



## Electromechanical 10kN Universal Testing Machine

### NG- EML CLASS B - Double Column Table Top

The EML Class B Series addresses the needs of standardized and routine testing, providing the user high quality at the most affordable price. The dual column testing systems are suited for tension and/or compression applications with load range requirements from 10N to 10kN. They are typically used for quality control and production testing in the plastics and rubber industries.

### Typical Specimens

Small components, reinforced plastics, soft metals, wire, composites, elastomers, wood products, textiles, biomaterials, paper products, adhesives, foam, consumer products

### New Features

- Non-clutched drives, rated for full speed at maximum force
- Compact design saves lab space
- Wider test width

### High Quality at an Affordable Price

- Pre-loaded ball screws and heavy duty bearings assure long life with zero backlash as well as linear low force and through zero performance. The result is accurate and repeatable measurements that truly represent the specimen characteristics rather than load frame deficiencies
- Fully-protected lead screw covers provide longer life and greater operator protection
- Easy-to-clean aluminum column covers with chamfered corners to facilitate access to the test area. T-slots are built in for simple, convenient attachment and positioning of testing accessories
- High-speed, low vibration, world-class, maintenance-free, AC servo motor and servo controller.
- Photoelectrical encoder built in servo motor system is for position measurement of crosshead
- Built-in bidirectional load cell is assembled in the middle crosshead to prevent any collisions and simple to perform compression or tension tests
- Dual action over-travel limits on all frames provide the highest
- level of safety and meet all international standards
- Remote control keypad facilitates test operation
- NG-400 controller provides high speed data acquisition with 8-CH A/D converting
- Full one-year warranty on parts and labor
- Free software upgrading



## Controller

NextGen's DTC500 digital controller offers high speed and closed loop control of load, displacement and extension.

- Imported IC, more reliable
- Up to 1200Hz sampling frequency
- Up to 1200Hz closed loop control frequency
- 20bit resolution
- 16 digital input/output port
- Built in port for PC communication
- Expandable ports
- Load protection, over current protection, over voltage protection, over speed protect, and over travel protection.

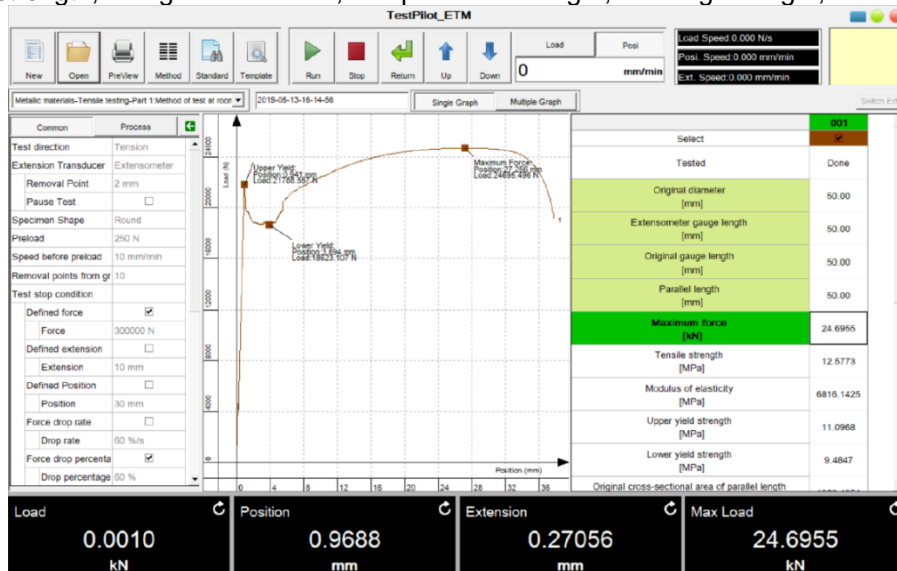
## Remote Control with Display

- Ergonomically designed and easy to operate
- Fine tuning knob
- Test start and stop operation
- Crosshead moving up, down, jog up, jog down
- Display of measurement channel: force, displacement, extension and etc.
- Test status display
- Specimen protection function



## Software

- Multi language software with built in English, Chinese and Russian, and user can customize their own translation freely
- Pre packaged test methods to help you quickly and efficiently meet the requirements of global test standards such as ASTM, ISO, DIN, EN, BS, and more
- Intuitive expression for easy programming of testing standards and testing process
- Testing report can be customized according to the requirement
- User authorization: The administrator can assign different functions for different level users
- Analysis can give typical test results like Young's modulus, Proof stress, Yield stress, stress, strain,
- Tensile strength, Elongation at break, compressive strength, bending strength, etc....



