eviXscan 3D FinePrecision

Precision 3D scanning of the smallest objects

Quality control at the highest level

The **FinePrecision 3D** scanner is designed as a measuring device for precision mechanics, especially in areas such as production of micro rotors, small injection elements, precise numerically machined components or used in small-feature 3D printing.

FinePrecision is also ideal for scanning small implants, in prosthetics, in watchmaking and in jewellery. The precision of the scanner also allows to use it to optimize the 3D printing process.

The combination of high-speed cameras and the next generation of DLP light projection system, whose signal triggers the cameras every time a new pattern is displayed, allows to limit the scan acquisition time to several hundred milliseconds.

eviXscan 3D FinePrecision scanner

Key features

- high accuracy of scans (up to 6 μm*)
- above-average object of the scans acquired, thanks to the high density of collected points
- short data acquisition time (<1 s)

The small scanning area in combination with the high-resolution cameras allows for an unsurpassed point-to-point resolution of 28 μm (point density higher than 1200 points/mm²).

Comparison of scans with different mesh densities

| 1 233 pt/mm² | 161 pt/mm² |
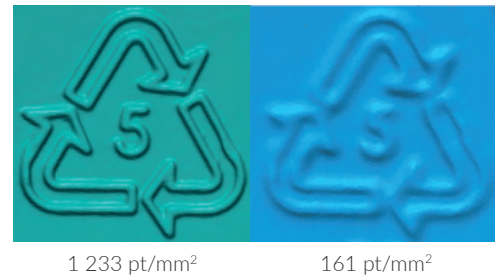
Technical specifications

Measuring range	120 x 60 x 45 mm	Software	eviXscan 3D Suite
Point density	1 233 pt/mm²	Export formats	stl, ply, obj, asc, bin
Scanning accuracy	up to 0.006 mm*	Operating system	Windows 10 (64-bit)
Scanning time	1 second	Computer connection	USB 3.0
Light source	Blue LED	Hardware requirements	CPU i7, 32 GB RAM, SSD NVMe 480 GB disk, nVidia GTX 970 graphics card or higher
Cameras number and resolution	2 x 8.9 Mpix		

* Accuracy determined with the use of the standard DE VDI/VDE 2634, Part 2, 4.1 P_S
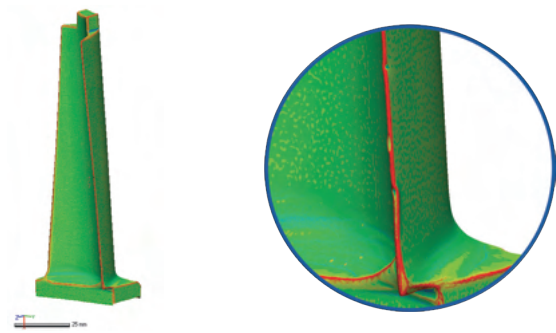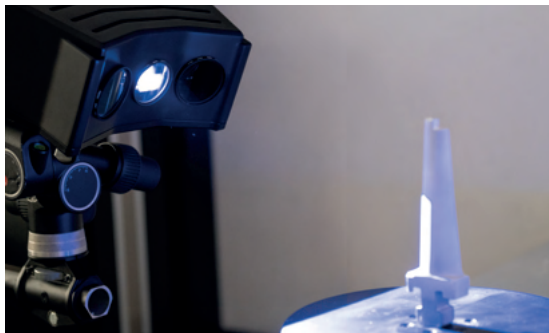
These parameters allow the analysis of surface microdamages, existance of dents occurring during the fabrication or use of machines and devices, as well as errors in the production process.

A rich set of accessories

The standard set includes the eviXscan 3D Suite software, the 20 kg rotary table, frames with markers to assist in folding scans, the tripod, the A5 calibration table, the transportation box.

FinePrecision

EVIXSCAN 3D

The FinePrecision 3D scanner is perfect as a measuring tool for precision mechanics, especially in the area of quality control.

FinePrecision is also used in scanning implants, in prosthetics, as well as in the watchmaking and jewelry industry.

The precision of the scanner also allows it to be used to optimize the 3D printing process.

Operating system Windows 10 (64 - bitowy).
Hardware requirements:
CPU i7, 32 GB RAM, dysk SSD NVMe 480GB,
Graphics Card nVidia GTX 970 or higher.

Functional features		
Range width	120	[mm]
Range heigth	60	[mm]
Range depth	45	[mm]
Accuracy	6	[μm]
Measurement repeatability	3	[μm]
Scanning distance	186	[mm]
Scan resolution	28	[μm]
Points density	1 233	[pt/mm^2]
Minimum scan acquisition time	1	[s]
Operating temperature range	od 10⁰C do 30⁰C	[⁰C]
Design features		
Number cameras	2	
Type of cameras	8,9	[Mpix]
Light source type	Blue LED	
Cooling type	active	
Computer connection	USB 3.0	
Power	12V DC/10A; 100 - 240V AC; 50/60Hz	
Physical features		
Scanner weight	5,05	[kg]
Scanner dimensions	23,3 x 29,4 x 10,5	[cm]
Weight of the shipping kit	24	[kg]
Dimension of the transport box	75,2 x 39,4 x 23,8	[cm]