LOGITECH WAFER CLEANING SYSTEMS

OBSESSIVE SINCE 1965 PRECISION

Single wafer cleaning systems for damage-free, optomised cleaning of fragile semiconductor wafers post CMP.

Logitech.uk.com

LOGITECH
Materials Technologists & Engineers

SINGLE WAFER CLEANING UNITS

Logitech offers Single Wafer Cleaning Systems (SWC 300 and SWC 400) for damage-free, optimised cleaning for wafers and masks used in the MEMS and Semiconductor Industry.

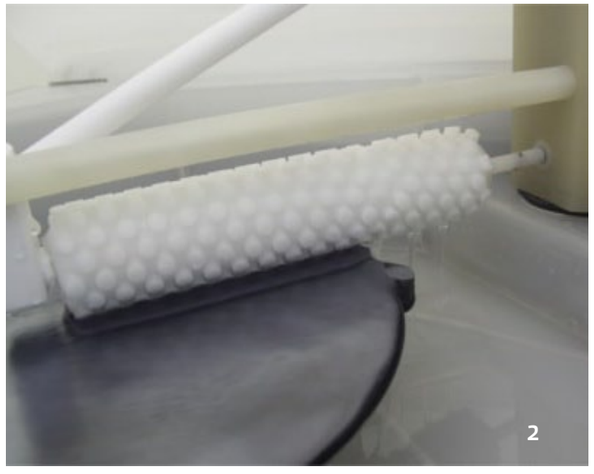
The SWC systems provide controlled chemical dispensing capabilities, allowing for enhanced particle removal from the specimen surface. Utilising the chemical dispensing functionality alongside the megasonic cleaning technology allows for highly optomised cleaning.

The released particles are removed from the substrate surface by sweeping off the particles with the radial flow of the de-ionised water. Without this feature, stationary cleaning tanks allow for a greater number of particle reattachments therefore requiring further cleaning time to remove.

The SWC systems are capable of in-situ spin drying with heated N2 or IPA. "Dry-In-Dry-Out" one step processing is possible with the lowest capital investment and cost of ownership. The process time for SWC systems can vary between 3-5 minutes per substrate, depending on the size and cleaning options used.

The SWC systems have a small footprint, making them the ideal solution for any clean room with limited space looking for superior cleaning abilities across a variety of substrates.

1



2

3

KEY FEATURES & FUNCTIONALITY

- Available as a bench-top system, the SWC-3000, or a stand-alone system, the SWC-4000.
- Both systems are designed for the cleaning of single wafers up to 300mm/12".
- Ideal for the cleaning of patterned and un-patterned, Germanium (Ge), Gallium Arsenide (GaAs) and Indium Phosphide (InP) wafers.
- Perfect solution for post CMP wafer cleaning, cleaning of diced chips on a wafer frame, cleaning after plasma etch or photoresist stripping, mask blanks or contact mask cleaning and optical lense cleaning.
- Systems come with a chemical dispense unit as standard, allowing for control over the amount of chemicals used in the cleaning process - reducing wastage and improving total cost of ownership.
- Chemical dispense unit allows particles to be easily removed from the substrate surface with the minimal amount of reattachments as possible - in comparison to stationary cleaning tanks.
- The option for a PVA brush system is available. Providing a mechanical means of removing stains and residues on unpatterned substrates.
- Suck-back valves preven drips and the systems come with seperate solvent and acid drains.
- Both systems come with a heated nitrogen option, with the SWC-4000 also capable of spin drying.
- The SWC-4000 allows for megasonic assisted lift-off process, allowing for optimised cleaning processes.

Options:

SWC-3000

- Mask or wafer
- Brush cleaning
- Top and bottom rinse and dry
- Nitrogen and CO_2 Ionizers
- Fire Resistant Cabinet

SWC-4000

- PVA brush cleaning (100rpm)
- Post CMP brush (up to 400rpm)
- Nitrogen Ionizer
- Bottom side DIW and dry
- CO_2 inject with DIW or chemical
- Fill sensors for chemical
- FM 4910 materials

1: SWC-3000

2: CMP wafer cleaning with brush

3: SWC-4000

TECHNICAL SPECIFICATIONS

System	SWC-3000	SWC-4000
Height: System RF Power Supply Chemical Box	 419mm 153mm 356mm	1372mm
Width: System RF Power Supply Chemical Box	 482mm 287mm 229mm	711mm
Depth: System RF Power Supply Chemical Box	 660mm 431mm 585mm	813mm
Power Supply	110v 15A / 230v 15A 50/60Hz	110v 15A / 230v 15A 50/60Hz

LOGITECH
Materials Technologists & Engineers

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