## Non-Standard Automation Equipment Manufacturing Expert



# REMER DONGGUAN RENER AUTOMATION TECHNOLOGIES CO.,LTD.

Add:No.202 Liyuan Road, Shilongkeng Management Area, Liaobu Town, Dongguan City, Guang Dong Province, China. (Postcode: 523428)

Tel: 0769-83215926 E-mail: rener688@163.com http://dgrener.en.made-in-china.com

#### **Company Profile:**

Dongguan Rener Automation Technologies Co., Ltd. is a high-tech enterprise engaged in R & D, industrial non-standard machinery and equipment production, sales and service automation. Our products are widely used in automatic production of standard fasteners, hardware accessories, auto parts, electronic parts, electrical appliances, plastic hardware, locks, medical equipment accessories, cosmetics, sanitary products and other industries. Undertake mobile phone connector, automotive, medical, hardware, wire, all kinds of consumer electronic products, sanitary products and other non-standard automation equipment R & D project development, to undertake a variety of plastic hardware products production line, assembly line, automatic machine manufacturing, design various automation solutions. Effective for the enterprises to solve the problems in high cost, low efficiency and serious quality, recruitment difficulties, labor trouble etc...For all enterprises to save resources, improve efficiency, achieve social harmony and win-win and customer.

Our main products: plastic & Hardware assembling machine, sanitary assembly machine, automatic locking screw machine, spring separating feeder machine, we developed a number of sanitary assembly line has been successfully put into production in the Middle East.

We have experienced technical backbone and a strong engineering team, and provide overseas machine commissioning and overseas training experience and service, make the enterprise production line put into production, we provide technical support and thoughtful pre-sale customer service for customers in the industry field, we will make unremitting efforts to strive for the majority of customer service. Dongguan Rener automation technology limited company's good faith, strength and quality of products recognized by the industry. Welcome friends from all world of life come to visit, guidance and business negotiation.



## Think what you want, do what you do.

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## **I.Sanitary Products Series Assembly:**



**Automatic assembly machine for water inlet** 

Capacity: 500pcs / hour.

Number of operators:1-2person,Advantages: saving labor.

Complete assembly

Before assembly

#### **Machine Function:**

Total 10parts automatic feeding by vibrating bolws,manipulator automatic grasping,split turntable rotation,10 parts are assembled automatically, servo module rotation,screw driver automatic locking screw,fiber optic sensing,feeding when with material, stopping when no material, the finished products automatic discharge conveying belt.

#### **Machine Features:**

- Electric control adopts Japanese
   MITSUBISHI PLC, man-machine interface
   adopts imported color touch screen;
- 2) Cylinder adopts Taiwan original;
- 3) Automatic detection: optical fiber sensor, with material start, without material stop;
- 4) Automatic counting, output setting;
- 5 Intuitive interface, easy to operate, safely;
- 6) Abnormal automatic alarm shutdown, and display the abnormal information.

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#### **Machine Parameters:**

Mashaniaal dinamaian	2200*2400*4200====
Mechanical dimension:	3300*3100*1200mm
Maximum capacity:	500pcs/H
Power supply:	220V/50Hz
Air pressure:	0.6~0.8MPa
Power:	4000-5000W
Weight:	2500kg
Control mode:	Automatic touch screen
Brand for Pneumatic components:	AirTAC/SMC
Brand for Slide:	HIWIN
Servo:	MITSUBISHI
PLC:	MITSUBISHI
Sensor:	OMRON/SICK
Module steel:	SKD11/S136/S45C/SUS304/6061
Main functions:	Automatic assembly sanitary products
Application:	Automatic assemblying machine

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#### **Machine Function:**

The 12parts automatic feeding by vibrating bolws,manipulator automatic grasping,split turntable rotation,12 parts are assembled automatically,fiber optic sensing,feeding when with material, stopping when no material, the finished

product automatic discharge conveying belt.

Capacity: 600pcs / hour.

