

## **PCBA Cleaning Machine Introduction**

SCM5600D off-line automatic PCBA cleaning machine is an energy-saving environmental protection, batch cleaning, integrated high-end cleaning machine. It can automatically complete cleaning, rinsing, drying process by just push the start key.

Mainly used for aviation, aerospace, medical, new energy, automotive electronics and other products . This machine can effectively clean residual rosin flux, water-soluble flux , No-clean flux / solder paste ball and other organic and inorganic pollution materials on SMT / THT PCBA.



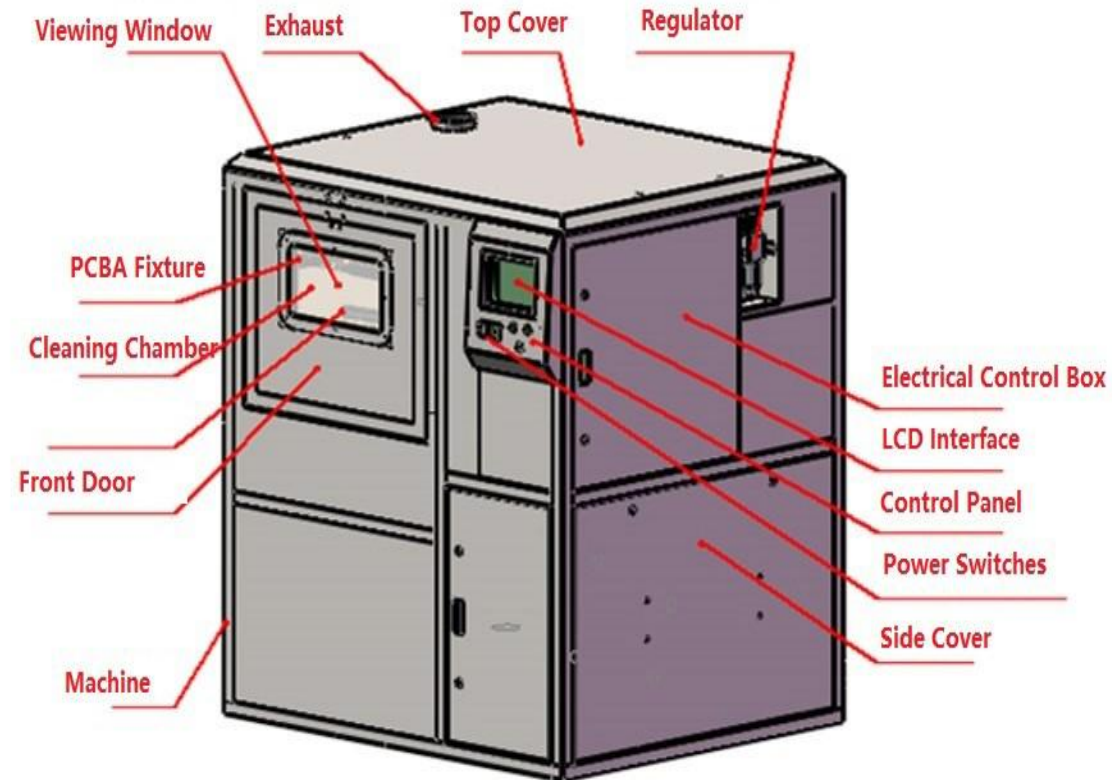
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## PCBA Cleaning Machine      SCM5600D



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## SCM5600D Descriptions



### Introduction :

SCM5600 PCBA Cleaner targets Small Medium quantity PCBA offline cleaning.

Machine Size 1400mm \* 1350mm \* 1830mm. Electrical Powered, equipped with High pressure Pump, Blower and Heater.

Provides Cleaning, Rinsing and Drying functions. 2 Chemical tanks with Heater functions and Filter system for recycling Chemicals.

Built with SUS 304 Stainless steel Functions, strong and rigid structure, PLC touch screen interface control with easy buttons operation.

No complex parameters and functions. All settings can be adjusted to products characteristic and requirement.

