

EJA VANTAGE - UNIVERSAL MATERIALS TENSILE TESTER



The EJA Vantage Series universal 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. The Vantage-10 is the highest capacity tester in the Vantage Series, providing up to 10 kN (2000 lb) of tension/compression force with a dual screw frame. Thwing-Albert offers a wide range of grips, fixtures and accessories to outfit your universal materials tensile tester to add the capability to meet many industry standards including ASTM, TAPPI, ISO, DIN and others.

Features

- Measure Tensile, Peel, Compression, Cycling, Tear, Burst, ZDT, Flex/Bend, Stress Relaxation and Insertion/Extraction, and more.
- Ideal Industry Uses: Adhesives, Biomaterials, Nonwovens, Paper, Packaging Materials, Plastic Films, Rubber, Textiles
- Automatic Electronic Calibration
- One-touch Auto Zero
- Electronic Air Switches
- 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.

Touch screen controller

You choose the option to control the EJA Vantage using a touch screen tablet that is connected to a built-in bluetooth system. Run basic test functions with the touch of your fingertips.

Designed for quick and easy testing

- NO PC needed to run tests
- Minimal operator training required
- Two screen size options: 7" or 10"
- Ready to test: Tensile, Peel, Compression, COF



- Easily modify test parameters
- Automatic load cell recognition
- Bluetooth communication
- Network printer support

Grips and 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.



Pneumatic Grips are ideal for testing sheet materials including films, tapes, paper, textiles, nonwovens and tissue. There are a wide range of capacities available. Pneumatic operation makes sample insertion faster and easier than manual grips and ensures a contact uniform pressure.

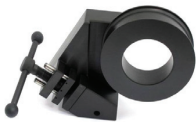
Mechanical Vise Grips are designed for low, medium and high capacity applications. The vise grips are ideal for general tensile strength testing of paper, plastics, foils, textiles and other sheet materials.



Wedge Action Vice Grips are ideal for tensile strength testing of rigid plastics and composites of flat or round samples. The jaw faces are spring loaded for effortless opening and closing of the grip.



Drum/Rubber Grips are uniquely designed to securely hold flat samples of rubber, plastics and general polymers.

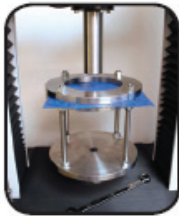


Yarn, Rope, Wire & Cord Grips are specifically designed for testing thin, flexible materials. They ensure a secure hold to maximize test result accuracy and repeatability.

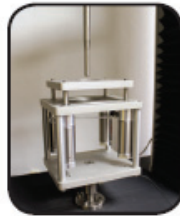
Pincer Grips are ideal for small forces, pull off tests, tear test of components, adhesive bonds, plastic weldings (paper, plastics, rubber) etc. Chain mounting available for flexible positioning.



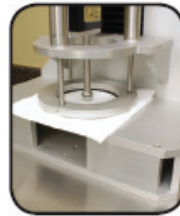
Film Puncture
ASTM D4833



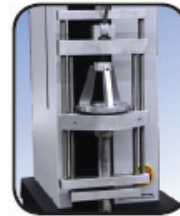
Puncture
ASTM D6241



Puncture
ASTM D751



Tissue Burst
TAPPI T570



Ball Burst
ASTM D6797



Compression
Platens



Foam
Compression
ASTM D3574



Film Blocking
Fixture
ASTM D3354



Coefficient of
Friction



Finch Wet
Strength Device



180° Peel



90° Peel



Loop Tack



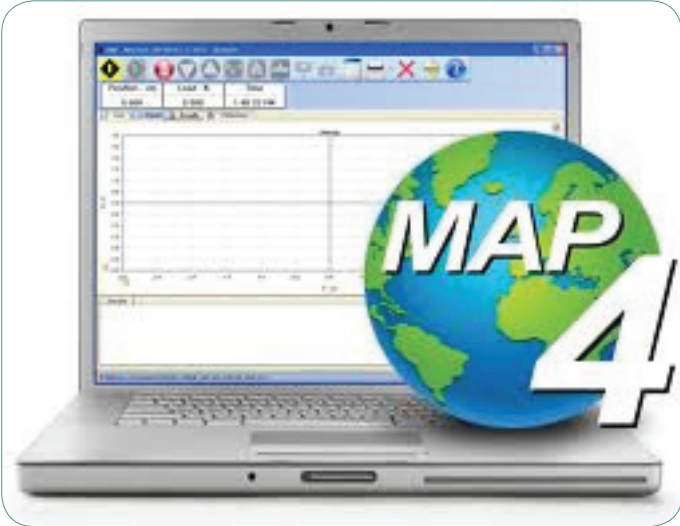
3 Point Bend
Fixture

Thwing-Albert has designed many fixtures for custom applications, and we would be glad to create one for you. Our grips are ideal for the EJA Vantage Series but can be adapted to fit most universal materials testing machines.

