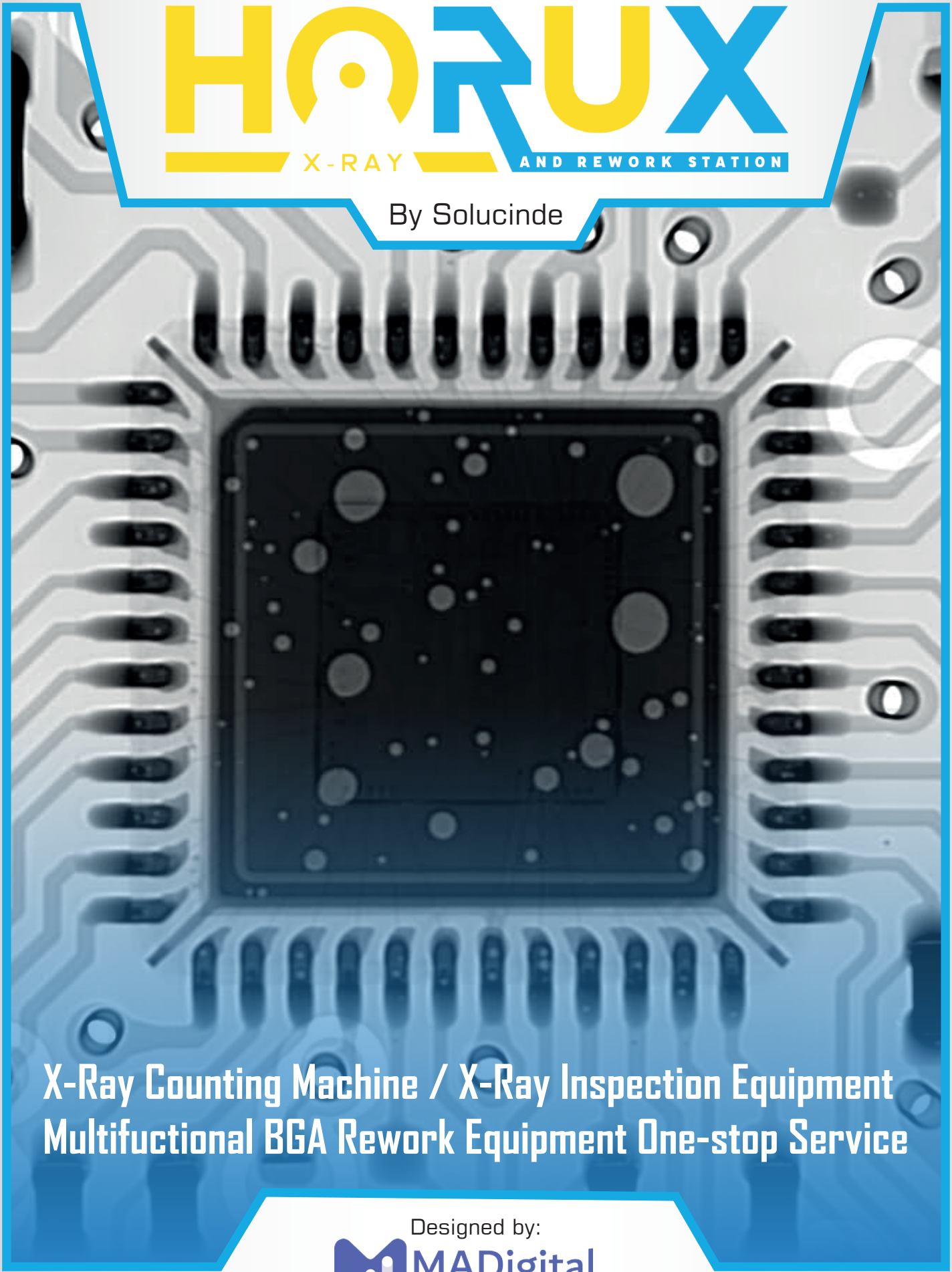
# HORUX

X-RAY AND REWORK STATION

By Solucinde



## X-Ray Counting Machine / X-Ray Inspection Equipment Multifuctional BGA Rework Equipment One-stop Service

Designed by:

MADigital
agencia de marketing

# CONTENT

# HX-100



HX-100 is a full-automatic micro-focus X-ray counting machine.

It uses X-Ray flouroscopy principle and independently developed algorithm software with AI fuction, which can quickly and accurately calculate the number of materials in the material reel.

It also has MES Data upload and automatic priting of material labels, which can achieve the function of impproving work efficiency and saving manpower.


## Product Features

- Compared with traditional counting/pointing machine, there is no need to unpack or transfer the reel.
- Suitable for all types of chip components, SMD components above 01005.
- Accuracy of counting reaches more than 99.99%., it can realize automatic counting.
- Countable reel diameter is 7-15 inches.
- Innovative detection enviroment and algorithm with AI function.
- Designed with reference to human mechanics, seated operation the monitor is at the same height as the human eye, protects the cervical spine, is not easy to fatigue, occupies a small space, and can be used in any positionCompared with traditional counting/pointing machine, there is no need to unpack or transfer the reel.
- The platform automatically enters and exits, which is convenient for material taking, automatic platform grating induction, torque control, anti-pinch hand.

  An error-proof mechanism for material labels, full induction recognition of material reels, real-time docking with printers, and printing of material information immediately if the reel is taken away.
- Connect with MES/ERP/WMS and other system data, real-time data interactive, timely upload and update of material information.
- Real-time database storage and MES data upload.
- Can recognize 1D or 2D codes.
- Four groups of cameras realize automatic scanning function (optional).
- The equipment automatically recognizes single or four-reel material.

## Product Parameters

| Model No. | | HX-100 |
|---|---|---|
| X-Ray Tube | X-Ray Tube Type | Reflective sealed micro-focus X-ray source |
| | Tube Voltage | 30-80KV |
| | Tube Current | 200-700μA |
| | Maximum Output Power | 56W |
| | Micro Focus Size | 30-40μm |
| Flat Panel Detector | Flat Panel Type | Amorphous silicon flat panel detector |
| | Pixel Matrix | 3072×3072 |
| | Field of View | 427mm×427mm |
| | AD Conversion Digits | 16bits |
| Equipment Specifications | Reel Diameter | 7*-15*Tape Reel |
| | Reel Height | <80mm |
| | Minimum Component | 01005 |
| | System Docking | MES/ERP/WMS |
| | Label Printing | TSC Industrial Printer |
| | Input Power | 220V 10A 50-60HZ |
| | Operation System | Win7 (windows 10 is optional) |
| | Dimensions | L800mm×W128mm×H2200mm |
| | Net Weight | About 790KG |

# HX-200



HX-200 is an automatic inline counting machine. It uses the X-ray flouroscopy principle and the independently developed algorithm software with AI function, which can quickly and accurately calculate the material quantities in the reel, it can also upload MES data and automatically print the material labels. It has the functions of automatic code scanning, labeling, and automatic sorting failure, and can automatically load and unload materials to improve work efficiency and save manpower.


## Product Features

- About 200 reels of materials can be placed at one time.
- 31 million pixel camera automatically scans barcode information and label position.
- 8-12 seconds/reel counting speed.
- TSC industrial printer automatically prints and labels.
- Connect with MES/ERP/WMS and other system data, and exchange data in real time.
- With automatic loading/unloading fuction.
- Compared with traditional counting/pointing machine, there is no need to unpack or transfer the reel.
- Suitable for all types of chip components, SMD components above 01005.
- Accuracy of counting reaches more than 99.99%
- Measurable reel diameter is 7-15 inches.
- Innovative detection enviroment and algorithm with AI fuction.
- With automatic sorting of detective products.
- With automatic printing and attaching material labels.

## Product Parameters

| Model No. | | HX-200 |
|---|---|---|
| X-Ray Tube | X-Ray Tube Type | Reflective sealed micro-focus X-ray source |
| | Tube Voltage | 30-80KV |
| | Tube Current | 200-700μA |
| | Maximum Output Power | 56W |
| | Micro Focus Size | 30~40μm |
| Flat Panel Detector | Flat Panel Type | Amorphous silicon flat panel detector |
| | Pixel Matrix | 3072×3072 |
| | Field of View | 427mm×427mm |
| | Resolution | 3.6Lp/mm |
| | Image Frame Rate (1x1) | 6fps |
| | AD Conversion Digits | 16bits |
| Equipment Specifications | Reel Diameter | 7”-15”Tape Reel |
| | Reel Height | <80mm |
| | Minimum Component | 01005 |
| | System Docking | MES/ERP/WMS |
| | Input Power | 220V 10A 50-60HZ |
| | Operation System | Win10 optional 64 bits |
| | Dimensions | L3100mm×W1600mm×H2100mm |
| | Net Weight | About 2200KG |

# HX-560

HX-560 is a small precision micro-focus X-ray inspection equipment, which is suitable for R&D enterprise laboratories, offices, and quality laboratories etc., and is the first choice for X-ray inspection of tiny, small and medium precision components.


## Product Features

- Miniaturized equipment, easy to install and use.
- Applied to the inspection of chips, BGA/CSP, wafers, SOP/QFN, SMT and PTU packages, sensors, etc.
- High-resolution design for the best possible image in a fraction of the time.
- Automatic infrared navigation and positioning, quickly select the shooting position.
- CNC inspection mode for fast automatic inspection of multi-point arrays.
- Multi-angle tilt inspection makes it easier to inspect sample defects.
- Software operation is simple and easy to use, low operating cost.
- Durable service life.

