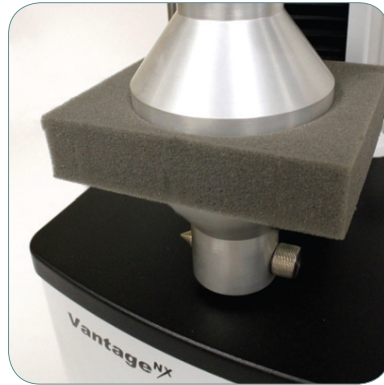
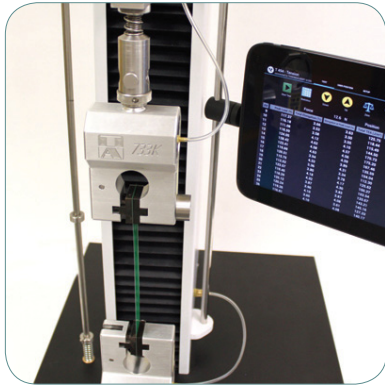




## VANTAGE<sup>NX</sup> - UNIVERSAL MATERIALS TENSILE TESTER



The **Vantage<sup>NX</sup>** is a revamped design for the EJA Vantage Family of universal testing machines. The sleek style will keep your lab looking sharp and allow for dynamic testing to meet most industry standards. Efficient placement of internal electronics improves ergonomics while maintaining a small footprint.

Thwing-Albert offers a wide range of grips, fixtures and accessories to outfit your universal materials tensile tester. These options enable the **Vantage<sup>NX</sup>** to meet many industry standards including ASTM, TAPPI, ISO, DIN and others.

### Features

- Ergonomic Frame
- 1 kN, 2 kN, 5kN VantageNX  
Small Footprint 16" x 17"
- 5kN Vantage= Duo  
Dual Column 23" x 19" Footprint
- 24-48" Travel
- Automatic Electronic Calibration
- One-Touch Auto Zero
- Electronic Air Switches
- Serial Load Cell Interface
- Powered by Your Choice:  
MAP-4 Windows Based Software with adjustable Keypad (or) Touch Screen Tablet for Simplified Test Control
- Full Line of Grips and Fixtures Available:  
Pneumatic, Vise, Wedge, Compression, Peel, COF, Burst, Puncture, Bending, Extensometers, and more.
- Common Industry Applications:  
Adhesives, Biomaterials, Corrugated, Foil, Non wovens, Packaging Materials, Paper, Paperboard, Plastic Films, Rubber, Tissue, Textiles
- Tensile, Peel, Compression, COF, Cycling, Tear, Burst, ZDT, Flex/Bend, Stress Relaxation, Thickness, Insertion/Extraction, and more.

### Touch screen controller option


You choose the option to control the **Vantage<sup>NX</sup>** 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
- Export test results for reporting
- 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 **Vantage<sup>NX</sup>** 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.

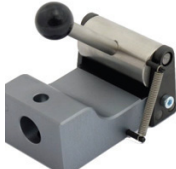


**Pneumatic Grips** are ideal for testing sheet materials including films, tapes, paper, textiles, nonwovens and tissue. There are a wide range of capacities available. Pneumatic operation makes sample insertion faster and easier than manual grips and ensures a contact uniform pressure.


**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 Vise 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



Z-Directional  
Test

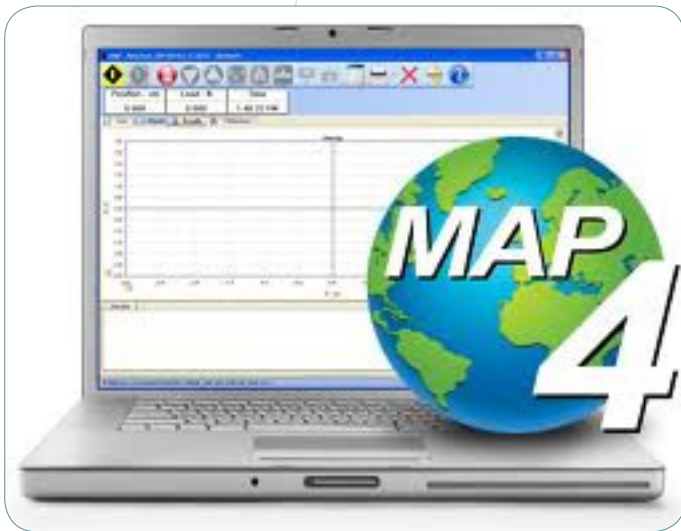


3 Point Bend  
Fixture

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 **Vantage<sup>NX</sup>** but can be adapted to fit most universal materials testing machines.



# Map-4 Material Testing Software



## Software Control.

The **Vantage<sup>nx</sup>** 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 **Vantage<sup>nx</sup>** with Windows® 7, 8 and 10 operating system compatibility. It incorporates powerful capabilities for defining complex motion control and enables unlimited test methods.

