

# Vanstron

electronic assembly & traceability

## Electronic assembly & Traceability



[www.vanstron.com](http://www.vanstron.com) | *Making small change, Making the bigger success*

Vanstron. is a global supplier that is manufacturing and exporting board handling equipment, laser marking machine, and ovens for SMT Automation Process.

With continuous product development in the SMT field, as an AVL (Approval Vendor List) company that has been recognized for its product quality and responsiveness from customers around the world in automotive, electricity & electronics, defense industry and medical fields, we are becoming the leading manufacturer of SMT peripherals in Korea with continuous sales growth.

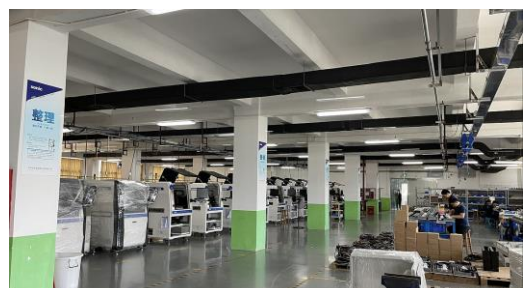
Especially in the center of the 4th industrial revolution, by providing Smart Conveyor System of SMT Automation Process which is a specialized service of Vanstron Support, we are providing prompt and accurate service as well as customer needs.

In the future, we will be a leader in linking the world to reflect the needs of our customers with steady technology development.

## Typical customer



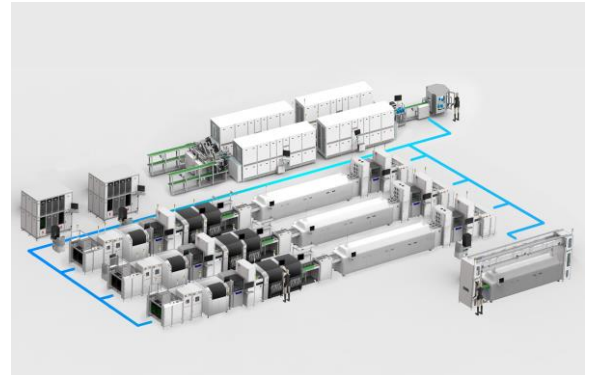
MULTILASER



# Smart Conveyor system

Vanstron's Smart Conveyor System can build Smart SMT Line. This is a solution that enables an enterprise-wide integrated management and automated production line.

The Vanstron equipment constituting the smart SMT line is connected to the line control PC (A separate computer for central control of the Vanstron facilities) through LAN communication. The customer transfers the PCB information to each Vanstron facility through the line control PC, so that the operator can change the width easily. In addition, it is attracting attention as a next-generation SMT solution that improves the productivity and competitiveness of customers by enabling real-time monitoring of facility status.



1) Automatic width adjustment	When applying the data of the production model, each transport device of Vanstron carries out automatic width control.
2) Real-time status monitoring	Real-time monitoring possible with PC
3) Maintenance Alarm Function (Optional)	If the maintenance period is set to a certain cycle for each equipment, an alarm will ring.
4) 'LogFile' Creation	Production history management and infinite data processing
5) Set access permissions	The user can edit accessibility to the system

## Inline Laser marker machine



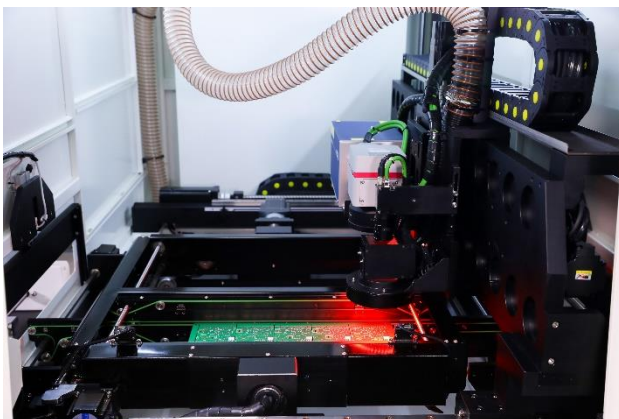
## Why

*We need a inline laser marker machine in the SMT production line?*

*“Making the traceability available in your production line and maximise product quality with reduced costs within your manufacturing processes.”*

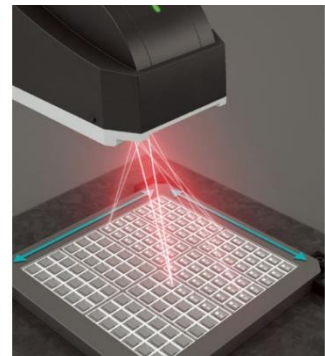
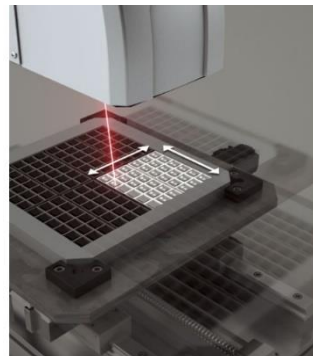
-----Vanstron engineering team

The laser head inside the machine, it working with the a head moving in X and Y axes, the laser head marks on the abjects,and it is available to mark the 1D/2D codes, chargeers and logos on the surface of materials.



Marking accuracy: +/-0.01mm

With a large marking area, our laser system is available to mark multiple target at once cover a larger area or a higher Quantity of products, which allows for improved production efficiency. (Optional)



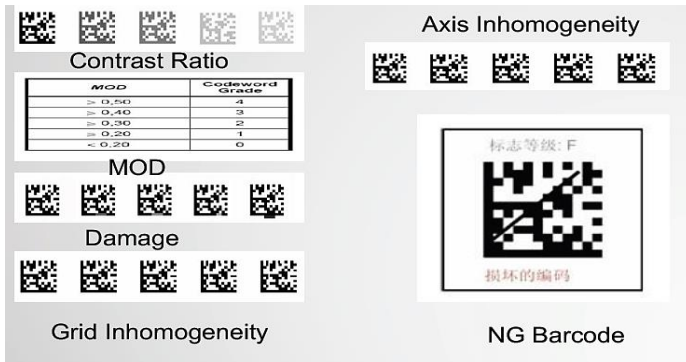
Standard configuration:

1. Double side marking
2. Fiducial recognition
3. Barcode quality grade verification
4. Barcode reading
5. Fume collection

Optional Spec.:

1. Marking power detection
2. Ionizer
3. MES system
4. Double laser head (top and down)

# Barcode Grade verification



**Do not flow NG barcode**

DPM(Direct part mark)barcode have 5 grade :A\B\C\D\F Element impact the barcode grade as follows:

Laser marking machine can use CCD to check the barcode grade online

Model		S-460	S-600
PCB size(L*W)		50x50mm-510x460mm	50x50mm-600x460mm
Line	Clearance	Upper : 30mm and down 30mm	
	PCB thickness	0.6mm-6mm	
	Transport heights	900+/-20mm ( or specify)	
	Flow direction	Left to right, right to left ( as per customers request)	
Machine dimensions		W860*D1440*H1780mm	W1200*D1950*H1800mm
Weight		720KG	1108KG
Laser Head	Laser type	CO2,10W, forced air cooling ( or according to the customer requirements) UV, 5W, water chiller cooling.	
	Wave	10.6um	
	Laser level	Class 4	
	Dot size	0.11mm	
	Marking max. size	CO2: 70*70mm ; Min. 1.2mm*1.2mm UV: 90*90mm; Min.:0.7mm*0.7mm	
	Character type	1D Barcode (Code39, Code128, ITF, 2of5, NW7, JAN ) 2D Code (QR Code, Micro QR Code, ECC200 DataMatrix, GS1 DataMatrix) DataBar (GS1 DataBar Truncated, Stacked and Limited) Logo Image (Customer Logo, CAD Data, BMP/JPEG/PNG/TIF formats)	
	Graphic data	VEC,DXC,BMP,HPGL,JPEG,AI,EPS	
	Guide Laser	Red Laser Pointer	



# Advantage

Of a vertical curing ovens?

“When the demands of high volume production throughout conflicts with the factory limited space, the vertical curing ovens is the perfect options to resolve the difficult.”

-----Vanstron engineering Team

**In-line, vertical automation of the epoxy cure process produces immediate, significant benefits in three areas:**

1. In-line automation increases productivity by eliminating the labor needed to load and unload batch ovens.

2. It improves process consistency, and therefore quality, by reducing the time and temperature variations caused by the frequent opening of batch oven doors.

