



# Lukiot

— Professional Machinery & ID Solutions Provider —

Are you Card Manufacturer, Perso Center or Issuer?

You will get reliable solutions & abundant resources here !



Security



Stability



Accuracy



Hi Speed



Flexibility

Nanjing Lukiot Technology Co., Ltd.



## COMPANY PROFILE

Lukiot is a professional machinery & ID solutions provider in china and dedicated to providing turnkey solutions for plastic/smart card & RFID product's manufacturing.

Thanks for 20 years' experience and numerous users' trust,the most top players in card industry are using the machines & solutions which we highly recommended.

Whatever you are card & RFID manufacturer, personalization center or issuer, you will get reliable services & abundant resources here!

## PRODUCTS & SOLUTIONS

- Card body's manufacturing
- Contact card's productionline
- Inlay, contactless card's manufacturing and testing
- Personalization: Customized card/ticket sorting, encoding, labeling & UV printing, etc.
- ID Turnkey solutions from consultant service to project implementation.
- PVC Materials

## SERVICES

- Free Pre-Sales Consulting
- Strict Quality Control of Production
- 1 Year Quality Guarantee
- 12 hours Quick Feedback & After-Sales Service
- Quick Back-up Parts Available & Technical Assistance

## TALENTED TEAM

Lukiot brings together the world's top professional talent and technology with a highly qualified international personnel.

Established 3 factories in Shenzhen and 1 in Wuhan City, Lukiot has well-known institutions of higher learning and research institutions at home and abroad, work closely with more than 100 patents, a number of the core technological achievements .

## R&D ABILITY

Lukiot has got more than 100 patents in high tech field. We have an energetic R&D term and abundant experience in card making machines and we are honored as "Hi-Tech Enterprises" in China and passed "CE/ISO9001" certificates successfully.

## USERS& PARTNERS



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## CARD BODY MANUFACTURING

- Tape Layering
- Sheet Collating Machine
- Sheet Lamination Systems
- Card Punching
- Card Hot Stamping
- Card Packing Machine

All Lukiot machines are CE certified and comply with relevant European safety requirements including emergency stops and interlocked guarding.



### Tape Layering LUK-MAE10

Magnetic strips will be applied onto overlay films. The transfer is processed using reel-to-sheet. The magnetic stripes are stamped onto the overlay material, using their full width.



LUK-MAE10 Tape Layering



MATERIAL



TAPE LAYERING



PRODUCT

### FEATURES

- Tape application upto 10-12 meters/min
- Individual radial temperature and pressure control for each tape application head
- Simple adjustment to alter tape pitch and to accommodate tape widths
- Operation speed can be adjusted according to the needs of overlay films
- User friendly touch screen control for easy operation
- Servomotor feeding systems performs a laying accuracy  $\pm 0.15\text{mm}$
- Wide range of overlay thickness and number of stripe applications for maximum flexibility
- Air chuck tension system for easy loading and Unloading Overlay reels
- CE completed safety guards

### TECHNICAL DATA

Model	LUK-MAE10
Overlay Thickness	0.04-0.2mm
Max Width of Foil	580mm
Layout	3×7/3×8/3×10/4×7/4×8/4×10 for optional
Magnetic strip Width	12.7mm, 6.35mm
Max. Reel Diameter	380mm
Heating Temperature	<400°C
Temperature Control	$\pm 2.0^\circ\text{C}$
Welding Accuracy	$\pm 0.15\text{mm}$
Productivity	6-12 meters/ minute
Power	AC380V 50/60Hz ,7000W
Weight	800kg
Dimensions	L2200×W1050×H1800mm

### KEY FEATURES



Reel Input



Foil Alignment



Tape Application



Thermal Processing



Sheet Output  
(Optional Reel Output)

### NOTES

MAE10 available with 7, 8 or 10 channel, reel to reel function or reel to sheet function

Actual output rates will be dependent upon product used, settings and configurations.

All Lukiot machines are CE certified and comply with relevant European safety requirements including emergency stops and interlocked guarding.

## INTRODUCTION

**MAE10** is automatic tape layering machine and it is designed to stably weld the magnetic strips onto overlay films from reel-to-sheet.

In the tape layering process, upto 10 magnetic stripes are transferred onto overlay foils. Using 10 tracks, this machine can reach upto 10-12 meter per minute from reel-to-sheet. This is based on an overlay thickness range of 40 to 200 microns and with a width of 580mm.

The magnetic stripes are pressed, using their full width, onto the overlay material. It is designed to accommodate different stripe widths and spacing. Intuitive operational handling and easy maintenance also maximize the efficiency.



## Manual Sheet Collating Machine LUK-SC-3/LUK-SC-3U

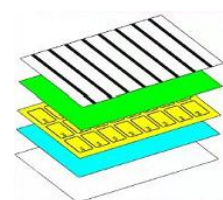
SC-3/SC-3U is designed for collating and welding of plastic foils into sheets ready for lamination.



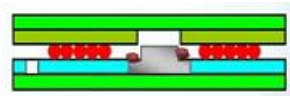
LUK-SC-3 ( Thermal Welding)



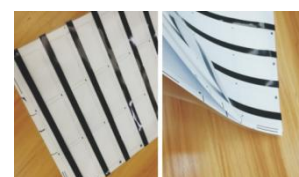
LUK-SC-3U ( Ultrasonic Welding)



Material



welding



products



### INTRODUCTION

SC-3/SC-3U is designed for pre-fixing of plastic foils into sheets ready for lamination.

A swivel table along with a vertically adjustment frame and a foot switch operation method make the equipment easy to use for any operator. The system is flexibly adjustable in height and table position and thus guarantees operator friendliness.

The layers are manually aligned to reference edges and prefixed manually with an thermal welding unit. This allows for the simultaneous prefixing of a complete set in less than one second and for the setting of a random number of spots (max. 3 welding heads)

After the collating process , the pre-fixed sheets are manually removed by the operator.

### FEATURES

- 2-3 sets of welding heads
- Max. Material size 500x700mm , suitable for PVC, PET, ABS material
- Easy to adjust the welding position for different size material
- It adopts the precision guide element and very durable heating elements system/ultrasonic system to ensure the working pressure efficiency
- Easy to adjust the welding time ,welding temperature and the welding depth for different thickness of material.
- It can fix magnetic strips and contactless inlays very well also.
- Completed CE safety guards

### TECHNICAL PARAMETERS:

Model	LUK-SC-3	LUK-SC-3U
Welding Method	Heating Tubes	Ultrasonic
Sheet Material	PVC ,ABS, PC or other plastic materials	
Sheet Size	Max. 500x700mm	
Welding Head	3 groups	2 groups
Collecting Thickness	0.3-1.0mm	
Productivity	600 sets per hour	800 sets per hour
Power	220V50-60HZ 650W	220V 50-60HZ 1KW
Weight	40kg	100kg
Dimension(mm)	L580×W520×H800	L800×W600×H1440



### KEY FEATURES



Thermal Welding Unit for SC-3  
Ultrasonic Welding Unit for SC-3U



Adjustable Stop Pins



LED Light for fixing contactless inlays



Vertically Adjustment for Swivel Table



Digital Meter Control

### NOTES

SC-3/SC-3U can be customized to pre-fix bigger sheet material as per customer' s requirements

Actual output rates will be dependent upon product used, settings and configurations.

All Lukiot machines are CE certified and comply with relevant European safety requirements including emergency stops and interlocked guarding.





## Sheet Lamination System

Sheet Lamination System is designed for the safe and efficient lamination of a variety of contact and contactless cards. Exceptional features to ensure perfect lamination result.