Number of operators:1-2person Advantages: saving labor.



Automatic assembly machine for shower head

#### **Machine Features:**

- 1) Electric control adopts Japanese MITSUBISHI PLC, man-machine interface adopts imported color touch screen;
- 2) Cylinder adopts Taiwan original;
- 3) Automatic detection: optical fiber sensor, with material start, without material stop;
- 4) Automatic counting, output setting;
- 5 Intuitive interface, easy to operate, safely;
- 6) Abnormal automatic alarm shutdown, and display the abnormal information.



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#### **Machine Parameters:**

Mechanical dimension:	2500*2450*1500mm
Maximum capacity:	600pcs/H
Power supply:	220V/50Hz
Air pressure:	0.6~0.8MPa
Power:	4000-5000W
Weight:	2000kg
Control mode:	Automatic touch screen
Brand for Pneumatic components:	AirTAC/SMC
Brand for Slide:	HIWIN
Servo:	MITSUBISHI
PLC:	MITSUBISHI
Sensor:	OMRON/SICK
Module steel:	SKD11/S136/S45C/SUS304/6061
Main functions:	Automatic assembly shower head
Application:	Automatic assemblying machine

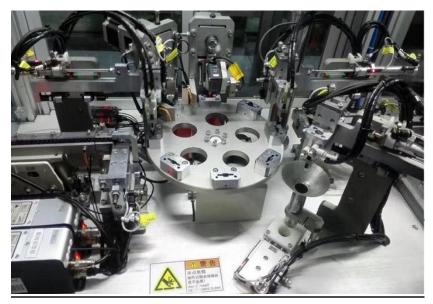






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## II. Plastic hardware assembly series:



## Brief introduction of the automatic assembly machine:

The composition of the automatic assembly machine (discussed in terms of the flow time of the parts to be assembled)

1. Parts aligned, conveying, escapement
The spatial automatic orientation of the
components by out of order will facilitate
automatic processing of the arrangement, and
then successfully transported to the escapement
follow-up, to prepare for the subsequent capture
of the manipulator.

#### 2. Grab - shift - placement mechanism

The escapement point positioning zero (components) to seize or use vacuum sucked, and then moved to another location (usually assembly position).

3. Assembly working mechanism

Refers to the completion of the assembly the main action mechanism, such as the workpiece clamping, pressing, screw, card, bonding, welding, riveting, bonding, welding in part.

4. Detection mechanism

The utility model is used for testing the results of the previous step of assembling the components or the machine, such as missing parts detection, size detection, defect detection, functional testing, and cleaning detection.

5. Workpiece removal mechanism

Mechanism for the sorting of qualified parts and unqualified parts from a machine.

The most commonly used transmission structure of automatic assembly machine

- 1) according to the time consistency of the workpiece in the machine, there is a gap motion assembly machine and a continuous motion assembly machine.
- 2) according to the number of working position in the assembly machine, there is a single station assembly machine and multi station assembly machine.
- 3) according to the assembly machine in the transmission path of the workpiece to be divided into a round table assembly machine and the circular table assembly machine.

Control system of automatic assembling machine

PLC control is usually used, PLC to receive a variety of signal input, to the executive body issued instructions. The machine is equipped with a variety of sensors, such as signal acquisition device to monitor the execution of each actuator in the machine, the judge issued the next step after the instruction. The man-machine interface is used to show the running status of the machine, the running records, and the instructions from the operator to the machine.