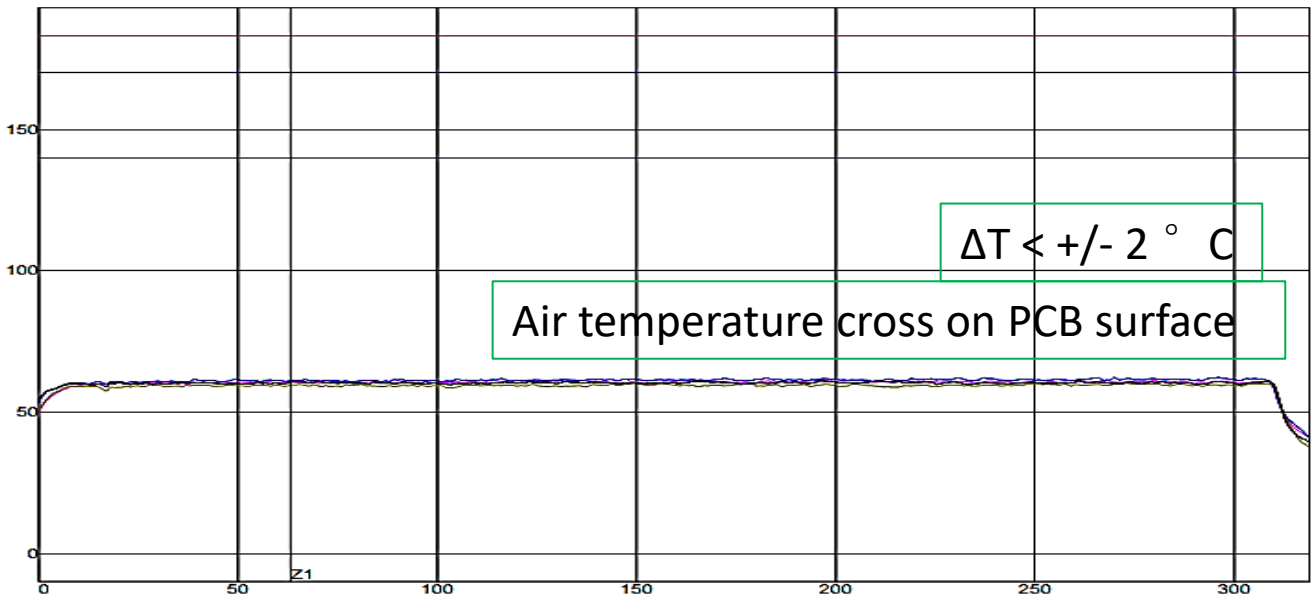
3. And, as floor allocation costs rise on all factory floors... and particularly in clean rooms... a vertical format oven requires as little as 2.8m<sup>2</sup> of floor space for cure cycles for a long time;

4. Good for Back End Semiconductor and PCB curing an underfill process;



Maximum temperature 250 degree air chamber

- Return Air Flow returns into module through side suction holes and Outlet holes in grill are for convection gas flow only. All this improve our temperature stays constantly stable in the oven chamber and allows a good temperature uniformity.
- Independent air velocity controlling system allows flexible processing control to easily handle complicated curing and drying process.



Products name & Model: VBH-300		
Inline Drying / Curing oven- (Vertical Buffer type)		
	Heating system	<p>4 heating module system ( each segment with each heating zones system) Forced convection heating ensures consistent, uniform cure profiles. Hot air speed adjusting by software; Temperature control accuracy: <math>\pm 1^\circ\text{C}</math>; Temperature distribution on pallet: <math>\pm 2^\circ\text{C}</math> Temperature range: Room temperature to Max.200°C; Temperature setting by software Process time: program by the software. temperature control : PID closed loop control +SSR drive;</p>
	Transportation system	<p>Adopted with automatically boards infeed loader and outfeed unloader system Conveyor direction: right to left Conveyor heights:900mm<math>\pm</math>50mm Conveyor width adjustable from 50*400mm Max.length of product available: 50-500mm; Conveyor width adjustments: motorized + user software value input Products components heights: top 30mm+ down 30 mm; Buffer stock capacity: Boards size: ( 50mm-250mm) L * ( 50mm-400mm(W), the total capacity: 40PCS Per Boards keeping in the oven for 60min or programming by user Boards per weight: 2.5kg Max.</p>

## ExplorCuring- UV curing ovens

# Partner with Heraeus

## UV lamp technology advantages!

### Electrodeless Technology

At the heart of the microwave technology is the tubular electrodeless bulb in an elliptical reflector that focuses an intense strip of UV energy onto the surface in front of it. These long life bulbs (no metal electrodes as required in conventional arc lamps) are known for their stable performance, high intensity and low maintenance operation. Frequent on/off operation has no adverse effect on UV output or bulb lifetime.



### FUSION F300 series UV system

## More Efficient and Faster UV Curing from High Peak Irradiance and Low Infrared

The heart of the UV-cure system is the lamp technology.

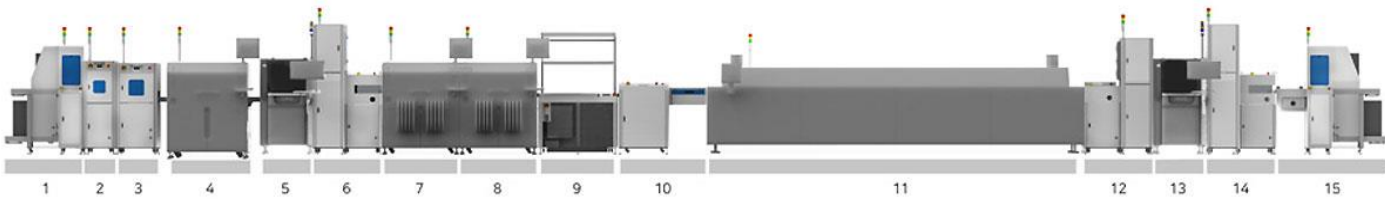
ExplorCuring UV system is using Fusion® microwave lamp technology to ensure the correct wave length of UV-light, but also a constant output during a guaranteed life time of at **least 8000 hours!**

The focus height of the Ultraviolet lamps can be adjusted and a range of bulb types offers specific wavelengths to match your material curing parameters.



<b>UV-Curing unit</b>	
<b>Type</b>	<b>UV-Curing unit</b>
<b>UV system</b>	Heraeus- Fusion F-300S series or specify.
<b>Model</b>	ExplorCuring-XXX depending on type of light bulb your application requires.
<b>Dimension (L x W x H)</b>	1500mm x 1100 mm x 1662 mm
<b>Tunnel length / height</b>	1500 mm long 50 mm clearance on top and 50 mm clearance on bottom of chain.
<b>Board size</b>	Min: 30 mm (W) x 120 mm (L), smaller products need to be processed in a carrier. Max. 460 mm (W) x 500 mm (L)
<b>Conveyor width adjustments</b>	Motorized type, optional: automatic by software setting
<b>Conveyor</b>	Pin chain conveyor, 5 mm pins
<b>Transport speed</b>	0-5m/min
<b>Safety</b>	CE certificates, Shutters on entrance and exit to avoid operator contact with hazardous UV light.
<b>Controller</b>	Microprocessor PLC controller. Speed, shutters and UV on/off. The oven checks if boards are jammed in the transport conveyor and shuts down the UV source when a jammed board is detected.
<b>User Interface</b>	Touch screen on oven
<b>Communications</b>	SMEMA interface.
<b>Cooling</b>	External extraction to remove the generated heat from the process tunnel is needed.
<b>Exhaust</b>	Oven uses external exhaust.
<b>Power</b>	Depending on number of installed UV lights. Range: 3.6 kW - 18.6 kW. For more details: ask for Power Supply overview from one to max. 6 bulbs.
<b>Air</b>	Minimal required: 3.5 bar. Consumption: 5L/min. The standard oven can be equipped with lights from the top. When bottom emitters are required you need to order bottom light mounting option.
<b>Top and Bottom</b>	The standard oven can be equipped with lights from the top. When bottom emitters are required you need to order bottom light mounting option.
<b>Light source</b>	Fusion F-300 light source
<b>Weight</b>	300 kg with one lamp. Extra lamp appr. 35 kg per lamp.

Boards handling solutions



Multi magazine Loader / Unloader

Vertical Buffer/ NG OK vertical buffer/  
Cooling buffer

Single magazine vertical buffer

Single magazine Loader / Unloader

Gate telescope conveyor / lowering  
gate conveyor

Destacker Loader /Push-up Stacker

Turing conveyor/ NG OK reject  
conveyor

Vacuum Loader

Flipper conveyor/ shuttle conveyor

Coating line Loader / Unloader



Linking conveyor / inspection conveyor

All size magazine loader/ Unloader

Wave infeed conveyor / outfeed conveyor

Loader / Unloader – combined system

Loader-Destacker– combined system

UV inspection conveyor

## Single magazine loader

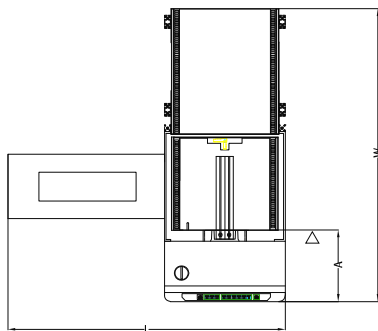


The magazine loader is used when a magazine of PCB boards needs to be loaded into a production line, this units is capable of handling one magazine that can be easily be accessed from the front (or rear) of the machine, it is used in low volume applications or bottom side process with a single magazine.

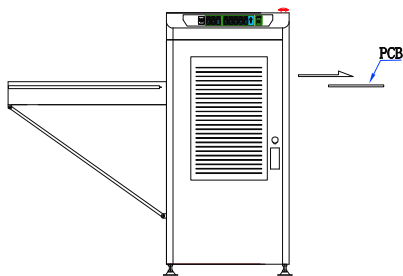
### Standard features

- Mitsubishi PLC program control
- Selectable pitch settings
- Tower-light display for machines working status.
- Flexible platform to suit standard magazines
- Exchangeable magazine from the rear of magazine
- Stepper motorized type pusher to enhance working stability
- Pusher position adjustable to Centre for the boards
- Use the friendly touch screen panel
- Magazine infeed and outfeed are automatically driving by motor on the platform.
- SMEMA compatible

#### Structure



#### Schematic



<b>Transfer heights</b>	<b>900mm+/-50mm</b>
Transfer direction	Left to right
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB edge support	4mm
Allowable components clearance	Top 50 mm+ below 25mm
Magazine capacity	Singe magazine
Air supply	4-6 bar
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz

Model	Max. PCB( L *W) MM	Min.PCB(L*W)MM	Machine Dimensions (L*W*H) MM	Magazine size
SL-250MS-E	330*250	50*50	1024*1260*1650	355*320*563
SL-330LS-E	440*330		1180*1260*1650	460*400*563
SL-390LS-E	530*390		1255*1385*1650	535*460*570
SL-460LS-E	535*460		1255*1455*1650	535*530*570

## Multi magazine loader



The magazine loader is used when a magazine of PCB boards needs to be loaded into a production line, this units is capable of handling total 4 units of magazine that can be easily be accessed from the front of the machine, it is used in **high volume applications**.

