LP70 PRECISION LAPPING & POLISHING SYSTEM

OBSESSIVE SINCE 1965 PRECISION

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

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Materials Technologists & Engineers

LP70 Precison Lapping & 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.

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1: LP70 Precision Lapping & Polishing System 2: Process conditions controlled via the Graphical User Interface
3: Bluetooth enabled automatic plate flatness monitor 4: Four workstations each with a wafer process capacity of 100mm/4"

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.
- 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.
- 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.
- 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.
- 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.

Bluetooth Features

- 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

Technical Specifications

Wafer Capacity:	
PP5 Jigs	x4 PP5 Jigs (up to 75mm/3" wafers bonded to a 83mm support substrate per PP5 jig) OR x3 PP5 Jigs + Automatic Plate Flatness Monitor
PP6 Jigs	x4 PP6 Jigs (up to 100mm/4" wafers bonded to a 112mm support substrate per PP6 jig) OR x3 PP6 Jigs + Automatic Plate Flatness Monitor
PP8 Jigs	x2 PP8 Jigs (up to 150mm/6" wafers bonded to a 160mm support substrate per PP8 jig) + Automatic Plate Flatness Monitor
PLJ2 / VCB2 Jigs	x4 PLJ2 / VCB2 Jigs (from 6 x 28x48mm up to 1 x 110x75mm per PLJ2 / VCB2 jig) OR x 3 PLJ2 + Automatic Plate Flatness Monitor
PLJ7 / VCB7 Jigs	x2 (from 14 x 28x48mm slides up to 1 x 100x150mm slides per PLJ7 / VCB7 jig) + Automatic Plate Flatness Monitor
WG6 Polishing Head	x2 (from 6 x 28x48mm slides up to 3 x 51x76mm slides per WG6 head)
Height	990mm
Width	950mm
Depth	730mm
Power Supply	240v/110v Single Phase
Plate Diameter	400mm
Plate Speed	5-100rpm
Abrasive Delivery	Up to two 2L Cylinder, 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
Machine Weight	160kg

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