Computerized Servo Control Box Compression Testing Machine

Bottom Compression Platen

Single Ended Stainless Steel Beam
Type Load Cell (4 units)

Product Summary:

EI-BCT Computerized Servo Control Box Compression Testing Machine used to test compressive strength of cartons, containers and other packaging structure, adopts dynamic holding pressure technology, simulates stacking the test of pile, in order to know the compressive strength and impact-resistant capacity of product packaging during transportation and stacking , This machine adopts Load Cell Sensor, through computer analyses then it will directly displayed the resistance force on the screen through the computer. The test results can use as the reference for packaging design.

Main feature:

1. This equipment uses the extruded aluminum boards type that through senior paint processing, inside with the high-precision, low resistance and gapless double ball screw, improve the efficiency and rigid structure load.
2. The control system adopts Panasonic digital communication server to control high frequency servo motor, stable transmission and low voice, the speed accuracy can control in ±0.2%.
3. Micro system uses business computer as the master controller, equipped with the AT test software, can set the parameter, working status control, data collection, analysis and process, display results and print test results.
4. This carton test equipment has stable and reliable performance, high measurement accuracy, the test software has strong function, easy to operate and handle.

Corresponding Standard:

Testing Standard: GB/T4857.4, GB/T4857.16, ISO2872, ASTM D642

Manufacturing practices：GB/T16491, TAPPI-T804, JIS-Z0212

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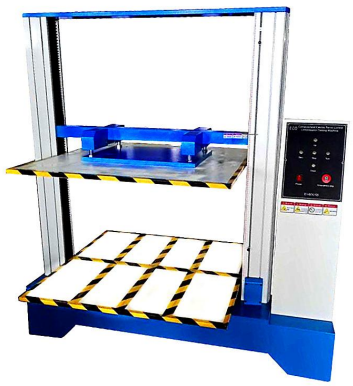
Applicable Industry:

Computerized Servo Control Carton Box Compression Testing Machine applied to all factories and enterprises, technical supervision departments, the commodity inspection authorities, research institutes and other departments for testing and researching.

Technical Parameter:

Model	EI-BCT
Capacity	1,000kg ~ 5,000kg
Units	Kgf, Ibf, N, kN, kPa, MPa
Resolution	1/250,000
Accuracy	±1%
Test space	1000 x 1000mm, 1200 x 1200mm, 1500 x 1500mm or custom made
Space between platen	1000 (H) mm or custom made
Motor	AC Servo Motor + Driver
Test Speed	1 ~ 200mm/min (carton box standard testing speed 12.7mm/min)
Protector	Leakage protection, overload auto-shutdown, displacement limit protection
Power	AC 220V, 50Hz
Dimension	1,530 (W) x 1,210 (D) x 2,100(H)mm
Weight	Approx. 1,000kg



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Software Feature:

a. Function of standard modular: provide users with the necessary applications to the test, covering GB, ASTM, DIN, JIS BS…. And other testing standard specification.

b. Tested product information: provide users with the data to set about the products, one time to input and re-use permanently for improving the accuracy, the data can be corrected by the formula automatically.

c. Dual-report editor: provide users with the reported format that users choose (testing program add EXCEL reported format, Extend the previous single pattern of statements)

d. The data's unit of length and force can be exchanged, unit of force is T, Kg, N, kN, g, lb, unit of length is mm, cm, inch.

e. Auto-optimization of graphic scale, display the best measurement of graphics. It can test the moving exchange in graphics; it has the load – displacement, load – time, displacement – time, stress – strain load – 2 points extending maps and lots of graph compared.

f. Test results can be output in Microsoft EXCEL, WORD, & PDF format.

g. Testing result can be automatically preserved or manual preserved, after the test, it can automatically calculate the most strength, up and down yield strength, loop method, best method, non-proportional extended strength, tensile strength, compressive strength, tensile strength at any point, constant load extension, elastic modulus, rate of elongation, peel range of maximum force, minimum force, average force, total energy, bending modulus, x% load in break displacement, load x% in break displacement and so on. The test data can be stored in any disk.

h. Software has a capability that can output the before data.

