Testometric™

winTest™ Analysis v4

M350-20AT

Overview

winTest Analysis universal testing software is a fully-integrated and fully-customisable package that supports all industry standards including ISO, ASTM and BS EN specifications. Test types supported include tensile, compression, flexure, peel, tear, burst, adhesion, shear, spring, cycle, food, GRC and hardness. winTest Analysis is very flexible providing simple peak force testing or complex user-defined multistage step testing for specialised testing requirements.

Control

The virtual control panel allows the operator full control of all tester functions and the ability to conduct simple tests manually. The control panel provides easy access to stored test methods, system configuration and diagnostics. The stand-alone AT models also feature touch screen technology to provide a very efficient and easy-to-use interface.
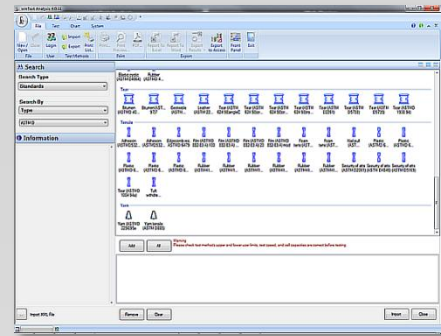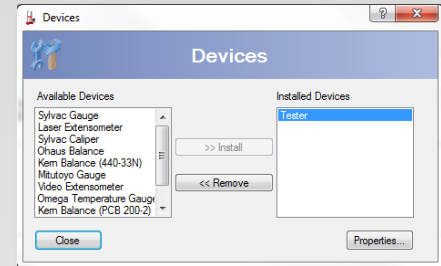
Key Features

General

- Integrated Help file with graphical representations of stored calculations.

- Industry specific test standards installer available.

- Support for an extensive range of peripherals including balances, extensometers, gauges, contractometers, environmental chambers etc.

- Video extensometer image processing software, including transverse and multi point measurement.

- Direct connection to Testometric control centre for on line service, software upgrades, test method download etc. (RCE option.)

- Pre-defined industry standard test methods available.

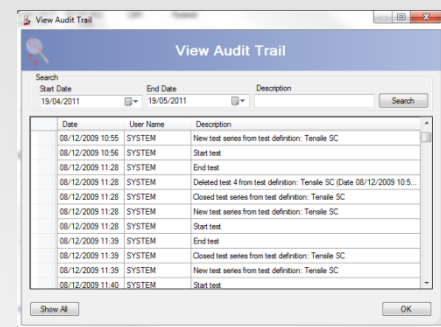Import standard

Devices

Audit Trail

Functions

- Multi-level password security.

- Audit trail to log activities performed during any use of the machine and software.

- Intuitive and simple-to-use operation and set-up.

- User-defined machine control routines.

- Configurable trigger points for sample break detection, with multiple methods.

- Direct connection to customer network systems.

- Crosshead speed control selectable in either linear, load, stress or strain rate.

- Multi-lingual support with one key press.

- Load cell calibration check log for reference and diagnostics.

- Tester system diagnostics integrated into software.
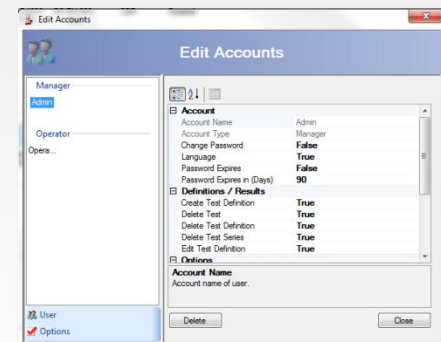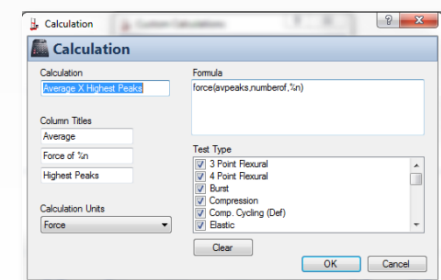
- Retro sample break analysis.