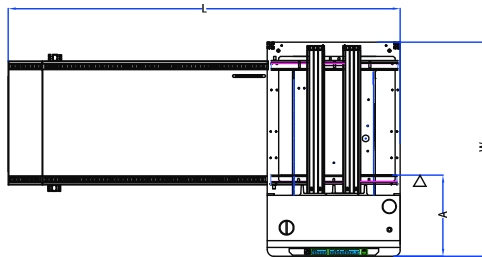
### Standard features

- Mitsubishi PLC program control
- Selectable pitch settings
- Tower-light display for machines working status.
- Flexible platform to suit standard magazines
- Exchangeable magazine from the rear of magazine
- Stepper motorized type pusher to enhance working stability
- Pusher position adjustable to Centre for the boards
- Use the friendly touch screen panel
- Magazine infeed and outfeed are automatically driving by motor on the platform.
- SMEMA compatible

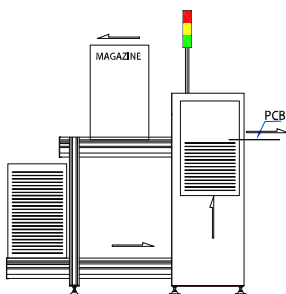
### Technical specification

Transfer heights	900mm+/-50mm
Transfer direction	Left to right
Lifting platform Max. weight loading	Above 100kg
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB edge support	4mm
Allowable components clearance	Top 50 mm+ below 25mm
Magazine capacity	Top 1+down 2+ middle 1
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz

Structure



Schematic



Model	Max. PCB( L *W) MM	Min.PCB(MM)	Machine Dimensions (L*W*H) MM	Magazine size
SL-250M-E	330*250	50*50	1265*740*1650	355*320*563
SL-330L-E	440*330		1580*830*1650	460*400*563
SL-390L-E	530*390		1800*950*1650	535*460*570
SL-460L-E	535*460		1800*1020*1650	535*530*570

## Single magazine unloader



The single automatic Unloader is designed for unloading of PCBs, an arriving PCB is taken up by the attached conveyor and then pushed into the magazine by a specially designed pusher. The magazine indexes to the next position and is ready for the following unloading cycle.

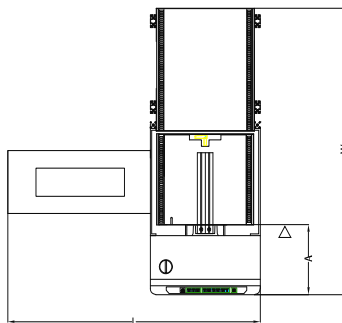
### Standard features

- Mitsubishi PLC program control
- Selectable pitch settings
- Tower-light display for machines working status.
- Flexible platform to suit standard magazines
- Exchangeable magazine from the rear of magazine
- Stepper motorized type pusher to enhance working stability
- Pusher position adjustable to Centre for the boards
- Use the friendly touch screen panel
- Magazine infeed and outfeed are automatically driving by motor on the platform.
- SMEMA compatible

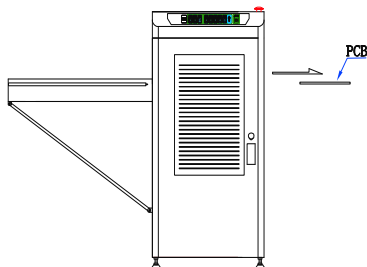
### Technical specification

<b>Transfer heights</b>	<b>900mm+/-50mm</b>
Transfer direction	Left to right
Operation side	Front of machine
Fixed rail	Front of machine
Magazine change over time	30s ( optional: 15s)
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB edge support	4mm
Allowable components clearance	Top 50 mm+ below 25mm
Magazine capacity	Singe magazine
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz

Structure



Schematic



Model	Max. PCB( L *W) MM	Min.PCB(L*W)MM	Machine Dimensions (L*W*H) MM	Magazine size
SUL-250MS-E	330*250	50*50	1000*1265*1650	355*320*563
SUL-330LS-E	440*330		1110*1265*1650	460*400*563
SUL-390LS-E	530*390		1200*1385*1650	535*460*570
SUL-460LS-E	535*460		1200*1455*1650	535*530*570

## Multi magazine unloader



The Automatic Unloader is designed for unloading of PCBs, an arriving PCB is taken up by the attached conveyor and then pushed into the magazine by a specially designed pusher. The system is good for the **high volume production requirements.**

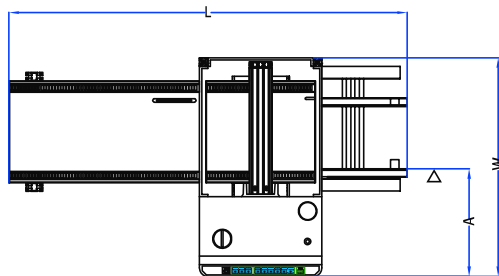
### Standard features

- Mitsubishi PLC program control
- Selectable pitch settings
- Tower-light display for machines working status.
- Flexible platform to suit standard magazines
- Exchangeable magazine from the rear of magazine
- Stepper motorized type pusher to enhance working stability
- Pusher position adjustable to Centre for the boards
- Use the friendly touch screen panel
- Magazine infeed and outfeed are automatically driving by motor on the platform.
- SMEMA compatible

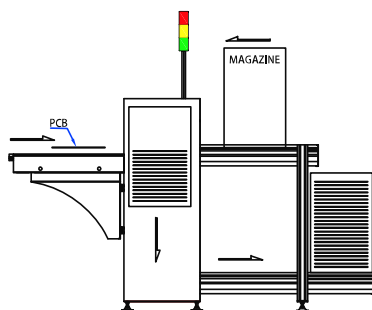
### Technical specification

<b>Transfer heights</b>	<b>900mm+/-50mm</b>
Transfer direction	Left to right
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB edge support	4mm
Magazine change over time	30s ( optional: 15s)
Allowable components clearance	Top 50 mm+ below 25mm
Magazine capacity	Top 1+down 2+ middle 1
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz

Structure



Schematic



Model	Max. PCB( L *W) MM	Min.PCB(MM)	Machine Dimensions (L*W*H) MM	Magazine size
SUL-250M-E	330*250	50*50	1815*740*1650	355*320*563
SUL-330L-E	440*330		2130*830*1650	460*400*563
SUL-390L-E	530*390		2400*1020*1650	535*460*570
SUL-460L-E	535*460		2400*1020*1650	535*530*570

## Multi magazine Loader (Space save type)



The Automatic magazine loader is designed for Loading PCBs into the SMT line.

This system is designed with the “L” type to help save the line length. To save the space, the magazine conveyor part designed to supply magazine racket can be position on either in front or at rear side depending customer’s request.

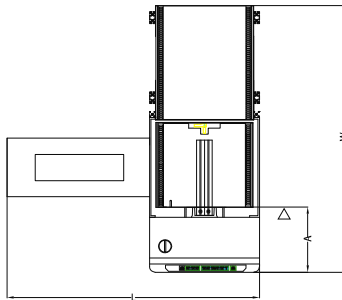
### Standard features

- Mitsubishi PLC program control
- Selectable pitch settings
- Tower-light display for machines working status.
- Flexible platform to suit standard magazines
- Exchangeable magazine from the rear of magazine
- Stepper motorized type pusher to enhance working stability
- Pusher position adjustable to Centre for the boards
- Use the friendly touch screen panel
- Magazine infeed and outfeed are automatically driving by motor on the platform.
- SMEMA compatible

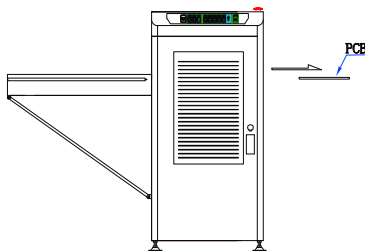
### Technical specification

Transfer heights	900mm+/-50mm
Transfer direction	Left to right
Magazine change over time	30s ( optional: 15s)
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB edge support	4mm
Allowable components clearance	Top 50 mm+ below 25mm
Magazine capacity	Top 1+down 2+ middle 1
Air supply	4-6 bar
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz

Structure



Schematic



Model	Max. PCB( L *W) MM	Min.PCB(MM)	Machine Dimensions (L*W*H) MM	Magazine size
ASL-250M	330*250	50*50	1010*1470*1650	355*320*563
ASL-330L	440*330		1210*1700*1650	460*400*563
ASL-390L	530*390		1390*1700*1650	535*460*570
ASL-460L	535*460		1390*2110*1650	535*530*570

## Multi magazine Unloader (Space save type)



The Automatic magazine Unloader is designed for unloading of PCBs from the SMT line.

This system is designed with the “L” type to help save the line length. To save the space, the magazine conveyor part designed to supply magazine racket can be position on either in front or at rear side depending customer’s request.

