

WDW Series Computer Control Electromechanical Universal Testing Machine

Applications:

This series of electromechanical universal testing machine are designed and manufactured according to ASTM, ISO, DIN etc standards. It is computer-controlled precision Testing Machine, suitable for wide range of materials for tension, compression, bending, shearing and cycle test. It has high stability as well as high precision, equipped with PC system & printer for graph, test result display, printing & data processing. Complete with modulus for metal, spring, textile, rubber, plastic and other material testing. It is widely used in many fields of R&D, QC and QA.

Applied Standards:

Load meets or exceeds the following standards: ASTM E4, ISO7500-1, EN 10002-2, BS1610, DIN 51221.

Strain measurement meets or exceeds the following standards: ASTM E83, ISO 9513, EN 3846, EN 1002-4.

Single Column Type:

Load Frame:

- High rigidity frame designed to assure high resistance
- Movement of the movable crosshead obtained by pre-loaded ball screws to eliminate the backlash.
- Working area easy to reach
- Servo Control system and High accuracy photoelectric encoder



Model	WDW-S0.5	WDW-S1	WDW-S2	WDW-S5
Max. load (kN)	0.5	1	2	3
Load accuracy (%)	≤±0.5			
Deformation accuracy (%)	≤±0.5			
Displacement resolution (mm)	0.001			
Speed range (mm/min)	0.005-500/0.01-1000			
Effective tensile test space (mm)	910			
Total crosshead travel (mm)	1065			
Size of load frame (mm)	384×550×1415			
Weight (kg)	150			

Table Type:



Load Frame:

The purpose of design load frame & double columns is to ensure safety, reduce operator fatigue, and provide the highest level of flexibility. Concretely, it features as following:

High accuracy: the preloaded precision ball-screw ensures high speed and position measurement accuracy. A built-in scale on the frame indicated the crosshead position for verification of normal strain testing.

Safety features: mount with the upper and lower limit switches, the testing machine stops automatically when the change in the test force exceeds a specified value during operations.

Large space in the working area: the insides of columns provide wide space for the operator.

Over-stroke limiter: the range of the crosshead movement mechanically limited.

Comfortable working area: the wide legroom under the load unit provides a comfortable working area for attaching and removing jigs.

Model	WDW-1/2/3/5/10/20	WDW-25/30/50	WDW-100
Max. Load (kN)	1/2/3/5/10/20	25/30/50	100
Load accuracy (%)	≤±0.5		
Deformation accuracy (%)	≤±0.5		
Displacement resolution (mm)	0.001		
Load speed (mm/min)	0.005-500/0.01-1000		
Spacing of grip to grip(mm)	750	640	550
Total crosshead travel (mm)	1075	1100	1130
Space between columns(mm)	420	500	570
Height(mm)	1737	1944	2120
Width(mm)	780	840	950
Depth(mm)	500	600	700
Weight of load frame(kg)	160	250	300
Power	1 phase, 220V/110V, 60Hz/50Hz		

Floor Type:



Load Frame:

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Over-stroke limiter: the range of the crosshead movement mechanically limited.

Comfortable working area: the wide legroom under the load unit provides a comfortable working area for attaching and removing jigs.

Model	WDW-50	WDW-100	WDW-200/250/300	WDW-500	WDW-600
Max. Load (kN)	50	100	200/250/300	500	600
Load accuracy (%)	≤±0.5				
Deformation accuracy (%)	≤±0.5				
Displacement resolution(mm)	0.001				
Load speed (mm/min)	0.005-500/0.01-1000		0.025-250		
Spacing of grip to grip(mm)	570		500		
Total crosshead travel (mm)	1200		1350		
Space between columns(mm)	510	570	600	600	600
Depth(mm)	500	614	760	770	780
Width(mm)	940	1110	1200	1200	1200
Height(mm)	2164	2200	2400	2500	2550
Weight(kg)	500	1100	1500	1600	1800

