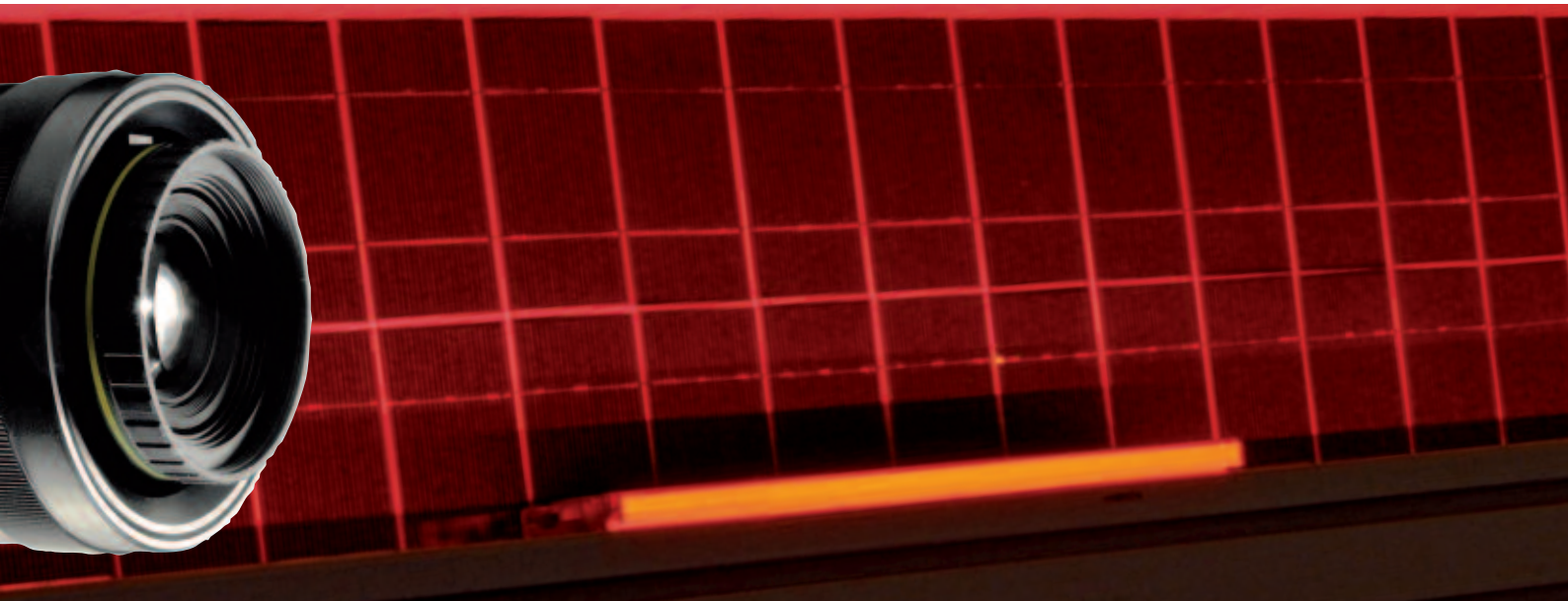


Product Info

SOLARSCAN-Panel: Reduce costs and material loss.
Defects eliminated. Process optimized. Quality maximized.



Quality and costs under control:

- Pre lamination
- Post lamination

In the production of mono- and polycrystalline solar modules, lay-up and lamination are critical processes. Once all the strings have been placed and connected, the panel is inspected one last time for defects, before laminating. This is the last chance for correction of mispositioned or defective strings. After laminating, a final inspection is necessary, during which the module is inspected based on multiple yet specific criteria.

Before laminating, **SOLARSCAN-Panel** monitors the quality of the cell matrix:

- Position and arrangement of the cells relative to each other, as well as relative to glass edges or frames
- Connection defects
- Cell damage

After laminating, the system ensures sustainable quality through flawless final inspection of cells, glass, laminate and connectors following numerous criteria.

