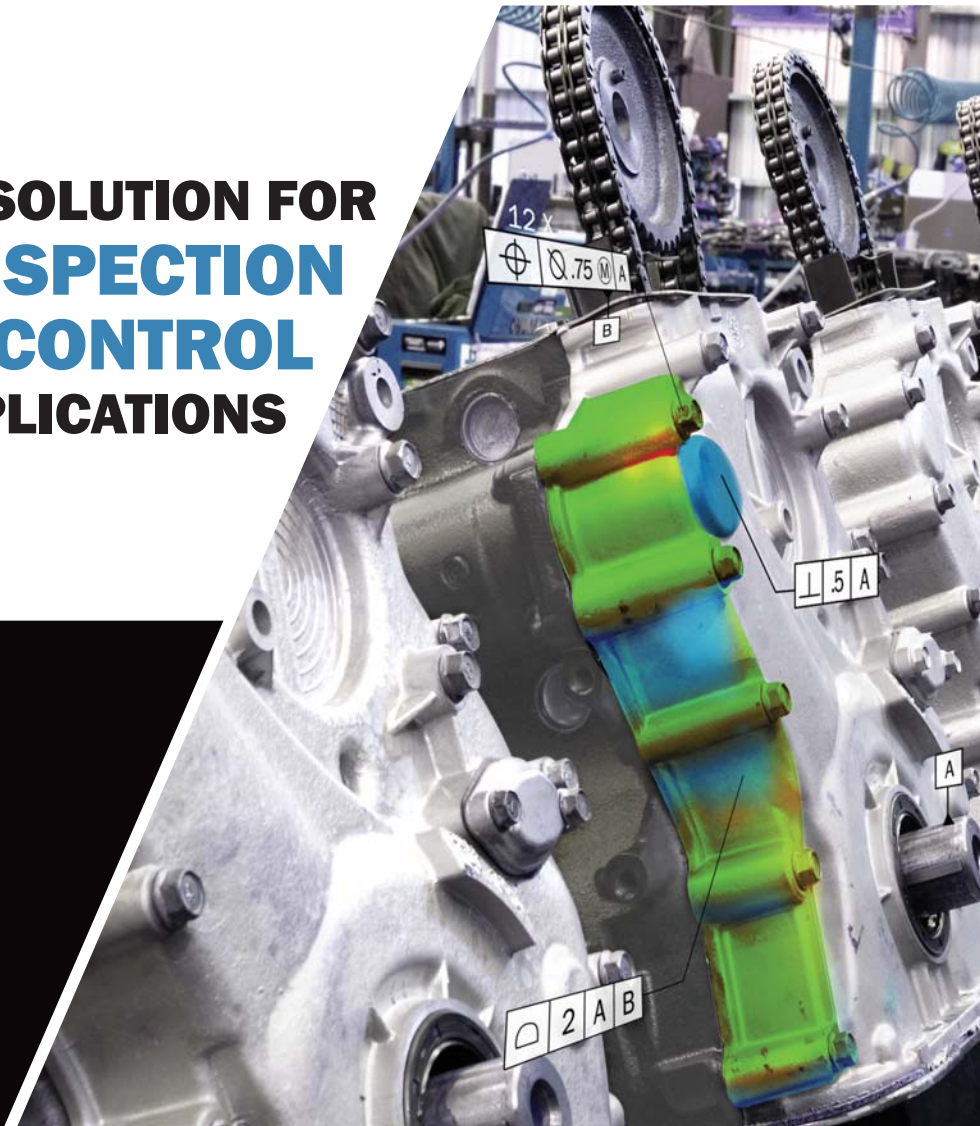




**THE COMPLETE SOLUTION FOR
DIMENSIONAL INSPECTION
IN QUALITY CONTROL
APPLICATIONS**





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



**HANDY
SCAN 3D**

3D SCANNING

The truly portable metrology-grade 3D scanner that delivers highly accurate measurements.



**HANDY
PROBE**

PROBING

The only truly accurate portable CMM with greater, extendable measurement volume.



**METRA
SCAN 3D**

3D SCANNING

The most accurate manual or automated 3D scanning solution, whether in a lab or on the shop floor.



**MAX
SHOT 3D**

PHOTOGRAMMETRY

The easiest way to integrate the accuracy of photogrammetry within your inspection projects.

