



**Innova Bio-Meditech** is one of the leading global providers of laboratory and medical devices. Firmly committed to our mission of “sharing innovative bio-meditech solutions with the world”, we are dedicated to innovation in the fields of Biology Project, Life Science, Pharmacy Industry and Medical Treatment.

**Innova Bio-Meditech** possesses a sound distribution and service network with business partners in North and Latin America, Europe, Africa and Asia-Pacific etc. We have built up a well established R&D, manufacture network with 3 centers in Beijing, Qingdao, and Shanghai. Inspired by the needs of our customers, we adopt advanced technologies and transform them into accessible innovation. This means constant effort and research, in order to more fully understand the developments of the market, produce constantly upgraded product ranges by adding new products year after year.

## *The passion for science*

The products below are Temperature humidity test chamber, Thermal shock chamber, Thermal cycling test chamber, UV/ Xenon lamp aging test chamber, Ozone aging test chamber, HAST/PCT chamber, IP water/dust proof test chamber, Walk-in series, Temperature-humidity vibration comprehensive test chamber, Oven, Vacuum oven, Salt spray test chamber and other simulated environmental testing equipment; They are widely used in electronics, LED, PV modules, batteries, new energy, electrical, communications, chemical, scientific research institutions, military and other fields.



# Constant Temperature & Humidity Test Chamber / Climate Test Chamber

It's also known as Climate test chamber or Environmental test chamber. It simulates the products in the chamber where the climate condition of different temperature and humidity, such as high-low operation and storage, temperature cycling, high-low temperature and high-low humidity, moisture condensation etc. to check its adaptability and changing performance under the international standard.

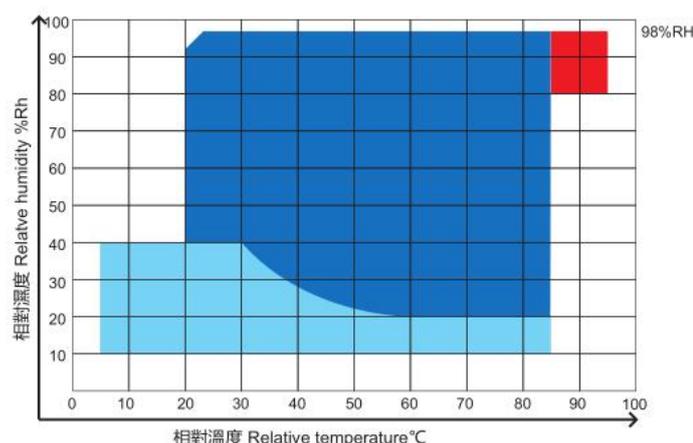


## Conforms to the international standards.

- GB/T 2423.1-2001 Test A: Low temperature test method
- GB/T 2423.2-2001 Test B: High temperature test method
- GJB 150.3-1986 High temperature test
- GJB 150.4-1986 Low temperature test
- IEC68-2-1 Test A: Cold; IEC68-2-2 Test B: Dry heat
- GB11158 "Technical Conditions for High Temperature Test Chamber"
- GB10586-1 "Technical conditions for Damp heat test chamber"
- GB/T 2423 "Basic environmental testing procedures for electric and electronic products B: High temperature test method"; Ca: Constant damp heat testing method"

Case type

Narrow type



## Main Technical Parameters.

Model (normal models)	INO-HS-80(A-F)	INO-HS-150(A-F)	INO-HS-225(A-F)	INO-HS-408(A-F)	INO-HS-800(A-F)	INO-HS-1000(A-F)
Inner size: W*H*D(cm)	40*50*40	50*60*50	50*75*60	60*85*80	100*100*80	100*100*100
External size: W*H*D(cm) <small>case type</small>	105*165*98	105*175*108	115*190*108	135*200*115	155*215*135	155*215*155
Temperature range	(Lowest temp.: A: RT+5°C; B: 0°C; C: -20°C; D: -40°C; E: -60°C; F: -70°C) (Highest temp.: +150°C)					
Humidity range	20%~98% R.H. / 10%~98%R.H; (Low humidity 5% is special requirement optional)					
Temp analytic accuracy; Temp. uniformity	0.1°C ; ±2.0°C					
Temperature Fluctuation	±0.5°C					
Humidity analytic accuracy; Humidity control accuracy	±0.1%R.H / ±2.5%R.H.					
Heating/cooling rate	Heating: 2.0°C~4.0°C/min; Cooling: 0.7°C~1.0°C/min <b>(rate up to 30°C/min can be customized)</b>					
Insulation materials	Resistant to high temp, high density, formate chlorine, ethyl acetum foam insulation materials					
Material	Inner chamber: 304#SUS; External chamber: 304#SUS or quality painted shell optional					
Refrigeration system Refrigerant	Air cooled/single stage compressor(-40°C) , double stage compressor(-50°C~-70°C) USA DuPont R404a (R449a optional), R23					
Parts	3-layer viewing window x 1; φ50mm (100mm optional) access port x 1, sample shelves x 2; Wet and dry bulb gauze; castor x 4; Foot Cup x 4; Operation manual x 1; Warranty card x 1.					
Protection devices	Fuse switch, compressor overload switch, refrigerant high and low pressure protection switch, over-temperature protection switch, fuse, failure warning system					
Compressor	Original France "Tecumseh" brand					
Controller	Independent R&D software, 7" touch screen programmable controller, Taiwan hardware					
Extra function (optional for order)	RJ45 communication protocol, Ethernet LAN remote control via PC and mobile phone					
Power	AC220V 50/60Hz 1 or AC380V 50/60Hz 3					
Other	For other sizes (including walk-in series, mini desk type) and other requirements can be customized					

# Customized & Walk-in climate chambers



L-type & climate vibration series

All-in-one walk-in type

Single-door splice plates type

Mini size benchtop type

## Show details.



7" Programmable controller



Access port (  $\phi$  50mm)



Customized glove box



2 sample shelves



Water tank inlet

## Core parts.



法國泰康全封閉壓縮機  
France Tecumseh full-enclosed Compressor



德國GEA 半封閉壓縮機  
Germany GEA semi-enclosed Compressor



美國艾默生油分離器  
American Emerson Oil Separator



丹麥DANFFOS 超壓保護  
Denmark DANFFOS Overpressure protection



丹麥DANFFOS 電磁閥  
Denmark DANFFOS Solenoid Valve



韓國西麥柯冷凝器  
Korea Simeon Condenser



法國施耐德接觸器  
France Schneider contactor



法國施耐德熱過載  
French Schneider Thermal overload



日本三菱總開關  
Japan Mitsubishi switch



韓國彩虹超溫保護器  
Korea Rainbow over-temperature protection

# Thermal Shock Test Chamber

It is used to test the material structure or composite materials, that whether it can withstand the temperature continuous changes in an instant by the extremely high temperature and very low temperature environment, in order to test the chemical changes or physical changes caused by shortest possible time with heat or cold shrink. It's applicable to objects, including metal, plastic, rubber, electronics and other materials, can be used as a basis for improvement of products as reference.

**2-zone type** is made of two independently controlled chambers. One chamber is hot and the 3-other one is cold. The temperature shock between hot and cold is created with the rapid 4-transfer of the specimens on the lift (moving basket) and the subsequent exposure to a wide 5-range of temperatures. This type is a cost-effective alternative to larger capacity units.

**3-zone type** is divided into low temperature area, product testing area, high temperature area. When do the hot test, open the high temp. area door; and open the low temp. area door to do the cold test, product testing area is fixed.



Two-zone



Three-zone

## Conforms to the international standards

- GB/T 2423.1-2001 Test A: Low temperature test method
- GB2423, IEC68-2-14, JIS C 0025, MIL-STD-883E, IPC 2.6.7
- GB/T 5170.2-1996 temperature test chamber and and other standards.

## Features

- Environmentally correct refrigerants are used that are ozone free and met all current regulatory requirements.
- RS232, RJ45 remote control Ethernet function.
- Thermal heat sinks in each zone for peak demand of heating and cooling.
- Provides extra thermal energy to efficiently meet the MIL-STD 833H requirements.
- All-around fault self-diagnosis warning function.

