SMARTTECH 3D

SCAN3D DUAL VOLUME

Certified 3D scanners for technical applications - precise CAD documentation from real object, dimension and quality control



Scan3D DUAL VOLUME is a precise non-contact measurement device with LED light technology and GigaBit Ethernet communication. These features enable a very fast execution of complex measurements. As a professional tool for metrology each 3D scanner is certified according to VDI / VDE 2634 standarts and it's accuracy can be confirmed by independent accredited metrology lab with adequate certyficate. Scan3D DUAL VOLUME has two independent measurement volumes featuring different work space, accuracy and measurement resolution. Large volume allows automated measurement of overall dimensions using markers for merging single shots. On the other hand, small volume allows precise measuremnts of smalles details such as threads and in high-resolution mode (up to 1500 points/mm2).

Measurement volume positioning lasers.





All professional 3D scanners produced by SMARTTECH are factory calibrated "plug&scan" devices ready to work within second from launching. Standard 3D scanner is equipped with everything you need for starting professional scanning process: lasers enabling easy positioning of object in measurement volume, tripod with tilt and swivel head and trolley for even more user friendly scanning and professional transport cases. Scanners can be used in two scanning modes (PRECISE & FAST) in each of the measurement volume, giving additional option to reduce or enhance number of measurement points (sampling density) where needed. Thanks to all those features and certificate of accuracy from accredited laboratory our clients often name those systems optical coordinate measuring machines (CMM).

3D Scanner integrated with:







scan3D surface



qualify



Additional accessories:





Automatic rotary table



WiFi wireless module

3D scanner for rapid and reverse engineering

Complex solution for creating precise and accurate CAD models with 3D scanner:

- automated creation of triangle mesh and parametric surfaces (NURBS)
- advanced cloud of points addition algorithms
- short time data processing
- compatible with any of popular CAD formats

Many measurement volume sizes to choose from, automatic merging of single measurement based on stick on markers or/and numeric rotation table, enables easy scanning process of any size objects. This optical measurement system has been created for full integration of device with high-end RE software such as Geomagic Solutions. Thanks to closed cover, ISA system and professional transport cases Scan3D Surface is a fully mobile system.

3D scanner for quality control and dimension check

Complex solution for quality control and inspection:

- real object / CAD model comparison (deviation statistics, colored map of deviation),
 - create 2D sections and check model dimensions,
 - automated go/ no go product inspection
 - automatic generation of 3D PDF reports.

High density (up to 1200points/mm2) and precise measurement of scanned object enables high end control process and integration with quality control software helps to generate automatic reports and pass/fail statistic. This professional measurement systems have referential for you customers and applied quality systems.

Specification technical	scan3D dual volume	SCAN3D surface	SCAN3D qualify
Scaning technology	Structured light LED white or blue	Structured light LED white or blue	Structured light LED white or blue
Detector resolution	10; 5; 2 Mpix	10; 5; 2 Mpix	10; 5; 2 Mpix
Field measurement [mm2]	80x100 - 1200x1600	80x100 - 1200x1600	80x100- 1200x1600
Distance between point [mm]	0,01 - 0,50	0,01 - 0,50	0,01 - 0,50
Sampling [pkt/mm2]	5 - 1200	5 - 1200	5 - 1200
The accuracy of [um]	20 - 40	30	20
Tripod, flying case	+	+	+
Texture scanning	option	+	option
Mobile work station	+	option	option



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