**Standards:****Metal:**

- Tensile test at room temperature DIN EN10002-1, ISO6892, APJ 5L, JIS Z2241, BS18, ASTM A370, ASTM E8
- Tensile test at high temperature DIN EN 10002-5, ASTM E21
- Tensile test at low temperature ISO/CD 384 E, ISO 15579, ASTM E345
- Tensile test on reinforced steel DIN 488, BS 4449, BS 4482, BS 4483, JIS 3112, ISO 10606, EN 10080
- Testing of steel for reinforcing concrete SI 739, UNE 36065
- Tensile test of steel braid & structural steel EN 10138, BS 5896, ASTM A416
- Tensile test on metal foils ASTM E345, DIN 50154
- Determination of hardening coefficient (n-value) ISO 10275
- Determination of vertical anisotropy (r-value) ISO 10113
- Tensile test on welds DIN EN 895
- Tensile test on chains DIN 22252
- Tensile test on screws ISO 898
- Shearing test DIN 50141, LN 65150
- Testing of pipes EN 10232, EN 10237, ISO 8491
- Compression test DIN 50106, ASTM E9
- Compression test on hard metals DIN ISO 4506, EN 24506
- Bending test ISO 7438, JIS Z 2248, JIS Z 2204
- Sheet metal bending test, 0.05 to 1 mm thick DIN 50151

Rubber/Elastomer:

- Tensile: ISO37, ISO 527, ASTM D638 , ASTM D 412,ASTM D1414, DIN 53504;
- Compression: ISO825, ISO844, ASTM D695, ASTM D1621;
- Flexural test: ISO178, ASTM 790
- Tear test: ASTM D624

Adhesive:

- Peel: ISO 36, 4578, 6133, 8510-1/2, 11339, EN 1464, 28510-1/2, 60454-2, ASTM D1876, 3330, 3167, BS 3925, FINAT 1, 2
- Tack: FINAT 3, 9
- Tensile: ISO 6922, EN 26922
- Shear: ISO 4587, 10123, 11003-2, 13445, EN 1465, ASTM D3163, D3164.

Plastic film and sheet:

- Tensile:- ENISO 527-3, ASTM D882
- Puncture:- ISO 3303-A, ASTM D3787, D5748.

Fabric:

- Tensile: ENISO 9073-3 ASTM 5035, EN 802, 826
- Tear: D2262, D5587, ENISO 9073-4, ASTM 2261, BS 3424pt5, 4303
- Puncture/Burst: ASTM DD751, 3787, 3786, 4830, BS 3424pt6
- Footwear: DIN 53 328, 533 329, 53 331. BS 3144, 5131, 344. ISO 11644. ASTM D-2207, D-2208, D-2209, D-2210, D-2211, D-2212, D-4703, D-4704

Paper:

- Tensile: ENISO 1924-2, ASTM D828, BS 4415, 2782, DIN 53112, JIS P8115, TAPPI T494
- Compression: ISO 9895, BS 7325, DIN 54518, TAPPI T826
- Tear: ASTM D 1938
- Peel: ISO 4578, ASTM D903, D3330, D1000, BS 3887, F88
- Puncture: ISO 3303-A, ASTM D3787, D5748
- Friction: ASTM D 1894

Controller:

There are three kinds of controllers to meet different applications:

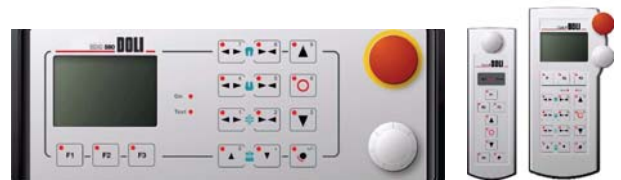
- PCI card. It is full digital card built-in the computer.
- Full digital controller from TE. It can operate the machine by itself and also can be controlled by Computer.
- EDC controller. Load cell self-indentify function.