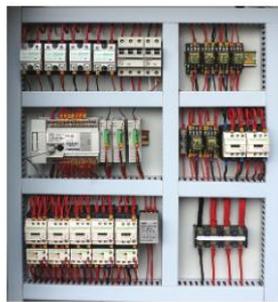
## Main Technical Parameters

Model (normal models)	INO-TS-42(A-D)	INO-TS-60(A-D)	INO-TS-80(A-D)	INO-TS-100(A-D)	INO-TS-150(A-D)	INO-TS-225(A-D)
Inner size: W*H*D(cm)	40*35*30	40*50*30	40*50*40	40*50*50	50*60*50	50*75*60
External size: W*H*D(cm) <small>three-zone</small>	135*167*150~175	135*185*150~175	135*185*160~187	135*185*160~187	145*195*170~190	145*215*180~205
Temperature shock range	(Lowest temp.: A: -40°C; B: -50°C; C: -60°C; D: -65°C) (Highest temp.: +150°C)					
Preheating / Precooling temp. (Energy storage temperature)	Preheating (Hot zone): Shock temp. + 10°C; Precooling (cold zone): Shock temp. + (-10°C / -5°C) Hot zone: +60°C to +200°C; Cold zone: -10°C to -70°C					
Temp. Switching time	≤ 10S					
Temperature recovery time	≤ 5min					
Temp. Shock / dwell time	≥30min (shorter time can be customized)					
Temperature Fluctuation	±0.5°C					
Temp. deviation	±2.0°C					
Material	Inner chamber: 304#SUS; External chamber: 304#SUS or quality painted shell optional					
Refrigerant	USA DuPont R404a (R449a optional), R23					
Parts	3-layer viewing window x 1; φ50mm (100mm optional) access port x 1, sample shelves x 2;					
	Wet and dry bulb gauze; castor x 4; Foot Cup x 4; Operation manual x 1; Warranty card x 1.					
Protection devices	Fuse switch, compressor overload switch, refrigerant high and low pressure protection switch, over-temperature protection switch, fuse, failure warning system					
Compressor	Original France imported "Tecumseh" brand / Original Germany imported GEA brand					
Controller	Independent R&D software, 7" touch screen programmable controller, Taiwan hardware					
Power supply source	AC380V 50/60Hz 3					

# Details



Germany GEA Compressor



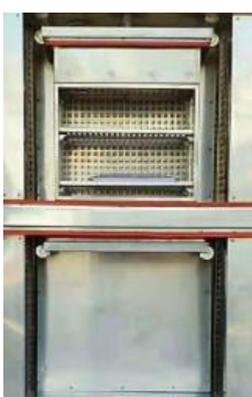
Circuit layout



7'' Programmable Controller



Access port ( φ 50mm)



Two-zone inner structure



Three-zone inner structure



Customized 2-door type (2-zone)

# Core Parts



法國泰康全封閉壓縮機  
France Tecumseh full-enclosed Compressor



德國GEA 半封閉壓縮機  
Germany GEA semi-enclosed Compressor



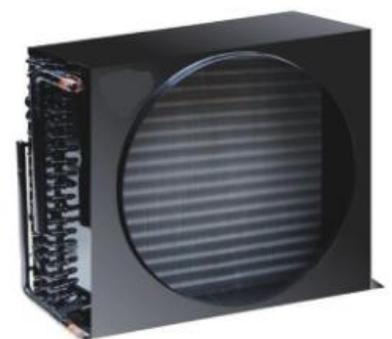
美國艾默生油分離器  
American Emerson Oil Separator



丹麥DANFFOS 超壓保護  
Denmark DANFFOS Overpressure protection



丹麥DANFFOS 電磁閥  
Denmark DANFFOS Solenoid Valve



韓國西麥柯冷凝器  
Korea Simeon Condenser

# Salt Spray Corrosion Test Chamber (SST)

It is used to test the anti-corrosion resistance of surface treatment for various materials, including paint, electroplating, organic and inorganic coating, metal products. Salt spray refers to the dispersion system composed of small salt-containing droplets in the atmosphere, which is one of the three-proof series of artificial environment. Many enterprise need to simulate the destructiveness of the climate around the ocean on the product, so the salt spray test chamber should be carried out. The salt spray test is usually divided into three types: neutral salt spray (NSS), Acetic acid salt spray (AASS), Copper accelerated acetic salt spray (CASS).



Digital control

## Conforms to the international standards

- GB/T 2423.17-1993 salt spray test
- GB/T 2423.18-2000 salt spray test
- GB/T 10125-1997 salt spray test
- ASTM.B117-18 Standard Practice for Operating Salt Spray (Fog) Apparatus
- ISO 9227 Corrosion tests in artificial atmospheres – Salt spray tester
- IEC68-2-11 salt spray test; IEC68-2-52 1996 salt spray test
- GB.10587-89 salt spray test
- CNS.4158 salt spray test
- CNS.4159 CASS Accelerated acetic acid copper salt spray test
- GB/T 12967.3-91 CASS Accelerated acetic acid copper salt spray test

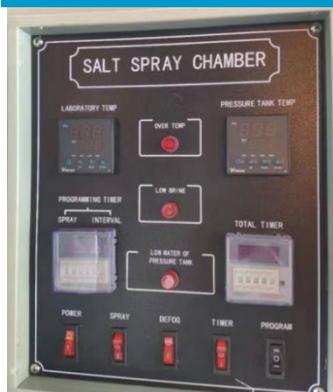


Touch screen control

## Main Technical Parameters

Model ("A" refers to touch screen)	INO-SH-60(A)	INO-SH-90(A)	INO-SH-120(A)	INO-SH-160(A)	INO-SH-200(A)
Inner size: W*H*D(mm)	600*400*450	900*500*600	1200*500*1000	1600*500*1000	2000*500*1000
External size: W*H*D(cm) appr.	108*108*65	135*112*75	190*128*125	230*128*125	270*128*125
Weight (kgs)	60	80	120	280	450
Temperature range	NSS, AASS 35°C±2°C, CASS 50°C±2°C				
Saturated air barrel temperature	NSS, AASS 47°C±2°C, CASS 63°C±2°C				
Multiple safety protection devices	Water shortage, over temperature, phase protection				
Temperature Fluctuation	±0.5°C				
Temp. uniformity	±2.0°C				
Body materials	PVC material (for NSS, AASS test), PP material or thickening PVC (for CASS test)				
Power supply source	AC220V 50/60Hz, 1 phase			AC380V 50/60Hz, 3 phase	

## Show Details



Digital control



Touch screen control



Material tube



Inner chamber - 120 model

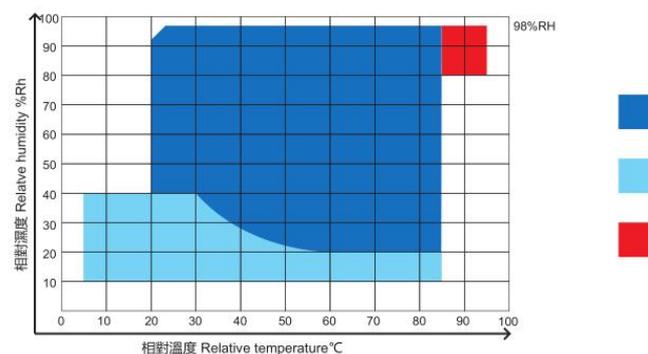
# Cyclic Corrosion Test Chamber (CCT)

Cyclic corrosion testing (CCT) provides the best possible laboratory simulation of natural corrosion. Current research indicates that cyclic corrosion in resulting structure, morphology, and relative corrosion rates. Simple test may consist of cycling between two conditions: fog and dry, some sophisticated procedures (especially for automotive parts testing) call for multi-step cycles incorporating humidity, along with salt fog or shower functions, and dry-off, other basic test



## Conforms to the international standards

- ISO14993-2001 Corrosion of metals and alloys-Accelerated testing involving cyclic exposure to salt mist, "dry" and "wet" conditions
- GB-T5170.8-2017 Inspection methods for environmental testing equipment - part 8: Salt mist testing equipment
- GJB150.11A-2009 Laboratory environmental test methods for military materiel-Part 11: Salt fog test
- GBT2423.17 Basic environmental testing procedures for electric and electronic products test Ka: Salt mist
- GB / T 2423.18-2000 Test method for alternating salt spray of sodium chloride
- GB-T2423.3-2006 (IEC60068-2-78-2001) Test cab: Constant damp heat test method
- ASTM B117, ISO 9227, ASTM G85, DIN 50.021 etc..