0.1 m (0.3 ft)

1 m (3 ft)

10 m (33 ft)

HandySCAN 3D™
Accuracy up to 0.030 mm
(0.0012 in)

HandyPROBE™
Volumetric accuracy of 0.064 mm
(0.0025 in)

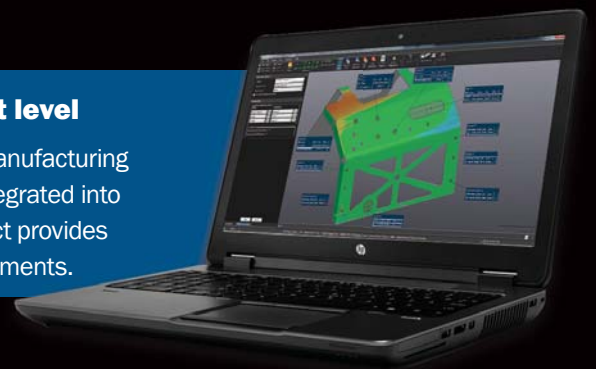
MetraSCAN 3D™
Volumetric accuracy of 0.064 mm
(0.0025 in)

+
MaxSHOT 3D™
Accuracy of
0.015 mm/m
(0.00018 in/ft)

VXinspect™

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™, Creaform's 3D software platform and application suite, VXinspect provides the simplest integration of probing, 3D scanning and photogrammetry measurements.

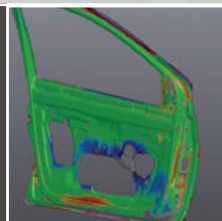


MetraSCAN 3D R-Series

THE ROBOT-MOUNTED 3D SCANNER: AUTOMATED PART INSPECTION OF UP TO A FEW HUNDRED PARTS PER DAY, DIRECTLY ON YOUR PRODUCTION LINE.

DIMENSIONAL INSPECTION: INTUITIVE AND POWERFUL 3D INSPECTION SOFTWARE.

MULTIPLE-MEASUREMENT MODE: SEAMLESSLY INTEGRATE BOTH SINGLE-POINT TOUCH PROBE AND NON-CONTACT MEASUREMENTS.



CREAFORM SHOP-FLOOR WORKSTATION: INCORPORATES ALL THE TOOLS YOU NEED IN ONE UNIT DESIGNED FOR REAL-LIFE SHOP-FLOOR CONDITIONS.

MAXIMUM FLEXIBILITY: EVERY C-TRACK™ COMES WITH A LIGHT TRIPOD. THE SHOP-FLOOR STAND IS ALSO AVAILABLE AS AN OPTION.

MaxSHOT 3D

INSTANT FEEDBACK ON IMAGE ACCURACY: LASER-PROJECTED FRAME WITH A GO/NO-GO VISUAL FEEDBACK WILL LET USERS, OF ANY LEVEL, KNOW IF THE IMAGE WOULD BE GOOD OR BAD.

IMAGE DIAGNOSTICS TO IMPROVE RESULTS: EASY-TO-UNDERSTAND SOFTWARE DIAGNOSTICS TO HELP USERS CARRY OUT CORRECTIVE ACTIONS BEFORE TAKING MEASUREMENTS.



MetraSCAN 3D

COMPLETE AND POWERFUL INSPECTION SOLUTION: ALLOWS GEOMETRICAL AND FREEFORM INSPECTIONS, COMBINING PROBING AND 3D SCANNING ON THE SAME SYSTEM.



HandyPROBE Next

GREATER, EXTENDABLE MEASUREMENT VOLUME: CAN BE EASILY AND DYNAMICALLY EXTENDED WITHOUT ANY LOSS OF ACCURACY OR ANY CONVENTIONAL LEAPFROGGING.

HIGHLY ACCURATE MEASUREMENTS: IMPRESSIVE ACCURACY REGARDLESS OF THE MEASUREMENT ENVIRONMENT (INSTABILITY, VIBRATIONS, ETC.) OR OPERATOR SKILLS.



HandySCAN 3D

VERSATILE: VIRTUALLY LIMITLESS 3D SCANNING—NO MATTER THE PART SIZE, COMPLEXITY, MATERIAL OR COLOR.

ON-THE-GO SCANNING: TAKE IT FROM PLACE TO PLACE OR USE IT IN-HOUSE OR ON-SITE.



FREE OF ANY RIGID MEASUREMENT SETUP: THE SYSTEM FEATURES DYNAMIC REFERENCING CAPABILITIES USING OPTICAL REFLECTORS PLACED ON THE PART ALLOWING USERS TO MOVE THE OBJECT AND THE SYSTEM ANY WAY THEY WANT DURING MEASUREMENT.

AUTOMATIC ALIGNMENT: THE USE OF OPTICAL REFLECTORS ALLOWS FOR THE PROBING OF MANY IDENTICAL PARTS IN RAPID SUCCESSION WITHOUT THE NEED TO REALIGN.



VIRTUAL METROLOGY LAB: CREATE A VIRTUAL METROLOGY LAB BY NETWORKING 2 TO 4 C-TRACKS (C-LINK™ FUNCTIONALITY) FOR COMPLETE COVERAGE OF THE MEASUREMENT AREA.

