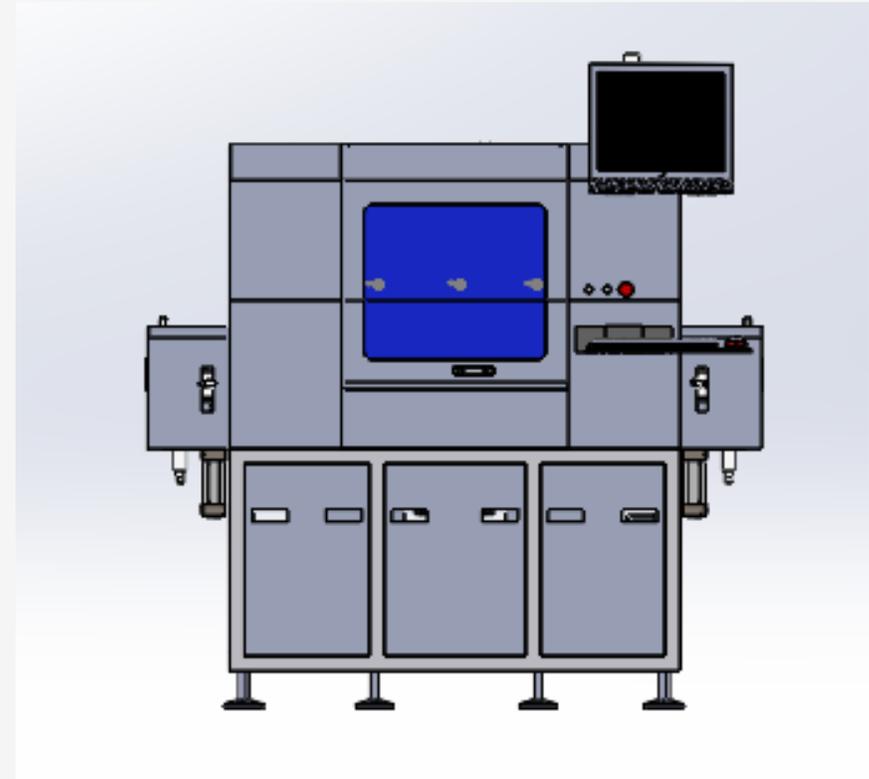
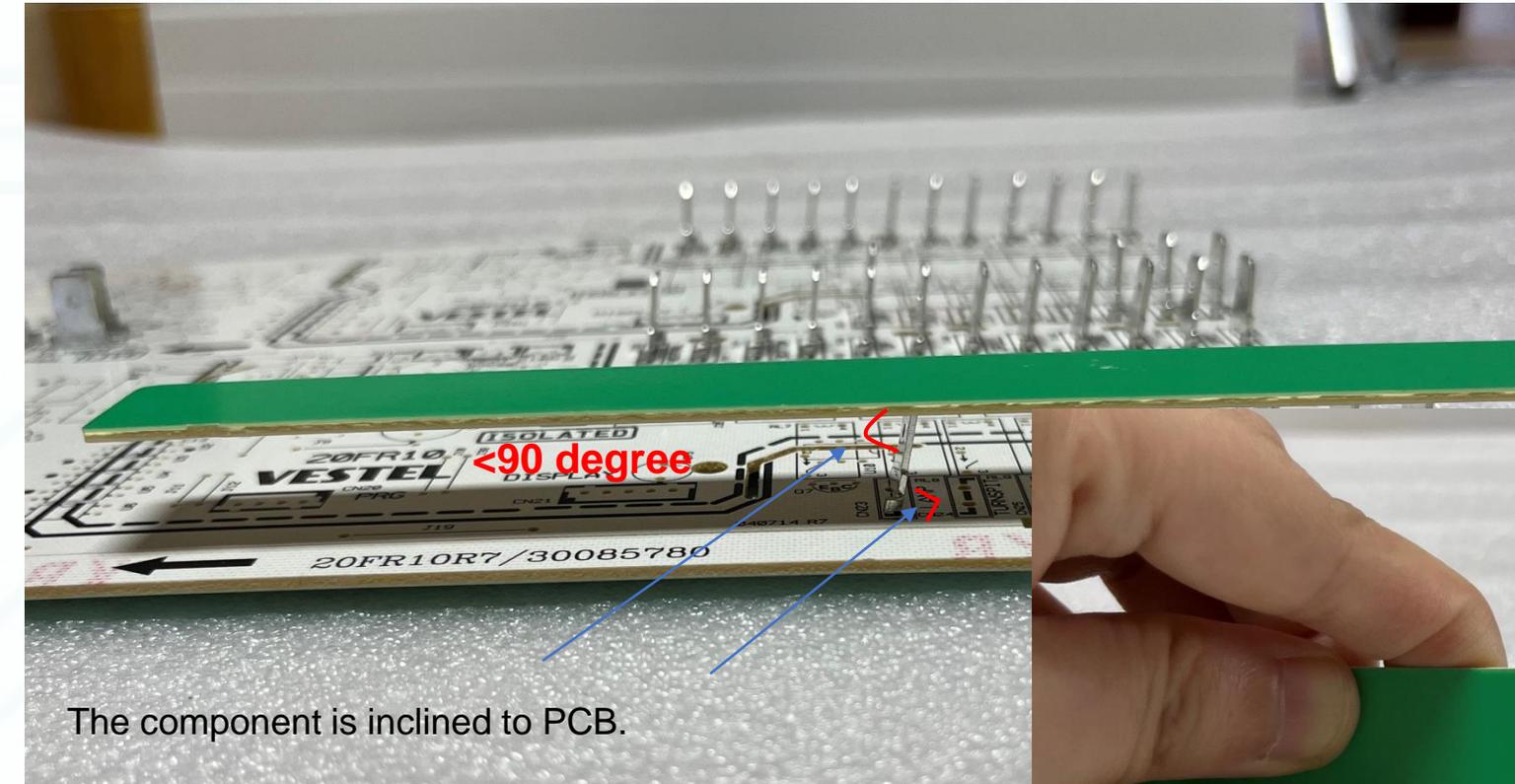


