zCAT
www.zCAT.com

24.4 in
height

6.8 in
diameter

30 lbs

VERISURF
3D Measurement Solutions

Portable Precision
THE NEXT DIMENSION

## A revolutionary solution to a complicated problem

Utilizing advanced technology, software, design and electronics, the zCAT is manufactured as a compact self-contained unit that is fundamentally different than existing CMM technology, design and operation. From initial equipment acquisition through set-up, training and maintenance, the zCAT offers significant cost reductions without compromising measuring accuracy or performance.

Easy-to-Use

The zCAT is the easiest DCC CMM to use. Built with the intention of lowering the threshold of training needed to successfully operate and even program a DCC CMM, every component, from the mechanics to the software, has been examined for optimal user experience and ease of use.

Probe System

The zCAT ensures accuracy with an industry-standard probe system. Find comfort in knowing that easy-to-acquire, accurate results are measured by this reliable touch-trigger probe system. Whatever your measurement task, this probe system allows for the optimal stylus arrangement for accuracy.
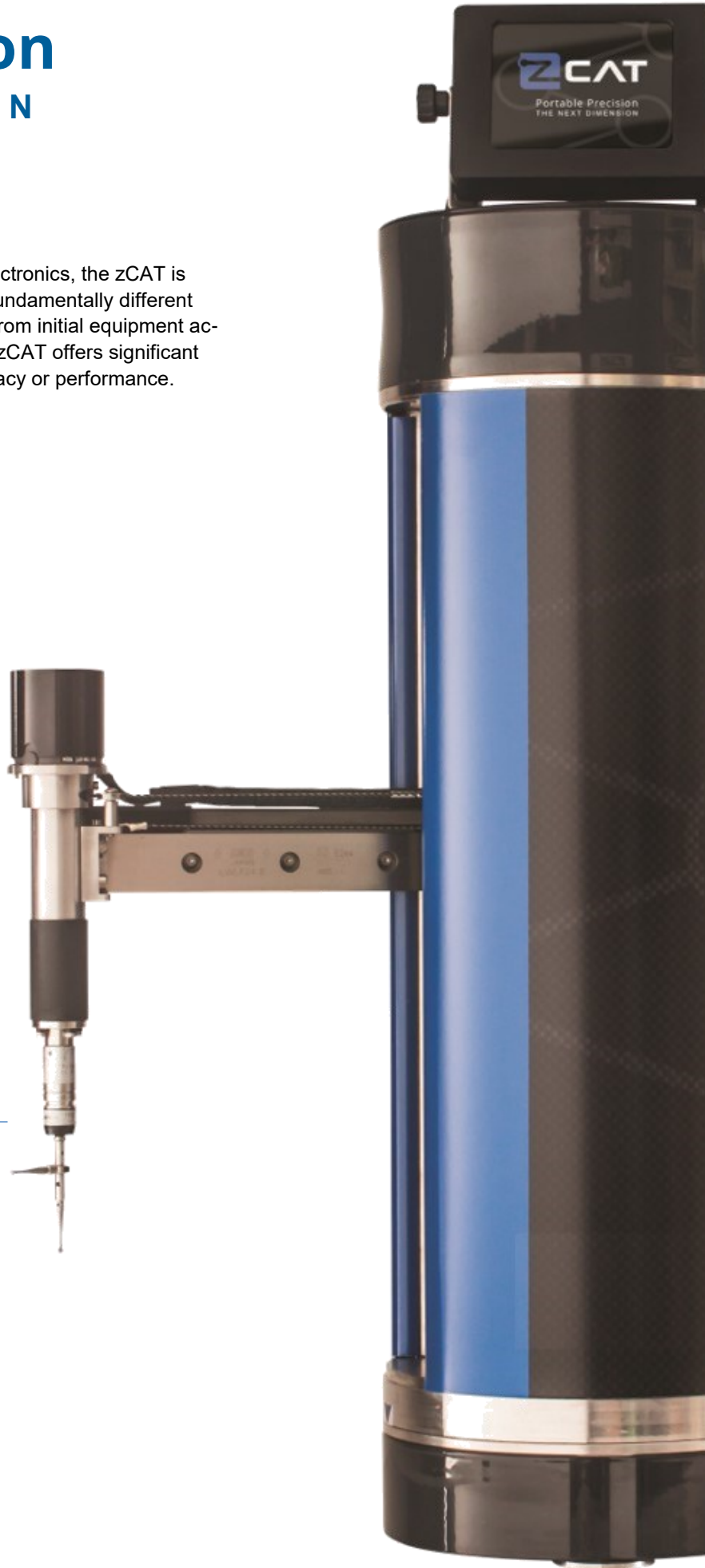
zCAT the world's first truly portable DCC Coordinate Measuring Machine

