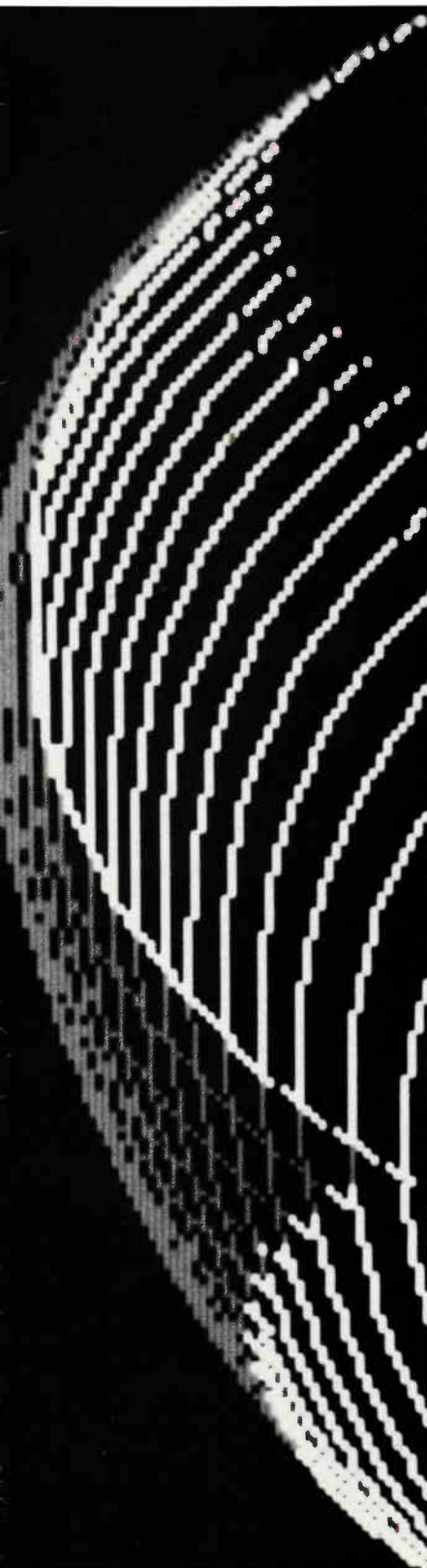


Interferometer KERN IR-80



A new system

solution

for flatness and

homogeneity

testing of optical

materials

Leica

The KERN IR-80 – a digital phase shifting interferometer

The Kern IR-80 is a digital phase-shifting interferometer, operable in the visible and thermal infrared spectral regions.

Interference patterns can be viewed, printed, or digitally evaluated.

The resulting wavefronts may be stored onto disk for later evaluation. Subtraction of a stored wavefront from a measured wavefront is possible, enabling systematic errors to be calibrated out.

Applications

- Flatness testing of mirrors
- Flatness testing of optically rough, ground surfaces (e.g., machined glass and metal parts)
- Testing of Prisms
- Homogeneity testing of optical and IR materials
- Testing of optical and IR systems

Interferometer KERN IR-80

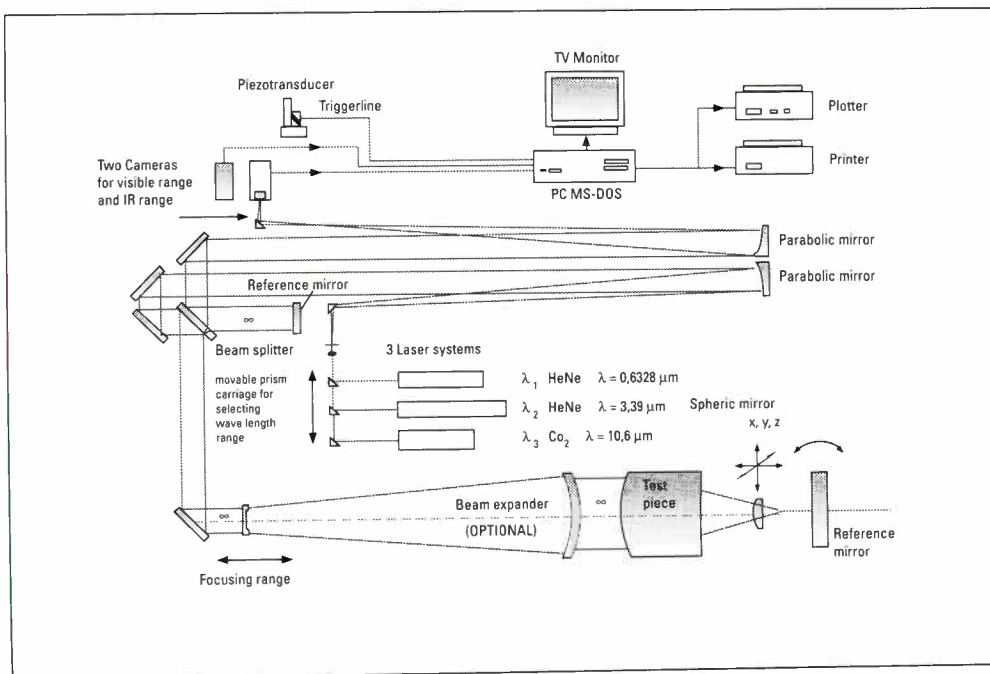


Features

- Wavefront measurement
- Removal of Selected Aberrations
- Visible representation of Infrared Interference Patterns
- Measured Wavefronts may be saved onto Hard Disk
- Differencing of Measured Wavefronts
- Calculation of Wavefront Contour Lines
- Grey-scale Depiction of Wavefront
- Automatic Location of Pupil Boundary
- Calculation of Prism Angle Errors
- Manipulation of Wavefront Data: Smoothing, Differencing, Edge trimming, Polynomial fitting
- Calculation of Spot Diagrams

Specifications

■ Configuration:	Twyman-Green
■ Wavelengths:	0.633 μm (HeNe) 3.39 μm (HeNe) 10.6 μm (CO ₂)
■ Working Aperture:	80mm Beam expander to 210mm available for 0.633 and 10,6 μm
■ Image resolution:	160 pixels/diameter
■ Calibrated wavefront accuracy:	1/10 wavelength (peak-to-valley) at all 3 wavelengths.
■ MTF accuracy:	+/-1.5% Absolute.
■ Dimensions and weight (without table):	
	Length: 2300 mm
	Width: 920 mm
	Height: 735 mm
	Weight: 350 kg



The principle of the KERN IR-80 Interferometer

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All data subject to change in interest of technical progress

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