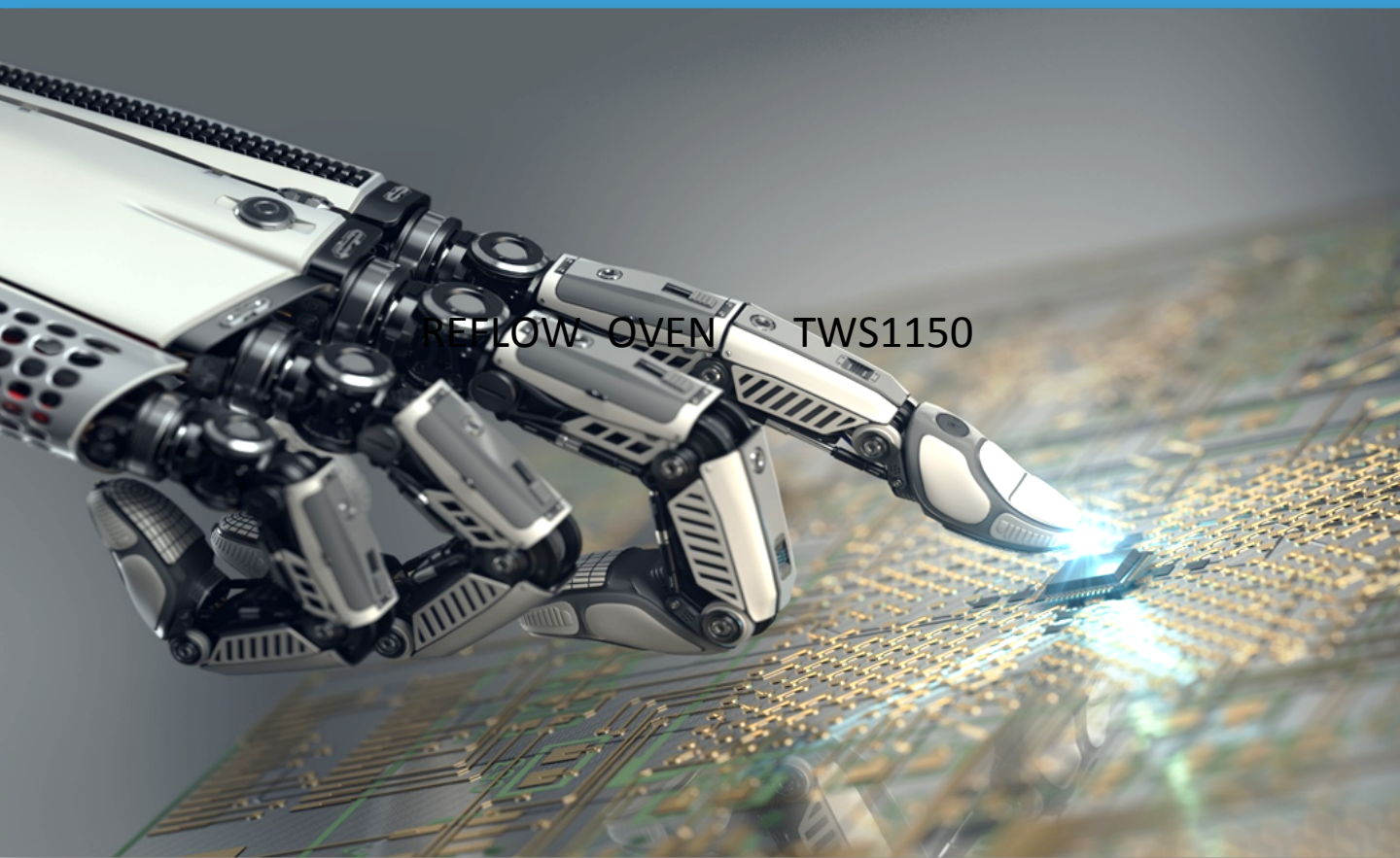


SMT Boards Handling & Automation



REFLOW OVEN / TWS1150

Vanstron

Make a small change, make a bigger difference



www.vanstron.com



About us

Make a small change, make a big difference



Tiny details done right make a big difference, all for customer satisfaction!

Vanstron Automation was founded as a professional manufacturer of SMT equipment for the electronics industry by being partner with the quality engineering team with more than 10 years experience in the SMT industries.

Our factory is based in Shenzhen(CHINA) where we have our own factory. It allows us to offer non-binding preliminary projects before any automation project. The company has the strong R&D background on automation area to provide our users with the stable & just fit solution.

Our core business includes the PCB Boards handling machines, non standard -handling solutions, inline laser marker machine,UV curing ovens,PCB surface cleaner machine.

Thanks to our professional distributorship in the worldwide from US market to whole Europe market , so that we can provide the immediately after –sales service works.



General specifications

Vanstron

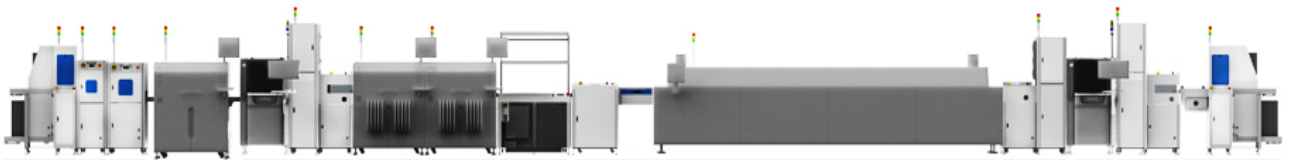
Vanstron Automation offers a complete line of PCB handling units which incorporate standard assembly features throughout the product range.

All modules are CE marked.

The PCB product line incorporates modular stand-alone units that are truly independent from other modules in the system. Each module has an on-board control system which allows the unit to function independently. Each module is able to be linked to other modules in the system by utilizing their up line and down line SMEMA communication.

The modules can also be linked to a higher level monitoring or routing system by utilizing a host control system.

