

GOM Touch Probe

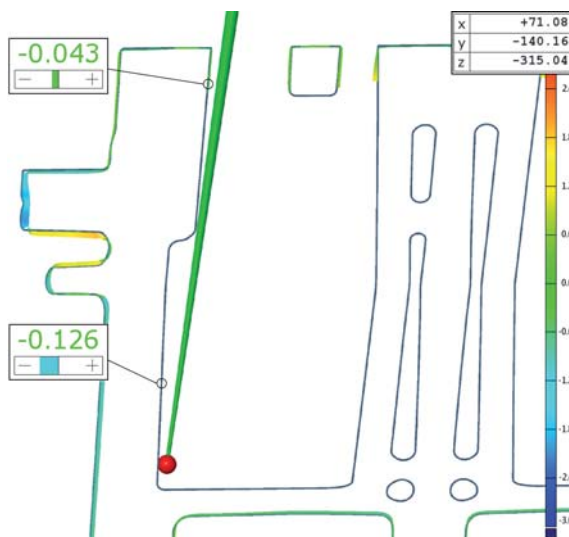


Optically Tracked Touch Probe

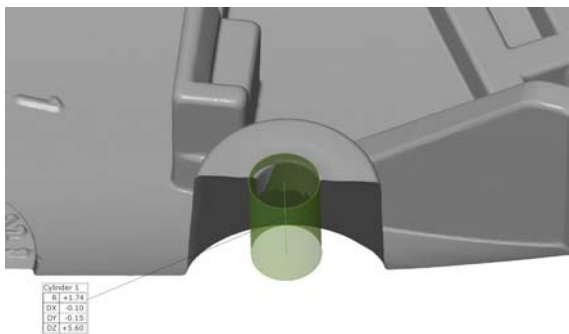
Many complex metrology applications require the combination of full-field and point based 3D measurement. The GOM Touch Probe is available as an add-on to the ATOS 3D Digitizer:

- Full-field and touch probe 3D measurement
- Measurement in difficult to access areas
- Comparison directly to CAD
- Measurement of primitives
- Quick measurement of individual points
- Online alignment

The GOM Touch Probe is a calibrated set of point markers which are optically tracked by the ATOS 3D Digitizer. ATOS delivers a full-field polygon mesh describing an object's surface precisely and the online 3D coordinates of the touch probe.



Measurement directly to CAD



Measurement of primitives (cylinders, holes, planes, ...)

Combining Scanning and Tactile Measuring

Only the ATOS dynamic referencing allows the object or the sensor to be easily and freely moved or positioned. Sensor and object do not need to be fixed in relation to each other allowing a flexible measurement planning, reaching all sides, without complex respinning or reclamping of sensor or part.

The lightweight (avg. 100g) GOM Touch Probe allows effortless measurement over long periods and for larger measuring projects. No internal electronics or cables are used guaranteeing high stability and unrestricted reach.

Complete Hardware and Software

ATOS and Touch Probe measurements are carried out with one system and 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.

Measurement of Small to Large Objects

Five standard touch probe sizes are available for small to large objects - from the measurement of an alignment hole on a small injection molded part with the GOM Touch Probe PM1.5 to cooling channels of a large casting with the GOM Touch Probe PM18.

The touch probes have been developed to adapt to many different applications. The standard M5 thread on the PM3-PM18 touch probes allows easy interchange of probe heads and extenders. Furthermore, the user can create customized touch probes for specific tasks.

Complete Probe Sets

Each probe set can be adapted for different object sizes and consists of:

- Two GOM Touch Probes of any size
- Selection of probe heads
- Probe head extensions for deep pockets
- Adapters for measurement of edges
- A high-quality case to store, protect and transport the probes

Online Measurement






The GOM Adapters provide further and advanced possibilities for online measurement:

- Alignment of components
- Adjustment of fixtures
- Determination of trimming & springback
- Fast, online measurement of primitives and edges

As with the touch probes, the adapters are also customizable and can be developed to fit any task or geometric form.



Technical Specifications

	GOM Touch Probe PM1.5	GOM Touch Probe PM3	GOM Touch Probe PM5	GOM Touch Probe PM8	GOM Touch Probe PM18
					
Length	90 mm	165 mm	150 mm	200 mm	250 mm
Weight	10 g	100 g	80 g	120 g	240 g
Point Size	1.5 mm	3 mm	5 mm	8 mm	18 mm
Changeable Probe Head	•	•	•	•	•
Probe Thread	M2	M5	M5	M5	M5
Touch Ball Diameter	1.5 mm	3 mm	5 mm	10 mm	10 mm
Probe Head Length	20 mm	30 mm	30 mm	50 mm	50 mm
Probe Head extendable	-	up to 100 mm	up to 100 mm	up to 100 mm	up to 100 mm