



Automation Equipment Manufacturer

SSOTRON

Total Solution Provider for your Application

COMPANY PROFILE

Company Overview

SS OTRON Co., Ltd.

President | Mr. Shin Kye-Chul
 Founded | 2006. 01
 Employee | 105
 Address | 39, Paŋang-ŋo 482beon-gil, Seo-gu, Incheon, Koŋea 22770
 Website | www.ssotron.co.kr
 Contact | Tel) +82 32-519-5490 FAX) +82 32-513-5490
 Business | Semiconductor/ Display/ Automation Manufacturing & Development

→ Patent & Certificate

29ea



→ Company History

- 2006. 01 Samsung Otron Founded
- 2008. 07 ISO 9001:2008 & KS Q ISO 201:2009 Certification Acquisition
- 2009. 03 Promising company designated in Incheon
- 2010. 05 Re-named SS OTRON Co., Ltd
- 2010. 06 Incheon Predominant Company Technology Reward
- 2012. 06 Acquired export prominent Corporation.
- 2012. 12 Registered PATENT of Tray Automatic Multi Loading System for MLF
- 2013. 05 Commendation of Ministry of Science, ICT and Future Planning
- 2014. 12 US\$3Million Export Top Reward
- 2017. 01 Registered PATENT for Semiconductor Chip Inspection Machine (Patent No. 10-1697119)
- 2018. 10 Registered PATENT for Semiconductor Package Tray Exchanger (Patent No. 0-1910354)
- 2023. 04 Transfer to New Factory at Chung-Ra



New Factory at Chung-Ra

Company Training

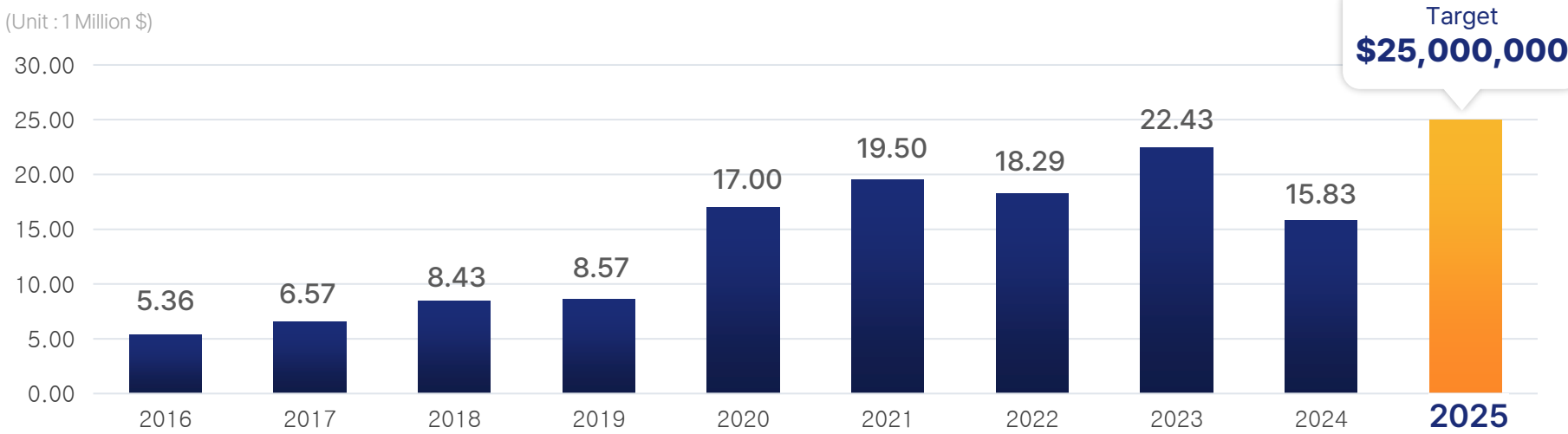


**You Can Do It !
Just Do It !
Get It Done !**

Sales Records

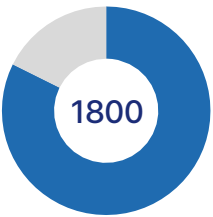


2025 Sales Target



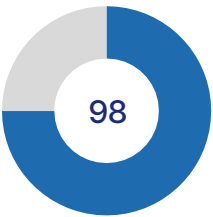
2025 Sales Status

Loader / Unloader / Diverter



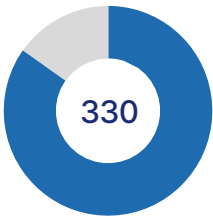
1450 set

Trim / Form / Singulation



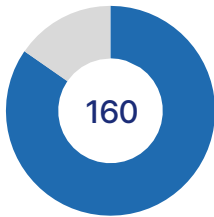
80 set

JIG & Strip Marking



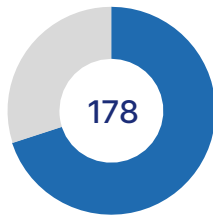
285 set

Pick & Place



143 set

Vision Inspection



148 set

Our Customer

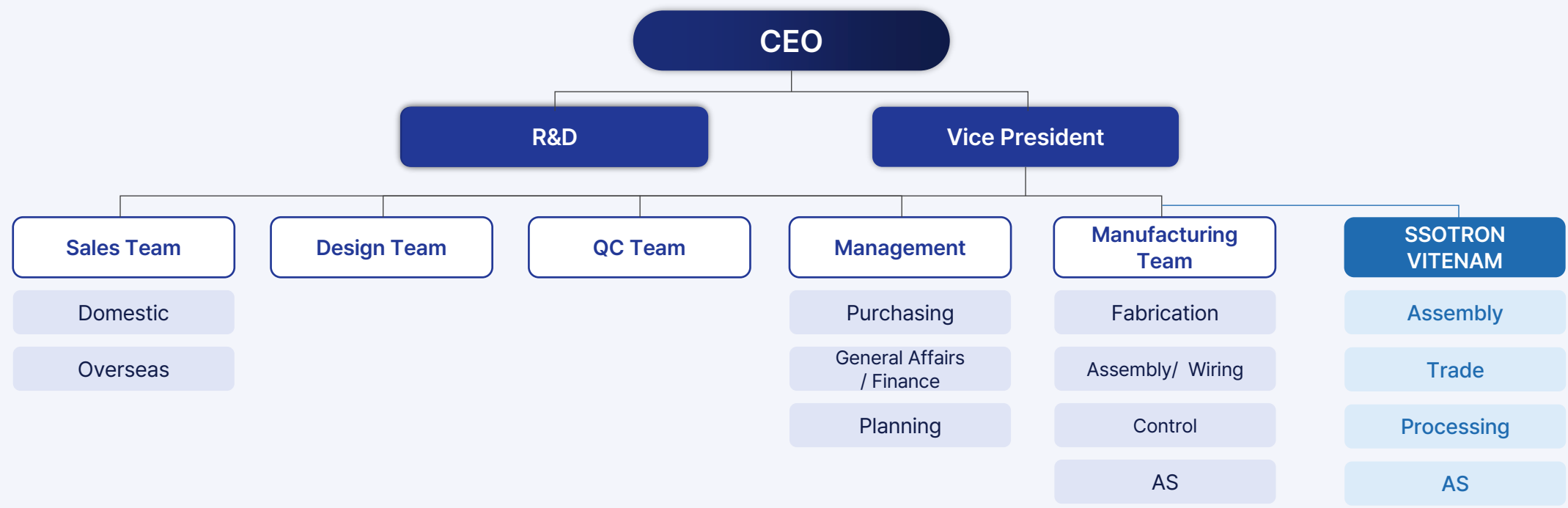


Global Agent Status



Vietnam SSOTRON VINA	Europe Nanotec-gmbh.de	India Aura-semicon	Taiwan Sellingware	Malaysia FANCO
Mexico & USA AHTECH Co., LTD	Singapore & Indonesia Ptisemi	Thailand IST	Philippines Matrix	China KST