### A3 Series Lamination System



LUK-Smartlam810/750/520



LUK-LP810A/750A/520



LUK-LP5000-2

### A4 Series Lamination System



LUK-SL1000-4



LUK-SL1000-2



LUK-SL1000-1

### Major Differences between A3 Series Lamination System:

Model	Smartlam 810/750/520	LP810A/750A/520A	LP5000-2
Material Feeding	automatic	manual	manual
Trays transferring from heating to cooling	automatic	automatic	manual
Openings	10	7-10	2
Max. Laminate Plate size	Smartlam810: 810x750mm Smartlam750: 750x600mm Smartlam520: 520x420mm	LP810A:810x750mm LP750: 750X600mm LP520: 520X420mm	500x330mm
Productivity	480-600 big sheets per hour	315-450 big sheets per hour	60-90 big sheets per hour
Voltage	380V 50-60Hz	380V 50-60Hz	220V 50-60Hz

### Major Differences between A4 Series Lamination System:

Model	SL1000-4	SL1000-2	SL1000-1
Control Method	PLC	Digital meter	Digital meter
Openings	3 heatings / 3 coolings	2	1
Max. Laminate size	210x297mm	210x297mm	210x297mm
Productivity	Approx. 1,600cards/hour	Approx. 1,000cards/hour	Approx. 500cards/hour
Power	220V/50-60Hz, 7.5 kw	220V/50-60Hz, 5.6 kw	220V/50-60Hz, 2.50 kw
Weight	600kgs	350kgs	180kgs
Dimension	L1000xW650 xH1280mm	L760xW550 xH1260mm	L700xW450 xH940mm



### High Efficiency, Cost Saving, Easy Operation

#### TECHNICAL DATA (A3 Lamination System)

Sheet Material: PVC, PC, ABS; others on request

Openings: 7-10 for bigger A3 machines;  
2-3 for smaller A3 machines

Heating Medium : Electric heating

Cooling Medium: Water

Temperature Range: 0-200°C

Temperature Accuracy: ±1.0°C

Pressure Accuracy: ± 0.01 Mpa

Pressure: Heating 12 stages / cooling 5 stages

Hydraulic Cylinder for Each Tower: 1

#### TECHNICAL DATA (A4 Lamination System)

Sheet Material: PVC, PC, ABS, etc.

Openings: 1-3

Heating Medium : Electric heating

Cooling Medium: Water

Temperature Range: 0-180°C

Pressure Method: Hydraulic

Control Method: PLC / Digital Meter

Voltage: 220V 50-60Hz

Hydraulic Cylinder for Each Tower: 1



### INTRODUCTION

Lukiot's lamination system is designed to laminate pre-lams, plastic cards, smart cards and contactless cards, etc.

The system complies with the latest demands regarding economics, sustainability as well as product and process quality. All important process parameters such as temperature, pressure and cycle time are controlled continuously. These features make it possible to laminate under optimal conditions with all current card materials such as ABS, PVC, PC, PET, PETG, PS and PP.

LUK-LP810/750/520 is automatic laminator and can transfer trays from hot tower to cold tower automatically. This LP series laminators can be configured with 7-10 openings and loader system can be also matched for easy trays' feeding & discharging.



## Card Punching

After the laminated sheets are separated from a pallet or trolley, they are aligned to print mark recognition sensors. The cards are punched from the sheets with a stamp-matrix tool and collected in standard magazines.



### Card Punching for Standard ISO Cards



### Card Punching for Shaped Cards



### Major Differences between Card Punching for ISO Cards:

Model	CP-3A/4A/5A	CP-3M/4M/5M	CP-3S
Sheet Feeding	Automatic	Manual	Manual
Card Punching	Automatic	Automatic	Manual
Skeleton Collating	Automatic	Manual	Manual
Number of Punches	3 / 4 / 5	3 / 4 / 5	2/3/4/5
Available Layout	3x8/4x8/5x5	3x8/4x8/5x5	2x5, 3X8/4X8/5X5
Sheet Alignment & System	Optical Sensor	Laser Lights	Laser Lights
Quantity of Card Magazines	3/4/5	1	no
Punching System	Servo Motor	Servo Motor	Hydraulic
Approx. Output ( cards/hour)	30,000	15,000	3,000-5000
Power	380V 50-60Hz /5.5kw	380V 50-60Hz/4.5kw	220V 50-60Hz/2.2kw

### Major Differences between Card Punching for Shaped Cards:

Model	SCP-500	SCP-3Y	SCP-1Y
Cutting from	laminated sheet	card body	laminated sheet
Available Feeding Size	Generally A3+ size Max. Size: 350x600mm	Min. size: 85.60x54mm Max. Size: 85.60x140mm	Half A4 size (105x297mm )
Card Cutting	Automatic	Automatic	Manual
Control Method	PLC+Servo System	PLC+Servo System	Electric Driven
Power	AC220V/50-60HZ 3.5KW	AC220V/50-60HZ 2.5KW	AC1 10V/220V 50-60 HZ
Output	4000-6000 cards/hour	Approx. 2500 cards/hour	Approx. 1000 cards/hour

### Perfect Performance with High Quality

Perfect mechanical performance and shear-type male& female die ensures high volume production, accurate die cutting and high quality card edges.

#### KEY FEATURES

(Card Punching for ISO Cards )

Sheet Material: PVC, ABS, Paper,etc.

Sheet Thickness: 0.3-1.0mm

Rigid machine structure

The optical sensor registration mark tracking system with  $\pm 0.1$ mm accuracy

Low noise, low vibrations

Shear-type male& female die sets for clean and smooth card edges

Quick change tools

CE approved safety standard

#### KEY FEATURES

(Card Punching for Shaped Cards )

Sheet Material: PVC, ABS, Paper,etc.

Sheet Thickness: 0.3-1.0mm

Solid machine design for high precision

Special shape tools available

Available for ISO cards also

The key feature for **SCP-3Y** is that this machine has ceasing function for **easy break-up by hand**, but SCP-500 &SCP-1Y has no such function.



## INTRODUCTION

Lukiot's fully and semi automatic card punching system are designed for the punching of smart cards from sheets.

The systems enable the high-quality production of both ISO standard cards and shaped cards. The powerful servo motor or hydraulic punching systems ensure continuous precision with alignment to print sensor marks.

The tools are well proven with an extremely long life time. The possibility to choose 2-up layout for A4 punching or 3-up / 4-up / 5-up punching layouts for A3 punching offers flexibility. The optimized design allows for a quick and easy change overtime.





## Card Hot Stamping

It is designed for application of holograms and signature panel on card production. During the card hot stamping process, a security foil (including holograms, signature panel, etc.) is applied onto a card using pressure, time and temperature. The foil can be applied to the front and / or back side of the card.

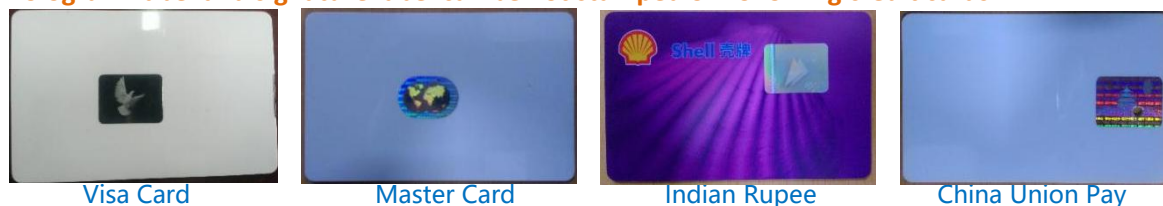
### Two Stations, Flat Stamping



### Single Station, Flat Stamping



Hologram Label and signature label can be hot stamped on following credit cards:



## INTRODUCTION

Lukiot's card hot stamping can be easily integrated into any existing production environment, attaching security foils such as "Hologram label", "Signature panel", "Gold/silver/color of pattern/Logo/text", "Scratch label", "Bronzing/silvering on the embossed convex numbers" on the card front and/or back side with a maximum of two stamping units.

By using two stamping heads, CHS-8000D reaches the market-wide best cost per card value. It is a highly sophisticated card hot stamping solution for a wide application field, as well as for special applications. Both sides of the card can be processed in one production cycle with the integration of the card turning station.