Wireless controller

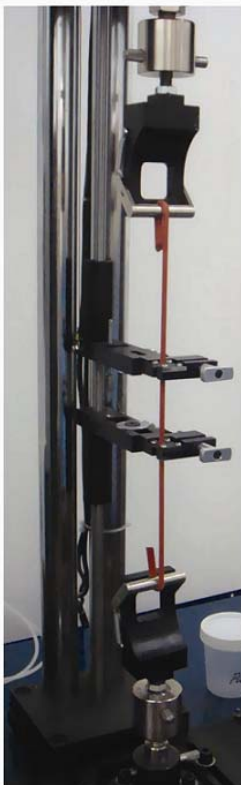
Specifications:

- Interface Processor AMD 520, 133MHz
- Load resolution $\pm 180,000$ steps, two ranges 2mV/V and 4mV/V
- Date sampling frequency: 1kHz
- RS485 Interface for external keyboard/display, supports a maximum of four devices
- Drive Interface $\pm 10V$ (16bit) analogue command output, digital command output and safety functions
- PC communication via USB or Ethernet Two I2-Bus-Extension-Slots
- Internal socket for serial sensors (COM 1)
- Internal socket for debug (COM 2)
- Internal socket for synchronizing several EDCs
- Internal socket for servo valve amplifier



Extensometer

Extensometers including clip-on, automatic, video extensometer, laser extensometer meet different test requirements.



Long Travel Extensometer



Extensometer for round specimen



Extensometer for flat specimen



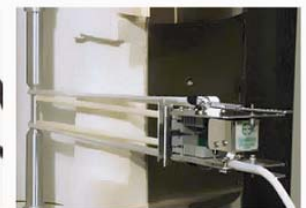
Axial extensometer



Transverse and axial extensometer



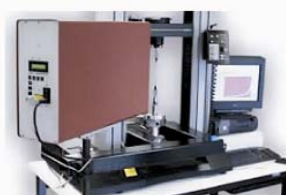
r&n value extensometer



High temp. extensometer



Video extensometer



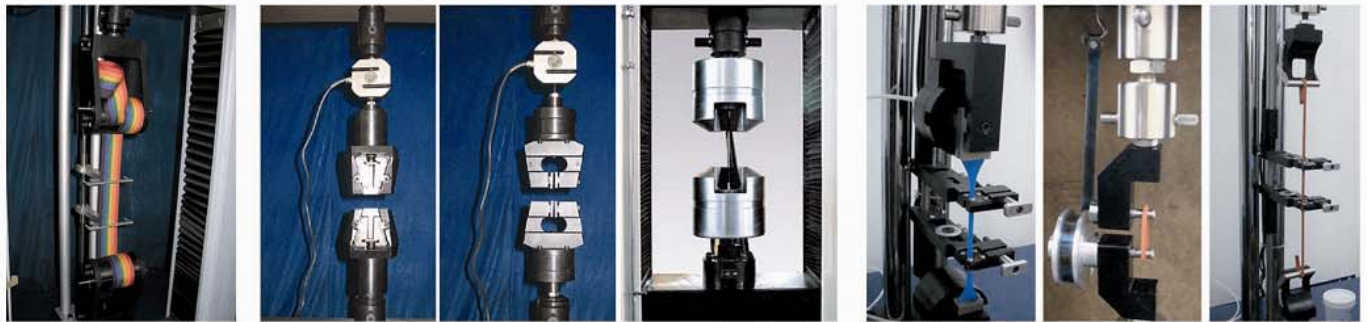
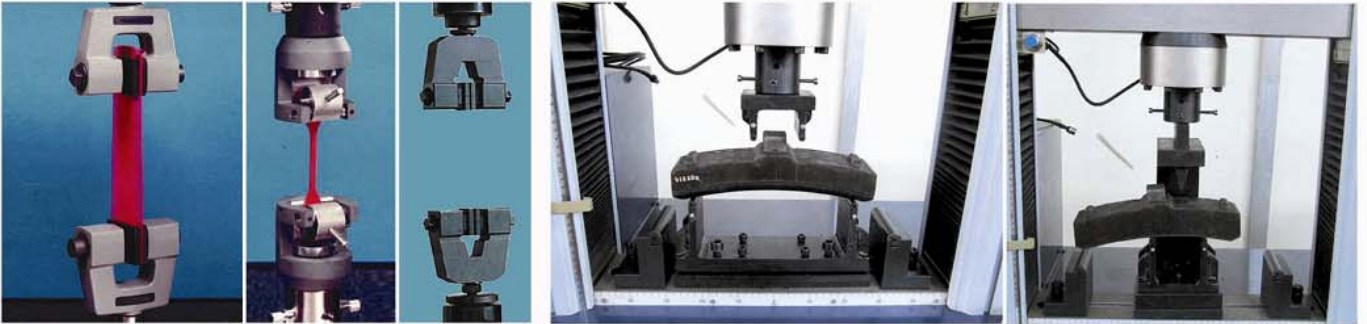
Laser extensometer



