ATiS®

Automatic Test Instrument
for Semiconductor

PRODUCT CATALOGUE

From the micro to the macro,
empower by technology to
create extraordinary value
for our clientele

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ZHEJIANG HANGKE INSTRUMENT CO., LTD

ATiS®

Advanced
Technology
Innovative
Solution

VISION

Always provide high-quality products, services and solutions.Build a symbiotic partnership with our clientele, and win-win.

Never stop pursuing the evolution of technology, operating system and user experience.Try to be an extraordinary company with global competitiveness.

Always maintain the spirit of open, pioneering, create and share.Became an outstanding platform for every go-getter.

SENSE OF WORTH

Customer-centric, employees-based.

Taking quality as the core and integrity as the essence.

Taking innovation as the goal and pragmatism as the foundation.

ATiS® Zhejiang Hangke Instrument Co., Ltd
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ATiS®

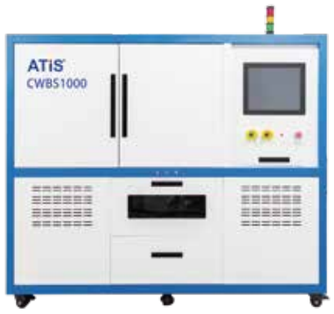
Wafer-level reliability test system | CWBS1000 | 1 ZONE

The system is suitable for electrical reliability test for controllable high-temperature for 6/8-inch wafer-level devices based on JEDEC reliability test standard; It provides high-precision and high-voltage output, and saves records high-precision current, controllable temperature and other parameters, and according to the recorded test data, export experiment tables and MAP diagrams in multiple formats.

- Customized high-temperature adjustment semi-automatic probe station, supporting ⩽5 wafers simultaneous burn-in test
- Support the independent protection function of each wafer die, and control the over-current and over-voltage beyond the limit
- Support nitrogen protection to prevent wafer oxidation, and support overvoltage protection when filling
- Support to change the Burn-in Board or probe card to different package devices for test
- Support wafer mounting contact spot detection, real-time temperature and pressure detection
- Support HTGB, HTRB and other burn-in test functions, Vth/IDS/IGS and other parameters of automatic testing and data analysis
- Support built-in wafer layout MAP configuration, real-time display of data and query of historical data
- Support access to the centralized control station (smart core protection cloud) system, customized docking with the MES system

CWBS1000 Product Features

Test temperature zone	1 (Support customization ⩽5)
Test temperature	RT~200℃
Applicable products	GaN/SiC and other 6-inch and 8-inch wafers
Multi-station parallel test	1 (Support customization ⩽5)
Temperature overshoot	<2℃
Grid voltage range (accuracy)	±60V (0.1%±10mV)
Grid current range (accuracy)	HTGB: 0.1nA~1uA (1%±100pA) Vth: 0~20mA (0.1%±20uA)
Source voltage range (accuracy)	50~2000V (0.5%*Vmax±1V)
Source current range (accuracy)	1nA~1mA (1%±5nA)
Voltage and current overshoot	HTRB overshoot<2%, HTGB overshoot<200mV
Methods of communication	TCP network/485 serial port
Operating system	Windows 7 and above
MES system interface	Customize and integrate with third-party systems and data
Total weight	850Kg
Dimensions of machine	2050mm(W)x1400mm(D)x1750mm(H)
Single-chamber size	1920mm(W)x1250mm(D)x300mm(H)



Applicable standards

AEC-Q101 JEP183 IEC60749-23 JESD22-A108F

Applicable components

For high-temperature and high-voltage reliability test of wafers such as GaN/SiC, and automatic test and data analysis of Vth, Igs, Ids and other parameters.

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Large scale integrated circuit burn-in test system

LSIC7000

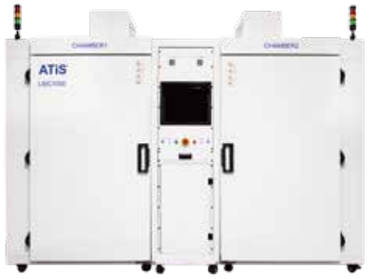
16 ZONE/32 SLOTS

The system supports dual temperature zones, and can carry out HTOL burn-in test at room tempera -ture +10°C~+150°C, and detect the output signal of the device in real time during the burn-in process, in which the vectors are automatically compared.

- Each burn-in board provides 8 programmable power supplies (0.5~10V/0~25A), and the power supply specifications can be customized individually
- Each burn-in board is available with 184 DR channels and 32 bidirectional I/O channels
- Each chamber can support up to 4 kw of heat dissipation
- Vector files in STIL, VCT, VEC formats can be directly imported and used
- Chip BIST test is allowed
- Fully compatible with DL601H machined burn-in boards, plug and play
- Full experimenter human safety considerations are set

LSIC7000 Product Features

Test temperature zone	2
Test temperature	RT +10℃~+150℃
Burn-in test zone	16 ZONE/32 SLOTS
Digital signal frequency	12.5MHz
Vector depth	16M depth
Signal channels	184 channels (including 32 bidirectional I/O)
Clock groups	8
Signal period	80~20480nS
Timing edge	2 edges
PIN format	8 types
Programmable VIH	0.5~5V
Voltage compare range	0.5~5V
I/O drive current	DC≥50mA, Instantaneous current≥80mA
DPS power supply	0.5~6.0V/25A (10V/10A optional)
DPS power supplies	8 (can be configured according to customer requirements)
DPS output protection	OVP (Overvoltage), UVP (Undervoltage), OCP (Overcurrent)
Machine power supply	Three-phase AC380V±38V
Maximum power	35KW (typical)
Total weight	1600Kg (typical)
Dimensions of machine	3200mm(W)×1675mm(D)×2370mm(H)



Applicable standards

MIL-STD-883 MIL-STD-38510 AEC-Q101

Applicable components

For general-purpose integrated circuit memory, FPGA, ARM, DSP and other VLSI.

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Large scale integrated circuit burn-in test system

LSIC9000

2X16 ZONE

The system can perform HTOL test on the chip at room temperature +10°C~+150°C. The output signal of the component is monitored in real time and the vector is automatically compared during the burn-in process.

