



We design and manufacture automatic machine for the PCBA/  
SMT and Thru-hole industries in Shenzhen  
China. We help companies looking to low cost equipment with smart, ROI-  
driven assembly equipment solutions.



# SMT Scraper control loop

ST1 Check the scraper



Storage  
Management



Yes -  
storage  
No -  
Warning

SMS Scraper



Consuming



Production line using

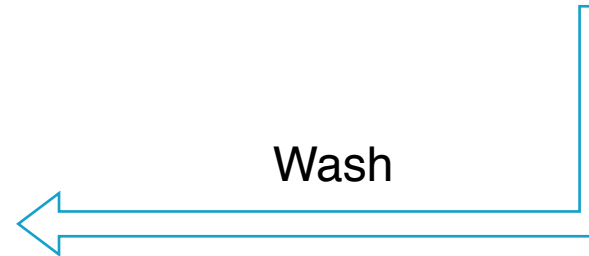
Scraper under control



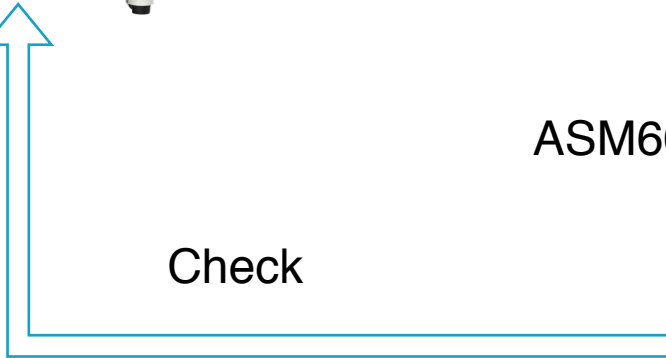
ASM600A Scraper cleaner



Wash



Check



Small tin



Multi-tin



Offset



Icicles



Solder paste printing quality will influence PCBA good rate

Scraper is an important factor affecting print quality

Improvements easily overlooked high rates of return

How SMS scraper can help you improve print quality



- 1, Holder flatness, flatness is poor, resulting in deformation of the blade is drawn.
- 2, Scraper assembled improperly, can lead to blade installed in place, resulting in more than tin tin or less.
- 3, Turret structure is complex, not easy to clean the dead Tibetan tin, it will drop after dry stencil cause clogging.
- 4, Block tin poor, paste spillover 6-8 After hours will dry up, there are risks clogging the middle after recovery.
- 5, Lack of elastic blade toughness, after a period of time under the tin can not be guaranteed.
- 6, Blade edge untreated, long stencil wiper would have brushed phenomenon, reduce the service life.
- 7, Without excessive wetting would insert processing, hanging on the blade advance into the solder paste printing region

