

Eyelet /Pin/Terminal Inserter S-7000E



How do you insert the odd form components?

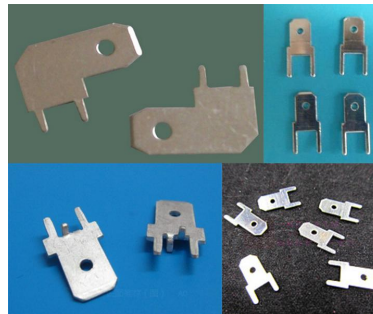


- *High labor costs
- *Low efficiency
- *Need month salary

I 'll never say tired,
just need a regular
maintenance !



Manual **VS** S-7000



Bulk terminal



- *One machine can replace at least 10 people
- *Higher return on investment
- *No need salary

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Let's introduce our terminal insertion machine to you-----



Product introduction

1. Operating system: Windows environment to run the operation of the software, the production data, management data , equipment parameters, all I/O signal diagnosis, etc. can be finished on the host with a touch screen.
2. Insertion speed: 0.35 seconds/piece (theoretical), adopts panasonic AC servo drive, high speed, low noise, stable movement.
3. Visual system: Industrial specialized high definition camera and the development of automatic visual correction software of vision system, automatic correction, insertion accurately.
4. Missing part system: when insert the missing part, which can realize a leakage detection and set fill interpolation function, improve the machine availability.

Eyelet/Pin S-7000E - In Detail

-S-7000E Parameter Specification

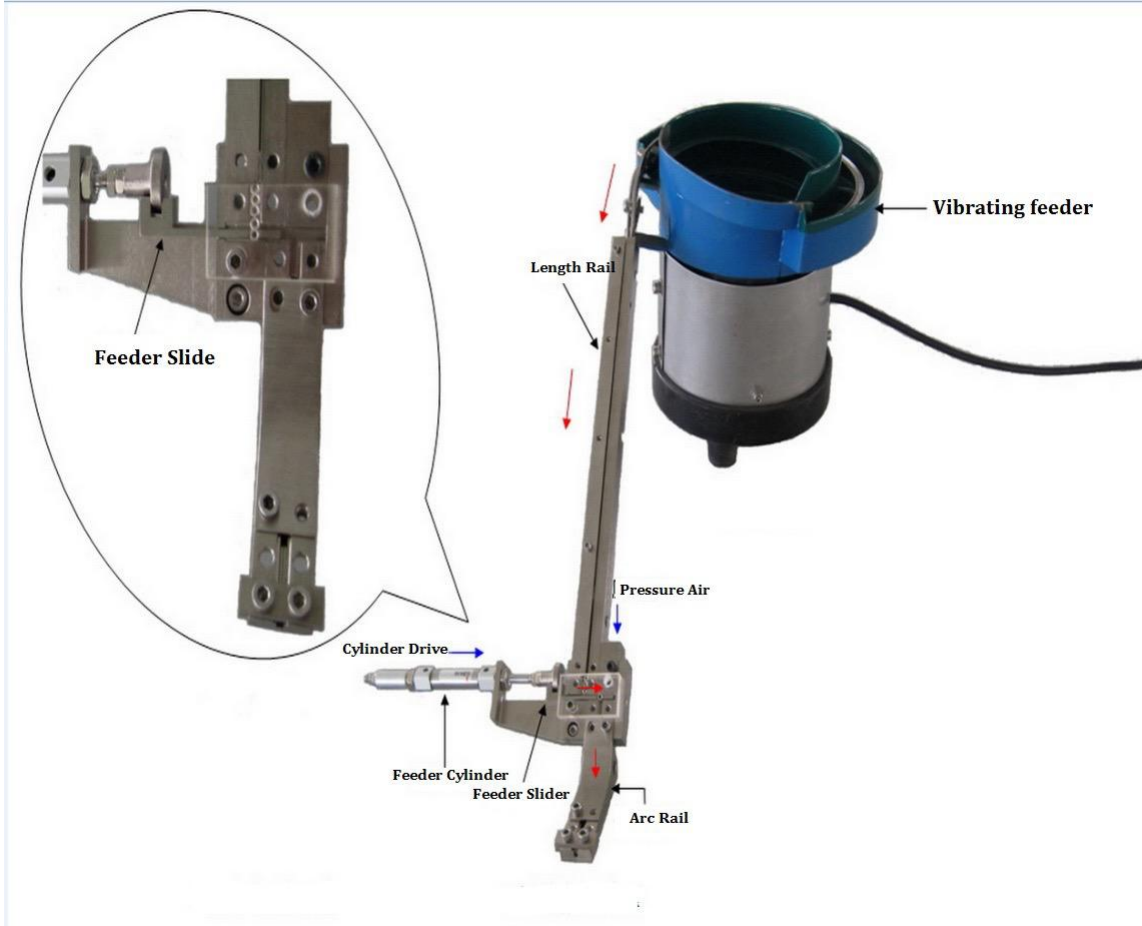
- 12,000 CPH Spec Speed**
- **PCB Size: Max. 480mm * 390mm**
- **PCB Thickness: 0.76-2.36mm**
- **Components available: 1.3-4.0mm Pin, Round Pin.**
- **Insert Single Head to Four Head (Optional)**
- **Machine dimension: 2140mm*1450mm*1600mm (L*W*H)**
- **Machine weight: 1200KG**
- **Power supply: Single Phase 220VAC, 50/60HZ, 1.0KVA**
- **System Protection: UPS**
- **Air pressure: 0.4-0.6Mpa (Round pin 0.55-0.6Mpa)/0.3M³/Min**
- **Data input: USB interface input (EXCEL format)**
- **Control System: English version interface (WINDOWS system control platform)**

