



Since **1993** | The Most Optimal Partner In Automatic  
Manufacturing Of IVD Products

## SHINHAN FA SYSTEM always does its best.

Since SHINHAN FA SYSTEM was established in 1993, it has been developing and supplying Automated Manufacturing Equipment for feeding, parts assembly, and various production procedure in many production sites of diverse industries such as Automobile parts, Semiconductor, and following requests from customers in those industries for longer than 30 years.

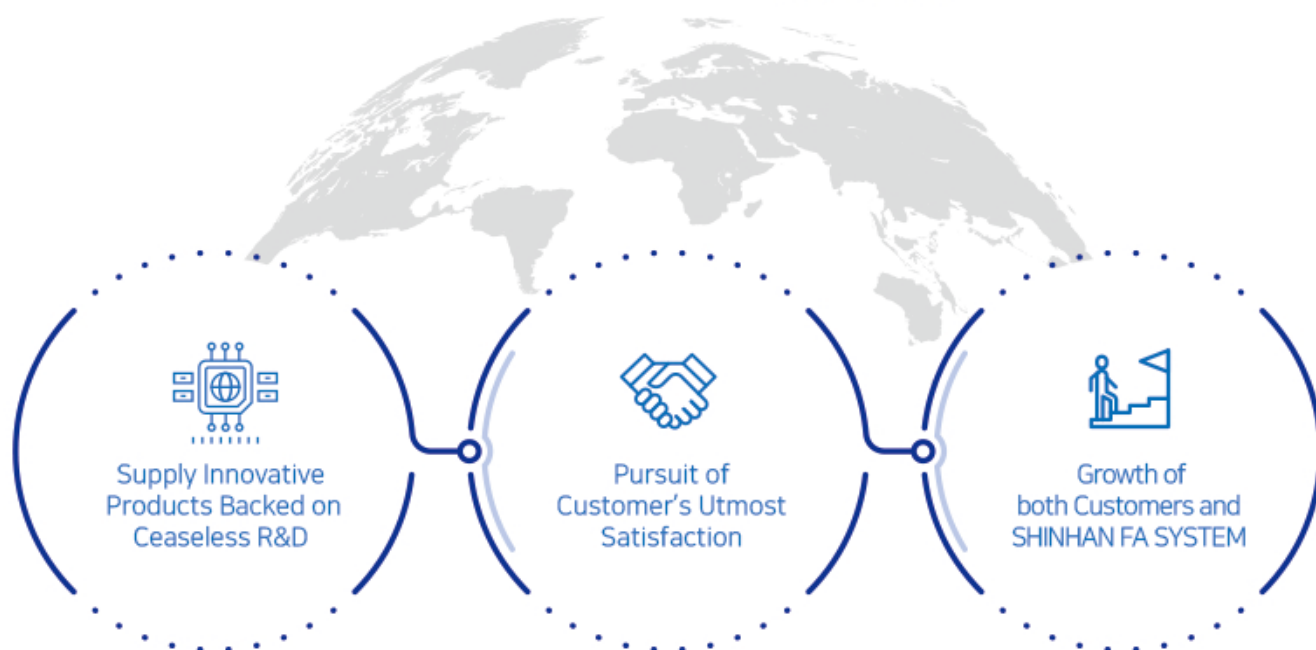
For longer than recent 10 years, it has especially devoted itself to developing and supplying Automated Manufacturing Equipment for Membrane Laminating, Sheet Feeding, Liquid Reagent Dispensing, Parts (test strip and device housing etc.) Assembly, Cutting (rotary slitting or guillotine), and Packaging procedure as partially or as system/turnkey to a lot of named Rapid Diagnostic Test Device (test strip inside) manufacturers in Korea, USA, and so on. Through these experience, it acquired valuable Know-Hows for the job that now is supplying highly qualified equipment and services related to the automated production of these Rapid Diagnostic Test Devices.

Since a few years ago, SHINHAN FA SYSTEM also challenged to the development of Automated Assembly and Packing System Equipment for Dental Implant Module Packaging and it successfully supplied them to several reputable dental implant manufacturers with their satisfaction. As there is a very limited qualified automated production system supplier for this kind of very special product worldwide, all the members of SHINHAN FA SYSTEM are very proud of this successful achievement in this unexplored field and became the leader for the automated assembly system in this specific area.

To make the long story short, SHINHAN FA SYSTEM has been already verified supplier of qualified production automation system and equipment through the real records having supplied those to a lot of reputable customers (device manufacturers) in Korea and overseas countries.

