

SOLARIUS™

Extending the scope of
3D Measurement Technology

SOLARIUS AOP-MDS (Inspection Tool for Medical Stapler)

About Solarius

Inspection and Metrology systems for the Electronics, Semiconductor, Medical and Energy Market



Solaris History

2000



Solaris Development Corp.
San Jose, CA, USA

2015



Solaris Trading Ltd.
Shanghai, China

2017



Solaris GmbH
Essen, Germany

2023

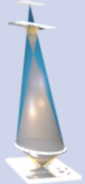
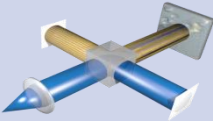
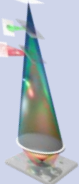

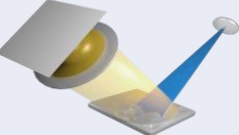
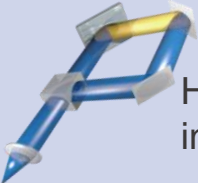

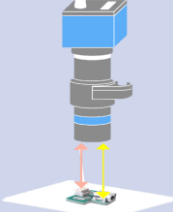


Part of Marposs Group
Bologna, Italy

WorldWide Installed Base 2,000+ Systems

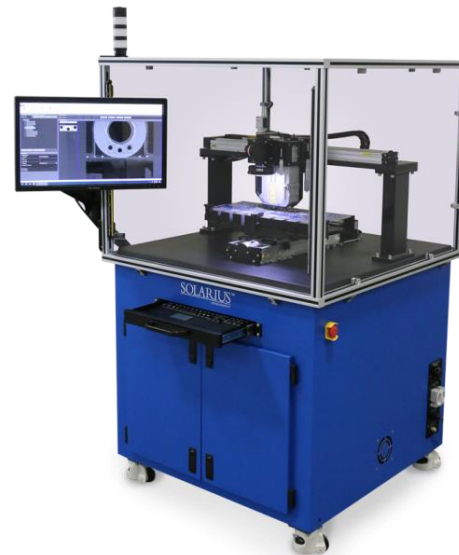


Solaris Sensor Technologies

NANO INSPECTION	 <p>Confocal Microscopy</p>	 <p>Interferometry</p>	 <p>Chromatic confocal</p>
MICRO INSPECTION	 <p>Focus Variation</p>	 <p>Triangulation</p>	
STANDARD INSPECTION	 <p>Holographic interferometry</p>	 <p>Line camera</p>	 <p>Area scan camera</p>

Solarus Platforms

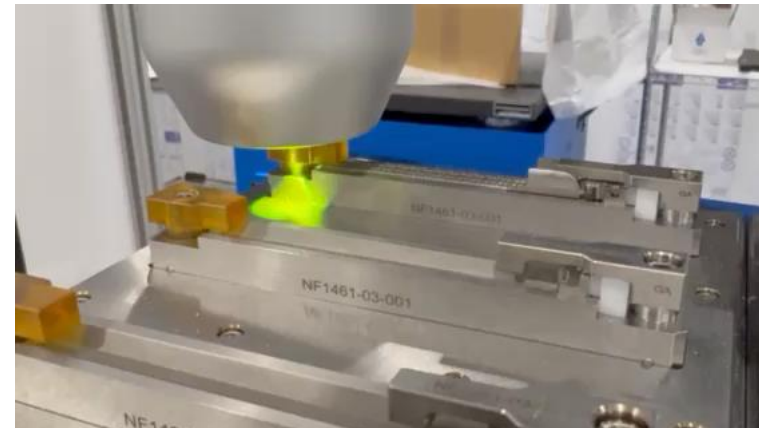
From General Metrology Desktop to Customized Metrology Solutions



Solaris AOP- MDS (Medical Stapler)



100% Automatic Quality Control and Traceability of Anvil Manufacturing for Endoscopic Surgical Stapler