Organization



Design & Technology Staff

- Design : 15
- Control & Vision : 15
- Manufacturing : 16
- A/S : 11
- Sales & Management : 11
- outsourcing : 35
- Vision Dept : 12

Total
115

Factory

- 1st Factory : Chung-ra
- 2nd Factory : Bupyeong
- 3rd Factory : Pochen
- 4rd Factory : Nonsan

In-house Facility

- MCT / Wire Cutting
- Milling / Grinding
- EDM
- TTL : 18 sets

Smart & Speed & Optimization (SS OTRON)

Semiconductor

- Inspection (AOI) System
- Automation System
- Magnetic JIG Loading / Un Loading System
- Strip Mounter / Taping & De Taping System
- Test Handler System
- Pick & Placement System
- Marking System
- Trim / Form / Singulation System
- Loader / Unloader / Diverter System
- Cleaning System
- UV Curing System
- Secs Gem / FTP Program Develop



Display / LED

- Lens Mount System
- Lens Molding System
- Trim / Form / Singulation System
- Strip Mounter / Taping & De Taping System
- Test Handler System

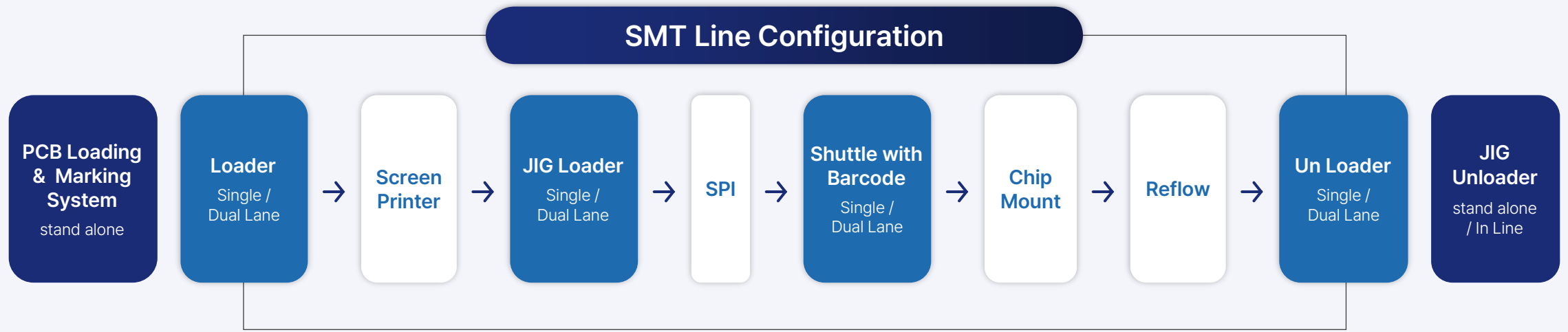


Module / Precision

- Trim / Form / Singulation Module
- Clip Tool Magazine
- JIG / Boat / Cover / Magazine
- Wafer Cassette / Wafer Ring Frame
- Heater Block / Clamp Magazine



SMT Line Configuration



PCB Loading Marking



Dual Loader



Dual JIG Loader



Dual Shuttle



Dual Un Loader



JIG Un Loader



Flip Chip BGA Line Configuration

- **Boat Loader System** (Matrix Boat / Single Boat)
- **Diverter PSI System** (Matrix Boat / Single Boat)
- **Diverter / Dual Long shuttle System** (Matrix Boat / Single Boat)
- **Boat Un Loader System** (Matrix Boat / Single Boat)
- **Flux Cleaner Boat Cover Recycle Loader System** (Matrix Boat / Single Boat)
- **Flux Cleaner Boat Cover Recycle Un Loader System** (Matrix Boat / Single Boat)
- **Unit Pick & Place System**

Single loader



Diverter +PSI



Diverter



Single Un Loader



Cover boat
Loader



Off loader P&P
System



Diverter recycle
Off loader



Unit P&P System



LOADER & UN LOADER FOR SAT INSPECTION (FLIP CHIP BGA)



Size : 5200 x 1600 x 2160 mm



System Performance	
Applicable Substrate	Matrix Boat & Unit (160 x 310 mm)
Applicable Tools	Matrix Boat
Size	5200 x 1600 x 2160 mm / 1365 x 1600 x 2160 mm (LD/ ULD)
Control	PC Control + Touch Monitor
Utility	AC 220V 50/60 Hz 3Phase / 7BAR & ø12 x 1ea
Vision & Communication	1. MGZ RFID Reading 2. MGZ 2D ID Reading Vision 3. Boat 2D ID Reading Vision (Validation & Orientation) 4. Unit 2D ID Reading Vision
Construction	Loader : 1. MGZ Loading Part 2. Boat Pusher Part 3. Fix Roller Rail Part 4. Shuttle Rail Part 5. Vision Part Un loader: 1. MGZ Unloading Part (Empty / Good / Reject) 2. Inlet Roller Rail Part 3. Pusher Part 4. Vision Part
Serve Communication	SECS GEM & RMS

LOADER & UN LOADER FOR TC BONDER (FLIP CHIP BGA)



Auto Single Loader System
(SSO-ALS-500C)



Auto Off Loader System
(SSO-AOS-500C)



TC Bonder Current Module (APAMA)



TC Bonder New Module (APTURA)

System Performance

Applicable Substrate	Unit
Applicable Tools	Matrix Boat / Jig
Size	1500 x 1600 x 2200 mm / 1250 x 1600 x 2200 mm (LD/ ULD)
Control	PC Control + Touch Monitor
Utility	AC 220V 50/60 Hz 3Phase / 7BAR & ø12 x 1ea
Vision & Communication	1. MGZ RFID Reading 2. MGZ 2D ID Reading Vision 3. Cover & Boat & Unit 2D ID Reading Vision (Validation & Orientation) 4. 3D Tilt Check Vision
Construction	Loader : 1. MGZ Loading Part 2. Boat Pusher Part 3. Fix Roller Rail Part 4. Shuttle Rail Part 5. Vision Part 6. Cover Unloading Semi Cart Part Un loader : 1. MGZ Unloading Part (Empty / Good / Reject) 2. Inlet Roller Rail Part 3. Pusher Part 4. Vision Part 5. Ink Marking Part 6. Cover loading Semi Cart Part
Serve Communication	SECS GEM & RMS

