

## SME5200 Fixture cleaning machine



SME5200 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.

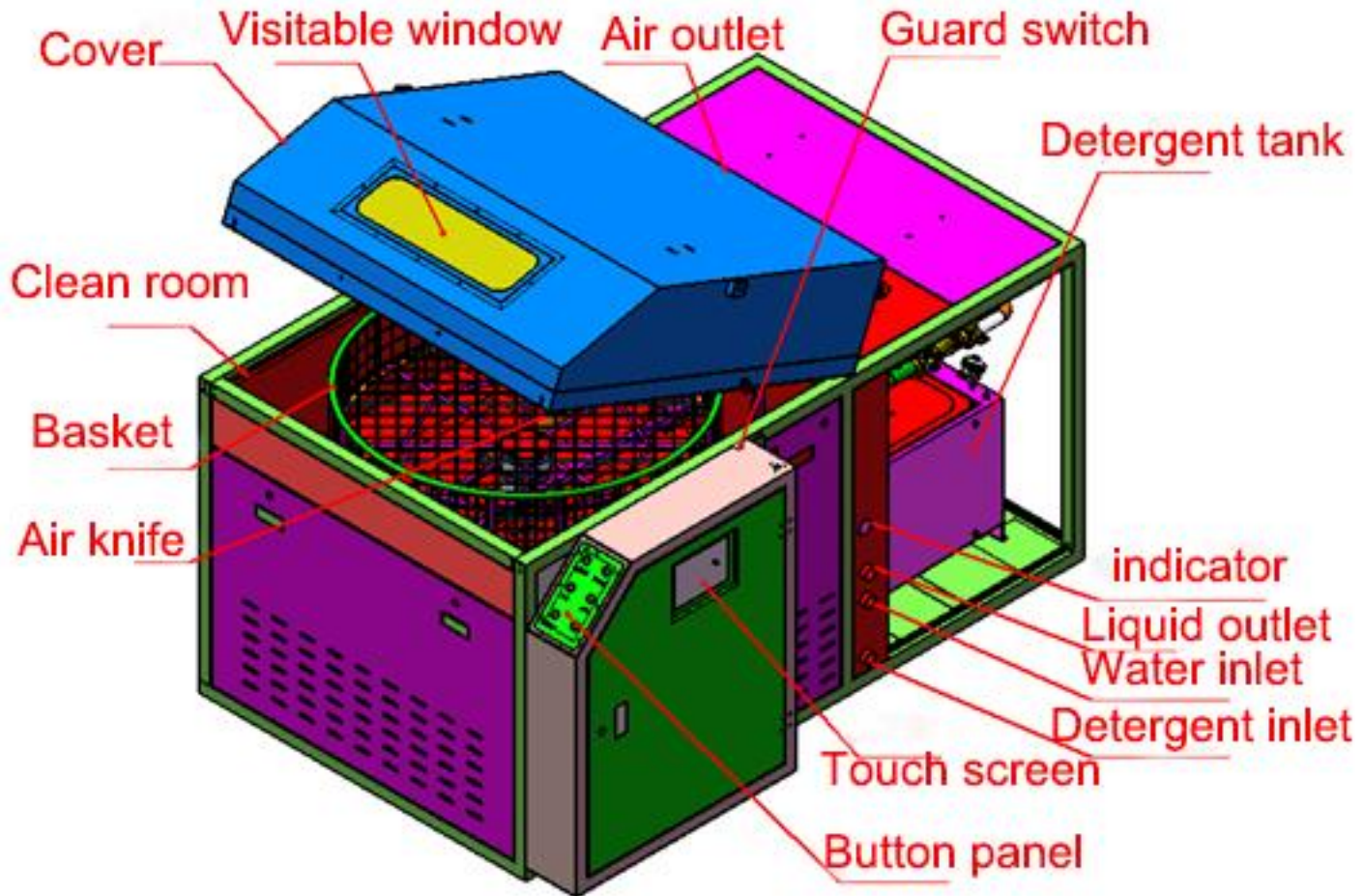
SME5200 is made up of wash unit, rinse unit, dry unit, rotation cleaning basket unit and control unit. Put the dirt SMT fixtures on to the cleaning basket, setting the cleaning parameters, the machine will automatically complete wash, rinse and dry process by just pushing start key. The fixtures after cleaning is very clean and dry, ready to use at any time.