S-7000T Terminal Insertion Machine with 2 sets Vibration Bowl Feeder

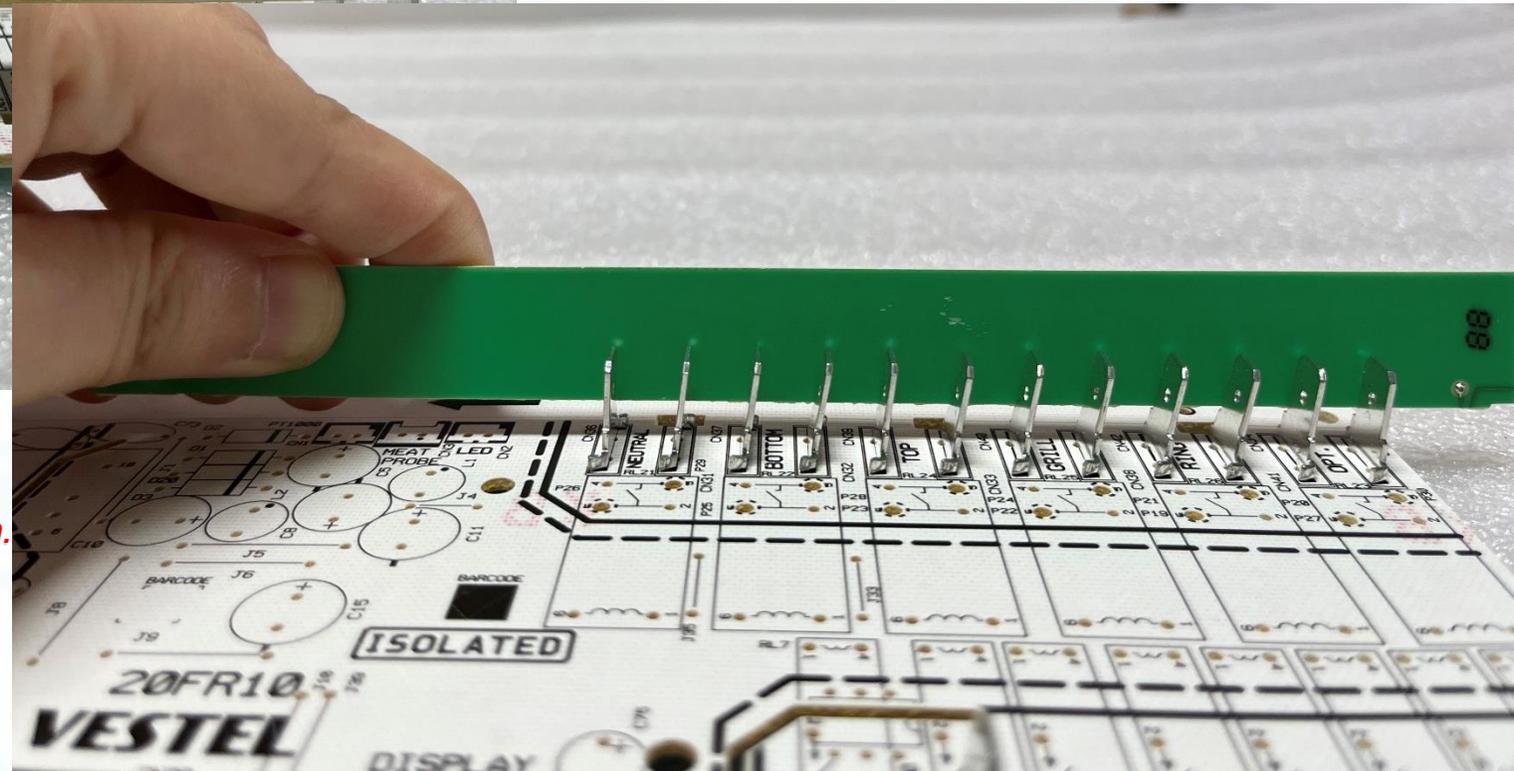


Issues caused by Manual Insertion

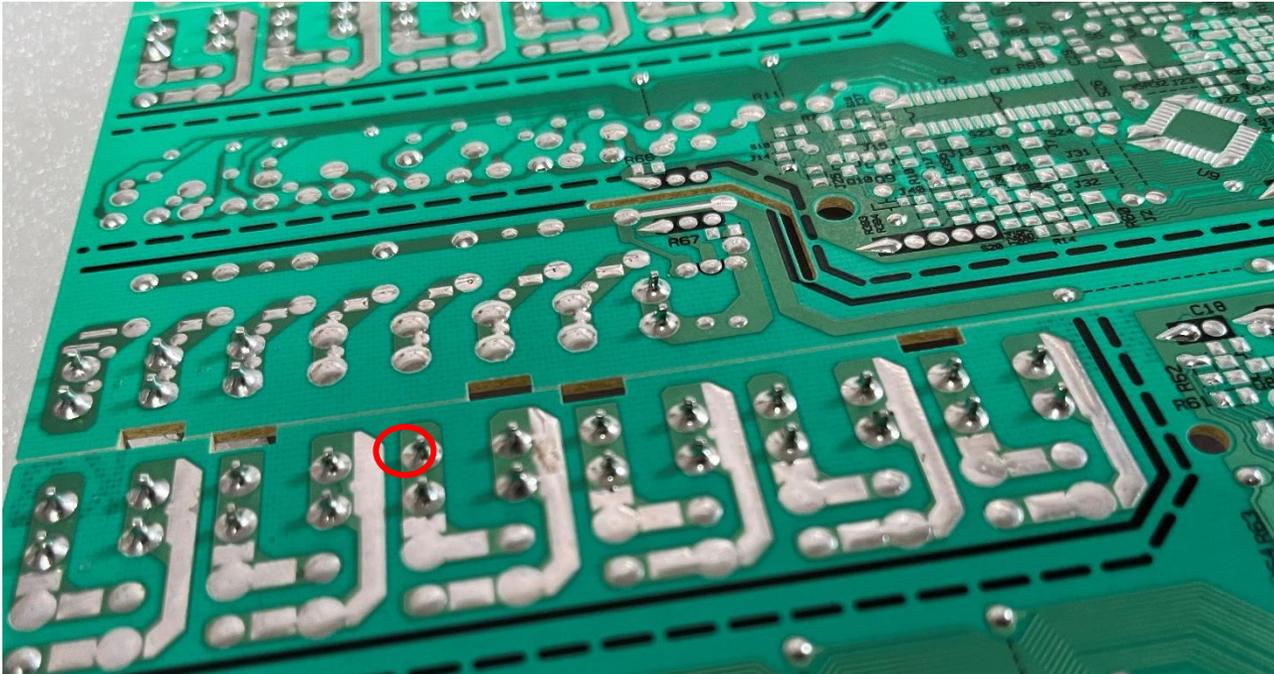


We observe some problems in your PCBA by manual insertion.