Finally, all the members of SHINHAN FA SYSTEM is happy that they could help their customers to have realized the values pursued by the customers through the automation system and equipment they supplied for the same and they will keep putting the 1st priority to give much more benefits to the customers by creating innovation in their automated manufacturing technology and services. Thank you





## History

- **2021** Increased manufacturing capacity / 2nd Plant (135, Maehwasandan-ro, Siheung-si)
- **2019** Expanded business (32, Maehwasandan 1-gil, Sihung-si)
- **2018** Certificate of Patent on 10T Multi-Assembly Machine
- **2017** Accredited as Inno-Biz(Innovative Business)company by ministry of small and medium-sized enterprises of Korean Government organization/ Expand business to new location
- **2016** Started production of Fully Automated Implant Module Assembly System
- **2015** Started to manufacture the Fully Automated Assembly System and Pouching Machine for the pregnancy test
- **2011** Started production of Fully Automated Rapid Diagnostic Test Device Assembly System
- **2006** Started production of Semi-Automated Rapid Diagnostic Test Device Assembly System
- **1994** Contracted with Samsung electrics, Hyundai Automobile and other major company to supply Feeder and Parts Assembly equipment
- **1993** Established Shinhan FA System



### Specifications (can be changed depending on applied devices)

Model name	SHA-9000
Applicable products	10 multi rectangular shaped rapid diagnostic devices, uncut sheet
Capacity	9,000 Devices / hr
Required manpower	2 persons
Bottom & Top case supply	Automatic by 2 units of magazines
SCP(Strip Cut-Pick and Place) unit quantity	1 unit
Isolation of incorrectly assembled product	Available by 6 vision units
Main operation	by Servo motors

## SHA-9000 Multi Device Assembly System

### Product Overview

The Multi-Device Assembly system is for manufacturing the devices. It loads top and bottom devices onto the pitch transfer rail by gripper from the magazine and cuts the devices, transfers to index, 1st vision inspection on a card (membrane with laminated reagent), cut the card strip, assembles the cut strips (SCP unit) into the bottom case coupling top device with a bottom device, 2nd vision inspection, and release final products to discharging area automatically.

### Main Features

- All the operations including automatic feeding of top and bottom cases by 2 parts feeders and SCP(Strip Cut, Pick, and Place) are done automatically
- High productivity by successive operation and a SCP(Strip Cut, Pick, and Place) unit
- Easy operation by a PLC Touch Screen
- Stable operation by applying Servo Motors
- Enhanced cost efficiency by minimized labor input

Control Panel	PLC / Touch Screen
Strip cutting tool	Rotary Slitter
Bottom & Top case coupling	by Air Cylinder / Roller Press
Loadable card q'ty on a magazine	80 Cards
Dimension	Approx. 3.20(W) x 2.50(L) x 2.36(H) m
Weight	Approx. 3,900 Kg
Power supply	3 Phase, AC 380 V, 50/60 Hz
Required air pressure	5~7 Kgf/cm <sup>2</sup> (5~7 Bar)



### Specifications (can be changed depending on applied devices)

Model name	SHA-4000R
Applicable products	Rectangular Shape of Plastic Bottom, Top case and test strip
Capacity	4,000 Devices / hr
Required manpower	1 Person
Bottom & Top case supply	Automatic by 2 units of table feeder
SCP(Strip Cut-Pick and Place) unit quantity	1 unit
Isolation of incorrectly assembled product	Available by 3 vision units
Main operation	by Servo motors & Clutch break motors

## SHA-4000R Auto Assembly System

### Product Overview

The auto Assembly System is for manufacturing the devices. It loads top and bottom devices onto a transfer rail that is done by a parts feeder; transfers to index, inspects a card with 1st vision (membrane with laminated reagent), cut the card strip, places the cut strips (SCP unit) into the bottom case, coupling dual top device case with the bottom device, inspect with 2nd vision and release finally assembled devices to the outlet are done automatically.

### Main Features

- All the operations including feeding of top and bottom cases by 2 parts feeders and SCP(Strip Cut, Pick, and Place) units are done automatically
- High productivity by SCP units and successive operation system
- Isolation of not fairly assembled device by 4 vision inspection units
- Easy operation by PLC touch screen
- Stable operation by applying servo motors
- Enhanced cost efficiency by minimizing labour input

Control Panel	PLC / Touch Screen
Strip cutting tool	Rotary Slitter
Bottom & Top case coupling	by Air Cylinder / Roller Press
Loadable card q'ty on a magazine	30-50 Cards
Dimension	Approx. 2.90(W) x 1.67(L) x 2.13(H) m
Weight	Approx. 3,500 Kg
Power supply	AC 220 V, 50/60 Hz
Required air pressure	5~7 Kgf/cm <sup>2</sup> (5~7 Bar)



### Specifications (can be changed depending on applied devices)

Model name	SHA-2500R
Applicable products	Rectangular shaped rapid diagnostic test device(strip inside)
Capacity	2,200~2,500 Devices / hr
Required manpower	1 Person
Bottom & Top case supply	Automatic by 2 units of parts feeder
SCP(Strip Cut-Pick and Place) unit quantity	1 unit
Isolation of incorrectly assembled product	Available by 2 vision units
Main operation	by Clutch break motors

## SHA-2500R Assembly System for Rapid Diagnostic Device

### Product Overview

With this system machine, loading top and bottom cases onto main transfer rail are done by parts feeders, 1st vision inspection(1 unit) of a card(membrane with reagent laminated), cutting the card to strips, placing the cut strip into the bottom case(1 SCP unit) fed aligned, combining the bottom case having a strip inside with a top case fed aligned, 2nd vision inspections (1 unit), and finally and fairly assembled devices to an outlet are done automatically.

