

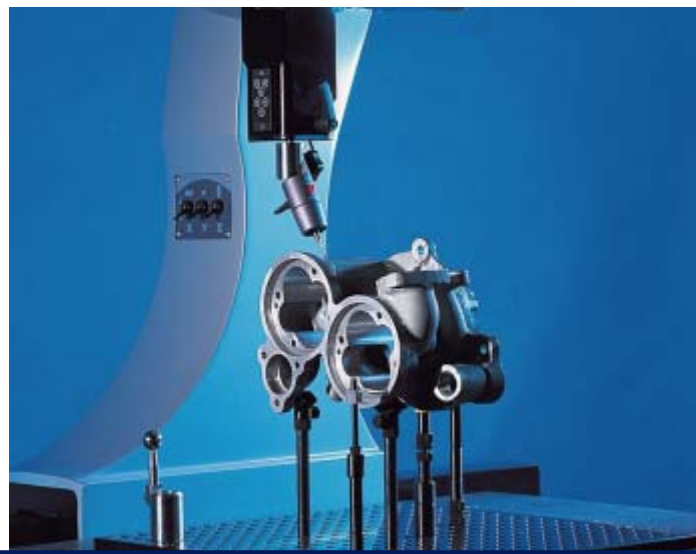


HEXAGON METROLOGY



Cordax[®] Micro-Hite[®]

Cordax Micro-Hite 3D from Sheffield Measurement is the only CMM that combines ease of use, laboratory-level performance and economy—making it the ideal alternative for cumbersome, limited-use dedicated gages in small shops or integrated manufacturers. An ergonomic manual CMM featuring the powerful capabilities of PC-DMIS™ inspection software, Micro-Hite 3D can handle virtually any dimensional inspection requirement. It collects measurement data automatically and quickly generates intuitive analysis reports.



Cordax® *Micro-Hite™* 3D

The high-accuracy, economical CMM that's ready when you are.



Micro-Hite 3D offers you the best performance for the dollar in a variety of applications:

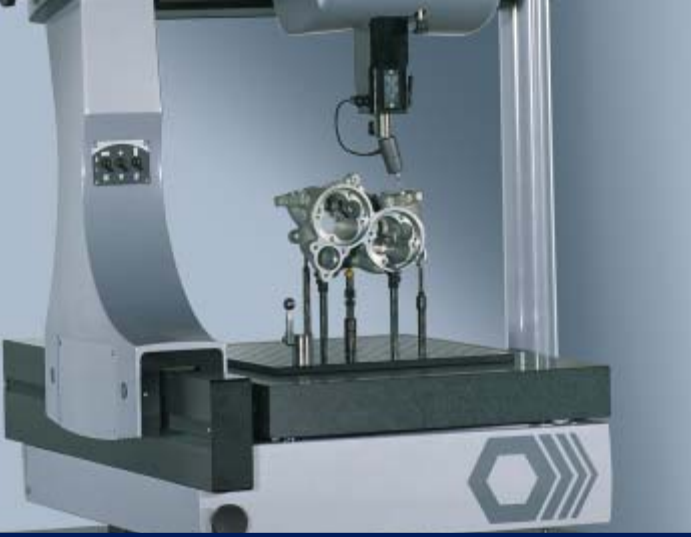
- As a stand-alone, walk-up station for first part inspection
- For layout inspection and tool set-up
- As a high-accuracy flexible gage.

Micro-Hite 3D can even handle reverse engineering tasks with the optional PC-DMIS CAD™ upgrade.

At home on the shop floor and in the metrology lab.

All-aluminum construction improves thermal, dimensional/torsional, and geometric machine stability. Micro-Hite 3D's optional fine adjustment is particularly useful for small features where a precision touch location is required. Other advanced design features include

- Tricision® technology controls bridge axis roll for precise volumetric measuring accuracy
- Off-center mass provides optimum geometric stability
- 22 air bearings ensure frictionless motion along all three axes
- New, patented glass scales and non-contact, opto-electronic sensors offer greater accuracy and repeatability
- A lock/unlock system that enhances control of each individual axis.



Micro-Hite 3D offers a 18" x 20" x 16-1/2" (460 x 510 x 420 mm) measuring range despite a small footprint that fits nearly any shopfloor configuration. It can handle a workpiece up to 23-1/2" x 29-1/2" x 17" (600 x 750 x 430 mm), accommodating 80% of all parts manufactured today, and making it a versatile process and quality control addition to your shop.

www.sheffieldmeasurement.com

Cost-effective performance and control through advanced technology.

The patented Zmouse pointing device (shown at right) dramatically increases manual measurement throughput. Embedded in the machine's Z column, it eliminates the need for an operator to move between the CMM and the computer. A hand control conveniently located on the machine table further speeds up measuring operations.

