

ATOS Triple Scan Fact Sheet



The ATOS Triple Scan uses a specially developed measuring and projection technology from GOM.

Using this brand new technology the ATOS Triple Scan produces a high accuracy and improved measurement of shiny surface, complete data on complex components with deep pockets or fine edges such as turbine blades, reducing the number of individual scans and resulting in a simple handling.

Blue Light Technology

The ATOS Triple Scan is also equipped with blue light technology. The narrowband blue light enables precise measurements to be carried out independently of environmental lighting conditions.

High Resolution 3D Scanner from small to large

ATOS uses high resolution measuring cameras and specially developed optics for precise measurement.

The accuracy, measurement resolution and measuring area are completely adaptable to the application requirements. This allows for the highest resolution for highly detailed, small parts with measuring volumes down to 38mm, or for extremely fast digitizing of large objects with measuring volumes up to 2m.

This flexibility allows measurement of a large part spectrum with the same sensor head, and when used in combination with TRITOP, the ATOS System is capable



of scanning parts of over 30m with a high local resolution.

Industrial advantages for industrial processes

The ATOS 3D Digitizer is an accurate and cost-effective solution in a number of different application areas including:

- Quality Control
- Reverse Engineering
- Rapid Prototyping
- Rapid Milling
- Digital Mock-Up



ATOS 3D Digitizers have been produced and constantly developed since 1995 and with more than 2500 installations in measurement and analysis rooms as well as factory and production halls worldwide, the ATOS has been for a long time an accepted measurement method beside the mechanical measurement machines.

The ATOS sensor combines high data quality in short measurement time with flexibility and stability for industrial environments.

Universal process safety

The ATOS 3D Digitizer is established in industrial process chains. The integration of ATOS in industrial development and production processes helps:

- Reduce production start-up times
- Optimize component quality
- Speed up the time to production
- Maintain high level of quality assurance throughout the entire manufacturing process
- Establish early trend analysis within series production processes
- Reduce rejects and rework, thus saving valuable time and money
- Automated quality control; improving overall quality assurance, requiring fewer personnel and considerably increasing performance.



The ultimate combination of optical and tactile measurement



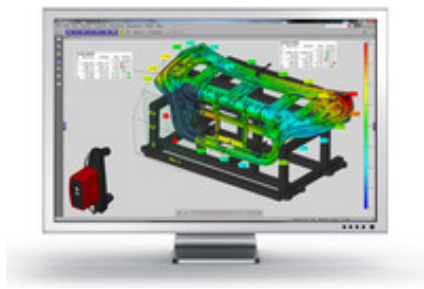
The GOM Touch Probe combines full-field and touch probe 3D measurement. The GOM Touch Probe allows quick measurement in difficult to access areas, comparison directly to CAD, measurement of primitives, quick measurement of individual points and online alignment.

ATOS and Touch Probe measurements are carried out with one system and are evaluated with one software

package. No extra hardware or tracker is required, enabling quick measurement procedures and easy interchange between surface and single point measurement and analysis.

Read more about the GOM Touch Probe.

Integrated, traceable measurement and inspection software



GOM completely develops its hardware and software in house. The powerful, process safe, traceable ATOS Professional and GOM Inspect Professional software controls the sensor head, processes the 3D point cloud and can edit and completely post-process the data. Through a simple graphical user interface, the ATOS Professional and GOM Inspect Professional software supports today's tasks in quality control, manufacturing processes and reverse engineering. Learn more about ATOS Professional and GOM Inspect Professional in the [Software pages](#).

Technical Data



System Configurations

	ATOS II Triple Scan	ATOS III Triple Scan
Camera Pixels	2 x 5 000 000	2 x 8 000 000
Measuring Area	38 x 29 - 1500 x 1130 mm ²	38 x 29 - 2000 x 1500 mm ²
Point Spacing	0.02 - 0.62 mm	0.01 - 0.61 mm
Working Distance	490 - 2000 mm	490 - 2000 mm
Sensor Controller	integrated	
Cable Length	up to 30m	
Sensor Positioning	industrial sensor stand, automatic per Robot	
Part Positioning	manual or automatic rotation table	
Image Processing Computer	portable or High-End PC	
Operating System	Windows 7	
Software	data capture, processing and complete inspection measurement of shiny and dark surfaces & complex component geometries	
Material & part finish		
Ambient lighting	low sensitivity to environment lighting conditions	
Environmental vibrations	unaffected due to GOMs dynamic referencing system	
Operating Temperature	5 - 40°C, non-condensing	
Power Supply	90 - 230 V AV	

Application Notes



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Find out more about the practical use of the ATOS 3D Scanner and view all ATOS application notes.