Boards length	50-530mm (or specified)
Boards width	50-460mm (or specified)
Boards thickness	0.6-6mm standard Consult factory for other thickness
Boards weight	Max.3kg (or specified)
Magazine lifting weights	Max.100kg (or specified)
Allowable warpage/sag	Max.1mm
Required edge clearance	3mm on the outer two edges of the boards
Allowable components clearance	30mm below and above conveying surface (or specified)
Belt exposure	Standard width:3mm Optional :5mm
Boards transfer heights	900mm+/-50mm
Flow direction	Left to right (right to left)
Standard interface	SMEMA 9851 Optional: R232/ R485
Safety	CE compliant machines
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz

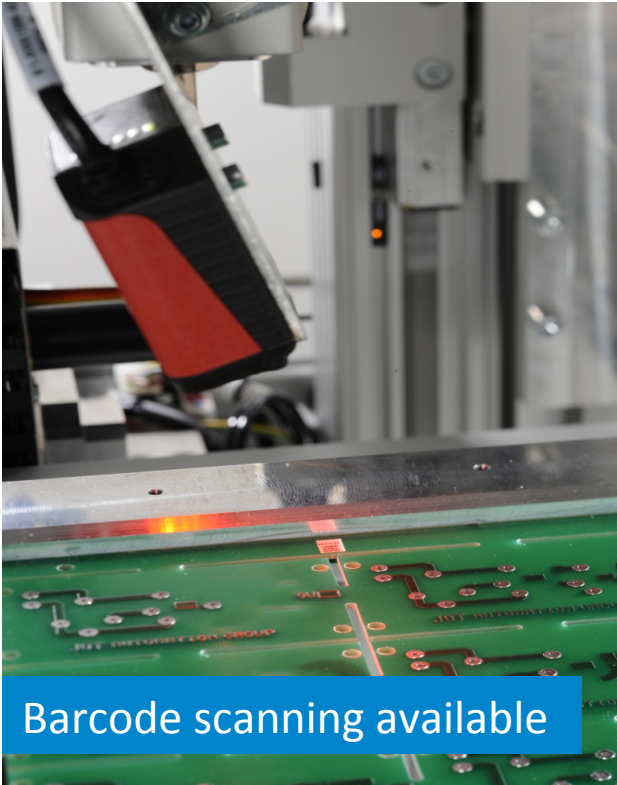


MAGAZINE TYPE	L	W	H	Max. PCB Size		Min. PCB Size	
				L	W	L	W
S (097)	355	320	570	330	250	50	50
Y (096)	460	400	575	440	330	50	65
L (093)	535	460	575	530	375	50	60
X (100)	535	530	575	530	460	50	100
U (101)	620	530	575	610	460	50	100

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Single magazine loader



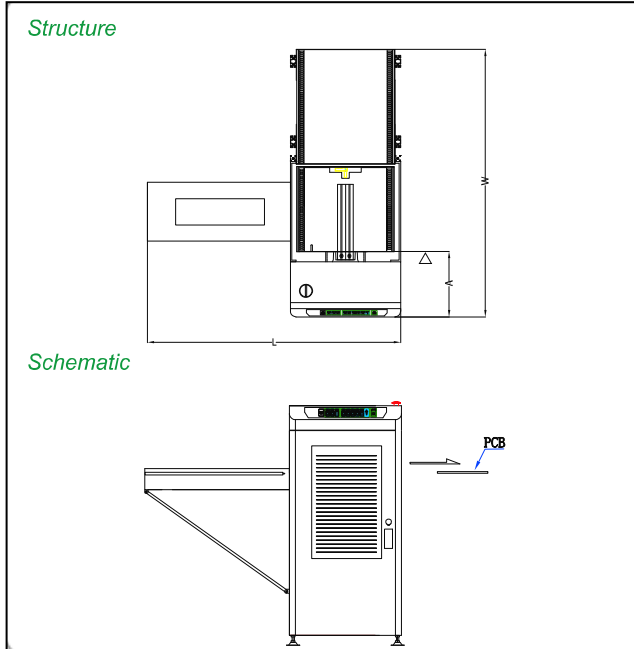
The magazine loader is used when a magazine of PCB boards needs to be loaded into a production line, this unit is capable of handling one magazine that can be easily accessed from the front (or rear) of the machine, it is used in low volume applications or bottom side process with a single magazine.

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

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	3mm
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



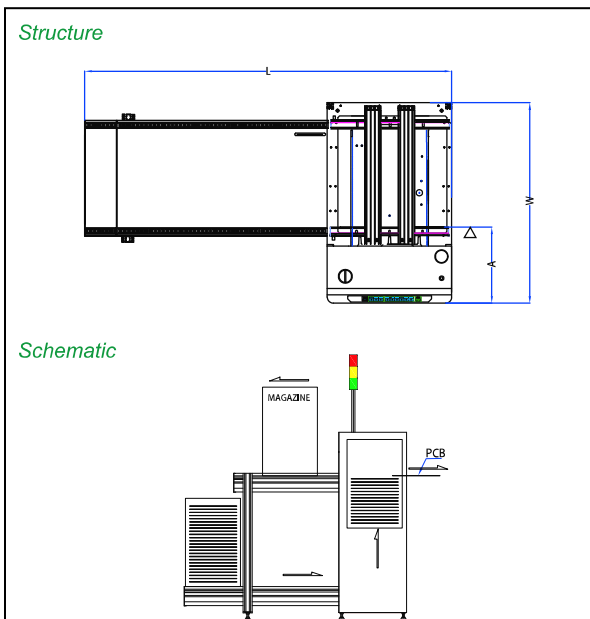
The magazine loader is used when a magazine of PCB boards needs to be loaded into a production line, this units is capable of handling total 4 units of magazine that can be easily be accessed from the front of the machine, it is used in **high volume applications**.

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	3mm
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



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



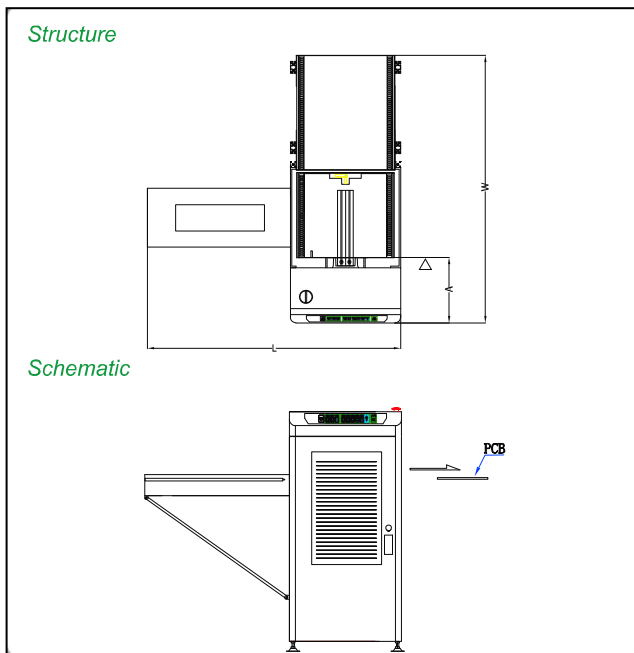
The single automatic Unloader is designed for unloading of PCBs, an arriving PCB is taken up by the attached conveyor and then pushed into the magazine by a specially designed pusher. The magazine indexes to the next position and is ready for the following unloading cycle.

