High Precision Technology
for Wafer Edge Inspection

EdgeScan

Wafer Edge Quality under Control
from Wafering to Backend

ISRA
VISION

Wafer edge inspection

ISRA VISION's core knowledge is in high speed surface inspection tasks – especially with the use of line scan cameras (vs. the typically used matrix cameras for most AOI applications). For edge inspection specifically, by looking onto the edge of a wafer from 3 sides while simultaneously rotating and scanning at the necessary pre-alignment step, the module enables edge inspection for chippings, scratches, micro cracks, and etch residuals etc. in parallel to other process steps.

The scan covers the full 360°, excluding notch, with short cycle times of typically 10 seconds for a 300 m wafer.
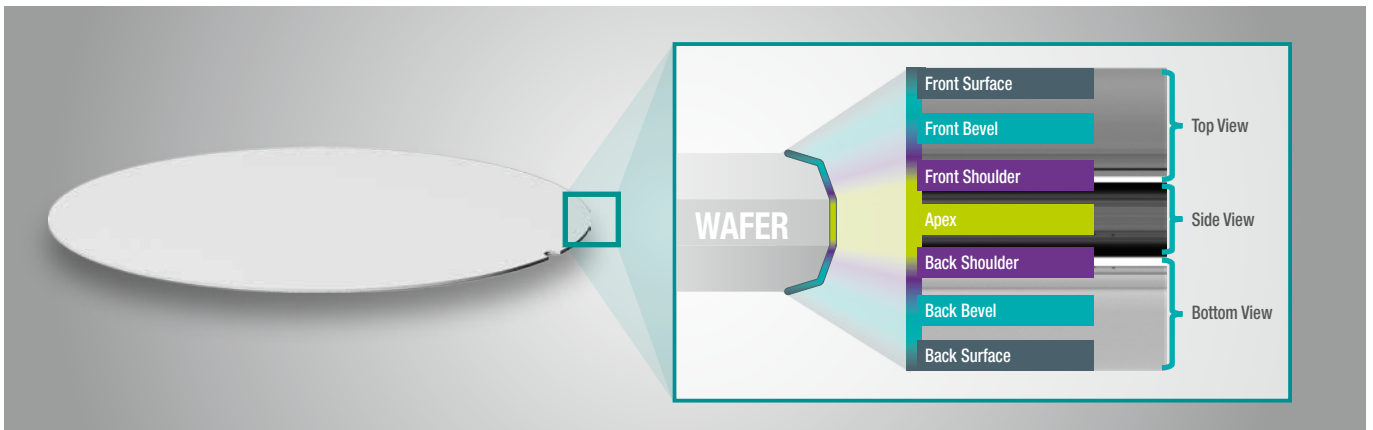
This optional EdgeScan sensor can be added to any existing automated process tool and, of course, be integrated into CrackScan or WafQScan systems.
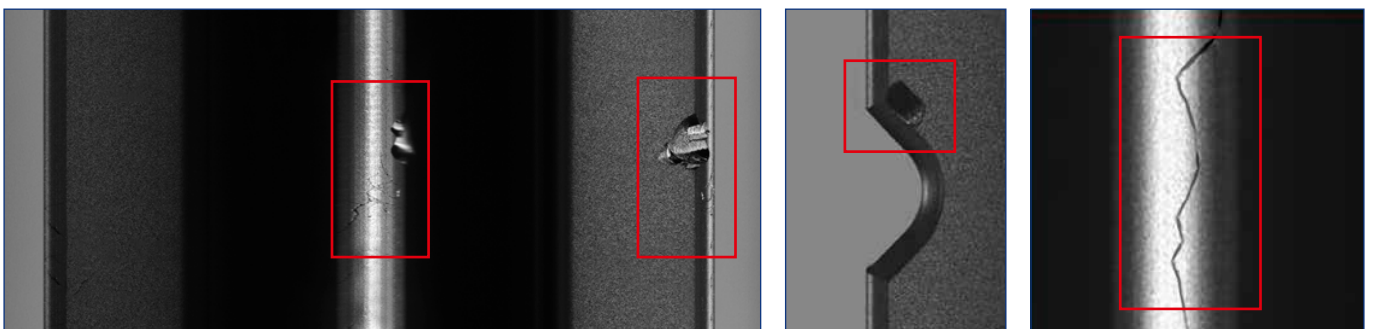
Technical details

