

### **SME5300** Fixture cleaning machine



SME5300 Fixture Cleaning Machine is used to clean grease, flux, dusts on the surface of all kinds of SMT fixtures, tray, reflow oven cooler and filter, wave-soldering oven claw, chains, and nets...etc.

SME5300 is made up of wash unit, rinse unit, dry unit, rotation cleaning basket unit and control unit. Put the dirt SMT fixtures on to the cleaning basket, setting the cleaning parameters, the machine will automatically complete wash, rinse and dry process by just pushing start key. The fixtures after cleaning is very clean and dry, ready to use at any time.



### **SME5300** side picture

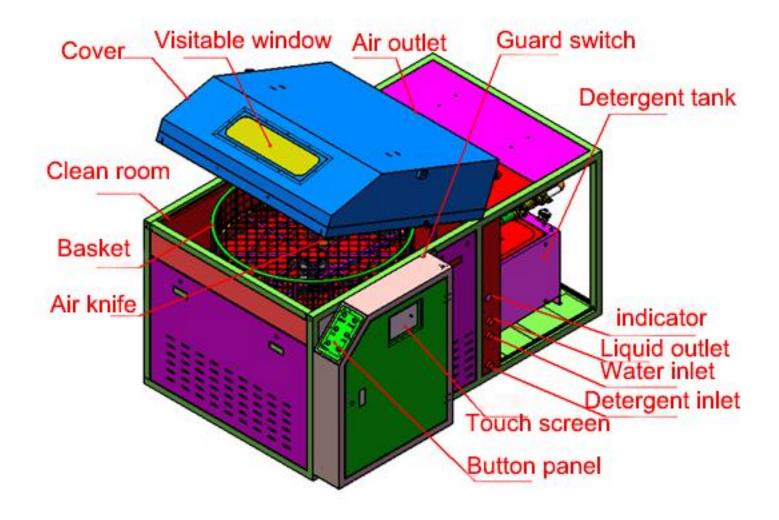


cleaning	Materials	Real apply
Fixuture	Composite stone, Steel, Aluminum materials	Reflow oven/Wave oven fixture, plate
Reflow oven/Wave oven maintenance	Any machine parts with flux on them	Cooler, filter, chains
Parts	Any parts which can be cleaned	Grease,oil on plastic, hardware, electrical-parts



#### SME-5300 details

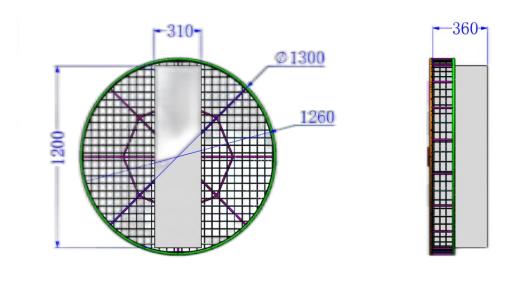
#### **Parts description**

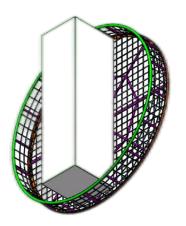




# customized basket 1200x310x360mm









### **SME-5300** cleaning range



Reflow oven/Wave oven pallet, plate

Composite stone, Steel,
Aluminum materials

Reflow oven/Wave oven Cooler, filter, chains...

