

National Premiere at MEC SPE 2011

GOM Italia Presents New Mobile 3D Scanner ATOS Triple Scan

The new generation of mobile 3D digitizers from GOM is a totally new development based on unique technology.

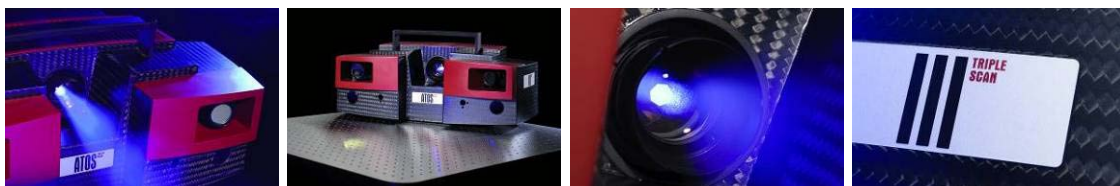
ATOS Triple Scan uses all the viewing angles of the stereo camera system (3-in-1 sensor). It is also based for the very first time on a completely new projection technology. The scanner therefore enables easier, faster and more reliable measurement processes and greatly reduces the number of single scans.

ATOS Triple Scan is equipped with blue light technology, which features extremely long LED service life, minimum heat development and low maintenance. The narrowband blue light enables precise measurements to be carried out independently of environmental lighting conditions.

The new technology of ATOS Triple Scan offers even greater resolution and accuracy for fine structures and edges, and supplies full-field 3D data for complex components within a very short time. Measurement performance has been significantly improved, in particular for glossy surfaces. ATOS Triple Scan cameras, projector and controller are built into a rugged housing. The sensor head is manufactured from shock-resistant CFRP and was developed specifically to meet high application demands in industrial environments.

The professional 3D coordinate measuring system comes in two models. ATOS II Triple Scan offers a resolution of 2 x 5 million pixels, ATOS III Triple Scan a resolution of 2 x 8 million pixels. With preconfigured optics the system is easily adjusted to comply with required accuracies and measuring areas. Changing of measuring volumes takes just a few minutes.

ATOS Triple Scan has been presented to the world public for the first time at Euromold 2010 in Frankfurt on December 1 – 4 and to the Italian public during MEC SPE 2011 in Parma. At Stand I72 in Hall 5 GOM Italia will also be presenting its further range of state-of-the-art sensor technology, efficient measuring and inspection software and tailor-made 3D metrology solutions. Focus will be on quality control of moulds and on injection moulding for small parts.



Optical 3D Surface Measurement and Quality Control in Design, Tool Making and Mold Making

Industrial 3D surface measurement is used in the casting, sheet metal forming and plastics industries to optimize processes and reduce start-up times for serial production.

Today, shorter product cycles and cost optimization force companies to be more efficient during first article inspection and process optimization. Using optical metrology in combination with a professional inspection and mesh processing software package reduces try-out periods and first article inspection times from weeks to hours. At MECSPE, GOM presents solutions for process chains within design, CAD/CAM as well as tool and mold making.

Tool Making / Sheet Metal Forming

- GOM's optical metrology systems speed up tool-making and reduce try-out iterations. With ATOS Triple Scan shiny surfaces can now be measured more easily.

Pattern and Mold Making / Casting

- GOM combines optical and tactile 3D surface measurement for mobile on-site inspection of patterns, molds, sand cores and cast parts. ATOS Triple Scan needs less single measuring to capture complex parts than other scanning systems.

Injection Molding Industry

- Reduction of start-up times for serial production through efficient first article inspection and targeted tool correction. ATOS Triple Scan captures even the smallest details on plastic parts.



Free GOM Inspect Software for: Mesh Processing, Inspection and 3D Viewing

GOM introduces the free GOM Inspect software at MECSPE 2011.

This software package includes enhanced functions for mesh processing as well as for shape and dimension analysis of 3D point clouds and also serves as a 3D viewer.