C-TRACK OPTICAL TRACKER: FITTED WITH HIGH-QUALITY OPTICS AND SPECIALIZED LIGHTING, IT ENABLES CONTINUOUS TRACKING OF TARGETS, WHICH PROVIDE INSTANT AND RELIABLE DETECTION AND TRACKING OF THE PART.

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 unequalled 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.



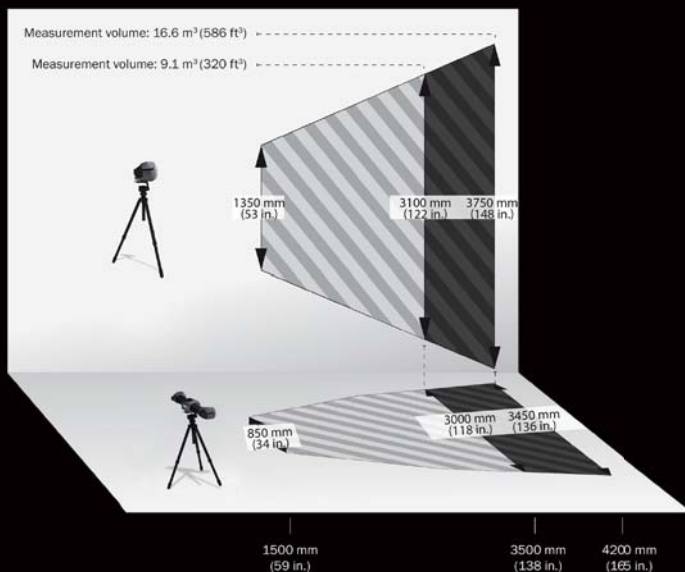
reddot award 2016
best of the best

PROBING

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

**HANDY
PROBE**



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best of the best

3D SCANNING

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.



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.

METRA
SCAN 3D



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



reddot award 2015
winner

3D SCANNING

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

**HANDY
SCAN 3D**



reddot award 2017
winner

PHOTOGRAMMETRY

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 Creaform 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

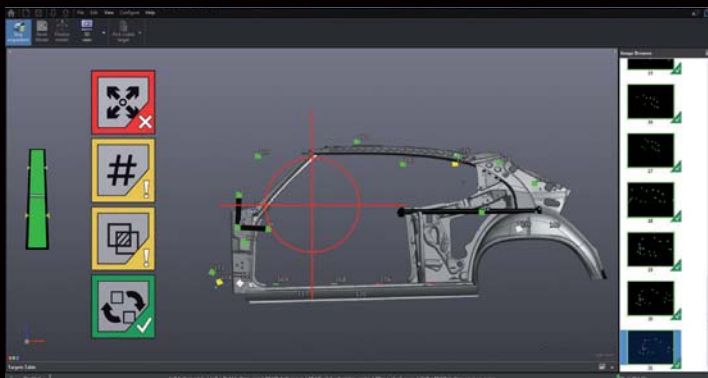
- Metrology-grade measurements: Accuracy of up to 0.015 mm
- Volumetric accuracy: 0.015 mm/m
- Average deviation: 0.005 mm/m

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



**MAX
SHOT 3D**

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)

VXinspect™

SOFTWARE



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.