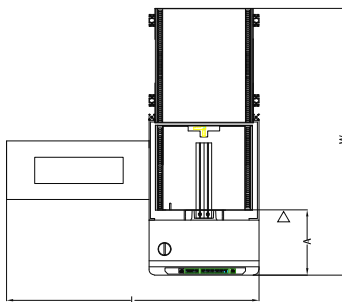
### Standard features

- Mitsubishi PLC program control
- Selectable pitch settings
- Tower-light display for machines working status.
- Flexible platform to suit standard magazines
- Exchangeable magazine from the rear of magazine
- Stepper motorized type pusher to enhance working stability
- Pusher position adjustable to Centre for the boards
- Use the friendly touch screen panel
- Magazine infeed and outfeed are automatically driving by motor on the platform.
- SMEMA compatible

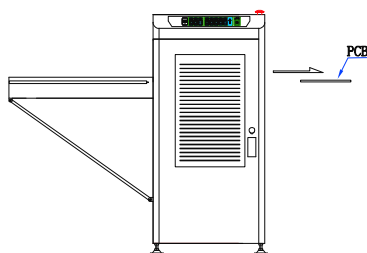
### Technical specification

Transfer heights	900mm+/-50mm
Transfer direction	Left to right
Magazine change over time	30s ( optional: 15s)
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB edge support	4mm
Allowable components clearance	Top 50 mm+ below 25mm
Magazine capacity	Top 1+down 2+ middle 1
Air supply	4-6 bar
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz

Structure



Schematic



Model	Max. PCB( L *W) MM	Min.PCB(MM)	Machine Dimensions (L*W*H) MM	Magazine size
ASUL-250M	330*250	50*50	1010*1470*1650	355*320*563
ASUL-330L	440*330		1180-1650-1700	460*400*563
ASUL-390L	530*390		1390*1700*1650	535*460*570
ASUL-460L	535*460		1390*2110*1650	535*530*570



## Single magazine loader (Space save type)



The magazine loader is used when a magazine of PCB boards needs to be loaded into a production line, this unit is capable of handling one magazine that can be easily accessed from the front of the machine, it is used in low volume applications or bottom side process with a single magazine.

### Standard features

- Mitsubishi PLC program control
- Selectable pitch settings
- Tower-light display for machines working status.
- Flexible platform to suit standard magazines
- Exchangeable magazine from the rear of magazine
- Stepper motorized type pusher to enhance working stability
- Pusher position adjustable to Centre for the boards
- Use the friendly touch screen panel
- Magazine infeed and outfeed are automatically driving by motor on the platform.
- SMEMA compatible

### Technical specification

Transfer heights	900mm+/-50mm
Transfer direction	Left to right
Lifting platform Max. weight loading	Above 100kg
Magazine change over time	30s ( optional: 15s)
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB edge support	3mm
Allowable components clearance	Top 50 mm+ below 25mm
Magazine capacity	One magazine
Air supply	4-6 bar
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz

Model	Max. PCB( L *W) MM	Min.PCB(MM)	Machine Dimensions (L*W*H) MM	Magazine size
LSL-250M	330*250	50*50	1010*720*1650	355*320*563
LSL-330L	440*330		1210*800*1650	460*400*563
LSL-390L	530*390		1470*1040*1650	535*460*570
LSL-460L	535*460		1470*1040*1650	535*530*570

## Single magazine unloader (Space save type)



The Automatic Unloader is designed for unloading of PCBs, an arriving PCB is taken up by the attached conveyor and then pushed into the magazine by a specially designed pusher. The magazine indexes to the next position and is ready for the following unloading cycle.

### Standard features

- Mitsubishi PLC program control
- Selectable pitch settings
- Tower-light display for machines working status.
- Flexible platform to suit standard magazines
- Exchangeable magazine from the rear of magazine
- Stepper motorized type pusher to enhance working stability
- Pusher position adjustable to Centre for the boards
- Use the friendly touch screen panel
- Magazine infeed and outfeed are automatically driving by motor on the platform.
- SMEMA compatible

### Technical specification

Transfer heights	900mm+/-50mm
Transfer direction	Left to right
Lifting platform Max. weight loading	Above 100kg
Magazine change over time	30s ( optional: 15s)
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB edge support	4mm
Allowable components clearance	Top 50 mm+ below 25mm
Magazine capacity	One magazine
Air supply	4-6 bar
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz

Model	Max. PCB( L *W) MM	Min.PCB(MM)	Machine Dimensions (L*W*H) MM	Magazine size
LSUL-250M	330*250	50*50	1010*720*1650	355*320*563
LSUL-330L	440*330		1210*800*1650	460*400*563
LSUL-390L	530*390		1410*930*1650	535*460*570
LSUL-460L	535*460		1410*930*1650	535*530*570

## NG/OK magazine unloader

This system is available to separate the No good boards and OK boards from upstream tester, and introduce the NG boards & OK boards into the corresponding magazines by special shuttle conveyor. This unit can also work as the dual lane unloader for high volume production

### Standard features

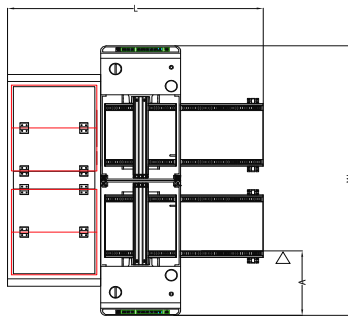
- Efficient management of Good & No good boards
- Mitsubishi PLC program control
- Selectable pitch settings
- Tower-light display for machines working status.
- Flexible platform to suit standard magazines
- Exchangeable magazine from the rear of magazine
- Stepper motorized type pusher to enhance working stability
- Pusher position adjustable to Centre for the boards
- Use the friendly touch screen panel
- Magazine infeed and outfeed are automatically driving by motor on the platform.
- SMEMA compatible

### Technical specification

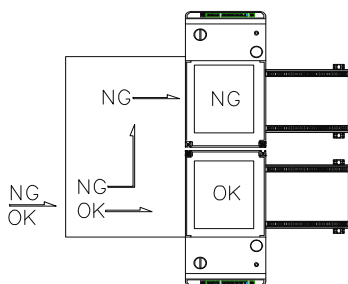
<b>Transfer heights</b>	<b>900mm+/-50mm</b>
Transfer direction	Left to right
Lifting platform Max. weight loading	Above 100kg
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB edge support	4mm
Allowable components clearance	Top 50 mm+ below 25mm
Magazine capacity	Top 2+down 4+ middle 2
Air supply	4-6 bar
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz



#### Structure



#### Schematic



Model	Max. PCB (L *W) MM	Min.PCB(MM)	Machine Dimensions (L*W*H) MM	Magazine size
DSUL-250	330*250	50*50	1783*1392*1650	355*320*563
DSUL-330	440*330		2098*1552*1650	460*400*563
DSUL-390	530*390		2400*1960*1650	535*460*570
DSUL-460	535*460		2400*2100*1650	535*530*570

## Multi magazine loader system – for Coating line



This magazine loader is design special for the varnish line, all the machine will be with the seal cover and be equipped with the extraction for the vapors of the coating line.

### Standard features

- Inline air extraction monitoring system
- External air extraction stop alarm system.
- Full seal cover to enhance the safety friendly working environment
- Mitsubishi PLC program control
- Selectable pitch settings
- Tower-light display for machines working status.
- Flexible platform to suit standard magazines
- Exchangeable magazine from the rear of magazine
- Stepper motorized type pusher to enhance working stability
- Pusher position adjustable to Centre for the boards
- Use the friendly touch screen panel
- Magazine infeed and outfeed are automatically driving by motor on the platform.
- SMEMA compatible

### Technical specification

Transfer heights	900mm+/-50mm
Transfer direction	Left to right
Lifting platform Max. weight loading	Above 100kg
Magazine change over time	30s ( optional: 15s)
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB edge support	4mm
Allowable components clearance	Top 80mm, down 40mm
Magazine capacity	Top 1+down 2+ middle 1
Air supply	4-6 bar
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz

Model	Max. PCB( L *W) MM	Min.PCB(MM)	Machine Dimensions (L*W*H) MM	Magazine size
SL-250M-EC	330*250	50*50	1330*720*1650	355*320*563
SL-330L-EC	440*330		1650*800*1650	460*400*563
SL-390L-EC	530*390		1800*950*1650	535*460*570
SL-460L-EC	535*460		1800*950*1650	535*530*570

## Multi magazine Unloader system – for Coating line

This magazine unloader is design special for the coating line, all the machine will be with the seal cover and be equipped with the extraction for the vapors of the coating line.

### Standard features

- Inline air extraction monitoring system
- External air extraction stop alarm system.
- Full seal cover to enhance the safety friendly working environment
- Mitsubishi PLC program control
- Selectable pitch settings
- Tower-light display for machines working status.
- Flexible platform to suit standard magazines
- Exchangeable magazine from the rear of magazine
- Stepper motorized type pusher to enhance working stability
- Pusher position adjustable to Centre for the boards
- Use the friendly touch screen panel
- Magazine infeed and outfeed are automatically driving by motor on the platform.
- SMEMA compatible



### Technical specification

Transfer heights	900mm+/-50mm
Transfer direction	Left to right
Lifting platform Max. weight loading	Above 100kg
Magazine change over time	30s ( optional: 15s)
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB edge support	4mm
Allowable components clearance	Top 80mm, down 40mm
Magazine capacity	Top 1+down 2+ middle 1
Air supply	4-6 bar
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz

Model	Max. PCB( L *W) MM	Min.PCB(MM)	Machine Dimensions (L*W*H) MM	Magazine size
SUL-250M-EC	330*250	50*50	1930*720*1650	355*320*563
SUL-330L-EC	440*330		2150*800*1650	460*400*563
SUL-390L-EC	530*390		2400*950*1650	535*460*570
SUL-460L-EC	535*460		2400*950*1650	535*530*570

## Single magazine loader & Destacker combined system

This system is also designed with the capability of handling the bare boards & PCBA into the production line, a independent bare boards destacker is equipped together with the single magazine loader, working in-line.



