Single Column Electronic Universal Testing Machine

Brand: JNG

Model: JG-500

Capacity: 500kgf

(Photo for reference only)

Application

- It is applicable for wide range of material for tension, compression, bending, shearing and low cycle test. Suitable for metal, rubber, plastic, spring, textile, and components testing. It is widely used in the corresponding industries, research and development, test institutes and training centersetc.
- It adopts rigid load frames, high accurate load weighting system, advanced measuring & control system and intuitive modular application software. Configured with extensive range of accessories for various applications, it can provide the optimal testing solutions for your individual application needs.

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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, BS 3846, EN 10002-4.
- Safety: This machine shall conform to all relevant European CE Health and Safety Directives EN 50081-1, 580081-1, 73/23/EEC, EN 61010-1.

Metal:

ASTM E8, ISO 6892, BS EN 10002-1, ASTM E21, IS0 783, EN ISO 7438, ISO 14589, ASTM F606

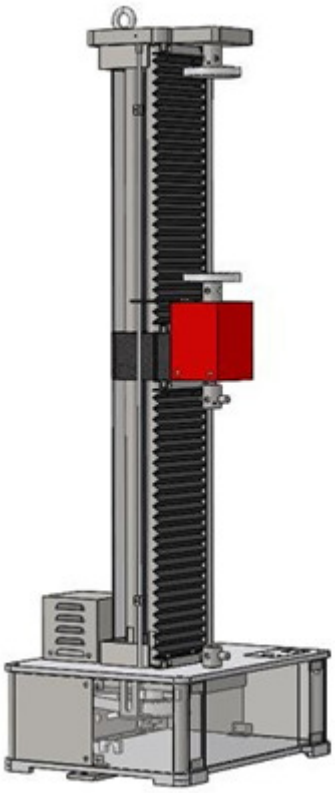
Plastics/ Composites:

ASTM D638, EN ISO 6259, EN ISO 527-1, ISO 604, ASTM D695, ASTM D3846, EN ISO 844, EN ISO 13968, EN ISO 9969, etc.

Geo-textiles:

ASTM D3950, ASTM D 6775-02, BS EN ISO 10319, JBT 8521(EN 1492-2).Rubber: ISO 37, ASTM D41

Host Part



- Adopt single column structure, lower for tensile, upper for compression, double space. The beam is step less lifting, light but rigid.
- Adopting ball screw drive, realize no clearance transmission, make sure the precision control of the test force and deformation speed.
- The photoelectric encoder is the displacement sensor, with high resolution, strong anti-interference ability.
- The shield plate with limit mechanism used to control the beam moving range, in order to avoid sensor damaged due to the moving distance is too large.
- The table, moving beams is made of high quality precision machining steel plate, not only reduces the vibration generated by specimen fracture, but also improves the stiffness.
- The motor tail is upwards, above the work surface, this design makes the main unit lower space narrowing, the whole machine is more coordinating, and more easy to spread out the heat generated by the motor rotation, extend electrical components life.
- Three columns of mandatory orientation, make the main unit rigidity much improved, to further ensure the repeatability of measurement.
- Adopt bolt type grip installation, make the grip replace easier.

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Technical Specifications

Model	JG-500
Capacity	500kgf
Load accuracy	Class 0.5
Testing load accuracy	±0.5%
Testing load range (FS)	0.4% ~ 100%
Load resolution	1/500,000FS
Deformation accuracy	≤±0.5% of 0.4% ~ 100% of rated capacity
Position resolution (μm)	0.025
Position accuracy	±0.02mm or 0.5% of displacement (whichever is greater)
Crosshead speed range	0.001 ~ 500
Crosshead speed accuracy	±0.5% of set speed (zero or constant load)
Stroke (exclude the grips) (mm)	972
Max. tensile testing space (mm)	800
Max. compression platen (mm)	800
Compression platen (mm)	Ø98
Load cell	High-precision USA load cell offers high stiffness, high stability, and high linearity Over-load protection, lateral loading protection, Bi-direction allows tension and compression test self-recognition (TEDS) function, Regular self-calibration
Power supply	AC220V ±10%, 50Hz/60Hz
Dimension (L x W x H : mm)	850 x 590 x 1540
Net weight (kg)	180

Note:

- Extra wide and/or extra height frames are available.
- Power supply system is completely customizable.
- Tensile space and speed is completely customizable.