1.How to choice scraper

2.How scraper cleaning

3.How scraper check / verify

4.How scraper management



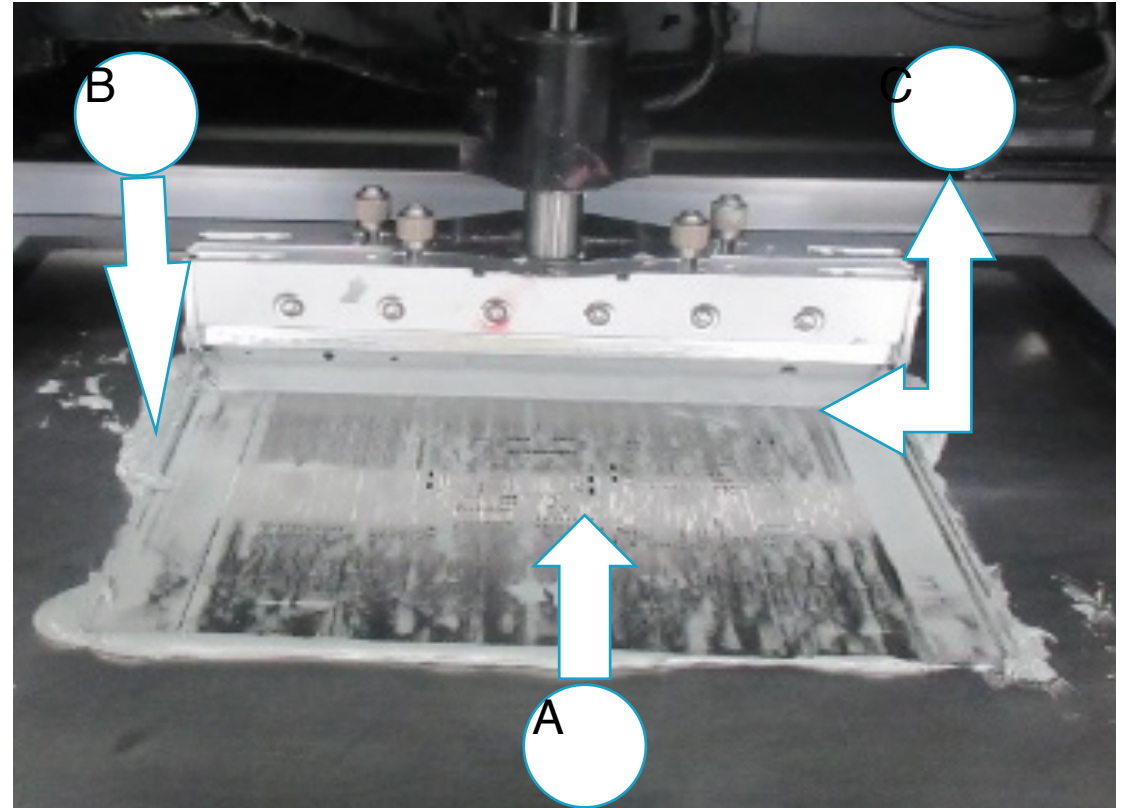


Is it your solder paste printer:

A, Dirty stencil .The residue, mold release will lead to thick tin, bridge ,other issues.

B, Block tin poor, past spillover.  
TimeUnstirred will dry up,HaveRisk of clogging.

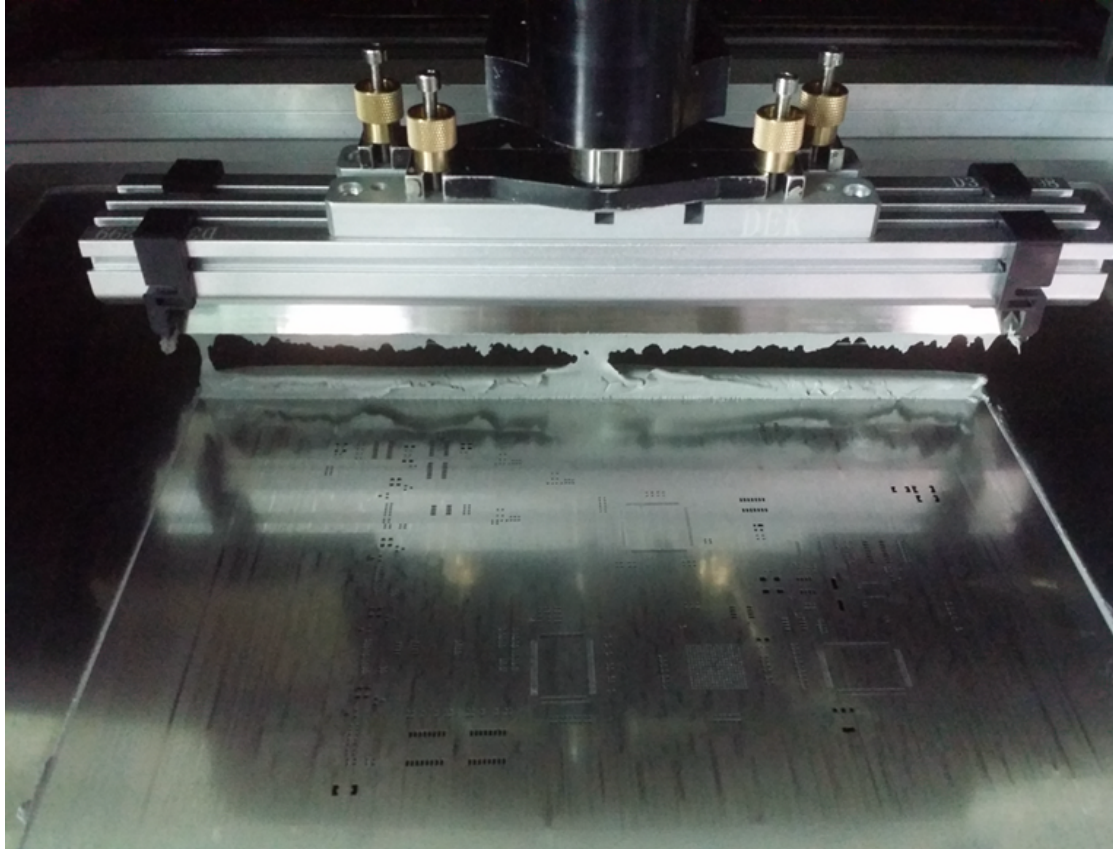
C, Not completely separated from the blade and the paste, solder paste printing stencil will fall into the pre-hole, resulting in a thickness of tin or bridged.