WAFER SORTER SYSTEM (5FOUP)



System Performance	
Applicable Substrate	Wafer 8/12 inch (Silicon, molded, glass wafer)
Wafer Warpage	+/-3mm
Applicable Tools	8 / 12 inch Metal Cassette / FOUP
Class	1000
Size	2400 x 2000 x 2100 mm
Control	PC Control + Touch Monitor
Utility	AC 220V 50/60 Hz 3Phase / 7BAR & ø12 x 1ea
Vision & Communication	FOUP RFID Reader Wafer OCR Reading Vision
Construction	LOADER / UN LOADER PART (5EA) Pre aligner part Robot with linear track OCR Reading Vision CCTV
Server Communication	SECS GEM & RMS

Auto Cart Loader / Un Loader System

Model : SSO-ACLS-100 / SSO-ACUS-100



Cart Loader System (Model : SSO-ACLS-100)

Applicable Substrate	A Variety of Units
Applicable Tools	Matrix Boat / Matrix JIG
Size	2700 x 1800 x 2100 mm / 3300 x 2500 x 2200 mm
Control	PC Control + Touch Monitor
Utility	AC 220V 50/60 Hz 3Phase / 7BAR & ø12 x 2ea
Vision	1. GLE 2D ID Reading Vision 1ea 2. OCR Reading Vision 1ea 3. 3D Tilt Check Vision 1ea 4. Cover Orientation Check Vision 1ea 5. CO2 Ink Marking 1ea
Construction	1. MGZ Cart 2. Cart Loading Part 3. Pusher Part 4. Input Rail Part 5. Cover Loading Stack MGZ Part & Semi Cart 6. Boat / JIG Pick up Picker 7. Cover Pick up Picker 8. Shuttle Rail Part 9. Out put Roller Part 10. Recycle Rail Part 11. Unit Picker (2Head 8Picker)
Server Communication	SECS GEM

STRIP DETAPING SYSTEM WITH 2DUAL HEAD



System Performance	
Applicable Substrate	CA 74/77.5/95 mm Bare PCB
SPH	Min 150 S/H
Size	2800 x 1640 x 2038 mm
Control	PC Control + Touch Monitor
Utility	AC 220V 50/60 Hz 3Phase / 7BAR & ø12 x 1ea
Performance &	1. PCB 2D ID Reading vision 2. Detaping inspection vision 3. Warpage $\pm$ 3mm 4. SHP : Min 150 S/H 5. SECS GEM
Construction	1. PCB MGZ Loading Part 2. PCB Pusher Part 3. PCB pick up picker part 4. Dual PCB index Part (with Vacuum block) 5. Dual detaping head 6. PCB 2D ID Reading Vision 7. Inspection Vision 8. Ng buffer zone 9. PCB MGZ Unloading part
Server Communication	SECS GEM & RMS

Auto Tray Cleaning System

Model : SSO-TCS-200



System Performance

Applicable Substrate	Matrix Tray
Size	2645 x 1845 x 2000 mm
Tray Loading / Unloading	Tray Dual Loading / Dual Unloading (Tray Max Loading / Un loading 800ea)
Control	PLC Control + Touch Monitor
Utility	AC 220V 50/60 Hz 3Phase / 7BAR & ø12 x 8ea
Cleaning Method	Air Blower
SPH	Max. 720 Trays / hr
Process	Tray Load → Move to cleaning zone by conveyer from bottom → Start the 1st cleaning by brush → Move to cleaning chamber → Start the 2nd cleaning by using Air knife → Move to unload zone by conveyer belt → Stack trays on unload zone
Major Component	1. 1.Dual Tray Loading part (100ea x 4 =800ea) 2. 2.Dual Tray Unloading Part (100ea x 4 =800ea) 3. 3.Dual Tray Move Rail Part 4. 4.Dual Brush Part 5. 5.Dual Cleaning Chamber Part 6. 6.Dual Top / BTM Air Knife Part

2D Strip Laser Marking System



System Performance	
Applicable Substrate	Lead Frame (185.20 x 50.8 / 250 x 70 / 258 x 70 mm) PCB 235*70mm
Size	2645 x 1845 x 2000 mm
Load / Unload	Slot MGZ Loading / Unloading Max 3ea Loading
Control	PLC Control + Touch Monitor
Utility	AC 220V 50/60 Hz 3Phase / 7BAR & ø12 x 8ea
2D Marking	Keyence 2D Marking
Vision1 / 2	Orientation & 2D ID Check Vision 2D Marking Inspection Vision
Process	PCB/LF Slot MGZ Loading → Pusher Push PCB to Rail → 2D ID & Orientation Check → Picker Pick PCB to Marking Index → Marking → Marking → Marking Inspection → Picker Pick up PCB to Unloading Rail → PCB Unloading to MGZ → MGZ Unloading
Major Component	1. Slot MGZ Loading / Unloading Part 2. PCB Picker 3. Vision Part 4. Marking Kit 5. Marking Index Rail 6. Paper Box 7. CCTV

Tape Attach System



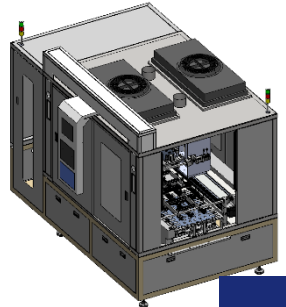
System Performance	
Applicable Substrate	QFN L/F 150–300mm(L), 60–100mm(W), 0.1–0.5mm(H) (For reference only)
Size	W2,650 x D1,800 x H1,700mm (without signal tower)
Load / Unload	Slot MGZ Loading / Unloading
Control	PC Base I7 Quad Core, 8G Byte Memory, Window 10 64bit
Utility	AC 220V 50/60 Hz 3Phase / 5~6kg/cm ²
SPH	Min. 120
Vision	1. Orientation & 2D ID Check Vision 2. Quality Inspection Vision
Process	Magazine Load → 2D QR & Ori inspection Inlet → Pick & Place→ Cleaning → Tape Attachment → Quality inspection(Optional) → Magazine Unload
Major Component	1. Magazine Load & Unload – 5stack 2. Load & Unload belt conveyor - Width Adjustable 3. Pick & Place – Servo motion (Load: 2D QR & Orientation inspection) 4. Cleaning module 5. Taping module 6. Quality inspection-Option

Auto Dual De-taping System



System Performance	
Function	Lead frame Dual Detaping system
Size	W2,600 x D2,200 x H1,800mm (without signal tower)
Load / Unload	Slot MGZ Loading / Unloading
Control	PC Base I7 Quad Core, 8G Byte Memory, Window 10 64bit
Utility	AC 220V 50/60 Hz 3Phase / 5~6kg/cm ²
SPH	Min. 120
Vision	1. Orientation & 2D ID Check Vision 2. Quality Inspection Vision
Process	Input MGZ loading -> Air blow & suction -> PCB orientation check -> De-taping-> De-tape residue check -> Output MGZ loading(NG MGZ operation)
Major Component	1. Load/ Un Load Section - 5MGZ 2. Lead Frame(L/F) 2DID & Orientation inspection 3. De-taping Section 4. Heating type Index(During De-Taping) 5. Pre Heating 6. Quilty Vision Section 7. Reject Zone 8. De - Taped Scrap Box