Any machine parts with flux on them



Grease, oil on plastic, hardware, electrical-parts

Any parts which can be cleaned



### **Fixture Manual cleaning difficulties**

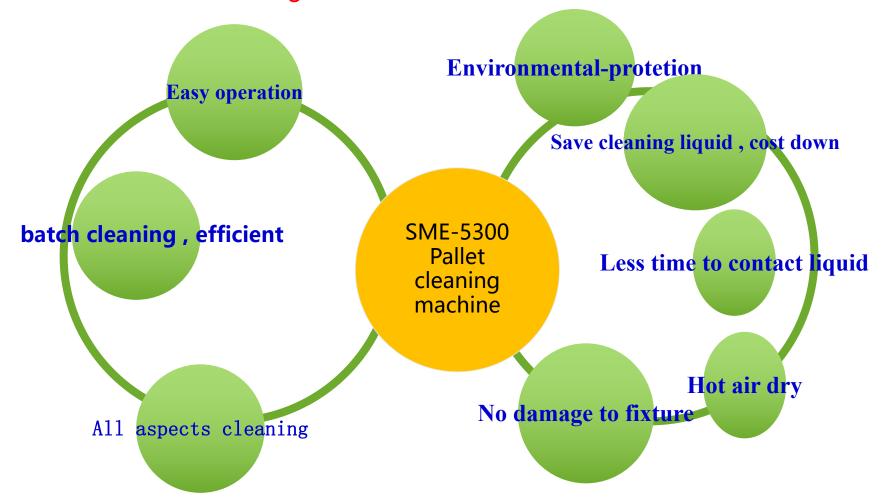
### manual clean disadvantage





### **SME-5300** machine auto cleaning advantages

### Machine clean Advantages





#### SME-5300 Feature:

- . Total SUS 304 structure, resist Acid and Alkali corrosion, firm and attractive.
- 1 meter diameter big cleaning round basket, can clean 20~40 pcs fixtures at one time.
- Clean liquid spray from 3 spray rods on upper/lower and front side, cleaning basket rotates during cleaning.
- Clean liquid pressure up to 6kg/cm2, make it throughly clean of whole fixture.
- PLC program control, Touch-panel operation, cleaning parameters can be set and change conveniently.
- Easy One-button operation, high pressure clean+ rinse+ hot air dry, all process complete in a cycle automatically.
- Clean liquid and water heat and temperature keeping function.
- Closed-loop clean and rinse, clean detergent and rinse water are cycling filtered and reused in the machine.
- Standard equipped solution and water auto fill in and discharge function.
- The fixtures are clean and dry after cleaning, standby and ready for use at any time.
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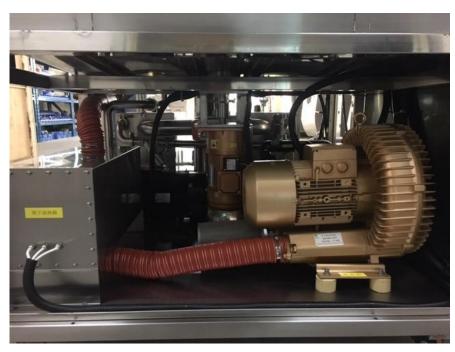
#### SME-5200 details

#### **Cleaning Basket**



- A. 1m diameter round cleaning basket, batch clean fixture, basket turns during clean, rinse and dry process
- B. clean-rinse- dry, the total process time is 30~40min

#### **Pumps and air blower**



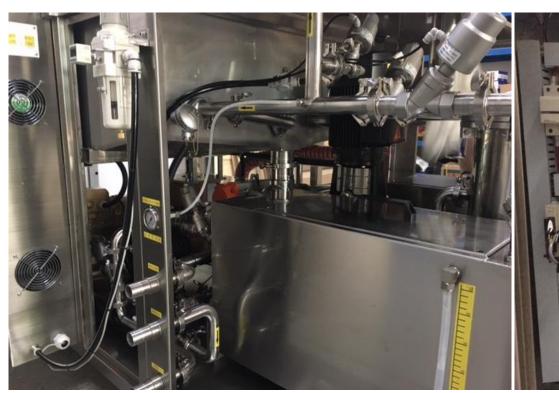
A.High quality, big flow cleaning pumps
B. High flow rate blower, reduce hot air dry time



#### SME5300 details

## Liquid tank/water tank/SUS304pipes/ liquid/water fill in and drain out Automatically

#### **Control System**





- A. Total SUS304 machine
- B. Auto liquid/water fill in and drain out
- C. Liquid tank and water tank and separated pipe system
- D. Cleaning, rinsing spray bar and pipe are separated

- A. Famous electric devices: Mitsuibish PLC, Touch panel, Inventor, Schneider Contactor, Relay, CKD solenoid valve, OMRON power unit
- B. Isolated and protected power supply and distribution system