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Standard Accessories

Name	Model	Description	Qty	Picture
Single Column Electronic Universal Testing Machine	JG-500	• 500Kgf; • Class 0.5 • Max. Tensile and Compression Testing space: 800mm	1 set	
Tensile fixture		Follow customer sample requirement	1 set	
Compression test fixture		Dia. Of plate Φ100mm	1 set	
Load Cell (S Type)	USA	Calibration within 0.5% accuracy can be carried out per ASTM E4, ISO7500-1, EN 10002-2, BS1610, DIN 51221 standards.	1 pc	
AC Servo Motor and Servo Speed Regulation and Control System	Taiwan TECO	• Low noise, high positioning accuracy	1 suit	
Handheld unit controller	N/A	Magnetic / handheld controller for the crosshead position. Allow user makes fine positioning of crosshead, particularly when setting the starting position for bending and compression tests.	1 suit	
Emergency stop	N/A	Reliably cuts off power to the servo amplier, instantaneously stopping crosshead movement in case of an emergency.	1 suit	
Positioning ruler	N/A	Visual positioning ruler place along the frame	1 suit	
Test Software and Backup U Disk	Testexpert	English	1 suit	
Computer Set	Branded	Branded Computer Color ink-jet printer	1 set	

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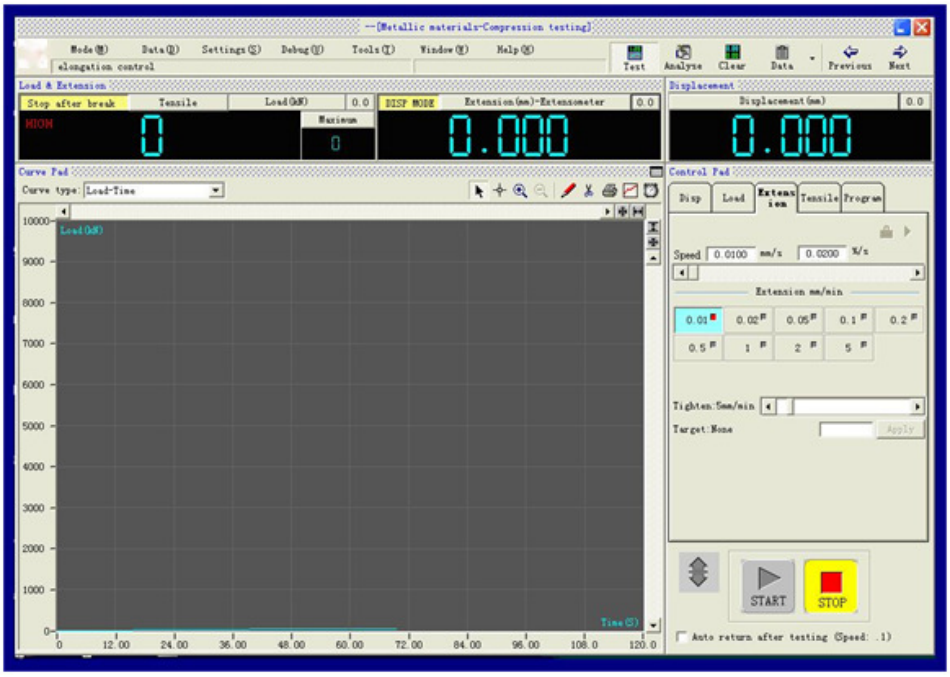
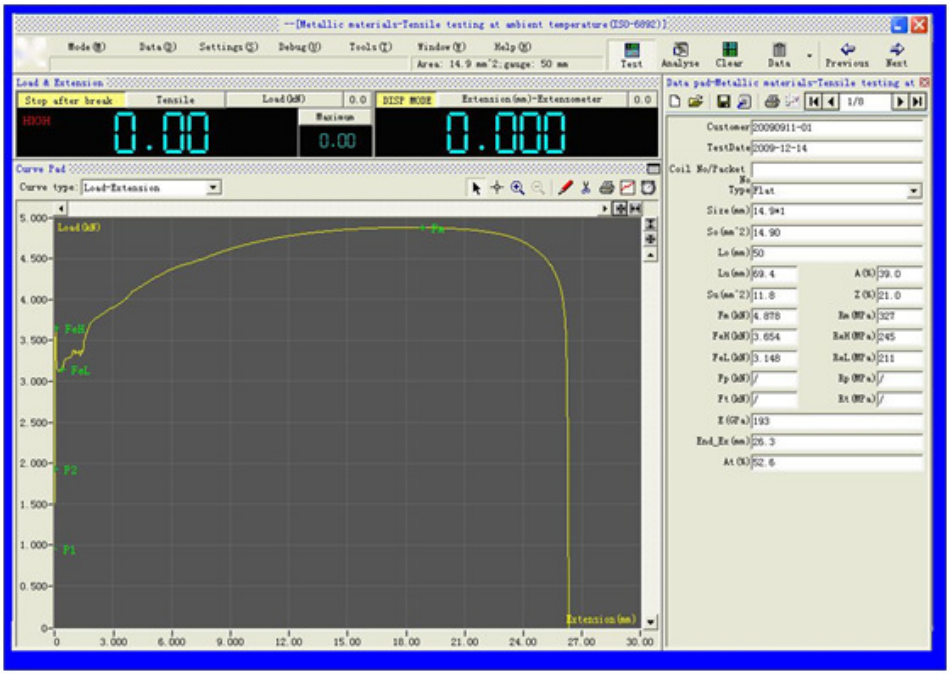
Features of Measuring & Control Software