Items can be tested in the Desktop computer type testing machine

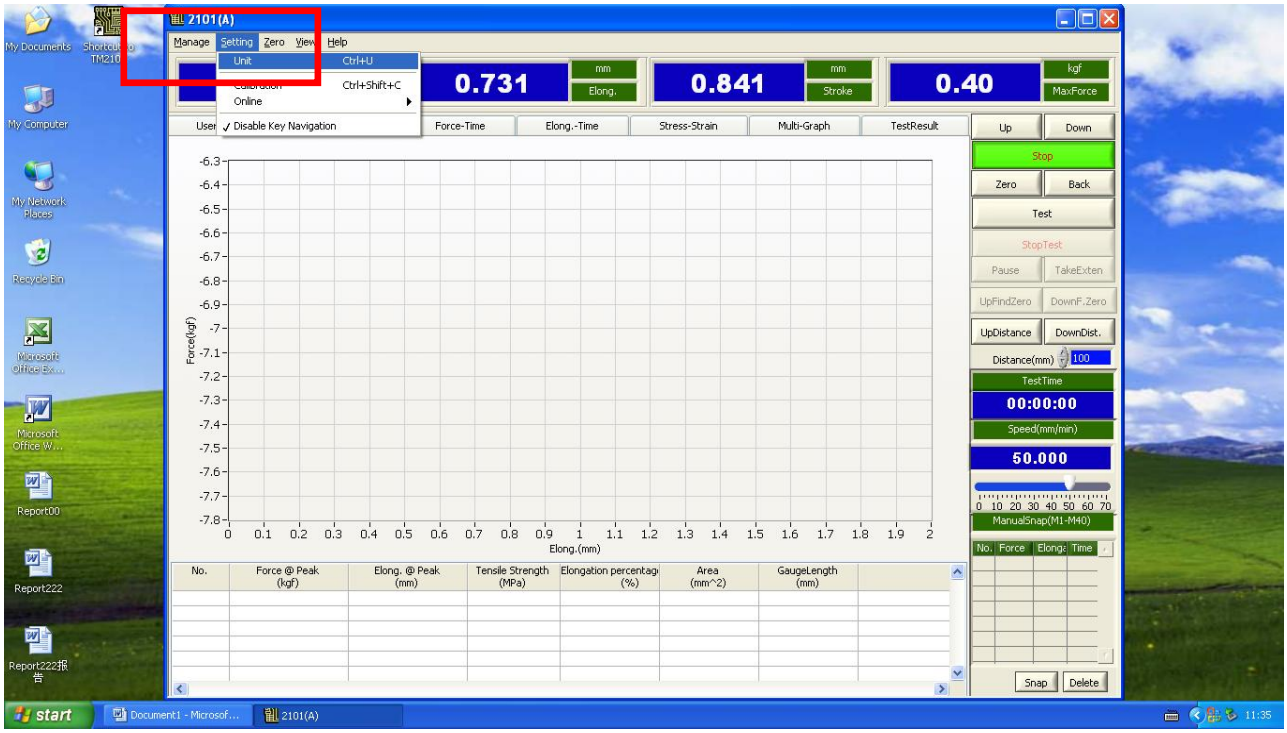
Common items: (display data and calculation)

- Tensile stress
- Tensile strength
- Rate of elongation at break
- Fixed stress
- Rate of stress at break
- Stress Strength
- Tear strength
- The value of force at any point
- Rate of elongation at any point
- Pull-out strength
- Force of adhesion and the peak of force