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

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
Magazine change over time	30s (optional: 15s)
Interface	SMEMA
Conveyor belts	ESD flat belt
PCB edge support	3mm
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
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



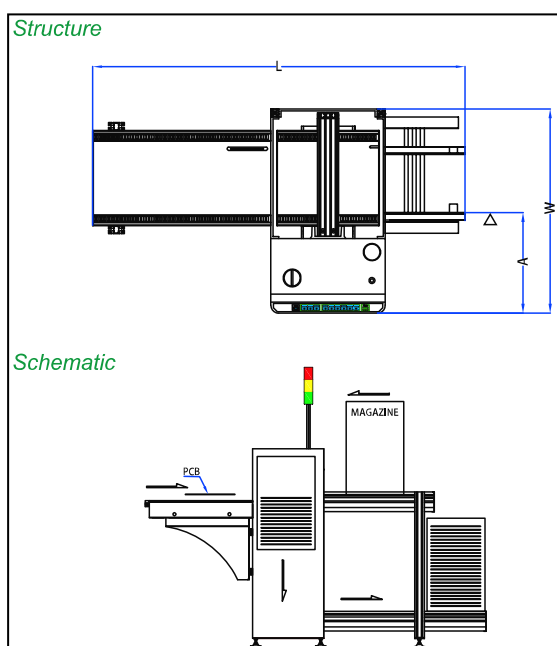
The Automatic Unloader is designed for unloading of PCBs, an arriving PCB is taken up by the attached conveyor and then pushed into the magazine by a specially designed pusher. The system is good for the **high volume production requirements**.

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

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	3mm
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



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.

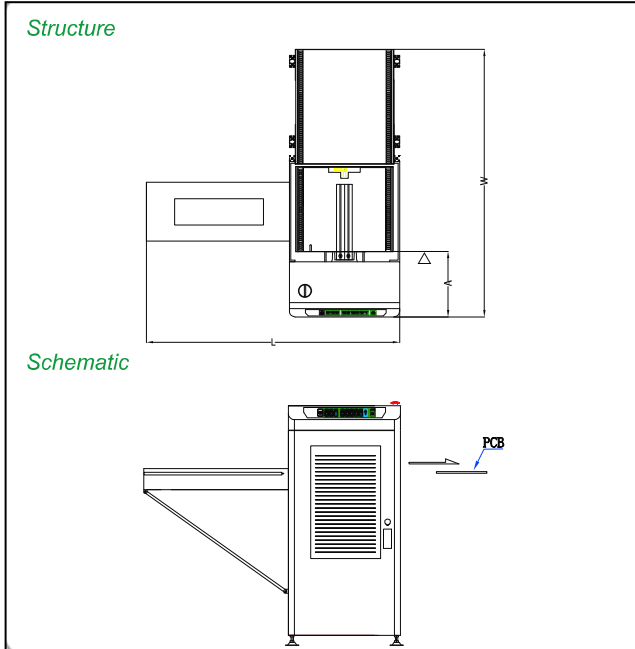
This system is designed with the “L” type to help save the line length. To save the space, the magazine conveyor part designed to supply magazine racket can be position on either in front or at rear side depending customer’s request.

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
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	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
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.

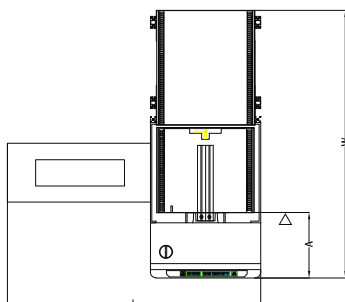
Standard features

- 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

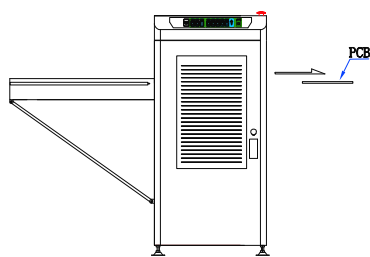
Technical specification

Transfer heights	900mm+/-50mm
Transfer direction	Left to right
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	Top 1+down 2+ middle 1
Air supply	4-6 bar
Safety	CE certificates
Control	PLC
Voltage	220V/ 110V , single phase, 50-60Hz

Structure

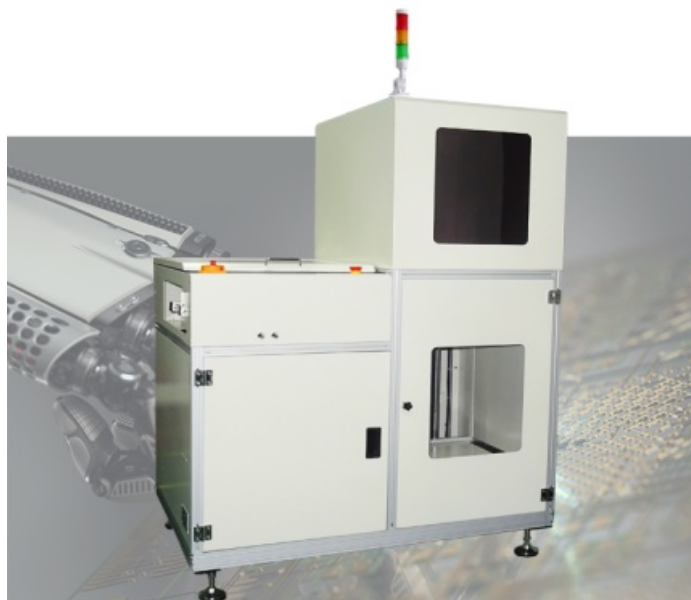


Schematic



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		1210*1700*1650	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)



