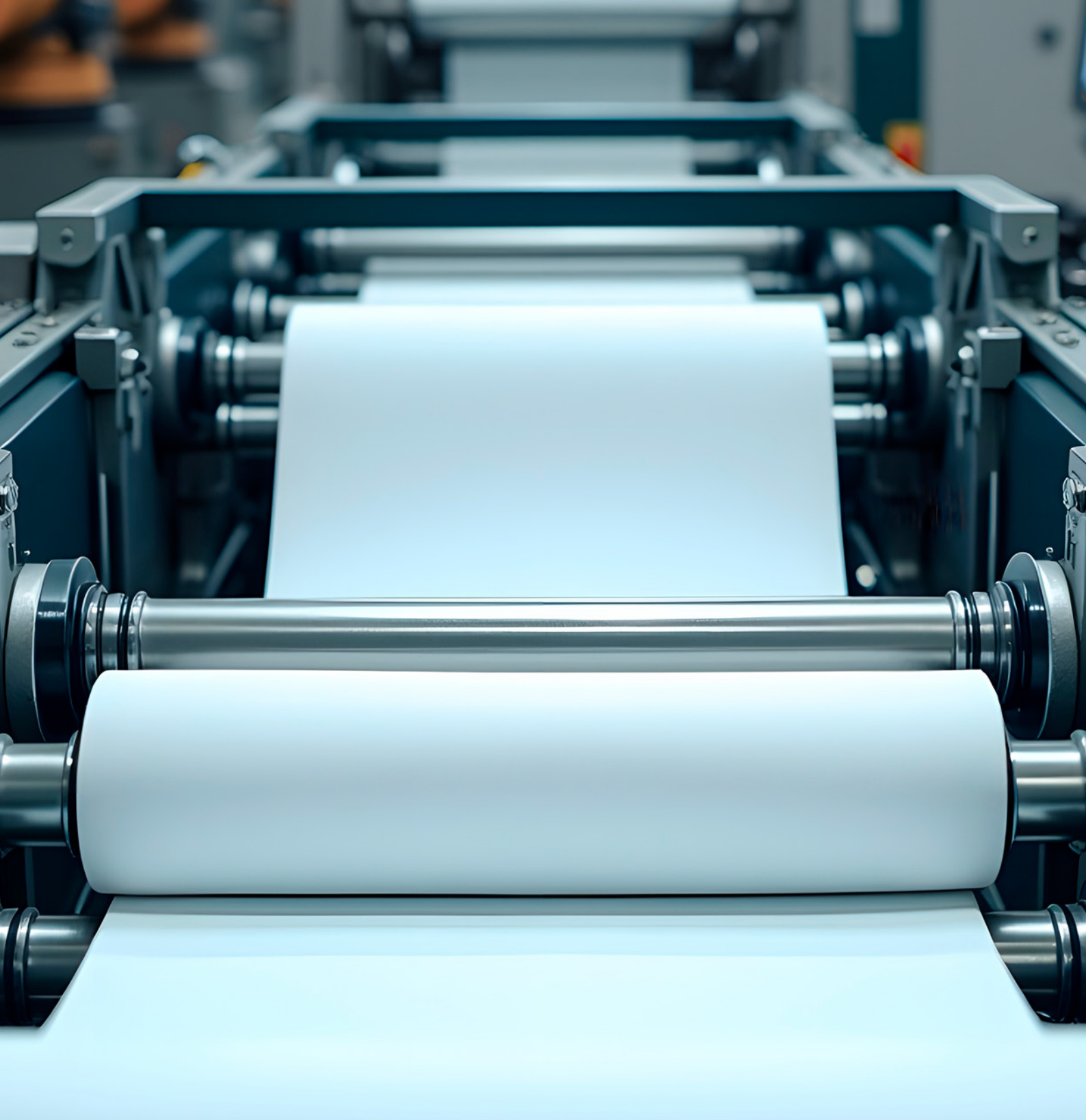




Quality assurance for nonwoven production

100% surface inspection

ISRA
VISION

■ Part of Atlas Copco Group



Our inspection systems support you to

→ Reduce claims

→ Enhance production efficiency

→ Achieve higher process control



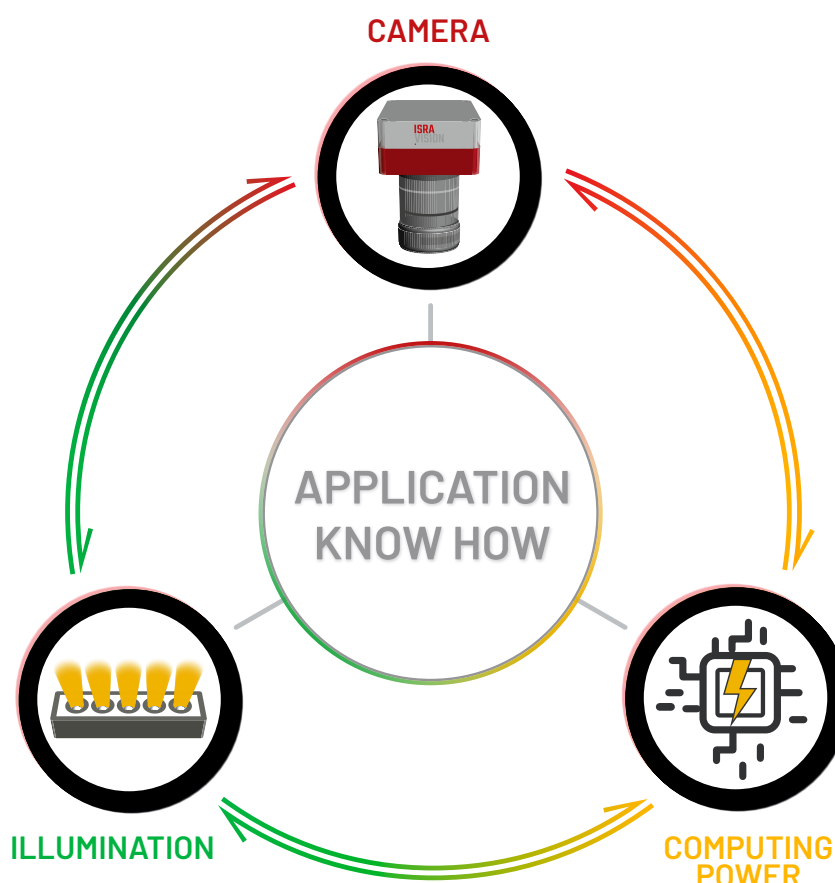
YOUR PARTNER IN NONWOVEN QUALITY ASSURANCE

ISRA VISION is your trusted partner for quality assurance in nonwoven production. As a globally active machine vision specialist, we deliver customized solutions using advanced, high-performance cameras, application-specific lighting, and intelligent software algorithms. Our broad experience across diverse industrial sectors gives us deep expertise in this field. From production to downstream processes such as lamination, coating, slitting, and printing, our inspection systems and software support you throughout the entire workflow—offering you the full power and precision of industrial image processing.

Nonwoven production demands precision, consistency, and efficiency – especially under growing pressure to reduce costs and raw material usage. ISRA VISION is your partner of choice when it comes to meeting these challenges with confidence. As a leading provider of inline surface inspection systems, we combine decades of application experience with cutting-edge technology to help you maintain stable product quality without compromising yield. Our systems detect and classify even the smallest defects in real time, enabling data-driven decisions for slitting, roll grading, and downstream defect handling. With robust solutions and deep process know-how, we ensure full control over your production—from the first meter to the last.

The strength of ISRA VISION:

- In-house production of high-performance cameras
- Intelligent illumination solutions
- Sophisticated & application-oriented software features



Learn more:



YOUR PARTNER IN NONWOVEN QUALITY ASSURANCE

No room for defects – why inline inspection matters

Tight specifications, complex processes, and rising raw material costs leave zero tolerance for defects in nonwoven production. Undetected issues can lead to costly waste, product recalls, reputational damage, and unplanned downtime.

Inline inspection protects your product, your process, and your brand.

By detecting defects in real time, before they escalate, it ensures reliable quality and consistent output. This is especially critical for high-demand applications in hygiene, medical, and filtration—where flawless surface quality is non-negotiable.