Full automatic extensometer

Grips

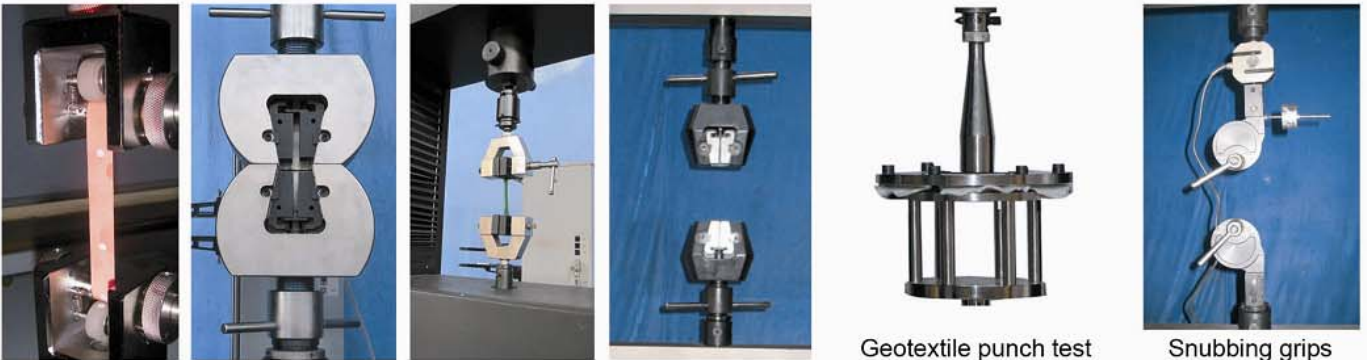
TE has great experience in producing customized solutions for particularly difficult applications. Below grips are used for tests. Please keep in mind that we have extensive custom design capabilities so if you can not find exactly what you are looking for then please contact us to discuss your requirement.



