THE COMPLETE SOLUTION FOR DIMENSIONAL INSPECTION IN QUALITY CONTROL APPLICATIONS
ARE QUALITY CONTROL ISSUES IMPACTING YOUR BOTTOM LINE?

Creaform’s comprehensive range of portable and automated 3D optical measurement technologies is specifically dedicated to dimensional inspection for quality control in production environments. It combines the power of optical portable CMMs, 3D scanners, photogrammetry and fully integrated dimensional inspection software.

It is highly efficient at measuring parts of any type of material ranging from 0.1 to 10 meters (0.3 to 33 ft) in size and with an accuracy of up to 0.020 mm (0.0008 in). It is the ideal solution to validate the dimensional conformity and/or quality of production tools, jigs, parts, assemblies, sub-assemblies or final products. Thanks to Creaform’s solutions, you can rely on the precision of your measurements regardless of production environment instabilities—all while avoiding bottlenecks at the CMM.

ADDRESS QUALITY CONTROL CHALLENGES HEAD ON

There’s a Creaform solution for any quality control application you have.

Part Inspections

Dynamic Measurements

Tool and Jig Verifications

Maintenance, Repair and Overhaul
THE PERFECT QUALITY CONTROL SOLUTION FOR EVERY PART SIZE

VXinspect™: Quality control software that takes it to the next level

VXinspect™ is an intuitive and powerful 3D inspection software designed for manufacturing companies conducting first article inspection (FAI) or quality control. Directly integrated into VXelements™, Creaf orm’s 3D software platform and application suite, VXinspect provides the simplest integration of probing, 3D scanning and photogrammetry measurements.
FREE OF ANY RIGID MEASUREMENT SETUP:

THE SYSTEM

DIMENSIONAL INSPECTION: INTEGRATE AND
POWERFUL 3D INSPECTION SOFTWARE.

MULTIPLE-MEASUREMENT MODE: SEAMLESSLY
INTEGRATE WITH VIRTUAL FAST TOUCH-FRIENDLY
AND NON-CONTACT MEASUREMENTS.

VIRTUAL METROLOGY LAB:
CREATE A VIRTUAL METROLOGY LAB ON THE FLOOR OR IN A ROOM FOR COMPLETE COVERAGE OF THE MEASUREMENT AREA.

HANDYSCAN 3D
VERSATILE: 9,578 DIRECT MEASUREMENTS
HIGHER, EXTENSIBLE MEASUREMENT VOLUME:
CAN BE EASILY AND DYNAMICALLY EXTENDED WITHOUT ANY ADDITIONAL ELEMENTS.
HIGHLY ACCURATE MEASUREMENTS: IMPRESSIVE GEOMETRICAL TRUENESS OF THE MEASUREMENT ENVIRONMENT (INSTABILITY, VIBRATIONS, ETC.) OR OPERATOR HAZARDS.

HANDYPROBE NEXT
MAXIMUM FLEXIBILITY: EVERY
C-TRACK® COMES WITH A LIGHT TRACKER, THE HANDYPROBE IS ALSO AVAILABLE AS AN OPTION.

C-TRACK OPTICAL TRACKER:

VIRTUAL METROLOGY LAB:

HANDYSCAN 3D R SERIES
THE ROBOT MOUNTED 3D SCANNER: AUTOMATED PART INSPECTION OR 1000
FEW HUNDRED PARTS PER DAY, DIRECTLY ON YOUR PRODUCTION LINE.

METRASCAN 3D
COMPLETE AND POWERFUL
INSPECTION SOLUTION:

MAXSHOT 3D
COMPLETE AND POWERFUL
INSPECTION SOLUTION:

DIMENSIONAL INSPECTION: INTEGRATE AND
POWERFUL 3D INSPECTION SOFTWARE.

MULTIPLE-MEASUREMENT MODE: SEAMLESSLY
INTEGRATE WITH VIRTUAL FAST TOUCH-FRIENDLY
AND NON-CONTACT MEASUREMENTS.

VIRTUAL METROLOGY LAB:
CREATE A VIRTUAL METROLOGY LAB ON THE FLOOR OR IN A ROOM FOR COMPLETE COVERAGE OF THE MEASUREMENT AREA.

HANDYSCAN 3D
VERSATILE: 9,578 DIRECT MEASUREMENTS
HIGHER, EXTENSIBLE MEASUREMENT VOLUME:
CAN BE EASILY AND DYNAMICALLY EXTENDED WITHOUT ANY ADDITIONAL ELEMENTS.
HIGHLY ACCURATE MEASUREMENTS: IMPRESSIVE GEOMETRICAL TRUENESS OF THE MEASUREMENT ENVIRONMENT (INSTABILITY, VIBRATIONS, ETC.) OR OPERATOR HAZARDS.