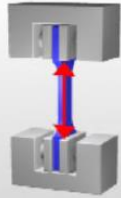
**Method**

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Metallic materials-Tensile testing-Part 1:Method of test at room temperature ISO 6892-1-2009

<b>Common</b>	Test direction	Tension	
Process	Extension Transducer	Extensometer	
Parameters	Removal Point	2	mm
	Pause Test	<input type="checkbox"/>	
Results	Specimen Shape	Round	
	Return to initial position after test	<input type="checkbox"/>	
LoadPid	Return Speed	0	mm/min
ExtensionPid	Preload	250	N
	Speed before preload	10	mm/min
Coordinate Axis	Removal points from graph	10	Points
Temperature	Test stop condition		
Yield	Defined force	<input checked="" type="checkbox"/>	
	Force	300000	N
	Defined extension	<input type="checkbox"/>	
	Extension	10	mm
	Defined position	<input type="checkbox"/>	
	Position	30	mm
	Force drop rate	<input type="checkbox"/>	
	Drop rate	0	%/s
	Force drop percentage	<input checked="" type="checkbox"/>	

Determine test direction, Tension Or Compression!

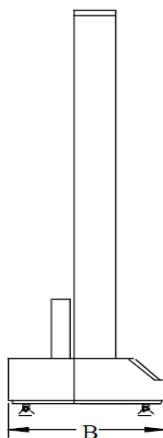
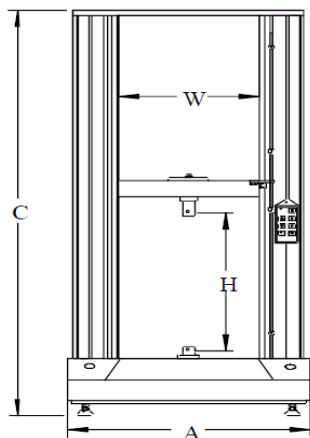


### Full Complement of Test Accessories

Extensive range of accessories to meet test requirements in almost any application or industry: plastics, metals, biomedical, composites, elastomers, components, automotive, aerospace, textiles, and more.

- Tension grip
- Peel/tear fixture
- Compression fixture
- Flexure fixture
- Film COF test fixture
- S type load cells:  
10N~5kN
- Long travel extensometer
- Clip-on extensometer
- Environmental chamber
- T-slot table
- Others





**Environmental Chamber**

**Machine Dimensions:**

Frame type	Width x Depth x Height A x B x C (cm)	Crosshead travel H (cm)	Test width W (cm)	Adapter (cm)	Pin (cm)
Standard	72.8x47x152	100	42	Φ2	Φ1
30cm Extended	72.8x47x182	130	42	Φ2	Φ1

**NG-EML Class B**

Model	EML101, EML201, EML501, EML102, EML202, EML502, EML103, EML203, EML503, EML104
Class	Class B, dual column, table-top
Capacity	10N, 20N, 50N, 100N, 200N, 500N, 1kN, 2kN, 5kN, 10kN
Calibration standard	ISO 7500, Class 1 / Class 0.5
Force range	0.2% - 100%FS / 0.4 - 100%FS
Force accuracy	±1.0% / ±0.5% of reading
Force resolution	1/500,000FS
Position accuracy	±0.50% of reading
Position resolution	0.027µm
Crosshead speed	0.001 - 500mm/min
Crosshead speed accuracy	within ±1.0% / ±0.5% of set speed
Crosshead travel	39.4" / 100cm (Can be extended to 130cm)
Test width	42cm / 16.5"
Dimension (Width x Depth x Height)	28.75 x 18.5 x 59.85" 72.8 x 47 x 152 (cm)
Power requirements	Single phase, AC220V±10%, 50/60Hz, 400W
Weight	331lbs / 150kg

**Shipping Information**

Package	Particleboard pallets and plywood case, Or fumigated wood case
Crated dimension (Width x Depth x Height)	37 x 32.3 x 68.50-inches 940 x 820 x 1740 mm
Crated Weight	551lbs / 250kg