

ISTA Packaging Test Equipment- Solution from HAIDA



Haida International Equipment

Your Lab Consultant contact us for finding your testing solutions.

Phone : 86 0769 8920 1068

Website:

<http://www.haidatestequipment.com/>

<http://www.papertestmachine.com/>



WHY CHOOSE US

WHY HAIDA

- 5+ Years Testing Equipment Manufacturer
- 7+ Sales Office in China
- One Stop Testing Solution Provider
- ISO 9001:2008 Certificated Factory
- OEM Service Provided
- Distributor Spanning Over 60 Countries



BRAND SERVICE

1 year warranty: Maintenance-free life



Tips

- 1 Product failure, largely because people operate incorrectly, so please check for yourself first.
- 2 Self-examination can not be restored instrument, detailed record of failure scenarios, the first time to give us feedback.
- 3 Receive feedback within 2 hours, we will promptly provide professional maintenance advice.
- 4 Self-maintenance can not be completed, we will promptly respond within 24 hours, and sent home maintenance engineers.
- 5 Products 1 year free warranty and lifetime maintenance-free

CUSTOMER SERVICE PROCESSES



② Research Process

Independent R&D department with 10 people team



④ Quality Control



⑥ Packaging & Transportation

Strong export wooden package

⑦ Technical Training & After-sales Service Support

Independent after-sales support team with 3 people team



① Pre-sales Service

Lab Consultant One-on-one service



③ Assembly

Have the full production flow, including Lathe, Milling, Cutting, Bending, Assembling...



⑤ Delivery Inspection

Issue inspection report before shipping



Our Customer



Haida International Equipment Co.,Ltd

--Hi-Tech Enterprise,Product Patent Manufacturer--



Our Vision:
To Be The World Class Testing Equipment Enterprise.

Our Value:
Loyalty, Efficiency, Passion, Creative, Sharing, Persistence.

Our Mission:
Deliver The Best Testing Equipment To Our Customers.





Raw material test



Paper Packaging container test



Other material packaging container



Packaging Testing Proposal Guideline

Why you need Packaging Testing



The only thing protecting your product from structural or environmental damage is the packaging in which it ships. Whether it ships in a cardboard box, a crate or a custom-designed case – either domestically or internationally -- you need to ensure the packaging meets requirements to avoid damage during transit.

Advantages of Packaging Testing

- Protect the Product
- Save Money. Each Time Your Product is Damaged During Shipping, You Lose Money
- Increase Brand Loyalty
- Reduce the Need for Trial Shipments
- Reduce Product Claim Headaches

Packaging testing often includes the products affected by the packaging. Packaging test apply globally to a wide range of industries, including electronics, food, consumer, industrial, chemicals, packers, retailers, brand owners, packaging materials manufacturers, and more.

Packaging testing can be done at many stages of the product cycle: prior to new product launch, with new packaging redesigns, when product damage is an issue in your company, or when your clients require testing. The best way to prepare is to include testing as early in the packaging design as possible.





ISTA TESTS ORGANIZED BY DISTRIBUTION MODE OR TYPE QUICK REFERENCE

Any Distribution Mode and Individual Packages Weighing...		
150 lb (68 kg) or Less	Over 150 lb (68 kg)	Basic Requirements
1A	1B	fixed displacement vibration & shock testing
1C	1D	fixed displacement or random vibration, shock testing and compression conditioning (optional atmospheric conditioning)
1G	1H	random vibration and shock testing
2A	2B	atmospheric conditioning, compression, fixed displacement or random vibration, and shock testing

Small Parcel Delivery Mode and Individual Packages		
Test	Package Type	Basic Requirements
3A	70 kg (150 lb) or Less Small, Standard, Flat, Elongated	atmospheric conditioning, shock, and random vibration testing (with & without top loads)
2D	Flat	fixed displacement vibration and shock testing
2E	Elongated	fixed displacement vibration and shock testing
7E	Thermal Performance	thermal testing for insulated shipping containers

Less-Than-Truckload (LTL) Delivery Mode

Test	Package Type	Basic Requirements
3B	Standard, 200 lb (91 kg) or less	atmospheric conditioning, shock, impact, random vibration with top load, tip/tipover
3B	Standard, over 200 lb (91 kg)	atmospheric conditioning, shock, impact, random vibration with top load, tip/tipover
3B	Cylindrical	atmospheric conditioning, shock, impact, random vibration with & without top loads
3B	Palletized or Skidded	atmospheric conditioning, shock, impact, random vibration with top load, tip/tipover, fork lift handling