Both two models can hot stamp hologram label and signature panel for credit cards, such as visa, master, JCB, union pay, Indian rupee, etc.

## FEATURES:

- Automatic card feeding/ stacking from magazine to magazine
- Automatic card hot stamping system for holograms, signature panels, scratch-off labels, positive/negative lettering, etc.



- Easy & quick change tools



- Changeable stamping head for various foil widths
- Card front side/back side processing under card flipping unit

2-station stamping mechanism and flip institutions can complete the Stamping in positive and negative side of laser tag and signature strip at one time, or stamp twice on card one side.

- Micro adjusting of hot stamping depth
- Adjustable hot stamping temperature depending on the foil size and card type
- The hot stamping head is able to stamp on different positions of the card by adjusting the X axes and Y axes.
- Highly accurate stamping positioning system

The material unwind and rewind are able to control foil material tension By brake devices for precise positioning;

Adjustable pitch or print mark registration:  
Di-Soric fiber optic sensor is adopted to recognize sensor marks on hologram foil strip precisely.

- One hot stamping unit, extension to two stamping units on request
- Completed CE safety guards

## Patented Design & High Quality

The patented stamping mechanism is designed to ensure the integrity of the stamping, flatness, high accuracy.

## TECHNICAL DATA:

Item	8000S	8000D
Stamping Type	Flat	Flat
Station QTY	1	2
Card Materials	PVC, ABS, Teslin, PC, PETG, Hardpaper, etc.	
Card Size	CR80; others on request	
Card Thickness	0.7-0.9mm; others on request	
Stamping Drive	Servo system	
Stamping Pressure	≤500kg, adjustable	
Compressed Air	0.6MPa	
Heating Temperature	≤200°C, adjustable	
Temperature Accuracy	±1.0°C	
Stamping Position Accuracy	±0.15mm	
Foil Position Accuracy	±0.15mm	
Power Supply	AC380V / AC220V 50-60Hz	
Power	2kw	2.6kw
Output (cards/hour)	2800-4800	2800-4500 (stamping twice)
Machine Size (m)	L1.2xW1.1xH1.6	L1.75xW1.15xH1.65
Gross Weight	580kg	980 kg

## Card Consumables Optional:

Lukiot also offer various kinds of holograms, signature panels, scratch-off labels to match this machine.



## Card Wrapping Machine LUK-HCP5000

HCP5000 is designed for card wrapping/ packing for telecom card, mobile phone charge card , etc. smart cards or leaflet + card in bulk.



LUK-HCP5000 Card Wrapping Machine



### INTRODUCTION

HCP5000 is high-speed automatic card wrapping machine for packing cards with plastic films.

It is controlled by PLC and can be easily operated by touch screen human-machine friendly interface. Mechanical integrated design and ultrasonic film sealing technology is adopted in this machine with advantages of high speed, high stability, low noise and clear welded pattern.

Machine parts or moulds is convinient to be adjusted or replaced to meet various demands.

### FEATURES

- Mechanical integrated design in film sending, card sending, card wrapping, card separating & card collecting automatically.
- Continuous ultrasonic sealing mode is adopted for the elegant and tight sealing.
- Automatic testing for wrong number of cards in packing and the machine will stop working in case of error
- Dual cards , leaflet or card + leaflet packing are available  
Two feeders can be set to work at the same time to pack dual cards or card+leaflet
- Packed product can be cut in chain and stacked in any number.
- Pack sealing edges can be zigzag, digits, letters or any personalized patterns.
- For two feeders, one belt feeder and one sucking disc feeder are also available to pack different cards
- Adjustable packing positioning device for different packing size with available thickness of 0.25mm-1.50mm
- Visual inspection system (OCR) is optional to inspect accuracy of the series number and bar codes on card body.
- Banding system is optional to tie up the packed cards into single bundle

### TECHNICAL DATA

Control Method	PLC+ servo system
Packing Material	BOPP film in reel
Packing film Specifications	Film width: 115mm; Thickness:0.025~0.035 mm Inner diameter 3 inches;Outer diameter less than 450 mm
Card thickness	0.25-1.50mm
Air supply	6 kg/cm <sup>2</sup> (no water)
Power supply	380V,50-60Hz, 5kw
Output	Max.30000 pcs /h
Gross Weight	1000kg
Dimensions	L4800×W980×H1860mm



#### Wrapped Card Samples



#### Banding, Dual Card Wrapping Samples



#### Packing Film Feeder



#### Push Cards into Packs



#### Packing Card Separating





## CONTACTLESS /INLAY CARD PRODUCTION

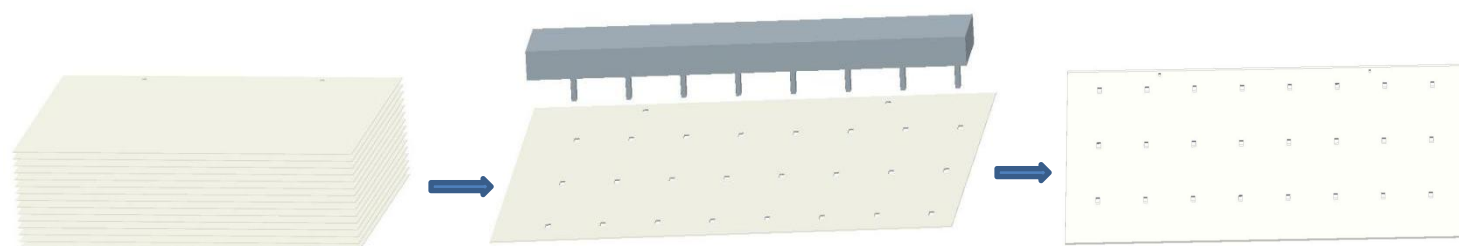
- Chip Hole Punching
- Antenna Embedding Machine
- Tape Dispensing Machine
- Module Pick & Placer
- Chip Bonding Machine
- Sheet Inlay Tester

All Lukiot machines are CE certified and comply with relevant European safety requirements including emergency stops and interlocked guarding.


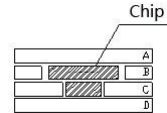


### Automatic Chip Hole Punching

This machine is designed for punching chip holes into the PVC/ABS/PETG sheets.



### Major Differences between 6000Y and 5000W:

Model	CHP-6000Y	CHP-5000W
Sheet Layout	Fixed, customer can choose only one kind of punches, 3 punches / 4 punches / 5 punches	Flexible, one same machine can be suitable for different layouts
Position Hole Punching	Position holes and chip holes will be punched at the same time.	Extra manual position hole punching is necessary to match 5000W 
Chip Hole Size	One hole size for built-in chip module	Two different sizes of holes to make the position for same type chip 
Productivity	Approx. 6000 pcs/hour	Approx. 5000 pcs/hour

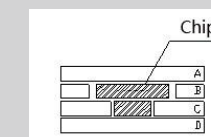
Contactless card Industry is booming nowadays and has been one of the quickest developing markets in this field. Card manufacturer needs reliable and cost-effective contactless card producing equipment to catch this historic opportunity.

### KEY FEATURES ( 6000Y +5000W)

- User friendly touch screen control for easy operation
- Adjustable feeding speed by modifying PLC parameter
- Adjustable hole punching position
- PLC+servo system for precise positioning and position precision  $\pm 0.01\text{mm}$
- Precise punching die and PLC servo system for good punching quality
- Lifetime of punching die: upto two million times
- Locked production cabinet for the safety of the operator
- CE completed safety guards

### NOTE :

Concerning the thickness of contactless chips in the material, as the following illustration shows, to keep Layer A and Layer D more flat, punching two different sizes of holes on Layer B and Layer C is optional.



**6000Y:** one punching die for bigger holes; change tool for smaller holes

**5000W:** two punching dies can be installed at the same time for big hole size and small hole size

## INTRODUCTION

Both 6000Y & 5000W are automatic chip hole punching machines. It is designed to punch the chip holes on PVC, PETG and ABS sheets with different thickness & size for implanting built-in chip modules on contactless /RF inlay sheets.

