

# PROTOS-3D METROLOGY



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## The wide range of services offered by PROTOS-3D: Your specialist for optical metrology from Eching near Landshut.

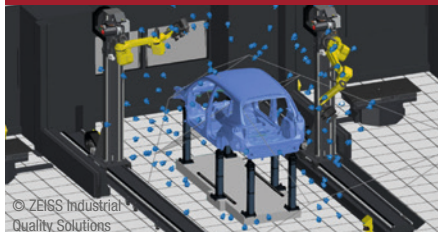
Our GOM-certified metrology engineers are highly qualified and experienced experts with a high level of innovation and extensive metrology know-how from a wide range of sectors, such as the automotive, aerospace, mold and tool making industries. In addition, we have a variety of modern high-end measuring systems and a wide range of measuring machines. This enables us to react flexibly to all customer requirements and to offer **subsequent services in the field of automated optical metrology.**

### Extended workbench



We are perfectly equipped for large and small series measurements and staffed to carry out even time-critical projects. If required, we can take over the entire component logistics.

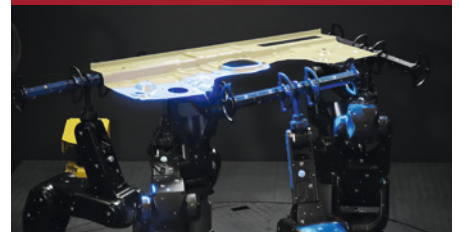
### GOM VMR Programming



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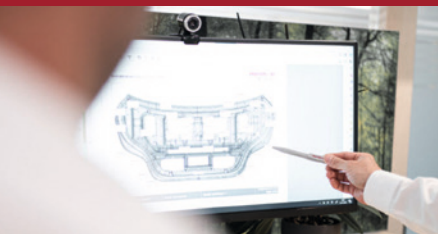
As a certified GOM Automation Service Provider, we take over the programming of the robot positions in the VMR (Virtual Measuring Room), the feature evaluation and the definition of all necessary parameters.

### Virtual Clamping (VC) + PRAFS



VC and PRAFS enable the calculation of the surface and feature-based deviation between nominal and actual data of a component without physical clamping or component-specific fixtures.

### Initial sampling



The first molded components are inspected for dimensional accuracy per feature plan or drawing and a detailed measurement report incl. stamped drawing is prepared.

### Workshop | Training | Consulting



Our team is always up to date with the latest technology and is happy to share their knowledge at workshops and individual training sessions with the GOM software or at specialized consulting days.

### Technical equipment

- GOM SB6235
- ATOS 5X 12M + GOM PLUS BOX 29M
- 2x measuring plate horizontal (1600 x 800 mm)
- 2x measuring plate vertical or horizontal (3300 x 2000 mm and 2700 x 1800 mm)
- PRAFS: a fully flexible, programmable component holding device with six robots

#### Evaluation and analysis:

- 7x GOM INSPECT Professional
- 4x GOM VMR and 4x Virtual Clamping



## If the components don't come to us, we come to them.

With our range of manual optical measurement technology, we are also ideally equipped for use on your site.

### 3D digitization



With the new generation of GOM ATOS 5/5X sensors, we offer you the complete range of 3D digitalization from the smallest components (a few millimeters) to large components (up to 20 m).

### Photogrammetry



Using the TRITOP CMM system, a portable optical 3D coordinate measuring machine, it is possible to measure coordinates of three-dimensional objects quickly and accurately with minimal hardware.

### Analysis | Measurement report



The visualization of the measurement results is provided in a 3D measurement report. A full-surface form and dimension analysis incl. a comparison to CAD is possible as well as a data export with CMM inspection points.

### Reverse engineering



A data model (CAD surface/volume model) is created based on the real component. You get the entire process from one source and can immediately go into further processing or production after data delivery.

### Technical equipment



- 2x GOM ATOS 5 LED 12M
- GOM ATOS Q 12M
- 2x GOM TRITOP HR 50M
- Universal Pneumatic Device for VC

#### Evaluation and analysis:

- 3x GOM INSPECT Professional
- 2x GOM TRITOP Professional

For more information, please visit [www.protos-3d.de](http://www.protos-3d.de) or give us a call. We will be happy to answer any questions you may have.

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METROLOGY

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