### Main Features

- All the operations including automatic feeding of top and bottom cases by 2 parts feeders and SCP(Strip Cut, Pick, and Place) are done automatically
- High productivity by successive operation and a SCP(Strip Cut, Pick, and Place) unit
- Easy operation by a PLC Touch Screen
- Stable operation by applying Servo Motors
- Enhanced cost efficiency by minimized labor input

Control Panel	PLC / Touch Screen
Strip cutting tool	Guillotine Cutter (+/- 0.1mm tolerance)
Bottom & Top case coupling	by Air Cylinder / Roller Press
Loadable card q'ty on a magazine	30~50 Cards
Dimension	Approx. 5.7(L) X 2.0(W) X 1.8(H) m
Weight	Approx. 1,700Kg
Power supply	AC 110/220 V, 50/60 Hz
Required air pressure	5~7 Kgf/cm <sup>2</sup>

## SHA-4000 Assembly System for Rapid Diagnostic Device

### Product Overview

With this system machine, loading top and bottom cases onto main transfer rail are done by parts feeders, 1st vision inspection (2 units) of a card (membrane with reagent laminated), cutting the card to strips, placing the cut strip (2 SCP units) into the bottom case, coupling top device case with the bottom device case, 2nd vision inspection (1 unit), and release finally and fairly assembled devices to an outlet are done automatically.

### Main Features

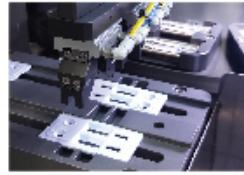
- All the operations including feeding of top and bottom cases by 2 parts feeders and SCP(Strip Cut, Pick, and Place) units are done automatically
- High productivity by 2 SCP(Strip Cut, Pick, and Place) units and successive operation system
- Isolation of not fairly assembled devices by 3 vision inspection units
- Easy operation by a PLC Touch Screen
- Stable operation by applying Servo Motors
- Enhanced cost efficiency by minimized labor input

Control Panel	PLC / Touch Screen
Strip cutting tool	Guillotine Cutter
Bottom & Top case coupling	by Air Cylinder / Roller Press
Loadable card q'ty on a magazine	30~50 Cards
Dimension	Approx. 5.7(L) x 3.0(W) x 1.8(H) m
Weight	Approx. 2,500 Kg
Power supply	AC 110/220 V, 50/60 Hz
Required air pressure	5~7 Kgf/cm <sup>2</sup>

### Specifications (can be changed depending on applied devices)

Model name	SHA-4000
Applicable products	Rectangular shaped rapid diagnostic device
Capacity	Approx. 3800~4,000 Devices / hr
Required manpower	1 Person
Bottom & Top case supply	by 2 units of parts feeder
SCP(Strip Cut-Pick and Place) unit quantity	2 units
Isolation of incorrectly assembled product	Available by 3 vision units
Main operation	by Servo motors (Shuttle & Guide Rail)





## SHA-2500R Dual device Assembly System

### Product Overview

The dual Device Assembly System is for manufacturing the devices It loads dual top and bottom devices onto transfer rail that is done by parts feeder and transfers to index, 1st vision for inspecting card (membrane with laminated reagent), cutting the card strip, placing the cut strips (SCP unit) into the dual bottom case, coupling dual top device case with a dual bottom device, 2nd vision inspection, and release final product to discharge automatically.

### Main Features

- All the operations including automatic feeding of top and bottom cases by 2 parts feeders and SCP(Strip Cut, Pick, and Place) are done automatically
- High productivity by successive operation and a SCP(Strip Cut, Pick, and Place) unit
- Easy operation by a PLC Touch Screen
- Stable operation by applying Servo Motors
- Enhanced cost efficiency by minimized labor input

### Specifications

(can be changed depending on applied devices)

Model name	SHA-2500R
Applicable products	Combo Top, Bottom device, Uncut sheet
Capacity	2,100 Devices / hr
Required manpower	1 Person
Bottom & Top case supply	Automatic by 2 units of parts feeder
SCP(Strip Cut-Pick and Place) unit quantity	2 units
Isolation of incorrectly assembled product	Available by 2 vision units
Main operation	by Servo motors & Clutch break motors

Control Panel	PLC / Touch Screen
Strip cutting tool	Rotary Slitter
Bottom & Top case coupling	by Air Cylinder / Roller Press
Loadable card q'ty on a magazine	30~50 Cards
Dimension	Approx. 4.12(W) x 2.60(L) x 2.11(H) m
Gross Weight	Approx. 3,500 Kg
Power supply	3 Phase, AC 380 V, 50/60 Hz
Required air pressure	5~7 Kgf/cm <sup>2</sup> (5~7 Bar)

## Semi-Automatic Assembly System



## SHA-2000R Assembly System for Rapid Diagnostic Device

### Product Overview

With this system machine, once loading top and bottom plastic cases onto device transfer conveyors are done manually by manpower, 1st vision inspection (1 unit) of a card(membrane with reagent laminated), cutting the card to strips, placing the fair quality strips only into the bottom case(1 SCP unit) fed aligned, 2nd inspections(1 unit), combining the bottom case having a strip inside with a top case fed aligned, and release finally and fairly assembled devices to an outlet.