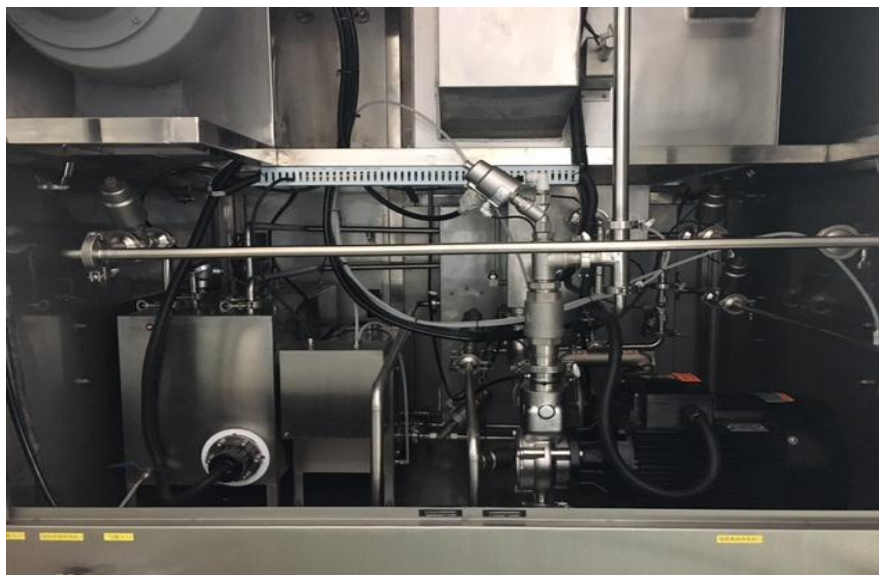
## PCBA Cleaner SCM5600D



DI water Produce  
Machine



Control Unit



Inner Pipe Unit



washing cabinet Dimension :  
640mm(L) × 560mm(W) ×  
520mm(H) 2 layers

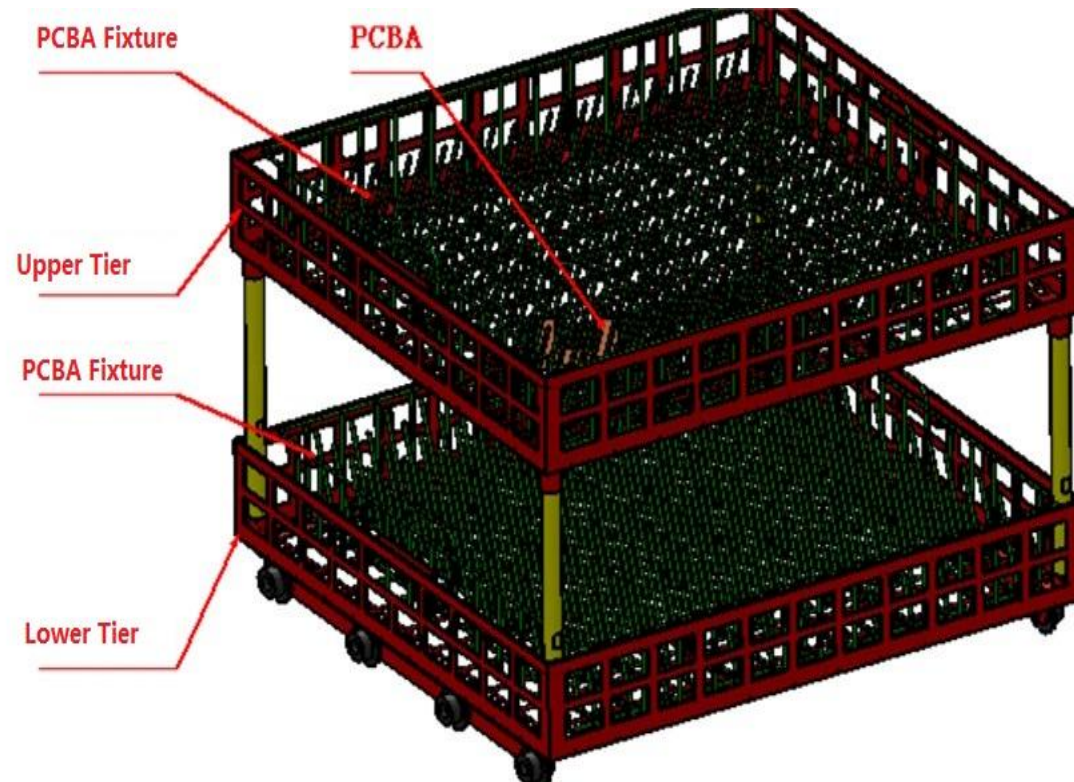


The whole process  
visible through the  
front window. built-in  
LED light



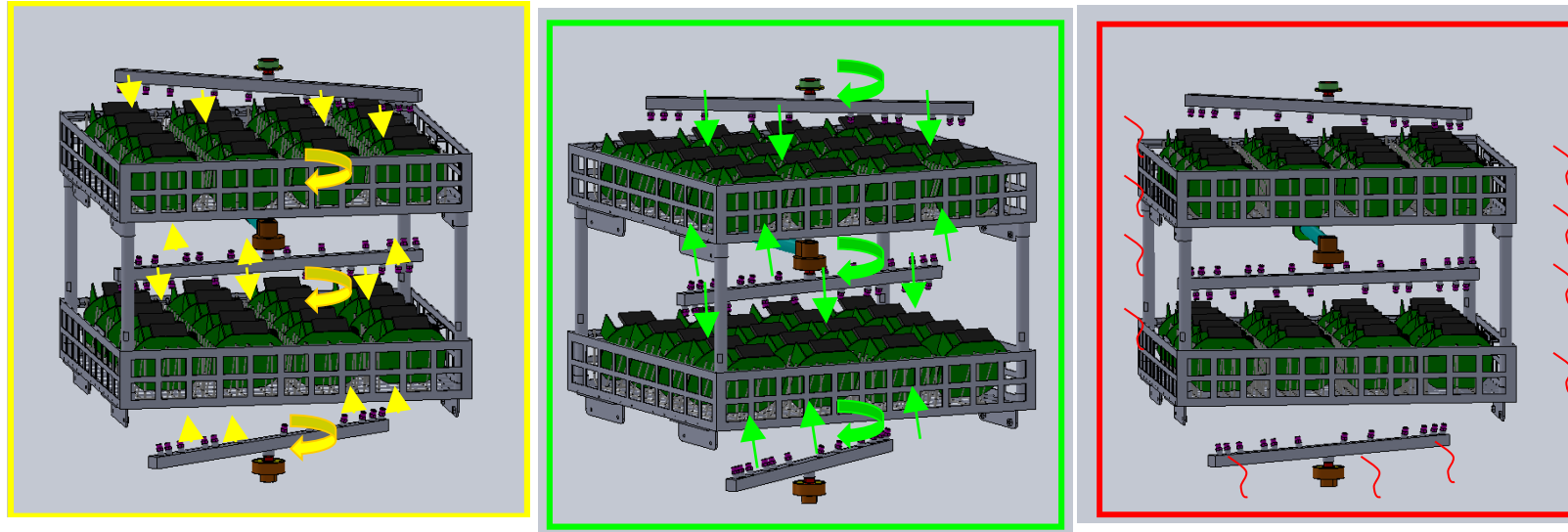
In the cleaning process, multi-  
function cleaning basket  
move back and forth  
automatically, effectively  
eliminate the cleaning shadow

## SCM5600D PCBA Cleaning layers



SUS 304 Stainless Steel structure including Fixtures  
PCBA Fixture Overall Dimension 610mm\*560mm\*480mm.  
Biggest PCBA dimension 560mm\*550mm\*130mm  
Smallest PCBA 80mm\*50mm, up to 200pcs