Software

The zCAT comes with ControlCAT - built-in, easy-to-use, geometric measurement software controlled through an intuitive, icon-based touchscreen interface. Take advantage of the direct computer controlled measurements without the need for a secondary computer. From shop technicians to dedicated CMM operators, anyone can feel comfortable operating the zCAT.

Programming

Automate measuring processes, and gain accurate data time after time. The unique zCAT clutch seamlessly shifts from direct computer to manual control without the need for flipping switches or clicking buttons. Simply, move the probe manually, and the computer will remember and reproduce the movements for accurate, repeatable measurements.

Designed and Manufactured in the U.S.A.

We manufacture the zCAT in the United States. From California to Massachusetts, we're taking advantage of American ingenuity, drive, and passion to create a high quality product that will help advance the capabilities of those who use it.

Portability

The zCAT is the world's first portable direct computer control coordinate measuring machine (DCC CMM). At only 30 pounds, the zCAT conveniently goes with you wherever you need it. No longer are you required to take the part to the CMM; from a surface plate, to a table on the shop floor or on a large part itself, the zCat can be deployed directly in the manufacturing process.

Power

Being tethered to an outlet is a thing of the past. The zCAT is powered by a built-in 10.8 volt lithium ion battery, providing enough power to gain precise, accurate measurements for four hours in the field. The zCAT is truly wireless. A power supply charger is included for quick recharges between or during use.

z CAT

www.zCAT.com

VERISURF
3D Measurement Solutions

Software

POWERED BY
VERISURF.

VERISURF.
3D Measurement Solutions

www.zCAT.com

Verisurf for zCAT

Verisurf builds on zCAT's accuracy, portability, and economy with the power of widely-adopted, model-based measurement and inspection software. Operating seamlessly with your zCAT (or any other) CMM, Verisurf empowers manufacturers with 3D measurement solutions that assure product quality, reduce waste, and improve business profitability. Composed of integrated metrology modules or suites—Verisurf is ideally suited to the most common manufacturing challenges.

Open Metrology Platform

Verisurf is committed to supporting open standards that deliver the most flexible, hardware– and software-independent solutions possible. Through its Windows-standard interface, Verisurf software opens all popular CAD file formats and works with all CMMs, including portable arms, CNC CMMs, laser trackers, scanners, laser projectors, and photogrammetry systems. Reports can be generated using virtually any business presentation format.