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Automatic assembly machine for plastic hardware

AC socket / AV plug assembly machine

Automated assembly line

#### **Machine Parameters:**

Mechanical dimension:	Customized
Maximum capacity:	600-800pcs/H
Power supply:	220V/50Hz
Air pressure:	0.6~0.8MPa
Power:	4000-5000W
Weight:	2000-3000kg
Control mode:	Automatic touch screen
Brand for Pneumatic components:	AirTAC/SMC
Brand for Slide:	HIWIN
Servo:	MITSUBISHI
PLC:	MITSUBISHI
Sensor:	OMRON/SICK
Module steel:	SKD11/S136/S45C/SUS304/6061
Main functions:	Automatic assembly plastic hardware
Application:	Automatic assemblying machine

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## III. Packaging machine series:



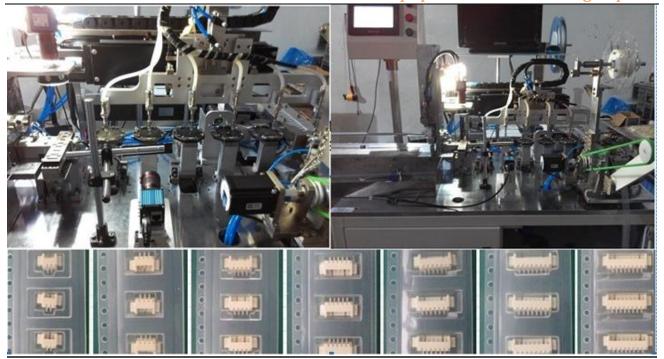
**CCD Test Machine Automatic Packing Machine** 

#### **Machine Parameters:**

Mechanical dimension:	1100*750*1000mm
Maximum capacity:	1500-2000pcs/H
Power supply:	220V/50Hz
Air pressure:	0.5~0.6MPa
Power:	2000W
Weight:	500kg
Control mode:	Automatic touch screen
Brand for Pneumatic components:	AirTAC
Brand for Slide:	HIWIN
Servo:	MITSUBISHI
PLC:	MITSUBISHI
Sensor:	OMRON
Module steel:	SKD11/S136/S45C/SUS304/6061
Main functions:	Automatic detection electronic connector
Application:	Automatic packaging machine

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#### **Machine Function:**

**A.** Manipulator automatic grasping, product flatness, positive position detection, pin length detection, plastic defect detection, the bad product elimination, the qualified product puts in the packing belt, cold sealing or heat sealing.

- B. Testing products: FPC, Pin number: 2-12pin.
- **C.** A plurality of lens multi different angle detection, a variety of fast adjustable fixture.
- **D**. Detection flatness, position, length pin, plastic defects.
- **E.** Detection of missing pin skew pin less pin, surface defects, the overall coplanar.
- F. Fiber optic sensing, defective products eliminate, heat seal / cold seal packaging.
- G. Capacity: 1500-2000pcs / hour.



**CCD** packaging machine



**USB 5P SMT CCD packaging machine** 

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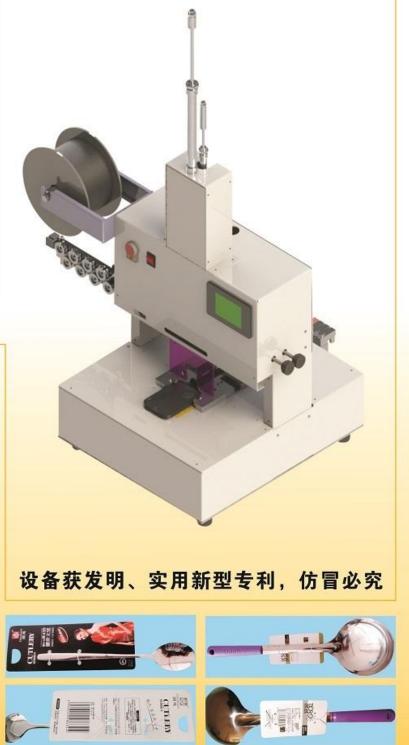


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## **Items and Paper Binding Machine**

## Features:

- 1.Suitable for goods and paper line, or bundles of goods bar
- 2.The wire length and the wire width are adjustable, the number of winding coil can be adjusted.
- 3. High efficiency and low cost. simple operation, convenient use and safety.







