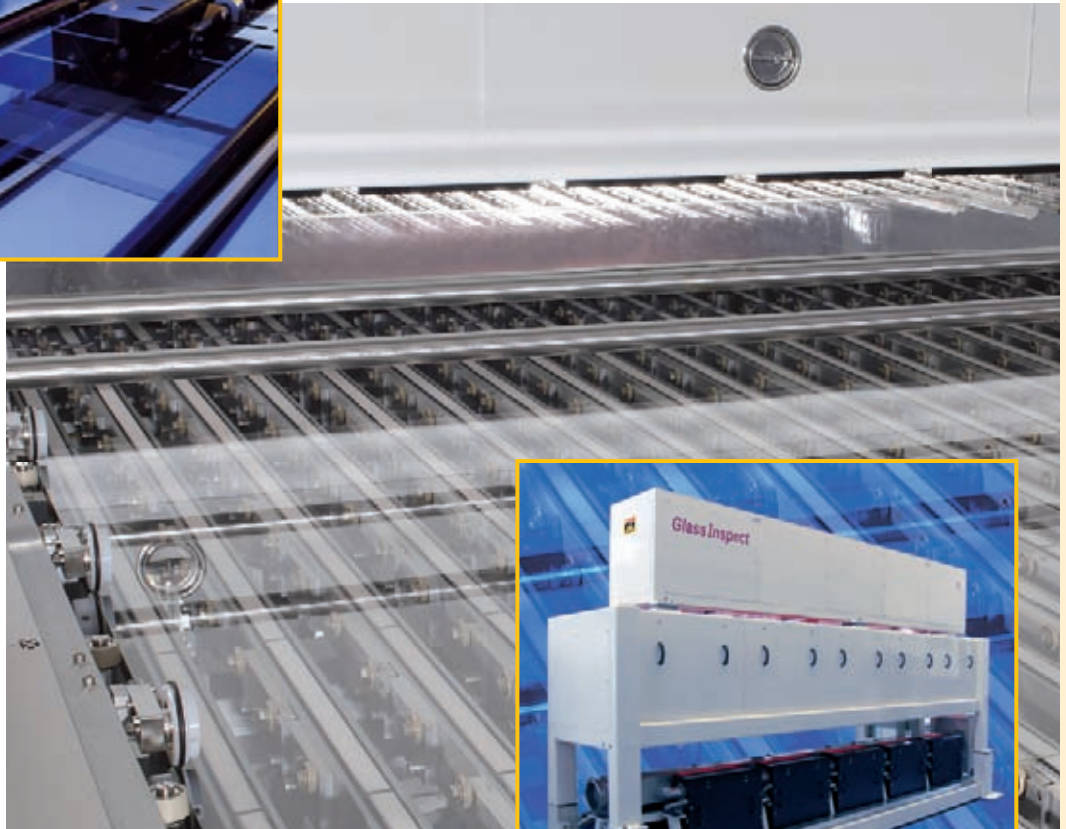
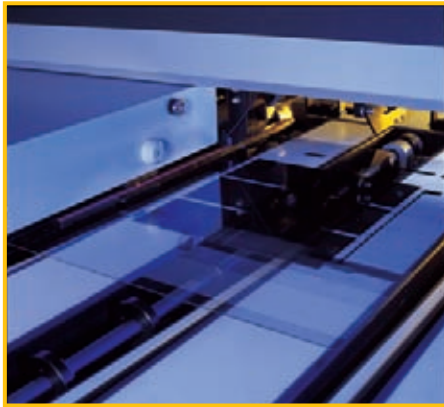


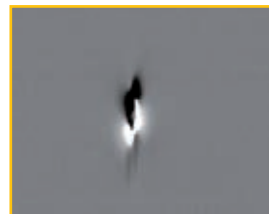
Glass Inspect



In-Line Surface Inspection for Glass Manufacturing and Processing



**Industry Proven
Quality Solutions
for Flat Glass**



Glass Inspect

INTRODUCTION

The high-performance automated optical inspection systems from Dr. Schenk's product line GlassInspect are applicable both for glass manufacturing processes, as well as for the various subsequent processing steps involved in the production of different glass types.

