LOGITECH
Materials Technologists & Engineers

Tribo

Chemical Mechanical Polishing System

The Tribo CMP system is a precision engineered, bench top solution designed with one thing in mind - the research of wafer processes, including their associated wafer, pad and slurry interactions. Primary application areas for the Tribo system are in the field of CMP planarization or delayering, with secondary applications in the field of Tribological science and research.

Superior real time analytical capabilities

The Tribo is built with analysis in mind. As you would expect from a system designed to analyse and log CMP process data, an array of advanced in-situ sensors constantly provide the operator with real-time process information. Monitored parameters include the CoF, pad, slurry, plate and carrier/pad interface temperatures. These sensors will relay information back to the operator in order to identify and evaluate important process conditions, such as End Point Detection (EPD) or process stability - factors which are paramount for optimal performance.

Consistent, repeatable performance

Utilising cutting edge technology, such as advanced process sensors, diamond pad conditioning and a modular component structure, the Tribo system will enhance and redefine your CMP research and analysis abilities.

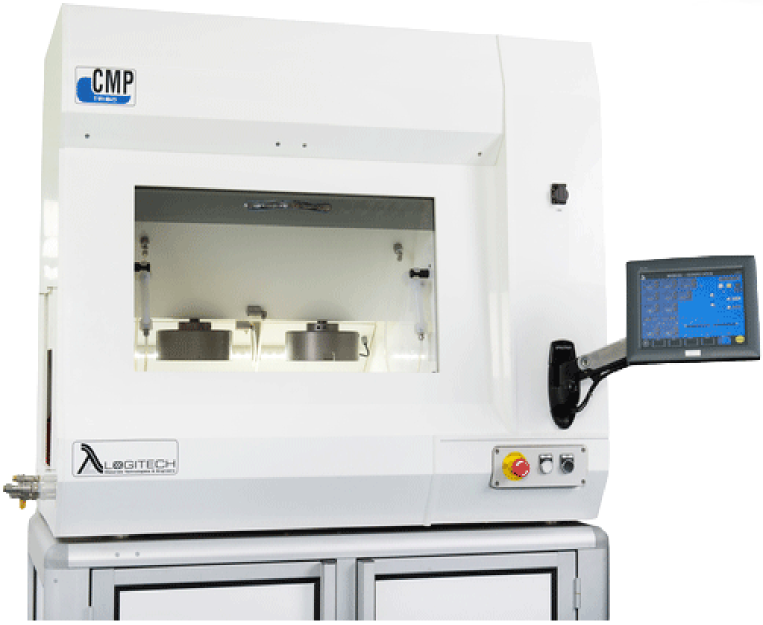
The chemically resistant Tribo system comes supplied as standard with the ability to process coupons, part wafers and full wafers up to 4”/100mm in diameter on its 400mm polishing plate. A second driven carrier arm allows for various in-situ pad conditioners to be mounted depending on customer requirements. It also comprises an industry standard, 4.25” diamond pad conditioner which will maintain the original properties of the polishing pad and minimise wafer to wafer variations. The benefit of this is greater wafer yields, increased process reliability and a lower cost of ownership.

Both the carrier and pad conditioner arms can be independently set for sweep, amplitude and download force depending on the pad type and surface being processed, allowing independent parameters for improved pad conditioning and optimised pad life.

Enhanced control at your fingertips

The user interface on the Tribo utilises internationally accepted analytical software technology. All functions are controlled via the touch panel. Data can be taken from the in-situ process sensors and sub-systems and exported (via the USB port) to third party statistical or analytical software. The ability to extract information in standard file formats provides added benefits though a greater understanding of the reactions occurring during the CMP processes.

The ability to automate various system operations precisely, means that an entire CMP process, consisting of various sub-processes, can be initiated and left unmanned. This allows the operator to work on other tasks safe in the knowledge that the Tribo is automatically performing the specified recipe or system operations.



- *Ideally suited for analytical Tribological applications through to conventional CMP*
- *In-situ pad conditioner maintains optimum pad condition*
- *Advanced sensor array comprising Co-Efficient of Friction (CoF), slurry, pad/plate interface temperature*
- *Bench top design - highly adaptable to suit available space*

Adaptable and portable - Logitech quality as standard

In order to make the system as flexible as possible, an optional configuration allows it to integrate up to four independent slurry pumps simultaneously. This makes it possible to incorporate multiple slurries into process recipes, either individually or mixed, to create custom slurries to cater for different processing requirements.

In summary, the Tribo has been designed from the ground up to achieve the highest possible standards of processing control, in laboratories with limited space, without sacrificing system performance.

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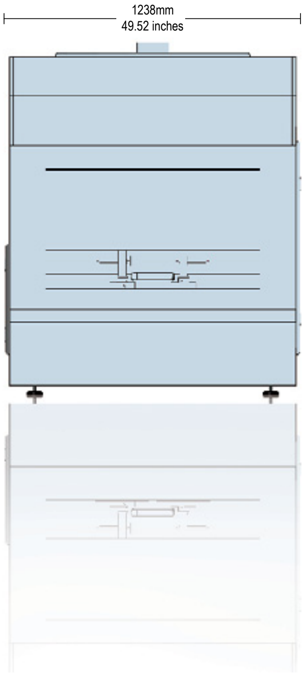

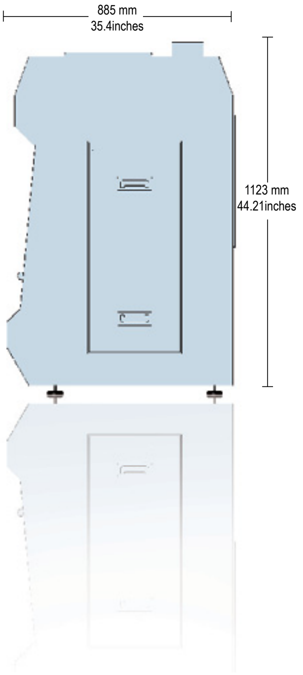

Technical Specifications

Power Supply	220v - 240v single inlet
Fuse rating:	16Amps - 50/60Hz
Plate speed:	100rpm
Plate diameter	400mm
Plate rotation	Forward & reverse direction settings
Carrier 1 speed	10 – 100rpm
Carrier 2 speed	10 – 100rpm
Carrier1	
Max. Carrier1 back pressure	50 Psi /62kPa
Min. Carrier1 down pressure / load	0.4psi / 2.8kPa
Max. Carrier1 down pressure / load	9psi / 62kPa
Carrier 2	
Max. Carrier2 back pressure	50 Psi / 62kPa
Min. Carrier2 down pressure / load	0.4psi / 2.8kPa
Max. Carrier2 down pressure / load	0.9psi / 62kPa
Carrier sizes available	4” (wafer size)*
Height:	1123mm
Depth:	985mm
Width	1382mm
Packed weight:	440Kg
Machine weight:	260Kg
Polishing Plate weight:	6.5Kg
Max. Slurry flow rate:	500ml/min
Min. slurry flow rate:	20ml/min
Chemical compatibility:	Acidic & alkaline CMP Slurries
Cabinet details	Self contained chemical resistant, bench top cabinet

** Templates can be used to allow partial and other smaller sizes.*

Accessories, Components & Consumables

A comprehensive range of accessories, components and consumables are available to support these systems, enabling optimum results and longevity of the machines. A selection of supporting products can be found below. For a more comprehensive listing or to order consumables online please go to **www.logitech.uk.com**

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