

SMARTTECH3D ROBOTIZED

Automated 3D Scanning System for Industrial Integration



The SMARTTECH3D Robotized system is a 3D scanner designed for integration with industrial robots and cobots. Its lightweight scanning head and stereoscopic camera system allow for easy installation and precise automated measurements. The system combines mobility, flexible hardware integration, and market-leading resolution of up to 20 MP to deliver high-quality 3D data for industrial and research applications. The SMARTTECH3Dmeasure software included with the system enables full integration with leading robotic platforms, including KUKA, Fanuc, Universal Robots, Kawasaki, and others.

The automated system delivers precise measurements, generates 3D models, and produces complete quality control reports in PDF format. It can also project deviation maps directly onto the measured object. This functionality makes it a versatile solution for industrial, archaeological, and research applications.

Aligned with the principles of Industry 4.0, the SMARTTECH3D Robotized system supports process digitization and workflow optimization. It enhances collaboration across teams, including engineers, managers, and suppliers. By minimizing human influence, the system ensures repeatable, high-quality measurements with reliable accuracy.

APPLICATIONS



Industrial
quality control



Virtual warehouse
creation



3D printing
inspection



Automated
control reports
(PDF)

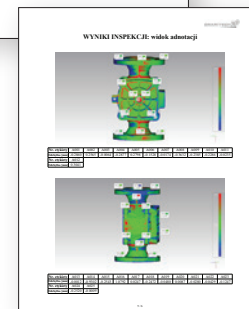
SOFTWARE AND PROCESS MANAGEMENT

The SMARTTECH3Dmeasure software, installed on a dedicated workstation, manages the entire measurement process from system setup through saving the final 3D model or quality report. Advanced functions allow users to work with both raw point clouds and mesh models for quality control or reverse engineering, eliminating the need for multiple systems.

The metrology module enables comparison with CAD or reference models, creating annotated pass/fail reports that are automatically generated in PDF format.



Display of the color deviation map directly on the measured object.



The PDF report from the quality control process.

SMARTTECH3D ROBOTIZED TECHNICAL SPECIFICATIONS

Model	12-12 MP		
Scanning Technology	WHITE/GREEN LED		
Detector resolution	12MP	12MP	12MP
Measuring field* [mm2]	225x300	300x400	455x600
Measuring depth* [mm]	120	180	240
Sampling* [pts/mm ²]	178	100	45
Accuracy[μm]	30/22	43/33	63/48

Model	20-20 MP		
Scanning Technology	WHITE/GREEN LED		
Detector resolution	20MP	20MP	20MP
Measuring field* [mm2]	200x300	260x400	400x600
Measuring depth* [mm]	120	180	240
Sampling* [pts/mm ²]	335	189	84
Accuracy[μm]	30/22	43/33	63/48

* +/- 10% value



Automatic Rotary Stage:
 - max load 15kg, diameter 200mm
 - max load 80kg, diameter 500mm
 - max load 300kg, diameter 500mm