

Headquarters: Floor 10th Tower A Century Fortune Plaza High Tech. Zone Jinan 250101, China. Tel: +86-531-86510531Ext. 9 Fax: +86-531-86510535 <u>www.testingequipmentie.com</u>

HLC Series Compact-design Servo-hydraulic Computer Controlled Universal Testing Machine



Application:

The series hydraulic universal testing machine is compact design with powerful functions. It can realise the testing of tensile, compression, bending, shearing, hardness, low cycle for metal and non-metallic materials, which is specially designed for educational purpose, mainly for universities, colleges, and research institution etc.

Applied standards:

Load meets or exceeds the standards: ASTM E4, ISO7500-1, EN 10002-2, BS1610, DIN 51221 etc. Strain measurement meets or exceeds the standards: ASTM E83, ISO 9513, EN 3846 and EN 1002-4.

Specifications:

Model	HLC-50	HLC-100	HLC-150/200
Max. Load(KN)	50	100	150/200
Load Measuring Range:	2%-100% of full scale;		
Load accuracy (%)	±0.5%/ ±1%		
Tensile space	350mm		
Piston stroke	200mm		
Load speed	0.5-100mm/min		





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Return speed		100mm/min	
Compression space	600mm		
Distance between columns	360mm		
Tensile grip for specimen	Round: Ø4-20	mm Flat: 0-21mm	Round: Ø9-26mm
information			Flat: 0-21mm
Compression platen	Ø100mm		
Dimensions	750x510x1610mm		
Net weight	180kg	200kg	

Standard Accessories

Tensile test attachment







Inserts for round specimen

Compression test attachment:

1 set

Platen dia.100mm, Thickness: 25mm





Flexural test attachment:

1 set



Electronic Extensometer:

1 pc

Gauge length: 50mm; Percentage Elongation 10% Precision 1% of full scale



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Photoelectric encoder:

1 pc



• Load cell: 1pc

Flat load cell 50/100/150/200kN, Tensile & Compression type,



Computer & software & printer
 1 set

Computer: Dell or Lenovo;

Software: English Version (For details, please refer Annex-1);

Printer: HP Color ink



Tool kit:
 1 set

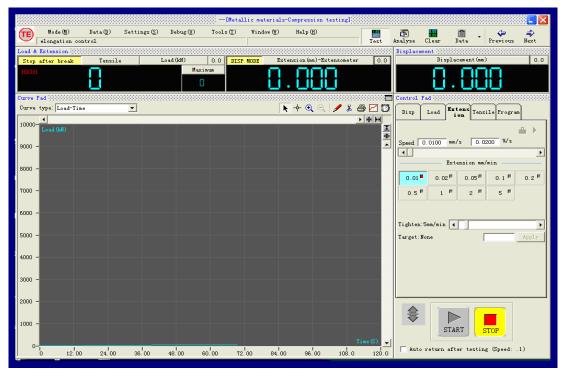


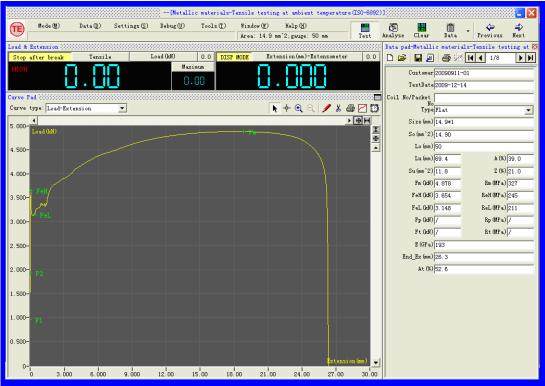
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Annex-1

Features of TE Measuring & Control Software

TE 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.