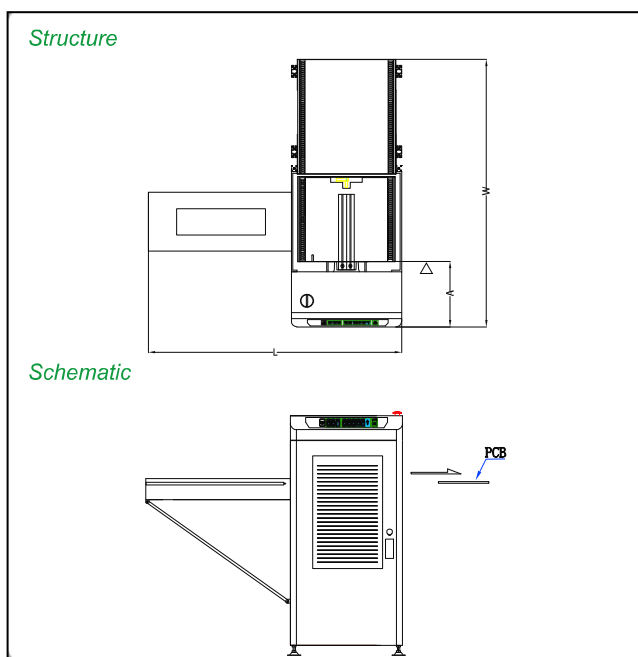
The magazine loader is used when a magazine of PCB boards needs to be loaded into a production line, this units is capable of handling one magazine that can be easily be accessed from the front of the machine, it is used in low volume applications or bottom side process with a single magazine.

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

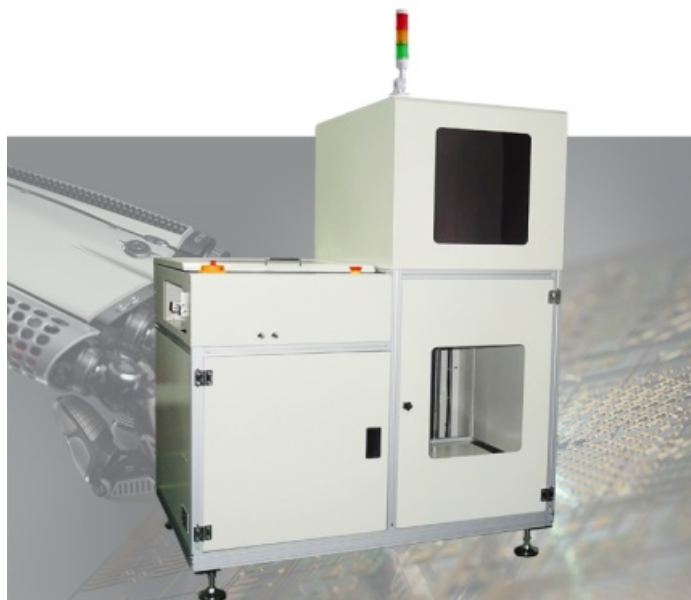
Technical specification

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)



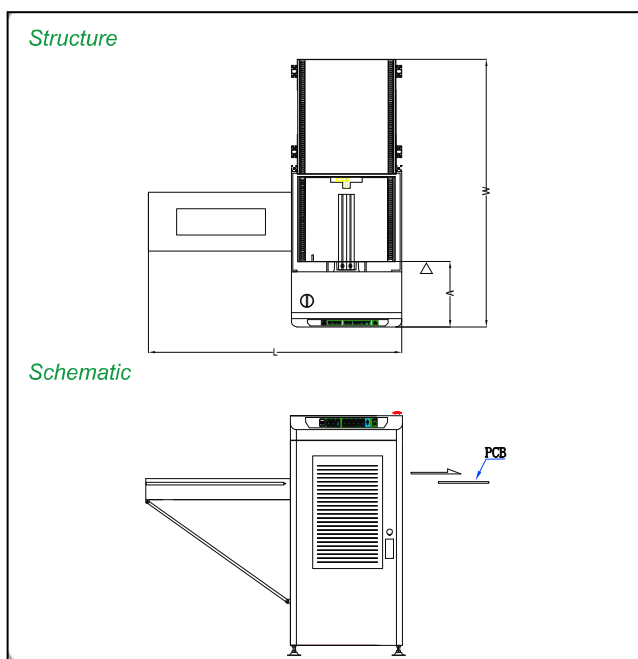
The Automatic Unloader is designed for unloading of PCBs, an arriving PCB is taken up by the attached conveyor and then pushed into the magazine by a specially designed pusher. The magazine indexes to the next position and is ready for the following unloading cycle.

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	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
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

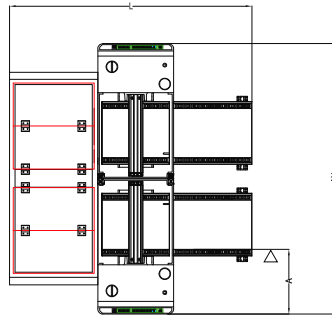


This system is available to separate the No good boards and OK boards from upstream tester, and introduce the NG boards & OK boards into the corresponding magazines by special shuttle conveyor. This unit can also work as the dual lane unloader for high volume production

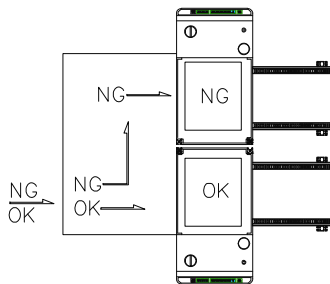
Standard features

- Efficient management of Good & No good boards from upstream system
- Dual lane high speed unloader function are selectable in the software
- Multi magazine capability to handle total 6 magazines
- 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



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	3mm
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

Model	Max. PCB(L *W) MM	Min.PCB(MM)	Machine Dimensions (L*W*H) MM	Magazine size
DSUL-250	330*250	50*50	1930*1500*1650	355*320*563
DSUL-330	440*330		2150*1650*1650	460*400*563
DSUL-390	530*390		2400*2050*1650	535*460*570
DSUL-460	535*460		2400*2050*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.