When selecting a surface inspection system, manufacturers in the nonwovens industry consistently tell us they're looking to:

- Ensure long-term compliance with brand-owner specifications
- Reduce risk while staying within budget
- Rely on a proven, trustworthy technology partner
- Improve production efficiency and reduce waste
- Stay competitive and meet evolving industry standards

With ISRA VISION, you gain a reliable partner who understands your challenges and delivers proven solutions—designed specifically for nonwovens.

TAILORED FOR YOUR MARKET SEGMENT

Our systems
adapt to all key
applications in the
nonwoven industry



HYGIENE

- airlaid
- drylaid
- spunmelt
- spunbond
- wetlaid



MEDICAL

- airlaid
- drylaid
- spunmelt
- spunbond
- wetlaid



WIPES

- airlaid
- drylaid
- wetlaid



AUTOMOTIVE

- drylaid
- spunmelt
- wetlaid



CONSTRUCTION

- drylaid
- spunmelt
- wetlaid



FILTRATION

- drylaid
- spunmelt
- spunbond
- wetlaid



CONVERTING

- calendering
- coating
- embossing
- lamination
- printing
- rewinding
- slitting



YOUR PARTNER IN NONWOVEN QUALITY ASSURANCE

Your advantage with ISRA VISION

ISRA VISION inspection systems are built to master the diverse challenges of nonwoven production – from high-speed spunbond lines to sensitive drylaid and wetlaid processes. Whether for hygiene, filtration, or medical applications: consistent, defect-free, and fully traceable quality is essential to meet your customers' expectations.

Our inline systems combine high-speed line-scan cameras with optimized lighting to detect even the most subtle surface defects in real time. Integrated rule-based control and automatic stop functions minimize manual intervention and ensure seamless, documented quality monitoring.

Learn more:



Key capabilities at a glance

- Real-time surface inspection
- Software tailored for nonwoven production
- Modular system design for all line configurations
- Seamless connectivity to MES/ERP (e.g. via OPC UA)

Seamless process integration

With our machine vision systems, you get precise, reliable results – enabling nonwoven roll inspection, defect visualization, and consistent quality at any web speed.

Installed post web-formation
and during converting stages

Connects to coating, lamination,
printing, rewinding and
slitting processes

Interfaces: OPC UA, MES/ERP,
automatic roll reporting and
alarms, metal detection
devices



Monitored GSM for efficient raw material consumption

Roll grading for minimized rework

Maximized usable output

Learn more:



YOUR PARTNER IN NONWOVEN QUALITY ASSURANCE

Reduce material waste & optimize raw material use

Nonwoven production is cost-intensive – especially when grammage (GSM) safety margins are unnecessarily high. ISRA VISION helps you avoid this. With our inspection systems, you can precisely monitor your GSM, ensuring you stay just above the tolerance threshold – not 5 grams more. This alone significantly reduces raw material consumption. Our system enables intelligent slitting optimization by identifying defect-free zones to configure rolls efficiently and reduce waste.

Smart yield management through roll grading ensures that material is allocated to the most suitable customer applications – **minimizing rework, cutting costs, and maximizing usable output.**

Save material, save costs, and boost efficiency – with quality you can measure.



Challenges

Reducing the GSM value in order to save raw materials can easily lead to thin spots or even holes.

Solutions

Monitoring the GSM value using pre-defined thresholds can prevent defects.

Learn more:



YOUR PARTNER IN NONWOVEN QUALITY ASSURANCE

Defects happen. What matters is how you handle them.

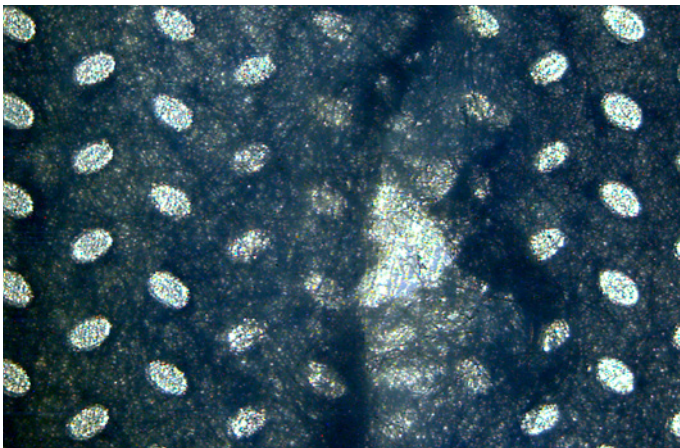
Even in the most advanced nonwoven production lines, process parameters can fluctuate. Variations in raw materials, bonding inconsistencies, or environmental factors like contamination can introduce surface defects at any stage—whether during web formation or downstream finishing steps like coating, lamination, or printing. These flaws are often microscopic and impossible to detect with the human eye at production speed, yet they can have a serious impact on product quality, especially during later converting steps like slitting or rewinding.

