

Consistent, Reliable, Efficient

Operators get instant feedback

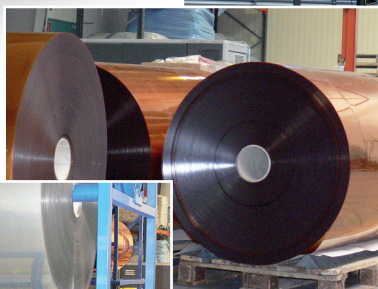
Whether pharmaceutical barrier films, release liner (silicone coating), laminates for labels, adhesive tapes for packaging, specialty tapes, metallizing, extrusion coating, print, slitting or other converting applications, the inspection unit consists of a modular, scalable set of components to fit the specific customer demands.

The following is an example of problems that it detects daily.

- Voids/skips
- Blade scratches
- Contamination
- Repeaters
- Insects
- Pin-holes
- Wrinkles
- Scratches
- Inconsistent coating
- Coating globs
- Bead spots
- Blisters
- Color and color deviation
- Haze
- Varnish spots
- Oil spots
- Water spots
- Edge cracks
- Missing layer
- Delamination
- Bubbles
- Finger prints
- Die streaks and lines
- Coating width and deviations
- and much more

The systems are used for: and can be integrated on:

- Coating on film, paper, ...
- Release liner
- Metallizing
- Silicon on film, paper and foil
- Lamination of film, foil, nonwovens ...
- Speciality coating processes
- Coating voids
- Topological defects
- Pressure marks
- Coating and painting lines
- Slitter, rewinder
- Doctor machines
- Powder caster
- Calander and doctor blade
- Embossing lines



Pharma +++ Packaging +++ Food +++ Hygiene +++ Li-Ion battery electrodes +++ Seal foils +++ Reflex foils +++ Decoration products +++ Fuel cell membranes +++ Separator film +++ Rubber +++ Textile coating +++ Carbon fiber fabrics +++ PrePreg +++ Adhesive tapes +++ Glass fiber fabrics +++ Protective film and foils +++ other technical surfaces

Innovations in Automated Optical Inspection for all Advanced Materials

**We are the innovators in optical inspection.
Best practice. Best system. Best service.**

For over three decades, ISRA VISION has become a leading manufacturer of highly accurate automated optical quality inspection systems.

More than 10,000 successful applications reference our sustainable experience in the field of machine vision products – and our ability to innovate.

Today our products are operating worldwide in such industries as glass, plastics, foils, print and automation. It is our goal to set system standards for total process control in these industries.

Customers choose ISRA for the ability to develop products consistently to their requirements. More than 900 employees at 25 locations worldwide are working to contribute to your success.

Your global partner for surface inspection.

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

We assure that our mission continues beyond our shipping dock. Just challenge our Customer Support and Service Center (CSSC).

We guarantee excellence to our customers – from consulting to service, from tailored solutions to worldwide support. We can make your business more competitive.