- Each burn-in board provides 10 programmable power supplies (0.5~10V/0~25A), and the power supply specifications can be customized individually
- Each burn-in board is available with 256 bidirectional I/O channels
- Each chamber can support up to 38kw of heat dissipation
- Vector files in STIL, VCT, VEC formats can be directly imported and used
- Chip BIST test is allowed
- Supports up to 24 independent temperature control workstations
- Full experimenter human safety considerations are set

LSIC9000 Product Features

Test temperature zone	1
Test temperature	RT +10℃~+150℃
Burn-in test zone	32
Digital signal frequency	10MHz
Vector depth	16M depth
Signal channels	256 independent programmable bidirectional I/O
Clock groups	8
Signal period	80~20480nS
Timing edge	2 edges
PIN format	8 types
Programmable VIH	0.5~5V
Voltage compare range	0.5~5V
I/O drive current	DC≥100mA, Instantaneous current > 200mA
DPS power supply	0.5~6.0V/25A (10V/10A, 6V/50A optional)
DPS power supplies	10 (can be configured according to customer requirement)
DPS output protection	OVP (Overvoltage), UVP (Undervoltage), OCP (Overcurrent)
Machine power supply	Three-phase AC380V±38V
Maximum power	100KW (typical)
Total weight	2200Kg (typical)
Dimensions of machine	2800mm(W)×1480mm(D)×2310mm(H)

Applicable standards

MIL-STD-883 MIL-STD-38510 AEC-Q101

Applicable components

For general-purpose VLSI circuits, SoC, FPGA, ARM, AI, and low-power GPUs.

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IGBT power cycle test system | PC1800A/3000A/3600A | 3 ZONE

The system is suitable for power cycling test of various sizes of IGBT modules and uses the advanced JEDEC static test method (JESD51-1) to generate temperature changes by varying the input power of the electronic component. During the change, through transient temperature response curve of the tested chip and data processing of the test waveformto obtain the full thermal characteristics of the electronic component.

- Supports minute/second power cycling test
- Equipped with oil-cooled platform, which can quickly and automatically calibrate the K-factor of the component
- Fixture supports adjustable strength and depth for effective clamping of different packaging of modules
- With solenoid water valve, can automatically adjust the cooling water flow according to the actual situation, or manually adjust
- Through the transient temperature response curve of the test component, data processing of the test waveform to obtain the comprehensive thermal characteristics of the electronic component
- Full experimenter human safety considerations are set

PC1800A/3000A/3600A Product Features

Test temperature zone	2
Test temperature	Water cooling plate: +10℃~+80℃ Oil cooling plate: -10℃~+150℃
Burn-in test zone	3
Constant temperature system control accuracy	water cooling system: ±0.5℃ Oil cooling system: ±0.1℃
Junction temperature test accuracy	±2℃
Cold plate and shell temperature testing accuracy	±2℃
Heating current	600A/zone (supporting three zones in parallel 1800A) 1000A/zone (supporting three zones in parallel 3000A) 1200A/zone (supporting three zones in parallel 3600A)
Test current	±(10~1000mA)
Test current accuracy and resolution	±(0.3%+2mA), resolution 0.1mA
Machine power supply	Three-phase AC380V±38V
Maximum power	30KW (typical)
Total weight	500Kg (typical)
Dimension of machine (without water cooler)	1400mm(W)×900mm(D)×1300mm(H)

Applicable standards

JESD51 AQG324

Applicable components

For various sizes of IGBT module and MOS module.

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ATiS®

IGBT power cycle test system | PC1800C/3000C/3600C | 3 ZONE

The system is suitable for power cycling test of various sizes of IGBT modules and uses the advanced JEDEC static test method (JESD51-1) to generate temperature changes by varying the input power of the electronic component. During the change, through transient temperature response curve of the tested chip and data processing of the test waveformto obtain the full thermal characteristics of the electronic component.

- Supports minute/second power cycling test
- Equipped with oil-cooled platform, which can quickly and automatically calibrate the K-factor of the component
- Fixture supports adjustable strength and depth for effective clamping of different packaging of modules
- With solenoid water valve, can automatically adjust the cooling water flow according to the actual situation, or manually adjust
- Through the transient temperature response curve of the test component, data processing of the test waveform to obtain the comprehensive thermal characteristics of the electronic component
- Full experimenter human safety considerations are set

PC1800C/3000C/3600C Product Features

Test temperature zone	3
Test temperature	Water cooling plate: +10℃~+80℃
Burn-in test zone	3
Constant temperature system control accuracy	water cooling system: ±0.5℃
Junction temperature test accuracy	±2℃
Cold plate and shell temperature testing accuracy	±2℃
Heating current	600A/zone (supporting three zones in parallel 1800C) 1000A/zone (supporting three zones in parallel 3000C) 1200A/zone (supporting three zones in parallel 3600C)
Test current	±(10~1000mA)
Test current accuracy and resolution	±(0.3%+2mA), resolution 0.1mA
Machine power supply	Three-phase AC380V±38V
Maximum power	30KW (typical)
Total weight	500Kg (typical)
Dimension of machine (without water cooler)	1400mm(W)×900mm(D)×1300mm(H)

Applicable standards

JESD51 AQG324

Applicable components

For various sizes of IGBT module and MOS module.

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Integrated circuits dynamic high temperature burn-in test system

GPIC2010

16/32/48 ZONE

The system adopts TDBI technology and can perform HTOL burn-in test at room temperature +10°C~+200°C. The current and output signal of the component are monitored in real time during the burn-in process.