### Main Features

- Except feeding of top and bottom cases are done manually by manpower, all other operations incl. SCP(Strip Cut, Pick, and Place) are done automatically
- High productivity by adopting a SCP(Strip Cut, Pick, and Place) unit and successive operation
- Isolation of not fairly assembled devices by 2 vision inspection units
- Easy operation by a Touch Screen
- Stable operation by applying Servo Motors

### Specifications

(can be changed depending on applied devices)

Model name	SHA-2000R
Applicable products	Rectangular shaped rapid diagnostic device
Capacity	1,800~2,400 Devices / hr
Required manpower	2 persons
Bottom & Top case supply	Manually by manpower
SCP(Strip Cut-Pick and Place) unit quantity	1 unit
Isolation of incorrectly assembled product	Available by 2 vision cameras
Main operation	by Clutch break motor

Control Panel	PLC / Touch Screen
Strip cutting tool	Guillotine Cutter (+/- 0.1mm tolerance)
Bottom & Top case coupling	by Air Cylinder / Roller Press
Loadable card q'ty on a magazine	30~50 Cards
Dimension	Approx. 3.2(L) x 2.0(W) x 1.8(H)m
Weight	Approx. 1,200 Kg
Power supply	AC 110/220 V, 50/60 Hz
Required air pressure	5~7 Kgf/cm <sup>2</sup>



## SHA-1800

### Assembly System for Rapid Diagnostic Device

#### Product Overview

With this system machine, once a bottom plastic case is fed by a parts feeder onto the system automatically, manpower put test strip (membrane with reagent laminated) into a specific position in the bottom case manually, the system combines the bottom case having a strip inside with a top case fed by another parts feeder and aligned by the system, press, and release the finally and fairly assembled devices to an outlet automatically.

#### Main Features

- Except for strip placement into bottom case manually by manpower, all other operations incl. aligned feeding of top and bottom cases are done automatically by the system
- Isolation of incorrectly assembled bottom case & strip through inspection of strip existence by a color sensor
- Cost-efficient through the minimized labor input (2 persons)
- Easy setting and operation with a Touch Screen
- Stable operation by adopting Servo Motors

#### Specifications (can be changed depending on applied devices)

Model name	SHA-1800
Applicable products	Rectangular shaped rapid diagnostic test device
Capacity	1,800~2,400 Devices / hr
Required manpower	2 persons
Bottom and Top case supply	Automatic by 2 units of parts feeders
Strip placement	Manually by manpower
Isolation of incorrectly assembled product	Available by a color sensor

Main operation	by Servo Motors
Control Panel	PLC / Touch Screen
Bottom & Top case coupling	by Air Cylinder / Roller Press
Dimension	Approx. 5.5(L) x 3.0(W) x 1.8(H) m
Weight	Approx. 700 Kg
Power supply	AC 110/220 V, 50/60 Hz
Required Air Pressure	5~7 Kg/cm <sup>2</sup>

## Pouch Sealing System



## SHP-4000

### Pillow Sealing Machine

#### Product Overview

This machine does pillow type pouch(aluminum coated inside) packing of a rapid diagnostic test device and 3 sides heat sealing on the pouch. The test device and, if required, dropper are fed manually by manpower and desiccant are fed manually by the same or by the machine when rolled desiccant with 'Y' mark is available. The machine is composed of infeed conveyor, film feeding unit, and sealing unit.

#### Main Features

- High productivity with cost efficiency
- Applicable to a certain shape of general solid products as well as rapid diagnostic test devices

#### Specifications (can be changed depending on applied devices)

Model name	SHP-4000
Applicable product	Rapid diagnostic test devices etc.
Packing material	AL + PE, Heat sealable film
Packing size	Negotiable
Capacity	Approx. 80 pouches / min.
Required manpower	2 persons
Packing type	3 Sides heat sealing

Print alignment	by photo sensors
Control panel	Micom Touch Screen
Required air pressure	5~7 Kg/cm <sup>2</sup>
Power supply	AC 220/380 V, 50/60 Hz, Single Phase/3 Phase
Dimension	Approx. 4.5(W) x 1.1(L) x 1.8(H) m
Weight	Approx. 1,200Kg



## SHP-9000 Pouch Packing System

### Product Overview

- This system is to pack a rapid diagnostic test device, a desiccant, and if required, a dropper in a pouch by unit of programmed quantity
- Test device, desiccant, and dropper can be fed automatically or manually by manpower
- All other working procedures after the feeding of the test material till release of the sealed pouch to an outlet are done automatically
- The system consists of Infeed Conveyor, Film Feeding unit, Sealing unit, Cutting unit, and Release unit

### Main Features

- Long-term cost efficiency by minimized labor input
- Applicable to certain shape of general solid products as well as rapid diagnostic device

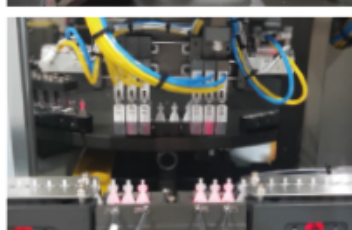
### Specifications

(can be changed depending on applied devices)

Model name	SHP-9000
Applicable Products	Rapid Diagnostic Device etc.
Required manpower	2 persons
Packing Material	AL+PE, Heat sealable film
Packing size	Negotiable
Capacity	Approx. 30 Cuts / min. (7200 ~ 9000 pouches / hr)
Packing Lane qty	4~5 Lanes

Packing type	4 Sides embossing adhesion
Print alignment	Photo sensor
Control Panel	PLC / Touch Screen
Required air pressure	5~7 Kgf/cm <sup>2</sup>
Power supply	AC 380V, 60Hz, 3 Phase
Dimension	Approx. 7.0(L) x 2.6(W) x 2.0(H) m
Weight	Approx. 1,200 Kg

## Dispensing & Sealing System



## SHD-4800 POCT Automation Dispensing and Sealing Machine

### Product Overview

The automation Dispensing & Sealing Machine is for manufacturing buffer solution that fills liquid material, e.g. buffer solution etc. into an ampoule tube and seals by heater automatically.

