

G120

FLATNESS

MEASUREMENT

SYSTEM

OBSESSIVE
SINCE
1965
PRECISION

High precision flatness measurement, grazing incidence interferometer for use with lapped and semi-polished surfaces.

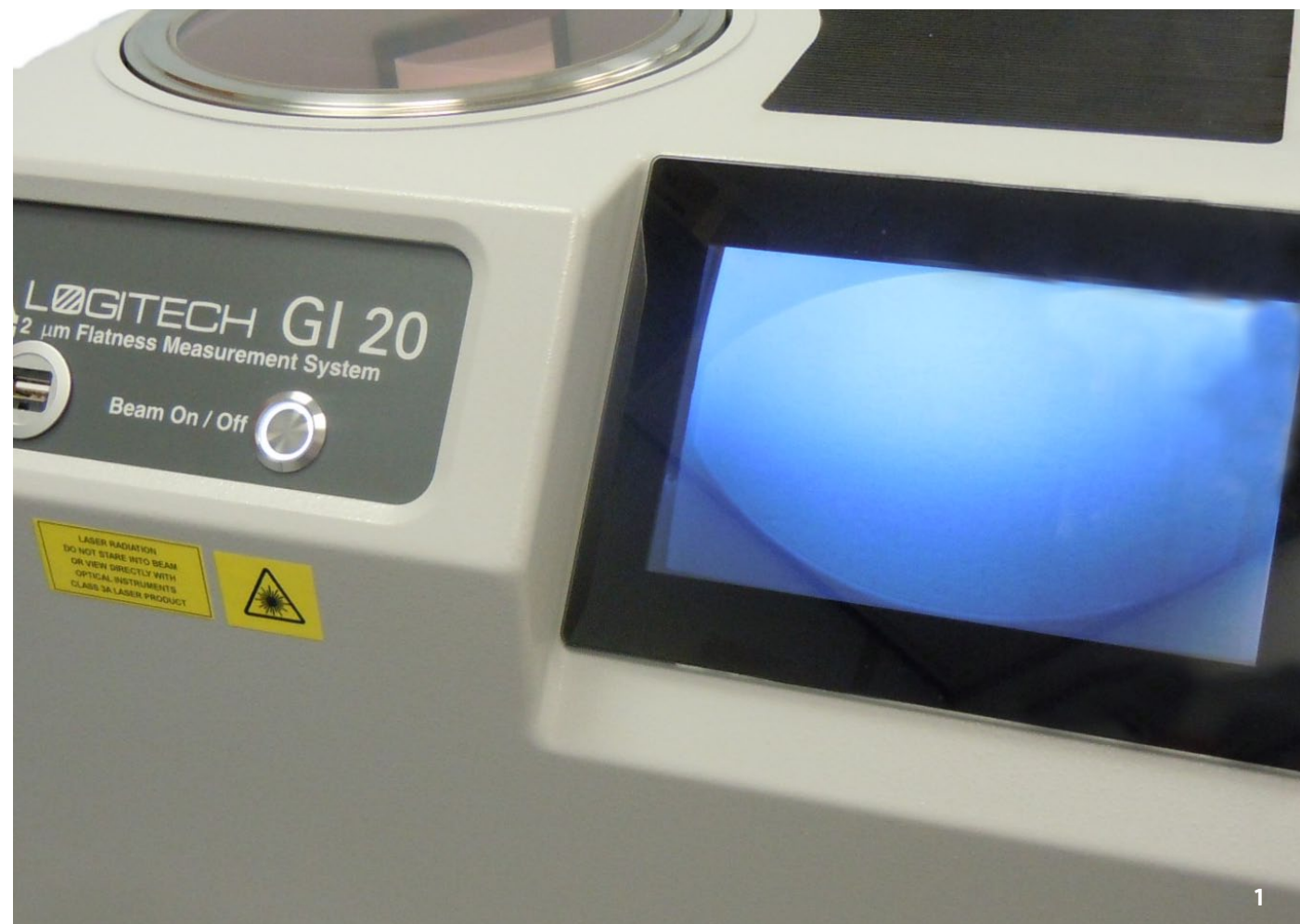
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G120