## Main Technical Parameters

Model	INO-TSH-60A	INO-TSH-90A	INO-TSH-120A	INO-TSH-160A	INO-TSH-200A
Inner size: W*H*D(mm)	600*400*450	900*500*600	1200*500*1000	1600*600*1000	2000*600*1000
External size: W*H*D(cm) appr.	180*135*105	210*140*115	258*150*135	300*150*155	340*155*145
Power (installation)	5.0 KW	7.0 KW	9.0 KW	11.0 KW	13.0 KW
Temperature range	Temperature range: 0°C ~ 85°C adjustable; NSS, AASS 35°C±2°C, CASS 50°C±2°C				
Humidity range	20%~98R.H adjustable				
Temp. / Humidity Fluctuation	±0.5°C / ±2%R.H				
Temp. / Humidity uniformity	±2.0°C / ±3%R.H				
Body materials	PP material, thickness of 10mm				
Spray volume	1.0~2.0 m1/80cm <sup>2</sup> /h (collect at least 16 hours, take the average value)				
Spray pressure	1.00±0.01kgf/cm <sup>2</sup>				
Power supply source	AC380V 50/60Hz, 3 phase				

## Show Details



Inner chamber- 60 model



Inner chamber- 90 model



Inner chamber - 120 model

# UV Aging Test Chamber

The UV Accelerated weathering test chamber (UV Aging Test Chamber) simulates dew and rain with consideration for humidity and/or water spray equipped with fluorescent UV lamps which can completely simulate the UV spectra of sunlight, exposes materials to alternating cycles of UV light, moisture and elevated temperatures at controlled. It's most widely for weathering test to test types of damages include color change, gloss loss, chalking, cracking, crazing, hazing, blistering, strength loss and oxidation. The light source we use is 8 pieces of UVA or UVB lamps of 40W. The lamps are distributed on the two sides of machine, 4 pieces for each side (UVA-340, UVB-313 and UVA-351 optional).



Tower type

## Conforms to the international standards

- GB/T14552-2008 Plastics, Coatings, Rubber Materials for Machinery Industry – Artificial Climate Accelerated Test Method", A: fluorescent UV / condensation test method
- GB/T16422.3-1997 GB/T16585-96 Relevant analytical methods.
- GB/T16585-1996 "National Standard of the People's Republic of China – Test Method for Artificial Weathering of Fluorinated Rubber (Fluorescent UV Lamp)".
- GB/T16422.3-1997 "Plastics Laboratory Light Source Exposure Test Method" and other corresponding standard terms and design standards.
- ASTM D4329, ISO 4892-3, ISO 11507, SAE J2020 etc.



Case type

## Technical Parameters

Model	INO-UVA-115 (case type)	INO-UVA-263 (Tower type)
Inner size: W*H*D(mm)	 W1170*H450*D500mm	 24pcs for each at 75mm*280mm, 48pcs in total
External size: W*H*D(mm)	W1350×H1580×D650mm appr.	1300×1560×600mm appr.
Temperature range	RT~70°C	
Temperature fluctuation	±0.5°C	
Temperature uniformity	±2°C	
Humidity range	≥90%RH	
Ultraviolet light source	UVA-340 / UVB-313 optional; 8 pieces of Q-lab Lamp, length: 120cm	
Controller	7" touch screen Programmable controller	
Test cycle setting	Illumination, condensation and water spray test cycle is programmable	
Irradiance	≤1.0W/m <sup>2</sup>	
Materials	Inner material: 304#SUS; External material: Quality painted shell or 304#SUS	
Power supply source	AC220V, 1 phase, 50/60Hz (customized)	

## Show Details



Control panel



Handle



Water tank inlet



Atlas branded lighting tube



Inner chamber

# Xenon Aging Test Chamber

It simulates the full spectrum lamp with Xenon arc lamp to reappear the destructive wave. It serves for the environmental simulation and accelerated test for research and development, product development and quality control. Besides, the chamber also applies to the choice of new material, weathering test after composition of material and improvement for the current material. It simulate different environment, and show the material changes under the explosion of sunlight.



## Conforms to the international standards

- G155, SAE J2527, SAE J2412, GB14522-2, ISO4892, ASTM D2565...

## Technical Parameters

Model	INO-XLW-150/D	INO-XLW-225/D	INO-XLW-408/D	INO-XLW-800/D	INO-XLW-900/D
Inner size: W*H*D(cm)	50*60*50	75*50*60	85*60*80	100*80*100	100*90*100
External size: W*H*D(cm) appr.	105*165*108	105*175*118	115*190*138	135*210*135	155*205*155
Temperature range	0°C~80°C				
Humidity range	20%~95% R.H.				
Temp accuracy/uniformity	0.1°C ; ±2.0°C				
Temperature Fluctuation	±0.5°C				
Humidity analytic accuracy; Humidity control accuracy	±0.1%R.H.; ±2.5%R.H.				
Wave length range	280-800nm (other models with wavelength 300~400nm, 340nm, 420nm available)				
Xenon lamp	1.8KW, Air cooled (Drum type water-cooled 4.5/6.5KW lamp is optional for inner size 60*60*60/80*80*80cm etc..)				
Inner & External material	Inner: 304#SUS; External: 304#SUS or quality painted shell				
Light irradiance	150W/m <sup>2</sup> ~1200W/m <sup>2</sup> (other irradiance according to wavelength is available:300nm~400nm →30W/m <sup>2</sup> ~60W/m <sup>2</sup> ; 340nm →0.3W/m <sup>2</sup> ~0.7W/m <sup>2</sup> ; 420nm → 0.3W/m <sup>2</sup> ~1.25W/m <sup>2</sup> )				
Refrigerant	USA DuPont R404a (R449a optional)				
Material	Inner: 304#SUS; External: 304#SUS or quality painted shell				
Compressor	Original France "Tecumseh" brand				
Controller	Independent R&D software, 7" touch screen programmable controller, Taiwan hardware				
Power	AC380 / 220V, 50/60Hz 3/1ph				

## Application

- Photovoltaics
- Automotive Materials
- Plastics
- Inks
- Paints and Coatings
- Packaging
- Metal
- Cosmetic
- Textiles including Industrial and Geotextiles
- Pigments, Dyestuffs, Stabilizers and Additives



# Ozone Aging Test Chamber

Ozone content in the atmosphere is very small but it is the main factor for rubber cracking. The ozone aging test chamber simulates and strengthens the ozone conditions in the atmosphere, studies the rule of ozone on rubber, and quickly identifies and evaluates the anti-ozone aging performance and anti-ozonant of rubber, and then take effective anti-aging measures to improve the service life of rubber products.