## SME5200 side picture



cleaning	Materials	Real apply
Fixture	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

**Parts description**

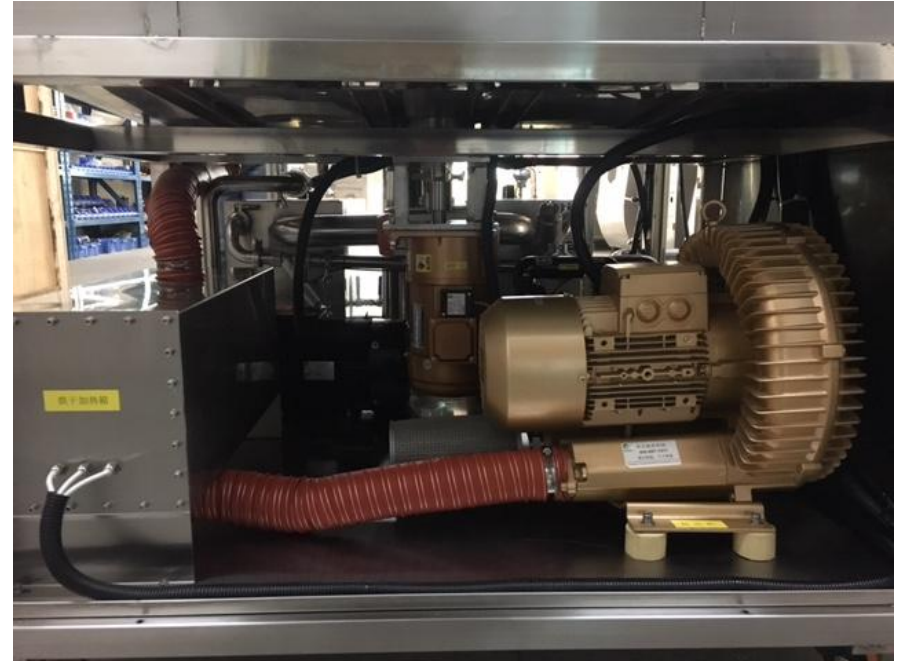


### Cleaning Basket



- 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

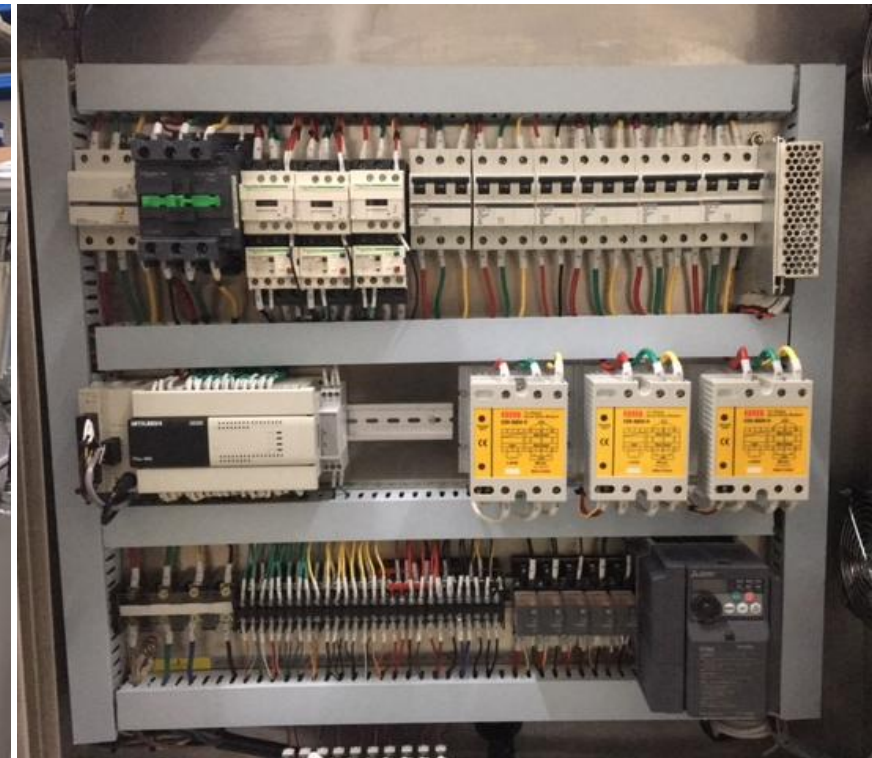
### Pumps and air blower



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

**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: Mitsubishi PLC, Touch panel, Inventor, Schneider Contactor, Relay, CKD solenoid valve, OMRON power unit
- B. Isolated and protected power supply and distribution system

