NEW

HandySCAN3D™

THE TRULY PORTABLE METROLOGY-GRADE 3D SCANNERS

reddot award 2019
winner

CREAFORM

AMETEK®
ULTRA PRECISION TECHNOLOGIES

HandySCAN3D™

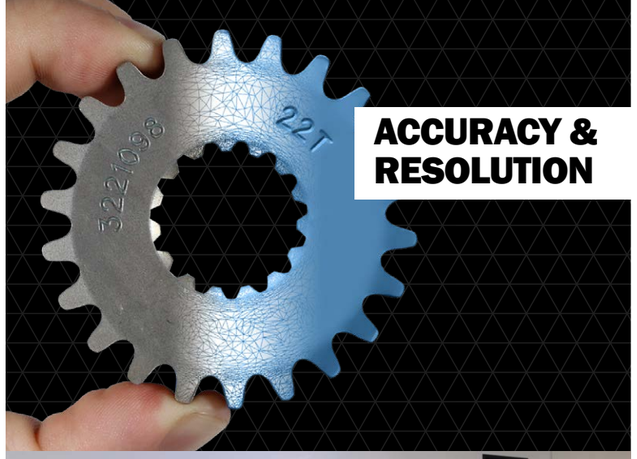
WHEN ACCURACY MEETS VERSATILITY AND PORTABILITY

The HandySCAN 3D™ line-up is a proven and trusted patented metrology-grade 3D scanner. Optimized to meet the needs of design, manufacturing and metrology professionals, it provides the most effective and reliable way to acquire accurate 3D measurements of physical objects anywhere.

Portable, accurate and simple to use, the HandySCAN 3D features unmatched speed that captures high-quality measurements. Since it performs regardless of environment changes or part movement, it represents the ideal tool for quality assurance and product development applications.

- **ACCURACY OF 0.025 mm**
- **SCAN-TO-MESH IN SECONDS**
- **CERTIFIED ISO 17025**
- **WORLDWIDE SUPPORT**
- **LARGE SCANNING AREA**
- **PATENTED TECHNOLOGY**

1. **High-performance optics**
   Optimal scan quality
2. **Extra single line**
   Easy capture of hard-to-reach areas
3. **Blue laser technology**
   High resolution capability
4. **Stand-off distance color indicator**
   Maximizes scanning performance
5. **Multifunction buttons**
   Quick access to frequently used software functionalities
6. **Highly ergonomic and sleek design**
   Provides outstanding user experience



ACCURACY & RESOLUTION

The HandySCAN 3D delivers accurate, high-resolution and repeatable results, regardless of the measurement setup quality and no matter the user experience. Featuring dynamic referencing, both the scanner and part can move during measurement and still provide an accurate and high-quality scan.

Accuracy
0.025 mm

Volumetric accuracy
0.020 + 0.040 mm/m

Reliable acceptance test
Based on VDI/VDE 2634 part 3 standard
ISO 17025 accredited laboratory

High resolution for fine details

PORTABILITY

This handheld 3D scanner is a stand-alone device that does not require a tripod nor any external tracking device to operate. Fitting in a small suitcase, it can be brought anywhere and used in any environmental conditions without affecting its performance.

Lightweight
0.94 kg

Dynamic referencing
Both the object and scanner can be moved freely while scanning

Fits into a suitcase

Take it anywhere you need

SIMPLICITY & VERSATILITY

With its user-friendly interface and ergonomic design, the HandySCAN 3D measurement solution has a short learning curve. Highly versatile, it can be used to scan various object sizes and surface types in real time—all with the same device.

Plug and play

Simple user interface and real-time mesh visualization

Single device fits all needs

Masters complex and difficult surfaces

SPEED

The HandySCAN 3D scanner features multiple laser crosses and an automatic mesh generation, enabling a faster workflow from the set-up to the scan and then to the file!

Instant mesh
Ready-to-use files

High measurement rate
Up to 1,300,000 measurements/s

11 laser crosses scanning area

Quick set-up
Up and running in less than 2 minutes

TECHNICAL SPECIFICATIONS

Innovating technology that provides *TRUaccuracy*™, *TRUsimplicity*™, *TRUportability*™ as well as real speed to your metrology-grade applications.

	HandySCAN 307™	HandySCAN BLACK™	HandySCAN BLACK™|Elite
ACCURACY (1)	Up to 0.040 mm	0.035 mm	0.025 mm
VOLUMETRIC ACCURACY (2) (based on part size)	0.020 mm + 0.100 mm/m	0.020 mm + 0.060 mm/m	0.020 mm + 0.040 mm/m
VOLUMETRIC ACCURACY WITH MaxSHOT Next™|Elite (3)	0.020 mm + 0.015 mm/m		
MEASUREMENT RESOLUTION	0.100 mm	0.025 mm	
MESH RESOLUTION	0.200 mm	0.100 mm	
MEASUREMENT RATE	480,000 measurements/s	800,000 measurements/s	1,300,000 measurements/s
LIGHT SOURCE	7 red laser crosses	7 blue laser crosses	11 blue laser crosses (+ 1 extra line)
LASER CLASS	2M (eye safe)		
SCANNING AREA	275 x 250 mm	310 x 350 mm	
STAND-OFF DISTANCE	300 mm		
DEPTH OF FIELD	250 mm		
PART SIZE RANGE (recommended)	0.1–4 m	0.05–4 m	
SOFTWARE	VXelements		
OUTPUT FORMATS	.dae, .fbx, .ma, .obj, .ply, .stl, .txt, .wrl, .x3d, .x3dz, .zpr, .3mf		
COMPATIBLE SOFTWARE	3D Systems (Geomagic® Solutions), InnovMetric Software (PolyWorks), Dassault (CATIA V5 and SOLIDWORKS), PTC (Creo), Siemens (NX and Solid Edge), Autodesk (Inventor, Alias, 3ds Max, Maya, Softimage)		
WEIGHT	0.85 kg	0.94 kg	
DIMENSIONS (LxWxH)	77 x 122 x 294 mm	79 x 142 x 288 mm	
CONNECTION STANDARD	1 X USB 3.0		
OPERATING TEMPERATURE RANGE	5–40°C		
OPERATING HUMIDITY RANGE (non-condensing)	10–90%		
CERTIFICATIONS	EC Compliance (Electromagnetic Compatibility Directive, Low Voltage Directive), compatible with rechargeable batteries (when applicable), IP50, WEEE		
PATENTS	CA 2,600,926, CN 200680014069.3, US 7,912,673, CA 2,656,163, EP (FR, UK, DE) 1,877,726, AU 2006222458, US 8,032,327, JP 4,871,352, US 8,140,295, EP (FR, UK, DE) 2,278,271, EP (FR, UK, DE) 2,230,482, IN 266,573, US 7,487,063, CA 2,529,044, EP (FR, UK, DE) 3,102,908, US 15/114,563, CN 201580007340X		

(1) HandySCAN BLACK and HandySCAN BLACK|Elite (ISO 17025 accredited): Based on VDI/VDE 2634 part 3 standard. Probing error performance is assessed with diameter measurements on traceable sphere artefacts.
HandySCAN 307: Typical value for diameter measurement on a calibrated sphere artefact.

(2) HandySCAN BLACK and HandySCAN BLACK|Elite (ISO 17025 accredited): Based on VDI/VDE 2634 part 3 standard. Sphere-spacing error is assessed with traceable length artefacts by measuring these at different locations and orientations within the working volume.
HandySCAN 307: Value for spheres spacing measurement on a calibrated length artefact.

(3) 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.

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