

## TruForce

## EM Dual Column Floor-standing | TF-LE3000 Series

The AC-LE 3000 Series Floor Standing Material Testing Systems range in capacity from 20kN to 50kN and provide exceptional performance with high accuracy and reliability. The systems are ideal for function tests on small components and standard tests on materials. Combined with ACS intuitive testing software and the comprehensive range of accessories the AC-LE3000 series material testing machines feature fast and easy operation to meet our clients' testing needs.

**Typical specimens:** Metals, plastics, composites, polymer materials, medical materials, aluminium alloy, and other non-metal materials, etc.

### New Features:

- Employ robust guidance columns to increase lateral stiffness and ensure linear crosshead travel. Capable of delivering unparalleled accurate crosshead alignment to reduce variances in data measurement.
- Optional Centre alignment system to minimize lateral force on specimen for critical material research and development
- Self-diagnostic system indicates the system status with different color lights
- Intuitive Test Software with workflow concept to ensure fast and easy operation.
- High performance control systems provide data acquisition frequency up to 2500Hz with expandable channel capacity

### State-of-the-art Testing Technology

- High stiffness columns form a compact load frame structure, employ high precision pre-loaded ball screws and robust guidance columns to ensure accurate and stable crosshead movement
- Convenient handset for quick setup and fast tests.
- High precision low profile load cell to provide accurate test results.
- High-speed, low vibration electromechanical drive, world-class, maintenance-free AC servo motor and servo controller
- High resolution digital closed loop controller
- Optional Loadcell and transducer TEDS self-identification capabilities
- Intuitive test software with comprehensive compliant template library (ISO, DIN, ASTM, EN, BS, etc)
- Physical limit switches plus software overload protection to ensure your test safety



**AC-LE3000**

- Optional T-slot table
- Complete selection of grips, fixtures, environmental system, extensometers, etc

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### Driving System

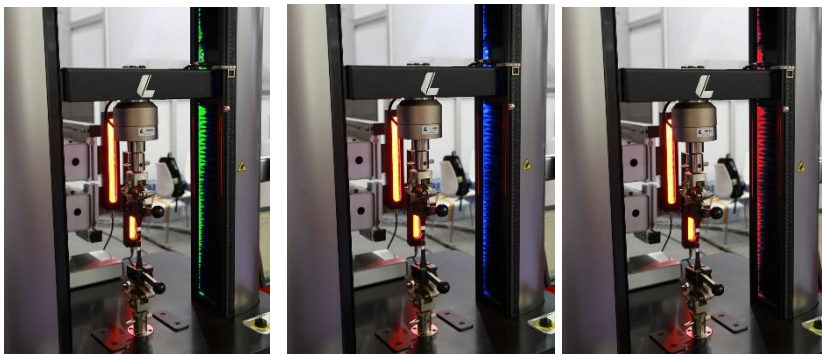
The drive system employs world-class, maintenance-free AC servomotor and high precision gear box to ensure stable and accurate transmission and low noise at even maximum testing speed up to 1000mm/min



World class AC servomotor



High precision gear box



### Self-diagnostic system

The different color lights indicate the status of the test system.

- Run test: Green light
- Standby Blue light
- Abnormal Red light



### High Resolution Control System

The closed loop control system features high control accuracy and expandable strain channels, digital I/O, etc

- Up to 2500HZ data acquisition frequency
- Supports TEDS self-identifications
- Expandable channels
- Digital Input and Output are available