**SME5200 details****Filter screen**

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

**Filter bucket**

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

**Filter core**

English operation interface

SME5200 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**

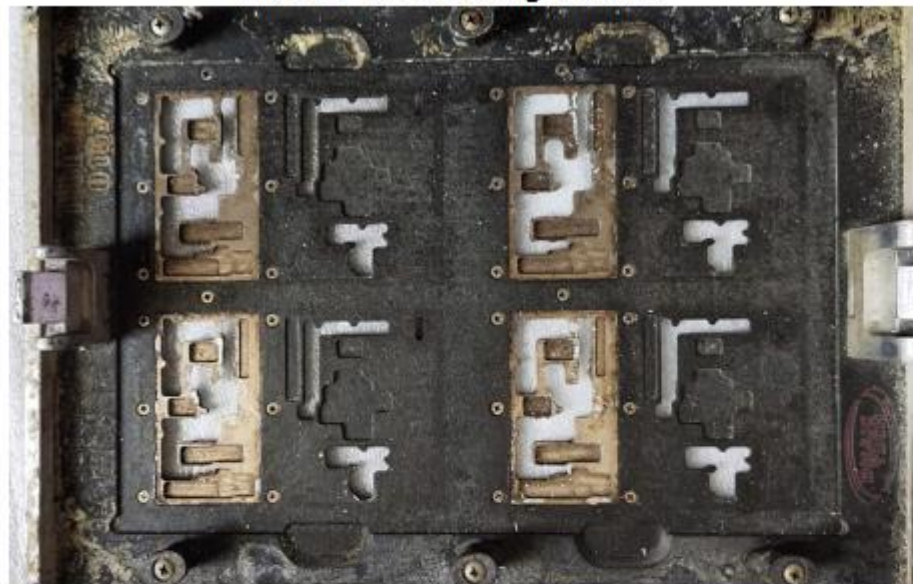
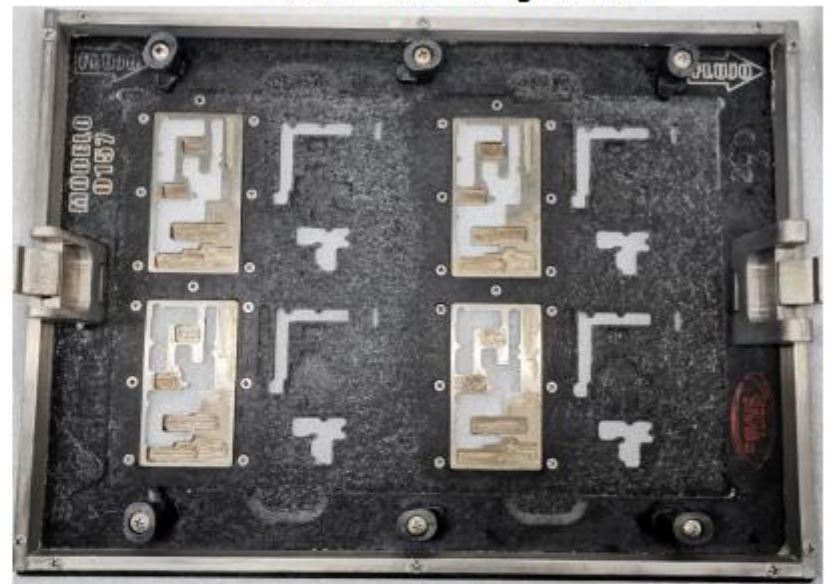
**Before**