## Tilt Photo/Rotate Photo Function

### Tilt perspective detection function.

It has the function of tiling camera. For pictures taken from the front of a special device. If the detect features cannot be identified, the tiling camera function can be used to observe the features of the device from multiple angles, which is easier to analyze and identify the defect content.

### 360° rotation photo detection function.

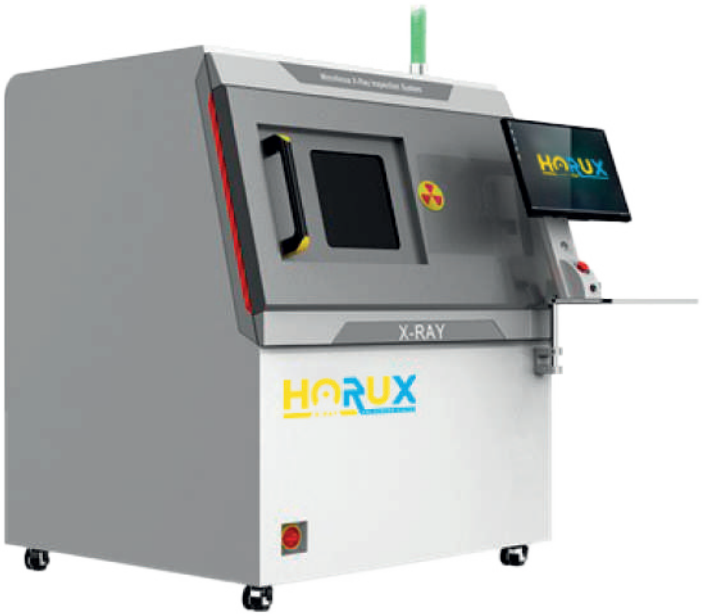
Equipped with a rotating manipulator, it can rotate 360 degrees to take pictures, and there is no dead angle observation defect.

## Product Parameters

| Model No. | | HX-560 |
|---|---|---|
| X-Ray Tube | X-Ray Tube Type | Reflective sealed micro-focus X-ray source |
| | Tube Voltage | 40-90KV |
| | Tube Current | 10-200μA |
| | Maximum Output Power | 8W |
| | Micro Focus Size | 15μm |
| Flat Panel Detector | Flat Panel Type | TFT Industrial Dynamic flat panel director |
| | Pixel Matrix | 768×768/1536×1536 |
| | Field of View | 65mm×65mm/130mm×130mm |
| | Resolution | 5.8Lp/mm |
| | Image Frame Rate (1x1) | 20-40fps |
| | AD Conversion Digits | 16bits |
| Equipment Specifications | Input Power | 220V 10A/110V 50-60HZ |
| | Operation System | Industrial Computer Win7 (Win10 optional) 64 bits |
| | Dimensions | L850mm×W1000mm×H1700mm |
| | Net Weight | About 750KG |

# HX-660T

HX-660T is a compact and cost-effective general purpose offline precision micro-focus X-ray inspection equipment. It has the characteristics of simple and concise structure, small footprint, simple operation, easy to learn and understand.

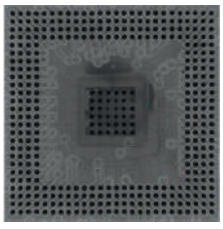



## Product Features

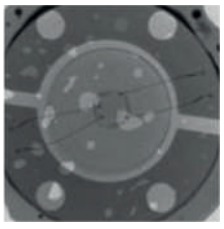
- Simple operation, good maneuverability, and high cost performance.
- High-resolution design for the best possible image in a fraction of the time.
- Automatic infrared navigation and positioning, quickly select the shooting position.
- CNC inspection mode for fast automatic inspection of multi-point arrays.
- Multi-angle tilt inspection makes it easier to inspect sample defects.
- Software operation is simple and easy to use, low operating cost.
- With automatic calibration function.
- Simple structure and small footprint.
- Safe and reliable fingerprint input.
- Real-time monitoring of radiation value, multiple protection of operator's personal safety.
- Rocker mechanism, easy to operate and good manueverability.

## Applications

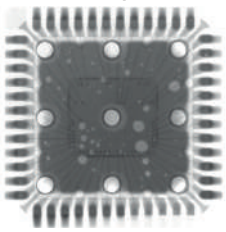
BGA Inspection



LED Inspection



QFP Inspection



Gold Wire Height Inspection

## Product Parameters

| Model No. | | HX-660T |
|---|---|---|
| X-Ray Tube | X-Ray Tube Type | Reflective sealed micro-focus X-ray source |
| | Tube Voltage | 40-90KV |
| | Tube Current | 10-178μA |
| | Maximum Output Power | 8W |
| | Micro Focus Size | 7μm |
| Flat Panel Detector | Flat Panel Type | Flat Panel Type Amorphous Silicon Flat Panel Detector |
| | Pixel Matrix | 768×768 |
| | Field of View | 65mm×65mm |
| | Resolution | 5.8Lp/mm |
| | Image Frame Rate (1x1) | 20-40fps |
| | AD Conversion Digits | 16bits |
| Equipment Specifications | Input Power | 220V 10A 50-60Hz |
| | Operation System | Industrial Computer Win7 (windows 10 is optional) 64 bits |
| | Maximum Sample Size | 280mm×320mm |
| | Dimensions | L850mm×W1000mm×H1700mm |
| | Net Weight | About 750KG |

# HX-660H

HX-660H is a cost-effective general-purpose offline precision micro-focus X-ray inspection equipment, suitable for the inspection of various types of factory offline products. It has the characteristics of high magnification, multi-angle inspection, and large-area inspection platform.


## Product Features

- Meets general x-ray inspection needs, with a wide range of applications.
- High-resolution design to get the best image fast.
- Laser automatic navigation and positioning, quickly select the shooting position.
- CNC inspection mode for fast automatic inspection of multi-point arrays.
- Multi-angle tilt inspection makes it easier to inspect sample defects.
- Software operation is simple and easy to use, low operating cost.
- The X-ray tube and flat panel can be rotated at the same time (0-60°), making the inspection image cleaner and more intuitive.
- Real-time monitoring of radiation value, multiple proctection of operator's personal safety.

## Size Measurement

### Measuring Tool:

Distance, distance ratio, line spacing, angle, arrow mark, circle radius, point distance, circle radius, point distance, circle center distance, perimeter, hand-painted polygon, hand-painted freeform, etc., can be added with text description.

## Defect Inspection

### Automatic Defect Recognition:

Equipped with a rotating manipulator, it can rotate 360 degrees to take pictures, and there is no dead angle observation defect.

### Customizable Image Algorithm:

Develop specific software algorithms according to the customer's product characteristics and requirements. To realize the automatic defect recognition and inspection function, inluding the presence or abstenence, crack, broken line, offset, size, number and other recognition algorithms.

## Automatic Void Ratio Calculation

### Enhanced BGA Extending Inspection Function:

It can quickly select and mark a single soldering ball, or select the soldering balls to be inspected in a matrix, and can manually or automatically identify the BGA soldering balls and complete the inspection process and ensure accurate and reliable inspection results.

## Product Parameters

| Model No. | | HX-660H |
|---|---|---|
| X-Ray Tube | X-Ray Tube Type | Reflective sealed micro-focus X-ray source |
| | Tube Voltage | 90 KV/130 KV |
| | Tube Current | 10-200μA |
| | Maximum Output Power | 8W |
| | Micro Focus Size | 5~15μm |
| Flat Panel Detector | Flat Panel Type | Amorphous silicon flat panel detector |
| | Pixel Matrix | 1536 × 1536 |
| | Field of View | 130mm × 130mm |
| | Resolution | 5.8Lp/mm |
| | Image Frame Rate (1x1) | 20fps |
| | AD Conversion Digits | 16bits |
| Equipment Specifications | Input Power | 220V 10A/110V 15A 50-60HZ |
| | Operation System | Industrial Computer Win7 (Win 10 optiona) 64 bits |
| | Maximum Sample Size | 540mm × 440mm |
| | Dimensions | L1245mm×W1230mm×H1900mm |
| | Net Weight | About 1170KG |

# HX-660M/BM



HX-660M/BM is a six-axis universal offline precision micro-focus X-ray inspection equipmnet. It has the characteristics of high magnification, multi-angle, and large-area inspection platform. At the same time, it has one-button door opening and closing, and real-time monitoring of radiation conditions around the equipment to ensure the safety of the environment and operators.


## Product Features

- The X and Y axes of the platform are driven by high-precision micro-focus X-ray inspection accuracy.
- With automatic calibration function.
- Real-time monitoring of radiation value, multiple protection of operator´s personal safety.
- One-button automatic opening and closing of the movable door, convenient for personnel to work.
- Large inspection platform to ensure a wider range of equipment inspection sizes.
- Fingerprint verification.

## Application Advantages

### Rocker, Fingerprint, Radiometer,T-Axis To Take Pictures:

1.Fingerprint: Authotrize someone to control the device.

2.Rocker: The X/Y axis running control key of the platform is easy to operate.

3.Radiometer: Monitor the radiation value in real time, if the set value is exceeded, the radiometer will automatically alarm, promting the radiation state of the inspection equipment.

4.T-axis tilt photo inspection: When the conventional vertical inspection cannot meet the requirements, the T-axis tilt inspection function can be used, and the inspection range is more comprehensive.

## CNC Automatic Running Inspection

- CNC Automatic Running Inspection:
  It can run CNC multi-point automatic inspection, and set multi-point coordinates for automatic inspection according to user product specifications.
- Automatic CNC running inspection can automatically store images, generate reports automatically, and perform batch inspection.

