



STOCK CODE : 688328

SHENZHEN SHENKEDA SEMINCONDUCTOR TECHNOLOGY CO.,LTD

深科达集成电路产业园

专注于半导体测试分选机研发与制造

Focus on r & d and manufacturing of semiconductor test separator

Authorized Business Partner In Malaysia



FANCO PRECISION (M) SDN. BHD.

Address : No. 30 & 32, Persiaran Perindustrian Pengkalan 8,
Kawasan Perindustrian Pengkalan, 31500 Ipoh, Perak, Malaysia.

Tel : +605-3212 108

Email : sales@fanco-precision.com, yxfan@fanco-precision.com,
jessypong@fanco-precision.com



**Sorting for semiconductor
testing Provide leading solutions.**

01

company profile

02

Core competitiveness

03

Product display

04

Major customer

Provide leading solutions for semiconductor test sorting.

为半导体测试分选提供领先的解决方案。

Company profile

Shenzhen Shenkeda Semiconductor Technology Co., Ltd. is a national high-tech enterprise which was invested by Shenzhen S-king Intelligent equipment Co., Ltd. (stock code: 688328). Since its inception, the company has been focused on researching and developing, manufacturing, sales and technical services of test handler for semiconductor components .

At present, the company has a group of more than 300 senior core R & D team, including about 200 people in basic research and development (group) and more than 100 people in professional application research and development of test handler. After many years of unremitting technological innovation, we have mastered the core technology of integrated circuit testing. At the same time, we also actively develop independent intellectual property rights: we have 502 patents including software copyright.

Looking to the future, Shenkeda Semiconductor will continue to adhere to the corporate mission and the spirit of national enterprise, one step by step, vowing to be a first-class equipment supplier of test handler for semiconductor .Join hands with you for the resplendence of innovation.



2 R&D center



15Service offices



502Core patents

Honorary qualifications

精进创新 载誉前行
Intensive innovation
Forward with reputation



Medium-sized and small enterprises of Guangdong province specializes in special new



The Best Brand of Semiconductor Test equipment



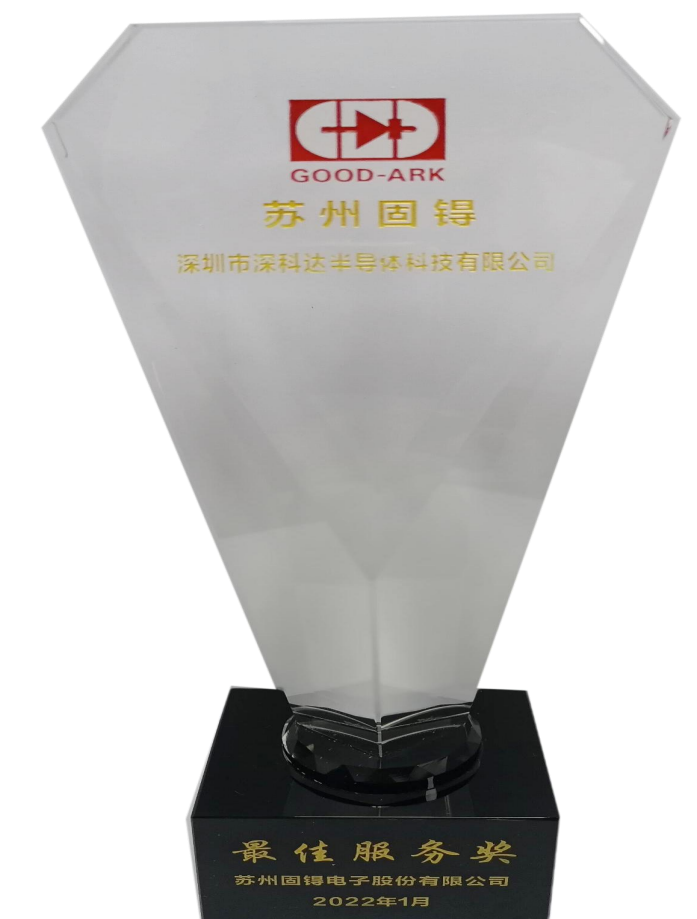
High-tech enterprise certificate



Awarded Best contribution by Yang Jie Science and Technology



Shenzhen semi-Association Core Innovation Award



Suzhou Good-Ark Best Service Award

Development history

2004

Shenkeda Pneumatic equipment Co., Ltd was established

The company focuses on the R & D, production and sales of automation equipment.

2016

Shenkeda Semiconductor was founded

It was invested by Shenzhen S-KING Intelligent equipment Co., Ltd. (stock code: 688328), It focuses on researching and developing, manufacturing, sales and technical services of test handler for semiconductor components .

2017

The first test handler was shipped.

The first turret semiconductor test handler SKD962 has been successfully developed.

2020

The Cumulative sales of turret test handler achived 1000 units

Shenkeda Semiconductor has gradually gained a firm foothold in the domestic market, and its core technology, product quality and market sales continue to rise..

2021

Won the honor of national high-tech enterprise

With professional R & D team, continuous independent innovation ability, efficient technical service and enterprise management system, it has successfully passed the recognition of "national high-tech enterprise"

2021

S-KING Intelligent was listed on Kechuang Board

The headquarters company S-KING Intelligent equipment Co., Ltd. was successfully listed on the Shanghai Stock Exchange Science and Technology Innovation Board, stock code: 688328.

2022年

Won the honor of Guangdong province specializes in special new

This honor is a full affirmation of the company's achievements in product research and development and technological innovation, it marks a new stage in the innovation and development of enterprises.

2022年

A new series of test handlers are put into the market

Three series of new products, namely, Pick and Place test handler, cam dual-track test handler and gravity test handler, have been introduced and mass produced one after another, which has laid a solid foundation for the company's future technology improvement and business growth.

2023年

Shenkeda semiconductor huizhou base fully opened

The company completed the overall relocation, and ShenKeda Huizhou Industrial Base was fully opened.

廿载辉煌 卓越历程



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03

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04

Major customer

Build the core competitiveness of the industry leader.

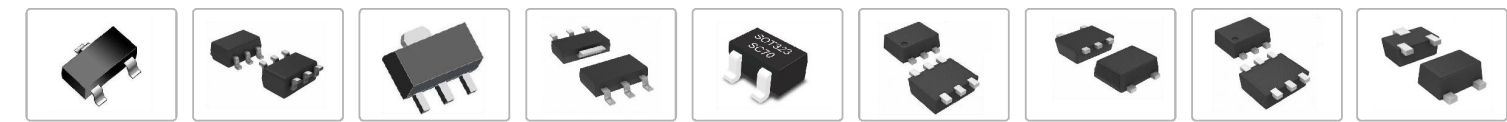
打造行业领先的核心竞争力。

perfect product architecture

We provide the most professional equipment and services for semiconductor packaging and testing processes, including visual inspection and test sorting solutions.

Our strong product portfolio can provide customers with complete solutions, equipment processing capacity covers most of the discrete devices, integrated circuits and other conventional devices in the form of semiconductor packaging, can automatically complete the electrical parameters of devices testing, laser marking, identification testing, 3D5S testing and braiding output, automatic change of tape, etc, to help you improve production efficiency, save human resources and achieve sustainable development.

SOT143, SOT23, SOT23-3/4/5/6/8, SOT89-3/5, SOT223, SOT323, SOT363, SOT523, SOT553, SOT563, SOT723, TSOT23-3/4/5/6/8



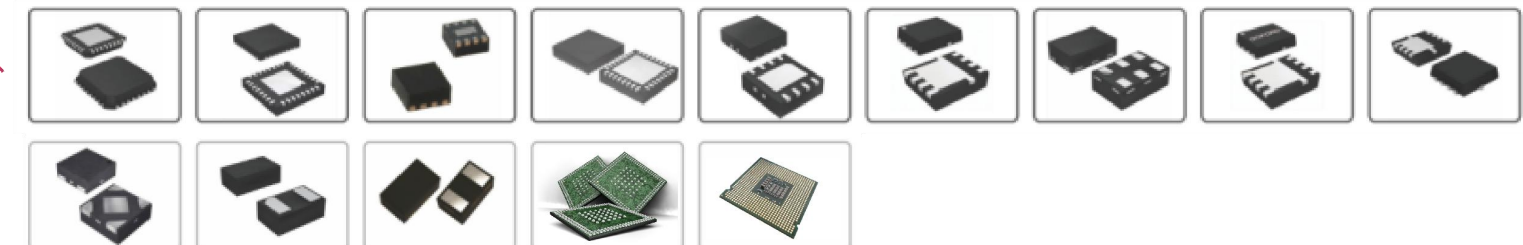
SOP4, SOP5, SOP7, SOP8, SOP10, SOP12, SOP14, SOP16, SOP18, SOP20, SOP22, SOP24, SOP28, MSOP8, MSOP10, TSSOP8, TSSOP10, TSSOP14, TSSOP16, TSSOP20, TSSOP24, QSOP24, LSOP4, LSOP6



SOD123, SOD323, SOD523, SOD123FL, SOD323FL, SOD723



DFN/QFN0.4X0.2-DFN/QFN10X10, PDFN3.3X3.3, PDFN5X6, TOLL, LGA, BGA, LQFP16-LQFP100, QFN3*3-QFN55*55, Memory, MEMS, 硅麦系列, 光伏模块



SMA, SMB, SMC, MBS, SMAF, SMBF



TO220, TO247, TO251, TO252, TO263

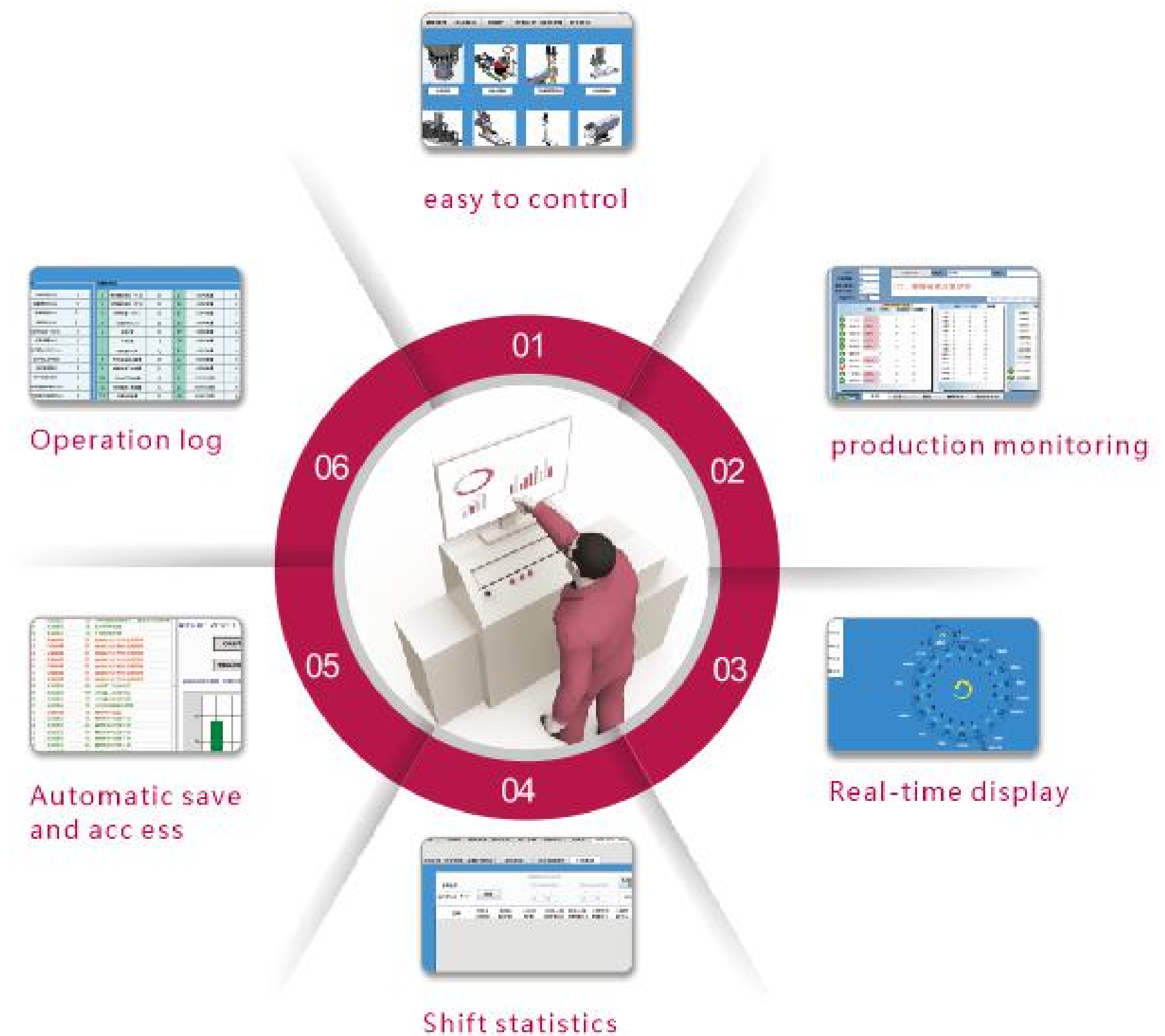


Build the core competitiveness of the industry leader.

打造行业领先的核心竞争力。

Powerful software Functions

We develop industry-leading software solutions based on IOT technology, A large number of on-site process data and environmental data are collected to the platform, and various algorithm models to improve field efficiency, quality and equipment prediction are innovatively developed. After on-site training and verification, the model can effectively improve the quality and reduce the loss caused by bad or downtime.



