

# CHEMICAL CLEAN & ETCH SYSTEM

## MODELS CESx128 & 138

### DESCRIPTION:

The **highly efficient** Models CESx128 & 138 are the ideal for Cleaning & Etching of Wafers & Substrates, & are configurable for Lift-Off processes. The **very reliable & cost-effective** systems utilize a proven assortment of technologies on individual or multiple media. The systems can be configured with several process dispense options from Brush for Ammonium Hydroxide, Hydrogen Peroxide, Hydrochloric Acid, Piranha &/or DI-H<sub>2</sub>O Heated or Ambient for Surface Agitation to Expedite Reactions; Megasonic Nozzle for DI-H<sub>2</sub>O or Chemistries; Low pressure & Mixing nozzles for chemistry dispenses; Heaters for chemistries & DI-H<sub>2</sub>O; N<sub>2</sub> Assist & much more. Metered Mixing of all chemistries. The Rapid & Effective Drying technique combines Variable Spin Speeds, optional Heated DI-H<sub>2</sub>O, & N<sub>2</sub> Assist.

### FEATURES:

- Up to 9" x 9" / 300mm Diameter Substrate Compatibility depending on configuration.
- Main Spindle Assembly having Brushless Gear Reduced Servo Motor for precise speed control & indexing.
- Up to Two (2) Oscillating Dispense Arms with Recipe-Adjustable Speed & Travel Positions & programmable parabolic uniform travel & multiple dispense capable.
- Radially Exhausted Chamber for Maximum Laminar Flow with N<sub>2</sub> feed at Top of the lid for laminar flow.
- In-line DI-H<sub>2</sub>O Heater for Mixing, Cleaning, & Dry Assist.
- Process Chamber of FM4910 Compliant PVDF with PTFE coated Stainless Steel surfaces & stand-alone Polypropylene Cabinet with Stainless Steel Internal Frame & Integrated Secondary Containment with Leak Detection.
- Microprocessor Control Capable of Retaining Thirty (30) Recipes having thirty (30) Steps each in Memory.
- Touch Screen Graphic User Interface (GUI) with Ease of Programming, Security Lockouts, & On-Screen Error Reporting.
- Rinse to pH of process area & substrate with interlocks to prohibit access & control Drain & Spindle Speed till safe.
- Push Button Lid Open/Close.
- Drain Diverters for Chemical & House Drains.
- Designed to SEMI S2/S8 Guidelines Comprehensive includes Integrated DI H<sub>2</sub>O Heater; Chemical Storage; & Secondary Containment. Front Service Access for All Components. Dimensions do not include rear-facing Facilities Connections.
- CESx128: 28" wide X 24" deep
- CESx138: 34" wide X 30" deep



Model CESx128 System Cabinet



Example of Process Arms & 4"x4" to 9"x9" Adjustable Photomask Chuck

### OPTIONS:

- Chucks configured for Wafers, Photomasks, & other Substrates.
- Auto Up/Down Oscillating Adjustable Self-Cleaning Brush Assembly for chemical, Surfactant, & DI-H<sub>2</sub>O Dispenses.
- Oscillating Megasonic Dispense Nozzle for DI-H<sub>2</sub>O or Chemical.
- Fixed or Oscillating Low Pressure Dispense with various Nozzles for DI-H<sub>2</sub>O &/or Chemistries & Mixing.
- Chemical Cabinet with Capacitive Level Sensing Dispense Canisters, Bulk Fill Capable.
- Heaters for Chemical & DI-H<sub>2</sub>O Dispenses.
- Secondary Containment with Leak Detection
- Point of Use Mixing with Digital Flow Meter & Metering Pump.
- FM4910 Fire Retardant Cabinet & Process Area Materials
- Automation Ready for Robotic Interface (AR).
- Chemical Recovery Systems based on multiple diverter valves, pumping to drums, & level sensing.
- For volatile solvents, this system is available in Stainless Steel with optional Fire Suppression systems



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