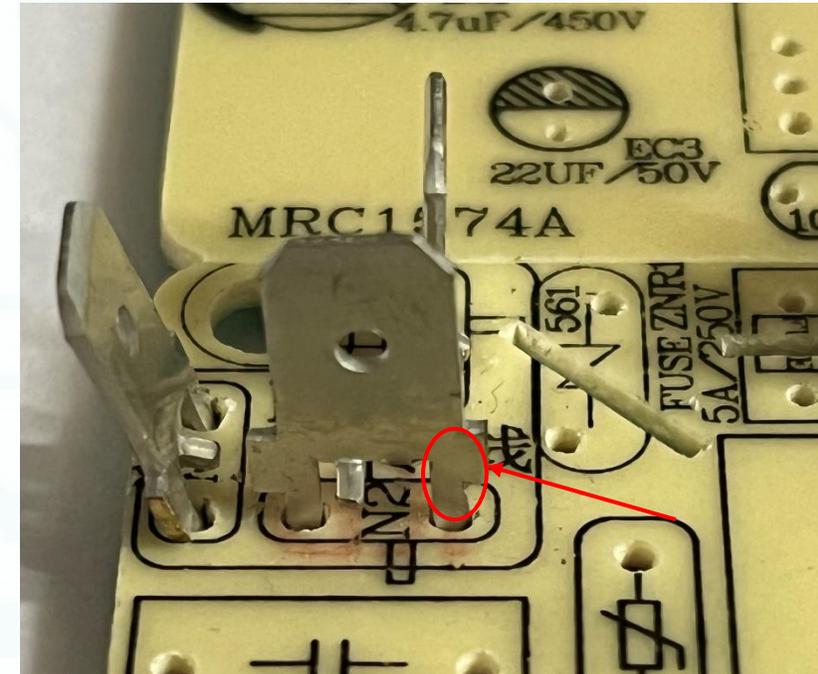
Issue 1# The terminal component housing is not vertical to PCB.



Issues caused by Manual Insertion

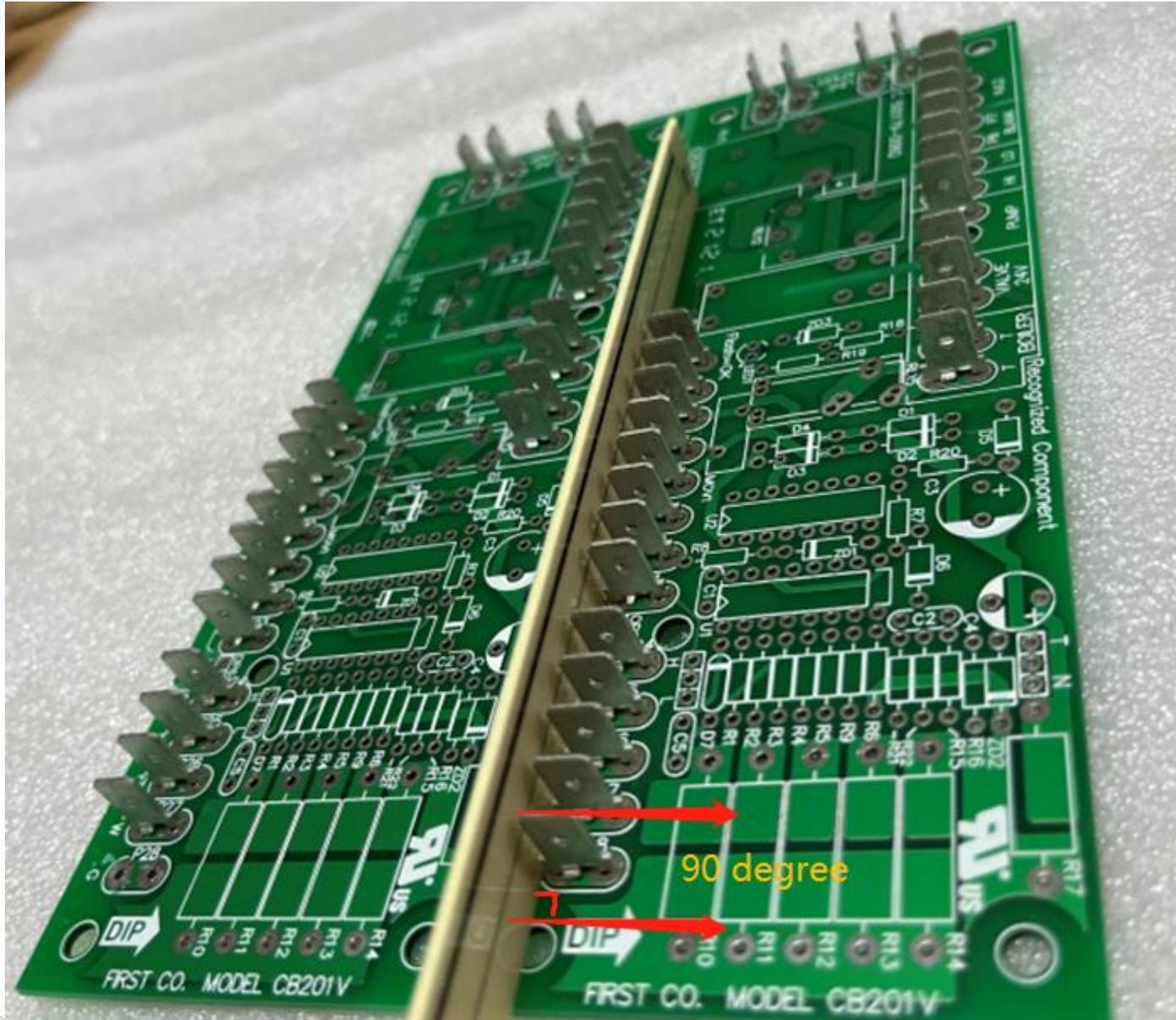


Issue 2# There is no clinching with component lead after it is inserted. Thus, on one hand, components may drop off the PCB.