- Real-time monitoring of the current and output signal of the component
- With gold finger connector
- Customized burn-in test board according to different component packaging, power and other requirements
- Full experimenter human safety considerations are set

GPIC2010 Product Features

Test temperature zone	1
Test temperature	RT +10℃~+200℃
Burn-in test zone	48 (16/32 zone optional)
Digital signal frequency	10MHz (optional 20MHz)
Digital signal programming depth	8 Mbit channel
Digital signal programming step	50nS~0.5S
Digital signal channels	64 channels
Digital signal mode	Support signal cycle
Maximum driving current of digital signal	Ioh≥150 mA, Iol≥150 mA
Analog signal output channel	4
Maximum driving current of analog signal	0.5A
Analog signal frequency	1Hz~2MHz
Analog signal synchronization phase	≤1°
Analog signal type	Arbitrary waveforms such as sine, triangle, leading -edge sawtooth, trailing-edge sawtooth
Secondary power supply	4 channel, 0.5~18V/10A
Current detection range	0~10A
Voltage detection range	0~18V
Machine power supply	Three-phase AC380V±38V
Maximum power	20KW (typical)
Total weight	950Kg (typical)
Dimensions of machine	1700mm(W)×1400mm(D)×2000mm(H)

Applicable standards

MIL-STD-883 MIL-STD-38510

Applicable components

For various analog circuits, digital circuits, digital-analog hybrid, opto-couplers, MCU, FPGA and other general-purpose integrated circuits.

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Dynamic high temperature reverse bias burn-in test system

DHTRB2000

8 ZONE

The system performs dynamic high temperature reverse bias burn-in test for SiC MOS transistor with reference to AQG324 test method. Up to 12 stations can be tested in each test area, with independent pulse source configurations. RT~200°C test temperature is available for the device. It has the function of short-circuit disengagement test of test device, which can automatically detach the faulty device from the burn-in test without affecting the normal test of other devices.

- dv/dt>50V/ns (Coss<300pF)
- 2us overcurrent protection
- It can be heated independently at room temperature RT~200°C, and is compatible with static HTRB test
- Full experimenter human safety considerations are set

DHTRB2000 Product Features

Test temperature	RT~200℃ (thermal plate)
Burn-in test zone	8 (scalable)
Stations per zone	12 (typical)
Test Method	Active: V_{GS}, off = V_{GS}, min and V_{GS}, on = V_{GS}, max Passive: V_{GS} = V_{GS}, min recom
Voltage range	50~1200V
Voltage accuracy	Detection deviation: ±(2%+1V)
Pulse control	1. Pulse frequency (square wave): 0kHz~100kHz; Accuracy: 2%±2LSB (The maximum frequency depends on the voltage, DUT capacitance) 2. Square wave duty cycle 20%~80%; Accuracy: ±2% 3. Voltage rise rate (dv/dt) ≥50V/ns (Coss < 300pF) 4. Voltage overshoot<15% (Vpp > 960V)
VGS voltage test & control range	-0.7V~ -20V/0V
Leakage current detection	Detection range: 0.1uA~20mA. Accuracy: Option1: 0.1uA~0.999uA resolution 0.01uA accuracy: 1%±0.02uA Option2: 1.00uA~99.9uA resolution 0.1uA accuracy: 1%±0.2uA Option3: 100uA~999uA resolution 1uA accuracy: 1%±2uA Option4: 1.0mA~20.00mA resolution 0.1mA accuracy: 1%±0.2mA
Machine power supply	Three-phase AC380V±38V
Total weight	700Kg (typical)
Dimensions of machine	800mm(W)x1400mm(D)x1950mm(H)

Applicable standards

AEC-Q101 AQG324 JESD22-A108 JEDEC JEP183A

Applicable components

For SiC, GaN, IGBT module, MOS transistor

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Dynamic high temperature gate bias burn-in test system

DHTGB2010 | **8 ZONE**

The system performs dynamic high temperature gate bias burn-in test capabilities for the third-generation SiC MOS transistor, and each test area can independently burn up to 12 work stations. independently 12 configurable pulses, and the leakage current of the test gate does not interfere with each other. The device is available at RT ~ 200℃. It has the function of short-circuit disengagement test of test device, which can automatically detach the faulty device from the burn-in test without affecting the normal test of other devices.

- High-speed dv/dt>1V/ns
- nA leakage current test
- Threshold value voltage test
- Customized burn-in test boards are available for different device packaging, power requirements, etc.
- Full experimenter human safety considerations are set

DHTGB2010 Product Features

Test temperature	RT~200°C (thermal plate)
Burn-in test zone	8 (scalable)
Stations per zone	12 (typical)
Test method	V_{DS} = 0V V_{GS}, off = V_{GS}, min, recom and V_{GS}, on = V_{GS}, max
VGS voltage control detection	Test control range: ±30V Detection deviation: ±(1%+2LSB) Voltage resolution: 0.01V
Pulse control	1. Pulse frequency (square wave): 0kHz~500kHz; Accuracy: 2%±2LSB (The maximum frequency depends on the voltage, DUT capacitance) 2. Square wave duty cycle 20%~80%: Accuracy:±2% 3. During the dynamic D_{GS} test, the slope of the grid pole voltage can reach dv/dt>1V/ns (Ciss < 5nF) 4. Voltage overshoot<10% (test voltage amplitude is greater than 25V)
Alarm voltage VGSTH	1. V_{GS} voltage test & control range: 1~10V (100nA~50mA constant current source) 2. Resolution: 0.01V, Accuracy: 1%±0.01V
IGS leakage current detection	Detection range: 1nA~99.9uA Option1: 1nA~99nA resolution 1nA leakage current detection deviation: 1%±2LSB Option2: 100nA to 999nA resolution 10nA Leakage current detection deviation: 1%±2LSB Option3: 1uA~99.9uA resolution 100nA Leakage current detection deviation: 1%±2LSB
Machine power supply	Three-phase AC380V±38V
Total weight	700Kg (typical)
Dimensions of machine	800mm(W)x1400mm(D)x1950mm(H)

Applicable standards

AEC-Q101 AQG324 JESD22-A108 JEDEC JEP183A

Applicable components

For SiC, GaN, IGBT module, MOS transistor

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Dynamic high temperature high humidity reverse bias burn-in test system

DH3TRB2000 | **14/16 ZONE**

The system performs dynamic high temperature and humidity reverse bias burn-in test for SiC MOSFET with reference to AQG324 for the test method. Up to 6 stations can be tested in each test area, with independent pulse source configurations. A standard 85°C/85%RH test environment is available for the device. It has the function of short-circuit disengagement test of test device, which can automatically detach the faulty device from the burn-in test circuit without affecting the normal test of other devices.