Auto Lamination System



On-Loader Conveyor

Laminator

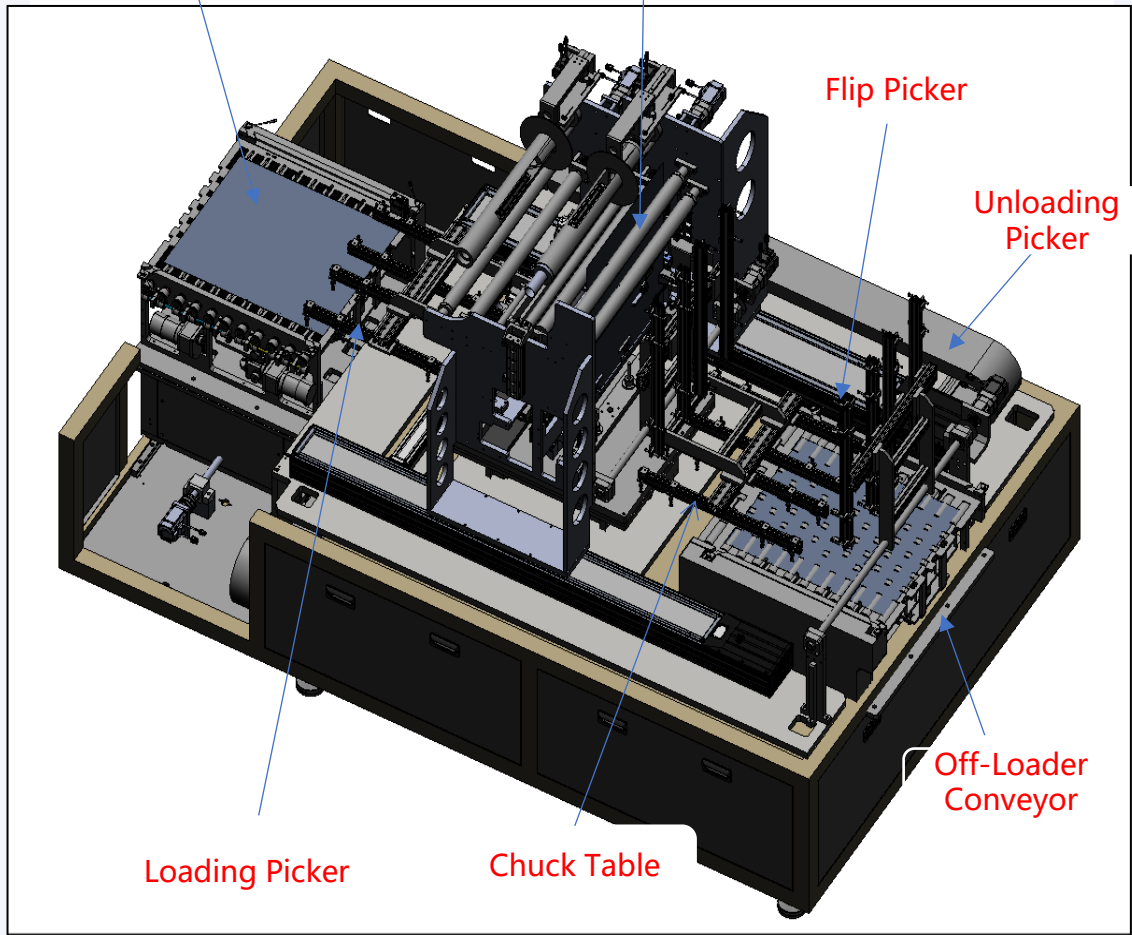
Flip Picker

Unloading
Picker

Loading Picker

Chuck Table

Off-Loader
Conveyor

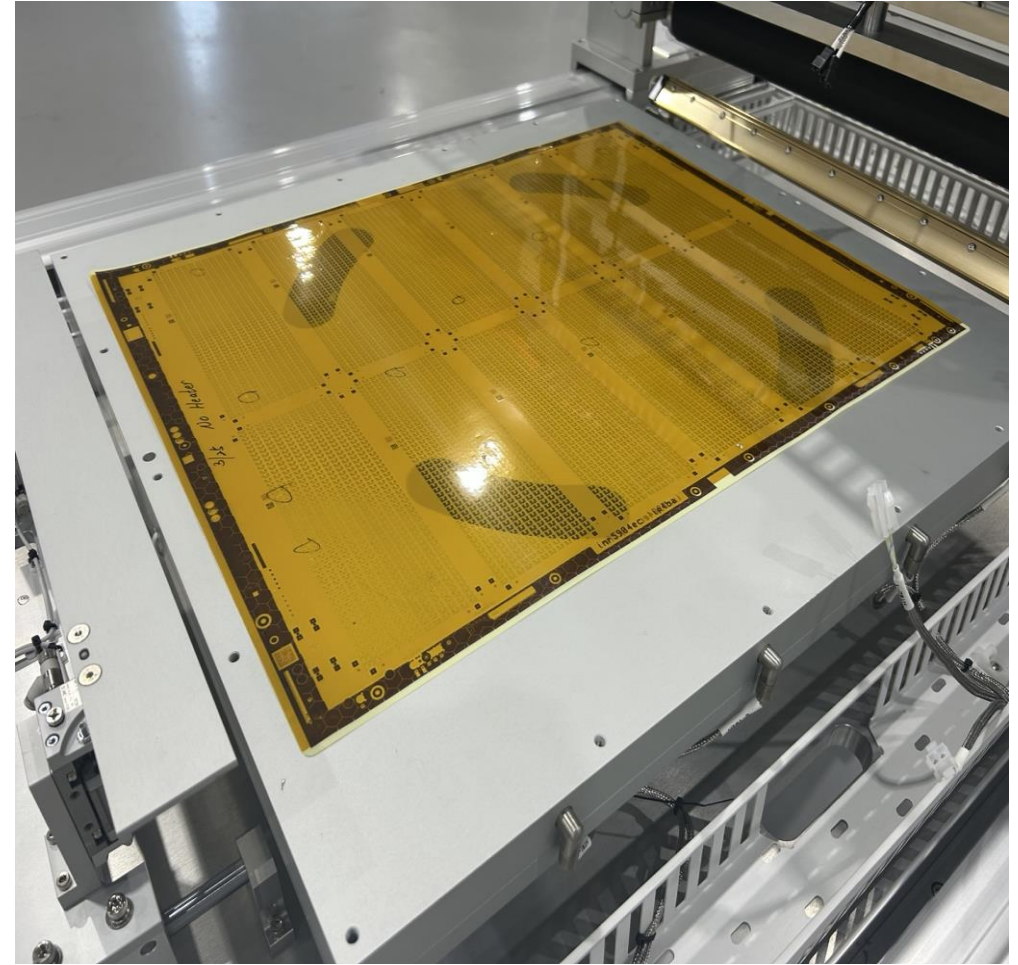
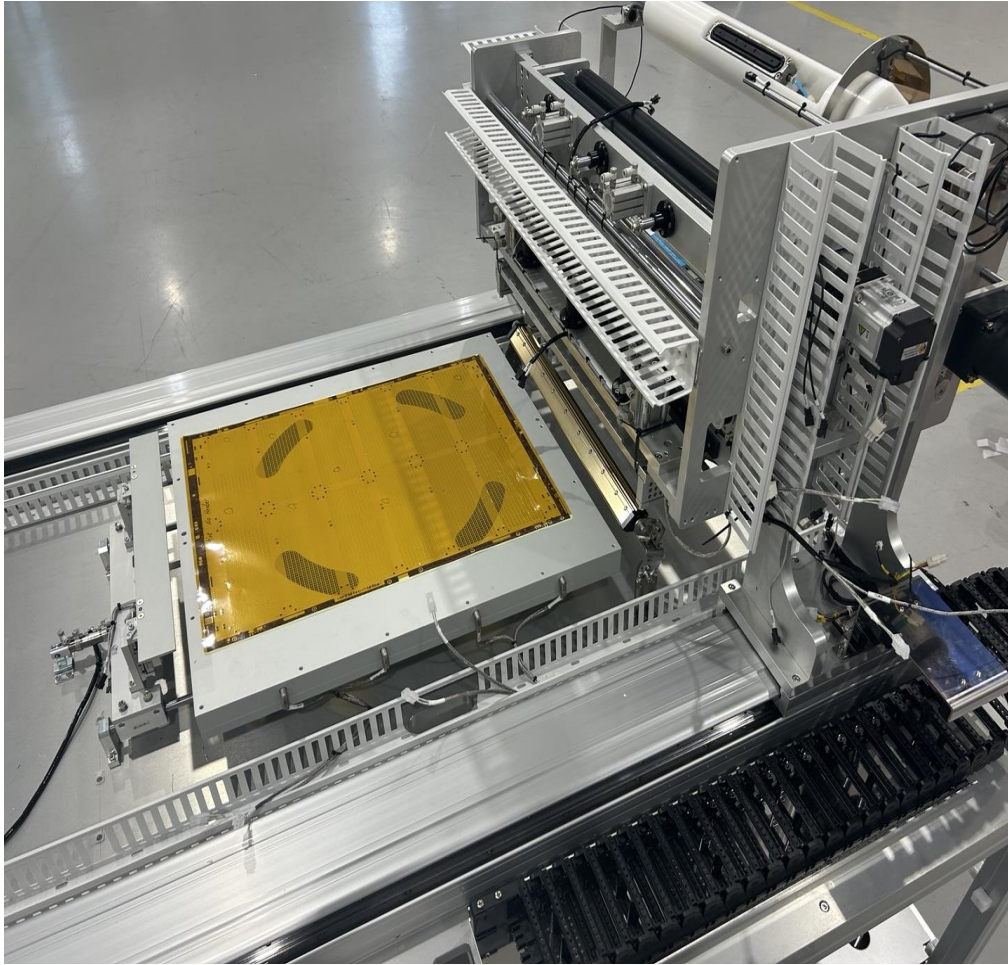


System Performance

Applicable Substrate	Etching PCB (Min.: 400(W) x 400(L)mm Max.: 640(W) x 640(L)mm) & Thickness : 50um ~ 3mm
Size	W3,400 x D2,300 x H2,450mm (without signal tower)
Load / Unload	Inline System by Conveyor
Control	PLC control
Utility	AC 220V 50/60 Hz 3Phase (Voltage transfer Available)
SPH	30pcs/hour
Vision	1. Orientation & 2D ID Check Vision 2. Quality Inspection Vision
Process	1. Panel Into Machine by Inlet Conveyor 2. Plate Up & Warpage Check 3. Plate Down & Panel Centering 4. Plate Up & Picker Pick up Pane 5. BTM 2D ID Reading & Place on Chuck Table 6. Chuck Table Vacuum on 7. Laminator Part Moving & Laminating & Cutting 8. Chuck Table Vacuum close & Flip Picker Pick Up Pane 9. Flip Picker & Unloading Picker Flip Panel 10. Unloading Picker Pick up Panel & Place on Unloading Conveyor 11. Unloading Conveyor Stopper Up & Centering 12. Place Up & Warpage Check 13. Stopper Down & Panel Move to next machine

Semi Auto Lamination Kit for Various Sample test

(Min. 400x400mm & Max.600x600mm Panel size)



Introduction to various Marking & AOI system

Strip Package Marking System



- Applicable Units :