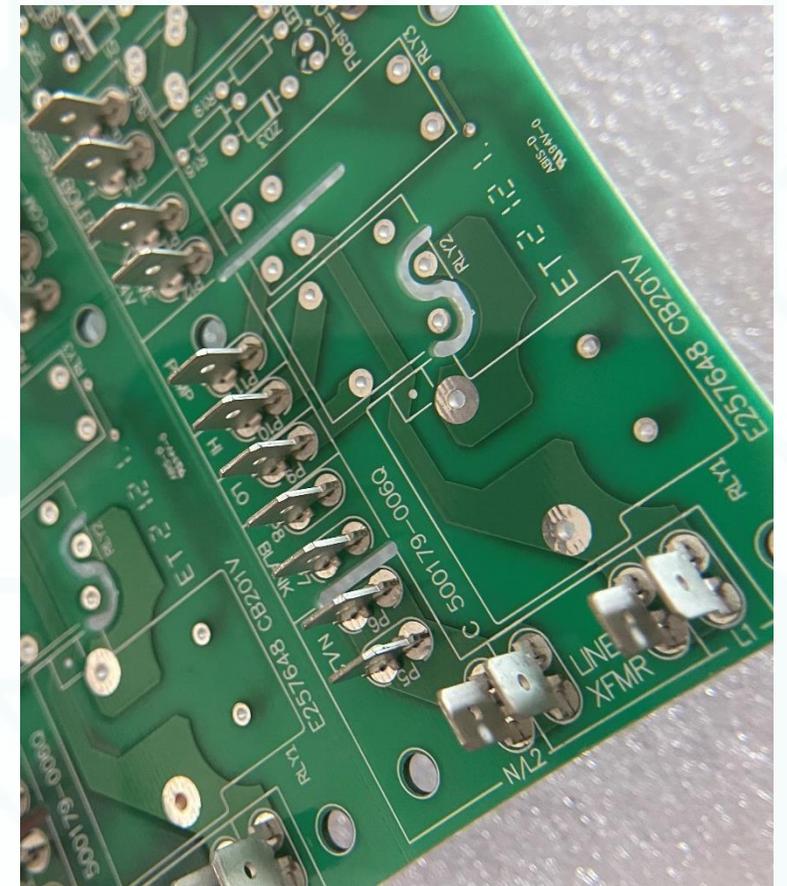
On the other hand, bad joint appears because there may be a large gap due to wave soldering without clinching.

Advantages of Machine Insertion



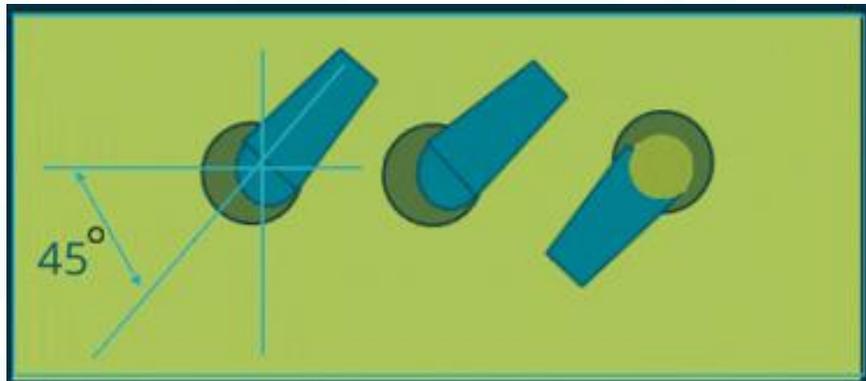
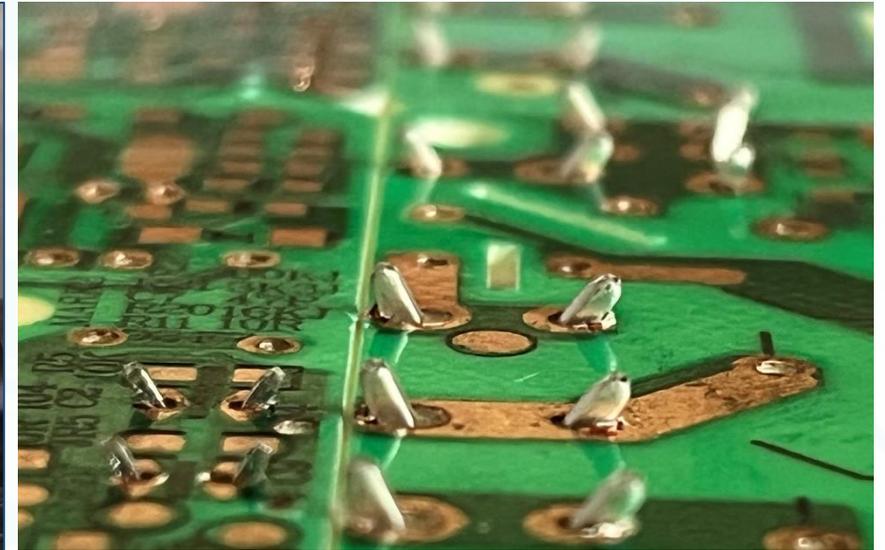
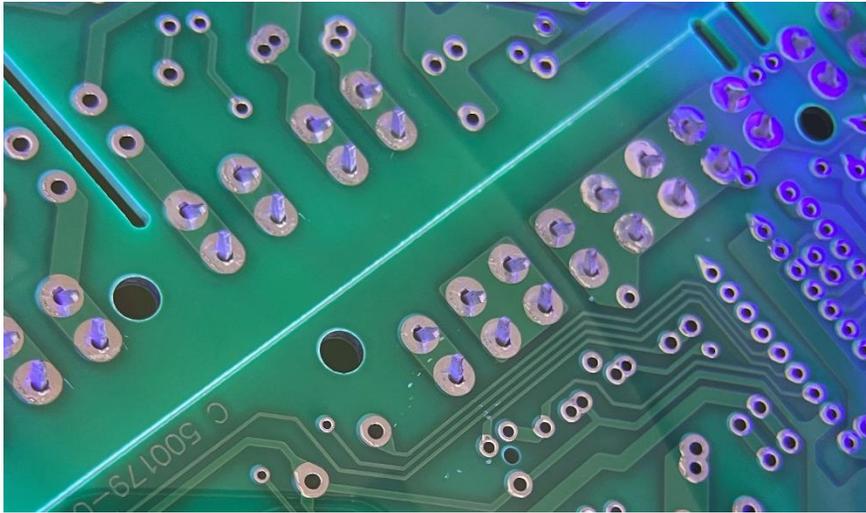
These terminal components were inserted by S7000T insertion machine.

