



DL SERIES PRECISION LAPPING SYSTEMS

High-speed lapping systems processing specimens with high geometric precision for research through to production level environments.

DL SERIES

PRECISION LAPPING SYSTEMS

The DL high-speed lapping systems process materials with high geometric precision. The capacity range of the DL systems make these ideal for small research laboratories through to production environments. The DL also has the ability to process multiple small samples with the use of custom Logitech templates and chuckfaces. Available with a single workstation (DL1) or four workstations (DL4) these versatile machines are capable of lapping samples up to 200mm/8". The high level of lapping functionality is based on Logitech's tried and tested precision lapping and polishing jigs, allowing for a high level of geometric control whilst removing material quickly and efficiently.

DL44

The Logitech DL44 is ideal for high volume geological thin section and ultra-thin section preparation. The DL44 has the capacity to process up to 56 standard thin sections at the one time. Alongside its driven head technology which allows for quicker processes, this system is ideal for production level environments.



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KEY FEATURES & FUNCTIONALITY

- Stand-alone system with the option to come as a single or four station unit, with a process capacity of up to 200mm/8" per station.
 - The metered abrasive feed unit, via the peristaltic pumps, allows operators to set the flow rate of between 5-100ml per minute. This greatly increases the quality and the accuracy of results, while reducing both wastage and operational costs.
 - The DL systems are fully enclosed with an exhaust port, allowing an extraction connection to be fitted - this enables the DL systems to be used for processing hazardous materials such as gallium arsenide (GaAs) or indium phosphide (InP).
 - Chemically resistant to standard chemicals used in CMP applications, including sodium hypochlorite (Na OCL). Contamination can be avoided using the integrated, sample cleaning, de-ionised water and nitrogen gun.
- ### DL44
- The Logitech DL44 makes use of four Logitech PLJ7 Precision Jigs allowing operators to process up to 56 standard thin sections at the one time.
 - With the option of an additional plate the DL44 can also be utilised for polishing making it the ideal solution for high throughput, geological thin section preparation applications.
 - Four Logitech VPB7's can be utilised for geological thin section final stage polishing up to 56 standard thin sections at the one time.
 - The four 3.8ltr cylinders can be utilised for both lapping abrasives and diamond polishing solutions on the DL44.
- The lapping jigs are motor driven which allows for high geometric accuracy and consistent sample rotation throughout the process - resulting in excellent wafer uniformity.
 - Material removal rates (MRR) can be monitored and controlled to micron levels of accuracy.
 - Individual jigs can be programmed to automatically lift when target removal amounts have been reached - allowing for automated operations and preventing over-processing.
 - Internationally recognised CANBUS protocols are utilised to allow for communication with the main drive units to determine parameters useful for machine monitoring and diagnostics, while an industry traffic light tower provides machine status alerts.
 - Control process parameters via the systems Graphical User Interface (GUI) including; abrasive feed system flow rate and MRR.
 - Graphical representation of key parameters are displayed via the GUI during processing allowing for real-time analysis.
 - The recipe mode on the DL systems allows operators to create, save and re-call multi-stage process recipes - making each process completely repeatable, even across different operators.
 - 3.8ltr increased capacity cylinders means longer, uninterrupted processes. The DL4 and DL44 have the capacity for four cylinders for multi-stage processing.

1: Logitech DL44 designed for Geological Thin Section Preparation

2: Logitech DL4 with driven head technology ensuring excellent wafer uniformity

3: Driven lapping jig allowing for high geometric accuracy with Bluetooth technology

TECHNICAL SPECIFICATIONS

System	DL1	DL4	DL44
Jig Capacity	PP9 x1	PP9 x4	PLJ7 x4 VPB7 x4
Height	2020mm	2038mm	2030mm
Width	1564mm	2020mm	1140mm
Depth	730mm	1125mm (1317mm with services)	1440mm
Power Supply	220-240v 13A max	380-480Vac, Three-Phase, Earth.	400-500Vac, 3 Phase
Plate Diameter	560mm	700mm	600mm
Carrier Speed	10-60rpm	10-60rpm	10-60rpm
Slurry Flow Rate	5-100ml/per minute	5-100ml/per minute	5-100ml/per minute

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