Applications:

- 100% automatic, optical in-line inspection:

- Pre lamination
- Post lamination

Detection of defects such as:

- Cell defects, defective structure
- Glass defects
- Laminating, connector defects

Advantages:

- Reduction of production costs
- Increase in product quality
- Process performance improvement and process optimization
- Early identification of assembly defects

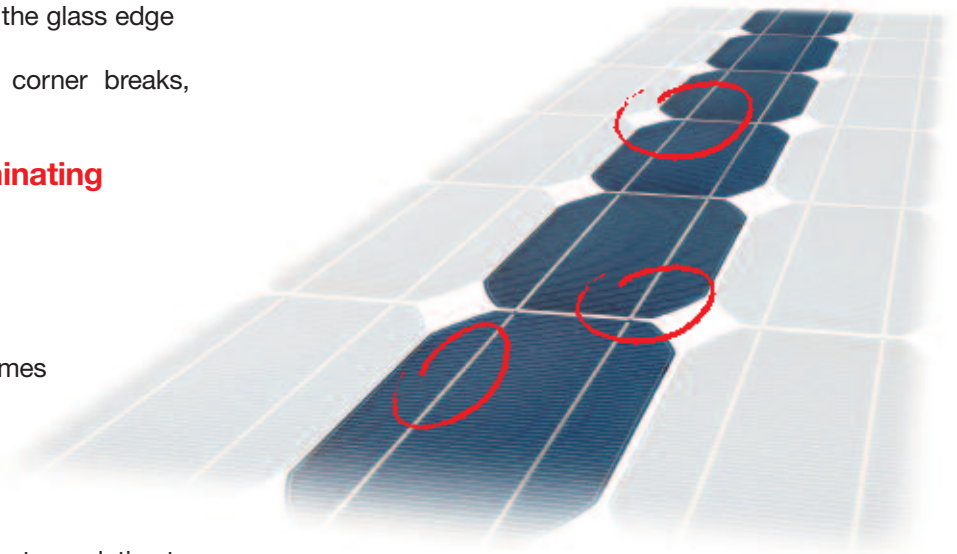


Inspection features before laminating

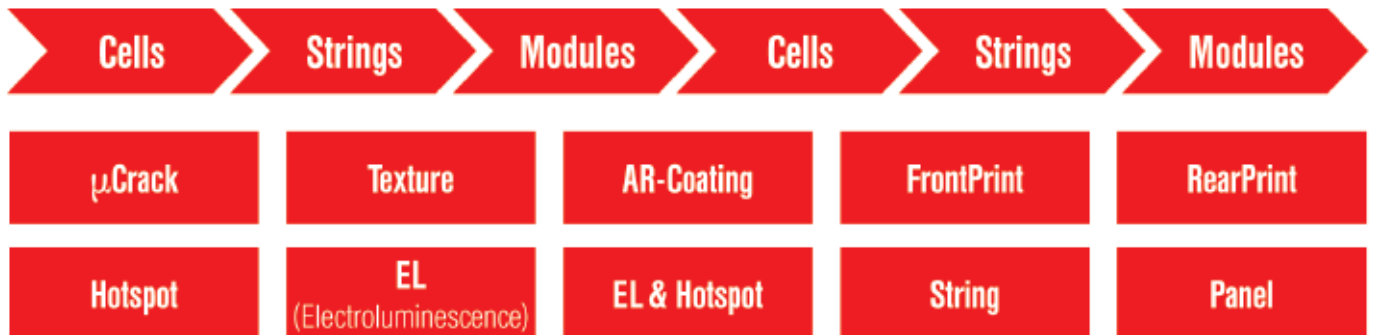
- Position and arrangement of the cells relative to each other, as well as relative to the glass edge
- Connection defects
- Cell damage such as breaks, corner breaks, holes, foreign matter...

Inspection features after laminating

- Laminating:
 - Air bubbles, foreign matter
- Cells:
 - Distance relative to each other as well as to glass edges or frames
 - Damages such as breaks, corner breaks, chips, holes
- Glass:
 - Lateral position, dirt, scratches
- Connectors:
 - Twist and distance of the connectors relative to each other, as well as relative to the frames or glass edges.
- Frames:
 - Cracks, scratches, bow



SOLARSCAN: „Best Practice“ product line for the complete process chain



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