Precise and reliable:
Online Moiré Technology has established itself as the industry benchmark

Advanced distortion measurement of automotive glass satisfies global quality assurance standards

As a result of the manufacturing process, front windows made of laminated glass can vary in terms of their optical properties. However, automotive manufacturers require that their suppliers meet strict standards: Windshield glass must meet legal requirements and be of flawless quality. Any undesirable optical distortion effects can have an adverse impact on the driver’s view. Instead of subjective manual gauging methods of streak or point distortions to record the glass’ dioptric properties, ISRA offers automated gauging systems using the patented Online Moiré Technology. They measure the transmitted distortion of any glass pane and assess optical distortions which, for example, may have been created during the bending process. The systems can be used either inline (SCREENSCAN-Faultfinder) or offline in the quality laboratory (LABSCAN-Screen).

More than 80% of all automotive glass manufacturers around the world are using innovative ISRA systems based on Online Moiré Technology. The patented method allows repeatedly accurate measurements with high resolution and the ability to detect distortions within the milli-dioptric range. In the process, it is entirely immune to dust and finger prints.

When inspecting the horizontal and vertical transmitted distortion of the glass, SCREENSCAN-Faultfinder and LABSCAN-Screen gauge the...
optical refraction in the curved glass from a pre-defined angle. Distorting defects at certain spots or across the entire surface can be identified completely and are visualized by the software, for example as a color-coded map. In addition, there is also the option to perform a variety of analyses and to set threshold values for the glass zones. The offline version of the system is an ideal tool for random quality controls or for the inspection of prototypes in the lab.

The systems offer several filter options that enable the detection of specific distortion types in many different optical frequency ranges and wavelengths. As such, they meet all existing quality standards in the automotive industry and are certified by renowned German manufacturers.

Typical defect sources can be identified using the system's integrated evaluation tools, so that flawless delivery quality is achieved. With the information recorded, which is extremely valuable for quality management, manufacturers are able to optimize the production process and to increase their overall efficiency.

In order to be able to detect additional defects such as scratches and inclusions in the same process step, SCREENSCAN-Final, an expansion of the Faultfinder technology, may also be used.
With patented Online Moiré Technology, repeatedly accurate measurements with high resolution and the detection of distortions down to the milli-dioptic range become possible.

Detailed visualization of optical distortion as color-coded map. Pictured here is a detected critical defect.
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Integrated inline gauging system SCREENSCAN-Faultfinder