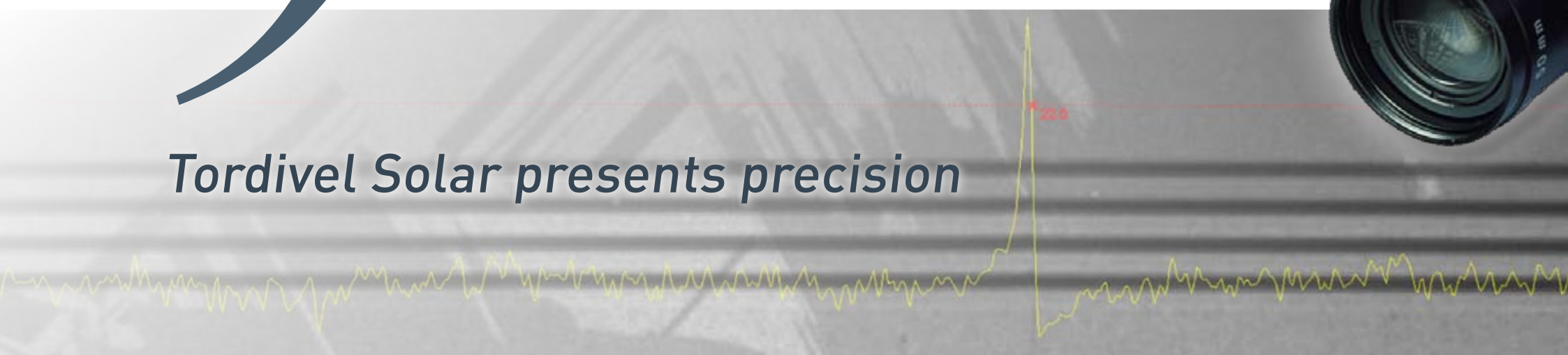




# Automatic Optical Inspection for the Photovoltaic Industry



*Tordivel Solar presents precision*





## Compact | Accurate | Reliable

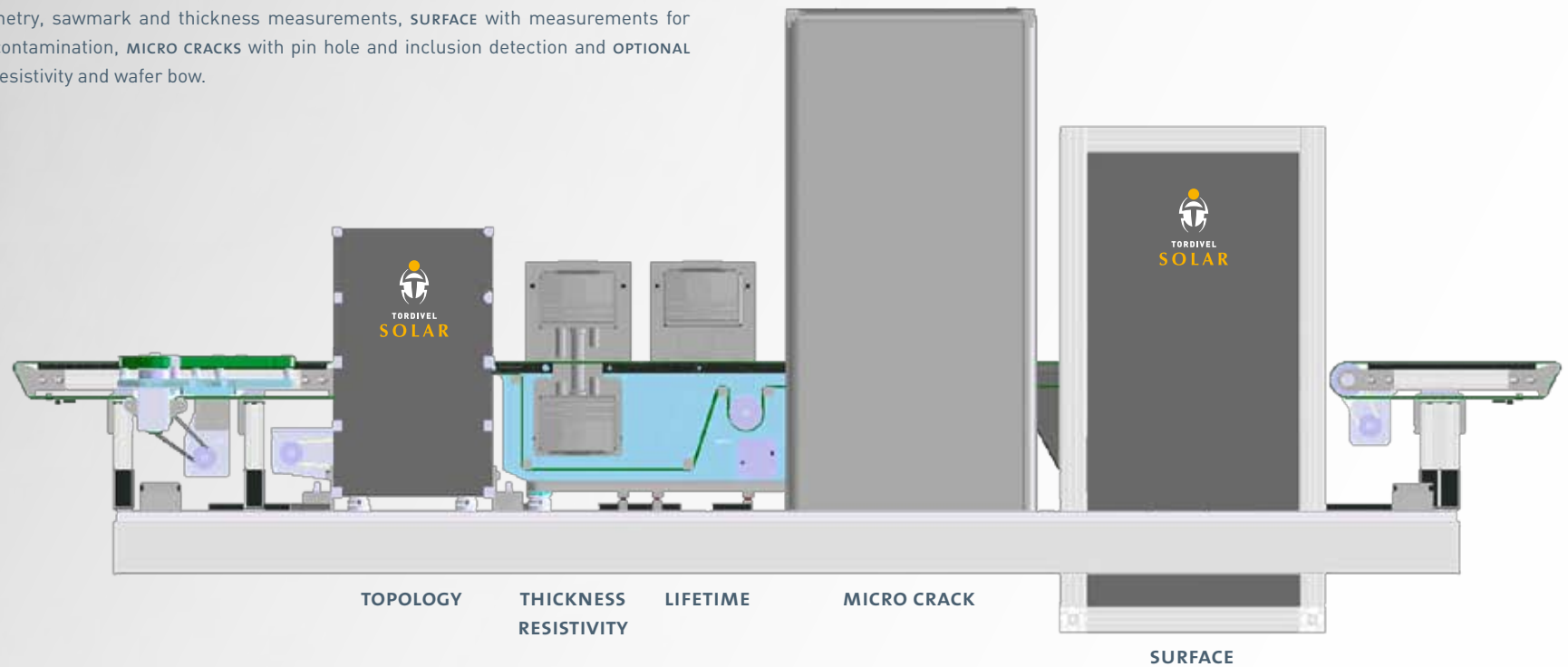
SAWMARKS | THICKNESS | GEOMETRY | CORNER SHAPE | SURFACE | DETECTION AND IDENTIFICATION | EDGE DEFECTS  
CHIPPING EDGE DETECTION | MICRO CRACKS | CONTAMINATION | GLUE RESIDUE | MICRO CRYSTAL | BOWING | 3D MODELLING

### VALUE CREATION

Tordivel Solar adds value by inspecting ingots, blocks and wafers for defects to provide measurement and classification data. This with the highest reliability and accuracy, low maintenance and total cost of ownership. Tordivel Solar markets a complete range of measurement instruments, systems and software for the two first process steps in photovoltaic industry: 3D MEASUREMENTS OF INGOTS AND BLOCKS and INLINE WAFER INSPECTION.

### WAFER INSPECTION

The inline wafer inspection solution consists of a complete range of measurements for precision quality control: **TOPOLOGY** with geometry, sawmark and thickness measurements, **SURFACE** with measurements for chipping, edge defects and contamination, **MICRO CRACKS** with pin hole and inclusion detection and **OPTIONAL** measurements for lifetime, resistivity and wafer bow.







Tordivel Solar AS is a complete supplier of inline and offline inspection and measurement systems for the global photovoltaic industry. We develop the most compact, accurate and reliable inspection instruments for automatic production control of ingots, wafers, blocks and solar cells.

Tordivel Solar AS with its powerful technological platform aims to be a global leader through strong focus on development, service and sales of optical measurement systems for the PV industry.

The systems are built on Scorpion Vision Software® for user friendliness, configurability, reliability, flexibility and ease of maintenance. Off-the-shelf world class hardware components including area- and line-scan camera technology are used.

Tordivel Solar has several key OEM partners within the PV industry for seamless integration of complimentary instruments and system solutions.



#### THE SCARAB IN ANCIENT EGYPT

The Egyptians imagined a huge scarab beetle rolling the ball of the sun across the sky, which led to an association of the beetle with the sun god Ra.

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