## Product Parameters

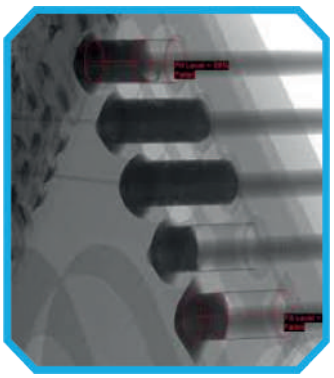
| Model No. | | HX-660M/HX-660BM |
|---|---|---|
| X-Ray Tube | X-Ray Tube Type | Reflective sealed micro-focus X-ray source |
| | Tube Voltage | 40-90KV/40-130KV |
| | Tube Current | 10-200μA/10-130KV |
| | Maximum Output Power | 8W/39W |
| | Micro Focus Size | 5 -15μm |
| Flat Panel Detector | Flat Panel Type | Amorphous Silicon Flat Panel Detector |
| | Pixel Matrix | 1648×1648 |
| | Field of View | 160mm×160mm |
| | Resolution | 5.1Lp/mm |
| | Image Frame Rate (1x1) | 30fps |
| | AD Conversion Digits | 16bits |
| Equipment Specifications | Input Power | 220V 10A 50-60Hz |
| | Operation System | Industrial Computer Win7 (Win10 optional) 64 bits |
| | Dimensions | L1380mm×W1390mm×H1930mm |
| | Net Weight | About 1720KG / 1845KG |

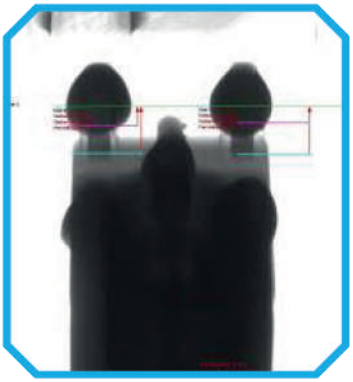
# HX-760

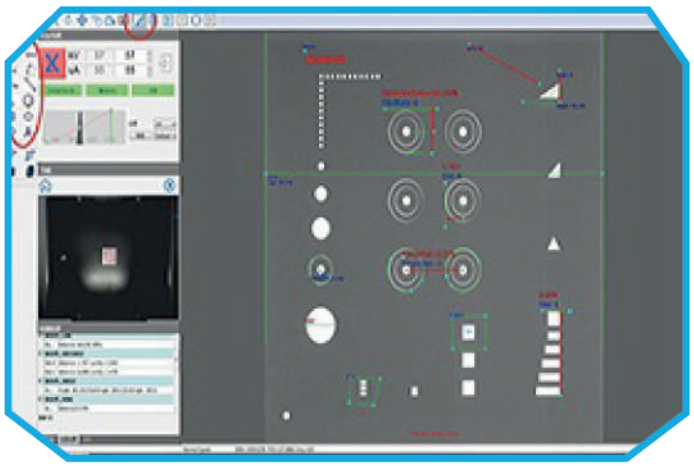
HX-760 is a more powerful high-end precision micro-focus X-ray inspection equpment, which can realize multi-angle and multi-directional photography, can be upgrated to 2.5D inspection function, and can realize 360° rotation of the product and 60° tilt of the detector for 3D photography. No blind spot to observe product defects, so that quality problems have nowhere to hide.


## Product Features

- Observation at 60 degrees tilt.
- Upgradable 2.5D Module (Industrial CT) (Optional).
- High-definition inspection inspection images: offset / soldering / voids / cold soldering / wire bonding.
- 360 degree platform rotation.
- Color image navigation & Mapping navigation.
- Support picture stitching function (optional).







## Product Parameters

| Model No. | | HX-760 |
|---|---|---|
| X-Ray Tube | X-Ray Tube Type | Reflective sealed micro-focus X-ray source |
| | Tube Voltage | 40-90KV/40-130KV |
| | Tube Current | 10-200μA/10-300μA |
| | Maximum Output Power | 8W/39W |
| | Micro Focus Size | 5~15μm |
| Flat Panel Detector | Flat Panel Type | Amorphous silicon flat panel detector |
| | Pixel Matrix | 1536 × 1536 |
| | Field of View | 130mm × 130mm |
| | Resolution | 5.8Lp/mm |
| | Image Frame Rate (1x1) | 20fps |
| | AD Conversion Digits | 16bits |
| Equipment Specifications | Dimensions | L1700mm×W1770mm×H1800mm |
| | Input Power | 220V 10A/110V 15A 50-60HZ |
| | Platform Size | 500mm × 500mm |
| | Operation System | Industrial Computer Win7 (Win 10 optiona) 64 bits |
| | Net Weight | About 1900KG |

# HX-1200

HX-1200 is a precise micro-focus X-ray inspection equipment for large-scale inspection of large PCB boards,5G communication mainboards, and LED light strips. Its effective inspection area can reach 1200mm × 600mm, which can realize a wide range of automatic inspection, and accept customized services according to different product sizes.


## Product Features

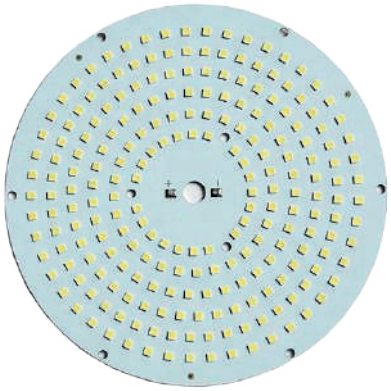
- Large inspection area 1200mm×600mm.
- X-ray source and detector X/Y motion cover inspection area.
- Can edit the inspection program by CNC to realize automatic inspection and judgment.
- Accept customized services according to different product sizes (optional).
- Automatic inspection program customization (optional).
- Software operation is simple and easy to use, low operating cost.

## Product Parameters

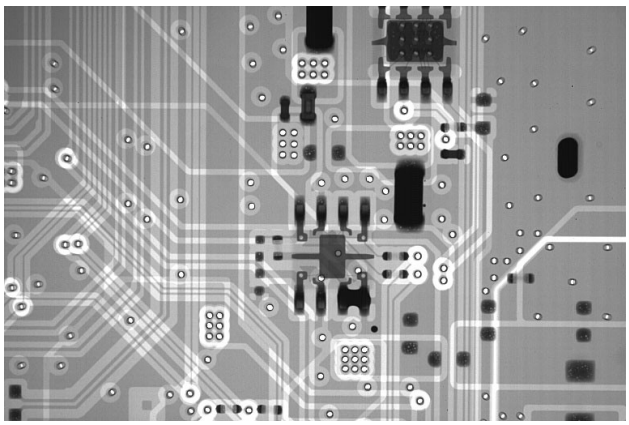
| Model No. | | HX-1200 |
|---|---|---|
| X-Ray Tube | X-Ray Tube Type | Reflective sealed micro-focus X-ray source |
| | Tube Voltage | 40-90KV/40-130KV |
| | Tube Current | 10-200μA/10-300μA |
| | Maximum Output Power | 8W/39W |
| | Micro Focus Size | 5-15μm |
| Flat Panel Detector | Flat Panel Type | Amorphous silicon flat panel detector |
| | Pixel Matrix | 1536 × 1536 |
| | Field of View | 130mm × 130mm |
| | Resolution | 5.8Lp/mm |
| | Image Frame Rate (1x1) | 20fps |
| | AD Conversion Digits | 16bits |
| Equipment Specifications | Input Power | 220V 10A/110V 15A 50-60HZ |
| | Operation System | Industrial Computer Win7 (Win 10 optiona) 64 bits |
| | Maximum Sample Size | 600mm × 1200mm |
| | Dimensions | L2040mm×W1280mm×H1870mm |
| | Net Weight | About 2350KG |

## Application Cases

- LED Strip Inspection.



- PCB Board Inspection.



# HX-5800L

HX-5800L is a small precision micro-focus X-ray inline inspection equipment, with inline automatic feeding, automatic inspection, automatic sorting, and the functions of punching or making defective products, suitable for coil and reel materials and production lines inspection of automatic feeding.


## Product Features

- Miniaturized equipment, easy to install and use.
- Strong equipment compatibility, the conveyor belt can be adjusted in both directions.
- Servo feeding is stable and reliable.
- Software operation is simple and easy to use, low operating cost.
- Durable service life.
- Inline automatic inspection of equipment, automatic sorting and marking of defective products.
- Automatic inspection for various coils and reels.
- The equipment is compatible with the width of the reel.

## Application Cases

- Triode Inline Inspection.
- IC Inline Inspection.
- Connector Inline Inspection.

## Product Parameters

| Model No. | | HX-5800L |
|---|---|---|
| X-Ray Tube | X-Ray Tube Type | Reflective sealed mircro focus X-ray source |
| | Tube Voltage | 40-90KV |
| | Tube Current | 10-200μA |
| | Maximum Output Power | 8W |
| | Micro Focus Size | 15 μm |
| Flat Panel Detector | Flat Panel Type | Amorphous Silicon Flat Panel Detector |
| | Pixel Matrix | 1536 × 1536 |
| | Field of View | 130mm × 130mm |
| | Resolution | 5.8Lp/mm |
| | Image Frame Rate (1x1) | 20fps |
| | AD Conversion Digits | 16bits |
| Equipment Specifications | Input Power | 220V 10A/110V 15A 50-60HZ |
| | Operation System | Industrial Computer Win7 (Win 10 optiona) 64 bits |
| | Inspection Sample Width Range | 30-150mm |
| | Dimensions | L1850mm×W1400mm×H1970mm |
| | Net Weight | About 1020 KG |

# HX-6500

HX-6500 is a SMT inline micro-focus X-ray inspection equipment for electronic assemblies.