Testexpert software refers to the software characteristics of the top manufacturers of testing machine in the world and proposals of various testing requirements from the end users, and combines all the advantages of former versions of software with lots of new features. Optimized software structure makes the testing operation easy, convenient and powerful.



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



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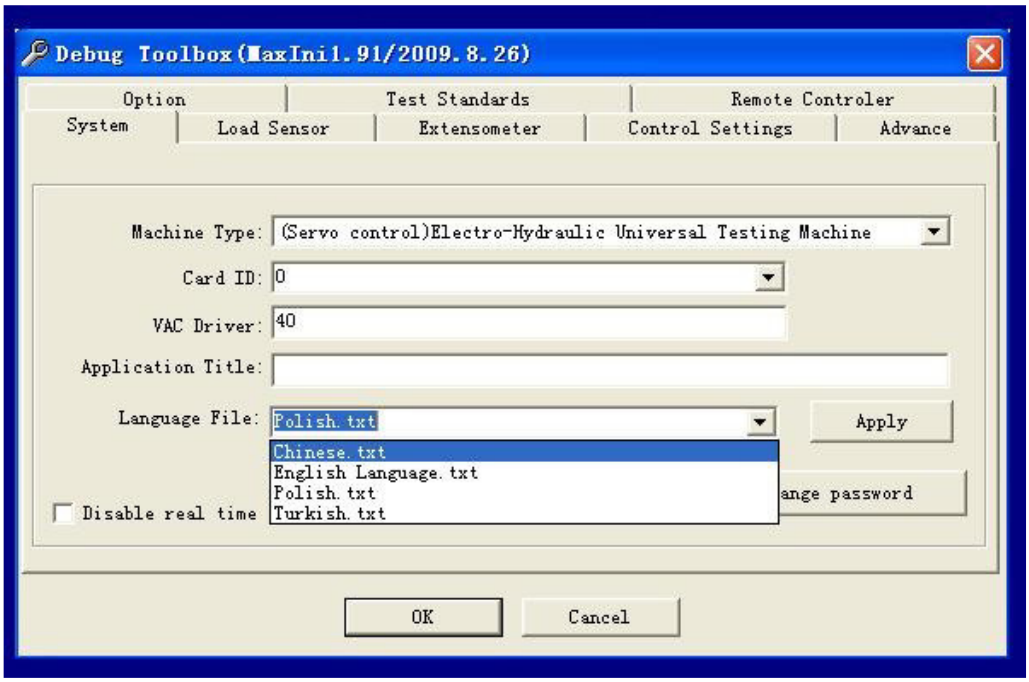
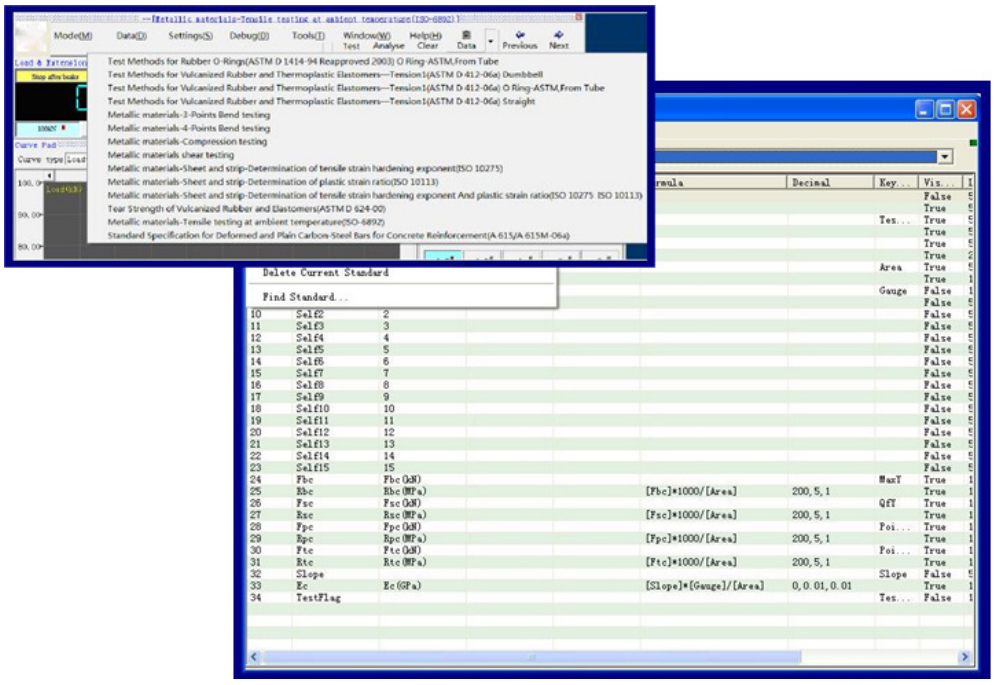
The deep-seated parameters of software are contained in Debug Toolbox Multi-language function: With the flexible language edited function, it can support multi-language such as English, Chinese etc. and you can translate the software language into the native language by yourself.



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 methods.