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

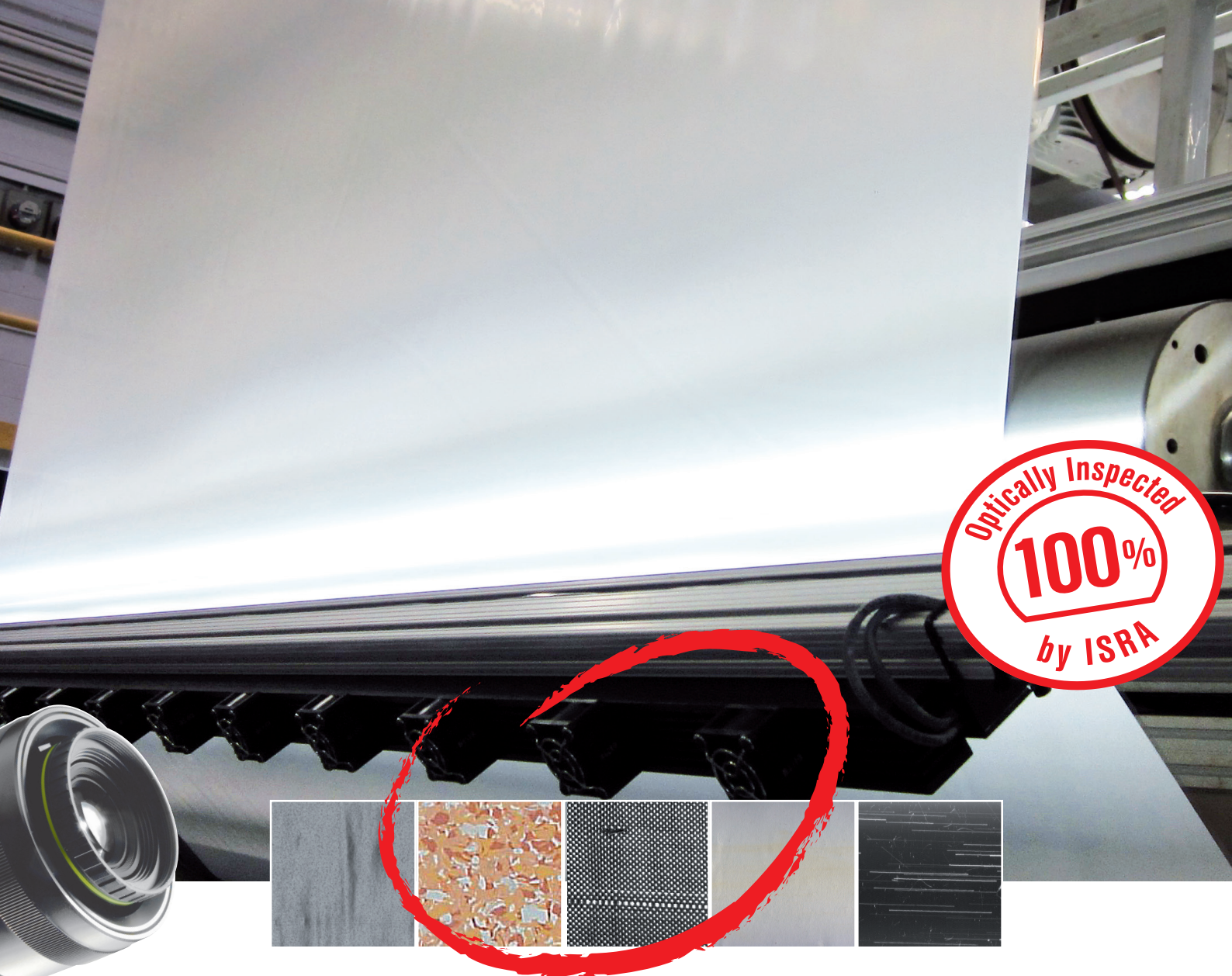


Optimize your ROI with the technology leader **ISRA**

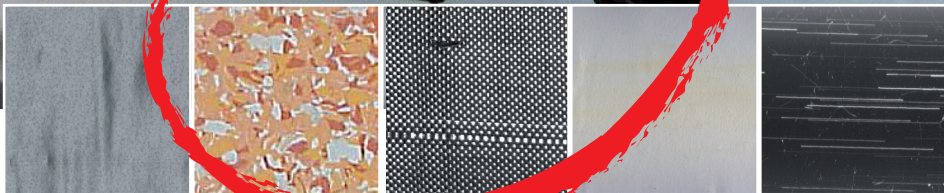
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Optically Inspected
100%
by ISRA



Optical Surface Inspection
For all Converting Applications
Fast. Reliable. Efficient.

**Leading the Way
in Converting
Process Improvement**

ISRA
VISION

Ensured Quality in One View

Increase throughput, optimize process

ISRA VISION's Advanced Optical Surface Inspection solutions for converting enable reliable quality control, process optimization and cost reduction all in one package, by providing you with the tools to remove waste. Key features include:

- User interface providing immediate feedback
- Accurate, real-time self-learning defect detection and classification
- Easy to configure defect categories
- Brilliant defect images combinable with real-time map providing the operator graphical feedback on the process
- Archiving of all defect images
- New job set up in less than 20 seconds
- Settings saved according to product or customer definitions
- Classification of all defects stored with location
- Statistical reports, defect density analysis, trend and lane data
- Process alarms and trending tools to achieve zero-defect-production
- Software for quality and yield management optimization
- Certified quality: validation and calibration tools to support quality auditing and consistent inspection
- Configurable alarms, repeat defect, major defect, and trend alarming
- Multi-view, multi-mode, modular LED illumination to recognize smallest "invisible" defects
- Precise defect marking/flagging control
- Remote diagnostics capability
- Scalable: cameras added as needed

- ReViewer for multi-user historical data analysis during inspection
- RT (Real Time) Viewer to view on-line real time from several remote locations
- RewindManager allowing defect tracking to your finishing department and its automatic tracking for efficient removal
- Inspection of extrusion, coating, printing and all converting steps with a single system

The resulting benefits?