LCD monitor

- **Rotary table directions: Clockwise or anticlockwise**
- **PCB transfer mode: Manual / automatic optional**

Eyelet/Pin S-7000E - In Detail

-S-7000E Description

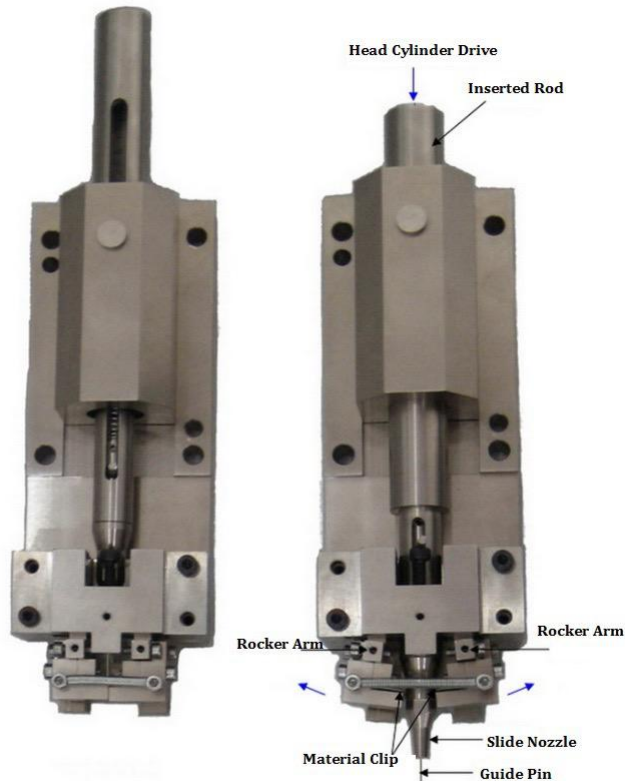


Part one: Feeder station

1. Vibrating feeder sequence bulk rivet/Eyelet pin to length rail.
2. Use Eyelet/Pin's weight through length rail slide down to feeder slider.
3. Feeder Cylinder drive the feeding slider to push the eyelet/pin on arc rail one by one.
4. Pressure air put eyelet/pin through arc rail and push it to the material Clip of insertion Head.

Eyelet/Pin S-7000E - In Detail

-S-7000E Description



* Action Start State

* Action Finished State

Part Two: Insertion Part

1. Head Cylinder drive the insertion rod and under pressure, guide pin through eyelet/pin positioning.
2. Conical part of slide nozzle will push rocker arm with material clamping to opening to both sides, Slide nozzle will press Eyelet/pin to the through hole of PCB.

Eyelet/Pin S-7000E - In Detail

-S-7000E Description

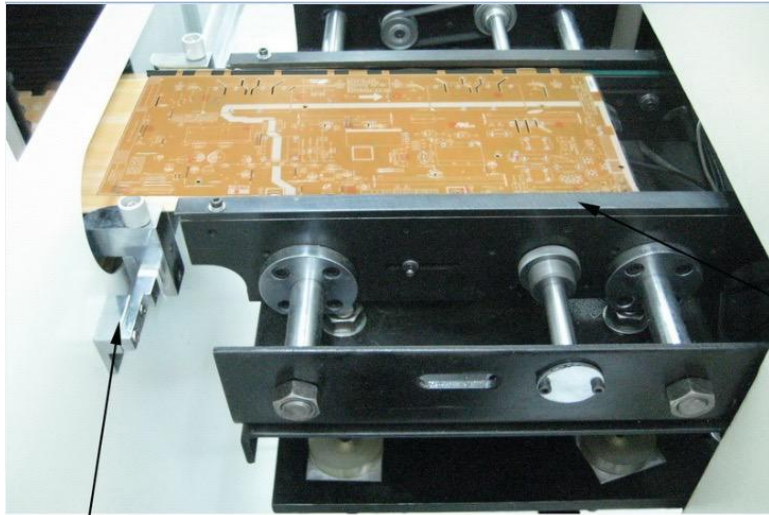


Part Three: Base Part

The base cylinder to drive the base axis to up move, lower die insert to eyelet/pin bottom, the blade of lower die cutting the eyelet/pin bottom and pressing to blossom process.