Safety belt test

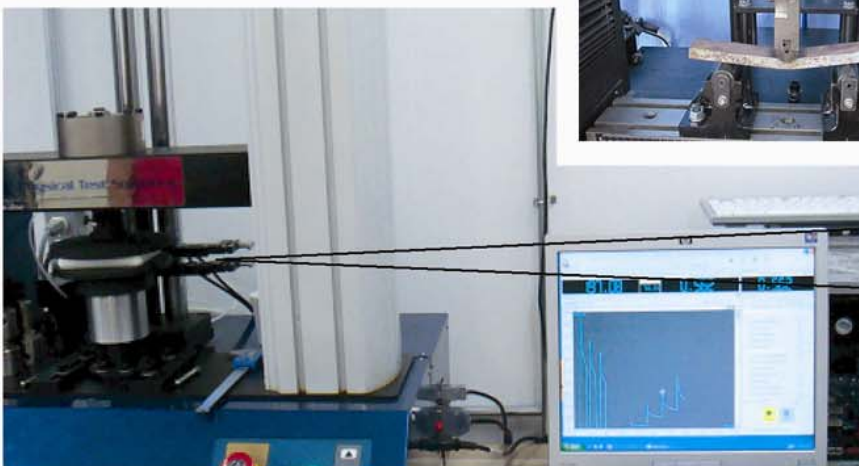
Pneumatic and hydraulic grips

Grips for rubber with long travel extensometer



Geotextile punch test

Snubbing grips



Furnace & Climatic Chamber

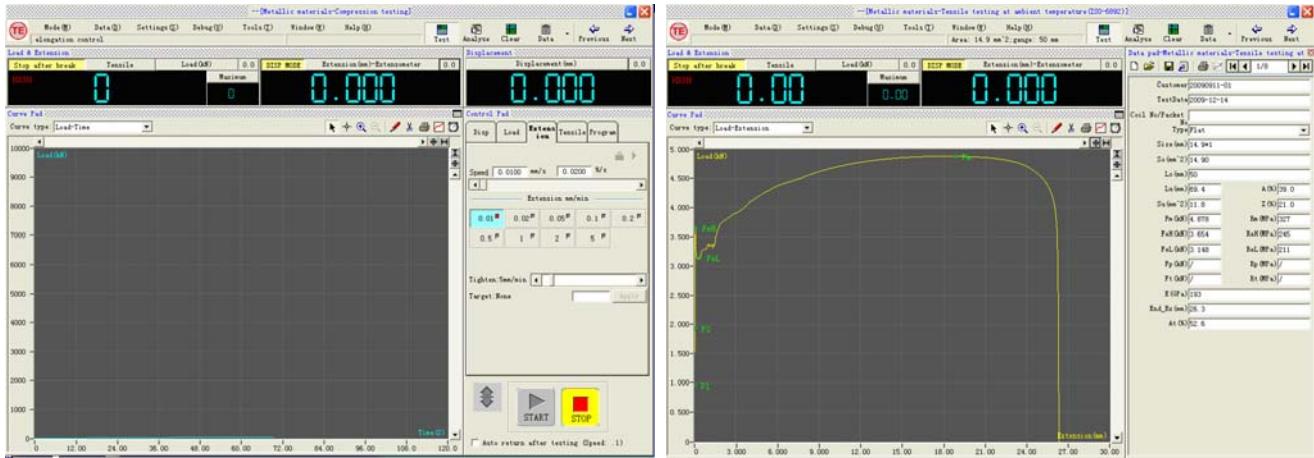
Applications:

The furnace & climatic chamber are specially used for universal testing machine according to the needed temperature to equip with corresponding load frames for kinds of metallic materials. The unit consists of furnace/chamber body, controller, high temperature grips, pull rod and bracket. The temperature can be controlled automatically by PID controller with high accuracy. Also it can make data communications with the computer. The temperature range & furnace/chamber size can be defined according to the customer's requirements. It is the ideal material test equipment used for universities, research institutes and enterprises.

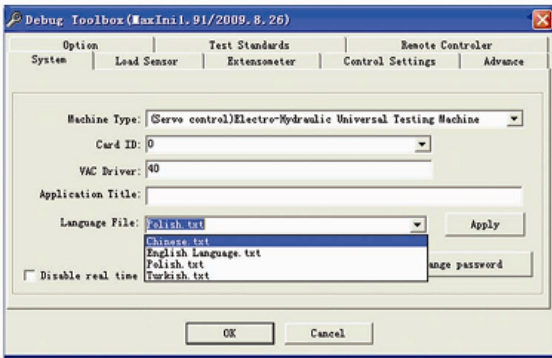


Software

TE software refers to the characteristics of the famous brands of testing machine in the world, and proposals of various testing requirements from end users, and combines all the major advantages of earlier versions of software with lots of new features. Optimized software structure makes the testing operation easy, convenient and powerful.