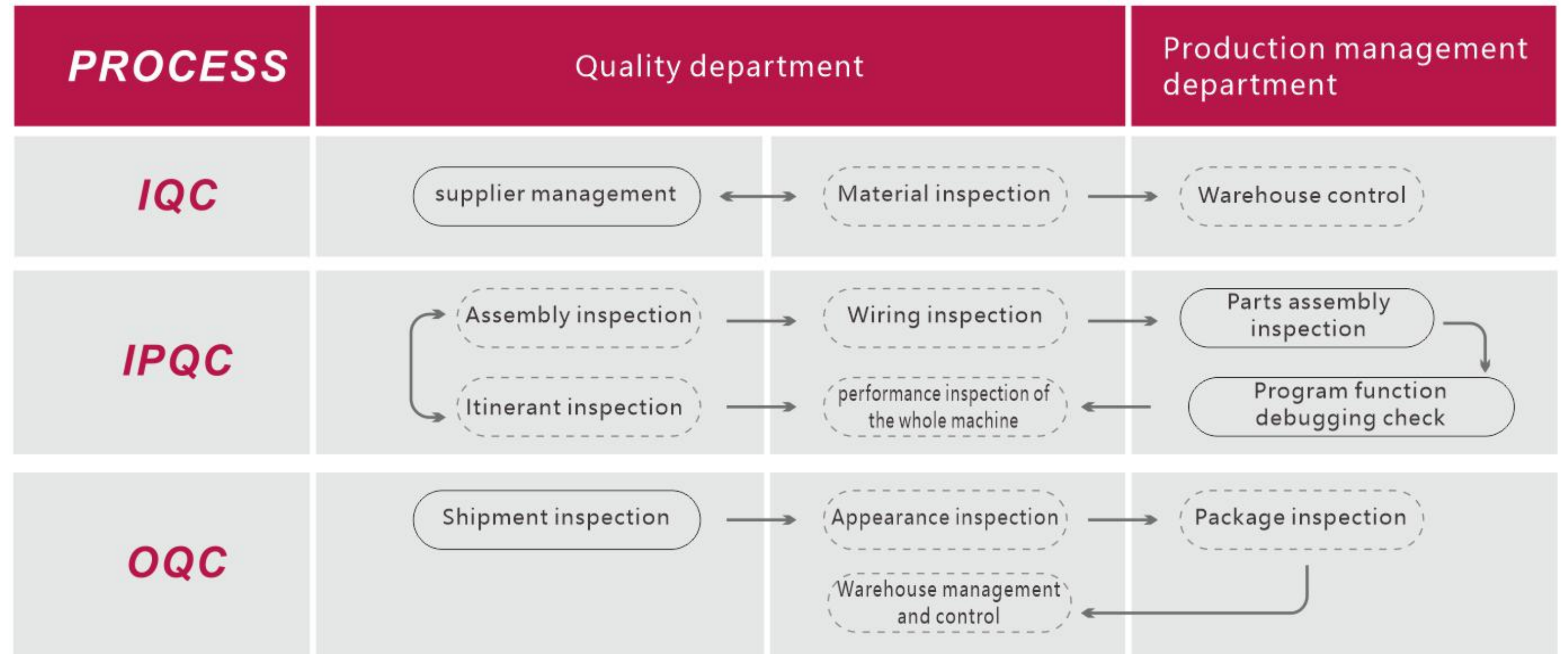
Build the core competitiveness of the industry leader.

打造行业领先的核心竞争力。

Perfect quality control system

In order to catch up with large international companies, we control the quality strictly, establish and form a set of strict quality management system. Internal meticulous management, promote the standardization of R & D and production management; externally pursue the business philosophy of "focus on the field of automation equipment, fully carry forward the spirit of craftsmen, and become a century-old equipment enterprise with social value". Maximize the enthusiasm of all staff to ensure the quality and stability of products.

Quality assurance system



Build the core competitiveness of the industry leader.

打造行业领先的核心竞争力。

Quality control process 质量控制流程

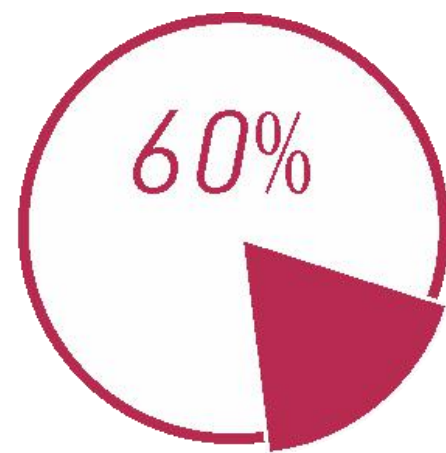


Build the core competitiveness of the industry leader.

打造行业领先的核心竞争力。

First-class R&D Strength

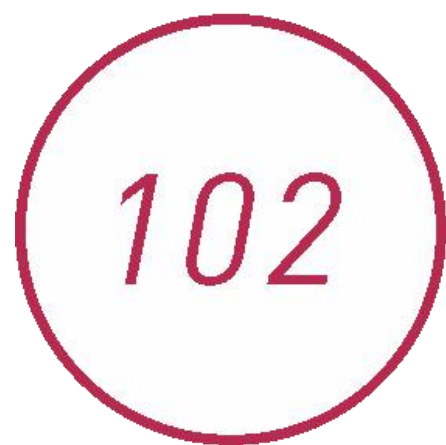
The company always adheres to the concept of independent R & D and innovation, and has established a perfect R & D system and multi-level incentive mechanism. There are many R & D centers with strong technical force and reasonable professional collocation, closely follow the industry technology and market changes, implement the development mechanism of the organic combination of "on-demand development" and "advanced development", and constantly innovate the R & D management system to ensure the company's technological advantage in the increasingly fierce market competition.



Bachelor degree



Doctor's and master's degree



Number of R & D centers



Other



Build the core competitiveness of the industry leader.

打造行业领先的核心竞争力。

Professional after-sale service

As a leading semiconductor sorting equipment supplier in China, Shenkoda Semiconductor not only embodies user value in technological innovation, R & D and manufacturing, but also establish a professional team by handing with value chain system resources in technical service ,and formed a set of effective guarantee system of after-sale technical service .

- **Many after-sales service outlets.**

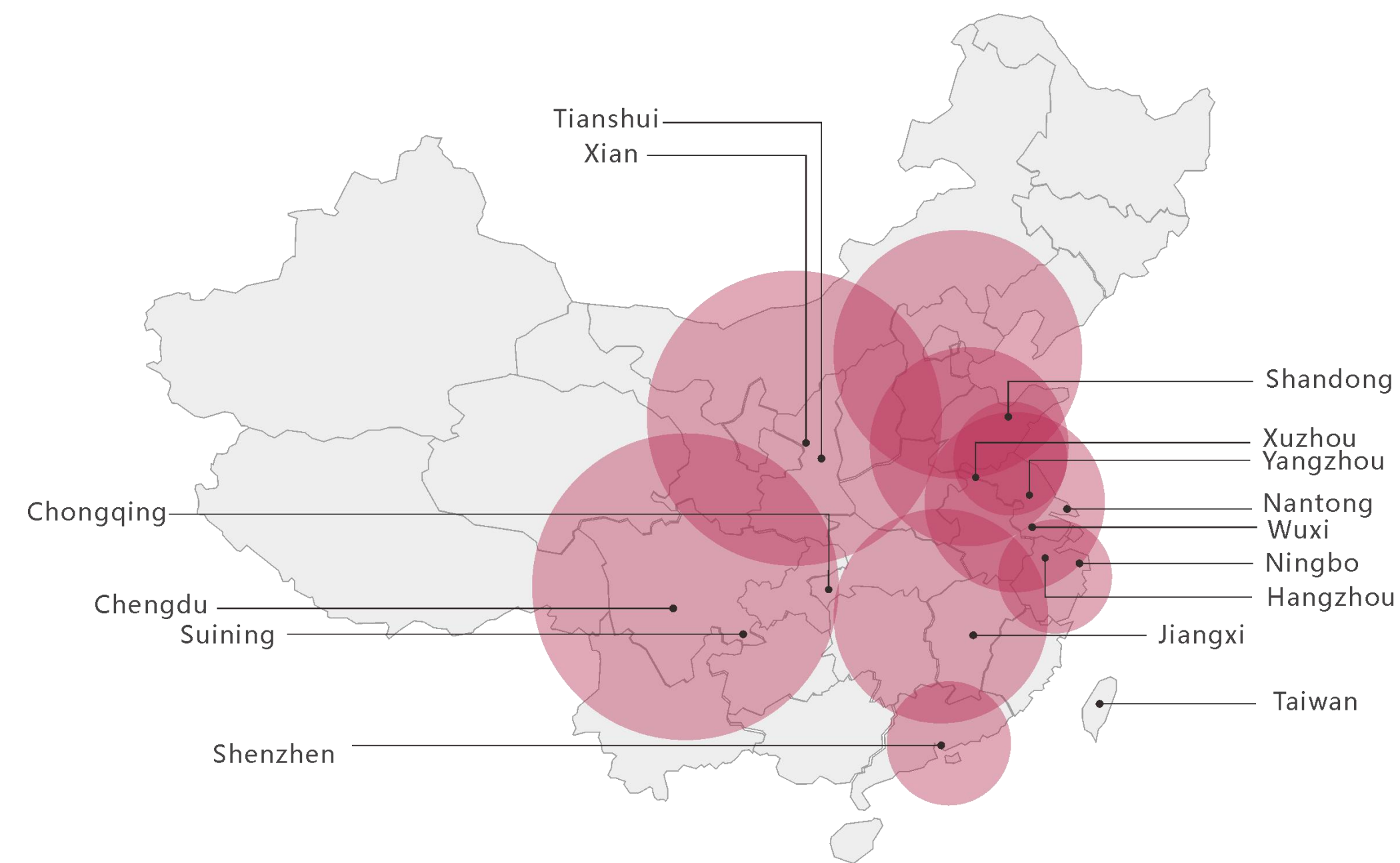
Shenkoda has more than 90 after-sales service personnel and 15 national service outlets.

- **Graded training**

According to the different training requirements of customers, take up the post after graded training and passing the examination.

- **Talents output**

Establish a long-term equipment after-sales service talents output mechanism with customers to solve the problem that is difficult for customers to recruit professional maintenance equipment personnel.



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03

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深科达半导体始终坚持技术创新，不断推进产品升级

Shenkeda

Semiconductor

always stick to

innovate technology

and continuously

promote product

upgrading.

01

DDR Turret test handler

02

Dual-track test handler

03

Pick and Place test handler

04

Gravity test handler

05

TRAY taping machine

06

Automatic reel change machine

DDR Turret test handler



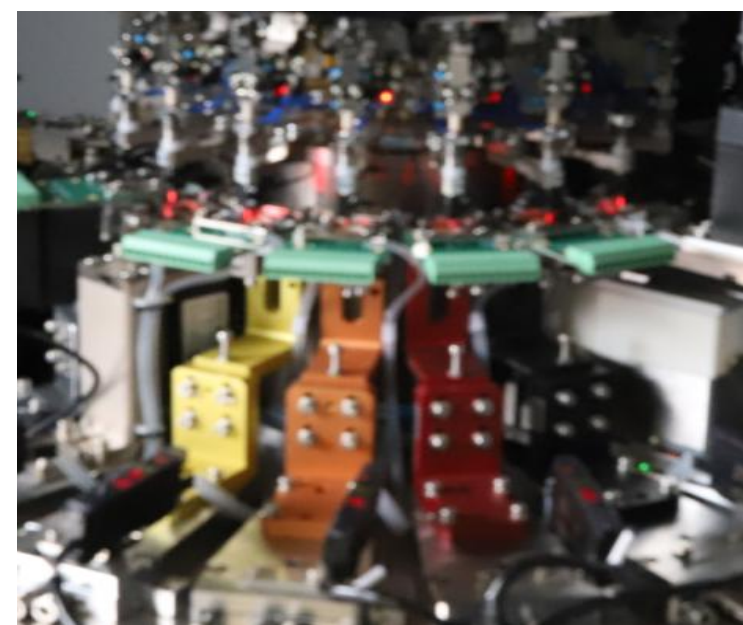
Model	Features	Suitable products
SKD960 SKD960-C	16suction nozzles with high cost performance	SOT23、SOT23-3/4/5/6/8、SOT323/363、SOD323/123/123FL
SKD962 SKD962-C	18suction nozzles with high cost performance	SOT23、SOT23-3/4/5/6/8、SOT323/363、SOT523/553/563、SOT89、SOT223、SOP4/5/7/8/10/12/14/16/20、MSOP8/10/12/14、TSSOP8/10/12/14/16/20/24、SOD323/123/123FL、DFN/QFN2X2-8X8、PDFN3X3/5X6、LGA、TOLL、SMA/B/C、MBS、MBF、SMAF/SMBF、TO252/236
SKD950 SKD950-C	20suction nozzles with high cost performance	SOT23、SOT23-3/4/5/6/8、SOT323/363、SOT523/553/563、SOT89、SOT223、SOP4/5/7/8/10/12/14/16/20、MSOP8/10/12/14、TSSOP8/10/12/14/16/20/24、SOD323/123/123FL、DFN/QFN2X2-8X8、PDFN3X3/5X6、LGA、TOLL、SMA/B/C、MBS、MBF、SMAF/SMBF、TO252/236
SKD980 SKD980-C	24suction nozzles with high cost performance	SOT89、SOT223、SOP4/5/7/8/10/12/14/16/20、MSOP8/10/12/14、TSSOP8/10/12/14/16/20/24、DFN/QFN2X2-8X8、PDFN3X3/5X6、LGA、TOLL、TO252/236/247
SKD980PLUS SKD980PLUS-C	36+18suction nozzles with high cost performance	TO252/236/220/247
SKD980H SKD980H-C	normal and high temperature test with high cost performance	SOT23、SOT23-3/4/5/6/8、SOP4/5/7/8/10、MSOP8/10/12/14、TSSOP8/10/12、DFN/QFN2X2-8X8、PDFN3X3/5X6、LGA
SKD990 SKD990-C	small size packaging with high cost performance	DFN0603/0804/1010/1006、SOD523、SOT723

Test handler

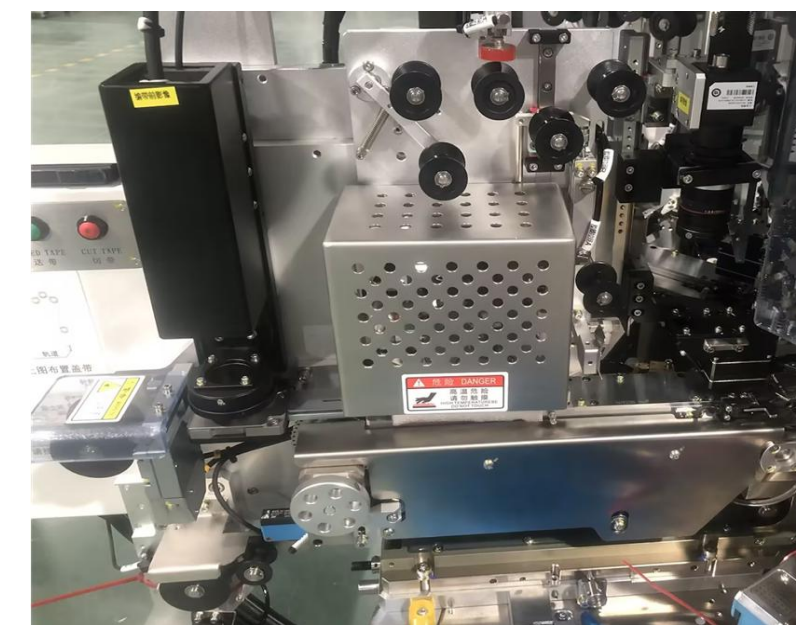
SKD962/SKD962-C

It is used for taping of discrete devices, IC devices, etc, and has the ability of high-speed test, marking and braiding. Use DDR motors imported from Japan , Integration of marking system and imaging system.

- The suction nozzle has the function of shielding and automatic height correction ;
- Automatic feeding (vibrating disk device): vibrating plate feeding, feeding speed is fast and stable ;
- Testing: the machine is equipped with 6 electrical tests, 1 3D detection, which greatly improves the excellent and good rate ;
- Main turntable: main turntable with 18 suction nozzles driven by servo motor ;
- Guide / steering device: accurate positioning and commutation of the product, positioning error 0.005mm, directional accuracy up to 0.1 degrees ;
- Marking mechanism: laser marking, vacuuming, visual inspection and other functions can be completed on the marking plate. , Greatly accelerates the speed of marking. ;
- Braiding assembly: in addition to simple automatic braiding, it also has automatic feeding function and sealing image detection.
- Image inspection function after sealing (optional)



The test station can support color protection, it is equipped with material detection to eliminate the quality problems caused by jamming. Each test station has a double layer of color and hardware protection to prevent the test station from making mistakes.



