

World Wide Leader

PCB HANDLING EQUIPMENT



EUNIL

Buffer

Loading

Router

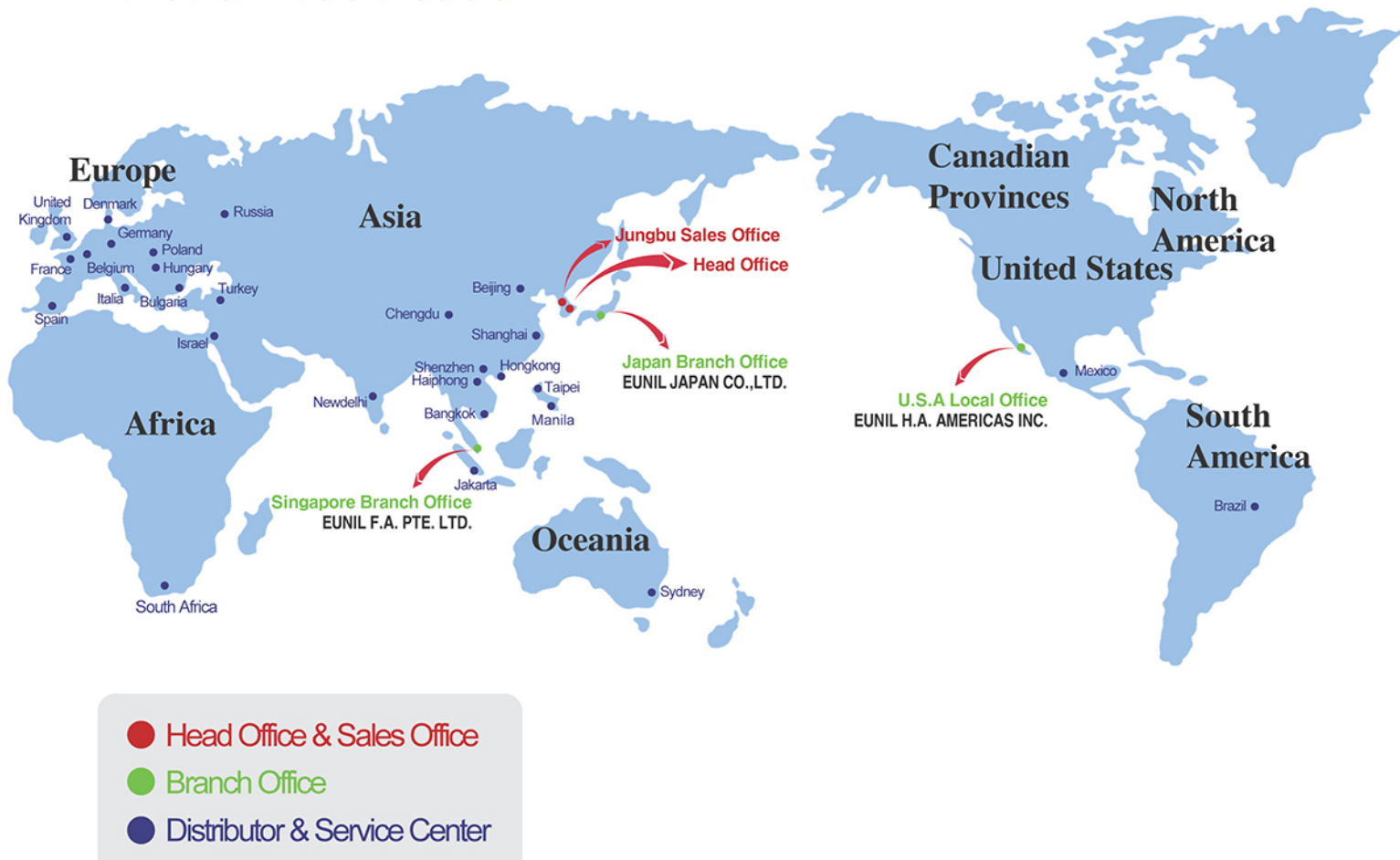
Magazine

Conveyor

 **EUNIL CO., LTD.**

PCB HANDLING EQUIPMENT

World Wide Leader



Research & Development

The main objective of our R & D is to optimize the chosen solutions for the customer and for the operating conditions. Total reliability and compact design are to minimize the need for service and to improve the utilization degree of the PCB HANDLING EQUIPMENT. Decisions on new solutions and on exact testing measurement carried out at our factory.

Quality Control

Our Quality control system consists of routine inspections, random spot checks and finally, functional testing of all systems before delivery. After installation in the equipment, experienced EUNIL supervisors will assist in checking the whole installation on factory. A trial operation is made to ensure everything works as designed. The quality control system is being organized to meet ISO standard 9001. And our product certified by CE

After Sales Service

You can call us at our headquarters in EUNIL, Korea, 24 hours a day, seven days a week, for the best possible assistance in the fastest possible way! We keep a stock of all essential spares and have their inventory computer-controlled. Our customers can be sure of the quickest possible arrival of spare parts as of qualified service engineers all over the world.

Contents

PCB HANDLING EQUIPMENT



EUNIL CO., LTD.

Loading/Unloading

Destacker / Vacuum loader	04
Magazine loader / CE Magazine loader	05
Magazine unloader	07
CE Magazine unloader	08

Buffer

Magazine buffer	08
Belt buffer / N.G Belt buffer	09
Multi purpose buffer / CE Multi purpose buffer	10

Conveyor

Work station / Connecting conveyor	11
Turning conveyor / Inverter	12
Gate conveyor / Passageway conveyor	13
Sliding conveyor / Dust remover	14
Flat belt conveyor / Manual insertion conveyor	15
Tilting insertion conveyor	16
Incline / Decline conveyor	17

Inspection in-line system

Inspection in-line system	18
---------------------------------	----

Semicon Equipment

Substrate loader & unloader / Vacuum loader	19
Wafer loader & unloader / Wafer buffer stacker	20

Router

Off-line router & In-line router	21
--	----

Magazine Rack

NTC series / NIKKO-RACK series	22
--------------------------------------	----

Forms of Inline

Forms of Inline	23
-----------------------	----

COMMON
SPECIFICATION

TYPE	PCB SIZE(LxW)	MAGAZINE SIZE(LxWxH)	MAGAZINE MODEL	AIR	POWER
SL	50x50~330x250	355x318x570	NTC-092	4~6 Kg /cm ²	AC110 /220V, 50/60Hz, 1Phase
YL	50x50~430x330	460x400x570	NTC-096		
LL	50x50~530x390	535x460x570	NTC-093		
XL	50x50~530x460	535x530x563	NTC-100		

DESTACKER

ESD-100

Designed to load bare boards to next process by drop-down system.

