

Vantage Compression/Softness Tester

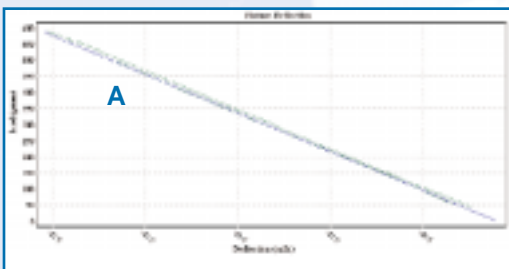
The Vantage Compression/Softness Tester is a compact, PC-controlled instrument that provides an objective measure of material softness by evaluating sample loft, thickness, compressibility and structural softness of sheet materials including paper tissue, toweling, non-wovens and textiles.

Utilizing cutting-edge technology, all electronics and controls are fully integrated into the test frame enabling the connection to a standard PC with a serial port. No external control boxes or additional PC interface cards are required.

Other benefits include a movable test-control keypad, one-touch auto zero and a software-based automatic calibration system.

Test Procedure

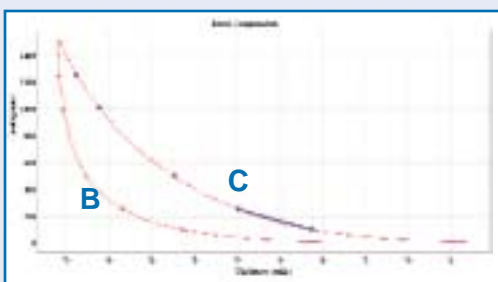
For the highest level of accuracy, the Vantage Compression/Softness Tester compresses test plates to a user-defined force value with no sample



Curve A represents the deflection of the machine, load cell and fixture.

installed resulting in a curve (A) that represents the deflection of the machine, load cell and fixture. This curve is subtracted from the test curves which removes all instrument deflection which could affect test results.

During a test, thickness values are captured until the maximum load is reached. Thickness values are captured in both the compression (B) and recovery phase (C) resulting in two unique curves. The distance between the two curves represents energy lost and is a function of several properties including loft, thickness, compression/recovery, and structural softness.



Curves B and C represent the compression and recovery curves. The distance between the curves is a function of loft and compression/recovery



▲ The Vantage Compression/Softness Tester provides the ability to evaluate the complex interaction of material loft, thickness and recovery.

Powerful Software

MAP-3 materials testing software enables the user to quickly set-up and modify test parameters including dwell time, compression force, speed, trap force points and length of test.

MAP-3 also provides advanced capabilities for database management and reporting and will automatically write result data to Access™ and Excel™.

Features

- MAP-3™ Software included
- Operating System 2000/NT/XP
- One Serial Interface to a PC
- No PC Interface Cards
- Serial Load Cell interface
- Movable test control panel
- Side electronics panel for easy serviceability
- Push-button auto zero





Compression Fixture with Pressure Foot & Anvil

Extremely robust, the adjustable anvil is mounted securely to the test frame. A pressure foot is also supplied which, in conjunction with a gage block, enables parallel adjustment of the anvil to 1 micron (0.00004inch / 0.001 mm).

Physical Specifications

Dimensions (wxdxh)

10 in x 16.5 in x 31.5 in (254 mm x 419 mm x 800 mm)

Weight

112 lb (51 kg)

Crosshead Travel

23 in (584 mm)

*Above Dimensions do not include PC.

Performance Data

Crosshead Guidance

Precision Ball Screw

Horizontal Clearance

Unlimited

Depth Clearance

89 mm (3.5 in)

Load Cells (N)

5, 10, 25, 50, 100, 250, 500 & 1000 N

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 0.1 N

Position Resolution

0.6 μm (0.00002 inch)

System Control

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

Operating System

Windows® NT/2000/XP

Crosshead Speed

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

Speed Accuracy

$\pm 0.1\%$

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)

Represented By:



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