

Automatic Quality & Process Control for Nonwoven Hygiene Base Material



Applications

- Baby diapers
- Incontinence products
- Feminine hygiene products
- Sanitary pads
- Wet wipes
- and many more...

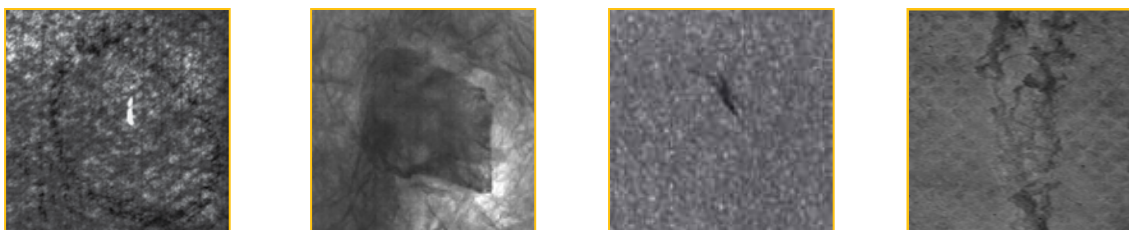
Nonwoven material defects

- Contaminations, e.g:
 - Particles
 - Foreign fibers
 - Oil stains
- Irregular fiber distribution:
 - Thick spots / Thin spots
 - Holes
 - Roping
- Streaks
- Wrinkles
- and many more...

Highest quality for hygiene products

Modern disposable absorbent hygiene products are indispensable for a healthy and clean everyday life. Requirements for the product quality are strict while at the same time production volumes are high. This makes automatic optical inspection indispensable.

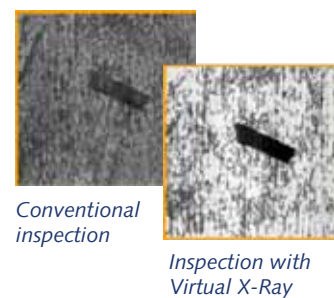
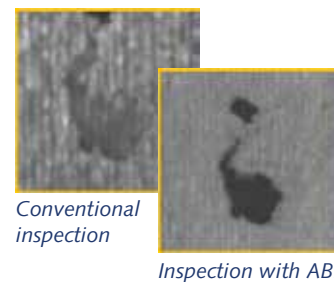
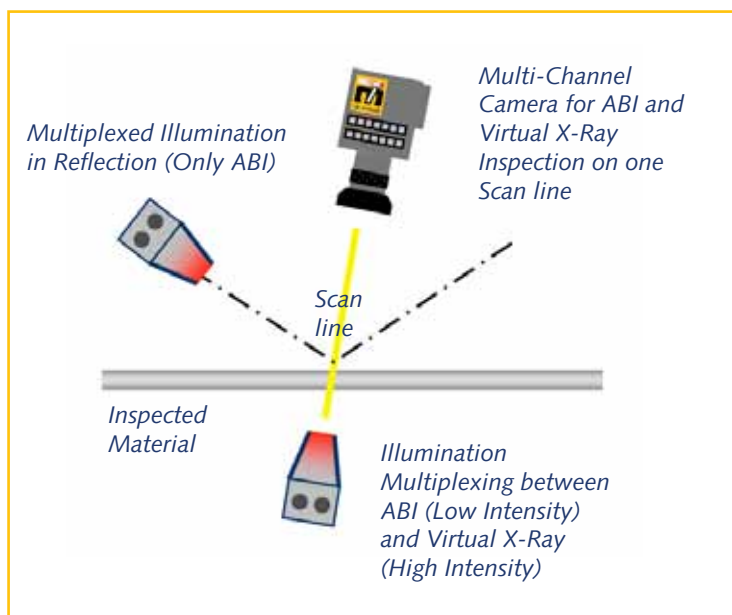
The superior Dr. Schenk's EasyInspect and EasyMeasure are the state-of-the-art automated optical inspection solution for nonwoven materials used in hygiene applications. They allow manufacturers to produce high-quality products that deserve the trust of customers, and at the same time to guarantee an efficient production at any line speed.



New Inspection Technology - Adaptive Background Illumination and Virtual X-Ray

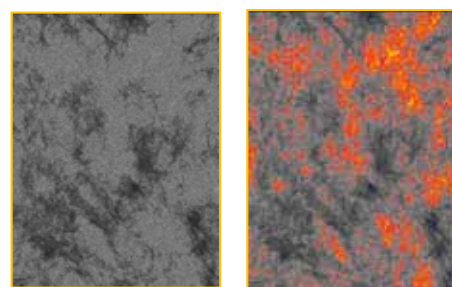
Inspection with Adaptive Background Illumination (ABI) is a completely new concept tailored specifically for the demands of nonwoven inspection. A background illumination in transmission is combined with a reflection illumination for optimal inspection results. The background illumination intensity can be adapted to every material density and characteristic, offering a perfect optical compensation of the material noise for all products. This leads to a significantly improved defect detection and classification based on a better signal-to-noise ratio compared to conventional inspection systems.

ABI can be combined with Virtual X-Ray, which offers an illumination with ultra-high light intensity using modern high power LEDs. This is especially effective for detection and classification of e.g. small foreign material inclusions (differentiation to material noise and neps) on the top and bottom sides of the nonwoven material. Thanks to the Dr. Schenk MIDA technology (Multiple Image Defect Analysis), ABI and Virtual X-Ray can be used on the same scan line by multiplexing between them.



EasyMeasure monitoring

Material homogeneity, grammage and mechanical stability are important properties of a hygiene nonwoven material. Dr. Schenk's EasyMeasure offers complete monitoring of these aspects for the full material width with more than 65.000 gray levels. The high performance of the inspection system allows the detection of large-scale inhomogeneities (like material cloudiness) in high resolution and great detail.



EasyMeasure homogeneity map in gray values and false-color display

About Dr. Schenk

Dr. Schenk GmbH offers inspection and measurement solutions for automated quality assurance and production process control - a key success factor in the making/converting of plastics, textile materials, nonwovens, paper, metal, or glass, for a multitude of markets like display glass, automotive, packaging, medical, renewable energy, and many more. From modular standard units to highly customized systems – Dr. Schenk's solutions have precision in focus!

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