AQ-260 OFFLINE PCBA CLEANER

The AQ-260 is specifically designed for cleaning PCBA (Printed Circuit Board Assembly) in the electronics manufacturing industry. It employs the industry's most advanced water-based cleaning process, achieving a 99% cleaning efficiency while ensuring environmental sustainability. The system integrates four key modules: a cleaning module, a rinsing module, a drying module, and a filtration module.

- Independent Chemical Liquid Dosing Pump
- Unique Nozzle Design: Achieves zero dead-angle cleaning for thorough coverage.
- Automatic Air blowing System: take liquild drops out of board.
- Precision Recycle Filtration Device: Extends chemical liquid lifespan by removing contaminants.
- High Cleanliness Standards: Compliant with IPC-610D Class requirements.
- Control System: PLC + Touchscreen with full English interface for intuitive operation.

Features

1. Transparent Cleaning Process: The cleaning chamber is equipped with a visual window, allowing the entire cleaning process
to be clearly observed.

2. Spacious Cleaning Area: Dimensions: 450 (W) × 450 (D) × 230 mm (H), providing ample space for efficient cleaning.

3.Scientific Nozzle Design: Nozzles are progressively arranged from left to right to enhance cleaning efficiency, while vertical distribution ensures complete coverage, eliminating blind spots.

4. Adjustable Nozzle Pressure: The pressure-adjustable nozzle system prevents issues like splashing and collision damage when cleaning small-sized PCBAs under high pressure.

5. Standardized Chemical Liquid Heating System: Equipped with a built-in heating system to significantly improve cleaning efficiency and reduce processing time.

6. User-Friendly Touchscreen Interface: Allows customization of process parameters (e.g., chemical temperature, cleaning time, rinse cycles/duration, drying time) for different PCBA models. Multiple programs can be stored for quick access.

7. High-Purity Cleaning Standards
Meets IPC-610D Class 1 (≤1.5 μg/cm² ion contamination) and MIL-STD-28809 Class 1 standards, ensuring military-grade cleanliness.

8. Convenient Chemical Refill System: Supports manual addition of cleaning chemicals for flexible operation.

9. Comprehensive Cleaning Performance: Effectively removes both organic and inorganic residues from product surfaces.

10. Fully Automated Cleaning Cycle: Completes cleaning, rinsing, and drying in a sealed chamber, featuring a compact and space-saving design.

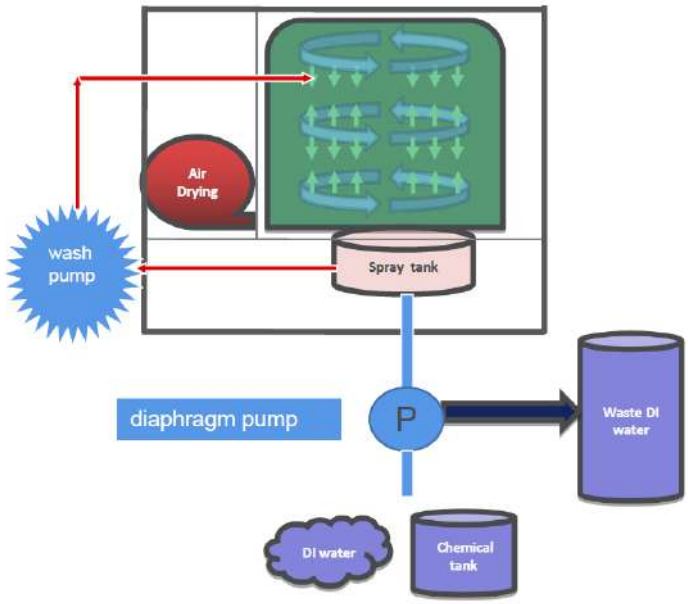
Specifications

Clean Basket Size	Max 460mm(L) ×460mm(W) ;1 layer
Handle Max PCBA Size	Max 450(L) X230mm(W)
The Max component height on the PCBA	Max 35mm
Min Product Size	Min 20mm(L) X20mm(W) , the small product need customized fixture to fix it .
Chemical Liquid Tank Capacity	51L
Spray Tank Capacity	25L
Cleaning method Cleaning Time	360° Rotate/Ejection for cleaning; cold air for drying
Rinsing Time	5~20 Minutes (Reference)
Rinsing Times	1-2 Minutes (Reference)
	1-10 (Set)
Drying Time	20~30 Minutes (Reference)
Cleaning Liquid Recovery Filter	0.45um (filter tiny impurities: solder paste, flux, rosin and pollutants)
Dilution Liquid Heating Temperature	Room temperature~75°
Need DI Water Supply	30~60L/min
Need DI Water Pressure	0.2-0.4Mpa
Need DI Water Entrance Pipe Connection	1 inch

