

Detection of the Smallest Cracks with NANO-D

Higher Productivity and Line Uptime by Reliable Sort-Out of Instable Wafers

Highest Throughput
4,500 Wafers / h



Requirements & Targets

Save resources and improve yield with micro crack detection

- Reduce production costs with better use of consumables and process only good wafers
- Increase production yield by reducing breakage during processing

Inspection Solution

NANO-D

- Optimized imaging technology for micro crack detection
- Easy integration into any state-of-the-art wafer handling system
- Scan speed up to 1.500 mm/s - smart design for high performance and fast ROI

System Application

Reliable crack detection

- Detection of micro cracks in incoming inspection and all following processes
- Robust and reliable detection and sorting of defective wafers as early as possible in the process

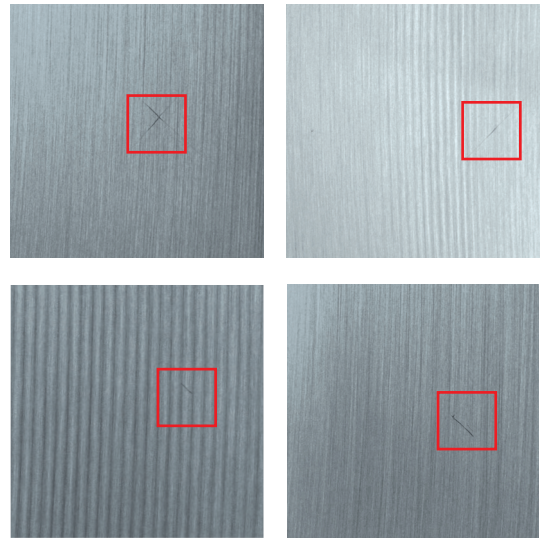
Benefits for Production

Benefit from the key to cost saving and improved quality

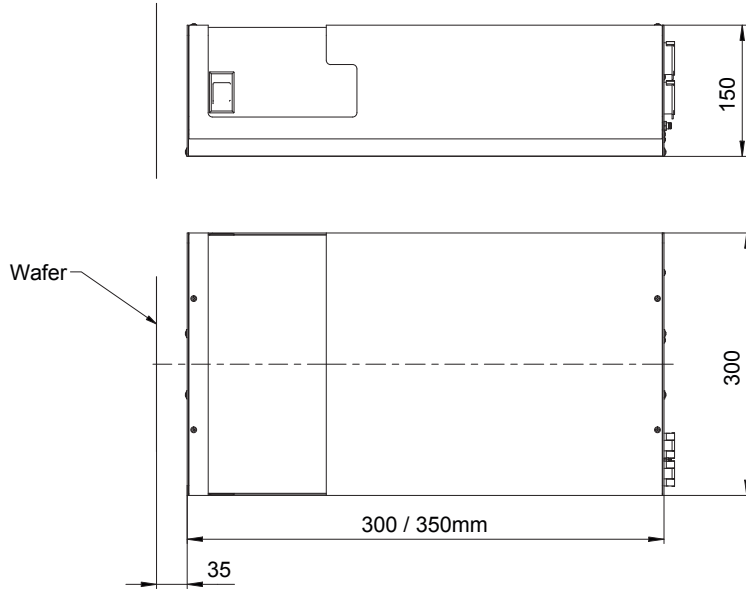
- Reduce production costs by saving resources – use material and machines to process only wafers that do not break
- Less breakage in the line reduces downtime and increases production throughput
- Reclaim breakage – improve manufacturing and wafer handling process for wafer suppliers
- Early detection of cracks in wafer to reduce costs in solar cell production

Inspection Features

Micro crack detection	Number, size, and position of micro cracks
Other defects	Contour defects, bulk material inhomogeneities



Optimized imaging technology ensures reliable crack detection.



Wafer Inspection

Texturing

Diffusion

PSG Etching

AR Coating

Printing

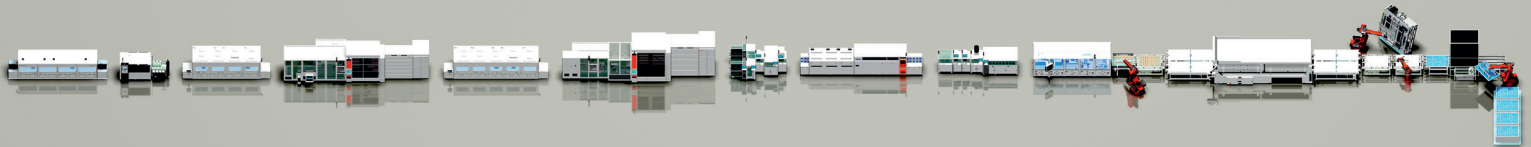
Sorting

Stringing

Lay-up

Lamination

Quality Inspection



WAF-Q
NANO-D
TOPO-3D
YIELDMASTER PL-Wafer
STAB-TEST

TEX-Q

4-TEST

ISO-TEST

COL-Q

PRINT-Q FS
PRINT-Q RS
PRINT-Q ONE
PRINT-Q ONE SE
NANO-D

CELL-Q FS
CELL-Q RS
CELL-Q ONE
MICRO-D
YIELDMASTER
PL-Cell

STRING-Q EL
STRING-Q VISION

MOD-Q

MOD-Q

ISRA VISION

Germany
Tel.: +49 (7531) 942 27 0

Belgium
Tel.: +49 (2366) 930 00

Spain
Tel.: +34 (93) 839 70 32

France
Tel.: +33 (0) 1 39 09 32 00

Italy
Tel.: +39 (0464) 490 603

UK
Tel.: +44 (1442) 261 202

USA
Tel.: +1 (770) 449 77 76

Brazil
Tel.: +55 (11) 347 611 32

Turkey
Tel.: +90 (212) 285 97 45

Russia
Tel.: +7 (921) 055 63 30

P.R. China
Tel.: +86 (21) 685 002 88

Japan
Tel.: +81 (45) 534 99 11

Korea
Tel.: +82 (31) 806 973 00

Taiwan (R.O.C.)
Tel.: +886 (3) 250 01 48

India
Tel.: +91 98 23 16 24 55

Optimize your ROI with the technology leader **ISRA**
info@isravision.com www.isravision.com