

# A1-Series

## DESCRIPTION

1. A1 series is a completely computer controlled material testing machine with AC server motor, ball screws and timing belt for a high precision testing result.
2. Test for various material such as rubber/ plastic / tape /textile/ electrical product...etc in Tensile/ Compression / Peel/ Fatigue / bending /shear test with different clamps.
3. Special test with universal testing machine is also available to discussion such as oven type and Temperature & Humidity type testing environment.

QC-503A1

## Machine :

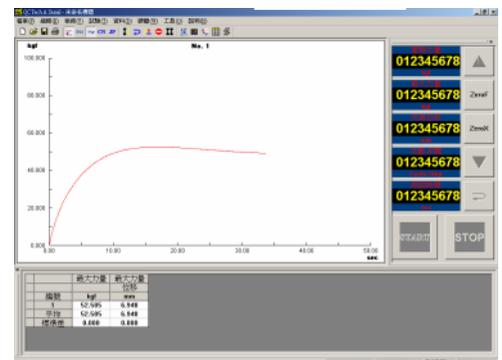
1. Strong frame to assure high static and semi-dynamic resistance
2. Ball Screws for high smooth and accurate linear motion during test.
3. Timing Belt provides a high transmission power and smooth meshing results in a long-life belt which is reliable more than ever.
4. AC Server Motor provides a precision speed, programmable control
5. Include Up, Down, Stop Button to control machine.
6. Include Up, Down limit device and Emergency Stop Button.
7. Auto-Stop when the testing is completed.
8. Easy assembly of grips or fixture by pin adaptor



## Statistics

1. Resolution: 1/100,000. (1/1000 to 1/200,000 adjustable)
2. Load Cell: Conform to ASTM-E4, difference within 1.0%
3. Precision of Force: 5~100% within  $\pm 0.5\%$  , 1~5% within  $\pm 1\%$
4. Precision of speed: 1~500mm/min  $\pm 1\%$

Live



## Specification for A1 Series:

Model	QC-513A1	QC-508A1	QC-506A1	QC-505A1	QC-503A1
Max Capacity	5kN	5kN	10kN	50kN	100kN
Max Speed (MM/MIN)	1~1000	1~1000	1~1000	0.5~500	0.5~350
Travel (MM)	450	800	800	1000	800
Space (MM)	Ø 140	Ø 140	W400	W420	W550
Machine Dimension (CM)	68x43x95	50X52X150	84x58x151	90x60x195	109X57X210
Type/ Column	Bench/ Single	Bench / Single	Bench / Two	Floor/ Two	Floor/ Two

## Software Function:

Operation method: By keyboard, mouse

Environment: Windows

Color screen with Chinese/ English version or specified

RS232 interface

Unit changeable (for Force, Displacement, Area, Stress ....etc)

Table formable by user

Column Nameable by user

Data and curve can display separately or in the same time

Data: Save, Open, Print, export to excel or word file

Live Curve and Data: Force-Displacement, Force-Time, Stress-Strain...etc.

Used for Tensile, Compression, Bending, Peeling , Cycles, Create Custom Test ...etc.

Two different testing speed setup in one testing period.