### Main Features

- Efficient quality control through prevention from contamination that may occur by contact with a human hand in manual operation
- Easy setting and operation by Touch screen
- Long-term cost efficiency by minimal labor input

### Specifications

Model name	SHD-4800
Applicable products	Ampoule Tube
Capacity	48 ampoule tubes/min.
Filling volume	Adjustable (Available to adjust the volume)
Required Power	1 person
Pump Type	Tubing pump

Main operation	by Servo motors
Control Panel	PLC/Touch Screen
Required Air Supply	5 ~ 7Kgf/cm <sup>2</sup>
Power Supply	AC 110/220 V 50/60 Hz
System Size	Approx. 2.30(W) x 2.35(L) x 2.11(H) m



## SHD-5000

### Bottle/Tube Dispensing and Capping System

#### Product Overview

SHD-5000 is an automated system machine that fills liquid material, e.g. buffer solution etc. into bottles / vials / tubes and do inner cap and outer cap(screw type) automatically.

#### Main Features

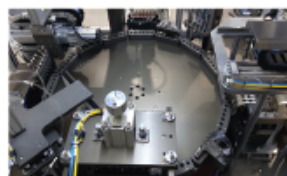
- Efficient quality control through prevention from contamination that may occur by contact with human hand in manual production
- Easy setting and operation by Touch Screen
- Stable operation by adopting Servo Motor
- Long-term cost efficiency by minimal labor input

#### Specifications

Model name	SHD-5000
Applicable Products	Liquid Fluid and a Bottle to be filled in
Capacity	2,100 Bottles / hr
Filling volume	Adjustable (can be customized)
Required manpower	1 person
Pump type	Tubing pump or Syringe pump

Main operation	by Servo motors
Control Panel	PLC / Touch Screen
Power supply	AC 110/220 V, 50/60 Hz
Required air pressure	5~7 Kg/cm <sup>2</sup>
Dimension	Approx. 2.2(W) x 1.1(L) x 1.8(H) m
Gross Weight	Approx. 2,000 Kg

## 6 Line Auto Dispensing & Sealing System



## SHS-6000

### 6 Line Auto Dispensing and Sealing System

#### Product Overview

SHS-6000 is an automated system machine that fills liquid material, e.g. buffer solution etc. into tube and seals using a film and cut the film automatically

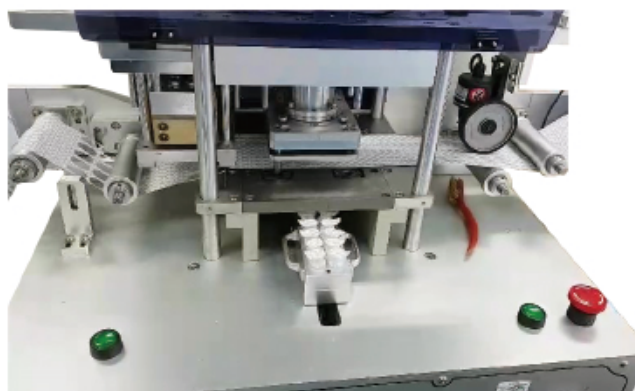
#### Main Features

- Efficient quality control through prevention from contamination that may occur by contact with human
- Easy setting and operation by Touch Screen
- Stable operation by adopting Servo Motor
- Long-term cost efficiency by minimal labor input
- Vision Inspection

#### Specifications

Model name	SHS-6000
Applicable Products	Liquid Fluid, tube and film
Capacity	100 EA / min.
Filling volume	Adjustable (can be customized)
Required manpower	1 Person
Tube supply	Automatic by elevator conveyor and linear feeder
Main operation	by Servo motors

Power Supply	AC 220V, 50/60 Hz
Air consumption	650 L/min.
Control / Panel	PLC / Touch Screen
Required air pressure	6~7 Kg/cm <sup>2</sup> (6~7 Bar)
Dimension	Approx. 2.30 (W) x 2.35(L) x 1.05(H) m
Gross Weight	Approx. 2,000 Kg



## SHP-200 Tube Sealing Machine

### Product Overview

SHP-200 is a heat sealing machine using a sealing jig. This machine seals several tubes filled with a liquid solution using a film and cut the film at the same time

### Main Features

- Using a film, seal several tubes filled with liquid solution and cut all the tubes at a time
- Easy use through simple switch operation
- Hard and anti-rust by adopting stainless and duralumin
- Cover and emergency stop are adopted for safe work environment

### Specifications

Model name	SHP-200
Applicable product	Tube filled with a liquid solution
Sealing Capacity	Approx. 6 sec (based on using jig for 10 tubes)
Sealing temperature	Adjustable

Heater Capacity	300W
Control Panel	PLC / Touch Screen
Dimension	Approx. 0.78(W) x 1.25(L) x 0.88(H) m
Power supply	AC 100/220 V, 50/60 Hz
Required air pressure	5~7 Kg/cm <sup>2</sup>

## Reel to Reel Dispensing & Drying System

## SHD-6000 Reel to Reel Dispensing and Drying System

### Product Overview

SHD-6000 is an automated system machine that makes successive reel to reel supply of membrane, dispense a constant amount of reagent on the membrane, vision inspection, dry, and release automatically.