Fully automatic judgment inspection is perfomed for the characteristic area of the PCB board or the specified device.


## Product Features

- Fully automatic inline inspection of LED chip packaging.
- Automatic inline inspection of IGBT chips.
- IC BGA. Fully automatic in-line inspection of semiconductor devices, SMT and PTU packaging
- Automatic inline inspection of large size PCB boards and PCBA soldering points.
- Simple operation of template setting, guaranteedsafe operation.

## Application Cases

- IGBT Module Inline Inspection.
- SMT Driver Board Inline Inspection.
- Inline inspection of tin penetration ratio of automotive power modules.
- LED light board inline detection.
- QR code inline inspection.
- Inline inspection of PCB drilling allignment.

## Product Parameters

| Model No. | | HX-6500 |
|---|---|---|
| X-Ray Tube | X-Ray Tube Type | Reflective sealed mircro focus X-ray source |
| | Tube Voltage | 40-90KV/40-130KV |
| | Tube Current | 10-200μA/10-300μA |
| | Maximum Output Power | 8W/39W |
| | Micro Focus Size | 5-15 μm |
| Flat Panel Detector | Flat Panel Type | Amorphous silicon flat panel detector |
| | Pixel Matrix | 1536×1536 |
| | Field of View | 130mm×130mm |
| | Resolution | 5.8Lp/mm |
| | Image Frame Rate (1x1) | 20fps |
| | AD Conversion Digits | 16bits |
| Equipment Specifications | Input Power | 220V 10A/110V 15A 50-60Hz |
| | Operation System | Industrial Computer Win7 (Win 10 optiona) 64 bits |
| | Platform Size | 510mm×650mm |
| | Dimensions | L1600mm×W1700mm×H2100mm |
| | Net Weight | About 2350 KG |

# HX-7800



HX-7800 is a SMT inline soldering quality inspection. Equipment for components such as automotive power control (MCU-ECU/I-GBT).

This equipment adopts COMET open X-ray tube design, and the defect inspection capability can reach 0.5um.


## Product Features

- Fully automatic inline inspection in MCU-ECU/IGBT and other fields.
- Fully automatic inline ispection of PCB board and PCBA solder joints.
- Template setting is simple and easy to charge.
- Strong penetration and high resolution.
- Flat panel 3D rotation 60°, parallel rotation 360°, 2.5D imaging.
- Support MES system customized access.
- Automatic Inline Inspection of automative circuit boards and control boards.
- The software operation is simple and easy to use, and the system algorithm is powerful.
- Large equipment detection area, strong compability 480×500mm.
- Real-time monitoring of radiation value, multiple protection of operator's personal safety.

## Application Cases

- IGBT Module Inline Inspection.
- SMT Driver Board Inline Inspection.
- Inline inspection of tin penetration ratio of automotive power modules.
- LED light board inline detection.
- QR code inline inspection.
- Inline inspection of PCB drilling allignment.

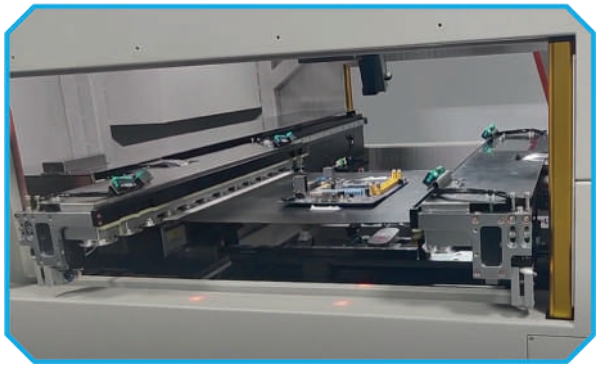
## Product Parameters

| Model No. | | HX-7800 |
|---|---|---|
| X-Ray Tube | X-Ray Tube Type | Open X-ray source |
| | Tube Voltage | 160KV |
| | Tube Current | 0-1000μA |
| | Maximum Output Power | 10W |
| | Micro Focus Size | < 1 μm |
| Flat Panel Detector | Flat Panel Type | Amorphous silicon flat panel detector |
| | Pixel Matrix | 1536 x 1536 |
| | Field of View | 130mm x 130mm |
| | Resolution | 5.8Lp/mm |
| | Image Frame Rate (1x1) | 20fps |
| | AD Conversion Digits | 16bits |
| Equipment Specifications | Input Power | 220V ± 10% 50-60Hz |
| | Operation System | Leadstart |
| | | Industrial Computer Win7 (Win 10 optiona) 64 bits |
| | Dimensions | L1870mmxW2150mmxH2300mm |
| | Net Weight | About 4950 KG |

# HX-7800



## The core features of the transmission mechanism

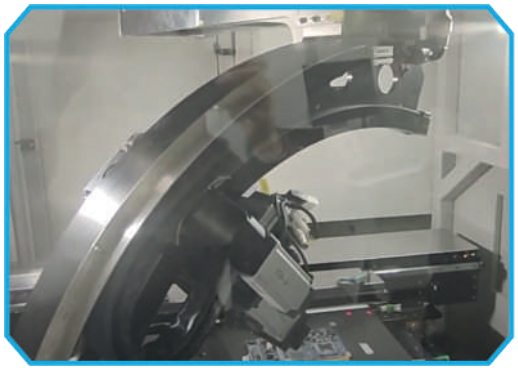


- Wide adjustment of loading guide rail width, can inspect products with 480x500mm.
- The loading guide rail has good flexibility, it can not only move left and right, forward and backward, but also change its own conveying direction according to the direction of the assembly line, that is, it can be left in and right out, or right in and left out.
- Loading guide rail can carry 30KG load.
- High-precision lead screw is used for the conveying of the loading guide rail.
- All power axis are driven by servo motors.

## 360 Rotation Observation Mode

- Convenient 360° fixed-point observation mode.
- 360° inline inspection without dead angle.
- Large rotation angle of the mechanism, strong equipment compatibility.
- 2D void inspection software module.
- 3D measurement and analysis software modules.

From the motion trajectory of each axis of the mechanism, we can see that this mechanism is asimed at different plug-ins on various PCB boards and different internal structures and components of the PCB board. Taking the inspection image from a single angle will cause interference or ghosting, resulting in misjudgment, or can not be customized for inspection, and this mechanism can shoot inspection, and judgment without dead angle, which greatly improves the core function and compatibility of the device.



## Intelligent Micro-Focus X-Ray Source Technology with FeinFocus solutions, the best resolution of the smallest defects and the clearest internal structures are obtained

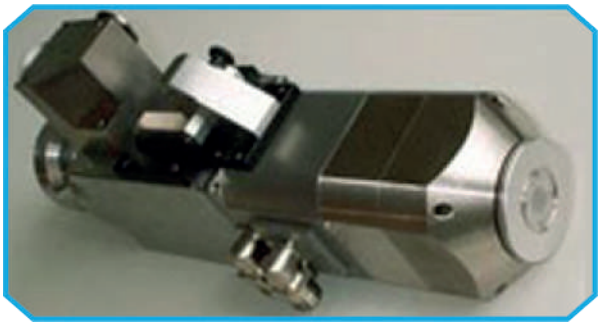
### Comet Micro-focus Open X-ray Core Features

This equipment uses Comet's micro-focus open X-ray source, which has the caracteristics that the larger the magnification, the stronger the ability to see the smallest defects of the object. The X-ray inspection system enlarges the image of the object to find the subtleties defect. For example, a 1-micron defect must be magnified more that 500 times to be seen by the human eye.

### High Resolution, Support Inline Inspection

Main parameters of high resolution & high power target

- Cover a 2um tungsten layer on the 250um heat dissipation material. Replaceable and rotatable to extend service life, the maximum target power is 15W.
- Minimum focus-to-object distance 0.25 mm. High resolution & high power. Target and MFT tube, perfect combination.
- The target power is less than 1W, and the minimum defect inspection capability is 0.5um, which can be used for nano-scale defect inspection.
- Using negative feedback control technology to continuosly control the intensity of X-rays.
- Output stable X-ray intensity for a long time.
- Ensures that image quality does not change with external environmental influences.



# IHX-900

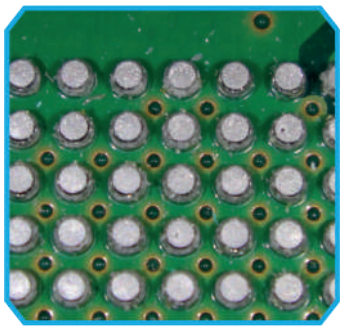

## Application Cases

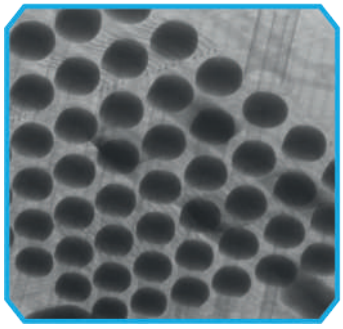
The inspection objects include BGA, QFP, SOP, CSP, CHIP, QFN, plug-in components, power modules and other components. Defects such as tin less, offset, bridge, voids, pillow effect, etc. (selected according to the

## Product Features

- Unique 3D/CT reconstruction algorithm, reconstruction time is less than 30s (resolution 5um).
- High-speed automatic inspection technology, using linear motor three-layer gantry structure to achieve high-speed 3D/CT scanning.
- According to user needs, scan the cample (or components) in whole or in part.
- The minimum measurable 0.3mm pitch and banding line images over 0.2mm are clearly distinguishable.