Any Distribution Mode and Unitized as a Single Load

Test	Package Type	Basic Requirements
1E	Unitized	vertical linear or random vibration and shock
3E	Unitized	atmospheric conditioning, compression, random vibration, and shock testing

Any Distribution Mode and Reusable Systems

Test	Package Type	Basic Requirements
3H	Mechanically Handled Bulk	atmospheric conditioning, random vibration & shock testing (optional compression testing)

Other		
Test	Package Type	Basic Requirements
2C	Furniture Packages	atmospheric conditioning, top load vibration, and shock testing
2F	LTL Shipments (NMFC Item Rule 180)	atmospheric conditioning, compression/vibration, vibration, shock testing
3F	Non Unitized DC to Retail 100 lb (45 kg) or Less	atmospheric conditioning, compression, random vibration, and shock testing
4AB	Varies	Web-based Enhanced Simulation Performance Test
6 Series-Member Performance Test	Varies	Requirements set by member. See 6 series section.

Development Tests		
Test	Package Type	Basic Requirements
7A	Open Container 60 lb (27 kg) or Less	compression and shock (optional atmospheric conditioning)
7B	Closed Container 150 lb (68 kg) or Less	fixed displacement and random vibration, shock, compression, atmospheric conditioning
7C	Intermediate Bulk Container	atmospheric conditioning, compression, random vibration, and shock testing

HD-E702/HD-E705 Series Temperature and Humidity Chamber-Atmospheric Preconditioning



HD-E702 Temperature&humidity chamber



HD-E705 Walk-in Temperature&humidity chamber



STANDARD SPECIFICATION

Item		Specifications
Dimensions	Inner Size	Can be customized(Please let me know your max. Sample size)
	Machine Size	Customized
Performance	Control Method	Balanced temperature humidity control system (BTHC) PID intelligent adjust
	Temperature Range	-40℃～80℃ (reference to test conditions)
	Humidity Range	15%-85%R.H
	Uniformity	±2℃, ±3%RH
	Heating Rate	1℃/min Average, without load
	Cooling Rate	1℃/min Average, without load
	Chamber Material	SUS#304 stainless steel, mirror finished
	Insulation Material	asbestos-free CSC-free, with low thermal conductivity, polythene pu foam
Regulator	Cooling Mode	Mechanical binary refrigeration way
	Refrigerant	R232
	Condenser cooling	Water Cooled /Air-cooled
	Humidifier	Stainless steel humidifying tube
	Airflow Way	Broadband-type forced air circulation
Controller	Operate Interfaces	TEMI 1500 Controller, LCD touch screen
	Memory capacity	120 groups, each program 100 segment
	Temperature sensor	PT-100 dry and wet bulb sensor
	Communicate port	Interface facility with RS232



	Subsidiary function	Upper and lower alarm; self diagnosis ; alarm display (fault cause); time sequence protection (Automatic turn on or turn off)
Water supply(option)	Water supply	Circulating water supply
	Water tank	Built-in hand type
	Water quality	resistance >500Ω.m
Power supply		Single-phase, 220V±10%, 50/60Hz /Three phase, AC380 V ± 10 %, 50 Hz(can be appointed)
Standard Configuration		One observe window (Double hollow toughened glass); one small hole for wire routing with diameter 50mm (on the left); 2pcs sample holder, one floodlight (fluorescent lamp); one water feeding tank(option);
Safety device		Power leakage protection; Dry heating protection; Water system protection Over-temperature protection switch; Temperature deviation alarm, Compressor Over pressure; overload; Water shortage; Phrase shortage, etc.

