



HandySCAN BLACK™|Elite Limited

reddot award 2019
winner**WHEN YOU ARE LOOKING FOR THE MOST ACCURATE
PORTABLE 3D MEASUREMENT SOLUTION ON THE MARKET**

The HandySCAN BLACK|Elite Limited has been designed specifically to address the needs of the most demanding dimensional metrology professionals in the industrial and manufacturing sectors. It can tackle any quality control or product development applications where tolerances require increased accuracy, while remaining portable and flexible.

Creaform has been able to pinpoint and identify key factors, from the assembly methods to a dedicated calibration cell, that allows for optimized manufacturing and calibration processes. Combined with the HandySCAN 3D|BLACK Series integrated photogrammetry capabilities, this enables Creaform's flagship metrology-grade 3D scanners to deliver **12 microns accuracy, setting a new industry standard for handheld devices.**

**ACCURACY
OF 0.012 mm (0.0005 in)**

Powered by Smart resolution that highlights fine details and high curvature

Integrated photogrammetry

ISO 17025 accredited calibration, based on VDI/VDE 2634 part 3 standard

PORTABILITY

Lightweight, take it anywhere you need

It is perfect for on the go scanning in any environmental conditions

SIMPLICITY & VERSATILITY

Scan various object sizes and surface types in real-time—all with the same device

Ideal for Creaform application software, such as: VXmodel module, VXinspect module and VXintegrity

SPEED

Large scanning area of 11 laser crosses
(+ 1 extra line for hard to reach area)

TECHNICAL SPECIFICATIONS

Innovating technology that provides accuracy, simplicity, portability as well as real speed to your metrology-grade applications.

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ACCURACY ⁽¹⁾	0.012 mm (0.0005 in)
VOLUMETRIC ACCURACY ⁽²⁾ (BASED ON PART SIZE)	0.012 mm + 0.020 mm/m (0.0005 in + 0.0002 in/ft)
VOLUMETRIC ACCURACY WITH MaxSHOT Next™ Elite ⁽³⁾	0.020 mm + 0.015 mm/m (0.0008 in + 0.00018 in/ft)
MEASUREMENT RESOLUTION	0.025 mm (0.0009 in)
MESH RESOLUTION	0.100 mm (0.0039 in)
MEASUREMENT RATE	1,300,000 measurements/s
LIGHT SOURCE	11 blue laser crosses (+ 1 extra line)
LASER CLASS	2M (eye safe)
SCANNING AREA	310 x 350 mm (12.2 x 13.8 in)
STAND-OFF DISTANCE	300 mm (11.8 in)
DEPTH OF FIELD	250 mm (9.8 in)
PART SIZE RANGE (RECOMMENDED)	0.05–4 m (0.15–13 ft)
SOFTWARE	VXelements
OUTPUT FORMATS	.dae, .fbx, .ma, .obj, .ply, .stl, .txt, .wrl, .x3d, .x3dz, .zpr, .3mf
COMPATIBLE SOFTWARE ⁽⁴⁾	3D Systems (Geomagic® Solutions), InnovMetric Software (PolyWorks), Metrolog Group (Metrolog X4), New River Kinematics (Spatial Analyzer), Verisurf, Dassault Systèmes (CATIA V5, SOLIDWORKS), PTC (Creo), Siemens (NX, Solid Edge), Autodesk (Inventor, PowerINSPECT)
WEIGHT	0.94 kg (2.1 lb)
DIMENSIONS (LXWXH)	79 x 142 x 288 mm (3.1 x 5.6 x 11.3 in)
CONNECTION STANDARD	1 X USB 3.0
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), 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|Elite (ISO 17025 accredited): Based on VDI/VDE 2634 part 3 standard. Probing error performance is assessed with diameter measurements on traceable sphere artefacts.

(2) 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. Results are obtained using integrated photogrammetry with volumetric accuracy optimization.

(3) The volumetric accuracy of the system when using a MaxSHOT 3D cannot be superior to the default accuracy for a given model.

(4) Also compatible with all major metrology, CAD, and computer graphic software through mesh and point cloud import.

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