

# DEA MERCURY

Horizontal Arm Coordinate Measuring Machine



# A FLEXIBLE TRIO

DEA MERCURY stands for three different versions of horizontal-arm coordinate measuring machines (CMM). All of them are based on a modular concept. Automatic machines, disengageable drives for manual operations, single-, dual- or multiple-arm-configurations, tactile probes, optical sensors, scribing devices, fixtures... You name it. The DEA MERCURY line offers it.

## What is it for?

DEA MERCURY's outstanding price performance ratio is especially attractive for companies with limited budgets. Thanks to its modularity this CMM line is suitable for rebuilding existing installations which require a technological update. To make previous investments really pay off.

## Solutions are available for...

### ...the shop floor:

- Dimensional inspection of thin-walled components, e.g. car bodies and chassis, panels, doors, windows, dashboards
- Inspection of prismatic parts such as motor blocks, gearboxes, castings, other components for automotive, aerospace, energy and heavy industry

### ... mould manufacturing and toolmaking:

- Dimensional inspection of moulds
- Fast scanning of complex surfaces with optical sensors

### ... research and design:

- Multifunctional systems for classic metrology applications such as inspection of models, reverse engineering tasks, additionally manual scribing of parts



# YOUR IDEAL DEA MERCURY

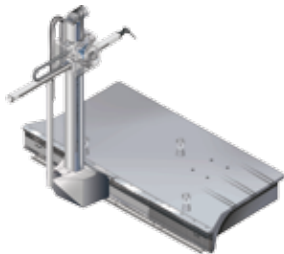
Typical for all DEA MERCURY versions is their open architecture. Thus, parts can be loaded and unloaded easily – no matter how big or heavy they are. The superior mechanical frame gives these CMMs outstanding robustness. Automatic axis motion is DEA MERCURY's standard.

Make your choice from three different versions:



## DEA MERCURY R (Runway)

- For measuring medium-sized, large, very large or heavy workpieces
- Arms on guideways decoupled from the workplate
- Guideways can be installed on the floor or flush to the floor for better ergonomics
- Single, dual or multiple arm configuration



## DEA MERCURY C (Console)

- Ideal system to inspect medium-sized components
- Measuring arms on guideways at the side of the worktable
- Integration in existing worktable
- Optionally, the system is available including a worktable
- Single or dual arm configuration



## DEA MERCURY T (Top)

- Guideways machined into the workplate
- Integration in existing worktable to leverage previous investments
- The system is also available including a worktable
- Single or dual arm configuration

If three versions aren't enough: The modular structure of DEA MERCURY allows creating individualised models – in an easy, fast and cost-effective way. Also integrated solutions for under part inspection are feasible.

### More options:

- Disengageable drives with control knobs and independent brakes for each axis for manual scribing operations
- Multi-cell configurations sharing the same base and sliding system with different workstations
- Mobile remote or wireless control units

### Wide range of measurement volumes:

Measuring Range (in mm)		
X	Y	Z
from 2000	1200	1200 - 1600 - 1800 - 2100
from 2000	1400	1200 - 1600 - 1800 - 2100 - 2500 - 3000
from 2000	1600	1200 - 1600 - 1800 - 2100 - 2500 - 3000
from 2000	1800	1600 - 1800 - 2100 - 2500 - 3000
from 2000	2000	1600 - 1800 - 2100 - 2500 - 3000
Single Arm Accuracy from: $MPE_E = 15 + 15 L \leq 40 \mu m$ (L in metres)		

## COLLECT DATA

Use the full power of our sensor technology: The DEA MERCURY measuring systems can be equipped with fixed or indexable measurement heads, continuous wrists, touch-trigger probes and laser sensors. All horizontal arms come with a proprietary design 5-way probe holder.