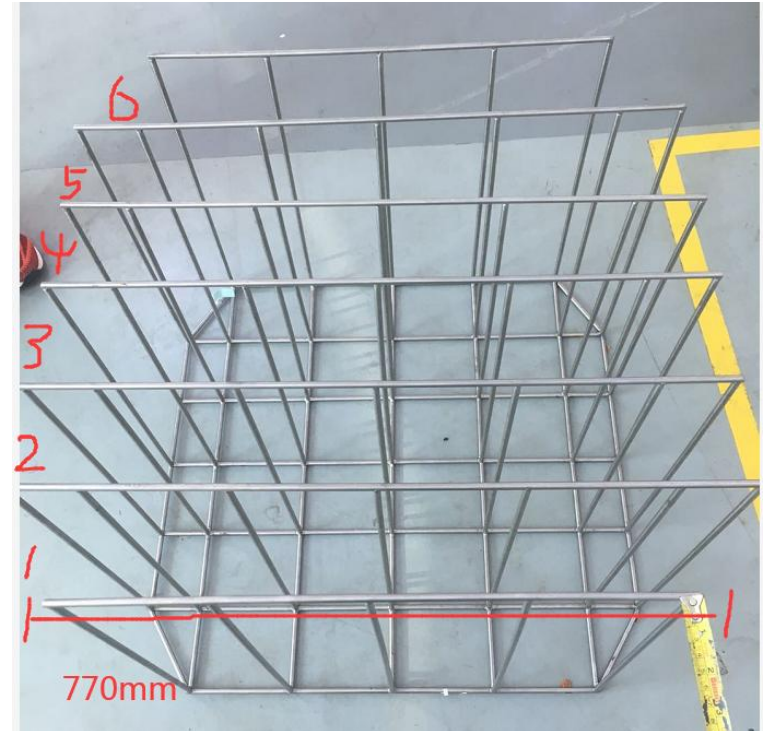
**After**



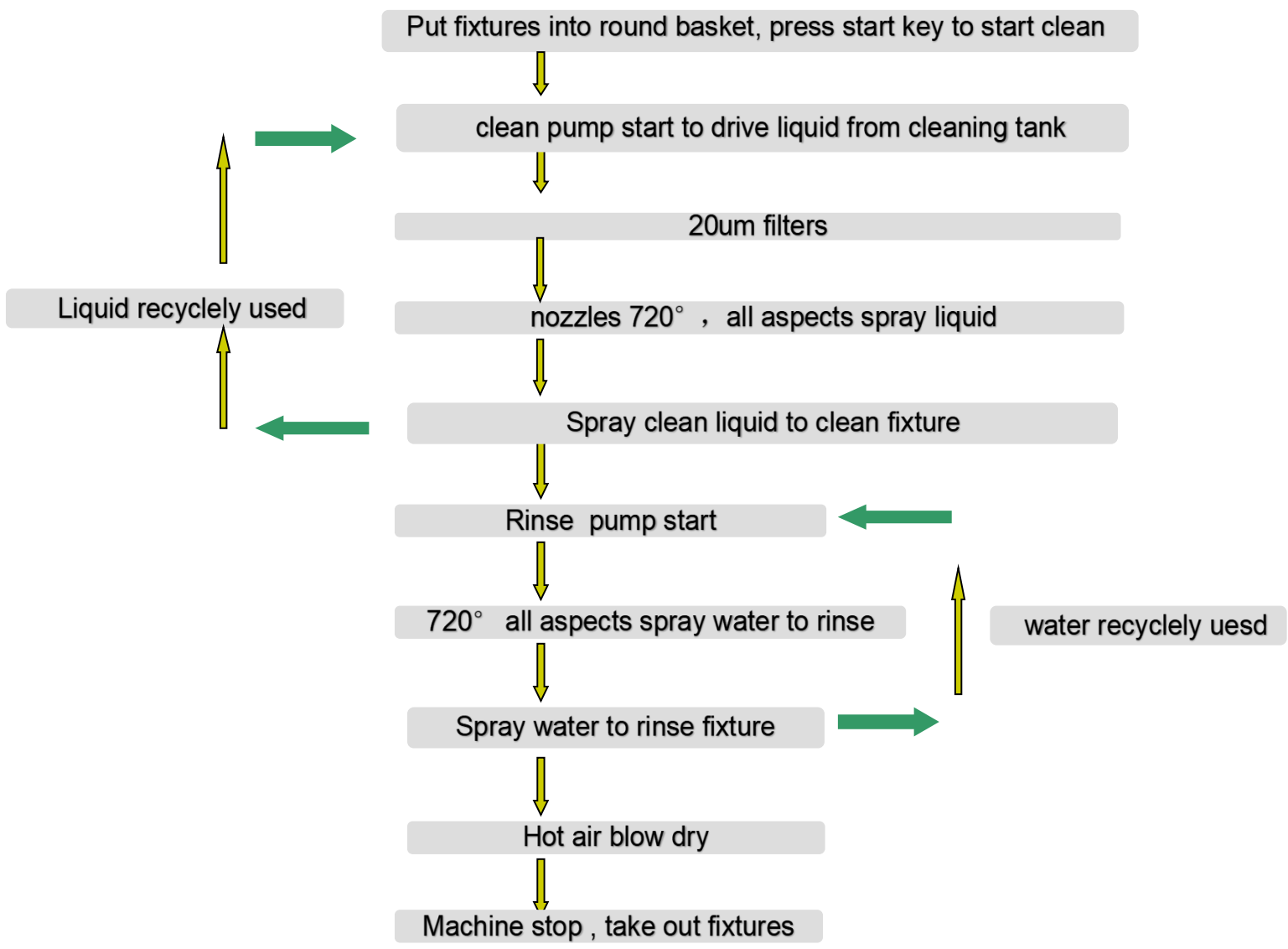


**Wave oven fixture cleaning****Samples****Pallet 3 -before being washed****Trials Results****Pallet 3 -After being washed**

Pallet holder-customized basket



# Fixture cleaning process flow chart



Items	Description	SME5200 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
6	Cleaning filter	Grade 1: 2mm filter screen for protect the pump	Higher liquid utilization
		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 Φ	
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
8	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

## SJ-20 Cleanout Fluid Cleaning Report

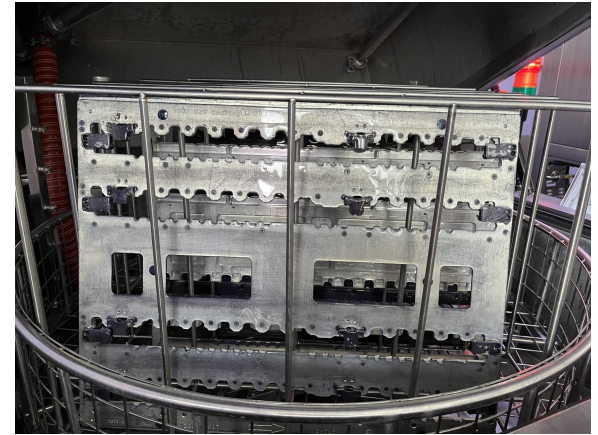
- Background: Upon customer request, the cleaning effectiveness of SJ-20 on spray fixtures was evaluated. The customer provided jigs for the experiment.

