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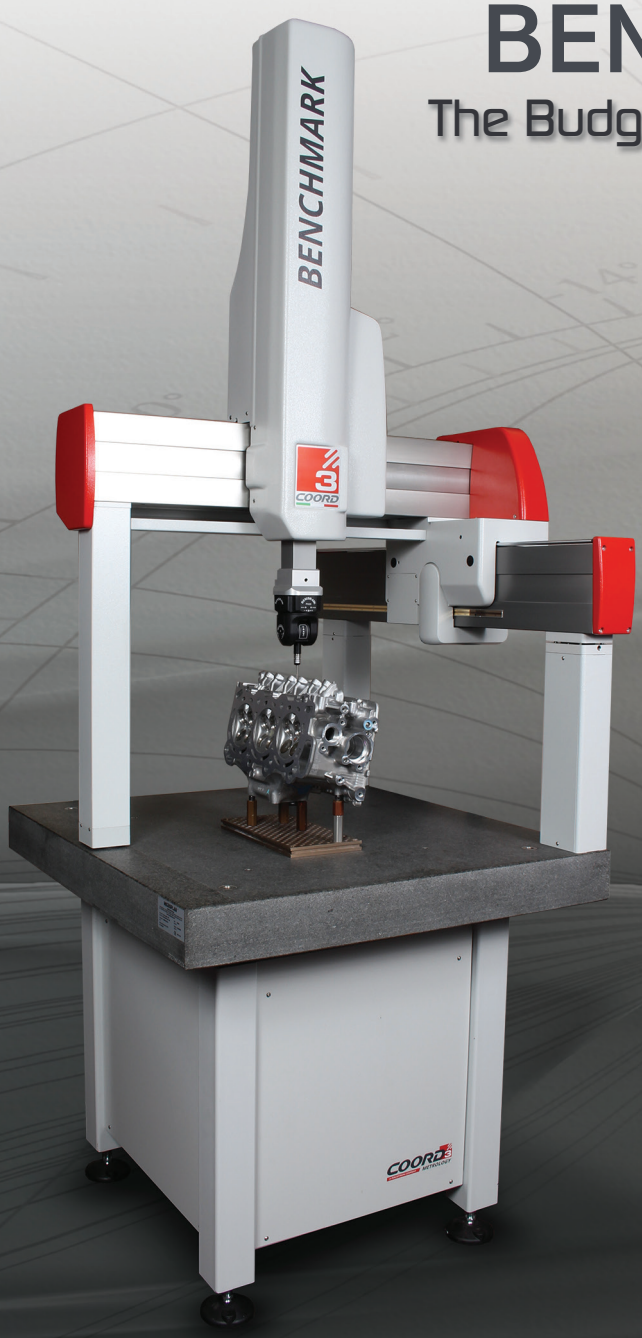
COORD3

BENCHMARK

The Budget Performance CMM



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BENCHMARK 3D Coordinate Measuring Machine