■ Features

- Able to link with magazine loader (Included pass mode)
- Programmable logic controller
- Conforms to SMEMA Spec. 1,2
- PCB capacity : Max 100pcbs (Based on 1,6 thickness)
- Loaded by first in first-out

■ Options

- Touch screen
- CE Appliance
- Conveyor : Auto or semi-auto width adjustment



■ Specifications

MODEL	TYPE	PCB SIZE(L×W)	DIMENSION(L×W×H)	WEIGHT(kg)
ESD-100	SL	50×50~330×250	800×550×1110	110
	YL	50×50~430×330	800×650×1110	120
	XL	50×50~530×460	800×760×1110	140

*Other requirement available upon your request

VACUUM LOADER

ESV-100 / ESV-200

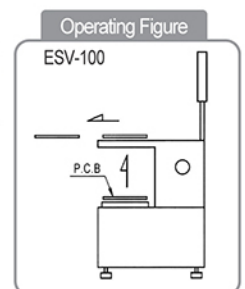
Designed to pick a bare board from the stack and deliver it to next process.

■ Features

- Able to link with magazine loader (Included pass mode)
- Programmable logic controller
- Conforms to SMEMA Spec. 1,2
- PCB capacity : Max 170pcbs (Based on 1,6 thickness)
- Vacuum and base up/down type

■ Options

- Touch screen
- CE Appliance
- Conveyor : Auto or semi-auto width adjustment



■ Specifications

MODEL	TYPE	PCB SIZE(L×W)	DIMENSION(L×W×H)	WEIGHT(kg)
ESV-100	SL	50×50~330×250	700×700×985	120
	YL	50×50~430×330	800×800×985	140
	XL	50×50~530×460	900×900×985	160
ESV-200	SL	50×50~330×250	700×700×1150	160
	YL	50×50~430×330	800×800×1150	170
	XL	50×50~530×460	900×900×1150	180

*Other requirement available upon your request

MAGAZINE LOADER

ESL-500

Designed to load PCBs from magazine rack and deliver them into the next process.

■ Features

- Magazine change over time : 26sec (220V, 60Hz, 1Ph)
- Able to link with vacuum pick up loader
- Programmable Logic Controller
- Conforms to SMEMA Spec. 1,2

■ Options

- Touch screen
- Magazine change over time : 15sec (220V, 60Hz, 1Ph)
- Safety cover



■ Specifications

MODEL	CAPACITY	TYPE	PCB SIZE(L×W)	MAGAZINE SIZE(L×W×H)	DIMENSION(L×W×H)	WEIGHT(kg)
ESL-500	5racks UP:2 DOWN:3	SL	50×50~330×250	355×318×570	1630×830×1150	180
		YL	50×50~430×330	460×400×570	2030×910×1150	200
		LL	50×50~530×390	535×460×570	2410×1000×1150	220
		XL	50×50~530×460	535×530×563	2410×1070×1150	240
ESL-400	4racks UP:2 DOWN:2	SL	50×50~330×250	355×318×570	1210×830×1150	170
		YL	50×50~430×330	460×400×570	1530×910×1150	190
		LL	50×50~530×390	535×460×570	1810×1000×1150	210
		XL	50×50~530×460	535×530×563	1810×1070×1150	230

*Other requirement available upon your request

CE MAGAZINE LOADER

ESL-500C

Designed to load PCBs from magazine rack and deliver them into the next process according to CE regulations.

■ Features

- Magazine change over time : 26sec (220V, 60Hz, 1Ph)
- Able to link with vacuum pick up loader or destacker
- Programmable Logic Controller
- Conforms to SMEMA Spec. 1,2
- Touch screen
- Safety cover

■ Options

- Magazine change over time : 15sec (220V, 60Hz, 1Ph)



■ Specifications ● CE Appliance

MODEL	CAPACITY	TYPE	PCB SIZE(L×W)	MAGAZINE SIZE(L×W×H)	DIMENSION(L×W×H)	WEIGHT(kg)
ESL-500C	5racks UP:2 DOWN:3	SL	50×50~330×250	355×318×570	1630×830×1650	190
		YL	50×50~430×330	460×400×570	2030×910×1650	210
		LL	50×50~530×390	535×460×570	2410×1000×1650	230
		XL	50×50~530×460	535×530×563	2410×1070×1650	250
ESL-400C	4racks UP:2 DOWN:2	SL	50×50~330×250	355×318×570	1210×830×1650	180
		YL	50×50~430×330	460×400×570	1530×910×1650	200
		LL	50×50~530×390	535×460×570	1810×1000×1650	220
		XL	50×50~530×460	535×530×563	1810×1070×1650	240

*Other requirement available upon your request

MAGAZINE LOADER

ESL-500T / ESL-200S

Designed to load PCBs from magazine rack and deliver them into the next process.

ESL-500T

Features

- Magazine change over time : 26sec (220V, 60Hz, 1Ph)
- Able to link with vacuum pick up loader
- Programmable Logic Controller
- Conforms to SMEMA Spec. 1,2

Options

- Touch screen
- Magazine change over time : 15sec (220V, 60Hz, 1Ph)
- Safety cover



Specifications ● Space Economized / T-type

MODEL	CAPACITY	TYPE	PCB SIZE(L×W)	MAGAZINE SIZE(L×W×H)	DIMENSION(L×W×H)	WEIGHT(kg)
ESL-500T	5racks UP:2 DOWN:3	SL	50×50~330×250	355×318×570	1100×1960×1200	190
		YL	50×50~430×330	460×400×570	1270×2360×1200	210
		LL	50×50~530×390	535×460×570	1470×2760×1200	230
		XL	50×50~530×460	535×530×563	1560×2760×1200	250
ESL-400T	4racks UP:2 DOWN:2	SL	50×50~330×250	355×318×570	1110×1540×1200	180
		YL	50×50~430×330	460×400×570	1270×1860×1200	200
		LL	50×50~530×390	535×460×570	1470×2160×1200	220
		XL	50×50~530×460	535×530×563	1560×2160×1200	240

*Other requirement available upon your request

ESL-200S

Features

- Magazine change over time : 26sec (220V, 60Hz, 1Ph)
- Able to link with vacuum pick up loader
- Programmable Logic Controller
- Conforms to SMEMA Spec. 1,2

Options

- Touch screen
- Magazine change over time : 15sec (220V, 60Hz, 1Ph)
- Safety cover



Specifications ● Space Economized / Double pusher cylinder

MODEL	CAPACITY	TYPE	PCB SIZE(L×W)	MAGAZINE SIZE(L×W×H)	DIMENSION(L×W×H)	WEIGHT(kg)
ESL-200S	2racks UP:1 DOWN:1	SL	50×50~330×250	355×318×570	830×830×1275	170

*Other requirement available upon your request

MAGAZINE UNLOADER

ESU-500 / ESU-500T

Designed to store the mounted PCB into the magazine rack at the end of production line.