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Map-4 Material Testing Software



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.

MAP-4™ Software

This software equips the EJA Vantage Series with Windows® 7 and 8 operating system compatibility. It incorporates powerful capabilities for defining complex motion control and enables unlimited test methods.

Features

- View realtime graphical test results
- Multiple graphs
- Multiple database capabilities to organize results
- User customizable test methods
- Create custom presentation templates
- Share video and sound training
- Control your test result display
- Simplify analysis by tracking variables
- Group statistics for powerful analysis
- Easy unit conversion built-in
- Multi-lingual system capabilities
- Includes a built-in library of testing methods to comply with ASTM, ISO, TAPPI, DIN and other standards.
- Simple customization when your test parameters change, open existing methods, modify and save.
- Advanced users can have full control over the motion analysis and the presentation of data.

System requirements

- Operating System:
- Windows® XP, Vista, Windows 7 and Windows 8
- Processor: 1GHz or faster processor
- RAM: 3GB
- Hard Disk Size: 50GB
- 1 Serial Port or USB serial converter
- Video: 1024 x 768 minimum



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 10 kN (2000 lb).

0 to 5 N (0.5 kg/1.1 lbs) Load Cell w/Certificate	[Part #771-6101]
0 to 10 N (1 kg/2.2 lbs) Load Cell w/Certificate	[Part #771-6102]
0 to 25 N (2.5 kg/5.6 lbs) Load Cell w/Certificate	[Part #771-6103]
0 to 50 N (5 kg/11 lbs) Load Cell w/Certificate	[Part # 771-6104]
0 to 100 N (10 kg/22 lbs) Load Cell w/Certificate	[Part # 771-6105]
0 to 250 N (25 kg/56 lbs) Load Cell w/Certificate	[Part # 771-6106]
0 to 500 N (50 kg/112 lbs) Load Cell w/Certificate	[Part # 771-6107]
0 to 1000 N (100 kg/225 lbs) Load Cell w/Certificate	[Part # 771-6108]
0 to 2000 N (100 kg/450 lbs) Load Cell w/Certificate	[Part # 771-6109]
0 to 5000 N (500 kg/1124 lbs) Load Cell w/Certificate	[Part # 771-6114]
0 to 10kN (1000 kg/2248 lbs) Load Cell w/Certificate	[Part # 771-6115]

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Physical specifications

	VANTAGE -1 (1750-2010)	VANTAGE -1 (1750-2011)	VANTAGE -1 (1750 -2012)	VANTAGE -2 (1752-2010)	VANTAGE -2 (1752-2012)	VANTAGE-2 (1752-2012)
WIDTH	254 mm	254 mm	254mm	254mm	254mm	254mm
DEPTH	419mm	419mm	419mm	419mm	419mm	419mm
HEIGHT	1067mm	1321mm	1626mm	1067mm	1321mm	1626mm
NET WEIGHT	51kg	59kg	68kg	51kg	59kg	68kg
CROSSHEAD TRAVEL	610mm	915mm	1200mm	610mm	915mm	1200mm

	VANTAGE -5 (1755-2010)	VANTAGE -5 (1755-2011)	VANTAGE-10 (1760 -2010)	VANTAGE-10 (1760-2011)
WIDTH	254 mm	254 mm	508mm	508mm
DEPTH	432mm	419mm	508mm	508mm
HEIGHT	1346mm	1321mm	1143mm	1651mm
NET WEIGHT	100 kg	59 kg	175kg	200kg
CROSSHEAD TRAVEL	915mm	1219mm	610mm	1067mm



Performance data

Force Capacity

- 1 kN (225 lbs)
- 2 kN (450 lbs)
- 5 kN (1000 lbs)
- 10kN (2000 lbs)

Force Measurement

Interchangeable load cells available from 20N (5.5 lbs) to 10kN (2,000 lbs)

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)

PC-Based System Control

USB interface for 1kN (1750)

Serial interface for 2kN (1752), 5kN (1755), 10kN(1760)

Operating System

Windows® 98/NT/2000/XP/Windows 7/Windows 8

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%

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