HANDYPROBE NEXT
MAXIMUM FLEXIBILITY: EVERY
C-TRACK® COMES WITH A LIGHT TRACKER, THE HANDYPROBE IS ALSO AVAILABLE AS AN OPTION.

C-TRACK OPTICAL TRACKER:

VIRTUAL METROLOGY LAB:

METRASCAN 3D R SERIES
THE ROBOT MOUNTED 3D SCANNER: AUTOMATED PART INSPECTION OR 1000
FEW HUNDRED PARTS PER DAY, DIRECTLY ON YOUR PRODUCTION LINE.

METRASCAN 3D
COMPLETE AND POWERFUL
INSPECTION SOLUTION:

MAXSHOT 3D
COMPLETE AND POWERFUL
INSPECTION SOLUTION:

DIMENSIONAL INSPECTION: INTEGRATE AND
POWERFUL 3D INSPECTION SOFTWARE.

MULTIPLE-MEASUREMENT MODE: SEAMLESSLY
INTEGRATE WITH VIRTUAL FAST TOUCH-FRIENDLY
AND NON-CONTACT MEASUREMENTS.

VIRTUAL METROLOGY LAB:
CREATE A VIRTUAL METROLOGY LAB ON THE FLOOR OR IN A ROOM FOR COMPLETE COVERAGE OF THE MEASUREMENT AREA.

HANDYSCAN 3D
VERSATILE: 9,578 DIRECT MEASUREMENTS
HIGHER, EXTENSIBLE MEASUREMENT VOLUME:
CAN BE EASILY AND DYNAMICALLY EXTENDED WITHOUT ANY ADDITIONAL ELEMENTS.
HIGHLY ACCURATE MEASUREMENTS: IMPRESSIVE GEOMETRICAL TRUENESS OF THE MEASUREMENT ENVIRONMENT (INSTABILITY, VIBRATIONS, ETC.) OR OPERATOR HAZARDS.

HANDYPROBE NEXT
MAXIMUM FLEXIBILITY: EVERY
C-TRACK® COMES WITH A LIGHT TRACKER, THE HANDYPROBE IS ALSO AVAILABLE AS AN OPTION.

C-TRACK OPTICAL TRACKER:

VIRTUAL METROLOGY LAB:
EXPERIENCE
TRUE QUALITY CONTROL
ON YOUR SHOP FLOOR

All of Creaform’s quality control solutions feature innovative and exclusive technologies.

**TRUaccuracy™**
The technology ensures product performance and is insensitive to instabilities found in any shop floor environment.

**TRUportability™**
The technology allows users to inspect parts with unqualified mobility and flexibility—no matter where (lab, factory, off-site, etc.).

**TRUsimplicity™**
The technology makes it possible for operators to take reliable measurements, regardless of their experience levels, thanks to the short learning curve and intuitive use of each system.

Creaform technologies are backed by world-class customer support to ensure seamless integration in your workflow so that you are up and running in no time.
THE ONLY TRULY ACCURATE PORTABLE CMM

The HandyPROBE Next arm-free probing system outperforms traditional portable CMMs on the shop floor. Because it is truly portable and insensitive to instabilities found in every production environment (e.g., part displacement, set-up or CMM instability), it is highly efficient at measuring parts that can’t be moved to a granite or cast iron table. It is also ideal for geometric and surface inspections. HandyPROBE Next can accurately measure parts ranging from 0.2 to 10 meters (0.7 to 33 ft) in size and made of any type of materials.

HandyPROBE Next comes with a C-Track optical tracker providing dynamic referencing capabilities for the highest accuracy and greater, extendable measurement volume—ideal for dimensional inspection on the shop floor or assembly line. The probing system can also be paired with a MetraSCAN 3D scanner to offer high-performance scanning capabilities.