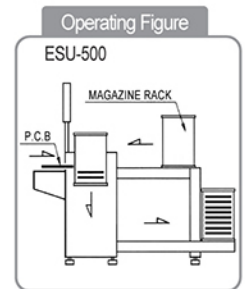
ESU-500

■ Features

- Magazine change over time : 26sec (220V, 60Hz, 1Ph)
- Conveyor width adjustment by thumb screw locking
- Programmable Logic Controller
- Conforms to SMEMA Spec. 1,2

■ Options

- Touch screen
- Conveyor : Auto width adjustment
- Magazine change over time : 15sec (220V, 60Hz, 1Ph)
- Safety cover
- Pusher auto position as half of conveyor width



■ Specifications

MODEL	CAPACITY	TYPE	PCB SIZE(L×W)	MAGAZINE SIZE(L×W×H)	DIMENSION(L×W×H)	WEIGHT(kg)
ESU-500	5racks UP:2 DOWN:3	SL	50×50~330×250	355×318×570	2150×830×1150	190
		YL	50×50~430×330	460×400×570	2650×910×1150	210
		LL	50×50~530×390	535×460×570	3130×1000×1150	230
		XL	50×50~530×460	535×530×563	3130×1070×1150	250
ESU-400	4racks UP:2 DOWN:2	SL	50×50~330×250	355×318×570	1730×830×1150	180
		YL	50×50~430×330	460×400×570	2150×910×1150	200
		LL	50×50~530×390	535×460×570	2530×1000×1150	220
		XL	50×50~530×460	535×530×563	2530×1070×1150	240

*Other requirement available upon your request

ESU-500T

■ Features

- Magazine change over time : 26sec (220V, 60Hz, 1Ph)
- Programmable Logic Controller
- Conforms to SMEMA Spec. 1,2

■ Options

- Touch screen
- Conveyor : Auto width adjustment
- Magazine change over time : 15sec (220V, 60Hz, 1Ph)
- Safety cover
- Pusher auto position as half of conveyor width



■ Specifications ● Space Economized / T-type

MODEL	CAPACITY	TYPE	PCB SIZE(L×W)	MAGAZINE SIZE(L×W×H)	DIMENSION(L×W×H)	WEIGHT(kg)
ESU-500T	5racks UP:2 DOWN:3	SL	50×50~330×250	355×318×570	990×1950×1200	200
		YL	50×50~430×330	460×400×570	1190×2360×1200	220
		LL	50×50~530×390	535×460×570	1370×2760×1200	240
		XL	50×50~530×460	535×530×563	1460×2760×1200	260
ESU-400T	4racks UP:2 DOWN:2	SL	50×50~330×250	355×318×570	990×1540×1200	190
		YL	50×50~430×330	460×400×570	1190×1860×1200	210
		LL	50×50~530×390	535×460×570	1370×2160×1200	230
		XL	50×50~530×460	535×530×563	1460×2160×1200	250

*Other requirement available upon your request

CE MAGAZINE UNLOADER

ESU-500C

Designed to store the mounted PCB into the magazine rack at the end of the production line according to CE regulations.

■ Features

- Magazine change over time : 26sec (220V, 60Hz, 1Ph)
- Programmable Logic Controller
- Conforms to SMEMA Spec. 1,2
- Touch screen
- Safety cover

■ Options

- Conveyor : Auto width adjustment
- Magazine change over time : 15sec (220V, 60Hz, 1Ph)
- Pusher auto position as half of conveyor width



■ Specifications ● CE Appliance

MODEL	CAPACITY	TYPE	PCB SIZE(L×W)	MAGAZINE SIZE(L×W×H)	DIMENSION(L×W×H)	WEIGHT(kg)
ESU-500C	5racks UP:2 DOWN:3	SL	50×50~330×250	355×318×570	2150×830×1650	200
		YL	50×50~430×330	460×400×570	2650×910×1650	220
		LL	50×50~530×390	535×460×570	3130×1000×1650	240
		XL	50×50~530×460	535×530×563	3130×1070×1650	260
ESU-400C	4racks UP:2 DOWN:2	SL	50×50~330×250	355×318×570	1730×830×1650	190
		YL	50×50~430×330	460×400×570	2150×910×1650	210
		LL	50×50~530×390	535×460×570	2530×1000×1650	230
		XL	50×50~530×460	535×530×563	2530×1070×1650	250

*Other requirement available upon your request

MAGAZINE BUFFER

EMB-370

Designed for the balance of process time in-between the machines with different process time and loading PCBs from magazine rack and unloading PCBs to magazine rack.

■ Features

- Programmable Logic Controller
- Conforms to SMEMA Spec. 1,2
- Selective functions : Buffer (FIFO / LIFO) / by-pass / loader / unloader
- Magazine rack capacity : From 2 racks to 5 racks

■ Options

- Touch screen
- Auto or semi-auto width adjustment
- NG buffer function
- Pusher auto position as half of conveyor width
- Safety cover



Operating Figure

EMB-370



■ Specifications

MODEL	TYPE	PCB SIZE(L×W)	MAGAZINE SIZE(L×W×H)	DIMENSION(L×W×H)	WEIGHT(kg)
EMB-370	SL	50×50~330×250	355×318×570	1050×1817×1150	240
	YL	50×50~430×330	460×400×570	1250×2197×1150	270
	LL	50×50~530×390	535×460×570	1450×2437×1150	300
	XL	50×50~530×460	535×530×563	1450×2707×1150	330

*Other requirement available upon your request

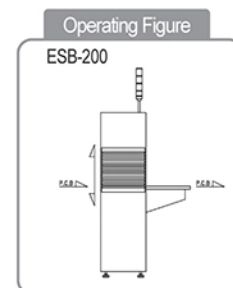
BELT BUFFER

ESB-200

Design for balance of production line in-between machines with different process time.

■ Features

- Programmable Logic Controller
- Conforms to SMEMA Spec. 1,2
- Selective Functions : Buffer (FIFO, LIFO) / by-pass
- Individual belt operating (Non-touch handling)
- Max PCB loading capacity : 12pcs (Based on 1 pitch)
- Conveyor auto width adjustment



■ Specifications

MODEL	TYPE	PCB SIZE(L×W)	DIMENSION(L×W×H)	WEIGHT(kg)
ESB-200	SL	50×50~330×250	820×830×1400	220
	YL	50×50~430×330	1020×930×1400	250
	XL	50×50~530×460	1220×1070×1400	300

*Other requirement available upon your request

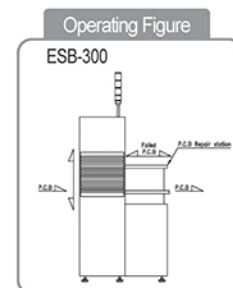
N.G BELT BUFFER

ESB-300

Design for stack up NG PCBs after inspection machines. As machine has repair function, operator can check stacked PCB and depends on the operator check result, repaired PCB can return to production without any interruption and delay of production.