Eyelet/Pin S-7000E - In Detail

-S-7000E Description

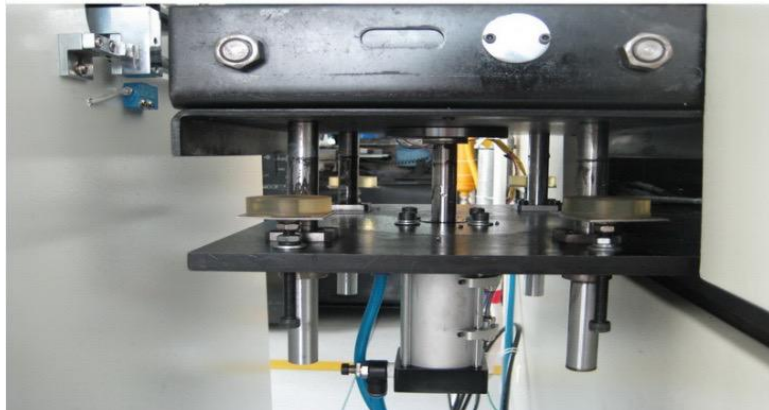


Loader

Loader Conveyor

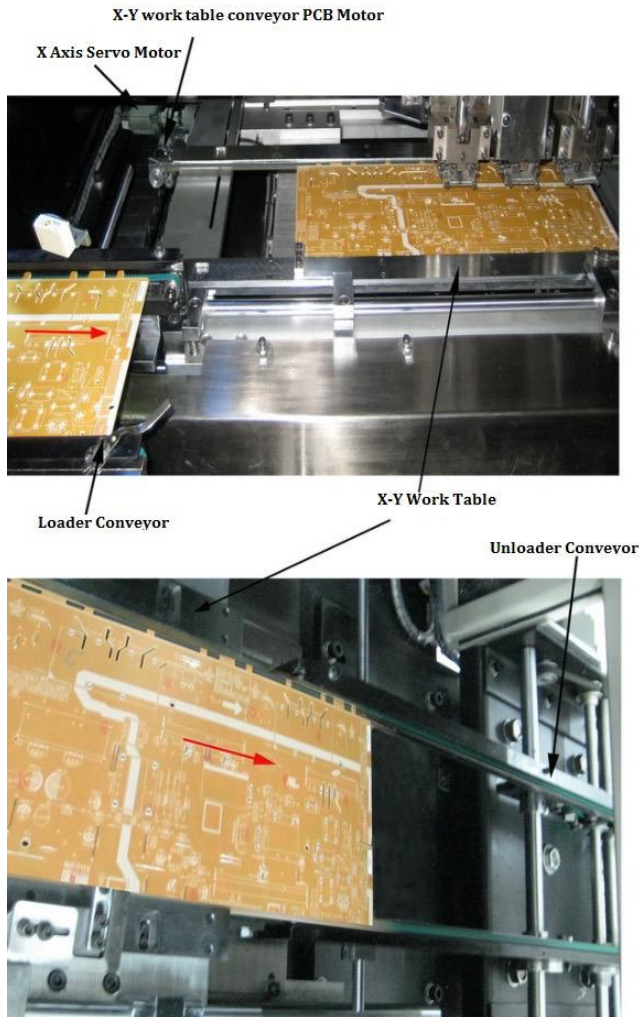
Part Four: Loader Coveyor

The Loader transport the PCB to loader conveyoyr.