New higher performance probes

Micro-Hite 3D is equipped with either of two new 3D probes developed by Hexagon Metrology's TESA company: TesaStar® is an economical high-accuracy indexing probe featuring adjustable trigger force. TesaStar-I® provides indexing steps of 15° on all axes—allowing up to 168 positions without the need for probe re-qualification after original orientation. A wide variety of styli are available to suit every application. Ruby ball tip diameters as small as 0.5 mm let you access even the smallest features. Find more details at www.cordax3d.com.

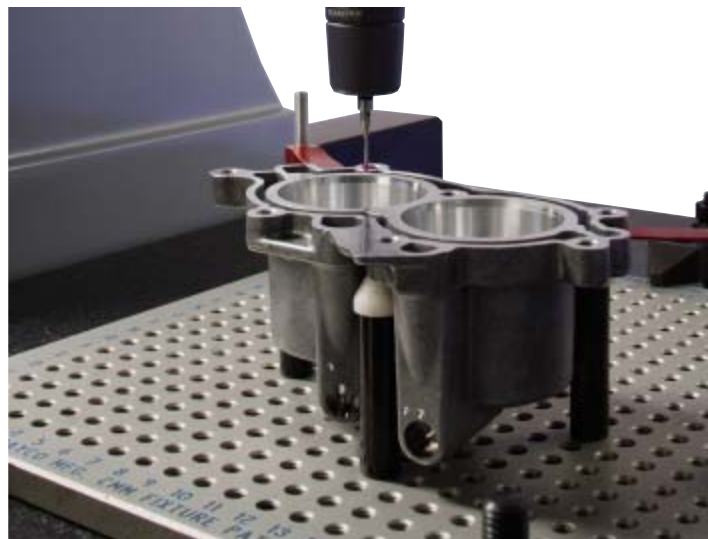
Using Probe and Go measurement, just touch the feature you want to inspect, and Micro-Hite 3D with optional PC-DMIS PRO inspection software automatically recognizes the feature type and creates an interactive graphic representation of the part on the screen. You can enhance the versatility of the Micro-Hite even more with optional PC-DMIS CAD™ and PC-DMIS CAD++™ upgrades.



Save measurement time and reduce your manufacturing costs

The new Cordax® Micro-Hite® Direct Computer Control coordinate measuring machine is an economical entry level automated CMM, but its extraordinary speed and accuracy make it easy for you to handle virtually any measurement and inspection application.

Highly competitive pricing and the ability to handle the vast majority of today's manufactured parts make the Micro-Hite DCC CMM the smart way to add high quality inspection capacity to your operation.



Cordax® *Micro-Hite™* DCC

Improve your inspection efficiency the smart, economical way.



Versatile, capable... and lightning fast

Use the Micro-Hite DCC as a walk-up station for first piece and layout inspection, for machine tool setup or as a flexible gage to control your manufacturing processes.

An advanced dual reduction belt drive system lets the Micro-Hite DCC accelerate five times faster than similar CMMs, reducing inspection cycle time to a fraction of higher priced machines. A light weight, Tricision bridge with self-stabilized carriage features a low center of gravity and an optimum stiffness-to-mass ratio for improved positioning accuracy.

Patented glass scales and non-contact opto-electronic sensors provide high accuracy and repeatability to 2µm. Wide bearing separation assures optimum control of bridge axis roll for precise volumetric measuring accuracy. And a mechanical spring counterbalance lowers the Z axis rail's center of gravity for added stability at high measuring speeds.

Thermally compatible materials and components minimize ambient temperature effects on your measurement results, making the dependable Micro-Hite DCC the ideal measuring system for virtually any application. Learn more at www.cordaxdcc.com.



Easy-to-use software is standard

With easy-to-use Sheffield MaxLite™ measurement software, Micro-Hite DCC CMMs lead you in simple steps through the entire inspection process. Perform part inspection, process control and even part measurement programming as MaxLite collects data and quickly generates intuitive analysis reports. Anyone familiar with part drawing symbols can use MaxLite, which comes standard on Micro-Hite DCC CMMs.

www.sheffieldmeasurement.com

Advanced Inspection Control

Only Cordax Micro-Hite gives you software choices this powerful.

MaxLite provides operational modes for “walk-up” part inspection, running existing part programs and creating new inspection programs by following simple, step-by-step screen prompts.