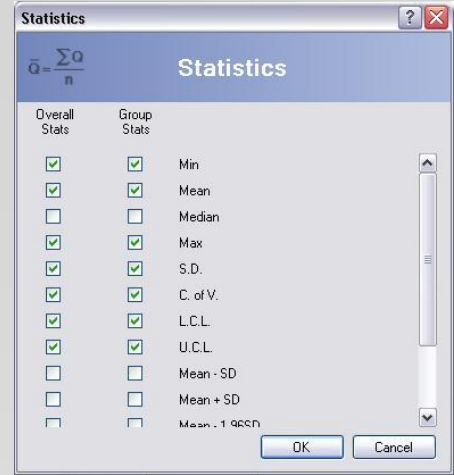
User Accounts

Custom Calculations
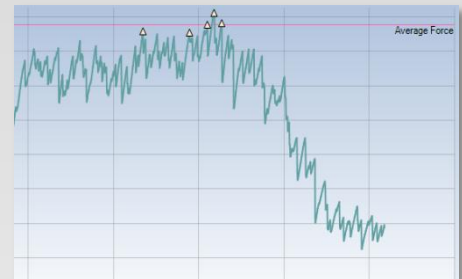
Key Features (cont.)

Results

- Comprehensive library of industry standard calculations.

- Configurable statistics summary for each test report.

- Customised test calculations.

- Visual Pass/Fail.

- Sequential calculations to take measurement at set intervals for long term tests etc.

- Custom statistics can be generated for selected calculation.

- Retrospective analysis of all test calculations.

- Calculate results on pre-defined test regions.

- Comments field and custom columns available for each test series and for individual tests.

- User-friendly test data backup can be configured for periodic reminders.

- Free backup / archive viewer program available.

Statistics

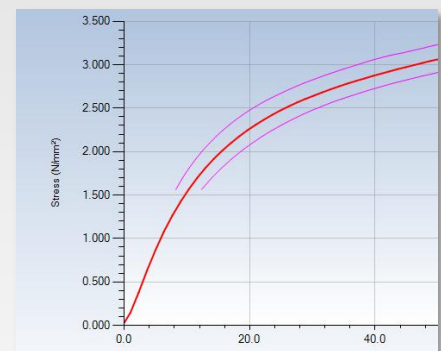Calculation display

Golden sample

Reports

- Fully-configurable test reports

- User-defined header and footer on test reports.

- Generate test reports in PDF format for email etc.

- Auto-print and preview option.

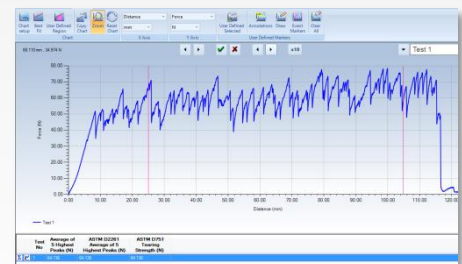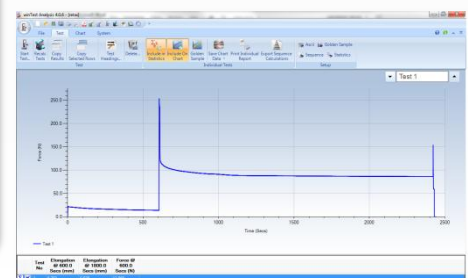- Report transfer into Microsoft Excel ™ and Microsoft Word ™.

Selected calculation regions
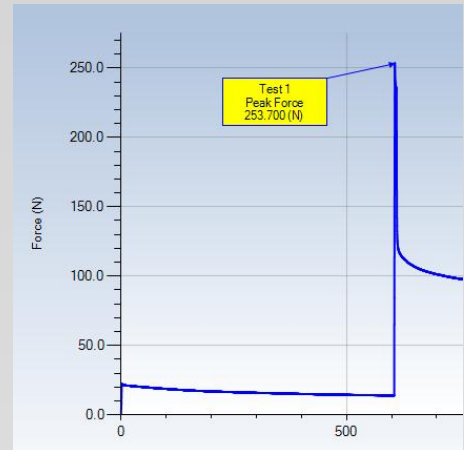

Multi stage test method
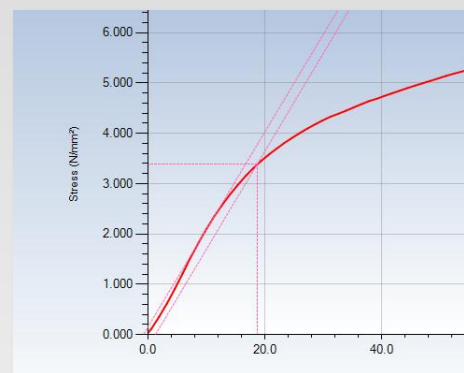
Key Features (cont.)

