AGI-G™

AUTOGLASS INSPECTOR AGI-G™

Non-Contact Gauging System
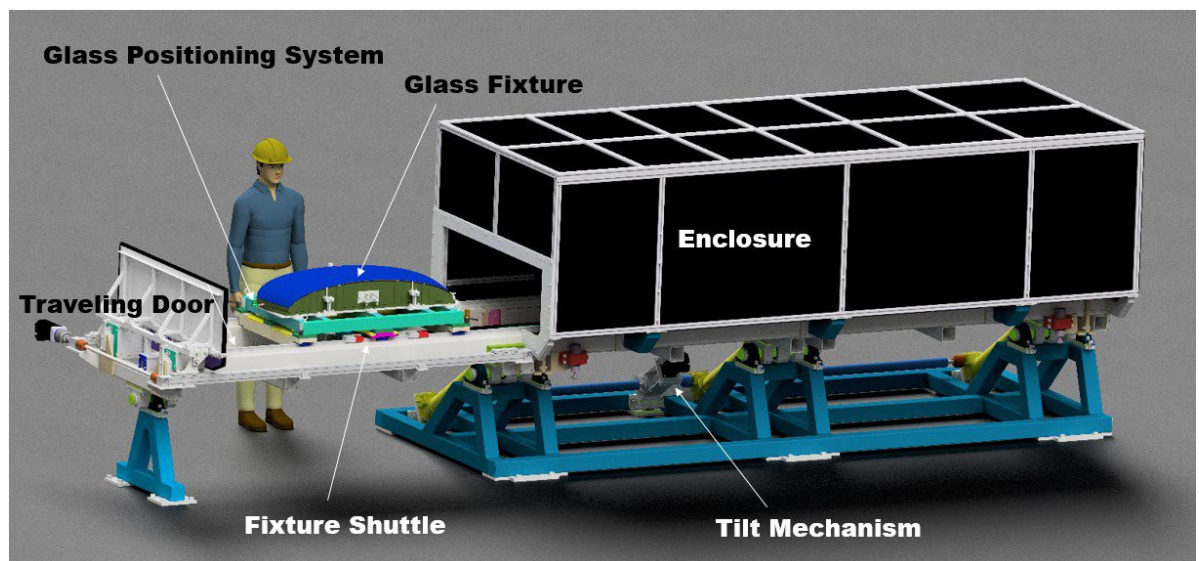
AGI-G System Overview

AGI-G is a non-contact glass gauging system that eliminates the limitations of traditional contact probe gauging while lowering the cost to gauge a glass part. The AGI-G system provides off form data at probe locations, along with a topographical map of the surface off form. The glass requires only an economical part-specific support fixture to perform the gauging. The system is designed to operate either downstream of bending equipment in the plant or in a lab environment. The system can save all relevant data for each part and provides a real-time logging function to enable continuous trending of individual probe points. Gauging measurements are taken at installation angles ranging from 0° to 70°. Powerful data logging functionality gives the user the ability to detect trending probe data and react quickly to process changes. AGI-G comes in three sizes to measure the full range of part sizes up to large panoramic sunroofs and windshields.