**SOUTHERN  
MACHINERY**

Have you ever seen that



1. Stencil surface Wiping very clean.

2. perfect Block tin effect, none Paste Spill.

3. Scraper and Paste When you can quickly put a knife Separation, Avoid unnecessary Paste Into the print area.



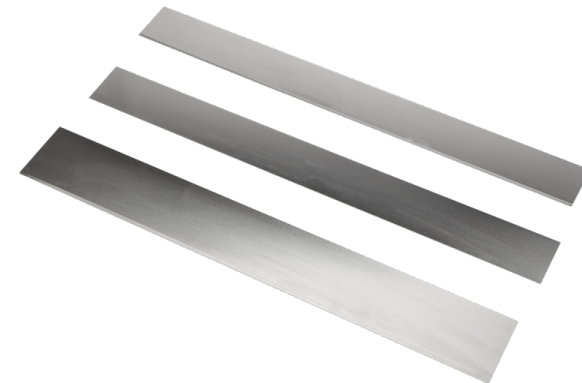
## Holder of Scraper

- 1, Straight, flat Turret
- 2, Simple structure and easy to clean
- 3, Flexible blade replacement
- 4, perfect of block tin effect
- 5, Convenient fixed blade

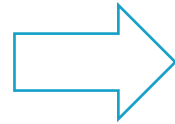


## Blade

- 6, Best material
- 7, Perfect edge processing
- 8, Advanced surface treatment technology
- 9, No need installation hole



# What is the good scraper



1. Streamlined design, simple and reliable.
2. High-strength aerospace aluminum alloy Lightweight and durable.
3. A blade holder manufacturing concepts formed, resulting in decrease due to multiple machining deformation beater Hidden danger. Ensure the straightness and flatness of the blade holder!

