# GFP1600 Polariscope™

**Automated Photoelastic Stress Measurement**
**by Stress Photonics Inc.**

## PHOTOELASTIC STRESS MEASUREMENT

The **GFP 1600** is a photoelastic stress analysis system for measuring stress in mechanical components, structures and materials. The system works with a wide range of photoelastic coatings, transparent and translucent materials.

Stress Photonics paint-on TintCoat® simplifies photoelasticity.

The **DeltaVision** software provides powerful features:

- Live image monitor
- Image acquisition
- Display; strain or stress and principal direction
- Data interrogation
- Camera controls
- Powerful acquisition and processing functions
  - Ambient light removal
  - Data smoothing
  - Reference data subtraction
  - Automatic coating thickness calibration

## FEATURES

**Automated full-field strain measurement**

**Portable**

**USB interface for data images and power**

**C-Mount or Micro-Video Lenses**

**20 micro-strain resolution typical**

**Use with simple static loading**

**TintCoat® compatible for brush-on coating**

**Sub-fringe resolution better than 0.1 nm**

**Multi-fringe range to better than 900 nm**

**Wide range of LED Illumination systems available**

## APPLICATIONS

**Verify FEA models**

**Visualize stress patterns**

**Measure residual stress in glass**

**Determine assembly stresses**

Stress Photonics

THE ANSWER IS CLEAR

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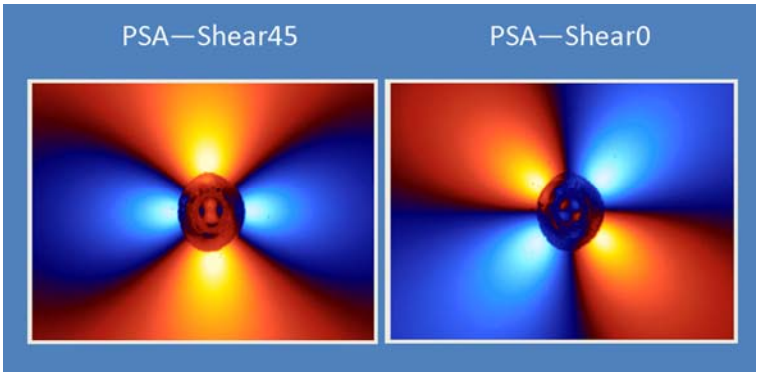
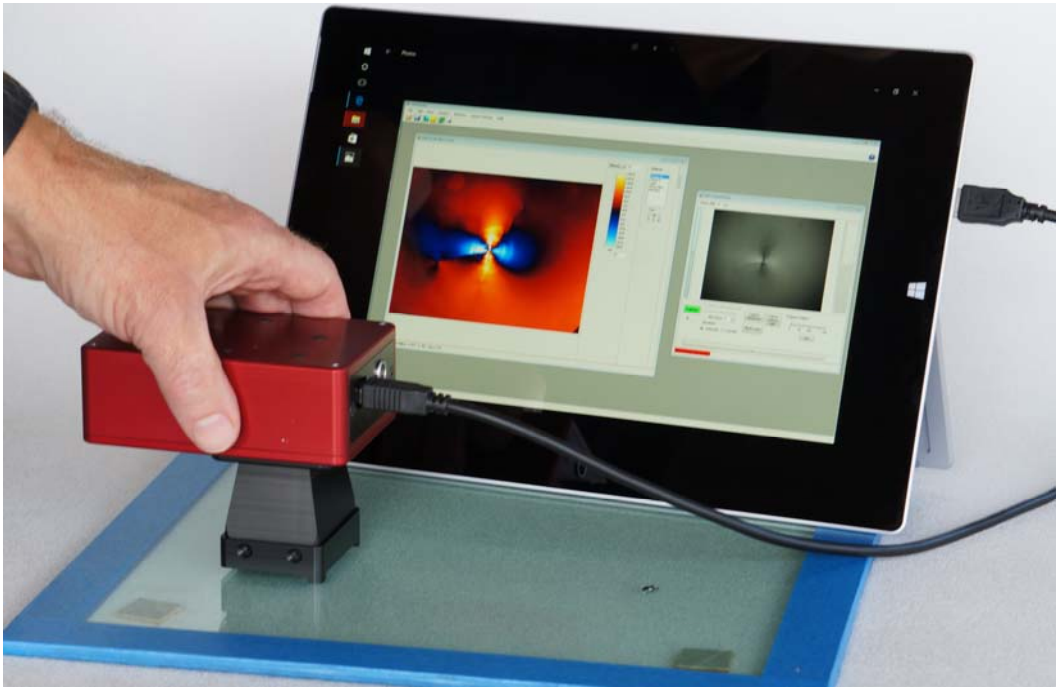



The data acquired by the GFP 1600 can be reported in several valuable forms. The system produces two fundamental images referred to as Shear 0 and Shear 45. The Shear 0 image represents the in-plane shear strain on a 0° (horizontal) orientation. The Shear 45 image represents the in-plane shear strain on the 45° orientation. From these image and simple Mohr's circle definitions, the maximum in-plane shear and direction of the first principal strain are displayed.



| GFP 1600 Specifications | |
|---|---|
| **Specification** | **Value** |
| Data and Control Port | USB-2 |
| Auxiliary Port | Illuminator Strobe |
| Mounting | 1/4-20 UNC standard tripod mount |
| Weight (without lens) | 360 grams |
| Size | 106 x 30 x 66 mm |
| Power | From USB |

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