### Standard features

- Mitsubishi PLC program control
- Loader & destacker working mode can be switched exchange.
- Selectable pitch settings
- Tower-light display for machines working status.
- Flexible platform to suit standard magazines
- Exchangeable magazine from the front of machine
- Stepper motorized type pusher to enhance working stability
- Pusher position adjustable to Centre for the boards
- Use the friendly touch screen panel
- Magazine infeed and outfeed are automatically driving by motor on the platform.
- Ability to handle the bare boards by destacker.
- SMEMA compatible

### Technical specification

Transfer heights	900mm+/-50mm
Transfer direction	Left to right
Lifting platform Max. weight loading	Above 100kg
Magazine change over time	30s ( optional: 15s)
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB edge support	4mm
Allowable components clearance	Top 50 mm+ below 25mm
Magazine capacity	Single magazine
Air supply	4-6 bar
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz

Model	Max. PCB( L *W) MM	Min.PCB(MM)	Machine Dimensions (L*W*H) MM	Magazine size
ALD-250M	330*250	50*50	1530*850*1650	355*320*563
ALD-330L	440*330		1700*850*1650	460*400*563
ALD-390L	530*390		1850*950*1650	535*460*570
ALD-460L	530*460		1850*1150*1650	535*530*570

## Bare boards Loader-Destacker

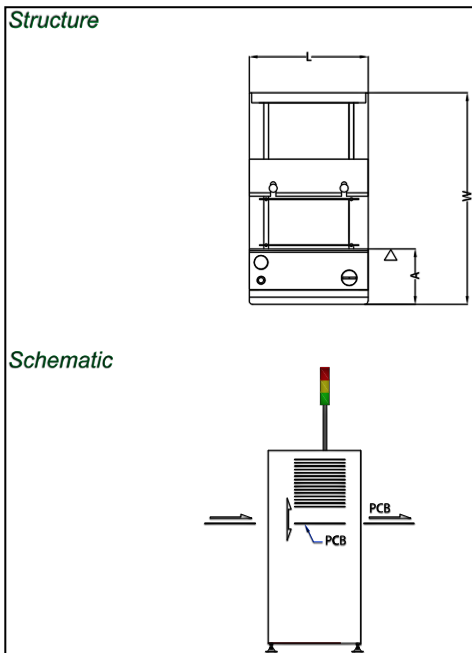


This unit is design for loading the bare boards onto the SMT line. Unique separation cams take one PCB from the bottom of the boards stacked, and softly lowering it on the ESD belts to transfer to downstream machine.

### Standard features

- Mitsubishi PLC program control
- By-pass and destacker mode are selectable in the software
- Shortest loading cycle time for PCB
- Thickness 0.6 mm PCB available to be handled
- Uninterrupted PCB charging
- Pre-signal alarm for PCB lower stack heights
- Use the friendly touch screen panel
- Smooth and parallel width adjustment by crank wheel ( Optional: motorized).
- Interlock for all door open to improvement highest safety operation
- SMEMA compatible

### Technical specification



<b>Transfer heights</b>	<b>900mm+/-50mm</b>
Transfer direction	Left to right
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
PCB working cycle time	3s-7s ( adjustable)
Conveyor belts	ESD flat belt
PCB edge support	4mm
Allowable components clearance	20mm below and above
PCB thickness available	0.6mm-3.5mm
PCB stack heights	240mm / specify
Air supply	4-6 bar
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz
Optional	<ul style="list-style-type: none"> <li>• Motorized adjustment</li> <li>• Automatic adjustment</li> <li>• Extension for convenient stack loading</li> <li>• Cantilevered input and output conveyor</li> </ul>

<b>Model</b>	<b>DL-350</b>
Machine dimensions	650*885*1250
Weight	150KG
PCB size	50-500MM (L) 50MM-460MM (W)
PCB thickness	0.6mm-3.5mm

## Bare boards UnLoader-Stacker

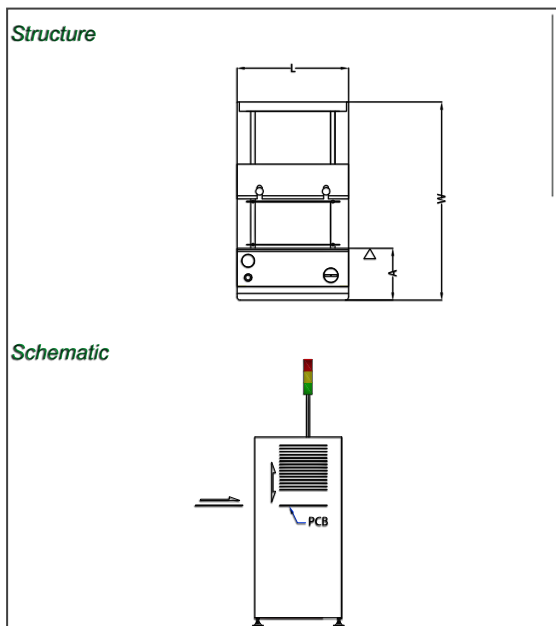
This unit is design for Unloading the bare boards from the production line.



### Standard features

- Mitsubishi PLC program control
- By-pass and Stacker mode are selectable in the software
- Shortest loading cycle time for PCB
- Pre-signal alarm for PCB stack heights
- Use the friendly touch screen panel
- Smooth and parallel width adjustment by crank wheel ( Optional: motorized).
- Interlock for all door open to improvement highest safety operation
- SMEMA compatible

### Technical specification



<b>Transfer heights</b>	<b>900mm+/-50mm</b>
Transfer direction	Left to right
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
PCB working cycle time	3s-7s ( adjustable)
Conveyor belts	ESD flat belt
PCB edge support	4mm
Allowable components clearance	20mm below and above
PCB thickness available	0.6mm-3.5mm
PCB stack heights	240mm / specify
Air supply	4-6 bar
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz
Optional	<ul style="list-style-type: none"> <li>• Motorized adjustment</li> <li>• Automatic adjustment</li> <li>• Extension for convenient stack loading</li> <li>• Cantilevered input and output conveyor</li> </ul>

<b>Model</b>	<b>DLS-350</b>
Machine dimensions	650*885*1250
Weight	150KG
PCB size	50-500MM (L) 50MM-460MM (W)
PCB thickness	0.6mm-3.5mm



## Vacuum loader



The vacuum loader is used to load bare boards for SMT production lines. The top PCB is lifted from stack and lowered onto belt segment. The PCB stack is manually loaded into the machine and the individual PCBs are handed over to the downstream system on a transfer conveyor.

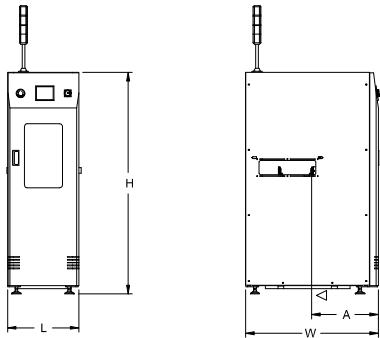
### Standard features

- Screen touch panel control+ Mitsubishi PLC
- Bare boards loader mode & By-pass mode selectable
- Complete top safety visual window with interlock
- Adjustable vacuum nozzle positions provide a better way to hold the different size PCB
- Automatically positioning the shuttle distance and accurate release the PCB on the conveyor rail.
- Sucking stability improved by using robust vacuum generator system.
- Pre-warning limit alarm for stack empty
- A hand crank is used to adjust rail width
- PCB counter

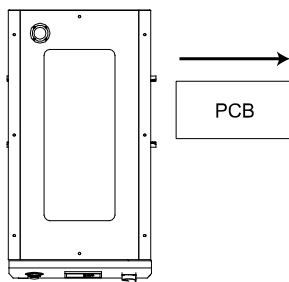
### Technical specification

Transfer heights	900mm+/-50mm
Transfer direction	Left to right
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB edge support	4mm
PCB thickness	0.6mm or more min
PCB weights available	1KG
PCB capacity	400PCS (0.6mm thickness board)
PCB Loading time	Around 5s – 10s
Air supply	4-6 bar
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz

#### Structure



#### Schematic



#### VK-460

Machine dimension	600 x 1140x 1330mm( L*W*H)
Weight	180KG
PCB size	500mm *460mm

## Inverter conveyor

This unit is used to inverter flip /PCB's ( 180 ° ) for double side process.



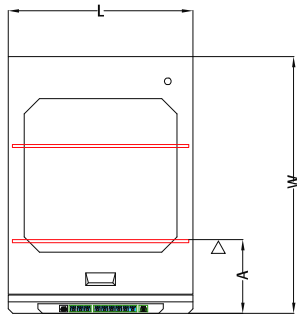
### Standard features

- Mitsubishi PLC program control
- By-pass mode, inverter mode selectable
- Pneumatic stopper to keep the PCB in position during inverting
- Motorized conveyor width adjustment (optional).
- LED signal tower
- Buzzer
- Suitable for boards with many components on the bottom side
- Closed-loop stepper motor providing the rotating driving power
- SMEMA compatible

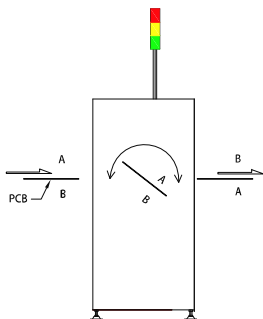
### Technical specification

Transfer heights	900mm+/-50mm
Transfer direction	Left to right
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB edge support	4mm
Allowable components clearance	Top 50 mm+ below 25mm
PCB inverter cycle time	Around 5s – 8s
Air supply	4-6 bar
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz

#### Structure



#### Schematic



#### TRA-460

Machine dimension	650mm *1076mm *1300mm ( L*W*H)
Weight	150KG
PCB size	500mm *460mm

## Vertical Buffer-FIFO/LIFO (20 Slots)

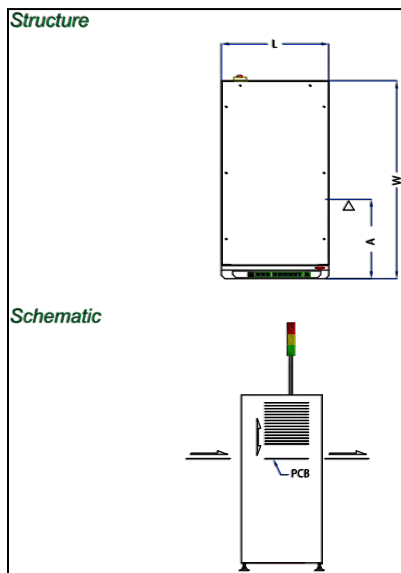


This vertical buffer is designed to have the function as FIFO/ LIFO and by-pass functions. This unit is located between SMT machines to improve the working efficiency by buffering.