- nA-level leakage current detection accuracy
- dv/dt > 30v/ns (Coss < 300pF)
- The whole machine is refreshed in 30s for full-station data
- Unique high-voltage suppression circuit, the instantaneous breakdown of the device does not affect the burn-in process of other stations
- The independent control function of the burn-in voltage of the station can be customized to realize the over-limit rejection of the burn-in of a single station
- Full experimenter human safety considerations are set

DH3TRB2000 Product Features

Test temperature	RT +10℃~+150℃
Test humidity	10%RH~98%RH
Test Method	V_{GS}, off = V_{GS}, min and V_{GS}, on = V_{GS}, max
Burn-in test zone	14 (14/16 zone Optional)
Stations per zone	6 (typical)
Voltage detection range	50V~1200V
Voltage detection accuracy	Detection deviation; ±(2%+1V)
Pulse control	1.Pulse frequency (square wave): 10kHz~50kHz; Accuracy: 2%±2LSB 2.Square wave duty cycle 20%~80% Accuracy:±2% 3.Voltage rise rate (dv/dt) ⩾30V/ns (Coss < 300pF) 4.Voltage overshoot depends on the amplitude of the pulse voltage, the maximum does not exceed 0.95V_{DS}
VGS voltage test & control range	Passive: -0.7V~ -20V/0V Active: Customized according to the device: V_{GS} voltage: Positive voltage18V, 20V, 22V, 3 options: Negative voltage -3V, -5V, 2 options
Leakage current detection	Detection range: 0.1uA~20mA Accuracy: Option1: 0.1uA~0.999uA resolution 0.01uA accuracy: 1%±0.02uA Option2: 1.00uA~99.9uA resolution 0.1uA accuracy: 1%±0.2uA Option3: 100uA~999uA resolution 1uA accuracy: 1%±2uA Option4: 1.0mA~20.00mA resolution 0.1mA accuracy: 1%±0.2mA
Machine power supply	Three-phase AC380V±38V
Total weight	1200Kg (typical)
Dimensions of machine	2000mm(W)x1505mm(D)x1950mm(H)

Applicable standards

AEC-Q101 AQG324 JESD22-A108 JEDEC JEP183A

Applicable components

For SiC, GaN, IGBT module, MOS transistor

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High temperature reverse bias burn-in test system

HTRB2000

16/32/40/48 ZONE

The system can perform the high temperature reverse bias burn-in test at room temperature +10℃~+200℃. During the burn-in process, it can monitor the leakage current state and voltage state of the tested component in real time, record and export the burn-in test data as required.

- nA level leakage current detection accuracy
- 30s full station data refresh of the machine
- Unique high-voltage suppression circuit, instantaneous breakdown of components, without affecting burn-in process of other stations
- Customized independent control function of burn-in voltage of the work station to eliminate the burn-in overrun of a single station
- Customizable positive and negative power supplies to achieve simultaneous application of bias voltage to the upper and lower bridges of the module
- Full experimenter human safety considerations are set

HTRB2000 Product Features

Test temperature zone	1
Test temperature	RT +10℃~+200℃
Burn-in test zone	16 (16/32/40/48 zone optional)
Stations per zone	80 (typical)
Burn-in voltage range	0~±2000V
Voltage detection accuracy	±(1%+2LSB)
Current detection range	10nA~50mA
Current detection accuracy	±(1%+10nA)
Machine power supply	Three-phase AC380V±38V
Maximum power	8KW (typical)
Total weight	680Kg (typical)
Dimensions of machine	1400mm(W)×1400mm(D)×2000mm(H)

Applicable standards

MIL-STD-750D AQG324

Applicable components

For MOS transistor, diode, triode, IGBT module, PIM module, SCR, etc.

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High temperature reverse bias burn-in test system

HTRB3100

8 ZONE

The system can perform high-temperature reverse bias burn-in testing at room temperature +10℃~+200℃, and monitor the leakage of the tested device in real-time during the burn-in process Current state, voltage state of the tested device, and record burn-in test data as needed, and export test reports.

- Using a hot platform heating method to heat the device
- Each device can realize an independent heating platform and independent temperature control
- Good heat transfer characteristics, aiming at the high temperature and high leakage characteristics of IGBT modules/discrete devices, it can achieve stable HTRB test at 175Tj
- The independent protection function can be customized to realize the single-station overrun cut-off
- Full experimenter human safety considerations are set

HTRB3100 Product Features

Test thermal platform	32~48
Test temperature	RT +10℃~+200℃
Burn-in test zone	8
Voltage detection range	-2000V~+2000V
Voltage detection accuracy	±(1%+2LSB)
Current detection range	10nA~50mA
Current detection accuracy	±(1%+10nA)
Machine power supply	Three-phase AC380V±38V
Maximum power	24KW (typical)
Total weight	1600Kg (typical)
Dimensions of machine	Left chamber: 1500mm(W)x1400mm(D)x1980mm(H) Right chamber: 1500mm(W)x1400mm(D)x1980mm(H) Control cabinets: 600mm(W)x1400mm(D)x1980mm(H)

Applicable standards

MIL-STD-750D AQG324

Applicable components

For MOS transistor, diode, triode, IGBT module, PIM module, SCR, etc.

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High temperature reverse bias burn-in test system

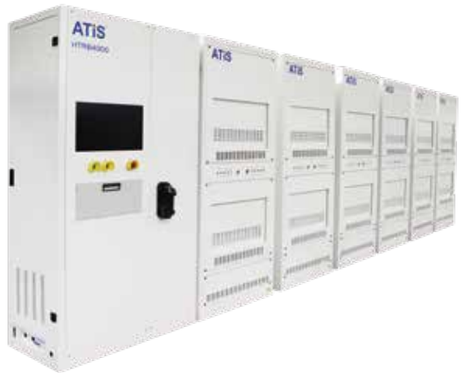
HTRB4000 | **12 ZONE**

The system can carry out high-temperature reverse bias burn-in test at room temperature +10°C~+200°C, and monitor the leakage current state and voltage state of the device under test in real time during the burn-in process, and record the burn-in test data as needed, and export the test report.