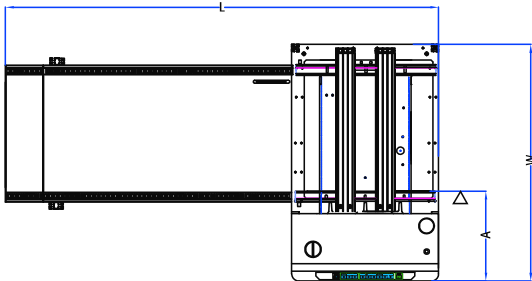
Standard features

- 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

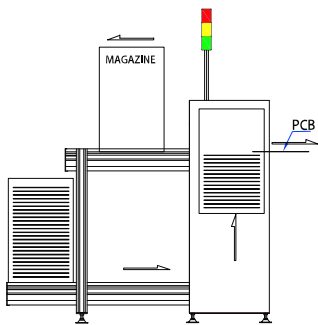
Technical specification

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	3mm
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

Structure



Schematic



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

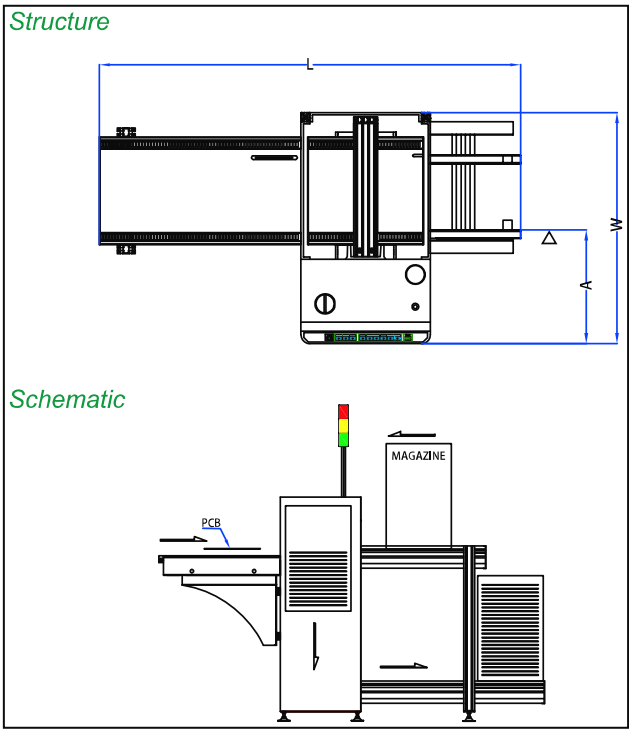
This magazine unloader is design special for the coating line, all the machine will be with the seal cover and be equipped with the extraction for the vapors of the coating line.



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	3mm
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.

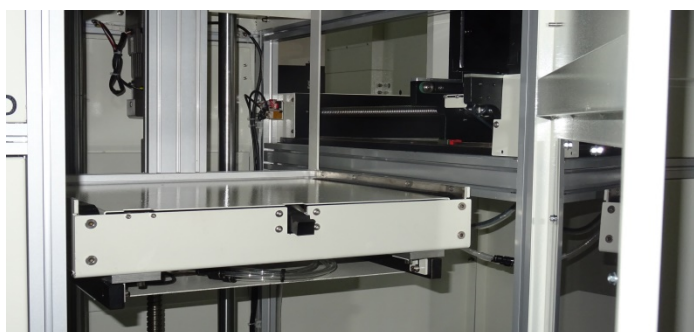
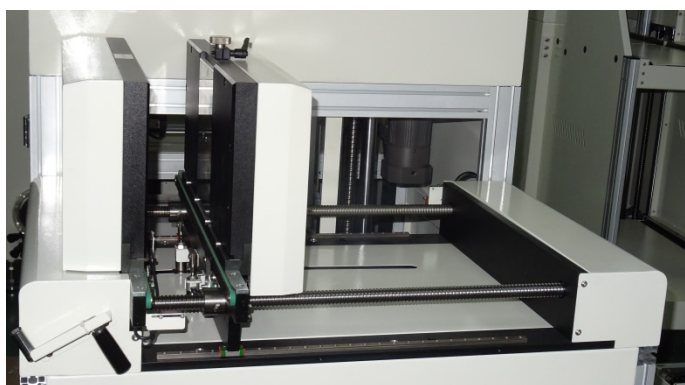


Standard features

- 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	3mm
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

Loader & Unloader combined system – for Offline AOI and Screen printer, or Laser marker line

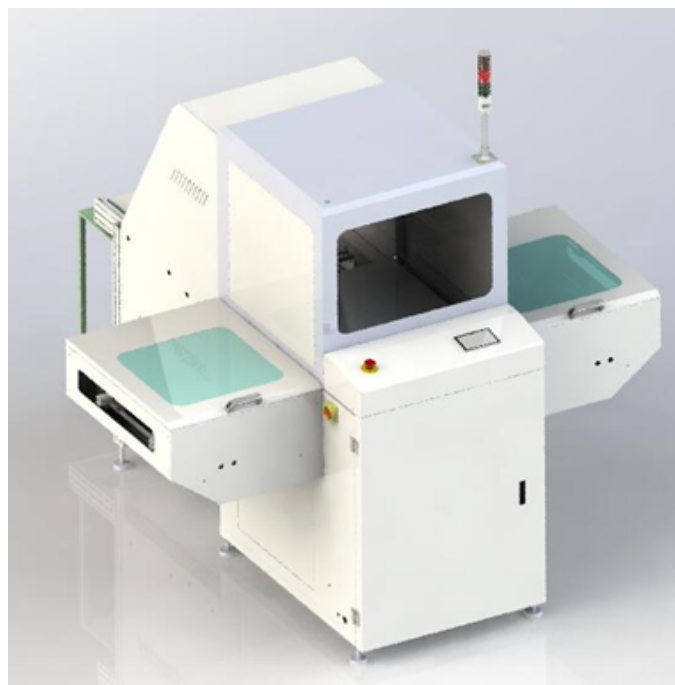


The Multi-Magazine Line Loader & Unloader is designed for loading & unloading of PCBs for SMT lines.

The main operation mode should be like Loader / Unloader at the same time. Like screen printer or AOI with one Loader / Unloader from the left side. It should give the PCB to the screen printer or AOI and then take it back to the magazine to the same position on the magazine and only then move to the next position.

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	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
ASUL-250	330*250	50*50	1930*1500*1650	355*320*563
ASUL-330	440*330		2150*1650*1650	460*400*563
ASUL-390	530*390		2400*1850*1650	535*460*570
ASUL-460	535*460		2400*1850*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.

