INTRODUCING
THE ALL NEW
LP70

OBSESSIVE SINCE 1965 PRECISION

Achieve results to stringent specifications with the all new, highly automated, multi-station precision lapping and polishing system from Logitech.

LØGITECH
Materials Technologists & Engineers

Logitech.uk.com

LP70

PRECISION LAPPING & POLISHING SYSTEM

At Logitech, we have been developing the LP70, an ALL NEW multi-station precision lapping and polishing system. This bench-top machine is designed to run concurrent automated processes, allowing operators to achieve repeatable results to stringent sample specifications. With four workstations as standard, this system is the optimal solution for both production environments and research laboratories.

Intuitive features with improved functionality allows for increased material removal rates, with greater levels of control and reliable process repeatability.

The LP70 is the latest addition to our intelligent range of highly automated lapping and polishing systems.

KEY FEATURES & FUNCTIONALITY

→ Four workstations each with a wafer process capacity of up to 100mm/4" - jig speed of each workstation individually controlled for highly accurate results and the use of driven jig roller arms greatly increases accuracy and repeatability.

→ Bluetooth automatic-plate-flatness control provides continuous in-situ measurement of the plate flatness, automatically correcting any deviation from the specification set by the operator.

→ Bluetooth-enabled features include: real-time data collection and feedback from the digital indicator on the PP series jigs allowing greater end-point thickness control for increased accuracy.

→ Real time data collection and feedback via Bluetooth to allow users to export information via the USB port for external analysis – this includes: target material removal and actual material versus time of removal, and plate shape analysis (actual shape and target shape versus time).

→ Plate speeds of between 5 and 100rpm, which facilitates faster lapping and polishing rates.

→ The recipe mode feature on the LP70 allows operators to create, save and re-call multi-stage process recipes - making each process completely repeatable, even across different operators.

→ Trials in the Logitech laboratories have shown that the LP70 can facilitate increased material removal rates (MRR), with far greater control and with reduced variation across workstations, compared to similar systems without metered abrasive delivery or a driven-jig-arm functionality.

→ All process conditions are controlled via the Graphical User Interface (GUI), including: plate speeds, material removal rates, jig speeds, the metered abrasive feed - giving the operator complete control.

→ Twin 2 litre abrasive cylinders utilise auto-abrasive switch over functionality to allow for multistage processes, and increased capacity means longer, uninterrupted processes.

→ There is also the option for a third pump to facilitate a colloidal feed unit.

→ The metered abrasive feed unit, via the peristaltic pumps, allows operators to set the flow rate of between 1-100ml per minute. This greatly increases the quality and the accuracy of results, while reducing both wastage and operational costs.

→ The automatic drip detector will stop the plate rotating when the abrasive cylinders are empty - thereby avoiding any damage to the specimen running on a dry plate.

→ Options exist for an LP70 chemically resistant to standard chemicals used in CMP applications. Contamination can be avoided using the integrated, sample cleaning, de-ionised water and nitrogen/compressed dry air (CDA) mixer spray gun.

Image 1: LP70 Precision Lapping & Polishing System

Image 2: Process conditions controlled via the Graphical User Interface

Image 3: Bluetooth enabled automatic plate flatness monitor

Image 4: Four workstations each with a wafer process capacity of 100mm/4"

TECHNICAL SPECIFICATIONS

Capacity: PP5 Jigs x4 PP6 Jigs x4 PP8 Jigs x2 PLJ7 Jigs x2 WG6 Polishing Head x2 VPB7 Jigs x2	Capacity: x4 (75mm/3")/ x3 + Auto plate flatness monitor x 4 (100mm/4")/ x3 + Auto plate flatness monitor x2 PP8 Jigs (150mm/6")/ x1 + Auto plate flatness monitor x2 (up to 14 28x28mm slides per PLJ7 jig) x2 Up to six 26x48mm at one time per head x2 (up to 14 28x28mm slides per polishing jig)
Height:	1000mm
Width:	950mm
Depth:	730mm
Power Supply:	240v/110v Single Phase
Plate diameter:	400mm
Plate speed:	5-100rpm
Abrasive delivery:	Up to two 2L cylinders, measured flow 1-100ml/min delivered to all four stations via peristaltic pumps and slurry chute
Colloidal delivery:	1-100ml/min delivered to all four stations via peristaltic pumps and slurry chute