Chemical Liquid Heating Power	3KW
Cleaning Motor	0.75KW
Total Power	4.5KW
Total Current (Max)	21A
Air consumption	200-400L/Min
Air Supply	0.45Mpa~ 0.7Mpa
Power Supply	1Phase 220V 50/60HZ
Net Weight	Approx 200Kg
Machine Size	W698*D748*H1160mm

Cleaning process

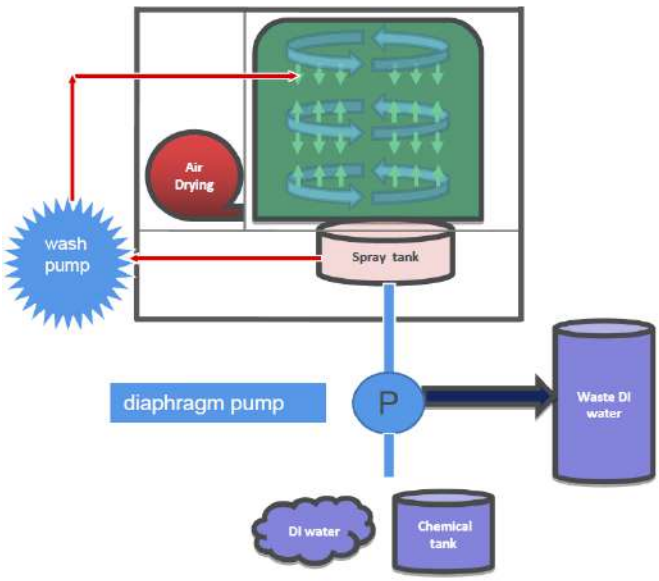
AQ-260 Process Diagram (preparation):



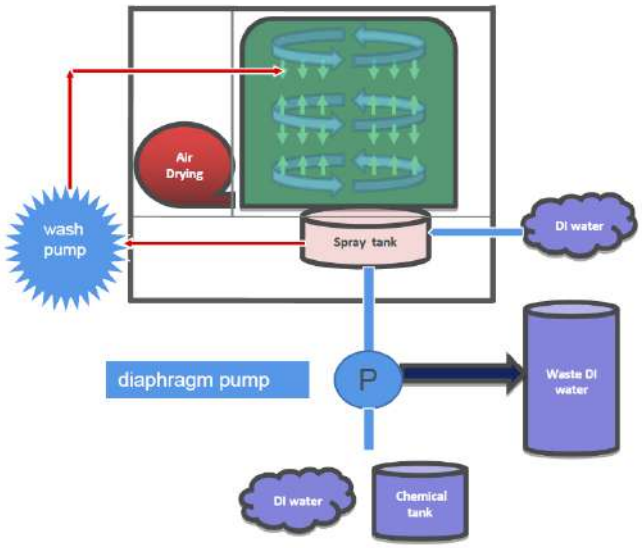
1. Connect the machine to a Deionized water machine and add the pre mixed chemical liquid into the chemical tank.

AQ-260 Process Diagram (chemical cleaning):

1. Chemical wash: powerful pump will generate around 60-80psi pressure spraying to board. During cleaning process, the spraying tube will rotating automaticlly.
2. After chemical wash finished, The chemical filtered through a filter. Next it will be return back to chemicl tank.