## Conforms to the international standards

- GB / T7762-2003 Vulcanized rubber or thermoplastic rubber ozone tensile static tensile test method
- GB / T2951.21-2008 General test methods for cable insulation and sheath materials,
- GB / T 11206-2009 Rubber aging test surface cracking method and the test methods specified in other relevant standards

## Technical Parameters.

Model (normal models)	INO-OZ-80	INO-OZ-150 (D)	INO-OZ-225(D)	INO-OZ-408(D)
Inner size: W*H*D(cm)	50*60*50	50*75*60	60*85*80	60*85*80 (other sizes available)
External size: W*H*D(cm) appr.	105*165*108	105*175*118	115*190*138	135*210*135
Temperature range	0°C~60°C(ozone will decompose when temp. above 60°C)			
Ozone concentration range	50~1000pphm ±10% (Low concentration)			
Temp analytic accuracy/uniformity	0.1°C ; ±2.0°C			
Temperature Fluctuation	±0.5°C			
Ozone concentration deviation	±10%			
Air flow amount	20~70L/min			
Air flow rate	12~16mm/s			
Inner material	304#SUS			
External shell material	304#SUS or quality painted shell			
Raising frequency of sample frame	1R/min adjustable (for dynamic model only, refer to model including "D")			
Sample frame speed	360 degree rotating sample holder (adjustable at 1 revolution per minute)			
Material	Inner: 304#SUS; External: 304#SUS or quality painted shell			
Compressor	Original France "Tecumseh" brand			
Controller	Independent R&D software, 7" touch screen programmable controller, Taiwan hardware			
Power	AC220V 50/60Hz 1 / AC380V 50/60Hz 1			

## Show Details



Dynamic fixture



304#SUS inner chamber-static model



Control Panel



Access port

# HAST / PCT Test Chamber

The purpose of the HAST highly accelerated stress test machine (also known as HAST test chamber) and PCT Pressure cooker Test (also known as PCT test chamber) is to increase the environmental stress (such as temperature) and working stress (voltage, load applied to the product, etc.), speed up the test process, and shorten the life of product or system. It's used to investigate and analyze when wear and life problems occur on electronic components, mechanical parts, and what shape the service life failure distribution function takes, so as to do the analysis of the reasons for the increase in failure rate. It's widely used in IC semiconductors, connectors, circuit boards, magnetic materials, polymer materials, EVA, photovoltaic components and other related products for accelerated aging life test.



## Features

- Imported thermal solenoid valve dual structure reduces the failure rate mostly.
- Independent steam generation chamber to prevent steam direct from impacting on products to avoid damage to the product.
- Special lock structure which solves shortcomings of the handle locking difficult in the first generation of disc-type.
- Tank pressure design with casing pressure resistance (140°C) 2.65kg, consistent with pressure test of 6kg
- The water level protection helps to detect water level protection through the test chamber.
- Two-stage pressure safety device with conjunction controller and two-stage mechanical pressure protection device together.
- Conforms to the IEC60068-2-66.
- Remove cold air first before test; design of the cold air discharge (air discharge inside test barrel), improves the pressure stability.

## Main Technical Parameters

Model	INO-PCT-30	INO-PCT-40
Internal Dimension (Φ*D)mm	300*500	400*500
External Dimension W*H*Dmm	800*1360*900	900*1460*950
Steam Temperature Range	Heating rate:RT→+132°C about 55min Temperature range:100°C→+132°C (control point) Temperature fluctuation:±0.5°C. Temperature deviation:±2.0°C.	
Humidity range	100%R.H saturated steam	
Steam pressure	1.2~2.89kg/cm2 (control point), (3.0Kg/cm2 is special requirement)	
Boost time	Atmospheric pressure →2kg/cm <sup>2</sup> about 60min.	
Humidity uniformity	±3.0%.	
Controller	7"Independent R&D software, Programmable controller	
Protection devices	Over temperature protection Overpressure protection Gauge double protection Water shortage protection	
Sample holder	Two shelves stainless steel plate	
Power	AC220V 50/60Hz	

Model	INO-HAST-30	INO-HAST-40
Internal Dimension (Φ*D)mm	300*500	400*500
External Dimension W*H*D(mm)	800*1360*900	900*1460*950
Steam Temperature Range	Heating rate:RT→+147°C about 55min Temperature range:100°C→+147°C (control point) Temperature fluctuation:±0.5°C. Temperature deviation:±2.0°C.	
Humidity range	75%~100 %R.H. (Control point )	
Humidity uniformity	±3.0%R.H.	
Humidity fluctuation	±2.5%R.H.	
Comparison curve of Temperature Humidity, Pressure		
Steam pressure	1.2~2.89kg/cm <sup>2</sup> (control point), (3.0Kg/cm2 is special requirement)	
Boost time	Atmospheric pressure →2kg/cm <sup>2</sup> About 60min.	
Controller	7"Independent R&D software, Programmable controller	
Protection devices	Over temperature protection Overpressure protection Gauge double protection Water shortage protection	
Sample holder	Two shelves stainless steel plate	
Power	AC220V 50/60Hz	



Sample shelves



Control panel

# Sand Dust Test Chamber

It simulates the destructiveness of the natural wind and sand climate on the product. It is suitable for testing the sealing performance of product's shell, such as mobile phones, cameras and other electrical products, automobile, motorcycle parts etc.

Principle: The equipment has a vertical circulating air flow with dust, and the test dust can be recycled. The entire air duct is made of high-grade stainless steel plates. A certain concentration of sand and dust is driven by the fan to blow the surface of the specimen at a certain flow rate, to test the ability to resist the penetration effect of dust particles, the ability to prevent the abrasion or blocking effect of sand and gravel under the action of dry sand or dust-filled atmosphere. It is mainly used for the two levels IP5X and IP6X specified in the shell protection level standard.



## Conforms to the international standards

- GB/T 7000.1 "Luminaires - Parts 1: General requirements and tests (IEC60598-1:2014)"
- IEC/EN60529 "Degrees of protection provided by enclosure (IP code)"
- GB/T 4208-2008 "Degrees of protection provided by enclosure (IP code)"

## Main Technical Parameters.

Model	INO-SD-600	INO-SD-800	INO-SD-1000
Inner size: W*H*D(mm)	600*600*600	800*800*800	1000*1000*1000mm
External size: W*H*D(mm) appr.	W1100*D1000*H1600	W1300*D1200*H1700	W1500*D1400*H1900
IP code	IP5x, IP6x (with vacuum pump)		
Metal screen wire diameter	50um		
Nominal pinhole diameter	75um		
Talc dosage	2Kg/m <sup>3</sup> ~ 4kg/m <sup>3</sup>		
Wind speed	≥ 7.5m / s		
Inner body material	304#SUS		
External shell material	304#SUS or quality painted shell optional		
Controller	Programmable 7" touch screen control		
Power supply	AC380V, 3 phase / AC220V, 1 phase		
Other	Other sizes or requirements can be customized		

## Show Details



304#SUS shell optional



Vertical type optional



Control panel



Viewing window



Inner chamber

## Application



Electronic products



Auto & motorcycles



Shells



Motors

# Water Proof Test Chamber (IPx1 ~ 6)

The machine simulates the artificial simulated rainfall environment to test the waterproof ability of the tested products according to the international standard requirements. It is suitable for testing electrical products, enclosure, seals and external lighting, signaling devices and the housing of automobile lamps to ensure good performance of equipment and components in a rainy environment.

## Conforms to the international standards

- GB/T 7000.1 "Luminaires – Parts 1: General requirements and tests (IEC60598-1:2014)
- IEC/EN60529 "Degrees of protection provided by enclosure (IP code)"
- GB/T 4208-2008 "Degrees of protection provided by enclosure (IP code)"

