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Micro-Processor Controlled Operation

The AWC-650 Automatic Wafer Cleaner is digitally controlled by an on-board PLC controller. Chuck rotation speed, D.I. water nozzle travel pattern and speed, the timing and number of repetitions of cleaning/drying cycle stages and other process operations are precisely controlled and highly repeatable. Cleaning process recipes are easily stored and readily recalled from the PLC memory.

Substrate Handling

The AWC-650 accepts wafers up to 8", on their dicing frames. The dicing frame is positioned on the system chuck using two location pins and a spring-loaded hold-down mechanism. At the end of the process cycle, the wafer is gently released from the vacuum hold-down by a puff of nitrogen.

System Versatility

The AWC-650 can be custom configured to attain optimal cleaning results for any application.

System options include:

1. Megasonic cleaning jet uses a "stream" of Megasonic-energized D.I. water to blast minute particles from the substrate surface.
2. CO₂ bubbler to prevent electro-static discharge (ESD) on substrate.
3. Custom chucks, per application requirements.

Compact Size

The AWC-650 Automatic Wafer Cleaner is designed for use in any dicing environment facility. The AWC-650 is a space-saving system, with its narrow-width presentation, allowing it to be installed in any convenient location.

Technical Specifications

D.I. Water Pressure (input):	5 - 7 bar
D.I. Water Capacity (max. usage):	Max. 1.8 liter/min
Drainage Capacity (min.):	>3 liter/min
Nitrogen (max. consumption):	70 NL/min
Air (CDA) (max. pressure):	0.5 – 0.7 Mpa (5-7 kg/cm ²)
Air (CDA) (max. consumption):	250 NL/min
Electrical:	115/230Vac, 50/60 Hz
Power (max.):	1.8 kVA
Dimensions: (H) 39" x (W) 16" x (D) 35" Height with cover open: 59"	(H)1000mm x (W) 400mm x (D) 870mm Height with cover open: 1500mm
Weight:	Approx. 220 lbs. 100 kg

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■ AE AWC- 650 Automatic Wafer Cleaner System

● General Description

The AWC-650 Automatic Wafer Cleaner System leads the way in post-dicing wafer cleaning. Highly efficient and versatile in the removal of sub-micron particles from all sawed and scribed substrates, the AWC-650 is a robust and flexible system. This PLC-controlled system provides effective and repeatable cleaning for worry-free processing of singulated substrates. Process parameters are easily modified and stored for building a process recipe library stored in the system memory.

● System Versatility

The AWC-650 can be custom configured to attain optimal cleaning results for any application. System configurations include:

1. Atomizer Cleaning Head as standard.
2. High-Pressure D.I. water nozzle (optional). High-Pressure option can be supplied in place of Atomizer, or together on the same system for total flexibility in cleaning process method used.
3. Custom chucks, per application requirements.

● Easy Process Configuration and Programming

With the AWC-650, creating the washing and drying cycle best suited to your application is a simple, menu-driven procedure. The AWC-650 combines chuck rotation speed and D.I. water adjustment parameters for customization of all process stage parameters for each specific application.



Optimized for Image Sensor Cleaning

The AWC-650 cleaning process is optimized for the emerging, highly demanding task of cleaning image sensors at various stages of image sensor packaging.

AE AWC-650 Features-at-a-Glance

- PLC controller with convenient alpha-numeric LCD display.
- Substrate sizes: up to 8" frame-mounted wafers.
- Standard Atomizer cleaning head, with High-pressure D.I. water nozzle (optional) available on the same system.
- Compact system size.
- Purified Nitrogen or CDA drying at the end of the process cycle.
- Built-in vacuum generator with auto-drain water trap.
- Nitrogen/CDA puff wafer release.
- Dicing frame safety lock chuck.
- Built-in exhaust blower (optional).