■ Features

- Programmable Logic Controller
- Conforms to SMEMA Spec. 1,2
- Store failed boards after the automatic optical inspection or insert circuit test
- Transfer the good/pass board to next process
- Selective Functions : All repair / NG repair / All stock(FIFO) / by-pass
- Individual belt operating (Non-touch handling)
- Max PCB loading capacity : 12pcs (Based on 1 pitch)
- Include repair station for failed board
- Conveyor auto width adjustment



■ Specifications

MODEL	TYPE	PCB SIZE(L×W)	DIMENSION(L×W×H)	WEIGHT(kg)
ESB-300	SL	50×50~330×250	870×830×1600	230
	YL	50×50~430×330	1045×930×1600	260
	XL	50×50~530×460	1220×1070×1600	310

*Other requirement available upon your request

MULTI PURPOSE BUFFER

ESM-100 / ESM-200

Designed to balance the production line and have multi purpose buffer function.

■ Features

- Programmable Logic Controller
- Conforms to SMEMA Spec. 1,2
- Using user's magazine rack (Magazine rack capacity : 1 rack)
- Touch screen
- ESM-100 Selective functions : Buffer(FIFO/LIFO) / by-pass / NG
- ESM-200 Selective functions : Buffer(FIFO/LIFO) / by-pass / NG / loader / unloader

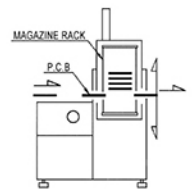
■ Options

- Auto or semi-auto width adjustment
- Pusher auto position as half of conveyor width
- Safety cover



Operating Figure

ESM-100 / ESM-200



■ Specifications

MODEL	TYPE	PCB SIZE(L×W)	MAGAZINE SIZE(L×W×H)	DIMENSION(L×W×H)	WEIGHT(kg)
ESM-100 / ESM-200	SL	50×50~330×250	355×318×570	1050×715×1150	200
	YL	50×50~430×330	460×400×570	1250×795×1150	220
	LL	50×50~530×390	535×460×570	1450×885×1150	250
	XL	50×50~530×460	535×530×563	1450×955×1150	280

*Other requirement available upon your request

CE MULTI PURPOSE BUFFER

ESM-100C / ESM-200C

Designed to balance the production line and have multi purpose buffer function according to CE regulations.

■ Features

- Programmable Logic Controller
- Conforms to SMEMA Spec. 1,2
- Using user's magazine rack (Magazine rack capacity : 1 rack)
- Touch screen
- Safety cover
- ESM-100C Selective functions : Buffer(FIFO/LIFO) / by-pass / NG
- ESM-200C Selective functions : Buffer(FIFO/LIFO) / by-pass / NG / loader / unloader

■ Options

- Auto or semi-auto width adjustment
- Pusher auto position as half of conveyor width



■ Specifications ● CE Appliance

MODEL	TYPE	PCB SIZE(L×W)	MAGAZINE SIZE(L×W×H)	DIMENSION(L×W×H)	WEIGHT(kg)
ESM-100C / ESM-200C	SL	50×50~330×250	355×318×570	1050×715×1650	210
	YL	50×50~430×330	460×400×570	1250×795×1650	230
	LL	50×50~530×390	535×460×570	1450×885×1650	260
	XL	50×50~530×460	535×530×563	1450×955×1650	290

*Other requirement available upon your request

WORK STATION

EWT-100

Designed to work / inspect PCB and transfer it to next process.

■ Features

- Programmable logic controller
- Inspect / by-pass mode
- Conveyor speed adjustment
- Conforms to SMEMA Spec. 1,2

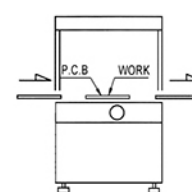
■ Options

- Touch screen
- Auto or semi-auto width adjustment
- Able to buffer by additional motor drive



Operating Figure

EWT-100



■ Specifications

MODEL	TYPE	PCB SIZE(L×W)	DIMENSION(L×W×H)	WEIGHT(kg)	SPEED
EWT-100	SL	50×50~330×250	800×585×1826	80	0~180 mm/sec (60Hz)
	YL	50×50~430×330	800×685×1826	90	
	XL	50×50~530×460	800×795×1826	100	

*Other requirement available upon your request

CONNECTING CONVEYOR

ECC-600

Designed to balance the production line and transfer PCB to next process.

■ Features

- Programmable logic controller
- Conforms to SMEMA Spec. 1,2

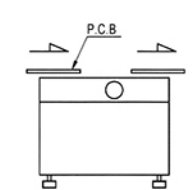
■ Options

- Touch screen
- Auto or semi-auto width adjustment
- Able to buffer by additional motor drive
- Conveyor speed adjustment
- Safety cover



Operating Figure

ECC-600



■ Specifications

MODEL	TYPE	PCB SIZE(L×W)	DIMENSION(L×W×H)	WEIGHT(kg)	SPEED
ECC-600	SL	50×50~330×250	800×550×910	70	180 mm/sec (60Hz)
	YL	50×50~430×330	800×650×910	80	
	XL	50×50~530×460	800×760×910	90	

*Other requirement available upon your request

TURNING CONVEYOR

ETC-180

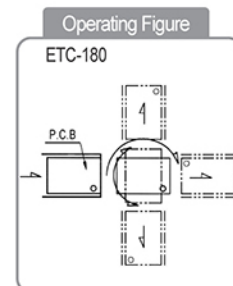
Designed to pass to 90 degree clockwise / 90 degree count clockwise / 180 degree of next process.

■ Features

- Programmable logic controller
- Conveyor speed : 50Hz~150mm/sec, 60Hz~180mm/sec
- Including by-pass mode
- Conforms to SMEMA Spec. 1,2

■ Options

- Touch screen
- Conveyor speed adjustment
- Auto or semi-auto width adjustment
- 3 color light tower lamp with audible alarm



■ Specifications

MODEL	TYPE	PCB SIZE(L×W)	DIMENSION(L×W×H)	WEIGHT(kg)
ETC-180	SL	50×50~330×250	550×550×1100	80
	YL	50×50~430×330	650×650×1100	90
	XL	50×50~530×460	950×950×1100	100

*Other requirement available upon your request

INVERTER

EIV-180

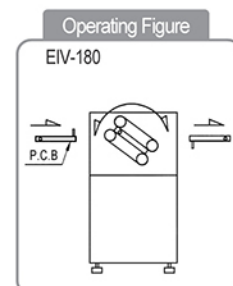
Designed to accept a PCB and route as a "pass through" or "rotate" for double side working of PCB. (180° flip)

■ Features

- Programmable logic controller
- Conveyor speed : 50Hz~150mm/sec, 60Hz~180mm/sec
- Including by-pass mode
- Conforms to SMEMA Spec. 1,2

■ Options

- Touch screen
- Conveyor speed adjustment
- Auto or semi-auto width adjustment
- 3 color light tower lamp with audible alarm



■ Specifications

MODEL	TYPE	PCB SIZE(L×W)	DIMENSION(L×W×H)	WEIGHT(kg)
EIV-180	SL	50×50~330×250	450×630×1300	130
	YL	50×50~430×330	550×730×1300	150
	XL	50×50~530×460	650×830×1300	180

*Other requirement available upon your request

GATE CONVEYOR

EGC-300 / EGC-500

Design to provide a normally open (EGC-300) or normally close (EGC-500) walkway through a production line. The shuttle gate move to deliver PCB and make clear walkway.