- No more embarrassing defects to your customer
- Reduce waste
- Improve quality
- Increase throughput, optimize your process
- Certify final quality – put a 100% seal of quality to your products

Metal

Film

Nonwovens

Converting Applications

Coating

Lamination

Glue

Adhesive

Metallizing

Hot-Melt

Barrier

Embossing

Print

Cutting

Finishing

Others

Validated Processing

Certified Quality



Precise, Fast, Flexible

All-in-one process monitoring

Advanced 3 step classification

to deliver reliable classification in real-time.

Web Quality Evaluation

Shows at a glance, a summary of the web quality to the operator for easy decision support: e.g. to stop actual processing and start a new roll because the actual one, or a single slit/lane, will be waste.

- Easy decision support using the Roll Defect Map (RDM) quality feedback, defect trend and defect count
- Lane/slit grading and alarming to increase high quality throughput

Quick-Select

A feature to keep it simple for the operator: Quick selection of those defects to be shown in the rolling map, but nevertheless all acquired quality data is stored and accessible!

- See your converting defects of interest with just one click!

Defect comments

Get the defect image with all the details about the defect by clicking on the defect, e.g. in the rolling map or in the defect list. Enter any comment related to the defect, e.g. in case the operator knows the reason for this special defect – this can be documented here.

Measurement functions

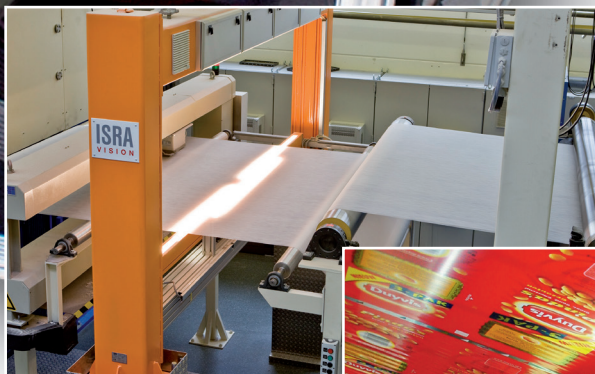
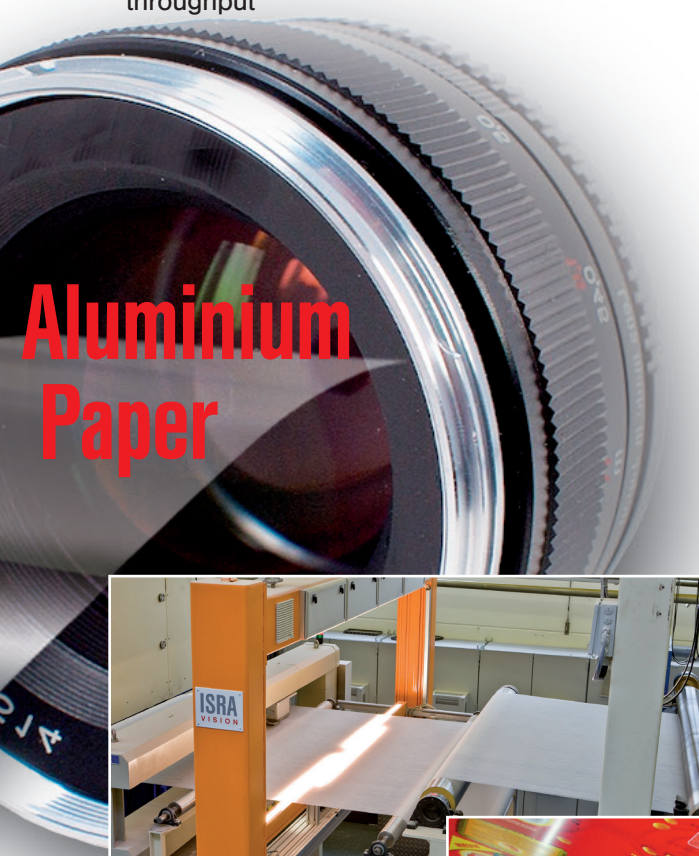
to support the exact defect sizing for reliable quality decisions.

- Measurement of lane coating stripes, top to bottom coating registration reporting
- Web/coating width measurement with alarm-on deviation from pre-configurable limits

Instant alarming for process improvement

to assure highest production efficiency and product quality.