The packaging station adopts a new structure, which is simpler, more efficient, more stable and has lower failure rate. It can be optionally equipped with image detection function after sealing.



The vacuum of the main turntable is supplied by the upper and lower split air discs, which is simpler in structure and maintenance.

Test handler

SKD962/SKD962-C

It is used for taping of discrete devices, IC devices, etc, and has the ability of high-speed test, marking and braiding. Use DDR motors imported from Japan , Integration of marking system and imaging system.



Model	SKD962
Suitable device	SOT143, SOT23, SOT23-3/4/5/6/8, SOT89-3/5, SOT223, SOT323, SOT363, SOT523, SOT553, SOT563, TSOT23-3/4/5/6/8, SOP4, SOP5, SOP7, SOP8, SOP10, SOP12, SOP14, SOP16, SOP18, SOP20, SOP22, SOP24, SOP28, MSOP8, MSOP10, TSSOP8, TSSOP10, TSSOP14, TSSOP16, TSSOP20, TSSOP24, QSOP24, LSOP4, LSOP6, SOD123, SOD323, SOD123FL, SOD323FL, DFN/QFN1x1-DFN/QFN10x10, PDFN3.3x3.3, PDFN5x6, LGA, TOLL, Silicon wheat series, Photovoltaic module, SMA, SMB, SMC, MBS, SMAF, SMBF, TO252, TO220, TO263, TO247
Max production capacity	45,000(the test time is less than 30ms)(pcs/h)
Test site	Support 6-station testing
Contact type	Shrapnel type
Classification	4+4+1
Feed	Bowl
Discharge	Braiding /material pipe
Machine stability	MTBA > 60min MTTA < 3min MTBF > 168H
Compressed Air	0.4-0.7MPa
Vacuum	≥65KPa
Power source	AC220V 50/60Hz
Marking Parameters	10W laser marking /20W; marking range:110mmx110mm/70mmx70mm; Evgraving speed:~7000mm/s; min word height:0.2~0.3, line width:0.025~0.06; output power0-10W/20W(Optional)
Image parameters	Camera&resolution40, 0000CCDcamera(H640xV480pxels)160, 0000CCD Camera(H1280xV1080Piels) Precision:0.013mm/pixel; Cycle period: < 35ms
Bus program	high precision, high speed, open setting of all servo Parameters, Convenient for equipment debugging and Monitoring, permanent preservation of data such as MTBA various original data records, device operation log, servo alarm code and information
Size	1500mm * 1300mm * 1900mm
Work station	18workstations

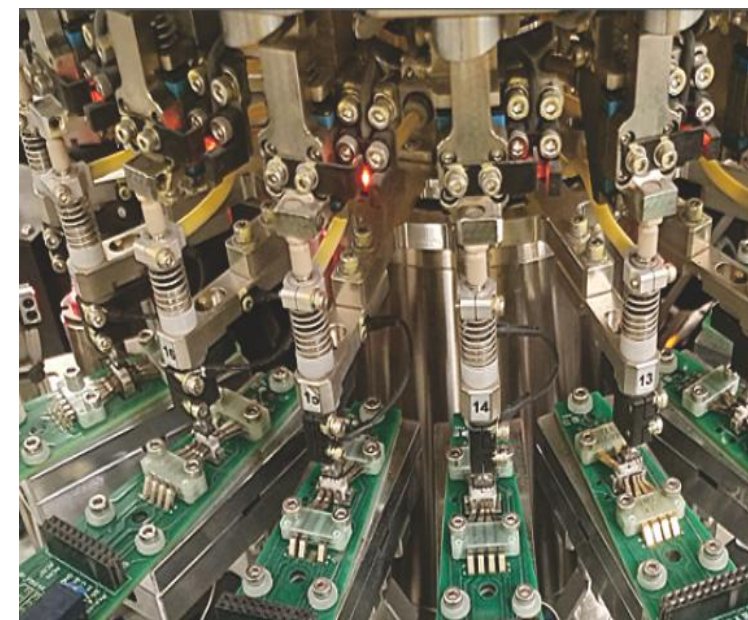
Test handler

SKD950/SKD950-C

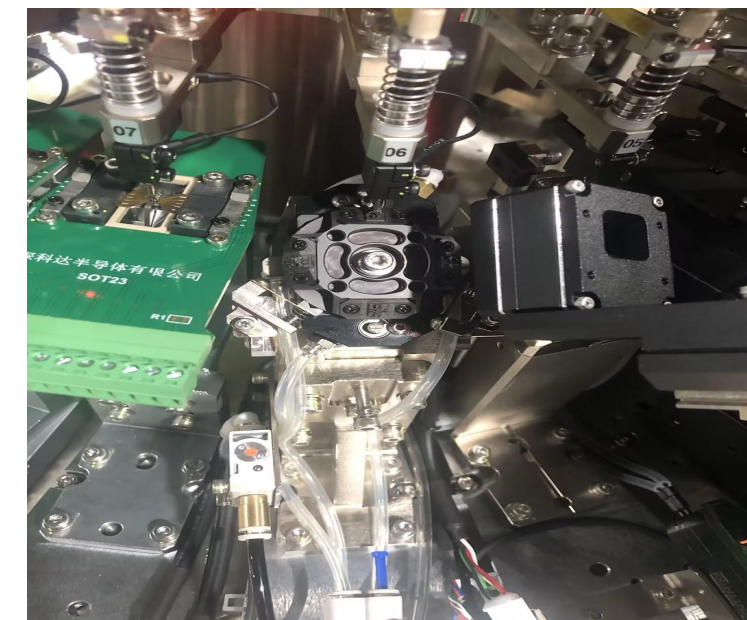
It is used for taping of discrete devices, IC devices, etc, and has the ability of high-speed test, marking and braiding. It adopts high-precision DDR to ensure stable performance and high UPH output.

Integrate the marking system and image system to bring high-quality product output to customers.

- support 8 stations for simultaneous testing, and upgrade the machine UPH for products with long testing time. ;
- The suction nozzle has the function of shielding and automatic height correction;
- Automatic feeding (bowl device): bowl feeding, feeding speed is fast and stable ;
- Main turntable: main turntable with 20 suction nozzles driven by servo motor, The product can be accurately sent to each station center through the adsorption of the nozzle ;
- Guide / steering device: accurate positioning and commutation of the product, positioning error 0.005mm, directional accuracy up to 0.1 degrees ;
- Marking mechanism: laser marking, vacuuming, visual inspection and other functions can be completed on the marking plate. , Greatly accelerates the speed of marking ;
- TNR: In addition to the simple automatic taping, it also has the function of automatic feeding.
- Image inspection function after sealing (optional).



The main turntable adopts 20 stations and has a more flexible station layout. It can support 8 test stations to test at the same time and improve production efficiency.



The laser station adopts smaller disk surface, faster speed, more accurate positioning and smaller printing deviation.



The automatic tube-out mechanism is simpler to use and has lower failure rate.

Test handler

SKD950/SKD950-C

It is used for taping of discrete devices, IC devices, etc, and has the ability of high-speed test, marking and braiding. It adopts high-precision DDR to ensure stable performance and high UPH output.

Integrate the marking system and image system to bring high-quality product output to customers.



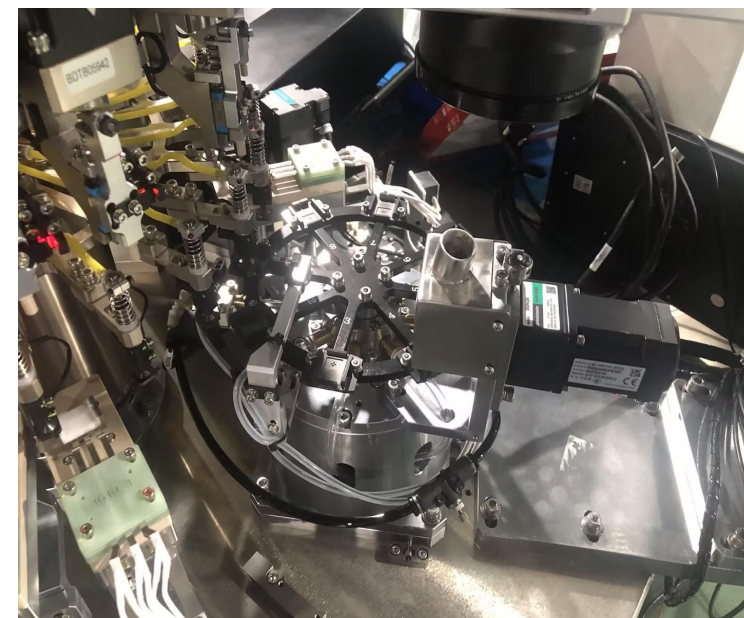
Model	SKD950
Suitable device	SOT143、SOT23、SOT23-3/4/5/6/8、SOT89-3/5、SOT223、SOT323、SOT363、SOT523、SOT553、SOT563、TSOT23-3/4/5/6/8、SOP4、SOP5、SOP7、SOP8、SOP10、SOP12、SOP14、SOP16、SOP18、SOP20、SOP22、SOP24、SOP28、MSOP8、MSOP10、TSSOP8、TSSOP10、TSSOP14、TSSOP16、TSSOP20、TSSOP24、QSOP24、LSOP4、LSOP6、SOD123、SOD323、SOD123FL、SOD323FL、DFN/QFN1x1-DFN/QFN8x8、PDFN3.3x3.3、PDFN5x6、LGA、TOLL、Silicon wheat series、Photovoltaic module、SMA、SMB、SMC、MBS、SMAF、SMBF、TO252、TO220、TO263、TO247
Max production capacity	45,000(the test time is less than 30ms)(pcs/h)
Test site	Support 6-station testing
Contact type	Shrapenl type
Classification	4+4+1
Feed	Bowl
Discharge	Braiding /material pipe
Machine stability	MTBA> 60min MTTA<3min MTBF >168H
Compressed Air	0.4-0.7MPa
Vacuum	≥65KPa
Power source	AC220V 50/60Hz
Marking Parameters	10W laser marking /20W;marking range:110mmx110mm/70mmx70mm Evgraving speed:~7000mm/s;min character:05/0.3;output power0-10W/20W(Optional)
Image parameters	Camera&resolution40,0000CCDcamera(H640xV480pixels)160,0000CCD Camera(H1280xV1080Piels) Precision:0.013mm/pixel;Cycle period:<35ms
Bus program	high precision,high speed,opensetting of all servo Parameters, Convenient for equipment debugging and Monitoring,permanent preservation of data such as MTBA various original data records,device operation log,servo alarm code and information
Work station	1500mm*1300mm*1900mm
Work station	20workstations

Test handler

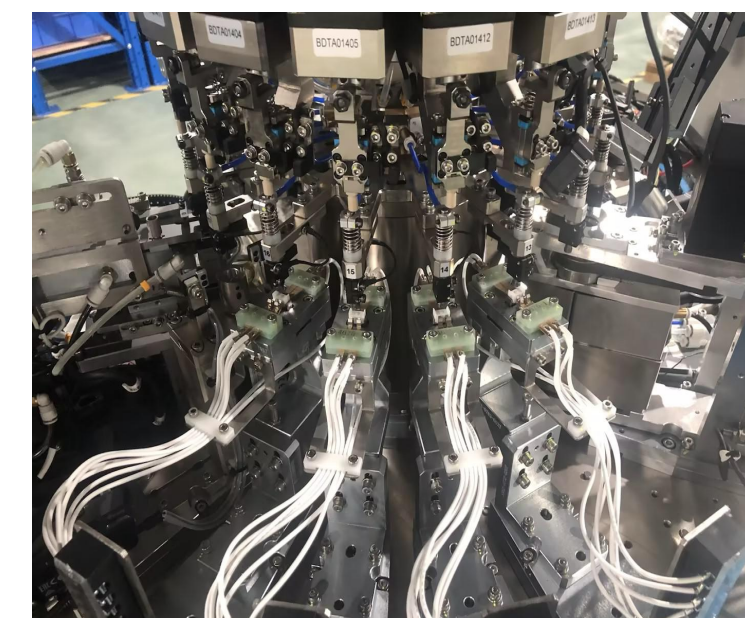
SKD980/SKD980-C

SKD980 turret handler is used for multi-function testing and sorting ,it can meets the selection needs of more stations, flexible feeding mode , support flexible configuration of various discharge modes, can also meet more classification types and capacity needs of customers,and support the testing and sorting requirements of products with larger package size at the same time(TO220,TO263,TO252, etc.).

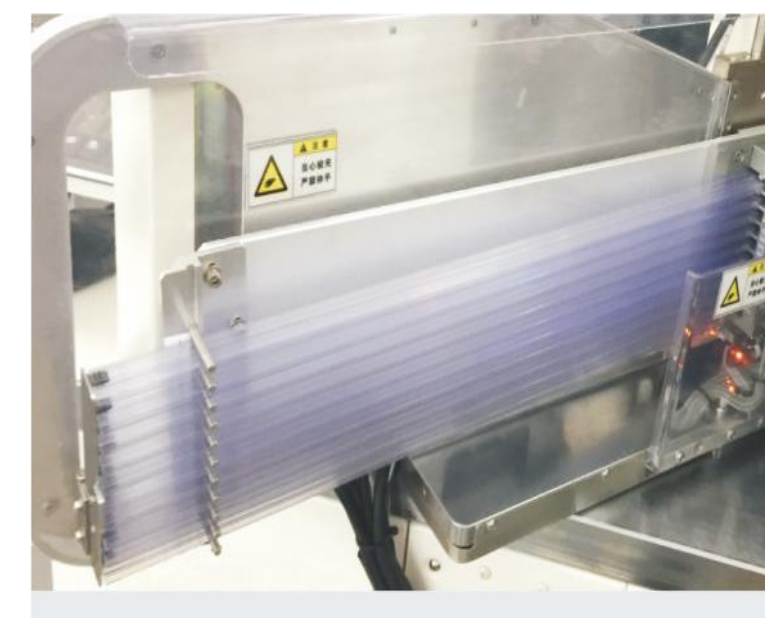
- Mark Inspection Vision) can identifiable, repeated code imprint, imprint stroke broken pen and extra strokes, imprint beyond the plastic seal body ;
- 3D5S can detect pin size, integrity, deflection, pin length, standing height, foot width and foot spacing. ;
- In Pocket Vision can detect plastic seal body breakage, contamination, cracks and other undesirable products (visible to the naked eye) ;
- Product transfer: rotating disk with vacuum nozzle 24-bit ;
- The suction nozzle has the function of shielding and automatic height correction;
- Can be connected to variety of brand testing machines, have independent software property rights, using key switches , Standard keyboard for operation and data input, with workstation interlock function ;
- Product orientation rotation station: make positioning rotation direction according to material direction ;
- Number of test stations : 7 (5+2QA) stations elastic pressure contact Kelvin test station can complete the repeated test of the products to be braided, and the test accuracy is high. ;
- Packaging : TO252 , Empty run \geq UPK=18k (no test or test marking times \leq 120ms).



The auxiliary disk station adopts large disk surface and multi-station mode to improve printing efficiency and compatible with large packaging products.