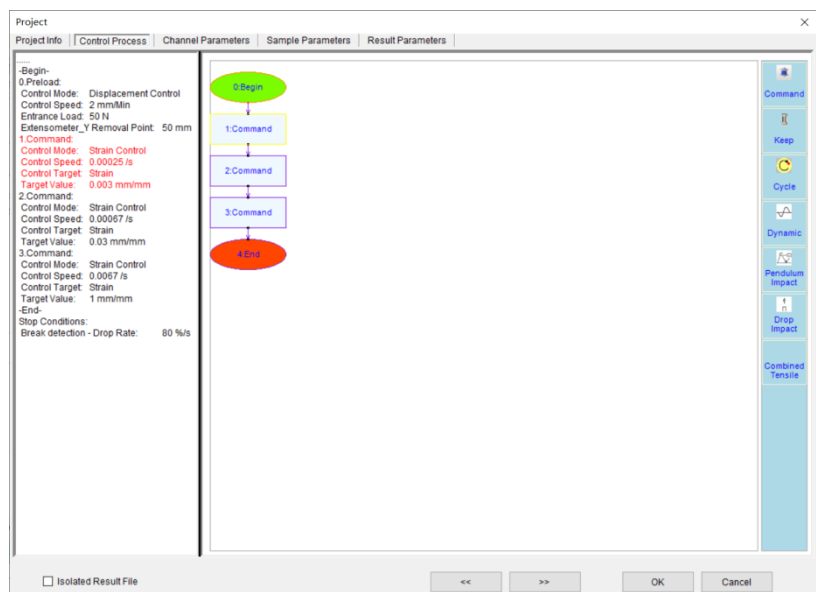
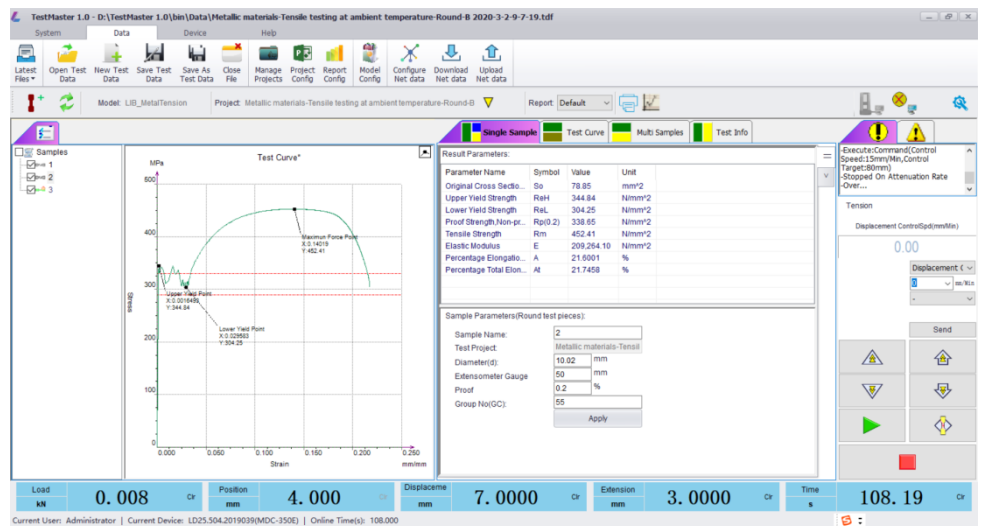
### Complete selection of accessories

- Variety of Tensile Grips
- Compression platens
- Flexural fixtures
- Environmental Chambers and high temperature furnace
- Conventional contact extensometer
- Automatic extensometer
- Non-Contact Video extensometers
- High Temperature Extensometers

### Versatile and Intuitive Test Program

TestMaster is the result of close cooperation with end users in material industry. With intuitive workflow concept it features easy operation, simple interface and versatile functionalities. It is ideal for efficient quality assurance and quality control testing, as well as complex research and development of materials. TestMaster delivers the utmost flexibility which enables the test engineer to create and run their specific custom tests, along with the comprehensive test template library that allows the efficient test solutions on standard material testings.

- Versatile, easy-to-use test software with a large and growing library of standards-compliant test template (ASTM, ISO, DIN, EN, BS, and more)
- Intuitive workflows are designed to simplify control process establishment
- TestMaster fully supports tension, compression, flexural, tearing, peeling, pendulum impact, drop weight impact tests, etc
- Quick test from launching the software to completing the test with two clicks: Click on the desktop icon and then click start.
- Uniform software interface for different test equipment
- Powerful and easy-to-use test data analysis function, post-test recalculation, multi-graphs analysis, etc.
- Reliable test process control with real time status log provides most accurate and secure test data
- Flexible test report template designer allows user to design their required test report
- The LIMS interface provides common text data interaction methods, special data file interaction methods, and database interaction methods, which can be customized if required.



User permission management to limit access where needed and user operation log to make the system and data more secure.

**Specifications:**

Model	LE3204	LE3304	LE3504
Type	Floor Standing		
Capacity (kN)	20kN	30kN	50kN
Calibration standard	Class 0.5		
Force range	0.4 ~ 100%FS		
Force accuracy	±0.5% of reading		
Max. crosshead speed	1000mm/min		
Min. Crosshead speed	0.001mm/min		
Displacement resolution	0.007µm		
Analog signal resolution	1/7000000 FS		
Data acquisition frequency	2500Hz		
Force control accuracy	≤±0.5%		
Crosshead control accuracy	≤±0.2%		
Strain control accuracy	≤±0.5%		
Effective width between columns	418mm		
Effective vertical test space	1000mm		
Overall dimensions	820 x 720 x 1800 (mm)		
Gross weight	260kg		
Power supply	240V 50Hz AC, 1500W		