Control by PLC + servo system and holes are punched by high precision mould, which ensure the quality of the products and improve the productivity.

Machine safety cover is designed to make sure the safety performance of the equipment and better protect the operator' s safety during operation.

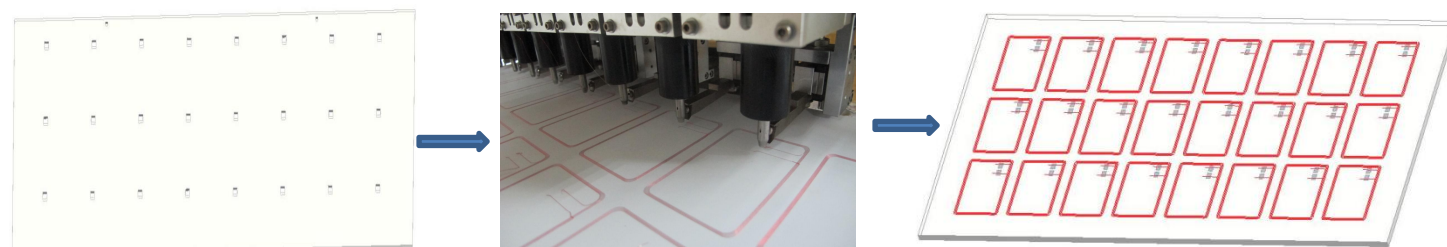
### TECHNICAL DATA

Model	CHP-6000Y	CHP-5000W
Applicable Material	0.1-0.3mm thickness PVC, PETG, ABS material	
Control Method	PLC+ Servo Positioning	
Air Pressure	6kg/cm <sup>2</sup>	
Position precision	$\pm 0.01\text{mm}$	
Yield Rate	99.9%	
Power	380V,50-60Hz, 0.50kw	220V,50-60Hz, 0.50kw
Gross Weight	400kg	900kg
Dimension(mm)	L1000xW800 x H1300	L1500x W700 x H1400



## Antenna Embedding Machine LUK-AEM216

AEM216 is designed for embedding or implanting the copper wire onto INLAY middle sheet as per the designed track with advanced ultrasonic technology.



### INTRODUCTION

AEM216 is designed to embed copper wires onto inlay middle sheet with ultrasonic embedding technology.

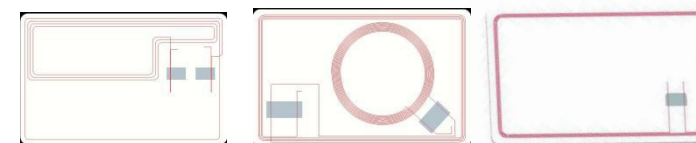
This machine is available to wind inlay coils onto different sheets with different layout specifications of the antenna layer and various shapes. The antenna shape and size can be easily designed in AUTOCAD software.

Embedding heads can be upto 16 and working stations can be up to 2 on-line as per different layout for higher productivity. Embedded antenna has uniform line spacing with smooth & accurate performance.

With advantages of stable mechanical operation, easy debugging and easy maintenance, this machine has been widely used in Generation ID card and residence card manufacturing process.

### FEATURES

- User friendly IPC control for easy operation
- Advanced ultrasonic wire embedding technology for good embedding result and high efficiency.
- 16 Embedding heads can be optional.
- 2 working stations/embedding group can be optional.  
Each embedding group can work alone or together with good flexibility and easy to choose.
- Precise position locating controlled by servo system  
Mitsubishi 3-axis servo control and MOXA motion control system are applied in the control system to ensure high position precision.
- The antenna shape and size can be easily designed in  
AUTOCAD software and pre-set in professional PC drawing software

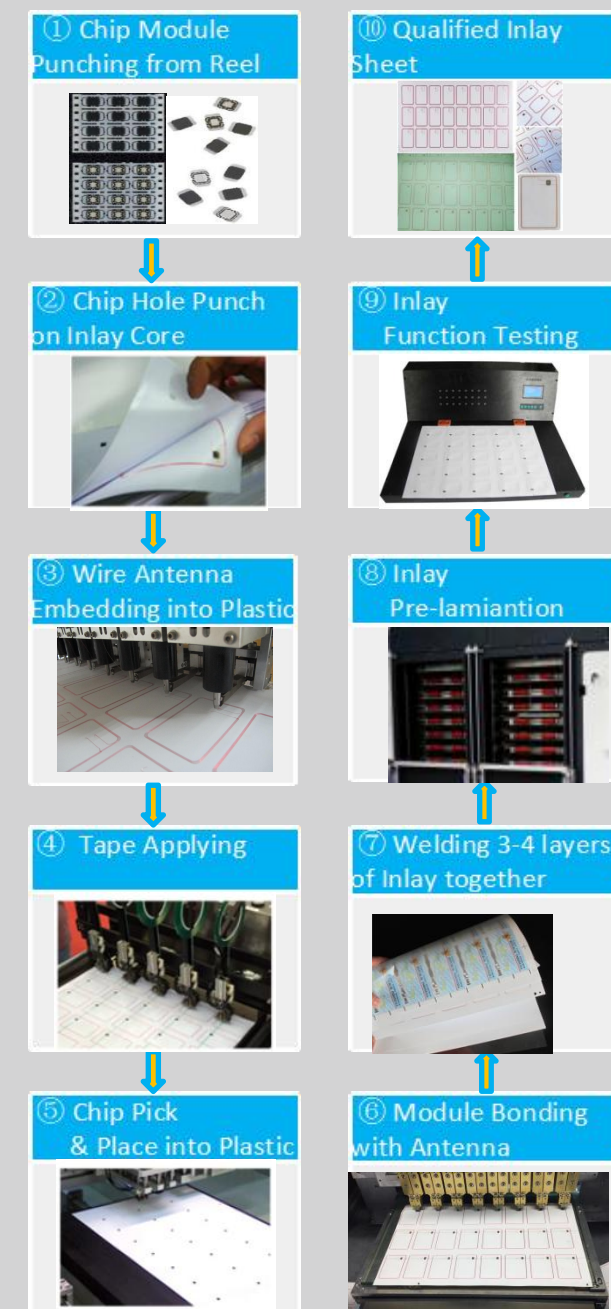


- The size of working station can be customized for various sheet layout (3×8/4×8/5×5/5×12) embedded in the same machine.
- CE completed safety guards

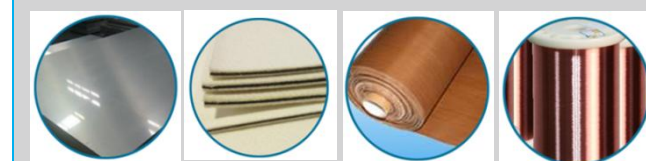
### TECHNICAL DATA

Control Method	IPC control+ 3-axis servo system
Applicable Material	0.1-0.15mm copper wire; 0.2-0.40mm PVC, ABS, PETG, etc. sheet material
Embedding Heads	Upto 16 heads ( two groups)
Working Stations	1-2, station size can be customized for various sheet layout (3×8/4×8/5×5/5×12)
Air Pressure	6kg/cm <sup>2</sup>
Servo Index Accuracy	±0.015mm
Power supply	220V, 50-60Hz, 4kw
Output	2500-4500 pcs /h
Gross Weight	1500kg
Dimensions	L1750×W1150×H1600mm

### HOW TO MAKE INLAY SHEET?



### Card Consumables for Making Inlay:



Steel Plates    Pads    Teflon Cloth    Copper Wire





## Tape Dispensing Machine LUK-TDM800

TDM2000 is designed for dispensing the green tape onto back side of the hole-punched inlay middle material before placing the chips on the inlay sheets, used for blocking chip holes to support chips.