The test site has two options of pressure test and clamp test, compatible with the test requirements of different large packaging products.



The tube BIN mechanism adopts servo motor to control screw and slider, which has more accurate positioning, faster speed, higher efficiency and more pipe points.

Test handler

SKD980/SKD980-C

SKD980 turret handler is used for multi-function testing and sorting ,it can meets the selection needs of more stations, flexible feeding mode , support flexible configuration of various discharge modes, can also meet more classification types and capacity needs of customers,and support the testing and sorting requirements of products with larger package size at the same time(TO220,TO263,TO252, etc.).



Model	SKD980
Suitable device	SOT143, SOT23, SOT23-3/4/5/6/8, SOT89-3/5, SOT223, SOT323, SOT363, SOT523, SOT553, SOT563, TSOT23-3/4/5/6/8, SOP4, SOP5, SOP7, SOP8, SOP10, SOP12, SOP14, SOP16, SOP18, SOP20, SOP22, SOP24, SOP28, MSOP8, MSOP10, TSSOP8, TSSOP10, TSSOP14, TSSOP16, TSSOP20, TSSOP24, QSOP24, LSOP4, LSOP6, SOD123, SOD323, SOD123FL, SOD323FL, DFN/QFN1x1-DFN/QFN8x8, PDFN3.3x3.3, PDFN5x6, LGA, TOLL, Silicon wheat series, Photovoltaic module, SMA, SMB, SMC, MBS, SMAF, SMBF, TO252, TO220, TO263, TO247
Max production capacity	22,000(the test time is less than 100ms)(pcs/h)
Test site	Support 8-station testing
Contact type	Shrapenl type
Classification	3+3+3+1
Feed	Bowl
Discharge	Braiding /material pipe
Machine stability	MTBA > 60minutes MTTA < 30sec MTBF > 168Hours
Compressed Air	0.4-0.7MPa
Vacuum	≥65KPa
Power source	AC220V 50/60Hz
Marking Parameters	10W laser marking /20W;marking range:110mmx110mm/70mmx70mm Evgraving speed:~7000mm/s;min character:05/0.3;output power0-10W/20W(Option)
Image parameters	Camera&resolution40, 0000CCDcamera(H640xV480plxels)160, 0000CCD Camera(H1280xV1080Piels) Precision:0.013mm/pixel;Cycle period: < 35ms
Size	1600mm*1400mm*1900mm
Work station	24workstations

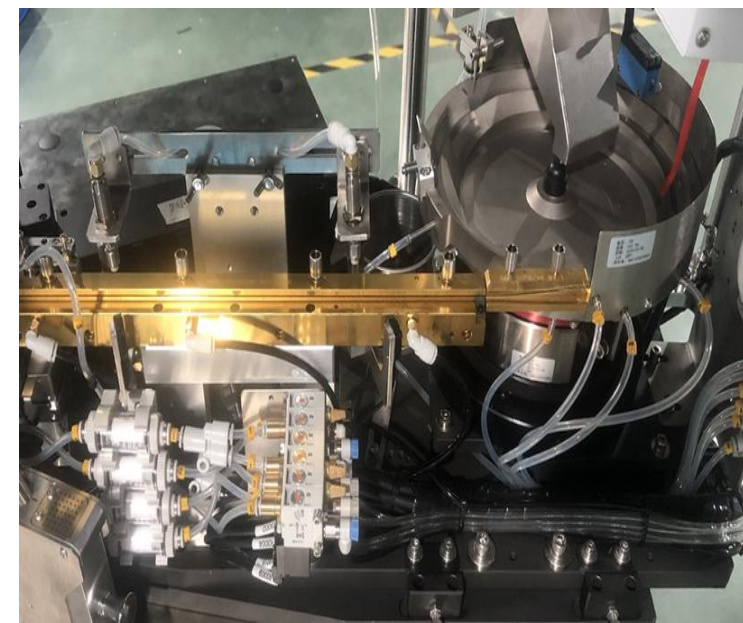
Test handler

SKD980H/SKD980H-C

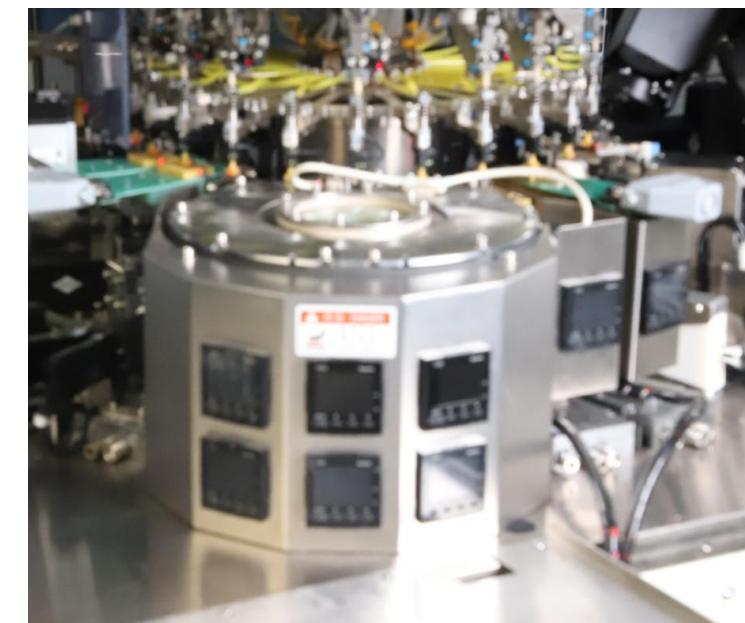
SKD980H turret high temperature test handler is used for taping discrete devices, IC devices, etc. It has high temperature test ability and integrates marking system and imaging system to ensure stable performance and high UPH output. It is suitable for normal and high temperature testing, sorting and classification of QFN/MSOP/SOT/SOP/SOD and other components.



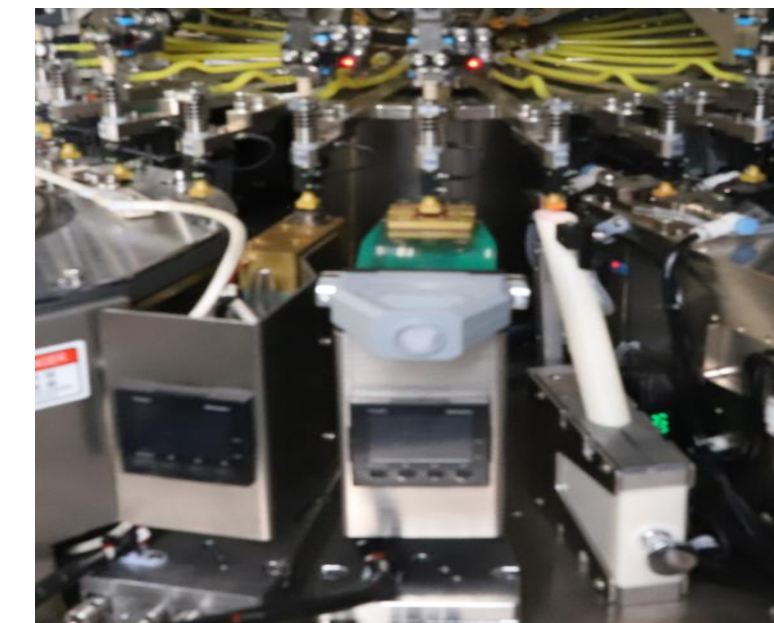
- Auxiliary tower preheating device: Heating temperature $\leq 200^{\circ}$, 6-stage zone heating, temperature control accuracy $\pm 3^{\circ}\text{C}$, Take SOP8 for example, 90 materials can be preheated at the same time, and there is an anti-collision sensing device at the inlet and outlet;
- Test unit: 1 station high temperature + 2 stations normal temperature, Heating temperature $\leq 200^{\circ}$; (high temperature test has its own thermal insulation design);
- The suction nozzle has the function of shielding and automatic height correction;
- Automatic feeding (bowl device): bowl feeding, fast and stable feeding speed;
- Main rotate disk: The main rotate disk is equipped with 24 suction nozzles driven by DDR motor, which can accurately send the products to each station center through the adsorption of the suction nozzles;
- Guiding / steering device: Accurate positioning and commutation of the product, positioning error 0.005mm, directional accuracy up to 0.1 degrees;
- Marking mechanism: Laser marking, vacuuming, visual inspection and other functions can be completed on the marking plate, which greatly increases the speed of marking;
- TnR: In addition to the simple automatic taping, it also has the function of automatic feeding ;
- Image inspection function after sealing (option);



The bowl feeder is independently developed and designed.



The auxiliary tower preheating device adopts 6 section heating, the temperature control is more accurate, and the product heating is more uniform.



The main suction nozzle adopts special materials to reduce the temperature difference effectively .

Test handler

SKD980H/SKD980H-C

SKD980H turret high temperature test handler is used for taping discrete devices, IC devices, etc. It has high temperature test ability and integrates marking system and imaging system to ensure stable performance and high UPH output. It is suitable for normal and high temperature testing, sorting and classification of QFN/MSOP/SOT/SOP/SOD and other components.



Model	SKD980H
Suitable device	QFN/MSOP/SOP/SOT/SOD....
Max production capacity	15000(the test time is less than 200ms)(pcs/h)
Test site	Support 1station high temperature+2stations normal temperature
Contact type	Shrapenl type
Classification	4+4+1
Feed	Bowl/tube
Discharge	tape/tube
Machine stability	MTBA>60min MTTA<3min MTBF>168H
Temperature range	50~200°C±3 °C
Compressed air	0.4-0.7MPa
Vacuum	Self-contained vacuum pump
Power	AC220V 50/60Hz
Marking parameters	10w laser marking/20w pulse marking machine(option);marking range:110mm×110mm/70mm×70mm, evgraving speed:~7000mm/s;mincharacter:05/0.3;output power:0-10w/20w(option)
Image parameters	Camera&resolution40, 0000CCDcamera(H640xV480pixels)160, 0000CCDcamera(H1280xV1080pixels) Precision:0.013mm/pixel;Cycle period:< 35ms
Program	high precision,high speed, opensetting of all servo parameters,convenient for equipment debugging and monitoring,permanent preservation of data such as MTBA various original data records,device operation log,servo alarm code and information.
Size	1600mm*1400mm*1900mm
Work station	24workstations

Test handler

SKD990/SKD990-C

Braiding for ultra-small size semiconductor devices. Use high precision parts and DDR motors imported from Japan. Integrate marking system and image system to bring high quality tape output to customers.

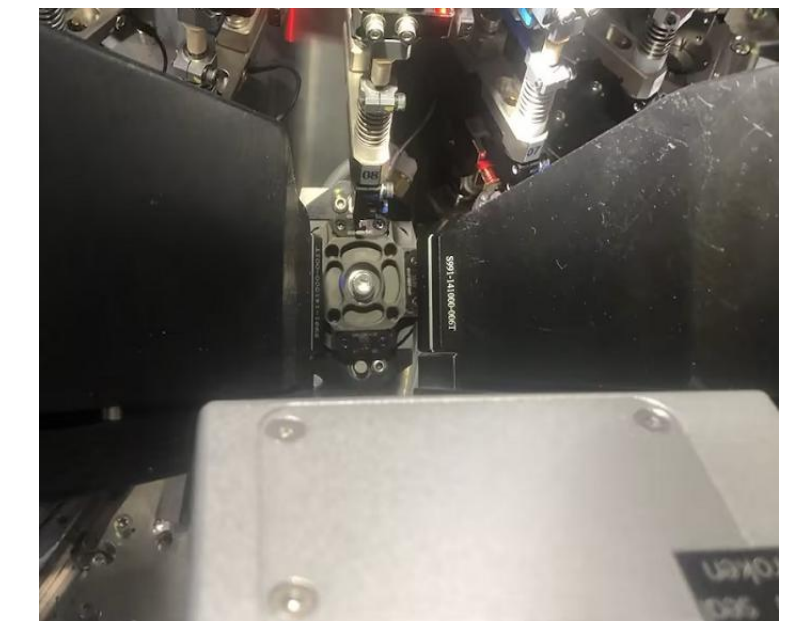
- The suction nozzle has the function of shielding and automatic height correction ;
- Automatic feeding (bowl device) : Materials can be put on 3k-5k at one time
- Inspection : Product direction identification can choose the way of optical identification or electrical discrimination according to the characteristics of the product. ;
- Main turntable: main turntable with 18 suction nozzles driven by servo motor, and the products are accurately sent to each station center through the adsorption of suction nozzles. ;
- Guide / steering device : the product rotates from the main turntable to the marking table with a guide / steering device, the positioning error is 0.005mm, and the directional accuracy is up to 0.1 degrees. ;
- Marking mechanism: the laser marking, vacuuming, marking visual inspection and other functions of the material surface are completed on the marking plate, which greatly speeds up the marking speed;
- Image inspection function after sealing (optional)



The feeding mechanism is imported from Japan to ensure smoother feeding.



There are four claw positioning before and after entering the laser station to ensure the smooth entry and exit of the laser disc.



Laser station marking adopts visual positioning, and the printing position is more accurate.

Test handle

SKD990/SKD990-C

Braiding for ultra-small size semiconductor devices. Use high precision parts and DDR motors imported from Japan. Integrate marking system and image system to bring high quality tape output to customers.