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#### IV. Electronic connector series:





**HDMI 19pin SMT automatic assembly machine** 



HDMI male head 9P assembly machine



**USB 3pin 4Pin automatic** automatic pin machine



FPC series automatic pin machine



3.5 earphone automatic assembly machine



64 Pin auto connector assembly machine



**Keyboard key assembly machine** 

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#### V. Screw machine series:

#### **Multi Head Automatic Locking Screw Machine**



#### **Functional characteristics:**

- 1.. Efficiency of up to 900 hours per hour, up to a lock at the same time, the 24 screws, can replace a number of workers, cost-effective, within one year of recoverable costs.
- 2.. Machine on the side of the belt line, artificial just take the product, easy to operate the machine.
- 3.. Automatic lock screw and determine whether the OK, if there is a defective machine will automatically identify and alarm.
- 4.. Power transmission through the universal transmission shaft torque screw, the position of the lock screw can be adjusted in the direction of X--Y--Z, the replacement of the product variety fast and easy.
- 5.. Machine universal good, simple settings on the screen, you can lock any number of 2--24 screws products.
- 6.. With a mechanical lifting type automatic nail feeding machine through the pipeline conveying screws, nail fast and accurate, artificial only need to put the screws into the hopper.



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#### **Blowing Type Robot Automatic Locking Screw Machine**

#### **Functional characteristics:**

1.Intelligent numerical control, the machine in accordance with the coordinates of the point of automatic movement and lock the screw, for the rapid and simple product fixture (just replace the fixture and transfer procedures can be). Good versatility, suitable for the production of a small variety of products.

2.Lock screw efficiency: 1.2~2.5sec/pcs

3.Movement speed: 500mm/s

4.Input mode: touch screen coordinates + teaching mode

5. 2-4 group can be installed automatically lock the screw unit lock a number of 2-4 products, the efficiency doubled;

6. The machine added automatic detection function, including the floating screw lock (no lock end), tooth lock leakage, slippery (slippage between the screwdriver mouth and screw nut) can detect and alarm, to ensure product quality.



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#### **Hand-held Screw Locking Machine**

The hand-held screw locking machine is composed of a locking tool and automatic screw machine, hand-held tool alignment products under pressure after a lock screw, automatic nail feeding opportunities brought a rapid screw screw claw, saving hand screw time.

#### **Functional characteristics:**

Screw automatic feeding, without the use of hand screws, the liberation of a hand, flexible operation, suitable for fixed-point operations.

The efficiency of up to 40 per minute, the screw conveying distance up to 4 meters, the artificial lock how fast, how fast to send machine.

A hand-held tool compact appearance, adjustable torque, with spring balancer or balance arm, the operation is more labor-saving.

At the hole under pressure, the spring sleeve retracts, group bar out of the locking screw, after the completion of the sleeve spring release and automatic nail feeding.



#### **Fixed Mode:**

Balance arm

Fixture cover plate

Horizontal locking screw

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## Parameter for multi head automatic locking screw machine