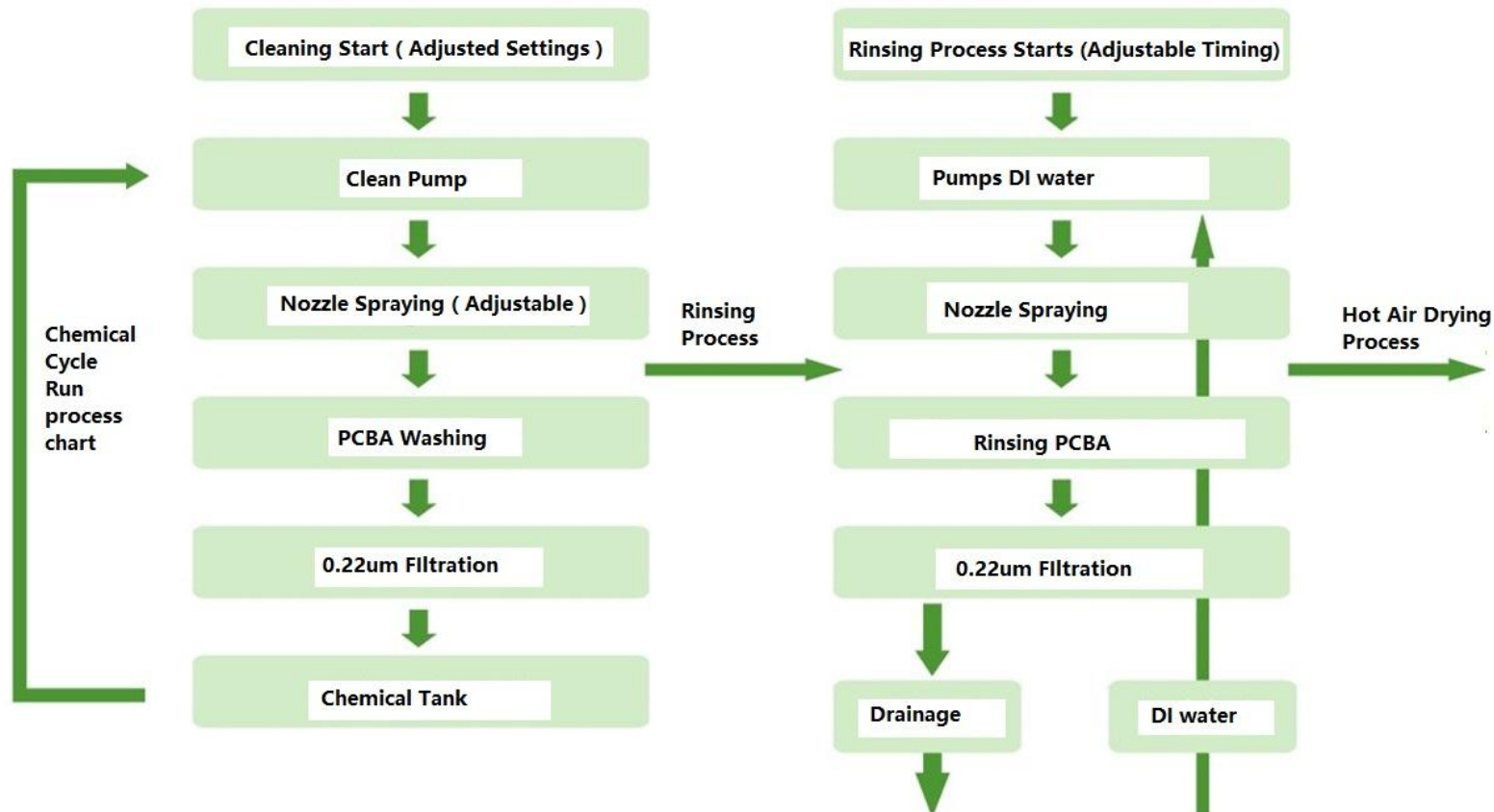
## SCM5600D Cleaning Process



Chemical detergent clean ---- DI water Rinse ---- Hot air Drying

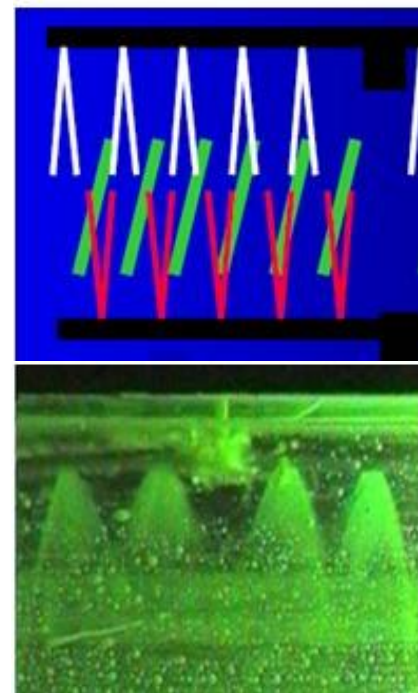
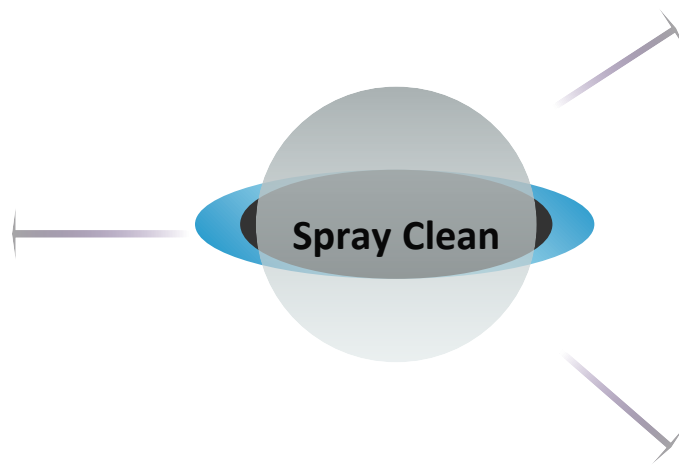
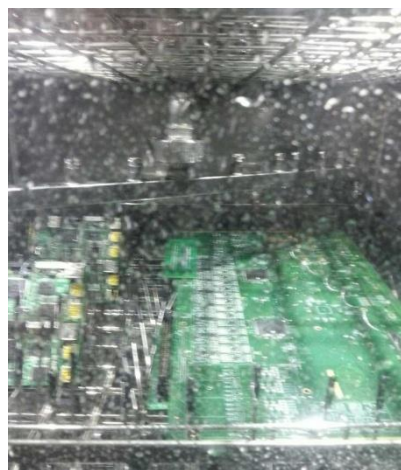
Upper/middle/lower 3 360° rotation spray rods, 2 layers cleaning basket

## ( 1 ) Operation Process

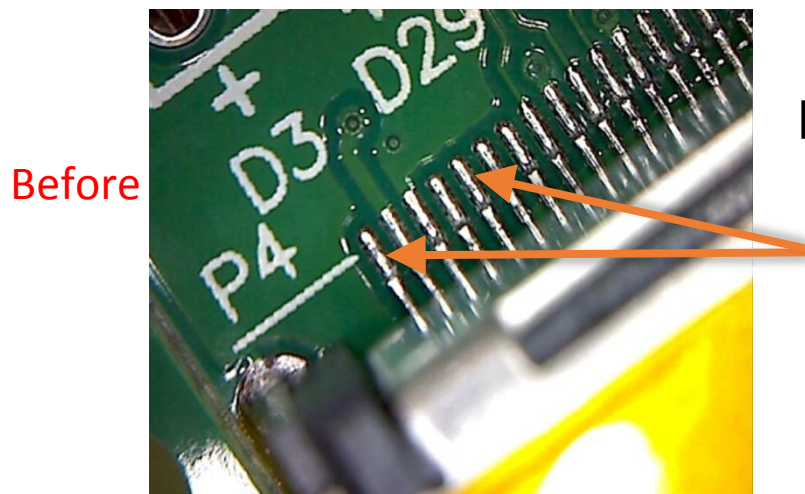


In general, the cleaning process parameters are: cleaning time (10-20) min, rinse time (1-2) min, rinse times (3-5) times, drying time (20-30) min, cleaning temperature (40 -60) °C, rinse temperature (room temperature), drying temperature (70-95) °C, so the general completion of a cleaning process time (40-60) min, under special circumstances according to the actual situation