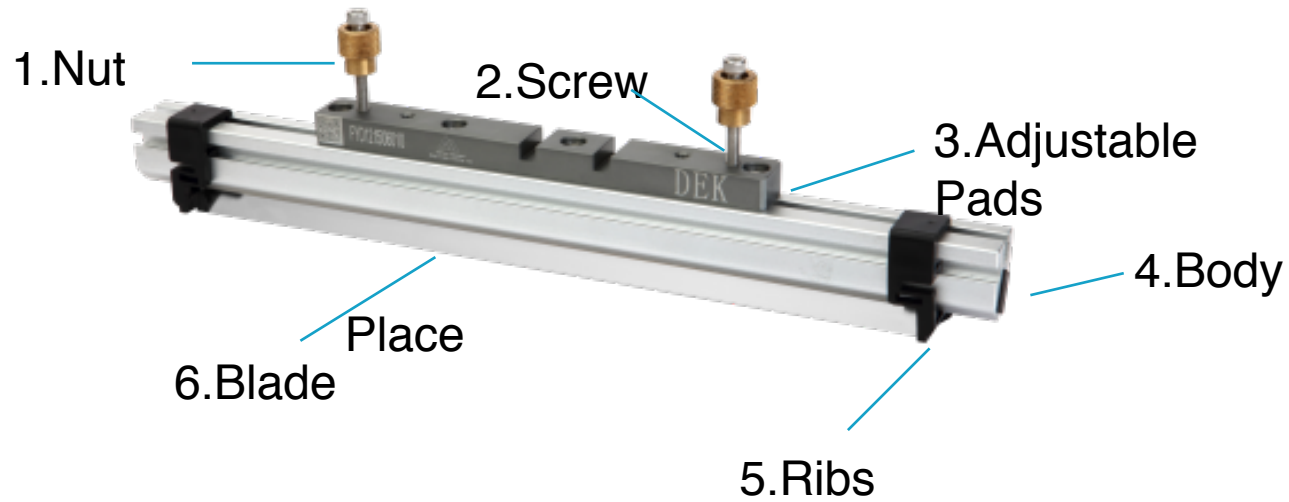




**SOUTHERN  
MACHINERY**

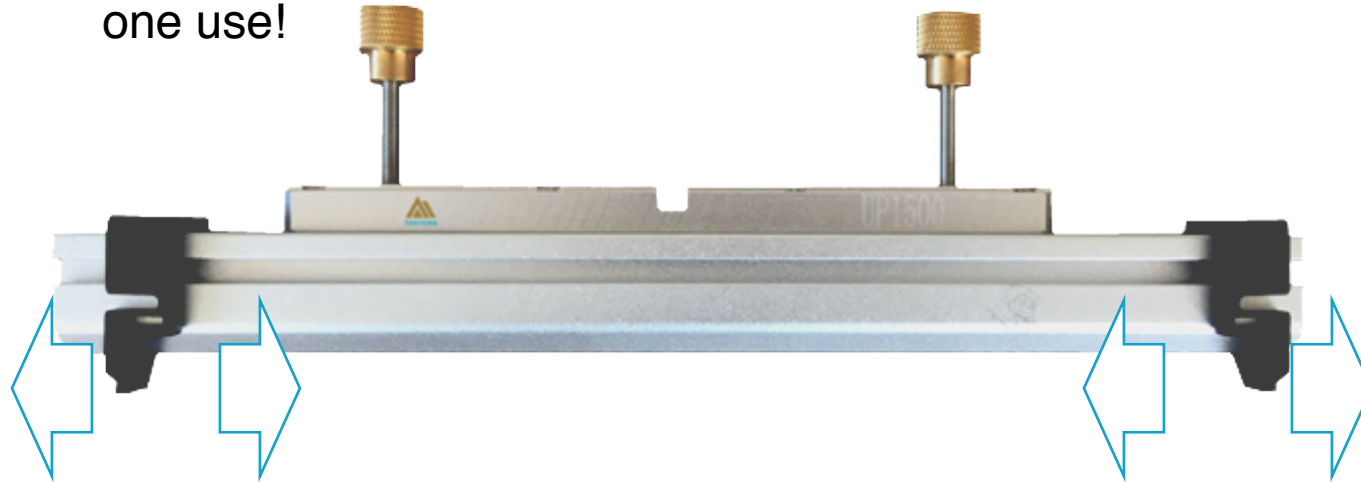
# What is the good scraper

- 1, Minimalist design.
- 2, Simple and reliable.
- 3, Without tools installation
- 4, Directly unplug, removal simple,
- 5, Easy to clean.



