

### **SMT Cleaning Machine**



Pneumatic stencil cleaning machine SME-750



SME-800

Electric stencil cleaning machine SME-800



Mis-print PCB cleaning machine SME-210





Wave oven pallet cleaning machine SME-5200



Nozzle cleaning machine
SME-24 www.SMThelp.com





### **PCBA Cleaning Machine**







PCBA offline cleaning Machine SME-5600

PCBA in line cleaning machine SME-6300

PCBA in line cleaning machine SME-6200



PCBA in line cleaning machine SME-7600



DI water machine DI-1000



Ionic contamination tester WWW. Minelp.com CTM-500S



#### **SEMI IN LINE CLEANING MACHINE**





**SEMI CLEANING MACHINE SC810** 

**SMEI CLENAING MACHINE SC820** 





# **SME-6300 PCBA In-line Cleaning Machine Introduction**

SME-6300 is a in-line, mass productive PCBA cleaning machine It has water base liquid wash unit,DI water rinse unit and hot air dry unit.

SME-6300 main application: Car electronics PCBA, Military PCBA, Aerospace PCBA, Telecom PCBA, Medical device PCBA, Digital meters PCBA.

For Rosin flux, No-clean flux, Water-soluble flux, Solder paste ball and other organic and inorganic polluted materials on PCBA.

SME-6300 flow chart: Put in PCBA→pre-wash →wash→liquid isolation→pre-rinse→rinse 1→final rinse→air blow dry→hot air dry1→hot air dry 2→send out PCBA









# SME—Professional Cleaning Equipments Supplier for SMT & PCB

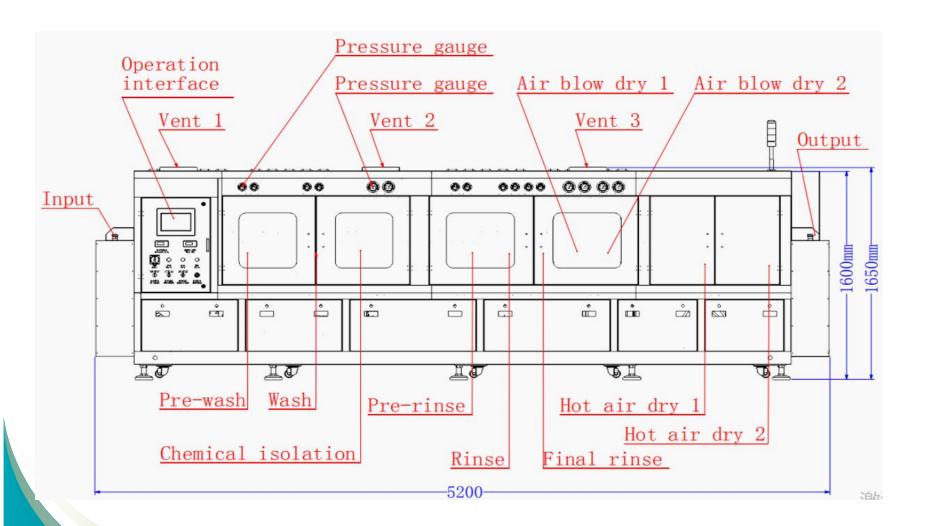
# **PCBA IN-LINE CLEANING MACHINE**

**MODEL:SME-6300** 





# SME-6300 PCBA structure and functional sections





# SME-6300 Main SPEC:

S/N	Item	spec	remarks
1	PCBA max size	500*400mm (W*L)	
2	PCBA min size	50*50mm (W*H)	
3	PCBA Thickness	100mm	with components
4	Net width	500mm	
5	Net speed	0.1~1.5m/Min	
6	Net direction	Left to Right	
7	Net height	$900\pm25$ mm	
8	Liquid temp	Room temp~80℃	
9	DI water temp	Room temp~60°C	
10	Dry temp	Room temp~100°C	
11	DI water supply	6~15L/Min	
12	Exhasut air amount	about $40\text{m}^3/\text{Min}$	



## SME-6300 Main SPEC:

S/N	Item	spec	remarks
13	Noise	about 70DB	
14	DI water resistivety	$0^{\sim}18$ M $\Omega$	
15	Clean tank capacity	280L	
16	Pre-rinse tank capacity	60L	
17	Rinse tank capacity	40L	
18	Liquid fitler	1um	
19	Air supply	0.5~0.7Mpa, 200~400L/Min	
20	Power supply	AC380V, 3P, 50/60HZ, 110KW	
21	Machine size	L5200*W1650*H1650(mm)	
22	Machine weight	2800KG	