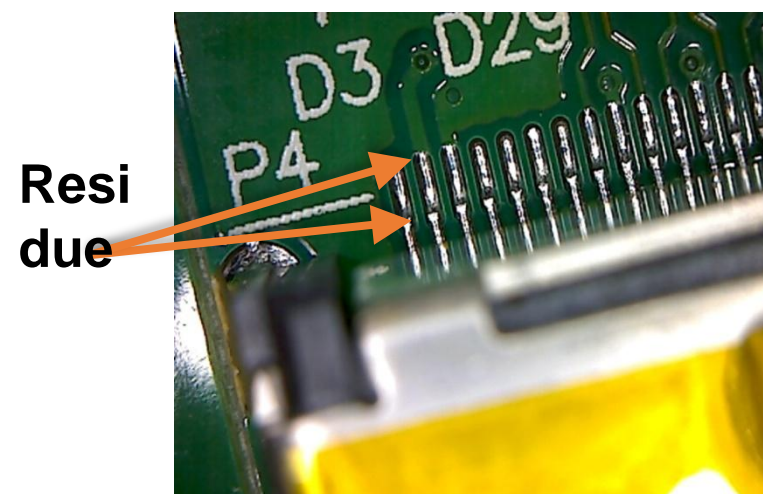
## ( 2 ) Cleaning Method



## ( 3 ) Cleaning Results



Flux



Resi  
due

After

## ( 4 ) Specifications

Item	parameters	Item	parameters
Cleaning basket size :	610mm(L)*560mm(W)*110mm(H) x 2 layers	Drying Temperature:	Room Temp--99°C / ( Adjustable )
Cleaning Concentration tank capacity	32L	Drying Heater/KW :	6KW
Dilution tank capacity	60L	Spray Pressure :	30PSI - 90PSI/(Adjustable )
Spray tank capacity	18L	Chemical liquid level filter :	0.22μm (filter microparticles: solder paste, rosin, flux and contaminants)
Spray tank heater power	6KW	DI water Filter :	0.22μm (filter microparticles: solder paste, rosin, flux and contaminants)
Cleaning time	0~99min(adjustable)	water inlet :	1 inch fast junction interface
Cleaning temperature (liquid)	Room temp -75 degrees / (adjustable)	Water outlet :	1 inch fast junction interface
Rinse time	1-99 times / 1min each time	Chemical Inlet :	1 inch fast junction interface
Rinse temperature (DI water)	Room temp -75 degrees / (adjustable)	Real - time pressure gauge :	3PCS (nozzle / DI water / waste liquid)
Drying time	0 to 99 minutes / (adjustable)	pump :	5.5KW
Resistivity meter monitoring range	0~18MΩ	Outlet size :	Φ100W)×30mm(H)
Solvent tank heater power:	9KW	Power source :	AC380V 50HZ 65A/0.45MPa~0.7MPa
		Weight :	400Kg
		Machine Dimension :	1400mm(L)×1350mm(W)× 1830mm(H)