Machine structure	Enlarged edition(8-16screwdrivers)	900x1300x1700 380KG
	Standard Edition ( 5-12 screwdrivers )	700x1200x1700 320KG
	Compact Edition ( 4-8 screwdrivers )	600x1000x1700 240KG
	Desk type (Less than 4 screwdrivers)	450x1000x1100 110KG
	Power Supply	AC 220V 50HZ
	power	0.5KW
	Air source	>0.5KG/CM2
	Air consumption	25m3/hour
	Lock up and down adjustment range	200mm
Control on offication	Host program control	NC Control
Control specification	Interface	Display and adjust parameters
	Automatic screw feeder	In accordance with the number of screws to choose
Screw feeder	Deguest signal	DC24V pulse,can communicate with PLC or host
Screw leeder	Request signal	processor
	Send the feedback signal	To host processing or PLC
Screwdriver	Screwdriver	Multiple pcs, torqu:2-12kgf.cm, The special needs another choose
Screw clamp	Screw clamp	Multiple sets,according to the quantity of screws
Connect	Universal joint drive shaft assembly	Multiple sets,work with screw clamp
	Enlarged edition( 8-16 screwdrivers)	600x500x150mm(Range of screw on product)
	Standard Edition ( 4-12 screwdrivers )	420x300x150mm(Range of screw on product)
	Compact Edition ( 4-8 screwdrivers )	320x250x150mm(Range of screw on product)
Processing range (Range of screw on product)	Desk type (Less than 4 screwdrivers)	250x180x100mm(Range of screw on product)
(Name of serew off product)	Horizontal adjustment range	Small adjustment:±25mm,replaceable position
	Tionzoniai adjustment range	adjustment to:±100mm
	Vertical adjustment range	±5mm,Replacement parts can be achieved ±15mm
	Screw locking depth	20mm,if you want deeper need customized
	Minimum screw pitch	20mm,maximum hole distance unlimited
Test items	Screwdriver torque test	Yes
	screwloos, slippery detection	Yes
	Screw leakage lock detection	Yes
	Screw leakage send detection	Yes
	Handling of defective(NG) products	Alarm, touch screen display defective product location
1	1	

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## VI. Winding machine series:



**Fourth Generation Fully Automatic Widing Machine** 

#### **Machine Parameters**

Mechanical dimension:	700*600*1350mm
Weight:	120KG
Power:	1000W
Air Pressure:	0.4~0.5MPa
Suitable band:	package adhesive core
Applicable wire:	USB/AC/DC various wire
Applicable diameter:	≤7.4mm
Suitable length:	≤30-800mm
Winding spacing:	50-230mm
Tail length:	≥20mm
Head length:	0-120mm
Bundle diameter:	≤40mm
Number and speed of	
winding:	Adjustable
Capacity:	1200pcs/hour

#### **Features**

- 1) High production efficiency: more than 1200 bars per hour (about the results of the 1.8 meter).
- 2) Suitable for wide wire (including: AC, DC (including product suffix) with single ring) and data lines.
- 3) Suitable for belt type: with iron core and without iron core line (environmental protection) general.
- 4) Automatic winding strapping machine can be customized according to customer requirements, suitable for electronic wire, power line, USB, DC, AC line and other kinds of transmission lines using plastic bags tied into bundles with twisted iron core, only the line start switch on the line winding disc, tie wire winding machine automatic winding line.
- 5) Automatic wire winding machine can be around the length of the adjustment, the number of winding set, tie line length, the number of sets, the output count.
- 6) Fully automatic winding machine can greatly reduce the fatigue strength, improve work efficiency, save tie.
- 7) The machine is strong, stable, generous appearance, simple operation of the machine. Stable, high efficiency and low energy consumption, easy to use.

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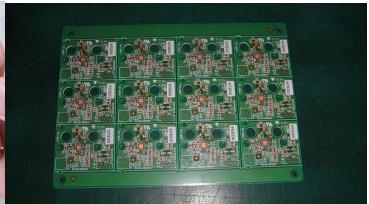
## VII. Industrial Inkjet printer series:



#### **Automatic Barcode Industrial Printer for PCB Plate Circuit Board**

Automatic bar code printing using imported auto printing equipment, to provide 1 dimensional code (bar code), 2 dimensional code (DM code, QR code), simple Logo printing services; using X, Y module for positioning, accurate, fast printing information will be printed onto the surface of the PCB board with the machine; feeding mechanism guide, can realize the automatic feeding and discharging function; instead of the traditional manual label printing and labeling operation, reduce production cost, improve production efficiency, reduce manual labor.