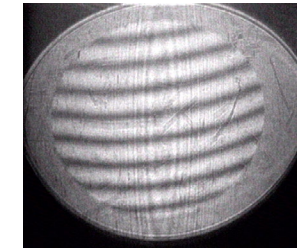
FLATNESS MEASUREMENT SYSTEM

The Logitech G120 grazing incidence interferometer provides high precision flatness measurement, suitable for use with lapped and semi-polished surface up to 150mm/6". Unlike conventional fizeau interferometers, the G120 can measure non-reflective surfaces. This makes the flatness monitor ideal for analysing lapped and/or ground surfaces prior to final polishing. The interferogram is displayed on the touch screen interface on the G120 - alternatively the system interferogram can be displayed on a monitor via the HDMI port on the unit.

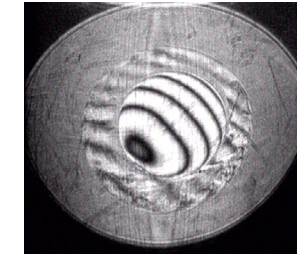


KEY FEATURES & FUNCTIONALITY

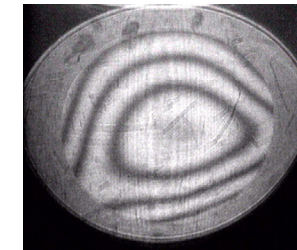
- Standard fizeau interferometers normally operate with fringe spacing approximately 0.3um (depending on wavelength), therefore restricting measurement to highly reflective materials. The Logitech G120 overcomes this by reflecting laser light at a grazing incidence angle off the sample surface - this angled beam ensures that the monitor shows fringes on both reflective and non-reflective sample surfaces.
- The touch screen interface allows rapid and accurate measurement to be saved "in process" with fringe spacing displayed at a fixed 2um interval, producing excellent contrast levels with surface finishes with polished samples up to 300nm Ra.
- As well as being displayed on the interface, interferogram's can also be displayed on a monitor via the units HDMI port.
- The G120's function and features are controlled via the touch screen interface - there is also an additional USB port for use of a computer mouse.
- Interferogram's can be saved and recalled on the G120 unit and can also be exported via the USB port for external analysis.
- The G120's uses are not application specific - whether the requirement is for flatness measurement or quality assessment the G120 provides an excellent solution when processing semiconductor wafers, optical components, machine components and geological samples.
- Samples can be set inside a precision leveling ring with micrometer heads, when utilising a PP5 or PP6 jig with vacuum, to allow adjustment to the angle. This ensures the sample does not come in to contact with the G120's optical lens. Alternatively the sample can be mounted to a vacuum chuck accessory and adjusted in the same way with the micrometer heads.



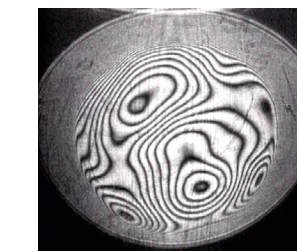
Example 1
Fringe pattern of a flat specimen. The linear fringe show that the sample is being presented to the optical reference surface of the interferometer at an angle.



Example 2
Fringe pattern of a specimen which is convex or concave, shown by the direction of movement when the sample is being presented to the optical reference surface at an angle.



Example 3
Fringe pattern of a flat specimen which is convex or concave, shown by the direction of fringe movement when the sample is touched. The annular fringe pattern indicates that the sample is being presented to the optical reference surface in a parallel plane.



Example 4
Fringe pattern of a sample with peaks and valleys. Again the annular fringe indicates that the sample is being presented to the optical reference surface in a parallel plane.

TECHNICAL SPECIFICATIONS

Height:	260mm
Depth:	602mm
Width:	430mm
Weight:	24kg
Power Supply:	220-240v 50-60Hz / 110v 60Hz
Surface Roughness:	1 nm - 300nm
Fringe Spacing:	2um
Maximum Sample Size:	150mm / 6"