### **Indexable head TESASTAR-m**

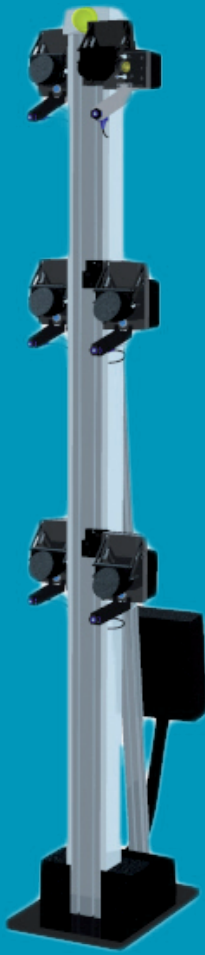
TESASTAR-m is a motorized indexable probe head, capable of indexing in 5° increments. Different adapters make it suitable for multiwired probes, TESA touch-trigger probes and others. Thanks to high speed indexing it measures faster than similar products.

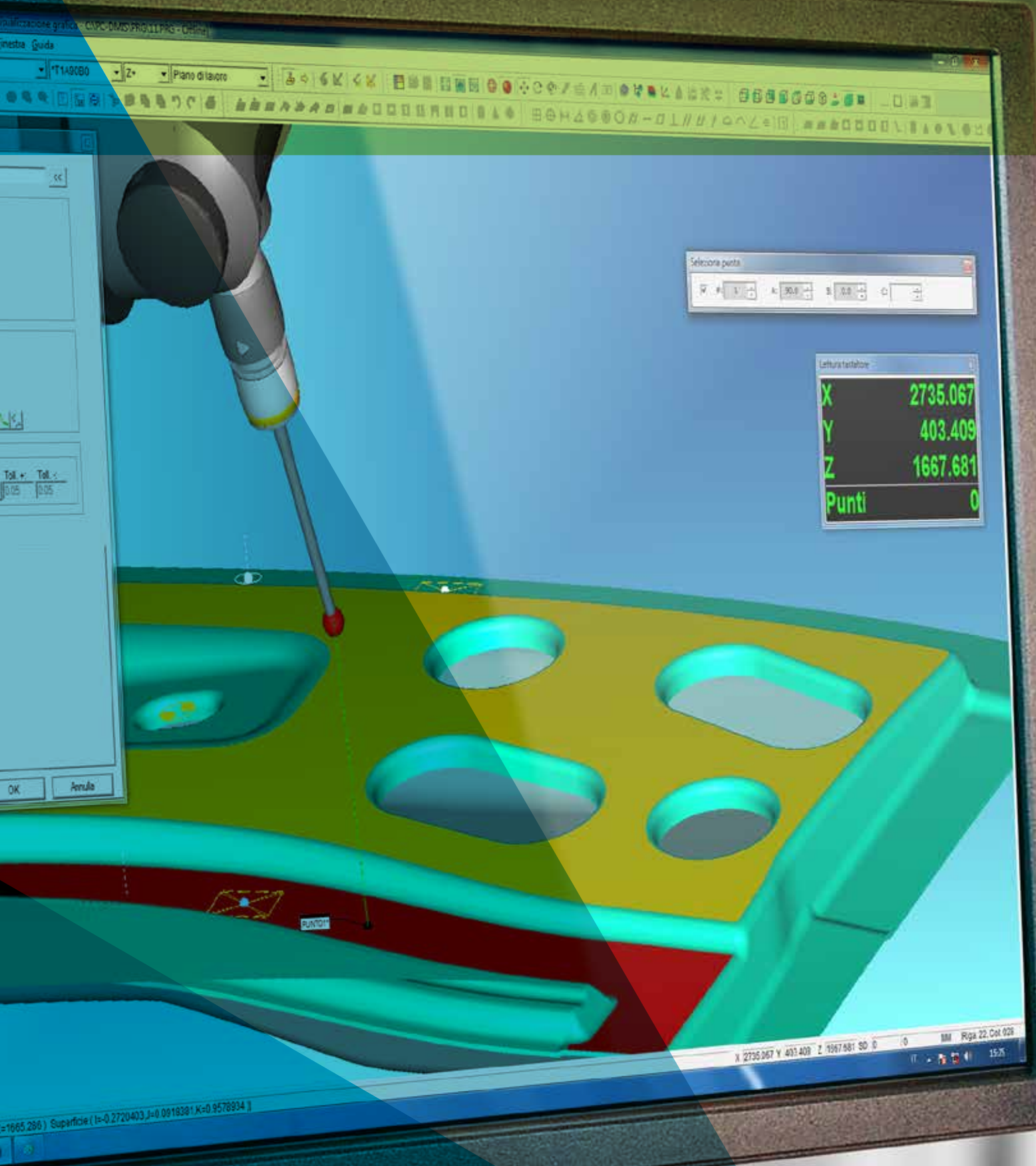
### **Continuous wrist DEA CW43L-mw**

The multi-axis continuous wrist CW43L-mw aligns the probe exactly as you need it. With this tool you can reach all part features. It can also handle very long probe extensions. If you want to change adapters and extensions automatically during measuring: go for CW43L-mw AC. This changer rack is available with a variable number of stations.

### **Laser sensor CMS106**

CMS106 stands for fast and accurate scanning – also on very critical surfaces. The laser lines are composed of a series of points. CMS106 is able to change the intensity of each laser point as it scans. Also the width of the laser lines can be adjusted to the geometry of the workpiece. An extremely efficient tool to collect measurement data.





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Y	403.409
Z	1667.681
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X 2735.067 Y 403.409 Z 1667.681 80 0 0 MM Riga 22, Col 028 15.75





## COMPARE DATA

Powerful and easy-to-use – this is PC-DMIS, the world's leading metrology software for CMMs. It compares measurement data with the reference model and reliably detects any features being out of tolerance. All kinds of objects can be measured with PC-DMIS: from a simple prismatic part to the most complex aerospace or automotive assembly.

### **Three versions are available, each with a focus on specific needs:**

- PC-DMIS PRO – Basic software package for CMMs. For all those who do not integrate CAD models in the inspection process.
