

# Laser-based Measurement Technique for Optical Surfaces

**BAUER ASSOCIATES, INC.**  
**WELLESLEY, MA**

## INNOVATION

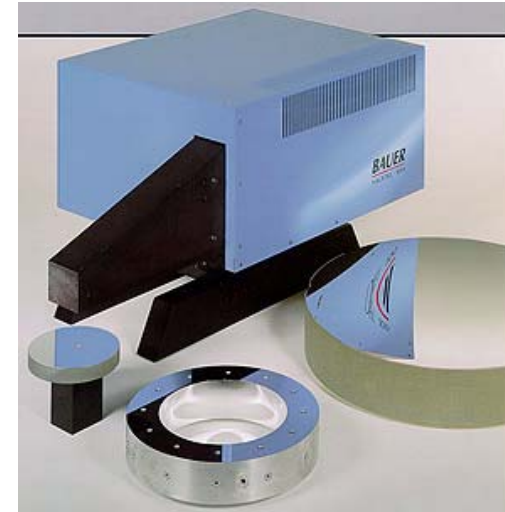
New, non interferometric, laser-based technique for measuring surface shape errors on optical surfaces

## ACCOMPLISHMENTS

- ◆ Developed a working instrument, including state-of-the-art electronics as well as innovative combinations of optical and electro-optical devices
- ◆ Developed a modified, commercially viable profilometer

## COMMERCIALIZATION

- ◆ Profilometer was marketed as a custom instrument to government and industry
- ◆ A Model 100 and Model 200 Profilometer were produced, with the Model 200 winning the Photonics Circle of Excellence Award for the 25 best new products of the year
- ◆ Yearly sales generated by the product averaged approximately \$100 K for the first four years, with two jobs being created



**Model 100 Profilometer**

## GOVERNMENT/SCIENCE APPLICATIONS

- ◆ Model 100 was used in preliminary measurements for NASA's Advanced X-ray Astrophysical Observatory
- ◆ Another Model 100 was used in advanced development work for soft X-ray microlithography for semiconductor applications
- ◆ A model 200 was used to characterize the mirrors used in the Hubble repair mission