GLASS TECHNOLOGIES

Glass Manufacturing

- Float Glass
- Down Draw Glass
- Rolled Glass

Glass Processing

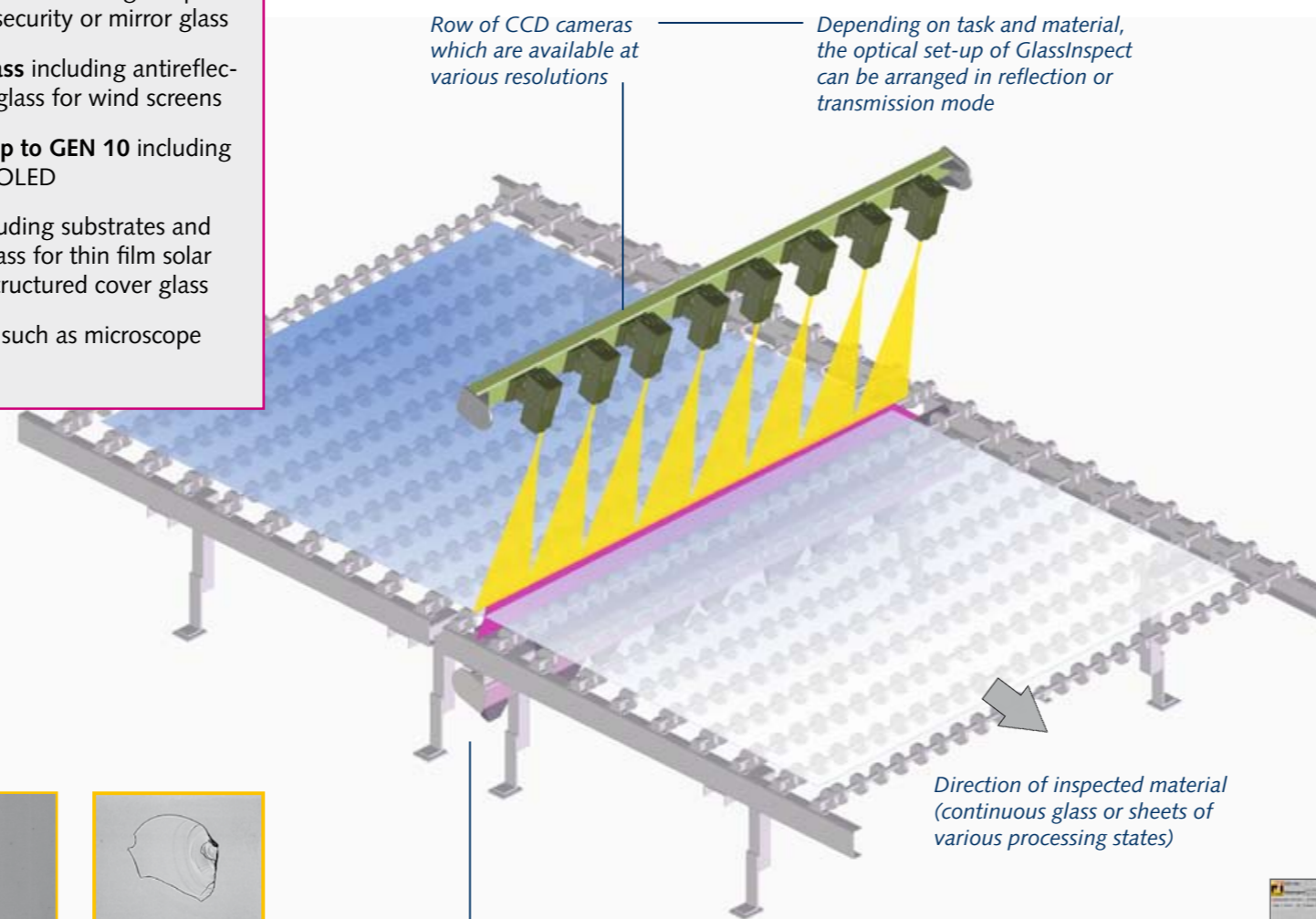
- Bare Glass
- Coating
- Laminating
- Tempering
- Edge Processing

