

Glass Inspect

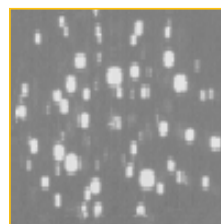
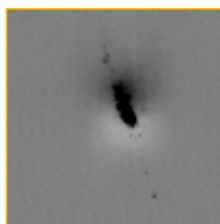
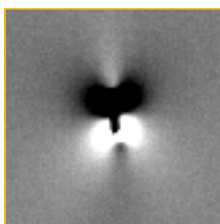


Integrated Inspection Solutions for
Automotive Glass

Automotive Glass



The Complete Solution for Automotive Glass

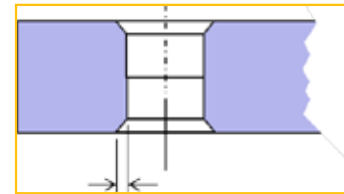


GlassInspect & Glass Measure

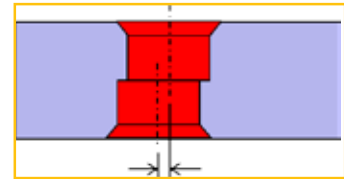
The complete solution for automotive glass

GlassInspect for automotive glass is the complete solution for the special high requirements of glasses used in cars, trucks, utility vehicles and other automobiles. GlassInspect monitors the cutting and grinding of glass sheets and the drilling of holes, so that only sheets with the right measurements, perfect edges, smooth drill holes and unblemished appearance are further processed to the automotive assembly line.

The integrated Dr. Schenk inspection solution guarantees maximal yield of high-quality glass components for the stringent demands of the automotive industry.



Measuring the Chamfer Width



Measuring Drill Hole Alignment

Float glass

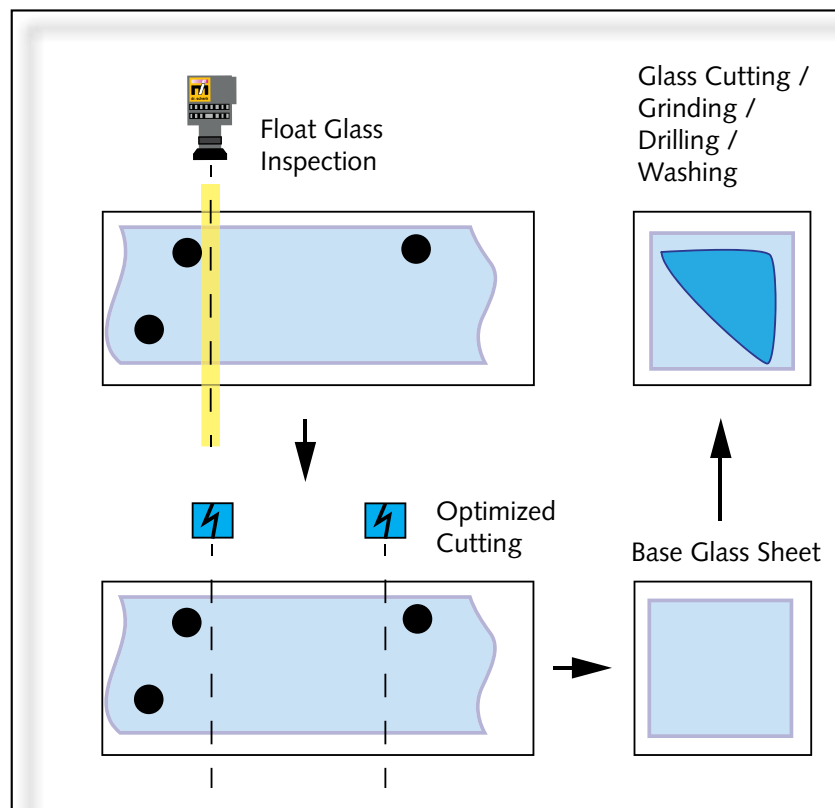
Before the glass for the vehicle is cut, it is inspected during the many previous process steps. There, a number of diverse and damaging defects can occur, from local glass defects, to tin drops and reams. With GlassInspect, all of these defects can be detected, so that the defect information can be used for cutting optimization. This allows to fix the production before waste is produced, and thereby saves production resources and post-processing effort.

Inspecting automotive process steps

After the glass is cut into sheets, edge grinding and drilling of holes are the next steps. Here, the Dr. Schenk inspection can help again. The system's intuitive visualization software displays real-time, high-resolution defect images of all four edges of the glass sheet, as well as drill holes and the glass surfaces.