ISTA TEST CONDITION

Anticipated Conditions	Time in Hours	Temperature in °C ±2°C (°F ±4°F)	Humidity in %
Extreme Cold, Uncontrolled RH	72	-29°C (-20°F)	uncontrolled RH
Cold, Humid	72	5°C (40°F)	85% RH ±5%
Controlled Conditions	72	23°C (73°F)	50% RH ±5%
Hot, Humid	72	38°C (100°F)	85% RH ±5%
Hot, Humid then Extreme Heat, Moderate RH:	72 then 6	38°C (100°F) then 60°C (140°F)	85% RH ±5% then 30% RH ±5%
Elevated Temperature, Uncontrolled RH	72	50°C (120°F)	uncontrolled RH
Extreme Heat, Dry	72	60°C (140°F)	15% RH +/- 5%
Severe Cold, Uncontrolled RH	72	-18°C (0°F)	uncontrolled RH
User Defined High Limit	72	Based upon known conditions	Known conditions
User Defined Low Limit	72	Based upon known conditions	Known conditions
User Defined Cycle	72	Based upon known conditions	Known conditions

DETAIL CHAMBER IMAGE FOR HD-E705 WALK-IN TEMPERATURE AND HUMIDITY CHAMBER



Control panel



Circuit Board



Cooling system



Water tank

To be your lab consultant

HD-A521/HD-A521-1 Series Transportation Simulation Vibration test machine



HD-A521 Button type Vibration table



HD-A521-1 Vibration table(large type for reference)



STANDARD SPECIFICATION

Item	Description	
Model	HD-A521 Button type	HD-A521-1 PLC type
Max. test load	100 kg for standard (can be customized)	
Work table size	1000*1200mm for standard (can be customized)	
Control method	Button type	PLC touch screen 10 segments and set 10 different programs to test automatically
Frequency range	60~300rpm (adjustable)	
Amplitude range	25.4mm (1 inch)	
Vibration mode	Rotary motion	
Fence height	200mm for standard (can be customized)	
Design standard	ISTA 1A/1B	

MAIN FEATURES

1. Cost friendly, which is only 10% of the same products in the USA;
2. Adopts synchronous mute belt drive for low noisy;
3. Rail-type specimen holder, easy operation and safety;
4. Machine base adopts heavy style channel with vibration attenuation pad, convenient, stable and no need to install land screw;
5. AC motor adjusts speed for smooth operation and large load ability;
- 6. It can set 10 different segments with different frequency to work automatically and the machine will stop automatically once finish test.**

ISTA 1A/1B TEST CONDITION

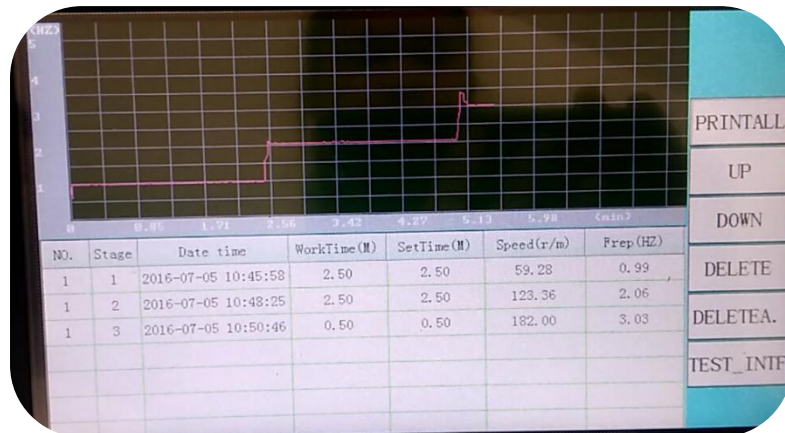
Familiarity with the following formula is required to calculate the test duration after the frequency required to bounce the packaged-product is determined in the Vibration Test Block:

$$\text{Test Duration in Minutes} = \frac{14,200 \text{ Vibratory Impacts}}{\text{Cycles Per Minute (CPM) or [Cycles Per Second (Hz) x 60]}}$$

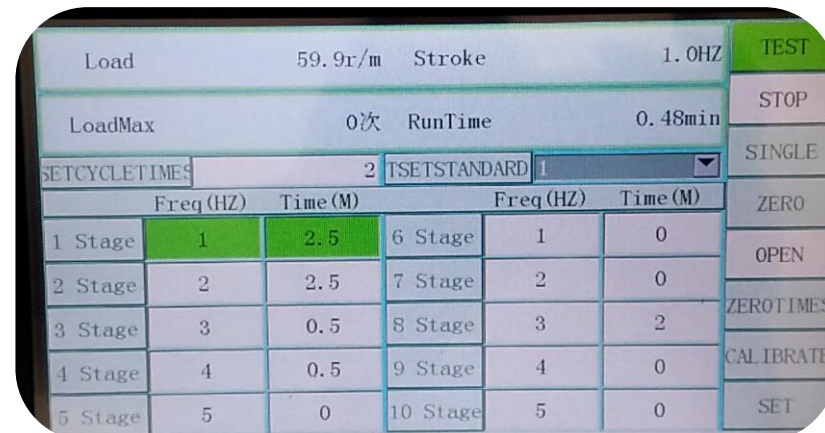
The chart below shows example Test Duration's calculated for several frequencies.

