

Introduction of PCB cleaning machine





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Necessity of using PCB cleaning machine

- 1.PCB board handling, posted barcode, parking process may cause the surface of the PCB sticky dirt and smudges.
- 2.PCB electrostatic precipitated PCB surface to attract dust.
- 3.SMT components will become smaller the original, small stains will likely affect the welding effect.
- 4. Some larger smudges may short out the solder joint or potential defects.





Necessity of using PCB cleaning machine

There are three solutions to this problem:

Manual cleaning



Advantages: simple, suitable for small batch production Disadvantages: human cost, human error High pressure air gun cleaning

PCB cleaning machine



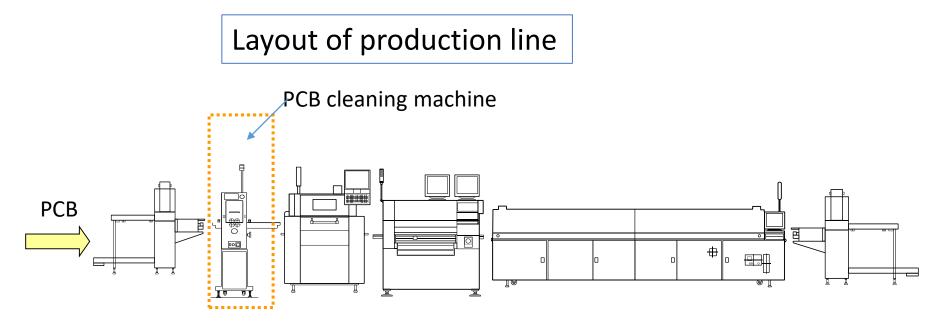


Cons: wasted energy, loud noise, Static accumulation Advantages: automation, good cleaning effect, removing static electricity Disadvantages: the first input cost is higher



Necessity of using PCB cleaning machine

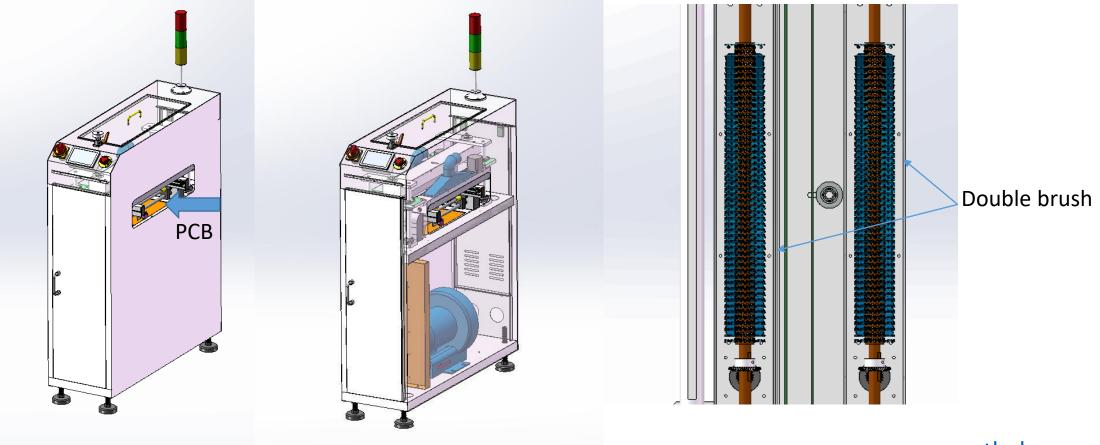
 Our independent research and development of PCB surface cleaning machine, before the solder paste printing, the printed circuit board surface dust, glass fiber and surface stains and other clean, the PCB surface has been sticking 0402 or 0201 components can also be carried out clean.





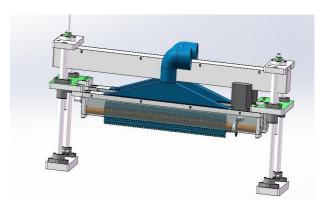
Working principle of PCB cleaning machine

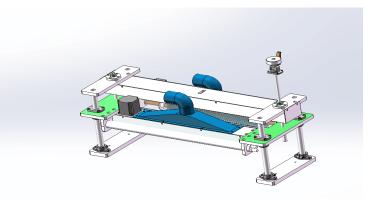
When the PCB board goes through the machine, it brushes off the surface dust and particles and sucks the dust away through the suction device





- 1. When the PCB board goes through the machine, it brushes off the surface dust and particles and sucks the dust away through the suction device
- 2. PCB board import and export parts with the elimination of static electricity devices to reduce the negative effects of the patch produced by static electricity, and electrostatic damage.
- 3. When the dust transition cleaning brush wheel needs to be cleaned, the brush structure is pulled straight out of the cleaning, easy to use, each cleaning can clean about 300 PCB









Structure and function signal

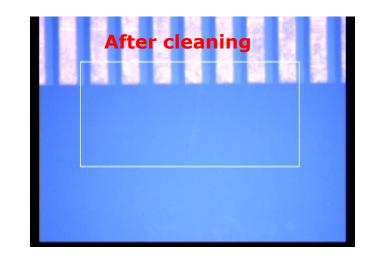
- 1. The cleaning effect is stable and the effect is good.
- 2. It is easy to operate with touch screen operation.





Structure and function signal

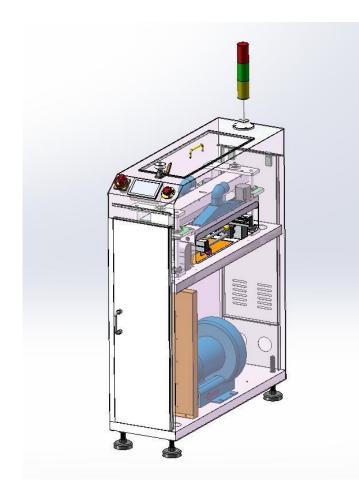












Features

1. Function modular design, according to different work needs to switch, great flexibility.

2. Panasonic PLC control system, easy to operate touch screen control interface.

3. Suction plate mechanism fully enclosed design to ensure operational safety level.

4. High-speed, online, small footprint equipment.

5. Parallel and smooth width adjustment (screw).

6. A variety of cleaning modes, depending on the PCB, select the desired cleaning mode

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7. Multiple dust removal design: two sets of spiral brush + vacuum cleaning

8 .Using ultra-efficient static eliminator.

9. Dust removal efficiency up to 99%.

10. Standard SMEMA communication interface, with other automation equipment communication connection.



Specifications and parameters





describe	This equipment is used for cleaning PCB board.
PCB SIZE (mm)	50*50~445*330
Transmission height (mm)	$900\pm20(\mathrm{mm})$
Dimensions(mm)	350(L)*950 (W) *1200 (H)
Power supply	AC $110/220V \pm 10V$, $50/60HZ$
weight (KG)	75
Air pressure	4-6 bar
Compressed air flow	MAX 10 liters per minute
PCB thickness	0.6-5mm
transmission direction:	left to right (right to left optional)

name	Name and origin
PLC	Panasonic
Conveyor Motor	VTV
Touch screen	Wei lun tong tai
air cylinder	AIRTAC
bearing	nihon
screw rod	TBI
solenoid valve	AIRTAC
electric eye	OMRON
electromagnetic relay	OMRON
switching power supply	OMRON



Market evaluation

- 1. There are many companies in many companies that use high pressure air to clean the surface of PCB, and the noise and energy consumption are the facts.
- 2. In the future, SMT packaging to miniaturization, the products will be more and more double-sided, the surface cleaning and removal of static electricity before PCB assembly will become part of the process.



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