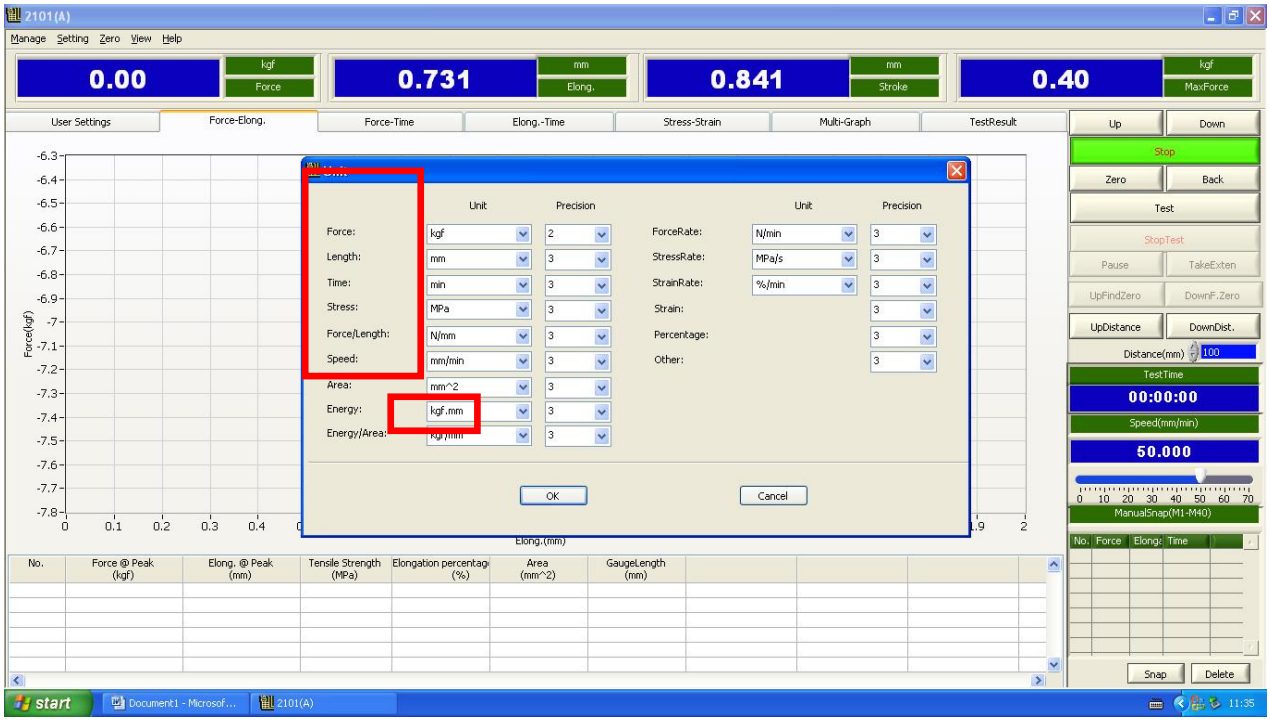
ECO INSTRUMENT (NS0081046-M)