CPM	Hz	Test Duration in Minutes
150	2.5	95
180	3.0	79
210	3.5	68
240	4.0	60
270	4.5	53
300	5.0	48

MORE DETAILS IMAGE FOR HD-A521-1 PLC TYPE



Curve



The screenshot shows the procedure setting screen with various parameters and a table of stages.




Load		59.9r/m	Stroke	1.0HZ	TEST
LoadMax		0次	RunTime	0.48min	STOP
SETCYCLETIMES		2	TSETSTANDARD	1	SINGLE
Freq (HZ)		Time (M)	Freq (HZ)	Time (M)	ZERO
1 Stage	1	2.5	6 Stage	1	0
2 Stage	2	2.5	7 Stage	2	0
3 Stage	3	0.5	8 Stage	3	2
4 Stage	4	0.5	9 Stage	4	0
5 Stage	5	0	10 Stage	5	0

Buttons on the right: TEST, STOP, SINGLE, ZERO, OPEN, ZEROTIMES, CALIBRATE, SET.

Procedure setting

To be your lab consultant

HD-A520-1/HD-A520-2/HD-A520-3 Series Free-Fall Drop Tester

Standard specification				
Model		HD-A520-1 Single wing drop Tester	HD-A520-2 Double wings drop tester	HD-A520-3 Zero drop Tester
Picture				
Parameter	Drop height	300mm-1500mm(can be adjustable)	400-1500mm (can be customized)	0-1000mm(can be adjustable)
	Display method	Digital display	Digital display	PLC display
	Maximum weight of the package	100kg	100 kg(can be customized)	600KG
	Maximum size of the package	(L×W×H) 800*800*800mm	(L×W×H)1200 × 1200 × 1000mm	(L*W*H)1200 *1200 *1200 mm



	Size of the dropping panel	(L×W)1700×1200×16mm ,material: Solid steel	(L×W)1100x1500mm	As per sample size
	Test method	ISTA, ASTM D5276	ISTA, ASTM D5276	ISTA, ASTM D5276
	Electric source	AC380V/50HZ	AC380V/50HZ	380V/50HZ

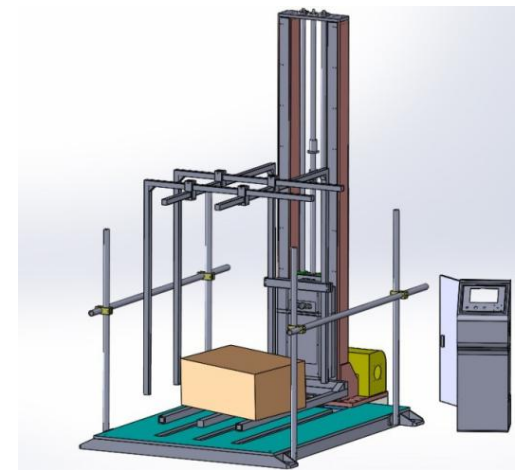
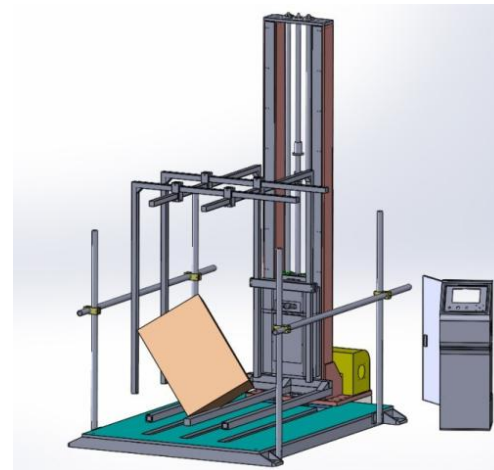
INTRODUCTION

During the products handling or transport process, there may be drop/ fall, which results in damage within the products. And this device simulates the drop/ fall situation of a finished product to evaluate the damage. This Drop Tester is mainly used to test angles, faces and corners of package.