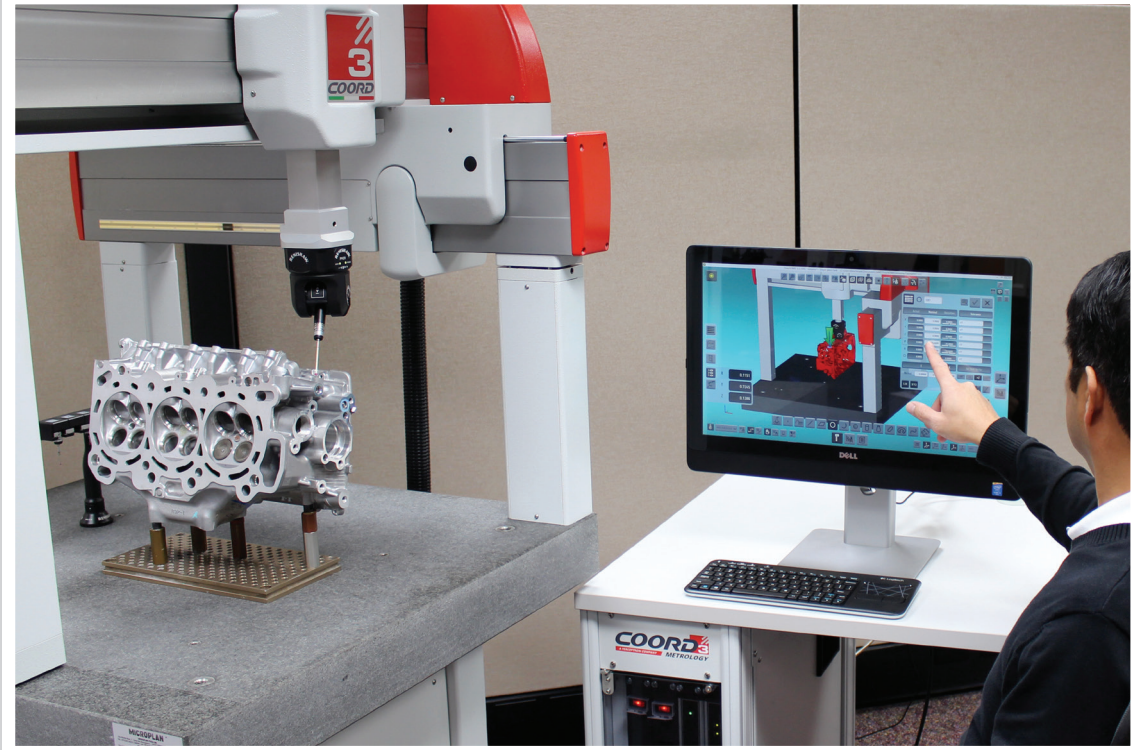
The Budget Performance CMM

The COORD3 BENCHMARK is a high performance budget CMM with the added benefit of a small footprint. Its unique half-gantry bridge design has the X and Y axes at the same level to increase rigidity. It offers an outstanding metrology platform for high accuracy inspection of small and medium parts. 0.1 micron resolution X and Y measuring scales at the same working height enables an improved thermal response while operating in less desirable thermal conditions.

BENCHMARK's open structure provides outstanding ergonomics. For smaller manufacturing operations, it is ideal for the inspection of just a single part or for high volume production parts. Its compact size fits the quality room or production floor. In fact, the 5.4.4 BENCHMARK model fits through a standard width door.

The full air-bearing BENCHMARK provides an accuracy of 2.5 microns. It comes standard with a Renishaw touch probe, and can be supplied with a motorized probe head for fully automated inspection applications. The infinite position Renishaw PH20 offers the unique head-touch function to increase precision and productivity.