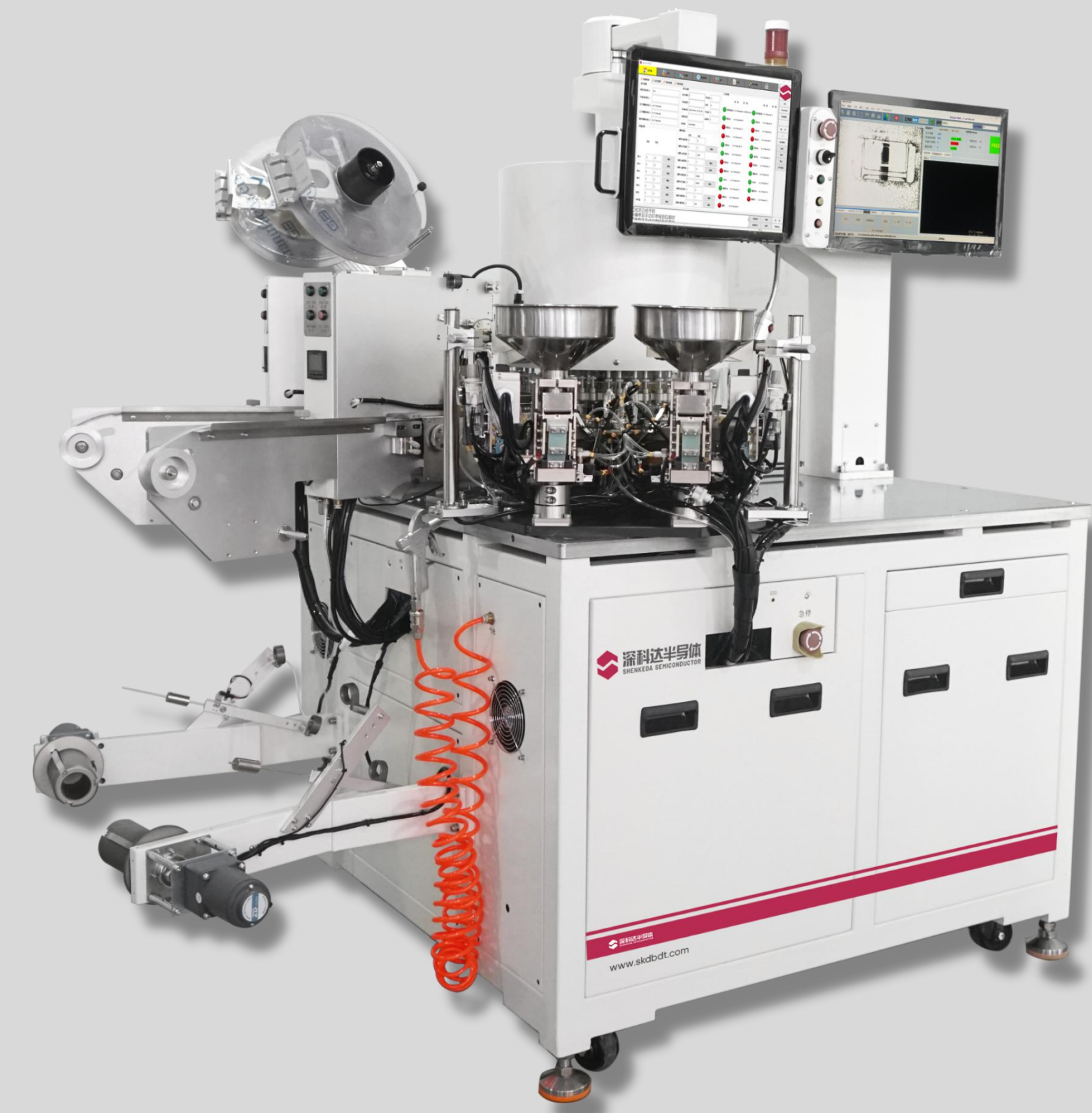
Model	SKD990
Suitable device	DFN/QFN0.4x0.2-DFN/QFN6x6, LGA, SOD523, SOD723, SOT723
Max production capacity	45,000(the test time is less than 30ms)(pcs/h)
Test site	Support 6-station testing
Contact type	Shrapnel/Probe type
Classification	8+1
Feed	Bowl
Discharge	Braiding /material pipe
Machine stability	MTBA > 60min MTTA < 3min MTBF > 168H
Compressed Air	0.4-0.7MPa
Vacuum	≥65KPa
Power source	AC220V 50/60Hz
Marking Parameters	10W laser marking /marking range:110mmx110mm/70mmx70mm Evgraving speed:~7000mm/s;min character:05/0.3;output power0-10W(Optional)
Image parameters	Camera&resolution40, 0000CCDcamera(H640xV480plxels)160, 0000CCD Camera(H1280xV1080Piels) Precision:0.013mm/pixel;Cycle period: < 35ms
Bus program	high precision,high speed,opensetting of all servo Paramenters,Convenient for equipment debugging and Monitoring,permanent preservation of data such as MTBA various original data records,device operation log,servo alarm code and information
Size	1500mm*1300mm*1900mm
Work station	18workstations

dual-track test handler

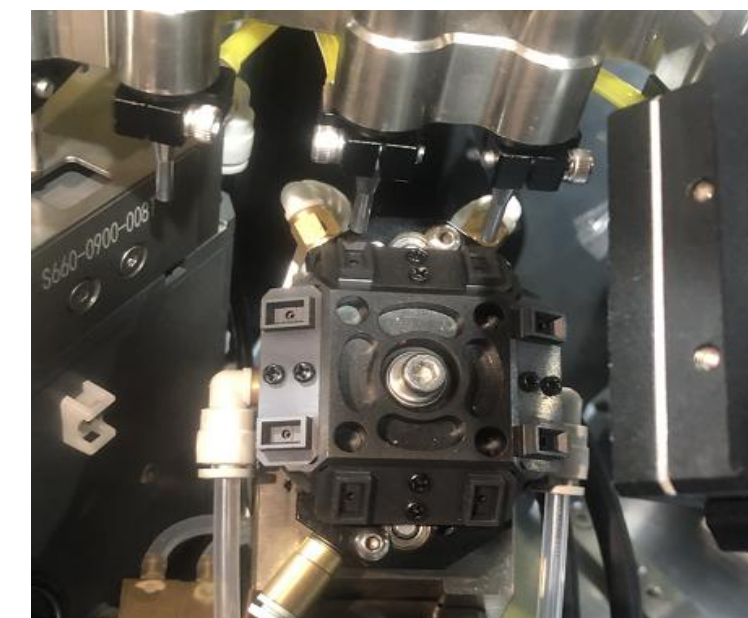
SKD920

SKD920 dual-track test handler is used for multi-functional testing and sorting requirements, it can meet the complex and diverse testing needs of customers, and achieve high UPH output under the condition of long time testing .

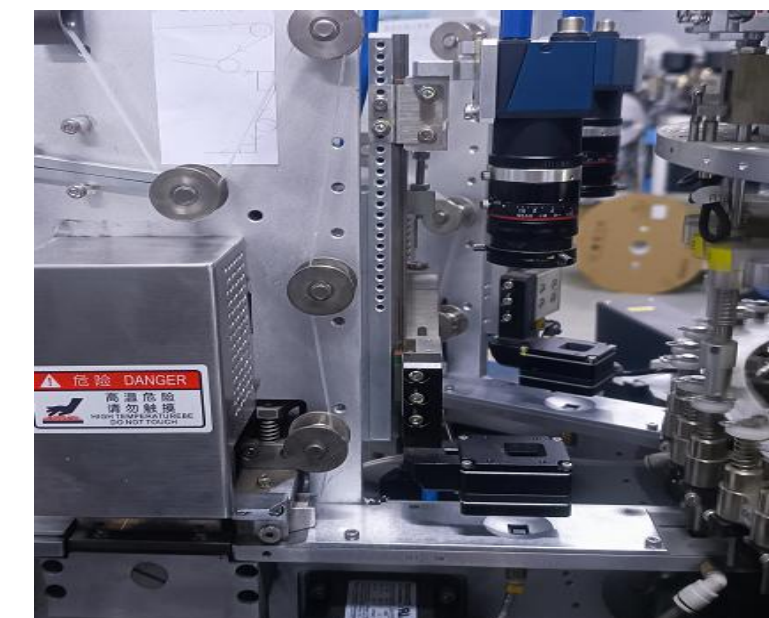
- Unique gas distribution design: the gas distribution of main rotator and marking plate adopts unique design, It has excellent airtight performance and is free maintenance
- Double station design : Each work station (positioning, testing, rotation, marking, 3D5S, sub-Bin cartridge) adopts a dual-station design , Equipped with double braiding structure, which is twice as efficient as normal (single station workstation) equipment.
- Automatic feeding (bowl device): double disc and double straight track feeding, It can stable the performance ,improve equipment input efficiency.
- 4、 Main rotator: the cam splitter is divided into 24 workstations and assembled with 48 suction nozzles , which can send the products to each workstation accurately through the adsorption of the suction nozzles.
- Equipped with 6 stations of elastic pressure contact Kelvin test station, it can complete the repeated test of the products to be braided, and the test accuracy is high.
- Inspection: the machine is equipped with 6 electrical tests, 1 3D inspection, it has efficient direction discrimination , optical and electrical performance inspection, which greatly improves the excellent and good rate.
- Marking mechanism: The marking plate uses an independent servo motor for more accurate position control; the material marking surface is at an angle of 60 °to the horizontal plane and is equipped with ash suction components to solve the problem of dust falling on the material surface and provide customers with cleaner marking products.



Double-track feeding and fetching at the same time are adopted to improve production efficiency. Monorail production can also be opened, which is efficient and flexible.



The laser station adopts double positioning / double inspection design, which has simple structure and higher efficiency.

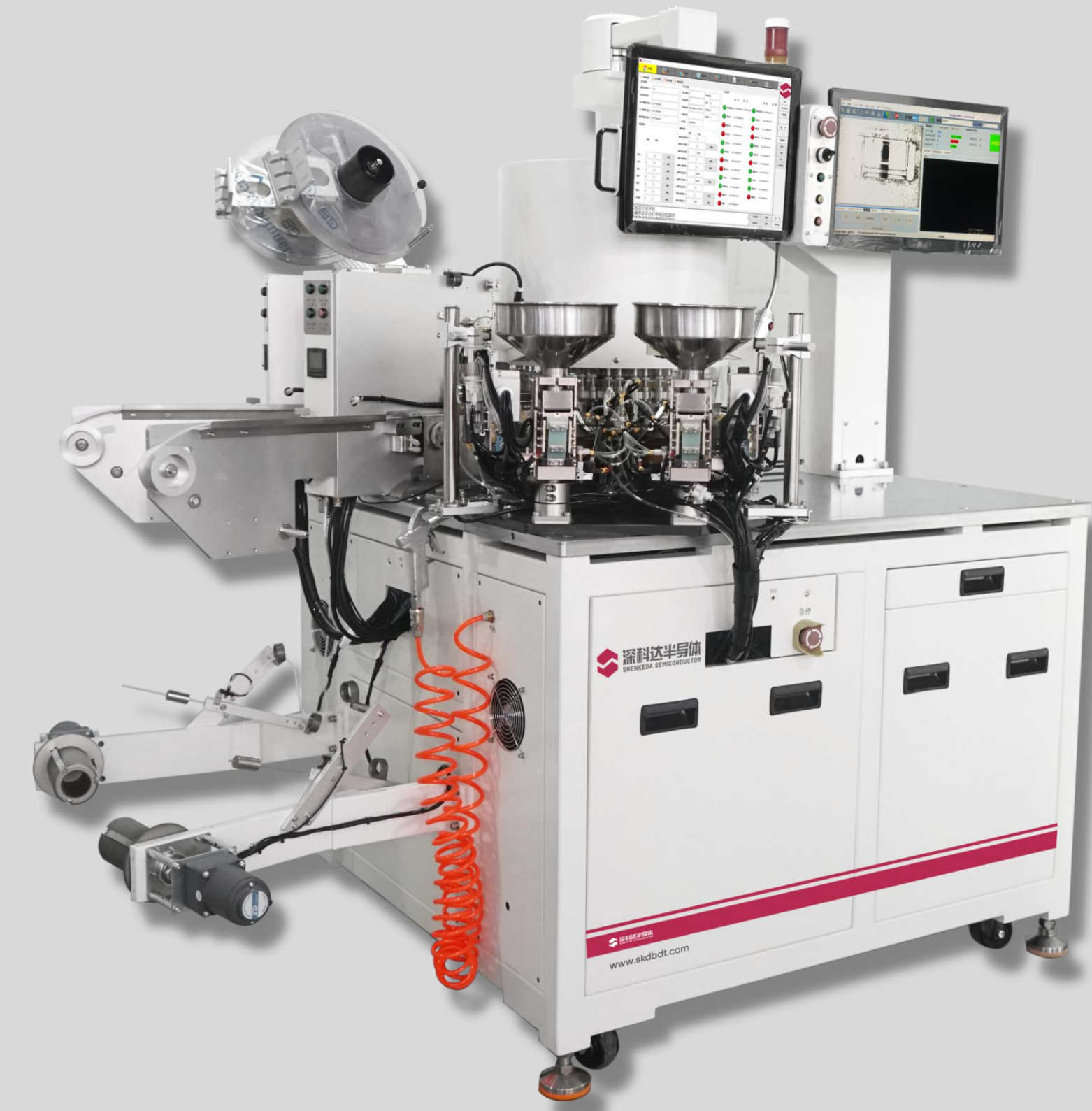


The packaging is equipped with 2D detection function to eliminate mixing / warping and reducing labor costs effectively

dual-track test handler

SKD920

SKD920 dual-track test handler is used for multi-functional testing and sorting requirements, it can meet the complex and diverse testing needs of customers, and achieve high UPH output under the condition of long time testing .



Model	SKD920
Suitable device	SMA、SMB、SMC、MBS、MBF
Max production capacity	45000(the test time is less than 53ms)pcs/h
Test site	Support 6-station testing
Contact type	Shrapnel/Probe type
Classification	2+2+2+1
Feed	Bowl
Discharge	Braiding
Machine stability	MTBA>60min MTTA<3min MTBF>168h
Compressed air	0.4-0.7MPa
Vacuum	≥65KPa
Power	0.4-0.7MPa
Marking parameters	10w laser marking/20w pulse marking machine(option);marking rang:110mm×110mm/70mm×70mm,evgraving speed:~7000mm/s;min character;output power:0-10w/20w(option)
Image parameters	camera&resolution:40,000CCD camera (H640×V480 pixels) / 160,000CCD camera (H1280×V1080 pixels) ;precision,cycle period:<35ms
Program	high precision,high opensetting of all servo parameters,convenient for equipment debugging and monitoring,permanent preservation of data such as MTBA various original data records,device operation log,servo alarm code and information.
Work station	24 work stations(48 Suction nozzles)

Pick and place test handler



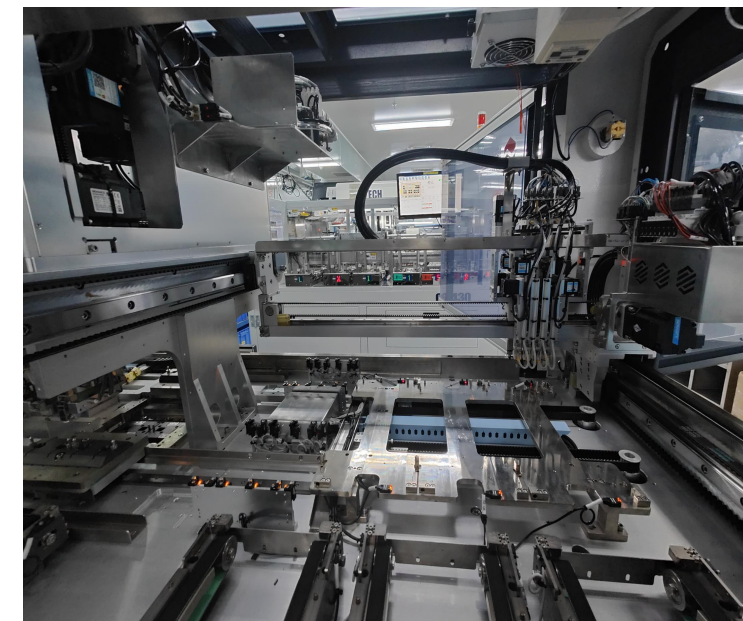
Model	Features	Suitable products
SKD308H	8SITE normal high temperature From tray to tray	DFN/QFN3×3-50×50, QFP, LGA, BGA, CSP, SOP/MSOP/TSSOP
SKD316H	16SITE normal high temperature From tray to tray	DFN/QFN3×3-50×50, QFP, LGA, BGA, CSP, SOP/MSOP/TSSOP
SKD308T	8SITE three-temperature ATC From tray to tray	DFN/QFN3×3-50×50, QFP, LGA, BGA, CSP, SOP/MSOP/TSSOP
SKD308HB	8SITE normal high temperature From bowl to tape	SOT89, SOT223, SOP4/5/7/8/10/12/14/16/20, MSOP8/10/12/14, TSSOP8/10/12/14/16/20/24, DFN/QFN2×2-8×8, PDFN3×3/5×6, LGA, TOLL, TO252/263/247
SKD308HT	8SITE normal high temperature From tube to tape	SOP/MSOP/TSSOP
SKD308HTT	8SITE normal high temperature From tube to tube	SOP/MSOP/TSSOP
SKD308TT	8SITE three-temperature ATC From tube to tray	SOP/MSOP/TSSOP