## Internal Solder Ball Defects





## Product Parameters

| Model No. | | IHX-900 |
|---|---|---|
| X-Ray Tube | X-Ray Tube Type | Reflective sealed micro-focus X-ray source |
| | Tube Voltage Range | 40-130KV |
| | Tube Current Range | 10-300μA |
| | Maximum Output Power | 39W |
| Flat Panel Detector | Flat Panel Type | Amorphous silicon flat panel detector |
| | Pixel Matrix | 1536 x 1536 |
| | Field of View | 130mm x 130mm |
| | Resolution | 5.8Lp/mm |
| | Image Frame Rate (1x1) | 20fps |
| | AD Conversion Digits | 16bits |
| PCB Size | Maximum panel size | 610 x 510mm |
| | Minimum panel size | 50 x 50mm |
| | Maximum inspectable area | 600 x 500mm |
| | Maximum panel thickness | 10mm |
| | Minimum panel thickness | 0.5mm |
| | Maximum panel weight | 10 Kg |
| | Board top clearance | 60mm |
| | Board bottom clearance | 45mm |
| | X-Ray Leakage | <1μSv/h |
| Equipment Specifications | Air Pressure | 0.45~0.65MPa |
| | Input Power | 220V 10A 50-60Hz |
| | Operation System | DELL Precision T5820 Image Workstation |
| | Dimensions | L2470mmxW2000mmxH2100mm |
| | Net Weight | About 7500 KG |

# HX-850CT



## Universal X-Ray Inspection System

HX-850CT adopts COMET's open X-ray tube design, and its defect inspection capability can reach 0.5um. It can realize 2D/3D/CT and other inspection methods, and is suitable for quality inspection, 3D measurement and non-destructive

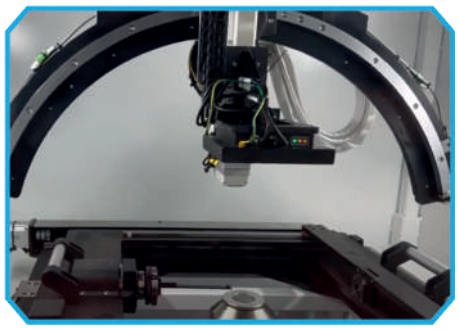

## Application Advantages

- With planar CT function (PCT), it can be applied to 3D/CT inspection of printed circuit boards, SMT, IGBT, wafers,etc.
- With cone beam CT function, it can be applied to be applied to the inspection of sensors, relays, micro motors, materials and aluminium castings.
- Convenient 360° fixed-point observation mode.
- 2D void inspection software module (optional).
- 3D measurement and analysis software module (optional).

## Application Fields

- Soldering quality inspection of solder joints on PCB, BGA components, integrated circuits (IC) and their bond wires inspection, semiconductor package inspection and internal connection, electronic power (IGBT) module inspection, Wafer defect inspection (WLCSP).
- Inspection of sensors, relays, fuses, coils, micro drive systems and air bag control systems, micro motors (MEMS, MOEMS), cables and plugs, plastic parts, various materials suchs as plastics, ceramics, biological materials, optical components, small titanium and aluminium castings.

## 360° Rotating Observation Mode



## Product Parameters

| Model No. | | HX-850CT |
|---|---|---|
| X-Ray Tube | X-Ray Tube Type | Open Microfocus Transmitted Ray source |
| | Tube Voltage Range | 25-160KV |
| | Tube Current Range | 0.01mA~1.0mA |
| | Maximum Tube Power | 64W |
| | Maximum Target Power | 10W |
| | Micro Focus Size | <1μm |
| Flat Panel Detector | Flat Panel Type | Amorphous silicon flat panel detector |
| | Pixel Matrix | 1536 x 1536 |
| | Field of View | 130mm x 130mm |
| | Resolution | 5.8Lp/mm |
| | Image Frame Rate (1x1) | 20fps |
| | AD Conversion Digits | 16bits |
| Equipment Specifications | Maximum Sample Size | 750mmx650mm |
| | Maximum Inspection Area | 550mmx550mm |
| | Image Geometric Magnification | 2000X |
| | Input Power | 220V 10A 50-60Hz |
| | Operation System | DELL Precision T7920 Image Workstation |
| | Dimensions | L1600mmxW1700mmxH2000mm |
| | Net Weight | About 2950 KG |

# HX-820FT



## High-Resolution X-Ray 3D Fluroscopy Inspection System


## Product Features

HX-820FT is a high-resolution horizontal CT system.

It adopts COMET's open X-ray tube design, and its defect inspection capability can reach 0.5um.

It can realize 3D and cone beam CT inspection methods, and is suitable for quality inspection, 3D measurement and non-destructive analyze. Equipped with high-precision of samples of different sizes

| | | |
|---|---|---|
| Equipment Specifications | Input Power | AC380V±10% 50-60Hz |
| | Control System | DELL Precision T7920 Image Workstation |
| | Dimensions | L3350mmxW1800mmxH2500mm |
| | Net Weight | About 8350KG |

## Product Parameters

| Model No. | | HX-820FT |
|---|---|---|
| X-Ray Tube | X-Ray Tube Type | Open Microfocus Transmitted Ray source |
| | Tube Voltage Range | 25-160KV/20-225KV(Optional) |
| | Tube Current Range | 0.01mA~1.0mA/3.0mA |
| | Maximum Tube Power | 64W/320W |
| | Maximum Target Power | 10W/280W |
| | Micro Focus Size | <1μm/<6μm |
| | Minimum Defect Inspection Capability | <500W/4μm |
| Flat Panel Detector | Flat Panel Type | Amorphous Silicon Flat Panel Detector (Optional) |
| | Pixel Matrix | 1536 x 1536 |
| | Field of View | 154mm x 154mm |
| | Resolution | 5Lp/mm |
| | Image Frame Rate (1x1) | 60fps |
| | AD Conversion Digits | 16bits |
| 3D/CT Parameters (Optional Function) | CT Scan Cycle | 10mm |
| | CT Reconstruction Time | 60s |

# SMART BGA REWORK EQUIPMENT

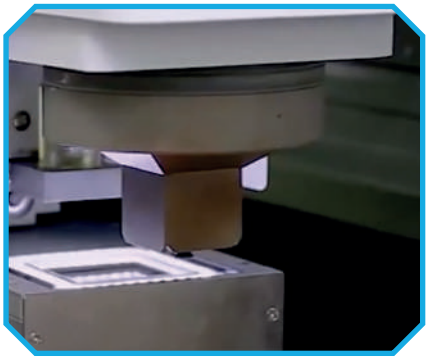
Fully automatic visual BGA rework station, automatic high-end BGA rework station, large BGA rework station, smart BGA  rework station.

# HR-865

## Smart BGA Rework Station

HR-865 is a BGA rework station with automatic visual alignment. It is suitable for automatic rework of various SMD devices on large PCB boards (such as 5G communication boards). It can realize automatic visual placement, automatic soldering, full automatic rework  Automatic desoldering function. It can be connected with MES software (optional) to realize the functions of temperature curve analysis with S/N as the traceability condition.


## Precise Visual Alignment



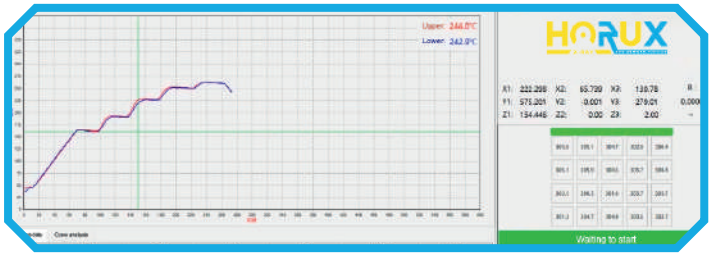
Two sets of high-definition industrial cameras are used, and the repeat placement accuracy reaches ±0.01mm. The 5 million pixels high-definition industrial camera system is for accurate measurement and positioning of the chip, the automatic vision software system automatically corrects the angle, and the image is displayed in HD.

## ESD Ionizer


Equipped with ionizer, which effecti-vely eliminates static electricity on the board and protects the product.

## Multifunctional Control Feature

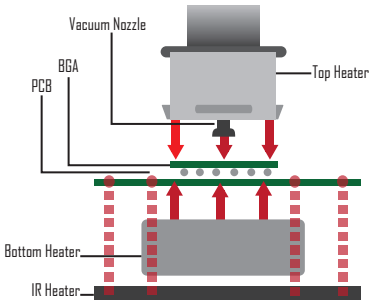
The self-developed software realizes fast positioning and stable temperature curve (with curve analysis function), easy operation and setting, and it can automatically generate record
files to achieve traceability of historical parameters.



The operation interface is simple and fast, and a professional operation interface (system parameter setting, working mode setting, heating parameter setting, data recording, etc.) is set for different product characteristics, and there are Chinese and English interfaces to choose.

