



# Thwing-Albert Instrument Company

**More Than a Century of Testing Solutions**

## QC-3A

### Universal Materials Tensile Tester

Thwing-Albert's QC Electronic Materials Testers provide 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 1100 lbs (5kN/500 kg) tensile force with extremely accurate control throughout the entire load range. The digital load controller ensures extremely accurate, reliable test data.



QC-3A Tensile Tester

#### **Computer Interface**

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

#### **Powerful Software**

The software maintains the functionality of previous versions 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.



Options like this  
90° peel fixture  
add versatility to  
QC testers

#### **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



## Grips and Fixtures

Your QC tester will accomplish a wide range of tests when fitted with optional grips and fixtures. Specialized grips enable you to test paper, plastics, textiles, fibers and foils. Fixtures permit compression, flexural rigidity, peel, friction and other tests.

## Load Cells

A wide range of precision load cells are available for compression and tensile testing needs.

Capacities include:

- 0 - 2000 gm (19.57 N / 4.4 lbs)
- 0 - 5000 gm (49 N / 11 lbs)
- 0 - 10 kg (98 N / 22 lbs)
- 0 - 20 kg (195 N / 44 lbs)
- 0 - 50 kg (489 N / 110 lbs)
- 0 - 100 kg (978 N / 220 lbs)
- 0 - 200 kg (1957 N / 440 lbs)
- 0 - 500 kg (4901 N / 1102 lbs)

## Physical Specifications

	1265-2010	1265-2011	1265-2013*
<b>Width:</b>	22 in (56 cm)	22 in (56 cm)	22 in (56 cm)
<b>Depth:</b>	16 in (40.7 cm)	16 in (40.7 cm)	16 in (40.7 cm)
<b>Height:</b>	44 in (112 cm)	61 in (155 cm)	53 in (135 cm)
<b>Net Weight:</b>	180 lbs (82 kg)	200 lbs (91 kg)	190 lbs (86.2)
<b>Gross Weight:</b>	205 lbs (93 kg)	220 lbs (100 kg)	210 lbs (95.3 kg)

\*Extended Frame

## Technical Specifications

### Drive Mechanism

Single machine screw

### Testing Area

Tension above moving crosshead

### Horizontal Clearance

13.5 inches (34 cm)

### Crosshead Guidance

Independent stainless steel guide rods

### Load Capacity

1100 lbs (5 kN/500 kg)

### Load Measurement

Load cells interchangeable from 1000 g to 500 kg

### Force Accuracy

10% to 100% Load Capacity:  
±0.25% Measuring Value

Less than 10% Load Capacity:  
±0.025% of Load Cell Capacity

### Crosshead Travel

10 in, 18 in, (254, 457.2 mm)  
excluding grips and fixtures

### Crosshead Speed

0.1 to 20 in/min (2.54 to 508 mm/min)

### Safety Features

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

### Display

2 line x 40 character vacuum fluorescent digital display

### Outputs

Chart Recorder: 0-100 millivolts full scale  
RS-232 Serial Port, Parallel Printer Port

### Power Requirements

110 VAC, 50/60 Hz  
220/230 VAC, 50 Hz  
240 VAC, 50 Hz

*Specifications subject to change without notice.*

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