Advantage 1#. Terminals are vertical to PCB

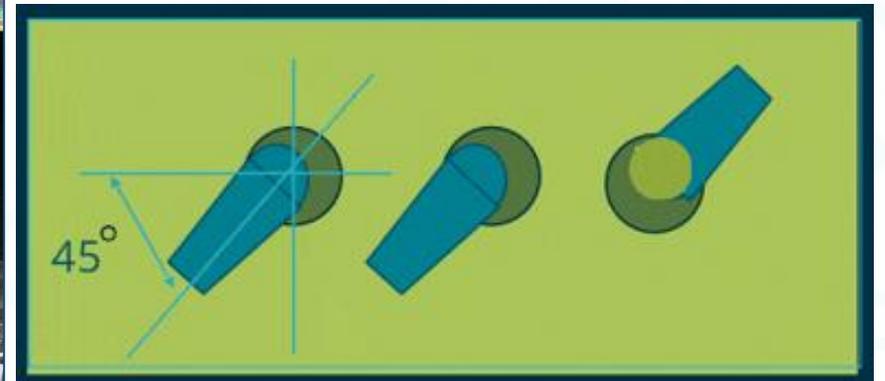


Advantages of Machine Insertion

Advantage 2# Clinching unit prevents component from dropping off.



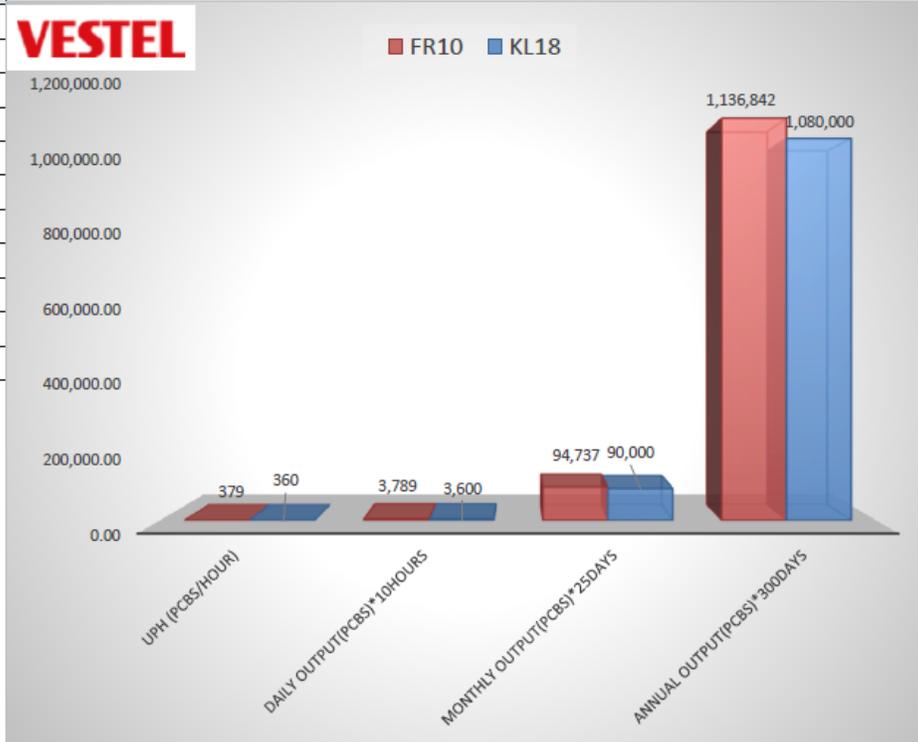
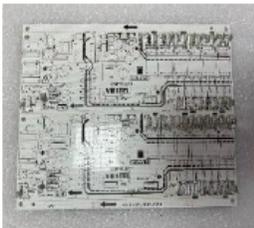
N-type Inward Clinch



N-type Outward Clinch

Pin Terminal Through Hole Analysis

Pin Terminal Through Hole Analysis Report

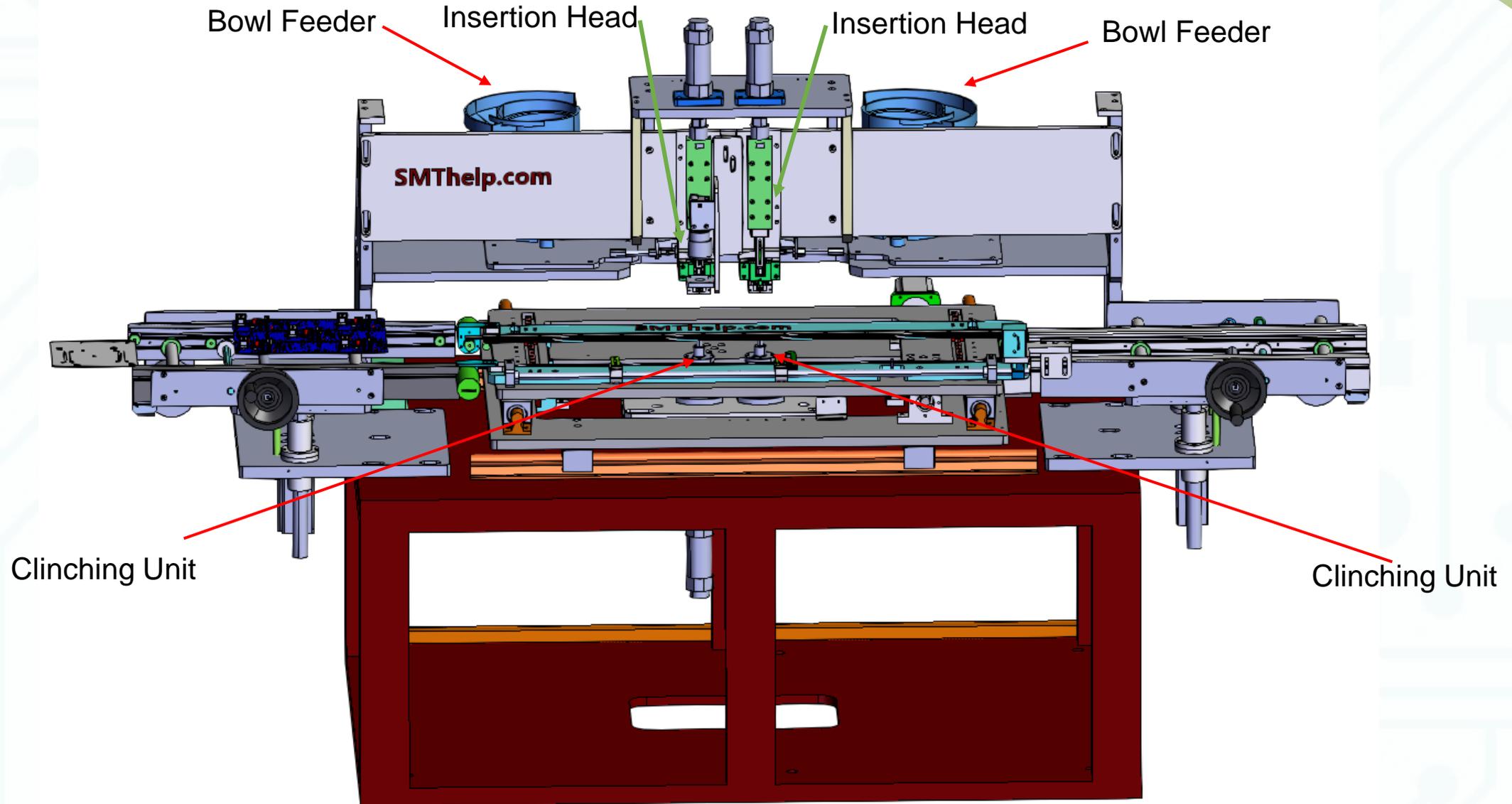
Terminal Insertion Machine S7000	FR10 (2 in 1 panel)	KL18	Remark
How many components can be insert	20	11	 <p>VESTEL</p> <p>Legend: ■ FR10 ■ KL18</p>
Offline Cycle time (sec)	16	6.6	
Speed (sec/component)	0.8	0.6	
CPH(Components Per Hour)	4,500	6,000	
Total components	20	11	
Online Cycle time (sec)	19	10	
UPH (PCBs/Hour)	379	360	
Daily output(PCBs)*10Hours	3,789	3,600	
Monthly output(PCBs)*25Days	94,737	90,000	
Annual output(PCBs)*300Days	1,136,842	1,080,000	
Report on placement	<p>1) All target terminal components can be inserted by only 1 set machine</p> <p>2) "Online Cycle time" includes PCB input and output automatically</p> 	<p>1) All target terminal components can be inserted by only 1 machine</p> <p>2)"Online Cycle time" includes PCB input and output automatically</p> 	