### Standard features

- Panasonic PLC program control
- Servo motor system to improve the working efficiency
- Selectable pitch settings
- Tower-light display for machines working status.
- Built-in Rack structure
- Enclosed CE construction to improve the safety level
- Conveyor & rack adjustment by motorized
- Separately driven buffer conveyors
- 20 PCBs storage capacity or specified by the customer
- Use the friendly touch screen panel
- SMEMA compatible
- Threshold signal to protect the PCBs in the upstream oven

### Technical specification



Transfer heights	900mm+/-50mm
Transfer direction	Left to right
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB edge support	4mm
Allowable components clearance	25mm below and above
Slots distance	25mm
Width adjustment method	Motorized type
Boards stock capacity	20 PCS or 25PCS
Air supply	4-6 bar
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz

#### Optional:

- infeed conveyor and outfeed conveyor
- Automatic conveyor width adjustment by software
- Cooling fans – cooling options
- NG boards reject functions

	VB-460XL
Machine dimension	1150*1100*1700 mm ( L*W*H)- ( dimensions different if customized)
Weight	380KG
PCB size	530mm *460mm

## SPI/AOI Vertical Buffer- (25 Slots)



This unit is located after SPI/AOI machine to inspect NG boards in the line. The operator can CALL for NG boards stacked in the rack onto the 2<sup>TH</sup> layer of the conveyor part to inspect them visually while the good boards are being passed through to the downstream machine without any interruption.

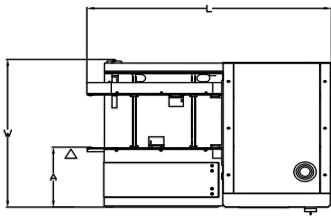
### Standard features

- NG / OK boards can be smartly separated in each layer of conveyor.
- FIFO/LIFO, BY-PASS, NG Reject function selectable
- Mitsubishi PLC program control
- Servo motor system to improve the working efficiency
- Selectable pitch settings
- Tower-light display for machines working status.
- Built-in Rack structure
- Enclosed CE construction to improve the safety level
- Conveyor & rack adjustment by motorized
- Separately driven buffer conveyors
- 25 PCBs storage capacity
- Standard infeed conveyor with inspection station
- Use the friendly touch screen panel
- SMEMA compatible

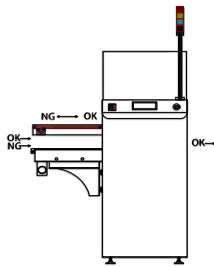
### Technical specification

Transfer heights	900mm+/-50mm
Transfer direction	Left to right
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB edge support	4mm
Allowable components clearance	25mm below and above
Slot distance	22mm
Boards stock capacity	20 PCS
Air supply	4-6 bar
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz

#### Structure



#### Schematic



#### Optional:

- Outfeed conveyor
- Automatic conveyor width adjustment by software
- Additional PCB boards capacity

VBN-460XL	
Machine dimension	1168mm *1095mm *1650mm ( L*W*H)
Weight	650KG
PCB size	500mm *460mm

## Single magazine buffer NG stocks- 50PCS



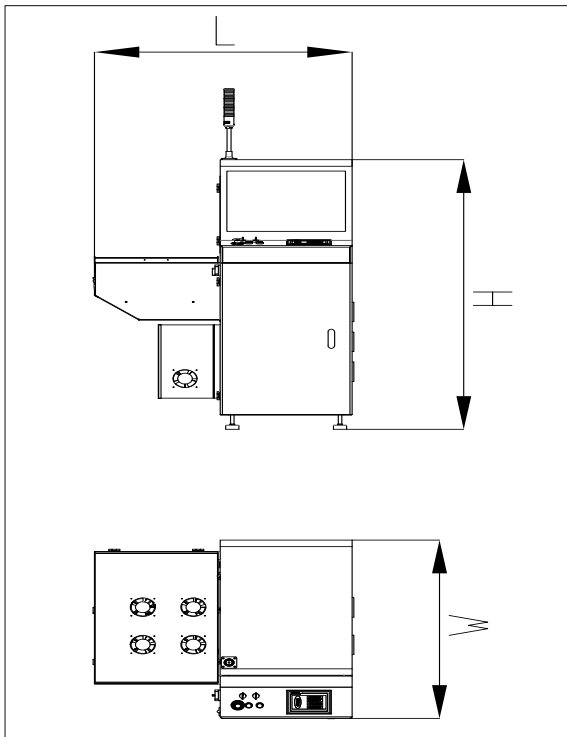
The single magazine buffer is designed **for loading, unloading, buffering (FIFO,LIFO)of PCBs and By-pass function,and NG boards stock functions total 5 working mode.** An arriving PCB is taken up by the attached conveyor and then pushed into the magazine by a specially designed pusher. The magazine indexes to the next position and is ready for the following unloading cycle.

### Standard features

- Available working mode loader,unloader,buffering (FIFO,LIFO),By-pass
- NG boards stock capability: 50PCS at the NG reject mode
- Mitsubishi PLC program control+ touch screen panel
- Dual function pusher ( Driving by the stepper motor)
- Selectable pitch settings from 10mm to 80mm;
- Automatic clamping the magazine by the high quality air cylinder
- Tower-light display for machines working status.
- Flexible platform to suit standard magazines
- Exchangeable magazine from the rear of magazine ( single magazine)
- Pusher position adjustable to Centre for the boards
- Magazine infeed and outfeed are automatically driving by motor on the platform.
- Threshold signal to protect the boards in upstream reflow oven.
- SMEMA compatible.

### Technical specification

Transfer heights	900mm+/-50mm
Transfer direction	Left to right
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB buffer quantity	50 PCS
PCB edge support	4mm
Allowable components clearance	30mm below and above
Magazine changeover time	Standard :15s ( fastest)
Magazine platform driving	Servo motor
Magazine capacity	Singe magazine
Belts speed	0-12m/min ( adjustable)
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz



Model	Max. PCB( L *W) MM	Min.PCB(L*W)MM	Machine Dimensions (L*W*H) MM	Magazine size
VB-250MS-E	330*250	50*50	1210*820*1650	355*320*563
VB-330LS-E	440*330		1210*1260*1650	460*400*563
VB-390LS-E	530*390		1300*1380*1650	535*460*570
VB-460LS-E	535*460		1300*1520*1650	535*530*570

## Mini Vertical buffer

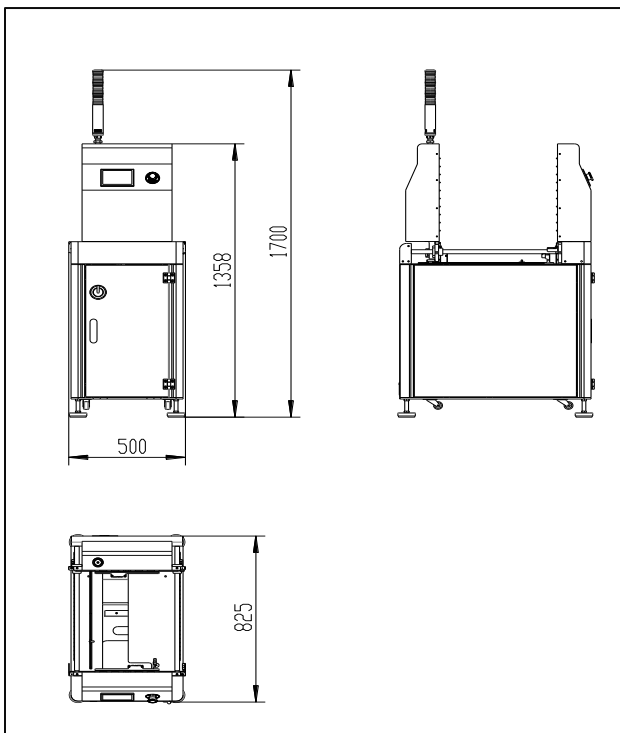


The Mini buffer consists of a vertical buffer and a 500mm conveyor, and is placed in the line to balance board flow in LIFO buffer mode, act as a line splitter in Loader or Unloader mode, or good/bad board separator in Triggered mode.