Eyelet/Pin S-7000E - In Detail

-S-7000E Description

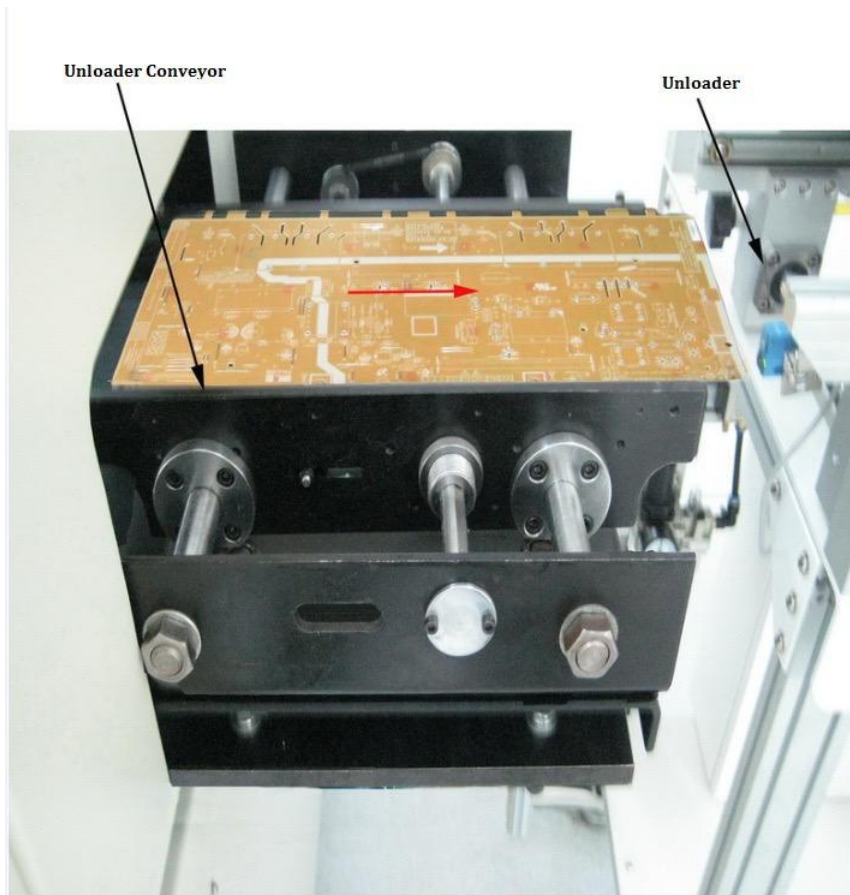


Part Five: X-Y working Part

1. The Loader conveyor transport the PCB to X-Y work table, X-Y servo motor to drive the X-Y work table positioning.
2. After base part of Insertion Head finish the insertion (Detection system will inspect the insertion successfully into the next step, if not finish then repeat this action), X-Y work table will transport the completed insertion PCB to Unloader conveyor.

Eyelet/Pin S-7000E - In Detail

-S-7000E Description

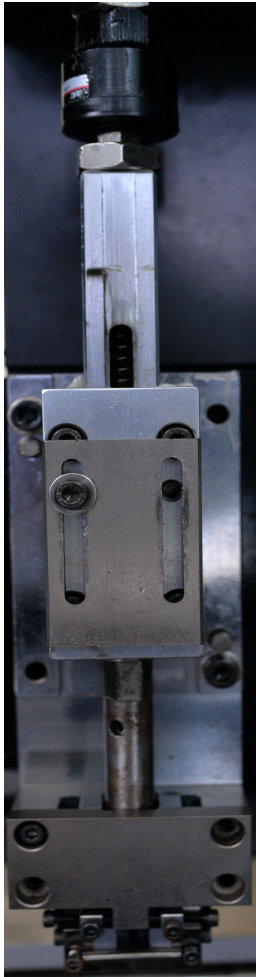


Part Six: Unloader Conveyor

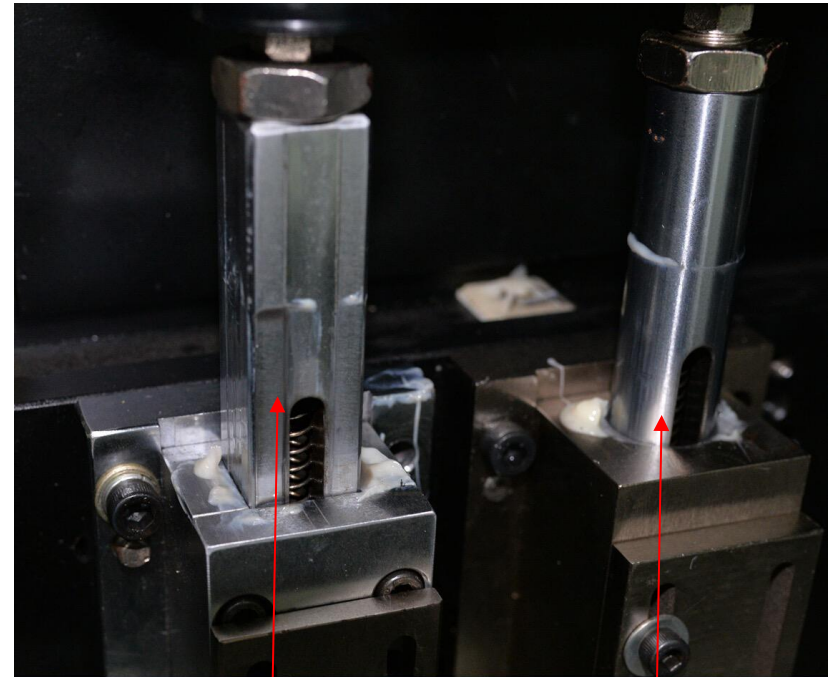
1. The Unloader conveyor will transport the completed insertion PCB to Unloader.

Head Upgrade

We abandon the traditional circular shaft, adopt new style square shaft, smaller gap, more smooth, more accurate positioning.