■ Features

- Programmable Logic Controller
- Conveyor speed : 50Hz~150mm/sec, 60 Hz~180mm/sec
- Safety "Stop" walkway sensors
- Conforms to SMEMA Spec. 1,2

■ Options

- Touch screen
- Auto or semi-auto width adjustment
- Conveyor speed adjustment
- 3 color light tower lamp with audible alarm
- Safety cover



■ Specifications

MODEL	TYPE	PCB SIZE(L×W)	DIMENSION(L×W×H)	GATEWAY	WEIGHT(kg)
EGC-300	YL	50×50~430×330	670(1270)×650×910	600mm	160
	XL	50×50~530×460	670(1270)×750×910	600mm	180
EGC-500	YL	50×50~430×330	1570×650×910	500mm	180
	XL	50×50~530×460	1570×750×910	500mm	200

*Other requirement available upon your request

PASSAGEWAY CONVEYOR

EPC-300

Designed to provide a 500mm walkway through the production line being normally closed and operate as a transfer conveyor.

■ Features

- Programmable Logic Controller
- Conveyor speed : 50Hz~150mm/sec, 60 Hz~180mm/sec
- Conforms to SMEMA Spec. 1,2

■ Options

- Touch screen
- Auto or semi-auto width adjustment
- Conveyor speed adjustment
- 3 color light tower lamp with audible alarm
- Safety cover



■ Specifications

MODEL	TYPE	PCB SIZE(L×W)	DIMENSION(L×W×H)	GATEWAY	WEIGHT(kg)
EPC-300	SL	50×50~330×250	1100×650×950	500mm	80
	YL	50×50~430×330	1200×750×950	500mm	90
	XL	50×50~530×460	1300×860×950	500mm	100

*Other requirement available upon your request

SLIDING CONVEYOR

ESC-300

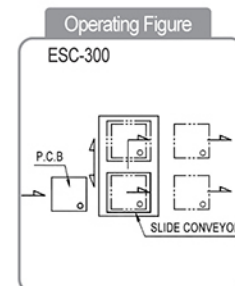
Designed to shuttle PCB to transfer to next process. Designed to collect PCB as two lines to one line / to distribute PCB as one line to two lines. Can be utilized after the inspection machine.

■ Features

- Programmable logic controller
- Conveyor speed : 50Hz~150mm/sec, 60Hz~180mm/sec
- Including by-pass mode
- Conforms to SMEMA Spec. 1,2

■ Options

- Touch screen
- Conveyor speed adjustment
- Auto or semi-auto width adjustment
- 3 color light tower lamp with audible alarm
- Various shuttle stroke



■ Specifications

MODEL	TYPE	PCB SIZE(L×W)	DIMENSION(L×W×H)	STROKE	WEIGHT(kg)
ESC-300	SL	50×50~330×250	580×1100×1100	480mm	90
	YL	50×50~430×330	680×1200×1100	580mm	100
	XL	50×50~530×460	780×1300×1100	680mm	110

*Other requirement available upon your request

DUST REMOVER

EDR-300

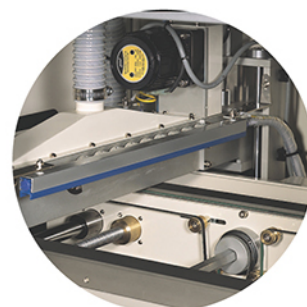
Designed to remove/clean dust from a bare board in the front of the production.

■ Features

- Programmable Logic Controller
- Anti-Static brush or Air knife
- Ionizing Bar
- Fine tune control for brush's height
- Including by-pass mode
- Able to link with vacuum pick up loader / Destacker / magazine loader
- Conveyor speed adjustment

■ Options

- Conveyor : Auto width adjustment
- Ion blower



→ Inside view



■ Specifications

MODEL	TYPE	PCB SIZE(L×W)	DIMENSION(L×W×H)	WEIGHT(kg)
EDR-300	YL	50×50~430×330	800×700×1300	240
	XL	50×50~530×460	900×810×1300	280

*Other requirement available upon your request

FLAT BELT CONVEYOR

EFC-2000

Designed to be used as a linear work station for manual inserting production line.

■ Features

- Able to adjust conveyor speed
- Various belt's width



*Other requirement available upon your request

MANUAL INSERTION CONVEYOR

EMC-3000 / TOUCH-UP SMC

Designed to be used as a linear work station for manual inserting production line.

■ Features

- Programmable Logic Controller
- Conveyor speed adjustment
- 06B chain roller running
- Conforms to SMEMA Spec. 1,2

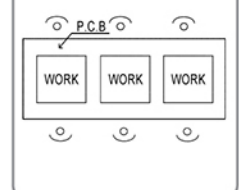
■ Options

- Various conveyor length
- Buffering by pneumatic stopper
- Work table



TOUCH-UP SMC

Operating Figure
TOUCH-UP SMC



*Other requirement available upon your request

TILTING INSERTION CONVEYOR

EAC-3000 / EAC-500

EAC-3000 Designed to be used as a linear work station for manual inserting production line.

■ Features

- Programmable Logic Controller
- Conveyor speed adjustment
- Conforms to SMEMA Spec. 1,2

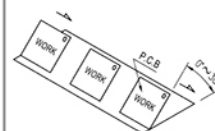
■ Options

- Auto or semi-auto width adjustment
- Touch screen



→ Fixed angle 15° / 30°

Operating Figure
EAC-3000



EAC-500 Designed to be used as a linear work station for manual inserting production line.
Located at EAC-3000 before and after.