GLASS TYPES and applications

- **Architectural Glass** including fire protection, low-E, security or mirror glass
- **Automotive Glass** including antireflective or security glass for wind screens
- **Display Glass up to GEN 10** including TFT, PDP, ITO, OLED
- **Solar Glass** including substrates and TCO coated glass for thin film solar modules, and structured cover glass
- **Specialty Glass** such as microscope slides

GlassInspect

Customized in-line inspection solutions thanks to a modular design - For each glass application the system is adapted to the individual needs of the inspected material while standard components keep the investment low!



BENEFITS FOR THE GLASS INDUSTRY

The quality requirements for flat glass have continuously increased over the past years. More than ever, automated inspection, monitoring and measurement systems are expected to provide the tools to fulfil these requirements, and to ensure high product quality, as well as high yield.

Typical Glass Defects



Bubble



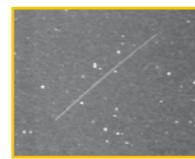
Inclusion



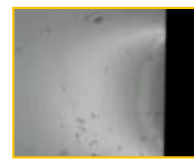
Glass Chip



Metal Inclusion



Scratch



ITO-Burn/Arc

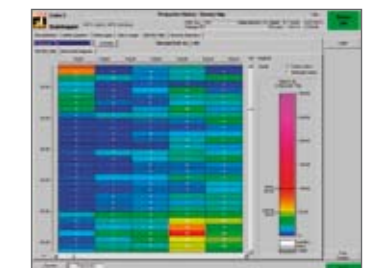
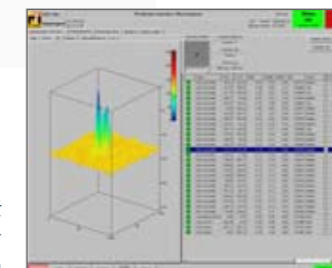
The Dr. Schenk GlassInspect systems detect irregularities and defects in glass material ...

- ... of any type (continuous as well as sheet glass)
- ... of various forms of the glass sheets
- ... and of any size (for display panels up to GEN 10)

KEY FEATURES AND ADVANTAGES

- High-precision, realistic defect images
- 100% reliable determination of core size and distortion due to an innovative illumination concept
- Highest sensitivity for reams
- Exact differentiation between glass defects and surface contaminations ("pseudo defects")
- Inspection of glass sheet edges, including analysis of edge conditions and corner cut dimensions
- Intuitive visualization software with 2D and 3D defect images and process statistics
- Easy integration into production lines
- Maintenance-free systems due to long lifetime components such as the LED illumination units
- Direct interface to cutting optimization and marker systems
- Mounting units and protection casings for optical components are adapted to individual production environments (from robust industrial housings to set-ups according to clean room standards)

Global sales and service facilities ensure local support, technical service, training and consulting, both before and after installation of a Dr. Schenk high-performance inspection system.



A controller unit contains the analysis and visualization software



Dr. Schenk's modern production site

Dr. Schenk GmbH, established in 1985, is an innovative high-tech company based in Munich, Germany. For the third decade now, the range of products and services offered by Dr. Schenk comprises comprehensive solutions for automated quality assurance and production process monitoring to the flat glass, film and foil, converting, paper, solar, optical media and semiconductor industries. In these areas Dr. Schenk continues to set new standards for the inspection of surfaces through the utilization of the latest technical advances in optics and electronics.

The company's primary objective is to achieve complete satisfaction of our customers on a long-term basis. This vision is realized by a perfect synergy between innovative solutions and practical ideas. Global sales and service facilities ensure local support, technical service, training and consulting at any phase of a project. From modular standard units to complex and highly customized systems – Dr. Schenk's high performance test and inspection products have precision in focus!

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