**TRUaccuracy**
- Metrology-grade accuracy, high repeatability and traceable certificate
- Dynamic referencing: accuracy remains insensitive to instabilities
- No accuracy drift over time with the easy field calibration
- Continuous monitoring of accuracy parameters

**TRUportability**
- Lightweight, wireless and arm-free probe for total freedom of movement
- Designed for use on the shop floor
- Handheld and ergonomic design
- Easy setup adjustments, flexible working volume

**TRUsimplicity**
- No rigid setup required: part can be moved freely
- Automatic alignment for repetitive inspections
- Short learning curve and intuitive operation
- Optional 3D scanning capabilities
- Intuitive software
THE COMPLETE METROLOGY-GRADE 3D SCANNER

The MetraSCAN 3D is the most complete 3D scanning solution for metrology-grade measurements and inspection. Truly portable and insensitive to changes found in shop-floor environments (e.g., vibrations, part displacement, set-up or CMM instability), it is highly efficient at measuring parts that can’t be moved to a granite or cast iron table. By significantly increasing the reliability, speed and versatility of the measurement process, it outperforms scanners that are mounted on traditional portable CMMs on the shop floor. The MetraSCAN 3D is the best solution for geometrical and freeform surface inspections on parts ranging from 0.2 to 10 meters (0.7 to 33 ft) in size, regardless of the type of material, color or reflectivity.

Paired with the C-Track optical tracker that enables dynamic referencing, automatic alignment and continuous monitoring of parameters, it provides the most accurate measurements in the lab and on the shop floor. Offering optional probing capabilities with the addition of the HandyPROBE, Next, users can harness the power of both 3D scanning and portable optical CMMs for a streamlined inspection process.

TRUaccuracy
- Metrology-grade accuracy, high repeatability and traceable certificate
- Dynamic referencing: accuracy insensitive to instabilities
- No accuracy drift over time with the easy field calibration
- Continuous monitoring of accuracy parameters

TRUportability
- Lightweight and arm-free scanner for total freedom of movement
- Designed for use on the shop floor
- Handheld and ergonomic design
- Easy setup adjustments, flexible working volume

TRUsimplicity
- Large scanning area and high measurement rate
- No rigid setup required: part can be moved freely
- Automatic alignment for repetitive inspections
- Short learning curve and intuitive operation
- 3D scanning of any type of surface (black, multicolored, shiny)
- Real-time visualization
- Optional probing capabilities

Part of the MetraSCAN 3D R-Series, the robot-mounted optical CMM 3D scanning system is a fast and accurate scanning solution designed for 3D automated inspection of parts on the production line and on the shop floor.
THE TRULY PORTABLE METROLOGY-GRADE 3D SCANNER

HandySCAN 3D is a new generation of metrology-grade handheld portable 3D laser scanners. It is the fastest on the market with the highest measurement rate and accuracy available—all while remaining very simple to use. Its self-positioning capabilities and portability allow unmatched freedom of movement. It is the perfect solution when you need to reach confined areas or measure smaller parts ranging from 0.1 to 4 meters (0.3 to 13 ft) in size, regardless of complexity, material or color. HandySCAN 3D provides consistent and repeatable results across all work conditions or environments, enabling you to reduce turnaround times and increase profitability.

**TRUaccuracy**
- Metrology-grade measurements
- Accuracy in real-life conditions
- No rigid setup required
- Self-positioning

**TRUportability**
- Stand-alone device
- On-the-go scanning
- Lightweight and small
- Easy access to confined spaces

**TRUsimplicity**
- User-friendly
- Quick workflow integration and setup
- Automatic mesh output
- Real-time visualization
YOUR BEST SHOT AT LARGE-SCALE PROJECTS

The MaxSHOT 3D portable optical coordinate measuring system is a complementary product that provides the high data accuracy and speed of photogrammetry to a wide range of applications already possible with Creafom technologies, especially when it comes to large-scale projects and parts from 2 to 10 m. Based on a simple series of 2D photos, the MaxSHOT 3D makes it possible to quickly and easily generate a highly accurate positioning model of your parts, which significantly increases 3D measurement accuracy. Thanks to its laser-projected and software feedback, users of any level can use the MaxSHOT 3D!

TRUaccuracy
- Metrology-grade measurements: Accuracy of up to 0.015 mm
- Volumetric accuracy: 0.015 mm/m
- Average deviation: 0.005 mm/m

TRUportability
- Shop-floor compatible: Can be used in any production environment
- Bring it anywhere: Everything fits into one portable carrying case
- Highly ergonomic design: Developed specifically for photogrammetry

TRUsimplicity
- Live feedback on measurement quality: Laser projected frame with GO/NO-GO feedback
- Software diagnostics: VXelements guides users in troubleshooting measurement quality
- Intuitive controls and operation: Experience ultra-short learning curves
- Multi-function buttons: Easily interact with the software
DIMENSIONAL INSPECTION SOFTWARE MODULE

Directly integrated into VXelements™, Creaform’s 3D software platform and application suite, VXinspect provides the simplest integration of probing, 3D scanning and photogrammetry measurements. VXinspect is an intuitive and powerful 3D inspection software that is designed for manufacturing companies conducting first article inspection (FAI) or quality control in manufacturing process.