Computer servo control material testing machine software operation interface

1. Choose you need units, setting==>unit



2. There are so many unit, just choose you need.



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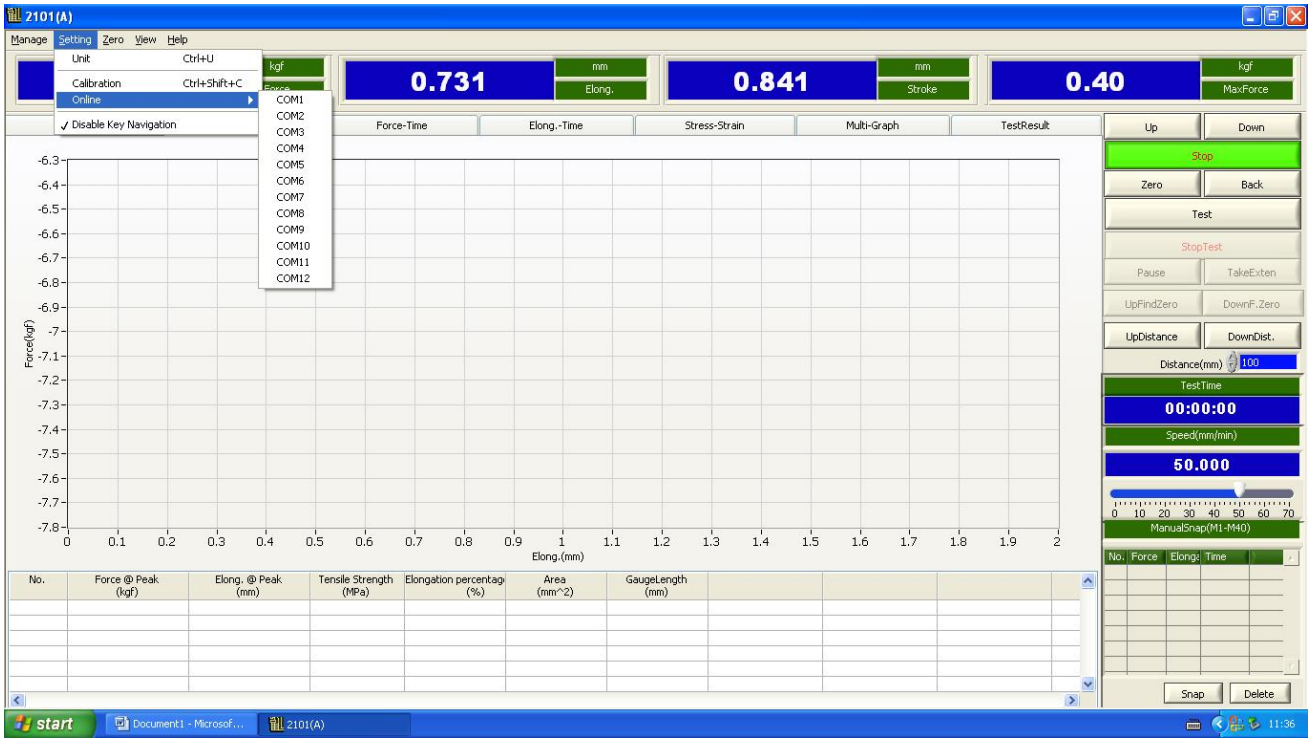
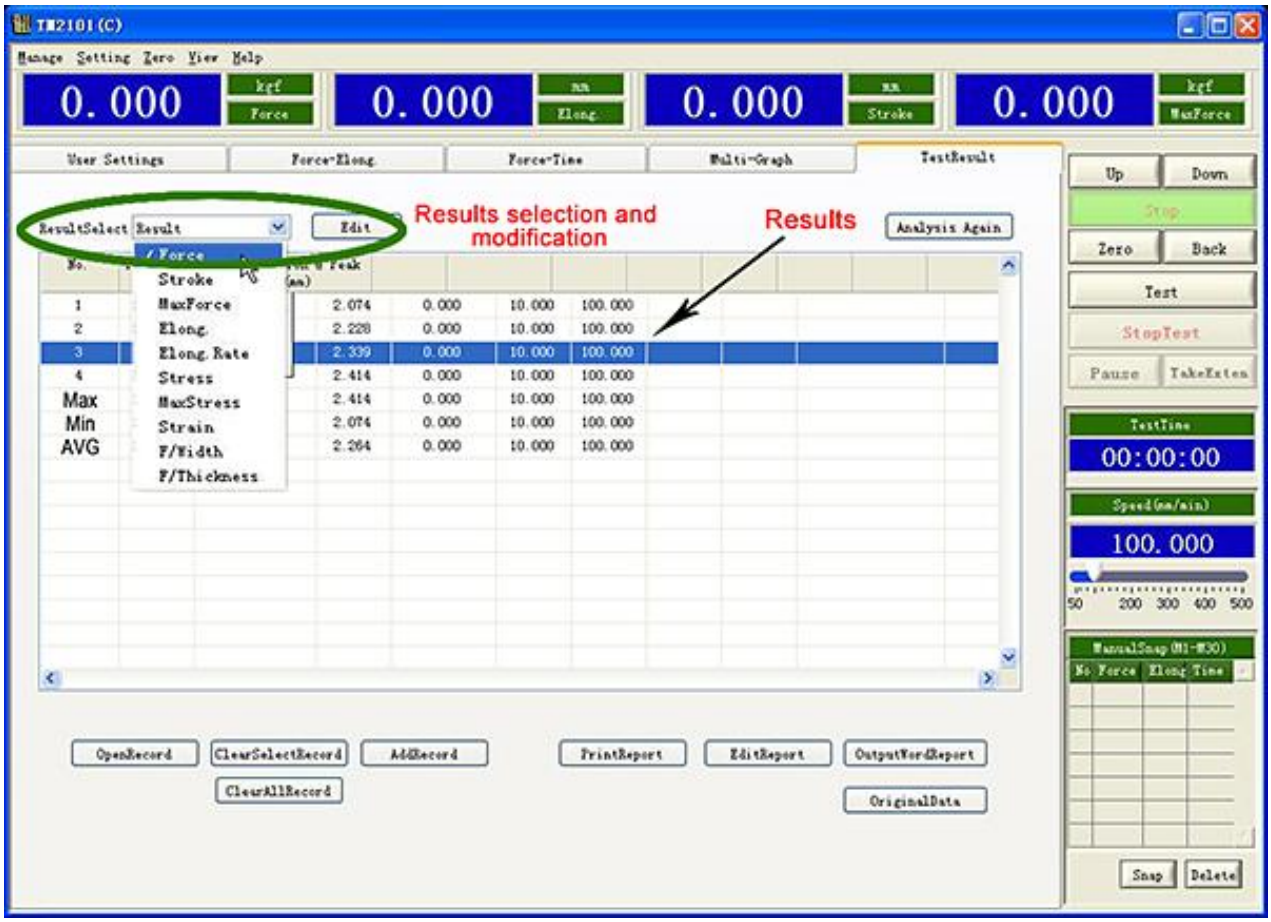
3. Connect computer and software online. Setting==>Online==>COM1 or COM2..., after it show success connected.