That's why reliable inline inspection is essential. ISRA VISION systems detect defects immediately as they occur, preventing costly waste, rework, or damage further down the line. And not all defects are equal—some may be tolerated, while others demand urgent attention. Our AI-based defect detection uses machine learning to classify each anomaly into meaningful categories, giving operators clear guidance for action and enabling continuous process improvement.

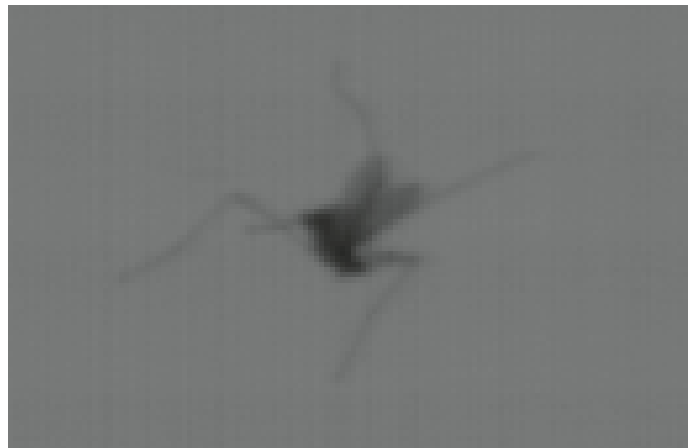
Classification Categories:

- **Tolerate** – Non-critical, no action required
- **Observe** – Within tolerance, should be tracked
- **Critical** – Requires immediate operator intervention
- **Compromised** – Must be removed or corrected

The classification results influence the rewinding and cutting processes. Defective areas can be easily identified and removed during these process steps using intelligent software solutions such as Rewind Manager, which displays the exact position of the defects.



hole / thin spot



Contamination e.g. insects



Production defects

Color defects (stains, spots)

Contamination (dust, insects, oil, fibers)

Damaged or clumped fibers

Holes, cracks, shrinkage

Bonding defects

Irragular GSM-value

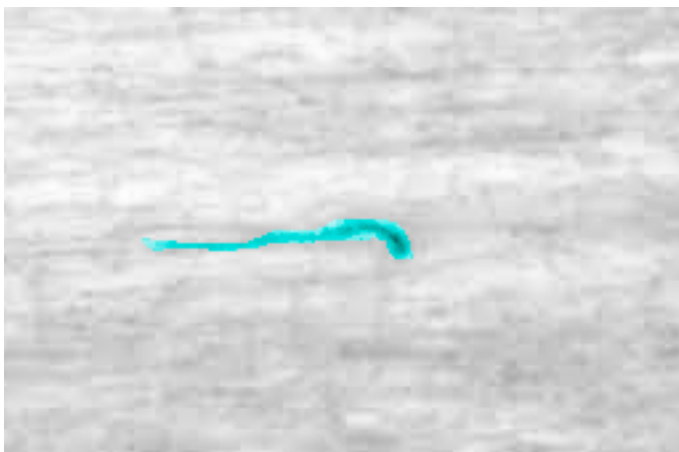
Converting defects

Coating: voids, streaks, orange peel, blisters

Lamination: wrinkles, bubbles, delamination

Printing: color variations, smears, register defects

Slitting: inaccurate slit lanes and suboptimal slitting patterns affecting yield



Foreign fiber



Red spots



→ Connecting with all stakeholders in the process
for more market insights

→ Support to assure consistent quality

→ Transparency accross batches

Learn more:



YOUR PARTNER IN NONWOVEN QUALITY ASSURANCE

Partnerships that power performance

At ISRA VISION, we believe that true innovation comes from understanding the needs of every stakeholder in the value chain. That's why we don't just see ourselves as a supplier to nonwoven producers—we're also a trusted partner to brand owners, OEMs, and line builders. We work closely with each group to understand their specific requirements, whether it's product quality standards, integration into production lines, or downstream handling needs. This broad perspective allows us to develop inspection solutions that align with real-world demands, ensuring seamless implementation and long-term value for everyone involved.