Graph

- Pass/Fail tolerance bands

- Display of best fit straight line in the elastic region, for calculation of E modulus, proof stress etc.

- Golden sample, a test curve can be selected as a reference and tolerance bands can be set to provide an instant visual check that all subsequent tests are within tolerance.

- Event marking during real time plotting of test curve.

- Visual display of calculations.

- User defined annotations.

- Built-in drawing function.

- Visual event markers.

- User defined peaks and troughs.

- Show the current graph co-ordinates for the current mouse position

Annotations

Offset proof values

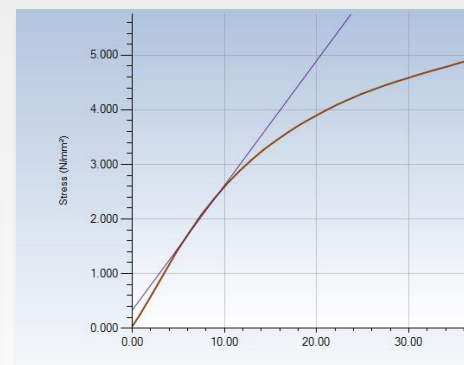Best fit straight line in elastic region

Import / Export

- Transfer of test data to Excel, Word and Access No additional module require.

- Import and export of test definitions in XML format.

- Export test results in ASCII format.
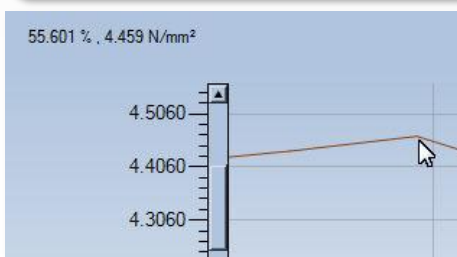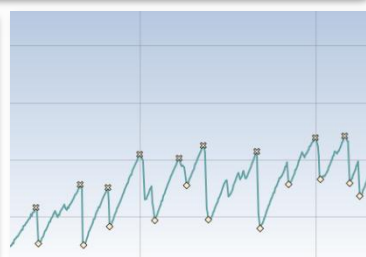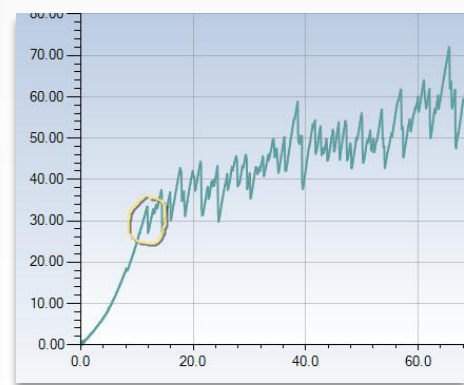
- Export raw curve data.

Graph co-ordinates

Peaks and troughs

Draw function

Customers headings and logo.

Test Reports

Include a company logo and company details as Header and Footer onto your test results to produce professional looking test reports.

Test reports can also be exported to Microsoft Word™ and/or Excel™ to provide you with full editing features and copy and paste capability to produce presentation-quality test reports, charts or test data in spreadsheet format.
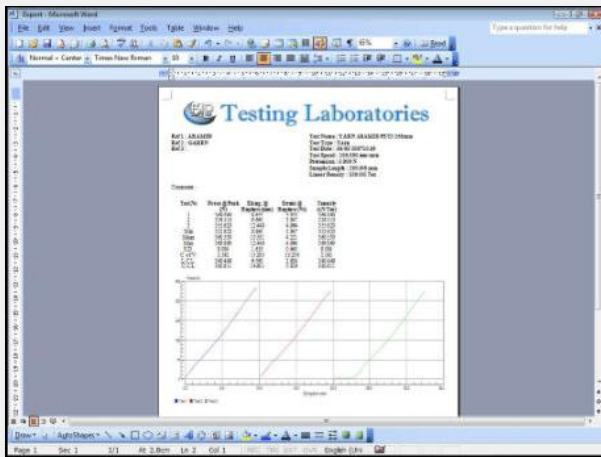
Report exported to Microsoft™ Word
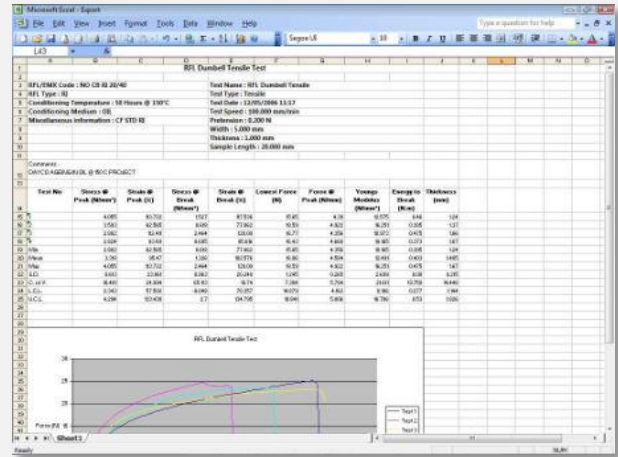
Report exported to Microsoft™ Excel