The system machine is suitable for a medium to a high volume reagent absorbed membrane production facility.

### Main Features

- High productivity with the least labor input
- Efficient quality control by in-line vision inspection
- Stable quality production through keeping dry room temperature at a specific level
- Prevention of contamination that may occur by contact with human hand in manual production
- Easy setting (dispensing amount, speed, length, distance, etc.) and operation by Touch Screen

### Specifications

Model name	SHD-6000
Required manpower	1 person
Dispensing method	Syringe pump
Applicable product	Membrane Roll
Dispensing speed	10~150 mm/sec.
Dispensing amount	0.2~10 µL/cm (Tubing Tip), 0.6~10 µL/cm (Sapphire Tip)
Dispensing line qty	4 Lines (can be added by customer need)

Accuracy(pump)	+/-1% from target result at full stroke
Precision(pump)	Within 0.05 ~ 0.10% at full stroke (depends on syringe volume)
Dry room oven temperature	30~60 °C
Control Panel	PLC / Touch Screen
Dimension	Approx. 3.0(L) x 0.7(W) x 1.8(H) m
Weight	Approx. 500 Kg
Power supply	AC 110/220 V, 50/60 Hz
Required air pressure	5~7 Kg/cm <sup>2</sup>



## SHD-1000 Line Dispenser

### Product Overview

SHD-1000 is a semi-automated machine that is designed to dispense programmed amount of liquid reagent onto the membrane attached on a card (uncut sheet) once a personal operator input the card into the machine manually.

### Main Features

- Easy setting (dispense amount, speed, length, and distance) and user-friendly operation by a Touch Screen
- Dispense reagent onto the membrane on a card (uncut sheet) max. 4 lines at a time
- Various sizes of card (uncut sheet) can be applicable
- Tip height and dispensing position are adjustable by built-in micrometer
- Remaining reagent is recoverable by stroke adjustment
- Convenient bubble removal and cleaning by adopting syringe pump

### Specifications

Model name	SHD-1000
Dispense method	Syringe pump
Applicable product	Membrane laminated card (uncut sheet)
Speed	10~100 mm/sec.
Dispensing amount	0.2~10 $\mu$ l/cm (Tubing Tip), 0.6~10 $\mu$ l/cm (Sapphire Tip)
Dispensing line qty	Max. 4 Lines
Accuracy (pump)	Within +/-1% at full stroke

Precision (pump)	Within 0.05 ~ 0.10 % at full stroke (depends on syringe volume)
Dispense distance	2.5~5 mm
Control panel	PLC / Touch Screen
Dimension	Approx. 0.60(L) x 0.50(W) x 0.42(H) m
Weight	Approx. 60 Kg
Power supply	AC 110/220 V, 50/60 Hz
Required Air Pressure	5~7 Kg/cm <sup>2</sup>

## Dip & Dry System

## SHD-8000 Dip and Dry System

### Product Overview

This system dips membrane or various pad material from a roll into liquid reagent solution, dries the dipped membrane or other pad, and rewind as a roll after the drying process. The system is suitable for mass production of reagent absorbed membrane and other pads.

### Main Features

- High-level production efficiency and products quality control
- Automatic reagent amount control
- Collection of excessive reagent solution
- Reagent solution temperature control
- Temperature control in the dry chamber
- Automatic tension control in the process of membrane or pad winding and re-winding
- Dipping and Drying speed control
- Easy membrane attach and detach
- Easy cleaning (parts of reagent contacts can be detachable)

### Specifications

Model name	SHD-8000
Applicable product	Rolled membrane or various types of pad, reagent solution
Roll width	60mm ~300mm
Reagent tank and roller	Detachable (exchangeable)
Drying Chamber Temperature	Adjustable up to 120° C

Rolling speed	15mm ~ 120mm / sec.
Option	Extra parts of reagent contacts (i.e. Reagent Tank, Rollers), Dehumidifier in the Chamber, Slitter (Rotary Ring Knife)
Power supply	AC220V/380 V, 50/60 Hz, Single/3 Phases
Required air pressure	5~7 kgf/cm <sup>2</sup>
Dimension and Weight	Variable depending on applied products and customer's requirements



## SHL-1000 Laminator

### Product Overview

The machine is designed to laminate membrane, sample pad, absorption pad, conjugation pad, cover tape, and other related material on the backing card and cut by specific width(50~100mm) and length (approx. 300 mm in general)