- The device is heated using a thermal platform heating method
- Each device can realize an independent heating platform and independent temperature control
- Good heat transfer characteristics, aiming at the high temperature and high leakage current characteristics of IGBT modules/discrete devices, it can achieve stable HTRB test at 175Tj
- The independent protection function can be customized to realize the single-station overrun cut-off
- The automatic loading platform, program gating, can be fully automated with the ground rail
- The test cabinet can be added or reduced according to the demand
- Full experimenter human safety considerations are set

HTRB4000 Product Features

Test thermal platform	96
Test temperature	RT +10℃~+200℃
Burn-in test zone	12
Voltage detection range	-2000V~+2000V
Voltage detection accuracy	±(1%+2LSB)
Current detection range	10nA~50mA
Current detection accuracy	±(1%+10nA)
Machine power supply	Three-phase AC380V±38V
Maximum power	32KW (typical)
Total weight	6000Kg (typical)
Dimensions of machine (6+1 disposition)	7000mm(W)x1200mm(D)x2250mm(H)



Applicable standards

MIL-STD-750D AQG324

Applicable components

For MOS transistor, diode, triode, IGBT module, PIM module, SCR, etc.

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High temperature gate bias burn-in test system

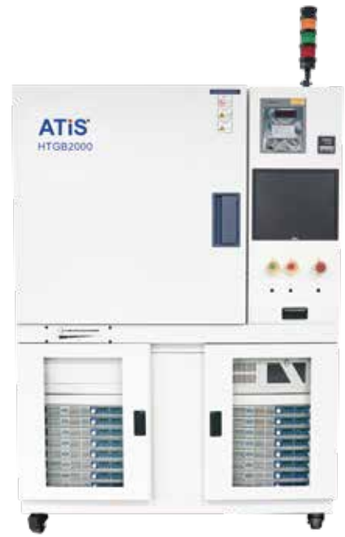
HTGB2000 | **16/32/40/48 ZONE**

The system can perform high-temperature gate bias burn-in tests at room temperature+10°C~+200°C. During the burn-in process, the leakage current state and voltage state of the tested device are monitored in real-time, and burn-in test data is recorded as needed, and test reports are exported.

- nA level leakage current detection accuracy
- Full station data refresh for 30 seconds of the entire machine
- Customizable station burn-in voltage independent control function, achieving single station burn-in exceeding limit elimination
- Customizable positive and negative power supplies to achieve simultaneous application of bias voltage to the upper and lower bridges of the module
- Full experimenter human safety considerations are set

HTGB2000 Product Features

Test temperature zone	1
Test temperature	RT +10℃~+200℃
Burn-in test zone	16 (16/32/40/48 zone optional)
Stations per zone	80 (typical)
Burn-in voltage range	0~±100V
Voltage detection accuracy	±(1%+2LSB)
Current detection range	1nA~1mA
Current detection accuracy	±(1%+1nA)
Machine power supply	Three-phase AC380V±38V
Maximum power	8KW (typical)
Total weight	680Kg (typical)
Dimensions of machine	1450mm(W)x1450mm(D)x2000mm(H)



Applicable standards

JESD22-A101 AQG324 GJB128 MIL-STD-750D

Applicable components

For MOS transistor, diode, triode, IGBT module, PIM module, SCR, etc.

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High temperature bias burn-in test system

HTXB2000

16/32/40 ZONE

The system can perform high-temperature reverse bias and gate bias burn-in testing at room temperature+10℃~+200℃, and monitor the leakage current state and voltage state of the tested device in real-time during the burn-in process. Current state, voltage state of the tested device, and record burn-in test data as needed, and export test reports.

- nA level leakage current detection accuracy
- 30S full station data refresh of the entire machine
- Unique high-voltage suppression circuit, instantaneous breakdown of the device does not affect the burn-in process of other workstations
- Customizable station burn-in voltage independent control function, achieving single station burn-in exceeding limit elimination
- Customizable positive and negative power supplies to achieve simultaneous application of bias voltage to the upper and lower bridges of the module
- The device can automatically switch between HTRB and HTGB burn-in modes, achieving one-time furnace entry and automatic completion of RB/GB burn-in
- Full experimenter human safety considerations are set

HTXB2000 Product Features

Test temperature zone	1
Test temperature	RT +10℃~+200℃
Burn-in test zone	16(16/32/40/48 zone optional)
Stations per zone	40 (typical)
Voltage detection accuracy	±(1%+2LS)
Current detection range	10nA~50mA
Current detection accuracy	±(1%+10nA)
Machine power supply	Three-phase AC380V±38V
Maximum power	8KW (typical)
Total weight	680Kg (typical)
Dimensions of machine	1400mm(W)×1400mm(D)×2000mm(H)

Applicable standards

AEC-Q102 AQG324 JESD22-A101

Applicable components

For MOS transistor, diode, triode, IGBT module, PIM module, SiC, GaN, SCR, etc.

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High temperature high humidity reverse bias burn-in test system

H3TRB2000

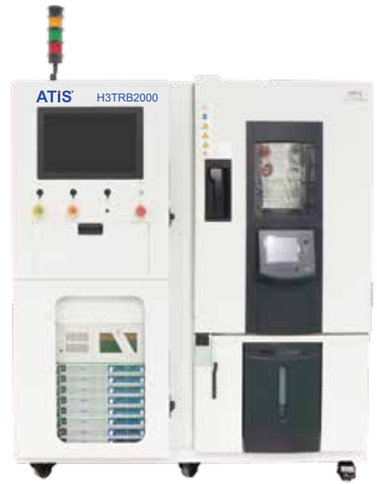
8/16 ZONE

The system can conduct high temperature and high humidity (double 85) burn-in test. During the burn-in process, it can monitor the leakage current state and voltage state of the tested component in real time, record and export the burn-in test data as required.