New Style

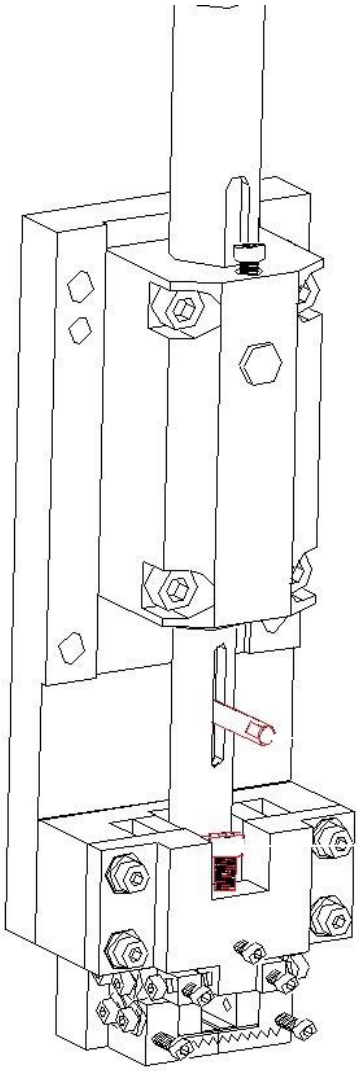


New Style
Square Shaft

Old Style
Circular Shaft

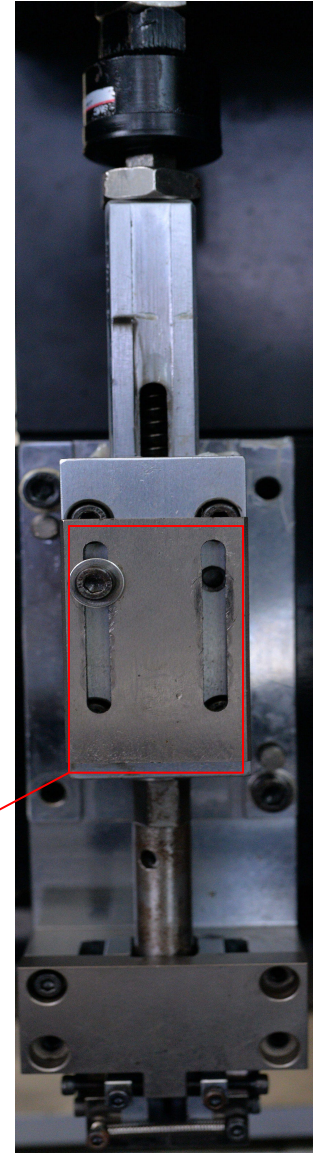
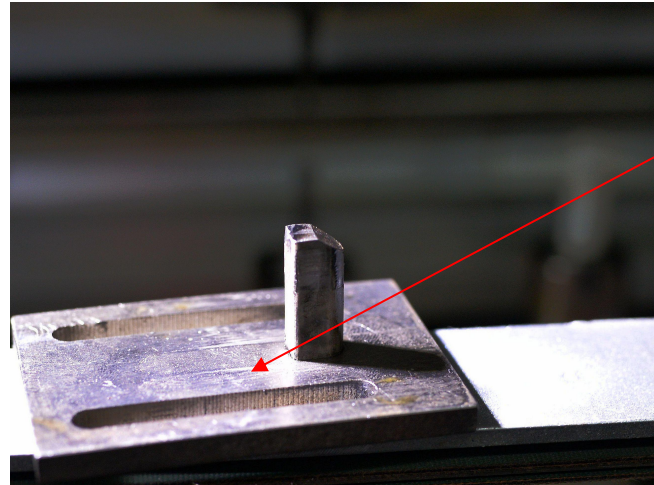
Head Upgrade

The traditional head use the bolt and screw collide with each other as the needle cylinder's limiting mechanism.



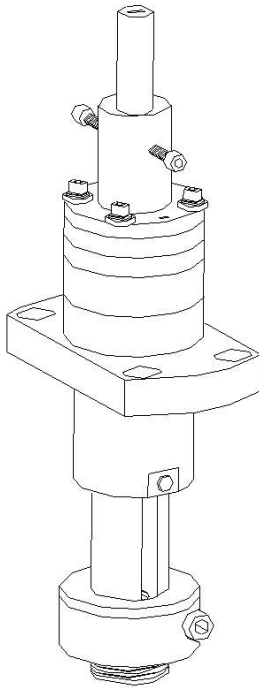
Traditional Head

The new style head adopt needle cylinder integration as limit mechanism, more durable.

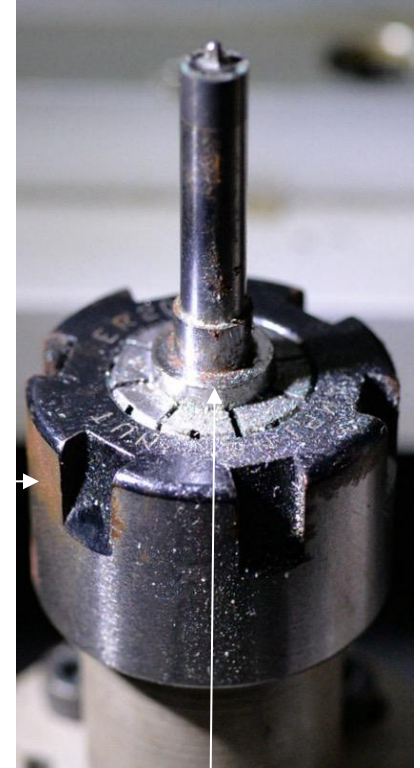


Base Upgrade

The traditional Die, screw fixation, low precision. Need adjust the center of the thimble when replace needle each time.