PDF Creation and Email

Convert your test report into an Adobe ™ PDF file so you can simply email your test report as a PDF attachment using Microsoft Outlook ™ or other programs. You can also email your test reports as a Microsoft Word ™ document or an Excel ™ file.

Report exported to Adobe Reader PDF file.

Calculations

The software includes an extensive range of calculations applicable to many industries, including all variations of force, elongation, stress and strain values and many others. Some examples are listed below.

Average Force
Average Force / Width
Bending Modulus
Crush Force (Edge)
Deflection @ 1st Collapse
Deflection @ Force (Stage)
Dynamic Co-eff of Friction
Elongation @ Break
Energy to Break
Energy to Yield
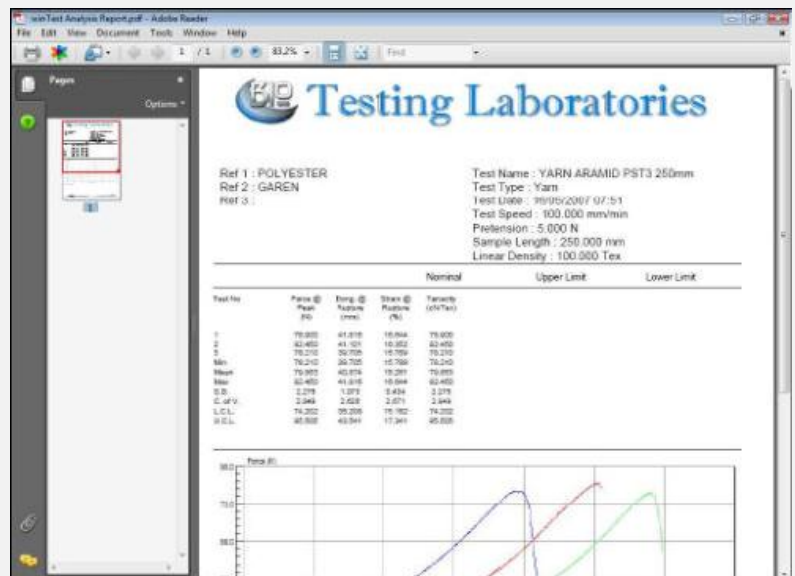Initial Modulus
Force @ Peak
Force @ 1st Collapse
Force @ Elongation
Force @ Proof
Force after Stage
Lowest Force
Seam Opening Force
Seamed Strength
Static Co-eff of Friction
Strain @ Break
Strain @ Force (Load Cycle)
Strain @ Force (Return Cycle)
Strain @ Force (Stage)
Stress @ Peak
Stress @ Proof
Stress @ Strain
Stress @ Yield
T.E.A.
Tenacity
Transverse Rupture Strength
Unseamed Strength
Youngs Modulus
Chord Modulus
Tangential Modulus @ Strain
Tangential Modulus @ Stress
Secant Modulus @ Strain
Secant Modulus @ Stress
Strain @ Limit of Proportionality
Force @ Rupture
Strain @ Rupture
Average of 5 Highest Peaks
Bend. Strength @ Peak
Bursting Strength
Stress @ % Height
Force @ Time
Deflection @ Time
Secant Stiffness
Stress @ Relative Deformation
Time to Peak
Time to Failure
LOP
MOR
Strain to LOP
Strain to MOR
Ym
Average Peaks (Selected Region)
Percentage Reduction of Area
Spring Rate Between Forces
Spring Rate Between Deflections
Density
Chewiness
Fracturability
Hardness
Poisson's Ratio
Plastic Strain Ratio r
Strain Hardening Exponent n