- nA level leakage current detection accuracy
- 30s full station data refresh of the machine
- Unique high-voltage suppression circuit, instantaneous breakdown of components, without affecting burn-in process of other stations
- Customizable independent control function of burn-in voltage of work station to realize single work station burn-in over limit rejection
- Customizable positive and negative power supplies to achieve simultaneous application of bias voltage to the upper and lower bridges of the module
- Full experimenter human safety considerations are set

H3TRB2000 Product Features

Test temperature zone	1
Test temperature	RT +10℃~+150℃
Test humidity	10%rh~98%rh
Burn-in test zone	16 (8/16 zone optional)
Stations per zone	80 (typical)
Burn-in voltage range	0~±2000V
Voltage detection accuracy	±(1%+2LSB)
Current detection range	10nA~50mA
Current detection accuracy	±(1%+10nA)
Machine power supply	Three-phase AC380V±38V
Maximum power	10KW (typical)
Total weight	1000Kg (typical)
Dimensions of machine	1650mm(W)×1750mm(D)×1950mm(H)



Applicable standards

MIL-STD-750D AEC-Q101 JESD22-A101

Applicable components

For MOS transistor, diode, triode, IGBT module, PIM module, SCR, etc.

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ATiS®

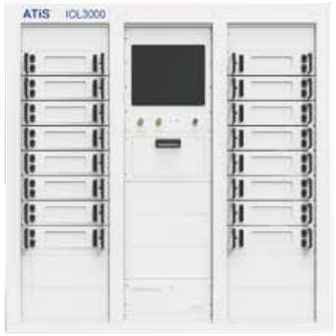
Intermittent life burn-in test system | IOL3000 | 16 ZONE

This system is suitable for various packages (including F-type, TO-220, TO-247, TO-254, TO-257, TO-258, TO-3P, SMD-0.5, SMD-1, SMD-2, etc.) of high-power diodes, MOS transistor and other power devices for power cycling test and constant current power test. Each zone air duct of the system is independent, to fully avoid the impact of different test processes in different locations on the test results; During the experiment, machine can monitor the voltage and junction temperature characteristics of the component, and provide the junction temperature characteristic curve for later data analysis.

- Air cooling power cycle test
- Independent air duct in each location
- Strong wind cooling fan
- Maximum 60A current test capacity
- Support full open heating mode
- Full experimenter human safety considerations are set

IOL3000 Product Features

Experimental mode	Air cooling
Test the air duct	16
Burn-in test zone	16
Stations per zone	16~80 (typical)
Maximum load	300m (The cross-current mode of the device under test) 60A (Saturation turn-on mode)
Maximum voltage	45V
Maximum test temperature	200°C
Voltage detection accuracy	± (1+2LSB)
Grid control voltage	±15V
Junction temperature test current	Isense 10~100mA
Ground resistance	⩽1Ω
Machine power supply	Three-phase AC380V±38V
Maximum power	50KW (typical)
Total weight	700Kg (typical)
Dimensions of machine	1800mm(W)x1400mm(D)x1950mm(H)



Applicable standards

MIL-STD-750D AEC-Q101

Applicable components

For MOS transistor, diode, triode, IGBT module, PIM module, SiC, GaN, SCR, etc.

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ATiS®

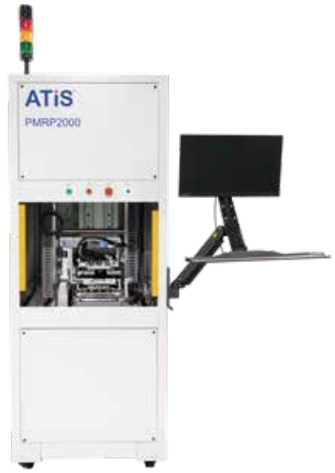
IGBT power module test system | PMRP2000 | 1 ZONE

The system is suitable for continuous power testing of IGBT power modules of various sizes. Based on practical application environments, burn-in parameter test is built perform electrical stress burn-in test on the system. Simulate the working conditions of IGBT power modules in the use of the entire vehicle for long-term high current burn-in and motor stall testing. Real time monitoring of peak current, average current, input voltage, output voltage and temperature of the tested device during burn-in process, record burn-in test data as needed, and export test reports

- Support minute/second level power test
- Real time monitoring of water cooler flow rate and temperature, with adjustable temperature and flow rate
- The driving circuit has a protective function, and module damage does not affect the normal operation of the equipment
- It has the function of quickly cutting off the busbar voltage, which is convenient for failure analysis
- Full experimenter human safety considerations are set

PMRP2000 Product Features

Test temperature zone	1
Test temperature	+25°C~+85°C
Burn-in test zone	1
Busbar voltage range	100V~1000V, power 40KW
Current range	Maximum peak current 600A@15s
Load current range	Three-phase power load rated current 600A
Machine power supply	Three-phase AC380V±38V
Maximum power	40KW (typical)
Total weight	1000Kg (Reactor included))
Dimensions of machine	800mm(W)×1100mm(D)×2000mm(H)
Water temperature machine size	780mm(W)×1000mm(D)×1200mm(H)



Applicable standards

GB/T 18488.1-2015 GB/T 18488.2-2015 GB/T 29307-2012 QCT893-2011 GB/T 18385-2005

Applicable components

For IGBT power module of various sizes.

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High temperature burn-in test system for capacitors

MKP2000

16/32/40 ZONE

The system can perform burn-in screening test for capacitors at room temperature +10℃~+200℃, monitor the leakage current state and voltage state of the measured components in real time during the burn-in process, protect and reject the over-limit components, record and export the burn-in test data as required.

- Leakage current detection accuracy of nA level
- 30s full station data refresh of the whole machine
- Unique high-voltage suppression circuit, instantaneous breakdown of components, without affecting burn-in process of other stations
- Single station burn-in rejection
- Over current protection response time is less than 10ms
- Unique design of automatic charging and discharging circuit
- Full experimenter human safety considerations are set

MKP2000 Product Features

Test temperature zone	1
Test temperature	RT +10~+200℃
Burn-in test zone	16 (16/32/40 zone optional)
Stations per zone	40 (typical)
Burn-in voltage range	0~1200V
Voltage detection accuracy	±(1%+2LSB)
Current detection range	10nA~30mA
Current detection accuracy	±(1%+10nA)
Machine power supply	Three-phase AC380V±38V
Maximum power	8KW (typical)
Total weight	680Kg (typical)
Dimensions of machine	1400mm(W)×1400mm(D)×2000mm(H)

Applicable standards

MIL-STD-202E

Applicable components

For MLCC, mica, film, paper media, ceramic and metallized paper media capacitors etc.