DESIGN STANDARD

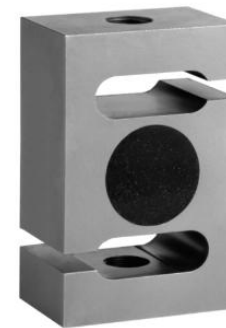
ASTM D5276, ISTA

MORE DETAILS FOR HD-A520-3 ZERO DROP TESTER



To be your lab consultant

HD-A502S Series Compression Test Machine-Compression Vertical



TECSIS Compression force load cell – S-Type



Panasonic Servo Motor

To be your lab consultant



STANDARD SPECIFICATION

Item	Description
Max. Force	2000kg/5000kg for standard(can be customized)
Load cell	1 load cell for highest accuracy
Control system	Windows 7, RS-232 interface
Motor	Panasonic servo motor w/ DC variable speed drive system; high-precision mechanical ball screw rod
Force reading	kgf, lbf, N, KN, T etc
Load cell Resolution	1/250,000
Load Precision	within $\pm 0.25\%$
Parallelism of Platens	Parallel within $\pm 2.5\text{mm}$
Effective test area (L×W×H)	1000×1200×1000mm/1300×1500×1500mm for standard (can be customized)
Test speed	10±3mm/min (0.01~200mm/min adjustable)
Software	TM 2101
Data display	Load, displacement, speed, loading rate and elapsed time
Safety features	E-Stop Over-load protection Upper and lower limit switches Load sensor with automatic retreat

INTRODUCTION

This instrument can make compression tests of packages (boxes) or packing and determine their piling up resistance (for storage and transport). These tests are called B.C.T. (Box Compression Test).

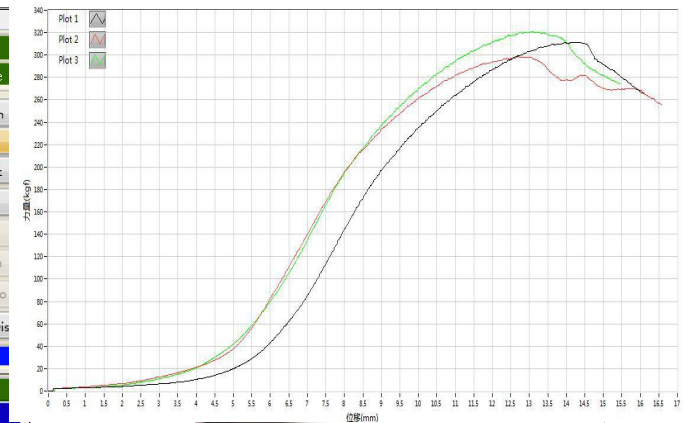
MAIN FEATURES

The Compression Testers can operate in five ways:

1. Deformation under defined load: Test deformation under defined load of various corrugated cartons and beehive crates
2. Load under defined deformation: Test load under defined deformation of various corrugated cartons and beehive crates
3. Maximum load: test the maximum load of various corrugated cartons and beehive crates
4. Stacking test: stack test of various corrugated cartons and beehive crates
5. Cyclic test: dynamic strain according to strength & stroke