TECHNICAL SPECIFICATIONS

			HandyPROBE™		MetraSCAN 3D™				HandySCAN 3D™		MaxSHOT 3D™
			HandyPROBE Next™	HandyPROBE Next™ Elite	MetraSCAN 350™	MetraSCAN 350™ Elite	MetraSCAN 750™	MetraSCAN 750™ Elite	HandySCAN 300™	HandySCAN 700™	MaxSHOT Next™ Elite
PART SIZE RANGE (recommended)			0.2–6 m (0.7–20 ft)		0.2–6 m (0.7–20 ft)				0.1–4 m (0.3–13 ft)		2–10 m (7–33 ft)
ACCURACY ⁽¹⁾			Up to 0.025 mm (0.0010 in)	Up to 0.020 mm (0.0008 in)	Up to 0.040 mm (0.0016 in)		Up to 0.030 mm (0.0012 in)		Up to 0.040 mm (0.0016 in)	Up to 0.030 mm (0.0012 in)	Up to 0.015 mm (0.0006 in)
SINGLE POINT REPEATABILITY ⁽²⁾ (based on working volume)	9.1 m³ (320 ft³)	0.060 mm (0.0024 in)	0.044 mm (0.0017 in)	N/A				N/A		N/A	
	16.6 m³ (586 ft³)	0.088 mm (0.0035 in)	0.058 mm (0.0023 in)								
VOLUMETRIC ACCURACY ⁽³⁾ (based on working volume)	9.1 m³ (320 ft³)	0.086 mm (0.0034 in)	0.064 mm (0.0025 in)	0.086 mm (0.0034 in)	0.064 mm (0.0025 in)	0.086 mm (0.0034 in)	0.064 mm (0.0025 in)	N/A		N/A	
	16.6 m³ (586 ft³)	0.122 mm (0.0048 in)	0.078 mm (0.0031 in)	0.122 mm (0.0048 in)	0.078 mm (0.0031 in)	0.122 mm (0.0048 in)	0.078 mm (0.0031 in)				
VOLUMETRIC ACCURACY (based on part size)			N/A		N/A				0.020 mm + 0.100 mm/m (0.0008 in + 0.0012 in/ft)	0.020 mm + 0.060 mm/m (0.0008 in + 0.0007 in/ft)	0.015 mm/m (0.00018 in/ft) ⁽⁵⁾
VOLUMETRIC ACCURACY WITH MaxSHOT NEXT™ ELITE ⁽⁴⁾			0.060 mm + 0.015 mm/m (0.0024 in + 0.00018 in/ft)	0.044 mm + 0.015 mm/m (0.0017 in + 0.00018 in/ft)	0.060 mm + 0.015 mm/m (0.0024 in + 0.00018 in/ft)	0.044 mm + 0.015 mm/m (0.0017 in + 0.00018 in/ft)	0.060 mm + 0.015 mm/m (0.0024 in + 0.00018 in/ft)	0.044 mm + 0.015 mm/m (0.0017 in + 0.00018 in/ft)	0.020 mm + 0.015 mm/m (0.0008 in + 0.00018 in/ft)		N/A
RESOLUTION			N/A		0.050 mm (0.0020 in)				0.100 mm (0.0039 in)	0.050 mm (0.0020 in)	
SCANNING AREA					225 x 250 mm (8.8 x 9.8 in)		275 x 250 mm (10.8 x 9.8 in)		225 x 250 mm (8.8 x 9.8 in)	275 x 250 mm (10.8 x 9.8 in)	
STAND-OFF DISTANCE					300 mm (11.8 in)				300 mm (11.8 in)		
DEPTH OF FIELD					200 mm (7.9 in)				250 mm (9.8 in)		
LIGHT SOURCE					3 laser crosses		7 laser crosses (+ 1 extra line)		3 laser crosses	7 laser crosses (+ 1 extra line)	
LASER CLASS					2M (eye safe)				2M (eye safe)		2M (eye safe)
MEASUREMENT RATE			80 measurements/s		205,000 measurements/s		480,000 measurements/s		205,000 measurements/s	480,000 measurements/s	N/A
WEIGHT			Probe: 0.5 kg (1.1 lb) C-Track: 5.7 kg (12.5 lb)		Scanner: 1.38 kg (3.0 lb) C-Track: 5.7 kg (12.5 lb)				0.85 kg (1.9 lb)		0.79 kg (1.75 lb)
DIMENSIONS (LxWxH)			Probe: 68 x 157 x 340 mm (2.7 x 6.2 x 13.4 in) C-Track: 1031 x 181 x 148 mm (40.6 x 7.1 x 5.8 in)		289 x 235 x 296 mm (11.4 x 9.3 x 11.7 in)				77 x 122 x 294 mm (3.0 x 4.8 x 11.6 in)		104 x 180 x 115 mm (4.1 x 7.1 x 4.5 in)
OPERATING TEMPERATURE RANGE			5–40°C (41–104°F)								
OPERATING HUMIDITY RANGE (non-condensing)			10–90%								
CERTIFICATIONS			EC Compliance (Electromagnetic Compatibility Directive, Low Voltage Directive, Radio Equipment and Telecommunications Equipment), compatible with rechargeable batteries (when applicable), IP50, WEEE								

(1) Typical value for diameter measurement on a calibrated sphere artefact.

(2) Based on the ASME B89.4.22 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 m³ (320 ft³) or 16.6 m³ (586 ft³).

(3) Based on the ASME B89.4.22 standard. Performance is assessed with traceable length artefacts by measuring these at different locations and orientations within the working volume of the C-Track (value = maximum deviation). Performance of the HandyPROBE Next and

MetraSCAN 3D is dependent on the working volume in which the measurement is made: 9.1 m³ (320 ft³) or 16.6 m³ (586 ft³).

(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.



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Authorized Distributor

HandySCAN 3D, HandySCAN 300, HandySCAN 700, MetraSCAN 3D, MetraSCAN 350, MetraSCAN 750, HandyPROBE, HandyPROBE Next, C-Track, C-Link, MaxSHOT 3D, MaxSHOT Next | Elite, TRUaccuracy, TRUportability, TRUsimplicity, VXelements, VXinspect, VXmodel, VXtrack, VXremote and their respective logos are trademarks of Creaform Inc. © Creaform Inc. 2017. All rights reserved. V2