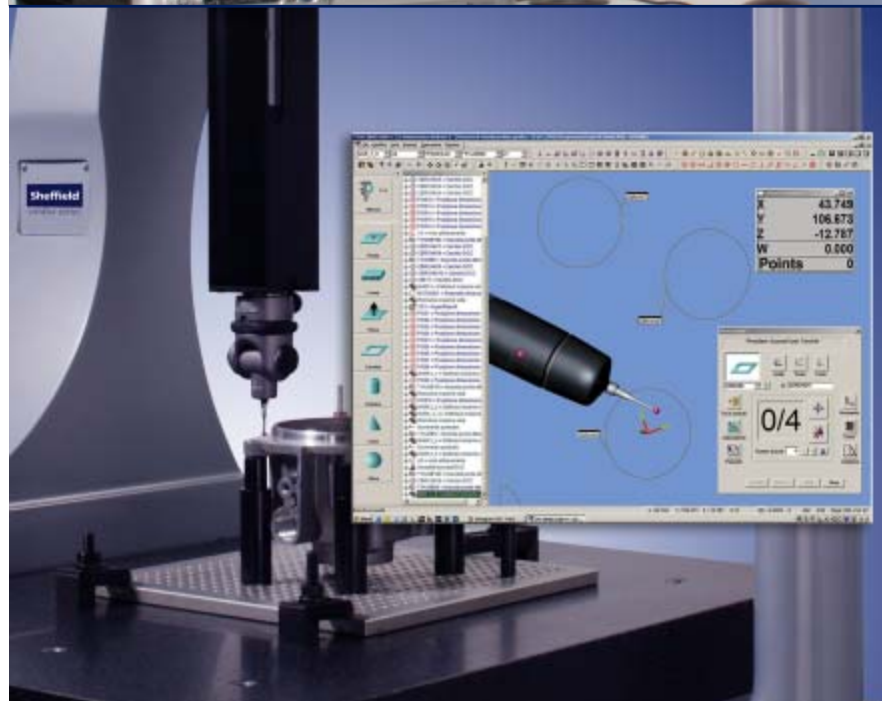
The MaxLite interface is so intuitive, you can learn basic machine functions quickly even if you have no CMM experience. MaxLite features clear graphical displays, including probe positioning to determine easily which probe is active. And MaxLite is even touch-screen compatible for convenient shop floor use.

Optional PC-DMIS® PRO is the world's most widely used dimensional inspection software

A perfect balance between power, versatility and ease of use, it lets you access:

- A full programming environment, including high level programming functions
- Customizable menus
- Quick Start™ routines for probe qualifications and part alignments
- PTB certified algorithms
- Automatic Probe and Go™ feature recognition
- A full suite of customizable reporting tools.

PC-DMIS™ software is an available option on Micro-Hite 3D and DCC CMMs, as are upgrades to PC-DMIS® CAD or PC-DMIS® CAD++, and an SPC software package that helps you manage dimensional data for improved process control.



Cordax® Micro-Hite™ Specifications

	Micro-Hite 3D	Micro-Hite DCC
Measuring Range		
X Axis	460mm (18")	440mm (17.3")
Y Axis	510mm (20")	490mm (19.3")
Z Axis	420mm (16.5")	390mm (15.4")
Workpiece Capacity		
X Axis	600mm (23.6")	559mm (22")
Y Axis	750mm (29.5")	750mm (29.5")
Z Axis	430mm (16.9")	483mm (19")
Repeatability		
VDI/VDE ⁽¹⁾	3.0µm (0.000118")	-
ASME B89.4.1b 2001 ⁽²⁾	-	2.0µm (0.000078")
Volumetric Accuracy		
VDI/VDE U3 ⁽¹⁾	3.0 + 4L/1000	-
ASME B89.4.1b 2001 ⁽²⁾	-	7.0µm (0.000276")
Linear Accuracy		
VDI/VDE U1 ⁽¹⁾	3.0 + 3L/1000	-
Maximum Permissible Error⁽³⁾		
MPE _E	-	3.0 + 4L/1000
MPE _P	-	3.5µm (0.000137")
Maximum 3D Velocity	-	346mm/s (13.6"/s)
Maximum 3D Acceleration	-	1732mm/s ² (68.2"/s ²)
Overall Dimensions		
Width	970mm (38.2")	1032mm (40.6")*
Length	930mm (36.6")	1162mm (45.7")*
Height	1620mm (63.8")	2318mm (91.3")
Maximum Part Weight	227kg (500 lbs.)	227kg (500 lbs.)
System Weight	190kg (418 lbs.)	393kg (865 lbs.)

Find more details at
www.cordaxdcc.com
and www.cordax3d.com.

The following temperature requirements must be met to ensure stated performance:

Nominal Room Temperature: 20 ± 1°C (68 ± 1.8°F)

Spatial Temperature Variation: 1°C (68 ± 1.8°F)

(1) According to VDI/VDE in microns. L is length of measurement in mm.

(2) Repeatability according to ASME B89.4.1b 2001 para. 5.3.

Volumetric accuracy according to ASME B89.4.1b 2001 para. 5.5.

(3) MPE_E error indication for size measurement in microns according to ISO 10360-2, where L is the length of measurement in mm.

MPE_P probing error according to ISO 10360-2.

* Dimensions for controller optionally mounted on the left side of the machine stand:

Width: 1202mm (47.3") Length: 1073mm (42.2")

Guaranteed minimum specifications by model are shown. Actual specifications and site requirements are subject to quotation; contact Sheffield Measurement for further details.

