

ATOS Core - The Core for 3D Scanning and Inspection – Fact Sheet



ATOS Core builds upon the original ATOS idea. The result is an optical 3D measuring device that comes equipped with much more than just standard ATOS features such as a stereo camera, Triple Scan, self-monitoring or Blue Light Technology. When designing ATOS Core, GOM rewrote the book and created a completely new type of stereocamera setup. For the first time optics and electronics have been split, enabling us to integrate the latest cutting-edge technology. This and many other innovative features make ATOS Core the ideal and affordable solution for 3D measurement of small and medium sized objects where high-quality data and process monitoring are important.

- **Proven Blue Light Technology**
Delivers precise measurements regardless of light conditions
- **Application specific software**
GOM Scan and ATOS Professional - Intelligent software that is application focused
- **Innovative Triple Scan**
Requires fewer scans and delivers higher quality data - even on very complex surfaces
- **New camera technology - "engineered by GOM"**
High resolution data and rapid measurements.
- **Compact projection unit**
The sensor is small, light, mobile, and maintains a cool temperature
- **Space-saving design**
Less weight, more mobility
- **Enhance with photogrammetry**
Further advance measurement accuracies, capabilities and processes
- **Hot-plugging**
Address the varying measurement requirements from project to project

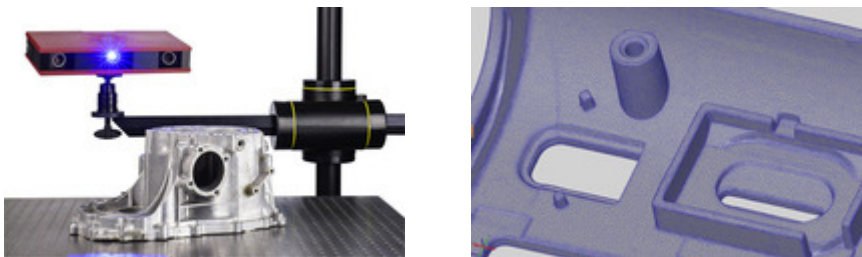
One Core and three solutions

Essential Line



The Essential Line is for applications, such as reverse engineering or rapid prototyping, which requires 3D scanning without the advanced inspection functionality. It is an advantage for those who want to benefit from GOM quality, or enter into the world of 3D scanning, but just need the necessities. The package consists of the ATOS Core sensor, GOM Scan software, an image processing computer, and accessories. GOM Scan software is intuitive and easy to use. It seamlessly integrates with the ATOS Core sensor to deliver high quality 3D polygon meshes in STL format with 2M or 5M sensor drivers. It is a manually operated system that includes an industrial studio stand, tripod or desktop configuration. If project requirements progress, simply upgrade to the Professional Line at any time.

Professional Line



The Professional Line tackles complex metrology applications. Thanks to hot-plugging functionality the sensor head can be switched quickly depending on resolution requirements and object dimensions. The Professional Line encompasses all the Essential Line hardware but benefits from ATOS Professional, a software solution that boasts numerous innovative features and functions as well as a proven global track record. Functions include Triple Scan, polygon mesh editing, inspection, reporting, Teaching by Doing, scripting, back and selective projection, Motion Replay or dynamic referencing for touch probes, tracking or adapter applications. Additionally, ATOS Professional enables the simple realization of photogrammetry for global referencing as well as automation using rotation tables. ATOS Core can be used in conjunction with ATOS Triple Scan or ATOS Compact Scan to provide an additional measurement volume.

Kinematics Line



The Kinematics Line is a fully automated solution for small objects designed to increase throughput, productivity, and repeatability for industrial quality control processes. In addition to the Professional Line hardware, the Kinematics Line is available with ATOS ScanBox including industrial robot. Scanning processes are managed via ATOS Professional software. The Kinematics Line also comes with Virtual Measuring Room (VMR), an enhanced software module which allows users to build a virtual environment to create automation routines offline and online in an easy to use platform. The use of ATOS Plus with fully integrated photogrammetry for reference point detection is also possible.

Technical Data



System Configurations	ATOS Core 45	ATOS Core 80	ATOS Core 135	ATOS Core 200
Measuring area	45 x 30 mm	80 x 60 mm	135 x 100 mm	200 x 150 mm
Working distance	170 mm	170 mm	170 mm	250 mm
Point spacing	0.02 mm (0.03 mm)*	0.03 mm (0.05mm)*	0.05 mm (0.09 mm)*	0.08 mm (0.13 mm)*
Sensor dimensions	206 x 205 x 64 mm	206 x 205 x 64 mm	206 x 205 x 64 mm	206 x 205 x 64 mm
Weight	2.1 kg			
Power supply	90 – 230 V AC			
Operating temperature	+ 5°C up to + 40°C, non condensing			

* GOM Scan with Sensor Driver 2M



System Configurations	ATOS Core 185	ATOS Core 300	ATOS Core 500
Measuring area	185 x 140 mm	300 x 230 mm	500 x 380 mm
Working distance	440 mm	440 mm	440 mm
Point spacing	0.07 mm (0.12 mm)*	0.12 mm (0.18 mm)*	0.19 mm (0.31 mm)*
Sensor dimensions	361 x 205 x 64 mm	361 x 205 x 64 mm	361 x 205 x 64 mm
Weight	2.9 kg		
Power supply	90 – 230 V AC		
Operating temperature	+ 5°C up to + 40°C, non condensing		