



Measure



Improve



Service

QC-3A – UNIVERSAL MATERIALS TENSILE TESTER



Thwing-Albert's QC tensile testers have provided quality solutions and have earned a well-deserved reputation as an easy-to-use, dependable testing platform. The QC-3A upholds the standards of the QC line while adding the functionality of a RS-232 interface, a digital load controller and enhanced software.

Ideal for tensile, compression, coefficient of friction and peel analysis, the QC-3A is an extremely flexible, cost-effective testing system. The single screw frame provides up to 5 kN tensile force with extremely accurate control throughout the entire load range. The digital load controller ensures extremely accurate, reliable test data.

Computer interface

The QC-3A has a serial port that enables test data to be automatically downloaded to a PC for databasing and graphing purposes.

Powerful Software

The software maintains the functionality of previous version with several enhancements. The software allows you to set distance and load traps when testing in the tensile or compression modes. Other advantages include the ability to pre-load a sample and set dual speeds, one for pre-test and one for test.

Simple Versatility Allows Efficient Testing

The QC-3A retains the one element that has made the QC line so popular – simplicity. Its user-friendly design lets you concentrate on the test, not on operating the instrument. Select preset and user-adjustable crosshead speeds in a few quick steps. A clear 2-line display provides setup, status and result data. Controls are designed for maximum flexibility with uncluttered convenience.

Highly Durable Testing Platforms

The rigid chassis of this instrument has a proven record of reliability in rigorous use. The single-screw QC-3A provides up to 1000 pounds (5000 newtons) tensile force with extremely sensitive control for light and medium-force applications.

Features

- Menu-driven software
- RS-232 PC interface
- Distance & load traps
- Digital load controller
- Fixed and variable crosshead speeds
- Pretest speed to selectable force
- Load cell unit conversions
- Statistical analysis : standard deviation, average, high and low readings
- On-screen HELP
- Includes software for TEA, COF and Peel testing

Technical specifications

Drive mechanism

Single machine screw

Testing area

Tension above moving crosshead

Crosshead guidance

Independent stainless steel guide rods

Crosshead speed

2.54 to 508 mm/min

Horizontal clearance

34 cm

Load capacity

5 kN

Load measurement

Load cells interchangeable from 10 N to 5 kN

Load accuracy

10 to 100 % load capacity : ± 0.25 % absolute value

Less than 10 % load cap. : ± 0.025 % of load cell capacity

Safety features

Emergency stop button, upper & lower limit switches with over-travel protection and load cell overload protection

Power requirements

110 V, 50/60 Hz - 220/230 V, 50 Hz - 240 V, 50 Hz

Physical specifications

Dimensions (W x D x H)

1265-2010 - 56 x 40.7 x 112 cm

1265-2011 - 56 x 40.7 x 155 cm

1265-2013 - 56 x 40.7 x 135 cm

Net weight

1265-2010 - 82 kg

1265-2011 - 91 kg

1265-2013 - 86.2 kg

Crosshead travel

25.4 x 45.7 cm excluding grips and fixtures

Display

2 line x 40 character vacuum fluorescent digital display

Options

A wide selection of grips & fixtures

Specialised grips enable you to test paper, plastics, textiles, fibers and foils fixtures permit compression, flexural rigidity, peel, friction and other tests

A wide range of precision load cells

20, 50, 100, 200, 500, 1000, 2000, 5000 N