Component Code	Quantities on FR10	Quantities on KL18	Comments from Southern Machinery
69663	18	11	
99250	2	none	
80615	none	none	Yes. It can be inserted by our machine.
102944	none	none	It is a non-standard component and we can retrofit some spare parts in the machine to make it work with this terminal component.

Machine specifications and configuration

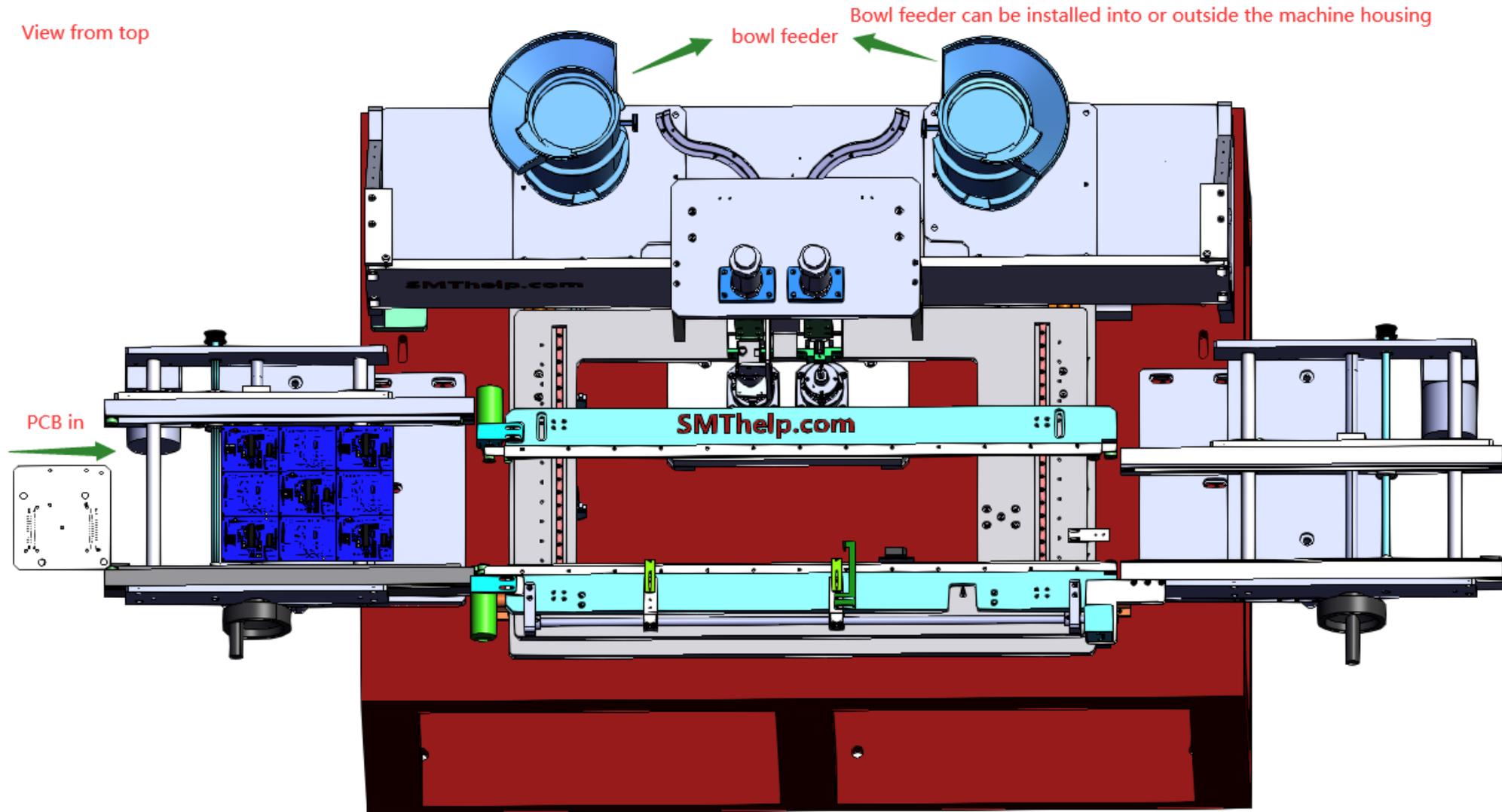
Equipment size	1700mm*1300mm*1600mm (2 heads)
Material packaging	Terminal in bulk package
Equipment weight	1200KG
PCB size	380mm*280mm (enlarged size can be customized)
Number of insertion heads	2 insertion heads
terminal thickness	≥0.5mm ≤1.2mm
Vertical error	≤0.8°
PCB requirements	The insertion hole is 0.5±0.1mm larger than the component foot
Insertion angle	360°(increment 1°)
Body distance	The distance between the components ≥ 2mm
Clinch	Inward clinching/Outward clinching/"N"
Humidity	30%-70%
Display system	17-inch color LCD monitor
Feeding system	Vibration Bowl Feeder
Motion accuracy	0.001mm/pulse
Motion system	Panasonic controller, motor
Programming function	Online visual programming, visual correction, EXCEL
Data import	USB interface import, manual entry
Communication interface	RS-232C (can be connected to MES system)
Power	Single 220V/AC, 50/60HZ, 2KVA