■ Features

- Programmable Logic Controller
- Conforms to SMEMA Spec. 1,2

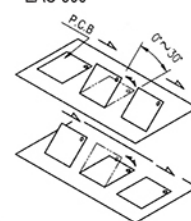
■ Options

- Auto or semi-auto width adjustment
- Touch screen



→ Tilting angle 0° ~ 30°

Operating Figure
EAC-500



■ Specifications

MODEL	TYPE	PCB SIZE(L×W)	DIMENSION(L×W×H)	WEIGHT(kg)
EAC-500	SL	50×50~330×250	500×700×1070	75
	YL	50×50~430×330	500×800×1070	85

*Other requirement available upon your request

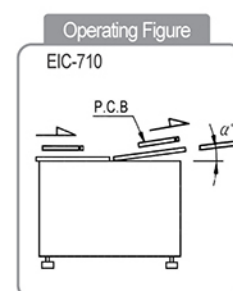
EIC-710 The adjustable incline feed conveyor is designed for easy set-up and alignment. This is generally used to feed various wave solder machines.

■ Features

- Programmable Logic Controller
- Conveyor speed : 50Hz~150mm/sec, 60Hz~180mm/sec
- Conforms to SMEMA Spec. 1,2
- Customized angle

■ Options

- Conveyor speed adjustment
- Auto or semi-auto width adjustment
- 3 color light tower lamp with audible alarm



■ Specifications

MODEL	TYPE	PCB SIZE(L×W)	DIMENSION(L×W×H)	WEIGHT(kg)
EIC-710	SL	50×50~330×250	1000×550×960	80
	YL	50×50~430×330	1100×650×960	90
	XL	50×50~530×460	1200×760×960	100

*Other requirement available upon your request

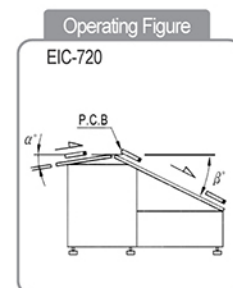
EIC-720 The adjustable decline feed conveyor is designed for easy set-up and alignment. This is generally used after various wave solder machines.

■ Features

- Programmable Logic Controller
- Conveyor speed : 50Hz~150mm/sec, 60Hz~180mm/sec
- Conforms to SMEMA Spec. 1,2
- Customized angle

■ Options

- Conveyor speed adjustment
- Auto or semi-auto width adjustment
- 3 color light tower lamp with audible alarm
- Able to install cooling fan



■ Specifications

MODEL	TYPE	PCB SIZE(L×W)	DIMENSION(L×W×H)	WEIGHT(kg)
EIC-720	SL	50×50~330×250	2180×550×1470	150
	YL	50×50~430×330	2180×650×1470	170
	XL	50×50~530×460	2180×760×1470	180

*Other requirement available upon your request

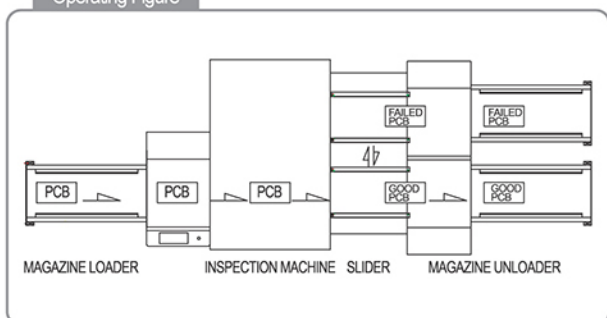
INSPECTION IN-LINE SYSTEM

EIT-5000

Designed to integrate the inspection system.
Utilize to an independent inspection line or link to the whole production line.

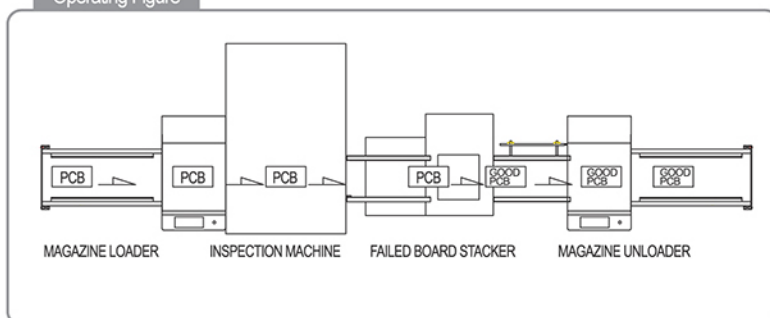


Operating Figure



→ Sliding Type

Operating Figure



→ Stacker Type

Specifications

MODEL	CAPACITY	TYPE	DIMENSION(L×W×H)			WEIGHT(kg)
			PCB LOADING	OK/NG DISTRIBUTING	PCB UNLOADING	
EIT-5000 (Sliding Type)	5racks UP:2 DOWN:3	SL	1640×870×1100	580×1070×1100	1640×1420×1100	610
		YL	2030×980×1100	680×1250×1100	2030×1610×1100	680
		LL	2410×1070×1100	780×1400×1100	2400×1800×1100	750
		XL	2410×1140×1100	780×1550×1100	2400×1900×1100	820
EIT-5000 (Stacker Type)	5racks UP:2 DOWN:3	SL	1640×870×1100	1140×750×1120	2150×1420×1100	720
		YL	2030×980×1100	1260×850×1120	2640×1600×1100	800
		LL	2410×1070×1100	1460×950×1120	3120×1800×1100	890
		XL	2410×1140×1100	1550×990×1120	3120×1900×1100	970

*Other requirement available upon your request

SUBSTRATE LOADER & UNLOADER

EBL-800 / EBU-800

Designed to load/unload the bare substrates in magazine rack.

■ Features

- Magazine rack capacity : Max 8 racks (Top : 4, Bottom : 4)
- Magazine lifter Up/Down controlled by servo motor
- Touch screen
- Programmable Logic Controller
- Conforms to SMEMA Spec. 1,2

■ Options

- Conveyor : Auto width adjustment



■ Specifications

MODEL	SUB STRATE SIZE(L×W)	MAGAZINE SIZE(L×W×H)	DIMENSION(L×W×H)	WEIGHT(kg)
EBL-800	120×50~250×110	150×60×150~250×120×150	1150×1150×1650	350
EBU-800	120×50~250×110	150×60×150~250×120×150	805×1150×1650	350

*Other requirement available upon your request

SUBSTRATE MAGAZINE VACUUM LOADER

EBVL-800

Designed to load the bare substrates by combination of magazine and vacuum handler.

■ Features

- Magazine rack capacity : Max 8 racks (Top : 4, Bottom : 4)
- Magazine lifter Up/Down controlled by servo motor
- Touch screen
- Programmable Logic Controller
- Conforms to SMEMA Spec. 1,2

■ Options

- Conveyor : Auto width adjustment



■ Specifications

MODEL	SUB STRATE SIZE(L×W)	MAGAZINE SIZE(L×W×H)	DIMENSION(L×W×H)	WEIGHT(kg)
EBVL-800	120×50~250×110	150×60×150~250×120×150	1250×1000×1650	500

*Other requirement available upon your request

WAFER LOADER & UNLOADER

EWL-100 / EWU-100

Designed to load/unload the Wafers in cassette automatically.