Scan Arms

Scanners

Optical Trackers

zCAT

Laser Trackers

CMMs

Open Platform Device Compatibility

NIST

PTB

Verisurf Software complies with guidelines published by the National Institute of Standards and Technology and by the National Metrology Institute of Germany
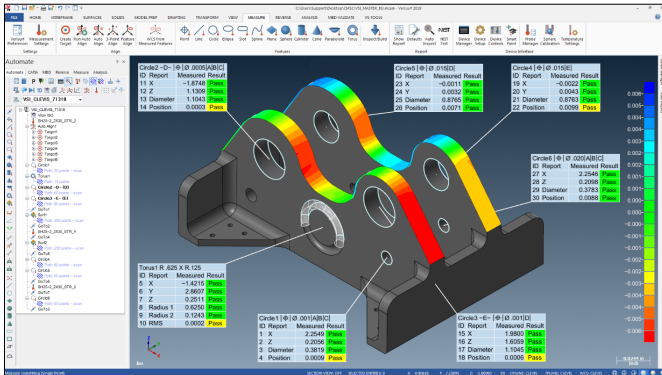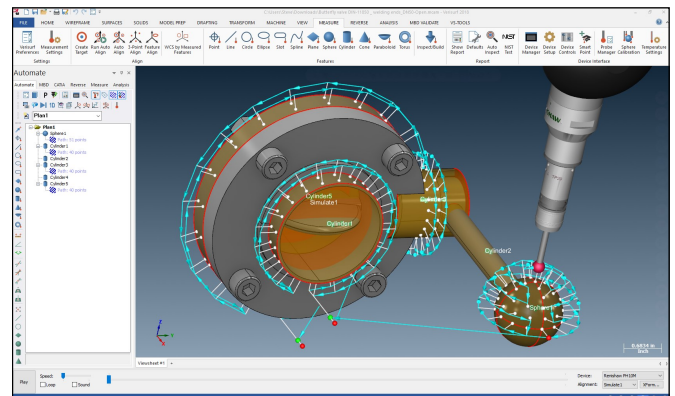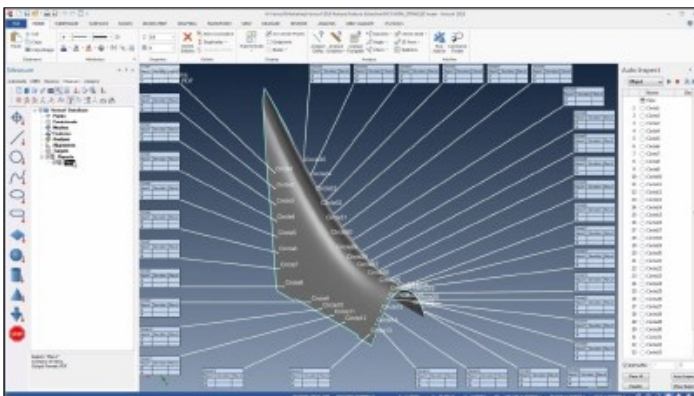
Verisurf CMM Programming and Inspection Suite

Significantly reduce inspection plan setup from hours to minutes with almost no learning curve. Utilize on any fixed CMM in a revolutionary, click-and-build visual interface.

The Verisurf CMM Programming and Inspection Suite includes all of the capabilities you'll need to build, edit, preview, monitor, and re-use inspection programs on your zCAT (or any other) CMM.

The suite includes Verisurf's CAD, MEASURE and AUTOMATE modules and sets a new standard for ease-of-use when authoring automated inspection programs for your CMM. Using the suite's intuitive graphical interface, simply point and click on the model features you want to include in your inspection plan. Enjoy full control over every possible parameter of probe motion. Easily drag, drop, and group inspection steps. You can even simulate full or partial CMM gantry and probe motion prior to running the plan live.

- Full probe motion and indexing control
- Point and click CAD feature recognition
- Drag and drop inspection step resequencing
- Edit probing details on the fly

- Probing pattern tools for any feature or profile
- On-screen probe path and motion visualization
- Add and easily relocate control points
- Create plans for other parts while program runs

Software
POWERED BY VERISURF®

Included in the Verisurf CMM Programming and Inspection Suite:

Verisurf CAD

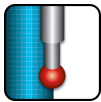The CAD module is at the foundation of all Verisurf measurement solutions.

- Read any CAD file format
- Import, create, and edit associative GD&T
- Interrogate CAD model for dimensions
- Create and edit solid CAD models
- Create colorful reports in multiple formats

Standard formats:

- ACIS
- ASCII
- AutoCAD
- Cadkey
- HPGL
- IGES
- Inventor
- KeyCreator

- Mastercam
- Parasolid
- Postscript
- Rhino 3D
- SolidEdge
- SolidWorks
- SpaceClaim
- STEP

- Stereolithography
- VDA

Optional formats:
- CATIA V4/V5/V6
- Pro/E
- Creo
- UG

Verisurf MEASURE

- Use any portable or stationary measuring device
- Guided, graphical device/part/model alignment
- Instantly analyze and display surface deviations
- Teach mode builds Inspection plans while measuring
- Generate reports In a variety of business formats

Verisurf AUTOMATE

- No programming! Build CMM plans graphically
- Automatic CAD feature recognition
- Display probe paths and simulate probe motion
- Form-based parametric control of probe movement
- Use saved plans on any measurement device

Technical Support Options

Verisurf provides live telephone technical support with experienced inspection, tool building and reverse engineering specialists. We also provide email support and can instantly activate live online technical support for advanced cases with internet connections.

Training Options

Live training classes taught by experienced factory experts skilled with the use and application of Verisurf on CMMs. Classes available on customer site or at Verisurf classroom facilities. Verisurf also offers flexible subscriptions to self-paced, online training through www.verisurfu.com with options for testing resulting in a certificate of completion.