- Requirements :

Reference: Spray cleaning in a confined space

Inspection: Visual inspection

Cleaning: No UV adhesive residue, no stains on the surface, no compatibility issues with any materials.



## Information of the sample

Subject	Substrate	Quantity	Residue	Comments
Set 1	Aluminum Jig	1	UV adhesive	HumiSeal 1A33 LTX

## Cleaning equipment: Spray jig cleaning machine



## Inspection tools: Visual

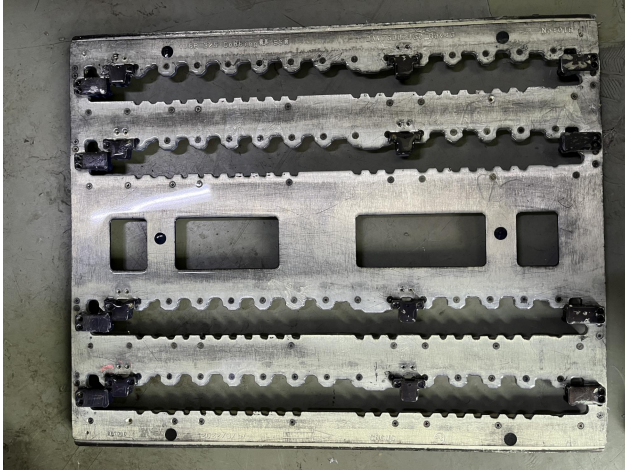
## Process parameters

Parameter settings	Machine: Spray jig cleaning machine	
<p style="text-align: center;">Experiment Cleaning solution: SJ-20</p>	Cleaning procedure	Set values
	Cleaning	Medium: SJ-20Aqueous cleaning solution Cleaning solution temperature: 70° C Cleaning time: 70 minutes
	Rinsing	Medium: Deionized Water Rinsing solution temperature: Room temperature Rinsing time: 4 minutes each time, once in total
	Drying	Medium: Hot air Temperature: 70° C Time: 10 minutes