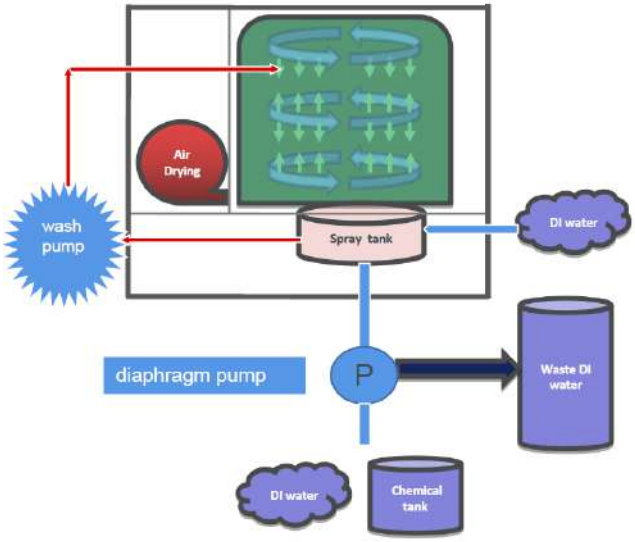
AQ-260 Process Diagram (DI water rinsing):



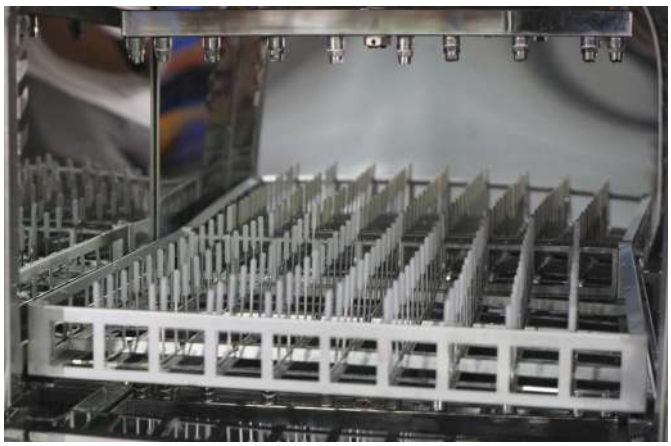
1. DI water will be supplied by Deionized water machine.
2. The pump will generate 60-80psi pressure to rinse the boards.
3. After rinsing the waste water will be drained.The frequency and time of rinsing can be set in the software.

AQ-260 Process Diagram (Air Drying):

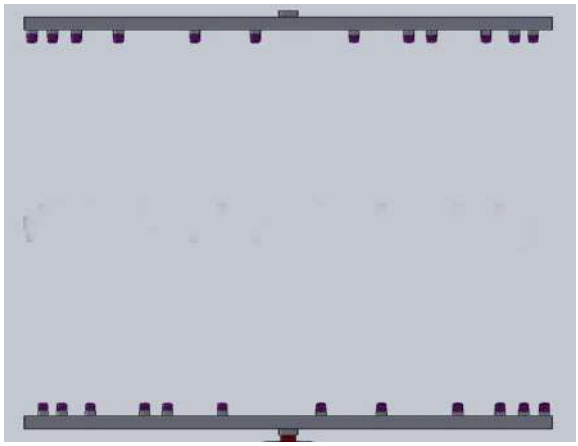
1. The machine uses cold air to blow dry the PCBA.



Details



Visualization of the whole process:
Cleaning room equipped with visual window cleaning process can be monitored at all time.



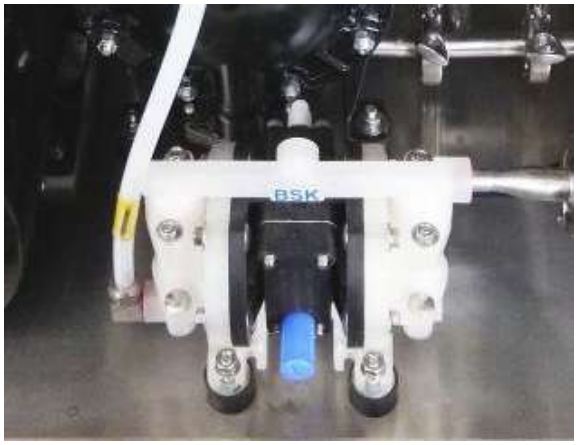
Spraying System:
The most scientific nozzle design (patent): Increasing nozzles from left to right, Enhance the cleaning efficiency, Distribution nozzles up and down, Completely solve the blind clean area.

Spray Pump System:
High power(3KW) & high efficiency stainless steel spray pumps, spray pressure can reach.

