

# Oil & Gas

# Instant, Portable 3D Surface Analysis

Pipes / Tubes

Rods

Plugs

**Enclosures** 

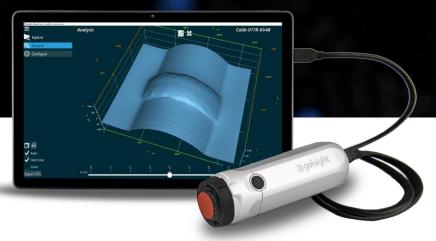
**Geological Samples** 

Immediate, in-situ testing saves thousands of dollars and man-hours/year — ROI within days or weeks

Precise, repeatable measurements improve yields up to 40% vs. manual inspections

Quantitative, accurate information on critical components increases installation safety

Test any surface, regardless of material, reflectivity, transparency, or ambient lighting



# Improve Profitability and Productivity of Manufacturing and Maintenance Operations

**Improve yields** in Production Line QC inspection operations by instantly quantifying that visually-observed defects are in or out of spec. Eliminate unnecessary scrap, down-time, and/or poor quality due to human subjectivity.

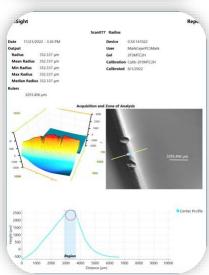
**Improve turn-around-time** in off-line inspection workflows by immediately and precisely measuring and documenting surface defects for disposition rather than performing teardowns and waiting for lab results.

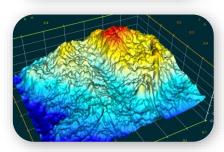
**Lower field sustainment and maintenance costs** by testing in-situ to eliminate unnecessary disassembly / reassembly, transportation, lab analysis, down-time, and inventory carrying costs.

**Establish and monitor quantifiable, repeatable pass/fail criteria** across workflows to reduce unnecessary scrap, rework, and other non-quality costs.

**Speed time-to-market in R&D and Materials Development** applications by bringing lab-grade, non-destructive measurements directly to the engineering bench or field locations.







# **Application Examples**

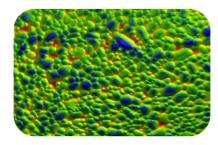
Below are examples of in-situ, non-destructive test applications for the GelSight Mobile.-In all cases, pass/fail testing and immediate pdf report generation can be performed by the user in seconds, including 3D rendering. All results can be archived or exported for long-term trend analysis. Testing can be performed on any surface, including metallic, glass, composite, plastic, painted, replica material, and more, under any lighting conditions. For hard-to-reach areas, the updated Replica Transformation feature enables direct, in-situ measurement of replica material to eliminate the traditional down-time waiting for lab results.

#### Pitting and Corrosion of **Sealing Surfaces**

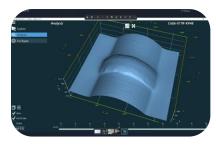


#### Corrosion coverage & analysis on a plug

Detect, measure, and report the area, height, and centroid of any pits with sub-micron depth sensitivity.



#### Weld Bead **Analysis**



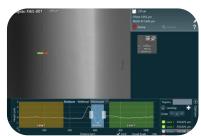
#### Weld analysis on a pipe

Immediately quantify that re-work and/or initial builds meet established criteria.

### **Additional Applications**

- Profile roughness
- Radius of Curvature
- Porosity
- Coatings / paint profiling
- Direct, non-destructive measurement of replica material for immediate analysis of defects in hard-to-reach locations

## Scratches and Dents on Pipes and Rods



#### Depth profile of scratch on a rod

Directly and repeatably perform high accuracy measurements on highly reflective, curved surfaces, including depth profiles and 3D rendering, in seconds.

## **Condensed Specifications**

Dimensions
Weight
Field of View
x-y Resolution
z Sensitivity
Capture Speed
Optional Computer
Operating System
Interface / Power Source
Data Export Format

Specifications are subject to change without notice

Series 1	Series 2
Model 1.0x	Model 0.5x
6cm x 6cm x 22cm	5cm x 5cm x 15.5cm
600g	400g
8.5mm x 7.1mm	17.0mm x 14.2mm
3.5um	6.9um
<1 um	<1 um
100mS	100mS
Microsoft Surface Pro, 12.3"	Microsoft Surface Pro, 12.3"
Windows 10	Windows 10
USB 3.0	USB-C
tmd, csv, stl, pdf	tmd, csv, stl, pdf