- PC-DMIS CAD – Brings CAD to the inspection process. It lets you create inspection programs and evaluate measurement results taking full advantage of CAD models.
- PC-DMIS CAD++ – Enhances the capabilities of PC-DMIS CAD with sophisticated tools for High-Speed-Scanning, laser sensor support, sheet metal measurement and so forth. Makes measuring complex shapes easy.

PC-DMIS also offers a wide selection of options to fulfil any of your specific needs, one example being the offline version for virtual programming. With PC-DMIS Off-line you can optimize the use of your measuring machine – particularly when high volumes need to be inspected and CMM capacity is at its maximum.

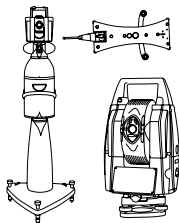


## MAKE THE MOST OF IT

It is our goal to offer the right solution for every specific requirement. Our solutions can be adapted to each industrial environment. These accessories make DEA MERCURY the perfect fit:

- Modular fixtures to position the parts, e.g. Swift-fix, FIVE U-nique
- Holding fixtures on calibrated panels
- Master reference gauges
- Automatic and half-automatic loading/unloading systems
- Wide selection of scribing tools and accessories

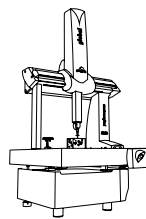




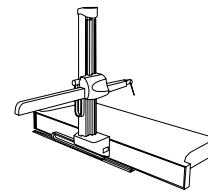
LASER TRACKERS  
& STATIONS



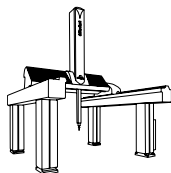
PORTABLE MEASURING ARMS



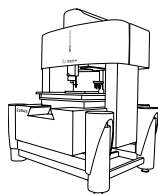
BRIDGE CMMS



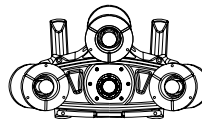
HORIZONTAL ARM CMMS



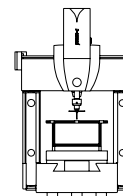
GANTRY CMMS



MULTISENSOR & OPTICAL SYSTEMS



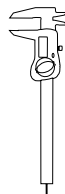
WHITE LIGHT SCANNERS



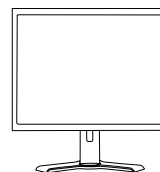
ULTRA HIGH ACCURACY CMMS



SENSORS



PRECISION MEASURING  
INSTRUMENTS



SOFTWARE SOLUTIONS



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.

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Printed in Germany. April 2013

