DP SERIES PRECISION POLISHING SYSTEMS

High-speed polishing systems with driven-head technology for the semi-automated polishing of "hard-to-process" materials.

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Materials Technologists & Engineers

DP SERIES

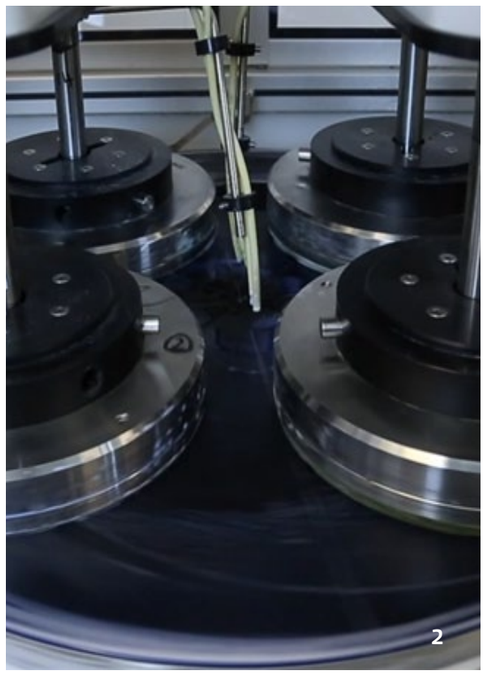
PRECISION POLISHING SYSTEMS

The Logitech DP high speed polishing systems were developed to address the issue of polishing times when processing semiconductor materials often describe as “hard” to polish within the industry. These systems have been designed for semi-automated final stage polishing of hard materials such as sapphire, silicon carbide (SiC) or gallium nitride (GaN).

Available as with a single or four workstations, the DP range can process materials up to 300mm (or multiple smaller samples) on the DP1 and 260mm per workstation (or multiple smaller samples) on the DP4. The DP systems feature special polishing carrier heads that apply high levels of downforce per carrier head onto the samples, whilst rotational speed and direction are fully controllable. This results in the highest level of sample throughput of any of the Logitech systems.

The capacity range of the DP systems make these ideal for small research laboratories through to production level environments.

1



2

3

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 300mm on the DP1 and 260mm per workstation on the DP4 (or multiple smaller samples).
- The DP1 polishing carrier head can apply up to 200kg of download and the DP4 up to 50kg per carrier head - resulting in the highest sample thoughput of any Logitech polishing system.
- In ‘Manual Mode’ individual process parameters and variables can be controlled such as rotational speed and direction of carrier heads via the Graphical User Interface (GUI).
- In ‘Automatic Mode’ operators can save and re-call multi-stage process recipes - making each process completely repeatable, even across different operators.
- Graphical representation of key parameters are displayed via the GUI during processing allowing for real-time analysis.
- Variable download control, driven head technology and in-built automation make the DP systems an effective solution for polishing a wide range of materials and components traditionally viewed as “hard to process”.
- Graphical representation of key parameters are displayed via the GUI during processing allowing for real-time analysis.
- 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.
- Door interlocks are installed on the DP systems while the built-in fume cabinet caters for processes involving toxic materials - ensuring current health and safety regulations are adhered to.
- 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.

1: The Logitech DP4 has a process capacity of up to 260mm per workstation

2: Logitech DP4 driven polishing heads can download up to 50kg on to the sample

3: Use the DP systems in ‘Automatic’ or ‘Manual’ mode for high levels of process control

TECHNICAL SPECIFICATIONS

System	DP1	DP4
Height	2030mm	2020mm
Width	900mm	1140mm
Depth	1400mm	1500mm
Power Supply	230v 16A max	400-500Vac, 3 Phase
Plate Diameter	560mm	700mm
Carrier Speed	10-125rpm	10-60rpm
Carrier Download (maximum)	200kg	50kg per carrier x4
Slurry Flow Rate	500ml/per minute	500ml/per minute

Logitech Ltd
Erskine Ferry Road
Old Kilpatrick
Glasgow, G60 5EU
United Kingdom

Tel: +44 (0) 1389 875 444
Email: enquiries@logitech.uk.com
Web: logitech.uk.com

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