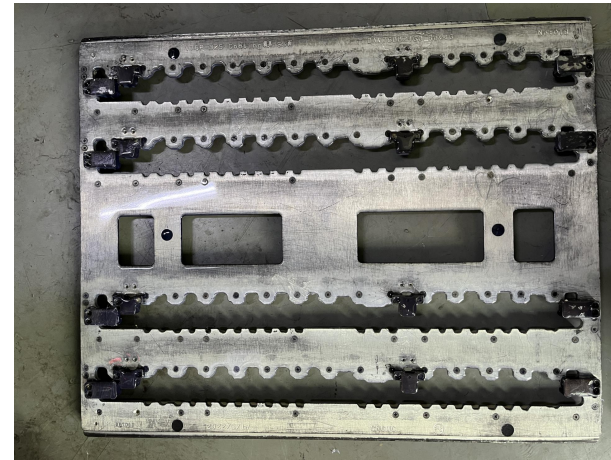


## Cleaning effectiveness evaluation

Before cleaning



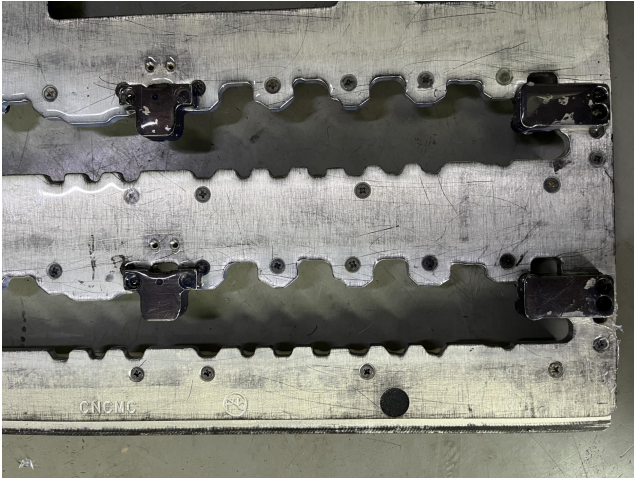
After cleaning



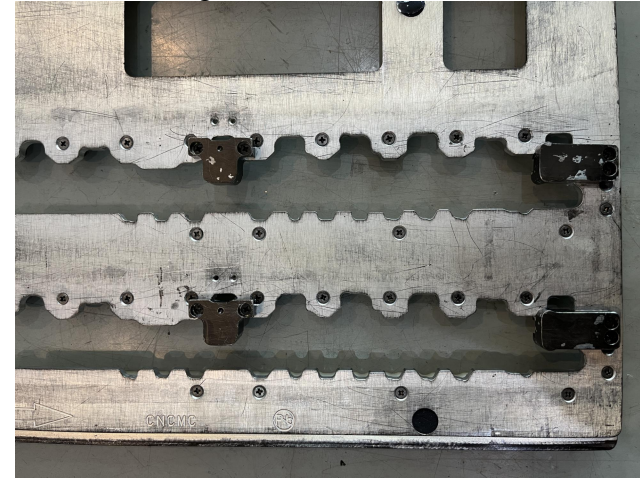
Conclusion: No UV adhesive or other residue was found, and no material compatibility issues were observed.

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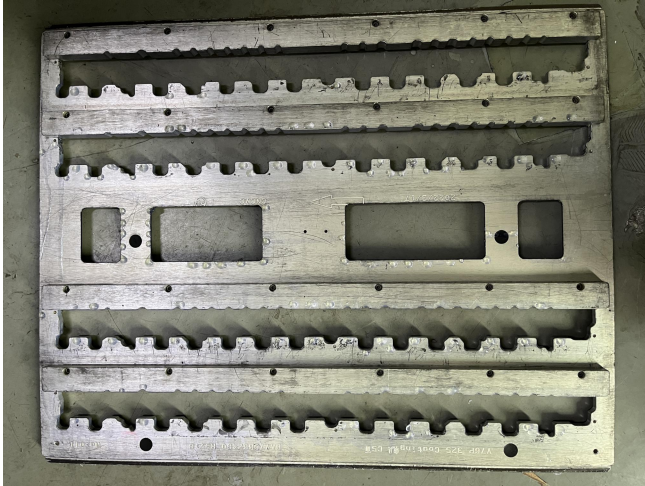
After cleaning



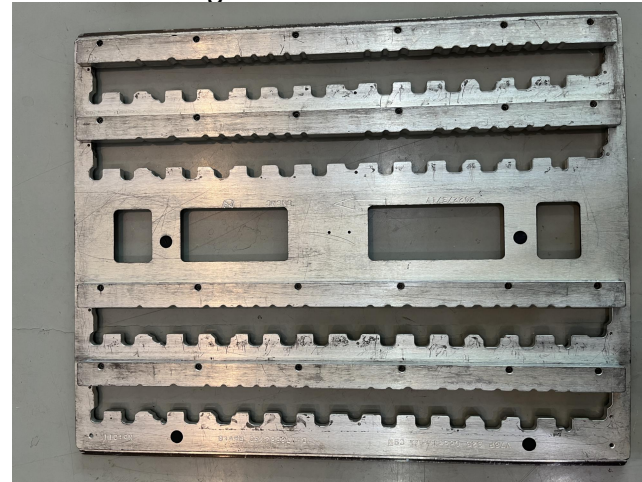
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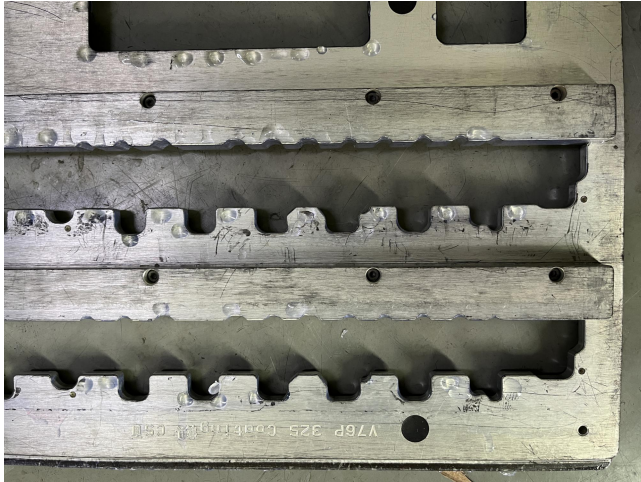
After cleaning