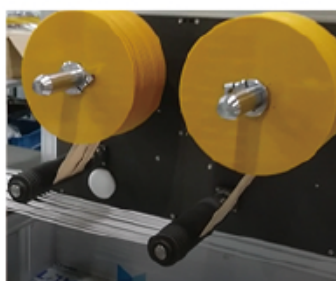
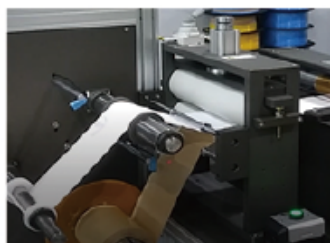
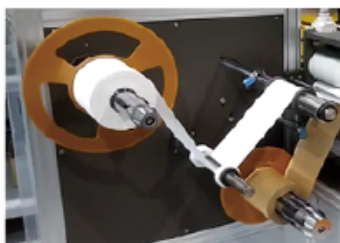
### Main Features

- Higher working efficiency (less error rate and contamination) compared with manual lamination by a human operator
- Easy operation by user friendly design
- Neat cutting and longer life span by adopting titanium coated blade
- Long term cost efficiency by minimal labor input

### Specifications

Model name	SHL-1000
Available number of laminating material	Max. 4 kinds
Backing card width	50 ~ 85 mm
Backing card supply	Manually by manpower
Capacity	800~1,200 cards / hr
Lamination accuracy	+/- 0.1mm
Membrane roll outer diameter	Max. 350 mm

Membrane roll inner(core) diameter	Max. 76 mm
Absorption/sample/conjugation pad O.D.	Negotiable
Absorption/sample/conjugation pad I.D.	Negotiable
Roll weight	Max. 20 kg
Control panel	PLC / Touch Screen
Dimension	Approx. 1.7(L) x 0.5 (W) x 0.9 (H) m
Weight	Approx. 100kg
Power supply	AC 110/220 V, 50/60 Hz



## SMU-300 Tape Laminating & Multi-slitting Machine

### Product Overview

This machine is designed to unwind basic membrane roll (150mm width) out from unwinding reel, laminate the basic membrane with double-sided adhesive tape, cut the tape laminated basic membrane into slit membrane(5mm width) through a built-in rotary slitter, and (re)wind the slit adhesive tape laminated 5mm width membrane onto (re)winding reel.

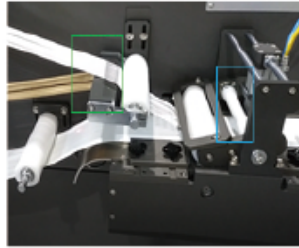
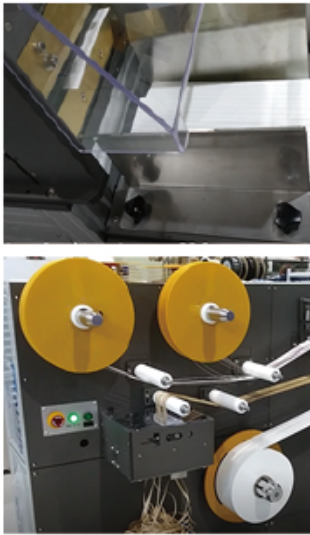
### Main Features

- Higher working efficiency (less error rate and contamination)
- High through and quality
- Long term cost efficiency by minimal labor input
- Reduce contamination factors
- Low material loss
- Adjustable cutting speed

### Specifications

Model name	SMU-300
Width of Membrane & Double-sided adhesive tape	150 mm
Cutting tool	Round Multi-Sitting Blade
Cutting speed	10~100mm / Sec

Membrane cutting width	5 mm
Pressed air	5~6 Kg/cm <sup>2</sup> (5~6 Bar)
Power supply	AC220V, 50Hz, 20A, Single Phase
External dimension	2.88 m (L) x 0.80 m (W) x 1.74 m (H)



## LAU-900

### Backing Card Lamination and Cutting Machine

#### Product Overview

This machine is designed to laminate narrow width of slit membrane (double-sided adhesive tape laminated in advance) onto the backing card, cut the membrane laminated card by a certain length, and release to the machine outlet.

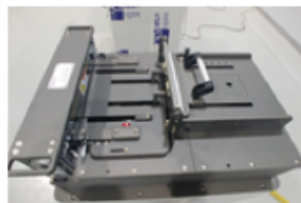
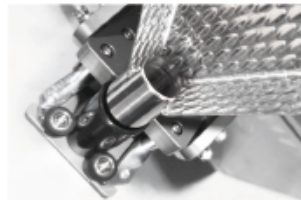
#### Main Features

- Higher working efficiency (less error rate and contamination)
- High through and quality
- Long term cost efficiency by minimal labor input
- Adjustable cutting speed
- High speed operation maximizes productivity
- Reduce material loss and contamination

#### Specifications

Model name	LAU-900
Width of Membrane (double-sided adhesive tape laminated)	5 mm
Backing card width	Max. 123 mm (adjustable)
Cutting to	Guillotine Cold Formed Blade
Power Supply	AC 110/220 V, 50/60 Hz
External Dimension	3,60 m (L) x 0.75 m (W) x 1.45 m (H)

## Slitting Machine



## SHC-9000BAF

### Rotary Slitter for Blood Glucose Strip

#### Product Overview

This auto feeding rotary slitter cut the card laminated with L1, L2 and L3 by specific width and release through a chute and fill into a bottle.