Brand owners

We help brand owners secure consistent quality and traceable results. By defining actionable standards together, inline inspection becomes a trusted tool—not just for defect detection, but for efficiency and transparency across batches.

Machine manufacturers

Integrating our inspection systems at the design stage ensures a smooth, scalable setup—no retrofitting, no compromises. This makes your line smarter, your offer more attractive, and your customer more successful.

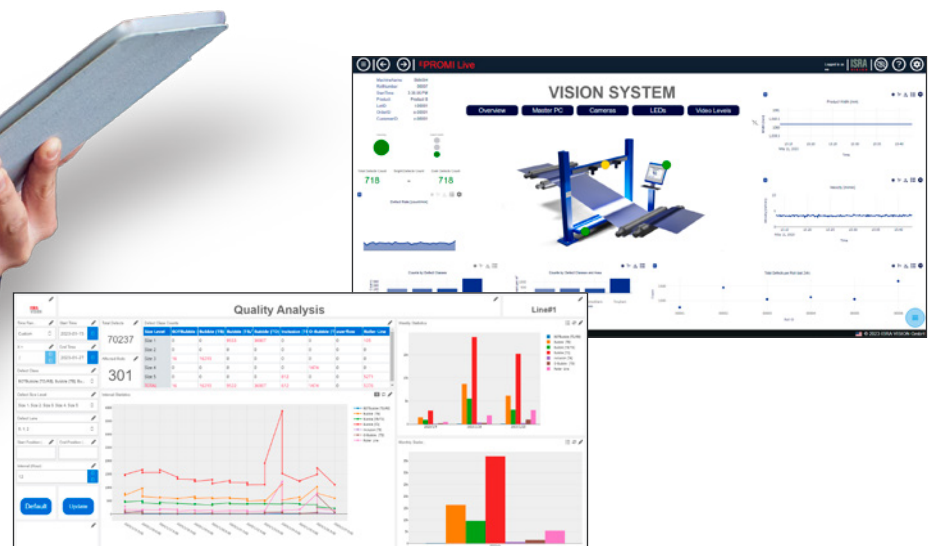




One solution for all data driven applications



Dashboards allow you to compare production line and product data onsite or remotely, providing key insights for optimization. This enables you to make informed professional decisions along your value chain to increase the product quality as well as profitability. You can continuously track the progress of optimization measures and present them with visualized advanced reports.





YOUR PARTNER IN NONWOVEN QUALITY ASSURANCE

Modular service solutions

Our modular service solutions help you to get the most out of your ISRA VISION inspection systems and ensure maximum efficiency. We are a reliable partner at your service around the clock, offering quick and professional advice. Our highly qualified service teams across the world provide you with the best possible support in implementing, maintaining and servicing your systems and plants, enabling you to:

- Operate your systems with maximum efficiency and achieve a consistently high level of production
- Optimize costs in your value chain through preventive quality management
- Maximize reliability & availability for your system
- Optimize your operating conditions

We offer support & maintenance plans, which can be planned on a modular system according to specific operational requirements and future objectives. You can find the respective details for the different modules & maintenance plan offering on our website.

Our support and maintenance plans

 PROTECT	 STABILITY	 UPTIME	 UPTIME PLUS
Basic support	24/7 support with initial preventive measures	Premium service with fast response and comprehensive preventive measures	For enhanced production analytics to maximize your ROI.
★★	★★★	★★★★★	★★★★★

Life cycle management

360° offering for your inspection solution containing:

- Reliable and long-term availability of spare parts
- System upgrades with latest software features & licenses
- Hardware extensions
- System replacement options at end-of-life stage

ISRA VISION Academy

- Trainings tailored to your needs
- Basic admin trainings forline or quality managers
- Onsite demonstrations in your setup
- Customized indepth trainings for operators and managers