Pick and place test handler

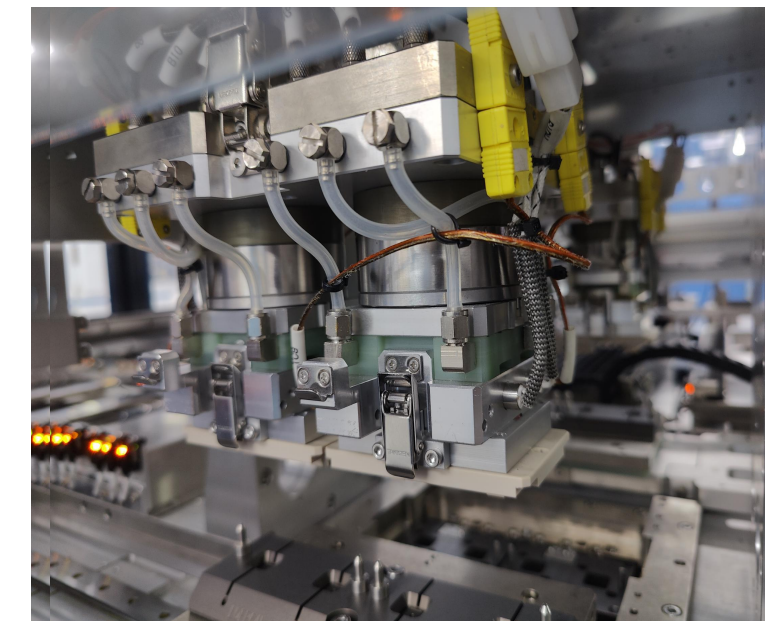
SKD308H

SKD310 Pick and place test handler is used for multi-functional testing and sorting requirements, it can meet the complex and diverse testing needs of customers. It's suitable for MSOP/QFN/QFP/SIP/LGA/BGA/CSP/SIM (3X3~55X55mm) normal temperature and high temperature test sorting, classification, integration of imaging system, bring high-quality products output to customers.

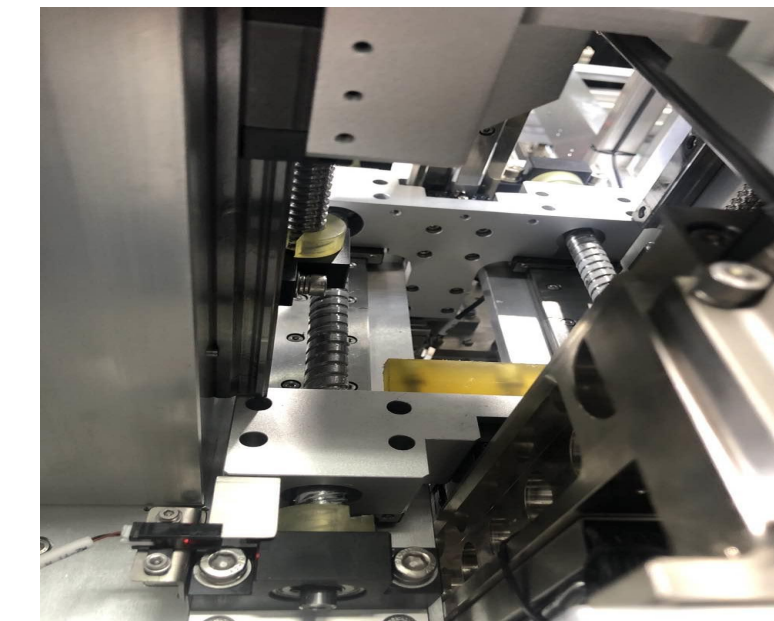
- Automatic loading and unloading mechanism : One automatic feeding level, three automatic receiving levels and three manual receiving levels, One automatic receiving empty tray bits, and one automatic providing empty trays. ;
- Number of suction nozzles for loading and unloading: 8, The Z-axis motor of each suction nozzle is controlled independently, and the Y-axis direction is driven bilaterally.
- In and out of the shuttle: The preheating temperature of the feed shuttle plate is $500 \sim 130 \text{ }^{\circ}\text{C} \pm 3 \text{ }^{\circ}\text{C}$, which has the function of sensor inspection in: 1X2, 2x2, 1X4, 2X4.
- Change disk manipulator: 1, with automatic pull-up function when power down
- Pressure measuring mechanism: mode 1avo 1X2ax 1X4 2:2X2/2X4 $40 \pm 0.01\text{mm}$ mode 2:2X2/2X4, $X = 80 \pm 0.01 \text{ mm}$, $Y = 60 \pm 0.01 \text{ mm}$. The pressure measurement can be calculated automatically according to the number of IC feet / balls.
- Pressure measuring area: it has the function of image inspection whether there is stacking material or not to prevent misjudgment.
- Can connect a variety of brand testing machines, independent property rights software, using key switches, standard keyboard for operation and data input



The Y axis of the loading and unloading suction nozzle is designed with double linear guide rail and double power drive, which has long service life, high precision and more stable long-term operation ;



The special pneumatic floating pressure head can automatically calculate the pressure according to the number of IC feet / balls. ;



The test arm Y-axis independent motor control can better achieve position control.

Pick and place test handler

SKD308H

SKD310 Translational test handler is used for multi-functional testing and sorting requirements, it can meet the complex and diverse testing needs of customers. It's suitable for MSOP/QFN/QFP/SIP/LGA/BGA/CSP/SIM (3X3~55X55mm) normal temperature and high temperature test sorting, classification, integration of imaging system, bring high-quality products output to customers.



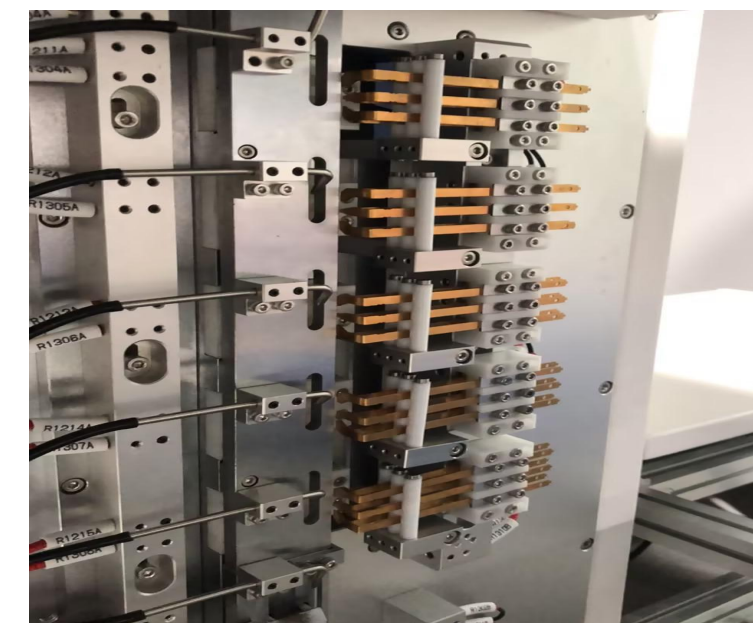
Model	SKD308H
Suitable device	MSOP/QFN/QFP/SIP/LGA/BGA/CSP/SIM
Max production capacity	≥9.5Kpcs/H
Test site	support testing 1×2, 2×2, 1×4, 2×4
Classification	three automatic disks, three manual disks
TRAY	315mmX136mm
Machine stability	MTBA>60min MTTA<3min MTBF>168h
Temperature range	50~130°C±3°C
Communication interface	RS232/TTL/GPIB
Control mode	PC
Weight	1500KG
Compressed air	0.4-0.7MPa
Vacuum	self-owned vacuum pump
Size	2000mm*1550mm*2155mm
Power	AC220V 50/60HZ

Gravity test handler

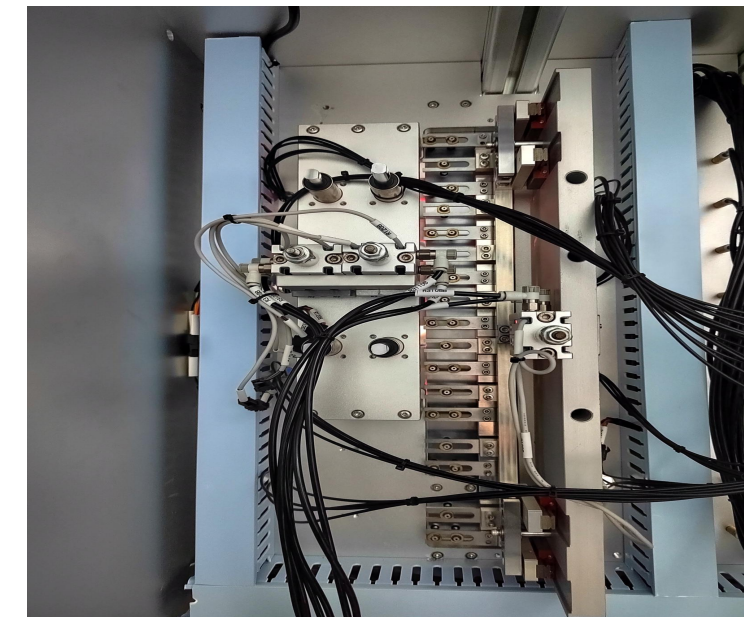
SKD810

SKD810 gravity test handler is a fully automatic that is designed for the testing of TO series packaging power devices. It has series connection of many test stations, which integrates insulation testing, conventional electrical performance testing, laser marking, brush dedusting, visual inspection and other functions.

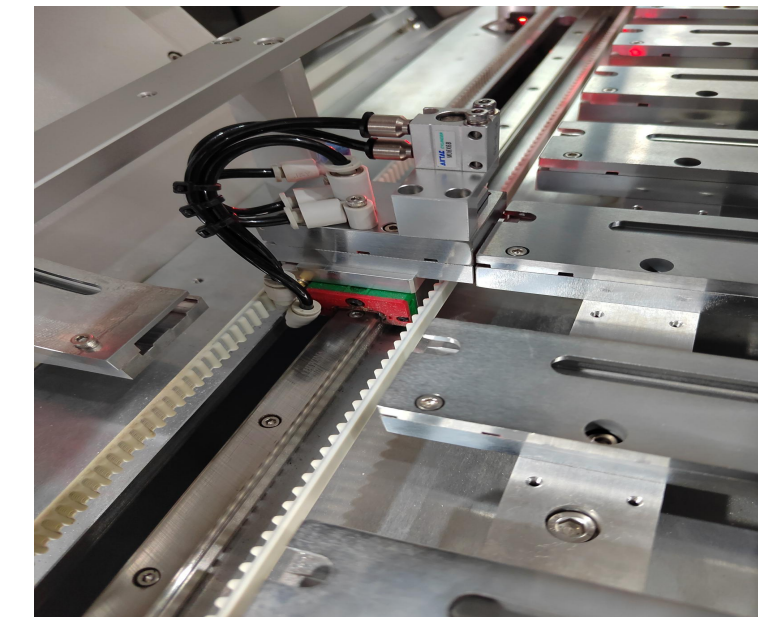
- feeding mode: Automatic feeding and replacing of material pipe ;
- test station: TO-220 series usually have 2 insulation test stations + 5 electrical performance test stations. TO-247 and 3PL have 5 general electrical performance test stations, which improve efficiency and facilitate maintenance. ;
- Marking station : optional ;
- 2D visual station : optional
- Material separator level: driven by sever motor, the sub-shuttle blocking cylinder adopts the way of lower air intake, the mechanism is light, the operation is more stable and accurate. ;
- Discharge mode: Automatic material pipe discharge mode, which can be set to red and white pipe to distinguish between good and bad products effectively ;
- It has Unique equipment transformation mechanism, the matching and restructuring of the equipment can be completed by replacing a small number of parts according to the requirements of the test products in the later stage ;
- PLC control system, friendly man-machine interface, the interface can be real-time display in the production of each pipe product quantity, UPH, fault location, causes, treatment methods and other functions. ;



The number of test stations can be compatible with the polarity test requirements of multiple products at one time.



Unique material test positioning switching mechanism, improve efficiency, convenient maintenance



The block Tcylinder of the split shuttle adopts the way of lower air intake, the mechanism is light and the performance is improved.



Gravity test handler

SKD810

SKD810 gravity test handler is a fully automatic that is designed for the testing of TO series packaging power devices. It has series connection of many test stations, which integrates insulation testing, conventional electrical performance testing, laser marking, brush dedusting, visual inspection and other functions.



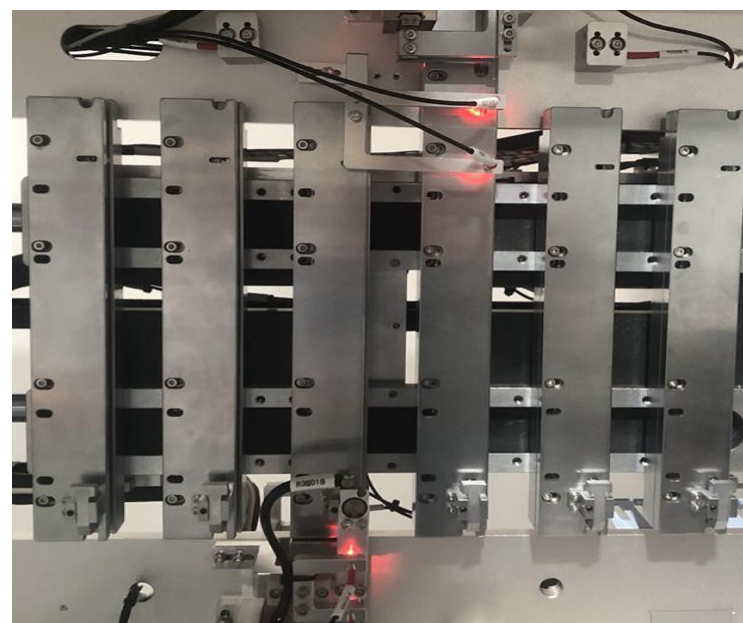
Model	SKD810
Suitable device	TO-220 TO-220F TO-263 TO-247 TO-3PL and so on
Max production capacity	7K pcs/H (EMPTY RUN)
Test work site	TO-220 series usually have 2 insulation test stations + 5 electrical performance test stations TO-247 and 3PL have 5 general electrical performance test stations
Test mode	Kelvin gold finger fixture
Discharge	TO220 series is usually 15-gear automatic tube offloader, TO-247 3PL is usually 11-gear automatic tube offloader.
Control system	PLC control system
Interface	TTL
Power	AC220V±10%,50HZ
Compressed air	0.5-0.7MPa
Size	1400*1550*2000mm
Weight	500KG

Gravity test handler

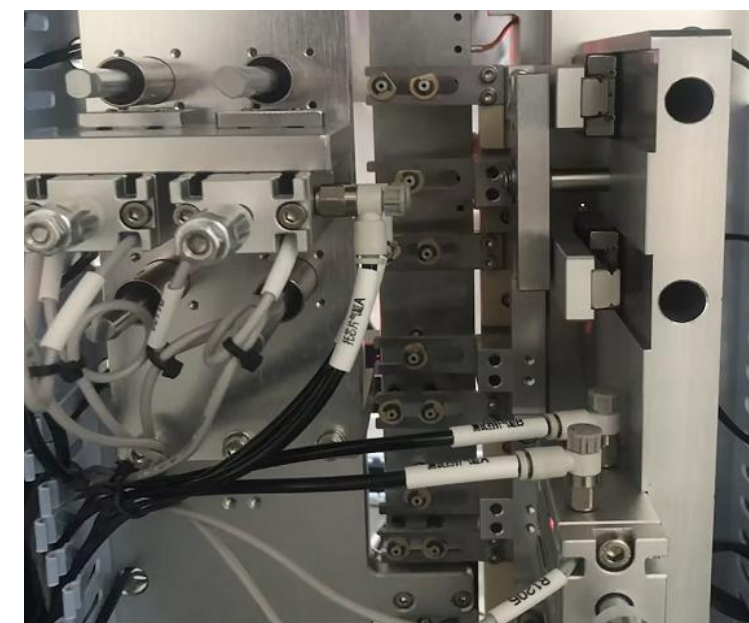
SKD810H

SKD810H gravity test handler is a fully automatic that is designed for the testing of TO series packaging power devices. The sorting machine has a series of test stations, which integrates high temperature heating, high temperature test, laser marking, brush dust removal, 2D visual inspection and other functions.