- 1. SUS304 stainless steel system: high rigid and solid structure, acid and alkalic corrision protective, attractive apperance.
- 2. SUS304 Parts: All parts of the system which connect liquid ,DI water and hot air are SUS304 material.
  - 3. Flat net conveyor transport system: convienent for mass PCBA production.
- 4. Liuqid and water spray pressure adjustable, net conveyor speed adjustable : Super cleaning result, super cleaning efficient.
- 5. For Rosin flux, No-clean flux, Water-soluble flux, Solder paste ball and other organic and inorganic polluted materials cleaning.
  - 6. English interface, PLC control, easy operation.
- 7. Cleaning procedures can be loaded and saved. Cleaning procedures can be edited quickly according to requirements.
  - 8. Machine historical faults information can be checked at any time.
- 9. Upper and lower spray pressure of each set can be adjusted individually to achieve best spray cleaning effect.

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- 10. Air knives angle of each set can be adjusted to achieve best air blow effect.
- 11. The combination of diffirent nozzles to cover both wash pressure and penetration wash functions. easy to meet diffirent components wash requirement.
- 12. DI water overflow function: DI water overflows from back side to front side to replace used DI water in each rinse tanks to save DI water.
- 13. Energy-saving function: Machine equipped with laser sensor at the input side. The system will stop working automatically when no PCBA are put in over setting time.
- 14. Input DI water resistivity monitoring function: Machine will alarm when detecting input DI water resistivity value less than setting value.



- 15. Over time alarm function: PCBA input and output light curtain sensor detecting sensor are equipped at input and output side. If plates has put out in setting time, machine will alarm to remind operators to check it out.
- 16. 3 layers of cover on wash and rinse section to prevent any mists leak from the machine.
  - 17. Double liquid level swithches:built-in type, double LS, double protection.
- 18. Dual pressure meters system, the front meters are used for watching machine status, the rear meters are used for maintenance purpose.

#### **Electric control system safe and protection design:**

- 1. Machine power supply using 3 phases 5 lines, power supply is 380V, 3 phases, 50Hz with earth line.
- 2. Power supply leak protect function: Mitsubishi leak protective air power in machine electric cabinet.
- 3. Power supply open phase protection and phase sequence protection function.
- 4. Overload protect function: Each pump, air blower, heater has a independent air circuit breaker for overload protection.
- 5. Circuit surge protect function: Each electric devices starts by 2 seconds time delay to protect machine and circuit.
- 6. Pump protection: Low water level alarm function to protect pumps and heaters.
- 7. Over temperature protect function: Heater stops to work after water temp reaching at setting values; heater starts to work until temp reaching at setting values when water temp is low.
- 8. Power off protect function: UPS are equipped in the machine for net conveyor,so PCBAs can be sent out in case of power failure.
- 9. EMG stops: There are 3 EMG stop buttons on machine input and output side. Rush to shut off power in case of accident to protect operators and machine.



### Input side, Output side, Net conveyor system

- 1. EMG stop button
- 2. Input, output PCBA detecting system (production quantity calculation, drop off, standby function)





#### Wash module (Wash flux and other residuals off from PCBA)

- 1. Immersion type SUS316 high effective liquid eater, quick rise to setting temperature.
- 2. PID temp control unit: temp accuracy:  $\pm 3^{\circ}$ C with temp compensate function.
- 3. Up and down liquid spray pressure are adjustable, pressure meters on both front and rear side.
- 4. Modular spray unit, easy to be installed and removed.
- 5. High volume, mismatch nozzle arrangement to avoid spray shadow.
- 6. High pressure ,high performance 5.5kw SUS304 electric pump.
- 7. Removable SUS304 filter nets.
- 8. Re-circulation filter system to hold substances and prevent them go back to PCBA and go into next section and increase chemical liquid life.
- 9. Diffirent types of nozzles arrangement, cover both pentration and spray pressure. easy to clean diffirent components on PCBA.
- 10. Double liquid level switch in liquid tank( low level protection, high level prevent).
- 11. Liquid auto add and discharge function.
- 12. Liquid concentration add function at fixed time and fixed quantities.
- 13. 7.5HP air blow and 3 air knives for chemical isolation.