# What is the good scraper

Paste movable wall, respond to different lengths of products of different lengths replacement blade, to achieve more than one use!



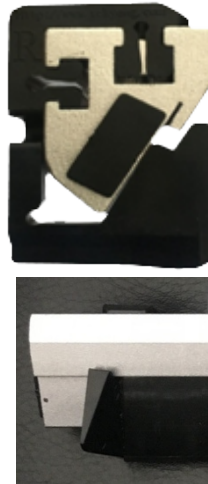
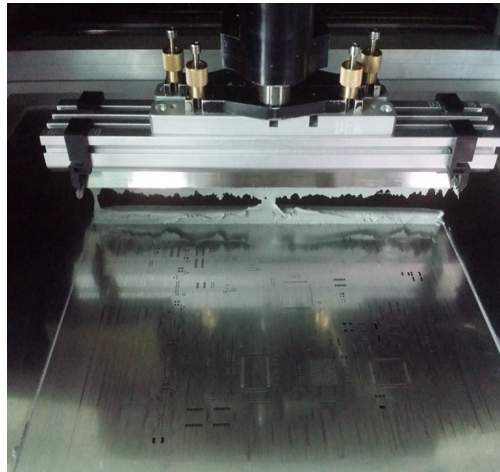
Precise positioning groove embedded doctor blade, the blade levels can be done automatically; paste mating with the movable wall, to achieve a multi-tool holder matching the size of the doctor blade, to achieve effective basis PCB Size for suitable doctor blade, procurement cost savings, reducing on-site storage space.



# What is the good scraper

1. High elastic ribs, Automatically find a meeting point between the blade and the stencil, the stencil with friction reducing, To prevent the spillover of solder paste, solder paste after hardening secondary prevention of spills use leads to clogging!

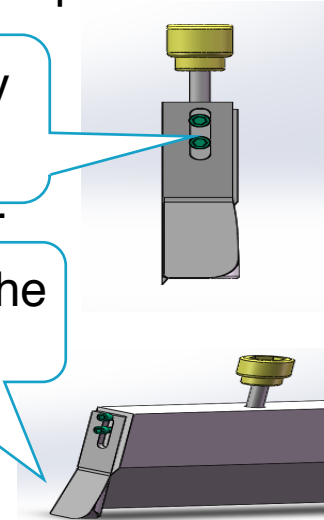
Technetium  
Wing scraper



Ordinary  
scraper

Installation by  
the rib, block  
tin ineffective.

Mounted on the  
lower wall,  
easily  
scratched  
stencil.



# What is the good scraper

- 1, Magnetic adsorption blade holder.
- 2, Direct install/disassembly.
- 3, Easy to clean.