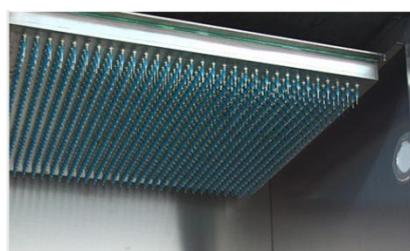


IPx34 or IPx1234 model

## Show Details



IPx12 turntable



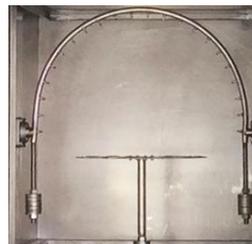
IPx12 pins



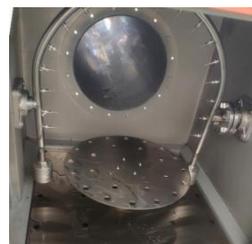
IPx56 model



IPx56 inner chamber



IPx34 inner chamber



IPx3456 inner chamber



IPx3, IPx4, IPx56 flow meter

## Main technical parameters

IPx12 series (Perform the IP code IPx1, IPx2)			
Model	INO-IP12-600	INO-IP12-800	INO-IP12-1000
Inner size (mm)	600 x 600 x 600	800 x 800 x 800	1000 x 1000 x 1000 other sizes can be customized
Dripping hole diameter	0.4MM, each hole with interval of 20X20MM		
Rainfall rate	1+0.5mm/Min, 3+0.5mm/Min		
IPx34 series (Perform the IP code IPx3, IPx4)			
Model	INO-IP34-600	INO-IP34-800	INO-IP34-1000
Inner size (mm)	600 x 600 x 600	800 x 800 x 800	1000 x 1000 x 1000 other sizes can be customized
Water spray hole diameter	φ 0.4mm, interval 50mm		
Flow rate per spray hole	0.07 L/min + 5%		
Turntable diameter	φ 200MM ~ φ 400mm according from 216L to 1000L		
Sprinkler swing angle range	45° , 60° , 90° 180°		
IPx56 series (Perform the IP code IPx5, IPx6)			
Model	INO-IP56-600	INO-IP56-800	INO-IP56-1000
Inner size (mm)	600 x 600 x 600	800 x 800 x 800	1000 x 1000 x 1000 other sizes can be customized
Nozzle size	φ12.5mm, (IPx6); φ 6.5mm, (IPx5)		
Water spray intensity	IPx6-100±10 (L/min), IPx5-12.5±2 (L/min)		
Water pipe dimensions	Water pipe length for IP56 is 2.5-3m		
Remark: the above IP code test can be integrated in one machine for option, for example, IPx1234, IPx3456, IPx123456			

# IPx9K (/4K/6K) High Pressure Water Jet Test Chamber

IPX9K high-temperature and high-pressure waterproof test chamber is to use the water temperature of up to 80 °, plus the water pressure of 8000-10000Kpa, to carry out 4 fixed orientation spray test on the sample. 4 nozzles, each fixed at each angle, respectively 0°, 30°, 60°, 90°, each angle requires a test time of 30s. It is recognized as the harshest of all ingress protection tests. However the requirement is becoming more prevalent across many industries. It is mainly suitable for testing the performance of shell and seal of electrical and electronic parts, automobile parts and seals etc..



## Conforms to the international standards

- DIN40050-9 IP code of enclosure protection grade
- IEC60529 electrical enclosure protection classification level (IP) code
- ISO16750-1 Road vehicles Environmental conditions and tests for electrical and electronic equipment (general regulations)
- ISO20653 road vehicles-protection level (IP code)-protection of foreign objects, water and contact of electrical equipment
- QC / T 417.1 Vehicle wiring harness connector Part 1

## Main technical parameters

Model	INO-LY-1000D
Inner size	L1000*D1000*H1000mm
External size	L1500*D1180*H1850mm appr.
Water pressure	80 ~ 100bar (8000 ~ 10000Kpa) 100Kg - (81.5-101.9kg / cm <sup>2</sup> )
Temperature	25°C (room temperature) ~ 80±5°C
Test time	120s (30s/position)
Jet angle	0°, 30°, 60°, 90° (water spray at each angle for 30 seconds)
Water flow	14~16L / min
Spraying distance	10 ~20CM
Numbers of jet	4
Diameter of turntable	400mm
Lifting mode of turntable	Fixed type
Rotational Speed	5r/min (adjustable)
Controller	7-inch touch screen controller
Protection device	Leakage, water break, short circuit
Power supply	380V 50/60HZ, 7KW
Material	Inner chamber: SUS304 stainless steel; External chamber: SUS304 stainless steel or quality painted optional

## Application



Auto parts



Electronic products



Shell & motor



Motorcycle parts

# Water Immersion Test Machine (IPx7/8)

The IPX7 / 8 anti-water immersion test is mainly to test whether the product has strong water resistance when immersed in water, it realistically simulate various environments such as immersion and diving. IPX7 and IPX8 are two tests with different requirements. The difference is that the two require different immersion depths. During the IPX7 immersion test, test sample needs to be immersed in a water depth of 1 meter.

It is suitable for testing whether electrical products, enclosures and seals can ensure good performance of equipment and components under water. It is applicable to the inspection of electrical products with enclosure protection level IEC (IP supplement code, enhanced test) that conforms the requirements IPx7 or IPx8.



IPx8

## Conforms to the international standards

- GB/T 7000.1 "Luminaires - Parts 1: General requirements and tests (IEC60598-1:2014)"
- IEC/EN60529 "Degrees of protection provided by enclosure (IP code)"
- GB/T 4208-2008 "Degrees of protection provided by enclosure (IP code)"



IPx7

## Main technical parameters

Model	INO-IP7/8-600
Inner size	Φ600mm, height 1000mm
Water pressure range	atmospheric pressure -0.3MPa
Temperature	25°C (room temperature) ~ 80±5°C
Pressure gauge accuracy	0.25
Time control:	0 ~ 99 minutes and 99 seconds
Water depth simulation	1 ~ 30 meters (other depth is customized)
Inner chamber material	SUS304 stainless steel
External chamber material	SUS304 stainless steel
Stainless steel tank thickness	2mm
Protection device	1) Power overload, short circuit protection 2) Grounding protection 3) Water shortage protection 4) Alarm message prompt
Controller	Pressure gauge, digital, touch screen control is optional
Protection device	Leakage, water break, short circuit
Power supply	220V 50/60HZ, single phase

## Application



Auto parts



Electronic products



Shell & motor



Motorcycle parts

# High Temperature Oven (Nitrogen-filled, Ventilation is available)

The oven is a piece of requisite test equipment for aerospace, automotive, home appliances, R&D and equipment, and other fields. It's used to test and determine the environment parameters and performance for electrical, electronics products and materials under environment of high temperature, constant temperature or rapid changing temperature.



## Features

- Inner material: High temperature and corrosion-resistant SUS stainless steel with thickness of 5mm; strengthen treatment for inner box, will not be deformed
- External material: adopts the international universal 1.0mm SECC steel plate; the outer surface of steel plate is treated by the precision double-layer powder paint, which is nice and generous and enhances its anti-corrosion and anti-rust performance compared with the normal appearance spraying process.
- Insulation material: imported aluminum silicate cotton with strong insulation properties used for insulation materials that with less energy conservation to reduce the impact on ambient temperature of equipment.
- Sealing material: Anti-high temperature silicone.



## Main Technical Parameters

Model	INO-HT-30A	INO-HT-45A	INO-HT-60A	INO-HT-80A	INO-HT-90A	INO-HT-100A	INO-HT-120A
Inner size: W*H*D(cm)	30*30*30	45*40*40	50*60*50	60*80*50	60*90*50	80*100*60	80*120*70
External size: W*H*D(cm) appr.	60*92*52	70*128*62	80*138*72	100*158*92	110*168*102	130*188*112	130*188*112
Temperature range	RT +10 ~ 200C (max. Temp to 300C, 400C or higher is available)						
Temp. Control stability	±0.5°C						
Temp. accuracy	0.1°C						
Temp. uniformity	± 1.5°C						
Inner material	304# SUS or 430#						
External material	Painted or SUS optional						
Power supply source	AC220V, 50/60Hz, 1 phase / AC380V 50/60Hz, 3 phase (other sizes can be customized)						
Customization	Size: Other sizes can be customized according to user's requirements. Nitrogen-filled function, Ventilation aging oven that meets international standards is available						

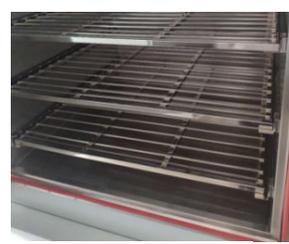
## Show Details



Digital control



Programmable control optional

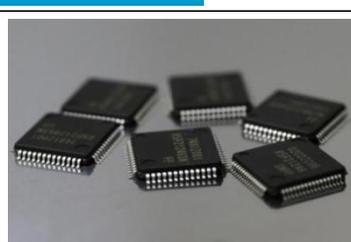


Sample shelves



Viewing window

## Application



# Vacuum Oven (Nitrogen-filled function is available)

Vacuum drying is to dry the dried materials under vacuum conditions. It uses a vacuum pump for suction and dehumidification to form a vacuum state in the working chamber, reduce the boiling point of water, and speed up the drying. It is composed of a high-vacuum vacuum pump, a cabinet, a working room, an electric heater and a digital thermometer, that can be able to work stably under the set vacuum conditions, suitable for vacuum drying in medicine, chemical industry, electronics, equipment, materials, parts and other industries.



