

## **AE AWC-650**

### **Automatic Wafer Cleaner System**

The AWC-650 Manual 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.

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 jet pressure adjustment parameters for customization of the cleaning process for each specific application.



### **AE AWC-650 Features**

1. PLC controller with convenient alpha-numeric LCD display.
2. Substrate sizes: up to 8" frame-mounted wafers.
3. High-pressure D.I. water pump.
4. Compact system size.
5. Purified Nitrogen drying at the end of the process cycle.
6. Built-in vacuum generator with auto-drain water trap.
7. Built-in exhaust blower.
8. Nitrogen puff wafer release.
9. Dicing frame safety lock chuck.

### **Adjustable D.I. Water Pressure and Adjustable Spin Speed**

The AWC-650 system is very versatile, with adjustable D.I. water pressure and spin speed settings for use with a wide range of applications. System setup and cleaning process recipe programming is a simple task, as is the storing process recipes for later use.

### **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 using a "stream" of Megasonic-energized D.I. water to blast minute particles from the substrate surface.
2. CO<sub>2</sub> bubbler to prevent electro-static discharge (ESD) on substrate.
3. Custom chucks, per application requirements.

### **PLC-Controlled Operation**

The AWC-650 Automatic Wafer Cleaner is digitally controlled by an on-board PLC controller. System functions, such as: chuck rotation speed, D.I. water nozzle travel pattern and speed, timing and number of repetitions of cleaning cycle stages and other process operations. Cleaning process recipes are easily entered and readily recalled from the PLC memory.

### **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 position in any convenient location.

### **AE AWC-650 System Utilities/Specifications**

|                                   |                                                                     |
|-----------------------------------|---------------------------------------------------------------------|
| D.I. Water Pressure (max. output) | 0.3 Mpa (3 kg/cm <sup>2</sup> )                                     |
| D.I. Water Capacity (max. usage)  | Max. 1.5 liter/min                                                  |
| Drainage Capacity (min.)          | ≥ 1.5 liter/min                                                     |
| Nitrogen (max. consumption)       | 70 NL/min                                                           |
| Air (CDA) (max. pressure)         | 0.5 – 0.7 Mpa (5-7 kg/cm <sup>2</sup> )                             |
| Air (CDA) (max. consumption)      | 250 liter/min                                                       |
| Electrical                        | 115/230Vac, 50/60 Hz                                                |
| Power (max.)                      | 1.8 kWA                                                             |
| Dimensions                        | (W) 400mm x (D) 870mm x (H)1000mm<br>Height with cover open: 1500mm |
| Weight                            | Approx. 100 kg.                                                     |