Install/ Disassembly Less than 1 minute



Place



Take blade, Wash

Traditional scraper takes more than 5 minute



Place



Remove  
tableting



Screw  
demolition



Take  
Ribs



Remove  
the blade

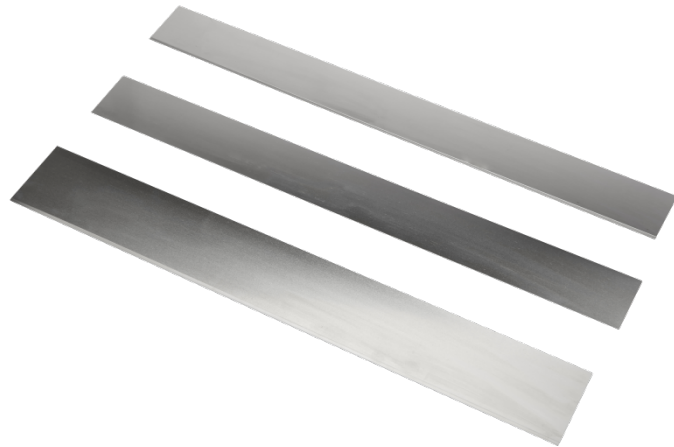


Wash

# What is the good scraper

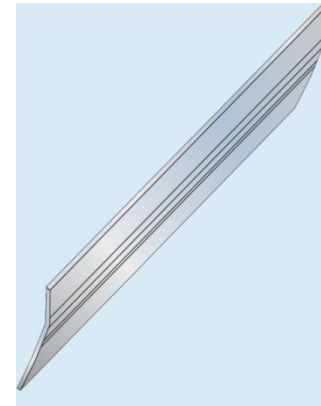
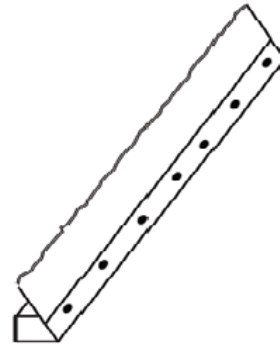
Toughness steel blade, easily deformed;  
Combat proven to withstand up to Dozens Million times printed no wear, no deformation.

Our steel blade technetium



Traditional stainless steel blade low hardness, easily deformable edge; overall deformation will be produced, need to increase pressure to barely meet production requirements.

Traditional Stainless steel blade

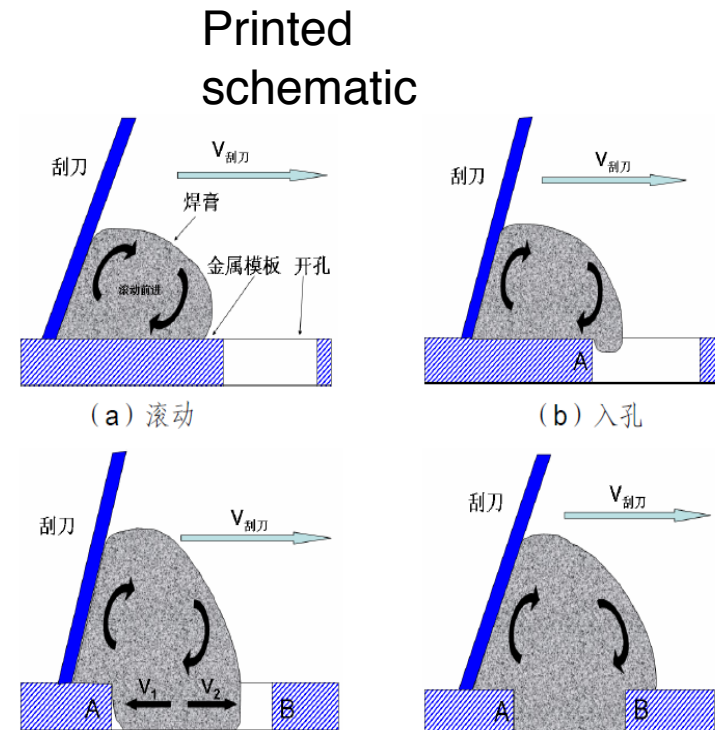
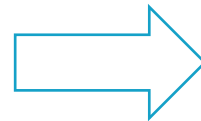
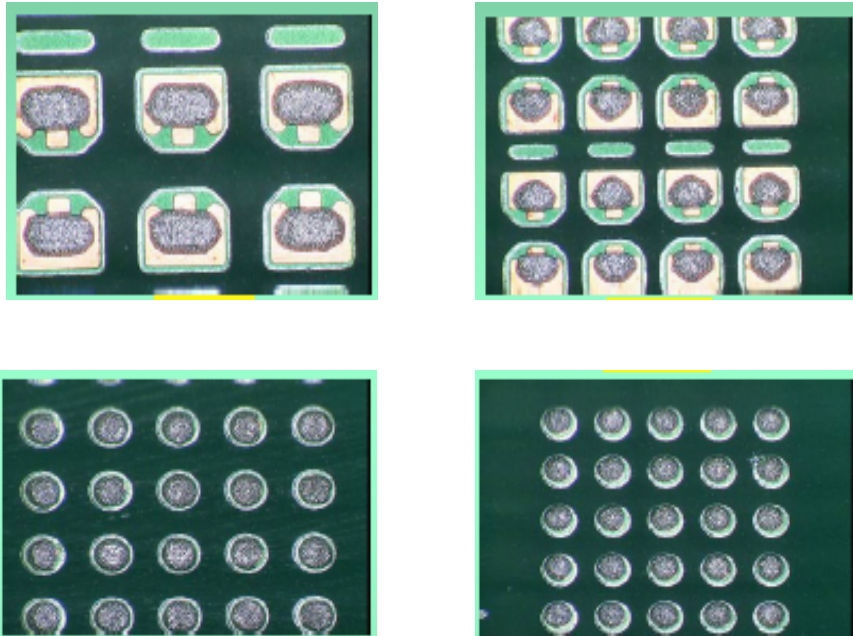