- Completely configurable
- Intelligent: quality rules can be defined for alarming
- Trend alarming
- Segment alarming on defect clusters



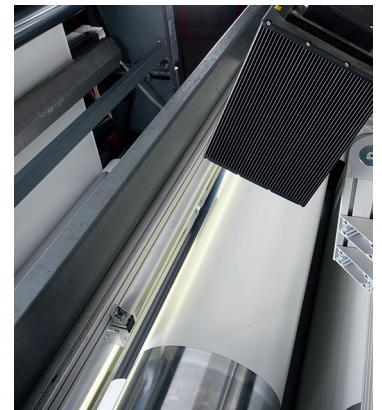
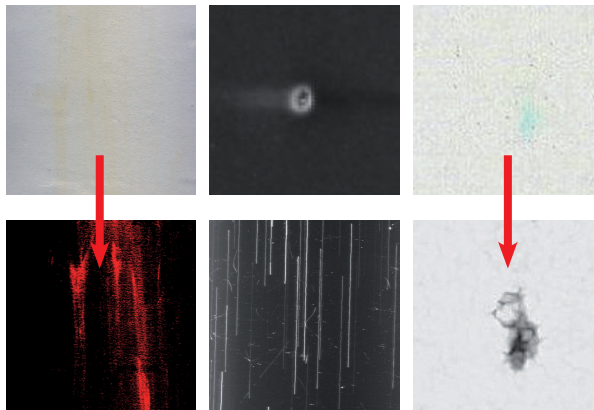
Visualize, Analyze, Optimize

Ingredients for certified quality production

Color surface inspection

assures for the detection of “invisible” defects like burner, filaments and more. The use of color inspection combined with the sophisticated multi-view, multi-mode LED illumination technique makes the detection of smallest color deviations at an early stage possible – reliable in-line 100% color monitoring.

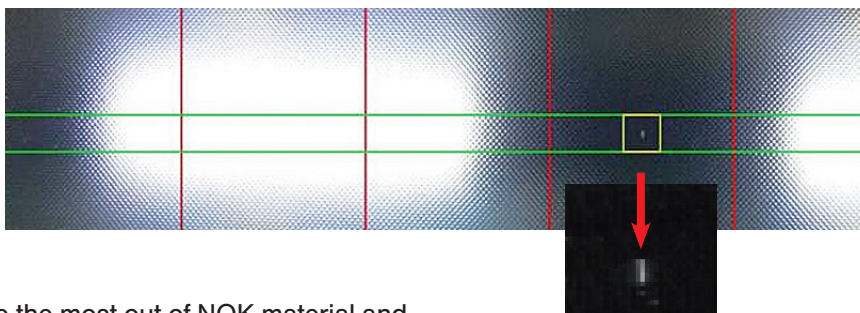
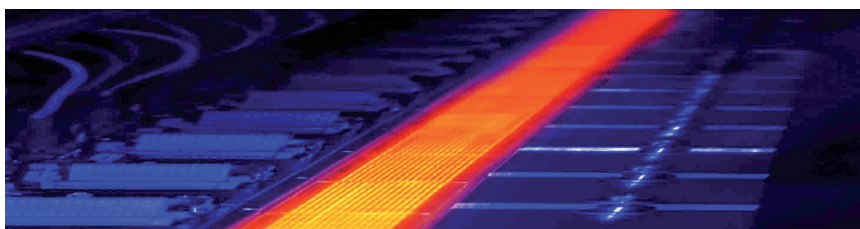
- For the latest quality challenges in your production



Calibration and validation tools

help you to audit your production and to certify your quality. The hands-on toolset includes geometrical and photometric calibration, as well as software and hardware to support validation and auditing. Regular use ensures for consistent, validated inspection and thus for an advanced system performance and availability.

- Get more out of your production with highest best quality yield



Slitting optimization

enables you to make the most out of NOK material and to convert parts of it into „OK“ status. As a special feature, the daughter roll layout editor ensures daughter roll slit optimization: the roll cut layout allows for loading a mother roll and to arrange cross web knife positions and down web cut lengths for best cut optimized processing. The resultant sub rolls or daughter rolls data can be saved and/or printed. Easy processing with just a click on a button.

RewindManager

automates the removal of waste in the finishing department. By interfacing with a synchronized database, the user can select which defects need to be removed. This enables production to maximize value in a production roll.

Slitter or doctor machines can be used at optimum speeds increasing overall efficiency. By automating waste removal, while inspecting and measuring during production, the twin goals of waste reduction and quality control can be guaranteed.

- Optimize waste removal while adhering to splice restrictions virtually, before the roll hits the finishing department
- Guarantee that embarrassing defects do not get out the door
- Provide that workflow link between production and finishing
- Increase output of slitter and doctor machines through automation