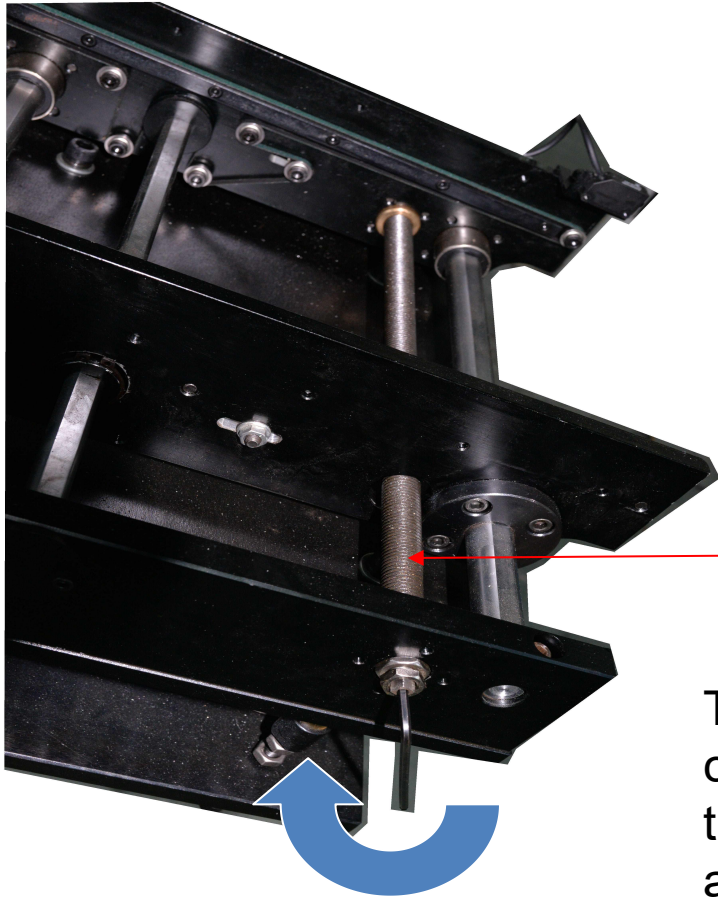


Old style Die



The new style die adopt Spiral bearing fixing thimble, always keep a thimble location center not offset, without adjusting thimble after replacement.

Board Handling Upgrade

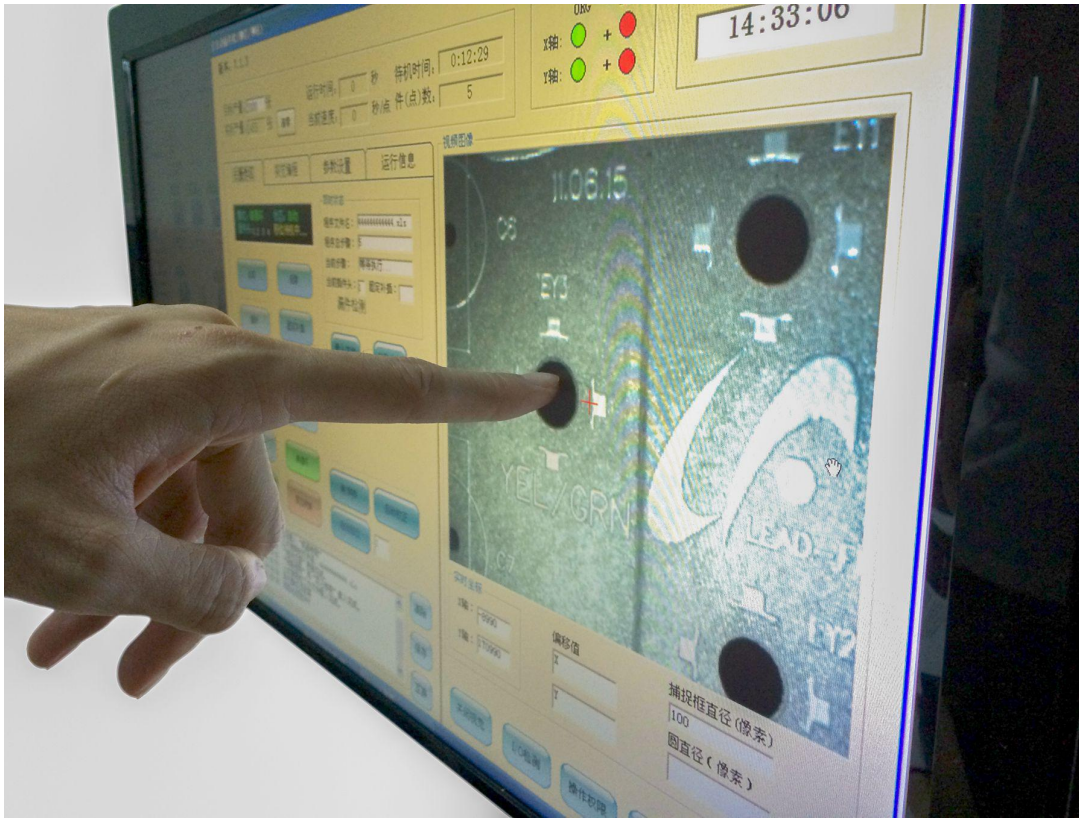


The New board handling rail add screw rod control and adjust the width to instead of traditional rail loosen screw and push adjustment by manual.