SOFTWARE – TM 2101



To be your lab consultant

HD-A523 Series Inclined Impact Tester-Incline or Horizontal Impact

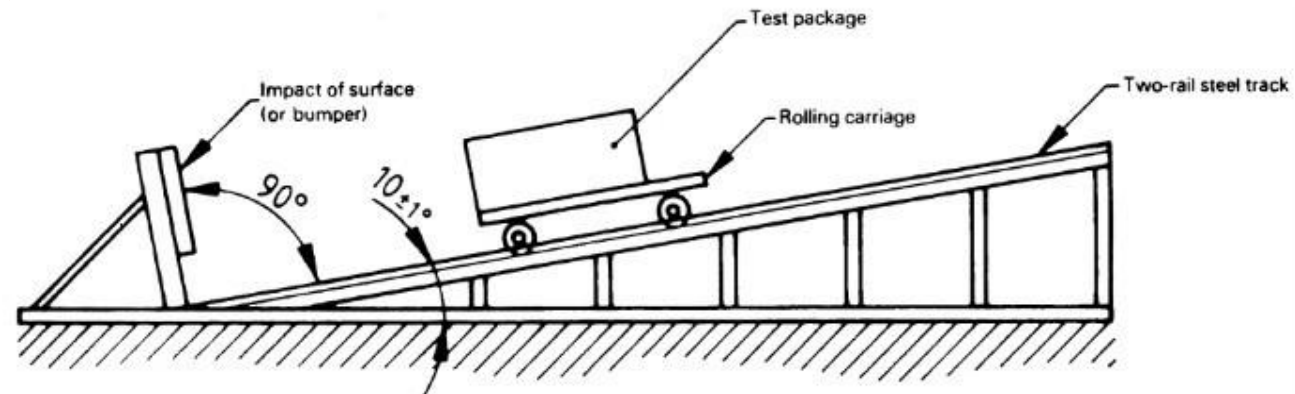


Figure 1 — Inclined plane tester



STANDARD SPECIFICATION

Item	Description
Load capacity	600kg(can be customized)
Impact surface dimension	1600 x 2200mm(can be customized)
Rolling carriage table dimension	1600x1600mm(can be customized)
Control system	Touch screen controller
Max. slide length	2900mm(can be customized)
Plane inclined to the vertical angle	Horizontal
Velocity range	1.1~2.3m/s(can be customized)
Impact surface material	Rubber wood with two-rail steel track
Working condition	Temperature 0~40°, humidity ≤80% (no condensation)
Safety features	E-Stop Over-load protection Upper and lower limit switches Load sensor with automatic retreat

INTRODUCTION

The inclined impact tester simulated the impact strength of packaging in the real circumstance of transportation, for example, the transportation of goods. This product is applied to the scientific research institutions, colleges, packaging technique test centers, packaging material manufacturers and foreign trade or transportation departments.

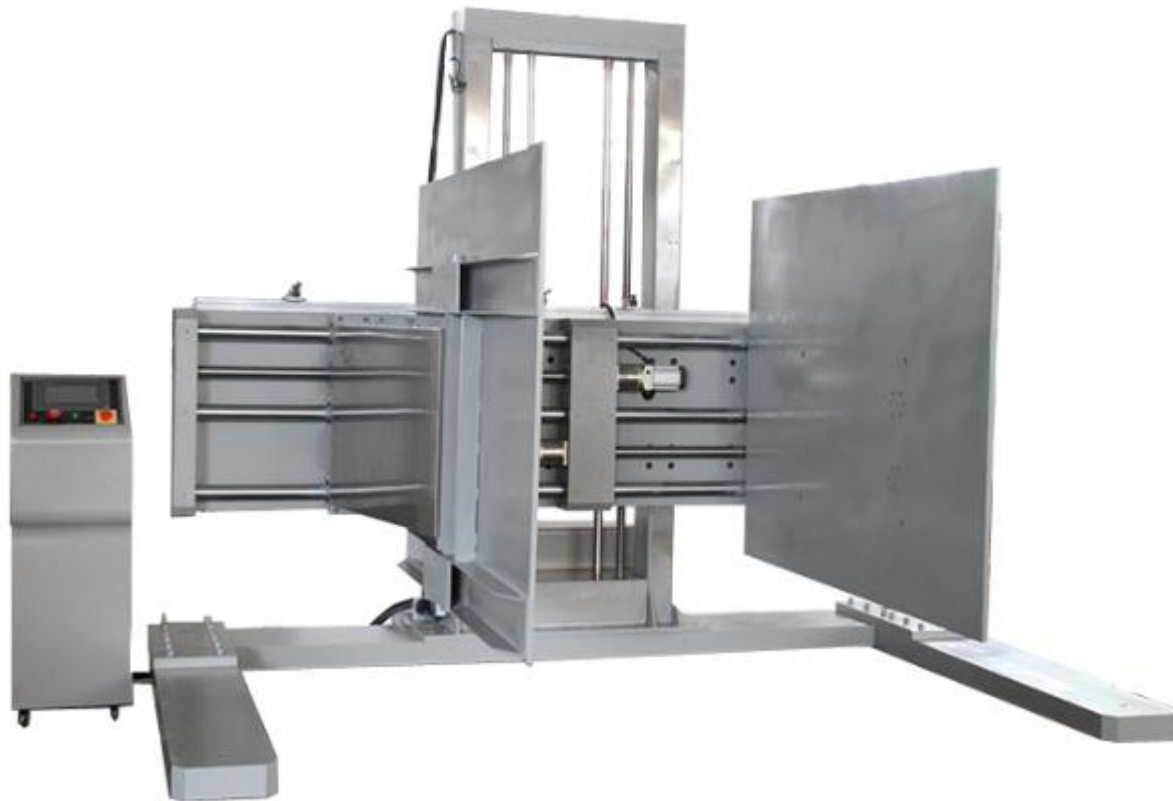
DESIGN STANDARDS

ISTA 3E, 3J & ISTA 6 (inclined impact test)