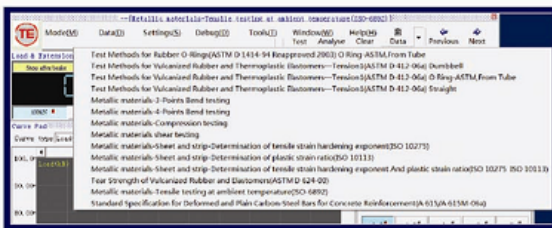
The control mode, test data and curves can be displayed in real time in the main interface and can be switched at any time.



The deep-seated parameters of software are contained in Debug Toolbox

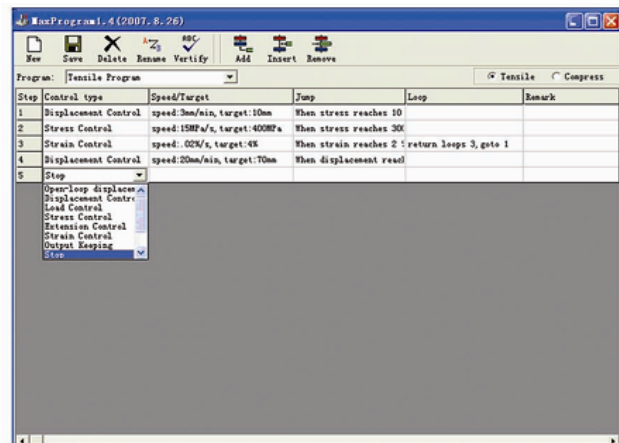
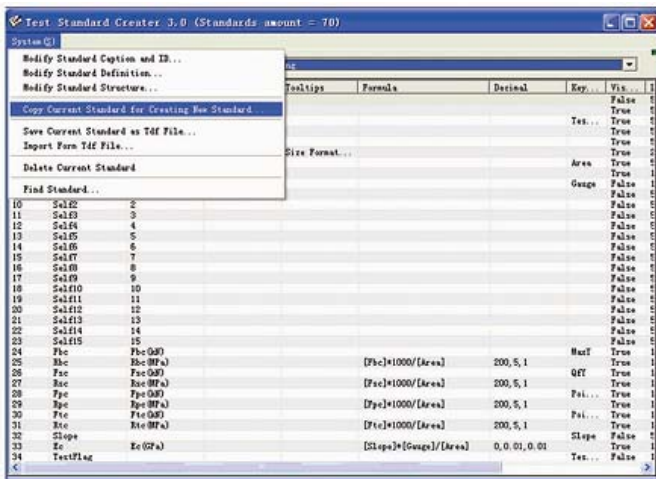
Multi-language function:

With the flexible language edited function, it supports Multi-language such as English, Chinese you can translate the software language into native language by yourself.

