Develop, Etch, & Strip System

MODEL DESx133

DESCRIPTION:

The *highly efficient* Model DESx133 is the ideal solution for Automatic Chemical Developing, Etching, & Stripping of Wafers and Substrates. The *very reliable and cost-effective* system utilizes proven assortment of technologies on individual or multiple media. The DESx133 can be configured with process Dispense alternatives from Megasonic Nozzles for DI-H_2O or Chemistries; Low Pressure dispense nozzles (round or square full cone or fan); Heaters for Chemistries and DI-H2O; Brush for Surface Agitation to Expedite Reactions and/or DI-H_2O, and much more. The Rapid and Effective Drying technique combines Variable Spin Speeds; optional Heated DI-H_2O; and N_2 Assist. The System is very safe, having a sealed & N_2 purged process chamber to minimize exposure to chemistries & provide a neutral environment. It also has controllable diverter valves for directing chemistries for reuse; to chemical drains; or effluents to house drains.

DESx133 System

Example of Process Chamber with PTFE-Coated Stainless-Steel Arms & Adjustable 4”x4” to 14”x14” SEMI Photomask Chuck

FEATURES:

- Up to 14” x 14”/ 20” Diameter Substrate Compatibility.
- Main Spindle Assembly having Gear Reduced Brushless Servo Motor for precise speed control & indexing.
- Adjustable Arm Speed and Travel Positions with Arms of 316SS, with Teflon Coating if required by chemistry. Arms have parabolic like motion control for uniformity of process using gear reduced stepper motors.
- Radially Exhausted Process Chamber for Maximum Laminar Flow with N_2 feed located on lid.
- DI-H_2O Heater for Clean & Dry Assist.
- Process containment with chemically compatible material of Polypropylene, PVDF, or PTFE as required by chemistry.
- Stand-alone Polypropylene Cabinet with 316 Stainless Steel frame & Polypropylene skins, with optional FM4910 materials & 316 Stainless Steel skins available.
- Microprocessor Control Capable of Retaining Thirty (30) Recipes having Thirty (30) Steps each in Memory. Number of Recipes & Steps is expandable upon request.
- Touch Screen Graphic User Interface (GUI) with Ease of Programming & Security Lockouts with On-Screen Error Reporting.
- Built in Safety Interlocks & Double Containment.
- User-Adjustable Timed Chamber Flush with optional Rinse to pH of entire process area with interlocks to prohibit access to process area & control Drain & Spindle Speed until safe.
- Push Button Lid Open/Close.
- Drain Diverter Valves for Chemical & House Drains
- Designed to SEMI S2/S8 Guidelines

OPTIONS:

- Various sizes & types of chucks for Wafers and Substrates.
- Up to Four Oscillating Process Arms, including:
  - Auto Up/Down Adjustable Self-Cleaning Brush Assembly for Developer, Etch, Stripper & DI-H_2O Dispenses.
  - Megasonic Nozzles for DI-H_2O or Chemical Dispense Arm.
  - Fixed or Oscillating Low Pressure Dispense with various Nozzles for DI-H_2O &/or Chemistries.
  - Atomizing Mist Nozzle Dispense
- Chemical Cabinet with Dispense Canisters, Digital Flow Meter & Pump.
- Heater for Chemical & DI-H_2O Dispenses.
- Substrate Temperature Monitoring.
- Secondary Containment with Leak Detection
- Point of Use Mixing Systems.

SYSTEM DIMENSIONS:

DESx133: 44” wide X 49” deep
(excluding adjustable touchscreen)

ULTRA *t* Equipment Company, Inc.
41980 Christy Street, Fremont, CA 94538
sales@ultrat.com (510) 440-3900 ultrat.com