MAIN FEATURES:

1. Flexible positioning and electric trolley. It is easy to fix and achieve the changeable value of speed.
2. The height of trolley is relatively low so that is easy to fix the specimen; the strong impact resistance board can guarantee the fastness of the structure.
3. The trolley can be adjusted to be horizontal in order to fix the specimen for customer. The angle adjustment is driven by air cylinder which is flexible and convenient.
4. In order to keep the test staff completely safe, the tester is with remote control function.
5. Before testing, the customer only needs to fix the tester on the ground when stalling it, no other complicated operation.

HD-A534 Clamping Force Tester- Horizontal Compression



TECSIS Compression force load cell



Panasonic Servo Motor – 2pcs

To be your lab consultant



INTRODUCTION

This machine is designed to measure the deflections of product packages and protective capacity of packages for product when suffering level pressure in the process of transportation and storage to improve the quality of product package.

DESIGN STANDARDS

ASTM D642\ ISTA 6- SAMS CLUB\ ISTA 3J

STANDARD SPECIFICATION

Item	Description
Max. Force	400~3000Lb(can be customized)
Maximum specimen weight	600kg(can be customized)
Load cell	4 load cell for highest accuracy
Control system	Touch screen controller, Windows 7, RS-232 interface
Motor	Panasonic servo motor w/ DC variable speed drive system, high-precision mechanical ball screw rod
Force reading	kgf, lbf, N, KN, T etc
Load cell Resolution	1/250,000
Load Precision	within $\pm 0.25\%$
Parallelism of Platens	Parallel within $\pm 2.5\text{mm}$

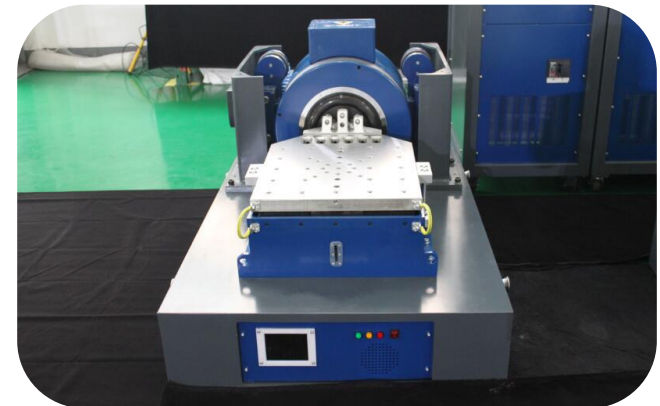


Clamping plate size	Height 48inch X depth 48inch
Clamping plate adjustable height	0~1000mm
Clamping plate adjustable width	200~2000mm
Base plate dimension	2200 X 2100mm(can be customized)
Test speed	0.25-2.5mm/sec (according ISTA 6- SAMS CLUB)
Software	TM 2101
Data display	Load, displacement, speed, loading rate and elapsed time
Function	The clamp can be up and down
Clamping plate requirement	Make the two clamping boards flat and non-deform under work condition (2000 Pounds) and make clamping boards' parallel and clamping board and land vertical. Clamping board is thicker than 25mm.
Safety features	E-Stop Over-load protection Upper and lower limit switches Load sensor with automatic retreat

