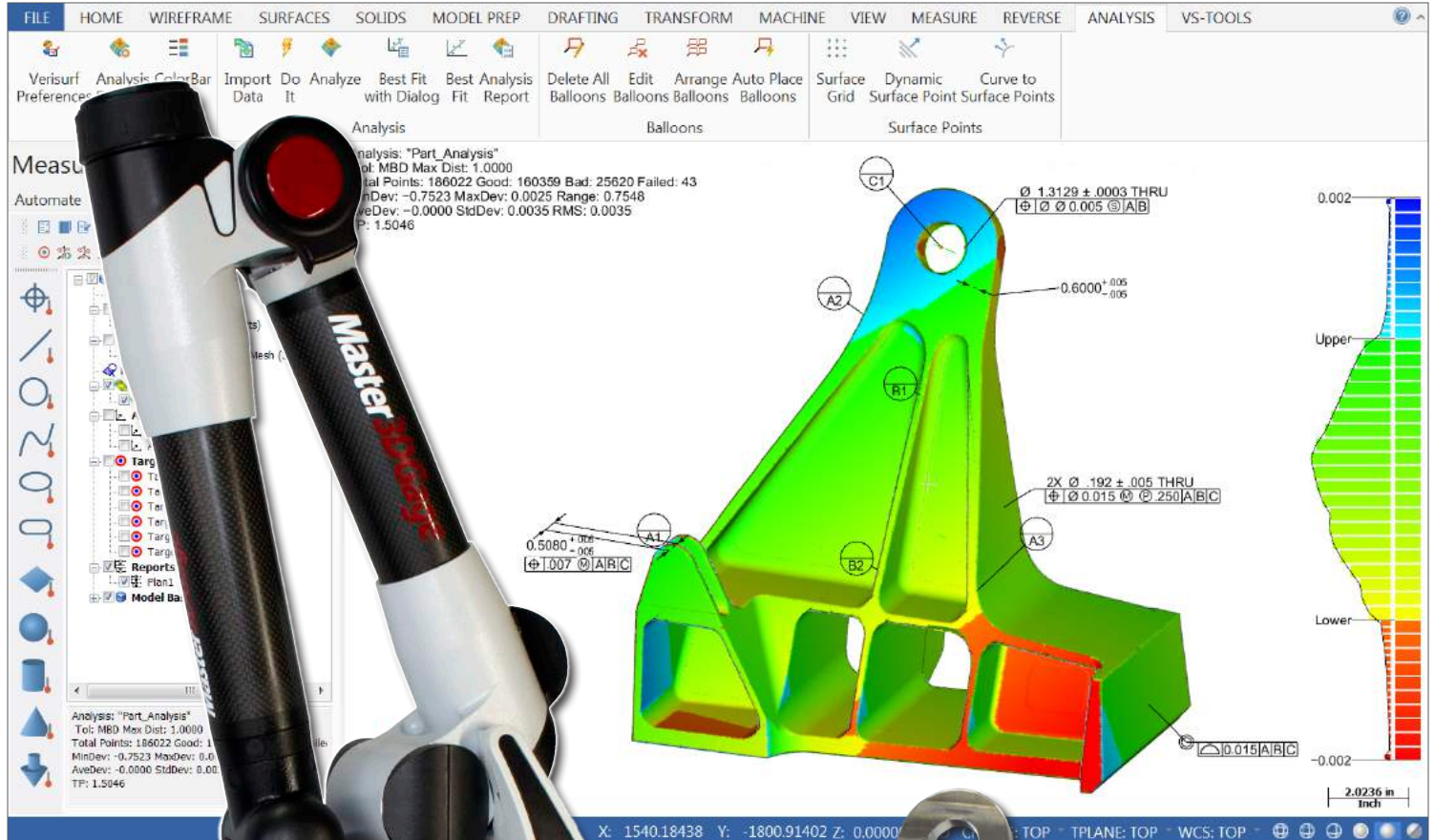


Master3DGage™

AFFORDABLE, PORTABLE CMM

Automated Inspection & Reporting
3D Scanning and Reverse Engineering
Reduce Scrap, Improve Quality, Increase Productivity



POWERED BY
VERISURF.

