

# 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
<b>ACCURACY</b> <sup>(1)</sup>	Up to 0.040 mm	0.035 mm	0.025 mm
<b>VOLUMETRIC ACCURACY</b> <sup>(2)</sup> (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
<b>VOLUMETRIC ACCURACY WITH MaxSHOT Next™ Elite</b> <sup>(3)</sup>	0.020 mm + 0.015 mm/m		
<b>MEASUREMENT RESOLUTION</b>	0.100 mm	0.025 mm	
<b>MESH RESOLUTION</b>	0.200 mm	0.100 mm	
<b>MEASUREMENT RATE</b>	480,000 measurements/s	800,000 measurements/s	1,300,000 measurements/s
<b>LIGHT SOURCE</b>	7 red laser crosses	7 blue laser crosses	11 blue laser crosses (+ 1 extra line)
<b>LASER CLASS</b>	2M (eye safe)		
<b>SCANNING AREA</b>	275 x 250 mm	310 x 350 mm	
<b>STAND-OFF DISTANCE</b>	300 mm		
<b>DEPTH OF FIELD</b>	250 mm		
<b>PART SIZE RANGE</b> (recommended)	0.1–4 m	0.05–4 m	
<b>SOFTWARE</b>	VXelements		
<b>OUTPUT FORMATS</b>	.dae, .fbx, .ma, .obj, .ply, .stl, .txt, .wrl, .x3d, .x3dz, .zpr, .3mf		
<b>COMPATIBLE SOFTWARE</b> <sup>(4)</sup>	3D Systems (Geomagic® Solutions), InnovMetric Software (PolyWorks), Metrologic Group (Metrolog X4), New River Kinematics (Spatial Analyzer), Verisurf, Dassault Systèmes (CATIA V5, SOLIDWORKS), PTC (Creo), Siemens (NX, Solid Edge), Autodesk (Inventor, PowerINSPECT)		
<b>WEIGHT</b>	0.85 kg	0.94 kg	
<b>DIMENSIONS</b> (LxWxH)	77 x 122 x 294 mm	79 x 142 x 288 mm	
<b>CONNECTION STANDARD</b>	1 X USB 3.0		
<b>OPERATING TEMPERATURE RANGE</b>	5–40°C		
<b>OPERATING HUMIDITY RANGE</b> (non-condensing)	10–90%		
<b>CERTIFICATIONS</b>	EC Compliance (Electromagnetic Compatibility Directive, Low Voltage Directive), compatible with rechargeable batteries (when applicable), IP50, WEEE		
<b>PATENTS</b>	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.

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



**AMETEK GmbH**  
Division Creaform Deutschland

Meisenweg 37  
D - 70771 Leinfelden-Echterdingen  
T. +49 711 1856 8030 | F. +49 711 1856 8099

[creaform.info.germany@ametek.com](mailto:creaform.info.germany@ametek.com) | [creaform3d.com](http://creaform3d.com)



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