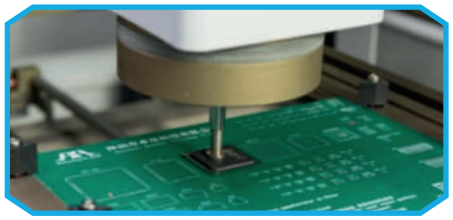
## Three Independently Programmable Heating Zones

Three heating zones independently programmed and controlled; convection hot air heating in the top heater and de bottom, the heater adopts a large area heating wire layout, suitable for the repair of larger BGA, and the infrated preheating zone uses the German imported medium wave ceramic infrated heating Plate heating. The area can reach 645×524mm.



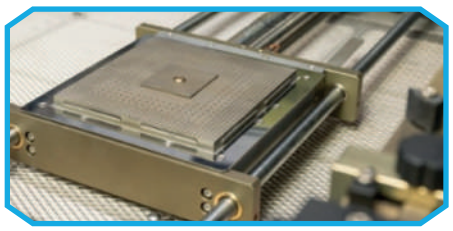

## Stable Temperature Control

High-precision K-type thermocouple with accuracy up to ± 1 ºC, dynamic PID multiloop closed control selective reflow soldering process. With intelligent temperature compensation, and automatic memory function.



## Bottom Heating System

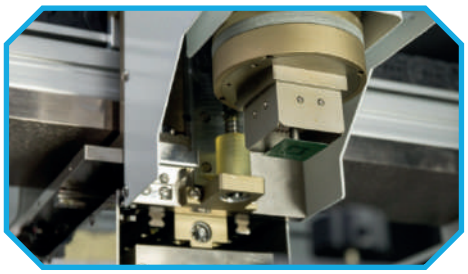
The bottom preheating adopts the heating plate imported from Germany, and the built-in temperature measuring probe is more accurate, which effectively solves the heating temperature control effect. The bottom moving temperature zone automatically moves with the head to improve the board rework efficiency.



## Product Parameters

| | |
|---|---|
| Model No. | R8650C |
| Power Supply | AC380±10% 50/60 Hz |
| Power | Total power 22KW Upper temperature (2KW) Lower temperature zone (2KW) Preheating temperature zone (16KW) Other power (2KW) |
| PCB Size | 660×600mm(Max) ; 10×10mm(Min) |
| BGA Chip Size | 100×100mm(Max) ; 1×1mm(Min) |
| IR Temp. Zone Size | 640×520mm |
| Motion Control | X/Y/Z |
| External Temp. Sensor | 8PCS |
| Control System | Industrial PC+Servo motion control system |
| Display System | 24 " SD display |
| Alignment System | 2 million visual alignment system |
| Vacuum adsorption | Full automatic |
| Alignment Accuracy | ± 0.025mm |
| Temp. Control | K-type thermocouple (closed-loop), intelligent temperature compensation system with accuracy up to ±1ºC |
| Feeding Device | Semi-automatic |
| Positioning | L-groove with universal fixture (shaped fixture can be customized) |
| Dimensions | L1235×W1215×H1850mm |
| Weight | 993.5KG |

## Precise Motion Platform



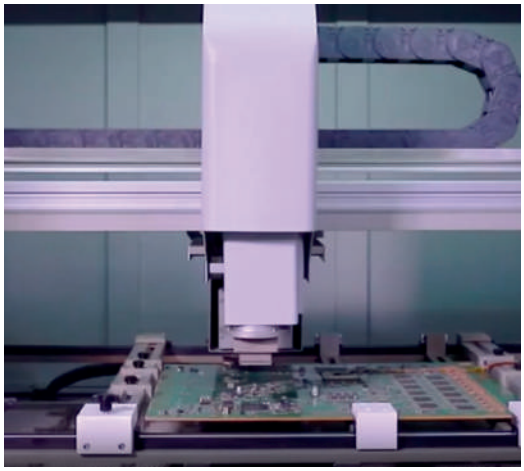
It adopts industrial PC and servo motion control system to accuracy control the X/Y/Z four-axis gantry structure to operate fully automatically and independently. It adopts a griding marble platform and a precise griding screw. The visual accuracy can reach ±0.01mm.

# HR-800B

## Large Precise Rework Station

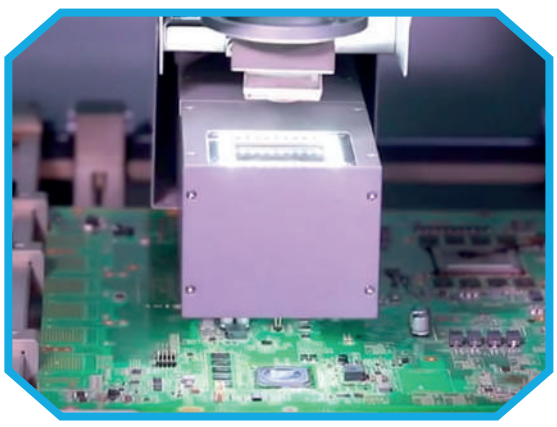

### Large Area Preheating Platform

Independent three-temperature zone, the upper temperature zone uses ceramic heaters, the preheating zone adopts German imported medium-wave ceramic infrated heating plates, each plate can be controlled independently, and the preheating area can be adjusted according to the PCB board size. The large heating area of 850 * 580mm is suitable for the repair of larger PCB boards. The preheating zone automatically adjusts the distance from the PCB board to achieve the best performance.



### HD Optical Inspection Module

Imported HD CCS (2m pixels) optical alignment system, which automatically moves the optical lens alignment through PC control servo system. 17dual screens are used to display the alignment effect and operation interface respectively. The alignment function does not interfere with the operating system and the operation is convenient.

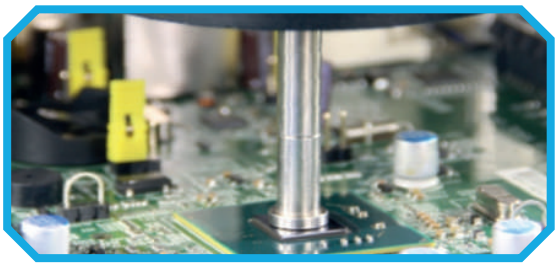


### Self-Tuning Temperature Curve

Industrial PC and servo motion control system for precise control, with multiple operating modes, real-time display and editable of temperature curves, each curve can be set to more than 12 segments, curve analysis can be performed automatically, and temperature curves can be automatically generated into massive log files and saved, which are convenient to recall the historical parameters and trace the abnormal quality. With over-temperature protection and alarm function, the software can be encrypted and foolproof.

## Automatic Feeding and Adsorption

The heating has a built-in vaccum tube for chip adsorption, electrically controlled 360 degree rotation alignment, with negative pressure monitoring, and automatic feeder device to realize automatic feeding and automatic receiving. With memory function, it can complete the desoldering and adsorption of the with one key, and the operation is simple.



## High-performance,Multi-loop Heating System

External uses 5-channel temperature measurement interface, internal adopts high-precision K-type thermo-couple with accuracy up to ± 1℃, it has dynamic PID multi-loop closed control selective reflow soldering process. At the same time, it can be connected with nitrogen heating to protect PCBA from oxidation and yellowing. Flowmeter negative pressure is precisely adjusted.

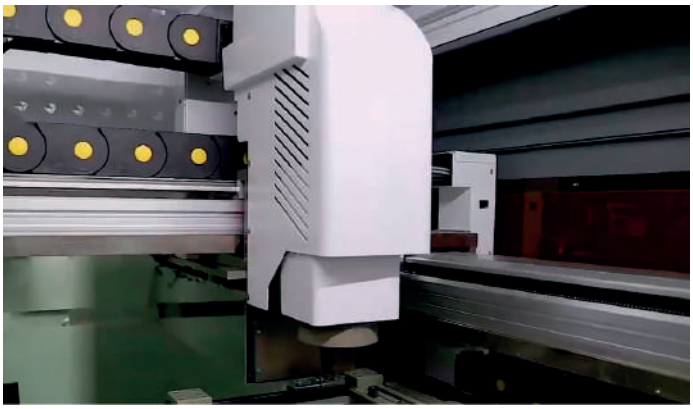
# Product Parameters

| | |
|---|---|
| Model No. | HR-800B |
| Power Supply | AC380V±10% 50/60 Hz |
| Power | Total power (29KW) Upper temperature (2KW) Lower temperature zone (2KW) Preheating temperature zone (23.2KW) Other power (1.8KW) |
| PCB Size | 800×660mm(Max) ; 10×10mm(Min) |
| BGA Chip Size | 80×80mm(Max) ; 2×2mm(Min) |
| IR Temp. Zone Size | 850×580mm |
| Motion Control | X/Y/Z |
| External Temp. Sensor | 5 PCS |
| Control System | Industrial PC+Servo motion control system |
| Display System | 17 ″ HD industrial display (1080 P16 : 9) + 17 ″ SD display |
| Alignment System | 2M pixels HD digital imaging system, automatic optical zoom, laser red-dot indicator. |
| Vacuum adsorption | Automatic |
| Alignment Accuracy | ± 0.025mm |
| Temp. Control | K-type thermocouple closed-loop control with accuracy up to ±1°C |
| Feeding Device | Yes |
| Positioning | L-groove with universal fixture (shaped fixture can be customized) |
| Dimensions | L1620×W1370×H1950mm |
| Weight | 840.5KG |

# HR-800D

## Large Precise Rework Station

HR-800D is a ultra-large high end optical alignmernt precise rework station, suitable for rework of 5G servers and large switch mainboards.