Improve Quality, Automate Inspection

The flexibility of Master3DGage™ makes it ideal for inspection and reverse engineering. The multi-axis CMM arm features absolute encoders for quick start-up and ultra-high precision measurements while its highly articulated wrist enables you to measure hard to access surfaces by reaching around and under parts. The

lightweight, wireless design makes it easy to place the Master3DGage™ right into your CNC machine while the magnetic base locks it into place on the machine bed to quickly inspect parts while maintaining critical part to machine alignment. Optional 3D scanner and hot swappable probes with automatic probe recognition make it easy

to change from scanning a complex profile to probing a small feature in seconds. Implementing Master3DGage™ in-process inspection identifies out-of-tolerance conditions sooner enabling immediate corrective action.

Quick start
absolute encoders

Multi-axis CMM arm
with 1.2 m (4 ft)
measuring volume

Low CTE
carbon fiber tubing

Counterweight
balancing

Integrated work light
and camera

Hot swap probes
and scanner

Scan range finder
indicator (green/red)

Rechargeable
lithium-ion battery

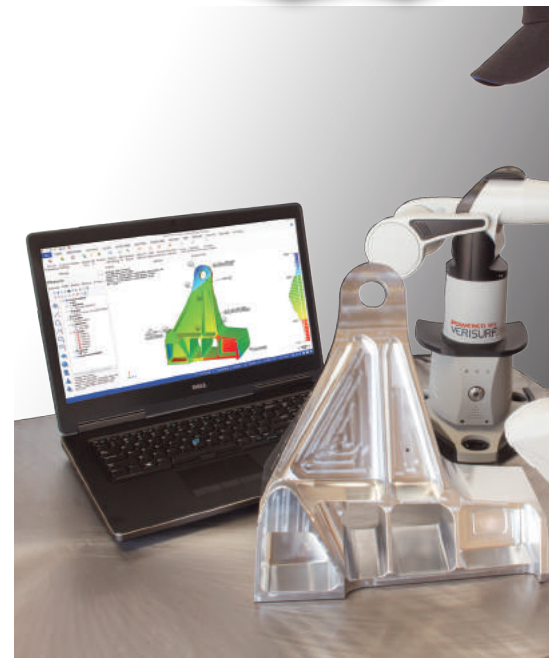
Wireless communication (WiFi)

Stable freestanding
measuring base included

Portable & lightweight

**POWERED BY
VERISURF.**

The Master3DGage™
is powered by Verisurf
software with modular
flexibility to configure
the right functionality
for your application
and budget.



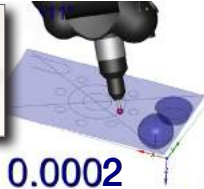


, Save Time

REVERSE ENGINEERING

3D PROBE

MEASURE prismatic CAD features directly

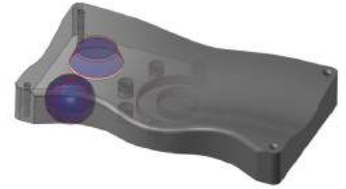


Fit: 0.0002

SURFACE capture of complex contours in continuous mode



MODEL NURB surfaces and create solid models

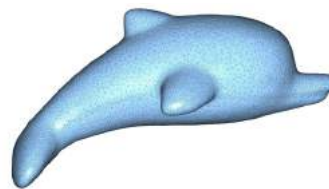


3D SCAN *Optional scanner required*

SCAN part capturing point cloud of fine details



MESH point clouds, filter points, fill holes and 3D print STL files



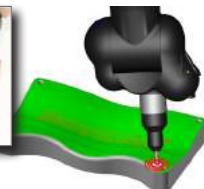
MODEL NURB surfaces with feature recognition and create solid models



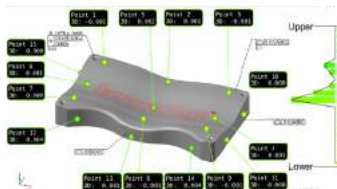
INSPECTION AND REPORTING

3D PROBE

ALIGN part to CAD model



INSPECT part to CAD model GD&T and display results

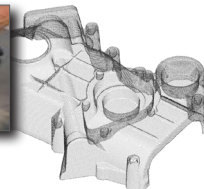


REPORT quality in many standard or custom formats

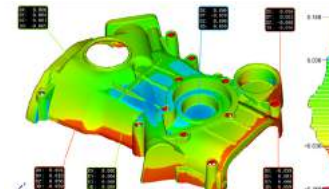


3D SCAN *Optional scanner required*

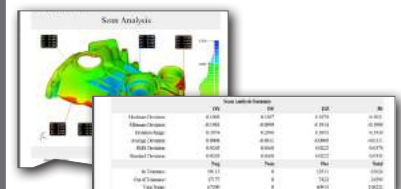
SCAN part capturing point cloud of fine details