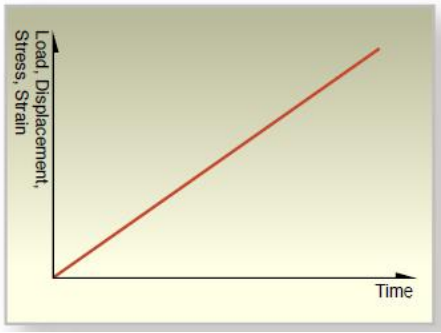


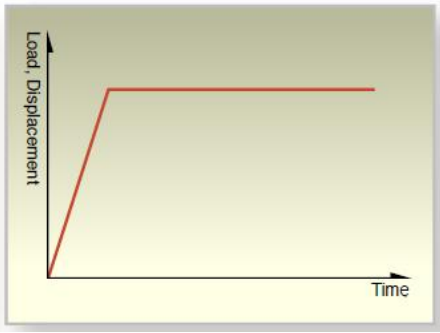
4. Test results

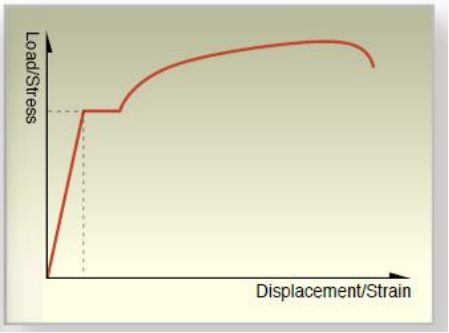


5. Computer servo control material testing machine test curve

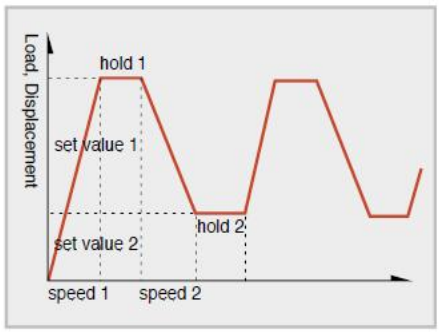
STANDARD CONTROL MODES

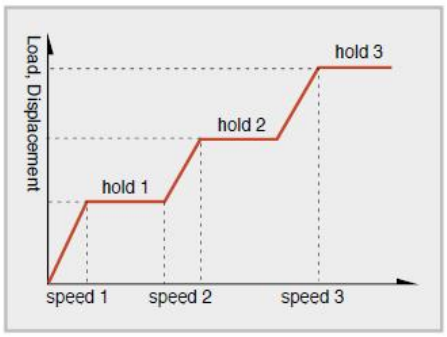


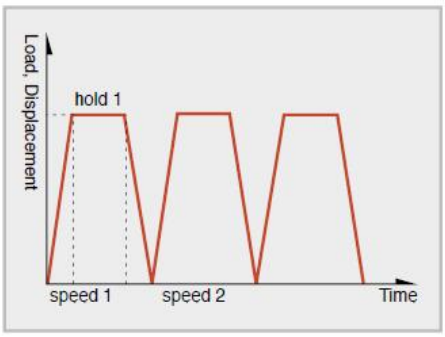




SPECIAL CONTROL MODES (Optional):