240 x 64mm / 240 x 74mm
- Laser Marking Part :
2Head (Green Laser Rofin-Coherent)

Strip 2D ID Marking(Green Laser) System



- Applicable Units : High Numbers of Fabrication Record (105EA) for Major OSAT companies
- Many Different Trim/Form (Gul form, C-form, J-form Dejunk, Degate, Dambar, Spank. L/L cut, Preform, Final-form)

Ring Frame to Tray & Tube 6 Side Inspection System



- Chip 4 x 4 QFN (2x2 ~ 8x8 mm Chip feasible)
- Wafer Frame : 8inch Wafer Frame & Conversion Kit
- UPH : Max 9K
- Size : 2,400 x 1,500 x 1,640mm
- Process : Ring Frame → AOI → Tray / Tube (Rework → Tray ; Reject → Bin Box)

Tray to Tray / Tube P & P & 6 Side Inspection System



- UPH : 9 k without AOI / 6 k with AOI
- Size : 2,240 x 1,370 x 1,640mm
- Control : PC Base
- Utility : AC 220V 60 Hz / 3Phase / 7Bar & 12 Ø

Unit Pick & Place systems

Boat to Tray / Tray to Boat P&P System



- Applicable Units : 12 x 12mm ~ 50 x 50 mm
- UPH : 4K
- Size : 3,700 x 1,610 x 1,830mm

Boat to Tray & Flip / Tray to Boat P & P System



- Applicable Units : 20 x 57 mm ; 35 x 57 mm
- UPH : 2.5 K ~3.5 K (20x57 mm)
- Size : 3,800 x 2,400 x 2,100 mm

Tray to Boat P & P System



- Applicable Units : 12 x 12mm ~ 45 x 45 mm
- UPH : 4K
- Size : 3,200 x 1,800 x 2,100mm

JIG to Boat / Boat to JIG Pick & Place System



- Applicable Units : 12 x 12 mm ~ 100 x 100 mm
- UPH : Min 4K (8x2=16 up Based)
- Size : 4,235 x 2,275 x 2,040 mm

