

Your benefits from Dr. Schenk's unique inspection solutions

Dr. Schenk GmbH Industriemesstechnik
Einsteinstrasse 37 (Martinsried)
82152 Planegg
Germany

www.drschenk.com

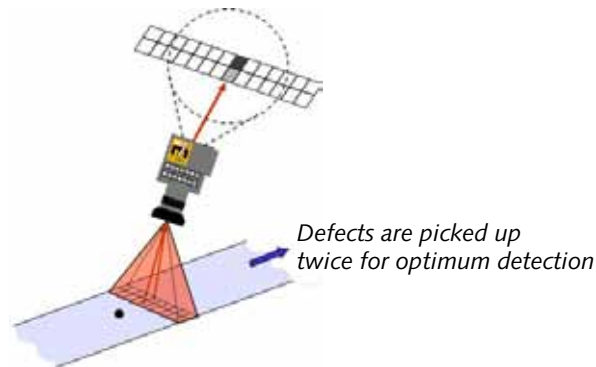
The Inspection Expert

1. Ultra-fast TDI cameras with CMOS technology

Dr. Schenk TDI cameras offer the unique combination of high resolution defect images with superior down and cross web resolution - particularly at high production speeds.

Your advantages from Dr. Schenk TDI cameras are:

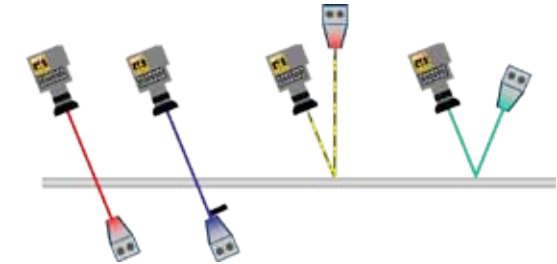
- Optimum defect detection
- Highly improved sensitivity (especially for low-contrast defect detection)
- Facilitation of high-speed production



2. MIDA - Multiple Image Defect Analysis

Dr. Schenk's MIDA allows combining different viewing angles in a single camera row. Using MIDA, you can move from the conventional

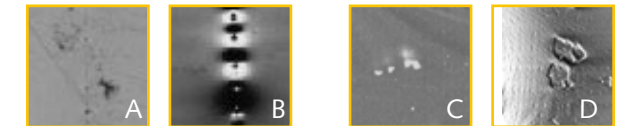
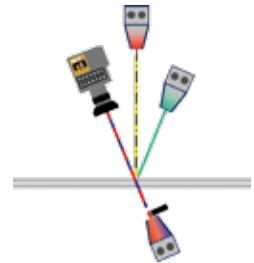
...one view per camera row solution



...to multiple views per camera row.

Your advantages from MIDA are:

- Savings in required line space
- Reduced investment
- Improved detection & classification



MIDA: see defects from all perspectives

Left: same gel defect in packaging base film using regular illumination (A) and Dr. Schenk's dedicated gels optics (B).

Right: same metal void in metallized packaging film using regular illumination (C) and Dr. Schenk's dedicated voids optics (D).

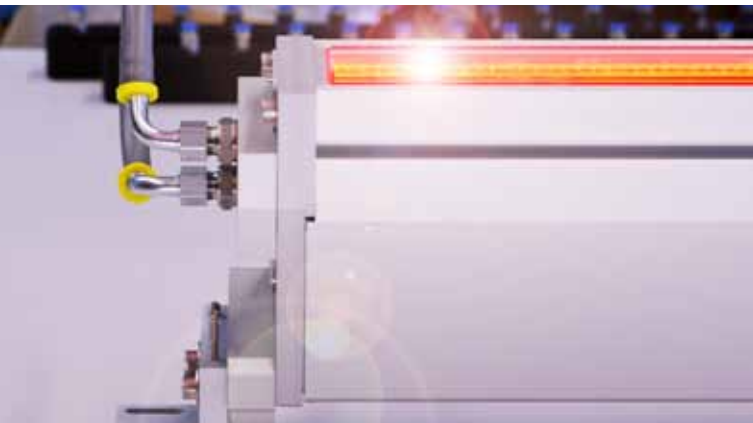
3. SLT - Sirius Light Technology

Dr. Schenk's SLT delivers more light to the surface of the material than conventional LED illuminations. More light reveals more defects in greater detail and enables ultra-fast camera speeds - essential when producing at high speeds.

SLT's actively water-cooled illumination units are customized to ensure the right kind and the right amount of light are used to inspect your material.

Your advantages from SLT are:

- Best defect detection & classification
- Boost in application of ultra-fast cameras
- Steady illumination power over full material width for consistent, full-width defect detection
- 100% illumination power for best detection results
- High stability & long lifetime

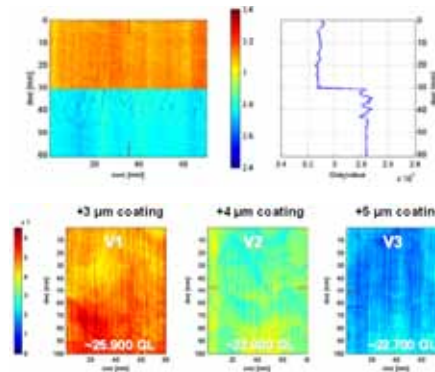


4. EasyMeasure - look beyond local defect detection

Expand Dr. Schenk's EasyInspect for local defect detection with EasyMeasure for complete material monitoring to optimize your quality control as well as your production process. EasyMeasure continuously monitors optical material properties, including homogeneity of coating, opacity, breathability, HAZE, optical density and many more. Optical density for example can be represented as a numerical value for increased quality assurance.

Your advantages from EasyMeasure are:

- Monitoring of optical material properties for the complete width of the material
- No additional hardware required, thus keeping investment low
- Savings on expensive coating materials & time



Examples: monitoring porosity of breathable film (above) and coating layer thickness variations (below) with EasyMeasure (false color representation of gray values).

5. Rigid hardware - adjust once and rely on perfect positioning from then on

German engineering has earned a reputation for excellence. This commitment is apparent in Dr. Schenk solutions, resulting in precise positioning of camera and illumination units. All hardware is designed to be unaffected by machine or line vibrations to ensure optimum inspection results.

Your advantages from rigid hardware are:

- Precise positioning for perfect inspection results
- Perfect position maintained over years for consistent inspection results
- Vibration resilience
- Economic retrofitting/expanding possible any time due to modular concept