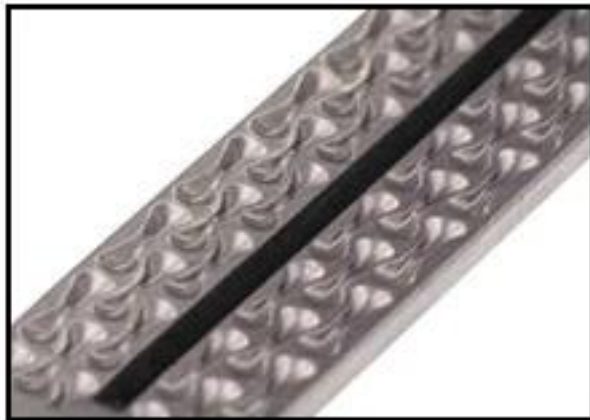


Solaris AOP- MDS (Medical Stapler)

Endoscopic Surgical Stapler

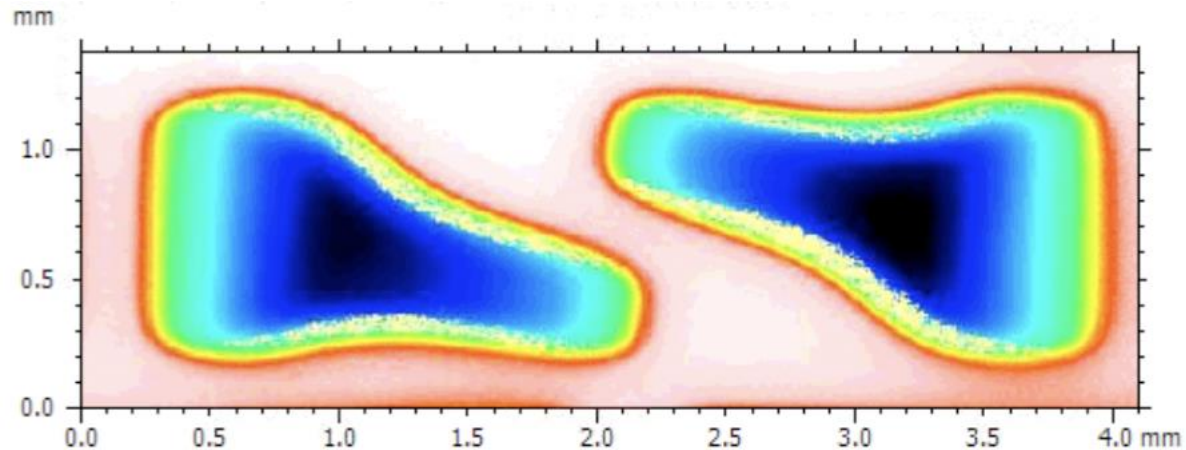
Measure dimensions and surface defects of each pocket of Linear Anvil

Linear Anvil



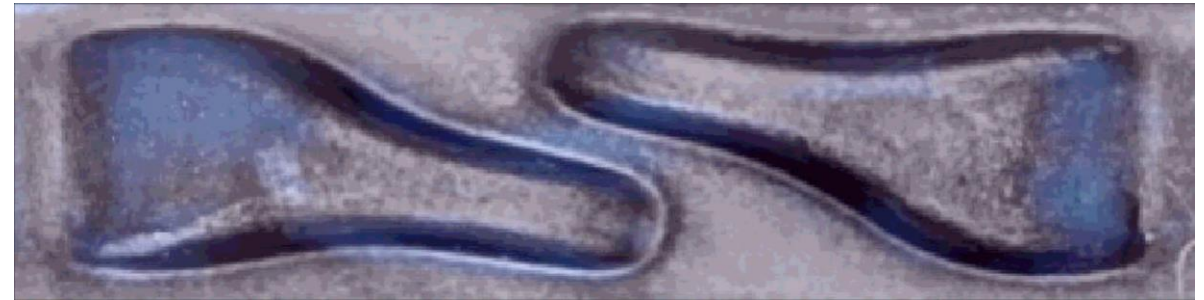
Solaris AOP- MDS (Medical Stapler)

3D Algorithm → Pocket Depth, Profile Length



Calculates Length, Width, Depth, Position of each pocket

Deep Learning (AI) → Pocket Defects



Uses Deep Learning software to find deformities

Total Cycle time per Anvil is 40s: The final Result is clear judgement Good/NG of each pocket

Solaris AOP- MDS (Medical Stapler)

BENEFITS

- Removes operator error in finding deformities
- Finds pocket defects not visible to an operator
- Increases throughput in Quality Control (100% Inspection)
- Allows for drift in position and size of pockets to be monitored
- Shows easily readable graphics of where issues are on each measured part

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Thank you for your attention!