3D program on machine structure from all views

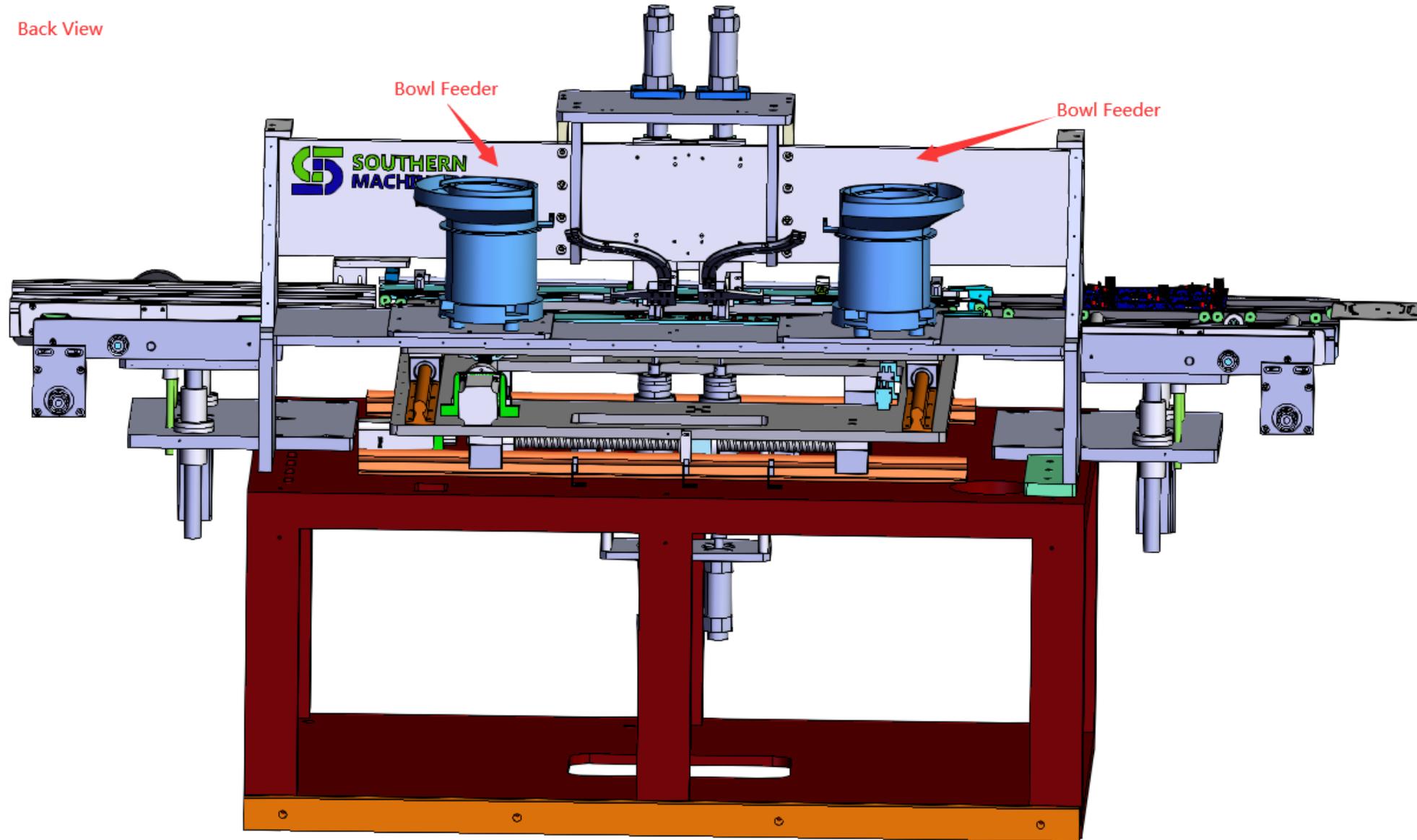


3D program on machine structure from all views

View from top



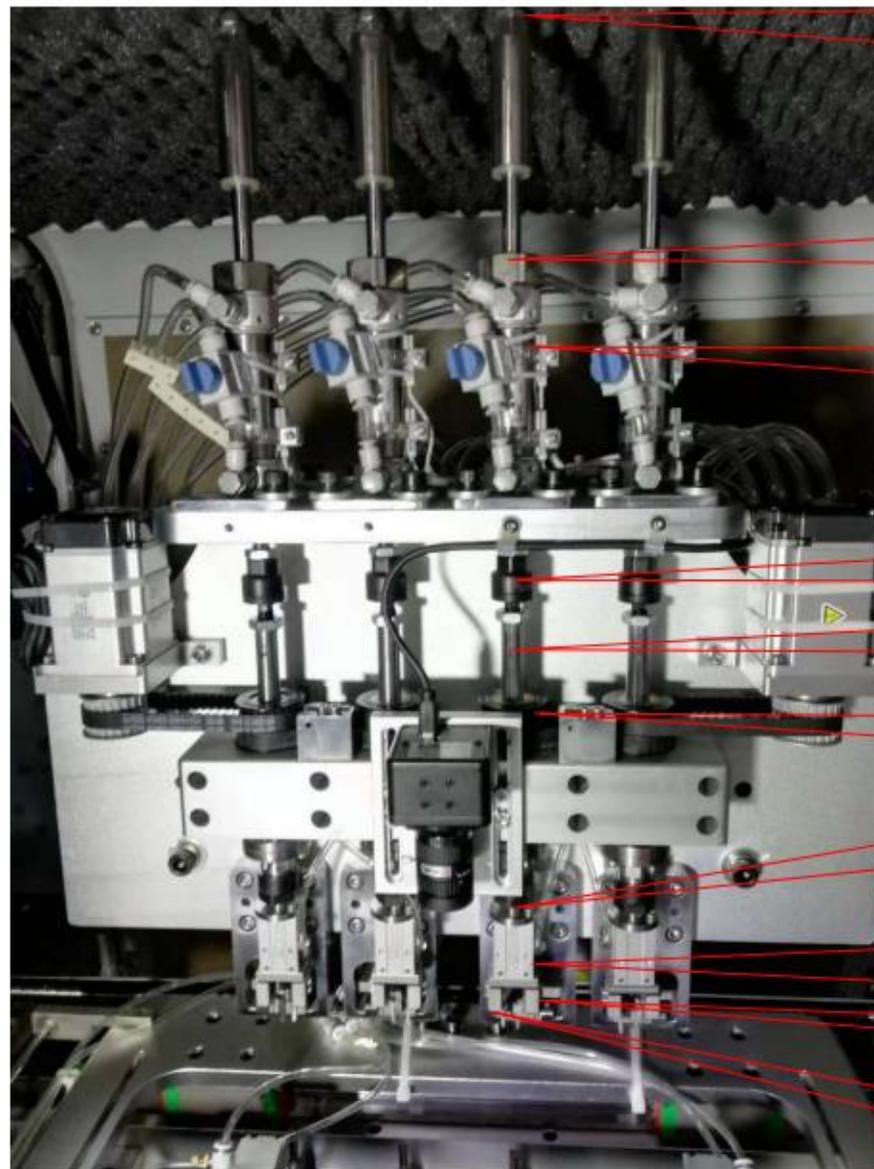
Back View



Design insertion head according to the terminal thickness



*Different terminal
thickness(0.80mm
/0.50mm) designs
different grippers*



Stroke adjusting nut

Air volume regulating valve

Insert cylinder

Floating joint

Main rod of insertion head

Angle belt

Press bar retaining nut

Adjusting seat of pressing rod

Feeder

Press bar

(if the detection system detects that the insertion has completed successfully Go to the next step, if it is not completed, the machine will stop and report an error.)

After that, the X-Y workbench will send the PCB completed by the insertion to the right track



The main operation interface is divided into the following six areas from top to bottom, left and right.

- Operation panel area
- Image and video area
- Production data area
- Program display area
- Status prompt area
- Set up ribbon

S-7000T ver 1.0.1.5 OK

File About Help UnLoadMode TechChoice

grbControlPanel

MovePos DryRun Insert

Step Auto OneCycle

PCBin PCBOut PCBinOUT

MicroStep Replace Zero

Start Park Stop

1 2 3 4 QtySet FinishedQty 4 6417 件/小时 7.24 ms/board pcs/board 40

