

Glass Inspect

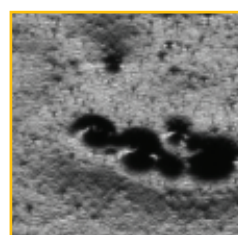
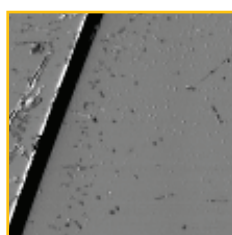
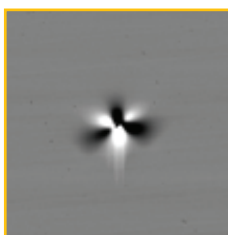


Quality Assurance & Process Control
for Touch Panel Glass

Touch Panel Glass



Solutions for Touch-Sensitive Glass Applications



GlassInspect & GlassMeasure

Highest product quality and optimized touch-sensitive glass manufacturing with reliable inspection and measurement solutions

Touch-sensitive glass has to meet the requirements of crystal clear images, withstand every day application and allow smooth touchscreen use. Inspection of the cover glass at various production steps ensures that these steep quality requirements are met.

Adjusted to the particular process step Dr. Schenk's automated optical inspection and measurement systems GlassInspect and GlassMeasure for touch-sensitive glass offer reliable inline quality control of bare, coated and printed glass as well as the finished product before it is integrated in the final appliance. Defects that are caught include cosmetic defects like stains, dents and scratches, but also logo defects and functional defects like faulty TCO structures.

This helps to save money, as touch panels that are defective or do not meet the pre-defined quality standards can be excluded from further processing. In addition, the results are fed back into the production line for continuous improvement of the production process.



Touch panel in automobile GPS

Complete MIDA solution

GlassInspect features the unique and proprietary Dr. Schenk MIDA (Multiple Image Defect Analysis) concept. By multiplexing between different illuminations MIDA enables simultaneous acquisition and evaluation of defect information from up to 12 different perspectives to inspect the top and bottom surface of the cover glass and its coatings.

The unique multi-channel setup guarantees highest performance and maximum flexibility for automated inspection in mass production environments.



Industrial touch panel

SLT Illumination

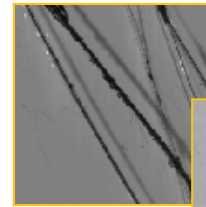
This type of advanced and versatile inspection requires powerful illumination - precisely what Dr. Schenk's Sirius Light Technology has to offer.

SLT uses ultra-bright, longtime stable, and uniform LEDs so no defect can go unnoticed. The LEDs are arranged in illumination units that can be multiplexed. This can be crucial in determining whether a defect is a simple surface contamination that can be washed off or whether it is a critical glass defect.

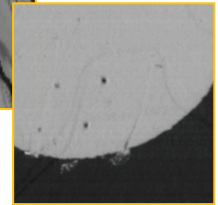


YOUR BENEFITS

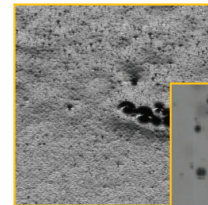
- Improved defect detection and classification through Multiple Image Defect Analysis (MIDA)
- Super-fast cameras allow multiple optical channels in one camera line
- Scalable defect resolution for touch-sensitive glass:
 - All kinds of touch panels (OGS, 1GF, etc.)
 - Bare glass
 - Decorated glass
 - Coated glass
- Inspection and handling system from a single source for reduced coordination effort
- Fully integrated handling into production lines – consistent quality control without delay
- Realistic high resolution defect images - for best detection, classification and qualification
- Automatic feedback into the production line for continuous process optimization
- Increased yield and fewer rejects - for increased profit



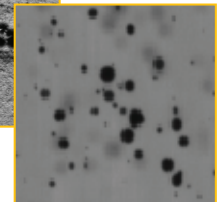
Glass scratch



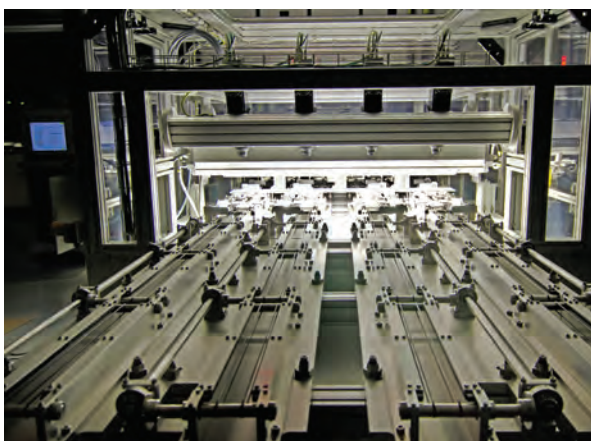
Printing edge defect



Stain fibre



Stain cleaning residue



Integrated material handling systems

In addition to glass inspection, Dr. Schenk offers transport and handling systems for all glass sizes and requirements of touch-sensitive glass. Options include belt, roller and air cushion conveyors, as well as integration of special handling requirements like glass alignment, tilt tables, buffers, diverters, multiple lane inspection handlings, visual inspection stations and mini-environments with FFU up to cleanroom Class 10. The handling systems are perfectly integrated into the customer production line.



Dr. Schenk's production site

Dr. Schenk GmbH, established in 1985, is an innovative high-tech company based near Munich, Germany. Dr. Schenk develops, produces and markets optical surface inspection and measurement solutions for automated quality assurance and production process monitoring. This includes high-quality, customizable handling solutions. Our products are a key success factor in the making and converting of many materials, e.g. plastics, textile materials, nonwovens, paper, metal, or glass, for a multitude of markets like display glass, automotive, packaging, medical, renewable energy, and many more.

Throughout the world Dr. Schenk's 220 employees continue to set new standards for the inspection of surfaces. Over 10,000 m² of modern, cleanroom-capable production and testing facilities are available to research, development and production to apply cutting-edge optics and electronics to customer applications.

Dr. Schenk offers extensive from-lab-to-fab knowledge. Customers benefit from our expertise in the translation of lab applications to large scale productions. Our sophisticated handling solutions complete the one-stop-shopping experience.

The company's objective is complete customer satisfaction. This is achieved through innovative and practical solutions that can be implemented into new and existing production lines. Local sales and service facilities around the world ensure fast support, technical service, training and consulting at any phase of a project.

From modular standard units to highly customized systems – Dr. Schenk's solutions have precision in focus!

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