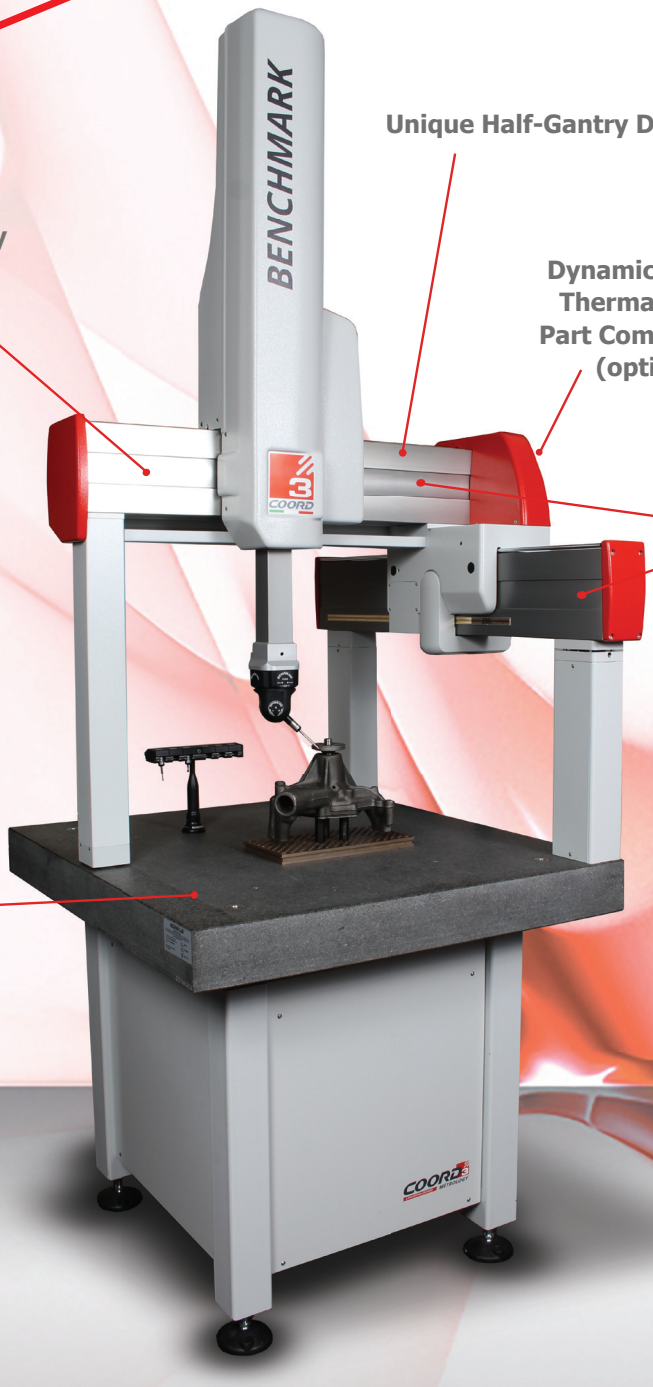
BENCHMARK is available in manual or CNC configurations. Manual units can be upgraded to full CNC in the field at a later date, offering a two-phase investment option.



COORD 3

BENCHMARK

BENCHMARK CMM



Unique Half-Gantry Design

Advanced Alloy Platform

Dynamic Wireless Thermal CMM & Part Compensation (optional)

X & Y Axes at Same Level Providing Increased Rigidity

Open Access Table for Easy Part Loading

BENCHMARK 3D Coordinate Measuring Machine

TouchDMIS
One Touch Measurement

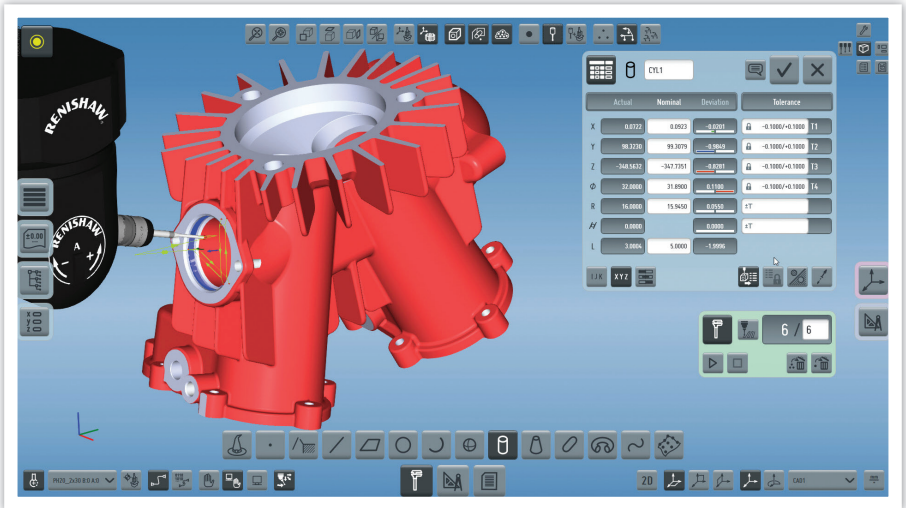
Metrology Power with Simplicity

The BENCHMARK comes equipped with TouchDMIS, the game changing metrology software for ultimate CMM usability. It offers the world's first all-touch CMM software with full CAD capability. TouchDMIS requires just a few hours of training and an incredibly short learning curve. TouchDMIS takes the expert out of CMM measuring and programming.