### FEATURES

- User friendly PLC control for easy operation
- High accurate PLC servo system is adopted for precise material picking, glue tape placing, glue tape cutting & sheet collecting
- Automatic sheet pick-placing , automatic glue tape dispensing & cutting system
- This machine has the function to inspect the glue tape and will give a alarm when the glue tape was broken
- This machine can be available for different sheet layout , such as 5x5, 3x8, 4x8 layout ,etc.
- Multiple dispensing heads can be working at the same time; Distance between two heads can be adjusted as per different sheet layouts.
- Precise punching die and PLC system for good tape punching.
- Output collector is designed to collect the dispensed sheets in order.
- CE completed safety guards

### TECHNICAL DATA

Model	LUK-TDM800
Control Method	PLC control+ servo system
Applicable Material	PVC, ABS,PETG,etc. sheet material
Available Sheet Layout	5x5, 3x8, 4x8, customized layout is acceptable
Air Pressure	6kg/cm <sup>2</sup>
Position Accuracy	±0.01mm
Power supply	220V,50-60Hz, 3kw
Output	500-800 sheets /hour , depends on sheet size
Gross Weight	500kg
Dimensions	L1800 x W900xH1500mm
Yield Rate	99.9%



### INTRODUCTION

Automatic Tape Dispensing Machine TDM800 is designed for dispensing the green tape onto back side of the hole-punched inlay middle material before placing the chips on the inlay sheets, used for blocking chip holes to support chips.

The adhesive glue tapes are used for temporarily sticking the chips for chip bonding process. It can greatly lower the needed labor power.

It is controlled by PLC for easy operation and easy maintenance. High accurate sensors are adopted for precise material feeding, glue tape placing, glue tape cutting & sheet collecting .



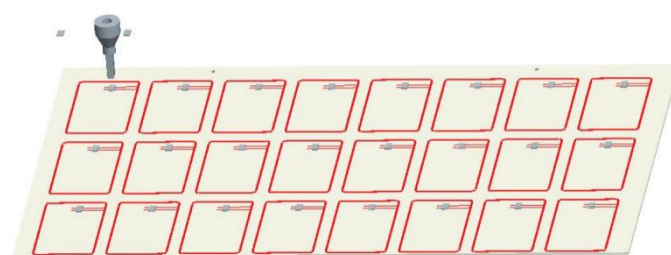


## Module Pick & Placer LUK-MP4000

MP4000 is designed for precisely implanting the single chip onto chip fixing hole in the pvc sheet automatically after antenna embedding.



Module Pick & Placer LUK-MP4000



### INTRODUCTION

MP4000 is designed for precisely implanting the single chip onto chip fixing hole in the pvc sheet automatically after antenna embedding.

This machine is automatically controlled by PLC program for easy operation and maintenance.

Vibration disc automatic feeding , chips will be conveyed to fixed place.High-precise dual-axes are controlled by PLC to pick and place the chips on X/Y place precisely. Photoelectric sensors is adopted to monitor and control the chips' feeding. Machine will alarm and stop automatically when errors happens.

### FEATURES

- User friendly PLC control for easy operation
- Vibration disc automatic feeding , positive or negative chip filling identification, automatic bad chip elimination.
- High accurate PLC dual-axes system is adopted for precise picking & placing the chips on right place automatically.
- The position for single chip where to be placed can be adjusted easily in the software.
- Double working stations and double placers can be working at the same time or separately
- Different sheet layout , such as 5x5, 3x8, 4x8 layout ,etc. can be proceeded with the same machine
- Photoelectric sensors is used to monitor and control the chips' feeding. Machine will alarm and stop automatically when errors happens.
- Optional function: the machine can be designed with extra function of glue tape dispensing
- CE completed safety guards

### TECHNICAL DATA

Model	LUK-MP4000
Control Method	Mitsubishi PLC control+servo system
Applicable Material	PVC, ABS,PETG,etc. sheet material
Available Sheet Layout	5x5, 3x8, 4x8, customized layout is acceptable
Air Pressure	6kg/cm <sup>2</sup>
Placing Position Accuracy	X/Y= ±0.0125mm
Power supply	220V,50-60Hz, 2.5kw
Output	4000 pcs /hour
Gross Weight	1000kg
Dimensions	L1800xW800xH1800mm
Yield Rate	99.9%



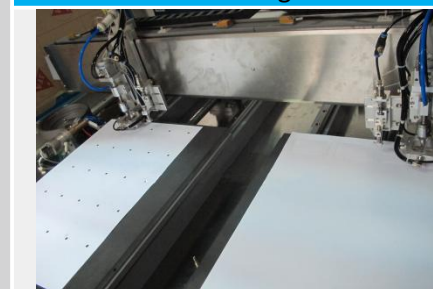
#### Vibration Disc Automatic Feeding



#### Chip Placing System



#### Double Working Stations



#### Manual Chip Pick& Placing is optional



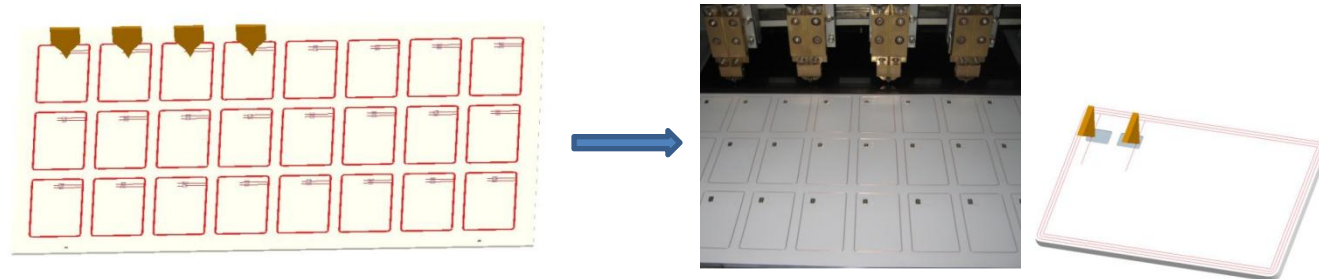


## Chip Bonding Machine LUK-CB8000

CB8000 is designed for bonding /welding the antenna and the module for circuit connection.



Chip Bonding Machine LUK-CB8000



### INTRODUCTION

CB8000 is designed for bonding /welding the antenna and the module for circuit connection by using double pulse current welding technology.

It is controlled by PLC and welding position for each welding heads can be adjusted independently in the PLC easily.

Welding heads can be upto 8 , all the welding heads can work at the same time or respectively. Different layouts( 5x5, 5x12, 3x8,4x8) are available for this machine with great flexibility.

### FEATURES

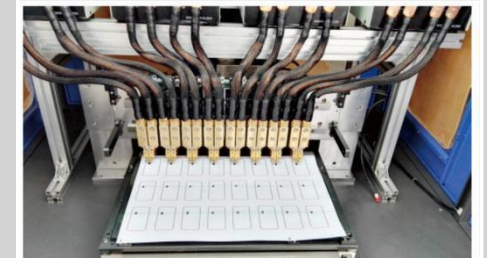
- User friendly PLC control for easy operation
- Double pulse current welding technology is adopted for stable working Performances and precise welding effect.
- High accurate PLC dual-axes positioning system is adopted for precise welding and automatic welding will be carried out according to the pre-set path in the PLC.
- Welding position for each welding heads can be adjusted independently in the PLC easily.
- The welding will not be effected by the value of voltage fluctuation with the high frequency technology, which will improve the yield rate .
- Welding heads can be upto 8 , all the welding heads can work at the same time or respectively
- Different layouts( 5x5, 5x12, 3x8,4x8) are available for this machine with great flexibility.
  - CE completed safety guards