■ Features

- Programmable Logic Controller
- Touch screen
- Conforms to SMEMA Spec. 1,2
- Able to use two size wafer : 6",8"
- Wafer cassette loading : 1 wafer cassette



→ Inside view



■ Specifications

MODEL	WAFER SIZE	DIMENSION(L×W×H)	WEIGHT(kg)
EWL-100	6" 8"	560×475×1200	100
EWU-100	6" 8"	560×475×1200	100

*Other requirement available upon your request

WAFER BUFFER STACKER

EWB-100

Designed to balance the production line and store wafer in rack and deliver wafers to next process.

■ Features

- Programmable Logic Controller
- Touch screen
- Conforms to SMEMA Spec. 1,2
- Able to use two size wafer : 8",12"
- Wafer buffering : 24 wafers



■ Specifications

MODEL	WAFER SIZE	DIMENSION(L×W×H)	WEIGHT(kg)
EWB-100	8" 12"	700×610×1300	200

*Other requirement available upon your request

OFF-LINE ROUTER SERIES

ETR-400 / ETR-200

Designed to depanel PCB by high torque spindle and separate the main panel PCB and arrayed PCBs as off-line.

■ Features

- 1-shuttle(ETR-400)/2-shuttles(ETR-200)
- Movement : X,Y,Z Axis by Robot
- Using the BIT for cutting
- HF Motor Spindle (60,000 rpm)
- Using PCB holding jig
- Alarm function for bit change/dust collect cleaning period
- Anti-static ionizer
- Alarm function for spindle bit break detection

■ Options

- Teaching camera
- Able to install additional spindle head
- Dust collector



■ Specifications

MODEL	TYPE	PCB SIZE(L×W)	DIMENSION(L×W×H)	WEIGHT(kg)
ETR-400	SL	50×50~330×250	1000×1250×1550	450
ETR-200	SL	50×50~330×250	1250×1400×1550	750

★Dust collector : 3phase

*Other requirement available upon your request

IN-LINE ROUTER

APR-100

Design to cut array board or separate the main board by high torque spindle as in-line.

■ Features

- In-line type
- Movement : X,Y,Z Axis by Robot
- Using the BIT for cutting
- HF Motor Spindle (60,000 rpm)
- Using PCB holding jig
- Alarm function for bit change/dust collect cleaning period
- Anti-static ionizer
- Alarm function for spindle bit break detection
- Conveyor : Auto Width adjustment

■ Options

- Teaching camera
- Able to install additional spindle head
- Dust collector



■ Specifications

MODEL	TYPE	PCB SIZE(L×W)	DIMENSION(L×W×H)	WEIGHT(kg)
APR-100	SL	50×50~330×250	1800×1300×1850	700

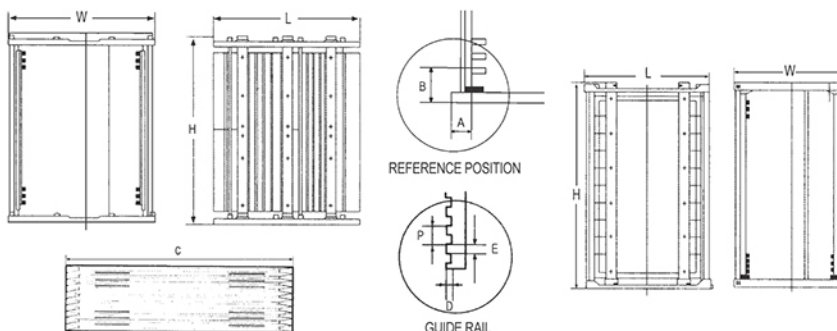
★Dust collector : 3phase

*Other requirement available upon your request

NTC Series



Operating Figure

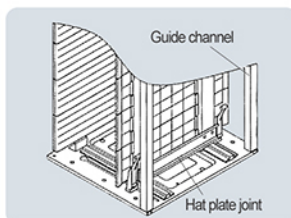


Specifications

TYPE	MODEL	TEMP RANGE		DIMENSION				REF POSITION		GUIDE RAIL				WEIGHT (kg)
		TYPE1	TYPE2	L	W	H	AJ	A	B	C	D	E	P	
SL	NTC-091	60℃	120℃	355	320	580	50-258	34	35	330	3	3	10	5.2
SL	NTC-092	60℃	120℃	355	320	570	50-258	34	35	330	3	3	10	4.8
SL	NTC-097	60℃	120℃	355	320	570	50-258	34	35	330	5	5	10	6.0
SL	NTC-098	~250℃		355	320	570	50-250	34	35	335	3	3	10	6.0
YL	NTC-096	60℃	120℃	460	400	575	68-334	34	35	460	3	5	10	7.0
LL	NTC-093	—	120℃	535	460	570	60-390	34	35	530	4	5	10	8.7
XL	NTC-100	—	120℃	535	530	575	150-460	34	35	535	4	5	10	9.5
XXL	NTC-101	—	120℃	620	530	575	150-460	34	35	600	4	5	10	9.5