#### Main Features

- Easy operation by user friendly design
- Low cutting error by precise cutting blades
- Longer use life span using by titanium coated blade
- Minimized maintenance cost by simple operation
- Minimized strip's sticking to the blade by adopting antistatic ionizer
- Reduce the contamination by minimal hand contact process

#### Specifications

Model name	SHC-9000BAF
Applicable product	Card with enzyme dispensed
Capacity	900 Cards / hr
Card length	Max. 320 mm
Card width	Max. 130 mm

Card depth	2.5 mm
Card feeding	Auto feeding
Strip width	3~8 mm
Dimension	Approx. 0.60(W) x 1.06(L) x 1.14(H)
Weight	Approx. 1,140 Kg
Power supply	AC 110/220 V, 50/60 Hz

## SHC-900 Rotary Slitter



### Product Overview

The machine cut the card(uncut sheet) laminated with membrane and other related pads by specific width and release through a tray or a chute once a person manually input an uncut sheet on the equipment

### Main Features

- Easy operation by user friendly design
- Various width (3~8mm) of strip cutting is available by easy exchange of cutting blade
- Low cutting error by precise cutting blades
- Longer use life span using by titanium coated blade
- Minimized maintenance cost by simple operations
- Minimized strip's sticking to the blade by adopting antistatic ionizer

### Specifications

Model name	SHC-900
Applicable product	Card (uncut sheet) with reagent absorbed membrane and other related pads
Capacity	900 Cards / hr (based on 4 sec. feeding interval)
Card length	Max. 320 mm
Card width	Max. 130 mm

Card depth	2.5 mm
Card feeding	Manually by manpower
Strip width	3~8 mm
Dimension	0.68(L) x 0.45(W) x 0.37(H) m
Weight	Approx. 80 kg
Power supply	AC110/220 V, 50/60 Hz



## SHC-100 / SHC-300 Guillotine Card Cutter / Sheet Cutter

### Product Overview

SHC-100 / 300 machine cuts various types and sizes of membrane and pads laminated sheet with a backing card / membrane or sheets for different pads into strip format. Strip width, speed, quantity for cutting can be adjustable by set-up through the touch screen

### Main Features

- Fast cutting speed
- Easy operation by user-friendly design
- Various width of card / sheet is available
- Cutting width, speed, and quantity can be adjustable by set-up through the touch screen
- Various types of work pattern(max. 10 kinds) can be programmed and saved through the touchscreen
- Low cutting error by precise cutting blades
- Longer use life-span by titanium coated blades
- The minimal strip's sticking to the blades by antistatic ionizer

### Specifications

Model name	SHC-100 / SHC-300
Applicable product	Membrane and other pads laminated sheet with a backing card / membrane or other sheets
Capacity	Max. 350 / 250 cuts / min.
Sheet width	60~110mm / 260~310mm (Adjustable)
Cutting width	3~100 mm
Cutting Accuracy	+/- 0.1 mm

Strip cutting quantity set-up	Available
Cutting blade	Titanium coated hardened steel
Control panel	PLC / Touch Screen
Dimension	0.47(W) x 0.67(L) x 0.33(H) m / 0.49(W) x 0.67(L) x 0.33(H) m
Weight	Approx. 20 / 30 Kg
Power supply	AC 110/220V , 50/60 Hz



## SHA-100 Roller Pressing Machine

### Product Overview

This machine is to press the semi-assembled top case and bottom case (with a test strip inside) of a rapid diagnostic test device and release it to an outlet once it is placed manually by manpower.

### Main Features

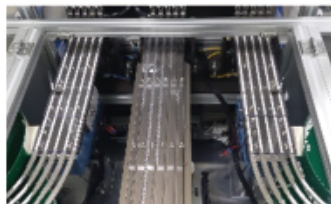
- Higher productivity than an assembly of the test device manually by manpower

### Specifications

Model name	SHA-100
Applicable product	Rapid diagnostic device
Capacity	Depending on skill and quantity of human hands
Device (semi-assembled) feeding	Manually by manpower
Operation tool	Button type (START / STOP / EMERGENCY button)

Inspection	Visually by manpower
Pressing tool	Roller Press
Dimension	Approx. 0.8(L) x 0.4(W) x 0.9(H) m (Conveyor Extension can be available)
Weight	Approx. 150Kg
Power supply	AC 110/220 V, 50/60 Hz

## Filter Cap Auto Assembly System



## SHN-18000 Auto Filter Cap Assembly System

### Product Overview

SHN-18000 is an automated system machine that inserts filter into caps automatically. Filter and Cap can be fed by table and linear feeder automatically. All other working procedures after the feeding of material till release of filter inserted cap to outlet are done automatically.

### Main Features

- Long term cost efficiency by minimized labor input
- Easy setting and operation by Touch Screen
- Stable operation by adopting Servo Motor
- Efficient quality control through prevention from contamination that may occur by contact with human

### Specifications

Model name	SHN-18000
Applicable products	Filter, Cap
Capacity	18,000 EA / hr
Required manpower	1 Person
Filter & Cap supply	Automatic by 6 units of table feeder and linear feeder
Main operation	by Servo motors & Clutch brake motors

Power Supply	AC 220V, 50/60 Hz
Air consumption	650 L/min.
Control / Panel	PLC/Touch Screen
Required air pressure	5~7 Kg/cm <sup>2</sup> (5~7 Bar)
Dimension	Approx. 1.8(W) x 3.75(L) x 1.2(H) m
Gross Weight	Approx. 2,000 Kg



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