## Features

- Sealing material: high temperature silicone strips;
- Vacuum pump: vacuum pump is installed on the bottom of the machine (hidden);
- Inner material: anti-high temperature SUS304 # stainless steel industrial plate, steel thickness of 5.0mm, to enhance the treatment of vacuum is not deformed;
- External Material: 1.5mm thick cold-rolled steel, steel double-sided paint surface treatment (white);
- Insulation material: fiber rock wool, good insulation properties, thickness 100mm;
- The bottom of the box to install activities casters and adjustable fixed foot cup.

## Main Technical Parameters

Model	INO-VT-30A	INO-VT-40A	INO-VT-50A	INO-VT-60A	INO-VT-70A	INO-VT-80A	INO-VT-100A
Inner size: W*H*D(cm)	30*30*30	40*40*40	50*50*50	60*60*60	70*70*70	80*80*80	100*100*100
External size: W*H*D(cm) appr.	60*92*52	70*128*62	80*138*72	90*148*82	100*158*92	110*168*102	130*188*112
Temperature range	RT +30 ~ 200C (max. Temp to 300C, 400C or higher is available)						
Temp. Control stability	±0.5°C						
Temp. accuracy	0.1°C						
Temp. deviation	± 6°C						
Vacuum design range	0.0KPa to -101.00KPa						
Vacuum use range	0.0KPa to -100.00KPa (other vacuum range can be customized)						
Pressure vacuum leak rate	about 1.0KPa per hour						
Inner material	304# SUS						
Power supply source	AC380V 50/60Hz, 3 phase						

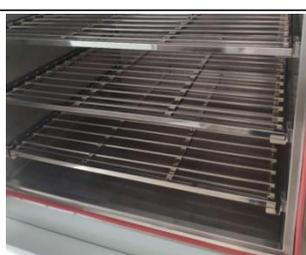
## Show Details



Digital control



Programmable control optional

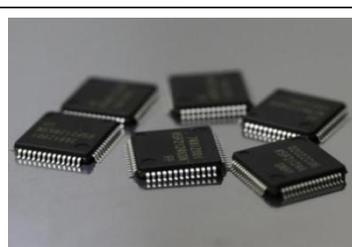


Sample shelves



Vacuum pump

## Application.



# Electromagnetic Vibration Test Table (G series)

Electromagnetic vibration table is widely used in national defense, aviation, communications, electronics, automotive, home appliances, and other industries. This type of device is used to find early failure, simulate the actual working conditions for assessment and structural strength test; with a very wide service range, test efficiency is remarkable and reliable. Sine wave, FM, frequency sweep, programmable, multiplier, logarithmic, time etc. are all controllable.



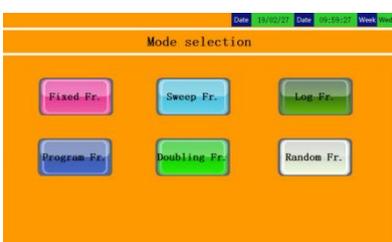
## Features

- Touch screen controller, easy to operate, to solve the shortcomings of digital operation which is inconvenient;
- Four-point synchronous excitation, the table vibration evenly.
- Real-time synchronous display of control parameters, without human intervention.
- Machine base with shock absorber, easy installation, smooth operation, no need to install the anchor screws
- Embedded amplitude prediction program and easy to adjust the amplitude
- Steppless adjustment amplitude, fixed frequency and frequency sweep operation can meet different requirements
- Increase the anti-jamming circuit, to solve the strong electromagnetic field on the control circuit interference;
- Curve display function, can view the frequency waveform changes at any time

## Main Technical Parameters

Model	INO-500AG	INO-500BG	INO-500CG	INO-500GE
Vibration direction	One axis - Y	Two axis - Y + X	Three axis - Y + X + Z	
Table size (mm)	500*500 (models with 750*750 / 1000*1000 is optional, other size customization is available)			
Max. Test load	60~100kgs			
Frequency	2-600HZ (2000Hz and other frequency customization is available)			2-3000HZ
Frequency accuracy	0.01 Hz			
Amplitude	0 ~ 5mm (or higher)			
Maximum acceleration	20G			
Vibration waveform	Sine wave			
Function	Fixed, Random Frequency, Sweep Frequency, Log, Doubling Frequency, acceleration curve available,			
Controller	7" programmable touch screen controller (English only language)			
Power supply	220V, 50/60Hz, AC, Single phase, 2.0KW			

## Show Details



Software function



Acceleration curve



Customized table



Table size:100\*100cm

## Applications



Auto parts



Electronic products



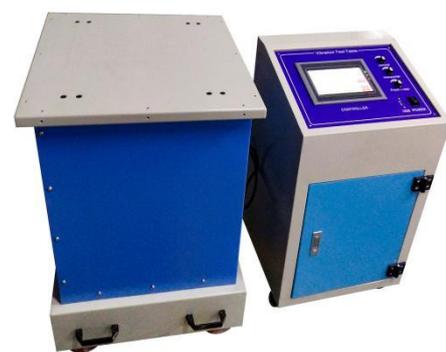
Shell & motor



Motorcycle

# Electromagnetic Vibration Test Table (D series)

Electromagnetic vibration table is widely used in national defense, aviation, communications, electronics, automotive, home appliances, and other industries. This type of device is used to find early failure, simulate the actual working conditions for assessment and structural strength test; with a very wide service range, test efficiency is remarkable and reliable. Sine wave, FM, frequency sweep, programmable, multiplier, logarithmic, time etc. are all controllable.



## Features

- Touch screen controller, easy to operate, to solve the shortcomings of digital operation which is inconvenient;
- Four-point synchronous excitation, the table vibration evenly.
- Real-time synchronous display of control parameters, without human intervention.
- Machine base with shock absorber, easy installation, smooth operation, no need to install the anchor screws
- Embedded amplitude prediction program and easy to adjust the amplitude
- Steppless adjustment amplitude, fixed frequency and frequency sweep operation can meet different requirements
- Increase the anti-jamming circuit, to solve the strong electromagnetic field on the control circuit interference;
- Curve display function, can view the frequency waveform changes at any time

## Main Technical Parameters

Model	INO-500DA	INO-500DB	INO-500DC	INO-500DCG
Vibration direction	One axis - Y	Two axes - Y + X	Three axes - Y + X + Z	
Table size (mm)	500 **500 (750*750 / 1000*1000 optional, other size customization is available)			
Max. Test load	60kgs			
Frequency	2-600HZ			2-3000HZ
Frequency accuracy	0.01 Hz			
Amplitude	0 ~ 5mm			
Maximum acceleration	20G (other requirements customization is available)			
Vibration waveform	Sine wave			
Function	FM, Sweep, Logarithmic, time, Programmable, no random vibration or acceleration			
Controller	7" programmable touch screen controller			
Power supply	220V, 50Hz, AC, Single phase, 1.2KW			

## Show Details



Control panel



Customized table



Spare parts



Transformer customized

## Applications



Auto parts



Electronic products



Shell & motor



Motorcycle

# Universal Material Testing Machine

It is mainly used for testing the mechanical properties of metal, nonmetal and composite materials. Professional design of the automatic control and data acquisition system to achieve the data acquisition and control process of all-digital adjustment. It's widely used in manufacturing industry such as profile, aerospace, petrochemical, waterproofing membrane, film, wire and cable, textile, fiber, rubber, ceramics, food, medicine packing, geotextile, film, wood, paper and all levels of product quality Supervision departments, and also applies to teaching demonstration work in colleges and universities.