Help System

winTest Analysis has an integrated HTML Help file with added search function that includes simple explanations of machine operation, test result descriptions and graphical Flash TM representation of tests and test calculations. View graphically how specific test results are calculated to help you verify the correct selection of test calculations.
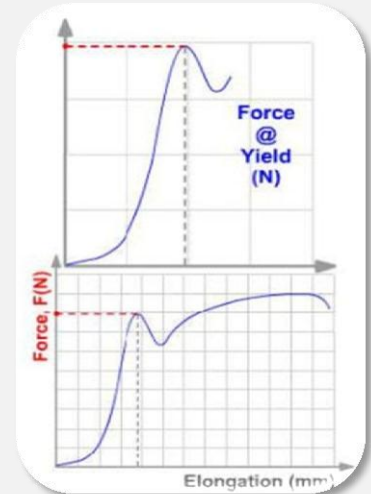
Force@Yield

Description

The force at which extension/deflection increases without a corresponding change in force (normally just beyond the elastic limit of the sample). Followed by a decrease in force.

Used by Test Type:

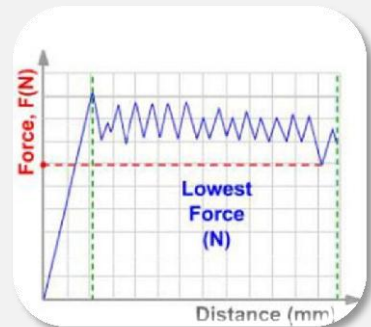3 point flexural, 4 point flexural, compression, tensile

Lowest Force

Description

The lowest force after the initial peak force during a test stage.

Used by Test Type:

Fabric, peel, tear, tensile.


Strain@Proof

Description

The percentage elongation/deflection at which the straight-line gradient of stress against strain, when the sample is below its elastic limit (limit of proportionality) is offset by a specified fractional strain. Divided by the original cross sectional area of the sample

Used by Test Type:

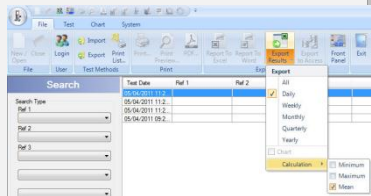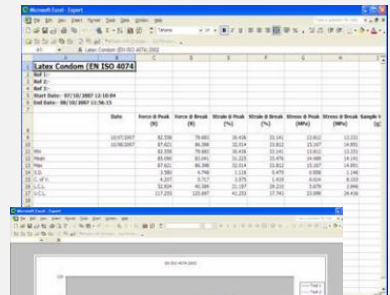3 point flexural, 4 point flexural, compression, tensile.
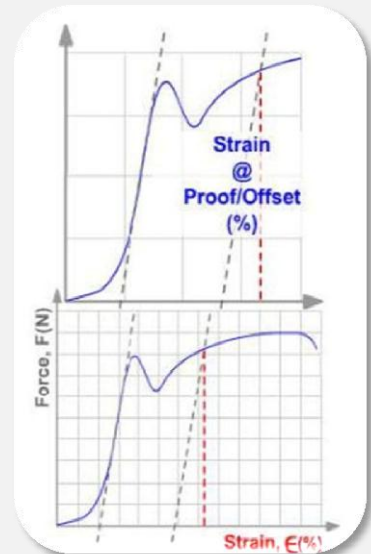
Trend Analysis

Export selectable test data in ASCII delimited format to Microsoft Excel ™ or other spreadsheet software to analyse test result trends over a user-specified time period or production batch. Represent test result trends graphically using the charting features Excel ™ to review trends 'at a glance' and also produce presentation-quality trend analysis reports.
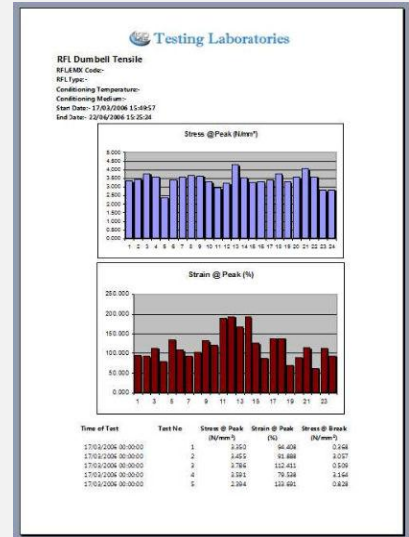
Export Test Series

Export data from a range of test series to an Excel work sheet using search criteria such as References, Start Date and End Date. It is also possible to export Minimum, Mean and Maximum results data based on a periodic selection (daily, weekly, monthly etc.) to highlight trends over a specified interval.