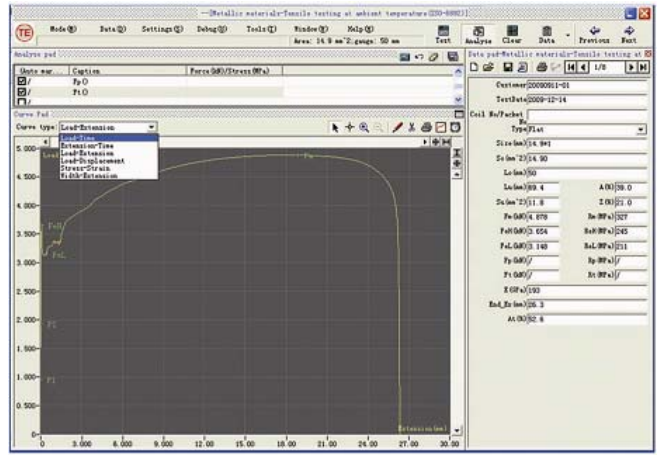
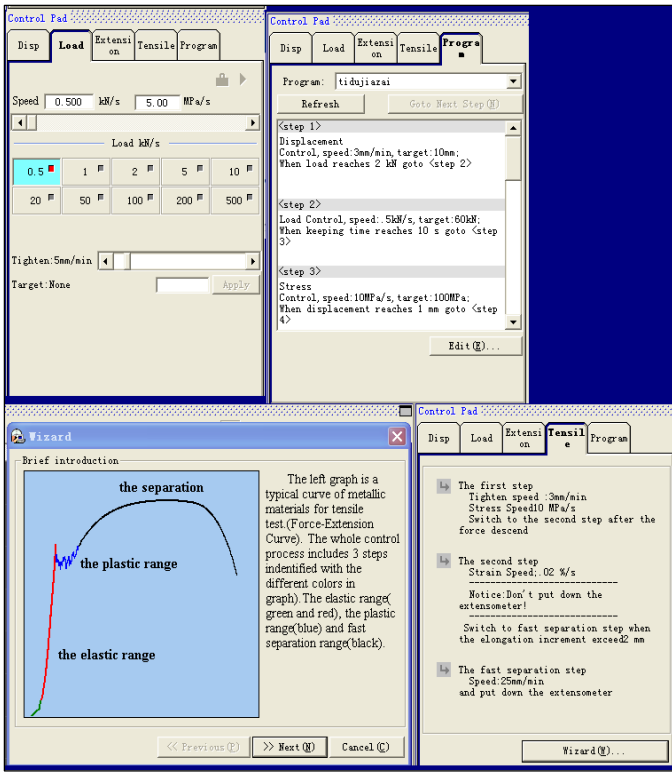


Software supports all kinds of popular testing standards i.e. ISO, ASTM, BS EN, DIN, JIS, GB etc.

Users can modify and add own testing standards and method as your requirement.

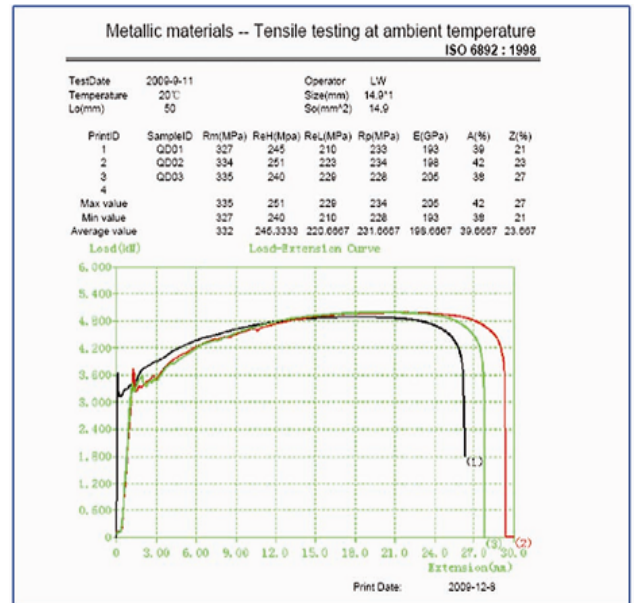
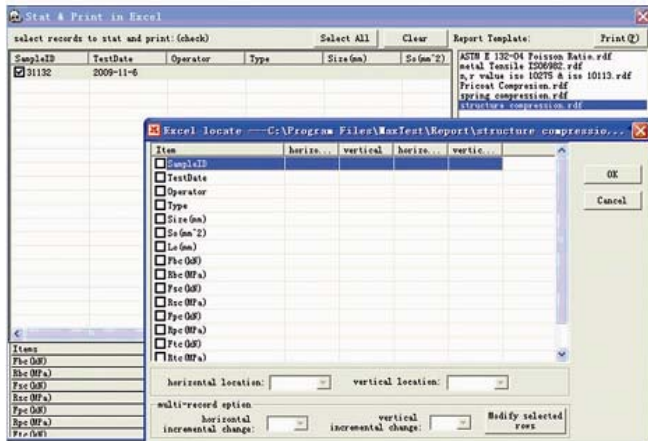


MaxProgram Editor possess of multi-kinds full digital control modes, i.e Displacement control, Stress(Load) control, Strain (Deformation) control, Low cycle control. Users can edit the most complex and logical procedure by MaxProgram Editor. The combination of above functions can meet all kinds of routine test purpose.