The software features all functionalities required by pre-production control or when setting up a high-efficiency measurement sequence to control multiples parts. With its intuitive interface, it is the best solution for all inspection workflows. You won’t have to compromise on measurement quality or GD&T requirements.

- CAD import
- Multiple-measurement mode
- Alignment
- Geometric dimensioning and tolerancing (GD&T)

VXELEMENTS: CREAFORM’S 3D SOFTWARE PLATFORM AND APPLICATION SUITE

VXelements™, Creaform’s 3D software platform, powers our entire fleet of 3D scanning and measurement technologies. It gathers all the essential elements and tools into a user-friendly, simplified and sleek working environment.

VXmodel: Scan-to-CAD software module

VXmodel™ is a post-treatment software that directly integrates into VXelements. It allows for the finalization of 3D scan data to use directly in any 3D printing or CAD software. VXmodel provides the simplest and fastest path from 3D scans to your computer-aided design or additive manufacturing workflow.

VXtrack: Dynamic tracking software module

Add dynamic tracking provided by the VXtrack™ software module, a key component of the TRUaccuracy technology, which guarantees the highest level of accuracy there is.

VXremote: Remote access software application

VXremote™ improves your efficiency on the shop floor by providing fast and easy remote access to VXelements. It offers quick activation and set-up and requires no hardware or server to install or maintain. You can have its data acquisition functionalities at your fingertips.
EXTEND THE POWER OF YOUR INSPECTION PROCESS

Creaform Shop-Floor Workstation
The Creaform Shop-Floor Workstation is designed to facilitate mobility across the shop floor and increase reliability by protecting your scanning and probing systems while still in operation or when stored (two stands with C-Tracks can fit in the workstation).

Creaform C-Track Shop-Floor Stand
The Creaform C-Track Shop-Floor Stand, available as stand-alone or bundled with the workstation, increases the stability of the C-Track while still in operation and facilitates mobility around the part without the risk of injury.

Virtual Metrology Lab
Take full advantage of the C-Link functionality by connecting up to 4 C-Tracks in a single network to create a virtual metrology lab. This dimensional inspection solution, designed for metrology lab applications, enables seamless probing and 3D scanning operations without having to move the C-Track optical tracker around.

Optical Probing Accessories
Use your MaxSHOT 3D or C-Track as an optical probing device and get direct 3D measurements for various types of features: hole location, edge location, surface points, etc.

CREAFORM CUSTOMER CARE
Creaform is committed to offering first-class customer service so that you can get the most out of your system.

Our multilingual team of product specialists will provide you with assistance to answer your immediate needs. Our fleet of leading-edge calibration tools in our service centers gives you local access to faster maintenance service and repair.

Be sure to subscribe to the Customer Care Program to take advantage of worry-free maintenance and global repair coverage for all of your Creaform hardware and software. Whether you need to access our latest software releases and knowledge base or require a loaner unit while your device is being serviced, we have a plan tailored to your needs. Gain peace of mind knowing your equipment will get even better with time.

