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# LP70

## **MULTI-WAFER PRECISION** LAPPING & POLISHING

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.

# **KEY FEATURES INCLUDE:**

PROTOTYPE

BLUETOOTH ENABLED AUTOMATIC PLATE **FLATNESS MONITOR** 

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-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.

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. 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.

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.



METERED ABRASIVE FEED VIA PERISTALTIC PUMPS

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, combined with driven jig 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.



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.

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 gun.

Twin 2 litre abrasive cylinders allow for multistage processes, and increased capacity means longer, un-interrupted processes.



IN-SITU SAMPLE CLEANING WITH INTEGRATED DI WATER AND NITROGEN GUN

# TECHNICAL SPECIFICATIONS

Wafer Capacity: PP5 Jigs x4 PP6 Jigs x4 PP8 Jigs x2	Wafer 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
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 front 3 stations via peristaltic pumps