X, Y axis platform: Panasonic AC

Positioning accuracy + 0.2mm Scope of work: 400\*400mm

U axis (360 degree rotation) AC motor

2 sports system

servo motor

#### **Basic equipment parameters**

1 Appearance size L\*W\*H = 1100\*850\*1500 Max print PCB board size: L\*W = 400\*360 Weight about 400 kg Power AC220V Barometric 0.4-0.6Mpa

3 PCB board conveying system Delivery mode: three stage conveying Drive motor: Panasonic AC motor

Belt: round belt

Aluminium track: special section for round belt

Speed: the speed of the latter two segments can be adjusted

Substrate positioning: front and side positioning

Rail width adjustment: Handle + screw

Corresponding inkjet PCB size: 45-350 wide, the largest 400\*400; transport guide: 45-350 wide; 500 long in the middle section; the speed of the speed of the 3 sections of the largest size of 400\*399PCB

#### 4 control system

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Controller: motion control card PC: general purpose computer

HMI: LCD

Control software: automatic spray control software

Position sensor: photoelectric switch

5 supporting functional equipment

- 1, with Domino, KGK and other brand inkjet printer synchronization supporting the use of spray printing characters and a two-dimensional bar code;
- 2, additional function automatic scanning gun detection



#### **System configuration:**

- 1 IPC+ motion control card is used to realize high speed and high precision motion control;
- 2 using servo motor to achieve the precise positioning of XY spray printing platform;
- 3 step motor is used to realize the automatic feeding and discharging of conveyor belt and the belt conveyor;
- 4 imported automatic spray printing equipment, to achieve 1 dimensional code, 2 dimensional code, such as simple LOGO spray printing function;

#### **System performance:**

1 simple intelligent operation interface

Can quickly set up and set up the PCB spray printing content and spray printing layout, automatic spray printing; 2 high performance, high precision and high quality Can achieve 600~1000p/h capacity, barcode printing position accuracy can reach + 0.02mm, to ensure that the bar code can be produced all kinds of bar code scanner 100% read identification;

3 flexible printing area

Through the track width, you can print a minimum of 60 X 60mm~400 500mm PCB board X:

4 ultra low consumable cost, ultra low labor cost Supplies cost is lower than the bar code printer using high temperature resistant label paper 1/7, through the SMEMA interface can realize automatic spray printing production.



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## VIII. Spring separating and feeding machine

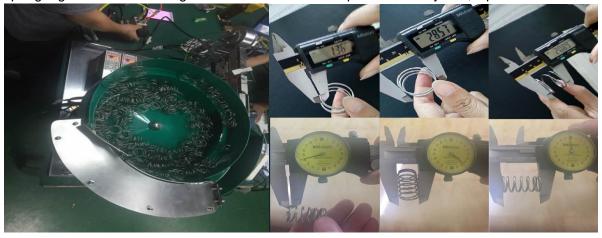


#### 1. Machine Parameter:

Spring diameter	2-30mm
Wire diameter	0.30~1.9mm
Free length	2~50mm
Separation rate	over 95%
Capacity	20-50pcs/minute
Power supply	220V50Hz
Dimensions	650 * 500 *450mm
Weight	90kg

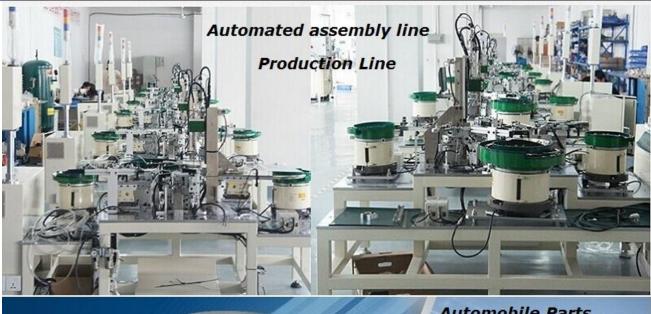
#### 2. Features:

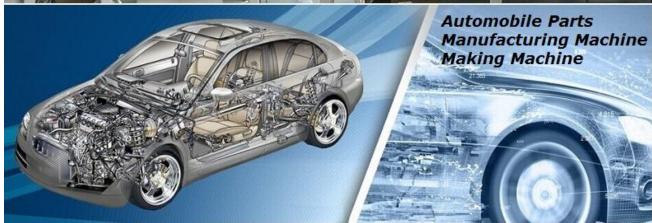
To solve the best weapon for small spring up!! this machine is suitable for entanglement in small spiral spring together after centrifugal vibration mode to be separated one by one, separation rate over 95%.



