

Cleans Dust , Silicon Particles, Hair, Fiber, Detached Particulates, Statically Held Particulates, Detached Bonding Wire, Lint....

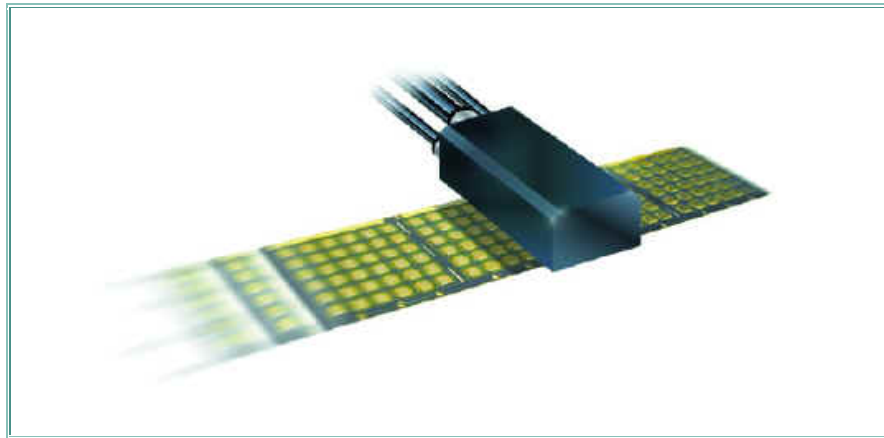
Clean Cavity Packages, MEMS, Leadframes, ETC. prior to encapsulation or sealing.

**FINE PRINT: The 888 will not remove any mechanically attached materials, glues. epoxies or trapped objects.**

The 888 IC Yield Master consists of three components:

1. Cleaning Head for ionizer blow off and vacuum suck back
2. Ionizer Unit
3. Vacuum Box with HEPA Filter

1. The Cleaning Head





*Special cleaning head configurations are available for different strip, package or wafer sizes.*

**Cleaning Head:**

Each Cleaning Head is built to match the product which will be passed under it for cleaning. The head incorporates ports for particle blow off and vacuum suck back.

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## 2. The Ionizer Unit

Just blowing the particles off the devices is not enough !

**Most foreign materials are held onto a package because of static. The 888 employs a flow of delicate ionized air to discharge the package and free the particles from the device. At the same time 888 is blowing down with ionized air or nitrogen blanket, a vacuum port is sucking the particles into a filtered box. Just ionizing the air around a device to be cleaned will not remove harmful particles, airflow must be part of the process. Vacuuming while performing ionized blow off will assure that no particles will be present on the device at the process step.**



### The Ionizer

When fed from an ultra-clean gas source, the ionizer of the 888 operates 10 times better than Class 1 clean room requirements. To virtually eliminate particle emissions, the design includes a tightly controlled emitter point shape, corona voltage and current. Careful material selection and control of internal geometry ensure ultra-clean ionized gas delivery. The ionizer uses a patented, intrinsically balanced technology, which ensures electrical neutrality and safe operation in the tight confines of the production equipment. It is based on extreme electrical isolation and relies on conservation of charge to achieve balance. With this technology, the 888's ionizer will never need calibration.

### Ionizer Features:

- Ionizes either clean dry air or nitrogen
- Precise delivery of balanced ionization to confined areas
- Class 1 operation
- No calibration needed
- Maintenance-free for two years

### 3. Vacuum Box with HEPA Filter



#### DO THE MATH:

You are running 1,000,000 devices per week. Your yield is 97% +/- . You are throwing away 30,000 units per week or worst yet some are sent your customers. Out of the 30,000 half are rejected because of foreign particles, The 888 can save 50% of this 15,000. That's 7,500 units per week that could be saved by the 888. 390,000 per year! Can you afford not to try the 888?

### The Vacuum Unit:

The vacuum unit of the 888 is self-contained system, which incorporates a highly reliable, maintenance-free vacuum pump. The harmful particles are drawn into the pump box and into a 0.3 Micron HEPA filter before returning the air to the room.

### Vacuum Unit Features:

- Self-contained
- Maintenance-free
- Oil-less Operation
- 0.3 Micron HEPA filter

### HEPA Filter:

Depending on the environment, it is recommended that the filter be changed every 250-500 operation hours.

### Removes These Harmful Particles and More:

- Packing Foam
- Paper Fibers
- Machine Created Particles
- Skin
- Hair
- Loose Bonding Wire
- Dust ...

**Note: The 888 *will not* remove particles that are mechanically connected to the leadframe or die, nor will it remove any particles that are trapped under the wires of a wire-bonded device.**

### Yield Improvement:

The 888 can be retrofitted to a wide range of process equipment. The 888's technology has been field proven to increase the final yields of integrated circuits by removing harmful foreign materials from leadframe during the IC manufacturing process. We are sure you, and your customers, will have peace of mind knowing that every leadframe will be cleaned of foreign materials on each machine where a 888 is used.

### Retrofit to you:

- Die Bonders
- Wire Bonders
- Inspection Systems
- Die Coating Systems
- Molding Equipment
- Leadframe or Boat Indexing Systems

## SPECIFICATIONS

### PHYSICAL

#### Pump Box

Weight: 23 lbs.  
Depth: 20 inches  
Width: 10 inches  
Height: 10 inches

### FACILITIES

#### Requirements

Power: 110/230V 250W 50/60Hz  
Clean-Dry Air or N2: 70 PSI Min

Cleans MEMS

### CLEANING HEAD

Weight: 6 oz.  
Depth: 5 inches  
Width: 1.5 inches  
Height: 1 inch

### FACILITIES

#### Requirements

N/A

*Note: Special cleaning head configurations are available.*

### IONIZER MODULE

Weight: 1.5 lbs.  
Depth: 5.5 inches  
Width: 6 inches  
Height: 7.5 inch