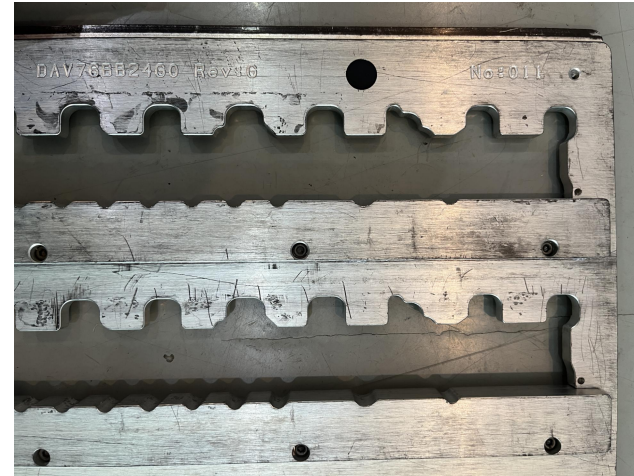
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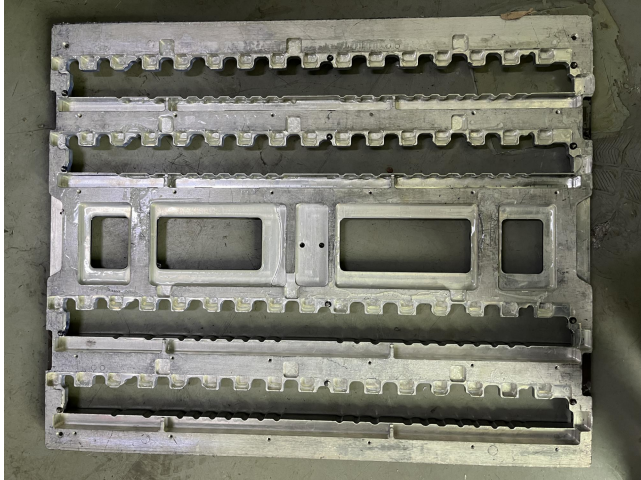
After cleaning



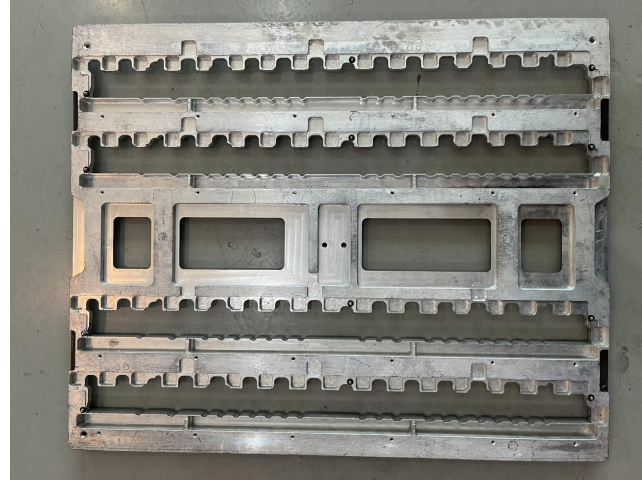
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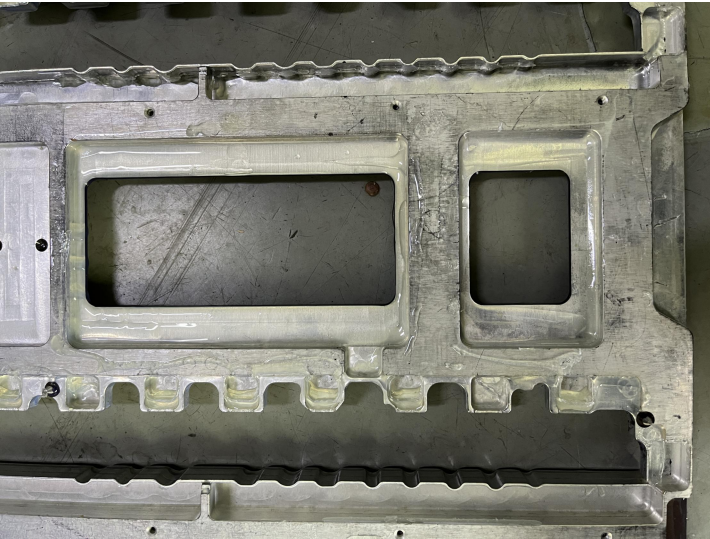
After cleaning



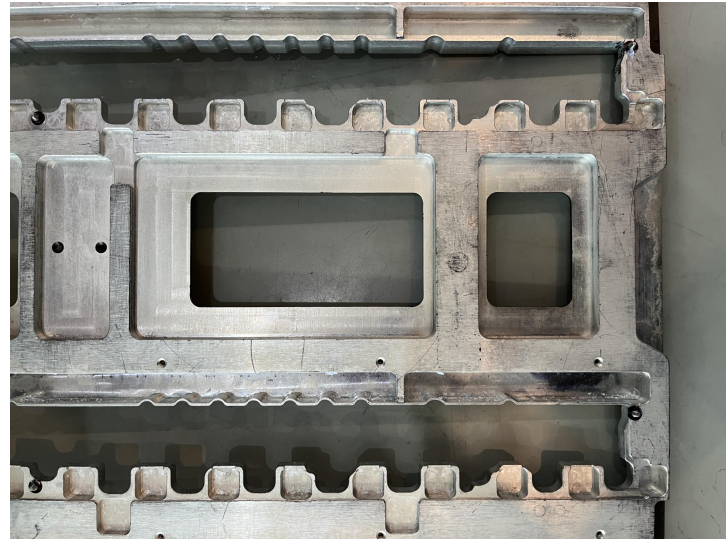
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Before cleaning