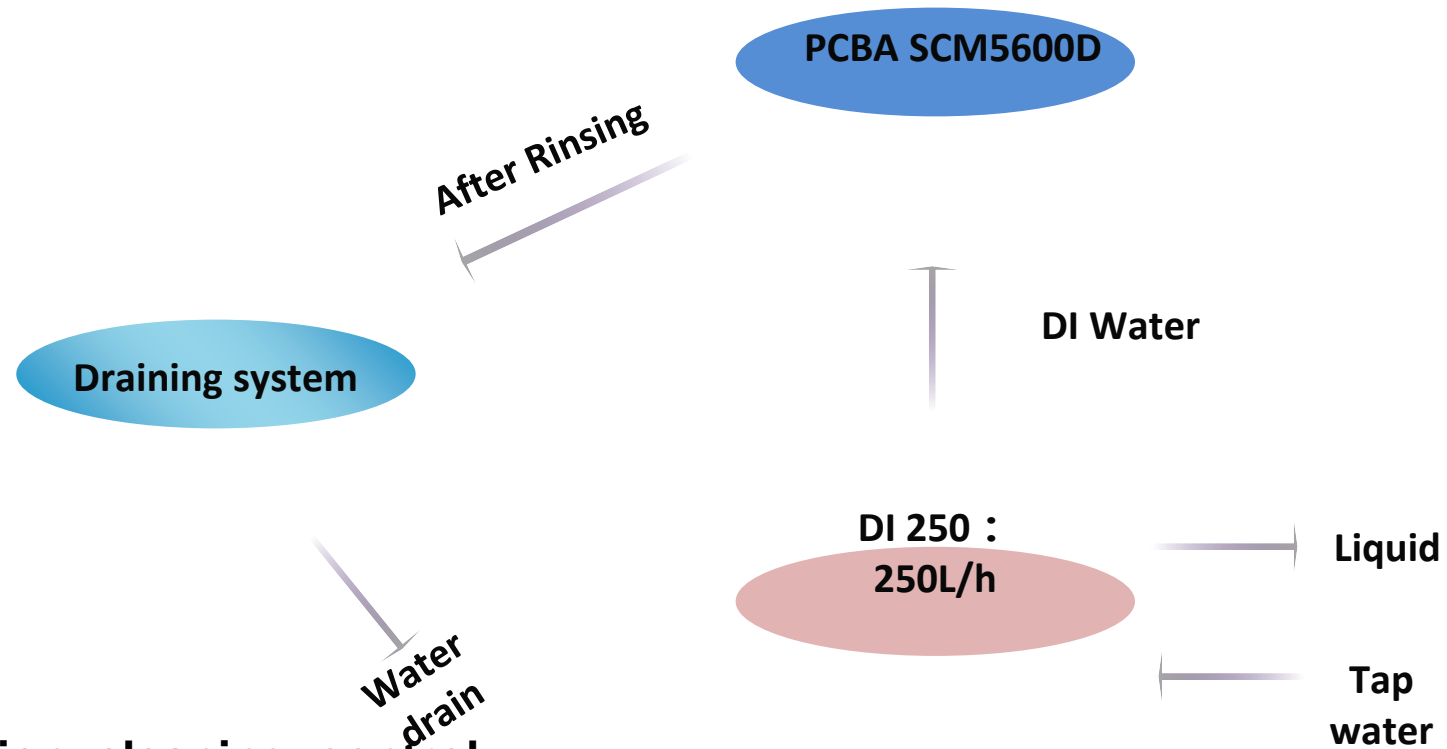
## ( 5) Features

1. the whole process visible : the cleaning process can be visible through the front window and LED light.
2. automatic cleaning mode: clean, rinse, dry process can complete in one cabinet and compact machine.
3. the most scientific nozzle design: the use of left and right incremental distribution --- to enhance cleaning efficiency,  
The upper and lower dislocation distribution - completely solve the cleaning blind area;
4. the nozzle pressure adjustable design: to solve the small and light PCBA in the high pressure spray under the conditions of the collision, splash problem;
5. the standard dilution tank heating system: greatly improve the cleaning efficiency.  
Shorten the cleaning time;
6. a comprehensive cleaning system: for SMT; THT PCBA after welding the surface of the residual rosin, water-soluble flux, no-clean flux / solder paste and other organic and inorganic pollutants for thorough and effective cleaning;
7. convenient cleaning dilution to add: can be manually added, but also by setting the ratio (5% to 25%) automatically with DI water and chemical solution(option);

## ( 5) Features

8. dedicated spray tank and auxiliary heating system: spray tank is used to store dilution and DI water. During cleaning process, the air pump absorb dilution from dilution tank and then wash pump absorb dilution from spray tank to clean PCBA. After cleaning process, the air pump absorb dilution from spray tank back to dilution tank. During rinsing process, the spray tank is stored in DI water from DI water produce machine , each time after rinsing ,DI water will be pipe out form spray tank. The rinse water can be heated as needed;
9. lower operating costs: built-in filter makes the dilution repeated used. By using compressed air blow method at the end of cleaning process : blow the residual detergent off from pipeline and the pump , which effectively save 50% dilution.
10. the concentration compensation function: the concentration of dilution will be getting lower and lower after repeated use which will affect the cleaning effect and cleaning and efficiency of PCBA, at this time , need to add concentrated detergent to dilution tank to compensate the dilution concentration. concentration compensation can improve the effective use of liquid, the concentration detergent adding amount can be adjustable according to the real situation.

**( 6 ) Diagram**



**( 7 ) Operation, cleaning, control**

Stable and reliable brand colorful touch screen + PLC control, cleaning procedures and parameter are easy to edit and modified on it. one-button easy operation, cleaning baskets are easy to load and unload.

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