



CIMCORE Arm  
Product Brochure



# THE NEW CIMCORE ARM

CIMCORE portable coordinate measuring machines are designed for industries that need to inspect, measure or reverse engineer work pieces on the shop floor or in the metrology lab. These portable CMMs are particularly well suited to inspect parts that are impractical or impossible to move to a stationary CMM. Our measuring equipment is used worldwide in the automotive, aerospace and general industrial markets.

The CIMCORE CA is our latest innovation. Drawing inspiration and resources from the entire Hexagon

Metrology product family, and all CimCore arms that came before, the new CIMCORE Arm is the lightest, most accurate, most flexible ever.

Portable metrology devices not only need to be accurate, they must be accurate and reliable in less than favourable production conditions. The technologies used to build every CIMCORE Arm are chosen based on the experience of thousands of units in the field that are required to perform accurately, every time. The accuracy of a portable arm is, in fact, the sum of its parts.

## Absolute Encoders

A first in the world of portable measuring arms: The CIMCORE Arm features proprietary absolute encoders in its primary axes, so the arm always "knows" the position of its joints. The result is the first portable measuring arm which does not require any kind of homing procedure before starting measurement. When the arm is turned on, it's ready to go.

## Lighter, Stiffer, More Accurate

From the carbon fibre tubes to the simplified dual yoke joint housings, the CIMCORE Arm was designed to be the lightest, yet stiffest arm we've ever built. The base 2.5 meter arm weighs just 7.5 kg, lighter than similar 2.4 meter arms. Combined with the improved accuracy from the absolute encoders, it's also our most accurate CIMCORE arm to date.

## Absolute Flexibility

The all-new Feature Pack concept unfolds the full potential of a portable measuring arm. Utilizing a common docking connector to the base of the arm, feature packs allow you to add, remove, or change features on an arm as required. As new feature packs are released, an arm can be upgraded in the field with new capabilities.

## Configuration Chart

	73-series	75-series
Zero-G Counterbalance	standard	standard
Spin Grips	N/A	standard
TESA TKJ Probes	standard	standard
Dust Cover	standard	standard
Camera/worklight	N/A	standard
Hard Case	standard	standard
3 Standard TESA Hard Probes	standard	standard
Feature Pack	optional	Mobility Pack
Calibration Sphere	standard	standard
Checking Bar	optional	standard
Base Plate	standard	optional
Magnetic Base	optional	standard
RDS Software / Documentation	standard	standard

- 1 SpinGrip and SpinKnob hand hold positions improve ergonomics.
- 2 The first portable measuring arm with absolute encoders.
- 3 Stable carbon fibre tubes.
- 4 Compact head is easy to hold. Integrated camera and worklight.
- 5 Kinematic Probe Joint
- 6 Low Profile Counterbalance balances the arm for easy operation with effortless control.
- 7 Integrated handle allows easy carrying.
- 8 Patented Infinite Rotation allows access to difficult to reach areas.
- 9 Feature Pack plug into the base and provide interchangeable and upgradeable add-on capabilities such as WiFi, battery power and more
- 10 Universal thread mount base attaches to a variety of available bases and stand options.



## Datasheet

Model	Measuring Range	Point Repeatability	Volumetric Accuracy	Arm Weights
7315	1.5 m / 4.9 ft.	+/- 0.025 mm +/- 0.0010 in.	+/- 0.037 mm / 0.0015 in.	7.1 kg / 15.6 lbs
7320	2.0 m / 6.6 ft.	+/- 0.030 mm +/- 0.0012 in.	+/- 0.042 mm / 0.0017 in.	7.4 kg / 16.3 lbs
7325	2.5 m / 8.2 ft.	+/- 0.038 mm 0.0015 in.	+/- 0.051 mm / 0.0020 in.	7.7 kg / 17.0 lbs
7330	3.0 m / 9.8 ft.	+/- 0.065 mm 0.0026 in.	+/- 0.095 mm / 0.0037 in.	8.0 kg / 17.6 lbs
7335	3.5 m / 11.5 ft.	+/- 0.095 mm 0.0037 in.	+/- 0.130 mm / 0.0051 in.	8.3 kg / 18.3 lbs
7340	4.0 m / 13.1 ft.	+/- 0.120 mm 0.0047 in.	+/- 0.149 mm / 0.0059 in.	8.6 kg / 19.0 lbs
7345	4.5 m / 14.8 ft.	+/- 0.150 mm 0.0059 in.	+/- 0.170 mm / 0.0067 in.	8.9 kg / 19.6 lbs

Model	Measuring Range	Point Repeatability	Volumetric Accuracy	Arm Weights
7520	2.0 m / 6.6 ft.	+/- 0.016 mm / 0.0006 in.	+/- 0.023 mm / 0.0009 in.	7.7 kg / 17.0 lbs
7525	2.5 m / 8.2 ft.	+/- 0.020 mm / 0.0008 in.	+/- 0.029 mm / 0.0011 in.	8.0 kg / 17.6 lbs
7530	3.0 m / 9.8 ft.	+/- 0.033 mm / 0.0013 in.	+/- 0.049 mm / 0.0019 in.	8.3 kg / 18.3 lbs
7535	3.5 m / 11.5 ft.	+/- 0.043 mm / 0.0017 in.	+/- 0.061 mm / 0.0024 in.	8.6 kg / 19.0 lbs
7540	4.0 m / 13.1 ft.	+/- 0.061 mm / 0.0024 in.	+/- 0.075 mm / 0.0030 in.	8.9 kg / 19.6 lbs
7545	4.5 m / 14.8 ft.	+/- 0.070 mm / 0.0028 in.	+/- 0.082 mm / 0.0032 in.	9.2 kg / 20.3 lbs

All specifications according to B89.4.22 and VDI/VDE 2617-9.  
VDI/VDE standard not published yet at the release of this brochure.

### Volumetric Accuracy Test

This test most accurately represents the reasonable expectations for machine performance in practical measuring applications since it involves measuring a certified length standard many times in several locations and orientations and compares the resultant measurements to the actual length. The Volumetric Length Accuracy Test is the most appropriate test for determining machine accuracy and repeatability. The result is the maximum deviation of the measuring distance less the theoretical length.

### Point Repeatability Test:

That is the reference test to determine measurement arm repeatability with ball probe. The cone is in front of the machine. Points are measured from multiple approach directions. The average point and the deviation of each point to the average center are calculated. The result is the maximum range divided by two.

### Ambient conditions

Working temperature: 0°C - 50°C (32°F – 122°F)  
Storage temperature: -30° -70° C (-22°F – 158°F)  
Relative humidity: 10% - 90% non-condensing  
Operational elevation: 0-2000 m (0-6600 ft)

### Marks of conformity

CE Compliance: Yes

### Power requirement

Universal worldwide voltage 110V-240V



## **CIMCORE**

CIMCORE is a brand of Hexagon Metrology for portable measuring arms. CIMCORE Arms are sold and supported through a worldwide network of independent distributors that bring local support and expertise.

CIMCORE brand products are built in ISO certified Hexagon Metrology factories located in Carlsbad, CA and Montoire, France.

Regional Sales Contacts:

[www.cimcore.com](http://www.cimcore.com)

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