### Standard features

- Five modes of operation: LIFO, Loader, Unloader, Pass through, NG reject
  - Modes easily changed through hand control unit
  - Tube mounted lights as status indicator
  - PLC controlled
  - Motorized width adjustment
  - SMEMA interface
  - Buffer zone capacity: 10PCS of boards
  - PLC control + touch screen panel operation
  - Conveyor width adjustment: automatic +software input
- **Optional:**
- 1). Heavy boards handling capability.
  - 2). RS-485 communication protocol

### Technical specification



Transfer heights	900mm+/-50mm
Transfer direction	Left to right
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB buffer quantity	10 PCS
PCB edge support	4mm
Allowable components clearance	Top 30mm + down 30mm
Max. per boards	3kg
Max. combined board weight in buffer	30kg
Belts speed	0-12m/min ( adjustable)
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz

Model	Max. PCB( L *W) MM	Min.PCB(L*W)MM	Machine Dimensions (L*W*H) MM	Min. board thickness
VB-460Min	450*460	50*50	500*825*1700	0.6mm-6mm

## Lowering gate conveyor

This unit is used when a passage way is required in a production line.



### Standard features

- Mitsubishi PLC program control
- Locking cylinder to avoid opening during PCB transfer
- Ergonomic air pressure supported opening and closing
- Automatically gate lifting down by push button
- Maximum.600mm passage distance
- Buzzer
- Safety sensor (total 3) at the end of rail
- Double plate structure
- SMEMA compatible

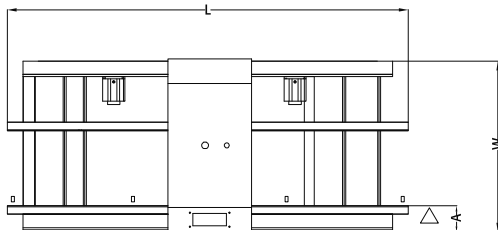
### Optional:

- Motorized conveyor width adjustment
- Automatically conveyor width adjustment
- R485 communication
- Touch screen panel

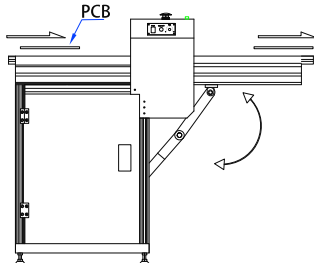
### Technical specification

Transfer heights	900mm+/-50mm
Transfer direction	Left to right
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB edge support	3mm
Allowable components clearance	Top 50 mm+ below 25mm
Passage distance	600mm
Air supply	4-6 bar
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz

#### Structure



#### Schematic



LG-460L	
Machine dimension	1300mm *750mm *1250mm ( L*W*H)
Weight	150KG
PCB size	500mm *460mm

## Telescope gate conveyor



This unit is used when a passage way is required in a production line.

The unit provides a 'normal open' passage in a PCB assembly line. An integrated conveyor segment slides across the opening to deliver PCB to downstream machine.

### Standard features

- Mitsubishi PLC program control
- Maximum .600mm passage distance
- Buzzer
- SMEMA compatible
- Fully enclosed design.
- Normal Opened
- Electrically driven for smooth extension and retraction.
- Smooth and parallel width adjustment.(lead screw)

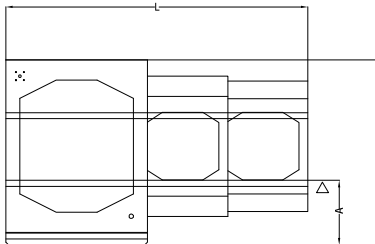
### Optional:

- Motorized conveyor width adjustment
- Automatically conveyor width adjustment
- R485 communication

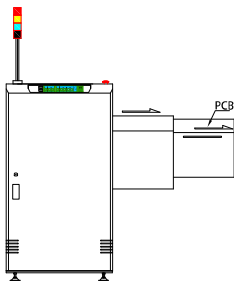
### Technical specification

Transfer heights	900mm+/-50mm
Transfer direction	Left to right
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB edge support	3mm
Allowable components clearance	Top 50 mm+ below 25mm
Passage distance	600mm
Air supply	4-6 bar
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz

Structure



Schematic



TG-460	
Machine dimension	1500mm*900* 1250mm ( L*W*H)
Weight	250KG
PCB size	500mm *460mm



## 90 degree turning conveyor



This unit is used to transfer PCBs around corners for continued process flow. Available in clock wise or counter clock wise rotation, and by-pass mode. The PCB is accepted and transferred to the end of the rails. The carriage shuttles forward and then turns 90 degrees. The carriage shuttles forward to align with the next process to deliver the PCB. Once transferred, the carriage returns home to request another PCB.

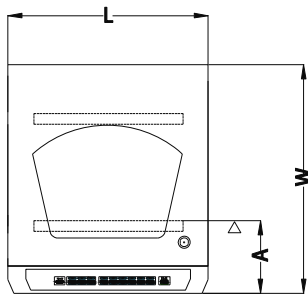
### Standard features

- Mitsubishi PLC program control
- By-Pass mode + 90 degree turning conveyor (Available in clock wise or counter clock wise rotation, and by-pass mode)
- Motorized conveyor width adjustment
- LED signal tower & Buzzer
- Suitable for boards with many components on the bottom side
- Closed –loop stepper motor providing the rotating driving power
- SMEMA compatible

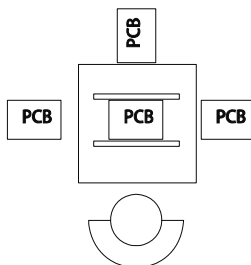
### Technical specification

Transfer heights	900mm+/-50mm
Transfer direction	Left to right
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB edge support	3mm
Allowable components clearance	Top 50 mm+ below 25mm
PCB inverter cycle time	Around 5s – 8s
Air supply	4-6 bar
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz

#### Structure



#### Schematic



TRC-460	
Machine dimension	840mm *840mm *1250mm ( L*W*H)
Weight	150KG
PCB size	500mm *460mm

## NG reject conveyor

This unit is used to automatically separate good boards and NG boards while allowing visual inspection for NG PCBs without any interruption on Good Board flow.

### Standard features

- Mitsubishi PLC program control
- Touch screen operation panel
- By-pass mode, inspection, NG reject mode selectable
- Conveyor width adjustment by using hand crank.
- Center PCB stop position
- Heavy bottom design to prevent shifting
- Conveyor motor is using with stepper motor
- Total 5 NG PCBs stock capability
- Double plate structure
- SMEMA compatible

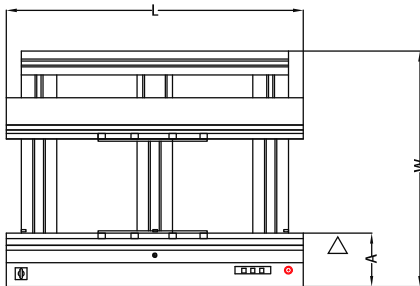
### Optional:

- Motorized conveyor width adjustment
- Automatically conveyor width adjustment
- R485 communication

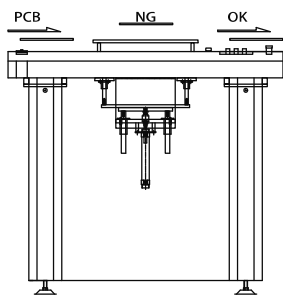
### Technical specification



Structure



Schematic



Transfer heights	900mm+/-50mm
Transfer direction	Left to right
Operation side	Front of machine
Fixed rail	Front of machine
Interface	IPC SMEMA 9851
Conveyor belts	ESD flat belt
PCB edge support	3mm
Allowable components clearance	Top 50 mm+ below 25mm
NG PCB position length	300mm
NG PCB stock capacity	5 PCS
Max. PCB weights available	5KG
Safety	CE certificates
Control	PLC
Voltage	350W,220V/ 110V , single phase, 50-60Hz

#### RE-460

Machine dimension	1000mm*890mm*1050mm ( L*W*H)
Weight	150KG
PCB size	500mm *460mm ( L*W)

## UV inspection conveyor



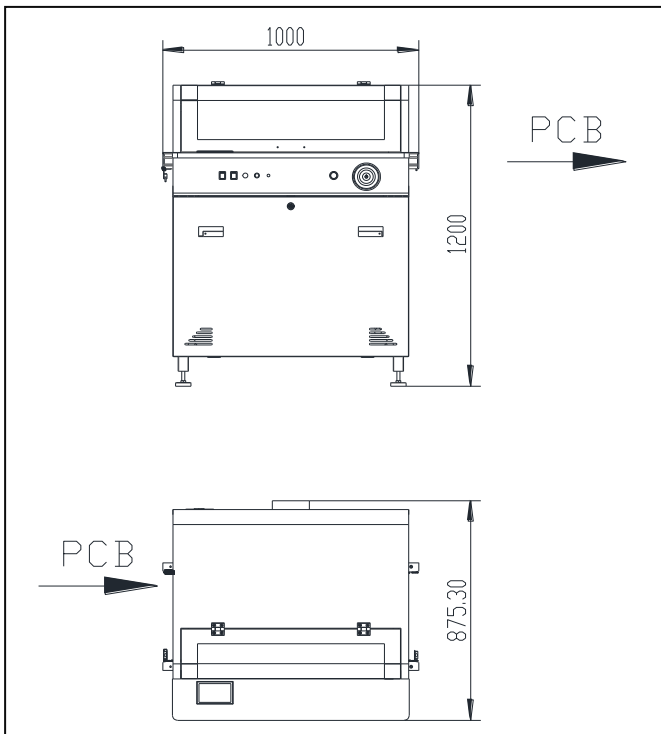
This unit is placed at the conformal coating process line as a inspection station to check the conformal coating quality by visual inspection. This UV inspection conveyor is with the air exhaust interface and air pressure sensor to monitor the air flow.