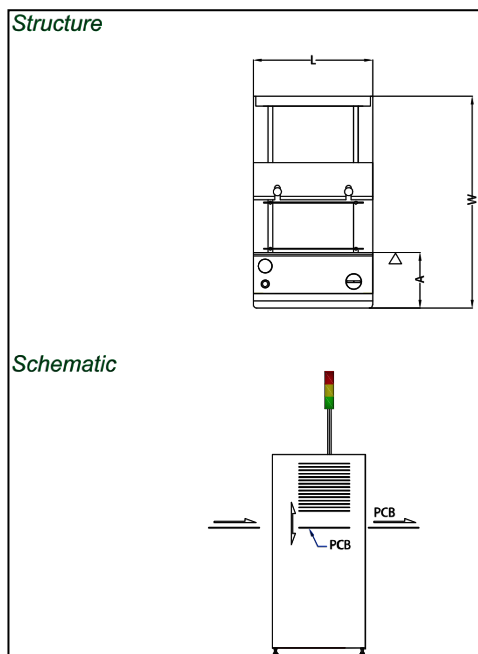
Standard features

- 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

Transfer heights	900mm+/-50mm
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	3mm
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	

- Motorized adjustment
- Automatic adjustment
- Extension for convenient stack loading
- Cantilevered input and output conveyor



Model	DL-350
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.

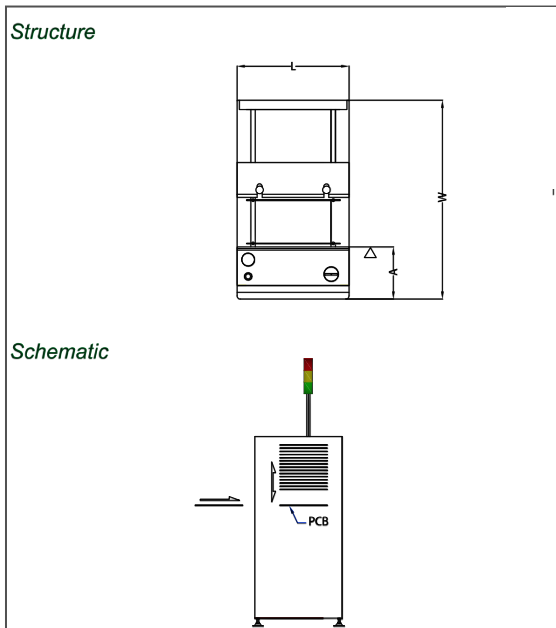
Standard features

- 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

Transfer heights	900mm+/-50mm
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	3mm
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	

- Motorized adjustment
- Automatic adjustment
- Extension for convenient stack loading
- Cantilevered input and output conveyor



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

Vacuum loader



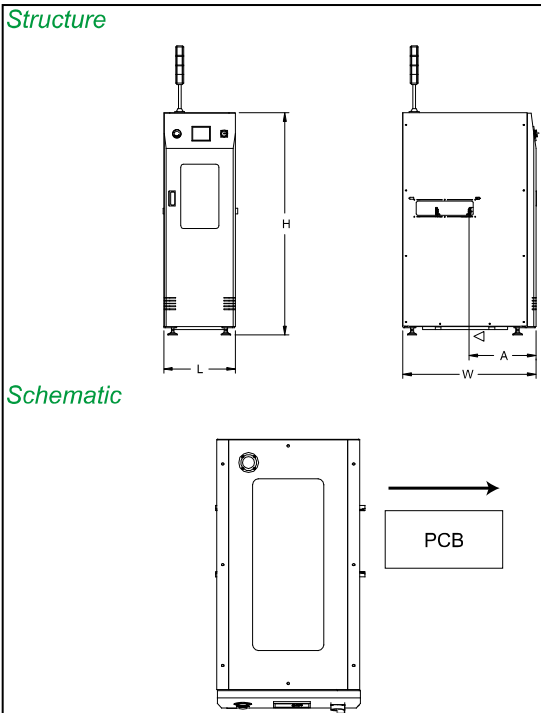
The vacuum loader is used to load bare boards for SMT production lines. The top PCB is lifted from stack and lowered onto belt segment. The PCB stack is manually loaded into the machine and the individual PCBs are handed over to the downstream system on a transfer conveyor.

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



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

Inverter conveyor

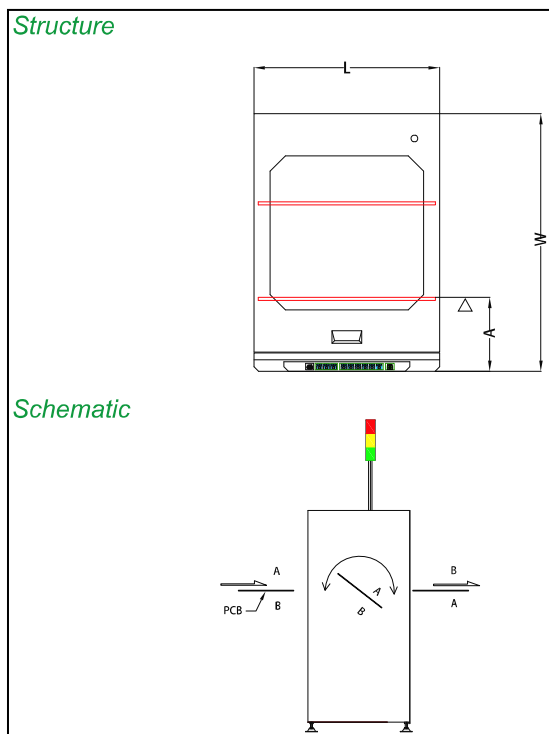
This unit is used to inverter flip /PCB's (180 °) for double side process.



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

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

Vertical Buffer-FIFO/LIFO (20 Slots)

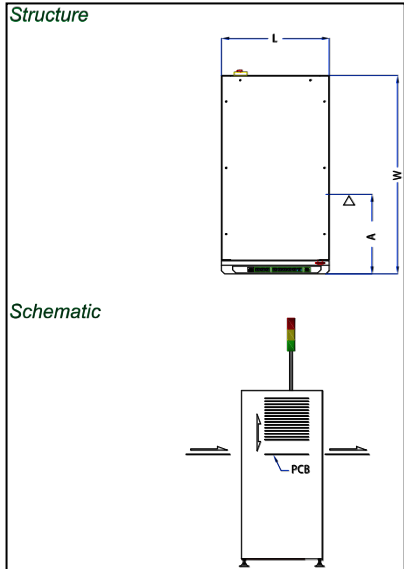


This vertical buffer is designed to have the function as FIFO/ LIFO and by-pass functions.