PMLF SING' SYSTEM



System Performance	
Applicable Package & L/F	MLF , 250 x 70mm
L/F applicable	6x6, 7x7, 8x8, 9x9, 10x10, 12x12
Process	L/F MGZ Loading → L/F Flipping → Inlet Conveyor Rail → Singulation (Punch type) → Walking Beam → Inspection → Precisor → Binning or Tray (Good/Reject)
Loading	Dead Bug Loading
Offloading	Reject Bin / Tray (Good / Reject)
Major Advantage	Whole unit side Inspection & Sorting (Good)
SPM / UPH	35 with vision inspection / Min 10K
Vision Inspecton	Mis-orientation (Pin Check & Vision) Mis-feeding / Mis-pilot / Double Strip / Reverse Strip / Lead Count No marking / Package type / Surface X/Y Sides / X-mark 4 Side - 25um Crack etc. Top/ Side View (X – Y) / Corner / Bottom View
Major Conversion Part	Singulation Tool Set, Floater, Index Feeder, Vision Unit, Walking Beam, Buffer Block, Unit Feeder, Shuttle Block, Precisor Block, Sorting Picker, Package Picker

Trim / Form / Singulation system

Package Kinds : SOT-1210 / PBGA / TQFP 7 x 7 (14 x 14) / TO220 / TSSOP
/ QFP 10 x 10 / ED2PAK / SOIC

SOT-1210 TFS and Refill



SOT-669 Trim from singulation system



TQFP 28X28 FS SYSTEM



TSSOP FS SYSTEM



SOIC T/F Singulation



Trim / Form / Singulation system

Package Kinds : SOT-1210 / PBGA / TQFP 7 x 7 (14 x 14) / TO220 / TSSOP
/ QFP 10 x 10 / ED2PAK / SOIC

TO220 TFS System Gravity
chute type



MLF TFS System with Laser marking



eD2PAK FS System



P(Punch)BGA System
(17x17 , 19x19,...,31x31)