Item	Location	X	Y	PosR	X1	Y1	HoleDia	PosQ	PartID	PartType	FeederAn	HeadNum	Fun
1	0	-10788	232	0	0	0	0	0	SW	2头	0	0	0S
2	BLO	15886	18356	90	0	0	100	10	SW	2头	0	2	I
3	BLO	29356	18356	90	0	0	100	10	SW	2头	0	3	I
4	BLO	15882	17854	90	0	0	100	10	SW	2头	0	2	I
5	BLO	29358	17856	90	0	0	100	10	SW	2头	0	3	I
6	BLO	15754	17070	90	0	0	100	10	SW	2头	0	2	I
7	BLO	29232	17080	90	0	0	100	10	SW	2头	0	3	I
8	BLO	15760	15578	90	0	0	100	10	SW	2头	0	2	I
9	BLO	29232	15580	90	0	0	100	10	SW	2头	0	3	I

ShowInformation

```
[ 09:37:34 ] Step Button ClickedExit Inserting Procedure
[ 09:37:34 ] F2 = 0 F3 = 0
[ 09:38:23 ] Clicked Button MovePos
[ 09:38:26 ] Clicked Button Insert
[ 09:38:26 ] Clicked Button Auto
[ 09:38:30 ] Clicked Button Start
[ 09:38:30 ] Run Insert Proc
[ 09:38:40 ] Unload PCB OK
[ 09:39:26 ] Clicked Button Stop
[ 09:39:26 ] Clicked Button MovePos
[ 09:39:27 ] Clicked Button Zero
```

MachineData PartData MachineStatus CameraCal EditProg Spare ProgList FeederList Information Open Camera

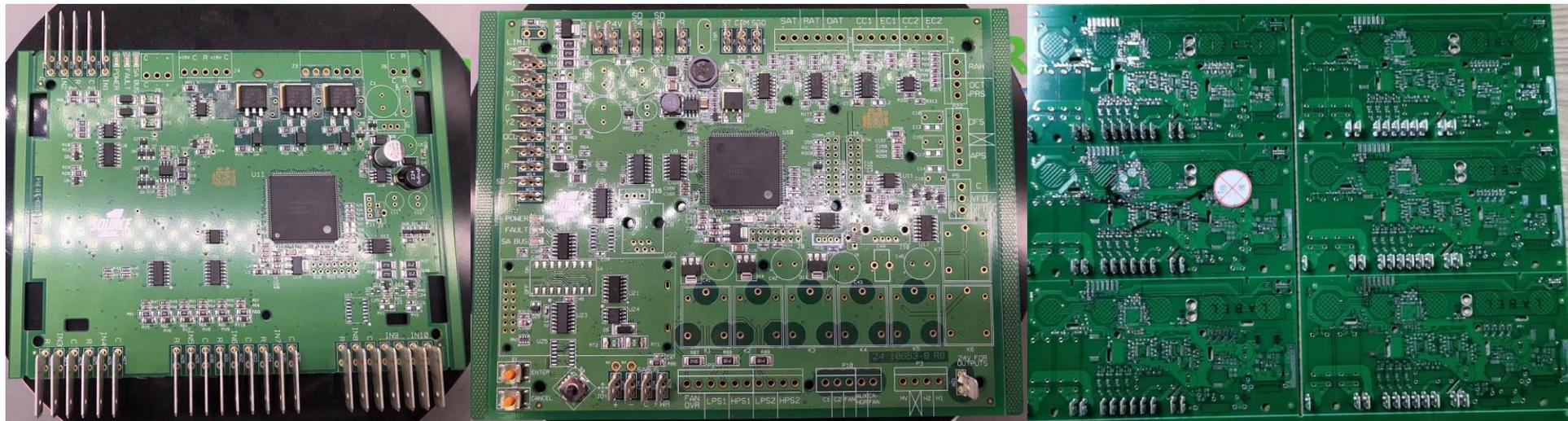
Application industry

Home appliance industry

The car industry

The power industry

Other electronics industry: digital watches, electronic components, etc



Best After-sales service

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



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