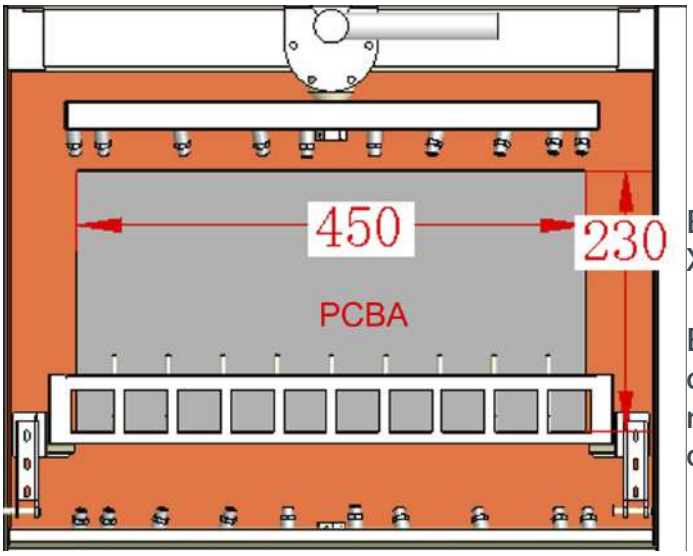
60 ~ 80PSI, pressure can be adjusted based on actual requirement to clean the contamination.

Nozzle pressure is adjustable

Circulating and Filtering System:
Adopt 0.45μm filter, can filter dust and other particulate impurities. So that the chemical liquid recycling can be maintained better cleaning performance and longer life. Meanwhile, can reduce operating costs.



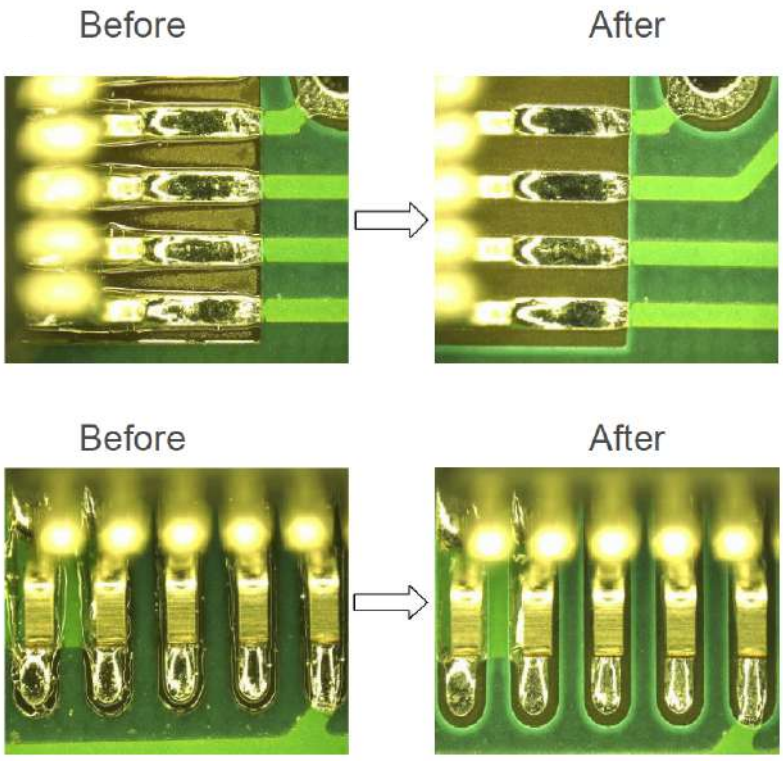
Independent chemical liquid adding pump



Effective cleaning space: 450 (W) X450(D) X 230mm (H)

Each rinse required 20L DI water, consider every clean cycle need 3--5 rounds rinse, we recommend to use a DI generator with 200L/h capability.

Application



Offline PCBA Cleaner AQ-260 includes:

- Offline PCBA Cleaner AQ-260*1 set
- 0.45μm filter core *2pcs

Optional consumable parts:

- 0.45μm filter core (consumable parts , service life : 15 days)
- Liquid level tube (consumable parts ,service life : around 1 year)
- Liquid level sensor (consumable parts ,service life : above 1 year)