CREAFORM METROLOGY AND ENGINEERING SERVICES
Convinced of the quality and possibilities of the Creaform technologies, but not quite yet ready to commit and buy? Know that Creaform offers a wide range of metrology and engineering services. Our experts have earned a worldwide reputation for effectiveness and professionalism. Whether you need their help to perform 3D scanning, quality control, reverse engineering, FEA / CFD simulations, product and tool development or training services, you can count on their commitment to meet your requirements with responsiveness and adaptability.
<table>
<thead>
<tr>
<th>PART SIZE RANGE (recommended)</th>
<th>HandyPROBE Next™</th>
<th>HandyPROBE Next™</th>
<th>Elite</th>
<th>MetraSCAN 350™</th>
<th>MetraSCAN 350™</th>
<th>Elite</th>
<th>MetraSCAN 750™</th>
<th>MetraSCAN 750™</th>
<th>Elite</th>
<th>HandySCAN 300™</th>
<th>HandySCAN 700™</th>
<th>MaxSHOT 3D™</th>
<th>MaxSHOT Next™</th>
<th>Elite</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACCUARITY (1)</strong></td>
<td>Up to 0.025 mm (0.0010 in)</td>
<td>Up to 0.020 mm (0.0008 in)</td>
<td>Up to 0.040 mm (0.0016 in)</td>
<td>Up to 0.030 mm (0.0012 in)</td>
<td>Up to 0.040 mm (0.0016 in)</td>
<td>Up to 0.030 mm (0.0012 in)</td>
<td>Up to 0.015 mm (0.0006 in)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SINGLE POINT REPEATABILITY (2)</strong></td>
<td>0.090 mm (0.0035 in)</td>
<td>0.044 mm (0.0017 in)</td>
<td>0.096 mm (0.0037 in)</td>
<td>0.064 mm (0.0025 in)</td>
<td>0.098 mm (0.0038 in)</td>
<td>0.064 mm (0.0025 in)</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>VOLUMETRIC ACCURACY (3)</strong></td>
<td>0.096 mm (0.0037 in)</td>
<td>0.064 mm (0.0025 in)</td>
<td>0.122 mm (0.0048 in)</td>
<td>0.078 mm (0.0031 in)</td>
<td>0.122 mm (0.0048 in)</td>
<td>0.078 mm (0.0031 in)</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>**VOLMETRIC ACCURACY WITH MaxSHOT NEXT™</td>
<td>Elite (4)**</td>
<td>N/A</td>
<td>N/A</td>
<td>0.060 mm + 0.015 mm/m (0.0003 in + 0.0006 in/ft)</td>
<td>0.044 mm + 0.015 mm/m (0.0003 in + 0.0006 in/ft)</td>
<td>0.060 mm + 0.015 mm/m (0.0003 in + 0.0006 in/ft)</td>
<td>0.044 mm + 0.015 mm/m (0.0003 in + 0.0006 in/ft)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RESOLUTION</strong></td>
<td>0.050 mm (0.0020 in)</td>
<td>0.100 mm (0.0039 in)</td>
<td>0.050 mm (0.0020 in)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SCANNING AREA</strong></td>
<td>225 x 250 mm (8.8 x 9.8 in)</td>
<td>275 x 250 mm (10.8 x 9.8 in)</td>
<td>225 x 250 mm (8.8 x 9.8 in)</td>
<td>275 x 250 mm (10.8 x 9.8 in)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>STAND-OFF DISTANCE</strong></td>
<td>N/A</td>
<td>300 mm (11.8 in)</td>
<td>300 mm (11.8 in)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DEPTH OF FIELD</strong></td>
<td>200 mm (7.9 in)</td>
<td>250 mm (9.8 in)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LIGHT SOURCE</strong></td>
<td>3 laser crosses</td>
<td>7 laser crosses (+ 1 extra line)</td>
<td>3 laser crosses</td>
<td>7 laser crosses (+ 1 extra line)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LASER CLASS</strong></td>
<td>2M (eye safe)</td>
<td>2M (eye safe)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MEASUREMENT RATE</strong></td>
<td>80 measurements/s</td>
<td>205,000 measurements/s</td>
<td>480,000 measurements/s</td>
<td>205,000 measurements/s</td>
<td>480,000 measurements/s</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>WEIGHT</strong></td>
<td>0.5 kg (1.1 lb)</td>
<td>0.7 kg (1.5 lb)</td>
<td>0.85 kg (1.9 lb)</td>
<td>0.79 kg (1.75 lb)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DIMENSIONS (LxWxH)</strong></td>
<td>68 x 157 x 340 mm (2.7 x 6.2 x 13.4 in)</td>
<td>1031 x 181 x 148 mm (40.6 x 7.1 x 5.8 in)</td>
<td>289 x 225 x 296 mm (11.4 x 9.3 x 11.7 in)</td>
<td>77 x 122 x 294 mm (3.0 x 4.8 x 11.6 in)</td>
<td>104 x 180 x 115 mm (4.1 x 7.1 x 4.5 in)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) Typical value for diameter measurement on a calibrated sphere artefact.
(2) Based on the ASME B89.4.42 standard. The probe of the HandyPROBE Next is located within a conical socket. Individual points are measured from multiple approach directions. Each individual point measurement is analyzed as a range of deviations in X, Y, Z (value = range/2). Performance of the HandyPROBE Next is dependent on the working volume in which the measurement is made: 9.1 m$^3$ (320 ft$^3$) or 16.6 m$^3$ (586 ft$^3$).
(3) Based on the ASME B89.4.42 standard. Performance of the HandyPROBE Next is dependent on the working volume in which the measurement is made: 9.1 m$^3$ (320 ft$^3$) or 16.6 m$^3$ (586 ft$^3$).
(4) The volumetric accuracy of the system when using a MaxSHOT 3D cannot be superior to the default volumetric accuracy of the chosen system and model.
(5) Based on the VDI/VDE 2634 part 1 standard.