NIKKO-RACK Series

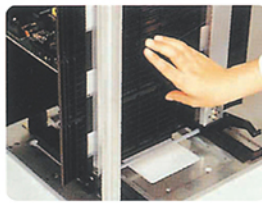
→ NKAJ-0525N/NKAJ-0525R



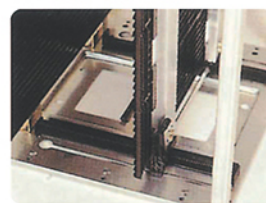
1 Release the lever



2 Set the width



3 Lock the lever



Specifications

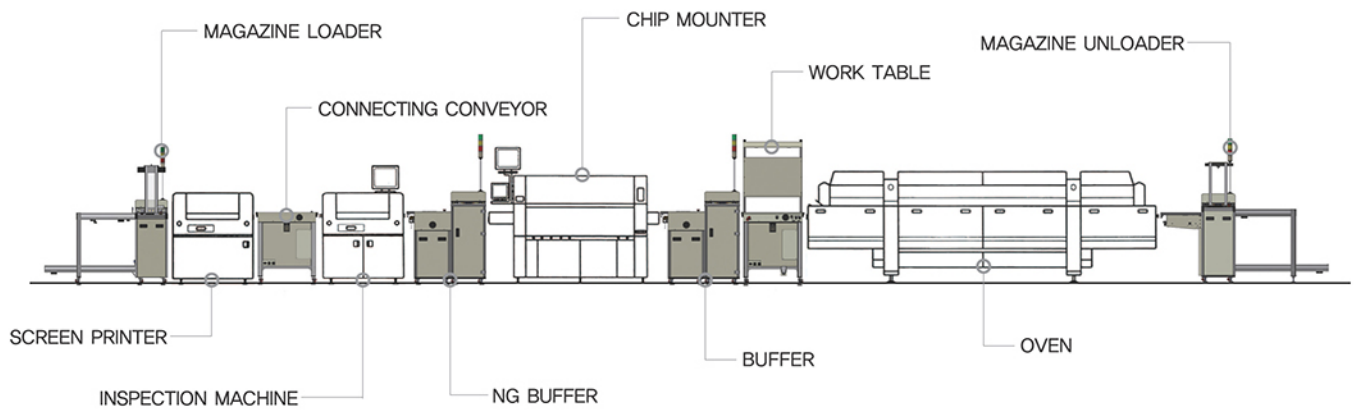
TYPE	MODEL	BASE #1	AJ #2	TEMP #3	DIMENSION				REF POSITION		GUIDE RAIL				WEIGHT (kg)
					L	W	H	AJ	A	B	C	D	E	P	
SL	NKAJ-0525N 4C-G	M	Rack & Pinion	60°C	355	320	563	50-250	34	34	353	3.0	5.0	10	5.5
SL	N25 4C	P		60°C	355	320	563	50-250	34	34	353	3.0	5.0	10	4.1
SL	NKAJ-0525R 4C-G	M		135°C	355	320	563	50-250	34	34	353	3.0	5.0	10	5.6
SL	R25 4C	P		135°C	355	320	563	50-250	34	34	353	3.0	5.0	10	4.1
YL	NKAJ-0733 R-G	M		135°C	460	400	565	70-330	35	35	460	3.0	5.0	10	9.5
LL	NKAJ-0539 R-G	M		135°C	535	460	570	50-390	34	41	530	3.0	5.0	10	12.7
XL	NKAJ-0546 R-G	M		135°C	535	530	563	40-460	34	34	530	3.0	5.0	10	14.7
-	NKAJ-0531 R-G	M		135°C	535	380	570	50-310	34	41	530	3.0	5.0	10	10.8

#1: "M" designates "Metal Base" "P" designates "Plastic Base"

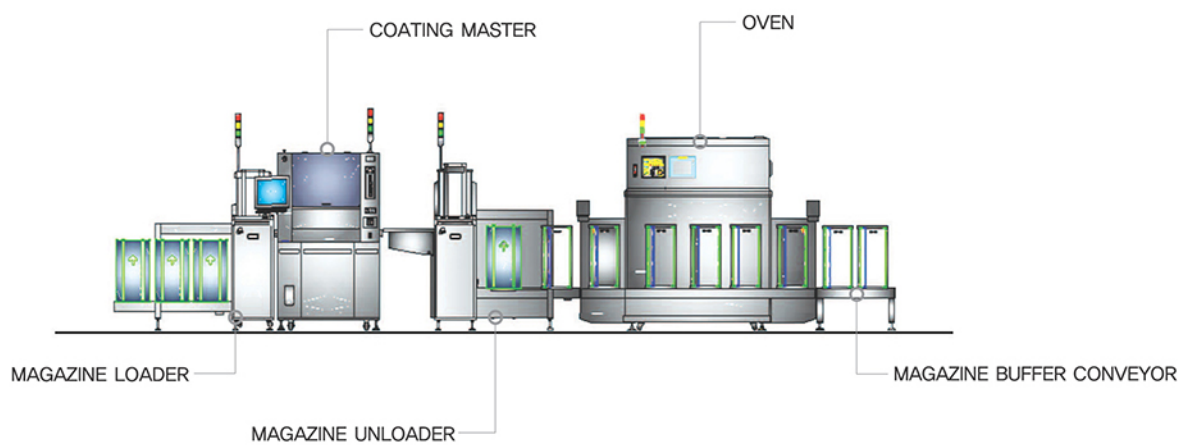
#2: "AJ" designates the method of adjusting the width using a screw or with our patented rack & pinion adjust system.

#3: The maximum allowable temperature of the boards only and not the entire magazine.

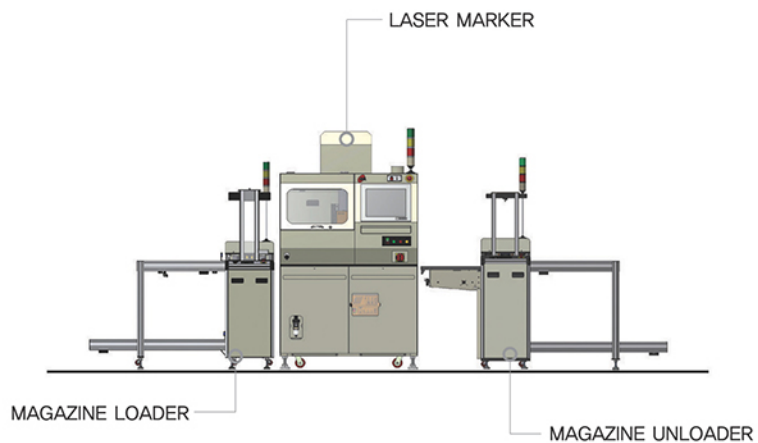
SMT Line



Coating Line



Laser Line





World Wide Leader

PCB HANDLING EQUIPMENT

www.eunil.com



**EUNIL CO.,LTD.
HEAD OFFICE**

25, Seongseo-ro 68-gil, Dalseo-gu, Daegu,
Korea. 42697
TEL. +82-53-591-8488
FAX. +82-53-591-7621
E-mail : sales@eunil.com

**EUNIL CO.,LTD.
JUNGBU SALES OFFICE**

Royal Plaza #306, 216, Bijeon 2-ro,
Pyeongtaek-si, Gyeonggi-do, Korea, 17854
TEL. +82-31-651-6862
FAX. +82-31-651-6863
E-mail : jskim@eunil.co.kr

**EUNIL F.A. PTE. LTD.
SINGAPORE BRANCH OFFICE**

80, Marine Parade Road, #07-06
Parkway Parade, Singapore 449269
TEL. +65-6547-0488
FAX. +65-6547-1898
E-mail : eunil@singnet.com.sg

**EUNIL H.A. AMERICAS INC.
U.S.A BRANCH OFFICE**

2505 Windward way, Chula Vista,
CA 91914, U.S.A
TEL. +619-661-8275
FAX. +619-661-1122
E-mail : sales@eunilam.com

**EUNIL JAPAN CO., LTD.
JAPAN BRANCH OFFICE**

1-16 Horikiri, Kanazawa, Matsukawa-Town,
Fukushima-City, Fukushima-Pref, 960-1246, Japan
TEL. +81-24-537-2777
FAX. +81-24-567-7710
E-mail : satoh@tts-japan.net

EUNIL **EUNIL CO., LTD.**
www.eunil.com

* Changes in specifications and appearance may be made without notice for product improvement.