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
- 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	3mm
Allowable components clearance	25mm below and above
Slots distance	25mm
Width adjustment method	Motorized type
Boards stock capacity	20 PCS
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
- NG boards reject functions

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

SPI/AOI Vertical Buffer- (25 Slots)



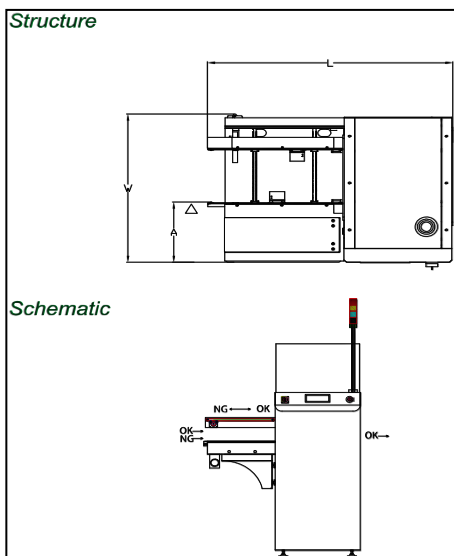
This unit is located after SPI/AOI machine to inspect NG boards in the line. The operator can CALL for NG boards stacked in the rack onto the 2TH layer of the conveyor part to inspect them visually while the good boards are being passed through to the downstream machine without any interruption.

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	3mm
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



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



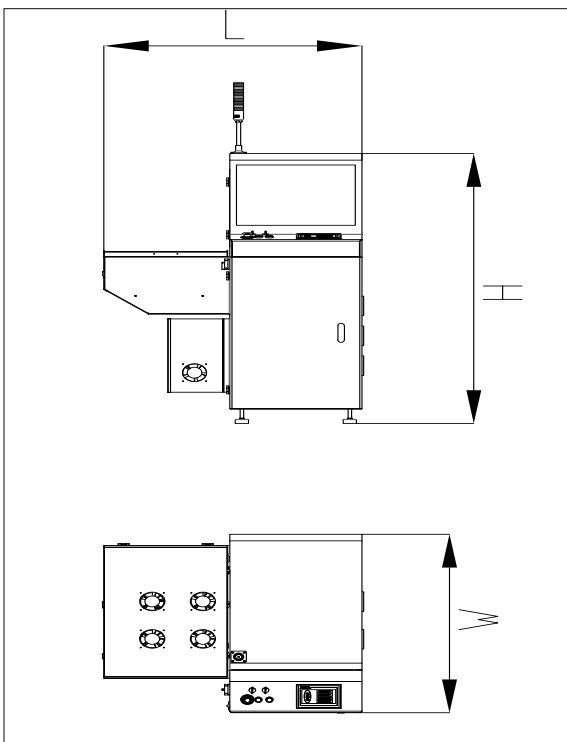
The single magazine buffer is designed **for loading, unloading, buffering (FIFO,LIFO)of PCBs and By-pass function, total 5 working mode.** An arriving PCB is taken up by the attached conveyor and then pushed into the magazine by a specially designed pusher. The magazine indexes to the next position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

Standard features

- Available working mode loader,unloader,buffering (FIFO,LIFO),By-pass
- 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
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 buffer quantity	50 PCS
PCB edge support	3mm
Allowable components clearance	30mm below and above
Magazine changeover time	Standard :15s (fastest)
Magazine platform driving	Servo motor and servo system
Magazine capacity	Singe magazine
Air supply	4-6 bar
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	1100*780*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

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

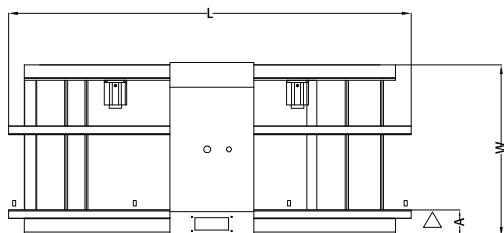
Optional:

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

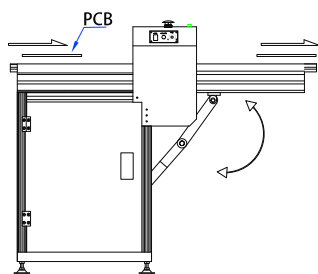
Technical specification

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.

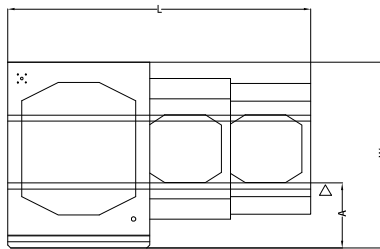
Standard features

- 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)

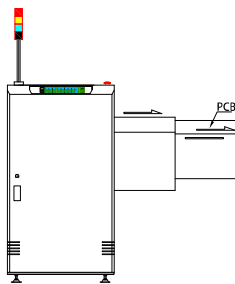
Optional:

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

Structure



Schematic



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

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 than 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

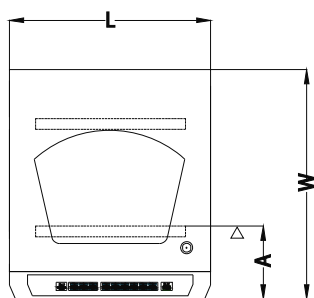
Optional:

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

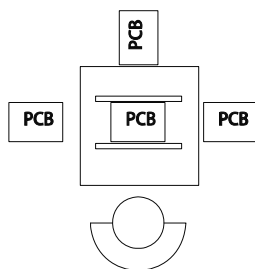
Technical specification

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
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



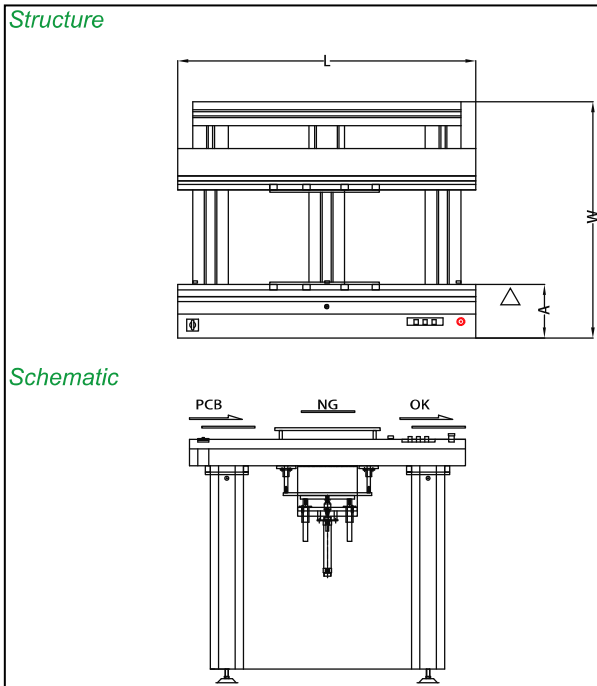
This unit is used to automatically separate good boards and NG boards while allowing visual inspection for NG PCBs without any interruption on Good Board flow.