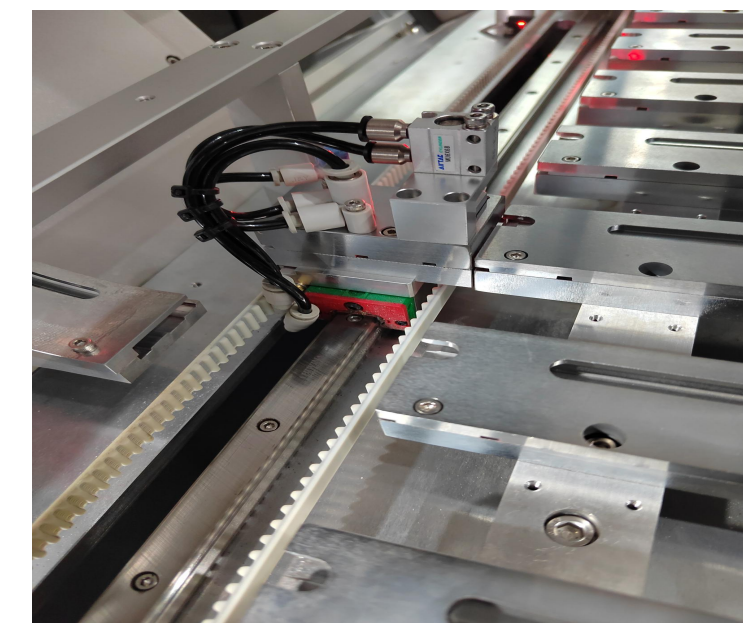
- Feeding method : feeding tube stack, automatic refueling tube ;
- Preheating device : heating temperature $\leq 200^{\circ}$, there are 6 tracks heating, temperature control accuracy $\pm 3^{\circ}$ C, taking TO-247 as an example, 90 materials can be preheated at the same time, and the inlet and outlet have anti-collision induction device.
- High temperature test components : 2 high temperature test stations, heating temperature $\leq 200^{\circ}$;
- Marking station : optional ;
- 2D visual station : optional ;
- Material separation level : driven by servo motor, the material separation shuttle retaining cylinder adopts the way of lower air intake, the mechanism is light, the operation is stable and accurate ;
- Discharge method : automatic material tube discharge method, red and white tube setting can be carried out to effectively distinguish between good and bad products
- PLC control system, friendly man-machine interface, the interface can be real-time display in the production of each tube product quantity, UPH, fault location, causes, treatment methods and other functions ;



High temperature preheating device ; six tracks are heated, and the temperature control accuracy is $\pm 3^{\circ}$ C. Taking TO-247 as an example, 90 materials can be preheated at the same time.



Unique material test positioning switch mechanism, improve efficiency, convenient maintenance



The block cylinder of the split shuttle adopts the way of lower air intake, the mechanism is light and the performance is improved.

Gravity test handler

SKD810H

SKD810H gravity test handler is a fully automatic that is designed for the testing of TO series packaging power devices. The sorting machine has a series of test stations, which integrates high temperature heating, high temperature test, laser marking, brush dust removal, 2D visual inspection and other functions.

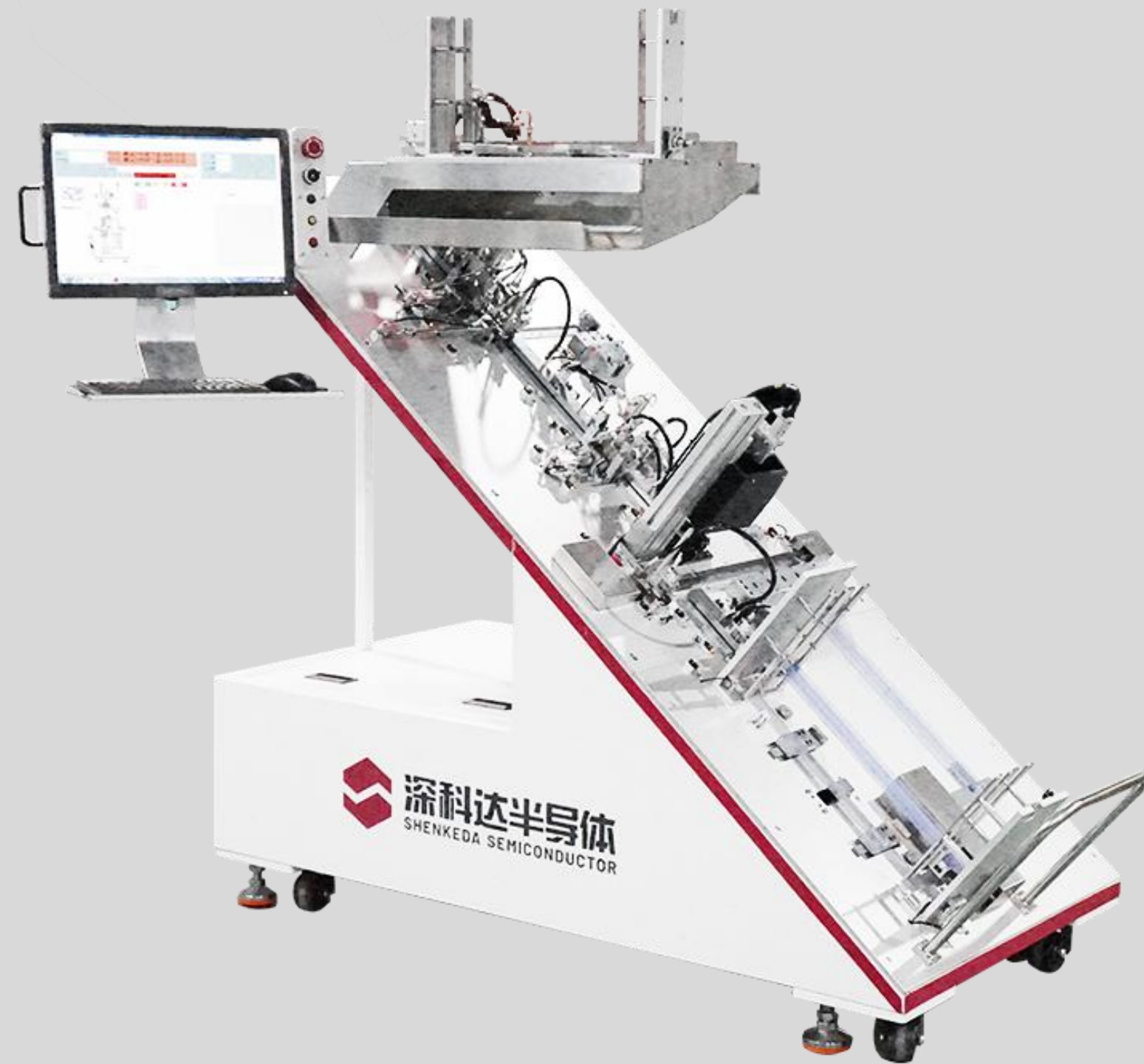


Model	SKD810H
Suitable device	TO-220、TO-220F、TO-263 TO-247 TO-3PL and so on
Max production capacity	UPH:4.3K pcs/H(EMPTY RUN)
High temperature test station	2 high temperature test positions
High temperature test temperature	25-200°C
Test temperature control accuracy	±3°C
Feed	automatic tube feeding
Discharge	TO220 series is usually 15-gear automatic tube offloader, TO-247,3PL is usually 11-gear automatic tube offloader.
Interface	TTL
Power	AC220V±10%,50HZ
Equipment power	5500W
Compressed air	0.5-0.7MPa
Size	1400*1550*2000mm
Weight	500KG

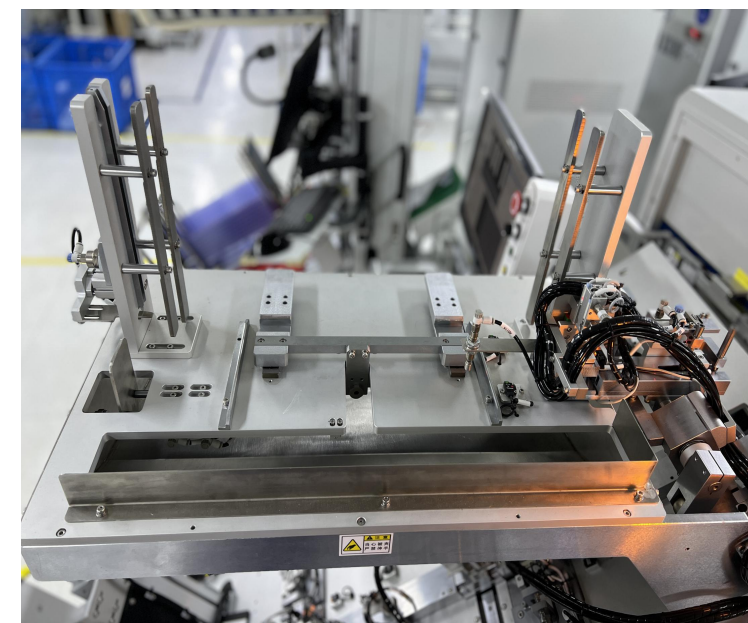
Gravity test handler

SKD821/SKD830

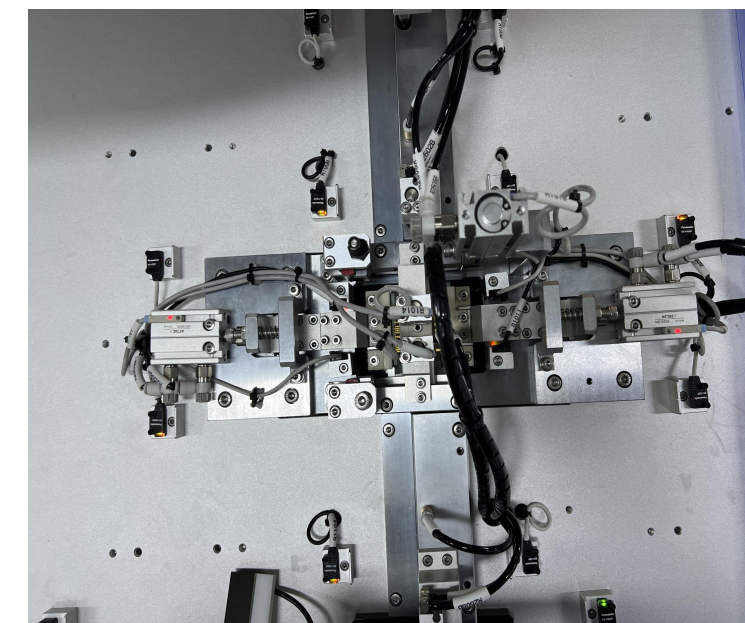
SKD821 / SKD830 gravity test handler : It is an automatic handler designed for packaging and testing of IPM series products. The handler adopts oblique back mode and integrates insulation test, electrical performance test, laser marking, brush dust removal and visual inspection.



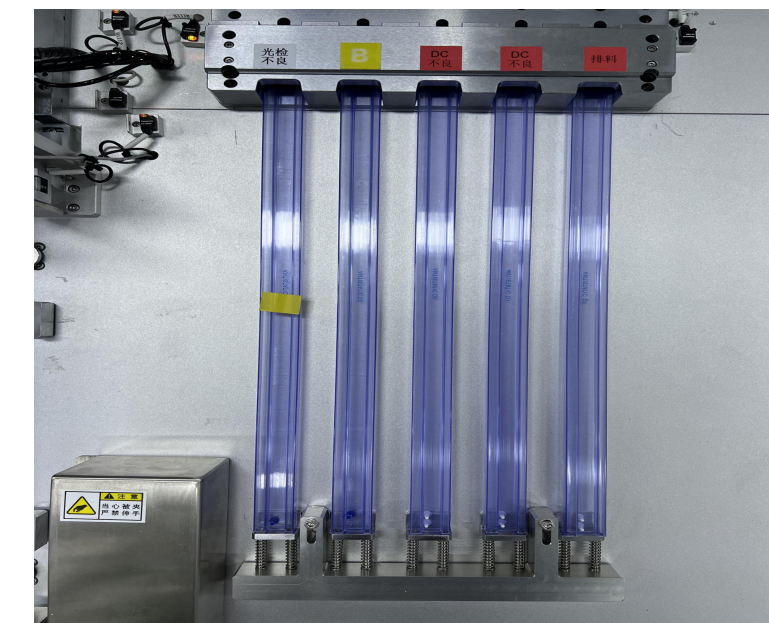
- Feed mode: material tube stack and feed, automatically switch material tube ;
- Test station: 1 insulation test station + 1 AC test station + 1 DC test station ;
- Marking station : optional ;
- 3D visual station : optional
- Sub-material level: it is driven by motor, the position of sub-material tube can be set by red and white tube, which can effectively distinguish good products from bad ones ;
- Discharge mode: material tube stack and put in, automatically switch material tube ;
- Modular structure design, a small number of parts can be replaced to complete the equipment restructure according to the requirements of product in the later stage ;
- With the unique equipment transformation mechanism, the matching transformation of the equipment can be completed by replacing a small number of parts according to the requirements of the test products in the later stage ;
- PLC control system, friendly man-machine interface, the interface can be real-time display in the production of each pipe product quantity, UPH, fault location, causes, treatment methods and other functions. ;



Both loading and unloading adopt the method of automatic switching material tube, which can be compatible with different sizes of material tube ;



The modular structure of the test station can complete the replacement according to the size change of the product to replace the corresponding accessories

