Float Glass Inspection and Measurement for Highest Quality and Optimized Yields

Typical Defects in Float Glass Production

- Bubble
- Inclusion
- Tin Defects
- Ream
Dr. Schenk’s MIDA (Multiple Image Defect Analysis) technology allows unique defect detection for the requirements of float glass production. During a single scan pass, multiple images are generated for comprehensive defect analysis. By switching between different camera channels and illuminations, one camera can inspect the glass for defects in core and distortion size, tin drops (top and bottom), as well as reams and ream knots. If the float line has integrated inline coating, GlassInspect detects also coating defects and monitors the homogeneity for process control.

**KEY BENEFITS**

- Multiple Image Defect Analysis (MIDA) for improved detection and classification
- Super-fast camera allows multiple channels in one camera without decrease of resolution
- Reduced costs and installation space through Twin-Line illumination – 2 optical channels in one illumination
- Efficient detection of tin defects and reliable assignment to top and bottom sides
- Reliable detection of reams and ream knots
- Scalable defect resolution for all types of float glass:
  - Architectural glass
  - Automotive glass
  - Thin glass
  - and other applications

**Defects from all perspectives**

- **Core channel**
- **Distortion channel**
- **Bubble**
- **Stone**

**Advanced inspection for Float Glass**

- Supreme inspection capabilities for clear and tinted glass of extremely low transmission grade
- Scalable resolution - use the default resolution of 100 µm, or change to a higher or lower resolution as needed
- Highest defect detection reliability through advanced defect measurement, defect classification, and defect severity evaluation
The Complete Solution for Float Glass

Efficient detection of top and bottom tin defects

During forming of float glass in a tin bath, tin residue can cling to the bottom of the glass ribbon, or drop onto the ribbon top side. Special channels detect tin defects with reliable top and bottom assignment.

Ream and ream knot detection

Dr. Schenk's GlassInspect contains a special, highly sensitive optical channel that detects distortions and inhomogeneities like reams and ream knots. All commonly used test methods like the „Zebra-Test“ and the projection method are covered by Dr. Schenk. The technology used by GlassInspect for detecting reams and ream knots is unique and offers float glass manufacturers a crucial competitive advantage in their process and quality control chain.

Optimized Process Control

An intuitive and easy-to-use software visualization lets the operator see defects, material status, and thickness measurements at a glance. A database connection is available to access detailed production statistics by different keys, like time periods, material amount, defect number or defect density.

Production optimization by defect marking and cutting control

Marker and cutter tools allow cutting the float glass according to detected defect information, leaving out areas that have too many or too severe defects. The rejected glass pieces can then be returned to the furnace where they are re-molten and used in a new production run. GlassInspect has communication protocols to all commonly used marker and cutter tools.
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!

For more information and contact details:
www.drschenk.com