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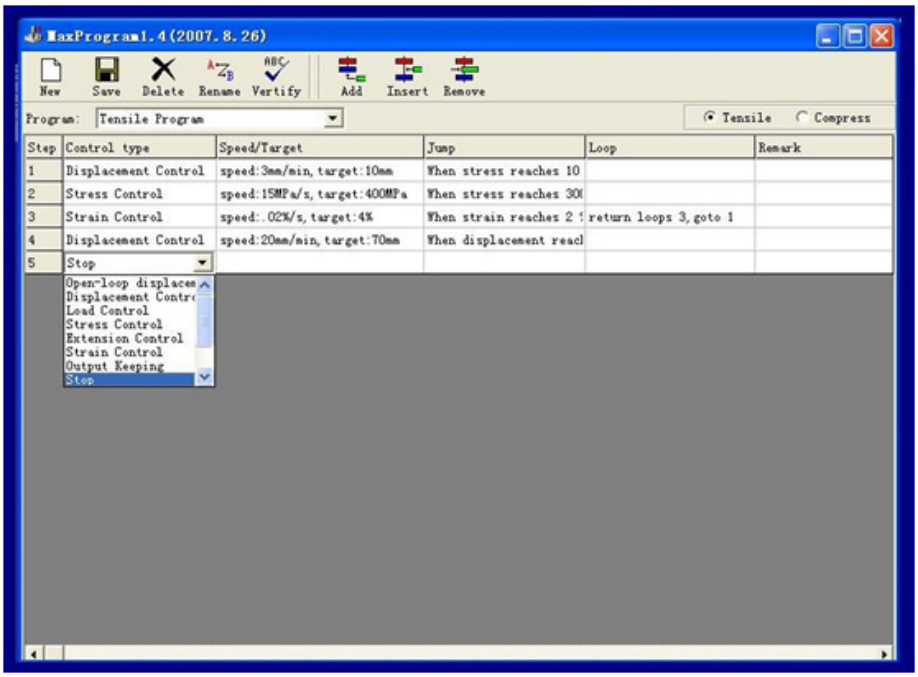
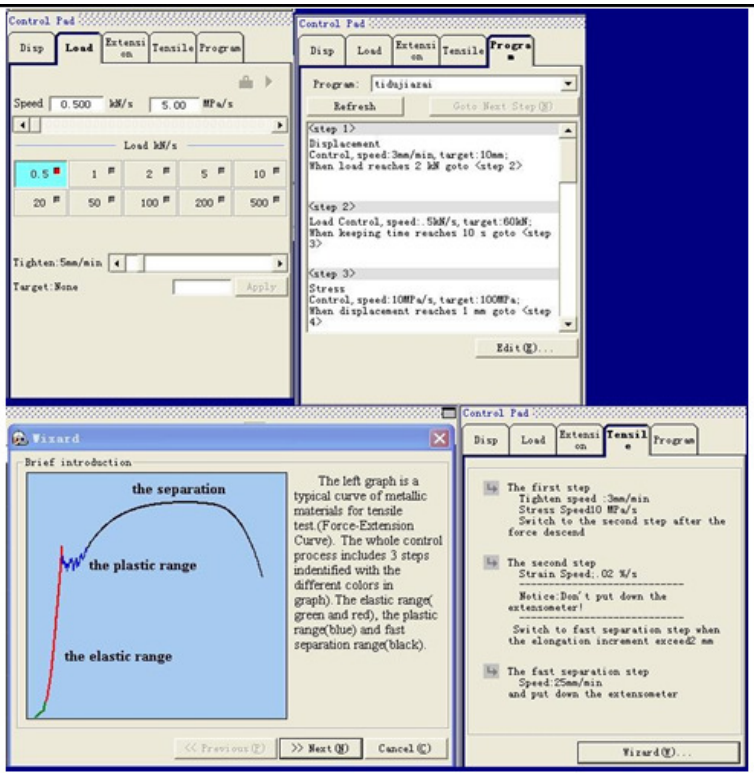
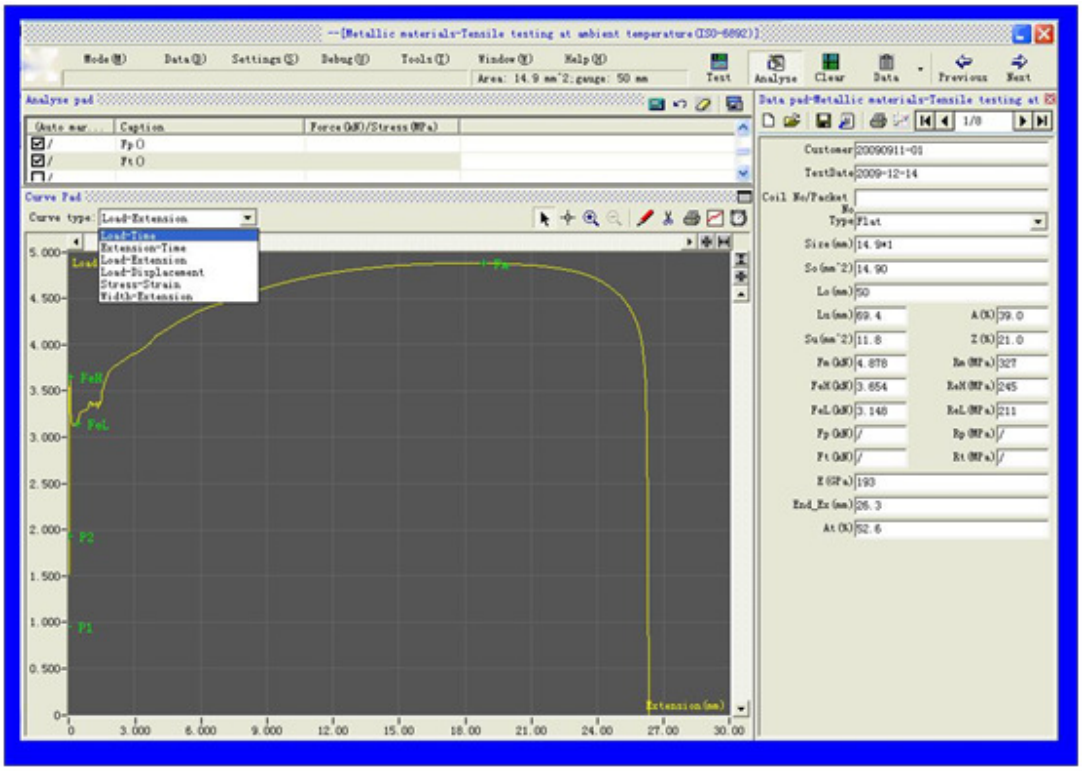
MaxProgram Editor possesses of multiple full digital control modes, i.e Displacement control, Stress (Load) control, Strain (Deformation) control, Low cycle control. User can edit the most complex and logical procedure by MaxProgram Editor. The combination of above functions can meet all kinds of routine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