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High temperature high humidity burn-in test system for capacitors

H3MKP2000

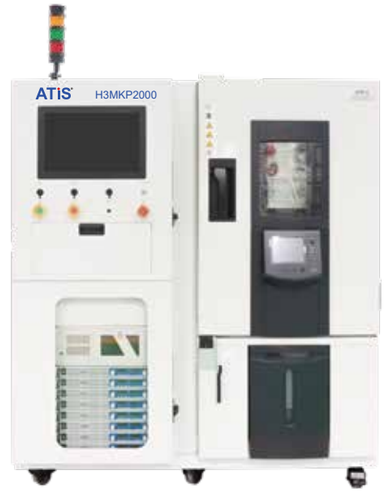
8/16 ZONE

The system can conduct high temperature and high humidity (double 85) burn-in for capacitors. During the burn-in process, it can monitor the leakage current and voltage of the tested components in real time, record and export the burn-in test data as required.

- Leakage current detection accuracy of nA level
- 30s full station data refresh of the whole machine
- Unique high-voltage suppression circuit, instantaneous breakdown of components, without affecting burn-in process of other stations
- Unique design of automatic charging and discharging circuit
- Full experimenter human safety considerations are set

H3MKP2000 Product Features

Test temperature zone	1
Test temperature	RT -20℃~+180℃
Test humidity	25%rh~98%rh
Burn-in test zone	16 (8/16 zone optional)
Stations per zone	40 (typical)
Burn-in voltage range	0~1200V
Voltage detection accuracy	±(1%+2LSB)
Current detection range	10nA~30mA
Current detection accuracy	±(1%+10nA)
Machine power supply	Three-phase AC380V±38V
Maximum power	12KW (typical)
Total weight	1050Kg (typical)
Dimensions of machine	1650mm(W)×1750mm(D)×1950mm(H)



Applicable standards

MIL-STD-202E

Applicable components

For MLCC, mica, film, paper media, ceramic and metallized paper media capacitors,etc.

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High temperature static burn-in test system for microwave tubes

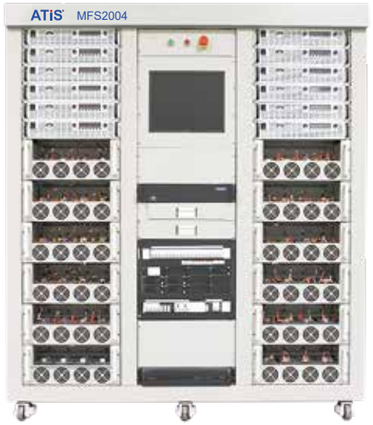
MFS2004 | 12 ZONE

The system is configured with 12 independent test zones, each of which has 4-way component burn-in stations, and the whole machine has 48 component burn-in stations. The 12 test zones can be independently or simultaneously controlled, monitored, recorded, and communicated through the upper computer. Each station can independently control the shell temperature of the tested component, and the detection accuracy is 1% ± 2 ℃. Real time monitoring and recording of various parameters of the component during burn-in process, and using the technologically advanced adjustable voltage stabilized high-power secondary power supply.

- Real-time monitor of the current and voltage state of the component, and automatic adjust burn-in the current of the component
- Can independently control the shell temperature of the component with an accuracy of 1%±2℃
- Can be adapted to microwave power components with different packaging and power requirements
- Full experimenter human safety considerations are set

MFS2004 Product Features

Test temperature zone	12
Test temperature	+70℃~+200℃
Burn-in test zone	12
Drain voltage control range	0.01~60V
Drain voltage control accuracy	±(1%+0. 1V)
Grid voltage control range	-10~10V
Grid voltage control accuracy	±(1%+0.01V)
Leakage current detection range	0~5A
Leakage current detection accuracy	±(1%+1mA)
Grid current detection range	0~50mA
Grid detection accuracy range	±(1%+0.01mA)
Shell temperature fluctuation	±1℃
Shell temperature detection accuracy	±(1%+2℃)
Power supply	0~60V/40A (Optional 12 channels)
Machine power supply	Three-phase AC380V±38V
Maximum power	25KW (typical)
Total weight	1000Kg (typical)
Dimensions of machine	1800mm(W)×1300mm(D)×2000mm(H)



Applicable standards

MIL-STD-750 MIL-M-19500

Applicable components

For GaN, GaAs and other microwave tubes.

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High temperature burn-in test system for power module

MPS2000 | 16/24/32 ZONE

The system provides high temperature environment and test conditions (including input power supply, load, output voltage, load current, etc.) for the test requirements of power module, and also detects various test conditions, including input voltage, test chamber temperature, component output voltage, output current, and other main parameters. The system can adapt to the life screening test and secondary screening test of various components in research institutes, microcircuit component manufacturers, etc. and is applicable to the test requirements of small batch and multiple varieties.

- Real time monitor electric stress, temperature stress and other information of the tested component, and automatic recording of process information
- The high-speed acquisition system adopts high-speed and high-precision ADC sampling
- Full experimenter human safety considerations are set

MPS2000 Product Features

Test temperature zone	1
Test temperature	RT+10℃~+200℃
Burn-in test zone	16 (16/24/32 zone optional)
Burn-in board interface	High current pin hole connector or finger connector
Electronic loads	Single zone12/16channel, whole machine192~512
Optional primary power supply	40V/60V/100V/300V/600V
Linear dissipative 10V plus and minus load	0.8~10VDC, 300mA~30A, 32W, constant current accuracy ±(1%+50mA), can be connected in parallel
Linear dissipative 30V plus and minus load	0.8~30VDC, 50mA~6.25A, 32W, constant current accuracy ±(1%+5mA), can be connected in parallel
Linear dissipative 100V plus and minus load	±3.3~±100VDC, ±(50mA~5A), 32W, Constant current accuracy ±(1%+5mA), can be connected in parallel
Shell temperature control range and accuracy (optional)	60~125℃, ±(1%+1℃)
Machine power supply	Three-phase AC380V±38V
Maximum power	12KW (typical)
Total weight	680Kg (typical)
Dimensions of machine(mm)	1400mm(W)×1400mm(D)×2000mm(H)(16zone)

Applicable standards

MIL-STD-883D MIL-M-28787 AEC-Q100 JESD22-A108 GB2423

Applicable components

For DC/DC power module, LDO integrated circuit, BUCK integrated circuit, DRMOS integrated circuit.

