

## Micro Fringe Projection (MP10)

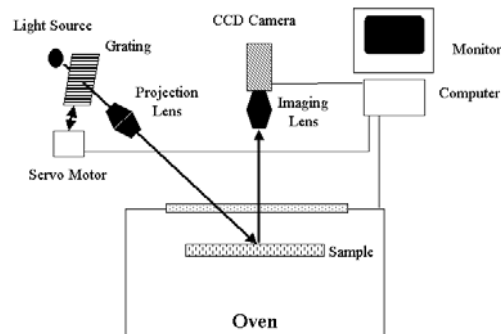
### Technical Explanation

Micro fringe projection is a non-contact, full-field optical technique for out-of-plane topography measurement. A glass grating and a white light source are used in the MP10 system. The normal of the grating plane has a 45-degree angle with respect to the sample. A Fringe pattern on the grating is projected onto the sample surface through a set of projection lenses. A camera above the sample acquires a series of images while phase stepping is performed by shifting the grating along its grating plane. The images are then used to calculate the relative vertical displacement at each pixel position from its reference plane.

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The figure below shows the configuration of the fringe projection system. Data analysis is similar to that for shadow moiré.

#### Diagram



**Micro Fringe Projection Configuration**