Standards Installer

Eliminate the need to interpret standards and manually configure the software by using pre-defined test methods based on an extensive range of industry standards. These can be installed as separate modules or installed as an industry-specific package to give you access to an impressive set of test methods and test calculations ranging from basic tensile tests to complex multistage tests. You can preview the test methods to verify and ensure the correct one has been selected before you start testing.

Industries

Testometric systems are in worldwide use in almost every industry for both routine quality control testing and specialised research and development.

Aerospace	Packaging
Automotive	Cord and Rope
Cable and Wire	Elastic
Clothing	Geotextiles
Adhesives	Medical
Food	Rubber
Pipe	GRC
Adhesive tape	Rope
Containers	Insulation
Credit Cards	Furniture
Armaments	Footwear
Constructions	Springs
Bedding	Timber
Cargo Restraints	Foam
Toys	Wood based Panel
Concrete	Plastic film and sheet
Fibre	Corrugated board
Metals	Yarn

Fully-Integrated Test Environment

Manage your test data, enhance your test reports, utilise the capabilities of Microsoft Word ™, Excel ™ and Access ™ and analyse test result trends.
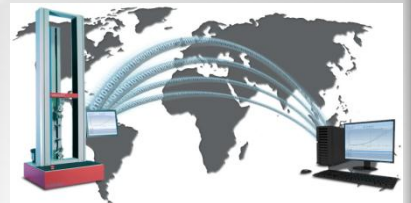
Direct connections to a network*

Wireless connection to a printer*

Customer logo on printouts
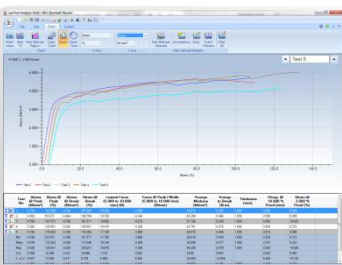
Global monitoring system (RCE option)

ASCII output

Microsoft Excel ™, Microsoft Word ™, Microsoft Access ™

Long term statistics

Adobe™ PDF

*optional

Machine Features

- Touch screen display with active tester control panel and readout screen showing real time test curves calculated results and statistics. Height adjustable and fully articulated (AT Models only).
- Optional full colour printer system mounted on universal position swivel arm.
- Fully digital testing system with high precision control and accuracy, includes automated computer control of test methods giving simplicity of operation.
- High resolution auto ranging load cells with accuracies better than +/-0.5% down to 1/1000th of the load cell capacity.
- Automatic recognition and calibration of load cells and extensometers, with instant calibration check facility.
- 800% overload capability of load cells without damage.
- High efficiency pre-loaded self-cleaning ballscrews for fast, quiet testing. Fitted with sealed for life lubricated end bearings.
- Crosshead guidance system providing precise alignment and smooth running.
- Precision crosshead control via digital AC servo drive and brushless servo motor giving maintenance free operation and 4,000,000 steps per revolution positional control.

- High speed data collection systems for up to 4 synchronous channels.
- 6 I/O channels for additional devices such as extensometers, micrometers, calipers, balances etc.
- High stiffness loading frames with solid specialised steel crossheads and rigid extruded support columns with T-slots for accessory mounting.
- Overload, overtravel and impact protection.
- Telescopic covers giving additional protection for ballscrews against dust and testing debris.
- Extensive range of grips and fixtures for tension, compression, flexural, shear, peel and product testing etc.
- A wide range of contacting and non-contacting extensometers is available including laser and video models.

Processor	1.86 Ghz or above Pentium processor, or an AMD Opteron, AMD Athlon 64 or AMD Athlon XP processor.
Memory	1GB or above.
PC Interface	1 x RS232 (recommended) or USB (2.0 compatible) connection. Extra ports may be required if additional measuring devices are used.
Hard Disk	3GB hard disk space.
Display	Both computer and monitor must be capable of displaying a resolution of 1024 x 768.
CD Drive	CD/DVD drive required for installation.
OS System	Microsoft Windows XP Home/Professional with SP2 (recommended) Microsoft Windows Vista Microsoft Windows 7
Software	Microsoft .Net Framework 3.5 Redistributable (On Disk) Microsoft Internet Explorer 6.0 (SP1) or above. Microsoft Data Access Components (MDAC) 2.8 (On Disk) Windows Installer 3.1