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#### Filter screan







Filter screen for rinsing It's stainless steel, which can be cleaned regularly



Filter core

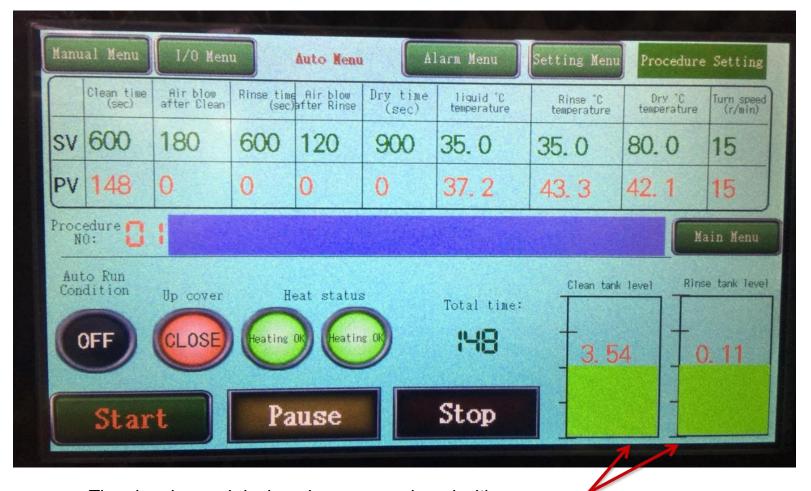


Filter for cleaning
Total 5 pcs, normally replace rate at 15~30
days, and depend on cleaning condition



#### **English operation interface**

#### SME5300 details



The cleaning and rinsing pipes are equipped with pressure sensors. When the it's higher or lower than the set value, machine will be alarm. This can protect the machine, and remind for maintenance.



### Reflow oven cooler cleaning

### SME5300 Sample

**Before** 



**After** 

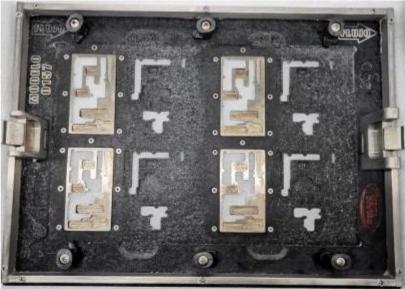




Samples Pallet 3 -before being washed



Trials Results Pallet 3 -After being washed





















SME-5300 wave-soldering oven pallet before and after cleaning:

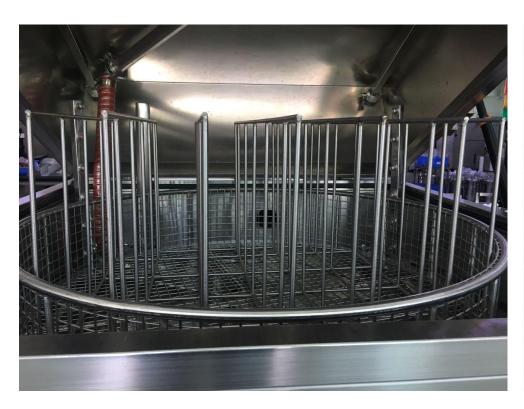






#### SME-5300 details

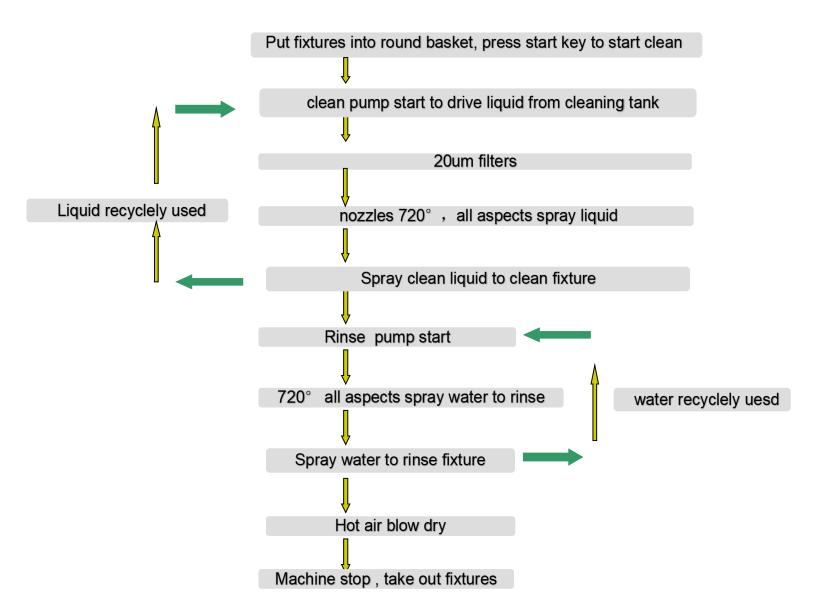
#### Pallet holder-customized basket







### Fixture cleaning process flow chart





Items	Description	SME5300 Specifications	Note
1	Cleaning basket size	⊄ 1000 mm x H200mm	
2	Cleaning fluid tank capacity	80 L	Cleaning fluid
3	Capacity of rinse tank	80 L	Clear water
4	Cleaning method	Top, bottom, front spray cleaning	Complete coverage of 720 °
5	Drying methods	Compressed air cut, hot air dry	clean and fast
		Grade 1: 2mm filter screen for protect the pump	Higher liquid utilization
6	Cleaning filter	Grade 2: 100um filter screen-filtering solid particles	Greatly save the operation cost
		Grade 3: 20um filter core for filter flux.	
7	Rinse filter	Grade 1:2mm filter screen for protect the pump	Water recycling
		Grade 2:100um filter screen for filter solid particles	
8	Clean time	3 ~ 20 min	
9	Rinse time	1 ~ 2 min	
10	Dry time	10 ~ 20 min	
11	Cleaning/rinsing pump power	2.2/1.1 KW	
12	Blower power	3.7 KW	
13	Diaphragm pump	Pneumatic, 1 inch	Automatically add fluid and drain fluid
14	Liquid heating	9KW, room temperature ~90°C	
15	Hot air heating	9KW, room temperature ~90°C	
16	A rotary motor	400 w.	
17	Vent size	120 xh30mm Ф	
18	Air supply	0.5 ~ 0.7 Mpa, 800-1000 l/min	
19	The power supply	380 vac, 3 p, 50/60 hz, 34 kw	13KW during normal operation
20	The machine size	1380 mm (L) x 2000 mm (W) x 1400 mm (H)	
21	Machine net weight	600 kg	



### SME-5200 Main Configuration List

Items	Description	brand	model	Qty
1	Sheet metal	SME design	SUS304 stainless steel	1 set
2	Machined parts	SMES design	SUS304 stainless steel	1 set
3	lance	3 for clean +3 for rinse	SUS304 stainless steel	6 pcs
4	The wind knife	3 pcs	SUS304 stainless steel	3 pcs
5	Clean pump	Zhejiang South Pump Industry	CDLF4-12	1 unit
6	Rinse pump	Zhejiang South Pump Industry	25 qy	1 unit
7	Diaphragm pump	ARO-USA	66612 B - 1244 - B	1 unit
3	Rotate the motor	Taichuang-Taiwa	TCV - 28 series	1 unit
9	blower	Gauri	RB - 055 series	1 unit
10	PLC	Mitsubishi-Japan	Mr FX3U - 48 - ES	1 set
11	Touch screen	Mitsubishi-Japan	GS107 - WTBD	1 set
12	The inverter	Mitsubishi-Japan	FR - D740-0.4 K - CHT	1 set
13	Solenoid valve	CKD-Japan	4 ha219 series	11 sets
14	Solid state relay	FOTEK-Taiwan	The ESR series	3 sets
15	Heat wire	Purple fai-dongguan-China	9 kw	3 sets
16	Liquid transfer valve	Yihua-jiangsu-China	3 inches	1 set
17	Angle seat valve	Kailing-Zhejiang-China	KLJZF series	1 set
18	sensors	Omron-Janpan	TL - Q5MF1	1pcs
19	Switching power supply	Omron-Janpan	S8JC - Z10024D	1pcs
20	Phase sequence protection relay	Jiale-Swiss	DPA51CM44	1pcs
21	Break protector	Mitsubishi-Japan	BV, BH series	4pcs
22	Ac contactor	Schneider, France	LC1E series	2pcs
23	Thermal overload relay	Schneider, France	LRD series	3pcs
24	Trichromatic indicator light	Patrick-Japan	MG - 302 bq - RYG	1pcs
25	The nozzle	304 stainless steel	6505	74pcs
26	Cleaning filter drum	304 stainless steel flange type	5 core 20 inches	1pcs
27	Surface switch and button	Hequan-Japan	YW1 series	1 set
28	Pipe	304 stainless steel	No PVC or PPH tubes at all	1 set
	•	•	•	

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## **SMT Cleaning Machine**



S-1688 Pneumatic stencil cleaning machine



Electric stencil cleaning machine



Fixture/Pallet cleaning machine



Mis-print PCB cleaning machine



Squeegee cleaning machine



Nozzle cleaning machine

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### **Screen Cleaning Machine**



General screen cleaning machine



Screen auto developing machine



PCB green ink screen cleaning machine



Screen auto stripping machine



Water ink screen cleaning machine



Ink squeegee cleaning machine www.smthelp.com



### **PCBA Cleaning Machine**







PCBA offline cleaning Machine

PCBA DI water in line cleaning machine

PCBA in line cleaning machine





**PCBAin line cleaning machine** 

DI water machine



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