PM6
PRECISION
LAPPING
& POLISHING
SYSTEM

OBSESSIVE
SINCE
1965
PRECISION

Produce results typically found on production-scale equipment with this highly automated, bench-top system from Logitech.

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Materials Technologists & Engineers

PM6 Lapping & Polishing System

The PM6 Precision Lapping & Polishing system produces results typically found on production scale equipment. Highly flexible in use, the PM6 allows users to work with many different materials including; gallium arsenide, silicon, rock and soils. This system provides the ability to produce specimens repeatably with superior quality and surface finish. Precise plate set-up options combined with an intuitive control system provide an effortless consistency of results with a very high degree of accuracy.

Wherever there is a need for a controlled flat surface with a high quality finish the PM6 makes an invaluable investment. The PM6 system offers enhanced process performance through a combination of innovative designs and intuitive operator controls.

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1: PM6 Precision Lapping & Polishing System 2: Metered abrasive feed unit via peristaltic pumps 3: Bluetooth enabled automatic plate flatness monitor 4: Integrated sample cleaning with de-ionised water and nitrogen gun

Key Features & Functionality

- Single workstation with a wafer process capacity of up to 4”/100mm – 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 allows operators to create, save and re-call multi-stage process recipes - making each process completely repeatable, even across different operators.
- 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.
- Customers are achieving increased material removal rates (MRR), with far greater control, 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, driven jig arm, the metered abrasive feed - giving the operator complete control.
- 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 a PM6 chemically resistant to standard chemicals used in CMP applications. Contamination can be avoided using the integrated, sample cleaning, de-ionised water and nitrogen gun.
- Twin 2 litre abrasive cylinders allow for multistage processes, and increased capacity means longer, un-interrupted processes.
- The Time Weighted Average (TWA) functionality on the PM6 allows operators to produce superior results in both lapping and CMP processes.

Bluetooth Features

- 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).
- 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.
- Real-time data collection and feedback from the digital indicator on the PP series jigs allowing greater end-point thickness control for increased accuracy.

Technical Specifications

Wafer Capacity:	
PP5 Jigs	x1 PP5 jigs (up to 75mm/3” wafers bonded to a 83mm support substrate per PP5 jig) OR x1 PP5 Jigs + Automatic Plate Flatness Monitor
PP6 Jigs	x1 PP6 jigs (up to 100mm/4” wafers bonded to a 112mm support substrate per PP6 jig) OR x1 PP6 Jigs + Automatic Plate Flatness Monitor
PLJ2 / VCB2 Jigs	x1 PLJ2 / VCB2 jig (from 6 x 28x48mm up to 1 x 110x75mm per PLJ2 / VCB2 jig) or x 1 PLJ2 + Automatic Plate Flatness Monitor
WG6 Polishing Head	x1 WG6 Polishing Head (from 6 x 28x48mm slides up to 3 X 51x76mm slides per WG6 head)
Height	965mm
Width	800mm
Depth	720mm
Power Supply	240v/110v Single Phase
Plate Diameter	300mm
Plate Speed	5-100rpm
Abrasive Delivery	Up to two 2L Cylinder, measured flow 1-100ml/min delivered via peristaltic pumps and slurry chute
Colloidal Delivery	1-100ml/min delivered via peristaltic pumps and slurry chute
Machine Weight	130 kg

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