LFPK88 & TOLT FS System



Other Automation System 1

**Stencil Incoming
Inspection System**



**Full Auto
Stencil Stocker**



**Auto Flux & Paste
Management System**



**Blister Kitting System
(SD Card Auto Packing System)**



Other Automation System 2

**Auto Pre-cleaning
System**



**Burn Board
↔ Tray P&P
System**



**Auto
Lamination System**

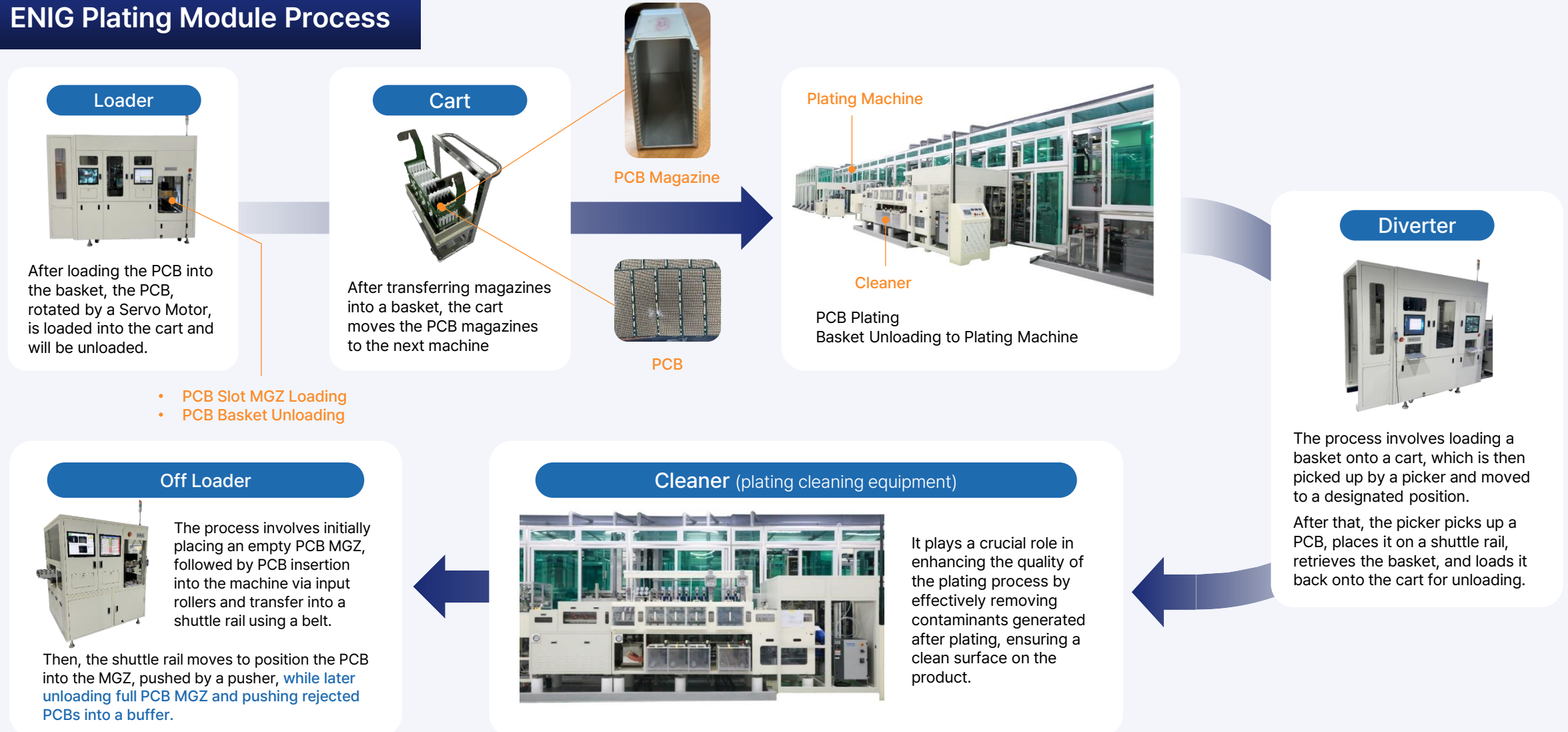


**Auto Strip
Mount System**



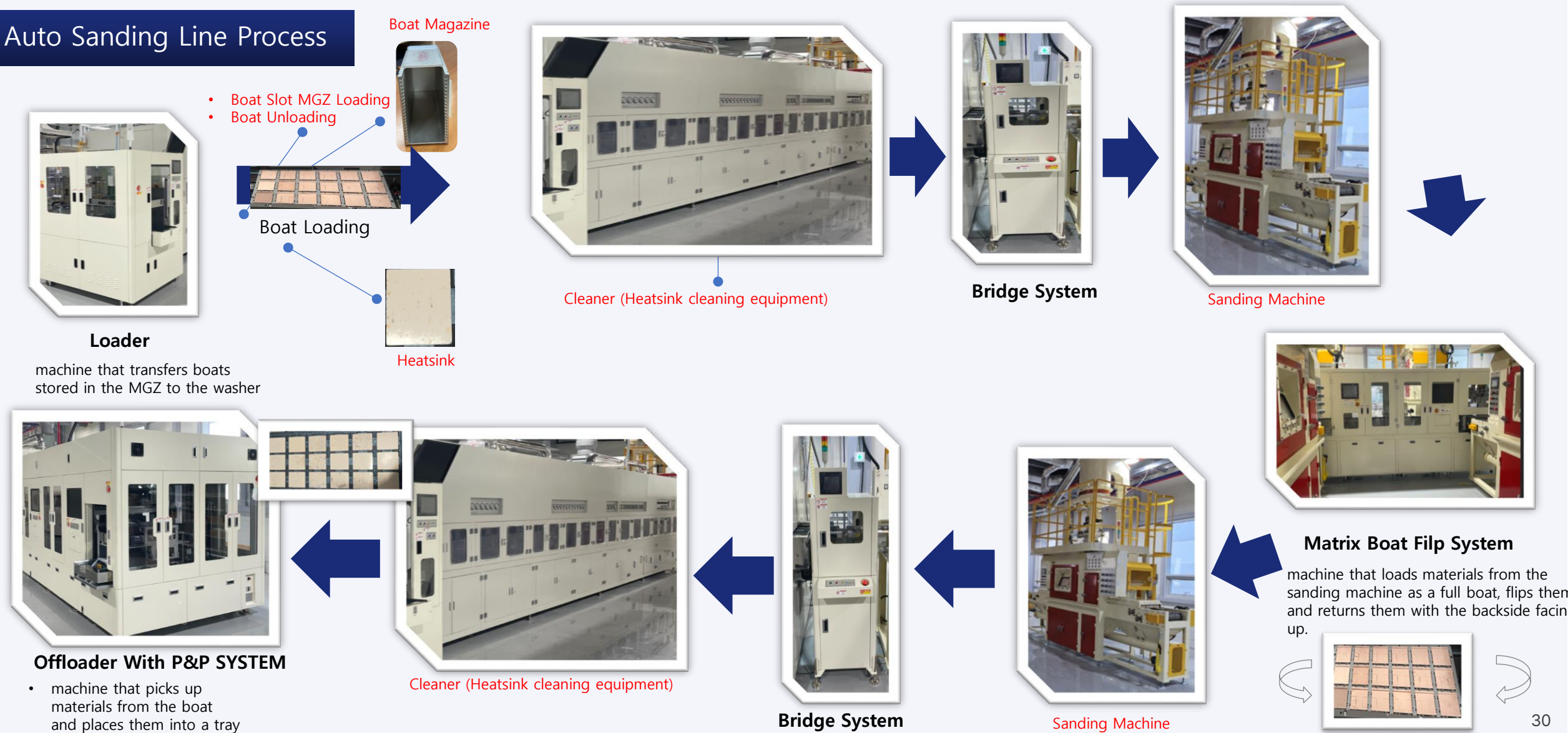
ENIG Plating Line Configuration

ENIG Plating Module Process

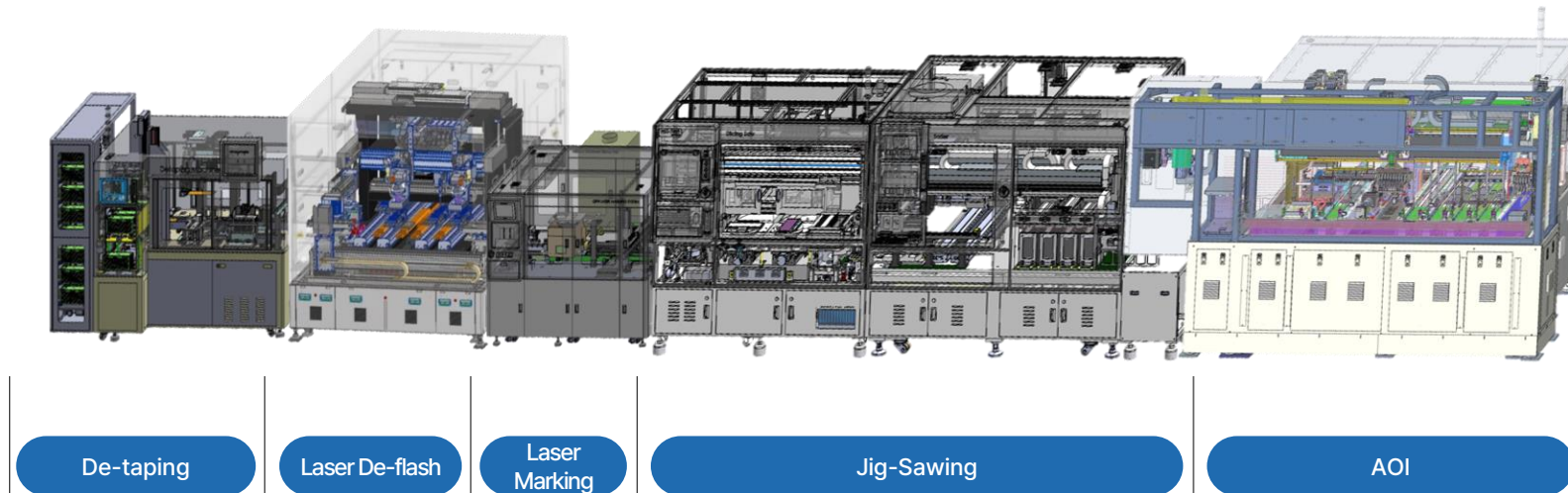


Auto Sanding Machine Line Configuration

Auto Sanding Line Process

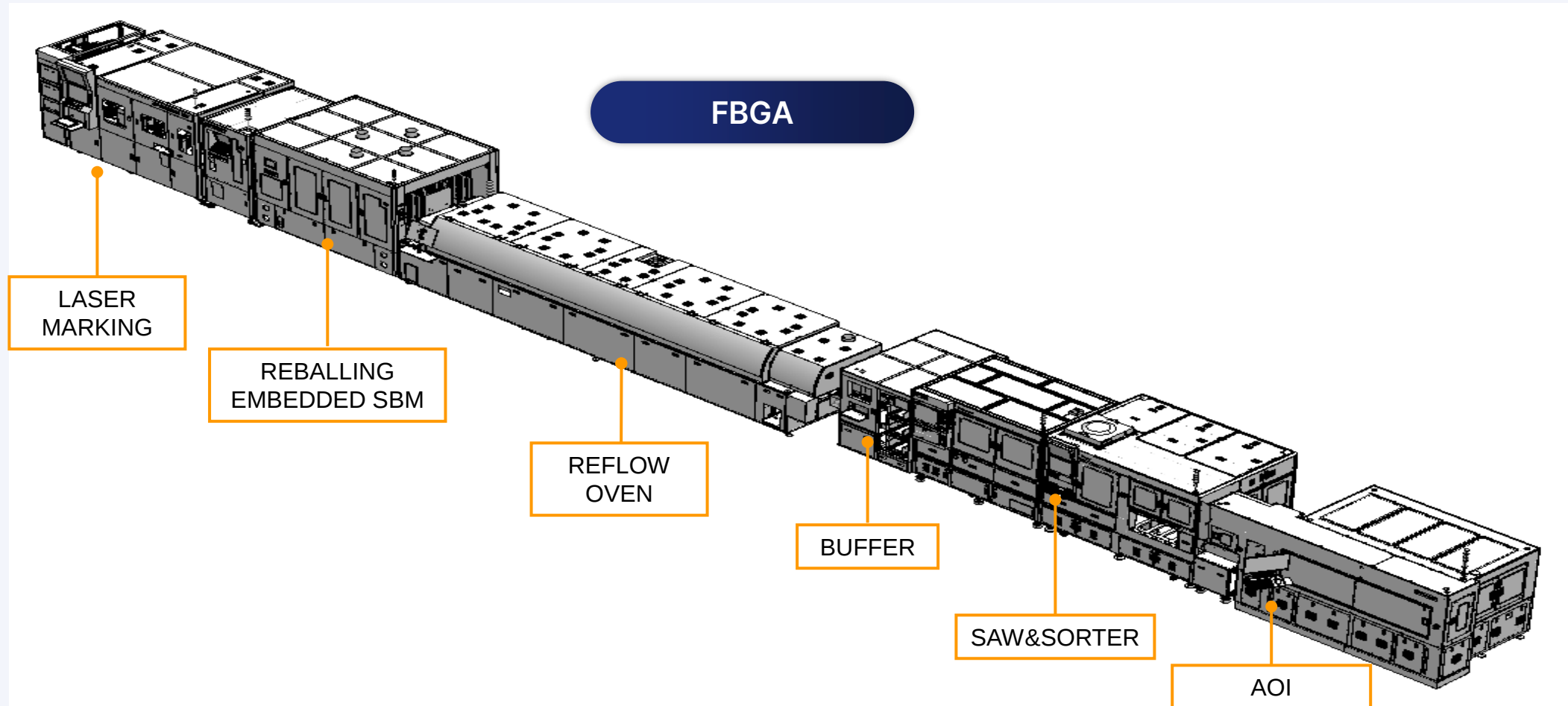


EOL of QFN



New inline QFN Backend Automation

FBGA Line Configuration

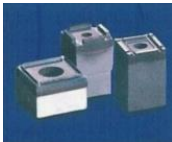


FBGA Automation

Precision Parts