# Wash module(Wash flux and other residuals off from PCBA)





#### Pre-rinse and Rinse dodule( take off liquid and ionics)

- 1. Automatic DI water overflow add and replace function.
- 2. Immersion type SUS316 heater.
- 3. PID temp control unit: temp accuracy:  $\pm$  3°C with temp compensate function.
- 4. Up and down spray pressure are adjustable.
- 5. Modular spray unit, easy to be installed and removed
- 6. High volume, mismatch nozzle arrangement to avoid spray shadow.
- 7. High pressure ,high performance 1.1kw+0.55kw SUS304 electric pump.
- 8. Removable SUS304 filter nets.
- 9. Double water level switch (low level protection, high level prevent alarm).
- 10. Mismatch nozzle arrangement, avoid spray shadow.

### Final Rinse module(add new DI water and final spray take off ionics)

- 1. Final DI water rinse flow rate control and monitoring system.
- 2. Supply new water to keep clean and overflow to front stage to replace used water.
- 3. 6~15L/Min DI water supply and add in.
- 4. Pressure up to 40-60PSI, penetrate into the bottom of components.



# **Pre-rinse, Rinse 2 and Final rinse section**



Pre-rinse, Rinse and Final rise section



### Air knives blow dry + hot air dryer1 and dryer2 module

- 1. 4 air knives, 2 upper air knives and 2 lower air knives.)
- 2. 7.5HPpowerful blower.
- 3. Air pressure meters on front panel.
- 4. Air knives angle adjustable.
- 5. 15KW heater, 1.2 HP air blower.
- 6. hot air dry section1+hot air dry section2.



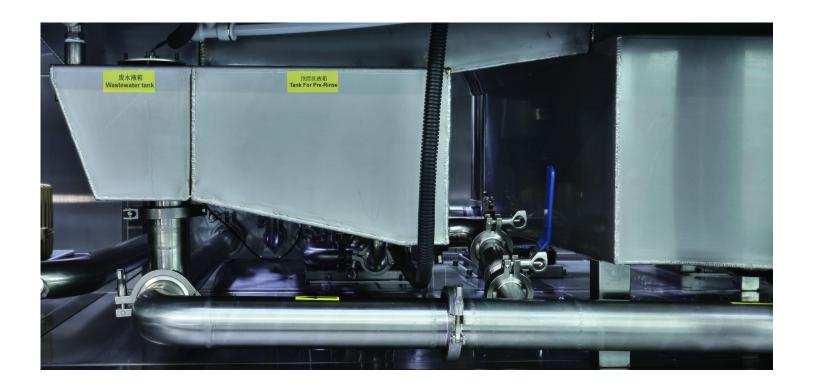


# SUS304 machine body, pipes, filter barrels and electric pumps





# Liquid tank and DI water tank and split drain pipes



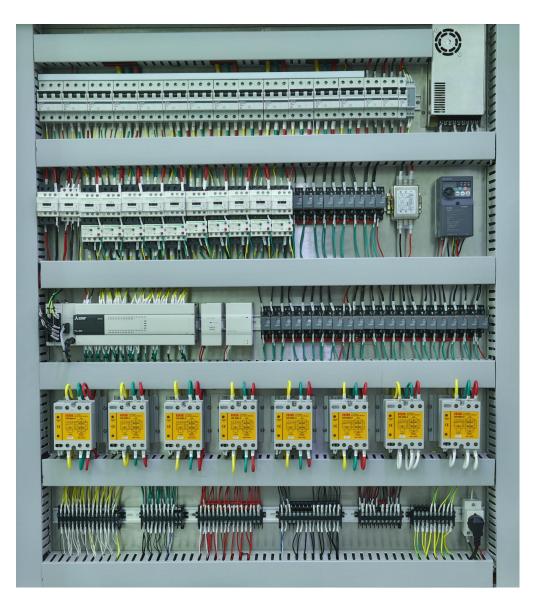


### **Air blowers**





# **Electric control box**





## SME-6300 accessiary-1 DI water machine(OPTION)

DI water machine (turn tap water into DI water and supply to the cleaning system for rinse purpose, 1000L/H.





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