## Features

- Using high-precision, fully digital speed control system and precision ball screw to drive the test, low noise during testing;
- Universal joint cross pin structure has a tilt angle limitation, not only it facilitate the sample holder to ensure concentricity test, but also it eliminates the effects from the testing of irregular sample;
- Touch button operation, LCD display with real-time display (for touch screen control only). External computer control is available;
- Three units of measurement: N-Kgf-Lbf optional and can automatically switch;
- Lifting speed adjustment of clamping beam during specimen testing is available, with protection from over-current, over-voltage and overload protection device.



## Main Technical Parameters

Model	INO-TB-50(M)	INO-TB-100(M)	INO-TB-500(M)	INO-DB-10KN	INO-DB-20KN	INO-DB-50KN
Structure type	Single beam			Double beam (bigger capacity can be customized)		
Capacity	500N	1000N	5000N	10KN	20KN	50KN
Total test stroke (mm)	300-500mm		600-800mm	1000mm (or customized)		
Testing space (mm)	400 (or customized)					
Stroke resolution (mm)	0.01					
Measuring accuracy(%)	±1%					
Control mode	7" touch screen programmable control or external PC control model is optional					
Speed range	0.5-500mm/min					
Fixture	Tensile fixture standard, other fixture can be customized according to users' requirements					
PC-port	For PC control mode only, micro computer control is customized					
Hardware safety protection	Up/down limit, emergency stop button					
Power supply	220V, 50/60Hz, AC, Single phase					

## Application



Plastic & Rubber



Wire & Cable



Composite material



High hardness steel

# Drop Testing Machine

The drop test machine simulates the situation when the product is dropped to the ground at different edges, angles and faces at different heights after packaging, so as to understand the damage of the product and evaluate the falling height and impact resistance of the product packaging components. It's to improve the packaging design according to the actual situation of product and the scope of national standards.

## Conforms to the international standards

- ISO2248, JISZ0202-87, GB/T4857.5-92
- GB / T 2423.8-1995 Environmental testing for electrical and electronic products

## Feature

- The main column is made of special high-quality steel, made by the cylindrical grinding processing, plating treatment for surface, durable;
- Taiwan ST special customized chain;
- To really complete the drop test from surface, edge and angle;
- With the preset drop height error of not more than 2% or 10mm.
- Configured the digital display to show height and high-speed tracking decoder, which can accurately give the height of drop;

## Main parameters

Model	INO-AD-800 (single beam)	INO-BD-800 (double beam)
Max. Test Load	80kgs	65kgs
Drop height	300-1500mm adjustable	400-1500mm adjustable
Max. Size of specimen	800 x 800 x 1000mm	
Test drop mode	edge, angle, surface	
Thickness of bottom plate	10mm	
Impact panel parallel error	≤1 degree	
Drop height deflection	±10mm	
Height display	LED instrument digital display (Programmable touch screen is optional)	
Drop mode	Freedom	
Driving method	Electric driving	
Power Capacity	1.5KW	
Weight	320 Kg appr.	
Power supply	380V, 50/60 Hz, 3 ph (220V, 1ph is available )	
Customization	Other bigger test load or max. Specimen can be customized, <b>Zero drop model</b> is available	

## Application



Tiles



Ceramics



Cabinet



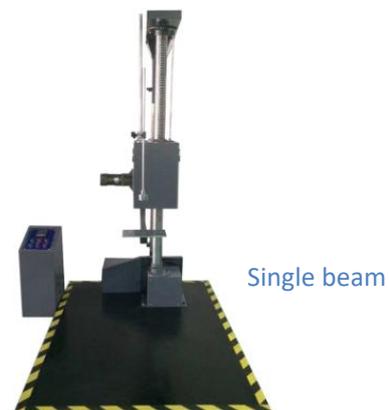
Toys



Cartons & packages



Double beam



Single beam

# Transport Simulation Vibration Tester

It is mainly simulates the vibration of goods in the car during transportation that the goods encountered different road conditions such as: bumps, uphill, downhill, turn, etc.; It is suitable for the vibration test of toys, electronics, furniture, gifts, ceramics, communications, equipment, computers and automobile parts, etc.. so as to further improve the quality of packaging goods. The ISTA test standard is the American Transportation Association standard and ASTM is the American Material Association standard. Both standards require equipment for simulating transportation vibration: the amplitude is 25.4 mm (1 inch, fixed), and the frequency is 1.5-5 Hz (or 100-300 rpm) / Min adjustable).



## Conforms to the international standards

- EN, ANSI, UL, ASTM, ISTA, GB/T4857.7-2005

## Features

- Vibration digital instrument shows the vibration frequency at high precision;
- Synchronous mute belt drive with low noise;
- Sample fixture with rail type is safe and easy to operate;
- Heavy-duty channel base with damping rubber, it's easy for installation, it's not necessary to install the foot screw;
- DC motor speed, smooth operation, strong load capacity;

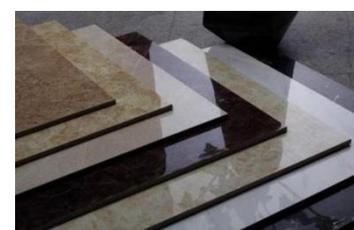


big size

## Main Technical Parameters

Model number	INO-AT-100
Max. Test Load	1KN (100kg, other bigger capacity can also be customized)
Frequency Range	100-300 rpm
Amplitude Range	25.4 mm (1 inch)
Simulation Speed	25~40 km/h
Vibration Mode	Gyration
Work table size	L1200 * W1000mm (other size can be customized)
Work table material	SUS # 304 stainless steel
Speed Mode	DC converter
Power Capacity	1 HP
Weight	150 Kg
Power supply	220V, 50 Hz, single phase
Customization	Other bigger test load or table sizes can be customized applies to large test samples

## Application



Tiles



Ceramics



Cabinet



Toys



Cartons & Packages

# Carton Compression Test Machine

The Carton Compression Testing Machine is used for compressive strength performance test of corrugated boxes, packaging containers and transport packages; the machine has statistical data processing and printing functions with the standard contains the parameters of the test, display and memory, can be directly get the statistical results of the data, which is easy to operate.



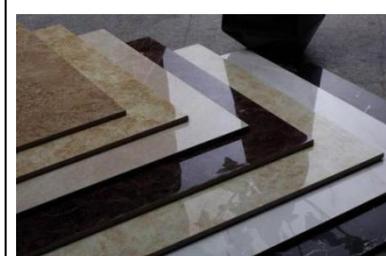
## Conforms to the international standards

- ISO2872 "Compression test for packaging transport parts"
- ISO2874 "Stacking test for packaging and shipping parts using compression testing machine"
- GB4857.4 "Basic pressure test method for transport package"

## Technical parameters

Model number	INO-CT-600	INO-CT-800	INO-CT-1000	INO-CT-1200
Test Space (mm)	600*600*600	800*800*800	1000*1000*1000	1200*1200*1200
Test Capacity	1000kgs (2000kgs or higher is optional)			
Resolution	1 / 100,000			
Stroke	50-1200mm (can be customized)			
Test units	kgf, KN, N, tonf(sl), gf, tonf (long), tonf (short), lbf, ozf			
Test speed	10-1200mm / min			
Control system	AC variable frequency gear motor			
Transmission	T-type screw + chain drive			
Display	LCD large touch-screen controller (7 inch), Computer control is optional			
Upper plate thickness	Electric driving			
Upper plate thickness	15mm			
Lower plate thickness	10mm			
Power supply	220V, 0.85KW, 50/60HZ			
Customization	Other bigger test load or max. Specimen sizes can be customized.			

## Application



Tiles



Ceramics



Cabinet



Toys



Cartons & Packages

# IZOD / Charpy Impact Tester

It is used to measure the impact toughness of non-metallic materials such as hard plastics, fiber reinforced composite materials, nylon, glass fiber reinforced plastics, ceramics, cast stone, and plastic electrical insulation materials. It is a commonly used equipment for quality inspection in scientific research institutions, colleges and universities, and related factories and mines. There are two display methods, LCD display, and computer control.