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Sample Report:

Eco Instrument

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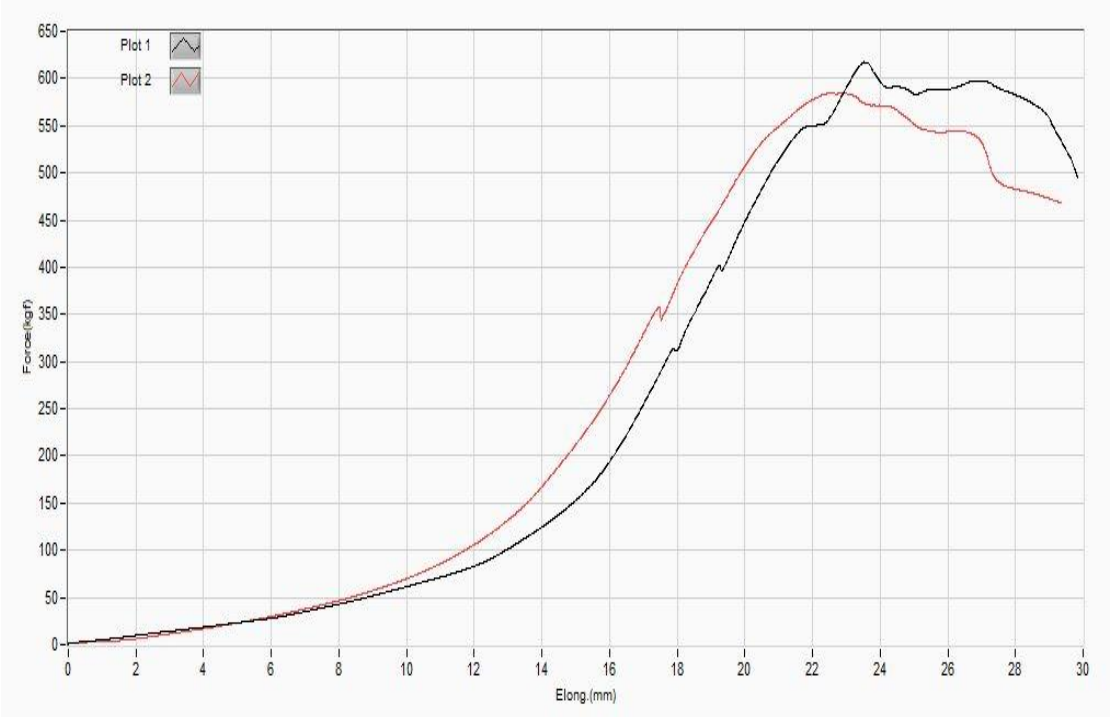
Material Testing Report

Customer	xxxxx S/B	Test Date	1/15/2021 12:00:28 PM
Description	Cartoon Box	Lot No.	
Test Speed	12.7 mm/min	Remarks	Comparison Results



No.	Specimen	Max Force (kgf)	Deformation (mm)
1	040	617.42	23.52
2	040R	584.38	22.93
Mean	0.00	600.90	23.23

Tested By：

Approved By:

ECO INSTRUMENT (NS0081046-M)

Standard Main Configuration:

Main unit	1 set
Compression Platen	1 suit
High Precision Performance Beam Type Load Cell 	4 units
Japan Panasonic AC Servo Motor and Driver 	1 set
Standard Ball Bearing Lead Screw	1 set
High Precision Displacement Measuring Device	1 suit
Specialized Measure and Control System	1 suit
Testing Machine Special Control Software under Window Operating Environment	1 suit
Operation Manual	1 book
Branded High performance Computer System OS: Window 11 Professional SSD: 512GB 22” LED Color Monitor 	1 set

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