--- **Optional** ---

Verisurf ANALYSIS

- Best fit points and clouds to surfaces and holes
- Automatic probe radius compensation
- Embed annotated, full-color plots in reports
- One click alignment, deviation analysis, and report creation
- Analyze deviations of pointclouds and meshes to CAD

Verisurf REVERSE

- Create manufacturable CAD models from parts
- Build mesh surfaces and solid models
- Easily align multiple, scanned pointcloud objects
- Create CAD geometry from pointcloud or mesh cross sections
- Fully automated CAD surfacing from pointclouds and meshes
- Read STL, OBJ, PLY, VRML, Collada, XYZ, & XYZRGB file formats

System Components

www.zCAT.com

zCAT DCC Coordinate Measuring Machine - 54-950-001-0

Components

- zCAT CMM—4 Axes
- ControlCAT metrology software
  - Easy to use geometric measurement tool
  - Measures manually or DCC. Creates constructions for most common geometrics including:

Plane	Line	Point	Sphere	Angle	PCD
Circle	Slot	Cone	Reference	Cylinder	Cloud

  - Reports actual and nominal information to Excel spreadsheet
  - Program remembers geometry and plays back for repetitive part measurements
- Renishaw TP20 probe
- Battery
- Ethernet communication (Bluetooth optional)
- I++ software interface
- zCAT Wedge excel export software
- Training part and calibration sphere
- Quick start guide
- zCAT dust cover
- Reusable shipping container
- Standard 1 year warranty

Accessories

- 1mm ball probe module - 54-950-200-0
- Vertical only 2mm probe - 54-950-201-0
- Horizontal only 2mm probe - 54-950-202-0
- Calibration service - 54-950-120-0
- 5 year service and calibration contract - 54-950-110-0
- Extended 5 year warranty - 54-950-115-0
- Loc-N-LoadTM Quick-Swap fixture systems
- Fixture No. 1 - 54-950-170-0
- Fixture No. 2 - 54-950-175-0
- Base plate only - 54-950-180-0
- Work holding kit - 54-950-185-0
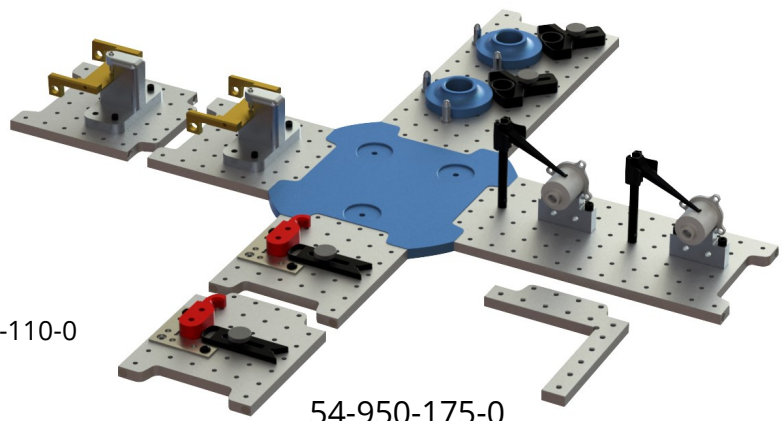
54-950-175-0

zCAT Specifications

Working volume	X and Y 700mm diameter, Z 250mm
Diametral Accuracy (µm)	3.0 + (D / 100mm)
Linear Accuracy (µm)	5.0 + (L / 100mm)
Fixturing accuracy requirement	5mm
Machine speed	User controlled to 150 mmps
Machine air requirement	None required
Construction	Stainless steel for all structural components
Machine power requirements	100-240 V AC±10%, 50-60Hz
Battery life	4 hours with normal use, 3 hours at peak
Power consumption	Peak 15 W, normal 10 W
Manual motion control	User controlled by hand movement of probe
Controller	Onboard PCB provides motion control, error mapping, I++ interface and ControlCAT metrology software
Temperature compensation	Onboard monitoring and compensation
Probe Type	Renishaw TP20 probe
Machine weight	13.6kg, 30lbs
Machine dimensions (W x D x H)	420mm x 172mm x 620mm

Prices & specifications subject to change without notice.