## Product Features

- The whole machine is fully ESD protected, and complies with ESD protection standards.
- The safety design of the whole machine complies with the safety design specifications of GB / T15706-2012, and the relevant safety design requirements of GB / T1967 bimanual installation.
- The heating area is independently temperature controlled, and the process temperature can be designed according to the requirements, effectively avoiding PCBA deformation caused by uneven temperature, dual-protecting the heating power devices, and preventing the damage maintenance products caused by temperature's out of control.
- With drawer loading design, the stage can be streched out, which is convenient for picking and placing the maintenance substrate.
- Using self-innovated image alignment technology can effectively solve the problem of visual alignment of large-size objects.
- The self-developmed multi-function foolproof operating system is easy to operate and can be connected with MES / SAP.
- Equipped with a high-power silent smoke extraction system, the flux volatile gas generated during the PCBA rework process can be extracted and discharged in time.

## Product Parameters

| | |
|---|---|
| Model No. | HR-800D |
| Power Supply | AC380V±10% 50/60Hz |
| Total Power | 33.8KW Max |
| Heating Power | Upper temperature zone(2KW) Lower temperature zone(2KW) IR temperature zone(28KW) Other power(1.8KW) |
| Control System | Industrial PC + servo motion control system |
| Alignment Accuracy | ±0.25mm(X,Y axis) |
| Temp. Control | K type thermocouple closed-loop control with accuracy up to ±1℃/S |
| Heating Method | Top heating+Bottom heating+Mobile IR heating |
| External Temp. Sensor | 6PCS |
| Positioning | L-groove with universal fixture (shaped fixture can be customized) |
| PCB Size | 850×660mm (Max); 50×50mm (Min) |
| Temperature control | Full closed-loop control, temperature overshoot / fluctuation does not exceed 5℃, can automatically monitor the heating working status. |
| Cooling | Wind cooling |
| Cooling Rate | Rapid cooling, 200-100°C single board cooling rate 0.8-1°C/S |
| Mounting Pressure | <5N |
| Dimensions | L1671×W17771×H1928mm |
| Weight | 929KG |

# HR-900

## Super Large Board Disassembly Preheating Platform

HR-900 super large preheating platform is suitable for the rework of surface mounting devices for 5G and other large servers.

### Independent Dual-heating Zone Temperature Control System

HR-900 can be heated from the top of the components, supplemented by large-area infrated heating, can quickly solder various surface mounting devices, freely select through software for top or bottom heating energy, which can be quickly preheat to the specified temperature detection, and analyze and calibrate the temperature curve of the actual collected rework devices in real time.

### Temperature Control

HR-900 temperature control adopts high-precision controller, K-type thermocouple closed-loop control and smart temperature compensation system. The bottom and sides of the heating table are equipped with heat dissipation system, which can control the temperature curve more accurately. The top heating device is designed independently, and the alignment point and heating point are manually controlled to achieve fixed-point heating.

### Soldering Flux Smoke Extraction System

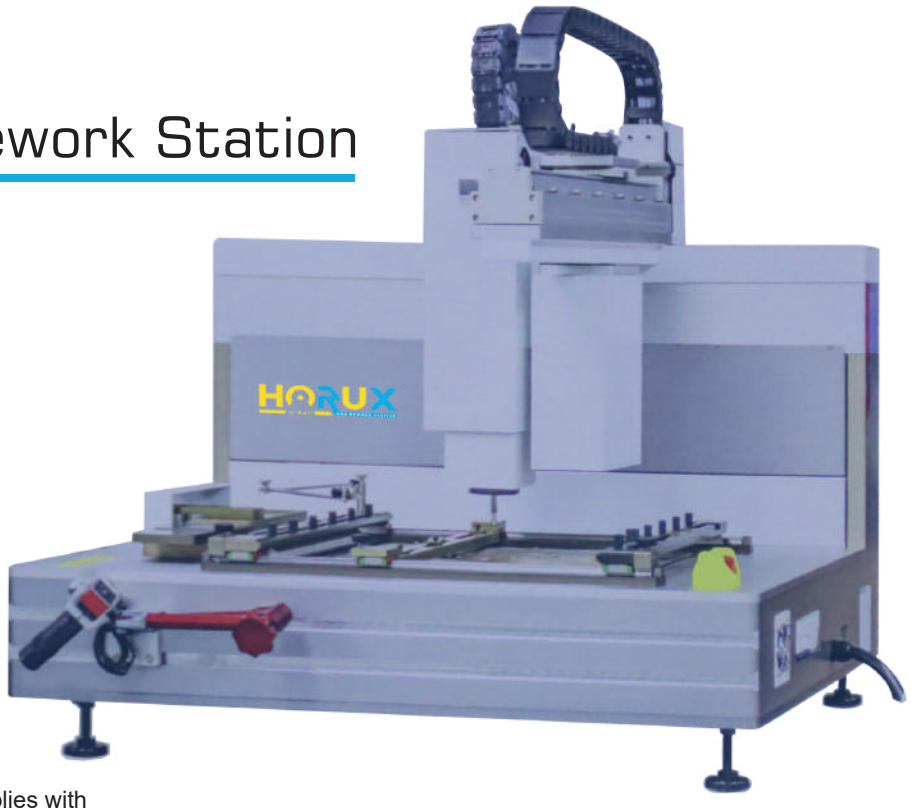
Equpped with a high-power silent smoke extraction system, the flux volatile gas generated during the PCBA rework process can be extracted and discharged in time.

### Product Parameters

| | |
|---|---|
| Model No. | HR-900 |
| Power Supply | AC380V±10% 50/60Hz |
| Total Power | 21.5KW Max |
| Heating Power | Top heater 1.5KW Bottom heater 19.2KW Other 0.8KW |
| Heating Temp. | Top temp. 550°C max Bottom temp. 400°C max |
| Temp. Control | K type thermocouple closed-loop control with accuracy up to ±1ºC |
| PCB Size | 850×700mm (Max) ;100×50mm (Min) |
| Heating Area | 780×520mm |
| External Temp. Sensor | 4 PCS |
| Dimensions | L1500×W960×H1970mm |
| Weight | 438.5KG |

# HR-790

## Desktop Precise Rework Station




## Product Features

- The safety design of the whole machine complies with the safety design specifications of GB / T15706-2012, and the relevant safety design requirements of GB / T19671 bimanual installation;
- Independent temperature control of the heating area, the process temperature can be designed according to the requirements, and the deformation and warpage of the PCBA caused by the uneven temperature can be effectively avoided;
- Equipped with a high definition external camera, which can clearly observe the melting status of the product;
- High-precision hardware and self-innovative visual alignment software algorithm make the product fit perfectly;
- Equipped with a cooling system with large air volume, so that the cooling rate of the solder joint temperature can reach: 1.0°C/s≤Slope≤3.0°C/s;
- Automatic flux scraping device, automatic dipping flux;
- All fans and blowers have the ability to remind and alarm when overloaded or blocked;
- Key parameter collection: equipment system version, product program version, suction power, top main heating temperature, bottom main heating temperature, top main heating air volume, bottom main heating air volume;
- Operator login information, program operation records and temperature curves can be automatically saved, and the records can be traced;
- The heating device adopts a double protection mechanism, it will automatically alarm when the top/bottom heating wire is blown/invalid, preventing the phenomenon that the product is damaged due to the sensor failure.

## Product Parameters

| | |
|---|---|
| Model No. | HR-790 |
| Power Supply | AC380V±10% 50/60Hz |
| Power | Power: Total power 9.05KM upper hot air (1KW) preheating zone (7.2KW) others (0.85KW) |
| PCB Size | 400×400mm (Max) ; 80×80mm (Min) |
| Applicable Chip. | 45×45mm (Max) ; 7×7mm (Min) |
| IR Temperature Zone Size | 400×400±10mm |
| External Temp. Sensor | 6PCS |
| SMD pressure | <5N |
| SMD accuracy | ±0.05mm |
| Control System | Industrial PC + motion control system |
| Temperature Control | K-type thermocouple closed-loop control, temperature accuracy range of 1°C |
| Stroke Accuracy | ±0.02mm |
| Dimensions | L890×W730×H750 mm |
| Weight | 148 KG |

# HR-785A

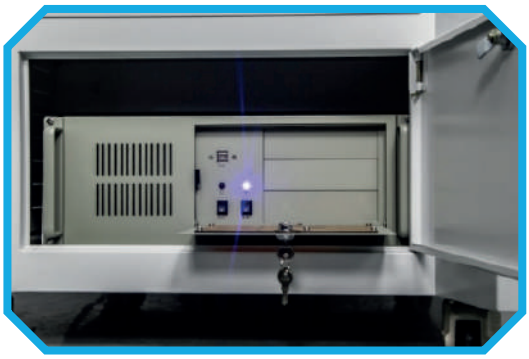
## Optical Alignment Automatic Rework Equipment


### Convenient Temperature Setting and Saving

Three temperature zones, independently controlled by programming, convenient and quick setting of temperature parameters and temperature saving records, the top zone uses ceramic heaters, built-in vacuum tube is used for chip adsorption, electric control 360 degree rotation alignment, with pressure protection device, dual over-temperature protection and alarm function, software design has encryption and foolproof functions.