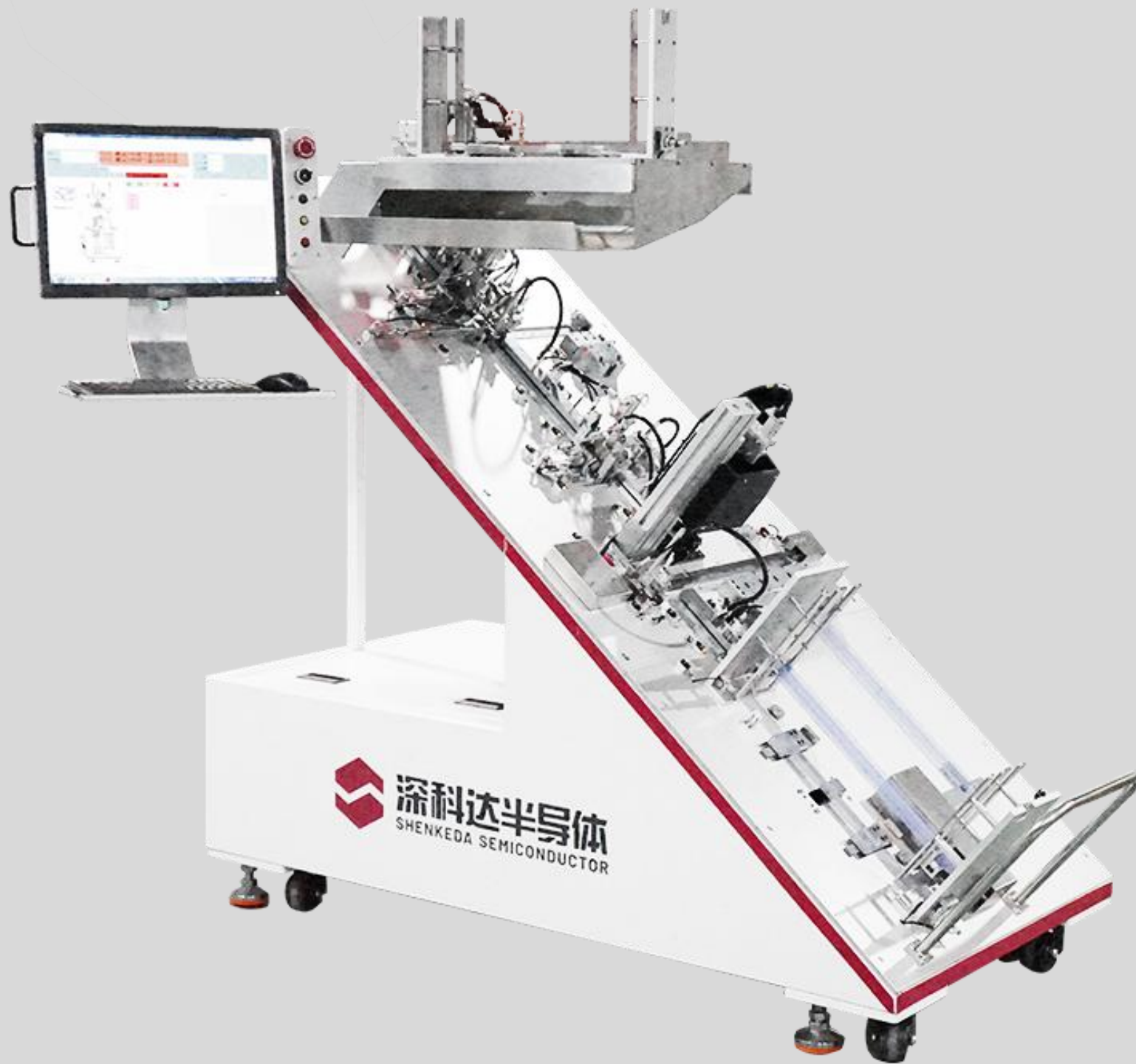


According to the production situation, the feeding tube can set the sequence by itself.

Gravity test handler

SKD821/SKD830

SKD821 gravity test handler: it is a fully automatic handler designed for packaging and testing of IPM DIP series products. The handler adopts oblique back mode, has two functional testing stations and one visual inspection station, and integrates conventional electrical performance testing and visual inspection functions. ;



Model	SKD821/SKD830
Suitable device	IPD-DIP25/IPM-SOP23
Max production capacity	3.5k pcs/H (EMPTY RUN)
Test station	1 insulation test station + 1 AC test station + 1 DC test station
Test method	Kelvin Golden finger clamp Test
Discharge	1-gear automatic tube offloader, 5-gear manual tube offloader
Control system	PLC control system
Interface	TTL
Power source	AC 220V ± 10%, 50Hz
Compressed air	0.5-0.7MPa
Size	2100mm*830mm*2000mm
Weight	300KG

TRAY taping machine

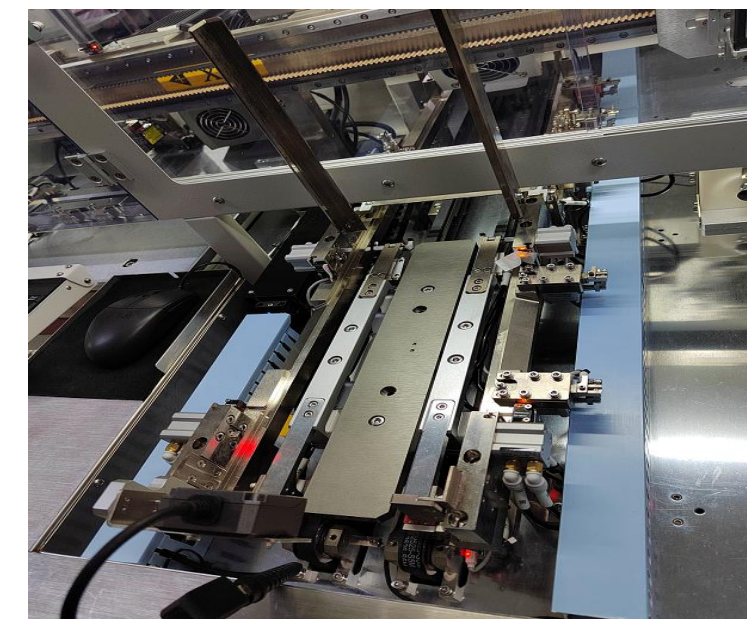
SKD610

SKD610 is a translational Tray to Reel taping machine with AOI inspection. It uses tray feeding and automatic variable distance suction device to pick up taping. It is equipped with multi-station imaging system to ensure the high quality of product taping. It can be compatible with the requirements of product taping for different package sizes at the same time (QFP, QFN LGA (3 ~ 15 mm)).

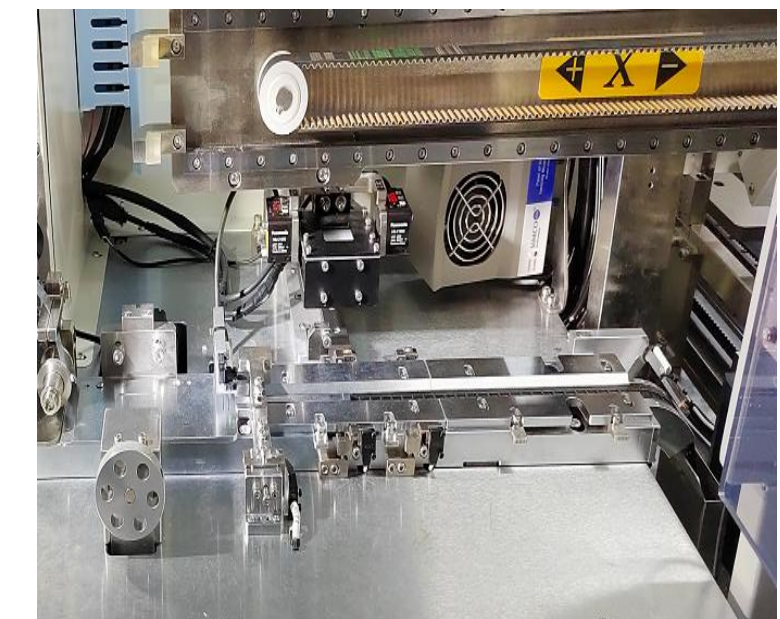
- Mark Inspection Vision (two-dimensional mark inspection) can recognize, duplicate code imprinting, imprinting strokes broken and extra strokes, imprints beyond the plastic seal. ;
- The product direction judgment station can judge the materia' s direction, lead deformation, character recognition, suction nozzle empty material ;
- In Pocket Vision can inspect plastic seal body breakage, contamination, cracks and other bad products (visible to the naked eye)) ;
- Visual inspection of the carrier' s bottom to inspect the damage, depression and bad creases at the bottom of the carrier ;
- Product transfer: 4-station variable distance fetching manipulator ;
- Taping: It is adopted with open carrier track , which can meet the carrier' S taping function of different specifications ;



The suction nozzle has the function of automatic variable distance and independent rotation to adapt to different specifications of product pick-up and release operations.



The Tray track adopts the two-way driving track mode, which ensures the operation stability and improves the production efficiency.



The carrier tape track adopts the development type, which can flexibly adapt to the requirements of different specifications of the tape.



TRAY taping machine

SKD610

SKD610 is a translational Tray to Reel taping machine with AOI inspection. It uses tray feeding and automatic variable distance suction device to pick up taping. It is equipped with multi-station imaging system to ensure the high quality of product taping. It can be compatible with the requirements of product taping for different package sizes at the same time (QFP, QFN LGA (3 ~ 15 mm)).

Model	SKD610
Suitable products	QFP,QFN, LGA(3*3~15*15mm)
Max production capacity	10~12K/H(Take DFN6*6 for example)
Feed	Tray
Discharge	Taping
Compressed air	0.4~0.7MPa
Power source	AC220V 50/60Hz 15A
Weight	500KG
External dimension	L2000*W1250*H1950

Automatic reel change machine



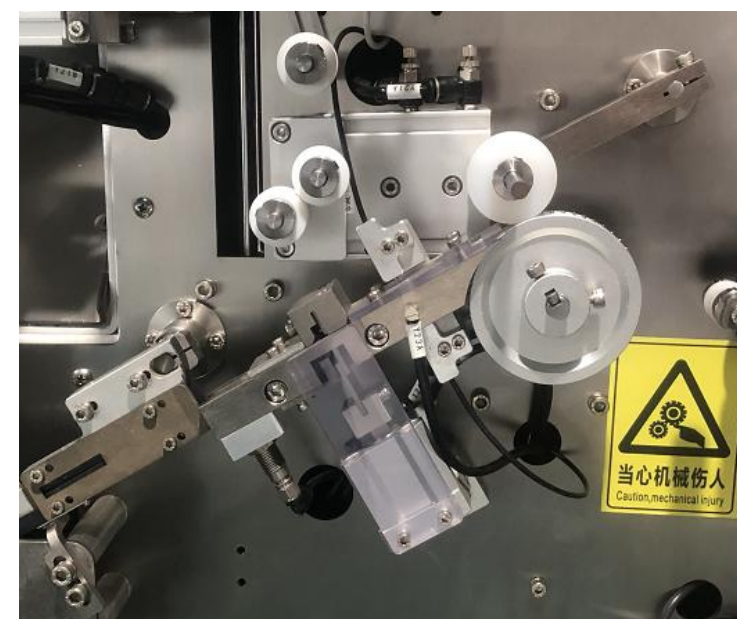
Reel size	tape feeding mode	Ancillary function	Machine type
7inch	Pulley block	General reel change machine	SKD100-07
		code scanning function	SKD100-07C
	Straight track type	General reel change machine	SKD100-07Z
		code scanning function	SKD100-07ZC
13inch	Pulley block	General reel change machine	SKD100-13
		code scanning function	SKD100-13C
	Straight track type	General reel change machine	SKD100-13Z
		code scanning function	SKD100-13ZC

Automatic reel change machine

SKD100

SKD100 automatic reel change machine belongs to reverse coiling automatic reel changer. Its main function is to connect the test handler to realize the functions of automatic disk supply, tape forming, sealing glue, automatic closing and so on.

- Packing machine test rate of good products : 100 % (10h continuous production) ;
- Crop rate : More than 95 % (calculation method : (actual output / theoretical output) * 100 %) ;
- Specification change : When the specification changes, just switch the tape and track, easy and simple ;
- Tape feeder : Compatible with P2 (bearing groove spacing 2mm) and P4 (bearing groove spacing 4mm) tape (can be switched through the software menu) ;
- Tray feeder : Cylinder drive brake knife opening and closing control bowl feeder ;
- Tray direction judgment station (standard) : sensor inspection ;
- Tail rubber : Prefabricated yellow tail rubber stacking plate for packaging ;
- Reel : Batching pulley buffer group, matching the speed of tape machine ;
- The tape cutting : With the counting optical fiber, the tape is cut ;
- Tray ready : The lifting mechanism realizes the automatic stacking of the tray ;



The number of carrying tapes is counted simultaneously by multiple optical fibers to ensure the accuracy of the number of each disc.



The tail sealing adhesive adopts vacuum adsorption method, which has simpler structure and lower failure rate.



The feeding plate adopts the lifting mechanism to realize the automatic stacking of the feeding plate, which has larger capacity and higher equipment mobility.



Automatic reel change machine

SKD100

SKD100 automatic reel change machine belongs to reverse coiling automatic reel changer. Its main function is to connect the test handler to realize the functions of automatic disk supply, tape forming, sealing glue, automatic closing and so on.

Model	SKD100
Suitable products	7inch reel
Suitable tape	8mm/12mm width option
Tail glue length	100mm\150mm\200mm option
Rewinding ability	≥15Reels/H
Control mode	man-machine interface+PLC
Power	AC220V±10%,50HZ
Compressed air	0.4-0.7MPa
External size	L420mm*W420mm*H1800mm
Weight	150Kg
Optional functions	automatic reel supply, bar code comparison, reeling into a tape, sealing glue, automatic closing, networking MES system and other functions can be selected.

**Sorting for semiconductor
testing Provide leading solutions.**



01

Company profile

02

Core competitiveness

03

Product display

04

Major customer

Partner-

Cooperation is based on the past

Mutual trust,

But also a common expectation for

the future.

Higher, faster and better to meet your needs for product processing, we use meticulous all-round services to jointly open the future of sustainable development.

o



Cumulative customers



Cumulative shipments



Marketing share

300+

累计客户



江苏长电科技



MPS



新洁能



晶丰明源



深圳赛意法微电子



长晶

3100+

累计出货



通富微电子股份



士兰微



固得电子



富满微电子



强茂电子



山东晶导微电子

NO.1

市场占有率



华润微



中颖电子股份



银河微电子



气派科技



凯虹



航天科工



扬州扬杰电子



杰华特



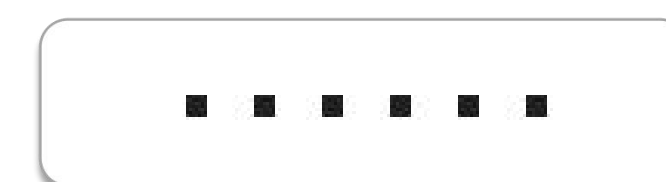
比亚迪



佛山蓝箭电子



先科



THANK YOU

深科达股份