# What is the good scraper

1. Delicate surface coating doctor blade, the doctor blade to avoid wetting excessive  
The influence of the solder paste rolling group.  
Scroll bad cause steel surface scratch is not clean, resulting in thick tin, Bridging, icicling other hazards.

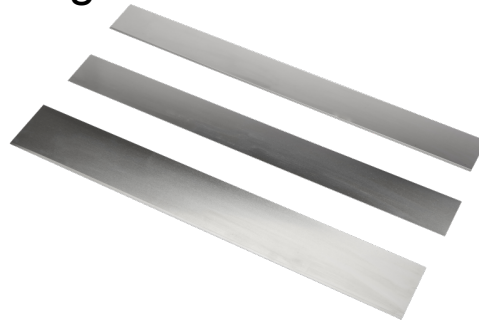
2. Paste blade to achieve rapid separation, will not advance into the solder paste printing area caused more than tin.

Effect of the blade surface treatment process  
quality printing

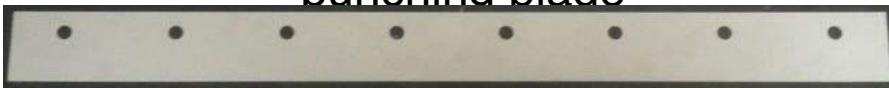


# What is the good scraper

Technetium  
Permanent Magnetic  
Blade



Normal  
punching blade



1. Permanent magnetic attraction technetium blade design, without puncturing, to facilitate disassembly; ensure the straightness of the blade, to avoid printing defects caused by bending deformation.

2. Normal punching blade quite many processing steps, is easy to produce defective products, when mounting the blade. Have risk of deformation; Cleaning/Replace the blade is more trouble.

# How do you clean your scraper

We are using automatic scraper cleaning machines, ultrasonic agitation to thoroughly clean spatula spray and other cleaning methods, but also you a clean, clean printing environment.



A blade  
cleaner

# How do you clean your scraper

1. Manually change the traditional line of the wiper blade, to avoid contamination of the solder paste;

2. Alternatively manual cleaning, to avoid direct contact with the solvent of the human hand, reduce the harm to the human body;



3. Can effectively recover the residual paste, solder paste to reduce waste in the production process;

4. Cleaning effect of 99.9% Reduce clogging stencil risk;

5. Keep the scraper clean and ensure good print quality and extend the life of the blade.

# How to check scraper

In modern process management and traceability perspective, the product defect control, no detail of negligence may bring fatal injuries. Also in SMT Process, how to judge the merits of the scraper, life has been more and more enterprises placed the issues of quality control.

- 1.The industry's blade testing instruments, mostly semi-automatic mode, no clear testing standards.
- 2.Artificial determine the merits of the blade inaccurate, resulting in quality problems.
- 3.When abnormal printing quality, difficult to find the cause.

# How to check scraper

ST1 Inspection machine scraper blade is a universal testing instrument, squeegee pressure can simulate the production line, through visual inspection parameter blade, blade angle of deformation, edge straightness, such as full inspection of the merits of the blade, and the recording data and the result of the check, generate reports for future traceability to do quality, help companies develop scraper testing standards!