Server Upgrade



Adopt new Panasonic Server, insert rate/ production capacity improve 10% -20% relative to traditional models. (Depending on the insertion components density).



We use the advanced touch technology, finger tap can get into the coordinates or determine the insert location.

A skilled engineer was complete a new insertion program only 3~5 minutes, profit from the latest research for touch technology.

Revolutionary new generation control software

主操作区
视觉编程
参数设置
运行信息

即时状态

模式: 单循环 状态: 自动
 插件头: 1 2 3 4 移位待机中...

程序文件名: 444444444444.xls
 程序总步骤: 5
 当前步骤: 等待执行...
 当前插件头: [] 固定补插: []
 漏件检测

泊车 回零
 插件 固定补插
 空转 补插
 移位 单步
 手动 单循环
 启动 复位转换

载入文件 检验坐标
 装/卸板 自动校正
 指定移位 1

提示信息

06-19 14:19:52 正在载入“机器参数”...
 06-19 14:19:52 上次使用的文件是: 444444444444.xls
 06-19 14:19:52 “相对位置”更新完成。
 06-19 14:19:52 “机床参数”和“工艺参数”载入完成。
 06-19 14:19:53 上次使用的工作文件载入完成。
 06-19 14:19:53 执行操作员权限
 06-19 14:20:05 初始化视觉中!

清除 保存 互换

程序编辑

N	L	X	Y	D	R	H	T	F
	R1	-6990	170990		0		H2.0	

覆盖一行 前插一行 下一行 上一行 删除此行 新增一行

文件编辑

当前文件:

```
111111111111.xls
123.xls
222222222222.xls
333333333333.xls
444444444444.xls
```

新建文件 编译保存 开始编程
 打开文件 修改文件 整体偏移

移动间距: 1 10 100 1000

指定校正步骤: 1 5

自动校正 指定校正 检验坐标
 指定移位 1 急停

Display control panel and parameters, more intuitive and detailed, stick out a mile, easy to use.

Message menu can record all of the machine's movement and human intervention operation, to facilitate trace the faults and problems.

主操作区
视觉编程
参数设置
运行信息

基本参数

	H1	H2	H3	H4
相对位置_X	-88000	-31500	0	0
相对位置_Y	69800	69800	0	0
测试位置_X	10000	10000	10000	0
测试位置_Y	10000	10000	10000	0
零件_X	100	100	100	0
零件_Y	100	100	100	0
孔径	0	0	0	0
震动间隔ms	3000	5000	5000	0
进板超时ms	2000	相机放大系数		53.76
出板超时ms	2000			
PARK_X	-28000	进板延迟ms	500	
PARK_Y	-185000	定位延迟ms	150	

注: 出板超时范围: 1千-1万 气缸超时ms: 600

伺服参数

	X轴	Y轴
StartSpeed	60 mm/s	60 mm/s
TargetSpeed	600 mm/s	600 mm/s
ORG.Speed	30 mm/s	30 mm/s
Acc/DecTime	0.03 s	0.04 s
脉冲当量	1000 p/mm	1000 p/mm
速度范围	5-600	

保存 应用

插件检测

设置漏件自动补插次数:

其它参数

工作头启用/屏蔽:

校正延迟: 0.1 s

插件轴孔径参数

H1 | 1500 H2 | 1900
 H3 | 1600 H4 | 1600

送料延迟时间设定

插件轴1: 50
 插件轴2: 50
 插件轴3: 50
 插件轴4: 50

保存 应用

主操作区 视觉编程 参数设置 运行信息

程序名称: 444444444444.xls 点数/板: 5

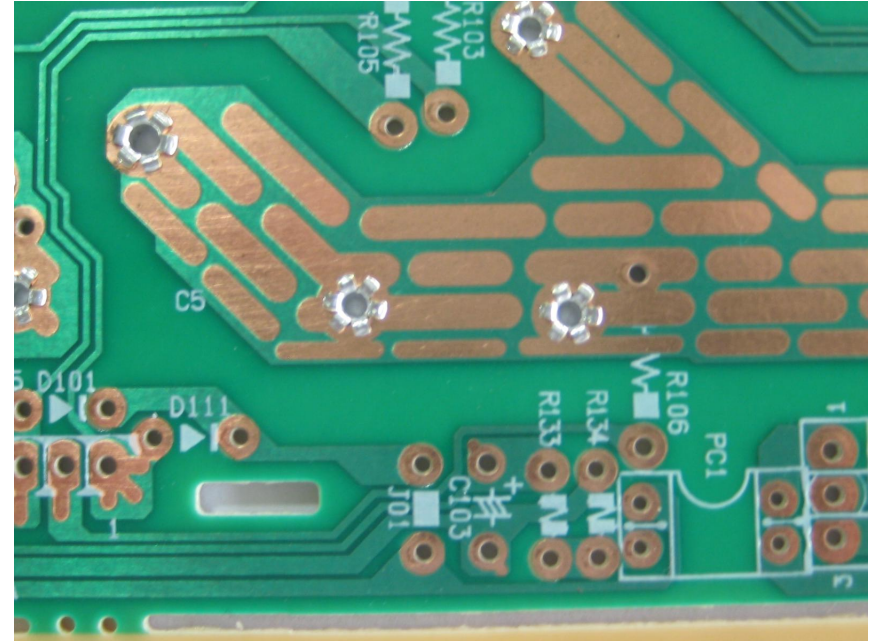
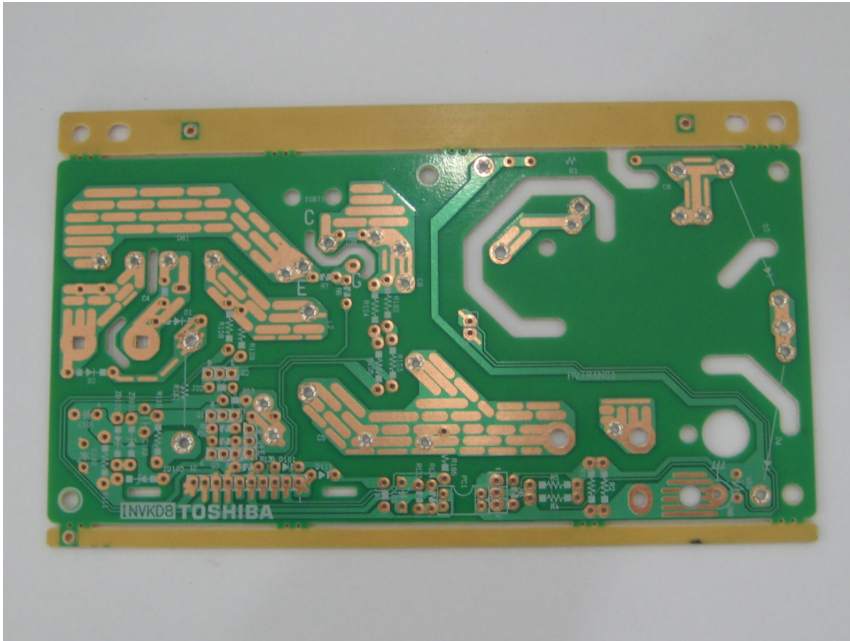
插件速度 生产点数
 汇总速度 补插点数
 工作时间 良品率
 装卸时间 运行率 0.1%

待机时间: 0:17:29 统计开始: 14:19:52
 开机总时间: 0:17:29 统计结束: 14:37:52

RunInfo
 开机时间: 2014-6-19 14:19:52

保存 清除

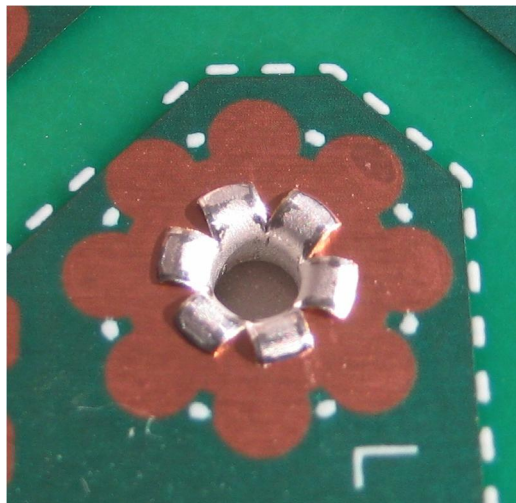
Eyelet/Pin Insertion PCB



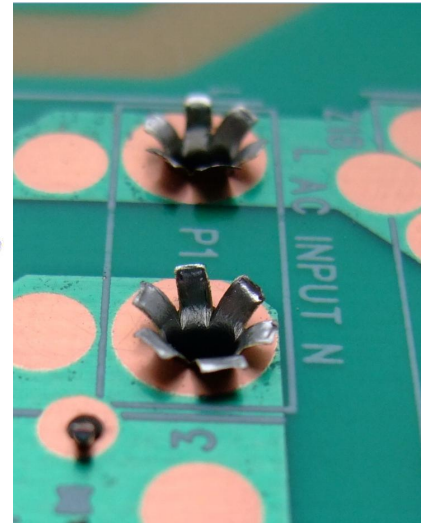
Eyelet/Pin Insertion PCB



Eyelet/Pin



**Eyelet/Pin after
insert to PCB**



Welcome inquiry

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3, Know more our team: <https://cn.linkedin.com/in/smtsupplie>

4, Welcome to our factory in Shenzhen China

5, See more machine working video: <https://www.youtube.com/c/Smthelping>

6, Google: Auto+insertion, to get more informations

7, Looking forward to your email: info@smthelp.com

