



Double Column Universal Material Testing Machine



Eco Instrument

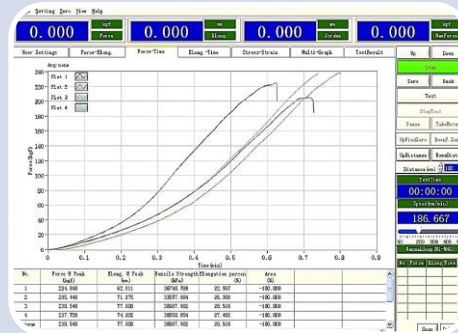
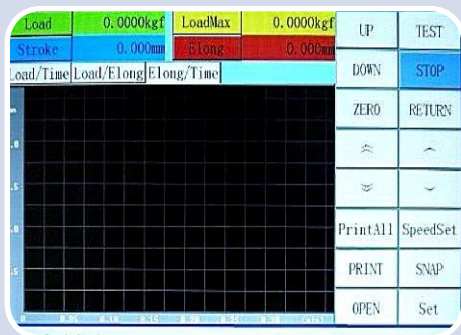
your reliable quality control partner

Brief Introduction

- EI-1003 series Servo Control Material Testing combined with the electronic technology and mechanical transmission, it has accurate load speed, range of force measurement, Has high accuracy and sensitivity for the load, displacement measurement and control, This machine is simple to operate, simple structure, it can be directly placed on the solid test bench, especially suitable for controlling quality in production line, This series of machine is mainly applied to test the non-metallic and metallic materials which the load is less than 20KN

Features

- The surface of appearance using electrostatic spray, simple and generous, multi-functions and economy.
- Digital force displayed by LCD or TFT , discernible tension or pressure.
- Unit switch back: strength: kN / N / kgf / gf / t / lbf, Displacement: mm / cm / in
- LCD / TFT with backlight can be used in low-light environments
- Single measurement, it can record the max force of tension and compression in both directions, automatic or manual cleared to zero.
- The system would shut down if overload or over-trip
- Structure of single-column is ergonomic, sophisticated and durable



A series Colour Touch Screen

- Real-time displayed
 - Force - Displacement
 - Force - Time
 - Displacement - Time
 - Stress - Strain curve
- Automatic calculation
 - Maximum force
 - Yield strength
 - Average value
 - Maximum deformation
 - Yield point
 - Elastic modulus and other parameters
- Data save up to 5 groups
- Build-in Mini Printer

B series Computer Software

- Real-time Graph displayed
- Up to 7 interval setting, 30 manual sampling points and 60 automatic sampling points.
- Multiple statistical function
- Graph report comparison
- Up to 400 testing data
 - Max & min force, fracture force, peel strength, tensile strength, shear & tear strength, max. deformation, yield strength, elongation, elastic modulus, ring stiffness, non-proportional elongation, average force...
- Data save up unlimited

Standard

- TAPPI T-494, TAPPI T829, ISO 1924, ISO12625-4, AS/NZ1301.448s, BS EN ISO1924-2, CPPA D34, DIN 53112, SCAN P38,
- ASTM D1683, ASTM D4964, ASTM D5733/5735, BS 3320
- (Breaking strength) ISO13934.1, ASTM D5035
- (Tear strength) ISO13937.2, ASTM D2261
- (Single Yarn Strength) ISO2062, ASTM D 2256
- (Seam Slippage) ISO13936.1/2, ASTM D434
- (Tensile) ASTM D828, D638, D882, ISO 1924, TAPPI T 494
- (Peel) ASTM D3330, D1876
- (Tear) ASTM D1938
- (Seal) ASTM F88
- (Bond) ASTM F904

Capacity

- 5 ~ 2000kgf / 50N ~ 20kN

Typical Specimen

- Rubber, Plastics, Leather, Metal, Nylon Wire, Fabric, Paper, Aerospace, Packaging, Building material, Petrochemical, Electrical part, Automotive & etc

Specification

Model	EI-1003A	EI-1003B
Max. Load Frame	2000kg / 20kN	
Capacity	5kgf ~ 2000kgf / 50N ~20kN	
Accurate grade	Grade 1	
Load range	0.2% ~ 100%	
Measuring accuracy	±1%	
Load Resolution	1/200000	
Load Cell Channel	4	More
Effective between column	Standard 420mm or meet user requirement	
Effective tensile space (max. cross-head travel)	Standard 800 or meet user requirement (1300mm or meet user requirement)	
Range of testing speed	1 ~ 500mm/min	
Accuracy of displacement	Tolerance: ±0.5%	
Deformation of measured system	Min span :10mm, Max range of deformation 800mm Extended deformation span: 25mm, 50mm, 100mm, range of deformation 5mm, 10mm, 25mm	
Accuracy of deformation	Tolerance : ±0.5%	
Safety	Electronic-limit protection, Emergency stop button, over-current protection	
Platform moving device	Touch screen controller	Software & control panel
Return home function	Auto & Manual	
Overload protection	Overload 10%, automatic protection	
Dimension	Standard 970 x 570 x 2150mm	
Rate Voltage	220v, 50Hz	
Rate Power	1.0kW	
Weight	Approx. 300kg	Approx. 320kg
Standard Accessories		
Load-Cell	CELTRON S-Type or Pancake-type	
Driven	Panasonic servo drive + motor	
Speed Reducer	Hi grade Reducer	
Displayer	7" TFT color touch screen	17" LCD monitor
Computer	No	Commercial PC, window license included
Printer	Build-in mini printer	Desktop Color inkjet
Fixtures	Self-tighten tensile grip & Compression platen	
Extensometer	Long-travel or 2 points metal extensometer	
Instruction	Operation Manual	
Tools	Yes	
Warranty	24 months	

S-Type Load-Cell



Pancake-type Load-cell



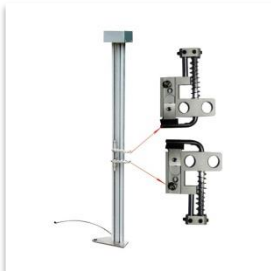
Servo drive + Motor



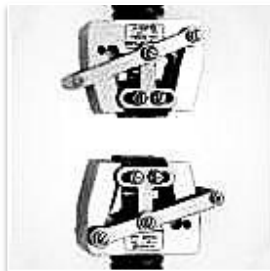
Reducer



Long-travel Extensometer



Self-tighten Tensile Grips



Compression platens



Ball Screw



Branded commercial PC * B series



Build-in mini printer * A series



Color inkjet printer * B series



TFT color touch screen * A series



Bending Fixtures * Optional



Pneumatic grips * Optional



Metal extensometer* Optional



Eccentric fixtures * Optional



Software Features - The software description about desktop computer type servo testing machine

- Function of standard modular: provide users with the necessary applications to the test, covering GB, ASTM, DIN, JIS, ISO, BS.... And other testing standard specification.
- 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.
- 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)
- 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.
- 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.
- Test results can be output in EXCEL, WORD & PDF format.
- 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.
- Software has a capability that can output the before data.

Items can be tested in the Desktop computer type servo tensile 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)

Your reliable quality control partner

Add: 215, Jalan S2 C9, Section C,
Green Technology Park, Seremban 2,
70300 Seremban,
Negeri Sembilan,
Malaysia

Tel: +606 6030 951

Fax: +606 6030 952

Web: www.ecoinstrument.com.my

Email: marketing@ecoinstrument.com.my

GST: 001955741696