Scraper Inspection machine

# How to check scraper

## A. Fully automatic operation

Fully automatic operation, does not require manual intervention;

## B. Visual Inspection

Visual inspection using advanced technology, analog pressure sensing scraper blade production site.

## C. intelligent Maptable

Detailed examination of the blade recording data and results, and generate a corresponding MapTable file.



D. Simple to set up  
Desktop equipment, simple installation, no commissioning, easy to use.

E. Free to expand  
And scanner, ASM-600, SMS100 And other peripheral devices communicate online.

# How to manage scraper

Currently, many companies commonly used doctor blade system management

A, Labeling scraper manually

Hand written label, easy to wear, Shedding, Resulting in identification unclear

B, Scraper storage

No fixed storage position, open, or mixed with the other items.

C, No record and traceability

Whether cleaning it replaced, there is no accurate records can only experience to judge.

A, Can not find the scraper when you need it

B, Found the scraper but not what you want

C, You want the scraper, but failure.

D, Re-purchase, lead-time too long

E, A lot of spare and cost increasing

Many of these issues, allowing you to surprise!

# How to manage / storage scraper

To help you manage your scraper to solve the above problems, then you will easily manage, efficient production.



SMS100  
Brief introduction

SMS100 Management system is a scraper blade through standardized management to help improve print quality factory equipment. Standard Edition can be stored 40 Deputy scraper.

Customized available.

SMS 100 Scraper Management System

# How to manage / storage scraper



## Centralized management

Previously open management, To Now focus formula Management, placing special storage box having a loss prevention function, recipients need permission to hand operation.



## Barcode Management

Each blade has a separate sub bar code label, stored recipients can be directly accomplished by scanning the bar code, easy to operate.



## Warning Management

The system will automatically prompt you whether scraper need maintenance, replacement, retirement and so on.



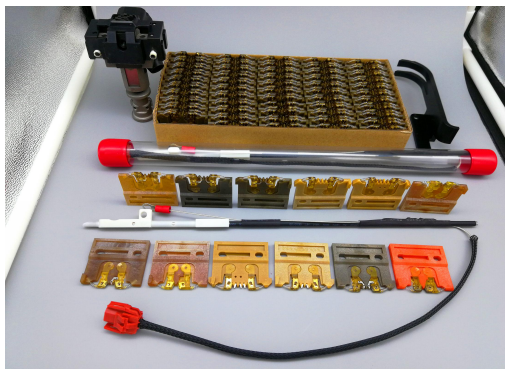
## Data Management

Scraper and information access and others have specialized database storage, improved data query, export reports and other functions.



## intelligent dialogue

The system can be flexibly extended storage cabinet, each unit 20Vice scraper, Interface while providing a blade cleaner, a blade inspection work and other equipment.

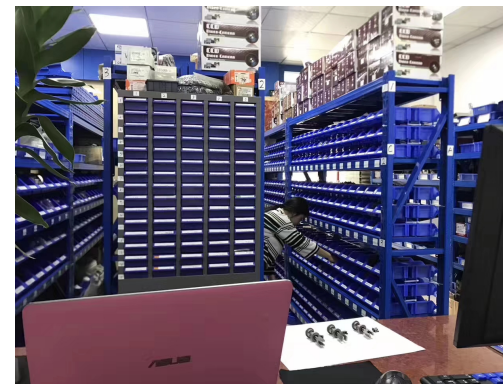


Panasonic

Universal Instruments



FUJI XP142/143							  		
yamahaYG200		HA099		CN 110		FUJI NXT/H08M		FUJI NXT/H04	
									
55USD	13USD	15USD	18USD	24USD	23USD				



## Best After-sales service

- **Worldwide Support**
- **Free Installation/ Training**
- **1 day lead-time (spare parts)**
- **1 Month customize solution**



## Welcome inquiry

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- 6, See machine working video: youtube - Auto Insertion
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