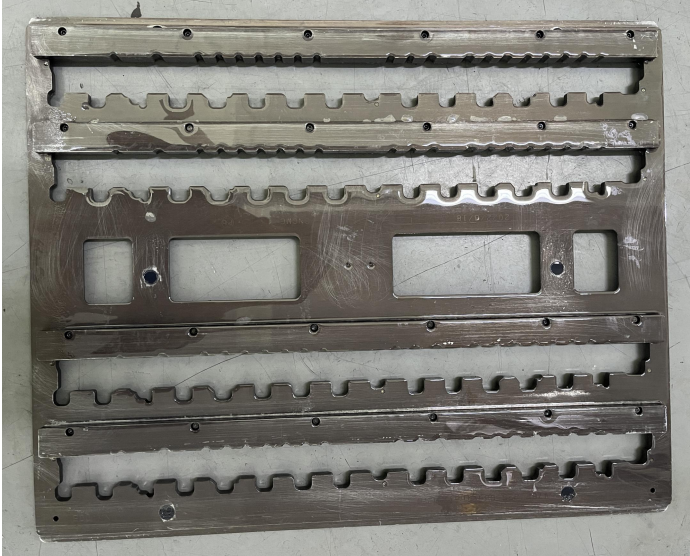
After cleaning



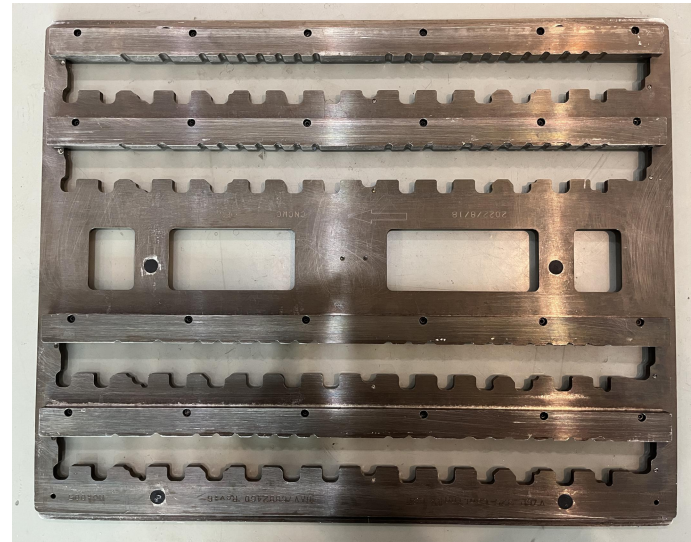
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## Cleaning effectiveness evaluation

Before cleaning



After cleaning



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## Conclusion

- After cleaning tests and trials, the results show that the SJ-20 process can achieve good UV adhesive removal and material compatibility. According to the test results, we highly recommend SJ-20.
- If you want on-site service or assistance in evaluation, please contact our engineers or manufacturers.
- And process parameters such as application concentration, temperature, time, etc. can be adjusted to meet your requirements.
- SJ-20 aqueous cleaning solution is an environmentally friendly water-based detergent that is biodegradable.
- The formula does not contain halogen components and complies with ROHS, VOC and other standards.
- Safe, non-flammable, and no flash point.
- Refer to the MDS for specific precautions and handling instructions.

### Regarding usage:

Usage: Spray cleaning

Cleaning  
temperature:

70°C

Cleaning  
time:

70 mins

The above recommended parameters and tolerances depend on existing tests and common experience. It does not mean the best solution for the customer's use. We strongly recommend that customers adjust the parameters based on experience.





- Precautions for use

1. Tank change time: It is recommended to change the tank every 20 to 30 days (the tank change time is affected by the difference in the amount of customer product residue)
2. This product is a direct use solution and does not require dilution ratio.
3. Consumption: According to existing experience and customer use cases, the consumption per hour is about 2 liters to 4 liters (the consumption of detergent is affected by the customer's product structure and the number of cleanings. The specific consumption shall be calculated according to the actual operation on site).

- Package Description

1. Model: LIJING SJ-20 aqueous cleaning solution
2. Specification: 20 kg/barrel
3. Appearance: Blue plastic barrel with white cap
4. Dimensions: Height: 42 cm

Width: 30 cm

Total capacity: 25 kg

Net weight of barrel: 1.45 kg



# Welcome inquiry

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