The minimalistic user interface of TouchDMIS has been ergonomically developed to provide maximum productivity for both novice and expert CMM user, and leverages the latest touch technology platforms. TouchDMIS incorporates floating toolbars to maximize the graphics area, with the principle software functionality accessed via eight large function buttons. TouchDMIS has no drop-down menus, no stacked toolbars, and all functionality is simply accessed with a single touch.

TOUCH SOFTWARE

TouchDMIS Measuring Software
Offering One-Touch Performance



Economical Metrology with Simplicity

Features & Benefits

- Ultra rigid, advanced alloy CMM platform provides maximum stiffness
- Rapid thermal diffusion through advanced alloy CMM frame when temperatures change
- FEA design provides optimum moment of inertia and stiffness, allowing high accelerations
- One-piece granite base with M8 threaded table inserts in a generous grid pattern
- Rigid air-bearings to all axes with wide bearing spread ratios
- Pneumatic Z-axis counterbalance
- 0.1 micron resolution measuring scales with dynamic signal processing
- Full digital motion control with probe path blending for optimal CMM performance
- Zero hysteresis friction drives to all axes
- Passive vibration damping system isolates external vibrations
- Open access to CMM measuring area
- Maximum positioning speed of 500mm/sec
- Maximum acceleration of 1500mm/sec^2
- Optional CMM Touch Station for enhanced user ergonomics
- Optional wireless thermal compensation for shop applications

BENCHMARK CMM

Manual BENCHMARK with pneumatic axis locks and handwheels

Environment

- Nominal temperature: 20°C
- Allowable temperature range: 18 – 22°C (Extended range 16 – 26°C)
- Temperature gradient: 0.5°C/hour – 2°C/day (Extended range 5°C/day)
- Operating temperature range: 15 – 35°C
- Relative humidity: 40 – 80% (non-condensing)
- Acceptable vibrations: 30mm/sec^2 1-10Hz | 15mm/sec^2 10-20Hz | 50mm/sec^2 20-100Hz

Services

- Minimum air supply: 5 Bar (72 PSI)
- Air consumption: 90 NL/min (3 cfm)
- Power supply voltage: 230V 50Hz or 110V 60Hz
- Maximum power consumption: 10A, 1200W

Performance Data

- All COORD3 CMM products are factory evaluated for accuracy using the ISO10360 standard.

Options

- Dynamic wireless thermal compensation of machine and part
- Pneumatic vibration isolation system
- Air drier
- Modular part fixturing kits
- CMM modular enclosure
- Manual Benchmark CNC upgrade kit

Models & Sizes

COORD3 BENCHMARK CMMs are available with the following measuring strokes:

All measuring strokes shown in mm.

	Y	X	Z
5.4	400	500	440
6.5	500	600	440

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About Perceptron:

Perceptron (NASDAQ: PRCP) supplies a comprehensive range of automated industrial metrology products and solutions to manufacturing organizations for dimensional gauging, dimensional inspection and 3D scanning. Products include 3D machine vision solutions, robot guidance systems, coordinate measuring machines, laser scanners and advanced analysis software. Globally, automotive, aerospace and other manufacturing companies rely on Perceptron's metrology solutions to assist in managing their complex manufacturing processes to improve quality, shorten product launch times and reduce costs. More than 900 systems, 12,000 Perceptron measuring sensors and over 3,000 COORD3 coordinate measuring machines are in active daily use worldwide. Headquartered in Plymouth, Michigan, USA, Perceptron operates worldwide with subsidiary operations in Brazil, China, Czech Republic, France, Germany, India, Italy, Japan, Singapore, Slovakia, Spain, and the UK.

Your Metrology is our Focus

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