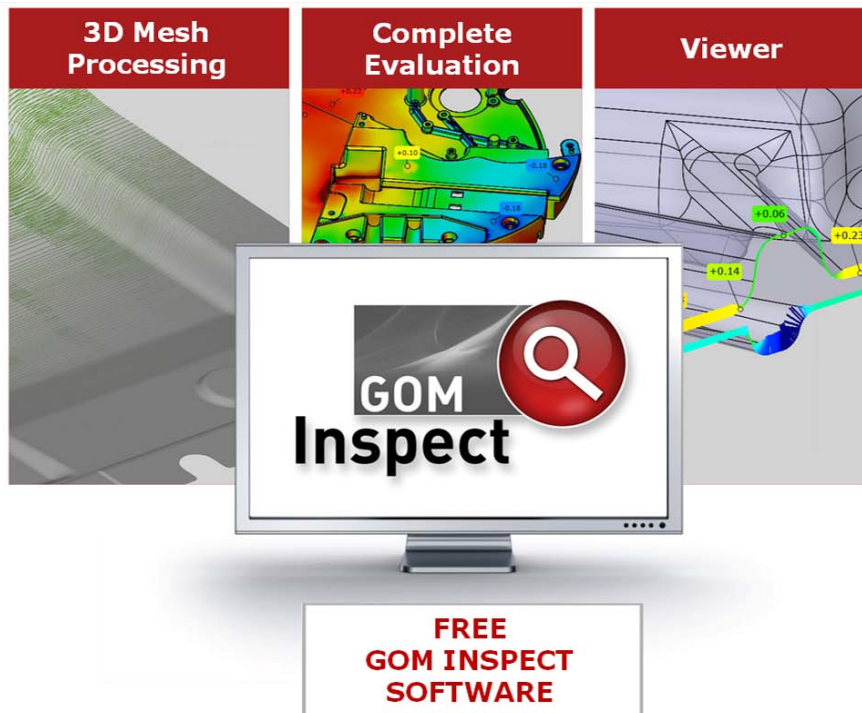
Complete evaluation tools for extensive analysis of 3D point clouds

- CAD Import: e.g. IGES, STEP, JT Open
- Alignments: RPS, 3-2-1, plane-line-point, best-fit and hierarchical alignments
- CAD comparison: e.g. surface, sections, points
- 2D section-based analysis
- GD&T analysis based on ISO 1101 and ASME Y14.5 standards
- Reporting: first article inspection, tables (e.g. VDA)
- Export of point clouds: e.g. STL, ASCII

Polygon mesh generation and processing

GOM Inspect automatically converts point cloud data into high quality 3D mesh data and offers extensive post-processing functionalities

- Import of point clouds: STL, ASCII, ...
- Polygonizing point clouds to meshes
- Smoothing, thinning meshes, refinement of meshes
- Hole filling in meshes
- Extracting curvature lines and primitives from meshes
- Export as STL, ASCII, ...



For more information or to download the free GOM Inspect software visit www.gom.com

Industrial Optical 3D Metrology

Company Profile - Gesellschaft für Optische Messtechnik mbH

GOM (Gesellschaft für Optische Messtechnik) develops, produces and distributes optical measuring equipment for the three-dimensional measurement and deformation measurement of components. The measuring systems are based on digital image processing and are used in product development, quality assurance, material and component testing.

All over the world, companies from the automotive, aviation and space industries, their suppliers and various manufacturers of consumer goods use systems from GOM.

The company owns subsidiaries in Italy, Switzerland, France, Great Britain and Belgium. Worldwide, more than 45 committed and competent ensure professional local support of GOM products.

GOM - Gesellschaft für Optische Messtechnik Product Overview



ATOS
3D Digitizer



TRITOP
Photogrammetry System



PONTOS
Dynamic Photogrammetry System



ARGUS
Deformation Analysis in
Sheet Metal Forming



ARAMIS
Deformation Analysis



TRITOP Deformation
Vector based
Deformation Analysis