ANALYZE best fit points to CAD model nominal and display results



REPORT quality in many standard or custom formats



Hardware Specifications

PCMM Standard System

Portable measuring arm

- Master3DGage™ articulated arm PCMM
- 6-Axis 1.2m (4 ft.)
- Ergonomic counterweight design
- USB and power cables, Universal worldwide voltage 110V-240V, CE compliant
- Quick setup guide and mouse pad
- Calibration certificate

Standard probes (including case)

- 3mm ruby, 6mm ruby, 15mm steel spherical hard probes
- Quick disconnect, automatic probe identification

Certified qualification sphere

- Size $\pm 0.0005\text{mm}$ (0.00002 in.)
- Spherical within 0.0001mm (0.000005 in.)

Feature pack

Internal lithium-ion battery and WiFi

Magnetic base kit

Base anchor with 3 precision ground magnetic blocks

Anodized aluminum training part

Rugged wheeled transport case

1-year hardware warranty



Master3DGage™
training part



Standard probes



PCMM Specifications

Calibration certificate

B89.4.22

Probing volumetric accuracy

$\pm 0.025\text{mm}$ (.00098 in.)

Probing point repeatability

0.014mm (.00055 in.)

Measuring volume

1.2m (4 ft.) with absolute encoders

Weight (system with transit case)

10.2 kg/22.49 lb. (33.5 kg/74 lb.)

Universal power supply

110-240 VAC, 50/60 Hz

Operating temperature

0° C to 50° C (32° F to 122° F)

Storage temperature

-30° C to 70° C (-22° F to 158° F)

Relative humidity

10% to 90% non-condensing

Transit case size

30.5 x 53.3 x 96.5cm (12 x 21 x 38 in.)

Hardware Options

PCMM Options

Short probe kit

Long probe kit

Custom probes

NIST traceable length bar

Threaded stand adapter

1, 2 & 3-year extended warranties



Laser Scanner Option

3D laser scanner

Scanner cable

Calibration sphere

Rugged transport case



Laser Scanner Specifications

Accuracy	$\pm 40\mu\text{m}$ 2 sigma
Point acquisition rate	45,000 points/second
Points per line	750 @60Hz
Line rate	60Hz
Line width (mid-field)	80mm (3.1 in.)
Stand-off distance	135mm $\pm 45\text{mm}$ (5.3in. ± 1.8)
Minimum point spacing	0.08mm (.0031 in.)
Laser power adjustment	Semi-automatic
Probe/Scanner Mount	Hot swappable

Software Specifications

Verisurf Software

Coordinate Metrology Software

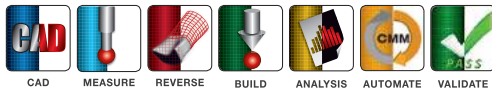
NIST Tested

PTB Certified

Windows 7, 8 and 10 Operating Systems

Modules

Verisurf metrology software is modular so you can configure the right functionality for your application and budget.



Standard File Formats

Native CAD: Mastercam, SolidWorks, AutoCAD, Inventor, SpaceClaim, Solid Edge, Rhino 3D, KeyCreator, Cadkey, Alibre

Neutral CAD: STL, STEP, IGES, ACIS, Parasolid, VDA, HPGL

Optional File Formats

Native CAD: Native CAD: CATIA V4, V5, V6, PTC Creo, Siemens UG/NX

REVERSE Module: OBJ, PLY, Collada, ASCII, XYZ Cloud, XYZRGB Cloud

Report Formats

3D PDF, Excel, PowerPoint, Word, HTML, Text, Database

Master3DGage™
AFFORDABLE, PORTABLE CMM

**Schedule
a Demo
Today**

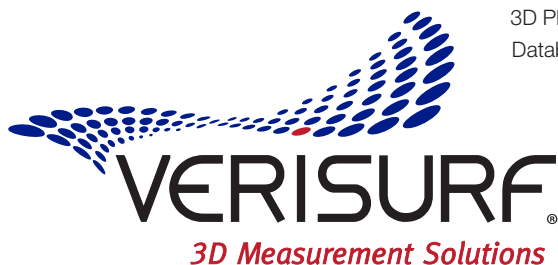
See a Master3DGage™
powered by Verisurf or
to help configure and quote
your ideal system.

www.verisurf.com/request-a-quote



Visit our YouTube channel

www.youtube.com/user/verisurfchannel



+1-866-340-5551 www.verisurf.com/hardware/m3dgc

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