ELECTRO-DYNAMATIC VERTICAL & HORIZONTAL SHAKER



Vertical Vibration Test System



Horizontal Vibration Test System

To be your lab consultant



STANDARD SPECIFICATIONS

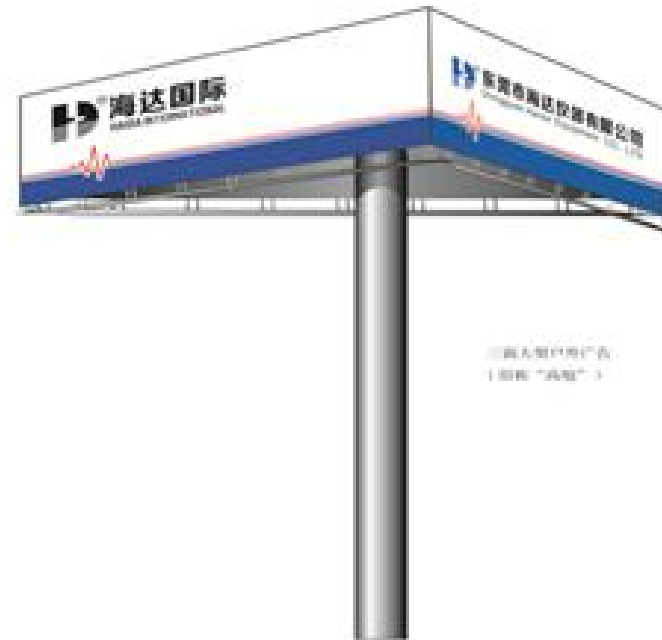
Item	Description
Sine Force	31.36KN
Shock Force	62.72KN
Frequency Range	5~2500 Hz
Displacement	51 mm
Max. Velocity	2m/s
Max. Acceleration	981 m/s ²
Armature Diameter	320 mm
Permitted Load Torque	>500 N•m
Effective Armature Mass	32 kg
Load connect point	16
Max. Load Capacity	500kg
Magnetic Leakage	≤1 mT
Axial Vibration Isolation Frequency	<3 Hz
Dimensions	1200*860*1150 mm(L*W*H)
Weight	3000 kg(approx.)



Who Are We?

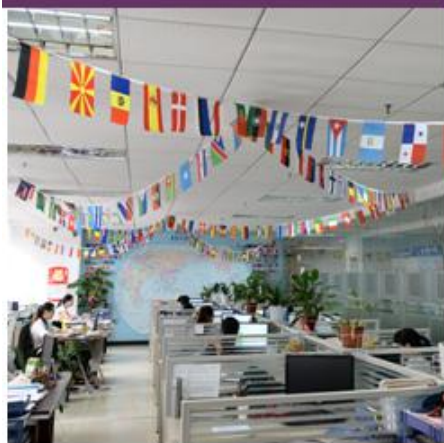
Haida is one of the leading companies solely dedicated to the manufacture of Universal Tensile Machine (UTM), Paper and Packaging Testing Machine (P&P), Accelerate Environments Test System (AES), and Furniture, Foam & Optical Testing Machine (FFO).

Haida has the equipment and expertise, own R&D and consultant team, to meet and exceed your testing requirement. Many of the test equipment we ship to customer include tailor-made features to exactly fit the application customer wants.





Our Office



Show Room



Don't' Guess Before You Test

Haida International Equipment has been selling test equipment since 2005. We are part of the Haida Group, which includes manufacturing facilities, testing lab and calibration service in China, as well as sales and service around the world.

To be your lab consultant



We have Local Representatives in 6 countries and will develop more soon

India

Boson Techno Systems Pvt. Ltd.

Thailand

W.R. Precision Co., Ltd

Malaysia & Singapore

SES Scientific Sdn Bhd

United Kingdom

A. C Solutions (G.B) Ltd

Turkey

Önder Yelkenci, Enfor Ltd.

United States

D A T Sales & Consulting LLC

Haida International Equipment was found in **2005** and starts business from **Paper and Packaging Testing Machine** with **12 years experience**. We are part of the Haida Group, which includes manufacturing facilities, testing lab and calibration service in China, as well as sales and service around the world.

OUR SALES OFFICE COVERED:



India



Pakistan



Turkey



USA



Thailand



Malaysia



UK



Singapore



**Cooperated
third-party
organization**



COMPANY					
COUNTRY	 	 	 	 	

To be your lab consultant

Who serve for:





What we have:



To be your lab consultant



HAIDA INTERNATIONAL

TECHNICAL DIRECTOR



Mr. Raingo Mak is engaged in testing equipment field for more than 30 years, specialized in equipment designing and manufacturing ability combined with Taiwan and Hongkong technology. His special and innovative design for equipment structure and appearance are well recognized by many customers.



Assembly and debugging



Detection and calibration



After-sales service