### Standard features

- Mitsubishi PLC program control
- Touch screen operation panel
- By-pass mode, inspection mode selectable
- Conveyor width adjustment by using hand crank.
- Center PCB stop position
- Heavy bottom design to prevent shifting
- Conveyor motor is using with stepper motor
- Covers which protect the boards against dust
- 2-segment independent conveyor speed control
- UV lights to analyze the coating result over the boards
- Exhaust sensor which forces to use air extraction
- SMEMA compatible
- Inspection interval can be setting by software.

### Technical specification

Transfer heights	900mm+/-50mm
Transfer direction	Left to right
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB edge support	3mm
Allowable components clearance	Top 80 mm+ down 40mm
UV lights	2 Groups
Inspection interval	Setting by software
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz



#### PTB-460 UV

Machine dimension	1000mm *950mm *1250mm ( L*W*H)
Weight	200KG
PCB size	500mm *460mm ( L*W)

## Inspection & Linking conveyor

Using SMEMA interface, this unit successfully links any SMT machine, this system can work on inspection & linking mode.

### Standard features

- Mitsubishi PLC program control
- By-pass mode, inspection mode selectable
- Conveyor width adjustment by using hand crank.
- Center PCB stop position
- Heavy bottom design to prevent shifting
- Conveyor motor is using with stepper motor
- PCB flow direction flows can be customized
- Conveyor width adjustment: crank wheel
- LED light overhead frame ( inspection conveyor)
- SMEMA compatible

### Optional:

- Inspection interval can be setting by software.
- Motorized conveyor width adjustment
- Cooling fan
- R485 / RS-232 communication follow me system.
- Touch screen panel
- Barcode scanning

### Technical specification

Transfer heights	900mm+/-50mm
Transfer direction	Left to right
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB edge support	3mm
PCB thickness	0.5mm-2.5mm
PCB weights per boards	Max. 3kg
Allowable components clearance	top 80mm and below 30mm
Conveyor rail width	Min. 50mm to max.460mm
Inspection interval	Setting by software (optional)
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz



#### PTB-460SE

Machine dimension	Length (mm) *950mm *950mm ( L*W*H) Length is available for 500mm,600mm,800mm,1000mm,1500mm,2000mm
Weight	80KG ( depends on different length of conveyor)
PCB size	500mm *460mm ( L*W)

## Shuttle conveyor



Shuttle Conveyor /Traverser is used to redirect flow of PCBs into different channels in a production line. It is designed to shuttle PCB's to next process. The conveyor can collect PCB's from two lines to one line/ distribute PCB's from one line to two lines.

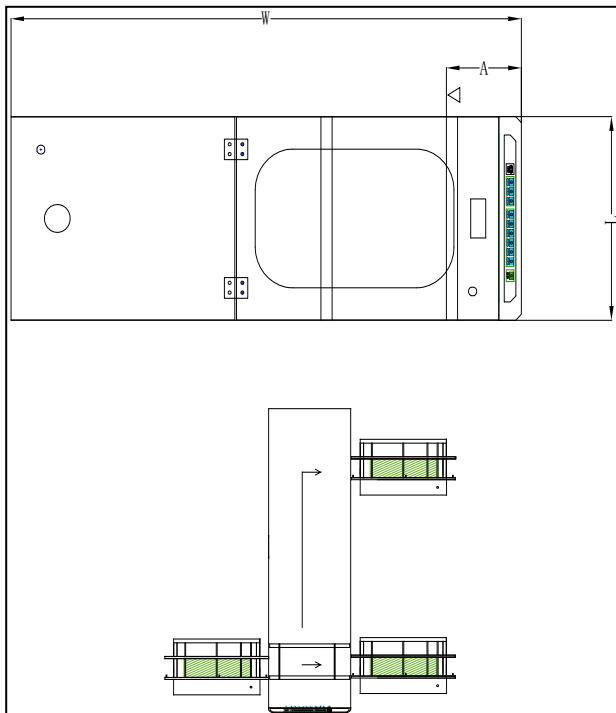
### Standard features

- Mitsubishi PLC program control
- By-pass mode, shuttle moving mode selectable
- Conveyor width adjustment by using hand crank.
- Heavy bottom design to prevent shifting
- Conveyor motor is using with stepper motor
- PCB flow direction flows can be customized
- Shuttle speed setting by software
- Operation side: Front side
- Fixed rail: Front rail
- Conveyor concept: ESD flat belt
- Cycle time: Depends on traversing distance
- SMEMA compatible

### Optional:

- Motorized width adjustment
- R485 communication protocol

### Technical specification



<b>Transfer heights</b>	<b>900mm+/-50mm</b>
Transfer direction	Left to right
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB edge support	3mm
Allowable components clearance	30mm below and above
Transfer car number	Standard single car
PCB transfer Mode	2 in 2 out; 1 in 2 out 2 in 1 out
<b>NG Reject function</b>	<b>Optional</b>
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz

#### TRS-460

Machine dimension	Length 1500(mm) *950mm *950mm ( L*W*H) Shuttle distance Length is available for any customer requirements.
Weight	280KG ( depends on the shuttle length)
PCB size	500mm *460mm ( L*W)

## Infeed conveyor for wave soldering machine

Using SMEMA interface, this unit successfully links any machine, this system is special for connection with the wave soldering machine as the infeed conveyor, the conveyor transfer angle is available to adjusted from 4° to 7° by the hand crank wheel.

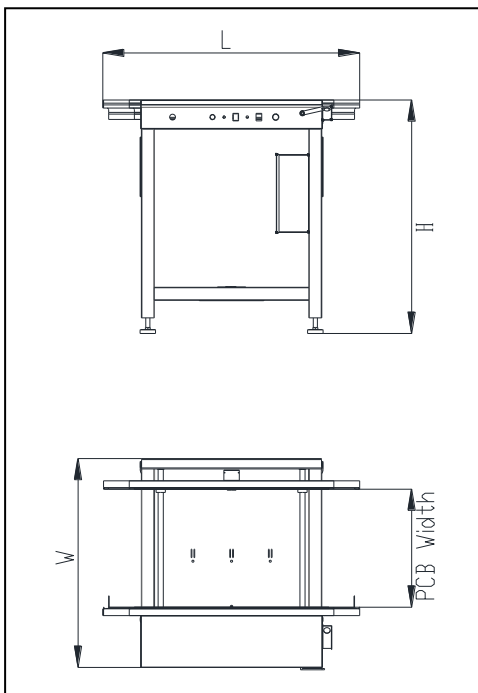


### Standard features

- Mitsubishi PLC program control
- Continuous queue feeding PCBs into the wave soldering machine.
- Conveyor width adjustment by using hand crank.
- PCB transfer angle is adjustable
- Heavy bottom design to prevent shifting
- Conveyor motor is using with stepper motor
- Conveyor transfer by chain
- PCB flow direction flows can be customized
- SMEMA compatible

### Technical specification

Transfer heights	900mm+/-50mm
Transfer direction	Left to right
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	Chain belt
PCB edge support	5mm
Allowable components clearance	30mm below and above
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz



#### IN-460

Machine dimension	Length (mm) *950mm *950mm ( L*W*H) Length is available for 500mm,600mm,800mm,1000mm
Weight	100KG
PCB size	500mm *460mm ( L*W)

## ■ Unloading conveyor for wave soldering machine



This unit is special for the unloading of PCB from the wave soldering machine.

The transfer heights are adjustable to meet any kind of wave solder in the market.

### Standard features

- Mitsubishi PLC program control
- Continuous queue unloading PCBs from the wave soldering machine.
- Conveyor width adjustment by using hand crank.
- PCB transfer angle is adjustable
- Heavy bottom design to prevent shifting
- Conveyor transfer by ESD flat belts
- PCB flow direction flows can be customized
- SMEMA compatible

### Optional:

- Cooling fan
- Conveyor length with 2.5m
- Chain conveyor rail

### Technical specification

Transfer heights	900mm+/-50mm
Transfer direction	Left to right
Operation side	Front of machine
Fixed rail	Front of machine
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB edge support	30mm ( or customized)
Allowable components clearance	30mm below and above
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz

OU-460	
Machine dimension	Length (mm) *950mm *1350mm ( L*W*H) Length is available for different requirements
Weight	250KG
PCB size	500mm *460mm ( L*W)

## PowerCleaner X460



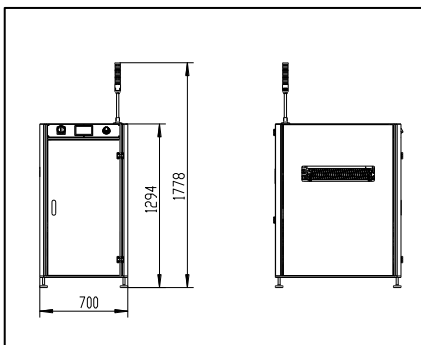
The NEW SMT Clean Machine from Vanstron has been specifically designed to remove contamination from bare boards before solder paste, adhesive application and after laser marking.

The design of the machine will ensure full integration into all SMT lines, providing your process with the best contact cleaning system in the world.

### SPECIFICATION

Available in different cleaning widths 300 mm- 460 mm– 600mm

Note: The standard SMT machine will process boards from a minimum of 50mm wide and 500mm long.



Operating modes	Single Side / Double side - Bypass
Processing Speed	1 - 40 m/min
Pass line height	900 +- 50mm
Power Supply	AC 220V,Single phase,50-60Hz
Pneumatic Pressure required	5 - 7 Bar " Oil free air "
PCB size available	Max.width 460mm,Max. length 500mm Thickness: 0.6mm – 3.0mm maximum.
Cleaning method	Adhesive roller + ESD brush + vacuum absorbing ( individual selectable according to usage)
Ion Fan	Micro wind on top of conveyor ( optional )
Electrostatic eliminator	Standard
Adhesive roller viscosity	80μ



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