## Conforms to the international standards.

- ISO179-2000 "Determination of charpy impact strength of plastics-hard materials"
- GB / T1043-2008 "Charpy impact test method of hard plastic"
- JB / T8762-1998 "Charpy impact test method of plastic"
- GB / T 18743-2002 "Charpy impact test method of thermoplastic pipes for Fluid transportation use" (for pipe fittings).
- ASTM D256-2010 "Test method for determining the impact strength of plastic IZOD pendulum"



IZOD



Charpy

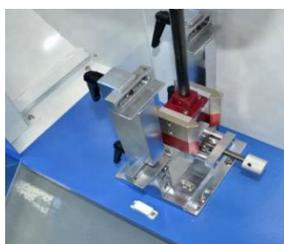
## Main Technical Parameters

Impact tester	IZOD Impact Tester		Charpy Impact Tester		
Model	INO-XBL-5D	INO-XBL-22D	INO-JZL-5D	INO-JZL-15D	INO-JZL-50D
Pendulum energy	2.75J, 5.5J	11J, 22J	1J, 2J, 4J, 5J	7.5J, 15J	(1J, 2J, 4J, 5J) 7.5J, 15J, 25J, 50J
Impact speed	3.5M/S		2.9 M/S	3.8M/S	
Energy display accuracy	0.01J				
Pendulum angle	150 °				
Precision and brand of angle sensor	Omron encoder with accuracy to 0.01 °				
Distance from pendulum center to impact blade	335mm				
Jaw bearing spacing	40mm, 60mm, 70mm, 95mm				
Fillet radius of bearing blade	R=1mm				
Impact blade angle	30 °				
Fillet radius of impact of blade	R=2mm ± 0.5mm				
Power supply	220V, 50/60Hz, 1ph				

## Show Details



Touch screen controller



Izod Pendulum



Charpy Pendulum



Pendulum parts

# Melt Flow Indexer

Melt flow indexer (MFI) is used to determine melt-mass flow rate (MFR) or melt-Volume flow rate (MVR) of various plastic materials such as polyethylene, polypropylene, polystyrene, ABS, polyamide, fiber resin, acrylate, polyoxymethylene, fluoroplastic, polycarbonate etc.. It is widely used in plastics raw materials products, the petrochemical industry and related inspection department of universities, scientific research institutes.



Digital key pressing control

## Conforms to the international standards

- GB/T3682-2000 Determination of MFR and MVR rate of thermoplastic
- ISO 1133: 1997 Determination of Thermoplastic Melt Mass Flow Rate MFR and Melt Volume Flow Rate MVR
- ASTM D1238 Determination of Melt Flow Rate of Thermoplastics by Extruded Plasticity



## Main Technical Parameters

Model number	INO-MI-400 / INO-MIV-400	INO-GRT-400 / INO-MI-AP
Temperature range	RT + 10 to 400°C	
Temp. fluctuation / uniformity	±0.2°C / ±1°C	
Temp. /time display resolution	0.1°C / 0.1S	
Barrel diameter	Φ2.095 ± 0.005mm	
Outlet length	8.000 ± 0.025mm	
Loading cartridge diameter	Φ9.550 ± 0.025mm	
Material cutting method	Manual and automatic cutting material integrated	
Controller	Digital key pressing	Programmable 7" touch screen, RS232/USB is available
Control mode	Digital key pressing	Touch screen or PC control
Test method	MVR (MFR is optional)	MVR+MFR
Test weight	8 sets of weights in total	
Weight accuracy	± 0.5%	
Power supply	AC220V ± 10% 50/60HZ; Power: 550W	



INO-MI-AP Electric auto model

## Application.



## Show Details



Display (INO-MI-400)



Tool box



Micro printer

# Steam Aging Test Chamber

Steam aging test chamber is suitable for the aging accelerated life test before pin tint resistance test of electronic connectors, semiconductor ICs, transistors, diodes, liquid crystal LCDs, chip resistors and capacitors, components industry.

## Features:

- 304#SUS stainless steel material for the whole chamber
- Microcomputer digital LED control, with time planning function set up to 9,990Mins
- Multiple over-temperature protection / water shortage electric heating and other safety devices
- PID + SSR temperature controller, at the same time with time counting function, the maximum can be set to 9990 minutes unlimited.



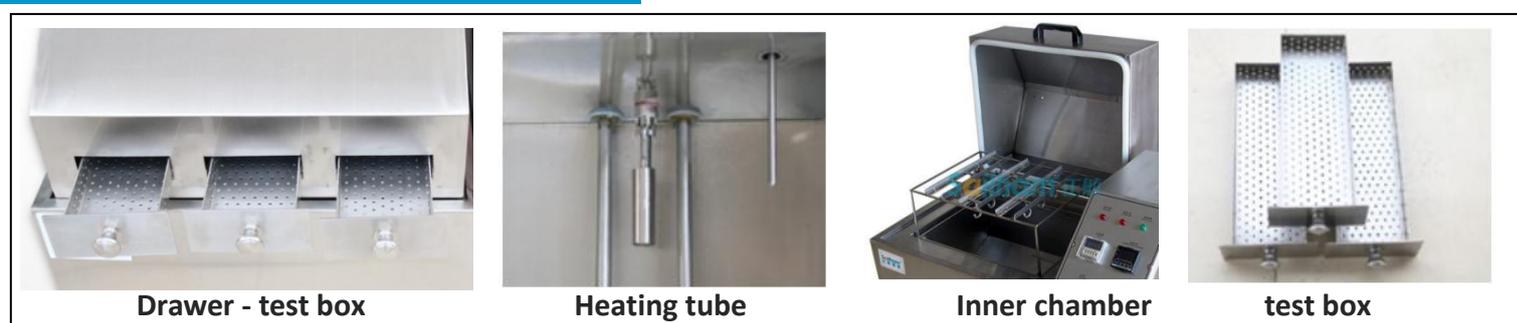
## Conforms to the international standards.

- MTL-SIP-208F, 202GB, GJB, MIL, ASTM, CNS, EC, JIS

## Main technical parameter

Model number	INO-SA-500
Inner size	W500*H400*D170mm
External size	W730*H570*D500mm
Test box size	W100*H35*280 (3 test boxes in total)
Temperature range	Room temperature +10°C to 97°C about 30min
Temp. control accuracy / resolution	±1.0°C / ±0.1°C
Inner body material	SUS # 304 stainless steel
External body material	SUS # 304 stainless steel
Controller	Digital key pressing
Safety devices	Overheating circuit-breaker, compressor overload protection, control system overload protection, humidifying system overheating protection, breakdown indicator light.
Weight	22 Kgs
Power supply	220V, 50 Hz, single phase
Customization	Other bigger size or requirements can be customized

## Show Details



Drawer - test box

Heating tube

Inner chamber

test box

# Falling Ball Impact Tester

Falling ball impact testing machine adopts DC electromagnetic control method, the steel ball is placed under the electromagnetic sucker ball automatically suction, press the drop button, it release the steel ball instantaneously, the ball will do free fall test to impact the surface of specimen. Drop height can be adjusted up and down, and affixed with a height scale, we can learn the height of the drop.

The machine to the provisions of the weight of the ball, adjust at a certain height to make it free fall, depending on the extent of its damage to quality.

It is designed for the collision of finished products or components such as plastic, ceramic, acrylic, glass, electronics, electrical appliances, household appliances, plastics and communications during the installation process so as to assess whether the product structure is bad or not enough to test Certain provisions of the weight of steel balls, free fall at a certain height, hit the sample, components, and to observe the degree of damage to the product.



## Main technical parameters

Model number	INO-FB-200
Impact height	0-2000mm adjustable
Control model	DC electromagnetic control falls, a single impact
Specimen size	300*300mm
Flat plate	500*500mm
Machine dimension	520 * 520* 2000mm
Steel balls provided	33g, 50g, 64g, 95g, 112g, 134g, 175g, 1040g per one
Machine weight	36kg
Protective device	Protective cage around
Drop rod shape	Square pole
Control box	Separate control box is simple and generous

## Application



Electronic products



Ceramics



Motors, Shells

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