### TECHNICAL DATA

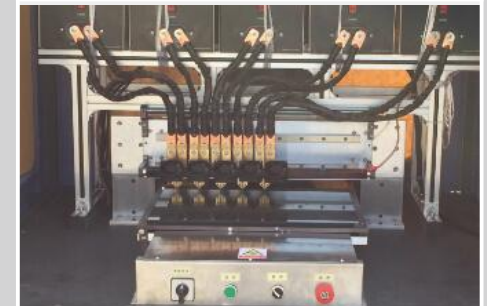
Model	LUK-CB8000
Control Method	Mitsubishi PLC control+servo system
Applicable Material	PVC, ABS,PETG,etc. sheet material
Available Sheet Layout	5x5, 512, 3x8, 4x8, customized layout is acceptable
Air Pressure	6kg/cm <sup>2</sup>
Welding Position Accuracy	±0.01mm
Power supply	220V,50-60Hz, 18 kw
Output	7000 pcs /hour
Gross Weight	1200kg
Dimensions	L1800xW800xH1800mm
Yield Rate	99.9%

**Welding heads can be customized !  
Two working stations is also available!**

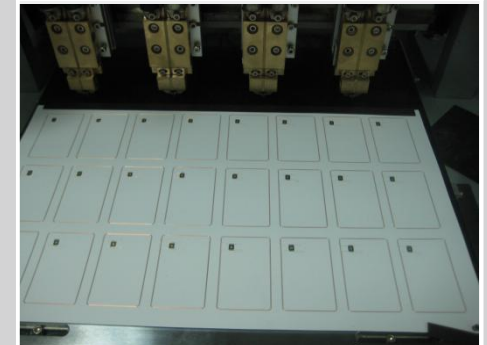
8 welding heads



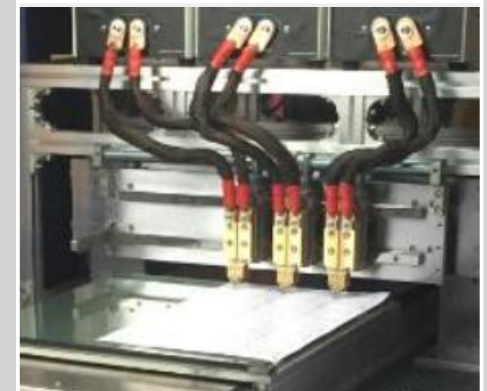
5 welding heads



4 welding heads



3 welding heads





## CARD PERSONALIZATION SYSTEM

- DOD UV Printing System
- Card Labeling System
- Smart Card Chip & Magnetic Encoding Machine
- Card Sorting Machine

All Lukiot machines are CE certified and comply with relevant European safety requirements including emergency stops and interlocked guarding.



### DOD UV Printing System

This system is designed for encoding the magnetic cards and chip cards followed by DOD UV printer to print the corresponding variable data onto the cards.

#### Magnetic & Chip Encoding, UV Printing & Labeling System (DOD8000A/DOD8000E/DOD7000A/DOD7000E)



LUK-DOD8000A

Two input modules + one labeling module  
( one for ISO card, the other for non-standard card )



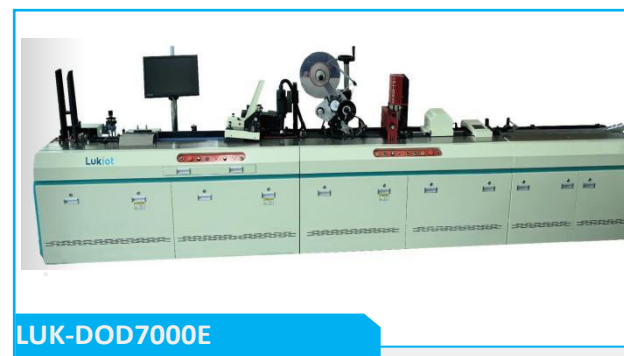
LUK-DOD8000E

One input module + one labeling module  
+UID Reading Module



LUK-DOD7000A

One input module + two labeling modules



LUK-DOD7000E

One input module + one labeling module

#### Economy UV Printing System (DOD5000/DOD3000)



LUK-DOD5000

Smart Card Chip Encoding + UV printing system



LUK-DOD3000

UV printing system



All Lukiot's DOD UV Printing system provides modularity and flexible design which customers can select the function configuration on demands.

#### TECHNICAL DATA

(Magnetic & Chip Encoding, UV Printing & Labeling System)

Model	DOD8000A	DOD8000E	DOD7000A	DOD7000E
Air Pressure	0.6 Mpa			
Interface	Serial port, ethernet port, electric eye, encoder interface, printer head interface			
Sensor	Support a variety of external sensors ( NPN type, contact type)			
Operating system	Win7			
Paper accuracy	Max. $\pm 0.25\text{mm}$			
Encoding Failure Rate	<0.1%			
Power	220V ,11kw	220V,12kw	380V, 15kw	220V,15kw
Machine Size (m, L xW xH)	6.0x1.0x1.83	8.2x0.8x1.6	6.65x0.85x1.6	3.8x0.9x1.5
Net Weight	1120kg	1300kg	1200kg	1000kg

#### TECHNICAL DATA

(Economy UV Printing System)

Model	DOD5000	DOD3000
Air Pressure	0.5Mpa	
Max. Printing Width	36mm	
Printing Speed	25 meters/min	
Operating system	Win7	
Power	220V ,6.5kw	220V, 4.5kw
Machine Size	2.8(L)x0.8(W)x1.50(H)m	1.8(L)x0.75(W)x1.6(H)m
Net Weight	510kg	350kg
Magetic & Chip encoding module	optional	
Labeling module	optional	










MS360-MSL300 9

### INTRODUCTION

DOD UV printing system is designed for encoding the magnetic cards and chip cards followed by UV printer to print the corresponding variable data onto the cards.

This system provides modularity and flexible design which customers can select the function configuration on demands. The configuration includes card feeding, overlapped card detection, smart card chip encoding, magnetic strip encoding, plasma surface treatment, DOD UV Printing, LED dry, OCR visual inspect, labeling, bad card rejection, etc. The machine is available to support two magazines for different input systems( ISO cards & non-standard cards).



SN	Module Configuration	Function & Parameters	UV Printing Effect	Module Photo	Model No.					
					DOD8000A	DOD8000E	DOD7000A	DOD7000E	DOD5000	DOD3000
1	DOD UV Print	<ul style="list-style-type: none"><li>▪ DOD printed content: one-dimensional code, two dimensional code, drug regulatory code, security anti-fake code, pictures, personalized number, dynamic text, serial number, data;</li><li>▪ The printed two-dimensional code information can include website, logo and pictures;</li><li>▪Maximum printing width: 36mm ,54mm or 72mm optional;</li><li>▪Print resolution: 360DPI (longitudinal direction) and 720 DPI ( transverse direction) adjustable;</li><li>▪ Printing speed: Grade A , 40-45meters/min( 8000A/E, 7000A/E) ; 25meters/min (DOD5000/3000)</li><li>▪ Printed Material: polished or coated cardboard,PP, PET, PVC, PETG, etc.</li><li>▪ Machine maximum processing width: 210mm; Available processing thickness: 0.15-2.0mm</li><li>▪ The fixed prefix or suffix can be added to the printing data as per customer requirements;</li><li>▪ Speed: ≥10000 cards/hour</li></ul>			YES	YES	YES	YES	YES	YES
2	OCR Camera Inspection	<ul style="list-style-type: none"><li>▪ Designed for identifying number, bar code, two -dimensional code</li><li>▪ The identification results can be compared with the database files</li><li>▪ Identification speed: 10000 cards/hour</li><li>▪ Equipped components: coaxial light source, CCD camera DALSA, camera lens 12mm and identification software</li></ul>			YES	YES	YES	YES	NO	NO
3	Labeling	<ul style="list-style-type: none"><li>▪ Labeling width: 5-100mm ; Labeling length: 6-150mm;</li><li>▪Label reel external diameter: 260mm ; internal diameter: 75mm</li><li>▪ Label feeding speed: step feeding, 19-25m/min ; output: 7000 cards/hour</li><li>▪ Labeling accuracy: ±1mm</li></ul>			YES	YES	YES	YES	NO	NO
4	Smart Card Chip Encoding	<ul style="list-style-type: none"><li>▪ The processed chip type: S50/S70/Fudan/ Kunrui</li><li>▪ The initial passwords in 40 sectors can be changed</li><li>▪ M1 card single block data writing can be in three ways: decimal, hexadecimal and ASCLL code</li><li>▪ Read and write data can be converted into seven formats to be sent to printer, for example; positive 10 digit, negative 10 digit, WG26,WG34, ABA+WG26, positive 8 digit, negative 8 digit)</li><li>▪ It can write or change the data in a number of blocks in one time</li><li>▪ Automatic bad card skip option is available</li><li>▪ Working speed : 2000-7000 cards/hour</li></ul>			YES	YES	YES	YES	YES	NO
5	Magnetic Strip Encoding	<ul style="list-style-type: none"><li>▪ Magnetic reactance: 300oe-2750oe</li><li>▪ Magnetic writing density: 210 DPI, 75DPI /210DPI , 210DPI</li><li>▪ Processed magnetic tracks: track 1, rack 2, track 3, Hico/Loco adjustable</li><li>▪ Magnetic encoding unit: one magnetic writing head+ one magnetic reading head for data proof reading</li><li>▪ Production speed: 7000 cards/hour</li><li>▪ The software can be set to print the card surface with the same data or different database. The print content can also be the data from any magnetic track</li><li>▪ Skip bad card number option is available.Right magnetic data can be converted into bar code for printing purpose</li></ul>			YES	YES	YES	YES	NO	NO
6	Cleaning Module	Plasma Treatment is adopted to remove the static electricity and dust of the card surface.			YES	YES	YES	YES	YES	YES
7	Card Flip Module	This card flip station is for card double sides marking			YES	YES	YES	YES	NO	NO