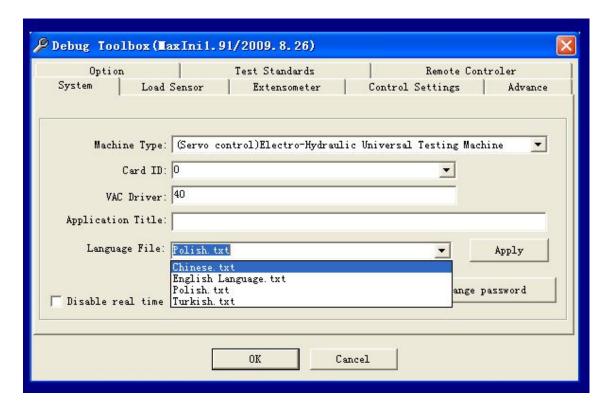






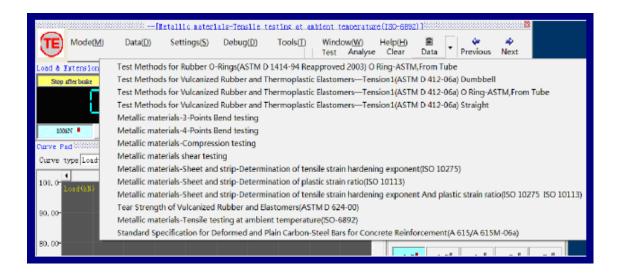
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The control modes, test data and curves can be displayed in real time in the main interface and can be shifted at any time.



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.



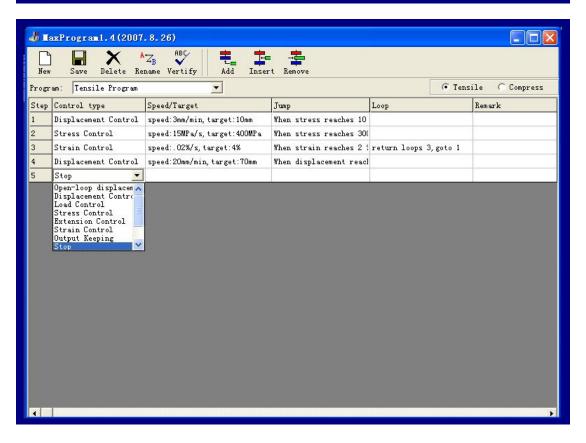
Software supports all kinds of popular testing standards i.e. ISO, ASTM, BS EN, DIN, JIS, GB etc. Users can modify and add own testing standards and methods.





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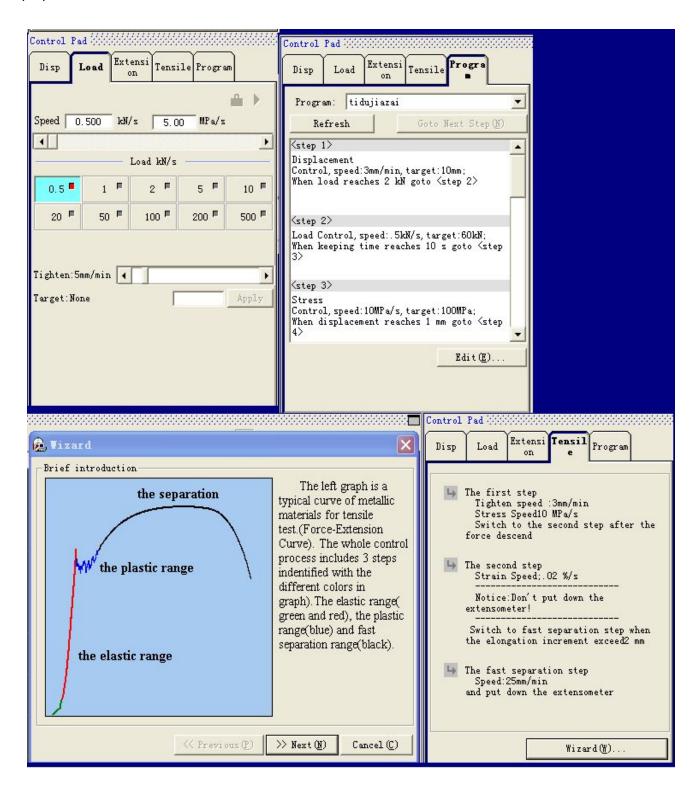
🌠 Test Standard Creater 3.0 (Standards amount = 70) System(S) Modify Standard Caption and ID. . . Modify Standard Definition... Modify Standard Structure. . Tooltips Formula Decimal Key. Vis.. False Copy Current Standard for Creating New Standard True Save Current Standard as Tdf File ... True True True Import Form Tdf File.. Size Format.. Area True Delete Current Standard True
True
False
False
False
False
False
False Find Standard.. Self2 Self3 Self4 Self5 False False False False False False Self6 Self7 Self8 Self9 Self10 Self11 Self12 Self13 Self14 False False False 13 14 15 False True True Self15 15 Fbc(kN) Rbc(MFa) Fsc(kN) Rsc(MFa) Fpc(kN) Rpc(MFa) Ftc(kN) Rtc(MFa) Fbc Rbc [Fbc]*1000/[Area] 200, 5, 1 OfY True True Fsc Rsc [Fsc]*1000/[Area] 200, 5, 1 Fpc Poi. True [Fpc]*1000/[Area] 200, 5, 1 Rpc Ftc True True True False Poi [Ftc]*1000/[Area] 200, 5, 1 Slope Slope Ec (GPa) 0, 0. 01, 0. 01 [Slope]*[Gauge]/[Area] 33 Ec True TestFlag





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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.