Trim & Form Spare Parts

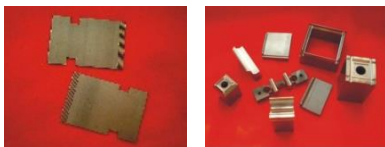
- Black Diamond Coating(DFC) for FORM PUNCH / DIE



- LOCATION PIN
- PILOT PIN
- INDEX PIN



- VARIOUS TRIM / FORM SPARE PARTS



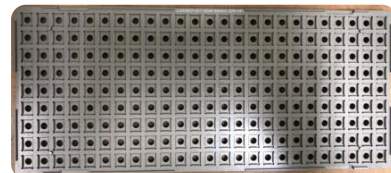
Clamp Magazine



Trim & Form Module



Al. Tray & Top Cover

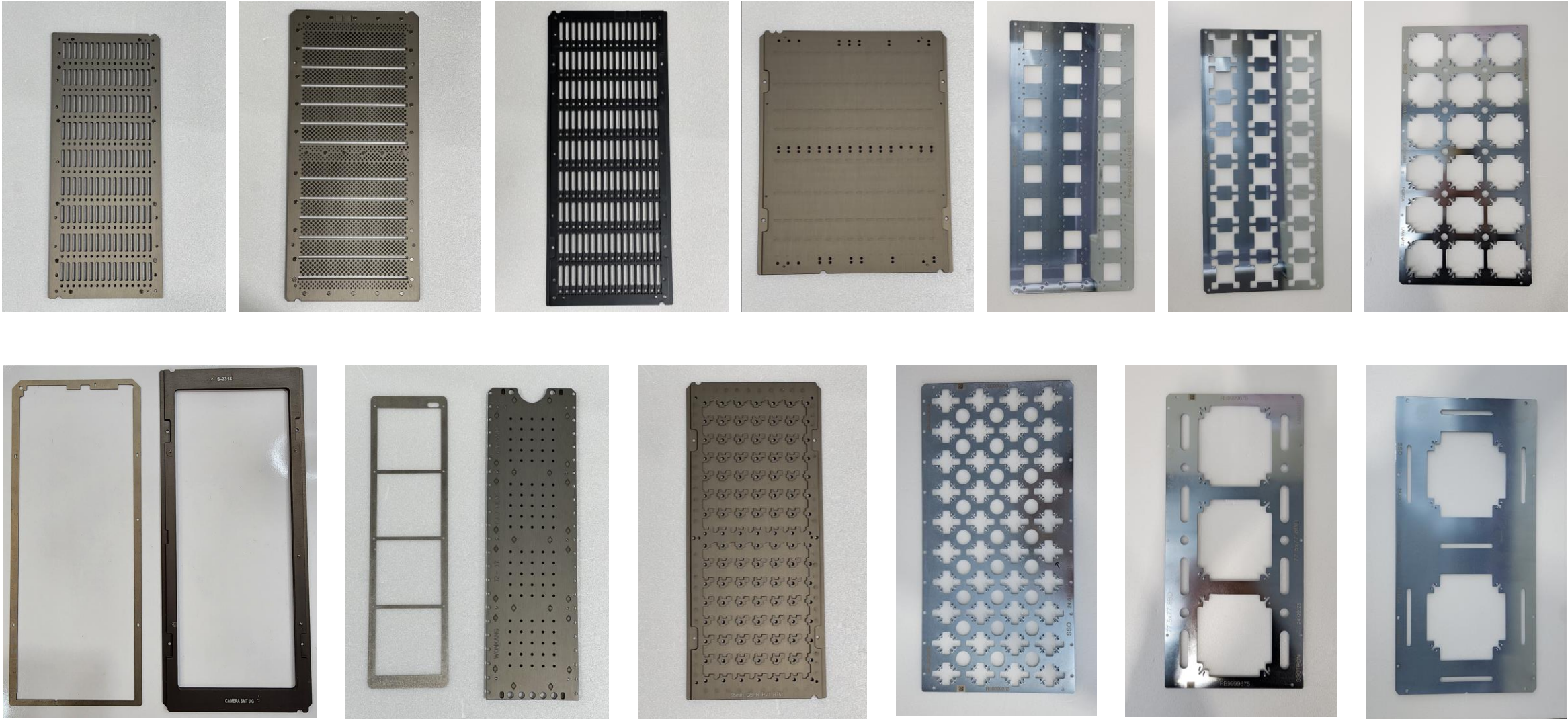


(Unit Size : mm)

To make a resume

Unit Size	4.0 x 6.0	7.2 x 5.5	8.2 x 5.5	10.7 x 10.7	4.15 x 6.55	8.0 x 13.5	3.0 x 3.3	5.0 x 3.0	7.40 x 9.48	11.8 x 11.0	5.0 x 7.0
UP Q'ty	490 UP	312 UP	276 UP	189 UP	325 UP	170 UP	490 UP	490 UP	225 UP	198 UP	346 UP

Precision Parts (JIG & BOAT & COVER)



Automation Equipment Manufacturer

SSOTRON

To The World, To The Future.

Authorized Malaysia Partner :

FANCO PRECISION (M) SDN BHD



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