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Multi functional comprehensive burn-in test system

MFS2020

16 ZONE

The system is applicable to burn-in of various medium and small power diodes, triodes,medium and small power FETs, voltage-regulator tube, various resistors, opto-coupler, 3-end voltage regulators, and F, B, TO-92, TO-126, TO-247, TO-220, TO-3P, chip and other packaging burn-in components, and is applicable to conducting steady-state screening tests for medium and small power components and intermittent life tests for high-power components.

- Automatically identify the switching polarity according to the inserted burn-in plate
- The burn-in power supply of the equipment can be set to program control mode and manual mode
- The constant current loop can be calibrated to make the current deviation less than (0.2%+3mA)
- The transverse forced air cooling structure is adopted to take away the heat generated in the burn-in process, so that the temperature of the test chamber tends to be uniform
- 8 sets of independent fan cooling control components are provided to independently control 2 test zones
- Full experimenter human safety considerations are set

MFS2020 Product Features

Test temperature zone	2
Test temperature	RT
Burn-in test zone	16
Test capability	The detection capacity of a single board is 80 bits, and the maximum number of the whole machine is 1280 bits
Test parameter detection	Current detection range: 0.5mA~16.0A, deviation ±(1%+2LSB) voltage detection range: 0~100.0V, deviation ±(1%+2LSB)
Constant current electronic load	Control range: 20~2000mA, control accuracy: ±(0.2%+3mA) Detection range: 20~2000mA (single channel) 16A (In parallel), accuracy: ±(0.2%+3mA)
Machine power supply	Three-phase AC380V±38V
Maximum power	10KW (typical)
Total weight	1000Kg (typical)
Dimensions of machine	1500mm(W)×1350mm(D)×1800mm(H)

Applicable standards

MIL-STD-750

Applicable components

For TO-92, TO-126, TO-247, TO-220, TO-3P, chip and other packaging diode, triode, medium and small power FETs, voltage-regulator tube, various resistors, opto-couplers, and 3-end voltage regulators.

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Programmable DC power supply

1U/2U

Standard 9-inch rack

This series of products is used for electronic component manufacturing, reliability (durability) testing, burn-in testing, and various laboratory power supply applications. It employs a "front air intake, rear exhaust" heat dissipation design, effectively saving space and allowing seamless stacking.

PR1U Function

- Can be externally controlled for analog control
- Can be operated in series or parallel
- Final setting memory function
- Automatic/safe startup function

PR2U Function

- Overcurrent Protection (OCP)
- Overvoltage Protection (OVP)
- Under Voltage Limitation (UWL)
- Overheat Protection

PR1U Product Features

Power Input	Single-phase AC 220V 50Hz
Efficiency	88% (typical)
Power Factor	0.99 (typical)
Communication Port	Standard RS232/485 serial communication, optional LAN
Dimensions	445mm(W)x482.5mm(D)x44.5mm(H) (excluding protrusions)

PR1U	1500-25	2400-40	2400-60	1800-100	1800-300	1800-600	2000-2000
Voltage (V)	25	40	60	100	300	600	2000
Current (A)	60	60	40	18	6	3	1

PR2U Product Features

Power Input	Three-phase AC 380V 50Hz
Efficiency	87% (typical)
Power Factor	0.93 (typical)
Communication Port	Standard RS232/485 serial communication, optional LAN
Dimensions	443mm(W)x482.5mm(D)x88mm(H) (excluding protrusions)

PR2U	5000-16	5000-60	1000-5000
Voltage (V)	16	60	5000
Current (A)	300	83	0.2

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High temperature environment test chamber HTC2010 242L

The test chamber is suitable for testing the life and durability of the whole machine device, parts and materials in a high temperature environment, and can check and evaluate product defects through the test, effectively improving the product qualification rate and product quality.

- RS485 communication interface is provided.
- It can be equipped with independent secondary over-temperature protection.

HTC2010 Product Features

Product volume	242L
Temperature range	RT+20℃~+200℃
Temperature uniformity	≤3℃
Temperature deviations	≤±2℃
Temperature fluctuations	≤0.5℃
Temperature overshoot	≤1℃
Heating time	≤40min (Closed door with no load, RT ~ 200℃)
Machine power supply	AC220V
Inner box dimension	630mm(W)x600mm(D)x640mm(H)
Dimensions of machine	1400mm(W)x785mm(D)x1085mm(H)
Total weight	150Kg

适用标准

GB/T 5170.2-2017

适用场景

For high temperature burn-in, heat treatment and drying treatment.

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High temperature environment test chamber HTC2020 432L

The test chamber is suitable for testing the life and durability of the whole machine device, parts and materials in a high temperature environment, and can check and evaluate product defects through the test, effectively improving the product qualification rate and product quality.

- RS485 communication interface is provided.
- It can be equipped with independent secondary over-temperature protection.

HTC2020 产品特性

Product volume	432L
Temperature range	RT+20℃~+200℃
Temperature uniformity	≤3℃
Temperature deviations	≤±2℃
Temperature fluctuations	≤0.5℃
Temperature overshoot	≤1℃
Heating time	≤40min (Closed door with no load, RT ~ 200℃)
Machine power supply	AC220V
Inner box dimension	600mm(W)x600mm(D)x1200mm(H)
Dimensions of machine	1200mm(W)x785mm(D)x1700mm(H)
Total weight	250Kg

适用标准

GB/T 5170.2-2017

适用场景

For high temperature burn-in, heat treatment and drying treatment.

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