Multiple curves function, real time display including load-Extension, Load-Displacement, Stress-Strain, Load-Time, Extension-Time, Width-Extension. Characteristic points such as Elastic Modulus, Yield points, Rp, Rm etc. can be marked on the curves, for a direct and highlighted observation. Test result automatically can be obtained and also it can be manually got from the test curves.

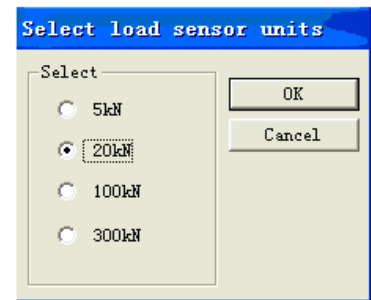
Through the Tensile Program Editor, user can setup test steps according to standards' requirement.



TE software contains all kinds of Report Templet. Customer can design various testing reports according to the requirement. The test result and the curve can be printed in Excel or printed in the auto-creating report templet .



Except the clip-on Extensometer, TE software supports Long Travel Extensometer, Full Automatic Extensometer, video Extensometer, laser Extensometer and up to eight Extensometers .



Environment of testing machine

- Operating temperature: +10°C to +38°C
- Storage temperature: -40°C to +66°C
- Humidity range: +10% to +90%, non-condensing
- Atmosphere: Designed for use under normal laboratory conditions. Protective measures may be required if excessive dust, corrosive fumes, electromagnetic field or hazardous conditions are encountered.

TE software supports four load cells.

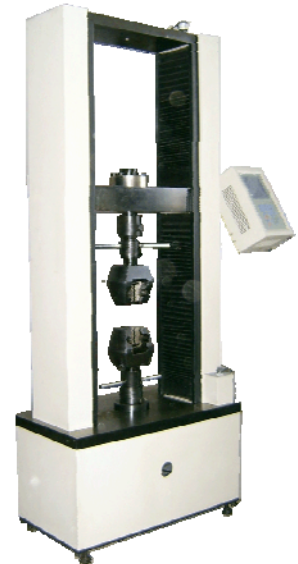
ELS Series Economic Universal Testing Machine

Main specifications:

- Max. Test load (N): 100; 200; 500; 1000; 2000, 5000
- Type: Single column type
- Load measuring range: 1%--100% of full scale
- Load measuring accuracy: $\pm 1\%$ of indicated value
- Speed range (mm/min): 1-100
- Speed accuracy: $\pm 1\%$
- Displacement measuring (mm): 0.01mm
- Dimensions (mm): 500×280×1280
- Power (kW): 0.35
- Weight (kg): 100



EDS Series Economical Electromechanical Universal Testing Machine



Applications:

This testing machine is designed for tensile mechanical property test on metal or nonmetals. A variety of fixtures can be offered to do compression, bending and shearing test as well. It is suited for the applications in quality inspection, research, metallurgy, rubber & plastics, and knitting materials. It is widely used in many fields such as industry factories, mineral enterprise and high schools. The machine complies with ASTM, ISO, DIN standards, etc.

Main specifications:

- | | |
|--|--|
| <ul style="list-style-type: none"> ● Max. Test load (kN): 5; 10; 20; 50; 100; 200 ● Load measuring range: 1%--100% of full scale ● Speed range (mm/min): 1-100 ● Displacement measuring (mm): 0.01mm ● Tensile space (mm): 600 ● Power (kW): 0.8 | <ul style="list-style-type: none"> ● Type: Table type ● Load measuring accuracy: $\pm 1\%$ of indicated value ● Speed accuracy: $\pm 1\%$ ● Load resolution: 1/100000 ● Dimensions (mm): 760×420×1650 ● Weight (kg): 450 |
|--|--|