All dimensions of the glass are measured, so that the size and distance requirements of each car model are met before advancing to further production steps.

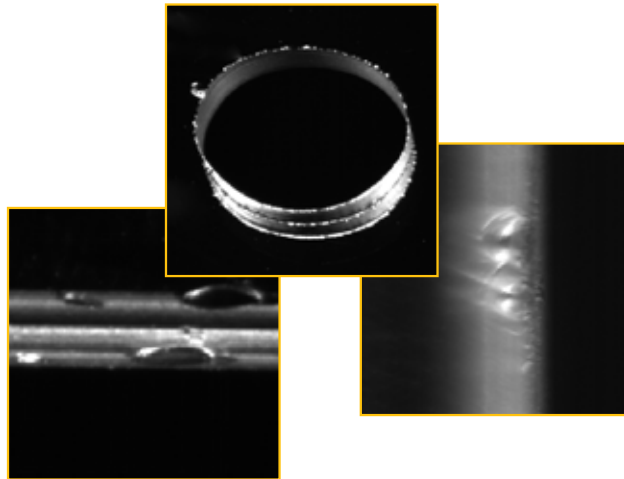
Edge defects are detected in 3D, measuring the length, width and depth. Drill holes are analyzed for correct chamfer width, symmetrical hole shapes and irregularities at each bevel surface.



Inspection and Handling Systems

Edge Defect Types

- Edge Cracks / Chips
- Edge Burns / Polishing
- Shiner Defects
- Bevel Defects
- Inhomogeneous Edge Grinding
- Edge / Corner Measurement defects



Drill Hole Defect Types

- Chamfer Width
- Eccentricity of Holes
- Bevel Grinding
- Alignment of Top and Bottom Holes

Other Defect Types

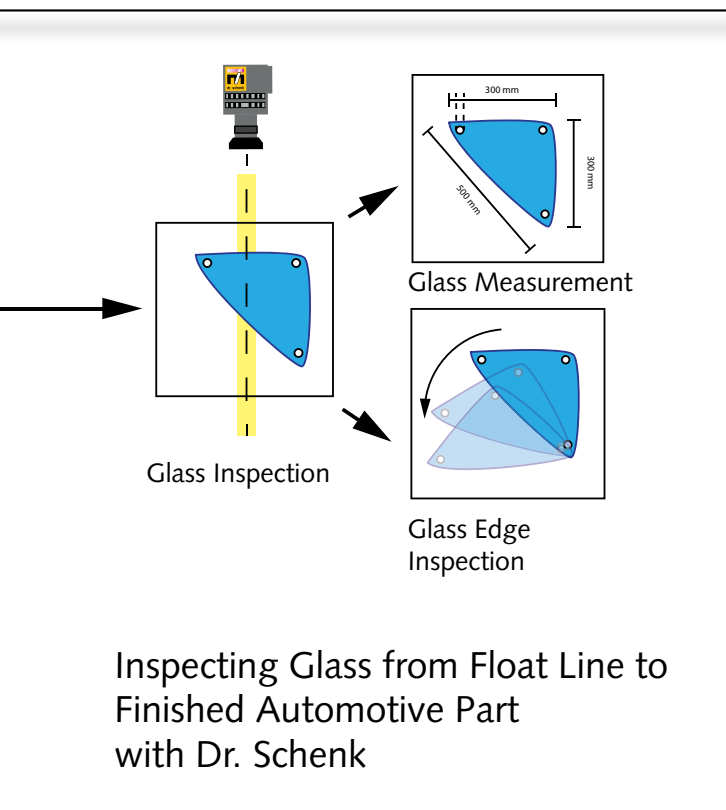
- Measurement Defects
- Handling Defects
- Glass Defects
- Specific Customer Defects

MIDA and SLT: Perfect combination for defect detection

Dr. Schenk's Multiple Image Defect Analysis (MIDA) lets you view defects simultaneously in different channels, from different perspectives (brightfield/darkfield, reflection/transmission), with different illuminations (diffuse/focussed, multiple wavelengths), resulting in up to 8 different channels with one camera.

For this type of advanced and versatile inspection, powerful illumination is necessary - introducing the Dr. Schenk Sirius Light Technology (SLT).

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 or a critical glass inclusion like a stone.



Your Reliable Partner



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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