



Material Bending / Compression Tensile Testing Machines With High Precise Ball Screw



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Universal Testing Machine

Test Material

It can apply for testing Steel, Metal, Composite, Plastic Pipe

·Detection accuracy ·Easy to operate ·Good quality control

The banner features the Haida International logo in the top right corner. The background is a light blue and white grid pattern. On the right side, there is a small image of the testing machine and a computer monitor displaying a software interface.

APPLICATIONS

1. Tested sample: laminated materials, wood, leather, rubber & plastic, metal material, etc.
2. Different test with different grips: tensile, peel, tear, heat seal, adhesive, bend and open force.
3. Deformation under defined load: Test deformation under defined load of tested sample
4. Load under defined deformation: Test load under defined deformation of tested sample

5. Software can issue word/excel report with results for max. force, elongation, tensile strength, peel strength, tear strength, compression strength, etc.

Rubber

- ASTM D412, ISO 37-2005, JIS K6251, DIN 53504-2009: Tensile Strength & Elongation Test
- ASTM D1149-07, ASTM D1171-99, ISO 7326, ISO1431-1, DIN 53509-1: Ozone Aging Test
- ASTM D624-00, ISO 34-1: Tearing strength Test
- ASTM D395-03, ISO 815-1: Compression Set Test
- ASTM D2240-05, ISO 7619-1, JIS K6253, ISO 868: Shore Hardness Type A/D
- ASTM D573, ASTM D865, ISO188 Method B, DIN 53508 High/ Low Temperature Test
- ISO 2781(Method A): Density Test
- ASTM D5289-95/ ISO6502: No-Rotor Rheometer/Curemeter

Main Parameter

| Item | Description |
|----------------------|--|
| Max. Force | 5000 kg (50KN) |
| Load cell | Germany brand load cell for high accuracy |
| Control system | PC with windows 7 system |
| Motor | Panasonic servo motor w/ DC variable speed drive system, high-precision mechanical ball screw rod |
| Force reading | kgf, lbf, N, KN, T etc |
| Stoke | 1100mm including fixture |
| Load cell Resolution | 1/250,000 |
| Load Precision | within $\pm 0.5\%$ |
| Test speed | 0.01~300mm/min (adjustable) |
| Software | TM 2101 |
| Curves display | Load- elongation, Elongation-time, Time-elongation, Stress-strain |
| Data display | Max. force, speed, sample information, strength(Kpa, Mpa, N/mm, N/mm ²) etc... |
| Safety features | E-Stop Over-load protection Upper and lower limit switches Load sensor with automatic retreat |

Detection function:

1. Universal test
2. Tensile strength test
3. Bending strength test
4. shearing test
5. Tear fatigue test
6. 3 points bending test

7. Compressive test
8. Other functional testing ...

Benefit features:

1. TM 2101 intelligent automatic detection of the operating system, (can adapt to all current PC)
2. High-tech, low noise
3. Humanized industrial design, easy to place and transport
4. The world famous brand core precision components
5. Security protection system
6. Valid test trip length (modifiable)

Application Industry:

1. Electronic products: mobile phones, computers, television, video recorders and so on
2. Textile fabric products: clothes, hats, shoes, ropes
3. Wire and cable: data cable, usb,
4. Leather products: handbags, wallets, leather shoes, leather chairs
5. Instrumentation, vehicles, plastic products, metal,wood
6. Food, chemical, building materials, medical, aerospace
7. Others...

Theory

When using Material & Finished Product Compression Tensile Testing Machines place the sample between the upper and lower fixture, use a given speed to pull the upper fixture upward, and the upper load cell with sensor to check tensile strength and convert the strength into voltage sign and output to the display screen. And the strength value will be displayed automatically on the computer.

Features

1. Adopting windows platform, and all the parameter settings can be processed in the dialog box, and it operates easily;
2. Using a single-screen operation; do not need to switch the screen;
3. With three languages in Simplified Chinese, Traditional Chinese and English, the software interface can be switched easily
4. The pattern of Test reports can be selfdesignated; test data can be displayed directly in the main screen;
5. Choosing translational, comparative mode at the same time to make a number of curve data comparison;
6. With a variety of measurement units, Measure In Imperial & Metric are switchable;
7. With self-return & auto-correction function;
8. With automatic magnification function, in order to achieve the most appropriate size of the graphics;
9. With the user-defined Test methods; with experimental data analysis function;
10. High quality, accurate and reliable models with reasonable price.

Compression Tensile Testing Machines view:



Related Product

| Model | Max Capacity |
|-------------------|---------------------|
| <u>HD-B609</u> | 200kg |
| <u>HD-B609-D</u> | 50kg |
| <u>HD-B617</u> | 500kg |
| <u>HD-B616</u> | 200T |
| <u>HD-B604B-S</u> | 200kg |
| <u>HD-B607-S</u> | 50kn |
| <u>HD-B615A-S</u> | 500kg |

Universal testing machine TM2101 control system data display:

1. Max. force, 2. speed, 3. sample information, 4. strength(Kpa, Mpa, N/mm, N/mm²) etc...
1. Load- elongation, 2. Elongation-time, 3. Time-elongation, 4. Stress-strain.

0.000 mm Force 0.000 mm Stroke

Force-Elong. Force-Time Elong.-Time Multi-Graph TestResult

Shape: Round GaugeLength: 11.500 Area: 3.142 Width: Thickness: 2.000 OutDia: InDia: Property:

Control Mode: 100.000mm/min E10 Control Unit: Break Control Value: 50.000% Max Time: 3.000min Control Force: 100.00 Test Process Cycle: Break/Force/Stroke

Y-axis: Metal Catenometer Substr. Dia: 1.00 mm

Reverse: Absolute Reverse: Absolute Reverse: Absolute

% of Measuring range: mm mm

Break Judge start: 1 % of Measuring range (20.000kg)

SampleRate: High High Middle Low Lower

Test Result

Zero View Help

00 mm Force 0.000 mm Elong. 0.000

Force-Elong. Force-Time Elong.-Time Multi-Graph

Test Result strength Edit Save With Current Specimen Analyze With Current Specimen

| Gauge Length/Load Span (mm) | Speed (mm/min) | Force @ Peak (N) | Elong. @ Peak (mm) | Tensile Strength (MPa) |
|-----------------------------|----------------|------------------|--------------------|------------------------|
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Print Report Add Record Output Word Report Output Excel Report Create Word Report