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

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

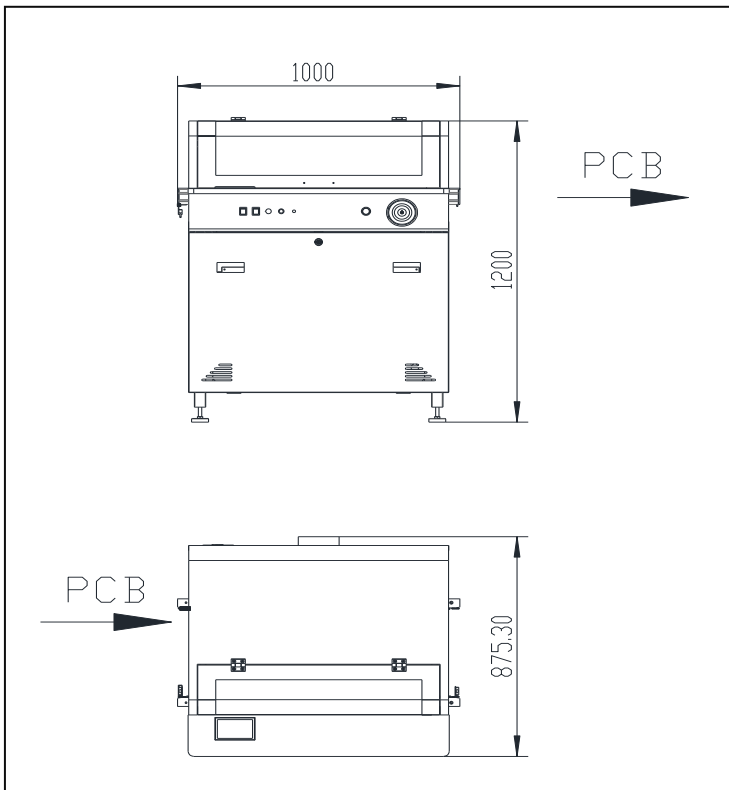
- Mitsubishi PLC program control
- Touch screen operation panel
- By-pass mode, inspection mode selectable
- Conveyor width adjustment by using hand crank.
- Center PCB stop position
- Heavy bottom design to prevent shifting
- Conveyor motor is using with stepper motor
- Covers which protect the boards 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.

Optional:

- Inspection interval can be setting by software.
- 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 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
- Automatically conveyor width adjustment
- R485 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



(optional: cooling fan or cover)

	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

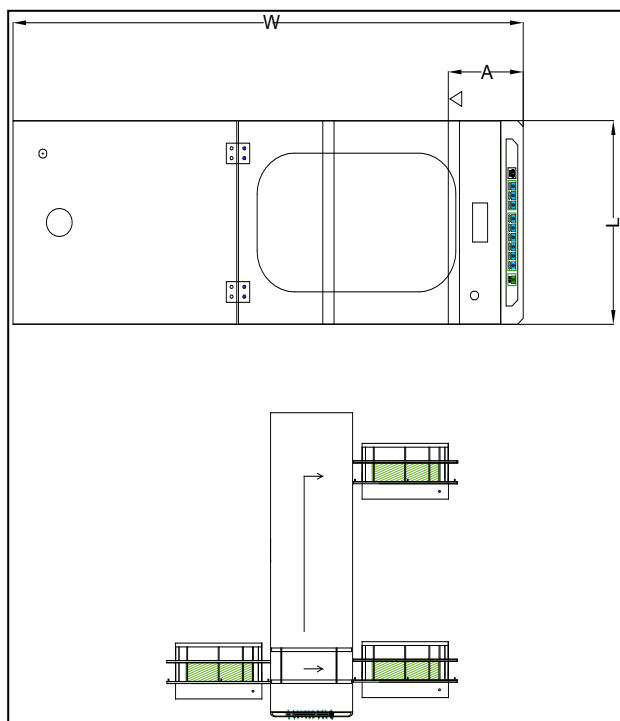
- Mitsubishi PLC program control
- By-pass mode, shuttle moving mode selectable
- Conveyor width adjustment by using hand crank
- Heavy bottom design to prevent shifting
- Conveyor motor is using with stepper motor
- PCB flow direction flows can be customized
- Shuttle speed setting by software
- Operation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

Optional:

- Motorized width adjustment
- R485 communication protocol

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	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
NG Reject function	Optional
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)

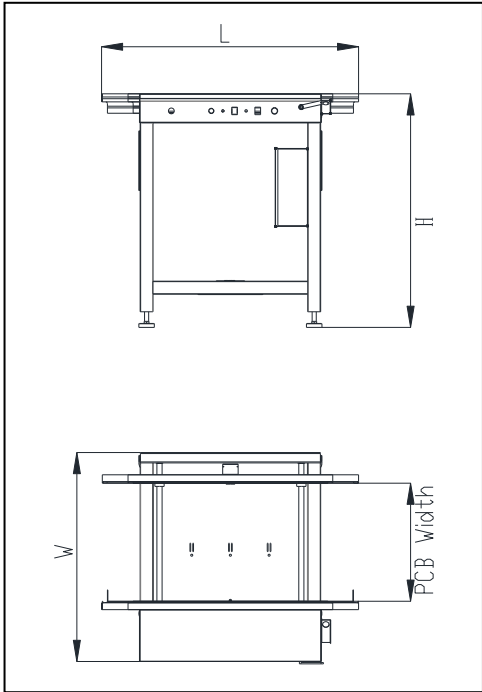
Infeed conveyor for wave soldering machine

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)

Vanstron

SMT CLEAN MACHINE



Improve soldering quality
by SMT surface cleaning technologies

PowerCleanerX460

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.

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 Sided - 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)
SIMCO	Micro wind on top of conveyor (optional)
Electrostatic eliminator	Standard
Adhesive roller viscosity	80μ

Vanstron

Boards handling machine & automation equipment

Vanstron Automation Co.,Ltd

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