Process Description

The AGI-G system can be loaded/unloaded manually or with a robot. The glass is placed on the fixture (A datum) and a positioning system integral to the fixture locates the glass against the B and C datums. The system is already at the proper installation angle. The glass and fixture are conveyed into the enclosure, where the measurements are completed. After measuring the glass, the glass and fixture are conveyed out of the enclosure and the glass is removed from the fixture. The fixture is now ready to accept the next glass. The gauging results of all the probes are reported graphically and in a table. Any probes that are outside specification are indicated.
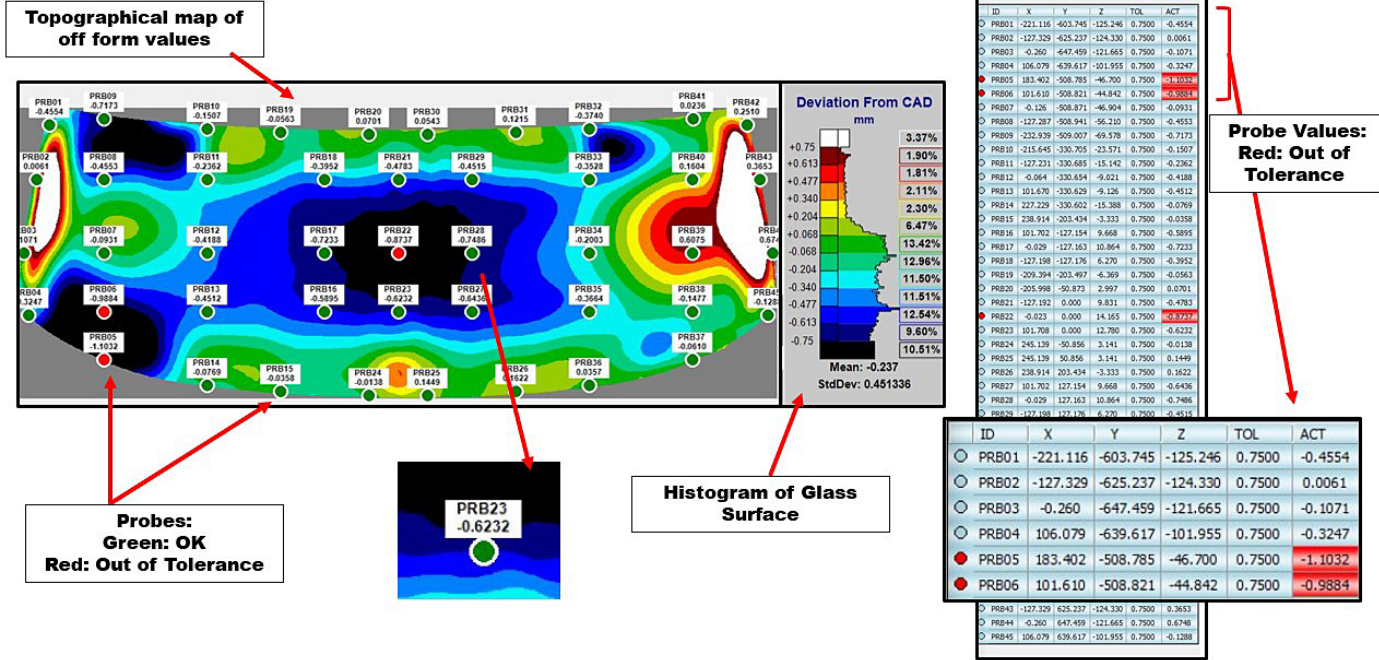
AGI-G System Components

- Control system to collect, analyze, and report off form data
- Tilt system to allow gauging at 0° to 70° installation angle
- Fixture shuttle
- Environmental enclosure where measurements are performed
- Operations manuals

System Capability	
Maximum Part Size	1828mm x 1220mm (72" x 48") 2134mm x 1600mm (84" x 63")
Maximum Part Depth	300mm (12")
Part Evaluation Range	0-70 degrees
Cycle Time	As low as 12 secs (part dependent)

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AGI-G Probe Output

Topographical map of off form values

Probe Values:
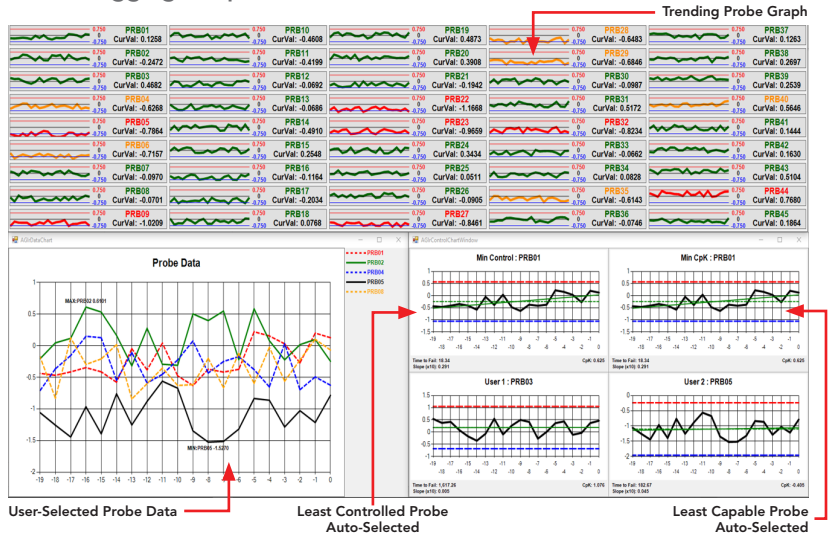Red: Out of Tolerance

Probes:
Green: OK
Red: Out of Tolerance

Histogram of Glass Surface

AGI-G Logging Features

- Graphical format was designed to aid in process control and to detect probes that are trending toward non-compliance
- Trending graphs allow early detection of problems allowing timely process adjustments
- Data can be exported for future evaluation
- Display is customizable to ensure the most important data is shown
- Time to "Out of Tolerance" based on trending data

AGI-G Logging Output

Trending Probe Graph

User-Selected Probe Data

Least Controlled Probe Auto-Selected

Least Capable Probe Auto-Selected