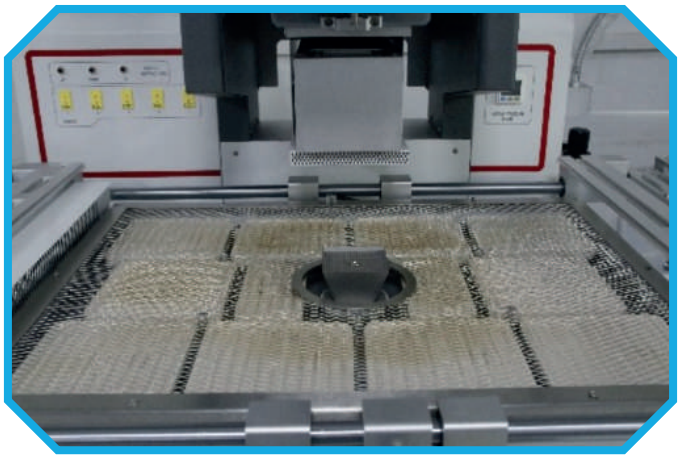
### Multifuncitonal Control Features

Industrial PC control, it can set a variety of operating modes, real-time display of temperature curve, each curve can be set to more than 12 segments, it can automatically analyze the curve, to generate a large number of log files to facilitate the recall of historical parameters for traceability.



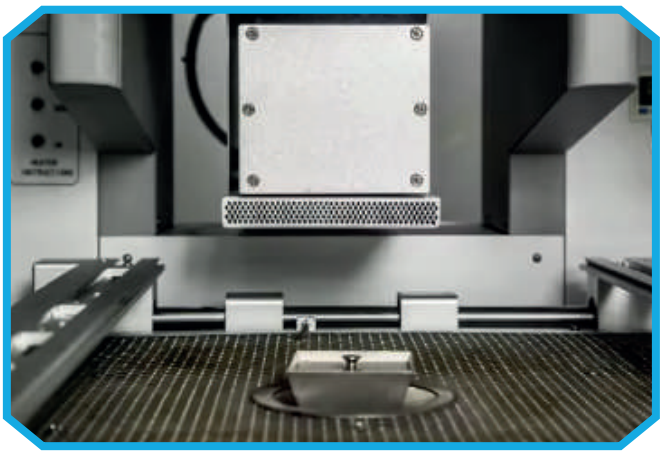
## Bottom Heating System

The medium-wave ceramic infrared heating plate imported from Germany is adopted, and the bottom temperature zone can be independently heated to adjust the distance from the PCB. Fast temperature rise and high temperature control accuracy can effectively solve PCBA preheating and rework temperature.



## Smoke Purification System

The built-in three-level smoke purification system can filter and purify the toxic gas generated in the work, effectively protecting the environment.

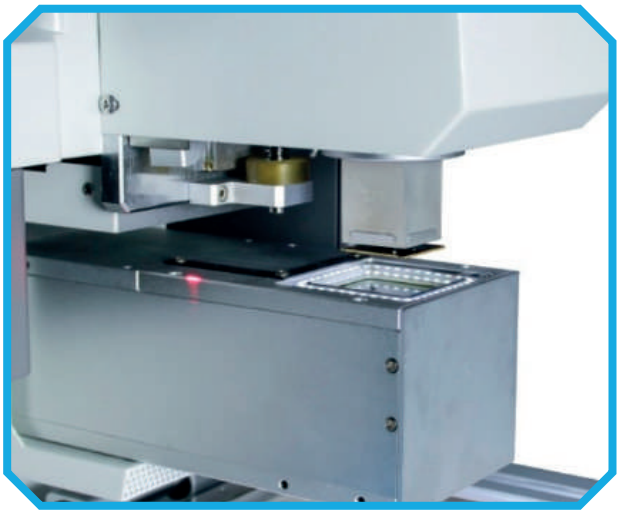


## Product Parameters

| | |
|---|---|
| Model No. | HR-785A |
| Power Supply | AC380V±10% 50/60HZ |
| Power | 9.85KW(Max), Top heater(1.45KW) Bottom heater (1.2KW), IR Preheater (6.6KW), Other(0.6KW) |
| PCB Size | 635×520mm(Max);6×6mm(Min) |
| BGA Chip Size | 80×80mm(Max);2*2mm(Min) |
| IR Heater Size | 565×435mm |
| Motion Control | X/Y/Z |
| Temperature Sensor | 5 PCS |
| Control System | Industrial PC+ Motion control system |
| Display System | 15" HD industrial display (1080P 16:9)+18.5" SD display |
| Alignment System | 2 Million Pixel HD digital imaging system, automatic optical zoom with laser red-dot indicator |
| Vacuum Adsorption | Automatic |
| Alignment Accuracy | ±0.01mm |
| Temperature Control | K-type thermocouple closed-loop control with accuracy up to ±1℃ |
| Feeding Device | Yes |
| Positioning | V-groove with universal fixture (shaped fixture can be customized) |
| Dimensions | L835×W960×H1640mm |
| Weight | 218.5KG |

## Optical Alignment Module

CCD (2m pixels) optical alignment system, through the PC control system X/Y automatically move the optical lens alignment, using 15´ HD industrial display (1080P 16: g) and 18.5´ SD display operation. Equipped with automatic feeding device to realize feeding and receiving automatically.



# HR-783A

## Optical Alignment Automatic Rework Equipment

## Excellent Performance Features

- Multilingual menu interface.
- Automatic feeding device.
- X/Y axis can be controlled by joystick, operation is quick and convenient.
- Imported high-definition CCD (2m pixels) optical alignment system.
- High-precision temperature control sensing system.

### X/Y/Z Axis Automatic Discplacement

The top temperature zone of the Laser SMD Rework Station is controlled by the joystick control servo system, which can automatically move and align at fast/slow speed by X/Y/Z Axis.

### Vacuum Adsorption and Nitrogen Protection

The top heating head has a built-in vacuum suction nozzle for chip adsorption, electrically controlled 360-degree rotation alignment, with negative pressure monitoring and pressure protection device. The bottom temperature zone of the Laser SMD Rework Station adopts a large-area heating wire layout, moves symmetrically with the top temperature zone, and can be connected with nitrogen to prevent PCBA from yellowing.

### Product Parameters

| | |
|---|---|
| Model No. | HR-783A |
| Power Supply | AC380V±10% 50/60HZ |
| Power | 7.15KW(Max), Top heater(1.45KW), Bottom heater (1.2KW), IR Preheater (4KW), Other(0.5KW) |
| PCB Size | 565×467mm(Max); 6×6mm(Min) |
| BGA Chip Size | 80×80mm(Max); 2×2mm(Min) |
| IR Heater Size | 500×380mm |
| Motion Control | X/Y/Z |
| Temperature Sensor | 5 PCS |
| Operation Method | 8" HD touch panel |
| Control System | Panasonic PLC + Temperature control module |
| Display System | 15" HD industrial display ( 1080P 16:9) |
| Alignment System | 2 Million Pixel HD digital imaging system, automatic optical zoom with laser red-dot indicator |
| Vacuum Adsorption | Automatic |
| Temperature Control | K-type thermocouple closed-loop control with accuracy up to ±1℃ |
| Feeding Device | Yes |
| Positioning | V-groove with universal fixture |
| Dimensions | L810×W1100×H960mm |
| Weight | 151KG |

# HR-730A

## Automatic Optical Alignment Rework Equipment

## HD Optical Alignment and Intelligent Control

Equipped with automatic feeding device, using Panasonic PLC and high-precision temperature control module, high-precision K-type thermo-couple, dynamic PID multi-loop closed-loop control selective reflow soldering process, the accuracy can reach ± 1°C. Over temperature protection alarm function, software encryption and foolproof function.

### Stable Temperature Control

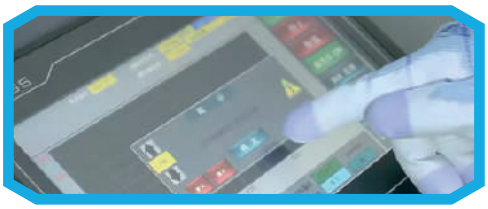
Three temperature zones independently control, heated by convection hot air, the height of the bottom temperature zone is adjustable, the top temperature zone has a built-in vacuum suction nozzle for chip adsorption, with negative pressure monitoring and pressure protection device.

### Mobile Infrated Temperature Zone

The IR preheating zone is heated by a carbon fiber infrared tube and protected by a high-temperature resistant microcrystalline panel. It can move left and right to facilitate maintenance of large and irregular PCBA.

### Large HD Touch Screen

Large HD touch screen operation with a variety of operation modes, real-time display, and edit temperature curve, each group of temperature curve can be set to 8 segments, can store 100 groups of temperature curve, can automatically analyze the curve, read through touch screen control.



### Product Parameters

| | |
|---|---|
| Model No. | HR-730A |
| Power Supply | AC380V±10% 50/60HZ |
| Power | 7.75KW(Max), Top heater(1.45KW) Bottom heater (1.2KW), IR Preheater (4.8KW), Other(0.3KW) |
| PCB Size | 632×520mm(Max); 6×6mm(Min) |
| BGA Chip Size | 80×80mm(Max); 3×3mm(Min) |
| IR Heater Size | 570×435mm |
| Temperature Sensor | 5 PCS |
| Operation Method | 10" HD touch panel (1080P 16:9) |
| Control System | Panasonic PLC + Temperature control module |
| Display System | 15" HD industrial display ( 1080P 16:9) |
| Alignment System | 2 Million Pixel HD digital imaging system, automatic optical zoom with laser red-dot indicator |
| Vacuum Adsorption | Automatic |
| Alignment Accuracy | ±0.01mm |
| Temperature Control | K-type thermocouple closed-loop control with accuracy up to ±1°C |
| Feeding Device | Yes |
| Positioning | V-groove with universal fixture |
| Dimensions | L1000×W835×H960mm |
| Weight | 130.5KG |

# HORUX

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