- Camera type: Linescan, 1 – 2 k
- Pixel resolution: typ. 3 µm/px
- Optical Setup: 2 x 45° prisms & direct side view for 3-sided image acquired
- Scan speed: up to 60 mm/sec
- Throughput: doesn't reduce throughput as long as main process cycle time < 15 sec
- Additional Features:
  - Utilizes integrated wafer pre-aligner
  - Propriatary software algorithms
  - GUI acc. SEMI, implemented in automation GUI
  - Option: **Notch scan**

EdgeScan – ISRA wrap-around Multiview

Simultaneous inspection of the front surface, bevels, apex, and back surface of the wafer, integrated in pre-alignment unit
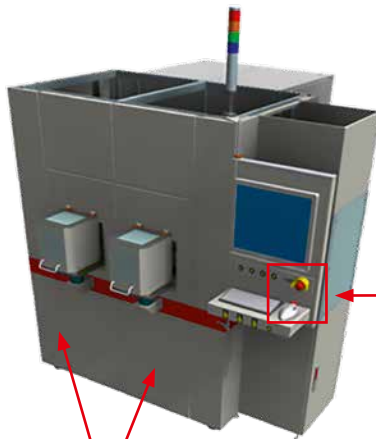

Edge defects – wafer edge inspection with "Multiview-approach"

> 10 µm diameter chippings, scratches

for Wafer Edge Inspection
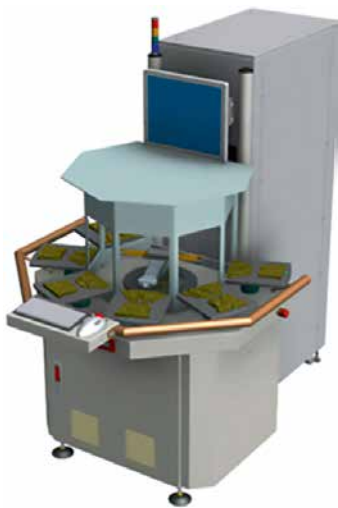# Scan

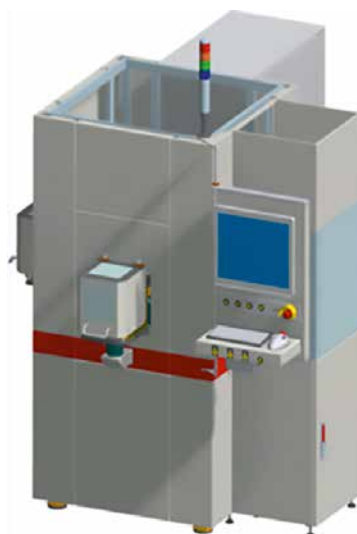**Typical end of line „Final QC"**

Load port
A+B

Wafer Pre-aligner with
integrated EdgeScan

Auto-system configurations with EdgeScan integration option

Customized, seamless integration into wafer handling solutions:

Module connected
to 150 / 200 mm wafer sorter

200 / 300 mm
bridge tool

Cluster with multiple inspection modules,
FOUP-OHT compatibel

Innovation for Semicon Inspection

**We Are the Innovators in Optical Inspection.
Best Practice. Best System. Best Service.**

ISRA VISION has been a leading supplier of high-performance quality inspection systems for more than 30 years. Today, our completely automated and highly accurate solutions set the standard for the detection of material defects and total process control in numerous markets.

For the semiconductor industry, ISRA has combined leading-edge technologies to provide high-speed and high-precision quality controls along the production chain – universally applicable and intuitively easy-to-use.

Customers choose ISRA for its ability to develop products consistent to their requirements. Benefits are the identification of high efficiency enhancements including cost saving potentials. To achieve this goal, more than 900 ISRA employees worldwide work to contribute to your success.

Your Global Partner for Surface Inspection.

We offer our extensive experience and a highly qualified team of experts to design and implement solutions for advanced applications.

We ensure that our mission continues beyond our shipping dock – just contact our Customer Support and Service Center.

We guarantee excellence to our customers – from consulting to service, from tailored solutions to worldwide support.

We can help to make your business more competitive.

**Challenge Us.
Inspect to Control – with ISRA VISION**