

EJA Vantage - Universal Materials Tensile Tester

The Thwing-Albert EJA Vantage testing system provides maximum testing flexibility in a compact frame, only 250 mm (10 in) wide. Three low-profile frames are available providing capacities from 1 kN (225 lb) to 5 kN (1,000 lb) of tension/compression force. Both frames fully integrate system electronics and software controls eliminating the complications of interfacing with external control boxes or additional PC cards.

Features

- Measure Tensile, Peel, Compression, Cycling, Tear, Burst, ZDT, Flex/Bend, Stress Relaxation and Insertion/Extraction, and more.
- Ideal Industry Uses:
Paper, Nonwovens & Textiles, Film, Plastics & Rubber, Packaging Materials, Biomaterials, and Adhesives
- Automatic Electronic Calibration
- One-touch Auto Zero
- Electronic Air Switches
- One Serial Interface to a PC
- Serial Load Cell Interface
- User Positionable Test Control Panel
- Digital Motion Controller Utilizing Pulse Width
- Modulation
- Easy Installation
- Side Electronics Panel for Easy Access
- Configurations to meet most International Standards ASTM, TAPPI, ISO & DIN including:
 - ASTM E4
 - ISO 5893, 7500-1, 9283
 - EN 1002/1-4
- Manual and Air-Operated Grips
- Fixtures Available:
Compression plates, peel fixtures, coefficient of friction, burst, extensometer and puncture fixtures



Software Control

The EJA Vantage is controlled via a serial interface connection between the tester and any standard PC or laptop. A magnetic test control keypad also provides convenient access to basic test functions.

There are two Windows®-based materials testing software packages available:

The EJA Simplicity™ Software

provides the ability to perform tension, compression and peel tests, store test data and analyze results.

MAP-3™ Software

MAP-3™ Software provides powerful capabilities for defining complex motion control and enabling unlimited test methods. MAP automatically generates a real-time curve, performs statistical analysis and exports results to database management packages including Access™ and Excel™.



Load Cell

A variety of high precision load cells are available for compression and tensile testing needs. Available load cells range from 5 N (1.1 lb) to 5 kN (1000 lb).



Variety of Grips & Fixtures

A wide range of grips and fixtures enable the EJA Vantage to be configured to most International Standards including ASTM, TAPPI, ISO & DIN. Manual & air-operated grips, compression plates, peel fixtures, coefficient of friction, burst, extensometer and puncture fixtures provide endless test possibilities.

Physical specifications

	Vantage (1750 - 2000)	Vantage (1750 - 2001)	Vantage (1750 - 2002)	Vantage (1752 - 2000)	Vantage (1752 - 2001)	Vantage (1752 - 2002)	Vantage (1755 - 2000)
Force capacity	1 KN	1 KN	1 KN	2 KN	2KN	2 KN	5 KN
Width	254mm	254mm	254mm	254mm	254mm	254mm	254mm
Depth	419mm	419mm	419mm	419mm	419mm	419mm	432mm
Height	1067mm	1321mm	1626mm	1067mm	1321mm	1626mm	1346mm
Net Weight	51kg	59kg	68kg	51kg	59kg	68kg	100kg
Crosshead travel	610mm	915mm	1200mm	610mm	915mm	1200mm	915mm

Technical specifications

Force Capacity

1 kN (225 lbs)

2 kN (450 lbs)

5 kN (1000 lbs)

Force Measurement

Interchangeable load cells available (see above list)

Force Accuracy

10% to 100% Load Capacity: $\pm 0.25\%$ Measuring Value

Less than 10% Load Capacity: $\pm 0.025\%$ of Load Cell Capacity

Force Resolution

16 Bit A/D to 0,001 N

Position Resolution

0,6 μm (0.00002 inch)

Position Accuracy

$\pm 2.5 \mu\text{m}/25 \text{ mm}$ ($\pm 0.0001 \text{ inch}/1.0 \text{ inch}$)

or 0.01% of Distance

Crosshead Guidance

Precision Ball Screw

Horizontal Clearance

Unlimited

Depth Clearance

89 mm (3.5 in)

System Control

PC-Based with serial interface (No PC slave cards)

Operating System

Windows® 98/NT/2000/XP

Crosshead Speed

1 to 1000 mm/min (0.05 to 40 in/min)

Crosshead Accuracy

0.1%

Safety Features

Emergency stop button, upper & lower limit switches with overtravel protection and load cell overload protection.

Power Requirements

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

Operating/Storage Environment

Air Temperature: Operating: 10° to 50° C (50° to 122° F)

Storage: -25° to 70° C (-13° to 158° F)

Relative Humidity:

Operating: 10% to 85% (Non-Condensing)

Storage: 5% to 90% (Non-Condensing)