## Features

- View real-time graphical test results
- Multiple graphs
- Multiple database capabilities to organize results
- Audit tracking database
- User customizable test methods
- Create custom presentation templates
- 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® 7, 8, or 10
- Microsoft .NET Framework 4.5
- Processor:  
2GHz or faster processor
- RAM: 4GB
- Hard Disk Size: 250GB
- 2 USB Ports
- Video: 1024 x 768 minimum

## Load Cells

A variety of high precision load cells are available for compression and tensile testing needs. Available load cells range from 5 N (1.1 lbf) to 5 kN (1125 lbf).

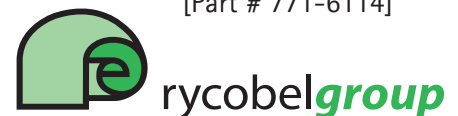


▲ 50 N Load Cell Shown



▲ 5kN Load Cell Shown

- |   |                   |
|---|-------------------|
| 0 to 5 N (0.5 kg/1.1 lbf) Load Cell w/Certificate     | [Part #771-6101]  |
| 0 to 10 N (1 kg/2.2 lbf) Load Cell w/Certificate      | [Part #771-6102]  |
| 0 to 25 N (2.5 kg/5.6 lbf) Load Cell w/Certificate    | [Part #771-6103]  |
| 0 to 50 N (5 kg/11 lbf) Load Cell w/Certificate       | [Part # 771-6104] |
| 0 to 100 N (10 kg/22 lbf) Load Cell w/Certificate     | [Part # 771-6105] |
| 0 to 250 N (25 kg/56 lbf) Load Cell w/Certificate     | [Part # 771-6106] |
| 0 to 500 N (50 kg/112 lbf) Load Cell w/Certificate    | [Part # 771-6107] |
| 0 to 1000 N (100 kg/225 lbf) Load Cell w/Certificate  | [Part # 771-6108] |
| 0 to 2000 N (200 kg/450 lbf) Load Cell w/Certificate  | [Part # 771-6109] |
| 0 to 5000 N (500 kg/1125 lbf) Load Cell w/Certificate | [Part # 771-6114] |





# Physical specifications

	VANTAGE <sup>NX</sup> -1 (1900-2000)	VANTAGE <sup>NX</sup> -1 (1900-2001)	VANTAGE <sup>NX</sup> -1 (1900-2002)	VANTAGE <sup>NX</sup> -2 (1902-2000)	VANTAGE <sup>NX</sup> -2 (1902-2001)	VANTAGE <sup>NX</sup> -2 (1902-2002)
<b>WIDTH</b>	410 mm	410 mm	410 mm	410 mm	410 mm	410 mm
<b>DEPTH</b>	410 mm	410 mm	410 mm	410 mm	410 mm	410 mm
<b>HEIGHT</b>	1143 mm	1448 mm	1752 mm	1143 mm	1448 mm	1752 mm
<b>NET WEIGHT</b>	51kg	59kg	68 kg	51 kg	59 kg	68 kg
<b>CROSSHEAD TRAVEL</b>	610mm	915mm	1200mm	610mm	915mm	1200mm

	VANTAGE <sup>NX</sup> -5 (1905-2000)	VANTAGE <sup>NX</sup> -5 (1905-2001)	VANTAGE <sup>NX</sup> -5 (1905-2002)	VANTAGE <sup>NX</sup> - DUO (1910-2000)	VANTAGE <sup>NX</sup> - DUO (1910-2001)	VANTAGE <sup>NX</sup> - DUO (1910-2002)
<b>WIDTH</b>	410 mm	410 mm	410 mm	584 mm	584 mm	584 mm
<b>DEPTH</b>	410 mm	410 mm	410 mm	482 mm	482 mm	482 mm
<b>HEIGHT</b>	1143 mm	1448 mm	1752 mm	1156 mm	1461 mm	1765 mm
<b>NET WEIGHT</b>	54kg	61kg	68 kg	68 kg	74 kg	82 kg
<b>CROSSHEAD TRAVEL</b>	508 mm	813 mm	1092mm	660mm	927mm	1181mm

## Performance data

### Force Capacity

- Vantage---1 = 1 kN (225 lbf)
- Vantage--2 = 2 kN (450 lbf)
- Vantage--5 = 5 kN (1125 lbf)
- Vantage= Duo = 5 kN (1125 lbf)

### Force Measurement

Interchangeable load cells available from 5N (1.1 lbf) to 2kN (450 lbf)

### 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  $\mu\text{m}$  (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

### Test Workspace

#### Single Column

Width: Unlimited

Depth from Grip Adapter Center to Column: 89 mm (3.5 in)

#### Dual Column

Column Width: 343 mm (13.5 in)

Width from Grip Adapter Center to Column: 171.5mm(6.75 in)

Depth: Unlimited

### PC-Based System Control with MAP4 Software

USB interface

### Computer Requires

Microsoft .NET Framework 4.5

### Crosshead Speed

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

### Safety Features

Emergency stop button, upper & lower limit switches with over-travel 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)