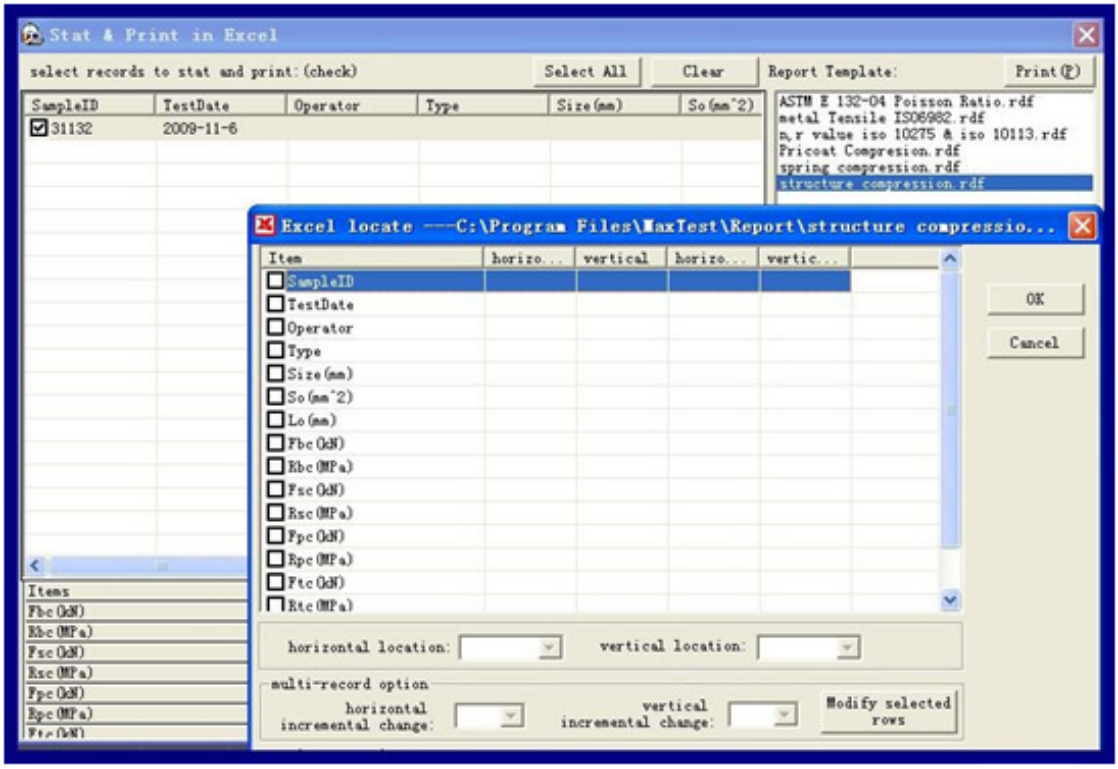


Through the Tensile Program Editor, user can setup test steps according to the requirements of standards.



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





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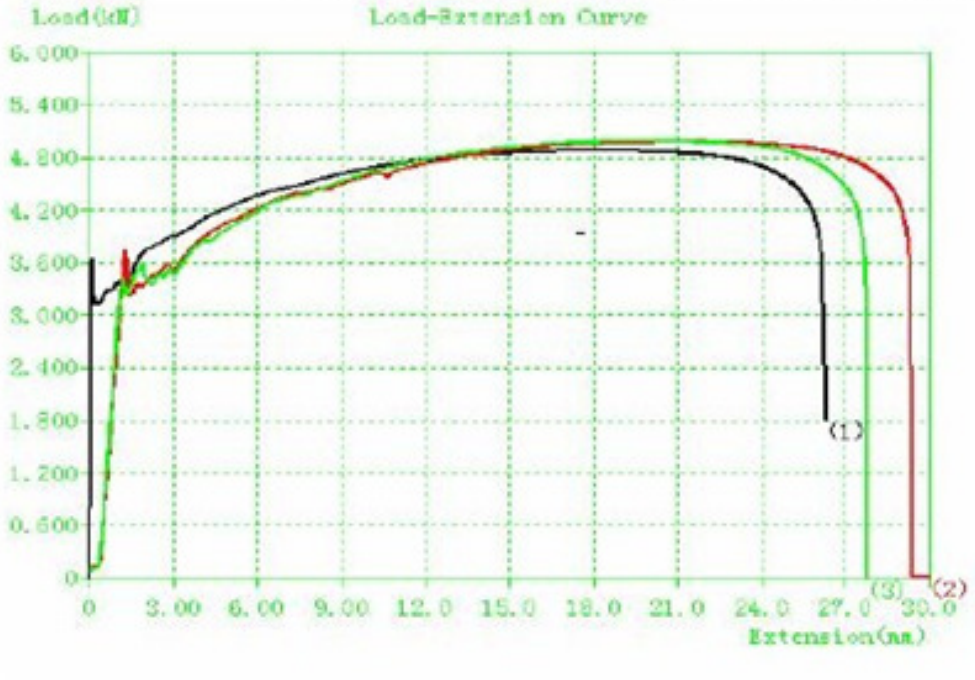
Software contains all kinds of Report Templates. Customer can design various testing reports according to the requirements.Test result and curve can be printed in Excelor the auto-creating report template

Metallic materials -- Tensile testing at ambient temperature

ISO 6892 : 1998

TestDate	2009-9-11	Operator	LW
Temperature	20℃	Size(mm)	14.9*1
Lo(mm)	50	So(mm^2)	14.9

PrintID	SampleID	Rm(MPa)	ReH(Mpa)	ReL(MPa)	Rp(MPa)	E(GPa)	A(%)	Z(%)
1	QD01	327	245	210	233	193	39	21
2	QD02	334	251	223	234	198	42	23
3	QD03	335	240	229	228	205	38	27
4								
Max value		335	251	229	234	205	42	27
Min value		327	240	210	228	193	38	21
Average value		332	245.3333	220.6667	231.6667	198.6667	39.6667	23.667



Print Date: 2009-12-8

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