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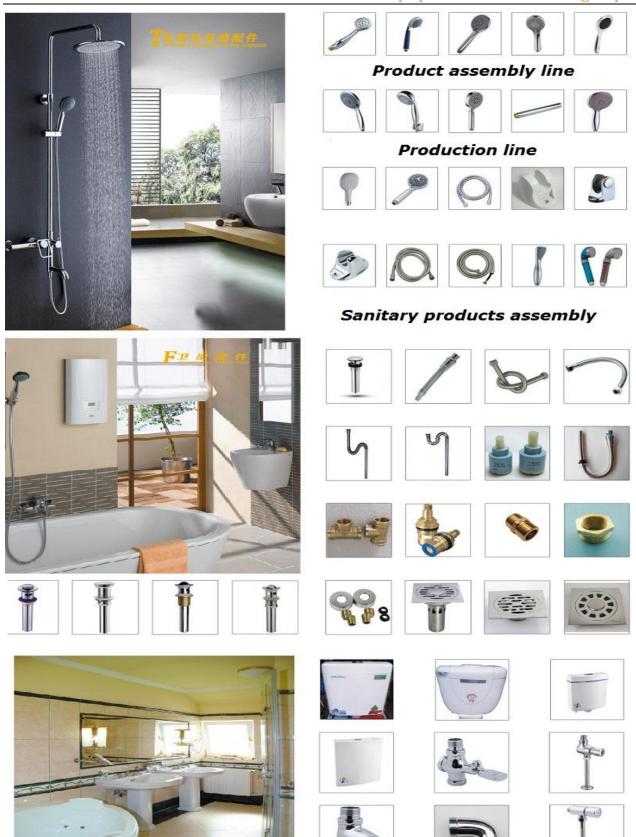
- \* Automatic Assembly Machine
- \* Production Assembly Lline
- \* Automation Equipment
- \* CCD Detection Machine
- \* Packing Machinery

#### FOR

- \* Plastic Hardware
- \* Electronic Products
- \* Sanitary Products

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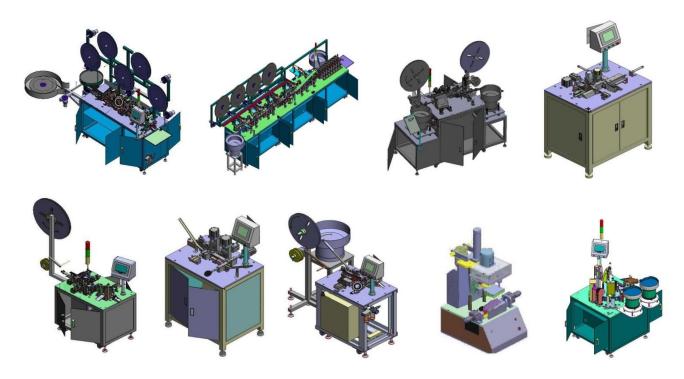
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## 3D design renderings



#### Machine video website:

http://dgrener.en.made-in-china.com/custom/video-list-JQJEnxmyGxLE.html

## 东莞市仁尔自动化科技有限公司 DONGGUAN RENER AUTOMATION TECHNOLOGIES CO.,LTD.

Add:No.202 Liyuan Road,Shilongkeng Management Area,Liaobu Town,

 ${\bf Dongguan\ City,} {\bf Guang Dong\ Province,} {\bf China.\ (Postcode:\ 523428)}$ 

**Contact: Mr. Zhou Phone: 86-13713123856** 

Tel: 86-769-83215926 E-mail: rener688@163.com

http://dgrener.en.made-in-china.com http://www.rener-automation.com



Mobile site

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