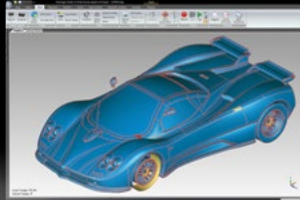


SCAN3D DUAL VOLUME

Certified 3D scanners for technical applications - creating CAD documentation of the scanned objects and dimensional quality control.



**LED light source
BLUE or WHITE**



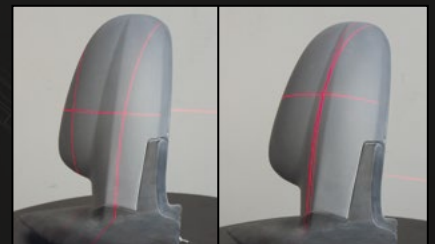
The certificate of accuracy.

Silver
Laurel of Innovation

The scan3D DUAL VOLUME is a precise contactless measurement device which, thanks to the latest LED light and GigaBit Ethernet communication technologies, enables a rapid performance of complex measurements. As a professional tool for metrology each 3D scanner is certified according to the VDI / VDE 2634 standard and its accuracy can be confirmed by independent accredited metrology lab resulting in a certificate.

The scan3D DUAL VOLUME has two independent measurement volumes characterised by different work space, accuracy and measurement resolution. The large measurement volume allows for an automated measurement of overall dimensions using markers that are then merged into a single point cloud. The small volume, on the other hand, allows for the replication of even the smallest of details of the object and in a high-resolution mode (up to 1500 points/mm²).

Easy positioning of the 3D scanner thanks to laser pointers




The object outside the measurement volume

The object inside the measurement volume



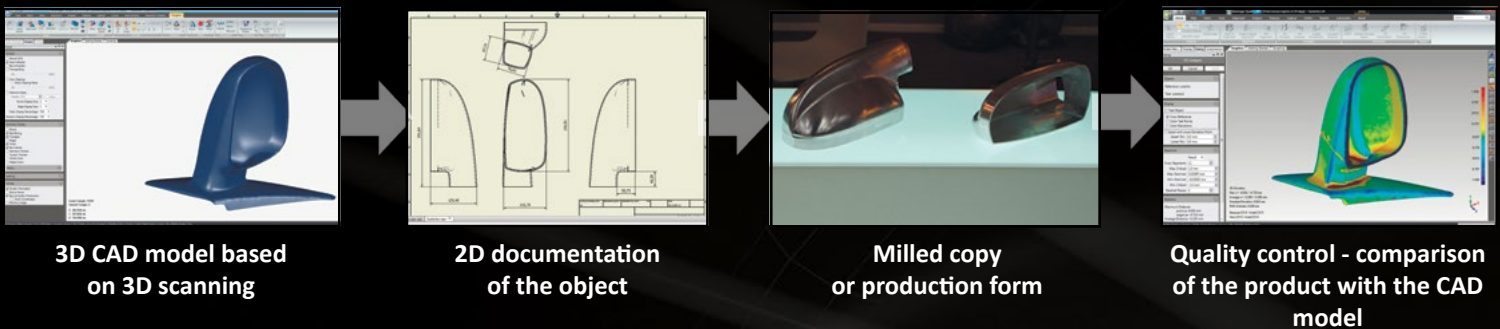
All professional 3D scanners produced by SMARTTECH are factory-calibrated "plug&scan" devices ready to work within seconds after being launched. As part of the standard equipment, a SMARTTECH 3D scanner is provided with everything you need in order to begin the 3D scanning process: lasers enabling easy positioning of the object within the measurement volume, a tripod with tilt and swivel head, a trolley for an even more user-friendly scanning and professional transport cases. The 3D scanners can operate in two scanning modes (PRECISE & FAST) for each of the measurement volumes, allowing for an additional hardware reduction of the resolution when the maximum sampling density is not required. Due to all of the abovementioned characteristics and the ability to acquire a certificate of accuracy from an accredited laboratory, our clients often call these systems optical coordinate measuring machines.

3D Scanner integrated with :  Geomagic

Features:

- Fast and intuitive change of the measurement volume. The end user is not required to change optics and perform a complicated process of calibration.
- Changing the field of view takes literally two pushes of a button – you just turn off the previous mode and turn on the new one. It allows us to assure a certified accuracy of the device and doesn't force the customer to carry large calibration plates.
- Several camera configurations, ranging from 1,3 MPix up to 10 MPix allow us to find a perfect solution for the customer's needs and budget.
- The scan3D DUAL VOLUME operates based on the most up-to-date computing algorithms implemented in the latest SMARTTECH software - SMARTTECH3Dmeasure v2. It allows you to perform a measurement using a 3D scanner as well as edit gathered measurement data. The implemented automation module allows us to fully automate the process of transforming the point cloud into a triangle mesh without involvement of the user and limiting his actions to placing the examined object in the 3D scanner's field of view.
- Innovative white LED light 3D scanning technology. Resistant to sudden voltage drops and blackouts - assures over 20 000 working hours. Lack of any mechanical parts inside the 3D scanner guarantees long and easy usage.

The scan3D DUAL VOLUME is used and recommended by the Automotive Industry Institute (PIMOT), KGHM Letia, Regional Center of Engineering "New Star" in Perm, as well as the National Defense University in Astana.



3D CAD model based on 3D scanning

2D documentation of the object

Milled copy or production form

Quality control - comparison of the product with the CAD model



3D scanner is available with a new SMARTTECH3Dmeasure 64 Bit software.

In this new software - one of the most important is the ability to display huge amount of data - point clouds where it's size exceeds amount of 300 million pts with a speed of 5 frames per second, which allows you to work without simplifying.

For less demanding projects we implemented the possibility of obtaining a triangle meshes in the STL format directly from the 3D scanner, which can be immediately sent for example to 3D printer.

Additional accessories:



Measuring robot



Automatic rotary stage

Technical specification	SCAN3D DUAL VOLUME		
	White LED light	White LED light	White LED light
Scanning technology	White LED light	White LED light	White LED light
Detector resolution	1.3 - 5Mpix	5 - 5Mpix	5 - 10Mpix
Measurement volume [mm2]	from 150x200 to 800x600	from 150x200 to 1200x1600	from 150x200 to 1200x1600
Distance between points [mm]	0,08 - 0,6	0,08 - 0,3	0,05 - 0,3
Sampling [pts/[mm2]	164 - 3	164 - 10	369 - 10
Accuracy [µm]	from 20	from 20	from 20
Tripod, transportation case	+	+	+
Texture scanning	+	+	+
Mobile work station	+	+	+



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