## Card Labeling System

Card labeling system is designed for applying scratch labels onto the serial numbers, password, bar-code, etc. for pre-paid phone cards, game cards, membership cards, etc. various scratch cards.



LUK-CLS901

Card feeding→variable information printing  
→OCR Inspection→ labeling→Card Collecting



LUK-CLS801

Card feeding→variable information printing  
→labeling→Card Collecting



LUK-CLS701

Card feeding→variable information printing(optional)  
→labeling→Card Collecting



LUK-CLS602

Card feeding→2 labeling units→Card Collecting



### INTRODUCTION

Card labeling system is designed for applying scratch labels onto the serial numbers, password, barcode, etc. for pre-paid phone cards, game cards, membership cards, etc. various scratch cards.

All lukiot's labeling machines are designed with highly modular and flexible system and customer can choose the function modules on demand.

Overflow for this system:

Card feeding→Overlapped card detector (optional)→Variable Information Printing (optional)→OCR Printing Inspection (optional)→Labeling→Labeling Inspection (optional)→Card Collecting

### FEATURES

- Highly modular and flexible system and customer can choose the function modules on demand.

Optional function module :

- ① overlapped card detector module
- ② variable information printing module
- ③ OCR printing inspection module
- ④ labeling effect inspection

- All steps are in one pass, compact and easy to be operated.
- Fast labeling speed, low production cost
- OCR visual inspection is optional, which ensures the high speed inspection & data accuracy, time & labour saving
- Printing control software supports different brands of inkjet printers such as Image, Domino, Linx and so on.
- CE completed safety guards

### TECHNICAL DATA

Model	CLS901	CLS801	CLS701	CLS602
Card Size	Length: 50-120mm ; Width: 50-90mm ; Height: 0.2-2.0mm			
Card Material	PVC, paper			
Control Method	IPC		PLC	
Labeling Accuracy	±0.50mm		±1.0mm	
Compressed Air	0.6MPa			
Throughput ( cards/hour)	upto 20,000	Upto 40,000	Upto 20,000	Upto 35,000
Power	380V ,4.0kw	220V,3.0kw	220V, 2.5kw	220V,2.5kw
Machine Size (m, L xW xH)	4.3x0.90x1.70	3.4x0.8x1.75	2.80x0.85x1.6	2.6x0.8x1.6
Net Weight	800kg	390kg	350kg	320kg



High Performance servo motor in labeling ensures the high speed and high stability of labeling.

### Card Labeling Samples



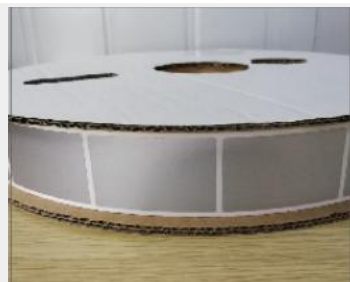
### Scratch Label 1



### Scratch Label 2



### Scratch Label 3



## Magnetic & Chip Encoding Machine

This machine is designed for testing the chip circuit performance, chip data writing and /or password change, magnetic strip data writing , etc.  
OCR inspection is optional to ensure the data accuracy & consistency.



LUK-MCE501

Card feeding→chip encoding  
→magnetic encoding→Card Collecting



LUK-MCE502

Card feeding→chip encoding→magnetic  
encoding→OCR inspection→Card Collecting

### EXTERNAL PARAMETERS

- Compressed Air: 0.6 Mpa
- Air Consumption: 30L/minute
- Control Mode: Industrial Control Machine+ PLC
- Speed: 3000-6000 cards/hour for chip encoding;  
8000-10000cards/hour for other functions
- Power: 220V, 50-60Hz, 1.5kw
- Machine Dimension: 1.8 (L)x0.8(W)x1.6(H)m

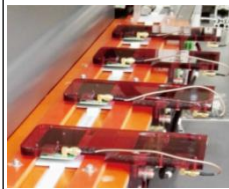
### INTRODUCTION

This machine is designed for testing the chip circuit performance, chip data writing and or password change, magnetic strip data writing , etc.

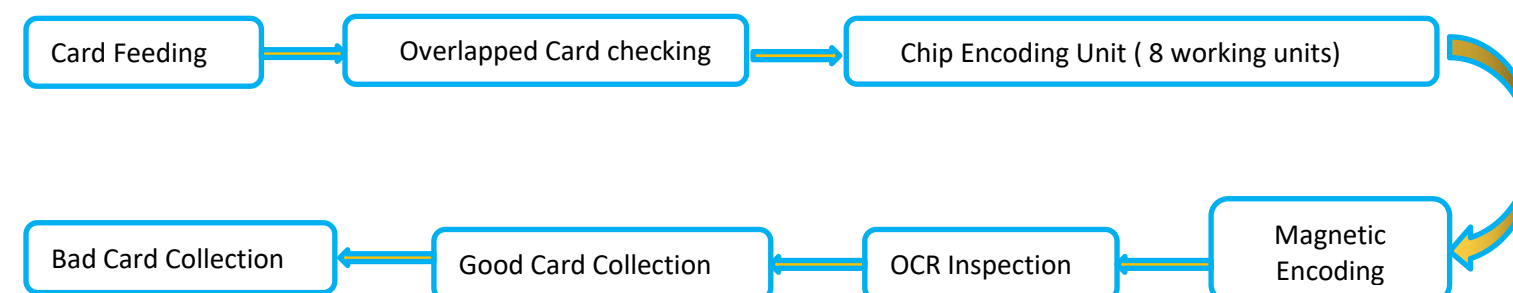
Magnetic strip encoding unit is available for writing both magnetic strip upper side and lower side.

OCR inspection is optional to ensure the data accuracy & consistency. OCR module will compare whether the card surface data( number,bar-code, QR code), card chip data and magnetic strip data with the source data file are same or not.