Travel Limited and load capacity protection setup

## Hardware for PC

CPU: P4 2.0GHZ

Hardware Capacity: 40GB

DISK compact

Soft DISK compact

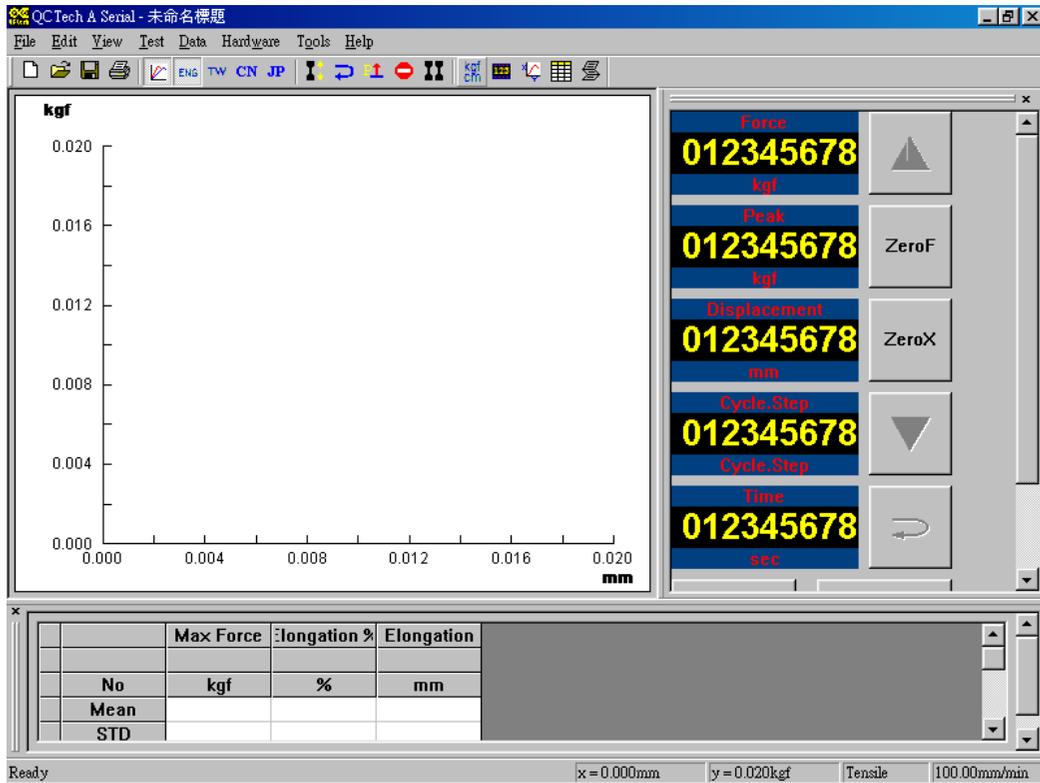
Screen: CRT 15" color screen

Standard Keyboard

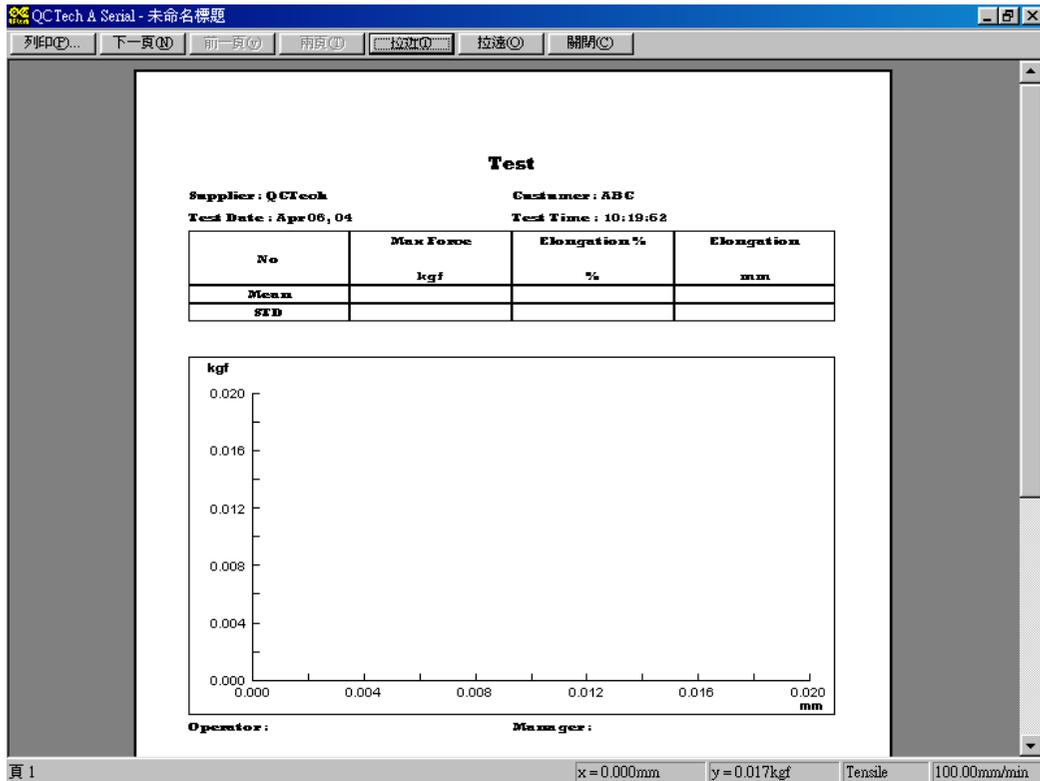
Standard Mouse

## Program:

Below is A1 software operation environment. The item or unit in the table report or curve can be changed with the one you need. Software has two version. One is Chinese and the other is English or custom version is available, and there is no problem to connect with printer



Print preview is as below. Name can be changed such as company, testing, customer, and supplier name ...etc..



Below is one of the setting manual for:

1. Test No, Name, type includes
  - Tensile
  - Compression
  - Peel
  - Shear
  - Tear
  - 3 or 4 point Bending
  - Creep
  - Friction
  - User's Defined
2. Setting for Circles Test includes times, force, displacement...etc.
3. Test speed, Direction, two speeds period selections.
4. Material specific-Name, Dimension, Thickness, Length.
5. Others.

**Test**

No :

Name :

Type :

**Material**

Material :

Gauge : 20.00mm Area : 10.00mm<sup>2</sup>

Width W : 5.00mm

Thickness T : 2.00mm

**Test Speed**

Speed :  mm/min

Direction :  Up  Down

2nd Speed :  mm/min

Change By :

Kgf

**Measure**

Loadcell :

Displacement :

**Lateral Extensometer**

1 :  Use  Re

2 :  Use  Re

**Start**

Auto Zero :  Force  Displacement

Begin Force :  Kgf

**End**

Auto Return :  No

Auto Save :  No

Load Cell Calibrates in software with numbers sections to enlarge every small force deviation for precision correction.

OC Tech A Serial - 未命名標題

File Edit View Test Data Hardware Tools Help

kgf

0.020

0.016

0.012

0.008

0.004

0.000

0.000

Force

**012345678**

kgf

ZeroF

ZeroX

**Loadcell Calibration**

Loadcell :  kgf

Force :  kgf

Parameter :

Zero

0.00~ 25.00 kgf  - 0.00~ 25.00 kgf

25.00~ 50.00 kgf  - 25.00~ 50.00 kgf

50.00~ 425.00 kgf  - 50.00~ 425.00 kgf

425.00~ 500.00 kgf  - 425.00~ 500.00 kgf

	Max Force	Elongation %	Elongation
No	kgf	%	mm
Mean			
STD			

Ready x = 0.000mm y = 0.017kgf Tensile 100.00mm/min

**Others:**

Accessory: Load Cell X1, Instruction Manual in English or Chinese.

Warranty: one year under normal operation

Voltage: Single phase, AC 100~ 240V, 50 or 60HZ

**Option:**

Various Grips, Fixtures, plates or Custom Item

Extensometer

Additional Load Cell

Custom Testing Method in program

Temperature and humidity Chambers