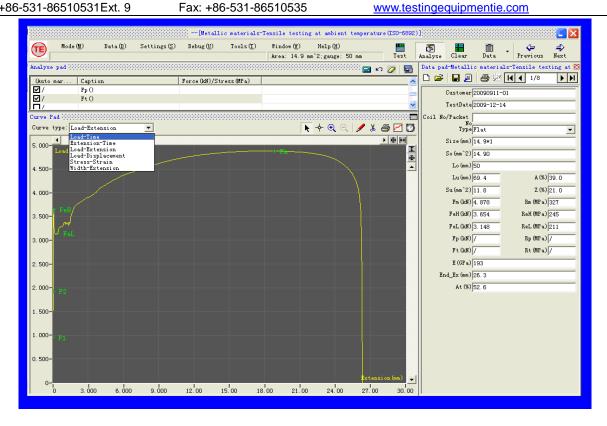
Through the Tensile Program Editor, user can setup test steps according to the requirements of standards.







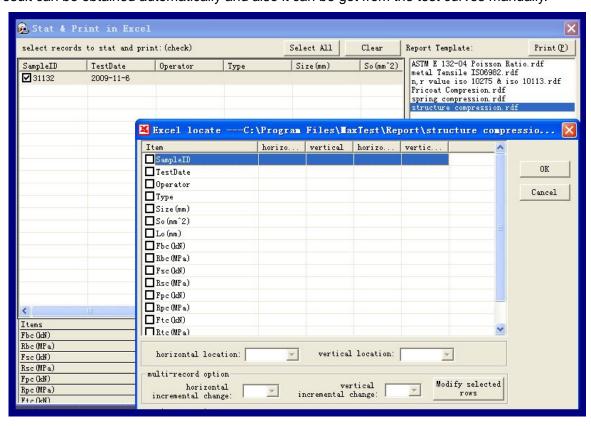
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Multiple curves function in real time display including Load-Extension, Load-Displacement, Stress-Strain, Load-Time, Extension-Time, and Width-Extension.

Characteristic points such as Elastic Modulus, Yield points, Rp, Rm etc. can be marked on the curves, for a highlighted and visual observation.

Test result can be obtained automatically and also it can be got from the test curves manually.





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TE 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 Excel or the auto-creating report template.

Metallic materials -- Tensile testing at ambient temperature ISO 6892: 1998 TestDate 2009-9-11 Operator LW 20°C Temperature Size(mm) 14.9*1 Lo(mm) 50 So(mm²) 14.9 PrintID SampleID Rm(MPa) ReH(Mpa) ReL(MPa) Rp(MPa) E(GPa) A(%) Z(%) QD01 327 245 210 233 193 39 21 251 223 23 2 QD02 334 234 198 42 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 21 245.3333 220.6667 231.6667 198.6667 39.6667 23.667 Average value Load (kH) Load-Extension Curve 6,000 5, 400 4.800 4.200 3,600 3.000 2,400 1.800 (1) 1.200 0.600 Q. 9.00 12.0 15.0 18.0 24.0 27. 0 Extension (nm)

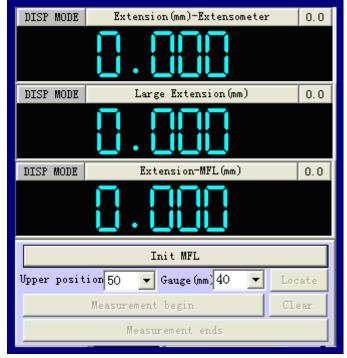
Print Date:

2009-12-8

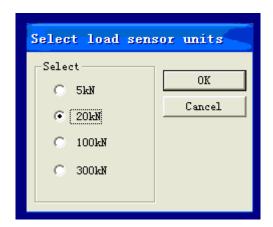


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Besides the clip-on Extensometer, TE software supports Long Travel Extensometer, Full Automatic Extensometer, video Extensometer, laser Extensometer, and it can be added up to 8 Extensometers



TE software also supports four load cells.