### FUNCTION DESCRIPTION

SN	Module Configuration	Function & Parameters	Module Photo	Model No.	
				MCE501	DOD502
1	OCR Camera Inspection	<ul style="list-style-type: none"> <li>Designed for identifying number, bar code, two -dimensional code</li> <li>The identification results can be compared with the database files</li> <li>Identification speed: 10000 cards/hour</li> <li>Equipped components: coaxial light source, CCD camera DALSA, camera lens 12mm and identification software</li> </ul>		NO	YES
2	Smart Card Chip Encoding	<ul style="list-style-type: none"> <li>The processed chip type: S50/S70/Fudan/ Kunrui</li> <li>Module frequency: 13.56Mhz</li> <li>The initial passwords in 40 sectors can be changed</li> <li>M1 card single block data writing can be in three ways: decimal, hexadecimal and ASCLL code</li> <li>Read and write data can be converted into seven formats to be sent to printer, for example; positive 10 digit, negative 10 digit, WG26,WG34, ABA+WG26, positive 8 digit, negative 8 digit)</li> <li>It can write or change the data in a number of blocks in one time</li> <li>It can be combined with OCR &amp; magnetic encoding module to ensure the consistency of each card data</li> <li>The log can be saved.</li> <li>Working speed : 2000-7000 cards/hour</li> </ul>		YES	YES
3	Magnetic Strip Encoding	<ul style="list-style-type: none"> <li>Magnetic reactance: 300oe-2750oe</li> <li>Magnetic writing density: 210 DPI, 75DPI /210DPI , 210DPI</li> <li>Processed magnetic tracks: track 1, rack 2, track 3, Hico/Loco adjustable</li> <li>The magnetic encoding unit has two sets of encoding units which can realize 2-side magnetic strip encoding.</li> <li>The software can be set for validation and consistency processing on the data of smart card chip data, magnetic writing and OCR data</li> <li>Production speed: 7000 cards/hour</li> </ul>		YES	YES

### BASIC WORKFLOW SYSTEM:







## Card Sorting Machine

Card sorting system is designed for sorting cards with different printing and different chip data inside the cards .



LUK-SC6000



LUK-SC5000

## INTRODUCTION

During card making process, cards with different printing and chip data inside the cards are often mixed together. These cards need to be separated before delivery.

Lukiot's automatic card sorting machine can sort the cards accurately based on OCR system and contact / contactless IC recognition. The system reads and recognizes both surface and internal information of the card to check if they match in the database, and then determines the current card serial number so as to realize the cards sorting and ranking. Meanwhile, the position and information of missing card can be recognized.

## FUNCTION DESCRIPTION

SN	Module Configuration	Function & Parameters	Module Photo	Model No.	
				SC6000	SC5000
1	Input Module	Equipped with 1 removable input magazine and the maximum capacity is up to 500pcs		YES	YES
2	Flipper Module	Equipped with 2sets of flippers to adjust the card orientations so as to realize recognizing and checking the surface and chip information at different card sides.		YES	NO
3	Recognizing Module	2Sets. Recognition module consists of OCR module and contact /contactless IC module which realize reading and recognizing surface and internal information of the card, as well as matching that with the database to confirm the current serial number for the card.		YES	YES
4	Buffer Module	1 set. Buffering the cards that belong to the current sorting range but not belong to the current sorting unit with the function of auto loading/unloading.		YES	NO
5	Card Ranking Module	2 sets of turntables, each set can store 250pcs of cards, 500pcs in total.		YES	YES
6	Checking Module	1set. Checking module consists of OCR module and contact / contactless IC module which realize reading and recognizing both surface and internal information of the cards.		YES	YES
7	Output Module	<b>SC6000:</b> Adopting turntable output structure. Equipped with 2 output magazines ( capacity of 500 pcs) for sorted cards with auto-switch function; 1 pos-occupying card magazine&1 reject card magazine <b>SC5000:</b> Standard model can sort upto 12 types of cards. More types of cards can be sorted in two passes or with more tracks on demand.		YES	YES
8	Recycle Box	Recycle cards not belonging to current sorting job with capacity of 50pcs.		YES	YES

## TECHNICAL PARAMETER

Model	SC6000	SC5000
Card Supported	ISO ID-1/CR-80 standard cards such as PC、PET、PVC、ABS	
Air Supply	0.6 Mpa	
Operating System	Win 7	
Communication Interface	Ethernet	
Power	220V , 50-60Hz, 5.0kw	220V, 50-60hz, 2.0kw
Machine Size	3.52(L)x0.88(W)x1.92(H)m	2.75(L)x1.05(W)x1.45(H)m
Gross Weight	1500kg	1000kg

## KEY FEATURES (Model: SC6000)

- Supported for various smart cards conforming to ISO/IEC 7816 standard
- Load pos-occupying card automatically to ensure continuous card sorting in the case of card missing
- Buffer module can store 2500 pcs with the function of auto-loading and unloading
- Check both surface and internal information of the card by multi checking methods so as to ensure that the surface and internal information match with accurate sorting sequence
- Load unit-driving card automatically to differentiate each sorting unit easily
- High-efficiency double turntables sorting mechanism with high speed and strong stability

## KEY FEATURES (Model: SC5000)

- With machine vision system, it can sort the cards with difference face value, color, text, numbers, patterns , etc.
- With card reader, it can sort the cards with different data inside the chips
- The sorting accuracy is ensured with the help of OCR checking and the machine can compare the printed data with the data base to ensure the data accuracy.
- Standard model can sort upto 12 types of cards. More types of cards can be sorted in two passes or with more tracks on demand.
- The surface printing quality can be inspected.

## VALUE ADDED SERVICE

- Trays, Steel Plates, Pads, Industrial Chiller for Lamination Machine
- Die & Tooling for Card Punching
- Hologram Foils for Card Hot Stamping
- Magnetic Strips for Tape Layering
- Enamelled Copper Wire for Antenna Embedding Machine



## VALUE ADDED SERVICE

All following value added service will be matched with lukiot's card making machines and lukiot will make sure quality 100% for better service.

### VALUE ADDED SERVICE FOR LAMINATION MACHINE



Industrial chiller: matched with A3 laminator for better cooling  
model no.: 3P/5P/8P  
water cooling

A3 trays: lukiot offer two kinds of A3 trays, one kind is special trays with locating pins, matched with the laminator with loader system; the other kind is simple tray, matched with laminator without loader system

Steel plates: thickness 0.6mm/ 0.8mm/1.0mm  
Glossy finish/ matte finish/ sandy finish  
Size can be customized on demand

Lamination pads: material: 100% silicon gel / silica gel inside, woolen outside  
Size can be customized on demand

### DIE & TOOLING FOR CARD PUNCHING



Punching dies will be customized based on customers' sheet layout on demand for various kinds of material, such as PVC, PET, PETG, ABS, etc.  
PC tool will be imported from Germany.

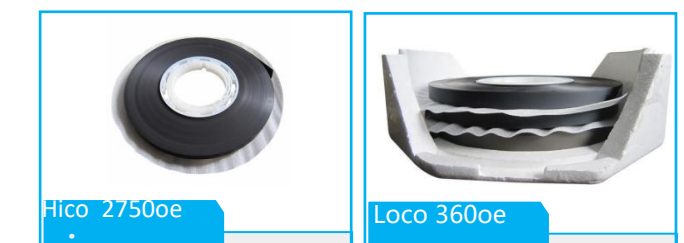
### HOLOGRAM FOILS, SCRATCH LABELS FOR CARD HOT STAMPING



Hologram foil: size and hologram printing can be customized.

- Scratch label:
- size : 6x26mm /6x36mm
  - color: Grey /zebra print
  - this scratch labels can be also use in card labeling machine

### MAGNETIC STRIPS FOR TAPE LAYERING



Size: 12.7mmx1000meter

360oe for loco magnetic strip  
2750oe for hico magnetic strip

Lifetime: 100K times

MOQ: 5 rolls for each kind



### ENAMELLED COPPER WIRE FOR ANTENNA EMBEDDING



Diameter: 0.1mm

The wire is easy to bond and make shape quickly, hard to be broken with advantages good solderability and good embedded ability

It is suitable for all antenna embedding machines.



Create Value & Pursuit Excellence !

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