 9360 m/min²
- Size range: X 500 to 3000mm
Y 400 to 2000mm
Z 400 to 1200mm

C3 H HORIZONTAL ARM CMM

This layout style machine benefits from aluminium structural components plus a combination of air and precision bearings for added durability. With a choice of table or rail mounting, the C3 H offers a high degree of flexibility for inspecting large components in single or twin arm configurations.

Key features

- Manual, CNC and disengageable drives
- 0.5µm resolution scales
- Fully protected guideways (optional)
- Granite or cast iron surface plate
- Aluminium Y and Z guideways
- Steel X guideway
- Precision roller bearings on X axis
- Air bearings on Y and Z axis

Typical applications

- Inspecting automotive body-in-white
- Marking out and free form surfaces inspection
- Fabrications and mould tools
- Integrated in-line inspection
- Touch trigger and non-contact inspection
- Digitizing, scanning and reverse engineering

Key benefits

- Single or twin arm table or rail configuration
- Scribing option
- Walk-on covers for optimal safety
- Part loading access from above and sides
- Suitable for a shop floor environment
- Low air consumption

Specifications

- Accuracy from 10.0µm+L/67
- Velocity from 31 m/min
- Acceleration from 3060 m/min²
- Size range: X 2000 to 6000mm
Y 1000 to 1500mm
Z 1200 to 2000mm

C3 V BRIDGE CMM



C3 V BRIDGE CMM



C3 H-T HORIZONTAL ARM CMM ON TABLE



C3 H-R HORIZONTAL ARM CMM ON RAIL





C3 Gantry CMMs

C3 V-G AND C3 V-GP GANTRY TYPE CMM

With the option of aluminium or steel structural components the C3 V-G and C3 V-GP machines are an affordable large scale fixed bed metrology solution, with all the benefits of high throughput, for the inspection of very large components.

The C3 V-G model offers a set of standard configurations targeted at automotive body inspection applications. The C3 V-GP (Gantry Project) range on the other hand offers full flexibility to meet your requirements regarding machine size and accuracy. As these large machines require special foundations and possibly other specialist applications support, we will completely project manage a solution to meet your exact requirements - from concept through to after sales support.

Key features

- Unique thermal expansion balance system
- 0.5µm resolution scales
- Choice of aluminium or steel construction
- Optional dual drive and encoder
- Precision roller bearings on X axis (C3 V-G only)
- Air bearings on all axis (excluding C3 V-G X axis)

Typical applications

- Marine and locomotive engine components
- Automotive and commercial vehicles
- Aerospace components and structures
- Telecommunications and satellite equipment
- Printing equipment
- Integration pallet transfer systems

Key benefits

- Excellent accuracy and repeatability
- Flexible multi sensor platform
- Suitable for a shop floor environment
- Easy access for part loading
- Minimum foundation Monolith option

Specifications

- Accuracy from 5.0µm+L/167
- Velocity from 40 m/min
- Acceleration from 5400 m/min²
- Size range: X 2500 to 12000mm
Y 1500 to 3500mm
Z 1000 to 2500mm

C3 V-G



C3 V-GP



The Metris LK and Coord3 CMM ranges have been renamed. The following table gives an overview of the new name and former name.

New name	Former name
LK V	LK Integra, LK Evolution, LK Ultima T
LK V-R	LK Ultima R
LK V-SL	LK Libero
LK V-GP	LK Ultima G
LK H-T	LK HC90 Table
LK H-R	LK HC90 Rail

New name	Former name
C3 V	Eos, Hera, Kronos
C3 V-G	Athena
C3 V-GP	MCT Starlight, MCT Plus
C3 H-T	Swan L
C3 H-R	Swan SI

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